Richard Fon
Chairman

Matthew J. Slater
Town Supervisor

TOWN OF YORKTOWN
PLANNING BOARD

Albert. A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone: (914) 962-6565, Fax: (914) 962-3986

PUBLIC MEETING AGENDA
YORKTOWN TOWN HALL BOARD ROOM

363 Underhill Avenue, Yorktown Heights, NY 10598

December 12, 2022
7:00 PM

1. **Correspondence**
2. **Meeting Minutes – November 28, 2022**

WORK SESSION

3. **79 Somerston Road - #WP-BSWPPP-038-22**
   Town Board Referral
   Location: 17.10-1-3; 79 Somerston Road
   Contact: David A. Goessl, PE
   Description: Application for a wetland permit and stormwater management permit to install an in-ground swimming pool and related stormwater management system in a wetland buffer.

4. **SDML Realty, LLC**
   Discussion Site Plan
   Location: 35.08-1-11, 14, 15, 23; 3735 Crompond Road (Route 202)
   Contact: Reuben Buck
   Description: Proposed 3,069 square foot Dunkin with drive thru, parking, and associated site improvements.

5. **Lowes Pad C**
   Discussion Site Plan
   Location: 26.19-1-1; 3180 Crompond Road (Route 202)
   Contact: Site Design Consultants
   Description: Proposed 2,383 square foot Chipotle with drive-thru, parking, and associated site improvements.

6. **Toll Brothers at Catherine Street**
   Town Board Referral
   Location: 35.12-1-2 & 35.08-1-45; 2302 & 2448 Catherine Street
   Contact: Zarin & Steinmetz
   Description: Submitted petition requesting rezone of the parcels from RSP-3 & R1-40 to RSP-2 to facilitate Toll Brothers redevelopment proposal to constuct a 118-unit townhouse community with clubhouse and pool for 55+ active adults.

7. **670 East Main Street**
   Pre-Preliminary Discussion
   Location: 16.08-1-34; 670 East Main Street, Jefferson Valley
   Contact: Hahn Engineering
   Description: Proposed to remove existing single family house and detached garage and construct five two-story, three-bedroom townhouses and 15 parking spaces.

Last revised: December 9, 2022

Correspondence

Environmental Protection

Rohit T. Aggarwala
Commissioner

Paul V. Rush, P.E.

Deputy Commissioner
Bureau of Water Supply
prush@dep.nyc.gov

465 Columbus Avenue
Valhalla, NY 10595
T: (845) 340-7800
F: (845) 334-7175

December 9, 2022

Mr. Joseph C. Riina, P.E.
Site Design Consultants
251-F Underhill Avenue,
Yorktown Heights, NY- 10598

Via Email: jriina@sitedesignconsultants.com

Re: Proposed CVS Pharmacy - Stormwater Pollution Prevention Plan
3320 Crompond Road (NYS Rte.35/202)
Yorktown Heights, NY
Tax Map# 26.18-1-23, 25 & 26
Log # 2015-CNC-0144-SP.1

Dear Mr. Riina:

New York City Department of Environmental Protection (DEP) has reviewed your latest submission on the above referenced SWPPP. The following comments must be addressed satisfactorily prior to approval.

1. The response on the latest DEP's comment 1 is not fully accurate. The ground water elevation at TP-2 is at 305. The updated Section 1.13 of the SWPPP indicates the invert of the sand filter as 305 but the remainder of the report and plans shows the invert as 305.75 and therefore the groundwater is ¾" lower than the sand filter invert based on TP-2. But the response given regarding groundwater found right at the bottom of the sand filter is not consistent with the soil testing witnessed nearby. The test pits 4, 5 & 6 in the immediate vicinity exhibited groundwater at 307.5, 310 and 306.25 respectively. Therefore, Section 1.13 of the SWPPP report should be revised to reflect this data also correctly to properly justify Technical Equivalence in this regard.

2. The underdrain detail shows 6" perforations but the call out on the drainage plan says 8" perforated pipe. Clarify whether the perforations on the 8" pipe is 6" or whether two 6" perforated pipes are tied to one 8" collector pipe as labelled in the sand filter detail. The details spelled out on the technical equivalence must be consistent with the details on the plans.

3. The sizing calculations for under drain sizing shows h2 as 304.88, please verify. Also,' h2'used in the equation should be corrected.

4. Please verify that all the drainage structures are legibly labelled on the drainage plan, C3.1. For E.g., the B4 and B5 between the previous submission and current submissions should be rechecked for consistency. Those are shown as swapped in this submission.

5. Include Jelly fish filter into the post construction maintenance schedule.

Should you have any questions regarding this letter, please call the undersigned at (914)749-5357 or mzachariah@dep.nyc.gov.

Sincerely,

Mariyam Zachariah

Mariyam Zachariah
Associate Project Manager
EOH Project Review Group
Regulatory & Engineering Programs

Cc: Town of Yorktown Planning Board, planning@yorktownny.org
Dan Ciarcia, dciarcia@yorktownny.org
James Nazaro, owner, jim@jjnazaaro.com
Tony Giuliani, tgiuliani@phronesisengineering.com
Anthony Stancanelli, astancanelli@phronesisengineering.com

Site Design Consultants

Civil Engineers • Land Planners

November 28, 2022

Ms. Mariyam Zachariah
NYC DEP
465 Columbus Avenue
Valhalla, NY 10565

Re: Proposed CVS Pharmacy – Stormwater Pollution Prevention Plan
3320 Crompond Road
Yorktown Heights, NY
Tax Map # 26.18-1-23, 256, & 26
Log# 2015-CNC-0144-SP.1

Dear Mariyam:

Please find the following responses to your comments as per your letter dated September 30, 2022. In addition to those comments, we have clarified some labeling of drainage structures for ease of reading. Please find the following responses.

- In section 1.13 of the SWPPP we provide a discussion on technical equivalence for compliance with The NYS DEC SDM which requires in Section 6.4.2 a minimum 2 foot separation between the bottom of the filter to avoid influence on the treatment capability of the sand filter by groundwater. This is highlighted in green for you to easily identify.
- This information has been added to the detail for the sand filter. The updated detail is attached. We have also attached the updated Appendix 7 of the SWPPP with supporting calculations.
- In section 1.13 of the SWPPP we provide a discussion on technical equivalence for compliance with the use of porous concrete for compliance with the NYS DEC SDM. This is highlighted in green.
- Additional spot elevations have been added to sheet C 3.0 to show that all of the surface runoff generated at the entrance is fully captured. In addition, a trench drain is being proposed.
- The soil test results have been corrected. We are attaching the updated data sheets.
- We are attaching a full printout of the stage/storage Hydrocad report.
- In section 1.13 it is noted that Trib area B and Trib Area C provide treatment and RRv together. A has been added to the WQv table and in the RRv section of appendix 7 that the RRv for Trib area B is provided in Trib Area C. I.
- These have been labeled.
- This table has been added to sheet C 4.0.

251-F Underhill Avenue • Yorktown Heights, New York 10598
60 Walnut Grove Road • Ridgefield, Connecticut 06877
(914) 962-4488 (203) 431-9504 Fax (914) 962-7386

Additional information provided includes:

- On sheet C3.1 on the table showing the elevation of groundwater based on the soil tests, under the column "Inv. of nearby System" for each row, we have included the name of the nearby systems (i.e. infiltration chambers, Sandfilter, etc)
- On the bypass and detention chamber details for each inlet and outlet we have included the invert elevation and the upstream or downstream structure name.
- A description has been added in in section 1.13 on how the detention chambers function.
- In the sand filter sizing portion of appendix 7, a note has been added specifying that some of Trib area C is treated in the sand filter.

Please review our submission and contact us with any questions or comments. Thank you.

Yours Truly,

Joseph C. Rijna, P.E.

JCR / jr / Enc. / sdc 18-78

Richard Fon
Chairperson

John A. Tegeder, R.A.
Director of Planning

TOWN OF YORKTOWN
PLANNING BOARD

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone (914) 962-6565, Fax (914) 962-3986

To: Town Board
From: Planning Board
Date: December 5, 2022
Subject: 800 East Main Street Yorktown Development, LLC
SBL: 5.19-1-15

At its meeting on November 28, 2022, the Planning Board discussed the applicant's petition for a change of zone from the OB District to RSP-2 District. The Board had concerns regarding the single access to the site, views of the site from the surrounding area, traffic impacts, among other details. However, the Board felt a multi-family age restricted residential development potentially is a good reuse for the existing large vacant office campus. The Board recommends consulting and reviewing the Comprehensive Plan's recommendations relative to the proposed use of this site.

Respectfully submitted,

Robyn A. Steinberg, AICP, CPESC
Town Planner

cc: Janet Giris, Esq.

Christopher Taormina, RA
Chairman

Matthew Slater
Town Supervisor

TOWN OF YORKTOWN

ADVISORY BOARD ON ARCHITECTURE & COMMUNITY APPEARANCE (*ABACA*)

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone (914)-962-6565

To: Diana Quast, Town Clerk *for the Town Board*
From: ABACA
Date: December 9, 2022
Subject: **Town Board Referral – AMS LLC - 800 E. Main Street; 5.19-1-15**
Petition for zoning code and map amendments to rezone from OB-2 to RSP-2 for an active adult residential community development consisting of 250-units including a mix of rental and for-sale townhomes on a 35.53-acre parcel.

Documents Submitted and Reviewed:

Title:	Produced By:
Town Board Referral dated 11/28/2022 -DelBello Donnellan Weingarten Wise & Wiederkehr, LLP letter dated 11/1/2022 with associated materials -Conceptual site plan	Diana Quast, Town Clerk

The Advisory Board on Architecture and Community Appearance reviewed the above referenced subject at their meeting held on Tuesday, December 6, 2022. Joseph Eriole, Esq. of DDW Law; and Alejandro Giraldo of Perkins Eastman were present. The Board has no objections to the proposed rezoning of the property and looks forward to seeing the project as it develops.

Christopher Taormina
Christopher Taormina, RA
Chairman

/nc
cc: Planning Department
Planning Board
Town Board *via Town Clerk*
Applicant

Diane Dreier Co-Chair
Phyllis Bock Co-Chair

Matthew Slater
Town Supervisor

TOWN OF YORKTOWN
CONSERVATION BOARD

Town of Yorktown Town Hall, 363 Underhill Avenue, Yorktown Heights, New York 10598, Phone (914) 962-5722

MEMORANDUM

To: Planning Board

From: Yorktown Conservation Board

Date: 11/23/2022

Re: Dell Avenue Solar Farm

The Conservation Board joined the Planning Board on a site walk of 200 Dell Avenue on November 13, 2022. The Board's last memo was generated on July 14th. The applicant has satisfied all of the requests made by the Conservation Board.

The Conservation Board reemphasizes our consensus shared in previous memos on the siting of solar arrays. While renewable power sources such as wind and solar present green solutions to cutting carbon emissions, we maintain that solar farms should be located on sites that have few negative environmental impacts. The ecosystem services that forests provide - carbon sequestration, air and water purification, flood and erosion control, the ability to sustain biodiversity and genetic resources, should all be taken into consideration when reviewing applications such as these.

Respectfully submitted:
Phyllis Bock
For the Conservation Board

From: Wendy Frank <wendyfrank.mail@gmail.com>
Sent: Tuesday, November 29, 2022 3:08 PM
To: Planning Department
Subject: Re: Opposition to Unicorn & the Soundview plan - it's a really crappy plan

No response

Typical of Yorktown elected officials
How does the town track constituent letter to issue to response?
Oh wait, they don't because nobody knows how to write a ltr and they are all little puppets to the GOP clueles Slater. Slater has no clue about housing at all.

On Mon, Aug 15, 2022 at 3:21 PM Wendy Frank <wendyfrank.mail@gmail.com> wrote:

Dear Yorktown Planning Board,

I am requesting that you select the comprehensive Environmental Impact Study (EIS) option for the Underhill Farm development project. Please do what's in the best interest of our community and not what is in the best interest of the Development, and the lobbyist to Unicorn, you know the guy with no background in development who was fast tracked thru the ethics committee, and prior experience is being a chiropractor.

EIS, is the ONLY option which protects our community's quality of life vs the developer's financial interests. In addition, the town should look at how many foreclosed houses are currently in inventory in the town, bank owned. The town should address how there is no affordable housing options at all, and look at the fact the Soundview plan has no garages, no solar panel canopy for cars, and you can't see by the rendering what the square feet of each unit will be part of the All-Electric Building Act (S6843A/A8431) that Republican Assembly Member Kevin Bryne did not sign. This is not a 21st century plan for housing.

We hope that the planning board will consider how senior citizens, recent college graduates, empty nesters who might not want to live in Heritage Hills, and young families are going to pay market value to live in a town with no music venue, no art, no culture, and a town that is not walkable, has an empty mall, and the local bus stop is pretty sad. Then again, when was the last time a Yorktown elected official took the Bee Line Bus? We also need to consider the reality of a rendering of an overdeveloped property with no amenities and an awful traffic plan where local elected officials have not observed the traffic during busy times of the day or at all. Nothing says sketchy than having Terrence Murphy the FORMER elected official who has no prior experience in being a lobbyist, working on big scale construction projects as the lobbyist for Unicorn. Has anyone looked at his resume? It's almost like going to a dentist with no teeth. Why would you allow a chiropractor to be the lobbyist for a housing project?

The town also needs to have a plan which they don't, as foreclosures are a problem all over the country local elected officials have no rainy day plan if there is an economic downturn there are just too many houses on the market and foreclosed houses in the town.

Wendy Frank
2963 Curry Street

Draft Minutes

79 Somerston Rd

Richard Fon
Chairperson

John A. Tegeder, R.A.
Director of Planning

TOWN OF YORKTOWN
PLANNING BOARD

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone (914) 962-6565, Fax (914) 962-3986

To: Town Board
From: Planning Board
Date: December 5, 2022
Subject: #WP-BSWPPP-038-22
79 Somerston Road
SBL: 17.10-1-3

At its meeting on November 28, 2022, the Planning Board discussed the subject application. The Board was unclear if the new garage addition was already approved, since it was not shown on the existing conditions plan, but is shown on the development plans and is not part of this application. The entire proposed development is within the 100 foot buffer from a state wetland, a town wetland, and is in the flood plain. The Board questioned if soil testing had been completed since the application is showing infiltration within a flood zone. More information is required and a representative is requested to be present for the Board to evaluate the cumulative effects of the proposed project.

Respectfully submitted,

Robyn A. Steinberg, AICP, CPESC
Town Planner

cc: Town Engineer
Fernando Pisa, Pisa Constriction
Frank Jennings, property owner

David A. Goessl, P.E.
Civil Engineer
622 Sprout Brook Road
Putnam Valley, N.Y. 10579
(914) 227-0258

December 6, 2022

Chairman Richard Fon and
Members of the Planning Board
Town of Yorktown
1974 Commerce Street
Yorktown Heights, N.Y. 10598

RE: 79 Somerston Road (SBL: 17.10-1-3) – Application for Freshwater Wetlands Site Plan Approval for Proposed In-Ground Swimming Pool and Related Improvements

Dear Chairman Fon and Members of the Planning Board:

The applicant has received and appreciates the review memorandum drafted by the Town Planner Robyn Steinberg, dated December 5, 2022, summarizing key questions and comments raised on November 28th, by fellow members of the Planning Board for the above reference application for Wetlands Approval. While we were not present for that work session, we did review the televised recording and appreciate all the dialog and consideration that was offered by the Board including additional supporting information on the project provided by Town Engineer Dan Ciarcia, PE.

On behalf of the owners and in an effort to provide additional clarification on the application before you, we respectfully submit this cover memorandum and attached engineering plans dated revised December 6, 2022, in anticipation for reappearance before the Planning Board on Monday January 12th. To further assist you with the review of this application, the following background information is offered regarding the current proposed action, developed engineering plans, proposed mitigation, and summary of Zoning variances and approvals for other site improvements already received by the owner.

A. **Subject Property:** The property for 79 Somerston Road is situated on 17,653 square feet of land in the R 1-20 residential Zoning District and currently contains a single-family residence of 1,640 square feet. Developed lot features include a rear concrete paver patio, walkways, raised deck, tool shed and paved driveway for four off street parking spaces. The grade of the property is modestly sloped from northwest to southeast and is fairly landscaped with some trees, shrubs, and open lawn areas. The property to the rear contains both Town and New York State regulated wetlands and partially falls within a FEMA special flood hazard area. This area is heavily wooded consistent with adjacent wetland areas in the neighborhood. The application before you is for a project involving the installation of a new in-ground pool to replace an existing above-ground pool. Prior to this review, the applicant appeared before the Town Zoning Board and received variances (Case 47/22) and subsequent building permits to construct an attached garage. Other approvals included construction of the rear patio and elevated deck.

B. **Environmental Critical Areas:** As mentioned, the subject property does contain freshwater wetlands and wetland buffer areas and does partially fall within a FEMA designated special floodplain hazard area for which base flood data is not provided. In January of 2022, the owner commissioned

environmental consultant Tim Miller Associates of Cold Spring NY to inspect, identify and stake out the wetland limits in the rear yard. The limits and controlled 50-foot and 100-foot buffer areas were captured and established on engineering plans. Mitigation for disturbance in the buffer area is offered through proposed wetland plantings consisting of Red Chokecherry (*Aronia arbutifolia),* Silky Dogwood (*Cornus amomum),* Arrowwood (*Viburnum dentatum)*, American Elder (*Sambucus canadensis)* and Switch Grass (*Panicum virgatum).* The owner is aware and is committed to obtaining permitted wetland coverage from NSYDEC for this project.

C. **Construction Sequence and Site Protections:** As with most projects, disturbance to neighboring properties is inevitable with residential development. Specified in the attached plan are a full set of sediment and erosion control measures including contractor acknowledgement and certification to ensure that all precautionary measures are in place to protect the municipal road, right of way and adjacent properties. As the subject property contains open lawn areas along the left side and rear yard, staging of equipment and construction materials should not be an issue as work progresses. Protective fencing will be installed upland of the wetland area.

D. **Stormwater Management Design:** In keeping with Town code, a conceptual plan to mitigate surface water runoff from increased impervious coverages coupled with seasonal pool drawdown is developed and provided on page 2 of the attached plans. While the project calls for a net increase in impervious coverage of 76 square feet, a design including shallow infiltration units will be sized for full pool coverage for the standard 25-year, 24-hour rain event in conjunction with percolation rates which will be field determined at a later date. Modeling as such is consistent with New Yok State Department of Conservation's design standards for stormwater management. The primary location for the drainage system is in the rear yard. However should field investigations determine that the front yard is more suitable than the rear, that location will be used.

In summary, the plan before you provides all the requisite New York State design code for in-ground swimming pools and is consistent with the general provisions, legislative intent and adopted standards of Town Code for Stormwater Management, Erosion and Sediment Control (Chapter 248) and for Freshwater Wetlands (Chapter 178). The owner and I appreciate having the opportunity to submit this project and very much look forward to the Board's consideration.

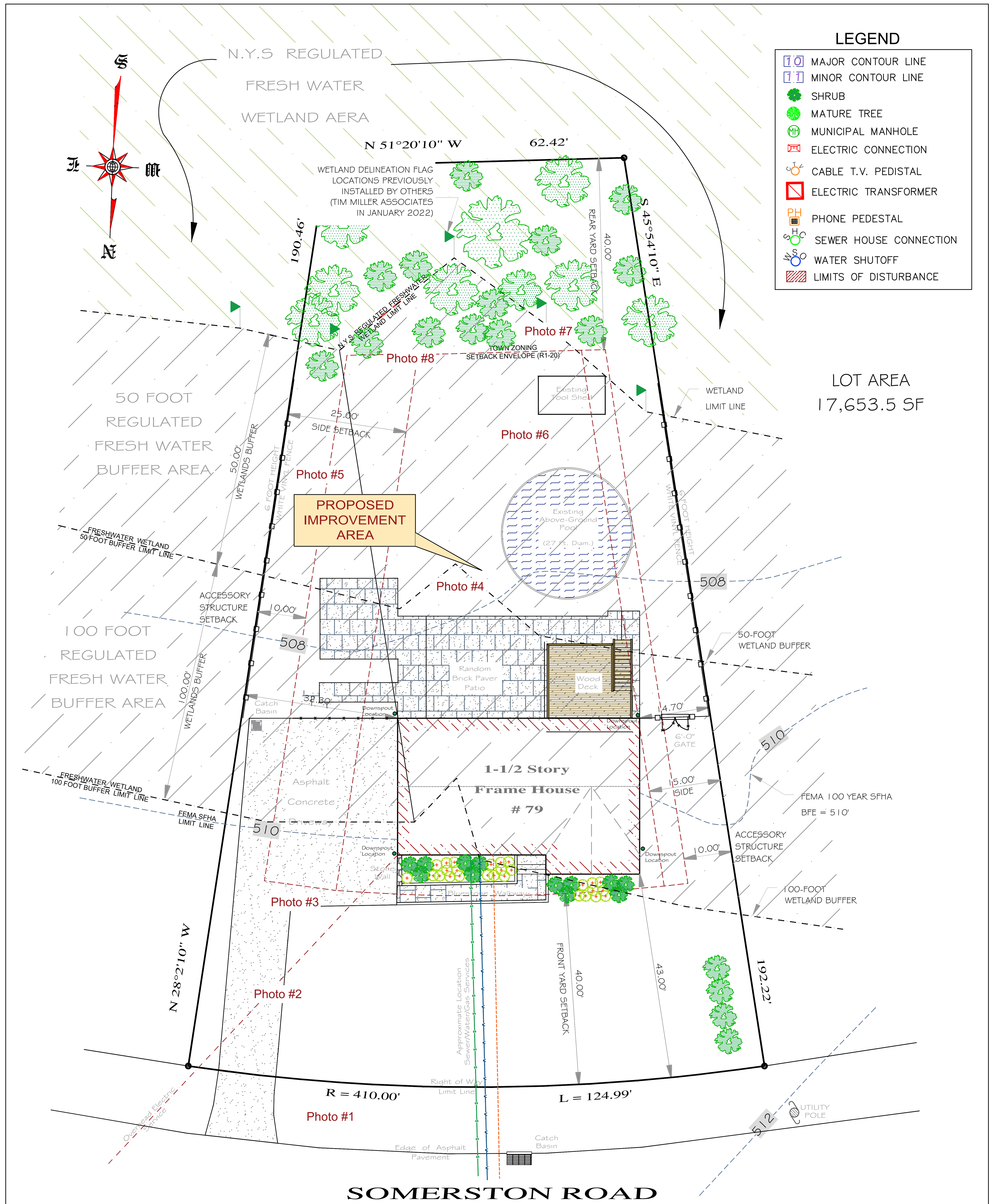
Respectfully yours,

David A. Goessl, P.E.

Civil Engineer
dgoessl2@gmail.com

CC: John A. Tegeder, RA, Director of Planning
Robyn A. Steinberg, AICP, CPESC, Town Planner
Dan Ciarcia, PE, Town Engineer
Frank Jennings, Property Owner
Frank Diodati, Code Specialist

EXISTING CONDITIONS - TOPOGRAPHICAL SITE PLAN



Survey of

Tax Lot No. 3, Block 17.10 as shown on the Tax Maps of the Town of Yorktown, Westchester County, New York.

Portion of Section 7 of Jefferson Valley Corporation subdivision map filed February 18, 1962 as Map #12343 in the Westchester County Clerk's Office for lot 23.

Survey completed: July 30, 2003,

on scale of one inch to 10 feet.

KULHANEK & PLAN, P.C.
LAND SURVEYORS, PC

LONG ISLAND OFFICE
P.O. BOX 487
LONG BEACH, N.Y.11581
1-800-431-9481

WESTCHESTER OFFICE
P.O. BOX 1787
POUND RIDGE, N.Y.10576
1-800-431-9481

MAP OF PROPERTY SITUATED AT
TOWN OF YORKTOWN~WESTCHESTER COUNTY, N.Y.
TAX IDENTIFICATION #: 17.10-01-03

GRAPHIC SCALE

15 0 7.5 15 30 60

(IN FEET)
1 inch = 15 ft.

THE LOCATION OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVEGROUND STRUCTURES. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. FOR INFORMATION REGARDING THESE UTILITIES OR FACILITIES, PLEASE CONTACT THE APPROPRIATE AGENCIES.

ANY UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A SEAL OF A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209 OF THE NYS EDUCATION LAW.

NOTE: ADDITIONAL PLANIMETRIC SURVEY DATA SHOWN HERIEN ON THIS PLAN OF THE PROPERTY OF 2942 FARM WALK ROAD, YORKTOWN, WESTCHESTER COUNTY, NEW YORK, 10598 WAS PREPARED FROM PLANS PREPARED BY DAVID TETRO AIA, WESTCHESTER COUNTY GIS DATA, REFERENCED LAND SURVEY AND RECORDED DEED FOR SAID PROPERTY. ENGINEER ACCEPTS NO LIABILITY TO ERRORS AND OMMISSIONS PROVIDED ON REFERENCED MAP SOURCES.

SITE PHOTOS - EXISTING CONDITIONS


Photo #1 - Front Yard / House


Photo #2 - Driveway / Contractor Access Route

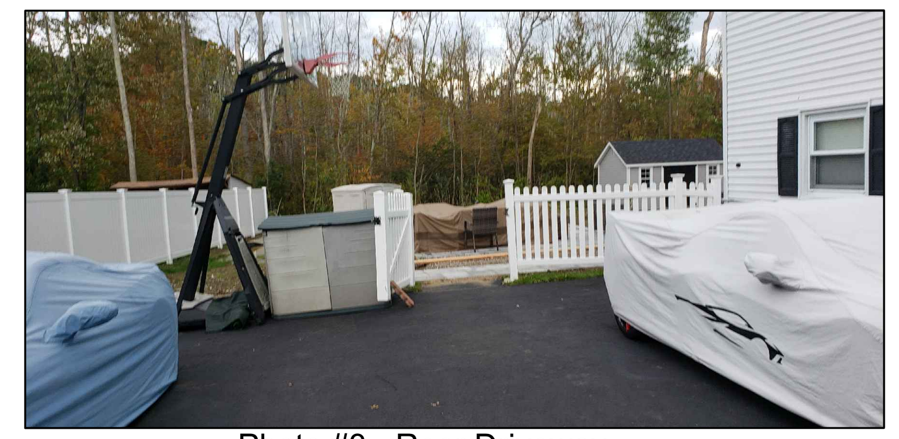


Photo #3 - Rear Driveway

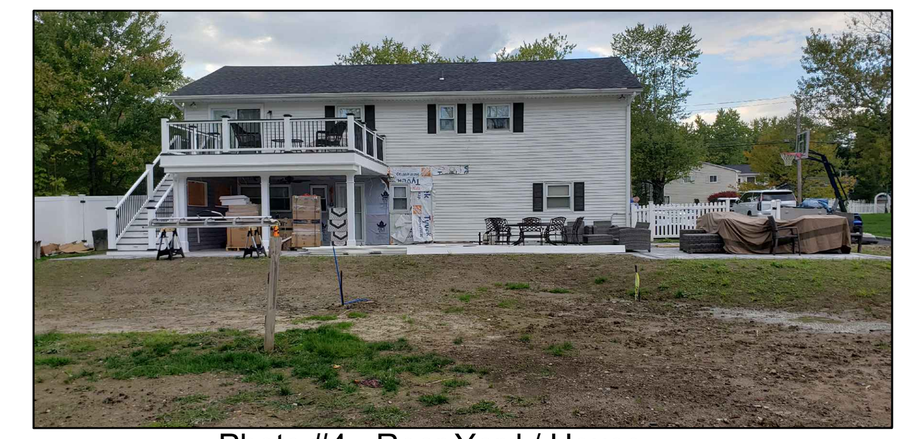


Photo #4 - Rear Yard / House

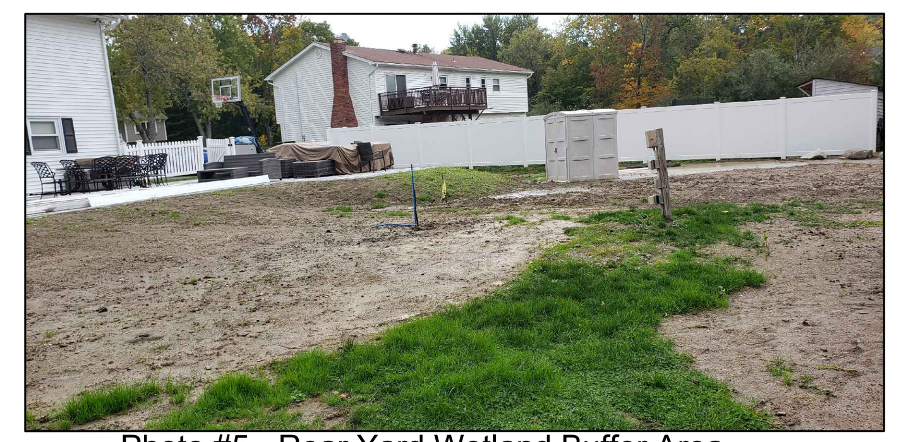


Photo #5 - Rear Yard Wetland Buffer Area

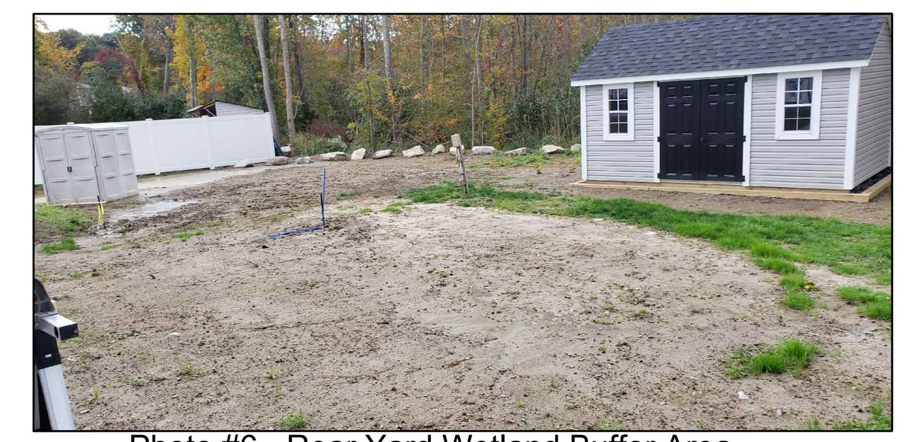


Photo #6 - Rear Yard Wetland Buffer Area

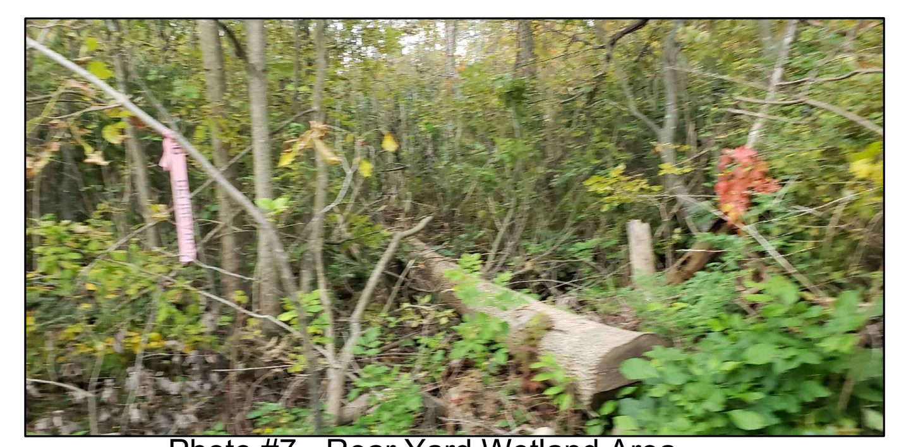


Photo #7 - Rear Yard Wetland Area

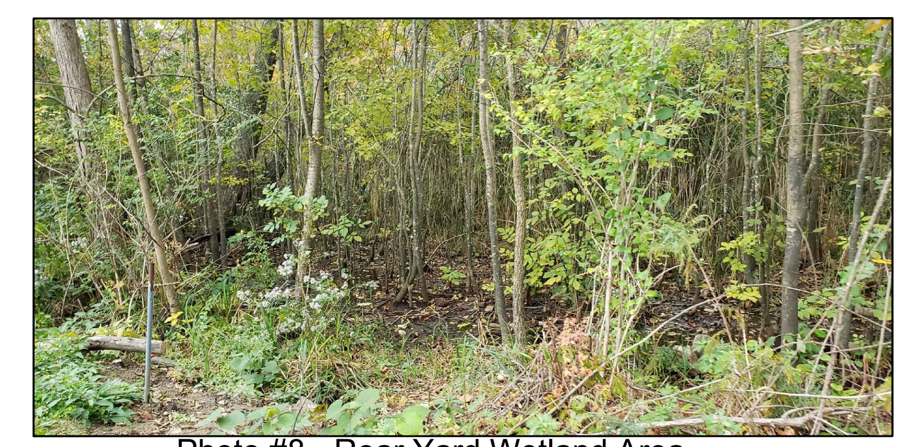
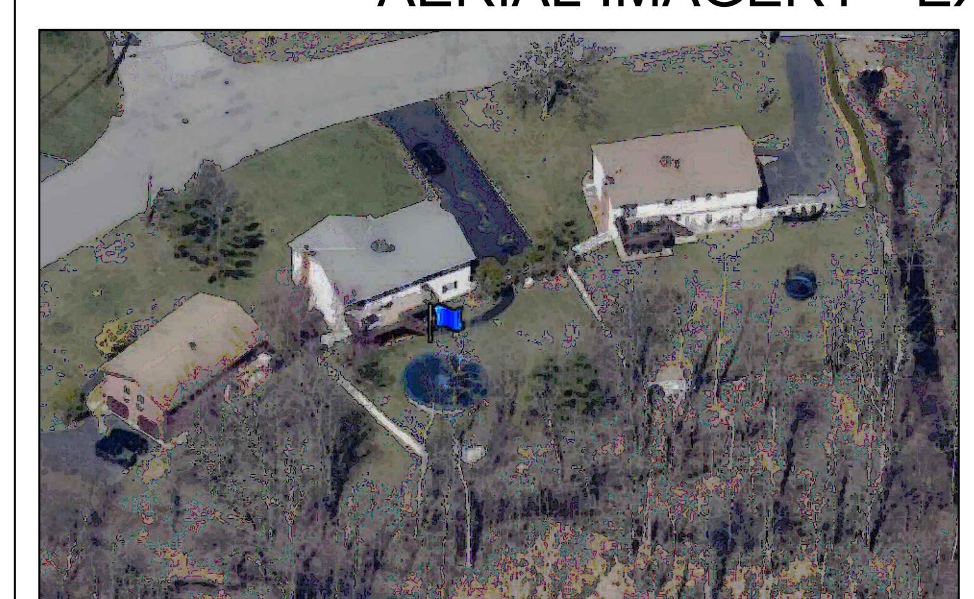
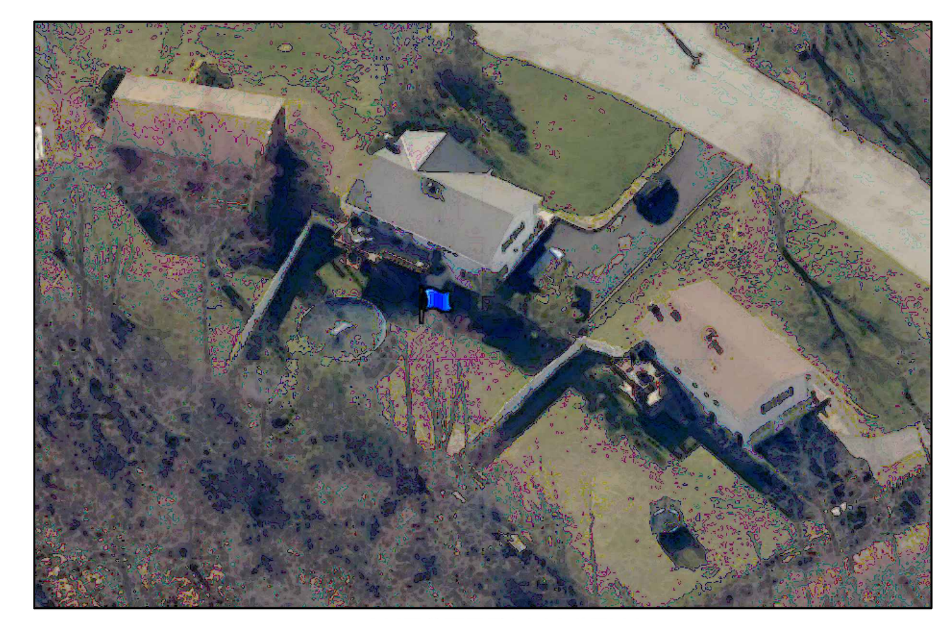
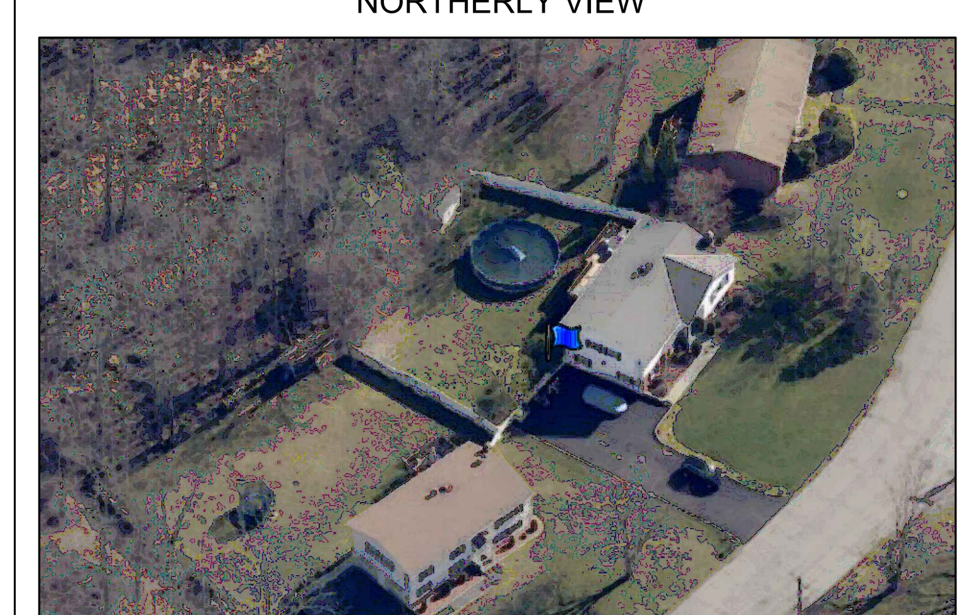


Photo #8 - Rear Yard Wetland Area

AERIAL IMAGERY - EXISTING CONDITIONS


NORTHERLY VIEW

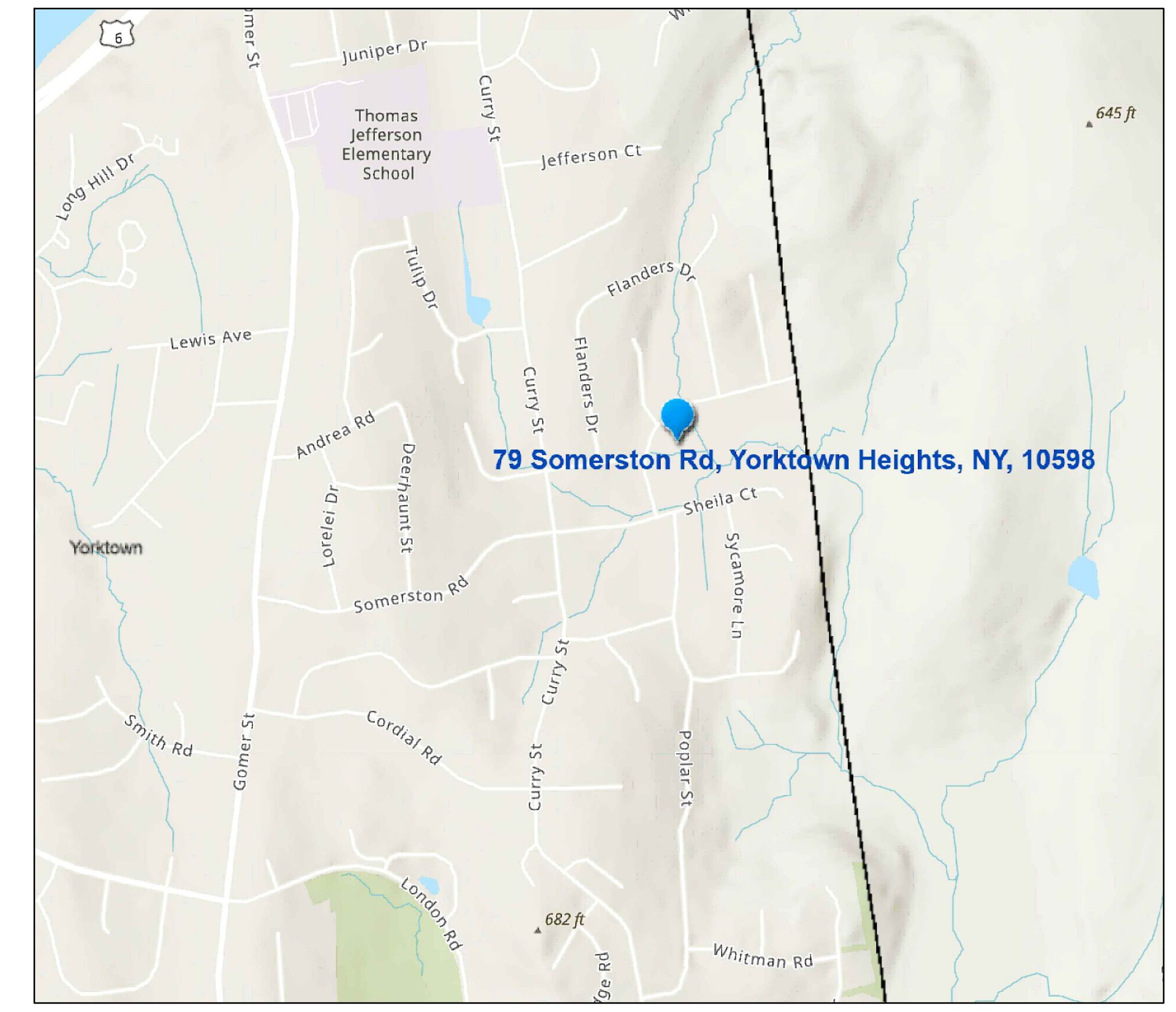

WESTERLY VIEW


SOUTHERY VIEW


EASTERLY VIEW

ZONING SCHEDULE (R1-20) - BULK REQUIREMENTS

SCHEDULE ITEM	REQUIRED	EXISTING	PROPOSED
Lot Area	20,000 s.f.	17,653 s.f.	N/C
Lot Width	100 ft.	124.99 ft.	N/C
Lot Depth	100 ft.	190.46 ft.	N/C
Yard (Front)	40 ft.	43.0 ft.	N/C
Coverage (Building)	20% (3,530 s.f.)	8.65% (1,528 s.f.)	N/C
Yard (1 Side)	15 ft.	14.7 ft.	N/C
Yard (Combined Sides)	40 ft.	47.01 ft.	N/C
Yard (Rear)	40 ft.	104.77 ft.	N/C
Building Area	800 s.f.	1,640 s.f. +/-	N/C
Building Height (Feet)	35 ft.	18 ft. +/-	N/C
Building Height (Stories)	3	1-1/2	N/C
Parking	1 Space	4 Spaces	N/C
Road Frontage	100 ft.	100.01 ft.	N/C



PROJECT LOCATION MAP

GENERAL NOTES:

SCOPE: THE PURPOSE OF THIS MAP IS TO PRESENT AN ASSESSMENT OF EXISTING CONDITIONS FOR THE RESIDENTIAL PROPERTY LOCATED AT 79 SOMERSTON ROAD IN THE TOWN OF YORKTOWN, NY. PROPOSED ON THE SUBJECT PROPERTY IS THE CONSTRUCTION OF AN IN-GROUND SWIMMING POOL, POOL EQUIPMENT PAD AND RELATED IMPROVEMENTS. AS THE PROPERTY PRESENTLY IS A PARCEL THAT CONTAINS NEW YORK STATE REGULATED WETLANDS AND SUCH IMPROVEMENTS ARE PROPOSED WITHIN THE WETLAND BUFFER, AN APPLICATION IS MADE TO THE TOWN ENGINEER WITH SUBSEQUENT REFERRAL TO THE TOWN CONSERVATION ADVISORY BOARD AND TOWN BOARD FOR FRESHWATER WETLANDS APPROVAL AS REQUIRED IN LOCAL CODE SECTION178-10B. THE PROPOSED UNDERGROUND POOL AND POOL EQUIPMENT PAD ARE PROPOSED WITHIN 50 FEET OF THE WETLAND BOUNDARY. MITIGATION PROVIDED WITH RIPARIAN BUFFER PLANTINGS.

1. **MAPPING:** THE BASE MAP DEPICTED HEREIN WAS PREPARED FROM A LAND SURVEY PREPARED BY KULHANEK & PLAN, P.C.LAND SURVEYORS, OF POUND RIDGE NEW YORK, DATED JULY 30, 2003 AND FROM AN ARCHITECTURAL SITE PLAN PREPARED BY DAVID TETRO, AIA, DATED JULY 7, 2022.
2. **TOWN BOARD APPROVALS:** THE INTENT OF THE THIS SUBMISSION IS TO SEEK RELIEF FROM THE TOWN BOARD WITH REFERRALS FROM TOWN CONSERVATION ADVISORY BOARD AND PLANNING BOARD TO ALLOW CONSTRUCTION OF A NEW IN-GROUND SWIMMING POOL AND RELATED IMPROVEMENTS WITHIN 50 FEET OF A N.Y.S. REGULATED WETLAND. PROPOSED POOL MEETS ALL ZONING REQUIREMENTS FOR ACCESSORY STRUCTURE. FOR A SEPARATE PROJECT INVOLVING CONSTRCTION OF AN ATTACHED GARAGE, THE APPLICANT RECEIVED ZONING VARIANCES FOR SIDEYARD SETBACKS (CASE #47/22),
3. **RELEVANT TOWN CODE:** TOWN OF YORKTOWN CODE SECTION 178 REGULATES DEVELOPMENT WITHIN A FRESHWATER WETLAND CONTROLLED AREA OR BUFFER AREA. THE CODE DOES PROVIDE RELIEF FOR APPLICANTS THROUGH AN ADMINISTRATIVE WETLAND PERMIT. FOR PROJECTS WHERE A PROPOSED POOL IS LOCATED WITHIN THE 50 FOOT SETBACK, SECTION 178-10 B STIPULATES THE APPROVAL PROCESS. [Amended 10-17-2006 by L.L. No. 13-2006]
4. **CURRENT CONDITIONS:** THE EXISTING PROPERTY HAS 17,653.5 SQUARE FEET OF LAND WHICH CONTAINS A SINGLE FAMILY DWELLING, EXISTING ABOVE GROUND POOL, ASPHALT CONCRETE DRIVEWAY, PATIO, TOOL SHED AND RAISED REAR DECK. THE PROPERTY CONTAINS FOUR OFF STREET PARKING SPACES AND IS SERVED BY MUNICIPAL SEWER, WATER AND NATURAL GAS. THE CURRENT LOT IS PARTIALLY LOCATING IN A FEMA 100 YEAR SPECIAL FLOOD HAZARD AREA AND IS CONTAINS N.Y.S. WETLANDS AND WETLANDS BUFFER IN THE REAR SETBACK. THE DWELLING AND ACCESSORY STRUCTURES MEET ZONING DIMENSIONAL REQUIREMENTS FOR SIDE, REAR AND FRONT YARD SETBACKS FOR THE R 1-20 ZONING DISTRICT. WITH EXCEPTION TO LOT AREA, ALL AREA REQUIREMENTS ARE MET. RECENT APPROVALS WERE GRANTED FOR REAR PATIO, RAISED DECK AND ATTACHED GARAGE.
5. **CRITICAL/SENSITIVE AREAS:** THIS PROPERTY DOES CONTAIN THE AFOREMENTIONED FRESHWATER WETLANDS AND WETLAND BUFFER AREAS AND DOES PARTIALLY FALL WITHIN A FEMA DESIGNATED SPECIAL FLOODPLAIN HAZARD AREA. WETLAND LIMITS STAKED OUT BY TIM MILLER ASSOCIATES IN JANUARY OF 2022. MITIGATION WITH WETLAND PLANTINGS PROPOSED.
6. **LIMITATIONS:** THIS PLAN IS NOT TO BE CONSTRUED TO SUPERCEDE ANY APPROVALS BY THE TOWN OF YORKTOWN TOWN BOARD OR OTHER LAND USE BOARDS FOR SITE PLAN OR COMPLETE ZONING/CODE COMPLIANCE, FACILITY USE, OPERATION OR DESIGN. THIS MAP WAS PREPARED STRICTLY TO ASSESS THE CURRENT AND PROPOSED CONDITIONS CONSISTENT WITH THIS APPLICATION BEFORE THE LOCAL PLANNING BOARD.

GENERAL SITE DATA:

PROPERTY INFORMATION & OWNER:

DANIELLE & FRANK JENNINGS
79 SOMERSTON ROAD
YORKTOWN, N.Y. 10598
SBL 17.10-10-03

1. ZONING DISTRICT & USE:

SINGLE RESIDENTIAL DISTRICT - R1-20

2. ZONING BULK REQUIREMENTS:

FOR RESIDENTIAL USE:

- LOT AREA (MIN) - 20,000 SF
- BUILDING COVERAGE (MAX) 20% (3,530 SF)
- LOT WIDTH (MIN) - 100 FEET
- FRONT YARD (MIN) - 40 FEET
- SIDE (MIN ONE) - 15 FEET
- SIDE (MIN BOTH) - 40 FEET
- REAR (MIN) - 40 FEET
- HABITABLE FLOOR AREA - 800 SF MIN. PER UNIT
- HEIGHT (MAX STORIES) - 3 STORIES
- HEIGHT (MAX) - 35 FEET
- ACCESSORY SETBACK (MIN) - 10 FEET

4. LAND USE DEVELOPED AREA SUMMARY:

EXISTING BUILDING COVERAGE - 1,640 SF (2,486 SF w/ Garage)
EXISTING IMP. COVERAGE - 4,786 SF (5,747 SF w/ Garage)
PARKING PROVIDED - 4 SPACES

5. UTILITY SERVICES:

WATER - YORKTOWN DISTRICT #1
SEWER - PEEKSKILL SEWER DISTRICT
GAS - CON EDISON COMPANY OF NY

6. ENVIRONMENTAL AREAS:

- FEMA 100 YEAR SFHA
- NYS REGULATED WETLAND
- EAST OF HUDSON WATERSHED
- CROTON RIVER WATERSHED

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Know what's **below.**
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1-(800) 962-7962

DAVID A. GOESSL, PE
CIVIL ENGINEER
622 SPROUT BROOK ROAD
PUTNAM VALLEY, NY 10579 (914) 227-0258

PROPOSED IN-GROUND SWIMMING POOL
WITHIN A WETLAND CONTROLLED PROPERTY
79 SOMERSTON ROAD, YORKTOWN, NY 10598

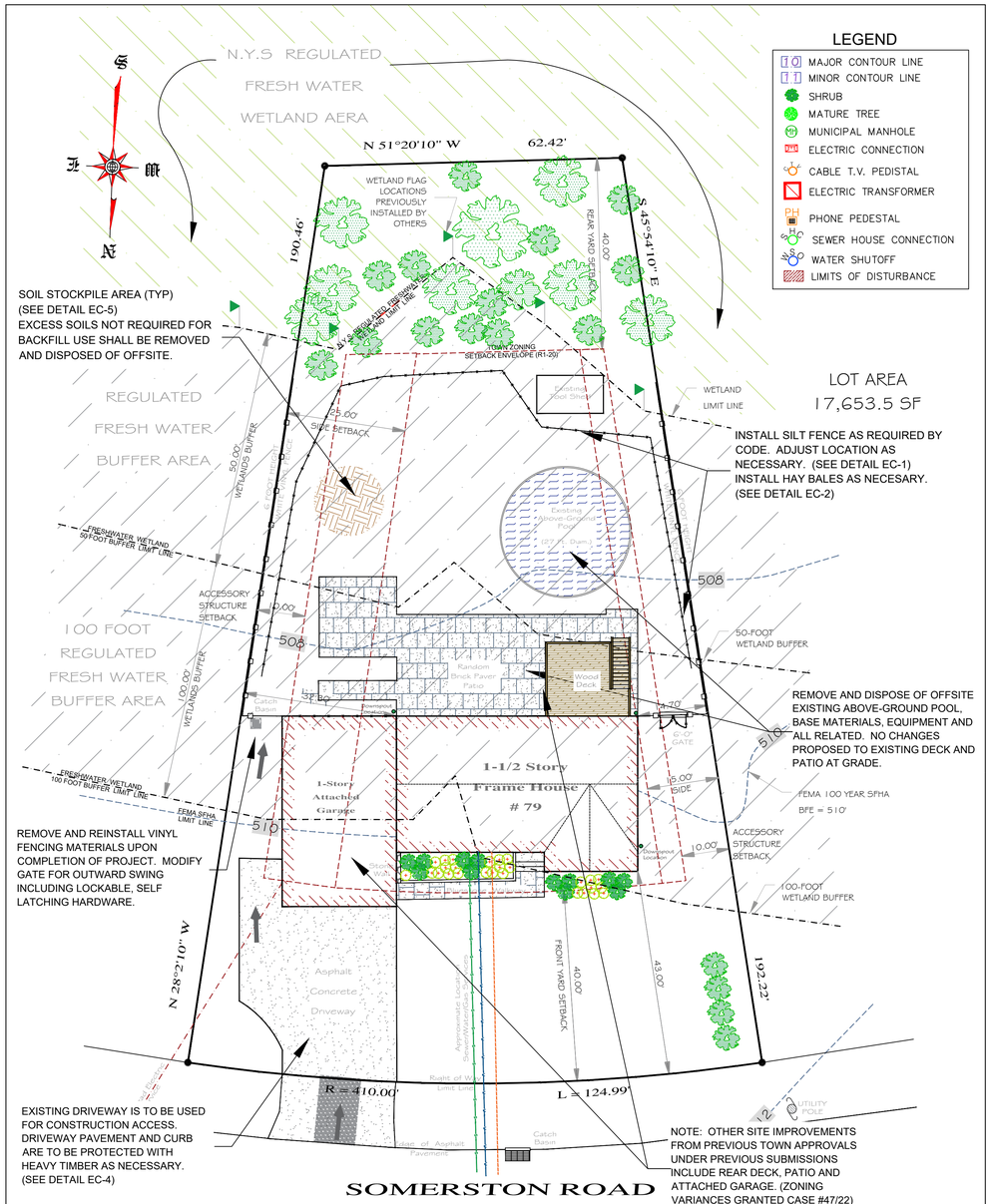
PREPARED BY: DAVID GOESSL, P.E. PREPARED FOR: D & F JENNINGS

DATE: OCTOBER 16, 2022 SCALE: 1"= 15 FEET SHEET: 1 OF 4

STATE OF NEW YORK · DAVID ALLEN GOESSL · 081017 · LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	DATE
1	OWNER REVIEW AND COMMENTS	10/22/22
2	CONSERVATION BOARD COMMENTS	11/18/22
	RIPARIAN BUFFER PLANTINGS PROPOSED	
3	PLANNING BOARD COMMENTS	12/6/22

EXISTING CONDITIONS - EROSION CONTROL / DEMOLITION PLAN



LEGEND

- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- SHRUB
- MATURE TREE
- MUNICIPAL MANHOLE
- ELECTRIC CONNECTION
- CABLE T.V. PEDISTAL
- ELECTRIC TRANSFORMER
- PHONE PEDESTAL
- SEWER HOUSE CONNECTION
- WATER SHUTOFF
- LIMITS OF DISTURBANCE

LOT AREA
17,653.5 SF

INSTALL SILT FENCE AS REQUIRED BY CODE. ADJUST LOCATION AS NECESSARY. (SEE DETAIL EC-1) INSTALL HAY BALES AS NECESARY. (SEE DETAIL EC-2)

REMOVE AND DISPOSE OF OFFSITE EXISTING ABOVE-GROUND POOL, BASE MATERIALS, EQUIPMENT AND ALL RELATED. NO CHANGES PROPOSED TO EXISTING DECK AND PATIO AT GRADE.

REMOVE AND REINSTALL VINYL FENCING MATERIALS UPON COMPLETION OF PROJECT. MODIFY GATE FOR OUTWARD SWING INCLUDING LOCKABLE, SELF LATCHING HARDWARE.

EXISTING DRIVEWAY IS TO BE USED FOR CONSTRUCTION ACCESS. DRIVEWAY PAVEMENT AND CURB ARE TO BE PROTECTED WITH HEAVY TIMBER AS NECESSARY. (SEE DETAIL EC-4)

NOTE: OTHER SITE IMPROVEMENTS FROM PREVIOUS TOWN APPROVALS UNDER PREVIOUS SUBMISSIONS INCLUDE REAR DECK, PATIO AND ATTACHED GARAGE. (ZONING VARIANCES GRANTED CASE #47/22)

Survey of

Tax Lot No. 3, Block 17.10 as shown on the Tax Maps of the Town of Yorktown, Westchester County, New York.

Portion of Section 7 of Jefferson Valley Corporation subdivision map filed February 18, 1982 as Map #12343 in the Westchester County Clerk's Office for lot 23.

Survey completed: July 30, 2003.

on scale of one inch to 10 feet.

KULHANEK & PLAN, P.C.
LAND SURVEYORS, PC

LONG ISLAND OFFICE
P.O. BOX 487
LONG BEACH, N.Y.11561
1-800-421-9441

WESTCHESTER OFFICE
P.O. BOX 2787
POUND RIDGE, N.Y.10576
1-800-421-9441

MAP OF PROPERTY SITUATED AT
TOWN OF YORKTOWN--WESTCHESTER COUNTY, N.Y.
TAX IDENTIFICATION #: 17.10-01-03

GRAPHIC SCALE

15 0 7.5 15 30 60
(IN FEET)
1 inch = 15 ft.

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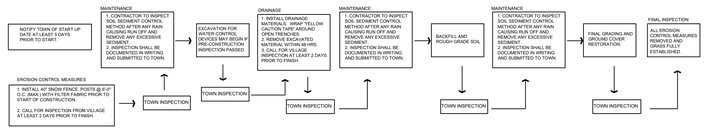
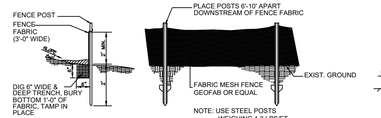
NOTE: ADDITIONAL PLANIMETRIC SURVEY DATA SHOWN HERIEN ON THIS PLAN OF THE PROPERTY OF 2942 FARM WALK ROAD, YORKTOWN, WESTCHESTER COUNTY, NEW YORK, 10598 WAS PREPARED FROM PLANS PREPARED BY DAVID TETRO AIA, WESTCHESTER COUNTY GIS DATA, REFERENCED LAND SURVEY AND RECORDED DEED FOR SAID PROPERTY. ENGINEER ACCEPTS NO LIABILITY TO ERRORS AND OMMISSIONS PROVIDED ON REFERENCED MAP SOURCES.

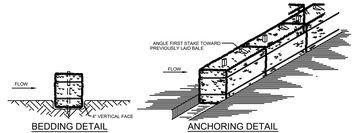
EROSION CONTROL SCHEDULE AND DETAILS





NOTE:
AT THE COMPLETION OF THE PROJECT AND AFTER SOIL STABILIZATION AND VEGETATIVE GROWTH HAVE BEEN ASSURED, THE SILT FENCE MUST BE COMPLETELY REMOVED AND THE EMBEDMENT TRENCH RESTORED TO A NATURAL CONDITION.

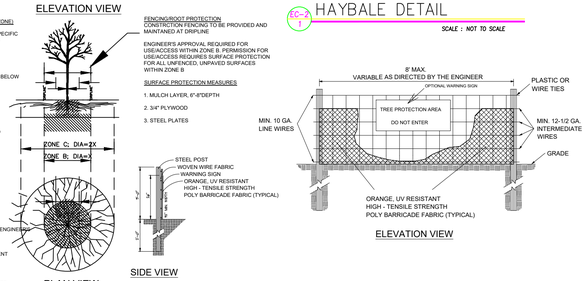
EC-1 SILT FENCE DETAIL
SCALE : NOT TO SCALE



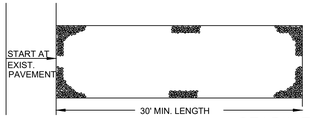
INSTALLATION NOTES

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.

EC-2 HAYBALE DETAIL
SCALE : NOT TO SCALE



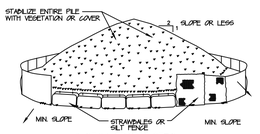
EC-3 TREE FENCE PROTECTION
SCALE : NOT TO SCALE



INSTALLATION NOTES

1. STONE SIZE - USE 3" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - 25 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
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 RIGHT OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

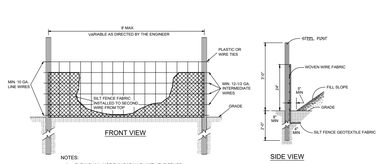
EC-4 STABILIZED CONSTRUCTION ENTRANCE
SCALE : NOT TO SCALE



INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. SOILS OR FILL TO BE STOCKPILED ON SITE DURING CUTTING AND FILLING ACTIVITIES SETBACKS FROM TEMPORARY DRAINAGE SWALES.
3. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
4. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
5. STOCKPILES REMAINING IN PLACE FOR MORE THAN A WEEK SHOULD BE SEEDED AND MULCHED OR COVERED WITH GEOTEXTILE FABRIC SURROUNDED BY SILT FENCE.
6. SEE SPECIFICATIONS (NYSDEC MANUAL) FOR INSTALLATION OF SILT FENCE.

EC-5 SOIL STOCKPILE DETAIL
SCALE : NOT TO SCALE



NOTES:
1. FLOW SHALL NOT RUN PARALLEL WITH THE FENCE.
2. END OF SILT FENCE NEEDS TO BE TURNED UPHILL.
3. SILT FENCE SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS FOR APPLICATION AND PLANNING CONSIDERATION.
4. SILT FENCE SHOULD NOT BE USED ALONE BELOW GRADED SLOPES GREATER THAN 10 HORIZONTAL TO 1 VERTICAL.
5. SILT FENCE SHALL BE INSPECTED MONTHLY & AFTER STORMS. CLEAN AT 50 % CAPACITY AND REPLACE AS NECESSARY.

EC-6 ALT. SILT FENCE DETAIL
SCALE : NOT TO SCALE

PROJECT NOTES:

PROPERTY OWNER / SITE ADDRESS:
DANIELLE & FRANK JENNINGS
79 SOMERSTON ROAD
YORKTOWN, N.Y. 10598
TAX ID: 17.10-01-03

EXISTING LOT AREA:
17,653.5 SQUARE FEET

ZONING DISTRICT:
R 1-20 RESIDENTIAL

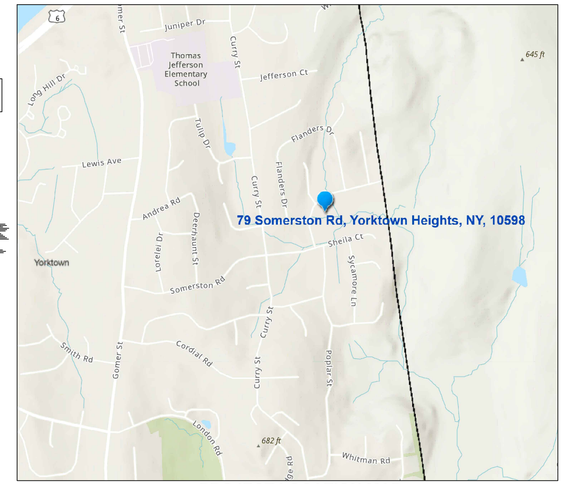
PRINCIPAL USE:
SINGLE FAMILY

EXIST. IMPERVIOUS COVERAGE:
5,747 SF (32.6%)
PROP. IMPERVIOUS COVERAGE
5,823 SF (33.0%)
NET INCREASE:
76 SF (0.4%)
EXISTING BLDG. COVERAGE
2,486 SF (14.1%)
PROPOSED BLDG. COVERAGE
N/C

SITE DISTURBANCE ANALYSIS:
- POOL INSTALLATION 800 SF
- PATIO/EQUIP PAD 100 SF
- DRAINAGE 500 SF
- MISC. GRADING 1,500 SF

SANITARY SEWER DISTRICT:
PEEKSKILL
WATERSHED:
CROTON RIVER
USDA SOIL TYPE:
- Ce Catden Muck 46.6%
- LcA Leicester loam, 0 to 3 percent
- slopes, stony 53.4%

Slope: 3 to 15 percent
Depth to restrictive feature: > Varies
Drainage class: Poor to Writ drained
Depth to water table: > Varies
Hydrologic Soil Groups: A/D



PROJECT LOCATION MAP

INSTALLATION & MAINTENANCE OF EROSION CONTROL

CONSTRUCTION SCHEDULE
NOTIFY APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 5 DAYS PRIOR TO START

INSPECTION BY MUNICIPALITY - PRECONSTRUCTION EROSION CONTROL MEASURES
- Install all erosion control measures prior to start of construction.
- Call for inspection from the appropriate Municipal Agency having jurisdiction at least 2 days prior to finish.

INSPECTION BY MUNICIPALITY - MAINTENANCE ACTIVITIES DURING ALL PHASES OF CONSTRUCTION
- After any rain causing runoff Contractor to inspect haybales, etc, and remove any excessive sediment, and inspect stockpiles and correct any problems with seed establishment,
- Inspections shall be documented in writing and submitted to the appropriate Municipal Agency having jurisdiction.

INSPECTION BY MUNICIPALITY - STOCKPILING OF SOILS AND ROUGH GRADING OF SITE
- Strip topsoil and stockpile soil for reuse and properly dispose of all excess soils.
- Stockpile excavation subgrade materials and properly dispose of all excess soils.
- Seed stockpiles with 1 lb. total annual rye or mix as per engineer.
- Perform rough grading activities as soon as practical. Call for Inspections as required.

INSPECTION BY MUNICIPALITY - FINE GRADING OF SITE
- Remove all remaining excess soils from site. Compact all graded materials as required.
- Call for inspection from the appropriate Municipal Agency having jurisdiction at at least 2 days prior to finish.
- Perform all additional fine grading activities as required. Call for reinspection.

INSPECTION BY MUNICIPALITY - ESTABLISHMENT OF TURF, FINAL LANDSCAPING AND TREE REPLACEMENTS
- Spread topsoil evenly over areas to be seeded. Hand rake level.
- Broadcast 1:25 lb. Bag of Jonathan Green "Fastgrow" mix or equal over areas to be seeded. Apply straw mulch and water within 2 days of completion of topsoiling.
- Install turf (optional) landscaping materials and any replacement trees.
- Demobilize all equipment and materials from site as necessary.
- Call for inspection from the appropriate Municipal Agency having jurisdiction at least 2 days prior to finish.

INSPECTION BY MUNICIPALITY - FINAL INSPECTION
- Perform any as-built drawings, land surveys and or engineering certifications. Submit documents to the appropriate Municipal Agency having jurisdiction.
- Call for inspection from the appropriate Municipal Agency having jurisdiction at least 2 days prior to finish.
- Remove all erosion control measures upon establishment of turf or as per the Municipal Agency having jurisdiction.

CONTRACTOR CERTIFICATION FOR SWEC COMPLIANCE:

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES TO COMPLY WITH THE TERMS AND CONDITIONS OF THE STORM WATER, POLLUTION PREVENTION PLAN AND AGREES TO IMPLEMENT ANY AND ALL CORRECTIVE ACTIONS IDENTIFIED BY THE NYSDEC QUALIFIED INSPECTOR AND/OR TOWN ENGINEER AND/OR BUILDING INSPECTOR DURING ALL SITE INSPECTIONS. FURTHERMORE THE UNDERSIGNED UNDERSTANDS THAT THE OWNER AND/OR PERMIT HOLDER SHALL COMPLY WITH ALL LOCAL CODES FOR STORMWATER MANAGEMENT AND ALL TERMS AND CONDITIONS OF NEW YORK STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES) GENERAL PERMIT FOR STORMWATER DISCHARGES FROM ACTIVE CONSTRUCTION SITES AS IT IS UNLAWFUL FOR ANY PERSON TO CAUSE OR CONTRIBUTE TO A VIOLATION(S) OF WATER QUALITY STANDARDS.

NAME:_____

SIGNATURE:_____

DATED:_____

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CIVIL ENGINEER
622 SPROUT BROOK ROAD
PUTNAM VALLEY, NY 10579 (914) 227-0258

PROPOSED IN-GROUND SWIMMING POOL
WITHIN A WETLAND CONTROLLED PROPERTY
79 SOMERSTON ROAD, YORKTOWN, NY 10598

PREPARED BY: DAVID GOESSL, P.E. PREPARED FOR: D & F JENNINGS

DATE: OCTOBER 16, 2022 SCALE: 1"= 15 FEET SHEET: 2 OF 4

STATE OF NEW YORK DAVID ALLEN GOESSL 081017 LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	DATE
1	OWNER REVIEW AND COMMENTS	10/22/22
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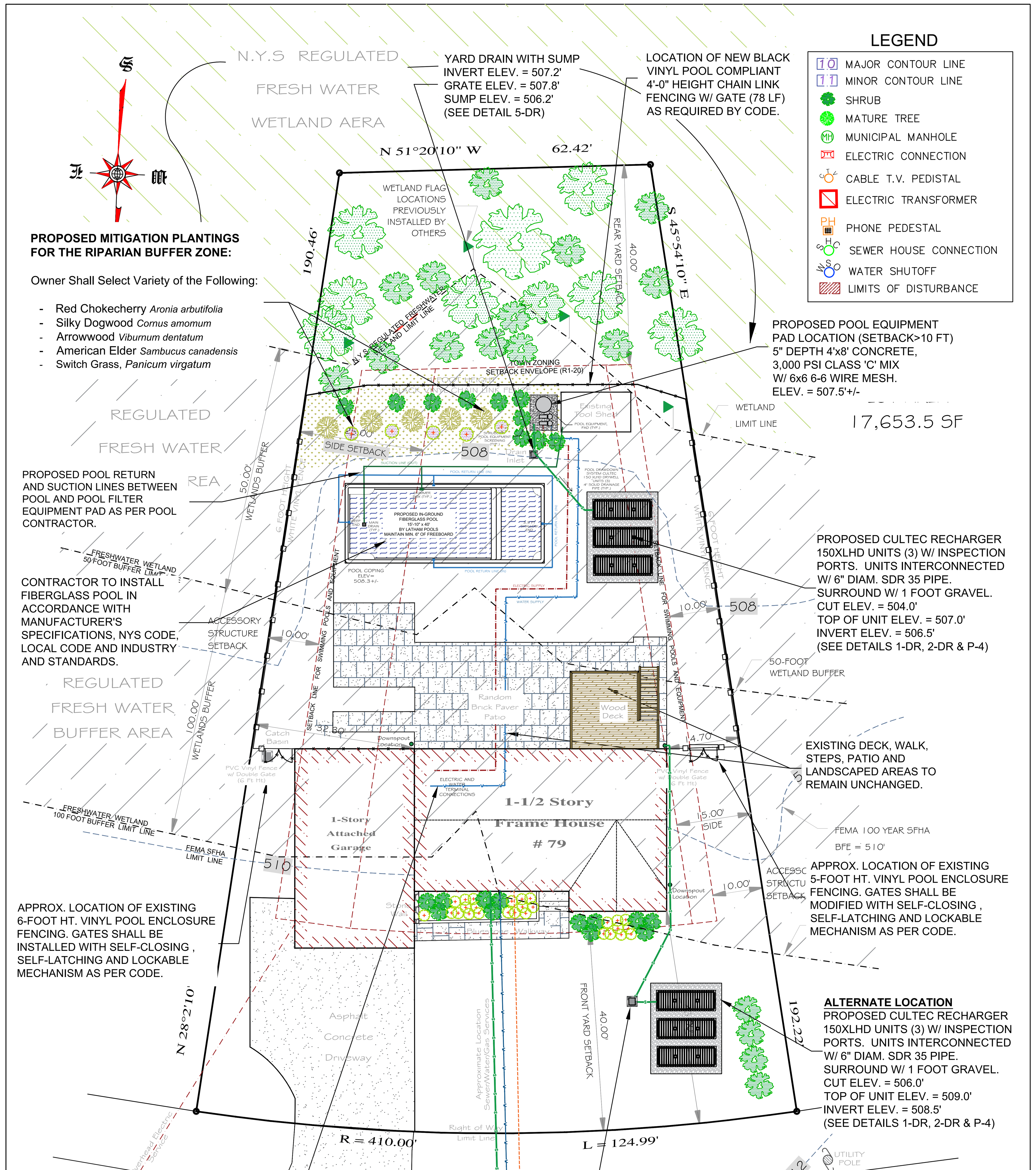
PROPOSED IMPROVEMENTS PLAN WITH STORMWATER FEATURES



ESTIMATED QUANTITIES:

HARDSCAPE/LANDSCAPE:
- POOL EQUIP. PAD: 32 SF
- SCREENING SHRUBS: TBD as per Owner

DRAINAGE:
- DRYWELL: 3 Cultec 150 XLHD Units
- DRAINAGE PIPE: 30 LF 4" Diam. SDR-35 pvc
- PVC DRAIN INLET: 1 HDPE Drain Inlet w/ Sump 12"x12"' with C.I. Frame & Grate

POOL:
- POOL, PIPING & EQUIP.: As per Pool Contractor
- FENCING: 80 LF of 4-Ft Black Vinyl Chain Link w/ Hardware Modifications to Existing Gates; 8 LF of 6-Ft White PVC Fencing w/ Hardware Modifications to Existing Gates

FINAL RESTORATION:
- SOIL EXCAVATION & REGRADING: 125 CY
- FINAL RESTORATION SEED/MULCH: 1,000 SF
- PLANTS/LANDSCAPING: TBD as per Owner

SERVICE CONNECTIONS: As per Plumber & Electrician

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Survey completed: July 30, 2003,

on scale of one inch to 10 feet.

KULHANEK & PLAN, P.C.
LAND SURVEYORS, PC

LONG ISLAND OFFICE, P.O. BOX 487, LONG BEACH, N.Y.11581, 1-800-431-9481
WESTCHESTER OFFICE, P.O. BOX 1787, POUND RIDGE, N.Y.10576, 1-800-431-9481

MAP OF PROPERTY SITUATED AT
TOWN OF YORKTOWN~WESTCHESTER COUNTY, N.Y.
TAX IDENTIFICATION #: 17.10-01-03

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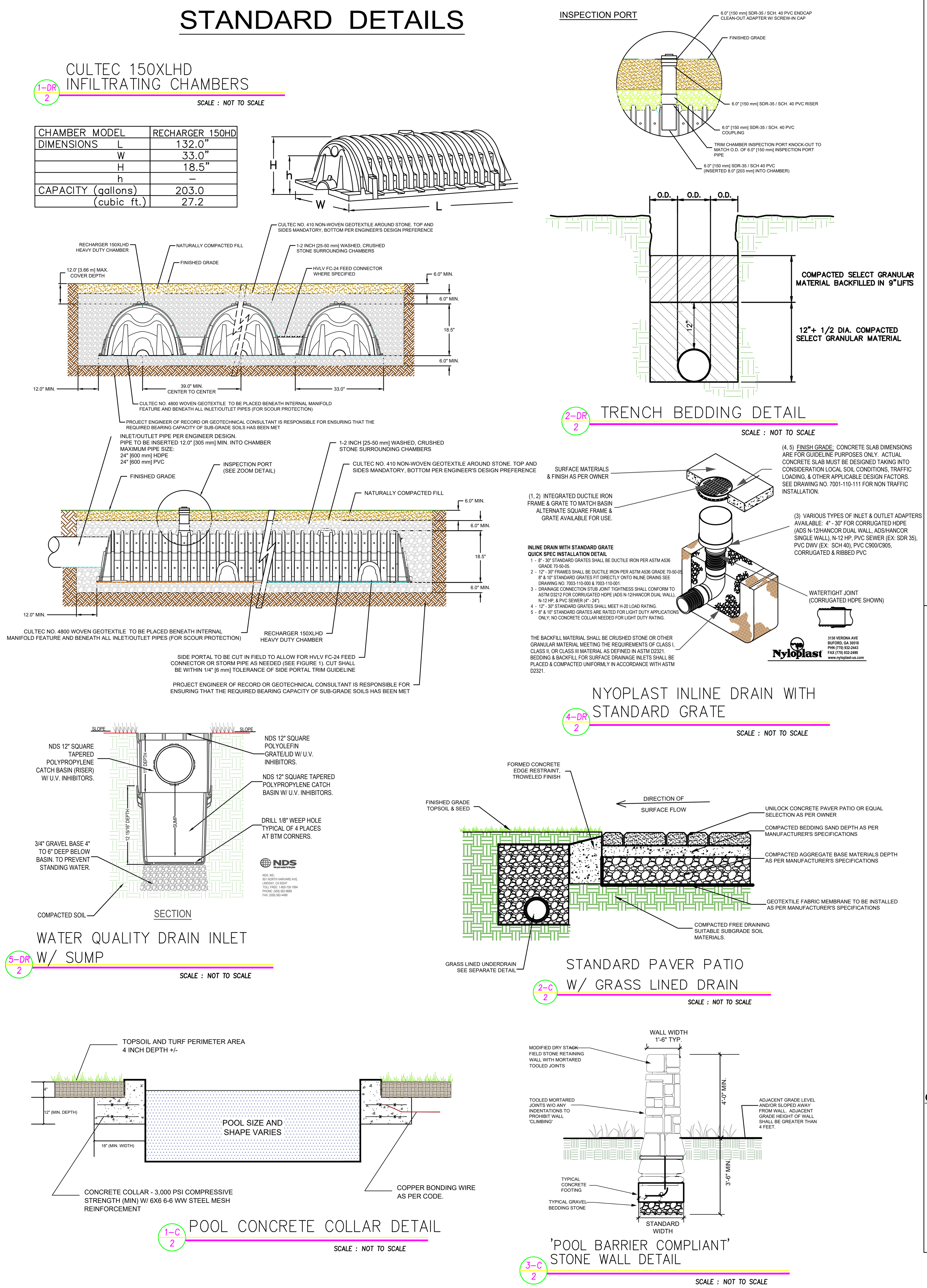
STANDARD DETAILS



GENERAL NOTES FOR POOLS:

1. CONTRACTOR TO INSTALL PREFORMED FIBERGLASS POOL IN ACCORDANCE WITH LANDSCAPE ARCHITECT'S PLANS, SPECIFICATIONS AND CODE STANDARDS. SUPPLEMENTAL DRAWINGS AND SPECIFICATIONS FOR MECHANICAL EQUIPMENT, POOL ALARM, FENCING AND SAFETY EQUIPMENT TO BE PROVIDED BY POOL CONTRACTOR AND LANDSCAPE ARCHITECT.
2. CONTRACTOR TO FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO COMMENCEMENT OF WORK AND NOTIFY THE DESIGN PROFESSIONAL OF ANY DISCREPANCY. IN ADDITION CONTRACTOR AND OWNER SHALL SECURE SERVICES OF LICENSED LAND SURVEYOR FOR THE PRELIMINARY AND FINAL STAKE OUT OF POOL AND EQUIPMENT LOCATION TO ENSURE THAT ALL ZONING SET BACKS REQUIREMENTS ARE IN CONFORMANCE.
3. DESIGN ENGINEER IS NOT RETAINED FOR SUPERVISION OR OBSERVATION OF CONSTRUCTION. OWNER TO VERIFY LAYOUT, SETBACKS AND ELEVATIONS.

UTILITY NOTES:

1. ALL PLUMBING WORK MUST BE FILED BY A LICENSED PLUMBER.
2. ALL ELECTRIC WORK MUST BE FILED BY A LICENSED ELECTRICIAN.

POOL DRAWDOWN AND FILTER CONNECTION NOTES:

1. POOL WATER IS CHEMICALLY TREATED AND MAY NOT BE DRAINED TO THE ROAD, RIGHT OF WAY OR OPEN GRADE.
2. CONTRACTOR TO PROVIDE AN ACCESSIBLE DRAWDOWN CONNECTION TO AN APPROVED DRAINAGE SYSTEM.

811
Know what's **below.**
Call before you dig.
1-(800) 962-7962

GENERAL CONSTRUCTION NOTES:

1. The Applicant shall secure all of the necessary permits from the Town of Yorktown to ensure compliance with Local, County and State Building, Highway and Sanitary Codes. The Applicant is responsible to contact the Engineering Department to schedule an inspection of the sediment and erosion control practices prior to the start of construction.
2. During work and upon completion, the Applicant shall schedule all of the necessary inspections and certificates of approval with the Town of Yorktown officials.
3. The Applicant shall secure the services of a NYS licensed land surveyor as necessary to stake out the exact location of proposed improvements and as required by the Town for record documents.
4. The Applicant shall verify location of all underground utilities by calling Dig Safe NY @ 1-(800) 962-7962 to ensure that there are no conflicts with existing systems. Private installations shall also be identified as required.
5. Any existing utilities, pavement, sidewalk, curbing, grass areas etc., disturbed and/or damages during construction, must be replaced and/or repaired at the Applicant's expense.
6. The Applicant shall secure the work zone through proper placement of construction fencing materials, cones, barricades, and caution tape.
7. All debris, excess soils and waste materials, as a result of this proposed improvement, shall be removed from site and disposed of properly.
8. All fill material shall consist of clean soils, or soil-rock mixture free from organic matter, construction debris or other deleterious material. Materials shall contain no rock or lump over 6" in greatest dimension and not more than 15% of the rocks or lumps shall be larger than 2.5" in greatest dimension.
9. Should unforeseen conditions or circumstances develop or other causes necessitate changes to the approved plans, the Applicant shall notify the Design Engineer of record.
10. All erosion controls and protective measures shall conform to the "New York State Standards and Specifications for Erosion and Sediment Control." The Town Inspector may specify additional sediment and erosion control measures to safeguard the public right of way and adjacent properties.
11. Construction erosion control and protection measures shall be inspected by a qualified engineer or trained individual having received NYSDEC 4-hour erosion and sediment control training at a minimum of weekly and following all rain events greater than 0.5 inch.

STORMWATER SYSTEM NOTES:

1. The Applicant shall safeguard the limits of improvements through proper installation of silt fencing and hay bales downgrade from all excavation areas and stockpiles soil and gravels materials.
2. The Contractor shall verify all field dimensions and drainage layouts prior to performing any installation. Any discrepancies shall be immediately reported to the Engineer of record.
3. The Contractor shall verify depth upon excavation for suitable soils and consult with the Design Engineer prior to installing any drainage systems. The Design Engineer will verify soil percolation rates and prior test results at the time of construction. Any design changes to the storm water system during construction due to unforeseen circumstances such as shallow groundwater, rock, utility conflict etc., must be resubmitted to the Town Building and Engineering Departments for approval prior to construction.
4. The Contractor shall schedule required inspections at least 48 hours in advance to both Engineer of record and Town Inspector, and that no work shall be covered or concealed until the required inspections are passed.
5. Stormwater drainage system shall be installed along the proposed pathway as indicated on the plans. Pipe materials for pool drainage drawdown shall be 4" diameter SDR-35 PVC (or Sch. 40) piping. Underground infiltrating stormwater chamber(s) shall not be buried within ten feet of a building foundation nor ten feet from any adjacent property or right of way. The proposed drainage system is designed to handle six inches of seasonal pool drawdown for dechlorinated pool water including the net impervious surfaces created by the proposed pool.
6. The proposed stormwater system consists of 3 Cultec 150XLHD Chambers with interconnections consisting of 6" diameter PVC (or HDPE) piping.
7. The proposed location of the drywell system shall be in the rear yard maintaining minimum 10 foot setbacks from dwelling and property lines. Owner/Contractor shall contact the Design Engineer should conflict(s) exist.

OWNER POST CONSTRUCTION MAINTENANCE:

1. The owner shall inspect all roof leader downspouts fittings, inspection ports and cleanout caps once per year to ensure proper connections are in place.
2. The owner shall inspect and remove all debris from the grate of any open yard drain and driveway drain regularly with additional emphasis during the fall and winter months.
3. The owner shall inspect and remove all accumulated debris from the sumps of any driveway drain and yard drain at a minimum of once per year. Adjust frequency as necessary.
4. All areas of disturbance shall be restored at the earliest practical date and/or immediately upon suspension of work.

DAVID A. GOESSL, PE
CIVIL ENGINEER
622 SPROUT BROOK ROAD
PUTNAM VALLEY, NY 10579 (914) 227-0258

PROPOSED IN-GROUND SWIMMING POOL
WITHIN A WETLAND CONTROLLED PROPERTY
79 SOMERSTON ROAD, YORKTOWN, NY 10598

PREPARED BY: DAVID GOESSL, P.E. PREPARED FOR: D & F JENNINGS

DATE: OCTOBER 16, 2022 SCALE: 1"= 15 FEET SHEET: 3 OF 4

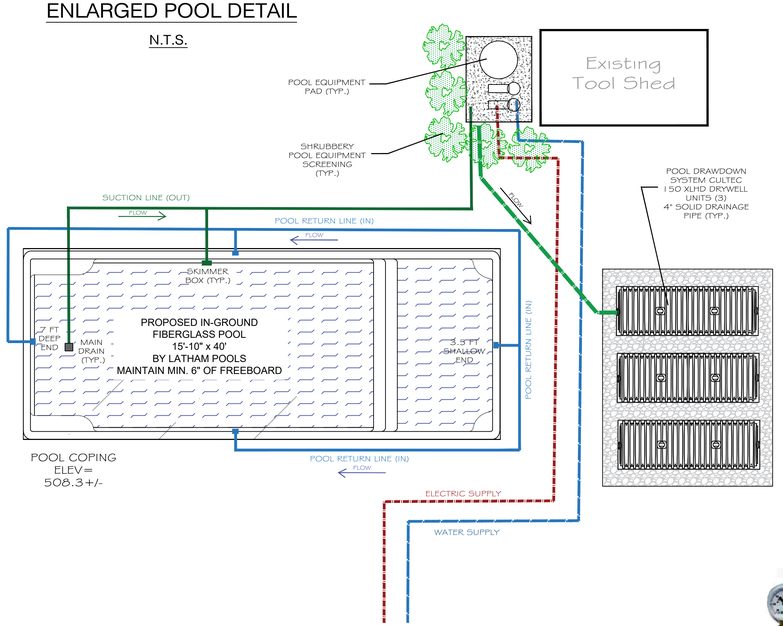
STATE OF NEW YORK · DAVID ALLEN GOESSL · 081017 · LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	DATE
1	OWNER REVIEW AND COMMENTS	10/22/22
2	CONSERVATION BOARD COMMENTS	11/18/22
	RIPARIAN BUFFER PLANTINGS PROPOSED	

POOL & SPA DETAILS

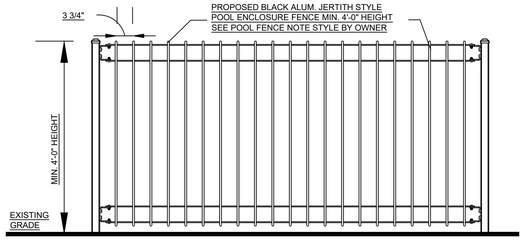
ENLARGED POOL DETAIL

N.T.S.



P-1 3 FIBERGLASS POOL PLAN

SCALE : NOT TO SCALE



ALL FENCING TO BE POOL COMPLIANT AND CONFORM WITH 2020 RESIDENTIAL CODE OF NYS.

P-2 3 ALTERNATE POOL ENCLOSURE FENCE DETAIL

SCALE : NOT TO SCALE

The Vac-Alert Model VA-2000L is a Safety Vacuum Release System (SVRS) designed for suction lift applications. Suction lift in this case applies to all applications where the circulating pump suction is either at or above the level of the pool water surface. This unit incorporates a 0.170" diameter orifice opening installed below the surge tube section. This orifice opening is sized to prevent nuisance tripping of the SVRS unit caused by high vacuum surges typical of many pump start-up conditions.

The Model VA-2000L SVRS unit also utilizes a check valve assembly equipped with a 3.5 pound spring, a poppet disc and a one-way (up only) vented poppet. This check valve assembly permits continued water flow to the circulating pump while the SVRS unit is in the open or vented position. The 3.5 pound spring further compressed by the poppet disc, creates enough sealing force within the check valve to allow partial water flow to the circulating pump for suction lifts up to 3.5 feet. This is critical to the elimination of circulating pump damage that can be caused by a sustained dry-running condition. The one-way vented poppet allows the surge chamber to be internally recharged when the circulating pump is turned off.

Move mouse over for larger image

VAC-ALERT www.vac-alert.com "Saves Lives"

VAC-ALERT FIELD VA-2000 TEST DATA SHEET

SVRS INFORMATION

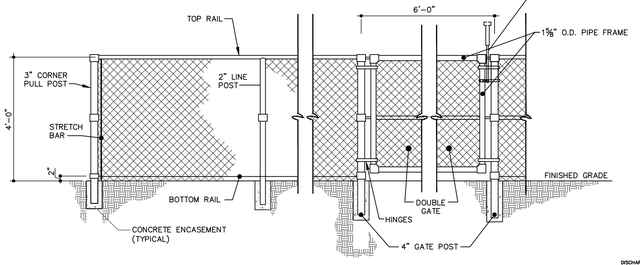
A. Valve ARL serial number: _____
B. Test performed on: Pool( ) Spa ( ) Fountain( ) Other( ) _____
C. Did pool or spa have multiple main drains? Yes( ) No( )
D. Did valve trip three consecutive times? Yes( ) No( )
E. Method of testing: Pole-Mounted Mat Test ( ) Ball/Jandy Valve Test ( ) Slide gate or Butterfly Valve ( )

INSTALLATION LOCATION INFORMATION

Name:_____
Address:_____
I have discussed with the owner and/or individual the complete operational and testing procedure for the SVRS unit.
Test Performed By:_____
Date of Test:_____

P-5 3 POOL ENTRAPMENT PROTECTION SAFETY VACUUM RELEASE SYSTEM

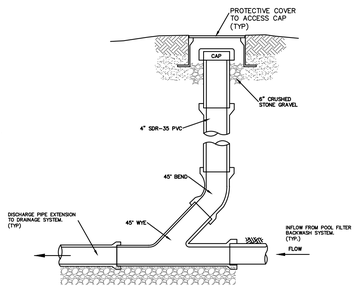
SCALE : NOT TO SCALE



FENCE NOTES:
1. DOUBLE GATE SHALL HAVE A LOCKING MECHANISM POOL COMPLIANT. SWING SHALL BE OUTWARD FROM POOL.
2. ALL FENCE COMPONENT MATERIALS SHALL BE EITHER HOT DIPPED GALVANIZED STEEL OR IRON.
3. ALL FENCING SHALL BE PROVIDED WITH A BLACK VINYL COATED POLYESTER PRIVACY SCREEN ACROSS THE ENTIRE SURFACE AREA OF THE FENCE INCLUDING GATES.
4. ALL CHAIN LINK FENCING AND POSTS SHALL BE VINYL COATED WITH BLACK UV RESISTANT VINYL.
5. ALL FENCING TO BE POOL COMPLIANT AND CONFORM WITH 2020 RESIDENTIAL CODE OF NYS.

P-3 3 POOL ENCLOSURE FENCE DETAIL

SCALE : NOT TO SCALE



P-4 2 SEASONAL POOL DRAWDOWN & BACKWASH CONNECTION TO DRAIN

SCALE : NOT TO SCALE

ANY UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A SEAL OF A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209 OF THE NYS EDUCATION LAW.

GENERAL POOL SAFETY NOTES:

1. FENCE ENCLOSURE: THERE SHALL BE MAINTAINED ON SAID LOT, AND COMPLETLY ENCLOSING POOL FENCING AND GATES, SHALL BE A MINIMUM 4'-0" HIGH OR AS NOTED ON PLAN. GATED SHALL BE SELF-CLOSING & SELF-LATCHING AND LOCKABLE, DESIGNED TO KEEP AND CAPABLE OF KEEPING SUCH GATES SECURELY CLOSED AND LOCKED AT ALL TIMES, WHEN NOT IN USE. GATES SHALL OPEN AWAY FROM POOL AREA. ALL FENCING SHALL MEET THE REQUIREMENTS OF APPENDIX-G, SECTION AG1-105 OF THE RESIDENTIAL CODE OF NYS. THE BARRIER SHALL BE COMPOSED OF VERTICAL MEMBERS WITH ONLY HORIZONTAL TOP AND BOTTOM RAILS. OPENINGS IN THE BARRIER SHALL NOT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE. THE MAXIMUM CLEARANCE BETWEEN GRADE AND THE BOTTOM OF THE BARRIER SHALL BE 2 INCHES.

2. DWELLING: THE WALL OF THE DWELLING MAY SERVE AS PART OF THE BARRIER. HOWEVER ALL DOORS WITH DIRECT ACCESS TO THE POOL THROUGH THE WALL SHALL BE EQUIPPED WITH AN ALARM WHICH PRODUCES AN AUDIBLE WARNING WHEN THE DOORS ARE OPENED.

3. POOL ALARMS: ALL DOORS, OPENING TO THE POOL ENCLOSURE SHALL BE FITTED WITH A "POOLGUARD" ALARM #DAPT-WT, WHICH MEETS NYS POOL BARRIER CODE. ASTM F2208, AND PER 2020 NYS RESIDENTIAL CODE R326.7. ALL WINDOWS WITHIN POOL ENCLOSURE SHALL BE FITTED WITH A "WINDOW STOP" SO THAT THE WINDOWS ARE RESTRICTED TO LESS THAN 4" WHEN OPEN. A POOL IS NOT REQUIRED TO BE EQUIPPED WITH AN APPROVED POOL ALARM AS PER SECTION R 326.7 OF THE NYS RESIDENTIAL CODE, IF THE POOL WILL BE EQUIPPED WITH AN AUTOMATIC POWER SAFETY COVER WHICH COMPLIES WITH ASTM F1346.

4. PORTABLE WATER PROTECTION: POOL WATER AUTO FILL THE "POOL MISER" WATER AUTO FILL IS EQUIPPED WITH A BUILT IN CHECK VALVE TO PROTECT POTABLE WATER SUPPLY.

5. ENTRAPMENT PROTECTION: POOL SUCTION OUTLETS WILL BE PROTECTED AGAINST USER ENTRAPMENT AS PER SECTION R 326.6 OF THE NYS 2020 RESIDENTIAL CODE. SUCTION OUTLETS SHALL HAVE A COVER THAT CONFORMS TO AN APPROVED CHANNEL DRAIN SYSTEM. OUTLET CIRCULATION SYSTEMS SHALL BE EQUIPPED WITH A ATMOSPHERIC VACUUM RELIEF. PUMP CIRCULATION SYSTEMS SHALL HAVE A MINIMUM OF TWO SUCTION OUTLETS WITH A MINIMUM HORIZONTAL AND VERTICAL DISTANCE OF 3 FEET BETWEEN THE OUTLETS. THE INSTALLATION SHALL INCLUDE A POOL DRAIN COVERS THAT IS COMPLIANT WITH THE VIRGINIA GRAEME BAKER POOL & SPA SAFETY ACT (VGB ACT) TO AVOID ENTRAPMENT HAZARDS. THE PROPOSED POOL INSTALLATION SHALL INCLUDE ONE ***VAC-ALERT MODEL VA-2000L SAFETY VACUUM RELEASE SYSTEM*** (SVRS) DESIGNED FOR SUCTION LIFT APPLICATIONS.

2020 NYS RESIDENTIAL CODE REFERENCES:

303.2 ENCLOSURES. THE PROVISIONS OF THIS SECTION SHALL CONTROL THE MAINTENANCE OF BARRIERS FOR SWIMMING POOLS, SPAS AND HOT TUBS INSTALLED, CONSTRUCTED OR SUBSTANTIALLY MODIFIED AFTER DECEMBER 14, 2006. DESIGN CONTROLS ARE INTENDED TO PROVIDE PROTECTION AGAINST POTENTIAL DROWNING AND NEAR-DROWNING BY RESTRICTING ACCESS TO SWIMMING POOLS, SPAS AND HOT TUBS.

303.2.2 TEMPORARY BARRIERS. AN OUTDOOR SWIMMING POOL, INCLUDING AN IN-GROUND, ABOVE-GROUND OR ON-GROUND POOL, HOT TUB OR SPA SHALL BE SURROUNDED BY A TEMPORARY BARRIER DURING INSTALLATION OR CONSTRUCTION IN COMPLIANCE WITH SECTION R326.4 OF THE RESIDENTIAL CODE OF NEW YORK STATE OR SECTION 3109.3.2 OF THE BUILDING CODE OF NEW YORK STATE, AS APPLICABLE.

303.3 SWIMMING POOL AND SPA ALARMS. A SWIMMING POOL OR SPA INSTALLED, CONSTRUCTED OR SUBSTANTIALLY MODIFIED AFTER DECEMBER 14, 2006, SHALL BE EQUIPPED WITH AN APPROVED POOL ALARM IN COMPLIANCE WITH SECTION R326.7 OF THE RESIDENTIAL CODE OF NEW YORK STATE OR SECTION R3109.5 OF THE BUILDING CODE OF NEW YORK STATE.

303.4 ENTRAPMENT PROTECTION FOR SWIMMING POOLS AND SPAS. SWIMMING POOLS AND SPAS SHALL MAINTAIN BODY ENTRAPMENT PROTECTIONS FOR SUCTION OUTLETS IN ACCORDANCE WITH THE BUILDING CODE OF NEW YORK STATE OR THE RESIDENTIAL CODE OF NEW YORK STATE, AS APPLICABLE.

R326.1.1COMPLIANCE WITH OTHER SECTIONS. SWIMMING POOLS, SPAS AND HOT TUBS SHALL COMPLY WITH THIS SECTION AND OTHER APPLICABLE SECTIONS OF THIS CODE. THE REQUIREMENTS OF THIS SECTION AND OF THE OTHER APPLICABLE SECTIONS OF THIS CODE SHALL BE IN ADDITION TO, AND NOT IN REPLACEMENT OF OR SUBSTITUTION FOR, THE REQUIREMENTS OF OTHER APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS, INCLUDING, BUT NOT NECESSARILY LIMITED TO THE REQUIREMENTS OF SECTION 8003 (FEDERAL SWIMMING POOL AND SPA DRAIN COVER STANDARD) OF TITLE 15 OF THE UNITED STATES CODE (CPSC 15 USC 8003), WHERE APPLICABLE.

R326.5 ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS. SUCTION OUTLETS SHALL BE DESIGNED TO PRODUCE CIRCULATION THROUGHOUT THE POOL OR SPA. SINGLE-OUTLET SYSTEMS, SUCH AS AUTOMATIC VACUUM CLEANER SYSTEMS, OR MULTIPLE SUCTION OUTLETS, WHETHER ISOLATED BY VALVES OR OTHERWISE, SHALL BE PROTECTED AGAINST USER ENTRAPMENT.

R326.5.1 COMPLIANCE. SUCTION OUTLETS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF CPSC 15 USC 8003 AND ANSI/APSP/ICC 7, WHERE APPLICABLE.

R326.6 SUCTION OUTLETS. SUCTION OUTLETS SHALL BE DESIGNED TO PRODUCE CIRCULATION THROUGHOUT THE POOL OR SPA. SINGLE-OUTLET SYSTEMS, SUCH AS AUTOMATIC VACUUM CLEANER SYSTEMS, OR MULTIPLE SUCTION OUTLETS, WHETHER ISOLATED BY VALVES OR OTHERWISE, SHALL BE PROTECTED AGAINST USER ENTRAPMENT.

R326.6.1 COMPLIANCE ALTERNATIVE. SUCTION OUTLETS MAY BE DESIGNED AND INSTALLED IN ACCORDANCE WITH ANSI/ APSP/ICC 7.

R326.6.2 SUCTION FITTINGS. POOL AND SPA SUCTION OUTLETS SHALL HAVE A COVER THAT CONFORMS TO ANSI/ASME A112.19.8, OR AN 18 INCH BY 23 INCH (457 MM BY 584 DRAIN GRATE OR LARGER, OR AN APPROVED CHANNEL DRAIN SYSTEM. EXCEPTION: SURFACE SKIMMERS.

GENERAL POOL SANITARY NOTES:

1. **SEASONAL DRAWDOWN:** AS SWIMMING POOLS MAY CONTAIN CHLORINE AND OTHER CHEMICALS THAT MAY BE CONSIDERED HARMFUL TO THE ENVIRONMENT, THE PROPOSED POOL SHALL HAVE AN ACCESSIBLE SEASONAL DRAWDOWN DISCHARGE PIPE LOCATED WITHIN 15 FEET OF THE PROPOSED POOL AND/OR POOL EQUIPMENT PAD.
2. **IDENTIFICATION:** THE SEASONAL DRAWDOWN PIPE SHALL BE CLEARLY LABELED TO IDENTIFY THE LOCATION FOR USE BY OWNER AND POOL MAINTENANCE PERSONNEL.
3. **POOL BACKWASH:** THE POOL SYTEM SHALL PROVIDE A HARD PIPE CONNECTION TO THE POOL DISCHARGE PIPE. FINAL CONFIGURATION TO BE DETERMINED BY THE POOL CONTRACTOR.
4. **DRAINAGE CONNECTION:** CONNECTIONS FOR THE SEASONAL POOL DRAWDOWN AND THE POOL BACKWASH DISCHARGE PIPE SHALL BE HARD PIPED CONNECTIONS TO THE PROPERTY'S ONSITE DRAINAGE SYTEM. ALL SUCH WORK SHALL BE PERFORMED BY A LICENSED PLUMBER AS REQUIRED BY CODE.

DAVID A. GOESSL, PE
CIVIL ENGINEER
622 SPROUT BROOK ROAD
PUTNAM VALLEY, NY 10579 (914) 227-0258

PROPOSED IN-GROUND SWIMMING POOL
WITHIN A WETLAND CONTROLLED PROPERTY
79 SOMERSTON ROAD, YORKTOWN, NY 10598

PREPARED BY: DAVID GOESSL, P.E. PREPARED FOR: D & F JENNINGS

DATE: OCTOBER 16, 2022 SCALE: NONE SHEET: 4 OF 4

STATE OF NEW YORK · DAVID ALLEN GOESSL · 081017 · LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	DATE
1	OWNER REVIEW AND COMMENTS	10/22/22
2	CONSERVATION BOARD COMMENTS	11/18/22
	RIPARIAN BUFFER PLANTINGS PROPOSED	
3	PLANNING BOARD COMMENTS	12/6/22

DECISION OF THE ZONING BOARD OF APPEALS OF THE TOWN OF YORKTOWN

October 28, 2022

JENNINGS **#47/22**
Property Address: 79 Somerston Rd.
Section 17.10, Block 1, Lot 3

This is an application to allow construction of an attached garage with a side yard setback of 8.5ft where 15ft is required, where a total of two sides is 22.3ft where 40ft is required, and a front yard setback of 35.09ft where 40ft is required as per section 300-21 and Appendix A of the Town Zoning Code. This property is located in a R1-20 Zone.

Mailings and sign certification are in order. Memo from the Assistant Building Inspector, dated September 15, 2022 states:

> This is an application to allow construction of an attached garage where side yard variances are needed, one side is 8. 5 ft. where 15 ft. is required and total of two sides is 22.3 ft. where 40 ft. is required. (Previous variance approved # 16/ 22) and a front yard variance of 35. 09 ft. where 40 ft. is required for as per 300-21 and Appendix A of the Town Zoning Code. This property is located in a R1- 20 zone. I have inspected this property on September 15, 2022 and found no apparent violations. I have no objection granting relief for requested variances. The applicant will need a building permit and certificate of occupancy for this project.

The Board grants the application to allow construction of an attached garage with a side yard setback of 8.5ft where 15ft is required, where a total of two sides is 22.3ft where 40ft is required, and a front yard setback of 35.09ft where 40ft is required as per section 300-21 and Appendix A of the Town Zoning Code. With the stipulation it pertains only to the requested variance and not the remainder of the property line, that the addition be built in substantial conformity to the plans submitted, and that this decision will void out the previous decision that was requested for the same project.

It is hereby determined that the above action is a SEQRA Type II Action, which action requires no further review.

MBF

Gordon B. Fine, Chairman
Zoning Board of Appeals

Filed on the 14th day of
November, 2022.

Diana L. Quast

Diana L. Quast
Town Clerk

TOWN OF YORKTOWN - ENGINEERING DEPARTMENT
MS4 STORMWATER MANAGEMENT PERMIT APPLICATION
WETLAND PERMIT APPLICATION and/or TREE PERMIT APPLICATION

Section 17.10

Block 10

Lot # 03

Approval Authority: TE [✓] PB [ ] TB [ ]
Application #: WP-TB-APP-038-22
Date Received: 11-9-22
Date Issued:
Date Expires:
Fee Paid: $2,100

Job Site Address: 79 SOMERSTON RD

City/State/Zip: YORKTOWN, N.Y. 10598

NOTE: Application, Fee, Short/Long Form EAF, Map/Survey to be submitted to the Engineering

APPLICANT:

YOUR NAME: FERNANDO FISA

COMPANY: FISA CONSTRUCTION, MASONRY & BLACKTOP

ADDRESS: 3868 VALLEY VIEW START

MOHEGAN LAKE NY ZIP 10547

PHONE: (914) 490-1375

EMAIL: FERNANDO@FISACONSTRUCTION.COM

OWNER:

YOUR NAME: FRANK & DANIELLE JENNINGS

COMPANY: PROPERTY OWNER

ADDRESS: 79 SOMERSTON ROAD

YORKTOWN, N.Y. ZIP 10598

PHONE: (917) 217-8383

EMAIL: FJ@RSSINC.COM

APPROVED PLANS AND PERMIT SHALL BE ON-SITE AT ALL TIMES

Select One	Type	Approval Authority	Cost
	Wetland/Watercourse/Buffer Area Permit (Administrative)	Town Engineer	$800.00
X	Wetland/Watercourse/Buffer Area Permit	Town Board/Planning Board	$1,800.00
	Renewal of Wetlands/Watercourse/Buffer Area Permit (1 Year)	Town Engineer	$150.00
X	MS4 Stormwater Management Permit (Administrative)	Town Engineer	$300.00
	MS4 Stormwater Management Permit	Town Board/Planning Board	$1,500.00
	Renewal of a MS4 Stormwater Management Permit (1 Year)	Town Engineer	$150.00
	Tree Permit	Town Engineer	$0.00

Application fees are doubled with issuance of a Stop Work Order/Notice of Violation as per Town Code.

PROPOSED ACTIVITY - If not located in wetland/wetland buffer (skip to 2b)

1. **Description of wetlands** (check all that apply):

a. Lake/pond	_____	Control area of lake/pond	_____
b. Stream/River/Brook	_____	Control area of stream/river/brook	_____
c. Wetlands	_____	Control area of wetlands	X

2a. **Description of activity in the wetland and/or wetland buffer.** Describe the proposed work including the following: i.e. maintenance, construction of dwelling, addition, driveway, culverts, including size and location.

PROPOSED ACTIVITY INCLUDES INSTALLATION OF A INGROUND FIBERGLASS IN-GROUND SWIMMING POOL, EQUIPMENT PAD AND RELATED STORMWATER MANAGEMENT SYSTEM AS REQUIRED BY CODE. PROJECT IS LOCATED WITHIN THE 50 FOOT BUFFER AREA OF A REGULATED WETLAND.

2b. **Stormwater/Excavation - Description of proposed activity:**

STORMWATER MITIGATION AND SEASONAL POOL DRAWDOWN DISCHARGE IS PROPOSED TO BE HANDLED THROUGH THE INSTALLATION OF THREE (WITH 1 SPARE) INFILTRATION UNIT. TOTAL VOLUME OF ALL EXCAVATIONS IS LESS THAN 200 CUBIC YARDS. FINAL GRADING SHOULD BE CONSISTENT W/ EXISTING CONDITIONS. NO IMPORTING OF SOILS.

3. **Tree Removal:**

Amount of trees and/or stumps to be removed: N/A
Sizes; approximate DBH: _____
Species of trees to be removed (i.e. Birch, Spruce - if known): _____
Reason for removal: _____
Trees marked In field (trees must be marked prior to inspection): Yes: _____ **No:** _____
Tree removal contractor: N/A

Attach survey/sketch indicating property boundaries, existing structures, driveways, roadways and location of existing trees. Trees must be marked in the field before inspection.

4. **PROPERTY OWNER CONSENT:** **If another entity (e.g. contractor, consultant) is applying on the owner's behalf, the PROPERTY OWNER is to complete, sign and date this authorization:**

I, Danielle Jennings **hereby authorize** DAVID A. GOESSL, PE **to apply for this Stormwater/Wetland Permit/Tree Permit on my behalf.**

Signature: Danielle Jennings **Date:** 10/22/2023

Must be original signature. Digital signatures not accepted.

No application will be processed without the above-mentioned, required information.

GENERAL CONDITIONS

1. **The permittee is responsible for maintaining an active application. If no activity occurs within a six (6) month period, as measured from the date of application, the application will become null and void. Applications fees are non-refundable.**

2. **The Town of Yorktown reserves the right to modify, suspend or revoke this permit at any time after due notice when:**
   a. **Scope of the project is exceeded or a violation of any condition of the permit or provision of the law pertinent regulations are found; or**
   b. **Permit was obtained by misrepresentation or failure to disclose relevant facts; or**
   c. **Newly discovered information or significant physical changes are discovered.**

3. **The permittee is responsible for keeping the permit active by requesting renewal from the Approval Authority. Any supplemental information that may be required by the Approval Authority, including forms and fees, must be submitted 30 days prior to the expiration date. The expiration date is one year from the date the bond is paid to the Engineering Department. In accordance with Chapter 178 of the Town Code, Freshwater Wetlands, Section 178-16 -Expiration of a Permit.**

4. **This permit shall not be construed as conveying to the applicant any right to trespass upon private lands or interfere with the riparian rights of others in order to perform the permitted work or as authorizing the impairment of any right, title or interest in real or personal property held or vested in person not party to this permit.**

5. **The permittee is responsible for obtaining any other permits, approvals, easements and right-of-way, which may be required.**

6. **Any modification of this permit granted by the Approval Authority must be in writing and attached hereto.**

7. **Granting of this permit does not relieve the applicant of the responsibility of obtaining any other permission, consent or approval from the U.S. Army Corps of Engineers, N.Y.C. Department of Environmental Protection, N.Y.S. Department of Environmental Conservation or local government, which may be required.**

Danielle Jennings
PRINT NAME

Danielle Jennings
SIGNATURE OF APPLICANT

10/22/2022
DATE

Must be original signature. Digital signatures not accepted.

617.20
Appendix B
Short Environmental Assessment Form

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. 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.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Daniel & Frank Jennings

Name of Action or Project:
Proposed In-Ground Swimming Pool w/in Wetland Buffer

Project Location (describe, and attach a location map):
79 Somerston Road, Yorktown, N.Y. 10598

Brief Description of Proposed Action:

Name of Applicant or Sponsor:	Telephone: (917) 217-8393
Daniel & Frank Jennings	E-Mail: FJ@RSSInc.com

Address:
79 Somerston Road

City/PO:	State:	Zip Code:
Yorktown	N.Y.	10598

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☒	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:	☒	☐

3.a. Total acreage of the site of the proposed action? 0.41 acres
b. Total acreage to be physically disturbed? 0.07 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.41 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☒ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action, a. A permitted use under the zoning regulations?	☐	☒	☐
b. Consistent with the adopted comprehensive plan?	☐	☒	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☒
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☒	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☒	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☒	☐
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☒	☐
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: N/A	☒	☐
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	☐	☒
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	☐	☒
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☒	☐
b. Is the proposed action located in an archeological sensitive area?	☒	☐
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☒
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: ACTION IS WITHIN WETLAND BUFFER AREA	☒	☐

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:
☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☒ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☒	☐
16. Is the project site located in the 100 year flood plain?	☐	☒
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☒ NO ☐ YES	☐	☒
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☒ YES PROPOSED IMPROVEMENTS INCLUDE STORMWATER MANAGEMENT SYSTEM FOR FUEL DISPENSERS		

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: ______	☒	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: ______	☒	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: ______	☒	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: David W. Gresse Date: 10/22/22

Signature: [signature]

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	**Moderate to large impact may occur**
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?		
2. Will the proposed action result in a change in the use or intensity of use of land?		
3. Will the proposed action impair the character or quality of the existing community?		
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?		
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?		
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?		
7. Will the proposed action impact existing: a. public / private water supplies?		
b. public / private wastewater treatment utilities?		
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?		
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?		

	No, or small impact may occur	Moderate to large impact may occur
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?		
11. Will the proposed action create a hazard to environmental resources or human health?		

Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3. For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

SDML Realty
Dunkin Rt. 202

Yorktown Town Hall
363 Underhill Avenue, P.O. Box 703
Yorktown Heights, NY 10598

(914) 962-5722
www.yorktownny.org

November 16, 2022

Reuben Buck
Engineering & Surveying Properties, P.C.
reuben@ep-pc.com

Subject: SDML Realty, LLC
Dunkin Route 202
3735 Crompond Road
35.08-1-11, 14, 15, 23

Dear Mr. Buck,

At its meeting on November 14, 2022, the Planning Board reviewed the subject project and had the following comments:

1. The Board preferred the angled parking sketch however they felt there were a lot of parking spaces. Submit floor plans to the Planning Department to determine the required parking for the site. Submit parking data from similar sized Dunkin locations to determine how many parking spaces are typically needed.

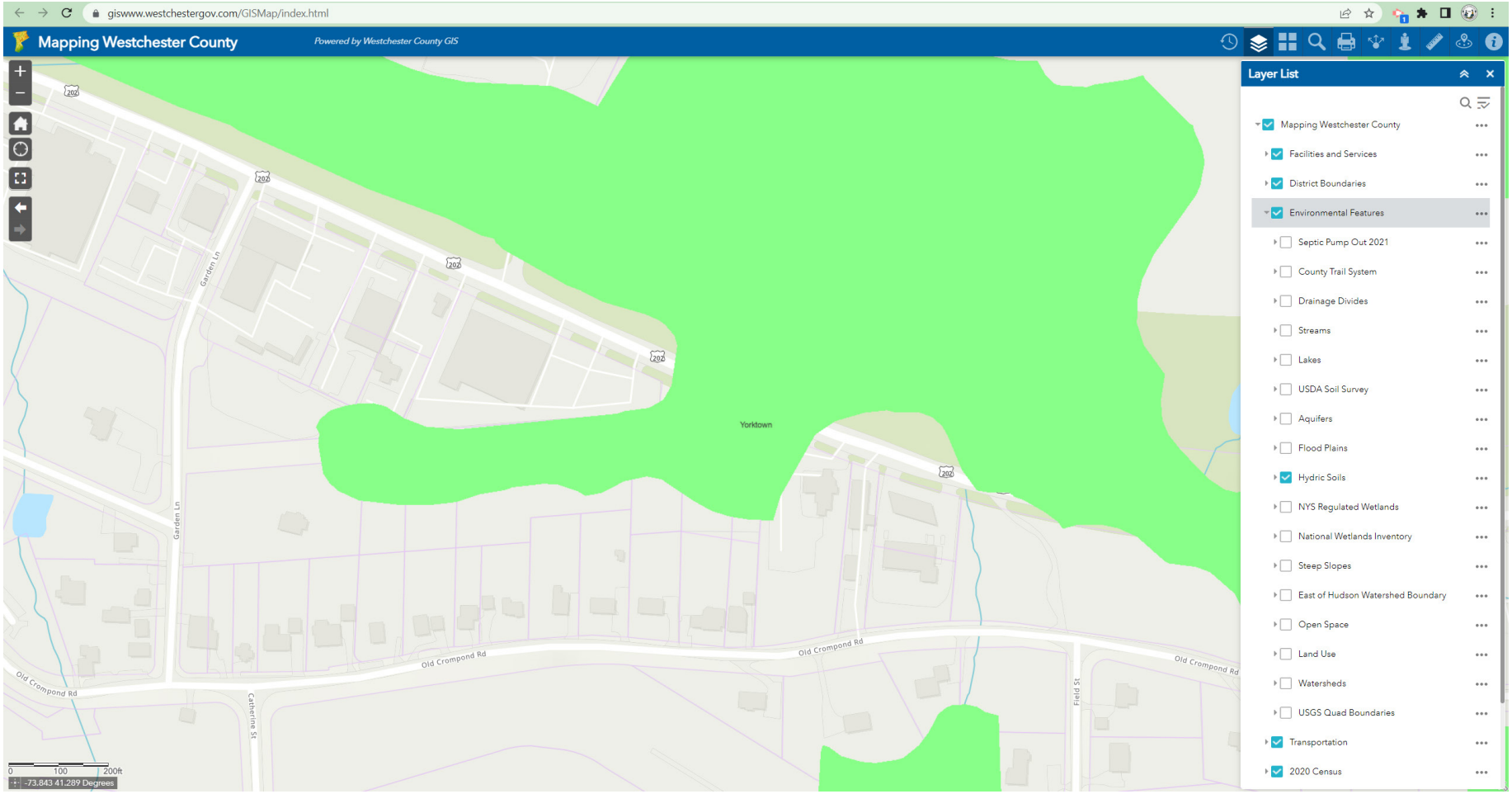
2. Investigate relocating the loading space and trash enclosure away from the rear property line that is shared with existing residences.

3. Confirm wetlands were flagged pursuant to Town Code Chapter 178 Wetlands. Town resource maps indicate a larger portion of the lots contain wetland soils. The wetland delineation must be verified by the Town's consultant at the applicant's expense. Once a wetland delineation report and map are received, this process can be started. A copy of this area from the Westchester County GIS Mapping Westchester County web app is attached.

4. Submit a formal site plan application, Short EAF, and application fees according to the attached fee schedule. The drive-thru window requires a special use permit for outdoor service.

Sincerely,

Robyn A. Steinberg, AICP, CPESC
Town Planner


gisww.westchestergov.com/GISMap/index.html
Mapping Westchester County
Powered by Westchester County GIS
Layer List
Mapping Westchester County
Facilities and Services
District Boundaries
Environmental Features
Septic Pump Out 2021
County Trail System
Drainage Divides
Streams
Lakes
USDA Soil Survey
Aquifers
Flood Plains
Hydric Soils
NYS Regulated Wetlands
National Wetlands Inventory
Steep Slopes
East of Hudson Watershed Boundary
Open Space
Land Use
Watersheds
USGS Quad Boundaries
Transportation
2020 Census
Yorktown
Garden Ln
Old Crompond Rd
Catherine St
Field St
0 100 200ft
-73.843 41.289 Degrees

ENGINEERING & SURVEYING PROPERTIES
Achieving Successful Results with Innovative Designs

Montgomery Office:
71 Clinton Street
Montgomery, NY 12549

Goshen Office:
262 Greenwich Ave, Ste B
Goshen, NY 10924

(845) 457 - 7727
www.EngineeringPropertiesPC.com

November 30, 2022

Town of Yorktown Planning Board
1974 Commerce Street, Room 222
Yorktown Heights, NY 10598

ATTN: Richard Fon, Chairman

RE: W.O. # 1932.01
ROUTE 202 DUNKIN
3735 CROMPOND ROAD
COMMENT RESPONSE LETTER

Dear Chairman Fon and Members of the Board,

We are in receipt of the comment memo regarding the above-mentioned project dated November 16, 2022, from Robyn A. Steinberg, AICP, CPESC, Town Planner. Below is a comment-by-comment response:

1. The angled parking has been maintained in the attached sketch plan however the total number of parking spaces have been reduced. Floor plans were submitted to the Town Planner and are attached as part of this submission. Based on the applicant's experience as a Dunkin franchisee the parking has been reduced to twenty-four spaces on the western side of the establishment for customer use and seven spaces on the eastern side of the establishment for employee use.

2. The loading space and trash enclosure have been relocated away from the rear property line that is shared with existing residences. Two turning figures are attached as part of this submission. Figure F-1 depicts the turning movements of a box truck which will be used to deliver donuts daily overnight. Figure F-2 depicts the turning movements of a tractor trailer which will be used to make deliveries twice a week during the day.

3. Our office has requested that James Bates, Ecological Analysis LLC, review the wetland delineation performed by ERS Consultants and provide a wetland delineation report and schedule a site visit to confirm wetlands were flagged pursuant to Town Code Chapter 178.

4. Please find attached a formal site plan application, Short EAF, and application fees.

If you have any additional questions and/or comments please don't hesitate to contact this office.

Sincerely,
Engineering & Surveying Properties, PC

Ross Winglovitz, P.E.
Principal

Reuben Buck
Project Engineer

TOWN OF YORKTOWN
PLANNING BOARD

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598. Phone (914) 962-6565, Fax (914) 962-3986

APPLICATION FOR SITE PLAN APPROVAL

Date 11/17/2022

1. **Name of Project:** Route 202 Dunkin

2. **Tax Map Designation (Section, Block, Lot)** 35.08-1-11, 14, 15 & 23

3. **Zone:** C-4 **Total Acreage:** ±1.357

4. **Is a statement of easements relating to property attached?** ☑ Yes ☐ None exist

5. **Project narrative (brief description of proposed development):**

The proposed action consists of a lot consolidation of tax lots 35.08-1-11, 14, 15 & 23 and the construction of a ±3,069 SF Dunkin establishment with associated parking, drive-thru and loading area.

6. **Contact Person - CHOOSE ONLY ONE:**

☐ Applicant	☐ Owner	☐ Architect	☐ Wetland Scientist
☐ Attorney	☐ Engineer	☐ Surveyor	☐ Landscape Architect

7. **Applicant**

Name: Paul Sardinha
Firm: SDML Realty, LLC
Address: 121 Paulding Lane, Crompond, NY 10517
Phone: 914-844-3978
Fax:
Email: dunkinyorktown@gmail.com

8. **Owner of Record**

Name: Same as applicant
Firm:
Address:
Phone:
Fax:
Email:

9. **Attorney**

Name: None
Firm:
Address:
Phone:
Fax:
Email:

10. **Engineer**

Name: Ross Winglovitz
Firm: Engineering & Surveying Properties, PC
Address: 71 Clinton Street, Montgomery, NY 12549
Phone: 845-457-7727
Fax:
Email: ross@ep-pc.com
Lic. No.: 071701

11. **Surveyor**

Name: Brian Babcock
Firm: Engineering & Surveying Properties, PC
Address: 71 Clinton Street, Montgomery, NY 12549
Phone: 845-457-7727
Fax:
Email: brian@ep-pc.com
Lic. No.: 050830

12. **Architect**

Name: Gary Kliesch
Firm: GK+A Architects, PC
Address: 36 Ames Avenue, Rutherford, NJ 07070
Phone: 201-896-0333
Fax:
Email: gkliesch@gkanda.biz
Lic. No.: 025618

13. **Wetland Scientist/Specialist**

Name _____

Firm _____

Address _____

Phone _____

Fax _____

Email _____

14. **Landscape Architect**

Name Steven Esposito

Firm Engineering & Surveying Properties, PC

Address 71 Clinton Street, Montgomery, NY 12549

Phone 845-457-7727

Fax _____

Email steve@ep-pc.com

Lic. No. 001169

15. **Is this project within 500 feet of the Town line?** ☐ Yes ☑ No
16. **Is this project within 500 feet of the Putnam County line?** ☐ Yes ☑ No
17. **Is this project within the Sustainable Development Study Area?** ☑ Yes ☐ No

18. **Is this project within 500 feet of:**
    - The right-of-way of any existing or proposed state or county road? ☑ Yes ☐ No
    - The boundary of an existing or proposed state or county park or any state or county recreation area? ☐ Yes ☑ No
    - The boundary of state or county-owned land on which a public building/ institution is located? ☐ Yes ☑ No
    - An existing or proposed county drainage line? ☐ Yes ☑ No
    - The boundary of a farm located in an agricultural district? ☐ Yes ☑ No

19. **Does the entire development plan for this project propose the disturbance of more than 5,000 SF of land? Note: If project is phased, include all phases in determination.** ☑ Yes ☐ No

20. **This project requires the following permits or approvals from the Town of Yorktown:**
    - ☑ Wetland Permit
    - ☑ Stormwater Permit
    - ☐ Tree Permit
    - ☑ Planning Board special permit: §300-21(8)(a)[1]
    - ☐ Town Board variance or approval: _____
    - ☐ Zoning Board of Appeals variance or special permit: _____

21. **This project requires the following permits or approvals from other outside agencies:**

- ☐ Westchester County Board of Health
- ☐ NYC DEP
- ☑ NYS DEC
- ☐ Other: _____

22. **This parcel is in the following districts:**

School District	Yorktown	Water District	Consolidated WD #1
Fire District	Mohegan	Sewer District	Peekskill

A Short or Full EAF with the original signature of the applicant must be attached to this application when submitted.

The applicant agrees to comply with the requirements of the Road Specifications, the Land Use Regulations, Zoning Ordinance, Tree Removal and Excavation ordinance, and any additions or amendments thereto.

The applicant agrees to execution and delivery of deeds and required documents for reserved parks/recreation/open space/drainage control, roads and road widening strips and descriptions of easements at the time of the public hearing. Such execution and delivery shall not operate to vest title of said property in the Town of Yorktown until such dedication is accepted in the form of a resolution adopted by the Town Board at a regular meeting of said Board.

The execution and delivery of the deeds to the roads in the proposed subdivision as provided for by the terms of the deeds to the roads in the proposed subdivision as provided for by the terms of the approving resolution shall not operate to vest title of said roads in the Town of Yorktown until such deed is accepted in the form of a resolution adopted by the Town Board at regular meeting of said Board.

Applicant	Owner of Record
PAUL H. SANDINHA	PAUL H. SANDINHA
NAME (PLEASE PRINT)	NAME (PLEASE PRINT)
SIGNATURE	SIGNATURE
11/18/2022	11/18/2022
DATE	DATE

Note: If the property owner is not the applicant for this application, in addition to the signature above, the owner of the property must also complete and have notarized one of the owner affidavits on the following page.

Note: By signing this document the owner of the subject property grants permission for Town Officials to enter the property for the purpose of reviewing this application.

REFER TO AFFIDAVITS ON THE FOLLOWING PAGES

ONE OF THE FOLLOWING AFFIDAVITS MUST BE COMPLETED

****

AFFIDAVIT TO BE COMPLETED BY OWNER, OTHER THAN CORPORATION

STATE OF NEW YORK; COUNTY OF WESTCHESTER SS. :

_____, being duly sworn, deposes and says that he is the owner in fee of the property described in the foregoing application for consideration of preliminary plat, and that the statements contained therein are true to the best of his knowledge and belief.

_____

Sworn before me this
_____ date of _____, 20 __

_____
Notary Public

****

AFFIDAVIT TO BE COMPLETED BY CORPORATION OWNER

STATE OF NEW YORK; COUNTY OF WESTCHESTER SS. :

Paul Sardinha, being duly sworn, deposes and says that he resides at 121 Paulding Lane in the County of Westchester and State of New York. That he is the Manager of SDML Realty, LLC the corporation which is owner in fee of the property described in the foregoing application for SDML Yorktown Dunkin and that the statements contained therein are true to the best of his knowledge and belief.

_____

Sworn before me this
16th date of November, 20 22

_____
Notary Public

PATRICIA M. PIRRAZZI
Notary Public - State of New York
NO. 01PI6045389
Qualified in Putnam County
My Commission Expires Oct 21, 2026

****

AFFIDAVIT TO BE COMPLETED BY AGENT OF OWNER

STATE OF NEW YORK; COUNTY OF WESTCHESTER SS. :

_____, being duly sworn, deposes and says that he is the agent named in the foregoing application for _____ and that he has been duly authorized by the owner in fee to make such application and that foregoing statements are true to the best of his knowledge and belief.

_____

Sworn before me this
_____ date of _____, 20 __

_____
Notary Public

F:\Office\WordPerfect\APPLICATION FORMS\APPSITEPLAN.wpd
Last updated: December 2011

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. 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.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
Route 202 Dunkin

Project Location (describe, and attach a location map):
3735 Crompond Road, Cortlandt, NY 10567

Brief Description of Proposed Action:
The proposed action consists of a lot consolidation of tax lots 35.08-1-11, 14, 15 & 23 and the construction of a ±3069 square-foot Dunkin Donuts establishment with associated parking, drive-thru and loading area.

Name of Applicant or Sponsor:	Telephone: 914-844-3978
SDML Realty, LLC	E-Mail: dunkinyorktown@gmail.com

Address:
121 Paulding Lane

City/PO:	State:	Zip Code:
Crompond	NY	10517

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: NYSDOT Entrance Approval	☐	☑

3. a. Total acreage of the site of the proposed action? ±1.40 acres
   b. Total acreage to be physically disturbed? ±0.87 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? ±1.40 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
   ☑ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES
If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES
	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☑	☐
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☑
10. Will the proposed action connect to an existing public/private water supply?	NO	YES
If No, describe method for providing potable water: _____ _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities?	NO	YES
If No, describe method for providing wastewater treatment: _____ _____	☐	☑
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO	YES
	☑	☐
11918.000123 (3605 Crompond Road, Yorktown, NY) Building - Not Eligible located 1,500 feet east of project site.		
b. 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?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES
	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☑ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☑ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☐	☑
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe:		
Stormwater will flow to proposed stormwater infrastructure onsite.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☐	☑
If Yes, explain the purpose and size of the impoundment: Stormwater detention		
~~19~~. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Preparer

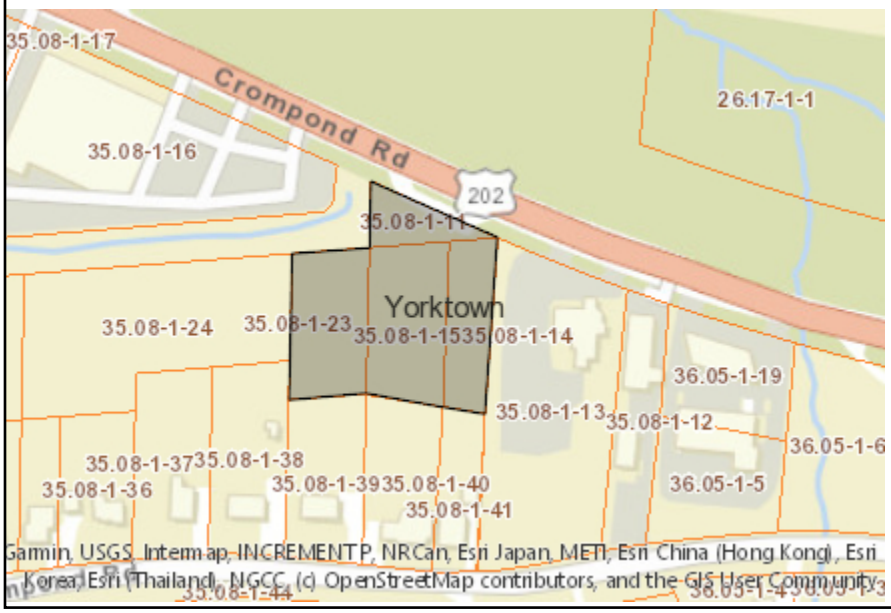
~~Applicant/sponsor/name~~: Engineering & Surveying Properties, PC C/O Ross Winglovitz Date: 09/01/2022

Signature: _____ Title: Principal

PRINT FORM

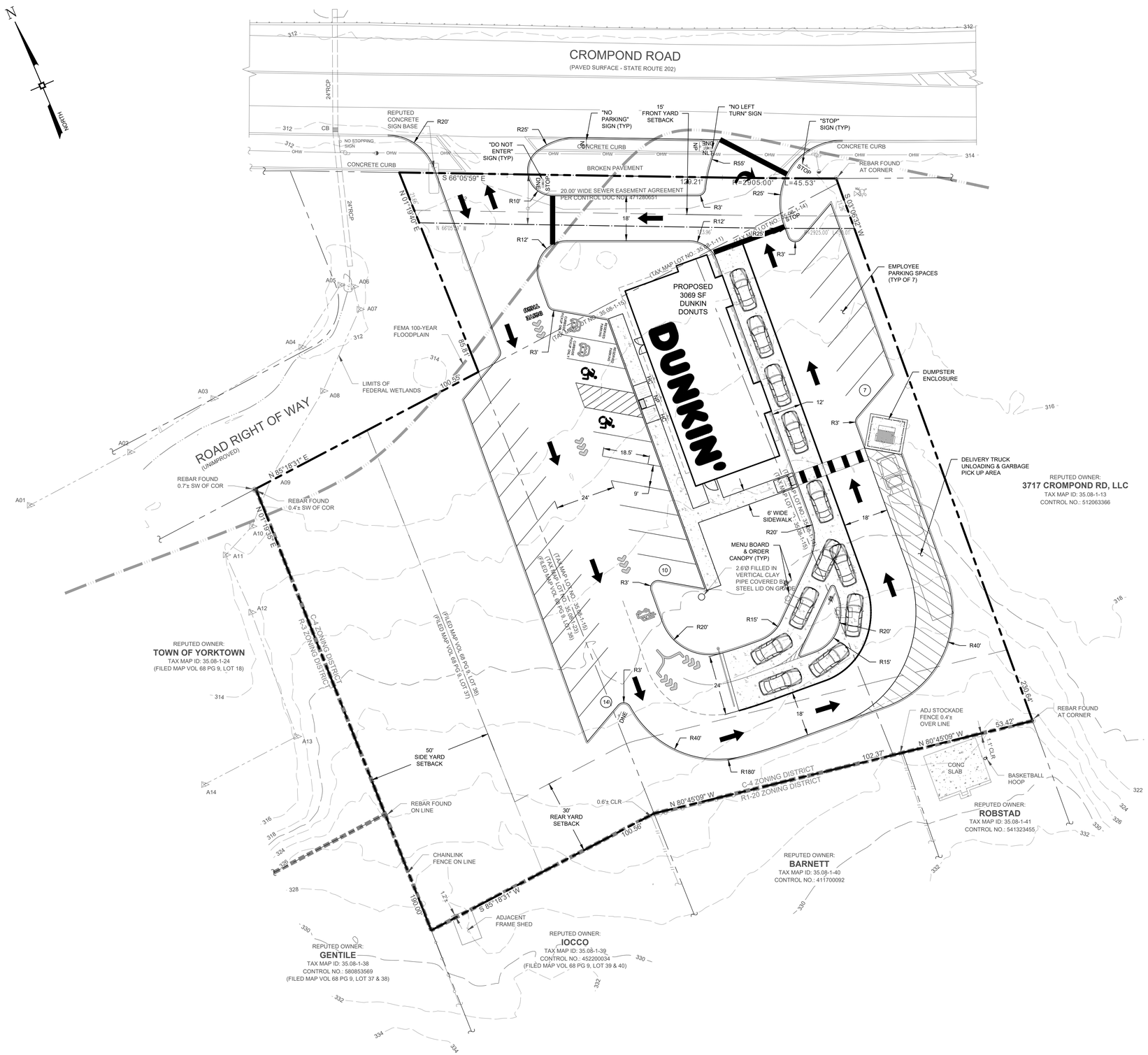
EAF Mapper Summary Report

Wednesday, May 25, 2022 9:47 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	No



GENERAL NOTES

1. TAX MAP IDENTIFICATION NUMBER: SECTION 35.08 BLOCK 1 LOTS 11, 14, 15 & 23
2. TOTAL AREA OF SUBJECT PARCELS: 1.357± ACRES.
3. BOUNDARY AND PLANIMETRIC INFORMATION BASED UPON FIELD SURVEY AS PERFORMED BY ENGINEERING & SURVEYING PROPERTIES PC ON OCTOBER 21, 2022.
4. THE TOPOGRAPHY SHOWN HEREON WAS COMPILED BY ENGINEERING & SURVEYING PROPERTIES PC, FROM USGS 1M HYDRO-FLATTENED DIGITAL ELEVATION MODELS (DEMS) AS DERIVED FROM 2012 SOURCE LIDAR. THE DEMS WERE PROVIDED BY NYS.GIS.GOV AND CORRESPOND TO ACTUAL SURVEY OBSERVATIONS TAKEN IN THE FIELD. CONTOURS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988.
5. OWNER / APPLICANT: SDML REALTY, LLC
   PO BOX 755
   CROMPOND, NY 10517
6. THE PROPOSED LOT SHALL BE SERVICED BY PUBLIC WATER AND SEWER SERVICES.
7. WETLAND BOUNDARY AS PER FIELD DELINEATION BY ERS CONSULTANTS ON JULY 13, 2022 AND FIELD LOCATED BY ENGINEERING & SURVEYING PROPERTIES, PC ON JULY 20, 2022.
8. APPROXIMATE SIZE AND LOCATION OF FEMA 100-YEAR FLOODPLAIN TAKEN FROM THE FEDERAL EMERGENCY MANAGEMENT (FEMA) FLOOD INSURANCE RATE MAP, WESTCHESTER COUNTY, COMMUNITY: TOWN OF CORTLANDT AND YORKTOWN, NUMBER 36119C0036F, PANEL NUMBER 36 OF 426, EFFECTIVE DATE SEPTEMBER 28, 2007.

BULK REQUIREMENTS

TOWN OF YORKTOWN - ZONING DISTRICT C-4
PROPOSED USE: DRIVE-THRU (USE §300 ATCH 2)

MINIMUM BUILDING REQUIREMENTS	REQUIRED	PROPOSED
LOT AREA	NONE	59,110 SF
LOT WIDTH	25 FEET	173.5 FEET
LOT DEPTH	100 FEET	263.9 FEET
FRONT YARD	15 FEET	31.4 FEET
REAR YARD	30 FEET	130.5 FEET
SIDE YARD *	50 FEET	63.8 FEET
MAXIMUM ALLOWABLE		
BUILDING HEIGHT	35 FT	28.0 FT
LOT COVERAGE (BUILDINGS)	30 %	5.2 %

* NONE, BUT IF PROPERTY ADJOINS AN R DISTRICT, SHALL BE 50 FEET.

PARKING REQUIREMENTS

TOWN OF YORKTOWN - ZONING DISTRICT C-4
PROPOSED USE: DRIVE-THRU (USE §300-182(A)(5))

BUILDING AREA:
- AREA DEVOTED TO PATRON USE 1,130 SF
- AREA DEVOTED TO FOOD PREPARATION 1,783 SF
- TOTAL BUILDING AREA 2,913 SF

PARKING SPACES REQUIRED:
- 1,130 SF x 1 SPACE PER 50 SF = 23 SPACES
- 1,783 SF x 1 SPACE PER 100 SF = 18 SPACES

TOTAL SPACES REQUIRED: 41 SPACES

TOTAL SPACES PROVIDED: 31 SPACES *

* WAIVER REQUESTED FROM TOTAL REQUIRED PARKING SPACES.

LOADING REQUIREMENTS

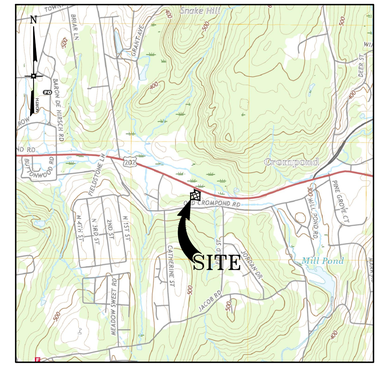
TOWN OF YORKTOWN - ZONING DISTRICT C-4
PROPOSED USE: DRIVE-THRU (USE §300-186(A)(1))

BUILDING AREA: 2,913 SF

LOADING SPACES REQUIRED:
- FIRST 4,000 SF x 1 SPACE = 1 SPACES
- 1 ADDITIONAL SPACE FOR EACH 40,000 SF = 0 SPACES

TOTAL SPACES REQUIRED: 1 SPACES

TOTAL SPACES PROVIDED: 1 SPACES



LOCATION MAP

SCALE: 1" = 2000'

No.	DATE	DESCRIPTION

DRAWING STATUS	ISSUE DATE: 11/16/22		
THIS SHEET IS PART OF THE PLAN SET ISSUED FOR	SHEET NUMBER		
☑ CONCEPT APPROVAL	1	OF	1
☐ PLANNING BOARD APPROVAL	N/A	OF	N/A
☐ WCDOH REALTY SUBDIVISION APPROVAL	N/A	OF	N/A
☐ WCDOH WATERMAIN EXTENSION APPROVAL	N/A	OF	N/A
☐ NYSDEC APPROVAL	N/A	OF	N/A
☐ NYSDOT APPROVAL	N/A	OF	N/A
☐ OTHER	N/A	OF	N/A
☐ FOR BID	N/A	OF	N/A
☐ FOR CONSTRUCTION	N/A	OF	N/A

THIS PLAN SET HAS BEEN ISSUED SPECIFICALLY FOR THE APPROVAL OR ACTION NOTED ABOVE AND SHALL NOT BE USED FOR ANY OTHER PURPOSE.
THIS SHEET SHALL BE CONSIDERED INVALID UNLESS ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).

ROSS WINGLOVITZ, P.E.
NEW YORK LICENSE # 071701

20 0 10 20 40

1 inch = 20 ft.

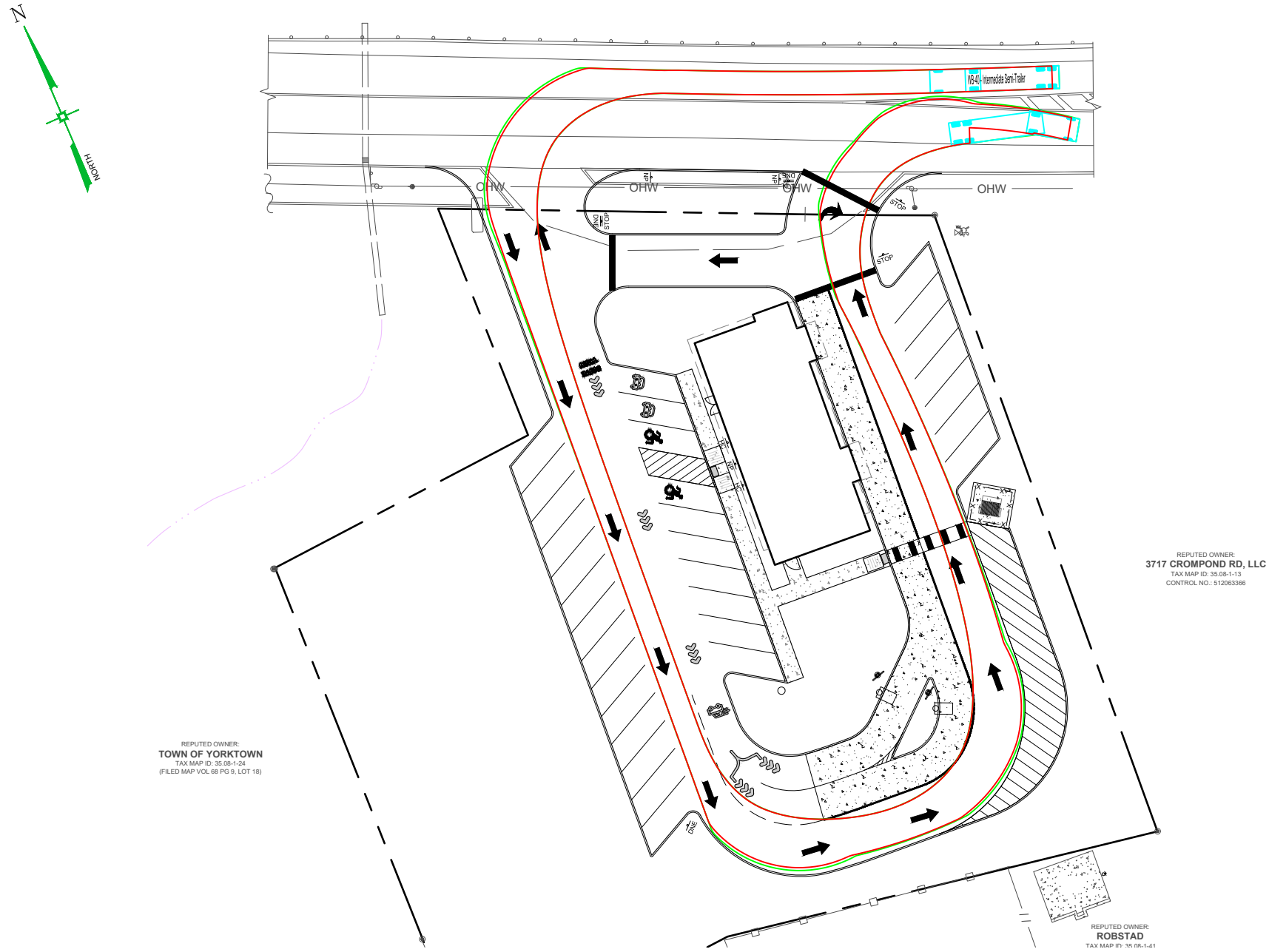
ENGINEERING & SURVEYING PROPERTIES
Achieving Successful Results with Innovative Designs

MONTGOMERY OFFICE
71 CLINTON STREET
MONTGOMERY, NY 12549
Ph: (845) 457-7727
WWW.EP-PC.COM

SKETCH PLAN

ROUTE 202 DUNKIN
3735 CROMPOND ROAD
TOWN OF YORKTOWN
WESTCHESTER COUNTY, NEW YORK

JOB #:	DRAWN BY:	
1932.01	RMB	SK-3
DATE: 11/16/22	SCALE: 1" = 20'	
REVISION: 0	TAX LOT: 35.08-1-11, 14, 15 & 23	



BOX TRUCK TURNING FIGURE	ROUTE 202 DUNKIN 3735 CROMPOND ROAD TOWN OF YORKTOWN WESTCHESTER COUNTY, NEW YORK	DATE: 11/18/22 SCALE: 1" = 50'	JOB # 1932.01 SHEET # F-1	ENGINEERING & SURVEYING PROPERTIES Achieving Successful Results with Innovative Designs

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71 CLINTON STREET
MONTGOMERY, NY 12549
Ph: (845) 457-7727
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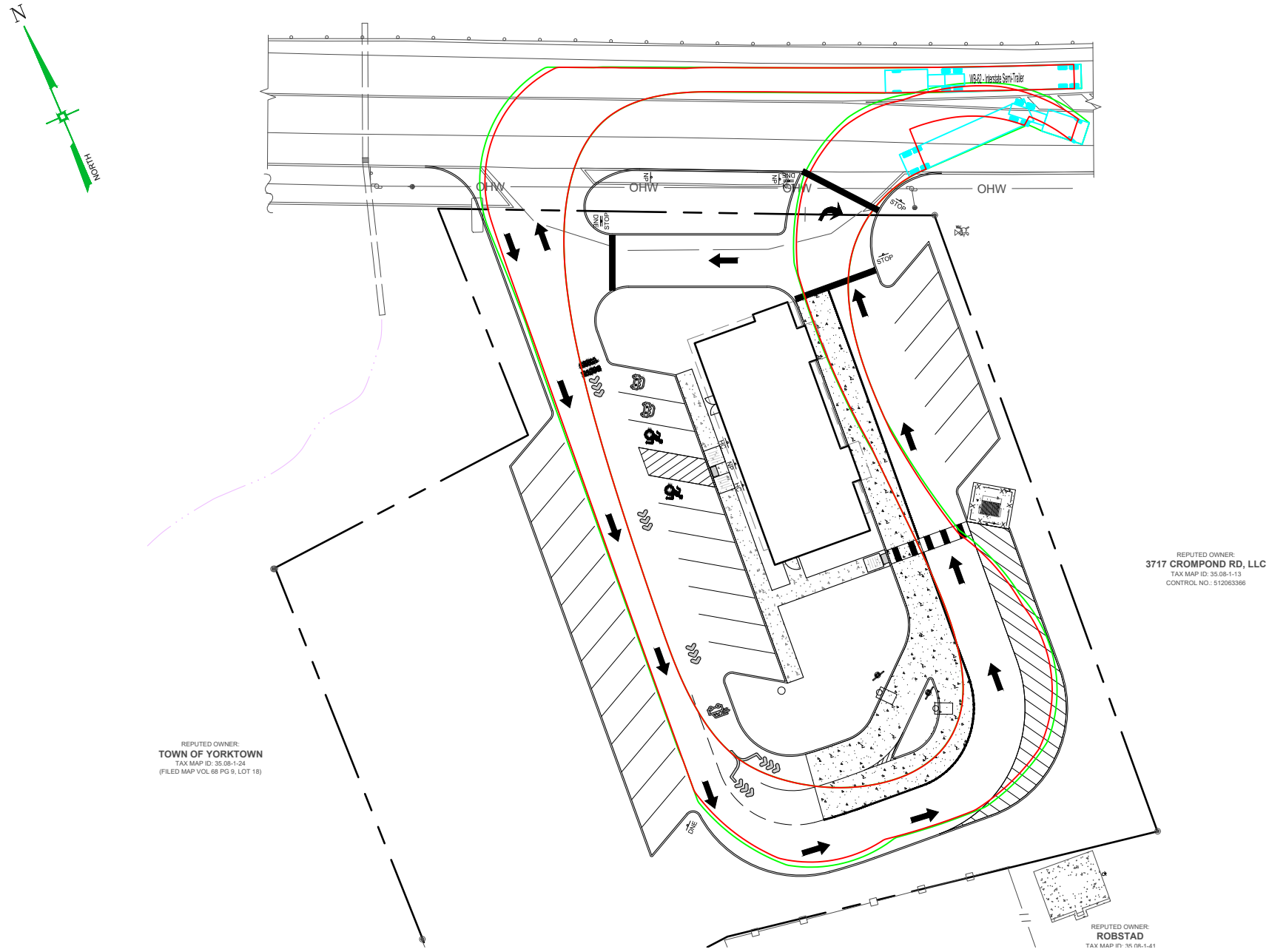


TRACTOR TRAILER TURNING FIGURE	ROUTE 202 DUNKIN 3735 CROMPOND ROAD TOWN OF YORKTOWN WESTCHESTER COUNTY, NEW YORK	DATE: 11/18/22 SCALE: 1" = 50'	JOB # 1932.01 SHEET # F-2	ENGINEERING & SURVEYING PROPERTIES Achieving Successful Results with Innovative Designs

MONTGOMERY OFFICE
71 CLINTON STREET
MONTGOMERY, NY 12549
Ph: (845) 457-7727
WWW.EP-PC.COM

Drawing Name: Z:\1932.01 – SDML Yorktown Dunkin Donuts\1932.01 – Sketch Plan #3.dwg Date Printed: Nov 21, 2022, 3:56pm

1 LEFT FACADE
NTS NOTE:

2 RIGHT FACADE
NTS NOTE:

3 FRONT FACADE
NTS NOTE:

4 REAR FACADE (@ PAY AND DRIVE THRU WINDOWS)
NTS NOTE:

gk+a ARCHITECTS, PC
Gary Kliesch and Associate Architects
36 Ames Avenue
Rutherford, NJ 07070
Tel. 201.896.0333
Fax. 201.896.9469
email@gkanda.biz

Rev. No.	Drawing Issues /Revisions	Date

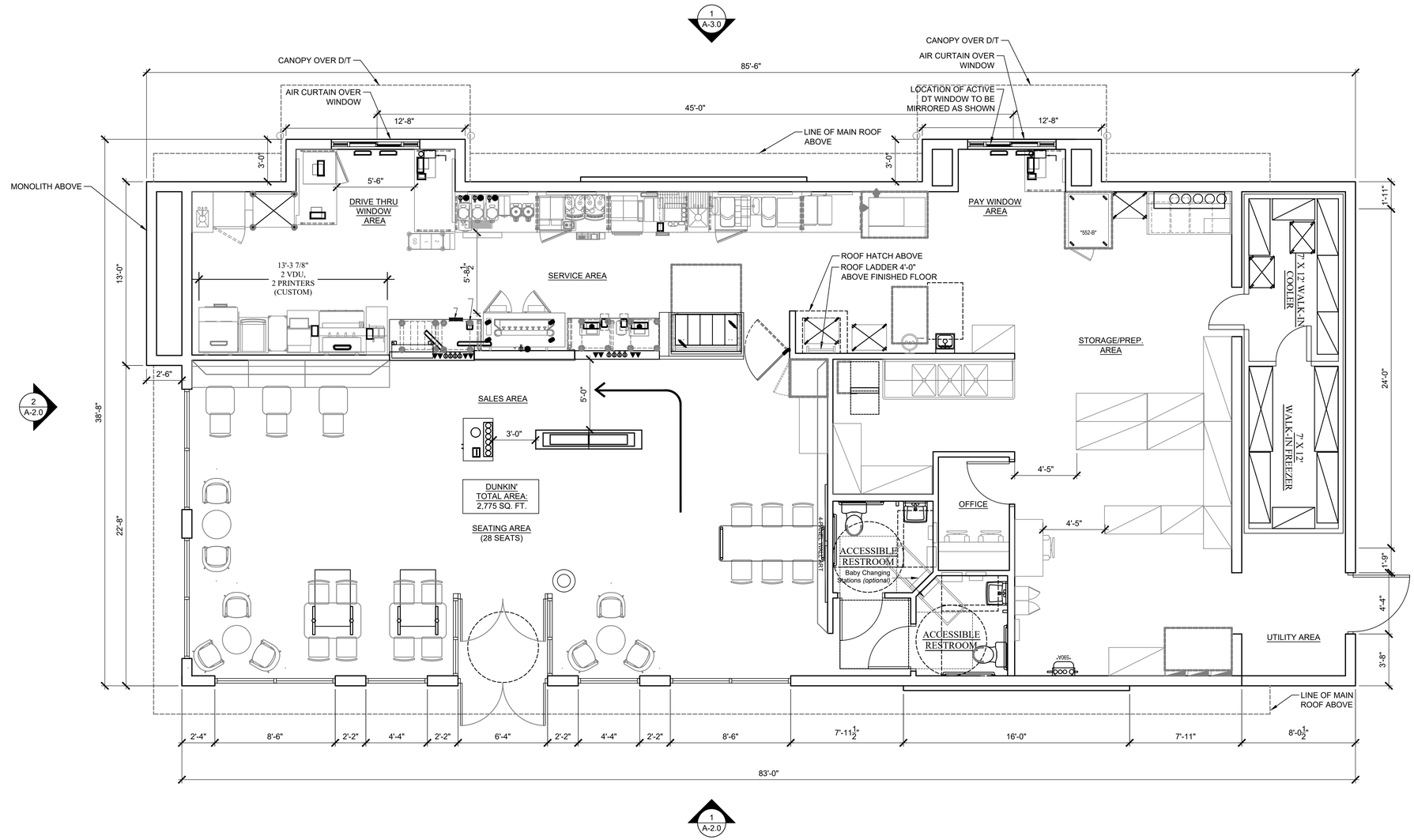
Gary Kliesch
A.I.A., NCARB, NJCID

NJ: AI 13332 NJCID: 21ID00025000
NY: 025618 CT: ARI.0009367
FL: AR95782 DE: S5-0007765
WI: 11180-5 MD: 14129
PA: RA-015112-B SC: 8935
D.C.: ARC-101838 MA-10610
GA: RA 013883 MI: 1301064135
VA: 4010016373 IL: 001.023586
NC:11736 WV: 4568 NH:04487

Proposed:
DUNKIN'
3735 Crompond Road,
Cortlandt Manor NY, 10567
PC #

Drawing Title:
RENDERED ELEVATIONS

Date: 11/23/2022	Dwg No. R 1.0
Drawn By: AT	
Checked By: DF	
Job No: 22-001	1 of 1



1 PROPOSED FLOOR PLAN

1/4" = 1'-0"

gk+a ARCHITECTS, PC
36 Ames Avenue
Rutherford, NJ 07070
Tel. 201.896.0333
Fax. 201.896.9469
email@gkanda.biz
Gary Kliesch and Associate Architects

Rev No	Drawing Issues /Revisions	Date

Gary Kliesch
A.I.A., NCARB, NJCID

NJ: AI 13332 NJCID: 21ID00025000
NY: 025618 CT: ARI.0009367
FL: AR95782 DE: S5-0007765
WI: 11180-5 MD: 14129
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D.C.: ARC101838 MA:10610
GA: RA 013883 MI: 1301064135
VA: 401016373 IL: 001.023586
NC:11736 WV: 4569 NH:04467

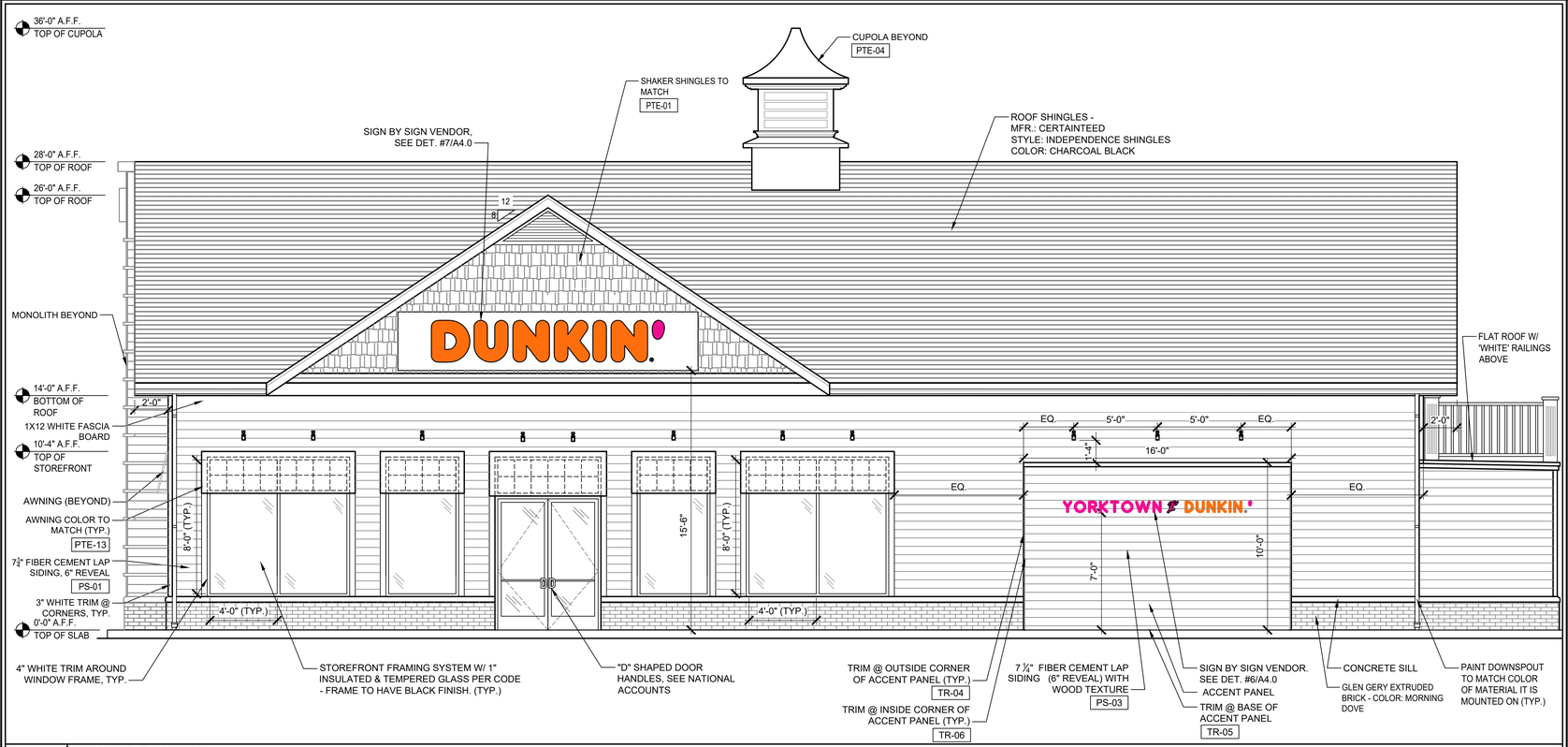
Proposed:

DUNKIN'

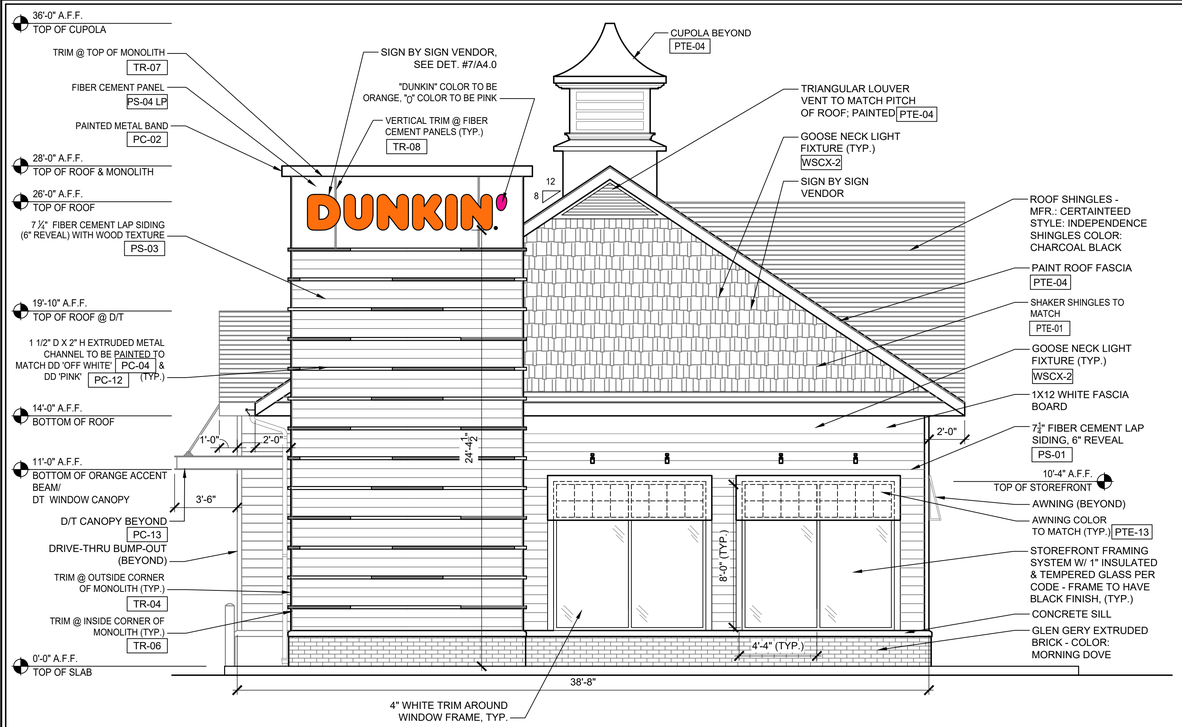
3735 Crompond Road
Cortlandt Manor, NY 10567
PC #

Drawing Title:
PROPOSED FLOOR PLAN

Date:	Dwg No.
11/23/2022	A 1.0
Drawn By: GR	
Checked By: DF	
Job No: 22-288	1 of 4



1 FRONT FACADE
1/4" = 1'-0"



2 LEFT FACADE
1/4" = 1'-0"

FINISH SCHEDULE

EXTERIOR WALL PAINT

CODE	MATERIAL	MANUFACTURER	PRODUCT #	DESCRIPTION / REMARKS
PTE-01	PAINT	SHERWIN WILLIAMS	GRAY FINISH	SW 7019 "GAUNTLET GRAY"
PTE-02	PAINT	SHERWIN WILLIAMS	CHARCOAL FINISH	SW 7069 "IRON ORE"
PTE-04	PAINT	SHERWIN WILLIAMS	OFF WHITE FINISH	SW 7063 "NEBULOUS WHITE"
PTE-13	PAINT		DD ORANGE	COLOR MATCH PMS 165C MAP ULTRA LOW V.O.C.

EXTERIOR FIBER-CEMENT EXTERIOR SIDINGAND PANELS

CODE	MATERIAL	MANUFACTURER	PRODUCT #	DESCRIPTION / REMARKS
PS-01	FIBER CEMENT PANEL	JAMES HARDIE	GRAY FINISH	COLOR:"AGED PEWTER " SURFACE: HARDIE SIDING OR COLOR: "PRIMED FINISH" FIELD PAINT TO MATCH PTE-01 DIMENSION: 8 1/4" X 12' X 5/16" THK WITH 6" SIDING EXPOSURE
PS-03	FIBER CEMENT SIDING	WOODTONE	WOOD FINISH RUSTIC SERIES WOODTONE	COLOR:"HONEY GLAZE" WOOD PATTERN SURFACE: WOOD PATTERN PLANK DIMENSION: 8 1/4" X 12' X 5/16" THK WITH 6" SIDDING EXPOSURE NOTE: NAILS TO MATCH WOOD FINISH
PS-04 LP	FIBER CEMENT PANEL	JAMES HARDIE	OFF WHITE FINISH LARGE FORMAT PANEL	COLOR:"ARCTIC WHITE" SURFACE: PRE-FINISHED REVEAL PANEL DIMENSION: (5/16" x 48"X96") WITH COLOR MATCHED TRIMS AND COLOR MATCHED SCREWS OR COLOR: "PRIMED FINISH" FIELD PAINT TO MATCH PTE-04

EXTERIOR METAL PAINTED COATINGS

CODE	MATERIAL	MANUFACTURER	PRODUCT #	DESCRIPTION / REMARKS
PC-13	PAINTED COATING	MATTHEWS PAINT	DD ORANGE FINISH	COLOR MATCH PMS 165C COLOR: MP797700 R161426 FINISH: LVS SATIN V1 0 OVER MP55898 WHITE BASECOAT
	PAINTED COATING	SHERWIN WILLIAMS	DD ORANGE FINISH COLOR # 5059990	Blended At: Sherwin Williams Product Finishes, Lowell MA Product: LV3 - Genesis Low VOC Satin GT1039 Orange Toner 785.97g / .19gal GT1511 Low VOC Gloss Clear 529.21g / .12gal GT1043 Autumn Orange 194.04g / .05gal GT1011 Artic White 137.20g / .02gal GR1088 Reducer 442.38g / .13gal GT1510 Low VOC Flat Clear 2157.21g / .49gal
	PAINTED COATING	POWDER COAT	DD ORANGE FINISH	COLOR MATCH PMS 165C

gka ARCHITECTS, PC
36 Ames Avenue
Rutherford, NJ 07070
Tel. 201.896.0333
Fax. 201.896.9469
email@gkanda.biz
Gary Kliesch and Associate Architects

Rev No	Drawing Issues /Revisions	Date

Gary Kliesch
A.I.A., NCARB, NJCID

NJCID: 21ID00025000
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MD: 14129
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MA:106610
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IL: 001.022586
WV: 4569 NH#04487

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VA: 401016373
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Proposed:
DUNKIN'
3735 Crompond Road
Cortlandt Manor, NY 10567
PC #

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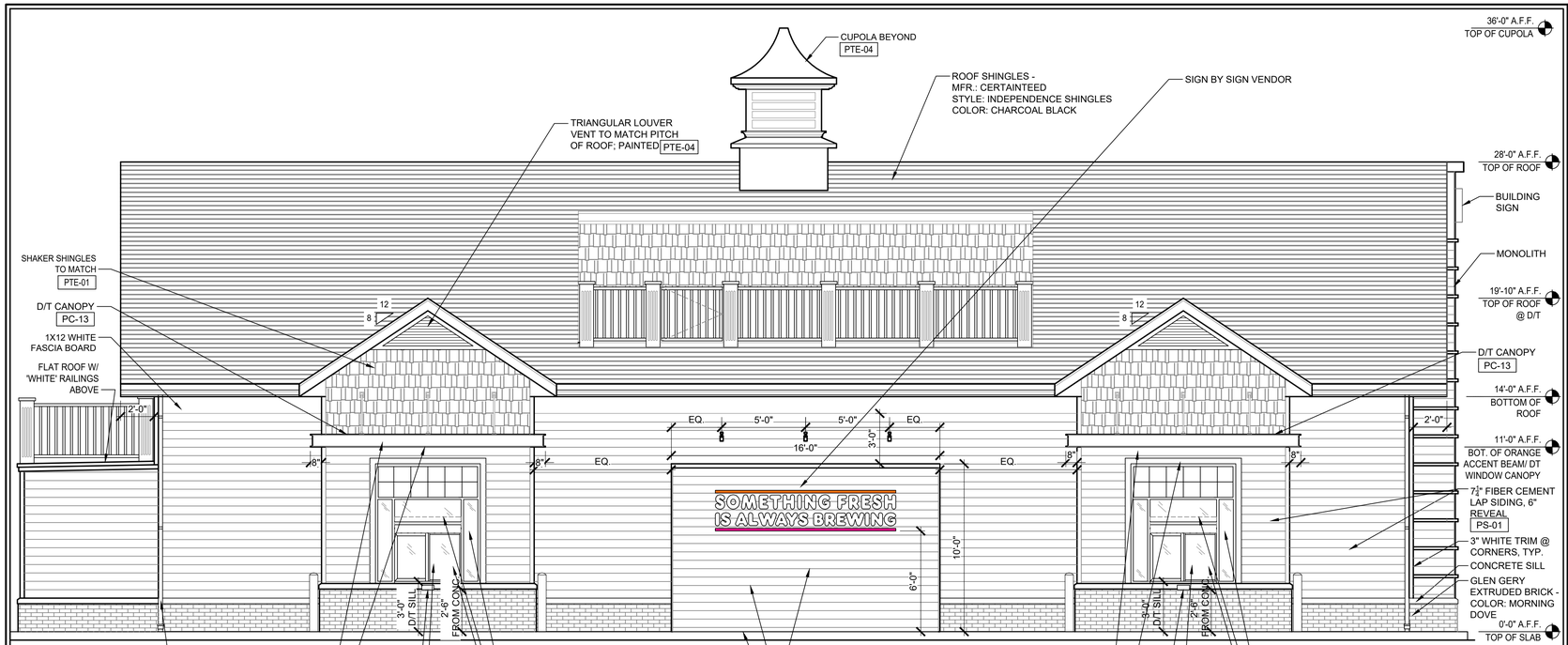
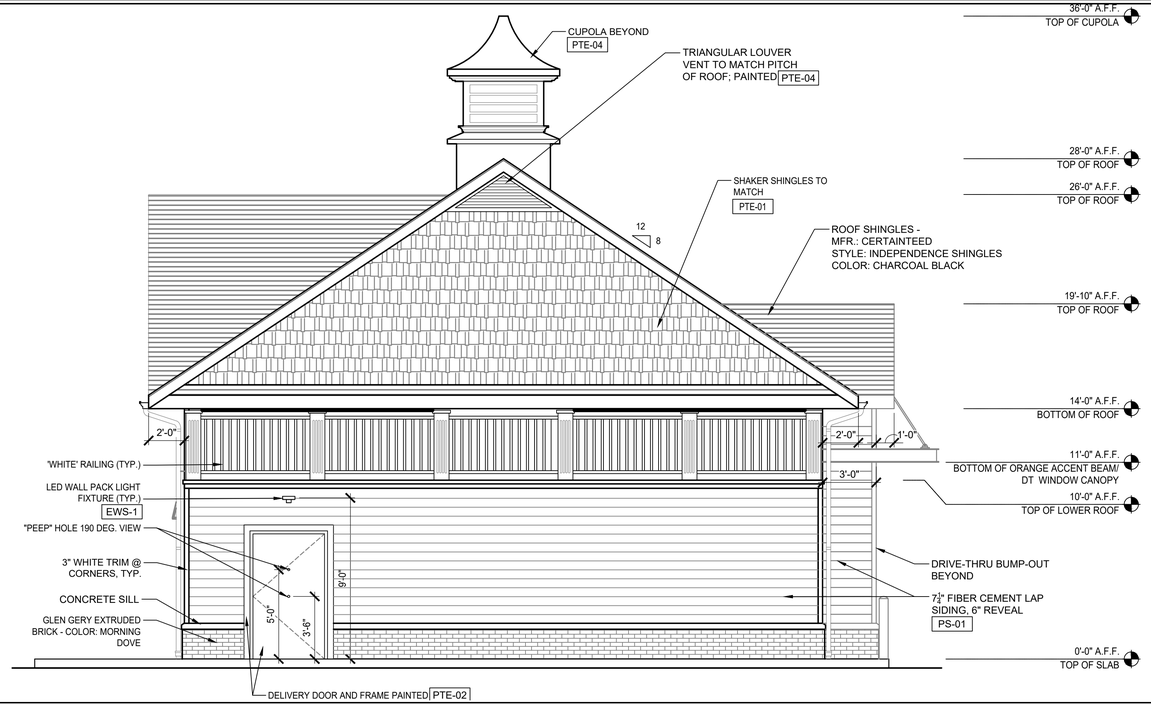
PROPOSED ELEVATIONS

Date:	Dwg No.
11/23/2022	A 2.0
Drawn By: GR	
Checked By: DF	
Job No: 22-288	2 of 4



1 REAR FACADE (@ PAY AND DRIVE THRU WINDOWS)

1/4" = 1'-0"



2 RIGHT FACADE

1/4" = 1'-0"

FINISH SCHEDULE

EXTERIOR WALL PAINT

CODE	MATERIAL	MANUFACTURER	PRODUCT #	DESCRIPTION / REMARKS
PTE-01	PAINT	SHERWIN WILLIAMS	GRAY FINISH	SW 7019 "GAUNTLET GRAY"
PTE-02	PAINT	SHERWIN WILLIAMS	CHARCOAL FINISH	SW 7069 "IRON ORE"
PTE-04	PAINT	SHERWIN WILLIAMS	OFF WHITE FINISH	SW 7063 "NEBULOUS WHITE"
PTE-13	PAINT		DD ORANGE	COLOR MATCH PMS 165C MAP ULTRA LOW V.O.C.

EXTERIOR FIBER-CEMENT EXTERIOR SIDINGAND PANELS

CODE	MATERIAL	MANUFACTURER	PRODUCT #	DESCRIPTION / REMARKS
PS-01	FIBER CEMENT PANEL	JAMES HARDIE	GRAY FINISH	COLOR:"AGED PEWTER" SURFACE: HARDIE SIDING OR COLOR: "PRIMED FINISH" FIELD PAINT TO MATCH PTE-01 DIMENSION: 8 1/4" X 12' X 5/16" THK WITH 6" SIDING EXPOSURE
PS-02	FIBER CEMENT SIDING	WOODTONE	WOOD FINISH RUSTIC SERIES WOODTONE	COLOR:"HONEY GLAZE" WOOD PATTERN SURFACE: WOOD PATTERN PLANK DIMENSION: 8 1/4" X 12' X 5/16" THK WITH 6" SIDDING EXPOSURE NOTE: NAILS TO MATCH WOOD FINISH
PS-04 LP	FIBER CEMENT PANEL	JAMES HARDIE	OFF WHITE FINISH LARGE FORMAT PANEL	COLOR: "ARCTIC WHITE" SURFACE: PRE-FINISHED REVEAL PANEL DIMENSION: (5/16" x 48"X96") WITH COLOR MATCHED TRIMS AND COLOR MATCHED SCREWS OR COLOR: "PRIMED FINISH" FIELD PAINT TO MATCH PTE-04

EXTERIOR METAL PAINTED COATINGS

CODE	MATERIAL	MANUFACTURER	PRODUCT #	DESCRIPTION / REMARKS
PC-13	PAINTED COATING	MATTHEWS PAINT	DD ORANGE FINISH	COLOR MATCH PMS 165C COLOR: MP79700 R181426 FINISH: LVS SATIN V1 0 OVER MP55898 WHITE BASECOAT
	PAINTED COATING	SHERWIN WILLIAMS	DD ORANGE FINISH COLOR # 5059990	Blended At: Sherwin Williams Product Finishes, Lowell MA Product: LV3 - Genesis Low VOC Satin GT1038 Orange Toner 785.97g / .19gal GT1511 Low VOC Gloss Clear 529.21g / .12gal GT1043 Autumn Orange 194.04g / .05gal GT1011 Artic White 137.20g / .02gal GR1088 Reducer 442.38g / .13gal GT1510 Low VOC Flat Clear 2157.21g / .49gal
	PAINTED COATING	POWDER COAT	DD ORANGE FINISH	COLOR MATCH PMS 165C

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Gary Kliesch
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NJCID: 21ID00025000							
NJ: AI 13332	CT: ARI.0009367	DE: S5-0007765	MD: 14129	SC: 8935	MA: 10610	MI: 1301064135	
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NC:117736	WV: 4589	NH:04487					

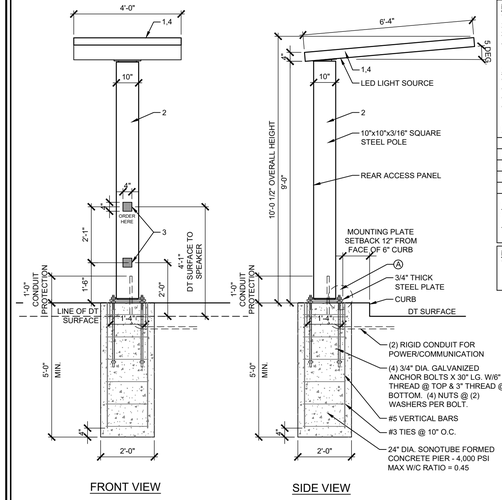
Proposed:

DUNKIN'

3735 Crompond Road
Cortlandt Manor, NY 10567
PC #

Drawing Title:
PROPOSED ELEVATIONS

Date:	Dwg No.
11/23/2022	A 3.0
Drawn By: GR	
Checked By: DF	
Job No: 22-288	3 of 4



FRONT VIEW

SIDE VIEW

(2) RIGID CONDUIT FOR POWER/COMMUNICATION

(4) 3/4" DIA. GALVANIZED ANCHOR BOLTS X 30" LG. W/6" THREAD @ TOP & 3" THREAD @ BOTTOM. (4) NUTS @ (2) WASHERS PER BOLT

#5 VERTICAL BARS

#3 TIES @ 10" O.C.

24" DIA. SONOTUBE FORMED CONCRETE PIER - 4,000 PSI MAX W/C RATIO = 0.45

ILLUMINATED DRIVE-THRU CANOPY SIGN

NOTES:
1. PAINT TO MATCH ORANGE PMS 165C, GLOSS FINISH.
2. PAINT TO MATCH PMS COOL GRAY 1C, GLOSS FINISH.
3. BLACK VINYL, ARLON 2100-03, MIC BY OTHERS.
4. BREAKAWAY SWIVEL TOP.

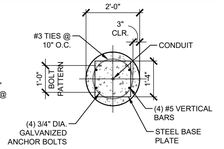
ADDITIONAL NOTES:
- ARTWORK FONT: DUNKIN SANS DISPLAY
- 120 VOLT CIRCUIT, TO BE CONFIRMED BY SITE
- CLEARANCE TO BE CONFIRMED BY SITE
- TOP HAS TWO DOWN LIGHTS

COLORS:

PMS	VINYL/PAINT
PMS 165 DD ORANGE	TRANS 3M #3630-3123
PMS 219 DD PINK	TRANS 3M #3630-1379
PMS 7540C DD GRAY	TRANS 3M #7725-41
PMS COOL GRAY 1C	TRANS 3M #7725-11

NOTE:
SEE DUNKIN' BRANDS WEBSITE, http://extranet.dunkinbrands.com, FOR COMPLETE INFORMATION AND DETAILS

NOTE:
1. G.C. TO VERIFY BASE PLATE DIMENSIONS WITH MANUFACTURER OF DRIVE THRU ELEMENT AND NOTIFY ARCHITECT OF ANY DISCREPANCIES

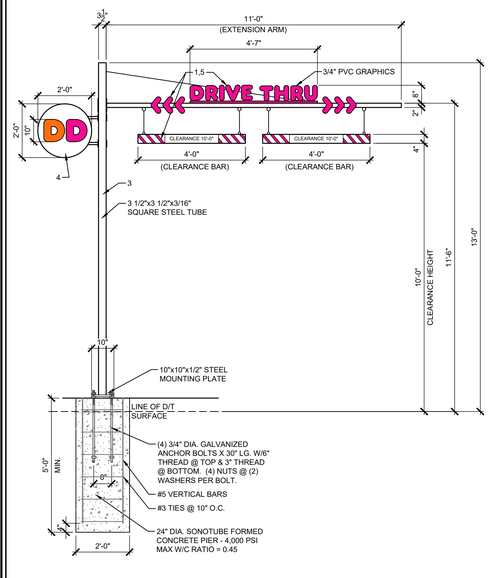


BASE PLATE DETAIL

DESIGN PARAMETER:
2018 INTERNATIONAL BUILDING CODE
BASIC WIND SPEED: 140 MPH

1 ORDER CANOPY

3/8" = 1'-0" NOTE:



FRONT VIEW

NON-ILLUMINATED DRIVE-THRU STRUCTURE

NOTES:
1. PAINT TO MATCH ORANGE PMS 165C, GLOSS FINISH.
2. PAINT TO MATCH PINK PMS 219C, GLOSS FINISH.
3. PAINT TO MATCH PMS COOL GRAY 1C, GLOSS FINISH.
4. OPTIONAL 24" x 24" MEDALLION SIGN WITH REMOVABLE / ADJUSTABLE PLATES, SINGLE SIDED VINYL.
5. OPTIONAL REFLECTIVE FILM:
   3M LIS80CR-10 SCOTCHLITE REFLECTIVE MCS (LATEX OR SOLVENT INKS)
   8519 LUSTER PROTECTIVE LAMINATE PRINTED TO MATCH.
- PMS 165 DUNKIN' ORANGE
- PMS 219 DUNKIN' PINK
- PMS 7540C DUNKIN' GRAY
- PMS COOL GRAY 1C

ADDITIONAL NOTES:
- ARTWORK FONT: DUNKIN SANS DISPLAY
- 120 VOLT CIRCUIT, TO BE CONFIRMED BY SITE
- CLEARANCE TO BE CONFIRMED BY SITE

COLORS:

PMS	VINYL/PAINT
PMS 165 DD ORANGE	TRANS 3M #3630-3123
PMS 219 DD PINK	TRANS 3M #3630-1379
PMS 7540C DD GRAY	TRANS 3M #7725-41
PMS COOL GRAY 1C	TRANS 3M #7725-11

NOTE:
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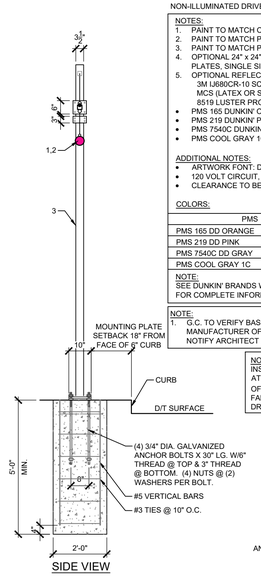
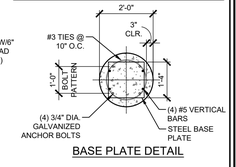
NOTE:
1. G.C. TO VERIFY BASE PLATE DIMENSIONS WITH MANUFACTURER OF DRIVE THRU ELEMENT AND NOTIFY ARCHITECT OF ANY DISCREPANCIES



SIDE VIEW

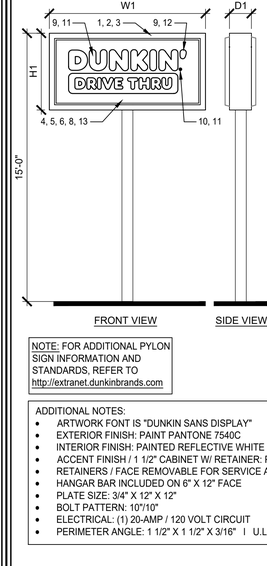
NOTE:
INSTALLER MUST BE SURE TO SHIM CANOPY PLATE AT BOTTOM, AND ADJUST ANCHOR BOLTS AT BOTTOM OF COLUMN SO THAT THE CANOPY SITS WITH A ¼" / FT FALL FROM OPEN SIDE TO POLE SIDE SO WATER WILL DRAIN OFF POLE SIDE.



BASE PLATE DETAIL

2 SINGLE VEHICLE CLEARANCE BAR DETAIL

3/8" = 1'-0" NOTE:



FRONT VIEW SIDE VIEW

NOTE: FOR ADDITIONAL PYLON SIGN INFORMATION AND STANDARDS, REFER TO http://extranet.dunkinbrands.com

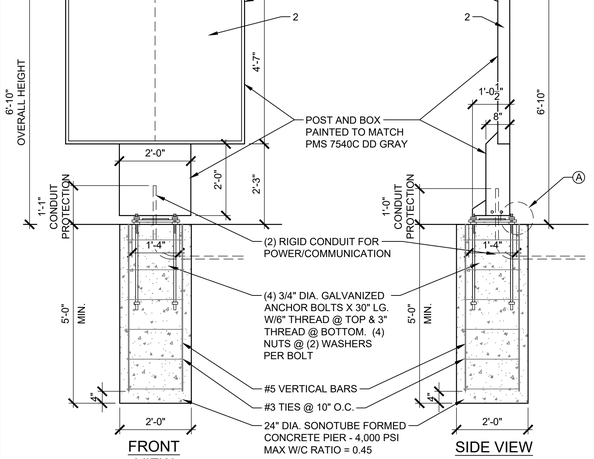
NOTES:
1. 15 1/2" X .08" X 1 1/2" ALUMINUM SPACER FRAME
2. FLAT ALUMINUM RETAINER
3. ALUMINUM ANGLE FRAME SUPPORT
4. GE TETRA MAX 7100K WHITE LED'S, AS REQUIRED (OR GE REPLACEMENT EQUIVALENT)
5. LED POWER SUPPLY, AS REQUIRED
6. INTERNAL DISCONNECT SWITCH
7. SUPPORT TUBE
8. FACES TO BE FLAT CLEAR SOLAR GRADE POLYCARBONATE 2ND SURFACE PAINTED DECORATION
9. "DUNKIN" LETTERS TO BE EMBOSSED
10. REGISTERED "R" AND "DRIVE THRU" TO BE FLAT GRAPHIC
11. 3M #3630-3123 DUNKIN' ORANGE TRANSLUCENT FILM 2ND SURFACE
12. 3M #3630-1379 DUNKIN' PINK TRANSLUCENT FILM 2ND SURFACE
13. BACKGROUND COLOR 403 WHITE BACK-SPRAY
13A. OPTION: SIGN FACE 2ND SURFACE WHITE FACE / NIGHT FACE BACKGROUND COLOR 403 WHITE BACK-SPRAY, BACKED UP WITH OPAQUE SILVER FOR COMPLETE OPAQUE FINISH FOR NIGHT

SIZE	H1	W1	D1	S.F. (BOX)
LARGE	72.5"	147.5"	16"	74.22'

ADDITIONAL NOTES:
- ARTWORK FONT IS "DUNKIN SANS DISPLAY"
- EXTERIOR FINISH: PAINT PANTONE 7540C
- INTERIOR FINISH: PAINTED REFLECTIVE WHITE
- ACCENT FINISH / 1 1/2" CABINET W/ RETAINER: PAINT PANTONE 7540C
- RETAINERS / FACE REMOVABLE FOR SERVICE ACCESS
- HANGAR BAR INCLUDED ON 6" X 12" FACE
- PLATE SIZE: 3/4" X 12" X 12"
- BOLT PATTERN: 10"/10"
- ELECTRICAL: (1) 20-AMP / 120 VOLT CIRCUIT
- PERIMETER ANGLE: 1 1/2" X 1 1/2" X 3/16" | U.L. LISTED

3 PYLON SIGN DETAIL

1/4" = 1'-0" NOTE:



FRONT VIEW

SIDE VIEW

DESIGN PARAMETER:
2018 INTERNATIONAL BUILDING CODE
BASIC WIND SPEED: 140 MPH

MULTIPLE PANEL DIGITAL MENU BOARDS

NOTES:
1. MENUBOARD IS POWDER COATED TO MATCH PMS 7540C (CABINET, BASE CLADDING, DOOR FRAMES & EXTENDER FRAMES).
2. SAMSUNG OHF SERIES DISPLAY MENUBOARDS, OHF55F - 55".

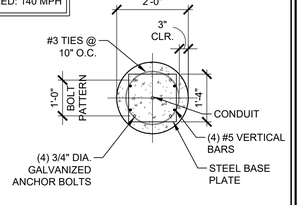
ADDITIONAL NOTES:
- ARTWORK FONT: DUNKIN SANS DISPLAY

COLORS:

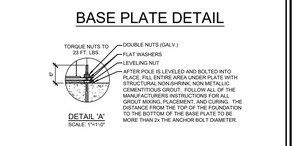
PMS	VINYL/PAINT
PMS 165 DD ORANGE	TRANS 3M #3630-3123
PMS 219 DD PINK	TRANS 3M #3630-1379
PMS 7540C DD GRAY	TRANS 3M #7725-41
PMS COOL GRAY 1C	TRANS 3M #7725-11

NOTE:
SEE DUNKIN' BRANDS WEBSITE, http://extranet.dunkinbrands.com, FOR COMPLETE INFORMATION AND DETAILS

NOTE:
1. G.C. TO VERIFY BASE PLATE DIMENSIONS WITH MANUFACTURER OF DRIVE THRU ELEMENT AND NOTIFY ARCHITECT OF ANY DISCREPANCIES

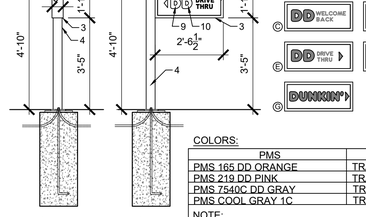


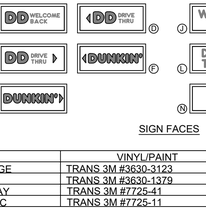
BASE PLATE DETAIL



4 DIGITAL MENU BOARD

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





SIGN FACES

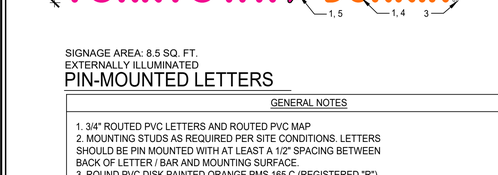
SIGNAGE BOX AREA: 2.75 SQ. FT.
LED ILLUMINATED DIRECTIONAL SIGN

NOTES:
1. 5" x 1" x .063" ALUMINUM SPACE FRAME.
2. 1" ALUMINUM RETAINER.
3. 1" x 1" x 1/8" ALUMINUM ANGLE.
4. 4" x 4" x .075" SQUARE TUBE SUPPORT PAINTED ORANGE PMS 165C
5. GE TETRA MAX 7100K WHITE LED'S. (OR GE REPLACEMENT EQUIVALENT).
6. LED POWER SUPPLIES, AS REQUIRED.
7. 118" CLEAR SOLAR GRADE POLYCARBONATE FACE 2ND SURFACE.
8. BACKGROUND COLOR TO BE 403 WHITE BACK-SPRAY.
9. 3M #3630-3123 DUNKIN' ORANGE TRANSLUCENT FILM 2ND SURFACE.
10. 3M #3630-1379 DUNKIN' PINK TRANSLUCENT FILM 2ND SURFACE.
11. 3M #7125-41 DUNKIN' GRAY TRANSLUCENT FILM 2ND SURFACE.

ADDITIONAL NOTES:
- ARTWORK FONT: DUNKIN SANS DISPLAY
- EXTERIOR FINISH: PAINT PANTONE 7540C
- INTERIOR FINISH: PAINTED REFLECTIVE WHITE
- RETAINERS / FACE REMOVABLE FOR SERVICE ACCESS
- ELECTRICAL: (1) 20-AMP / 120 VOLT CIRCUIT
- U.L. LISTED

5 DIRECTIONAL SIGN DETAILS

3/8" = 1'-0" NOTE:



SIGNAGE AREA: 8.5 SQ. FT.
EXTERNALLY ILLUMINATED

PIN-MOUNTED LETTERS

GENERAL NOTES

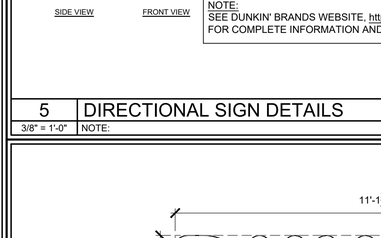
1. 3/4" ROUTED PVC LETTERS AND ROUTED PVC MAP
2. MOUNTING STUDS AS REQUIRED PER SITE CONDITIONS. LETTERS SHOULD BE PIN MOUNTED WITH AT LEAST A 1/2" SPACING BETWEEN BACK OF LETTER / BAR AND MOUNTING SURFACE.
3. ROUND PVC DISK PAINTED ORANGE PMS 165 C (REGISTERED "R")
4. "DUNKIN" LETTERS FACES & RETURNS PAINTED ORANGE PMS 165 C
5. CITY MAP, MAN, AND APOSTROPHE (') FACES & RETURNS PAINTED PINK PMS 219 C

ADDITIONAL NOTES:

ARTWORK FONT : DUNKIN SANS DISPLAY
LETTERS SHOULD BE PIN MOUNTED WITH AT LEAST A 1/2" SPACING BETWEEN BACK OF LETTER / BAR AND MOUNTING SURFACE.
ALLOWABLE TO STACK MESSAGING, HOWEVER NOT A PROTOTYPICAL STANDARD. DESIGN PROPOSAL REQUIRES FINAL APPROVAL FROM DBI DESIGNER BEFORE FABRICATION.

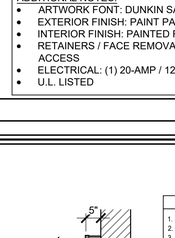
6 BUILDING SIGN DETAIL

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



SIGNAGE AREA: 22.31 SQ. FT.
ILLUMINATION TO BE WHITE LED'S
(INTERNALLY ILLUMINATED)

ELEVATION



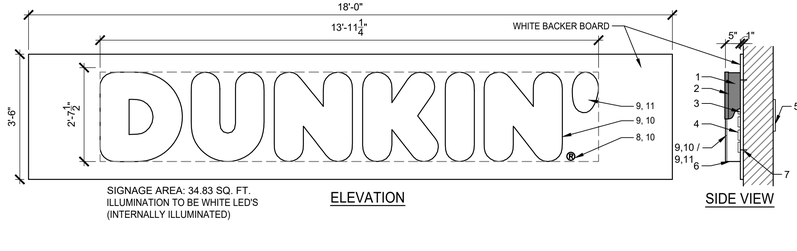
SIDE VIEW

GENERAL NOTES:

1. .05" x 5" ALUMINUM RETURNS PAINTED TO MATCH PMS 7540C
2. 1" TRIM CAP TO MATCH JEWELITE 313 BRONZE
3. .063" ALUMINUM BACKING
4. GE TETRA MAX 7100K WHITE LED'S (OR GE REPLACEMENT EQUIVALENT)
5. REMOTE POWER SUPPLY, AS REQUIRED
6. DRAIN HOLES, AS REQUIRED
7. MOUNTING HARDWARE, AS DETERMINED BY SITE CONDITIONS
8. .063" ALUMINUM DISK PAINTED WHITE (REGISTERED "R")
9. 3/16" THICK WHITE ACRYLIC FACE
10. 3M #3630-3123 DUNKIN' ORANGE TRANSLUCENT FILM 1ST SURFACE
11. 3M #3630-1379 DUNKIN' PINK TRANSLUCENT FILM 1ST SURFACE

ADDITIONAL NOTES:

ARTWORK FONT : DUNKIN SANS DISPLAY
CHANNEL LETTER INTERIOR PAINTED REFLECTIVE WHITE
ELECTRICAL : (1) 20-AMP / 120 VOLT CIRCUIT
U.L. LISTED
LED'S TO BE POPULATED FOR EVEN AND CONSISTENT LIGHTING WITHOUT HOT SPOTS OR SHADOWS



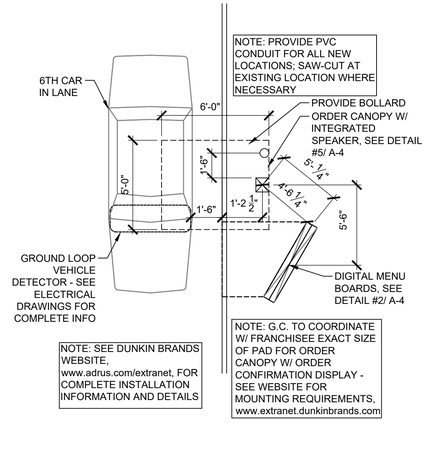
SIGNAGE AREA: 34.83 SQ. FT.
ILLUMINATION TO BE WHITE LED'S
(INTERNALLY ILLUMINATED)

ELEVATION

SIDE VIEW

7 BUILDING SIGN DETAILS

3/8" = 1'-0" NOTE:



8 DRIVE THRU MENU BOARD LAYOUT DTL.

1/4" = 1'-0" NOTE:

36 Ames Avenue
Rutherford, NJ 07070
Tel. 201.896.0333
Fax. 201.896.9469
email@gkanda.biz

gk+a ARCHITECTS,PC
Gary Kliesch and Associate Architects

Rev No	Drawing Issues /Revisions	Date

Gary Kliesch
A.I.A., NCARB, NJCID

NJCID: 21ID00025000
CT: ARI.0009367
DE: S5-0007765
MD: 14129
SC: 8935
MA:10610
MI: 1301064135
IL: 001.023586
NC:11736
WV: 4569
NH:04487

NJ: AI 13332
NY: 026618
FL: AR95782
WI: 11180-5
PA: RA-015112-B
D.C.: ARC101838
GA: RA 013883
VA: 401016373

Proposed:
DUNKIN'
3735 Crompond Road
Cortlandt Manor, NY 10567
PC #

Drawing Title:	PYLON SIGN, SIGNAGE DETAILS, AND SITE ELEMENT DETAILS
Date:	11/23/2022
Drawn By:	GR
Checked By:	DF
Job No:	22-288
Dwg No.	A 4.0
	4 of 4

Christopher Taormina, RA
Chairman

Matthew Slater
Town Supervisor

TOWN OF YORKTOWN

ADVISORY BOARD ON ARCHITECTURE & COMMUNITY APPEARANCE (*ABACA*)

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone (914) 962-6565

To: Planning Department
From: ABACA
Date: December 9, 2022
Subject: **SDML Realty, LLC – Dunkin Route 202**
3735 Crompond Road; 35.08-1-11, 14, 15 & 23

Documents Submitted and Reviewed:	Referred by:
Submission letter dated 11/30/2022 with associated documents Sketch Plan dated 11/16/22 Architectural Renderings dated 11/23/2022	Planning Department

The Advisory Board on Architecture and Community Appearance reviewed the above referenced subject at their meeting held on Tuesday, December 5, 2022. Paul Sardinha and Mario Sardinha were present.

The ABACA has the following comments:

Architecture

- The Board likes the direction of the preliminary design for the proposed building and looks forward to reviewing the project further as it progresses.
- The Board appreciates that the rooftop units are concealed.
- The proposed material and color palette is acceptable to the Board.

Lighting

- The Board requests for the applicant to submit a photovoltaic lighting plan to verify conformance to the code.
- The Board requests for the applicant to submit cut sheets and locations of all new proposed lighting fixtures.

Landscape Plan

- The Board requests for the applicant to submit a detailed landscape plan for review.

Signage

- The Board requests for the applicant to submit a separate signage application to the Building Department for conformity to the zoning code and for referral to this Board for approval.

Christopher Taormina
Christopher Taormina, RA
Chairman

/nc; Attachments
cc: Applicant

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

December 05, 2022

James Martinez
Staff Engineer
Engineering & Surveying Properties, PC
71 Clinton Street
Montgomery, NY 12549

Re: SEQRA
Route 202 Dunkin Donuts Construction
3735 Crompond Rd, Cortlandt Manor, NY 10567
22PR08630

Dear James Martinez:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

rev: J. Betsworth

Lowes Pad C Chipotle

Yorktown Town Hall
363 Underhill Avenue, P.O. Box 703
Yorktown Heights, NY 10598

(914) 962-5722
www.yorktownny.org

November 21, 2022

Joseph P. Riina, P.E.
Site Design Consultants
251-F Underhill Avenue
Yorktown Heights, NY 10598

Subject: Proposed Chipotle – Lowes Pad C
3180 Crompond Road
SBL: 26.19-1-1

Dear Mr. Riina,

At its meeting on November 14, 2022, the Planning Board reviewed the subject project and had the following comments:

1. Submit floor plans to the Planning Department to verify the required parking.

2. Subsequent submissions should include landscaping plans, lighting plans, and elevations of the building.

3. The Board felt locating the Loading Space on the main driveway into the site may cause conflicts. Investigate other locations for the loading space.

4. The approved Master Sign Plan for the Lowes Shopping Center site included 60 SF of signage for Building C. The only freestanding sign approved in the Plan is the existing directory sign. The Plan does not prohibit additional freestanding signs however it limits the total square footage to 100 SF excluding the monument directory sign. See page 3 of the attached Master Sign Plan. Therefore, there is no restrictions or regulations in place that would prohibit the Chipotle monument sign as proposed.

5. Add the proposed monument sign to the site plan. Freestanding signs must be a minimum of 5 feet from the property line.

Sincerely,

Robyn A. Steinberg, AICP, CPESC
Town Planner

Christopher Taormina, RA
Chairman

Matthew Slater
Town Supervisor

TOWN OF YORKTOWN

ADVISORY BOARD ON ARCHITECTURE & COMMUNITY APPEARANCE (*ABACA*)

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone (914) 962-6565

To: Planning Department
From: ABACA
Date: December 9, 2022
Subject: **Lowes Pad "C" – Chipotle Restaurant**
3200 Crompond Road; 26.19-1-1

Documents Submitted and Reviewed:	Referred by:
Submission letter dated 11/30/2022 with associated documents Site Plan dated 11/29/2022 Architectural Plan dated 10/24/2022	Planning Department

The Advisory Board on Architecture and Community Appearance reviewed the above referenced subject at their meeting held on Tuesday, December 5, 2022. Joseph Riina, P.E. of Site Design Consultants was present.

The ABACA has the following comments:

Architecture

- The Board likes the preliminary design as submitted but wants to ensure that the materials and colors are complimentary to the other pad sites.
- The Board is always concerned with the visibility of the rooftop units and suggests for the architect to screen the units that are visible from the roadway.
- The Board looks forward to reviewing the project further as it progresses with the architect.

Lighting

- The lighting plan was reviewed and is acceptable to the Board.
- The Board requests for the applicant to add any additional building lighting to this plan and to provide cut sheets of the selected fixtures.

Landscape Plan

- The Board requests for the applicant to submit a detailed landscape plan for review.

Christopher Taormina
Christopher Taormina, RA
Chairman

/nc; Attachments
cc: Applicant

Site Design Consultants

Civil Engineers • Land Planners

November 30, 2022

Ms. Robyn Steinberg, AICP
Yorktown Planning Department
1974 Commerce Street
Yorktown Heights, NY 10598

Re: Yorktown JAZ #3
Lowes – Pad C
Crompond Road

Dear Robyn:

On behalf of our Client, we are making the following submission for distribution and review at the December 12th Planning Board Meeting. The following are responses to your letter dated November 21, 2022.

1. Attached please find preliminary Architectural Drawings which include the interior building layout.
2. The landscape plan is to follow this submission and will be forwarded when complete. The lighting plan and details are included in the site plan set. The building elevations are contained in the architectural plan set.
3. We verified with Chipotle and the deliveries are by a 28' box truck. We have demonstrated that the loading area can accommodate easy delivery to the building.
4. Noted.
5. The monument sign is shown and well beyond 5 feet away from the property line.

Enclosed please find the following items:

- Three (3) full sized and Six (3) 11"x17" prints of the proposed Site Plan titled "Site Plan Prepared for Pad C" last dated 11/29/22, Sheet T-1 and Sheet C-101 to C-108 & C-501 to C-507.
- Three (3) full-sized and Six (3) 11"x17" prints of the preliminary Architectural Plans titled "Pad C at Yorktown" dated 10/24/22, Sheets A-100, ICP-4, A-301 (color), & A-301(B&W).

In addition, we are submitting a digital version of these documents. If you have any questions or need additional information, please contact me. Thank you.

Yours Truly,

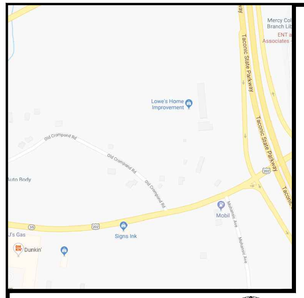
Joseph C. Riina, P.E.

JCR / dmd / Enc. / sdc 19-11

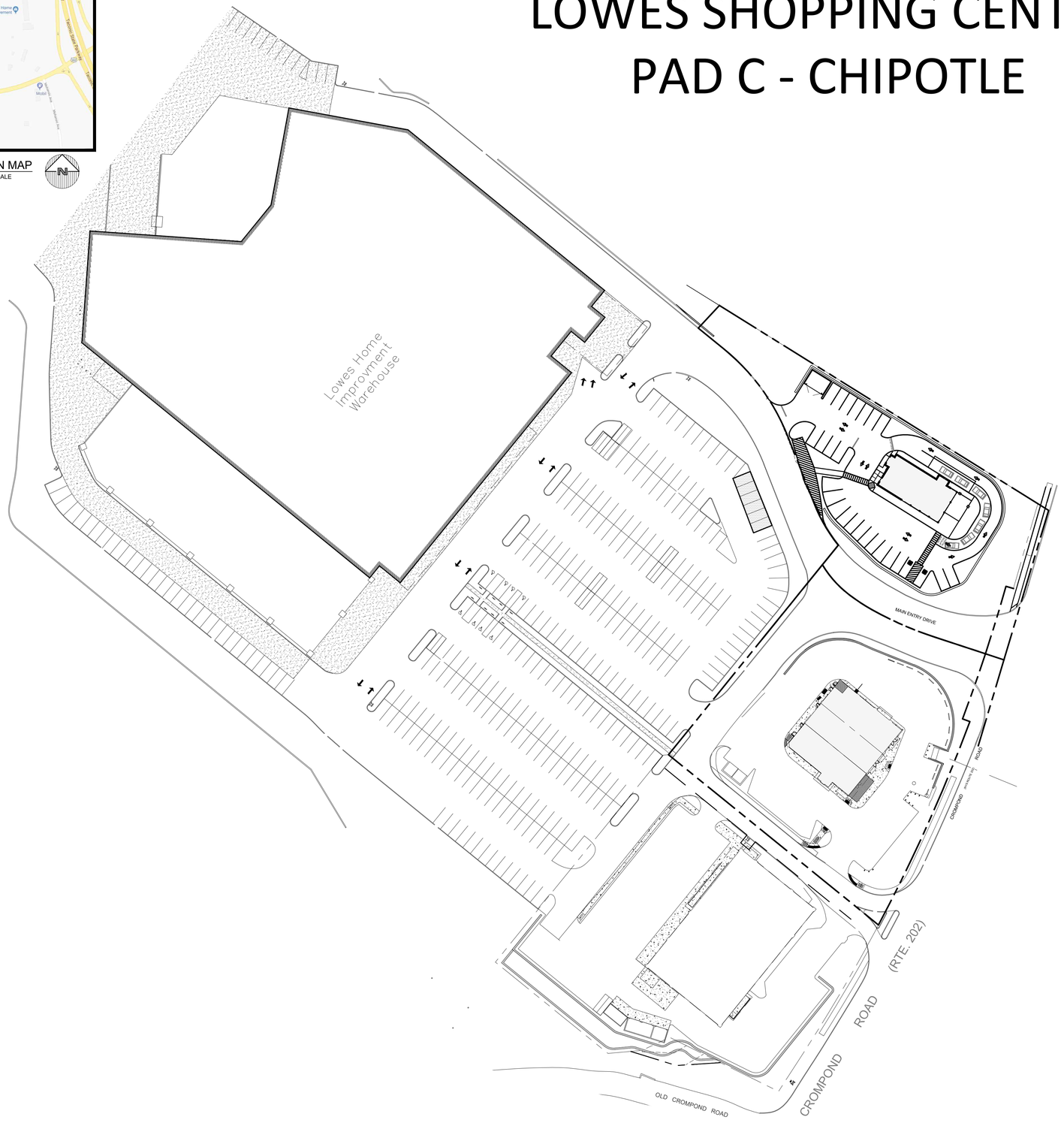
cc: Yorktown Jaz #3
Michael Grace, attorney

251-F Underhill Avenue • Yorktown Heights, New York 10598
60 Walnut Grove Road • Ridgefield, Connecticut 06877
(914) 962-4488 (203) 431-9504 Fax (914) 962-7386

LOWES SHOPPING CENTER
PAD C - CHIPOTLE



LOCATION MAP
NOT TO SCALE



SITE DATA:

OWNER / DEVELOPER:	YORKTOWN JAZ #3 LLC 500 OLD COUNTRY ROAD GARDEN CITY, NY 11530
PROJECT LOCATION:	3180 CROMPOND ROAD YORKTOWN, NY, 10598
EXISTING TOWN ZONING:	C-3, HIGHWAY COMMERCIAL
PROPOSED USE:	C-3, HIGHWAY COMMERCIAL
TOWN TAX MAP DATA:	SECTION 26.19, BLOCK 1, LOT 1
SITE AREA :	0.95 ACRES (41,620 SF)
SEWAGE FACILITIES:	PUBLIC SEWERS
WATER FACILITIES:	PUBLIC WATER FACILITIES

ZONING SCHEDULE:

ZONING DISTRICT:	C-3, HIGHWAY COMMERCIAL		
DIMENSIONAL REGULATIONS:	REQUIRED	PROPOSED	VARIANCE REQUIRED
MINIMUM SIZE OF LOT:			
MINIMUM LOT AREA:	10,000	41,620 SF.	NONE
MINIMUM LOT WIDTH:	100	130 FT.	NONE
MINIMUM LOT DEPTH:	NONE	390 FT.	NONE
MINIMUM YARD DIMENSIONS:			
PRINCIPAL BUILDING:			
FRONT YARD SETBACK:			
WITHOUT PARKING:	30 FT.	----	----
WITH PARKING:	75 FT.	86.6 FT.	NONE
REAR YARD SETBACK:	30 FT.	214.8 FT.	NONE
ONE SIDE YARD SETBACK:	25 FT.	25 FT.	NONE
MAXIMUM % OF LOT TO BE OCCUPIED:			
PRINCIPAL BUILDING COVERAGE:	30% OF LOT AREA 18,348 SF	5.7% 2,383 SF	NONE
MAXIMUM HEIGHT:			
PRINCIPAL BUILDING - FEET:	35 FEET	35 FT MAX	NONE
PRINCIPAL BUILDING - STORIES:	3	3 MAX	NONE

PARKING SCHEDULE

REQUIRED PARKING: (SEE NOTES BELOW)	RESTAURANT: ONE SPACE PER 50 SF OF PATRON SPACE + ONE SPACE PER 100 SF OF FOOD PREP AND ANCILLARY USE PROPOSED RESTAURANT (2,383 SF) SPACES — 1 PER 50 SF OF PATRON SPACE @ 800 SF = 16 SPACES 1 PER 100 SF OF ANCILLARY USE @ 1,583 SF = 16 TOTAL REQUIRED PARKING 32 SPACES
PROVIDED PARKING:	24 STANDARD 2 HANDICAP
TOTAL PROVIDED PARKING:	26 SPACES
SHARED PARKING SPACES REQ'D:	6 SPACES

0 25 50 100
SCALE: 1"=50'-0"

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NY Industrial Code Rule 753 requires no less than two working days notice, but not more than ten days notice.
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Site Design Consultants
Civil Engineers • Land Planners
251-F Underhill Avenue, Yorktown Heights, NY 10598
(914) 962-4488 - Fax: (914) 962-7386
www.sitedesignconsultants.com

PROJECT # 19-11

Engineer:
STATE OF NEW YORK — JOSEPH CARLO RUINA — LICENSED PROFESSIONAL ENGINEER
Joseph C. Ruina, P.E.
NYS Lic. No. 64431

Revisions:

No.	Date	Comments:
1.	11/29/22	Plan Update

SCALE: 1" = 50'
DRAWN BY: TK
DATE: 10/21/22

TITLE SHEET

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet T-1

F:\2019\19-11 LOWES- BRESLIN REALTY\PAD C\ENGINEERING\CAD\C3D-21-21 PAD C.DWG\19-11 BRESLIN BLDG PAD C- CHIPOTLE 11-19-22.DWG 10/21/2022 3:53:28 PM

PROPOSED STOP BAR (TYP.)
PROPOSED 12' WIDE CONCRETE PAD AONG DRIVETHROUGH LANE
PROPOSED CLEARANCE BAR
PATIO RAILING
TRASH ENCLOSURE
R1-1 (FRONT)
R3-15 (BACK)
DO NOT ENTER
PROPOSED ADA RAMP (TYP.)
7 SPACES
PROPOSED 2,383 SF
RESTAURANT SPACE
FFE: 451.62
PATIO
ZONING SETBACK LINE
4 SPACES
PROPOSED ANNOUCEMENT BOLLARD
PROPOSED DIRECTIONAL BOLLARD
DIGITAL PICKUP AHEAD
PROPOSED FLUSH CURB AT CROSSWALK
PROPOSED ADA RAMP (TYP.)
PROPOSED 6" CONC. CURB TO TRANSITION TO FLUSH CURB AT CROSSWALK(TYP.)
EXISTING WATERMAIN EASEMENT
PROPOSED CONCRETE SIDEWALK (TYP.)
PROPOSED 6" CONC. CURB (TYP.)
2 SPACES
13 SPACES
PROPOSED MONUMENT SIGN
PROPOSED DROP CURB AND SIDEWALK FLUSH WITH ASPHALT
EXISTING CURB TO BE REMOVED
PROPOSED LOADING AREA
SU-30 - Single Unit Truck
EXISTING UTILITY EASEMENT
MAIN ENTRY DRIVE
6 SHARED PARKING SPACES

NOTE:
1. *THIS IS NOT A SURVEY.* ALL SURVEY INFORMATION SHOWN ON THIS PLAN HAS BEEN TAKEN FROM SURVEY MAP PREPARED BY MARC J. CIFFONE, DATED 02/11/19, LAST REVISED 02/11/19. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

NOTE: UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 !21 OF THE NEW YORK STATE EDUCATION LAW.

PROJECT # 19-11

Site Design Consultants
Civil Engineers • Land Planners
251-F Underhill Avenue, Yorktown Heights, NY 10598
(914) 962-4488 - Fax: (914) 962-7386
www.sitedesignconsultants.com

Engineer: JOSEPH CARLO RIINA — STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER
Joseph C. Riina, P.E.
NYS Lic. No. 64431

Revisions:

No.	Date	Comments:
1.	11/29/22	Plan Update

SCALE: 1" = 10'
DRAWN BY: TK
DATE: 10/21/22

SITE PLAN

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-101

0 5 10 20
SCALE: 1"=10'-0"

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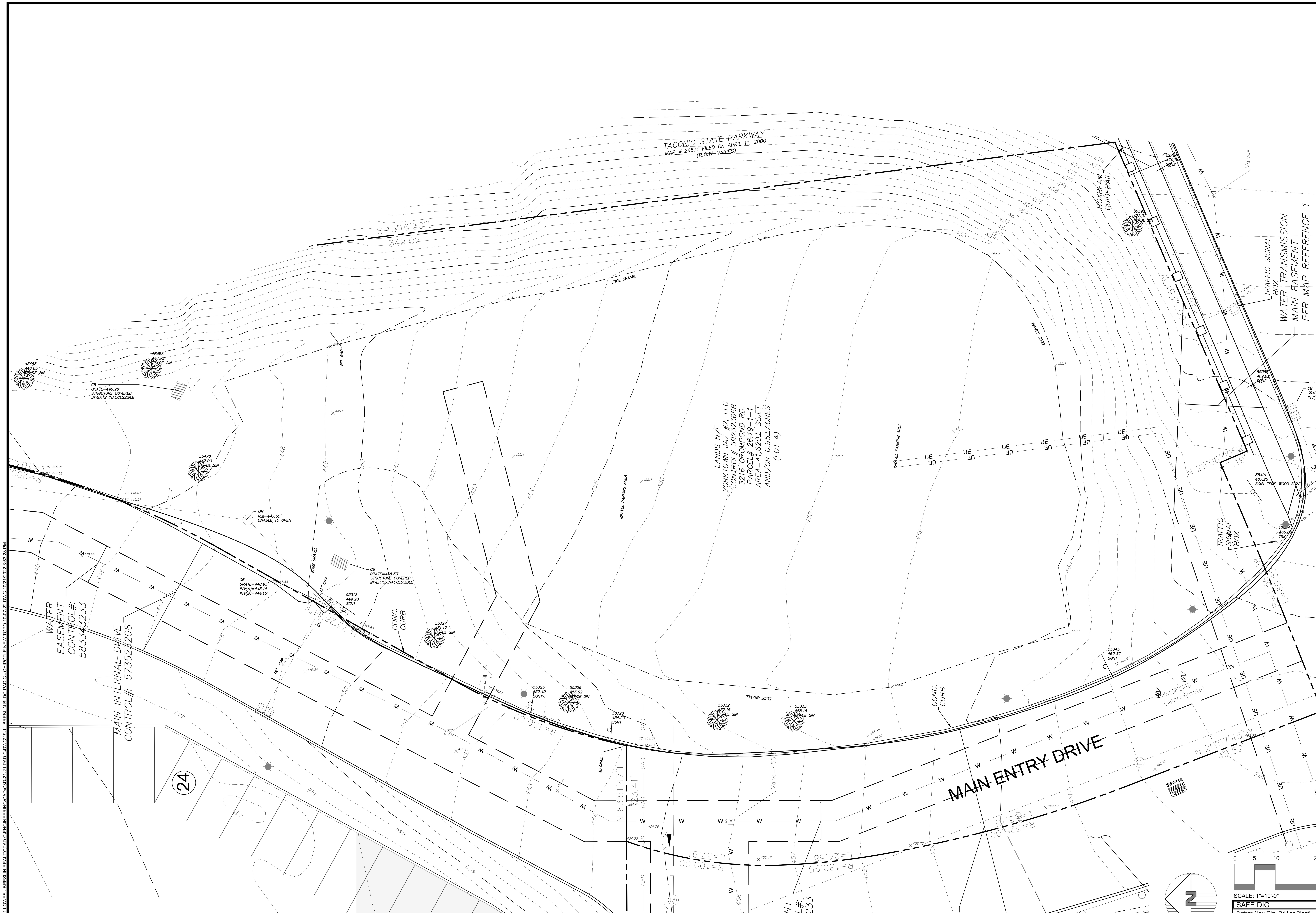
NY Industrial Code Rule 753 requires no less than two working days notice, but not more than ten days notice.
www.digsafelynewyork.com


TACONIC STATE PARKWAY
MAP # 26531 FILED ON APRIL 11, 2000
(R.O.W. VARIES)
LANDS N/F
YORKTOWN JAZ #2, LLC
CONTROL# 592323668
3216 CROMPOND RD.
PARCEL# 26.19-1-1
AREA=41,620± SQ.FT
AND/OR 0.95±ACRES
(LOT 4)
GRAVEL PARKING AREA
EDGE GRAVEL
BOXBEAM GUIDERAIL
TRAFFIC SIGNAL BOX
WATER TRANSMISSION
MAIN EASEMENT
PER MAP REFERENCE 1
WATER EASEMENT
CONTROL#
583343233
MAIN INTERNAL DRIVE
CONTROL# 573523208
MAIN ENTRY DRIVE
CONC. CURB
MH
RIM=447.55'
UNABLE TO OPEN
CB
GRATE=446.98'
STRUCTURE COVERED
INVERTS INACCESSIBLE
CB
GRATE=448.53'
STRUCTURE COVERED
INVERTS INACCESSIBLE
CB
GRATE=448.95'
INV(A)=445.14'
INV(B)=444.15'
Water Line
(approximate)
N 26°57'45" W
48.52'
N 29°06'09" W
R=150.00
R=320.00
R=100.00
R=180.95
L=37.91
L=24.88
24
0 5 10 20
SCALE: 1"=10'-0"
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SITE DESIGN CONSULTANTS

Civil Engineers • Land Planners

251-F Underhill Avenue, Yorktown Heights, NY 10598

(914) 962-4488 - Fax: (914) 962-7386

www.sitedesignconsultants.com

PROJECT # 19-11

Engineer: Joseph C. Riina, P.E. NYS Lic. No. 64431

Revisions: No.	Date	Comments:

SCALE: 1" = 10'

DRAWN BY: TK

DATE: 10/21/22

EXISTING CONDITIONS

SITE PLAN PREPARED FOR

PAD C

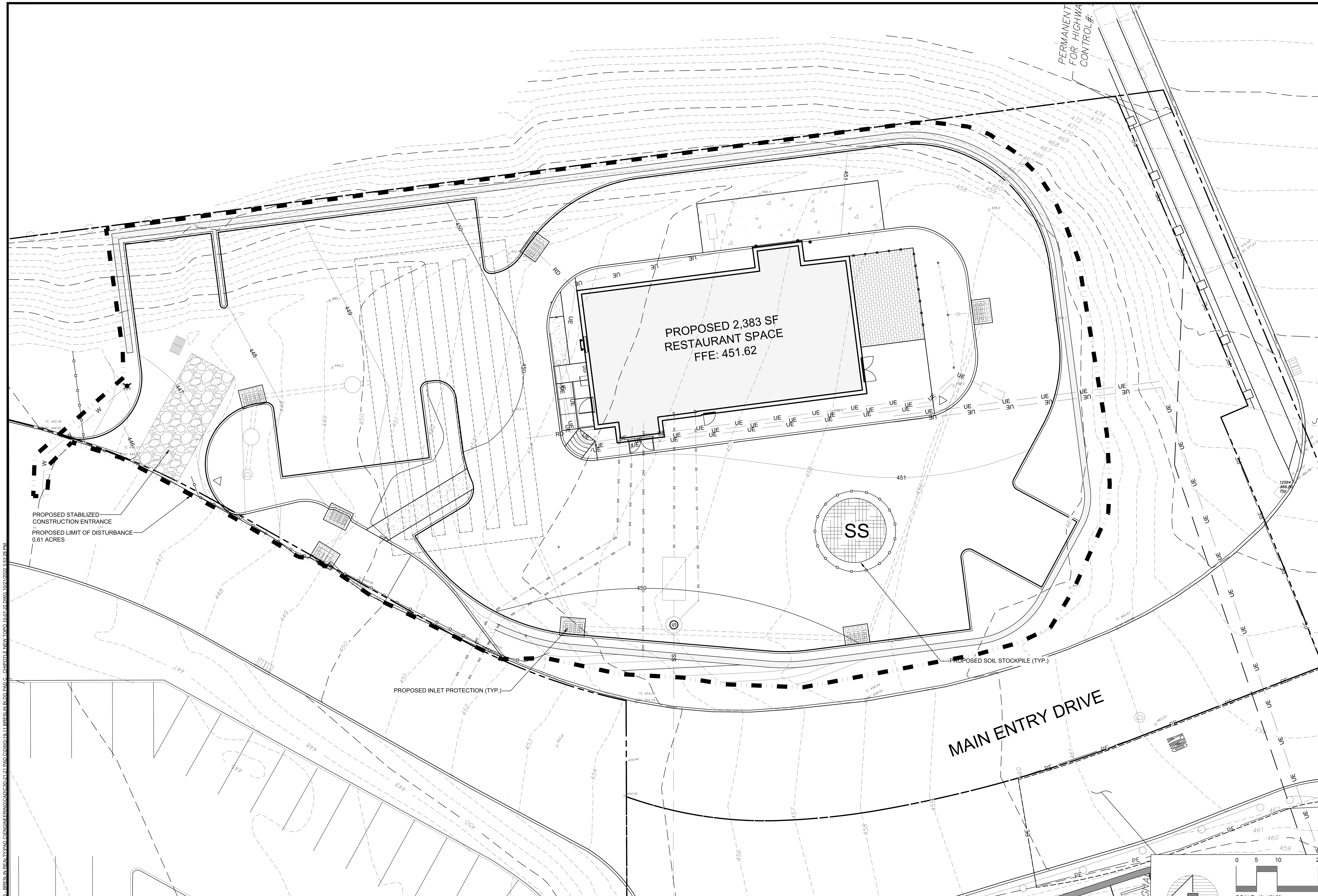
CROMPOND ROAD

Town of Yorktown, Westchester County, New York

Sheet C-102

NOTE:

1. THIS IS NOT A SURVEY. ALL SURVEY INFORMATION SHOWN ON THIS PLAN HAS BEEN TAKEN FROM SURVEY MAP PREPARED BY MARC J. CIFFONE, DATED 02/11/19, LAST REVISED 02/11/19. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.



NOTE:
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PROJECT # 19-11

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www.sitedesignconsultants.com

Engineer:
Joseph C. Riina, P.E.
NYS Lic. No. 64431

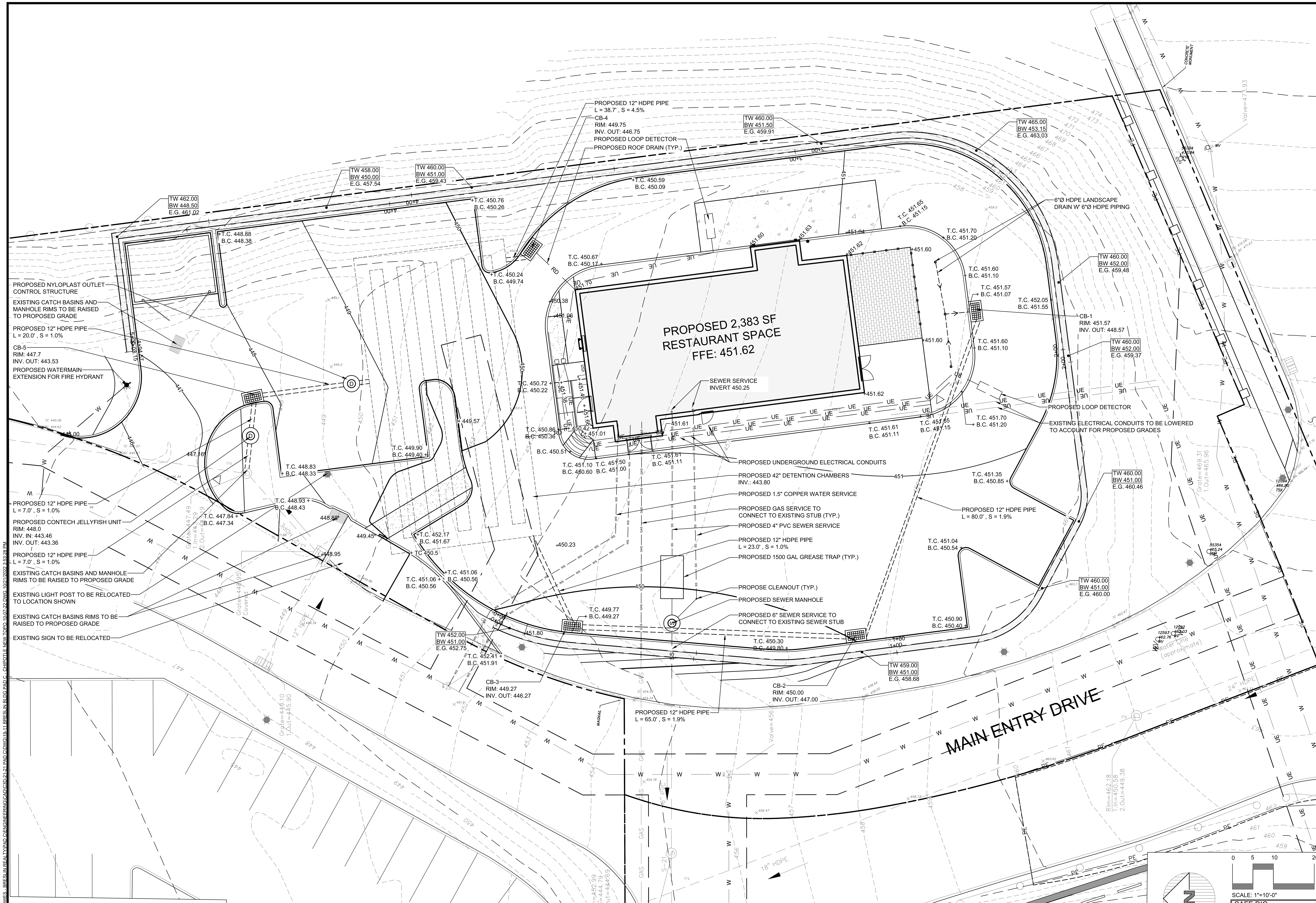
Revisions: No.	Date	Comments:

SCALE: 1" = 10'
DRAWN BY: TK
DATE: 10/21/22

E&SC PLAN

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-103


PROPOSED 2,383 SF
RESTAURANT SPACE
FFE: 451.62
MAIN ENTRY DRIVE
PROPOSED 12" HDPE PIPE
L = 38.7' , S = 4.5%
CB-4
RIM: 449.75
INV. OUT: 446.75
PROPOSED LOOP DETECTOR
PROPOSED ROOF DRAIN (TYP.)
TW 460.00
BW 451.50
E.G. 459.91
TW 465.00
BW 453.15
E.G. 463.03
TW 458.00
BW 450.00
E.G. 457.54
TW 460.00
BW 451.00
E.G. 459.43
TW 462.00
BW 448.50
E.G. 461.02
PROPOSED NYLOPLAST OUTLET
CONTROL STRUCTURE
EXISTING CATCH BASINS AND
MANHOLE RIMS TO BE RAISED
TO PROPOSED GRADE
PROPOSED 12" HDPE PIPE
L = 20.0' , S = 1.0%
CB-5
RIM: 447.7
INV. OUT: 443.53
PROPOSED WATERMAIN
EXTENSION FOR FIRE HYDRANT
6"Ø HDPE LANDSCAPE
DRAIN W/ 6"Ø HDPE PIPING
TW 460.00
BW 452.00
E.G. 459.48
CB-1
RIM: 451.57
INV. OUT: 448.57
TW 460.00
BW 452.00
E.G. 459.37
SEWER SERVICE
INVERT 450.25
PROPOSED LOOP DETECTOR
EXISTING ELECTRICAL CONDUITS TO BE LOWERED
TO ACCOUNT FOR PROPOSED GRADES
PROPOSED UNDERGROUND ELECTRICAL CONDUITS
PROPOSED 42" DETENTION CHAMBERS
INV.: 443.80
PROPOSED 1.5" COPPER WATER SERVICE
PROPOSED GAS SERVICE TO
CONNECT TO EXISTING STUB (TYP.)
PROPOSED 4" PVC SEWER SERVICE
PROPOSED 12" HDPE PIPE
L = 23.0' , S = 1.0%
PROPOSED 1500 GAL GREASE TRAP (TYP.)
PROPOSE CLEANOUT (TYP.)
PROPOSED SEWER MANHOLE
PROPOSED 6" SEWER SERVICE TO
CONNECT TO EXISTING SEWER STUB
PROPOSED 12" HDPE PIPE
L = 80.0' , S = 1.9%
TW 460.00
BW 451.00
E.G. 460.46
TW 460.00
BW 451.00
E.G. 460.00
PROPOSED 12" HDPE PIPE
L = 7.0' , S = 1.0%
PROPOSED CONTECH JELLYFISH UNIT
RIM: 448.0
INV. IN: 443.46
INV. OUT: 443.36
PROPOSED 12" HDPE PIPE
L = 7.0' , S = 1.0%
EXISTING CATCH BASINS AND MANHOLE
RIMS TO BE RAISED TO PROPOSED GRADE
EXISTING LIGHT POST TO BE RELOCATED
TO LOCATION SHOWN
EXISTING CATCH BASINS RIMS TO BE
RAISED TO PROPOSED GRADE
EXISTING SIGN TO BE RELOCATED
TW 452.00
BW 451.00
E.G. 452.75
CB-3
RIM: 449.27
INV. OUT: 446.27
PROPOSED 12" HDPE PIPE
L = 65.0' , S = 1.9%
CB-2
RIM: 450.00
INV. OUT: 447.00
TW 459.00
BW 451.00
E.G. 458.68
24" HDPE
18" HDPE
Water Line
(approximate)

NOTE:

1. *THIS IS NOT A SURVEY.* ALL SURVEY INFORMATION SHOWN ON THIS PLAN HAS BEEN TAKEN FROM SURVEY MAP PREPARED BY NAME OF SURVEYOR, DATED XX/XX/XX, LAST REVISED XX/XX/XX. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

0 5 10 20

SCALE: 1"=10'-0"

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PROJECT # 19-11

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(914) 962-4488 - Fax: (914) 962-7386
www.sitedesignconsultants.com

Engineer:
STATE OF NEW YORK · JOSEPH CARLO RIINA · NO. 64431 · LICENSED PROFESSIONAL ENGINEER
Joseph C. Riina, P.E.
NYS Lic. No. 64431

Revisions:

No.	Date	Comments:
1.	10/07/22	Update of elevs

SCALE: 1" = 10'

DRAWN BY: TK

DATE: 10/21/22

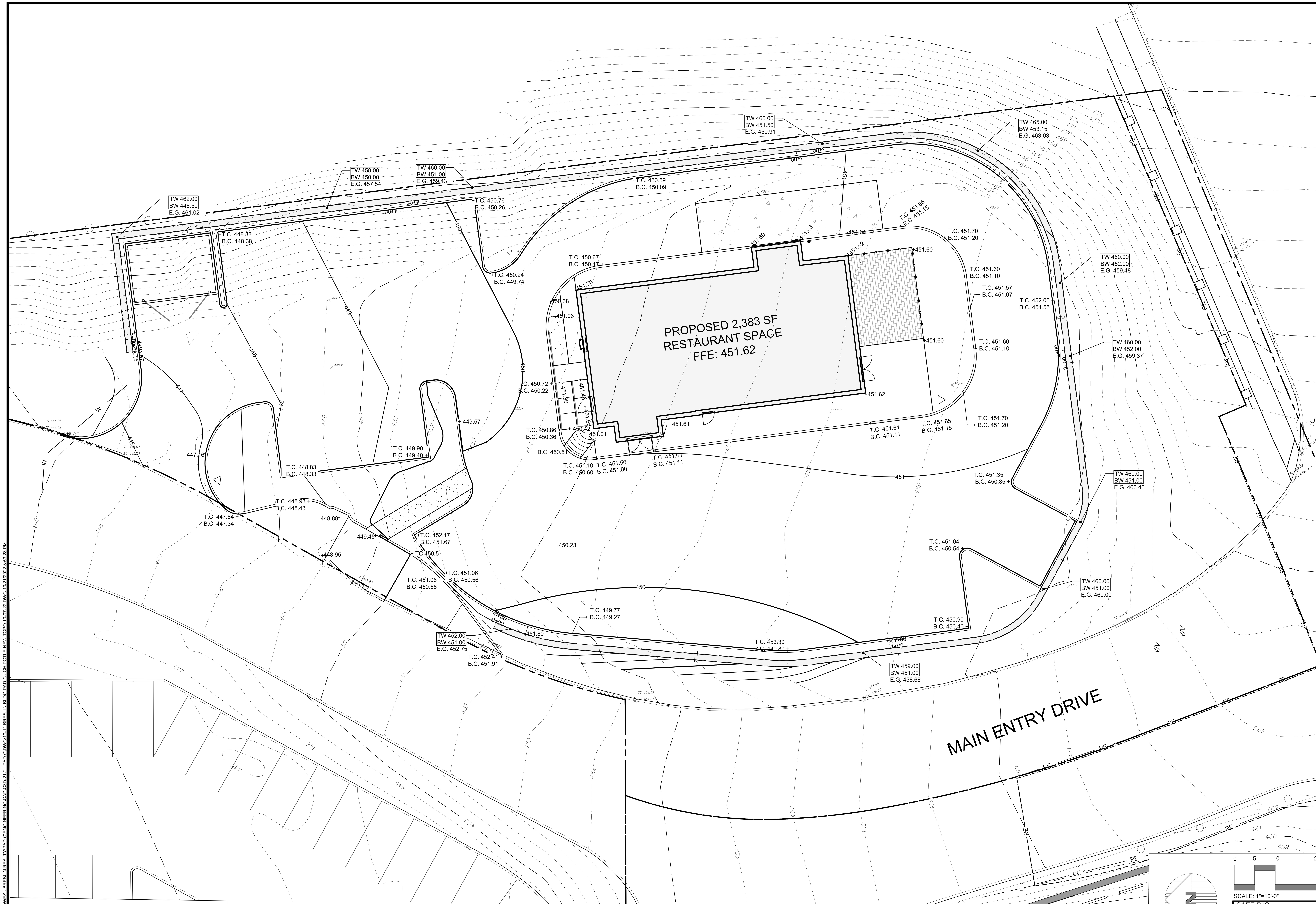
IMPROVEMENT PLAN

SITE PLAN
PREPARED FOR
PAD C

CROMPOND ROAD

Town of Yorktown Westchester County, New York

Sheet C-104



NOTE:

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NOTE: UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.

PROJECT # 19-11

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www.sitedesignconsultants.com

Engineer: Joseph C. Riina, P.E.
NYS Lic. No. 064431

Revisions:

No.	Date	Comments:
1.	10/07/22	Update of elevs

SCALE: 1" = 10'

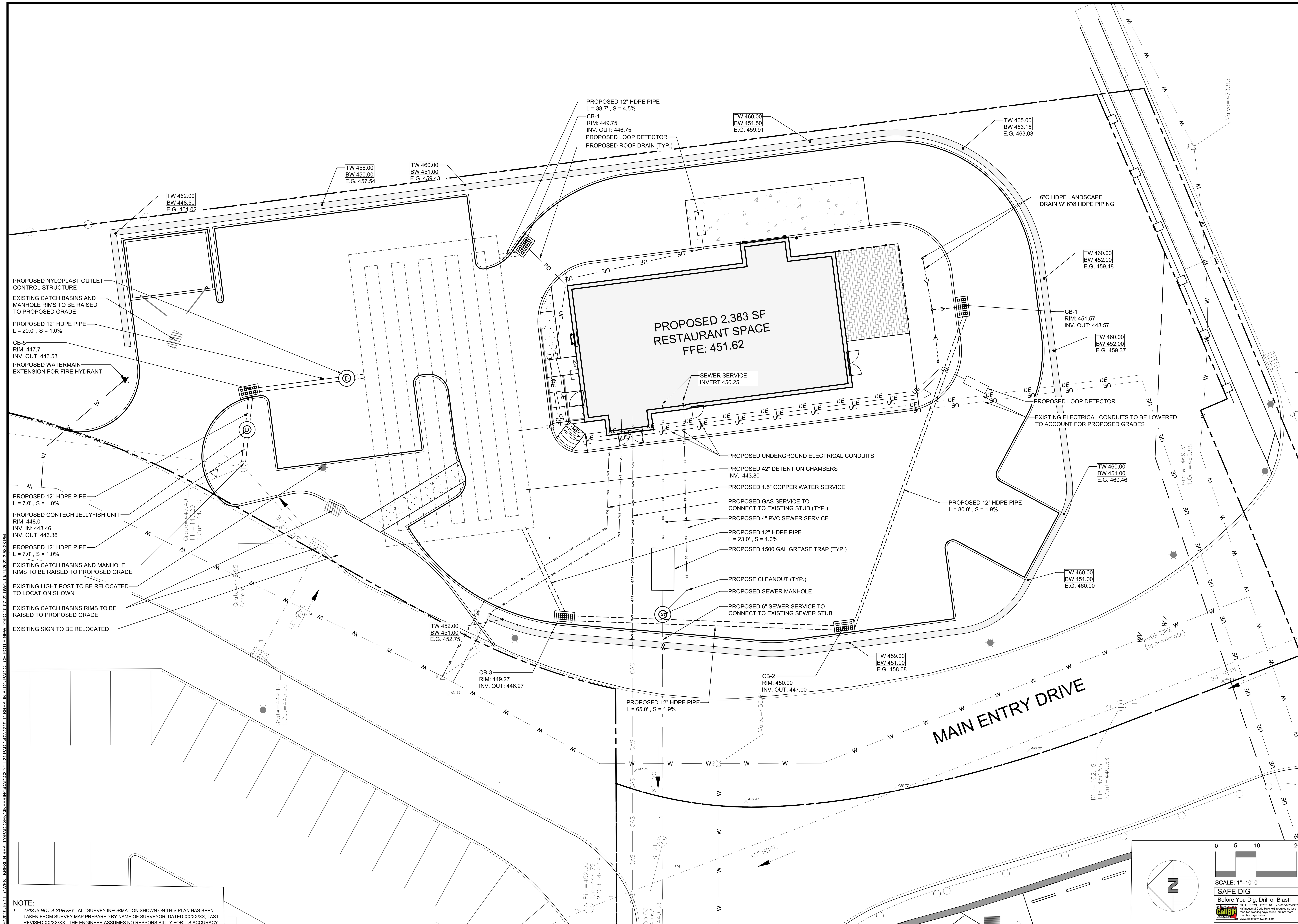
DRAWN BY: TK

DATE: 10/21/22

GRADING PLAN

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-105


PROPOSED 12" HDPE PIPE
L = 38.7' , S = 4.5%
CB-4
RIM: 449.75
INV. OUT: 446.75
PROPOSED LOOP DETECTOR
PROPOSED ROOF DRAIN (TYP.)
TW 460.00
BW 451.50
E.G. 459.91
TW 465.00
BW 453.15
E.G. 463.03
TW 458.00
BW 450.00
E.G. 457.54
TW 460.00
BW 451.00
E.G. 459.43
TW 462.00
BW 448.50
E.G. 461.02
6"Ø HDPE LANDSCAPE
DRAIN W/ 6"Ø HDPE PIPING
PROPOSED NYLOPLAST OUTLET
CONTROL STRUCTURE
EXISTING CATCH BASINS AND
MANHOLE RIMS TO BE RAISED
TO PROPOSED GRADE
PROPOSED 12" HDPE PIPE
L = 20.0' , S = 1.0%
CB-5
RIM: 447.7
INV. OUT: 443.53
PROPOSED WATERMAIN
EXTENSION FOR FIRE HYDRANT
PROPOSED 2,383 SF
RESTAURANT SPACE
FFE: 451.62
TW 460.00
BW 452.00
E.G. 459.48
CB-1
RIM: 451.57
INV. OUT: 448.57
TW 460.00
BW 452.00
E.G. 459.37
SEWER SERVICE
INVERT 450.25
PROPOSED LOOP DETECTOR
EXISTING ELECTRICAL CONDUITS TO BE LOWERED
TO ACCOUNT FOR PROPOSED GRADES
PROPOSED UNDERGROUND ELECTRICAL CONDUITS
PROPOSED 42" DETENTION CHAMBERS
INV.: 443.80
PROPOSED 1.5" COPPER WATER SERVICE
PROPOSED GAS SERVICE TO
CONNECT TO EXISTING STUB (TYP.)
PROPOSED 4" PVC SEWER SERVICE
PROPOSED 12" HDPE PIPE
L = 23.0' , S = 1.0%
PROPOSED 1500 GAL GREASE TRAP (TYP.)
PROPOSE CLEANOUT (TYP.)
PROPOSED SEWER MANHOLE
PROPOSED 6" SEWER SERVICE TO
CONNECT TO EXISTING SEWER STUB
TW 460.00
BW 451.00
E.G. 460.46
PROPOSED 12" HDPE PIPE
L = 80.0' , S = 1.9%
TW 460.00
BW 451.00
E.G. 460.00
PROPOSED 12" HDPE PIPE
L = 7.0' , S = 1.0%
PROPOSED CONTECH JELLYFISH UNIT
RIM: 448.0
INV. IN: 443.46
INV. OUT: 443.36
PROPOSED 12" HDPE PIPE
L = 7.0' , S = 1.0%
EXISTING CATCH BASINS AND MANHOLE
RIMS TO BE RAISED TO PROPOSED GRADE
EXISTING LIGHT POST TO BE RELOCATED
TO LOCATION SHOWN
EXISTING CATCH BASINS RIMS TO BE
RAISED TO PROPOSED GRADE
EXISTING SIGN TO BE RELOCATED
TW 452.00
BW 451.00
E.G. 452.75
CB-3
RIM: 449.27
INV. OUT: 446.27
TW 459.00
BW 451.00
E.G. 458.68
CB-2
RIM: 450.00
INV. OUT: 447.00
PROPOSED 12" HDPE PIPE
L = 65.0' , S = 1.9%
MAIN ENTRY DRIVE
0 5 10 20
SCALE: 1"=10'-0"
SAFE DIG
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NOTE:

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www.sitedesignconsultants.com

Engineer: Joseph C. Riina, P.E. NYS Lic. No. 64431

Revisions:

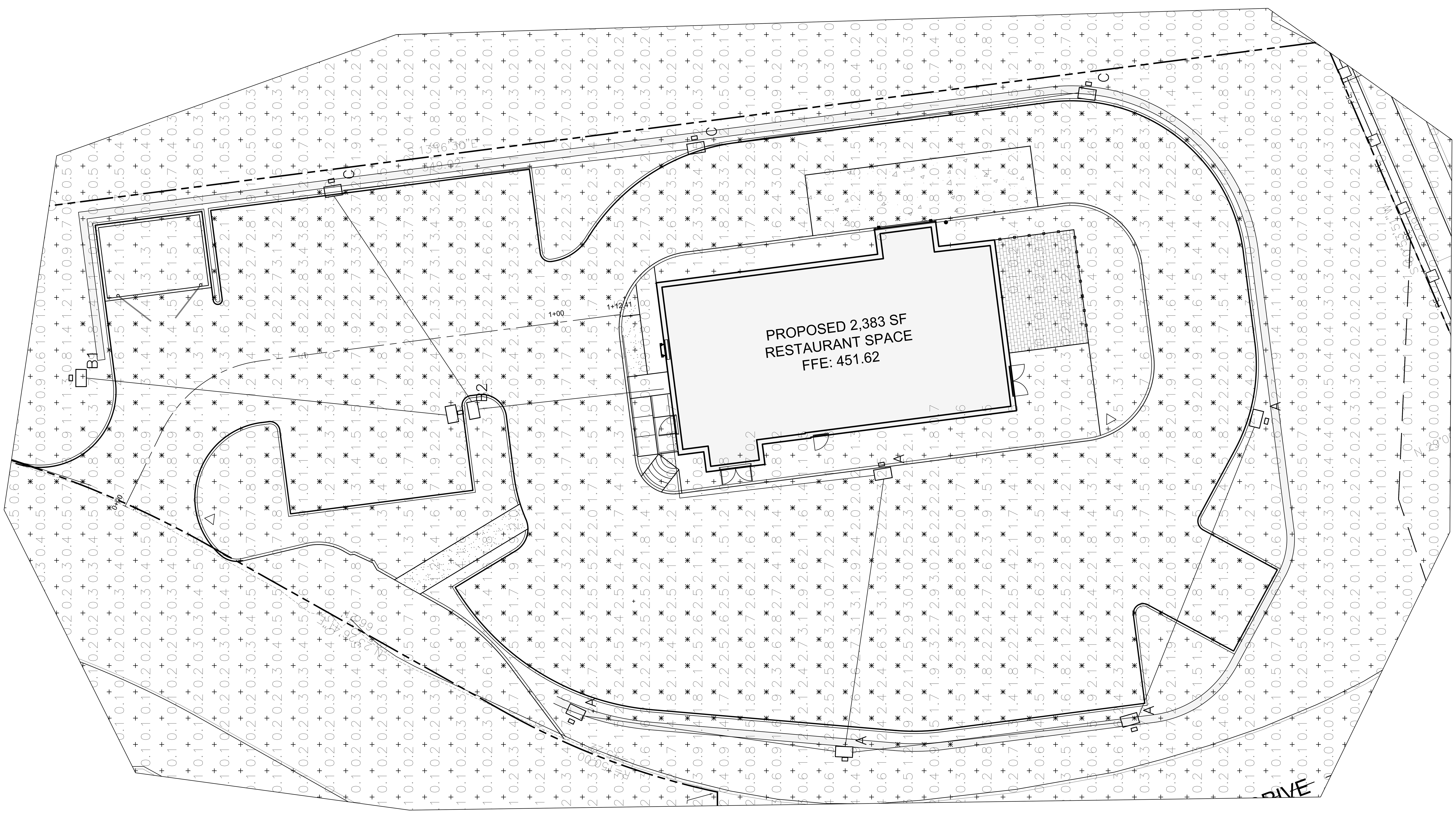
No.	Date	Comments:
1.	10/07/22	Update of elevs

SCALE: 1" = 10'
DRAWN BY: TK
DATE: 10/21/22

UTILITY PLAN

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-106



Schedule

Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
	A	5	Lithonia Lighting	DSX0 LED P2 30K TFTM MVOLT HS	DSX0 LED P2 30K TFTM MVOLT with houseside shield	1	4353	0.9	49
	B1	1	Lithonia Lighting	DSX0 LED P2 30K T5W MVOLT	DSX0 LED P2 30K T5W MVOLT	1	5751	0.9	49
	B2	1	Lithonia Lighting	DSX0 LED P2 30K T5W MVOLT	DSX0 LED P2 30K T5W MVOLT	1	5751	0.9	98
	C	3	Lithonia Lighting	DSX0 LED P2 30K BLC MVOLT	DSX0 LED P2 30K BLC MVOLT	1	4572	0.9	49

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Site	+	0.6 fc	3.9 fc	0.0 fc	N/A	N/A
Parking and Drives	✳	2.0 fc	3.9 fc	0.6 fc	6.5:1	3.3:1

Note
1. Fixtures Mounted at 16'
2. Calculations Taken at Grade
3. Calculations are estimations based on the information provided and may vary with actual conditions

SCALE: 1"=10'-0"

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NOTE:
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Engineer: Joseph C. Riina, P.E.
NYS Lic. No. 64431

Revisions:

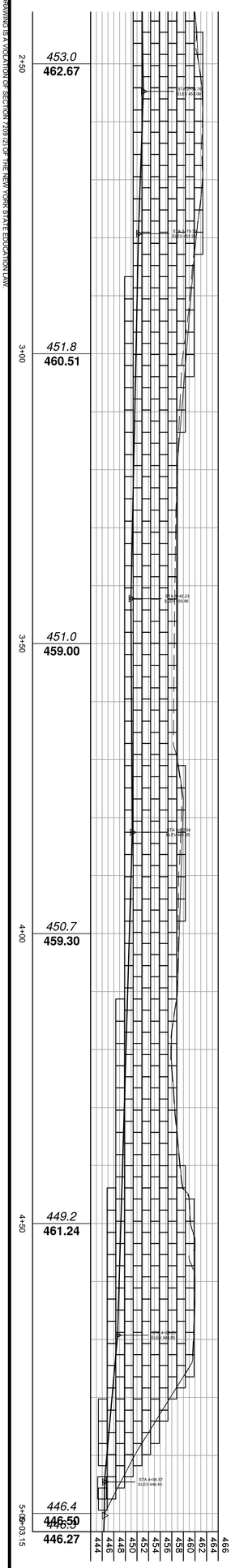
No.	Date	Comments:

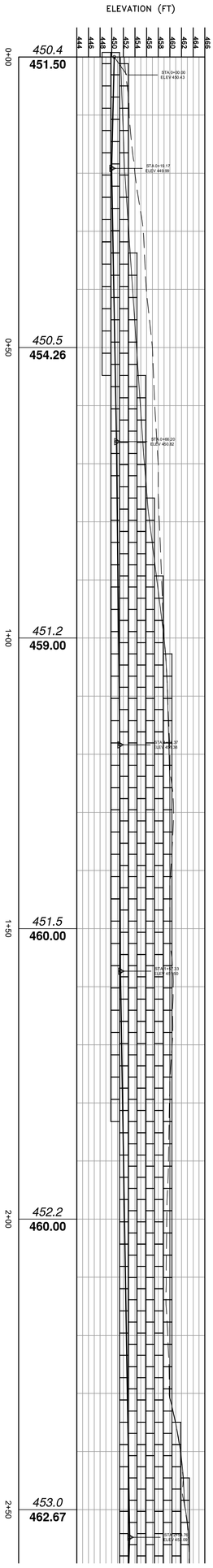
SCALE: 1" = 10'
DRAWN BY: TK
DATE: 10/21/22

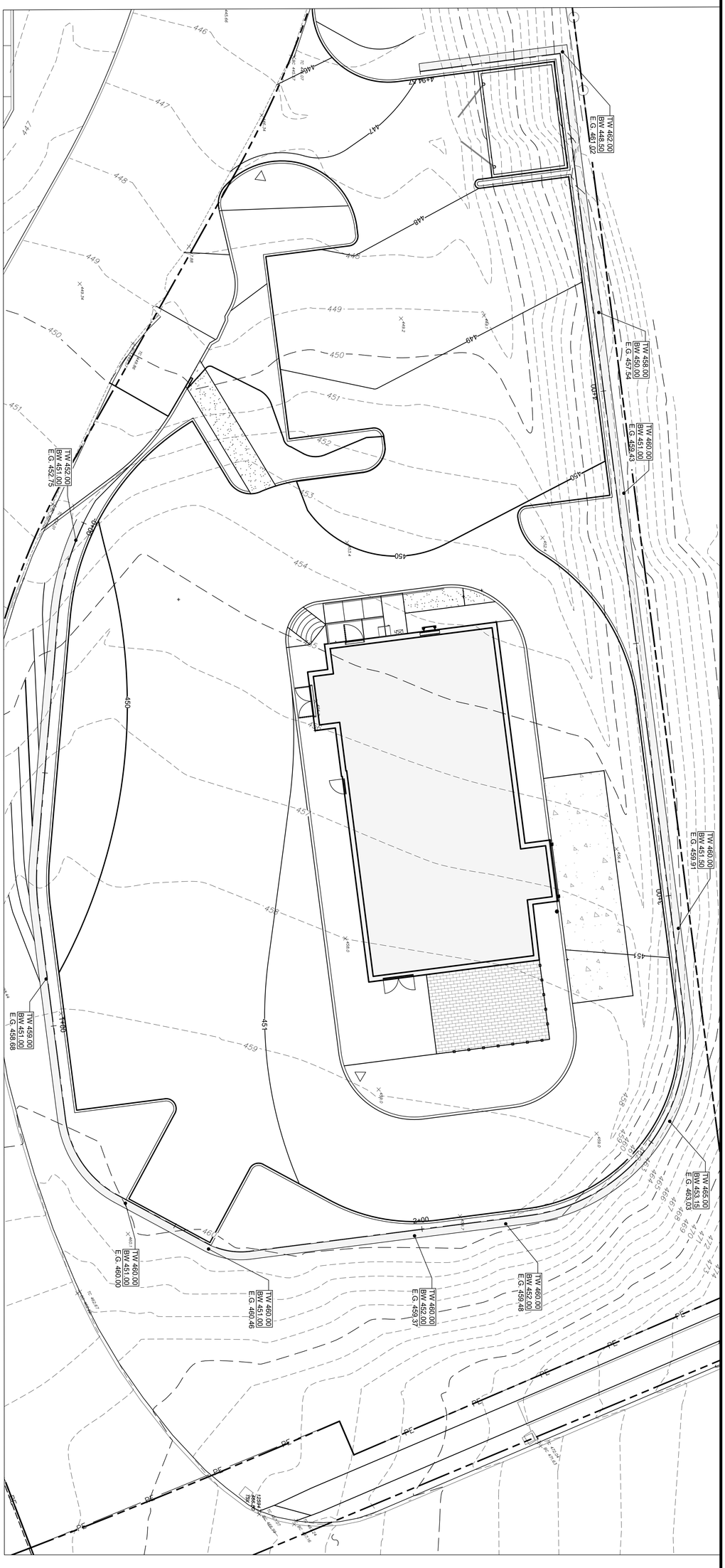
LIGHTING PLAN

SITE PLAN PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-107







Sheet C-108	SITE PLAN PREPARED FOR PAD C CROMPOND ROAD Town of Yorktown Westchester County, New York	RETAINING WALL PLAN	SCALE: 1" = 10' DRAWN BY: TK DATE: 10/21/22	Revisions: No. Date Comments:	Engineer: STATE OF NEW YORK · JOSEPH CARLO RIVIRA · LICENSED PROFESSIONAL ENGINEER · NO. 64431 Joseph C. Rivira, P.E. NYS Lic. No. 64431	Site Design Consultants Civil Engineers • Land Planners 251-F Underhill Avenue, Yorktown Heights, NY 10598 (914) 962-4488 - Fax: (914) 962-7386 www.sitedesignconsultants.com	PROJECT # 19-11

GENERAL NOTES:

1. THE ENGINEER WHOSE SEAL APPEARS HEREON HAS NOT BEEN RETAINED FOR SUPERVISION OF CONSTRUCTION, SUBSEQUENTLY,HE IS NOT RESPONSIBLE FOR CONSTRUCTION AND THEREFORE ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION PRACTICES, PROCEDURES, AND RESULTS THEREFROM.
2. THE ENGINEER SHALL NOT BE HELD RESPONSIBLE OR HELD ACCOUNTABLE FOR THE INTEGRITY OF ANY STRUCTURES CONSTRUCTED OR UNDER CONSTRUCTION PRIOR TO THE APPROVAL OF THE PLANS.
3. THE TOWN ENGINEER'S OFFICE AND WATER DISTRICT OFFICE IS TO BE NOTIFIED 24 HOURS BEFORE COMMENCING SITE CONSTRUCTION OR WATER MAIN CONNECTION.
4. ALL WORK IS TO BE IN ACCORDANCE WITH THE TOWN'S CODE OF PRACTICE AND SPECIFICATIONS.
5. ALL CONDITIONS, LOCATIONS, AND DIMENSIONS SHALL BE FIELD VERIFIED AND THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY DISCREPANCIES.
6. ALL CHANGES MADE TO THE PLANS SHALL BE APPROVED BY THE ENGINEER AND ANY SUCH CHANGES SHALL BE FILED AS AMENDMENTS TO THE ORIGINAL BUILDING PERMIT.
7. ALL WRITTEN DIMENSIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ANY SCALED DIMENSIONS.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL IN A "CODE 753" PRIOR TO CONSTRUCTION FOR UNDERGROUND UTILITY LOCATIONS.
9. CONTRACTOR TO VERIFY ALL SUBSTRUCTURES ENCOUNTERED DURING CONSTRUCTION.
10. ANY PROPOSED ELECTRIC AND/OR TELEPHONE SERVICE LINES ARE TO BE PLACED UNDERGROUND.
11. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
13. THE DESIGN ENGINEER DISCLAIMS ANY LIABILITY FOR DAMAGE OR LOSS INCURRED DURING OR AFTER CONSTRUCTION.
14. THE CONTRACTOR SHALL OBTAIN A COPY AND BE FAMILIAR WITH THE TOWN OF SOMERS "SUBDIVISION ROAD CONSTRUCTION SPECIFICATIONS" CHAPTER A174 OF THE TOWN CODE. THE CONTRACTOR SHALL BE RESPONSIBLE TO ADHERE TO TO THESE SPECIFICATIONS.

CONTRACTOR RESPONSIBILITIES:

1. ALL WORK ON THE PROJECT SHALL BE PERFORMED IN A WORKMAN LIKE MANNER AND SHALL BE IN ACCORDANCE WITH THE STANDARDS OF THE INDUSTRY. THE OWNER WILL BE THE SOLE JUDGE OF THE ACCEPTABILITY OF THE WORK. MATERIALS AND WORK DEEMED UNACCEPTABLE WILL BE REMOVED AND REDONE AT THE SOLE COST AND RESPONSIBILITY OF THE CONTRACTOR.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT HIS WORK AND WILL BE HELD RESPONSIBLE FOR CONSEQUENTIAL DAMAGES DUE TO HIS ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR THE ACTS AND OMISSIONS OF HIS EMPLOYEE, AND THEIR AGENTS AND EMPLOYEES, AND ANY OTHER PERSONS PERFORMING ANY THE WORK UNDER A SEPARATE CONTRACT WITH THE CONTRACTOR.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY SHORE EXISTING UTILITIES IF REQUIRED BY CONSTRUCTION.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE THE BUILDING INSPECTOR IN ADVANCE OF HIS WORK OR AS THE INSPECTOR DEEMS APPROPRIATE.
5. ALL CONDITIONS, LOCATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND THE OWNER/ENGINEER NOTIFIED IN WRITING OF ANY DISCREPANCIES PRIOR TO THE START OF WORK. THE OWNER/ENGINEER WILL EVALUATE THE SITUATION AND MODIFY THE PLAN AS NECESSARY.
6. ALL CHANGES MADE TO THIS PLAN SHALL BE APPROVED BY THE ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS. ANY UNAUTHORIZED ALTERATION OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.
7. ALL WRITTEN DIMENSIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ANY SCALED DIMENSIONS.
8. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT.
9. THE CONTRACTOR SHALL VERIFY ALL SUBSTRUCTURES ENCOUNTERED DURING CONSTRUCTION.
10. THE DESIGN ENGINEER DISCLAIMS ANY LIABILITY FOR DAMAGE OR LOSS INCURRED DURING OR AFTER CONSTRUCTION.
11. THE CONTRACTOR SHALL SECURE & PAY FOR A BUILDERS RISK POLICY TO COVER THE PERIOD OF CONSTRUCTION. THE ENGINEER & OWNER SHALL BE NAMED AS ADDITIONAL INSURED. ALL CONTRACTORS EMPLOYED AT THE SITE SHALL BE COVERED BY WORKMAN'S COMPENSATION.
12. ENGINEER WHOSE SEAL APPEARS HEREON HAS NOT BEEN RETAINED FOR SUPERVISION OF CONSTRUCTION, CONSEQUENTLY, HE HIS NOT RESPONSIBLE FOR CONSTRUCTION AND THEREFORE ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION PRACTICES, PROCEDURES, AND RESULTS THEREFROM.
13. THE CONTRACTOR OR FIELD ENGINEER SHALL NOTIFY ALL AGENCIES 48 HR. PRIOR TO START OF THE SITE WORK.

GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH CONSTRUCTION SPECIFICATIONS SET FORTH IN THESE DOCUMENTS AND LAND SUBDIVISION REGULATIONS OF THE TOWN OF YORKTOWN.
2. PERMANENT SURVEY MONUMENTS TO BE LOCATED WHERE SPECIFIED BY THE TOWN ENGINEER.
3. BENCH MARKS USING NAVD DATUM SHALL BE OF SUCH ELEVATION THAT THE GROUND WILL SLOPE AWAY FROM IT IN ALL DIRECTIONS.
4. CONSTRUCTION ACTIVITY SHALL BE LIMITED FROM 8:00 A.M. TO 6 P.M., AND NO CONSTRUCTION ACTIVITY SHALL OCCUR ON SUNDAYS OR LEGAL NEW YORK STATE HOLIDAYS. WHERE BLASTING IS NECESSARY, IT SHALL OCCUR FROM MONDAY THROUGH FRIDAY BETWEEN THE HOURS OF 8:00 A.M. AND 6:00 P.M. NO BLASTING SHALL OCCUR ON HOLIDAYS, SATURDAY OR SUNDAY. ALL BLASTING SHALL ALSO BE COMPLETED IN ACCORDANCE WITH THE TOWN OF SOMERS AND NEW YORK STATE BLASTING ORDINANCES.
5. ANY SOIL THAT IS UNSUITABLE FOR DEVELOPMENT OF BUILDINGS OR ROADWAYS SHALL BE REMOVED FROM AREAS TO BE DEVELOPED AND SHALL BE DISPOSED OF WITHIN THE SITE IN NEW EMBANKMENTS WHERE STRUCTURAL LOADING, I.E. A BUILDING OR ROADWAY, WILL NOT TAKE PLACE. WHEN CONSTRUCTION IS PROPOSED TO OCCUR IN SPECIFIC AREAS WHERE SOILS ARE OF QUESTIONABLE SUITABILITY, THE APPLICANT SHALL PROVIDE SOILS ENGINEERING REPORTS AS REQUIRED BY THE PLANNING BOARD ENGINEER, PRIOR TO THE CONSTRUCTION OF ROADWAYS AND, AS REQUIRED BY THE BUILDING INSPECTOR, PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
6. NO TOPSOIL SHALL BE REMOVED FROM THE SITE.
7. ROCK CUT STABILITY IS TO BE FIELD VERIFIED BY GEOTECHNICAL ENGINEER AND SHALL BE MODIFIED IF REQUIRED.
8. NO CRUSHING/PROCESSING IS PERMITTED ON THE SITE WITHOUT PRIOR APPROVAL BY THE TOWN OF YORKTOWN PLANNING BOARD.

GENERAL STORM DRAINAGE & UTILITY NOTES

1. ALL UTILITIES, INCLUDING ELECTRIC LINES, TELEPHONE, WATER, SANITARY SEWER LINES, AND STORM SEWER LINES SHALL BE LOCATED UNDERGROUND AND SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF YORKTOWN AND THE UTILITY COMPANIES HAVING JURISDICTION.
2. LOCATION OF GAS AND WATER VALVES, ELECTRIC AND TELEPHONE POLES ARE TO BE DETERMINED BY PROPER AUTHORITIES AND APPROVED, AS TO LOCATION, BY THE TOWN ENGINEER
3. ROOF LEADERS SHALL EMPTY INTO THE STORM DRAINAGE SYSTEM. UNDER NO CIRCUMSTANCES SHALL THE DISCHARGE OF GROUND WATER OR STORM WATER, EITHER BY GRAVITY OR BY PUMPING, BE DISCHARGED TO ANY SANITARY SEWER SYSTEM.
4. ANY REVISIONS AND/OR ADDITIONS TO THE ROAD STORM DRAINAGE SYSTEMS CURRENTLY SHOWN ON THE PLANS WHICH ARE DEEMED NECESSARY DURING CONSTRUCTION MUST BE MADE BY THE CONTRACTOR AS REQUIRED BY THE TOWN AND SHALL BE SHOWN ON THE AS-BUILT DRAWINGS.
5. STORM DRAIN PIPING TO BE HIGH DENSITY POLYETHYLENE AS SHOWN ON THE CONSTRUCTION DRAWINGS. MINIMUM COVER TO BE 2' UNLESS OTHERWISE NOTED.
6. INTERCEPTOR DRAINS ARE TO BE INSTALLED WHERE REQUIRED BY THE TOWN OR PROJECT ENGINEER DURING CONSTRUCTION.
7. ALL EXISTING UNDERGROUND DRAINS ENCOUNTERED DURING CONSTRUCTION OF PROPOSED ROADS ARE TO BE CONNECTED TO PROPOSED DRAINAGE IMPROVEMENTS. CONNECTIONS TO BE APPROVED BY THE ENGINEER.
8. DURING THE CONSTRUCTION OF THE PROJECT, ALL CATCH BASINS AND MANHOLES WILL BE MAINTAINED BY THE SITE CONTRACTOR.
9. PRIOR TO FINAL APPROVAL AND OPERATION OF DRAINAGE SYSTEM, CONTRACTOR SHALL CLEAR ALL ACCUMULATED SEDIMENT AND/OR DEBRIS FROM DRAINAGE STRUCTURES, MANHOLES, CULVERTS, OUTLETS AND DRAIN INLETS. ENGINEER SHALL BE NOTIFIED FOR FINAL INSPECTION.
10. ALL STRUCTURES SHALL BE SET ONE INCH BELOW PAVEMENT.

WALL NOTES:

1. EXCAVATION IN GENERAL SHALL CONFORM TO THE LINES AND GRADES SHOWN ON THE CONTRACT DRAWINGS.
2. THE ENGINEER SHALL BE NOTIFIED OF UNSUITABLE SUB-GRADE SOILS PRIOR TO PLACEMENT OF WALL.
3. WALLS TO BE CONSTRUCTED ON VIRGIN IN-SITU SOIL SHALL HAVE A MINIMUM ALLOWABLE BEARING CAPACITY OF 2 TSF. ALL OTHER CONDITIONS SHALL BE APPROVED BY THE GEOTECHINICAL ENGINEER.
4. TO INSURE A PROPER BEARING SURFACE, THE WALL SHALL BE CONSTRUCTED ON NATURAL IN-SITU SOIL, THE CONTRACTOR SHALL STRIP ALL TOP SOIL. THE AREA SHALL THEN BE COMPACTED USING SUITABLE COMPACTION EQUIPMENT. A MINIMUM OF 3 PASSES SHALL BE MADE.
5. WALLS SHALL NOT BE CONSTRUCTED ON WET OR FROZEN GROUND.
6. SOILS USED AS BACKFILL SHALL CONSIST OF CLEAN DRY SOIL. THE MATERIAL SHALL BE GRANULAR AND FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL. IN GENERAL THE SOIL SHALL BE NON-PLASTIC WITH A PLASTICITY INDEX LESS THAN 5 AND SHALL CONFORM TO THE AASHTO SOIL CLASSIFICATION SYSTEM FOR AN "A-1-A" SOIL . HOWEVER THE MAXIMUM SIZE SHALL BE 6". IN GENERAL ALL FILL SHALL BE APPROVED BY THE ENGINEER PRIOR TO IT'S USE. WET MATERIAL OR UNSUITABLE MATERIAL SHOULD NOT BE USED.
7. BACKFILL SHALL BE PLACED AND COMPACTED IN A MAXIMUM 12" LIFTS.
8. ALL BOULDER RETAINING WALLS SHALL HAVE A GEOTEXTILE FABRIC BACKING FOR THE FULL HIEGHT OF THE WALL AS MANUFACTURED BY MIRAFI OR APPROVED EQUAL.
9. IF GROUNDWATER IS ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY TO DETERMINE IF THE ADDITION OF AN UNDERDRAIN MAY BE REQUIRED.
10. THE CONTRACTOR SHALL NOT USE LARGE OR HEAVY CONSTRICTION EQUIPMENT WITHIN 5' OF THE RETAINING WALLS OR NEW FOUNDATION WALLS. HAND OPERATED COMPACTING EQUIPMENT SHALL BE USED WITHIN 5' OF THE WALL FACE.
11. ALTERNATE WALL DESIGNS MUST BE SEALED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER THE MINIMUM FACTORS OF SAFETY FOR SLIDING AND OVERTURNING SHALL BE 2.0.
12. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A SHORING DESIGN FOR THE INSTALLATION OF THE RETAINING WALL TO PROTECT THE EXISTING ROADWAY AND UTILITY INFRASTRUCTURE. THE DESIGN MUST BE PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER AND SUBMITTED TO THE PROJECT ENGINEER AND THE TOWN ENGINEER FOR APPROVAL.

LEGEND

- EXISTING GRADING (222)
- EXISTING SPOT GRADE (×222.8)
- PROPOSED GRADING (200)
- PROPERTY LINE / RIGHT OF WAY
- PROPOSED ROAD CENTERLINE
- PROPOSED CURB
- EXISTING WATER LINE (W)
- EXISTING FIRE HYDRANT
- EXISTING DRAINAGE INLET
- EXISTING SANITARY LINE (S)
- EXISTING HEADWALL
- PROPOSED DRAINAGE LINE
- PROPOSED CATCH BASIN
- PROPOSED ROOF DRAIN (RD)
- PROPOSED SEWER SERVICE CONNECTION (SS)
- PROPOSED WATER SERVICE CONNECTION (WS)
- PROPOSED UNDERGROUND ELECTRIC SERVICE (UE)
- PROPOSED GAS SERVICE (GAS)
- PROPOSED LIGHT POST
- PROPOSED BUILDING AND DRIVE
- PROPOSED RETAINING WALLS
- PROPOSED SOIL STOCKPILES (SS)
- PROPOSED SILT FENCE
- PROPOSED CRUSHED STONE INLET PROTECTION
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED LIMIT OF DISTURBANCE

PROJECT # 19-11

Site Design Consultants
Civil Engineers • Land Planners
251-F Underhill Avenue, Yorktown Heights, NY 10598
(914) 962-4488 - Fax: (914) 962-7386
www.sitedesignconsultants.com

Engineer: JOSEPH CARLO RIINA, STATE OF NEW YORK, LICENSED PROFESSIONAL ENGINEER, 64431
Joseph C. Riina, P.E.
NYS Lic. No. 64431

Revisions:		
No.	Date	Comments:
1.	11/29/22	Plan Update

SCALE: NTS | DRAWN BY: TK | DATE: 10/21/22

NOTES

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-501

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GENERAL EROSION CONTROL NOTES:

1. Contractor shall be responsible for compliance with all sediment and erosion control requirements. The sediment and erosion control practices are to be installed prior to any major soil disturbances, and maintained until permanent protection is established. Road surface flows from the site should be dissipated with tracking pad or appropriate measures during adjacent road shoulder regrading. Contractor is responsible for the installation and maintenance of all soil erosion and sedimentation control devices throughout the course of construction.
2. Catch basin inlet protection must be installed and operating at all times until tributary areas have been stabilized. When possible flows should be stabilized before reaching inlet protection structure. Timely maintenance of sediment control structures is the responsibility of the Contractor.
3. All structures shall be maintained in good working order at all times. The sediment level in all sediment traps shall be closely monitored and sediment removed promptly when maximum levels are reached or as ordered by the engineer. All sediment control structures shall be inspected on a regular basis, and after each heavy rain to insure proper operation as designed. An inspection schedule shall be set forth prior to the start of construction.
4. The locations and the installation times of the sediment capturing structures shall be as specified in these plans, as ordered by the Engineer, and in accordance with the latest edition of the "New York Standards and Specifications for Erosion and Sediment Control" (NYSSESC).
5. All topsoil shall be placed in a stabilized stockpile for reuse on the site. All stockpile material required for final grading and stored on site shall be temporarily seeded and mulched within 7 days. Refer to soil stockpile details.
6. Any disturbed areas that will be left exposed more than 7 days and not subject to construction traffic, shall immediately receive temporary seeding. Mulch shall be used if the season prevents the establishment of a temporary cover. Disturbed areas shall not be limed and fertilized prior to temporary seeding.
7. All disturbed areas within 500 feet of an inhabited dwelling shall be wetted as necessary to provide dust control.
8. The contractor shall keep the roadways within the project clear of soil and debris and is responsible for any street cleaning necessary during the course of the project.
9. Sediment and erosion control structures shall be removed and the area stabilized when the drainage area has been properly stabilized by permanent measures.
10. All sediment and erosion control measures shall be installed in accordance with current edition of NYSSESC.
11. All regraded areas must be stabilized appropriately prior to any rock blasting, cutting, and/or filling of soils. Special care should be taken during construction to insure stability during maintenance and integrity of control structures.
12. Any slopes graded at 3:1 or greater shall be stabilized with erosion blankets to be staked into place in accordance with the manufactures requirements. Erosion blankets may also be required at the discretion of Town officials or Project Engineer. When stabilized blanket is utilized for channel stabilization, place all of the volume of seed mix prior to laying net, or as recommended by the manufacturer.
13. To prevent heavy construction equipment and trucks from tracking soil off-site, construct a pervious crushed stone pad. Locate and construct pads as detailed in these plans.
14. Contractor is responsible for controlling dust by sprinkling exposed soil areas periodically with water as required. Contractor to supply all equipment and water.
15. Contractor shall be responsible for construction inspections as per NYSDEC GP-0-15-002 and Town of Yorktown Code.

MAINTENANCE OF TEMPORARY EROSION AND SEDIMENT CONTROL STRUCTURES:

N.Y.S.D.E.C. GP-0-15-002 EXPOSURE RESTRICTIONS - States that any exposed earthwork shall be stabilized in accordance with the guidelines of this plan.

1. Trees and vegetation shall be protected at all times as shown on the detail drawing and as directed by the Engineer.
2. Care should be taken so as not to channel concentrated runoff through the areas of construction activity on the site.
3. Fill and site disturbances should not be created which causes water to pond off site or on adjacent properties.
4. Runoff from land disturbances shall not be discharged or have the potential to discharge off site without first being intercepted by a control structure, such as a sediment trap or silt fence. Sediment shall be removed before exceeding 50% of the retention structure's capacity.
5. For finished grading, adequate grade shall be provided so that water will not pond on lawns for more than 24 hours after rainfall, except in swale flow areas which may drain for as long as 48 hours after rainfall.
6. All swales and other areas of concentrated flow shall be properly stabilized with temporary control measures to prevent erosion and sediment travel. Surface flows over cut and fill areas shall be stabilized at all times.
7. All sites shall be stabilized with erosion control materials within 7 days of final grading.
8. Temporary sediment trapping devices shall be removed from the site within 30 days of final stabilization.

MAINTENANCE SCHEDULE:

	DAILY	WEEKLY	MONTHLY	AFTER RAINFALL	NECESSARY TO MAINTAIN FUNCTION	AFTER APPROVAL OF INSPECTOR
SILT FENCE	– – –	– – – –	INSP.	INSP.	CLEAN/ REPLACE	REMOVE
WHEEL CLEANER	CLEAN	– – – –	– – – –	– – – –	REPLACE	REMOVE
INLET PROTECTION	– – –	INSP.	INSP.	CLEAN	REPLACE	REMOVE

MAINTENANCE OF PERMANENT CONTROL STRUCTURES DURING CONSTRUCTION:

The stormwater management system and outlet structure shall be inspected on a regular basis and after every rainfall event. Sediment build up shall be removed from the inlet protection regularly to insure detention capacity and proper drainage. Outlet structure shall be free of obstruction. All piping and drain inlets shall be free of obstruction. Any sediment build up shall be removed.

MAINTENANCE OF CONTROLS AFTER CONSTRUCTION:

Controls (including respective outlet structures) should be inspected periodically for the first few months after construction and on an annual basis thereafter. They should also be inspected after major storm events.

DEBRIS AND LITTER REMOVAL:

Twice a year, inspect outlet structure and drain inlets for accumulated debris. Also, remove any accumulations during each mowing operation.

STRUCTURAL REPAIR/REPLACEMENT:

Outlet structure must be inspected twice a year for evidence of structural damage and repaired immediately.

EROSION CONTROL:

Unstable areas tributary to the basin shall immediately be stabilized with vegetation or other appropriate erosion control measures.

SEDIMENT REMOVAL:

Sediment should be removed after it has reached a maximum depth of five inches above the stormwater management system floor.

TOPSOIL:

Existing topsoil will be removed and stored in piles sufficiently as to avoid mixing with other excavation. Stockpiles shall be surrounded by erosion control as outlined on these plans. The furnishing of new topsoil shall be of a better or equal to the following criteria (SS713.01 NYSDOT):

1. The pH of the material shall be 5.5 to 7.6.
2. The organic content shall not be less than 2% or more than 70%.
3. Gradation:

SIEVE SIZE	% PASSING BY WGT.
2 INCH	100
1 INCH	85 TO 100
1/4 INCH	65 TO 100
NO. 200 MESH	20 TO 80

PERMANENT VEGETATIVE COVER:

1. Site preparation:
   - 1.1. Install erosion control measures.
   - 1.2. Scarify compacted soil areas.
   - 1.3. Lime as required to ph 6.5.
   - 1.4. Fertilize with 10-6-4 4 lbs/1,000 S.F.
   - 1.5. Incorporate amendments into soil with disc harrow.
2. Seed mixtures for use on swales and cut and fill areas.

MIXTURE		LBS./ACRE
ALT. A	KENTUCKY BLUE GRASS	20
	CREEPING RED FESCUE	28
	RYE GRASS OR REDTOP	5
ALT. B	CREEPING RED FESCUE	20
	REDTOP	2
	TALL FESCUE/SMOOTH BLOOMGRASS	20

3. SEEDING
   - 3.1. Prepare seed bed by raking to remove stones, twigs, roots and other foreign material.
   - 3.2. Apply soil amendments and integrate into soil.
   - 3.3. Apply seed uniformly by cyclone seeder culti-packer or hydro-seeder at rate indicated.
   - 3.4. Stabilize seeded areas in drainage swales.
   - 3.5. Irrigate to fully saturate soil layer, but not to dislodge planting soil.
   - 3.6. Seed between April 1st and May 15th or August 15th and October 15th.
   - 3.7. Seeding may occur May 15th and August 15th if adequate irrigation is provided.

TEMPORARY VEGETATIVE COVER:

SITE PREPARATION:

1. Install erosion control measures.
2. Scarify areas of compacted soil.
3. Fertilize with 10-10-10 at 400/acre.
4. Lime as required to ph 6.5.

SEED SPECIES:

MIXTURE	LBS./ACRE
Rapidly germinating annual ryegrass (or approved equal)	20
Perennial ryegrass	20
Cereal oats	36

SEEDING:
Same as permanent vegetative cover

CONTRACTOR CERTIFICATION STATEMENT

Certification Statement - All contractors and subcontractors as identified in a SWPPP, by the Owner or Operator, in accordance with Part III.A.5 of the SPDES General Permit for Stormwater Runoff from Construction Activity, GP-0-15-002, dated January 29, 2015, Page 10 of 40, shall sign a copy of the following Certification Statement before undertaking any construction activity at the Site identified in the SWPPP:

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the Qualified Inspector during a site inspection. I also understand that the Owner or Operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System ("SPDES") General Permit for Stormwater Discharge from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

Individual Contractor: ____________

Name and Title (please print): ____________

Signature of Contractor: ____________

Company / Contracting Firm: ____________

Name of Company: ____________

Address of Company: ____________

Telephone Number / Cell Number: ____________

Site Information: ____________

Address of Site: ____________

Today's Date: ____________

OWNER / OPERATOR CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law."

Name (please print): ____________

Title: ____________

Date: ____________

Address: ____________

Phone: ____________

E-mail: ____________

Signature: ____________

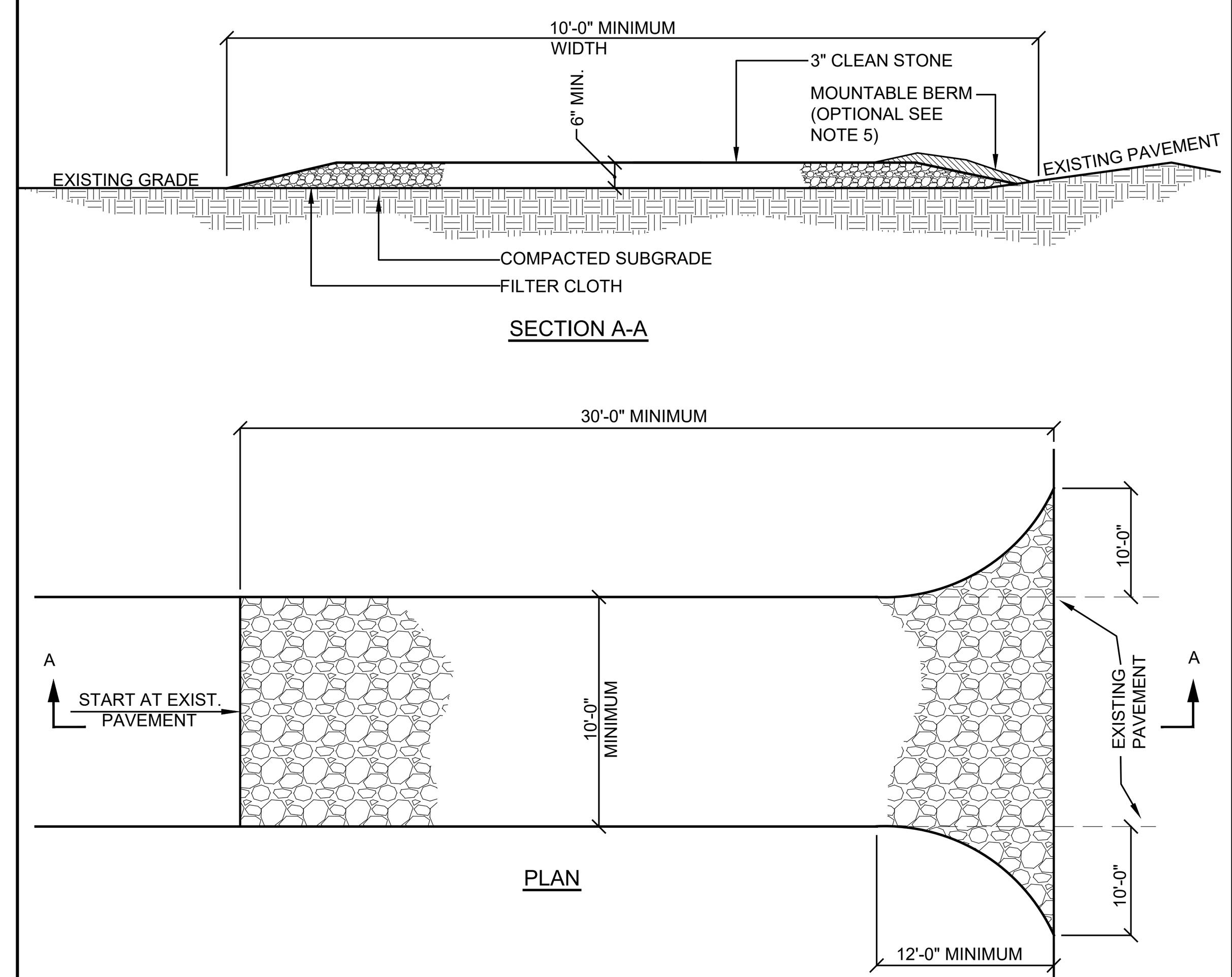
GENERAL CONSTRUCTION SEQUENCE:

REFER TO THE PLAN SET FOR ALL PLANS AND DETAILS WHICH RELATE TO CONSTRUCTION SEQUENCE.

1. A LICENSED SURVEYOR MUST DEFINE INFRASTRUCTURE LOCATIONS, LIMITS OF DISTURBANCE, AND GRADES IN THE FIELD PRIOR TO START OF ANY CONSTRUCTION. LIMITS OF DISTURBANCE SHALL BE MARKED WITH THE INSTALLATION OF CONSTRUCTION FENCE OR APPROVED EQUAL. THE EXTENTS OF ALL OF THE STORMWATER MANAGEMENT SYSTEMS SHALL BE CORDONED OFF TO MINIMIZE THE DISTURBANCE ON THIS AREA.
2. INSTALL ALL PERIMETER EROSION CONTROL MEASURES, CONSTRUCTION ENTRANCE AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN AND THE ASSOCIATED DETAILS. INSTALL SILT FENCING AT THE BOTTOM OF SLOPES.
3. STRIP SITE AND PLACE TOPSOIL IN STOCKPILE LOCATIONS SHOWN ON THE PLAN.
4. BEGIN ROUGH GRADING THE SITE. CONTRACTOR TO LIMIT EXPOSURE OF DENUDED SOILS BY PROVIDING TEMPORARY STABILIZATION FOR WORK AREAS THAT WILL REMAIN UNDISTURBED FOR OVER SEVEN (7) DAYS. EXCESS MATERIAL SHALL BE STOCKPILED IN THE LOCATION SHOWN ON THE PLAN AS GRADES ALLOW. MATERIAL UNABLE TO BE STOCKPILED SHALL BE REMOVED FROM THE SITE.
5. ROUGH GRADE BUILDING, DRIVEWAY, PARKING AREA, AND PLAZA AREA.
6. BEGIN CONSTRUCTION OF BUILDING AND RETAINING WALL. WALL SHALL BE COMPLETED PRIOR TO THE INSTALLATION OF THE PROPOSED DRIVEWAY AND PARKING AREA.
7. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A SHORING DESIGN FOR THE INSTALLATION OF THE RETAINING WALL TO PROTECT THE EXISTING ROADWAY AND UTILITY INFRASTRUCTURE. THE DESIGN MUST BE PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER AND SUBMITTED TO THE PROJECT ENGINEER AND THE TOWN ENGINEER FOR APPROVAL.
8. BEGIN THE EXCAVATION AND INSTALLATION OF UTILITIES. PROTECT TRENCHES AND OPEN EXCAVATIONS FROM EROSION. ENTRY INTO THE DRAINAGE SYSTEM SHALL BE BLOCKED OFF UNTIL SITE HAS REACHED FINAL STABILIZATION. ONCE SYSTEM HAS BEEN INSTALLED, BACKFILL, AND SEED WHERE NECESSARY.
9. DURING SITE CONSTRUCTION MAINTAIN AND RE-ESTABLISH AS REQUIRED EROSION CONTROL AND STABILIZATION MEASURES AS REQUIRED BY THE SITE PLAN AND DETAILS.
10. EXCAVATE TO THE SUB-GRADE LEVEL. SCARIFY THE EXISTING SOIL TO A DEPTH OF 12-INCHES BY ROTOTILLING OR OTHER MEANS ACCEPTABLE TO THE ENGINEER. INSTALL ALL COURSES OF STONE AS PER THE SPECIFICATIONS GIVEN ON THE PLAN.
11. INSTALL BASE COURSE OF ITEM 4 IN ALL PAVEMENT AREAS. STABILIZE ALL OPEN AREAS WITH SEED AND MULCH.
12. CONSTRUCT REMAINDER OF BUILDING, DRIVEWAY AND PARKING AREAS. FIRST INSTALL CURBS, ASPHALT BINDER, AND CONCRETE SIDEWALK. ONCE BINDER COURSE IS INSTALLED, DRAINAGE OUTLET MAY BE UNBLOCKED.
13. BACKFILL CURBS, GRADE, PLACE FINAL SOIL TOPPING AND PUT IN PLACE PERMANENT VEGETATIVE COVER OVER ALL DISTURBED AREAS, LANDSCAPE BEDS, SLOPES, ETC.
14. ONCE SITE STABILIZATION HAS TAKEN PLACE (AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 80% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS), REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS, UNPLUG THE DRAINAGE SYSTEM TO ALLOW RUNOFF TO ENTER THE STORMWATER MANAGEMENT SYSTEM.

WINTER STABILIZATION NOTES:

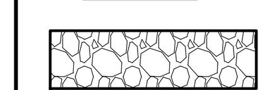
IF CONSTRUCTION ACTIVITIES ARE EXPECTED TO EXTEND INTO OR OCCUR DURING THE WINTER SEASON THE CONTRACTOR SHALL ANTICIPATE PROPER STABILIZATION AND SEQUENCING. CONSTRUCTION SHALL BE SEQUENCED SUCH THAT WHEREVER POSSIBLE AREAS OF DISTURBANCE THAT CAN BE COMPLETED AND PERMANENTLY STABILIZED SHALL BE DONE BY APPLYING AND ESTABLISHING PERMANENT VEGETATIVE COVER BEFORE THE FIRST FROST. AREAS SUBJECT TO TEMPORARY DISTURBANCE THAT WILL NOT BE WORKED FOR AN EXTENDED PERIOD OF TIME SHALL BE TREATED WITH TEMPORARY SEED, MULCH, AND/OR EROSION BLANKETS.



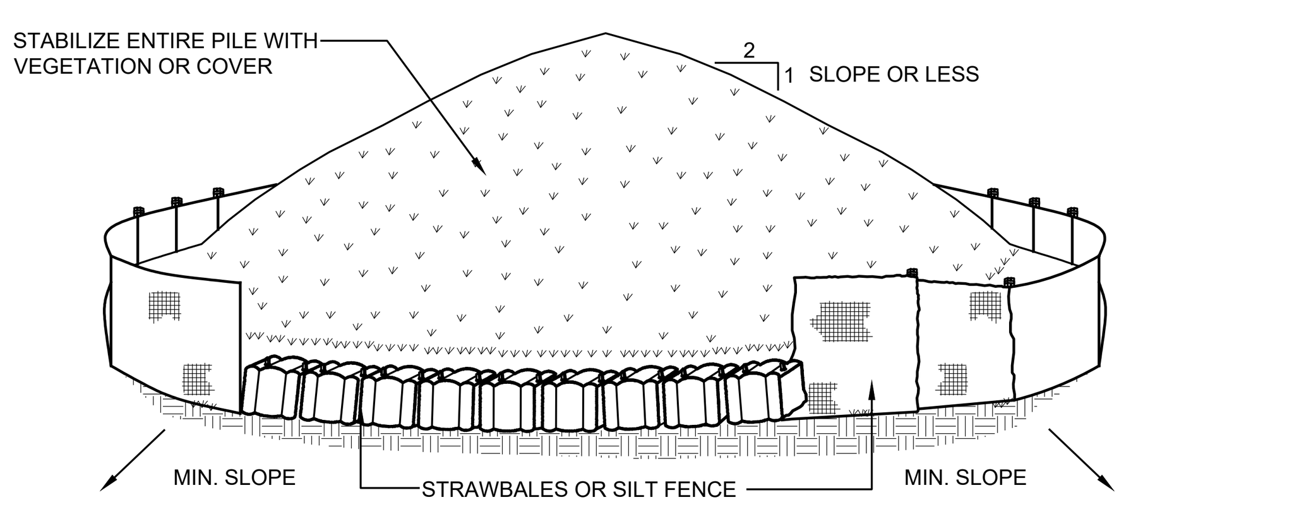
INSTALLATION NOTES:

1. Stone size - use 3" min. Stone, or reclaimed or recycled concrete equivalent.
2. Length - as required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply.
3. Thickness - not less than six (6) inches.
4. Width - 10 foot minimum, but not less than the full width at points where ingress or egress occur. 24 ft if single entrance to site.
5. 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.
6. Maintenance - the entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right of way this may require periodic top dressing with additional stone as conditions demand and repair and/or cleanouts of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public right of way must be removed immediately.
7. Washing - wheels shall be cleaned to remove sediment prior to entrance onto public right of way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
8. Periodic inspection and needed maintenance shall be provided after each rain

SYMBOL



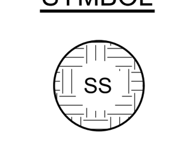
E-3 STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



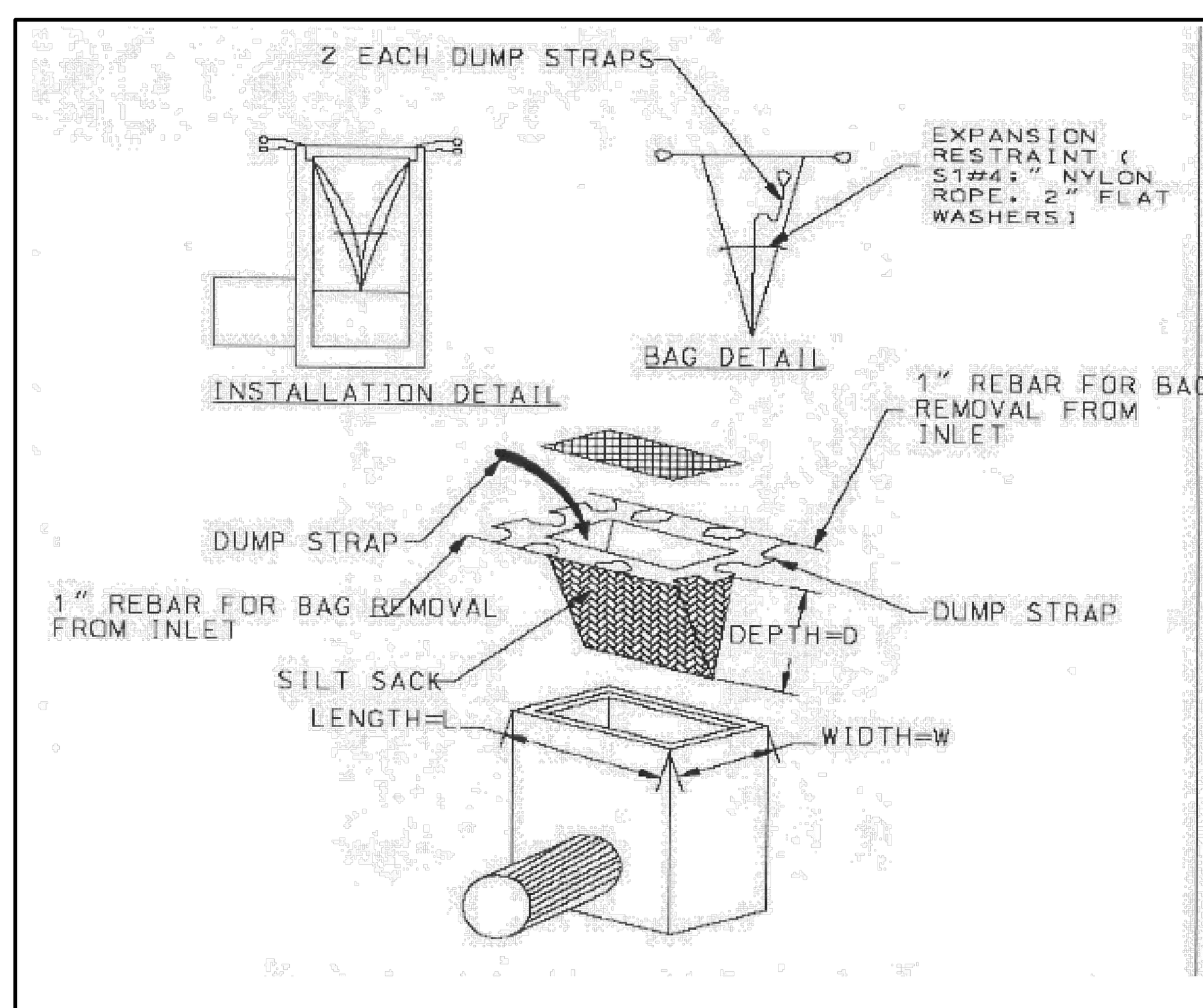
NOTES:

1. Area chosen for stockpiling operations shall be dry and stable.
2. Maximum slope of stockpile shall be 1:2.
3. Upon completion of soil stockpiling, each pile shall be surrounded with either silt fencing or strawbales, then stabilized with vegetation or covered.
4. See detail for installation of silt fence.

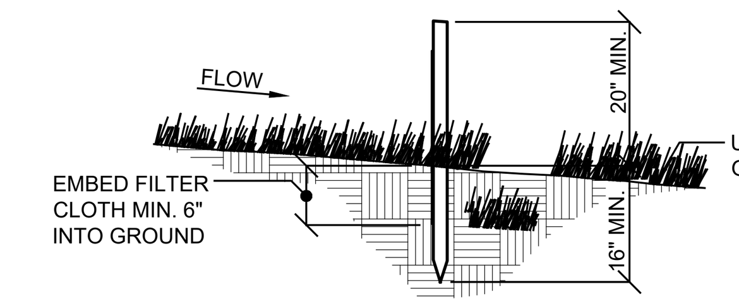
SYMBOL



E-4 SOIL STOCKPILE DETAIL
NOT TO SCALE



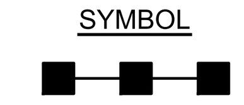
E-2 SILT SACK DETAIL
NOT TO SCALE

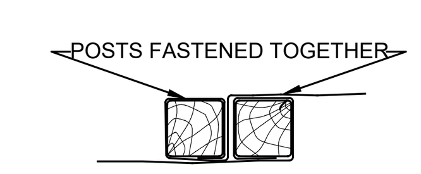


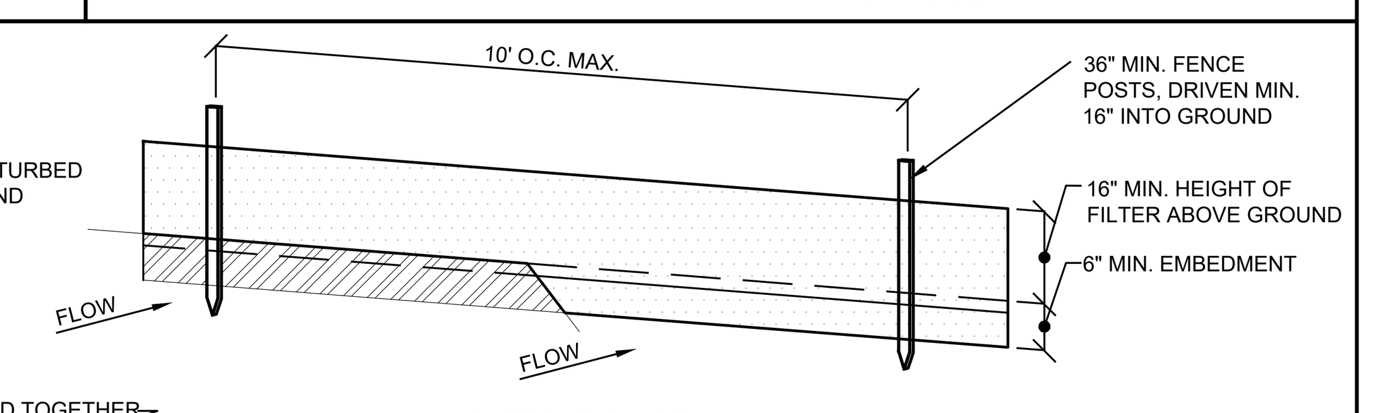
NOTES:

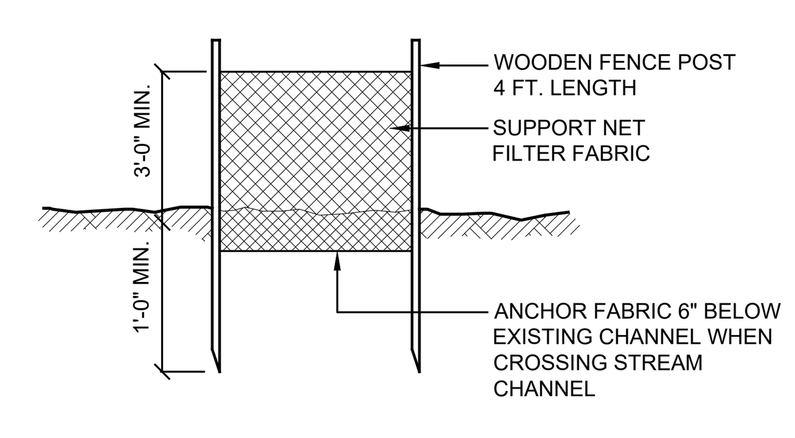
1. Filter cloth to be fastened securely to post: steel either t or u type or 2" hardwood posts at top and mid section.
2. When two sections of filter cloth adjoin each other they shall be overlapped by 6 inches and folded. Filter cloth shall be mirafi 100x, stabilinka t140n or approved equal
3. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.
4. Excavate 4 inch trench along the lower perimeter of the site.
5. Unroll a section at a time and position the post against the back (downstream) wall of the trench (net side away from direction of flow).
6. Drive the post into the ground until the netting is approximately 2 inches from the trench bottom.
7. Lay the toe-in flap of fabric onto the undisturbed bottom of the trench, backfill the trench and tamp the soil. Steeper slopes require an intercept trench.
8. Join sections as shown above.

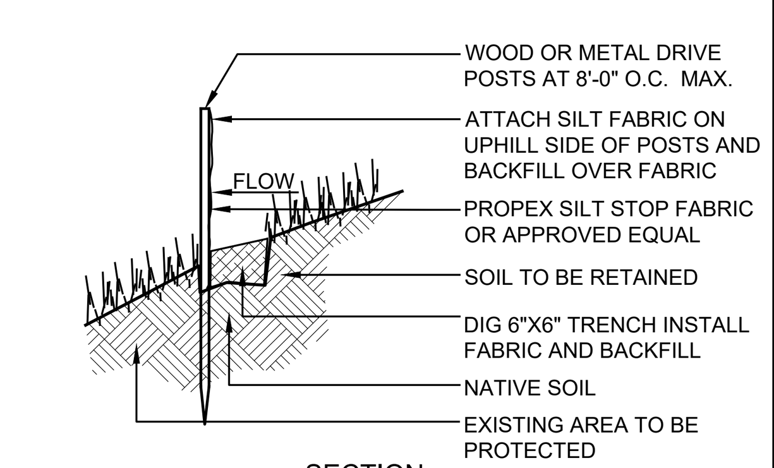
SYMBOL











E-1 SILT FENCE DETAIL
NOT TO SCALE

NOTE: UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.

F:\2019\19-11 LOWES - BREWIN REALTY\PAD C\ENGINEERING\CAD\C21-21 PAD C\DWG\19-11 LOWES PAD C DETAILS.DWG 11/6/2017 3:19:52 PM

Site Design Consultants
Civil Engineers • Land Planners
251-F Underhill Avenue, Yorktown Heights, NY 10598
(914) 962-4488 • Fax: (914) 962-7386
www.sitedesignconsultants.com

PROJECT # 19-11

Engineer:
STATE OF NEW YORK • JOSEPH CARLO RIINA • LICENSED PROFESSIONAL ENGINEER • 064431
Joseph C. Riina, P.E.
NYS Lic. No. 64431

Revisions:		
No.	Date	Comments:
1.	11/29/22	Plan Update

SCALE: N.T.S
DRAWN BY: TK
DATE: 10/21/22

E&SC NOTES

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-502

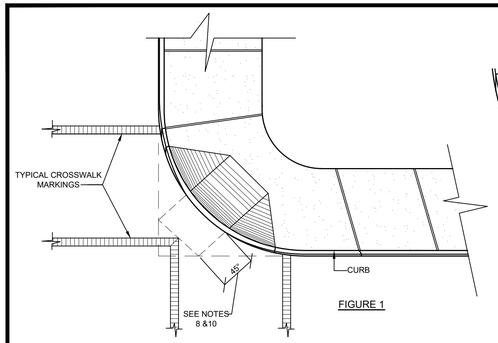
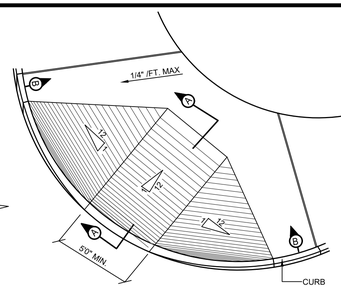
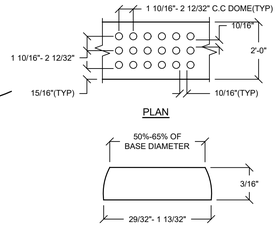


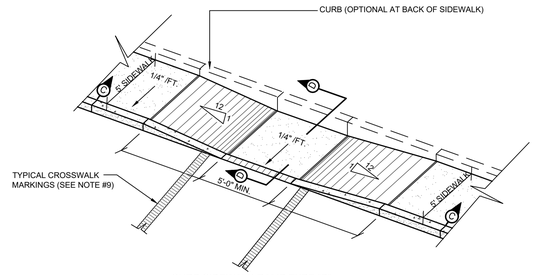
FIGURE 1



CURB SIDEWALK RAMP TYPE "A"



DETECTABLE WARNING SURFACE



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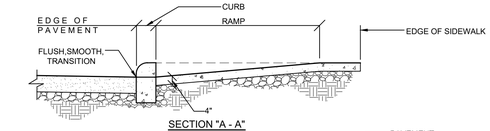
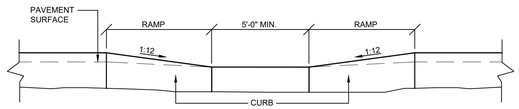


SECTION "A - A"



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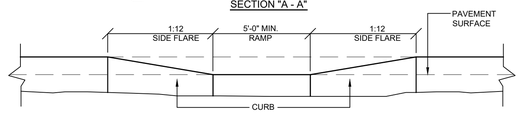

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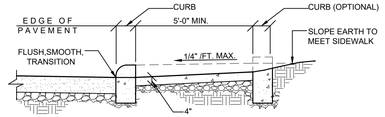


SECTION "D - D"

NOTES:

GENERAL:
1. Sidewalk curb ramp type and location are as shown on the plans or as directed.
2. All sidewalk curb ramp types may be used as straight or curved curb sections.
3. Sidewalk curb ramp types may be different at each location within an intersection.

SIDEWALK CURB RAMP CRITERIA:
4. The maximum slope of a sidewalk curb ramp shall be 1:12.
5. The maximum width of a sidewalk curb ramp shall be five feet. Exclusive of flared sides.
6. All sidewalk curb ramps shall have flush, smooth transitions to the adjacent street or highway surface.

SURFACE FINISH:
7. The surface of all sidewalk curb ramps shall be stable, firm, and slip resistant (E.G. A coarse broom finish perpendicular to the ramp slope is acceptable on cement concrete curb ramps.)
8. All proposed sidewalk curb ramps shall have a detectable warning surface installed from the back of the curb for a distance of 2 feet in the direction of travel on the ramp and extending the full width of the ramp, excluding the ramp sides or flares. The detectable warning surface shall comply with the requirements of section 4.29.2 of the Americans with Disabilities Act accessibility guidelines (ADAAG).

SIDEWALK CURB RAMP PLACEMENT:
9. At a corner, where the curb radius is 25-feet or less, a single ramp (either type a or b) located diagonally can often serve crosswalks in two directions. However, a single ramp shall only be used where there is a minimum clear space of 48" falling entirely within the projection of the intersection curbs (see figure 1). Where the radius exceeds 25' or the minimum 48" clear space is not achievable, then separate ramps should be provided for each crosswalk.

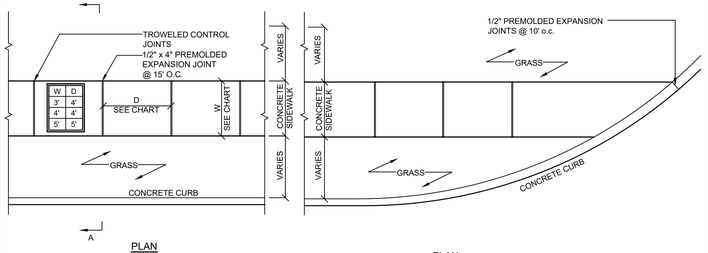
PAVEMENT MARKINGS AT CROSSWALKS:
10. Sidewalk curb ramps at marked crossings shall be wholly contained within the markings excluding any flared sides.
11. At a corner where a single ramp (either type a or b; located diagonally serves two crosswalks, this shall be a 48" minimum clear space at the ramp bottom wholly contained within the intersection crosswalk markings (see figure 1).
12. Where stop lines are necessary, they shall be located in advance of sidewalk curb ramps.

UTILITIES - DRAINAGE INLETS OR GRATES:
13. Where feasible, provide for drainage inlets or grates immediately upstream from the curb ramps. Reticuline or rectangular drainage grates are to be used in the area of curb ramps.
14. Do not place signal poles, sign posts, utility poles, fire hydrants, etc., within the ramp or side flare areas.

R-1

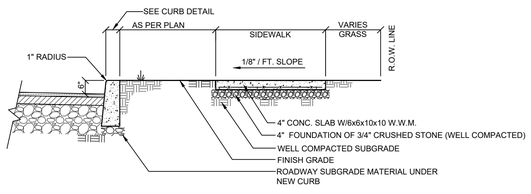
SIDEWALK CURB-RAMP DETAIL

NOT TO SCALE



PLAN

PLAN

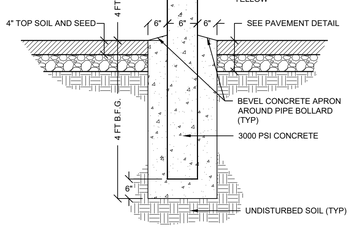


SECTION A-A

R-2

CONCRETE SIDEWALK DETAIL

NOT TO SCALE

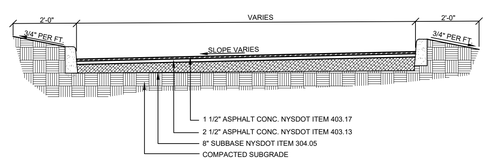


NOTE:
1. Pipe bollards shall be installed at locations shown on the plan.
2. In no case shall bollards be placed in such a way as to hinder the proper access, maintenance and operation of the structure, utility or other feature intended to be protected.
3. Contractor shall coordinate placement of bollards at fire hydrants with the local Fire or Water Department as appropriate.

R-6

PIPE BOLLARD DETAIL

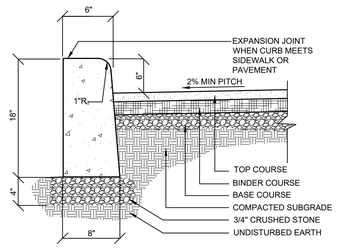
NOT TO SCALE



R-3

TYPICAL DRIVEWAY AND PARKING LOT SECTION

NOT TO SCALE



NOTE:
1. Provide 1/2" expansion joint in concrete curb every ten feet.
2. Construct curb with class A concrete (3000 psi).
3. For use within the site.

R-5

CONCRETE CURB DETAIL

NOT TO SCALE

BRESLIN REALTY

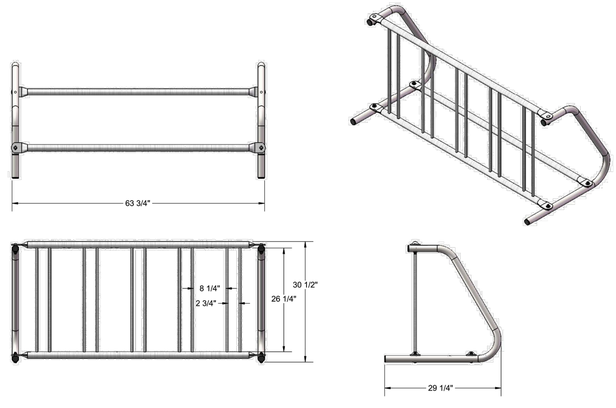
Monument Sign
Yorktown, New York
October 26, 2022

CREATE Architecture Planning & Design inc.

S-2

MONUMENT SIGN DETAIL

NOT TO SCALE



S-1

BIKE RACK DETAIL

NOT TO SCALE

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PROJECT # 19-11

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Engineer: STATE OF NEW YORK JOSEPH CARLO RINA LICENSED PROFESSIONAL ENGINEER
Joseph Carlo Rina, P.E.
NYS Lic. No. 64431

Revisions:

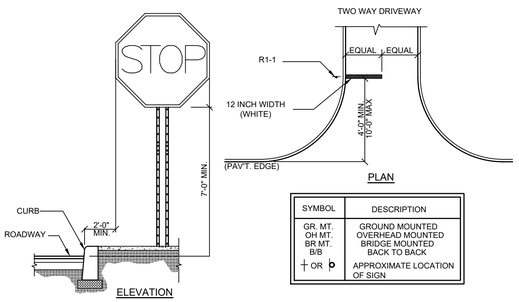
No.	Date	Comments:
1.	11/29/22	Plan Update

SCALE: NTS
DRAWN BY: TK
DATE: 10/21/22

SITE DETAILS

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-503



SYMBOL	DESCRIPTION
GR. MT. OH MT. BR MT. B/B	GROUND MOUNTED OVERHEAD MOUNTED BRIDGE MOUNTED BACK TO BACK
┼ OR ├	APPROXIMATE LOCATION OF SIGN

TYPICAL INSTALLATION GUIDELINES

SIGN	M.U.T.C.D. NUMBER	SIZE OF SIGN	TYPE OF MOUNT
STOP	R1-1	30" X 30"	GR. MT.
RESERVED PARKING	R7-8	12" X 18"	GR. MT.
DO NOT ENTER	R3-15	24" X 24"	GR. MT.

SIGN	M.U.T.C.D. NUMBER	SIZE OF SIGN	TYPE OF MOUNT
NO PARKING ANY TIME	R7-1	12" X 18"	GR. MT.
ONE WAY	R3-12 (L) R3-13 (R)	12" X 18"	GR. MT.
NO PARKING ANY TIME	P1-2 (SEE NOTE 4)	12" X 18"	GR. MT.

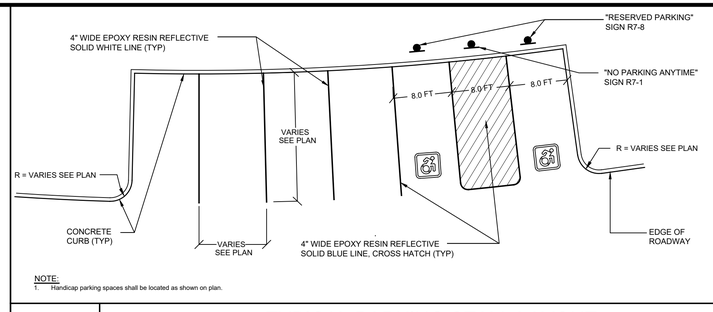
GENERAL NOTES:

1. All signage shall be in accordance with the latest edition of the national MUTCD and the N.Y.S Supplement (MUTCD), September 2007, including the following:
   A. Letter size and series
   B. Legend and background color
   C. Reflectivity
   D. Size of sign
2. The type of characters as specified in the standard specifications shall be as follows:

MUTCD CODE LETTER	TYPE OF CHARACTER
G.I.	TYPE IV
R.P.W.M.	TYPE IV OR V.

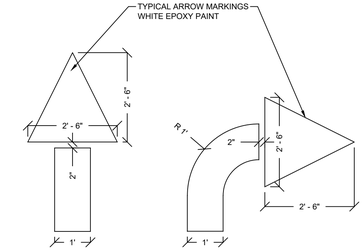
3. Sign locations as shown on plans are approximate. The Contractor shall relocate existing signs and install new signs in accordance with the MUTCD, latest edition. The Contractor shall contact the Town Engineer to discuss/resolve problem areas.
4. Except where otherwise specified, parking signs shall be placed facing approaching traffic at an angle of between 30 and 45 degrees with the line of traffic flow. Parking signs shall be placed at each end of a regulation (single-headed arrows) and, within the regulation (double-headed arrows), at intervals not to exceed 200 ft
5. Where new signs are installed the Contractor shall affix a label to the back of the sign panel. This label will show the date of installation and identification numbers.
6. Placement of W3-17 sign is prescribed in the General Municipal Law.

R-7 TRAFFIC SIGN DETAIL
NOT TO SCALE

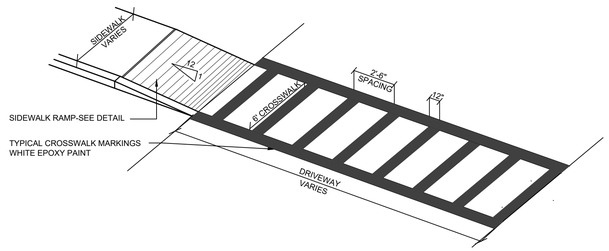


NOTE:
1. Handicap parking spaces shall be located as shown on plan.

R-10 TYPICAL PARKING STALL LAYOUT
NOT TO SCALE



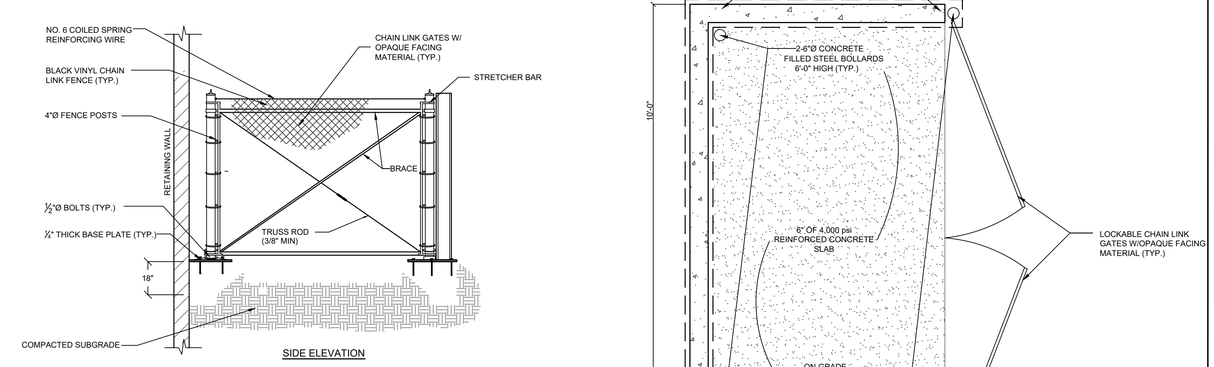
R-11 PAVEMENT ARROWS DETAIL
NOT TO SCALE

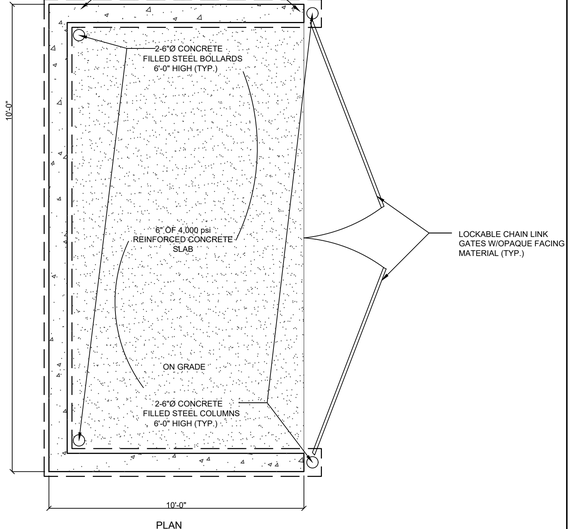


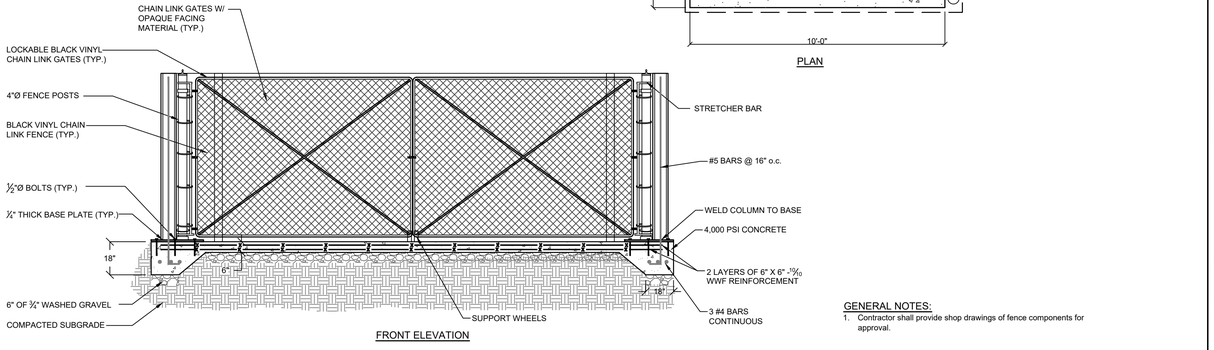
R-9 PAINTED CROSS WALK
NOT TO SCALE

NOTE:
1. Light pole foundations within parking lot parking spaces are to be poured within a corrugated HDPE pipe to provide vehicle barrier protection.
2. Contractor shall verify soil bearing capacity prior to installation. Foundation design is based on a 2,000 psf soil bearing capacity
3. Light poles and fixtures are to be provided by the owner. The contractor shall provide the bases.

L-1 LIGHT POLE BASE DETAIL
NOT TO SCALE







GENERAL NOTES:
1. Contractor shall provide shop drawings of fence components for approval.

F-1 TRASH ENCLOSURE
NOT TO SCALE

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PROJECT # 19-11

Engineer: JOSEPH CARLO RIINA, LICENSED PROFESSIONAL ENGINEER, STATE OF NEW YORK
Joseph C. Riina, P.E.
N.Y.S Lic. No. 64431

Revisions: No.	Date	Comments:
1.	1/ 29/ 22	Plan Update

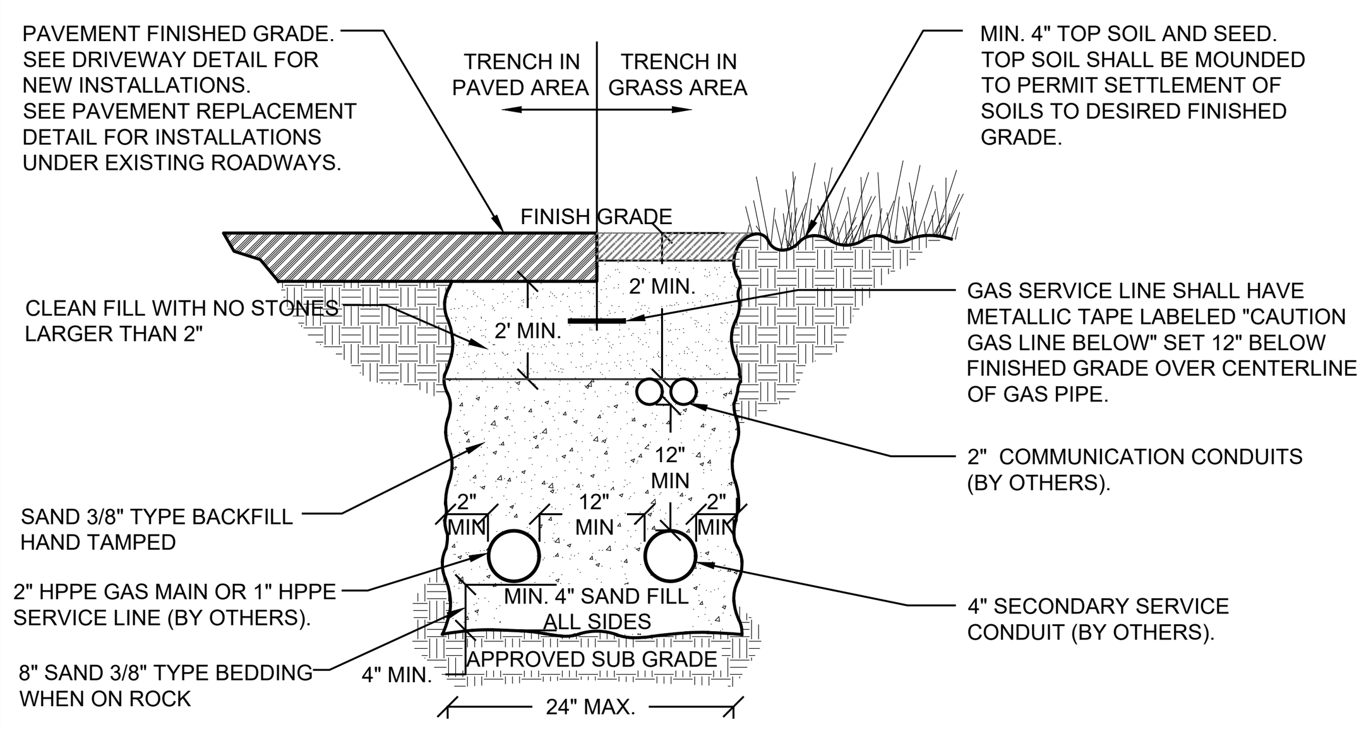
SCALE: NTS
DRAWN BY: TK
DATE: 10/21/22

SITE DETAILS 2

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-503

F:\2019\19-11 LOWES - BRE\SUN REALTY\PAD C\ENGINEERING\CAD\C3D-21-21 PAD C\DWG\19-11 LOWES PAD C DETAILS.DWG 1/18/2017 3:19:52 PM



GAS SERVICE BEDDING NOTES:

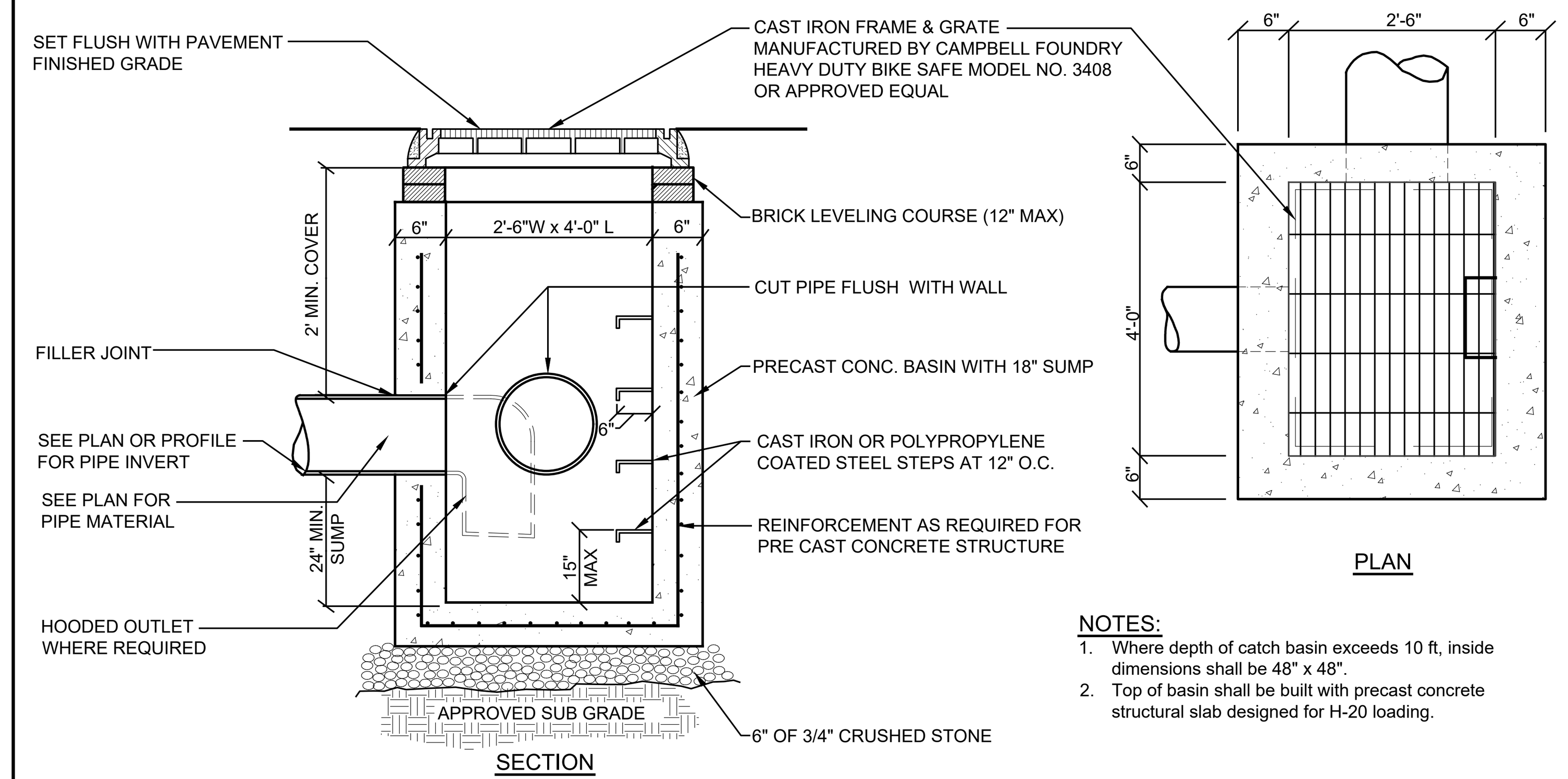
1. Contractor shall coordinate installation with owner. All materials and installation procedures shall meet or exceed minimal requirements of the utility owner.
2. Pipe shall be laid and connected in the bedding which shall consist of:
   A. Compacted existing subsoil when laid above ground water or;
   B. 3/4" crushed stone when laid below ground water.
3. If subsoil is determined to be unsuitable by the engineer, all unsuitable material shall be removed for at least 2'-6" below the pipe invert or twice the pipe diameter, whichever is greater, and replaced with compacted bedding material.

UTILITY CONDUIT BEDDING NOTES:

1. Contractor shall coordinate installation with owner. All materials and installation procedures shall meet or exceed minimal requirements of the utility owner.
2. Pipe shall be laid and connected in the bedding which shall consist of:
   A. Compacted existing subsoil when laid above ground water or;
   B. 3/4" crushed stone when laid below ground water.
3. If subsoil is determined to be unsuitable by the engineer, all unsuitable material shall be removed for at least 2'-6" below the pipe invert or twice the pipe diameter, whichever is greater, and replaced with compacted bedding material.

U-1 GAS AND UTILITY SERVICE BEDDING TRENCH DETAIL

NOT TO SCALE

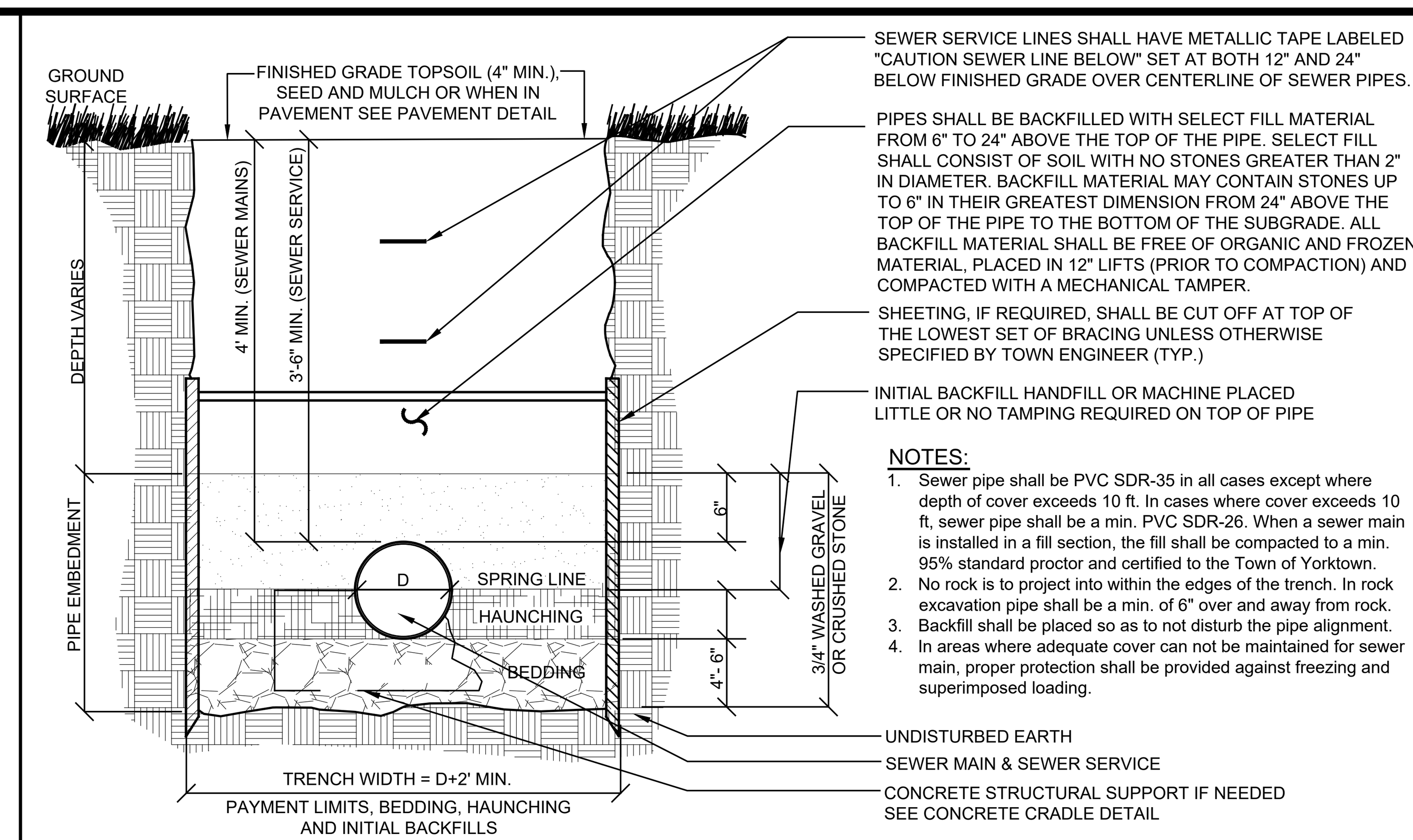


NOTES:

1. Where depth of catch basin exceeds 10 ft, inside dimensions shall be 48" x 48".
2. Top of basin shall be built with precast concrete structural slab designed for H-20 loading.

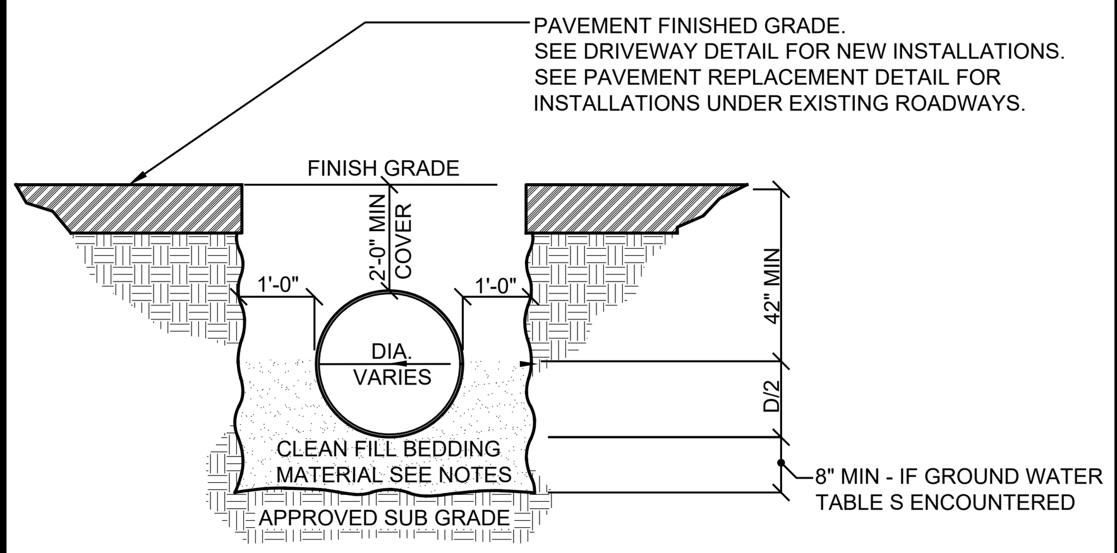
D-2 PRECAST CATCH BASIN - NO CURB DETAIL

NOT TO SCALE



SS-1 SEWER MAIN / SEWER SERVICE TRENCH DETAIL

NOT TO SCALE

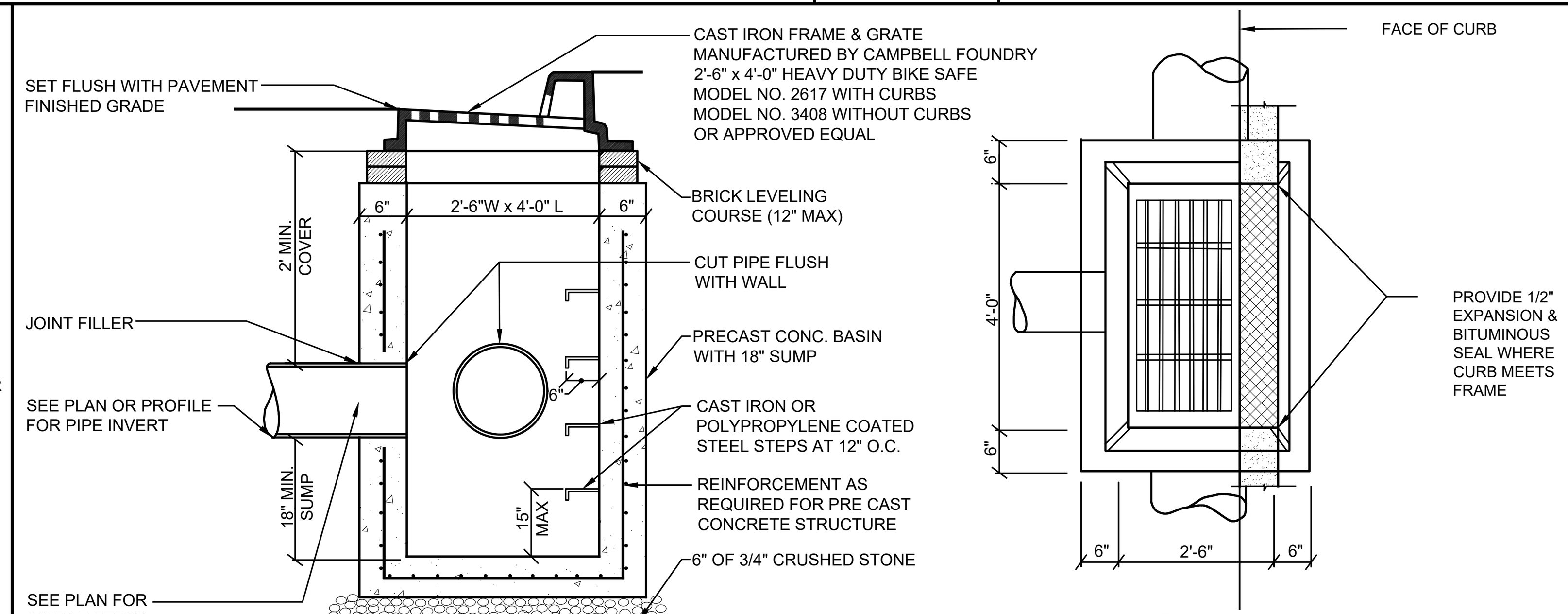


NOTES:

1. Pipe shall be laid and connected in the bedding which shall consist of:
   A. Compacted existing subsoil when laid above ground water or;
   B. 3/4" crushed stone when laid below ground water.
2. If subsoil is determined to be unsuitable by the Engineer, all unsuitable material shall be removed for at least 2'-6" below the pipe invert or twice the pipe diameter, whichever is greater, and replaced with compacted bedding material.

D-1 STORM PIPE BEDDING DETAIL

NOT TO SCALE

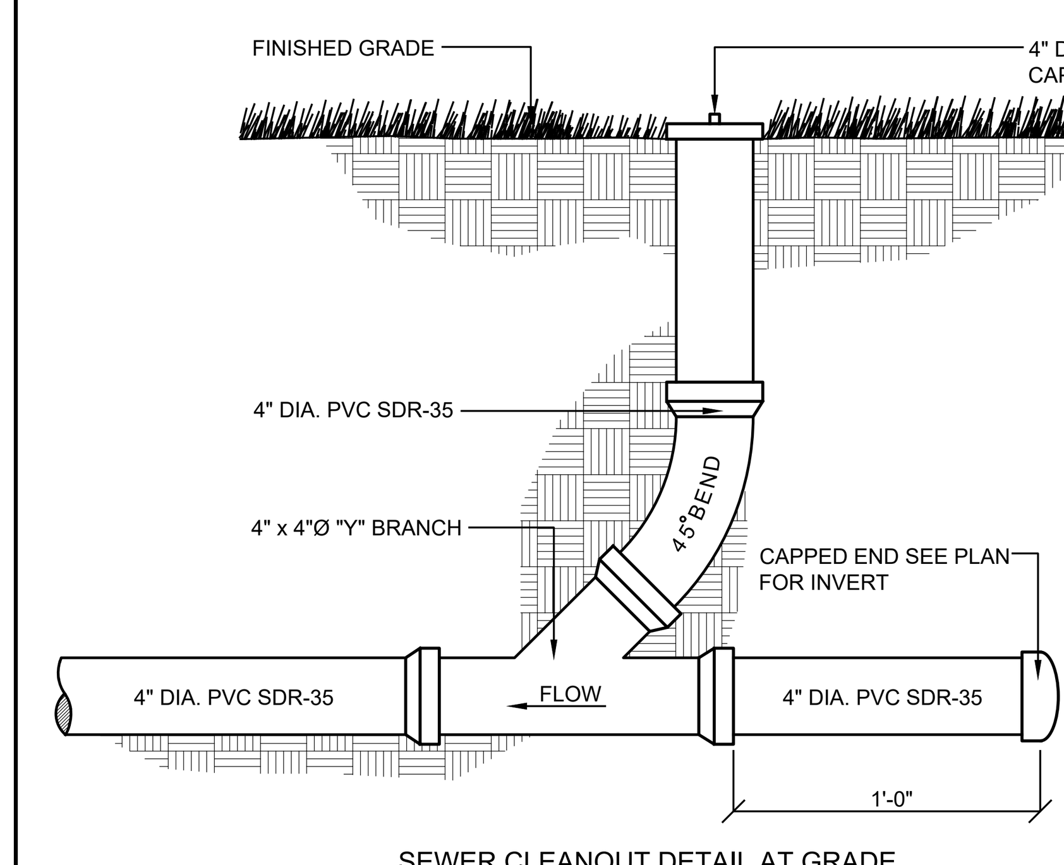


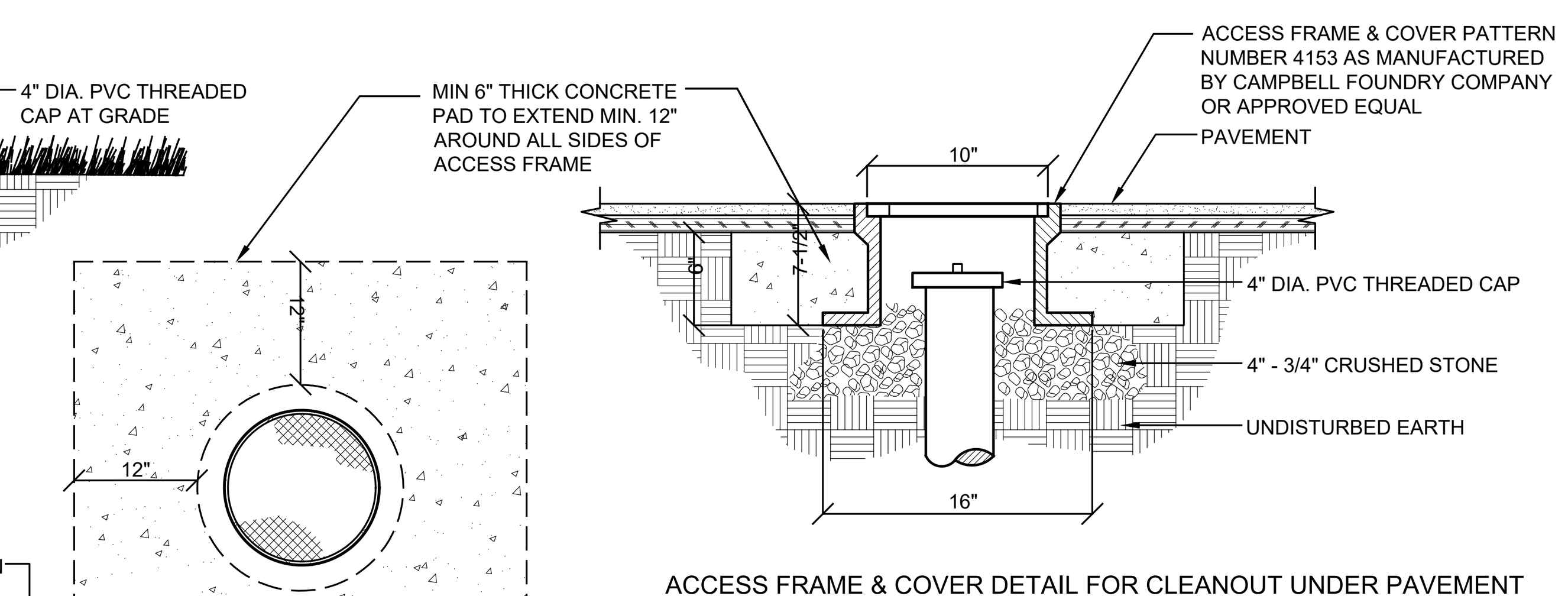
NOTES:

1. Where depth of catch basin exceeds 10 ft, inside dimensions shall be 48" x 48".
2. Catch basin covers and structures shall meet or exceed A.S.T.M. and O.S.H.A. requirements.
3. Pre-cast sections shall be in accordance with "Pre-cast Reinforced Manhole Sections", A.S.T.M. Designation C-478, latest revision. Minimum compressive strength shall be 4000 psi. Structures shall be rated for H-20 vehicle loading.

D-3 TYPICAL CATCH BASIN DETAIL

NOT TO SCALE





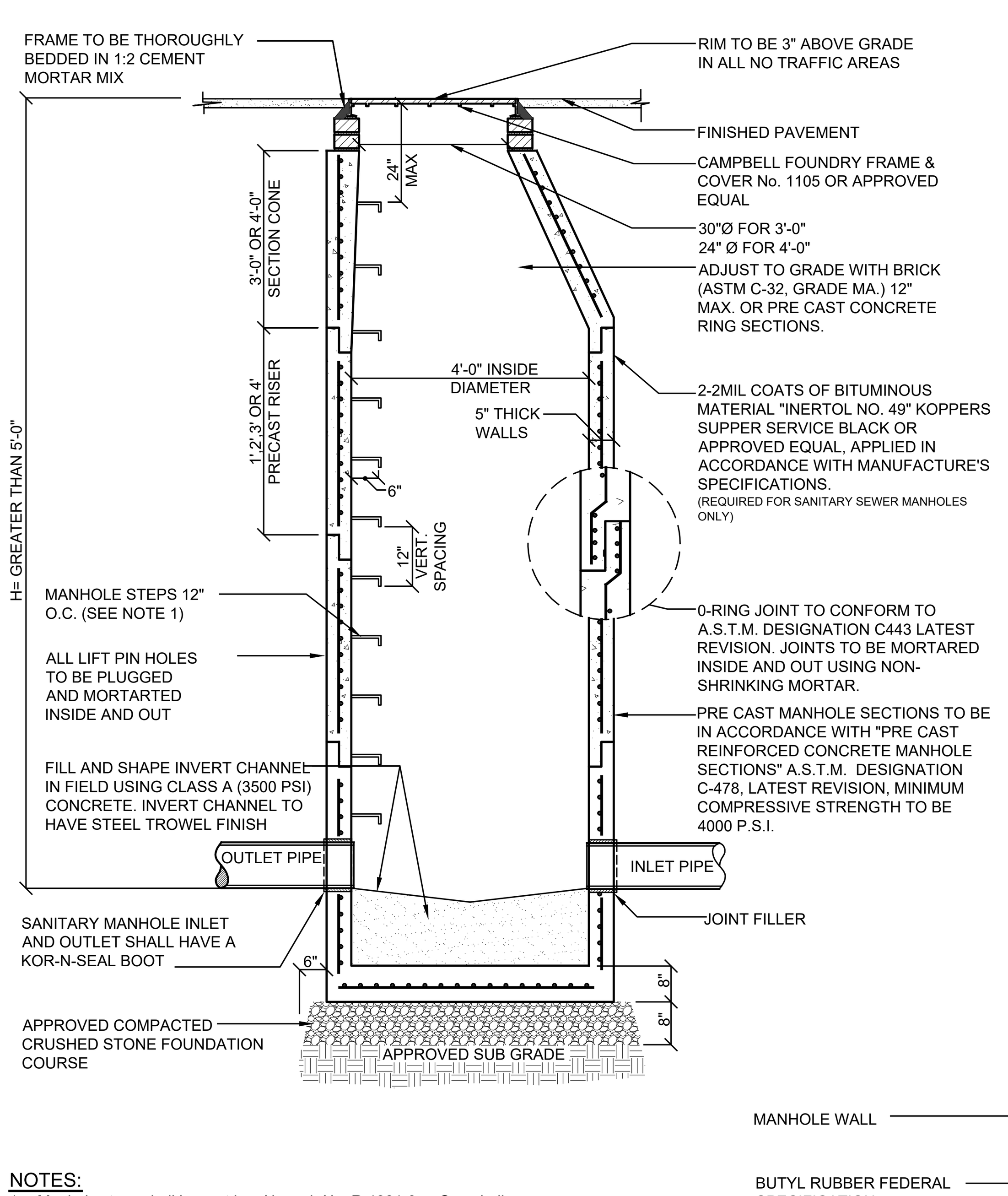
ACCESS FRAME & COVER DETAIL FOR CLEANOUT UNDER PAVEMENT

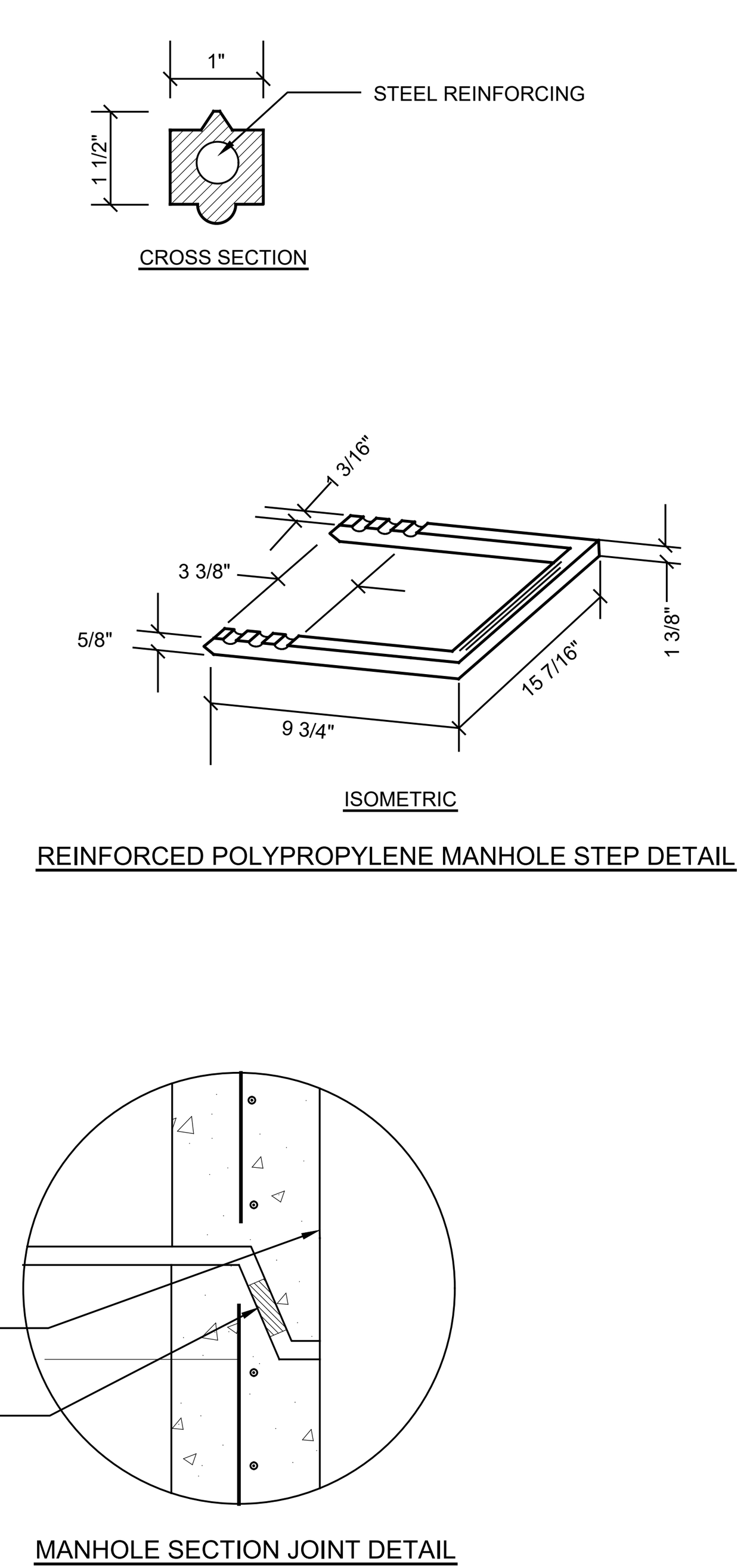
NOTES:

1. Clean-outs shall be spaced at minimum 50 ft intervals and/or at all changes in vertical and horizontal alignment.
2. All fittings to be white H.D. As manufactured by GPK Products Inc. or approved equal.

SS-2 GRAVITY SEWER LATERAL CLEAN-OUT DETAIL

NOT TO SCALE



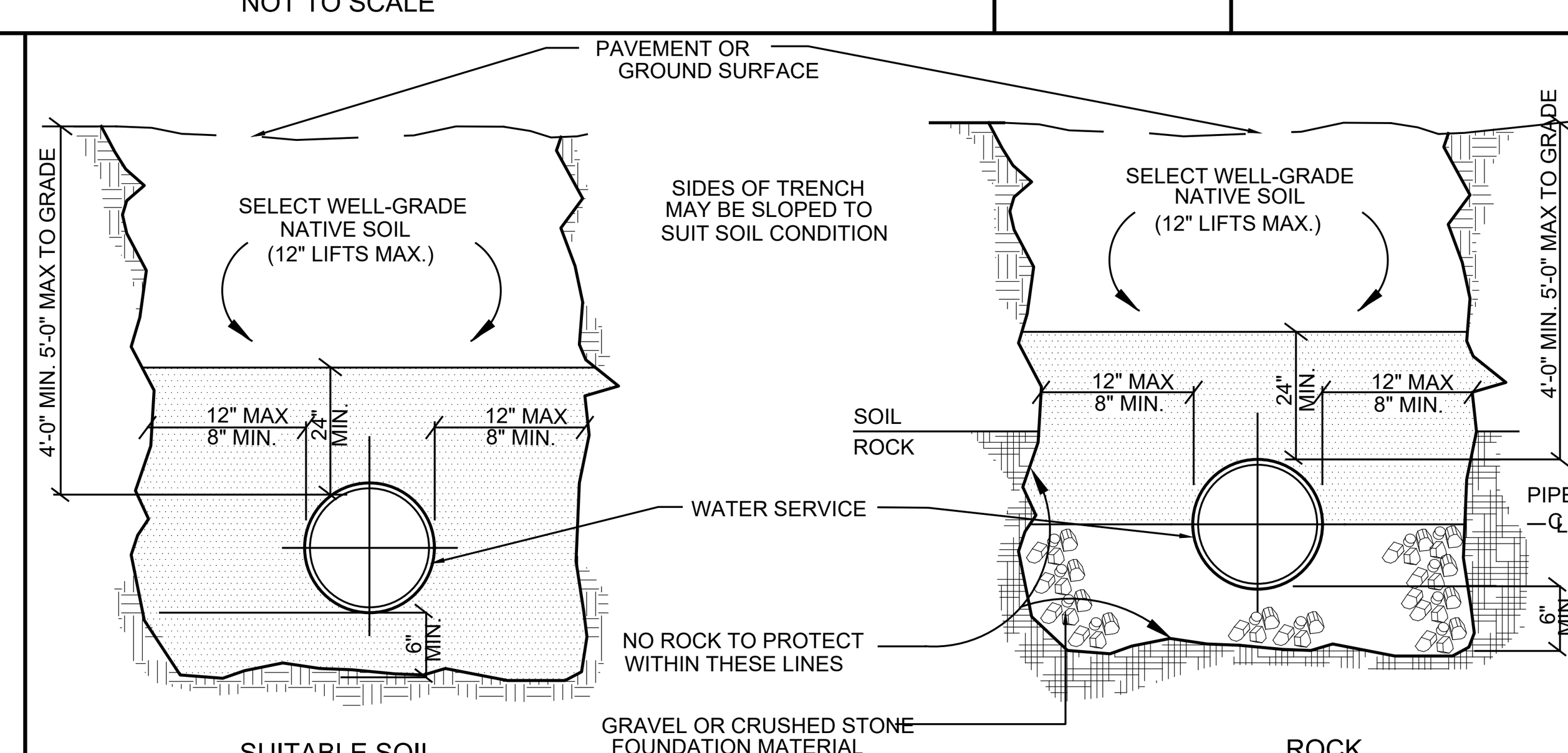


NOTES:

1. Manhole steps shall be cast iron Neenah No. R-1981-0 or Campbell Foundry no. 2588-1 or polypropylene coated steel (see specifications) or approved equal.
2. Unless otherwise specified, sanitary sewer manholes shall have letters "SEWER" and storm manholes shall have letters "DRAIN" cast on cover. The covers shall have vent holes.
3. Manholes shall meet or exceed A.S.T.M. and O.S.H.A. requirements and be rated for H-20 vehicle design loading.
4. All pipes shall be cut flush with inside walls.
5. Where depth of manhole exceeds 10 ft, inside diameter shall be 60 ".

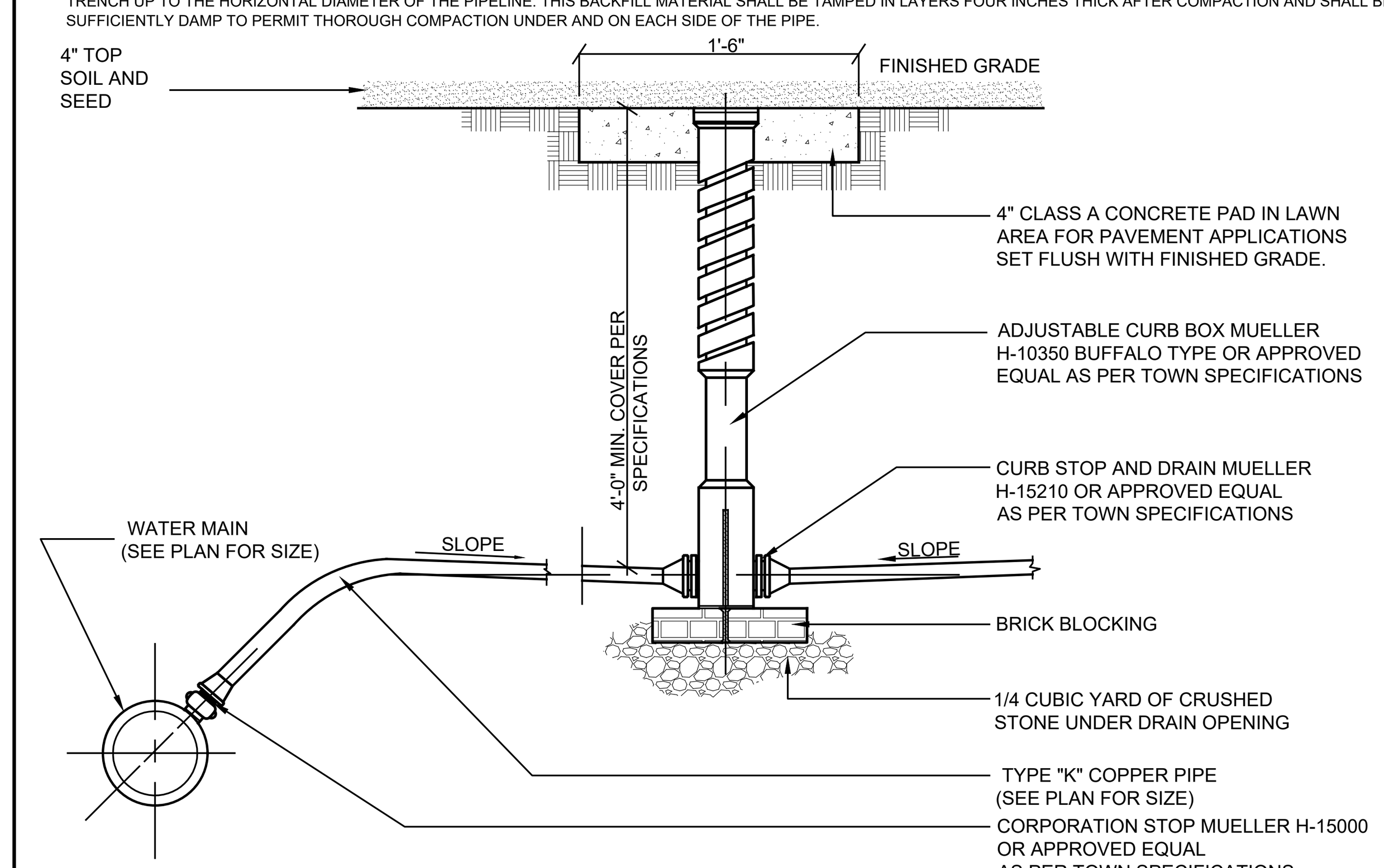
D-5 PRECAST CONCRETE SEWER / STORM DRAIN MANHOLE DETAIL

NOT TO SCALE



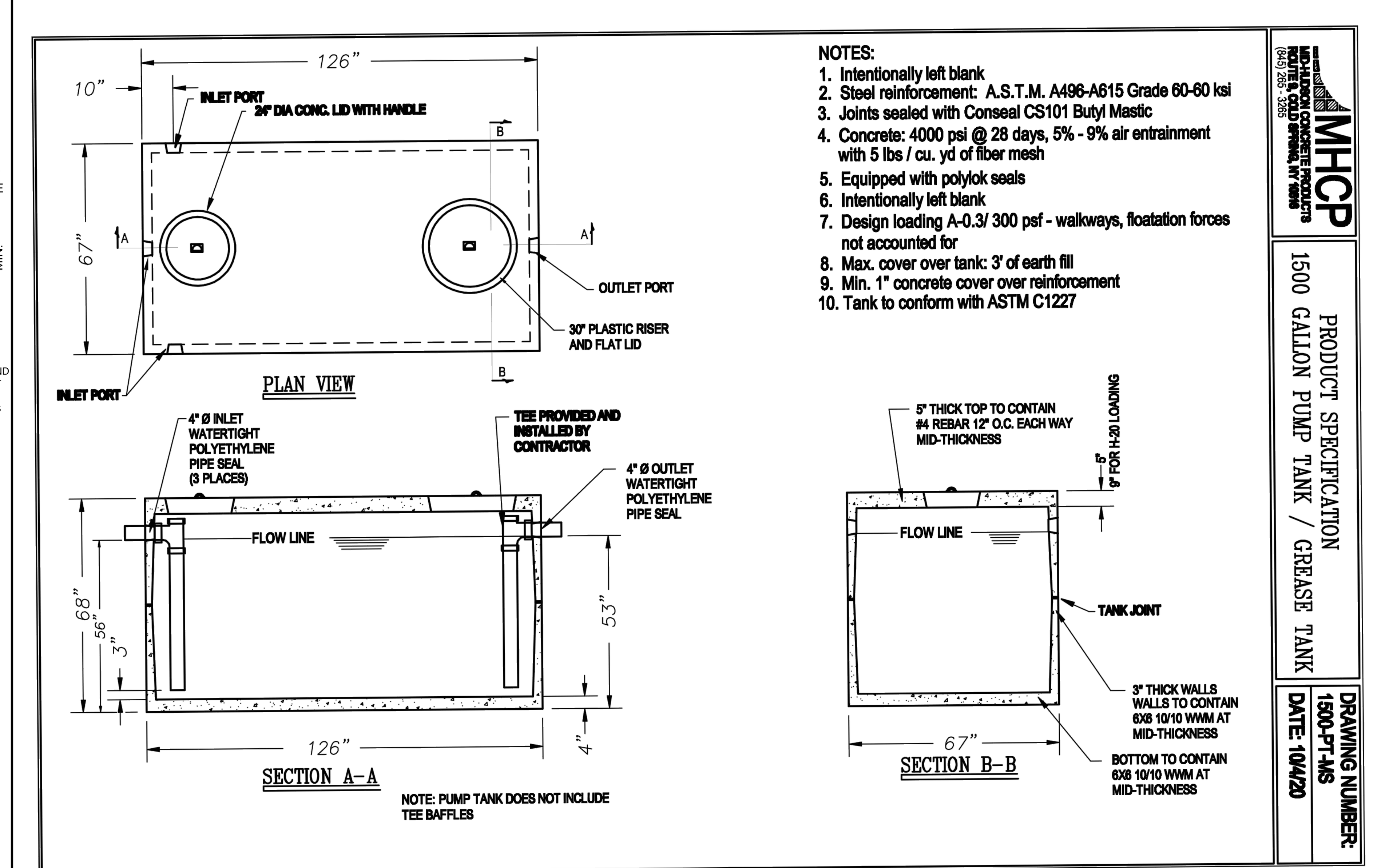
NOTES:

1. IN MATERIALS TO BE CONSIDERED AS UNSUITABLE (I.E. MUCK) MATERIAL IS TO BE REPLACED 24" BELOW THE PIPE INVERT AND REPLACED WITH GRAVEL BEDDING.
2. A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED IN THE TRENCH FOR ALL BURIED PIPE. BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE PIPE AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE. STONES FOUND IN THE TRENCH SHALL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF THE PIPE.MATERIALS SHALL BE CRUSHED STONE OR GRAVEL OF THE FOLLOWING GRADATION: 100% PASSING A WO-AND-ONE-HALF-INCH SIEVE, AND 90% RETAINED ON A ONE-FOURTH-INCH SIEVE. UNDERCUT BACKFILL SHALL BE PLACED TO THE DEPTH AS ORDERED BY THE ENGINEER. BACKFILL FROM SIX INCHES BELOW THE BOTTOM OUTSIDE OF THE PIPE TO 12 INCHES ABOVE THE TOP SHALL PASS THE REQUIREMENTS FOR NEW YORK STATE DEPARTMENT OF TRANSPORTATION ITEM 2 EF-B.
3. BACKFILLING BEFORE TESTS. BACKFILL MATERIAL SHALL BE APPROVED BY THE ENGINEER AND SHALL BE UNFROZEN AND FREE FROM ROCK, LUMPS OF CLAY, LARGE STONES, BOULDERS OR OTHER UNSUITABLE SUBSTANCES. BACKFILL SHALL BE DEPOSITED IN THE TRENCH UNIFORMLY AT BOTH SIDES OF THE PIPELINE FOR THE FULL WIDTH OF THE TRENCH UP TO THE HORIZONTAL DIAMETER OF THE PIPELINE. THIS BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS FOUR INCHES THICK AFTER COMPACTION AND SHALL BE SUFFICIENTLY DAMP TO PERMIT THOROUGH COMPACTION UNDER AND ON EACH SIDE OF THE PIPE.



W-1 WATER SERVICE CONNECTION DETAIL

NOT TO SCALE



SS-3 GREASE TRAP DETAIL

NOT TO SCALE

Site Design Consultants
Civil Engineers • Land Planners
251-F Underhill Avenue, Yorktown Heights, NY 10598
(914) 962-4488 • Fax: (914) 962-7386
www.sitedesignconsultants.com

PROJECT # 19-11

Engineer: Joseph C. Riina, P.E. NYS Lic. No. 64431

Revisions: No.	Date	Comments
1.	11/29/22	Plan Update

SCALE: NTS

DRAWN BY: TK

DATE: 10/21/22

UTILITY DETAILS

SITE PLAN PREPARED FOR PAD C

CROMPOND ROAD

Town of Yorktown Westchester County, New York

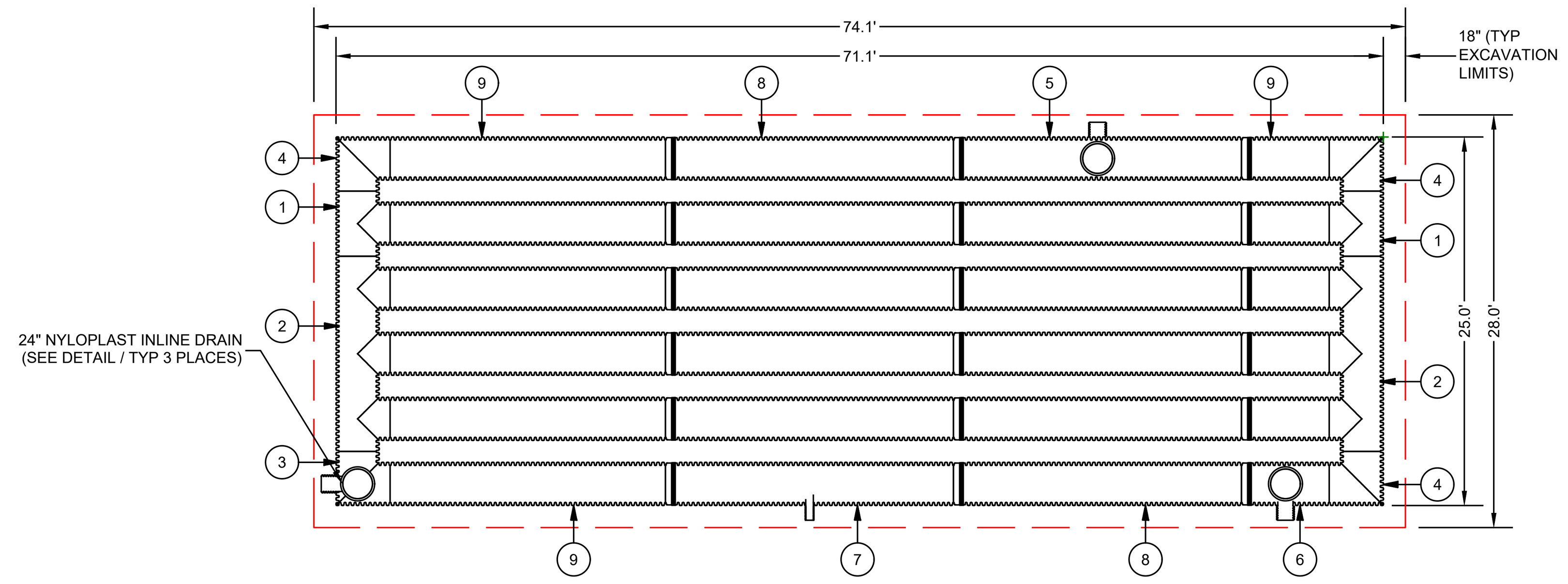
Sheet C-504

F:\2019\19-11 LOWES - BRESLIN REALTY\PAD C\ENGINEERING\CAD\

ITEM	QTY	ALT. QTY	PART #	DESCRIPTION	STAN.	VENDOR	NOTE
1	2		3051AN	30".SINGLE MANIFOLD TEE	STAN	ADS	SEE DETAIL
2	2		3053AN	30".TRIPLE MANIFOLD TEE	STAN	ADS	SEE DETAIL
3	1		3098ANC-1	30".MANIFOLD 90 DEG BEND	COMP	ADS	SEE DETAIL
3-1	1		1206AN	12".FAB STUB	STAN	ADS	COMPONENT
3-2	1		2403AN	24".MANIFOLD INLET RISER	STAN	ADS	COMPONENT
4	3		3098AN	30".MANIFOLD 90 DEG BEND	STAN	ADS	SEE DETAIL
5	1 STICKS	20 LF	STICK-1	30".N12 HWY.STIB.SOLID.20'	CUS	ADS	SEE DETAIL
6	1 STICKS	6 LF	STICK-2	30".N12 HWY.STIB.SOLID.20'	CUS	ADS	SEE DETAIL
7	1 STICKS	20 LF	STICK-3	30".N12 HWY.STIB.SOLID.20'	CUS	ADS	SEE DETAIL
8	10 STICKS	196 LF	30850020IB	30".N12 HWY.STIB.SOLID.20'	STAN	ADS	AS SHOWN
9	8 STICKS	143 LF	30850020IB	30".N12 HWY.STIB.SOLID.20'	STAN	ADS	FIELD CUT
10	18		3065AA	30".SPLIT COUPLER.(50/PALLET)	STAN	ADS	NOT SHOWN
11	2 ROLLS	662 SY	0601TG	601.15' X 300'.(500 SY).(NTPEP SCAN) (20% OVERAGE)	STAN	ADS	SEE DETAIL
12	3		2724AG	24" INLINE DRAIN SPEC W/GRATE	STAN	ADS	SEE DETAIL
13	8167 CF	303 CY	NA	EXCAVATION	NA	NA	NOT SHOWN

NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE PIPE COVER REQUIREMENTS ARE MET.
- STUB SIZES AND INVERTS TO BE VERIFIED BY THE SITE DESIGN ENGINEER PRIOR TO FABRICATION.
- ADS RISERS ARE FABRICATED 36" (900 mm) FROM TOP OF PIPE TO TOP OF RISER DUE TO SHIPPING LIMITATIONS. ADDITIONAL PIPE AND COUPLERS CAN BE USED TO EXTEND THE RISERS TO GRADE.
- LAYOUT SHOWN DOES NOT INCLUDE ADDITIONAL PIPE & MANIFOLD NEEDED FOR PROPER PIPE INSERTION INTO STRUCTURES.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.



ADS RETENTION/DETENTION PIPE SYSTEM SPECIFICATION

SCOPE
THIS SPECIFICATION DESCRIBES ADS RETENTION/DETENTION PIPE SYSTEMS FOR USE IN NON-PRESSURE GRAVITY-FLOW STORM WATER COLLECTION SYSTEMS UTILIZING A CONTINUOUS OUTFALL STRUCTURE.

PIPE REQUIREMENTS
ADS RETENTION/DETENTION SYSTEMS MAY UTILIZE ANY OF THE VARIOUS PIPE PRODUCTS BELOW:
- N-12 STIB PIPE (PER AASHTO) SHALL MEET AASHTO M 294, TYPE S OR ASTM F2306
- N-12 STIB PIPE (PER ASTM F2648) SHALL MEET ASTM F2648
- N-12 MEGA GREEN STIB SHALL MEET ASTM F2648

ALL PRODUCTS SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. ALL STIB PIPE PRODUCTS ARE AVAILABLE AS PERFORATED OR NON-PERFORATED. WTIB PIPE PRODUCTS ARE ONLY AVAILABLE AS NON-PERFORATED. PRODUCT-SPECIFIC PIPE SPECIFICATIONS ARE AVAILABLE IN THE DRAINAGE HANDBOOK SECTION 1 "SPECIFICATIONS".

JOINT PERFORMANCE
PLAIN END / SOIL-TIGHT (STIB):
STIB PIPE SHALL BE JOINED USING A BELL AND SPIGOT JOINT. THE BELL AND SPIGOT JOINT SHALL MEET THE SOIL-TIGHT REQUIREMENTS OF ASTM F2306 AND GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477.

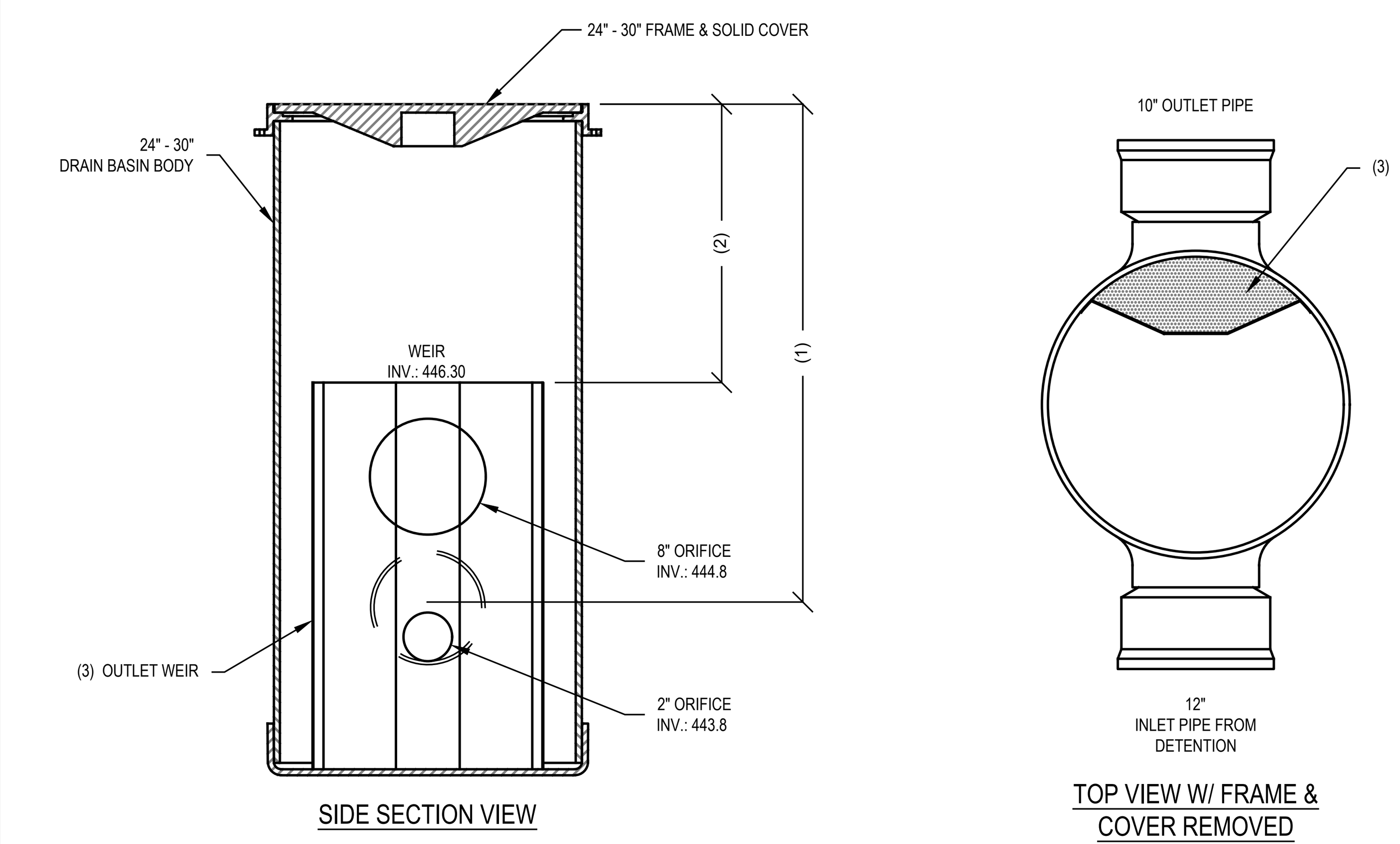
PLAIN END PIPE AND FITTINGS CONNECTIONS SHALL BE JOINED WITH COUPLING BANDS COVERING AT LEAST TWO FULL CORRUGATIONS ON EACH END OF THE PIPE. GASKETED SOIL-TIGHT COUPLING BAND CONNECTIONS SHALL INCORPORATE A CLOSED-CELL SYNTHETIC EXPANDED RUBBER GASKET MEETING THE REQUIREMENTS OF ASTM D1056 GRADE 2A2. GASKETS, WHEN APPLICABLE, SHALL BE INSTALLED BY THE PIPE MANUFACTURER.

FITTINGS
FITTINGS SHALL CONFORM TO ASTM F2306 AND MEET JOINT PERFORMANCE INDICATED ABOVE FOR FITTINGS CONNECTIONS. CUSTOM FITTINGS ARE AVAILABLE AND MAY REQUIRE SPECIAL INSTALLATION CRITERION.

INSTALLATION
INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 AND ADS RECOMMENDED INSTALLATION GUIDELINES, WITH THE EXCEPTION THAT MINIMUM COVER IN NON-TRAFFIC AREAS FOR 12-60 INCH (300-1500 mm) DIAMETERS SHALL BE 1 FT (0.3 m). MINIMUM COVER IN TRAFFICKED AREAS FOR 12-36 INCH (300-900 mm) DIAMETERS SHALL BE 1 FT (0.3 m) AND FOR 42-60 INCH (1050-1500 mm) DIAMETERS, THE MINIMUM COVER SHALL BE 2 FT (0.6 m). BACKFILL SHALL CONSIST OF CLASS I (COMPACTED) OR CLASS II (MINIMUM 95% SPD) MATERIAL, WITH THE EXCEPTION THAT 60 INCH (1500 mm) SYSTEMS SHALL USE CLASS I MATERIAL ONLY. MINIMUM COVER HEIGHTS DO NOT ACCOUNT FOR PIPE BUOYANCY. REFER TO ADS TECHNICAL NOTE 5.05 "PIPE FLOTATION" FOR BUOYANCY DESIGN CONSIDERATIONS. MAXIMUM COVER OVER SYSTEM USING STANDARD BACKFILL IS 8 FT (2.4 m); CONTACT A REPRESENTATIVE WHEN MAXIMUM FILL HEIGHT MAY BE EXCEEDED. ADDITIONAL INSTALLATION REQUIREMENTS ARE PROVIDED IN THE DRAINAGE HANDBOOK SECTION 6 "RETENTION/DETENTION".

ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

DETENTION OUTLET STRUCTURE DETAIL

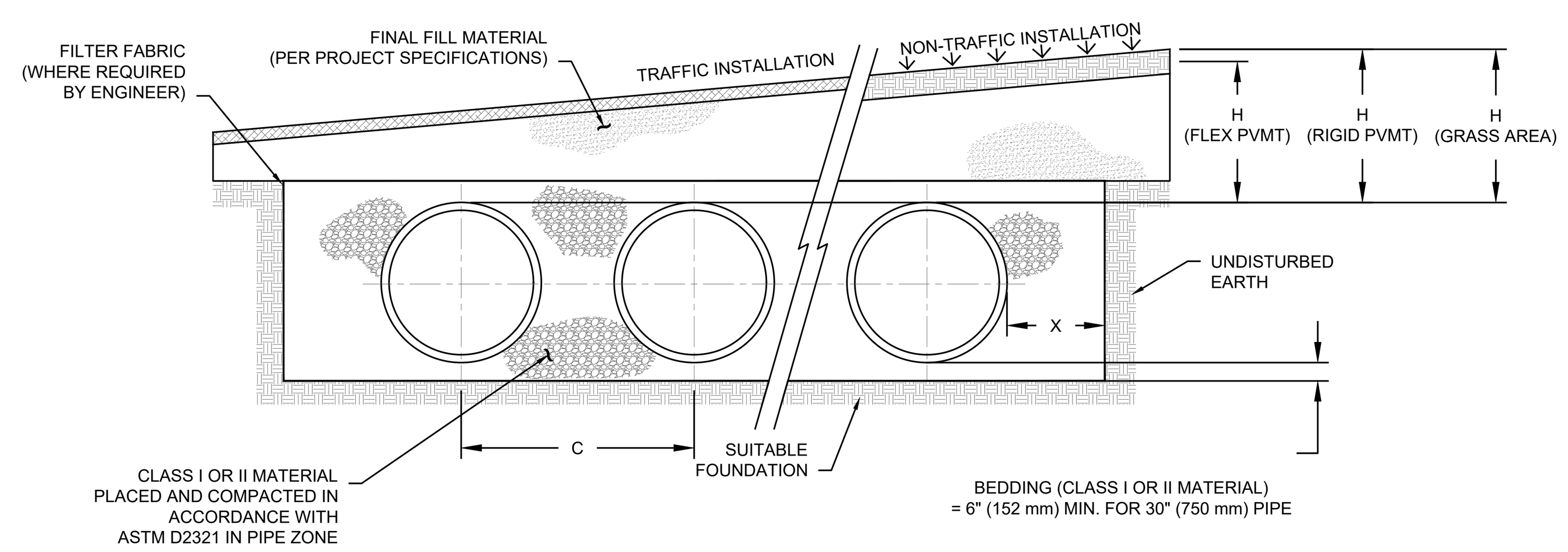


SIDE SECTION VIEW

TOP VIEW W/ FRAME & COVER REMOVED

1 - INVERT ELEVATIONS & LOCATIONS TO BE DETERMINED BY ENGINEER.
2 - HEIGHT OF WEIR TO BE DETERMINED BY ENGINEER. WEIR HEIGHT CANNOT EXCEED 84" DUE TO MANUFACTURING AND SHIPPING RESTRICTIONS.
3 - WEIR MANUFACTURED TO MINIMIZE LOSS OF OUTLET PIPE OPEN AREA SEE DRAWING NO. 7004-110-058 FOR DETAILS.
4 - ORIFICE HOLES AND SLOTS AVAILABLE AS REQUIRED BY ENGINEER DESIGN AND PERMITTED BY MANUFACTURING RESTRICTIONS.

DRAWN BY EBC	MATERIAL	Nyloplast — 3130 VERONA AVE, BUFORD, GA 30518, PHN (770) 932-2443, FAX (770) 932-2490, www.nyloplast-us.com
DATE 10-28-03		
REVISED BY CCA	PROJECT NO./NAME	TITLE: TYPICAL DRAIN BASIN WITH OUTLET WEIR FOR STORMTECH
DATE 01-17-12		
DWG SIZE A	SCALE 1:16 SHEET 1 OF 1	DWG NO. 7004-110-007 REV F

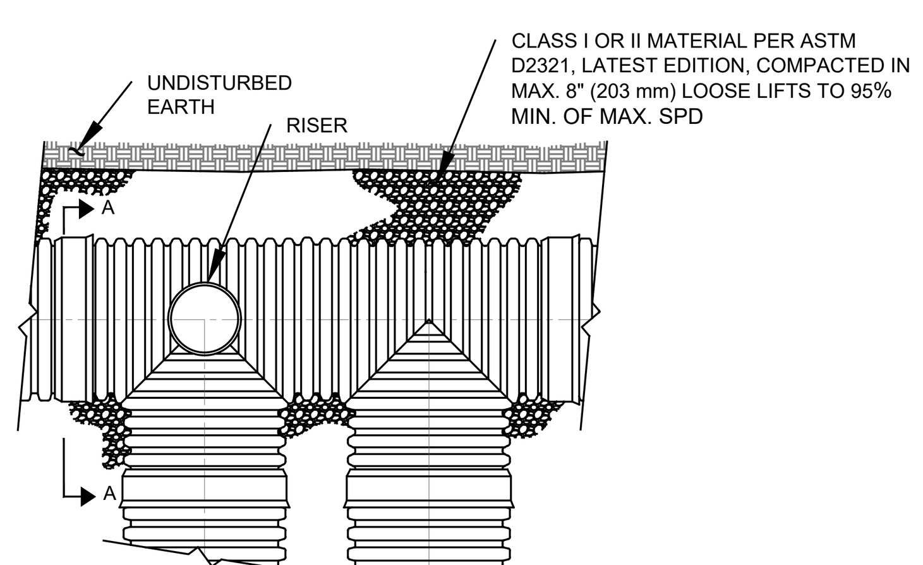


NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	MIN. H (NON-TRAFFIC)	MIN. H (TRAFFIC)	MAX. H*
30" (750 mm)	36" (914 mm)	53.1" (1349 mm)	18" (457 mm)	12" (305 mm)	12" (305 mm)	8' (2.4 m)

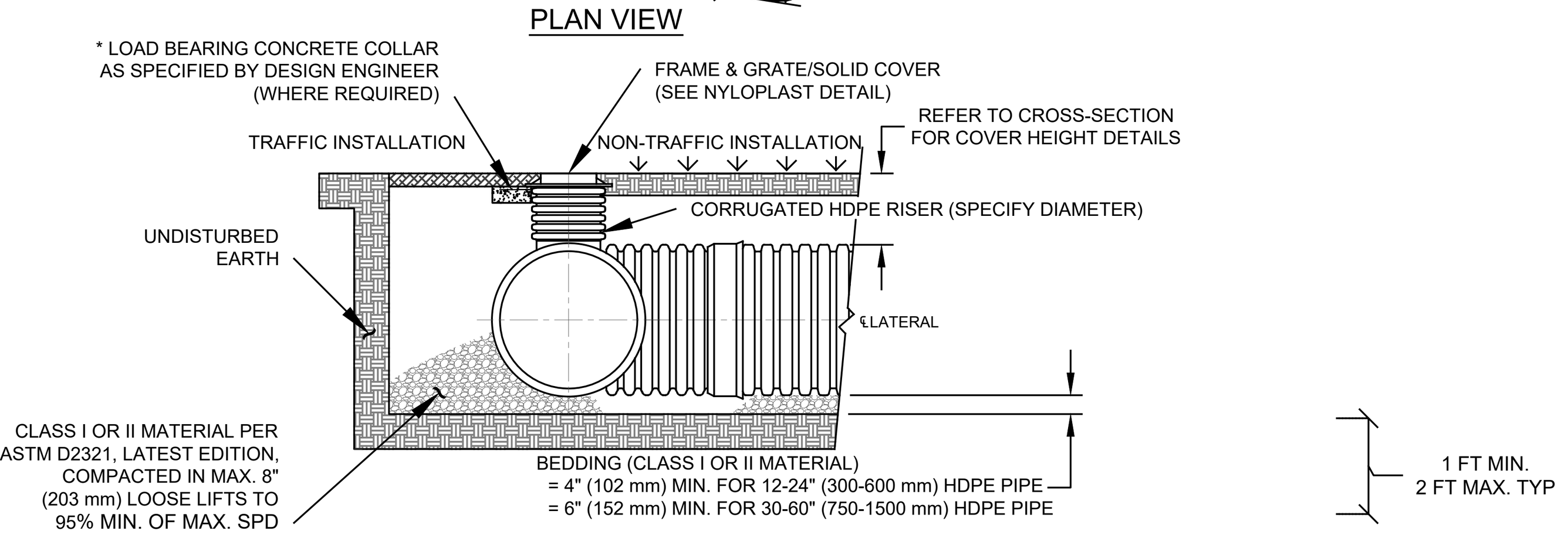
* MAXIMUM FILL HEIGHTS OVER MANIFOLD FITTINGS. CONTACT MANUFACTURER'S REPRESENTATIVE FOR INSTALLATION CONSIDERATIONS WHEN COVER EXCEEDS 8 FT (2.4 m).

NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE. THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (102 mm) FOR 4"-24" (100-600 mm); 6" (152 mm) FOR 30-60" (750-900 mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" (152 mm) ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (305 mm) FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" (305 mm) UP TO 36" (900 mm) DIAMETER PIPE AND 24" (610 mm) OF COVER FOR 42-60" (1050-1500 mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. MAXIMUM FILL HEIGHT LIMITED TO 8 FT (2.4 m) OVER FITTINGS FOR STANDARD INSTALLATIONS. CONTACT A SALES REPRESENTATIVE WHEN MAXIMUM FILL HEIGHTS EXCEED 8 FT (2.4 m) FOR INSTALLATION CONSIDERATIONS.



PLAN VIEW

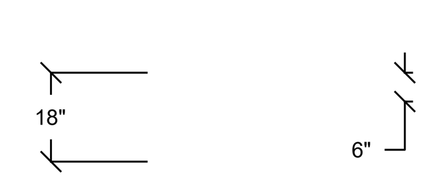


SECTION A-A

* LOAD BEARING CONCRETE COLLAR SHALL BE CONSTRUCTED IN TRAFFIC AREAS SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER.

NOTES:

1) ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS, INLETS AND OUTLETS, SHALL BE VERIFIED BY THE ENGINEER PRIOR TO RELEASING FOR FABRICATION.
2) IN SITUATIONS WHERE A FINE-GRAINED BACKFILL MATERIAL IS USED ADJACENT TO THE PIPE SYSTEM, AND ESPECIALLY INVOLVING GROUND WATER CONDITIONS, CONSIDERATION SHOULD BE GIVEN TO THE USE OF GASKETED PIPE JOINTS. AT THE VERY LEAST THE PIPE JOINTS SHOULD BE WRAPPED IN A SUITABLE, NON-WOVEN GEOTEXTILE FABRIC TO PREVENT INFILTRATION OF FINES INTO THE PIPE SYSTEM.
3) CONSIDERATION FOR CONSTRUCTION EQUIPMENT LOADS MUST BE TAKEN INTO ACCOUNT.
4) ALL PIPE DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.
5) ALL RISERS TO BE FIELD EXTENDED OR TRIMMED TO FINAL GRADE.



PROJECT # 19-11

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Civil Engineers • Land Planners
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Engineer: Joseph C. Riina, P.E. NYS Lic. No. 64431

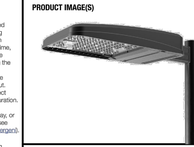
Revisions: No.	Date	Comments:
1.	11/29/22	Plan Update

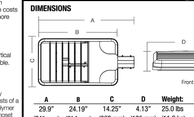
SCALE: NTS
DRAWN BY: TK
DATE: 10/21/22

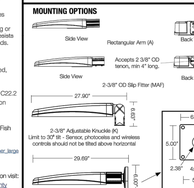
STORMWATER MANAGEMENT DETAILS

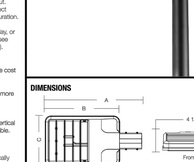
SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown, Westchester County, New York

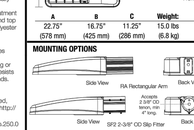
Sheet C-505

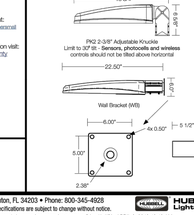


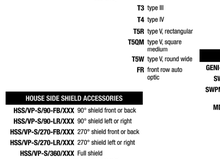


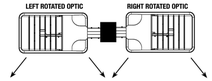












VIPER L
OPTICS
STRIKE
LARGE VIPER LUMINAIRE

Cat.#		
Job	Type	Approvals

BEACON design . performance . technology

SPECIFICATIONS

Intended Use:

The Beacon Viper luminaire is available in two sizes with a wide choice of different LED wattage configurations and optical distributions designed to replace HID lighting up to 1000W MH or HPS. Luminaires are suitable for wet locations.

Construction:

- Manufactured with die cast aluminum.
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements.
- External hardware is corrosion resistant.
- One piece optical cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel.
- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system.
- Two-piece silicone and microcellular polyurethane foam gasket ensures a weather-proof seal around each individual optic.

Electrical:

- Luminaire accepts 100V through 277V, 50 Hz to 60 Hz (UNV), 347V, or 480V input.
- Power factor is ≥ .90 at full load.
- Dimming drivers are standard, but must contact factory to request wiring leads for purpose of external dimming controls.
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher.
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only.
- Fixture electrical compartment shall contain all LED driver components and shall be provided with a push-button terminal block for AC power connections.
- Optional 7-pin ANSI C136.41-2013 twist-lock photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices.
- Ambient operating temperature -40°C to 40°C
- Surge protection - 20kA.
- Lifeshield™ Circuit - protects luminaire from excessive temperature. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range. Operation shall be smooth and undetectable to the eye. Thermal circuit is designed to “fail on”, allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers. The device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.).

Controls/Options:

- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the motion response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration.
- Available with Energeni for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night (see www.beaconproducts.com/products/energeni).
- In addition, Viper can be specified with **SiteSync™** wireless control system for reduction in energy and maintenance costs while optimizing light quality 24/7. For more details, see ordering information or visit: www.hubbelllighting.com/sitesync

Installation:

- Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included.

Finish:

- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish.
- The finish meets the AAMA 2604 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds.

Certifications/Ratings:

- DesignLights Consortium (DLC) qualified, consult DLC website for more details: http://www.designlights.org/QPL
- Certified to UL 1598, UL 8750, and CSA C22.2
- 3G rated for ANSI C136.31 high vibration applications with MAF mounting
- IDA approved
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: http://www.beaconproducts.com/products/viper_large

Warranty:

Five year limited warranty for more information visit: www.hubbelllighting.com/resources/warranty

PRODUCT IMAGE(S)

DIMENSIONS

A	B	C	D	Weight:	EPA
29.9” (741 mm)	24.19” (614 mm)	14.25” (362 mm)	4.13” (105 mm)	25.0 lbs (11.3 kg)	1.2 ft²

MOUNTING OPTIONS

CERTIFICATIONS/LISTINGS

C US
DARK SKY APPROVED 2016
DLC QPL LISTED
*3000K and warmer CCTs only

ORDERING INFORMATION ORDERING EXAMPLE: VPL/96L-280/4K7/4W/UNV/A/DB/7PR-TL/GENI-04/BC

VPL

SERIES	LED ENGINE	CCT/CRI[7]	ROTATION	VOLTAGE	COLOR	OPTIONS
VPL Viper	**64L-135** 135W LED array	**3K7** 3000K, 70 CRI	Leave blank for no rotation	**UNV** 120-277V	**BL** Black Textured	**F** Fusing
	80L-180 180W LED array	**4K7** 4000K, 70 CRI	**L**[5] Optic rotation left	**120** 120V	**DB** Dark Bronze Textured	**BSP** Bird Spikes
	80L-235 235W LED array	**5K7** 5000K, 70 CRI	**R**[5] Optic rotation right	**208** 208V	**GYS** Light Gray Smooth	**BC** Backsheid (available for FR, 2, 3, 4, 4W Optics)
	96L-220 220W LED array			**240** 240V	**PS** Platinum Silver Smooth	
	96L-280 280W LED array			**277** 277V	**WH** White Textured	
	96L-315 315W LED array			**347** 347V	**CC** Custom Color	
	96L-395 395W LED array			**480** 480V		

DISTRIBUTION

FR	Type 1/Front Row
2	Type 2
3	Type 3
4	Type 4
4W	Type 4 Wide
5QM	Type 5QM
5QN	Type 5QN
5R	Type 5R (rectangular)
5W	Type 5W (round wide)
TC	Tennis Court

MOUNTING

A	Rectangular Arm (formerly RA) for square or round pole
MAF	Mast Arm Fitter (formerly SF2) for 2-3/8” OD horizontal arm
K	Knuckle (formerly PK2) limit to 30° tilt or 2-3/8” OD horizontal arm or vertical tenon
WB	Wall Bracket
AD	Universal Arm for square pole
AD3	Universal Arm for 2.4”-4.1” round pole
AD4	Universal Arm for 4.2” -5.3” round pole
AD5	Universal Arm for 5.5” -5.9” round pole
AD6	Universal Arm for 6.0”-6.5” round pole

CONTROL OPTIONS

7PR	7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)
7PR-SC	7-Pin Receptacle w/Shorting Cap
7PR-TL	7-Pin Receptacle w/Twist Lock photo control
SCP/_F[1,2,6]	Programmable Occupancy Sensor w/ daylight control
GENI-XX[3]	ENERGENI
SWP[1,4]	SiteSync Pre-Commission
SWPM[1,2,4]	SiteSync Pre-Commission w/ Sensor

HOUSE SIDE SHIELD ACCESSORIES

HSS/EVP-L/90-FB/XXX	90° shield front or back
HSS/EVP-L/90-LR/XXX	90° shield left or right
HSS/EVP-L/270-FB/XXX	270° shield front or back
HSS/EVP-L/270-LR/XXX	270° shield left or right
HSS/EVP-L/360/XXX	Full shield

(Replace XXX with notation for desired finish color)
(Refer to page 5 for shield images)

MOUNTING ACCESSORIES

VPL-AD-RPA3	2.4”-4.1” Round Pole Adapter for AD arm
VPL-AD-RPA4	4.2”-5.3” Round Pole Adapter for AD arm
VPL-AD-RPA5	5.5”-5.9” Round Pole Adapter for AD arm
VPL-AD-RPA6	6.0”-6.5” Round Pole Adapter for AD arm

[1] Not available with other wireless control or sensor options
[2] Specify mounting height; 8 = 8’ or less, 40 = 9’ to 40’
[3] Specify routine setting code (example GENI-04). See ENERGENI brochure and instructions for setting table and options. Not available with sensor or SiteSync options.
[4] Specify group and zone at time of order. See www.hubbelllighting.com/sitesync for further details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
[5] Only available with FR, 2, 3, 4, 4W and 5R distributions
[6] Order at least one SCP-REMOTE per project location to program and control the occupancy sensor
[7] This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: http://cdn.beaconproducts.com/content/products/specs/specs_files/Viper_Large_LED_turtle_spec_sheet.pdf

PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit www.hubbell-automation.com/products/sitesync/ or contact Hubbell Lighting tech support at (800) 345-4928.

SiteSync fixtures with Motion control (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: VP-L/80L-235/4K7/3/UNV/A/DB/SWP/ SiteSync only
VP-L/80L-235/4K7/3/UNV/A/DB/SWPM-40F/ SiteSync with Motion Control

Accessories and Services (Ordered Separately)

Catalog Number	Description
SCP-REMOTE	Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor
SWUSB*	SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node
SWTAB*	Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node.
SWBRG	SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested.
SW7PR+	SiteSync 7 Pin on fixture module On/Off/Dim, Daylight Sensor 120-480VAC

* When ordering SiteSync at least one of these two interface options must be ordered per project.
+ Available as a SiteSync retrofit solution for fixtures with an existing 7pin receptacle.

Hubbell Control Solutions - Accessories (sold separately)

Catalog Number	Description	HCS System
NXOFM-1R1D-UNV	On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbNET Radio and Bluetooth® Radio, 120-480VAC	NX Distributed Intelligence™
WIR-RME-L	On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110-480VAC	wiSCAPE® Lighting Control

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

SiteSync 7-Pin Module

SW7PR

- SiteSync features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)
- Does no interface with occupancy sensors

SiteSync LIGHTING CONTROL

PERFORMANCE DATA

				5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
# LED’S	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	LUMENS	LPW[1]	B	U	G	LUMENS	LPW[1]	B	U	G	LUMENS	LPW[1]	B	U	G
64	625 mA	135W	1A	18220	132	2	0	2	18783	137	2	0	2	16341	119	2	0	2
			2	17228	125	2	0	2	17761	129	2	0	2	15452	112	2	0	2
			3	17257	125	2	0	3	17791	129	2	0	3	15478	112	2	0	3
			4	16864	123	1	0	4	17386	126	1	0	4	15125	110	1	0	3
			4W	16648	112	2	0	4	17163	115	2	0	4	14931	100	2	0	4
			5QM	17259	125	4	0	2	17792	129	4	0	2	15479	112	4	0	2
			5QN	18023	131	4	0	0	18580	135	4	0	0	16165	117	4	0	0
			5R	17410	127	4	0	4	17948	130	4	0	4	15615	113	4	0	4
			5W	16498	120	4	0	2	17009	124	4	0	3	14797	108	4	0	2
			TC	15925	110	2	1	2	16417	113	2	1	2	14283	98	1	1	2
80	700 mA	180W	1A	23230	128	2	0	2	23948	132	2	0	2	20835	115	2	0	2
			2	21965	121	3	0	3	22645	125	3	0	3	19701	109	2	0	3
			3	22003	121	2	0	4	22683	125	3	0	4	19734	109	2	0	4
			4	21502	119	2	0	4	22167	122	2	0	4	19285	106	2	0	4
			4W	20810	112	2	0	4	21627	116	2	0	4	18664	100	2	0	4
			5QM	22005	121	4	0	2	22686	125	4	0	2	19736	109	4	0	2
			5QN	22979	127	4	0	1	23689	131	4	0	1	20610	114	4	0	0
			5R	22197	122	4	0	4	22884	126	4	0	4	19909	110	4	0	4
			5W	21035	116	5	0	3	21686	120	5	0	3	18867	104	4	0	3
			TC	19906	110	2	1	2	20522	113	2	1	2	17854	98	2	1	2
80	875 mA	235W	1A	27849	121	2	0	2	28711	125	2	0	2	24978	108	2	0	2
			2	26334	114	3	0	3	27148	118	3	0	4	23619	102	3	0	3
			3	26378	114	3	0	4	27194	118	3	0	4	23659	103	3	0	4
			4	25777	112	2	0	4	26575	115	2	0	5	23120	100	2	0	4
			4W	25109	106	2	0	5	25886	109	2	0	5	22521	95	2	0	5
			5QM	26381	114	4	0	2	27196	118	4	0	2	23661	103	4	0	2
			5QN	27548	119	5	0	1	28400	123	5	0	1	24708	107	5	0	1
			5R	26611	115	5	0	5	27434	119	5	0	5	23868	104	4	0	4
			5W	25218	109	5	0	3	25998	113	5	0	3	22619	98	5	0	3
			TC	23864	103	2	1	2	24602	107	2	1	2	21404	93	2	1	2
96	700 mA	220W	1A	27876	128	2	0	2	28738	132	2	0	2	25002	115	2	0	2
			2	26359	121	3	0	3	27174	125	3	0	4	23641	109	3	0	3
			3	26403	121	3	0	4	27220	125	3	0	4	23681	109	3	0	4
			4	25802	119	2	0	4	26600	122	2	0	5	23142	106	2	0	4
			4W	24651	113	3	0	5	25413	117	3	0	5	22109	102	2	0	4
			5QM	26406	121	4	0	2	27222	125	4	0	2	23684	109	4	0	2
			5QN	27575	127	5	0	1	28427	131	5	0	1	24732	114	5	0	1
			5R	26637	122	5	0	5	27460	126	5	0	5	23891	110	4	0	4
			5W	25242	116	5	0	3	26023	120	5	0	3	22640	104	5	0	3
			TC	23887	110	2	1	2	24626	113	2	1	2	21424	98	2	1	2
96	875 mA	280W	1A	33419	121	3	0	2	34453	125	3	0	2	*29974*	*108*	*2*	*0*	*2*
			2	31600	114	3	0	4	32577	118	3	0	4	*28342*	*102*	*3*	*0*	*4*
			3	31654	114	3	0	5	32633	118	3	0	5	*28390*	*103*	*3*	*0*	*4*
			4	30933	112	2	0	5	31889	115	2	0	5	*27744*	*100*	*2*	*0*	*5*
			4W	30131	106	3	0	5	31063	109	3	0	5	*27025*	*95*	*3*	*0*	*5*
			5QM	31657	114	5	0	3	32636	118	5	0	3	*28393*	*103*	*4*	*0*	*2*
			5QN	33058	119	5	0	1	34080	123	5	0	1	*29650*	*101*	*5*	*0*	*1*
			5R	31933	115	5	0	5	32921	119	5	0	5	*28641*	*104*	*5*	*0*	*5*
			5W	30262	109	5	0	4	31198	113	5	0	4	*27142*	*98*	*5*	*0*	*3*
			TC	28642	104	2	1	3	29528	107	2	1	3	*25690*	*93*	*2*	*1*	*3*
96	1000mA	315W[2]	1A	35666	113	3	0	2	36769	117	3	0	2	*31989*	*101*	*2*	*0*	*2*
			2	33725	107	3	0	4	34768	110	3	0	4	*30248*	*96*	*3*	*0*	*4*
			3	33782	107	3	0	5	34827	110	3	0	5	*30299*	*96*	*3*	*0*	*4*
			4	33012	105	2	0	5	34033	108	2	0	5	*29609*	*94*	*2*	*0*	*5*
			4W	32158	106	3	0	5	33153	109	3	0	5	*28842*	*95*	*3*	*0*	*5*
			5QM	33785	107	5	0	3	34830	110	5	0	3	*30302*	*96*	*5*	*0*	*2*
			5QN	35280	112	5	0	1	36371	115	5	0	1	*31643*	*100*	*5*	*0*	*1*
			5R	34080	108	5	0	5	35134	111	5	0	5	*30567*	*97*	*5*	*0*	*5*
			5W	32302	102	5	0	4	33301	106	5	0	4	*28972*	*92*	*5*	*0*	*4*
			TC	30568	97	2	1	3	31513	100	3	1	3	*27416*	*87*	*2*	*1*	*3*
96	1225mA	395W[2]	1A	39569	101	3	0	4	43125	110	3	0	3	*37518*	*96*	*3*	*0*	*2*
			2	39569	101	3	0	4	40793	104	3	0	4	*35490*	*91*	*3*	*0*	*4*
			3	39619	101	3	0	5	40845	104	3	0	5	*35535*	*91*	*3*	*0*	*5*
			4	38723	98	3	0	5	39921	101	3	0	5	*34731*	*88*	*2*	*0*	*5*
			4W	37720	106	3	0	5	38887	109	3	0	5	*33831*	*95*	*3*	*0*	*5*
			5QM	39623	101	5	0	3	40848	104	5	0	3	*35538*	*90*	*5*	*0*	*3*
			5QN	41394	105	5	0	1	42675	109	5	0	1	*37127*	*95*	*5*	*0*	*1*
			5R	39969	102	5	0	5	41205	105	5	0	5	*35848*	*91*	*5*	*0*	*5*
			5W	37877	97	5	0	4	39048	100	5	0	4	*33986*	*87*	*5*	*0*	*4*
			TC	35850	90	3	1	3	36959	93	3	1	3	*32154*	*81*	*3*	*1*	*3*

[1] Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.
[2] 315W and 395W 3000K versions are not DLC QPL listed. Reference highlighted cells in table.

PHOTOMETRICS

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
64	1	625 mA	120	135	1.4
			277		0.6
			347		0.5
			480		0.3
80	2	700 mA	120	180	1.8
			277		0.8
			347		0.6
			480		0.5
80	2	875 mA	120	235	2.4
			277		1.0
			347		0.8
			480		0.6
96	2	700 mA	120	220	2.2
			277		1.0
			347		0.8
			480		0.6
96	2	875 mA	120	280	2.8
			277		1.2
			347		1.0
			480		0.7
96	2	1000 mA	120	315	3.2
			277		1.4
			347		1.1
			480		0.8
96	2	1225 mA	120	395	4.0
			277		1.7
			347		1.4
			480		1.0

PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP.	0	25,000	50,000	[1]TM-21-11 60,000	100,000	Calculated L70 (HOURS)
25°C / 77°C	1	0.98	0.97	0.97	0.96	>377,000

[1] Projected per IESNA TM-21-11
Data references the extrapolated performance projections for the 700mA base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

DRILL PATTERN

EPA

Config.	EPA
1	1.2
2 @ 90°	1.9
2 @ 180°	2.4

Config.	EPA
3 @ 120°	3.0
3 @ 90°	3.1
4 @ 90°	3.8

VIPER S
SERIES
SMALL VIPER LUMINAIRE

Cat.#		
Job	Type	Approvals

BEACON design . performance . technology

SPECIFICATIONS

Intended Use:

The Beacon Viper luminaire is available with a wide choice of different LED Wattage configurations and optical distributions designed to replace HID lighting up to 400W MH or HPS.

Construction:

- Manufactured with die cast aluminum.
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements.
- External hardware is corrosion resistant.
- One piece optical cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel.
- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system.
- Two-piece silicone and micro-cellular polyurethane foam gasket ensures a weather-proof seal around each individual LED.

Electrical:

- 100V through 277V, 50 Hz to 60 Hz (UNV), or 347V or 480V input.
- Power factor is ≥.90 at full load.
- Dimming drivers are standard, but must contact factory to request wiring leads for purpose of external dimming controls.
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher.
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only.
- Fixture electrical compartment shall contain all LED driver components and shall be provided with a push-button terminal block for AC power connections.
- The housing is designed for an optional twist lock photo control receptacle.
- Ambient operating temperature -40°C to 40°C
- Surge protection - 20KA.
- Optional 7-pin ANSI C136.41-2013 twist-lock photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices.
- Lifeshield™ Circuit - protects luminaire from excessive temperature. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range. Operation shall be smooth and undetectable to the eye. Thermal circuit is designed to “fail on”, allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers. The device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.).

Controls/Options:

- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the Motion Response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration.
- Available with Energeni for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night (see www.beaconproducts.com/products/energeni).
- In addition, Viper can be specified with **SiteSync™** wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit www.hubbelllighting.com/sitesync for more details.

Installation:

- Mounting options for horizontal armd, vertical tenon or traditional arm mounting available. Mounting hardware included.

Finish:

- IFS polyester powder-coat electro-statically applied and thermocured.
- IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermosetsuper TGIC polyester powder coat finish.
- The finish meets the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds.

Listings:

- DesignLights Consortium (DLC) qualified, consult DLC website for more details: http://www.designlights.org/QPL
- Certified to UL 1598 and CSA C22.2 No.250.0
- IDA approved
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: http://www.beaconproducts.com/products/vipersmall

Warranty:

Five year limited warranty for more information visit: www.hubbelllighting.com/resources/warranty

PRODUCT IMAGE(S)

DIMENSIONS

A	B	C	Weight:	EPA
22.75” (578 mm)	16.75” (425 mm)	11.25” (286 mm)	15.0 lbs (6.8 kg)	.67 ft²

MOUNTING OPTIONS

CERTIFICATIONS/LISTINGS

C US
DLC QPL LISTED
DARK SKY APPROVED 2016
*3000K and warmer CCTs only

ORDERING INFORMATION ORDERING EXAMPLE: VPS/36NB-80/5K/T4/UNV/PEC/SWP/BLC/RA/BBT

VPS

SERIES	ENGINE-WATTS	LED COLOR[8]	VOLTAGE	ELECTRICAL OPTIONS	HOUSE SIDE SHIELD OPTIONS	FINISH
VPS viper-small	**24NB-55** 55W, LED array	**3K** 3000K	**UNV** 120-277V	**7PR**[9] 7-PIN Receptacle only	**BLC**[3] backlight control	**BBT** basic black textured
	36NB-80 80W, LED array	**4K** 4000K	**347V** 347V	**PCR-TL** 7-PIN Receptacle w/ Twist Lock photo control		**BMT** black matte textured
	48NB-110 110W, LED array	**5K** 5000K	**480V** 480V	**PCR-SC** 7-PIN Receptacle w/ Shorting Cap		**WHT** white textured
	60NB-136 136W, LED array			**2PF**[7] dual power feed		**MBT** metallic bronze textured
						BZT bronze textured
						DBT dark bronze textured
						GYS gray smooth
						DPS dark platinum smooth
						GNT green textured
						MST metallic silver textured
						MTT metallic titanium textured
						OWI old world iron
						RAL ____________

OPTICS[4]

T1	type I
T2	type II
T3	type III
T4	type IV
T5R	type V, rectangular
T5QM	type V, square medium
T5W	type V, round wide
FR	front row auto optic

BIRD DETERRENT

BSP	bird spike

MOUNTING OPTIONS

RA	rectangular arm for round or square pole mount. RPA included.
SF2	2 3/8” OD slip-fitter
PK2	2 3/8” adjustable knuckle
	wall bracket (use with SF2 or PK2), SF2 standard

CONTROL OPTIONS

GENI-XX[6]	Energeni
SWP[1,5]	SiteSync Wireless Pre-Commission
SWPM[1,2,5]	SiteSync Wireless Pre-Commission w/ Motion Detection
MDD[2,5]	Motion Dimming Detector

HOUSE SIDE SHIELD ACCESSORIES

HSS/VP-S/90-FB/XXX	90° shield front or back
HSS/VP-S/90-LR/XXX	90° shield left or right
HSS/VP-S/270-FB/XXX	270° shield front or back
HSS/VP-S/270-LR/XXX	270° shield left or right
HSS/VP-S/360/XXX	Full shield

(Replace XXX with notation for desired finish color)
(Refer to page 5 for shield images)

[1] Must specify group and zone information at time of order. See www.hubbelllighting.com/controls/sitesync for further details.
[2] Specify time delay; dimming level and mounting height.
[3] T4 optic only.
[4] To rotate optics Left or right 90 degrees, specify L or R after the optical distribution example T4L.
[5] Not available with other wireless control or sensor options.
[6] When ordering Energeni, specifiy the routine setting code (example GENI-04). See Energeni brochure and instructions for setting table and options. Not available with sensor options.
[7] Not available for 347V or 480V input.
[8] This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: http://cdn.beaconproducts.com/content/products/specs/specs_files/Viper_Small_LED_turtle_spec_sheet.pdf
[9] Shorting cap, phot control, or wireless control provided by others

PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit www.HubbellLighting.com/products/sitesync or contact Hubbell Lighting tech support at (800) 345-4928.

SiteSync fixtures with Motion control (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: VP-S/24NB-55/5K/T3/UNV/SWP/RA/DBT SiteSync only
VP-S/24NB-55/5K/T3/UNV/SWPM-20F/RA/DBT SiteSync with Motion Control

MDD ORDERING INFORMATION: When ordering a fixture with the motion detection option (MDD), please specify the appropriate information. These settings are specified in the ordering as shown in the example below.

VP-S/24NB-55/5K/T3/UNV/MDD - 1 to 30 min. - 33% or 50% - ?? / RA/DBT
High to Dim Delay Low Level Mounting Height (ft.)

Accessories and Services (Ordered Separately)

Catalog Number	Description
SWUSB*	SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node
SWTAB*	Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node.
SWBRG	SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested.
SCP-REMOTE	Remote Control for SCP/_F option. Order at least one per project to program and control
SW7PR+	SiteSync 7 Pin on fixture module On/Off/Dim, Daylight Sensor 120-480VAC

* When ordering SiteSync at least one of these two interface options must be ordered per project.
+ Available as a SiteSync retrofit solution for fixtures with an existing 7pin receptacle.

Hubbell Control Solutions - Accessories (sold separately)

Catalog Number	Description	HCS System
NXOFM-1R1D-UNV	On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbNET Radio and Bluetooth® Radio, 120-480VAC	NX Distributed Intelligence™
WIR-RME-L	On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110-480VAC	wiSCAPE® Lighting Control

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

SiteSync 7-Pin Module

SW7PR

- SiteSync features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)
- Does no interface with occupancy sensors

SiteSync LIGHTING CONTROL

PERFORMANCE DATA

				5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
# LED’S	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	LUMENS	LPW[1]	B	U	G	LUMENS	LPW[1]	B	U	G	LUMENS	LPW[1]	B	U	G
24	700 mA	55 W	FR/T1	6339	114	1	0	1	6276	112	1	0	1	5389	97	1	0	1
			T2	5666	102	2	0	2	5610	101	2	0	2	4816	86	1	0	2
			T3	5610	101	1	0	2	5554	100	1	0	2	4784	86	1	0	2
			T4	6171	111	1	0	2	6110	109	1	0	2	5245	94	1	0	2
			T5R	6283	113	3	0	3	6221	111	3	0	3	5341	96	3	0	3
			T5QM	6171	111	3	0	1	6110	109	3	0	1	5245	94	2	0	1
			T5W	6087	109	3	0	1	6027	108	3	0	1	5201	93	3	0	1
36	700 mA	80 W	FR/T1	9515	114	1	0	1	9414	112	1	0	1	8083	96	1	0	1
			T2	8505	101	2	0	3	8415	100	2	0	3	7224	87	2	0	2
			T3	8415	100	2	0	2	8331	99	2	0	2	7175	86	2	0	2
			T4	9256	110	1	0	3	9164	109	1	0	3	7868	94	1	0	3
			T5R	9425	112	3	0	3	9331	111	3	0	3	8011	96	3	0	3
			T5QM	9257	110	3	0	1	9164	109	3	0	1	7868	94	3	0	1
			T5W	9131	109	3	0	2	9040	108	3	0	2	7801	93	3	0	2
48	700 mA	110 W	FR/T1	12679	114	2	0	1	15522	113	2	0	1	10777	97	1	0	1
			T2	11332	102	3	0	3	11220	101	3	0	3	9633	87	2	0	3
			T3	11220	101	2	0	3	11108	100	2	0	3	9567	86	2	0	3
			T4	12342	111	2	0	3	12219	110	2	0	3	10491	95	2	0	3
			T5R	12567	113	4	0	4	12441	112	4	0	4	10682	96	3	0	3
			T5QM	12342	111	3	0	2	12219	111	3	0	2	10491	95	3	0	2
			T5W	12175	110	4	0	2	12053	109	4	0	2	10402	94	4	0	2
60	700 mA	136 W	FR/T1	15848	116	2	0	1	15690	115	2	0	1	13471	98	2	0	1
			T2	14165	103	3	0	3	14025	102	3	0	3	12041	88	3	0	3
			T3	14025	102	3	0	3	13885	101	3	0	3	11959	87	3	0	3
			T4	15427	113	2	0	3	15274	111	2	0	3	13114	96	2	0	3
			T5R	15708	115	4	0	4	15259	111	4	0	4	13352	97	4	0	4
			T5QM	15427	113	4	0	2	15274	111	4	0	2	13314	96	3	0	2
			T5W	15218	111	4	0	2	15066	111	4	0	2	13002	95	4	0	2

[1] Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

PHOTOMETRICS

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
24	2	700 mA	120	55	0.5
			277		0.2
			347		0.2
			480		0.1
36	1	700 mA	120	80	0.7
			277		0.3
			347		0.2
			480		0.2
48	1	700 mA	120	110	0.9
			277		0.4
			347		0.3
			480		0.2
60	1	700 mA	120	136	1.1
			277		0.5
			347		0.4
			480		0.3

PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP.	0	25,000	50,000	[1]TM-21-11 60,000	100,000	Calculated L70 (HOURS)
25°C / 77°C	1.00	0.97	0.95	0.95	0.92	>470,000

[1] Projected per IESNA TM-21-11
Data references the extrapolated performance projections for the base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.98
40°C	104°F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

EPA

Config.	EPA
1	.67
2 @ 90°	1.06
2 @ 180°	1.34

Config.	EPA
3 @ 120°	1.68
3 @ 90°	1.73
4 @ 90°	2.02

DRILL PATTERN

NOTE:
1. LIGHT POLES AND FIXTURES ARE TO BE PROVIDED BY THE OWNER. THE CONTRACTOR SHALL PROVIDE THE BASES..

NOTE: UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW

F:\2019\19-11 LOWES - BEES\N REALTY\PAD C\ENGINEERING\CAD\C3D-21-21 PAD C\DWG\19-11 LOWES PAD C DETAILS.DWG 1/16/2017 3:19:52 PM

PROJECT #19-11

Site Design Consultants
Civil Engineers • Land Planners
251-F Underhill Avenue, Yorktown Heights, NY 10598
(914) 962-4488 - Fax: (914) 962-7386
www.sitedesignconsultants.com

Engineer:
STATE OF NEW YORK
JOSEPH CARLO RIINA
No. 64431
Joseph C. Riina, P.E.
NYS Lic. No. 64431

Revisions:

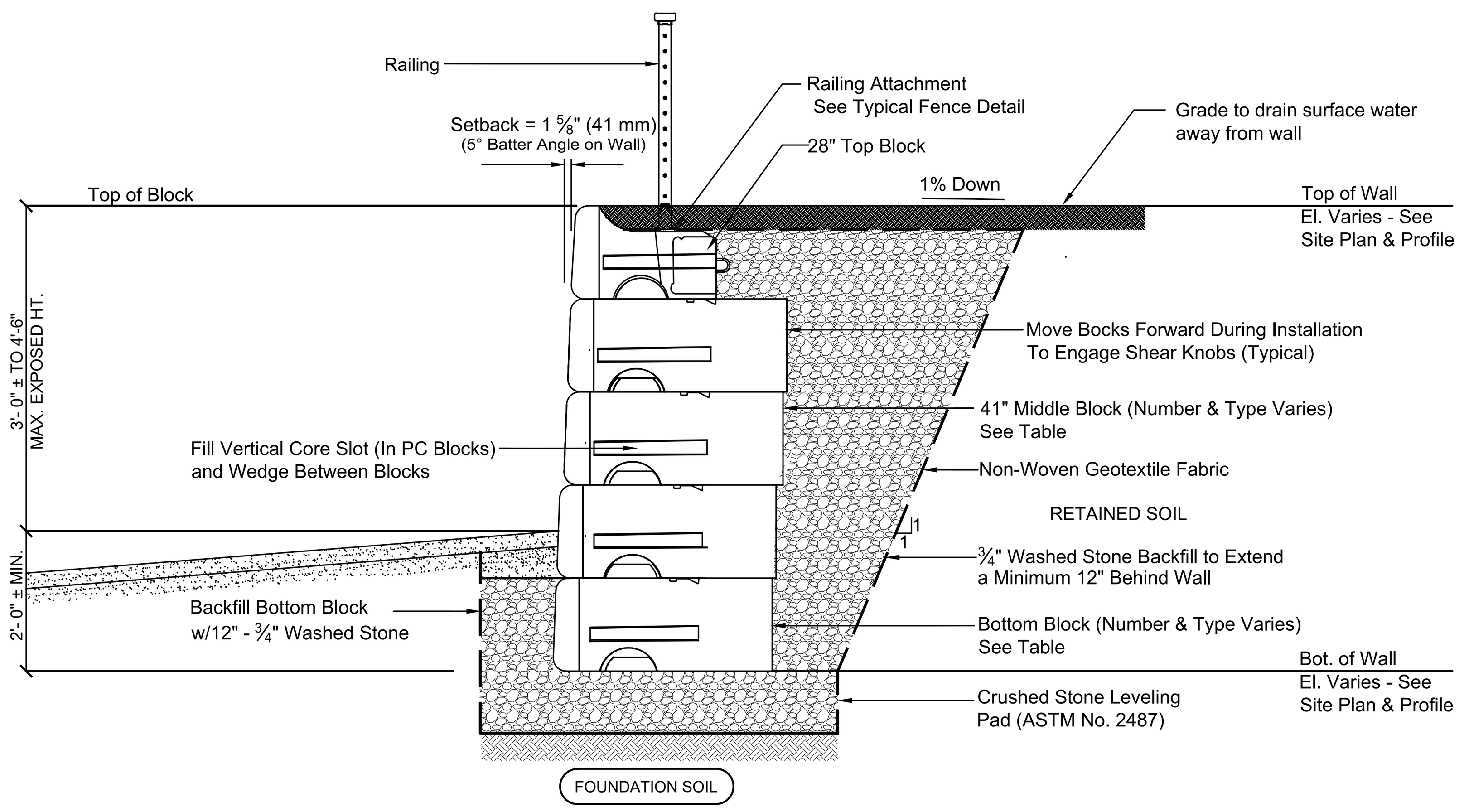
No.	Date	Comments:
1.	11/29/22	Plan Update

SCALE: NTS
DRAWN BY: TK
DATE: 10/21/22

LIGHTING DETAILS

SITE PLAN
PREPARED FOR
PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet
C-506



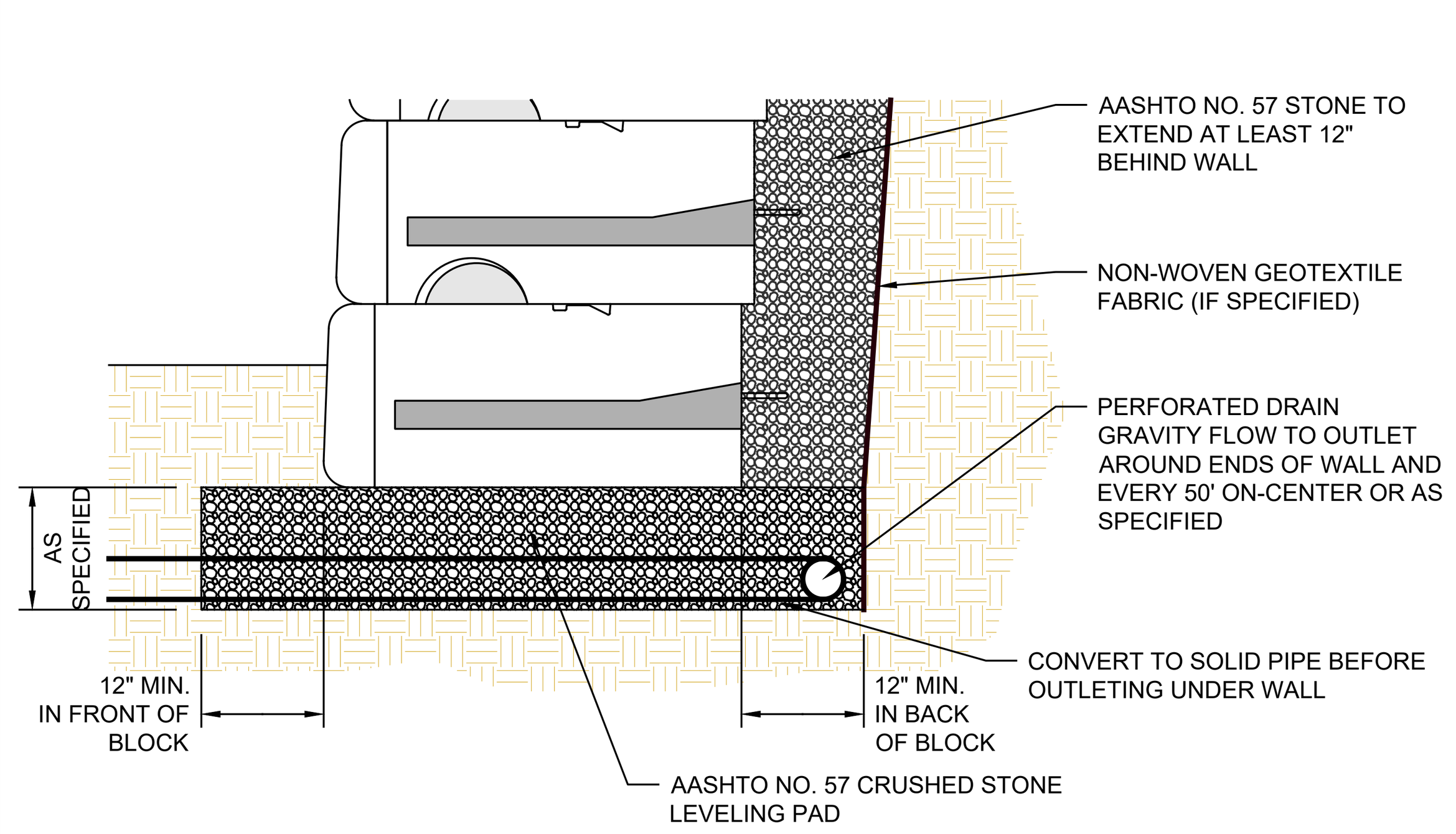
Note: The retaining wall as designed meets the minimum factors of safety for sliding, overturning, and settlement

TABLE I - TYPICAL WALL CHART

WALL HEIGHT	NO. COURSES	MINIMUM BURY DEPTH	LEVELING PAD DEPTH	WIDTH OF LEVELING PAD	NUMBER & TYPE OF BLOCK COURSES: 60" BOTTOM BLOCKS	41" BOTTOM BLOCKS	41" MIDDLE BLOCKS	28" MIDDLE BLOCKS	28" TOP BLOCKS
2.0'	3	1.5'	1.0'	3'-9"	0	0	0	2	1
3.0'	3	1.5'	1.0'	3'-9"	0	0	0	2	1
4.0'	4	1.5'	1.0'	3'-9"	0	0	0	3	1
5.0'	4	1.5'	1.0'	4'-10"	0	1	0	2	1
6.0'	5	1.5'	1.0'	4'-10"	0	1	0	3	1
7.0'	6	1.5'	1.33'	4'-10"	0	1	1	3	1
8.0'	7	1.5'	1.33'	5'-4"	0	1	1	4	1
9.0'	7	1.5'	1.33'	5'-4"	0	1	1	4	1
10.0'	8	1.5'	1.33'	7'-0"	2	0	2	3	1
12.0'	9	1.5'	1.33'	7'-0"	3	0	3	2	1

NOTES
1. Hold Top of Wall Elevations.
2. Step Walls as Required to Meet Grades Shown on the Site Plan.
3. All Walls Shall Have a Minimum Block Embedment Depth As Noted.
4. All Walls Shall Have a 28" Top Block

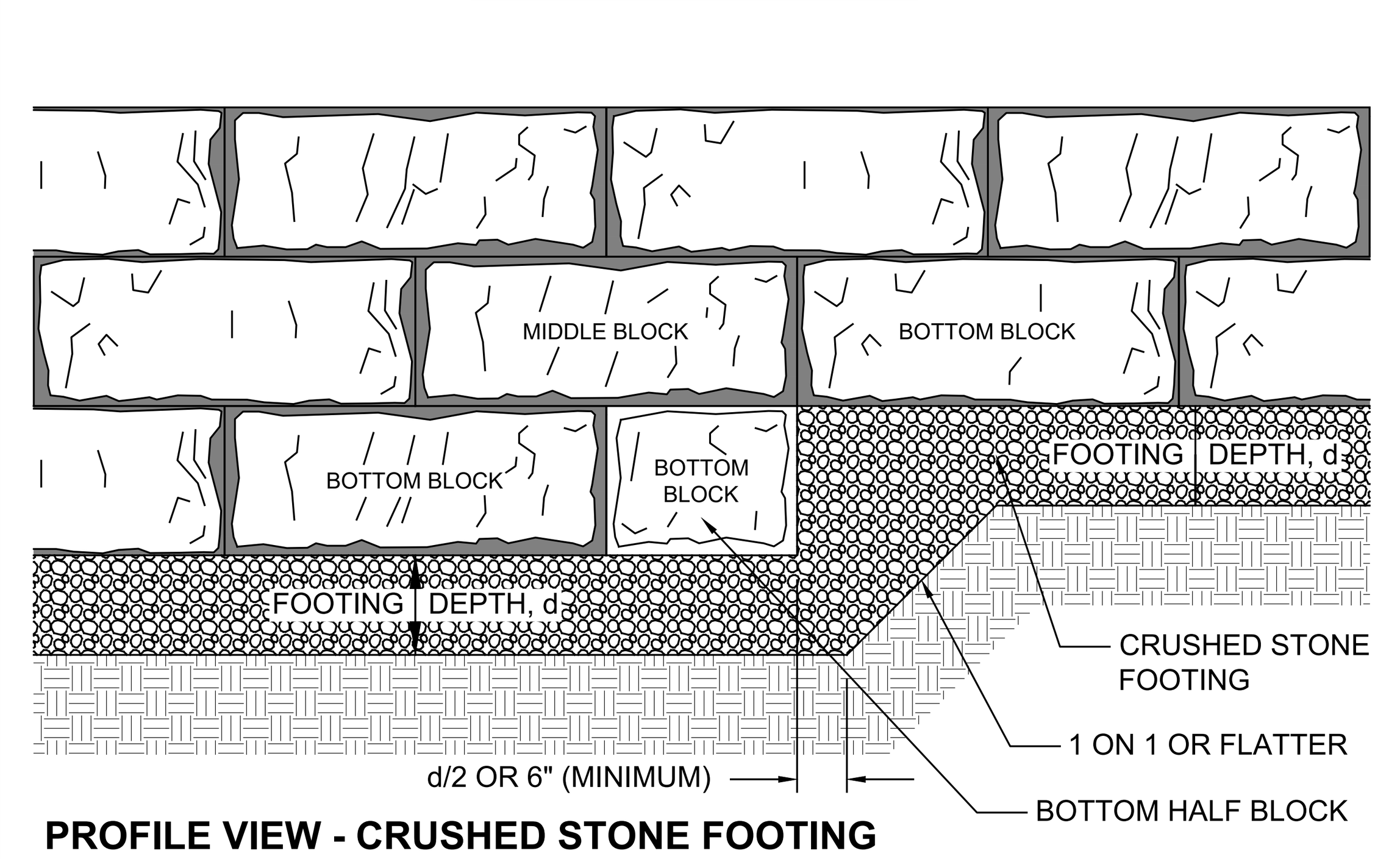
ST-1 TYPICAL GRAVITY WALL SECTION DETAIL
NOT TO SCALE



OPEN-GRADED CRUSHED STONE LEVELING PAD

ST-3 CRUSHED STONE LEVELING PAD DETAIL
NOT TO SCALE

STEP FOOTING DETAILS



PROFILE VIEW - CRUSHED STONE FOOTING
(No Scale)

ST-4 STEPPED CRUSHED STONE FOOTING DETAIL
NOT TO SCALE

GENERAL NOTES:

1. The Engineer whose seal appears hereon has not been retained for supervision of construction, subsequently, he is not responsible for construction and therefore assumes no responsibility for construction practices, procedures, and results therefrom.
2. The Engineer shall not be held responsible or held accountable for the integrity of any structures constructed or under construction prior to the approval of the plans.
3. The Town Engineer's office is to be notified 24 hours before commencing site construction.
4. All work is to be completed in accordance with the Town's of New Castle's Code of Practice and Specifications.
5. All conditions, locations, and dimensions shall be field verified and the Engineer shall be immediately notified of any discrepancies.
6. All changes made to the plans shall be approved by the Engineer and any such changes shall be filed as amendments to the original Building Permit.
7. All written dimensions on the drawings shall take precedence over any scaled dimensions.
8. It is the Contractor's responsibility to call in a "CODE 53" at least 2 days but no more than 10 days prior to construction for underground utility locations.
9. Substructures and their encroachments below grade, if any, are not shown.
10. Contractor to verify all substructures encountered during construction.
11. Any proposed electric and/or telephone service lines are to be placed underground.
12. The Contractor shall supervise and direct the work using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the work under the contract.
13. The Contractor shall be responsible to the Owner for the acts and omissions of his employees, subcontractors, and their agents and employees, and any other persons performing any of the work under a contract with the Contractor.
14. The Design Engineer disclaims any liability for damage or loss incurred during or after construction.
15. *The contractor shall be responsible for obtaining all necessary permits for any blasting if required.*

GENERAL SEGMENTAL RETAINING WALL NOTES:

1. The Contractor shall inspect the site prior to starting the project and verify all existing conditions. Any discrepancies from what is shown on the plans to actual field conditions shall be reported to the Engineer immediately and prior to commencing the work.
2. All work shall conform to all applicable Federal, State and Village of Mamaroneck codes, rules and regulations. The Contractor shall be responsible for acquiring all permits and paying all filing fees necessary for the proposed work.
3. The Contractor shall excavate to virgin grade. The Contractor shall not place footings on any fill material.
4. Walls shall not be constructed on wet or frozen ground.
5. Excavation in general shall conform to the lines and grades shown on the Contract Drawings.
6. Top and bottom wall elevations are provided to indicate top of wall elevation and finished grade elevation respectively at front face of wall. Additional wall height shall be required as necessary to provide for proper buried wall depth and footings.
7. To ensure a proper bearing surface, the wall shall be constructed on natural in-situ soil with a minimum allowable bearing capacity of 2 TSF. The Contractor shall strip all top soil. The area shall then be compacted using suitable compaction equipment. A minimum of 3 passes shall be made.
8. If the Contractor encounters any wet area of soil while excavating or during construction of wall, he shall notify the Engineer immediately. Replacement of unsuitable soils may be required as directed by the Engineer.
9. Fill material such as concrete rubble, asphalt, boulders, pipes, etc. shall not be used as backfill material behind the wall.
10. Soils used as backfill shall consist of clean dry soil. The material shall be granular and free of organic or other deleterious material. In general the soil shall be non-plastic with a plasticity index less than 5 and shall conform to the AASHTO Soil Classification System for an "A-1-a" soil . However the maximum size shall be 6". In general all fill shall be approved by the Engineer prior to it's use. Wet material or unsuitable material should not be used.
11. Earth backfilling of walls shall be placed in one (1) foot lifts, prior to compaction and compacted to 95% standard proctor with a mechanical tamper.
10. The Contractor shall not use large or heavy constriction equipment within 5 ft of the retaining walls or new foundation walls. Hand operated compacting equipment shall be used within 5 ft of the wall face.
11. The Contractor shall be responsible for adequately bracing and protecting the wall work during construction against damage, collapse, distortions and misalignments in accordance with all applicable codes, standards and good practices.
12. The Contractor is responsible for maintaining safe cut and fill slopes in front of and behind the wall throughout construction.
13. The Contractor shall be responsible for protecting all persons during construction from harm in accordance with all applicable codes, standards and good practices.
14. The Contractor shall be responsible for providing convenient access and proper facilities for the inspection of all parts of the work
15. The Engineer shall have the right to order the removal of defected work and/or material and unapproved work and/or material. The cost of removal and replacement shall be borne by the Contractor.
16. The Contractor shall be responsible for all damage to existing properties as a result of his work or workmanship. The Contractor shall restore to existing condition any property damaged as a result of his work or workmanship at no additional cost to the owner.
17. Alternate wall designs must be sealed by a New York State Licensed Professional Engineer. The minimum Factors of Safety for sliding and overturning shall be 2.0.

SUGGESTED CONSTRUCTION SEQUENCE

Use of erosion and sediment control structures and practices are important to maintaining site stability under runoff and during daily construction activities. Construction sequence should be staged with erosion and sediment controls as follows with all controls in place and implemented prior to respective infrastructure construction. As construction proceeds, the controls should be monitored, maintained and replaced as needed. Additional controls may be required as needed to address unforeseen situations and shall be as determined by the Engineer or as directed by the Town of New Castle. Refer to construction drawings for all plans and details which relate to construction sequence. This suggested sequence should be followed in conjunction with all Plans, Notes, and the approved Stormwater Management Plan.

Prior to the commencement of work, the Owner and General Contractor shall read and understand the sequence for construction. The sequence shall be discussed at the time of the pre-construction meeting.

CONSTRUCTION SEQUENCE:

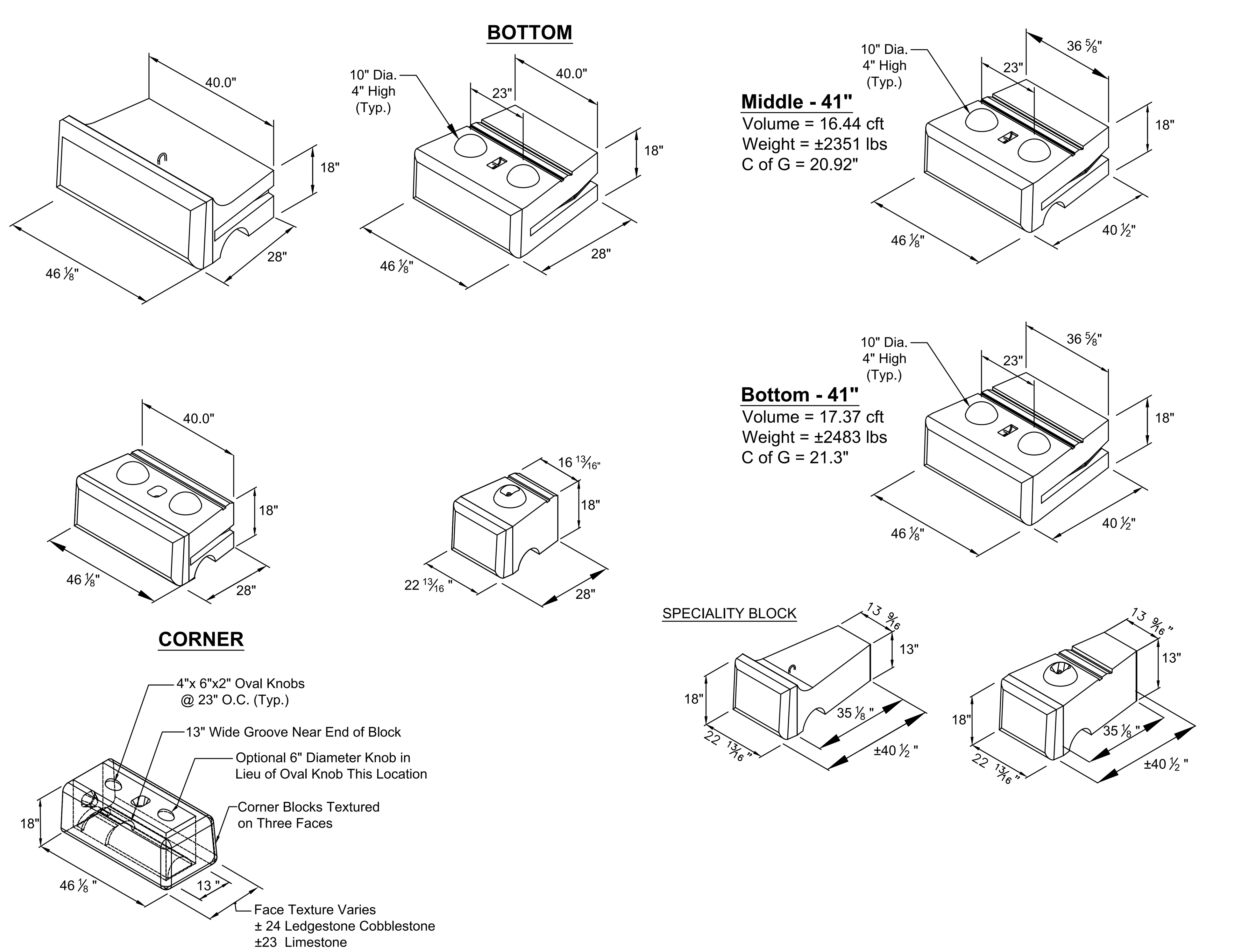
1. A licensed surveyor must define infrastructure locations, limits of disturbance, and grades in the field prior to start of any construction.
2. Install all temporary erosion control measures as shown on the erosion and sediment control plan for the project including but not limited to silt fencing, inlet protection and temporary sediment traps. The plan presents the order in which the project will be constructed. These plans must be followed to insure proper implementation of the Erosion and Sediment Control Plan (E&SC) and Stormwater Pollution Prevention Plan (SWPPP).
3. Create an access point to the project at the location shown off of Hitching Post Lane. The anti-tracking measures then shall be installed. Cut and clear trees within the work area as necessary for the area to be disturbed. If all areas are to be cleared, stumps shall only be removed as required for the immediate phase of construction. Timbered trees, wood chips, and stumps shall be temporarily stored in the staging area before being removed off-site. Wood chips may be used for mulch to stabilize disturbed areas. Wood chip mulch shall be applied at a minimum rate of 500 lbs. per 1000 sf (2" thick).
4. Grub and remove stumps in the immediate work area and remove off-site or chip.
5. Begin preparation for construction of all retaining walls. Areas in which final grade is achieved shall be immediately stabilized with permanent vegetative cover. Slopes less than 3:1 can be stabilized with seeding, and straw mulch or wood chip mulch. Slopes of 3:1 or greater shall receive erosion blankets. Areas which are to remain undisturbed for more than 14 days shall be stabilized with temporary seeding or mulch.
6. Stake-out the location of utilities and utility structures. Begin the installation of drainage and septic. Begin excavation and install piping. Backfill as installation is complete and stabilize the area. If trenches are to be left open, place excavated material on the up-slope sides of the trench and protect and stabilize if it is to remain open for an extended period of 7 days or more.
8. During the final phase of installation, finish grade, topsoil, rake, and seed all areas as required.
9. Once approval is obtained by the Erosion and Sediment Control Monitor, Engineer or Town Engineer, all temporary erosion measures may be removed.

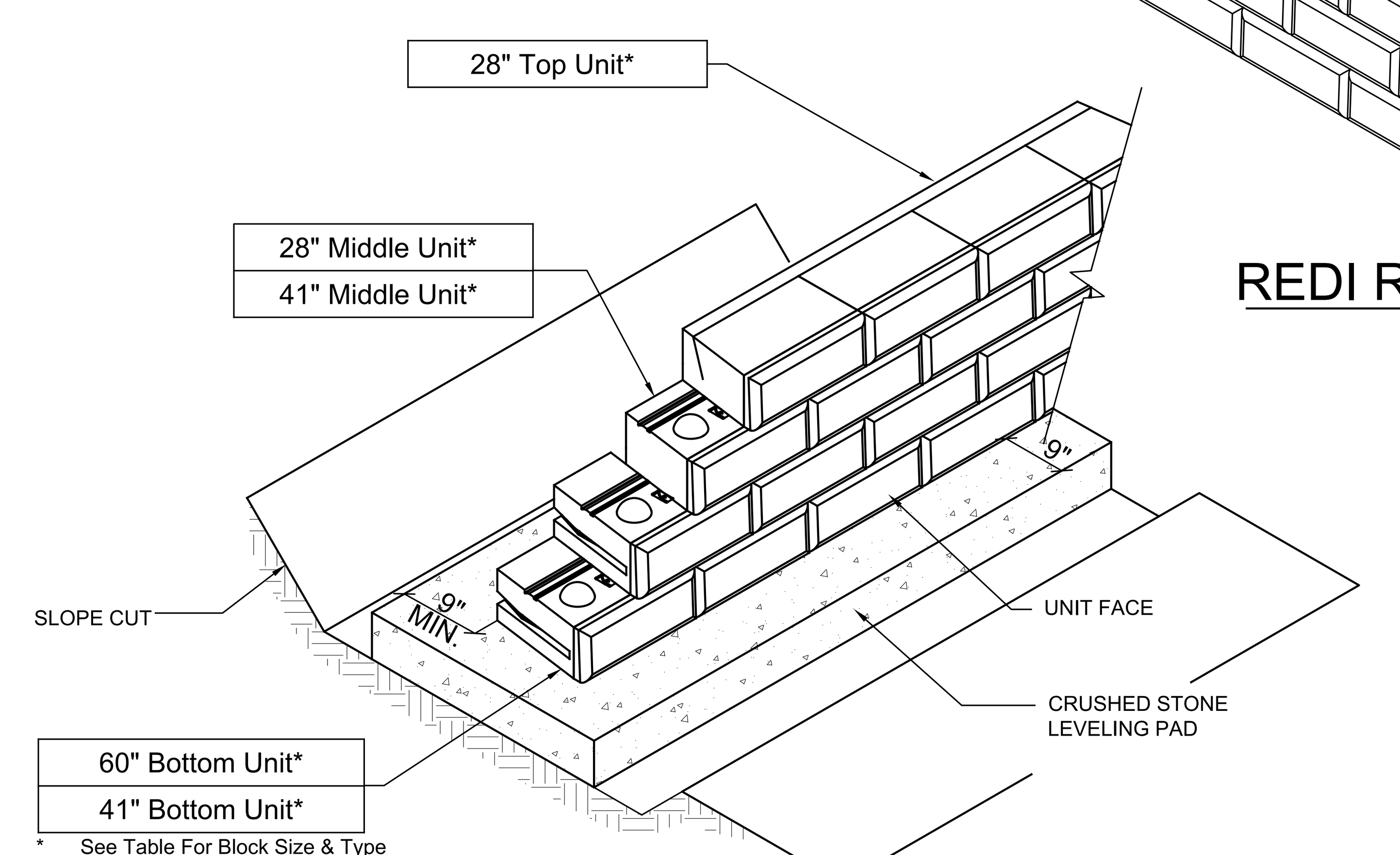
TOWN NOTES:

1. Prior to the issuance of a building permit, the entire clearing/grading limits shall be field staked as per the approved site plan and inspected by Steve Coleman Environmental Coordinator at 914-238-1429.
2. Clearing and grading limit lines shall be clearly delineated in the field throughout the construction period and no encroachment beyond these limits by workers or machinery shall be permitted
3. All work regarding the footing/foundation for all site related retaining walls shall remain accessible and exposed until inspected by the Building/Engineering Division. The Building/Engineering Division shall be notified at least 48 hours in advance in order to schedule a footing/foundation inspection. Contact the Civil Engineering Technician at 914-238-1429.
4. For each truck delivering fill to the above-mentioned site, a Manifest shall be submitted and signed by the owner and/or engineer indicating the following:
   a. Deliver date
   b. Origin of fill
   c. Type of fill
   d. Certification by a New York State Licensed Professional Engineer that the fill delivered is in compliance with paragraph 360-7.1(b)(1) of 6 NYCRR Part 360 - Solid Waste Management

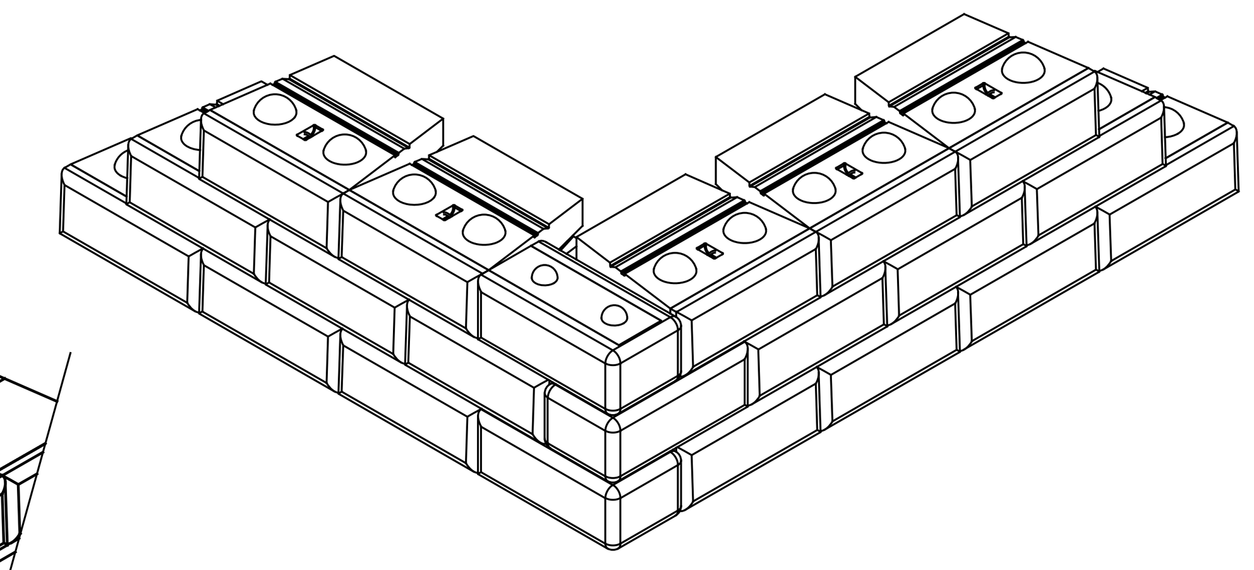
   Note: If the fill material, as determined by the Town of New Castle, is considered to be a non-exempt material as per paragraph 360-7.1(b)(1) of 6 NYCRR Part 360 - Solid Waste Management than the property owner and/or engineer may be required to perform and/or submit additional information.
5. The owner of the property acknowledges that the Town of New Castle and other agencies having jurisdiction shall have the right to enter the property at reasonable times and in a reasonable manner for purposes of inspection.
6. Upon Completion of Construction, submit an approved Westchester County Department of Heath's Certificate of Construction Compliance form
7. At completion, the applicant's architect/engineer shall submit a "Certificate of Construction Compliance" and "As-Built Section" certifying that the retaining wall as constructed meets all factors of safety for sliding, overturning and settlement in accordance to the approved plans on file with the Building and Engineering Department.
8. Each contractor who will be involved in a land development activity must have proof that he/she has received training and/or certification in proper erosion and sedimentation control practices.
9. Upon completion of the project an As-Built Site Plan will be submitted showing all improvements including the location septic structures and associated piping, retaining wall, drainage piping & riprap beds.
10. Grading and site work shall comply with New Castle Town Code Chapter 108: Steep Slope Protection.

28" SERIES BLOCKS / 41" SERIES BLOCKS

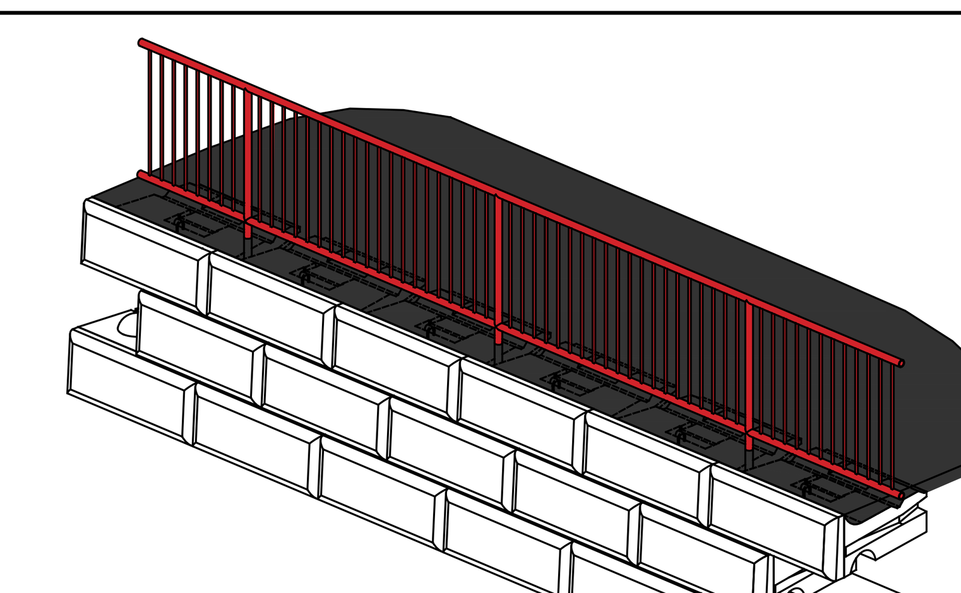


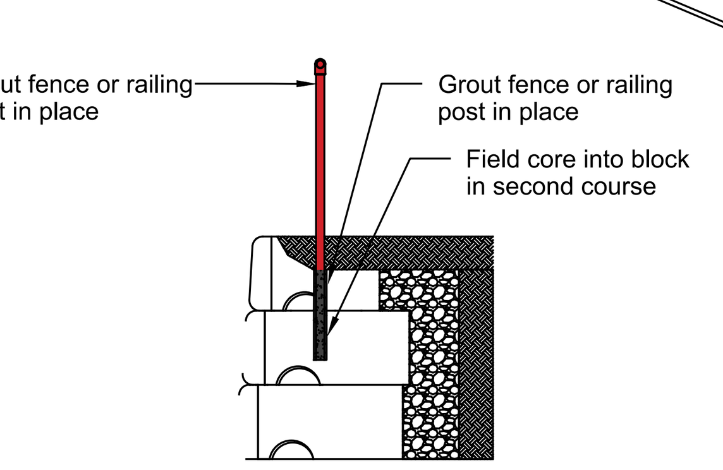


STANDARD UNIT/BASE PAD ISOMETRIC VIEW DETAIL



REDI ROCK CORNER DETAIL





Grouted Post Connection (2 Blocks)

FENCE DETAIL

BASE LEVELING PAD NOTES:
1. The leveling pad is to be constructed of crushed washed stone or compacted aggregate.
2. The base foundation is to be approved by the site engineer prior to placement of the leveling pad.
3. See "Typical Wall Section Detail" for leveling pad layer depth
4. This Detail is used for reference only. Refer to Detail ST-1.

ST-2 REDIROCK BLOCK DETAILS
NOT TO SCALE

Site Design Consultants
Civil Engineers • Land Planners
251-F Underhill Avenue, Yorktown Heights, NY 10598
(914) 962-4488 - Fax: (914) 962-7386
www.sitedesignconsultants.com

PROJECT # 19-11

Engineer: Joseph C. Riina, P.E. NYS Lic. No. 64431

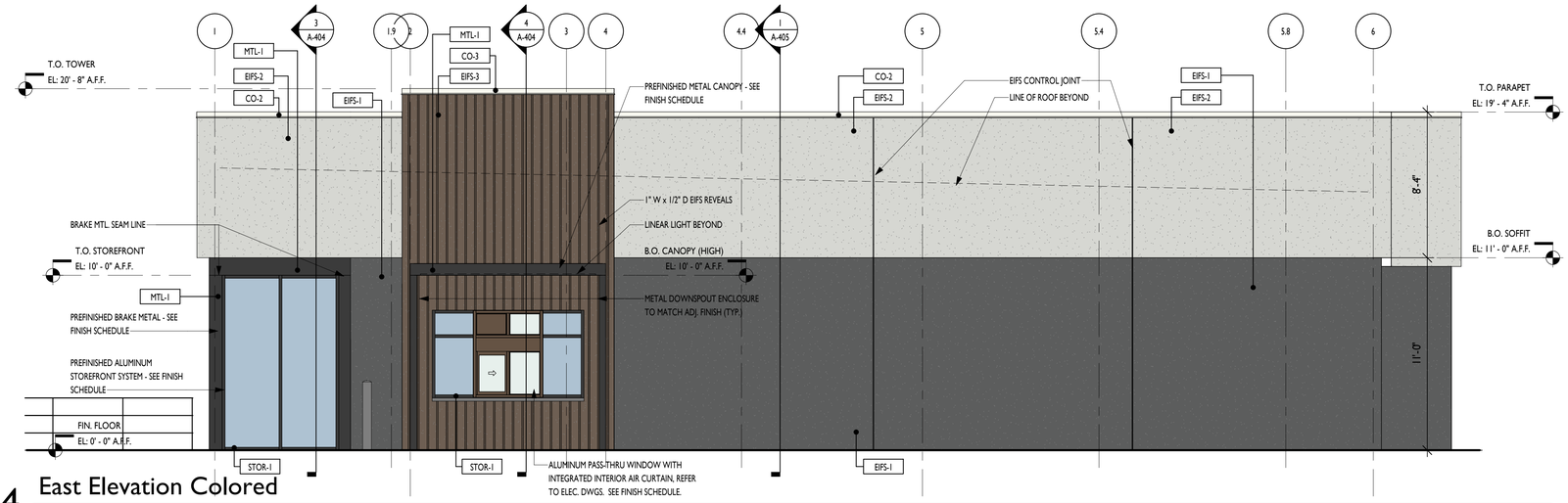
Revisions: No.	Date:	Comments:
1.	11/29/22	Plan Update

SCALE: NTS
DRAWN BY: TK
DATE: 10/21/22

RETAINING WALL DETAILS

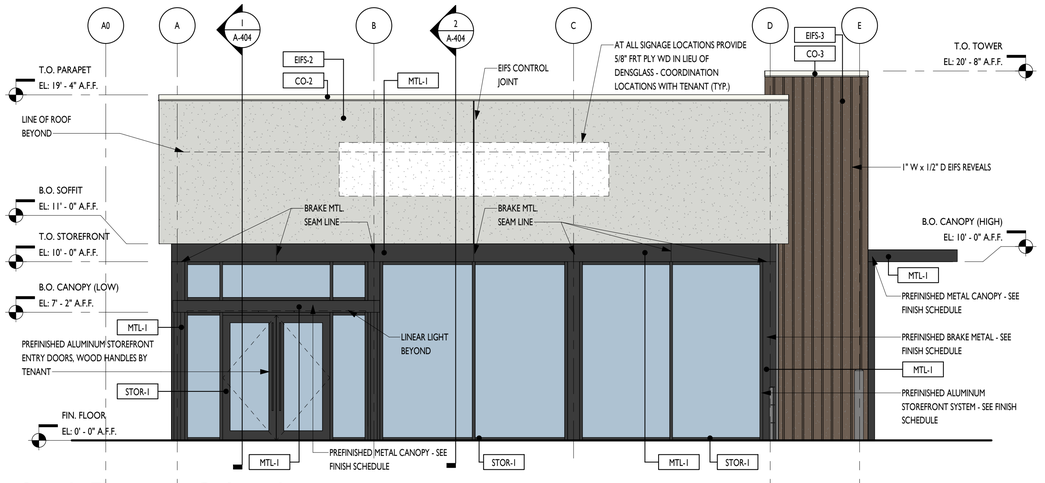
SITE PLAN PREPARED FOR PAD C
CROMPOND ROAD
Town of Yorktown Westchester County, New York

Sheet C-507



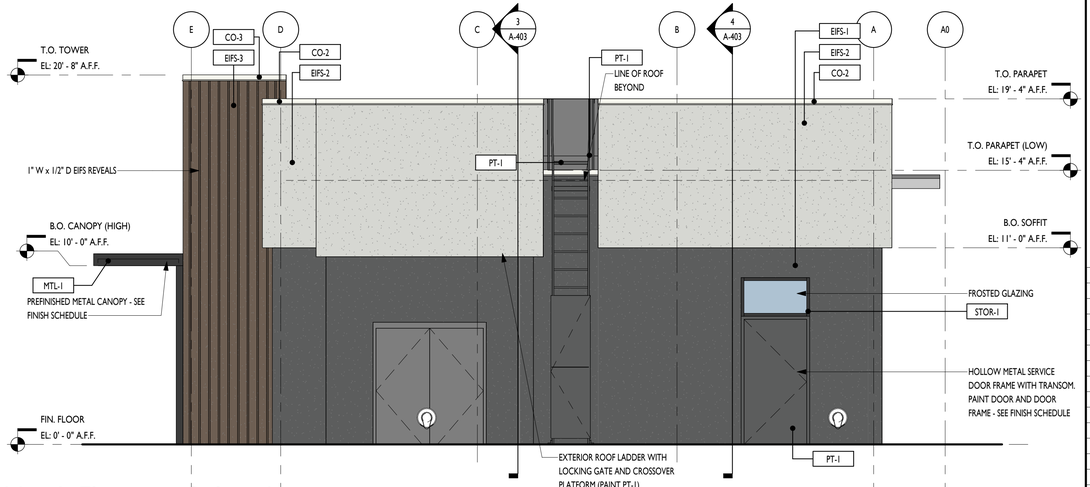
4 East Elevation Colored

Scale: 1/4" = 1'-0"



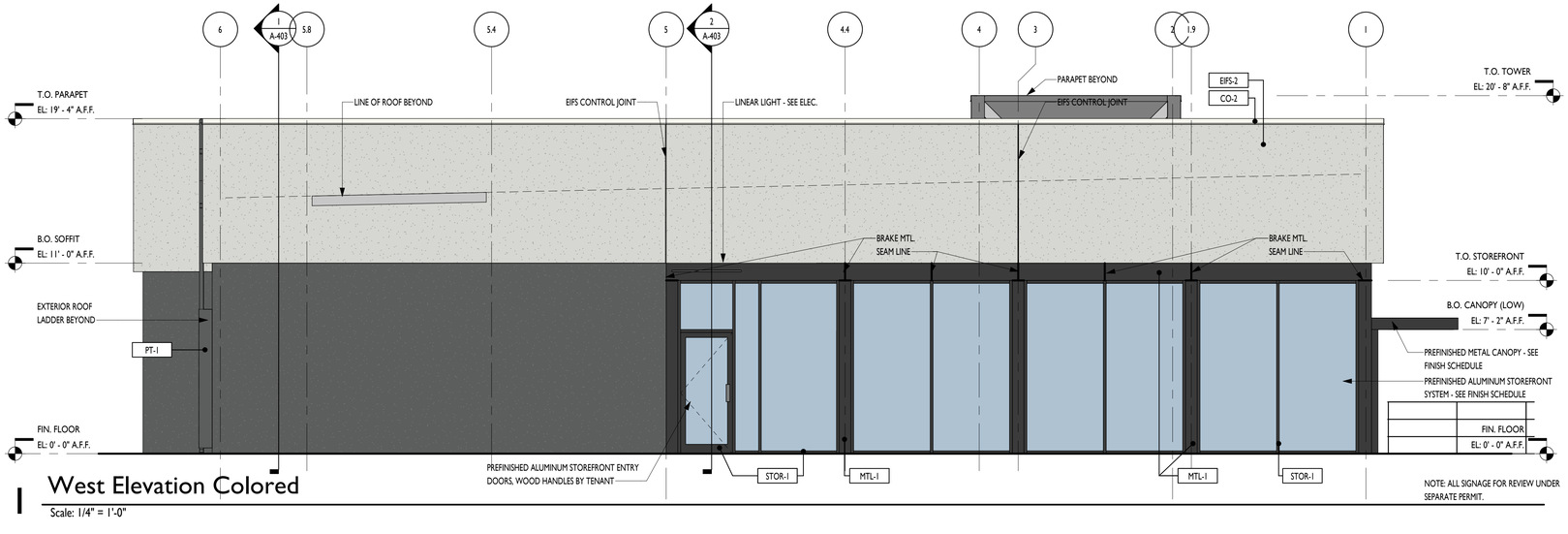
3 South Elevation Colored

Scale: 1/4" = 1'-0"



2 North Elevation Colored

Scale: 1/4" = 1'-0"



1 West Elevation Colored

Scale: 1/4" = 1'-0"

Exterior Finish Schedule

TAG	MANUFACTURER	FINISH COLOR
CO-1	ATAS	#62 - CHARCOAL GREY
CO-2	ATAS	#10 - ASCOT WHITE
CO-3	ATAS	#3 - MEDIUM BRONZE
EIFS-1	DRYVIT	SANDPEBBLE FINISH TO MATCH PPG 'KNIGHTS ARMOR'
EIFS-2	DRYVIT	SANDPEBBLE FINISH TO MATCH PPG 'FOG'
EIFS-3	DRYVIT	SANDPEBBLE FINISH TO MATCH SW 7515 HOMESTEAD BROWN
MTL-1	API AMERICAN PRODUCTS, INC.	BLACK TO MATCH STOREFRONT
MTL-2	QUIKSERV	DARK BRONZE
PT-1	PPG	PPG 'KNIGHTS ARMOR'
STOR-1	KAWNEER	BLACK

NOTES:
1. 12"x12" SAMPLES MUST BE SUBMITTED TO ARCHITECT OF ALL EXTERIOR MATERIALS (EIFS, BRICK VENEER, PAINT,PRECAST, COPING/METAL, CLAPBOARD AND AWNING.) ADDITIONALLY, FIELD MOCK-UP REQ'D.

NOTE: ALL SIGNAGE FOR REVIEW UNDER SEPARATE PERMIT.

Pad Building C at Yorktown

Yorktown Heights
New York

CREATE
Architecture Planning & Design PLLC

45 West 34th Street
Penthouse
New York, NY 10001

Phone: (212) 297-0880
createworldwide.com

Owner / Developer:
Breslin Realty Development Corp.
500 Old Country Road
Garden City, NY, 11530

Structural Engineers:
Meyer Consulting Engineers Corp.
451 Hungerford Drive, Suite 600
Rockville, MD 20850-451

M/E/P Engineers:
Nelson + Pope
70 Maxess Road
Melville, NY 11747

Site/Civil Engineers:
Site Design Consultants
251-F Underhill Avenue
Yorktown Heights, NY 10598

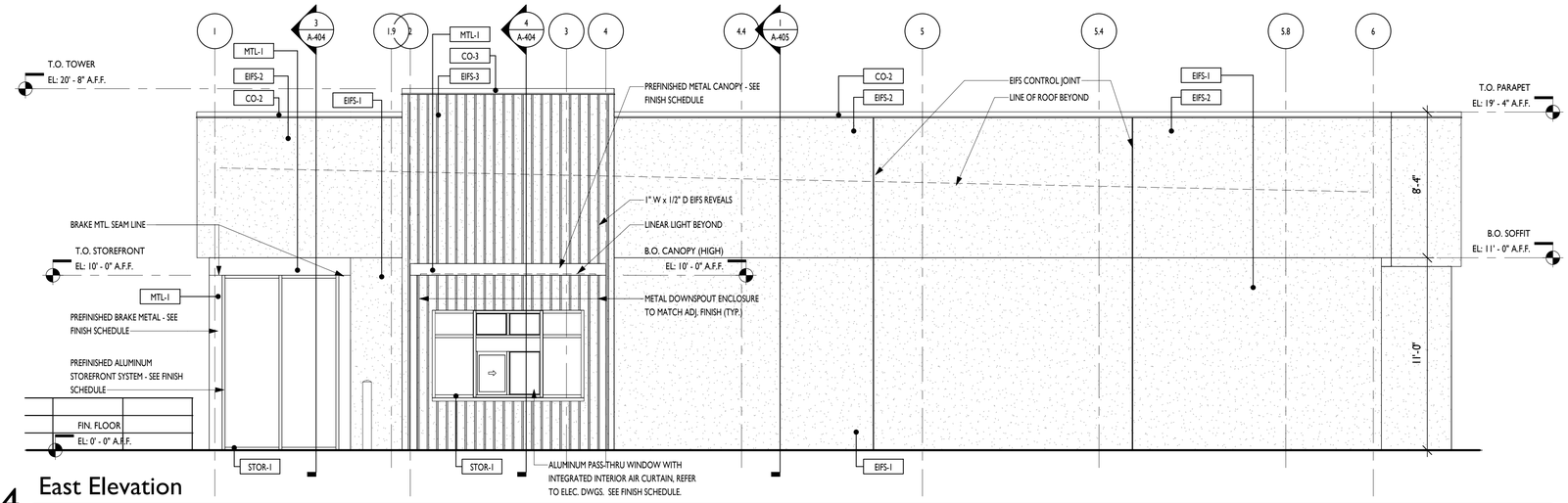
Landscape Architects:
A2 Land Consulting, LLC
30 Rocky Hill Road
New Fairfield, CT 06812

No.	Date	Description
	10/24/2022	ISSUED FOR BID & PERMIT

LICENSE # 13964
EXP. 07/31/23

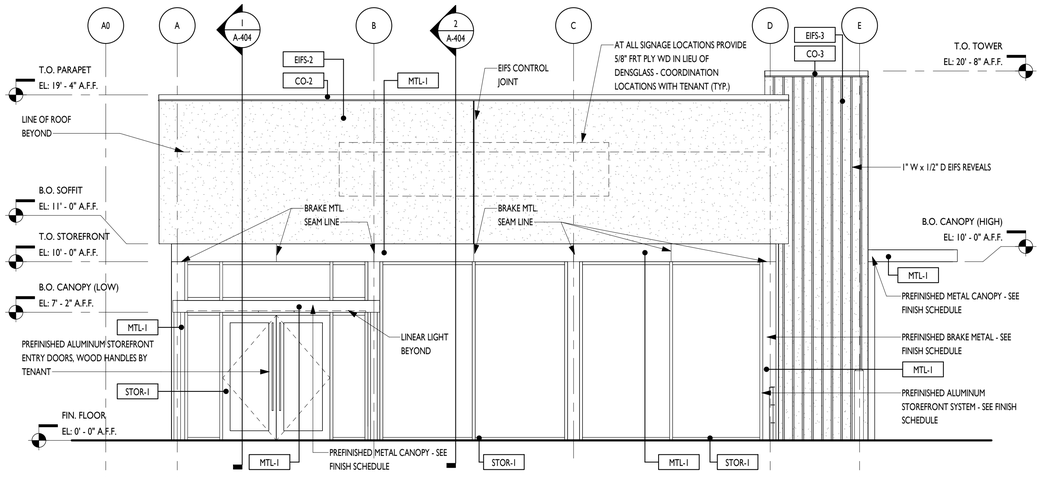
Exterior Building Elevations and Finish Schedule

1535C A-301



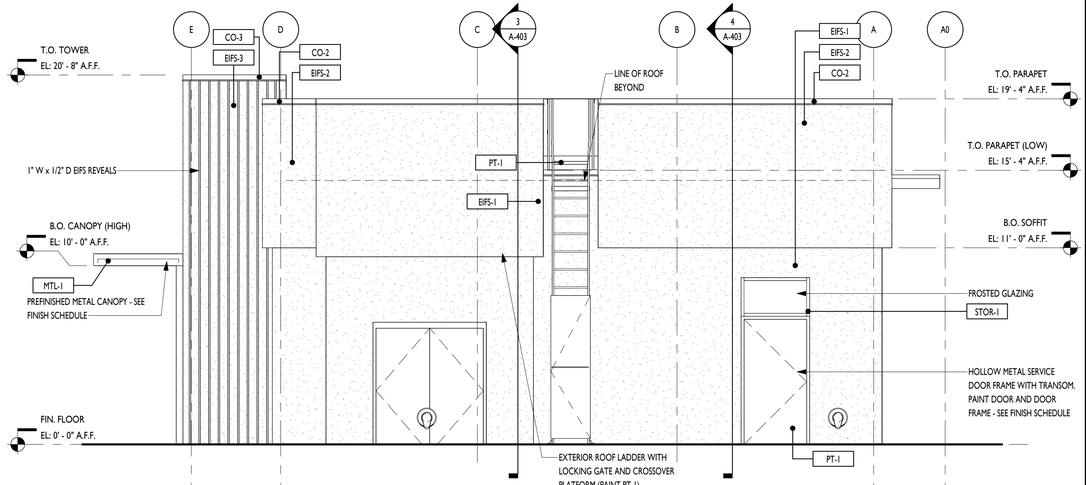
4 East Elevation

Scale: 1/4" = 1'-0"



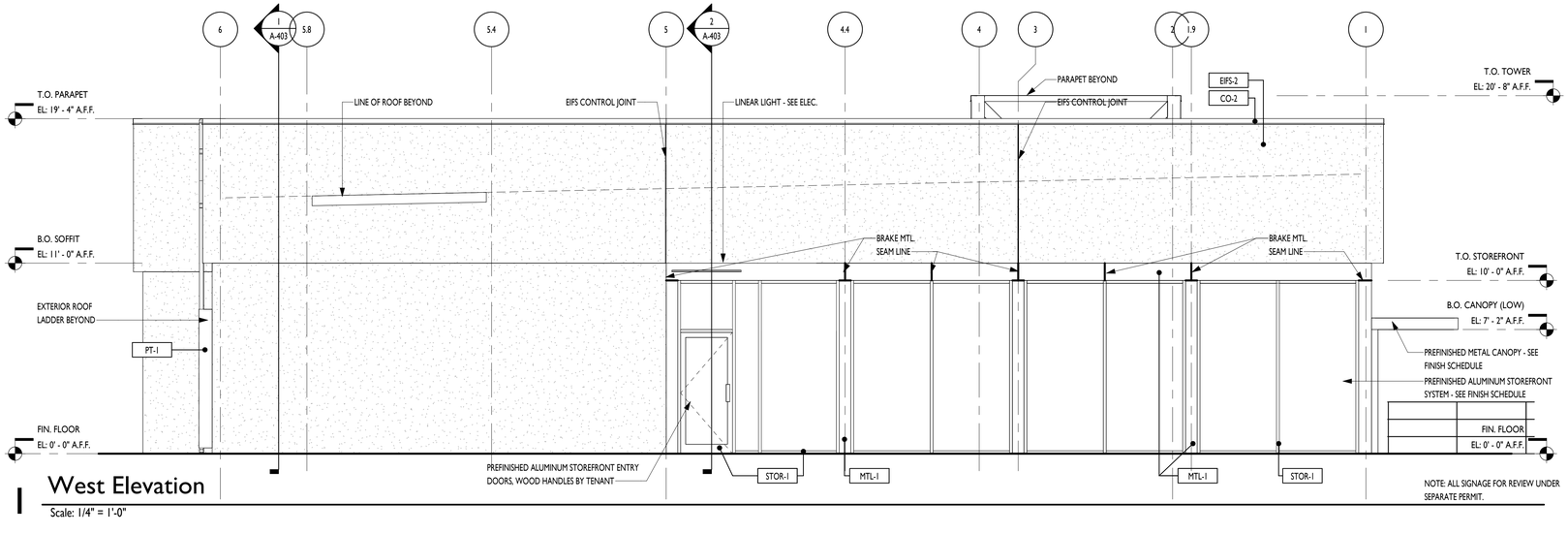
3 South Elevation

Scale: 1/4" = 1'-0"



2 North Elevation

Scale: 1/4" = 1'-0"



1 West Elevation

Scale: 1/4" = 1'-0"

Exterior Finish Schedule

TAG	MANUFACTURER	FINISH COLOR
CO-1	ATAS	#62 - CHARCOAL GREY
CO-2	ATAS	#10 - ASCOT WHITE
CO-3	ATAS	#3 - MEDIUM BRONZE
EIFS-1	DRYVIT	SANDPEBBLE FINISH TO MATCH PPG 'KNIGHTS ARMOR'
EIFS-2	DRYVIT	SANDPEBBLE FINISH TO MATCH PPG 'FOG'
EIFS-3	DRYVIT	SANDPEBBLE FINISH TO MATCH SW 7515 HOMESTEAD BROWN
MTL-1	API AMERICAN PRODUCTS, INC.	BLACK TO MATCH STOREFRONT
MTL-2	QUIKSERV	DARK BRONZE
PT-1	PPG	PPG 'KNIGHTS ARMOR'
STOR-1	KAWNEER	BLACK

NOTES:
1. 12"x12" SAMPLES MUST BE SUBMITTED TO ARCHITECT OF ALL EXTERIOR MATERIALS (EIFS, BRICK VENEER, PAINT,PRECAST, COPING/METAL, CLAPBOARD AND AWNING.) ADDITIONALLY, FIELD MOCK-UP REQ'D.

NOTE: ALL SIGNAGE FOR REVIEW UNDER SEPARATE PERMIT.

Pad Building C at Yorktown

Yorktown Heights
New York

CREATE
Architecture Planning & Design PLLC

45 West 34th Street
Penthouse
New York, NY 10001

Phone: (212) 297-0880
createworldwide.com

Owner / Developer:
Breslin Realty Development Corp.
500 Old Country Road
Garden City, NY, 11530

Structural Engineers:
Meyer Consulting Engineers Corp.
451 Hungerford Drive, Suite 600
Rockville, MD 20850-451

M/E/P Engineers:
Nelson + Pope
70 Maxess Road
Melville, NY 11747

Site/Civil Engineers:
Site Design Consultants
251-F Underhill Avenue
Yorktown Heights, NY 10598

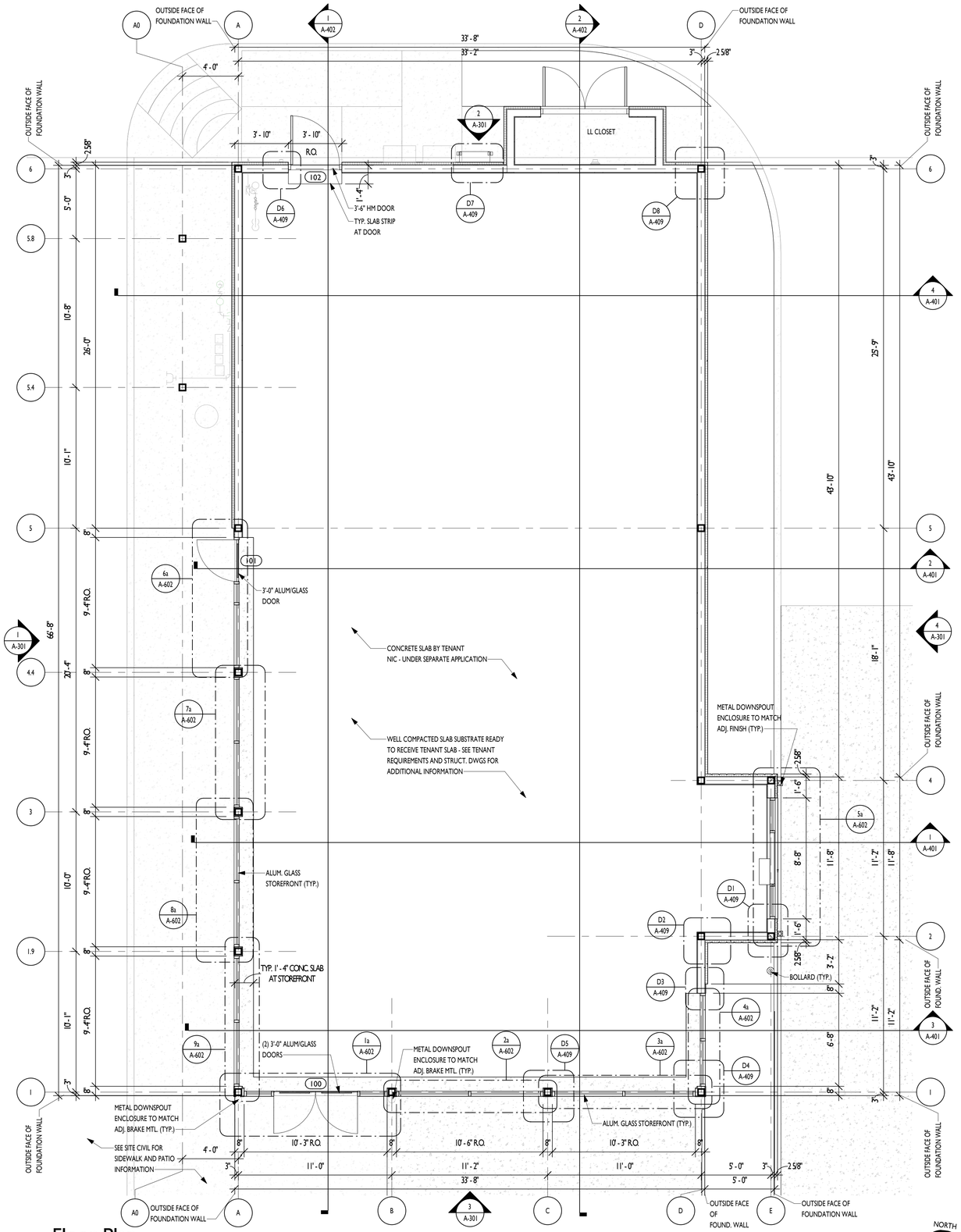
Landscape Architects:
A2 Land Consulting, LLC
30 Rocky Hill Road
New Fairfield, CT 06812

No.	Date	Description
	10/24/2022	ISSUED FOR BID & PERMIT

LICENSE # 13964
EXP. 07/31/23

Exterior Building Elevations and Finish Schedule

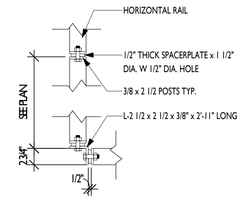
1535C A-301



1 Floor Plan

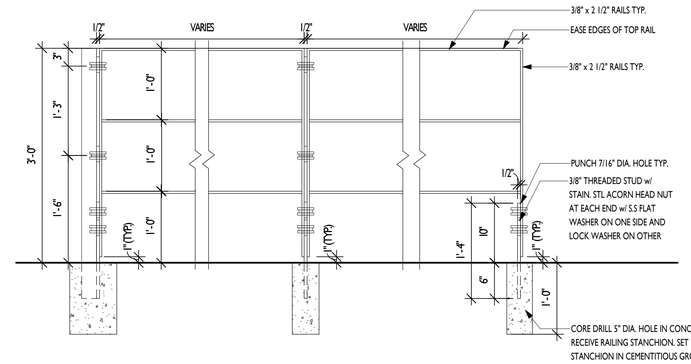
Scale: 1/4" = 1'-0"

NOTE: ALL WALLS TO BE FINISHED TO LEVEL 4 FROM FLOOR TO UNDERSIDE OF DECK



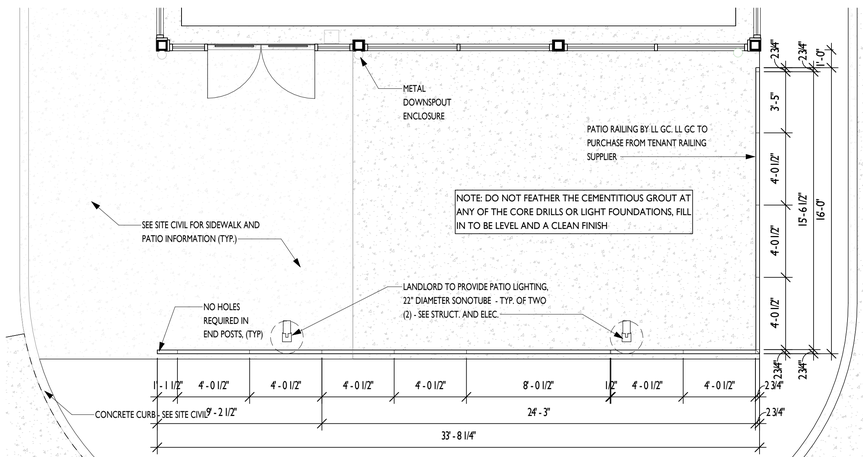
4 Railing Plan Detail

Scale: 1" = 1'-0"



3 Railing Mounting Detail

Scale: 1" = 1'-0"



2 Patio Plan

Scale: 1/4" = 1'-0"

NORTH

Pad Building C at Yorktown

Yorktown Heights
New York

CREATE
Architecture Planning & Design PLLC

45 West 34th Street
Penthouse
New York, NY 10001

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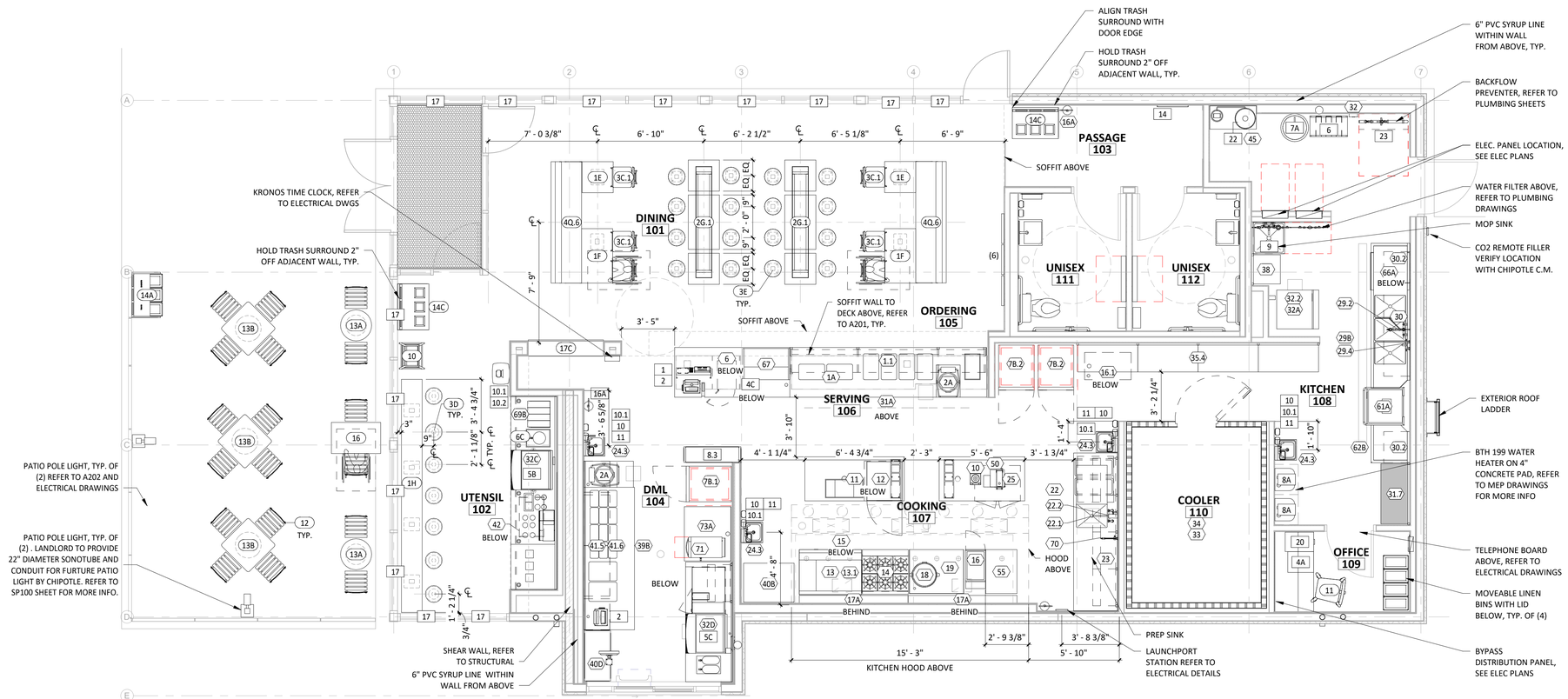
30 Rocky Hill Road
New Fairfield, CT 06812

No.	Date	Description
	10/24/2022	ISSUED FOR BID & PERMIT

LICENSE # 13964
EXP. 07/31/23

Floor Plan

1535C A-100



FURNITURE, FIXTURE & EQUIPMENT PLAN

1/4" = 1'-0"

NOTE:
ALL DIMENSIONS TO EXTERIOR OR EXISTING WALLS ARE TO THE FINISH FACE OF THE EXISTING GYP. BD.

Consultant:

HBC

HOWELL BELANGER CASTELLI ARCHITECTS, PC
122 West 27th Street, 4th Floor
New York, New York 10001
tel: 212 - 647 - 0011
fax: 212 - 647 - 0022

CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 31-4578
YORKTOWN HEIGHTS
3200 Crompond Rd Yorktown Heights NY

Issue Record:

06/20/22	KO Sketches
08/26/22	ICP Set

Revisions:

1	10/08/21	REVISION 1

Drawn: B.V.D.
Checked: J.C.C.

Project No.
22046

Contents:
FF&E PLAN

ICP-4

Toll Brothers Catherine Street

ZARIN & STEINMETZ LLP

David J. Cooper
dcooper@zarin-steinmetz.com

November 15, 2022

Via Hand Delivery

Supervisor Matthew Slater
And Members of the Town Board
Town Hall
363 Underhill Avenue
Yorktown Heights, New York 10598

Re: Toll Brothers, Inc. – Petition for Zoning Map Amendment
2302 Catherine Street and 2448 Catherine Street
Yorktown, New York ("Property")

Dear Supervisor Slater and Members of the Town Board:

This firm represents Toll Brothers, Inc. ("Toll" or "Petitioner"), the contract-vendee to purchase the Property located at 2302 Catherine Street and 2448 Catherine Street, owned by Field Home – Holy Comforter ("Field Home"). The parcels to be purchased include the former Catherine Field Home building ("Field Home Building"), as well as the largely undeveloped parcel to the property adjoining the Field Home Building to the north, consisting of approximately 50.51 acres (collectively, the "Property").

Toll is pleased to submit the enclosed Petition for a Zoning Map Amendment ("Petition"). The Petition requests that your Board rezone the Property to the RSP-2 District to facilitate Toll's redevelopment proposal, detailed herein. Upon the requested rezoning, Toll could develop a 118-unit townhouse community for 55+ "active adults" on a 48.05-acre portion of the Property. The community would include onsite amenities accommodating the "downsizer" demographic, such as a clubhouse and pool. The proposal would also include the subdivision of the 2.46-acre portion of the Property on which the Field Home Building sits, so that the structure can be preserved for the Town's use.

We respectfully request that the Town Board place the Petition on its next available agenda to accept the Petition, commence SEQRA and make the necessary referrals to the Town Planning Board and Westchester County.

By way of background, the Property is currently split-zoned in the RSP-3 and R1-40 Districts. Aside from the Field Home Building and practice soccer field licensed to the Town

(set to expire in 2026), the Property is largely undeveloped. The portion of the Property in the RSP-3 District could currently be development with a multi-level nursing home, assisted living facility, and/or hospices, among other similar uses involving high intensity care. See Town Code § 300-159. The other portion of the Property is zoned R1-40, which district is meant for development of residential uses. See Town Code, § 300-21.

Toll believes that the Property presents an excellent opportunity to introduce housing that targets the downsizer demographic -- i.e., adults aged 55+ who are looking to move out of their single-family houses and into homes where they can age in place in the community. As the Town recognized in its 2010 Comprehensive Plan, this portion of the community continues to grow in size, and thus, there is an important need to diversify housing options in Yorktown for seniors. Toll's proposal would assist the Town in meeting this demand by offering townhouse units with first floor master bedrooms and on-site recreational amenities catering to active adults.

Unfortunately, Toll Brothers' envisioned use for the Property is not permitted under the current RSP-3/R1-40 zoning. Toll Brothers is thus asking that your Board rezone the Property to the RSP-2 District, which would permit the intended use. According to the Town Zoning Code, the RSP-2 District was created to encourage 55+ residential development near commercial centers in the Town's Hamlets for aging adults who do not need the intense level of care associated with uses allowed in the RSP-3 District. See Town Code, § 300-152. Since the Property is located within 1,500 feet of the C-4 District in the Hamlet of Crompond, it is respectfully submitted that rezoning the Property to the RSP-2 District would be an appropriate legislative step towards facilitating the Town's development vision.

Accordingly, the Petitioner respectfully requests placement on the Town Board's next agenda so that it may accept the Petition and commence the necessary procedures for review of the proposed Zoning Map Amendments. This includes referring the Petition to the Town Planning Board and Westchester County Planning Department, commencing the SEQRA review by declaring your intent to serve as the lead agency, and scheduling a public hearing.

In support of this request, enclosed please find the following materials:

- Application for Change of Zone;
- Check in the amount of $3,500.00 for the filing fee and check in the amount of $100.00 for the purpose of reimbursing the Town for the costs of publication;
- Long Environmental Assessment Form Parts 1 & 2, prepared by Site Design Consultants, dated November 14, 2022;
- Written Metes and Bounds Description of the Property to be Rezoned, prepared by CMG Engineering, Surveying and Landscape Architecture, P.C., dated November 11, 2022;
- Verified Petition for Zoning Map Amendment, dated November 14, 2022;
- Owner's Authorization;
- Proposed Local Law Amending the Zoning Map;
- Applicable Sections of the Town's Tax Map;

- Applicable Portion of the Town's Existing Zoning Map;
- Conceptual Site Plan for the Property, prepared by CMG Engineering, Surveying, and Landscape Architecture, P.C., dated November 8, 2022;
- Traffic Impact Study, prepared by Colliers Engineering & Design, dated October 19, 2022;
- Fiscal Impact Analysis, prepared by ESE Consultants, dated November 9, 2022;
- Real Estate Property Tax Projection Report, prepared by Cronin & Cronin Law Firm, PLLC, dated May 17, 2022;
- Wetland and Watercourse Update Letter, dated October 22, 2022, and Wetland Delineation Report, dated October 27, 2021, prepared by Ecological Analysis LLC; and
- New York State Office of Parks, Recreation & Historic Preservation Correspondence, dated October 28, 2022.

We look forward to meeting with your Board in the review of this Application. In the meantime, if you have any questions or require any additional information, please do not hesitate to contact us.

Respectfully Submitted,

ZARIN & STEINMETZ LLP

By: _____
David J. Cooper
Jaclyn Cohen

Encls.

cc: Adam Rodriguez, Esq., Town Attorney
Toll Brothers, Inc.

CMG Engineering Surveying Landscape Architecture

November 11, 2022

DESCRIPTION OF PROPERTY
PROPOSED LOT 1 (TOLL)

All that certain lot or parcel of land situated in the Town of Yorktown, County of Westchester, State of New York being more particularly described as follows:

Beginning at a point on the easterly line of Catherine Street, said point being North 02 degrees 45 minutes 31 seconds West 354.14 feet from the intersection of the easterly line of Catherine Street with the southerly line of Lot 2, as shown as shown on a plan entitled, Sheet 1 of 3, Water & Sewer Easements, Lot Line Adjustment Map, Prepared for Field Home, being filed in the Westchester County Clerk's Office on January 02, 2019, as filed map no. 29255; thence

1. Along the easterly line of Catherine Street, North 02 degrees 45 minutes 31 seconds West 1362.58 feet; thence
2. Along the lands of the City of New York, Catskill Aqueduct ROW, on a curve to the left having a radius of 275.00 feet, an arc length of 54.87 feet and a central angle of 11 degrees 10 minutes 56 seconds,
3. North 72 degrees 43 minutes 30 seconds East 435.10 feet,
4. on a curve to the right having a radius of 125.00 feet, an arc length of 52.47 feet and a central angle of 24 degrees 03 minutes 00 seconds,
5. South 83 degrees 13 minutes 30 seconds East 63.90 feet,
6. on a curve to the right having a radius of 125.00 feet, an arc length of 52.47 feet and a central angle of 24 degrees 03 minutes 00 seconds,
7. South 59 degrees 10 minutes 30 seconds East 397.10 feet,
8. on a curve to the left having a radius of 275.00 feet, an arc length of 40.40 feet and a central angle of 08 degrees 25 minutes 00 seconds,
9. South 67 degrees 35 minutes 30 seconds East 585.40 feet and
10. on a curve to the left having a radius of 275.00 feet, an arc length of 34.61 feet and a central angle of 07 degrees 12 minutes 40 seconds; thence
11. along the westerly line of Field Street, South 00 degrees 03 minutes 00 seconds East 150.49 feet,
12. South 00 degrees 47 minutes 09 seconds East 409.70 feet and
13. South 02 degrees 36 minutes 47 seconds West 699.09 feet; thence

14. Along the lands now or formerly Fox Den Development Corp., the lands now or formerly The Town of Yorktown and the lands now or formerly YRNC Reality LLC, North 65 degrees 37 minutes 00 seconds West 283.80 feet,
15. North 64 degrees 48 minutes 30 seconds West 323.59 feet,
16. North 00 degrees 09 minutes 40 seconds East 33.52 feet,
17. South 77 degrees 20 minutes 13 seconds West 433.28 feet,
18. North 12 degrees 39 minutes 47 seconds West 65.22 feet and
19. South 87 degrees 14 minutes 29 seconds West 505.43 feet to the point or place of beginning.

Containing 48.06 acres of land more or less
Subject to and together with all Right of Ways, legal easements and restrictions of record, if any.

CMG Engineering Surveying Landscape Architecture

November 11, 2022

DESCRIPTION OF PROPERTY
PROPOSED LOT 2 (TOWN PARCEL)

All that certain lot or parcel of land situated in the Town of Yorktown, County of Westchester, State of New York, being a portion of Lot 2, as shown on a plan entitled, □Sheet 1 of 3, Water & Sewer Easements, Lot Line Adjustment Map, Prepared for Field Home, being filed in the Westchester County Clerk□s Office on January 02, 2019, as filed map no. 29255, and being more particularly described as follows:

Beginning at a point on the easterly line of Catherine Street, said point being the intersection of the easterly line of Catherine Street with the southerly line of Lot 2 as shown on said filed map 29255; thence

1. Along the easterly line of Catherine Street, North 02 degrees 45 minutes 31 seconds West 354.14 feet; thence
2. Over and through Lot 2, North 87 degrees 14 minutes 29 seconds East 505.43 feet and
3. South 12 degrees 39 minutes 47 seconds East 65.22 feet; thence
4. along Lot 3, South 77 degrees 20 minutes 13 seconds 139.85 feet,
5. South 04 degrees 56 minutes 30 seconds East 76.72 feet
6. South 85 degrees 03 minutes 30 seconds West 56.77 feet,
7. South 40 degrees 03 minutes 30 seconds West 25.29 feet,
8. South 85 degrees 03 minutes 30 seconds West 50.00 feet,
9. South 52 degrees 04 minutes 00 seconds West 152.68 feet,
10. South 00 degrees 51 minutes 31 seconds West 68.48 feet and
11. South 82 degrees 41 minutes 16 seconds West 129.21 feet to the point or place of beginning,

Containing 2.45 acres of land more or less
Subject to and together with all Right of Ways, legal easements and restrictions of record, if any.

TOWN BOARD OF THE TOWN OF YORKTOWN
WESTCHESTER COUNTY, STATE OF NEW YORK

In the Application of TOLL BROTHERS, INC. For an Amendment to the Zoning Map of the Town of Yorktown Pursuant to Section 300-206	**VERIFIED PETITION FOR A ZONING MAP AMENDMENT**

Petitioner, Toll Brothers, Inc. ("Toll" or "Petitioner"), by its attorneys, Zarin & Steinmetz, 81 Main Street, Suite 415, White Plains, New York 10601, as and for its Verified Petition requesting the Town of Yorktown ("Town") Town Board adopt a Local Law amending the Town Zoning Map (the "Zoning Map Amendment," a copy of which is annexed hereto as Exhibit "A"), respectfully alleges as follows:

I.
INTRODUCTION

1. Petitioner is a company organized under the laws of the State of Delaware, with offices at 42 Old Ridgebury Rd, Danbury, CT 06810, and submits this Petition pursuant to Section 300-206 of the Town's Zoning Ordinance.

2. Petitioner is a renowned national homebuilder in operation since 1967, with a footprint that now reaches 24 states. Petitioner prides itself on pursuing opportunities to enhance already vibrant communities by introducing new luxury housing with amenities that address a housing need in the local market. This includes building numerous single-family and townhouse communities in Westchester County. Toll is excited to bring its experience and commitment to high quality residential products to Yorktown.

3. Petitioner's affiliate Toll Bros., Inc. is the contract-vendee to purchase certain real property in the Town, comprised of ±50.51 acres, located at 2302 and 2448 Catherine

Street, Yorktown, designated on the Town Tax Map as parcels 35.12-1-2, and 35.08-1-45. The applicable sections of the Town's Tax Map are annexed hereto as Exhibit "B." The parcels to be purchased include a parcel containing the former Catherine Field Home building ("Field Home Building"), as well as the largely undeveloped parcel adjoining the Field Home Building to the north (collectively, the "Property").

4. Toll believes the Property presents a great opportunity to introduce a premier housing product to serve residents looking to "downsize" from single-family homes, while staying in the Yorktown community. As set forth in the 2010 Comprehensive Plan ("Comprehensive Plan"), the Town is seeking to diversify its housing stock to serve a growing demographic in Yorktown and surrounding areas of empty nesters and active adults looking to "age in place." See Comprehensive Plan at 5-25. Toll can facilitate the Town's housing goals by introducing a townhouse development to the Property consistent with the 55+ age-restrictions under the Town's definition of a "Specialized Residential Development, Senior Citizens."

5. Specifically, Petitioner proposes to construct 118 age-restricted (55+) townhouses on a ±48.05-acre portion of the Property. The units would average in size from 2,604 to 2,967 square feet. Each unit would contain three bedrooms, with features that encourage an active-adult lifestyle, such as units with first-floor master bedrooms. On-site recreational amenities to accommodate the demands of the residents would also be provided, such as a clubhouse and pool. Approximately 16 acres of the Property would remain as open space.

6. Petitioner further proposes to preserve the locally historic Field Home Building. To accomplish this, Petitioner proposes to resubdivide the Property into two new parcels: (i) the ±48.05-acre parcel containing the new residential development, and (ii) a ±2.46-acre parcel upon which the Field Home Building is located. Toll would convey to the Town (for a nominal

price) the ±2.46-acre parcel so that the structure may be preserved and used by the community as the Town sees fit. In addition, Petitioner would contribute $150,000.00 to the Town for the purpose of maintaining the Field Home Building while it determines the best use for the community.

7. Collectively, this proposal to resubdivide the Property into two lots, develop a 118-unit townhouse community and preserve the Field Home Building on a separate ±2.46-acre parcel for the Town, is referred to hereinafter as the "Project."

8. The Project cannot occur under the current zoning. The Property is presently zoned RSP-3 and R1-40.[1] The RSP-3 district allows multi-level nursing homes, assisted living facilities, and hospices, such as the Yorktown Rehabilitation and Nursing Center facilities located to the south of the Property. See Town Code §§ 300-21C(6)(a)[1] & 300-159. The R1-40 District allows single-family dwellings. See id. §300-21C(1)(a)[1].

9. While the zoning designations of the Property contemplates development with housing and related senior care facilities, the split RSP-3/R1-40 would not permit the type of housing envisioned by Toll. Accordingly, Petitioner is asking the Town Board to rezone the Property to the RSP-2 District. The RSP-2 District is a special district meant to encourage 55+ residential development near commercial centers in the Town's Hamlets for aging adults who do not need the intense level of care associated with uses allowed in the RSP-3 District. See Town Code, § 300-152. Since the Property is located within 1,500 feet of the C-4 District in the Hamlet of Crompond, it is respectfully submitted that rezoning the Property to the RSP-2 District would be an appropriate legislative step towards facilitating the Town's development vision. Including the Property within the RSP-2 District would permit Toll to develop the 118-townhouse portion

[1] The applicable portion of the Town's Existing Zoning Map is annexed hereto as Exhibit "C."

of the Project upon securing a Special Permit, Site Plan, and other approvals from the Planning Board.[2]

10. In addition to diversifying housing options consistent with the Comprehensive Plan, the Project would bring several other benefits to the Town. Because the development would be restricted to adults aged 55 or older, no school-aged children would be added to the school district. The Town would also benefit from the property tax revenue generated by Petitioner's proposal, which amounts to approximately $1 million in combined annual tax surplus to be shared by the Town, County and School District. See Fiscal Impact Analysis, annexed hereto as Exhibit "F."

11. Accordingly, for the reasons set forth herein, Toll respectfully requests that the Town Board accept this Petition to amend the Town Zoning Map by redesignating the Property from the RSP-3 and R1-40 Districts to the RSP-2 District, so that Petitioner may move forward with its proposal for its active adult community.

II.
THE PROPOSED USE

12. A Conceptual Site Plan, dated November 8, 2022, prepared by CMG Engineering, Surveying, and Landscape Architecture, is annexed hereto as Exhibit "D."

13. As the Conceptual Site Plan illustrates, Petitioner intends to develop a portion of the Property with a 118-unit townhouse community for active adults seeking homes with less maintenance and first-floor master bedrooms. Amenities catering to a 55+ demographic,

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[2] Petitioner's 118-unit residential development would comply with the area and bulk requirements of the RSP-2 District, *except*, to the extent that the Town considers the clubhouse an accessory building, Toll would likely require a height variance from the 15-foot maximum height requirement. See Town Code Chapter 300 – Attachment 1. The 15' height limit for accessory buildings in the RSP-2 would result in a far smaller clubhouse than is typical at Toll communities. In order to accommodate the typical level of clubhouse space and indoor amenities, Toll anticipates seeking a height variance from the ZBA in connection with its site plan application.

including an outdoor pool and clubhouse, would be centrally located near one of the Catherine Street entrances. These amenities would provide the appropriate on-site recreation opportunities to accommodate the demand associated with the 55+ population residing in the new townhouse community.[3]

14. Petitioner also understands the Town's desire to preserve the Field Home Building. Despite its best design attempts, Toll has determined that adaptively reusing the Field Home Building in connection with the townhouse development is not feasible. Thus, as part of the Project, Petitioner would subdivide and give the ±2.46-acre portion of the lot on which the Field Home Building sits to the Town so that the structure may be preserved and used by the community as the Town sees fit. In addition, Petitioner would contribute $150,000.00 to the Town for the purpose of maintaining the Field Home Building while it determines the best use for the community.

15. The preservation of the Field Home Building and the townhouse development of the Property cannot occur under the current zoning of the Property. In the R1-40 District, only one single-family dwelling is permitted per lot. See Town Code § 300-21(C)(1)(a). The RSP-3 District, only permits residences as part of a "geriatric center" -- i.e., "residential multilevel facilities serving the full range needs of the aged who are, for reasons of age, infirm or with chronic illness, unable to care for themselves in an independent housing environment." See Town Code § 300-21(C)(6)(a); § 300-159. Thus, the RSP-3 District is meant for care uses where the residents require 24/7 supervision by nursing staff. This higher-intensity facility is not the type of residential use Toll envisions for the Project.

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[3] Since the Project would involve the removal of an existing soccer field on the Property (for which the Town's lease expires in 2026), Petitioner proposes to contribute $100,000.00 to the Town Parks & Recreation Department for other recreational improvement projects in the Town.

16. Rather, Petitioner is seeking to introduce an active adult community where residents can take advantage of onsite recreational opportunities, as well as patronize nearby retail shops, restaurants, and other businesses on a regular basis. The RSP-2 District Regulations would permit Petitioner to develop an age-restricted development with an appropriate density and layout for the Property. Petitioner submits that such a use is the type of residential development geared towards Yorktown's senior population the Town Board envisioned when it created the RSP-2 District. See Town Code, § 300-152.

III.
THE ZONING MAP AMENDMENT IS CONSISTENT WITH THE COMPREHENSIVE PLAN

17. Petitioner submits that its proposed Zoning Map Amendment and associated Project would be consistent with the Town's development vision as set forth in the Comprehensive Plan.

18. According to the summary of the Town's population trends in the Comprehensive Plan, the Town's "empty nester" and senior populations constitute one of the largest demographics in the community. See Comprehensive Plan, at 5-17. Yet, the Town recognized that there is a "lack of available empty-nester housing" in the Town to serve this demographic. Id., at 5-20. Indeed, various realtors working in Yorktown observed that the supply of senior housing such as townhouses is low, meaning that the demand of people seeking to downsize in the community "have limited options for housing." Id., at 5-25.

19. Based upon this data, the Town concluded in the Comprehensive Plan that the Town should "strive for increased housing diversity throughout the Town." Id. at 5-1. This includes increasing opportunities for senior housing in the Crompond Hamlet and Bear Mountain Triangle which serves the Property. Id. ES-5; 5-7.

20. The Project would also address general concerns that the Town has had pertaining to an increased demand for housing and lack of diversity in its housing stock. See id. at 5-2. Specifically, in 2010, the Town recognized that "most new housing is in the form of large-lot single-family homes, and very little is being built in the way of other types of housing." Id. Petitioner would add 118 townhouse units to the Town's housing stock, thereby adding to the variety of housing options available in the community.

21. The Zoning Map Amendment would also facilitate a residential use at the Property that is consistent with the planned pattern of development for the area. As discussed above, the Property's current split RSP-3/R1-40 zoning could result in higher-intensity senior care and residential developments. Rezoning the Property to the RSP-2 District would still permit an age-restricted residential use, but with less demand on community resources such as emergency services and traffic.

22. Moreover, the Project would result in the generation of significant gross tax revenue, as well as the opportunity for the Town to preserve the Field Home Building. Petitioner would contribute $150,000.00 towards maintaining the Field Home Building, as well as $100,000.00 to the Parks & Recreation Department for improvement projects in the Town. In contrast, no school children would be added to the School District as a result of the Project since the townhomes would be age restricted and designed to accommodate the portion of the active adult market that no longer have children living at home.

23. Accordingly, it is respectfully submitted that adopting the Zoning Map Amendment to facilitate the Project would foster numerous housing, land use and fiscal goals of the Town.

IV.
SEQRA

24. In accordance with SEQRA, the Zoning Map Amendment and Project (collectively, the "Action") constitute a Type I action. Petitioner is submitting herewith a Long Environmental Assessment Form so that the Town Board may declare itself Lead Agency to determine whether the Action would result in any significant adverse environmental impacts after a coordinated review pursuant to 6 NYCRR § 617.7.

25. Petitioner anticipates that a coordinated SEQRA review will culminate in the issuance of a negative declaration. Petitioner has already prepared many of the impact assessments that we respectfully submit will support the Lead Agency finding that any impacts associated with the Action should not be quantified as "significant." This includes:

- Traffic Impact Study, prepared by Colliers Engineering & Design, dated October 19, 2022 (annexed hereto as Exhibit "E");
- Fiscal Impact Analysis, dated November 9, 2022, prepared by ESE Consultants (annexed hereto as Exhibit "F");
- Real Estate Property Tax Projection Report, prepared by Cronin & Cronin Law Firm, PLLC, dated May 17, 2022 (annexed hereto as Exhibit "G");
- Wetland and Watercourse Update Letter, dated October 22, 2022, and Wetland Delineation Report, dated October 27, 2021, prepared by Ecological Analysis LLC (annexed hereto as Exhibit "H"); and
- New York State Office of Parks, Recreation & Historic Preservation Correspondence, dated October 28, 2022 (annexed hereto as Exhibit "I").

26. The Traffic Impact Study ("TIS"), for example, demonstrates that developing 118 townhomes at the Property and preserving the Field Home Building would not result in a significant increase in area traffic. Notably, the residents of an age-restricted

development generate a minimal amount of traffic during peak travel hours. Nonetheless, Colliers used trip projections from developments without age restrictions to calculate future traffic conditions, which are *far higher* than an age-restricted project.[4] Even with these conservative projections of trip generation, the projected levels of service ("LOS") at key intersections in the vicinity of the Property would continue to operate at A or B. Only the intersection of Garden Lane & Crompond Road would experience a noticeable decrease in LOS during the PM peak hour; however, such impact is going to occur under "no build" future conditions irrespective of the Project. As such, Colliers Engineering & Design has concluded that "the proposed active adult residential development traffic is not expected to cause any significant impact in overall operation." See Exhibit "E," TIS at 10.

27. Similarly, Petitioner's Fiscal Impact Analysis demonstrates that the Project would result in a net *surplus* of $108,010.00 in tax revenue for Town services, $12,724.00 for County services, and $896,969.00 for the Yorktown School District. See Exhibit "F," Fiscal Impact Analysis. In addition, as an age-restricted development, there would be little, if any, demand on the School District's resources.

28. In addition, Petitioner has sought the opinion of the New York State Historic Preservation Office (SHPO) as it pertains to the presence of historical and/or archaeological resources for the site and surrounding area. SHPO has opined that the Project would not impact any properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registries of Historic Places. See Exhibit "I."

---

[4] As set forth in Table #1 of the TIS, for example, whereas a typical 118-unit townhouse development is expected to generate **47** outbound trips in the AM peak hour, Toll's age-restricted project is expected to general only **17** outbound trips in the AM peak hour. See TIS, Appendix B, Tables 1 & 1A. Similarly, in the PM peak hour a typical development would generate **44** inbound trips, whereas an age-restricted project would generate only **19** trips. Id.

29. Of course, Petitioner and its Team of planning, engineering and environmental professionals will also work with the Town and its professionals to identify any other information necessary to complete the "hard look" at the Action prior to completing the SEQRA process.

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V. REQUESTED RELIEF

30. In order to accommodate the Project, Petitioner respectfully requests that the Town Board, pursuant to Section 300-206 of the Zoning Ordinance:

(i) Accept this Petition and refer this matter to the Town of Yorktown Planning Board for a report and recommendation pursuant to Section 300-206(C) of the Zoning Ordinance; and

(ii) Declare itself Lead Agency under SEQRA; and

(iii) Refer the Zoning Map Amendment to the Town Planning Board for its review and support; and

(iv) Refer the Zoning Map Amendment to the Westchester County Department of Planning for its recommendations; and

(v) Schedule, notice and conduct a public hearing on the Petition at the earliest possible date; and

(vi) Resolve to adopt the Zoning Map Amendment annexed hereto as Exhibit "A."

WHEREFORE, it is respectfully requested the instant matter be placed on the earliest possible agenda of the Town Board, and that the relief sought herein be, in all respects, granted.

Dated: November 15, 2022
White Plains, New York

Respectfully Submitted,

ZARIN & STEINMETZ

By: _____

David J. Cooper
Jaclyn Cohen
Attorneys for Petitioner
81 Main Street, Suite 415
White Plains, New York 10601
(914) 682-7800

OWNER'S AFFIDAVIT

STATE OF NEW YORK)
) ss.:
COUNTY OF WESTCHESTER)

John R. Ahearn, hereby deposes and says that s/he is the Chief Executive Officer at Field Home – Holy Comforter. Field Home – Holy Comforter is the owner of certain real property located at 2302 Catherine Street and 2448 Catherine Street, Yorktown, New York (designated on the Town Tax Map as Section 35.12, Block 1, Lot 2 and Section 35.08, Block 1, Lot 45) and has granted Toll Brothers, Inc., the Petitioner in this proceeding, the authority to prepare, submit and process all necessary and appropriate land use applications, including but not limited to, the instant Petition, in connection with its proposal to develop the Project - a multifamily townhome development on the Property.

John R. Ahearn
Signature of Authorized Representative

John R. Ahearn
Print Name

Sworn to before me this
14 day of November 2022.

Donna D. Haskel
Notary Public

Donna D. Haskel
01HA6187756
Notary Public, State of New York
Qualified in Putnam County
Commission Expires 05/27/2024

VERIFICATION

STATE OF Connecticut)
) s.s.:
COUNTY OF Fairfield)

KEVNEY MOSES, hereby deposes and says that he is the PROJECT MANAGER at TOLL BROTHERS, INC., which is the Petitioner in this proceeding, and says that the foregoing Petition is true to his own knowledge, except as to those matters therein stated to be alleged on information and belief and as to those matters he believes them to be true.

Signature of Authorized Representative

KEVNEY MOSES
Print Name

Sworn to before me this
9 day of November 2022.

Notary Public

Anna Mary Trent
Notary Public-Connecticut
My Commission Expires
June 30, 2027

A LOCAL LAW AMENDING THE ZONING MAP OF THE TOWN OF YORKTOWN

SECTION 1.

Section 300-6 of the Town Zoning Ordinance, entitled "Zoning Map established", is hereby amended by the addition of the following (*new language added appears in italics*):

A. *The Zoning Map of the Town of Yorktown, dated _____, is hereby amended to change the designation of the property identified on the Yorktown Tax Map as Section 35.12, Block 1, Lot 2 (2302 Catherine Street) from the RSP-3 District to the RSP-2 District.*

B. *The Zoning Map of the Town of Yorktown, dated _____, is hereby amended to change the designation of the property identified on Yorktown Tax Map as Section 35.08, Block 1, Lot 45 (2448 Catherine Street) from the R1-40 District to the RSP-2 District.*

SECTION 2. Severability:

The provisions of this local law are intended to be severable. If any provision of this Local Law is found by a Court of competent jurisdiction to be unconstitutional or otherwise invalid, such findings shall not be deemed to invalidate the local law as a whole, nor any other section or provision thereof, other than that which is found to be unconstitutional or otherwise invalid.

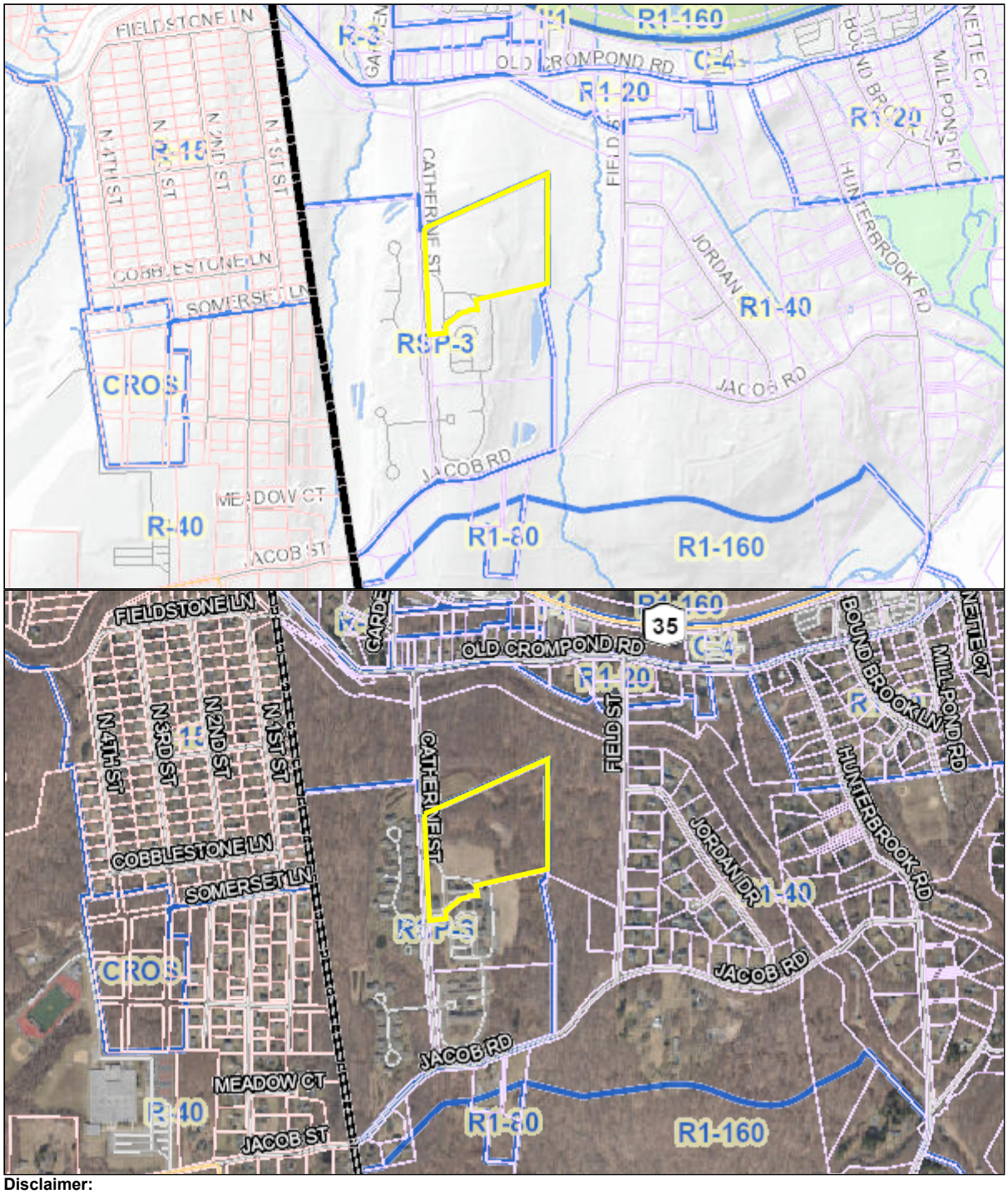
SECTION 3. Effective Date:

This Local Law shall take effect immediately upon filing with the Secretary of State.

Tax Parcel Maps

Address: 2302 CATHERINE ST

Print Key: 35.12-1-2 **SBL:** 03501200010020000000

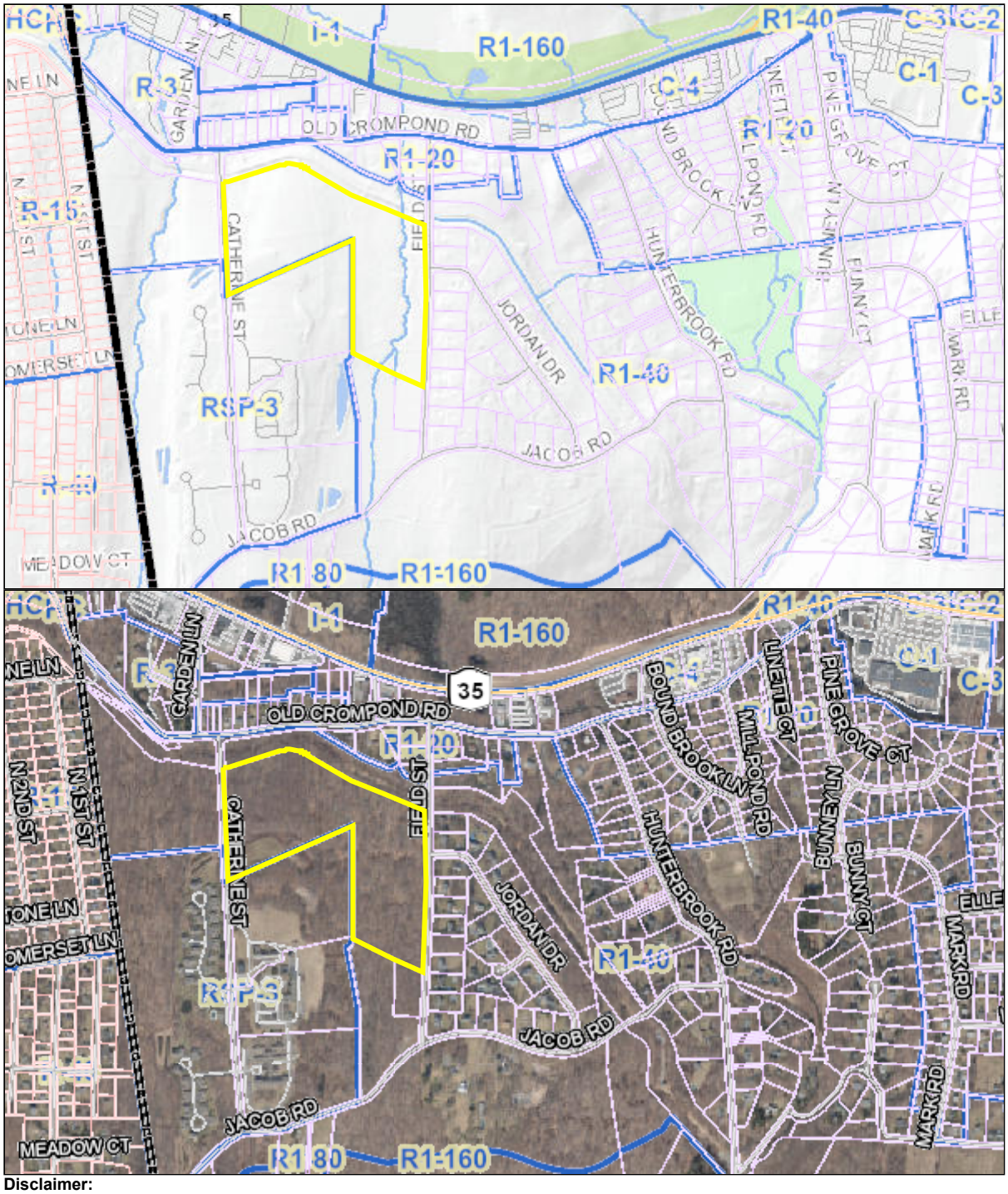


Disclaimer:
This tax parcel map is provided as a public service to Westchester County residents for general information and planning purposes only, and should not be relied upon as a sole informational source. The County of Westchester hereby disclaims any liability from the use of this GIS mapping system by any person or entity. Tax parcel boundaries represent approximate property line location and should **NOT** be interpreted as or used in lieu of a survey or property boundary description. Property descriptions must be obtained from surveys or deeds. For more information please contact the assessor's office of the municipality.

Tax Parcel Maps

Address: 2448 CATHERINE ST

Print Key: 35.08-1-45 **SBL:** 03500800010450000000



Disclaimer:
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Town of Yorktown, NY
OFFICIAL ZONING MAP

Zoning Districts

R1-200	One-Family Residential
R1-160	One-Family Residential
R1-80	One-Family Residential
R1-40	One-Family Residential
R1-20	One-Family Residential
R1-10	One-Family Residential
R-2	Two-Family Residential
R-3	Multifamily Residential
RSP-1	Age-Oriented Community
RSP-2	Senior Citizens District
RSP-3	Age-Oriented Geriatric Community
CRC	Commercial Regional Center
C-1	Commercial Shopping Center
C-2	Commercial Hamlet Center
C-2R	Commercial Hamlet Center
CR	Commercial Recreation
C-3	Commercial Limited
C-4	Commercial General
CC	Country Commercial
OB	Research Laboratory and Office
O	Office
I-1	Light Industrial Park
I-2	Planned Light Industry
IN	Planned Interchange

APPROVED BY TOWN BOARD

DATE: March 26, 2019

SUPERVISOR:

BOARD MEMBERS:

TOWN CLERK: Diana L. Quast

THIS MAP WAS PREPARED BY THE DEPARTMENT OF PLANNING AND SHOWS THE ZONING DISTRICTS MAPPED AS OF JANUARY 15, 2019.

THE STREET SYSTEM WAS TAKEN FROM THE "16TH AMENDED STREET NAMING AND PROPERTY NUMBERING MAP" ADOPTED FEBRUARY 17, 2009.

THIS MAP SHOULD ONLY BE USED FOR REFERENCE PURPOSES. FOR EXACT DETERMINATION OF DISTRICT BOUNDARIES, PLEASE CONSULT THE BUILDING OFFICIAL.

FOR AREAS DEVELOPED UNDER NYS TOWN LAW SECTION §278: SUBDIVISION REVIEW; APPROVAL OF CLUSTER DEVELOPMENT [FORMERLY SECTION §281], PLEASE CONSULT THE PLANNING DEPARTMENT.

FOR AREAS DEVELOPED UNDER TOWN CODE ARTICLE XVII: TRANSITIONAL ZONE, PLEASE CONSULT THE PLANNING DEPARTMENT.

N W E S

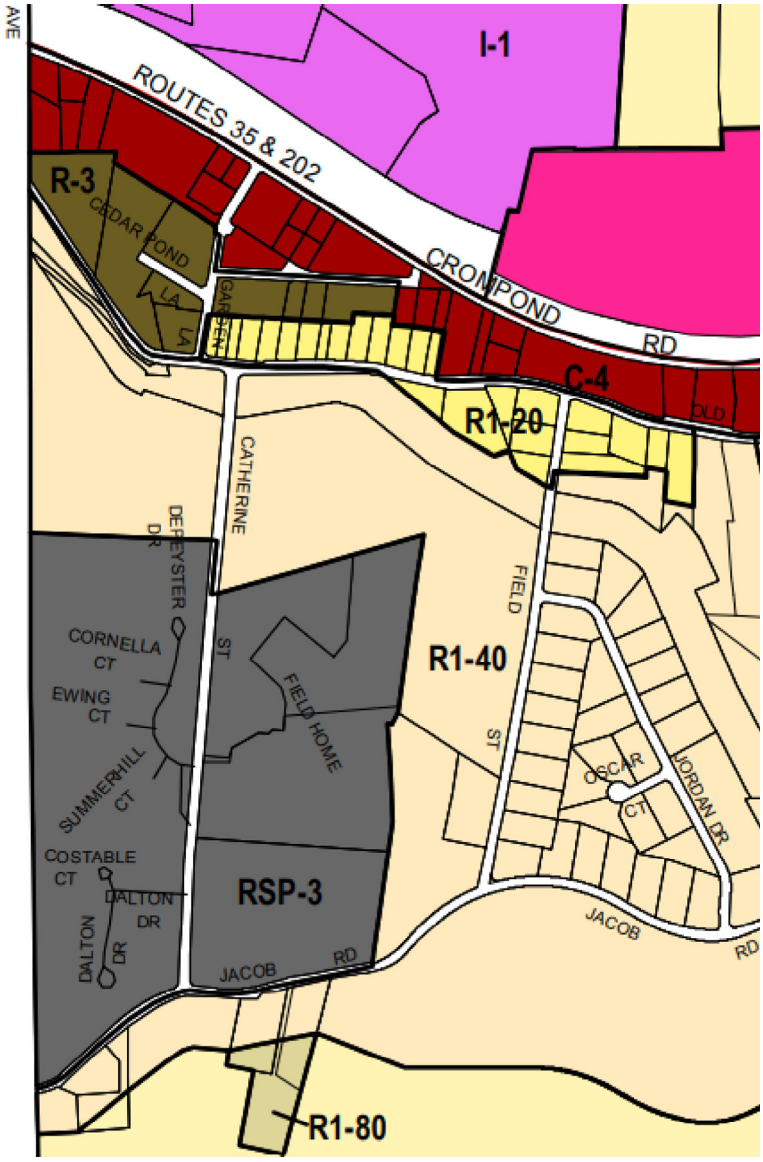
0 1/8 1/4 1/2 Miles

0 800 1,600 3,200 4,800 6,400 Feet

1 inch = 1,600 feet

TOWN OF YORKTOWN
363 Underhill Avenue, Yorktown Heights, NY 10598
Phone: (914) 962-5722, Website: www.yorktownny.org

F:\ArcGIS\Projects\Zoning Map\OfficialZoningMap-RevNov2018.mxd


I-1
ROUTES 35 & 202
R-3
CEDAR POND
LA
LA
GARDEN
CROMPOND
RD
C-4
OLD
R1-20
CATHERINE
ST
DEFEYSTER
DR
FIELD
CORNELLA
CT
EWING
CT
SUMMERHILL
CT
FIELD HOME
R1-40
ST
OSCAR
CT
JORDAN DR
COSTABLE
CT
DALTON
DR
DALTON
DR
RSP-3
JACOB
RD
JACOB
RD
R1-80

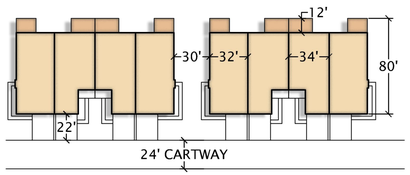
PROPERTY DATA:

TOTAL SITE AREA:	± 50.51 AC
SUBDIVIDED PARCEL AREA:	± 2.46 AC
WETLAND BUFFER AREA:	± 9.91 AC
WETLAND AREA:	± 1.59 AC
NET DEVELOPABLE AREA:	± 36.55 AC

ZONING REQUIREMENTS: (RSP-2 DISTRICT)

BULK REQUIREMENTS	REQUIRED	PROPOSED
MAX. DENSITY:	159 DU	118 DU
F.A.R:	.35	.22
MIN. SITE AREA:	5 AC	50.51 AC
MIN. LOT WIDTH:	150 FT	1500 FT
MIN. LOT DEPTH:	150 FT	+150 FT
MIN. FRONT SETBACK:	50 FT	50 FT
MIN. SIDE SETBACK:	50 FT	50 FT
MIN. REAR SETBACK:	50 FT	50 FT
MIN. FLOOR AREA:	550 SF	1,850 SF
MAX. BUILDING HEIGHT:	45 FT	±38FT
MIN. OFF-STREET PARKING:	.5 SP/DU	2 SP/DU

TYPICAL LOT

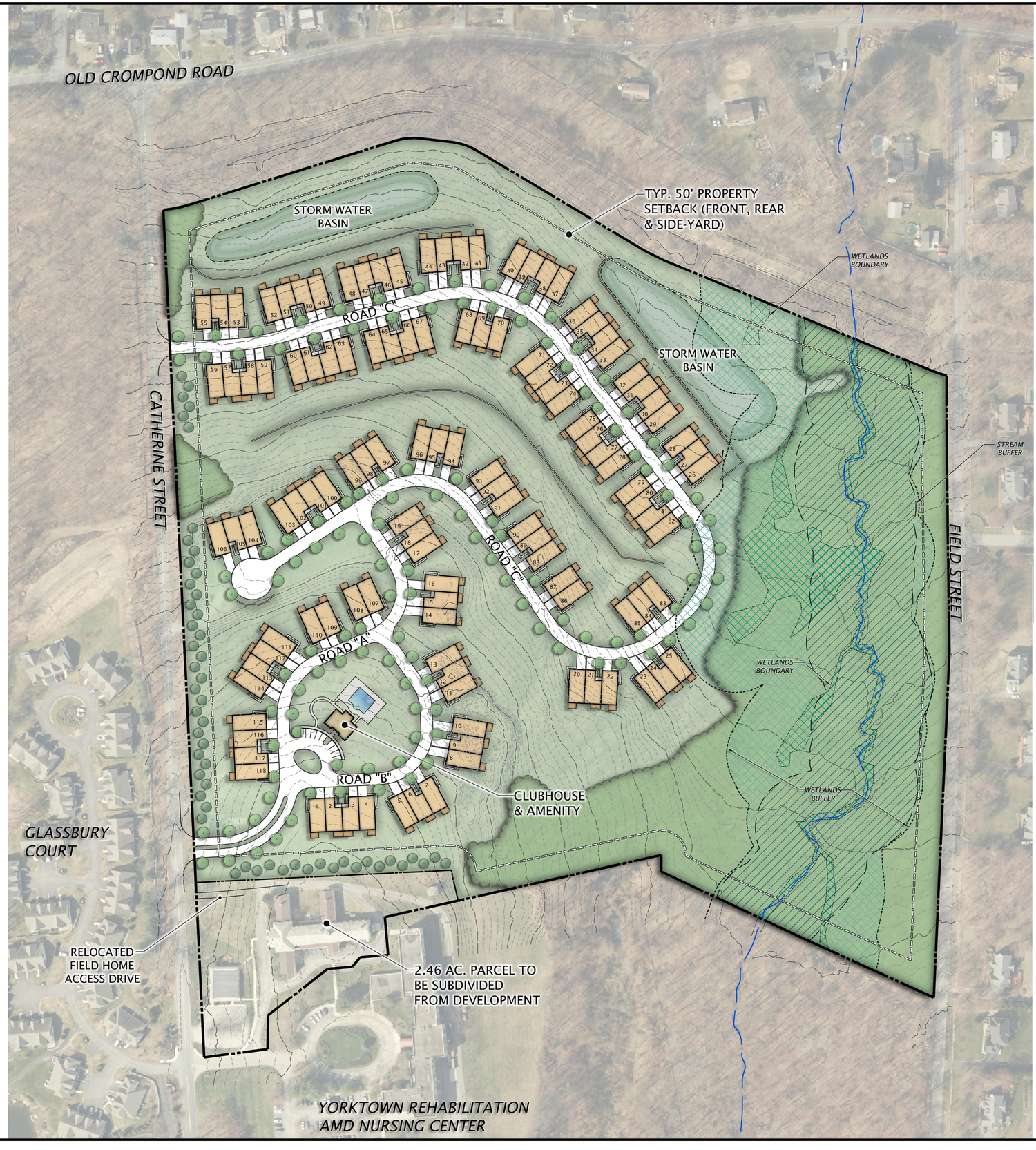


LEGEND:

- WETLAND
- WETLAND BUFFER
- STREAM BUFFER
- STREAM

SOURCES:

1. THIS PLAN IS THE EXCLUSIVE PROPERTY OF ESE CONSULTANTS INC., AND TOLL BROTHERS INC. ALL RIGHTS AND REMEDIES ARE HEREBY RESERVED. THIS PLAN MAY NOT BE REPRODUCED OR DISTRIBUTED IN ANY WAY WITHOUT THE WRITTEN CONSENT OF ESE CONSULTANTS INC., AND TOLL BROTHERS INC.
2. AERIAL PHOTOGRAPH TAKEN FROM GLOBE IMAGE XPLORER.
3. TOPOGRAPHIC & WETLAND INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY PREPARED BY WARD CARPENTER ENGINEERS, INC., PLAN DATED JANUARY 31, 2022.



CMG Engineering Surveying Landscape Architecture

SITE PLAN
118 CARRIAGE HOMES
FIELD HOME
YORKTOWN, WESTCHESTER CO., NY

NORTH

FEET
100 0 50 100 200
GRAPHIC SCALE 1 inch = 100 ft.

PLAN SUMMARY:

(118) CARRIAGE HOMES
(118) TOTAL HOMES

±16 ACRES OPEN SPACE
(NOT INCLUDING BASINS)

SITE DATA:

ADDRESS: 2300 CATHERINE STREET, YORKTOWN, NEW YORK

PARCEL(S): SEC. 35.12 BLOCK 1 LOT 2
SEC. 35.08 BLOCK 1 LOT 45

SITE AREA: ± 50.51 ACRES

CURRENT ZONING: RSP-3/R1-40

PROPOSED ZONING: REZONE TO RSP-2 (PROPOSED TOWN HOMES)

OFFICE DATA:

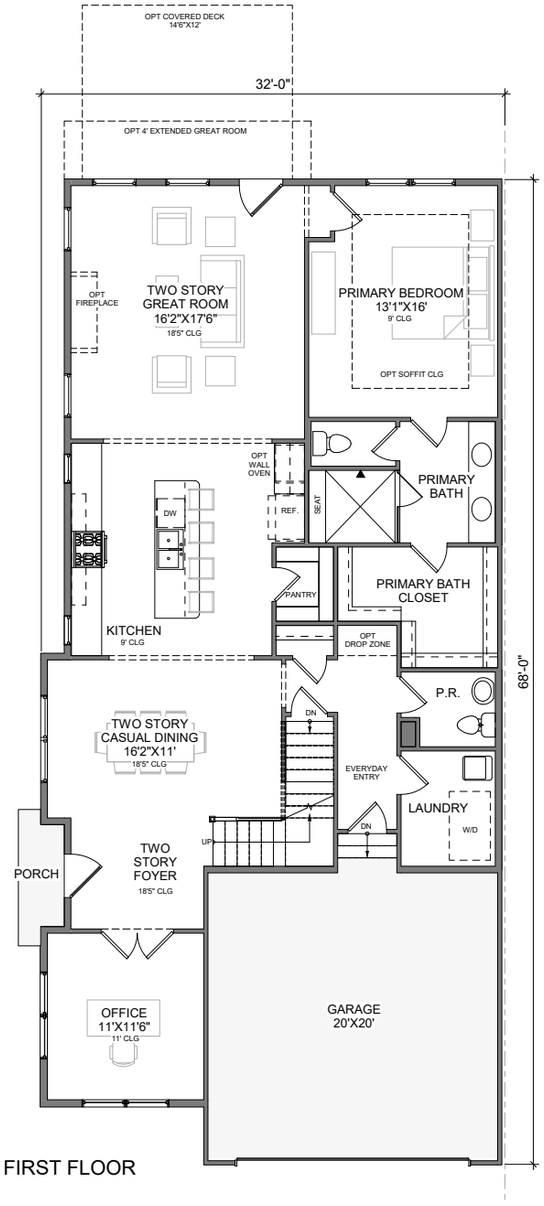
PROJECT NUMBER: 8274

DATE: 2022.11.08

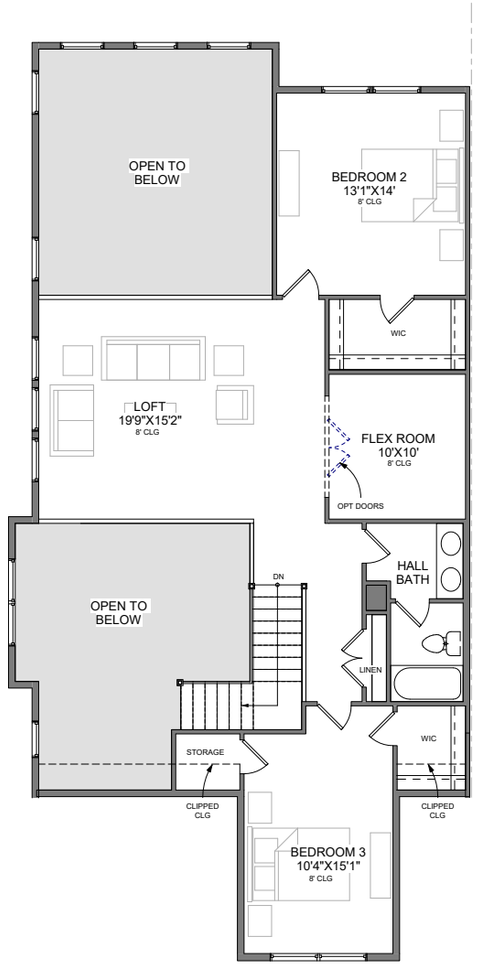
SCALE: 1"=100'

DRAWN BY: JTB

**Reference only. Renderings are indicative of materiality, color, style, and design intent. Architecture subject to change.



FIRST FLOOR



SECOND FLOOR

3

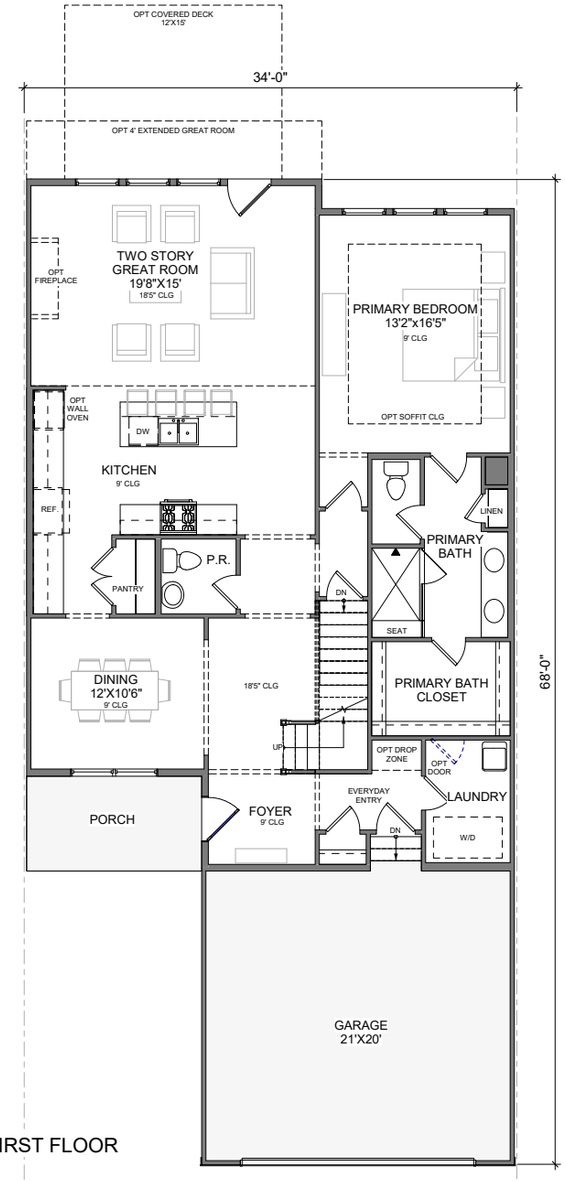
2½

2

FIELD HOME PLAN #1

FLOOR PLAN CONCEPTS

+/- 2,728 SQFT



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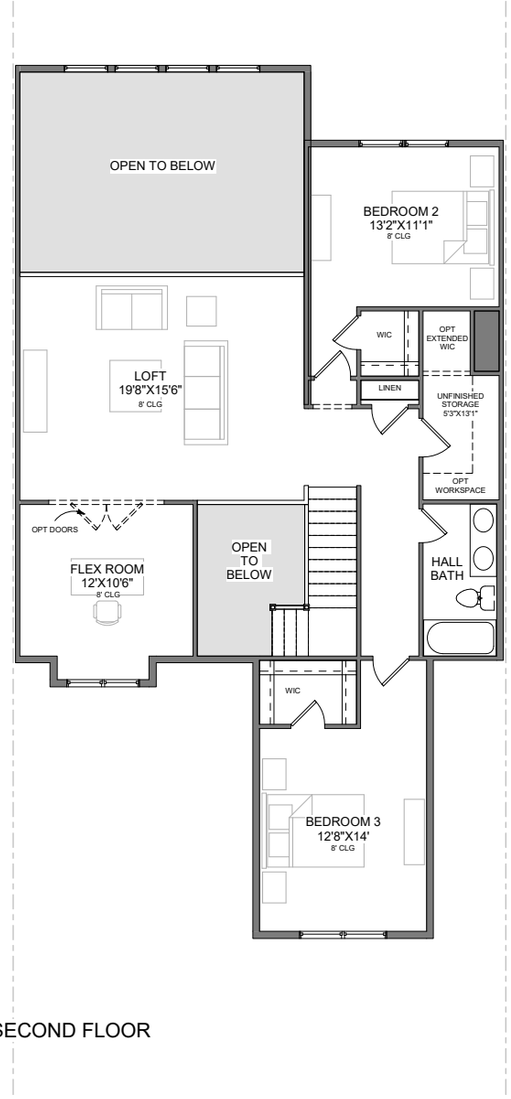


SECOND FLOOR

3

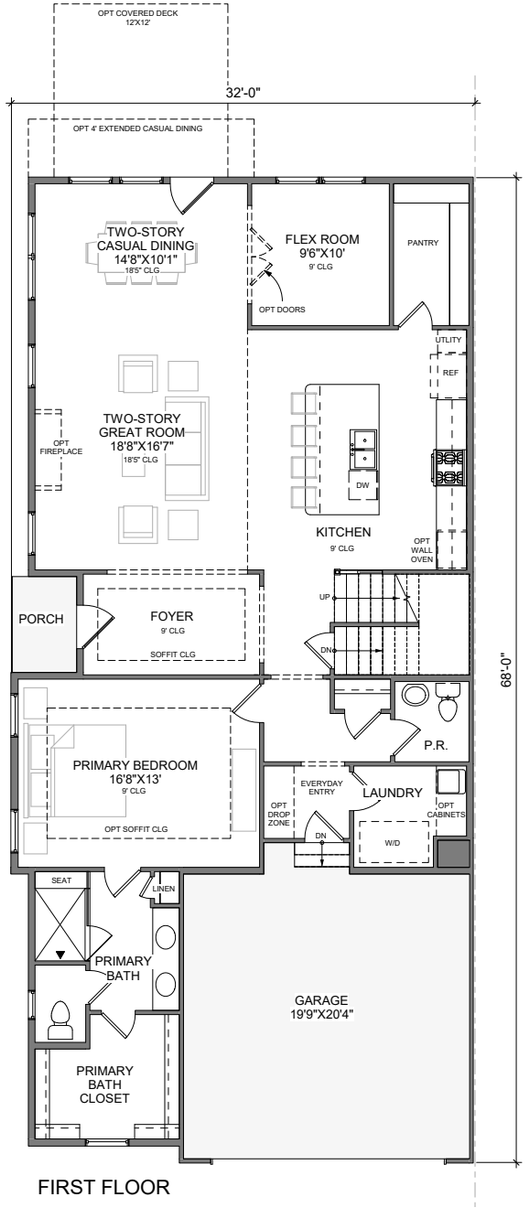
2½

2

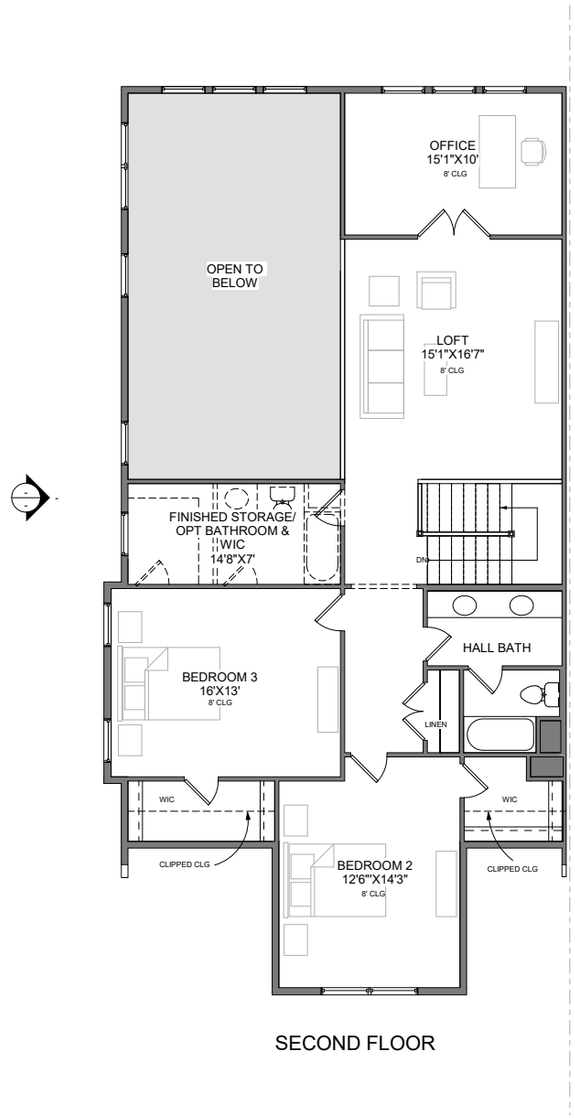
FIELD HOME PLAN #2

FLOOR PLAN CONCEPTS

+/- 2,604 SQFT



FIRST FLOOR



SECOND FLOOR

3

2½-3½

2

FIELD HOME PLAN #3

FLOOR PLAN CONCEPTS

+/- 2,967 SQFT

PLAN #1
+/- 24'-9" TO MIDPOINT OF ROOF

PLAN #2
+/- 24'-3" TO MIDPOINT OF ROOF

PLAN #3
+/- 25'-0" TO MIDPOINT OF ROOF

**Massing and approximate building heights to show compliance only.

Colliers Engineering & Design

Traffic Impact Study

October 19, 2022

Proposed Active Adult Residential Development
2300 Catherine Street
Town of Yorktown, Westchester County, New York

Prepared for:

Toll Brothers, Inc.
42 Old Ridgebury Road
Danbury, CT 06810

Prepared by:

Philip J. Grealy, Ph.D., P.E.
Geographic Discipline Leader
New York Professional Engineer
License No. 59858

Colliers Engineering & Design
400 Columbus Avenue
Suite 180E
Valhalla New York 10595
Main: 877 627 3772
Colliersengineering.com

Project No. 21006314A

Colliers Engineering & Design

Table of contents

Appendices

I. Introduction

A. Project Description and Location

(Figure No. 1)

This report has been prepared to evaluate the potential traffic impacts associated with the proposed 120 dwelling unit active adult residential development ("the Project"), which is planned to be developed on the property located at 2300 Catherine Street in the Town of Yorktown, Westchester County, New York. The site is proposed with two (2) access connections via Catherine Street.

A Design Year of 2026 has been utilized in completing the traffic analysis in order to evaluate future traffic conditions associated with this proposed development.

B. Scope of Study

This study has been prepared to identify current and future traffic operating conditions on the surrounding roadway network and to assess the potential traffic impacts of the Project.

All available traffic count data for the study area intersections were obtained from previous reports prepared by our office. These data were supplemented with new traffic counts collected by representatives of Colliers Engineering & Design CT, P.C. These data were also compared to count data obtained from the New York State Department of Transportation (NYSDOT). Together these data were utilized to establish the Year 2022 Existing Traffic Volumes representing existing traffic conditions in the vicinity of the site.

The Year 2022 Existing Traffic Volumes were then projected to the 2026 Design Year to take into account background traffic growth. In addition, traffic for other specific potential or approved developments in the area were estimated and then added to the Projected Traffic Volumes to obtain the Year 2026 No-Build Traffic Volumes.

Estimates were then made of the potential traffic that the proposed development would generate during each of the peak hours (see Section III-C for further discussion). The resulting site generated traffic volumes were then added to the roadway system and combined with the Year 2026 No-Build Traffic Volumes resulting in the Year 2026 Build Traffic Volumes.

The Existing, No-Build and Build Traffic Volumes were then compared to roadway capacities based on the procedures from the Highway Capacity Manual to determine existing and future Levels of Service and operating conditions. Recommendations for improvements were made where necessary to serve the existing and/or future traffic volumes.

II. Existing Roadway and Traffic Descriptions

A. Description of Existing Roadways

As shown on Figure No. 1, the proposed residential development will be accessed from Catherine Street via two access drives. The following is a brief description of the roadways located within the study area. In addition, Section III-F provides a further description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service and any recommended improvements for each of the study area intersections. Appendix "D" contains copies of the capacity analyses which indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. NYS Route 35/U.S. Route 202 (Crompond Road)

NYS Route 35/U.S. Route 202 in this vicinity is generally a two-lane roadway with separate turning lanes at various intersections and is under the jurisdiction of the NYSDOT. NYS Route 35/U.S. Route 202 serves as a major east/west roadway, which in Westchester County extends from Peekskill to the west through the Town of Cortlandt, the Town of Yorktown, and the Town of Somers to the east. In the vicinity of the study area, this roadway intersects with Garden Lane, Old Crompond Road, and Pine Grove Court. The posted speed limit, in the vicinity of the site, is 45 MPH. The roadway in this area is in good condition. On-street parking is not permitted along NYS Route 35/U.S. Route 202. Also, with the exception of the sections to the east near the Chase Bank/Staples Plaza and other commercial facilities where the roadway has been improved and consists of five lanes (two lanes per direction plus a separate left turn lane), there are currently no other existing sidewalks along NYS Route 35/U.S. Route 202.

2. Catherine Street

Catherine Street is a town roadway that travels in a north/south direction between unsignalized intersections with Old Crompond Road and Jacob Road. The roadway will provide access to the 2300 Catherine Street property at two unsignalized, full movement intersections to be located north of the Glassbury Court Active Adult Housing Development (Depeyster Drive). Catherine Street has a double yellow centerline with no shoulders present and a posted speed limit of 30 MPH.

3. Jacob Road

Jacob Road is a town roadway that travels in a generally east/west direction between an unsignalized intersection with Croton Avenue and Hunterbrook Road. The roadway generally serves residential land uses and intersects with several other local roadways including Catherine Street and Field Street. It has no edge line (fog line) and lacks centerline striping. It has a posted speed limit of 30 mph.

4. **Old Crompond Road**

   Old Crompond Road is a town roadway that originates at an unsignalized intersection with NYS Route 35/U.S. Route 202 immediately west of Lexington Avenue. The roadway traverses to the east, serving residential land uses and providing access to other local roads including Catherine Street. The roadway terminates at an unsignalized intersection with Pine Grove Court approximately 150 ft. south of NYS Route 35/U.S. Route 202. Old Crompond Road consists of one lane in each direction with a double yellow centerline and has a posted speed limit of 30 MPH.

5. **Garden Lane**

   Garden Lane is partially a private road and partially a Town road that traverses in a north/south direction between Crompond Road (Route 35/202) and Old Crompond Road. The northern portion of Garden Lane has a width of approximately 24 ft. while the width varies from as little as 18 ft. to 32 ft. The Town roadway portion, which starts at Old Crompond Road and continues approximately 450 ft. north, serves residential land uses. The northerly portion, which continues to the Route 202/35 intersection, has access to the New City Diner and a car dealership. Arthur Lane also has access to Garden Lane. Garden Lane currently has no center line striping and no stop control at the Old Crompond Road intersection.

B. 2022 Existing Traffic Volumes

(Figures No. 2 and 3)

Manual traffic counts were collected by representatives of Colliers Engineering & Design CT, P.C. on May 18 and 19, 2022 for the AM and PM Peak Hours to determine the existing traffic volume conditions at the study area intersections. These traffic counts were then compared to traffic volume data from previous traffic studies conducted by our office and to traffic volume data available from the New York State Department of Transportation (NYSDOT) for the U.S. Route 202 corridor. In the case where either the recent or historical counts were higher, the higher volumes were accounted for herein. Based on this information, the Year 2022 Existing Traffic Volumes were established for the Weekday Peak AM and Weekday Peak PM Hours at the following study area intersections.

- U.S. Route 202 (Crompond Road) and Garden Lane
- Catherine Street and Depeyster Drive
- Catherine Street and Jacob Road
- Catherine Street and Old Crompond Road
- Garden Lane and Old Crompond Road

Based upon a review of the traffic counts, the peak hours were generally identified as follows:

- Weekday Peak AM Hour 7:30 AM – 8:30 AM
- Weekday Peak PM Hour 5:00 PM – 6:00 PM

The resulting Year 2022 Existing Traffic Volumes are shown on Figures No. 2 and 3 for the Weekday Peak AM Hour and Weekday Peak PM Hour, respectively.

III. Evaluation of Future Traffic Conditions

A. 2026 No-Build Traffic Volumes

(Figure No. 4 and 5)

The Year 2022 Existing Traffic Volumes were increased by a growth factor of 2% per year to account for general background growth resulting in the Year 2026 No-Build Traffic Volumes which are shown on Figures No. 4 and 5 for each of the Peak Hours, which accounts for traffic from other developments in the area including Trader Joe's and the previously approved CVS opposite the Chase Bank.

B. Site Generated Traffic Volumes

(Tables No. 1 and 1A)

Estimates of the amount of traffic to be generated by the proposed development during each of the peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled "Trip Generation", 11th Edition, 2021, based on Land Use Category – 215 Townhouse and they were also compared with the rates for Land Use Category 251 – Senior Adult Housing. Table No. 1 summarizes the trip generation rates and corresponding site generated traffic volumes for the Weekday Peak AM and Weekday Peak PM Hours based on Land Use Category 215 and Table No. 1A based on Land Use Category 251. The volumes shown in Table No. 1 were used to provide a more conservative analysis.

C. Arrival/Departure Distribution

(Figures No. 6 and 7)

It was necessary to establish arrival and departure distributions to assign the site generated traffic volumes to the surrounding roadway network. Based on a review of the Existing Traffic Volumes and the expected travel patterns on the surrounding roadway network, the distributions were identified. The anticipated arrival and departure distributions are shown on Figures No. 6 and 7, respectively.

D. 2026 Build Conditions Traffic Volumes

(Figures No. 8 through 11)

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting site generated traffic volumes for each of the study area intersections are shown on Figures No. 8 and 9 for each of the peak hours, respectively. The site generated traffic volumes were then added to the Year 2026 No-Build Traffic Volumes to obtain the Year 2026 Build Traffic Volumes. The resulting Year 2026 Build Traffic Volumes are shown on Figures No. 10 and 11 for the Weekday Peak AM and Weekday Peak PM Hours, respectively.

E. Description of Analysis Procedures

It was necessary to perform capacity analyses in order to determine existing and future traffic operating conditions at the study area intersections. The following is a brief description of the analysis method utilized in this report:

1. **Signalized Intersection Capacity Analysis**

   The capacity analysis for a signalized intersection was performed in accordance with the procedures described in the Highway Capacity Manual, 6th Edition, dated 2016, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity. In order to identify an intersection's Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

2. **Unsignalized Intersection Capacity Analysis**

   The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the Highway Capacity Manual, 6th Edition, dated 2016. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix "C" of this report.

F. Results of Analysis

(Table No. 2)

Capacity analyses which take into consideration appropriate truck percentages, pedestrian activity, roadway grades and other factors were performed at the study area intersections utilizing the procedures described above to determine the Levels of Service and average vehicle delays. Summarized below are a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service as well as any recommended improvements.

Table No. 2 summarizes the results of the capacity analysis for the 2022 Existing, 2026 No-Build and 2026 Build Conditions. Appendix "D" contains copies of the capacity analysis which also indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. **U.S. Route 202 (Crompond Road) and Garden Lane**

   Garden Lane intersects with Crompond Road at a "T" shaped, unsignalized, uncontrolled intersection. Each of the approaches to the intersection consists of a single lane with Crompond Road having a double yellow centerline.

   Capacity analysis was conducted for this intersection utilizing the 2022 Existing Traffic Volumes. The analysis results indicate that the left turn exiting from Garden Lane at this intersection is currently operating at an overall Level of Service “D and E” during the AM and PM Peak Hours, respectively.

   The capacity analysis was recomputed using the 2026 No-Build and Build Traffic volumes. These results indicate that the left turns exiting from this intersection are expected to experience Levels of Service “D/E and F” during the AM and PM Peak Hours respectively under future No-Build and Build conditions. A traffic signal would be required to improve these conditions. However, the NYSDOT traffic signal warrants are not satisfied for this location, and thus, we do not recommend signalization at this intersection at this time.

2. **Catherine Street and Depeyster Drive**

   Catherine Street and Depeyster Drive intersect at a full movement unsignalized intersection. Depeyster Road is stop-sign controlled. Each of the approaches to the intersection consists of one lane.

   Capacity analysis was conducted for this intersection utilizing the 2022 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service “B” or better during the AM and PM Peak Hours.

   The capacity analysis was recomputed using the 2026 No-Build and Build Traffic volumes. These results indicate that the intersection is expected to continue to experience Levels of Service “B” or better during the AM and PM Peak Hours under future conditions.

3. **Catherine Street and Jacob Road**

   Catherine Street and Jacob Road intersect at "T" type unsignalized intersection with the Catherine Street approach being sop-sign controlled. Each of the approaches to the intersection consists of one lane.

   Capacity analysis was conducted for this intersection utilizing the 2022 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service “A” during the AM and PM Peak Hours.

   The capacity analysis was recomputed using the 2026 No-Build and Build Traffic volumes. These results indicate that the intersection is expected to experience Levels of Service “B” or better during the AM and PM Peak Hours under future conditions.

4. **Catherine Street and Old Crompond Road**

   Catherine Street and Old Crompond Road intersect at an unsignalized "T" shaped intersection. Each of the approaches to the intersection consists of one lane and the Catherine Street approach is stop-sign controlled.

   Capacity analysis was conducted for this intersection utilizing the 2022 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service “B” or better during the AM and PM Peak Hours.

   The capacity analysis was recomputed using the 2026 No-Build and Build Traffic volumes. These results indicate that the intersection is expected to continue to experience Levels of Service “B” or better during the AM and PM Peak Hours under future conditions.

5. **Garden Lane and Old Crompond Road**

   Garden Lane and Old Crompond Road intersection at a “T” shaped unsignalized intersection. Each approach consists of a single lane.

   Capacity analysis was conducted for this intersection utilizing the 2022 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service “B” or better during the AM and PM Peak Hours.

   The capacity analysis was recomputed using the 2026 No-Build and Build Traffic volumes. These results indicate that the intersection is expected to continue to experience Levels of Service “B” or better during the AM and PM Peak Hours under future conditions.

6. **Catherine Street and Existing Site Access**

   Catherine Street and the Existing Site Access intersected at a “T” type intersection with the site access being stop-sign controlled.

   Capacity analysis was conducted for this intersection utilizing the 2022 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service “A” during the AM and PM Peak Hours.

   The capacity analysis was recomputed using the 2026 No-Build and Build Traffic volumes. These results indicate that the intersection is expected to continue to experience Levels of Service “A” during the AM and PM Peak Hours under future conditions.

G. Findings and Recommendations

1. Project Specific Findings

   a. Based on the results of the capacity analyses, the traffic generated by the project will not result in any significant changes in operations or Levels of Service at the surround intersections.

b. As mentioned in Section 111.B of the report and shown in Table 1A, the trip generation associated with senior/age restricted housing is generally lower than non-age restricted.

c. At the proposed site driveways, clearing of vegetation within the right-of-way and along site frontage should be completed to ensure adequate sight distances for entering and exiting vehicles.

2. Non-Project Related Findings and Recommendations

a. At each of the intersections analyzed along Old Crompond Road and Catherine Street, some vegetative clearing and pruning will be required to ensure adequate sight distances are maintained.

b. At the intersection Jacob Road and Catherine Street, in addition to the sight distance improvements, the installation of a double yellow centerline, solid white stop line, and a double yellow centerline along Jacob Road should be provided, again, regardless of the proposed project.

c. At the intersection of Catherine Street and Old Crompond Road, a painted stop bar should be installed at the intersection.

d. At the intersection of Garden Lane and Old Crompond Road, sight distances should be improved by clearing/pruning within the right-of-way looking both east and west. A painted “stop” line should also be provided on the Garden Lane approach.

e. The intersection of Garden Lane and U.S. Route 202 was analyzed for potential signalization. Under current conditions, it was determined that the signal warrants are not satisfied.

IV. Summary and Conclusion

Based on the above analysis, similar Levels of Service and delays will be experienced at the area intersections under the future No-Build and future Build Conditions. Thus, the proposed active adult residential development traffic is not expected to cause any significant impact in overall operation.

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Traffic Impact Study

Appendix A | Traffic Figures

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PROJECT NUMBER:	DRAWING NAME:
21006314A	220513RH_FIGURE

SHEET TITLE: SITE LOCATION MAP

SHEET NUMBER: 1

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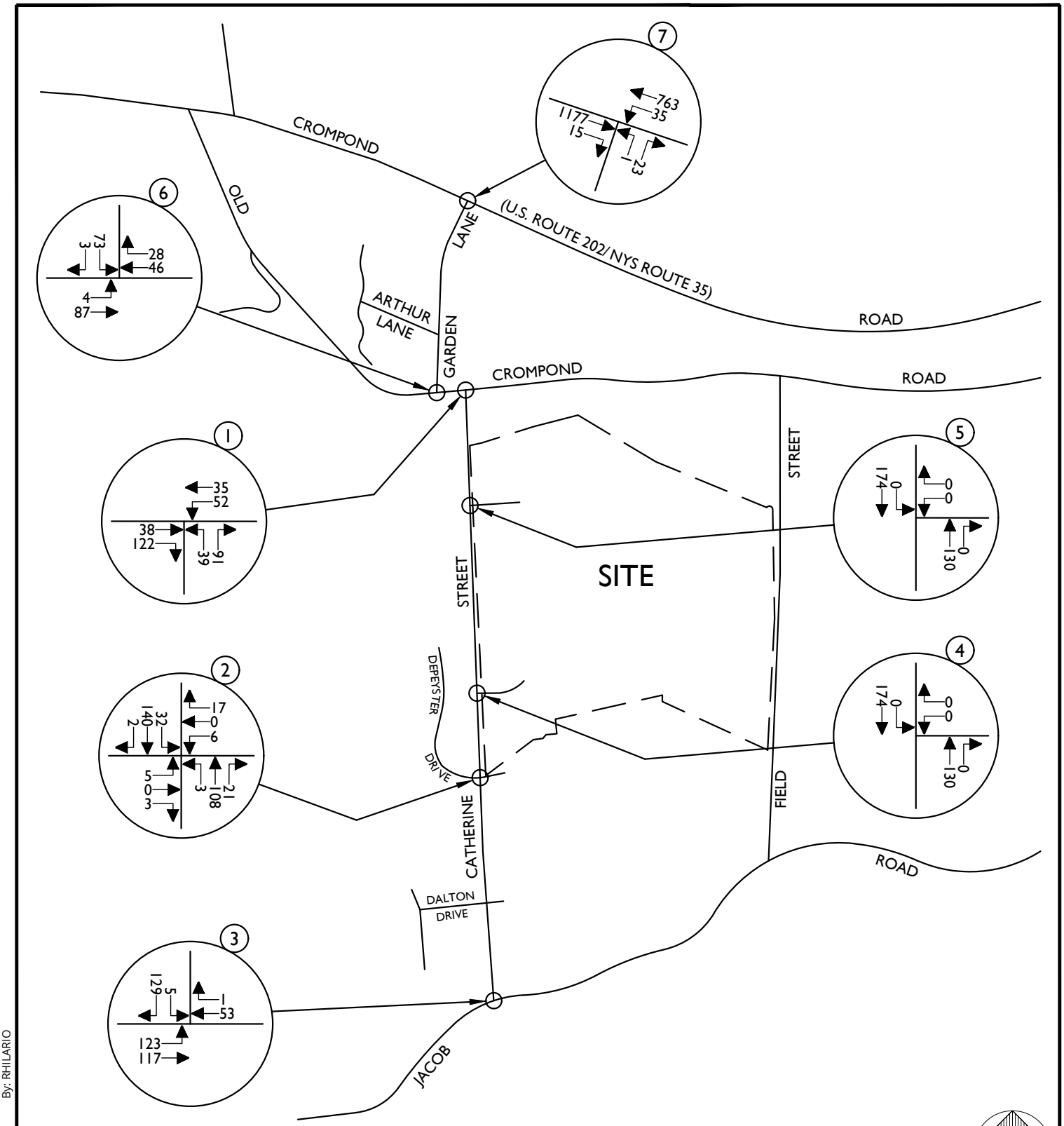

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WEEKDAY PEAK AM HOUR

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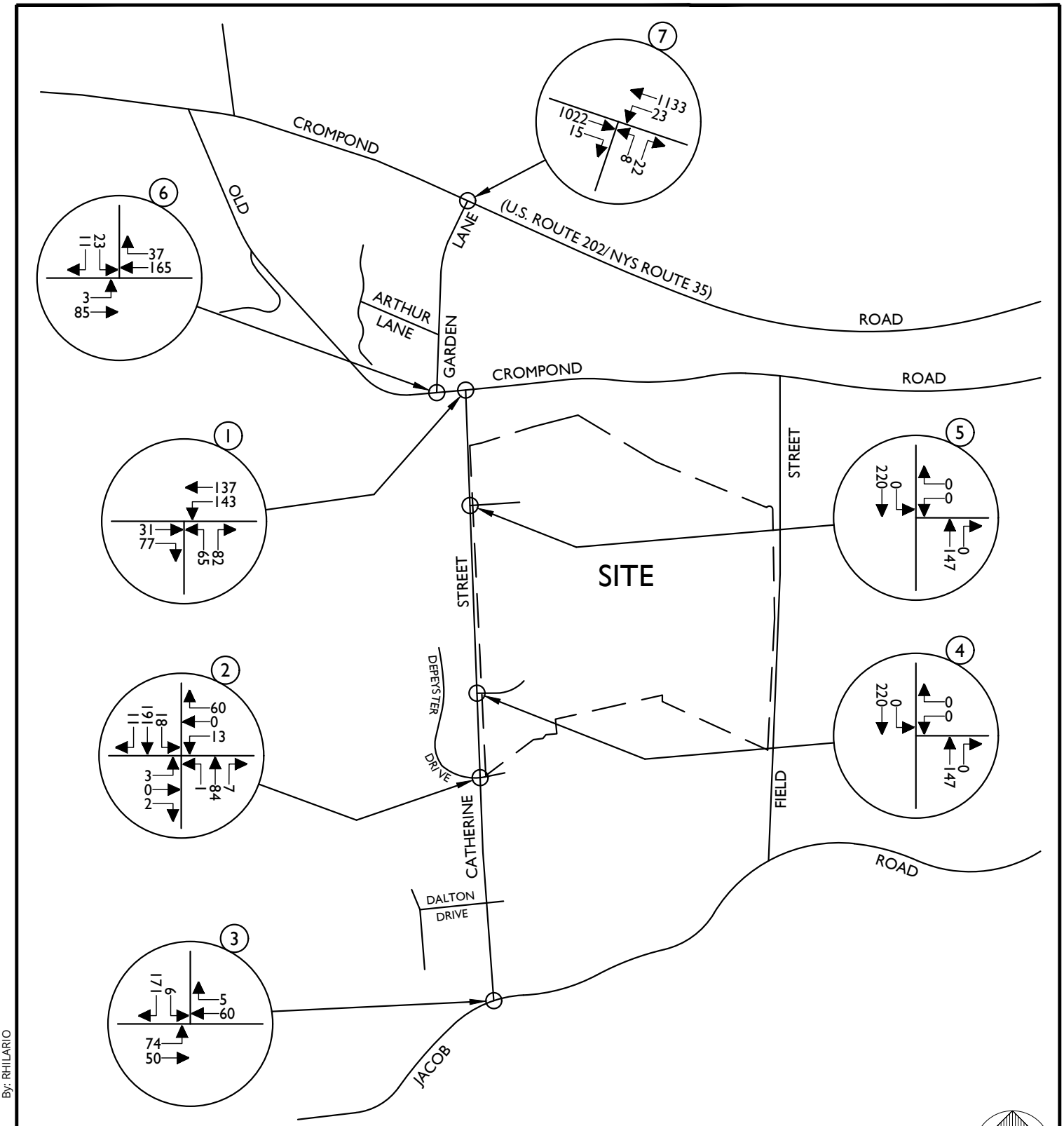

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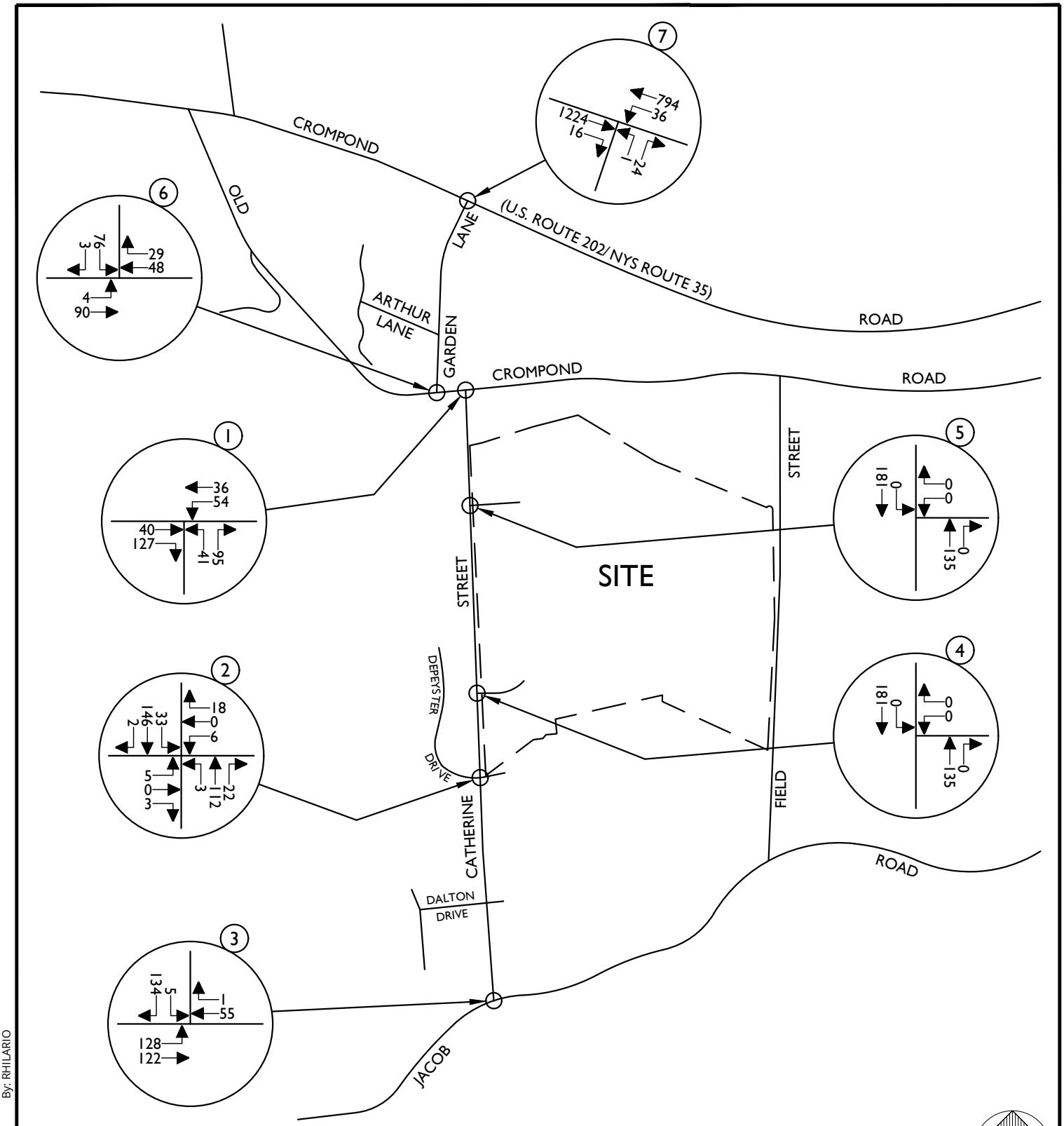

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2026 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

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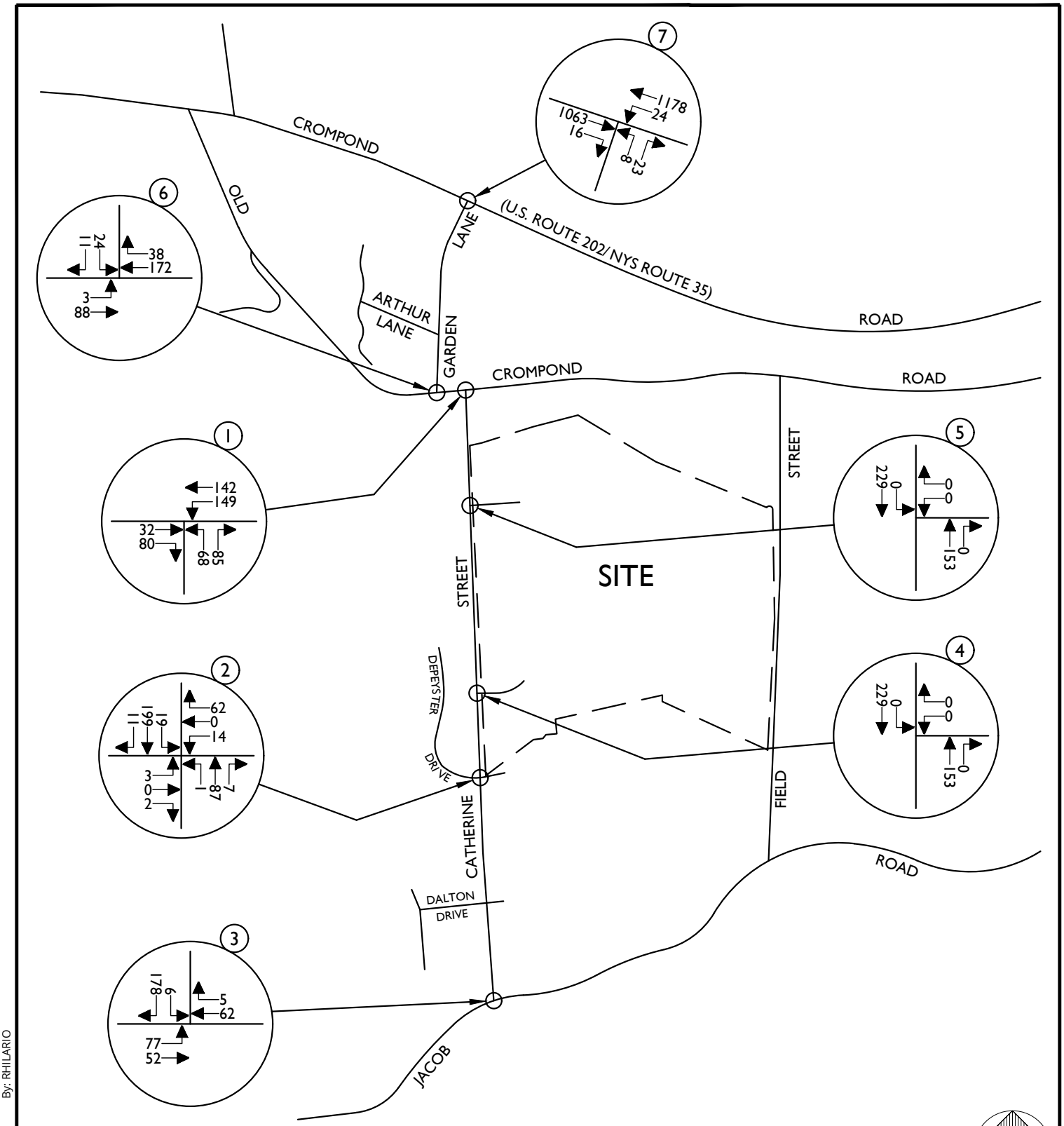

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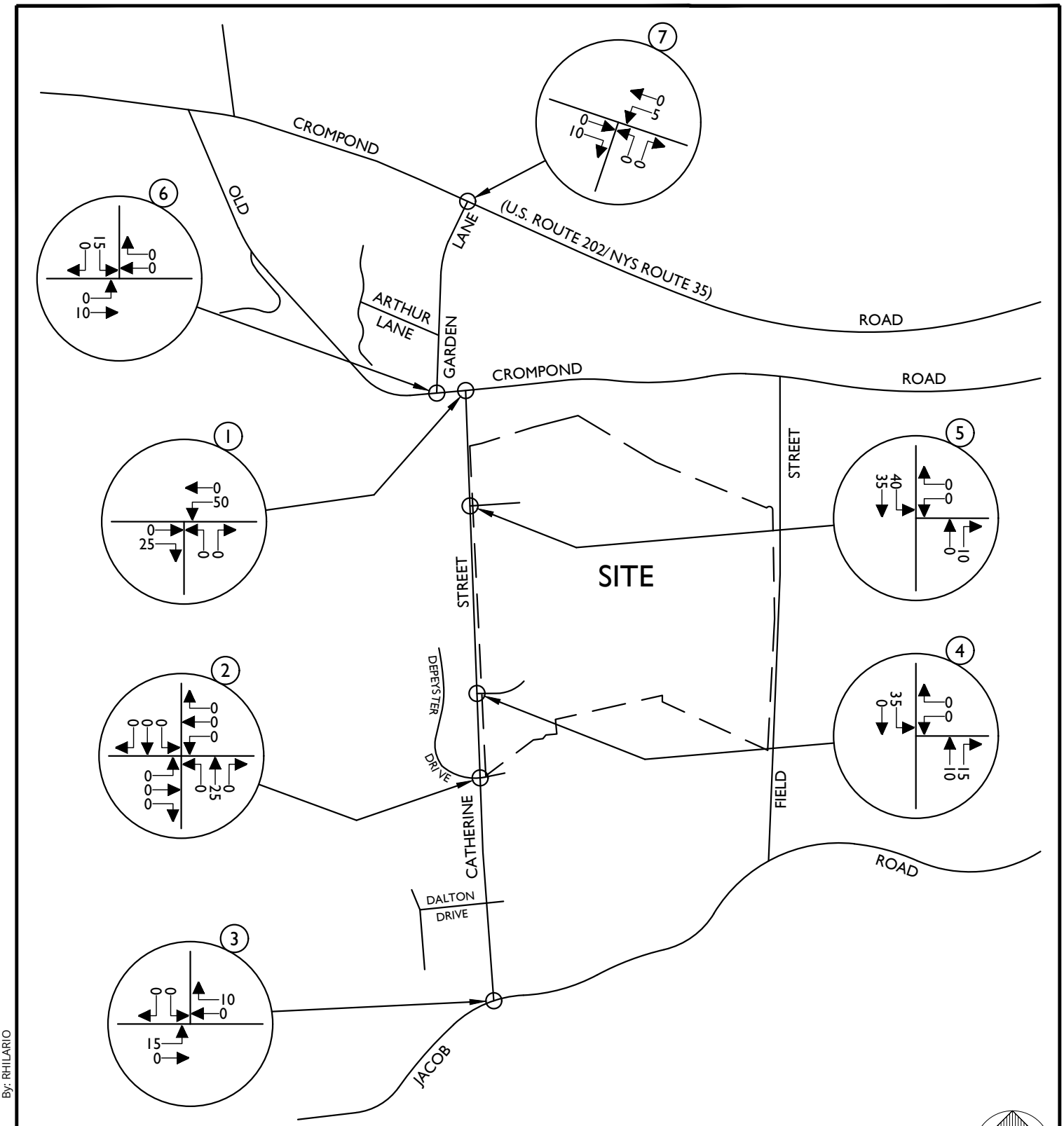

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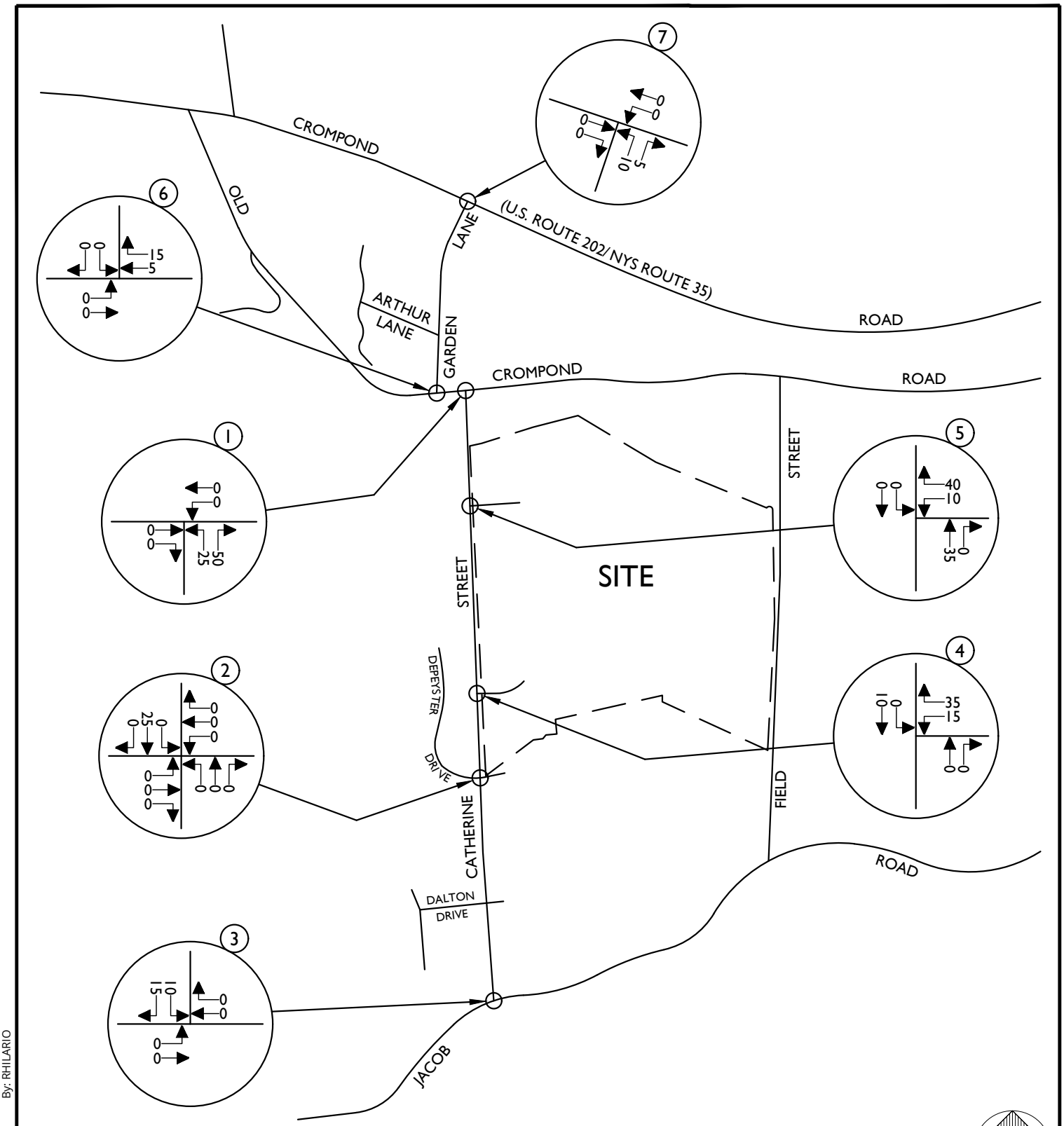

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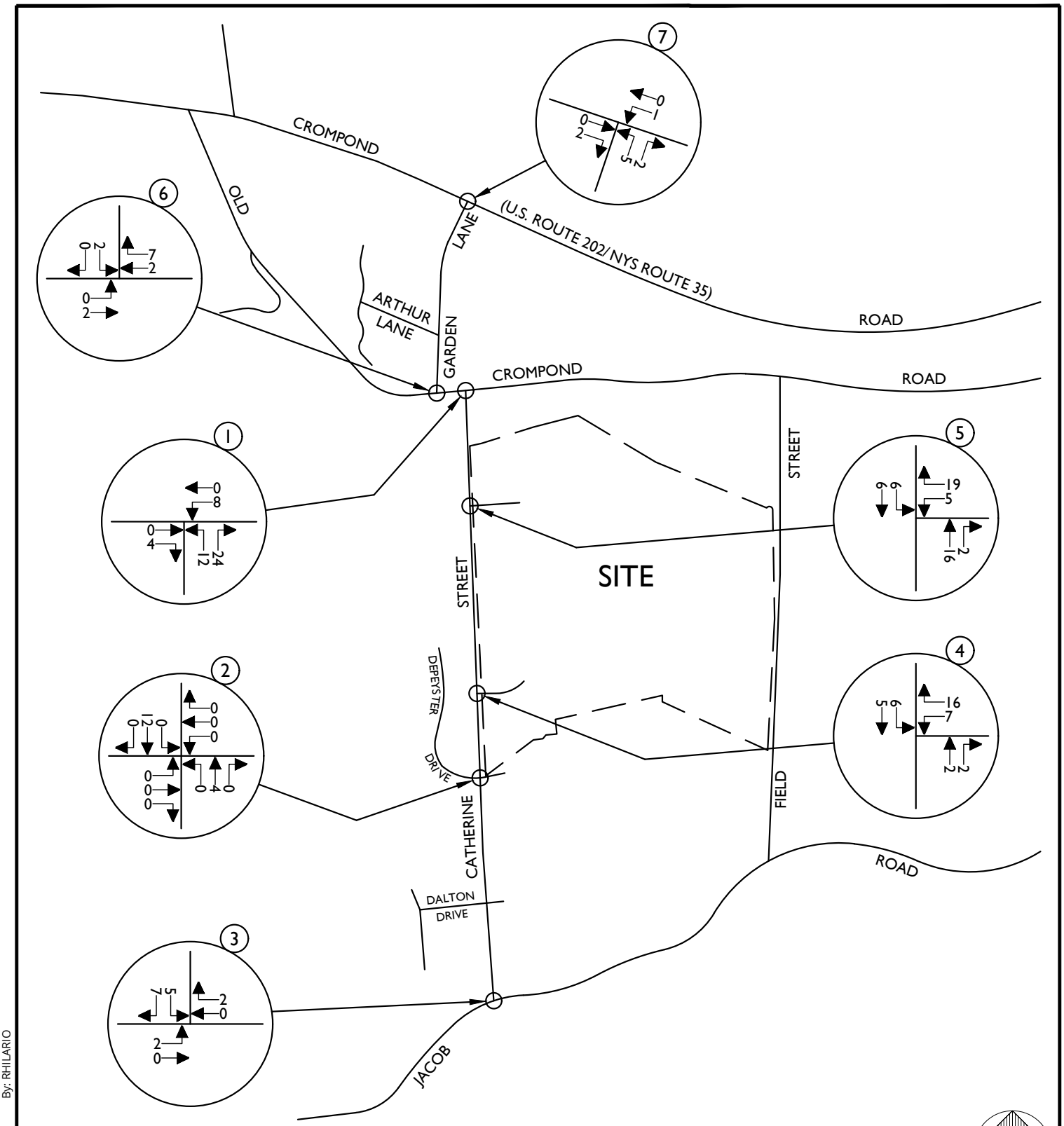

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SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
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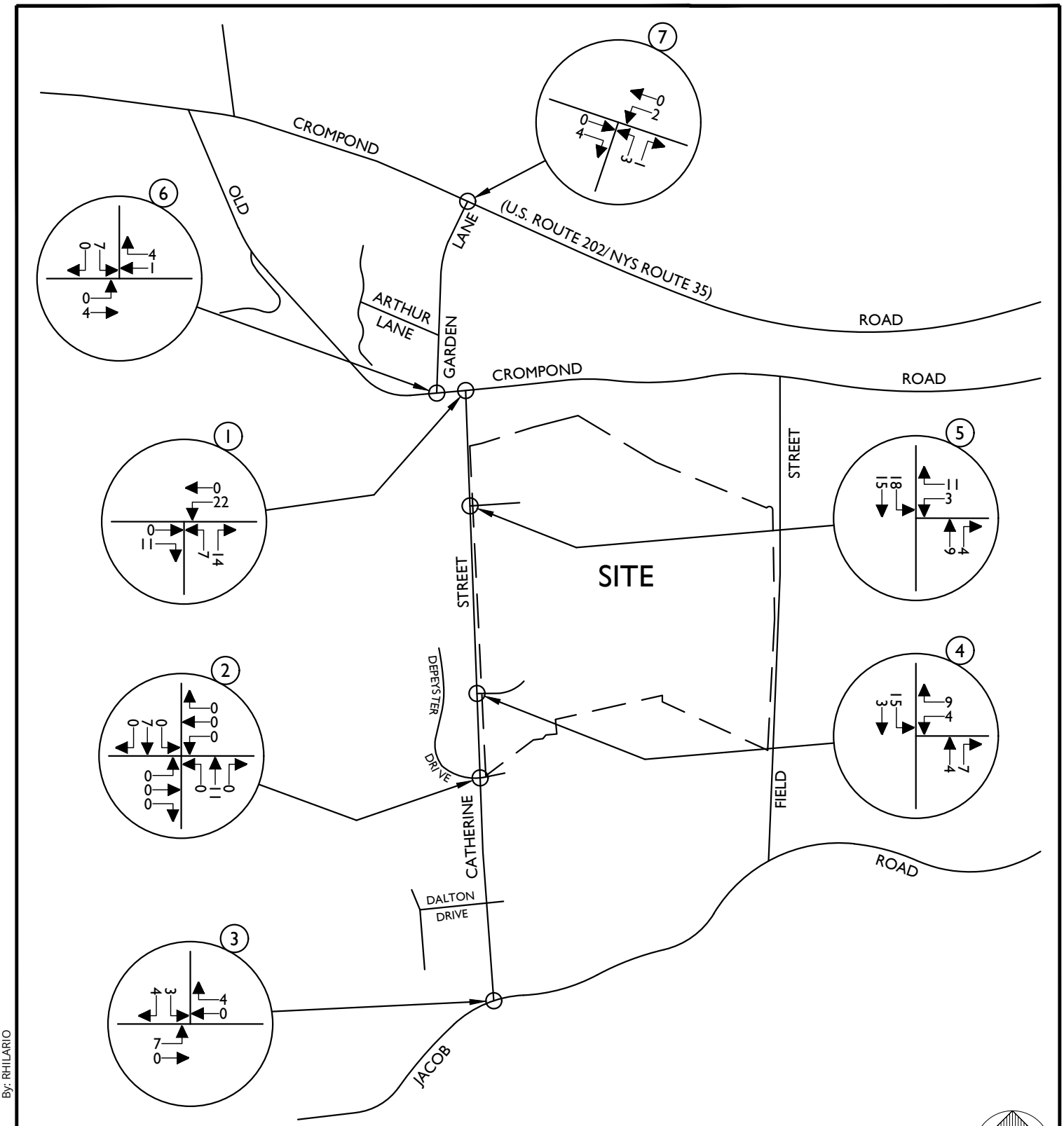

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WEEKDAY PEAK PM HOUR

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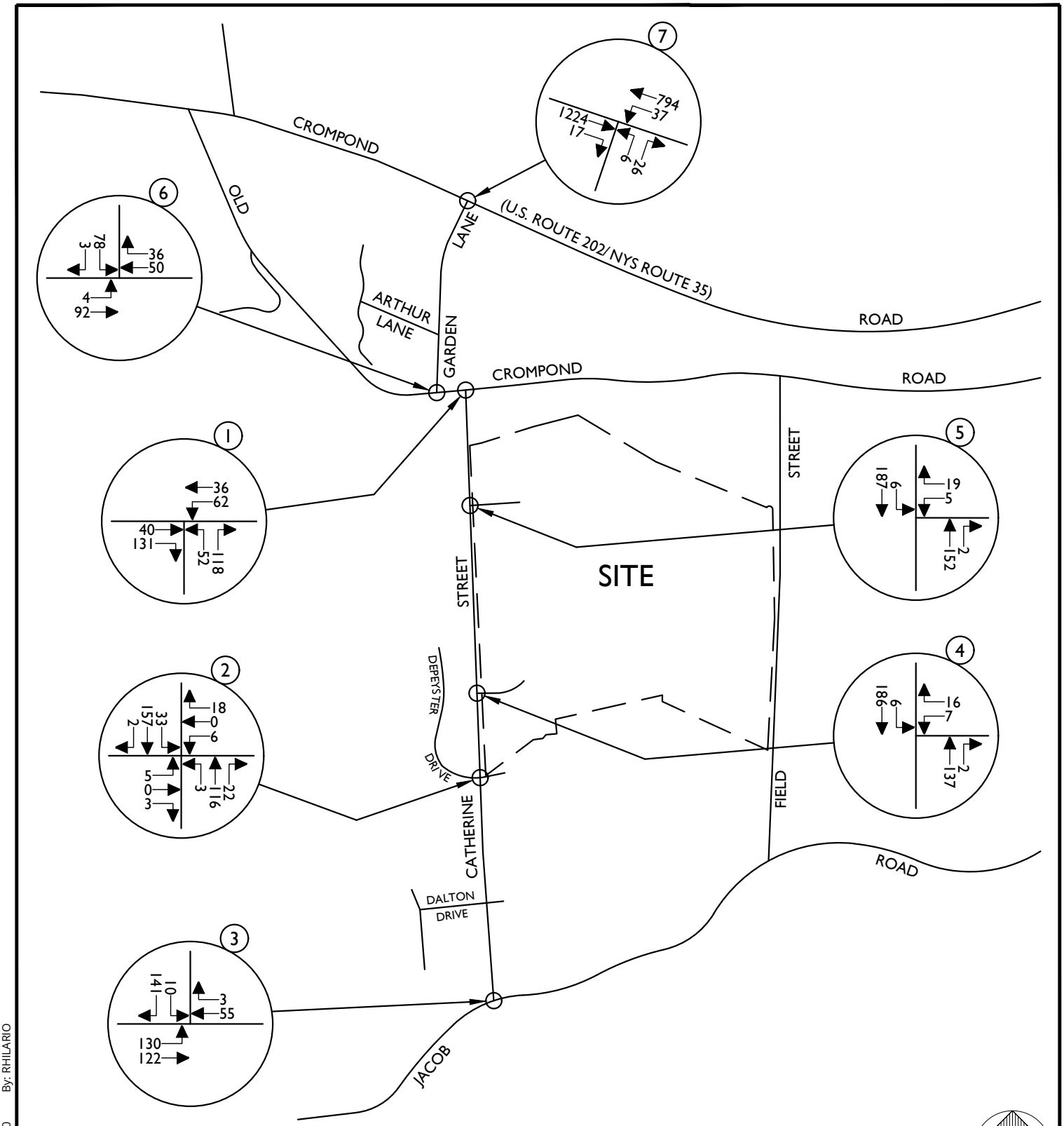

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SHEET TITLE:
2026 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
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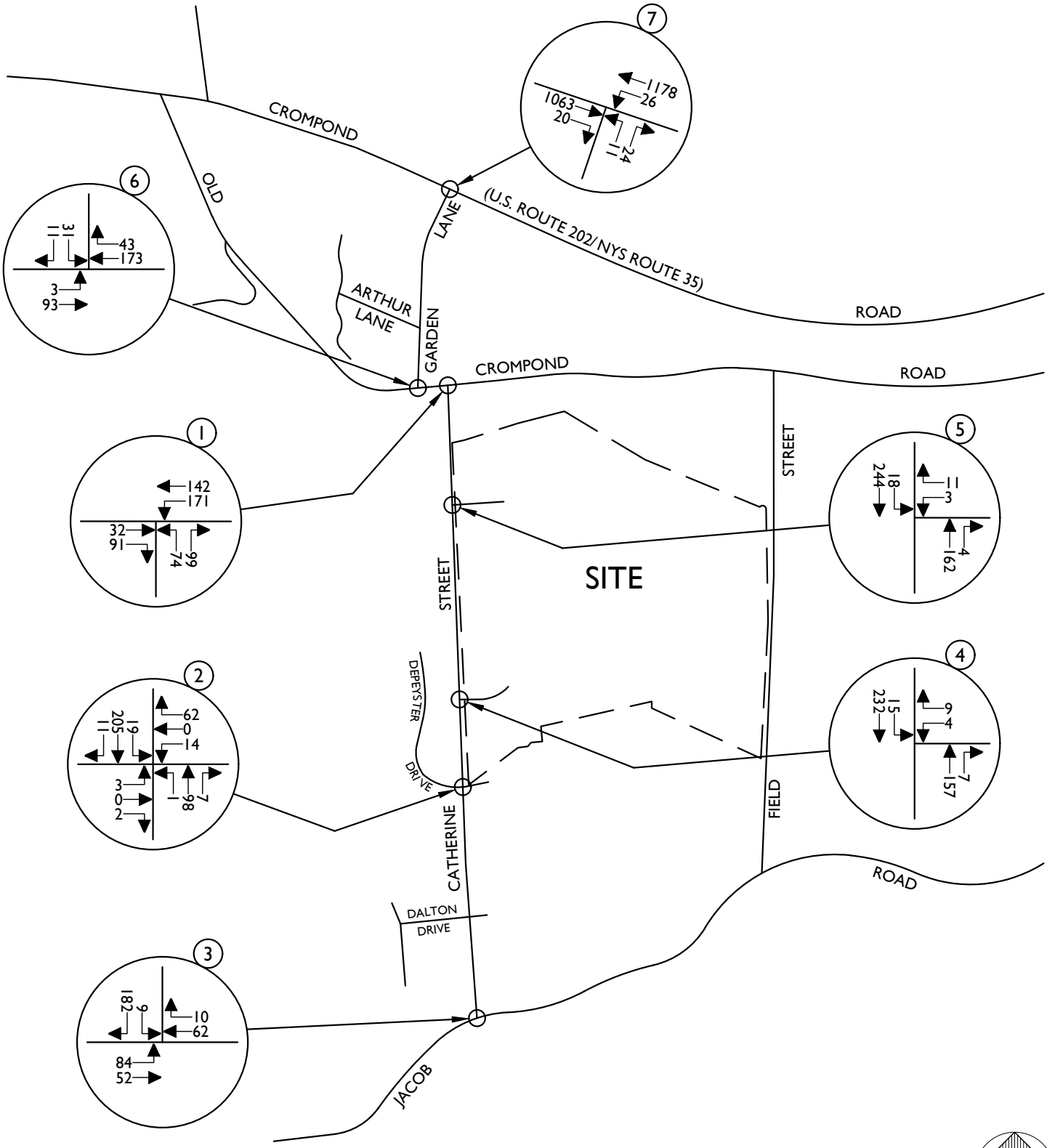

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Traffic Impact Study

Appendix B | Tables

Table No. 1
Hourly Trip Generation Rates (HTGR) and
Anticipated Site Generated Traffic Volumes

Field Home Residential Development Town of Yorktown, New York	Entry		Exit	
	HTGR[1]	Volume	HTGR1	HTGR[1]
Townhouses (120 Dwelling Units)				
Peak AM Highway Hour	0.13	16	0.39	47
Peak PM Highway Hour	0.37	44	0.23	27

NOTES:

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 11TH EDITION, 2021. ITE LAND USE CODE - 215 - SINGLE FAMILY ATTACHED HOUSING.

Table No. 1A
Hourly Trip Generation Rates (HTGR) and
Anticipated Site Generated Traffic Volumes

Field Home Residential Development Town of Yorktown, New York	Entry		Exit	
	HTGR[1]	Volume	HTGR1	HTGR[1]
Senior Adult Housing (120 Dwelling Units)				
Peak AM Highway Hour	0.12	14	0.14	17
Peak PM Highway Hour	0.16	19	0.13	16

NOTES:

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 11TH EDITION, 2021. ITE LAND USE CODE - 252 - SENIOR ADULT HOUSING ATTACHED.

Table No. 2
Level of Service Summary Table
Weekday Peak AM Hour

				2022 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**Catherine Street & Old Crompond Road**	**Unsignalized**											
	Old Crompond Road	WB	LT	0.04	A	7.7	0.05	A	7.7	0.05	A	7.8	0.1
	Catherine Street	NB	LR	0.17	B	10.0	0.18	B	10.0	0.23	B	10.4	0.4
2	**Catherine Street & Depeyster Drive/ Field Home**	**Unsignalized**											
	Depeyster Drive	EB	LTR	0.00	A	7.4	0.00	A	7.4	0.00	A	7.4	0.0
	Field Home	WB	LTR	0.01	A	7.2	0.01	A	7.2	0.01	A	7.2	0.0
	Catherine Street	NB	LTR	0.20	B	10.4	0.21	B	10.5	0.21	B	10.5	0.0
	Catherine Street	SB	LTR	0.27	B	11.1	0.28	B	11.2	0.30	B	11.4	0.2
3	**Catherine Street & Jacob Road**	**Unsignalized**											
	Jacob Road	EB	LT	0.12	A	7.8	0.12	A	7.8	0.13	A	7.8	0.0
	Catherine Street	SB	LR	0.20	A	9.9	0.21	B	10.0	0.24	B	10.4	0.4
4	**Catherine Street & Site Access (South)**	**Unsignalized**											-
	Site Access (South)	WB	LR	-	-	-	-	-	-	0.04	A	9.8	-
	Catherine Street	SB	LT	-	-	-	-	-	-	0.01	A	7.6	-
5	**Catherine Street & Site Access (North)**	**Unsignalized**											-
	Site Access (North)	WB	LR	-	-	-	-	-	-	0.04	A	9.9	-
	Catherine Street	SB	LT	-	-	-	-	-	-	0.01	A	7.6	-
6	**Garden Lane & Old Crompond Road**	**Unsignalized**											
	Old Crompond Road	WB	LT	0.00	A	7.4	0.00	A	7.4	0.00	A	7.5	0.1
	Garden Lane	SB	LR	0.13	B	10.5	0.15	B	10.8	0.15	B	10.9	0.1
7	**Garden Lane & Crompond Road (U.S. Route 202/ NYS Route 35)**	**Unsignalized**											
	Crompond Road	WB	LT	0.07	B	12.0	0.07	B	12.4	0.07	B	12.4	0.0
	Garden Lane	NB	LR	0.12	D	25.2	0.14	D	27.2	0.25	E	40.3	13.1
	W/ Signalization												
	Crompond Road	EB	TR	-	-	-	0.89	B	10.4	0.89	B	10.4	0.0
	Crompond Road	WB	LT	-	-	-	0.74	A	6.0	0.74	A	6.2	0.2
	Garden Lane	NB	LR	-	-	-	0.20	C	28.2	0.25	C	28.8	0.6
		OVERALL		-	-	-	**-**	**A**	**8.9**	**-**	**A**	**9.0**	0.1

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

Table No. 2
Level of Service Summary Table
Weekday Peak PM Hour

				2022 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**Catherine Street & Old Crompond Road**	**Unsignalized**											
	Old Crompond Road	WB	LT	0.11	A	7.8	0.12	A	7.8	0.14	A	7.9	0.1
	Catherine Street	NB	LR	0.23	B	11.2	0.24	B	11.4	0.28	B	12.0	0.6
2	**Catherine Street & Depeyster Drive/ Field Home**	**Unsignalized**											
	Depeyster Drive	EB	LTR	0.00	A	7.3	0.00	A	7.3	0.00	A	7.3	0.0
	Field Home	WB	LTR	0.01	A	7.3	0.01	A	7.3	0.01	A	7.3	0.0
	Catherine Street	NB	LTR	0.12	B	10.1	0.13	B	10.2	0.14	B	10.3	0.1
	Catherine Street	SB	LTR	0.29	B	11.1	0.30	B	11.3	0.31	B	11.4	0.1
3	**Catherine Street & Jacob Road**	**Unsignalized**											
	Jacob Road	EB	LT	0.05	A	7.5	0.06	A	7.5	0.06	A	7.5	0.0
	Catherine Street	SB	LR	0.20	A	9.6	0.21	A	9.7	0.22	A	9.8	0.1
4	**Catherine Street & Site Access (South)**	**Unsignalized**											-
	Site Access (South)	WB	LR	-	-	-	-	-	-	0.02	A	9.9	-
	Catherine Street	SB	LT	-	-	-	-	-	-	0.01	A	7.6	-
5	**Catherine Street & Site Access (North)**	**Unsignalized**											-
	Site Access (North)	WB	LR	-	-	-	-	-	-	0.02	A	9.8	-
	Catherine Street	SB	LT	-	-	-	-	-	-	0.01	A	7.6	-
6	**Garden Lane & Old Crompond Road**	**Unsignalized**											
	Old Crompond Road	WB	LT	0.00	A	7.7	0.00	A	7.8	0.00	A	7.8	0.0
	Garden Lane	SB	LR	0.06	B	10.7	0.07	B	10.9	0.08	B	11.1	0.2
7	**Garden Lane & Crompond Road (U.S. Route 202/ NYS Route 35)**	**Unsignalized**											
	Crompond Road	WB	LT	0.04	B	11.1	0.04	B	11.4	0.05	B	11.4	0.0
	Garden Lane	NB	LR	0.27	E	46.3	0.31	F	52.8	0.40	F	68.1	15.3
	W/ Signalization												
	Crompond Road	EB	TR	-	-	-	0.79	A	6.2	0.79	A	6.3	0.1
	Crompond Road	WB	LT	-	-	-	0.86	A	8.9	0.87	A	9.0	0.1
	Garden Lane	NB	LR	-	-	-	0.22	C	26.0	0.25	C	26.4	0.4
		OVERALL		-	-	-	**-**	**A**	**7.9**	**-**	**A**	**8.0**	0.1

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

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Traffic Impact Study

Appendix C | Level of Service Standards

Colliers Engineering & Design

Level of Service Standards

Level of Service for Signalized Intersections

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

- **LOS A** describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
- **LOS B** describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.
- **LOS C** describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.
- **LOS D** describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.
- **LOS E** describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.
- **LOS F** describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 19-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 19-8 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

For approach-based and intersection wide assessments, LOS is defined solely by control delay.

Level of Service Criteria For Two-Way Stop-Controlled (TWSC) Unsignalized Intersections

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 20-2 from the Highway Capacity Manual, 6th Edition published by the Transportation Research Board.

Exhibit 20-2 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

The LOS criteria apply to each lane on a given approach and to each approach on the minor street.
LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 20-2 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

Level of Service Criteria For All-Way Stop-Controlled (AWSC) Unsignalized Intersections

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 21-8. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 21-8 from the *Highway* Capacity *Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 21-8 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

For approaches and intersection wide assessment, LOS is defined solely by control delay.

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Appendix D | Capacity Analysis

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	38	122	52	35	39	91
Future Volume (vph)	38	122	52	35	39	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12
Grade (%)	-4%			2%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.897				0.906	
Flt Protected				0.971	0.985	
Satd. Flow (prot)	1524	0	0	1553	1587	0
Flt Permitted				0.971	0.985	
Satd. Flow (perm)	1524	0	0	1553	1587	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	170			1649	587	
Travel Time (s)	3.9			37.5	13.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	11%	10%	2%	31%	15%	11%
Adj. Flow (vph)	45	144	61	41	46	107
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	0	0	102	153	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.97	1.01	1.06	0.94	0.94
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

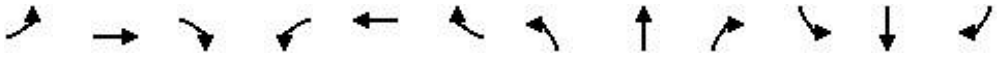
Intersection	
Int Delay, s/veh	4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	38	122	52	35	39	91
Future Vol, veh/h	38	122	52	35	39	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	2	-10	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	11	10	2	31	15	11
Mvmt Flow	45	144	61	41	46	107

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	189	0	280	117
Stage 1	-	-	-	-	117	-
Stage 2	-	-	-	-	163	-
Critical Hdwy	-	-	4.12	-	4.55	5.31
Critical Hdwy Stg 1	-	-	-	-	3.55	-
Critical Hdwy Stg 2	-	-	-	-	3.55	-
Follow-up Hdwy	-	-	2.218	-	3.635	3.399
Pot Cap-1 Maneuver	-	-	1385	-	798	941
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	915	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1385	-	762	941
Mov Cap-2 Maneuver	-	-	-	-	762	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	874	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	879	-	-	1385	-
HCM Lane V/C Ratio	0.174	-	-	0.044	-
HCM Control Delay (s)	10	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	3	6	0	17	3	108	21	32	140	2
Future Volume (vph)	5	0	3	6	0	17	3	108	21	32	140	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	13	12	12	13	12
Grade (%)		1%			-2%			0%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.902			0.979			0.998	
Flt Protected		0.971			0.986			0.999			0.991	
Satd. Flow (prot)	0	1488	0	0	1673	0	0	1635	0	0	1804	0
Flt Permitted		0.971			0.986			0.999			0.991	
Satd. Flow (perm)	0	1488	0	0	1673	0	0	1635	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		322			241			1150			418	
Travel Time (s)		7.3			5.5			26.1			9.5	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	20%	2%	2%	2%	2%	2%	33%	14%	33%	2%	9%	2%
Adj. Flow (vph)	6	0	4	8	0	21	4	135	26	40	175	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	29	0	0	165	0	0	218	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.99	0.99	0.99	1.00	0.96	1.00	1.00	0.96	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	10

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	3	6	0	17	3	108	21	32	140	2
Future Vol, veh/h	5	0	3	6	0	17	3	108	21	32	140	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-2	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	20	2	2	2	2	2	33	14	33	2	9	2
Mvmt Flow	6	0	4	8	0	21	4	135	26	40	175	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	21	0	0	4	0	0	130	51	2	122	43	11
Stage 1	-	-	-	-	-	-	14	14	-	27	27	-
Stage 2	-	-	-	-	-	-	116	37	-	95	16	-
Critical Hdwy	4.3	-	-	4.12	-	-	7.43	6.64	6.53	7.12	6.59	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	5.64	-	6.12	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	5.64	-	6.12	5.59	-
Follow-up Hdwy	2.38	-	-	2.218	-	-	3.797	4.126	3.597	3.518	4.081	3.318
Pot Cap-1 Maneuver	1485	-	-	1618	-	-	776	818	998	853	835	1070
Stage 1	-	-	-	-	-	-	932	860	-	990	859	-
Stage 2	-	-	-	-	-	-	819	841	-	912	868	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1485	-	-	1618	-	-	644	811	998	720	827	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	644	811	-	720	827	-
Stage 1	-	-	-	-	-	-	928	857	-	986	855	-
Stage 2	-	-	-	-	-	-	647	837	-	745	865	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.6	1.9	10.4	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	831	1485	-	-	1618	-	-	807
HCM Lane V/C Ratio	0.199	0.004	-	-	0.005	-	-	0.27
HCM Control Delay (s)	10.4	7.4	0	-	7.2	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	1.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	123	117	53	1	5	129
Future Volume (vph)	123	117	53	1	5	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	10	12	12	12
Grade (%)		1%	-2%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.870	
Flt Protected		0.975			0.998	
Satd. Flow (prot)	0	1770	1752	0	1523	0
Flt Permitted		0.975			0.998	
Satd. Flow (perm)	0	1770	1752	0	1523	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		755	963		1150	
Travel Time (s)		17.2	21.9		26.1	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	11%	4%	2%	2%	20%	9%
Adj. Flow (vph)	173	165	75	1	7	182
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	338	76	0	189	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	0.96	1.08	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	123	117	53	1	5	129
Future Vol, veh/h	123	117	53	1	5	129
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	-2	-	-2	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	11	4	2	2	20	9
Mvmt Flow	173	165	75	1	7	182

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	76	0	-	0	587	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	511	-
Critical Hdwy	4.21	-	-	-	6.2	6.09
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	2.299	-	-	-	3.68	3.381
Pot Cap-1 Maneuver	1468	-	-	-	473	970
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	600	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1468	-	-	-	412	970
Mov Cap-2 Maneuver	-	-	-	-	412	-
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	600	-

Approach	EB	WB	SB
HCM Control Delay, s	4	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1468	-	-	-	923
HCM Lane V/C Ratio	0.118	-	-	-	0.204
HCM Control Delay (s)	7.8	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.4	-	-	-	0.8

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	72	45	28	73	3
Future Volume (vph)	4	72	45	28	73	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	4%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.949		0.995	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1818	1602	0	1556	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1818	1602	0	1556	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		631	170		331	
Travel Time (s)		14.3	3.9		7.5	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	5%	13%	6%	12%	67%
Adj. Flow (vph)	5	96	60	37	97	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	101	97	0	101	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.03	1.03	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	72	45	28	73	3
Future Vol, veh/h	4	72	45	28	73	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	4	-	3	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	5	13	6	12	67
Mvmt Flow	5	96	60	37	97	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	97	0	-	0	185	79
Stage 1	-	-	-	-	79	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	4.12	-	-	-	7.12	7.17
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	2.218	-	-	-	3.608	3.903
Pot Cap-1 Maneuver	1496	-	-	-	758	822
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	878	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1496	-	-	-	755	822
Mov Cap-2 Maneuver	-	-	-	-	755	-
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	878	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1496	-	-	-	757
HCM Lane V/C Ratio	0.004	-	-	-	0.134
HCM Control Delay (s)	7.4	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1177	15	35	763	1	23
Future Volume (vph)	1177	15	35	763	1	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.870	
Flt Protected				0.998	0.998	
Satd. Flow (prot)	2022	0	0	1978	1657	0
Flt Permitted				0.998	0.998	
Satd. Flow (perm)	2022	0	0	1978	1657	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	15%	3%	5%	2%	4%
Adj. Flow (vph)	1239	16	37	803	1	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1255	0	0	840	25	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1177	15	35	763	1	23
Future Vol, veh/h	1177	15	35	763	1	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	1	-2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	15	3	5	2	4
Mvmt Flow	1239	16	37	803	1	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1255	0	2124	1247
Stage 1	-	-	-	-	1247	-
Stage 2	-	-	-	-	877	-
Critical Hdwy	-	-	4.13	-	6.02	6.04
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.336
Pot Cap-1 Maneuver	-	-	551	-	70	225
Stage 1	-	-	-	-	311	-
Stage 2	-	-	-	-	449	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	551	-	62	225
Mov Cap-2 Maneuver	-	-	-	-	62	-
Stage 1	-	-	-	-	311	-
Stage 2	-	-	-	-	395	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	25.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	203	-	-	551	-
HCM Lane V/C Ratio	0.124	-	-	0.067	-
HCM Control Delay (s)	25.2	-	-	12	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	31	77	143	137	65	82
Future Volume (vph)	31	77	143	137	65	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12
Grade (%)	-4%			2%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.904				0.925	
Flt Protected				0.975	0.978	
Satd. Flow (prot)	1660	0	0	1738	1747	0
Flt Permitted				0.975	0.978	
Satd. Flow (perm)	1660	0	0	1738	1747	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	170			1649	587	
Travel Time (s)	3.9			37.5	13.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%
Adj. Flow (vph)	36	90	166	159	76	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	0	325	171	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.97	1.01	1.06	0.94	0.94
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	31	77	143	137	65	82
Future Vol, veh/h	31	77	143	137	65	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	2	-10	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	36	90	166	159	76	95

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	126	0	572	81
Stage 1	-	-	-	-	81	-
Stage 2	-	-	-	-	491	-
Critical Hdwy	-	-	4.12	-	4.45	5.22
Critical Hdwy Stg 1	-	-	-	-	3.45	-
Critical Hdwy Stg 2	-	-	-	-	3.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.318
Pot Cap-1 Maneuver	-	-	1460	-	655	1001
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	800	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1460	-	573	1001
Mov Cap-2 Maneuver	-	-	-	-	573	-
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	700	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	752	-	-	1460	-
HCM Lane V/C Ratio	0.227	-	-	0.114	-
HCM Control Delay (s)	11.2	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.4	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	2	13	0	60	1	84	7	18	191	11
Future Volume (vph)	3	0	2	13	0	60	1	84	7	18	191	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	13	12	12	13	12
Grade (%)		1%			-2%			0%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.889			0.990			0.993	
Flt Protected		0.971			0.991			0.999			0.996	
Satd. Flow (prot)	0	1646	0	0	1637	0	0	1904	0	0	1904	0
Flt Permitted		0.971			0.991			0.999			0.996	
Satd. Flow (perm)	0	1646	0	0	1637	0	0	1904	0	0	1904	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		322			241			1150			418	
Travel Time (s)		7.3			5.5			26.1			9.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	3	0	2	14	0	64	1	89	7	19	203	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	78	0	0	97	0	0	234	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.99	0.99	0.99	1.00	0.96	1.00	1.00	0.96	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	2	13	0	60	1	84	7	18	191	11
Future Vol, veh/h	3	0	2	13	0	60	1	84	7	18	191	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-2	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	9	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	2	14	0	64	1	89	7	19	203	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	64	0	0	2	0	0	175	99	1	115	68	32
Stage 1	-	-	-	-	-	-	7	7	-	60	60	-
Stage 2	-	-	-	-	-	-	168	92	-	55	8	-
Critical Hdwy	4.12	-	-	4.19	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.281	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1538	-	-	1576	-	-	788	791	1084	862	823	1042
Stage 1	-	-	-	-	-	-	1015	890	-	951	845	-
Stage 2	-	-	-	-	-	-	834	819	-	957	889	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1538	-	-	1576	-	-	624	782	1084	775	814	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	624	782	-	775	814	-
Stage 1	-	-	-	-	-	-	1013	888	-	949	837	-
Stage 2	-	-	-	-	-	-	619	812	-	853	887	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.4	1.3	10.1	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	797	1538	-	-	1576	-	-	820
HCM Lane V/C Ratio	0.123	0.002	-	-	0.009	-	-	0.285
HCM Control Delay (s)	10.1	7.3	0	-	7.3	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	1.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	74	50	60	5	6	171
Future Volume (vph)	74	50	60	5	6	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	10	12	12	12
Grade (%)		1%	-2%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.989		0.870	
Flt Protected		0.971			0.998	
Satd. Flow (prot)	0	1849	1737	0	1625	0
Flt Permitted		0.971			0.998	
Satd. Flow (perm)	0	1849	1737	0	1625	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		755	963		1150	
Travel Time (s)		17.2	21.9		26.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	2%	2%	2%	17%	2%
Adj. Flow (vph)	82	56	67	6	7	190
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	138	73	0	197	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	0.96	1.08	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	74	50	60	5	6	171
Future Vol, veh/h	74	50	60	5	6	171
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	-2	-	-2	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	2	2	2	17	2
Mvmt Flow	82	56	67	6	7	190

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	73	0	-	0	290	70
Stage 1	-	-	-	-	70	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	4.13	-	-	-	6.17	6.02
Critical Hdwy Stg 1	-	-	-	-	5.17	-
Critical Hdwy Stg 2	-	-	-	-	5.17	-
Follow-up Hdwy	2.227	-	-	-	3.653	3.318
Pot Cap-1 Maneuver	1520	-	-	-	692	997
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1520	-	-	-	653	997
Mov Cap-2 Maneuver	-	-	-	-	653	-
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	802	-

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1520	-	-	-	980
HCM Lane V/C Ratio	0.054	-	-	-	0.201
HCM Control Delay (s)	7.5	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	85	165	37	23	11
Future Volume (vph)	3	85	165	37	23	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	4%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.975		0.957	
Flt Protected		0.998			0.967	
Satd. Flow (prot)	0	1868	1780	0	1698	0
Flt Permitted		0.998			0.967	
Satd. Flow (perm)	0	1868	1780	0	1698	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		631	170		331	
Travel Time (s)		14.3	3.9		7.5	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	4	104	201	45	28	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	108	246	0	41	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.03	1.03	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	85	165	37	23	11
Future Vol, veh/h	3	85	165	37	23	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	4	-	3	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	104	201	45	28	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	246	0	-	0	336	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	112	-
Critical Hdwy	4.12	-	-	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1320	-	-	-	623	800
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	896	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1320	-	-	-	621	800
Mov Cap-2 Maneuver	-	-	-	-	621	-
Stage 1	-	-	-	-	781	-
Stage 2	-	-	-	-	896	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1320	-	-	-	669
HCM Lane V/C Ratio	0.003	-	-	-	0.062
HCM Control Delay (s)	7.7	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1022	15	23	1133	8	22
Future Volume (vph)	1022	15	23	1133	8	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.900	
Flt Protected				0.999	0.987	
Satd. Flow (prot)	2024	0	0	2015	1547	0
Flt Permitted				0.999	0.987	
Satd. Flow (perm)	2024	0	0	2015	1547	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	7%	9%	3%	2%	18%
Adj. Flow (vph)	1076	16	24	1193	8	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1092	0	0	1217	31	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1022	15	23	1133	8	22
Future Vol, veh/h	1022	15	23	1133	8	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	1	-2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	7	9	3	2	18
Mvmt Flow	1076	16	24	1193	8	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1092	0	2325	1084
Stage 1	-	-	-	-	1084	-
Stage 2	-	-	-	-	1241	-
Critical Hdwy	-	-	4.19	-	6.02	6.18
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	-	-	2.281	-	3.518	3.462
Pot Cap-1 Maneuver	-	-	614	-	53	260
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	313	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	614	-	47	260
Mov Cap-2 Maneuver	-	-	-	-	47	-
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	277	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	46.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	118	-	-	614	-
HCM Lane V/C Ratio	0.268	-	-	0.039	-
HCM Control Delay (s)	46.3	-	-	11.1	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q(veh)	1	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	40	127	54	36	41	95
Future Volume (vph)	40	127	54	36	41	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12
Grade (%)	-4%			2%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.897				0.905	
Flt Protected				0.971	0.985	
Satd. Flow (prot)	1524	0	0	1556	1585	0
Flt Permitted				0.971	0.985	
Satd. Flow (perm)	1524	0	0	1556	1585	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	170			1649	587	
Travel Time (s)	3.9			37.5	13.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	11%	10%	2%	31%	15%	11%
Adj. Flow (vph)	47	149	64	42	48	112
Shared Lane Traffic (%)						
Lane Group Flow (vph)	196	0	0	106	160	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.97	1.01	1.06	0.94	0.94
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	40	127	54	36	41	95
Future Vol, veh/h	40	127	54	36	41	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	2	-10	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	11	10	2	31	15	11
Mvmt Flow	47	149	64	42	48	112

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	196	0	292	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	170	-
Critical Hdwy	-	-	4.12	-	4.55	5.31
Critical Hdwy Stg 1	-	-	-	-	3.55	-
Critical Hdwy Stg 2	-	-	-	-	3.55	-
Follow-up Hdwy	-	-	2.218	-	3.635	3.399
Pot Cap-1 Maneuver	-	-	1377	-	791	937
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1377	-	753	937
Mov Cap-2 Maneuver	-	-	-	-	753	-
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	867	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	873	-	-	1377	-
HCM Lane V/C Ratio	0.183	-	-	0.046	-
HCM Control Delay (s)	10	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	3	6	0	18	3	112	22	33	146	2
Future Volume (vph)	5	0	3	6	0	18	3	112	22	33	146	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	13	12	12	13	12
Grade (%)		1%			-2%			0%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.900			0.978			0.998	
Flt Protected		0.971			0.987			0.999			0.991	
Satd. Flow (prot)	0	1488	0	0	1671	0	0	1632	0	0	1804	0
Flt Permitted		0.971			0.987			0.999			0.991	
Satd. Flow (perm)	0	1488	0	0	1671	0	0	1632	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		322			241			1150			418	
Travel Time (s)		7.3			5.5			26.1			9.5	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	20%	2%	2%	2%	2%	2%	33%	14%	33%	2%	9%	2%
Adj. Flow (vph)	6	0	4	8	0	23	4	140	28	41	183	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	31	0	0	172	0	0	227	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.99	0.99	0.99	1.00	0.96	1.00	1.00	0.96	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	3	6	0	18	3	112	22	33	146	2
Future Vol, veh/h	5	0	3	6	0	18	3	112	22	33	146	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-2	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	20	2	2	2	2	2	33	14	33	2	9	2
Mvmt Flow	6	0	4	8	0	23	4	140	28	41	183	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	4	0	0	135	53	2	126	44	12
Stage 1	-	-	-	-	-	-	14	14	-	28	28	-
Stage 2	-	-	-	-	-	-	121	39	-	98	16	-
Critical Hdwy	4.3	-	-	4.12	-	-	7.43	6.64	6.53	7.12	6.59	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	5.64	-	6.12	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	5.64	-	6.12	5.59	-
Follow-up Hdwy	2.38	-	-	2.218	-	-	3.797	4.126	3.597	3.518	4.081	3.318
Pot Cap-1 Maneuver	1483	-	-	1618	-	-	770	816	998	848	834	1069
Stage 1	-	-	-	-	-	-	932	860	-	989	858	-
Stage 2	-	-	-	-	-	-	814	839	-	908	868	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1483	-	-	1618	-	-	633	809	998	711	826	1069
Mov Cap-2 Maneuver	-	-	-	-	-	-	633	809	-	711	826	-
Stage 1	-	-	-	-	-	-	928	857	-	985	854	-
Stage 2	-	-	-	-	-	-	635	835	-	736	865	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.6	1.8	10.5	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	829	1483	-	-	1618	-	-	804
HCM Lane V/C Ratio	0.207	0.004	-	-	0.005	-	-	0.281
HCM Control Delay (s)	10.5	7.4	0	-	7.2	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-	-	1.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	128	122	55	1	5	134
Future Volume (vph)	128	122	55	1	5	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	10	12	12	12
Grade (%)		1%	-2%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.870	
Flt Protected		0.975			0.998	
Satd. Flow (prot)	0	1770	1752	0	1523	0
Flt Permitted		0.975			0.998	
Satd. Flow (perm)	0	1770	1752	0	1523	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		755	963		1150	
Travel Time (s)		17.2	21.9		26.1	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	11%	4%	2%	2%	20%	9%
Adj. Flow (vph)	180	172	77	1	7	189
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	352	78	0	196	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	0.96	1.08	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	128	122	55	1	5	134
Future Vol, veh/h	128	122	55	1	5	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	-2	-	-2	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	11	4	2	2	20	9
Mvmt Flow	180	172	77	1	7	189

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	78	0	-	0	610	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	532	-
Critical Hdwy	4.21	-	-	-	6.2	6.09
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	2.299	-	-	-	3.68	3.381
Pot Cap-1 Maneuver	1465	-	-	-	460	968
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	588	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1465	-	-	-	397	968
Mov Cap-2 Maneuver	-	-	-	-	397	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	588	-

Approach	EB	WB	SB
HCM Control Delay, s	4	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1465	-	-	-	920
HCM Lane V/C Ratio	0.123	-	-	-	0.213
HCM Control Delay (s)	7.8	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.8

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	90	48	29	76	3
Future Volume (vph)	4	90	48	29	76	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	4%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.949		0.995	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1817	1601	0	1557	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1817	1601	0	1557	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		631	170		331	
Travel Time (s)		14.3	3.9		7.5	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	5%	13%	6%	12%	67%
Adj. Flow (vph)	5	120	64	39	101	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	125	103	0	105	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.03	1.03	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	90	48	29	76	3
Future Vol, veh/h	4	90	48	29	76	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	4	-	3	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	5	13	6	12	67
Mvmt Flow	5	120	64	39	101	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	103	0	-	0	214	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	130	-
Critical Hdwy	4.12	-	-	-	7.12	7.17
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	2.218	-	-	-	3.608	3.903
Pot Cap-1 Maneuver	1489	-	-	-	726	816
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1489	-	-	-	723	816
Mov Cap-2 Maneuver	-	-	-	-	723	-
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1489	-	-	-	726
HCM Lane V/C Ratio	0.004	-	-	-	0.145
HCM Control Delay (s)	7.4	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1224	16	36	794	1	24
Future Volume (vph)	1224	16	36	794	1	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.870	
Flt Protected				0.998	0.998	
Satd. Flow (prot)	2022	0	0	1978	1657	0
Flt Permitted				0.998	0.998	
Satd. Flow (perm)	2022	0	0	1978	1657	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	15%	3%	5%	2%	4%
Adj. Flow (vph)	1288	17	38	836	1	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1305	0	0	874	26	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1224	16	36	794	1	24
Future Vol, veh/h	1224	16	36	794	1	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	1	-2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	15	3	5	2	4
Mvmt Flow	1288	17	38	836	1	25

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1305	0	2209	1297
Stage 1	-	-	-	-	1297	-
Stage 2	-	-	-	-	912	-
Critical Hdwy	-	-	4.13	-	6.02	6.04
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.336
Pot Cap-1 Maneuver	-	-	527	-	62	210
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	433	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	527	-	54	210
Mov Cap-2 Maneuver	-	-	-	-	54	-
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	375	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	27.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	188	-	-	527	-
HCM Lane V/C Ratio	0.14	-	-	0.072	-
HCM Control Delay (s)	27.2	-	-	12.4	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	32	80	149	142	68	85
Future Volume (vph)	32	80	149	142	68	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12
Grade (%)	-4%			2%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.903				0.925	
Flt Protected				0.975	0.978	
Satd. Flow (prot)	1659	0	0	1738	1747	0
Flt Permitted				0.975	0.978	
Satd. Flow (perm)	1659	0	0	1738	1747	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	170			1649	587	
Travel Time (s)	3.9			37.5	13.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%
Adj. Flow (vph)	37	93	173	165	79	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	130	0	0	338	178	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.97	1.01	1.06	0.94	0.94
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

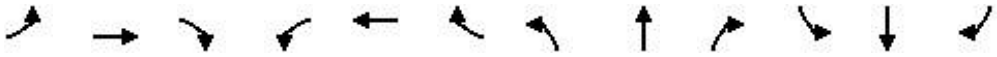
Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	32	80	149	142	68	85
Future Vol, veh/h	32	80	149	142	68	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	2	-10	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	37	93	173	165	79	99

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	130	0	595	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	511	-
Critical Hdwy	-	-	4.12	-	4.45	5.22
Critical Hdwy Stg 1	-	-	-	-	3.45	-
Critical Hdwy Stg 2	-	-	-	-	3.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.318
Pot Cap-1 Maneuver	-	-	1455	-	643	998
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1455	-	559	998
Mov Cap-2 Maneuver	-	-	-	-	559	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	688	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	740	-	-	1455	-
HCM Lane V/C Ratio	0.24	-	-	0.119	-
HCM Control Delay (s)	11.4	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.4	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	2	14	0	62	1	87	7	19	199	11
Future Volume (vph)	3	0	2	14	0	62	1	87	7	19	199	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	13	12	12	13	12
Grade (%)		1%			-2%			0%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.890			0.991			0.993	
Flt Protected		0.971			0.991						0.996	
Satd. Flow (prot)	0	1646	0	0	1639	0	0	1908	0	0	1904	0
Flt Permitted		0.971			0.991						0.996	
Satd. Flow (perm)	0	1646	0	0	1639	0	0	1908	0	0	1904	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		322			241			1150			418	
Travel Time (s)		7.3			5.5			26.1			9.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	3	0	2	15	0	66	1	93	7	20	212	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	81	0	0	101	0	0	244	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.99	0.99	0.99	1.00	0.96	1.00	1.00	0.96	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	0	2	14	0	62	1	87	7	19	199	11
Future Vol, veh/h	3	0	2	14	0	62	1	87	7	19	199	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-2	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	9	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	2	15	0	66	1	93	7	20	212	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	66	0	0	2	0	0	182	103	1	120	71	33
Stage 1	-	-	-	-	-	-	7	7	-	63	63	-
Stage 2	-	-	-	-	-	-	175	96	-	57	8	-
Critical Hdwy	4.12	-	-	4.19	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.281	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1536	-	-	1576	-	-	779	787	1084	855	819	1041
Stage 1	-	-	-	-	-	-	1015	890	-	948	842	-
Stage 2	-	-	-	-	-	-	827	815	-	955	889	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1536	-	-	1576	-	-	609	778	1084	765	809	1041
Mov Cap-2 Maneuver	-	-	-	-	-	-	609	778	-	765	809	-
Stage 1	-	-	-	-	-	-	1013	888	-	946	834	-
Stage 2	-	-	-	-	-	-	604	807	-	848	887	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.4	1.3	10.2	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	792	1536	-	-	1576	-	-	814
HCM Lane V/C Ratio	0.128	0.002	-	-	0.009	-	-	0.299
HCM Control Delay (s)	10.2	7.3	0	-	7.3	0	-	11.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	1.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	77	52	62	5	6	178
Future Volume (vph)	77	52	62	5	6	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	10	12	12	12
Grade (%)		1%	-2%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.989		0.870	
Flt Protected		0.971			0.998	
Satd. Flow (prot)	0	1849	1737	0	1625	0
Flt Permitted		0.971			0.998	
Satd. Flow (perm)	0	1849	1737	0	1625	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		755	963		1150	
Travel Time (s)		17.2	21.9		26.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	2%	2%	2%	17%	2%
Adj. Flow (vph)	86	58	69	6	7	198
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	144	75	0	205	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	0.96	1.08	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	77	52	62	5	6	178
Future Vol, veh/h	77	52	62	5	6	178
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	-2	-	-2	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	2	2	2	17	2
Mvmt Flow	86	58	69	6	7	198

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0	-	0	302	72
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	230	-
Critical Hdwy	4.13	-	-	-	6.17	6.02
Critical Hdwy Stg 1	-	-	-	-	5.17	-
Critical Hdwy Stg 2	-	-	-	-	5.17	-
Follow-up Hdwy	2.227	-	-	-	3.653	3.318
Pot Cap-1 Maneuver	1518	-	-	-	682	994
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	794	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1518	-	-	-	642	994
Mov Cap-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	794	-

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1518	-	-	-	977
HCM Lane V/C Ratio	0.056	-	-	-	0.209
HCM Control Delay (s)	7.5	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	88	172	38	24	11
Future Volume (vph)	3	88	172	38	24	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	4%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.976		0.958	
Flt Protected		0.998			0.967	
Satd. Flow (prot)	0	1868	1782	0	1700	0
Flt Permitted		0.998			0.967	
Satd. Flow (perm)	0	1868	1782	0	1700	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		631	170		331	
Travel Time (s)		14.3	3.9		7.5	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	4	107	210	46	29	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	111	256	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.03	1.03	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	88	172	38	24	11
Future Vol, veh/h	3	88	172	38	24	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	4	-	3	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	107	210	46	29	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	256	0	-	0	348	233
Stage 1	-	-	-	-	233	-
Stage 2	-	-	-	-	115	-
Critical Hdwy	4.12	-	-	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1309	-	-	-	612	791
Stage 1	-	-	-	-	775	-
Stage 2	-	-	-	-	893	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1309	-	-	-	610	791
Mov Cap-2 Maneuver	-	-	-	-	610	-
Stage 1	-	-	-	-	773	-
Stage 2	-	-	-	-	893	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1309	-	-	-	657
HCM Lane V/C Ratio	0.003	-	-	-	0.065
HCM Control Delay (s)	7.8	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1063	16	24	1178	8	23
Future Volume (vph)	1063	16	24	1178	8	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.899	
Flt Protected				0.999	0.988	
Satd. Flow (prot)	2024	0	0	2015	1545	0
Flt Permitted				0.999	0.988	
Satd. Flow (perm)	2024	0	0	2015	1545	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	7%	9%	3%	2%	18%
Adj. Flow (vph)	1119	17	25	1240	8	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1136	0	0	1265	32	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1063	16	24	1178	8	23
Future Vol, veh/h	1063	16	24	1178	8	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	1	-2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	7	9	3	2	18
Mvmt Flow	1119	17	25	1240	8	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1136	0	2418	1128
Stage 1	-	-	-	-	1128	-
Stage 2	-	-	-	-	1290	-
Critical Hdwy	-	-	4.19	-	6.02	6.18
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	-	-	2.281	-	3.518	3.462
Pot Cap-1 Maneuver	-	-	590	-	47	246
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	298	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	590	-	41	246
Mov Cap-2 Maneuver	-	-	-	-	41	-
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	257	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	52.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	107	-	-	590	-
HCM Lane V/C Ratio	0.305	-	-	0.043	-
HCM Control Delay (s)	52.8	-	-	11.4	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	1.2	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	40	131	62	36	52	118
Future Volume (vph)	40	131	62	36	52	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12
Grade (%)	-4%			2%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.897				0.906	
Flt Protected				0.969	0.985	
Satd. Flow (prot)	1524	0	0	1565	1586	0
Flt Permitted				0.969	0.985	
Satd. Flow (perm)	1524	0	0	1565	1586	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	170			1649	587	
Travel Time (s)	3.9			37.5	13.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	11%	10%	2%	31%	15%	11%
Adj. Flow (vph)	47	154	73	42	61	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	201	0	0	115	200	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.97	1.01	1.06	0.94	0.94
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	40	131	62	36	52	118
Future Vol, veh/h	40	131	62	36	52	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	2	-10	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	11	10	2	31	15	11
Mvmt Flow	47	154	73	42	61	139

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	201	0	312	124
Stage 1	-	-	-	-	124	-
Stage 2	-	-	-	-	188	-
Critical Hdwy	-	-	4.12	-	4.55	5.31
Critical Hdwy Stg 1	-	-	-	-	3.55	-
Critical Hdwy Stg 2	-	-	-	-	3.55	-
Follow-up Hdwy	-	-	2.218	-	3.635	3.399
Pot Cap-1 Maneuver	-	-	1371	-	778	935
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	903	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1371	-	735	935
Mov Cap-2 Maneuver	-	-	-	-	735	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	863	-	-	1371	-
HCM Lane V/C Ratio	0.232	-	-	0.053	-
HCM Control Delay (s)	10.4	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	3	6	0	18	3	116	22	33	157	2
Future Volume (vph)	5	0	3	6	0	18	3	116	22	33	157	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	13	12	12	13	12
Grade (%)		1%			-2%			0%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.900			0.979			0.998	
Flt Protected		0.971			0.987			0.999			0.992	
Satd. Flow (prot)	0	1488	0	0	1671	0	0	1635	0	0	1804	0
Flt Permitted		0.971			0.987			0.999			0.992	
Satd. Flow (perm)	0	1488	0	0	1671	0	0	1635	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		322			241			1150			418	
Travel Time (s)		7.3			5.5			26.1			9.5	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	20%	2%	2%	2%	2%	2%	33%	14%	33%	2%	9%	2%
Adj. Flow (vph)	6	0	4	8	0	23	4	145	28	41	196	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	31	0	0	177	0	0	240	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.99	0.99	0.99	1.00	0.96	1.00	1.00	0.96	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	10.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	3	6	0	18	3	116	22	33	157	2
Future Vol, veh/h	5	0	3	6	0	18	3	116	22	33	157	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-2	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	20	2	2	2	2	2	33	14	33	2	9	2
Mvmt Flow	6	0	4	8	0	23	4	145	28	41	196	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	4	0	0	141	53	2	129	44	12
Stage 1	-	-	-	-	-	-	14	14	-	28	28	-
Stage 2	-	-	-	-	-	-	127	39	-	101	16	-
Critical Hdwy	4.3	-	-	4.12	-	-	7.43	6.64	6.53	7.12	6.59	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	5.64	-	6.12	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	5.64	-	6.12	5.59	-
Follow-up Hdwy	2.38	-	-	2.218	-	-	3.797	4.126	3.597	3.518	4.081	3.318
Pot Cap-1 Maneuver	1483	-	-	1618	-	-	763	816	998	844	834	1069
Stage 1	-	-	-	-	-	-	932	860	-	989	858	-
Stage 2	-	-	-	-	-	-	807	839	-	905	868	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1483	-	-	1618	-	-	618	809	998	703	826	1069
Mov Cap-2 Maneuver	-	-	-	-	-	-	618	809	-	703	826	-
Stage 1	-	-	-	-	-	-	928	857	-	985	854	-
Stage 2	-	-	-	-	-	-	617	835	-	728	865	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.6	1.8	10.5	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	828	1483	-	-	1618	-	-	804
HCM Lane V/C Ratio	0.213	0.004	-	-	0.005	-	-	0.299
HCM Control Delay (s)	10.5	7.4	0	-	7.2	0	-	11.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-	-	1.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	130	122	55	3	10	141
Future Volume (vph)	130	122	55	3	10	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	10	12	12	12
Grade (%)		1%	-2%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.993		0.874	
Flt Protected		0.975			0.997	
Satd. Flow (prot)	0	1770	1744	0	1524	0
Flt Permitted		0.975			0.997	
Satd. Flow (perm)	0	1770	1744	0	1524	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		755	963		1150	
Travel Time (s)		17.2	21.9		26.1	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	11%	4%	2%	2%	20%	9%
Adj. Flow (vph)	183	172	77	4	14	199
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	355	81	0	213	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	0.96	1.08	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	130	122	55	3	10	141
Future Vol, veh/h	130	122	55	3	10	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	-2	-	-2	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	11	4	2	2	20	9
Mvmt Flow	183	172	77	4	14	199

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	81	0	-	0	617	79
Stage 1	-	-	-	-	79	-
Stage 2	-	-	-	-	538	-
Critical Hdwy	4.21	-	-	-	6.2	6.09
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	2.299	-	-	-	3.68	3.381
Pot Cap-1 Maneuver	1462	-	-	-	456	967
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	585	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1462	-	-	-	393	967
Mov Cap-2 Maneuver	-	-	-	-	393	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	585	-

Approach	EB	WB	SB
HCM Control Delay, s	4	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1462	-	-	-	882
HCM Lane V/C Ratio	0.125	-	-	-	0.241
HCM Control Delay (s)	7.8	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.9

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	16	136	2	6	146
Future Volume (vph)	7	16	136	2	6	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-2%			5%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.907		0.998			
Flt Protected	0.985					0.998
Satd. Flow (prot)	1664	0	1759	0	0	1747
Flt Permitted	0.985					0.998
Satd. Flow (perm)	1664	0	1759	0	0	1747
Link Speed (mph)	30		30			30
Link Distance (ft)	264		418			986
Travel Time (s)	6.0		9.5			22.4
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	2%	2%	9%	2%	2%	6%
Adj. Flow (vph)	9	20	170	3	8	183
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	173	0	0	191
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.99	0.99	1.03	1.03
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	16	136	2	6	146
Future Vol, veh/h	7	16	136	2	6	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-2	-	-	5
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	9	2	2	6
Mvmt Flow	9	20	170	3	8	183

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	371	172	0	0	173	0
Stage 1	172	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	630	872	-	-	1404	-
Stage 1	858	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	626	872	-	-	1404	-
Mov Cap-2 Maneuver	626	-	-	-	-	-
Stage 1	858	-	-	-	-	-
Stage 2	830	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	779	1404	-
HCM Lane V/C Ratio	-	-	0.037	0.005	-
HCM Control Delay (s)	-	-	9.8	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	19	152	2	6	187
Future Volume (vph)	5	19	152	2	6	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-10%			10%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.892		0.998			
Flt Protected	0.990					0.998
Satd. Flow (prot)	1645	0	1828	0	0	1702
Flt Permitted	0.990					0.998
Satd. Flow (perm)	1645	0	1828	0	0	1702
Link Speed (mph)	30		30			30
Link Distance (ft)	229		986			587
Travel Time (s)	5.2		22.4			13.3
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	2%	2%	9%	2%	2%	6%
Adj. Flow (vph)	6	24	190	3	8	234
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	193	0	0	242
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.94	0.94	1.07	1.07
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	19	152	2	6	187
Future Vol, veh/h	5	19	152	2	6	187
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-10	-	-	10
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	9	2	2	6
Mvmt Flow	6	24	190	3	8	234

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	442	192	0	0	193	0
Stage 1	192	-	-	-	-	-
Stage 2	250	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	573	850	-	-	1380	-
Stage 1	841	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	569	850	-	-	1380	-
Mov Cap-2 Maneuver	569	-	-	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	786	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	771	1380	-
HCM Lane V/C Ratio	-	-	0.039	0.005	-
HCM Control Delay (s)	-	-	9.9	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	92	50	36	78	3
Future Volume (vph)	4	92	50	36	78	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	4%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.944		0.995	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1817	1597	0	1558	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1817	1597	0	1558	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		631	170		331	
Travel Time (s)		14.3	3.9		7.5	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	5%	13%	6%	12%	67%
Adj. Flow (vph)	5	123	67	48	104	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	128	115	0	108	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.03	1.03	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	92	50	36	78	3
Future Vol, veh/h	4	92	50	36	78	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	4	-	3	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	5	13	6	12	67
Mvmt Flow	5	123	67	48	104	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	115	0	-	0	224	91
Stage 1	-	-	-	-	91	-
Stage 2	-	-	-	-	133	-
Critical Hdwy	4.12	-	-	-	7.12	7.17
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	2.218	-	-	-	3.608	3.903
Pot Cap-1 Maneuver	1474	-	-	-	715	808
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1474	-	-	-	712	808
Mov Cap-2 Maneuver	-	-	-	-	712	-
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	850	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1474	-	-	-	715
HCM Lane V/C Ratio	0.004	-	-	-	0.151
HCM Control Delay (s)	7.5	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1224	17	37	794	6	26
Future Volume (vph)	1224	17	37	794	6	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.890	
Flt Protected				0.998	0.991	
Satd. Flow (prot)	2022	0	0	1978	1688	0
Flt Permitted				0.998	0.991	
Satd. Flow (perm)	2022	0	0	1978	1688	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	15%	3%	5%	2%	4%
Adj. Flow (vph)	1288	18	39	836	6	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1306	0	0	875	33	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1224	17	37	794	6	26
Future Vol, veh/h	1224	17	37	794	6	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	1	-2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	15	3	5	2	4
Mvmt Flow	1288	18	39	836	6	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1306	0	2211	1297
Stage 1	-	-	-	-	1297	-
Stage 2	-	-	-	-	914	-
Critical Hdwy	-	-	4.13	-	6.02	6.04
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.336
Pot Cap-1 Maneuver	-	-	527	-	62	210
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	433	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	527	-	53	210
Mov Cap-2 Maneuver	-	-	-	-	53	-
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	373	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	40.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	135	-	-	527	-
HCM Lane V/C Ratio	0.25	-	-	0.074	-
HCM Control Delay (s)	40.3	-	-	12.4	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q(veh)	0.9	-	-	0.2	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	32	91	171	142	74	99
Future Volume (vph)	32	91	171	142	74	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12
Grade (%)	-4%			2%	-10%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.900				0.923	
Flt Protected				0.973	0.979	
Satd. Flow (prot)	1653	0	0	1735	1745	0
Flt Permitted				0.973	0.979	
Satd. Flow (perm)	1653	0	0	1735	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	170			1649	587	
Travel Time (s)	3.9			37.5	13.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%
Adj. Flow (vph)	37	106	199	165	86	115
Shared Lane Traffic (%)						
Lane Group Flow (vph)	143	0	0	364	201	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.02	0.97	1.01	1.06	0.94	0.94
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	32	91	171	142	74	99
Future Vol, veh/h	32	91	171	142	74	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	2	-10	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	37	106	199	165	86	115

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	143	0	653	90
Stage 1	-	-	-	-	90	-
Stage 2	-	-	-	-	563	-
Critical Hdwy	-	-	4.12	-	4.45	5.22
Critical Hdwy Stg 1	-	-	-	-	3.45	-
Critical Hdwy Stg 2	-	-	-	-	3.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.318
Pot Cap-1 Maneuver	-	-	1440	-	614	992
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1440	-	521	992
Mov Cap-2 Maneuver	-	-	-	-	521	-
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	654	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.3	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	715	-	-	1440	-
HCM Lane V/C Ratio	0.281	-	-	0.138	-
HCM Control Delay (s)	12	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0.5	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	2	14	0	62	1	98	7	19	205	11
Future Volume (vph)	3	0	2	14	0	62	1	98	7	19	205	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	13	12	12	13	12
Grade (%)		1%			-2%			0%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.890			0.992			0.994	
Flt Protected		0.971			0.991						0.996	
Satd. Flow (prot)	0	1646	0	0	1639	0	0	1909	0	0	1906	0
Flt Permitted		0.971			0.991						0.996	
Satd. Flow (perm)	0	1646	0	0	1639	0	0	1909	0	0	1906	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		322			241			1150			418	
Travel Time (s)		7.3			5.5			26.1			9.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	3	0	2	15	0	66	1	104	7	20	218	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	81	0	0	112	0	0	250	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.05	1.01	0.99	0.99	0.99	1.00	0.96	1.00	1.00	0.96	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	2	14	0	62	1	98	7	19	205	11
Future Vol, veh/h	3	0	2	14	0	62	1	98	7	19	205	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-2	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	9	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	2	15	0	66	1	104	7	20	218	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	66	0	0	2	0	0	185	103	1	126	71	33
Stage 1	-	-	-	-	-	-	7	7	-	63	63	-
Stage 2	-	-	-	-	-	-	178	96	-	63	8	-
Critical Hdwy	4.12	-	-	4.19	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.281	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1536	-	-	1576	-	-	776	787	1084	848	819	1041
Stage 1	-	-	-	-	-	-	1015	890	-	948	842	-
Stage 2	-	-	-	-	-	-	824	815	-	948	889	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1536	-	-	1576	-	-	602	778	1084	749	809	1041
Mov Cap-2 Maneuver	-	-	-	-	-	-	602	778	-	749	809	-
Stage 1	-	-	-	-	-	-	1013	888	-	946	834	-
Stage 2	-	-	-	-	-	-	596	807	-	829	887	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.4	1.3	10.3	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	791	1536	-	-	1576	-	-	812
HCM Lane V/C Ratio	0.143	0.002	-	-	0.009	-	-	0.308
HCM Control Delay (s)	10.3	7.3	0	-	7.3	0	-	11.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	1.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	84	52	62	10	9	182
Future Volume (vph)	84	52	62	10	9	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	10	12	12	12
Grade (%)		1%	-2%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.981		0.871	
Flt Protected		0.970			0.998	
Satd. Flow (prot)	0	1847	1723	0	1624	0
Flt Permitted		0.970			0.998	
Satd. Flow (perm)	0	1847	1723	0	1624	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		755	963		1150	
Travel Time (s)		17.2	21.9		26.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	2%	2%	2%	17%	2%
Adj. Flow (vph)	93	58	69	11	10	202
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	151	80	0	212	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	0.96	1.08	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	84	52	62	10	9	182
Future Vol, veh/h	84	52	62	10	9	182
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	-2	-	-2	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	2	2	2	17	2
Mvmt Flow	93	58	69	11	10	202

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	80	0	-	0	319	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	244	-
Critical Hdwy	4.13	-	-	-	6.17	6.02
Critical Hdwy Stg 1	-	-	-	-	5.17	-
Critical Hdwy Stg 2	-	-	-	-	5.17	-
Follow-up Hdwy	2.227	-	-	-	3.653	3.318
Pot Cap-1 Maneuver	1512	-	-	-	668	991
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1512	-	-	-	625	991
Mov Cap-2 Maneuver	-	-	-	-	625	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	784	-

Approach	EB	WB	SB
HCM Control Delay, s	4.7	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1512	-	-	-	964
HCM Lane V/C Ratio	0.062	-	-	-	0.22
HCM Control Delay (s)	7.5	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	9	157	7	15	232
Future Volume (vph)	4	9	157	7	15	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-2%			5%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.904		0.995			
Flt Protected	0.986					0.997
Satd. Flow (prot)	1660	0	1872	0	0	1811
Flt Permitted	0.986					0.997
Satd. Flow (perm)	1660	0	1872	0	0	1811
Link Speed (mph)	30		30			30
Link Distance (ft)	264		418			986
Travel Time (s)	6.0		9.5			22.4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	4	10	167	7	16	247
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	174	0	0	263
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.99	0.99	1.03	1.03
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	9	157	7	15	232
Future Vol, veh/h	4	9	157	7	15	232
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-2	-	-	5
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	10	167	7	16	247

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	450	171	0	0	174	0
Stage 1	171	-	-	-	-	-
Stage 2	279	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	567	873	-	-	1403	-
Stage 1	859	-	-	-	-	-
Stage 2	768	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	560	873	-	-	1403	-
Mov Cap-2 Maneuver	560	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	745	1403	-
HCM Lane V/C Ratio	-	-	0.019	0.011	-
HCM Control Delay (s)	-	-	9.9	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	3	11	162	4	18	244
Future Volume (vph)	3	11	162	4	18	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-10%			10%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.892		0.997			
Flt Protected	0.990					0.997
Satd. Flow (prot)	1645	0	1950	0	0	1764
Flt Permitted	0.990					0.997
Satd. Flow (perm)	1645	0	1950	0	0	1764
Link Speed (mph)	30		30			30
Link Distance (ft)	229		986			587
Travel Time (s)	5.2		22.4			13.3
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	3	12	172	4	19	260
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	176	0	0	279
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.94	0.94	1.07	1.07
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	11	162	4	18	244
Future Vol, veh/h	3	11	162	4	18	244
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-10	-	-	10
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	12	172	4	19	260

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	472	174	0	0	176	0
Stage 1	174	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	551	869	-	-	1400	-
Stage 1	856	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	542	869	-	-	1400	-
Mov Cap-2 Maneuver	542	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	770	1400	-
HCM Lane V/C Ratio	-	-	0.019	0.014	-
HCM Control Delay (s)	-	-	9.8	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	93	173	43	31	11
Future Volume (vph)	3	93	173	43	31	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-1%	4%		3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.973		0.966	
Flt Protected		0.998			0.964	
Satd. Flow (prot)	0	1868	1776	0	1709	0
Flt Permitted		0.998			0.964	
Satd. Flow (perm)	0	1868	1776	0	1709	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		631	170		331	
Travel Time (s)		14.3	3.9		7.5	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	4	113	211	52	38	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	117	263	0	51	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	1.03	1.03	1.02	1.02
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	93	173	43	31	11
Future Vol, veh/h	3	93	173	43	31	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	4	-	3	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	113	211	52	38	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	263	0	-	0	358	237
Stage 1	-	-	-	-	237	-
Stage 2	-	-	-	-	121	-
Critical Hdwy	4.12	-	-	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1301	-	-	-	603	786
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1301	-	-	-	601	786
Mov Cap-2 Maneuver	-	-	-	-	601	-
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	886	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1301	-	-	-	640
HCM Lane V/C Ratio	0.003	-	-	-	0.08
HCM Control Delay (s)	7.8	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1063	20	26	1178	11	24
Future Volume (vph)	1063	20	26	1178	11	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.909	
Flt Protected				0.999	0.984	
Satd. Flow (prot)	2024	0	0	2014	1572	0
Flt Permitted				0.999	0.984	
Satd. Flow (perm)	2024	0	0	2014	1572	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	7%	9%	3%	2%	18%
Adj. Flow (vph)	1119	21	27	1240	12	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1140	0	0	1267	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1063	20	26	1178	11	24
Future Vol, veh/h	1063	20	26	1178	11	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	1	-2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	7	9	3	2	18
Mvmt Flow	1119	21	27	1240	12	25

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1140	0	2424	1130
Stage 1	-	-	-	-	1130	-
Stage 2	-	-	-	-	1294	-
Critical Hdwy	-	-	4.19	-	6.02	6.18
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	-	-	2.281	-	3.518	3.462
Pot Cap-1 Maneuver	-	-	588	-	46	245
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	297	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	588	-	39	245
Mov Cap-2 Maneuver	-	-	-	-	39	-
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	253	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	68.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	92	-	-	588	-
HCM Lane V/C Ratio	0.4	-	-	0.047	-
HCM Control Delay (s)	68.1	-	-	11.4	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	1.6	-	-	0.1	-

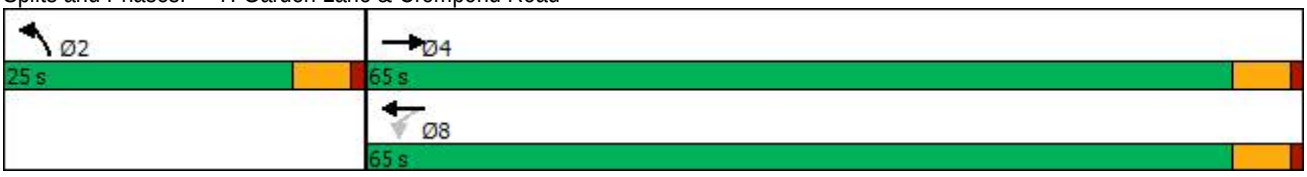
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1224	16	36	794	1	24
Future Volume (vph)	1224	16	36	794	1	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.870	
Flt Protected				0.998	0.998	
Satd. Flow (prot)	2022	0	0	1978	1657	0
Flt Permitted				0.710	0.998	
Satd. Flow (perm)	2022	0	0	1407	1657	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				25	
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	15%	3%	5%	2%	4%
Adj. Flow (vph)	1288	17	38	836	1	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1305	0	0	874	26	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	2	
Detector Template			Left			
Leading Detector (ft)	83		20	83	83	
Trailing Detector (ft)	-5		0	-5	-5	
Detector 1 Position(ft)	-5		0	-5	-5	
Detector 1 Size(ft)	40		20	40	40	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	43			43	43	
Detector 2 Size(ft)	40			40	40	
Detector 2 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0	0.0	
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Detector Phase	4		8	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	23.0		23.0	23.0	23.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Split (s)	65.0		65.0	65.0	25.0	
Total Split (%)	72.2%		72.2%	72.2%	27.8%	
Maximum Green (s)	60.0		60.0	60.0	20.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.0			5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	None	Min	
v/c Ratio	0.82			0.79	0.17	
Control Delay	10.8			11.7	16.7	
Queue Delay	0.0			0.0	0.0	
Total Delay	10.8			11.7	16.7	
Queue Length 50th (ft)	246			155	0	
Queue Length 95th (ft)	515			381	23	
Internal Link Dist (ft)	665			1004	652	
Turn Bay Length (ft)						
Base Capacity (vph)	1594			1108	453	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.82			0.79	0.06	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 76.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Garden Lane & Crompond Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1224	16	36	794	1	24
Future Volume (veh/h)	1224	16	36	794	1	24
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1930	1678	1850	1893	2027	1919
Adj Flow Rate, veh/h	1288	17	38	836	1	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	15	3	5	2	4
Cap, veh/h	1453	19	78	1107	5	126
Arrive On Green	0.76	0.76	0.76	0.76	0.08	0.08
Sat Flow, veh/h	1900	25	25	1447	64	1606
Grp Volume(v), veh/h	0	1305	874	0	27	0
Grp Sat Flow(s),veh/h/ln	0	1925	1472	0	1734	0
Q Serve(g_s), s	0.0	31.6	9.7	0.0	0.9	0.0
Cycle Q Clear(g_c), s	0.0	31.6	41.3	0.0	0.9	0.0
Prop In Lane		0.01	0.04		0.04	0.93
Lane Grp Cap(c), veh/h	0	1473	1185	0	136	0
V/C Ratio(X)	0.00	0.89	0.74	0.00	0.20	0.00
Avail Cap(c_a), veh/h	0	1810	1474	0	544	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	5.5	4.5	0.0	27.5	0.0
Incr Delay (d2), s/veh	0.0	4.9	1.5	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.4	1.4	0.0	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	10.4	6.0	0.0	28.2	0.0
LnGrp LOS	A	B	A	A	C	A
Approach Vol, veh/h	1305			874	27	
Approach Delay, s/veh	10.4			6.0	28.2	
Approach LOS	B			A	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	10.0	53.8	53.8
Change Period (Y+Rc), s	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	60.0	60.0
Max Q Clear Time (g_c+I1), s	2.9	33.6	43.3
Green Ext Time (p_c), s	0.1	12.6	5.5

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

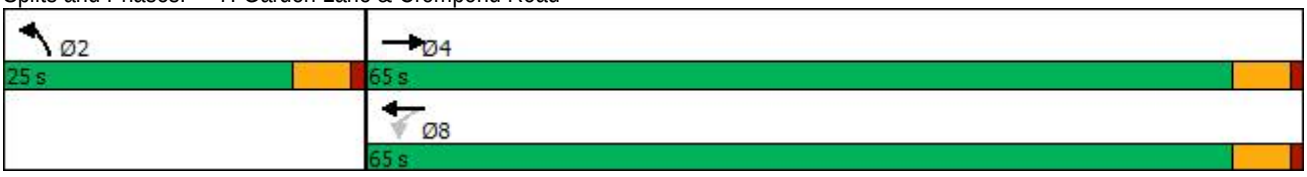
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1063	16	24	1178	8	23
Future Volume (vph)	1063	16	24	1178	8	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.899	
Flt Protected				0.999	0.988	
Satd. Flow (prot)	2024	0	0	2015	1545	0
Flt Permitted				0.969	0.988	
Satd. Flow (perm)	2024	0	0	1954	1545	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				24	
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	7%	9%	3%	2%	18%
Adj. Flow (vph)	1119	17	25	1240	8	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1136	0	0	1265	32	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	2	
Detector Template			Left			
Leading Detector (ft)	83		20	83	83	
Trailing Detector (ft)	-5		0	-5	-5	
Detector 1 Position(ft)	-5		0	-5	-5	
Detector 1 Size(ft)	40		20	40	40	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	43			43	43	
Detector 2 Size(ft)	40			40	40	
Detector 2 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0	0.0	
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Detector Phase	4		8	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Split (s)	65.0		65.0	65.0	25.0	
Total Split (%)	72.2%		72.2%	72.2%	27.8%	
Maximum Green (s)	60.0		60.0	60.0	20.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.0			5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	None	Min	
v/c Ratio	0.71			0.83	0.21	
Control Delay	7.4			11.6	20.2	
Queue Delay	0.0			0.0	0.0	
Total Delay	7.4			11.6	20.2	
Queue Length 50th (ft)	178			248	4	
Queue Length 95th (ft)	352			544	29	
Internal Link Dist (ft)	665			1004	652	
Turn Bay Length (ft)						
Base Capacity (vph)	1589			1533	422	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.71			0.83	0.08	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 76.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Garden Lane & Crompond Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1063	16	24	1178	8	23
Future Volume (veh/h)	1063	16	24	1178	8	23
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1930	1796	1761	1924	2027	1708
Adj Flow Rate, veh/h	1119	17	25	1240	8	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	7	9	3	2	18
Cap, veh/h	1415	21	74	1392	36	109
Arrive On Green	0.75	0.75	0.75	0.75	0.08	0.08
Sat Flow, veh/h	1896	29	16	1865	430	1289
Grp Volume(v), veh/h	0	1136	1265	0	33	0
Grp Sat Flow(s),veh/h/ln	0	1925	1880	0	1773	0
Q Serve(g_s), s	0.0	21.6	4.5	0.0	1.0	0.0
Cycle Q Clear(g_c), s	0.0	21.6	29.5	0.0	1.0	0.0
Prop In Lane		0.01	0.02		0.24	0.73
Lane Grp Cap(c), veh/h	0	1437	1466	0	150	0
V/C Ratio(X)	0.00	0.79	0.86	0.00	0.22	0.00
Avail Cap(c_a), veh/h	0	1952	1954	0	599	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.6	5.6	0.0	25.3	0.0
Incr Delay (d2), s/veh	0.0	1.6	3.3	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	3.6	0.0	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	6.2	8.9	0.0	26.0	0.0
LnGrp LOS	A	A	A	A	C	A
Approach Vol, veh/h	1136			1265	33	
Approach Delay, s/veh	6.2			8.9	26.0	
Approach LOS	A			A	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	10.0	49.2	49.2
Change Period (Y+Rc), s	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	60.0	60.0
Max Q Clear Time (g_c+I1), s	3.0	23.6	31.5
Green Ext Time (p_c), s	0.1	10.4	12.7

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1224	17	37	794	6	26
Future Volume (vph)	1224	17	37	794	6	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.890	
Flt Protected				0.998	0.991	
Satd. Flow (prot)	2022	0	0	1978	1688	0
Flt Permitted				0.693	0.991	
Satd. Flow (perm)	2022	0	0	1374	1688	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				27	
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	15%	3%	5%	2%	4%
Adj. Flow (vph)	1288	18	39	836	6	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1306	0	0	875	33	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	2	
Detector Template			Left			
Leading Detector (ft)	83		20	83	83	
Trailing Detector (ft)	-5		0	-5	-5	
Detector 1 Position(ft)	-5		0	-5	-5	
Detector 1 Size(ft)	40		20	40	40	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	43			43	43	
Detector 2 Size(ft)	40			40	40	
Detector 2 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0	0.0	
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Detector Phase	4		8	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	23.0		23.0	23.0	23.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Split (s)	65.0		65.0	65.0	25.0	
Total Split (%)	72.2%		72.2%	72.2%	27.8%	
Maximum Green (s)	60.0		60.0	60.0	20.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.0			5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	None	Min	
v/c Ratio	0.82			0.81	0.20	
Control Delay	11.1			13.2	18.6	
Queue Delay	0.0			0.0	0.0	
Total Delay	11.1			13.2	18.6	
Queue Length 50th (ft)	251			165	3	
Queue Length 95th (ft)	534			#484	28	
Internal Link Dist (ft)	665			1004	652	
Turn Bay Length (ft)						
Base Capacity (vph)	1590			1080	462	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.82			0.81	0.07	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 76.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Garden Lane & Crompond Road

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1224	17	37	794	6	26
Future Volume (veh/h)	1224	17	37	794	6	26
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1930	1678	1850	1893	2027	1919
Adj Flow Rate, veh/h	1288	18	39	836	6	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	15	3	5	2	4
Cap, veh/h	1455	20	79	1101	24	109
Arrive On Green	0.77	0.77	0.77	0.77	0.08	0.08
Sat Flow, veh/h	1898	27	26	1437	311	1397
Grp Volume(v), veh/h	0	1306	875	0	34	0
Grp Sat Flow(s),veh/h/ln	0	1925	1463	0	1760	0
Q Serve(g_s), s	0.0	31.6	10.1	0.0	1.2	0.0
Cycle Q Clear(g_c), s	0.0	31.6	41.7	0.0	1.2	0.0
Prop In Lane		0.01	0.04		0.18	0.79
Lane Grp Cap(c), veh/h	0	1475	1180	0	137	0
V/C Ratio(X)	0.00	0.89	0.74	0.00	0.25	0.00
Avail Cap(c_a), veh/h	0	1799	1456	0	548	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	5.4	4.6	0.0	27.8	0.0
Incr Delay (d2), s/veh	0.0	4.9	1.6	0.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.4	1.5	0.0	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	10.4	6.2	0.0	28.8	0.0
LnGrp LOS	A	B	A	A	C	A
Approach Vol, veh/h	1306			875	34	
Approach Delay, s/veh	10.4			6.2	28.8	
Approach LOS	B			A	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	10.0	54.2	54.2
Change Period (Y+Rc), s	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	60.0	60.0
Max Q Clear Time (g_c+I1), s	3.2	33.6	43.7
Green Ext Time (p_c), s	0.1	12.6	5.5

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

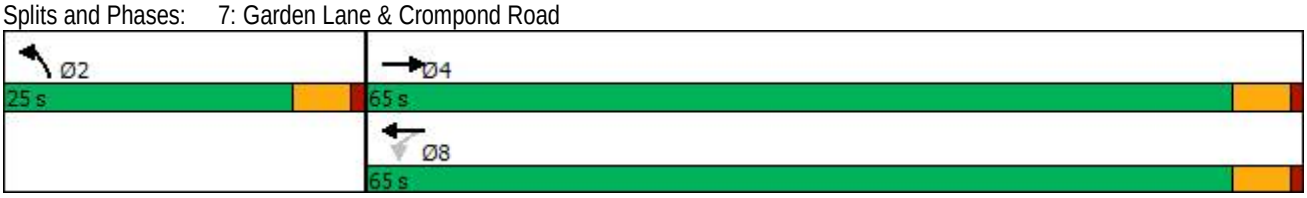
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1063	20	26	1178	11	24
Future Volume (vph)	1063	20	26	1178	11	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	15	13	12
Grade (%)	0%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.909	
Flt Protected				0.999	0.984	
Satd. Flow (prot)	2024	0	0	2014	1572	0
Flt Permitted				0.965	0.984	
Satd. Flow (perm)	2024	0	0	1946	1572	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				25	
Link Speed (mph)	45			45	30	
Link Distance (ft)	745			1084	732	
Travel Time (s)	11.3			16.4	16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	7%	9%	3%	2%	18%
Adj. Flow (vph)	1119	21	27	1240	12	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1140	0	0	1267	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.89	0.95	0.99
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	2	
Detector Template			Left			
Leading Detector (ft)	83		20	83	83	
Trailing Detector (ft)	-5		0	-5	-5	
Detector 1 Position(ft)	-5		0	-5	-5	
Detector 1 Size(ft)	40		20	40	40	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	43			43	43	
Detector 2 Size(ft)	40			40	40	
Detector 2 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0	0.0	
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Detector Phase	4		8	8	2	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	23.0		23.0	23.0	23.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Split (s)	65.0		65.0	65.0	25.0	
Total Split (%)	72.2%		72.2%	72.2%	27.8%	
Maximum Green (s)	60.0		60.0	60.0	20.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.0			5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	None	Min	
v/c Ratio	0.72			0.83	0.24	
Control Delay	7.6			12.1	21.5	
Queue Delay	0.0			0.0	0.0	
Total Delay	7.6			12.1	21.5	
Queue Length 50th (ft)	184			256	5	
Queue Length 95th (ft)	364			#586	33	
Internal Link Dist (ft)	665			1004	652	
Turn Bay Length (ft)						
Base Capacity (vph)	1586			1525	429	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.72			0.83	0.09	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 76.6
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Garden Lane & Crompond Road



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1063	20	26	1178	11	24
Future Volume (veh/h)	1063	20	26	1178	11	24
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1930	1796	1761	1924	2027	1708
Adj Flow Rate, veh/h	1119	21	27	1240	12	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	7	9	3	2	18
Cap, veh/h	1412	26	75	1389	47	99
Arrive On Green	0.75	0.75	0.75	0.75	0.08	0.08
Sat Flow, veh/h	1888	35	17	1858	564	1176
Grp Volume(v), veh/h	0	1140	1267	0	38	0
Grp Sat Flow(s),veh/h/ln	0	1923	1875	0	1787	0
Q Serve(g_s), s	0.0	21.8	5.3	0.0	1.2	0.0
Cycle Q Clear(g_c), s	0.0	21.8	29.8	0.0	1.2	0.0
Prop In Lane		0.02	0.02		0.32	0.66
Lane Grp Cap(c), veh/h	0	1439	1464	0	150	0
V/C Ratio(X)	0.00	0.79	0.87	0.00	0.25	0.00
Avail Cap(c_a), veh/h	0	1939	1937	0	601	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.6	5.6	0.0	25.5	0.0
Incr Delay (d2), s/veh	0.0	1.7	3.4	0.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	3.6	0.0	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	6.3	9.0	0.0	26.4	0.0
LnGrp LOS	A	A	A	A	C	A
Approach Vol, veh/h	1140			1267	38	
Approach Delay, s/veh	6.3			9.0	26.4	
Approach LOS	A			A	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	10.0	49.5	49.5
Change Period (Y+Rc), s	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	60.0	60.0
Max Q Clear Time (g_c+I1), s	3.2	23.8	31.8
Green Ext Time (p_c), s	0.1	10.5	12.7

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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Traffic Impact Study

Appendix E | Traffic Signal Warrant Analysis

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
CROMPOND ROAD AT GARDEN LANE
WARRANT ANALYSIS SUMMARY

INTERSECTION DATA			
Major Street:	Crompond Road (US Rte 202/ NYS Rte 35)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Garden Lane	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	Town of Yorktown, Westchester County, New York		
		Major Street Speed	
Date:	6/8/2022	85TH Percentile Speed >= 40 mph (Y or N):	45
Volume Basis:	2022 Existing Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS SUMMARY		
Warrant 1 - Eight-Hour Vehicular Volume		
Condition A - Minimum Vehicular Volume		Not Satisfied -- No Signal
Condition B - Minimum Vehicular Interruption of Continous Traffic		Not Satisfied -- No Signal
Condition A & B Combined Condition		Not Applicable
	Warrant 1 Satisfied:	**NO**
Warrant 2 - Four-Hour Vehicular Volume		
Four-Hour Vehicular Volume		Not Satisfied -- No Signal
	Warrant 2 Satisfied:	**NO**
Warrant 3 - Peak Hour		
Peak Hour Volume		Not Satisfied -- No Signal
	Warrant 3 Satisfied:	**NO**
Warrant 4 - Pedestrian Volume Warrant		
Condition A - Pedestrian Four-Hour Volume		Not Applicable
Condition B - Pedestrian Peak Hour Volume		Not Applicable
	Warrant 4 Satisfied:	**Not Applicable**
Warrant 5 - School Crossing		
	Warrant 5 Satisfied:	**Not Applicable**
Warrant 6 - Coordinated Signal System		
	Warrant 6 Satisfied:	**Not Applicable**
Warrant 7 - Crash Experience		
	Warrant 7 Satisfied:	**Not Applicable**
Warrant 8 - Roadway Network		
	Warrant 7 Satisfied:	**Not Applicable**
Warrant 9 - Intersection Near a Grade Crossing		
Condition A - Distance to Rail		Not Applicable
Condition B - Traffic Volume Warrant		Not Applicable
	Warrant 9 Satisfied:	**Not Applicable**

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
CROMPOND ROAD AT GARDEN LANE
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

INTERSECTION DATA

Major Street: Crompond Road (US Rte 202/ NYS Rte 35)
Minor Street: Garden Lane
Location: Town of Yorktown, Westchester County, New York
Date: 6/8/2022
Volume Basis: 2022 Existing Traffic Volumes
Condition: Typical Weekday

Number of Lanes For Moving Traffic By Approach
Major Street (Excluding Auxiliary Lanes) = 1
Minor Street (Including Auxiliary Lanes) = 1

Major Street Speed
85TH Percentile Speed >= 40 mph (Y or N): Y

Community Population
Community < 10,000 (Y or N): N

WARRANT ANALYSIS

Time of Day	Volumes Major Street	Volumes Minor Street	Warrant 1 Condition A Major Street	Warrant 1 Condition A Minor Street	Warrant 1 Condition B Major Street	Warrant 1 Condition B Minor Street	Warrant 1 Condition A & B Condition A Major Street	Warrant 1 Condition A & B Condition A Minor Street	Warrant 1 Condition A & B Condition B Major Street	Warrant 1 Condition A & B Condition B Minor Street	Warrant Met? Warrant 1A	Warrant Met? Warrant 1B	Warrant Met? Combined 1A	Warrant Met? Combined 1B
12:00 AM	129	2	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
1:00 AM	64	1	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
2:00 AM	63	1	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
3:00 AM	62	1	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
4:00 AM	172	3	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
5:00 AM	480	9	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
6:00 AM	1,303	23	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
7:00 AM	1,936	24	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
8:00 AM	1,859	33	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
9:00 AM	1,574	28	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
10:00 AM	1,351	24	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
11:00 AM	1,617	17	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
12:00 PM	1,693	18	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
1:00 PM	1,697	18	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
2:00 PM	1,894	20	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
3:00 PM	2,071	21	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
4:00 PM	2,023	21	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
5:00 PM	2,011	38	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
6:00 PM	1,833	19	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
7:00 PM	1,240	13	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
8:00 PM	850	9	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
9:00 PM	575	6	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
10:00 PM	405	4	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
11:00 PM	241	3	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
Total Hours Meeting Warrants											**0**	**0**	**0**	**0**
Total Hours Needed to Satisfy											**8**	**8**	**8***	**8***

WARRANT 1 SUMMARY

Warrant 1 Condition A - Minimum Vehicular Volume	**Not Satisfied -- No Signal**
Warrant 1 Condition B - Interruption of Continuous Traffic	**Not Satisfied -- No Signal**
Warrant 1A & 1B Combined Condition	**Not Applicable**

*Note: For Combined Warrant Both Conditions 1A & 1B Must Be Satisfied for a Minimum of 8 Hours.

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
CROMPOND ROAD AT GARDEN LANE
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME & WARRANT 3 - PEAK HOUR

INTERSECTION DATA

Major Street:	Crompond Road (US Rte 202/ NYS Rte 35)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Garden Lane	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	Town of Yorktown, Westchester County, New York		
		Major Street Speed	
Date:	6/8/2022	85TH Percentile Speed >= 40 mph (Y or N):	Y
Volume Basis:	2022 Existing Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS

Time of Day	Volumes Major Street	Volumes Minor Street	Warrant 2[1] Major Street	Warrant 2[1] Minor Street	Warrant 3[1] Major Street	Warrant 3[1] Minor Street	Warrant Met? Warrant 2	Warrant Met? Warrant 3
12:00 AM	129	2					NO	NO
1:00 AM	64	1					NO	NO
2:00 AM	63	1					NO	NO
3:00 AM	62	1					NO	NO
4:00 AM	172	3					NO	NO
5:00 AM	480	9					NO	NO
6:00 AM	1,303	23					NO	NO
7:00 AM	1,936	24					NO	NO
8:00 AM	1,859	33					NO	NO
9:00 AM	1,574	28					NO	NO
10:00 AM	1,351	24					NO	NO
11:00 AM	1,617	17					NO	NO
12:00 PM	1,693	18					NO	NO
1:00 PM	1,697	18					NO	NO
2:00 PM	1,894	20					NO	NO
3:00 PM	2,071	21					NO	NO
4:00 PM	2,023	21					NO	NO
5:00 PM	2,011	38					NO	NO
6:00 PM	1,833	19					NO	NO
7:00 PM	1,240	13					NO	NO
8:00 PM	850	9					NO	NO
9:00 PM	575	6					NO	NO
10:00 PM	405	4					NO	NO
11:00 PM	241	3					NO	NO
			See Figure 4C-2		**See Figure 4C-4**			
						Total Hours Meeting Warrants	0	0
						Total Hours Needed to Satisfy	4	1

WARRANTS 2 & 3 SUMMARY

Warrant 2 - Four Hour Vehicular Volume	**Not Satisfied -- No Signal**
Warrant 3 - Peak Hour Volume	**Not Satisfied -- No Signal**

Notes:

1) Volumes for Warrants 2 & 3 are compared to attached MUTCD Figures 4C-2 and 4C-4, respectively.

Table TSW-1

Figure 4C-2

Intersection

Warrant 2 - Four Hour Vehicular Warrant (70% Factor)

(Community Less than 10,000 Population or 85th Percentile Speed Above 40 MPH on Major Street)

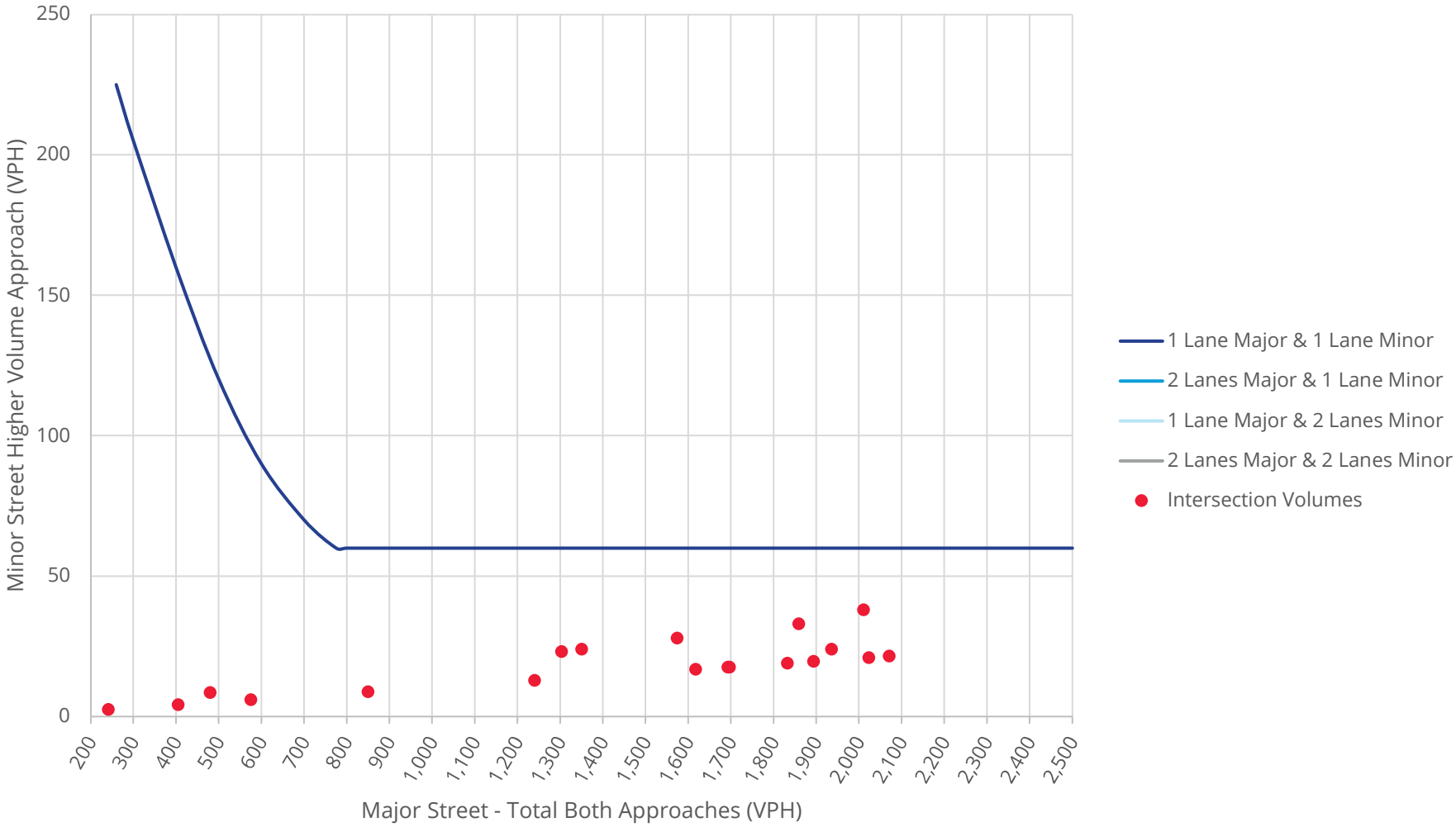


Table TSW-1

Figure 4C-4

Intersection

Warrant 3 - Peak Hour Warrant (70% Factor)

(Community Less than 10,000 Population or 85th Percentile Speed Above 40 MPH on Major Street)

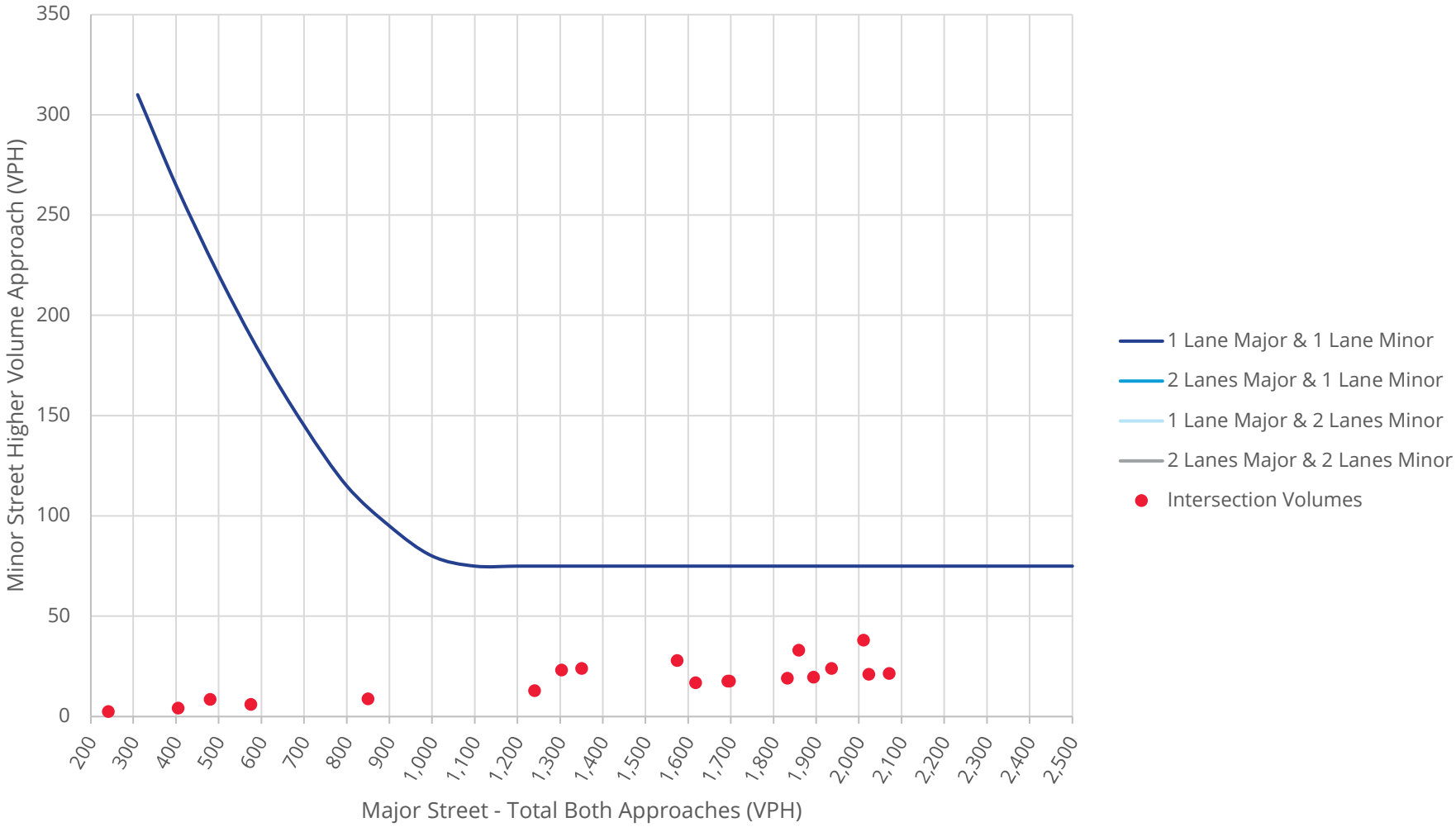


TABLE TSW-2

SIGNAL WARRANTS ANALYSIS
CROMPOND ROAD AT GARDEN LANE
WARRANT ANALYSIS SUMMARY

INTERSECTION DATA			
Major Street:	Crompond Road (US Rte 202/ NYS Rte 35)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Garden Lane	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	Town of Yorktown, Westchester County, New York		
		Major Street Speed	
Date:	6/8/2022	85TH Percentile Speed >= 40 mph (Y or N):	45
Volume Basis:	2026 Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS SUMMARY		
Warrant 1 - Eight-Hour Vehicular Volume		
Condition A - Minimum Vehicular Volume		Not Satisfied -- No Signal
Condition B - Minimum Vehicular Interruption of Continous Traffic		Not Satisfied -- No Signal
Condition A & B Combined Condition		Not Applicable
	Warrant 1 Satisfied:	**NO**
Warrant 2 - Four-Hour Vehicular Volume		
Four-Hour Vehicular Volume		Not Satisfied -- No Signal
	Warrant 2 Satisfied:	**NO**
Warrant 3 - Peak Hour		
Peak Hour Volume		Not Satisfied -- No Signal
	Warrant 3 Satisfied:	**NO**
Warrant 4 - Pedestrian Volume Warrant		
Condition A - Pedestrian Four-Hour Volume		Not Applicable
Condition B - Pedestrian Peak Hour Volume		Not Applicable
	Warrant 4 Satisfied:	**Not Applicable**
Warrant 5 - School Crossing		
	Warrant 5 Satisfied:	**Not Applicable**
Warrant 6 - Coordinated Signal System		
	Warrant 6 Satisfied:	**Not Applicable**
Warrant 7 - Crash Experience		
	Warrant 7 Satisfied:	**Not Applicable**
Warrant 8 - Roadway Network		
	Warrant 7 Satisfied:	**Not Applicable**
Warrant 9 - Intersection Near a Grade Crossing		
Condition A - Distance to Rail		Not Applicable
Condition B - Traffic Volume Warrant		Not Applicable
	Warrant 9 Satisfied:	**Not Applicable**

TABLE TSW-2

SIGNAL WARRANTS ANALYSIS
CROMPOND ROAD AT GARDEN LANE
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

INTERSECTION DATA

Major Street: Crompond Road (US Rte 202/ NYS Rte 35)
Minor Street: Garden Lane
Location: Town of Yorktown, Westchester County, New York
Date: 6/8/2022
Volume Basis: 2026 Build Traffic Volumes
Condition: Typical Weekday

Number of Lanes For Moving Traffic By Approach
Major Street (Excluding Auxiliary Lanes) = 1
Minor Street (Including Auxiliary Lanes) = 1

Major Street Speed
85TH Percentile Speed >= 40 mph (Y or N): Y

Community Population
Community < 10,000 (Y or N): N

WARRANT ANALYSIS

Time of Day	Volumes Major Street	Volumes Minor Street	Warrant 1 Condition A Major Street	Warrant 1 Condition A Minor Street	Warrant 1 Condition B Major Street	Warrant 1 Condition B Minor Street	Warrant 1 Condition A & B Condition A Major Street	Warrant 1 Condition A & B Condition A Minor Street	Warrant 1 Condition A & B Condition B Major Street	Warrant 1 Condition A & B Condition B Minor Street	Warrant Met? Warrant 1A	Warrant Met? Warrant 1B	Warrant Met? Combined 1A	Warrant Met? Combined 1B
12:00 AM	135	3	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
1:00 AM	66	1	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
2:00 AM	65	1	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
3:00 AM	64	1	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
4:00 AM	179	4	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
5:00 AM	499	11	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
6:00 AM	1,356	28	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
7:00 AM	2,015	35	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
8:00 AM	1,936	41	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
9:00 AM	1,639	34	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
10:00 AM	1,407	28	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
11:00 AM	1,685	22	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
12:00 PM	1,764	22	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
1:00 PM	1,768	22	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
2:00 PM	1,973	25	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
3:00 PM	2,159	26	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
4:00 PM	2,111	26	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
5:00 PM	2,100	45	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
6:00 PM	1,912	25	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
7:00 PM	1,295	17	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
8:00 PM	888	12	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
9:00 PM	601	7	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
10:00 PM	423	5	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
11:00 PM	252	3	350	105	525	53	280	84	420	42	NO	NO	N/A	N/A
Total Hours Meeting Warrants											**0**	**0**	**0**	**0**
Total Hours Needed to Satisfy											**8**	**8**	**8***	**8***

WARRANT 1 SUMMARY

Warrant 1 Condition A - Minimum Vehicular Volume	**Not Satisfied -- No Signal**
Warrant 1 Condition B - Interruption of Continuous Traffic	**Not Satisfied -- No Signal**
Warrant 1A & 1B Combined Condition	**Not Applicable**

*Note: For Combined Warrant Both Conditions 1A & 1B Must Be Satisfied for a Minimum of 8 Hours.

TABLE TSW-2

SIGNAL WARRANTS ANALYSIS
CROMPOND ROAD AT GARDEN LANE
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME & WARRANT 3 - PEAK HOUR

INTERSECTION DATA

Major Street:	Crompond Road (US Rte 202/ NYS Rte 35)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Garden Lane	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	Town of Yorktown, Westchester County, New York		
		Major Street Speed	
Date:	6/8/2022	85TH Percentile Speed >= 40 mph (Y or N):	Y
Volume Basis:	2026 Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS

Time of Day	Volumes		Warrant 2[1]		Warrant 3[1]		Warrant Met?	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Warrant 2	Warrant 3
12:00 AM	135	3					NO	NO
1:00 AM	66	1					NO	NO
2:00 AM	65	1					NO	NO
3:00 AM	64	1					NO	NO
4:00 AM	179	4					NO	NO
5:00 AM	499	11					NO	NO
6:00 AM	1,356	28					NO	NO
7:00 AM	2,015	35					NO	NO
8:00 AM	1,936	41					NO	NO
9:00 AM	1,639	34					NO	NO
10:00 AM	1,407	28					NO	NO
11:00 AM	1,685	22					NO	NO
12:00 PM	1,764	22					NO	NO
1:00 PM	1,768	22					NO	NO
2:00 PM	1,973	25					NO	NO
3:00 PM	2,159	26					NO	NO
4:00 PM	2,111	26					NO	NO
5:00 PM	2,100	45					NO	NO
6:00 PM	1,912	25					NO	NO
7:00 PM	1,295	17					NO	NO
8:00 PM	888	12					NO	NO
9:00 PM	601	7					NO	NO
10:00 PM	423	5					NO	NO
11:00 PM	252	3					NO	NO
			See Figure 4C-2		**See Figure 4C-4**			
						Total Hours Meeting Warrants	**0**	**0**
						Total Hours Needed to Satisfy	**4**	**1**

WARRANTS 2 & 3 SUMMARY

Warrant 2 - Four Hour Vehicular Volume	**Not Satisfied -- No Signal**
Warrant 3 - Peak Hour Volume	**Not Satisfied -- No Signal**

Notes:

1) Volumes for Warrants 2 & 3 are compared to attached MUTCD Figures 4C-2 and 4C-4, respectively.

Table TSW-2

Figure 4C-2

Intersection

Warrant 2 - Four Hour Vehicular Warrant (70% Factor)

(Community Less than 10,000 Population or 85th Percentile Speed Above 40 MPH on Major Street)

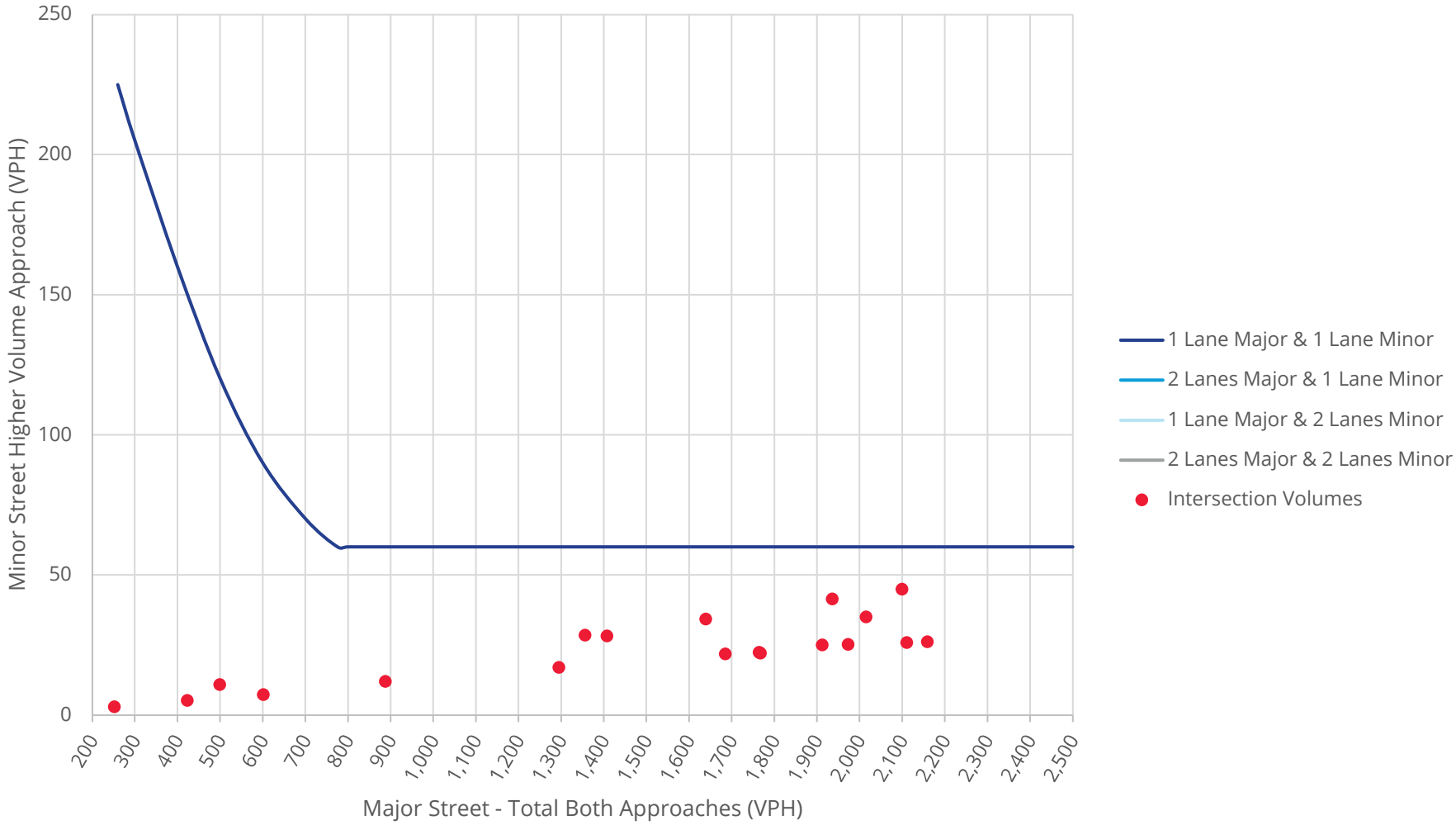


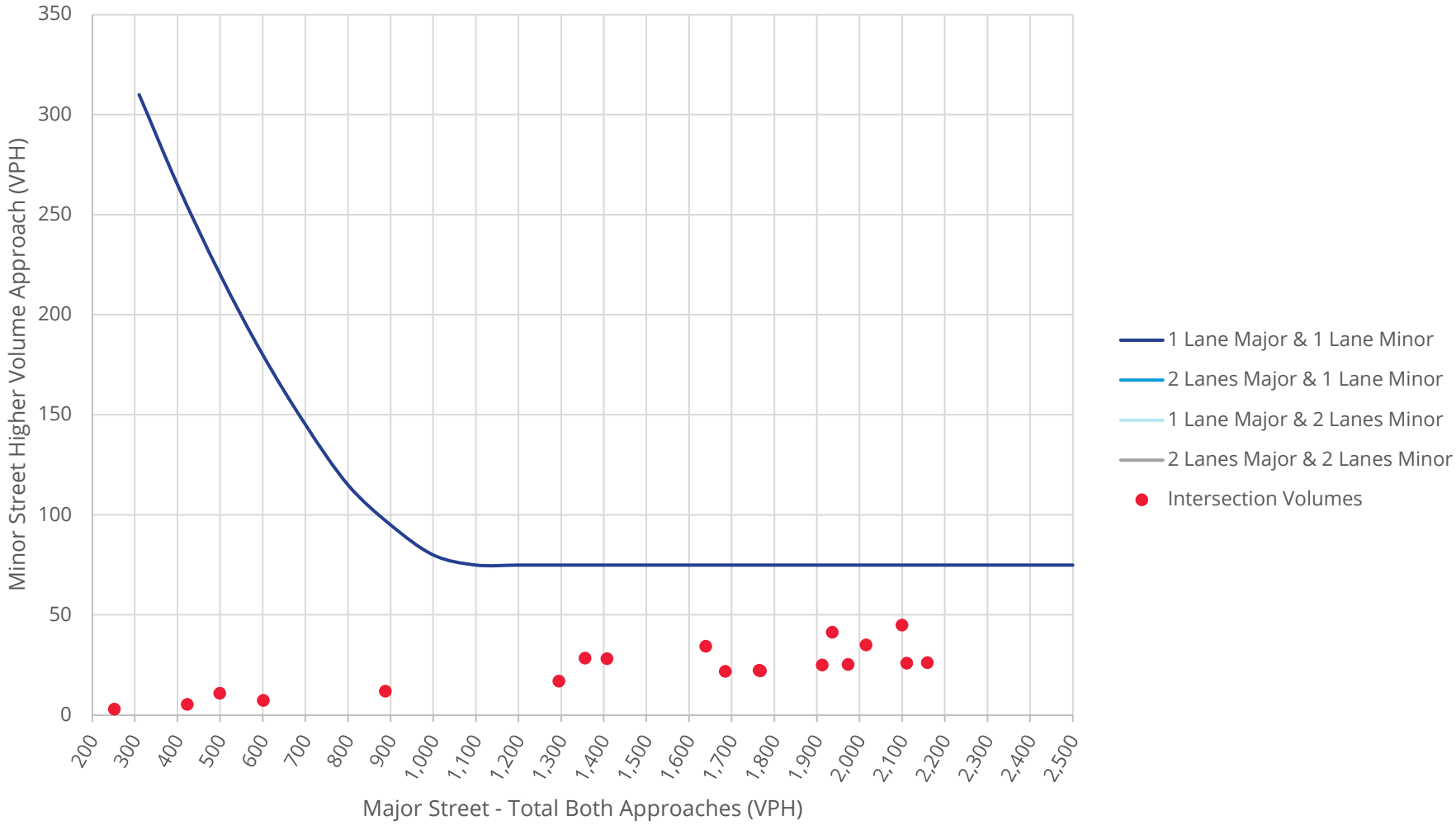
Table TSW-2

Figure 4C-4

Intersection

Warrant 3 - Peak Hour Warrant (70% Factor)

(Community Less than 10,000 Population or 85th Percentile Speed Above 40 MPH on Major Street)



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FISCAL IMPACT ANALYSIS

FIELD HOME PROPERTY

PROPOSED RESIDENTIAL DEVELOPMENT

TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

prepared for:

Toll Brothers, Inc.

50-A River Street, Sleepy Hollow, NY 10591

prepared by:

Hannah Mazzaccaro, AICP / NJPP

AICP LICENSE #147777

November 9, 2022

ESE Consultants, Inc.
1140 Virginia Drive · Fort Washington, PA 19034
(215) 914-2050

ESE CONSULTANTS
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MEMORANDUM

TO: **Kevney Moses, Toll Brothers**

FROM: Hannah Mazzaccaro, AICP

DATE: November 9, 2022

RE: Field Home Property
Proposed Residential Development,
Town of Yorktown, Westchester County, NY
FISCAL IMPACT ANALYSIS

ESE Consultants was retained by Toll Brothers to analyze the tax revenue implications of a proposed age-restricted residential condominium community on the Town of Yorktown. Toll Brothers is proposing a 118-unit carriage home development on approximately 50 acres, comprised of single-family attached condominium homes surrounded by open space land, served by a private clubhouse and recreation amenities.

The subject site is a total of +/- 50 acres, comprised of two parcels just north of the Yorktown Rehabilitation, Nursing, and Assisted Living facilities on Catherine Street in Yorktown. The property currently has two buildings on it, but the majority of the site is undeveloped land. Toll Brothers plans to apply to re-zone the property to allow for the proposed development concept under RSP-2 Senior Citizens District zoning.

ESE Consultants used the "Per-Capita Multiplier Method" of Fiscal Impact Analysis to project the annual costs that the town, county, and special districts will incur to provide services on a per-person basis to residents of the new homes (using current budgets for public service costs) and projected the tax revenue each home will pay (using current tax rates), to determine the net fiscal impact of the homes on existing public budgets. The average values of the proposed condominium townhomes were calculated by Cronin & Cronin Law Firm, PLLC, in a separate report they prepared, which is submitted as an addendum to this report.

Our analysis determined that the proposed 118-unit condo carriage home development will provide a surplus of annual tax revenue to the town, county, and school district. ESE's projection indicates that each new condo on the Field Home site will provide about $8,625 in surplus property tax revenue each year, paying more into the tax base than they will consume in local services. Most of that benefit will go to the school district, with $7,601 per

home of surplus school revenue. The town will see about $915 per home in surplus revenue and the county $108 per home surplus.

ESE's fiscal impact calculations are based on the following assumptions:

- Toll Brothers' proposed 118 units will be assessed as condominiums, using an income capitalization valuation method, as detailed in the accompanying report by Cronin & Cronin, with an average market value per unit of $393,404.
- The proposed development will be age-restricted 55+ with home designs and amenities designed for and marketed to older adults.
- The analysis is calculated as though the homes were already in existence today, paying the same tax rates as other homes in the same special districts and taxing jurisdictions as the subject property and adjacent existing homes.

DEVELOPMENT SUMMARY

	Proposed Age-Restricted Carriage Home Concept
Number of Homes	118 Homes
Average Market Value Per Home	$393,404
Total Projected Population	224 People
New Public School Children	0 Children
Average Net Tax Surplus Per Home:	$8,625
TOTAL Annual Net Surplus Tax Revenues:	$1,017,702

See attached spreadsheets for detailed calculations and source data.

Field Home Property - Proposed Community by Toll Brothers

118 Age-Restricted Carriage Homes

The following calculations model the impact of the proposed development on the 2021/22 Town of Yorktown, Westchester County, and Yorktown School District budgets, as though the homes were already built out and occupied. See attached spreadsheets for detailed calculations.

Summary: ANNUAL FISCAL IMPACTS

	Annual Property Tax REVENUE	Total Annual Public COST	Annual Net SURPLUS
TOTAL TOWN SERVICES: (General Fund, Highway Fund, + all Special Districts)	$271,685	($163,676)	$108,010
COUNTY SERVICES: (All Westchester County Operations)	$121,874	($109,151)	$12,724
SCHOOL SERVICES: (Yorktown School District)	$896,969	$0	$896,969
TOTALS:	$1,290,529	($272,826)	$1,017,702
TOTAL ANNUAL NET SURPLUS PUBLIC REVENUE:			**$1,017,702**
AVERAGE Net Surplus Per New Home (Average of 118 Homes):			**$8,625**

Table 1: PROJECTED POPULATION

3-Bedroom Age-Restricted Carriage Homes (Children under 18 not permitted as residents)	Residents Per Unit	x Total Units	TOTAL PERSONS
	1.9	118	224.2
	TOTAL NEW RESIDENTS:		224
	Children Under 18 Per Unit	x Total Units	TOTAL STUDENTS
	0	118	0
	TOTAL NEW STUDENTS:		0

Average residents per age-restricted home from "Who Lives in New Jersey Housing," published by Rutgers University Center for Urban Policy Research (CUPR) in 2006, "Part Two, Section F: Specialized Housing Residential Multipliers - Age-restricted Housing." This publication is widely used for community impact analysis demographic projections, and uses actual census data from age-restricted communities constructed between 1980 and 2000. This analysis uses the multiplier for single-family detached age-restricted homes (1.57) and rounds up to 1.9, based on household statistics from Toll Brothers' age-restricted communities the northeastern US. Age-restricted communities are permitted by the Federal Housing for Older Persons Act (HOPA, 1995 and as amended) to limit residency to at least one person per unit who is 55 years of age or older, and to prohibit residents under 19 years of age from permanent residency. Fractional numbers are rounded in the total.

Table 2: PROPERTY TAX REVENUES

			TOTAL x 118 Homes
Average Market Value Per Condominium Unit*:		$393,404	$46,421,672
x Town of Yorktown Assessment Ratio (2022)		x 1.93%	
Average Assessed Value Per Home: (average market value per home x .0193 assessment rate)		$7,593	$895,938
2022 Tax Rates Per $1,000 of Assessed Value: ((Assessed Value ÷ 1000) x tax rate = annual tax paid per line item per home)		AVERAGE ANNUAL TAXES PER HOME:	TOTAL ANNUAL TAX REVENUE - 118 Homes:
Town of Yorktown:	167.73	$1,273	$150,272
Town Special Districts:			
ALS Ambulance:	5.47	$42	$4,901
Lake Mohegan Fire District:	68.04	$517	$60,957
Yorktown Consol. Water District:	14.81	$112	$13,266
Westchester County Refuse:	14.46	$110	$12,958
Westchester Cty. Peekskill Sewer:	32.74	$249	$29,332
Westchester County:	136.03	$1,033	$121,874
SUB-TOTAL - TOWN & COUNTY TAXES:		**$3,335**	**$393,560**
Yorktown Central School District:	1001.15	**$7,601**	**$896,969**
TOTAL ANNUAL TAXES PAID PER HOME:		**$10,937**	
TOTAL ANNUAL PROPERTY TAX REVENUE - ALL HOMES:			**$1,290,529**

According to the Yorktown Tax Assessor, the 2022 uniform percent of value (UPV) ratio is 1.93, so homes are assessed at approximately 1.93% of their market value. The projected sales price provided by Toll Brothers is $862,995 per unit. An analysis by Cronin & Cronin Law Firm, PLLC, determined that the adjusted market value per unit is $393,404, based on an income capitalization analysis for condominum units.

Tax Rates as reported from Westchester County and from the Town of Yorktown 2022 Budget Summary. Special districts are assumed to remain the same as those serving the existing Field Home property.

Table 3: TOWN & SPECIAL DISTRICT BUDGET IMPACTS

	Annual Property Tax REVENUE	Annual Per Capita Public Cost	x Estimated Community Population	Total Annual Public COST:	**Annual Net SURPLUS**
Town of Yorktown & Special Districts:	$271,685	$730	224	($163,676)	**$108,010**
				TOTAL MUNICIPAL NET SURPLUS REVENUE:	**$108,010**
				AVERAGE Net Surplus Per New Home (Average of All 118 Homes):	$915

Per Capita town costs calculated by dividing the total Tax Levy amount from the 2022 Town of Yorktown Budget Summary ($32,164,970) by the number of residents in the town (36,569 people as of the 2020 US Census), then multiplying by .83 to factor out those costs incurred and paid for by commercial and industrial land uses/taxpayers. Approximately 17% of Yorktown property taxes are paid by nonresidential land uses. The cost of special district services is incorporated into this calculation. Analysis assumes no major capital improvements from this development.

Table 4: COUNTY BUDGET IMPACTS

	Annual Property Tax REVENUE	Annual Per Capita Public Cost	x Future Community Population	Total Annual Public COST:	**Annual Net SURPLUS**
Westchester County:	$121,874	$487	224	($109,151)	$12,724
				TOTAL COUNTY NET SURPLUS REVENUE:	**$12,724**
				AVERAGE Net Surplus Per New Home (Average of All 118 Homes):	$108

Per Capita cost calculated by dividing the total amount of operating expenditures to be raised by property taxes (25% of total expenditures) from the 2022 Westchester County Budget by the number of residents in the county (968,738 people as of the 2020 US Census), then multiplying by .85 to factor out those costs paid by commercial and industrial land uses/taxpayers. Approximately 15% of Westchester County property taxes are paid by nonresidential land uses.

Table 5: SCHOOL DISTRICT BUDGET IMPACTS					
	Property Tax REVENUE	Annual Per Pupil Cost	Public School Children	Total Annual Public COST:	**Annual Net SURPLUS**
K-12 Public Schools - Yorktown CSD	$896,969	$25,108	-	$0	$896,969
				TOTAL SCHOOLS NET SURPLUS REVENUE:	**$896,969**
				AVERAGE Net Surplus Per New Home (Average of All 118 Homes):	$7,601

Per Pupil expenditures as reported by the NY State Education Dept. for the most recent school year.

CRONIN & CRONIN

LAW FIRM, PLLC

REAL ESTATE PROPERTY TAX PROJECTION REPORT

FIELD HOME
2300 Catherine Street
Cortlandt Manor

Prepared: May 2022
Tax Years: 2021/22

Prepared For:
Toll Brothers
50- A River Street
Sleepy Hollow, NY 10591

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

CRONIN & CRONIN

LAW FIRM, PLLC

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

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

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

May 17th, 2022

50-A River Street
Sleepy Hollow, NY 10591

Re: OUR FILE # 100-1534
Project: Field Home
2302 Catherine Street, Cortlandt Manor, NY 10567
TOWN OF YORKTOWN
PARCEL ID: 35.12-1-2 and 35.08-1-45

Dear Kevney,

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

The Town of Yorktown is required under the Real Property Tax Law to assess all properties based upon their physical condition on May 1 of each tax year with a valuation date of July 1 of the previous year. Accordingly, for purposes of this projection, we are estimating the value of the subject property as if it were fully constructed as of taxable status date.

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

The courts have consistently ruled that the income approach is the preferred method for valuing commercial property in New York State. This is consistent with the mandates of Real Property Tax Law Section 581 which mandates this analysis for condominiums in this jurisdiction. Accordingly, we have performed an analysis based on upon hypothetical projected rentals as well as surrounding market data and have estimated the market value of the property.

We have enclosed charts illustrating the current taxes as well as the projected revenue relying upon our projected taxes that will be generated to the various taxing entities.

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

Very truly yours,

Sean M. Cronin

SEAN M. CRONIN

Table of Contents

SECTION 1
Property & Assessment Information

Purpose, Use, and Scope of Report

The purpose of this report is to provide the client with basic property tax information as well as projection of taxes for the properties described below.

Property Description

Property Address: 2302 Catherine Street

Assessing Jurisdiction: Town of Yorktown

General Description: 118 Age-Restricted, 3-bedroom Master-Down Townhome Condominium Units. Each will be between 2,316-2,465 square feet.

Parcel Numbers: 35.12-1-2 and 35.08-1-45

Year Projected to be Built: 2023

Number of Units: 118

Land Area: approximately 50.51 acres

Critical Study Dates:

Study Prepared: May 2022

Tax Year under Analysis: 2023/24 (utilizing current tax rates)

Tax Cycle, Fiscal Periods & Payment Dates

Tax Year:	Town: Yorktown
Fiscal Period:	January 1st, 2023 through December 31st, 2023
Assessment Valuation Date:	July 1st
Assessment Equalization Rate:	1.93 (2022)
Appeal Deadline:	Application: June 21st, 2022 (4th Tuesday in June) Petition: 30 days after the assessment roll is finalized (Usually in September)
Tax Bill/Notices:	Town: April 1st School: September 1st
Number of Tax Bill Installments:	Town: One School: Two
Tax Bills Due:	Town: Payable by April 30th without penalty School: 1st Half, Payable by September 30th without penalty 2nd Half, Payable by January 31st without penalty

Reassessment Program

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

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

Condominium Assessments

New York Real Property Tax Law ("RPTL") §581 and New York Real Property Law ("RPL") §339-y establishes rules regarding the governing of assessment of residential cooperative, condominiums and rental properties. The provisions of RPTL §581 provide a method for valuing property which significantly reduces the assessed value of condominiums and cooperatives. In 1985, the Real Property Tax Law was amended to read:

> "The provisions of paragraph (a) of this subdivision shall not apply to such real property classified within:
>
> (i) on and after January first, nineteen hundred eighty-six, class one of section one thousand eight hundred two of this chapter; or
>
> (ii) on and after January first, nineteen hundred eighty-four, the homestead class of an approved assessing unit which has adopted the provisions of section one thousand nine hundred three of this chapter, or the homestead class of the portion outside an approved assessing unit of an eligible split school district which has adopted the provisions of section nineteen hundred three-a of this chapter…"

While the primary reliance is on the income approach to value, many of the variables related to the project have been reviewed. We have estimated the assessment for the property taking into consideration not only the income approach, but also the construction costs, selling prices and assessments of similar units as well as our experience with the Town and the Assessor.

SECTION 2
Assumptions & Disclaimer

Assumptions

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

1. That the legal descriptions, parcel numbers, and financial information supplied by the client are accurate;

2. That the building square footage, including the breakdown of office and storage space, provided to our office by the client is accurate;

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

4. It should be noted that the anticipated tax rate for each tax year will increase by approximately 2% to 5% for Town, County, School and Special District taxes. This takes into consideration the 2% tax cap. The tax cap can be overridden by local governments, exempts pension costs and applies only to municipal budgets, not to the tax rate;

5. That the property has 118 Age Restricted, 3-Bedroom Townhome Units;

Disclaimer

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

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

1. That each Condo Unit will be on its own tax lot;

2. That the existing Nursing Home Facility will be demolished. A new community will be built consisting of 118 Townhome Units;

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

4. The projection is estimating the project "as if" complete;

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

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

1. That the condominium will be Age Restricted and consist of 118 units;

2. That all 118 units will include 3-Bedrooms, with the Master Bedroom on the First Floor;

3. That the lot will ultimately be re-apportioned into 118 lots that will share a common area. The Town of Yorktown will assign a separate tax lot designation to the common area but there will be no taxes due for this tax lot due the condominium structure;

4. That the average sale price of each unit will be $862,995;

9. That the 2022/23 assessment ratio used in our analyses is subject to change annually, potentially resulting in a change of the full market value for these properties next year;

10. That this letter is being sent to you with the express understanding that our firm assumes no liability for the projections presented herein;

SECTION 3
Assessment Analysis & Tax Rate Increase

Assessment Analysis

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

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

Since the Town of Yorktown does not engage in annual revaluations and has no plans in the foreseeable future to perform a revaluation, absent a physical change to the property or in zoning, the assessment should remain stable and unchanged after it is established. The increase in your taxes over time would, therefore, be a result of a tax rate increase as indicated on the projections in this report.

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

** Please see Exhibits 1 in Section 5 of the report for our Income Approach Analysis.

Tax Rate Increase

We analyzed the historical tax rate increase in the Town of Yorktown over the past five years. The anticipated tax rate for the 2022/23 and subsequent tax years could increase by approximately 2% to 5% for Town, County, School and Special District taxes.

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

Comparable Properties

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

Comp 1: Property Address: Glassbury Court: 2265 Dalton Drive
Tax Map # 35.12-1-1.27-54
Property Type: Condo
Assessment: 7,100
Full Market Value: $334,905
SF: 2,265
Value per SF: $148
Taxes 21/22: $8,074
Taxes per SF: $3.56

Comp 2: Property Address: Glassbury Court: 1806 Summerhill Ct
Tax Map # 35.12-1-1.19-37
Property Type: Condo
Assessment: 6,800
Full Market Value: $320,754
SF: 2,265
Value per SF: $142
Taxes 21/22: $7,733
Taxes per SF: $3.41

SECTION 4
Property Description & Tax Projection

PROPERTY ADDRESS

PROPERTY DESCRIPTION

C&C File # 100-1534

Property Address: 2300 Catherine Street, Cortlandt Manor

Assessing Jurisdiction: Town of Yorktown

Tax Map #: 35.12-1-2 and 35.08-1-45

Property Type: Condominiums

Year Built: 2023

Occupancy: 118 Units

Building Square Footage

Land Acreage: 50.51

Current Assessment 21/22: 74;250

Equalization Rate 22/23: 1.93

Current Full Market Value 21/22: 3,502,357

Current Taxes 21/22: $721.80 *This property receives tax exemptions as a Nursing Home

Current Tax Rate 21/22: 1,440.422

TAX PROJECTION

Projected Tax Burden as Fully Constructed:	Year	Total Projected Assessed Value	Combined Tax Rate	Est Taxes	Est Taxes Per Unit
	2023	895,939	1,440.422	$1,290,529.83	$10,936.69

Portion	Total Projected Assessed Value	Current Tax Rate	Est Taxes	Est Per Unit
Town/County	895,939	439.267740	$393,557.10	$3,335.23
School	895,939	1,001.154	$896,972.73	$7.601.46
Total	895,939	1,440.422	$1,290,529.83	$10,936.69

SECTION 5
INCOME APPROACH ANALYSIS

EXHIBIT 1

FILE #	100-1534	**LAND ACRES**	50.51
		LAND SQ.FT.	2,200,215.6
TAX MAP #	35.12-1-2 35.08-1-45		
ADDRESS	2302 CATHERINE ST		

VALUATION DATE		**2021/22** **July 1st**
TENANT/TYPE		
Condos	Units	118
	Rental Rate	$4,500
	Gross	$6,372,000
TOTAL UNTIS		118
POTENTIAL GROSS INCOME		**$6,372,000**
VACANCY		**5%**
EFFECTIVE GROSS		**6,053,400**
EXPENSES		25%
NET OPERATING INCOME		**4,540,050**
CURRENT TAXES		**184,806**
TOTAL CAP RATE INCLUDING TAX FACTOR		**9.78**
FULL VALUE		**46,421,718**
EQUALIZATION RATE		0.0193
	NEW AV	**895,939**
	VALUE PER UNIT	**393,404**

633 Rt. 211 East, Suite 4, Box 4
Middletown, NY 10941
Office: (845) 495-0123 • Fax: (866) 688-0836

October 20, 2022

Mr. Casey M. Devlin, P.E.
Vice President
Toll Brothers
42 Old Ridgebury Rd.
Danbury, CT 06810

Re: Wetland and watercourse update
Catherine Street Project
Town of Yorktown, Westchester County

Dear Mr. Devlin:

On September 28, 2022 the onsite wetlands and water course were verified by the town's wetland consultant. During that filed visit a previously unflaged area was flagged the area is shown on the existing conditions survey as wetland H and consists of 9 flags.

During the first week of October, The site was walked and verified by NYSDEP for watercourses by their agency. On October 7, 2022 our office then went and flaged as additional area that was requested by the NYSDEP walk through. That area is now shown on the exiting condition survey as WC- through WC-1 through WC-6. That area is regulated by NYCDEP but is not a town or federal wetland, and was not requested by the town's wetland consultant.

Please let me know if you have any questions.

Sincerely yours,

James A. Bates

James Bates, CPESC, CPSWQ
Managing Member
Ecological Analysis, LLC

Attachments:
Wetland Datasheets
USDA Soil Map with Hydric Soils Map
NYSDEC & NWI Wetland Map

Ecological Analysis LLC

633 Rt. 211 East, Suite 4, Box 4
Middletown, NY 10941
Office: (845) 495-0123 • Fax: (866) 688-0836

October 27, 2021

Mr. Casey M. Devlin, P.E.
Vice President
Toll Brothers
42 Old Ridgebury Rd.
Danbury, CT 06810

Re: Wetland Delineation report
Catherine Street Project
Town of Yorktown, Westchester County

Dear Mr. Devlin:

In October 2021 a wetland delineation was completed for the site located on Catherine Street in Yorktown NY as requested. This included a soils verification to validate if the soils on-site matched the existing soil maps. The property was walked, and a field investigation completed to determine if there were any areas on site that met either the Army Corp of Engineers (ACOE) or NYSDEC the definitions of regulated wetland areas.

Before conducting the field investigation, the available aerial, soils and wetland mapping were reviewed for the referenced property. This identifies if there are any mapped wetlands on the property, as well as any areas where we should verify whether or not the field conditions match the available mapping.

The field investigation was conducted in accordance to the 2012 Northcentral and Northeast Regional Supplement to the ACOE 1987 manual and the Town of Yorktown wetland code. The upland and wetland areas on the property were determined by observing plant species, hydrology and soil types and conditions in accordance with the agencies guideline. Data sheets were then filled out and the areas meeting the conditions set forth by the agencies were then flagged with pink “Wetland Delineation” flagging and numbered sequentially. Flags were hung on the property defining the edge of the regulated area and a field map sent so the surveyor could locate them.

Vegetation

The dominant vegetation in the wetland areas consists mostly of Phragmites, tear thumb, and cinnamon ferns with woody species of spicebush, witch hazel and red maple. These are mostly consistent with plants that are recognized as wetland plant species and their abundance passes the ACOE 50/20 rule thereby defining the area as having wetland vegetation. The plant species dominating other areas were mostly beech, sugar maple and black birch

Soils

Both the Putnam and Westchester County Soil Survey and the United States Department of Agriculture (USDA) online web soil survey were reviewed to verify if there were any potential hydric (wetland) soils on property.

The wetland areas are mostly mapped in the Putnam and Westchester County Soils report and the USDA web soil report as mostly Ridgebury complex. These soils are listed as somewhat poorly drained soils and can be hydric in nature.

The soil cores taken in the wetland areas during the field investigation were consistent with these types of soils and therefore should be considered wetland soils.

Upland (dryland) soils on the property are mostly Paxton fine sandy loam. These soils are characterized as being well drained. These do not maintain proper hydrology to be wetland soils as they dry out during the growing season.

Hydrology

As required by the 2012 ACOE regional supplement the hydrology of the property and the potential wetland areas were investigated.

The wetland areas flagged are saturated in the upper 12 inches. The hydrology for wetlands are from streams, and slope and road runoff.

Conclusions

The Wetlands appear to be regulated by the Army Corps of Engineers and the Town of Yorktown. For disturbance of the wetlands, a permit would be required from the ACOE and the Town of Yorktown.

Ecological Analysis is grateful for this opportunity to be of service on this project and looks forward to the opportunity to work with you in the future. Feel free to call if you have any questions or if we can be of further assistance.

Sincerely yours,

James A. Bates

James Bates, CPESC, CPSWQ
Managing Member
Ecological Analysis, LLC

Attachments:
Wetland Datasheets
USDA Soil Map with Hydric Soils Map
NYSDEC & NWI Wetland Map

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

October 28, 2022

Anthony Russo
President
Environmental Compliance
35 Roosevelt Avenue
Middletown, NY 10940

Re: SEQRA
Field Home - Active Adult Residential Development
2300 Catherine St, Cortlandt Manor, NY 10567
22PR07787

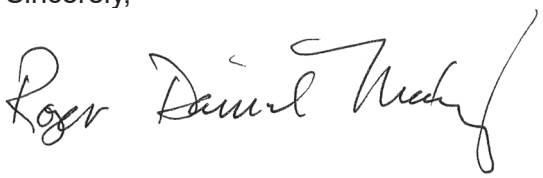
Dear Anthony Russo:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,



R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

rev: J. Betsworth

Yorktown Town Hall
363 Underhill Avenue, P.O. Box 703
Yorktown Heights, NY 10598

(914) 962-5722
www.yorktownny.org

April 20, 2022

Mr. Kevney D. Moses
Land Entitlement Manager
Toll Brothers
42 Old Ridgebury Road
Danbury, CT 06810

RE: Field Home Residential Project
Hunterbrook Sewer District
Sewer Capacity

Dear Mr. Moses:

Wastewater from the proposed townhouse project will be conveyed to the Town's Hunterbrook Pump Station (HBPS) through existing gravity sewers. The HBPS will pump wastewater from the proposed project to Westchester County Peekskill Sewage Treatment Plant.

Since the zoning, number of units, and projected sewage flows are unknown at this time, the capacity of the sewage disposal facilities will need to be reviewed when the requirements of the project are better defined. The sewer collection system that will connect the proposed project to the HBPS has adequate capacity based on the preliminary unit count. It is also anticipated the Peekskill treatment Plant will have adequate capacity to treat the wastewater generated by the proposed project.

The HBPS is having capacity issues during storm events due to inflow and infiltration (I&I). The ability to accept wastewater generated by the proposed project will be based on the projected sewage flows and the effectiveness of I&I remediation.

The Town is willing to serve the project provided that extraneous flows to the HBPS can be reduced sufficiently to keep the station within design capacity. Should you have any questions or require additional information, please call.

Sincerely

Daniel A. Ciarcia, P.E.
Town Engineer
DAC: mc
Matt Slater
John Tegeder, R.A.

Barton & Loguidice

November 29, 2022

Mr. John Tegeder
Director of Planning
Town of Yorktown
Albert A. Capellini Community and Cultural Center
1974 Commerce Street
Yorktown Heights, New York 10598

Re: Toll Brothers, Inc.
2300 Catherine Street
Yorktown, New York

Subj: Wetland Boundary Verification

File: 2478.001.001, Phase 15

Dear Mr. Tegeder and Members of the Planning Board:

Barton & Loguidice, D.P.C. (B&L) has completed a Wetland Boundary Verification for the proposed Tolls Brothers, Inc. project along Catherine Street. To date, B&L has received the following documents for review:

- Preliminary Grading Plan
- Toll Brothers WC Survey, dated Jan. 31, 2022
- Toll Brothers Catherine Street Project – Wetland Report, dated October 27, 2021
    - Including Wetland C Data Sheets, USDA Soil Report, NYSDEC & ACOE wetland Map

Project Description
A project is being proposed by Toll Brothers, Inc. (Applicant) on tax parcels 35.12-1-2 and 35.08-1-45. These parcels constitute approximately 41.35 acres. A wetland delineation was previously completed on the property during October 2021 by Ecological Analysis, LLC. The wetland delineation report has been submitted to the Town for boundary verification. B&L was tasked with reviewing and providing comment on the wetland delineation work, including completion of a field walkover to verify the resource boundaries.

Wetland Resource Review
A B&L Wetland Biologist visited the project site on September 28, 2022, to visually verify the delineated wetland boundaries shown on the submitted survey dated January 31, 2022, and more specifically detailed in the Wetland Report completed by Ecological Analysis. Kevney Moses, Land Entitlement Manager with Toll Brothers, and James Bates, Managing Member with Ecological Analysis, attended the field walkover on behalf of the project and Applicant.

The prior wetland delineation work resulted in the identification and flagging of a single wetland resource, identified as Wetland C on the survey and delineation support information. The limits of this freshwater wetland were confirmed during the site walkover and the boundaries were determined to be acceptable, as depicted on the site survey dated January 31, 2022. While walking west to east across the northern limits of the property, a second freshwater wetland location was identified. This resource was

flagged by the field team as Wetland H and the flag locations were later collected by the site surveyor and added to the site survey. A segment of delineated Wetland C was also extended during the site walkover. Six flags (WC 1 through WC 6) were added in the field between flags C 85 and C 86, based on site characteristics observed during the field walkover. A revised site survey was received by B&L and the Town that shows the Wetland H resource and the Wetland C extension, and a title block notation that indicates additional wetland flags were added on October 12, 2022. Wetland H and the extended Wetland C segment are correctly shown on the revised survey. Wetland C and Wetland H meet the definition of a Wetland/Freshwater Wetland, as defined in the Town's Chapter 178 – Freshwater Wetlands and Watercourse Protection Law. Pursuant to the aforementioned regulations, a 100-foot buffer is also regulated around the boundary of these wetlands, as measured horizontally from the wetland limits.

Three intermittent waterbodies were also documented on the property during the field walkover. Two of these linear features are labeled on the original site survey as "seasonal swale," while the third feature was observed east of Wetland C, bisecting the wetland polygon between flags C 45 and C 46. No surface flow was evident during the site walkover in October; however, field conditions indicated the presence of periodic flow, hence the intermittent flow regime characterization. In accordance with Chapter 178 – Freshwater Wetlands and Watercourse Protection Law of the Town of Yorktown, a Watercourse includes linear waters that have a definite channel with a bed or banks, and perennial or intermittent ("... though it need not flow continuously. It may sometimes be dry.") flow. These three linear features meet the definition of a Watercourse under Chapter 178, as was discussed by the field team during the field walkover. It is important to note that the three observed watercourses are hydrologically connected to other waters/wetlands; they either receive input from other resources and/or discharge into other resource locations. Pursuant to the Chapter 178 regulations, the buffer of watercourses includes all adjacent surfaces for 100 feet as measured from the bank of the watercourse, or the high-water mark, whichever is more.

The regulated buffer areas and locations of the watercourses should be added to the site survey and appropriately labeled. The locations of the three watercourses are sketched on the attached original site survey for reference.

In addition to B&L's wetland review on behalf of the Town, a jurisdictional review should be performed by the U.S. Army Corps of Engineers (USACE) and the New York City Department of Environmental Protection (NYCDEP) to determine whether or not impacts to the wetlands and/or watercourses would be jurisdictional to their individual agencies. State mapped wetland does not exist on or near the property; therefore, based on current state regulations, a review by the New York State Department of Environmental Conservation (NYSDEC) does not appear to be necessary.

If you have any questions, please do not hesitate to contact me or Leigh Jones.

Sincerely,

BARTON & LOGUIDICE, D.P.C.

Johanna E, Duffy, CWB®, PWS
Senior Managing Environmental Scientist

The subject property may be affected by easements that are not depicted hereon. Recorded easements for the sanitary sewer lines through the property were not found by this office, nor do any appear in the title commitment provided to these surveyors.

Refer to Westchester County Clerk Filed Map Nos. 1665, 21730, 23851, 28013 & 29255.

Topographic information shown hereon compiled by photogrammetric methods with ground control provided by Ward Carpenter Engineers, Inc. (Vertical Datum: NAVD 88.)

Subsurface structures and their encroachments, if any exist, are not depicted hereon or are shown approximate only. Underground utility locations are approximate only based on visible surface evidence and are not guaranteed as to their accuracy or completeness.

"Unauthorized alterations or additions to a survey map is a violation of section 7209, sub-division 2, of the New York State Education Law."

"Only copies of the original survey marked with the land surveyor's inked or embossed seal shall be considered a true and valid copy."

"Certifications indicated hereon signify that this survey was prepared in accordance with the existing code of practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors. Said certifications shall run to the person for whom the survey is prepared only, and on his behalf to the Title Company, governmental agency and lending institution listed hereon, and to the assignees of the lending institution. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS."

Sheet 1 of 2
Topographical
Survey of Property
prepared for
Toll Brothers, Inc.
in the Town of
Yorktown
Westchester County, N.Y.
Scale 1"=40' Jan. 31, 2022

The premises being Lot 3.3 as shown on map entitled "Minor Subdivision Map prepared for The Field Home, Inc.", dated Nov. 4, 1983, last revised June 9, 1984 and filed in the County Clerk's Office on Sept. 28, 1984 as Map No. 21730, along with Lot 2 as shown on map entitled "Sheet 3 of 3, Roadway Access Easement, Lot Line Adjustment Map prepared for The Field Home Inc.", dated Oct. 9, 2015, last revised Aug. 10, 2018 and filed in the County Clerk's Office on Jan. 2, 2019 as Map No. 29255.

Also being Lot 45, Block 1, Section 35.08 and Lot 2, Block 1, Section 35.12, respectively, on the official tax assessment maps of the Town of Yorktown.

Certified to Westminster Abstract Company; Fidelity National Title Insurance Company; Toll Bros., Inc, a Pennsylvania corporation; Toll Northeast V Corp, a Delaware corporation; and Field Home—Holy Comforter, a New York not-for-profit corporation.

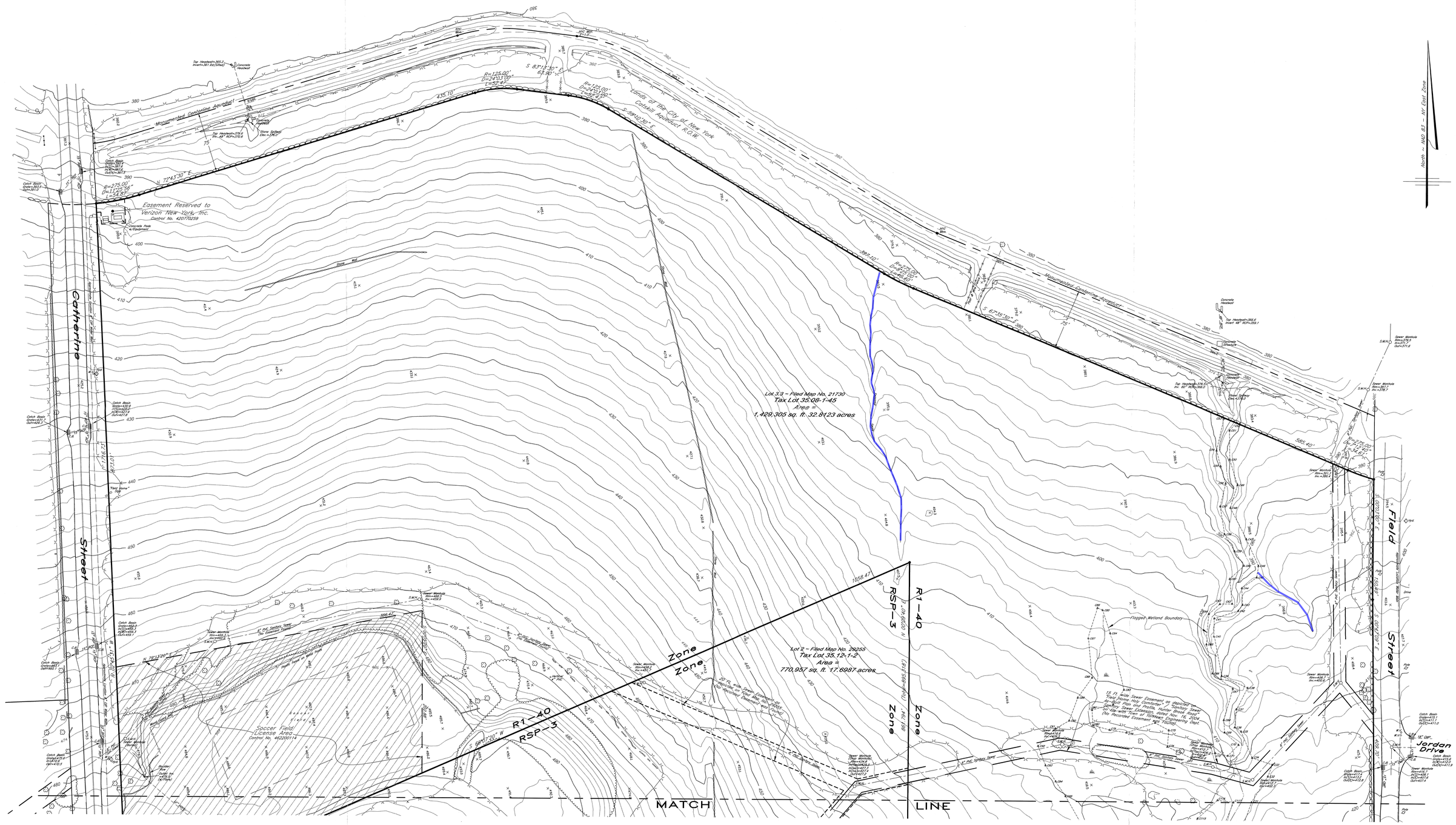
STATE OF NEW YORK
THOMAS R. ZOELLER
050329
LICENSED LAND SURVEYOR

A.V.P.

WardCarpenterEngineersInc.
76 Mamaroneck Avenue
White Plains, N.Y. 10601

Job # 55860

LDD 55860\dwg\55860.dwg



Sheet 2 of 2
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Survey of Property
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Certified to Westminster Abstract Company; Fidelity National Title Insurance Company; Toll Bros., Inc., a Pennsylvania corporation; Toll Northeast V Corp., a Delaware corporation; and Field Home-Help Comforter, a New York not-for-profit corporation.

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Ward Carpenter Engineers Inc.
76 Mamaroneck Avenue
White Plains, N.Y. 10601

Job # 55860

LDD 55860\dwg\55860.dwg

Christopher Taormina, RA
Chairman

Matthew Slater
Town Supervisor

TOWN OF YORKTOWN

ADVISORY BOARD ON ARCHITECTURE & COMMUNITY APPEARANCE (*ABACA*)

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone (914) 962-6565

To: Diana Quast, Town Clerk *for the Town Board*
From: ABACA
Date: December 9, 2022
Subject: **Town Board Referral – Toll Brothers, Inc. – 2302 & 2448 Catherine Street**
Petition for zoning code and map amendment to rezone the property to the RSP-2 District to facilitate a 118-unit townhouse community development proposal on a 48.05-acre portion of the property.

Documents Submitted and Reviewed:

Title:	Produced By:
Town Board Referral dated 11/28/2022 -Zarin & Steinmetz LLP letter dated 11/15/2022 with associated materials -Conceptual site plan	Diana Quast, Town Clerk

The Advisory Board on Architecture and Community Appearance reviewed the above referenced subject at their meeting held on Tuesday, December 6, 2022. Joseph Riina, P.E. of Site Design Consultants was present. The Board has no objections to the proposed rezoning of the property and looks forward to seeing the project as it develops.

Christopher Taormina
Christopher Taormina, RA
Chairman

/nc
cc: Planning Department
Planning Board
Town Board *via Town Clerk*
Applicant

670 East Main Street Jefferson Valley

JAMES J. HAHN ENGINEERING, P.C.

Putnam Business Park
1689 Route 22
Brewster, NY 10509

Tel: 845-279-2220
Fax: 845-279-8909
jhahn@hahn-eng.com

November 30, 2022

Via: By Hand

Mr. Richard Fon
Planning Board Chairman
Town of Yorktown
1974 Commerce Street
Yorktown Heights, NY 10598

Re: Pre-Preliminary Application
670 East Main Street (Lot 16.08-1-34)
Town of Yorktown

Dear Mr. Fon:

On behalf of Yorktown 6N - Holding, LLC, enclosed please find a Pre-Preliminary Application for the proposed development at 670 East Main Street (Lot 16.08-1-34).

The applicant proposes to construct five two-story, three-bedroom townhouses with a 15-space parking lot on the 0.52-acre parcel in the R-3 zoning district. The construction would require the removal of an existing single-family residence and detached garage. There are no wetlands or watercourses on or adjacent to the site. Variances for setbacks and floor area ratio for the proposed structure would be required.

We request to be placed on the December 12, 2022 Planning Board meeting agenda to introduce this project. Included are the following attachments to support this application pursuant to the Town of Yorktown Planning Board's requirements.

- One (1) Pre-Preliminary Application.
- Three (3) full size and five (5) 11x17 Drawings prepared by James J. Hahn Engineering, PC:
  "Conceptual Site Plan", Dated 11/28/22, Sheet C-1.
- Three (3) full size and five (5) 11x17 Drawings prepared by Steven Grgecic Architect, PLLC:
  "Proposed Typical Floor Plans", Dated 11/22/22, Sheet A-1.
  "Typical Elevation", Dated 11/22/22, Sheet A-2.
  "Proposed Elevation", Dated 11/22/22, Sheet A-3.
  "Proposed Plans", Dated 11/22/22, Sheet A-4.
- Eight (8) sets of renderings (2 sheets).
- One (1) check made out to the Town of Yorktown ($100.00).

Thank you for your assistance in this matter and if there are any questions concerning the above, please do not hesitate to contact me at your earliest convenience.

Very truly yours,

James J. Hahn, P.E.

JH:WA:ay

Enclosures

cc: John A. Tegeder (via e-mail w/enclosures)
Robyn A. Steinberg (via e-mail w/enclosures)
Nancy Calicchia (via e-mail w/enclosures)
Anthony Genovese (via e-mail w/enclosures)
Thomas Racek (via e-mail w/enclosures)
Steven Grgecic (via e-mail w/enclosures)

TOWN OF YORKTOWN
PLANNING BOARD

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone (914) 962-6565, Fax (914) 962-3986

PRE-PRELIMINARY APPLICATION

Date 11/29/22

1. **Tax Map Designation:** Section 16.08 Block 1 Lot 34

2. **Zone:** R-3 **Acreage:** 0.5238

3. **Type of Development:** ☑ Site Plan ☐ Subdivision

4. **If subdividing, how many total lots are proposed?** n/a

RECEIVED
PLANNING DEPARTMENT
NOV 30 2022
TOWN OF YORKTOWN

5. **A brief description of the proposed development:**

Remove existing single family house and detached garage and build five two-story, three-bedroom townhouses with a 15 space parking lot.

6. **Applicant:**

Name	Anthony Genovese
Firm	Yorktown 6N - Holding, LLC
Address	670 East Main St
	Jefferson Valley, NY 10535
Phone	917-704-7847
Fax	n/a
Email	anthony@westchestersitework.com

7. **Owner of Record:**

Name	Yorktown 6N - Holding, LLC
Address	670 East Main St
	Jefferson Valley, NY 10535
Phone	917-704-7847
Fax	n/a
Email	anthony@westchestersitework.com

8. **Designated contact person for this application:**

Name	William Angiolillo, P.E.
Fax #	845-279-8909
Email	wangiolillo@hahn-eng.com

Applicant

SIGNATURE

Anthony Genovese
PRINT NAME

11/29/22
DATE

Owner of Record

SIGNATURE

Anthony Genovese, Yorktown 6N - Holding, LLC
PRINT NAME

11/29/22
DATE

Note: By signing this document the owner of the subject property grants permission for Town Officials to enter the property for the purpose of reviewing this application.

ZONING TABULATIONS (R-3 Zone)			
	Required/Allowed	Provided	Variance Req'd.
Lot Area (min.)	3,630 sf	22,815 sf (0.52 ac)	
Floor Area Ratio (max.)	0.23	7,824 sf / 22,815 sf = 0.34	Yes
Lot Width (min.)	-		
Lot Depth (min.)	150'	116.4'	Exist. Non-Conforming
Front Yard (min.)	50'	15'-9"	Yes
Side Yard (min.)	50' / 100'	21'-9" / 152'-5"	Yes
Rear Yard (min.)	50'	15'-3"	Yes
Building Length	180' max.	102'-11"	
Building Separation	90' min.	69'-10"	Yes
Parking Setback	5' min.	5'-0"	
Max. Building Height	40'	<40'	
Max. Building Coverage	20% (4,563 sf)	17.1% (3,912 sf)	
Off-street Parking (min.)	1.5/unit (8 spaces)	15 spaces	

TITLE
CONCEPTUAL SITE PLAN

PROJECT
PROPOSED
MULTI-FAMILY RESIDENCE
at
670 EAST MAIN STREET

T.M. #16.08-1-34

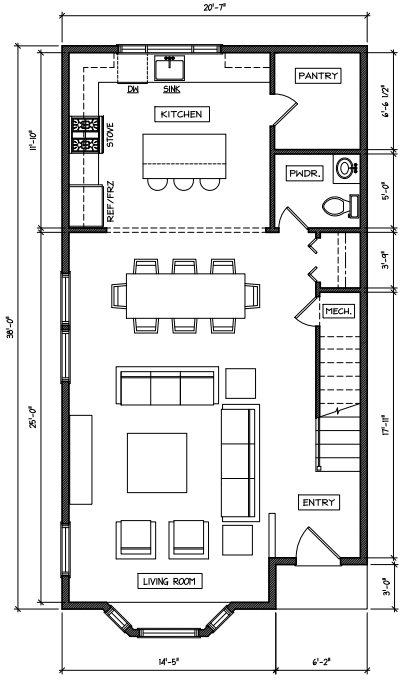
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

REV.	DATE	DESCRIPTION

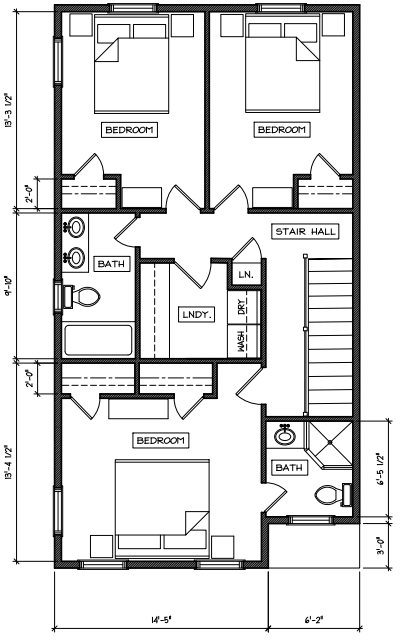
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW. THIS PLAN IS NULL AND VOID FOR CONSTRUCTION PURPOSES WITHOUT THE SIGNATURE AND SEAL OF THE DESIGN ENGINEER.

JAMES J. HAHN ENGINEERING, P.C.
Putnam Business Park
1689 Route 22
Brewster, New York 10509
Tel: (845) 279-2220

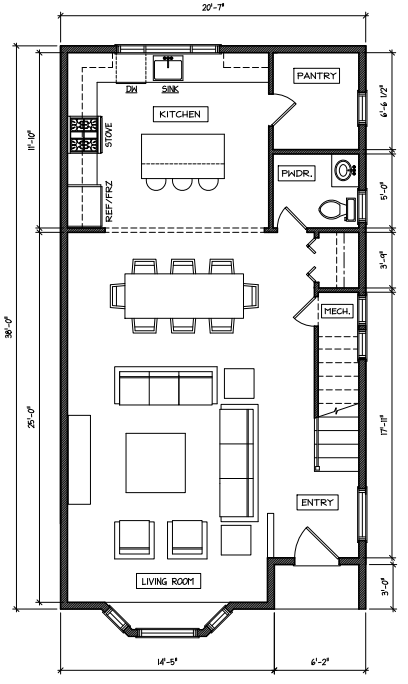
SCALE	DATE
1" = 10'	11/28/22
DRAWING NO.	SHEET NO.
C-1	1 OF 1



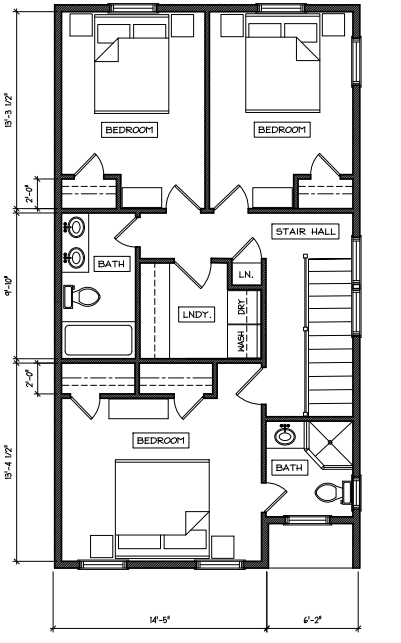
1 PROPOSED LEFT SIDE IST FLOOR PLAN
1/4" = 1'-0"



2 PROPOSED LEFT SIDE 2ND FLOOR PLAN
1/4" = 1'-0"



3 PROPOSED RIGHT SIDE IST FLOOR PLAN
1/4" = 1'-0"



2 PROPOSED RIGHT SIDE 2ND FLOOR PLAN
1/4" = 1'-0"

ARCHITECTS

STEVEN A. GRGECIC
NYS LIC. NO. 035297

NO.	DATE	REVISION
ISSUE/REVISION		

PROJECT NAME
670 MAIN STEET
5 UNIT TOWNHOUSE

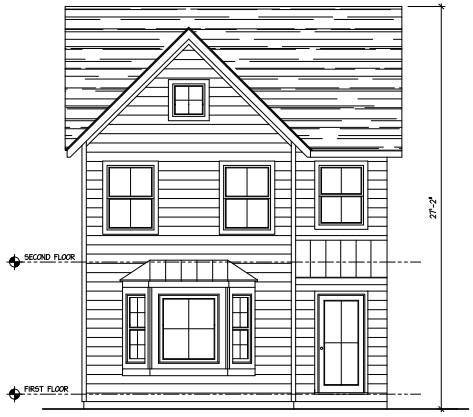
BUILDING ADDRESS
670 MAIN STREET
YORKTOWN, NY

PROJECT NUMBER

DRAWING TITLE
PROPOSED TYPICAL FLOOR PLANS

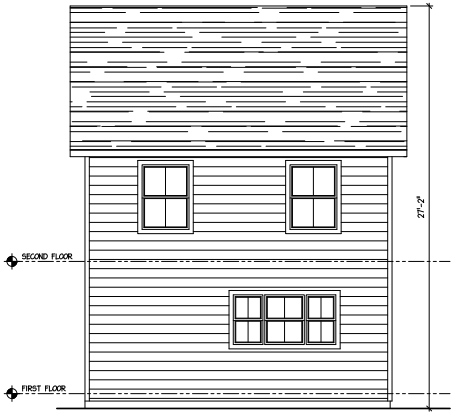
DRAWN BY: SG
SCALE: AS NOTED
DATE: 11/22/22

A-1



1 PROPOSED FRONT ELEVATION
1/4" = 1'-0"

2 PROPOSED LEFT SIDE ELEVATION
1/4" = 1'-0"



3 PROPOSED REAR ELEVATION
1/4" = 1'-0"

4 PROPOSED RIGHT SIDE ELEVATION
1/4" = 1'-0"

ARCHITECTS

REGISTERED ARCHITECT
STATE OF NEW YORK

STEVEN A. GRGECIC
NYS LIC. NO. 035297

NO.	DATE	REVISION
ISSUE/REVISION		

PROJECT NAME
670 MAIN STEET
5 UNIT TOWNHOUSE

BUILDING ADDRESS
670 MAIN STREET
YORKTOWN, NY

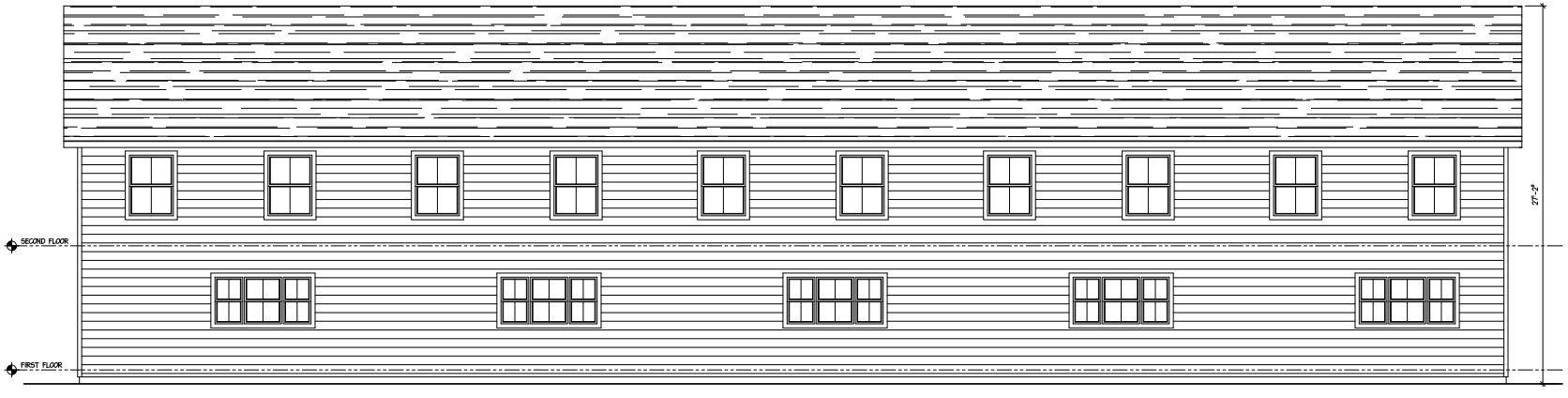
PROJECT NUMBER

DRAWING TITLE
TYPICAL ELEVATION

DRAWN BY	SG
SCALE	AS NOTED
DATE	11/22/22

A-2

1 PROPOSED FRONT ELEVATION
1/4" = 1'-0"



2 PROPOSED REAR ELEVATION
1/4" = 1'-0"

ARCHITECTS

STEVEN A. GRGECIC
NYS LIC. NO. 035297

NO.	DATE	REVISION
ISSUE/REVISION		

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670 MAIN STEET
5 UNIT TOWNHOUSE

BUILDING ADDRESS
670 MAIN STREET
YORKTOWN, NY

PROJECT NUMBER

DRAWING TITLE
PROPOSED ELEVATIONS

DRAWN BY SG
SCALE AS NOTED
DATE 11/22/22

A-3

ARCHITECTS

STEVEN A. GRGECIC
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ISSUE/REVISION		

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5 UNIT TOWNHOUSE

BUILDING ADDRESS
670 MAIN STREET
YORKTOWN, NY

PROJECT NUMBER

DRAWING TITLE
PROPOSED PLANS

DRAWN BY	SG
SCALE	AS NOTED
DATE	11/22/22

A-4

670 East Main Street
Yorktown, NY

R-1

670 East Main Street
Yorktown, NY

R-2