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MEMORANDUM

To:	Mark Giordano Giordano Industrial
From:	John Canning, P.E. Thomas Zhao, E.I.T. Kimley-Horn Engineering and Landscape Architecture of New York, P.C.
Date:	July 15, 2026
Subject:	Proposed Residential Development 3222 Albany Post Road, Village of Buchanan, NY Traffic Impact Memorandum

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Kimley-Horn Engineering and Landscape Architecture of New York, P.C. ("Kimley-Horn") completed its evaluation of the proposed residential development located at 3222 Albany Post Road in the Village of Buchanan, New York (the "Project"). The Project's anticipated trip generation was determined, the sight distances at the proposed Project driveway were evaluated, and a preliminary fire truck turning analysis was performed. Recent vehicular crash records from the New York State Department of Transportation ("NYSDOT") will be analyzed at the intersection of Albany Post Road (New York State Route 9A) with Bleakley Avenue upon receipt of said crash records.

PROJECT UNDERSTANDING

The subject property is an undeveloped parcel on the northwest corner of the intersection of Albany Post Road, locally designated as New York State ("NYS") Route 9A, with Bleakley Avenue. The property has frontage on both roadways. It is proposed to develop the parcel with 11 new condominium / townhouse units, with a small parking area provided for each residence. Access to the Project parcel is to be provided from a proposed driveway on Bleakley Avenue.

TRIP GENERATION

To determine the anticipated trips that the Project will generate, the industry data from the Institute of Transportation Engineers' ("ITE") *Trip Generation Manual, 12th Edition,* was utilized. Specifically, data for Land Use Code ("LUC") 215, *Single-Family Attached Housing*, was reviewed.

Based on LUC 215 from the *Trip Generation Manual*, it was determined that the Project, with 11 attached residential units, would generate on average 5 trips in the AM Peak Hour and 6 trips in the PM Peak Hour.

The Project's trip generation is summarized in **Table 1**, below.

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Table 1 – Trip Generation						
ITE LUC 215 Single-Family Attached Housing	**AM Peak Hour**			**PM Peak Hour**		
	Total	**Entering**	**Exiting**	**Total**	**Entering**	**Exiting**
	5	1	4	6	3	3

Source: *Trip Generation Manual, 12th Edition*

It is anticipated that the addition of 5 trips in the AM Peak Hour or the addition of 6 trips in the PM Peak Hour will not have a significant impact on the local roadway network. Therefore, from a capacity perspective, the Project is not expected to have a significant adverse impact.

SIGHT DISTANCE EVALUATION

An evaluation of the Project driveway's sight distances was undertaken.

Stopping sight distance was measured along the path required for vehicles to make an emergency stop as they approach the Project driveway from either direction on Bleakley Avenue. The distances were measured from the viewpoint of the approaching vehicles (3.5 feet above the pavement) to the front of a vehicle waiting to exit the Project driveway (with the driver positioned 14.5 feet back from the edge of the traveled way on Bleakley Avenue). The analysis took into consideration the grade on Bleakley Avenue in either direction, as well as the speeds of approaching vehicles.

It is noted that although the Village-wide speed limit is 30 MPH, vehicles approaching the site from the east on Bleakley Avenue will have just turned off Albany Post Road (NYS Route 9A) and will likely be traveling at a considerably lower speed, while vehicles approaching the site from the west on Bleakley Avenue will have to turn left or right onto Albany Post Road (NYS Route 9A) just after the Project driveway and will also likely be slowing down to make those turning movements.

Intersection sight distance was measured along the path vehicles will travel within the acceptable time gap as they approach the Project driveway from either direction on Bleakley Avenue. The distances were measured from the viewpoint of a driver exiting the Project driveway (3.5 feet above the pavement and 14.5 feet back from the edge of the traveled way) to the approaching vehicles (also 3.5 feet above the pavement). It is noted that vehicles turning left from northbound Albany Post Road (NYS Route 9A) onto Bleakley Avenue will be visible for considerably more time than vehicles turning right from southbound Albany Post Road (NYS Route 9A). For this reason, the sight distance evaluation focused on the more critical movement, which was the southbound right-turning movement from Albany Post Road (NYS Route 9A) to Bleakley Avenue. Again, the analysis took into consideration the speeds of approaching vehicles on Bleakley Avenue, as well as the appropriate grade.

A Policy on Geometric Design of Highways and Streets, 7th Edition, 2018, also known as the "Green Book" and published by the American Association of State Highway and Transportation Officials ("AASHTO"), was consulted, and a summary of the sight distance evaluation is provided in **Table 2** below, with sight distance exhibits that also indicate the areas where work (regular maintenance and site preparation) must be performed to provide the required sight distances.

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Table 2 – Sight Distances		
	Required	**Provided**
Intersection Sight Distance, Looking Left Exiting Driveway	135 feet (A)	135 feet (A)
Intersection Sight Distance, Looking Right Exiting Driveway	190 feet (B)	190 feet (B)
Stopping Sight Distance, on Bleakley Avenue Traveling EB	205 feet (C)	210 feet
Stopping Sight Distance, on Bleakley Avenue Traveling WB	130 feet (D)	135 feet

Note A: Per AASHTO's "A Policy on Geometric Design of Highways and Streets, 7th Edition, 2018", 135 feet is the required intersection sight distance for vehicles at **14 MPH** with a **6.5-second** time gap, per Case B2 (Right Turns from the Minor Road) in Section 9.5.3.2.2.
Note B: Per AASHTO's "A Policy on Geometric Design of Highways and Streets, 7th Edition, 2018", 190 feet is the required intersection sight distance for vehicles at **17 MPH** with a **7.5-second** time gap, per Case B1 (Left Turns from the Minor Road) in Section 9.5.3.2.1.
Note C: The required stopping sight distance for an eastbound Bleakley Avenue vehicle traveling at **32 MPH** (using NYSDOT Non-National-Highway-System roadway standard).
Note D: The required stopping sight distance for a westbound Bleakley Avenue vehicle traveling at **25 MPH** (using NYSDOT Non-National-Highway-System roadway standard).

For the stopping sight distances, it was assumed that most vehicles making the southbound right-turn movement from Albany Post Road (NYS Route 9A) to Bleakley Avenue would be traveling at 25 MPH or less. To provide the necessary 130 feet of stopping distance, it will be necessary to regrade portions of the site within 25 feet of the edge of the roadway so that the terrain will not obstruct the required sight line. The Project's Civil Engineer has been advised of this requirement (and the requirement not to provide any landscaping or retaining walls in the sight triangles shown in the sight distance exhibits).

It is noted that, should motorists wish to increase their sight lines when they exit the site, they will have the ability to pull forward by approximately 4.5 feet and still have the front of their vehicle about 2 feet off the edge of the road (14.5 feet is the required measurement location; however, a motorist can be positioned 10 feet from the edge of the road while still having the front of the vehicle about 2 feet behind the edge of the traveled way on Bleakley Avenue).

For vehicles approaching the site driveway from the west (i.e., going eastbound) on Bleakley Avenue, it was assumed that most motorists would be traveling at 32 MPH or less. To provide the necessary 205 feet of stopping distance, it will be necessary to clear vegetation in the public right-of-way within 10 feet of the edge of the north side of Bleakley Avenue so as not to obstruct the required sight line.

For the intersection sight distances, it was determined that motorists exiting the Project driveway would not "unduly interfere" (the AASHTO-stated purpose of intersection sight distances) with motorists making the southbound right turn from Albany Post Road (NYS Route 9A) to Bleakley Avenue traveling at less than 15 MPH. For those motorists traveling at 15 MPH or more turning right around the corner, it was determined that the intersection sight distance limit of 135 feet would be acceptable because of the low volume of motorists exiting the Project driveway and because adequate sight distance would be provided to allow them to slow down as much as needed (given that adequate stopping distance is provided). Further, requiring these faster-turning motorists to slow down was also determined not to be undue interference, as they should likely be going slower than 15 MPH around the turn to begin with.

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Again, it is noted that motorists exiting the site could increase their sight lines, if they wished, by safely pulling forward by up to 4.5 feet.

For vehicles approaching the site driveway from the west (i.e., going eastbound) on Bleakley Avenue, it was determined that motorists exiting the site driveway would not "unduly interfere" with their progression if they are traveling at less than 18 MPH. For those motorists traveling at 18 MPH or more toward Bleakley Avenue's intersection with Albany Post Road (NYS Route 9A), it was determined that the intersection sight distance limit of 190 feet would be acceptable because of the low volume of motorists exiting the driveway and because adequate sight distance would be provided to allow them to slow down as much as needed. Further, requiring these faster-traveling motorists to slow down was also determined not to be undue interference, since they would be slowing down as they approach the intersection of Bleakley Avenue with Albany Post Road (NYS Route 9A) anyway.

Although the above analysis indicates that adequate intersection and stopping sight distances for this proposed 11-unit residential project are provided, conditions at the Project driveway on Bleakley Avenue could be improved if the westbound roadway leading away from the Albany Post Road (NYS Route 9A) & Bleakley Avenue intersection were restriped to provide a single lane, as opposed to the through lane and the yielding southbound right-turn lane that presently exist at the intersection (see **Image 1** below). The proposed improvement would eliminate the need for southbound right-turning motorists to yield to motorists who just turned left off of Albany Post Road (NYS Route 9A) onto Bleakley Avenue and, instead, focus on the road ahead of them. If the NYSDOT is willing to permit this restriping, it is recommended that it be implemented by the Project.

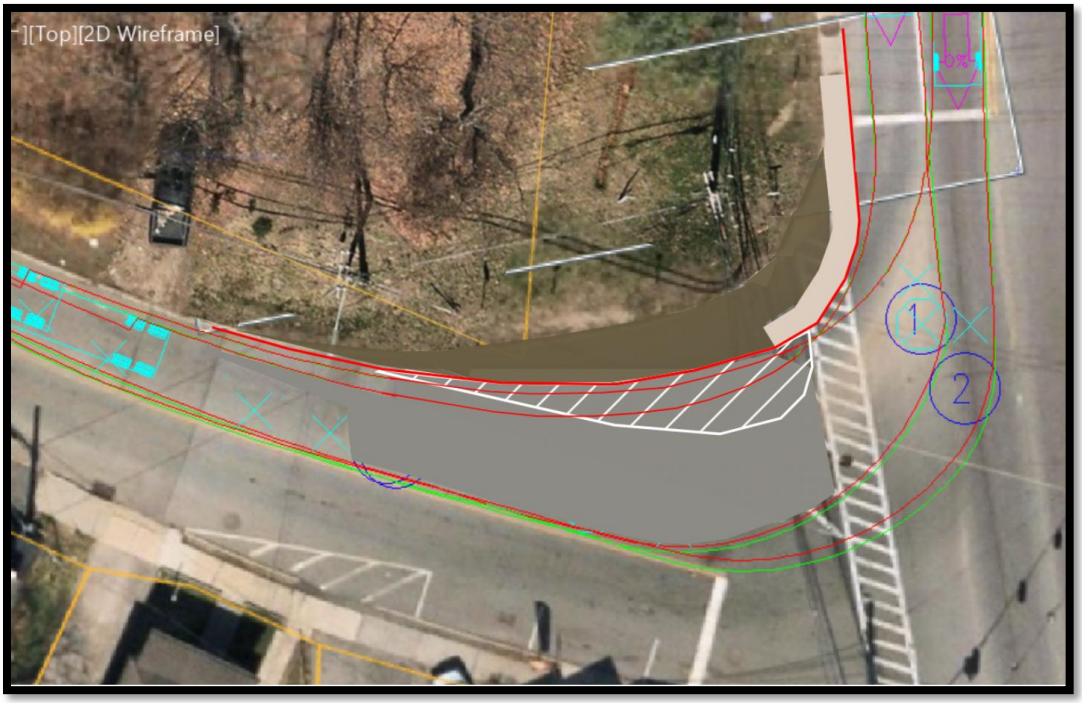

Image 1: Suggested Modification to Westbound Bleakley Avenue at Albany Post Road (NYS Route 9A)

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CRASH ANALYSIS

A Freedom of Information Law request was submitted to the NYSDOT on June 30, 2026. The NYSDOT has acknowledged receipt of the request but has yet to furnish vehicular crash data records pertinent to the request. The crash analysis shall be undertaken once Kimley-Horn is in receipt of said crash data records from the NYSDOT, and this report will be updated and revised to incorporate said findings.

FIRE TRUCK TURNING

Kimley-Horn has requested the performance specifications for the Village of Buchanan Fire Department's largest responding fire apparatus to confirm that it will be able to negotiate the site and is awaiting receipt of this information. In the meantime, Kimley-Horn conducted a preliminary fire truck turning analysis for a 45-foot-long tower ladder from Florida (as fire apparatus tend to be larger in Florida, where newer construction has required more generous site turning geometry than what had prevailed when the older parts of the northeastern United States were developed). As can be seen from the fire truck turning exhibit, with some minor modifications to the site plan at key pinch points, it appears that this larger vehicle would be able to drive into the Project site, respond to a call, turn around, and drive out. A turning analysis with the Village of Buchanan Fire Department's largest apparatus will be conducted as soon as the performance specification data is made available, and this report will be updated and revised to incorporate the turning analysis findings.

CONCLUSIONS

Based on the trip generation evaluation, the proposed 11-unit residential development is anticipated to generate approximately 5 trips during the AM Peak Hour and 6 trips during the PM Peak Hour. Given the limited number of peak-hour trips, the Project is not expected to result in a significant adverse impact to traffic operations on the surrounding roadway network.

The sight distance evaluation also indicates that the available sight distances, with the identified maintenance and site preparation completed, at the proposed Project driveway on Bleakley Avenue satisfy the applicable minimum requirements for intersection and stopping sight distance based on the evaluated travel speeds and roadway conditions. While adequate sight distances are provided, a restriping of Bleakley Avenue has been recommended to improve motorist focus when making a southbound right turn from Albany Post Road (NYS Route 9A) onto Bleakley Avenue, if permitted by the NYSDOT.

Therefore, from a traffic capacity and sight distance perspective (provided the required sight lines are maintained), the proposed Project is expected to operate safely and without significant adverse traffic impacts.

The crash analysis will be completed once the requested NYSDOT crash records are received, and this memorandum will be updated as necessary to incorporate those findings.

The preliminary fire truck turning analysis currently indicates that modeled fire apparatus will be able to drive into the site, respond to a call, turn around, and drive out. This will be verified once the Village of Buchanan's Fire Department provides the performance specifications for its largest fire apparatus vehicle.

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Appendix

- Sight Distance Exhibits
- Preliminary Fire Truck Turning Exhibit

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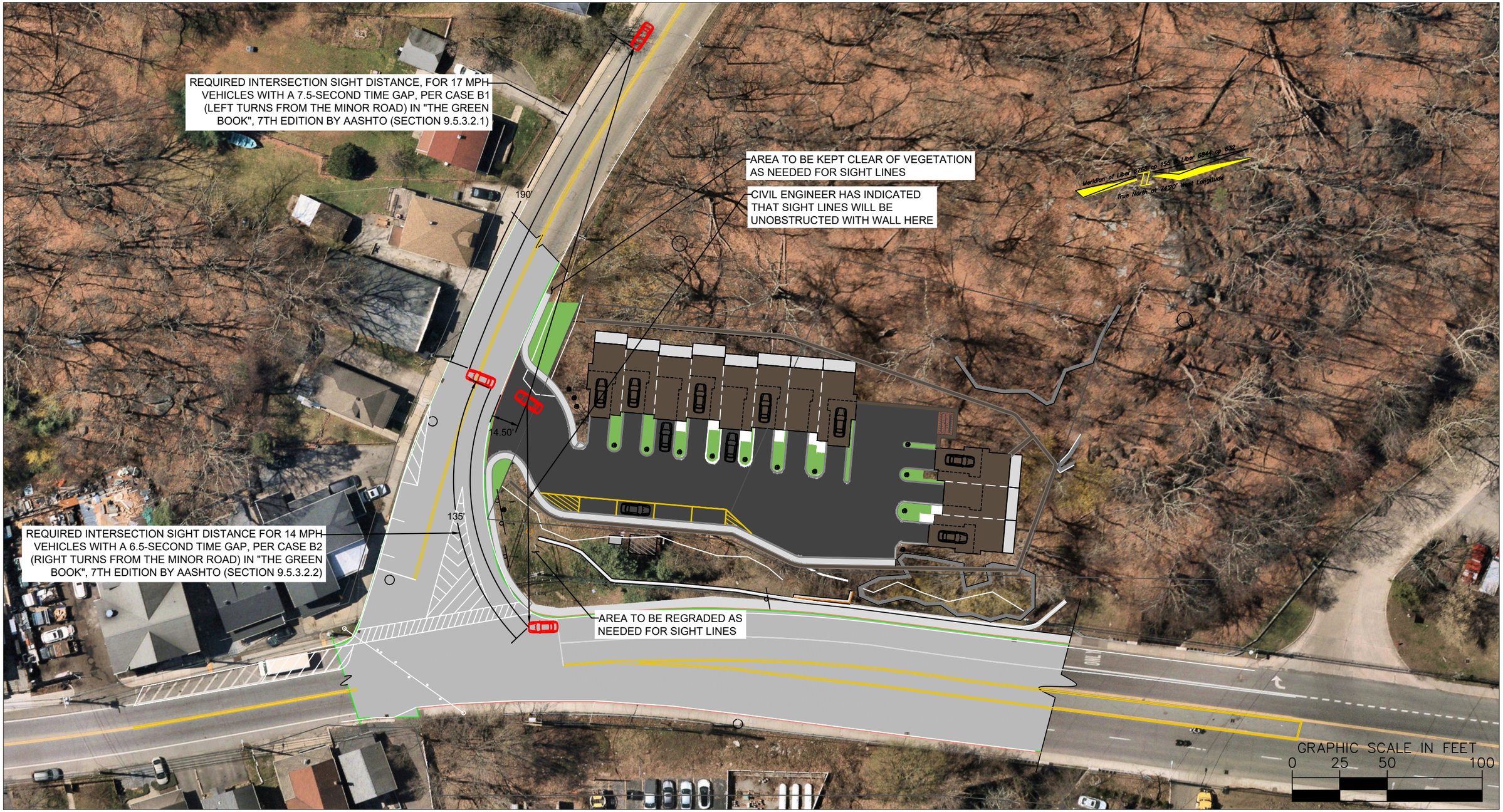
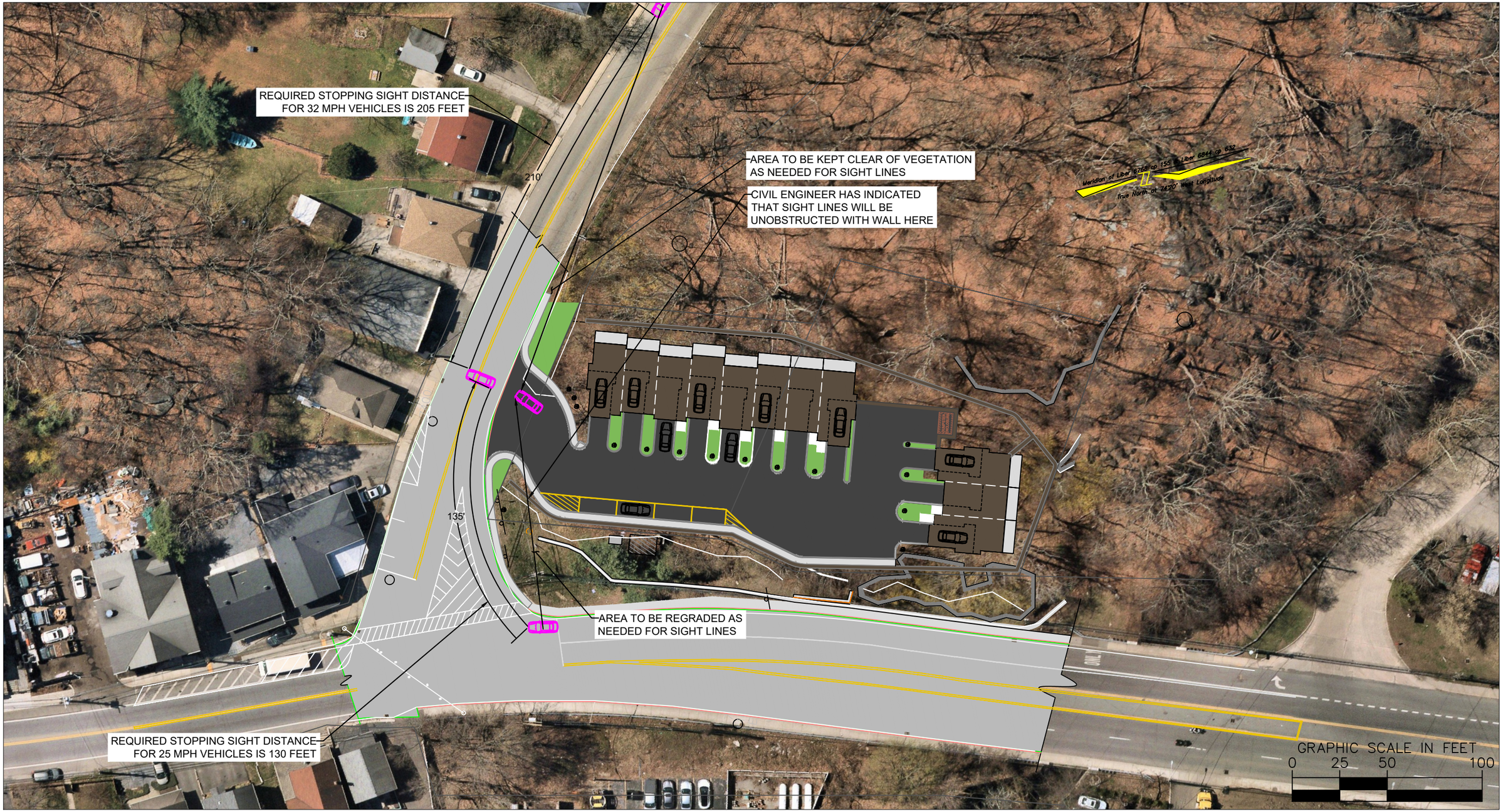
Sight Distance Exhibits



SHEET #	PROPOSED RESIDENTIAL 3222 ALBANY POST ROAD VILLAGE OF BUCHANAN, NY	INTERSECTION SIGHT DISTANCE EXHIBIT	PE STAMP: NOT FOR CONSTRUCTION	KHA PROJECT: 112832000 DATE: 07/15/2026 DESIGNED BY: TZ DRAWN BY: TZ CHECKED BY: TJC	Kimley»Horn New York 1 NORTH LEXINGTON AVENUE, SUITE 505 WHITE PLAINS, NY 10601 PHONE: 914-368-9200 WWW.KIMLEY-HORN.COM	NO.	REVISIONS	DATE	BY
SD-1.0								

Saved Wednesday, July 15, 2026 10:10:19 AM THOMAS.ZHAO Plotted Wednesday, July 15, 2026 10:10:55 AM Zhao, Thomas

K:\WHP_TPTO\122329000_3222 Albany Post Rd_Buchanan_NY\7. Civil\2. CAD\Plansheets\2026-07-15 Sight Distance Exhibit\SD-1.0 & SD-1.1 Sight Distance Exhibit.dwg



SHEET #	PROPOSED RESIDENTIAL 3222 ALBANY POST ROAD VILLAGE OF BUCHANAN, NY	STOPPING SIGHT DISTANCE EXHIBIT	PE STAMP: NOT FOR CONSTRUCTION	KHA PROJECT: 112832000 DATE: 07/15/2026 DESIGNED BY: TZ DRAWN BY: TZ CHECKED BY: TJC	Kimley»Horn New York 1 NORTH LEXINGTON AVENUE, SUITE 505 WHITE PLAINS, NY 10601 PHONE: 914-368-9200 WWW.KIMLEY-HORN.COM	NO.	REVISIONS	DATE	BY
SD-1.1								

Saved Wednesday, July 15, 2026 10:10:19 AM THOMAS.ZHAO Plotted Wednesday, July 15, 2026 10:10:57 AM Zhao, Thomas

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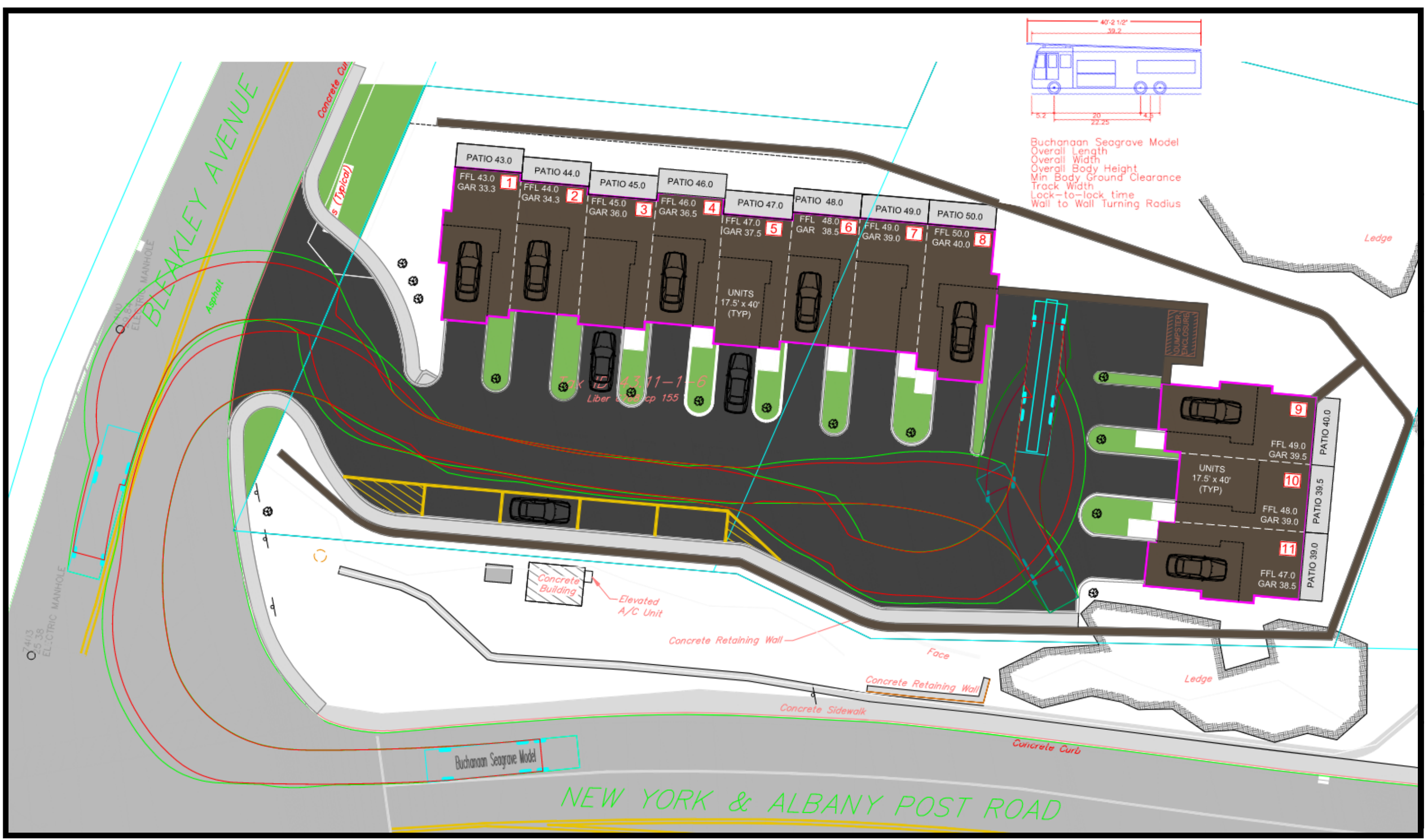
Preliminary Fire Truck Turning Exhibit



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FIRE TRUCK TURNING TEMPLATE
3222 Albany Post Road