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TOWN OF NEWBURGH
PLANNING BOARD
TECHNICAL REVIEW COMMENTS

PROJECT:	**SHOPPES AT UNION SQUARE AMENDED SITE PLAN**
PROJECT NO.:	**2018-10**
PROJECT LOCATION:	**SECTION 96 – BLOCK 1 – LOT 6.2**
REVIEW DATE:	**29 AUGUST, 2018**
MEETING DATE:	**6 SEPTEMBER, 2018**
PROJECT REPRESENTATIVE:	**KARC PLANNING CONSULTANTS/LANGAN ENGINEERING**

The Applicants have responded to our previous comments on the Amended Site Plan. Several items continue to be outstanding, including the following:

1. Engineer's evaluation regarding Operation and Maintenance of the Stormwater Management Facilities installed during Phase One which were designed and constructed in support of both Phase One and Phase Two. It is noted that during the original design of the Stormwater collection conveyance and treatment systems, that additional water quality volume treatment was requested of the Applicant, based on Town of Newburgh Planning Board policy for projects located within the Washington Lake Watershed. The original design included 110% of the required water quality volume treatment to be provided. This provides 10% additional water quality treatment volume above that which is required by the NYSDEC Design Standards.

2. The proposed project is an Amended Site Plan addressing the previous approved Phase Two project which included a proposed 18,102 square foot retail building identified at the time as a Staples Office Supply store. The current project proposes a site plan amending Phase Two portion of the project consisting of two retail buildings totaling 19,190 square feet, including provisions for a fast-food facility with a drive-up window. The redesigned facility has resulted in a slight reduction in overall site disturbance of approximately 0.1 acres.

3. A City of Newburgh flow acceptance letter was issued for the project dated 20 June 2008. The flow acceptance letter was for a hydraulic loading of 13,889 gpd. Projected hydraulic loading from the proposed amended. Plan totals 13,085 gpd, 804 gallons less than the original sewer flow acceptance allocation.

4. Supplemental Environmental information has been submitted, including a threatened endangered habitat suitability assessment performed by Ecological Solutions of Southburgh, Connecticut. Correspondence from the United States Fish and Wildlife Service has been received identifying potential threatened endangered species on the site. Each of these is addressed in the Ecological Solutions report.

5. Supplemental Traffic information has been received from the Applicant's Traffic Consultant identifying that the current proposal would generate an additional 17 pm peak hour trips and a corresponding reduction of 18 Saturday peak hour trips based on the change in the retail component mix.

6. Egological Solutions has re-evaluated the Federal Jurisdictional Wetlands on the site. A 14 August 2018 letter regarding the wetlands delineation identifies that the there are no Federal-US Army Corps. Engineers or State NYSDEC Wetlands located within the Phase Two area of the project.

7. Architectural plans as prepared by the Applicant's Architectural Consultant have been submitted for the Planning Board's review.

8. A Part One of the Full Environmental Assessment Form has been prepared by the Applicant's various consultants addressing modifications to the plans and comparing changes to the original SEQRA Negative Declaration and reaffirmed Negative Declaration previously issued for the project.

9. A Planning Board should determine whether a Public Hearing for the project is to be held.

10. Submission of the complete application to the Orange County Department of Planning is required. Sufficient information has been provided to allow for circulation of the plans and reports to the Orange County Planning Department.

Respectfully submitted,

McGoey, Hauser and Edsall
Consulting Engineers, D.P.C.

_____
Patrick J. Hines
Principal

KARC
KARNING CONSULTANTS, INC.

August 23, 2018

Chairman John P. Ewasutyn, Chairman and
Members of the Town of Newburgh Planning Board
308 Gardnertown Road
Newburgh NY 12550

HAND DELIVERED

Re: The Shoppes at Newburgh
Town of Newburgh
Project # 2018-10

Dear Chairman Ewasutyn and Members of the Board,

Enclosed find the following for your review:

1. Sixteen (16) copies of Amended Site Plan prepared by Langan Engineering dated 8/22/2018.
2. Sixteen (16) copies of Key Plan and Elevations prepared by DeGraw & DeHaan Architects dated 07.13.18
3. Sixteen (16) copies of amended EAF from KARC dated 08.21.18.
4. Sixteen (16) copies of Federal Threatened and Endangered Species Habitat Suitability Assessment Report from Michael Nowicki dated 08.03.2018.
5. Sixteen (16) copies of United States Department of the Interior Fish and Wildlife Service dated 08.03.18.
6. Sixteen (16) copies of Amended Memorandum re: Trip Generation Comparison dated 08.08.18, prepared by Maser Consulting.

Below, please find our responses to comments received from our previous submission to the Town of Newburgh Planning Board on July 19, 2018.

Please find below our summary of responses to the Comments received from Patrick Hines, McGoey, Hauser, and Edsall in a letter dated August 2, 2018:

PO Box 924 | Poughkeepsie, NY 12602 | 845.594.1055 | kelly@karcpc.com
DBE Certified | WBE Certified in NY and NJ | US SBA WOSB & EDWOSB Certified

1. *The project is back before the Planning Board for an amendment to the Phase II retail component eliminating a former Staples retail in favor of 2 separate retail buildings approximately 1,028 sq. ft. larger than the previous proposal.*

   Response: No comment.

2. *The EAF submitted identifies that further ecological studies will be performed to identify threatened, endangered, rare or species of special concern. This information should be provided to the Planning Board.*

   Response: See attached study which is appended to the EAF.

3. *Stormwater management plans and reports were reviewed during the initial project review and approval. The original stormwater management plan and report identified treatment of 110% of the required water quality volume through the conveyance collection and treatment system. Under pipe storage for quantity control and a sand filter for water quality improvements were incorporated in the original design. All Phase II stormwater treatment improvements were installed during the Phase I construction of the project. It is requested the Applicant's representatives evaluate the condition of the improvements as installed and provide an updated report as to the function and design of the system.*

   Response: Langan Will complete an inspection of the stormwater management system installed during Phase 1 and will either confirm the system appears to be maintained and in working order or will identify needed maintenance which will be completed by the applicant.

4. *A revised Phase II project will slightly decrease (0.1 acres) the tributary watershed or the impervious area tributary to the previous improvements. The project is an amended site plan based on the 2010 (2008 design manual) standards which were in place during the SEQR review and site plan review for the project.*

   Response: No comment.

5. *Ken Werstend's comments regarding traffic impacts should be received. NYSDOT comments regarding the proposal should be received based on updated traffic information.*

   Response: See the response from our Traffic Consultant appended to the EAF.

6. *The Applicant's representatives are requested to evaluate the proposed increases in sewer hydraulic loading over that which was previously approved for the entire project. The City of Newburgh flow authorization letter for the original 2010 approval should be evaluated with regard to flow from the amended Phase II of the project.*

   Response: In the City of Newburgh letter dated 20 June 2008, the City granted approval for a sewage flow not to exceed 13,889 gallons per day for the Shoppes at Union Square development. Phase 1 of the development has since been built, which is a 4,820 SF retail building. This accounts for 482 gallons per day of the original 13,889 gallons per day allocation. Phase 2 is projected to use 5,021 gallons per day.

   After the construction of Phase 1 and Phase 2, a total of 5,503 gallons per day is projected, which is less than the originally approved 13,889 gallons per day. When Phase 3 is constructed, a 71,000 SF supermarket, an additional sewage flow rate of 7,100 gallons per day is anticipated. The total projected sewage flow rate of all three phases is 482 + 5,503 + 7,100 = 13,085 gallons per day, which is less than the originally approved allocation of 13,889 gallons per day.

7. *The Applicant's representatives have noted that the Phase III stream crossing will not be proposed at this time.*

   Response: Correct

8. *Landscaping plans should identify compliance with Section 85-13 #9(a).*

   Response: Figure entitled "Internal Landscaping Area for Phase II Parking Lot" is included in this submission, which shows 7.7% of landscaping provided greater than the 5% required.

9. *Health Department approval for the internal water system is required as hydrants are proposed to be added.*

   Response: The Orange County Department of Health application for approval of plans for public water supply improvement was filed with the County simultaneously with this resubmission package to the Town of Newburgh.

10. *Information provided for sizing of the grease trap proposed to serve retail D should be submitted.*

Response: Langen Engineering is currently completing the submission to the OCDOH and will provide this information to the board shortly.

11. *Standard Town of Newburgh water and sewer system notes must be updated on the plans. Copies of which are attached.*

    Response: The plans were revised to reflect the Standard Town of Newburgh water and sewer system notes provided.

12. *The federal jurisdictional wetland boundary identified in 2008 depicted to be confirmed. Jurisdictional wetland delineation should be provided.*

    Response: Comment Noted and will be discussed with the Town Engineer.

13. *Erosion sediment control plan should identify the discharge for the temporary sediment trap. Sediment trap may need to be phased as filling of the area is proposed.*

    Response: The soil erosion and sediment control plan has been revised to show the discharge for the temporary sediment trap.

14. *Our NYSDEC permits required for filling of the embankment and the westerly most portion of the site.*

    Response: With the exception of a SPDES stormwater permit, we understand no NYSDEC permits are required for the phase 2 work. We note that there are no wetlands directly adjacent to this area and no filling is proposed within the stream bed-and-banks.

15. *A slope stabilization detail is provided. Areas for this to be used should be delineated on erosion control plans.*

    Response: The soil erosion and sediment control plan has been revised to delineate the areas where the slope stabilization blanket shall be used.

Please find below our summary of responses to the Comments received from Kenneth Wersted, P.E., Creighton Manning Engineering, LLP, in a letter dated July 27, 2018:

1. *The last trip generation and analysis received by our office as part of the original analysis and subsequently approved, was dated September 8, 2009 from JCE. It*

included 22,922 SF of retail (not including the supermarket), generating 152 total trips in the PM peak hour, and 206 trips in the Saturday peak hour based on ITE 8th Edition data. Updating the original analysis to 10th Edition yields about 20% more trips in the PM peak hour, and 6% fewer trips in the Saturday peak hour. (See table below). The updated trip generation estimate provided by Maser Consulting, P.A. (7/18/2018), applies an average rate to the retail square footage rather than using the ITE regression equation for LUC 820. Adding in the restaurant with drive-thru yields a total of 120 trips in the PM and 168 trips in the Saturday peak hours. The average rate is near the low end of the data points for this use; therefore, the regression equation has a better correlation to the data. Using the equation for the retail yields a total trip generation of 203 trips in the PM and 247 in the Saturday peak hour. Use of the average rate yields results that are less than originally studies (79 to 82%), while the regression equation is greater than studies (120 to 134%). There is a Smoothie King in Wappinger's Falls and it appears to operate like a Starbucks but with a menu limited to smoothies. The Maser analysis assumed it to operate like a fast-food restaurant with a drive-through, which we agree is appropriate given the lack of data on a smoothie shop, but this type of use has a much higher trip generation rate on a per square-foot basis that retail, which, in part, yields a proposed trip generation of higher than originally studies. If a fast-food restaurant is overestimating the trips generated by a use with a very limited menu, transaction data from Wappinger's Falls could help identify the expected number of trips and substantiate that even the proposed use, the expected operations will be similar to that originally studied.

Condition	Total Trips	
	PM Peak Hour	Saturday Peak Hour
Original-ITE 8th Edition (22,922 SF)	152 (-%)	206 (-%)
Original-ITE 10th Edition (22,922 SF)	183 (120%)	193 (94%)
Proposed-Using Average Rate for Retail	120 (79%)	168 (82%)
Proposed-Using Regression Equation	203 (134%)	247 (120%)

Response: See attached response memo from Maser Consulting appended to the EAF.

2. *The applicant has updated the parking tables on the Phase 2 site plan, indicating that Phase 2 provides enough parking to meet zoning and that the sum of existing, Phase 1, and Phase 2 exceeds the required amount.*

Response: Agreed

3. *Although the west side of the building is indicated to be the rear of the building, with no customer access, two handicap accessible parking spaces are proposed to be added.*

   Response: Correct.

4. *The architectural plans (A101) do not indicate any protrusion from the building towards the drive-through lane, while the Front and Left elevations (A102) suggest there to be - the site plan shows none. In addition, the Left elevation doesn't show a drive-thru window as one would expect.*

   Response: See attached amended Architectural drawings.

Please find below our summary of responses to the Comments received from Karen Arent Landscape Architect, in a letter dated August 6, 2018:

1. The consultant made all requested changes. The plant proposed to replace one of the ornamental grasses that does not do well in this area is Equisetum hyemale. I could not find it on the drawing. If it is in a location that is confined, for example, between curbs, it is fine. However, if it is near the edges of the side without curb surrounding it, another grass should be specified.

   Response: This plant is proposed to be located within the sidewalk planting beds between the proposed buildings, which are completely surrounded by pavement and building.

2. The Town of Newburgh requires a landscape bond and several inspections to ensure work is done in accordance with plans. Please submit a landscape cost estimate to this office for review.

   Response: Estimates for bond shall be provided upon site plan approval.

Thank you for your assistance with this matter.

Sincerely,

Kelly Libolt
cc: w/enclosures

KARC

PLANNING CONSULTANTS, INC.

Karen Arent
12 Old Minisink Lane
Goshen, New York 10924

Kenneth W. Wersted
Creighton Manning Engineering, LLP (CME)
2 Winners Circle
Albany, New York 12205

Michael H. Donnelly, Esquire
P.O. Box 610
Goshen, New York 10924

Patrick J. Hines
McGoey, Hauser and Edsall
Consulting Engineers P.C.
33 Airport Drive
Suite 202
New Windsor, New York 12553

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: The Shoppes at Union Square		
Project Location (describe, and attach a general location map): Northwest of the intersection of NYS Route 300 and Orr Avenue Town of Newburgh, Orange County,NY		
Brief Description of Proposed Action (include purpose or need): The Applicant is proposing to Modify Phase 2 of the previously Approved Development Project. Phase 2 of the project included the construction of a single 18,102 sq. ft. Staples structure and associated parking and infrastructure. The current plan proposes to construct two retail buildings which are approximately 19,130 square feet in the same location as the proposed previously approved Staples building. This EAF is intended to address the modifications to the plan and will compare changes to the SEQRA Negative Declaration that was issued for the original project.		
Name of Applicant/Sponsor: N&N Union LLC	Telephone: E-Mail:	
Address: 1089 Little Britian Road		
City/PO: New Windsor	State: NY	Zip Code:
Project Contact (if not same as sponsor; give name and title/role): Kelly Libolt/ KARC Planning Consultants	Telephone: 845-243-2500 E-Mail: kelly@karcpc.com	
Address: PO Box 924		
City/PO: Poughkeepsie	State: NY	Zip Code: 12602
Property Owner (if not same as sponsor): Same as Applicant/Sponsor	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Council, Town Board, or Village Board of Trustees ☐Yes☑No		
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Amended Site Plan Approval	
c. City Council, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☐Yes☑No		
e. County agencies ☑Yes☐No	GML - 239 M County Review, possible Department of Health for water service	
f. Regional agencies ☐Yes☑No		
g. State agencies ☑Yes☐No	NYSDEC SWPPP	
h. Federal agencies ☐Yes☑No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No
If Yes,
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No
iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☐Yes☑No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☑No
If Yes, identify the plan(s):

_____
_____
_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No
If Yes, identify the plan(s):

_____
_____
_____

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
IB - Interchange District

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site?

C.4. Existing community services.

a. In what school district is the project site located? Newburgh

b. What police or other public protection forces serve the project site?
Town of Newburgh

c. Which fire protection and emergency medical services serve the project site?
Orange Lake

d. What parks serve the project site?
NA

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Commercial Property

b. a. Total acreage of the site of the proposed action? 11.39 acres
b. Total acreage to be physically disturbed? 3.28 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 11.39 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:

f. Does the project include new residential uses? ☐Yes ☑No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑Yes ☐No

If Yes,

i. Total number of structures 2

ii. Dimensions (in feet) of largest proposed structure: 1 story height; 90 width; and 114 length

iii. Approximate extent of building space to be heated or cooled: 20,000 (+/-) square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☑No

If Yes,

i. Purpose of the impoundment:

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐Other specify:

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☑Yes ☐No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i .What is the purpose of the excavation or dredging? Foundations

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): 0 - all material used on site
- Over what duration of time? 3-4 months

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

All materials will be used on site.

iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☑No
If yes, describe.

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐Yes ☑No

ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐Yes ☑No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: TBD based on uses gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Town of Newburgh Water
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district: Town of Newburgh Water

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: TBD based on uses gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary Sewage

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: City of Newburgh WWTP
- Name of district: Town of Newburgh Sewer District
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

- Do existing sewer lines serve the project site? ☑Yes ☐No
- Will line extension within an existing district be necessary to serve the project? ☐Yes ☑No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 3.28 acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. Surface runoff from new impervious surfaces (roads/parking/buildings)

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

On-site stormwater management structures

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐Yes ☑No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Heavy construction equipment during construction period

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Potential temp. heating / AC during construction

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

HVAC units to provide heat and AC to the buildings.

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

***See attached Traffic Memo prepared Creighton Manning**

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: TBD based on uses

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): Central Hudson Gas & Electric

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 8:00AM - 10:00PM
- Saturday: 8:00AM - 10:00PM
- Sunday: 8:00AM - 10:00PM
- Holidays: N/A

ii. During Operations:

- Monday - Friday: TBD based on uses
- Saturday: Within Town Guidelines
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☑ No

If yes:

i. Provide details including sources, time of day and duration:

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☐ No

Describe:

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Parking lot lighting and building lighting for safety

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe:

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities:

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: TBD tons per _____ (unit of time)
- Operation : TBD tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: All materials which can be recycled will be stored and recycled accordingly
- Operation: All materials which can be recycled will be stored and recycled accordingly

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Licensed Hauler
- Operation: Licensed Hauler

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☑ Commercial ☐ Residential (suburban) ☐ Rural (non-farm)
☑ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces		3.28	
• Forested	3.28		
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☑No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐Yes ☑No
If Yes,
i. Identify Facilities:

_____
_____

e. Does the project site contain an existing dam? ☐Yes ☑No
If Yes:
i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

_____
_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☑No
If Yes:
i. Has the facility been formally closed? ☐Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____
_____

iii. Describe any development constraints due to the prior solid waste activities: _____
_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☑No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____
_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐Yes ☑ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes ☐No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____
☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____
_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐Yes ☐No
If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____
_____

v. Is the project site subject to an institutional control limiting property uses? ☐Yes ☐No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐Yes ☐No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? > 5.0 feet

b. Are there bedrock outcroppings on the project site? ☐Yes ☑No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

Erie	100 %
	%
	%

d. What is the average depth to the water table on the project site? Average: > 5.0 feet

e. Drainage status of project site soils:

☐ Well Drained:	% of site
☑ Moderately Well Drained:	100 % of site
☐ Poorly Drained	% of site

f. Approximate proportion of proposed action site with slopes:

☑ 0-10%:	84 % of site
☑ 10-15%:	7 % of site
☑ 15% or greater:	9 % of site

g. Are there any unique geologic features on the project site? ☐Yes ☑No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑Yes ☐No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑Yes ☐No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑Yes ☐No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 862-222, 862-223 Classification C, A
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Unnamed Federal Wetlands Approximate Size 0.75
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐Yes ☑No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐Yes ☑No

j. Is the project site in the 100 year Floodplain? ☐Yes ☑No

k. Is the project site in the 500 year Floodplain? ☐Yes ☑No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐Yes ☑No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
See attached field inspection performed by Ecological Solutions

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐Yes ☑No

See attached field inspection by Ecological Solutions

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No

See attached field inspection by Ecological Solutions

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No
If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

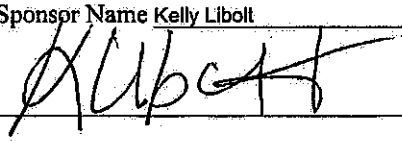
Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Kelly Libolt Date July 19, 2018 / Rev. Aug. 21, 2018

Signature  Title Agent for Applicant

PRINT FORM

APPENDIX A

Federal Threatened and Endangered Species Habitat Suitability Assessment Report

Federal Threatened and Endangered Species
Habitat Suitability Assessment Report

The Shoppes at Union Square - Phase 2
1217 Route 300
Town of Newburgh
Orange County, NY

August 3, 2018

Prepared by:

Michael Nowicki
Ecological Solutions, LLC
1248 Southford Road
Southbury, CT 06488
(203) 910-4716

1.0 INTRODUCTION

The Applicant is proposing to Modify Phase 2 of the previously Approved Development Project. Phase 2 of the project included the construction of a single 18,102 sq. ft. Staples structure and associated parking and infrastructure. The current plan proposes to construct two retail buildings which are approximately 19,130 square feet in the same location as the proposed previously approved Staples building.

A Habitat Suitability Assessment was completed for five federally listed species including the dwarf wedgemussel (*Alasmidonta heterodon*), small whorled pogonia (*Isotria medeoloides*), Indiana bat (*Myotis sodalis*), Northern long-eared bat (*Myotis septentrionalis*), and bog turtle (*Glyptemys muhlenbergii*) and as part of the US Army Corps of Engineers (USACE) Nationwide Permit requirements for the project and US Fish and Wildlife Service species list for the site (*Attachment 1*). Field assessments were completed on May 18 and June 16, 2018 to determine whether suitable habitat for these species is present on the site. Habitat cover types were also observed and are described below.

TABLE 1
COVER TYPES IDENTIFIED ON THE SITE

HABITAT COVER TYPES			
NO.	DESCRIPTION	COVERAGE (ACRES)	DISTURBANCE (ACRES)
1	Wetland/ Tributary	2.5	0.4
2	Upland Forest	6.5	3.0
2	Previously Developed Area	2.39	2.39

2.0 HABITAT SUITABILITY ASSESSMENT/CONCLUSION

2.1 Dwarf wedgemussel

The dwarf wedge mussel is a small freshwater mussel that rarely exceeds 1.5 inches (38 mm) in length. It is brown or yellowish-brown in color. Adult mussels are filter-feeders, feeding on algae and other small suspended particles. They spend most of their time buried almost completely in the bottom of streams and rivers. Typical habitat for this mussel includes running waters of all sizes, from small brooks to large rivers. Bottom substrates include silt, sand and gravel, which may be distributed in relatively small patches behind larger cobbles and boulders. The river velocity is usually slow to moderate. Dwarf wedge mussels appear to select or are at least tolerant of relatively low levels of calcium in the water.

Conclusion - There is no potential habitat for this species on the site since the tributary is a Class C watercourse and is culverted at Orr Avenue and Route 300.

2.2 Small whorled pogonia

The small whorled pogonia is a member of the orchid family. It usually has a single grayish-green stem that grows about 10 inches tall when in flower and about 14 inches when bearing fruit. The plant is named for the whorl of five or six leaves near the top of the stem and beneath the flower. The leaves are grayish-green, somewhat oblong and 1 to 3.5 inches long. The single or paired greenish-yellow flowers are about 0.5 to 1 inch long and appear in May or June. The fruit, an upright ellipsoid capsule, appears later in the year. This orchid grows in older hardwood stands of beech, birch, maple, oak, and hickory that have an open understory. Sometimes it grows in stands of softwoods such as hemlock. It prefers acidic soils with a thick layer of dead leaves, often on slopes near small streams.

Conclusion - There is no potential habitat for this species since there is no older growth forest on the site but rather young woods with a thick dense understory.

2.3 Indiana bats

The Indiana bat typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. Suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive) or snags with exfoliating or defoliating bark, or containing cracks or crevices that could potentially be used by Indiana bats as a roost. The minimum diameter of roost trees observed to date is 2.5 inches for males and 4.3 inches for females. However, maternity colonies generally use trees greater than or equal to 9 inches dbh. Overall, roost tree structure appears to be more important to Indiana bats than a particular tree species or habitat type. Females appear to be more habitat specific than males presumably because of the warmer temperature requirements associated with gestation and rearing of young. As a result, they are generally found at lower elevations than males may be found. Roosts are warmed by direct exposure to solar radiation, thus trees exposed to extended periods of direct sunlight are preferred over those in shaded areas. However, shaded roosts may be preferred in very hot conditions. As

larger trees afford a greater thermal mass for heat retention, they appear to be preferred over smaller trees.

Streams associated with floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for Indiana bats, some of which may fly up to 2-5 miles from upland roosts on a regular basis. Indiana bats also forage within the canopy of upland forests, over clearings with early successional vegetation (*e.g.,* old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures. While Indiana bats appear to forage in a wide variety of habitats, they seem to tend to stay fairly close to tree cover.

Conclusion - Approximately 3 acres of young growth forest will be impacted as a result of the proposed expansion. The trees in this area include maple, oak, black cherry, quaking aspen, and ash all in the 4-12 inch dbh range. Although there were no likely roost or maternal colony trees observed the Applicant will only conduct tree clearing activities between October 1 and April 1. A note has been placed on the plan "To avoid impacts to Indiana and Northern long eared bats during construction tree-clearing will be completed between October 1st and April 1st so that the project is not likely to adversely affect these species".

2.4 Northern long-eared bat

Winter Habitat: Same as the Indiana bat northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible.

Summer Habitat: During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds.

Feeding Habits: Northern long-eared bats emerge at dusk to fly through the understory of forested hillsides and ridges feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation. This bat also feeds by gleaning motionless insects from vegetation and water surfaces.

Conclusion - The northern long eared bat requires/occupies practically the same habitat niche as the Indiana bat. Impacts to habitat and mitigation would be consistent with the recommendations for the Indiana bat.

2.5 Bog turtle

According to the U.S. Fish and Wildlife Service, in the 2001 Bog Turtle (*Clemmys muhlenbergii*), Northern Population Recovery Plan. Hadley, Massachusetts. 103 pp. last revised on April 13, 2006 bog turtle habitat is recognized by three criteria:

1. **Suitable hydrology**. Bog turtle wetlands are typically spring-fed with shallow surface water or saturated soils present year-round, although in summer the wet area(s) may be restricted to near spring head(s). Typically these wetlands are interspersed with dry and wet pockets. There is often subsurface flow. In addition, shallow rivulets (less than 4 inches deep) or pseudo-rivulets are often present.

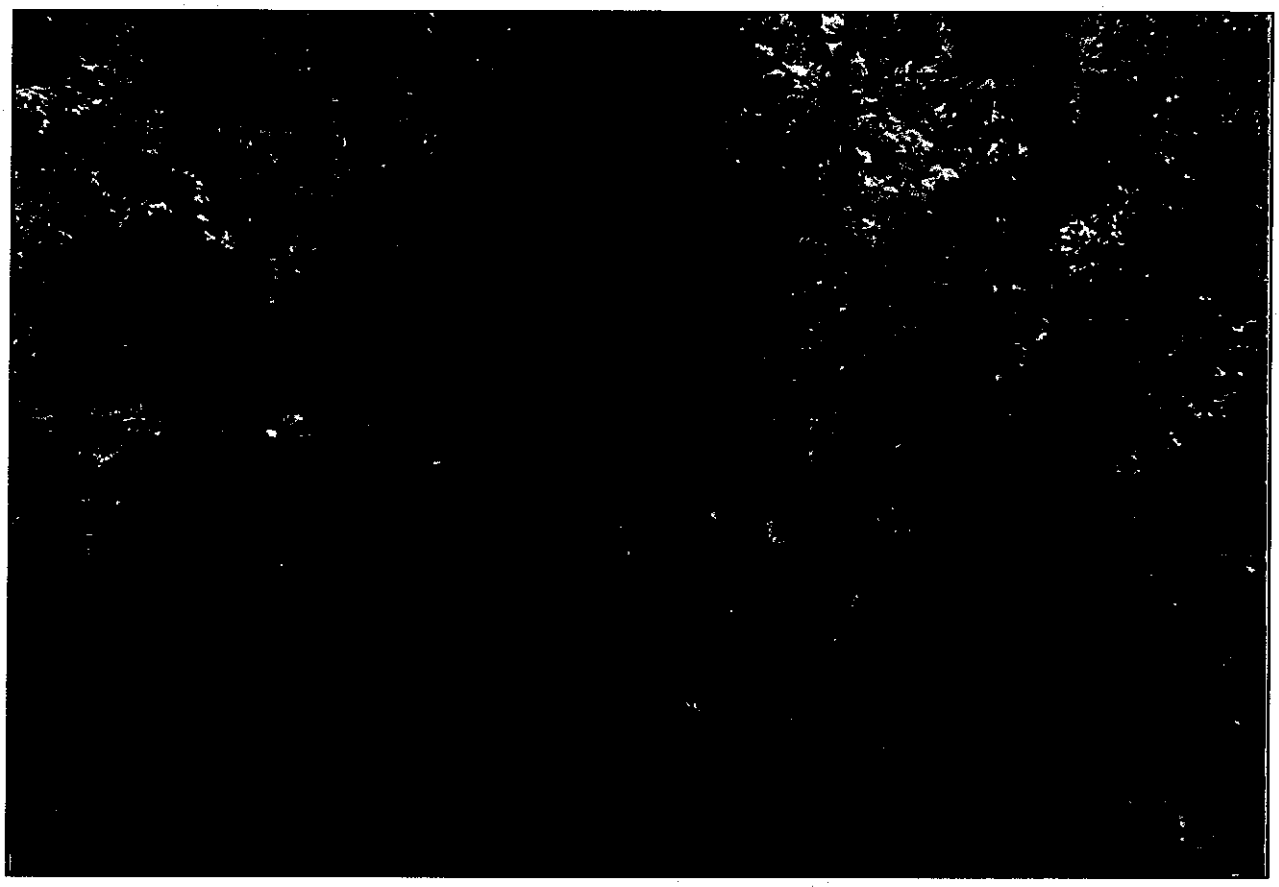
2. **Suitable soils**. Usually a bottom substrate of permanently saturated organic or mineral soils. These are often soft, mucky-like soils (this does not refer to a technical soil type); you will usually sink to your ankles (3-5 inches) or deeper in muck, although in degraded wetlands or summers of dry years this may be limited to areas near spring heads or drainage ditches. In some portions of the species' range, the soft substrate consists of scattered pockets of peat instead of muck.

3. **Suitable vegetation**. Dominant vegetation of low grasses and sedges (in emergent wetlands), often with a scrub-shrub wetland component. Common emergent vegetation includes, but is not limited to: tussock sedge (*Carex stricta*), soft rush (*Juncus effusus*), rice cut grass (*Leersia oryzoides*), sensitive fern (*Onoclea sensibilis*), tearthumbs (*Polygonum spp.*), jewelweeds (*Impatiens spp.*), arrowheads (*Saggitaria spp.*), skunk cabbage (*Symplocarpus foetidus*), panic grasses (*Panicum spp.*), other sedges (*Carex spp.*), spike rushes (*Eleocharis spp.*), grass-of-Parnassus (*Parnassia glauca*), shrubby cinquefoil (*Dasiphora fruticosa*), sweet-flag (*Acorus calamus*), and in disturbed sites, reed canary grass (*Phalaris arundinacea*) or purple loosestrife (*Lythrum salicaria*). Common scrub-shrub species include alder (*Alnus spp.*), red maple (*Acer rubrum*), willow (*Salix spp.*), tamarack (*Larix laricina*), and in disturbed sites, multiflora rose (*Rosa multiflora*). Some forested wetland habitats are suitable given hydrology, soils and/or historic land use. These forested wetlands include red maple, tamarack, and cedar swamps.

Conclusion - The wetland on the site is a small densely vegetated forested wetland that is dry at the surface. This surface flow has inconsistent hydrology and no groundwater seeps. There is no potential bog turtle habitat on or in the vicinity of the site.

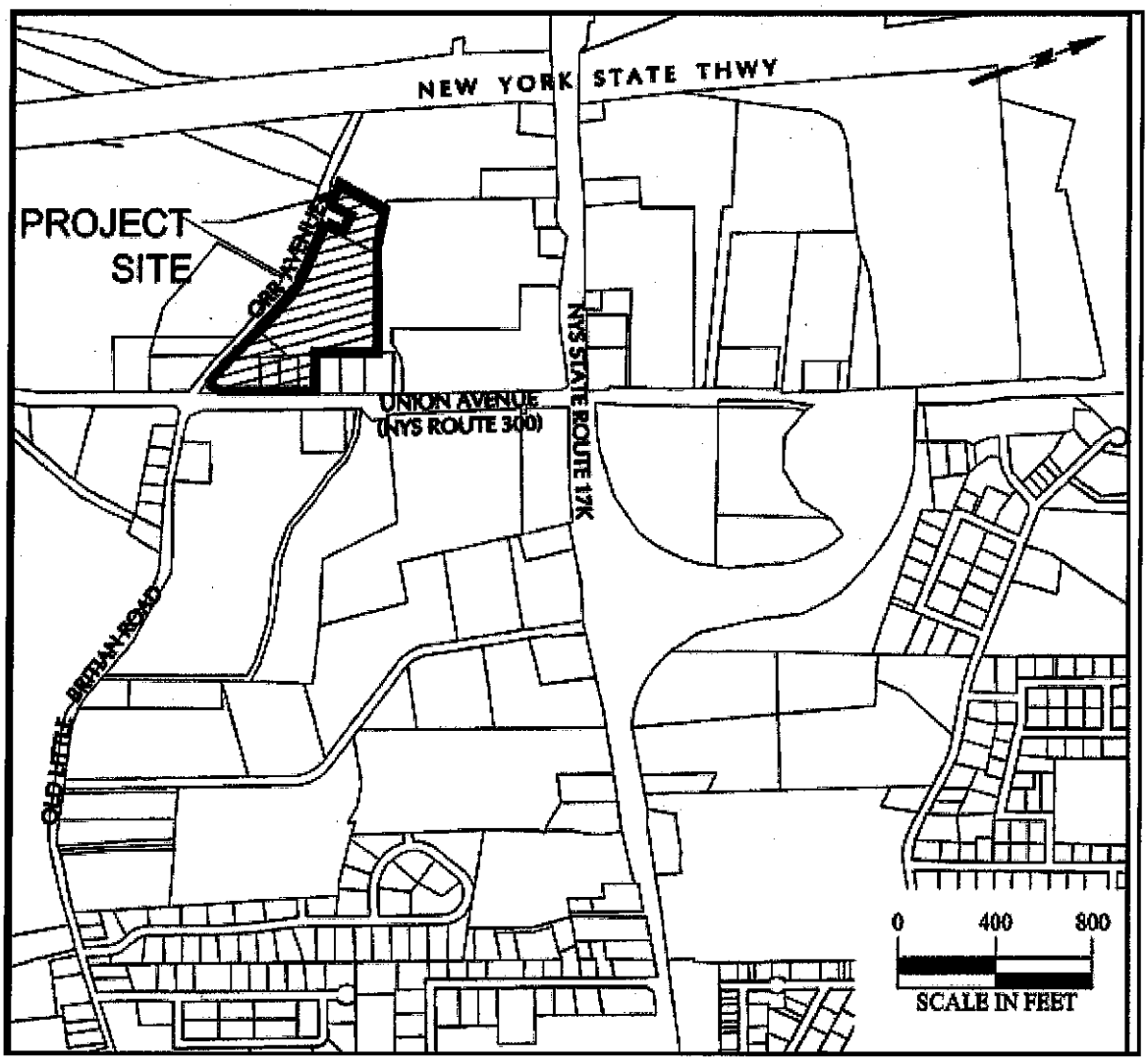
3.0 PHOTOGRAPHS

Wooded area on the site



Orr Avenue and The Shoppes at Union Square site

Figure 1 Location Map



USFWS List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To:
Consultation Code: 05E1NY00-2018-SLI-2934
Event Code: 05E1NY00-2018-E-08715
Project Name: The Shoppes at Union Square

August 03, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/

eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2018-SLI-2934

Event Code: 05E1NY00-2018-E-08715

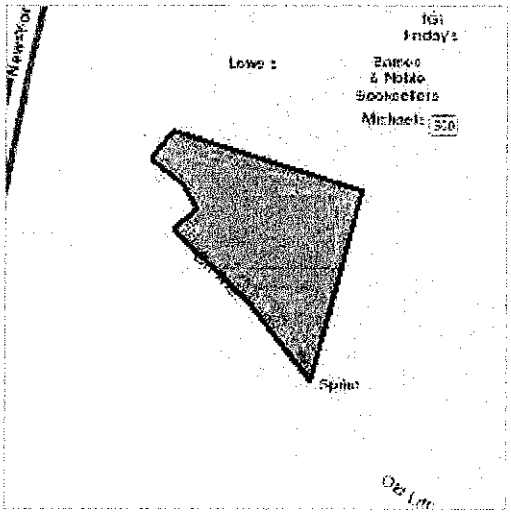
Project Name: The Shoppes at Union Square

Project Type: DEVELOPMENT

Project Description: Retail Stores

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/41.50137407961384N74.07245129277327W



Counties: Orange, NY

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Reptiles

NAME	STATUS
Bog Turtle *Clemmys muhlenbergii* Population: Wherever found, except GA, NC, SC, TN, VA No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6962 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/182/office/52410.pdf Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/182/office/52410.pdf	Threatened

Clams

NAME	STATUS
Dwarf Wedgemussel *Alasmidonta heterodon*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/784
Species survey guidelines:
https://ecos.fws.gov/ipac/guideline/survey/population/363/office/52410.pdf

Flowering Plants

NAME	STATUS
Small Whorled Pogonia *Isotria medeoloides*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1890
Species survey guidelines:
https://ecos.fws.gov/ipac/guideline/survey/population/742/office/52410.pdf

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX B

Creighton Manning Traffic Memo

MASER CONSULTING P.A.

Engineers
Planners
Surveyors
Landscape Architects
Environmental Scientists

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
T: 914.347.7500
F: 914.347.7266
www.maserconsulting.com

MEMORANDUM

To: **John Ewasutyn**

From: **A. Peter Russillo, P.E., PTOE**

Date: **August 8, 2018**

Re: **Shoppes at Union Square**
Orr Avenue
Town of Newburgh, Orange County, NY
Trip Generation Comparison
MC Project No. 17000583B

We are in receipt of the comments provided to you and the Planning Board by Ken Wersted, P.E. dated July 27, 2018 on our July 18, 2018 submission relative to trip generation estimates. We offer the following explanation:

Our evaluation utilized average trip generation rates for the retail portion of the project (17,475 s.f.) and also used average rates for the Smoothie King establishment (1,655 s.f.) assuming it would generate traffic similar to a fast-food restaurant with a drive-thru window.

Mr. Westred suggested using the ITE regression equation for the retail component in lieu of the average rate because it would provide a better correlation to the project size. The result would yield a higher level of generated trips.

Mr. Wersted had also noted that the Smoothie King would likely generate less traffic than a typical fast-food restaurant.

We have obtained information from Smoothie King representatives that indicates approximately 145 trips on average are generated during a typical weekday and some 160 trips on average are generated during a typical Saturday.

During the PM Peak Hour, the Smoothie King could be expected to generate approximately 6.5% of their daily volume equaling 20 total trips (entering and exiting) and some 10% of the Saturday daily volume equaling some 32 total trips (entering and exiting).

Applying the regression equation to the retail component (17,475 s.f.), the total retail generation would equate to 149 trips during the weekday PM Peak Hour and some 156 trips during the Saturday Peak Hour. Combining the above-mentioned Smoothie King trip generation data with

the retail data, the total site would generate 169 weekday PM Peak Hour trips and some 188 Saturday Peak Hour trips.

Comparing these values to the original traffic volume projections (152 PM Peak Hour trips and 206 Saturday Peak Hour trips), the current proposal would generate an additional 17 PM Peak Hour trips and a reduction of 18 trips during the Saturday Peak Hour. We believe these changes are inconsequential with respect to future traffic operations.

R:\Projects\2017\17000583B_Shoppes at Union Square\Correspondence\OUT\180808APR_Ewasutyn.docx

APPENDIX B

Ecological Solutions
Wetlands Correspondence

Ecological Solutions, LLC

Connecticut
1248 Southford Road
Southbury, CT 06488
Phone (203) 910-4716
ecolsol@aol.com

August 14, 2018

Jerame Secaras, PE LEED AP
Langan Engineering
300 Kimball Drive, 4th Floor
Parsippany, NJ 07054

Re: Federal Wetland Assessment
The Shoppes at Newburgh (Phase 2) and (Phase 3) - 1217 Route 300
Town of Newburgh, Orange County, New York

Dear Jerame:

Ecological Solutions, LLC completed a wetland assessment on August 8, 2018 for Phase 2 of the project known as The Shoppes at Newburgh located at 1217 Route 300. There are no Federal - US Army Corps of Engineers (USACE) or State - New York State Department of Environmental Conservation (NYSDEC) wetlands located on Phase 2. The assessment was completed in accordance with the Army Corps of Engineers (USACE) Wetlands Delineation Manual (January 1987), Routine Determination Method and Northcentral/Northeast supplement. There is no New York State Department of Environmental Conservation (NYSDEC) regulated wetland at this location.

Phase 2 of the site was assessed for Federal wetlands based upon the identification of the three mandatory criteria for wetland determination as outlined in the 1987 Federal Manual and supplement: dominant hydrophytic vegetation, hydric soils, and evidence of wetland hydrology. The Routine Methodology procedure for wetland determination was used. Transects consisting of at several sample points were walked. Dominant vegetation around each sample point was identified and its percent cover quantified. The areas were checked in detail for the presence of wetland hydrologic indicators. Soil profiles were then observed and characterized at each point and no hydric soils exist.

The detailed field investigation included:

1. Identification of vegetation species to determine whether there was a dominance of hydrophytic plants and areas containing transitional but primarily wetland-oriented species.

2. Determination of soil features for hydric (poorly and very poorly drained) natural soils.

3. Observation of site features displaying evidence of wetland hydrology based on the presence of inundated areas, apparent high seasonal water tables, and evidence of saturation within 12 inches of the surface (considered the root zone) during sufficient periods during the growing season to provide for anaerobic/hydric soil conditions.

Based on observed field conditions there is no federal wetland located on Phase 2 of the site.

In addition a wetland delineation was completed for Phase 3 on August 8, 2018 and a federal wetland area was delineated on the site and drains to the tributary that flows through the site. This tributary is a Class "C" watercourse and is not regulated by the NYSDEC under Article 15 Protection of Waters (*Attachment*). The wetland and tributary are however regulated by the USACE.

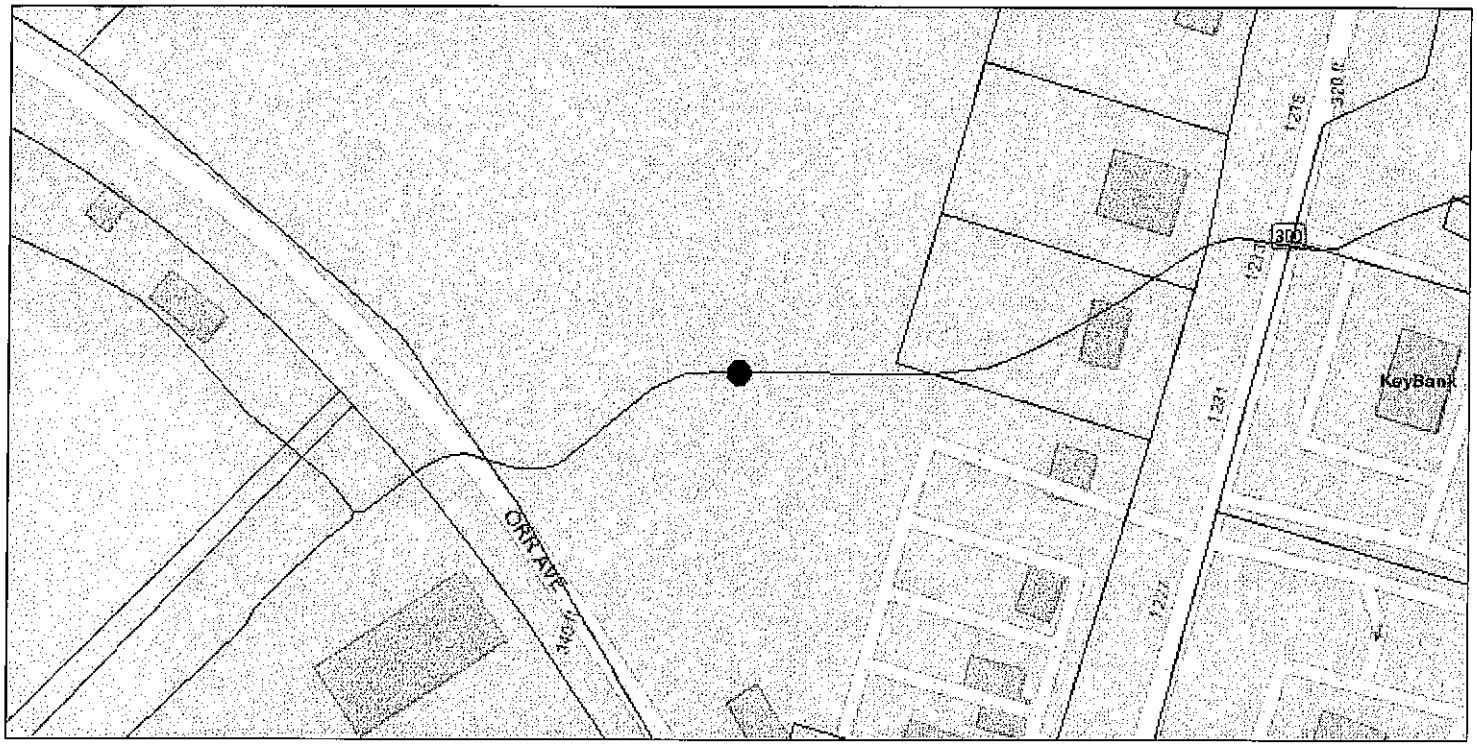
If you need any additional information, please contact me.

Sincerely,
ECOLOGICAL SOLUTIONS, LLC

Michael Nowicki
Biologist

Attachment - NYSDEC Environmental Resource Mapper

Environmental Resource Mapper



The coordinates of the point you clicked on are:

UTM 18	**Easting:**	577452.816	**Northing:**	4594789.957
Longitude/Latitude	**Longitude:**	-74.072	**Latitude:**	41.501

The approximate address of the point you clicked on is:
12-98 Orr Ave, Newburgh, New York, 12550

County: Orange
Town: Newburgh
USGS Quad: NEWBURGH

DEC Region

Region 3:
(Lower Hudson Valley) Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester counties. For more information visit **http://www.dec.ny.gov/about/607.html**.

Waterbody Classifications for Rivers/Streams

Regulation: 862-222
Standard: C
Classification: C

Rare Plants and Rare Animals

This location is in the vicinity of Rare Animals

This location is in the vicinity of State-Listed Bats

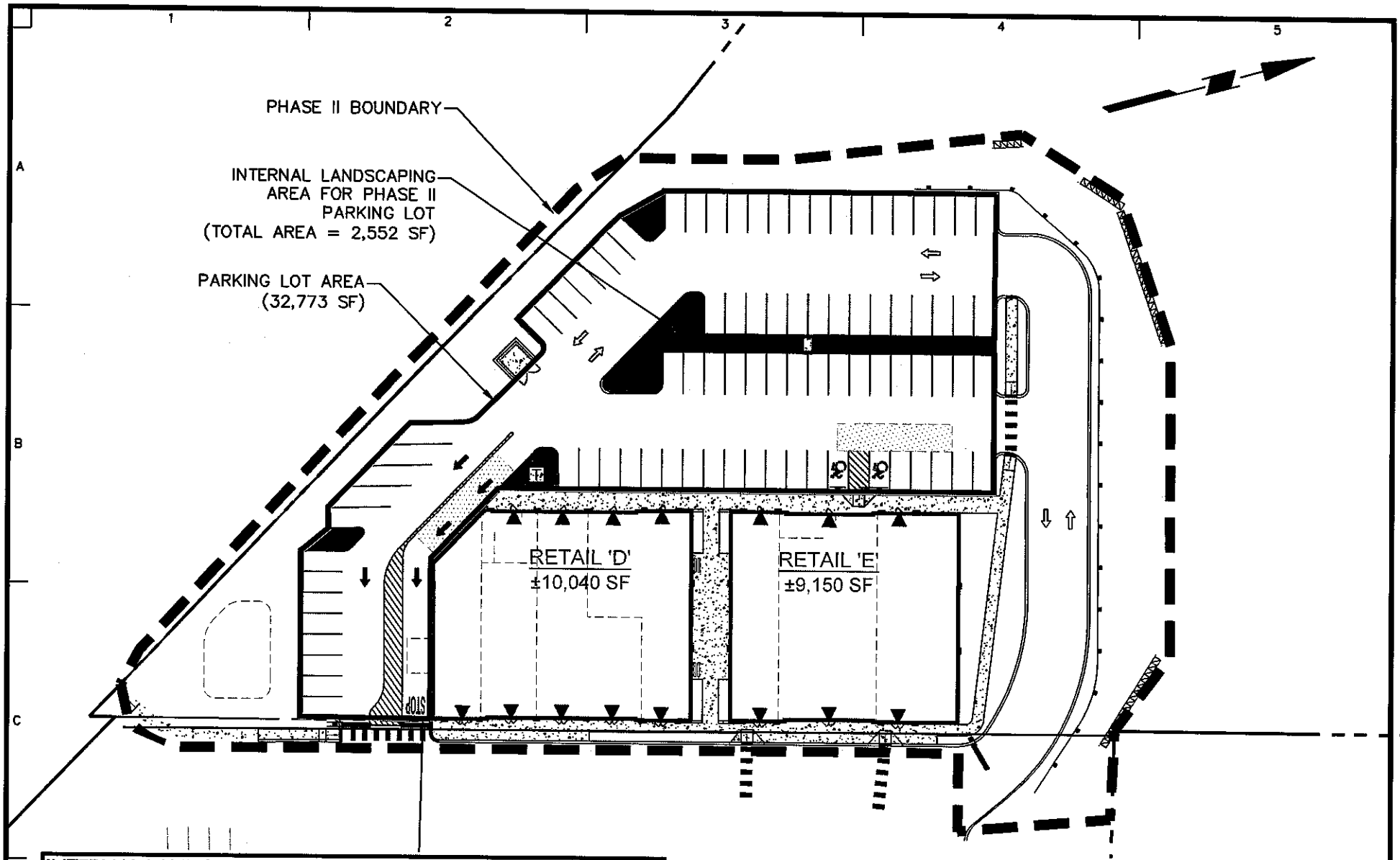
If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.



INTERNAL LANDSCAPING AREA FOR PHASE II PARKING LOT (%) = 2,552 SF / 32,773 SF = 7.7%

0 30 60
SCALE IN FEET

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ Certificate of Authorization No.24GA27996400

Project
THE SHOPPES AT UNION SQUARE PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
INTERNAL LANDSCAPING AREA FOR PHASE II PARKING LOT

Project No.	9133101
Date	8/20/2018
Drawn By	LMR
Checked By	JJS

Figure No. 1

Filename: \\langan.com\data\PAR\data1\9133101\Cadd Data - 9133101\SheetFiles\Figures\009133101 - Internal Landscaping Areas For Phase II Parking Lot.dwg Date: 8/22/2018 Time: 15:45 User: aberi Style Table: Langan.stb Layout: 1

1 / A104 Tenant Detail Elevation

Scale: 1/2" = 1'-0"

Consultants:

PROGRESS DRAWINGS
DATE July 13, 2018
Prior dated documents voided by this issue

NOT FOR CONSTRUCTION

The Shoppes at Union Square

Revisions:

Date	Description	Drawn	Check
△			
△			
△			
△			
△			
△			
△			

Drawings on this page:
Key Plan

Nick & Nick
Town of Newburgh
Orange County, NY

DEGRAW & DEHAAN ARCHITECTS
FIFTY-FIVE NORTH STREET
SUITE 101
MIDDLETOWN
NEW YORK
10940
PHONE 845-343-8510
FAX 845-956-9513

Project

The Shoppes
at Union Square
Town of Newburgh, NY

Detail Elevation
Signage Detail

Seal

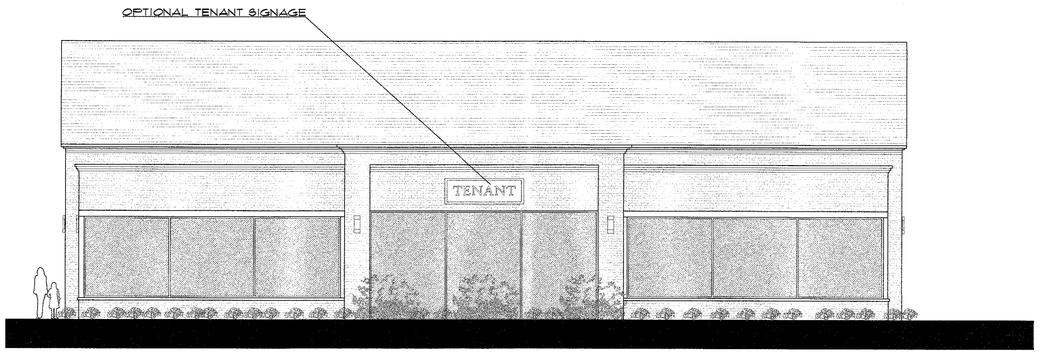
Date:	
Drawn By:	KEM
Checked By:	TJD
Drawing No.	A104

Zone: IB - Interchange Business District - Town of Newburgh

SIGNAGE			
Permanent Wall Signage	Regulation	Allowed	Proposed
Maximum Sign Area of Building Front Wall	2 SQ. FT. SIGNAGE PER LINEAR FT OF BUILDING	430 SQ. FT. 53.75 PER SIGN	200 SQ. FT. 25.00 PER SIGN
Maximum Sign Area of Building Side Walls	1 SQ. FT. SIGNAGE PER LINEAR FT OF BUILDING	90 SQ. FT.	25 SQ. FT.
Maximum Sign Area of Building Rear Walls	1 SQ. FT. SIGNAGE PER LINEAR FT OF BUILDING	215 SQ. FT.	7 SQ. FT. .89 PER SIGN PLAQUE

1 A103 Right Alley Elevation

Scale: 1/8" = 1'-0"



2 A103 Left Alley Elevation

Scale: 1/8" = 1'-0"

Consultants:

PROGRESS DRAWINGS
DATE July 13, 2018
Prior dated documents voided by this issue

NOT FOR CONSTRUCTION

Revisions:

Date	Description	Drawn	Check

The Shoppes at Union Square

Drawings on this page:
Elevations

Nick & Nick
Town of Newburgh
Orange County, NY

DEGRAW & DEHAAN ARCHITECTS
FIFTY-FIVE NORTH STREET
SUITE 101
MIDDLETOWN
NEW YORK
10940
PHONE 845•343•8510
FAX 845•956•0513

Project

The Shoppes
at Union Square
Town of Newburgh, NY

Elevations
Alley Way

Seal

Date:
Drawn By: KEM
Checked By: TJD
Drawing No.

A103

1 A102 **Front Entry Elevation**

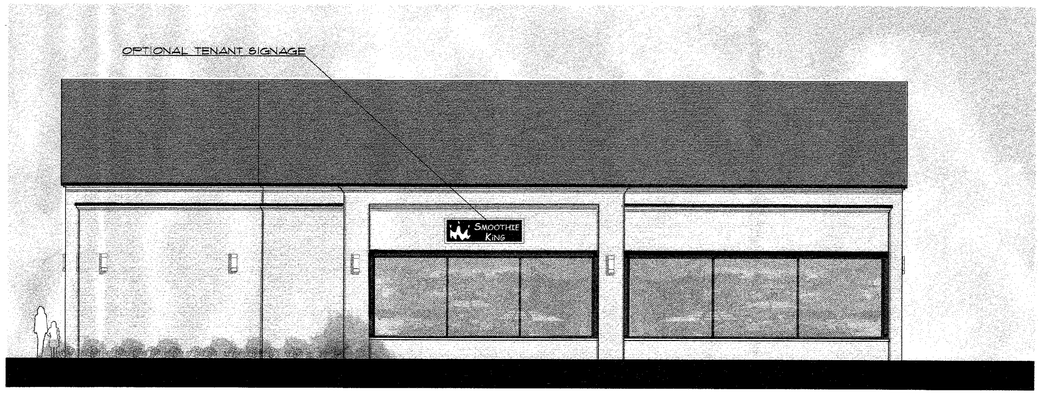
Scale: 1/8" = 1'-0"

2 A102 **Back Elevation**

Scale: 1/8" = 1'-0"

3 A102 **Right Elevation**

Scale: 1/8" = 1'-0"



4 A102 **Left Elevation**

Scale: 1/8" = 1'-0"

Consultants:

PROGRESS DRAWINGS
DATE July 13, 2018
Prior dated documents voided by this issue

NOT FOR CONSTRUCTION

Revisions:

Date	Description	Drawn	Check

The Shoppes at Union Square

Drawings on this page:
Elevations

Nick & Nick
Town of Newburgh
Orange County, NY

DEGRAW & DEHAAN ARCHITECTS
FIFTY-FIVE NORTH STREET
SUITE 101
MIDDLETOWN
NEW YORK
10940
PHONE 845-343-8510
FAX 845-956-9513

Project

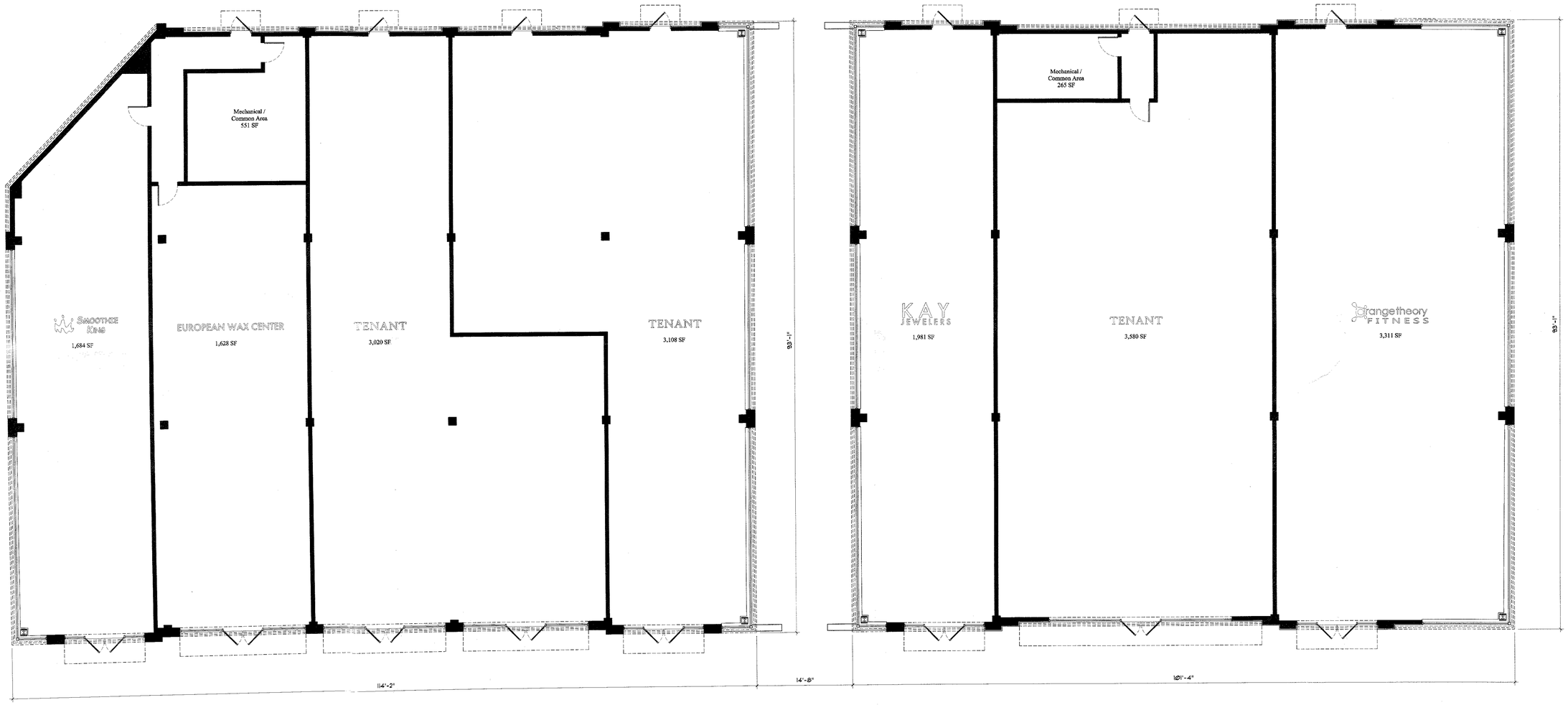
The Shoppes
at Union Square
Town of Newburgh, NY

Elevations

Seal

Date:
Drawn By: KEM
Checked By: TJD
Drawing No.

A102



1 A101 **Key Plan**
Scale: 1/8" = 1'-0"

Consultants:

PROGRESS DRAWINGS
DATE July 11, 2018
Prior dated documents voided by this issue

NOT FOR CONSTRUCTION

Revisions:

Date	Description	Drawn	Check

Drawings on this page:
Key Plan

The Shoppes at Union Square
Nick & Nick
Town of Newburgh
Orange County, NY

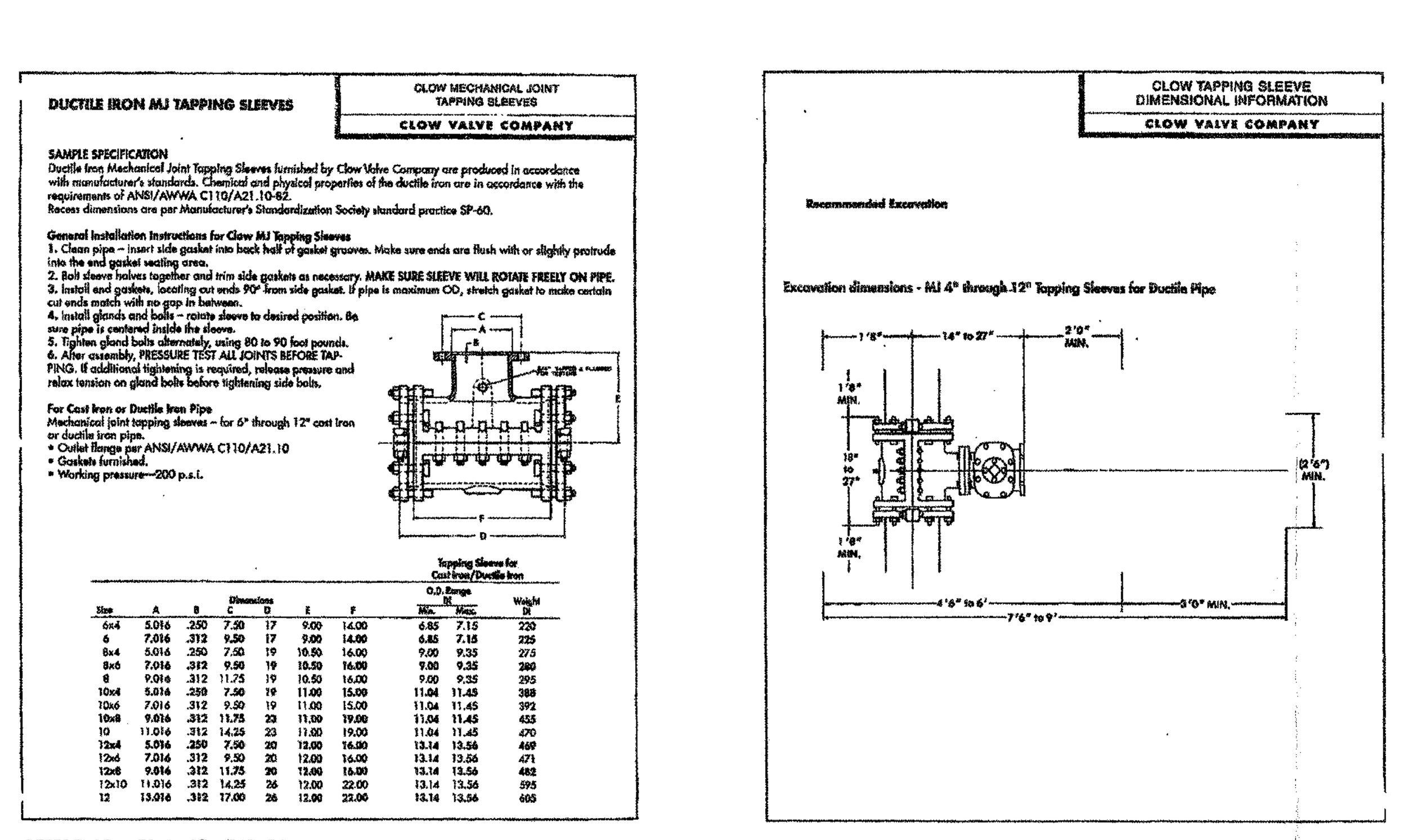
DEGRAW & DEHAAN ARCHITECTS
FIFTY-FIVE NORTH STREET
SUITE 101
MIDDLETOWN
NEW YORK
10940
PHONE 845-343-8510
FAX 845-956-9513

Project
The Shoppes
at Union Square
Town of Newburgh, NY

Key Plan

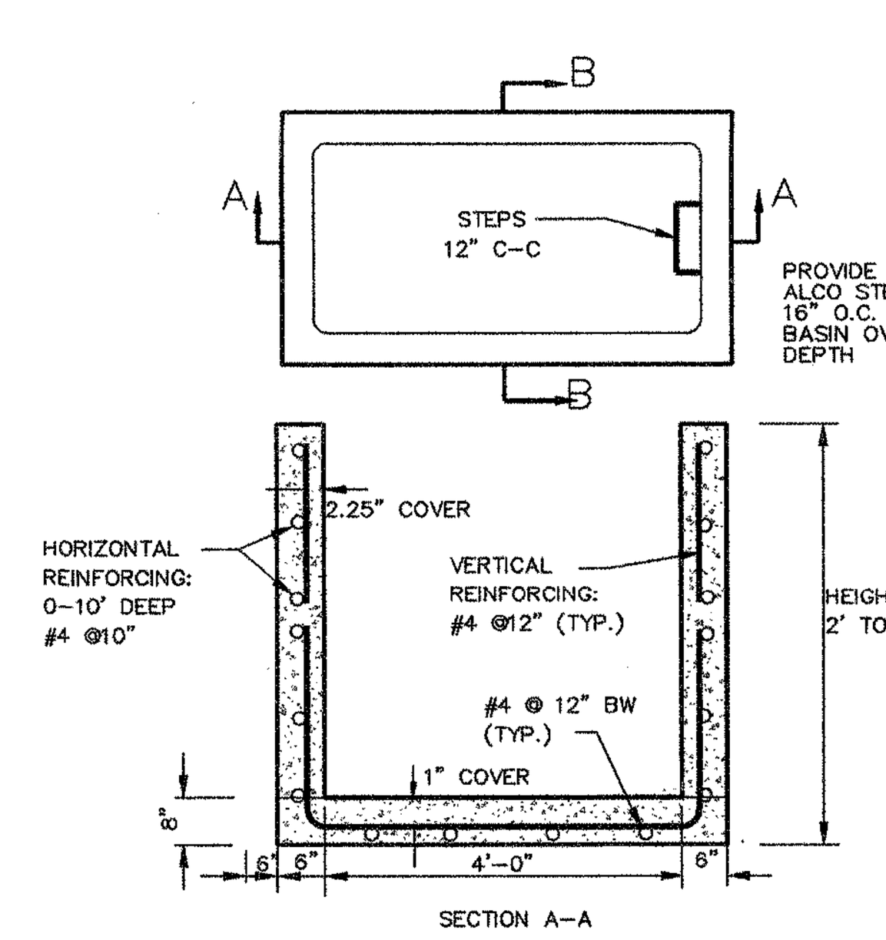
Seal

Date:
Drawn By: KEM
Checked By: TJD
Drawing No.
A101



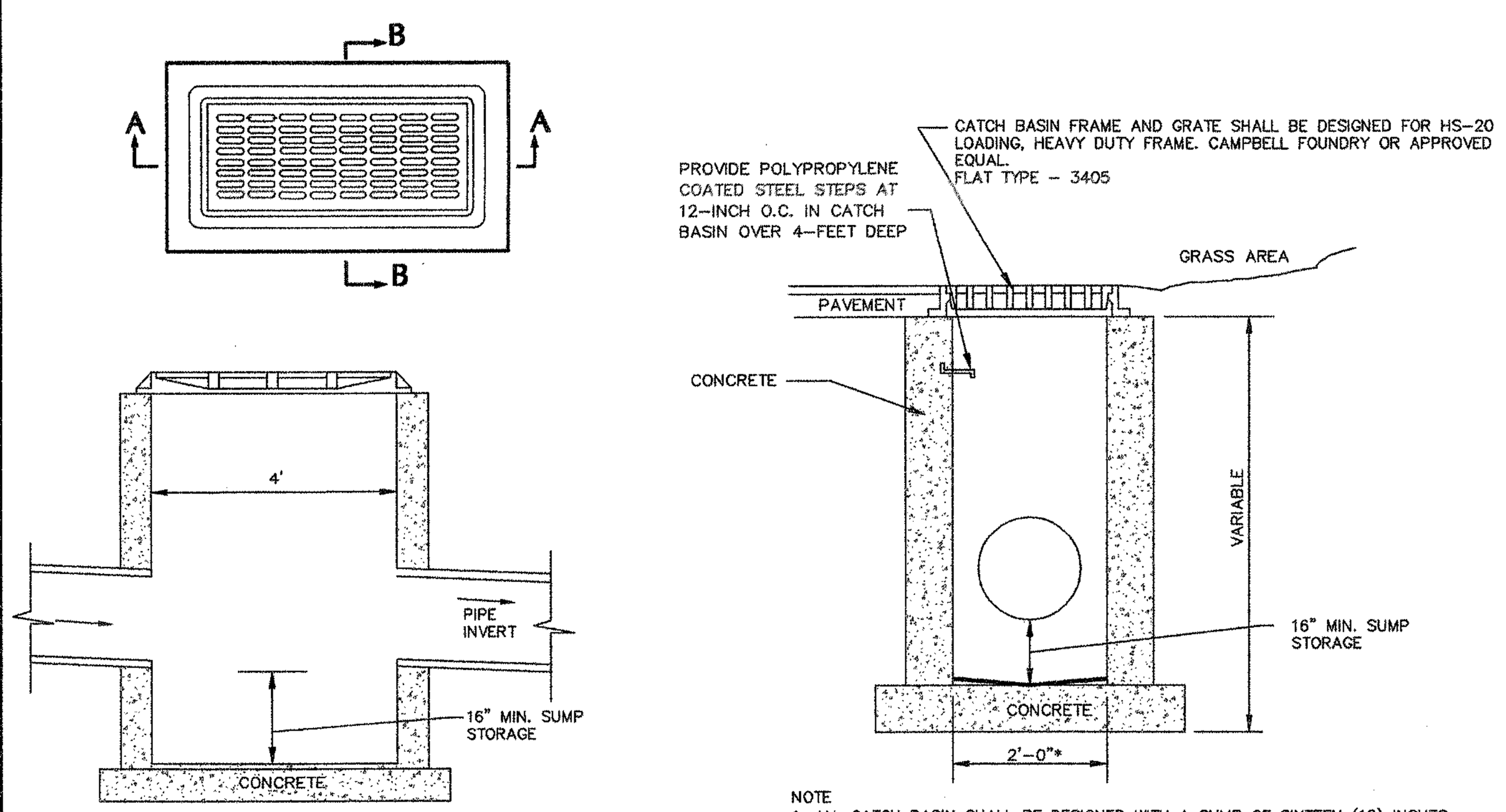
REFERENCE: TOWN OF NEWBURGH WATER DISTRICT

MECHANICAL JOINT TAPPING SLEEVE



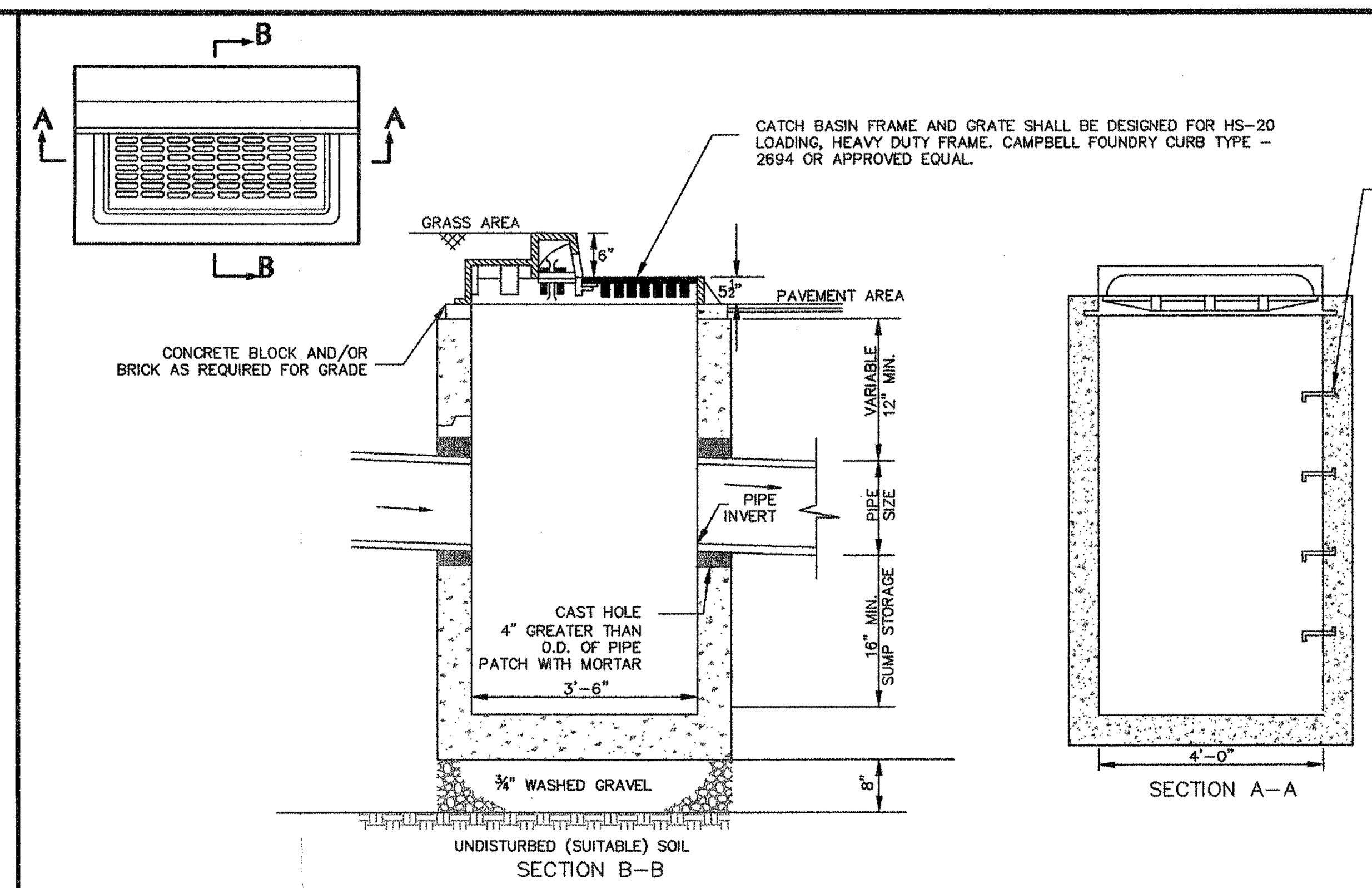
NOTE:
1. CONCRETE TO BE 4000 PSI
2. REINFORCING STEEL TO BE 60,000 PSI
3. THE WALLS AND BASE SLABS HAVE BEEN DESIGNED FOR MAX. EARTH COVER OF 10 FT.

ELECTRIC PULL BOX



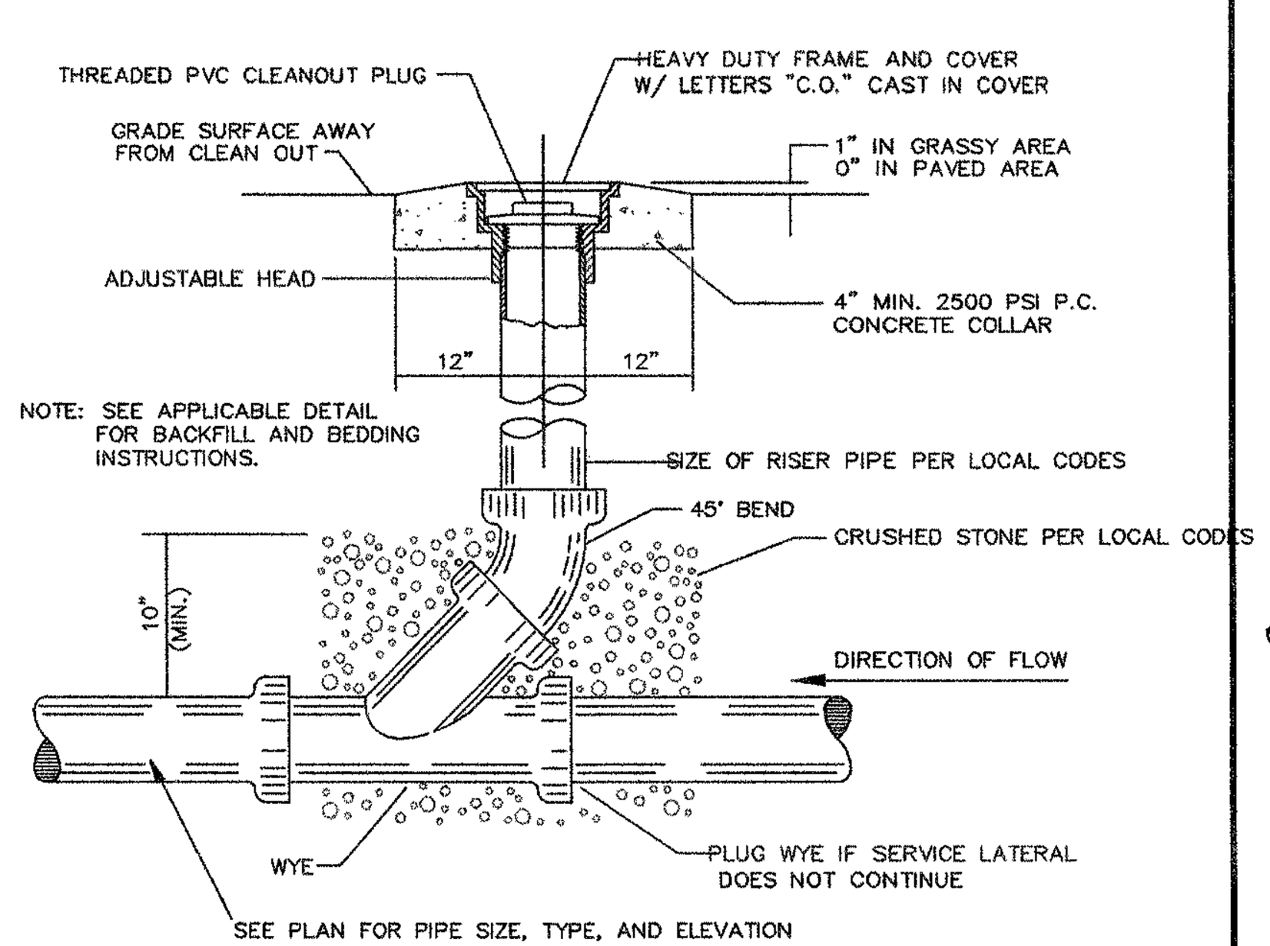
NOTE
1. ALL CATCH BASIN SHALL BE DESIGNED WITH A SUMP OF SIXTEEN (16) INCHES.
2. STRUCTURAL DESIGN (WALL AND SLAB THICKNESS AND ALL REINFORCING) BY PRECASTER AND SHALL MEET STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SUPPORT HS-20 OR HS-25 LOADING AS REQUIRED.

STORMWATER INLET - FLAT TYPE

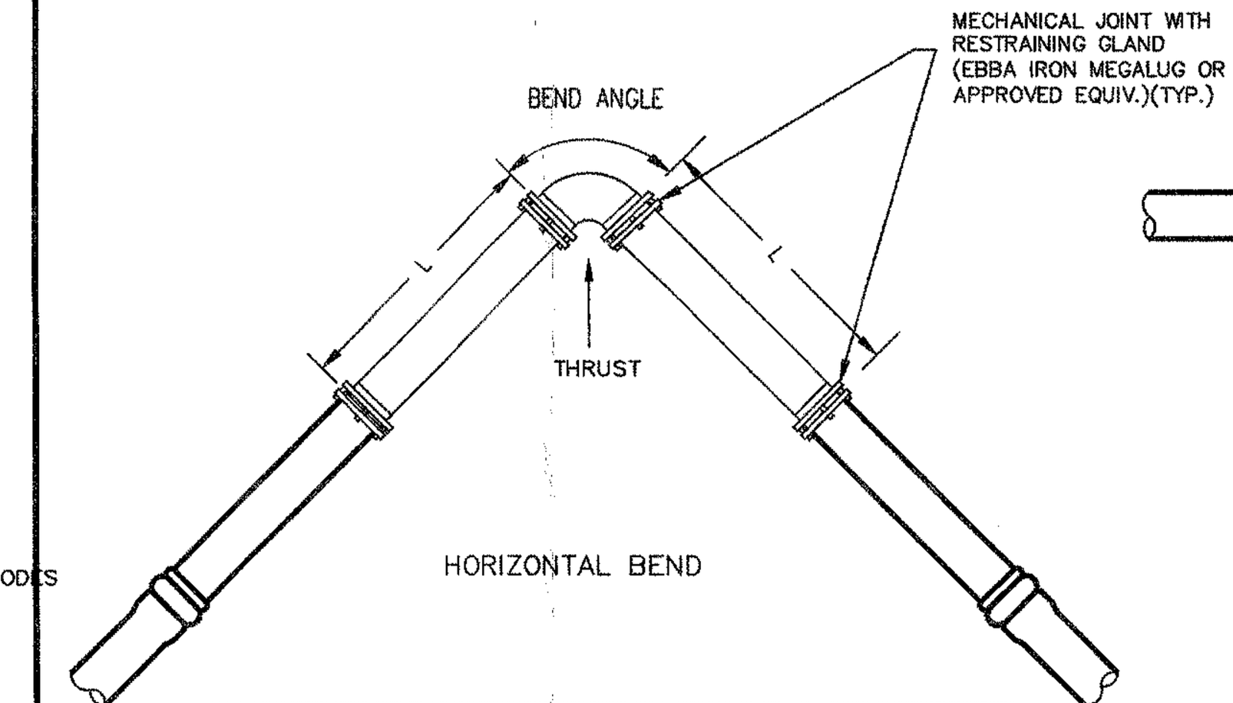


NOTE
1. ALL CATCH BASIN SHALL BE DESIGNED WITH A SUMP OF SIXTEEN (16) INCHES.
2. STRUCTURAL DESIGN (WALL AND SLAB THICKNESS AND ALL REINFORCING) BY PRECASTER AND SHALL MEET STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SUPPORT HS-20 OR HS-25 LOADING AS REQUIRED.

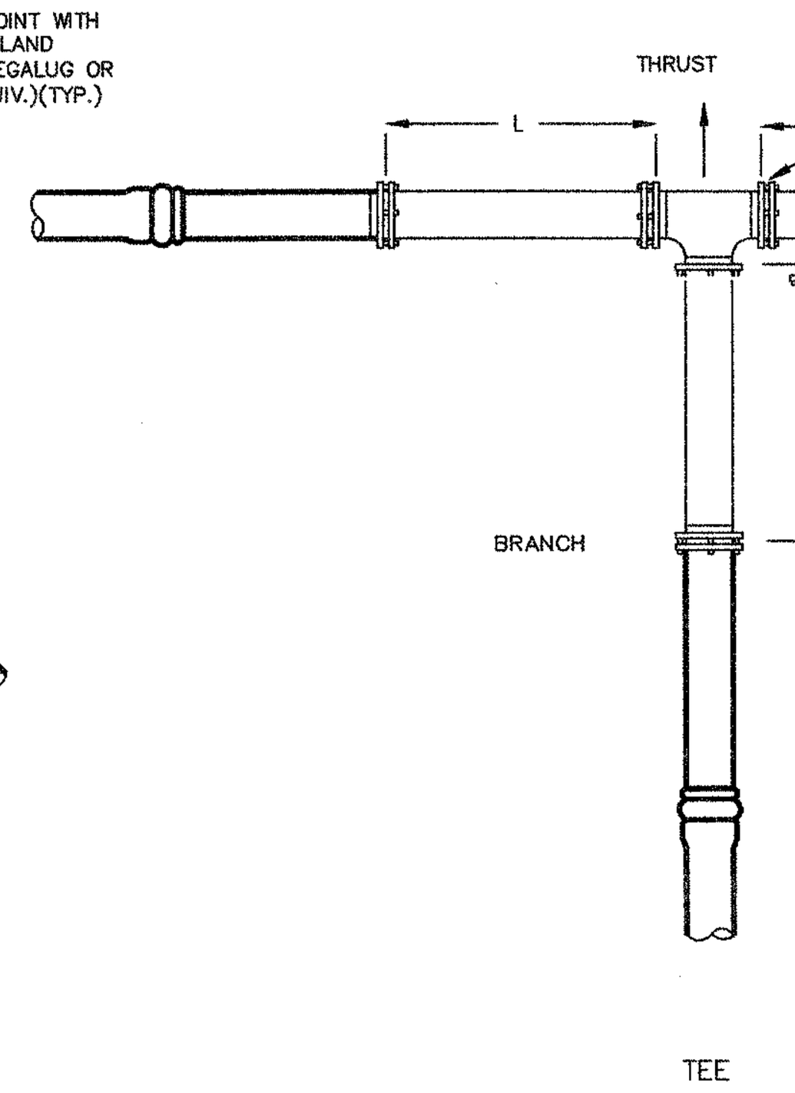
STORMWATER INLET - CURB TYPE



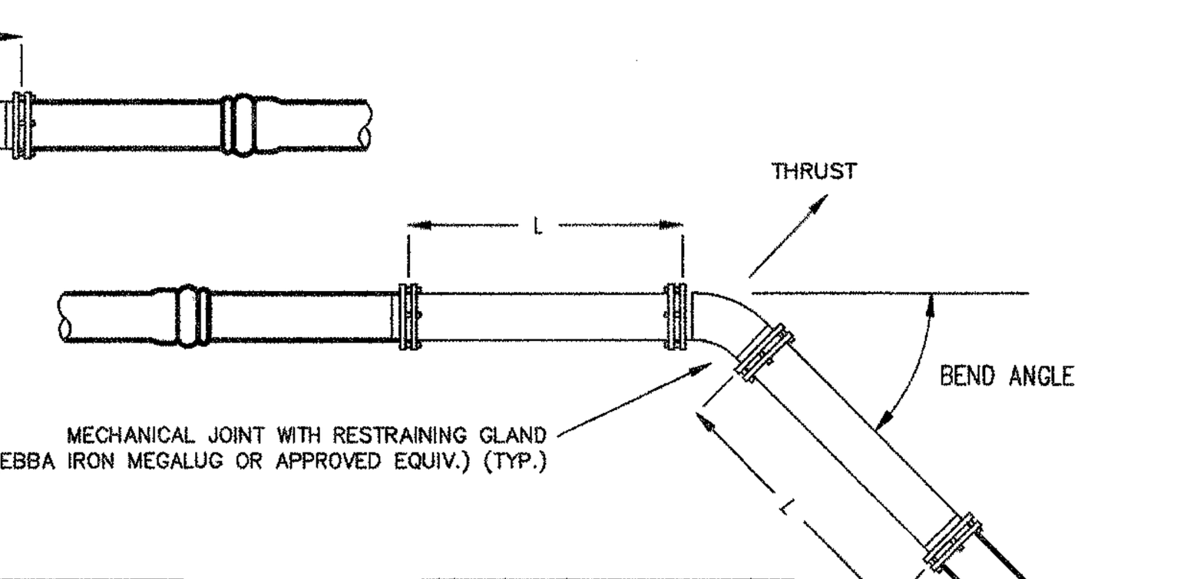
SANITARY SEWER CLEAN-OUT



MINIMUM HORIZONTAL ELBOW RESTRAINT LENGTHS					
NOM. PIPE SIZE inches	L (FT)				CLOSED VALVES, & DEAD ENDS
	11 ¼°	22 ½°	45°	90°	
6	18	18	36	54	56
8	18	18	36	54	73
10	18	18	36	54	88
12	18	18	36	72	104
16	18	18	36	90	134



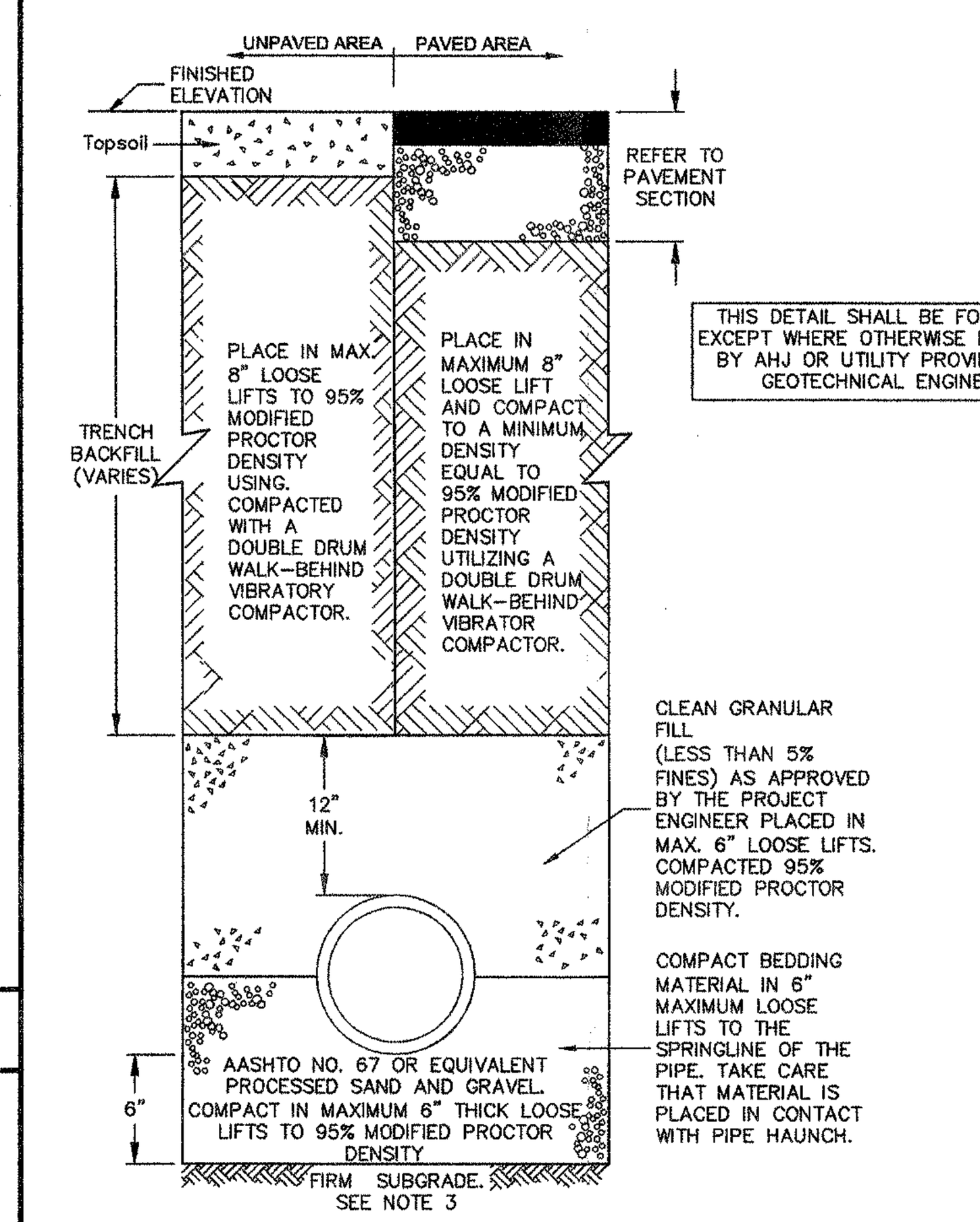
MINIMUM TEE RESTRAINT LENGTHS		
NOM. PIPE SIZE inches	LENGTHS (FT)	
	LR	LB
6	18	36
8	18	36
10	18	54
12	18	54
16	18	90



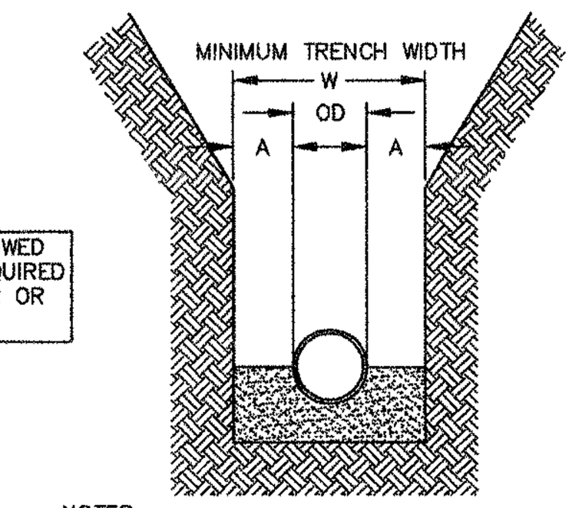
MINIMUM VERTICAL OFFSET ELBOW RESTRAINT LENGTHS		
NOM. PIPE SIZE inches	LENGTHS (FT)	
	UBL	LBL
6	36	36
8	36	36
10	54	36
12	54	36
16	72	54

NOTES:
1. ALL RESTRAINING GLANDS TO BE IN ACCORDANCE WITH TOWN OF NEWBURGH STANDARDS
2. ALL RESTRAINED JOINTS TO BE MECHANICAL JOINT FITTINGS.
3. ALL JOINTS THAT FALL WITHIN THE MINIMUM LENGTH "L" BEFORE AND AFTER THE ELBOW MUST BE RESTRAINED. IF NO JOINTS ARE ENCOUNTERED WITHIN THIS DISTANCE, THE NEXT CLOSEST JOINT DOES NOT NECESSARILY HAVE TO BE RESTRAINED.
4. MINIMUM LENGTH "L" MAY CHANGE DUE TO VARYING SOIL CONDITIONS OR AT THE DISCRETION OF THE ENGINEER.
5. THE FOLLOWING MUST BE RESTRAINED IN ALL APPLICATIONS:
   (A) BEND (INLET & OUTLET)
   (B) TEE (OUTLET BRANCH)
   (C) WYE (OUTLET BRANCH)
   (D) OFFSETS (INLET & OUTLET)
   (E) CAPS & PLUGS

WATERLINE PIPE THRUST RESTRAINING DETAIL



THIS DETAIL SHALL BE FOLLOWED EXCEPT WHERE OTHERWISE REQUIRED BY AHJ OR UTILITY PROVIDER OR GEOTECHNICAL ENGINEER



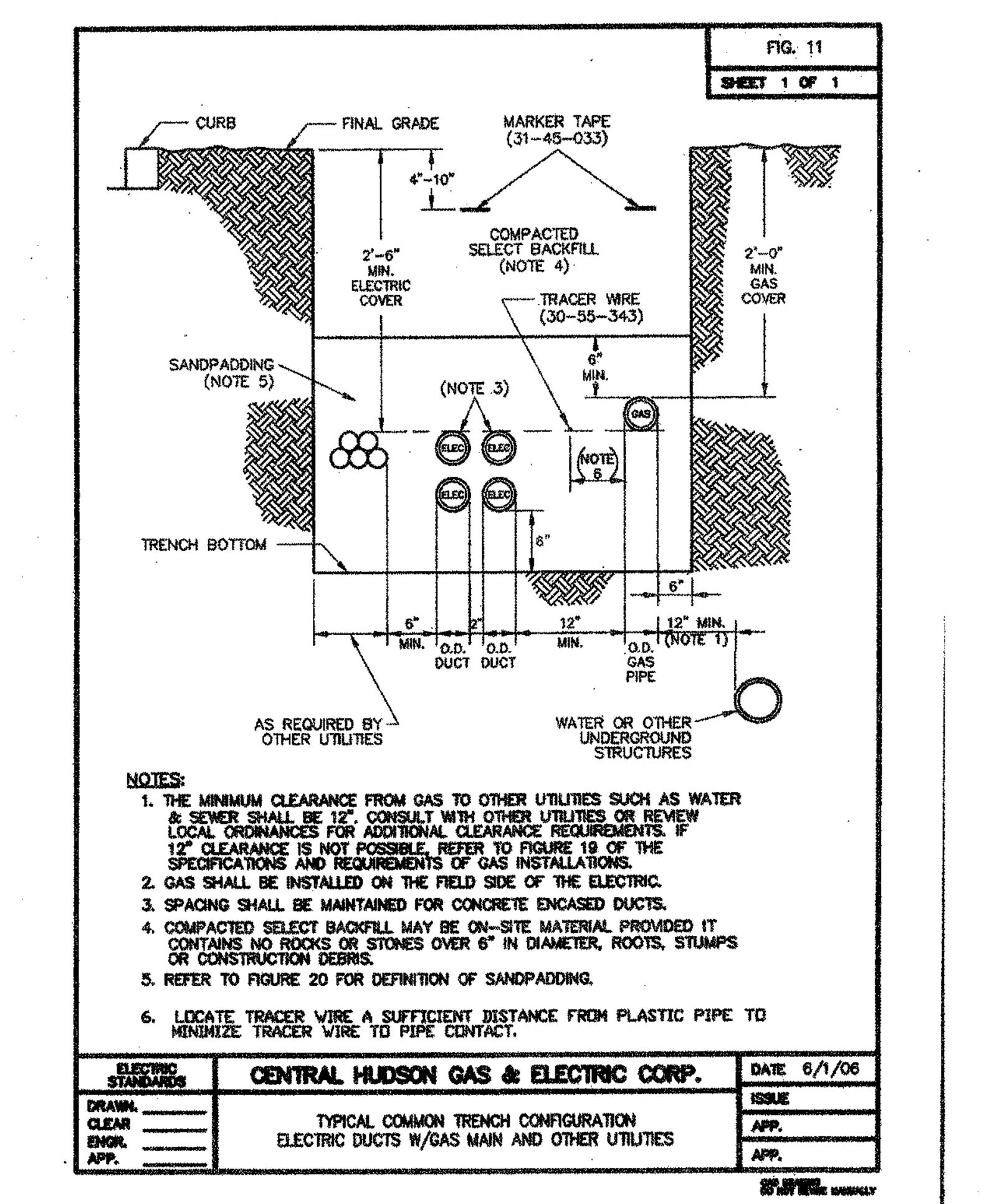
Pipe Diameter "D"	Maximum "A"
6" to 15"	8"
16" to 21"	10"
24" to 30"	12"
33" to 42"	15"
48" & Larger	18"

NOTE:
1. MAXIMUM TRENCH WIDTH "W" TAKEN AT TOP OF PIPE.

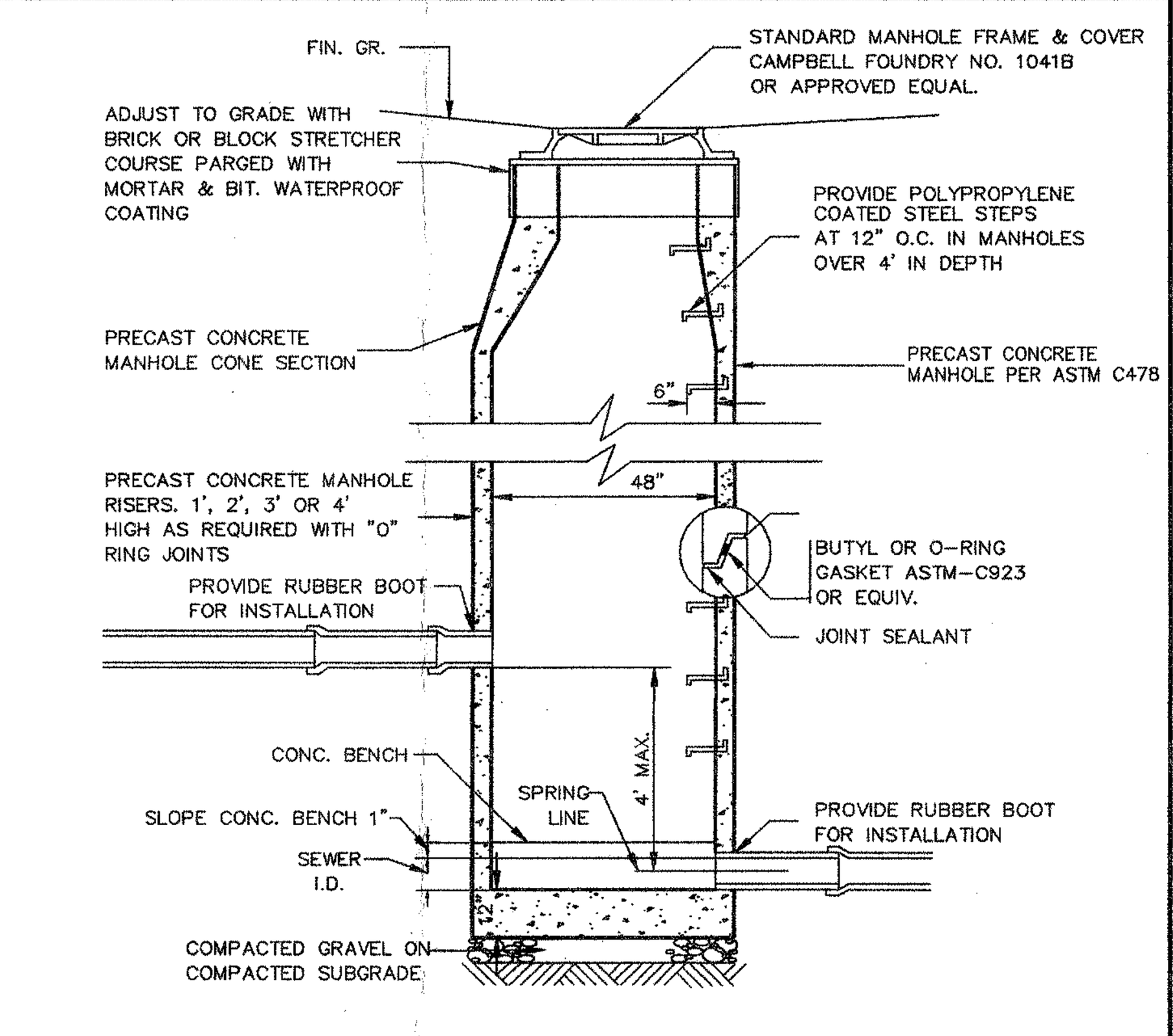
NOTES:
1. ALL TRENCH EXCAVATIONS ARE TO BE DONE IN COMPLIANCE WITH OSHA REGULATIONS.
2. MINIMUM TRENCH WIDTHS TO BE IN ACCORDANCE WITH THE CHART ABOVE.
3. IF SOFT SOIL IS ENCOUNTERED AT BEDDING SUBGRADE, THE SOFT SOIL IS TO BE REMOVED (TO A MAXIMUM DEPTH OF 2 FT) AND REPLACED WITH ¾" CLEAN CRUSHED STONE.
4. TRENCH BACKFILL SHALL BE PREDOMINANTLY GRANULAR FILL MATERIAL AS APPROVED BY THE PROJECT ENGINEER. MATERIAL EXCAVATED FROM THE TRENCH MAY BE USED FOR BACKFILL PROVIDED IT IS PREDOMINATELY SAND AND IS AT WATER CONTENT THAT THE MATERIAL CAN BE READILY COMPACTED TO THE DENSITY REQUIRED.
5. WITHIN PUBLIC RIGHT OF WAY BENEATH PAVEMENT, THE BACKFILL MATERIAL SHALL BE CLEAN CRUSHED STONE EQUIVALENT TO AASHTO NO. 67 OR ¾" STONE, UNLESS AUTHORITY HAVING JURISDICTION REQUIRES OTHERWISE.
6. IF APPLICABLE, MAGNETIC UNDERGROUND MARKING TAPE TO BE PROVIDED FOR PLASTIC WATER, AND SANITARY FORCE MAINS. BURY 18" FROM FINISHED GRADE.
7. IN AREAS WHERE THERE IS NOT SUFFICIENT WIDTH FOR A DOUBLE DRUM WALK BEHIND VIBRATORY COMPACTOR THE LIFT THICKNESS SHALL BE DECREASED AS NECESSARY TO ACHIEVE COMPACTION WITH APPROPRIATE EQUIPMENT.
8. MAXIMUM PARTICLE SIZE FOR TRENCH BACKFILL SHALL BE 4 INCHES UNLESS APPROVED OTHERWISE BY PROJECT ENGINEER.
9. BACKFILL CONTAIN NO DELETERIOUS OR CONTAMINATED MATERIAL.

NTS

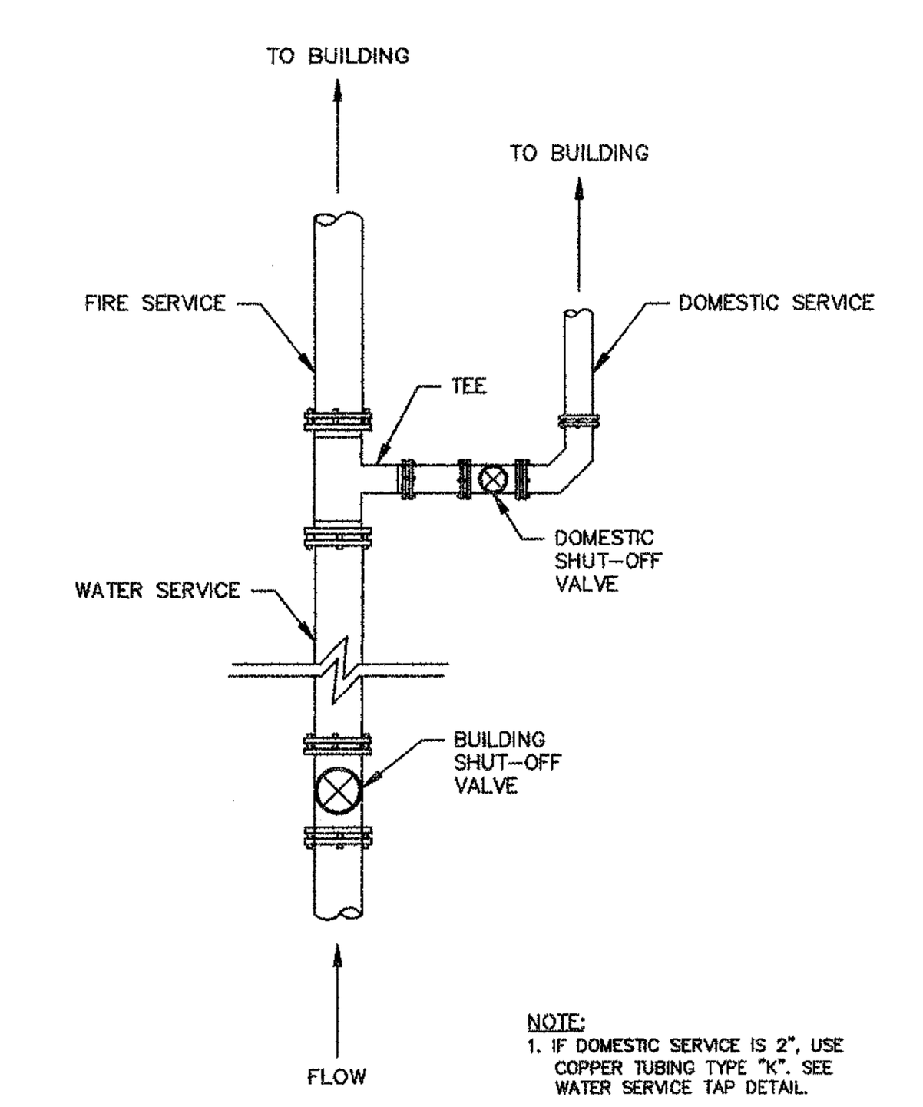
PIPE TRENCH DETAIL FOR SANITARY SEWER, AND STORM SEWER PIPE



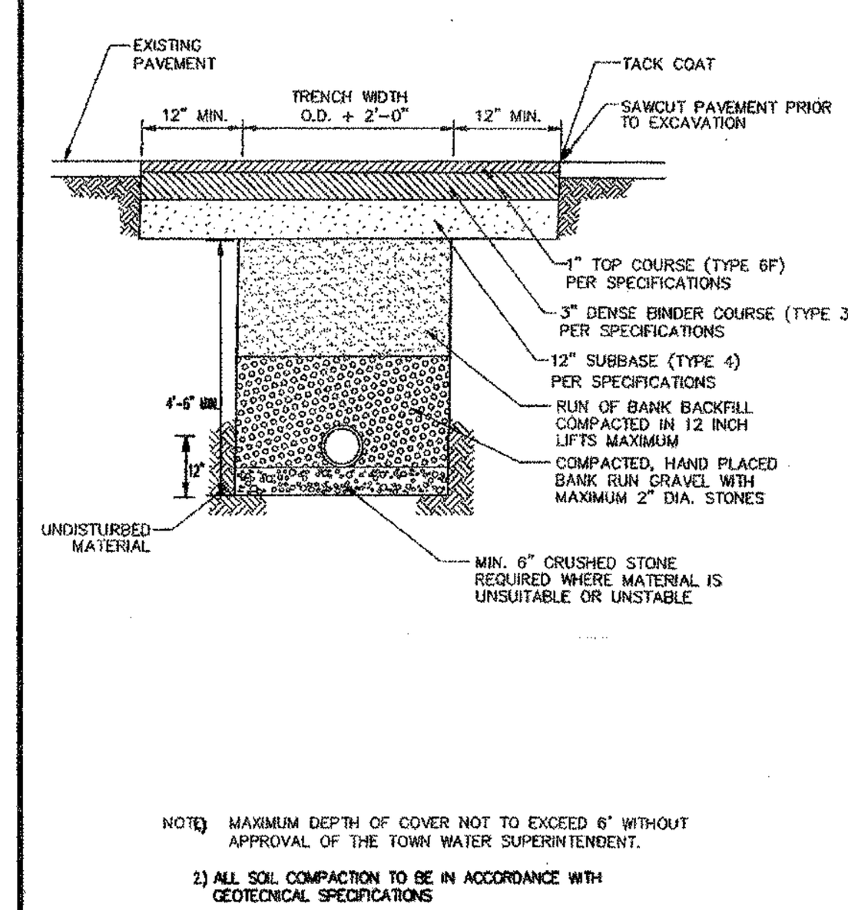
TYPICAL TRENCH CONFIGURATION FROM CENTRAL HUDSON GAS & ELECTRIC



PRE-CAST SANITARY SEWER MANHOLE



FIRE/POTABLE WATER SERVICE



TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
WATERMAIN TRENCH EXCAVATION AND BACKFILL (UNDER PAVEMENT)

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL DETAILS TO THE OWNER'S ENGINEER FOR REVIEW.

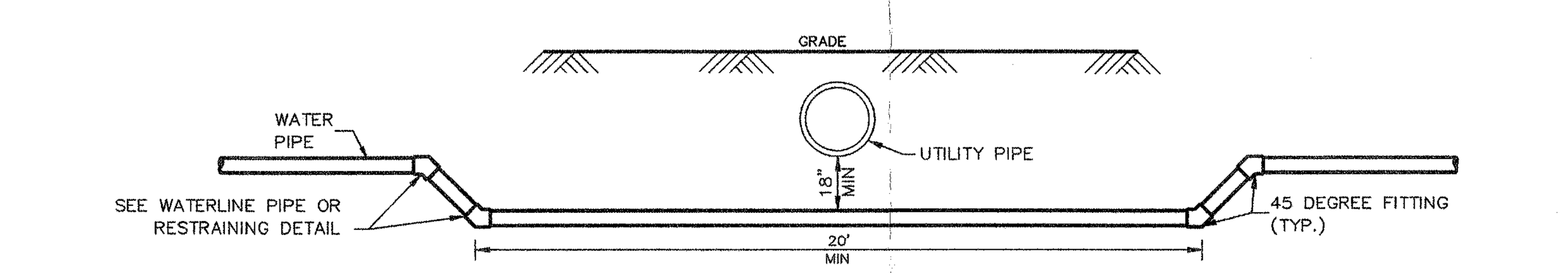
CONTRACTOR SUBMITTAL NOTE

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT #

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.



NOTE:
ONE FULL LENGTH OF WATER PIPE SHOULD BE CENTERED UNDER THE CROSS PIPE SO THAT ALL JOINTS WILL BE AS FAR FROM THE CROSSING AS POSSIBLE

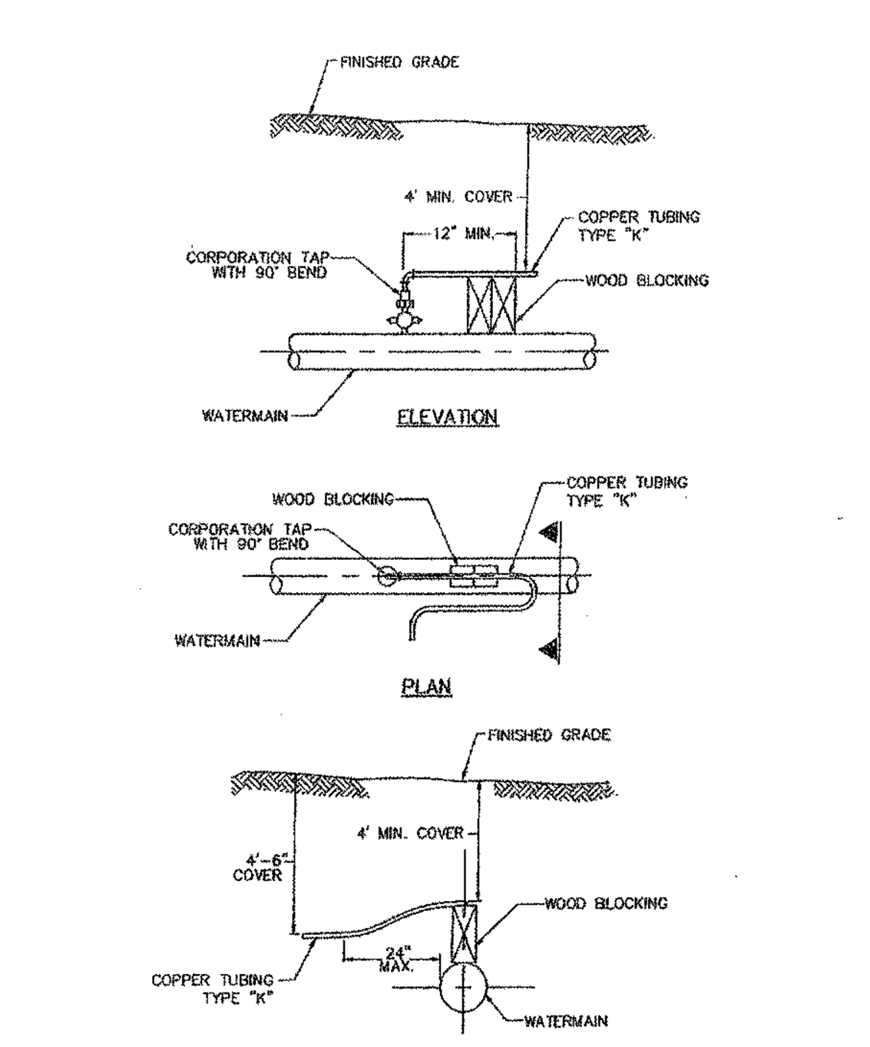
WATER SERVICE

Date	Description	No.
8/22/2018	REVISED PER TOWN COMMENTS	1.

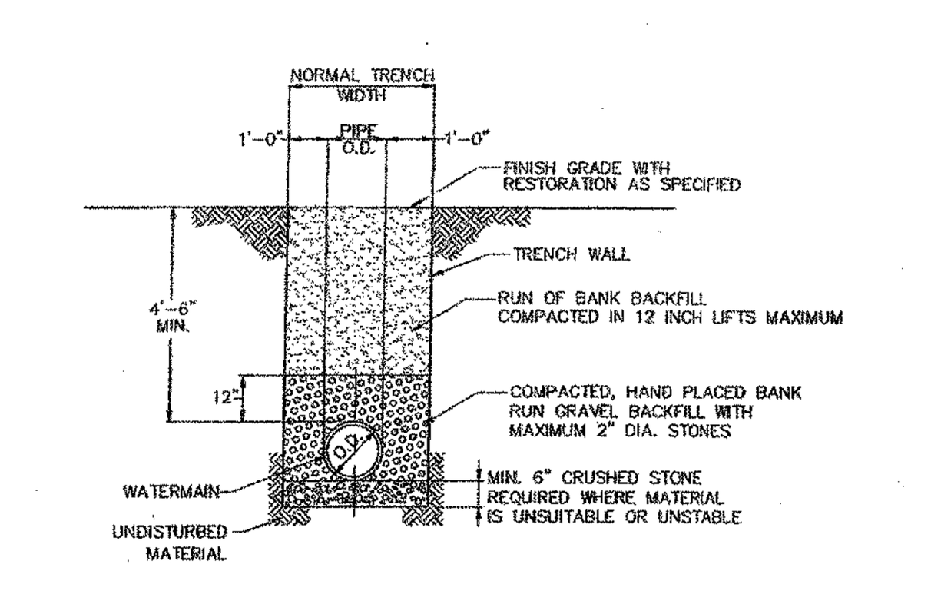
Revisions

AUG 2 2 2018

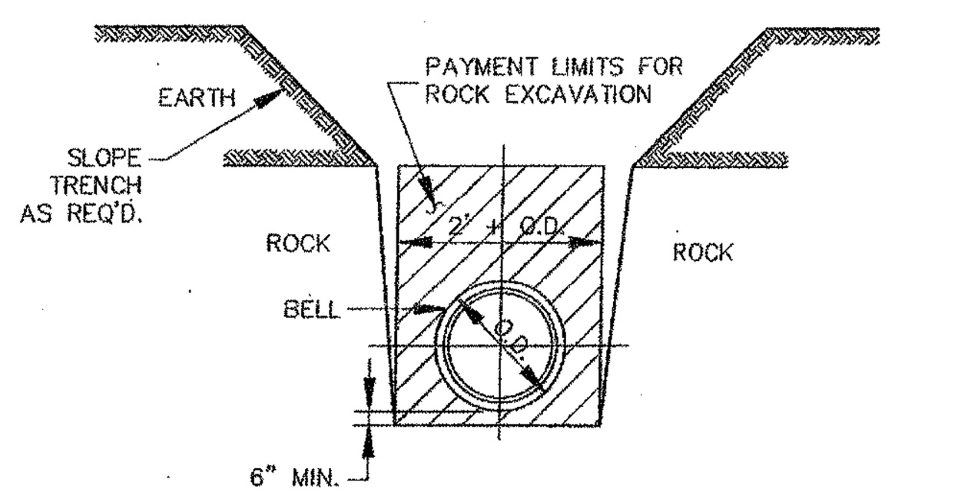
BRYAN M. WAISNOR
PROFESSIONAL ENGINEER NY LIC No. 080661–1



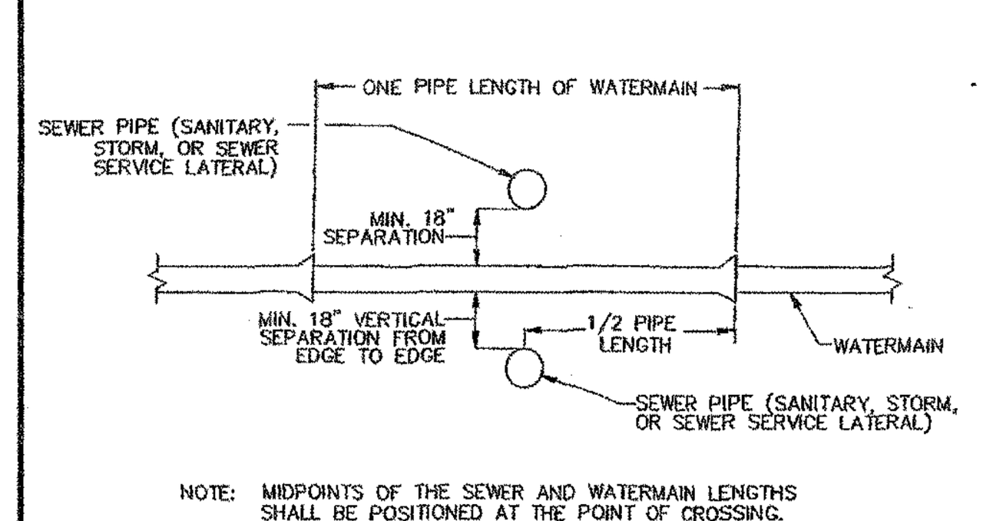
TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
WATER SERVICE TAP



TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
WATERMAIN TRENCH EXCAVATION AND BACKFILL (OUTSIDE OF PAVEMENT)

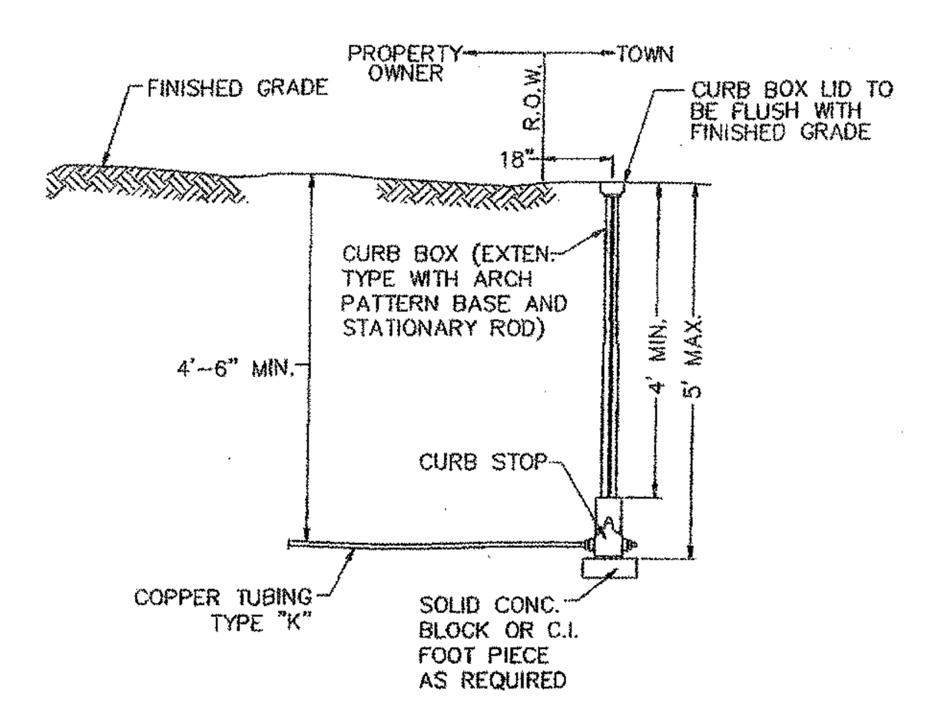


TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
TRENCH WITH ROCK EXCAVATION



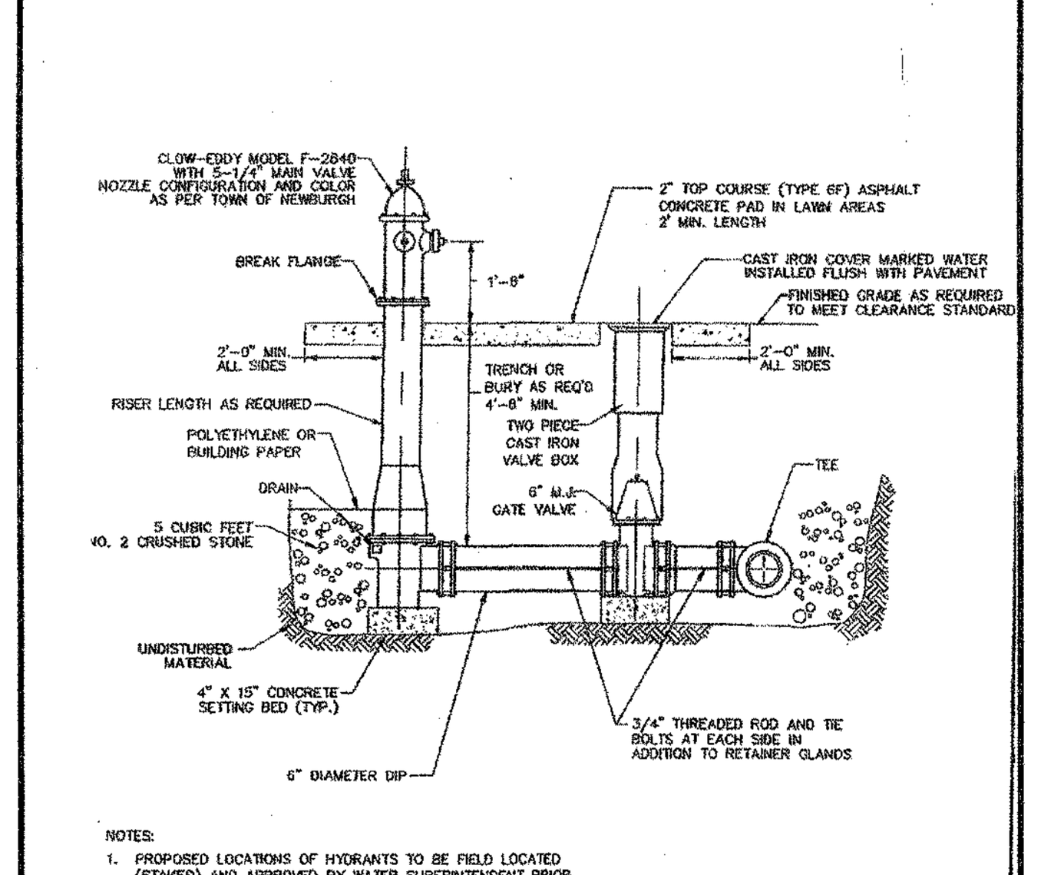
NOTE: MIDPOINTS OF THE SEWER AND WATERMAIN LENGTHS SHALL BE POSITIONED AT THE POINT OF CROSSING.

TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
WATERMAIN/SEWER CROSSING

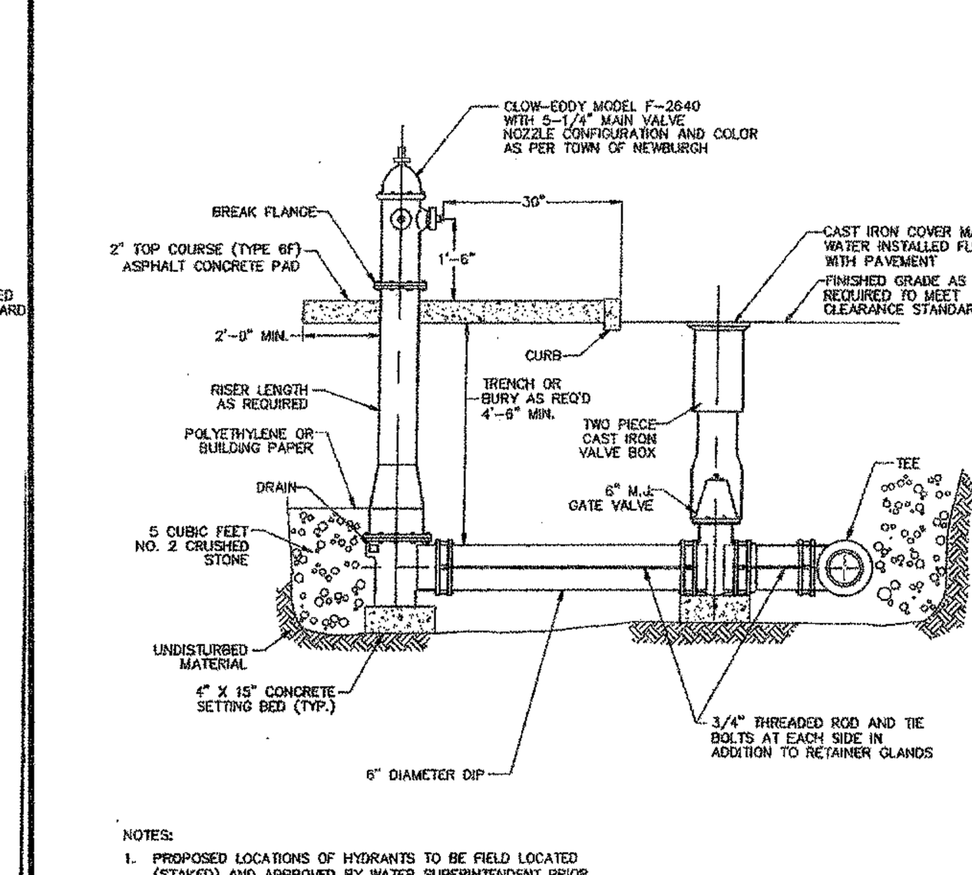


NOTE: PROPOSED LOCATIONS OF CURB BOXES TO BE FIELD LOCATED (STAKED) AND APPROVED BY WATER SUPERINTENDENT PRIOR TO INSTALLATION.

TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
WATER SERVICE CURB BOX



TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
HYDRANT AND VALVE ASSEMBLY INSTALLATION



TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
HYDRANT AND VALVE ASSEMBLY INSTALLATION (ADJACENT CURB)

LANGAN

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
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Parsippany, NJ 07054
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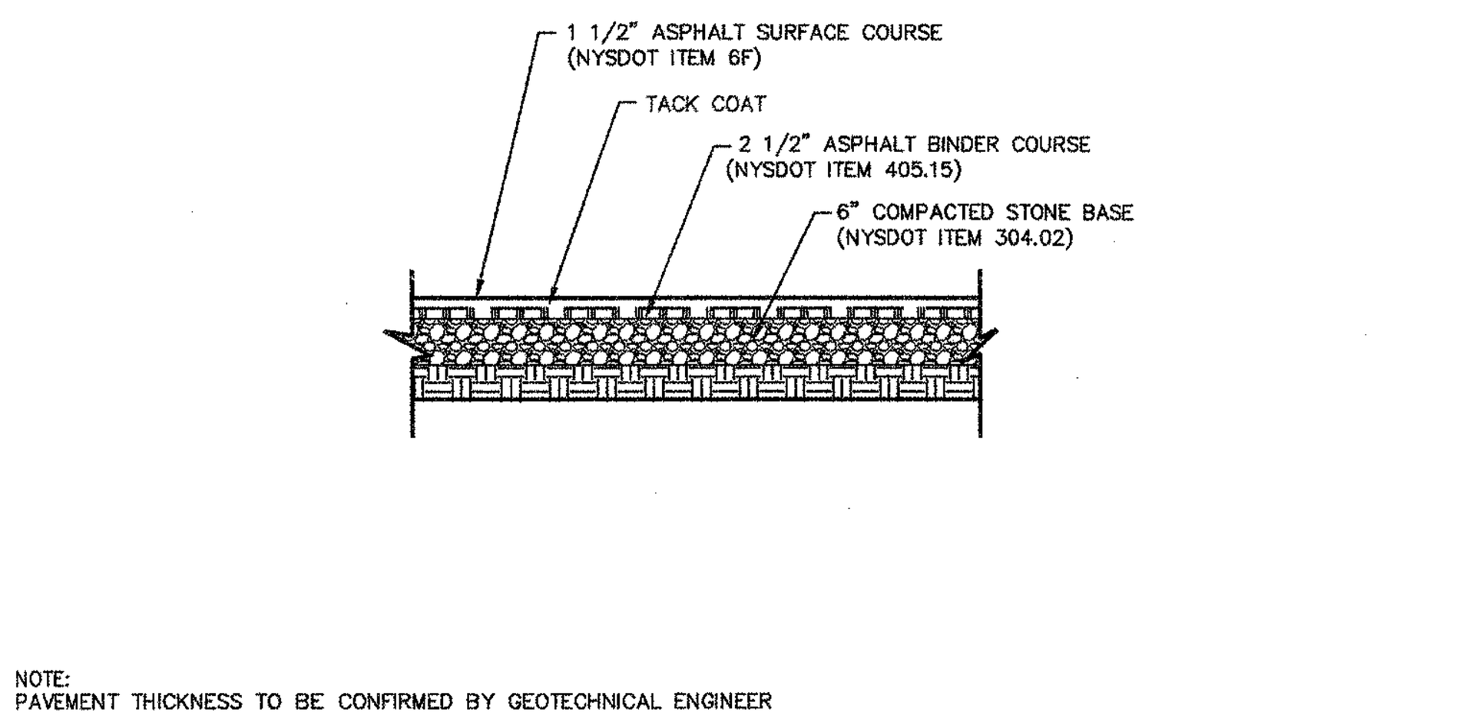
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
DETAIL SHEET

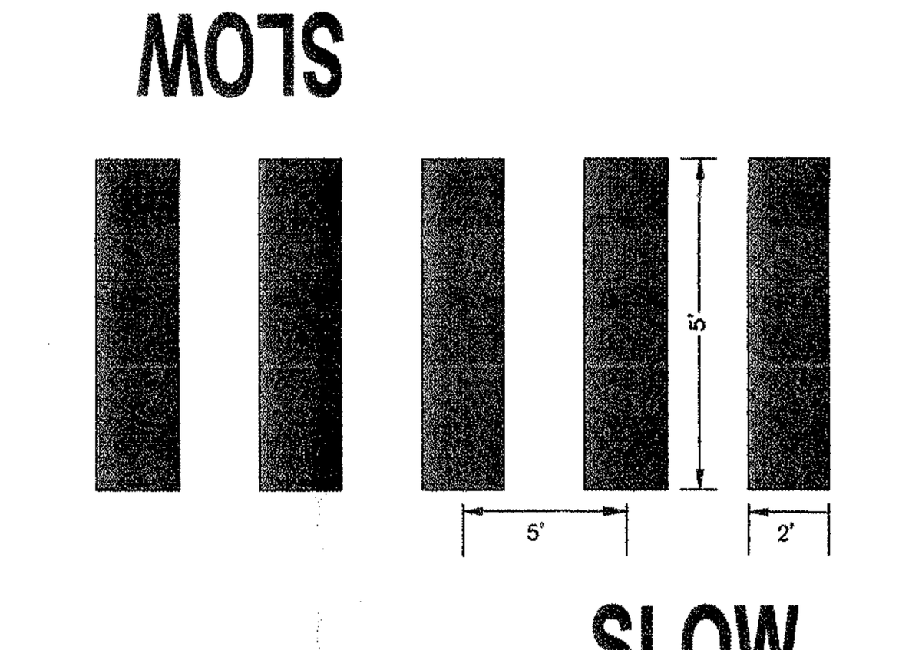
Project No.	9133101	Drawing No.
Date	July 18, 2018	28.02
Scale	NTS	
Drn. By	AEB	



NOTE:
PAVEMENT THICKNESS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

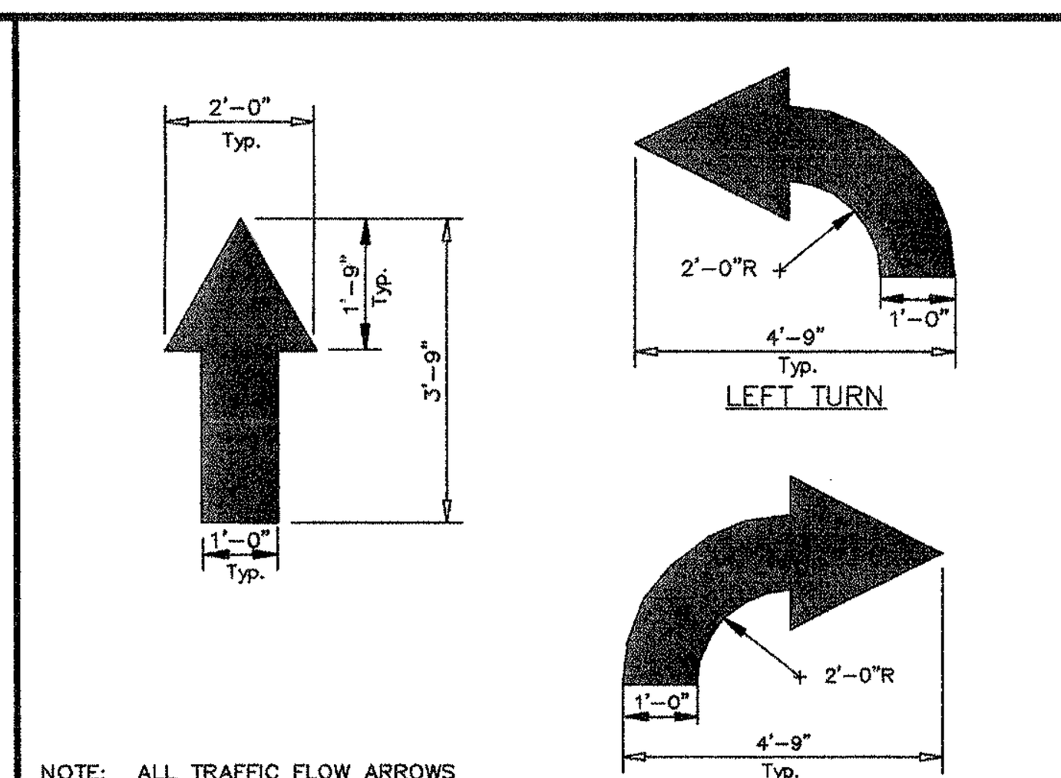
ASPHALT PAVEMENT

NTS



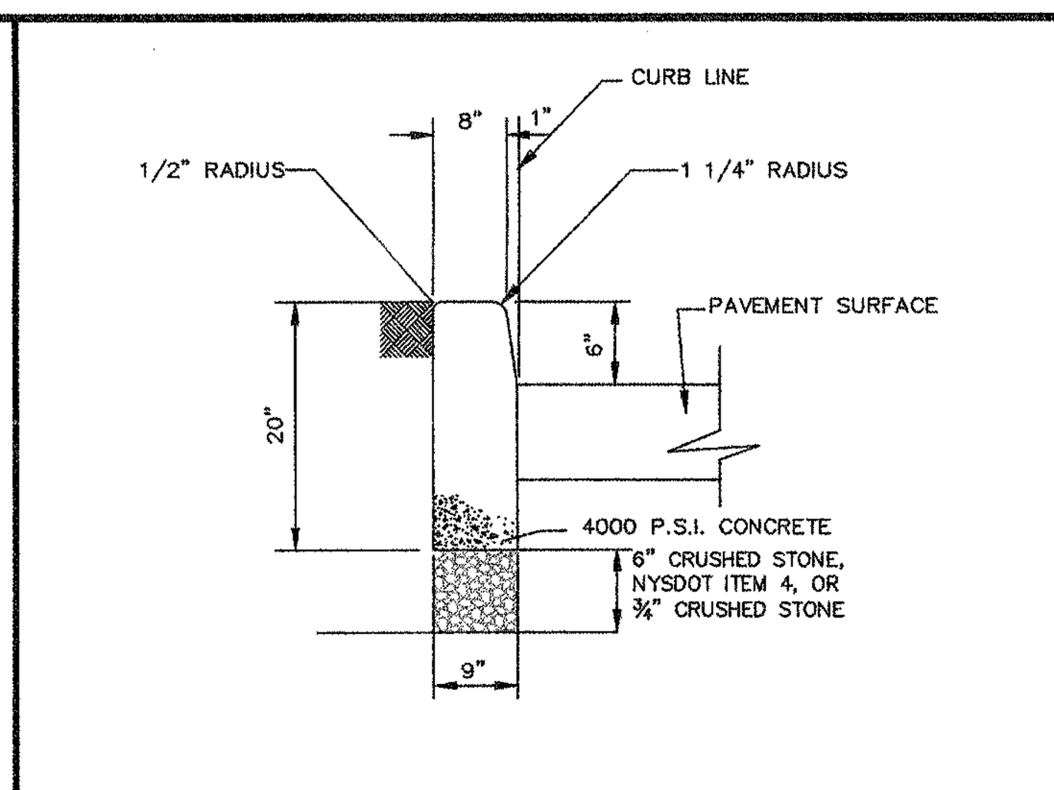
NOTE: CROSSWALK STRIPING TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT.

CROSSWALK MARKINGS



NOTE: ALL TRAFFIC FLOW ARROWS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT PER DIMENSIONS ABOVE.

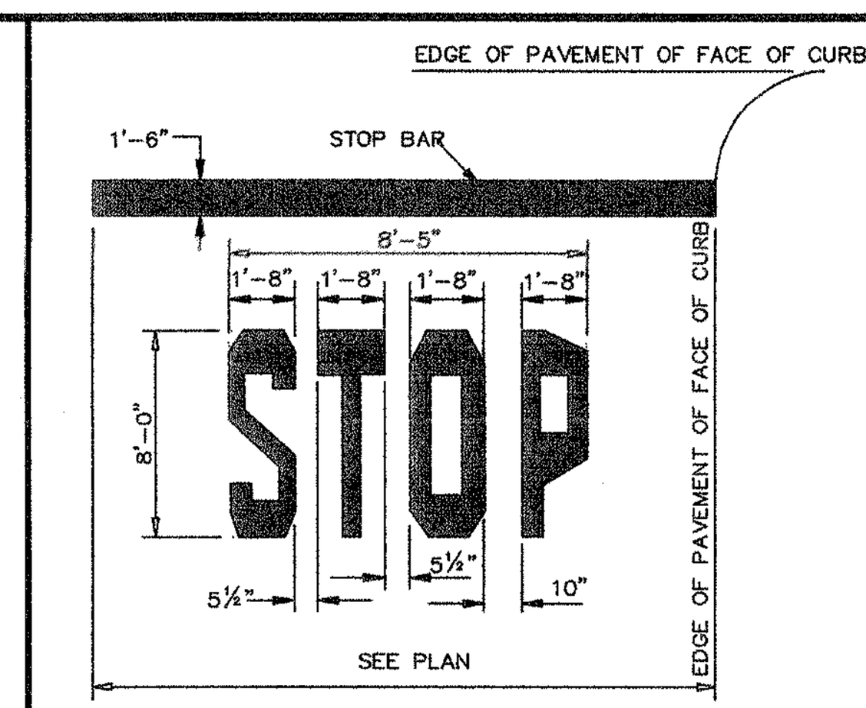
TRAFFIC FLOW ARROW



NOTE: CONCRETE TO TEST 4,000 P.S.I. MINIMUM ON 28 DAY TEST. AIR ENTRAINMENT 4% TO 7%, SLUMP TO BE 3" MAXIMUM. CONCRETE MUST BE STANDARD CONCRETE.

CONCRETE CURB DETAIL

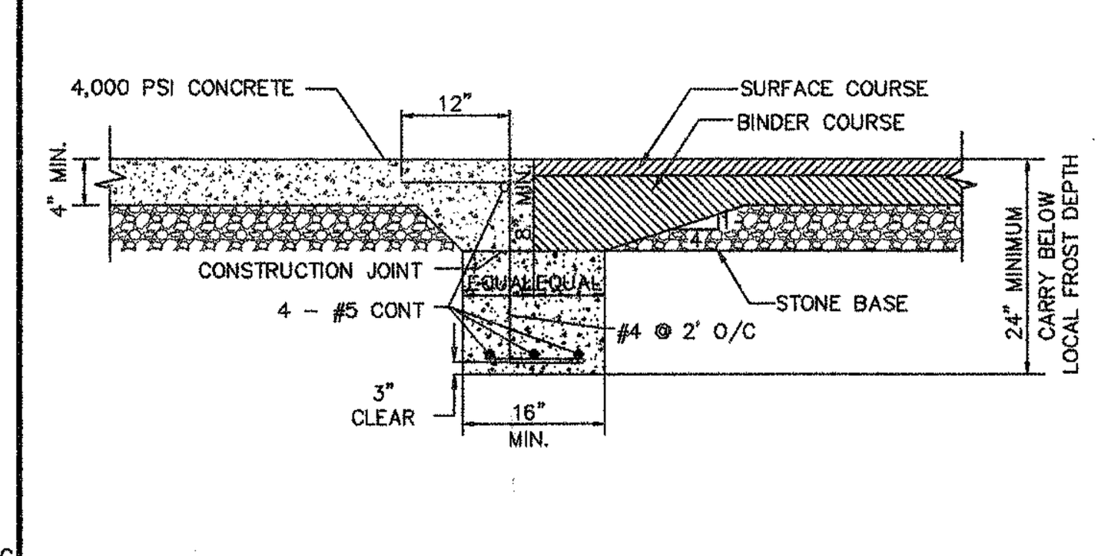
NTS



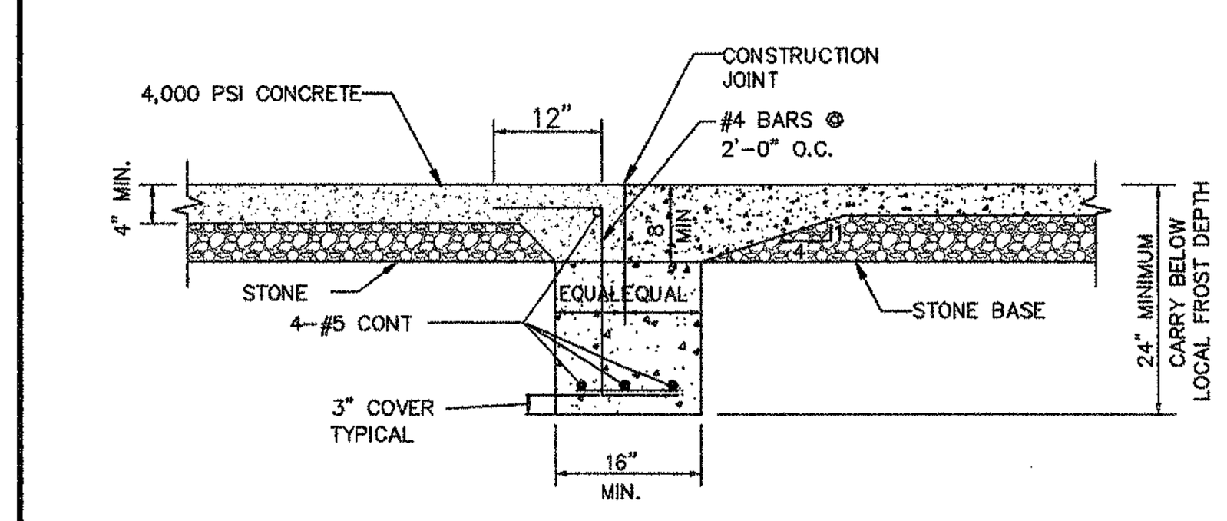
NOTE:
1. WORDS AND ARROWS FOR DRIVEWAYS SHALL BE APPLIED ACCORDING TO REQUIREMENTS AS OUTLINED IN SECTION 3B OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS
2. THESE WORDS AND BAR ARE TO BE PAINTED REFLECTIVE WHITE TRAFFIC PAINT.

STOP BAR

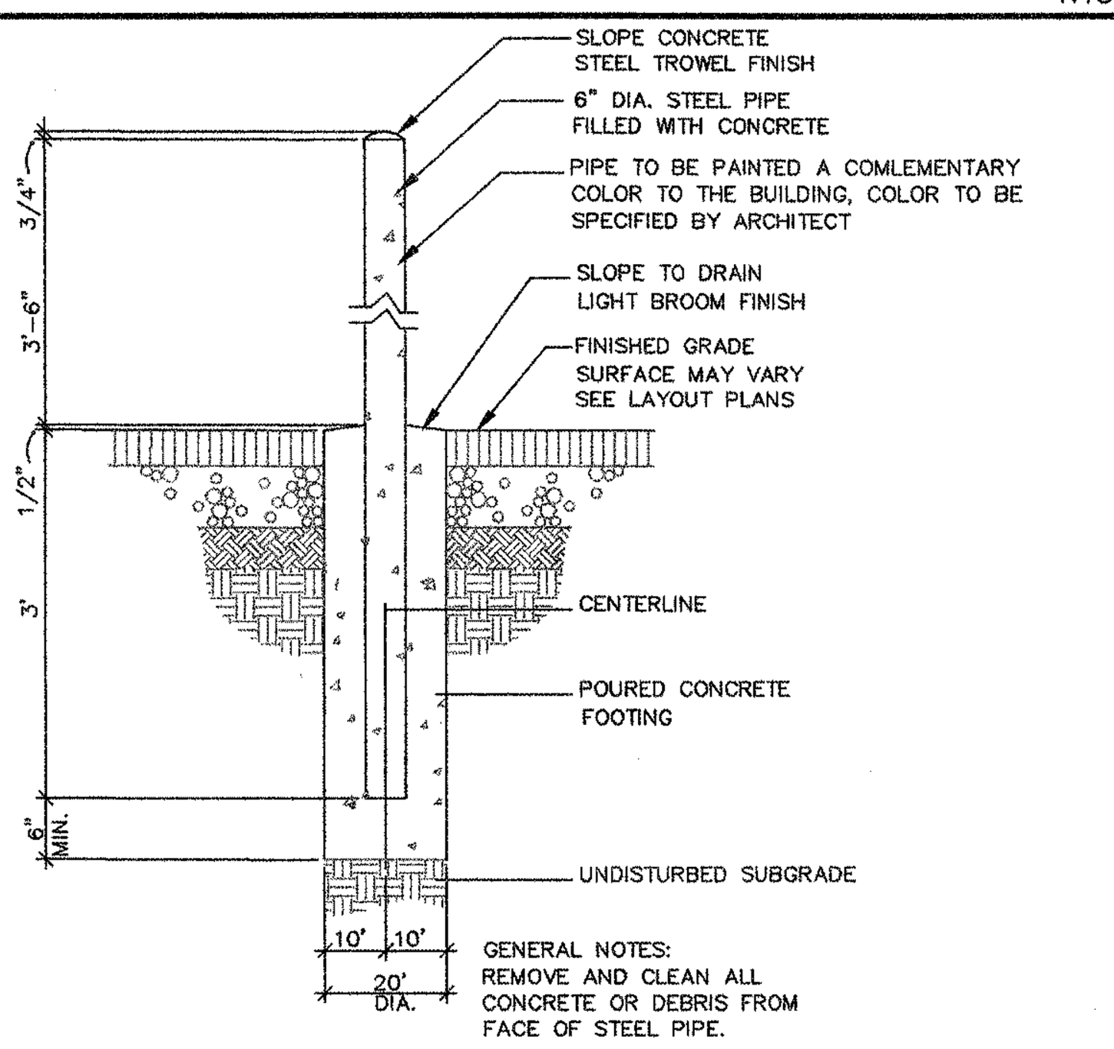
NTS



ASPHALT / CONCRETE JOINT



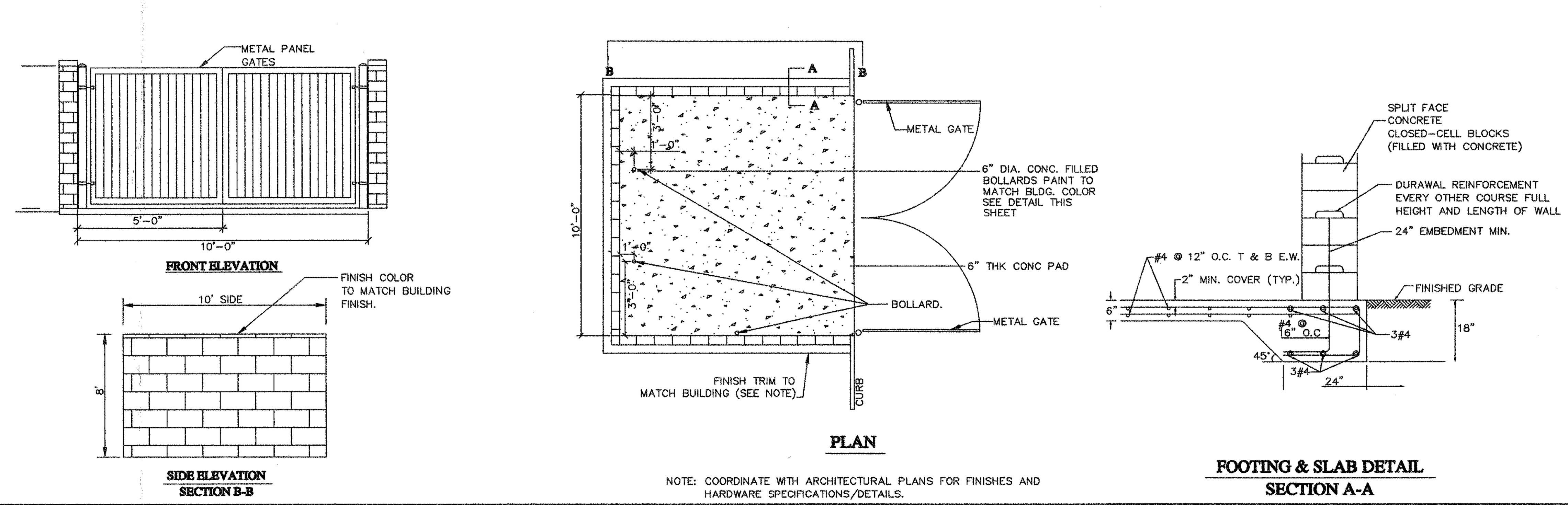
BUILDING SLAB / CONCRETE JOINT



GENERAL NOTES:
REMOVE AND CLEAN ALL CONCRETE OR DEBRIS FROM FACE OF STEEL PIPE.

BOLLARD DETAIL

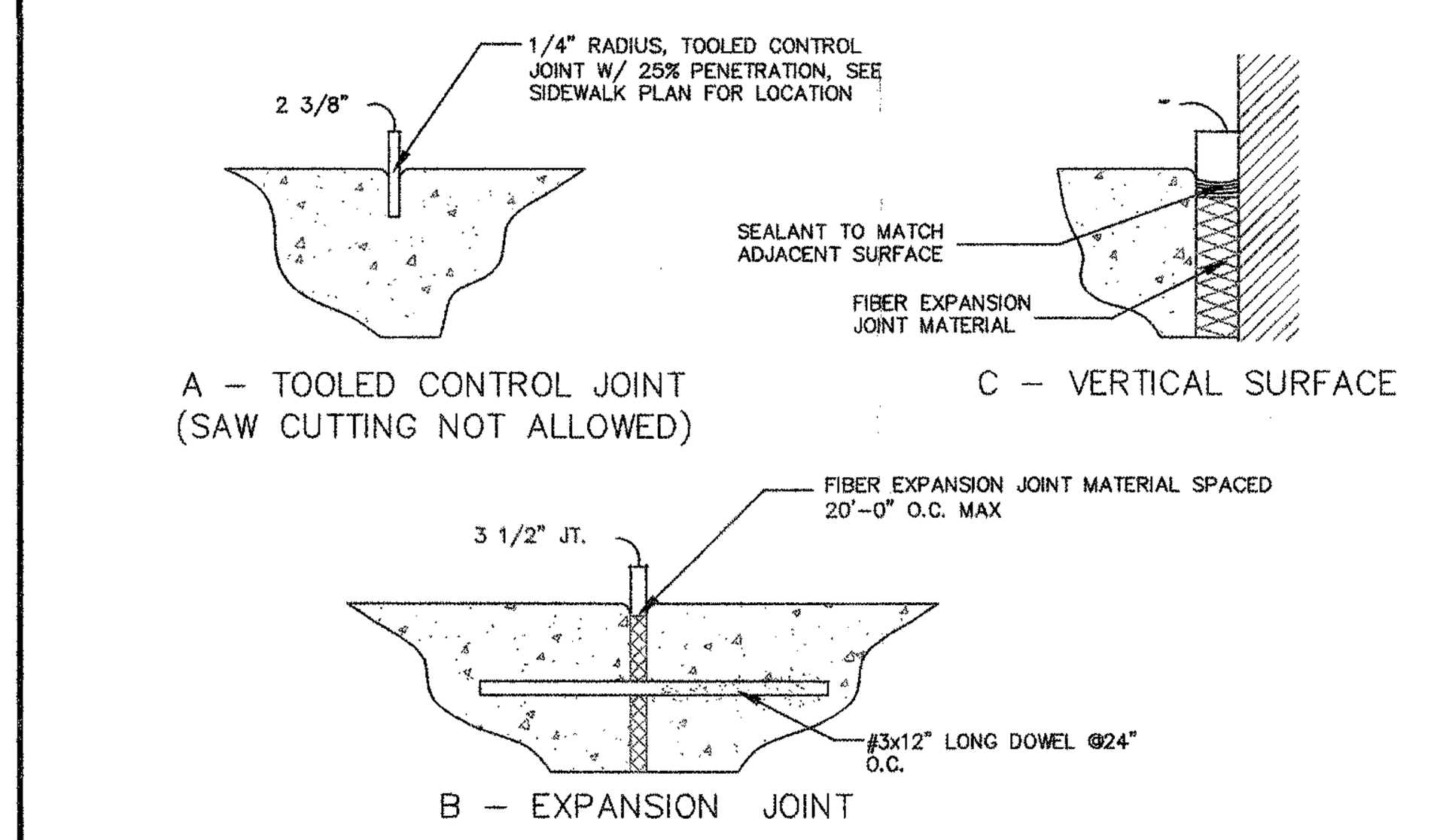
NTS



NOTE: COORDINATE WITH ARCHITECTURAL PLANS FOR FINISHES AND HARDWARE SPECIFICATIONS/DETAILS.

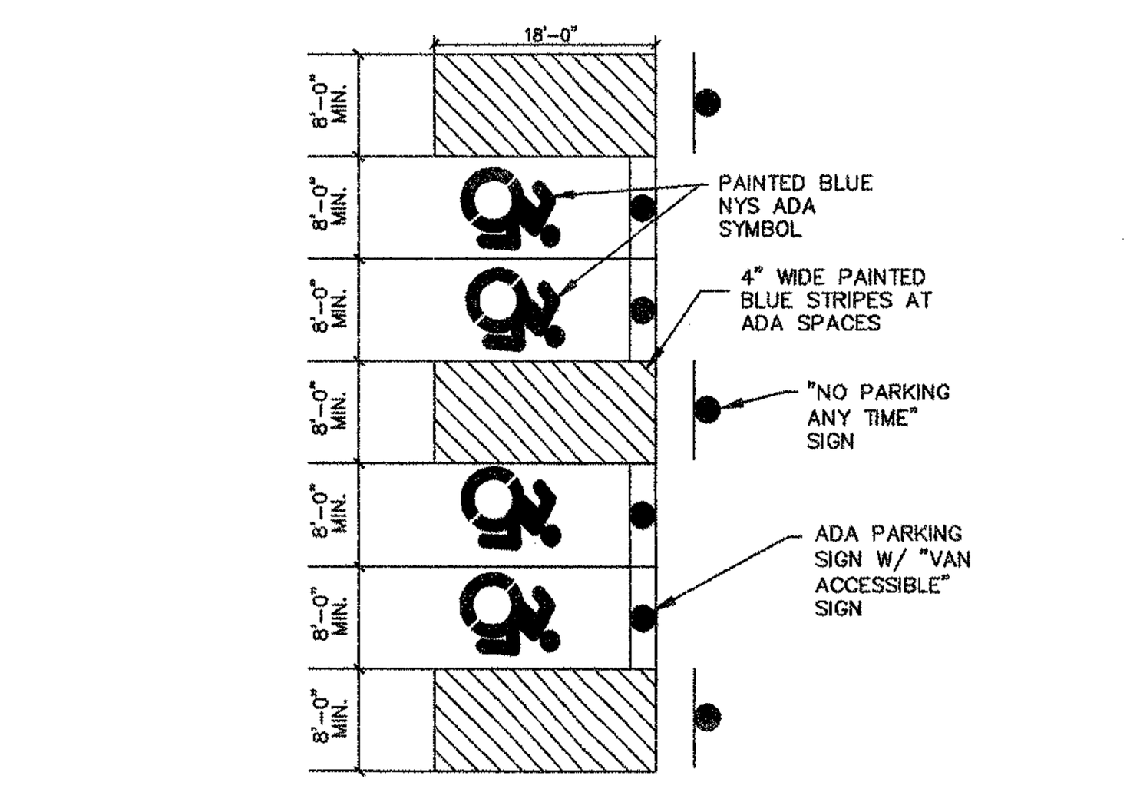
TRASH ENCLOSURE

NTS



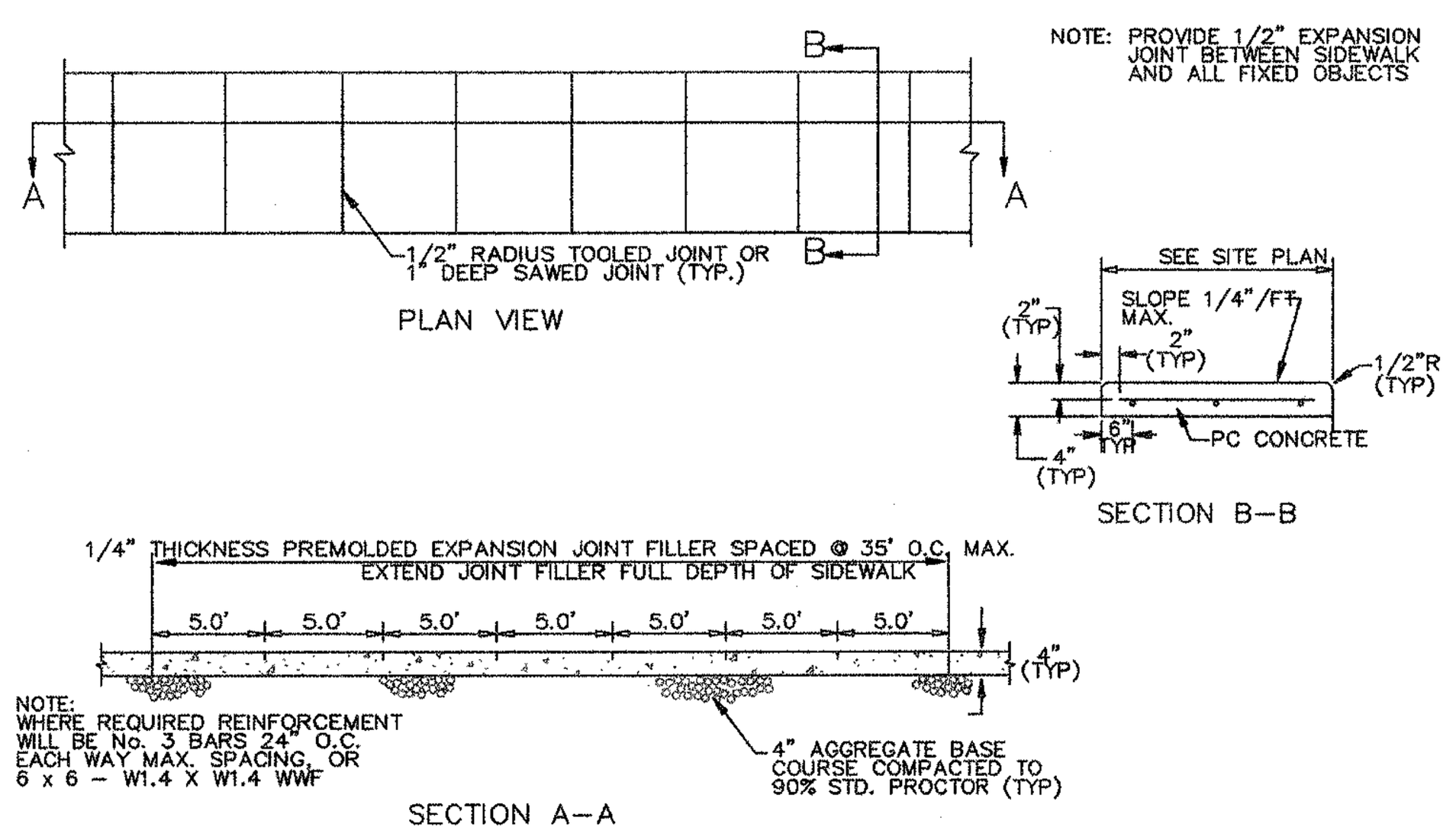
JOINTS AT SIDEWALK

NTS



ADA PARKING DETAIL

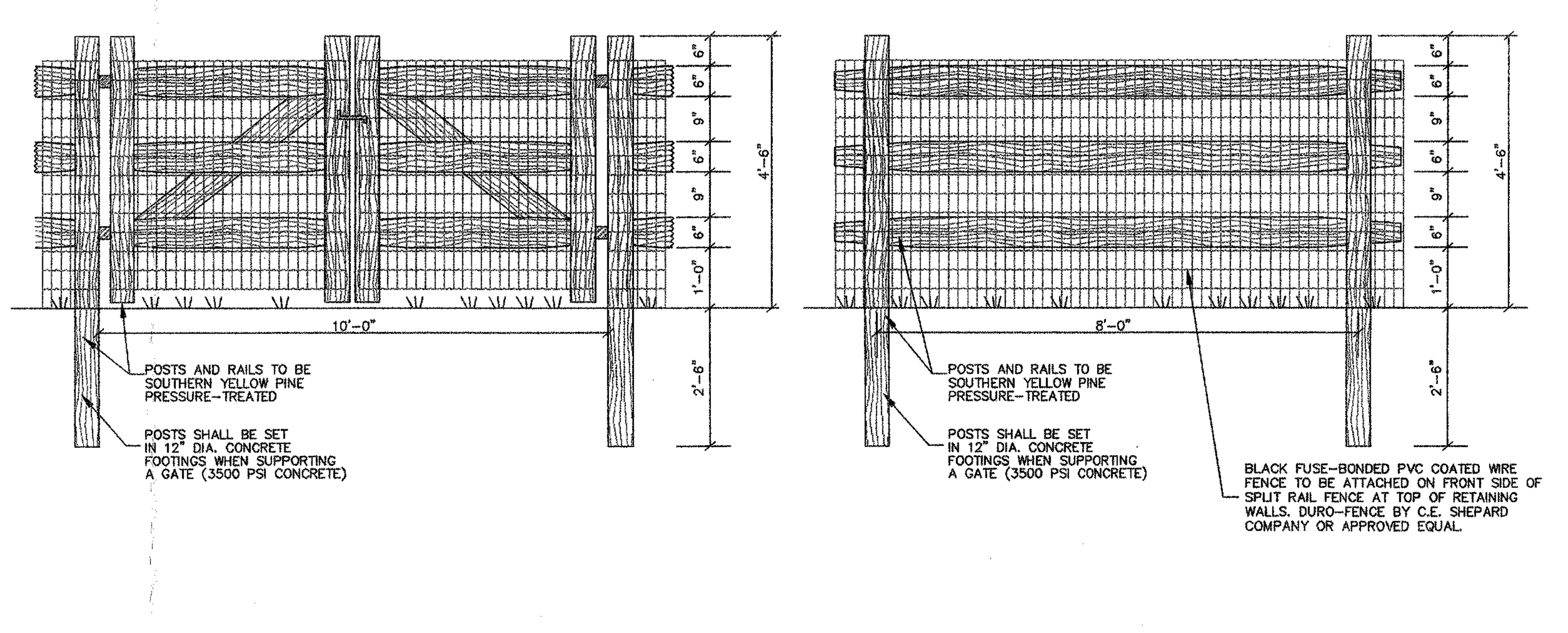
NTS



NOTE:
WHERE REQUIRED REINFORCEMENT WILL BE No. 3 BARS 24" O.C. EACH WAY MAX. SPACING, OR 6 x 6 - W1.4 X W1.4 WWF

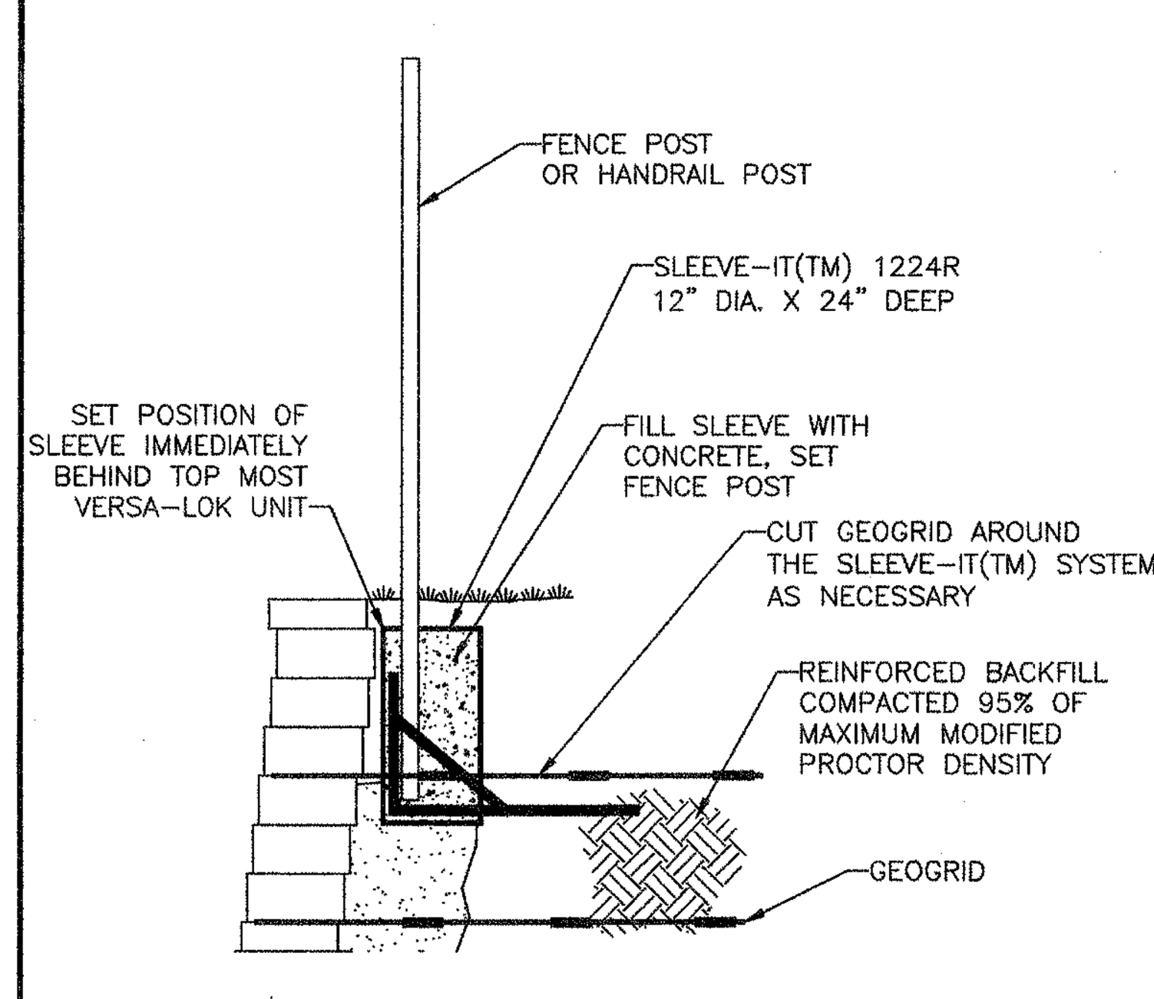
CONCRETE SIDEWALK

NTS



SPLIT-RAIL FENCE & GATE

NTS

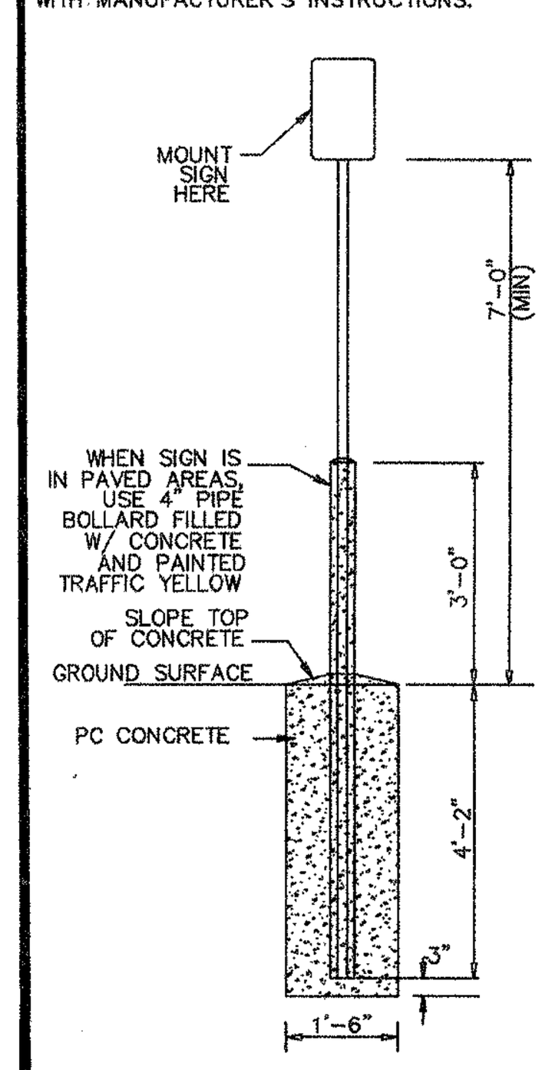


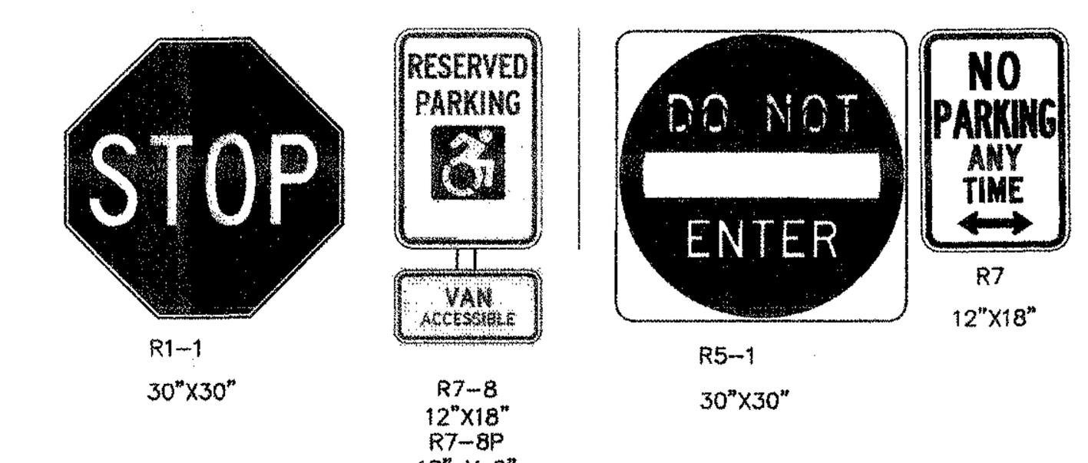
NOTE: DETAIL SHOWN FOR VERSA-LOK MODULAR WALL BUT MAY VARY IF APPROVED EQUAL WALL SYSTEM IS USED.

RETAINING WALL POST DETAIL

NTS

ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.





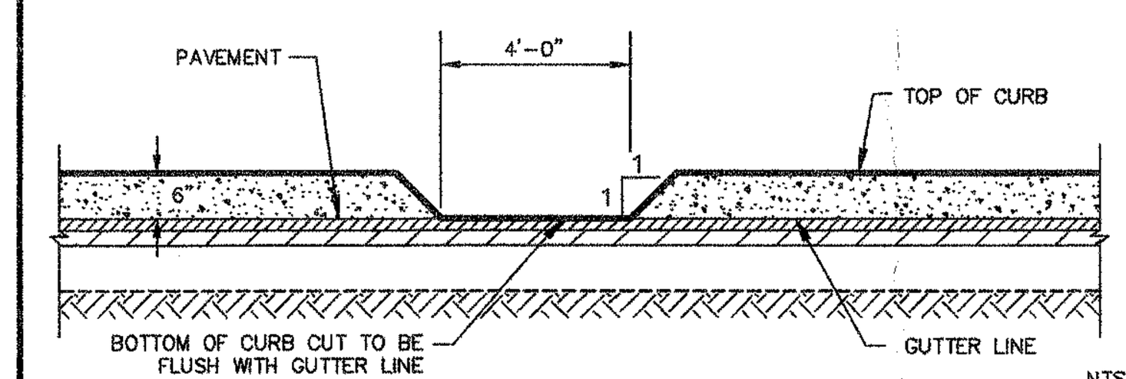
NOTES:

1. ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"
2. ALL POSTS SHALL BE DRIVEN 4'-2" MINIMUM BELOW GRADE.
3. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT, AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. SPECIFICATION A123-78 (OR LATEST REVISED).
4. POSTS MAY BE STEEL, ALUMINUM, OR TWO PIECE U-POST.
5. SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBERS AS SHOWN ON THIS DETAIL AND DIRECTIONAL SIGN SHEET.
6. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT.
7. ALL TRAFFIC AND PEDESTRIAN SIGNAGE AND LOCATION SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL CURRENT AMENDMENTS.
8. PER MUTCD "WHEN SIGNS WITH ARROWS ARE USED TO INDICATE THE EXTENT OF THE RESTRICTED ZONES, THE SIGNS SHOULD BE SET AT AN ANGLE OF NOT LESS THAN 30 DEGREES OR MORE THAN 45 DEGREES WITH THE LINE OF TRAFFIC FLOW IN ORDER TO BE VISIBLE TO APPROACHING TRAFFIC."
9. A MINIMUM 7'-0" CLEARANCE MUST BE PROVIDED AT ALL TRAFFIC SIGN POSTS INCLUDING THOSE WITH MULTIPLE SIGNS.

NTS

TYPICAL TRAFFIC SIGN

STRUCTURES SHOWN ON THESE DRAWINGS INCLUDING BUT NOT LIMITED TO, DRAINAGE STRUCTURES (INLETS, CATCH BASINS AND MANHOLES), SANITARY MANHOLES, METER PITS AND UNDERGROUND VAULTS ARE NOT STRUCTURALLY DESIGNED. THE DETAILS PROVIDE TYPICAL DIMENSIONS, LOCATIONS OF THE PIPE PENETRATIONS, PIPE INVERTS AND GROUND ELEVATIONS AT THE STRUCTURE RIM OR GRATE ONLY, THE STRUCTURAL DESIGN INCLUDING WALL AND SLAB THICKNESS AS WELL AS REINFORCING SHALL BE THE RESPONSIBILITY OF THE PRECAST MANUFACTURER TO MEET DEPARTMENT OF TRANSPORTATION STANDARDS AND HS-20 OR HS-25 LOADING REQUIREMENTS WHEN POSITIONED IN TRAVELED WAYS.



FLUSH CURB OPENING

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL DETAILS TO THE OWNER'S ENGINEER FOR REVIEW.

CONTRACTOR SUBMITTAL NOTE

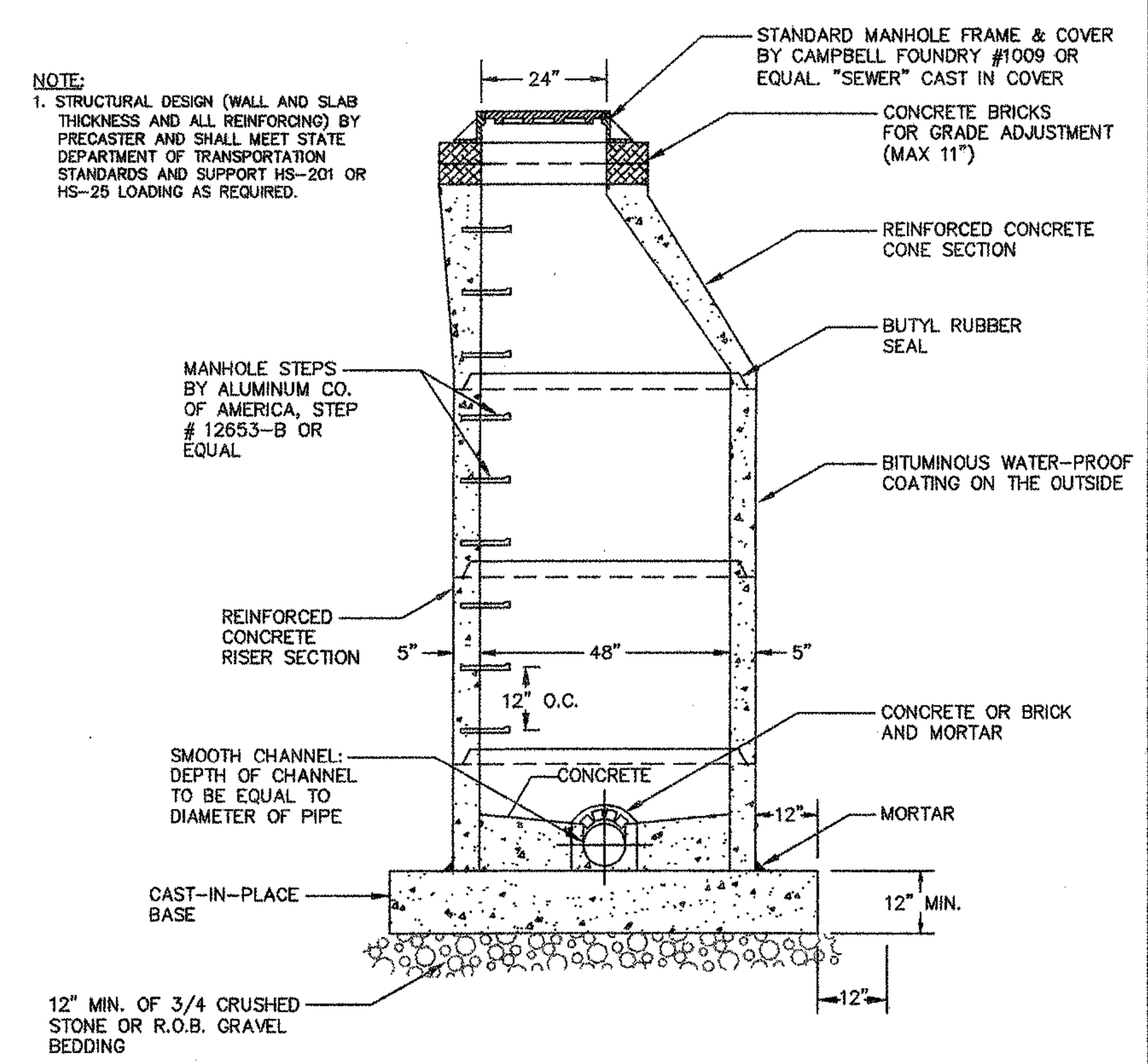
TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT #

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

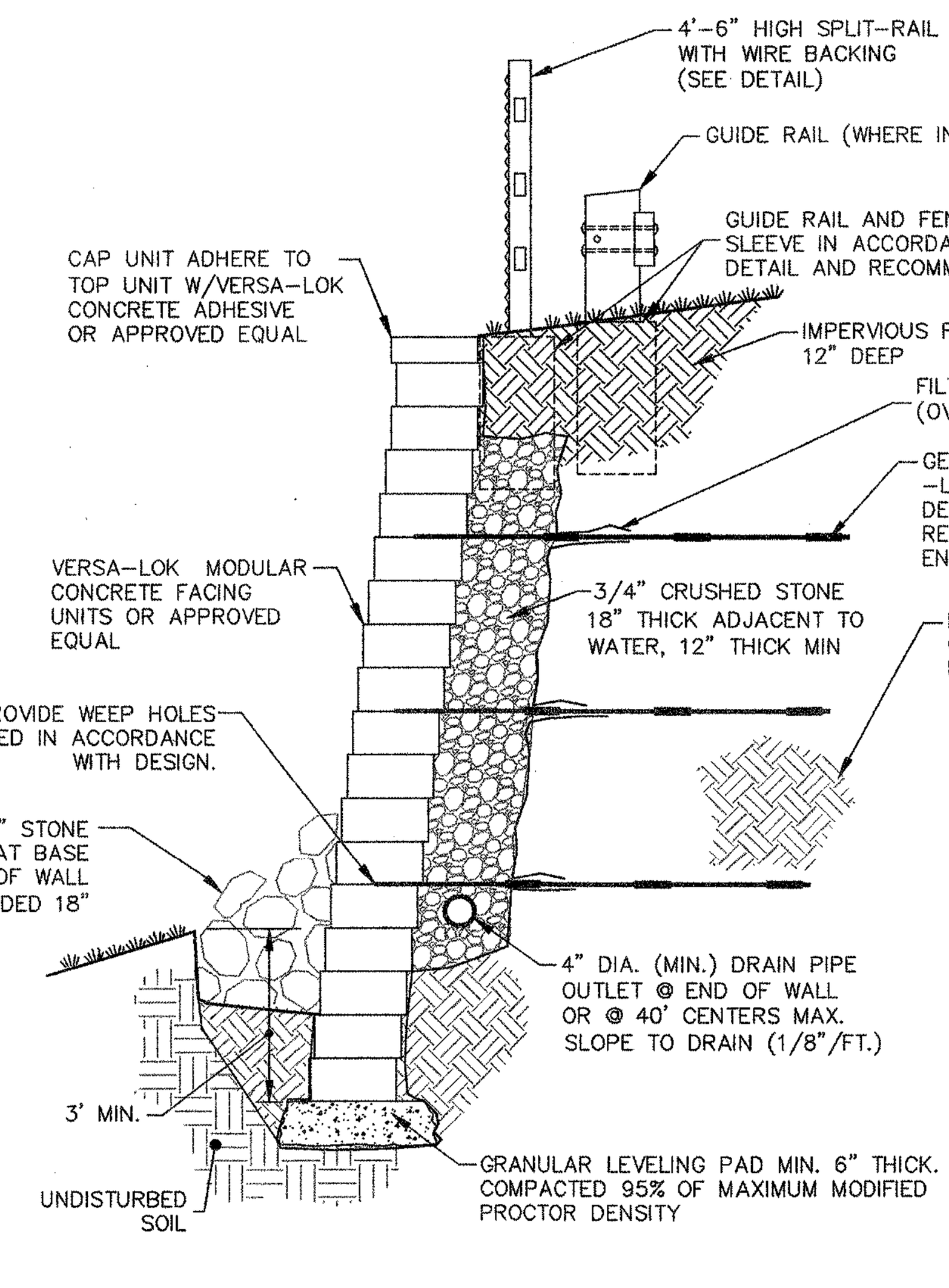
DATE

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

NOTE:
1. STRUCTURAL DESIGN (WALL AND SLAB THICKNESS AND ALL REINFORCING) BY PRECASTER AND SHALL MEET STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SUPPORT HS-20 OR HS-25 LOADING AS REQUIRED.



DOGHOUSE MANHOLE



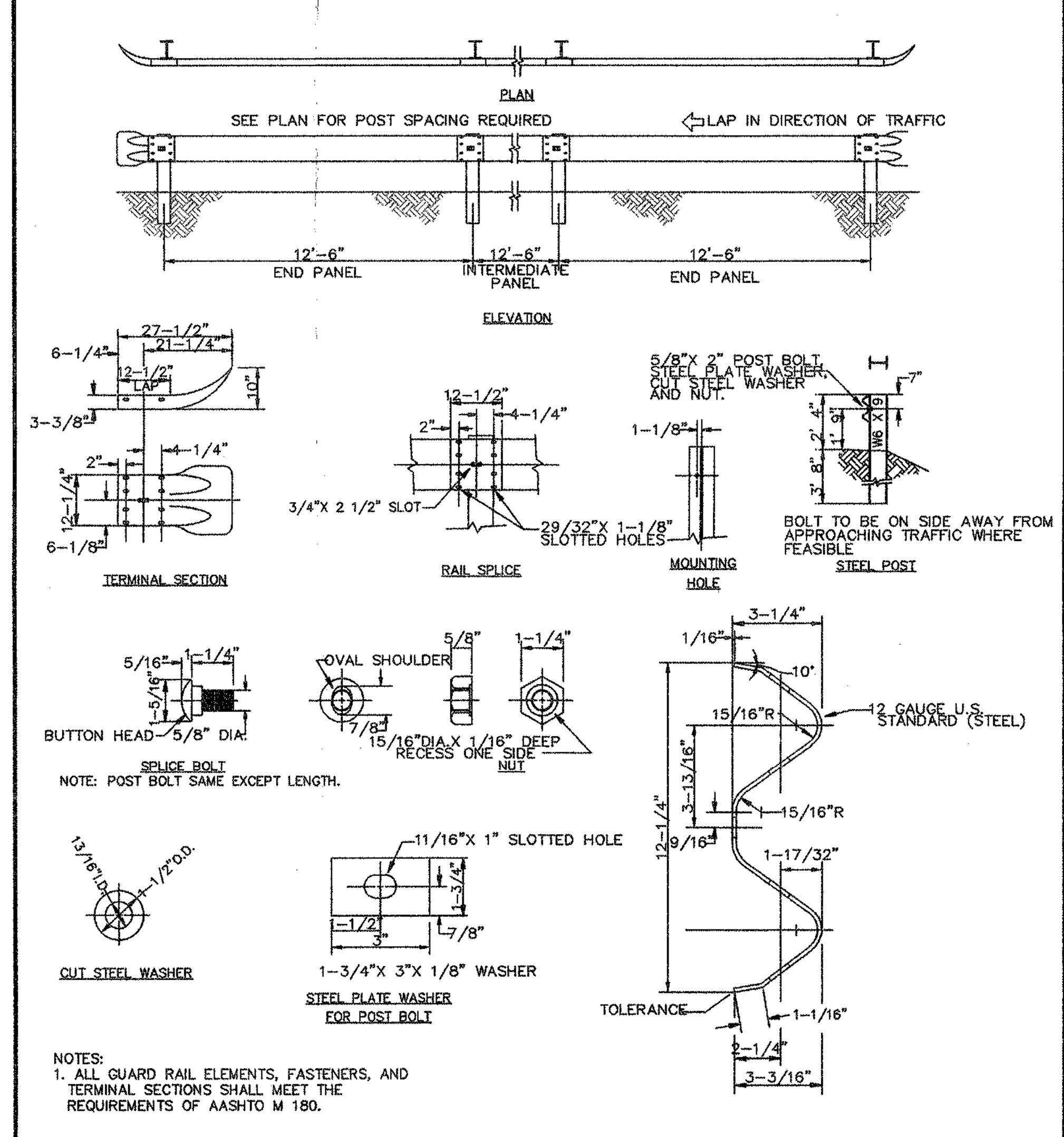
NOTE:
1. WALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. CONTRACTOR TO PROVIDE ACTUAL WALL DESIGN, FOR ALL WALLS IN EXCESS OF 4 FEET HEIGHT, SIGNED AND SEALED BY NEW YORK STATE LICENSED ENGINEER FOR REVIEW AND APPROVAL BY TOWN OF NEWBURGH CODE DEPARTMENT PRIOR TO WALL CONSTRUCTION.

3. COLORS OF RETAINING WALL ARE TO BE EARTHTONE.

RETAINING WALL

NTS



NOTES:
1. ALL GUARD RAIL ELEMENTS, FASTENERS, AND TERMINAL SECTIONS SHALL MEET THE REQUIREMENTS OF AASHTO M 180.

STEEL GUIDE RAIL

NTS

Date	Description	No.
8/22/2018	REVISED PER TOWN COMMENTS	1.

Revisions

AUG 2 2 2018

BRYAN M. WAISNOR
PROFESSIONAL ENGINEER NY LIC No. 080661-1

LANGAN
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
DETAIL SHEET

Project No. 9133101
Date July 18, 2018
Scale AS SHOWN
Drn. By AEB
Drawing No. 28.01

LIGHTING NOTES:

GENERAL

1. POINT-BY-POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE TO IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY STANDARD LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP / DIRT DEGRADATION ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY STANDARD LLF IN ACCORDANCE WITH GUIDANCE AS PROVIDED BY IESNA. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR ADJACENT LIGHT SOURCES AND/OR OTHER POTENTIAL IMPACTS HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS-BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS.NO GUARANTEE OF LIGHT LEVELS IS EXPRESSED OR IMPLIED BY THE POINT BY POINT CALCULATIONS SHOWN ON THESE PLANS.
2. LIGHT LEVEL POINT SPACING IS 20 FT. LEFT TO RIGHT AND 20 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON THE LIGHT LOSS FACTOR AS STATED IN THE LIGHTING SCHEDULE.

COMPLIANCE

3. ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.
4. LIGHTING LAYOUT COMPLIES WITH THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) SAFETY STANDARDS FOR LIGHT LEVELS.

COORDINATION

5. CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO ENSURE ALL SITE LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.
6. REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.
7. CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
8. INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH ALL SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK.
9. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING EXCAVATIONS.

POLES AND FOOTINGS

10. PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND/OR IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO CAST-IN-PLACE CONCRETE. THE USE OF ALTERNATE LIGHTING FOUNDATIONS, SUCH AS PRECAST, MAY CHANGE THE SIZING AND REINFORCEMENT REQUIREMENTS FROM THOSE SHOWN ON THESE PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING ANY SUBSTITUTED PRODUCTS.
11. CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERTED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNSATISFACTORY CONDITIONS.
12. POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.
13. ALL POLES HIGHER THAN 25 FT.SHALL BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENERS.

WALL MOUNTED FIXTURES

14. CONTRACTOR TO COORDINATE INSTALLATION OF ALL THE WALL MOUNTED FIXTURES AND ELECTRICAL CONNECTIONS TO SITE STRUCTURE(S) WITH BUILDING M&P, ARCHITECT, AND/OR OWNER.
15. INSTALLATION AND ELECTRICAL CONNECTIONS FOR WALL MOUNTED FIXTURES TO BE COORDINATED WITH ARCHITECTURAL, STRUCTURAL, UTILITY AND SITE PLANS AND TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES.

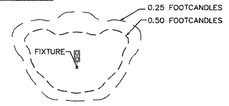
ADJUSTMENT AND INSPECTION

16. CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.
17. CONTRACTOR TO AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.
18. CONTRACTOR TO CONFIRM THAT LIGHT FIXTURES, TILT ANGLE AND AIMING MATCH SPECIFICATIONS ON THE PLANS.

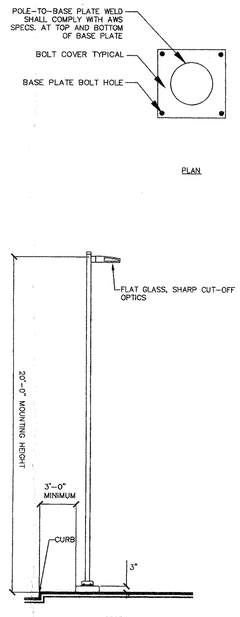
REQUIREMENTS FOR ALTERNATES

19. ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING REQUIREMENTS:
   A. ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER AND TENANTS. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR
   B. COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES, BY ISOFOOTCANDLE, THE SYSTEM'S PERFORMANCE.
   C. A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS, IES CALCULATIONS, POINT BY POINT FOOT CANDLE PLAN, STATISTIC ZONES SHOWING AVERAGE, MAXIMUM, MINIMUM AND UNIFORMITY RATIOS, SUMMARY, ISOLUX PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS, WATTAGE, VOLTAGE, FINISH HOUSING DESCRIPTION AND ALL OTHER PERTINENT INFORMATION.
   D. POLE MANUFACTURER AASHTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
   E. THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE UTILIZED.
   F. A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.

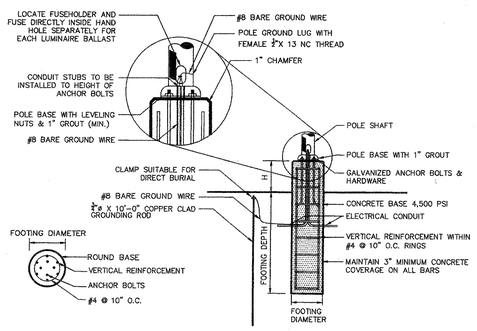
PHOTOMETRIC LIGHTING TEMPLATE:



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE AND DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.



LIGHT FIXTURE AND POLE



MOUNTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	VERTICAL REINFORCEMENT	'H'
20'-0"	4'-6"	2'-0"	6 #5 BARS	3"

NOTES:

1. SHAFT CAP, ARMS, BASE FLANGE, ANCHOR BOLTS, LEVELING NUTS, CONNECTION HARDWARE, BOLT COVERS, HANDHOLE COVER, AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED BY POLE MANUFACTURER.
2. EACH STANDARD TO BE PROTECTED AGAINST LIGHTNING WITH AN INTERCONNECTED GROUND ROD. THIS ROD SHALL BE BONDED PER SECTION NUMBER 250-86, N.E.C.
3. CONTRACTOR TO ENSURE CONCRETE POLE BASES ARE POURED / PLACED ABSOLUTELY VERTICAL & LEVEL.
4. POLE BASE SHALL BE ONE CONTINUOUS POUR. EXPOSED PORTION OF BASE SHALL BE HAND-RUBBED SMOOTH.
5. CONTRACTOR TO COMPACT SUBGRADE AROUND POLE BASE PER EARTHWORK SPECIFICATIONS / GEOTECH REPORT.
6. THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.

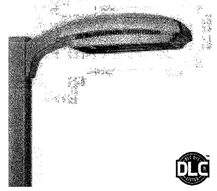
LIGHT POLE BASE

PHILIPS
GARDCO

Site & Area

Gullwing LED

Large GLI8



LED

DLC

Project:
Location:
Cat.No:
Type:
Qty:
Notes:

Philips Gardco **Gullwing LED** luminaires combine LED performance excellence and advanced Gardco **LED thermal** management technology with the distinct Gullwing style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing.

Ordering guide **Example:** GLI8-APD-1-4-80LA-4853-NW-120-BRP-LF

Prefix	Controls	Mounting	Optical System[9]	Wattage	LED Color	Voltage	Finish	Options
GLI8 18" Gullwing LED Luminaire Constant Wattage **GLI8-BK** 18" Gullwing LED Retrofit Kit	— Gullwing Standard Luminaire **GLI8-DIM** 18" Gullwing LED with 0-10V Dimming **GLI8-APD**[1] 18" Gullwing LED with Autocastic Profile Dimming **GLI8-MRSO**[2,3,6] 18" Gullwing LED with Motion Response - 50% Low (pole mounted sensor) **GLI8-APD-MRO**[2,3,4] 18" Gullwing LED with APD with Motion Response Override (pole mounted sensor) **GLI8-MRR**[2,4] 13" Gullwing LED with Motion Response at 50% Low (luminaire mounted sensor) **GLI8-APD-MRR**[2,4] 13" Gullwing LED with APD with Motion Response Override (luminaire mounted sensor) **Wireless systems** (Remote wireless controller available.) **LLC2**[2,4,7] #2 lens for 8'-mounting heights **LLC3**[2,4,7] #3 lens for 9-20' mounting heights **LLC4**[2,4,7] #4 lens for 21-40' mounting heights **Network system (SiteWise)** **SW**Integral module[2,8] **SW-MRI3** luminaire mounted sensor option Type 3 **SW-MRI7** luminaire mounted sensor option Type 7 **SW-MRO** pole mounted sensor option	**1** Single **2** 2 @ 180° **2@90** 2 @ 90° **3** 3@90° **3@120** 3@120° **4** 4@90° **W** Wall Mount, Recessed J-Box **WS** Wall Mount, Surface Conduit	**2** Type 2 **2-90** Type 2@90° **2-270** Type 2@270° **3** Type 3 **3-90** Type 3@90° **3-270** Type 3@270° **4** Type 4 **4-90** Type 4@90° **4-270** Type 4@270° **5** Type 5	**50LA-4835** 48 LEDs, 350mA **80LA-4853** 48 LEDs, 530mA **105LA-4870** 48 LEDs, 700mA **160LA-481A** 48 LEDs, 1A **180LA-6490** 64 LEDs, 900mA **200LA-641A** 64 LEDs, 1A **200LA-9670** 96 LEDs, 700mA **230LA-968D** 96 LEDs, 800mA **265LA-9690** 96 LEDs, 900 mA **310LA-981A** 96 LEDs, 1A	**NW** Neutral White 4000K, 70 min. CRI **CW** Cool White 5700K, 70 min. CRI **WW** Warm White 3000K, 70 min. CRI	**120** **208** **240** **277** **347** **480** **UNV** (120-277V) **NVU** (347-480V)	**BLP** Black Paint **WP** White Paint **BRP** Bronze Paint **NP** Natural Aluminum Paint **OC** Optional LDC Color *Specify optional color or RAL ex: OC-LGP or OC-RAL7024.* **SC** Special Color Specify. *Must supply color chip. Requires factory quote.*	**F**[1] Fusing **LF**[1] In-Line/In-Pole Fusing **PC**[1,10] Photocontrol and Receptacle (Includes PCR5) **PCR5**[1,11,12] Photocell Receptacle only with 2 dimming connections **PCR7**[1,2,8,9] Photocell Receptacle only with 2 dimming and 2 auxiliary connections **HS** External Housesides Shield **IS** Internal Housesides Shield (types 2, 3, 4 only) **CLR**[1] Clear Glass Lens (reduces performance) **RPA**[1] 3" Round Pole Adapter Required for 3" O.D. round or tapered round poles where top O.D. is less than 4" **RPA**[1] 4" and 5" Round Pole Adapter Required for 4"- 5" O.D. round poles **MA** Mast Arm Fitter - Mounts to a 2-3/8" O.D. mast arm **TR1**[10] Single Transition **TR2**[10] Twin Transition **PTF2**[1] Pole Top Fitter 2 3/8" - 3" Dia. Tenon **PTF3**[1] Pole Top Fitter 3" - 3 1/2" Dia. Tenon **PTF4**[1] Pole Top Fitter 3 1/2" - 4" Dia. Tenon **SQPTF**[12] Square Pole Fitter

1. Available **120-277V** only.
2. Available **120** or **277V** only.
3. **MRSO** and **APD-MRO** luminaires require one motion sensor per pole, ordered separately. See page 2 for accessories.
4. Not available with Retrofit Kits (**GLI8-RK**).
5. **LLC2/LLC3/LLC4/LLP** wireless system not configurable with **PC/PCR5/PCR7** Options. See pages 5-6 for more info.
6. Luminaire door frame and optic assembly provided standard without glass lens. Specify **CLR** option for clear glass lens.
7. Works with 3-pin or 5-pin NEMA photocell/dimming device.
8. If ordered with **DIM, APD, MRI, MRSO, APD-MRI, APD-MRO**, dimming will not be connected to NEMA receptacle.
9. Works with 3-pin or 5-pin NEMA photocell/dimming device and auxiliary connections are not connected (for future use only).
10. Mounts to a 2-3/8" Top Tenon. Specify a round pole with a 4.50" O.D. for a smooth transition.
11. Not available in 120° mounting configurations.
12. Requires a 2-3/8"O.D. x 4" tenon or a 2.4" round pole top O.D. Specify Drilling (1, 2, 2@90, 3 or 4 only)
13. SW option is not available with any other control options with the exception of **SW-MRI3, SW-MRI7** and **SW-MRO** motion response options.

1 LIGHT FIXTURE A, B, C AND D

2 LIGHT POLE

Job:
Type:
Notes:

Poles

Tapered Round Aluminum - Cast Base

The Philips Gardco TRA tapered round aluminum pole consists of a one-piece design fabricated aluminum tubing circumferentially welded to a structural quality hot rolled carbon steel plate. The poles are finished with either Architectural Class I anodizing or electrostatically applied TGIC polyester powdercoat. All poles include anchor bolts, hand hole, ground lug and top cap.

PREFIX	BASE	HEIGHT	DRILLING	FINISH	OPTIONS

Enter the order code into the appropriate box above. Note: Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

TRA	

BASE

CB	Fixed Cast Base

HEIGHT

8'	**25' L,H[1]**
10'	**28' L,H[1]**
12' L,M[1]	**30' L,H[1]**
14' L,M[1]	**35' L,H[1]**
16' L,H[1]	**39' L,H[1]**
20' M,H[1]	

1. Refers to relative strength based on wind load factors. L=Light; M = Medium; H = Heavy.

DRILLING

D1	1 Way
D2	2 Way
D2@90	2 Way at 90°
D3	3 Way
D3@120	3 Way at 120°
D4	4 Way
T2	2 3/8" OD Tenon
T4	4" OD Tenon

FINISH

BRP	Bronze Paint
BLP	Black Paint
WP	White Paint
NP	Natural Aluminum Paint
BRA	Bronze Anodized
BLA	Black Anodized
NA	Natural Anodized
OC	Optional Color Paint *Specify Optional Color or RAL ex: OC-LGP or OC-RAL7024.*
SC	Special Color Paint *Specify. Must supply color chip.*

OPTIONS

DR	Duplex Receptacle
GFCI	Ground Fault Receptacle
VDA	Vibration Dampener

Nipples and Couplings

Indicate size (1/2", 3/4", 1", 1 1/4", 1 1/2".) Indicate height above base and orientation to hand hole. See Pole Orientation Information on Page 4.

NL	Nipple - External thread
CL	Coupling - Internal thread

Single Mount Bullhorn Brackets

Indicate height above base and orientation to hand hole. See Pole Orientation Information on Page 4.

A15BH-19	Single - 1.9" OD
A15BH-24	Single - 2.4" OD
A215BH-19	2-Tenon - 1.9" OD
A215BH-24	2-Tenon - 2.4" OD

Motion Response Provisions

GMR	Provision for Gardco HID Motion Response System *Minimum Pole Height is 18'. Includes a 1/2" coupling placed 180° to the hand hole, 12' above the pole base.*
MSM	Motion Sensor Mounting Provision for LED Luminaires available with Motion Response *Minimum Pole Height is 18'. Includes a special hand hole with 1/2" coupling placed in the cover plate, 180° to the hand hole, 15' above the pole base.*

1611 Clovis Barker Road, San Marcos, TX 78666
(800) 227-0758 (512) 753-1000 FAX: (512) 753-7855 sitelighting.com

79415-24/0611

PHILIPS
GARDCO

PLANNING BOARD TRACKING NO. 2007-05

Date	Description	No.
8/22/2018	REVISED PER TOWN COMMENTS	1.
	Revisions	

MICHAEL SQURA
NY Registered Landscape Architect No. 001901-1

LANGAN
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
LIGHTING SCHEDULE, NOTES, AND DETAILS

Project No. 9133101	Drawing No.
Date JULY 18, 2018	25.02
Scale AS SHOWN	
Drn. By YZ	
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NOTE:
AT LEAST 3 DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY CONTACT: "CALL BEFORE YOU DIG" 1-800-962-7962.

SITE LIGHTING SCHEDULE

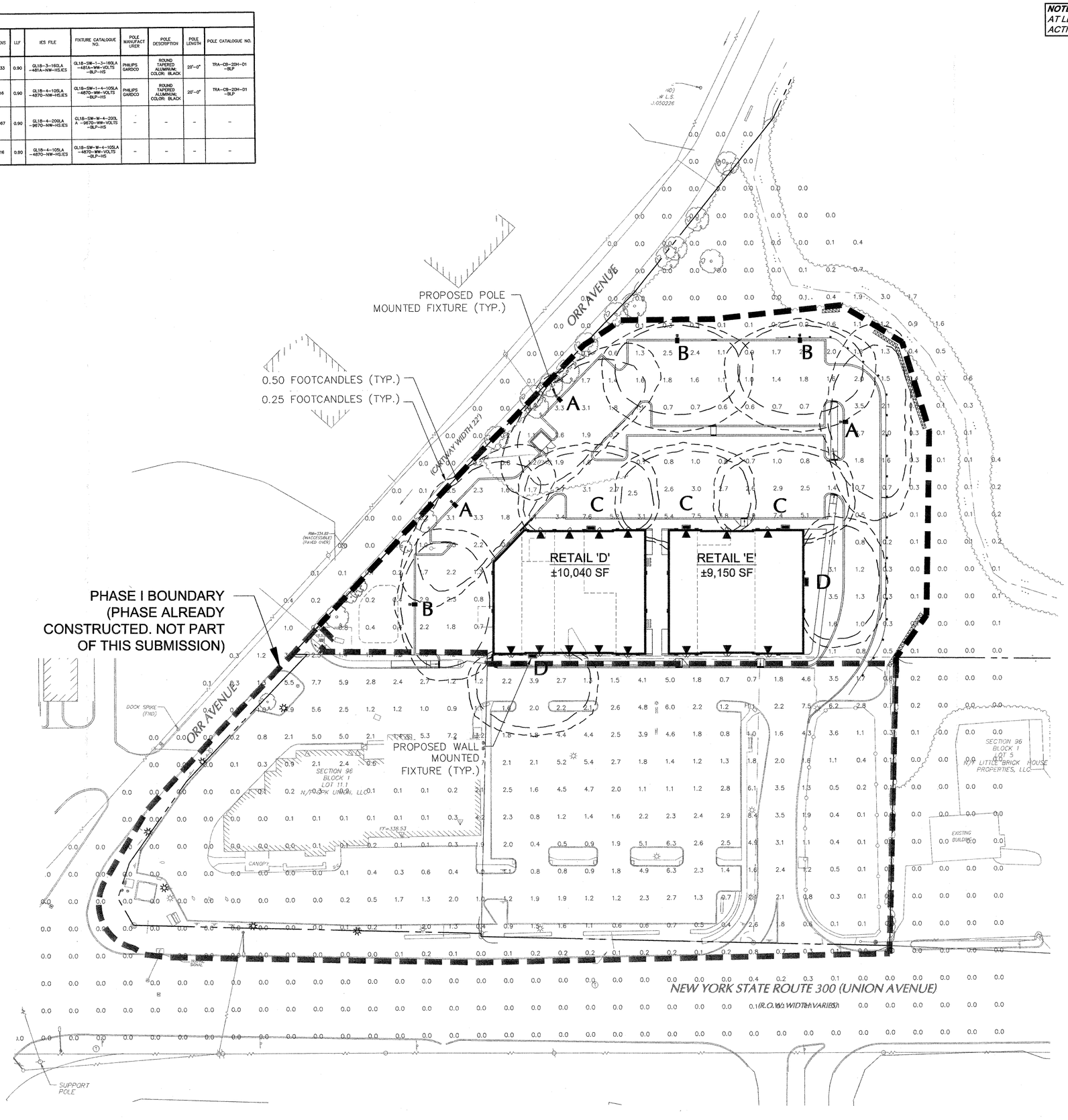
SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	LAMP	OPTICS	LUMENS	LLF	IES FILE	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.
!	A	3	PHILIPS GARDCO	GULLWING LED GL18	POLE MOUNTED SINGLE AREA LIGHT FIXTURE; COLOR – BLACK	20'-0"	160W LED 3000K	TYPE III	10,533	0.90	GL18-3-160LA-481A-NW-HS.IES	GL18-3W-1-3-160LA-481A-NW-VOLTS-BLP-HS	PHILIPS GARDCO	ROUND TAPERED ALUMINUM; COLOR: BLACK	20'-0"	TRA-CB-20H-D1-BLP
!	B	3	PHILIPS GARDCO	GULLWING LED GL18	POLE MOUNTED SINGLE AREA LIGHT FIXTURE; COLOR – BLACK	20'-0"	105W LED 3000K	TYPE IV	8,316	0.90	GL18-4-105LA-4870-NW-HS.IES	GL18-4W-1-4-105LA-4870-NW-VOLTS-BLP-HS	PHILIPS GARDCO	ROUND TAPERED ALUMINUM; COLOR: BLACK	20'-0"	TRA-CB-20H-D1-BLP
▬	C	3	PHILIPS GARDCO	GULLWING LED GL18	WALL MOUNTED SINGLE AREA LIGHT FIXTURE; COLOR – BLACK	16'-0" (COORDINATE EXACT HEIGHT WITH ARCHITECT)	200W LED 3000K	TYPE IV	15,967	0.90	GL18-4-200LA-9670-NW-HS.IES	GL18-5W-W-4-200LA-9670-NW-VOLTS-BLP-HS	–	–	–	–
▬	D	2	PHILIPS GARDCO	GULLWING LED GL18	WALL MOUNTED SINGLE AREA LIGHT FIXTURE; COLOR – BLACK	16'-0" (COORDINATE EXACT HEIGHT WITH ARCHITECT)	105W LED 3000K	TYPE IV	8,316	0.90	GL18-4-105LA-4870-NW-HS.IES	GL18-5W-W-4-105LA-4870-NW-VOLTS-BLP-HS	–	–	–	–

NOTES:
1. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING VOLTAGES.
2. ALL FIXTURES SHALL BE FULL CUT OFF, EMITTING ZERO UP-LIGHT ABOVE THE 90°PLANE.
3. ALL POLES 20 OR MORE FEET TALL SHALL RECEIVE FACTORY INSTALLED VIBRATION DAMPENERS.

STATISTICS

DESCRIPTION	AVG.	MAX.	MIN.	MAX./MIN.	AVG./MIN.
PHASE 2 CAR PARKING	2.2fc	7.6fc	0.6fc	12.7:1	3.7:1
PROPERTY LINE	0.1fc	0.4fc	0.0fc	N/A	N/A

NOTES:
LIGHTING PHOTOMETRY AND CALCULATIONS FOR EXISTING AND ADJACENT LIGHTING TO REMAIN ARE NOT INCLUDED IN THE ABOVE STATISTICS.



NOTE: REFER TO SHEET 25.02 FOR LIGHTING SCHEDULE, NOTES, AND DETAILS

PLANNING BOARD TRACKING NO. 2007-05

30 0 15 30
SCALE IN FEET

Date	Description	No.
8/22/2018	REVISED PER TOWN COMMENTS	1.

Revisions

MICHAEL SZURA
NY Registered Landscape Architect No. 001901-1

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
LIGHTING PLAN

Project No. 9133101	Drawing No. 25.01
Date JULY 18, 2018	
Scale 1"=30'	
Drn. By YZ	
DB	

Filename: \\langan.com\data\PAR\data1\9133101\Cadd Data – 9133101\Dwg\9133101 2501.dwg Date: 8/21/2018 Time: 18:46 User: aberi Style Table: Langan.stb Layout: 25.01

GENERAL LANDSCAPE PLANTING NOTES

1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION, PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.

2. STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.

3. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING. PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES. ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD AND MEET ALL REQUIREMENTS SPECIFIED. ANY TREE THAT LOSES THE MAIN LEADER SHALL BE REPLACED.

4. THE BACKFILL MIXTURE AND SOIL MIXES TO BE INSTALLED PER THE SPECIFICATIONS.

5. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SITE AND SUBGRADE DRAINAGE OR PERCOLATION CHARACTERISTICS, WHETHER THE SUBGRADE SOILS ARE EXISTING TO REMAIN OR IMPORTED AND PLACED. CONTRACTOR TO ENSURE POSITIVE VERTICAL DRAINAGE THROUGHOUT PLANTED AREAS. DISCREPANCIES SHALL BE ADDRESSED WITH THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANT MATERIALS.

6. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE FINISH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.

7. ALL PLANT INSTALLATIONS SHALL BE COMPLETED EITHER BETWEEN APRIL 1 – JUNE 15 OR AUGUST 15 – NOVEMBER 1, UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT. SEE LAWN SEEDING DATES IN SEEDING NOTES.

8. ALL FENCE AND GUIDE RAIL INSTALLATIONS SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF ANY LANDSCAPE PLANTING, LAWN AND GRASSES, OR IRRIGATION WORK.

9. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF CONSTRUCTION. NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.

10. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1) TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA 2) TO PROTECT OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD 3) TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION.

11. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON–AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER, TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.

12. LANDSCAPE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.

13. ALL MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER REVIEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER.

14. ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE. ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, MISSING, 25% OR MORE DEAD, WHICH DO NOT DEVELOP FROM PLANTING STOCK, THAT APPEAR UNHEALTHY OR UNSIGHTLY AND/OR HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES DEAD, OR REJECTED FOR ANY OTHER REASON (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.

16. DELIVERY, STORAGE, AND HANDLING
    - A. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED AT SITE.
    - B. TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND–TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP BALLED AND BURLAPPED STOCK DURING DELIVERY OR HANDLING.
    - C. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOTBALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING. IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8 INCHES INTO THE PLANTING HOLE. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO LOCATIONS.
    - D. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.

17. ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND UNEVEN SURFACES PRIOR TO PLANTING OR MULCHING.

18. ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES.

19. CONTRACTOR'S GUARANTEE: ALL PLANTINGS AND PLANTING AREAS SHALL BE PERMANENTLY MAINTAINED. NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF TWO YEARS FOLLOWING ACCEPTANCE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY MAINTAINING (INCLUDING BUT NOT LIMITED TO: WATERING, PRUNING, SPRAYING, MULCHING, FERTILIZING, ETC.) ALL OF THE PLANT MATERIALS AND LAWN FOR THE DURATION OF THE GUARANTEED PERIOD. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.

20. THE CONTRACTOR SHALL KEEP AREA CLEAN DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF–SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.

21. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24– HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY SITE AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND HEALTHY PLANT GROWTH.

22. AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.

23. ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL MULCH FROM A LOCAL SOURCE HARVESTED IN A SUSTAINABLE MANNER THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST. MULCH SHALL BE A FIBROUS DOUBLE SHREDDED HARDWOOD MULCH. MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR.

24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. FOR ANY DISCREPANCIES BETWEEN THE PLANT SCHEDULE AND PLANTING PLAN THE GRAPHIC QUANTITY SHOWN SHALL GOVERN.

25. LANDSCAPE PUNCH LIST SITE VISITS TO BE PERFORMED BY THE PROJECT LANDSCAPE ARCHITECT, IF UNDER CONTRACT FOR SUCH WORK, WILL NOT BE SCHEDULED UNTIL CONFIRMATION IS RECEIVED THAT ALL PROPOSED LANDSCAPE ITEMS HAVE BEEN INSTALLED, OR DEFICIENCIES NOTED IN THE PRIOR PUNCH LIST REPORT HAVE BEEN CORRECTED. THE PUNCH LIST SITE VISIT WILL THEN BE PERFORMED WITHIN 10 BUSINESS DAYS.

PLANTING SOIL SPECIFICATIONS

1. PLANTING SOIL, ALTERNATELY MAY BE REFERRED TO AS TOPSOIL, SHOULD BE FRIABLE, FERTILE, WELL DRAINED, FREE OF DEBRIS, TOXINS, TRASH AND STONES OVER 1/2" DIA., IT SHOULD HAVE A HIGH ORGANIC CONTENT SUITABLE TO SUSTAIN HEALTHY PLANT GROWTH AND SHOULD LOOK AESTHETICALLY PLEASING HAVING NO NOXIOUS ODORS.

2. PLANTING SOIL:

   REUSE SURFACE SOILS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL CRITERIA IN THIS SPECIFICATION THROUGH TESTING. CLEAN SURFACE SOIL OF ALL ROOTS, PLANTS, SOD, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS. IF ON–SITE SOILS ARE TO BE USED FOR PROPOSED PLANTING, THE CONTRACTOR SHALL DEMONSTRATE, THROUGH SOIL TESTING, THAT ON–SITE SOILS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANS AND SPECIFICATIONS.

   SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN TOPSOIL AND PLANTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL–DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4" DEEP. DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.

   CONTRACTOR SHALL TEST SOILS AND FURNISH SAMPLES UPON REQUEST. PACKAGED MATERIALS SHALL BE UNOPENED BAGS OR CONTAINERS, EACH BEARING A NAME, GUARANTEE, AND TRADEMARK OF THE PRODUCER, MATERIAL COMPOSITION, MANUFACTURER'S CERTIFIED ANALYSIS, AND THE WEIGHT OF THE MATERIALS. SOIL OR AMENDMENT MATERIALS SHALL BE STORED ON SITE TEMPORARILY IN STOCKPILES PRIOR TO PLACEMENT AND SHALL BE PROTECTED FROM INTRUSION OF CONTAMINANTS AND EROSION. AFTER MIXING, SOIL MATERIALS SHALL BE COVERED WITH A TARPAULIN UNTIL TIME OF ACTUAL USE.

   ALL PLANTING SOILS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE, OR APPROVED EQUAL, PRIOR TO DELIVERY TO THE SITE. CONTRACTOR SHALL FURNISH SOIL SAMPLES AND SOIL TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 CUBIC YARDS TO ENSURE CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOIL REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT THE SOILS ARE DEFICIENT IN ANY MANNER AND MAY BE CORRECTED BY ADDING AMENDMENTS, THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR SOIL IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.

   - A. THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE INSTALLATION:
     - a. PARTICLE SIZE ANALYSIS – LOAMY SAND: 70–85% SAND, 15–30% SILT AND CLAY
     - b. FERTILITY ANALYSIS: pH (5.5–6.5), SOLUBLE SALTS (LESS THAN 2 MMHO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM
     - c. ORGANIC MATTER CONTENT: 2.5–5% IN NATIVE SOILS; UP TO 10% IN AMENDED SOILS
     - d. TOXIC SUBSTANCE ANALYSIS
     - e. MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED
     - f. NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE

3. SOIL AMENDMENT FOR PLANT MATERIAL:
   IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC AMENDMENT SHALL BE WELL COMPOSTED, PH RANGE OF 6–8; MOISTURE CONTENT 35–55% BY WEIGHT 100% PASSING THROUGH 1" SIEVE; SOLUBLE SALT CONTENT LESS THAN 0.5 MM HOS/CM; MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL.

   - A. ORGANIC MATTER AS A SOIL AMENDMENT: LEAF MOLD WITH 60–90% ORGANIC CONTENT BY WEIGHT. SHREDDED LEAF LITTER, COMPOSTED FOR A MINIMUM OF 1 YR. SHOULD BE FREE OF DEBRIS, STONES OVER 1/2", WOOD CHIPS OVER 1".
   - B. SOIL IN BEDS AND PLANTING ISLANDS OTHER THAN BACKFILL MATERIAL AND TOPSOIL, SHOULD BE FRIABLE, WELL DRAINED, AND FREE OF DEBRIS, INCLUDING STONES AND TRASH.
   - C. AMENDMENTS FOR BACK FILL IN TREE AND SHRUB PITS:
     - a. GROUND LIMESTONE (WITH A MIN. OF 88% OF CALCIUM AND MAGNESIUM CARBONATES) USED PENDING RESULTS OF SOIL ANALYSIS.
       - – BRING pH LEVELS TO 5.5 MIN. TO 6.5 FOR NON–ERICACEOUS PLANTS
       - – BRING pH LEVELS TO 4.5 MIN. TO 5.5 FOR ERICACEOUS PLANTS
     - b. TERRA–SORB BY 'PLANT HEALTH CARE' 800–421–9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN PLANTER BACKFILL MIXTURE WITH TREES AND SHRUBS.
     - c. MYCOR–ROOT SAVER BY 'PLANT HEALTH CARE' 800–421–9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES.

4. WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS, BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES.

5. CLEAN SOIL FILL IN LANDSCAPE AREAS:
   LANDSCAPE FILL MATERIAL, BELOW PLANTING SOILS, SHALL HAVE THE PHYSICAL PROPERTIES OF A SANDY LOAM WITH AN ORGANIC CONTENT OF LESS THAN 2% AND A PH BETWEEN 5 – 7.

6. SOIL PLACEMENT:
   - A. CONTRACTOR TO PROVIDE SIX INCHES (6") MINIMUM DEPTH PLANTING SOIL LAYER IN LAWN AREAS, TWELVE INCHES (12") MINIMUM DEPTH PLANTING SOIL LAYER IN GROUNDCOVER AND PERENNIAL AREAS, EIGHTEEN INCHES (18") MINIMUM DEPTH PLANTING SOIL LAYER IN SHRUB AREAS, AND THIRTY–SIX INCHES (36") MINIMUM DEPTH PLANTING SOIL LAYER IN TREE PLANTING AREAS.
   - B. SCARIFY AND/OR TILL COMPACTED SUBSOILS TO A MINIMUM DEPTH OF 6 INCHES. THOROUGHLY MIX A 6 INCH DEPTH LAYER OF PLANTING SOIL INTO THE SUBSOIL PRIOR TO PLACING PLANTING SOIL AT THE DEPTHS INDICATED ABOVE. PLANTING SOIL SHALL BE PLACED IN 12–18" LIFTS AND WATER THOROUGHLY BEFORE INSTALLING NEXT LIFT. REPEAT UNTIL DEPTHS AND FINISH GRADES HAVE BEEN ACHIEVED. NO SOILS SHALL BE PLACED IN A FROZEN OR MUDDY CONDITION.
   - C. PLANTING SOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON–SITE PLANTING SOIL UTILIZED IN ALL PLANTING AREAS.

7. SOIL CONDITIONING:
   - A. ADJUST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM. LOWER pH USING ELEMENTAL SULFUR ONLY. PEAT MOSS OR COPPER SULFATE MAY NOT BE USED. GROUND LIMESTONE AS A SOIL AMENDMENT MATERIAL WILL ONLY BE USED PENDING RESULTS OF SOIL ANALYSIS. PROVIDE WITH MINIMUM 88% CALCIUM AND MAGNESIUM CARBONATES AND SHALL HAVE TOTAL 100% PASSING THE 10 MESH SIEVE, MINIMUM 90% PASSING 20 MESH SIEVE, AND MINIMUM 60% PASSING 100 MESH SIEVE.
   - B. ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
   - C. SOIL MODIFICATIONS (PENDING RESULTS OF SOIL ANALYSIS):
     - a. THOROUGHLY TILL ORGANIC MATTER (LEAF COMPOST) INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGHER THAN 7.0. PEAT MOSS MAY NOT BE USED AS ORGANIC MATTER AMENDMENT.
     - b. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.
     - c. 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.

LAWN SEED MIX

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.

2. THE FOLLOWING SEED MIX SHALL BE SOWN AT THE RATES AS DEPICTED:

RED FESCUE	1 1/2 LBS./1,000 SF
PERENNIAL RYEGRASS	1 LBS./1,000 SF
KENTUCKY BLUEGRASS	1 1/2 LBS./1,000 SF
SPREADING FESCUE	1 LBS./1,000 SF

3. SEEDED LAWN AREAS SHALL BE MULCHED TO PRESERVE SOIL MOISTURE AND PREVENT EROSION DURING THE ESTABLISHMENT PERIOD UNTIL A STAND OF COVER IS ACCEPTED BY THE OWNER. STANDARD MULCH MAY INCLUDE HYDROMULCH, SALT HAY OR SMALL GRAIN STRAW ANCHORED WITH TACKIFIER AS NECESSARY. AREAS PRONE TO EROSION SHALL BE PROTECTED AS NECESSARY WITH BIODEGRADABLE EROSION CONTROL MATERIALS IN ADDITION TO THE STANDARD MULCH. ALL MULCH MATERIALS AND HYDROSEED/MULCH MIX MUST BE REMOVED FROM ANY ADJACENT STRUCTURES, PAVING OR VEHICLES IMMEDIATELY.

4. SEEDING DATES FOR THIS MIXTURE SHALL BE AS FOLLOWS:
   SPRING: APRIL 1 – MAY 31
   FALL: AUGUST 16 – OCTOBER 31

5. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

LAWN WATERING SCHEDULE

THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SEED. THE CONTRACTOR SHALL BE OBLIGATED TO ENSURE A HEALTHY STAND OF GRASS AT THE END OF THE MAINTENANCE/BOND PERIOD. ANY BARE OR DEAD AREAS IN THE LAWN SHALL BE PREPARED, RESEEDED AND REESTABLISHED PRIOR TO THE END OF THE MAINTENANCE/BOND PERIOD AND TO THE SATISFACTION OF THE PROJECT LANDSCAPE ARCHITECT AND THE OWNER.

IMPORTANT ASPECTS TO ATTAINING AND SUSTAINING A HEALTHY STAND OF GRASS ARE THE INSTALLATION OF TOPSOIL, SEED BED PREPARATION, ATTAINING OPTIMAL pH FOR THE INTENDED PLANT SPECIES, FERTILIZING, MULCH COVERING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.

1. SEEDING SHALL BE DONE DURING THE SEASONS SPECIFIED IN THE LAWN SEED MIX NOTES AND/OR PROJECT SPECIFICATIONS.

2. AFTER THE SEEDBED IS PREPARED, SEED IS INSTALLED, AND MULCH IS APPLIED, WATER LIGHTLY TO KEEP THE TOP 2 INCHES OF SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR THE DISPLACEMENT OF SEED.

3. DEPENDING ON SOIL TEMPERATURES, IT MAY TAKE SEVERAL WEEKS FOR GERMINATION TO OCCUR. DIFFERENT SPECIES WITHIN THE MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT.

4. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6 INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.

5. BEGIN MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3 INCHES HEIGHT. MOW TO A HEIGHT OF NO LESS THAN 2–½ INCHES. AFTER 2 TO 3 WEEKS OF MOWING, CONTINUE TO WATER TO A 6 INCH MINIMUM SOIL DEPTH AS NECESSARY PER WEATHER CONDITIONS, AND SOIL MOISTURE SENSORS IF APPLICABLE.

SOD SPECIFICATIONS (IF USED) :

1. SOD IS TO BE A FESCUE/BLUEGRASS BLEND APPROXIMATELY 70/30%. SOD IS TO BE INDIGENOUS TO THE AREA AND BE FURNISHED BY A REPUTABLE GROWER WITH A MINIMUM 5 YEARS EXPERIENCE.

2. PRIOR TO SODDING ALL AREAS ARE TO BE TOPSOILED, FINE GRADED, RAKED, WATERED LIGHTLY, AND FERTILIZED WITH A STARTER FERTILIZER.

3. ALL STONES GREATER THAN 2" DIAMETER SHALL BE REMOVED.

4. SOD TO BE INSTALLED PERPENDICULAR TO ALL SLOPED AREAS. SOD STRIPS TO BE LAID OUT SO JOINTS ARE NOT CLOSER THAN ONE FOOT (1'–0") FROM EACH OTHER.

5. SOD IS TO BE WATERED AT A RATE OF AT LEAST ONE AND A HALF INCHES (1½") PER WEEK UNTIL ROOT MASS MENDS WITH SOIL. AFTER THIS HAS OCCURRED NORMAL WATERING OF AT LEAST ONE INCH (1") PER WEEK IS TO COMMENCE.

6. ALL SOD AREAS ARE TO BE ROLLED IF ANY HEAVING OR DEPRESSIONS OCCUR.

COMPACTED SOIL LOOSENING NOTE

DUE TO GENERAL CONSTRUCTION ACTIVITIES AND ADJACENT SITE COMPACTION REQUIREMENTS, SUBGRADE SOILS WITHIN PROPOSED PLANTING AREAS TEND TO BECOME HIGHLY COMPACTED. IN ORDER TO CREATE A HEALTHY GROWTH MEDIUM TO ALLOW PROPOSED PLANTINGS TO ESTABLISH A VIGOROUS ROOT MASS, THIS SUBGRADE SOIL MUST UNDERGO A RESTORATION PROCESS. LOOSEN SUBRADE SOILS TO A DEPTH OF 18 INCHES. IN ADDITION, IMPORTED OR AMMENDED EXISTING SOILS SHALL BE MIXED WITH SUBGRADE SOILS WHERE THEY MEET IN ORDER TO CREATE A TRANSITIONAL GRADIENT TO ALLOW FOR PROPER DRAINAGE.

MEADOW SEEDING NOTES:

1. MEADOW SEED MIX 'A' ERNST SEED MIX ERNMX–168 "NORTHEAST PERENNIAL & ANNUAL WILDFLOWER MIX"

8.0%	CENTAUREA CYANUS, TALL MIXED	BACHELOR'S BUTTON TALL MIXED/CONEFLOWER
6.0%	COREOPSIS LANCEOLATA	LANCE LEAVED COREOPSIS
6.0%	COREOPSIS TINCTORIA	PLAINS COREOPSIS
6.0%	LINUM GRANIFLORUM RUBRUM	SCARLET FLAX
5.0%	CHEIANTHUS ALLIONII	WALLFLOWER
5.0%	COSMOS BIPINNATUS	COSMOS
5.0%	COSMOS SUPHUREUS	SULPHUR COSMOS
5.0%	DELPHINIUM AJACIS	ROCKET LARKSPUR
5.0%	GYPSOPHILA ELEGANS	ANNUAL BABY'S BREATH
5.0%	HESPERIS MATRONALIS	DAME'S ROCKET
5.0%	LINARIA MORACCANA	SPURRED SNAPDRAGON–NORTHERN LIGHTS
5.0%	RUDBECKIA HIRTA	BLACK–EYED SUSAN
4.0%	CHRYSANTHEMUM MAXIMUM	SHASTA DAISY
4.0%	LINUM PERENNE LEWISII	LEWIS PERENNIAL BLUE FLAX
4.0%	PAPAVER RHOEAS, SHIRLEY MIX	CORN POPPY/SHIRLEY MIX
4.0%	SILENE ARMERIA	CATCHFLY
3.0%	ECHINACEA PURPUREA	PURPLE CONEFLOWER
3.0%	GAILLARDIA ARISTATA	PERENNIAL GAILLARDIA (BLANKET FLOWER)
3.0%	GAILLARDIA PULCHELLA	ANNUAL GAILLARDIA (INDIAN BLANKET)
2.0%	MONARA CITRIODORA	LEMON MINT
2.0%	RATIBIDA PINNATA	GREY HEADED CONEFLOWER
2.0%	RUDBECKIA TRILOBA	BROWN EYED SUSAN

NOTES:
1. SEED AT A RATE OF 20 LBS./ACRE OF 100% PURE LIVE SEED.
2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 20 LBS./ACRE.
3. FOR FALL SEEDING, APPLY A NURSE CROP OF BARLEY AT A RATE OF 20 LBS./ACRE.

2. MEADOW SEED MIX 'B' ERNST SEED MIX ERNMX–127 "RETENTION BASIN FLOOR SEEDING MIX"

20% AGROSTIS STOLONIFERA	CREEPING BENTGRASS
25% ALOPECURUS ARUNDINACEUS	GARRISON CREEPING FOXTAIL
25% ELYMUS VIRGINICUS	VIRGINIA WILD RYE
5% FESTUCA RUBRA	CREEPING RED FESCUE
5% BIDENS CERNUA	NODDING BUR–MARIGOLD
4% SPARGANIUM EURYCARPUM	GIANT BUR–REED
4% SCIRPUS ATROVIRENS	GREEN BULRUSH
4% SCIRPUS POLYPHYLLUS	MANY LEAVED BULRUSH
3% VERBERA HASTATA	BLUE VERVAIN
3% SCIRPUS CYPERINUS	WOOLGRASS
1% MIMULUS RINGENS	MONKEY FLOWER
1% SOLIDAGO PATULA	ROUGH LEAF GOLDENROD

NOTES:
1. 90% ERNMX–127 :
2. 10% NURSE CROP OF ANNUAL RYEGRASS
3. APPLY ALL SEED AT A RATE OF 20 LBS./ ACRE OF 100% PURE LIVE SEED.

3. GENERAL SEEDING NOTES
   1. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 1) OR THE FALL (SEPTEMBER 1 TO OCTOBER 1).
   2. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A BROAD–SPECTRUM NON–SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
   3. IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO–TILL TRUAX–TYPE DRILL WHERE APPLICABLE.
   4. CONTINUOUS MOISTURE FOR 4–6 WEEKS MUST BE INSURED TO ALLOW PROPER GERMINATION.

4. WEED CONTROL/MAINTENANCE NOTES:
   1. MOWING MEADOW AREAS SHALL BE DONE VIA STRING TRIMMER.
   2. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"–10". DO NO MOW CLOSE, AS SOME OF THE MEADOW MIX MAY BE DAMAGED.
   3. AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH.
   4. MOW IN WETLAND AND WETLAND TRANSITION AREAS DURING DRIER SITE CONDITIONS WHEN SOIL DISTURBANCE WILL NOT OCCUR. MAINTENANCE FOR WETLAND AND WETLAND TRANSITION AREAS SHALL OCCUR DURING LATE SUMMER (JULY 1 TO AUGUST 15) WHEN THE WATER TABLE IS USUALLY AT ITS LOWEST POINT OF THE YEAR. DO NOT MOW IN WETLAND OR WETLAND TRANSITION AREAS ESTABLISHMENT OF MEADOW MIX.

1 DECIDUOUS TREE PLANTING
N.T.S

2 EVERGREEN TREE PLANTING
N.T.S

NOTES:
1. ALL SHRUBS TO BE SET PLUMB.
2. REFER TO LANDSCAPE PLAN FOR SPACING OF INDIVIDUAL PLANTS.
3. REMOVE ALL WIRE, PLASTIC, TAGS OR SYNTHETIC MATERIAL FROM PLANTS PRIOR TO PLANTING.

3 SHRUB PLANTING
N.T.S

NOTES:
1. ISLAND AREAS TO BE FREE OF DEBRIS AND RUBBLE PRIOR TO PLANTING OPERATION.
2. MOUND PARKING ISLAND AS SHOWN.
3. REMOVE ALL WIRE, PLASTIC, TAGS OR SYNTHETIC MATERIAL FROM PLANTS PRIOR TO PLANTING.
4. SET PLANTS AT GRADE WHICH IS EVEN WITH ORIGINAL NURSERY GRADE.

4 PARKING ISLAND PLANTING
N.T.S

NOTES:
1. PLANTS ARE TO BE SPACED EQUIDISTANT FROM EACH OTHER.
2. REFER TO PLAN AND SCHEDULE FOR SPACING OF INDIVIDUAL PLANTS.
3. REMOVE ALL WIRE, PLASTIC, TAGS OR SYNTHETIC MATERIAL FROM PLANTS PRIOR TO PLANTING.

5 GROUNDCOVER/PERENNIAL PLANTING
N.T.S

PLANNING BOARD TRACKING NO. 2007-05

Date	Description	No.
8/22/2018	REVISED PER TOWN COMMENTS	1.

Revisions

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Project
THE SHOPPES AT
UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
LANDSCAPE
SCHEDULE, NOTES,
AND DETAILS

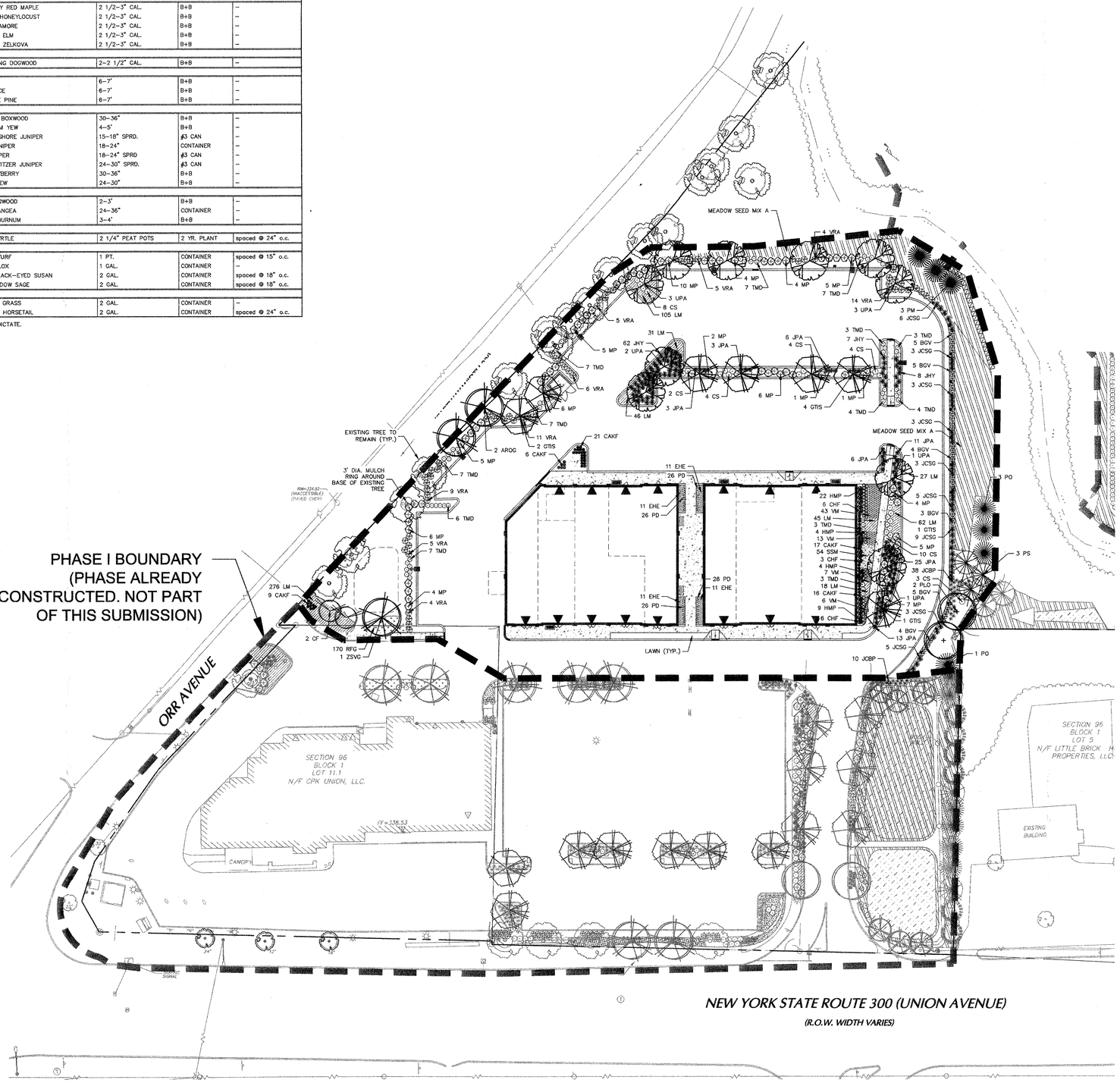
Project No. 9133101
Date JULY 18, 2018
Scale AS SHOWN
Drn. By GR
DB
Drawing No. 24.04

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREE(S)						
AROG	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2–3" CAL.	B+B	–
GTIS	7	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2 1/2–3" CAL.	B+B	–
PLO	2	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2 1/2–3" CAL.	B+B	–
UPA	10	ULMUS PARVIFOLIA 'ALLEE'	ALLEE CHINESE ELM	2 1/2–3" CAL.	B+B	–
ZSVG	1	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	2 1/2–3" CAL.	B+B	–
ORNAMENTAL TREE(S)						
CF	2	CORNUS FLORIDA	WHITE FLOWERING DOGWOOD	2–2 1/2" CAL.	B+B	–
EVERGREEN TREE(S)						
PM	3	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6–7'	B+B	–
PO	4	PICEA OMORIKA	SERBIAN SPRUCE	6–7'	B+B	–
PS	3	PINUS STROBUS	EASTERN WHITE PINE	6–7'	B+B	–
EVERGREEN SHRUB(S)						
BGV	34	BUXUS 'GREEN VELVET'	GREEN VELVET BOXWOOD	30–36"	B+B	–
CHF	15	CEPHALOTAXUS HARRINGTONIA 'FASTIGIATA'	JAPANESE PLUM YEW	4–5'	B+B	–
JCBP	37	JUNIPERUS CONFERTA 'BLUE PACIFIC'	BLUE PACIFIC SHORE JUNIPER	15–18" SPRD.	#3 CAN	–
JCSG	40	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	18–24"	CONTAINER	–
JHY	77	JUNIPERUS HORIZONTALIS 'YOUNGSTOWN'	ANDORRA JUNIPER	18–24" SPRD	#3 CAN	–
JPA	67	JUNIPERUS X PFITZERIANA 'ARMSTRONGII'	ARMSTRONG PFITZER JUNIPER	24–30" SPRD.	#3 CAN	–
MP	77	MYRICA PENSYLVANICA 'SILVER SPRITE'	NORTHERN BAYBERRY	30–36"	B+B	–
TMD	68	TAXUS X MEDIA 'DENSIFORMIS'	DENSIFORMIS YEW	24–30"	B+B	–
DECIDUOUS SHRUB(S)						
CS	35	CORNUS SERICEA 'ALLEMANS'	RED OSIER DOGWOOD	2–3'	B+B	–
HMP	39	HYDRANGEA MACROPHYLLA 'PIA'	BIGLEAF HYDRANGEA	24–36"	CONTAINER	–
VRA	63	VIBURNUM X RHYTIDOPHYLLOIDES 'ALLEGHANY'	ALLEGHANY VIBURNUM	3–4'	B+B	–
GROUND COVER						
VM	69	VINCA MINOR	PERIWINKLE/MYRTLE	2 1/4" PEAT POTS	2 YR. PLANT	spaced @ 24" o.c.
PERENNIAL(S)						
LM	610	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 PT.	CONTAINER	spaced @ 15" o.c.
PD	104	PHLOX DIVARICATA 'LONDON BLUE MOON'	WOODLAND PHLOX	1 GAL.	CONTAINER	–
RFG	108	RUDBECKIA FULGIDA 'GOLDSTURM'	GOLDSTURM/BLACK-EYED SUSAN	2 GAL.	CONTAINER	spaced @ 18" o.c.
SSM	54	SALVIA SUPERBA 'MAYNIGHT'	MAYNIGHT MEADOW SAGE	2 GAL.	CONTAINER	spaced @ 18" o.c.
ORNAMENTAL GRASS(ES)						
CAKF	69	CALAMAGROSTIS ARUNDINACEA 'KARL FOERSTER'	FEATHER REED GRASS	2 GAL.	CONTAINER	–
EHE	44	EQUISETUM HYEMALE	SCOURINGRUSH HORSETAIL	2 GAL.	CONTAINER	spaced @ 24" o.c.

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

NOTE:
AT LEAST 3 DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY CONTACT: "CALL BEFORE YOU DIG" 1-800-962-7962.



NOTE: REFER TO SHEET 24.04 FOR LANDSCAPE NOTES AND DETAILS

PLANNING BOARD TRACKING NO. 2007-05

30 0 15 30
SCALE IN FEET

Date	Description	No.
8/22/2018	REVISED PER TOWN COMMENTS	1.

Revisions

MICHAEL SZURA
NY Registered Landscape Architect No. 001901–1

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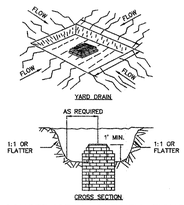
Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY **NEW YORK**

Drawing Title
LANDSCAPE PLAN

Project No. 9133101	Drawing No. 24.01
Date JULY 18, 2018	
Scale 1"=30'	
Drn. By GR	
DB	

Filename: \\langan.com\data\PAR\data1\9133101\Cadd Data – 9133101\Dwg\9133101 2401.dwg Date: 8/22/2018 Time: 10:28 User: grumao Style Table: Langan.stb Layout: 24.01



CONSTRUCTION SPECIFICATIONS

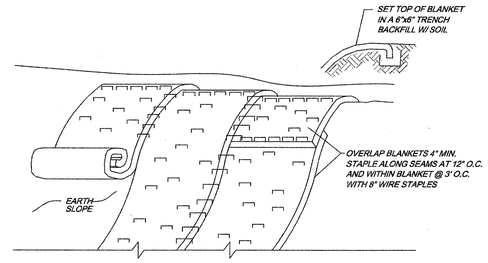
1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL EXCAVATION WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

NTS

INLET PROTECTION



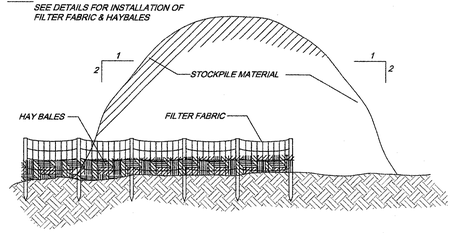
NOTES:

1. *STABILIZE PREPARED EARTHEN SLOPE OF 3:1 WITH LANDLOK CS2 EROSION CONTROL BLANKET OR APPROVED EQUAL*
2. *TOPSOIL AND SEED SLOPE PRIOR TO INSTALLING EROSION CONTROL NETTING.*
3. *AFTER NETTING IS INSTALLED, PLANT PROPOSED PLANTINGS THROUGH SLITS CUT IN FABRIC.*

NTS

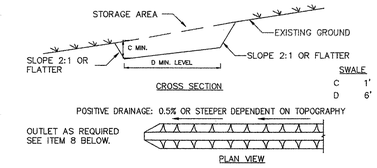
SLOPE STABILIZATION DETAIL

NOTE:
SEE DETAILS FOR INSTALLATION OF FILTER FABRIC & HAYBALES



NTS

STOCKPILE DETAIL



CONSTRUCTION SPECIFICATIONS

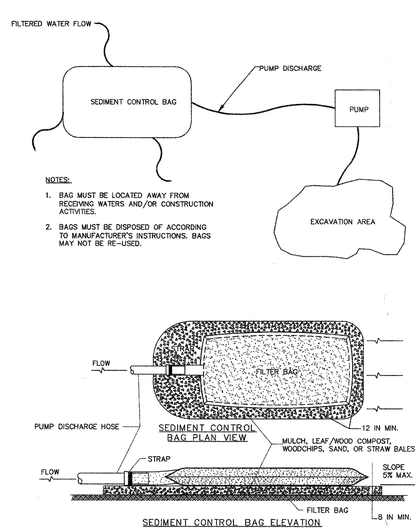
1. ALL TEMPORARY SWALES SHALL HAVE UNINTERUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW:

TYPE OF TREATMENT	CHANNEL GRADE	A(5 AC OR LESS)	B(5 AC -10AC)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1-8.0%	SEED WITH JUTE OR EXCELSIOR, SOD	LINED WITH 4-8" RIP-RAP OR RECYCLED CONCRETE EQUIVALENT
4	8.1-20.%	LINED WITH 4-8" RIP-RAP	ENGINEERED DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

ADAPTED FROM NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

TEMPORARY SWALE



NOTES:

1. BAG MUST BE LOCATED AWAY FROM RECEIVING WATERS AND/OR CONSTRUCTION ACTIVITIES.
2. BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS. BAGS MAY NOT BE RE-USED.

SEDIMENT CONTROL BAG ELEVATION

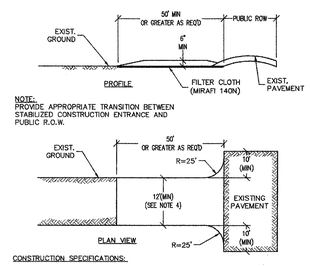
CONSTRUCTION SPECIFICATIONS

1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT²	ASTM D-4491
PERMITTIVITY (SEC⁻¹)	1.2 SEC⁻¹	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

SEDIMENT CONTROL FILTER BAG



NOTE:
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.

CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE – USE 3" STONE (NYSDOT ITEM #623.11 SIZE DESIGNATION #2, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET
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. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED
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 TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A 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.

ADAPTED FROM NEW YORK STATE STANDARDS AND SPECIFICATIONS

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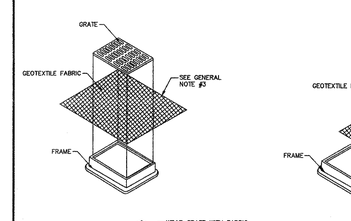
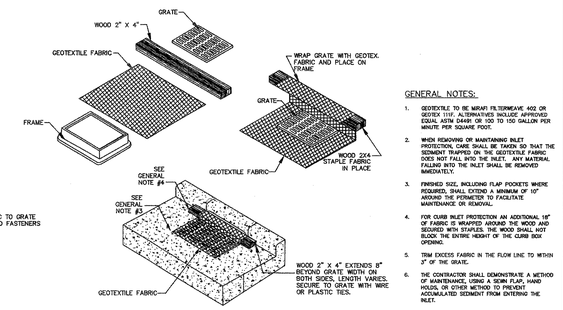
STABILIZED CONSTRUCTION ACCESS



YARD INLET PROTECTION

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)

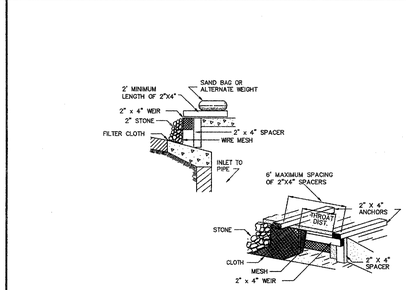


CURB INLET PROTECTION

GENERAL NOTES:

1. GEOTEXTILE TO BE MIRAFI FILTERWEAVE 402 OR GEOTEX 315 ALTERNATIVES INCLUDE APPROVED EQUAL ASTM (MARV) OR 100 TO 150 GALLON PER MINUTE PER SQUARE FOOT.
2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
3. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
4. FOR CURB INLET PROTECTION AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
5. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
6. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEDIM FLAP, HAND HOLDS, OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

EXISTING FABRIC INLET PROTECTION



CONSTRUCTION SPECIFICATIONS

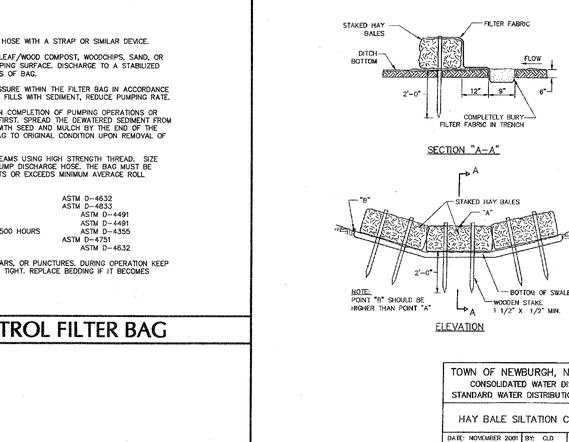
1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85.
2. WOODEN FRAME SHALL BE CONSTRUCTED OF 2" x 4" CONSTRUCTION GRADE LUMBER.
3. WIRE MESH ACROSS THROAT SHALL BE A CONTINUOUS PIECE 30 INCH MINIMUM WIDTH WITH A LENGTH 4 FEET LONGER THAN THE THROAT. IT SHALL BE SHAPED AND SECURELY NAILED TO A 2" x 4" WEIR.
4. THE WEIR SHALL BE SECURELY NAILED TO 2" x 4" SPACERS 9 INCHES LONG SPACED NO MORE THAN 6 FEET APART.
5. THE ASSEMBLY SHALL BE PLACED AGAINST THE INLET AND SECURED BY 2" x 4" ANCHORS 2 FEET LONG EXTENDING ACROSS THE TOP OF THE INLET AND HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHTS.

MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

NTS

DROP CURB INLET PROTECTION



SECTION "A-A"

ELEVATION

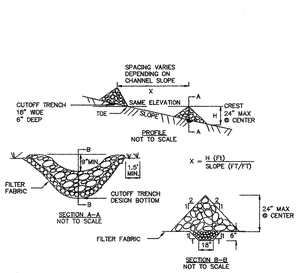
TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS

HAY BALE SILTATION CONTROL

DATE: NOVEMBER 2001 | BY: CLD | NO SCALE

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL DETAILS TO THE OWNER'S ENGINEER FOR REVIEW.

CONTRACTOR SUBMITTAL NOTE



CONSTRUCTION SPECIFICATIONS

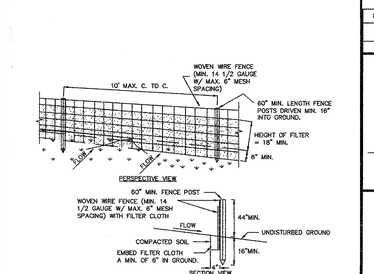
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

NTS

ROCK CHECK DAM



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

ADAPTED FROM NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

NTS

SILT FENCE (REINFORCED)

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT #

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Revisions	Date
1.	REVISED PER TOWN COMMENTS	8/22/2018

STATE OF NEW YORK — BRYAN MARTIN WAGNER — 080661 — PROFESSIONAL ENGINEER

AUG 2 2 2018

BRYAN M. WAGNER
PROFESSIONAL ENGINEER NY LIC No. 080661-1

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL DETAILS

Project No. 9133101	Drawing No. 23.02
Date July 18, 2018	
Scale AS SHOWN	
Drn. By AEB	

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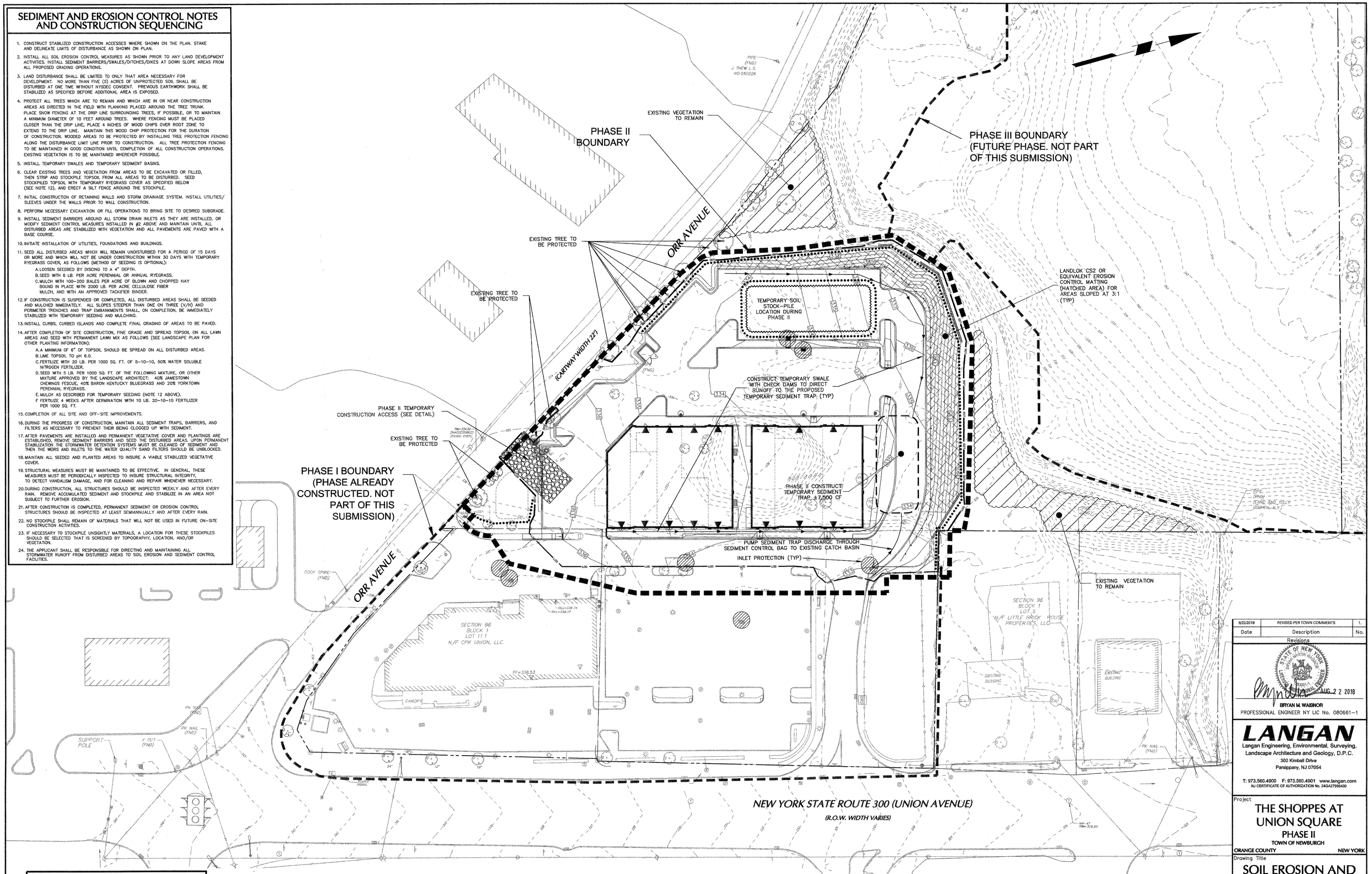
SEDIMENT AND EROSION CONTROL NOTES AND CONSTRUCTION SEQUENCING

1. CONSTRUCT STABILIZED CONSTRUCTION ACCESSES WHERE SHOWN ON THE PLAN. STAKE AND DELINEATE LIMITS OF DISTURBANCE AS SHOWN ON PLAN.
2. INSTALL ALL SOIL EROSION CONTROL MEASURES AS SHOWN PRIOR TO ANY LAND DEVELOPMENT ACTIVITIES. INSTALL SEDIMENT BARRIERS/SWALES/DITCHES/DIKES AT DOWN SLOPE AREAS FROM ALL PROPOSED GRADING OPERATIONS.
3. LAND DISTURBANCE SHALL BE LIMITED TO ONLY THAT AREA NECESSARY FOR DEVELOPMENT. NO MORE THAN FIVE (5) ACRES OF UNPROTECTED SOIL SHALL BE DISTURBED AT ONE TIME WITHOUT NYSDEC CONSENT. PREVIOUS EARTHWORK SHALL BE STABILIZED AS SPECIFIED BEFORE ADDITIONAL AREA IS EXPOSED.
4. PROTECT ALL TREES WHICH ARE TO REMAIN AND WHICH ARE IN OR NEAR CONSTRUCTION AREAS AS DIRECTED IN THE FIELD WITH PLANKING PLACED AROUND THE TREE TRUNK. PLACE SNOW FENCING AT THE DRIP LINE SURROUNDING TREES, IF POSSIBLE, OR TO MAINTAIN A MINIMUM DIAMETER OF 10 FEET AROUND TREES. WHERE FENCING MUST BE PLACED CLOSER THAN THE DRIP LINE, PLACE 4 INCHES OF WOOD CHIPS OVER ROOT ZONE TO EXTEND TO THE DRIP LINE. MAINTAIN THIS WOOD CHIP PROTECTION FOR THE DURATION OF CONSTRUCTION. WOODED AREAS TO BE PROTECTED BY INSTALLING TREE PROTECTION FENCING ALONG THE DISTURBANCE LIMIT LINE PRIOR TO CONSTRUCTION. ALL TREE PROTECTION FENCING TO BE MAINTAINED IN GOOD CONDITION UNTIL COMPLETION OF ALL CONSTRUCTION OPERATIONS. EXISTING VEGETATION IS TO BE MAINTAINED WHEREVER POSSIBLE.
5. INSTALL TEMPORARY SWALES AND TEMPORARY SEDIMENT BASINS.
6. CLEAR EXISTING TREES AND VEGETATION FROM AREAS TO BE EXCAVATED OR FILLED, THEN STRIP AND STOCKPILE TOPSOIL FROM ALL AREAS TO BE DISTURBED. SEED STOCKPILED TOPSOIL WITH TEMPORARY RYEGRASS COVER AS SPECIFIED BELOW (SEE NOTE 12), AND ERECT A SILT FENCE AROUND THE STOCKPILE.
7. INITIAL CONSTRUCTION OF RETAINING WALLS AND STORM DRAINAGE SYSTEM. INSTALL UTILITIES/ SLEEVES UNDER THE WALLS PRIOR TO WALL CONSTRUCTION.
8. PERFORM NECESSARY EXCAVATION OR FILL OPERATIONS TO BRING SITE TO DESIRED SUBGRADE.
9. INSTALL SEDIMENT BARRIERS AROUND ALL STORM DRAIN INLETS AS THEY ARE INSTALLED, OR MODIFY SEDIMENT CONTROL MEASURES INSTALLED IN #2 ABOVE AND MAINTAIN UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH VEGETATION AND ALL PAVEMENTS ARE PAVED WITH A BASE COURSE.
10. INITIATE INSTALLATION OF UTILITIES, FOUNDATIONS AND BUILDINGS.
11. SEED ALL DISTURBED AREAS WHICH WILL REMAIN UNDISTURBED FOR A PERIOD OF 15 DAYS OR MORE AND WHICH WILL NOT BE UNDER CONSTRUCTION WITHIN 30 DAYS WITH TEMPORARY RYEGRASS COVER, AS FOLLOWS (METHOD OF SEEDING IS OPTIONAL):
    A. LOOSEN SEEDBED BY DISCING TO A 4" DEPTH.
    B. SEED WITH 6 LB. PER ACRE PERENNIAL OR ANNUAL RYEGRASS.
    C. MULCH WITH 100–200 BALES PER ACRE OF BLOWN AND CHOPPED HAY BOUND IN PLACE WITH 2000 LB. PER ACRE CELLULOSE FIBER MULCH, AND WITH AN APPROVED TACKIFIER BINDER.
12. IF CONSTRUCTION IS SUSPENDED OR COMPLETED, ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY. ALL SLOPES STEEPER THAN ONE ON THREE (V/H) AND PERIMETER TRENCHES AND TRAP EMBANKMENTS SHALL, ON COMPLETION, BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING AND MULCHING.
13. INSTALL CURBS, CURBED ISLANDS AND COMPLETE FINAL GRADING OF AREAS TO BE PAVED.
14. AFTER COMPLETION OF SITE CONSTRUCTION, FINE GRADE AND SPREAD TOPSOIL ON ALL LAWN AREAS AND SEED WITH PERMANENT LAWN MIX AS FOLLOWS (SEE LANDSCAPE PLAN FOR OTHER PLANTING INFORMATION):
    A. A MINIMUM OF 6" OF TOPSOIL SHOULD BE SPREAD ON ALL DISTURBED AREAS.
    B. LIME TOPSOIL TO pH 6.0.
    C. FERTILIZE WITH 20 LB. PER 1000 SQ. FT. OF 5–10–10, 50% WATER SOLUBLE NITROGEN FERTILIZER.
    D. SEED WITH 5 LB. PER 1000 SQ. FT. OF THE FOLLOWING MIXTURE, OR OTHER MIXTURE APPROVED BY THE LANDSCAPE ARCHITECT: 40% JAMESTOWN CHEWINGS FESCUE, 40% BARON KENTUCKY BLUEGRASS AND 20% YORKTOWN PERENNIAL RYEGRASS.
    E. MULCH AS DESCRIBED FOR TEMPORARY SEEDING (NOTE 12 ABOVE).
    F. FERTILIZE 4 WEEKS AFTER GERMINATION WITH 10 LB. 20–10–10 FERTILIZER PER 1000 SQ. FT.
15. COMPLETION OF ALL SITE AND OFF–SITE IMPROVEMENTS.
16. DURING THE PROGRESS OF CONSTRUCTION, MAINTAIN ALL SEDIMENT TRAPS, BARRIERS, AND FILTERS AS NECESSARY TO PREVENT THEIR BEING CLOGGED UP WITH SEDIMENT.
17. AFTER PAVEMENTS ARE INSTALLED AND PERMANENT VEGETATIVE COVER AND PLANTINGS ARE ESTABLISHED, REMOVE SEDIMENT BARRIERS AND SEED THE DISTURBED AREAS. UPON PERMANENT STABILIZATION THE STORMWATER DETENTION SYSTEMS MUST BE CLEANED OF SEDIMENT AND THEN THE WEIRS AND INLETS TO THE WATER QUALITY SAND FILTERS SHOULD BE UNBLOCKED.
18. MAINTAIN ALL SEEDED AND PLANTED AREAS TO INSURE A VIABLE STABILIZED VEGETATIVE COVER.
19. STRUCTURAL MEASURES MUST BE MAINTAINED TO BE EFFECTIVE. IN GENERAL, THESE MEASURES MUST BE PERIODICALLY INSPECTED TO INSURE STRUCTURAL INTEGRITY, TO DETECT VANDALISM DAMAGE, AND FOR CLEANING AND REPAIR WHENEVER NECESSARY.
20. DURING CONSTRUCTION, ALL STRUCTURES SHOULD BE INSPECTED WEEKLY AND AFTER EVERY RAIN. REMOVE ACCUMULATED SEDIMENT AND STOCKPILE AND STABILIZE IN AN AREA NOT SUBJECT TO FURTHER EROSION.
21. AFTER CONSTRUCTION IS COMPLETED, PERMANENT SEDIMENT OR EROSION CONTROL STRUCTURES SHOULD BE INSPECTED AT LEAST SEMIANNUALLY AND AFTER EVERY RAIN.
22. NO STOCKPILE SHALL REMAIN OF MATERIALS THAT WILL NOT BE USED IN FUTURE ON–SITE CONSTRUCTION ACTIVITIES.
23. IF NECESSARY TO STOCKPILE UNSIGHTLY MATERIALS, A LOCATION FOR THESE STOCKPILES SHOULD BE SELECTED THAT IS SCREENED BY TOPOGRAPHY, LOCATION, AND/OR VEGETATION.
24. THE APPLICANT SHALL BE RESPONSIBLE FOR DIRECTING AND MAINTAINING ALL STORMWATER RUNOFF FROM DISTURBED AREAS TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.



THIS EROSION CONTROL PLAN DEPICTS THE EROSION CONTROL METHODS AND LOCATIONS ONLY. SEE SITE, GRADING & DRAINAGE, UTILITY PLANS, ETC. FOR REMAINDER OF SITEWORK BUILDING, PAVED AREA, UTILITY LOCATIONS, ETC.

THE OWNER IS ASSIGNED THE RESPONSIBILITY FOR THE CONSTRUCTION AND MAINTENANCE OF THE MEASURES AS DETAILED ON THIS SOIL EROSION & SEDIMENT CONTROL PLAN.

LEGEND

- PROPOSED INLET PROTECTION
- STABILIZED CONSTRUCTION ACCESS PAD
- SILT FENCE
- LIMIT OF DISTURBANCE AND TREE PROTECTION FENCING — LOD
- RIP RAP OUTLET PROTECTION
- HAY BALE

NOTE:
AT LEAST 3 DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY CONTACT: "CALL BEFORE YOU DIG" 1-800-962-7962.

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

SCALE IN FEET: 30 0 15 30

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT #

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Description	Date
Revisions		
1.	REVISED PER TOWN COMMENTS	8/22/2018

STATE OF NEW YORK — BRYAN MARTIN WAISNOR — 080661 — LICENSED PROFESSIONAL ENGINEER

AUG 22 2018

BRYAN M. WAISNOR
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY **NEW YORK**

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN

Project No. 9133101	Drawing No. 23.01
Date July 18, 2018	
Scale 1"=30'	
Drn. By AEB	

Filename: \\langan.com\data\PAR\data1\9133101\Cadd Data – 9133101\Dwg\9133101 2301 – Phase 2.dwg Date: 8/21/2018 Time: 19:09 User: aberl Style Table: Langan.stb Layout: 23.01

TOWN OF NEWBURGH NOTES
WATER SYSTEM NOTES

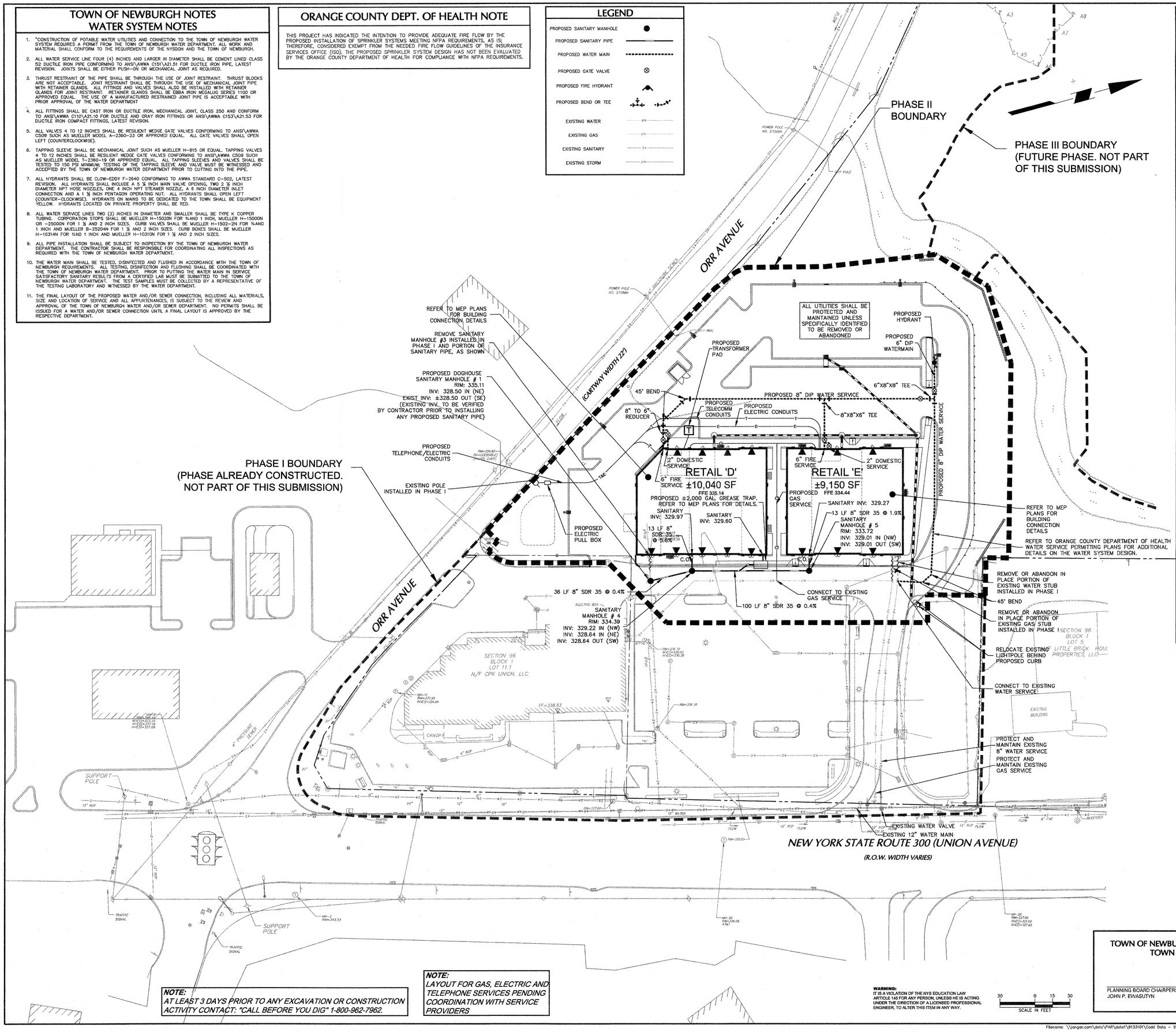
1. "CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL WORK AND MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDOH AND THE TOWN OF NEWBURGH.
2. ALL WATER SERVICE LINE FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINED CLASS 52 DUCTILE IRON PIPE CONFORMING TO ANSI\AWWA C151\A21.51 FOR DUCTILE IRON PIPE, LATEST REVISION. JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.
3. THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS. ALL FITTINGS AND VALVES SHALL ALSO BE INSTALLED WITH RETAINER GLANDS FOR JOINT RESTRAINT. RETAINER GLANDS SHALL BE EBBA IRON MEGALUG SERIES 1100 OR APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINED JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE WATER DEPARTMENT
4. ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI\AWWA C110\A21.10 FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI\AWWA C153\A21.53 FOR DUCTILE IRON COMPACT FITTINGS, LATEST REVISION.
5. ALL VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI\AWWA C509 SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).
6. TAPPING SLEEVE SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-615 OR EQUAL. TAPPING VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI\AWWA C509 SUCH AS MUELLER MODEL T-2360-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM. TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO CUTTING INTO THE PIPE.
7. ALL HYDRANTS SHALL BE CLOW-EDDY F-2640 CONFORMING TO AWWA STANDARD C-502, LATEST REVISION. ALL HYDRANTS SHALL INCLUDE A 5 ¼ INCH MAIN VALVE OPENING, TWO 2 ½ INCH DIAMETER NPT HOSE NOZZLES, ONE 4 INCH NPT STEAMER NOZZLE, A 6 INCH DIAMETER INLET CONNECTION AND A 1 ½ INCH PENTAGON OPERATING NUT. ALL HYDRANTS SHALL OPEN LEFT (COUNTER-CLOCKWISE). HYDRANTS ON MAINS TO BE DEDICATED TO THE TOWN SHALL BE EQUIPMENT YELLOW. HYDRANTS LOCATED ON PRIVATE PROPERTY SHALL BE RED.
8. ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOPS SHALL BE MUELLER H-15020N FOR ¾AND 1 INCH, MUELLER H-15000N OR -25000N FOR 1 ½ AND 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-1502-2N FOR ¾AND 1 INCH AND MUELLER B-25204N FOR 1 ½ AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-10314N FOR ¾ND 1 INCH AND MUELLER H-10310N FOR 1 ½ AND 2 INCH SIZES.
9. ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT.
10. THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT.
11. THE FINAL LAYOUT OF THE PROPOSED WATER AND/OR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.

ORANGE COUNTY DEPT. OF HEALTH NOTE

THIS PROJECT HAS INDICATED THE INTENTION TO PROVIDE ADEQUATE FIRE FLOW BY THE PROPOSED INSTALLATION OF SPRINKLER SYSTEMS MEETING NFPA REQUIREMENTS, AS IS; THEREFORE, CONSIDERED EXEMPT FROM THE NEEDED FIRE FLOW GUIDELINES OF THE INSURANCE SERVICES OFFICE (ISO). THE PROPOSED SPRINKLER SYSTEM DESIGN HAS NOT BEEN EVALUATED BY THE ORANGE COUNTY DEPARTMENT OF HEALTH FOR COMPLIANCE WITH NFPA REQUIREMENTS.

LEGEND

- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY PIPE
- PROPOSED WATER MAIN
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED BEND OR TEE
- EXISTING WATER
- EXISTING GAS
- EXISTING SANITARY
- EXISTING STORM



NOTE:
AT LEAST 3 DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY CONTACT: "CALL BEFORE YOU DIG" 1-800-962-7962.

NOTE:
LAYOUT FOR GAS, ELECTRIC AND TELEPHONE SERVICES PENDING COORDINATION WITH SERVICE PROVIDERS

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

UTILITY NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE, ROOF DRAINS, AND ALL OTHER UTILITIES. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION OF AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
3. ALL REQUIRED UTILITIES (UNLESS OTHERWISE NOTED) SHALL BE COORDINATED AND CONSTRUCTED TO WITHIN FIVE FEET OF EACH BUILDING UTILITY ENTRANCE LOCATION AT THE INVERTS NOTED. ALL REQUIRED CONNECTION FEES SHALL BE PAID BY THE BUILDING CONTRACTOR. ANY NECESSARY EXTENSIONS, RELOCATIONS, OR CORRECTIONS WITHIN FIVE FEET OF THE BUILDING NECESSARY TO COMPLETE CONNECTION OF UTILITIES TO THE BUILDINGS SHALL BE MADE BY THE BUILDING CONTRACTOR.
4. ALL ON-SITE UTILITIES SHALL BE UNDERGROUND OR AS DICTATED BY SERVICE PROVIDERS.
5. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ALL TAP AND TIE ON FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.
6. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
7. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
8. GENERAL CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
9. PRESSURE AND LEAKAGE TEST SHALL BE DONE IN ACCORDANCE WITH AWWA C-600 STANDARDS.
10. DISINFECTION OF ALL NEW WATER MAINS SHALL BE DONE IN ACCORDANCE WITH AWWA C-651 (YEAR OF LATEST REVISIONS) TO MEET OCDOH REQUIREMENTS. REFER TO TOWN OF NEWBURGH NOTES FOR ADDITIONAL LOCAL TESTING/DISINFECTION/INSPECTION REQUIREMENTS.
11. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF DOMESTIC AND FIRE SERVICE ENTRANCES.
12. ALL WATER MAINS AND SANITARY SEWER LINES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 10 FEET. IF SUCH LATERAL SEPARATIONS IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR WITH SUCH OTHER SEPARATION EXPRESSLY APPROVED BY THE JURISDICTIONAL AUTHORITY. AT CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SERVICE LATERAL ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER LINE SHALL BE OF WATERTIGHT CONSTRUCTION (I.E., DUCTILE IRON OR REINFORCED CONCRETE PIPE), WITH WATERTIGHT JOINTS THAT ARE A MINIMUM OF 10 FEET FROM THE WATER MAIN.
13. ALL WATER MAINS ARE TO HAVE A MINIMUM COVER OF 4'-6" FROM THE TOP OF THE PIPE TO THE PROPOSED SURFACE ELEVATION AND A MAXIMUM COVER OF 6'-0".
14. THE CONTRACTOR SHALL REMOVE OR ABANDON EXISTING UTILITIES PER THE FOLLOWING UNLESS OTHERWISE NOTED:
    - PIPING LESS THAN 12" IN DIAMETER SHALL BE CUT & CAPPED AT BOTH ENDS AND LEFT IN PLACE.
    - PIPING 12" AND LARGER IN DIAMETER SHALL BE CUT & CAPPED AT BOTH ENDS AND FILLED WITH A LEAN CEMENT GROUT.
    - STRUCTURES SHALL HAVE ALL OPENINGS BLOCKED OFF AND FILLED WITH A LEAN CEMENT GROUT.
15. CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THEN NYSDOH AND THE TOWN OF NEWBURGH.
16. CONSTRUCTION OF SANITARY SEWER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH SANITARY SEWER SYSTEM REQUIRES A PERMIT FORM THE TOWN OF NEWBURGH SEWER DEPARTMENT. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDEC AND THE TOWN OF NEWBURGH.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION OF "AS-BUILT" RECORD DRAWINGS OF THE SEWER SYSTEM. SUBMITTAL OF THESE DRAWINGS IS A CONDITION OF DEDICATION AND RELEASE OF THE PERFORMANCE SECURITY.
18. ALL GRAVITY SANITARY SEWER SERVICE LINES SHALL BE 4 INCHES IN DIAMETER OR LARGER AND SHALL BE SDR-35 PVC PIPE CONFORMING TO ASTM D-3034-89. JOINTS SHALL BE PUSH-ON WITH ELASTOMERIC RING GASKET CONFORMING TO ASTM D-3212. FITTINGS SHALL BE AS MANUFACTURED BY THE PIPE SUPPLIER OR EQUAL AND SHALL HAVE A BELL AND SPIGOT CONFIGURATION COMPATIBLE WITH THE PIPE.
19. ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH SEWER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH SEWER DEPARTMENT.
20. THE SEWER MAIN SHALL BE TESTED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH SEWER DEPARTMENT.

TELEPHONE NOTES:

1. ALL UNDERGROUND TELEPHONE RELATED INSTALLATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE TELEPHONE COMPANY.
2. TELEPHONE CONDUIT SHALL BE SCH. 40 PVC OR AS REQUIRED BY THE TELEPHONE COMPANY.
3. MINIMUM TELEPHONE CONDUIT BURIAL DEPTH SHALL BE TWO FEET, OR GREATER IF REQUIRED BY THE TELEPHONE COMPANY.
4. BUILDING CONTRACTOR SHALL ROUTE TELEPHONE SERVICE INSIDE OF THE BUILDING TO ONE COMMON FOR CONNECTION TO THE SITE TELEPHONE CONDUIT AS SHOWN ON THE PLANS.

ELECTRICAL SERVICE NOTES:

1. ALL UNDERGROUND ELECTRICAL SERVICE RELATED INSTALLATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ELECTRIC COMPANY.
2. ELECTRICAL CONDUIT SHALL BE SCH. 80 PVC OR AS REQUIRED BY THE ELECTRIC COMPANY.
3. MINIMUM ELECTRICAL CONDUIT BURIAL DEPTH SHALL BE THREE FEET, OR GREATER IF REQUIRED BY THE ELECTRIC COMPANY.
4. PROVIDE (2) 4"SCHEDULE 80 PLASTIC ELECTRIC CONDUITS FOR PRIMARTY ELECTRIC FEED.
5. CENTRAL HUDSON REQUIRES PRECAST MANHOLES 12' X 7' X 7' FOR TRANSFORMERS AND SWITCH.

GAS NOTES:

1. ALL UNDERGROUND GAS RELATED INSTALLATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE GAS COMPANY.
2. GAS PIPING (SIZE AND MATERIAL) SHALL BE AS REQUIRED BY THE GAS COMPANY.
3. MINIMUM GAS PIPING BURIAL DEPTH SHALL BE THREE FEET OR AS REQUIRED BY THE GAS COMPANY.

No.	Revisions	Date
1.	REVISED PER TOWN COMMENTS	8/22/2018

STATE OF NEW YORK — BRYAN MARTIN WAISNOR — 080661 — LICENSED PROFESSIONAL ENGINEER
AUG 22 2018

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Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
UTILITY PLAN

Project No.	9133101
Date	July 18, 2018
Scale	1"=30'
Drn. By	AEB
Drawing No.	22.01

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT #

PLANNING BOARD CHAIRPERSON JOHN P. EWASUTYN — DATE

Filename: \\langan.com\data\PAR\data1\9133101\Cadd Data – 9133101\Dwg\9133101 2201 – Phase 2.dwg Date: 8/21/2018 Time: 19:11 User: aberi Style Table: Langan.stb Layout: 22.01

GRADING AND DRAINAGE NOTES

1. ALL EXISTING STRUCTURES, (UNLESS OTHERWISE NOTED TO REMAIN,) FENCING, TREES, ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES AND SHALL ONLY BE PERMITTED WITH PRIOR OWNER APPROVAL.
2. ALL DRAINAGE STRUCTURES SHALL BE PRECAST.
3. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
4. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
5. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SEE SHEET 23.01 FOR EROSION CONTROL MEASURES.
6. ABBREVIATIONS
   - HDPE = HIGH DENSITY POLYETHYLENE
   - INV = INVERT
   - LF = LINEAR FEET
   - GR = GRATE ELEVATION
   - RIM = RIM ELEVATION
   - MH = MANHOLE
   - CB = CATCH BASIN
   - RCP = REINFORCED CONCRETE PIPE
   - DIV = DIVERSION STRUCTURE
   - X:X SLOPE = HORIZONTAL:VERTICAL SLOPE
7. SPOT ELEVATIONS ALONG PROPOSED CURB LINES INDICATE THE BOTTOM OF CURB ELEVATION UNLESS OTHERWISE NOTED.
8. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS AND SIZES OF ALL ROOF LEADERS AND COORDINATE WITH PROPOSED STORMWATER SYSTEM PRIOR TO INSTALLATION.
9. ALL ROOF DRAINS TO BUILDING SHALL BE BROUGHT TO FIVE FEET OUTSIDE THE BUILDING LIMITS AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT THE END.
10. CLEANOUTS SHALL BE PROVIDED FLUSH AT ALL LOCATIONS OF ROOF DRAIN INTERSECTIONS, BENDS AND UPSTREAM ENDS.
11. PROPOSED STORM DRAINAGE PIPING SHALL BE TEMPORARILY PROTECTED WITH A MINIMUM OF TWO FEET OF COVER DURING CONSTRUCTION.
12. THE CONTRACTOR SHALL REMOVE OR ABANDON EXISTING UTILITIES PER THE FOLLOWING UNLESS OTHERWISE NOTED:
    - ** PIPING LESS THAN 12" IN DIAMETER SHALL BE CUT & CAPPED AT BOTH ENDS AND LEFT IN PLACE.
    - ** PIPING 12" AND LARGER IN DIAMETER SHALL BE CUT & CAPPED AT BOTH ENDS AND FILLED WITH A LEAN CEMENT GROUT.
    - ** STRUCTURES SHALL HAVE ALL OPENINGS BLOCKED OFF AND FILLED WITH A LEAN CEMENT GROUT.

PHASE I BOUNDARY
(PHASE ALREADY CONSTRUCTED.
NOT PART OF THIS SUBMISSION)

PHASE II
BOUNDARY

PHASE III BOUNDARY
(FUTURE PHASE. NOT PART
OF THIS SUBMISSION)

ORR AVENUE

(CARTWAY WIDTH 27')

CB-309
(CURB TYPE GRATE)
GR: 332.90
INV. IN (15" SW): 329.43
INV. OUT: 329.43

MH-305
RIM: 334.47
INV. IN (15" E): 330.63
INV. OUT: 330.43

12 LF 15" HDPE @ 1.00%

RL-302
INV. OUT: 330.75

CB-310
(FLAT TYPE GRATE)
GR: 333.12
INV. OUT: 329.49

16 LF 15" HDPE @ 0.40%

MH-304
RIM: 333.83
INV. IN (15" S): 329.59
INV. IN (15" E): 329.79
INV. OUT: 329.59

109 LF
15" HDPE
@ 0.77%

12 LF
15" HDPE
@ 1.00%

RL-301
INV. OUT: 329.91

18.97 LF
18" HDPE
@ 0.50%

138 LF
18" HDPE
@ 0.36%

65 LF
15" HDPE
@ 0.78%

REMOVE OR
ABANDON IN
PLACE
EXISTING
STORM PIPE

RETAIL 'D'
±10,040 SF
FFE = 335.14

RETAIL 'E'
±9,150 SF
FFE = 334.44

SEE ARCHITECTURAL PLANS FOR DRAINAGE WEEP HOLES AT KNEE WALLS (TYP)

TC334.99
BC334.49

SLOPES NOT GREATER THAN 2% IN ANY DIRECTION WITHIN SHADED AREA (TYP)

RESET GRATE TO PROPOSED GRADES. EL: 333.74

ALL STORMWATER INFRASTRUCTURE SHALL BE PROTECTED AND MAINTAINED UNLESS SPECIFICALLY IDENTIFIED TO BE REMOVED OR ABANDONED

EXISTING UNDERGROUND STORMWATER MANAGEMENT SYSTEM INSTALLED DURING PHASE 1

TW: 330.53
BW: 329.55

TW: 329.73
BW: 329.73

TW: 329.33
BW: 329.33

TW: 331.43
BW: 329.30

TW: 332.56
BW: 328.97

TW: 332.50
BW: 328.57

MH-303
RIM: 334.31
INV. IN (15" SW): 329.08
INV. IN (15" S): 329.08
INV. OUT: 329.08

TW: 328.23
BW: 328.23

TW: 326.33
BW: 326.33

DETAILED RETAINING WALL SUBMITTAL SHALL INCLUDE MEANS AND METHODS TO CONSTRUCT WALL SPANNING EXISTING PIPE.

TW: 333.00
BW: 328.60

EXISTING OUTFALL TO REMAIN

RE-BUILD EXISTING BLOCK WALL TO PROPOSED GRADES
EXIST. TW: 332.39
EXIST. BW: 330.71

RESET RIM TO PROPOSED GRADES. EL: 333.80

EXISTING CB-302
RESET GR: 332.98
INV. IN (18" W): 328.58
EXISTING INV. OUT: 328.58
(EXISTING 15" HDPE PIPE ENTERING THIS STRUCURE TO BE REMOVED)

TIE-INTO EXIST. BC: 332.45

RESET RIM TO PROPOSED GRADES. EL: 333.41

EXISTING FOREBAY AND SAND FILTER TO REMAIN

SECTION 96
BLOCK 1
LOT 11.1
N/F CPK UNION, LLC.

SECTION 96
BLOCK 1
LOT 5
N/F LITTLE BRICK HOUSE PROPERTIES, LLC

NEW YORK STATE ROUTE 300 (UNION AVENUE)
(R.O.W. WIDTH VARIES)

TRAFFIC SIGNAL

NOTE:
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WARNING:
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30 0 15 30
SCALE IN FEET

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT #

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Description	Date
1.	REVISED PER TOWN COMMENTS	8/22/2018

Revisions

STATE OF NEW YORK — BRYAN MARTIN WAISNOR — LICENSED PROFESSIONAL ENGINEER

AUG 2 2 2018

BRYAN M. WAISNOR
PROFESSIONAL ENGINEER NY LIC No. 080661-1

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, NJ 07054
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27998400

Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
GRADING AND DRAINAGE PLAN PHASE II

Project No. 9133101	Drawing No. 21.03
Date July 18, 2018	
Scale 1"=30'	
Drn. By AEB	

Filename: \\langan.com\data\PAR\data1\9133101\Cadd Data – 9133101\Dwg\9133101 2102 – Phase 2.dwg Date: 8/21/2018 Time: 19:13 User: aberl Style Table: Langan.stb Layout: 21.03

GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM PLANS ENTITLED "BOUNDARY SURVEY", DATED 12/1/2017, LAST REVISED 8/21/18, AND "PARTIAL TOPOGRAPHIC SURVEY" DATED 12/1/2017, LAST REVISED 8/21/18, PREPARED BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C.
2. FOR INFORMATION REGARDING LATEST SITE PLAN APPROVAL FOR OVERALL SITE, SEE PLANS ENTITLED "THE SHOPPES AT UNION SQUARE APPLICATION FOR SITE PLAN APPROVAL" DATED MARCH 5, 2007, LAST REVISED JUNE 7, 2012 (PLANNING BOARD TRACKING NO. 2007-05).
3. WETLAND AREAS WERE DELINEATED BY ECOLOGICAL SOLUTIONS, LLC ON AUGUST 8, 2018.
4. BUILDING FOOTPRINT IS FROM FILES ELECTRONICALLY RECEIVED FROM DEGRAW & DEHAAN ARCHITECTS ON 8/14/2018.
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6. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
7. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL: MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
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10. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
11. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.

LIMITS OF WORK NOTES

1. ADJACENT ONSITE FACILITIES ARE OPEN AND OPERATING. NEGATIVE IMPACTS ON THE OPERATIONS OF ANY OF THESE FACILITIES STEMMING FROM THESE CONSTRUCTION ACTIVITIES ARE NOT ACCEPTABLE. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVES TO RECEIVE WRITTEN PERMISSION TO PROCEED WITH ANY CONSTRUCTION ACTIVITY AFFECTING THESE FACILITIES, LOADING AREAS, PARKING AREAS OR TRAFFIC CIRCULATION PRIOR TO IMPLEMENTATION.
2. THE CONTRACTOR SHALL PROVIDE SAFETY PRECAUTIONS FOR PUBLIC VEHICLES AND PEDESTRIANS ADJACENT TO THE CONSTRUCTION ACTIVITIES.
3. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
4. UNLESS SPECIFICALLY INDICATED OTHERWISE IN THE DRAWINGS AND/OR SPECIFICATIONS, THE LIMITS OF THIS SUBSURFACE PREPARATION ARE CONSIDERED TO BE THAT PORTION OF THE SITE DIRECTLY BENEATH AND 5 FEET BEYOND PROPOSED BUILDINGS AND APPURTENANCES.
5. APPURTENANCES ARE THOSE ITEMS ATTACHED TO THE BUILDING PROPER (REFER TO STRUCTURAL DRAWINGS), TYPICALLY INCLUDING, BUT NOT LIMITED TO, THE BUILDING SIDEWALKS, PORCHES, RAMPS, STOOPS, CONCRETE APRONS, TRANSFORMER PAD, ETC.

DIVISION OF WORK WITHIN BUILDING WORK LIMITS

WITHIN BUILDING WORK LIMITS, THE SITE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:

1. PREPARATION OF A "FINAL PAD" FOR THE BUILDING FOOTPRINT. THIS PAD SHALL BE PREPARED TO A FINISHED ELEVATION OF 9 INCHES BELOW FINISHED FLOOR ELEVATION.
2. PREPARATION OF SUBGRADE FOR EXTERIOR SLABS, WALKS, GARAGE LOWER LEVEL, RAMPS ETC.
3. DISPOSAL/DISPERSION OF FOUNDATION EXCAVATION SPOILS STOCKPILED BY THE BUILDING CONTRACTOR.
4. UTILITY SERVICES TO BE BROUGHT TO THE BUILDING WORK LIMITS LINE (5-FT FROM BUILDING FACE). PIPE REDUCERS TO BE PROVIDED AT POINT OF CONNECTION AS NECESSARY.
5. STORMWATER CONNECTIONS TO THE BUILDING TO BE BROUGHT TO THE BUILDING WORK LIMITS LINE (5-FT FROM BUILDING FACE). PIPE SIZE REDUCERS TO BE PROVIDED AS NECESSARY.
6. COORDINATION WITH OTHER CONTRACTORS REGARDING WORK WITHIN THE BUILDING WORK LIMITS.

WORK BY OTHERS WITHIN THE BUILDING WORK LIMITS WILL INCLUDE:

1. BUILDING CONSTRUCTION.
2. SIDEWALKS, SIGNAGE, BOLLARDS, ETC. ADJACENT TO THE BUILDING.
3. STOCKPILING OF FOUNDATION EXCAVATION SPOILS IN ONE AREA FOR DISPOSAL BY THE SITEWORK CONTRACTOR.
4. COORDINATION WITH SITE CONTRACTOR.
5. BACKFILL AND COMPACT AREA ADJACENT TO THE BUILDING IN PROPOSED ASPHALT AREAS FOR STONING AND PAVING BY SITE CONTRACTOR.
6. CONNECTION OF UTILITIES AND STORMWATER DRAINAGE BETWEEN BUILDING AND POINT OF CONNECTION AS PROVIDED BY SITE CONTRACTOR. REFER TO UTILITY AND DRAINAGE PLANS.
7. SITE GREASE TRAP AND PIPING BY BUILDING CONTRACTOR.
8. BACKFLOW PREVENTION, INCLUDING ANY REQUIRED VAULTS EXTERIOR TO THE BUILDING, TRANSFORMERS, AND GAS METERS BY BUILDING CONTRACTOR.

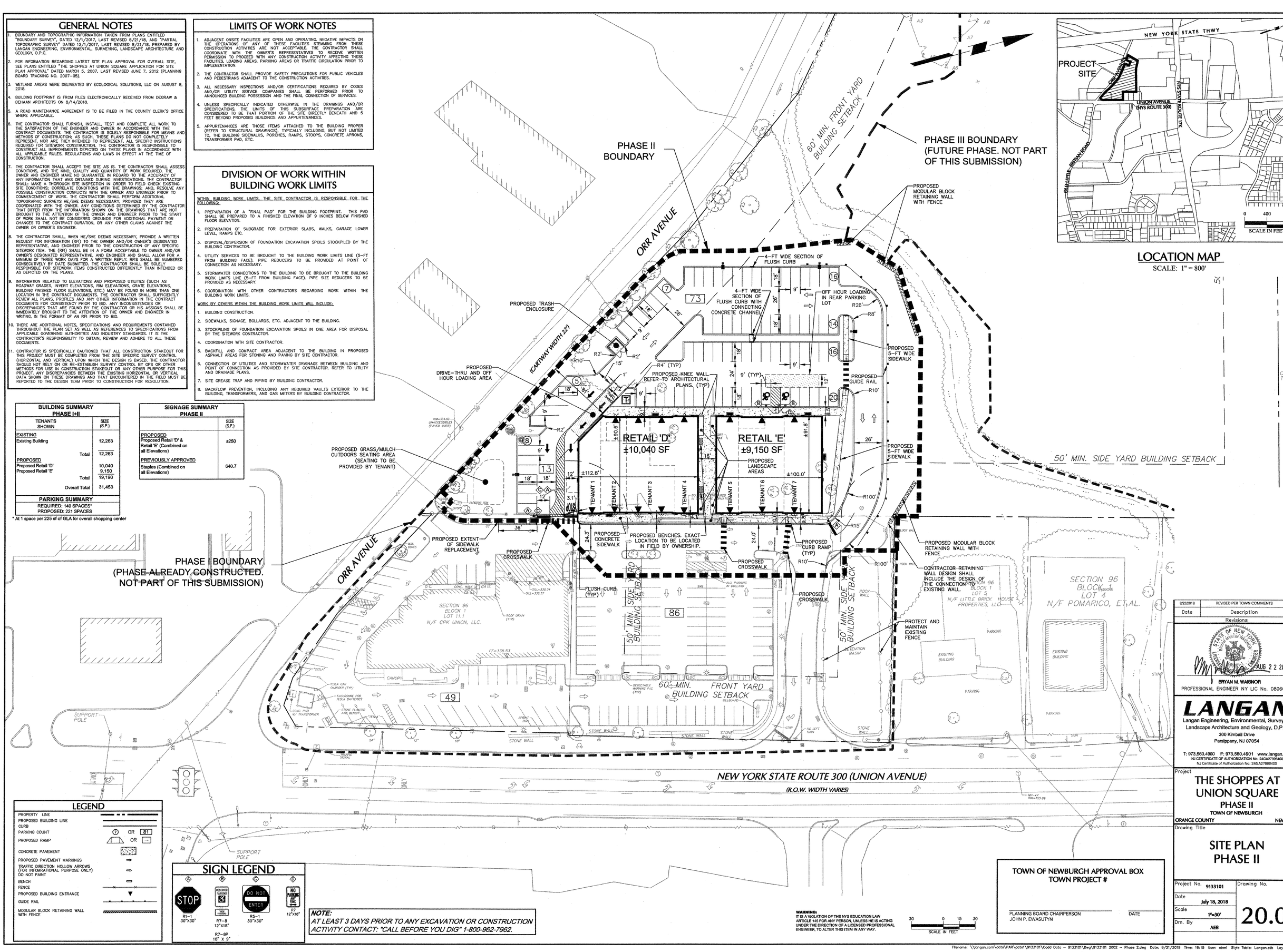
BUILDING SUMMARY PHASE I+II	
TENANTS SHOWN	SIZE (S.F.)
EXISTING	
Existing Building	12,263
Total	12,263
PROPOSED	
Proposed Retail 'D'	10,040
Proposed Retail 'E'	9,150
Total	19,190
Overall Total	31,453
PARKING SUMMARY	
REQUIRED: 140 SPACES*	
PROPOSED: 221 SPACES	

* At 1 space per 225 sf of GLA for overall shopping center

SIGNAGE SUMMARY PHASE II	
	SIZE (S.F.)
PROPOSED	
Proposed Retail 'D' & Retail 'E' (Combined on all Elevations)	±250
PREVIOUSLY APPROVED	
Staples (Combined on all Elevations)	640.7

LOCATION MAP

SCALE: 1" = 800'



LEGEND

- PROPERTY LINE
- PROPOSED BUILDING LINE
- CURB
- PARKING COUNT — ⑦ OR 81
- PROPOSED RAMP — OR
- CONCRETE PAVEMENT
- PROPOSED PAVEMENT MARKINGS
- TRAFFIC DIRECTION HOLLOW ARROWS (FOR INFORMATIONAL PURPOSE ONLY) DO NOT PAINT
- BENCH
- FENCE
- PROPOSED BUILDING ENTRANCE
- GUIDE RAIL
- MODULAR BLOCK RETAINING WALL WITH FENCE

SIGN LEGEND

- A — STOP — R1-1 30"x30"
- B — RESERVED PARKING 6' VAN ACCESS — R7-8 12"x18" — R7-8P 18" X 9"
- C — DO NOT ENTER — R5-1 30"x30"
- D — NO PARKING ANY TIME — R7 12"x18"

NOTE:
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TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT #

PLANNING BOARD CHAIRPERSON JOHN P. EWASUTYN — DATE

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30 0 15 30
SCALE IN FEET

Date	Description	No.
8/22/2018	REVISED PER TOWN COMMENTS	1.

Revisions

STATE OF NEW YORK — BRYAN MARTIN WAISNOR — 080661 — LICENSED PROFESSIONAL ENGINEER

AUG 2 2 2018

BRYAN M. WAISNOR
PROFESSIONAL ENGINEER NY LIC No. 080661-1

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
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Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
SITE PLAN PHASE II

Project No. 9133101	Drawing No. 20.03
Date July 18, 2018	
Scale 1"=30'	
Drn. By AEB	

ZONING TABLE

Zone-IB (Interchange Business District)

Section 96, Block 1, Lots 6.2 & 11.1

Item	Required / Permitted	Proposed - Lot 96-1-11.1 (Cosimo's)		Proposed - Lots 96-1-6.2		Proposed - Overall Shopping Center	
Permitted Principal Uses	Shopping Center	--		--		Shopping Center	
Lot Requirements							
Minimum Lot Area (3)	5 acres	--		--		11.39 Ac.	C
Minimum Lot Width	150 ft	251 ft	C	300 ft	C	--	
Minimum Lot Depth	150 ft	202 ft	C	1,086 ft	C	--	
Yards Requirements							
Minimum Front Yard Setback (Route 300)	60 ft	55.7 ft *	V	207.5 ft	C	--	
Minimum Front Yard Setback (Orr Ave)	60 ft	36.5 ft *	V	61.2 ft	C	--	
Minimum Side Yard Setback (Lowe's)	50 ft	--		5.0 ft	V	--	
Minimum Side Yard Setback (Lot 35)	50 ft	--		40.3 ft	V	--	
Minimum Side Yard Setback (Cosimo's)	50 ft	0.0 ft	V	3.1 ft	V	--	
Minimum Rear Yard Setback	60 ft	60.2 ft	C	143.1 ft	C	--	
Building							
Maximum Building Height	40 ft	40 ft	C	40 ft	C	--	
Maximum Lot Coverage	30%	28.5%	C	19.1%	C	20.0%	C
Landscaping							
Maximum Lot Surface Coverage	80%	89.8%	V	64.0%	C	66.1%	C
Minimum Interior Landscaping	5%	--		--		7.7%	C
Minimum Parking Shade Trees	57	--		--		66	C
Signs							
Maximum Number Identification Signs	4	--		--		**	C
Maximum Identification Sign Area	3 sf	--		--		**	V
Maximum Freestanding Sign Height	40 ft	--		--		25 ft	C
Maximum Number Freestanding Signs	1 per lot	1	C	1	C	**	C
Sign Setback	15 ft	--		--		15 ft	C
Maximum Total Sign Area (4)	904 sf	--		--		±943 sf **	V

* - EXISTING CONDITIONS

** - SEE SIGNAGE SCHEDULE BELOW

C - COMPLIES

V - VARIANCE

VARIANCES PREVIOUSLY APPROVED FOR LOT 96-1-11.1 COSIMO'S (FORMERLY LOT 96-1-1.11):

1. Minimum Front Yard Setback (Route 300)= 55.7 ft
2. Minimum Front Yard Setback (Orr Ave)= 36.5 ft
3. Minimum Side Yard Setback (Cosimo's)= 0.0 ft
4. Maximum Lot Surface Coverage= 89.8%

VARIANCES PREVIOUSLY APPROVED FOR LOT 96-1-6.2 (FORMERLY LOTS 95-1-36 & 37.2 AND 96-1-6 THRU 9 (AMODEO)):

1. Minimum Side Yard Setback (Lowe's)= 5.0 ft
2. Minimum Side Yard Setback (Lot 35)= 40.3 ft

VARIANCES PREVIOUSLY APPROVED FOR OVERALL SHOPPING CENTER:

1. Maximum Identification Sign Area= 1333.5 sf
2. Maximum Total Sign Area = 1333.5 sf

PARKING REQUIREMENTS (1)

Section 96, Block 1, Lots 6.2 & 11.1

TENANTS SHOWN	SIZE (S.F.)	NUMBER OF SEATS	NUMBER EMPLOYEES	NUMBER OF PARKING SPACES	
				REQUIRED	PROPOSED
EXISTING					
Existing Building	12,263	110	N/A		
PROPOSED					
Supermarket	71,000	N/A	N/A		
Proposed Retail 'D'	10,040	N/A	N/A		
Proposed Retail 'E'	9,150	N/A	N/A		
Total	102,453			456	456
SHOPPING CENTER TOTAL				456	456

LOADING SPACE REQUIREMENTS (2)

TENANTS SHOWN	SIZE (S.F.)	NUMBER OF LOADING SPACES	
		REQUIRED	PROPOSED
EXISTING			
Existing Building	12,263	1	1
PROPOSED			
Supermarket	71,000	3	8
Proposed Retail 'D'	10,040	1	1
Proposed Retail 'E'	9,150	1	1
TOTALS		6	11

Notes:

(1) Shopping Center (> 25,000 square feet): 1 space per 225 square feet of gross leasable floor area.

(2) Loading space requirement based on floor area:
Under 25,000 square feet = 1 space
25,000 to 39,999 square feet = 2 spaces
>40,000 square feet = 1 additional space for each 40,000 square feet in addition to first 40,000 square feet

(3) Project site encompasses ±11.39 acres including the following parcels: Section 96, Block 1, Lots 6.2 & 11.1

(4) The total area of all such signs on a lot shall not exceed 1/2 of the total length of street frontage of the lot in linear feet. See chart below for calculations.

Signage Schedule

Existing:

Location	Total S.F.
Cosimo's Building Signage	28 S.F.
Cosimo's Pylon Sign	86 S.F.
Sprint Building Signage	24 S.F.
Sprint Pylon	30 S.F.
Vitamin Shoppe East Elevation	81 S.F.
Vitamin Shoppe North Elevation	26 S.F.
Tenant Signage (location on Proposed Retail C Building)	14 S.F.

Proposed:

Location	Total S.F.
Retail 'D' and Retail 'E' (All building elevations combined.)	±250 S.F.
Supermarket East Elevation	159.3 S.F.
Supermarket North Elevation	50.25 S.F.
Supermarket South Elevation	50.25 S.F.
Main Pylon Sign (53 square feet per side)	106 S.F.
Directional Signage (located near Supermarket entrance from Lowes's)	35 S.F.
Identification Signage (located at Orr Avenue Entrnce to Cosimo's)	3 S.F.
Frontage	**1808 S.F.**
Square Footage Allowed:	**904 S.F.**
Total Square Footage:	**±943 S.F.**

NOTE: VARIANCE PREVIOUSLY APPROVED FOR TOTAL PROPOSED SIGN SQUARE FOOTAGE OF 1333.5 SF, WHICH IS GREATER THAN ± 943 S.F. PROPOSED

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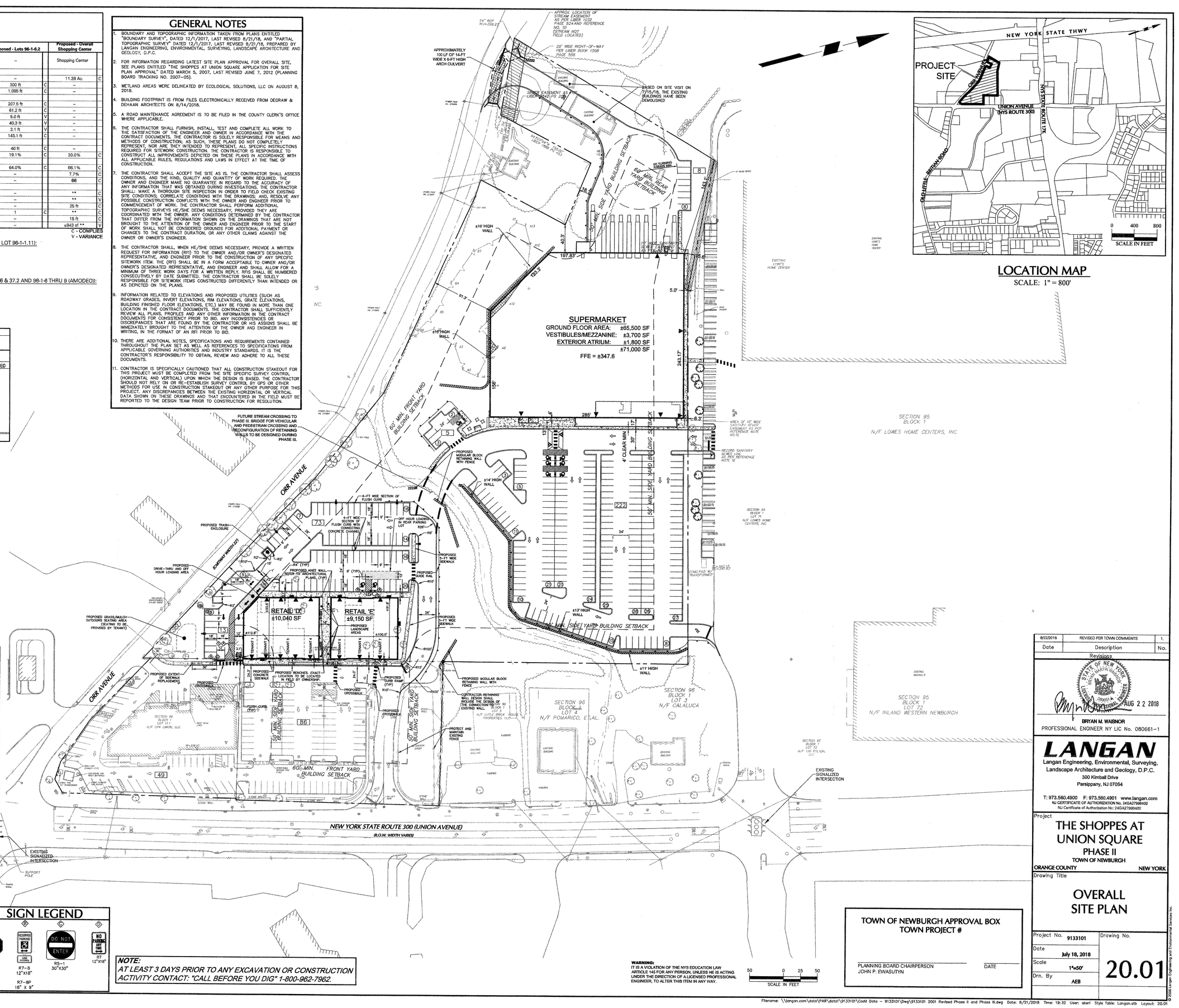

LOCATION MAP

SCALE: 1" = 800'

LEGEND

PROPERTY LINE
PROPOSED BUILDING LINE
CURB
PARKING COUNT (7 OR 81)
PROPOSED RAMP (OR -)
CONCRETE PAVEMENT
PROPOSED PAVEMENT MARKINGS
TRAFFIC DIRECTION HOLLOW ARROWS (FOR INFORMATIONAL PURPOSE ONLY) DO NOT PAINT
BENCH
FENCE
PROPOSED BUILDING ENTRANCE
GUIDERAIL
MODULAR BLOCK RETAINING WALL WITH FENCE

SIGN LEGEND

A: STOP R1-1 30"X30"
B: RESERVED PARKING / VAN ACCESSIBLE R7-8 12"x18" / R7-8P 18" X 9"
C: DO NOT ENTER R5-1 30"X30"
D: NO PARKING SELF TIMED R7 12"X18"

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AT LEAST 3 DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY CONTACT: "CALL BEFORE YOU DIG" 1-800-962-7962.

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT #

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
8/22/2018	REVISED PER TOWN COMMENTS	1.
Revisions		

STATE OF NEW YORK — BRYAN MARTIN WAISNOR — LICENSED PROFESSIONAL ENGINEER

AUG 22 2018

BRYAN M. WAISNOR
PROFESSIONAL ENGINEER NY LIC No. 080661-1

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400
NJ Certificate of Authorization No: 24GA27996400

Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
OVERALL SITE PLAN

Project No. 9133101	Drawing No.
Date July 18, 2018	20.01
Scale 1"=50'	
Drn. By AEB	

Filename: \\langan.com\data\PAR\data1\9133101\Cadd Data – 9133101\Dwg\9133101 2001 Revised Phase II and Phase III.dwg Date: 8/21/2018 Time: 10:32 User: aberl Style Table: Langan.stb Layout: 20.01

LEGEND (NOT SHOWN TO SCALE)

Symbol	Description	Symbol	Description	Symbol	Description
	HYDRANT		BOLLARD	D	STORM DRAIN
	STREET LIGHT		PEDESTRIAN WALK SIGNAL	S	SANITARY LINE
	AREA LIGHT		DOOR	COMB	COMBINED UTILITY LINE
	SIGNAL POLE		DOUBLE DOOR	UNK	UNKNOWN UTILITY LINE
	POLE		OVERHEAD DOOR	G	GAS LINE
	GUY WIRE		PARKING METER	W	WATER LINE
	ANCHOR POLE	MC	METAL COVER	E	ELECTRIC LINE
	MANHOLE		ELECTRIC BOX	T	TELEPHONE LINE
D	MANHOLE (DRAINAGE)		SOIL BORING	C	CABLE TV LINE
S	MANHOLE (SANITARY SEWER)		MONITORING WELL	ST	STEAM LINE
E	MANHOLE (ELECTRIC)		TEST PIT	FM	FORCE MAIN
W	MANHOLE (WATER)		BENCHMARK	FO	FIBER OPTIC
G	MANHOLE (NATURAL GAS)	RD	ROOF DRAIN	(_)*	REFERENCED UTILITY LINE (TYPE AS NOTED) BASED ON RECORD MAPPING
T	MANHOLE (TELEPHONE)	x322.35	SPOT ELEVATION		OVERHEAD WIRE
FM	MANHOLE (FORCE MAIN)	CC	CONCRETE CURB		GUIDE RAIL (TYPE AS NOTED)
ST	MANHOLE (STEAM)	CONC	CONCRETE	X	CHAIN LINK FENCE
U	MANHOLE (UNKNOWN UTILITY)	DP	DETECTABLE PAD		WOOD/STOCKADE FENCE
W	WATER VALVE	DC	DROP CURB		WIRE FENCE
G	GAS VALVE	BWS	BROKEN WHITE STRIPE		IRON FENCE
	SHRUB	SYS	SINGLE YELLOW STRIPE		TREE LINE
	CATCH BASIN	DYS	DOUBLE YELLOW STRIPE		EASEMENT LINE
CO	CLEAN OUT	SWS	SINGLE WHITE STRIPE		PROPERTY LINE
	TREE	RCP	REINFORCED CONCRETE PIPE		RIGHT-OF-WAY LINE
	SIGN	DIP	DUCTILE IRON PIPE	322	CONTOUR LINE
		CMP	CORRUGATED METAL PIPE		
		NVP	NO VISIBLE PIPE		
		EOP	EDGE OF PAVEMENT		
		LSA	LANDSCAPED AREA		
		(S)	SURVEYED BEARING & DISTANCE		
		(D)	DEED BEARING & DISTANCE		

GENERAL NOTES

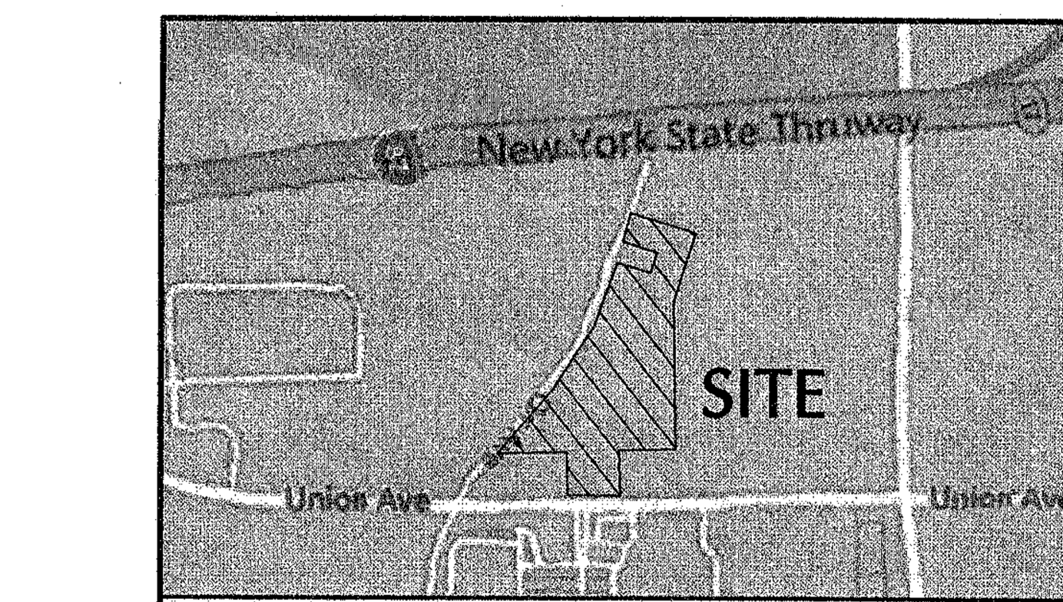
1. THIS SURVEY IS BASED UPON PHYSICAL CONDITIONS FOUND AT THE SUBJECT SITE, DEED INFORMATION AND THE FOLLOWING REFERENCES:
   - A. PLAN TITLED "COSIMO'S ON UNION, ALTA/ACSM LAND TITLE SURVEY" PREPARED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, DATED JUNE 4, 2012 AND LAST REVISED JULY 3, 2012
   - B. PLAN TITLED "ROUTE 300 AND ORR AVENUE, BOUNDARY AND TOPOGRAPHIC SURVEY" BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, DATED FEBRUARY 7, 2007 AND LAST REVISED SEPTEMBER 17, 2009.
   - C. CURRENT TAX MAPS OF TOWN OF NEWBURGH.
   - D. MAP OF SURVEY FOR THE T AND G AMODEO LIMITED PARTNERSHIP, TOWN OF NEWBURGH,ORANGE COUNTY, NEW YORK, DATED MAY 8, 2000, BY PETER R. HUSTIS, L.L.S., BEACON, NEW YORK.
   - E. PLAN TITLED "SITE PLAN PROPOSED RETAIL DEVELOPMENT FOR THE LOWE'S COMPANIES, INC." PREPARED BY BL COMPANIES, POGHKIPSIE, NEW YORK, SHEET NO. SP-1, DATED FEBRUARY 29, 2000 AND LAST REVISED NOVEMBER 21, 2001.
   - F. TITLE COMMITMENT:
     BY: HILL-N-DALE ABSTRACTORS, INC.
     TITLE NUMBER: HN 59612 AMENDED
     DATED: NOVEMBER 15, 2017

     (EXCEPTIONS LISTED SEPARATELY)
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO NEW YORK EAST STATE PLANE COORDINATE SYSTEM NAD 83 AS ESTABLISHED THROUGH GPS METHODS.
3. PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING AND LANDSCAPE ARCHITECTURE, D.P.C. FIELD WORK COMPLETED JUNE 2012 AND UPDATED IN NOVEMBER 2017.
4. AS PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAPS ENTITLED "ORANGE COUNTY, NEW YORK, PANELS 139 OF 160 AND 330 OF 630, MAP NUMBERS 36071C0139E AND 36071C0330E, EFFECTIVE DATES AUGUST 3, 2009" THE PROJECT AREA LIES WITHIN ZONE X (UNSHADED), AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
5. UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND LOCATIONS WHERE DATA IS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE, THE SURVEYOR CANNOT, AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.

   ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC.) DATA IS SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS.

   UNLESS SPECIFICALLY NOTED HEREON, THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.

   (PLAN REFERENCED IN NOTE 1A)
6. ALL BUILDINGS AND STRUCTURES WERE LOCATED AND MEASURED AT GROUND LEVEL. THE SURVEYOR MAKES NO DETERMINATIONS OR GUARANTEES AS TO THE ABSENCE, EXISTENCE OR LOCATION OF UNDERGROUND STRUCTURES, FOUNDATIONS, FOOTINGS, PROJECTIONS, WALLS, TANKS, SEPTIC SYSTEMS, ETC. NO TEST PITS, EXCAVATIONS OR GROUND PENETRATING RADAR WERE PERFORMED AS PART OF THIS SURVEY.
7. PRIOR TO ANY DESIGN OR CONSTRUCTION, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
8. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2 OF N.Y STATE EDUCATION LAW ARTICLE 145.
9. THIS SURVEY IS NOT VALID WITHOUT THE EMBOSSED OR INKED SEAL OF THE PROFESSIONAL.
10. WETLAND AREAS WERE DELINEATED BY ECOLOGICAL SOLUTIONS, LLC, ON AUGUST 8, 2018.



PROJECT LOCATION MAP

SCALE: N.T.S.

SOURCE:
MICROSOFT CORPORATION

EXCEPTIONS

1 GRANTS, EASEMENTS, RIGHTS OF WAY:
LIBER 481 PAGE 311 (LOCATION UNKNOWN)
LIBER 693 PAGE 329 (LOCATION UNKNOWN)
LIBER 13595 PAGE 468 (PLOTTED)
LIBER 1709 PAGE 39 (PLOTTED)

12 SUBJECT TO UTILITY EASEMENT IN FAVOR OF THE TOWN OF NEWBURGH IN LIBER 3842 PAGE 205 (PLOTTED)

14 SUBJECT TO STORMWATER CONTROL FACILITY MAINTENANCE AGREEMENT IN LIBER 13346 PAGE 926 (BLANKET IN NATURE)

15 RECIPROCAL ACCESS AND PARKING EASEMENT AGREEMENT IN LIBER 13363 PAGE 1550, SUBJECT TO CHARGES IMPOSED THEREIN (PLOTTED)

16 SUBJECT TO GRANT OF RIGHT OF WAY AND CONSTRUCTION EASEMENT IN LIBER 13363 PAGE 1534 (PLOTTED)

17 SUBJECT TO GRANT OF RIGHT OF WAY AND PERMANENT EASEMENT IN LIBER 13363 PAGE 1525 (PLOTTED)

30 SUBJECT TO 20' WIDE RIGHT OF WAY CROSSING PERMISES IN FAVOR OF 95-1-35 IN LIBER 1508 PAGE 558 (PLOTTED)

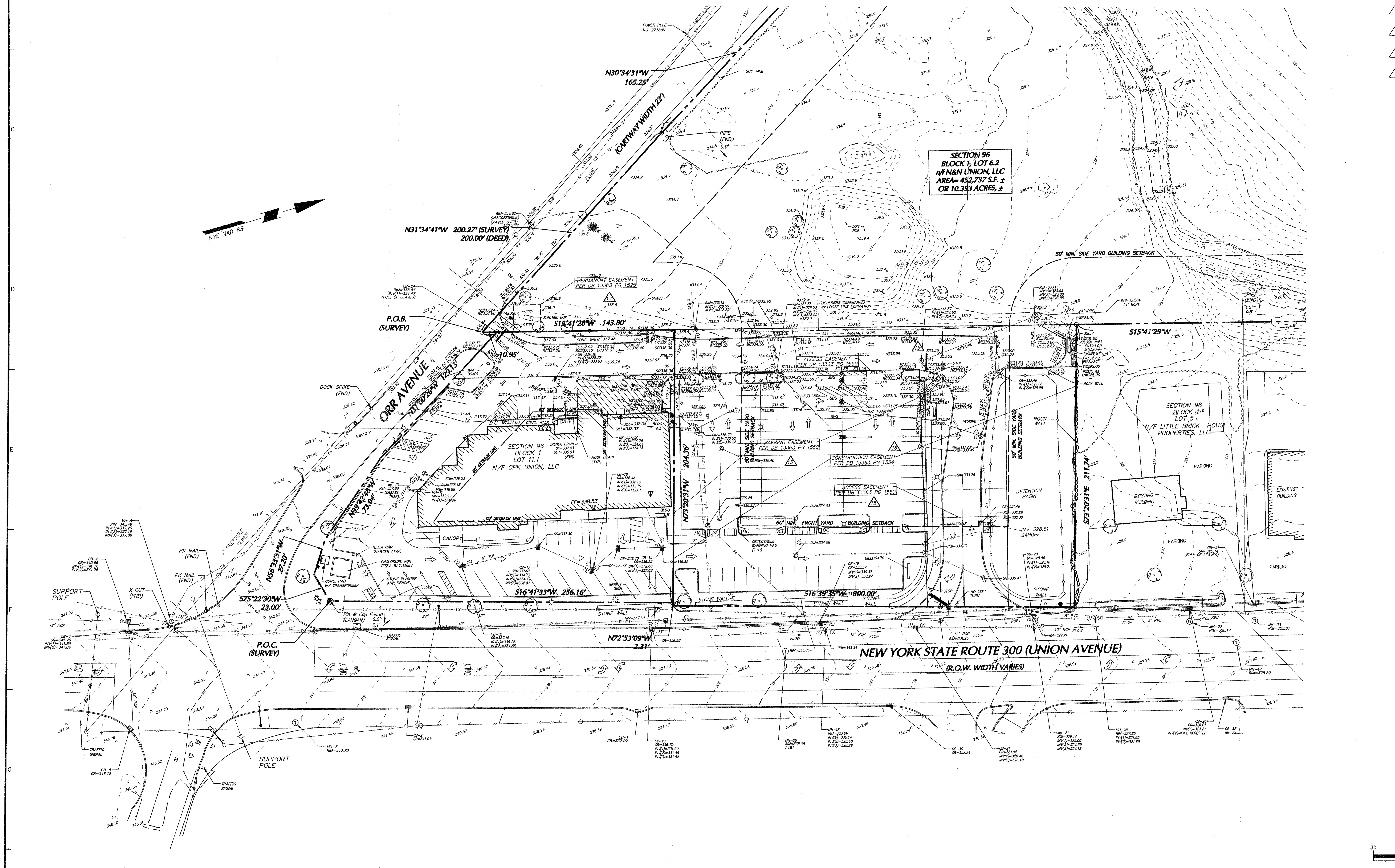


TABLE OF VESTING DEEDS

SECTION 96, BLOCK 1, LOT 6	BOOK 13288 PAGE 231
SECTION 96, BLOCK 1, LOT 7	BOOK 13288 PAGE 239
SECTION 96, BLOCK 1, LOT 8	BOOK 13288 PAGE 227
SECTION 96, BLOCK 1, LOT 9	BOOK 13288 PAGE 235
SECTION 95, BLOCK 1, LOT 36	BOOK 13288 PAGE 243
SECTION 95, BLOCK 1, LOT 37.2	BOOK 13288 PAGE 247

Date	Description	No.
8/21/18	updated Topo and Wetland	3
7/17/18	Added Sheet - 2	2
12/06/17	Revised Labels Along Orr Ave.	1

REVISIONS

"I hereby state that this plan is based on a field survey made by me or under my immediate supervision in accordance with NYSPLS Code of Practice for Land Surveys, and to the best of my professional knowledge, information and belief, and in my professional opinion, accurately represents the conditions found on the date of the field survey of the subject property".

STATE OF NEW YORK · JOSEPH E. ROMANO · 050130-1 · LICENSED LAND SURVEYOR

8/21/18

SIGNATURE JOSEPH E. ROMANO DATE SIGNED
PROFESSIONAL LAND SURVEYOR
NY Lic. No. 050130-1

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, NJ 07054

T: 973.560.4900 F: 973.560.4901 www.langan.com

Project

THE SHOPPES AT UNION SQUARE

SECTION 96, BLOCK 1, LOT 6.2
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title

PARTIAL TOPOGRAPHIC SURVEY

Project No. 9133101	Drawing No. VB101
Date 12/1/2017	
Scale 1" = 30'	
Drawn By KEC/HBV; Checked By DRA	
Submission Date 07/17/2018	Sheet 2 of 2

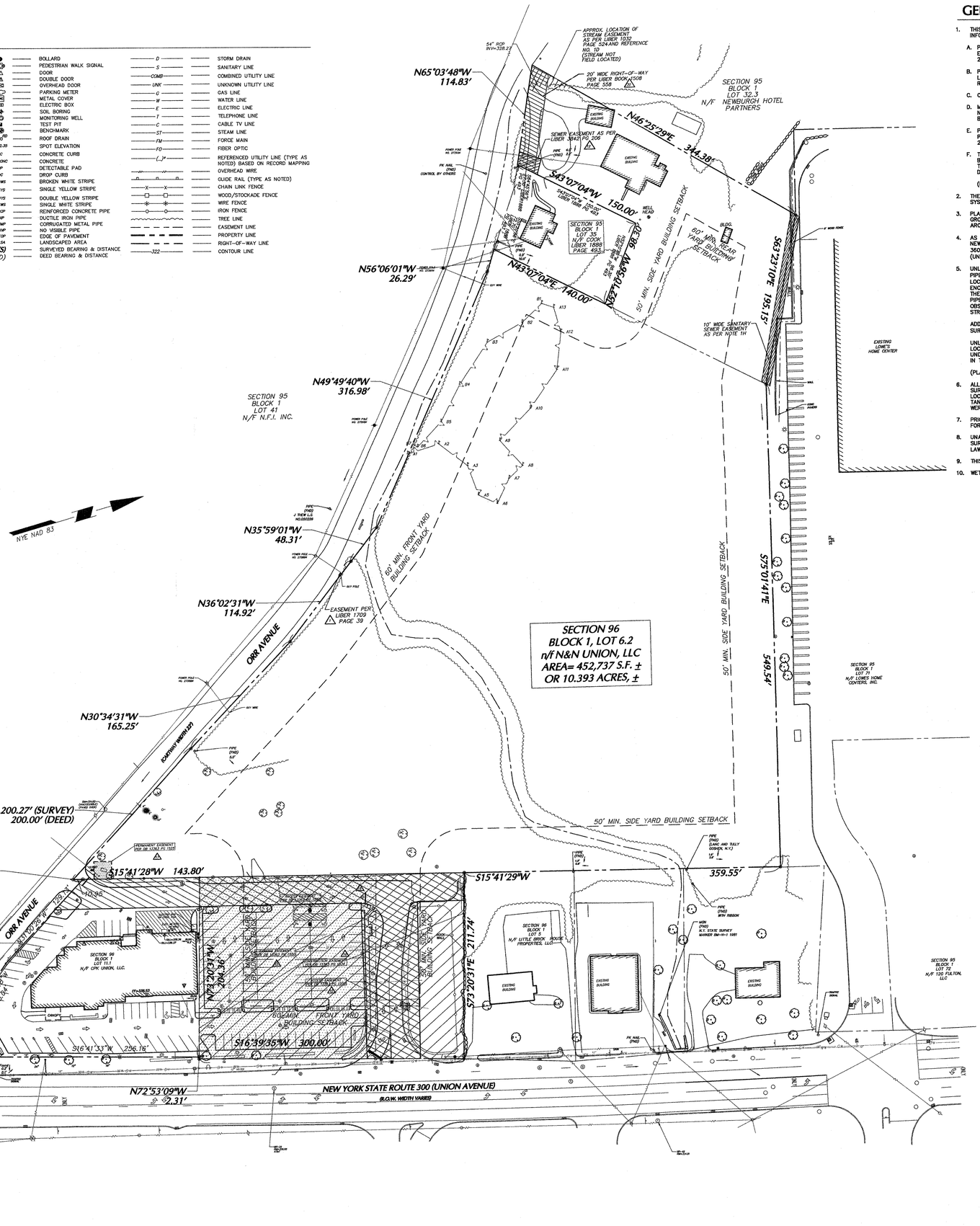
30 0 15 30
SCALE IN FEET

SUBMISSION DATE: 07/17/2018
PROJECT NO. 9133101
LANGAN

Filename: ...\Sheet Files\009133113-V-VB101.dwg Date: 8/21/2018 Time: 10:39 User: hvadalia Style Table: Langan.stb Layout: VB102

LEGEND (NOT SHOWN TO SCALE)

HYDRANT	BOLLARD	D	STORM DRAIN
STREET LIGHT	PEDESTRIAN WALK SIGNAL	S	SANITARY LINE
AREA LIGHT	DOOR	COMB	COMBINED UTILITY LINE
SIGNAL POLE	DOUBLE DOOR	UNK	UNKNOWN UTILITY LINE
POLE	OVERHEAD DOOR	G	GAS LINE
GUY WIRE	PARKING METER	W	WATER LINE
ANCHOR POLE	METAL COVER	E	ELECTRIC LINE
MANHOLE	ELECTRIC BOX	T	TELEPHONE LINE
MANHOLE (DRAINAGE)	SOIL BORING	C	CABLE TV LINE
MANHOLE (SANITARY SEWER)	MONITORING WELL	ST	STEAM LINE
MANHOLE (ELECTRIC)	TEST PIT	FM	FORCE MAIN
MANHOLE (WATER)	BENCHMARK	FO	FIBER OPTIC
MANHOLE (NATURAL GAS)	ROOF DRAIN	(_)*	REFERENCED UTILITY LINE (TYPE AS NOTED) BASED ON RECORD MAPPING
MANHOLE (TELEPHONE)	SPOT ELEVATION		
MANHOLE (STEAM)	CONCRETE CURB		
MANHOLE (UNKNOWN UTILITY)	CONCRETE		
WATER VALVE	DETECTABLE PAD		
GAS VALVE	DROP CURB		
SHRUB	BROKEN WHITE STRIPE		
CATCH BASIN	SINGLE YELLOW STRIPE		
CLEAN OUT	DOUBLE YELLOW STRIPE		
TREE	SINGLE WHITE STRIPE		
SIGN	REINFORCED CONCRETE PIPE		
	DUCTILE IRON PIPE		
	CORRUGATED METAL PIPE		
	NO VISIBLE PIPE		
	EDGE OF PAVEMENT		
	LANDSCAPED AREA		
	SURVEYED BEARING & DISTANCE		
	DEED BEARING & DISTANCE		



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   - F. TITLE COMMITMENT:
     BY: HILL-N-DALE ABSTRACTORS, INC.
     TITLE NUMBER: HN 59812 AMENDED
     DATED: NOVEMBER 15, 2017

     (EXCEPTIONS LISTED SEPARATELY)
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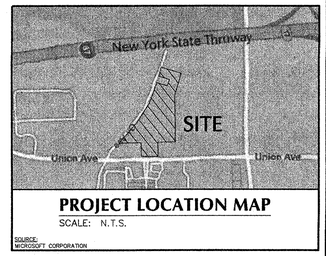

PROJECT LOCATION MAP

SCALE: N.T.S.

SOURCE: MICROSOFT CORPORATION

EXCEPTIONS

1	GRANTS, EASEMENTS, RIGHTS OF WAY: LIBER 481 PAGE 311 (LOCATION UNKNOWN) LIBER 693 PAGE 329 (LOCATION UNKNOWN) LIBER 13595 PAGE 468 (PLOTTED) LIBER 1709 PAGE 39 (PLOTTED)
12	SUBJECT TO UTILITY EASEMENT IN FAVOR OF THE TOWN OF NEWBURGH IN LIBER 3842 PAGE 205 (PLOTTED)
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15	RECIPROCAL ACCESS AND PARKING EASEMENT AGREEMENT IN LIBER 13363 PAGE 1550, SUBJECT TO CHARGES IMPOSED THEREIN (PLOTTED)
16	SUBJECT TO GRANT OF RIGHT OF WAY AND CONSTRUCTION EASEMENT IN LIBER 13363 PAGE 1534 (PLOTTED)
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TABLE OF VESTING DEEDS

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SECTION 96, BLOCK 1, LOT 8	BOOK 13288	PAGE 227
SECTION 96, BLOCK 1, LOT 9	BOOK 13288	PAGE 235
SECTION 95, BLOCK 1, LOT 36	BOOK 13288	PAGE 243
SECTION 95, BLOCK 1, LOT 37.2	BOOK 13288	PAGE 247

50 0 25 50
SCALE IN FEET

No.	Description	Date
3	Updated Topo & wetland	8/21/18
2	Added Sheet – 2	7/17/18
1	Revised Labels Along Orr Ave.	12/06/17

REVISIONS

"I hereby state that this plan is based on a field survey made by me or under my immediate supervision in accordance with NYSPLS Code of Practice for Land Surveys, and to the best of my professional knowledge, information and belief, and in my professional opinion, correctly represents the conditions found on the date of the field survey of the subject property".

SIGNATURE JOSEPH E. ROMANO DATE SIGNED
PROFESSIONAL LAND SURVEYOR
NY Lic. No. 050130–1

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com

Project

THE SHOPPES AT UNION SQUARE

SECTION 96, BLOCK 1, LOT 6.2
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title

BOUNDARY SURVEY

Project No. 9133101	Drawing No. VB101
Date 12/1/2017	
Scale 1" = 50'	
Drawn By KEC/HBV / Checked By DRA	
Submission Date 07/17/2018	Sheet 1 of 2

THE SHOPPES AT UNION SQUARE
APPLICATION FOR AMENDED SITE PLAN APPROVAL

SECTION 96, BLOCK 1, LOTS 6.2 & 11.1

UNION AVENUE (NYS ROUTE 300) AND ORR AVENUE
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

LIST OF CONTACTS

PLANNING BOARD CHAIRMAN
John Ewasutyn
308 Gardnertown Road
Newburgh, NY 12550
PHONE: (845) 564-7804
FAX: (845) 566-7802

TOWN ENGINEER
James W. Osborne
1496 Route 300
Newburgh, NY 12550
PHONE: (845) 564-7814
FAX: (845) 566-1432

TOWN CLERK
Andrew J. Zarutskie
1496 Route 300
Newburgh, NY 12550
PHONE: (845) 564-4554
FAX: (845) 564-8589

ORANGE COUNTY HEALTH DEPARTMENT
124 Main Street
Goshen, NY 10924
PHONE: (845) 291-2331

SUPERVISOR
Gil Piaquadio
1496 Route 300
Newburgh, NY 12550
PHONE: (845) 564-4552
FAX: (845) 566-9486

ORANGE COUNTY SOIL & WATER CONSERVATION DISTRICT
225 Dolson Avenue, Suite 103
Middletown, NY 10940
PHONE: (914) 343-1873/3811
FAX: (914) 344-1341

GAS AND ELECTRIC
Central Hudson Gas & Electric Co.
610 Little Britain Road
Newburgh, NY 12550
Mark Sclafani
PHONE: (845) 563-4538

TELEPHONE
Verizon
449 Broadway, 4th Fl
Kingston, NY 12401
PHONE: (845) 340-8036

WATER
Town Of Newburgh
343 Route 32
Newburgh, NY 12550
Mr. John Egitto
PHONE: (845) 564-2180

SEWER
Town Of Newburgh
311 Route 32,
Newburgh, NY 12550
PHONE: (845) 564-7803

CABLE
Time Warner Cable
109-15 14th Avenue
College Point, NY 11356
PHONE: (845) 692-5339

PROJECT CONTACTS

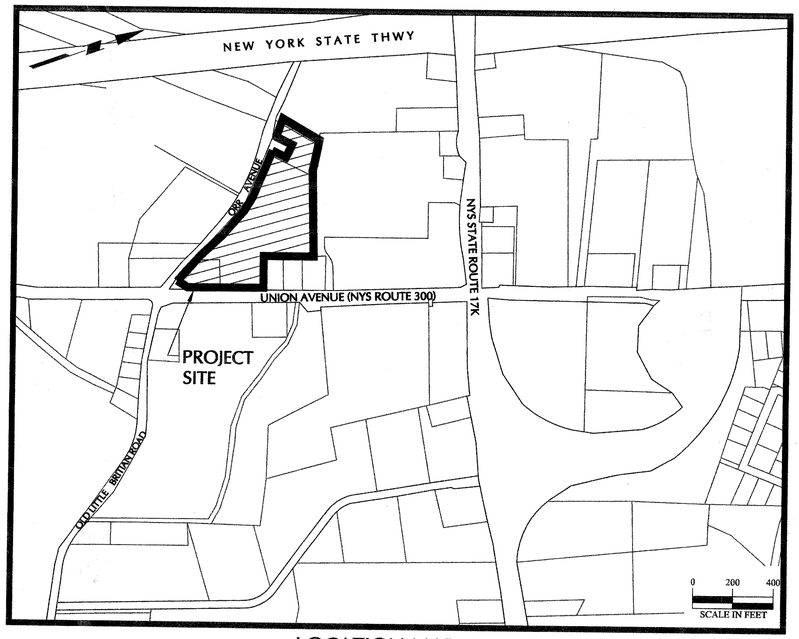
APPLICANT & OWNER:

TAX LOT: 96-1-6.2
N&N Union, LLC
C/O Cosimo's Management
1089 Little Britain Road
New Windsor, NY 12553

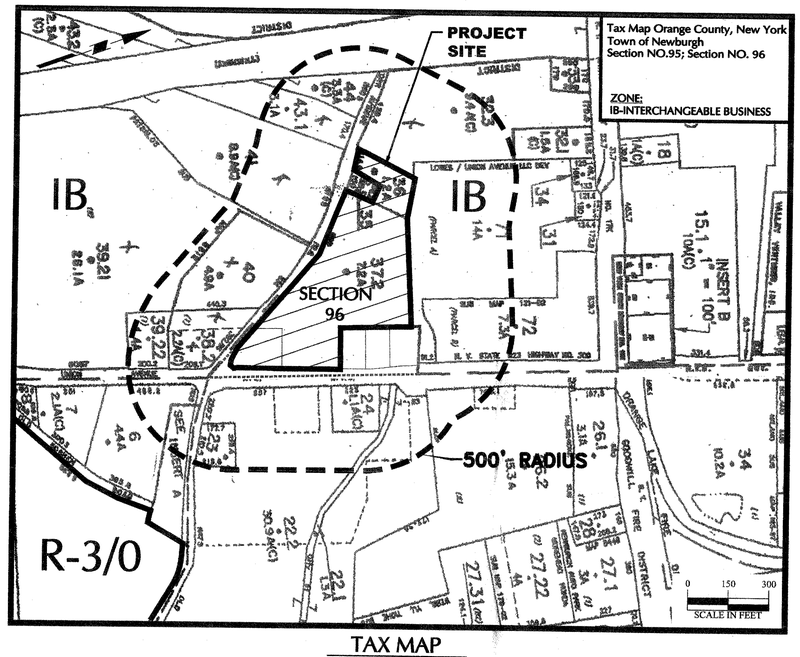
TAX LOT: 96-1-11.1
CPK Union, LLC
C/O Cosimo's Management
1089 Little Britain Road
New Windsor, NY 12553

SITE/CIVIL ENGINEER: LANGAN

Bryan Waisnor, P.E.
300 Kimball Drive
4th Floor
Parsippany, NJ 07054
Phone No.: (973) 560-4900



LOCATION MAP
SCALE: 1" = 400'



TAX MAP
SCALE: 1" = 300'

DRAWING LIST

DRAWING NO.	DESCRIPTION	SCALE	DATED	REVISION DATE
00.01	COVER SHEET	NTS	JULY 18, 2018	AUGUST 22, 2018
VB101	BOUNDARY SURVEY	1"=50'	DEC 1, 2017	AUGUST 21, 2018
VB101	PARTIAL TOPOGRAPHIC SURVEY	1"=30'	DEC 1, 2017	AUGUST 21, 2018
20.01	OVERALL SITE PLAN	1"=50'	JULY 18, 2018	AUGUST 22, 2018
20.03	SITE PLAN PHASE II	1"=30'	JULY 18, 2018	AUGUST 22, 2018
21.03	GRADING AND DRAINAGE PLAN PHASE II	1"=30'	JULY 18, 2018	AUGUST 22, 2018
22.01	UTILITY PLAN	1"=30'	JULY 18, 2018	AUGUST 22, 2018
23.01	SOIL EROSION AND SEDIMENT CONTROL PLAN	1"=30'	JULY 18, 2018	AUGUST 22, 2018
23.02	SOIL EROSION AND SEDIMENT CONTROL DETAILS	AS SHOWN	JULY 18, 2018	AUGUST 22, 2018
24.01	LANDSCAPE PLAN	1"=30'	JULY 18, 2018	AUGUST 22, 2018
24.04	LANDSCAPE SCHEDULE, NOTES, AND DETAILS	AS SHOWN	JULY 18, 2018	AUGUST 22, 2018
25.01	LIGHTING PLAN	1"=30'	JULY 18, 2018	AUGUST 22, 2018
25.02	LIGHTING SCHEDULE, NOTES, AND DETAILS	AS SHOWN	JULY 18, 2018	AUGUST 22, 2018
28.01	DETAIL SHEET	AS SHOWN	JULY 18, 2018	AUGUST 22, 2018
28.02	DETAIL SHEET	AS SHOWN	JULY 18, 2018	AUGUST 22, 2018

NOTE:
AT LEAST 3 DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY CONTACT: "CALL BEFORE YOU DIG" 1-800-962-7962.

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT #

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Revisions	Date
1.	REVISED PER TOWN COMMENTS	8/22/2018

STATE OF NEW YORK — BRYAN MARTIN WAISNOR — 080661 — LICENSED PROFESSIONAL ENGINEER
AUG 22 2018

BRYAN M. WAISNOR
PROFESSIONAL ENGINEER NY LIC No. 080661-1

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
THE SHOPPES AT UNION SQUARE
PHASE II
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
COVER SHEET

Project No. 9133101	Drawing No. 00.01
Date July 18, 2018	
Scale AS SHOWN	
Drn. By AEB	

Filename: \\langan.com\data\PAR\data1\9133101\Cadd Data – 9133101\Dwg\9133101 0001 Amended.dwg Date: 8/10/2018 Time: 11:57 User: aberl Style Table: Langan.stb Layout: 00.01