

**3.7 Traffic & Transportation****3.7.1 Existing Conditions****Existing Land Use***Project Site*

As has been described in the Project Description and the Land Use sections, the Primary arterial roadway in this area is Red Schoolhouse Road connecting NYS Route 45 (Chestnut Ridge Road) with partial access to the Garden State Parkway / New York State Thruway and continuing south into Montvale New Jersey. The majority of vacant and developable land in Chestnut Ridge is located along this corridor. A number of development proposals along Red Schoolhouse Road are currently before the Village of Chestnut Ridge. In order to evaluate the cumulative impact of the collective development, the Village initiated a joint Transportation Improvement Study to provide an impartial analysis of the future traffic conditions along this corridor and to identify a program of planned improvements that would result in acceptable traffic operating conditions upon full build-out of the various development proposals.

A Traffic Impact Study (located in Appendix E of this DEIS) was prepared by Maser Consulting, dated February 3, 2021; to discuss existing traffic conditions; to evaluate intersections where the level of service with respect to traffic may be impacted by the cumulative proposed development along the corridor; and to identify an appropriate program of recommended improvements to achieve acceptable operating conditions along Red Schoolhouse Road.

In conducting the Traffic Impact Study, Maser Consulting gathered all available traffic count data for the study area intersections from reports prepared by various traffic consultants that have completed studies in the area. These data were supplemented with new traffic counts collected by representatives of Maser Consulting. These data were also compared to historical traffic volume data obtained from the NYSDOT and RCHD to adjust and account for the effects of the COVID-19 pandemic on traffic in the area. Together these data were utilized to establish the Existing Traffic Volumes representing existing traffic conditions

The Existing Traffic Volumes were then projected to the 2025 Design Year to take into account background traffic growth to obtain the Year 2025 No-Build Traffic Volumes.

Estimates were then made of the potential traffic that the significant proposed/pending area developments (including the subject Project) would generate during each of the peak hours. The resulting site generated traffic volumes for these developments were then added to the roadway system and combined with the Year 2025 No-Build Traffic Volumes resulting in the Year 2025 Build Traffic Volumes.

The Existing, No-Build and Build Traffic Volumes were compared to roadway capacities based on the procedures from the Highway Capacity Manual to determine existing and future Levels of Service and operating conditions based on the Synchro analysis procedures.

Recommendations for improvements were made where necessary to serve the existing and/or future traffic volumes. As described in more detail in the Traffic Impact Study, both interim and longer-term improvements were identified.

### Existing Road Network

The following provides a description of each of the study area roadways based on observations of the existing conditions.

1. Red Schoolhouse Road (C.R. 41)  
Red Schoolhouse Road is a major regional arterial roadway under the jurisdiction of Rockland County, which traverses in a generally north/south direction. In the immediate vicinity of the study area, it is a two-lane roadway with a double yellow centerline and narrow paved shoulders of varying width. The pavement is in generally fair to poor condition. The total existing roadway width within the study area varies between 24 and 35 feet. Curbing is in good to fair condition and is present on the east side of the roadway for the length of the corridor and on the west side of the roadway in the vicinity of the GSP overpass. A limited stretch of sidewalk is provided in the vicinity of the GSP overpass between DeSalvo Court and the GSP northbound entrance ramp. Additional sidewalks are also provided along the west side of the roadway north of the study area beginning approximately 400 feet south of Garret Court and continuing up to NYS Route 45. No marked accommodations for bicycles are present on the roadway. Within the study area, the roadway has an existing signalized intersection with the GSP southbound exit ramp. The posted speed limit is 30 MPH. Red Schoolhouse Road northbound has an AADT of 8,206 vehicles per day.
2. Summit Road  
Summit Road is a two-lane Village roadway with a double yellow centerline that generally traverses in an east/west direction between a signalized intersection with NYS Route 45 and a "Stop" sign-controlled intersection with Red Schoolhouse Road. Summit Road has a posted 5-ton weight limit. The roadway generally serves residential land uses and has a posted speed limit of 30 MPH. Summit Road also provides access to the Chestnut Ridge Middle School via Ferruzza Drive and the Fleetwood Elementary School via a combination of Wilshire Drive and Fleetwood Avenue. A concrete sidewalk is present on the south side of the roadway; however, approximately 800 feet west of the Red Schoolhouse Road intersection, the sidewalk becomes asphalt and significantly narrows in width. Note that under current conditions, left turns from Red Schoolhouse Road onto Summit Road are currently prohibited between the hours of 7:00 AM – 10:00 AM, Monday through Friday, except for buses. The pavement is generally in good condition and the roadway has an AADT of 2,970 vehicles per day.
3. Williams Road  
Williams Road is a two-lane Village roadway with a double yellow centerline which has "Stop" sign-controlled intersections with Red Schoolhouse Road at its western terminus and S. Pascack Road at the east end. No shoulders, bike facilities nor sidewalks are present. The roadway serves primarily residential land uses and has a posted speed limit of 30 MPH. The pavement condition on Williams Road is in good to fair condition and the roadway has an AADT of 3,325 vehicles per day.
4. Garden State Parkway Southbound Exit Ramp  
The GSP Southbound Exit Ramp consists of one left turn and one right turn lane and is signal controlled at its intersection with Red Schoolhouse Road. The ramp provides approximately 270 feet of storage length for each of the turn lanes and

another approximately 315 feet of travel lane as it tapers from a single lane to two lanes from the gore area of the GSP mainline. Shoulders are present on both sides of the ramp. The pavement condition on the GSP southbound exit ramps is in generally good condition. The GSP mainline has an estimated 2019 AADT of 60,987 vehicles in this vicinity. It should be noted that this interchange is the last Exit in New York and since trucks are not permitted on the GSP in New Jersey, all trucks must exit at this location.

5. DeSalvo Court  
DeSalvo Court is a two-lane Village roadway with a double yellow centerline. The roadway begins at a “Stop” sign-controlled intersection with Red Schoolhouse Road and runs parallel to the GSP and intersects with Wilshire Drive and Midway Road before transitioning to Fox Hill Road at the New Jersey State Line. Some sight distance limitations exist at the intersection with Red Schoolhouse Road and are further described in Appendix E. There are no separate sidewalks nor bicycle facilities on this roadway. The roadway generally serves residential land uses and has a posted speed limit of 30 MPH. The pavement on DeSalvo Court is in generally good to fair condition.
6. Garden State Parkway Northbound Entrance Ramp  
The GSP Northbound Entrance Ramp consists of one wide lane with paved shoulders on either side at its intersection with Red Schoolhouse Road. The roadway pavement is in generally good condition.
7. Sephar Lane  
Sephar Lane is an existing private, gravel/dirt driveway that intersects Red Schoolhouse Road at a “Stop” sign-controlled intersection and travels east. The roadway is currently approximately 16 feet wide. Note that immediately south of Sephar Lane is a parcel that contains the Chestnut Ridge Transportation facility. This facility has its own access connection to Red Schoolhouse Road, which has significant school bus movements during peak periods.
8. Loescher Lane  
Loescher Lane is a gravel/dirt driveway that intersects Red Schoolhouse Road at an uncontrolled intersection and travels east. The roadway is approximately 16 feet wide. This roadway would provide access to the future Horse Farm Development.
9. Wilshire Drive  
Wilshire Drive is a two-lane Village roadway which intersects Summit Road at a “Stop” sign-controlled intersection and travels southwest. The roadway has pavement in good to fair condition. The roadway has no sidewalks nor bicycle facilities at the intersection with Summit Road. Marked crosswalks are present on Wilshire Drive at the intersection with Summit Road. The roadway serves primarily residential uses and has a posted speed limit of 30 MPH.

**Existing Traffic Conditions**

In conducting this study, all available traffic count data for the study area intersections were obtained from previous reports prepared by various traffic consultants that have completed traffic studies in the area. These data were supplemented with new traffic counts collected by representatives of Maser Consulting. These data were also compared to historical traffic volume data obtained from the NYSDOT and RCHD to adjust and account for the effects of the COVID-19 pandemic on traffic in the area. Together these data were utilized to establish the Existing Traffic Volumes representing existing traffic conditions in the vicinity of the site at the following study area intersections:

- Red Schoolhouse Road & Williams Road.
- Red Schoolhouse Road & Summit Road.
- Red Schoolhouse Road & DeSalvo Court.
- Red Schoolhouse Road & GSP SB off Ramp.
- Red Schoolhouse Road & GSP NB on Ramp.
- Red Schoolhouse Road & Sephar Lane.
- Red Schoolhouse Road & Loescher Lane.
- Summit Road & Wilshire Drive

**Capacity Analysis - Existing Conditions**

Traffic analysis, as included in the Maser Study, is performed by calculating the capacity of the intersection to process traffic. In general, the capacity of an intersection is defined as the maximum number of vehicles or pedestrians that can reasonably be expected to traverse a point or section of roadway during a given time period under prevailing roadway, traffic and control conditions. Therefore, capacity analyses are a set of procedures used to estimate the traffic carrying capabilities of facilities over a range of defined operational conditions. They provide tools for the analysis and improvement of existing facilities and for the planning and design of future facilities.

One measure of traffic conditions is a facility's ability to process actual or projected volumes of traffic. The volume-to-capacity (V/C) ratio represents the comparison of the facility's volume to its capacity, with traffic conditions becoming more congested as the ratio nears 1.0. When v/c ratios exceed 1.0, volume is higher than capacity, resulting in congestion and delays.

Traffic conditions are expressed in terms of Levels of Service (LOS). This term is used to describe the quality of traffic flow in a standard manner. Level of Service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, LOS criteria are stated in terms of average stopped delay per vehicles for a 15-minute analysis period. Detailed criteria are provided in Appendix A. Delay may be measured in the field or estimated using procedures presented later in this section. Delay is a complex measure and is dependent upon a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question. Synchro 10 software was used to calculate the Level of Service for each intersection.

A summary of the results of the capacity analysis for Existing Conditions are as follows: Additional description of conditions at each intersection are provided in the TIS contained in Appendix E.

Table 3.7-1 EXISTING CONDITIONS LEVEL OF SERVICE SUMMARY			
INTERSECTION	WEEKDAY AM PEAK HOUR	WEEKDAY PM PEAK HOUR	SATURDAY PEAK HOUR
RED SCHOOLHOUSE ROAD/ WILLIAMS ROAD	D [29.6]	D [27.2]	B [11.3]
RED SCHOOLHOUSE ROAD/ SUMMIT ROAD	C [18.5]	C [20.6]	B [11.3]
RED SCHOOLHOUSE ROAD/ GSP SB EXIT RAMP	C [24.0]	B [14.0]	B [15.3]
RED SCHOOLHOUSE ROAD/ DESALVO COURT	D [29.6]	C [19.6]	B [12.8]
RED SCHOOLHOUSE ROAD/ GSP NB ENTRANCE RAMP	---	---	---
RED SCHOOLHOUSE ROAD/ SEPHAR LANE	C [18.7]	C [23.9]	B [13.1]
SUMMIT ROAD/ WILSHIRE DRIVE	B [11.4]	B [10.0]	A [9.2]
RED SCHOOLHOUSE ROAD/ LOESCHER LANE	C [18.6]	C [23.9]	B [13.1]

**3.7.2 Future No-Build Conditions**

The no-build conditions represent the traffic volumes that would occur on the network even without to the completion of the proposed project. A background growth rate is used to increase the base traffic to the 2025 build year.

A basis for analysis of future traffic conditions along the corridor was determined by increasing the 2020 Existing Traffic Volumes by a growth factor of 0.5% per year for a five (5) year period to account for general background growth along the corridor. The resulting in the Year 2025 Projected Traffic Volumes are shown in the TIS contained in Appendix E, on Figures No. 5, 6 and 7 for the Weekday AM, Weekday PM and Saturday Peak Hours, respectively. It should be noted that the NYSDOT 2019 Traffic Volume Report for County Roads dated 7/30/2020 estimates slightly negative growth along the Red Schoolhouse Road corridor between 2015/2016 and 2019, however the 0.5% per year growth rate was utilized to account for traffic associated with other area developments that may add traffic to the corridor that are not the immediate focus of this study.

In preparing this traffic study, Maser Consulting held discussions with representatives of the Borough of Montvale, New Jersey to identify any approved or potential developments within the Borough that may result in added traffic along the Red Schoolhouse Road corridor and therefore would need to be considered in the analysis contained herein.

Although there are six development projects pending, approved or under construction in Montvale, as listed in the TIS, based on the location, type of development and/or current status of each of these developments, it was determined that they would not generate significant additional traffic along the Red Schoolhouse Road corridor and that any traffic that would be experienced along the corridor in the vicinity of the GSP interchange is captured by the 0.5% per year growth rate utilized in determining the 2025 Projected Traffic Volumes. It should also be noted that the 2025 Projected Traffic Volumes represent traffic conditions without consideration of traffic from any of the developments that are planned along the corridor and are of specific focus of this study. These developments are discussed under the Future Build Conditions below.

A summary of the results of the capacity analysis for No-Build Conditions are as follows: Additional description of conditions at each intersection are provided in in Appendix E.

<b>Table 3.7-2 2025 NO-BUILD CONDITIONS LEVEL OF SERVICE SUMMARY</b>						
<b>INTERSECTION</b>	<b>WEEKDAY AM PEAK HOUR</b>		<b>WEEKDAY PM PEAK HOUR</b>		<b>SATURDAY PEAK HOUR</b>	
	<b>EX</b>	<b>NB</b>	<b>EX</b>	<b>NB</b>	<b>EX</b>	<b>NB</b>
RED SCHOOLHOUSE ROAD/ WILLIAMS ROAD	D [29.6]	D [32.3]	D [27.2]	D [29.3]	B [11.3]	B [11.4]
RED SCHOOLHOUSE ROAD/ SUMMIT ROAD	C [18.5]	C [19.3]	C [20.6]	C [21.6]	B [11.3]	B [11.4]
RED SCHOOLHOUSE ROAD/ GSP SB EXIT RAMP	C [24.0]	C [25.1]	B [14.0]	B [14.6]	B [15.3]	B [15.4]
RED SCHOOLHOUSE ROAD/ DESALVO COURT	D [29.6]	D [31.2]	C [19.6]	C [22.2]	B [12.8]	B [12.9]
RED SCHOOLHOUSE ROAD/ GSP NB ENTRANCE RAMP	---	---	---	---	---	---
RED SCHOOLHOUSE ROAD/ SEPHAR LANE	C [18.7]	C [19.2]	C [23.9]	C [24.8]	B [13.1]	B [13.3]
SUMMIT ROAD/ WILSHIRE DRIVE	B [11.4]	B [11.3]	B [10.0]	B [10.1]	A [9.2]	A [9.2]
RED SCHOOLHOUSE ROAD/ LOESCHER LANE	C [18.6]	C [19.2]	C [23.9]	C [24.8]	B [13.1]	B [13.2]

### 3.7.3 Future Build Conditions

#### Area Development Site Generated Traffic

Several potential developments have been proposed within the study area including the potential Wellington Schools Campus, Corporate Commerce Park, Equestrian Estates, Triangle Properties development and the Future Horse Farm development. Refer to Figure 3.7-1.

Estimates of the traffic that would be generated by each of these developments were computed for the Weekday AM, Weekday PM and Saturday Peak periods based on information published by the ITE as contained in the report entitled "Trip Generation", 10<sup>th</sup> Edition, 2017. The following ITE Land Use Codes were referenced in computing these estimates for the TIS.

- Triangle Properties:
  - Land Use Code 820 – Shopping Center (see additional discussion below)
  
- Equestrian Estates
  - Land Use Code 210 – Single Family Housing
  - Land Use Code 220 – Multifamily Housing
  - Land Use Code 252 – Senior Adult Housing (Attached)
  - Land Use Code 710 – Office
  - Land Use Code 820 – Shopping Center
  
- Future Horse Farm Development
  - Land Use Code 252 – Senior Adult Housing (Attached)
  
- Wellington Schools Campus
  - Land Use Code 522 – Public Middle/High School
  - Land Use Code 550 – University/College
  
- Corporate Commerce Park
  - Land Use Code 710 – Office (see additional discussion below).

Table No. 8 contained in Appendix E, provides a detailed summary of the anticipated traffic generation for each of the above listed developments based on the ITE data as well as the project site area, roadway frontage, hours of operations, and other related information. It should be noted that a 25% pass-by credit was applied to the trip generation for retail uses based on typically accepted criteria; however, depending on the specific use this could be somewhat higher. Additionally, a 15% internal trip reduction credit was included for each use within the Equestrian Estates development to account for the mixed-use nature of this development. This reduction was based on information outlined in the National Cooperative Highway Research Program (NCHRP) Report 684. A summary of the total "new trips" that will be experienced on the area roadways as a result of each of the proposed developments is provided in Table 3.7-3.

<b>Table 3.7-3 AREA DEVELOPMENT TRIP GENERATION SUMMARY</b>			
<b>DEVELOPMENT</b>	<b>ENTRY VOLUME</b>	<b>EXIT VOLUME</b>	<b>TOTAL</b>
<b>WEEKDAY PEAM AM HOUR</b>			
TRIANGLE PROPERTIES*	65	30	95
EQUESTRIAN ESTATES	112	132	244
FUTURE HORSE FARM DEVELOPMENT	19	10	29
WELLINGTON SCHOOLS CAMPUS	182	109	291
CORPORATE COMMERCE PARK	210	29	239
<b>TOTAL *</b>	<b>588</b>	<b>310</b>	<b>898</b>
<b>WEEKDAY PEAK PM HOUR</b>			
TRIANGLE PROPERTIES*	51	54	105
EQUESTRIAN ESTATES	161	146	307
FUTURE HORSE FARM DEVELOPMENT	24	30	54
WELLINGTON SCHOOLS CAMPUS	102	157	259
CORPORATE COMMERCE PARK	42	190	232
<b>TOTAL *</b>	<b>380</b>	<b>577</b>	<b>957</b>
<b>SATURDAY PEAK HOUR</b>			
TRIANGLE PROPERTIES*	80	66	146
EQUESTRIAN ESTATES	138	123	261
FUTURE HORSE FARM DEVELOPMENT	20	23	43
WELLINGTON SCHOOLS CAMPUS	0	0	0
CORPORATE COMMERCE PARK	43	37	80
<b>TOTAL *</b>	<b>281</b>	<b>249</b>	<b>530</b>
*Trips Generated have been revised to reflect current anticipated Trip Generation of the Triangle Properties.			

It should be noted that the Maser Traffic Impact Study trip generation summary and additional information provided in Table No. 8 of the TIS, as well as the detailed capacity analysis contained herein, was based on the Triangle Properties Development originally proposed to consist of an approximately 137,500 sq. ft. shopping center consistent with the information provided as part of the Red Schoolhouse Road RFP. However, after work on the TIS was initiated the development proposal for the Triangle Properties development has been revised including the elimination of the previously proposed shopping center and instead includes development of a 124 Room Hotel, a 110,000 sq. ft. self-storage facility and a 54,000 sq. ft. flex space (light industrial) building. The peak hour traffic generation associated with this revised development proposal will be significantly lower than the traffic generation for the shopping center analyzed for the Triangle Properties in TIS study. It is not anticipated that this reduction in traffic generation would significantly modify the overall conclusions and recommendations of the TIS. However, Table 3.7-4 above has been updated, compared to the TIS, to reflect this more accurate projection of trips generated by the Triangle Properties.



It should also be noted that modifications to the traffic generation for the Corporate Commerce Park development as described in the TIS indicate the numbers may be overstated. However, since the exact tenants of this development are unknown at this time, the use of these slightly higher volumes would account for variations in trip generation from an uncertainty of actual tenants.

#### Arrival and Departure Distributions

Arrival and Departure distributions are based on a review of the Existing Traffic Volumes and the expected travel patterns on the surrounding roadway network. The anticipated arrival and departure distributions for each proposed development are shown on Figures No. 8 through 19 of the TIS contained in Appendix E.

#### Future Build Traffic Volumes

The anticipated site generated traffic volumes identified for each development 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. 20 through 37 of the TIS, for each of the peak hours for each individual development. The total site generated traffic for all of these potential developments are shown on Figures No. 38, 39 and 40 of the TIS, for the Weekday AM, Weekday PM and Saturday Peak Hours, respectively. These site generated traffic volumes were then added to the Year 2025 No-Build Traffic Volumes to obtain the Year 2025 Build Traffic Volumes. The resulting Year 2025 Build Traffic Volumes are shown on Figures No. 41, 42 and 43 of the TIS, for the Weekday Peak AM, Weekday Peak PM, and Saturday Peak Hours, respectively. Note that these figures represent the future traffic volumes on the roadway network with all of the projects built and occupied.

#### Future Build Operating Conditions

A Level of Service analysis for the Build conditions at the subject intersections for the Weekday AM, Weekday PM, and Saturday Peak Hours was conducted utilizing the 2025 Build Traffic volumes identified above. Tables No. 2, 3, and 4 contained in Appendix C of the TIS provide a detailed summary of the analysis results including levels of service, vehicle delays and volume-to-capacity ratios (v/c) for the subject intersections and various site access driveways. Table No. 5 also contained in the TIS, provides a summary of the queuing analysis results under the future Build conditions without improvements and provides comparison to existing and No-Build queuing conditions.

#### **3.7.4 Program of Improvements**

A series of improvement alternatives have been identified as a result of the analysis contained in the TIS. These improvements include geometric modifications including turning lanes, sidewalks, signal timing modifications, additional signal installations, upgraded and improved signal actuation as well as a potential roundabout. Due to the nature of some of the improvements and the potential regulatory approvals as well as associated cost implications of such, it is recommended that a phased or “building blocks” approach be considered to allow these to be implemented at individual intersections but in manner that they will work towards the completion of the overall corridor plan. Furthermore, some of the recommended project access related improvements should be tied to the specific planned developments along the corridor,

while other improvements should be approached on a longer-term basis due to the requirements for R.O.W. acquisition, funding, and regulatory approvals. Conceptual plans for the potential corridor improvements were prepared using available aerial images, roadway record plan information, tax maps, and site plan information from the various development applications. More detailed design plans based on detailed roadway surveys and identifying any environmental, R.O.W., or other constraints will have to be completed for the permitting and construction of such improvements as they proceed.

In an effort to address the recommendations of the RSHR Transportation Improvement Study (TIS), a committee of the traffic and civil engineers, plus the legal representatives and project managers of the various stakeholders was convened to digest the results of the study and to take ownership of the various recommended improvements the study identified in order to facilitate improvements to the future traffic operations along the RSHR Corridor. The Recommended Program of Improvements listed below was agreed to by the committee and represents a collective significant contribution toward infrastructure improvements along this corridor. Figure 3.7-2 illustrates the commitment of various stakeholders to implement these improvements.

#### **NORTH OF THE GARDEN STATE PARKWAY (GSP)**

- Dedication of the land opposite the GSP SB off ramp to accommodate construction of future dual left turn lanes off the GSP SB off ramp (Wellington from Summit to DiSalvo = 1,700 feet +/-).
- Dedication of the land to accommodate separate left turn lanes northbound and southbound on RSHR near Wellington Schools access.
- Construction of separate left turn lanes northbound and southbound on RSHR near Wellington Schools access.
- Construction of Sidewalks per the recommendation of Rockland County Highway Dept.

#### **SOUTH OF THE GARDEN STATE PARKWAY (GSP)**

- Widen RSHR to provide separate channelized NB right turn lane at GSP NB on ramp
- Construct a NB Thru/Right turn lane "starting 200' south of Sephar lane continuing through that intersection and up to the GSP NB On Ramp".
- Install Traffic signal at Sephar Lane to permit protected LT inbound and outbound movements from Commerce Corporate Park (CCP).
- Dedication of Sephar Lane to the Village of Chestnut Ridge.
- Provision of an easement from both CCP and Equestrian Estates to accommodate a future connection with the Chestnut Ridge Transportation parcel.
- Construction of a 4-way intersection with widening of RSHR to provide dedicated right and left turn lanes at Triangle Properties/Equestrian Estates as needed.
- Install new traffic signal at Triangle Properties/Equestrian Estates main access.
- Construction of a roundabout at Triangle Properties/Equestrian Estates northern access.
- Left turn lane widening at Loescher Lane to facilitate future development of Horse farm Property.

#### **REGIONAL**

- Modify or Replace traffic signal at RSHR and GSP SB off Ramp.
- Widen ramp to provide dual left turn lanes on GSP Exit including two lane receivers on SB RSHR.

Of this total list of Program of Improvements, shown in Blue on Figure 3.7-2, the Equestrian Estates Development is assuming responsibility for the following;

- Provision of an easement from both CCP and Equestrian Estates to accommodate a future connection with the Chestnut Ridge Transportation parcel.
- Construction of a 4-way intersection with widening of RSHR to provide dedicated right and left turn lanes at Triangle Properties/Equestrian Estates as needed.
- Installation of a new traffic signal at Triangle Properties/Equestrian Estates main access.
- Construction of a roundabout to alleviate congestion from potential left turners to serve the entire corridor at the Triangle Properties/Equestrian Estates northern access.

Table 3.7-4 below provides a summary of the overall level of service that can be expected upon completion of the recommended improvements for those intersections directly affected by the Equestrian Estates Development.

<b>Table 3.7-4</b> <b>2025 BUILD WITH IMPROVEMENTS CONDITION compared to</b> <b>2025 NO BUILD CONDITION</b> <b>LEVEL OF SERVICE SUMMARY</b>						
INTERSECTION	WEEKDAY AM PEAK HOUR		WEEKDAY PM PEAK HOUR		SATURDAY PEAK HOUR	
	No Build	Build With Improvements	No Build	Build With Improvements	No Build	Build With Improvements
RED SCHOOLHOUSE RD/ GSP SB EXIT RAMP	C [25.1]	B [11.9]	B [14.6]	A [8.8]	B [15.4]	A [7.7]
RED SCHOOLHOUSE RD/ GSP NORTHBOUND ENTRANCE RAMP	90.4%*	77.3%*	109.9%*	80.7%*	61.6%*	46.6%*
RED SCHOOLHOUSE RD/ SEPHAR LANE	C [19.2]	A [7.0]**	C [24.8]	B [11.6]**	B [13.3]	A***
RED SCHOOLHOUSE RD/ EQUESTRIAN ESTATES/ TRIANGLE PROPERTY MAIN ACCESS****	---	C [33.5]	---	B [16.2]	---	B [12.3]
RED SCHOOLHOUSE RD/ LOESCHER LN (FUTURE HORSE FARM DEV.)****	C [19.2]	E [35.6]	C [24.8]	F [61.6]	B [13.2]	C [18.5]
* Level of service delay was not determined in the Corridor Study. Intersection Capacity Utilization from the Corridor Study provides an indication that the intersection operation ability to handle traffic will improve as a result of the improvements.						
**Build Condition with improvements weekdays based on signal control as analyzed by Chazen for improvements not contained in the Red School House Road Corridor Study.						
*** Projected not analyzed. As a commercial business little or no traffic on Sephar Lane expected Saturday.						
****Build Condition volumes revised for Triangle Properties and Equestrian Estates. Intersection design from Corridor Study subject to change.						

1. Red Schoolhouse Road & GSP Southbound Off-Ramp  
Capacity analysis was conducted using the 2025 Build Traffic volumes. These results indicate that the intersection is expected to continue to operate at overall Levels of Service "B" or better during the AM, PM, and Saturday Peak Hours. It should be noted that the delays on the GSP Southbound exit ramp will be significantly impacted by additional traffic from the area projects during the AM Peak Hour under future conditions without modifications to the intersection. Upon implementation of the recommended improvements, the AM and PM peak hours will operate at Level of Service "B" or better.
2. Red Schoolhouse Road & GSP Northbound On-Ramp  
Delay and Level of Service computations are not defined for uncontrolled intersections and were not computed for this location. However, it should be noted that the delays currently experienced for the southbound left turn movement onto the GSP Ramp could be expected to continue under future conditions if no intersection modifications are made. Queuing at this intersection for the southbound approach is expected to be significantly impacted as a result of the additional traffic generated by the area developments, especially during the PM Peak Hour. Similar to Existing and No-Build conditions, the lack of a southbound left turn lane and the high northbound volume results in these significant queues at this location. Proposed area improvements at this location include both a southbound left turn lane and right turn northbound access ramp to the GSP. With these improvements the intersection have acceptable operating conditions.
3. Red Schoolhouse Road & Sephar Lane  
Capacity analysis was conducted using the 2025 Build Traffic volumes. These results indicate that the Red Schoolhouse Road approaches are expected to experience Level of Service "B" or better during each of the peak hours. The Sephar Lane approach is expected to experience significant increases in delay due to the additional traffic generated by the Corporate Commerce Park development, which will utilize Sephar Lane as its access. Under future conditions without modifications to the intersection, a Level of Service "F" could be expected during the AM & PM Peak Hour while a Level of Service "C" is expected to be experienced at during the Saturday Peak Hour. Installation of area improvements including a traffic signal and a dedicated southbound and westbound left turn lane. These measures will alleviate poor operating conditions. A Level of Service "A" in the AM peak hour and Level of Service "B" in the evening Peak hour can be expected upon implementation of the recommended improvements. Saturday operation would also be expected to be level of service "A".
4. Red Schoolhouse Road & Equestrian Estates/Triangle Drive  
The Site access driveways associated with the Equestrian Estates and Triangle Properties developments are proposed to intersect Red Schoolhouse Road at a signalized, full-movement intersection. Under these conditions, it has been assumed as part of the access related improvements that the northbound Red Schoolhouse Road approach will be widened to consist of a separate left turn lane and a shared through/right turn lane while the southbound approach will be widened to consist of a separate left turn lane, through lane and a separate right turn lane. The Equestrian Estates Access and Triangle drive approaches are each anticipated to consist of one shared left/through lane and a separate right turn lane. Capacity analysis was conducted for this intersection utilizing the 2025 Build Traffic Volumes. The analysis

results indicate that signalization will also likely be needed to accommodate turning traffic movements. Upon implementation of these improvements, Level of Service "C" or better can be expected during all peak hours.

5. Red Schoolhouse Road & Loescher Lane (Future Horse Farm Property Drive)

Capacity analysis was conducted using the 2025 Build Traffic volumes. These results indicate that the Red Schoolhouse Road approaches are expected to experience Level of Service "B" or better during each of the peak hours. The Loescher Lane approach is expected to experience significant increases in delay due to the additional traffic generated by the Future Horse Farm Development, which is anticipated to utilize Loescher Lane for access to the development. A Level of Service "E" is anticipated to be experienced during the AM Peak Hour, while Levels of Service "F" and "C" are expected to be experienced during the PM and Saturday Peak Hours, respectively. Queues at this intersection under the future Build conditions are expected increase to somewhat above No-Build condition queues due to the traffic generated by the Future Horse Farm Development. This increase in queues will mostly occur on the Loescher Lane/Site Access approach to Red Schoolhouse Road.

This intersection will require a dedicated SB left turn lane to alleviate delays to southbound through traffic. There are several options to provide acceptable operating conditions to exiting vehicles. Additional study will be necessary when this parcel submits an application for development to identify the most effective mitigation.

### 3.7.5 Transit and Paratransit Service

#### *Existing Condition*

Transit service is provided by the Transport of Rockland Transit System, a county wide system of buses that includes 10 Routes and has daily ridership of more than 10,000 rides. Service is provided along Red Schoolhouse Road via the TOR Route 92 that provides hourly weekday and weekend service between Spring Valley and Nanuet.

The Rockland County T.R.I.P.S. service is also available. T.R.I.P.S. is Rockland County's paratransit bus service for residents with physical, mental, developmental or intellectual disabilities or senior citizens who are aged 60 or over. In each of these cases, TRIPS service is reserved for individuals who are unable to use municipal, fixed-route bus service. T.R.I.P.S provides curbside-to-curbside service by appointment. TRIPS passengers may or may not go directly to their destinations and there may be several pick-ups and drop-offs along the way. T.R.I.P.S operates only within Rockland County. T.R.I.P.S stands for *Transportation Resources, Intra-county, for Physically disabled and Senior citizens*.

*Potential impacts*

Transit ridership is driven by destination. The population projected to live at Equestrian Estates has the potential to result in transit demand that would support increased service to this area. Conservatively ten percent of the population could be expected to utilize public transportation, thus ridership could be 65 persons daily.

*Mitigation*

Adequate capacity is available on the Rockland County TOR system to accommodate the additional ridership potential at Equestrian Estates. No mitigation is proposed.

# Proposed Developments Red Schoolhouse Road at GSP Extension Interchange

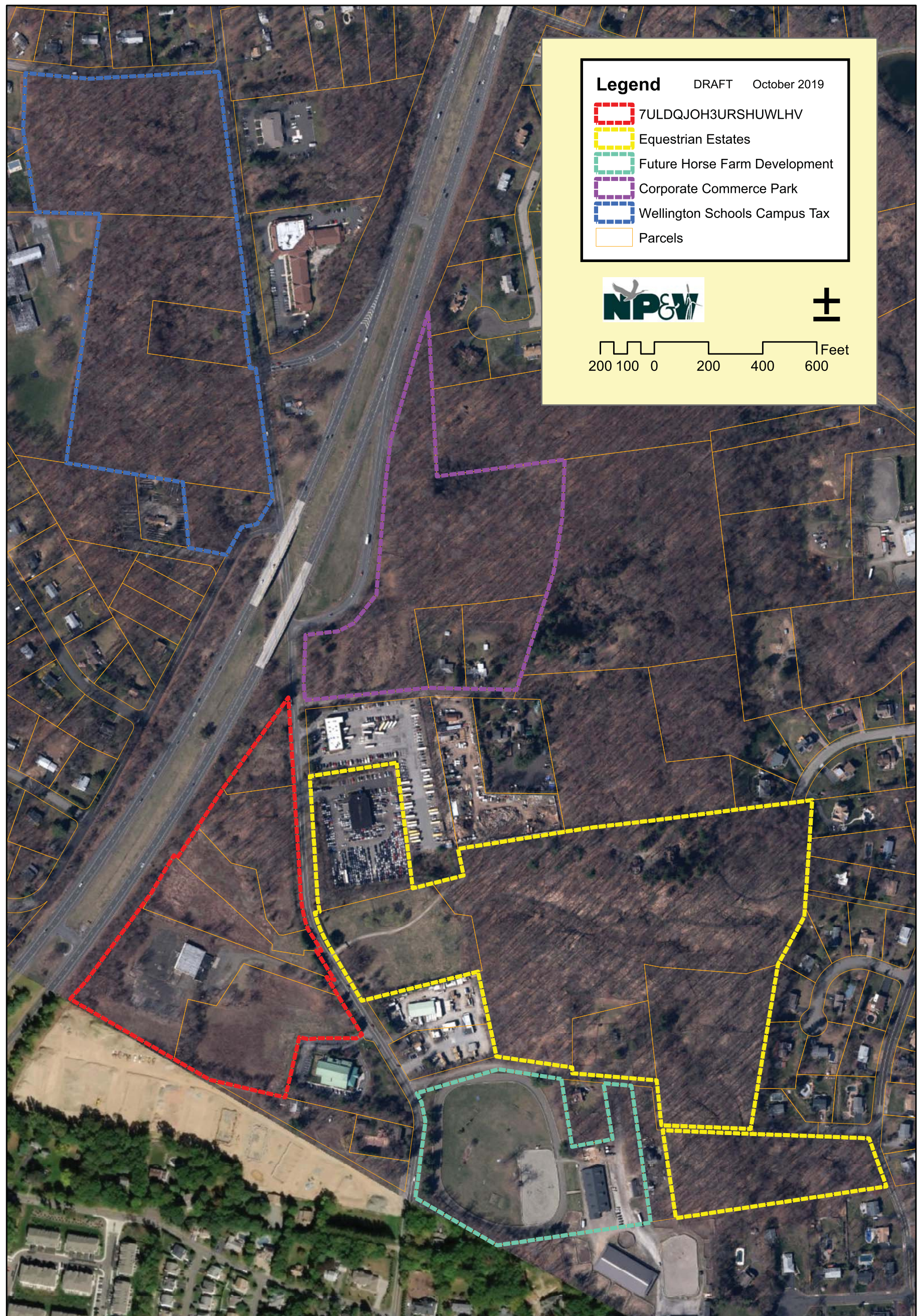
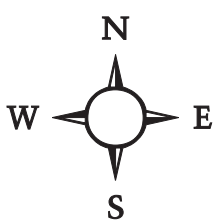


Figure 3.7-1: Area Development Projects Map  
Equestrian Estates  
Village of Chestnut Ridge, Rockland County, New York  
Source: GIS User Community

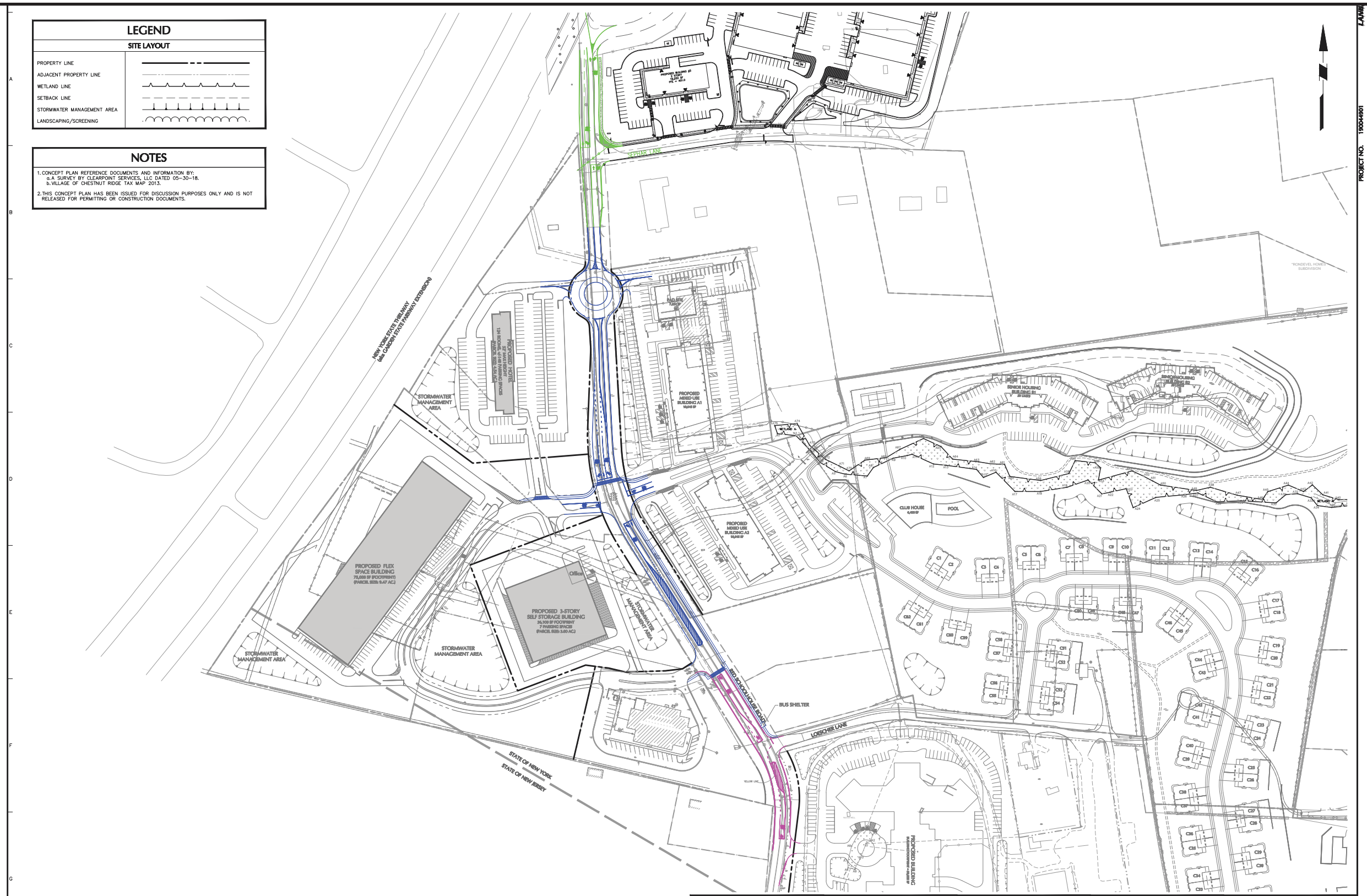


LEGEND	
SITE LAYOUT	
PROPERTY LINE	—————
ADJACENT PROPERTY LINE	—————
WETLAND LINE	~~~~~
SETBACK LINE	-----
STORMWATER MANAGEMENT AREA	~~~~~
LANDSCAPING/SCREENING	~~~~~

**NOTES**

1. CONCEPT PLAN REFERENCE DOCUMENTS AND INFORMATION BY:  
 a. A SURVEY BY CLEARPOINT SERVICES, LLC DATED 05-30-18.  
 b. VILLAGE OF CHESTNUT RIDGE TAX MAP 2013.

2. THIS CONCEPT PLAN HAS BEEN ISSUED FOR DISCUSSION PURPOSES ONLY AND IS NOT RELEASED FOR PERMITTING OR CONSTRUCTION DOCUMENTS.



PROJECT NO. 190044801

03/10/21	REVISED PER MEETING COMMENTS	2.
03/02/21	REVISED TO "SPIN" OFFSHORE LANE DEVELOPMENT IMPROVEMENTS	1.

<b>LANGAN</b> Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 707 Westchester Avenue, Suite 304 Westchester, NY 10804	Project	Drawing Title		Project No.	Drawing No.
	EQUESTRIAN ESTATES RED SCHOOLHOUSE ROAD	TRAFFIC IMPROVEMENT		190044801	CP01
			Date	Drawn By	
				FEBRUARY 2, 2021	

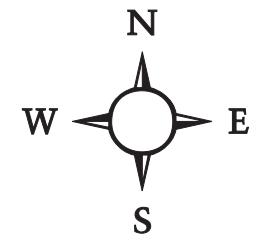


Figure 3.7-2: RSHR Traffic Improvements Concept Plan GSP Ramp & South Equestrian Estates  
 Village of Chestnut Ridge, Rockland County, New York  
 Source: Langan