BROWN & ALTMAN, LLP

538 BROADHOLLOW ROAD • SUITE 301
MELVILLE, NEW YORK 11747
516-222-0222 TELEPHONE • 516-222-0322 FACSIMILE
KBDA@BROWNALTMAN.COM • WWW.BROWNALTMAN.COM

February 3, 2020

VIA HAND DELIVERY
Town of Riverhead
Planning Department
200 Howell Avenue
Riverhead, New York 11901

Re: Preliminary Site Plan Application (the "Application") to the Town of Riverhead (the "Town") Planning Department in connection with the property located at 4285 Middle Country Road, Calverton, New York, said Property also being known as SCTM No.: 0600; Sec. 166.00, Bl. 01.00, Lot 002.00 (the "Property")
Our File No.: 100-474-001 116

Dear Sir/Madam:

In connection with the Application, please find the following documents enclosed for submission to the Town:

1. One (1) original and thirteen (13) copies of the Site Plan Application;
2. One (1) original and thirteen (13) copies of the Consenting Resolutions;
3. One (1) original thirteen (13) copies of the Authorizing Resolution;
4. One (1) original and thirteen (13) copies of the Full Environmental Assessment Form, dated January 28, 2020;
5. Two (2) Current Title Reports;
6. Fourteen (14) Property Surveys, prepared by Gallas Surveying Group, dated November 15, 2019;
7. Two (2) sets of Fire Marshal Plans, prepared by Key Civil Engineering, dated January 24, 2020;
8. Fourteen (14) sets of Site Plans, prepared by Key Civil Engineering, dated January 24, 2020, including:
    a. Cover Sheet (C-1);
    b. Notes Sheet (C-2);
    c. Overall Site Plan (C-3);
    d. Partial Site Plan (C-4 through C-7);
    e. Overall Grading & Drainage Plan (C-8);
    f. Partial Grading & Drainage Plan (C-9 through C-12);
    g. Overall Sanitary Plan (C-13);
    h. Partial Sanitary Plan (C-14 through C-17);
    i. Sanitary & Utility Notes & Details (C-18 through C-19);
    j. Overall Landscape Plan (C-20);

k. Partial Landscape Plan (C-21 through C-24);
l. Overall Lighting Plan (C-25);
m. Partial Lighting Plan (C-26 through C-29);
n. Overall Erosion & Sediment Control Plan (C-30);
o. Site Details (C-31 through C-33); and
p. Fire Marshal Plan (FM-1).

9. Fourteen (14) sets of Building Elevations and Floor Plans (A1.0 & A2.0), prepared by BLD Architecture, DPC., dated January 24, 2020;
10. Fourteen (14) Property Inspection Letters, from Land Use Ecological Services, Inc., dated November 7, 2019; and
11. One (1) check made payable to the "Town of Riverhead" in the amount of $22,500.00, representing the Application Filing Fee.

Should you have any questions concerning the foregoing, or require additional information, please do not hesitate to contact our office. Thank you for your time and attention to this matter.

Very truly yours,

Keith P. Brown

Encls.
cc: Jaclyn Peranteau, P.E., Key Civil Engineering (*w/o encls.*)
Uri Hason, HK Ventures LLC (*w/o encls.*)

SCTM#: 600- 116 . 00 - 01.00 -002 . 000

TOWN OF RIVERHEAD
PLANNING BOARD

201 HOWELL AVENUE, RIVERHEAD, NEW YORK 11901-2596
(631) 727-3200, EXT. 240, FAX (631) 727-9101

2020 FEB -3 AM 11:04

Stan Carey, Chairman
Ed Densieski, Vice-Chair
Richard M. O'Dea, Member
Joseph H. Baier, Member
George Nunnaro, Member

NOTE: ***ALL SITE PLAN SUBMISSIONS MUST BE FOLDED AND COLLATED***
Site Plan fees are NOT refundable

SITE PLAN CHECKLIST (INCLUDING ARCHITECTURAL REVIEW)
****AMENDED 6/6/2019****

PROJECT NAME: HK Ventures - Calverton

This application is for:

☒ New construction (vacant land) ☐ Re-construction ☐ Building addition(s)
☐ Façade alteration ☐ Other

Please identify submission phase (*Pursuant to Chapter 301, Section 301-305 of the Riverhead Town Code*):

☒ Preliminary ☐ Final

Please check the items submitted:

☒ Completed application for Site Plan Approval (1 original, 13 photocopies);

☒ All resubmissions shall include a cover letter identifying any and all changes made to any of the submitted plans; cover letter must be signed and sealed by a NY state licensed P.E., registered architect or attorney.

☒ Non-Refundable Fee- the fee shall be $500, plus $0.10 per square foot of site improvements and/or altered area, whichever is greater, or $500, plus $0.10 per square foot of gross floor area (cumulative total of all floors) or altered land area, whichever is greater. 75% required at preliminary review phase, remainder 25% required at final review. ($500 paid at time of submission for an amendment of an approved site plan prior to issuance of a Certificate of Occupancy.)

☒ SEQRA (1 original, 13 photocopies at Preliminary Submission only);
☐ Type I Action (Long EAF required)
☐ Type II Action (Short EAF required)
☐ Unlisted Action (* long or short EAF required); (*To be determined by the Planning Department)

☒ n/a Other Approvals: copies of all prior Planning Board, Special Permit and/or Zoning Board decisions

☒ One (1) original and one (1) copy of Current Title Report for the subject property, *dated not more than*

three months prior to the date of submission of the application, prepared by a title company licensed in the State of New York containing a chain of title and any/all recorded covenants, declarations, restrictions and/or easements on the subject property.

[x] **Current Title Surveys**, (**14 originals**, must be stamped/sealed by a registered Land Surveyor);

[x] ** **Two (2) prints** of plans for **Fire Marshal, titled "Fire Marshal Plan"** to include the following: **

- [x] Building type of construction (i.e. Type II, Type V)
- [x] Building occupancy (i.e. Business, Mercantile, Place of Assembly, or simple vanilla box)
- [x] Loading zones, fire zones, or any other type of parking that may or may not be permitted
- [x] Square footage of building, to include building dimensions
- [x] Fire service mains (existing and to be installed), locations of fire sprinkler risers for the buildings, and any existing or new fire hydrant locations in or near the project area
- [x] Clearly defined road access widths
- [x] All utilities

[x] **Fourteen (14) prints** of a professionally executed site plan which contains the information required by §301-306 of the Zoning Code. (***Please note that the proposed site plan drawings, including landscape and lighting plans, cannot exceed the standard D size (24" x 36") and the following scales are to be used: Sites less than 2 acres: one inch equals 20 ft.; two acres or more: one inch equals 40 ft.; detailed portions of a site: one inch equals 10 ft. (Match lines can be used for particularly large sites.)*** At a minimum, the site plan must include, but is not limited to, the following:

- [x] Property lines, showing directional bearings and distance, adjacent land ownerships, land uses, streets, directional arrow, scale, Tax Map Number, and zoning district;
- [x] Key map at 1"=600'
- [x] Existing and proposed buildings, structures and uses including first floor and ground floor elevation(s) and setbacks to the property lines;
- [x] The area, expressed in square feet, of each existing and proposed building, structure or uses;
- [x] The location of any existing easements on, over or adjacent to the site including the location of all existing or proposed utility lines and fire hydrants. If easements exist on site, a copy of the language associated with said easement must be provided;
- [x] Layout of existing and proposed parking and loading areas, including dimensions of spaces, aisles and street approaches, the general circulation pattern with directional movement shown, existing and proposed curb cuts, traffic safety devices, sidewalks, curbing, paving, drainage structures and their respective specifications. Methods used for computing parking

and drainage requirements shall be included;

- [x] Any existing woodlands, stands of trees, or instances of unique or indigenous vegetation, and any other natural features, such as, but not limited to, water bodies, drainage courses, fresh and saltwater marshes, coastal dunes, bluffs, beaches, escarpments, overlook areas and wildlife habitats;

- [x] Existing and proposed sewage disposal and water supply systems. The sanitary calculations must also be included;

- [x] Existing topography of the site and immediately adjacent property, as revealed by contours or key elevations, and any proposed regrading of the site. (Areas of greater than 15% slope should be designated and the square footage provided.)

- [x] Cultural features, such as paleontological and archeological remains, old trails, agricultural fields, historic buildings and sites or those that contribute to the rural character of the community or possess a unique and/or identifiable feature;

- [x] A table which demonstrates compliance, or the extent of non-compliance, with the Dimensional Regulations for the Zoning District. *The applicant should note that although this item is not listed in the Town Code, it is the Board's policy to require it.*

- [x] Fourteen (14) prints of a lighting plan **including all existing and proposed lighting (parking lot, building-mounted, sign lighting, etc.)**, which demonstrates compliance with the Town's Lighting Ordinance (§301-256 to §301-264 of the Zoning Code). The lighting plan must include, but is not limited to, the following:

  - [x] The full ***manufacturer's*** catalogue number for each fixture proposed.

  - [x] The locations, mounting height(s), hours of operation, wattage, lumen output, and lamp type for each type of fixture including whether such fixtures are full cutoff;

  - [x] Photometric data for each fixture type and illuminance levels in 10 ft. grids.

- [x] Fourteen (14) prints of a landscape plan which contains the data required by of the Zoning Code. The landscape plan must include, but is not limited to, the following:

  - [x] A planting schedule which provides the common and scientific names of each plant species proposed.

  - [x] Depictions and labeling of required buffer areas, screening plantings, street trees, fencing, etc. as per 301-236.

The applicant should be aware of the existing and proposed plant species banned for sale in Suffolk County and their effective date. A list of banned species can be found at Suffolk County's Department of Environment and Energy's Division of Water Quality Improvement's website.

- [x] Fourteen (14) prints of elevation drawings of all faces of buildings and structures at an appropriate scale *prepared and sealed by a licensed processional.* **When scheduling an appearance for the**

Architectural Review Board, the following must be provided in advance:

- [X] Cornice, trim, window, door and column details
- [X] Building colors and materials
- [X] Heights of buildings and structures
- [X] Photographs of the site showing neighboring structures
- [X] Any proposed signage (if applicable)

[X] Fourteen (14) prints of floor plan drawings prepared and sealed by a licensed professional. The floor plans must be provided *only if* the applicant is proposing exclude those exemptions allowed, under §301-231, from the parking calculations;

[N/A] An **Agricultural Data Statement**, if applicable. (See the data form on page 8 for information.)

I am aware that all of the items on this checklist must be submitted for acceptance as a complete application, and that if any of the items are missing, the application will be deemed incomplete, and will be returned to me.

Signature: Brown & Altman, LLP By: _____ Date: 2/2/2020

Printed Name: Keith P. Brown, Esq., as Attorney

Date Submitted: _____ (For Planning Dept. use only)

Complete: _____ (For Planning Dept. use only)

Incomplete: _____ (For Planning Dept. use only)

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George Nunnaro, Member

NOTICE TO APPLICANT
REQUIREMENTS FOR SITE PLAN APPROVAL
SUBMISSION OF A STORMWATER POLLUTION PREVENTION PLAN

Please be advised that submission of a Stormwater Pollution Prevention Plan (SWPPP) consistent with the provisions of Riverhead Town Code chapter 275 shall be required for construction activity including clearing, grading, excavating, soil disturbance or placement of fill that results in land disturbance of equal to or greater than one acre, or activities disturbing less than one acre of total land area that is part of a larger common plan of development or sale, even though multiple, separate and distinct land development or re-development activities may take place at different times on different schedules unless the activity is exempt as delineated in Riverhead Town Code section 275-5.

The applicant must submit three (3) copies of a SWPPP, in conformance with Riverhead Town Code sections 275-6 and 275-7, to the attention of Drew Dillingham, Engineering Department-Stormwater Management Officer, 1295 Pulaski Road, Riverhead, New York 11901, at either the time the applicant receives written notice that the Planning Department has approved the *generalized layout* of the site or at the time the applicant receives a resolution conditionally approving the site plan application, at the applicant's preference.

Fees: Upon the submission of three (3) copies of a SWPPP, the Town shall require an initial stormwater pollution prevention plan review fee deposit in the amount of $3500.00, pursuant to Riverhead Town Code Section 275-12. Such deposit shall be submitted to Drew Dillingham, as the Stormwater Management Officer.

In addition, the Planning Board Chairman (or Town Supervisor, if applicable) will not affirm site plan approval by signing the mylar (which is required for issuance of a building permit or to begin site improvements) until such time that the Stormwater Management Officer has reviewed and approved a submitted SWPPP.

Design of the SWPPP should be considered during preparation of the site plan so that major changes are not needed once the SWPPP is reviewed.

If you have any questions as to whether a SWPPP is required regarding your land use application you may contact either Drew Dillingham, Stormwater Management Officer, at 631-727-3200 x 604 or the Planning Department at 631-727-3200 x 240.

SCTM#: 600- 116 .00 - 01.00 - 002 .000

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Richard M. O'Dea, Member
Joseph H. Baier, Member
George Nunnaro, Member

DO NOT WRITE IN THIS BOX: This box will be completed by the Planning Department

Fee: $500 + (_____ sq. ft. altered/project area x $0.10) = _____

Submission Phase: (75%) Preliminary _____ (25%)Final _____

Date Fee Submitted: _____

Accounting Receipt Number: _____

APPLICATION FOR SITE PLAN APPROVAL

Identify submission phase: (*Pursuant to Section 301-305 of the Riverhead Town Code, revised December 6, 2011*):

[X] Preliminary [ ] Final

Designated Name of Proposed Development or Project. *(If none exists, supply the applicant's name)*:

HK Ventures - Calverton

If there is more than one party in any category below, please provide information for each on a separate sheet of paper.

Applicant*:

Name: HK Ventures LLC

Address: 150 West 36th Street, New York, NY 10018

E-Mail: Brown@brownaltman.com

Phone: 516-222-0222

Licensed Design Professional*:

Name: Key Civil Engineering

Address: 664 Blue Point Road, Unite B, Holtsville, NY 11742

E-Mail: Jackie@keycivilengineering.com

Phone: 631-961-0506

Owner*:

Name: HK Ventures LLC

Address: 150 West 36th Street, New York, NY 10018

E-Mail: Brown@brownaltman.com

Phone: 516-222-0222

Attorney*:

Name: Brown & Altman, LLP by Keith P. Brown, Esq.

Address: 538 Broadhollow Road, Suite 301W, Melville, NY 11747

E-Mail: Brown@brownaltman.com

Phone: 516-222-0222

- Suffolk County Tax Map Number: 0600- 116 .00 - 01.00 - 002 .000
- Location of site: Middle Country Road, Calverton, NY +/- 571 feet east of Fresh Pond Avenue
- Current zoning classification (zoning district): Industrial C
- Description of work to be done: Redevelopment of the property with four (4) industrial warehousing facilities totaling +/- 228,800 square feet along with additional site improvements as incorporated on the site plan submitted herewith.
- Proposed use(s) of site: Warehouse
- Total site area: +/- 1,318,997 square feet +/- 30.28 acres
- Square feet of building area: Existing: N/A To be added: +/- 228,800
- Square feet of ***total altered area*** (buildings, clearing, grading, disturbance, hard surfaces, landscaping, etc.: 1,317,884 square feet
- Amount of fee submitted-*$500 plus 10 cents per square foot of total altered area up to a maximum of $30,000. 75% at* ***preliminary review and 25% remainder at final.*** *($500 paid at time of submission for an amendment of an approved site plan prior to issuance of a Certificate Occupancy.)*: $ $30,000.00
- Anticipated construction time/completion date: Summer 2020 Start Date
- Will development be staged/phased? Yes If yes, how? Phase I will consist of the northern half of the parcel. Phase II will consist of additional improvements in the southern half after Phase I is completed.
- Current land use of site (retail, manufacturing, etc.): Vacant
- Current condition of site (vacant, wooded, developed, #of buildings, etc.): Vacant
- Use/Character of surrounding sites (agricultural, residential, retail, etc.): Agricultural / Industrial
- Is the site within a New York State Agricultural District or within 500 ft. of a New York State Agricultural District? No *(If so, see the following page.)*
- Was a Presubmission Conference held?: Yes If so, provide the date:

HK Ventures LLC

By: _____ _____

Applicant signature Date

Scott Johns Manager

Print applicant name Title, if applicable

This application is: ☐ Complete (date) _____
(For Planning Department use only)

☐ Incomplete because: _____

Please note: If ownership is held jointly or in partnership, each owner and/or partner must sign a separate owner's endorsement. If the owner or owners are making the application, this endorsement is not required.

OWNER'S ENDORSEMENT

STATE OF NEW YORK)
COUNTY OF SUFFOLK) ss:

Application/Project Name: HK Ventures - Calverton

Project Address: Southside of Middle Country Road, +/- 570 feet east of Fresh Pond Avenue

Scott Johns, being duly sworn, deposes and says:

I am: (check one)
___ a part owner in fee
___ the sole owner in fee
X an officer of the corporation which is the owner in fee of the premises described in the foregoing application.

I reside at 399 West John Street
Mailing Address

Hicksville, NY 11801
Hamlet/Post Office/Village State Zip Code

I have authorized Brown & Altman, LLP by Keith P. Brown, Esq. to make the foregoing application (described above) to the Riverhead Town Board and/or Planning Board for site plan/subdivision approval as described herein.

Signature

HK Ventures LLC - Manager
(If owner is a corporation, please indicate name of corporation and the title of the corporate officer whose signature appears above)

Sworn before me this
9 day of January, 2020

Notary Public

ANNA GERZON
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 02GE5068023
QUALIFIED IN STATE OF NEW YORK
Commission Expires 10/28/2022

TOWN OF RIVERHEAD
PLANNING BOARD
201 HOWELL AVENUE, RIVERHEAD, NEW YORK 11901-2596
(631) 727-3200, EXT. 240, FAX (631) 727-9101

Stan Carey, Chairman
Ed Densieski, Vice-Chair
Richard M. O'Dea, Member
Joseph H. Baier, Member
George Nunnaro, Member

Construction Activity Agreement

Job Title: HK Ventures LLC

SCTM No: 600-116.00-01.00-002.00 Site Address: South side of Middle Country Road, +/- 571 feet east of Fresh Pond Ave.

I agree to comply with the following:

- I will have available on-site this agreement and related plans during the entire construction process. I will explain the requirements to all construction personnel and subcontractors. I take responsibility for full compliance with this agreement and Chapter 275 of the Town of Riverhead Code (Stormwater Management and Erosion and Sentiment Control).
- No vegetation and/or trees may be cleared without first receiving a mark-out or authorization from Planning, Building and/or Engineering Inspectors. Only vegetation, topsoil, and trees specifically in the path of construction activity may be removed.
- No earth, fill or construction material shall be allowed to migrate off site from this project on the Town of Riverhead roadway and/or storm drain system or an adjacent property.
- No fill shall be brought into site without the express approval of a Building Department. Fill piles will only be allowed in a location designated on plan, or authorized by Building Inspector(s). Piles of fill shall be stabilized and/or contained with grass seed, sit fences, hay bales, or other approved methods.
- At the end of each workday the adjacent roadway and/or storm drain system shall be inspected by owner or his/her designee for soil or other matter. All construction site and adjacent roadways shall be cleared of soil and other material at the end of each day.
- All construction and demolition debris and materials, including wet concrete, shall be disposed of at an appropriate facility in accordance with Town of Riverhead and NYSDEC waste management regulations. Dumping any liquid, semi-liquid, or other materials from a construction site into storm drains, roadways, vacant property is grounds for a violation.
- Litter shall be picked up on a daily basis from site, adjacent properties and/or the road system.
- Toilet facilities shall be available to all workers on site during the construction period.
- A temporary stable construction entrance shall be constructed utilizing recycled concrete aggregate (RCA) or a similar material, unless a suitable constructed entrance already exists on the site.

- All municipal or private drainage inlets adjacent to area or construction shall be protected from dirt/matter/pollutants through the use of products/sponges designed for this purpose.

- On areas of steep slopes and areas cleared of vegetation, suitable stabilization methods, as shown on approved site plans and the stormwater pollution prevention plan (SWPPP) shall be employed to prevent soil migration and stormwater runoff.

- All exposed expanses of soil shall be stabilized with annual grass seed as soon as areas will no longer be needed for construction staging, or if areas will remain undisturbed for six weeks or longer.

- Prior to tree, shrub or other plantings, soil shall be suitably tilled and prepared.

In WITNESS WHEREOF, the parties hereto have caused this Declaration to be duly executed as of the date and year described below.

_____	HK Ventures LLC	_____
Date	Owner Name (Printed)	Contractor Name (Printed)
	_____	_____
	Owner Signature	Contractor Signature

STATE OF NEW YORK)
:ss:
COUNTY OF SUFFOLK)

On the _____ day of _____ in the year _____, before me, the undersigned, a Notary Public in and for said State, _____, personally appeared, is personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed this instrument.

_____ _____
Dated Notary Signature

STATE OF NEW YORK)
:ss:
COUNTY OF SUFFOLK)

On the 9 day of January in the year 2020, before me, the undersigned, a Notary Public in and for said State, Scott Johns, personally appeared, is personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed this instrument.

1/9/2020 _____
Dated Notary Signature

ANNA GERZON
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 02GE5068023
QUALIFIED IN STATE OF NEW YORK
Commission Expires 10/28/2022

READ THIS DOCUMENT CAREFULLY, YOU MAY CONSULT YOUR ATTORNEY BEFORE COMPLETING.

Disclosure Affidavit

STATE OF NEW YORK)

SS:

COUNTY OF SUFFOLK)

HK Ventures LLC

I, By: Scott Johns, Manager an applicant for the

following relief: Site Plan Approval and being duly sworn,

(Type of Permit)

deposes and says:

That I make and complete this affidavit under the penalty of perjury and swear to the truth thereof. That I understand that this affidavit is required by Section 809 of the General Municipal Law and that a knowing failure to provide true information is punishable as a misdemeanor. Being so warned, I state:

☒ ***Check here if not applicable (i.e., you have no relative working for the Town of Riverhead) and please sign below before a notary public.***

OR:

That _____ is a State officer, is an officer or employee of

(Name of Relative)

Riverhead Town, and:

That this person has an interest in the person, partnership or association with this site plan application.

That for the purpose of this section, an officer or employee shall be deemed to have an interest in the applicant where he, his spouse, or their brothers, sisters, parents, children, grandchildren or the spouse of any of them.

a. Is an applicant,
b. Is an office, director, partner or employee of the applicant,
c. Legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association, applicant, or
d. Is a party to an agreement with such an application, express or implied whereby he may receive any payment of other benefit, whether or not for services rendered, dependant or contingent upon the favorable approval of such application, petition or request.
e. That ownership of less than five (5) percent of the stock of a corporation whose stock is listed on the New York or American Stock Exchange shall not constitute an interest for the purpose of this section.

HK Ventures LLC

By: _____

(Signature)

Name: Scott Johns

Title: Manager

Sworn to before me this 9 day

of January, 2020.

_____

Notary Public

ANNA GERZON
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 02GE5068023
QUALIFIED IN STATE OF NEW YORK
Commission Expires 10/28/2022

emtec
CONSULTING ENGINEERS

May 20, 2020

John Merrill
Lead Account Manager
Customer Connections
National Grid
631-758-5157
John.Merrill@nationalgrid.com

Re: Industrial Development
4285 Middle Country Rd.
Calverton, New York 11377
EMTEC Job No. 20-6462

Dear Mr. Merrill,

We are the consulting engineers for the above referenced project which is a new structure.

Enclosed is a tabulation of the equipment gas loads for your use in ascertaining the gas service size.

Please feel free to contact me, if you have any questions/or comments at 631-981-3990 ext 289 or eminschke@emtec-engineers.com

As always, we thank you for your interest and assistance.

Very truly yours,

Ernst Minschke, PE
Mechanical Engineer

J:\6462\Correspond\Utilities\Gas\6462 Gas Load Letter.doc

3555 Veterans Memorial Highway, Suite M, Ronkonkoma, NY 11779
Phone: 631-981-3990 Fax: 631-981-3971
www.emtec-engineers.com

NATIONAL GRID **Official Gas Load Letter**

Energy Delivery **(PAGE 1 OF 1)**

In order to expedite your request for new or replacement gas service the following information is required. This information will be used for sizing metering and service capacity.

Project Name: Industrial Development
Physical Address(es) where Service is Requested. 4285 Middle Country Rd. Calverton, NY 11377
Please Include County / Zip Suffolk

Gas Equipment

Type Heat / WH / Cooking / etc.	Quantity Units	Model If available	Op. Press. Inches/p.s.i.	B.T.U. Input	Rate Firm or Dual Fuel
New Equipment:					
H+V Unit (heat)	12	Reznor	7"-14"	143,000	☒
H+V Unit (heat)	20	Reznor	7"-14"	84,000	☒
Packaged RTU (heat)	1	Carrier	7"-14"	90,000	☒

Customer Name: David Zere
Customer Address: The Pinewood Organization

Customer Phone: 516-822-4250

Please check one

Res 1 to 5 family ☐
Multifamily 6+ ☐
Commercial ☒

Please check one

New Construction ☒
Existing Structure ☐

Builder Name:
Builder Address:
Phone:
Fax

Consulting Engineer:

Name: EMTEC Consultants Prof. Engineers, PLLC
Address: 3555 Veterans Memorial Highway, Suite M
Ronkonkoma, NY 11779
Suffolk

Phone: 631-981-3990
Fax: 631-981-3971

19026_2020.05.12_Waste Generation Calcs

Use waste

Building Use	Area (SF)	Solid Waste Generation Rate	Generated Waste lbs/day	tons/week
Warehouse	316,848	5 lb/1000 SF/day	1584.2	5.54
Industrial	105,616	5 lb/1000 SF/day	528.1	1.85
Cafeteria	1,500	5 lb/1000 SF/day	7.5	0.03
Totals	423,964		2,119.8	**7.41 tons/week**

Construction Waste Generation

Construction waste is typically 4 lbs per SF of building area

Total building area	423,964	SF
Total waste generated	1,695,856	lbs
	848	**tons**

CRONIN & CRONIN

LAW FIRM, PLLC

REAL ESTATE PROPERTY TAX PROJECTION REPORT

Calverton Industrial
4285 Middle Country Road
Calverton

Prepared: July 8, 2020
Tax Years: 2021/22

Prepared For:
David Zere
The Pinewood Organization
399 West John Street
Hicksville, NY 11801

Prepared By:
Cronin & Cronin Law Firm, PLLC
200 Old Country Road, Suite 470
Mineola, New York 11501

CRONIN & CRONIN

LAW FIRM, PLLC

BRAD W. CRONIN
SEAN M. CRONIN *
CARA P. CRONIN †
RAYMOND J. FUREY ◊
* Member NY and CT Bars
† Member NY and NJ Bars
◊ Member NY and FL Bars

200 OLD COUNTRY ROAD · SUITE 470
MINEOLA, NY 11501-4263

TEL:516-747-2220
FAX: 516-747-2240
WWW.CRONINTAXLAW.COM
INFO@CRONINTAXLAW.COM

July 8, 2020

The Pinewood Organization
399 West John Street
Hicksville, NY 11801

Attention: Mr. David Zere

Re: 4285 Middle Country Road, Calverton

Dear David,

As per your request, the following is a projection of the real estate taxes and a comparison to the actual taxes for the above-noted property.

The Town of Riverhead is required under the Real Property Tax Law to assess all properties based upon their physical condition on March 1 of each tax year with a valuation date of July 1 of the previous year. Accordingly, for purposes of this projection, we are estimating the value of the subject property as of March 1, 2021 with a valuation date of July 1, 2020.

All estimates are based on the current New York State law and the facts as provided to our office. The real estate tax projection does not take into account any exemptions that the property may receive. If the physical plans change, the applicable law may also change and the estimate of real estate taxes will no longer be valid.

The courts have consistently ruled that the income approach is the preferred method for valuing commercial property in New York State. We have performed an analysis based on upon the projected rentals as well as surrounding market rent and have estimated the market value of the property.

We have enclosed a chart illustrating the current taxes. We have projected low, most likely/probable, and high versions of the taxes.

Should you require anything further, please do not hesitate to contact me.

Very truly yours,

Brad W. Cronin

BRAD W. CRONIN

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SECTION 1
Property & Assessment Information

Purpose, Use, and Scope of Report

The purpose of this report is to provide the client with basic property tax information about the properties described below.

Property Description

Property Name:	Calverton Industrial
Assessing Jurisdiction:	Town of Riverhead
General Description:	30.5 acres of vacant agricultural land to be developed with 428,464 square feet of industrial building space.
Parcel Numbers:	0600-116.00-01.00-002.000
Land Area:	30.50 Acres

Critical Study Dates:

Study Prepared:	July 8, 2020
Tax Year(s) under Analysis:	2021/22

Tax Cycle, Fiscal Periods & Payment Dates

Tax Year:	Town: Riverhead
Fiscal Period:	December 1, 2021 through November 30, 2022

Assessment Cycle:

Assessment Date:	Physical Condition: March 1, 2021 Valuation Date: July 1, 2020
Assessment Equalization Rate:	12.30%
Appeal Deadline:	Application: May 18, 2021 (3rd Tuesday in May) Petition: 30 days after the assessment roll is finalized (Usually in July or August 2021)
Tax Bill/Notices:	Early December
Number of Tax Bill Installments:	Two
Tax Bills Due:	2021/22 Tax Year First Half: Payable January 10, 2021 without penalty Second Half: Payable May 31, 2021 without penalty

Suffolk County – Reassessment Program

The Town of Riverhead does not engage in annual revaluations and has not performed a town wide revaluation of all the parcels in over fifty years. A subject sale at a price above the current assessment would not result in an increased assessment since both the New York Supreme Court and the U.S. Supreme Court have ruled that reassessing a property based upon a sale under these circumstances is selective reassessment in violation of the "Equal Protection Clause" of their respective Constitutions.

The jurisdiction is able to increase your assessment based upon new construction, a physical change to the property, a change in zoning, or other similar change in use or condition.

SECTION 2
Assumptions & Disclaimer

Assumptions

The underlying assumptions relied upon to project the future real estate taxes for the above-noted property include, but are not limited to:

1. That the legal description, parcel number, and projected financial information supplied by the client are accurate;

2. That the building square footage and property use provided to our office by the client is accurate;

3. A market study of comparable rentals in the vicinity performed by our office;

4. That the anticipated tax rate for each tax year will increase by approximately 3% to 5% for Town, County, School and Special District taxes, with 4% being the most likely percentage increase. This estimate takes into consideration the 2% tax cap. The tax cap can be overridden by local governments, exempts pension costs and applies only to municipal budgets, not to the tax rate;

5. That the property will be developed in two phases and consist of eight buildings totaling 428,464 square feet;

6. That the property will be a multi-tenanted rental property;

7. That the property is not located within the Calverton Sewer District and will not be subject to additional sewer charges.

Disclaimer

The foregoing represents our best opinion based upon the facts and figures given to us. Our opinion is not meant to be a legal representation and/or warranty. It represents our best estimate of what an assessment should be and not what an Assessor may arbitrarily choose to place on the subject property, which, of course, is subject to a tax certiorari proceeding.

Additional Assumptions for New Building:
The underlying assumptions relied upon to project the future real estate taxes for the above-noted property include, but are not limited to:

1. That the development will consist of 8 buildings, which will all be located on the same tax lot;

2. That the development will consist of approximately 428,464 square feet of industrial space to be rented to multiple tenants;

3. A market study of comparable rentals in the vicinity performed by our office;

4. The projection is estimating the project “as if” complete on March 1, 2021;

5. That the 2019/20 tax rate will increase by approximately 4% for Town, County, School and Special District taxes. This estimate takes into consideration the 2% tax cap. The tax cap can be overridden by local governments, exempts pension costs and applies only to municipal budgets, not to the tax rate;

6. That the laws governing the assessing of Real Property as they currently exist in New York State will be in effect when the construction is completed.

SECTION 3
Assessment Analysis & Tax Rate Increase

Assessment Analysis

In general, the courts in New York have held that for income producing property, the Income Capitalization Approach is the most trusted method of valuation. We therefore look to market, as well as the actual income and expenses, at a location and value the property by applying those figures in an Income Capitalization analysis. The Income Capitalization analysis is the foundation of the majority of our negotiations with the respective taxing jurisdictions for tax certiorari purposes.

While the Income Capitalization Approach is the trusted method of valuation, the courts have held that if there is a recent, arm's length, subject sale of the property that cannot be explained away as abnormal, the sale price is the best indication of value. The courts have put the most weight on the sale price as an indication of the market and held that the subject sale supersedes the Income Capitalization Approach in these circumstances. New York Courts have also found that there is often a business component that can inflate a sale price making the sale not reflective of the market for assessment purposed to some degree. So while a subject sale can be critical in our negotiations, there are many factors we will review to determine if the sale is reflective of the market or rather a more complicated business that should not dictate the real estate value.

Since the Town of Riverhead does not engage in annual revaluations and has no plans in the foreseeable future to perform a revaluation, absent a physical change to the property or in zoning, the assessment should remain stable unchanging in the 5-year projection set forth. The increase in your taxes over time would, therefore, be a result of a tax rate increase as indicated on the projections in this report.

Our assessment analysis is based upon the review of comparable properties in the area, the current market rent, the history of the practices and assessments for the subject property, as well as the rent provided to us in your Potential Acquisition report. According to our analysis, the current assessment for the properties appears to be "in line" with the market values. Unless there is significant physical change to the condition of the properties, the existing assessments will be carried forward for the subsequent years.

Tax Rate Increase

We analyzed the historical tax rate increase in the Town of Riverhead over the past five years. The tax rate for the 2019/20 and subsequent tax years could increase by approximately 3% to 5% for Town, County, School and Special District taxes, with 4% being the most likely percentage increase.

Tax Cap: There is a 2% tax cap in New York State. The tax cap can be overridden by local governments, exempts pension costs, and applies only to municipal budgets- not to the tax rate.

Comparable Properties

The following three properties are located in the same area as the subject properties and were used in our Assessment Analysis:

Comp 1:	Property Address:	301 Scott Ave, Calverton
	Tax Map #	600-135.20-01.00-006.000
	Property Type:	Industrial
	Assessment:	383,400
	Full Market Value:	$3,117,074
	SF:	34,000
	Value per SF:	$92
	Taxes 2019/20:	$191,299.49
	Taxes per SF:	$5.63

**Taxes include Calverton Sewer Rent. Without the Sewer Rent, the taxes are approximately $2.10 per square foot.*

Comp 2:	Property Address:	538 Edwards Ave, Calverton
	Tax Map #	600-117.00-02.00-002.003
	Property Type:	Industrial
	Assessment:	316,300
	Full Market Value:	$2,799,188
	SF:	28,000
	Value per SF:	$100
	Taxes 2019/20:	$58,669.54
	Taxes per SF:	$2.10

Comp 3:	Property Address:	558 Edwards Ave, Calverton
	Tax Map #	600-117.00-02.00-002.008
	Property Type:	Industrial
	Assessment:	251,200
	Full Market Value:	$2,042,277
	SF:	19,850
	Value per SF:	$103
	Taxes 2019/20:	$46,594.33
	Taxes per SF:	$2.35

SECTION 4
Property Description & Tax Projection

4285 Middle Country Road

Calverton

PROPERTY DESCRIPTION

Property Address	4285 Middle Country Road, Calverton
Assessing Jurisdiction	Town of Riverhead
Tax Map #	0600-116.00-01.00-002.000
Property Type	Currently: Vacant Land
	Proposed: Industrial
Building Square Footage	Currently: N/A
	Proposed: 428,464
Land Acreage	30.50 Acres
Assessment 2020/21	123,500
Equalization Rate 2020/21	12.30%
Full Market Value 2020/21	$1,004,065
Taxes 2019/20	$22,913.63
Tax Rate 2019/20	18.553547

TAX PROJECTION

Low Estimate:	**Year**	**Est Tax Rate**	**Estimated Taxes**	**Est Taxes PSF**
	2021/22	19.295688	$950,000	$2.22

Most Likely to Occur: (Based on Historical Data)	**Year**	**Est Tax Rate**	**Estimated Taxes**	**Est Taxes PSF**
	2021/22	19.295688	$1,300,000	$2.40

High Estimate:	**Year**	**Est Tax Rate**	**Estimated Taxes**	**Est Taxes PSF**
	2021/22	19.295688	$1,110,000	$2.59

SITE DEVELOPMENT PLANS

FOR

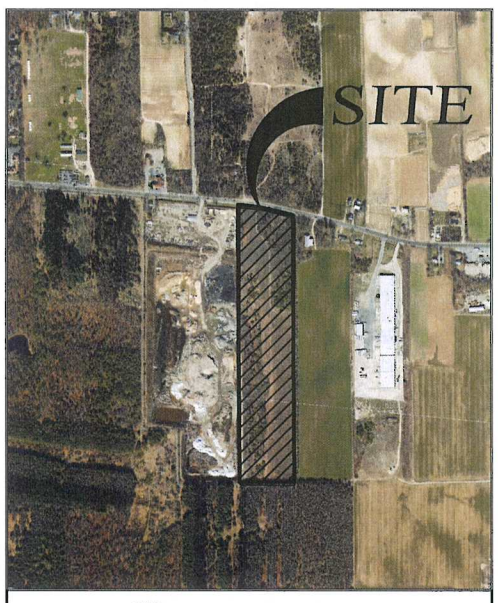
HK VENTURES, LLC

INDUSTRIAL PARK

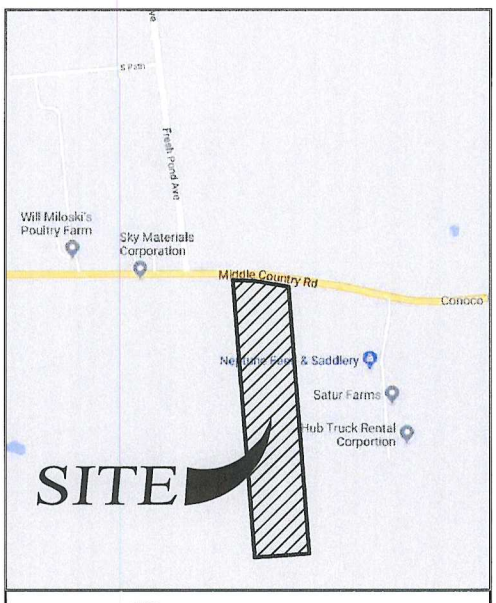
LOCATED AT

4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933

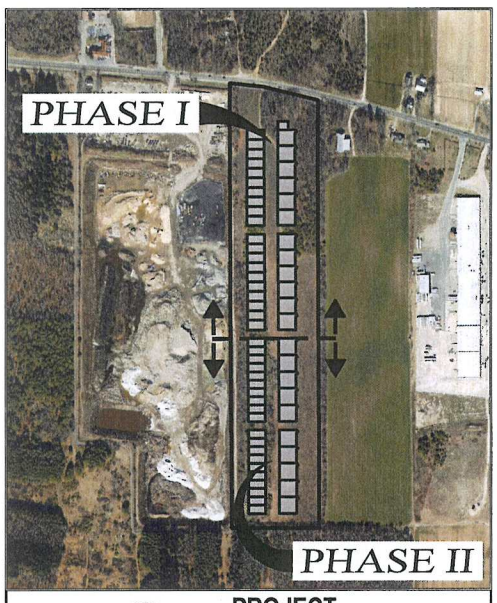
SCTM# 0600-116.00-01.00-002.000



AERIAL MAP
SCALE: 1" = 800'



VICINITY MAP
SCALE: 1" = 800'



PROJECT PHASING MAP
SCALE: 1" = 500'

SITUATED IN

TOWN OF RIVERHEAD
SUFFOLK COUNTY, NEW YORK

PROJECT DATA	
SITE ADDRESS	4285 MIDDLE COUNTRY ROAD CALVERTON, NY 11933
OWNER / APPLICANT	HK VENTURES, LLC 399 W. JOHN STREET HICKSVILLE, NY 11801 c/o URI HASON
TAX MAP NUMBER	DISTRICT: 600, SECTION: 116, BLOCK: 1, LOT: 2
SITE AREA	1,317,884 SF (30.2545 Ac)
CURRENT ZONING	INDUSTRIAL C
EXISTING USE	VACANT
PROPOSED USE	PRIMARY USES: WAREHOUSE & INDUSTRIAL BUSINESS
PROPOSED BUILDING AREA (GFA)	PHASE I BUILDING 1 = 56,000 SF BUILDING 2 = 56,672 SF BUILDING 3 = 56,000 SF BUILDING 4 = 56,672 SF COMMISSARY = 1,500 SF TOTAL = 226,844 SF PHASE II (TO BE CONSTRUCTED ONCE PHASE I IS COMPLETED AND OPERATING) BUILDING 5 = 49,000 SF BUILDING 6 = 49,560 SF BUILDING 7 = 49,000 SF BUILDING 8 = 49,560 SF TOTAL = 197,120 SF PHASE I + PHASE II = 423,964 SF (32.17%)
PERVIOUS PAVERS / LANDSCAPE AREA	357,847 SF (27.15%)
IMPERVIOUS / PAVEMENT / CONCRETE AREA (EXCLUDES BUILDING AREAS)	536,073 SF (40.68%)

DRAWING LIST	
C-1	COVER SHEET
C-2	NOTES SHEET
C-3	OVERALL SITE PLAN
C-4	PARTIAL SITE PLAN (SECTION A - PHASE I)
C-5	PARTIAL SITE PLAN (SECTION B - PHASE I)
C-6	PARTIAL SITE PLAN (SECTION C - PHASE II)
C-7	PARTIAL SITE PLAN (SECTION D - PHASE II)
C-8	OVERALL GRADING & DRAINAGE PLAN
C-9	PARTIAL GRADING & DRAINAGE PLAN (SECTION A - PHASE I)
C-10	PARTIAL GRADING & DRAINAGE PLAN (SECTION B - PHASE I)
C-11	PARTIAL GRADING & DRAINAGE PLAN (SECTION C - PHASE II)
C-12	PARTIAL GRADING & DRAINAGE PLAN (SECTION D - PHASE II)
C-13	OVERALL SANITARY & UTILITY PLAN
C-14	PARTIAL SANITARY & UTILITY PLAN (SECTION A - PHASE I)
C-15	PARTIAL SANITARY & UTILITY PLAN (SECTION B - PHASE I)
C-16	PARTIAL SANITARY & UTILITY PLAN (SECTION C - PHASE II)
C-17	PARTIAL SANITARY & UTILITY PLAN (SECTION D - PHASE II)
C-18	SANITARY NOTES, DETAILS & BORINGS
C-19	OVERALL LANDSCAPE PLAN
C-20	PARTIAL LANDSCAPE PLAN (SECTION A - PHASE I)
C-21	PARTIAL LANDSCAPE PLAN (SECTION B - PHASE I)
C-22	PARTIAL LANDSCAPE PLAN (SECTION C - PHASE II)
C-23	PARTIAL LANDSCAPE PLAN (SECTION D - PHASE II)
C-24	OVERALL LIGHTING PLAN
C-25	PARTIAL LIGHTING PLAN (SECTION A - PHASE I)
C-26	PARTIAL LIGHTING PLAN (SECTION B - PHASE I)
C-27	PARTIAL LIGHTING PLAN (SECTION C - PHASE II)
C-28	PARTIAL LIGHTING PLAN (SECTION D - PHASE II)
C-29	OVERALL SOIL EROSION & SEDIMENT CONTROL PLAN
C-30	PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN (SECTION A - PHASE I)
C-31	PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN (SECTION B - PHASE I)
C-32	PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN (SECTION C - PHASE II)
C-33	PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN (SECTION D - PHASE II)
C-34	SITE DETAILS I
C-35	SITE DETAILS II
C-36	SITE DETAILS III
C-37	SITE DETAILS IV
FM-1	FIRE MARSHAL PLAN

REFERENCES

THIS PLAN REFERENCES:

BOUNDARY & TOPOGRAPHICAL
SURVEY PREPARED BY:
GALLAS SURVEYING GROUP
2865 US ROUTE 1
NORTH BRUNSWICK, NY 08902
DATED: 11/08/2019

VICINITY MAP BACKGROUND
DATA PROVIDED BY
MAPS.GOOGLE.COM

CERTIFICATION BOX

THIS IS TO CERTIFY THIS SITE PLAN HAS BEEN APPROVED BY THE PLANNING BOARD OF THE TOWN OF RIVERHEAD BY PLANNING BOARD RESOLUTION NUMBER_____DATED_____.

SIGNATURE OF PLANNING BOARD CHAIRPERSON

DATE OF SIGNATURE_____

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE:

STATE OF NEW YORK
J. P. PERANTEAU
NOT VALID UNTIL SEALED
JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937
LICENSED PROFESSIONAL ENGINEER
083937

DATE:	01/24/2020
SCALE:	N.T.S.
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC
INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
COVER SHEET

DRAWING No.:
C-1

PAGE No.:
1 OF 38

Y:\Key Civil\Projects\2019\19026_Pinewood Grp_Calverton\Drawings\Key Civil\19026_2020.06.03_Details2.dwg

SITE REMOVAL NOTES

1. EXCAVATION SHALL BE PROPERLY BACKFILLED WITH CLEAN, SUITABLE MATERIAL. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT OR CONSULT WITH THE GEOTECHNICAL ENGINEER FOR INSPECTION AND CERTIFICATION.
2. THE CONTRACTOR SHALL INSTALL A TEMPORARY PROTECTIVE FENCE IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL CODES AND REGULATIONS AT LOCATIONS WHERE HAZARDOUS CONDITIONS EXIST AS A RESULT OF REMOVAL ACTIVITIES.
3. THE UTILITY INFORMATION SHOWN ON THE PLAN IS A COMPILATION OF FIELD LOCATIONS, ABOVEGROUND STRUCTURES THAT WERE VISIBLE AND ACCESSIBLE IN THE FIELD, AND RECORD DRAWINGS AVAILABLE AT THE TIME OF THE SURVEY. THE FEASIBILITY OF ALL UTILITIES (DRAINAGE, SEWER, WATER, GAS, ELECTRIC, PHONE, CABLE, ETC.) AND /OR UNDERGROUND STRUCTURES TO BE REMOVED OR RELOCATED HAS NOT BEEN CONFIRMED WITH THE GOVERNING AGENCIES AND MUST BE REVIEWED FURTHER PRIOR TO PREPARATION OF CONSTRUCTION DOCUMENTS.
4. PRIOR TO STARTING ANY DEMOLITION, THE CONTRACTOR IS RESPONSIBLE FOR/TO:
   a. ENSURE COPIES OF ALL PERMITS AND APPROVALS MUST BE MAINTAINED ON SITE AND AVAILABLE FOR REVIEW.
   b. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
   c. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
   d. COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.
   e. A COMPLETE INSPECTION OF CONTAMINANTS BY A LICENSED ENVIRONMENTAL TESTING AGENCY, OF ALL BUILDINGS AND/OR STRUCTURES TO BE REMOVED. SAME SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. ANYALL CONTAMINANTS SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HEREIN IS THE SOLE RESPONSIBILITY OF THE ENVIRONMENTAL CONSULTANT.
5. IN THE ABSENCE OF SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH DIRECTION BY THE STRUCTURAL OR GEO-TECHNICAL ENGINEER.
6. CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES.
7. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE OWNER, AND/OR APPROPRIATE GOVERNMENT AGENCY.
8. USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
9. THE CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
10. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.
11. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES OR CALL DAMAGE PROTECTION SYSTEMS FOR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
12. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
13. ALL DEMOLITION DEBRIS TO BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS..

GENERAL SITE NOTES

1. LOCATION OF EXISTING AND PROPOSED UTILITY SERVICES SHOWN ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR WITH THE UTILITY COMPANIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF DISCREPANCIES EXIST, NOTIFY THE ENGINEER IMMEDIATELY IN WRITING.
2. UNSUITABLE MATERIAL, CONSTRUCTION DEBRIS, EXCESS SOILS, ETC. SHALL BE PROPERLY REMOVED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND LAWS.
3. THE CONTRACTOR IS RESPONSIBLE TO TAKE EROSION CONTROL MEASURES NECESSARY IN ACCORDANCE WITH NYS STANDARDS AND SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT ROADWAYS AND PROPERTIES.
4. ALL ON-SITE CONCRETE SHALL BE IN CONFORMANCE WITH ACI PROVISIONS. ALL CURBING SHALL BE CONCRETE UNLESS OTHERWISE NOTED.
5. RELOCATION AND/OR REMOVAL OF EXISTING UTILITY POLES, TRAFFIC SIGNS, ETC., SHALL BE COORDINATED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR FIELD-VERIFYING THEIR PRESENCE.
6. ALL TRAFFIC CONTROL DEVICES, I.E. SIGNALS, SIGNS, AND PAVEMENT MARKINGS SHALL BE INSTALLED IN CONFORMANCE WITH THE GUIDELINES OF THE NEW YORK STATE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND AS DIRECTED BY THE TOWN OF RIVERHEAD. ALL PAVEMENT MARKINGS REQUIRED IN THE R.O.W. SHALL BE THERMOPLASTIC (NYSDOT SPECIFICATIONS). ONSITE MARKING SHALL BE PAINT (AASHTO M248 TYPE F).
7. SIGNAGE PERMITS WILL BE PROCURED BY OTHERS.
8. CONTRACTOR SHALL SAW CUT TO THE FULL DEPTH OF EXISTING PAVEMENT WITH A STRAIGHT VERTICAL EDGE FREE FROM IRREGULARITIES WHEREVER NEW PAVEMENT JOINS EXISTING PAVEMENT. CONTRACTOR SHALL DETERMINE EXACT LOCATION AND EXTENT OF THE REQUIRED SAWCUTTING IN ORDER TO PERFORM THE WORKSCOPE DEPICTED ON THE PLANS. TWO FT MINIMUM FROM CURBS, PADS, WALKS, AND WALLS TO PERMIT PROPER COMPACTION OF THE REPLACED SURFACES.
9. REMOVAL INCLUDES, BUT IS NOT LIMITED TO, CURBING, PAVEMENT, UNSUITABLE MATERIALS, AND UNDERGROUND PIPING. QUESTIONABLE ITEMS ENCOUNTERED (ABOVE AND/OR BELOW GRADE) SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER OF RECORD IMMEDIATELY IN WRITING BEFORE REMOVAL OR DISTURBANCE.
10. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO EXISTING FOUNDATIONS AND OTHER STRUCTURES TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING THE APPROPRIATE MEASURES AS NECESSARY TO ENSURE THE STRUCTURAL STABILITY OF EXPOSED AND/OR BELOW GRADE FOUNDATIONS/ WALLS/ SIDEWALKS AND PAVEMENT TO REMAIN, AND SHALL PROVIDE A SAFE WORK AREA. ANY DAMAGE OR DISTURBANCE DUE TO SUBJECT WORKSCOPE SHALL BE REPAIRED TO LIKE-KIND CONDITIONS AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROTECT PEDESTRIANS AND VEHICULAR TRAFFIC DURING REMOVAL ACTIVITIES. ANY TRAFFIC CONTROL, ACCESS, AND SAFETY PROVISIONS WITHIN THE R.O.W. AND ACCESS ROUTES (E.G. ACCESSIBLE RAMPS, PEDESTRIAN CROSSWALKS, SIDEWALKS, PAVEMENT STRIPING, ETC.) SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL DETERMINE APPROPRIATENESS OF REMOVAL ACTIVITIES AND PROVIDE TEMPORARY MEASURES FOR THE PROTECTION AND SAFETY OF THE PUBLIC UNTIL PERMANENT COMPONENTS/REPLACEMENTS CAN BE INSTALLED.
12. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO ENSURE THE SAFETY OF ITS EMPLOYEES, THE GENERAL PUBLIC, STRUCTURES TO REMAIN, ADJACENT PROPERTIES, PUBLIC R.O.W.'S, ETC. DURING ALL CONSTRUCTION AND REMOVAL ACTIVITIES IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL CODES AND REGULATIONS. THE OWNER AND ENGINEER ASSUME NO RESPONSIBILITIES FOR THE CONTRACTOR'S SAFETY PROGRAMS & PROCEDURES IN CONNECTION WITH THE WORK.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION, SIZE, TYPE, AND DEPTH OF UTILITIES, PIPING, DRYWELLS, ETC. PRIOR TO THE START OF ANY WORK. THE CONTRACTOR MUST CONTACT THE APPROPRIATE LOCAL "ONE CALL" SYSTEM TO ENSURE THAT ALL UTILITIES ARE PROPERLY AND COMPLETELY MARKED OUT IN THE FIELD PRIOR TO ANY WORK AT THE SITE. ANY DISCREPANCIES BETWEEN THE FIELD LOCATIONS AND THE PLANS SHALL BE REPORTED TO THE ENGINEER IN WRITING IMMEDIATELY. THE CONTRACTOR IS ADVISED THAT UTILITY INFORMATION SHOWN ON THE PLAN IS A COMPILATION OF FIELD LOCATIONS, ABOVEGROUND STRUCTURES THAT WERE VISIBLE AND ACCESSIBLE IN THE FIELD, AND RECORD DRAWINGS AVAILABLE AT THE TIME OF THE SURVEY AND MUST BE CONFIRMED ACCORDINGLY. THE CONTRACTOR SHALL COORDINATE UTILITY DISCONNECTION WITH THE APPLICABLE UTILITY COMPANIES PRIOR TO REMOVAL ACTIVITIES. THE CONTRACTOR IS ALSO ADVISED THAT ALL SUCH FACILITIES DISTURBED DURING CONSTRUCTION MUST BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
14. THE CONTRACTOR SHALL COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE REMOVAL OF STRUCTURES AND FOUNDATIONS WITH SOIL CONSISTING OF MATERIALS FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. STONES USED SHALL NOT BE LARGER THAN 6 INCHES IN DIMENSION. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTIONS IN ORDER TO ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH AND DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH AND COMPACT EACH LAYER AT PLACEMENT TO 95% OPTIMUM DENSITY. GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE. REFER TO GEOTECHNICAL REPORT (IF PROVIDED) FOR FURTHER RECOMMENDATIONS. REFER TO GRADING PLAN FOR PROPOSED SURFACE ELEVATIONS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF THE LOCAL AUTHORITIES REGARDING MATERIALS AND INSTALLATION OF PROPOSED WORK, FOR OBTAINING THE REQUIRED PERMITS, SIGN OFFS, AND CONSTRUCTION INSPECTIONS, ACCORDING TO GOVERNING BUILDING CODES AND DISPOSAL OF ALL MATERIAL IN ACCORDANCE WITH STATE AND LOCAL LAW.
16. SIDEWALKS, CURBS, OR OTHER EXISTING SITE APPURTENANCES DAMAGED BY CONSTRUCTION SHALL BE REPAIRED OR REPLACED IN KIND OR UNLESS NOTED OTHERWISE (UNO), WHETHER SPECIFIED ON THIS PLAN OR NOT, AT THE SOLE COST OF THE CONTRACTOR.
17. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS.
18. SEQUENCE AND COORDINATION OF CONSTRUCTION IS SOLELY THE CONTRACTOR'S RESPONSIBILITY.
19. ANY UTILITIES INCLUDING POLES REQUIRED TO BE RELOCATED DUE TO THE INSTALLATION OF THE REQUIRED IMPROVEMENTS SHALL BE RELOCATED AT THE EXPENSE OF THE APPLICANT/OWNER/DEVELOPER/CONTRACTOR.
20. ALL TRAFFIC ROAD MARKINGS, ROAD SIGNS, AND LIGHT SIGNALS THAT MAY HAVE BEEN MOVED OR DAMAGED IN THE PROCESS OF CONSTRUCTION SHALL BE RESTORED AT THE APPLICANT'S EXPENSE TO AT LEAST THE SAME QUALITY AND CHARACTERISTICS THAT EXISTED BEFORE CONSTRUCTION BEGAN. THE APPLICANT SHALL BE FURTHER RESPONSIBLE TO INSURE THAT, IN THE ROADWAYS ADJACENT TO THE CONSTRUCTION SITE, THESE MARKINGS, SIGNS AND SIGNALS, ARE MAINTAINED DURING THE ENTIRE PERIOD OF CONSTRUCTION. IF REPLACEMENT OR UPGRADE IS REQUIRED, SAME MUST BE APPROVED BY THE TOWN OF RIVERHEAD.
21. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORKSCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODE.
22. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST O.S.H.A. STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF O.S.H.A., AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
23. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 1.0% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO THE PROJECT ENGINEER IN WRITING IMMEDIATELY PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
24. IN CASE OF DISCREPANCIES BETWEEN PLANS AND FIELD CONDITIONS, IMMEDIATELY NOTIFY THE PROJECT ENGINEER IN WRITING OF ANY CONFLICTS.
25. CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO PROJECT ENGINEER AND OWNER PRIOR TO INITIATING WORK.
26. THE CONTRACTOR MUST NOTIFY THE TOWN OF RIVERHEAD ENGINEERING DIVISION AND SCDHS 48 HOURS IN ADVANCE OF THE COMMENCEMENT OF ANY ON-SITE DRAINAGE, SANITARY, CURB, OR PAVING WORK.

GRADING & DRAINAGE NOTES

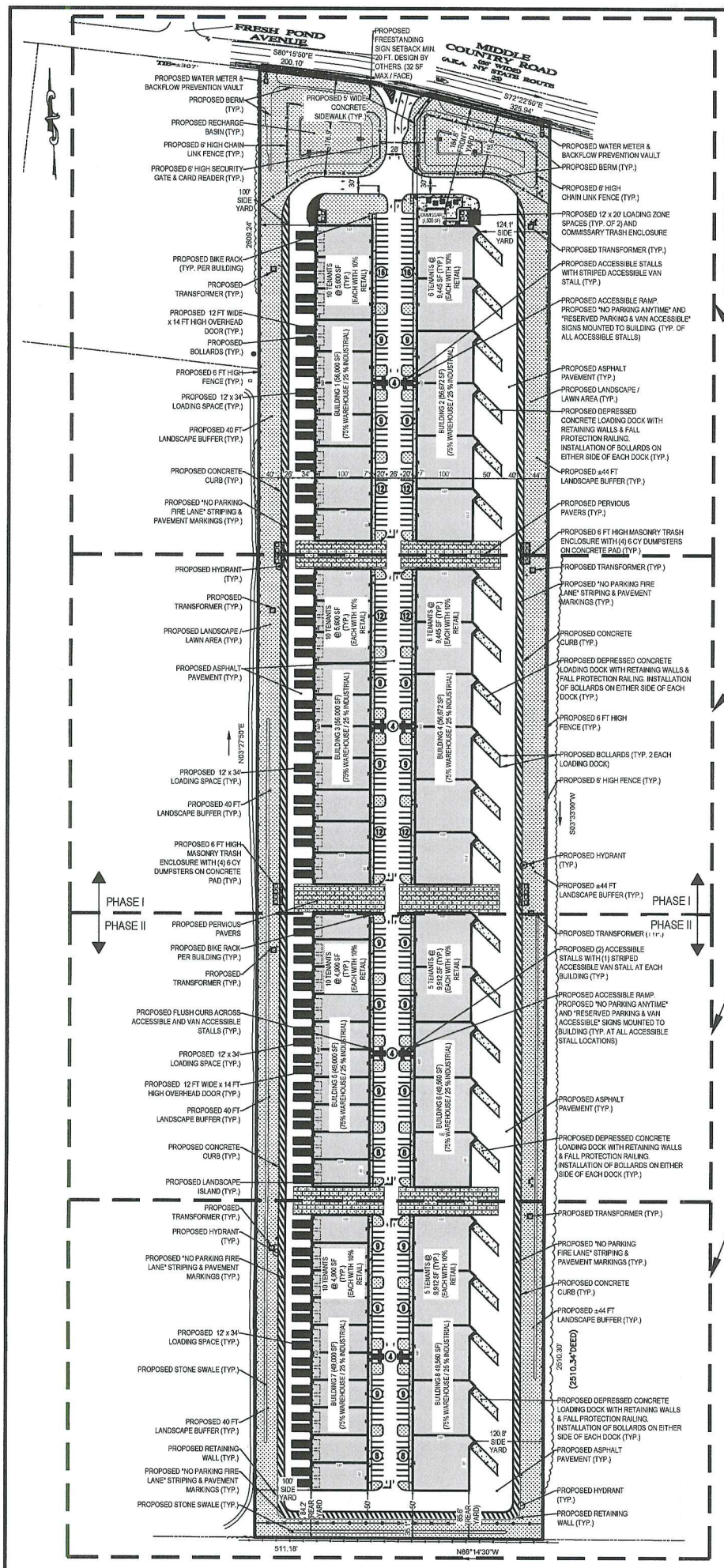
1. STORMWATER RUNOFF COEFFICIENTS PER TOWN OF RIVERHEAD:
   a. ROOF = 1.00
   b. PAVEMENT/IMPERVIOUS = 1.00
   c. LANDSCAPE/PERVIOUS = 0.20
3. PROVIDE STORMWATER RUNOFF STORAGE FOR 2" RAINFALL PER TOWN OF RIVERHEAD REQUIREMENTS
4. DRYWELL DESIGN CAPACITY:
   a. 10' DIAMETER = 68.42 CF/VF
   b. 12' DIAMETER = 100.88 CF/VF
5. ALL PROPOSED DRAINAGE INTERCONNECTING PIPING SHALL BE SMOOTH WALL HDPE WITH A MINIMUM DIAMETER OF 18 INCHES.
6. TOP OF EFFECTIVE DEPTH IN LEACHING STRUCTURES SHALL BE NO HIGHER THAN THE GRATE ELEVATION OF THE LOWEST INLET IN THE IMMEDIATE SYSTEM.
7. ALL LANDINGS AND WALKWAYS SHALL HAVE A MINIMUM OF 1.0% CROSS SLOPE AWAY FROM THE BUILDING OR SLOPE TOWARDS AN INLET / LOW SPOT.
8. CONTRACTOR SHALL CLEAN ALL EXISTING/PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES AT THE END OF CONSTRUCTION.
9. ALL ACCESSIBLE PARKING, CURB RAMPS, AND OTHER APPURTENANCES OF ACCESSIBLE ROUTES ARE TO MEET THE REQUIREMENTS OF THE IBC 2015 CODE CHAPTER 11-ACCESSIBILITY ADOPTED BY NEW YORK STATE, THE 2016 UNIFORM CODE SUPPLEMENT, AND ICC/ANSI A117.1 - 2009. ACCESSIBLE STALLS SHALL HAVE NO SLOPE GREATER THAN 2.0% IN ANY DIRECTION AND THE PROPOSED SIDEWALK SHALL NOT EXCEED A 5.0% RUNNING SLOPE AND 2.0% CROSS SLOPE.
10. LOCATION OF EXISTING UTILITY SERVICES ARE UNKNOWN AND SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR WITH THE UTILITY COMPANIES AND/OR PRIVATE MARK OUT COMPANIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. ALL ELEVATIONS DENOTED ON THIS PLAN REFER TO NAVD 1988 DATUM.
12. IF WET CONDITION IS ENCOUNTERED, CONTRACTOR SHALL USE 3/4" CLEAN WASHED STONE IN LIEU OF SAND BACKFILL.
13. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEAN-OUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.

SOIL EROSION & SEDIMENT CONTROL NOTES

1. THE STORMWATER POLLUTION PREVENTION PRACTICES PROPOSED HEREON HAVE BEEN IDENTIFIED AS THE MINIMUM RECOMMENDED PRACTICES. ADDITIONAL STORMWATER MANAGEMENT FACILITIES OR PRACTICES SHALL BE INSTALLED TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS AND PREVENT THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE. CONTRACTOR TO NOTIFY IN WRITING AND CONSULT WITH THE ENGINEER OF RECORD IF ADDITIONAL MEASURES ARE REQUIRED OR IF THERE IS EVIDENCE INDICATING POTENTIAL OR REALIZED IMPACTS ON WATER QUALITY DUE TO ANY STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
2. NOTHING IN THIS STORMWATER POLLUTION PREVENTION PLAN'S DRAWING OR REPORTS RELIEVES THE CONTRACTOR OR OWNER/OPERATOR FROM OBTAINING ANY OTHER PERMITS REQUIRED BY LAW OR COMPLIANCE WITH TAKING ALL REASONABLE STEPS TO MINIMIZE OR PREVENT ANY DISCHARGE IN VIOLATION OF NYS DEC PERMIT NO. GP-0-20-001 OR WHICH HAS A REASONABLE LIKELIHOOD OF ADVERSELY AFFECTING HUMAN HEALTH OR THE ENVIRONMENT.
3.
4. ALL STORMWATER MANAGEMENT PRACTICES SHALL BE INSPECTED BY THE ENGINEER OF RECORD AS THEY ARE CONSTRUCTED. NOTIFY ENGINEER OF THE START OF CONSTRUCTION AND DURATION A MINIMUM OF 2 WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION. WITHOUT PROPER INSPECTION, CONTRACTOR MAY BE REQUIRED TO REMOVE AND REINSTALL STORMWATER MANAGEMENT PRACTICES AT CONTRACTORS EXPENSE.
5. CONTRACTOR SHALL BE FAMILIAR WITH THE NEW YORK STATE STANDARDS AND SPECIFICATION FOR EROSION AND SEDIMENT CONTROL ("BLUE BOOK") DATED NOVEMBER 2016.
6. EROSION CONTROL MEASURES TO PREVENT THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE SHALL, AT A MINIMUM, CONFORM TO THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL UNLESS ADDITIONAL MEASURES ARE NOTED OR REQUIRED BY THE ENGINEER OF RECORD.
7. IT SHALL NOT BE A DEFENSE FOR A CONTRACTOR OR AN OWNER/OPERATOR IN AN ENFORCEMENT ACTION THAT IT WOULD HAVE BEEN NECESSARY TO HALT OR REDUCE THE CONSTRUCTION ACTIVITY IN ORDER TO MAINTAIN COMPLIANCE WITH OR IMPLEMENT EROSION AND SEDIMENT CONTROL PRACTICES. SOIL EROSION CONTROL MEASURES SHALL BE ADJUSTED/ RELOCATED BY CONTRACTOR AS IDENTIFIED DURING SITE INSPECTIONS IN ORDER TO MAINTAIN EFFECTIVENESS OF CONTROL MEASURES.
8. THE COSTS OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES SHALL BE DEEMED INCLUDED IN THE PRICE BID FOR THE SITE WORK.
9. INSTALLATION OF EROSION CONTROL, CLEARING, AND SITE WORK SHALL BE DONE AS INDICATED IN THE CONSTRUCTION SEQUENCE.
10. INSTALLATION OF EROSION CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
11. CONTRACTOR SHALL INSPECT THE EROSION AND SEDIMENT CONTROL PRACTICES AND POLLUTION PREVENTION MEASURES BEING IMPLEMENTED AFTER EACH RAINFALL EVENT AND DAILY WITHIN THE ACTIVE WORK AREA TO ENSURE THAT THEY ARE BEING MAINTAINED IN EFFECTIVE OPERATING CONDITION AT ALL TIMES. INSPECTION OF ALL IMPLEMENTED PRACTICES SHALL OCCUR WEEKLY AT A MINIMUM. IF DEFICIENCIES ARE IDENTIFIED, THE CONTRACTOR SHALL BEGIN IMPLEMENTING CORRECTIVE ACTIONS WITHIN ONE BUSINESS DAY AND SHALL COMPLETE THE CORRECTIVE ACTIONS IN A REASONABLE TIME FRAME.
12. CONTRACTOR SHALL REMOVE ANY SILT FROM SOIL EROSION AND SEDIMENT CONTROL MEASURES WHEN IT REACHES (1/2) ONE-HALF CAPACITY UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE ENGINEER. THE MATERIAL SHOULD BE INCORPORATED INTO THE SITE IN A STABILIZED MANNER.
13. TEMPORARY SEED AND MULCH SHALL BE APPLIED TO ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINISHED GRADE AND VEGETATED WITHIN 15 DAYS. WHEN AREAS ARE DISTURBED AFTER THE GROWING SEASON, THEY SHALL BE STABILIZED WITH GEOTEXTILE FABRIC AND MAINTAINED ACCORDING TO BEST PRACTICES.
14. CONTINUE INSPECTION AND REPAIR OF STORMWATER POLLUTION PREVENTION MEASURES UNTIL THE COMPLETION OF CONSTRUCTION AND PERMANENT STABILIZATION IS ACHIEVED.
15. REMOVE EROSION CONTROL MEASURES, SILT, AND DEBRIS UPON ESTABLISHMENT OF PERMANENT STABILIZED COVER OF ALL UPSTREAM / TRIBUTARY AREAS.
16. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.
17. THESE PLANS ARE BASED ON INFORMATION AVAILABLE TO OUR OFFICE AT THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD-VERIFY EXISTING CONDITIONS AND NOTIFY OUR OFFICE IF ACTUAL SITE CONDITIONS DIFFER FROM THAT SHOWN ON THE PLAN, OR IF THE PROPOSED WORK WOULD BE IMPACTED BY ANY OTHER SITE FEATURES.
18. CONTRACTOR SHALL CLEAN ALL ON-SITE EXISTING & PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPE AT END OF PROJECT AS WELL AS ANY OFF-SITE DRAINAGE STRUCTURES THAT MAY HAVE RECEIVED RUNOFF FROM THE SITE.
19. CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION BEYOND THE LIMITS OF DISTURBED AREA AS NECESSARY TO PREVENT SILT AND DEBRIS FROM CONSTRUCTION ACTIVITIES GETTING INTO ANY DRAINAGE SYSTEM FOR WHICH THE PROJECT IMPACTS.
20. CONTRACTOR SHALL LOCATE CONCRETE WASHOUT AREA, STOCKPILE AREA, AND CONSTRUCTION WASTE MATERIAL STORAGE AREAS SO AS TO MINIMIZE EXPOSURE TO STORMWATER. CONSTRUCTION WASTE SHALL BE IMMEDIATELY PLACED IN ON-SITE STORAGE CONTAINERS UNTIL READY FOR OFF-SITE DISPOSAL. CONTRACTOR SHALL MAINTAIN SPILL PREVENTION & RESPONSE EQUIPMENT AND MAKE AVAILABLE ON-SITE FOR USE BY CONTRACTOR'S EMPLOYEES TRAINED IN THE APPLICATION OF SPILL PREVENTION & RESPONSE PROCEDURES.
21. CONTRACTOR SHALL IDENTIFY LOCATION OF WASTE CONTAINERS, FUEL STORAGE TANKS, CONCRETE WASHOUT AREAS AND ANY OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED ON THE PLAN.
22. DEWATERING (IF REQUIRED) SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL & STATE REGULATIONS, AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY NECESSARY ASSOCIATED DISCHARGE PERMITS.
23. THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE:
   a. STABILIZED CONSTRUCTION ENTRANCE/ EXIT - A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/ EXIT SHALL BE INSTALLED AT THE DRIVEWAY ON FLANDERS ROAD. THIS AREA SHALL BE GRADED SO THAT RUNOFF WATER WILL BE RETAINED ON-SITE.
   b. INLET PROTECTION - IMMEDIATELY INSTALL FOR EACH INLET AS DRAINAGE STRUCTURES ARE INSTALLED.
   c. DUST CONTROL - STOCKPILES OF SOIL SHOULD BE LIMITED TO 15' MAXIMUM HEIGHT AND REMOVED OR UTILIZED FOR SITE CONSTRUCTION AS SOON AS PRACTICABLE. SHOULD EXCESSIVE DUST BE GENERATED, THE CONTRACTOR SHALL APPLY WATER TO BARE SOIL SURFACES TO MINIMIZE BLOWING DUST.
23. THE RIGHT-OF-WAY IS NOT TO BE USED FOR STORAGE OR STAGING OF EQUIPMENT OR MATERIALS DURING CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE RIGHT-OF-WAY DURING CONSTRUCTION AND SHOULD INSTALL FENCING ALONG THE PROPERTY'S FRONTAGE TO LIMIT ACCESS FOR CONSTRUCTION VEHICLES TO DEFINED POINTS OF INGRESS/EGRESS.
24. IN AREAS WHERE SOIL DISTURBANCE ACTIVITY HAS PERMANENTLY OR TEMPORARILY (EXISTING DISTURBED AREA WILL NOT BE DISTURBED AGAIN WITHIN 14 CALENDAR DAYS OF THE PREVIOUS SOIL DISTURBANCE) CEASED, THE APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED.
25. CONTRACTOR SHALL SCHEDULE ON-SITE PRE-CONSTRUCTION MEETING A MINIMUM 5 DAYS PRIOR TO ANY GROUND DISTURBANCE WITH THEIR TRAINED CONTRACTOR, OWNER, AND ENGINEER OF RECORD.

LANDSCAPE

1. THE CONTRACTOR SHALL INSPECT SITE PRIOR TO START OF PLANTING OPERATIONS AND NOTIFY THE ENGINEER OF RECORD OF ANY CONDITIONS THAT ARE NOT SUITABLE FOR PERFORMING PLANTING OPERATIONS, AND OF ANY CONDITIONS THAT WOULD PREVENT HEALTHY GROWTH OF PLANT MATERIAL.
2. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING AND NEW UTILITY LINE LOCATIONS PRIOR TO PLANTING AND SHALL REPORT ANY CONFLICTS IN WRITING TO THE ENGINEER OF RECORD.
3. NO HEAVY EQUIPMENT, MACHINERY, OR STOCKPILING OF MATERIAL IS PERMITTED WITHIN THE DRIPLINE OF ANY EXISTING TREES THROUGHOUT THE COURSE OF THE CONTRACT.
4. GROUNDCOVER AND HERBACEOUS BEDS SHALL HAVE COMPOST ADDED TO THE TOPSOIL MIX AT THE RATIO OF 2 PARTS COMPOST TO 7 PARTS TOPSOIL.
5. BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING APPROVED BY THE ENGINEER OF RECORD. FENCING SHALL BE LOCATED AT THE DRIP-LINE OR LIMIT OF DISTURBANCE AS DEPICTED WITHIN THE APPROVED OR FINAL PLAN SET, ESTABLISHING THE TREE PROTECTION ZONE. NO WORK MAY BEGIN UNTIL THIS REQUIREMENT IS FULFILLED. THE FENCING SHALL BE INSPECTED REGULARLY BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
6. LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN-SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL ALLOW FOR A TWO WEEK TURNAROUND TIME FROM SUBMITTAL OF SAMPLE TO NOTIFICATION OF RESULTS. BASED ON SOIL TEST RESULTS, ADJUST THE RATES OF LIME AND FERTILIZER THAT SHALL BE MIXED INTO THE TOP SIX INCHES (6") OF TOPSOIL. THE LIME AND FERTILIZER RATES PROVIDED WITHIN THE "SEED SPECIFICATION" IS APPROXIMATE AND FOR BIDDING PURPOSES ONLY. IF ADDITIONAL AMENDMENTS ARE NECESSARY,



SANITARY DENSITY CALCULATIONS

SITE IS LOCATED IN GROUNDWATER MANAGEMENT ZONE III = 300 GPD/ACRE

PERMITTED DENSITY = 30.2545 ACRES x 300 GPD/ACRE = 9,076 GPD

PHASE I
PROPOSED COMMISSARY FLOW (COMMISSARY NOT OPEN TO PUBLIC) - 0.04 GPD / SF x 1,500 SF = 60 GPD
PROPOSED INDUSTRIAL BUILDING 1 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,000 SF = 2,240 GPD
PROPOSED INDUSTRIAL BUILDING 2 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,672 SF = 2,267 GPD
PROPOSED INDUSTRIAL BUILDING 3 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,000 SF = 2,240 GPD
PROPOSED INDUSTRIAL BUILDING 4 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,672 SF = 2,267 GPD
PHASE I TOTAL = 9,074 GPD

PHASE II
PROPOSED INDUSTRIAL BUILDING 5 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,000 SF = 1,960 GPD
PROPOSED INDUSTRIAL BUILDING 6 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,560 SF = 1,983 GPD
PROPOSED INDUSTRIAL BUILDING 7 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,000 SF = 1,960 GPD
PROPOSED INDUSTRIAL BUILDING 8 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,560 SF = 1,983 GPD
PHASE II TOTAL = 7,886 GPD

PHASE I + PHASE II TOTAL = 16,960 GPD

TRANSFER OF DEVELOPMENT RIGHTS CREDITS REQUIRED FOR PHASE II ADDITIONAL DENSITY.

7,884 GPD OVER PERMITTED DENSITY / 300 GPD PER CREDIT = 26.3 CREDITS REQUIRED

BULK ZONING TABLE

ZONING DISTRICT: INDUSTRIAL C

ITEM	SECTION	PERMITTED/REQUIRED	PROPOSED
PERMITTED USES	§ 301-122.A (2), (4), & (12)	(2) WAREHOUSE, (4) WHOLESALE BUSINESSES, (12) MANUFACTURING (INDOOR)	(2) WAREHOUSE, (4) WHOLESALE BUSINESSES, (12) MANUFACTURING (INDOOR)
ACCESSORY USES	§ 301-122.C.1	COMMISSARY FOR OTHER BUILDING	COMMISSARY FOR BUILDINGS PROVIDED (1,500 SF)
ACCESSORY USES	§ 301-122.C.2.A	RETAIL USE SHALL NOT EXCEED 10% OF G.F.A. OR 3,000 SF, WHICHEVER IS LESS	10% RETAIL SPACE PROPOSED FOR EACH TENANT
ACCESSORY USES	§ 301-122.C.2.B	PARCEL SHALL HAVE FRONTAGE ON AN ARTERIAL ROAD	FRONTAGE ALONG MIDDLE COUNTRY ROAD (NYS ROUTE 25)
ACCESSORY USES	§ 301-122.C.2.C	RETAIL USES SHALL BE LOCATED AT THE FRONT OF THE PARCEL AND BUILDING	RETAIL USE LOCATED AT THE FRONT OF EACH TENANT SPACE
PROHIBITED USES	§ 301-122.D.3	OUTDOOR STORAGE	NO OUTDOOR STORAGE OF VEHICLES. ALL VEHICLES SHALL BE STORED INSIDE.
LOT, YARD, & BULK REQUIRMENTS	§ 301-123.B	20% OF LOT SHALL BE CONTIGUOUS OPEN SPACE AREAS WHICH SHIELD VIEWS OF THE DEVELOPMENT FROM ARTERIAL ROADS 0.20 x 1,317,884 SF = 263,577 SF	284,189 SF (21.56%) OF LANDSCAPE AREA WITH 146.3 FT OF AVERAGE FRONT YARD LANDSCAPE BUFFER OPEN LANDSCAPE PROVIDED. DENSE LANDSCAPE BUFFER IN FRONT YARD TO SHIELD DEVELOPMENT PROVIDED
SUPPLEMENTARY GUIDELINES	§ 301-124.A.1	DEVELOPMENT OF MULTIPLE BUILDINGS IN THE INDUSTRIAL C DISTRICT SHALL BE PLANNED IN A CAMPUS LAYOUT	CAMPUS LAYOUT NOT ACHIEVABLE DUE TO SITE GEOMETRY [R]
SUPPLEMENTARY GUIDELINES	§ 301-124.A.2	CONTINUOUS SIDEWALKS, AND BIKE RACKS CLOSE TO BUSINESS ENTRANCES SHALL BE PROVIDED FOR PROPERTIES FRONTING ROUTE 25	CONTINUOUS SIDEWALKS AND BIKE RACKS PROVIDED
SUPPLEMENTARY GUIDELINES	§ 301-124.A.4.A	DUMPSTER AREAS SHALL BE SCREENED BY WOOD FENCES OR LANDSCAPING	DUMPSTERS SHALL BE IN 6 FT HIGH WOOD FENCE ENCLOSURES
DUMPSTERS	§ 245-8	DUMPSTER SCREENING OF 5 FT MIN / 6 FT MAX HEIGHT	DUMPSTERS SHALL BE IN 6 FT HIGH WOOD FENCE ENCLOSURES
SCREENING AND BUFFER REGULATIONS SETBACK	§ 301-124.A.4.B	20 FT OF PLANTING BUFFER ALONG FRONTAGE & 10 FT PLANTING BUFFER ALONG ALL OTHER PROPERTY LINES	115.6 FT BUFFER PROVIDED ALONG FRONTAGE 10 FT PLANTING BUFFER PROVIDED ALONG SIDE YARDS AND REAR
PARKING STANDARDS	§ 301-124.B.2	PLANTED BERMS SHALL BE USED TO SCREEN AUTOMOBILES FROM PUBLIC R.O.W.	LANDSCAPE & PLANTED BERM PROVIDED
PARKING STANDARDS	§ 301-124.B.3	OFF-STREET PARKING PROHIBITED IN FRONT YARD, WITHIN 20 FT OF SIDE YARD, AND 10 FT OF REAR YARD	NO PARKING IN FRONT YARD PROPOSED 20 FT OR GREATER FROM PROPOSED PARKING TO SIDE YARD PROPERTY LINE NO PARKING IN REAR PROPOSED
MINIMUM LOT AREA	§ 301-ATTACHEMENT 3	60,000 SF	± 1,317,884 SF
MINIMUM LOT WIDTH	§ 301-ATTACHEMENT 3	300 FT	511.18 FT
BUILDING COVERAGE (FOOTPRINT) (WITHOUT SEWER)	§ 301-ATTACHEMENT 3	40% ±1,317,884 SF x 0.40 = 527,154 SF	32.17% 423,964 SF / ±1,317,884 SF = 0.3217
MAXIMUM IMPERVIOUS SURFACE	§ 301-ATTACHEMENT 3	60% ±1,317,884 SF x 0.60 = 790,730 SF	960,037 SF / 1,317,884 SF = 72.85% [V]
MAXIMUM HEIGHT OF BUILDINGS	§ 301-ATTACHEMENT 3	30 FT	30 FT
MINIMUM FRONT YARD DEPTH	§ 301-ATTACHEMENT 3	30 FT	184.8 FT
MINIMUM SIDE YARD DEPTH	§ 301-ATTACHEMENT 3	30 FT / 60 COMBINED FOR BOTH SIDES	100 FT / 224.1 FT
MINIMUM REAR YARD DEPTH	§ 301-ATTACHEMENT 3	50 FT	84.2 FT

[R] - PLANNING BOARD RELAXATION REQUIRED. CAMPUS LAYOUT NOT ACHIEVABLE DUE TO SITE GEOMETRY
[V] - VARIANCE REQUIRED

PARKING CALCULATIONS

ITEM	SECTION	PERMITTED/REQUIRED	PROPOSED
MINIMUM STALL SIZE	§ 301-231.E.2	10 FT x 20 FT	10' x 20'
MINIMUM AISLE WIDTH	§ 301-231.E.1	24' (TWO WAY) WITH 90° PARKING 18' (ONE WAY) WITH 60° PARKING 12' (ONE WAY) WITH 45° PARKING	24'-0"
NUMBER OF LOADING SPACES REQUIRED	§ 301-232.A	FLOOR AREAS PER BUILDING 15,000 TO 25,000 = 1 SPACES 25,001 TO 40,000 = 2 SPACES 40,001 TO 100,000 = 3 SPACES +60,000 SF = 1 ADDITIONAL SPACE 3 SPACES REQUIRED PER BUILDING x 8 BUILDINGS = 24 SPACES REQUIRED	104 SPACES PROVIDED
MINIMUM LOADING SPACE SIZE	§ 301-232.B	12 FT LONG x 14 FT WIDE	(80) 12 FT WIDE x 34 FT LONG (2) 12 FT WIDE x 20 FT LONG (22) 13 FT WIDE x 55 FT LONG TOTAL PROVIDED = 104 SPACES
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 1 & 3 (56,000 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (14,000 SF) 75% WAREHOUSE SPACE (42,000 SF) * INDUSTRIAL ESTABLISHMENT (14,000 SF) 1 STALL PER 400 SF OF GFA 14,000 SF / 400 SF = 35 STALLS * WAREHOUSE (42,000 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 37,000 SF x 1 STALL / 10,000 SF = 3.7 STALLS TOTAL PARKING FOR BUILDINGS 1 & 3 2 BUILDINGS x (35 + 5 + 3.7) STALLS = 87.4 STALLS	332 STALLS (INCLUDES 16 ACCESSIBLE STALLS)
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 2 & 4 (56,672 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (14,168 SF) 75% WAREHOUSE SPACE (42,504 SF) * INDUSTRIAL ESTABLISHMENT (14,168 SF) 1 STALL PER 400 SF OF GFA 14,168 SF / 400 SF = 35.4 STALLS * WAREHOUSE (42,504 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 37,504 SF x 1 STALL / 10,000 SF = 3.8 STALLS TOTAL PARKING FOR BUILDINGS 2 & 4 2 BUILDINGS x (35.4 + 5 + 3.8) STALLS = 88.4 STALLS	
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 5 & 7 (49,000 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (12,250 SF) 75% WAREHOUSE SPACE (36,750 SF) * INDUSTRIAL ESTABLISHMENT (12,250 SF) 1 STALL PER 400 SF OF GFA 12,250 SF / 400 SF = 30.6 STALLS * WAREHOUSE (36,750 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 31,750 SF x 1 STALL / 10,000 SF = 3.2 STALLS TOTAL PARKING FOR BUILDINGS 5 & 7 2 BUILDINGS x (30.6 + 5 + 3.2) STALLS = 77.6 STALLS	
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 6 & 8 (49,560 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (12,390 SF) 75% WAREHOUSE SPACE (37,170 SF) * INDUSTRIAL ESTABLISHMENT (12,390 SF) 1 STALL PER 400 SF OF GFA 12,390 SF / 400 SF = 31 STALLS * WAREHOUSE (37,170 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 32,170 SF x 1 STALL / 10,000 SF = 3.2 STALLS TOTAL PARKING FOR BUILDINGS 6 & 8 2 BUILDINGS x (31 + 5 + 3.2) STALLS = 78.4 STALLS	
TOTAL NUMBER OF PARKING STALLS REQUIRED FOR LOT	§ 301 ATTACHMENT 1	87.4 + 88.4 + 77.6 + 78.4 = 331.8 STALLS TOTAL STALLS REQUIRED = 332 STALLS	
ACCESSIBLE PARKING STALLS	§ 301-232.M.1	301 TO 400 TOTAL PARKING STALLS REQUIRED = 8 8 ACCESSIBLE PARKING STALLS	16 ACCESSIBLE STALLS

GRAPHIC SCALE
120 0 60 120 240 480
(IN FEET)
1 inch = 120 ft.

LEGEND

SCALE OF SYMBOLS = 1" = 120'

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	DUMPSTER ENCLOSURE	
	12' x 34' LOADING SPACE	
	LOADING DOCK RETAINING WALLS	
	PARKING COUNT	0
	OVERHEAD DOOR	
	DOOR	
x x	FENCE	
	BIKE RACK	
	HYDRANT	
	SOIL BORING	B-1

LEGEND

SCALE OF SYMBOLS = 1" = 30' (REFER TO PARTIAL SITE PLANS)

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	EDGE OF PAVEMENT	
	CONCRETE SIDEWALK	4
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	TRASH ENCLOSURE	
	PARKING COUNT	16
	ACCESSIBLE STRIPING SYMBOL	
	BIKE RACK MOUNTED ON CONCRETE PAD	
	OVERHEAD DOOR	
	LOADING STALL STRIPING	
	LOADING DOCK WALL WITH FALL PROTECTION RAILING	
	CROSSWALK	
	FIRE LANE STRIPING	
	DOOR	
	SIGN	
	FIRE HYDRANT	
	UTILITY POLE	
	GROUND SIGN	
	FENCE	
	POLE MOUNTED LIGHTING	
	WALL MOUNTED LIGHTING	

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093937

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PROJECT No.:	19026
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(631) 951-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
OVERALL SITE PLAN

DRAWING No.: C-3

PAGE No.: 3 OF 38

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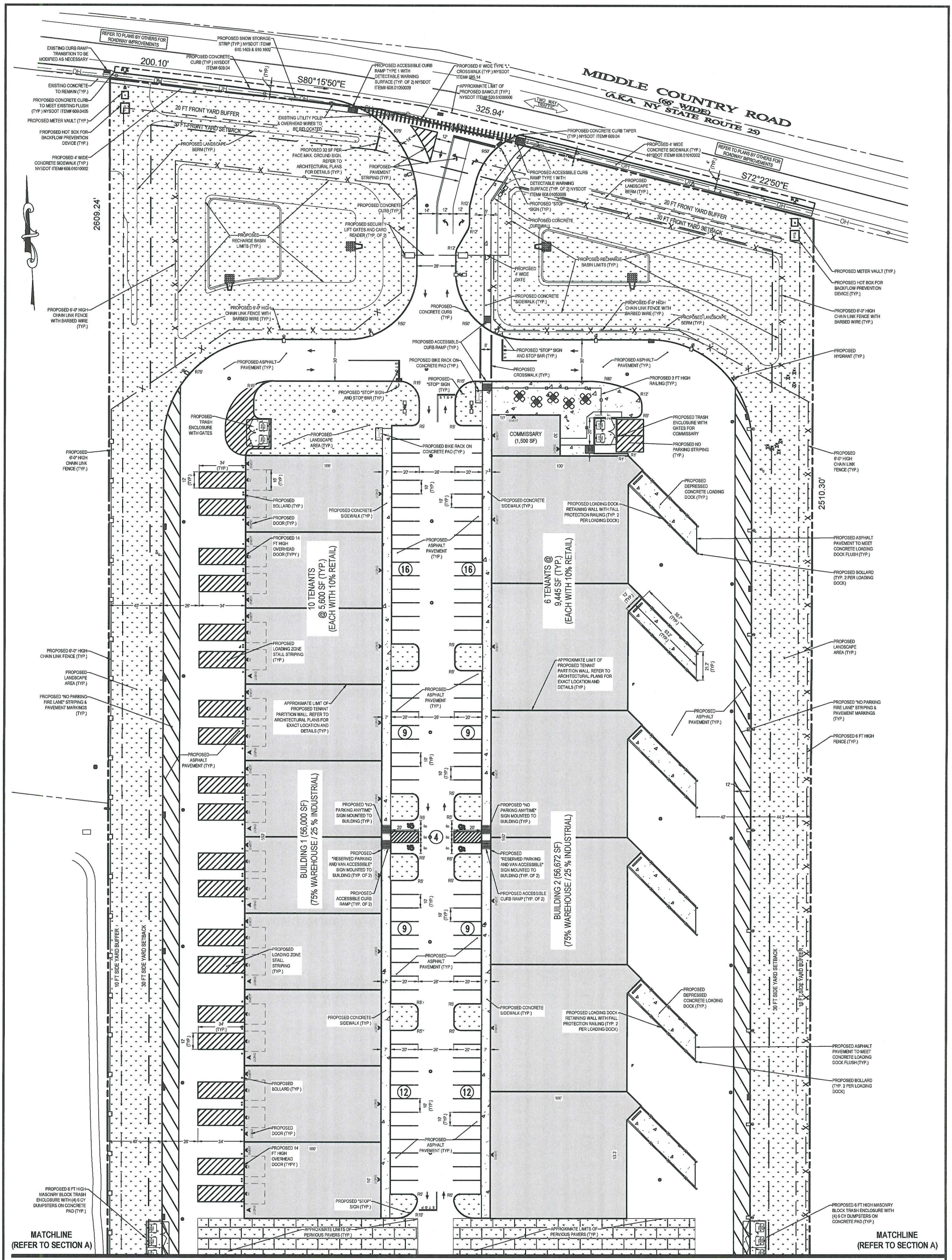

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

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TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

PARTIAL SITE PLAN (SECTION A - PHASE I)

DRAWING No.: C-4

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MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)

PHASE I

PHASE II

PROPOSE HYDRANT (TYP.)

APPROXIMATE LIMITS OF PERVIOUS PAVERS (TYP.)

APPROXIMATE LIMITS OF PERVIOUS PAVERS (TYP.)

PROPOSED BOLLARD (TYP.)

PROPOSED BIKE RACK ON CONCRETE PAD (TYP.)

PROPOSED LANDSCAPE ISLAND (TYP.)

PROPOSED 14 FT HIGH OVERHEAD DOOR (TYPY.)

PROPOSED DOOR (TYP.)

10 TENANTS @ 5,600 SF (TYP.) (EACH WITH 10% RETAIL)

PROPOSED LOADING ZONE STALL STRIPING (TYP.)

PROPOSED BIKE RACK ON CONCRETE PAD (TYP.)

PROPOSED "STOP" SIGN (TYP.)

PROPOSED ASPHALT PAVEMENT (TYP.)

6 TENANTS @ 9,445 SF (TYP.) (EACH WITH 10% RETAIL)

PROPOSED CONCRETE CURB (TYP.)

PROPOSED LANDSCAPE ISLAND (TYP.)

S03°33'00"W

PROPOSED 6'-0" HIGH CHAIN LINK FENCE (TYP.)

APPROXIMATE LIMIT OF PROPOSED TENANT PARTITION WALL. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DETAILS (TYP.)

PROPOSED CONCRETE SIDEWALK (TYP.)

PROPOSED CONCRETE SIDEWALK (TYP.)

PROPOSED 6'-0" HIGH CHAIN LINK FENCE (TYP.)

PROPOSED LANDSCAPE AREA (TYP.)

PROPOSED "NO PARKING FIRE LANE" STRIPING & PAVEMENT MARKINGS (TYP.)

N03°27'50"E

BUILDING 3 (56,000 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

PROPOSED "NO PARKING ANYTIME" SIGN MOUNTED TO BUILDING (TYP.)

PROPOSED "RESERVED PARKING AND VAN ACCESSIBLE" SIGN MOUNTED TO BUILDING (TYP. OF 2)

PROPOSED ACCESSIBLE CURB RAMP (TYP. OF 2)

PROPOSED ASPHALT PAVEMENT (TYP.)

PROPOSED "NO PARKING ANYTIME" SIGN MOUNTED TO BUILDING (TYP.)

PROPOSED "RESERVED PARKING AND VAN ACCESSIBLE" SIGN MOUNTED TO BUILDING (TYP. OF 2)

PROPOSED ACCESSIBLE CURB RAMP (TYP. OF 2)

BUILDING 4 (56,672 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

PROPOSED LOADING DOCK RETAINING WALL WITH FALL PROTECTION RAILING (TYP. 2 PER LOADING DOCK)

PROPOSED DEPRESSED CONCRETE LOADING DOCK (TYP.)

PROPOSED ASPHALT PAVEMENT TO MEET CONCRETE LOADING DOCK FLUSH (TYP.)

PROPOSED BOLLARD (TYP. 2 PER LOADING DOCK)

PROPOSED ASPHALT PAVEMENT (TYP.)

PROPOSED "NO PARKING FIRE LANE" STRIPING & PAVEMENT MARKINGS (TYP.)

APPROXIMATE LIMIT OF PROPOSED TENANT PARTITION WALL. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DETAILS (TYP.)

PROPOSED LOADING ZONE STALL STRIPING (TYP.)

PROPOSED CONCRETE SIDEWALK (TYP.)

PROPOSED CONCRETE SIDEWALK (TYP.)

PROPOSED ASPHALT PAVEMENT (TYP.)

PROPOSED LOADING DOCK RETAINING WALL WITH FALL PROTECTION RAILING (TYP. 2 PER LOADING DOCK)

PROPOSED DEPRESSED CONCRETE LOADING DOCK (TYP.)

PROPOSED CONCRETE CURB (TYP.)

PROPOSED LANDSCAPE ISLAND (TYP.)

PROPOSED ASPHALT PAVEMENT TO MEET CONCRETE LOADING DOCK FLUSH (TYP.)

PROPOSED BOLLARD (TYP. 2 PER LOADING DOCK)

PROPOSED BOLLARD (TYP.)

PROPOSED 14 FT HIGH OVERHEAD DOOR (TYPY.)

PROPOSED DOOR (TYP.)

PROPOSED "STOP" SIGN (TYP.)

APPROXIMATE LIMITS OF PERVIOUS PAVERS (TYP.)

APPROXIMATE LIMITS OF PERVIOUS PAVERS (TYP.)

10 FT SIDE YARD BUFFER

30 FT SIDE YARD SETBACK

30 FT SIDE YARD SETBACK

10 FT SIDE YARD BUFFER

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

REFER TO OVERALL SITE PLAN (SHEET C-3) FOR BULK ZONING TABLE & PARKING REQUIREMENTS

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4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

PARTIAL SITE PLAN (SECTION B - PHASE I)

DRAWING No.: C-5

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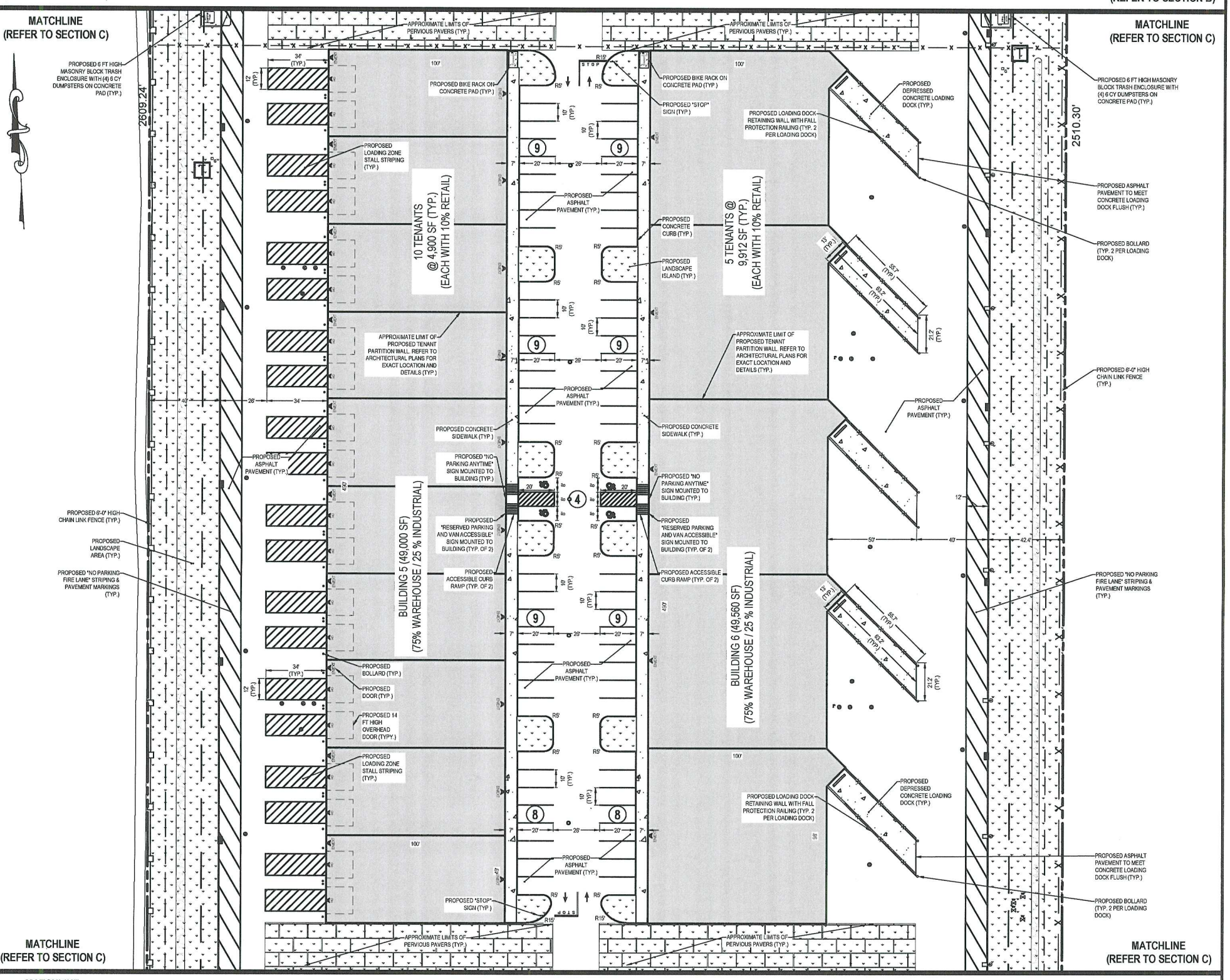
MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)



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MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION D)

MATCHLINE (REFER TO SECTION D)

GRAPHIC SCALE

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(IN FEET)
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TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

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PARTIAL SITE PLAN (SECTION C - PHASE II)

DRAWING No.: C-6

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MATCHLINE
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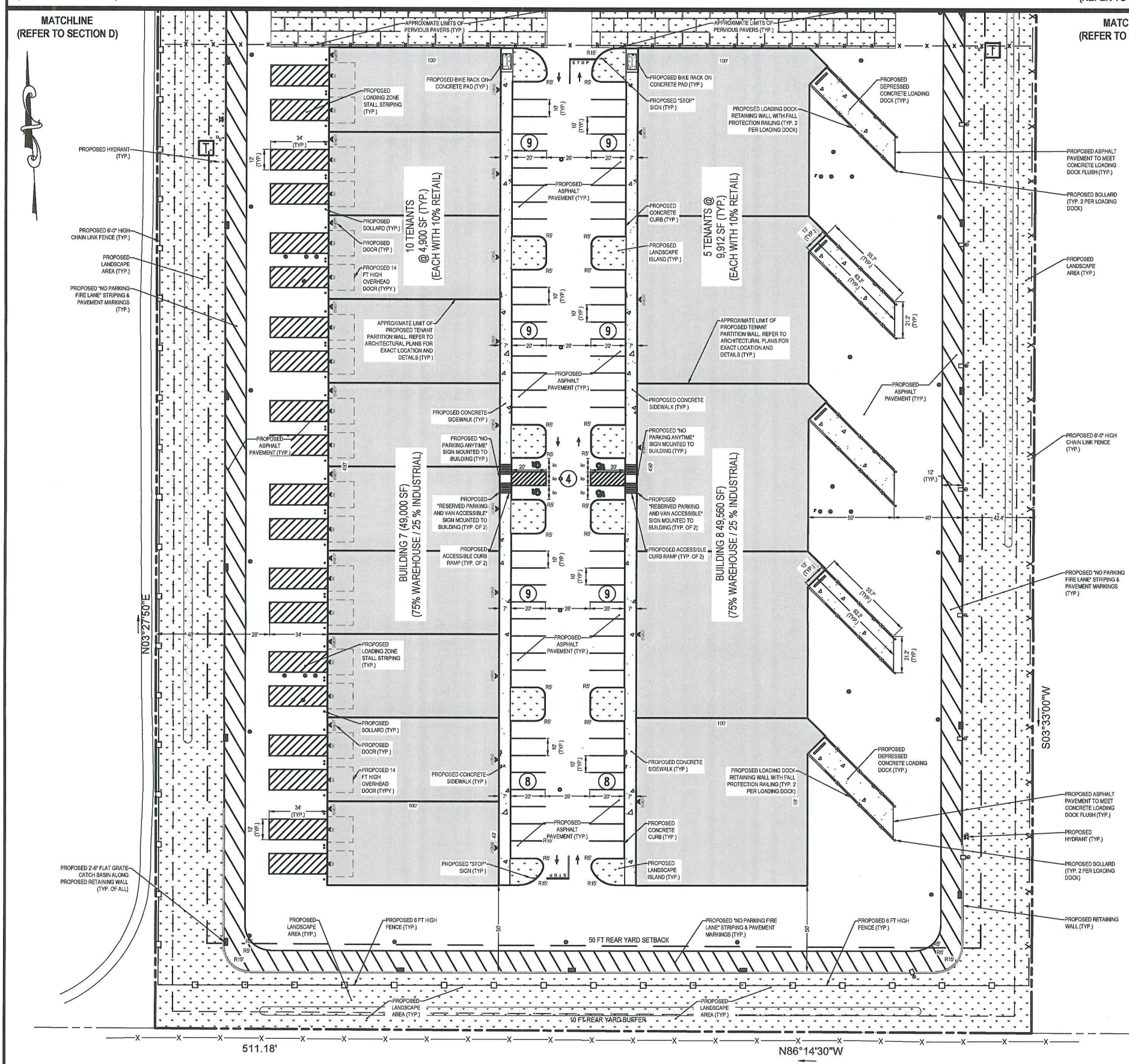
(REFER TO SECTION D)



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
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PARTIAL SITE PLAN
(SECTION D - PHASE II)

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C-7

PAGE No.:
7 OF 38

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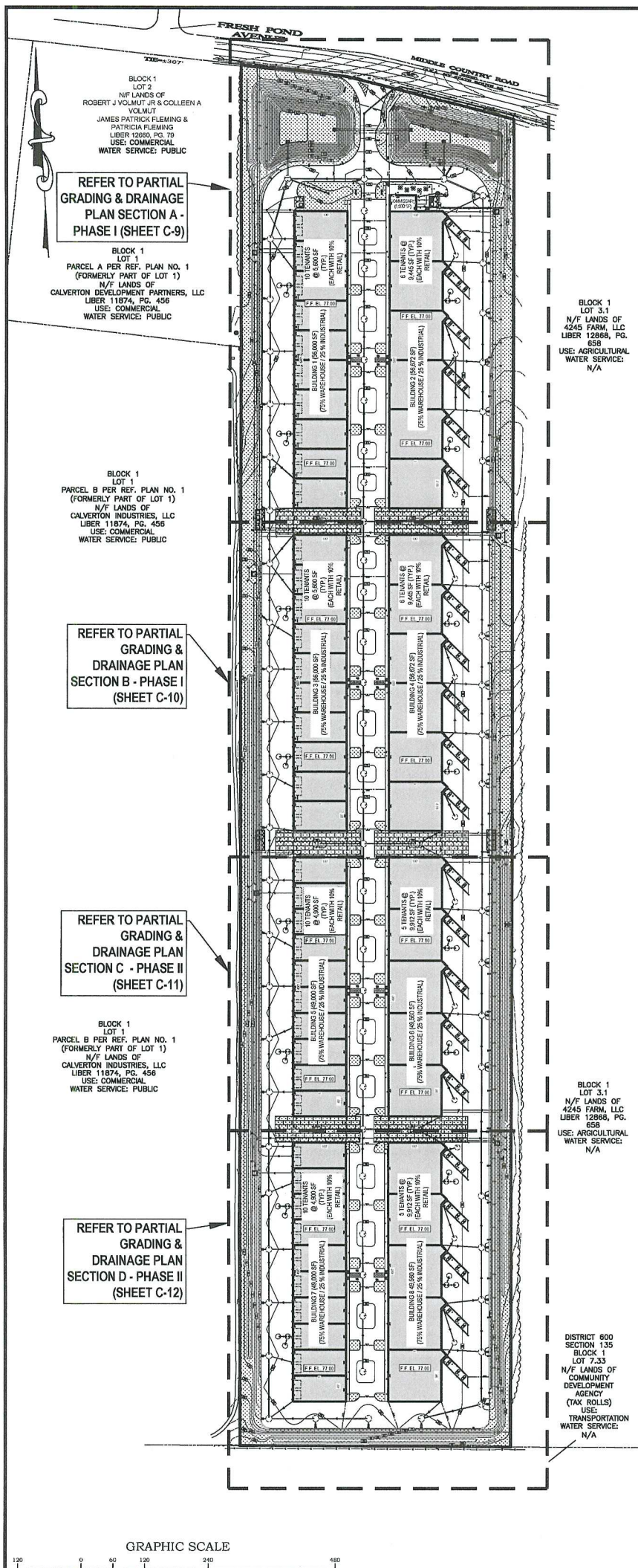


STORMWATER DESIGN CALCULATIONS

SITE AREA = 1,317,884 SF (30.2545 ACRES)

TRIBUTARY DRAINAGE AREA A

BUILDING AREA		= 423,964 SF
IMPERVIOUS / PAVEMENT AREA		= 536,073 SF
PERVIOUS PAVERS / LANDSCAPE AREA		= 225,196 SF
TOTAL		= 1,185,233 SF

STORAGE REQUIRED (PER TOWN OF RIVERHEAD):

BUILDING	= 423,964 SF x (2"/12) x 1.00	= 70,661 CF
IMPERVIOUS / PAVEMENT	= 536,073 SF x (2"/12) x 1.00	= 89,345 CF
PERVIOUS PAVERS / LANDSCAPE	= 225,196 SF x (2"/12) x 0.20	= 7,507 CF
TOTAL STORAGE REQUIRED		= 167,514 CF

STORAGE PROVIDED:

WESTERN RECHARGE BASIN

UPPER VOLUME
- AVERAGE TOP ELEVATION = 73.00'
- AVERAGE BOTTOM ELEVATION = 63.00'
- RECHARGE BASIN HEIGHT = 10.00'
- BOTTOM AREA = 6,532 SF
- TOP AREA = 15,064 SF

VOLUME OF RECHARGE BASIN = $\frac{(15,064\ SF + 6,532\ SF)}{2}$ X (73.00'-63.00') = 107,980 CF

LOWER VOLUME
- AVERAGE TOP ELEVATION = 63.00'
- AVERAGE BOTTOM ELEVATION = 62.00'
- RECHARGE BASIN HEIGHT = 1.00'
- BOTTOM AREA = 3,159 SF
- TOP AREA = 6,532 SF

VOLUME OF RECHARGE BASIN = $\frac{(6,532\ SF + 3,159\ SF)}{2}$ X (63.00'-62.00') = 4,845 CF

WESTERN RECHARGE BASIN TOTAL STORAGE PROVIDED = 107,980 CF + 4,845 CF = 112,825 CF

EASTERN DRAINAGE RECHARGE BASIN

UPPER VOLUME
- AVERAGE TOP ELEVATION = 73.00'
- AVERAGE BOTTOM ELEVATION = 63.00'
- RECHARGE BASIN HEIGHT = 10.00'
- BOTTOM AREA = 4,505 SF
- TOP AREA = 14,309 SF

VOLUME OF RECHARGE BASIN = $\frac{(14,309\ SF + 4,505\ SF)}{2}$ X (73.00'-63.00') = 94,070 CF

LOWER VOLUME
- AVERAGE TOP ELEVATION = 63.00'
- AVERAGE BOTTOM ELEVATION = 62.00'
- RECHARGE BASIN HEIGHT = 1.00'
- BOTTOM AREA = 2,391 SF
- TOP AREA = 4,505 SF

VOLUME OF RECHARGE BASIN = $\frac{(4,505\ SF + 2,391\ SF)}{2}$ X (63.00'-62.00') = 3,448 CF

EASTERN RECHARGE BASIN TOTAL STORAGE PROVIDED = 94,070 CF + 3,448 CF = 97,518 CF

DRYWELLS

USE EIGHTY (80) 12Ø DRYWELLS WITH 16.0' EFFECTIVE STORAGE DEPTH
80 DRYWELLS x 100.88 CF/VF x 18.0 VF = 145,267 CF

TOTAL STORAGE PROVIDED = 112,825 CF + 97,518 CF + 145,267 CF = 355,610 CF

355,610 CF PROVIDED IS GREATER THAN 167,514 CF REQUIRED, THEREFORE, SUFFICIENT STORAGE PROVIDED *

TRIBUTARY DRAINAGE AREA B

PERVIOUS PAVERS / LANDSCAPE AREA	= 64,673 SF
TOTAL	= 64,673 SF

STORAGE REQUIRED:

PERVIOUS PAVERS / LANDSCAPE = 64,673 SF x (2"/12) x 0.20	= 2,156 CF
TOTAL STORAGE REQUIRED	= 2,156 CF

STORAGE PROVIDED:
STONE SWALE
PROVIDE 1 FT DEEP STONE LAYER BELOW FINISHED GRADE

0.40 x 1 FT x 6,443 SF	= 2,577 CF
TOTAL STORAGE PROVIDED	= 2,577 CF

2,577 CF PROVIDED IS GREATER THAN 2,156 CF REQUIRED, THEREFORE SUFFICIENT STORAGE PROVIDED *

TRIBUTARY DRAINAGE AREA C

PERVIOUS PAVERS / LANDSCAPE AREA	= 24,576 SF
TOTAL	= 24,576 SF

STORAGE REQUIRED:

PERVIOUS PAVERS / LANDSCAPE = 24,576 SF x (2"/12) x 0.20	= 820 CF
TOTAL STORAGE REQUIRED	= 820 CF

STORAGE PROVIDED:

STONE SWALE
PROVIDE 1.25 FT DEEP STONE LAYER BELOW FINISHED GRADE

0.40 x 1.25 FT x 1,923 SF	= 961 CF
TOTAL STORAGE PROVIDED	= 961 CF

961 CF PROVIDED IS GREATER THAN 820 CF REQUIRED, THEREFORE SUFFICIENT STORAGE PROVIDED *

TRIBUTARY DRAINAGE AREA D

PERVIOUS PAVERS / LANDSCAPE AREA	= 43,402 SF
TOTAL	= 43,402 SF

STORAGE REQUIRED:

PERVIOUS PAVERS / LANDSCAPE = 43,402 SF x (2"/12) x 0.20	= 1,447 CF
TOTAL STORAGE REQUIRED	= 1,447 CF

STORAGE PROVIDED:

STONE SWALE
PROVIDE 1.5 FT DEEP STONE LAYER BELOW FINISHED GRADE

0.40 x 1.5 FT x 3,308 SF	= 1,984 CF
TOTAL STORAGE PROVIDED	= 1,984 CF

1,984 CF PROVIDED IS GREATER THAN 1,447 CF REQUIRED, THEREFORE SUFFICIENT STORAGE PROVIDED *

TYPICAL LOADING DOCK TRIBUTARY DRAINAGE AREAS (FOR BUILDINGS 2, 4, 6, & 8)

CONCRETE LOADING DOCK AREA = 948 SF

STORAGE REQUIRED:

ONE (1) LOADING DOCK = 1 x 948 SF x (2"/12) x 1.0	= 158 CF
TOTAL STORAGE REQUIRED	= 158 CF

STORAGE PROVIDED:

USE ONE (1) 10'Ø DRYWELLS WITH 3.0' EFFECTIVE STORAGE DEPTH
1 DRYWELL x 68.42 CF/VF x 3.0 VF = 205 CF

205 CF PROVIDED IS GREATER THAN 158 CF REQUIRED, THEREFORE, SUFFICIENT STORAGE PROVIDED

STORAGE REQUIRED:

TWO (2) LOADING DOCKS = 2 x 948 SF x (2"/12) x 1.0	= 316 CF
TOTAL STORAGE REQUIRED	= 316 CF

STORAGE PROVIDED:

USE ONE (1) 10'Ø DRYWELLS WITH 5.0' EFFECTIVE STORAGE DEPTH
1 DRYWELL x 68.42 CF/VF x 5.0 VF = 342 CF

342 CF PROVIDED IS GREATER THAN 316 CF REQUIRED, THEREFORE, SUFFICIENT STORAGE PROVIDED

STORAGE REQUIRED:

THREE (3) LOADING DOCKS = 3 x 948 SF x (2"/12) x 1.0	= 474 CF
TOTAL STORAGE REQUIRED	= 474 CF

STORAGE PROVIDED:

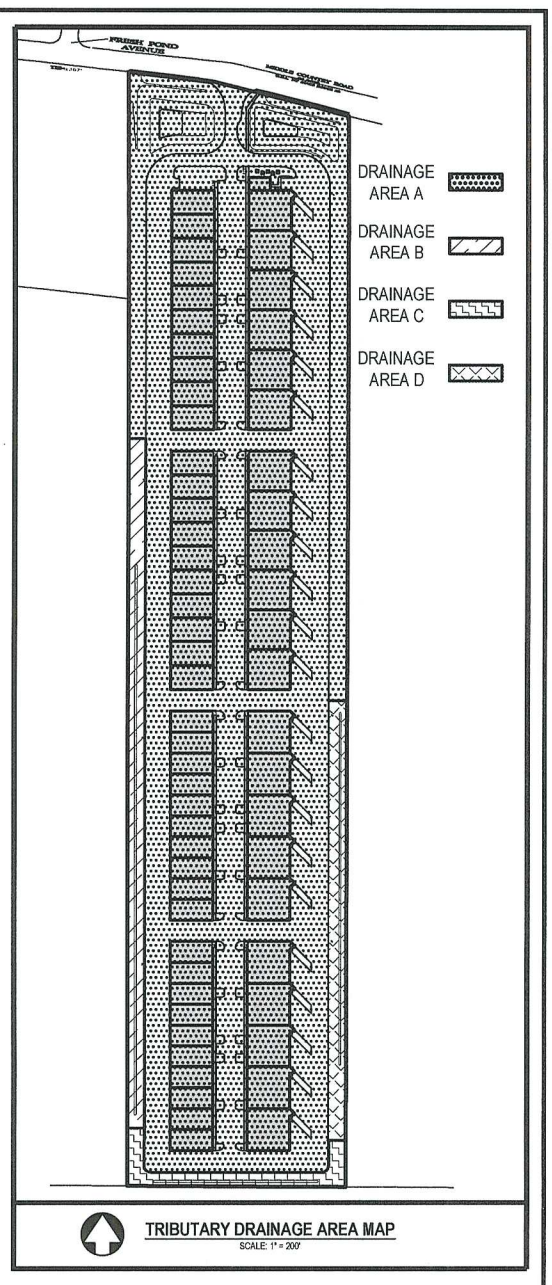
USE ONE (1) 10'Ø DRYWELLS WITH 7.0' EFFECTIVE STORAGE DEPTH
1 DRYWELL x 68.42 CF/VF x 7.0 VF = 478 CF

478 CF PROVIDED IS GREATER THAN 474 CF REQUIRED, THEREFORE, SUFFICIENT STORAGE PROVIDED

DESIGN FOR 100-YEAR STORM EVENT

- RECHARGE BASIN AND DRYWELLS DESIGNED TO HANDLE STORMWATER RUNOFF FOR A 100-YEAR STORM EVENT (8.77" RAINFALL OVER A 24 HOUR PERIOD) PER TOWN OF RIVERHEAD ENGINEERING DEPARTMENT & THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL REQUIREMENTS. DESIGN UTILIZES A 9" RAINFALL OVER A 24 HOUR PERIOD.
- BASED ON THE HYDROCAD ANALYSIS UTILIZING AN INFILTRATION RATE OF 16.5" / HR (PROVIDED BY TOWN OF RIVERHEAD ENGINEERING DEPARTMENT) AND 100-YEAR STORM EVENT (9" RAINFALL OVER A 24 HOUR PERIOD), THE REQUIRED VOLUME FOR THE ENTIRE SITE IS 359,976 CF (REFER TO STORMWATER ENGINEERING REPORT ENCLOSED WITHIN THE STORMWATER POLLUTION PREVENTION REPORT FOR DETAILED CALCULATIONS)
- THE TWO (2) PROPOSED RECHARGE BASINS AND EIGHTY (80) DRYWELLS PROVIDE A VOLUME OF 369,664 CF USING AN INFILTRATION RATE OF 16.5" / HR.

369,664 CF PROVIDED IS GREATER THAN 359,976 CF REQUIRED, THEREFORE SUFFICIENT STORAGE PROVIDED.



TRIBUTARY DRAINAGE AREA MAP
SCALE: 1" = 200'

GRAPHIC SCALE
120 0 60 120 240 480
(IN FEET)
1 inch = 120 ft.

LEGEND
SCALE OF SYMBOLS = 1" = 120'

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	DUMPSTER ENCLOSURE	
	12' x 34' LOADING SPACE	
	LOADING DOCK RETAINING WALLS	
	PARKING COUNT	
	OVERHEAD DOOR	
	DOOR	
x x	FENCE	
	BIKE RACK	
	HYDRANT	
	SOIL BORING	

LEGEND
SCALE OF SYMBOLS = 1" = 30' (REFER TO PARTIAL GRADING & DRAINAGE PLANS)

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	EDGE OF PAVEMENT	
	CONCRETE SIDEWALK	4
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	TRASH ENCLOSURE	
	BIKE RACK MOUNTED ON CONCRETE PAD	
	OVERHEAD DOOR	
	LOADING DOCK WALL WITH FALL PROTECTION RAILING	
	DOOR	
	SIGN	
	FIRE HYDRANT	
	UTILITY POLE	
	GROUND SIGN	
	FENCE	
	POLE MOUNTED LIGHTING	
	DRYWELL	
	2'-6" x 4'-0" CONCRETE CURB INLET	
	4'Ø DRAINAGE MANHOLE	
	24" NYLOPLAST DRAIN BASIN	
	CONCRETE HEADWALL	
	36" HDPE DRAINAGE PIPE	
	24" HDPE DRAINAGE PIPE	
	18" HDPE DRAINAGE PIPE	
	10" PVC ROOF DRAIN PIPE	
	ELEVATION CONTOUR	75
	TW TOP OF WALL / BW BOTTOM OF WALL / P PAVEMENT ELEVATION	TW 76.65 P 76.90 BW 76.15
	TC TOP OF CURB / BC BOTTOM OF CURB ELEVATION	TC 76.65 BC 76.15
W	WATER / FIRE SERVICE	W F
	ELECTRIC SERVICE	E
G	GAS SERVICE	G
OH	OVERHEAD WIRES	OH
	SOIL BORING	B-1

NEW YORK CITY ONE CALL CENTER 1(800)272-4480 DIG SAFELY - FREE CALL-THEN DIG SAFELY

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE

STATE OF NEW YORK
JAYLYN R. PERANTEAU
LICENSED PROFESSIONAL ENGINEER
083937
JAYLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937

DATE:	01/24/2020
SCALE:	1" = 120'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
OVERALL GRADING & DRAINAGE PLAN

DRAWING No.: C-8

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MIDDLE COUNTRY ROAD
(66' WIDE)
(AKA NY STATE ROUTE 25)

TWO WAY TRAFFIC

PROPOSED 4'Ø CONCRETE MANHOLE WITH SOLID COVER

PROPOSED 36"Ø HDPE PIPE SET LEVEL INV = 63.00±

PROPOSED LOWER LEVEL OF RECHARGE BASIN

PROPOSED CONCRETE HEADWALL (TYP.) INV = 61.00

PROPOSED 24"Ø HDPE PIPE AT 1.0% MIN. SLOPE

PROPOSED CONCRETE CURB WALL

PROPOSED UTILITY CROSSING (REFER TO SHEET C-14, PARTIAL SANITARY & UTILITY PLAN (SECTION A - PHASE I) (TYP.)

PROPOSED 4'Ø CONCRETE CATCH BASIN WITH GRATE

PROPOSED 18"Ø HDPE PIPE AT 1.0% MIN. SLOPE (TYP.)

PROPOSED 2'-6" x 4'-0" CONCRETE CURB INLET WITH FLAT GRATE (TYP.)

PROPOSED 10"Ø PVC ROOF DRAIN @ 1.5% MIN SLOPE INV. = 74.00

PROPOSED 12Ø DRYWELL x 18' EFFECTIVE DEPTH (TYP.)

PROPOSED ELECTRICAL TRANSFORMER. CONTRACTOR TO SET ON CONCRETE VAULT 6" MIN. ABOVE FINISHED GRADE. (EL. 80.50)

PROPOSED SEPTIC SYSTEM (TYP.)

10 TENANTS @ 5,600 SF (TYP.) (EACH WITH 10% RETAIL)

6 TENANTS @ 9,445 SF (TYP.) (EACH WITH 10% RETAIL)

BUILDING 1 (56,000 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

BUILDING 2 (56,672 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

F.F. EL. 77.00

COMMISSARY (1,500 SF)

PROPOSED ADA COMPLIANT GRATE

PROPOSED 10"Ø PVC ROOF DRAIN @ 1.5% MIN. SLOPE INV. = 74.00

PROPOSED 10'Ø DRYWELL x 9' EFFECTIVE DEPTH (TYP.)

PROPOSED 10'Ø DRYWELL x 7' EFFECTIVE DEPTH (TYP.)

PROPOSED 10'Ø DRYWELL x 3' EFFECTIVE DEPTH (TYP.)

PROPOSED 8"Ø PVC @ 1.0% MIN SLOPE (TYP.)

PROPOSED CLEAN OUT TO GRADE

PROPOSED 12'Ø DRYWELL x 18' EFFECTIVE DEPTH (TYP.)

PROPOSED 2'-6" x 4'-0" CONCRETE CURB INLET WITH FLAT GRATE (TYP.)

PROPOSED ELECTRICAL TRANSFORMER. CONTRACTOR TO SET ON CONCRETE VAULT 6" MIN. ABOVE FINISHED GRADE. (EL. 75.50)

PROPOSED 10'Ø PVC ROOF DRAIN @ 1.5% MIN. SLOPE

MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION B)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

FOR PROPOSED UTILITY CROSSINGS REFER TO SHEET C-14, PARTIAL SANITARY & UTILITY PLAN (SECTION A - PHASE I)

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

THIS DOCUMENT IS THE PROPERTY OF KEY CIVIL ENGINEERING AND IS NOT TO BE ALTERED OR ADDITIONS OR DELETIONS MADE TO IT EXCEPT BY A LICENSED ENGINEER IS A VIOLATION OF LAW. ANY ALTERATIONS MADE TO THIS DOCUMENT BY ANY PARTY OTHER THAN THE ENGINEER OF RECORD SHALL BE AT THE SOLE RISK OF SUCH PARTY.

SEAL & SIGNATURE:

STATE OF NEW YORK
JACLYN R. PERANTEAU
NOT VALID UNTIL SEALED
JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937
083937
LICENSED PROFESSIONAL ENGINEER

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
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PROJECT NAME:
HK VENTURES, LLC
INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
PARTIAL GRADING & DRAINAGE PLAN (SECTION A - PHASE I)

DRAWING No.:
C-9

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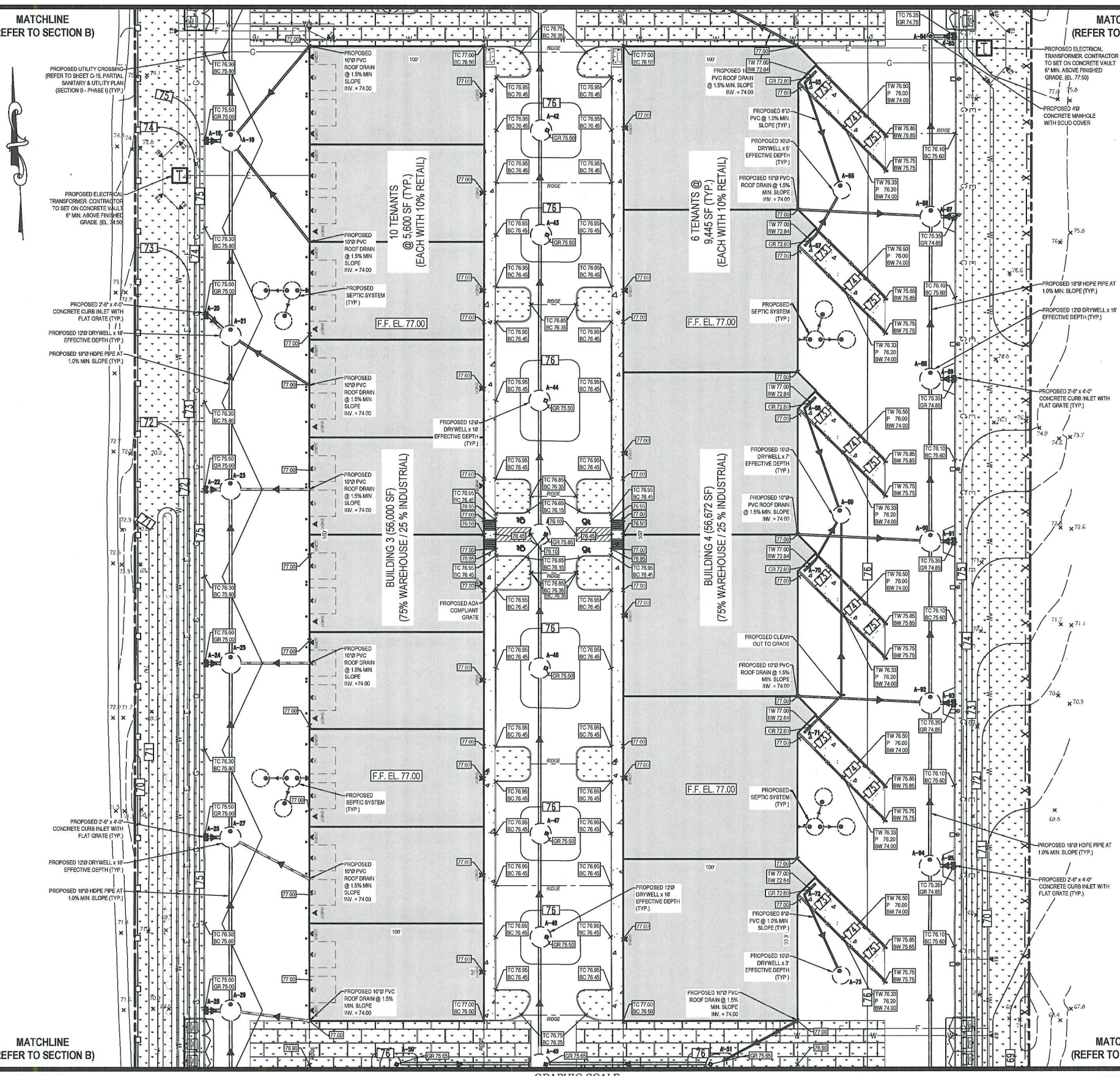
MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)



MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

FOR PROPOSED UTILITY CROSSINGS REFER TO SHEET C-15, PARTIAL SANITARY & UTILITY PLAN (SECTION B - PHASE I)

DRAINAGE STRUCTURE SCHEDULE - SECTIONS A & B (SHEETS C-9 & C-10)

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS / STRUCTURE	BOTTOM OF RINGS / STRUCTURE	INVERT IN	INVERT OUT	SUMP
A-1	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	77.50	---	---	---	74.00	72.00
A-2	PROPOSED 4Ø PRECAST DRAINAGE MANHOLE WITH FRAME AND SOLID COVER	---	79.55	77.35	70.35	73.30	73.20	71.20
A-3	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.80	73.00	55.00	68.50	70.00	---
A-4	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	74.75	73.00	55.00	68.50	70.00	---
A-5	PROPOSED 4Ø PRECAST DRAINAGE MANHOLE WITH FRAME AND GRATE	---	75.50	73.30	68.30	---	71.30	69.30
A-6	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-7	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-8	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-9	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-10	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-11	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-12	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-13	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-14	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-15	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-16	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-17	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-18	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-19	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-20	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-21	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-22	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-23	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-24	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-25	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-26	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-27	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-28	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.00	---	---	---	71.50	69.50
A-29	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-30	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	75.65	---	---	---	71.50	69.50
A-31	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-32	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-33	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-34	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-35	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-36	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-37	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-38	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-39	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.65	73.00	55.00	68.50	70.00	---
A-40	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.65	73.00	55.00	68.50	70.00	---
A-41	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.65	73.00	55.00	68.50	70.00	---
A-42	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-43	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-44	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-45	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-46	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---

DRAINAGE STRUCTURE SCHEDULE - SECTIONS A & B (SHEETS C-9 & C-10)

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS / STRUCTURE	BOTTOM OF RINGS / STRUCTURE	INVERT IN	INVERT OUT	SUMP
A-47	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-48	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	---
A-49	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.65	73.00	55.00	68.50	70.00	---
A-50	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.65	73.00	55.00	68.50	70.00	---
A-51	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.65	73.00	55.00	68.50	70.00	---
A-52	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.20	73.00	55.00	68.50	70.00	---
A-53	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.60	---	---	---	71.00	70.00
A-54	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	74.00	73.00	55.00	68.50	70.00	---
A-55	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.70	---	---	---	71.20	69.20
A-56	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-57	PROPOSED 10Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	5'-0"	76.40	74.00	65.00	70.75	---	---
A-58	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-59	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-60	PROPOSED 10Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	7'-0"	76.40	74.00	63.00	70.75	---	---
A-61	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-62	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-63	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-64	PROPOSED 10Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	3'-0"	76.40	74.00	67.00	70.75	---	---
A-65	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-66	PROPOSED 10Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	5'-0"	76.40	74.00	65.00	70.75	---	---
A-67	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-68	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-69	PROPOSED 10Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	7'-0"	76.40	74.00	63.00	70.75	---	---
A-70	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-71	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-72	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	---	72.80	---	---	---	71.45	70.45
A-73	PROPOSED 10Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	3'-0"	76.40	74.00	67.00	70.75	---	---
A-74	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-75	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.65	---	---	---	71.35	70.35
A-76	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-77	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.85	---	---	---	71.35	70.35
A-78	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-79	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.65	---	---	---	71.35	70.35
A-80	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-81	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.85	---	---	---	71.35	70.35
A-82	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-83	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.65	---	---	---	71.35	70.35
A-84	PROPOSED 4Ø PRECAST DRAINAGE MANHOLE WITH FRAME AND SOLID COVER	---	75.15	73.00	67.00	68.50	70.00	67.50
A-85	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.75	---	---	---	71.25	70.25
A-86	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-87	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.85	---	---	---	71.35	70.35
A-88	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-89	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.85	---	---	---	71.35	70.35
A-90	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-91	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.85	---	---	---	71.35	70.35
A-92	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-93	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.85	---	---	---	71.35	70.35
A-94	PROPOSED 12Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.15	73.00	55.00	68.50	70.00	---
A-95	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.85	---	---	---	71.35	70.35
A-96	PROPOSED 4Ø PRECAST DRAINAGE MANHOLE WITH FRAME AND SOLID COVER	---	75.15	73.00	55.00	68.50	70.00	---
A-97	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	---	74.75	---	---	---	71.25	70.25

* REFER TO SHEET C-11 FOR EXACT LOCATION OF A-96 & A-97 STRUCTURES. A-96 & A-97 TO BE INSTALLED AT TIME OF PHASE I CONSTRUCTION

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

THE ORIGINAL OF THIS DOCUMENT WAS SIGNED AND SEALED BY JACLYN R. PERANTEAU, P.E. IN ACCORDANCE WITH THE NEW YORK STATE EDUCATION LAW

SEAL & SIGNATURE

STATE OF NEW YORK — JACLYN R. PERANTEAU — NOT VALID UNTIL SEALED — JACLYN R. PERANTEAU, P.E. — NEW YORK STATE PROFESSIONAL ENGINEER #083937 — LICENSED PROFESSIONAL ENGINEER — 083937

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:

HK VENTURES, LLC
INDUSTRIAL PARK

4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
PARTIAL GRADING & DRAINAGE PLAN
(SECTION B - PHASE I)

DRAWING No.: C-10

PAGE No.: 10 OF 38

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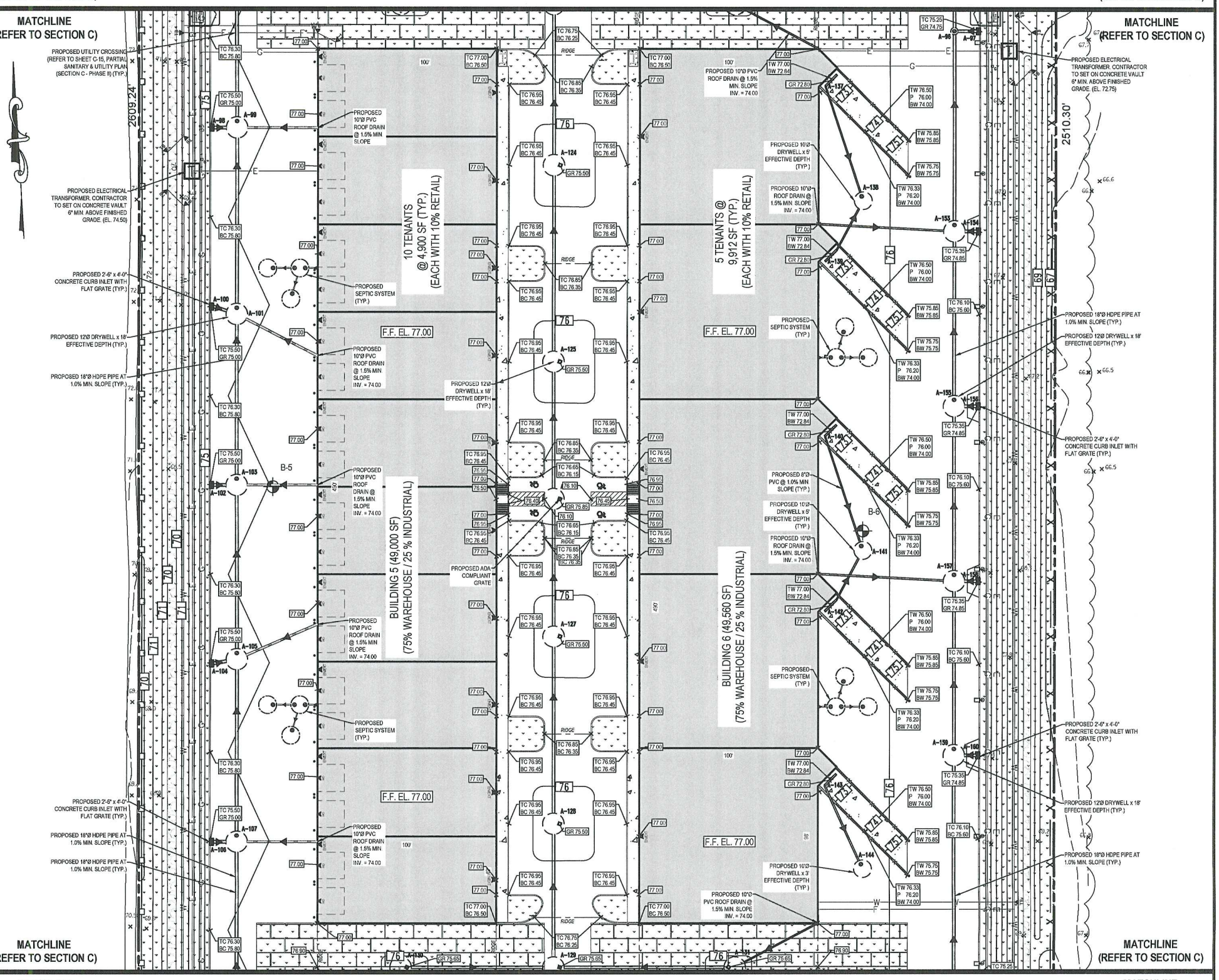
MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)



MATCHLINE (REFER TO SECTION D)

MATCHLINE (REFER TO SECTION D)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

FOR PROPOSED UTILITY CROSSINGS REFER TO SHEET C-16, PARTIAL SANITARY & UTILITY PLAN (SECTION C - PHASE II)

DRAINAGE STRUCTURE SCHEDULE - SECTIONS C & D (SHEETS C-11 & C-12)

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS / STRUCTURE	BOTTOM OF RINGS / STRUCTURE	INVERT IN	INVERT OUT	SUMP
A-98	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-99	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-100	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-101	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-102	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-103	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-104	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-105	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-106	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-107	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-108	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-109	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-110	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-111	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-112	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-113	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-114	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-115	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-116	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	75.00	--	--	--	71.50	69.50
A-117	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-118	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND FLAT GRATE	--	75.00	--	--	--	71.50	69.50
A-119	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-120	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND FLAT GRATE	--	75.00	--	--	--	71.50	69.50
A-121	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-122	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND FLAT GRATE	--	75.00	--	--	--	71.50	69.50
A-123	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	--	70.00	--
A-124	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-125	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-126	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-127	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-128	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-129	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.65	73.00	55.00	68.50	70.00	--
A-130	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.65	73.00	55.00	68.50	70.00	--
A-131	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.65	73.00	55.00	68.50	70.00	--
A-132	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-133	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-134	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-135	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-136	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.50	73.00	55.00	68.50	70.00	--
A-137	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.80	--	--	--	71.45	70.45
A-138	PROPOSED 10'Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	5'-0"	76.40	74.00	65.00	70.75	--	--
A-139	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.80	--	--	--	71.45	70.45
A-140	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.80	--	--	--	71.45	70.45
A-141	PROPOSED 10'Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	5'-0"	76.40	74.00	65.00	70.75	--	--
A-142	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.00	--	--	--	71.45	70.45
A-143	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.00	--	--	--	71.45	70.45

DRAINAGE STRUCTURE SCHEDULE - SECTIONS C & D (SHEETS C-11 & C-12)

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS / STRUCTURE	BOTTOM OF RINGS / STRUCTURE	INVERT IN	INVERT OUT	SUMP
A-144	PROPOSED 10'Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	3'-0"	76.40	74.00	67.00	70.75	--	--
A-145	PROPOSED 10'Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	3'-0"	76.40	74.00	67.00	70.75	--	--
A-146	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.80	--	--	--	71.45	70.45
A-147	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.80	--	--	--	71.45	70.45
A-148	PROPOSED 10'Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	5'-0"	76.40	74.00	65.00	70.75	--	--
A-149	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.80	--	--	--	71.45	70.45
A-150	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.80	--	--	--	71.45	70.45
A-151	PROPOSED 10'Ø PRECAST DRYWELL WITH FRAME AND SOLID COVER	5'-0"	76.40	74.00	65.00	70.75	--	--
A-152	PROPOSED 8" WIDE TRENCH DRAIN WITH FRAME AND GRATE	--	72.80	--	--	--	71.45	70.45
A-153	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.15	73.00	55.00	68.50	70.00	--
A-154	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	74.85	--	--	--	71.35	69.35
A-155	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.15	73.00	55.00	68.50	70.00	--
A-156	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	74.85	--	--	--	71.35	69.35
A-157	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.15	73.00	55.00	68.50	70.00	--
A-158	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	74.85	--	--	--	71.35	69.35
A-159	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.15	73.00	55.00	68.50	70.00	--
A-160	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	74.85	--	--	--	71.35	69.35
A-161	PROPOSED 4'Ø PRECAST DRAINAGE MANHOLE WITH FRAME AND SOLID COVER	--	75.15	73.00	67.00	68.50	70.00	67.50
A-162	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	74.85	--	--	68.50	70.00	--
A-163	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.15	73.00	55.00	68.50	70.00	--
A-164	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	74.85	--	--	--	71.35	69.35
A-165	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.15	73.00	55.00	68.50	70.00	--
A-166	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	74.85	--	--	--	71.35	69.35
A-167	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.15	73.00	55.00	68.50	70.00	--
A-168	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	74.85	--	--	--	71.35	69.35
A-169	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.15	73.00	55.00	68.50	70.00	--
A-170	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND CURB INLET	--	74.85	--	--	--	71.35	69.35
A-171	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	74.90	73.00	55.00	68.50	70.00	--
A-172	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND FLAT GRATE	--	74.50	--	--	--	71.00	69.00
A-173	PROPOSED 2'-0" x 4' PRECAST CATCH BASIN WITH FRAME AND FLAT GRATE	--	75.35	--	--	--	71.85	69.85
A-174	PROPOSED 12'Ø PRECAST DRYWELL WITH FRAME AND GRATE	18'-0"	75.75	73.00	55.00	--	70.00	--

* REFER TO SHEET C-11 FOR EXACT LOCATION OF A-98 & A-97 STRUCTURES. A-98 & A-97 TO BE INSTALLED AT TIME OF PHASE I CONSTRUCTION.

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE

STATE OF NEW YORK ★ JACLYN R. PERANTEAU ★ LICENSED PROFESSIONAL ENGINEER 083937

ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

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JACLYN R. PERANTEAU, P.E. LICENSED PROFESSIONAL ENGINEER, NO. 083937

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 951-0506
www.KeyCivilEngineering.com

PROJECT NAME:

HK VENTURES, LLC INDUSTRIAL PARK

4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

PARTIAL GRADING & DRAINAGE PLAN (SECTION C - PHASE II)

DRAWING No.: C-11

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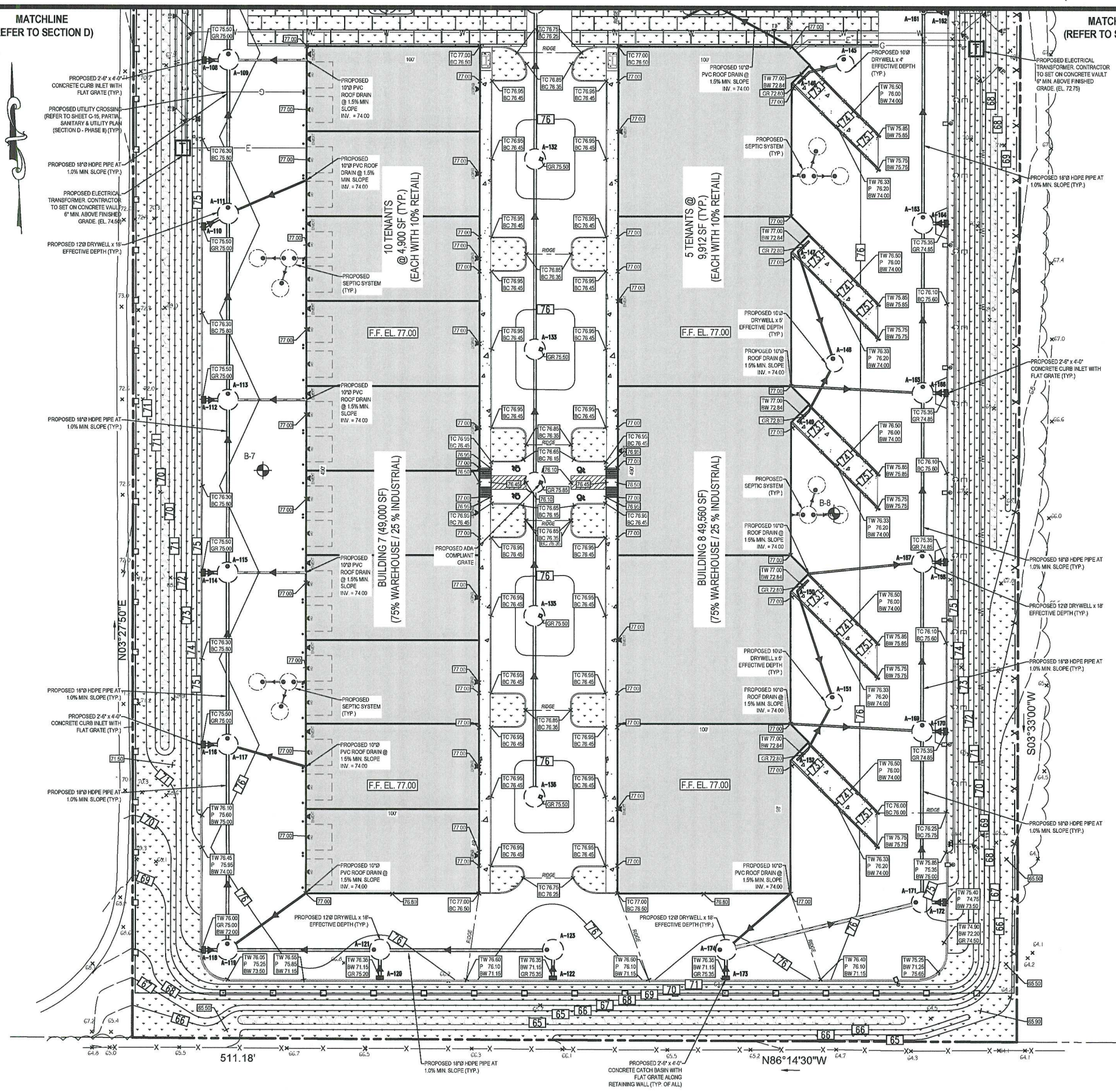
MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION D)

MATCHLINE (REFER TO SECTION D)



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

FOR PROPOSED UTILITY CROSSINGS REFER TO SHEET C-17, PARTIAL SANITARY & UTILITY PLAN (SECTION D - PHASE II)

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE:

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LICENSED PROFESSIONAL ENGINEER
STATE OF NEW YORK
083937

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PROJECT NAME:

HK VENTURES, LLC INDUSTRIAL PARK

4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

PARTIAL GRADING & DRAINAGE PLAN (SECTION D - PHASE II)

DRAWING No.: C-12

PAGE No.: 12 OF 38

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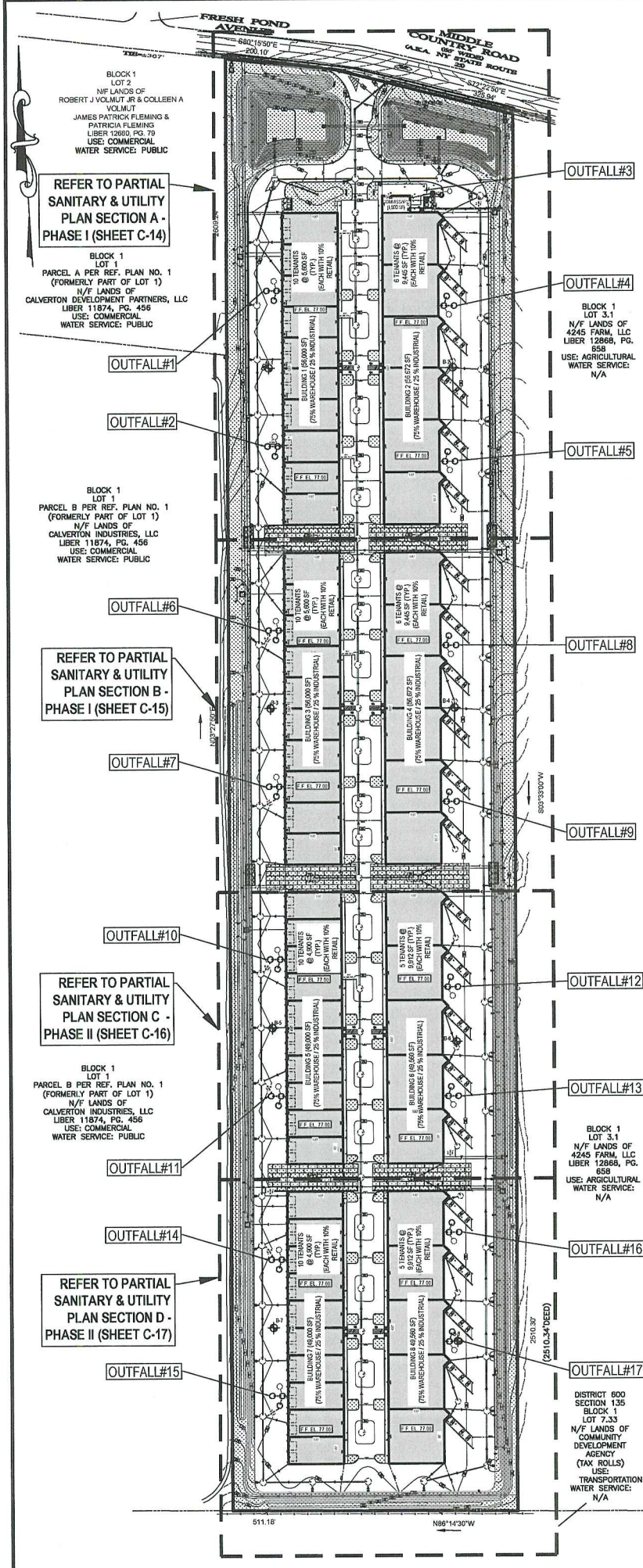


GENERAL NOTES

1. OWNER / APPLICANT
   HK VENTURES, LLC c/o URI HASON
   399 W. JOHN STREET
   HICKSVILLE, NY 11801

   PROPERTY KNOWN AS
   4285 MIDDLE COUNTRY ROAD
   CALVERTON, NY 11933
   TOWN OF RIVERHEAD, SUFFOLK COUNTY
   SCTM No.: 0600-116.00-01.00-002.000
   LOT AREA : 1,317,884 SF (30.2545 ACRES)
2. THERE ARE NO KNOWN EXISTING WELLS PRESENT WITHIN 150' OF THE SUBJECT PROPERTY.
3. THERE ARE MAPPED DEC WETLANDS / SURFACE WATERS WITHIN 300' OF PROPERTY BOUNDARY
4. THE CONTRACTOR MUST NOTIFY THE TOWN OF RIVERHEAD ENGINEERING DIVISION AND SCDHS 48 HOURS IN ADVANCE OF THE COMMENCEMENT OF ANY ON-SITE DRAINAGE, SANITARY, CURB, OR PAVING WORK.
5. IF WET CONDITION IS ENCOUNTERED, CONTRACTOR SHALL USE 3/4" CLEAN WASHED STONE IN LIEU OF SAND BACKFILL.
6. SEE SHEET C-2, NOTE SHEET FOR ADDITIONAL NOTES.
7. THE CONTRACTOR MUST NOTIFY THE TOWN ENGINEERING DIVISION AND SCDHS 24 HOURS IN ADVANCE OF THE COMMENCEMENT OF ANY ON-SITE DRAINAGE, SANITARY, CURB, OR PAVING WORK.

SANITARY SYSTEM SIZING CALCULATIONS

OUTFALL #1, #2, # 6, & #7 CALCULATIONS

SANITARY FLOW

INDUSTRIAL BUILDINGS 1 & 3
28,000 SF INDUSTRIAL SPACE = 28,000 SF x 0.04 GPD/SF = 1,120 GPD
TOTAL FLOW REQUIRED = 1,120 GPD

SEPTIC TANK

MINIMUM REQUIRED CAPACITY = 2 DAYS TOTAL FLOW
= 1,120 GPD x 2 DAYS = 2,240 GALLONS

USE ONE (1) 10'Ø SEPTIC TANK WITH 5.0' LIQUID DEPTH
CAPACITY = 1 x 5.0' x 500 GAL/VF = 2,500 GALLONS
(EXCEEDS REQUIRED CAPACITY OF 2,240 GALLONS)

LEACHING POOLS

DESIGN FLOW	= 1,120 GPD
LEACHING RATE	= 1.5 GPD/SF
REQUIRED SIDEWALL AREA	= 1,120 GPD / 1.5 GPD/SF = 747 SF
MINIMUM REQUIRED VERTICAL FEET	= 747 SF / 31.4 SF/VF = 23.8 VF

USE TWO (2) 10'Ø LEACHING POOLS WITH 12'-0" EFFECTIVE DEPTH
2 LEACHING POOLS x 31.4 SF/VF x 12' VF = 753 SF
(753 SF EXCEEDS THE REQUIRED SIDEWALL AREA OF 747 SF)

EXPANSION LEACHING POOLS
AT TIME OF FUTURE EXPANSION, USE ONE (1) 10'Ø EXPANSION LEACHING POOL WITH 12'-0" EFFECTIVE DEPTH AS SHOWN ON PLAN

OUTFALL #3 CALCULATIONS

SANITARY FLOW
USE PRIMARY BUILDING USAGE (INDUSTRIAL)
COMMISSARY: 1,500 SF = 1,500 SF x 0.04 GPD / SF = 60 GPD
TOTAL FLOW REQUIRED = 60 GPD

KITCHEN FLOW
COMMISSARY: 40 SEATS = 40 SEATS x 2.5 GPD / SEAT = 100 GPD
TOTAL FLOW REQUIRED = 100 GPD

SEPTIC TANK

MINIMUM REQUIRED CAPACITY = 2 DAYS TOTAL FLOW = 160 GPD x 2 DAYS = 320 GALLONS

USE ONE (1) 8'Ø SEPTIC TANK WITH 4.0' LIQUID DEPTH
CAPACITY = 1 x 4.0' x 300 GAL/VF = 1,200 GALLONS (MINIMUM SYSTEM REQUIRED)
(EXCEEDS REQUIRED CAPACITY OF 120 GALLONS)

GREASE TRAP

MINIMUM REQUIRED CAPACITY = 1 DAY KITCHEN FLOW
= 100 GPD x 1 DAY = 100 GALLONS

USE ONE (1) 8'Ø GREASE TRAP WITH 4.0' LIQUID DEPTH
CAPACITY = 1 x 4.0' x 300 GAL/VF = 1,200 GALLONS (MINIMUM SYSTEM REQUIRED)
(EXCEEDS REQUIRED CAPACITY OF 100 GALLONS)

LEACHING POOLS

DESIGN FLOW	= 160 GPD
LEACHING RATE	= 1.5 GPD/SF
REQUIRED SIDEWALL AREA	= 160 GPD / 1.5 GPD/SF = 107 SF
MINIMUM REQUIRED VERTICAL FEET	= 107 SF / 25.1 SF/VF = 4.3 VF

USE ONE (1) 8'Ø LEACHING POOLS WITH 12'-0" EFFECTIVE DEPTH
1 LEACHING POOL x 25.1 SF/VF x 12' VF = 301 SF (MINIMUM SYSTEM REQUIRED)
(301 SF EXCEEDS THE REQUIRED SIDEWALL AREA OF 107 SF)

EXPANSION LEACHING POOLS
AT TIME OF FUTURE EXPANSION, USE ONE (1) 8'Ø EXPANSION LEACHING POOL WITH 12'-0" EFFECTIVE DEPTH AS SHOWN ON PLAN

OUTFALL #4, #5, #8, & #9 CALCULATIONS

SANITARY FLOW

INDUSTRIAL BUILDINGS 2 & 4
28,336 SF INDUSTRIAL SPACE = 28,336 SF x 0.04 GPD/SF = 1,134 GPD
TOTAL FLOW REQUIRED = 1,134 GPD

SEPTIC TANK

MINIMUM REQUIRED CAPACITY = 2 DAYS TOTAL FLOW
= 1,134 GPD x 2 DAYS = 2,268 GALLONS

USE ONE (1) 10'Ø SEPTIC TANK WITH 5.0' LIQUID DEPTH
CAPACITY = 1 x 5.0' x 500 GAL/VF = 2,500 GALLONS
(EXCEEDS REQUIRED CAPACITY OF 2,268 GALLONS)

LEACHING POOLS

DESIGN FLOW	= 1,134 GPD
LEACHING RATE	= 1.5 GPD/SF
REQUIRED SIDEWALL AREA	= 1,134 GPD / 1.5 GPD/SF = 756 SF
MINIMUM REQUIRED VERTICAL FEET	= 756 SF / 31.4 SF/VF = 24.1 VF

USE TWO (2) 10'Ø LEACHING POOLS WITH 13'-0" EFFECTIVE DEPTH
2 LEACHING POOLS x 31.4 SF/VF x 13' VF = 816 SF
(816 SF EXCEEDS THE REQUIRED SIDEWALL AREA OF 756 SF)

EXPANSION LEACHING POOLS
AT TIME OF FUTURE EXPANSION, USE ONE (1) 10'Ø EXPANSION LEACHING POOL WITH 13'-0" EFFECTIVE DEPTH AS SHOWN ON PLAN

OUTFALL #10, #11, #14, & #15 CALCULATIONS

SANITARY FLOW

INDUSTRIAL BUILDINGS 5 & 7 (TENANTS 1 - 5)
24,500 SF INDUSTRIAL SPACE = 24,500 SF x 0.04 GPD/SF = 980 GPD
TOTAL FLOW REQUIRED = 980 GPD

SEPTIC TANK

MINIMUM REQUIRED CAPACITY = 2 DAYS TOTAL FLOW
= 980 GPD x 2 DAYS = 1,960 GALLONS

USE ONE (1) 10'Ø SEPTIC TANK WITH 4.0' LIQUID DEPTH
CAPACITY = 1 x 4.0' x 500 GAL/VF = 2,000 GALLONS
(EXCEEDS REQUIRED CAPACITY OF 1,960 GALLONS)

LEACHING POOLS

DESIGN FLOW	= 980 GPD
LEACHING RATE	= 1.5 GPD/SF
REQUIRED SIDEWALL AREA	= 980 GPD / 1.5 GPD/SF = 654 SF
MINIMUM REQUIRED VERTICAL FEET	= 654 SF / 31.4 SF/VF = 20.8 VF

USE TWO (2) 10'Ø LEACHING POOLS WITH 11'-0" EFFECTIVE DEPTH
2 LEACHING POOLS x 31.4 SF/VF x 11' VF = 690 SF
(690 SF EXCEEDS THE REQUIRED SIDEWALL AREA OF 654 SF)

EXPANSION LEACHING POOLS
AT TIME OF FUTURE EXPANSION, USE ONE (1) 10'Ø EXPANSION LEACHING POOL WITH 11'-0" EFFECTIVE DEPTH AS SHOWN ON PLAN

OUTFALL #12 & OUTFALL #16 CALCULATIONS

SANITARY FLOW

INDUSTRIAL BUILDINGS 6 & 8 (TENANTS 1 - 3)
29,736 SF INDUSTRIAL SPACE = 29,736 SF x 0.04 GPD/SF = 1,190 GPD
TOTAL FLOW REQUIRED = 1,190 GPD

SEPTIC TANK

MINIMUM REQUIRED CAPACITY = 2 DAYS TOTAL FLOW
= 1,190 GPD x 2 DAYS = 2,380 GALLONS

USE ONE (1) 10'Ø SEPTIC TANK WITH 5.0' LIQUID DEPTH
CAPACITY = 1 x 5.0' x 500 GAL/VF = 2,500 GALLONS
(EXCEEDS REQUIRED CAPACITY OF 2,380 GALLONS)

LEACHING POOLS

DESIGN FLOW	= 1,190 GPD
LEACHING RATE	= 1.5 GPD/SF
REQUIRED SIDEWALL AREA	= 1,190 GPD / 1.5 GPD/SF = 794 SF
MINIMUM REQUIRED VERTICAL FEET	= 794 SF / 31.4 SF/VF = 25.3 VF

USE TWO (2) 10'Ø LEACHING POOLS WITH 13'-0" EFFECTIVE DEPTH
2 LEACHING POOLS x 31.4 SF/VF x 13' VF = 816 SF
(816 SF EXCEEDS THE REQUIRED SIDEWALL AREA OF 794 SF)

EXPANSION LEACHING POOLS
AT TIME OF FUTURE EXPANSION, USE ONE (1) 10'Ø EXPANSION LEACHING POOL WITH 13'-0" EFFECTIVE DEPTH AS SHOWN ON PLAN

OUTFALL #13 & OUTFALL #17 CALCULATIONS

SANITARY FLOW

INDUSTRIAL BUILDINGS 6 & 8 (TENANTS 4 & 5)
19,824 SF INDUSTRIAL SPACE = 19,824 SF x 0.04 GPD/SF = 793 GPD
TOTAL FLOW REQUIRED = 793 GPD

SEPTIC TANK

MINIMUM REQUIRED CAPACITY = 2 DAYS TOTAL FLOW
= 793 GPD x 2 DAYS = 1,586 GALLONS

USE ONE (1) 10'Ø SEPTIC TANK WITH 4.0' LIQUID DEPTH
CAPACITY = 1 x 4.0' x 500 GAL/VF = 2,000 GALLONS
(EXCEEDS REQUIRED CAPACITY OF 1,586 GALLONS)

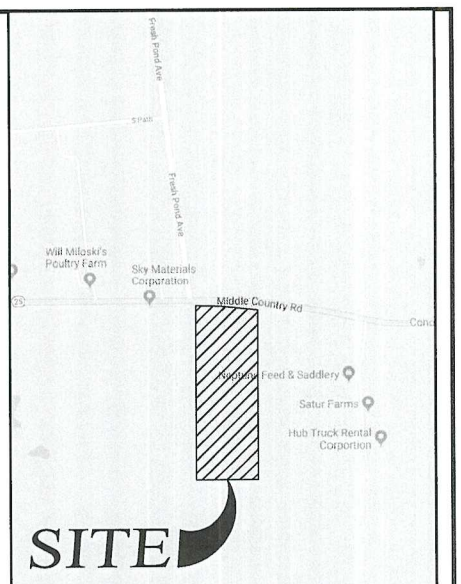
LEACHING POOLS

DESIGN FLOW	= 793 GPD
LEACHING RATE	= 1.5 GPD/SF
REQUIRED SIDEWALL AREA	= 793 GPD / 1.5 GPD/SF = 529 SF
MINIMUM REQUIRED VERTICAL FEET	= 529 SF / 31.4 SF/VF = 16.8 VF

USE TWO (2) 10'Ø LEACHING POOLS WITH 9'-0" EFFECTIVE DEPTH
2 LEACHING POOLS x 31.4 SF/VF x 9' VF = 565 SF
(565 SF EXCEEDS THE REQUIRED SIDEWALL AREA OF 529 SF)

EXPANSION LEACHING POOLS
AT TIME OF FUTURE EXPANSION, USE ONE (1) 10'Ø EXPANSION LEACHING POOL WITH 9'-0" EFFECTIVE DEPTH AS SHOWN ON PLAN

REFER TO SHEET C-18, SANITARY NOTES, DETAILS & BORINGS FOR ADDITIONAL INFORMATION



VICINITY MAP
N.T.S.

LEGEND
SCALE OF SYMBOLS = 1" = 30' (REFER TO PARTIAL SANITARY & UTILITY PLANS)

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	EDGE OF PAVEMENT	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	TRASH ENCLOSURE	
	BIKE RACK MOUNTED ON CONCRETE PAD	
	OVERHEAD DOOR	
	LOADING DOCK WALL WITH FALL PROTECTION RAILING	
	DOOR	
	SIGN	
	FIRE HYDRANT	
	UTILITY POLE	
	GROUND SIGN	
	FENCE	
	POLE MOUNTED LIGHTING	
	DRYWELL	
	2'-6" x 4'-0" CONCRETE CURB INLET	
	4'Ø DRAINAGE MANHOLE	
	24" NYLOPLAST DRAIN BASIN	
	CONCRETE HEADWALL	
	36" HDPE DRAINAGE PIPE	
	24" HDPE DRAINAGE PIPE	
	18" HDPE DRAINAGE PIPE	
	10" PVC ROOF DRAIN PIPE	
	ELEVATION CONTOUR	75
	WATER / FIRE SERVICE	W / F
	ELECTRIC SERVICE	E
G	GAS SERVICE	G
OH	OVERHEAD WIRES	OH
	WATER VALVE	
	THRUST BLOCK	TB
	GAS VALVE	
	SOIL BORING	B-2
	SANITARY STRUCTURE	
	6'Ø PVC (SDR-35) SANITARY PIPE	
	UTILITY CROSSING	

GRAPHIC SCALE
120 0 60 120 240 480
(IN FEET)
1 inch = 120 ft.

LEGEND
SCALE OF SYMBOLS = 1" = 120'

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	DUMPSTER ENCLOSURE	
	12' x 34' LOADING SPACE	
	LOADING DOCK RETAINING WALLS	
	PARKING COUNT	
	OVERHEAD DOOR	
	DOOR	
x x	FENCE	
	BIKE RACK	
	HYDRANT	
	SOIL BORING	B-1

REFERENCES
THIS PLAN REFERENCES:

BOUNDARY & TOPOGRAPHICAL SURVEY PREPARED BY:
GALLAS SURVEYING GROUP
2865 US ROUTE 1
NORTH BRUNSWICK, NY 08902
DATED: 11/08/2019

VICINITY MAP BACKGROUND DATA PROVIDED BY MAPS.GOOGLE.COM

PROJECT DATA	
SITE ADDRESS	4285 MIDDLE COUNTRY ROAD CALVERTON, NY 11933
OWNER / APPLICANT	HK VENTURES, LLC 399 W. JOHN STREET HICKSVILLE, NY 11801 c/o URI HASON
TAX MAP NUMBER	DISTRICT: 600, SECTION: 116, BLOCK: 1, LOT: 2
SITE AREA	1,317,884 SF (30.2545 Ac)
CURRENT ZONING	INDUSTRIAL C
EXISTING USE	VACANT
PROPOSED USE	PRIMARY USES: WAREHOUSE & INDUSTRIAL BUSINESS
PROPOSED BUILDING AREA (GFA)	PHASE I BUILDING 1 = 56,000 SF BUILDING 2 = 56,672 SF BUILDING 3 = 56,000 SF BUILDING 4 = 56,672 SF COMMISSARY = 1,500 SF TOTAL = 226,844 SF PHASE II (TO BE CONSTRUCTED ONCE PHASE I IS COMPLETED AND OPERATING) BUILDING 5 = 49,000 SF BUILDING 6 = 49,560 SF BUILDING 7 = 49,000 SF BUILDING 8 = 49,560 SF TOTAL = 197,120 SF PHASE I + PHASE II = 423,964 SF (32.17%)
PERVIOUS PAVERS / LANDSCAPE AREA	357,847 SF (27.15%)
IMPERVIOUS / PAVEMENT / CONCRETE AREA (EXCLUDES BUILDING AREAS)	536,073 SF (40.68%)

SANITARY DENSITY CALCULATIONS

SITE IS LOCATED IN GROUNDWATER MANAGEMENT ZONE III = 300 GPD/ACRE

PERMITTED DENSITY = 30.2545 ACRES x 300 GPD/ACRE = 9,076 GPD

PHASE I *
PROPOSED COMMISSARY FLOW (COMMISSARY NOT OPEN TO PUBLIC) - 0.04 GPD / SF x 1,500 SF = 60 GPD
PROPOSED INDUSTRIAL BUILDING 1 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,000 SF = 2,240 GPD
PROPOSED INDUSTRIAL BUILDING 2 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,672 SF = 2,267 GPD
PROPOSED INDUSTRIAL BUILDING 3 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,000 SF = 2,240 GPD
PROPOSED INDUSTRIAL BUILDING 4 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,672 SF = 2,267 GPD
PHASE I TOTAL = 9,074 GPD

PHASE II (TO BE CONSTRUCTED AT LATER DATE) **
PROPOSED INDUSTRIAL BUILDING 5 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,000 SF = 1,960 GPD
PROPOSED INDUSTRIAL BUILDING 6 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,560 SF = 1,983 GPD
PROPOSED INDUSTRIAL BUILDING 7 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,000 SF = 1,960 GPD
PROPOSED INDUSTRIAL BUILDING 8 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,560 SF = 1,983 GPD
PHASE II TOTAL = 7,886 GPD

PHASE I + PHASE II TOTAL = 16,960 GPD

* SUBMISSION FOR APPROVAL OF PHASE I CONSTRUCTION ONLY

** TRANSFER OF DEVELOPMENT RIGHTS CREDITS REQUIRED FOR PHASE II ADDITIONAL DENSITY.

7,884 GPD OVER PERMITTED DENSITY / 300 GPD PER CREDIT = 26.3 CREDITS REQUIRED

ALL PHASE II SANITARY SEPTIC SYSTEMS WILL BE CONSTRUCTED UNDER SEPARATE PERMIT AFTER TRANSFER OF DEVELOPMENT RIGHTS (TDR) CREDITS ARE PURCHASED (OUTFALL #10 TO OUTFALL #17)

SCTM #: 600-116-1-2
SCHDS REF. #: ___-__-___

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES APPROVAL

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE:
STATE OF NEW YORK
JACLYN PERANTEAU
NOT VALID UNLESS EMBOSSED
JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937
LICENSED PROFESSIONAL ENGINEER
ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW

DATE:	01/24/2020
SCALE:	1" = 120'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC
INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
OVERALL SANITARY & UTILITY PLAN

DRAWING No.: C-13

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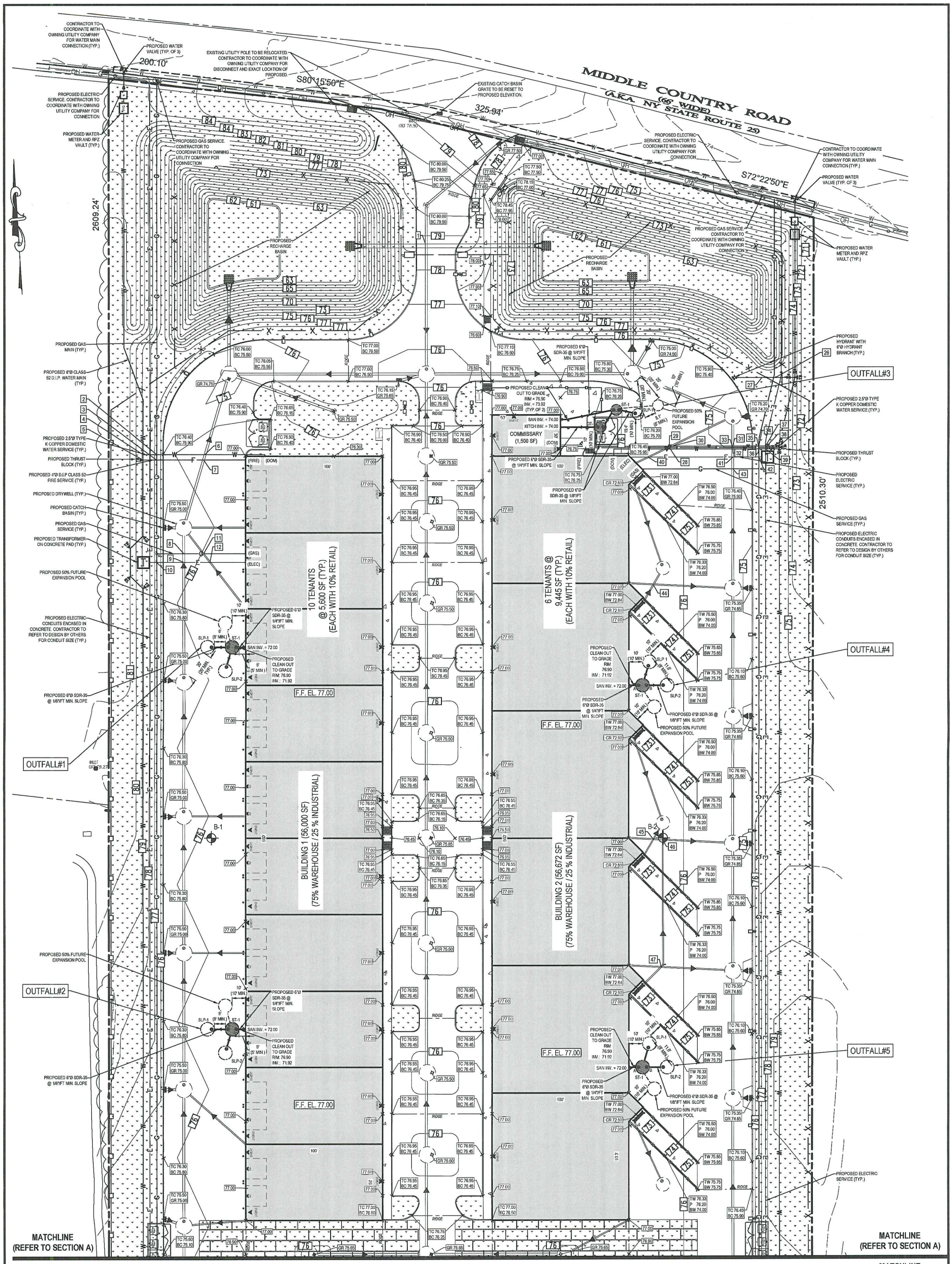

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE:

STATE OF NEW YORK — JACLYN M. PERANTEAU — LICENSED PROFESSIONAL ENGINEER — 083937 — NOT VALID UNTIL SEALED

JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER, #083937

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

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4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

PARTIAL SANITARY & UTILITY PLAN (SECTION A - PHASE I)

DRAWING No.: C-14

PAGE No.: 14 OF 38

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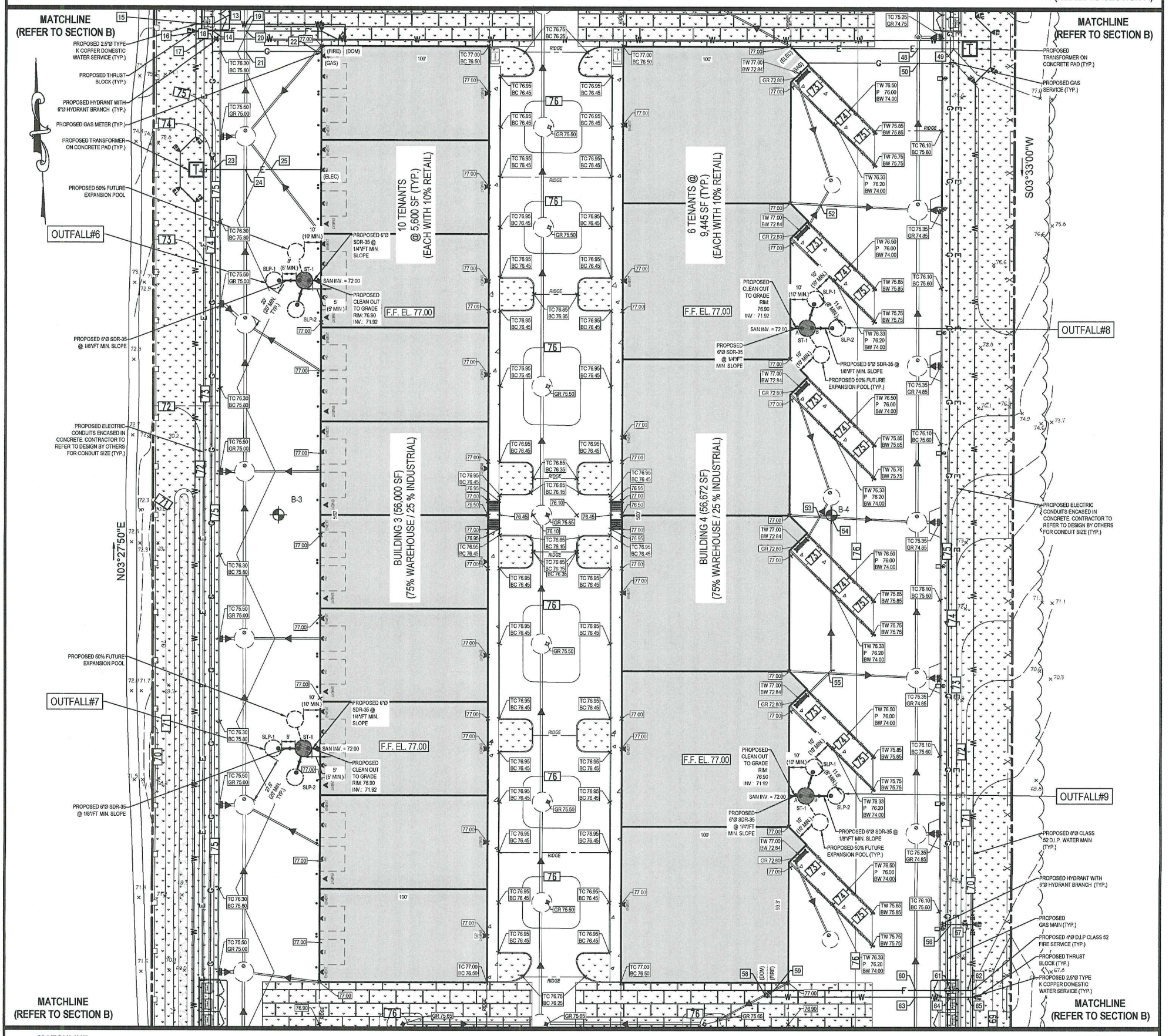
MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)



MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION C)

PHASE I

TYPICAL BUILDING 1 & 3 SANITARY STRUCTURE SCHEDULE
OUTFALL #1, OUTFALL #2, OUTFALL #6, & OUTFALL #7

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS	BOTTOM OF RINGS	INVERT IN	INVERT OUT
ST-1	PROPOSED 10'Ø PRECAST SEPTIC TANK WITH TWO FRAMES AND SOLID COVERS	5'-0"	A. 76.80 B. 76.65	74.40	66.40	71.99	71.40
SLP-1	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	12'-0"	76.30	74.40	58.40	71.30	--
SLP-2	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	12'-0"	76.40	74.40	58.40	71.30	--

TYPICAL COMMISSARY SANITARY STRUCTURE SCHEDULE
OUTFALL #3

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS	BOTTOM OF RINGS	INVERT IN	INVERT OUT
ST-1	PROPOSED 8'Ø PRECAST SEPTIC TANK WITH TWO FRAMES AND SOLID COVERS	4'-0"	A. 76.50 B. 76.45	74.70	67.70	72.60	72.10
GT-1	PROPOSED 8'Ø PRECAST GREASE TRAP WITH TWO FRAMES AND SOLID COVERS	4'-0"	A. 76.15 B. 76.05	74.70	68.70	73.20	72.70
SLP-1	PROPOSED 8'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	12'-0"	76.35	74.70	59.70	72.00	--

TYPICAL BUILDING 2 & 4 SANITARY STRUCTURE SCHEDULE
OUTFALL #4, OUTFALL #5, OUTFALL #8, & OUTFALL #9

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS	BOTTOM OF RINGS	INVERT IN	INVERT OUT
ST-1	PROPOSED 10'Ø PRECAST SEPTIC TANK WITH TWO FRAMES AND SOLID COVERS	5'-0"	A. 76.80 B. 76.65	74.40	66.40	71.90	71.40
SLP-1	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	13'-0"	76.65	74.30	58.30	71.30	--
SLP-2	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	13'-0"	76.40	74.30	58.30	71.30	--

PHASE I

UTILITY CROSSING TABLE SECTIONS A & B (SHEETS C-14 & C-15)
(UTILITY PLAN)

CROSSING	BOTTOM OF PIPE ABOVE	TOP OF PIPE BELOW	CLEARANCE
1	71.40 (18"Ø HDPE)	66.00 (36"Ø HDPE DRAIN.)	5.40'
2	72.50 (GAS MAIN)	71.50 (2"Ø DOM SERV.)	1.00'
3	72.50 (GAS MAIN)	71.50 (4"Ø FIRE SERV.)	1.00'
4	74.00 (ELEC. DUCT BANK)	71.50 (2"Ø DOM SERV.)	2.50'
5	74.00 (ELEC. DUCT BANK)	71.50 (4"Ø FIRE SERV.)	2.50'
6	71.50 (2"Ø DOM SERV.)	69.25 (18"Ø HDPE DRAIN.)	2.25'
7	71.50 (4"Ø FIRE SERV.)	69.35 (18"Ø HDPE DRAIN.)	2.15'
8	72.75 (GAS SERV.)	70.10 (18"Ø HDPE DRAIN.)	2.65'
9	71.70 (ELEC. SERV.)	70.20 (18"Ø HDPE DRAIN.)	1.50'
10	72.50 (GAS MAIN)	71.00 (ELEC. SERV.)	1.50'
11	72.75 (GAS SERV.)	69.65 (10"Ø ROOF DRAIN)	3.10'
12	71.70 (ELEC. SERV.)	69.75 (10"Ø ROOF DRAIN)	1.95'

PHASE I

UTILITY CROSSING TABLE SECTIONS A & B (SHEETS C-14 & C-15)
(UTILITY PLAN)

CROSSING	BOTTOM OF PIPE ABOVE	TOP OF PIPE BELOW	CLEARANCE
13	73.00 (GAS MAIN)	71.50 (2"Ø DOM SERV.)	1.50'
14	73.00 (GAS MAIN)	71.50 (4"Ø FIRE SERV.)	1.50'
15	71.20 (ELEC. DUCT BANK)	69.70 (2"Ø DOM SERV.)	1.50'
16	71.20 (ELEC. DUCT BANK)	69.70 (4"Ø FIRE SERV.)	1.50'
17	71.20 (ELEC. DUCT BANK)	69.70 (6"Ø HYDRANT SERV.)	1.50'
18	73.00 (GAS MAIN)	69.70 (6"Ø HYDRANT SERV.)	3.30'
19	72.50 (2"Ø DOM SERV.)	70.90 (18"Ø HDPE DRAIN.)	1.60'
20	72.50 (4"Ø FIRE SERV.)	71.00 (18"Ø HDPE DRAIN.)	1.50'
21	72.75 (GAS SERV.)	71.10 (18"Ø HDPE DRAIN.)	1.65'
22	75.50 (10"Ø ROOF DRAIN)	72.75 (1"Ø GAS SERV.)	2.75'
23	72.00 (GAS MAIN)	70.50 (ELEC. SERV.)	1.50'
24	71.70 (ELEC. SERV.)	70.15 (18"Ø HDPE DRAIN.)	1.55'

PHASE I

UTILITY CROSSING TABLE SECTIONS A & B (SHEETS C-14 & C-15)
(UTILITY PLAN)

CROSSING	BOTTOM OF PIPE ABOVE	TOP OF PIPE BELOW	CLEARANCE
25	71.70 (ELEC. SERV.)	69.60 (10"Ø ROOF DRAIN)	2.10'
26	73.00 (6"Ø HYDRANT SERV.)	71.50 (ELEC. DUCT BANK)	1.50'
27	73.00 (6"Ø HYDRANT SERV.)	71.50 (GAS MAIN)	1.50'
28	71.30 (4"Ø FIRE SERV.)	69.40 (10"Ø ROOF DRAIN)	1.90'
29	71.30 (2"Ø DOM. SERV.)	69.40 (10"Ø ROOF DRAIN)	1.90'
30	71.30 (2"Ø DOM. SERV.)	69.40 (10"Ø ROOF DRAIN)	1.90'
31	70.10 (18"Ø HDPE DRAIN.)	68.60 (2"Ø DOM. SERV.)	1.50'
32	70.10 (18"Ø HDPE DRAIN.)	68.60 (4"Ø FIRE SERV.)	1.50'
33	70.10 (18"Ø HDPE DRAIN.)	68.60 (2"Ø DOM. SERV.)	1.50'
34	72.30 (GAS MAIN)	68.60 (2"Ø DOM. SERV.)	3.70'
35	72.30 (GAS MAIN)	68.60 (4"Ø FIRE SERV.)	3.70'
36	72.30 (GAS MAIN)	68.60 (2"Ø DOM. SERV.)	3.70'
37	70.30 (ELEC. DUCT BANK)	68.60 (2"Ø DOM. SERV.)	1.70'
38	70.30 (ELEC. DUCT BANK)	68.60 (4"Ø FIRE SERV.)	1.70'
39	70.30 (ELEC. DUCT BANK)	68.60 (2"Ø DOM. SERV.)	1.70'
40	74.65 (10"Ø ROOF DRAIN)	72.65 (ELEC. SERV.)	2.00'
41	72.65 (ELEC. SERV.)	70.20 (18"Ø HDPE DRAIN.)	2.45'
42	72.30 (GAS MAIN)	70.80 (ELEC. SERV.)	1.50'
43	72.75 (GAS SERV.)	70.30 (18"Ø HDPE DRAIN.)	2.45'
44	73.80 (10"Ø ROOF DRAIN)	73.30 (8"Ø PVC DRAIN.)	0.50'
45	73.80 (10"Ø ROOF DRAIN)	73.30 (8"Ø PVC DRAIN.)	0.50'
46	73.80 (10"Ø ROOF DRAIN)	73.30 (8"Ø PVC DRAIN.)	0.50'
47	73.80 (10"Ø ROOF DRAIN)	73.45 (8"Ø PVC DRAIN.)	0.35'
48	72.50 (ELEC. SERV.)	70.00 (18"Ø HDPE DRAIN.)	2.50'
49	73.00 (GAS MAIN)	71.50 (ELEC. SERV.)	1.50'
50	72.50 (GAS SERV.)	70.40 (18"Ø HDPE DRAIN.)	2.10'
51	CROSSING OMITTED		
52	73.80 (10"Ø ROOF DRAIN)	73.45 (8"Ø PVC DRAIN.)	0.35'
53	73.80 (10"Ø ROOF DRAIN)	73.30 (8"Ø PVC DRAIN.)	0.50'
54	73.80 (10"Ø ROOF DRAIN)	73.30 (8"Ø PVC DRAIN.)	0.50'
55	73.80 (10"Ø ROOF DRAIN)	73.45 (8"Ø PVC DRAIN.)	0.35'
56	71.00 (GAS MAIN)	65.40 (6"Ø HYDRANT SERV.)	5.60'
57	65.40 (6"Ø HYDRANT SERV.)	63.90 (ELEC. DUCT BANK)	1.50'
58	74.65 (10"Ø ROOF DRAIN)	68.60 (2"Ø DOM. SERV.)	1.65'
59	74.65 (10"Ø ROOF DRAIN)	73.00 (4"Ø FIRE SERV.)	1.65'
60	72.00 (4"Ø FIRE SERV.)	70.45 (18"Ø HDPE DRAIN.)	1.55'

PHASE I

UTILITY CROSSING TABLE SECTIONS A & B (SHEETS C-14 & C-15)
(UTILITY PLAN)

CROSSING	BOTTOM OF PIPE ABOVE	TOP OF PIPE BELOW	CLEARANCE
61	72.00 (4"Ø FIRE SERV.)	71.00 (GAS MAIN)	1.00'
62	67.00 (4"Ø FIRE SERV.)	65.00 (ELEC. DUCT BANK)	2.00'
63	72.00 (2"Ø DOM. SERV.)	70.45 (18"Ø HDPE DRAIN.)	1.55'
64	72.00 (2"Ø DOM. SERV.)	71.00 (GAS MAIN)	1.00'
65	67.00 (2"Ø DOM. SERV.)	65.00 (ELEC. DUCT BANK)	2.00'

MATCHLINE (REFER TO SECTION C)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

SCTM #: 600-116-1-2
SCHDS REF. #: ___-__-____

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES APPROVAL

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE:

STATE OF NEW YORK — JACLYN PERANTEAU — NOT VALID UNTIL SEALED — LICENSED PROFESSIONAL ENGINEER — 083937

JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER 083937

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
PARTIAL SANITARY & UTILITY PLAN (SECTION B - PHASE I)

DRAWING No.: C-15

PAGE No.: 15 OF 38

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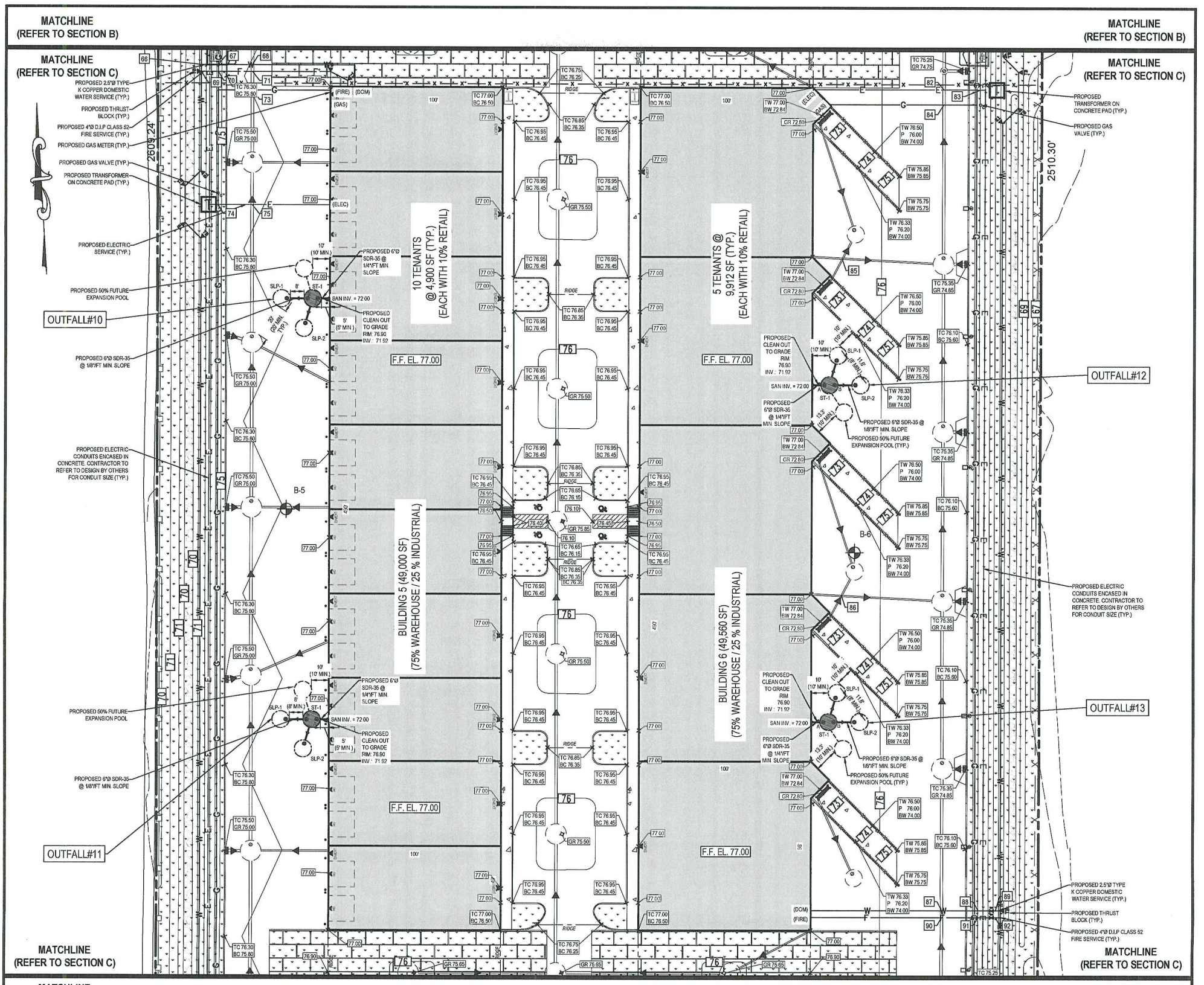

PHASE II

TYPICAL BUILDING 5 & 7 SANITARY STRUCTURE SCHEDULE
OUTFALL #10, OUTFALL #11, OUTFALL #14, & OUTFALL #15

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS	BOTTOM OF RINGS	INVERT IN	INVERT OUT
ST-1	PROPOSED 10'Ø PRECAST SEPTIC TANK WITH TWO FRAMES AND SOLID COVERS	6'-0"	A. 76.80 B. 76.65	74.40	65.40	71.90	71.40
SLP-1	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	11'-0"	76.30	74.30	60.30	71.30	--
SLP-2	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	11'-0"	76.40	74.30	60.30	71.30	--

TYPICAL BUILDING 6 & 8 SANITARY STRUCTURE SCHEDULE
OUTFALL #12 & OUTFALL #16

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS	BOTTOM OF RINGS	INVERT IN	INVERT OUT
ST-1	PROPOSED 10'Ø PRECAST SEPTIC TANK WITH TWO FRAMES AND SOLID COVERS	5'-0"	A. 76.80 B. 76.65	74.40	65.40	71.90	71.40
SLP-1	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	13'-0"	76.30	74.30	58.30	71.30	--
SLP-2	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	13'-0"	76.40	74.30	58.30	71.30	--

TYPICAL BUILDING 6 & 8 SANITARY STRUCTURE SCHEDULE
OUTFALL #13 & OUTFALL #17

STRUCTURE NUMBER	STRUCTURE TYPE	EFFECTIVE DEPTH	RIM/GRATE	TOP OF RINGS	BOTTOM OF RINGS	INVERT IN	INVERT OUT
ST-1	PROPOSED 10'Ø PRECAST SEPTIC TANK WITH TWO FRAMES AND SOLID COVERS	4'-0"	A. 76.80 B. 76.65	74.40	65.40	71.90	71.40
SLP-1	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	9'-0"	76.30	74.30	62.30	71.30	--
SLP-2	PROPOSED 10'Ø PRECAST LEACHING POOL WITH FRAME AND SOLID COVER	9'-0"	76.40	74.30	62.30	71.30	--

PHASE II

UTILITY CROSSING TABLE SECTIONS C & D (SHEETS C-16 & C-17)
(UTILITY PLAN)

CROSSING	BOTTOM OF PIPE ABOVE	TOP OF PIPE BELOW	CLEARANCE
66	66.00 (ELEC. DUCT BANK)	64.50 (2"Ø DOM SERV.)	1.50'
67	72.50 (GAS MAIN)	71.00 (2"Ø DOM SERV.)	1.50'
68	72.70 (2"Ø DOM SERV.)	71.20 (18"Ø HDPE DRAIN.)	1.50'
69	66.00 (ELEC. DUCT BANK)	64.50 (4"Ø FIRE SERV.)	1.50'
70	71.00 (GAS MAIN)	69.50 (4"Ø FIRE SERV.)	1.50'
71	71.25 (18"Ø HDPE DRAIN.)	69.75 (4"Ø FIRE SERV.)	1.50'
72	CROSSING OMITTED		
73	73.00 (GAS SERV.)	71.30 (18"Ø HDPE DRAIN.)	1.70'
74	72.00 (GAS MAIN)	71.00 (ELEC. SERV.)	1.00'
75	72.50 (ELEC. SERV.)	71.00 (18"Ø HDPE DRAIN.)	1.50'
76	66.00 (ELEC. DUCT BANK)	64.50 (8"Ø WATER MAIN)	1.50'
77	71.00 (GAS MAIN)	68.50 (8"Ø WATER MAIN)	2.50'
78	71.45 (18"Ø HDPE DRAIN.)	69.95 (8"Ø WATER MAIN)	1.50'
79	72.75 (GAS SERV.)	71.45 (18"Ø HDPE DRAIN.)	1.30'
80	73.15 (ELEC. SERV.)	71.65 (18"Ø HDPE DRAIN.)	1.50'
81	71.10 (18"Ø HDPE DRAIN.)	69.60 (8"Ø WATER MAIN)	1.50'
82	72.75 (ELEC. SERV.)	70.05 (18"Ø HDPE DRAIN.)	2.70'
83	71.00 (GAS MAIN)	70.00 (ELEC. SERV.)	1.00'
84	71.60 (GAS SERV.)	70.10 (18"Ø HDPE DRAIN.)	1.50'
85	73.80 (10"Ø ROOF DRAIN)	73.45 (8"Ø PVC DRAIN.)	0.35'
86	73.80 (10"Ø ROOF DRAIN)	73.45 (8"Ø PVC DRAIN.)	0.35'
87	70.50 (18"Ø HDPE DRAIN.)	69.00 (2"Ø DOM SERV.)	1.50'
88	71.00 (GAS MAIN)	69.00 (2"Ø DOM SERV.)	2.00'
89	65.00 (ELEC. DUCT BANK)	63.50 (2"Ø DOM SERV.)	1.55'
90	70.50 (18"Ø HDPE DRAIN.)	69.00 (4"Ø FIRE SERV.)	1.50'
91	71.00 (GAS MAIN)	69.00 (4"Ø FIRE SERV.)	2.00'
92	65.00 (ELEC. DUCT BANK)	63.50 (4"Ø FIRE SERV.)	1.50'
93	73.80 (10"Ø ROOF DRAIN)	71.00 (8"Ø WATER MAIN)	2.80'
94	73.80 (10"Ø ROOF DRAIN)	71.00 (2"Ø DOM SERV.)	2.80'
95	70.10 (18"Ø HDPE DRAIN.)	68.60 (8"Ø WATER MAIN)	1.50'
96	71.00 (GAS MAIN)	68.60 (8"Ø WATER MAIN)	2.40'
97	65.50 (8"Ø WATER MAIN)	64.00 (ELEC. DUCT BANK)	1.50'
98	72.75 (ELEC. SERV.)	70.10 (18"Ø HDPE DRAIN.)	2.65'
99	72.75 (ELEC. SERV.)	71.00 (GAS MAIN)	1.75'
100	71.65 (GAS SERV.)	70.15 (18"Ø HDPE DRAIN.)	1.50'
101	73.80 (10"Ø ROOF DRAIN)	73.45 (8"Ø PVC DRAIN.)	0.35'
102	73.80 (10"Ø ROOF DRAIN)	73.45 (8"Ø PVC DRAIN.)	0.35'

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

SCTM #: 600-116-1-2
SCHDS REF. #: ___-__-____

ALL PHASE II SANITARY SEPTIC SYSTEMS SHALL BE CONSTRUCTED UNDER SEPARATE PERMIT AFTER TRANSFER OF DEVELOPMENT RIGHTS (TDR) CREDITS ARE PURCHASED (OUTFALL #10 TO OUTFALL #17)

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES APPROVAL

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE:
STATE OF NEW YORK
JACLYN R. PERANTEAU
NOT VALID UNTIL SEALED
JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER (P.E.)
LICENSED PROFESSIONAL ENGINEER
083937

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
PARTIAL SANITARY & UTILITY PLAN (SECTION C - PHASE II)

DRAWING No.: C-16

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MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION D)

MATCHLINE (REFER TO SECTION D)

PROPOSED THRUST BLOCK (TYP.)

PROPOSED 8"Ø CLASS 52 D.I.P. WATER MAIN (TYP.)

PROPOSED GAS METER (TYP.)

PROPOSED ELECTRIC CONDUITS ENCASED IN CONCRETE. CONTRACTOR TO REFER TO DESIGN BY OTHERS FOR CONDUIT SIZE (TYP.)

PROPOSED HYDRANT WITH 6"Ø HYDRANT BRANCH (TYP.)

PROPOSED ELECTRIC SERVICE (TYP.)

PROPOSED 50% FUTURE EXPANSION POOL

OUTFALL#14

PROPOSED 6"Ø SDR-35 @ 1/8"/FT MIN. SLOPE

PROPOSED 2.5"Ø TYPE K COPPER DOMESTIC WATER SERVICE (TYP.)

PROPOSED 4"Ø D.I.P CLASS 52 FIRE SERVICE (TYP.)

PROPOSED 6"Ø SDR-35 @ 1/4"/FT MIN. SLOPE

PROPOSED CLEAN OUT TO GRADE RIM: 76.90 INV.: 71.92

10 TENANTS @ 4,900 SF (TYP.) (EACH WITH 10% RETAIL)

F.F. EL. 77.00

BUILDING 7 (49,000 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

5 TENANTS @ 9,912 SF (TYP.) (EACH WITH 10% RETAIL)

BUILDING 8 49,560 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

PROPOSED ELECTRIC SERVICE (TYP.)

PROPOSED GAS SERVICE (TYP.)

PROPOSED TRANSFORMER ON CONCRETE PAD (TYP.)

PROPOSED CLEAN OUT TO GRADE RIM: 76.90 INV.: 71.92

PROPOSED 6"Ø SDR-35 @ 1/4"/FT MIN. SLOPE

PROPOSED 6"Ø SDR-35 @ 1/8"/FT MIN. SLOPE

PROPOSED 50% FUTURE EXPANSION POOL (TYP.)

OUTFALL#16

OUTFALL#17

OUTFALL#15

PROPOSED 8"Ø CLASS 52 D.I.P. WATER MAIN (TYP.)

PROPOSED HYDRANT WITH 6"Ø HYDRANT BRANCH (TYP.)

N03°27'50"E

S03°33'00"W

511.18'

N86°14'30"W

SCTM #: 600-116-1-2
SCHDS REF. #: ___-__-____

ALL PHASE II SANITARY SEPTIC SYSTEMS SHALL BE CONSTRUCTED UNDER SEPARATE PERMIT AFTER TRANSFER OF DEVELOPMENT RIGHTS (TDR) CREDITS ARE PURCHASED (OUTFALL #10 TO OUTFALL #17)

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES APPROVAL

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REVISIONS

SEAL & SIGNATURE

JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937
NOT VALID UNLESS SEALED

DATE:	01/24/2020
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TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
PARTIAL SANITARY & UTILITY PLAN
(SECTION D - PHASE II)

DRAWING No.: C-17

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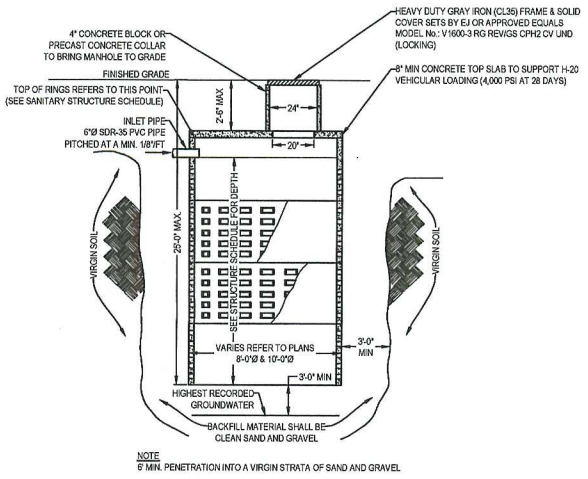
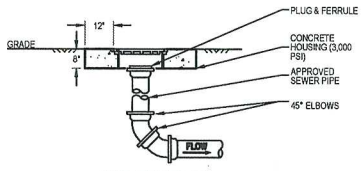
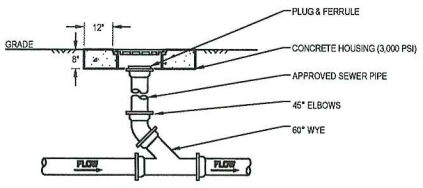


NOTE
6' MIN. PENETRATION INTO A VIRGIN STRATA OF SAND AND GRAVEL

LEACHING POOL DETAIL
N.T.S.



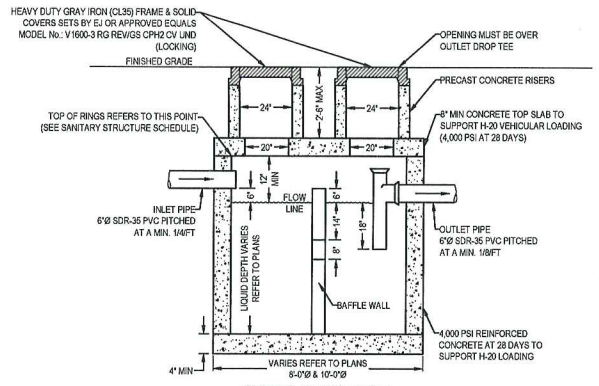
ALTERNATE "A"



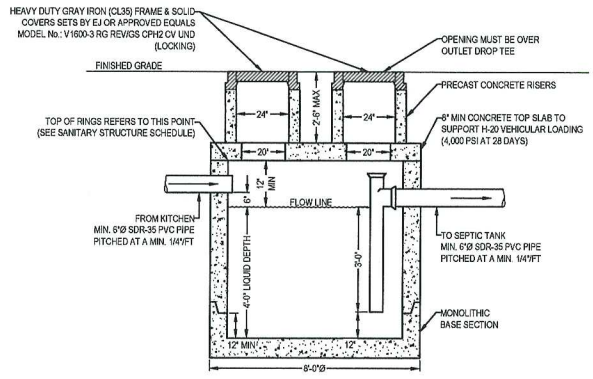
ALTERNATE "B"

NOTE:
1. CLEANOUT(S) LOCATED IN TRAFFIC AREAS SHALL BE PROVIDED WITH TRAFFIC BEARING FRAME AND COVER.
2. ALTERNATE "A" IS FOR BENDS, ALTERNATE "B" IS FOR USE WITH BUILDING EXTENSION/CONNECTION.

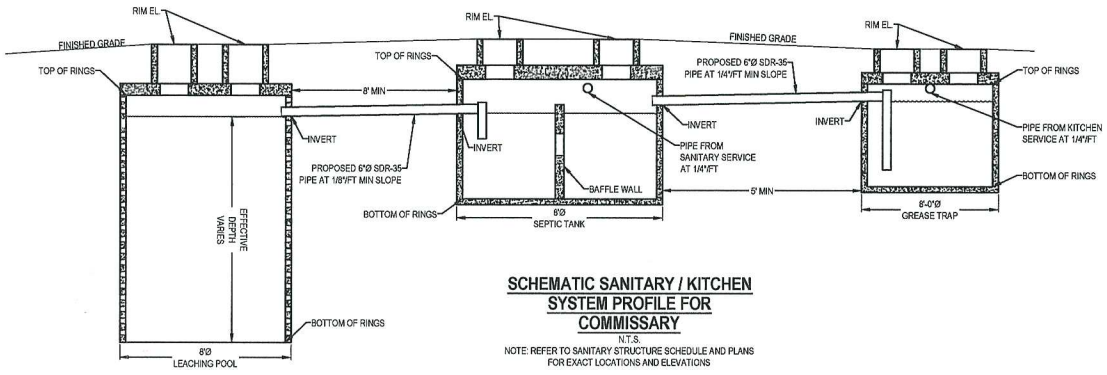
TYPICAL CLEAN-OUT DETAIL
NOT TO SCALE
SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES, STANDARDS FOR APPROVAL OF PLANS AND CONSTRUCTION FOR SEWAGE DISPOSAL SYSTEMS FOR OTHER THAN SINGLE-FAMILY RESIDENCES, FIGURE 15, 12/29/17



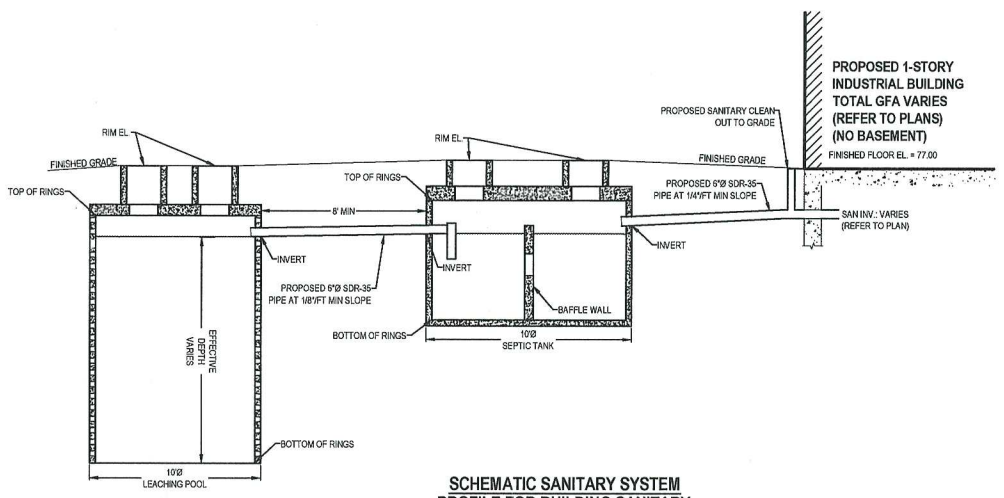
SEPTIC TANK DETAIL
(SCDHS STANDARD DETAIL)
N.T.S.



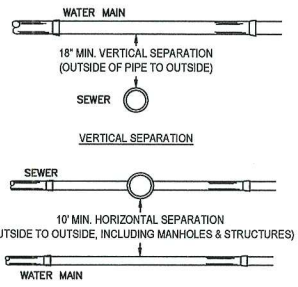
EXTERIOR GREASE TRAP DETAIL
(SCDHS STANDARD DETAIL)
N.T.S.



SCHEMATIC SANITARY / KITCHEN SYSTEM PROFILE FOR COMMISSARY
N.T.S.
NOTE: REFER TO SANITARY STRUCTURE SCHEDULE AND PLANS FOR EXACT LOCATIONS AND ELEVATIONS

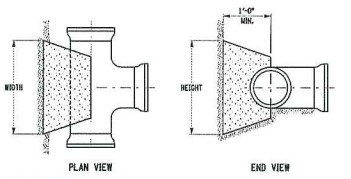


SCHEMATIC SANITARY SYSTEM PROFILE FOR BUILDING SANITARY
N.T.S.
NOTE: REFER TO SANITARY STRUCTURE SCHEDULE AND PLANS FOR EXACT LOCATIONS AND ELEVATIONS

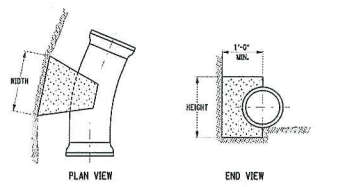


REFER TO SHEET C-010 FOR CROSSING/SEPARATION NOTES.

WATER PIPE / SEWER PIPE CROSSING DETAIL
N.T.S.



TEE/DEAD END THRUST BLOCK DIMENSIONING					
PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)	PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)
12 NPS	5'-3"	2'-8"	24 NPS	10'-3"	5'-3"



22 1/2° THRUST BLOCK DIMENSIONING					
PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)	PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)
12 NPS	3'-3"	1'-9"	24 NPS	6'-3"	3'-3"

NOTES
1. CONCRETE FOR TRUST BLOCKS SHALL NOT BE ALLOWED TO COVER OR INTERFERE WITH JOINT OR RESTRAINT HARDWARE. PLASTIC SHEETING OR BUILDING FELT MAY BE PLACED OVER PIPE OVER PIPE OR FITTINGS TO PREVENT CONCRETE FROM ADHERING TO SURFACES. CONCRETE FOR THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.
2. FOR BENDS, BEARING AREA SHALL BE PARALLEL TO THE EDGE OF THE FITTING AT THE FITTING MIDPOINT.
3. FOR TEES, BEARING AREA SHALL BE PERPENDICULAR TO THE BRANCH (SINGLE LEG) AXIS.
4. THRUST BLOCK SIZES AND MINIMUM RESTRAINED LENGTHS SHOWN ON THIS DETAIL ARE BASED UPON THE FOLLOWING STANDARD CONDITIONS:
   - 1.5 SAFETY FACTOR
   - 5'-0" - DEPTH OF COVER
   - 200 PSI - WATER SYSTEM TEST PRESSURE
   - 14 PSI - SOIL BEARING CAPACITY
   - 90 LB/CF - SOIL UNIT WEIGHT

   FOR INSTALLATIONS NOT MEETING THE CONDITIONS ABOVE, THE CONTRACTOR SHALL SUBMIT CALCULATIONS TO THE ENGINEER FOR APPROVAL OF RESTRAINT LENGTH CHOSEN.
5. THRUST BLOCKS TO BE INSTALLED AT ALL VERTICAL AND HORIZONTAL BENDS

THRUST BLOCK DETAIL
N.T.S.

BORING No. 1 — DATE: 2/24/20 — SURFACE ELEVATION:

REPORT ON BORINGS

DEPTH IN FEET	BPI/ON BLOWS	SAMPLE NO.	DESCRIPTION OF SAMPLE
1	1 2	1	FINE DARK BROWN AND BROWN TOPSOIL WITH ORGANICS AND DECAYING VEGETATION INTO FINE SILTY SAND, SOME CLEAN SAND, TRACE FINE TO COARSE GRAVEL (SM)
	1 2		
	WOH 2	2	
	1 2		
5	2 1	3	FINE TO MEDIUM BROWN AND LIGHT BROWN SILTY SAND, SOME CLEAN SAND INTO CLEAN FINE TO MEDUM SAND, TRACE FINE TO SMALL GRAVEL (SM/SW)
	3 6		
	5 7	4	
	7 8		
	3 5	5	FINE TO COARSE LIGHT BROWN CLEAN SAND, TRACE FINE TO SMALL GRAVEL (SW)
10	5 5		
	5 6	6	FINE TO COARSE LIGHT BROWN AND PALE BROWN SAND, TRACE FINE TO SMALL GRAVEL, OCCASIONAL LARGE STONE (SW)
	5 6		
15			FINE TO MEDIUM PALE BROWN CLEAN SAND, SOME COARSE SAND, TRACE FINE TO SMALL GRAVEL (SW)
	4 6		
	5 5	7	FINE TO COARSE PALE BROWN SAND, TRACE FINE TO COARSE GRAVEL, SOME SMALL STONE (SW)
20			
	3 5		FINE TO MEDUM PALE BROWN SAND, SOME FINE TO LARGE GRAVEL (SW)
	6 6	8	
25			FINE TO COARSE PALE BROWN AND LIGHT BROWN SAND, TRACE FINE TO SMALL GRAVEL (SW)
	6 9	9	
	9 10		
30			FINE TO MEDIUM LIGHT BROWN SAND, TRACE FINE TO COARSE GRAVEL, OCCASIONAL SMALL STONE (SW)
	6 8	10	FINE TO MEDIUM LIGHT BROWN SAND, TRACE FINE TO COARSE GRAVEL, OCCASIONAL SMALL STONE (SW)
	9 10		
35			FINE TO MEDIUM LIGHT BROWN AND PALE BROWN SAND, TRACE FINE TO COARSE GRAVEL, OCCASIONAL LARGE STONE (SW)
	5 8	11	
	9 9		
40	5 7	12	FINE TO MEDUM PALE BROWN SAND, TRACE FINE GRAVEL (SW)
	6 8		

GENERAL NOTES

1) WATER LEVELS AS INDICATED ARE THOSE MEASURED ON THE DATE SHOWN AND ARE NOT NECESSARILY REPRE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS.

2) THE BORING RESULTS REPRESENT SUB-SURFACE CONDITIONS AT THE BORING LOCATION ONLY AND ARE NOT NECESSARILY REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS.

NO WATER ENCOUNTERED.

END OF BORING: 40'0"

SOIL BORING (B-1)
PREPARED BY: SLACKE TEST BORING CO.
DATED: 02/24/2020

BORING No. 2 — DATE: 2/24/20 — SURFACE ELEVATION:

REPORT ON BORINGS

DEPTH IN FEET	BPI/ON BLOWS	SAMPLE NO.	DESCRIPTION OF SAMPLE
1	2 1	1	FINE DARK BROWN AND BROWN TOPSOIL WITH ORGANICS AND BROKEN ROOTS, SOME FINE SILTY SAND INTO FINE SILTY SAND, TRACE FINE TO SMALL GRAVEL (SM)
	2 1		
	1 WOH	2	
	2 3		
5	4 5	3	FINE TO MEDIUM BROWN AND LIGHT BROWN SAND, SOME CLEAN SAND TRACE FINE TO SMALL GRAVEL (SM/SW)
	4 4		
	5 5	4	FINE TO COARSE LIGHT BROWN SAND, TRACE FINE TO SMALL GRAVEL (SW)
	5 5		
10	2 3	5	FINE TO COARSE LIGHT BROWN SAND, TRACE FINE TO COARSE GRAVEL (SW)
	4 5		
	4 5	6	FINE TO COARSE PALE BROWN SAND, TRACE FINE TO COARSE GRAVEL (SW)
	5 6		
15			FINE TO MEDIUM PALE BROWN SAND, TRACE FINE GRAVEL (SW)
	3 4		
	4 6	7	
20			FINE TO MEDIUM PALE BROWN AND LIGHT BROWN SAND, SOME FINE TO LARGE GRAVEL (SW)
	4 5		
	6 8	8	
25			FINE TO COARSE LIGHT BROWN SAND, SOME FINE TO SMALL GRAVEL (SW)
	7 10	9	
	10 11		
30			FINE TO MEDIUM LIGHT BROWN SAND, TRACE FINE TO SMALL GRAVEL (SW)
	6 9	10	FINE TO MEDIUM LIGHT BROWN SAND, TRACE FINE TO SMALL GRAVEL (SW)
	9 9		
35			FINE TO MEDIUM LIGHT BROWN AND PALE BROWN SAND, SOME FINE TO SMALL GRAVEL (SW)
	7 12	11	
	11 12		
40	10 11	12	MEDIUM TO FINE PALE BROWN AND LIGHT BROWN SAND, SOME FINE TO SMALL GRAVEL INTO FINE SAND, TRACE FINE GRAVEL (SW/SP)
	10 10		

GENERAL NOTES

NO WATER ENCOUNTERED.

END OF BORING: 40'0"

SOIL BORING (B-2)
PREPARED BY: SLACKE TEST BORING CO.
DATED: 02/24/2020

BORING No. 3 — DATE: 2/24/20 — SURFACE ELEVATION:

REPORT ON BORINGS

DEPTH IN FEET	BPI/ON BLOWS	SAMPLE NO.	DESCRIPTION OF SAMPLE
1	2 1	1	FINE DARK BROWN AND BROWN TOPSOIL WITH DECAYING VEGETATION AND FINE SILTY SAND INTO FINE SILTY SAND, TRACE FINE TO SMALL GRAVEL (SM)
	2 2		
	2 4	2	
	3 2		
5	5 6	3	FINE TO MEDIUM BROWN AND LIGHT BROWN SILTY SAND, SOME CLEAN SAND INTO FINE TO COARSE CLEAN SAND, SOME FINE TO SMALL GRAVEL (SM/SW)
	6 6		
	5 5	4	
	5 6		
10	3 4	5	FINE TO COARSE LIGHT BROWN AND RUST BROWN SAND, SOME FINE TO LARGE GRAVEL, SOME CLAY (SW/CL)
	4 5		
	3 4	6	FINE TO COARSE RUST BROWN AND GRAY CLEAN SAND AND CLAY INTO COARSE TO FINE CLEAN SAND, SOME FINE TO SMALL GRAVEL (SM/SW), COARSE TO FINE RUST BROWN SAND, SOME FINE TO SMALL GRAVEL (SW)
	4 4		
15			
	2 3		
	4 5	7	FINE TO MEDIUM RUST BROWN AND LIGHT BROWN SAND, TRACE FINE TO COARSE GRAVEL (SW)
20			FINE TO MEDIUM LIGHT BROWN SAND, TRACE FINE TO SMALL GRAVEL (SW)
	4 5		
	6 5	8	FINE TO COARSE LIGHT BROWN SAND, SOME FINE TO SMALL GRAVEL, OCCASIONAL LARGE STONE (SW)
25			FINE TO MEDIUM LIGHT BROWN AND PALE BROWN SAND, TRACE FINE TO COARSE GRAVEL, OCCASIONAL SMALL STONE (SW)
	3 5	9	
	5 7		
30			FINE TO MEDIUM PALE BROWN SAND, TRACE FINE TO COARSE GRAVEL (SW)
	3 5	10	FINE TO MEDIUM PALE BROWN SAND, TRACE FINE TO COARSE GRAVEL (SW)
	7 8		
35			FINE LIGHT BROWN SAND, TRACE FINE GRAVEL (SP) WET/MOIST
	4 6	11	
	5 6		
40	5 8	12	MEDIUM LIGHT BROWN SAND, TRACE FINE GRAVEL (SP) WET
	8 8		

GENERAL NOTES

WATER LEVEL: 36.2 FEET

END OF BORING: 40'0"

SOIL BORING (B-3)
PREPARED BY: SLACKE TEST BORING CO.
DATED: 02/24/2020

BORING No. 4 — DATE: 2/24/20 — SURFACE ELEVATION:

REPORT ON BORINGS

DEPTH IN FEET	BPI/ON BLOWS	SAMPLE NO.	DESCRIPTION OF SAMPLE
1	2 1	1	FINE DARK BROWN AND BROWN SILTY SAND AND TOPSOIL WITH ORGANICS INTO FINE SILTY SAND AND CLEAN SAND, TRACE FINE TO SMALL GRAVEL (SM)
	1 2		
	1 WOH	2	
	2 2		
5	2 5	3	FINE TO COARSE BROWN AND RUST BROWN SILTY SAND AND MEDIUM CLEAN SAND INTO FINE TO COARSE CLEAN SAND, SOME FINE TO SMALL GRAVEL (SM/SW)
	7 8		
	6 8	4	
	5 6		
10	4 5	5	FINE TO COARSE LIGHT BROWN AND RUST BROWN SAND, SOME FINE TO SMALL GRAVEL (SW)
	5 6		
	5 5	6	FINE TO COARSE PALE BROWN AND RUST BROWN SAND, TRACE FINE TO SMALL GRAVEL (SW)
	6 6		
15			COARSE TO FINE PALE BROWN SMALL GRAVEL (SW), FINE TO MEDIUM GRAVEL (SW)
	5 6		FINE TO MEDIUM PALE BROWN SAND, TRACE FINE TO SMALL
	6 8	7	GRAVEL (SW)
20			FINE TO MEDIUM LIGHT BROWN SAND, TRACE FINE TO COARSE GRAVEL (SW)
	5 7		
	7 9	8	FINE TO COARSE LIGHT BROWN AND PALE BROWN SAND, SOME FINE TO SMALL GRAVEL (SW)
25			FINE TO COARSE LIGHT BROWN AND PALE BROWN SAND, SOME FINE TO SMALL GRAVEL, OCCASIONAL LARGE STONE (SW)
	6 8	9	
	10 10		
30			FINE TO MEDIUM LIGHT BROWN SAND, SOME FINE TO SMALL GRAVEL (SW)
	6 9	10	FINE TO MEDIUM LIGHT BROWN SAND, SOME FINE TO SMALL GRAVEL (SW)
	9 11		
35			FINE TO MEDIUM LIGHT BROWN AND PALE BROWN CLEAN SAND, TRACE FINE TO COARSE GRAVEL (SW)
	5 8	11	
	7 10		
40	7 9	12	FINE TO MEDIUM PALE BROWN SAND, TRACE FINE TO COARSE GRAVEL (SW)
	9 11		

GENERAL NOTES

END OF BORING: 40'0"

SOIL BORING (B-4)
PREPARED BY: SLACKE TEST BORING CO.
DATED: 02/24/2020

SCTM #: 600-116-1-2
SCHDS REF. #: ___-__-____

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD FOR REVIEW PRIOR TO CONSTRUCTION FOR ANY DETAIL NOT PROVIDED IN THIS PLAN SET.

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES APPROVAL

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE
STATE OF NEW YORK — JACLYN R. PERANTEAU — NOT VALID UNLESS EMBOSSED — JACLYN PERANTEAU, P.E. — NEW YORK STATE PROFESSIONAL ENGINEER — LICENSED PROFESSIONAL ENGINEER — 083937
ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

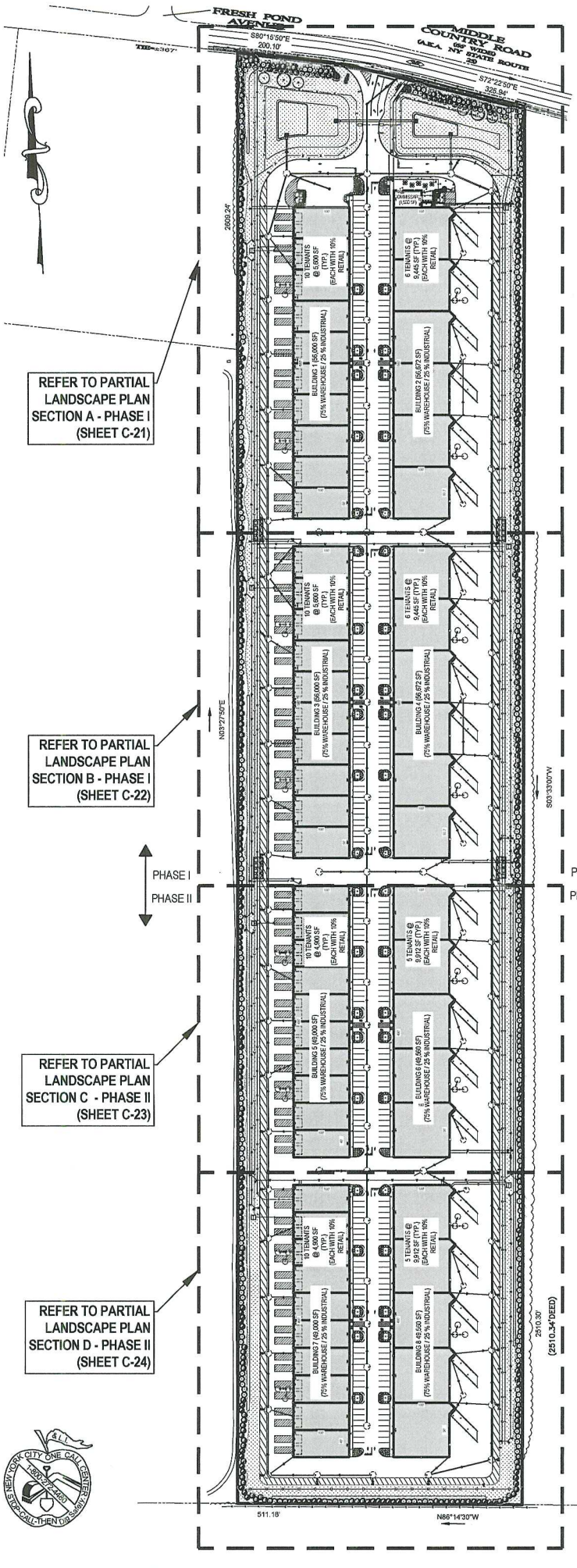
PROJECT NAME:
HK VENTURES, LLC INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
SANITARY NOTES, DETAILS AND BORINGS

DRAWING No.: C-18

PAGE No.: 18 OF 38

Y:\Key Civil\Projects\2019\19026_Pinewood Grp_Calverton\Drawings\Key Civil\19026_2020.06.03_Details2.dwg



GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)

1 inch = 120 ft.

PLANT SCHEDULE PHASE 1 (REFER TO SHEETS C-21 & C-22)

EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	SIZE	CONTAINER	MATURE HEIGHT	NATIVE
JV	137	JUNIPERUS VIRGINIANA / EASTERN RED CEDAR	6-7'	B+B	40-60'	YES
PG	140	PICEA GLAUCA / WHITE SPRUCE	6-7'	B+B	40-60'	YES
PS	101	PINUS STROBUS / EASTERN WHITE PINE	6-7'	B+B	40-60'	YES
TOE	24	THUJA OCCIDENTALIS 'EMERALD' / EMERALD ARBORVITAE	6-7'	B+B	10-15'	YES
ORNAMENTAL TREES	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**MATURE HEIGHT**	**NATIVE**
CFW	2	CORNUS FLORIDA 'WHITE' / WHITE FLOWERING DOGWOOD	2-2 1/2" CAL.	B+B	20-25'	YES
SHADE TREES	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**MATURE HEIGHT**	**NATIVE**
AR	16	ACER RUBRUM / RED MAPLE	2 1/2-3" CAL.	B+B	40-60'	YES
GTIS	10	GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE' TM / SKYLINE THORNLESS HONEY LOCUST	2 1/2-3" CAL.	B+B	40-60'	YES
NSW	2	NYSSA SYLVATICA 'WILDFIRE' / BLACK GUM	2 1/2-3" CAL.	B+B	40-60'	YES
DECIDUOUS SHRUBS	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**MATURE HEIGHT**	**NATIVE**
POSW	45	PHYSOCARPUS OPULIFOLIUS 'SUMMER WINE' / SUMMER WINE NINEBARK	24-30"	3 GAL.	4-6'	YES
VDA	23	VIBURNUM DENTATUM 'ARROWWOOD' / ARROWWOOD VIBURNUM	30-36"	5 GAL.	5-11'	YES
EVERGREEN SHRUBS	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**MATURE HEIGHT**	**NATIVE**
IGC	6	ILEX GLABRA 'COMPACTA' / COMPACT INKBERRY	24-30"	B+B	4-6'	YES
JHBC	414	JUNIPERUS HORIZONTALIS 'BLUE CHIP' / BLUE CHIP JUNIPER	15-18" SPRD.	3 GAL.	.5-1.5'	YES
ORNAMENTAL GRASSES	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**MATURE HEIGHT**	**NATIVE**
CP	37	CAREX PENSYLVANICA / PENNSYLVANIA SEDGE	6-12"	1 GAL.	.5-1.5'	YES
PV	31	PANICUM VIRGATUM / SWITCH GRASS	24-30"	2 GAL.	2-4'	YES
SH	35	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	18-24"	2 GAL.	2-4'	YES
PERENNIALS	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**MATURE HEIGHT**	**NATIVE**
EP	145	ECHINACEA PURPUREA / PURPLE CONEFLOWER	15-18"	2 GAL.	2-4'	YES
IVR	132	IRIS VERSICOLOR / BLUE FLAG	6-12"	1 GAL.	1-3'	YES

PLANT SCHEDULE PHASE 2 (REFER TO SHEETS C-23 & C-24)

EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	SIZE	CONTAINER	MATURE HEIGHT	NATIVE
JV	106	JUNIPERUS VIRGINIANA / EASTERN RED CEDAR	6-7'	B+B	40-60'	YES
PG	116	PICEA GLAUCA / WHITE SPRUCE	6-7'	B+B	40-60'	YES
PS	73	PINUS STROBUS / EASTERN WHITE PINE	6-7'	B+B	40-60'	YES
SHADE TREES	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**MATURE HEIGHT**	**NATIVE**
AR	10	ACER RUBRUM / RED MAPLE	2 1/2-3" CAL.	B+B	40-60'	YES
GTIS	10	GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE' TM / SKYLINE THORNLESS HONEY LOCUST	2 1/2-3" CAL.	B+B	40-60'	YES
EVERGREEN SHRUBS	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**MATURE HEIGHT**	**NATIVE**
JHBC	405	JUNIPERUS HORIZONTALIS 'BLUE CHIP' / BLUE CHIP JUNIPER	15-18" SPRD.	3 GAL.	.5-1.5'	YES

LANDSCAPE COMPLIANCE CHART

TOWN OF RIVERHEAD
ZONE: INDUSTRIAL C

ITEM	SECTION	PERMITTED/REQUIRED	PROPOSED	COMPLIANCE
PURPOSE & INTENT	§ 301-121	THE USE OF GENEROUS LANDSCAPING AND OPEN SPACE BUFFERS IS INTENDED TO HELP PROTECT THE RURAL APPEARANCE AND MINIMIZE VIEWS OF DEVELOPMENT FROM THE EXPRESSWAY AND ARTERIAL ROADS.	GENEROUS LANDSCAPING AROUND THE ENTIRE PROPERTY LINE	COMPLIES
LOT, YARD, BULK AND HEIGHT REQUIREMENTS	§ 301-123	(B) IN ORDER TO FOSTER ENVIRONMENTAL CONSERVATION AS WELL AS PRESERVATION OF THE TOWN'S SCENIC AND RURAL QUALITY, PROPERTIES SHALL PROVIDE ATTRACTIVELY LANDSCAPED CONTIGUOUS OPEN SPACE AREAS, EQUAL TO AT LEAST 20% OF THE LOT AREA, THAT SHIELD VIEWS OF THE DEVELOPMENT FROM ARTERIAL ROADS AND THE LONG ISLAND EXPRESSWAY (PREFERENCE IS GIVEN TO PRESERVATION OF EXISTING HABITAT (SUCH AS MEADOWS OR FORESTS) RATHER THAN CLEARANCE AND CREATION OF NEW HABITAT. THE OPEN SPACE SHOULD SERVE TO PROVIDE ON-SITE STORMWATER MANAGEMENT.	SITE AREA: 1,317,884 S.F. PROPOSED LANDSCAPING: 357,847 SF (27.15%)	COMPLIES
SUPPLEMENTARY GUIDELINES	§ 301-124 (A)(4)	(A) TRASH/DUMPSTER AREAS SHALL BE SCREENED BY WOOD FENCES OR LANDSCAPING, OR A COMBINATION THEREOF, PURSUANT TO § 245-8.	TRASH AREAS SCREENED BY EVERGREEN TREES (TOE)	COMPLIES
		(B) ALONG BORDERS WITH PUBLIC STREETS, BUFFER PLANTINGS OF A MINIMUM TWENTY-FOOT DEPTH SHALL BE PROVIDED. ALONG PROPERTY LINES SHARED WITH ENTERPRISE PARK AND OTHER PROPERTIES, BUFFER PLANTINGS OF A MINIMUM TEN-FOOT DEPTH SHALL BE PROVIDED. BUFFER PLANTINGS SHALL MINIMIZE VIEWS OF PAVING AND BUILDINGS FROM PUBLIC STREETS AND FROM ENTERPRISE PARK.	20' DEEP BUFFER ALONG PUBLIC STREET (JV, PG, PS, VDA, POSW) AND 10' DEPTH BUFFER ALONG PROPERTY LINES (JV, PG, PS)	COMPLIES
	§ 301-124 (B)	(2) PLANTED BERMS SHALL BE USED TO SCREEN THE VIEW OF AUTOMOBILES FROM PUBLIC ROADWAYS.	BERMS AND 20' DEEP DENSE EVERGREEN & DECIDUOUS SCREEN ALONG PROPERTY LINE	COMPLIES
		(4) IN ORDER TO SOFTEN THE APPEARANCE OF PARKING LOTS, LARGE AREAS OF SURFACE PARKING SHOULD BE BROKEN UP BY ROWS OF LANDSCAPING NO LESS THAN 10 FEET IN WIDTH, IN ORDER TO CREATE PARKING FIELDS OF NO MORE THAN 50 SPACES EACH. LANDSCAPING SHALL INCLUDE GROUND COVER, ORNAMENTAL GRASSES, OR LOW SHRUBS. THIS LANDSCAPING REQUIREMENT IS IN ADDITION TO THE TWENTY-PERCENT PARCEL-WIDE LANDSCAPING MENTIONED ABOVE.	PARKING LOT ISLANDS OF >/= 10' IN WIDTH AND IS LANDSCAPED WITH GROUNDCOVER (JHBC) AND DECIDUOUS TREES (GTIS), (AR)	COMPLIES

LANDSCAPE NOTES

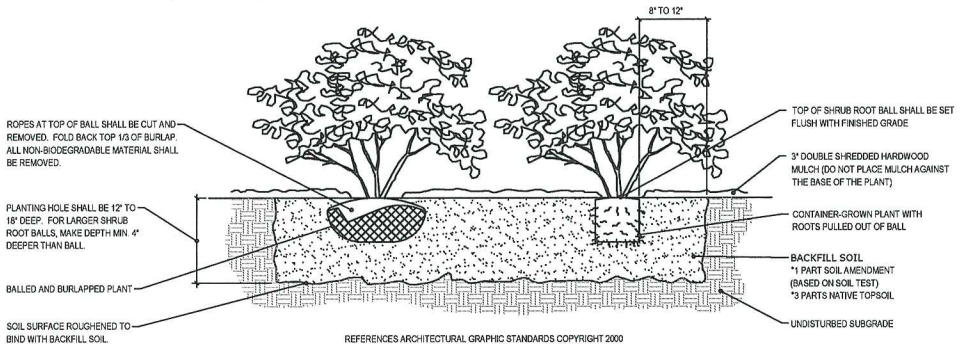
1. THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.
2. EXISTING VEGETATION SHALL BE RETAINED UNLESS SPECIFIED ELSEWHERE ON THIS PLAN.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS MAY REQUIRE THAT A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
4. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.
5. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK".
6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE.
7. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
8. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS.
   - 8.a. PLANTS: MARCH 15 TO DECEMBER 15
   - 8.b. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
   - 8.c. TREES: OCTOBER 1 TO DECEMBER 1 AND MARCH 1 TO MAY 31

PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.

9. THERE SHALL BE NO PLANT SUBSTITUTIONS UNLESS AUTHORIZED BY LANDSCAPE ARCHITECT AND/OR STAFF OF THE LOCAL MUNICIPALITY.
10. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE ROUTINELY AT LEAST UNTIL PLANTS ARE ESTABLISHED.
11. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%%%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
12. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.
13. CONTRACTOR SHALL ENSURE THAT THE PROPOSED TREES ARE NOT PLANTED ON TOP OF UNDERGROUND PIPES AND ACHIEVE MAXIMUM SEPARATION POSSIBLE.
14. CONTRACTOR SHALL PROVIDE AN AUTOMATIC IRRIGATION SYSTEM FOR ALL LANDSCAPE AND LAWN AREAS. THE SYSTEM SHALL MEET ALL CODE REQUIREMENTS.

NOTES:

1. FOR CONTAINER-GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER
2. THOROUGHLY SOAK THE SHRUB ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
3. SOIL AMENDMENTS:
   *MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
   *MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX



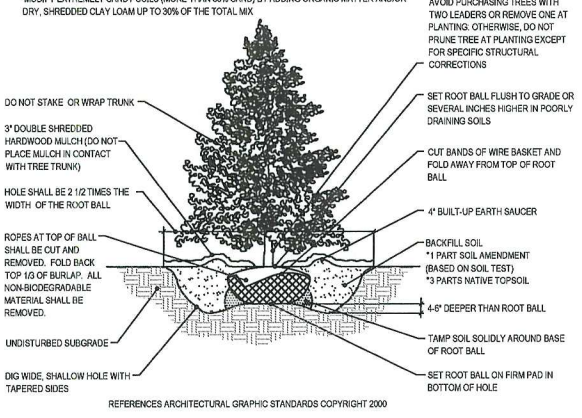
REFERENCES ARCHITECTURAL GRAPHIC STANDARDS COPYRIGHT 2000

DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

N.T.S.

NOTES:

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER
2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
3. SOIL AMENDMENTS:
   *MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
   *MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX



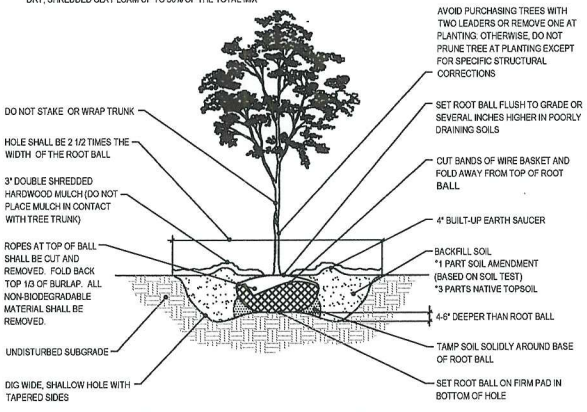
REFERENCES ARCHITECTURAL GRAPHIC STANDARDS COPYRIGHT 2000

EVERGREEN TREE PLANTING DETAIL

N.T.S.

NOTES:

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER
2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
3. SOIL AMENDMENTS:
   *MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
   *MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX



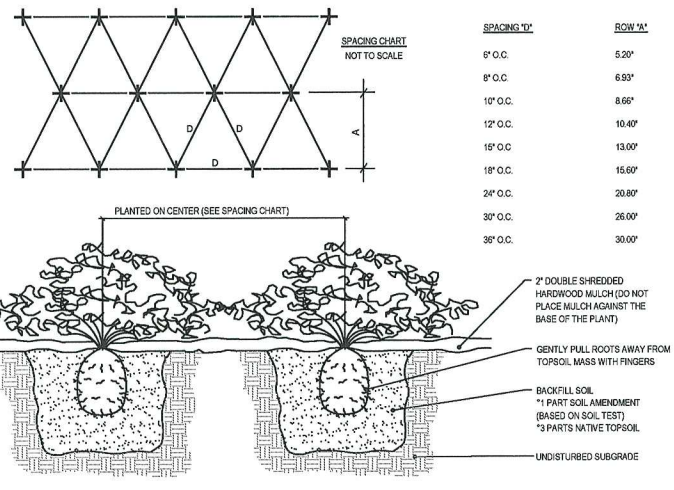
REFERENCES ARCHITECTURAL GRAPHIC STANDARDS COPYRIGHT 2000

DECIDUOUS TREE PLANTING DETAIL

N.T.S.

NOTES:

1. THOROUGHLY SOAK THE GROUND COVER ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
2. SOIL AMENDMENTS:
   *MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
   *MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX
3. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT PER MANUFACTURER'S SPECIFICATIONS



SPACING "D"	ROW "A"
6" O.C.	5.20"
8" O.C.	6.93"
10" O.C.	8.66"
12" O.C.	10.40"
15" O.C	13.00"
18" O.C.	15.60"
24" O.C.	20.80"
30" O.C.	26.00"
36" O.C.	30.00"

GROUND COVER/PERENNIAL/ANNUAL PLANTING DETAIL

N.T.S.

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

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www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC
INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
OVERALL LANDSCAPE PLAN

DRAWING No.: C-19

PAGE No.: 19 OF 38

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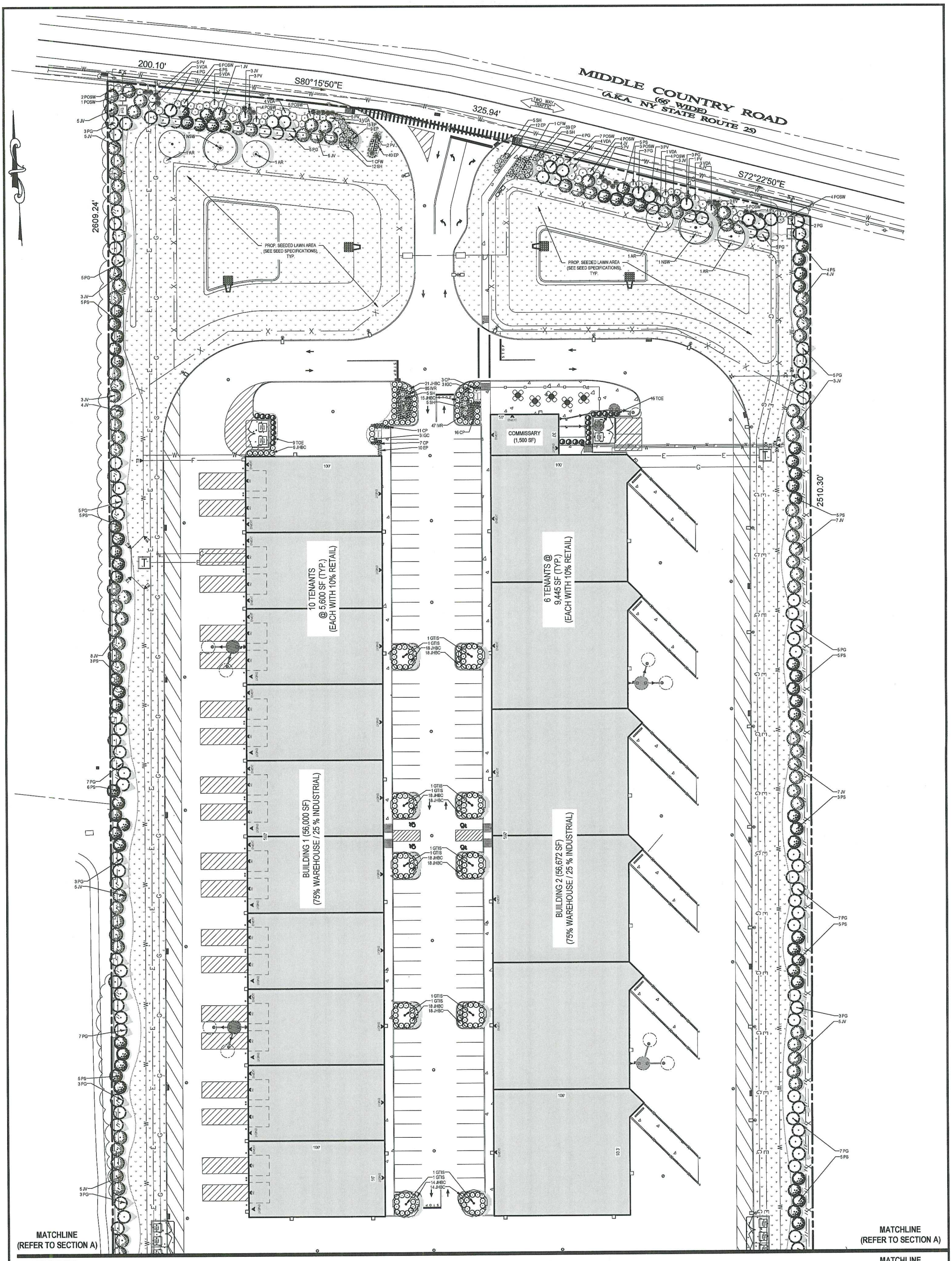

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

UNDERGROUND DRAINAGE STRUCTURES AND PIPING NOT SHOWN FOR CLARITY

REFER TO OVERALL LANDSCAPE PLAN (SHEET C-19) FOR PLANTING SCHEDULE AND DETAILS

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DRAWING TITLE:

PARTIAL LANDSCAPE PLAN (SECTION A - PHASE I)

DRAWING No.: C-20

PAGE No.: 20 OF 38

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MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION B)

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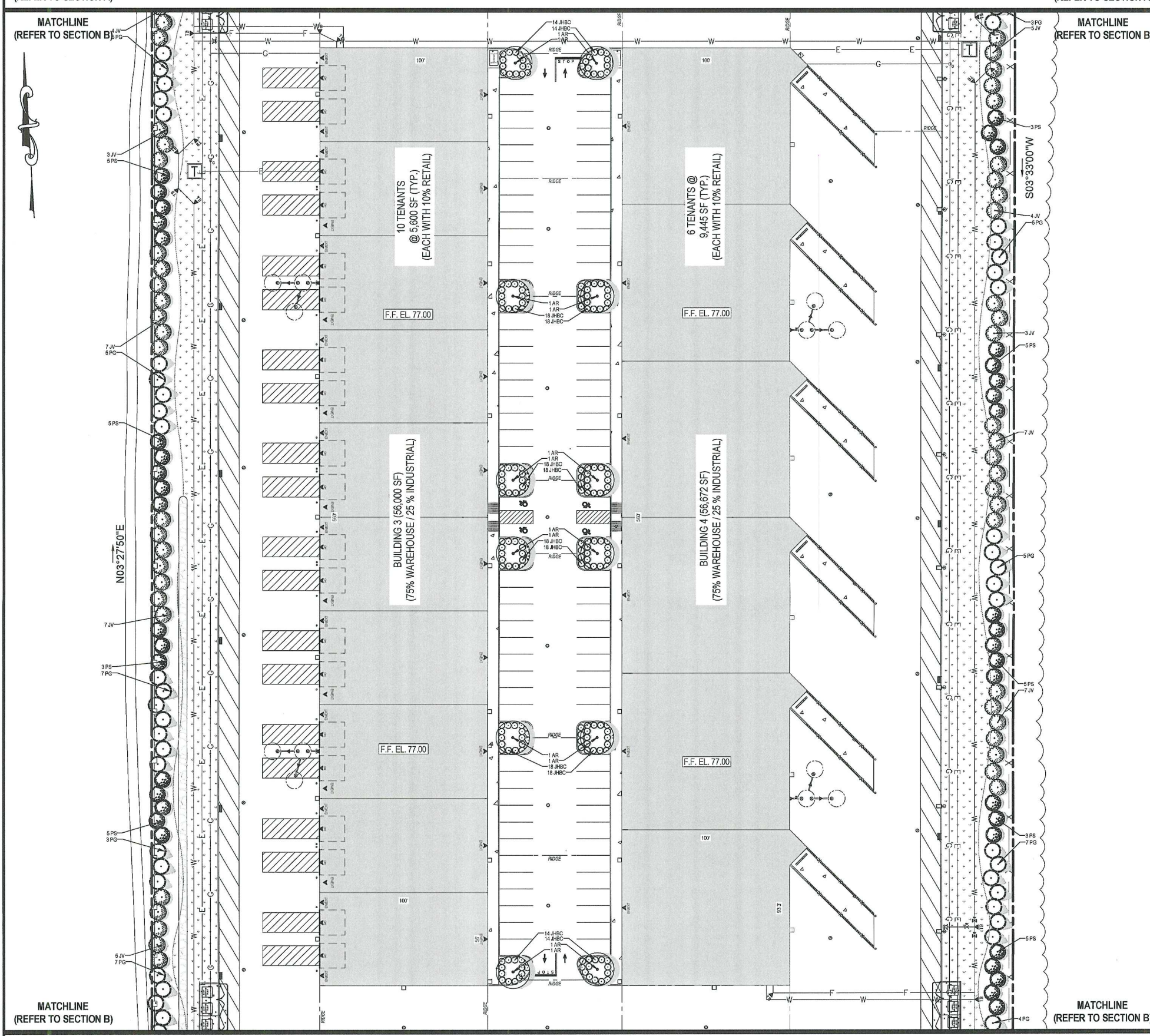

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)

GRAPHIC SCALE

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(IN FEET)
1 inch = 30 ft.

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DRAWING TITLE:

PARTIAL LANDSCAPE PLAN (SECTION B - PHASE I)

DRAWING No.: C-21

PAGE No.: 21 OF 38

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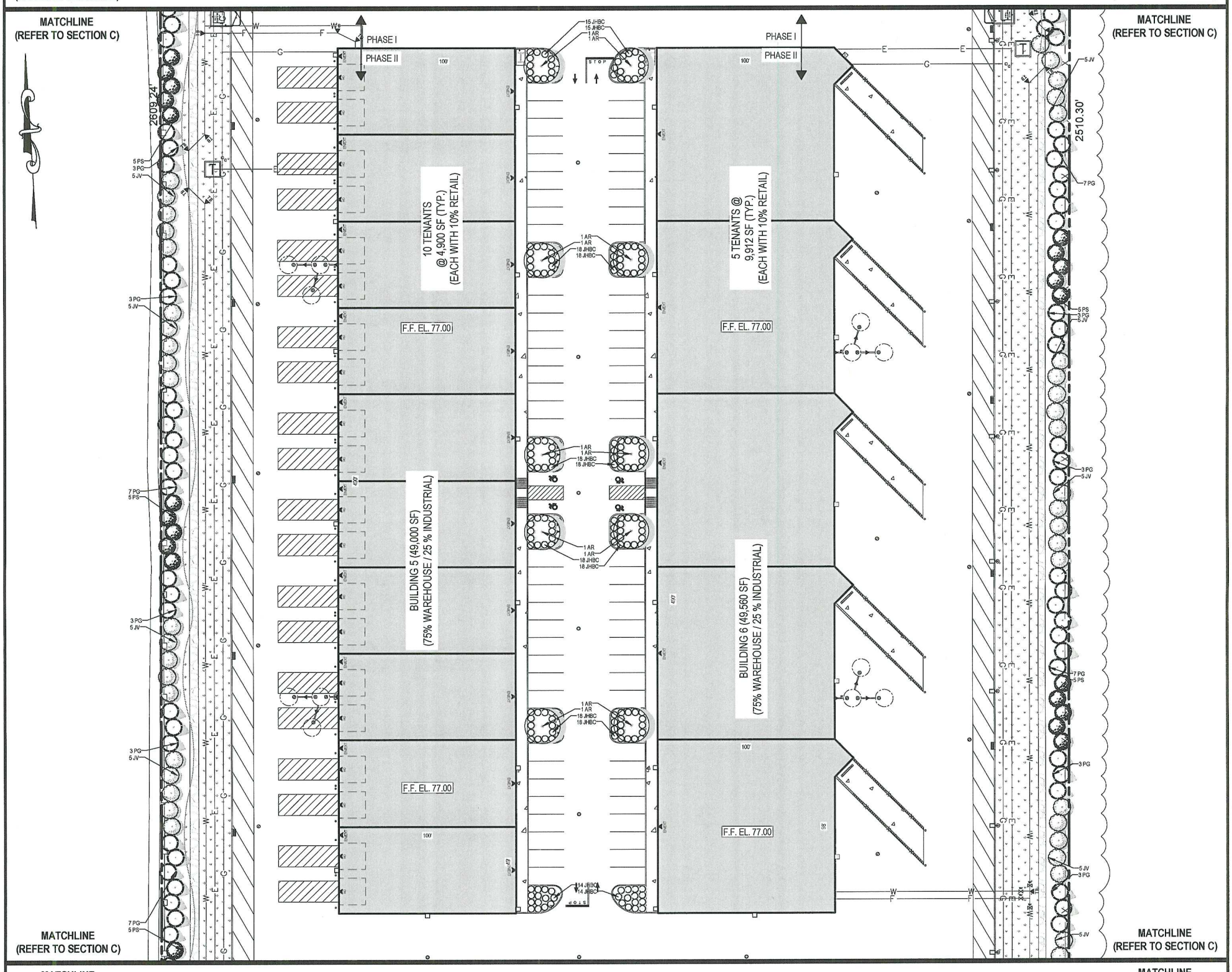

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION D)

MATCHLINE (REFER TO SECTION D)

GRAPHIC SCALE

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(IN FEET)
1 inch = 30 ft.

PHASE II

UNDERGROUND DRAINAGE STRUCTURES AND PIPING NOT SHOWN FOR CLARITY

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DRAWING TITLE:

PARTIAL LANDSCAPE PLAN (SECTION C - PHASE II)

DRAWING No.: C-22

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MATCHLINE (REFER TO SECTION D)

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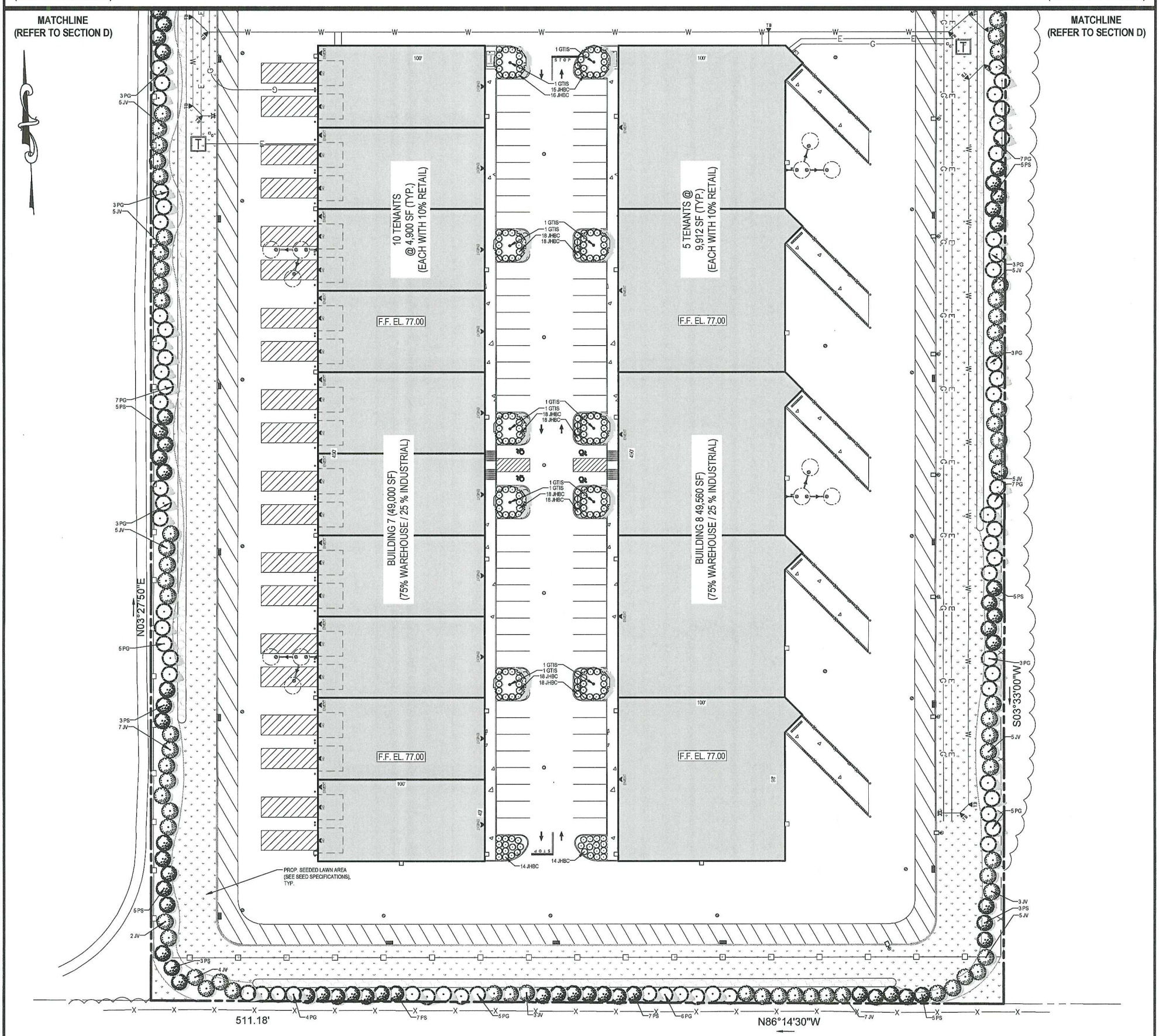

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PHASE I

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DRAWING TITLE:

PARTIAL LANDSCAPE PLAN (SECTION D - PHASE II)

DRAWING No.: C-23

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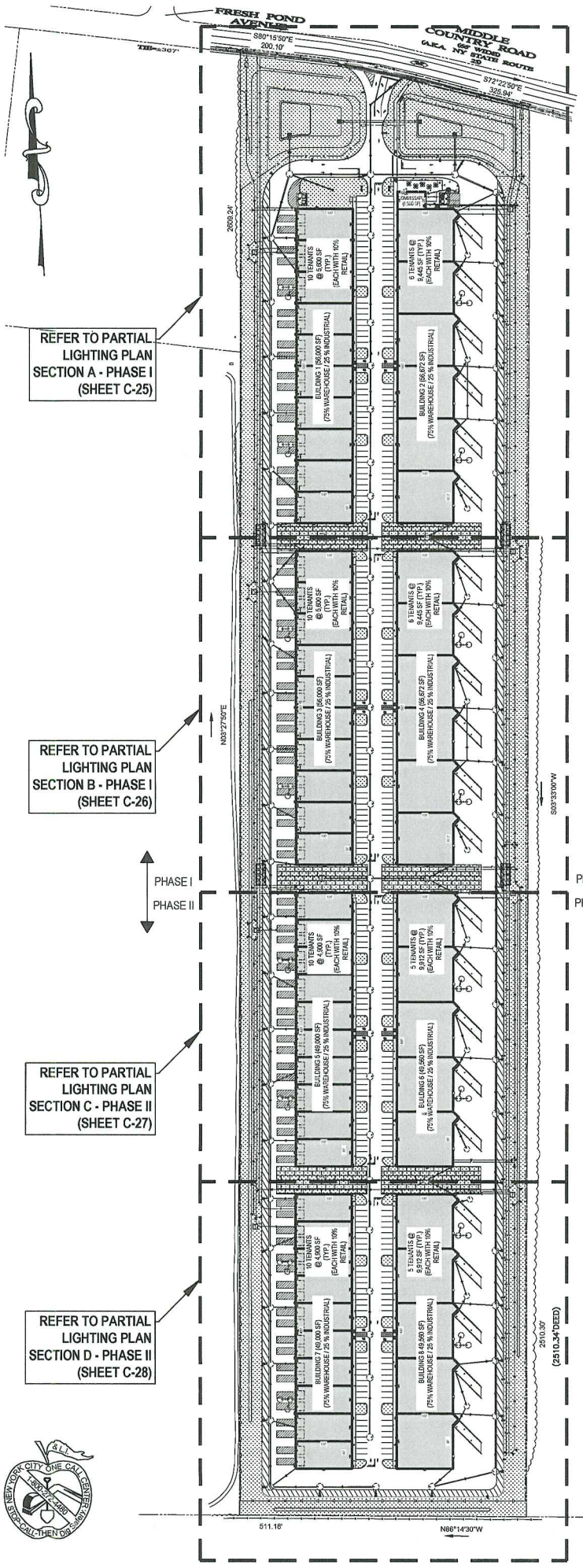


GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)

1 inch = 120 ft.

LEGEND

SCALE OF SYMBOLS = 1" = 120'

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	DUMPSTER ENCLOSURE	
	12' x 34' LOADING SPACE	
	LOADING DOCK RETAINING WALLS	
	PARKING COUNT	
	OVERHEAD DOOR	
	DOOR	
-x-x-	FENCE	
	BIKE RACK	
	HYDRANT	
	SOIL BORING	

GENERAL FOUNDATION NOTES

1. STRUCTURAL CONCRETE AND CONCRETING PRACTICES SHALL CONFORM WITH ACI-318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE." DETAILS SHALL BE IN ACCORDANCE WITH ACI-315, "MANUAL OF STANDARD PRACTICE: DETAILS AND DETAILING OF CONCRETE REINFORCEMENT." FORMWORK SHALL CONFORM WITH ACI-347, "GUIDE TO FORMWORK FOR CONCRETE," UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS.
2. CONCRETE SHALL BE NORMAL WEIGHT STONE AGGREGATE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. ALL DESIGN MIXES SHALL BE PROPORTIONED IN ACCORDANCE TO SECTION 5.3, "PROPORTIONING ON THE BASIS OF FIELD EXPERIENCE AND/OR TRIAL MIXTURES" OF ACI-318. THE WATER-CEMENT RATIO FOR THE PROPOSED MIX DESIGN SHALL ACHIEVE AN AVERAGE 28-DAY STRENGTH OF 1,200 PSI GREATER THAN THE REQUIRED STRENGTH ON LABORATORY TEST RESULTS. ALL DESIGN MIXES INCLUDING HISTORICAL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
3. CONCRETE SHALL HAVE A SLUMP NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
4. EXPOSED CONCRETE SHALL BE AIR ENTRAINED, 6% (WITHIN 1% TOLERANCE), CONFORMING TO ASTM C 260.
5. CONCRETE SHALL BE CONSOLIDATED IN PLACE USING AN INTERNAL VIBRATOR.
6. REINFORCING STEEL BARS SHALL BE BILLET STEEL CONFORMING TO ASTM A 615, GRADE 60. ALL REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS OR STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES SHALL BE PLASTIC TIPPED. ALL ACCESSORIES SHALL BE GALVANIZED.
7. ALL SPLICES OF REINFORCING BARS NOT INDICATED ARE TO BELTS AS PER THE REINFORCING SPLICE SCHEDULE OR 40 BAR DIAMETERS. DISCONTINUOUS ENDS OF CONTINUOUS BARS SHALL BE STANDARD HOOKS.
8. SHOP DRAWINGS OF REINFORCING TO BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION AND ORDERING OF MATERIAL. SHOP DRAWINGS SHALL SHOW ALL REINFORCEMENTS, SPLICE LENGTHS, BAR LENGTHS, BEND SCHEDULES, AND CONCRETE DIMENSIONS. REINFORCING LAYERS SHALL BE SHOWN SEPARATELY ON SHOP DRAWINGS.
9. CONCRETE FIELD TESTS SHALL BE PERFORMED AS REQUIRED BY GOVERNING CODES BY A QUALIFIED INDEPENDENT INSPECTION FIRM. TESTS SHALL NOT BE TAKEN LESS THAN ONCE A DAY OR LESS THAN ONCE PER 150 CUBIC YARDS OF CONCRETE. NO LESS THAN 6 TEST CYLINDERS ARE TO BE TAKEN TO OBTAIN 7-DAY AND 28-DAY AVERAGE COMPRESSIVE STRENGTHS.
10. IF CAVING OF DRILLED HOLES ARE ENCOUNTERED, CONTRACTOR SHALL PROVIDE BENTONITE SLURRY IN PERMANENT CASINGS FOR DRILLED CONCRETE PIER FOUNDATIONS.
11. CONCRETE SHALL ATTAIN 80% OF THE DESIGN STRENGTH OR CURE FOR A MINIMUM OF 7-DAYS PRIOR TO THE INSTALLATION OF THE LIGHT POLES OR ALL LIGHT POLES ARE TO BE SUITABLY BRACED AGAINST WIND LOADS, EARTH PRESSURE, AND CONSTRUCTION LOADS DURING THE ABOVE MENTIONED TIMEFRAME.

DESIGN CRITERIA

SUBGRADE MINIMUM ALLOWABLE BEARING PRESSURE = 3,000 PSF (ASSUMED)

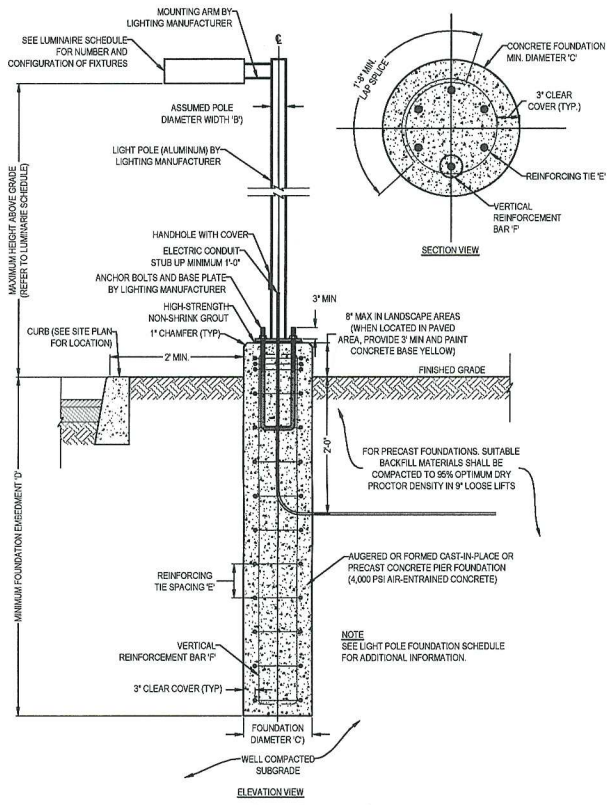
SOIL FRICTION ANGLE = 30 DEG (ASSUMED)

SOIL DRY UNIT WEIGHT = 110 PCF (ASSUMED)

BASIC WIND SPEED = 120 MPH

LIGHT POLE FOUNDATION SCHEDULE	
MAXIMUM HEIGHT ABOVE GRADE 'A'	16'-0" MAX
ASSUMED AVERAGE POLE DIAMETER WIDTH 'B'	5" (SQUARE ALUMINUM)
MAXIMUM NUMBER OF FIXTURES	SINGLE
MINIMUM FOUNDATION DIAMETER 'C'	2'-0"
MINIMUM FOUNDATION DEPTH 'D'	5'-0"
REINFORCING TIES 'E' *	#3 TIE AT 12" O.C.
VERTICAL HOOKED REINFORCEMENT 'F'	(6) #6 BARS EQUALLY SPACED

* = ADD 3 TIES, 1-1/2" C-C, AT TOP OF THE FOUNDATION



TYPICAL LIGHT POLE FOUNDATION DETAIL

N.T.S.

SITE LIGHTING NOTES

1. NO REVISIONS, ALTERNATES, OR SUBSTITUTIONS TO THE CONTRACT DOCUMENTS ARE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
2. ILLUMINATION LEVELS SHOWN IN FOOT-CANDLES.
3. ILLUMINATION LEVELS ON THIS PLAN HAVE BEEN CALCULATED FOR PROPOSED SITE AREA LIGHTS ONLY. ACTUAL ILLUMINATION LEVELS IN THE FIELD MAY DIFFER FROM THOSE DEPICTED ON THE PLAN DUE TO INTERFERENCE FROM EXISTING/AMBIENT LIGHTING WHOSE ILLUMINATION LEVELS ARE NOT REFLECTED ON THIS PLAN.
4. LIGHT CIRCUITRY PLAN PREPARED BY OTHERS.
5. ILLUMINATION LEVELS SHOWN ON THESE PLANS WERE CALCULATED BY AGI-32 LIGHTING ANALYSIS SOFTWARE, DATED 05/12/2020.

CALCULATION SUMMARY								
LABEL	CALC TYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN	MAX/AVG
MAIN CALC_PTS	ILLUMINANCE	Fc	0.79	6.1	0.0	N/A	N/A	N/A
BETWEEN BUILDINGS CALC_PTS	ILLUMINANCE	Fc	1.40	3.0	0.7	2.00	4.29	N/A

LUMINAIRE SCHEDULE

SYMBOL	QUANTITY (PHASE I)	QUANTITY (PHASE II)	LABEL	FIXTURE ARRANGEMENT	FIXTURE COUNT	MANUFACTURER / FIXTURE DESCRIPTION / MOUNTING TYPE	MOUNTING HEIGHT	LLF	COLOR TEMPERATURE	ARRANGEMENT WATTS	TOTAL WATTS
	5	0	A	BACK - BACK	2	GLEON - AF - 01 - LED - E1 - T4FT / POLE MOUNTED	16'-0"	0.912	3000 K	59	295.0
	51	40	B	SINGLE	1	GLEON - AF - 01 - LED - E1 - T4W - WM / WALL MOUNTED	20'-0"	0.912	3000 K	59	5369.0
	5	0	C	SINGLE	1	GLEON - AF - 01 - LED - E1 - T4FT - WM / WALL MOUNTED	20'-0"	0.912	3000 K	59	295.0
	19	16	D	SINGLE	1	GLEON - AF - 01 - LED - E1 - T4FT / POLE MOUNTED	16'-0"	0.912	3000 K	59	2065.0
	12	10	E	SINGLE	1	GLEON - AF - 01 - LED - E1 - SL4 / WALL MOUNTED	20'-0"	0.912	3000 K	59	1298.0
	5	0	F	SINGLE	1	GLEON - AF - 01 - LED - E1 - SL4 / POLE MOUNTED	16'-0"	0.912	3000 K	59	295.0
										TOTAL	9617.0

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DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

OVERALL LIGHTING PLAN

DRAWING No.: C-24

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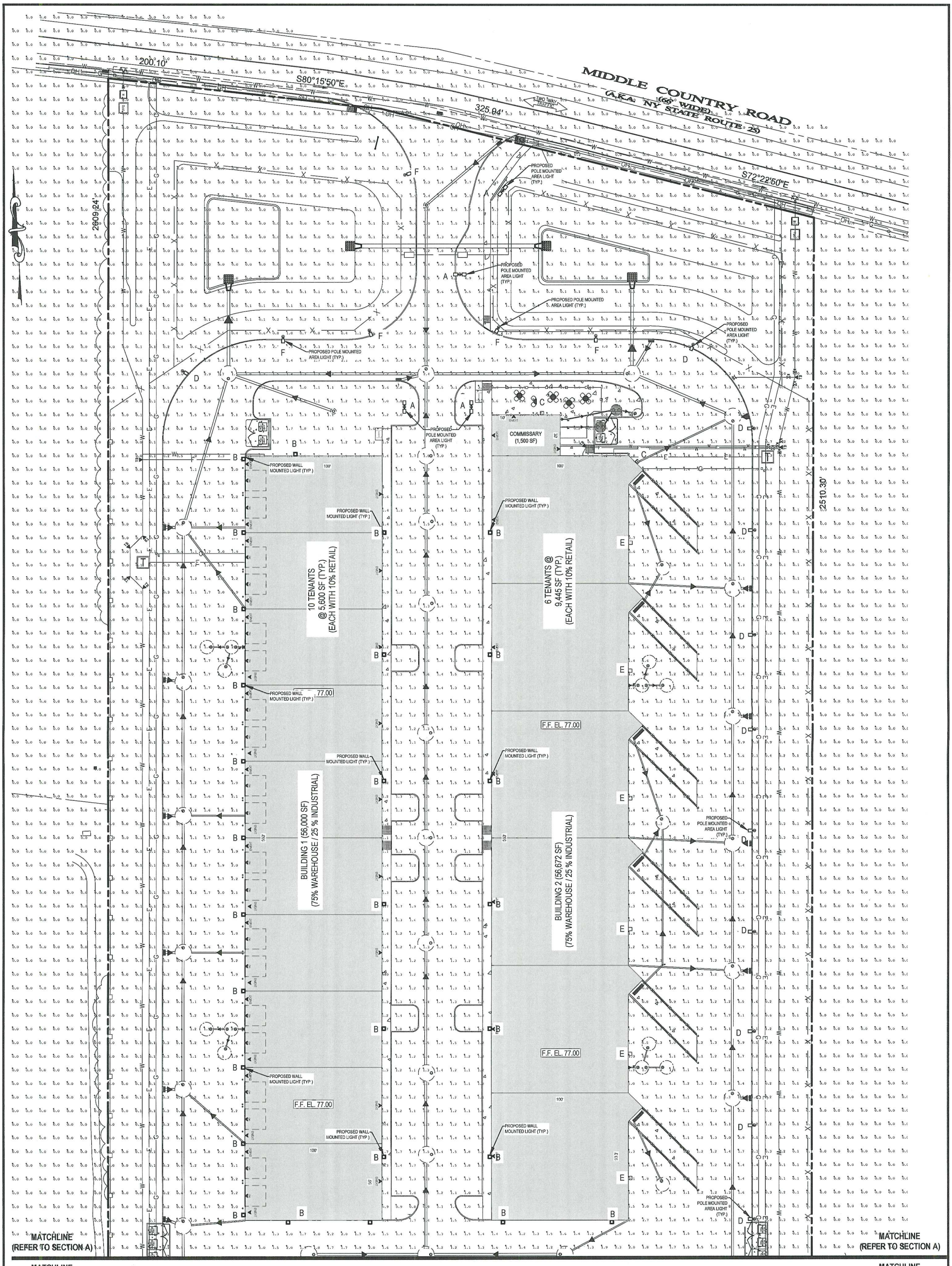

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PARTIAL LIGHTING PLAN
(SECTION A - PHASE I)

DRAWING No.:

C-25

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MATCHLINE (REFER TO SECTION A)

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MATCHLINE (REFER TO SECTION B)

PHASE I

PHASE II

MATCHLINE (REFER TO SECTION B)

PROPOSED WALL MOUNTED LIGHT (TYP.)

PROPOSED WALL MOUNTED LIGHT (TYP.)

PROPOSED WALL MOUNTED LIGHT (TYP.)

PROPOSED WALL MOUNTED LIGHT (TYP.)

PROPOSED WALL MOUNTED LIGHT (TYP.)

PROPOSED WALL MOUNTED LIGHT (TYP.)

PROPOSED POLE MOUNTED AREA LIGHT (TYP.)

PROPOSED POLE MOUNTED AREA LIGHT (TYP.)

PROPOSED POLE MOUNTED AREA LIGHT (TYP.)

10 TENANTS @ 5,600 SF (TYP.) (EACH WITH 10% RETAIL)

BUILDING 3 (56,000 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

6 TENANTS @ 9,445 SF (TYP.) (EACH WITH 10% RETAIL)

BUILDING 4 (56,672 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

N03°27'50"E

S03°33'00"W

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
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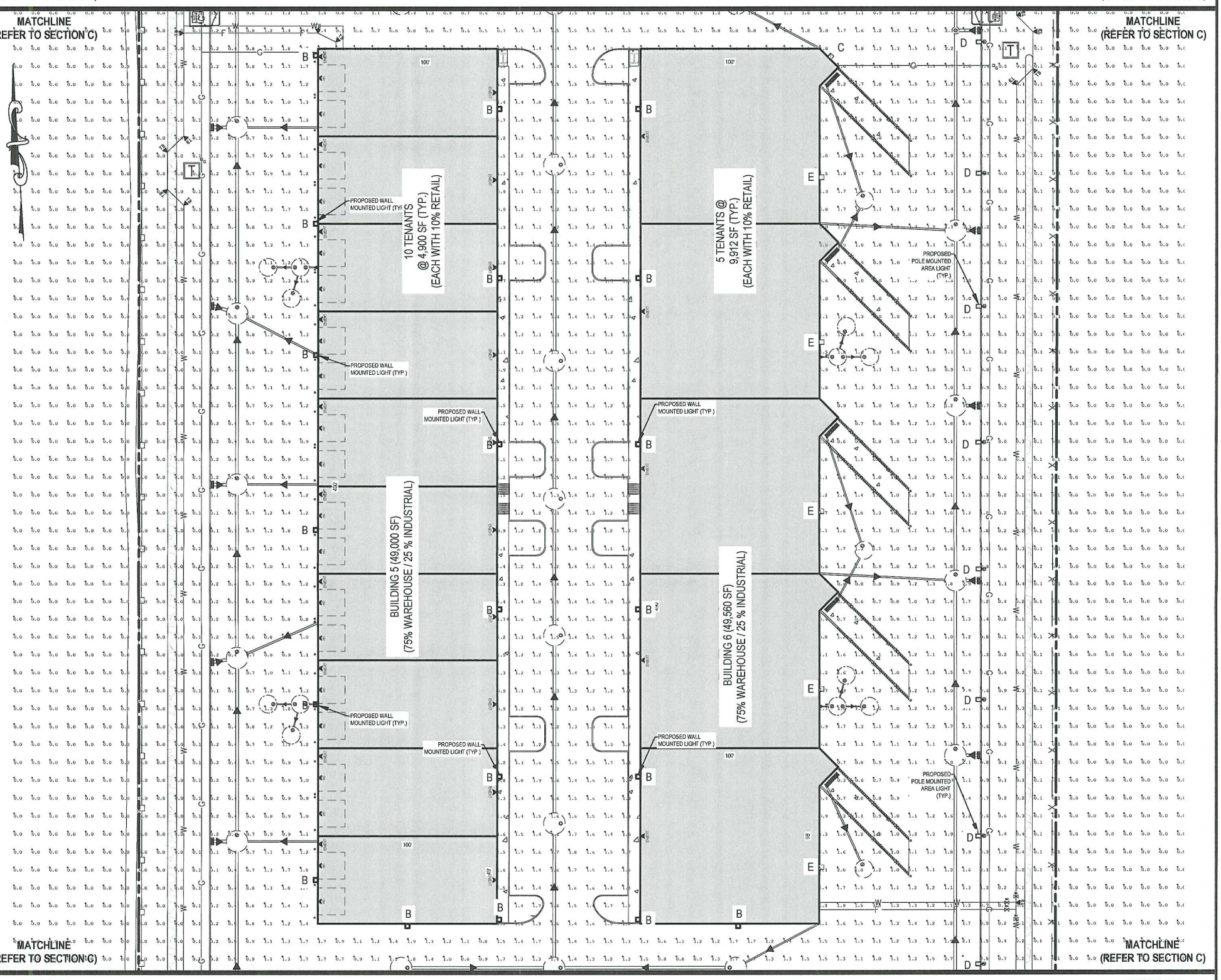

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JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
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CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:

HK VENTURES, LLC
INDUSTRIAL PARK

4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

PARTIAL LIGHTING PLAN
(SECTION C - PHASE II)

DRAWING No.:

C-27

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MATCHLINE
(REFER TO SECTION C)

MATCHLINE
(REFER TO SECTION C)

MATCHLINE
(REFER TO SECTION D)

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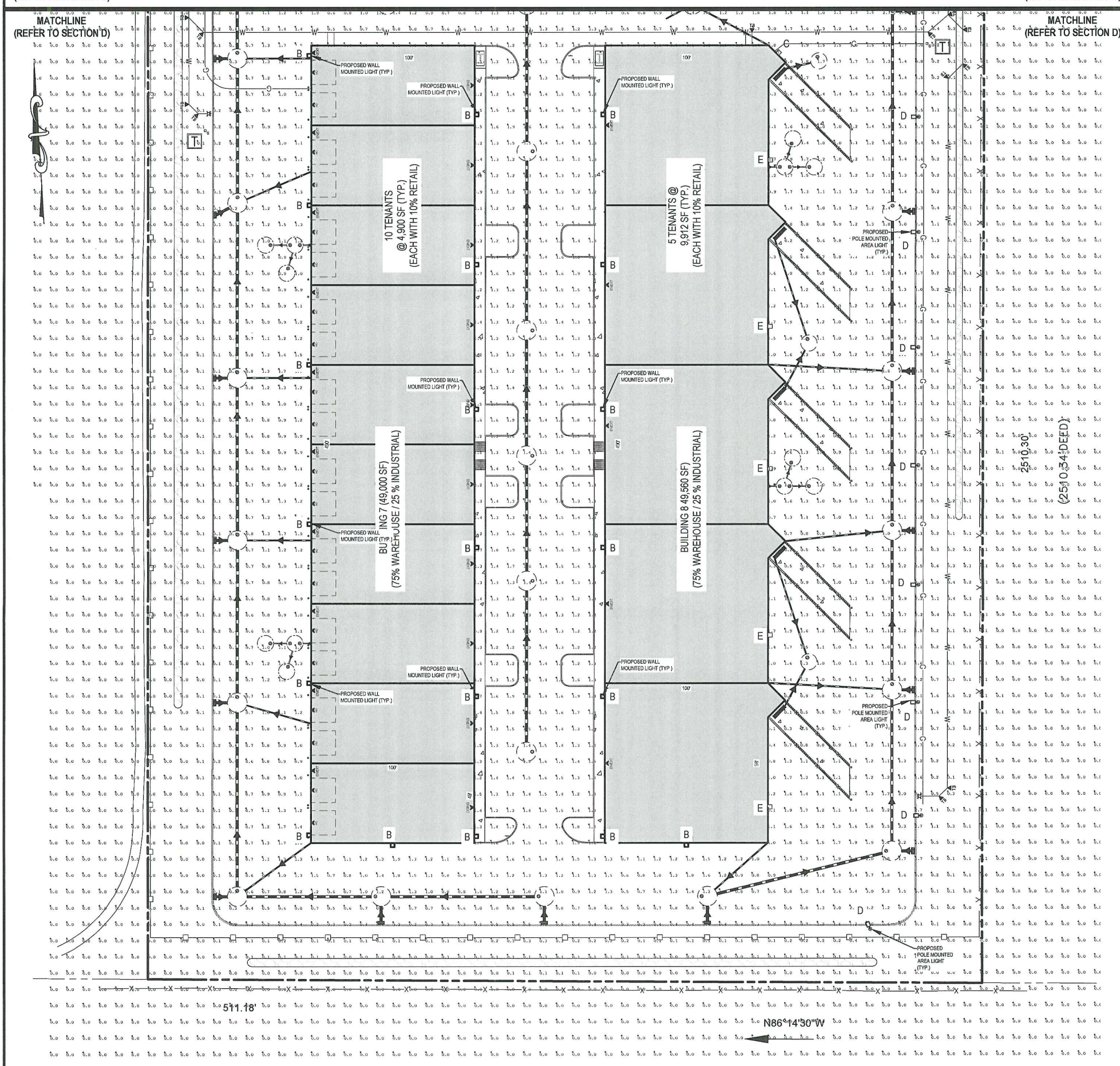
(REFER TO SECTION D)



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

REFER TO OVERALL LIGHTING PLAN (SHEET C-24) FOR LUMINARIE SCHEDULE AND DETAILS

No.	DATE	BY	DESCRIPTION
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ZONE: INDUSTRIAL C

DRAWING TITLE:
PARTIAL LIGHTING PLAN (SECTION D - PHASE II)

DRAWING No.: C-28

PAGE No.: 28 OF 38

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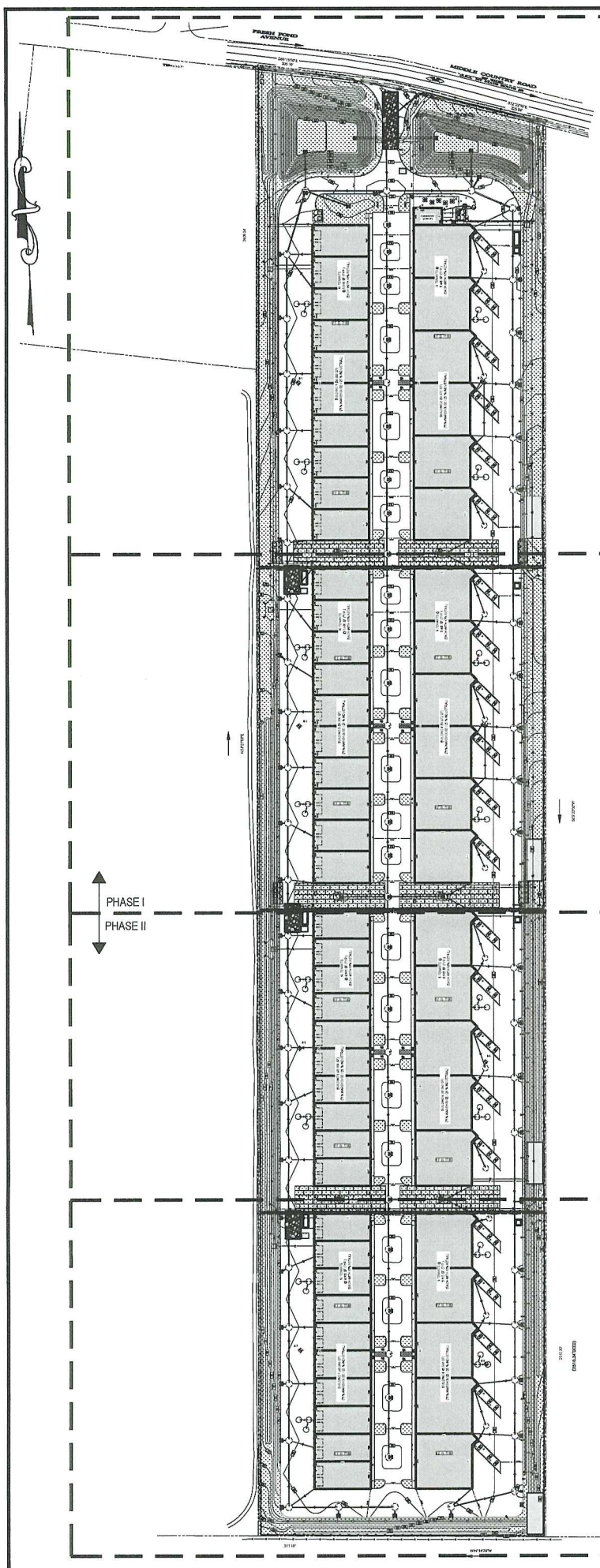

REFER TO PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN SECTION A - PHASE I (SHEET C-30)

CONSTRUCTION SECTION A - PHASE I AREA OF DISTURBANCE = 433,870 SF (9.96 ACRES)

REFER TO PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN SECTION B - PHASE I (SHEET C-31)

CONSTRUCTION SECTION B - PHASE I AREA OF DISTURBANCE = 313,118 SF (7.18 ACRES)

PHASE II TO BE DEVELOPED UNDER SEPARATE NOI

REFER TO PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN SECTION C - PHASE II (SHEET C-32)

CONSTRUCTION SECTION C - PHASE II AREA OF DISTURBANCE = 276,720 SF (6.35 ACRES)

PHASE II TO BE DEVELOPED UNDER SEPARATE NOI

REFER TO PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN SECTION D - PHASE II (SHEET C-33)

CONSTRUCTION SECTION D - PHASE II AREA OF DISTURBANCE = 294,176 SF (6.75 ACRES)

GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)

1 inch = 120 ft.

EACH SECTION (A, B, C, OR D) OF CONSTRUCTION SHALL BE STABILIZED TO THE SATISFACTION OF THE ENGINEER OF RECORD PRIOR TO THE DISTURBANCE OF ANOTHER SECTION

BMP IMPLEMENTATION AND MAINTENANCE SEQUENCE FOR EACH SECTION TO BE DISTURBED

SEQUENCE DESCRIPTION	BMP ACTIVITIES	MAINTENANCE FREQUENCY
PRE-CONSTRUCTION	INSTALL INLET PROTECTION ON EXISTING INLETS	WEEKLY OR AS REQUIRED
	INSTALL PERIMETER SEDIMENT CONTROL / SILT FENCE	
	INSTALL STABILIZED CONSTRUCTION ACCESS	
	INSTALL WORK TRAILER OR MAILBOX FOR CONSTRUCTION PERMIT PAPERWORK STORAGE	
	IDENTIFY THE SOIL STOCKPILE STORAGE AND CONSTRUCTION STAGING AREAS	
EARTHWORK	APPLY DUST CONTROL	DAILY
	INSTALL TEMPORARY RUN-OFF AND DRAINAGE CONTROL	
	SWEEP THE SOIL ON ROADWAYS	
BUILDING CONSTRUCTION	MATERIAL STOCKPILE PERIMETER CONTROL & STABILIZATION	AS REQUIRED
RUN-OFF AND DRAINAGE CONTROL	INSTALL NEW DRAINAGE SYSTEM	WEEKLY OR AS REQUIRED
	INSTALL INLET PROTECTION FOR NEW SYSTEM	
GRADING, DRAINAGE, & UTILITY INSTALLATION AND STABILIZATION	GRADE SITE AREAS	AS REQUIRED
	STABILIZE EXPOSED AREAS	
	INSTALL EROSION CONTROL MEASURES	
FINALIZE GRADING	REMOVE TEMPORARY ESC MEASURES	MONTHLY OR AS REQUIRED
POST CONSTRUCTION STORMWATER MANAGEMENT AND INTERCONNECTING PIPE	CLEAN ALL DRAINAGE STRUCTURES AND PIPE THAT MAY HAVE RECEIVED RUNOFF	ANNUALLY OR AS REQUIRED
INSPECTION REQUIRED		
PRE-CONSTRUCTION TRAINED CONTRACTOR: DAILY QUALIFIED INSPECTOR: 1/WK POST FINAL STABILIZATION	INSPECT SEDIMENT BASINS, PERIMETER SEDIMENT CONTROLS, STABILIZED CONSTRUCTION ACCESS, INLET PROTECTION, AND OTHER BMPS	UPDATE SWPPP AS REQUIRED

NOTES:
1. BMP ACTIVITIES IDENTIFIED FOR EACH PHASE DESCRIPTION SHALL BE IMPLEMENTED AT THE START OF EACH SEQUENCE AND BE MAINTAINED UNTIL PERMANENT STABILIZATION IS ACHIEVED.
2. IMPLEMENTATION OF BMP ACTIVITIES SHALL IN NO WAY RELIEVE THE CONTRACTOR OF OBLIGATIONS REGARDING OTHER CONSTRUCTION ACTIVITIES AND TIME FRAMES.

LEGEND

SCALE OF SYMBOLS = 1" = 120'

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	DUMPSTER ENCLOSURE	
	12' x 34' LOADING SPACE	
	LOADING DOCK RETAINING WALLS	
	PARKING COUNT	
	OVERHEAD DOOR	
	DOOR	
x x	FENCE	
	BIKE RACK	
	HYDRANT	
	SOIL BORING	

LEGEND

SCALE OF SYMBOLS = 1" = 30' (REFER TO PARTIAL SITE PLANS)

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	EDGE OF PAVEMENT	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	TRASH ENCLOSURE	
	ACCESSIBLE STRIPING SYMBOL	
	BIKE RACK MOUNTED ON CONCRETE PAD	
	OVERHEAD DOOR	
	LOADING DOCK WALL WITH FALL PROTECTION RAILING	
	DOOR	
	SIGN	
	FIRE HYDRANT	
	UTILITY POLE	
	GROUND SIGN	
	FENCE	
	POLE MOUNTED LIGHTING	
	ELEVATION CONTOUR	
	STABILIZED CONSTRUCTION ENTRANCE	
	INLET PROTECTION	
	CONSTRUCTION TRAILER	
	MATERIAL STOCKPILE LOCATION	
	CONCRETE WASH-OUT STATION	
	TEMPORARY CONSTRUCTION FENCE	
	SILT FENCE	
	LIMIT OF CLEARING	LCGD
	EDGE OF WOODS	

NEW YORK CITY ONE CALL CENTER 1-800-272-4480 STOP-CALL-THEN DIG-SAFELY

No.	DATE	BY	DESCRIPTION
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4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

OVERALL SOIL EROSION & SEDIMENT CONTROL PLAN

DRAWING No.: C-29

PAGE No.: 29 OF 38

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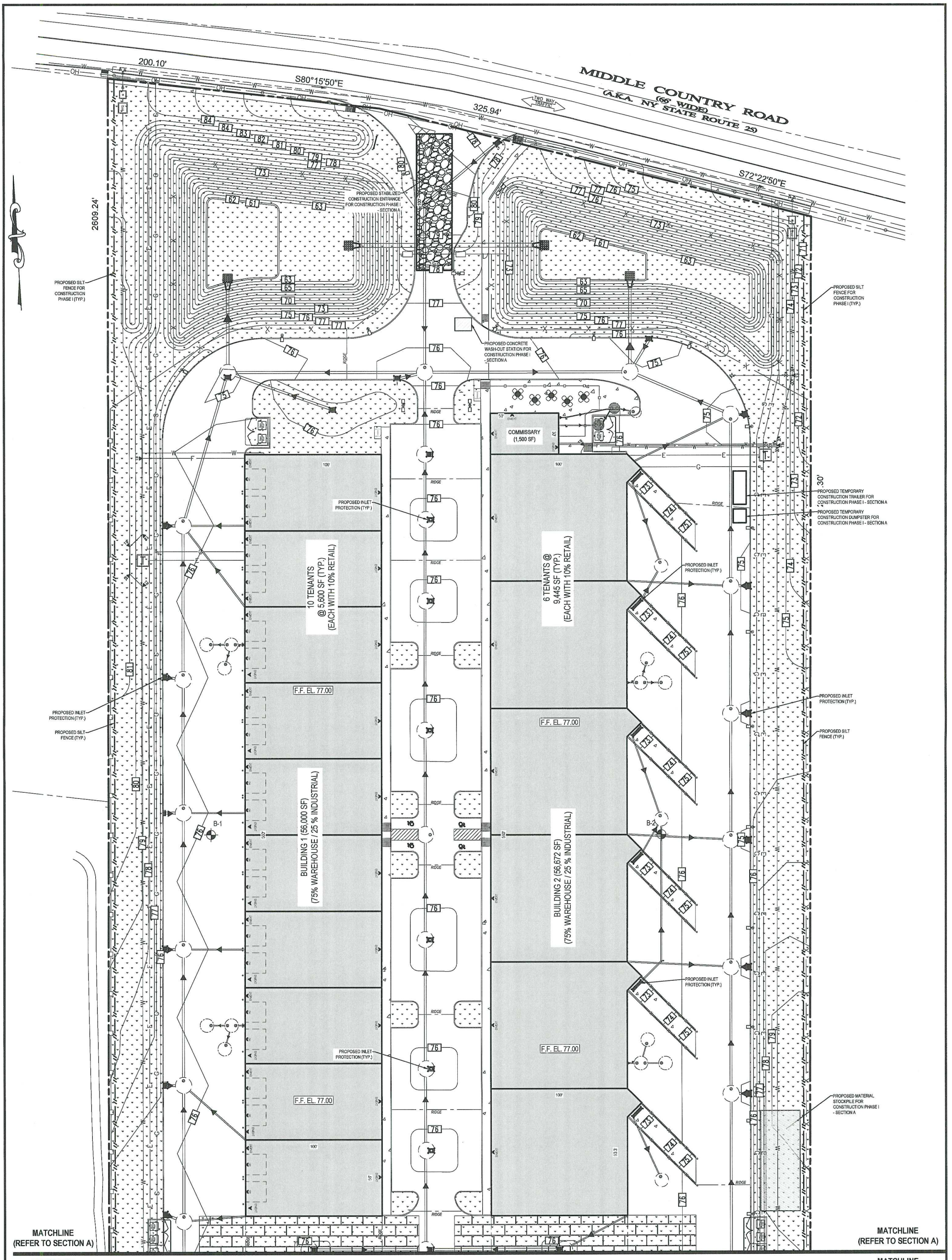

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CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN
(SECTION A - CONSTRUCTION PHASE I)

DRAWING No.:
C-30

PAGE No.:
30 OF 38

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MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION A)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)

PHASE I

PHASE II

PROPOSED SILT FENCE FOR CONSTRUCTION PHASE I - SECTION A

PROPOSED LIMIT OF CLEARING AND GRADING FOR CONSTRUCTION PHASE I - SECTION A

PROPOSED STABILIZED CONSTRUCTION ENTRANCE FOR CONSTRUCTION PHASE I - SECTION B

PROPOSED TEMPORARY CONSTRUCTION TRAILER FOR CONSTRUCTION PHASE I - SECTION B

PROPOSED CONCRETE WASH-OUT STATION FOR CONSTRUCTION PHASE I - SECTION B

PROPOSED INLET PROTECTION (TYP.)

10 TENANTS @ 5,600 SF (TYP.) (EACH WITH 10% RETAIL)

F.F. EL. 77.00

BUILDING 3 (56,000 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

F.F. EL. 77.00

6 TENANTS @ 9,445 SF (TYP.) (EACH WITH 10% RETAIL)

F.F. EL. 77.00

BUILDING 4 (56,672 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

F.F. EL. 77.00

PROPOSED TEMPORARY CONSTRUCTION DUMPSTER FOR CONSTRUCTION PHASE I - SECTION B

PROPOSED INLET PROTECTION (TYP.)

PROPOSED SILT FENCE (TYP.)

PROPOSED INLET PROTECTION (TYP.)

PROPOSED INLET PROTECTION (TYP.)

PROPOSED MATERIAL STOCKPILE FOR CONSTRUCTION PHASE I - SECTION B

N03°27'50"E

S03°33'00"W

B-3

B-4

RIDGE

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION B)

MATCHLINE (REFER TO SECTION C)

MATCHLINE (REFER TO SECTION C)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

REFER TO SITE DETAILS III (SHEET C-36) FOR SOIL EROSION & SEDIMENT CONTROL DETAILS

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PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN (SECTION B - CONSTRUCTION PHASE II)

DRAWING No.: C-31

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MATCHLINE
(REFER TO SECTION B)

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(REFER TO SECTION B)

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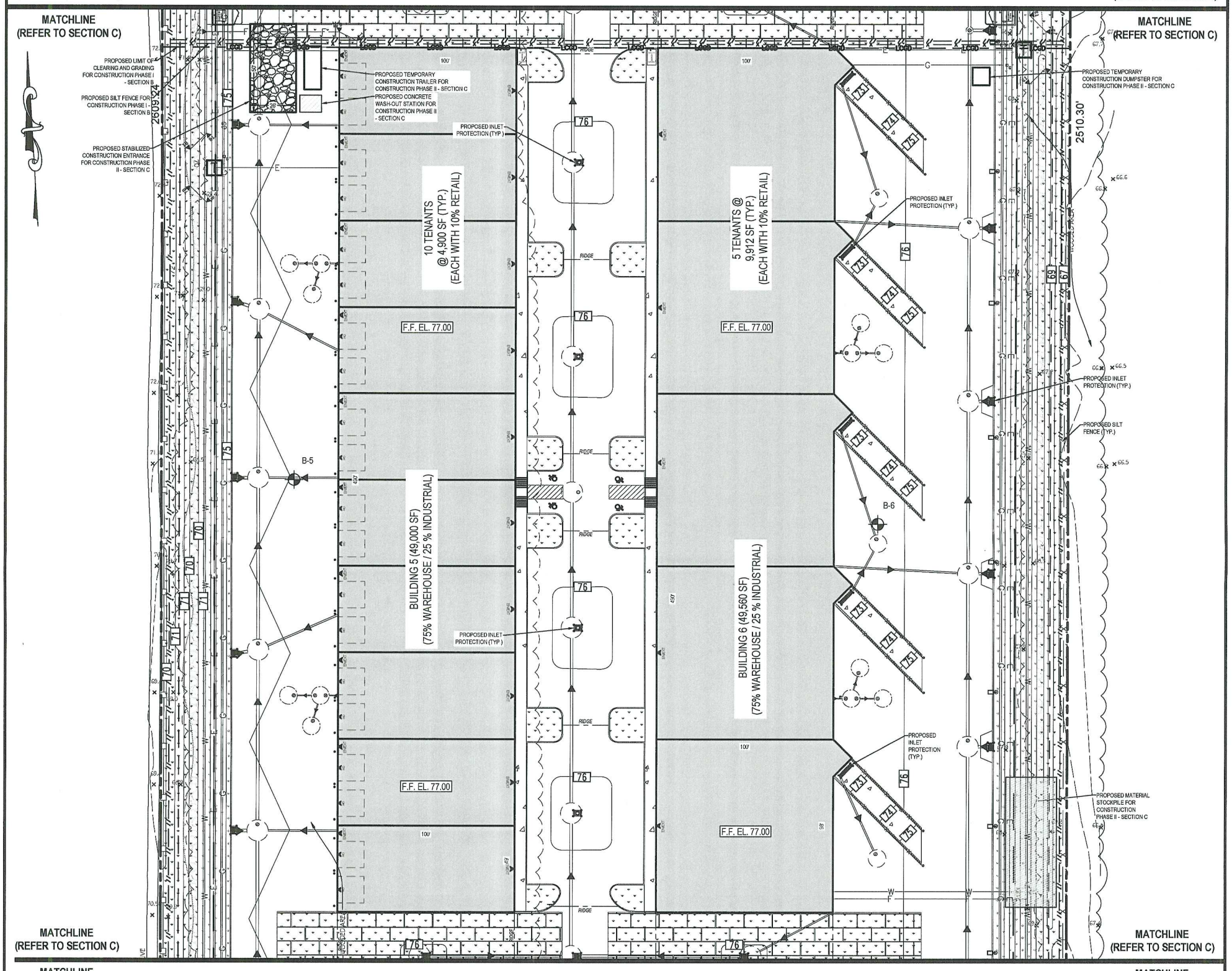
(REFER TO SECTION C)

MATCHLINE
(REFER TO SECTION C)



MATCHLINE
(REFER TO SECTION C)

MATCHLINE
(REFER TO SECTION C)

MATCHLINE
(REFER TO SECTION D)

MATCHLINE
(REFER TO SECTION D)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

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(SHEET C-36) FOR SOIL EROSION & SEDIMENT CONTROL DETAILS

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PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN
(SECTION C - CONSTRUCTION PHASE III)

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C-32

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MATCHLINE
(REFER TO SECTION C)

MATCHLINE
(REFER TO SECTION C)

MATCHLINE
(REFER TO SECTION D)

MATCHLINE
(REFER TO SECTION D)

PROPOSED LIMIT OF CLEARING AND GRADING FOR CONSTRUCTION PHASE II - SECTION C

PROPOSED SILT FENCE FOR CONSTRUCTION PHASE II - SECTION C

PROPOSED STABILIZED CONSTRUCTION ENTRANCE FOR CONSTRUCTION PHASE II - SECTION D

PROPOSED TEMPORARY CONSTRUCTION TRAILER FOR CONSTRUCTION PHASE II - SECTION D

PROPOSED CONCRETE WASH-OUT STATION FOR CONSTRUCTION PHASE II - SECTION D

PROPOSED INLET PROTECTION (TYP.)

PROPOSED TEMPORARY CONSTRUCTION DUMPSTER FOR CONSTRUCTION PHASE II - SECTION D

PROPOSED INLET PROTECTION (TYP.)

PROPOSED INLET PROTECTION (TYP.)

PROPOSED INLET PROTECTION (TYP.)

PROPOSED INLET PROTECTION (TYP.)

PROPOSED SILT FENCE (TYP.)

PROPOSED MATERIAL STOCKPILE FOR CONSTRUCTION PHASE IV - SECTION D

10 TENANTS @ 4,900 SF (TYP.) (EACH WITH 10% RETAIL)

5 TENANTS @ 9,912 SF (TYP.) (EACH WITH 10% RETAIL)

BUILDING 7 (49,000 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

BUILDING 8 49,560 SF) (75% WAREHOUSE / 25 % INDUSTRIAL)

F.F. EL. 77.00

B-7

B-8

RIDGE

100'

N03°27'50"E

S03°33'00"W

2510.30'

(2510.34'DEED)

511.18'
511.18'

N86°14'30"W

N86°14'30"W

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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PARTIAL SOIL EROSION & SEDIMENT CONTROL PLAN
(SECTION D - CONSTRUCTION PHASE IV)

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C-33

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33 OF 38

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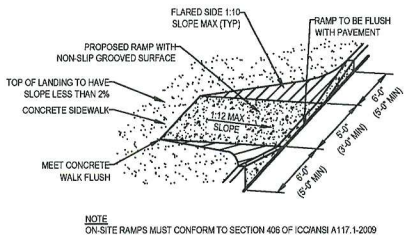
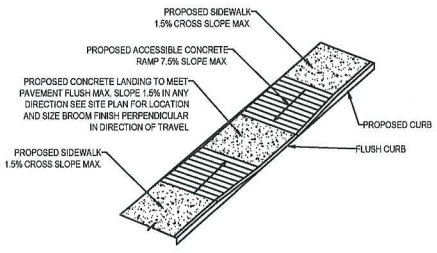
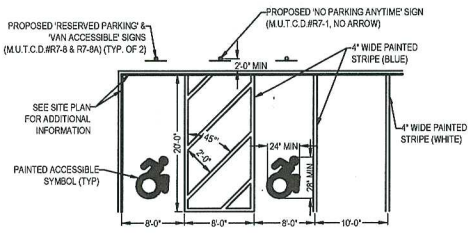


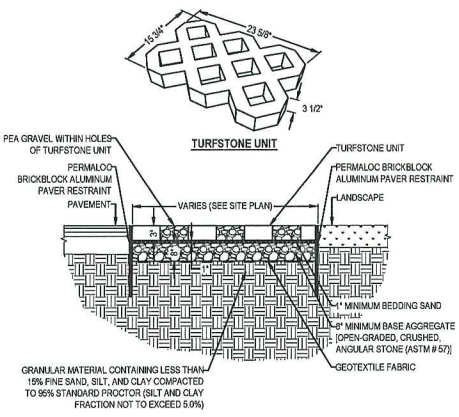
NOTE
ON-SITE RAMPS MUST CONFORM TO SECTION 406 OF ICC/ANSI A117.1-2009



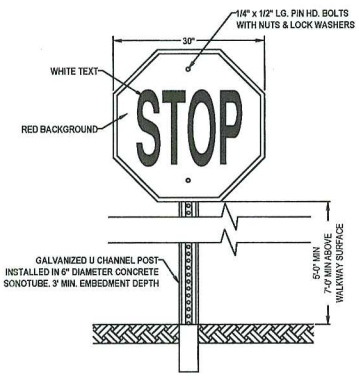
ACCESSIBLE RAMP DETAILS
N.T.S.



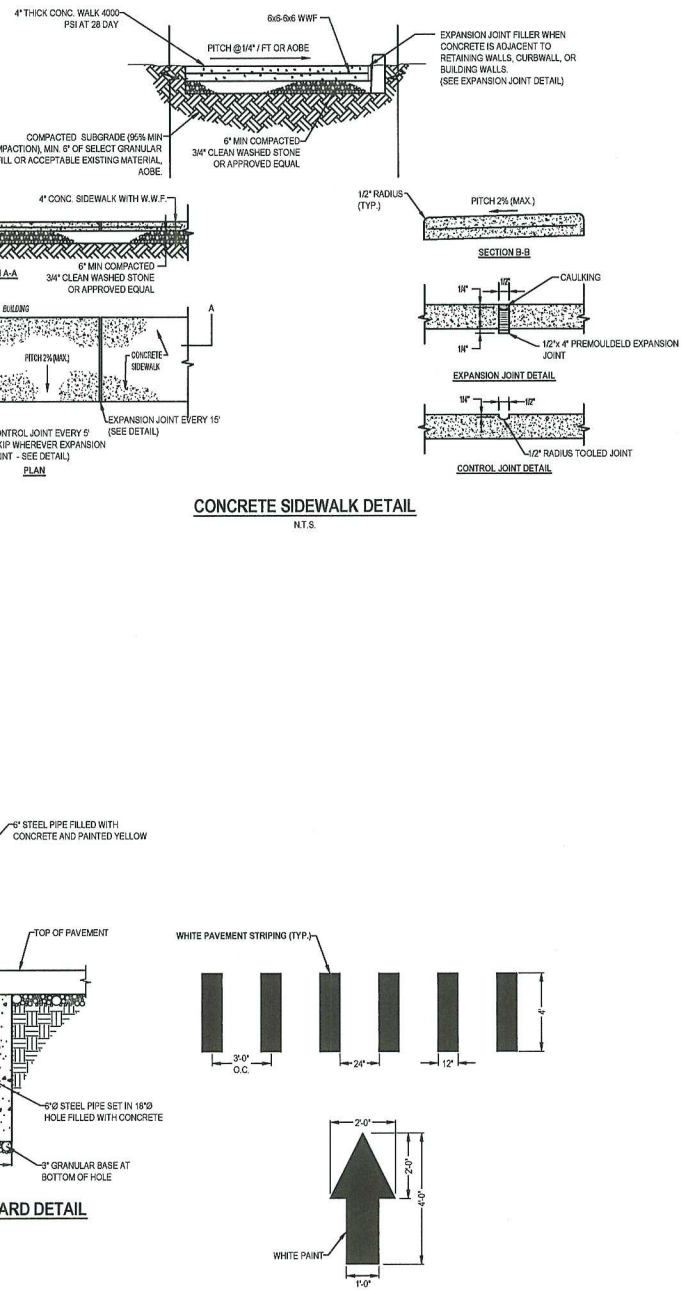
PAINTED ACCESSIBLE & STANDARD STRIPING AREA DETAIL
N.T.S.



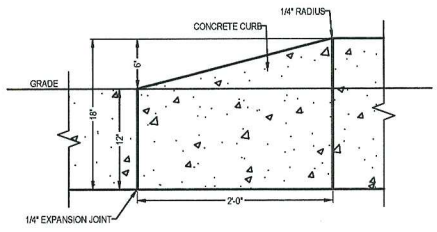
TURFSTONE INSTALLATION DETAIL (PERVIOUS PAVERS)
TURFSTONE BY MUTUAL MATERIALS
N.T.S.



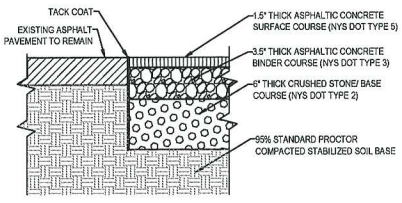
STOP SIGN DETAIL
(MUTCD #R1-1)
N.T.S.



CONCRETE SIDEWALK DETAIL
N.T.S.



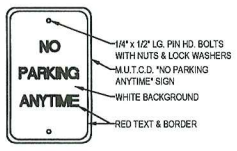
ON-SITE CONCRETE CURB TAPER DETAIL
N.T.S.



ASPHALT PAVEMENT SECTION
(FOR USE ON-SITE)
N.T.S.

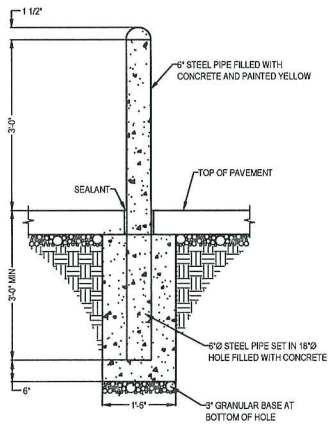
NOTES
1. ACCESSIBLE PARKING SIGN SHALL CONFORM WITH CURRENT FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS.
2. SIGN MOUNTING HEIGHT SHALL BE 60 TO 84 INCHES MEASURED FROM GROUND SURFACE OF PARKING STALLS.

BUILDING WALL MOUNTED - "RESERVED PARKING" SIGN
M.U.T.C.D. #R7-8
N.T.S.



NOTES
1. 'NO PARKING ANYTIME' SIGN SHALL CONFORM WITH CURRENT FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS.
2. SIGN MOUNTING HEIGHT SHALL BE 60 TO 84 INCHES MEASURED FROM GROUND SURFACE OF PARKING STALLS.

BUILDING WALL MOUNTED - "NO PARKING ANYTIME" SIGN
(M.U.T.C.D. #R7-1, NO ARROW) (NYR #7-4)
N.T.S.

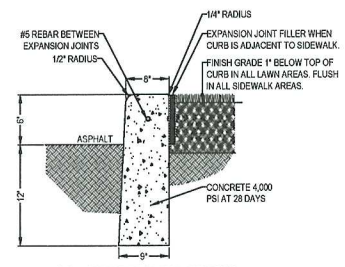


TYPICAL BOLLARD DETAIL
N.T.S.

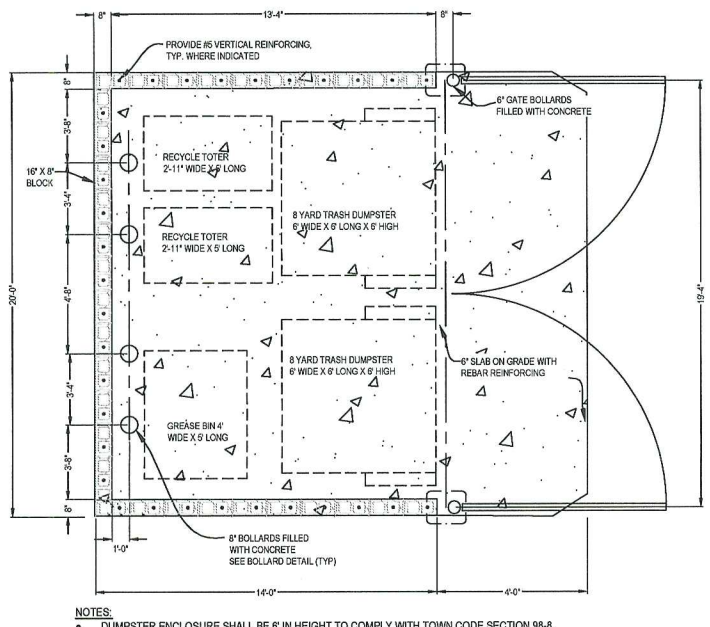
ALL PAINT TO BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M24B TYPE F, PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER

ON-SITE PAINTED TRAFFIC ARROW & CROSSWALK DETAIL
N.T.S.

NOTES
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE.
2. EXPANSION JOINTS SHALL BE PROVIDED AT EQUAL DISTANCES OF NOT MORE THAN 15' AND AT ALL STORM SEWER INLETS. JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, 1/2" THICK. THE JOINT SHALL BE RECESSED 1/4" FROM THE TOP AND FRONT OF THE CONCRETE CURB. CAULKING SHALL BE PROVIDED ABOVE EXPANSION JOINT, FLUSH WITH TOP OF CURB.
3. PAVEMENT REPAIR TO BE PROVIDED AS NEEDED FOR CURB REPLACEMENT.
4. THE TOP OF CURB (AT THE OUTSIDE OR NON-EXPOSED FACE) AND THE FLOW LINE OF CONCRETE GUTTER SHALL NOT VARY MORE THAN 0.01 FT. FROM A 10 FT. STRAIGHT EDGE PLACED LONGITUDINALLY ALONG THE CURB OR AT THE FLOW LINE OF THE GUTTER.
5. THE FACE OF CURB SHALL NOT VARY MORE THAN 0.03 FT. FROM A 10 FT. STRAIGHT EDGE PLACED LONGITUDINALLY ALONG THE FLOW LINE.
6. THE ELEVATION OF THE TOP OF CURB OR FLOW LINE OF GUTTER SHALL NOT VARY MORE THAN 0.02 FT. FROM THE TRUE ELEVATION LAID OUT IN THE FIELD BY THE ENGINEER.

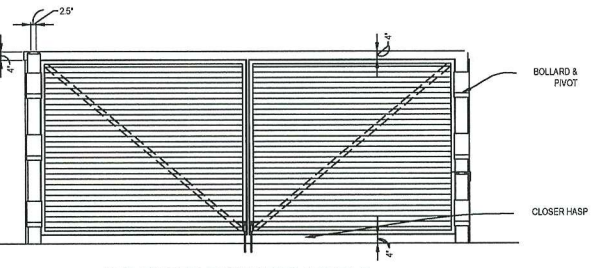


CONCRETE CURB DETAIL
N.T.S.

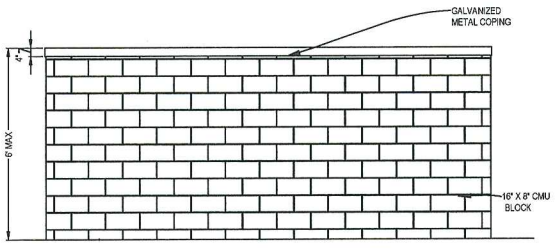


NOTES:
- DUMPSTER ENCLOSURE SHALL BE 6' IN HEIGHT TO COMPLY WITH TOWN CODE SECTION 98-8.
- SCREENING ENCLOSURE SHALL BE NO LESS THAN 5' AND NO MORE THAN 6' IN HEIGHT.
- ALL ENCLOSED CONTAINERS SHALL BE 6' IN HEIGHT OR LESS.

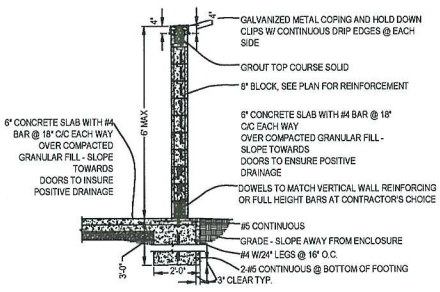
DUMPSTER PLAN DETAILS
N.T.S



DUMPSTER ELEVATION DETAIL
N.T.S



SECTION A-A
N.T.S



SECTION B-B
N.T.S

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD FOR REVIEW PRIOR TO CONSTRUCTION FOR ANY DETAIL NOT PROVIDED IN THIS PLAN SET.

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE

STATE OF NEW YORK — JACLYN H. PERANTEAU — LICENSED PROFESSIONAL ENGINEER — 083937 — NOT VALID UNLESS SEALED

JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC
INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
SITE DETAILS I

DRAWING No.:
C-34

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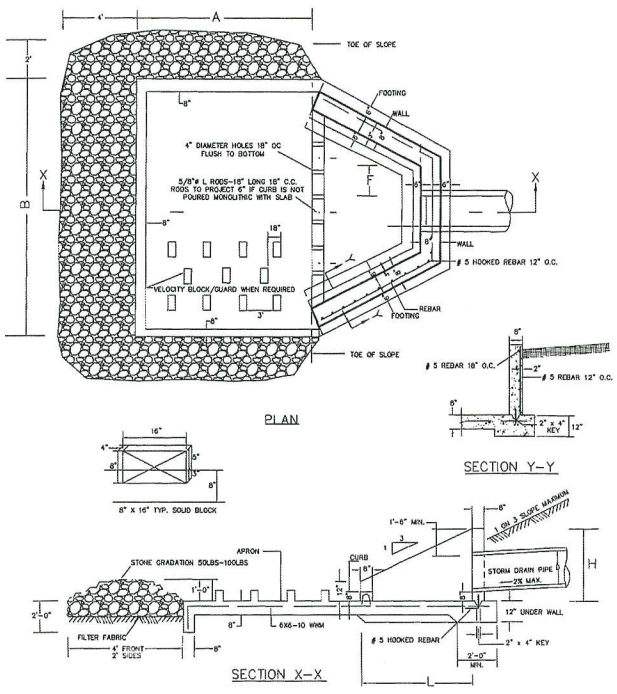
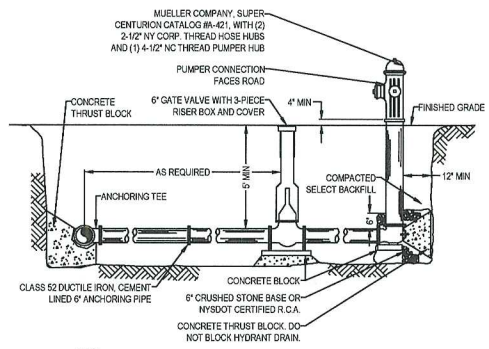


DIMENSIONS							
D	L	F	B		A	H	RIP-RAP
24"	9'-0"	12"	10'-0"	10'-0"	4'-0"	4'-0"	
30"	10'-6"	18"	12'-0"	12'-0"	4'-6"	6'-0"	
36"	12'-0"	24"	14'-0"	14'-0"	5'-0"	8'-0"	
42"	13'-6"	30"	16'-0"	16'-0"	5'-6"	10'-0"	

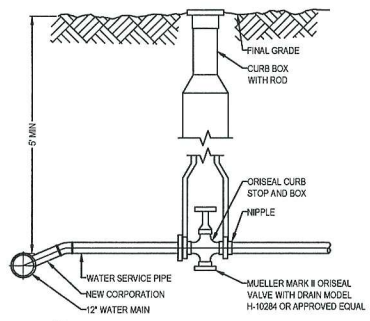
NOTES:
1. ALL CONCRETE TO BE 4000 PSI @ 28 DAYS.
2. ALL PRECAST CONCRETE STRUCTURES MUST MEET ACI CODE AND SPECIFICATIONS.
3. ALL STRUCTURES MUST BE MANUFACTURED AT AN ACI CERTIFIED PLANT, A COPY OF A CERTIFICATION MUST BE ON FILE WITH THE TOWN.

CONCRETE HEADWALL DETAIL
N.T.S.



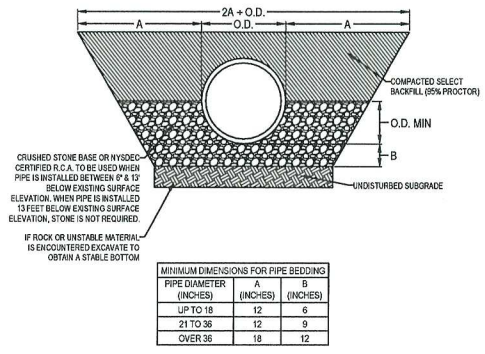
NOTE
IF GROUNDWATER IS ENCOUNTERED WITHIN 7 FEET OF FINISH GRADE, HYDRANT DRAIN HOLES SHALL BE PLUGGED.

HYDRANT ASSEMBLY DETAIL
N.T.S.



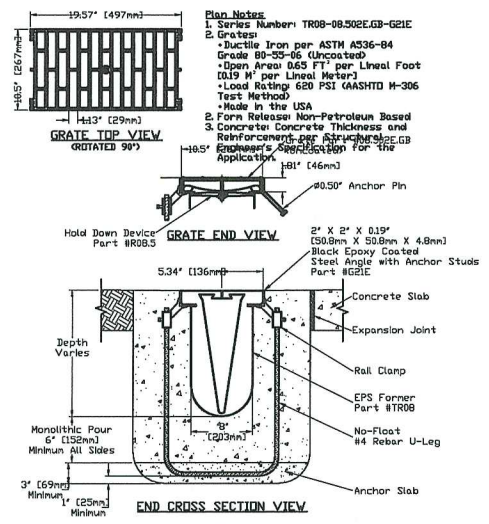
NOTE
DUCTILE IRON PIPE SHALL BE USED FOR WATER SERVICE LATERALS.

WATER SERVICE INSTALLATION DETAIL
N.T.S.

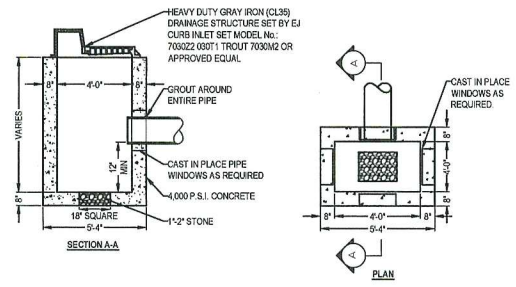


MINIMUM DIMENSIONS FOR PIPE BEDDING		
PIPE DIAMETER (INCHES)	A (INCHES)	B (INCHES)
UP TO 18	12	6
21 TO 36	12	9
OVER 36	18	12

STORMWATER / SANITARY PIPE INSTALLATION DETAIL
N.T.S.

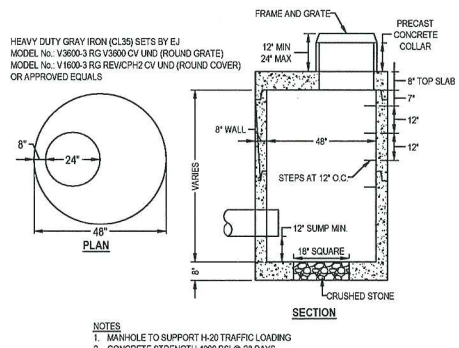


8" TRENCH DRAIN DETAIL
TRENCH FORMER MODEL No.: TR08-08.502E.GB-G21E
N.T.S.



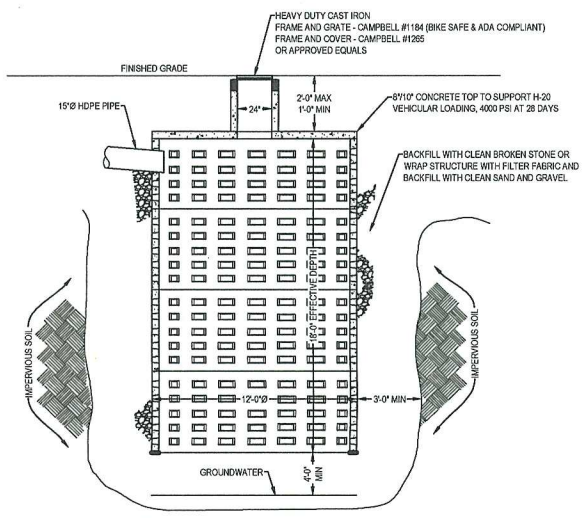
NOTES
1. STRUCTURE TO BE IN ACCORDANCE WITH ASTM C-478
2. CONCRETE 4000 PSI @ 28 DAYS.
3. REINFORCEMENT AS REQUIRED FOR H-20 LOADING

4'-0" x 2'-6" PRECAST CONCRETE CATCH BASIN
N.T.S.



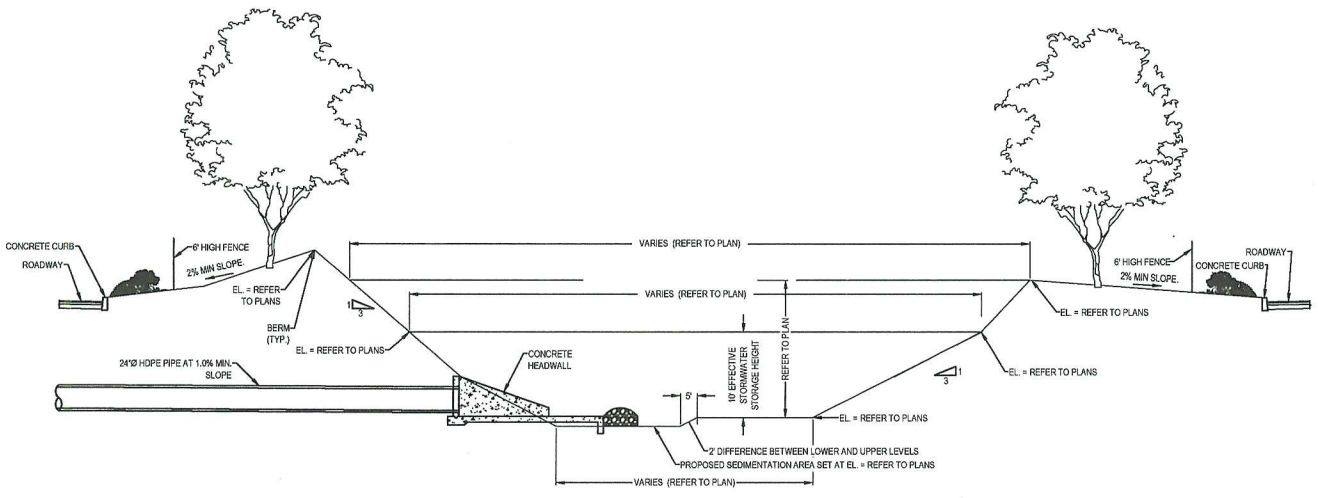
NOTES
1. MANHOLE TO SUPPORT H-20 TRAFFIC LOADING
2. CONCRETE STRENGTH 4000 PSI @ 28 DAYS
3. REBAR TO BE ASTM A-615 GRADE 60
4. WELDED WIRE FABRIC ASTM A-185

4'-0"Ø PRECAST DRAINAGE MANHOLE DETAIL
N.T.S.



NOTE:
6' MIN. PENETRATION INTO A VIRGIN STRATA OF SAND AND GRAVEL.

ON-SITE DRYWELL DETAIL
N.T.S.



TYPICAL RECHARGE BASIN DETAIL
N.T.S.

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No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE:

JACLYN R. PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937

DATE:	01/24/2020
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KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
SITE DETAILS II

DRAWING No.:
C-35

PAGE No.:
35 OF 38

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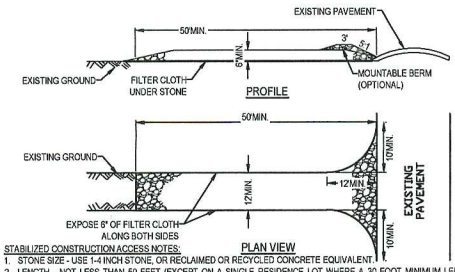
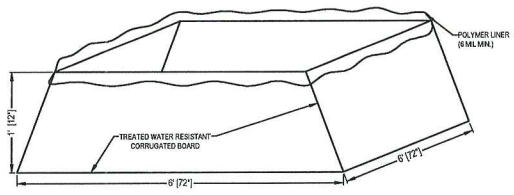


STABILIZED CONSTRUCTION ACCESS NOTES:

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED. THIS AREA SHALL BE GRADED SO THAT RUNOFF WATER WILL BE RETAINED ON-SITE.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
10. CONTRACTOR TO ENSURE THAT THE TRACKING PREVENTION REMAINS EFFECTIVE DURING ALL CONSTRUCTION PHASES.
11. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERCOURSES.
12. CONTRACTOR TO RELOCATE TRACKING PADS AS NECESSARY.
13. EXPOSE 6" END OF FILTER CLOTH ON BOTH OF THE LONGER SIDES FOR THE ENTIRE LENGTH.

STABILIZED CONSTRUCTION ACCESS

N.T.S.

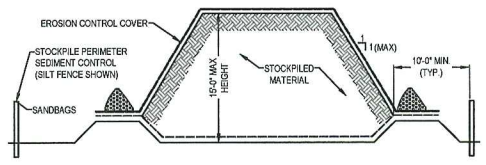


CONCRETE WASHOUT NOTES:

1. THE CONCRETE WASHOUT(S) SHALL BE INSTALLED PRIOR TO THE DELIVERY OR PLACEMENT OF CONCRETE.
2. WHEN DEEMED NECESSARY BY THE ENGINEER THE CONTRACTOR SHALL PLACE SIGNS THROUGHOUT THE SITE TO INDICATE THE LOCATION OF THE CONCRETE WASHOUT(S).
3. THE CONCRETE WASHOUT AREA SHALL BE REPLACED AS NECESSARY AND/OR ACBE TO MAINTAIN CAPACITY FOR LIQUID WASTE.
4. CONCRETE WASHOUT RESIDUE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED FACILITY.
5. UNDER NO CIRCUMSTANCES ARE DRAINAGE STRUCTURES, OPEN DITCHES, STREETS, OR STREAMS TO BE USED FOR CONCRETE WASHOUT LOCATIONS.
6. LOCATE CONCRETE WASHOUT AT LEAST 50' FROM ALL DRAINAGE FACILITIES, OPEN DITCHES, AND OTHER WATER BODIES.
7. THE CONCRETE WASHOUT SHALL BE USED FOR THE WASHING OF PORTLAND CEMENT CONCRETE RELATED ITEMS (TRANSIT-MIX TRUCKS, TOOLS, MIXERS, ETC.) ONLY.

CONCRETE TRUCK/MIXER WASHOUT AND GROUT WASTE

ITEM 209-06
N.T.S.

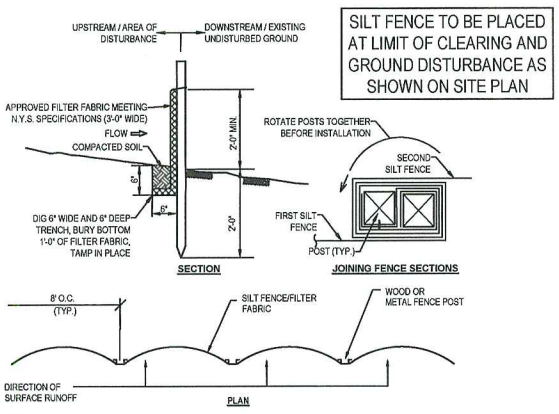


STOCKPILE NOTES:

1. STOCKPILE MANAGEMENT INCLUDES MEASURES TO MINIMIZE EROSION AND SEDIMENT TRANSPORT FROM SOILS OR OTHER ERODIBLE MATERIALS STORED AT THE CONSTRUCTION SITE. SPECIAL ATTENTION SHOULD BE GIVEN TO STOCKPILES IN CLOSE PROXIMITY TO NATURAL OR MANMADE STORM SYSTEMS. PROTECTION OF STOCKPILES IS A YEAR-ROUND REQUIREMENT.
2. THIS DETAIL DOES NOT APPLY TO CONTAMINATED MATERIALS WHICH REQUIRE ADDITIONAL MEASURES.
5. LOCATE STOCKPILES AS FAR AWAY FROM BODIES OF WATER, INFILTRATION AREAS, INLETS, AND OTHER DRAINAGE SYSTEM COMPONENTS AS POSSIBLE SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
6. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.
7. WHEN THE STOCKPILE IS NO LONGER NEEDED, PROPERLY DISPOSE OF EXCESS MATERIALS AND RE-VEGETATE OR OTHERWISE STABILIZE THE GROUND SURFACE WHERE THE STOCKPILE WAS LOCATED.
8. FOR STOCKPILES MAINTAINED FOR MORE THAN ONE DAY, A SEDIMENT CONTROL SYSTEM, CONSISTING OF SILT FENCING OR COIR LOG, SHALL BE INSTALLED AND MAINTAINED ON DOWNHILL SIDES TO CONTAIN MATERIAL.
   - 8.1. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWN-GRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.
   - 8.2. PROTECT ALL STOCKPILES FROM STORMWATER RUN-ON.
   - 8.3. FOR STOCKPILES IN ACTIVE USE, PROVIDE A STABILIZED DESIGNATED ACCESS POINT ON THE UPGRADIENT SIDE OF THE STOCKPILE.
   - 8.4. SEDIMENTS SHALL BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE-THIRD (1/3) OF THE BARRIER HEIGHT.
   - 8.5. INSPECT STOCKPILE SEDIMENT CONTROL SYSTEM IMMEDIATELY AFTER MODIFYING STOCKPILE.
   - 8.6. REPAIR AND/OR REPLACE PERIMETER CONTROLS AND COVERS AS NEEDED, OR AS DIRECTED BY THE ENGINEER, TO KEEP THEM FUNCTIONING PROPERLY.
9. THE TOE OF STOCKPILES SHALL NOT BE SITE PERIMETER SEDIMENT CONTROL.
10. FOR STOCKPILES INACTIVE FOR MORE THAN 14 DAYS, STABILIZE THE STOCKPILE TO PREVENT SEDIMENT TRANSPORT USING AN EROSION CONTROL SYSTEM, CONSISTING OF TEMPORARY SEEDING AND MULCHING, PLASTIC / GEOTEXTILE COVERING, SOIL BINDERS, OR EROSION CONTROL BLANKETS. USE OF MULCH OR SOIL BINDERS ONLY IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR NO MORE THAN 60 DAYS.
11. IMPLEMENT DUST CONTROL PRACTICES AS APPROPRIATE ON ALL STOCKPILED MATERIAL.

MATERIAL STOCKPILE

N.T.S.



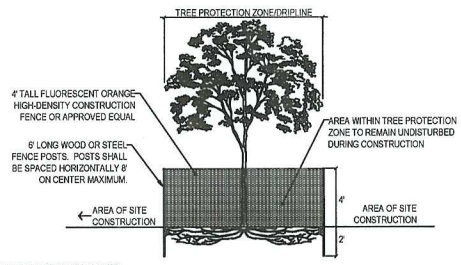
SILT FENCE TO BE PLACED AT LIMIT OF CLEARING AND GROUND DISTURBANCE AS SHOWN ON SITE PLAN

STANDARD SILT FENCE NOTES:

1. THE SLOPE OF THE LAND FOR AT LEAST 30 FEET ADJACENT AND UPSTREAM TO STANDARD SILT FENCE SHALL NOT EXCEED 5 %.
2. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THE END POSTS SHALL BE ROLLED TOGETHER A MINIMUM OF 3 TIMES.
3. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE AROUND THE ENDS.
4. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE DIRECTED BY THE GOVERNING AGENCY.
5. DO NOT PLACE MATERIAL AGAINST SILT FENCE.
6. INSPECT SILT FENCE IMMEDIATELY AFTER PLACING ANY MATERIAL NEARBY.
7. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY.

STANDARD SILT FENCE

N.T.S.



TREE PROTECTION FENCE NOTES:

1. TREE PROTECTION FENCE SHALL BE INSTALLED TO FOLLOW TREE CANOPY DRIP LINE OR PROPOSED LIMITS OF DISTURBANCE.
2. CONSTRUCTION VEHICLES TO STAY AS FAR AS POSSIBLE FROM TREE PROTECTION FENCE TO PREVENT COMPACTION OF TREE ROOTS.

TREE PROTECTION FENCE

N.T.S.

DEFINITION
THE CONTROL OF DUST RESULTING FROM LAND-DISTURBING ACTIVITIES.

PURPOSE
TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM DISTURBED SOIL SURFACES THAT MAY CAUSE OFF-SITE DAMAGE, HEALTH HAZARDS, AND TRAFFIC SAFETY PROBLEMS.

CONDITIONS WHERE PRACTICE APPLIES
ON CONSTRUCTION ROADS, ACCESS POINTS, AND OTHER DISTURBED AREAS SUBJECT TO SURFACE DUST MOVEMENT AND DUST BLOWING WHERE OFF-SITE DAMAGE MAY OCCUR IF DUST IS NOT CONTROLLED.

DESIGN CRITERIA
CONSTRUCTION OPERATIONS SHOULD BE SCHEDULED TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ONE TIME. BUFFER AREAS OF VEGETATION SHOULD BE LEFT WHERE PRACTICAL. TEMPORARY OR PERMANENT STABILIZATION MEASURES SHALL BE INSTALLED. NO SPECIFIC DESIGN CRITERIA IS GIVEN; SEE CONSTRUCTION SPECIFICATIONS BELOW FOR COMMON METHODS OF DUST CONTROL.

WATER QUALITY SHOULD BE CONSIDERED WHEN MATERIALS ARE SELECTED FOR DUST CONTROL. WHERE THER IS A POTENTIAL FOR THE MATERIAL TO WASH OFF TO A STREAM, INGREDIENT INFORMATION MUST BE PROVIDED TO THE NYSDEC. NO POLYMER APPLICATION SHALL TAKE PLACE WITHOUT WRITTEN APPROVAL FROM THE NYSDEC.

CONSTRUCTION SPECIFICATIONS

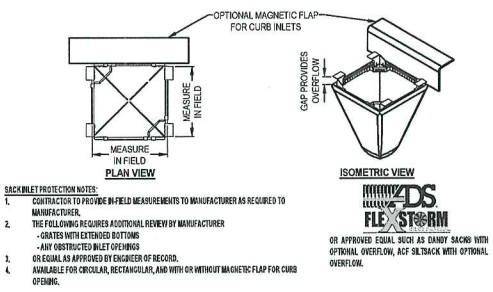
A NON-DRIVING AREAS:
- VEGETATIVE COVER - TEMPORARY SEEDING SHALL BE AS FOLLOWS:
  - A) RYE GRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE (0.7LBS/100SF)
  - B) CERTIFIED "AROOSTOOK" WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE (2.5 LBS/SF)
  - USE WINTER RYE IF SEEDING IN OCTOBER/NOVEMBER.
- MULCH (INCLUDING GRAVEL MULCH) - MULCH OFFERS A FAST EFFECTIVE MEANS OF CONTROLLING DUST.
- SPRAY ADHESIVES - EXAMPLES OF SPRAY ADHESIVES FOR USE ON MINERAL SOILS ARE SHOWN IN THE FOLLOWING TABLE:

MATERIAL	WATER DILUTION	NOZZLE TYPE	APPLY GALLONS/ACRE
ACRYLIC POLYMER	8:1	COURSE SPRAY	500
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300

B DRIVING AREAS:
- SPRINKLING - THE SITE MAY BE SPRAYED UNTIL THE SURFACE IS WET. THIS IS ESPECIALLY EFFECTIVE ON HAUL ROADS AND ACCESS ROUTES TO PROVIDE SHORT TERM LIMITED DUST CONTROL.
- POLYMER ADDITIVES - POLYMERS ARE MIXED WITH WATER AND APPLIED TO THE DRIVING SURFACE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- BARRIERS - WOVEN GEO-TEXTILES CAN BE PLACED ON THE DRIVING SURFACE. STONE CAN ALSO BE USED FOR CONSTRUCTION ROADS.
- WINDBREAK - A SILT FENCE OR SIMILAR BARRIER CAN CONTROL AIR CURRENTS AT INTERVALS EQUAL TO TEN TIMES THE BARRIER HEIGHT. PRESERVE EXISTING WIND BARRIER VEGETATION AS MUCH AS PRACTICAL.

MAINTENANCE
MAINTAIN DUST CONTROL MEASURES THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS ARE STABILIZED.

DUST CONTROL



SACK INLET PROTECTION NOTES:

1. CONTRACTOR TO PROVIDE IN-FIELD MEASUREMENTS TO MANUFACTURER AS REQUIRED TO MANUFACTURER.
2. THE FOLLOWING REQUIRES ADDITIONAL REVIEW BY MANUFACTURER
   - GRATES WITH EXTENDED BOTTOMS
   - ANY OBSTRUCTED INLET OPENINGS
3. OR EQUAL AS APPROVED BY ENGINEER OF RECORD.
4. AVAILABLE FOR CIRCULAR, RECTANGULAR, AND WITH OR WITHOUT MAGNETIC FLAP FOR CURB OPENING.

OR APPROVED EQUAL SUCH AS DANDY SACKS WITH OPTIONAL OVERFLOW, ACF SILTSACK WITH OPTIONAL OVERFLOW.

TYPE V EXAMPLE - SACK INLET PROTECTION

N.T.S.

GEOTEXTILE, FILTER FABRIC, OR SILT FENCE FABRIC PLACED UNDER INLET GRATE IS NOT AN ACCEPTABLE STORMWATER MANAGEMENT PRACTICE

NYS STANDARD INLET PROTECTION TYPES AND USES

TYPE	EXAMPLE	USAGE	NOTES
0	FABRIC PLACED UNDER INLET GRATE	NOT PERMITTED	THIS METHOD OF INLET PROTECTION IS NOT ACCEPTABLE.
I	EXCAVATED DROP INLET PROTECTION	DURING INITIAL OVERLOT GRADING AFTER THE STORM DRAIN TRUNK IS INSTALLED	MAXIMUM SIDE SLOPES OF 2:1. MINIMUM DEPTH 1 FOOT. MAXIMUM DEPTH 2 FEET. CONTAIN 900 CF PER TRIBUTARY ACRE.
II	FABRIC DROP INLET PROTECTION	DURING FINAL ELEVATION GRADING PHASES AFTER THE STORM DRAIN SYSTEM IS COMPLETED	MAX SLOPE OF 1% OF SURROUNDING AREA. 1.5' MAX UN-REINFORCED HEIGHT OF FABRIC. MAINTAIN OVERFLOW TO DROP INTO THE DROP INLET.
III	STONE & BLOCK DROP INLET PROTECTION	DURING THE INITIAL AND INTERMEDIATE OVERLOT GRADING OF A CONSTRUCTION SITE	MINIMUM STONE BARRIER HEIGHT OF 1'. MAXIMUM STONE BARRIER HEIGHT OF 2'. DO NOT USE MORTAR. LIMIT HEIGHT TO PREVENT PONDING OR BYPASS FLOW.
IV	PAVED SURFACE INLET PROTECTION	USED AFTER PAVEMENT CONSTRUCTION HAS BEEN DONE WHILE FINAL GRADING AND SOIL STABILIZATION IS OCCURRING	USE WITH UPSTREAM BUFFER STRIPS AND WITH TEMPORARY SURFACE STABILIZATION. PLACE AT INLET PERIMETER OR BEYOND. INTEGRATE TRAFFIC SAFETY. DO NOT CAUSE FLOODING OR BYPASS FLOW.
V	MANUFACTURED INSERT INLET PROTECTION	INSTALLED AND ANCHORED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND DESIGN DETAILS	FABRIC WILL EQUAL OR EXCEED THE PERFORMANCE STANDARD FOR THE SILT FENCE FABRIC. THE INSERTS WILL BE INSTALLED TO PRESERVE A MINIMUM OF 50% OF THE OPEN UNOBSTRUCTED DESIGN FLOW AREA OF THE STORM DRAIN INLET OPENING.

SOIL RESTORATION REQUIREMENTS DURING CONSTRUCTION ACTIVITY

TYPE OF SOIL DISTURBANCE	SOIL RESTORATION REQUIREMENT		COMMENTS/EXAMPLES
NO SOIL DISTURBANCE	RESTORATION NOT PERMITTED		PRESERVATION OF NATURAL FEATURES
MINIMAL SOIL DISTURBANCE	RESTORATION NOT REQUIRED		CLEARING AND GRUBBING
AREAS WHERE TOPSOIL IS STRIPPED ONLY - NO CHANGE IN GRADE	HYDROLOGIC SOIL GROUP A & B	HYDROLOGIC SOIL GROUP C & D	PROTECT AREA FROM ANY ONGOING CONSTRUCTION ACTIVITIES.
	APPLY 6 INCHES OF TOPSOIL	AERATE* AND APPLY 6 INCHES OF TOPSOIL	
AREAS OF CUT OR FILL	HYDROLOGIC SOIL GROUP A & B	HYDROLOGIC SOIL GROUP C & D	-
	AERATE* AND APPLY 6 INCHES OF TOPSOIL	APPLY FULL SOIL RESTORATION**	
HEAVY TRAFFIC AREAS ON SITE (ESPECIALLY IN A ZONE 5-25 FEET AROUND BUILDINGS BUT NOT WITHIN A 5 FOOT PERIMETER AROUND FOUNDATION WALLS)	APPLY FULL SOIL RESTORATION (DECOMPACTION AND COMPOST ENHANCEMENT)		-
AREAS WHERE RUNOFF REDUCTION AND/OR INFILTRATION PRACTICES ARE APPLIED	RESTORATION NOT REQUIRED, BUT MAY BE APPLIED TO ENHANCE THE REDUCTION SPECIFIED FOR APPROPRIATE PRACTICES.		KEEP CONSTRUCTION EQUIPMENT FROM CROSSING THESE AREAS. TO PROTECT NEWLY INSTALLED BMP FROM ANY ONGOING CONSTRUCTION ACTIVITIES. CONSTRUCT A FENCE AROUND BMP.
REDEVELOPMENT PROJECTS	SOIL RESTORATION IS REQUIRED ON REDEVELOPMENT PROJECTS IN AREAS WHERE EXISTING IMPERVIOUS AREA WILL BE CONVERTED TO PERVIOUS AREA.		-

* AERATION INCLUDES THE USE OF MACHINES SUCH AS TRACTOR-DRAWN IMPLEMENTS WITH COULTERS MAKING A NARROW SLIT IN THE SOIL, A ROLLER WITH MANY SPIKES MAKING INDENTATIONS IN THE SOIL, OR PRONGS WHICH FUNCTION LIKE A MINI-SUBSOILER.
** PER "DEEP RIPPING AND DE-COMPACTION, DEC 2008".

SOIL RESTORATION NOTES:

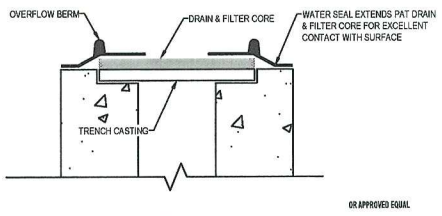
1. SOIL RESTORATION IS TO BE APPLIED TO PROPOSED VEGETATED AREAS WHERE ANY HEAVY CONSTRUCTION VEHICLE HAS BEEN OR OVER COMPACTION HAS OCCURRED AND FINAL STABILIZATION IS TO BEGIN. THIS IS GENERALLY APPLIED IN THE CLEANUP, SITE RESTORATION, AND LANDSCAPING PHASE OF CONSTRUCTION FOLLOWED BY THE PERMANENT ESTABLISHMENT OF AN APPROPRIATE GROUND COVER TO MAINTAIN THE SOIL STRUCTURE. SOIL RESTORATION MEASURES SHOULD BE APPLIED OVER AND ADJACENT TO ANY RUNOFF REDUCTION PRACTICES TO ACHIEVE DESIGN PERFORMANCE.
2. AT THE END OF THE PROJECT AN INSPECTOR SHOULD BE ABLE TO PUSH A 3/8" METAL BAR 12 INCHES INTO THE SOIL JUST WITH BODY WEIGHT. THIS SHOULD NOT BE PERFORMED WITHIN THE DRIP LINE OF ANY EXISTING TREES OR OVER UTILITY INSTALLATIONS THAT ARE WITHIN 24 INCHES OF THE SURFACE.
3. TO MAINTAIN SOIL RESTORATION, KEEP THE SITE FREE OF VEHICULAR AND FOOT TRAFFIC OR OTHER WEIGHT LOADS.

SOIL RESTORATION PROCEDURE:
DURING PERIODS OF RELATIVELY LOW TO MODERATE SUBSOIL MOISTURE, THE DISTURBED SUBSOILS ARE RETURNED TO ROUGH GRADE AND THE FOLLOWING SOIL RESTORATION STEPS APPLIED:

1. APPLY 3 INCHES OF COMPOST OVER SUBSOIL. THE COMPOST SHALL BE WELL DECOMPOSED (MATURED AT LEAST 3 MONTHS), WEED-FREE, ORGANIC MATTER. IT SHALL BE AEROBICALLY COMPOSTED, POSSESS NO OBJECTIONABLE ODORS, AND CONTAIN LESS THAN 1%, BY DRY WEIGHT, OF MAN-MADE FOREIGN MATTER. THE PHYSICAL PARAMETERS OF THE COMPOST SHALL MEET THE STANDARDS LISTED IN TABLE 5.2 - COMPOST STANDARDS TABLE OF THE NYS STANDARDS AND SPECIFICATIONSFOR EROSION AND SEDIMENT CONTROL, EXCEPT FOR "PARTICLE SIZE" 100% WILL PASS THE 1/2" SIEVE.
   - 1.1. NOTE: ALL BIOSOLIDS COMPOST PRODUCED IN NEW YORK STATE (OR APPROVED FOR IMPORTATION) MUST MEET NYS DEC'S 6 NYCRR PART 360 (SOLID WASTE MANAGEMENT FACILITIES) REQUIREMENTS. THE PART 360 REQUIREMENTS ARE EQUAL TO OR MORE STRINGENT THAN 40 CFR PART 503 WHICH ENSURE SAFE STANDARDS FOR PATHOGEN REDUCTION AND HEAVY METALS CONTENT.
2. TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR MOUNTED DISC, OR TILLER, TO MIX AND CIRCULATE AIR AND COMPOST INTO THE SUBSOIL.
3. ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.
4. APPLY TOPSOIL TO A DEPTH OF 6 INCHES.
5. VEGETATE AS REQUIRED BY THE SEEDING PLAN. USE APPROPRIATE GROUND COVER WITH DEEP ROOTS TO MAINTAIN THE SOIL STRUCTURE.
6. TOPSOIL MAY BE MANUFACTURED AS A MIXTURE OR A MINERAL COMPONENT AND ORGANIC MATERIAL SUCH AS COMPOST.

SOIL RESTORATION

N.T.S.



SLOT GUARD INLET PROTECTION NOTES:

1. CLEAN PERIODICALLY TO PROVIDE ADEQUATE SEDIMENT HOLDING CAPACITY.
2. DEBRIS SHALL BE REMOVED DAILY.
3. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT ACCUMULATION REACHES 1 INCH.
4. TIE SLOT GUARD TO THE SLOT DRAIN WITH WIRE A MINIMUM OF EVERY 10', AT ALL ENDS, AND AS NEEDED. RECOMMENDED ATTACHMENT ON 2.5' CENTERS.

TYPE V EXAMPLE - SLOT GUARD INLET PROTECTION FOR TRENCH DRAINS

N.T.S.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD FOR REVIEW PRIOR TO CONSTRUCTION FOR ANY DETAIL NOT PROVIDED IN THIS PLAN SET.

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE:

STATE OF NEW YORK — JACLYN R. PERANTEAU — NOT VALID WITH SEAL — 083937 — LICENSED PROFESSIONAL ENGINEER

ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW

JACLYN J. PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC
INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
SITE DETAILS III

DRAWING No.:
C-36

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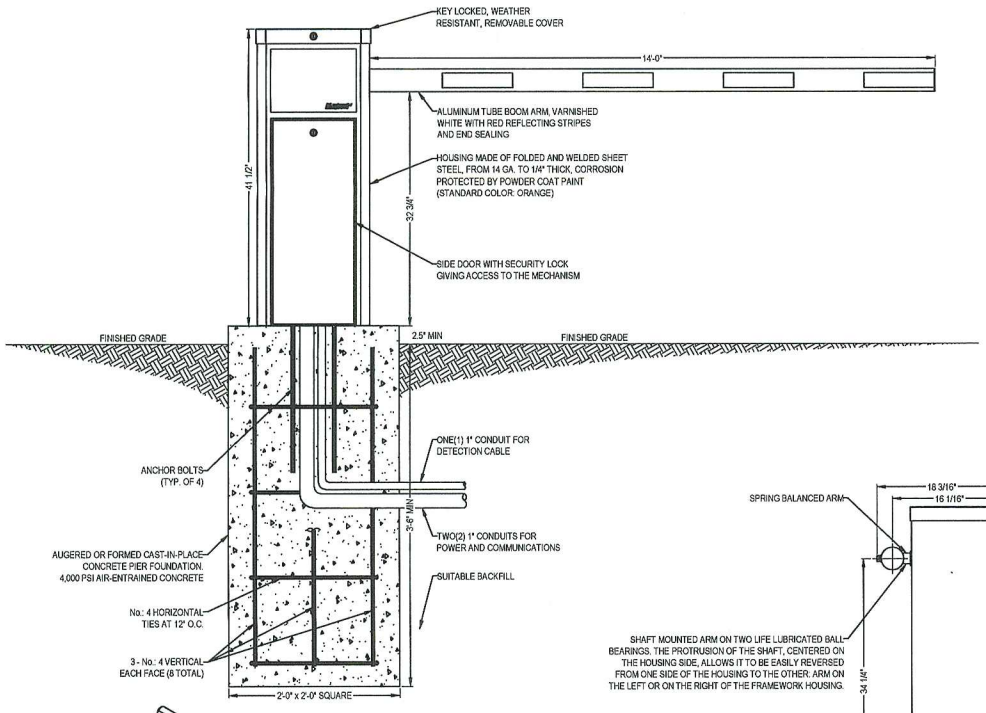
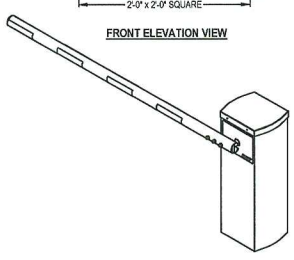
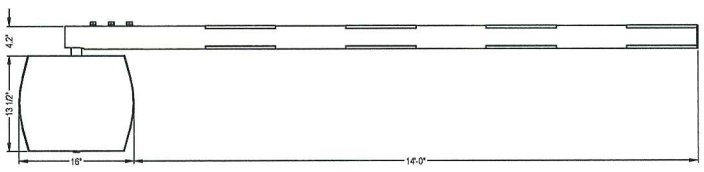


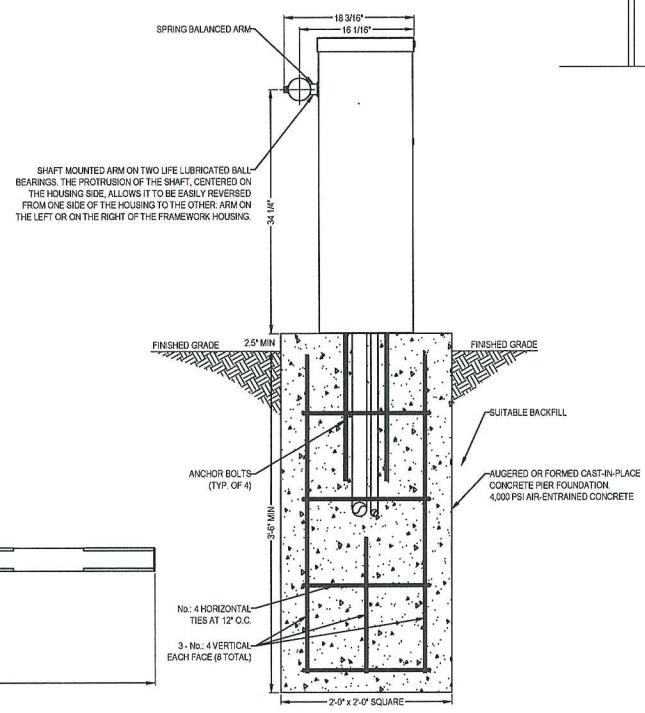
FRONT ELEVATION VIEW



ISOMETRIC VIEW



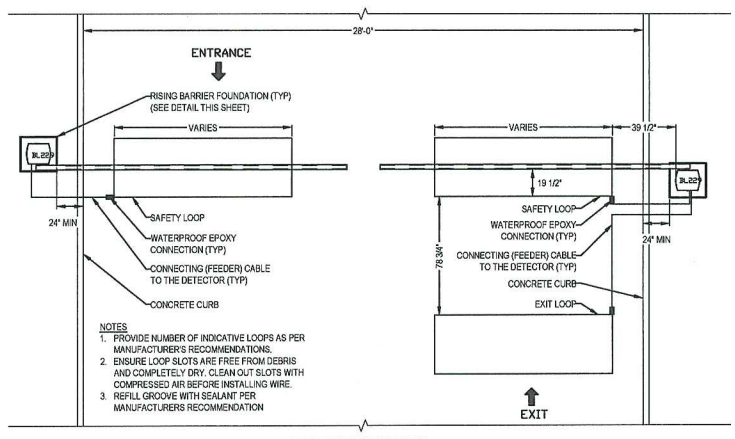
PLAN VIEW



SIDE ELEVATION VIEW

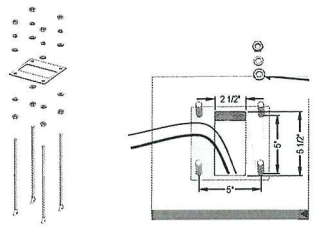
BL229 RISING BARRIER MANUFACTURER
AUTOMATIC CONTROL SYSTEMS
45 ROCKEFELLER PLAZA, SUITE 2000
NEW YORK, NEW YORK 10111
PHONE: 1-516-944-9458
WWW. USA.AUTOMATIC-SYSTEMS.COM

REFER TO SHEET C-4, PARTIAL SITE PLAN (SECTION A - PHASE I) FOR SECURITY RISING BARRIER LOCATION AND LAYOUT.



NOTES
1. PROVIDE NUMBER OF INDICATIVE LOOPS AS PER MANUFACTURER'S RECOMMENDATIONS.
2. ENSURE LOOP SLOTS ARE FREE FROM DEBRIS AND COMPLETELY DRY. CLEAN OUT SLOTS WITH COMPRESSED AIR BEFORE INSTALLING WIRE.
3. REFILL GROOVE WITH SEALANT PER MANUFACTURERS RECOMMENDATION

TYPICAL LIFT ARM LAYOUT



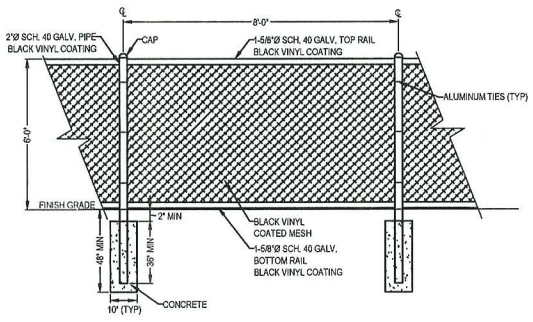
TYPICAL BASE PLATE INSTALLATION LAYOUT

BL229 LIFT ARM NOTES

1. RISING BARRIER OPERATOR MUST BE INSTALLED ON A LEVEL CONCRETE PAD.
2. TO ENSURE PROPER GROUNDING, A 1/2" x 8' COPPER ROD SHOULD BE INSERTED IN THE CENTER OF THE FOUNDATION AND TIED TO THE STEEL HOUSING.
3. BASE PLATE INSTALLATION
   - 3.a. PUT THE FOUR FIXING BOLTS (1), EACH PROVIDED WITH A NUT (2) AND A FLAT WASHER (3), IN THE HOLES OF THE FIXING FRAME (4). THE THREAD MUST BE DIRECTED UPWARDS AS ILLUSTRATED. ASSEMBLE THE FIXING BOLTS ON THE FIXING FRAME BY TIGHTENING A FLAT WASHER (5), A STAR WASHER (6) AND A NUT (7) ON EACH THREAD AND BY LETTING THE THREAD EXCEED THE FRAME (4) BY THE HEIGHT DEFINED IN THE INSTALLATION DRAWINGS. USE ADHESIVE TAPE TO PROTECT THE THREADS FROM CONCRETE SPLASHES.
   - 3.b. FIT TWO 1" CONDUITS (FOR POWER & COMMUNICATION CABLES) & ONE 1" CONDUIT (FOR DETECTION CABLE) AND INSTALL THE POWER (14 AWG 3 CONDUCTOR) TO THE GENERAL POWER BOARD, THE COMMAND CABLE TO THE CONTROL BOX, AND THE DETECTION CABLE TO THE LOOPS, LEAVING A TAIL OF APPROXIMATELY 3 FEET. THE CABLES AND THE CABLING MUST FOLLOW NEC AND ALL LOCAL CODES.
   - 3.c. CONSTRUCT A CONCRETE BASE (8) AND PLACE THE BASE PLATE IN IT. THE FRAME (4) MUST BE FLUSH WITH THE FINISHED LEVEL OF THE PLATFORM AND PERFECTLY HORIZONTAL. WHEN THE CONCRETE HAS SET, REMOVE THE ADHESIVE TAPE FROM THE TREADS AND REMOVE THE NUTS (7), THE STAR WASHERS (6) AND THE FLAT WASHERS (5), WHICH WILL BE USED FOR FIXING THE BARRIER.
   - 3.d. CONTRACT TO CONTACT SALES AT AUTOMATIC SYSTEMS TO OBTAIN THE BASE PLATE, BOLTS, NUTS, AND ALL WASHERS BEFORE POURING THE FOUNDATION
4. POUR THE FOUNDATION - THE FOUNDATION SHOULD BE AT LEAST 2'-0" x 2'-0" AND 3'-6" IN DEPTH.
   - 4.a. STRUCTURAL CONCRETE AND CONCRETING PRACTICES SHALL CONFORM WITH ACI-318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE." DETAILS SHALL BE IN ACCORDANCE WITH ACI-315, "MANUAL OF STANDARD PRACTICE: DETAILS AND DETAILING OF CONCRETE REINFORCEMENT."
   - 4.b. CONCRETE SHALL BE NORMAL WEIGHT STONE AGGREGATE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. ALL DESIGN MIXES SHALL BE PROPORTIONED IN ACCORDANCE TO SECTION 5.3, "PROPORTIONING ON THE BASIS OF FIELD EXPERIENCE AND/OR TRIAL MIXTURES" OF ACI-318. THE WATER-CEMENT RATIO FOR THE PROPOSED MIX DESIGN SHALL ACHIEVE AN AVERAGE 28-DAY STRENGTH OF 1,200 PSI GREATER THAN THE REQUIRED STRENGTH ON LABORATORY TEST RESULTS.
   - 4.c. CONCRETE SHALL HAVE A SLUMP NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
   - 4.d. EXPOSED CONCRETE SHALL BE AIR ENTRAINED, 6% (WITHIN 1% TOLERANCE), CONFORMING TO ASTM C 260.
   - 4.e. CONCRETE SHALL BE CONSOLIDATED IN PLACE USING AN INTERNAL VIBRATOR.
   - 4.f. CONCRETE FIELD TESTS SHALL BE PERFORMED AS REQUIRED BY GOVERNING CODES BY A QUALIFIED INDEPENDENT INSPECTION FIRM. TESTS SHALL NOT BE TAKEN LESS THAN ONCE A DAY OR LESS THAN ONCE PER 150 CUBIC YARDS OF CONCRETE. NO LESS THAN 6 TEST CYLINDERS ARE TO BE TAKEN TO OBTAIN 7-DAY AND 28-DAY AVERAGE COMPRESSIVE STRENGTHS.
   - 4.g. IF CAVING OF DRILLED HOLES ARE ENCOUNTERED, CONTRACTOR SHALL PROVIDE BENTONITE SLURRY IN PERMANENT CASINGS FOR DRILLED CONCRETE PIER FOUNDATIONS.
   - 4.h. CONCRETE SHALL ATTAIN 80% OF THE DESIGN STRENGTH OR CURE FOR A MINIMUM OF 7-DAYS PRIOR TO THE INSTALLATION OF THE CODE BLUE UNIT OR ALL CODE BLUE UNITS ARE TO BE SUITABLY BRACED AGAINST WIND LOADS, EARTH PRESSURE, AND CONSTRUCTION LOADS DURING THE ABOVE MENTIONED TIMEFRAME.
5. TECHNICAL SPECIFICATIONS
   - 5.b. FOLDED AND WELDED SHEET STEEL HOUSING, PROTECTED FROM CORROSION BY TWO COATS OF PAINT.
   - 5.c. INTERNAL MACHINE ELEMENTS TREATED AGAINST CORROSION BY ELECTRO GALVANIZATION.
   - 5.d. POWER SUPPLY: SINGLE PHASE 120 VAC, 60 Hz.
   - 5.e. POWER USAGE (AT REST/IN MOVEMENT): 65/500 W.
   - 5.f. THREE-PHASE ASYNCHRONOUS MOTOR OF 250 W (1/3 HP).
   - 5.g. LIMIT SWITCHES ACTIVATED BY LEAF SPRING
   - 5.h. BALANCING OF THE ARM BY ADJUSTABLE SPRINGS.
   - 5.i. ROUND ALUMINUM ARM, DIAMETER 3-3/16"
   - 5.j. ARM LENGTH: 12'-0" OR 19'-8"

LIFT ARM BY AUTOMATIC CONTROL SYSTEMS

MODEL #BL229
N.T.S.



NOTE: FOR USE AT RECHARGE BASIN

6'-0" HIGH CHAIN LINK FENCE

N.T.S.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD FOR REVIEW PRIOR TO CONSTRUCTION FOR ANY DETAIL NOT PROVIDED IN THIS PLAN SET.

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2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE

I HEREBY CERTIFY THAT THE PREPARATION OF ADDITION TO THIS DOCUMENT WAS PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION IN VIOLATION OF SECTIONS 7209 AND 7210 OF THE NEW YORK STATE EDUCATION LAW

STATE OF NEW YORK
JACLYN R. PERANTEAU
NOT VALID UNTIL SEALED
JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937
083937
LICENSED PROFESSIONAL ENGINEER

DATE:	01/24/2020
SCALE:	1" = 30'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC
INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
SITE DETAILS IV

DRAWING No.:
C-37

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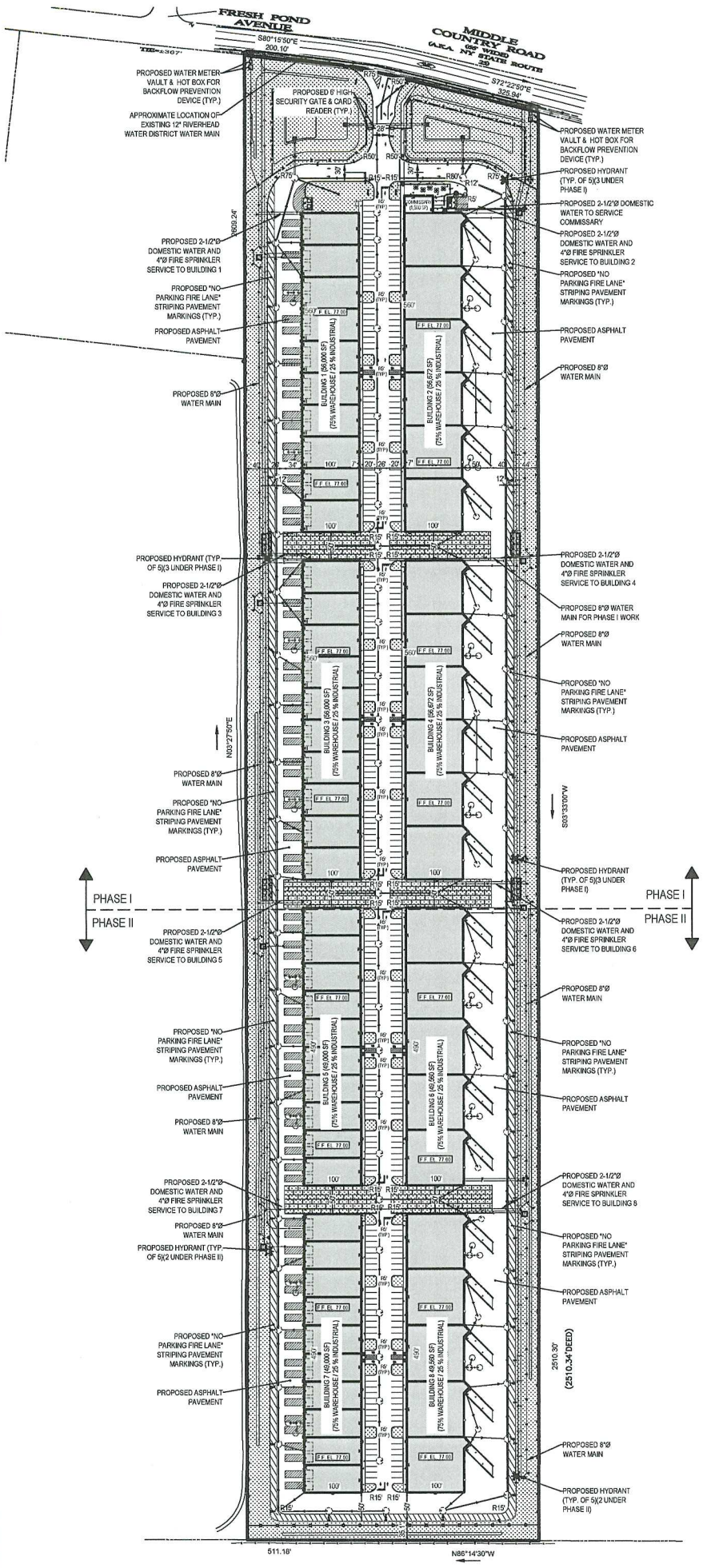


GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)
1 inch = 120 ft.

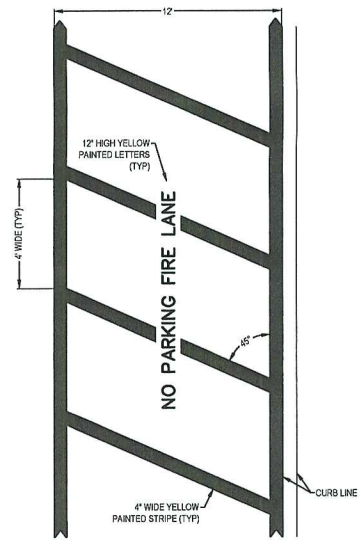
PROJECT DATA

SITE ADDRESS	4285 MIDDLE COUNTRY ROAD CALVERTON, NY 11933
OWNER / APPLICANT	HK VENTURES, LLC 399 W. JOHN STREET HICKSVILLE, NY 11801 c/o URI HASON
TAX MAP NUMBER	DISTRICT: 600, SECTION: 116, BLOCK: 1, LOT: 2
SITE AREA	1,317,884 SF (30.2545 Ac)
CURRENT ZONING	INDUSTRIAL C
EXISTING USE	VACANT
PROPOSED USE	PRIMARY USES: WAREHOUSE & INDUSTRIAL BUSINESS
PROPOSED BUILDING AREA (GFA)	PHASE I BUILDING 1 = 56,000 SF BUILDING 2 = 56,672 SF BUILDING 3 = 56,000 SF BUILDING 4 = 56,672 SF COMMISSARY = 1,500 SF TOTAL = 226,844 SF PHASE II (TO BE CONSTRUCTED ONCE PHASE I IS COMPLETED AND OPERATING) BUILDING 5 = 49,000 SF BUILDING 6 = 49,560 SF BUILDING 7 = 49,000 SF BUILDING 8 = 49,560 SF TOTAL = 197,120 SF PHASE I + PHASE II = 423,964 SF (32.17%)
PERVIOUS PAVERS / LANDSCAPE AREA	357,847 (27.15%)
IMPERVIOUS / PAVEMENT / CONCRETE AREA (EXCLUDES BUILDING AREAS)	536,073 SF (40.68%)
BUILDING TYPE OF CONSTRUCTION	TYPE 2B
BUILDING OCCUPANCY	OCCUPANCY S1 & F1
LOADING ZONES	(80) 12 FT WIDE x 34 FT LONG (2) 12 FT WIDE x 20 FT LONG (22) 13 FT WIDE x 55 FT LONG TOTAL PROVIDED = 104 SPACES
FIRE SUPPRESSION SYSTEMS	ALL BUILDINGS TO BE FULLY SPRINKLERED (DESIGN BY OTHERS) (5) ON-SITE HYDRANTS TO BE INSTALLED

LEGEND

SCALE OF SYMBOLS = 1" = 120'

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	DUMPSTER ENCLOSURE	
	12' x 34' LOADING SPACE	
	LOADING DOCK RETAINING WALLS	
	PARKING COUNT	
	OVERHEAD DOOR	
	DOOR	
x x	FENCE	
	BIKE RACK	
	HYDRANT	
	WATER MAIN	



"NO PARKING FIRE LANE" STRIPING DETAIL
N.T.S.

PLAN FOR FIRE MARSHAL REVIEW ONLY. NOT FOR CONSTRUCTION

No.	DATE	BY	DESCRIPTION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

SEAL & SIGNATURE:

JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937

DATE:	01/24/2020
SCALE:	1" = 120'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:
HK VENTURES, LLC INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:
FIRE MARSHAL PLAN

DRAWING No.:
FM-1

PAGE No.:
1 OF 1

Y:\Key Civil\Projects\2019\19026_Pinewood Grp_Calverton\Drawings\Key Civil\19026_2020.06.03_SPP2.dwg

PROPOSED CALVERTON INDUSTRIAL PARK (CIP) FACILITY
CALVERTON, TOWN OF RIVERHEAD, NEW YORK

LAND USE, ZONING AND CONSISTENCY WITH LAND USE PLANS

PREPARED FOR:

Proposed Calverton Industrial Park (CIP) Facility
4285 Middle Country Road
Calverton, Town of Riverhead, NY

PREPARED BY:

P.W. Grosser Consulting Engineer & Hydrogeologist, PC
630 Johnson Ave., Suite 7
Bohemia, NY 11716
Phone: 631-589-6353

JULY 2020

Introduction, Purpose and Benefits

The subject property comprises 30.25 acres of undeveloped, former agricultural land on the south side of Middle County Road (see Figure 1 in Attachment A and Photograph 1 in Attachment B). The proposed development would convert the property to a mix of light industrial and indoor manufacturing uses, with an assumed retail space limited to 10 percent for each tenant. A cafeteria/commissary for all tenants is also incorporated into the proposed design, which is anticipated to reduce traffic leaving and entering the site for meals. The proposed development would not include any outdoor storage of materials or vehicles.

The proposed development is to be constructed two phases: the first phase is proposed for completion in 2022 and the second phase in 2024. Phase 1 would include the first 228,344 SF of the overall 425,464 SF industrial park and would consist of four (4) buildings to be occupied by various tenants as well as a 3,000 SF cafeteria as an ancillary offering intended to serve employees of the various tenants. Phase 2 would include remaining 197,120 SF and would consist of the remaining four (4) buildings.

The purpose of the proposed Calverton Industrial Park (CIP) is to establish an aesthetically-pleasing, landscaped business center in a light industrial style setting that can meet the demands for smaller users in the Calverton area. Based on marketing and demand information provided by Zere Real Estate Services, Inc. (hereinafter, "Marketing Analysis") included in Attachment D, there is an unmet demand for light industrial space in this region of the Town of Riverhead. Many brokers cannot accommodate companies looking to relocate to Calverton due to the shortage of space that meets the needs of the user. Specifically, there is a need for space for smaller users (5,000 SF to 50,000 SF) with adequate loading space and docks, high ceilings (for warehousing and distribution), and larger drive-in doors.

Currently, out of about 1,300,000 SF in EPCAL, there is virtually no available light industrial space outside of approximately two units, one at 9,560 SF and the other 10-15,000 SF. There are also no loading docks available in EPCAL. In addition, any space available in EPCAL is dated by the user. Due to the inability to service smaller companies in the Calverton area, the only options have been the Hamptons Business District (which does not entirely meet the demand for large drive-in doors) or properties to the east and west of Calverton.

The proposed CIP serves to meet this unmet demand. Specifically, upon implementation of the proposed development, companies seeking 5,000 to 50,000 SF of light industrial space can be serviced. The proposed units will offer adequate loading space and docks, high ceilings, and larger drive-in doors. An on-site cafeteria/commissary will support businesses by allowing convenient access of food and beverage to its employees without the need to leave the site. The CIP is also conveniently located on Middle Country Road with easy access to all major transportation corridors, which is ideal for companies looking to do business on both the North and South Forks of Long Island, and vice-versa, allowing East End companies to bring their goods and services to Western Long Island as well.

In addition to serving a demand for light industrial space, the proposed CIP would generate significant tax revenues for the Town of Riverhead and its taxing jurisdictions. Based on comparable taxes for existing light industrial buildings in the Town of Riverhead of approximately $1.50/SF, the projected tax rate for the CIP would range from $1.70/SF to $2.00/SF, as new construction. Finally, as the CIP is located in the Opportunity Zone (OZ), it would be consistent with the intent of the OZ to promote economic development and job opportunities for the residents of the Town for Riverhead.

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Land Use

The subject property comprises 30.25 acres of undeveloped, former agricultural land on the south side of Middle County Road (see Figure 1 in Attachment A and Photograph 1 in Attachment B). As indicated on the Land Use Map Exhibit, (see Figure 2 in Attachment A), to the west of the site is the Tractor Supply retail store (see Photograph 2 in Attachment B), the Sky Materials C&D processing site (see Photograph 3 in Attachment B) as well as a former mining operation. Along the north side of Middle Country Road, to the west of the site are agricultural land uses and several commercial land uses (see Photographs 4 and 5 in Attachment B). To the east of the site is an active sod farm (see Photographs 6 and 7 in Attachment B), residential uses and the S-Power solar farm on the south side of Middle Country Road. On the north side of Middle Country Road are agricultural and residential land uses (see Photographs 8 and 9 in Attachment B). To the south is the Town-owned EPCAL property and a portion of the EPCAL recreational bike path (see Photograph 10 in Attachment B).

The proposed development application would convert the property to a mix of light industrial and indoor manufacturing uses, with an assumed retail space limited to 10 percent for each tenant. A cafeteria/commissary for all tenants is also incorporated into the proposed design, which is anticipated to reduce traffic leaving and entering the site for meals. Phase 1 of the proposed development would include the first 228,344 SF of the overall 425,464 SF industrial park and would consist of four (4) buildings to be occupied by various tenants as well as a 3,000 SF cafeteria as an ancillary offering intended to serve employees of the various tenants. Phase 2 would include remaining 197,120 SF and would consist of the remaining four (4) buildings.

Access is proposed via one (1) full-movement driveway along Middle Country Road. The buildings to be constructed on the westerly side of the site would each provide space for 10 tenants and the buildings to be constructed on the easterly side of the property would each provide space for five (5) to six (6) tenants. The proposed site plan includes a total of 104 loading spaces to be located along the building perimeter (i.e., between the building and property line) with an approximately 40 feet of landscape buffer along the eastern and western property lines. All passenger vehicle parking would be situated in the central portion of the property, between the two rows of buildings. The parking field would be separated by a 24-foot width, two-way drive aisle.

As set forth on the Overall Site Plan, the Town of Riverhead ordinance requires one parking stall per 400 SF of gross floor area for an industrial establishment and one parking stall per 10,000 SF of gross floor area for a warehouse. Accordingly, the proposed action requires 332 parking stalls. The proposed site plan includes 332 total parking spaces, inclusive of 16 ADA accessible parking spaces. As such, the proposed site plan complies with the Town parking requirement for the proposed design. All parking spaces would be 10 feet wide by 20 feet deep in accordance with the Town ordinance and industry standards.

From a land use perspective, the proposed action is consistent with the underlying intent of the prevailing zoning for light industrial land uses (see Zoning section below). The surrounding area can be generally characterized by large lot commercial and retail uses on the south side of the road, interspersed with agricultural and residential land uses on the north. The width of the property is limited to 511± feet, while the depth of the property (2,510± feet) allows for the bulk of the development to be situated out of the roadway corridor viewshed. The proposed land use, as explained below in Plans section, responds to the stated demand for industrial space in the Town of Riverhead. This is further supported by the market and demand data provided by Zere Real Estate Services. Finally, the proposed land use is consistent with the economic goals for the federal OZ. Overall, given that the proposed land use is consistent with the prevailing zoning, Town Comprehensive Plan, and the OZ, while also affording a site

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geometry that will serve to limit views of the development from Middle Country Road, no significant adverse impacts would occur from the proposed development.

Zoning

The subject property is located within the Industrial C (Ind C) Zoning District of the Town of Riverhead. As indicated on the Land Use Map Exhibit (see Figure 2), the properties to the adjacent east and west are similarly zoned (i.e., Ind C). To the south are lands zoned Light Industry (LI) and the north, on the opposite side of Middle Country Road, are lands within the Rural Corridor (RLC) District followed by Agricultural Protection Zone (APZ). An analysis of the zoning within 1,500 feet of the subject property includes entirely Ind C to the east of the subject property on the south side of Middle Country Road, and APZ parcels along the north side of Middle Country Road. To the west of the site, are Calverton Office (CO)-zoned properties (to the west of the adjacent Ind-C zoned parcel) on the south side of Middle Country Road and Hamlet Center (HC) along the north side of Middle Country Road, with Residence B-40 ((RB40) zoned properties situated to the north thereof.

As excerpted from §301-121 of the Riverhead Zoning Code, the intent of the Ind C zoning district is "*…to allow a mix of light industrial, warehouse development, and office campuses in the area between Enterprise Park and the terminus of the Long Island Expressway. The Ind C Zoning Use District is intended for moderate-sized businesses generally defined as those with less than 40 employees. In addition, the district allows and encourages commercial recreation businesses. The use of generous landscaping and open space buffers is intended to help protect the rural appearance and minimize views of development from the expressway and arterial roads*." Among the 12 permitted uses in the Ind C zoning district, as set forth in §301-122.A, are warehouses and manufacturing (indoor). The Ind C zoning district also sets forth five (5) permitted accessory uses, which includes "Cafeteria for an office or other building, when contained within the building or ancillary structure on the same parcel, for the purpose of serving employees and their guests" and retail (at 10% of the gross floor area of the wholesale business or 3,000 square feet, whichever is less). As such, the proposed action is consistent with the permitted uses in the Ind C district as well as the permitted accessory uses.

A consistency analysis with the bulk and dimensional requirements, and supplementary guidelines, for development within the Ind C zoning district is included in the Bulk Zoning Table on Sheet C-3 (Overall Site Plan) (see Attachment A). As indicated in the Bulk Zoning Table, the proposed action complies with the bulk and dimensional requirements for developments within the Ind C zoning district, with exception to the proposed impervious coverage, which exceeds the maximum 60 percent requirement by 13.05 percent (i.e., 73.05 percent). The additional 13.05 percent of impervious surface area (inclusive of buildings and pavement) is due to the pavement area necessary for the truck circulation and turning movements. The building coverage is less than the 40 percent permitted, with 32.28 percent proposed.

In addition to the bulk and dimensional requirements, development within the Ind C zoning district is subject to supplementary guidelines. As set forth in Section 301-124, the supplementary guidelines include design standards and parking standards, as excerpted below:

A. Design standards.

(1) Developments of multiple buildings in the Ind C District shall be planned in a campus layout.

(2) Continuous sidewalks, off-street transit stops (where routes exist or are planned) and bike racks close to business entrances shall be provided for properties fronting Route 25 or other major arterial street.

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(3) Signage shall be provided in accordance with Article XLVIII, Signs, of this chapter.

(4) Buffering and transitions.

(a) Trash/dumpster areas shall be screened by wood fences or landscaping, or a combination thereof, pursuant to § 245-8.

(b) Along borders with public streets, buffer plantings of a minimum twenty-foot depth shall be provided. Along property lines shared with Enterprise Park and other properties, buffer plantings of a minimum ten-foot depth shall be provided. Buffer plantings shall minimize views of paving and buildings from public streets and from Enterprise Park.

B. Parking standards

(1) The number of off-street parking spaces in the Ind C Zoning Use District shall be provided in accordance with § 301-231, Off-street parking, of this chapter.

(2) Planted berms shall be used to screen the view of automobiles from public roadways.

(3) Off-street parking is prohibited in front yards and within 20 feet of side property lines and within 10 feet of rear property lines.

(4) In order to soften the appearance of parking lots, large areas of surface parking should be broken up by rows of landscaping no less than 10 feet in width, in order to create parking fields of no more than 50 spaces each. Landscaping shall include ground cover, ornamental grasses, or low shrubs. This landscaping requirement is in addition to the twenty-percent parcel-wide landscaping mentioned above.

(5) In order to provide recharge of the groundwater basin and minimize runoff, at least one of the following stormwater management techniques shall be used in parking lots where underlying soils support infiltration of precipitation to the groundwater:

(a) Where sanding and salting are not used in the winter, low-traffic or seasonal parking overflow areas of the parking lot shall be surfaced with porous pavement or gravel.

(b) Landscaped areas of the parking lot shall be sited, planted, and graded in a manner to provide infiltration and detention of runoff from paved areas.

As indicated on the Overall Site Plan, due to the site geometry, the proposed campus style layout cannot be achieved. However, as indicated in the proposed Landscape Plans (Sheets C-20 through C-24), the proposed action includes generous landscaping along the frontage, side and rear yards, as well as contiguous open space in accordance with the noted intent of the Ind C zoning district. The proposed landscape design includes a minimum 31 feet of planting buffer along the frontage, which exceeds the minimum 20-foot requirement (§301-124.A.4.B). Along the side yards and rear yard are planting buffers of 40 feet minimum and 35 feet, respectively, which exceeds the minimum 10-foot requirement. Further, approximately 21.56 percent of the property would be contiguous landscaping, which exceeds the minimum requirement of 20 percent (§301-123.B). As such, the extensive front yard landscaping and buffers would effectively screen the development from the corridor traffic along NYS Route 25, while the proposed planting buffers along the side and rear yards would screen the development from the adjacent land uses.

The proposed action includes two recharge basins at the northern extent and drywells are proposed throughout the remainder of the subject site. Pervious pavers are also incorporated into the proposed design. Finally, all landscaped

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areas within the parking lot would be graded and planted in a manner that provides infiltration and detention of runoff from the paved areas. Accordingly, with the exception of the campus style layout, the proposed site plan complies with the design and parking standards set forth in Section 301-124 of the Town Code.

With respect to lighting, the proposed building would include exterior site lighting and wall-mounted fixtures. Based on the preliminary design (see Sheets C-24 through C-28), the proposed exterior site lighting would consist of pole-mounted light fixtures at 16 feet in height and equipped with housing shields to direct light downward. The proposed wall-mounted fixtures would be mounted at 20 feet above grade level and equipped with housing shields. All lighting is proposed to be LED and dark sky compliant, in accordance with Chapter 301 of the Town Code.

Plans

Town of Riverhead Comprehensive Plan, November 2003

Pursuant to the Proposed Land Use Plan (Figure 2-1), as set forth in the Town of Riverhead Comprehensive Plan dated November 2003 (Town Comprehensive Plan), the subject property is planned for Industrial/Recreation (IR) Use (see Figure 3). As indicated in Table 2-14 of the Town Comprehensive Plan, the purpose of the IR area is to "allow a mix of light industrial and commercial recreation uses in the area between Enterprise Park and the terminus of the Long Island Expressway." As such, the proposed action is consistent with the preferred use, as set forth in Town Comprehensive Plan.

Within Chapter 7 (Economic Development Element) of the Town Comprehensive Plan, the vision statement expressed that "*…Riverhead should continue to pursue a diverse economic base by promoting office and industrial development, agriculture, retail development, and entrepreneurial and small-business activity in appropriate locations. Economic development pursuits must be balanced with the conservation policies expressed in the other sections of this plan, particularly with regard to historic, scenic, and natural resources*." Relevant to the proposed action, Section 7.4 addressed the demand for office and industry in the Town of Riverhead. Of importance are the noted reasons for the increased demand:

- *First, as land becomes more scarce and expensive in Towns to the west, more businesses will look to Riverhead for space.*
- *Second, although Riverhead is about 15 to 20 miles east of the more developed areas of the County, the Central Pine Barrens region restricts development for much of that stretch. This means that despite Riverhead's distance from existing business centers, it is the next major location available for significant office and industrial growth.*
- *Third, Riverhead has a great deal of developable land available for office and industrial development, particularly in Enterprise Park and adjacent areas.*
- *Fourth, the Long Island Expressway (LIE) provides excellent accessibility to the Town's major office and industrial locations.*

As indicated in the Marketing Analysis (see Attachment D) and summarized above, the proposed CIP would establish a aesthetically-pleasing business center in a light industrial style setting that can meet the demands for smaller users in the Calverton area that seek adequate loading areas and docks, high ceilings and drive-in doors for trucks. Specifically, upon implementation of the proposed development, companies seeking 5,000 to 50,000 SF of light industrial space can be serviced, which has been determined to be a demand that is currently not met. An on-site cafeteria/commissary will also support businesses by allowing convenient access of food and beverage to its employees without the need to leave the site. The CIP is also conveniently located on Middle Country Road with

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easy access to all major transportation corridors. Finally, upon implementation of the proposed action, significant tax revenues are expected.

Overall, the proposed development is consistent with stated land use and goals for increased industrial development, as set forth in the Town Comprehensive Plan.

Long Island North Shore Heritage Area Management Plan, 2005

The subject property is located within the Long Island North Shore Heritage Area. The Long Island North Shore Heritage Area Management Plan ("Heritage Plan"), recognizing the rich diversity of natural and manmade resources that comprise northern Long Island, was developed by Long Island North Shore Heritage Area Planning Commission with the intent of: preserving the historic qualities and heritage of the geography; providing protection for various environment, maritime, and natural resources; and enhancing the cultural identity and economic vitality of the region. The defined "heritage area" within the Heritage Plan contains all or portions of 65 separate cities, towns, and villages within both counties of Long Island (i.e., Suffolk and Nassau counties), and is generally identified as that area north of either NYS Route 25 or the Long Island Expressway (whichever is further south) within the two aforementioned counties, as well as the entirety of the Long Island North Fork.

In order to achieve this previously articulated intent, the Heritage Plan contains three distinct elements, including: (1) a management plan, which "sets forth a framework with specific actions and policies for achieving goals and objectives" [pg. 7]); (2) a strategic plan that "defines and organizes a vision for the future of the region" [pg. 8]); and (3) an implementation plan, including "specific recommendations…to support the region and its individual communities." The Implementation Plan includes sources of potential support and funding, including community capacity building, traditional economic revitalization sources and grant sources…" (pg. 8)

Many of the recommendations and goals of the management plan are relevant to properties that are of potential cultural significance. The potential cultural significance of the subject property has been addressed during the environmental review process, to date. Specifically, the applicant caused to be filed a project review with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) via the Cultural Resource Information System. The project was assigned project number 20PR02526 and a request for a cultural resource investigation was issued by OPRHP. Accordingly, a Phase IA archaeological investigation was performed and a Phase 1B was recommended to evaluate potential significant areas. The applicant will proceed with the Phase 1B if required by the Town. Also, the proposed development would consider any archaeological significance through site plan modifications, if required by the Town of Riverhead.

It is important to note that the proposed development plan is consistent with the stated land use and development goals that are set forth in Town's Comprehensive Plan and supported by the underlying zoning as well as the federal OZ in which the property is situated. Relevant to development within a Heritage Area is the following recommendation:

- *Target development to areas where it can be accommodated by existing infrastructure.* (pg. 49)

  The proposed development would be accommodated by utilities that are available along Middle country Road. Consultations were undertaken by Emtec with PSEG Long Island and National Grid where service availability for the full build out was requested. While responses are pending, it is expected that the service demands can be met. Due to the depth of the subject property (approximately 2,510 feet), the proposed development includes an extension of the service area of the Riverhead Water District (RWD) to service the

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subject property. The applicant has submitted an application and payment to the RWD for such extension, which is anticipated to be granted.

With respect to maintaining the viewshed along Middle Country Road, the depth of the property (2,510± feet) along with the significant front and side yard landscaping would largely screen the development from view along the roadway corridor. Overall, based on the above, no significant adverse impacts to the heritage area would result.

Long Island Region Opportunity Zone

The subject property is located within a federal Opportunity Zone (Long Island Region) community development program, which has the intent and purpose of encouraging private investment in low-income urban and rural communities in exchange for incentives through funding and tax deferments. The proposed action would offer the opportunity for job creation and the attraction of new tenants to the Calverton area. There would also be a significant generation of tax revenue.

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ATTACHMENT A: FIGURES

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FIGURE 1 – AERIAL PHOTOGRAPH/SITE LOCATION MAP

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FIGURE 2 – LAND USE MAP EXHIBIT, AS PREPARED BY KEY CIVIL ENGINEERING, P.C.

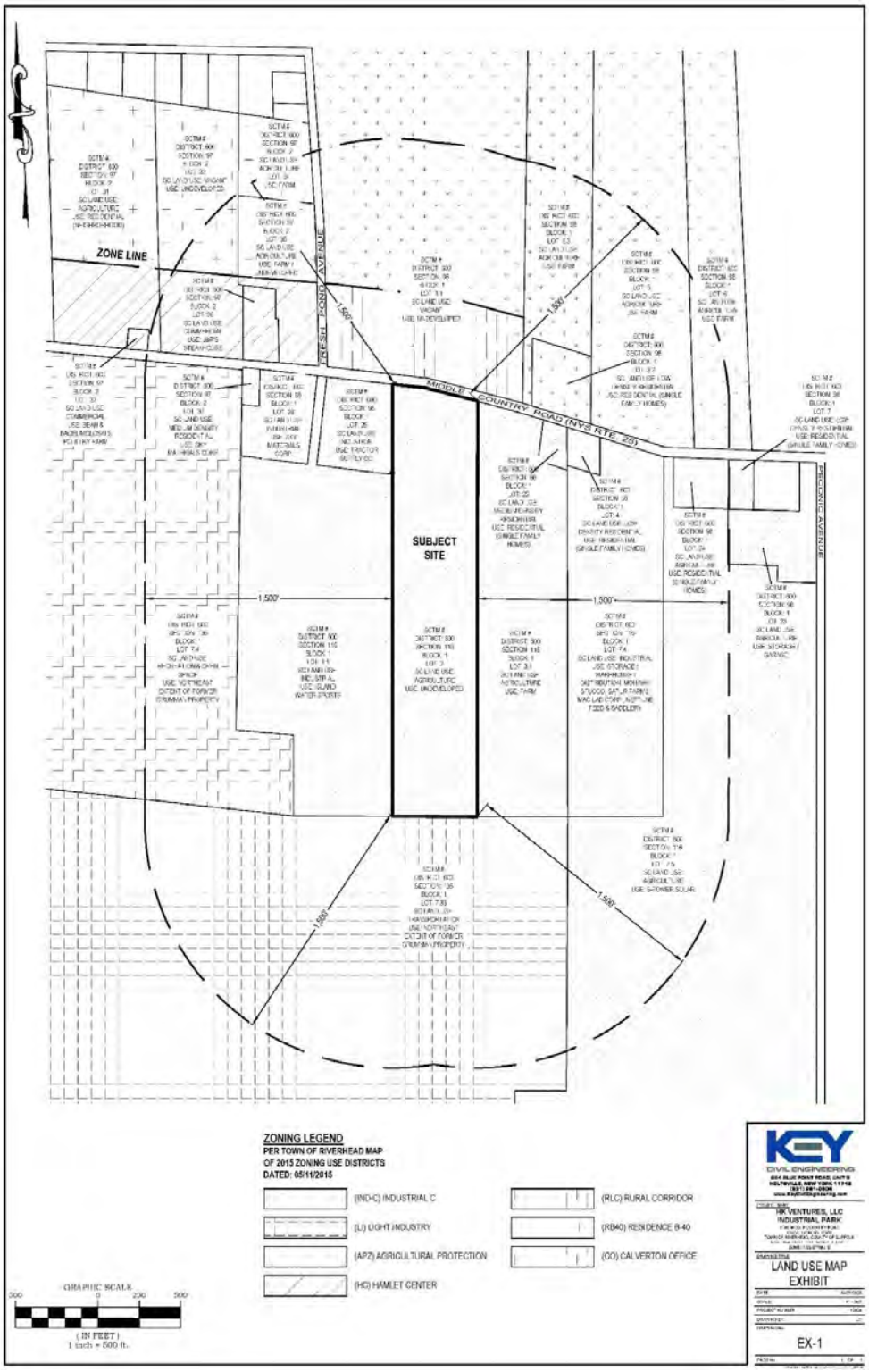

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FIGURE 3: PROPOSED LAND USE PLAN (AS EXCERPTED, FIGURE 2-1 OF TOWN COMPREHENSIVE PLAN)

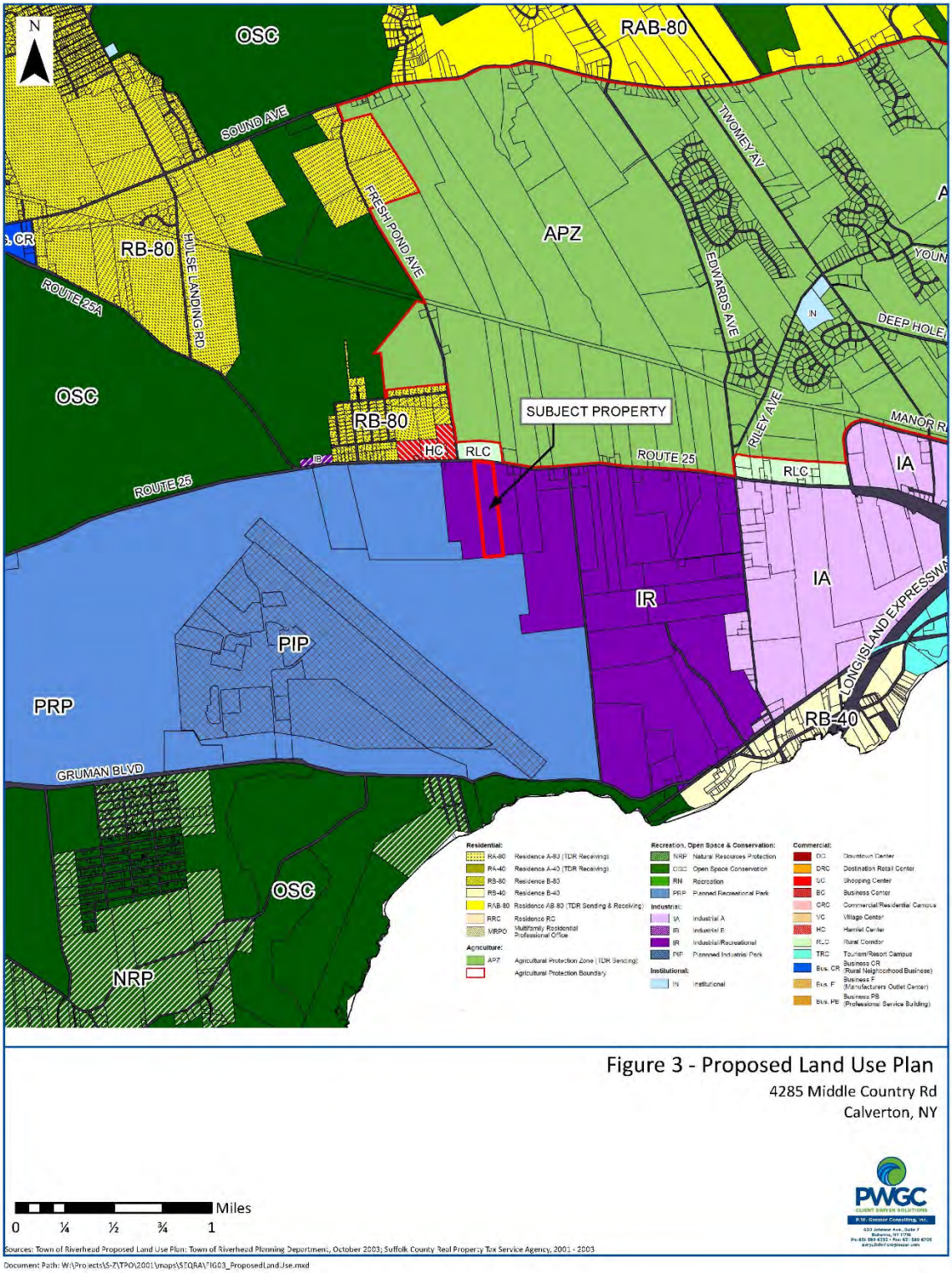

Figure 3 - Proposed Land Use Plan
4285 Middle Country Rd
Calverton, NY

ATTACHMENT B – PHOTOGRAPHS OF SITE AND SURROUNDING PROPERTIES

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Photograph 1: View Looking South at Subject Property

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Photograph 2: Looking south at the west side of the Calverton Industries property in rear left and the east facade of the Tractor Supply Company building.

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Photograph 3: Looking SW at Sky Materials Corporation facility in north part of original Calverton Industries quarry.

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Photograph 4: Looking west on Middle Country Road, from the subject property, at agricultural land use (undisturbed) on the north and commercial land use (Tractor Supply Company) on the south.

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Photograph 5: Looking east on Middle Country Road at commercial land use (restaurant) on north side and Sky Materials Corporation facility in the foreground with Tractor Supply Company in the background on the south side.

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Photograph 6: Looking northeast from the subject property at the north end of Satur Farm, LLC (active sod farm).

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Photograph 7: Looking SE from the subject property at the sod field and the adjacent freight area.

P.W. GROSSER CONSULTING, INC.
P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.
PHONE: 631.589.6353
PWGROSSER.COM
630 JOHNSON AVENUE, STE 7
BOHEMIA, NY 11716
LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON

Photograph 8: Looking east on Middle Country Road at agricultural land use.

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Photograph 9: Looking east on Middle Country Road, from east of the subject property, at residential land uses.

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Photograph 10: Looking south at the Town-owned EPCAL property and a portion of the EPCAL recreational bike path.

P.W. GROSSER CONSULTING, INC.
P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.
PHONE: 631.589.6353 PWGROSSER.COM 630 JOHNSON AVENUE, STE 7 BOHEMIA, NY 11716
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ATTACHMENT C – OVERALL SITE PLAN (SHEET C-3) AS PREPARED BY KEY CIVIL ENGINEERING, P.C.

P.W. GROSSER CONSULTING, INC.
P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.
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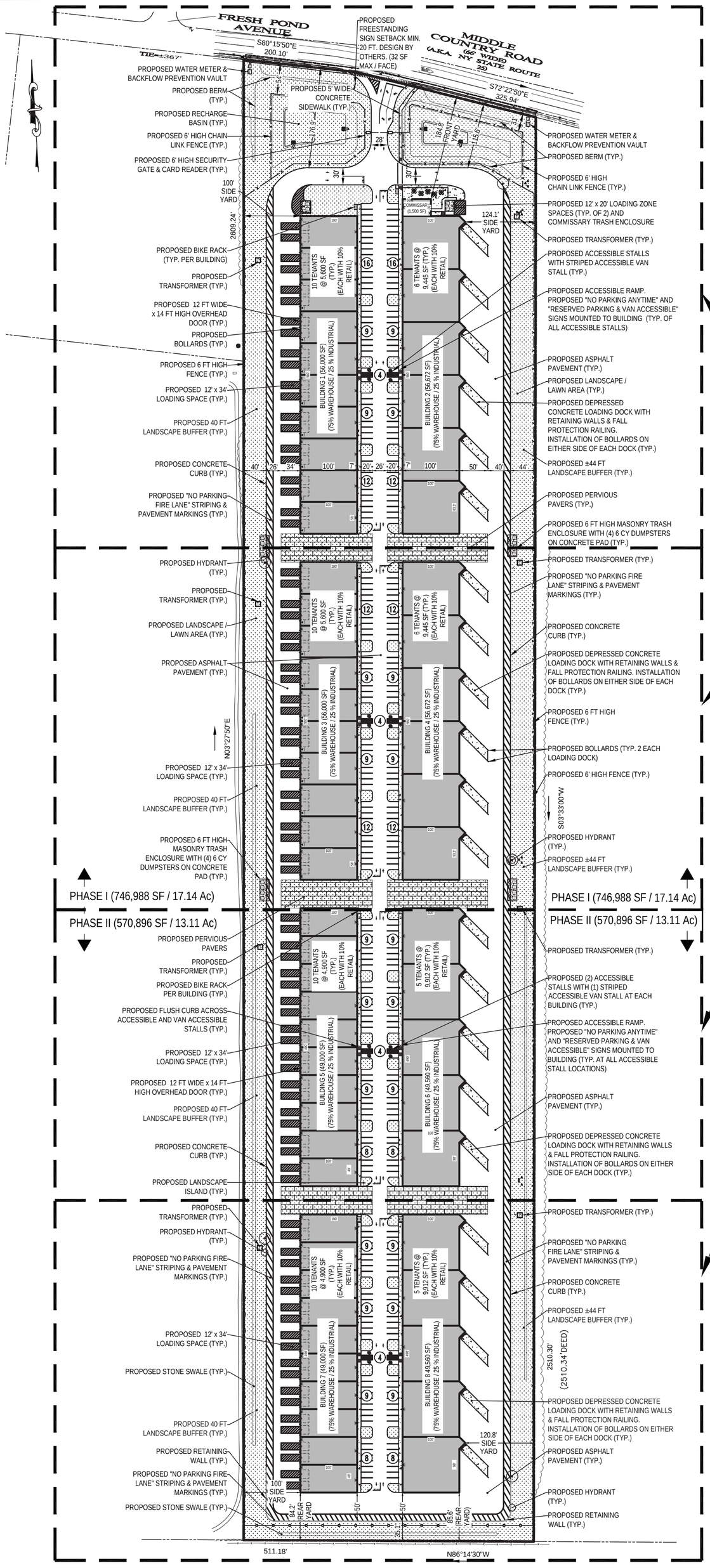

SANITARY DENSITY CALCULATIONS

SITE IS LOCATED IN GROUNDWATER MANAGEMENT ZONE III = 300 GPD/ACRE

PERMITTED DENSITY = 30.2545 ACRES x 300 GPD/ACRE = 9,076 GPD

PHASE I
PROPOSED COMMISSARY FLOW (COMMISSARY NOT OPEN TO PUBLIC) - 0.04 GPD / SF x 1,500 SF = 60 GPD
PROPOSED INDUSTRIAL BUILDING 1 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,000 SF = 2,240 GPD
PROPOSED INDUSTRIAL BUILDING 2 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,672 SF = 2,267 GPD
PROPOSED INDUSTRIAL BUILDING 3 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,000 SF = 2,240 GPD
PROPOSED INDUSTRIAL BUILDING 4 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,672 SF = 2,267 GPD
PHASE I TOTAL = 9,074 GPD

PHASE II
PROPOSED INDUSTRIAL BUILDING 5 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,000 SF = 1,960 GPD
PROPOSED INDUSTRIAL BUILDING 6 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,560 SF = 1,983 GPD
PROPOSED INDUSTRIAL BUILDING 7 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,000 SF = 1,960 GPD
PROPOSED INDUSTRIAL BUILDING 8 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,560 SF = 1,983 GPD
PHASE II TOTAL = 7,886 GPD

PHASE I + PHASE II TOTAL = 16,960 GPD

TRANSFER OF DEVELOPMENT RIGHTS CREDITS REQUIRED FOR PHASE II ADDITIONAL DENSITY.

7,884 GPD OVER PERMITTED DENSITY / 300 GPD PER CREDIT = 26.3 CREDITS REQUIRED

BULK ZONING TABLE

ZONING DISTRICT: INDUSTRIAL C

ITEM	SECTION	PERMITTED/REQUIRED	PROPOSED
PERMITTED USES	§ 301-122.A (2), (4), & (12)	(2) WAREHOUSE, (4) WHOLESALE BUSINESSES, (12) MANUFACTURING (INDOOR)	(2) WAREHOUSE, (4) WHOLESALE BUSINESSES, (12) MANUFACTURING (INDOOR)
ACCESSORY USES	§ 301-122.C.1	COMMISSARY FOR OTHER BUILDING	COMMISSARY FOR BUILDINGS PROVIDED (1,500 SF)
ACCESSORY USES	§ 301-122.C.2.A	RETAIL USE SHALL NOT EXCEED 10% OF G.F.A. OR 3,000 SF, WHICHEVER IS LESS	10% RETAIL SPACE PROPOSED FOR EACH TENANT
ACCESSORY USES	§ 301-122.C.2.B	PARCEL SHALL HAVE FRONTAGE ON AN ARTERIAL ROAD	FRONTAGE ALONG MIDDLE COUNTRY ROAD (NYS ROUTE 25)
ACCESSORY USES	§ 301-122.C.2.C	RETAIL USES SHALL BE LOCATED AT THE FRONT OF THE PARCEL AND BUILDING	RETAIL USE LOCATED AT THE FRONT OF EACH TENANT SPACE
PROHIBITED USES	§ 301-122.D.3	OUTDOOR STORAGE	NO OUTDOOR STORAGE OF VEHICLES. ALL VEHICLES SHALL BE STORED INSIDE.
LOT, YARD, & BULK REQUIRMENTS	§ 301-123.B	20% OF LOT SHALL BE CONTIGUOUS OPEN SPACE AREAS WHICH SHIELD VIEWS OF THE DEVELOPMENT FROM ARTERIAL ROADS 0.20 x 1,317,884 SF = 263,577 SF	284,189 SF (21.56%) OF LANDSCAPE AREA WITH FRONT YARD LANDSCAPE BUFFER OPEN LANDSCAPE PROVIDED. DENSE LANDSCAPE BUFFER IN FRONT YARD TO SHIELD DEVELOPMENT PROVIDED
SUPPLEMENTARY GUIDELINES	§ 301-124.A.1	DEVELOPMENT OF MULTIPLE BUILDINGS IN THE INDUSTRIAL C DISTRICT SHALL BE PLANNED IN A CAMPUS LAYOUT	CAMPUS LAYOUT NOT ACHIEVABLE DUE TO SITE GEOMETRY [R]
SUPPLEMENTARY GUIDELINES	§ 301-124.A.2	CONTINUOUS SIDEWALKS, AND BIKE RACKS CLOSE TO BUSINESS ENTRANCES SHALL BE PROVIDED FOR PROPERTIES FRONTING ROUTE 25	CONTINUOUS SIDEWALKS AND BIKE RACKS PROVIDED
SUPPLEMENTARY GUIDELINES	§ 301-124.A.4.A	DUMPSTER AREAS SHALL BE SCREENED BY WOOD FENCES OR LANDSCAPING	DUMPSTERS SHALL BE IN 6 FT HIGH WOOD FENCE ENCLOSURES
DUMPSTERS	§ 245-8	DUMPSTER SCREENING OF 5 FT MIN / 6 FT MAX HEIGHT	DUMPSTERS SHALL BE IN 6 FT HIGH WOOD FENCE ENCLOSURES
SCREENING AND BUFFER REGULATIONS SETBACK	§ 301-124.A.4.B	20 FT OF PLANTING BUFFER ALONG FRONTAGE & 10 FT PLANTING BUFFER ALONG ALL OTHER PROPERTY LINES	31 FT MINIMUM PLANTED BUFFER ALONG FRONT YARD, 40 FT MINIMUM BUFFER ON SIDE YARDS, & 35 FT MINIMUM BUFFER IN REAR YARD
PARKING STANDARDS	§ 301-124.B.2	PLANTED BERMS SHALL BE USED TO SCREEN AUTOMOBILES FROM PUBLIC R.O.W.	LANDSCAPE & PLANTED BERM PROVIDED
PARKING STANDARDS	§ 301-124.B.3	OFF-STREET PARKING PROHIBITED IN FRONT YARD, WITHIN 20 FT OF SIDE YARD, AND 10 FT OF REAR YARD	NO PARKING IN FRONT YARD PROPOSED 20 FT OR GREATER FROM PROPOSED PARKING TO SIDE YARD PROPERTY LINE NO PARKING IN REAR PROPOSED
MINIMUM LOT AREA	§ 301-ATTACHEMENT 3	80,000 SF	± 1,317,884 SF
MINIMUM LOT WIDTH	§ 301-ATTACHEMENT 3	300 FT	511.18 FT
BUILDING COVERAGE (FOOTPRINT) (WITHOUT SEWER)	§ 301-ATTACHEMENT 3	40% ±1,317,884 SF x 0.40 = 527,154 SF	32.17% 423,964 SF / ±1,317,884 SF = 0.3217
MAXIMUM IMPERVIOUS SURFACE	§ 301-ATTACHEMENT 3	60% ±1,317,884 SF x 0.60 = 790,730 SF	960,037 SF / 1,317,884 SF = 72.85% [V]
MAXIMUM HEIGHT OF BUILDINGS	§ 301-ATTACHEMENT 3	30 FT	30 FT
MINIMUM FRONT YARD DEPTH	§ 301-ATTACHEMENT 3	30 FT	184.8 FT
MINIMUM SIDE YARD DEPTH	§ 301-ATTACHEMENT 3	30 FT / 60 COMBINED FOR BOTH SIDES	100 FT / 224.1 FT
MINIMUM REAR YARD DEPTH	§ 301-ATTACHEMENT 3	50 FT	84.2 FT

[R] - PLANNING BOARD RELAXATION REQUIRED. CAMPUS LAYOUT NOT ACHIEVABLE DUE TO SITE GEOMETRY
[V] - VARIANCE REQUIRED

PARKING CALCULATIONS

ITEM	SECTION	PERMITTED/REQUIRED	PROPOSED
MINIMUM STALL SIZE	§ 301-231.E.2	10 FT x 20 FT	10' x 20'
MINIMUM AISLE WIDTH	§ 301-231.E.1	24' (TWO WAY) WITH 90° PARKING 18' (ONE WAY) WITH 60° PARKING 12' (ONE WAY) WITH 45° PARKING	24'-0"
NUMBER OF LOADING SPACES REQUIRED	§ 301-232.A	FLOOR AREAS PER BUILDING 15,000 TO 25,000 = 1 SPACES 25,001 TO 40,000 = 2 SPACES 40,001 TO 100,000 = 3 SPACES +60,000 SF = 1 ADDITIONAL SPACE 3 SPACES REQUIRED PER BUILDING x 8 BUILDINGS = 24 SPACES REQUIRED	104 SPACES PROVIDED
MINIMUM LOADING SPACE SIZE	§ 301-232.B	12 FT LONG x 14 FT WIDE	(80) 12 FT WIDE x 34 FT LONG (2) 12 FT WIDE x 20 FT LONG (22) 13 FT WIDE x 55 FT LONG TOTAL PROVIDED = 104 SPACES
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 1 & 3 (56,000 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (14,000 SF) 75% WAREHOUSE SPACE (42,000 SF) * INDUSTRIAL ESTABLISHMENT (14,000 SF) 1 STALL PER 400 SF OF GFA 14,000 SF / 400 SF = 35 STALLS * WAREHOUSE (42,000 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 37,000 SF x 1 STALL / 10,000 SF = 3.7 STALLS TOTAL PARKING FOR BUILDINGS 1 & 3 2 BUILDINGS x (35 + 5 + 3.7) STALLS = 87.4 STALLS	332 STALLS (INCLUDES 16 ACCESSIBLE STALLS)
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 2 & 4 (56,672 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (14,168 SF) 75% WAREHOUSE SPACE (42,504 SF) * INDUSTRIAL ESTABLISHMENT (14,168 SF) 1 STALL PER 400 SF OF GFA 14,168 SF / 400 SF = 35.4 STALLS * WAREHOUSE (42,504 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 37,504 SF x 1 STALL / 10,000 SF = 3.8 STALLS TOTAL PARKING FOR BUILDINGS 2 & 4 2 BUILDINGS x (35.4 + 5 + 3.8) STALLS = 88.4 STALLS	
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 5 & 7 (49,000 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (12,250 SF) 75% WAREHOUSE SPACE (36,750 SF) * INDUSTRIAL ESTABLISHMENT (12,250 SF) 1 STALL PER 400 SF OF GFA 12,250 SF / 400 SF = 30.6 STALLS * WAREHOUSE (36,750 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 31,750 SF x 1 STALL / 10,000 SF = 3.2 STALLS TOTAL PARKING FOR BUILDINGS 5 & 7 2 BUILDINGS x (30.6 + 5 + 3.2) STALLS = 77.6 STALLS	
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 6 & 8 (49,560 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (12,390 SF) 75% WAREHOUSE SPACE (37,170 SF) * INDUSTRIAL ESTABLISHMENT (12,390 SF) 1 STALL PER 400 SF OF GFA 12,390 SF / 400 SF = 31 STALLS * WAREHOUSE (37,170 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 32,170 SF x 1 STALL / 10,000 SF = 3.2 STALLS TOTAL PARKING FOR BUILDINGS 6 & 8 2 BUILDINGS x (31 + 5 + 3.2) STALLS = 78.4 STALLS	
TOTAL NUMBER OF PARKING STALLS REQUIRED FOR LOT	§ 301 ATTACHMENT 1	87.4 + 88.4 + 77.6 + 78.4 = 331.8 STALLS TOTAL STALLS REQUIRED = 332 STALLS	
ACCESSIBLE PARKING STALLS	§ 301-232.M.1	301 TO 400 TOTAL PARKING STALLS REQUIRED = 8 8 ACCESSIBLE PARKING STALLS	16 ACCESSIBLE STALLS

GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)
1 inch = 120 ft.

LEGEND

SCALE OF SYMBOLS = 1" = 120'

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	DUMPSTER ENCLOSURE	TRASH DUMPSTER 6.0 CY
	12' x 34' LOADING SPACE	
	LOADING DOCK RETAINING WALLS	
	PARKING COUNT	16
	OVERHEAD DOOR	12'
	DOOR	
x x	FENCE	
	BIKE RACK	
	HYDRANT	
	SOIL BORING	B-1

LEGEND

SCALE OF SYMBOLS = 1" = 30' (REFER TO PARTIAL SITE PLANS)

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	EDGE OF PAVEMENT	
	CONCRETE SIDEWALK	
	LANDSCAPE AREA	
	PERVIOUS PAVERS	
	TRASH ENCLOSURE	TRASH DUMPSTER 6.0 CY
	PARKING COUNT	16
	ACCESSIBLE STRIPING SYMBOL	
	BIKE RACK MOUNTED ON CONCRETE PAD	
	OVERHEAD DOOR	12'
	LOADING STALL STRIPING	
	LOADING DOCK WALL WITH FALL PROTECTION RAILING	X X
	CROSSWALK	
	FIRE LANE STRIPING	
	DOOR	EXIT
	SIGN	
	FIRE HYDRANT	
	UTILITY POLE	
	GROUND SIGN	
	FENCE	
	POLE MOUNTED LIGHTING	
	WALL MOUNTED LIGHTING	

N.Y.C.1 NEW YORK CITY ONE CALL CENTER 1-800-272-4480 STOP-CALL-THEN DIG Safely

No.	DATE	BY	DESCRIPTION
3	06/22/2020	LC	MISCELLANEOUS COORDINATION
2	06/03/2020	LC	ISSUED FOR TOWN SUBMISSION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

ALTERATION OR ADDITION TO THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

SEAL & SIGNATURE:

STATE OF NEW YORK * JACLYN R. PERANTEAU * 083937 LICENSED PROFESSIONAL ENGINEER

JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937

DATE:	01/24/2020
SCALE:	1" = 120'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:

HK VENTURES, LLC INDUSTRIAL PARK

4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

OVERALL SITE PLAN

DRAWING No.: C-3

PAGE No.: 3 OF 38

Y:\Key Civil\Projects\2019\19026_Pinewood Grp_Calverton\Drawings\Key Civil\19026_2020.06.22_SPP3.dwg

ATTACHMENT D – MARKETING ANALYSIS

P.W. GROSSER CONSULTING, INC.
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PROPOSED CALVERTON INDUSTRIAL PARK (CIP)

Marketing Analysis

The Calverton Industrial Park (CIP) will be a beautifully landscaped business center and offer aesthetic value in a light industrial campus style setting. CIP is conveniently located and there is easy access to all major corridors. CIP will service companies looking for 5,000 to 50000 sq. ft. of light industrial space. These proposed units will be perfect for many of them as they will have office space up front and warehousing in back with excellent loading and traffic plan to accommodate their needs. This location is ideal for companies looking to do business on both the North and South Forks of Long Island, and vice-versa, allowing East End companies to bring their goods and services to Western Long Island as well.

There is a demand for light industrial space in the Town of Riverhead and there is a shortage of small light industrial spaces in the Town. Many brokers have lost countless deals because they cannot accommodate the needs of companies looking to relocate in Calverton. For example, out of about 1,300,000 sq. ft. in EPCAL there is virtually no available light industrial space outside of approximately two units, one at 9,560 sq. ft. and the other 10-15,000 sq. ft. There are no loading docks available in EPCAL either which is a huge asset for a small operator. In addition any space available in EPCAL is dated. Furthermore, there are no options for smaller users that need say 5,000 sq. ft. which is a very common size for contractors. We have gotten many inquiries over the last year for 5,000 to 50,000 sq. ft. The only option has been to go to Hamptons Business District or remain east or west of Calverton. Most importantly, our units will offer high ceilings (perfect for warehousing and distribution), loading docks (a tremendous asset), and larger drive-in doors which will be ideal for companies looking to relocate there.

All information is subject to errors, omissions, changes of rental, sale price and other conditions, prior to sale, lease or financing or withdrawal from market without notice

There will be substantial commercial tax revenues generated by the CIP. Comparable taxes for light industrial buildings in the Town are in the $1.50 range per sq. ft. We expect taxes on CIP to be roughly $1.70 to $2.00 per sq. ft. as new construction. We have retained tax attorney Cronin and Cronin to conduct an estimated project property tax report and to estimate annual taxes generated for the Town of Riverhead. Please keep in mind that the CIP will have no student burden and will only help the Riverhead School district. Of course this will vary in the short term if there are IDA incentives for various users.

The Hamptons Business District in Westhampton Beach offers mixed use industrial space but they don't offer large enough drive-in doors and brokers have lost deals in there because companies couldn't fit their trucks inside the doors, and our product will be approximately 25% lower per sq. ft. to end user. Our location is also centrally located offering companies both direct access to the North and the South Forks.

The Calverton Industrial Park fills the void of space for contractors and suppliers and will be an asset to the town of Riverhead and will go a long way in promoting Riverhead as a pro-business region and provide commercial ratables to the Town.

ZERE REAL ESTATE SERVICES

David Zere
NYS Licensed Associate Broker

From:	Lawrence Crehan Jr.
To:	John Collins
Cc:	Jaclyn Peranteau; Yuriy Tupychak
Subject:	RE: HK Ventures - 4285 Middle Country Road, Calverton_Water Main Extension
Date:	Monday, February 10, 2020 2:24:14 PM
Attachments:	image001.png G19227.pdf 19026_2020.01.24_SPP-FM-1_Fire Marshal Plan.pdf HK Ventures - Water Calcs.pdf

Hi John,

Attached please find the documents described below and the latest survey for your use.

We have not completed an overall utility plan. We shall forward to you upon completion.

Please let us know if you can begin the process without the utility plan.

Please include Jaclyn Peranteau & Yuriy Tupychak CC'd above on all correspondence.

Any questions – feel free to call me at our office.

Thank you,

Lawrence Crehan Jr.

Key Civil Engineering, P.C. – NYS Certified WBE
664 Blue Point Rd. Unit B
Holtsville, NY 11742
OFFICE: 631-961-0506
Fax: 631-619-0367
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From: John Collins <jcollins@h2m.com>
Sent: Monday, February 10, 2020 11:33 AM
To: Robin Halpin <halpin@townofriverheadny.gov>; Lawrence Crehan Jr. <lc@keycivilengineering.com>
Subject: RE: HK Ventures - 4285 Middle Country Road, Calverton_Water Main Extension

Lawrence,

Can you provide an electronic copy of the documents referenced below along with the site utility plan and survey sio that we may begin thereview.

Thank you.

John R. Collins, P.E. LEED AP

Dept. Manager – Water Resources

H2M architects + engineers
538 Broad Hollow Road, 4th Floor East, Melville, NY 11747
tel 631.756.8000 x1357 | **direct** 631.392.5305 | **mobile** 516.658.2342 | **fax** 631.694.4122
h2m.com

From: Robin Halpin <halpin@townofriverheadny.gov>
Sent: Monday, February 10, 2020 11:21 AM
To: Lawrence Crehan Jr. <lc@keycivilengineering.com>
Cc: John Collins <jcollins@h2m.com>
Subject: Re: HK Ventures - 4285 Middle Country Road, Calverton_Water Main Extension

Good morning,
Your email below has been forwarded to H2M to respond.
John Collins is our Lead Engineer for the Riverhead Water District however everything processes through this office first.
I've included him on this email as well.
Thank you.

Robin Halpin
Account Clerk Typist
Riverhead Water District
1035 Pulaski Street
Riverhead NY 11901
631-727-3205

From: Lawrence Crehan Jr. <lc@keycivilengineering.com>
Sent: Monday, February 10, 2020 11:12 AM
To: Robin Halpin <halpin@townofriverheadny.gov>
Cc: Jaclyn Peranteau <jackie@keycivilengineering.com>; Yuriy Tupychak <yt@keycivilengineering.com>
Subject: RE: HK Ventures - 4285 Middle Country Road, Calverton_Water Main Extension

Good afternoon Robin,

We wanted to follow up in regards to the below email. Please let us know if you have forwarded this project to H2M to begin their review. If you have, please provide us with the reviewer's information so we can coordinate with them directly.

If you or H2M require any additional information to initiate the process for the water main extension kindly let us know.

Thank you,

Lawrence Crehan Jr.

Key Civil Engineering, P.C. – NYS Certified WBE
664 Blue Point Rd. Unit B
Holtsville, NY 11742
OFFICE: 631-961-0506
Fax: 631-619-0367
www.keycivilengineering.com
SAME TEAM. SAME SERVICE. NEW BRAND

From: Lawrence Crehan Jr.
Sent: Thursday, January 30, 2020 6:16 PM
To: 'halpin@townofriverheadny.gov' <halpin@townofriverheadny.gov>
Cc: Jaclyn Peranteau <jackie@keycivilengineering.com>
Subject: HK Ventures - 4285 Middle Country Road, Calverton_Water Main Extension

Good afternoon Robin,

We would like to begin the approval process for an out of district water main extension, onsite hydrants, and the individual fire sprinkler and domestic water service taps to each building.

Property Address: 4285 Middle County Road, Calverton, NY 11933
SCTM #: Dist.: 600, Sect.: 116, Blk.: 1, Lot 2

Please find the attached Fire Marshal Plan (sheet FM-1) and the proposed Industrial Park Peak Water Supply Demand Calculations, for your use. Please note these calculations have been estimated based on the 2015 IBC Table 1004.1.2 for occupant loading.

The industrial park development scope of work includes the erection of eight (8) single-story industrial buildings with multiple tenants per building. Each tenant will have 10% of their space dedicated to retail, which will be located in the front of the building. A 3,000 square foot single-story cafeteria will be erected to service the employees within the industrial park.

The project will be constructed in two phases. Phase II shall be constructed after Phase I has been built and operational. Phase I will consist of buildings 1 to 4 and the cafeteria. Phase II will consist of buildings 5 to 8. The total building area for the property would be 425,464 SF (Phase I = 228,344 SF / Phase II = 197,120 SF). These buildings shall span the approximate depth of the property (2,510'). We have proposed an 8" water main loop around the perimeter of the property tapped to the existing 12" water main within Middle Country Road. Under Phase I, an 8" water main will be constructed between buildings 3/4 & 5/6, maintaining a looped system. As part of the construction

of Phase II, the 8" water main will continue deeper into the parcel and loop behind Buildings 7 & 8 and the 8" water main that was constructed under Phase I shall be cut, capped, and abandoned in place. There are five (5) onsite hydrants proposed. Three (3) hydrants shall be installed within Phase I and two (2) hydrants shall be installed within Phase II. We also proposed two (2) master meters and two (2) backflow prevention assemblies at the front of the property, however if the District prefers the onsite main to be in an easement to be owned and operated by Riverhead Water district (RWD), we would propose meters and backflow preventers in each building instead. Please advise on the preference of RWD.

Each building shall be serviced by a 2.5" domestic service and 4" fire sprinkler service per the estimated calculations attached. The two (2) backflow prevention assemblies on the 8" water main extension shall protect the existing 12" water main therefore, it is our understanding the individual domestic and fire sprinkler service laterals will not require their own backflow prevention assembly.

Please let me know if you require any additional information in order to proceed with the out of district extension process. If you do not need additional information, we respectfully ask you to copy us (Jaclyn Peranteau and Lawrence Crehan Jr.) in your correspondence with H2M.

Sincerely,

Lawrence Crehan Jr.

Key Civil Engineering, P.C. – NYS Certified WBE
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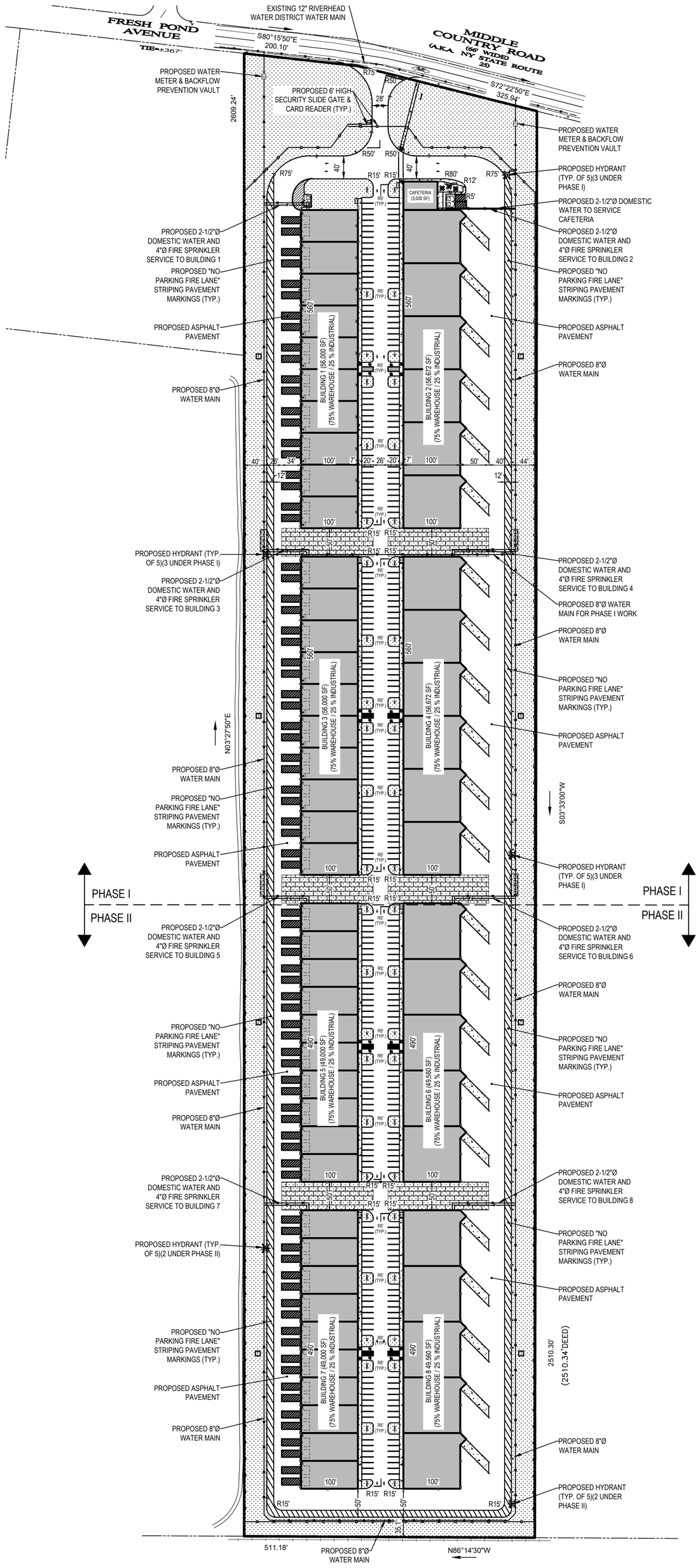


GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)

1 inch = 120 ft.

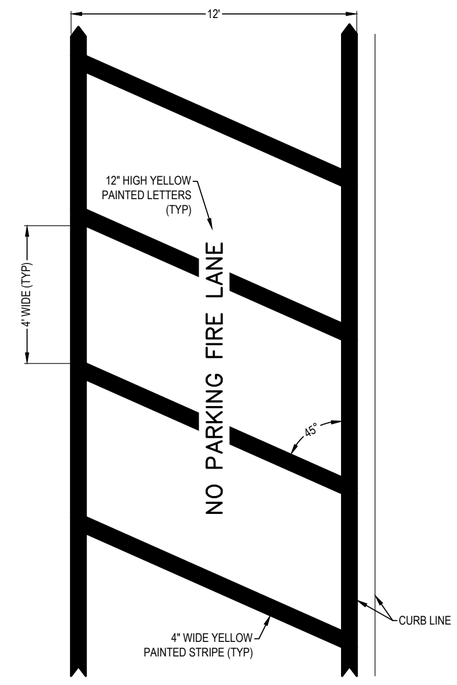
PROJECT DATA

SITE ADDRESS	4285 MIDDLE COUNTRY ROAD CALVERTON, NY 11933
OWNER / APPLICANT	HK VENTURES, LLC 399 W. JOHN STREET HICKSVILLE, NY 11801 c/o URI HASON
TAX MAP NUMBER	DISTRICT: 600, SECTION: 116, BLOCK: 1, LOT: 2
SITE AREA	1,317,884 SF (30.2545 Ac)
CURRENT ZONING	INDUSTRIAL C
EXISTING USE	VACANT
PROPOSED USE	PRIMARY USES: WAREHOUSE & INDUSTRIAL BUSINESS
PROPOSED BUILDING AREA (GFA)	PHASE I BUILDING 1 = 56,000 SF BUILDING 2 = 56,672 SF BUILDING 3 = 56,000 SF BUILDING 4 = 56,672 SF CAFETERIA = 3,000 SF TOTAL = 228,344 SF PHASE II (TO BE CONSTRUCTED ONCE PHASE I IS COMPLETED AND OPERATING) BUILDING 5 = 49,000 SF BUILDING 6 = 49,560 SF BUILDING 7 = 49,000 SF BUILDING 8 = 49,560 SF TOTAL = 197,120 SF PHASE I + PHASE II = 425,464 SF (32.28%)
PERVIOUS PAVERS / LANDSCAPE AREA	355,114 (26.94%)
IMPERVIOUS / PAVEMENT / CONCRETE AREA (EXCLUDES BUILDING AREAS)	537,306 SF (40.78%)
BUILDING TYPE OF CONSTRUCTION	TYPE 2B
BUILDING OCCUPANCY	OCCUPANCY S1 & F1
LOADING ZONES	(80) 12 FT WIDE x 34 FT LONG (2) 12 FT WIDE x 20 FT LONG (22) 13 FT WIDE x 55 FT LONG TOTAL PROVIDED = 104 SPACES
FIRE SUPPRESSION SYSTEMS	ALL BUILDINGS TO BE FULLY SPRINKLERED (DESIGN BY OTHERS) (5) ON-SITE HYDRANTS TO BE INSTALLED

LEGEND

SCALE OF SYMBOLS = 1" = 120'

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	CONCRETE SIDEWALK	
	LANDSCAPE / LAWN AREA	
	PERVIOUS PAVERS	
	DUMPSTER ENCLOSURE	
	12' x 34' LOADING SPACE	
	LOADING DOCK RETAINING WALLS	
	PARKING COUNTY	
	OVERHEAD DOOR	
	DOOR	
x x	FENCE	
	BIKE RACK	
	HYDRANT	
	WATER MAIN	



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PLAN FOR FIRE MARSHAL REVIEW ONLY. NOT FOR CONSTRUCTION

No.	DATE	BY	DESCRIPTION

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JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937

DATE:	01/24/2020
SCALE:	
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:

HK VENTURES, LLC INDUSTRIAL PARK

4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OR RIVERHEAD, COUNTRY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

FIRE MARSHAL PLAN

DRAWING No.:

FM-1

PAGE No.:

1 OF 1

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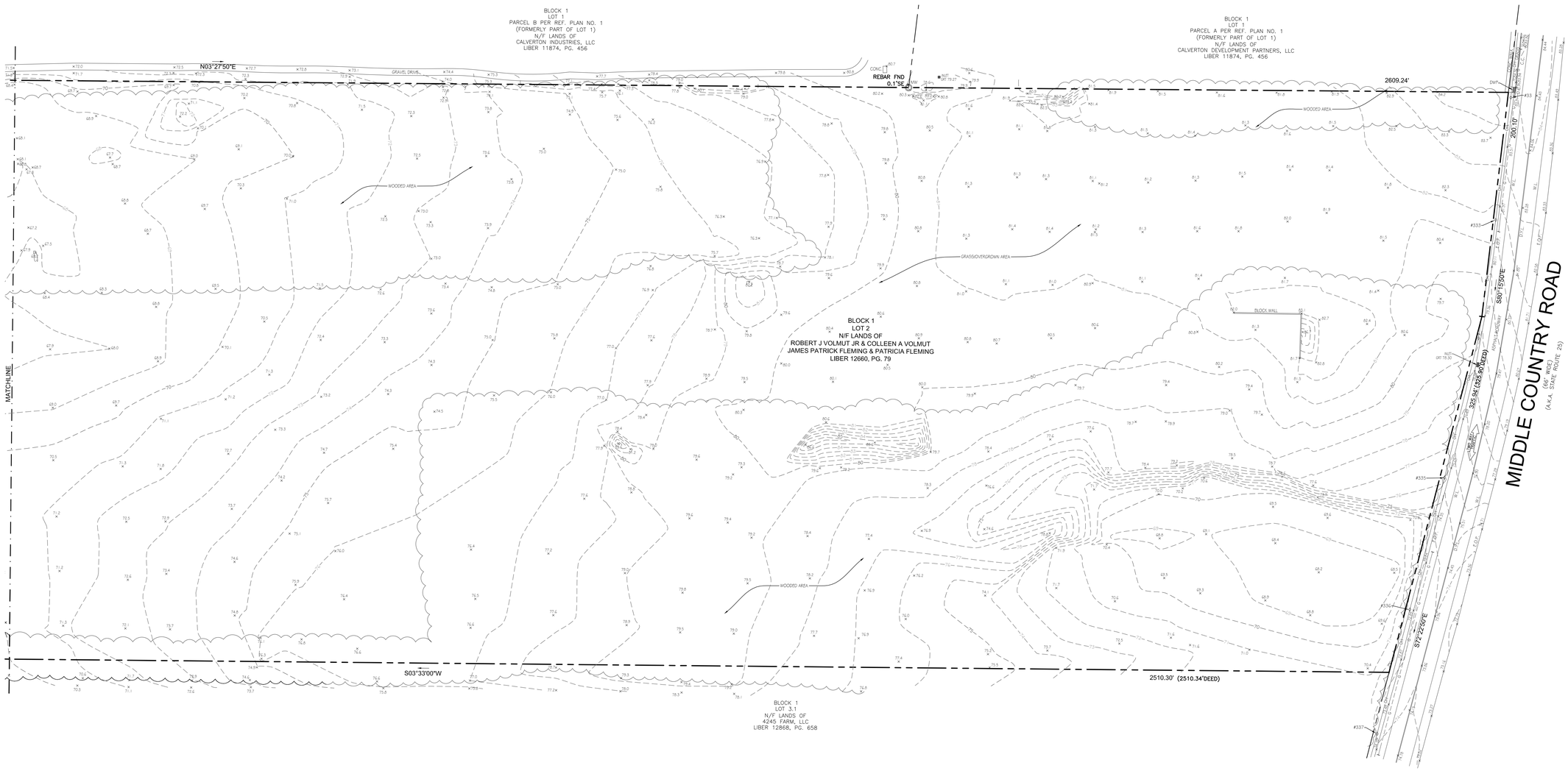

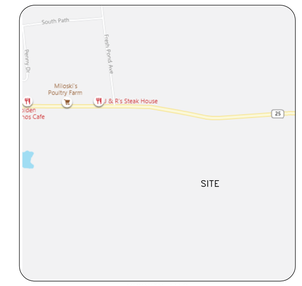

VICINITY MAP

NOTES:

1. PROPERTY KNOWN AND DESIGNATED AS LOT 2, IN BLOCK 1, SECTION 116, DISTRICT 600 ON THE OFFICIAL TAX MAP FOR THE TOWN OF RIVERHEAD, SUFFOLK COUNTY, NEW YORK.
2. AREA: 1,317,884 S.F. OR 30.2545 AC.
3. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE, LOCATIONS AND SIZES ARE BASED ON PRIOR UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE ASSBUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES.
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6. BY GRAPHIC PLOTTING, PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREA OF MINIMAL FLOOD HAZARD) PER NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP NO. 36103C0442H, EFFECTIVE DATE: SEPTEMBER 25, 2009, OBTAINED FROM FEMA NFHL WEB SERVICE ON OCTOBER 14, 2019.
7. THE LOCATION AND EXTENTS OF UNDERGROUND TANKS AND VAULTS, IF ANY EXIST, HAVE NOT BEEN DETERMINED BY THE SURVEYOR.

REFERENCES:

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2. MAP OF PROPERTY SITUATE AT CALVERTON, TOWN OF RIVERHEAD LL OWNED BY EDWIN H. BROWN, SURVEYED JULY 1919, FILED IN THE COUNTY CLERKS OFFICE ON MARCH 31, 1920 AS FILE NO. 761, ABS NO. 24,
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MAP LEGEND

PROPERTY LINE	
123	EXISTING CONTOUR
x 12.34	EXISTING SPOT ELEVATION
x TC12.34	EXIST. TOP OF CURB ELEVATION
x BC12.34	EXIST. GUTTER ELEVATION
G	APPROX. LOCATION U.G. GAS LINE PER UTILITY MARKOUT
	INLET
OH	OVERHEAD WIRES
	UTILITY POLE
	SIGN
D.C.	DEPRESSED CURB
C.C.	CONCRETE CURB
E.O.P.	EDGE OF PAVEMENT
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W.L.	WHITE LINE
D.Y.L.	DOUBLE YELLOW LINE
1.0'	DENOTES OFFSET OF STRUCTURE AT GROUND LEVEL RELATIVE TO PROPERTY LINE

UTILITIES:
THE FOLLOWING COMPANIES WERE NOTIFIED BY NEW YORK STATE ONE-CALL SYSTEM (1-800-272-4480) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST. SERIAL NUMBER(S): 192870091

UTILITY COMPANY	PHONE NUMBER
NATIONAL GRID	800-262-8600
LONG ISLAND POWER AUTHORITY	800-545-7068
TOWN OF RIVERHEAD	631-727-3200
VERIZON COMMUNICATIONS	855-661-6323

NOTE: ALL UTILITY COMPANIES DID NOT RESPOND TO MARKOUT REQUEST

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GRAPHIC SCALE
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(IN FEET)
1 inch = 20 ft.

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BOUNDARY & TOPOGRAPHIC SURVEY
LOT 2, BLOCK 1
SECTION 116, DISTRICT 600
MIDDLE COUNTRY ROAD (NYSR 25) BETWEEN
FRANCES BOULEVARD & FRESH POND AVENUE
HAMLET OF CALVERTON (TOWN OF RIVERHEAD)
SUFFOLK COUNTY
STATE OF NEW YORK

GALLAS SURVEYING GROUP
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NORTH BRUNSWICK, NJ 08902
TELE: 732-422-6700
FAX: 732-940-8786
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FIELD DATE	FIELD BOOK	PAGE	FIELD CREW
10-24 - 11-08-19	128	58, 66, 74, 80	S.G./L.R./A.S.
FILE NO.: G19227		DRAWING NAME/SHEET NO. G19227.DWG	1 OF 2

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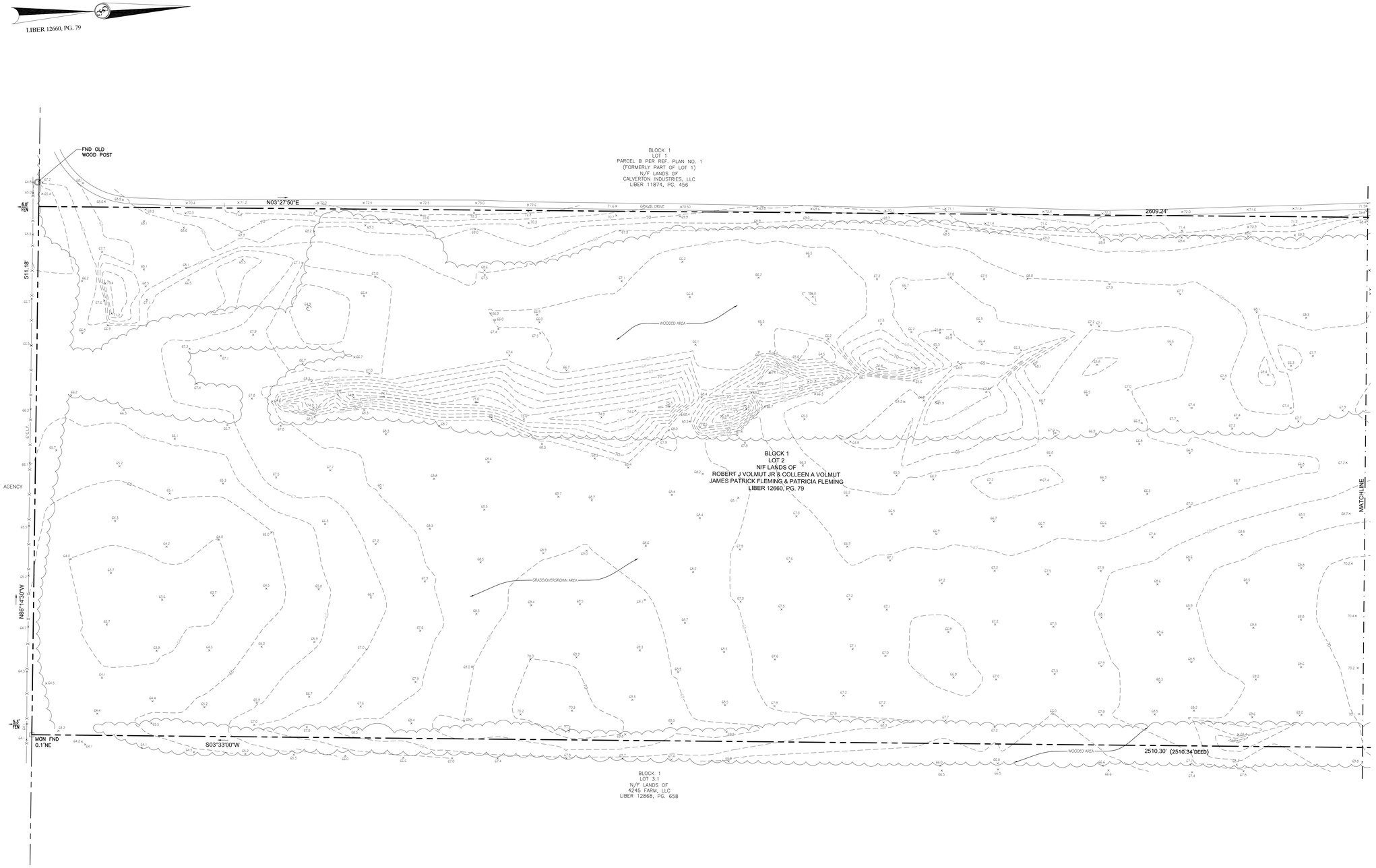
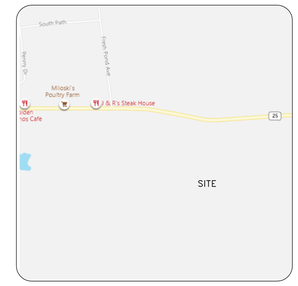
GREGORY S. GALLAS — DATE
NEW YORK PROFESSIONAL LAND SURVEYOR #50124





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1 inch = 40 ft.

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FILE NO.: G19227		DRAWING NAME/SHEET NO.: G19227.DWG	2 OF 2

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GREGORY S. GALLAS
NEW YORK PROFESSIONAL LAND SURVEYOR #50724
DATE

HK Ventures, LLC
Proposed Industrial Park
Peak Water Supply Demand Calculations

January 19, 2020

Fixture unit method for domestic flow:
Occupant load (OL) based on 2015 IBC Table 1004.1.2

Tenant Spaces:	Tenant SF Area	Warehouse or Industrial - 90% (SF)	Occupant Load Warehouse	Occupant Load Industrial
Phase 1	5600	5040	10	50
Phase 1	9445	8500.5	17	85
Phase 2	4900	4410	9	44
Phase 2	9912	8920.8	18	89

Tenant Spaces:	Tenant SF Area	Retail - 10% (SF)	Occupant Load Retail
Phase 1	5600	560	9
Phase 1	9445	944.5	16
Phase 2	4900	490	8
Phase 2	9912	991.2	17

Tenant Spaces:	Tenant SF Area	OL - Waarehouse + Retail	OL - Industrial + Retail
Phase 1	5600	19	60
Phase 1	9445	33	101
Phase 2	4900	17	52
Phase 2	9912	34	106

Fixtures based on 2015 IPC Table 403.1:

Warehouse or industrial + Retail	Tenant SF Area	Water Closets	Lavatories	Drinnking fountains	Service Sink	Kitchen Sink
Phase 1	5600	2	2	1	1	1
Phase 1	9445	2	2	1	1	1
Phase 2	4900	2	2	1	1	1
Phase 2	9912	2	2	1	1	1

Fixture units (FU) based on 2015 IPC Table 103.3(2)
Peak flow in GPM from 2015 IPC Table 103.3(3)

Each Tenant:	No. Fixtures	FU Each	Total FU	Recommended Pipe sizes
Water Closet	2	10	20	
Lavatories	2	2	4	
Drinking Fountain	1	0.25	0.25	
Service sink	1	3	3	
Kitchen sink	1	1.4	1.4	
Total FU per Tenant			28.65	
Peak flow per tenant =			**41 gpm**	**2"**

Cafeteria	No. Fixtures	FU Each	Total FU	
Water Closet	4	10	40	
Lavatories	2	2	4	
Drinking Fountain	1	0.25	0.25	
Service sink	1	3	3	
Dishwasher	1	3	3	
Kitchen sink	1	4	4	
Total cafeteria FU			54.25	
Peak cafeteria flow =			**52 gpm**	**2"**

Buildings 1,3,5, and 7 - 10 tenants per building
Fixture units per building = 286.5
Peak flow per building 1, 3, 5, or 7 = 106 gpm 2.5"

Buildings 2 and 4 - 6 tenants per building
Fixture units per building = 171.9
Peak Flow per building 2 or 4 = 84 gpm 2.5"

Buildings 6 and 8 - 5 tenants per building
Fixture units per building = 143.25
Peak Flow per building 6 or 8 = 77 gpm 2.5"

Phase 1 buildings 1 to 4 + cafeteria
32 tenants + cafeteria
Fixture units for Phase 1 buildings = 971.1
Peak flow for Phase 1 buildings = 204 gpm

Phase 2 buildings 1 to 8 +cafeteria
62 tenants + cafeteria
Fixture units for Phase 2 buildings = 1830.6
Peak flow for Phase 2 buildings = 306 gpm

Building Fire flow requirement:
Assume tenant spaces separated by fire walls

Assume building construction Type IIA
Fire flow based on largest tenant space = 9912 SF

Fire flow from 2015 IFC Table B105.2 =	**375 gpm**	**4"**
Fire hydrant flow =	**1,500 gpm**	**8"**

Hydrant spacing: As per 2015 IFC Section 507.5.1, Exception 2, any portion of the building must be within 600 feet of a hydrant. Therefore hydrants can be spaced 1,200' apart.

Total peak water supply demand =	**2,181 gpm**	**8" for Loop**

CALVERTON INDUSTRIAL PARK
4285 MIDDLE COUNTRY ROAD
CALVERTON, NEW YORK
TAX MAP ID: 0600-116.00-01.00-002.000

SOIL & MATERIALS MANAGEMENT PLAN

PREPARED FOR:

The Pinewood Organization
399 West John Street
Hicksville, New York 11801

PREPARED BY:

P.W. Grosser Consulting, Inc.
630 Johnson Avenue, Suite 7
Bohemia, New York 11716
Phone: 631-589-6353
Fax: 631-589-8705

Andrew Lockwood, PG, Sr. Vice President andyl@pwgrosser.com
Thomas Melia, PG, Sr. Project Manager thomasm@pwgrosser.com

PWGC Project Number: TPO2001

JUNE 2020

SOIL & MATERIALS MANAGEMENT PLAN
CALVERTON INDUSTRIAL PARK, CALVERTON, NEW YORK

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2.1 Phase I ESA (August 2018) 2
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P.W. GROSSER CONSULTING, INC.
P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.
PHONE: 631.589.6353 PWGROSSER.COM 630 JOHNSON AVENUE, STE 7 BOHEMIA, NY 11716
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FIGURES

FIGURE 1	Site Location Map
FIGURE 2	Site Plan
FIGURE 3	Surrounding Properties
FIGURE 4	Proposed Sample Grid

APPENDICES

APPENDIX A	Proposed Development Plan
APPENDIX B	Daily Air Monitoring Form

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1.0 INTRODUCTION

P.W. Grosser Consulting, Inc. (PWGC) has prepared this Soil & Materials Management Plan (SMMP) for the proposed Calverton Industrial Park development project located at 4285 Middle Country Road, Calverton, New York (the Site). Site redevelopment will include the construction of a multi-tenant industrial park. This SMMP is based on the findings of a December 2019 Phase I Environmental Site Assessment (ESA) prepared for the site by H2M Architects + Engineers (H2M).

1.1 Location and Legal Description

The subject property consists of one parcel located at 4285 Middle Country Road in the Hamlet of Calverton, New York. The site is located in the Town of Riverhead, and Suffolk County. The property is identified in the Suffolk County Tax Map as 0600-116.00-01.00-002.000. A Site Location Map is included as **Figure 1** and a Site Plan is included as **Figure 2**.

1.2 Site Description and Improvements

The Site measures approximately 30.28 acres and is vacant with wooded areas along the northeast and southwest property boundaries. Currently, the property is primarily composed of a naturally vegetated undeveloped land. The property slopes gradually from north to south. Regional groundwater flow beneath the subject property is in a generally northeast direction as obtained from groundwater contour maps developed by the United States Geologic Survey for Long Island in 2013.

1.3 Proposed Redevelopment Plan

The proposed development of the Site will include the construction of eight new multi-tenant industrial buildings. The proposed buildings will range from approximately 49,000 to 56,000 square feet. The remainder of the site will generally be capped with asphalt/concrete pavement with landscaped areas along each of the property boundaries. The approximate layout of the proposed site development is illustrated in **Figure 2**; proposed development plans are included as **Appendix A**.

1.4 Description of Surrounding Property

The Site is bounded by Middle Country Road and vacant land to the north, a wooded portion of the former Grumman property to the south, a sod farm to the east, and commercial properties to the west. Commercial properties to the west consist of a Tractor Supply Co. retail store, and Sky Materials which is a New York State Department of Environmental Conservation (NYSDEC) Part 360 permitted solid waste management facility. Surrounding property usage is shown in **Figure 3**.

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2.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

H2M performed a Phase I ESA for the site in December 2019.

2.1 Phase I ESA (August 2018)

Findings of H2M's December 2019 Phase I ESA included the following Recognized Environmental Conditions (RECs):

- The subject property was historically used for agricultural purposes from at least the 1930s through approximately 1986. Historic usage for agricultural purposes is likely to be associated with the application of pesticides and herbicides at the site. During the period of time the subject site was used for agricultural purposes, pesticides used may have included now-banned chemicals (such as DDT), or metals-based compounds (such as lead arsenate). Such compounds may have been applied directly at the subject property, and/or may have migrated to the subject property from adjacent properties via surficial storm runoff or wind deposition. Compounds such as these, particularly metals-based compounds, tend to be immobile in the environment and remain in soil long after their application ceases.

Based on review of the Phase I ESA and a visual inspection of the Site and surrounding area, PWGC has identified the following additional potential environmental concerns:

- Current and historical usage of properties in the surrounding area for agricultural purposes. As with the usage of the subject property, this usage is likely associated with the application of pesticides and herbicides. Such compounds may have migrated to the subject property from adjacent properties via surficial storm runoff or wind deposition.
- The adjacent property to the west is an active NYSDEC permitted solid waste management facility. Based on a visual inspection of this property from public rights of way, it appears the facility engages in processing construction and demolition (C&D) debris and vegetative waste (mulching).

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3.0 SOIL CHARACTERIZATION SAMPLING

To evaluate the potential impact related to the former agricultural usage of the subject property, screening sampling will be performed by collecting composite surface soil samples at a frequency of approximately one composite sample per acre. The site will be divided into 30 approximately one-acre grids, and five shallow soil borings will be installed in each for the purposes of collecting composite samples Proposed sample grids are illustrated in **Figure 4**.

3.1 Drilling Procedures

Shallow soil borings will be installed manually using a stainless-steel hand auger. A minimum of five borings will be installed in each sample grid. Soils will be collected continuously from ground surface to an approximate depth of two feet below ground surface (bgs). Collected soils will be placed on 10-mil polyethylene sheeting in the order they came out of the ground. Soils will be screened for the presence of volatile organic vapors, which are commonly associated with petroleum products and industrial solvents, utilizing a photo-ionization detector (PID). Soils will be classified by a hydrogeologist using the unified soil classification system (USCS).

3.2 Sample Collection

From each boring within each grid, soils from the following intervals:

- One sample from ground surface to two inches bgs (or two inches below the vegetated root layer).
- One sample from 18 to 24 inches bgs.

Soil samples collected for VOCs will be discrete samples (non-composite and non-homogenous) to minimize VOC loss. Remaining soils from each interval within each grid will be transferred to a stainless-steel bowl and homogenized. Once homogenized, samples will be transferred to pre-cleaned, pre-preserved laboratory supplied glassware. Therefore, two 5-point composite samples will be collected from each grid, one from 0 to two inches and one from 18 to 24 inches bgs.

Initially only the 0 to 2-inch sample from each grid will be analyzed. In the event that a 0 to 2-inch sample exceeds applicable standards (see Section 3.4), the corresponding 18 to 24-inch sample will be analyzed to evaluate the vertical extent of impact.

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3.3 Sample Analysis

Soil samples to be submitted for laboratory analysis will be placed on ice in a cooler and transported to a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. Samples will be shipped under proper chain-of-custody procedures. Results will be provided as NYSDEC Analytical Services Protocol (ASP)-Category A Deliverables. Samples will be analyzed for:

- Pesticides by USEPA Methods 8081.
- Target Analyte List (TAL) Metals by USEPA Methods 6010/7471.

In addition to pesticides and metals, approximately 20% of samples will also be analyzed for full Part 375 parameters. Samples collected for full Part 375 parameters will be biased toward areas where evidence of impact is identified (e.g., elevated PID response, staining, odors, etc.). If no evidence of impact is identified during field screening, full Part 375 sample locations will be selected at random. Part 375 parameters will include the following analyses in addition to pesticides and metals:

- Volatile organic compounds (VOCs) by USEPA Method 8260.
- Semi-volatile organic compounds (SVOCs) by USEPA Method 8270.
- Poly-chlorinated biphenyls (PCBs) by USEPA Method 8082.

3.4 Characterization Sample Data Evaluation

Sample data will be compared to the Unrestricted Use Soil Cleanup Objectives (UUSCOs) specified in 6 NYCRR Part 375-6, Remediation Program Soil Cleanup Objectives, and the Fill Material Requirements specified in Table 2 of 6 NYCRR Part 360.13, Special Requirements for Pre-Determined Beneficial Use of Fill Material. Data evaluation will be memorialized in a letter report that details sampling activity and identifies general soil handling requirements for each sample grid.

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4.0 SOIL AND MATERIALS MANAGEMENT

Soil and materials management during development will consist of the following:

- Removal and offsite disposal of soils unsuitable for reuse onsite.
- Capping of impacted soils acceptable for reuse onsite.
- Reuse of onsite soils.
- Import of fill material.

4.1 Soil Excavation and Removal

If necessary, soils deemed unsuitable for reuse onsite (see Section 4.3) will be excavated and removed from the site. The area to be excavated for off-site disposal will be determined by the sampling described in Section 3.0.

Soils will be excavated from the proposed excavation area utilizing an excavator or equivalent heavy equipment. If necessary, soils will be excavated and stockpiled for later disposal. Soils will be screened utilizing a photoionization detector (PID) capable of detecting the presence of VOCs. Soils exhibiting significantly elevated PID responses or odors may be segregated and stockpiled from other soils being excavated. Soil stockpiles will be constructed and maintained in accordance with Section 4.1.1. Upon the completion of impacted soil removal, excavation areas will be backfilled to grade with clean fill material (if necessary).

If excavation and removal is necessary, the final limit of the excavation(s) will be determined in the field based upon confirmatory endpoint soil sample analytical results (see Section 4.5).

4.1.1 Soil Stockpile Area Construction and Maintenance

In the event that excavated soils will be stockpiled on site prior to disposal, stockpiles will be confined to a designated area (to be determined). The preferred method for storing soils on site will be in roll-off containers, covered with polyethylene sheeting. Should it be necessary to stockpile soils on the ground, the stockpile area will be lined with 20-mil polyethylene sheeting and surrounded by a silt fence. Stockpiled material will be covered with 20-mil polyethylene sheeting and secured until it is removed from the site.

4.1.2 Soil Disposal

Excavated soils to be disposed of offsite will be sampled in accordance with the waste acceptance criteria of the disposal facility. Impacted soil to be removed from the site will be loaded into roll-off containers and/or dump trucks provided by a licensed waste transport company. Loading will be performed with a backhoe, excavator, or equivalent. Loaded containers will be covered with a tarp.

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4.2 Soil Capping

If necessary, to properly protect the environment and public health from potential residual impact that may be remaining at the site, soil management activities at the Site will include the following in areas where impact exceeds Unrestricted Use SCOs and/or General Fill Requirements.

- In areas where site development, such as roads, parking areas, sidewalks, concrete slabs, or other impervious layers (see **Appendix A**) will act as a physical barrier to prevent contact with soils, no additional soil management procedures will be required.
- In areas not included above, soil management may consist of the following options:
    - **Clean Soil Cap** - Construction of a one-foot thick soil cap, in accordance with NYSDEC Part 360.13, in areas where current natural vegetation or landscaping is disturbed. Material to be used for the soil cap may be reused material from elsewhere on the Site provided it meets the requirements for reuse (see Section 4.3) or imported from offsite provided it meets the requirements for imported fill material (see Section 4.4).
    - **Landscape Berms** – Landscape berms may be constructed on the property in undeveloped open areas, such as in buffer areas. The landscape berms will require a one foot cap of clean soil and a grass/sod or vegetation layer to act as a barrier to impacted soils.

4.3 Reuse of Onsite Soils & Disposition of Excess Soils

Following completion of screening and sampling described in Section 3.0, sample grids will be categorized as follows:

- Sample grids where soils meet Unrestricted Use SCOs.
- Sample grids where soils exceed Unrestricted Use SCOs but meet General Fill Requirements.
- Sample grids where soils exceed General Fill Requirements.
- Sample grids where soils exceed Restricted Use Fill Requirements.

General soil management requirements for each of these categories are detailed below. Additional details regarding soil handling will be provided as necessary in the sampling report described in Section 3.4.

4.3.1 Soils Meet Unrestricted Use SCOs

In sample grids where soils meet Part 375 Unrestricted Use SCOs, soils will not require special handling and may be reused onsite or disposed of offsite as clean fill material.

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4.3.2 Soils Meet General Fill Requirements

In sample grids where soils exceed Part 375 Unrestricted Use SCOs but meet Part 360 General Fill Requirements, soils may be reused or disposed of as follows:

- Soils may be reused in the same excavation or as fill material in other areas of the Site with similar physical characteristics in accordance with 6 NYCRR Part 360.13(c).
- Excess soils may be transferred off site for use as General Fill material at another project site in accordance with 6 NYCRR Part 360.13(f) and 6 NYCRR Part 360.13(g).
- Excess soils may be disposed of off-site at a properly permitted facility. Such soils may require additional sampling depending on the disposal facility's requirements.

4.3.3 Soils Exceed General Fill Requirements

In sample grids where soils exceed Part 375 Unrestricted Use SCOs and Part 360 General Fill Requirements but meet Restricted Use Fill requirements, soils may be reused or disposed of as follows:

- Soils may be reused in the same excavation or as fill material in other areas of the Site with similar physical characteristics provided the relocated fill material is covered with a permanent impervious surface and/or a minimum of 12 inches of soil or fill material that meets General Fill requirements in accordance with 6 NYCRR Part 360.13(c).
- Excess soils may be transferred off site for use as Restricted Fill material at another project site in accordance with 6 NYCRR Part 360.13(f) and 6 NYCRR Part 360.13(g). Restricted Fill material may only be beneficially reused offsite for engineered use for embankments or subgrade in transportation corridors, or on sites where in-situ materials exceed Restricted-Use Fill or Limited-Use Fill criteria. Such material must be placed above the seasonal high water table.
- Excess soils may be disposed of off-site at a properly permitted facility. Such soils may require additional sampling depending on the disposal facility's requirements.

4.3.4 Soils Exceed Restricted Fill Requirements

In sample grids where soils exceed Part 375 Unrestricted Use SCOs, Part 360 General Fill Requirements and Part 360 Restricted Use Fill requirements, soils may be reused or disposed of as follows:

- Soils exceeding Restricted Fill requirements may not be placed in Nassau or Suffolk counties and as such may not be reused onsite.
- Excess soils that meet Limited Use Fill requirements in Table 2 of 6 NYCRR Part 360 may be transferred off site for use as Limited Use Fill material at another project site in accordance with 6 NYCRR Part

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360.13(f) and 6 NYCRR Part 360.13(g). Limited Use Fill material may only be beneficially reused offsite for engineered use under foundations and pavements above the seasonal high water table. Such material may not be reused in Nassau or Suffolk counties.

- Excess soils that exceed Limited Use fill requirements or meet Limited use fill requirements but will not be beneficially reused off-site, must be disposed of off-site at a properly permitted facility. Such soils may require additional sampling depending on the disposal facility's requirements.

4.4 Imported Fill Material

In the event that that it is necessary to import fill material to the Site, such material will not be imported from industrial sites, spill sites, other environmental remediation sites or other potentially contaminated sites. The following potential sources of fill material may be used:

4.4.1 Clean Fill Material

Clean fill material, defined as virgin mined sand, gravel or stone, from a permitted mine or quarry.

4.4.2 Beneficially Reused Material

Clean soil from non-industrial sites on Long Island or upstate New York (soil from construction sites in New York City will not be used at the Site) provided such material meets General Fill Requirements based on sampling specified in 6 NYCRR Part 360. Samples must be representative of the fill material. The sampling program must be designed and implemented by or under the direction of a qualified environmental professional (QEP), using Table 1 of 6 NYCRR Part 360.13(e), (summarized below) as a minimum sampling frequency. Written documentation of the sampling program with certification from the QEP that samples were representative of the fill material must be retained for a minimum of three years after the sampling occurs and must be provided to NYSDEC upon request.

Fill Material Quantity (cubic yards)	Number of VOC Samples	Number of Non-VOC Samples
0 – 300	2	1
301 – 1,000	4	2
1,001 – 10,000	6	3
10,000 +	Two per every additional 10,000 cubic yards or fraction thereof	One per every additional 10,000 cubic yards or fraction thereof

In accordance with Part 360.13(e), fill material will be sampled for:

- Metals, PCBs, pesticides, and SVOCs.

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- VOC sampling of fill material will not be required except in areas where their presence is possible, such as historic petroleum spill areas or if odors or elevated photoionization detector readings are detected.
- Asbestos sampling will be required if demolition of structures has occurred on site.

4.4.3 Recycled Concrete Aggregate

Clean recycled concrete aggregate (RCA) from construction and demolition (C&D) debris processing facilities permitted or registered by the regulations of NYSDEC. Such material must consist solely of RCA (no soil or fine-grained material mixed in) and must have no visual evidence of contamination. Lists of NYSDEC registered and permitted C&D Processing Facilities may be found on the NYSDEC website at the following link: https://www.dec.ny.gov/chemical/23686.html.

4.5 Onsite Soil Handling

To prevent tracking of potentially impacted soil (if any) into areas where neither remediation nor other risk management measures are planned, the following precautions will be taken as needed:

- Access to areas in which a clean soil cap has been constructed will be limited by temporary barricade fencing until landscaping activities have been completed.
- Vehicles and equipment will be cleaned or washed down prior to moving from impacted areas to areas in which soil mitigation is not necessary or has already been completed.
- Erosion controls (i.e. silt fencing or equivalent) will be installed to prevent runoff from impacted areas from entering areas in which soil mitigation is not necessary or has already been completed.

4.6 Endpoint Sample Collection

In the event that impacted soils require offsite disposal, PWGC will collect endpoint soil samples after soil management measures are completed to determine whether surface soil concentrations of the trigger compounds meet applicable standards. The number of samples collected will ultimately be determined based upon the excavation area in accordance with NYSDEC DER-10 5.4(b)5. Endpoint soil samples will be collected from 0 to 6 inches below grade using a stainless-steel hand auger and will be submitted to a New York State Department of Health (NYSDOH) certified laboratory for analysis. Samples will be analyzed for the suite of compounds which exceeded applicable standards in the initial sample collected from the excavation area.

4.7 Dust Control

In the event that impact in excess of Unrestricted Use SCOs is identified at the site, dust from work activities may contain contaminants of concern. If impact is identified by sampling described in Section 3.0, an on-site

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environmental technician will monitor dust levels and take immediate action when necessary during excavation and soil handling activities. The environmental technician will implement the dust control plan if there is actual or potential visible dust. Dust suppression measures will be employed in accordance with the NYSDEC DER-10 Appendix 1B for Fugitive Dust and Particulate Monitoring. The primary sources of dust will be equipment, vehicular traffic, and construction activities on exposed soils.

4.7.1 Dust Control Plan/Monitoring

Dust monitoring will be conducted during intrusive activities in areas of concern, specifically during removal of the vegetative layer and excavation of soils from sample grids where impact is identified by the sampling described in Section 3.0. If there is dust or the potential for dust in areas of concern, the environmental technician will direct that the area be wetted down. Calcium chloride may be used if the problem cannot be controlled with water. Dust control measures may include the following methods and, as good practice, can also be implemented at times when dust monitoring is not being conducted to prevent the migration of non-impacted dust off-site, as well as potentially impacted dust:

- Water applied to designated work areas prior to any clearing, mixing, or other earth moving operations.
- At a minimum, water will be applied to all disturbed work areas at least four times per day during dry weather periods.
- The disturbed areas will be sprayed down at the end of each day to form a thin crust. This is in addition to the required minimum of four times per day.
- All unpaved haul roads and equipment paths will be watered on a sufficient basis to prevent dust emissions. An alternative to frequent watering may be to pour a 4-inch thick layer of gravel or RCA (see Section 4.4 for imported fill requirements).
- Transportation of soils on-site will be performed in a covered vehicle, or the soils must be sufficiently watered to prevent dust emissions.
- Vehicle speeds should not exceed 10 miles per hour and the site should be posted with speed signs.
- Parking areas shall be designated and will be sufficiently watered or gravel lined to prevent dust emissions.

If elevated dust levels persist, the site safety officer will employ dust monitoring using a particulate monitor (Miniram or equivalent). If monitoring detects concentrations greater than 150 µg/m^3 over daily background, the site safety officer will take corrective actions as defined herein, including the use of water for dust

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suppression and if this is not effective, requiring workers to wear APRs with high efficiency particulate air filter (HEPA) cartridges.

Absorption pathways for dust and direct contact with soils will be minimized by the required use of latex gloves, hand washing and decontamination exercises when necessary.

The designated site safety officer will record air monitoring data. The site safety officer or delegate must ensure that air monitoring instruments are calibrated and maintained in accordance with the manufacturer's specifications. Instruments will be zeroed daily and checked for accuracy. Monitoring results will be recorded daily on the log included as **Appendix B**.

The following action levels will be used:

- Total Respirable Dust at background in breathing zone: continue.
- Total Respirable Dust at 150 mg/m^3 above background (15-minute average) in breathing zone: Level C PPE - HEPA filters.

The site safety officer can require personal protective equipment upgrades based on visual dust without metering total respirable dust.

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5.0 REPORTING

Upon completion of soil management activities and endpoint sampling, a Soil and Materials Management Plan Completion Report will document the completion of the effort. The report will certify that required soil was managed in accordance with this plan and endpoint sample results indicate that the surface soils do not contain concentrations of metals or chlorinated pesticides above their respective SCOs. The Completion Report will be submitted to the developer following final capping of the site.

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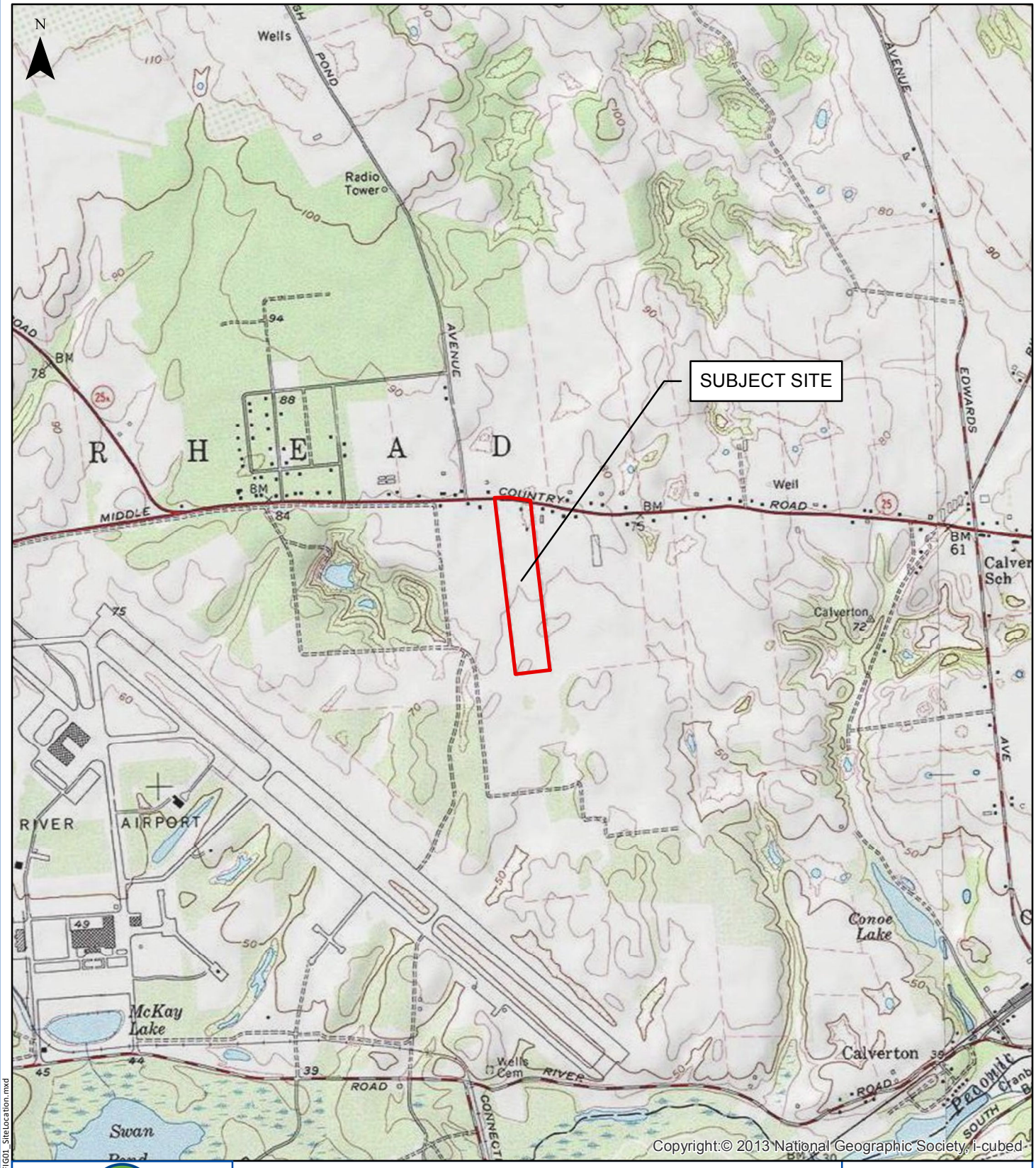
FIGURES



SITE LOCATION

4285 Middle Country Road
Calverton, NY

Miles
0 ¼ ½ ¾ 1

Project:	TPO2001
Date:	6/10/2020
Designed by:	TM
Drawn by:	TS
Approved by:	TM
Figure No:	1

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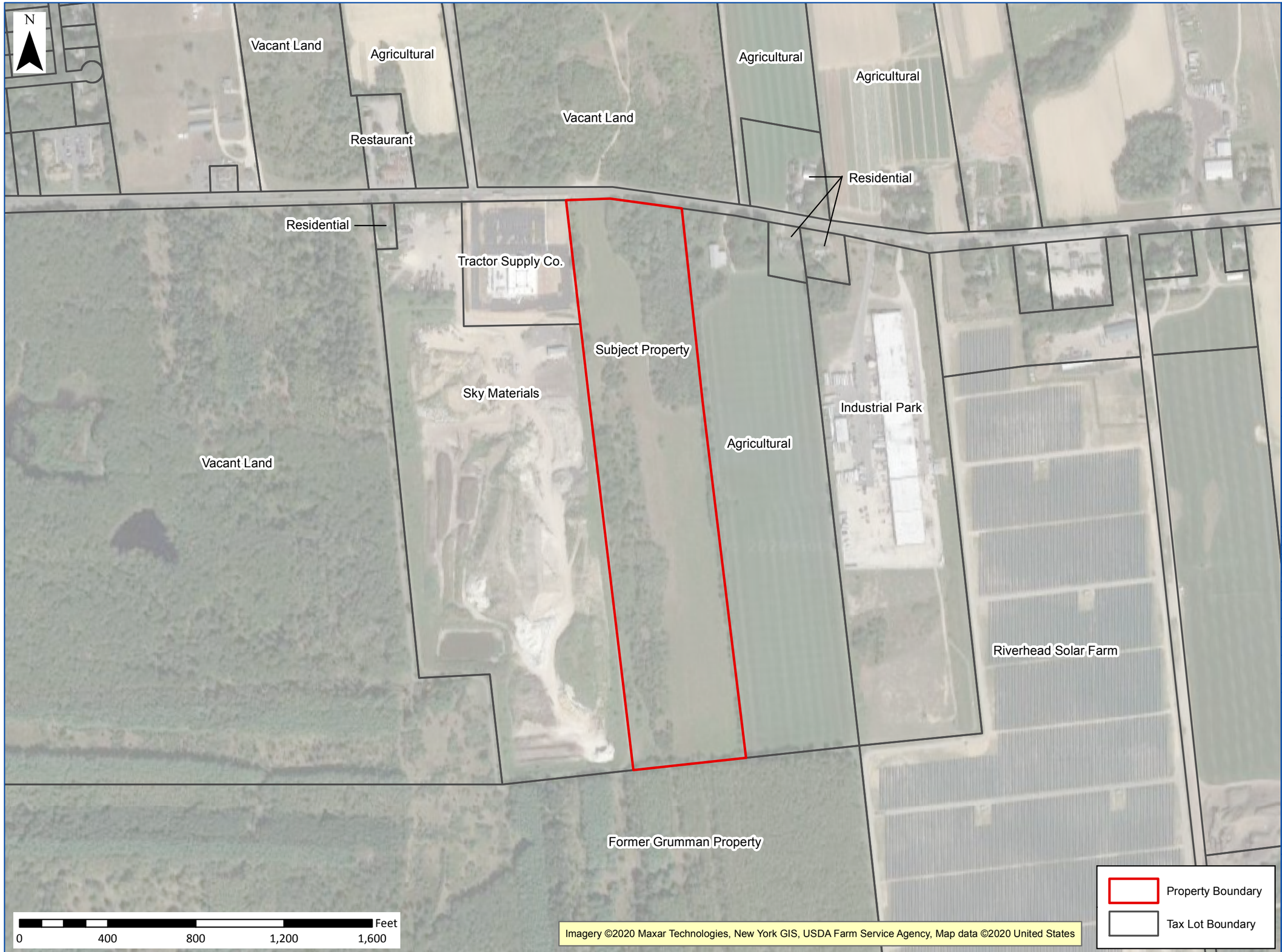
Date:	6/10/2020	Drawn by:	TS
Scale:	AS SHOWN	Approved by:	TM

SITE PLAN

4285 Middle Country Road
Calverton, NY

FIGURE NO:

2



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SURROUNDING PROPERTY MAP

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FIGURE NO:

3

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Date:	6/10/2020	Drawn by:	TS
Scale:	AS SHOWN	Approved by:	TM

PROPOSED SAMPLING LOCATIONS

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Calverton, NY

FIGURE NO:

4

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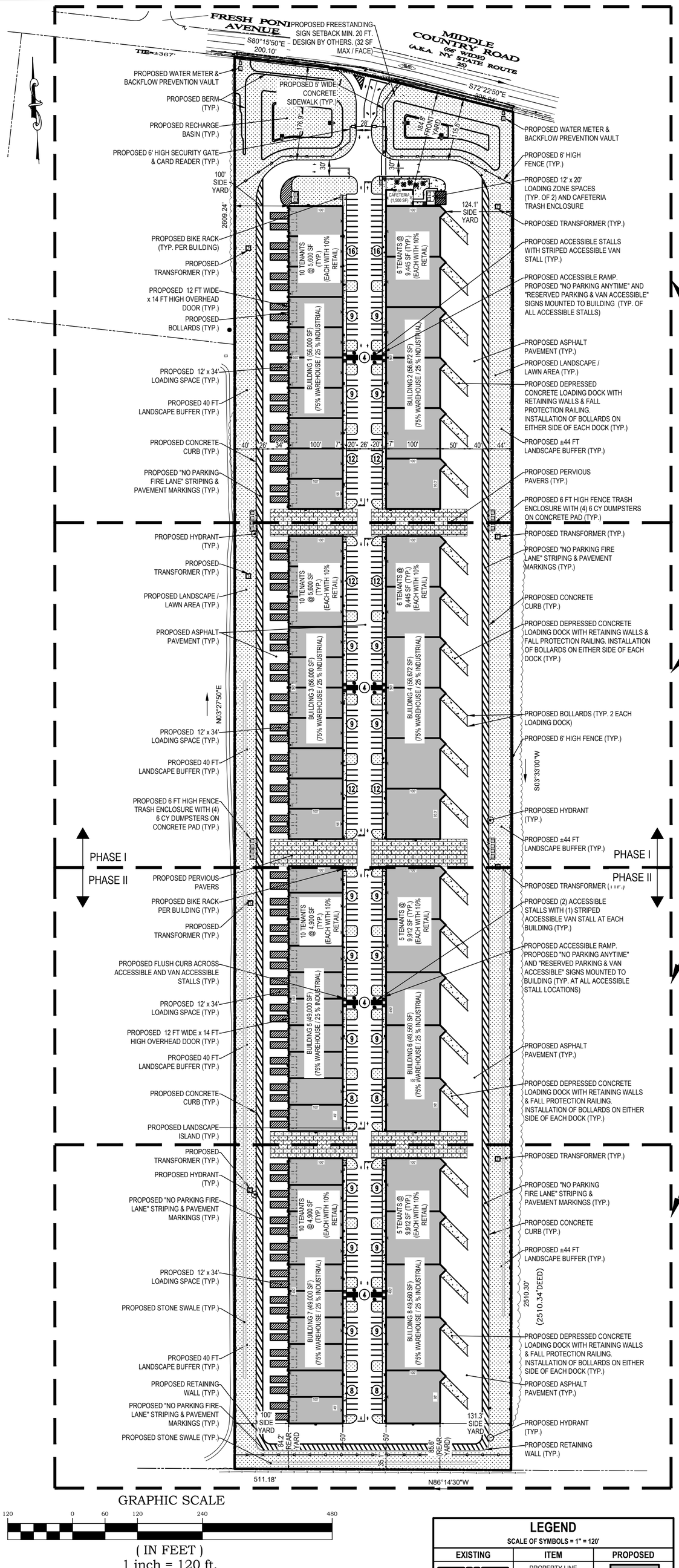
APPENDIX A

DEVELOPMENT PLANS



SANITARY DENSITY CALCULATIONS

SITE IS LOCATED IN GROUNDWATER MANAGEMENT ZONE III = 300 GPD/ACRE

PERMITTED DENSITY = 30.2545 ACRES x 300 GPD/ACRE = 9,076 GPD

PHASE I
PROPOSED CAFETERIA FLOW (CAFETERIA NOT OPEN TO PUBLIC) - 0.04 GPD / SF x 1,500 SF = 60 GPD
PROPOSED INDUSTRIAL BUILDING 1 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,000 SF = 2,240 GPD
PROPOSED INDUSTRIAL BUILDING 2 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,672 SF = 2,267 GPD
PROPOSED INDUSTRIAL BUILDING 3 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,000 SF = 2,240 GPD
PROPOSED INDUSTRIAL BUILDING 4 FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 56,672 SF = 2,267 GPD
PHASE I TOTAL = 9,074 GPD

PHASE II
PROPOSED INDUSTRIAL BUILDING 5 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,000 SF = 1,960 GPD
PROPOSED INDUSTRIAL BUILDING 6 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,560 SF = 1,983 GPD
PROPOSED INDUSTRIAL BUILDING 7 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,000 SF = 1,960 GPD
PROPOSED INDUSTRIAL BUILDING 8 (CONTINUED) FLOW (GENERAL INDUSTRIAL) - 0.04 GPD / SF x 49,560 SF = 1,983 GPD
PHASE II TOTAL = 7,886 GPD

PHASE I + PHASE II TOTAL = 16,960 GPD

TRANSFER OF DEVELOPMENT RIGHTS CREDITS REQUIRED FOR PHASE II ADDITIONAL DENSITY.

7,884 GPD OVER PERMITTED DENSITY / 300 GPD PER CREDIT = 26.3 CREDITS REQUIRED

REFER TO PARTIAL SITE PLAN SECTION A - PHASE I (SHEET C-4)

REFER TO PARTIAL SITE PLAN SECTION B - PHASE I (SHEET C-5)

REFER TO PARTIAL SITE PLAN SECTION C - PHASE II (SHEET C-6)

REFER TO PARTIAL SITE PLAN SECTION D - PHASE II (SHEET C-7)

BULK ZONING TABLE

ZONING DISTRICT: INDUSTRIAL C

ITEM	SECTION	PERMITTED/REQUIRED	PROPOSED
PERMITTED USES	§ 301-122.A (2), (4), & (12)	(2) WAREHOUSE, (4) WHOLESALE BUSINESSES, (12) MANUFACTURING (INDOOR)	(2) WAREHOUSE, (4) WHOLESALE BUSINESSES, (12) MANUFACTURING (INDOOR)
ACCESSORY USES	§ 301-122.C.1	CAFETERIA FOR OTHER BUILDING	CAFETERIA FOR BUILDINGS PROVIDED (1,500 SF)
ACCESSORY USES	§ 301-122.C.2.A	RETAIL USE SHALL NOT EXCEED 10% OF G.F.A. OR 3,000 SF, WHICHEVER IS LESS	10% RETAIL SPACE PROPOSED FOR EACH TENANT
ACCESSORY USES	§ 301-122.C.2.B	PARCEL SHALL HAVE FRONTAGE ON AN ARTERIAL ROAD	FRONTAGE ALONG MIDDLE COUNTRY ROAD (NYS ROUTE 25)
ACCESSORY USES	§ 301-122.C.2.C	RETAIL USES SHALL BE LOCATED AT THE FRONT OF THE PARCEL AND BUILDING	RETAIL USE LOCATED AT THE FRONT OF EACH TENANT SPACE
PROHIBITED USES	§ 301-122.D.3	OUTDOOR STORAGE	NO OUTDOOR STORAGE OF VEHICLES. ALL VEHICLES SHALL BE STORED INSIDE.
LOT, YARD, & BULK REQUIRMENTS	§ 301-123.B	20% OF LOT SHALL BE CONTIGUOUS OPEN SPACE AREAS WHICH SHIELD VIEWS OF THE DEVELOPMENT FROM ARTERIAL ROADS 0.20 x 1,317,884 SF = 263,577 SF	284,189 SF (21.56%) OF LANDSCAPE AREA WITH 146.3 FT OF AVERAGE FRONT YARD LANDSCAPE BUFFER OPEN LANDSCAPE PROVIDED. DENSE LANDSCAPE BUFFER IN FRONT YARD TO SHIELD DEVELOPMENT PROVIDED
SUPPLEMENTARY GUIDELINES	§ 301-124.A.1	DEVELOPMENT OF MULTIPLE BUILDINGS IN THE INDUSTRIAL C DISTRICT SHALL BE PLANNED IN A CAMPUS LAYOUT	CAMPUS LAYOUT NOT ACHIEVABLE DUE TO SITE GEOMETRY [R]
SUPPLEMENTARY GUIDELINES	§ 301-124.A.2	CONTINUOUS SIDEWALKS, AND BIKE RACKS CLOSE TO BUSINESS ENTRANCES SHALL BE PROVIDED FOR PROPERTIES FRONTING ROUTE 25	CONTINUOUS SIDEWALKS AND BIKE RACKS PROVIDED
SUPPLEMENTARY GUIDELINES	§ 301-124.A.4.A	DUMPSTER AREAS SHALL BE SCREENED BY WOOD FENCES OR LANDSCAPING	DUMPSTERS SHALL BE IN 6 FT HIGH WOOD FENCE ENCLOSURES
DUMPSTERS	§ 245-8	DUMPSTER SCREENING OF 5 FT MIN / 6 FT MAX HEIGHT	DUMPSTERS SHALL BE IN 6 FT HIGH WOOD FENCE ENCLOSURES
SCREENING AND BUFFER REGULATIONS SETBACK	§ 301-124.A.4.B	20 FT OF PLANTING BUFFER ALONG FRONTAGE & 10 FT PLANTING BUFFER ALONG ALL OTHER PROPERTY LINES	115.6 FT BUFFER PROVIDED ALONG FRONTAGE 10 FT PLANTING BUFFER PROVIDED ALONG SIDE YARDS AND REAR
PARKING STANDARDS	§ 301-124.B.2	PLANTED BERMS SHALL BE USED TO SCREEN AUTOMOBILES FROM PUBLIC R.O.W.	LANDSCAPE & PLANTED BERM PROVIDED
PARKING STANDARDS	§ 301-124.B.3	OFF-STREET PARKING PROHIBITED IN FRONT YARD, WITHIN 20 FT OF SIDE YARD, AND 10 FT OF REAR YARD	NO PARKING IN FRONT YARD PROPOSED 20 FT OR GREATER FROM PROPOSED PARKING TO SIDE YARD PROPERTY LINE NO PARKING IN REAR PROPOSED
MINIMUM LOT AREA	§ 301-ATTACHEMENT 3	80,000 SF	± 1,317,884 SF
MINIMUM LOT WIDTH	§ 301-ATTACHEMENT 3	300 FT	511.18 FT
BUILDING COVERAGE (FOOTPRINT) (WITHOUT SEWER)	§ 301-ATTACHEMENT 3	40% ±1,317,884 SF x 0.40 = 527,154 SF	32.17% 423,964 SF / ±1,317,884 SF = 0.3217
MAXIMUM IMPERVIOUS SURFACE	§ 301-ATTACHEMENT 3	60% ±1,317,884 SF x 0.60 = 790,730 SF	960,037 SF / 1,317,884 SF = 72.85% [V]
MAXIMUM HEIGHT OF BUILDINGS	§ 301-ATTACHEMENT 3	30 FT	30 FT
MINIMUM FRONT YARD DEPTH	§ 301-ATTACHEMENT 3	30 FT	184.8 FT
MINIMUM SIDE YARD DEPTH	§ 301-ATTACHEMENT 3	30 FT / 60 COMBINED FOR BOTH SIDES	100 FT / 224.1 FT
MINIMUM REAR YARD DEPTH	§ 301-ATTACHEMENT 3	50 FT	84.2 FT

[R] - PLANNING BOARD RELAXATION REQUIRED. CAMPUS LAYOUT NOT ACHIEVABLE DUE TO SITE GEOMETRY
[V] - VARIANCE REQUIRED

PARKING CALCULATIONS

ITEM	SECTION	PERMITTED/REQUIRED	PROPOSED
MINIMUM STALL SIZE	§ 301-231.E.2	10 FT x 20 FT	10' x 20'
MINIMUM AISLE WIDTH	§ 301-231.E.1	24' (TWO WAY) WITH 90° PARKING 18' (ONE WAY) WITH 60° PARKING 12' (ONE WAY) WITH 45° PARKING	24'-0"
NUMBER OF LOADING SPACES REQUIRED	§ 301-232.A	FLOOR AREAS PER BUILDING 15,000 TO 25,000 = 1 SPACES 25,001 TO 40,000 = 2 SPACES 40,001 TO 100,000 = 3 SPACES +60,000 SF = 1 ADDITIONAL SPACE 3 SPACES REQUIRED PER BUILDING x 8 BUILDINGS = 24 SPACES REQUIRED	104 SPACES PROVIDED
MINIMUM LOADING SPACE SIZE	§ 301-232.B	12 FT LONG x 14 FT WIDE	(80) 12 FT WIDE x 34 FT LONG (2) 12 FT WIDE x 20 FT LONG (22) 13 FT WIDE x 55 FT LONG TOTAL PROVIDED = 104 SPACES
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 1 & 3 (56,000 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (14,000 SF) 75% WAREHOUSE SPACE (42,000 SF) * INDUSTRIAL ESTABLISHMENT (14,000 SF) 1 STALL PER 400 SF OF GFA 14,000 SF / 400 SF = 35 STALLS * WAREHOUSE (42,000 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 37,000 SF x 1 STALL / 10,000 SF = 3.7 STALLS TOTAL PARKING FOR BUILDINGS 1 & 3 2 BUILDINGS x (35 + 5 + 3.7) STALLS = 87.4 STALLS	332 STALLS (INCLUDES 16 ACCESSIBLE STALLS)
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 2 & 4 (56,672 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (14,168 SF) 75% WAREHOUSE SPACE (42,504 SF) * INDUSTRIAL ESTABLISHMENT (14,168 SF) 1 STALL PER 400 SF OF GFA 14,168 SF / 400 SF = 35.4 STALLS * WAREHOUSE (42,504 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 37,504 SF x 1 STALL / 10,000 SF = 3.8 STALLS TOTAL PARKING FOR BUILDINGS 2 & 4 2 BUILDINGS x (35.4 + 5 + 3.8) STALLS = 88.4 STALLS	
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 5 & 7 (49,000 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (12,250 SF) 75% WAREHOUSE SPACE (36,750 SF) * INDUSTRIAL ESTABLISHMENT (12,250 SF) 1 STALL PER 400 SF OF GFA 12,250 SF / 400 SF = 30.6 STALLS * WAREHOUSE (36,750 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 31,750 SF x 1 STALL / 10,000 SF = 3.2 STALLS TOTAL PARKING FOR BUILDINGS 5 & 7 2 BUILDINGS x (30.6 + 5 + 3.2) STALLS = 77.6 STALLS	
MINIMUM NUMBER OF PARKING STALLS REQUIRED	§ 301 ATTACHMENT 1	BUILDINGS 6 & 8 (49,560 SF) *PARKING PER BUILDING 25% INDUSTRIAL SPACE (12,390 SF) 75% WAREHOUSE SPACE (37,170 SF) * INDUSTRIAL ESTABLISHMENT (12,390 SF) 1 STALL PER 400 SF OF GFA 12,390 SF / 400 SF = 31 STALLS * WAREHOUSE (37,170 SF / BUILDING) 1 STALL PER 1,000 SF UP TO 5,000 SF + 1 STALL PER 10,000 SF 1 STALL PER 5,000 SF = 5 STALLS 32,170 SF x 1 STALL / 10,000 SF = 3.2 STALLS TOTAL PARKING FOR BUILDINGS 6 & 8 2 BUILDINGS x (31 + 5 + 3.2) STALLS = 78.4 STALLS	
TOTAL NUMBER OF PARKING STALLS REQUIRED FOR LOT	§ 301 ATTACHMENT 1	87.4 + 88.4 + 77.6 + 78.4 = 331.8 STALLS TOTAL STALLS REQUIRED = 332 STALLS	
ACCESSIBLE PARKING STALLS	§ 301-232.M.1	301 TO 400 TOTAL PARKING STALLS REQUIRED = 8 8 ACCESSIBLE PARKING STALLS	16 ACCESSIBLE STALLS

GRAPHIC SCALE
120 0 60 120 240 480
(IN FEET)
1 inch = 120 ft.

LEGEND

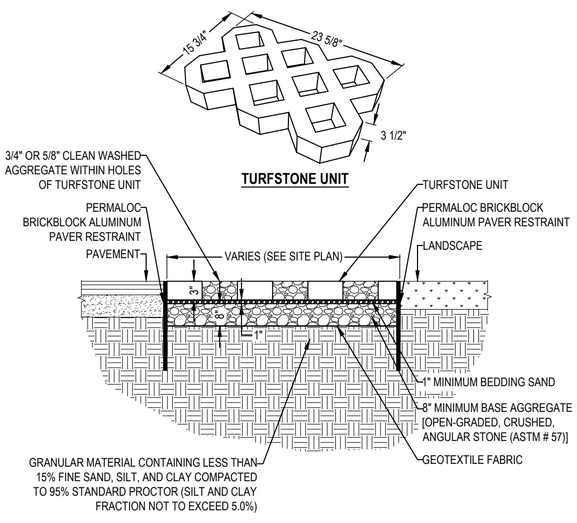
SCALE OF SYMBOLS = 1" = 120'

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	CONCRETE SIDEWALK	
	LANDSCAPE / LAWN AREA	
	PERVIOUS PAVERS	
	DUMPSTER ENCLOSURE	
	12' x 34' LOADING SPACE	
	LOADING DOCK RETAINING WALLS	
	PARKING COUNT	9
	OVERHEAD DOOR	
	DOOR	
x x	FENCE	
	BIKE RACK	
	HYDRANT	

LEGEND

SCALE OF SYMBOLS = 1" = 30' (REFER TO PARTIAL SITE PLANS)

EXISTING	ITEM	PROPOSED
	PROPERTY LINE	
	BUILDING	
	CONCRETE CURB	
	EDGE OF PAVEMENT	
	CONCRETE SIDEWALK	
	LANDSCAPE / LAWN AREA	
	PERVIOUS PAVERS	
	TRASH ENCLOSURE	TRASH 10'-0" x 6'-0" x 6'-0"
	PARKING COUNT	
	ACCESSIBLE STRIPING SYMBOL	
	BIKE RACK MOUNTED ON CONCRETE PAD	
	OVERHEAD DOOR	14'
	LOADING STALL STRIPING	
	LOADING DOCK WALL WITH FALL PROTECTION RAILING	x x
	CROSSWALK	
	FIRE LANE STRIPING	
	DOOR	BI-DAT
	SIGN	
	FIRE HYDRANT	
	UTILITY POLE	
	GROUND SIGN	
	FENCE	
	POLE MOUNTED LIGHTING	
	WALL MOUNTED LIGHTING	



TURFSTONE INSTALLATION DETAIL (PERVIOUS PAVERS)

TURFSTONE BY MUTUAL MATERIALS
N.T.S.

811 L.I. NEW YORK CITY ONE CALL CENTER 1-800-272-4480 STOP-CALL-THEN DIG Safely

No.	DATE	BY	DESCRIPTION
1	05/15/2020	LC	ISSUED FOR REVIEW

REVISIONS

ALTERATION OR ADDITION TO THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

SEAL & SIGNATURE:

NOT VALID UNTIL SEALED

JACLYN PERANTEAU, P.E.
NEW YORK STATE PROFESSIONAL ENGINEER #083937

DATE:	01/24/2020
SCALE:	1" = 120'
PROJECT No.:	19026
DRAWING BY:	LC
CHECKED BY:	YT
APPROVED BY:	JP

KEY CIVIL ENGINEERING
664 BLUE POINT ROAD, UNIT B
HOLTSVILLE, NEW YORK 11742
(631) 961-0506
www.KeyCivilEngineering.com

PROJECT NAME:

HK VENTURES, LLC INDUSTRIAL PARK

4285 MIDDLE COUNTRY ROAD
CALVERTON, NY 11933
TOWN OF RIVERHEAD, COUNTY OF SUFFOLK
DIST.: 600, SECT.: 116, BLOCK: 1, LOT: 2
ZONE: INDUSTRIAL C

DRAWING TITLE:

OVERALL SITE PLAN

DRAWING No.: C-3

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APPENDIX B

DAILY AIR MONITORING FORM

PWGC
CLIENT DRIVEN SOLUTIONS

Daily Air Monitoring Record Form

Calverton Industrial Park, 4285 Middle Country Road, Calverton, New York

Date:		Project Number:						
		Location:						
Site Safety Officer:								
Weather Conditions:			Wind:					
Instrument Make & Model:		Calibration:	Fresh:	Iso:	Instrument Make & Model:		Calibration:	

Pre-Start Readings:		Time	Background Reading
	PID		
	Dust		

Air Monitoring Locations

Time	North		South		East		West		Tasks
	PID	Dust	PID	Dust	PID	Dust	PID	Dust	

Dust Suppressant Necessary:	
Dust Suppressant Used:	
Notes/Comments:	
Note:	PID concentrations recorded in parts per million (ppm) Particulate concentrations recorded in mg/m^3