

Executive Summary – Underhill Farm

April 26, 2022 Project No. 20006297A

Background

A detailed Traffic Impact Study has been prepared evaluating existing (see Figure No. 3 for existing PM peak traffic volumes) and future traffic conditions in the vicinity of the proposed Underhill Farm Project. The traffic analysis accounts for the traffic from other previously approved developments in the area as well as anticipated traffic to be generated by the proposed Underhill Farm development (see Table No. 1 and Figure No. 13 for project related traffic volumes). As noted in the study, certain improvements are proposed in association with the development. The study also identifies the types of improvements required to address future conditions if and when other potential developments occur in the area. These include the Kmart Redevelopment, the Roma Building Redevelopment, and the re-occupancy of the Uncle Giuseppe's space as well as additional area growth. The timing of these potential projects is unknown at this time; however, based on previous proposals, traffic associated with these developments was accounted for as part of the future traffic conditions evaluation contained in Section III.G of the study.

Project Related Improvements

As summarized in the Traffic Impact Study, the improvements, which will be completed by the Underhill Farm Applicant in order to mitigate any potential traffic impacts associated with the Project (several of these are depicted on Drawings 1, 2, and 3 from Appendix F of the report), include the following:

- Sight distance improvements at the Rochambeau Court intersection with Underhill Avenue and related drainage improvements all to be coordinated with the Town Highway Superintendent.
- Sight distance improvements at the intersection of Glenrock Street with Underhill Avenue.
- Construction of a full traffic and pedestrian access connection through Beaver Ridge, which in turn connects to Allen Avenue. This connection includes the appropriate signing, striping, intersection controls, and traffic calming measures to accommodate such movements.
- Pedestrian improvements on Underhill Avenue including a crossing from the site access to the existing sidewalk on the south side of Underhill Avenue. This will include the installation of a Rectangular Rapid Flashing Beacon Assembly (RRFB), a painted crosswalk, and installation of ADA compliant ramps.
- Signing and striping improvements for improved traffic control on Underhill Avenue.



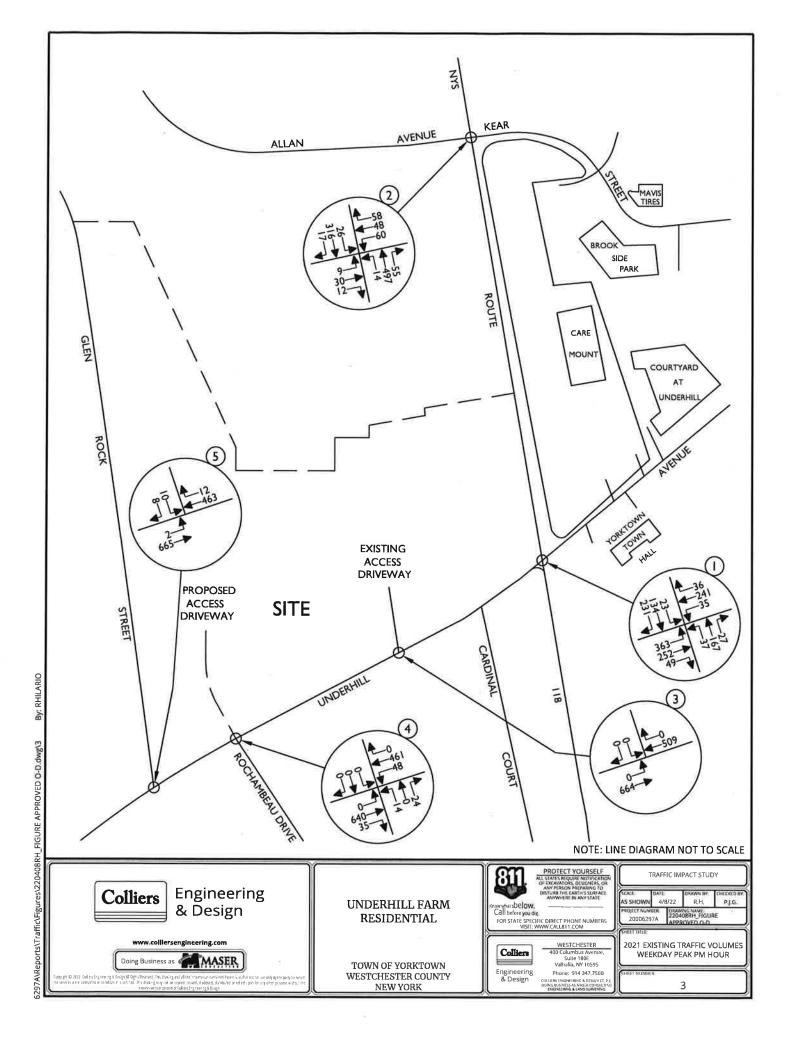
- Coordination with the Town Highway and Police Departments regarding the addition of signing and related speed control or traffic calming measures to help reduce travel speeds along Underhill Avenue approaching this area.
- Traffic signal timing and equipment upgrades including new video camera detection at the
 NYS Route 118 and Underhill Avenue intersection to improve efficiency for processing traffic
 during peak periods. This would help accommodate the existing left turns and other
 movements during peak time periods; especially during the PM peak when long backups
 presently occur on the Underhill Avenue eastbound approach.
- Land dedication by the Applicant along Underhill Avenue to accommodate future widening improvements at the NYS Route 118 intersection.

In addition to those improvements that are proposed to be completed as part of the Underhill Farm Project as listed above, which have an estimated cost of approximately \$150,000.00, the Applicant has also committed to providing funding up to \$450,000.00 towards the design and future reconstruction of the NYS Route 118 and Underhill Avenue intersection to address other area development traffic, as described in the next section.

<u>Future Improvements to Accommodate Other Potential Developments</u>

The attached excerpts from Appendix G of the Traffic Impact Study depict the improvements to provide dedicated turn lanes on the Underhill Avenue approaches and corresponding traffic signal upgrades and related pedestrian improvements and controls (Sheet 1). This plan also includes a formal dedicated right turn lane on the NYS Route 118 southbound approach, which would also be signal controlled. Sheet 2 of 2 depicts other further intersection improvements, which could be completed concurrently or at a later date. This plan depicts widening along NYS Route 118 to provide separate left turn lanes on the NYS Route 118 approaches.

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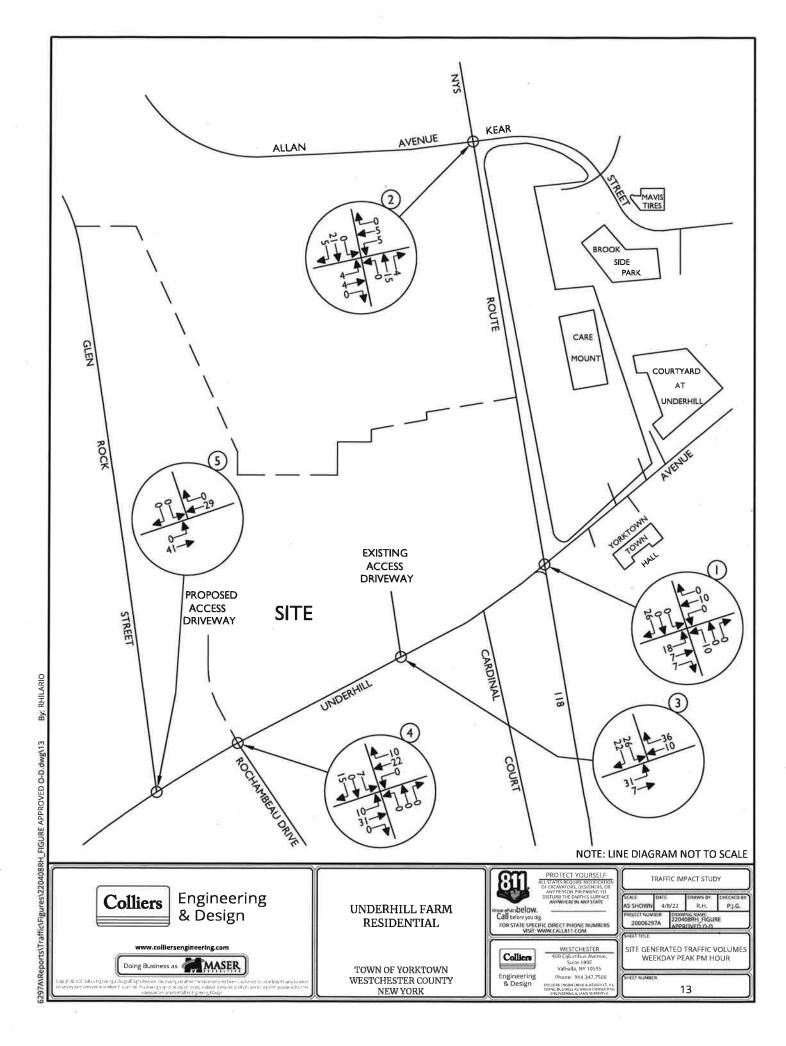




Table No. 1-FB Hourly Trip Generation Rates (HTGR) and Anticipated Site Generated Traffic Volumes

Underhill Farm Yorktown, NY	Entry			Exit		
	HTGR ¹	Volume	New Trips ²	HTGR ¹	Volume	New Trips ²
Apartments/Condiminums/Townhouses (148 Units)						
Peak AM Hour	0.13	19	19	0.41	61	61
Peak PM Hour	0.41	60	60	0.25	37	37
Commercial - Office (5,500 Sq. Ft.)						
Peak AM Hour	1.57	9	9	1.04	6	6
Peak PM Hour	0.73	4	4	1.43	8	8
Commercial - Retail (5,500 Sq. Ft.)						
Peak AM Hour	1.41	12	7	2.36	8	5
Peak PM Hour	4.63	25	15	4.63	25	15
Inn (8 Rooms)						
Peak AM Hour	0.23	2	2	0.23	2	2
Peak PM Hour	0.33	3	3	0.27	3	3
Quality Restaurant (5,000 Sq. Ft.)						
Peak AM Hour	0.44	2	2	0.30	2	2
Peak PM Hour	5.23	26	20	2.57	13	10
Total						
Peak AM Hour		44	39		79	76
Peak PM Hour		121	102		87	73

NOTES:

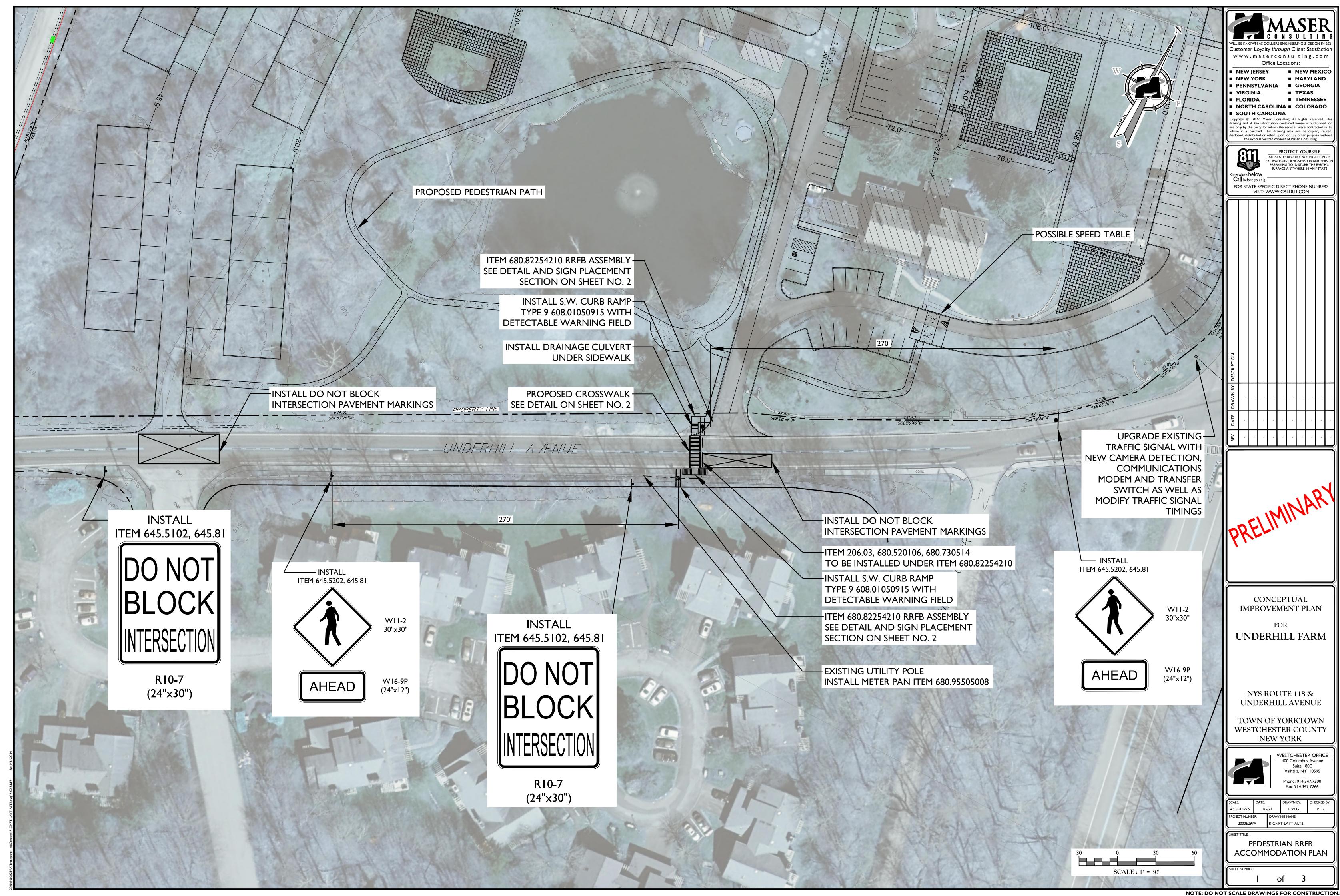
¹⁾ THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 11TH EDITION, 2021. ITE LAND USE CODE - 220 - MULTIFAMILY HOUSING (MID-RISE), ITE LAND USE CODE - 931 - QUALITY RESTAURANT, ITE LAND USE CODE - 712 - SMALL OFFICE, ITE LAND USE CODE - 822 - RETAIL AND ITE LAND USE CODE - 310 - HOTEL.

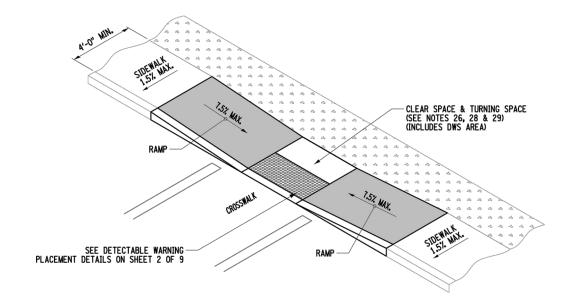
^{2) &}quot;NEW TRIPS" INCLUDE A 40% PASS-BY/DIVERTED LINK TRIP CREDIT FOR THE RETAIL AND 25% FOR THE RESTAURANT AS WELL AS FOR THE RESTAURANT USE.



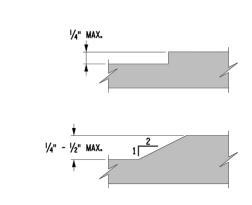
Traffic Impact Study

Appendix F | Proposed Traffic and Pedestrian Improvement Plans

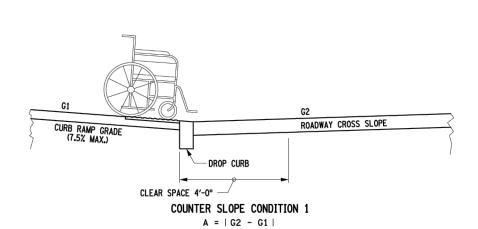




CURB RAMP CONFIGURATION: TYPE 9 MID BLOCK CROSSING OR T - INTERSECTION NOT TO SCALE



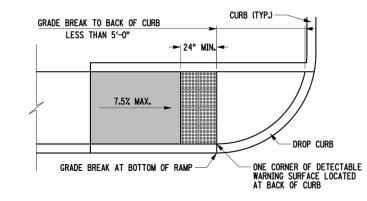
VERTICAL SURFACE DISCONTINUITIES NOT TO SCALE



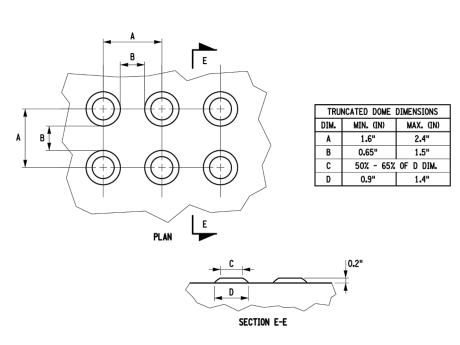
ALGEBRAIC DIFFERENCE BETWEEN ROADWAY CROSS SLOPE AND CURB RAMP GRADE IS LESS THAN 12.5%.

24" MIN. TRANSITION STRIP (MAX. GRADE 4.5%) CLEAR SPACE 4'-0" COUNTER SLOPE CONDITION 2 A = | G2 - G1 |

COUNTER SLOPE CONDITIONS NOT TO SCALE



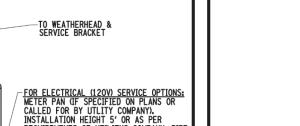
DETECTABLE WARNING FIELD PLACEMENT OPTION 2 NOT TO SCALE



DETECTABLE WARNING DOME DETAIL

NOT TO SCALE





X=4 FOR A FORWARD AND REARWARD FACING (BACK-TO-BACK) ASSEMBLY CONSISTING OF 4 AMBER LED BEACON SIGNAL INDICATIONS (TWO FORWARD FACING AND TWO REARWARD FACING) WITH 2-W11-2 OR S1-1 OR W11-15 CROSSING SIGNS AND 2-W16-7P SUPPLEMENTAL SIGNS (ONE SET OF EACH FACING FORWARD AND REARWARD),

Y IS METHOD OF PROVIDING ELECTRICAL SERVICE WHERE:

1. NOTIFY DIG SAFELY - NEW YORK AT (800) 962-7962 PRIOR TO ANY EXCAVATION.

WIDTH OF SOLAR PANEL AND LED SIGNAL INDICATION ASSEMBLY SHALL NOT EXCEED THE WIDTH OF SIGN PANEL.

WHEN MULTIPLE UNITS ARE USED AT A LOCATION CONTRACTOR SHALL USE DIFFERENT RADIO FREQUENCIES TO AVOID COMMUNICATION ISSUES.

SEE CONTRACT DOCUMENTS FOR THE TYPES(S) AND LOCATION(S) OF PROPOSED RRFB ASSEMBLIES. IN THE ITEM NUMBER:

X INDICATES IF IT IS A FORWARD FACING ASSEMBLY ONLY OR FORWARD AND REARWARD FACING (BACK-TO-BACK) ASSEMBLY WHERE:

X=2 A FORWARD FACING ASSEMBLY CONSISTING OF 2 AMBER LED BEACON INDICATIONS WITH 1-W11-2 OR S1-1 OR W11-15 CROSSING SIGN AND 1-W16-7P SUPPLEMENTAL SIGN.

Y=1 FOR OVERHEAD ELECTRICAL SERVICE Y=2 FOR UNDERGROUND ELECTRICAL SERVICE.

SEE DETAILS ON SHEET FOR ADDITIONAL REQUIREMENTS.

5. CROSSING SIGNS AND SUPPLEMENTAL PLAQUES SHALL UTILIZE FLUORESCENT YELLOW-GREEN TYPE IX SHEETING, SIGN AND PLAQUE SIZES SHALL CONFORM TO HE MUTCD. ALL SIGNS AND PLAQUES SHALL CONFORM TO THE MATERIAL REQUIREMENTS IN SECTION 645 OF THE STANDARD SPECIFICATIONS. WHEN USED IN PAIRS/SET (SUCH AS ON BOTH TERMINUS POINT OF A CROSSWALK) ACTIVATION OF ONE SHALL ACTIVATE THE OTHER(S) IN THE SET/SYSTEM.

POLE PENETRATING MOUNTING DEVICES (RELATING TO LIGHTS, SIGNS, CABINETS, CONDUITS, CLAMPS, BUTTONS, ETC.) SHALL NOT SIGNIFICANTLY DEGRADE THE INTEGRITY OF THE SIGNAL POLE.

8. THE POLE-MOUNTED RADIO NETWORK CONTROLLER CABINET SHALL NOT INTRUDE INTO THE SIDEWALK AREA OR OBSTRUCT THE PEDESTRIAN PUSHBUTTON. THE CABINET SHALL BE MOUNTED ON THE SIDE OF THE POLE AWAY FROM APPROACHING TRAFFIC AT A HEIGHT BETWEEN 3.5-4.5 FROM THE BOTTOM OF THE CABINET TO THE FINISHED GROUND SURFACE. IN UNPAYED AREAS A CONCRETE WORK PAD SHALL BE CONSTRUCTED IN FRONT OF THE CABINET DOOR (AOBE) NOT TO EXCEED 5'X5'X4" DEEP AND SHALL ABUT AND BE FLUSH WITH THE POLE FOUNDATION. THE CABINET SHALL BE OF SUFFICIENT SIZE TO HOUSE ALL REQUIRED EQUIPMENT.

9. ELECTRICAL SERVICE MAY ALSO BE PROVIDED UNDERGROUND AND ENTER THROUGH THE BASE AS SPECIFIED ON THE PLANS, WHERE ELECTRICAL SERVICE IS PROVIDED OVERHEAD, THE POLE HEIGHT SHALL BE AS NECESSARY TO ACHIEVE MINIMUM SERVICE CABLE CLEARANCES AND/OR AVOID CONFLICTS. SEE DETAILS ON SHEET 1 & 2 FOR ADDITIONAL REQUIRMENTS.

SEE NOTES 3.6 & 3.7 ON STANDARD SHEET 680-04 FOR ADDITIONAL GROUNDING REQUIREMENTS.

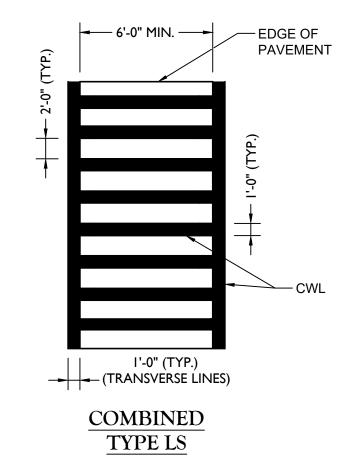
11. THIS ASSEMBLY SHALL INCLUDE A GALVINIZED STEEL POLE WITH AN APPROVED BREAKAWAY TRANSFORMER BASE AND CONCRETE FOUNDATION MEETING ALL THE MATERIAL REQUIREMENTS OF STANDARD SPECIFICATION SECTION 680-2 AND BE SUITABLE TO HANDLE THE STATIC & DYNAMIC LOADING OF THE ASSEMBLY AS PER MANUFACTURER REQUIREMENTS. FOR FOUNDATION REINFORCEMENT, SEE STANDARD SHEET FOR TRAFFIC SIGNAL POLE FOUNDATIONS, CODE J-2.

ALL DIMENSIONS ARE IN ft UNLESS OTHERWISE NOTED NEW YORK STATE OF OPPORTUNITY.

Department of Transportation ITEM 680.8225XY10- RECTANGULAR RAPID FLASHING BEACON (RRFB) ASSEMBLY

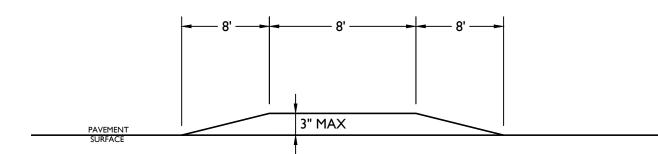
SIDEWALK AND CURB RAMP DETAIL NOTES:

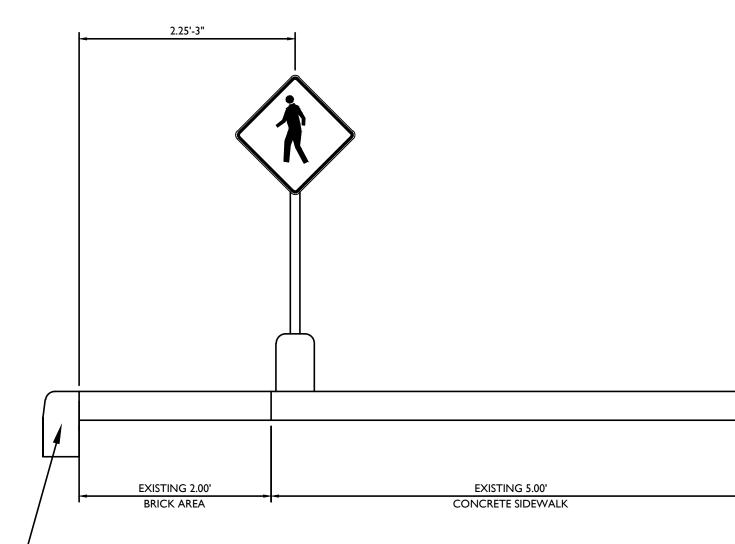
- I. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
- 2. TURNING SPACES SHALL NOT BE DESIGNED WITH CROSS SLOPE GREATER THAN 1.5% IN ANY DIRECTION, WHILE PROVIDING POSITIVE DRAINAGE. THE MAXIMUM CROSS SLOPE FOR WORK ACCEPTANCE IS 2.0%. A NONSTANDARD FEATURE JUSTIFICATION IS REQUIRED WHERE TURNING SPACES EXCEED 2.0% IN ANY DIRECTION.
- BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0" X 4'-0" MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.



STRIPING LEGEND

CWL - SOLID WHITE CROSSWALK LINE 12" (ITEM 685.11)





NOT TO SCALE

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NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

as shown

20006297A

1/5/21

TOWN OF YORKTOWN

WESTCHESTER COUNTY

NEW YORK

Suite 180E

Valhalla, NY 10595

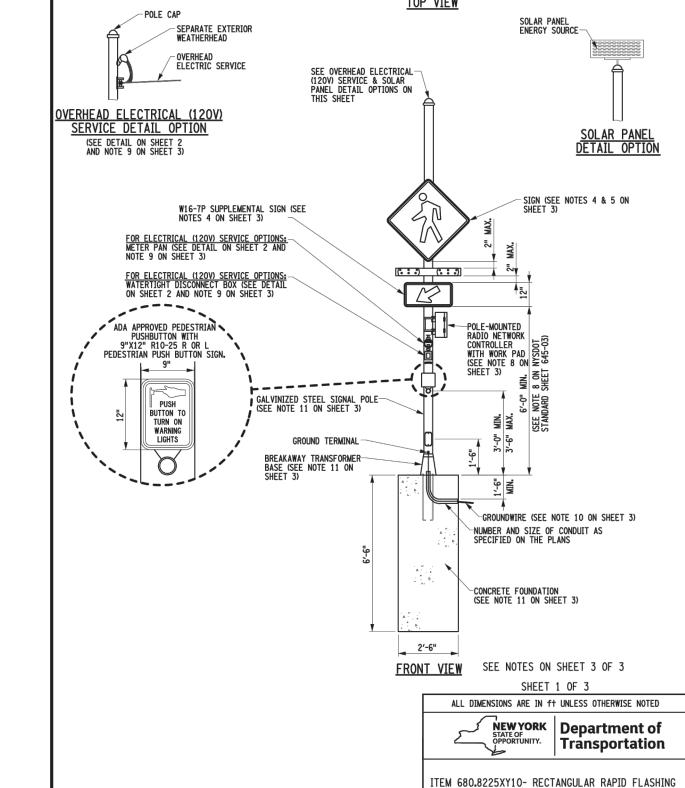
Phone: 914.347.7500

Fax: 914.347.7266

P.W.G.

DETAILS

of



BEACON (RRFB) ASSEMBLY

