Village of Pawling Pedestrian Plan

June 2019

Dutchess County
Transportation Council

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Part I: Overview & Background

Pedestrian infrastructure plays a critical role in building healthy, vibrant communities. When we think of places we like to visit, they are usually those that are easy and enjoyable to walk around. We also know that local businesses do best where there is consistent foot traffic. People are much more likely to stop in a store if they are walking by, instead of driving down the street. The prevalence of walking is a key indicator of community vitality: lots of people walking is a clear sign of a healthy business district.

To support communities in their efforts to become more walkable, the Dutchess County Transportation Council (DCTC), in partnership with the Dutchess County Planning Department, assists local municipalities with pedestrian plans.

As the designated Metropolitan Planning Organization (MPO) for Dutchess County, the DCTC is tasked with carrying out a cooperative and comprehensive multimodal transportation planning process for the County, which includes the development and promotion of accessible walking and bicycling facilities.

The Pawling Pedestrian Plan is the sixth MPO-supported pedestrian plan, after studies in the Village of Rhinebeck (2011), Town of Hyde Park (2013), Town of Pine Plains (2014), Arlington Town Center (2017), and Village of Millerton (2018). The Plan was requested by the Village (see Appendix A for the Village Resolution).

In accordance with the provisions set forth in 23 U.S.C. 134, this project is funded by federal planning funds from the Federal Highway Administration (FHWA), which are programmed and administered by the DCTC. No local funds were used to complete this study.

a. Scope of Work

Representatives from a Village-designated volunteer Task Force worked with the DCTC to develop a scope of work to guide the study. The scope of work identified three main goals:

A welcome sign on East Main St.

- To improve pedestrian access to key destinations, including the downtown, parks, and schools.
- To improve safety for people walking in the village, particularly crossing Main Street and Route 22.
- To enhance the pedestrian experience in the village.

The scope addressed Task Force roles, defined the sidewalk inventory area, listed data to be collected during the inventory, outlined key elements to include in the plan, and suggested a basic schedule, including Task Force meetings and public outreach.

The team decided that the inventory area should include the entire village as well as portions of the town north and south of the village line, to include the Middle/High School; Lakeside, Memorial, and Murrow parks; and the Cedar Valley condominium area. The team also decided that the plan should consider improvements to Main Street between Dutcher Avenue and Coulter Avenue, access to the Middle/High School on Reservoir Road, and the Route 22 intersections at Coulter Avenue/Pine Drive and East Main Street/Quaker Hill Road (see Map 1 - Study Area).

b. Background

The Village of Pawling is in the Town of Pawling, in the southeastern corner of Dutchess County. Land use in the village is primarily single-family residential, but there is a strong commercial district centered around Charles Colman Boulevard, Memorial Avenue, and East and West Main Street. The Metro-North train station, located in the heart of downtown, provides connections to the New York City metro area. With its compact size, access to transit, and successful local business district, the village is well suited for walking.

However, Pawling faces several challenges to walkability. While the Metro-North station could be a catalyst for walkable, transit-oriented development, the rail line currently separates the east and west halves of the village and the station includes a large surface parking lot in the heart of the business district.

Route 22, which runs north-south on the east side of the village, is another barrier, with high vehicle speeds and volumes and only one signalized pedestrian crossing.

Past land use decisions have also added barriers to walkability. The Pietryka site, at the northern end of the business district, includes a large asphalt parking lot that extends to the Village Green and creates a second large dead space in the center of the village. The High School moved out of the village in 1967 to a site across Route 22, followed by the Middle School in 2000, making it difficult for students to walk to school.

Pawling is seeing new development, with mixed-use projects planned and new restaurants and businesses opening in the downtown. This growth adds walkable destinations and allows residents to enjoy the village on foot. Pawling also has an active Chamber of Commerce with regular events such as a Farmers Market and festivals that draw visitors as well as residents.

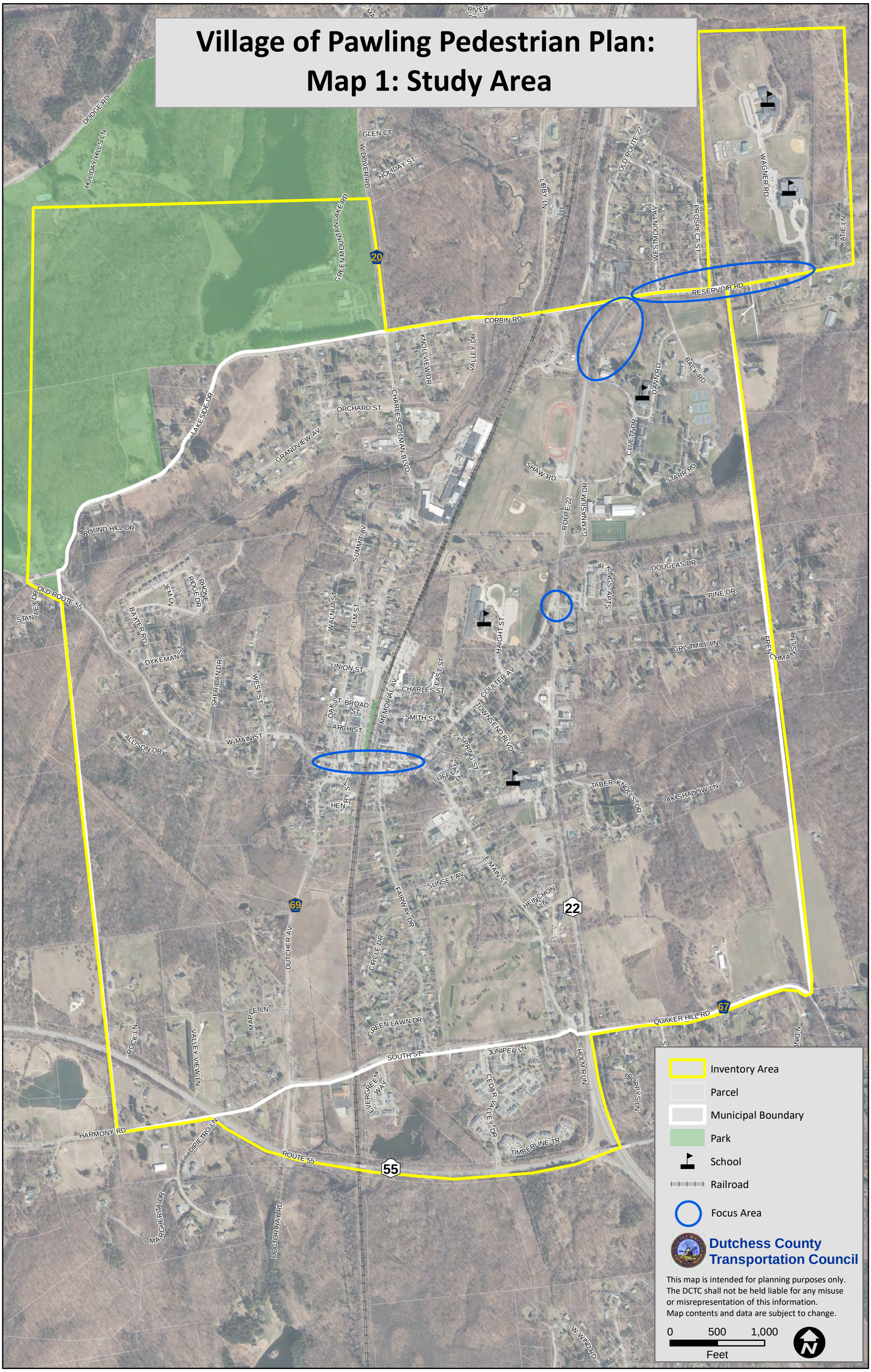
Improving walkability in Pawling will enable the village to take advantage of its desirability and support local businesses, while improving safety for residents and visitors.

c. Demographics

According to the most recent five-year Census estimates, approximately 2,050 people live in the Village of Pawling.[1] Almost 30 percent of the population is either under age 18 (20

[1] 2013-2017 American Community Survey 5-year estimates, accessed via factfinder.census.gov

Village of Pawling Pedestrian Plan: Map 1: Study Area



percent) or 75 and older (9 percent). Residents in these age groups are less likely to drive and more likely to walk for transportation. They are also particularly vulnerable to injury in vehicle crashes—for children, due to their small size, and for older adults, due to their less resilient bodies.

Measuring from the central intersection of Main Street and Charles Colman Boulevard, more than 25 percent of the Village population (about 535 people) lives within a quarter mile, or five-minute walk, of the intersection, while almost a third of the Village population (about 660 people) lives within a half mile, or ten-minute walk, of the intersection. Almost all village residents live within a mile (20-minute walk) of the intersection (see Map 2 – Population Density).

In terms of vehicle ownership, the most recent five-year Census estimates show that 11 percent of households have no vehicle, and more than 45 percent have only one vehicle available.[2]

d. Traffic Volumes

While Pawling is in a rural area, the village includes two State highways. Route 22/55, which runs north-south on the eastern side of the village, is the busiest road in the village, carrying about 7,000 vehicles per day. This rises to more than 18,000 vehicles per day south of the village, where Route 22 splits from Route 55. Route 55, which cuts through the southwest corner of the village and connects to Route 22, carries about 5,500 vehicles per day. East/West Main Street carries close to 5,000 vehicles per day near Charles Colman Boulevard and almost 6,500 vehicles per day east of Coulter Avenue, while Charles Colman Boulevard south of Union Street carries close to 5,000 vehicles per day.

In addition, Dutcher Avenue (County Road 69) and Charles Colman Boulevard north of Union Street carry about 2,300 vehicles per day, West Dover Rd (CR 20) north of the village carries about 2,100 vehicles per day, and Corbin Road carries about 2,000 vehicles per day. Most other streets in the village are low-volume (see Map 3 - Average Daily Traffic Volumes).

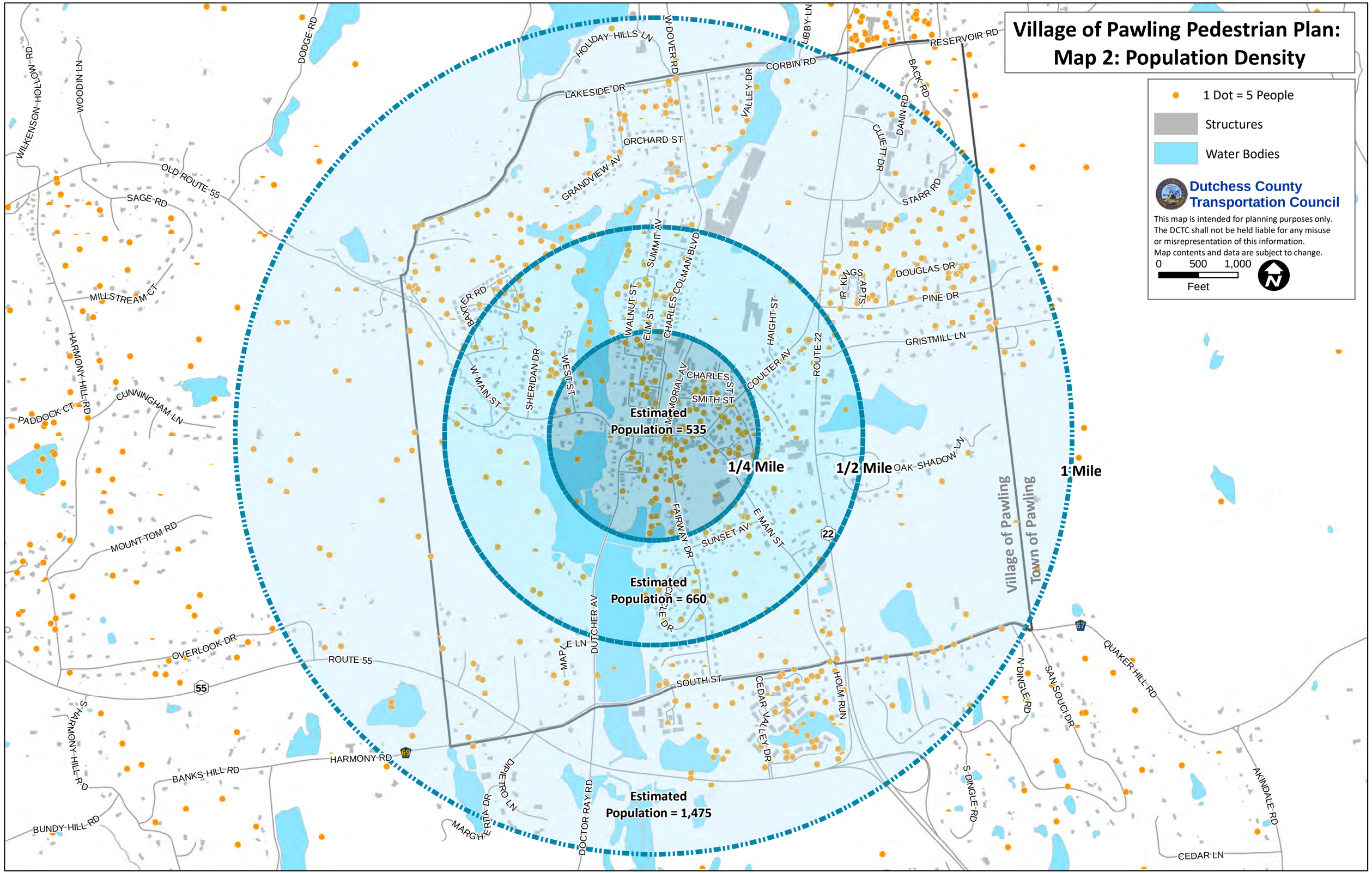
The volume, speed, and difficulty of crossing Route 22 creates a barrier between the eastern portion of the village and its center. This is especially problematic as several key destinations lie east of Route 22, including the Pawling Middle and High schools (just outside the Village border), Trinity Pawling School, and the Kings Apartments and adjacent residential areas.

e. Comprehensive Plan & Village Code

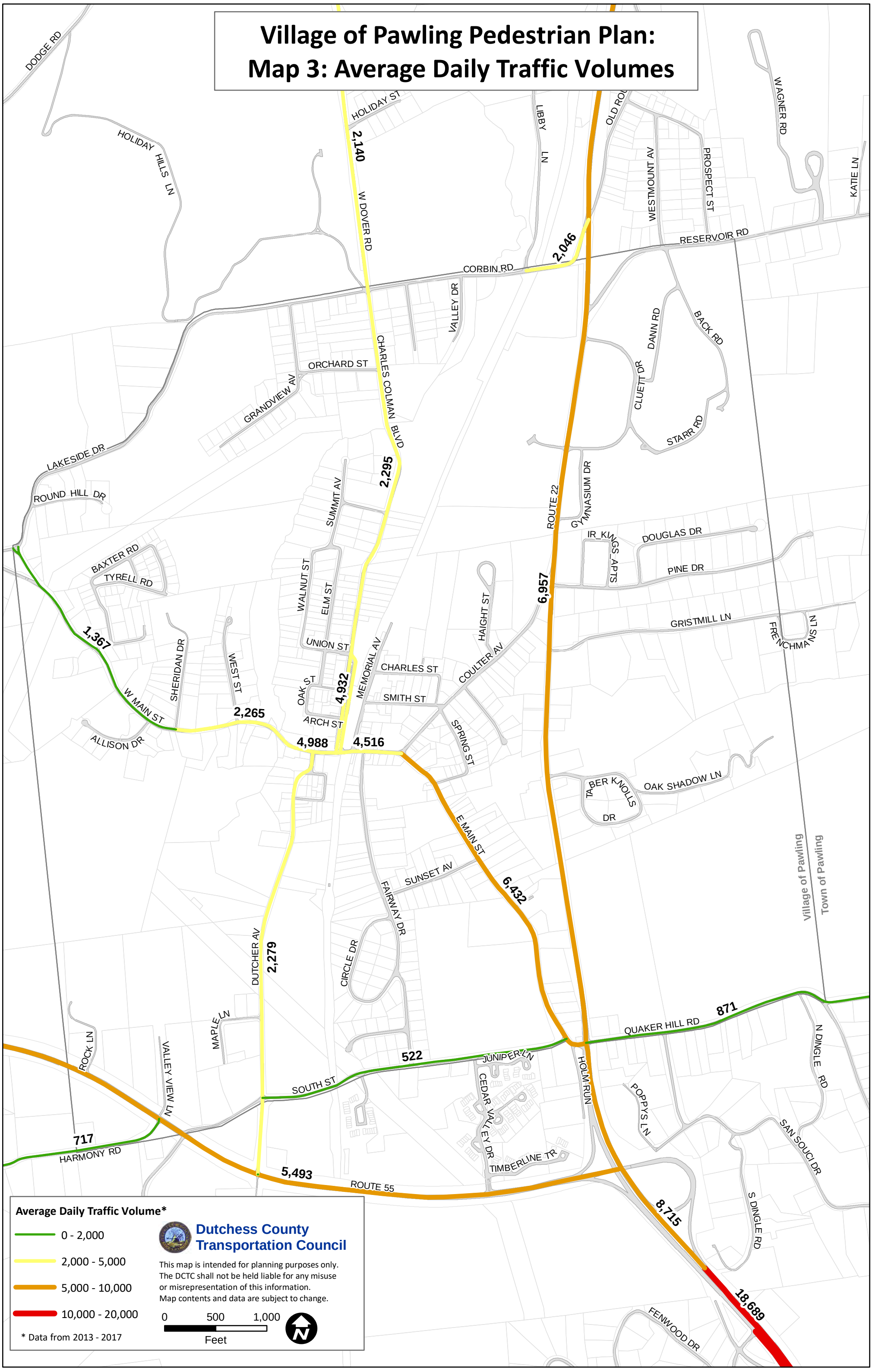
The Village's Comprehensive Plan and the Village Code provide guidance on where and how to improve walking and bicycling conditions in Pawling. Key elements of each are summarized below.

[2] 2013-2017 American Community Survey 5-year estimates, accessed via factfinder.census.gov

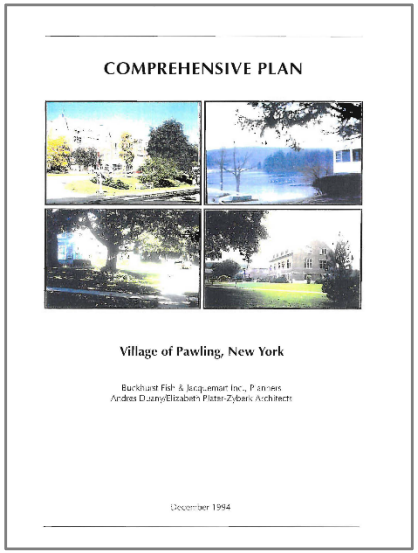
Village of Pawling Pedestrian Plan: Map 2: Population Density



Village of Pawling Pedestrian Plan: Map 3: Average Daily Traffic Volumes



Village of Pawling Comprehensive Plan


COMPREHENSIVE PLAN

Village of Pawling, New York

Buckhurst Fish & Jacquemart Inc., Planners
Andres Duany/Elizabeth Plater-Zyberk Architects

December 1994

The Village adopted a comprehensive plan in 1995, and is currently working on an update. The 1995 plan describes the following issues and goals related to walking and bicycling:

- Environment (p. 20)
- The discussion of open space and parks recommends a linked system of open spaces connected by sidewalks, trails or paths (see p. 23 and Figure 7).

- Transportation (pp. 35-39)
- The confluence of Main Street, Charles Colman Boulevard, Fairway Drive, Memorial Avenue, Dutcher Avenue, and the railroad crossing creates two off-set intersections and circulation and parking problems (p. 35).

- There are 'problem intersections' at West Main Street/Dutcher Avenue/Charles Colman Boulevard and East Main Street/Fairway Drive/Memorial Avenue as well as Route 22/Coulter Avenue/Pine Drive, Route 22/Quaker Hill Road/East Main Street/South Street, and Dutcher Avenue/Route 55 (see Figure 8, p 36).

- The sidewalk and path network is inadequate for good pedestrian circulation (p. 37). The incomplete sidewalk network hinders safe off-street walking (p. 38).

- All new roads should have detached sidewalks, separated from the street by several feet, wide enough for street trees (p. 38).

- Walkability was one of the key issues identified at public workshops. Residents stated they would like a more complete network of sidewalks and paths to make it safer and easier to get around without a car, especially to and from school. Some residents also requested bicycle paths and trails.

Goals (pp. 38-39):

- Add to the Village official map future road connections, new roads on currently undeveloped land, sidewalks, and trails.

- Improve pedestrian circulation.
  - Complete sidewalks within the village center.
  - Build new sidewalks along arterials and collectors outside the village center.
  - Require new residential development to construct sidewalks and open space trails.

- Study where bicycle routes (on- and off-road) could be created.

- Amend road standards to require road, sidewalk, intersection, and curb specifications that are appropriate to the village.
  - Reduce any over-engineering found in the existing road standards.

- Village Center (p. 59)
- Walkability should be enhanced with a redesign and new linkages with nearby residential neighborhoods.

- East Main Street: all buildings should be equally close to the sidewalk and street, creating a uniform street wall and visually enclosing this area (p. 74).

- Route 22 (p. 74)
- Where feasible, sidewalks or paths will be required. A landscaped buffer would be required (p. 76).

- Connect parking lots and reduce the number of curb cuts. Within the connected parking lots, setbacks should be shallower to pull buildings closer to the road, with parking behind the buildings (p 76).

- Gateways (p. 84)
- Entry road uses and design can include additional landscaping, possibly combined with sidewalks and bikeways at some locations. Significant entry points include East Main Street at Route 22, Coulter Avenue at Route 22, Route 55 at the village boundary, Charles Colman Boulevard at the village boundary, Dutcher Avenue at the village boundary, and Route 22 at the northern village boundary.

- Implementation (p. 87)
- Landscape guidelines describe the placement of sidewalks and types of sidewalks or paths (p. 92 and Appendix C).
- The first sidewalks and paths to be constructed should be those leading through residential neighborhoods to the elementary school and parks (p. 93).

- Landscape Guidelines (Appendix C)
- Dutcher Wetland Park: Border the wetlands with a fence and rural path, connecting it with a bridge at the southern end. The path is to link with the sidewalk planned along South Street.

- Great Swamp Park: legal easement access from all nearby residential roads is important, as this will become the pedestrian link between the village core and its western extensions.

- Coulter Entrance Green: a path should connect with Coulter Avenue's eastern sidewalk.

- Street trees: streets that have sidewalks adjacent to the road should be planted.

Village Code

The Village Code (not available online as of this writing) specifies certain procedures that are relevant to improving walking conditions, as listed below. While the Village has reserved a section for streets and sidewalks, no language has been adopted.

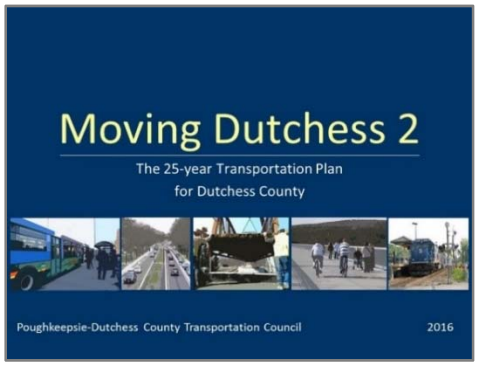
In 2000, the Village adopted Dutchess County's Greenway Compact Program and Greenway Connections and Guides (Local Law 1 of 2000). The Local Law states: "to the extent the Village amends its current, or enacts new land use laws and regulations, such new or amended laws and regulations, where appropriate, will be designed to be consistent with *Greenway Connections*." The Law amends the Zoning Code (§98-6a) and the Subdivision Code (§82-5a). Both sections state that "In its discretionary actions... the reviewing agency shall be guided by [Greenway Connections'] policies, principles, and guides, as appropriate."

- Zoning Code
  - §98-65.F: Application for Site Plan Approval: Applications for site plan approval should include information regarding provision for pedestrian and handicapped access.
  - §98-65.G: Planning Board review of Site Plan: The Planning Board's review shall include adequacy and arrangement of pedestrian traffic access and circulation, walkways, control of intersections, and overall pedestrian safety and convenience.
  - §98-76.D: Retail in the B-2 district; Specific Permit Conditions Applicable to Large Lots: The site must have direct vehicular and pedestrian access to East Main Street... to encourage vehicular, bicycle and pedestrian traffic to enter the site from and exit the site onto East Main Street.
- Vehicles and Traffic
  - §92-15G: Parking prohibited on sidewalks: It shall be unlawful for any person to operate any vehicle or allow any vehicle to be parked, put in place, or let remain on any sidewalk.
  - §92-15H: Crosswalks: No person shall stop, stand or park a vehicle on a crosswalk.
- Subdivision of Land
  - §82-27.G. Streets and blocks; Permanent dead-end streets. The Planning Board may require the reservation of a twenty-foot wide easement to accommodate pedestrian traffic or utilities.
  - §82-30.D. Streets and blocks; Reservations and easements. The Planning Board, where it deems necessary, may require, in order to facilitate pedestrian access from streets to schools, parks, playgrounds, or other nearby streets, perpetual unobstructed easements of at least twenty feet in width.

f. DCTC Planning Guidance

DCTC's long-range Transportation Plan and its Pedestrian Bicycle Plan include walking and bicycling-related recommendation for the Village of Pawling. Each is summarized below.

Moving Dutchess 2



DCTC completed its current long-range metropolitan transportation plan, *Moving Dutchess 2*, in 2016. The plan recommends policies, projects, and studies to address transportation priorities for the next 25 years. Focus areas include improving safety, promoting access, and maintaining infrastructure. The plan also takes a close look at the characteristics and particular needs of the County's various communities.

When *Moving Dutchess 2* was written, the Village of Pawling's pedestrian crash rate was 0.63 crashes per year per 1,000 population, significantly above the county average of 0.29. However, this was based on a small number of crashes and reflects the fact that more people walk in the village than in suburban and rural areas of the county.

The plan identifies the following transportation needs relevant to the Village of Pawling. Items designated in the plan as priorities are starred (*); project recommendation numbers are in parentheses.

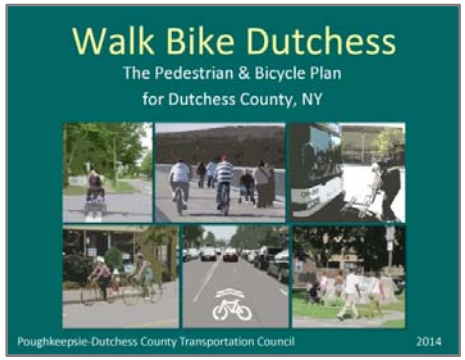
1. Modify the intersection of CR 20 (West Dover Rd.) and Lakeside Park in the Town of Pawling by creating a standard "T" intersection (UF-14).
2. Explore ways to improve safety at key intersections, including Route 22 at Coulter Ave. and at Quaker Hill Rd., and along West and East Main St (UF-100).
3. Provide pedestrian access to the Pawling Middle and High schools: install a sidewalk on Reservoir Rd. between Route 22 and the schools at Wagner Dr.; extend the sidewalk along Wagner Dr. to connect to the existing sidewalks at the schools' entrances; mark a crosswalk across Wagner Dr. at Reservoir Rd. and across driveways on Wagner Dr. as needed; extend the existing sidewalk on the west side of Route 22 (which ends at the north boundary of the cemetery north of Coulter Ave.) to the pedestrian overpass and then to Reservoir Rd. along the east side of Route 22, or create a sidewalk on the east side of Route 22 between Coulter Ave. and Reservoir Rd.; and mark crosswalks at the Route 22/Reservoir Rd. intersection as needed to connect the sidewalks on Route 22 and Reservoir Rd (UF-61).
4. *Designate crossings on Route 22 at East Main St./CR 67 (Quaker Hill Rd.) with marked crosswalks and pedestrian signals.
5. Add a pedestrian/bicycle connection from Route 22 at Quaker Hill Rd. to the Pawling Train Station via Main St (UF-63).
6. Install a sidewalk on Lakeside Dr., connecting the Pawling Village Center with Town parks and ballfields (UF-64).
7. *Widen shoulders on Route 22 in Pawling to provide safe access for bicycling and install appropriate signage to encourage safe sharing of the road.

8. Evaluate the feasibility of constructing a shared-use path (such as an elevated boardwalk) along CR 69 (Dutcher Ave.) between W. Main St. in the Village of Pawling and Route 55 in the Town of Pawling, and construct if feasible (UF-62).
9. Work with MTA/Metro-North to create a rail trail along the Beacon rail line from Hopewell Junction through Beekman and Pawling to Putnam County, connecting the Dutchess Rail Trail to the Putnam County Trailway and the North County Trailway in Westchester (UF-59) [in planning as part of the Empire State Trail].

The plan also recommends evaluating Route 55 as a State Bicycle Route and designating/signing it if feasible (PB-2).

Walk Bike Dutchess

In 2014, DCTC completed a Pedestrian & Bicycle Plan for Dutchess County, titled *Walk Bike Dutchess*. *Walk Bike Dutchess* provides a 20-year vision for improving walking and bicycling conditions in Dutchess County, especially in our cities, villages, and town centers.



The plan notes that Pawling ranks eighth among the thirty Dutchess County municipalities in terms of sidewalk mileage per resident (17 feet of sidewalk per resident, compared to a County average of 7.7).

Walk Bike Dutchess recommends a variety of short, medium, and long-range projects to make walking and bicycling a safer, more convenient part of everyday life in our communities. The recommendations are intended to help municipalities and agencies identify priorities, refine project ideas, and develop future applications for federal, State, and other funding programs.

Recommendations for Pawling include conducting a sidewalk study, as well as several items incorporated in *Moving Dutchess 2:* installing sidewalks to connect to the Middle and High School, marking crosswalks and adding pedestrian signals at Route 22/Quaker Hill Road, evaluating the feasibility of a shared-use path along Dutcher Ave, and widening shoulders on Route 22 and installing appropriate signage to improve bicycle safety.

The plan also sets countywide goals; the most relevant to the Village of Pawling include the following:

- **Incorporate Walking and Bicycling Facilities in Road Improvement and Maintenance Projects:** Encourage County DPW, New York State Department of Transportation (NYSDOT), and local municipalities to continue to incorporate walking and bicycling facilities into road improvement and maintenance projects where feasible.

- **Inventory Local Sidewalks, Crosswalks and Pedestrian Signals:** Local municipalities, in coordination with DCTC and NYSDOT as needed, should inventory and review

conditions at existing sidewalks and crosswalks on their streets. Municipalities that do not have an ADA Transition Plan for their streets and sidewalks should develop one, identifying improvements needed to make all streets accessible per ADA standards and a timeframe for implementing those improvements.

Route 22 Corridor Management Plan (2002)

DCTC and the Harlem Valley Partnership developed the *Route 22 Corridor Management Plan* to guide affected municipalities and NYSDOT in making decisions about future land use, site access, and transportation proposals along Route 22. The following strategies are the most relevant of those proposed for the Village of Pawling:

- **Harlem Valley Transportation Plan**

- **Village/hamlet cross-section guidelines**: These guidelines, intended to cover Route 22 within the village, include on-street parking and sidewalks on both sides of the street (see p. A-18).

- Improve safety at the Route 22/Coulter Avenue/Pine Drive intersection.

- **Design Guidelines**

- **Access Management**: Incorporate access management tools into site plan review and subdivision regulations.
    - Encourage shared driveways, shared parking lots, and internal parking lot connections. Establish parking on the rear or side of buildings.

- **Pedestrian/Bicycle Safety & Mobility**:
    - Provide sidewalks on all streets within priority growth areas (including the Village of Pawling).
        - Require sidewalk construction with new development and redevelopment of existing parcels, incorporate sidewalk construction into roadway improvement projects, and create an annual program of sidewalk construction focusing on a limited amount of land acquisition and construction each year.
    - Add a bicycle connection from Route 22 at CR 67 (Quaker Hill Rd.) to the Pawling Metro-North station, via Main Street.
    - Consider village traffic calming measures including on-street parking, gateway treatments, special pavement treatments, pedestrian signage, modern roundabouts, raised crosswalks, and curb extensions at corners.

Village of Pawling Parking Survey (2003)

This parking study originated from a request from the Village of Pawling to evaluate downtown parking conditions. The study supported preliminary design work on the federally funded Village Green project adjacent to the Metro-North train station. The study determined that there was adequate

parking capacity within the village downtown to support demand. The study recommended that the Village consistently enforce parking laws, provide more information about available parking, and consider developing agreements with private property owners to make parking spaces available to the public. The study also noted that the village would benefit from improved pedestrian infrastructure, which would encourage visitors to walk greater distances.

Part II: Sidewalk Inventory & Data Collection

DCTC staff conducted an inventory and assessment of existing sidewalk conditions to inform recommendations and help establish priorities for improvements. The inventory gathered data on the following items:

DCTC staff inventoried village sidewalks and associated infrastructure in summer 2018.

- Sidewalks (width, material, and condition; buffer width and material; curb material)
- Sidewalk issues (broken pavement, lifted pavement, uneven pavement, obstructions, insufficient clearance, missing/removed sections, or other issues)
- Crosswalks (type; whether a median exists; condition)
- Curb ramps and detectable warning type
- Curb extensions
- Pedestrian crossing signals
- Street trees (type, condition, size)
- Stop signs and pedestrian or bicycle-oriented signs
- Commercial driveways (width; whether sidewalk continues across the driveway or not)
- Street furniture (benches, trash cans, bicycle parking, pedestrian-scale lights, and outdoor seating areas)
- On-street parking (parallel, perpendicular, or other; time restrictions)
- Bicycle shared-use markings
- Railroad crossings
- Streets with no sidewalks

The inventory was completed in July 2018 and included geo-coded photos to show the issues that were identified (see Appendix B for summary tables).

Four elements were of particular importance: overall sidewalk conditions, sidewalk issues, accessibility (including curb ramps, detectable warnings, and crosswalks), and pedestrian experience. These are summarized below.

a. Sidewalk Conditions

Sidewalk Infrastructure	Length (feet)	Length (miles)	Percent
Existing Sidewalk	35,306	6.7	23%
No Sidewalk	117,208	22.2	77%
Total Area Inventoried	152,514	28.9	100%

Table 1. Sidewalk Infrastructure

All public streets within the study area were inventoried. A less detailed inventory was conducted for the sidewalks on West Main Street, since most of them were planned to be replaced. The inventoried streets totaled 28.9 miles. Twenty-three percent of the total street length had an existing sidewalk (6.7 miles), while 77 percent (22.2 miles) had no sidewalk. Several streets had a sidewalk on only one side. Streets without sidewalks were predominantly outside the

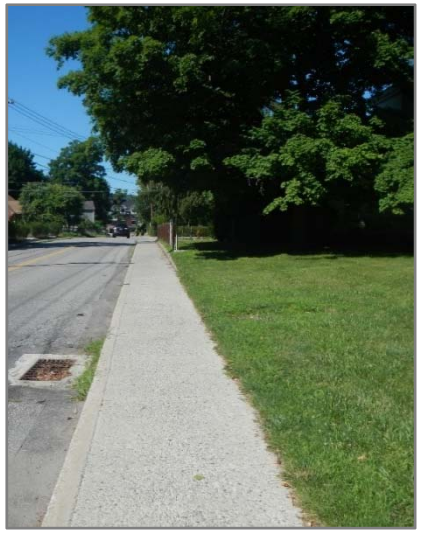
core of the village, but several streets close to downtown lack sidewalks, such as Walnut Street, Henry Street, and Charles Street, as well as portions of Union Street, Elm Street, Arch Street, Dutcher Avenue, Fairway Drive, Memorial Avenue, Coulter Avenue, East Main Street, and a piece of Charles Colman Boulevard (see Map 4 – Existing Sidewalk Conditions).

The inventory used four ratings (Excellent, Good, Fair, and Poor/Unusable) to measure the overall condition of existing sidewalks. The categories were defined as:

1. Excellent: None/very few improvements needed.
2. Good: A mobility-impaired person could safely use the sidewalk, but some improvements are needed.
3. Fair: Difficult for a mobility-impaired person to safely use the sidewalk. Significant improvements are needed.
4. Poor/Unusable: Impassable to a mobility-impaired pedestrian, and difficult for an average pedestrian to use safely. Sidewalk should be replaced.

Sidewalk Condition	Length (feet)	Length (miles)	Percent
Excellent	16,949	3.2	48%
Good	13,594	2.6	39%
Fair	2,107	0.4	6%
Poor	2,656	0.5	8%
Total Existing Sidewalk	35,306	6.7	100%

Table 2. Sidewalk Conditions



This sidewalk on Coulter Ave was rated in excellent condition.

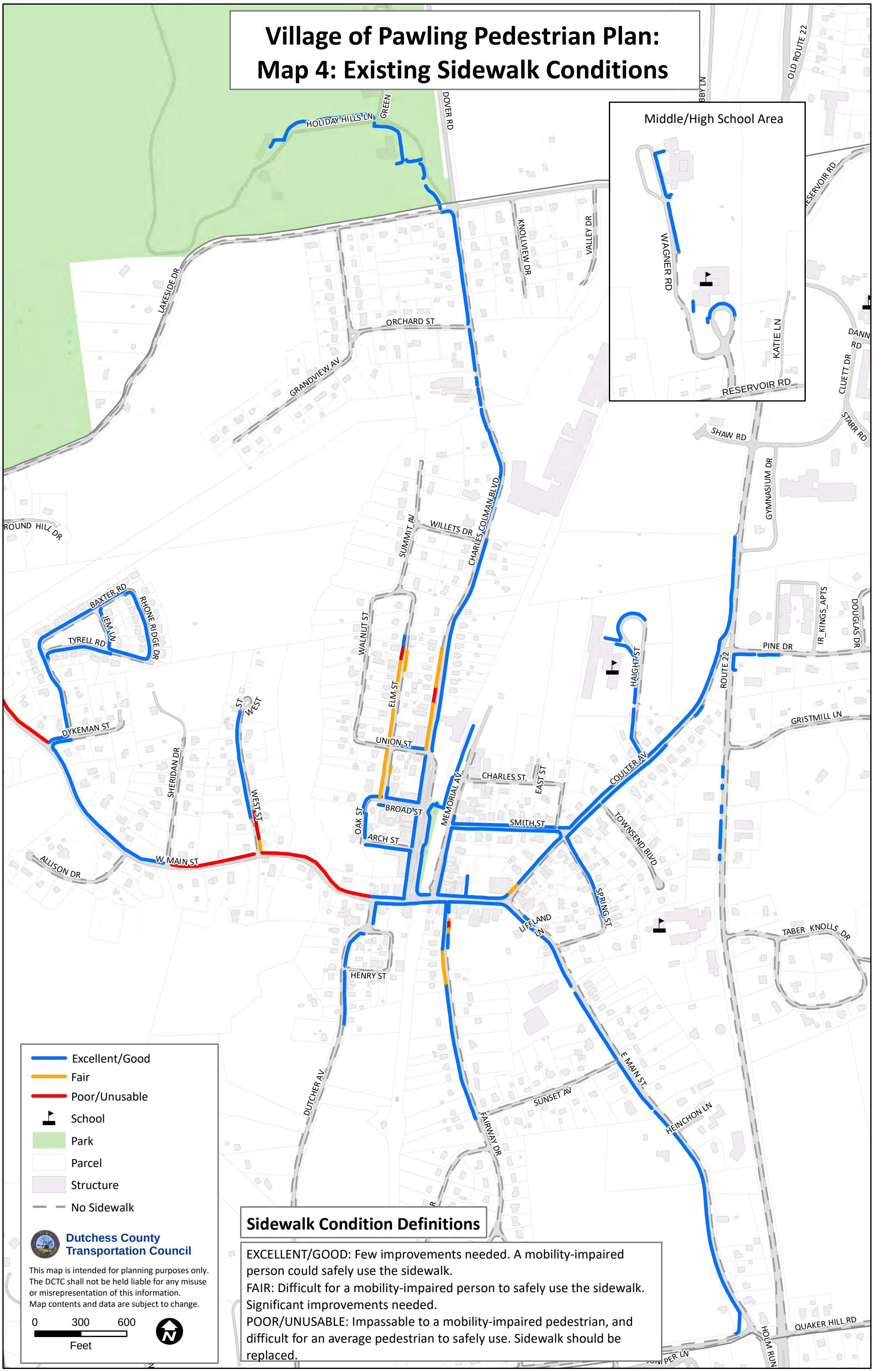
This sidewalk on Charles Colman Blvd was rated in poor condition.

For mapping purposes, we combined the Excellent and Good categories. Of the 6.7 miles of existing sidewalks, 86 percent were rated as either excellent or good, with six percent rated as fair and eight percent rated poor. Fair conditions exist on portions of West Street, Elm Street, Charles Colman Boulevard, Fairway Drive, and Coulter Avenue, while poor conditions are found on portions of West Main Street, West Street, Elm Street, Charles Colman Boulevard, and Fairway Drive.

b. Sidewalk Material, Width, and Buffers

Nearly 90 percent of the sidewalks were concrete; eleven percent were asphalt and two percent were brick. While a few of the asphalt sidewalks were in good condition, almost 90 percent were deemed fair or poor. Several of the asphalt

Village of Pawling Pedestrian Plan: Map 4: Existing Sidewalk Conditions



sidewalks were uneven. It was noted that asphalt was sometimes applied as a 'quick fix' over poor concrete sidewalks.

Overall, sidewalks tended to be narrow—78 percent were narrower than five feet, which is NYSDOT's preferred width.[3] More than 60 percent were 4 to 4.5 feet wide, while 16 percent were narrower than four feet.

Only 23 percent of sidewalks had buffers. Almost all buffers were grass, and half were four feet or narrower. The County Planning Department recommends at least five-foot buffers for pedestrian safety and comfort and to provide room for street trees.

c. Sidewalk Issues

In addition to general conditions, the inventory identified location-specific sidewalk issues. These issues were grouped into the following categories:

1. Cracked/Broken: Cracked pieces in the sidewalk.
2. Lifted: Pieces of sidewalk lift up so that the surface is uneven.
3. Uneven: The sidewalk surface is not flat.
4. Obstruction: Utilities, signs, or other objects are in the sidewalk, limiting access (permanent).
5. Clearance: Insufficient room to walk due to branches, bushes, trash, or other objects (temporary).
6. Removed/Missing: Sidewalk sections have been removed or are missing.
7. Other: Any issue not captured above.

Locating these issues helps to identify specific areas in need of repair. They also identify low cost improvements to enhance access, such as removing tree branches or patching small sidewalk sections. They can capture locations on sidewalks that may be rated good or excellent overall but have isolated sections in need of repair. For example, a segment of Fairway Drive that was rated good condition has several issues including uneven sections, cracks, and cross-slope.

A total of 83 specific issues were identified during the inventory, with cracks and clearance making up 50 percent of the issues. Uneven and removed or missing sidewalk pieces contributed another 20 percent of the issues. (Note: issues

Example of clearance -- vegetation encroaching on the sidewalk (on Main St).

Example of an obstruction (on Smith St).

[3] See the NYSDOT Highway Design Manual, Chapter 18, page 21.

were not collected for the sidewalks on West Main Street, since most were planned to be replaced).

Many of the issues were concentrated on West Street, Elm Street, Charles Colman Boulevard (north of Union Street), and Fairway Drive.

Sidewalk Issues	Number	Percent
Cracked/Broken	25	30%
Clearance (Temporary)	16	19%
Uneven	8	10%
Removed	8	10%
Lifted	6	7%
Obstruction (Permanent)	6	7%
Other*	14	17%
Total Issue Locations (points)	83	100%
*cross slope, gravel, overgrown, patched with asphalt		

Table 3. Sidewalk Issues

The inventory indicated a rate of one issue per 385 feet of sidewalk, which is better than rates found in other areas, including the Village of Millerton (one per 205 feet), Pine Plains Town Center (one per 107 feet), and Village of Rhinebeck (one per 121 feet). Map 5 – Existing Sidewalk Issues shows the location of all the issues identified.

d. Accessibility

Several issues related to accessibility were identified during the inventory, as outlined below:

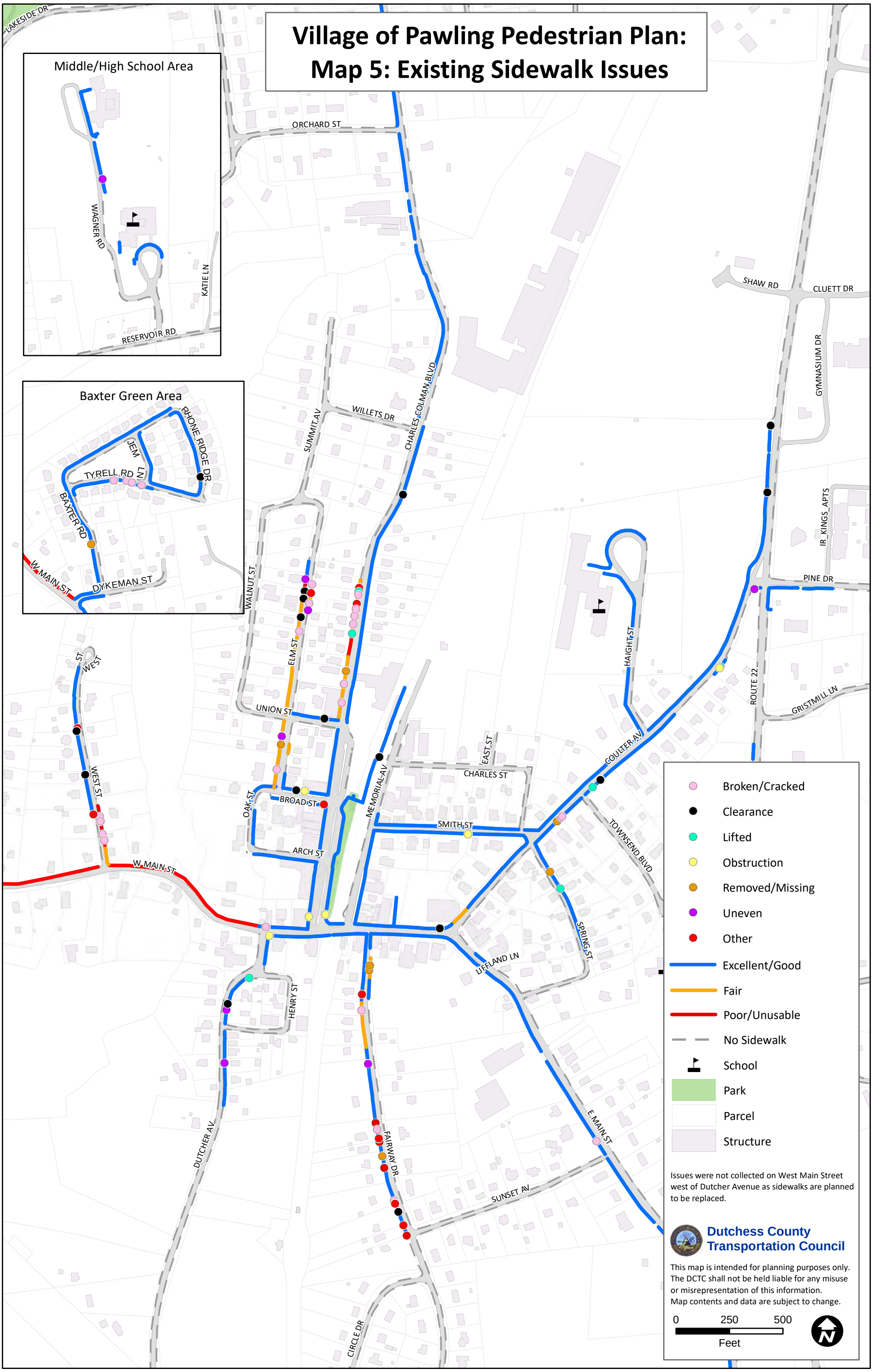
Curb ramps: Thirteen locations were missing ramps, making the sidewalk inaccessible. These were typically at the end of a sidewalk or at a crosswalk. In addition, 31 curb ramps at intersections, major driveways, or crosswalks did not have a detectable warning to alert people that they were entering the roadway. Finally, four ramps were diagonal, directing pedestrians (especially those in wheelchairs) into the center of the intersection rather than into the crosswalk. Best practice is to align each ramp with the corresponding crosswalk or unmarked crossing, and to provide two separate ramps at corners with two crossings. See Map 6 - Existing Curb Ramps for a summary.

This crosswalk (at the Elementary School) is missing ramps on both ends.

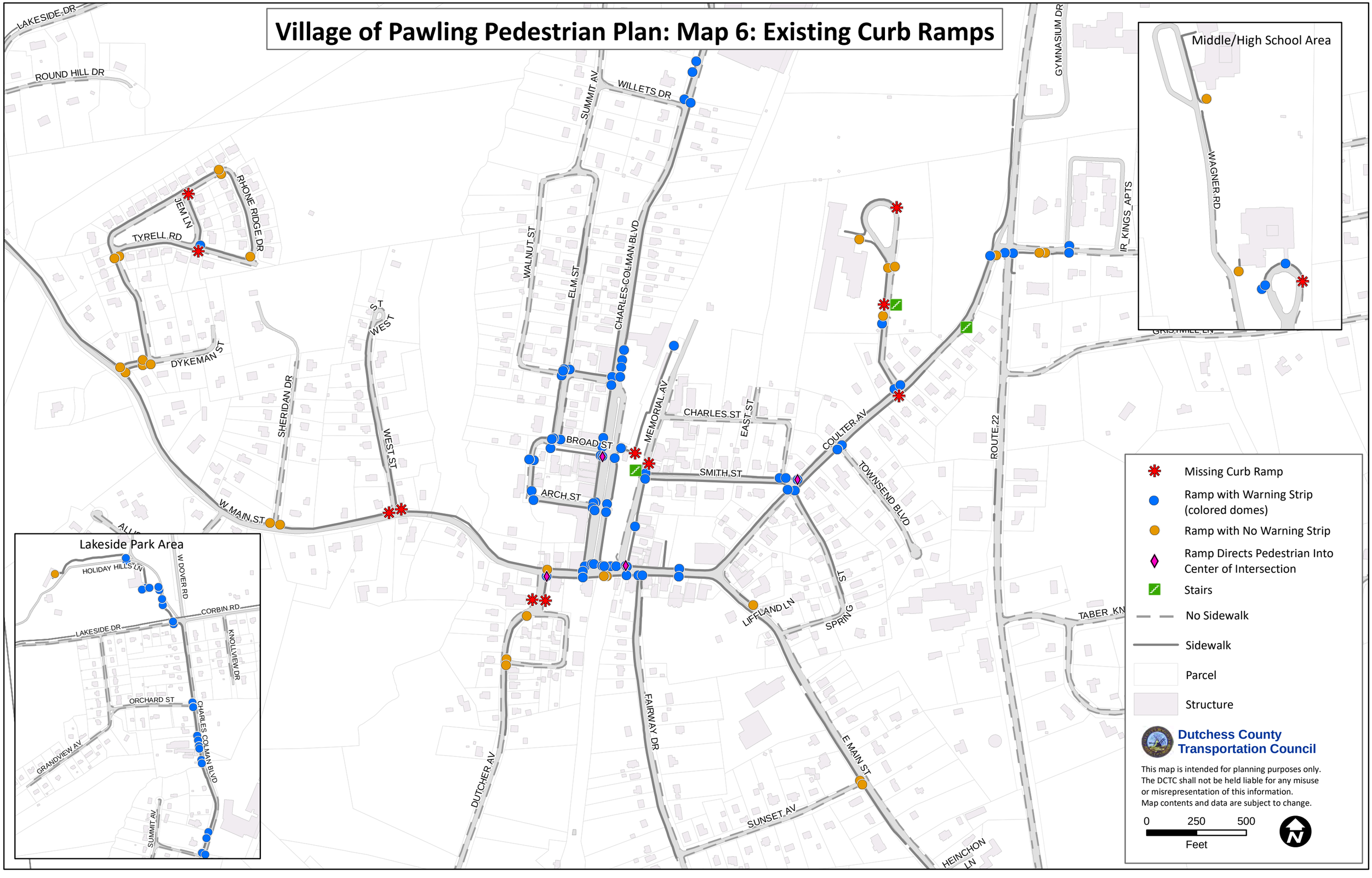
Pedestrian signals & pushbuttons: There are three signalized intersections in the study area, but only one-- Route 22 at Pine Drive/Coulter Avenue-- has pedestrian signals (there are none at the Route 22 intersections with Reservoir Road or Quaker Hill Road). The signals control the one crosswalk at the intersection, on the southern leg. The buttons are responsive (a light glows when they are pressed) and the signals include a countdown timer.

Crosswalks: There were 50 marked crosswalks in the study area. Most were continental style (parallel horizontal stripes),

Village of Pawling Pedestrian Plan: Map 5: Existing Sidewalk Issues



Village of Pawling Pedestrian Plan: Map 6: Existing Curb Ramps



though some were ladder and a few were angled ladder, particularly in Lakeside Park and at the Elementary School. Almost 80 percent of crosswalks were at intersections. Of those intersections with crosswalks, about 70 percent had complete crosswalks, meaning that all legs of the intersection with sidewalks had crosswalks connecting them. There were six intersections where some legs did not have marked crosswalks, but these were reasonable given the context (nearby crosswalks, minor streets, or incomplete sidewalks). Unmarked crosswalks are legal crossings if they connect two sections of sidewalk. However, marked crosswalks encourage people to cross the street at consistent locations, and raise drivers' awareness of the potential for people crossing.

Eight crosswalks had curb extensions, which shorten the distance to cross, help pedestrians see oncoming traffic, and help drivers see people waiting to cross. These included crosswalks on Charles Colman Boulevard at West Main Street (1), Arch Street (2), and Broad Street (3), and on Memorial Avenue at East Main Street (1) and Smith Street (1).

While most crosswalks were in good condition, about one-third were faded (see Map 7 - Existing Marked Crosswalks and Pedestrian Signs).

e. Pedestrian Experience

While basic infrastructure such as sidewalks, curb ramps, and crosswalks are critical to pedestrian access, a walkable environment also requires a pleasant sidewalk experience. We inventoried several elements related to the pedestrian experience, including street trees, lighting, seating, and driveways.

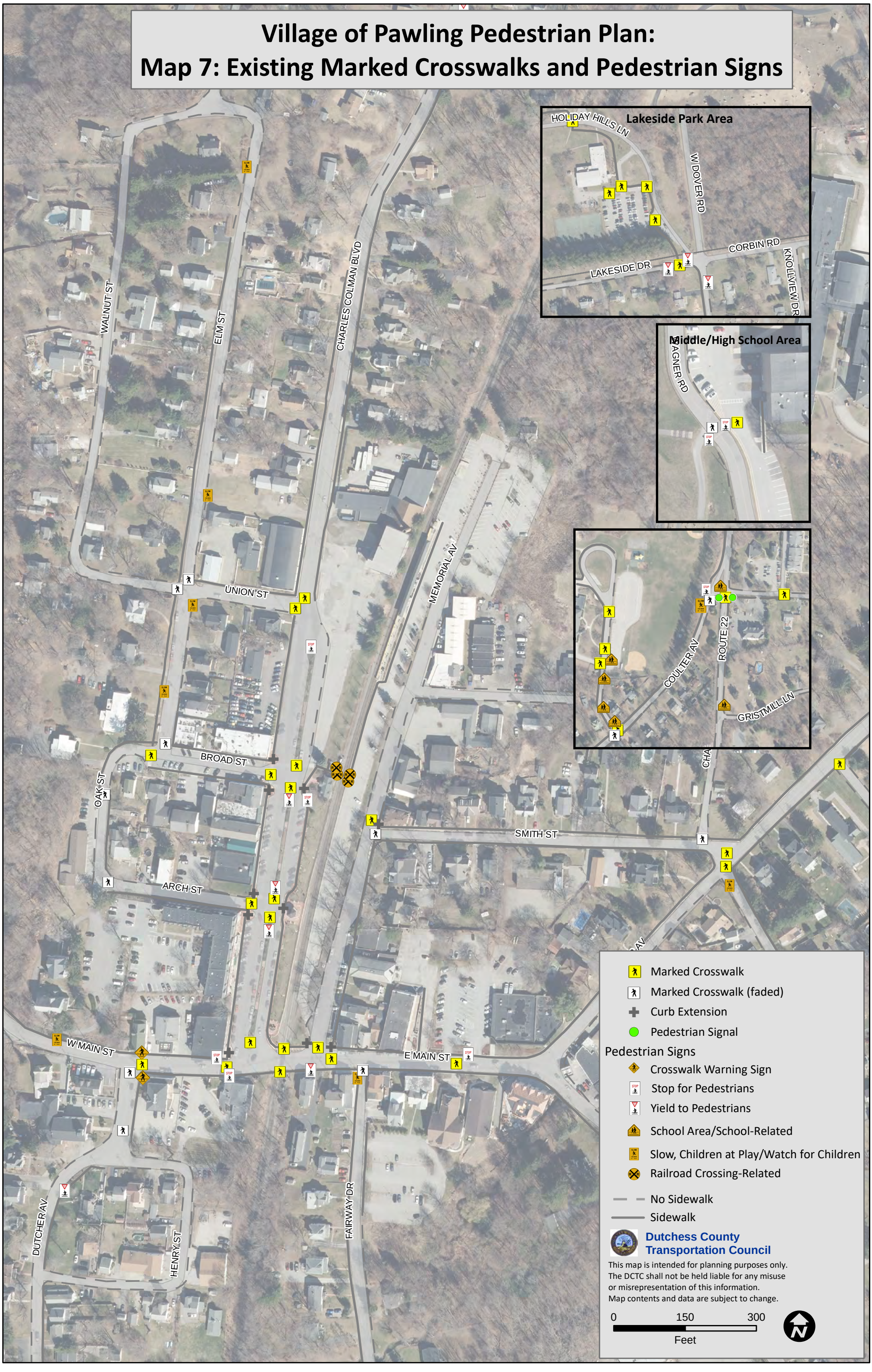
Street trees: In addition to providing shade, street trees serve as a buffer between traffic and people walking (when planted along the curb), and have been shown to reduce vehicle speeds, improving safety. For our inventory, we counted street trees between the sidewalk and roadway as well as other trees that shaded the sidewalk. We counted just 12 street trees in the buffer between the sidewalk and roadway, and 118 trees that were not in the buffer but shaded the sidewalk (see Map 8 - Existing Street Trees/Furniture). This is largely because few of the village's sidewalks have buffers, and those that exist are narrow.

Landscaping and benches on Charles Colman Blvd create a pleasant walking environment.

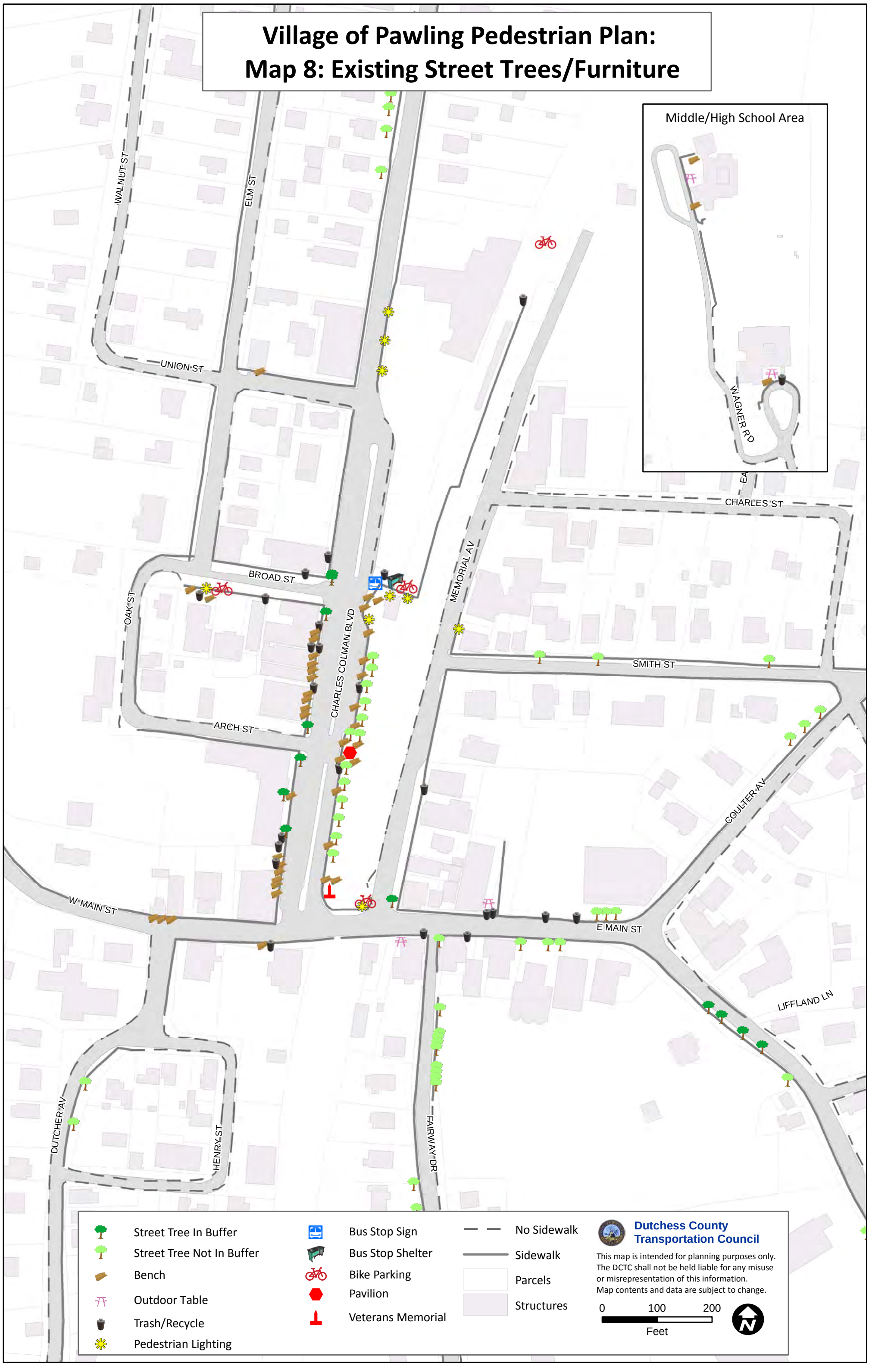
Most sidewalks have inconsistent trees and long stretches without street trees. In particular, Charles Colman Boulevard north of Broad Street has few trees, and there are no street trees on Main Street west of Fairway Drive.

Pedestrian-scale lights: We identified 17 pedestrian-scale lights in the study area—about half were in the Baxter Green subdivision and half were clustered in two locations on

Village of Pawling Pedestrian Plan:
Map 7: Existing Marked Crosswalks and Pedestrian Signs



Village of Pawling Pedestrian Plan:
Map 8: Existing Street Trees/Furniture



Charles Colman Boulevard (we did not include lights in the Village Green far behind the sidewalk). There were no pedestrian-scale lights on the west side of Charles Colman Boulevard and only one light on Main Street.

Outdoor Seating: There were 48 benches, concentrated on the first two blocks of Charles Colman Boulevard, and five outdoor tables—but only two on Main Street and none on Charles Colman Boulevard.

Amenities	Number
Benches	48
Trash/recycling cans	24
Pedestrian-scale lights	17
Outdoor tables*	5
Bike racks	4
Bus stop shelters	2
*two groups of tables at middle/high schools, one at Lakeside Park, two by restaurants on E Main St.	

Table 4. Existing Amenities

Driveways: We identified 51 commercial driveways along sidewalks in the study area, totaling 1,780 linear feet (see Map 9 - Existing Parking Lots and Commercial Driveways). This equates to about five percent of the total sidewalk length inventoried. This means that for every 100 feet one walks, just five feet are across a driveway. However, driveways are more concentrated in some areas. For example, along Main Street between Dutcher Avenue and just east of Coulter Avenue, commercial driveways make up 16 percent of the sidewalk frontage. This means that for every 100 feet one walks on this portion of Main Street, 16 feet are across a driveway. Each driveway represents a potential conflict point, with cars entering and exiting, which decreases pedestrian safety and comfort.

At about half of the commercial driveways, the sidewalk stops, rather than continuing across the driveway. In general, sidewalks should continue across driveways as a visual prioritization of pedestrian access and to alert drivers that people may be walking across the driveway.

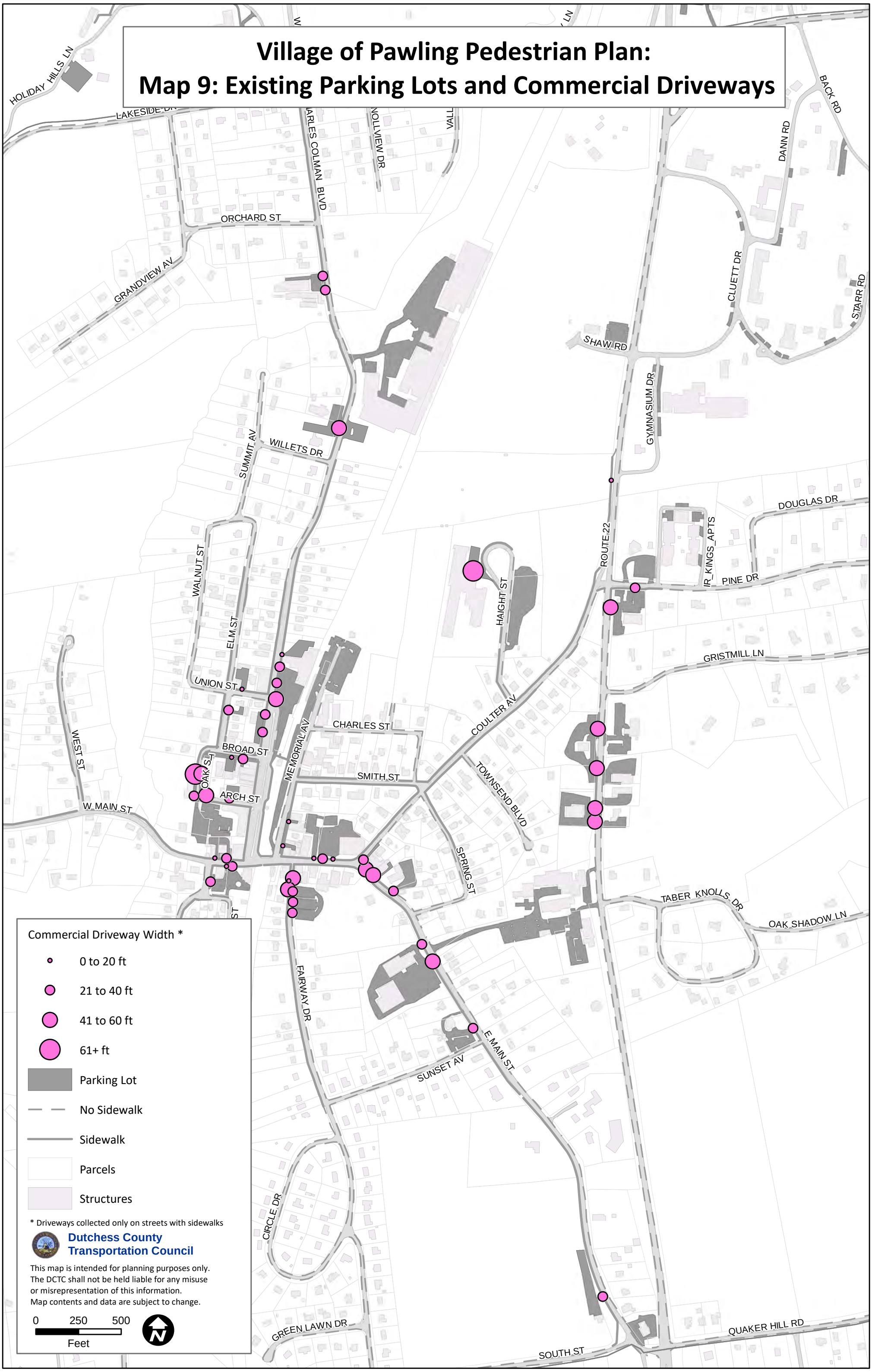
Pedestrian Signs: We inventoried a total of 43 pedestrian-related signs. This included many 'Slow, Children at Play' signs (some quite old), school-area warning signs, and a combination of Yield to Pedestrians and Stop for Pedestrians signs. New York State Vehicle and Traffic Law states that drivers must yield to people in crosswalks, so signs should reflect that law. Two crosswalk warning signs were installed after the inventory at the West Main Street/Dutcher Avenue intersection.

Bicycle Facilities: There are shared lane markings on Charles Colman Boulevard, but they are placed very close to the angled parking, creating a potential safety issue, as drivers generally cannot see bicyclists when backing out of angled parking.[4] There was no bicycle-related signage ('Share the Road' or 'Bicycles in Lane'). Based on the manual

Sharrow markings on Charles Colman Blvd are extremely close to angled parking.

[4] Per NYSDOT's Shared Lane Marking Policy, on streets with on-street parking, sharrows should be placed in the center of the effective lane.

Village of Pawling Pedestrian Plan:
Map 9: Existing Parking Lots and Commercial Driveways



pedestrian-bicycle counts (described in section g below), most bicyclists on Charles Colman Boulevard were on the road, but most bicyclists on Main Street rode on the sidewalk. Bicycles on the sidewalk are a safety issue for pedestrians and thus a challenge to creating a walkable environment.

We found only four bicycle racks in the village (see Map 8 - Existing Street Trees/Furniture). Designated bicycle parking provides security for bikes and reduces sidewalk crowding.

f. Summary of Field Observations

Based on the fieldwork, we noted the following key findings:

Sidewalk Conditions

- The village has nearly 7 miles of sidewalk.
- Almost 90 percent of sidewalks are in excellent or good condition.
- The most common sidewalk issue is cracks, followed by clearance.
- Nearly 90 percent of sidewalks are concrete.
- For asphalt sidewalks (11 percent of total), only 11 percent are in excellent or good condition.
- 78 percent of sidewalks are narrower than 5 feet. Almost two-thirds are between 4 and 4.5 feet.
- Only 23 percent of sidewalks have a buffer. More than half of the buffers are 4 feet or narrower. Almost all are grass.

Accessibility

- 13 locations (including sidewalk ends and crosswalks) are missing curb ramps.
- 31 curb ramps (24 percent of the total) are missing detectable warnings.
- Almost 70 percent of crosswalks are 'continental' style. Most of the other types are on school property or in Lakeside Park.
- About one-third of crosswalks are faded.
- Almost 80 percent of crosswalks (39) are at intersections; about 20 percent (11) are mid-block.
- 7 crosswalks (14 percent of the total) have a curb extension at one or both ends.
- Only one of the three signalized intersections has pedestrian signals.

Pedestrian Experience

- At about half of commercial driveways on streets with sidewalks, the sidewalk stops, rather than continuing across the driveway.
- Commercial driveways represent only 5 percent of the frontage on streets with sidewalks. However, on Main Street (Dutcher to past Coulter) 16 percent of the sidewalk frontage is driveways.
- There are more than 40 pedestrian-related signs, including many old signs and nine 'stop for pedestrian' signs that do not reflect State law.
- Most streetscape amenities (benches, trash receptacles, and pedestrian-scale lights) are concentrated in the first two blocks of Charles Colman Blvd.
- There are few outdoor tables.
- There are only 12 street trees in the sidewalk buffer.
- About 40 percent of streets with sidewalks have on-street parking.

g. Pedestrian-Bicycle Counts

To better understand the amount of walking and bicycling in the study area, DCTC conducted video counts of people walking and bicycling at five locations, as well as manual two-hour counts at two locations. These counts occurred on a weekday and a Saturday, largely in September 2018. We also used pneumatic tubes to conduct a weeklong bicycle count at one location. Count locations included:

Video (12-hour, 7 am to 7 pm, weekday and Saturday):

1. Charles Colman Boulevard between Main Street and Arch Street (counted on a Tuesday and Saturday in July)
2. Dutcher Avenue near the end of the existing sidewalk
3. Reservoir Road near the Middle/High Schools
4. Coulter Avenue near Route 22 (two separate counts: the Coulter Avenue crosswalk and the west sidewalk)
5. East Main Street near South Street (the end of the existing sidewalk)

Manual (2-hour, weekday 4-6 pm and Saturday afternoon):

6. Charles Colman Boulevard
7. East Main Street near Fairway Drive

Bicycle-specific (week-long count in mid-July):

8. Dutcher Avenue south of the existing sidewalk

The data are shown in Map 10 – Pedestrian & Bicycle Count Data.

Key findings are as follows:

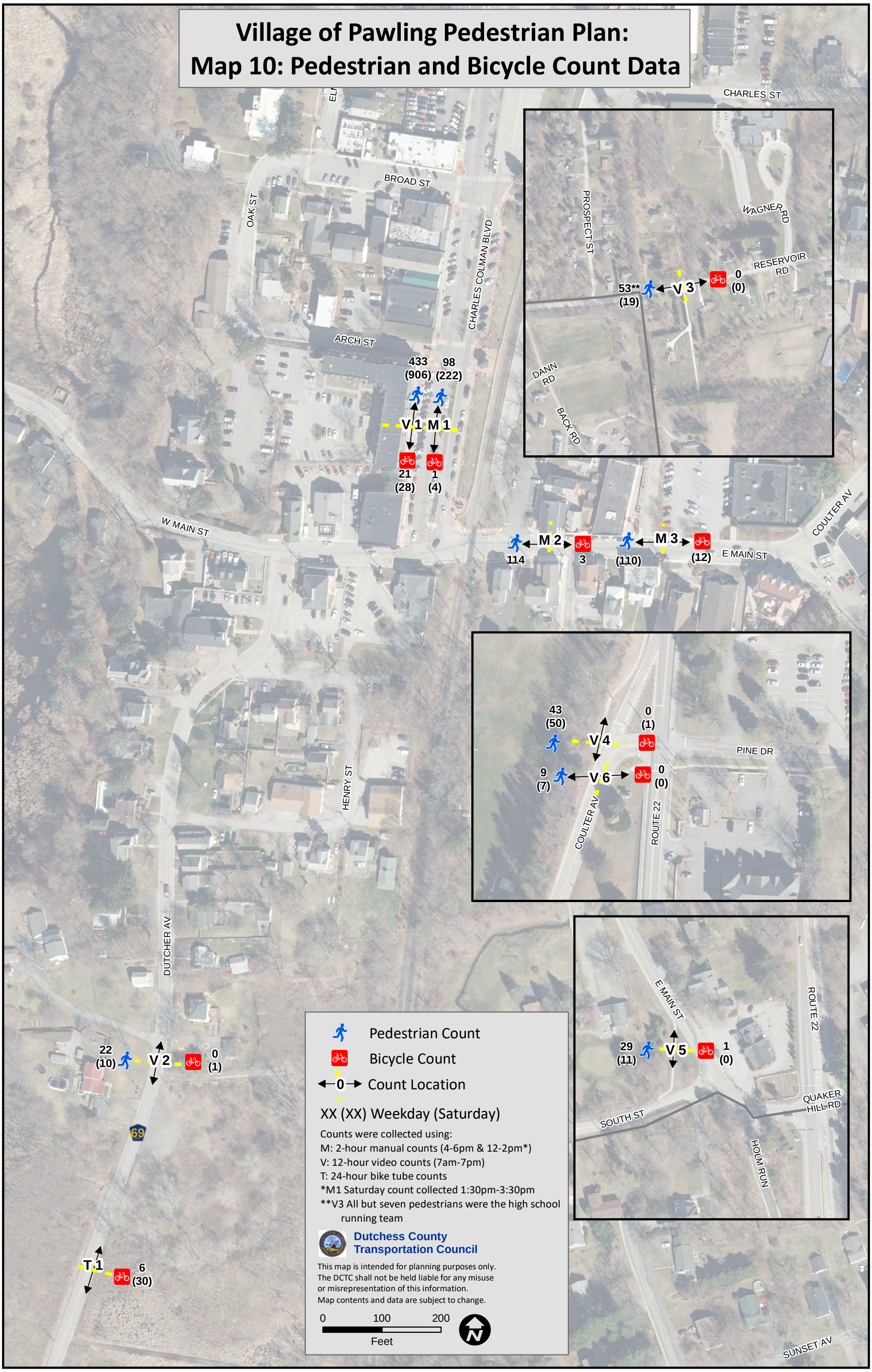
<u>Walking</u>

- Weekday pedestrian activity was highest on East Main Street near Fairway Drive (57 people per hour), followed by Charles Colman Boulevard (36-50 people per hour).
- Saturday pedestrian activity was highest on Charles Colman Boulevard (75-111 people per hour), followed by East Main Street near Fairway Drive (55 people per hour).
- The other locations counted had much lower pedestrian volumes: 4 people/hour on the Coulter Avenue sidewalk, 1-3 people/hour on the East Main Street sidewalk near South Street, 1-2 people/hour on Dutcher Avenue, 1-2 people/hour (typically) on Reservoir Road, and fewer than 1 person/hour in the Coulter Avenue crosswalk. The High School running team also uses Reservoir Road, contributing 20-25 runners at a time.

<u>Bicycling</u>

- Weekday bicycle activity was highest on Charles Colman Boulevard (1.75 bicyclists/hour), closely followed by East Main Street near Fairway Drive (1.5 bicyclists/hour).
- Saturday bicycle activity was highest on East Main Street near Fairway Drive (6 bicyclists/hour), followed by Dutcher Avenue (2.5 bicyclists/hour), and Charles Colman Boulevard (2 bicyclists/hour).
- Bicycling was minimal (0-1 total bicyclists counted over the period) at the other count locations.
- Based on observations from the manual counters, bicyclists on Charles Colman Boulevard were all riding on

Village of Pawling Pedestrian Plan:
Map 10: Pedestrian and Bicycle Count Data



the road. More bicyclists on East Main Street were riding on the sidewalk; they included kids and adults.

Based on these counts, East Main Street near Fairway Drive and Charles Colman Boulevard are the busiest pedestrian areas in the village. However, activity on Charles Colman more than doubles on Saturday compared to a weekday, while activity on East Main Street is relatively consistent between weekdays and Saturday.

The counts indicate that walking activity drops off substantially outside the village core. Sidewalk gaps and a lack of crosswalks may be part of the reason, as well as the lack of pedestrian-oriented destinations outside of the commercial area. It is likely that much of the walking in these outlying areas is recreational.

In terms of bicycling, the data indicate that most bicycling occurs on East Main Street and Charles Colman Boulevard, though some adults ride recreationally on Dutcher Avenue.

h. Crash Data

Staff reviewed ten years of crash data (2008-2018) to identify any pedestrian-related crash patterns. Over the ten-year period, there were five reported pedestrian crashes (this does not include crashes that were not reported or any 'near misses'). Of the five crashes, two were at the CVS/St. John's church crosswalk. In both cases, a driver was exiting the CVS parking lot and did not yield to someone in the crosswalk.

The other three crashes included an injury crash at the Charles Colman Boulevard/Corbin Road/Lakeside Drive intersection (driver inattention—the driver struck a person crossing to Lakeside Park); an injury crash at Cluett Drive South (Trinity Pawling's loop road) near Route 22 (driver inattention—the driver backed up over a pedestrian's foot); and a fatal crash on Route 22 north of the Coulter Avenue slip lane (pedestrian error/traffic control disregarded—a person crossed Route 22 against the traffic signal).

i. Public Outreach

Arts & Crafts Fair/Farmers Market

DCTC staff had a table on Charles Colman Boulevard during the Arts & Crafts Fair and farmers market on Saturday, September 22, 2018. Staff solicited input on issues and suggestions related to walking in the village and asked people to prioritize potential improvements. Three large maps posed the questions: "Where in Pawling is it tough for you to walk?" "What would make Pawling better for walking?" and "What potential improvements would you prioritize?"

Attendees were encouraged to write specific concerns and ideas on the maps. Staff also distributed a project flier and talked to people about the project. Participants' input is summarized below:

Where in Pawling is it tough for you to walk?

- Lakeside Drive- dangerous road
- Charles Colman Boulevard- sidewalk maintenance issues (northern area, near the Pawling Corporation)

- Crossing Main Street across from the catholic church and CVS

What would make Pawling better for walking?

- Better (groomed) trails in Lakeside Park/Murrow Park
- Access to parks from Lakeside Drive
- Continue the sidewalk on Charles Colman Boulevard from Corbin Road to Dodge Road, so Deerfield Ponds and Squire Green kids could walk into town.
- Change vehicle access to Lakeside Park to West Dover Road (to eliminate the 5-way intersection at West Dover/Lakeside/Corbin/Colman)
- Fix poor sidewalks on Charles Colman Boulevard
- Provide a sidewalk to the Boy Scout cabin off Taber Knolls Road (and connect Mizzentop school to Taber Knolls)
- Provide lighting on buildings on East Main Street (like Tacos and Cones has)
- Provide a crossing guard after church at the Main Street crosswalk across from the catholic church and CVS (as a driver, this is tough—lots of people crossing).
- Widen sidewalk from village to Murrow Park down Old Route 55/West Main Street
- Fix sidewalk on West Street (east side, near West Main Street)

Priority Project concepts (listed in order of 'votes' for each)

- Dutcher Avenue sidewalk/boardwalk: 14
- Route 22/Reservoir Road sidewalk: 5
- South Street sidewalk: 4
- Charles Colman/Pietryka site sidewalk connection: 4
- Charles Colman sidewalk extension to Dodge Rd: 3 [this was all 1 person]
- Route 22/Coulter Avenue crossing improvements: 3
- Coulter Avenue/East Main Street redesign: 2
- Corbin Road/Lakeside Park crossing improvements (vehicle access from West Dover Rd): 1
- Coulter Avenue complete sidewalks: 1
- Route 22/East Main Street crossing improvements: 1
- Henry Street redesign: 1
- Charles Colman sidewalk improvements: 1
- Train station area pedestrian access improvements: 0
- Main Street crossing improvements: 0

Open House

DCTC staff presented the inventory findings and preliminary improvement concepts to the public at an open house on November 28, 2018. Attendees were interested in the project and supportive of the ideas presented. Suggestions included considering parking impacts, truck access, and crash patterns, particularly for the Charles Colman and East Main Street areas.

Partner Meetings/Calls

In advance of the Open House, DCTC staff met DEC staff to discuss Dutcher Avenue, and with NYSDOT-Region 8 to discuss the intersections on Route 22. After the open house, DCTC staff held a conference call with MTA/Metro-North representatives to discuss concepts related to the train station

area and railroad line. See Appendices C and D, and E for the meeting and call notes.

Final Draft Outreach

In April 2019, DCTC staff circulated the draft plan to the Task Force, Dutchess County DPW, NYSDOT-Region 8, and Metro-North for feedback. Based on feedback, staff updated the inventory to better reflect the West Main Street sidewalks, revised several recommendations, clarified the process for improvements on County roads, State roads, and Metro-North property, updated the responsible entity and partners for several projects in Appendix J (Recommendations Summary), and improved several of the maps. In June 2019, DCTC presented the final draft plan to the Village Board and public. Attendees expressed support for the Plan and the recommendations.

Community members discuss walkability issues at a weekend Arts & Crafts Fair.

Part III: Recommendations

These recommendations are intended to assist the Village in setting priorities for infrastructure investments and seeking funding to improve walkability in and around the village. DCTC staff developed the recommendations through our analysis of existing conditions, discussions with the project's Task Force, review of previous plans, feedback from NYSDOT, NYSDEC, Metro-North Railroad, and County DPW, and input from the public.

Given the cost and complexities associated with achieving all the recommendations, DCTC recommends a 'build when ready' strategy, whereby the Village or other responsible entity implements each recommendation as local conditions and funding opportunities permit. This allows the responsible entity to capitalize on various funding programs, changes in property ownership, or redevelopment opportunities that may be conducive to implementing one or more recommendations.

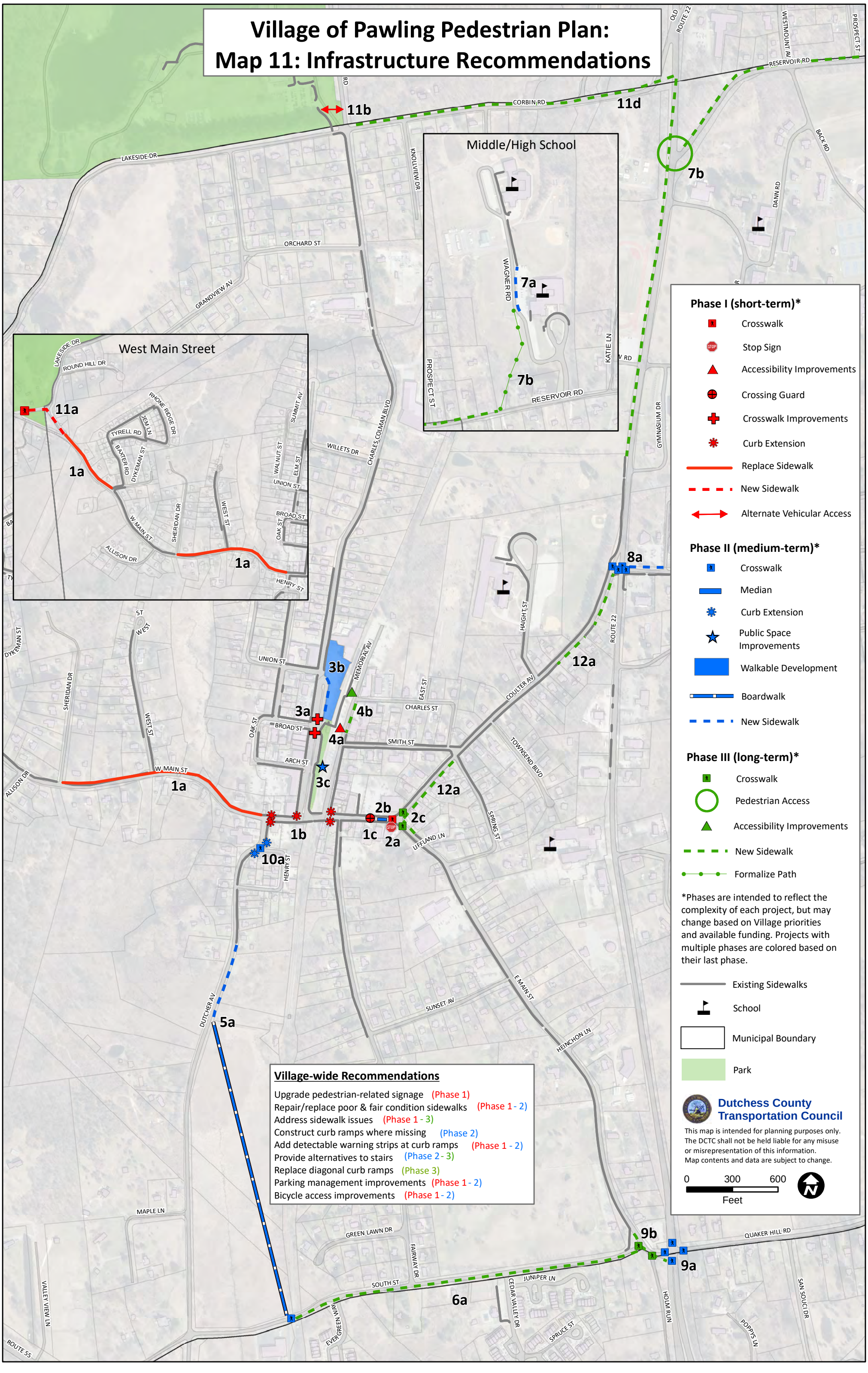
Each recommendation is assigned a phase (1, 2, 3, or a combination of phases). In general, the phases relate to the complexity and cost of each recommendation, as well as its proximity to the village center. The most viable project proposals and those closest to the center are listed under Phase 1, while those that are more ambitious, costly, and/or further from the center are listed under Phase 2 or 3. The Plan purposely does not specify a timeframe for accomplishing the recommendations, since implementation will rely on the availability of funding and managing competing priorities. However, Phase 1 recommendations should be viewed as short-term priorities, Phase 2 as medium-term, and Phase 3 as long-term.

Appendix J provides a list of all the recommendations by location or topic, with their phase, the responsible entity and partners, and the relevant map and/or image reference. Map 11 – Infrastructure Recommendations shows their locations.

The recommendations are organized by location (items 1-12) and then by topic, as follows:

1. Main Street Corridor
2. East Main Street/Coulter Avenue Intersection
3. Village Center-Charles Colman Boulevard
4. Train Station Area
5. Dutcher Avenue
6. South Street
7. Middle/High School Access
8. Route 22/Pine Drive/Coulter Avenue Intersection
9. Route 22/East Main Street Intersection
10. Coulter Avenue
11. Henry Street/Dutcher Avenue Intersection
12. Lakeside & Murrow Park Access
13. Village-wide Infrastructure
14. Parking
15. Bicycle Access
16. Policies & Design Guidelines
17. Programs

Village of Pawling Pedestrian Plan: Map 11: Infrastructure Recommendations



1. Main Street Corridor

The Task Force identified the Main Street corridor as a key focus of this plan. It is the principal east-west street in the downtown, connecting Dutcher Avenue, Charles Colman Boulevard, Memorial Avenue, Fairway Drive, and Coulter Avenue, and has a significant amount of pedestrian activity. However, it also carries significant through traffic, including some heavy trucks. The main issues identified are safety for people crossing and inconsistent signage.

a. Replace the West Main Street sidewalk (Phase 1)

There is a sidewalk on the north side of West Main Street between Dutcher Avenue and the West Main Street/Route 55 intersection. It was not fully inventoried as part of this plan since the Village has an active project to replace most of it--specifically, the sections from Dutcher Avenue to Sheridan Drive, and Dykeman Street to West Main Street/Route 55. These sections are narrow, asphalt, and poor quality. The replacement will improve access between the village center and several residential areas and Murrow Park.

b. Construct curb extensions on Main Street (Phase 1)

Curb extensions improve visibility for people trying to cross the street, and make them more visible to drivers, increasing yielding and safety. They can also calm traffic and create space for signage.

Curb extensions at this and other crosswalks on Main Street will calm traffic and increase safety.

Extensions are recommended at three existing crosswalks across Main Street: at Dutcher Avenue (northeast and southeast corners); Charles Colman Boulevard (northwest corner); and Memorial Avenue (northeast and southeast corners). They should extend the width of the parking lane, leaving 24 feet of roadway clear to accommodate truck traffic.

Curb extensions should be tested first using temporary materials such as paint and cones to make sure that trucks can still navigate the intersections. Drainage and snow plowing should also be accommodated (see Appendix C for notes).

Proposed curb extension locations, shown as blue circles.

In coordination with constructing curb extensions, Pedestrian Crossing warning signs (W11-2)[5] should be installed at each uncontrolled crosswalk approach (those not controlled by a signal or stop or yield sign), and warning strips should be added on all ramps.[6] All but the eastbound approach to Charles Colman are currently uncontrolled. However, we recommend evaluating a stop sign for westbound East Main Street traffic at Memorial Avenue.[7] This would improve pedestrian safety at the West Main Street/Memorial Avenue crosswalk and vehicular safety at the intersection.

c. Consider a crossing guard for the CVS/St. John's crosswalk (Phase 1)

The Task Force discussed the uncontrolled crosswalk at CVS/St. John's Church at length. It was decided not to recommend curb extensions there, but instead to provide a stop-controlled crosswalk at the East Main Street/Coulter Avenue intersection (see below). The church could provide a crossing guard before and after services to improve safety.

2. East Main Street/Coulter Avenue Intersection

The East Main Street/Coulter Avenue intersection is the eastern gateway to the downtown but is a barrier to those who want or need to walk. It has no crosswalks and eastbound traffic on East Main Street is uncontrolled, making it hard to know when it is safe to cross. The east corner has no sidewalks but is instead comprised of wide driveways serving a gas station/auto repair shop. All of this makes the intersection difficult to cross on foot and a less attractive gateway than it could be. Making this intersection more accessible would extend the walkable nature of the village further east and help create a welcoming entrance to the downtown.

A crosswalk and stop sign are recommended for the west leg of the East Main St/Coulter Ave intersection.

a. Create a safe crossing at the East Main St/Coulter Ave intersection (Phase 1)

In the short-term, the intersection can be improved to create a stop-controlled crosswalk. This includes:

[5] This and other sign numbers refer to the MUTCD. See Section 2C.50 and Figure 2C-11.

[6] New York State's Pedestrian Safety Action Plan (PSAP) recommends that Pedestrian Warning signs be double-posted (back to back -- signs on both faces of the pole). The PSAP also recommends advance warning signage. See PSAP Appendix A; Table NY2C-4 (page 49) of the NYS Supplement to the MUTCD includes guidance for placement of advanced warning signs.

[7] See MUTCD Section 2B.07 for evaluation criteria.

- Add a stop sign and stop bar for eastbound traffic on East Main Street, making the intersection an all-way stop. Update existing stop signs with 'All Way' plaques.
- Mark a high-visibility crosswalk on the west leg of the intersection, at the new stop sign.
- Construct a curb ramp on both ends of the crosswalk.

b. Consider a median on the west leg of the East Main St/Coulter Ave intersection (Phase 1-2)

A median on the west leg would serve as a visual gateway to the downtown, calm traffic, provide a pedestrian refuge area, and beautify the intersection. It would also provide space for a second stop sign for eastbound traffic. The median could be tested first with temporary materials, such as paint and cones or flexi-posts.[8]

c. Extend sidewalks and add full crosswalks at the East Main St/Coulter Ave intersection (Phase 2-3)

Longer-term, in coordination with land uses changes, the Village should work with adjacent property owners to redesign the intersection to be fully accessible. This would include:

- Extend the sidewalk on East Main St from the Baptist Church around Coulter Ave, and potentially further north.
- Add crosswalks on the north and east legs of the intersection, with curb ramps at both ends.
- Limit driveways on the east corner (gas station property) to reduce conflict points.
- Consider additional traffic calming measures and gateway treatments as needed.

Improvement concept for East Main St/Coulter Ave, showing new crosswalks (white lines), stop bars (red lines), a median (green), and a new sidewalk (dashed orange line).

3. Village Center – Charles Colman Boulevard

Charles Colman Boulevard is the primary commercial street in the village and has the most pedestrian activity. However, between Broad Street and Union Street there is a block-long gap in the east sidewalk and a wide open, undefined paved area. This is part of the Pietryka parcel, which may be

[8] See the Dutchess County Planning Department's e-newsletter on 'tactical urbanism' for concepts and references.

redeveloped. In addition, although there is a central median along the first three blocks of the street, only one of the five east-west crosswalks (at Main Street) has a median refuge.

The following recommendations involve Metro-North property; see the Implementation section for Metro-North requirements.

a. Improve the northern Broad Street crosswalk (Phase 1)

The original Village Green plan called for median refuge islands at each crosswalk across Charles Colman Boulevard, but only the southern-most crosswalk (near Main Street) has such a refuge. Three of the other four crosswalks (both at Arch Street and the southern one at Broad Street) have curb extensions at both ends, but the northern crosswalk at Broad Street is very long and does not connect to a curb ramp on the west side.

Extending the median to provide a pedestrian refuge will shorten this crossing and improve safety.

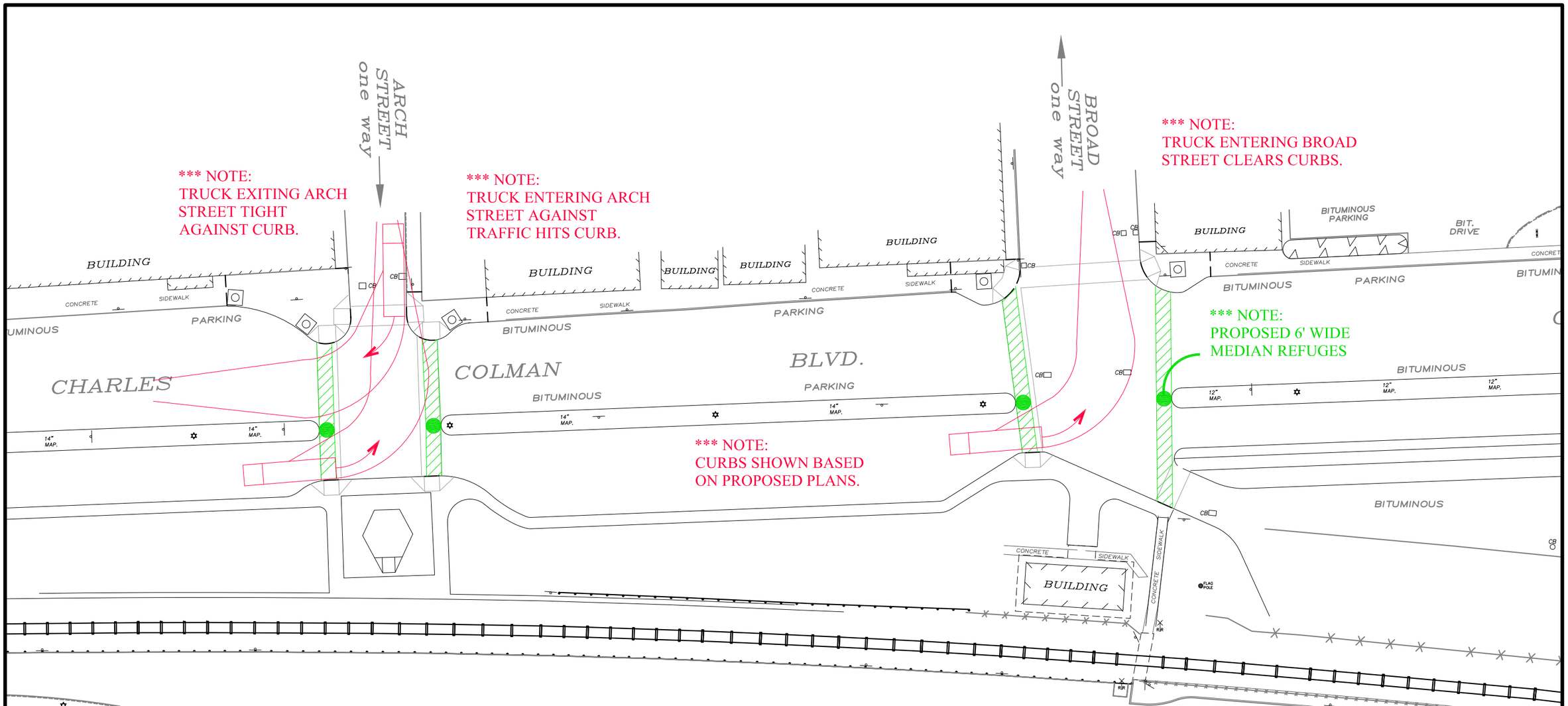
To improve safety and accessibility at this crosswalk, construct a curb ramp at the western end, realign the crosswalk to meet the ramp, and extend the median to provide a refuge island similar to the crossing near Main Street. A refuge island could also be constructed on the southern crosswalk at Broad Street to shorten that crossing. Based on a truck turning analysis using the dimensions of the Fire Department's ladder truck, this would not affect truck circulation at the intersection (see Drawing 1). Some truck restrictions could also be considered (see Appendix D for references).

As needed, trim the trees and bushes on the Charles Colman Boulevard medians for visibility.

b. Extend the Charles Colman Boulevard east sidewalk and pursue walkable development (Phases 1-2)

As part of any development of the Pietryka site, the east sidewalk should be extended to close the gap between Broad Street and Union Street. Encourage infill development of walkable, mixed-use buildings to activate this section of Charles Colman Boulevard.

The east sidewalk on Charles Colman Blvd ends at Broad Street, leaving an undefined asphalt area.



ARCHITECTURE ENGINEERING SURVEYING
ZARECKI ASSOCIATES L.L.C.
LICENSED IN N.Y. & CT.

SKETCH
FOR
MEDIAN RUFUGES
CHARLES COLMAN BOULEVARD
VILLAGE OF PAWLING
DUTCHESS COUNTY, NEW YORK

SCALE: 1" = 40'	DATE: 3-18-2019	PROJ.#.: 2007.028

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Pawling, NY 12564
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DWG. NO.
1 of 1

Drawing 1: Charles Colman Boulevard Truck Turning Analysis

c. Consider improvements to the Village Green (Phases 1-2)

The Village Green is the main public space in Pawling and hosts the farmers market and regular festivals and street fairs. However, outside of scheduled events, it appears to be underutilized.

The Village could consider enhancements to encourage more active use of the green, such as movable tables and chairs, a play structure or other interactive features, or a fountain. The gazebo area could be used as a 'pop-up plaza', with designated space for food trucks, outlets for music, and a movable screen for outdoor films.

4. Train Station Area

The Pawling Train Station area is an important transportation asset to the village, but it has limited pedestrian accessibility. While the station does meet ADA requirements with a ramp near the accessible parking in the rear, there is no ramp to access the at-grade crossing (which connects the station to the Chamber building and Charles Colman Boulevard) or the platform across from Charles Street.

This temporary sign blocks the station area sidewalk.

In addition, accessing the station from the sidewalk on Memorial Avenue requires using a flight of stairs and walking through the parking area.

The following recommendations involve Metro-North property; see the Implementation section for Metro-North requirements.

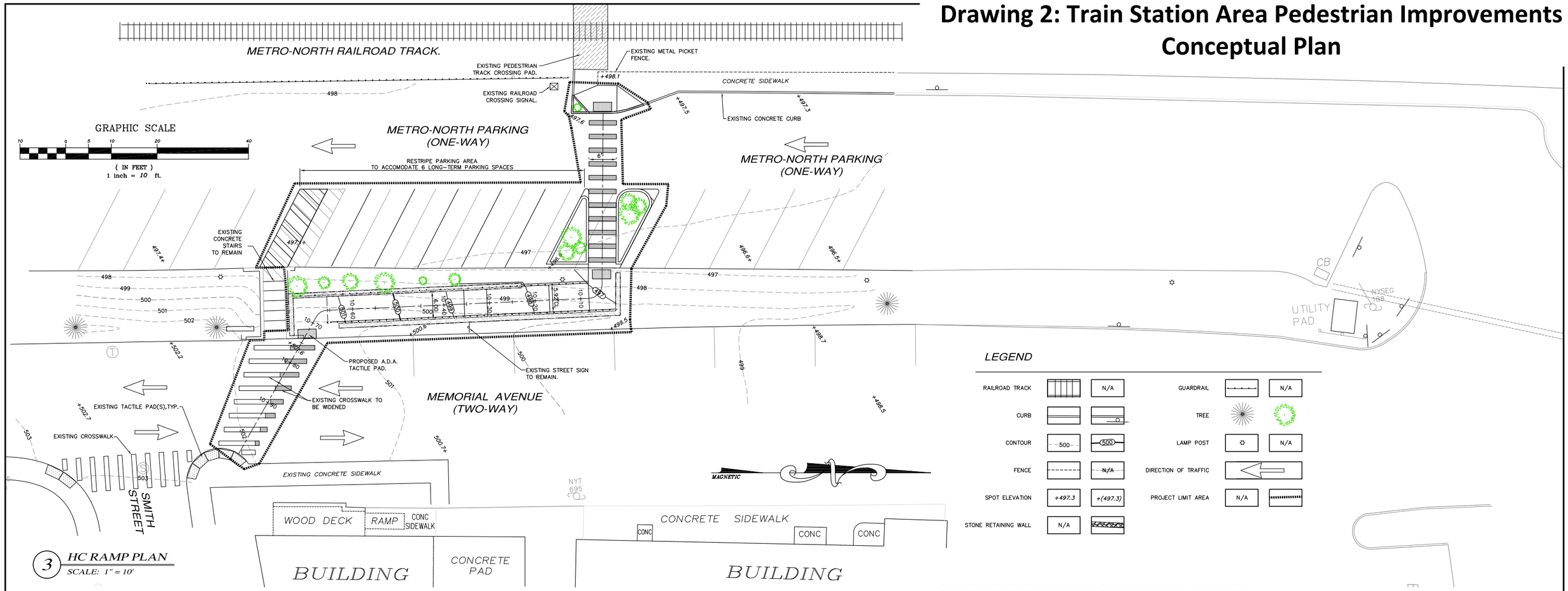
a. Improve accessibility within the station area (Phase 1)

In coordination with Metro-North, construct an accessible connection between Memorial Avenue and the station area. This would include:

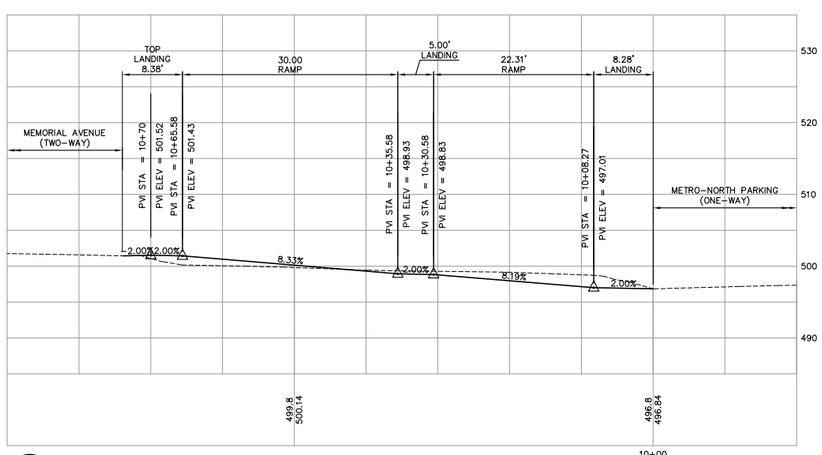
- Provide a curb ramp at the east end of the at-grade crossing.
- Construct a ramp alternative to the stairs to Memorial Avenue.
- Mark a crosswalk across the parking area to connect the curb ramp and ramp to Memorial Avenue.
- Expand the crosswalk on Memorial Avenue to connect to the existing curb ramp on the east side of that street.
- Ensure that walking areas are kept clear of signage and other obstructions.

A conceptual plan for this project is shown in Drawing 2. According to Metro-North, the proposed curb ramp may need to be installed by Metro-North staff. The improvements would be funded by others, but coordination with Metro-North would be required to determine the method by which these improvements are constructed (see Appendix E for conference call notes). In addition, language may need to be added to the

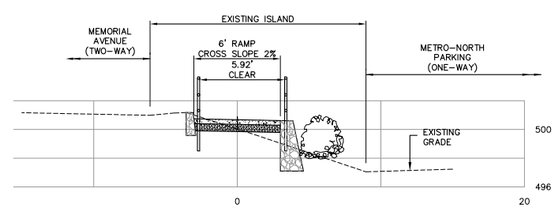
Drawing 2: Train Station Area Pedestrian Improvements Conceptual Plan



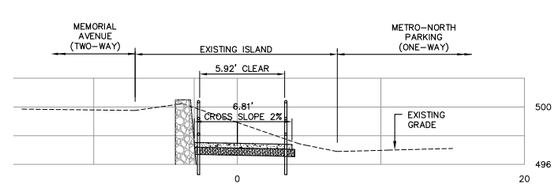
3 HC RAMP PLAN
SCALE: 1" = 10'



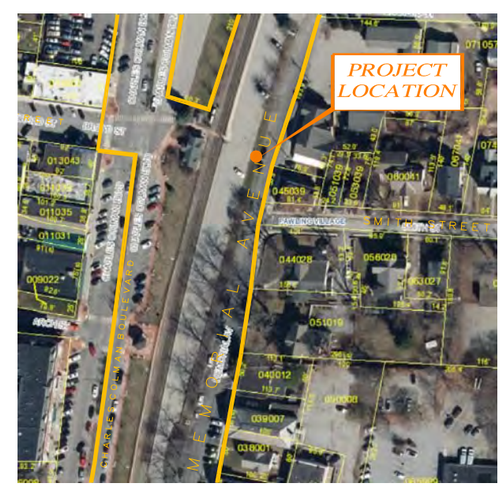
4 HC RAMP PROFILE
SCALE: Hor. 1" = 10'; Vert. 1" = 10'



5 SECTION 10+60 (Looking South)
SCALE: Hor. 1" = 5'; Vert. 1" = 5'



6 SECTION 10+15 (Looking South)
SCALE: Hor. 1" = 5'; Vert. 1" = 5'



2 PARCEL BOUNDARY MAP
SCALE: 1" = 100'

1 AREA MAP
SCALE: 1" = 800'

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REFER AND COORDINATE WITH ALL OTHER DRAWINGS AND PROJECT SPECIFICATIONS FOR OTHER IMPROVEMENTS AND NOTES. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE VILLAGE OF PAWLING DESIGNATED REPRESENTATIVE.

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ISSUE NO.	DATE	DESCRIPTION/COMMENTS

JOSEPH ZARECKI, P.E.
N.Y. LIC. No. 61468

ZARECKI & ASSOCIATES LLC — ENGINEERING ARCHITECTURE SURVEYING

A.D.A. COMPLIANT RAMP
PREPARED FOR
METRO NORTH STATION
MEMORIAL AVENUE
VILLAGE OF PAWLING
COUNTY OF DUTCHESS
STATE OF NEW YORK

DRAWING TITLE:
CONCEPTUAL
PLAN, PROFILE and SECTIONS

SCALE: AS NOTED	DATE ISSUED: 01-15-2019	PROJECT No.: 2007.028.3	
DRAWN BY: GP	DESIGNED BY: RZ/SL	CHECKED BY: JZ	

ZARECKI & ASSOCIATES, L.L.C.
Consulting Engineers - Land Surveyors - Architects
11 West Main St. Pawling, NY 12564
845.855.3771 845.855.3772 (Fax)

DWG. NO. C1
SHEET 01 OF 01

maintenance agreement between Metro-North and the Village for this project.

Train station accessibility issues: missing curb ramp (left) and stairs to Memorial Ave (right).

b. Extend the Memorial Avenue sidewalk & consider a second station access point (Phases 2-3)

As part of any land use changes along the northern part of Memorial Avenue, extend the sidewalk along the east side from Smith Street to Charles Street and potentially further north. Consider another access point into the train station area, such as a marked crosswalk from Charles Street to a new curb ramp at the corner near the stairs to the platform.

5. Dutcher Avenue

Dutcher Avenue is part of a potential walking loop that includes West Main Street, Dutcher Avenue, South Street, and East Main Street. However, the sidewalk on Dutcher ends about 350 feet south of Henry Street, and there are no shoulders on the road, forcing people to walk in the roadway. Some bicyclists also use the road, particularly for recreational rides on weekends.

The Oblong Land Conservancy owns a large amount of land along the east side of Dutcher that contains wetlands that are part of the Great Swamp watershed. There is a bench near the corner of Dutcher Avenue and South Street, but no access into the wetland area.

The Task Force discussed various options for access along Dutcher Avenue, including a sidewalk or shared-use path on the west side, a sidewalk or shared-use path on the east side, or a boardwalk through the wetland. A facility on the west side would require crossing Dutcher twice, easements from many property owners, and either working between the stone wall and utility poles or relocating the poles. A sidewalk or path on the east side would involve fewer property owners, but require significant grading, relocating one or more utility poles, and clearing some trees.

DCTC staff and Task Force representatives met with a DEC wetland biologist to discuss these options, and determined that a sidewalk on the east side could be permitted, but may require mitigating wetland impacts (creating wetlands of twice the area impacted if the impact exceeds one-tenth of an acre). A boardwalk through the wetland could also be feasible, and may result in less wetland impact than a sidewalk if constructed appropriately (e.g. with helical piles and built from a platform or with mats). Educational signage was also encouraged. Both a sidewalk and a boardwalk would require

coordination with DEC, the Army Corps of Engineers, and the NYCDEP (see Appendix F for meeting notes and Appendix G for the wetland boundary survey).

Based on discussions with Dutchess County DPW, an 8-10 foot wide boardwalk would likely be sufficient for the expected use. It should have railings extending from the boardwalk surface approximately 42-48 inches high for child and bicycle safety. The boardwalk could be wood, a composite material such as fiber-reinforced polymer, or concrete, especially if vehicle access is needed.

a. Extend the Dutcher Avenue sidewalk and construct a boardwalk to South Street (Phases 1-2)

This project would include the following:

- In the short-term, work with the Town to develop a parking area south of where the existing sidewalk ends.
- Extend the existing sidewalk south to the Oblong-owned parcel (across the residential driveway). Note that the Town owns the two parcels north of the Oblong parcel.
- Construct a boardwalk through the Great Swamp to South Street.
- Provide a crosswalk across South Street to connect with a future South Street sidewalk.

See Drawing 3 for a representation of the boardwalk.

Improvement concept for Dutcher Ave, showing the existing sidewalk (blue line), sidewalk extension (dashed blue line), and boardwalk (dashed green line).

Drawing 3: Dutcher Avenue Boardwalk Concept

6. South Street

Railroad crossing on South St (source: Google).

South Street is part of the potential walking loop described above, and provides access to the Cedar Valley townhomes, with 150 units; the Fire Station, which hosts community events; and Fairway Drive, a residential street that also connects to Main Street. Cedar Valley residents expressed support for a sidewalk along South Street at the November Open House. Note that the Town/Village line runs along the south side of South Street.

Based on discussions with Metro-North, an at-grade pedestrian crossing could be created on either side of the street, though the south side would be easier, due to the culvert on the north side. The crossing would need to be widened, the existing vehicular gates upgraded, and pedestrian gates and flashing lights would be added. This would require an engineering study, design, and petitioning for funding, so would likely be a long-term project. State Section 130 Railway Crossing Funding could be a funding source (see Metro-North call notes in Appendix E).

a. Construct a sidewalk along South Street (Phases 1-3)

To improve access from Cedar Valley and minimize the number of easements needed from property owners, we recommend a sidewalk on the south side of the street. While construction could be a longer-term project, short-term activities could include outreach to the Town and the Cedar Valley property owners, developing a concept plan, and undertaking detailed feasibility and right of way studies.

Key project components would include:

- Work with the Town, Cedar Valley, NYSEG, and other property owners to construct a sidewalk along the south side of South Street from the Metro-North line to East Main Street.

Improvement concept for South St, showing a sidewalk (dashed yellow line), crosswalks (white lines), railroad crossing (red circle), and the Dutcher Ave boardwalk (dashed green line).

- Work with Metro-North and NYSDOT on an at-grade pedestrian rail crossing on the south side of South Street to connect to the sidewalk.
- Consider realigning the existing sidewalk at East Main Street to the intersection to discourage people from crossing South Street mid-block, or construct a sidewalk extension to the East Main Street/South Street intersection.
- Mark a crosswalk at East Main Street to connect to the existing sidewalk on the northwest corner of the intersection.

7. Middle/High School Access

The location of the Middle/High School, across Route 22 and off a narrow road with no sidewalks, makes it difficult to walk to. In addition, there are incomplete sidewalks on the campus. There is no sidewalk from Reservoir Road to the High School, though there is a rough dirt path from the road to the athletic field. There are sections of sidewalk near the High School entrance, but no connection between those sidewalks and the Middle School: the sidewalk from the Middle School ends at a parking lot, leaving students or others to walk through the lot or along the parallel roadway. See fieldwork notes in Appendix H and NYSDOT meeting notes in Appendix I for reference.

The sidewalk on Route 22 ends at the cemetery.

These improvements would require the participation of several entities, including NYSDOT (for improvements to or along Route 22), Trinity-Pawling School (for improvements along their property), other adjacent property owners, the School District, and the Town (since the school is outside of the Village).

The sidewalk between the Middle and High School ends in a parking lot.

a. Complete the sidewalk gap between the Middle & High School (Phase 2)

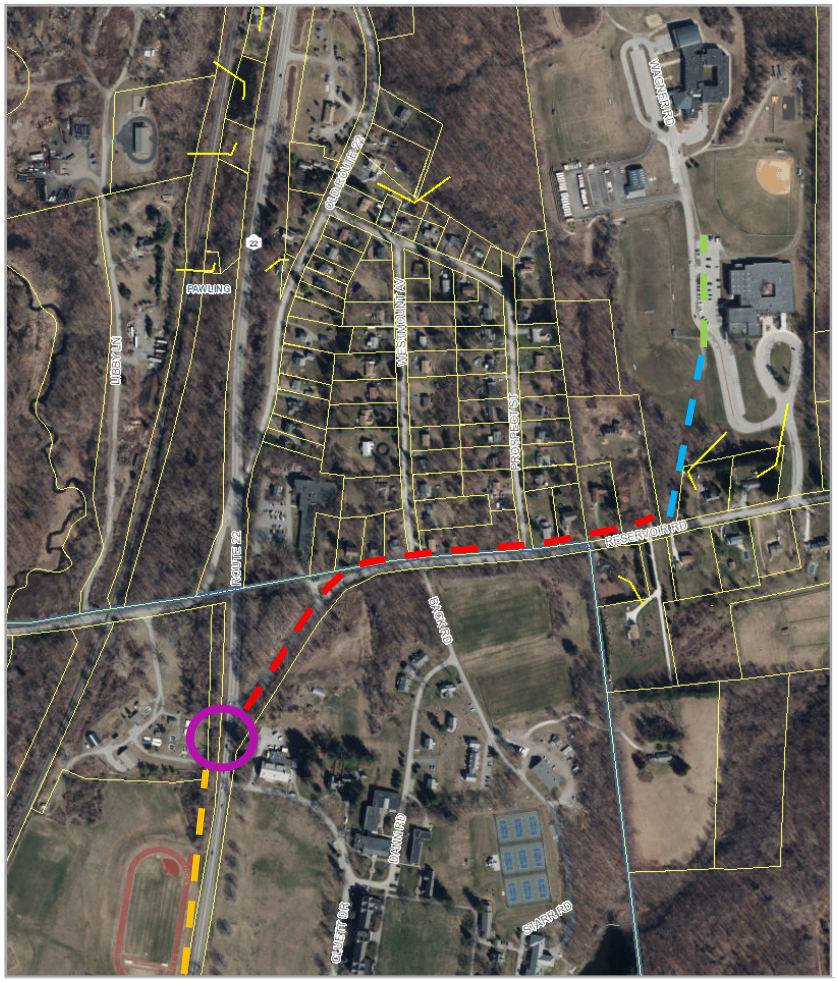
Work with the School District to extend the sidewalk that ends at the northwest corner of the High School parking lot to the crosswalks at the southwest corner of the High School. This will provide safer pedestrian access between the two schools.

b. Provide pedestrian access from Coulter Ave to the Middle/High School (Phase 2-3)

This project involves several components:

- Work with NYSDOT and Trinity-Pawling to extend the Route 22 sidewalk north to Reservoir Road. Based on a Task Force member's informal discussions with Trinity-Pawling, the school may support a sidewalk on the

west side of Route 22. Ideally, this would extend from the cemetery to the intersection with Reservoir Road, which is signalized. However, there are grades and a guiderail north of the track, so an engineering analysis is needed to determine the best alignment.



Improvement concept for access to the Middle/High School, showing new sidewalks (dashed yellow and red lines), intersection improvements (purple circle), and walking paths (dashed blue and green lines).

- Work with NYSDOT to provide pedestrian access across the Route 22/Reservoir Rd intersection. This would include a crosswalk and pedestrian signals, as well as clearing foliage to improve visibility and tightening the intersection to reduce vehicle speeds.

- Provide a sidewalk or path along Reservoir Road to the Middle/High School. The Task Force looked at several options for this segment. The south side was deemed less feasible, as it would require significant grading, clearing, and drainage work, though the north side would require easements or right-of way acquisitions from many property owners. The ideal facility would be a sidewalk or path with a buffer, but this may not be feasible given the limited roadway width.

- Work with the School District to formalize the walking path between Reservoir Road and the crosswalks at the southwest corner of the High School.

8. Route 22/Pine Drive/Coulter Avenue Intersection

The uncontrolled crosswalk on Coulter Avenue raises pedestrian safety concerns. In addition to being uncontrolled, it is near the Route 22 intersection, so northbound drivers are likely focused on the traffic signal, while southbound drivers are looking for oncoming traffic, either from the slip lane or Route 22. Based on discussions with NYSDOT, we recommend relocating the crosswalk to a controlled location and

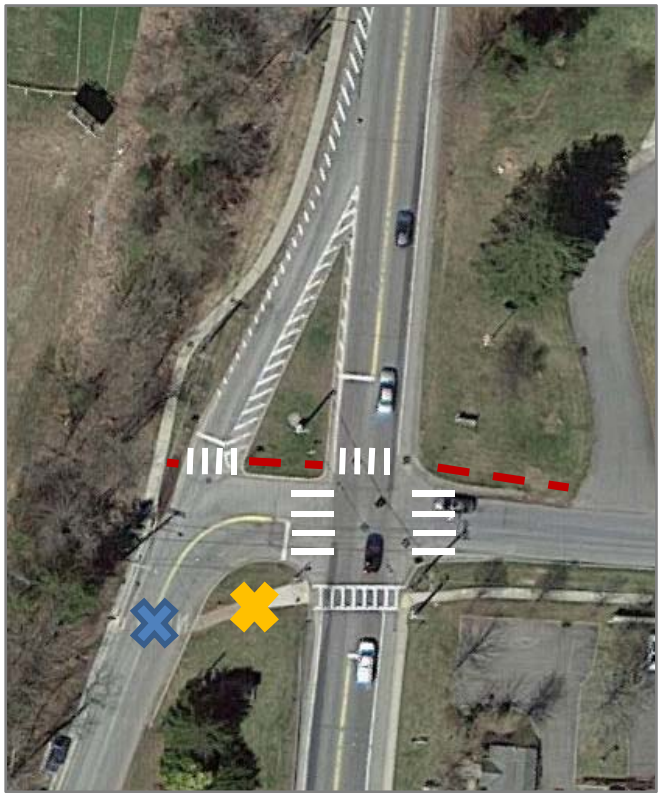
improving pedestrian access across the Route 22 intersection (see NYSDOT meeting notes in Appendix I).

The uncontrolled crosswalk on Coulter Ave could be relocated to improve safety.

a. Improve safety and pedestrian access at the Route 22/Pine Drive/Coulter Avenue Intersection (Phase 1-2)

- In the short-term, upgrade pedestrian-related signage and trim trees on the east side of Coulter Avenue to improve visibility of the uncontrolled crosswalk.

- In the medium-term:
  - Construct a sidewalk on the north side of Pine Drive from King's Apartments to Route 22 and along the island between Route 22 and the stop-controlled slip lane, connecting to the sidewalk on the west side of Coulter Avenue.
  - Work with NYSDOT to provide full crosswalks and pedestrian signals at the intersection and to mark a crosswalk across the southbound slip lane.
  - Remove the uncontrolled crosswalk on Coulter Avenue.
  - Remove the short path from the uncontrolled crosswalk to Route 22 unless there are plans to extend the sidewalk on the east side of Coulter Avenue.



Improvement concept for Route 22/Pine Dr/Coulter Ave, showing north sidewalk extension (dashed red line) and controlled crosswalks (white lines).

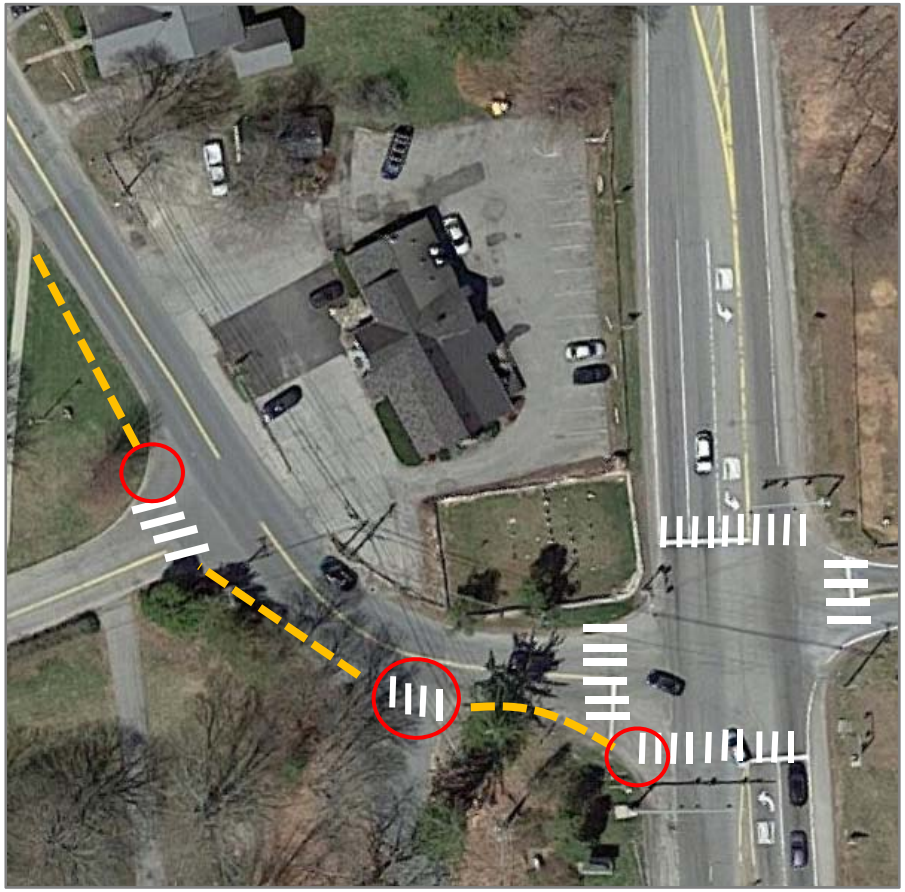
9. Route 22/East Main Street/Quaker Hill Road Intersection

This intersection is a southern gateway into the village and some residents cross it to access East Main Street, but it has no pedestrian infrastructure. There are several physical constraints: on the northwest corner, there is a cemetery and stone wall close to the intersection, as well as a signal pole; on the northeast corner, a signal pole is close to the intersection and a drainage ditch and private fence run along the north side of Quaker Hill Road; on the southeast corner, there are utility poles, a signal pole on a concrete box, and another concrete structure, as well as an uphill grade; and on the southwest corner, there is a large signal pole.

NYSDOT staff initially recommended crosswalks on the southern and eastern legs of the intersection to avoid the cemetery, but residents currently cross the northern leg, in part to avoid conflicts with right-turning vehicles from East Main Street onto Route 22. Based on a follow-up discussion with NYSDOT, crosswalks could be provided on all legs to provide full pedestrian access. Connecting sidewalks are likely not feasible, but the shoulder areas, widened where needed, can be used as landings. These landings, as well as any connections to sidewalks, would need ADA-compliant cross slopes, horizontal clearances, etc. (see NYSDOT meeting notes in Appendix I). These intersection improvements will require additional design and engineering work by NYSDOT.

a. Provide pedestrian access across Route 22 at East Main Street/Quaker Hill Road (Phase 2)

- In coordination with NYSDOT, provide full crosswalks and pedestrian signals at the intersection. Extend the shoulder line on the northwest corner and widen



Improvement concept for Route 22/East Main St/Quaker Hill Rd, showing sidewalk extension (dashed orange line), crosswalks (white lines), and corners to be tightened (red circles).

shoulders at the crosswalk landings as needed to provide turning areas.

- Consider restricting right turns on red, such as through a dynamic sign that is activated when the pedestrian push-button is pressed.
- Look for opportunities to coordinate improvements with other projects, such as the Castagna Phase 2 force main extension.
- Consider gateway improvements at the intersection, such as landscaping and signage.

b. Extend the East Main Street sidewalk (Phase 3)

- Extend the sidewalk on the west side of East Main Street to the Route 22 intersection.
- Mark crosswalks across South Street (if not already done for the South Street sidewalk) and Holm Run.
- Tighten the corners at South Street, Holm Run, and the southwest corner of Route 22/East Main Street to slow traffic and reduce crossing distances.

10. Henry Street/Dutcher Avenue Intersection

This intersection is extremely wide, and the sidewalk along the east side of Dutcher ends well north of the intersection. There is no marked crosswalk across Henry Street and no direct connection to the sidewalk on the south side, so it is unclear exactly where to cross. Narrowing the intersection would create a much shorter and clearer crossing.

a. Extend curbs and mark a crosswalk at the Henry Street/Dutcher Avenue intersection (Phase 1-2)

Extend the curbs on both sides of Henry Street to narrow the intersection, extend the north and south sidewalks, and mark a crosswalk across Henry Street. There may also be an opportunity to add on-street parking spaces adjacent to the northern sidewalk. In the short term, to test the design, the curb extensions could be created with paint and flexi-posts or other temporary materials.

Improvement concept for Henry St/Dutcher Ave, showing crosswalk (white lines) and curb and sidewalk extensions (green areas and dashed orange lines).

11. Lakeside & Murrow Park Access

The Village is currently replacing much of the existing sidewalk along West Main Street towards Murrow Park, and has developed plans to extend the sidewalk to the park entrance across Lakeside Drive. The Oblong Land Conservancy and

Town have discussed improving trail connections between Lakeside and Murrow Parks, building on the Parks Master Plan developed by the Pawling Community Foundation.

a. Improve pedestrian access to Murrow Park (Phase 1)

Extend the West Main Street sidewalk to Lakeside Drive and into Murrow Park, with crosswalks across West Main Street and Lakeside Drive (see Drawing 4, conceptual plan).

b. Evaluate relocating the Lakeside Park vehicle access to eliminate the five-way intersection (Phase 1)

Support the Town's evaluation of relocating the Lakeside Park vehicle access away from the Lakeside Drive/West Dover Road intersection. Eliminating the five-way intersection would simplify vehicle movements, and the uncontrolled crosswalk just west of the intersection could be relocated to a stop-controlled location at the intersection, improving pedestrian safety.

c. Improve connections between Murrow and Lakeside Parks (Phase 2)

Support the Town and Oblong Land Conservancy in improving pedestrian connections between the two parks.

d. Consider a Corbin Road sidewalk (Phase 3)

A longer-term goal is a potential sidewalk along Corbin Road to connect the Middle/High School to Charles Colman Boulevard and Lakeside Park. The grades near Route 22 and Corbin Road are substantial, so it is unclear if this connection would be feasible. It would also require another at-grade pedestrian crossing of the Metro-North line (see South Street recommendation for details) and pedestrian access across the Swamp River.

12. Coulter Avenue

Coulter Avenue has a continuous sidewalk on the west side, but the sidewalk on the east side has gaps between East Main Street and Spring Street and north of Haight Street to Pine Drive. Challenges to a continuous sidewalk include the gas station on the East Main Street corner (with many wide driveways), a home close to the roadway south of Spring Street, and several utility poles north of Haight Street.

a. Extend the east sidewalk on Coulter Avenue (Phase 3)

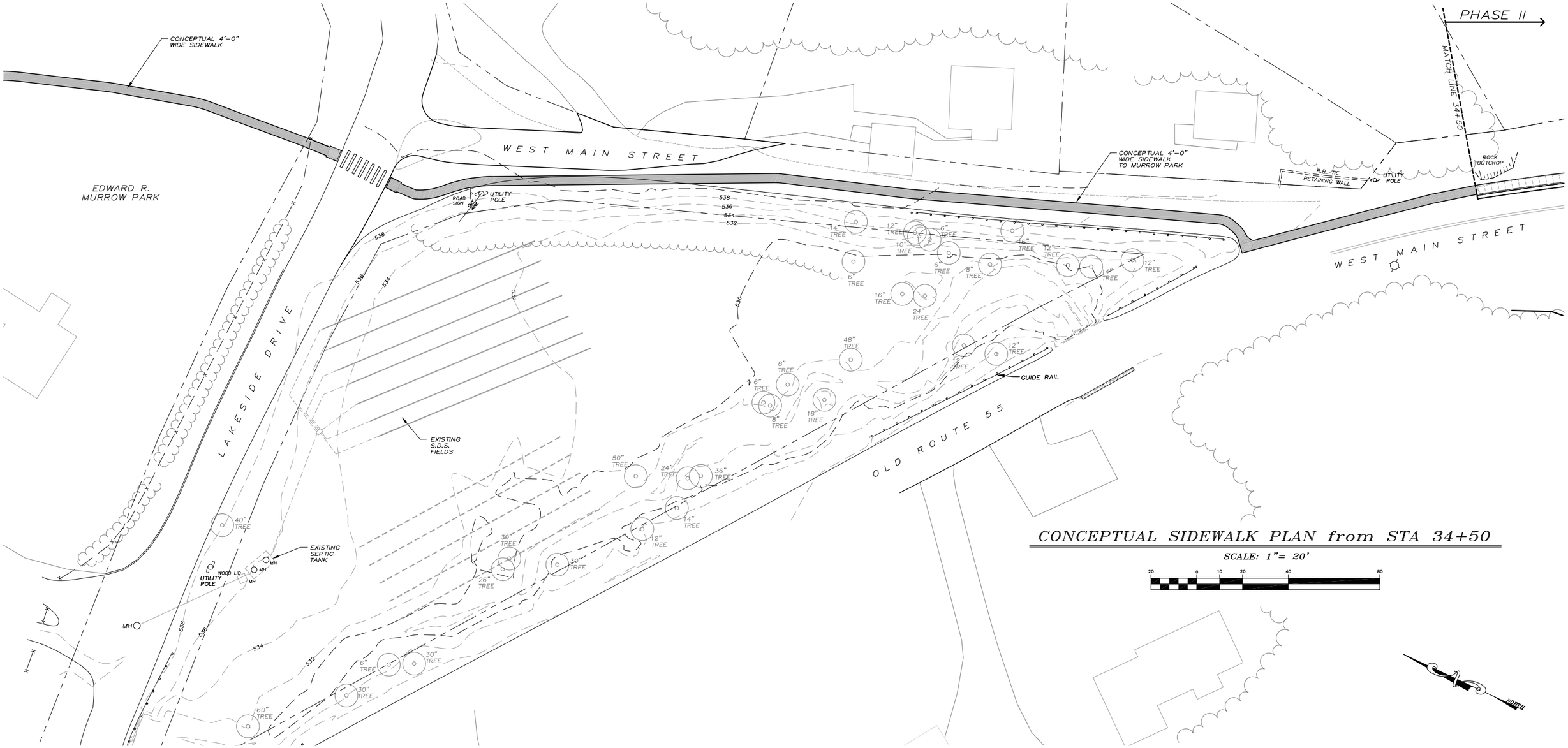
In coordination with land use changes or other opportunities, extend the sidewalk on the east side of Coulter Avenue from East Main Street to Spring Street, and from near Haight Street to Route 22/Pine Drive.

13. Village-wide Infrastructure

A series of walkability, safety, and accessibility improvements are recommended throughout the village.

a. Upgrade pedestrian-related signage (Phase 1)

The village currently has a mix of pedestrian-related signs (see Map 7). Warning signs at crosswalks are particularly inconsistent. Some direct drivers to yield, while others direct



Drawing 4: West Main Street Sidewalk to Murrow Park Conceptual Plan

drivers to stop, and they appear in a variety of formats, several of which are non-standard.

Consistent, visible signage should be installed at uncontrolled crosswalks (those not controlled by a signal or stop or yield sign). They can also be placed on medians. Consistent with NYS V&T Law, only the 'yield' version should be used.[9]

We recommend the Pedestrian Crossing (W11-2) sign, with an arrow pointing to the crosswalk.[10] These are taller and larger than the in-crosswalk signs, making them more visible from the curbside. They should be placed on each uncontrolled approach to a marked crosswalk.

The village also has a variety of school-area warning signs and many 'Slow, Children at Play' signs. We recommend that the Village review all pedestrian-related signs, remove any that are unnecessary, and upgrade those remaining to a consistent standard. A map-based inventory of all the street signs would help Village staff keep track of where signs are and when they are installed and replaced.

Various pedestrian crossing signs in Pawling. In-Street Pedestrian Crossing signs (top left and center) are intended to be placed in the middle of a crosswalk, but often suffer damage from vehicles. Pedestrian Crossing signs (bottom right) are more visible and less prone to damage. Other signs shown do not meet current standards or reflect NYS law.

b. Repair/replace poor & fair condition sidewalks (Phase 1-2)

As opportunities arise, repair or replace sidewalks on fair and poor-quality segments, including West Street (east side), Elm Street, Charles Colman Boulevard (west side north of Union St), and Fairway Drive (near Main St), as well as East Main Street on the south/west side from Pawling Commons to

[9] See MUTCD section 2B.12 and Figure 2B-2 (page 55).

[10] See MUTCD sections 2B.11 (page 55) and 2C.50 (page 130).

Coulter Avenue (this was rated "good", but the Task Force expressed interest in upgrading it due to the development planned at the Pawling Commons site). See Map 4 - Sidewalk Conditions.

Asphalt sidewalks (such as on West Street and Elm Street) should be replaced with concrete. The asphalt and any underlying concrete should be removed; a new sub-base may be needed to create a stable, even sidewalk.

c. Address sidewalk issues (Phase 1-3)

Lifts, cracks, and other specific issues on overall good or excellent condition sidewalks should be addressed through shaving, replacing short segments, removing obstructions, and trimming vegetation as needed. See Map 5 - Sidewalk Issues.

d. Construct curb ramps where missing (Phase 2)

Ramps should be installed at curbed intersections or crosswalks without a ramp, as well as at the end of sidewalks. These include Jem Lane at Baxter Road (SE corner), Jem Lane at Tyrell Road (SE corner), Dutcher Avenue at the Methodist Church crosswalk (both sides), Memorial Avenue at the north end of the sidewalk (just north of Smith Street), Coulter Avenue at Haight Street, within the Elementary School property (at the end of the northern sidewalk and at both sides of the southern crosswalk), and at the High School (at the east end of the circular sidewalk). See Map 6 - Curb Ramps for locations.

At intersections, ramps should direct a person into the crosswalk (whether marked or not), not into the center of the intersection. Driveways should not be used as curb ramps (as on Coulter Avenue at Haight Street), as they present safety concerns, do not typically meet the slope and width requirements for ramps, and cannot have detectable warnings, which are required at curb ramps.[11] Such crosswalks should be re-aligned or relocated to a safe location and provided with a dedicated curb ramp.

e. Add detectable warning strips at curb ramps (Phase 1-2)

Detectable warnings indicate a transition between a sidewalk and the street. They are required at signalized and stop-controlled intersections, at all marked crosswalks, and at commercial driveways that are controlled by signals, stop or yield signs, or that otherwise act like a public street.[12] They should not be installed at residential driveways or minor commercial driveways. Based on this guidance, detectable warnings should be installed at intersections and select driveways in coordination with sidewalk or crosswalk work. See Map 6 - Curb Ramps for locations needing warning strips.

[11] See PROWAG Chapter R3, Section R304, Curb Ramps, and R305, Detectable Warning Surfaces

[12] See PROWAG Advisory R221, Detectable Warning Surfaces, in Chapter R2.

f. Provide alternatives to stairs (Phase 2-3)

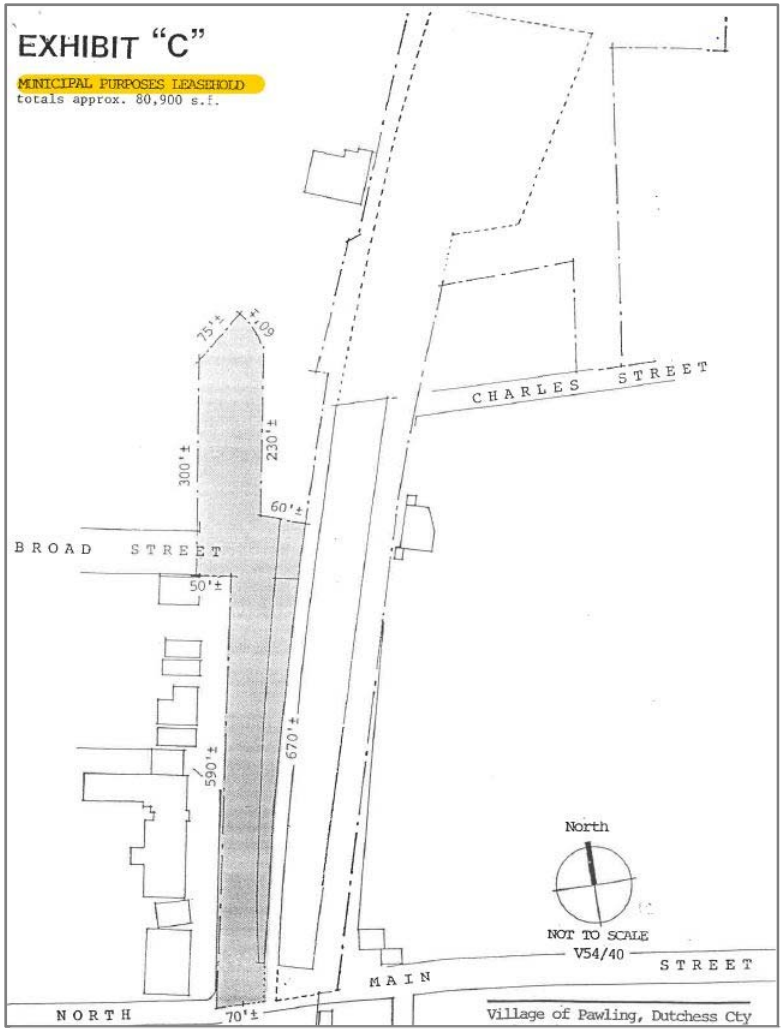
In addition to the stairs on Memorial Avenue near the train station, there are stairs within the sidewalk on the east side of Coulter Avenue south of Pine Drive, and on the Elementary School property between the parking area and the southern crosswalk. See Map 6 - Curb Ramps for locations. The stairs on Coulter Avenue should be removed to make the sidewalk accessible. The stairs at the Elementary School crosswalk should be replaced by an accessible ramp, as noted above under item *d*. There are also some stairs on Charles Colman Boulevard at the north end of the western sidewalk. While these do not affect the accessibility of the sidewalk itself, the sidewalk ends without an accessible transition to the street.

g. Replace diagonal curb ramps (Phase 3)

Longer-term, diagonal curb ramps, which direct people into the center of the intersection, should be replaced with separate ramps that direct people into each crossing, if feasible. Locations with diagonal ramps include West Main Street at Dutcher Avenue (SE corner), East Main Street at Memorial Avenue (NE corner, for crosswalk across Memorial Avenue), Charles Colman Boulevard at Broad Street (SW corner for crosswalk across Charles Colman Boulevard), and Coulter Avenue at Smith Street (NW corner). See Map 6 - Curb Ramps for locations.

14. Parking

Parking is critical to the economic success of the village, but it must be managed, like any resource, to ensure that it is used efficiently. Often, there is a perception of 'not enough parking' due to poor parking management, enforcement, or lack of signage and information. While this plan did not focus on



This exhibit from the Metro-North lease agreement shows the 'municipal purpose parcels" in gray.

parking, parking concerns were raised many times by the Task Force and public, and it is an issue the Village must deal with to allow downtown to continue to develop. See also the recommendation to update parking requirements under Codes & Policies.

a. Mark parking spaces and clarify restrictions (Phase 1)

As a first step, the Village should mark on-street spaces with parking 't's to maximize the number of spaces and encourage drivers to park close to the curb.[13] Off-street spaces should be striped to maximize the number of spaces. In addition, any parking use or time restrictions should be clearly signed, both for on-street and off-street parking.[14]

b. Conduct a parking study (Phase 2)

The Village should review and update the 2003 Parking Utilization Survey to better understand the supply and demand for parking within the downtown area. This would involve an updated inventory of existing on-street and off-street spaces, both public and private, as well as their levels of use on various days and at various times. This information will help the Village understand where parking is available, so that drivers can be directed to those locations, and where parking is scarce, so that management tools can be considered to free up prime spots. For an example of a more recent parking study, see the Beacon Center City Parking Analysis.

c. Implement a parking management plan (Phase 2)

Based on the results of the parking study, the Village should develop and implement a parking management plan. Tools to consider include signage, striping (including marking 'no parking' areas, such as near crosswalks), pricing (to encourage turnover in prime locations), off-site merchant/employee parking, enforcement, and development of additional parking as needed.[15]

If the Village desires to implement priced parking on Metro-North property, then Metro-North must be consulted. The Lease Agreement between the Village and Metro-North describes two areas leased to the Village, the "Railroad Parking Facility" and the "Municipal Purposes Parcels." The Municipal Purposes Parcels include some shopper parking on Charles Colman Boulevard owned by Metro-North. The lease states that this shopper parking is free. Section 2.2 (page 3) of the lease provides that if the Village wants to impose a fee for shopper parking on the Municipal Purposes Parcels, then it must give Metro-North 30 days written notice and 55 percent of gross revenues generated. The Village should also work with Metro-North and MTA Real Estate on any parking management plans involving Metro-North property.

[13] See MUTCD Section 3B.19 (Parking Space Markings) for guidance.
[14] See MUTCD Sections 2B.46-48 (Parking, Stopping, and Standing Signs) and 3B.23 (Curb Markings).

[15] For sample management tools, see the Poughkeepsie Parking Improvement Plan and Summary on DCTC's Publications page.

15. Bicycle Access

Bicycle access was not a focus of this study, but bicycling could become more prevalent in Pawling with the extension of the Dutchess Rail Trail from Hopewell Junction to Putnam County as part of the Empire State Trail. The Village could make a few simple changes to improve the safety and comfort of bicyclists.

a. Install bicycle parking (Phase 1)

As discussed in the Inventory section, there are very few bike racks in the village. Bike parking provides a safe place for people to lock their bikes, reduces clutter from bikes parked on poles or against buildings, and encourages people to park their bike and walk around. A consistent series of bike racks (preferably the 'Inverted U' or another simple, easy to use style) should be installed along Main Street, Charles Colman Boulevard, and near entrances of local destinations. See DCTC's Bicycle Parking Guidance and our Bicycle Parking Recommendations for detailed guidance.

b. Consider bicycle wayfinding signage (Phase 1-2)

Bicycle wayfinding signage helps bicyclists find destinations such as the train station, the library, post office, parks, and downtown businesses. A few simple, clear signs (such as the Bike Route Guide sign)[16] could help the Village capture the economic benefits of bicycle tourists and visitors.

A bicycle wayfinding sign. Source: Google

c. Adjust sharrow markings on Charles Colman Boulevard and consider signage (Phase 2)

As noted above, the sharrows on Charles Colman Boulevard are placed very close to the angled parking, creating a potential safety issue. If the Village wants to maintain these sharrows, they should be placed in the center of the effective lane, per NYSDOT guidance.[17] The Village could also consider 'Bicycles in Lane' signage to alert drivers to bicyclists' presence and to encourage bicyclists to ride in the road, which is safer than riding on the sidewalk.[18]

16. Codes & Policies

Local codes and policies are critical to providing consistency in development decisions over time. We recommend updating Village zoning, subdivision, and other codes and policies to support a more walkable and accessible community.

a. Develop Sidewalk Design, Construction and Maintenance Guidelines (Phase 1-2)

The Village has no documented design, construction or maintenance standards for sidewalks. As noted above, the Village has reserved a Streets and Sidewalks section in the

[16] See MUTCD, Section 9B.20 and Figure 9B-4 for guidance.
[17] See NYSDOT's Shared Lane Marking Policy.
[18] See the Cornell Local Road Program's *Bicycling on Sidewalks* summary for information about the relative risk of bicycling on sidewalks.

code (Section 80), but no language has been adopted. Local Law #1 of 2003 requires property owners to remove snow and ice from adjacent sidewalks, but this has not been integrated into the code, and there is no code or local law clarifying sidewalk maintenance responsibilities, though Highway staff often do minor repairs. For design and construction standards, the Village relies on guidance from NYSDOT, the Cornell Local Roads Program, the Village engineer, and others.

We suggest that the Village develop and adopt sidewalk design, construction and maintenance standards and responsibilities to ensure consistency. This could be part of a new Streets and Sidewalks code.

For design, the code could reference guidelines such as NYSDOT's Highway Design Manual, the U.S. Access Board's Public Rights of Way Accessibility Guidelines (PROWAG), the MUTCD, and the National Association of City Transportation Officials (NACTO) design guides. It should include the following items, among others:

- **Require concrete for sidewalks and curbs**

  While most sidewalks in the village are concrete, some are asphalt. Asphalt is not a recommended sidewalk material, as the edges tend to ravel off, and the surface often becomes uneven (especially when applied over poor condition concrete). We recommend requiring concrete for sidewalk and curb construction and repair. If needed, an alternate material could be used if a written justification is submitted and approved. (Note that NYSDOT requires concrete for all sidewalks and curbs along a State highway, and ADA requirements limiting gaps and vibration would apply to other sidewalk materials).

Asphalt sidewalks often ravel (crack and break off) along the edge, reducing the useable width, as shown here on West St.

- **Require a five-foot minimum sidewalk width**

  Based on NYSDOT design standards and national accessibility guidelines, best practice is to build sidewalks at least five feet wide so two wheelchairs can pass (four-foot sidewalks can be used but must have a five by five foot passing area every 200 feet). Facilities must be made accessible to the maximum extent practicable, both for new construction and repairs. If there is a technical reason why a facility cannot be accessible, it should be documented.[19]

  We recommend that the Village specify a minimum sidewalk width of five feet, with exceptions allowed in cases of technical infeasibility, if documented and approved.

[19] Based on discussions with a Federal Highway Administration Civil Rights Specialist. The US Access Board has developed Public Rights of Way Accessibility Guidelines (PROWAG) which have been adopted by NYSDOT and others, but have not yet been adopted by the federal government.

- **Encourage a five-foot sidewalk buffer**

  Sidewalk buffers make it safer and more comfortable to walk, and provide space for landscaping, street trees, and snow storage. The County Planning Department recommends a minimum buffer width of five feet to separate walkers from traffic, allow room for trees and snow storage, and prevent side slopes at driveways (see Greenway Guide B2, Walkable Communities). For new or reconstructed sidewalks, we suggest that the Village require a buffer and encourage a width of five feet, unless infeasible.

- **Continue sidewalks across driveways**

  We recommend that sidewalks continue across driveways as a visual prioritization of pedestrian access and to alert drivers that people may be walking across the driveway. However, cracks can form in sidewalks that cross driveways, due to the weight of vehicles traveling over them. The sidewalk and driveway specifications should incorporate strong construction standards to prevent damage to sidewalk segments that cross driveways.[20]

- **Require standard crosswalk markings**

  Most crosswalks in the village are high-visibility 'continental' markings (parallel horizontal stripes), though some ladder and angled ladder crosswalks exist, particularly in Lakeside Park (in the Town) and at the Elementary School. We recommend requiring continental crosswalk markings for consistency. High-durability markings (such as tape or epoxy) could be encouraged when feasible.

This continental crosswalk on Pine Dr. uses a durable and reflective tape product.

b. Restrict parking near crosswalks (Phase 1)

The New York State Vehicle & Traffic law prohibits parking within twenty feet of a crosswalk at an intersection, unless otherwise indicated by official signs, markings, or meters (see Section 1202(a)2b). To improve visibility and safety at mid-block crosswalks, we suggest that the Village pass a local ordinance restricting parking within twenty feet of mid-block crosswalks as well. The proposed curb extensions at the Main Street crosswalks would also limit parking next to those crosswalks.

c. Review & revise codes and policies to promote walkable development (Phases 1-2)

We encourage the Village to review its zoning, subdivision, and other codes, as well as Planning, Zoning, and Highway Department procedures to ensure that walkable development is encouraged, and that sidewalks and other pedestrian-

[20] For example, see the Village of Rhinebeck Road Specifications code, Section A125-29.D: Sidewalks.

related improvements are considered as part of all development or redevelopment projects. A complementary approach would be to pass a Complete Streets Policy, which would apply to any project affecting streets in the village. Dutchess County's Complete Streets Policy is one model; the National Complete Streets Coalition also has best practice language.

In general, we recommend that any new streets, and all new developments, include sidewalks with curbs. When sidewalks are constructed, street trees should be planted in buffers or tree grates if feasible, or behind the sidewalk. Specific species should be selected for each location based on the space available and potential conflicts with utilities or passing trucks.[21]

In the downtown area, the code should encourage street furniture such as benches, tables and chairs, trash/recycling receptacles, and pedestrian-scale and storefront lighting. These items make the street more inviting and comfortable. They should be a consistent material and style to create a uniform look. Tables and chairs could be moved inside at the end of the day to avoid damage or vandalism.

Parking lots abutting the street make the sidewalk less appealing and less safe, due to driveways interrupting the sidewalk. To reduce conflict points and prioritize pedestrian comfort, we recommend requiring off-street parking to be in the rear, or when that is not feasible, to the side of buildings.

To communicate walkable design goals to property owners and developers, the Village could create visual design guidelines, either integrated into the zoning code or as a stand-alone "pattern book" or design guidelines document. This could illustrate building, sidewalk, parking and driveway placement, as well as details such as entrances, roofs, windows, materials, lighting, signage, and setbacks with photos and/or illustrations. In Dutchess County, the Villages of Tivoli and Red Hook have pattern books that could serve as models, and the County Planning Department's Greenway Guides could be incorporated.

d. Work with landowners to promote walkable development (Phases 1-3)

The Village should actively promote walkable development and redevelopment, particularly on Main Street and Charles Colman Boulevard, but also on Route 22. Task Force members expressed interest in slowing speeds along Route 22. Adding sidewalks and street trees can help reduce speeds but are most effective when supported by a walkable development pattern. A speed limit reduction (from the current limit of 45 mph) could be considered once a more walkable development pattern is in place.

In addition to zoning changes (as recommended in item *c*), this includes working with landowners and applicants to place buildings near the street, install sidewalks and pedestrian connections into the site, locate parking to the side or rear,

[21] For tree species, see Cornell University's searchable database at http://woodyplants.cals.cornell.edu/plant/search

and consolidate driveways and share parking between uses. In all site plans, the Village should aim to improve pedestrian access, safety, and comfort.

e. Update parking requirements (Phase 1)

The Village's zoning code details parking requirements for a variety of uses (§ 98-22, Off-street parking). The requirements for some uses appear high (in particular, retail and offices in the downtown B-1 district), and the code does not provide much flexibility. For example, the code allows for parking to be off-site, but restricts this to locations within 100 feet of the lot; the Planning Board may waive requirements, but only up to 15 percent; and in the downtown, applicants may provide payment in lieu of spaces, but with several restrictions.
We recommend that the Village revise its parking code to provide more flexibility, particularly if shared parking can be arranged, if off-site parking is available, or if the applicant can document that fewer spaces are needed. We suggest considering maximum parking ratios, or a minimum to maximum range, rather than just a minimum. See Massachusetts' Smart Parking Model Bylaw for an example.

f. Adopt the Pedestrian Plan and designate an implementation entity (Phase 1)

In our experience, plans such as this are most effective when adopted as an official municipal document. Referencing a formally adopted plan can also help in securing grants.

This Pedestrian Plan could be incorporated as an appendix to the updated comprehensive plan or adopted by resolution as a separate document. We also recommend that a specific entity be tasked with overseeing implementation of the Plan. A Village committee or other entity could take on this role.

17. Programs

We recommend two programs to support the infrastructure improvements and policy changes.

a. Develop a capital plan for sidewalk construction and maintenance (Phase 1)

Village Highway staff perform basic sidewalk repairs on an ad-hoc basis, but there is no long-term capital improvement plan or sidewalk maintenance plan. Sidewalk conditions and maintenance expenditures are not tracked in a database or other consistent system, and budgeting appears to be done on an annual basis—the budget includes a line item for sidewalk expenses, which comes from the general fund.

We recommend that the Village establish at least a five-year capital plan with an associated budget and prioritized list of projects, as well as a system to track sidewalk conditions and maintenance work. This will help ensure that the highest-priority areas are addressed first, and that funding is identified to address maintenance needs. The capital plan could include sidewalk construction, repairs, sweeping (as needed to remove gravel), snow plowing, and vegetation trimming, as well as construction of curb extensions and ramps and installation of detectable warnings.

As part of this process, the Village should evaluate the personnel and capital/equipment needed to undertake sidewalk snow plowing and maintenance/repair either village-wide or in the downtown area. This would provide consistent, professional attention to a critical element of local infrastructure.

Crosswalk re-marking and public parking striping could also be incorporated into the capital plan, likely as an annual project, unless more durable materials are used. This Plan can provide a starting point.

b. Develop and implement a pedestrian safety education & enforcement campaign (Phase 1-2)

We encourage the Village to promote pedestrian safety by working with civic groups, schools, and the County's Traffic Safety Board to develop and implement programs to encourage safe walking.

Part IV: Implementation

a. Responsible Entities

In general, new sidewalk construction is done by the property owner, road owner (State, County, or Village), or municipality (including, in many cases, for sidewalks on State and County roads). Sidewalk repair is typically the Village or adjacent property owner's responsibility (Pawling currently does not have a code section clarifying responsibilities for sidewalk maintenance, but Highway staff performs basic repairs). Intersection-related work (signals, crosswalks, and sometimes curb ramps) is based on which entity owns the intersecting streets; the higher-level owner (State, County, or Village) is responsible for the intersection. In the village, the State owns Route 22 and Route 55. The County owns Dutcher Avenue and Quaker Hill Road, as well as West Dover Road just north of the Village and Harmony Road southwest of the Village. All other streets are Village-owned.

Landscaping and street furniture maintenance would be the responsibility of the Village, potentially in coordination with an organization (such as the Chamber of Commerce's Beautification Committee) or the adjacent property owner. Work on or along a State road requires a permit from NYSDOT and proof of insurance, while work on or along a County road requires a permit from Dutchess County DPW and proof of insurance. For any work on Metro-North property, plans and engineering drawings must be reviewed by Metro-North and all insurance, entry permit, and approval process requirements must be followed to implement the improvement. All work must be done in a manner that protects the operation of Metro-North service. In some cases, Metro-North forces would do the work.

Appendix J (Recommendations Summary) lists the lead entity and partners for each recommendation, based on our understanding of the various projects.

b. Unit Cost Estimates

Cost estimates require a detailed understanding of each project's context and components. However, cost-estimating tools can provide planning-level estimates. The estimates below are primarily based on information from NYSDOT-Region 8, the County Planning Department's Community Development Division, and local municipalities, with additional information from NYSDOT's online statewide pay item catalog, a New Jersey Safe Routes to School Implementation Costs document, the Pedestrian and Bicycle Information Center's (PBIC) national database of pedestrian and bicycle infrastructure costs, local consultants, and online searches. Estimates are based on recent local projects as much as possible.

As noted below, federal and state-funded projects cost more than locally- or CDBG-funded projects, and costs can vary based on what entity constructs the project. However, regardless of the funding source, projects on a State road need to follow State design guidelines, which generally involves higher costs.

The costs listed below will change over time. Also, costs related to right-of-way, drainage, and utility work are not included. These can vary substantially and may affect the feasibility of recommended projects. Additional cost estimates could be provided by NYSDOT-Region 8, the Dutchess County Department of Public Works, or the Village Highway Department. For improvements on Metro-North property, Metro-North could provide cost estimates if the project has a scope and design.

Cost Estimates

- Sidewalk with curb: $150 - $600 per linear foot (total project cost; depends on drainage, lighting, and other work required).[22]
- Sidewalk only (no curb): $60 - $95 per linear foot
- Pre-cast pavers: $50 per linear foot
- Paved path/trail: $45 per linear foot (10 feet wide)
- Concrete curb: $25 - $50 per linear foot
- Granite curb: $35 - $88 per linear foot
- Grass sidewalk buffer (5 feet wide): $32 per linear foot
- Curb ramp: $2,000 (with new sidewalk) - $3,000 (replace existing)
- Detectable warnings: $300 - $350 per square yard, or about $200 each
- Curb extension: $7,500 - $15,000 each (depending on drainage and utilities)[23]
- Marked crosswalk: $800 - $1,500 each (2 or 4 lanes wide)
- Epoxy pavement stripes: $1 - $3.50 per linear foot (depending on length to be striped)
- Small sign: $200 - $400 each, or $40 per square foot
- Crosswalk warning sign: $450 each
- Radar speed sign (solar powered): $9,000 each
- Replacement pedestrian push-button and sign (on existing pedestrian signal): $300 each
- New pedestrian signal with push-buttons: $7,500 (two per crossing)
- Pedestrian-activated beacon: $2,000 - $5,000 each, depending on type

- Bench: $2,000 - $2,500 each, including installation
- Pedestrian-scale street light: $2,500 each
- Street tree: $200 - $400 each
- Tree grate: $2,000 - $2,500 each
- Trash/recycling receptacles: $300 - $1,000 (for one container or a trash/recycling pair)

- Bicycle Route Guide sign: $150 - $200 each
- Shared-lane marking (sharrow): $200 each
- Bicycle parking rack: $100 each or about $500 for five in series (material only); $900 each including installation

[22] Low-end estimate based on recent CDBG-funded projects; high-end estimate based on recent federally funded projects.

[23] Based on a recent project in the county, curb extensions can cost as much as $20,000 if they include substantial drainage work, granite curbs, and use federal funds.

- Design: 10 percent of construction cost based on project complexity; at least $90,000-$110,000 for a federal-aid project
- Survey: 1-3 percent of construction cost
- Clearing/grubbing: 1-3 percent of construction cost
- Work zone traffic control: 4-9 percent of construction cost (based on project complexity)
- Construction Inspection: 12-15 percent of construction cost (based on project complexity)
- Incidentals, inflation, and contingency: 20 percent of construction cost (estimated)

c. Funding Options

There are a variety of funding sources available for the projects recommended in this plan. Key sources are listed below.

Local Funds

Municipalities often find that it is less expensive to use local funds than federal sources. This is because federal funding typically requires higher-cost materials, lengthy review and right-of way processes, thorough construction inspection, and detailed grant reporting and administration. Although municipal resources are limited, local funds allow for more flexibility and a much faster process. Local funding sources include the following:

- ***General Fund/Discretionary Funds***: The Village will need to weigh each project against other local priorities.
- ***CHIPS*** (Consolidated Local Street and Highway Improvement Program): The Village receives CHIPS funding annually from NYSDOT based on its local roadway mileage. CHIPS funds can be used for construction and repair of streets and bridges, as well as sidewalks and traffic calming projects. Capital projects must be paid for by the municipality and then reimbursed by NYSDOT.
- ***Local Bond***: The Village could issue a local bond to fund a package of improvements.
- ***Sidewalk Improvement District***: Ithaca, NY funds sidewalk installation and maintenance through sidewalk improvement districts. The districts assess an annual maintenance fee on properties, based on the type of property, its size, and the amount of sidewalk work needed in the district. See Ithaca's Sidewalk Policy website for more information.

Private Funds

- ***Development Conditions of Approval***: Prospective developers could be required to construct or provide funding for the relevant improvements outlined in this Plan as part of their project.
- ***Public-Private Partnerships***: Examples include working with the Chamber of Commerce or other organizations on streetscape projects; working with adjacent property owners to fund a portion of sidewalk or other improvements; funding benches through the sale of

advertising space; or creating an 'adopt a street' or similar maintenance program.

- ***Non-Profit Organizations***:
  - America Walks' Community Change Micro Grants fund projects or programs to make walking safer, easier, and more fun. These grants have funded walking maps, public art, signage, crosswalks, events, educational materials, and more.
  - The Rails to Trails Conservancy's Doppelt Family Trail Development Fund provides grants for multi-use trails.
  - AARP Community Challenge Grants provide grants for quick actions that can improve walkability, bikeability, wayfinding, and access to transportation options.

- ***Foundation Grants***: Foundations may have funding for walking and bicycling projects. The Foundation Center website has a national database of grant-makers and grants, as well as other tools for grant-seekers.

County & State Funds

- ***Community Development Block Grants (CDBG)***: These are federal funds from the U.S. Department of Housing and Urban Development and are administered by the Dutchess County Department of Planning and Development's Community Development and Housing Division. In areas defined as low and moderate income, eligible activities include infrastructure improvements such as sidewalk construction, roadwork, and drainage. In all areas, CDBG can fund projects that remove barriers to access. CDBG funds can also be used as a match for other federal funding. Based on current income data, the Village of Pawling could only use CDBG funds to remove barriers to accessibility.

- The ***County Department of Public Works (DPW)*** owns and maintains all County roads, including Dutcher Avenue (County Route 69), Quaker Hill Road (CR 67), and West Dover Road (CR 20) in Pawling. DPW receives CHIPS and County funds, and can use bonds or apply for state or federal funding for larger projects. DPW typically does not build or maintain sidewalks but would be a partner for any project related to a County road.

- The ***Hudson River Valley Greenway*** provides grants to municipalities through its Greenway Community Grant Program and Conservancy Trail Grant Program. The City of Beacon used a Greenway grant to install sharrows, signage, and bicycle parking on its Main Street, and to develop a bicycle education program.

- The ***New York State Department of Transportation (NYSDOT)*** owns and maintains all State roads, including Routes 22 and 55 in Pawling. NYSDOT is responsible for the roadway as well as intersections along it. This includes maintaining signals, marking crosswalks, and installing signs. NYSDOT uses State funds as well as federal funds for its projects.

- ***New York State's Consolidated Funding Application (CFA)*** is an annual application for funding from various State agencies, including the Department of Environmental

Conservation (DEC), Department of State (DOS), Empire State Development (ESD), Homes and Community Renewal (HCR), Parks, Recreation and Historic Preservation (OPRHP), and others. The particular funding programs and amounts vary by year. The CFA is intended to implement the economic development priorities and strategies developed by the Regional Economic Development Councils, which for the Mid-Hudson, include promoting alternative transportation. For Pawling, potential funding programs could include Climate Smart Communities (DEC), which funds pedestrian and bicycle transportation projects; the Environmental Protection Fund (OPRHP), for development of parks; the Recreational Trails Program (OPRHP), for trails; Clean Energy Communities (NYSERDA); and the Green Innovation Grant Program, for wetlands and green infrastructure (NYSEFC).

- New York State's ***Multi-Modal Program*** provides reimbursement funding for capital projects related to five specific modes: rail, port, ferry, airport, and State and local highways and bridges. Projects are nominated by the Governor or a State Legislator and must be approved by a State Committee and determined to be eligible by NYSDOT.

- The ***State and Municipal Facilities Program***, administered by the State's Dorm Authority, can fund sidewalks and other local infrastructure. Projects are nominated by a State Legislator.

- ***State Section 130 Railway-Highway Crossings funding*** is intended to improve safety at railway crossings on roads, bicycle trails and pedestrian paths. This could be a funding source for the South Street railroad crossing improvements.

- ***Legislative Discretionary Funds***: State legislators typically have discretionary funds that can be used for local priority projects.

Federal Transportation Funds

Most federal transportation funding comes from the multi-modal federal transportation law in effect at the time; the current law is the *Fixing America's Surface Transportation Act* (FAST Act), which was enacted in 2015. To use federal transportation funding, a project must be consistent with an overall transportation plan, such as *Moving Dutchess 2*, and be added to the DCTC's Transportation Improvement Program (TIP). For more information, see the DCTC's webpage on Federal Highway Funding and the Federal Highway Administration's Pedestrian and Bicycle Funding Opportunities table.

Federal transportation funding programs that could be used for pedestrian and bicycle improvements include the following:

- ***National Highway Performance Program (NHPP):*** These funds may be used for projects, including walking and bicycling facilities, on roads on the National Highway

System (NHS). In Pawling, the NHS includes Routes 22 and 55.

- ***Surface Transportation Block Grant Program (STBG):*** These funds may be used for projects on any federal-aid eligible road. In Pawling, these include West and East Main Street, Quaker Hill Road (within the Village), Route 22 and Route 55. Projects can include walking and bicycling facilities, as well as non-construction projects related to safety (such as brochures, public service announcements, and route maps). A portion of each State's STBG funds must be used for the STBG Set-aside (see below).

- ***Transportation Alternatives/Surface Transportation Block Grant (STBG) Program Set-aside***: This program, previously called "TAP", funds walking and bicycling infrastructure, safe routes to school projects, and trails, as well as landscaping and other projects on any public road. Eligible costs include studies, design, construction, and right-of-way incidentals and acquisition. Administrative and maintenance costs are not eligible.

Most federal programs are reimbursement programs, and the federal share of the costs is generally 80 percent. If these funds are used, the project sponsor is responsible for the required local match and any costs that are not covered by federal funds. The design and construction of pedestrian facilities could be funded by any of the sources, and could be a stand-alone project or combined with a roadway project. A large project could also be split into several smaller pieces with funding from different programs.

d. Final Thoughts

The Village of Pawling benefits from a unique, walkable downtown that supports a growing commercial district. At the same time, this growth brings challenges, including balancing the needs of residents, visitors, parking and trucks, overcoming the barriers created by Route 22, and working within the constraints of a small village with limited resources.

The first step is to agree on a vision; then begins the hard work of securing funding and implementing priority projects.

This work takes time and focused leadership. This plan is intended to help Pawling start this effort: first, by identifying the scope of the challenge through an assessment of existing conditions, and second, by presenting a series of recommendations to improve safety, access, and the walking environment throughout the village.

With concerted effort by the Village, working with the Town and local organizations as well as the State, Metro-North, and other partners, the village can become an even more walkable and accessible destination for both residents and visitors.

Appendices

A: Village Resolution

DATE OF MEETING: April 2, 2018

PLACE OF MEETING: Village Hall, Pawling, New York

MEMBERS PRESENT: Mayor Robert Liffland
Trustee Dan peters
Trustee Earl Slocum
Trustee Lauri Taylor

The meeting was called to order at 7:00 P.M. with the Pledge of Allegiance.

Mayor Liffland presented the Tentative Budget for 2018-2019 to the Board. He reported the budget was under the tax levy.

MOTION by Trustee Peters to schedule the Public Hearing on the Tentative Budget for April 16, 2018. **SECONDED** by Trustee Slocum. There was no discussion; all were in favor and the motion carried.

MOTION by Trustee Peters to approve the application for Village Green and Public Assembly Events Permit for the 31st Pawling Triathlon on Saturday, June 2, 2018. **SECONDED** by Trustee Taylor. There was no discussion; all were in favor and the motion carried.

MOTION by Trustee Taylor to approve the Resolution to Establish a Local Pedestrian Task Force. **SECONDED** by Trustee Peters.

Resolution to Establish a Local Pedestrian Task Force

PREAMBLE: Sidewalks promote walking and reduce the need for parking spaces. They connect friends and neighbors as places to meet, provide a pedestrian network to shops, schools and community facilities, and are settings for community parades and other events. Our sidewalks and crosswalks contribute significantly to community life and are central to our economic vitality.

WHEREAS, the Board's goal is to enhance walkability by improving our pedestrian system with safe routes to our schools, libraries, and other public institutions, and by improving sidewalks throughout our historic district, municipal center, and business district; and

WHEREAS, the Board seeks funding from grants and other sources to implement these goals, and requires detailed studies and planning documents to compete for all available funding; and

WHEREAS, the Board wants to involve local residents, merchants, and professionals in both the study and planning process; and

WHEREAS, the Board has requested assistance from the Dutchess County Transportation Council ("DCTC") on a Pedestrian Plan, and may request additional assistance from other sources as needed; and

WHEREAS, the Board seeks to appoint a Pedestrian Task Force (the "Task Force") to facilitate the achievement of their goals and to actively participate in the Sidewalk Inventory and Improvement Plan as listed below;

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby creates a Pedestrian Task Force to be composed of local citizens to work in concert with the Board, DCTC, grant writers, and other appointed experts, consultants, or departments on a Pedestrian Plan as needed for six to twelve months or until a final detailed report can be completed.

THE PEDESTRIAN TASK FORCE RESPONSIBILITIES SHALL INCLUDE THE FOLLOWING:

1. Attend regular Task Force meetings and other special meetings as needed.
2. Serve as the official liaison to the DCTC to assist with the Pedestrian Plan, and provide input and participate in all surveys, studies and planning work as needed.
3. Organize and lead outreach efforts to build collaborative relationships with local stakeholders, community organizations, public works officials, and residents.
4. Interview residents, merchants, and property owners as needed to help determine the best approach to implement recommendations.
5. Research and visit places in Dutchess County and the Hudson Valley where successful sidewalk projects are underway or have been completed, and assess their potential use for our community, as needed.
6. Interview contractors that specialize in sidewalk construction to determine the best approach to repair existing sidewalks and construct new sidewalks, to gather unit cost estimates, and to suggest construction techniques and surface materials for sidewalks or other information as needed.
7. Interview local committees and work with them to generate recommendations on how to improve sidewalks and pedestrian connections.
8. Provide information to grant writers as needed for funding applications.
9. Present regular progress reports on the project to the Board and the general public, as needed.
10. Arrange and participate in meetings between the Board, New York State Department of Transportation, County, and other public agencies that could help advance the Board's goals.
11. Based on the research findings, develop a series of recommendations designed to improve the safety of our sidewalks and enhance walkability.
12. Review and evaluate current laws and codes related to sidewalk maintenance, such as the trimming of bushes, removal of obstacles, furniture, trash cans, snow removal, and general maintenance and repair.
13. Develop, for review and adoption by the Board, a series of recommendations to update codes to ensure that sidewalk standards are uniformly enforced.
14. Provide the Board with a final report of all Task Force findings and recommendations.

The Board shall appoint five to ten individuals to the Pedestrian Task Force, including a chairperson. The chairperson will act as the primary liaison between the municipality and DCTC. The Board will seek members knowledgeable in subjects related to the maintenance and improvement of sidewalks such as local law, landscape architecture and trees, and finance, and as well as property owners and merchants from the business district. The Board may appoint anyone to the Task Force that they feel can help achieve the stated goals.

The Board will solicit applications from all interested persons for a 30-day period. A Board liaison and appointed Task Force Chairperson will review the applications and conduct interviews as needed to compile a final list of candidates that will be presented to the Board for approval.
The resolution was adopted.

MOTION by Trustee Peters to set the Bulk Clean Up Day for village residents for Thursday, April 26, 2018. **SECONDED** by Trustee Taylor. There was no discussion; all were in favor and the motion carried.

MOTION by Trustee Peters to approve payment of the March bills in the amount of $77,719.38. **SECONDED** by Trustee Slocum. There was no discussion; all were in favor and the motion carried.

There was discussion on mixed use buildings.

Mr. Michael Cerny thanked the Board for following up with the sandblasting issue within the village near his home.

MOTION by Trustee Peters to close meeting at 7:35 P.M. **SECONDED** by Trustee Taylor. There was no discussion; all were in favor and the motion carried.

Jennifer Ochan
Village Clerk

B: Inventory Summary Tables

Pawling Pedestrian Plan: Fieldwork Summary

Sidewalk Infrastructure	Length (feet)	Length (miles)	Percent
Existing Sidewalk	35,306	6.7	23%
No Sidewalk	117,208	22.2	77%
Total Area Inventoried	152,514	28.9	100%

Sidewalk Condition	Length (feet)	Length (miles)	Percent
Excellent	16,949	3.2	48%
Good	13,594	2.6	39%
Fair	2,107	0.4	6%
Poor	2,656	0.5	8%
Total Existing Sidewalk	35,306	6.7	100%

Sidewalk Issues	Number	Percent
Cracked/Broken	25	30%
Clearance (Temporary)	16	19%
Uneven	8	10%
Removed	8	10%
Lifted	6	7%
Obstruction (Permanent)	6	7%
Other*	14	17%
Total Issue Locations (points)	83	100%
*cross slope, gravel, overgrown, patched with asphalt		

Sidewalk Material	Length (ft)	Percent
Concrete	30,463	86%
Asphalt	3,859	11%
Brick	829	2%
Other (landscape pavers)	156	0.4%
Total	35,307	100%

Sidewalk Width	Length (ft)	Percent
2.5-3.5 ft	5,785	16%
4-4.5 ft	21,655	61%
5-5.5 ft	5,287	15%
6+	2,580	7%

Sidewalk Buffers	Length (ft)	Percent
No Buffer	27,188	77%
Buffer	8,118	23%

Buffer Material	Length (ft)	Percent
Grass	7,679	96%
Asphalt	291	4%
Landscaping	107	1%
Gravel	41	1%

Buffer Width	Length (ft)	Percent
1.5-2.5 ft	2,130	26%
3-4 ft	2,040	25%
4.5-5.5 ft	1,115	14%
6+ ft*	2,834	35%
Total	8,119	100%
*includes sidewalks that cut through lawns, parks, etc.		

Curb Ramps/Detectable Warnings	Number	Percent
Ramps with a detectable warning (colored domes)	96	76%
Ramps needing a detectable warning	31	24%
Total	127	100%
Diagonal curb ramps (directing pedestrians into the center of the intersection)	4	
Missing curb ramps*	13	
*two crosswalks (Coulter at Haight & Fairway at Sunset) are accessible via a residential driveway, but do not have a dedicated curb ramp.		

Crosswalks	Number	Percent
Continental	34	68%
Ladder	7	14%
Other*	9	18%
Total Crosswalks	50	100%
Faded	13	32%
*angled ladder (in Lakeside Park and at the Elementary School); parallel yellow lines and brick at railroad crossings on E Main St.		

Crosswalk Locations	Number	Percent
At intersections*	39	78%
Mid-block	11	22%
*railroad crossings were considered part of the Main/Colman/Memorial intersection.		

Crosswalks at Intersections*	Number	Percent
Intersections with full crosswalks**	16	73%
Intersections with partial crosswalks***	6	27%
*does not include intersections with no crosswalks. **all intersection legs w/sidewalks are connected. ***only some intersection legs w/sidewalks have crosswalks.		

Curb extensions	Number	Percent
Crosswalks with one curb extension	3	6%
Crosswalks wth two curb extensions	4	8%
Total crosswalks with curb extensions*	7	14%
*six along Charles Colman, one at Memorial Ave/E Main St.		

Commercial Driveways*	
Total number of commercial driveways along sidewalks	51
Sidewalk stops	24
Sidewalk continues	27
Linear feet of driveways along sidewalks (sum of widths)	1,780
% of total street frontage	5%
*on streets with sidewalks.	

Commercial Driveways - Main Street	
Total commercial driveways along Main St downtown*	10
Sidewalk stops	4
Sidewalk continues	6
Linear feet of driveways along Main St (sum of widths)	284
% of total Main St frontage	16%
*between Dutcher Ave and just east of Coulter Ave.	

Pedestrian signals	Number	Percent
Signalized intersections*	3	
Intersections with pedestrian signals**	1	33%
Total pedestrian signal poles	2	
Poles with countdown pedestrian signals	2	100%
Poles with responsive pedestrian signals	2	100%
*22/Quaker Hill, 22/Pine, 22/Reservoir. **22/Pine		

Pedestrian/Bicycle Signs	Number
Pedestrian signs	43
Slow, Children at Play/Watch for Children	11
Yield to Pedestrians	10
Stop for Pedestrians	9
School Area/School Zone	7
Pedestrian Crossing/Look Before Crossing (at RR xing)	4
Crosswalk Warning Sign	2
Sharrows (shared lane markings)	8

Amenities	Number
Benches	48
Trash/recycling cans	24
Pedestrian-scale lights	17
Outdoor tables*	5
Bike racks	4
Bus stop shelters	2
*two groups of tables at middle/high schools, one at Lakeside Park, two by restaurants on E Main St.	

Street Trees	Number
In buffer	12
Not in buffer but shading sidewalk	118

On-Street Parking*	Length (ft)	Percent
Total street frontage with on-street parking	13,257	41%
Street frontage with parallel on-street parking	11,157	35%
Street frontage with angled on-street parking	1,381	4%
Street frontage with perpendicular on-street parking	719	2%
*on streets with sidewalks		

Key Findings:

- The Village has nearly 7 miles of sidewalk.
- Almost 90% of sidewalks are in excellent or good condition.
- The most common sidewalk issue is cracks, followed by clearance.
- Nearly 90% of sidewalks are concrete.
    - For asphalt sidewalks (11% of total), only 11% are in excellent or good condition.
- 78% of sidewalks are narrower than 5 feet. Almost two-thirds are between 4 and 4.5 feet.
- Only 23% of sidewalks have a buffer. More than half of the buffers are 4 feet or narrower. Almost all are grass.
- 13 locations (including sidewalk ends and crosswalks) are missing curb ramps.
- 31 curb ramps (23% of the total) are missing detectable warnings.
- Almost 70% of crosswalks are 'continental' style. Most of the other types are on school property or in Lakeside Park.
- About one-third of crosswalks are faded.
- Almost 80% of crosswalks (39) are at intersections; about 20% (11) are mid-block.
- 7 crosswalks (14% of the total) have a curb extension at one or both ends.
- At about half of commercial driveways on streets with sidewalks, the sidewalk stops, rather than continuing across the driveway.
- Commercial driveways represent only 5% of the frontage on streets with sidewalks. However, on Main Street (Dutcher to past Coulter) 16% of the sidewalk frontage is driveways.
- Only one of the three signalized intersections has pedestrian signals.
- There are more than 40 pedestrian-related signs, including many old signs and nine 'stop for pedestrian' signs that do not reflect State law.
- Most streetscape amenities (benches, trash receptacles, and pedestrian-scale lights) are concentrated in the first two blocks of Charles Colman Blvd.
- There are few outdoor tables.
- There are only 12 street trees in the sidewalk buffer.
- About 40% of streets with sidewalks have on-street parking.

C: Curb Extension Notes

Curb Extensions: notes from DCTC's discussion with Jack Gorton of HVEA Engineers (working on a project in Beacon with multiple curb extensions)

(emailed by DCTC to Task Force Chair and Highway Supervisor on 6/17/2019)

- How do you (generally) deal with drainage? I know there are ways to maintain the existing drainage with a cut-through and metal covering, but that doesn't seem to be what you're doing in Beacon. How would you address a Highway Super's concern that the extensions will throw off drainage?
    - HVEA investigated using metal coverings but were concerned that they may be a maintenance issue (esp with snow). They seem most popular in the south and west; HVEA didn't find examples of their use locally.
    - For Beacon, they will install new catch basins at the corners on the uphill side of the extensions. These will need to be kept clear of snow.
    - You will need a survey to determine the grades and see where new catch basins are needed. You also need to know where the pipes are that you can connect into, or if you need new pipes.
    - Feel free to share the Beacon TAP project plans (which include drainage plans) with Pawling.

- How do you address concerns about snow plowing around the extensions? Is special equipment needed?
    - There is a learning curve, but generally this is not a big issue. The extensions will slow the plowing down a bit, and smaller equipment should be used, but cities and Villages should already have the needed equipment for their downtown areas (Pawling already has curb extensions on Colman).

- For truck turning, is the City imposing any restrictions or policy changes to deal with curb extensions? How do you accommodate trucks making local deliveries on Main St?
    - For the Beacon project, HVEA is accommodating box trucks (SU-40), which make local deliveries, at every turn. They had to make some design changes to accommodate these. They are not accommodating tractor trailers on Main St—the City did not feel this was necessary. They can use alternate routes.

- Is Main Street losing any parking spaces? If so, how have you addressed concerns about that?
    - Most of the areas near crosswalks were already restricted with 'no parking' hatching. The project resulted in about 4-5 parking spaces being lost. This was felt to be reasonable for the safety and other benefits of the project. Also, cars shouldn't be parked next to crosswalks anyway.

- What is the approximate unit cost per curb extension, including drainage costs?
    - Due to the substantial drainage work, the Beacon curb extensions cost about $20,000 each. Costs can range from $2,000 (for curbing only), to $5,000 (a better estimate if no drainage

work is needed), to $10,000 (for non-federal aid projects that include drainage) to $20,000 (for federal-aid projects with substantial drainage, granite curbs, etc).

- Were there any concerns from the Fire Department?
    - In Beacon, the Fire Dept was not concerned. They can go over the extensions with their trucks if needed.
    - In Rockland County (Town of Orangetown, Pearl River area), they put out cones for the Fire Dept to drive around to test the dimensions of the curb extensions. The fire trucks were able to navigate the corners fine. Temporary tests like this can be useful.
    - An FHWA article notes that curb extensions can improve emergency vehicle access because the trucks can go over the curbs if needed, whereas if there was a car parked near the corner, they could be stuck. The article is here: https://safety.fhwa.dot.gov/saferjourney1/Library/countermeasures/23.htm.

- Other notes:
    - Curbs: Granite curbs hold up better than concrete, especially with heavy vehicles turning.
    - Bricks: If you're using any brick, make sure it is installed on top of concrete so it won't shift/settle. For Beacon, they debated using bricks for the crosswalks but decided to use high-visibility continental crosswalks instead.
    - Dimensions: The Beacon curb extensions range in size from about 10 ft on each side of a crosswalk (which is very short) to about 20 ft on each side of a crosswalk, which is more typical and better.
    - Temporary tests: in addition to using cones as noted above, you can look at the intersections when there is snow on the ground and photograph the tire tracks—it shows clearly where cars are turning and what road space is not used ('snow neckdowns' or 'sneckdowns').
    - Leadership: in Beacon, the Mayor was a strong advocate for the curb extensions. The project is part of pedestrian safety and access improvements throughout the city and especially on Main St. A local champion to advocate for the project is helpful.

- Contacts:
    - The Village of Fishkill could be a useful contact as they have curb extensions on Main St (Route 52) that have been there for more than 10 years.
    - There are also curb extensions on Raymond Ave in Arlington (Town of Poughkeepsie), constructed by NYSDOT around 2008.
    - Jack Gorton, PE, Project Manager with HVEA: 845.838.3600; jgorton@hveapc.com

HVEA ENGINEERS

FOLLOW US

JACK GORTON, P.E.
Project Manager

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Beacon, New York 12508
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845.838.5311 f
845.372.3950 c
www.hveapc.com

D: Local Truck Restriction References

Summary of information regarding truck restrictions on local streets (emailed by DCTC to Task Force Chair and Highway Supervisor on 4/29/2019)

John and Jim:

I researched the question of whether a Village can restrict trucks from local streets. The answer is yes. See excerpts from the Cornell Local Roads Program website below.
Note: MUTCD section 2B.6 (page 99) describes the Truck Route sign (R14-1). I have pasted it below.

John—feel free to pass this along to the rest of the Task Force.

Best,
Emily

1. http://www.clrp.cornell.edu/q-a/210-weight.html – a Village can exclude trucks from local streets and establish a system of truck routes. Local delivery trucks can still use the road.

   From the Vehicle and Traffic Law

   §1640. Traffic regulations in all cities and villages. (a) The legislative body of any city or village, with respect to highways (which term for the purposes of this section shall include private roads open to public motor vehicle traffic) in such city or village; subject to the limitations imposed by section sixteen hundred eighty-four may by local law, ordinance, order, rule or regulation:

   5. Exclude trucks, commercial vehicles, tractors, tractor-trailer combinations, tractor-semitrailer combinations, or tractor-trailer-semitrailer combinations from highways specified by such legislative body. Such exclusion shall not be construed to prevent the delivery or pickup of merchandise or other property along the highways from which such vehicles and combinations are otherwise excluded.

   10. Establish a system of truck routes upon which all trucks, tractors, and tractor-trailer combinations having a total gross weight in excess of ten thousand pounds are permitted to travel and operate and excluding such vehicles and combinations from all highways except those which constitute such truck route system. Such exclusion shall not be construed to prevent the delivery or pick up of merchandise or other property along the highways from which such vehicles and combinations are otherwise excluded. Any such system of truck routes shall provide suitable connection with all state routes entering or leaving such city or village.

   20. Exclude trucks, commercial vehicles, tractors, tractor-trailer combinations, tractor-semitrailer combinations, or tractor-trailer-semitrailer combinations in excess of any designated weight, designated length, designated height, or eight feet in width, from highways or set limits on hours of operation of such vehicles on particular city or village highways or segments of such highways. Such exclusion shall not be construed to prevent the delivery or pickup of merchandise or other property along the highways from which such vehicles or combinations are otherwise excluded.

2. http://www.clrp.cornell.edu/q-a/188-truck.html -- Use the R5-2 Truck Exclusion sign (not the text-based sign).

   The R5-2 Truck Exclusion sign can be used on highways where no truck traffic is allowed. The local Town Board needs to prepare an ordinance or local law to back up the restriction.

   Note that local delivery traffic can still use the highway.

   The text version of the sign (R5-2a) is not allowed for use in New York State as per the NYS Supplement.

3. MUTCD Section 2B.61- Truck Route Sign (see MUTCD excerpt below)

04 In areas where multiple regulations of the type described in Paragraphs 1 through 3 are applicable, a sign combining the necessary messages on a single sign may be used, such as WEIGHT LIMIT XX TONS PER AXLE, XX TONS GROSS (R12-4).

05 Posting of specific load limits may be accomplished by use of the Weight Limit symbol sign (R12-5). A sign containing the legend WEIGHT LIMIT on the top two lines, and showing three different truck symbols and their respective weight limits for which restrictions apply may be used, with the weight limits displayed to the right of each symbol as XX T. A bottom line of legend stating GROSS WT may be included if needed for enforcement purposes.

Standard:

06 **If used, the Weight Limit sign (see Figure 2B-29) shall be located in advance of the applicable section of highway or structure.**

Guidance:

07 *If used, the Weight Limit sign with an advisory distance ahead legend should be placed at approach road intersections or other points where prohibited vehicles can detour or turn around.*

Section 2B.60 Weigh Station Signs (R13 Series)

Guidance:

01 *An R13-1 sign with the legend TRUCKS OVER XX TONS MUST ENTER WEIGH STATION NEXT RIGHT (see Figure 2B-30) should be used to direct appropriate traffic into a weigh station.*

02 *The R13-1 sign should be supplemented by the D8 series of guide signs (see Section 2D.49).*

Option:

03 The reverse color combination, a white legend and border on a black background, may be used for the R13-1 sign.

Section 2B.61 TRUCK ROUTE Sign (R14-1)

Guidance:

01 *The TRUCK ROUTE (R14-1) sign (see Figure 2B-30) should be used to mark a route that has been designated to allow truck traffic.*

Option:

02 On a numbered highway, the TRUCK (M4-4) auxiliary sign may be used (see Section 2D.20).

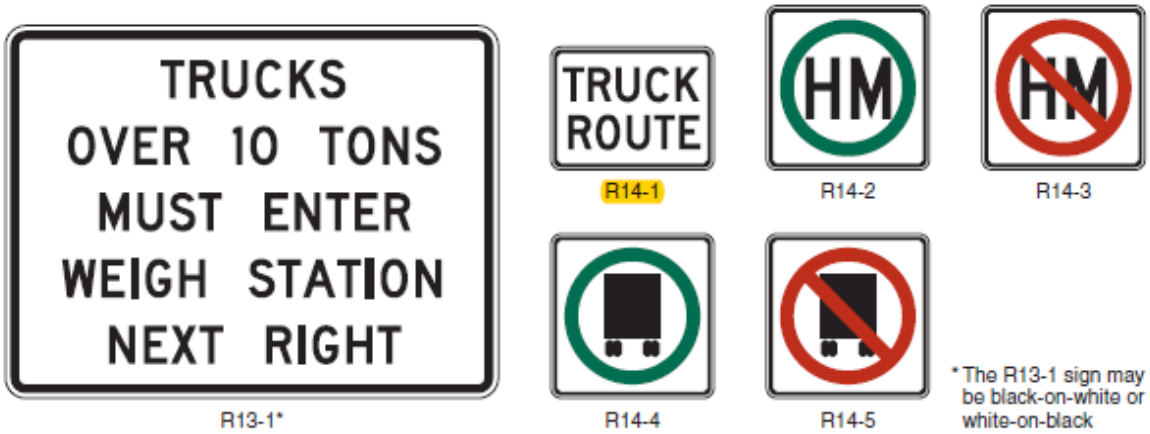
Section 2B.62 Hazardous Material Signs (R14-2, R14-3)

Option:

01 The Hazardous Material Route (R14-2) sign (see Figure 2B-30) may be used to identify routes that have been designated by proper authority for vehicles transporting hazardous material.

02 On routes where the transporting of hazardous material is prohibited, the Hazardous Material Prohibition (R14-3) sign (see Figure 2B-30) may be used.

Figure 2B-30. Truck Signs



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E: MTA/Metro-North Call Notes

Village of Pawling Pedestrian Plan
Metro-North Conference Call
December 11, 2018
Notes

Participants: Mark Debald, Emily Dozier, Dylan Tuttle (DCTC); John Burweger (Village of Pawling); Joe Zarecki (Zarecki & Associates Engineering); Emily Provonsha (Metro-North, Manager of Station Area Planning and TOD), Robyn Hollander (Metro-North, Deputy Director of Station Area Planning and TOD), Phil Petillo (Metro-North, Assistant Director of Customer Service), Joe Streany (Metro-North Deputy Director of Safety), Terrence McCauley (Metro-North, Manager of Government and Community Relations)

Agenda:

1. Discuss preliminary concepts to improve pedestrian access at train station area: curb ramp, marked walkway, and ramp to Memorial Ave, as well as a possible sidewalk extension on Memorial Ave and second connection into the station at Charles Street.
2. Discuss preliminary concept for at-grade pedestrian crossing at South Street: potential sidewalk connecting Dutcher Ave and East Main Street.
3. Discuss concept of new metered shopper parking on property owned by Metro-North.

Meeting Notes:

1. The Pawling Pedestrian Plan will serve as a set of concepts and recommendations which the Village of Pawling can use to pursue funding sources. The Plan will not include any engineering or feasibility analysis.

2. In the train station area, the proposed ADA curb ramp may need to be installed by Metro-North staff. The proposed crosswalk across the parking lot and the proposed ramp to Memorial Ave could potentially be installed by the Village of Pawling. That will need to be clarified during the design phase. Joe Zarecki will send updated concepts to Metro-North and Metro-North will share internally for review. Metro-North will review concepts and work with the Village of Pawling throughout the process of getting an entry permit, insurance, final design, etc.
    i. MNR owns the stairs to Memorial Ave. The Village would need an 'entry permit' for any work affecting them. No 'flag' would be needed, however.
    ii. Joe Zarecki will work on drawings. He will send them to DCTC (Emily Dozier) to review and forward to MNR.

3. Extending the sidewalk north along the east side of Memorial Ave beyond Charles St and establishing a second pedestrian access into the Metro-North parking lot from the intersection of Charles St and Memorial Ave was a new concept presented during this call. This concept was discussed in the context of future development on those parcels east of Memorial Ave. Metro-North would be willing to review a concept. John Burweger noted that the parcel on the SE corner of Memorial & Charles is a potential development site. He was not sure if a sidewalk extension had been discussed.

4. South Street Concept: Potential sidewalk connecting Dutcher Ave and East Main Street, with an at-grade crossing of the railroad tracks on South Street.

i. Pedestrian gates and flashing lights would be needed. The crossing would need to be widened, and the existing vehicular gates upgraded. State Section 130 Railway Crossing Funding may be a funding source.
ii. MNR stated that the north side of South St at the at-grade crossing has culverts and other stormwater infrastructure. Further planning and engineering study would need to be done to determine location of sidewalk and pedestrian infrastructure.
iii. MNR suggested talking to the Patterson Town Supervisor, Rich Williams, who is handling the process for upgrading an at-grade crossing.
iv. MNR and NYSDOT would review plans. There is a 'petitioning' process. Greg Hart is the contact at NYSDOT.
v. John Burweger noted that the South Street centerline is the Village/Town line.

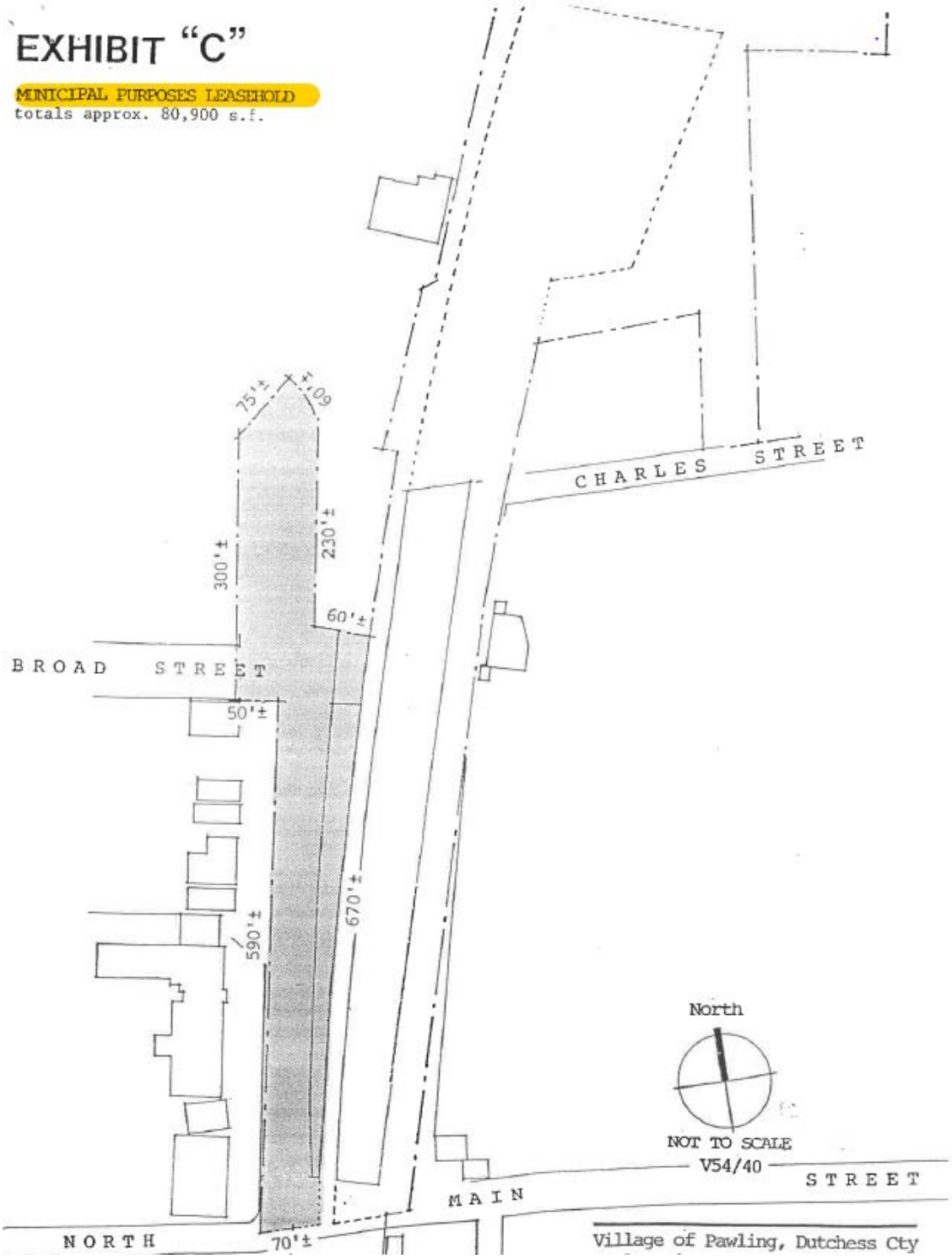
5. Parking Concepts: The Village of Pawling may consider establishing metered parking downtown in some of the existing free parking spaces, including some spaces on Metro-North property. Metro-North would be involved for spaces that are on their property, and the Village would be subject to the parking revenue share terms stated in the Lease Agreement.
   i. Any issues with potential paid/metered parking on Colman or other key downtown streets? Phil P (MNR) thought that if the parking is not on MNR property, there is no role for MNR. Emily P (MNR) suggested checking the lease agreement between the Village and Metro-North to confirm if they share parking revenue with the Village for all paid parking, or only parking on MNR property.

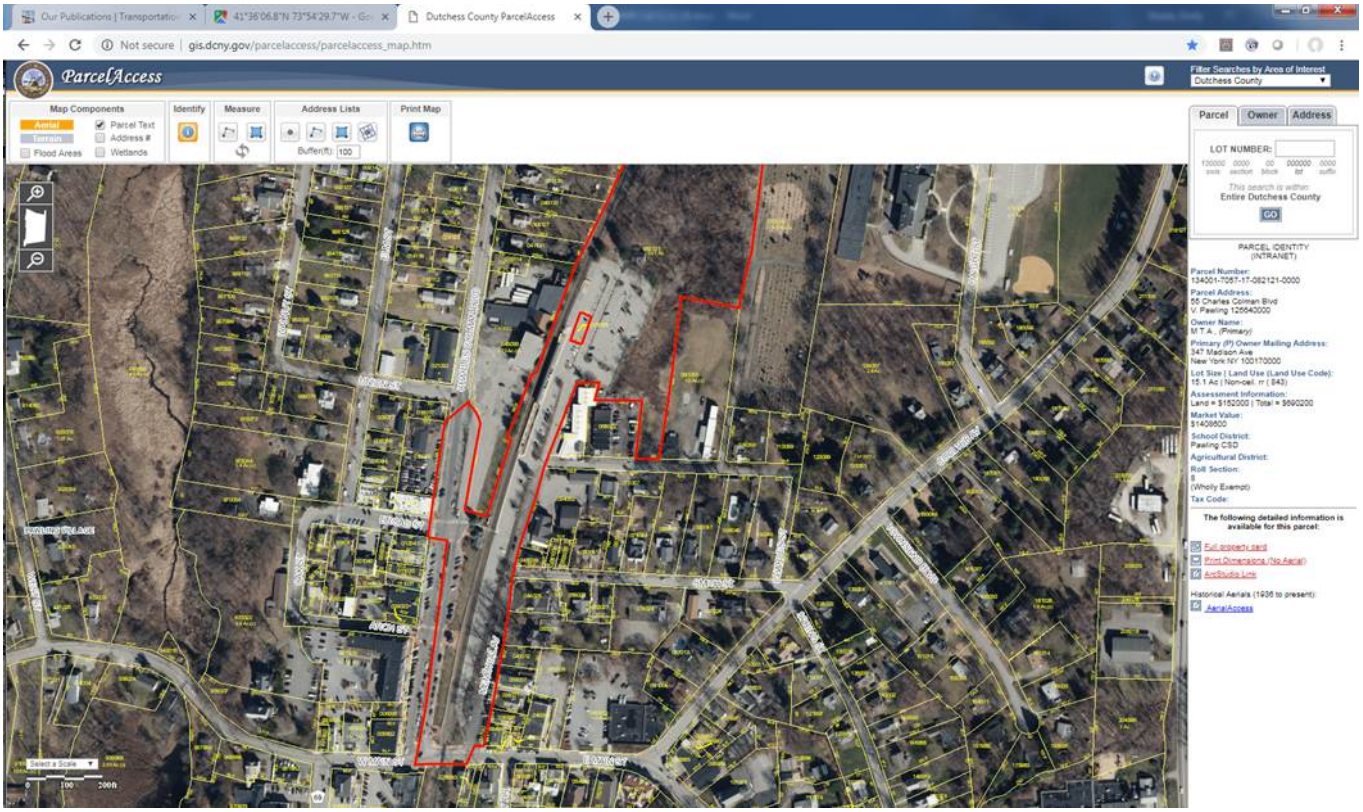
6. *Post-Meeting Follow-up Regarding Parking*
   Per Metro-North: If the Village plans to implement metered parking on Metro-North property, then Metro-North would be involved. The Lease Agreement between the Village and Metro-North describes two areas leased to the Village, the "Railroad Parking Facility" and the "Municipal Purposes Parcels". The Municipal Purposes Parcels include some shopper parking on Charles Colman Blvd owned by Metro-North. The lease states that this shopper parking is free. Section 2.2 (page 3) of the lease provides that if the Village wants to impose a fee for shopper parking on the Municipal Purposes Parcels, then it must give Metro-North 30 days written notice and 55% of gross revenues generated.
   i. Per Parcel Access, part of Charles Colman Blvd is MTA property [see image below-MNR parcel is in red]. It is posted as 2 hr parking (7am-7pm). The process would likely vary depending on the specific location.

7. Future Input/Review
   i. Emily Dozier (DCTC) will let Emily P (MNR) know of future Task Force meetings in case she wants to attend.
   ii. DCTC will send Emily P (MNR) a draft of the Plan for their review and comment once it is ready.

EXHIBIT "C"

MUNICIPAL PURPOSES LEASEHOLD
totals approx. 80,900 s.f.




Dutchess County ParcelAccess
Not secure | gis.dcny.gov/parcelaccess/parcelaccess_map.htm
ParcelAccess
Filter Searches by Area of Interest
Dutchess County
Map Components
Aerial
Terrain
Flood Areas
Parcel Text
Address #
Wetlands
Identify
Measure
Address Lists
Buffer(ft): 100
Print Map
Parcel
Owner
Address
LOT NUMBER:
This search is within:
Entire Dutchess County
GO
PARCEL IDENTITY
(INTRANET)
Parcel Number:
134001-7057-17-082121-0000
Parcel Address:
55 Charles Colman Blvd
V. Pawling 126640000
Owner Name:
M T A , (Primary)
Primary (P) Owner Mailing Address:
347 Madison Ave
New York NY 100170000
Lot Size | Land Use (Land Use Code):
15.1 Ac | Non-cel. rr (843)
Assessment Information:
Land = $152000 | Total = $690200
Market Value:
$1408600
School District:
Pawling CSD
Agricultural District:
Roll Section:
8
(Wholly Exempt)
Tax Code:
The following detailed information is available for this parcel:
Full property card
Print Dimensions (No Aerial)
ArcStudio Link
Historical Aerials (1936 to present):
AerialAccess
Select a Scale
0
100
200ft

F: NYSDEC Meeting Notes

Dutcher Avenue/South Street Field Visit Notes: August 2018

These notes represent informal discussions as part of the planning process and are not indicative of an actual proposal. They are included as a reference for future planning.

Attendees: Emily Dozier & Dylan Tuttle, DCTC; John Burweger, Task Force; Joe Zarecki, Engineer; Kelly McKean, NYSDEC

Dutcher Ave:

- ~22 ft paved; 11' lanes
- Sidepath would require 15 ft (5' buffer + 10' path).
    - Likely not room on west side, but east side may be possible (10' or even 8' where constrained)
- Sidewalk would be 5 ft, ideally with a buffer.

- West side:
    - Stone wall, appears to be about 10-14 ft from roadway
    - **Many utility poles**: 1 near road at 55, then series (~12) about 5-8 ft from roadway edge
    - Parcels: from end of sidewalk on east side: **13**; all private owners, except NYSEG
    - Fed (NWI) & State (DEC) **wetlands** in central portion (close to roadway)- affects 4 parcels along roadway
        - Task Force noted that there is some flooding during heavy rainstorms.

        - Sidewalk between poles and rock wall on east side? (maybe 8-10 ft)
            - Survey it for precise measurements (esp where wall is hidden)- roadway right-of-way edge, poles, and wall.
            - Village Highway staff can clear off stone wall.
            - Can also check aerials.
        - A crosswalk would be needed to connect a west-side sidewalk to the existing east-side sidewalk; then another crosswalk at South St.

- East side:
    - DEC-regulated wetland (Great Swamp) & Fed (NWI) wetlands for entire length
        - From where sidewalk ends, boundary extends into roadway (per parcel access)
        - Further from roadway south of South St
        - Per DEC: this is part of wetland DP-22.
    - Poles: From end of sidewalk to 55: 4 poles, **1 close to roadway** near end of sidewalk, and near South St (~9 ft from shoulder line)
    - Parcels: 8 total from end of sidewalk to 55; **5 owners**: Oblong, Fire Dept, NYSEG, Town, 1 private (has part of sidewalk)

    - Boardwalk possible on east side?

- **DEC regulations- permit/environmental review**
    - Show how impact was minimized (for construction- short term, and for project- long term).
    - Show reasons for why east side (safety- don't cross Dutcher twice from existing sidewalk; utility poles, ownership, etc.); document that people already walking on Dutcher and unsafe, etc.
    - See checklist online- see https://www.dec.ny.gov/permits/6058.html & application procedures: https://www.dec.ny.gov/permits/6277.html
    - do an EAF
    - ADA requirements?
    - coordinate with **NYCDEP** also (may want a swale if a sidewalk is proposed)
    - coordinate w/**Army Corps**: requires mitigation if impact 0.10 acre or more (create new wetlands of 2x the impact size).
        - If less than 0.10 acre, can use nationwide permits: https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/

- Per Kelly McKean, DEC wetland biologist: kelly.mckean@dec.ny.gov:
    - Minimal impact best. Boardwalk if IN wetland; fill and sidewalk ok if on edge or adjacent to wetland.
        - Per Joe Z, engineering might be tough for sidewalk- fill, grading, drainage, etc.
    - Helical piles for boardwalk (screw into the ground)
    - Build from the platform (no machine in wetland)- or can use mats (NYSEG does this)
    - If bats, would need to clear trees in winter
    - Educational plaques/ re wetlands are encouraged
        - **Kelly will flag the wetland (Dutcher & South St); once done, Zarecki will prepare a survey**
        - **Confirm if boardwalk footings count towards Army Corps 0.10 acre impact measurement**

- There is a boardwalk through a DEC wetland near the Appalachian Trail train stop that could be a useful example (it is on Town property).
    - Was constructed by volunteers. Used National Park Service funding, which would not be an option for Dutcher.

- Bikes on boardwalk? What materials would need to be used? How wide would it need to be?
    - Emily talked to County DPW- Matt Dutcavitch (experience with Millerton Harlem Valley Rail Trail) – see notes below

South Street:

- Culvert/bridge: would need an extension for a sidewalk, unless boardwalk crosses stream and meets South Street east of culvert.
    - Is this Village-maintained? John said he believes the Town maintains it.
    - Per Matt Ducavitch: the culvert by the Fire Dept is an I-beam structure, which would be difficult to extend, so **a short boardwalk there may be a better option**. We don't inspect Town owned culverts these days, so there's a chance its since been changed, but based on the street view, it looks to still be that type of structure.

- 2nd culvert at RR xing
    - Coordinate with Metro-North- Dan Peters can provide a contact.

- DEC wetland: **Kelly will flag.**

Options:

- Sidewalk from East Main St: north or south side?
    - Use golf course (Town owned) property, using path just inside the wall?
    - Cross to the south side at Evergreen Way (condos) OR continue on North side?
    - Cross RR xing
    - If on south side, continue across Fire House (striped only?)
- Cross bridge/culvert
- Connect to Dutcher Ave

- Property owners: from E Main St to MNR rr xing:
    - North side: Town, 5 private, NYSEG, Oblong, MTA = **5 private, Town, NYSEG, Oblong**
    - South side: 2 private, Cedar Valley, Town, 1 private, Cedar Valley, NYSEG, Cedar Valley, MTA = **3 private, Cedar Valley, Town, NYSEG**

Notes from call with Matt Dutcavich, Dutchess County DPW (9/26/18)

- Harlem Valley Rail Trail (HVRT) boardwalk project:
    - pre-cast concrete. helical piles, concrete piers, beams and decking.
    - 8 ft wide (very narrow- minimum for shared use – peds and bikes). 10 ft is preferred, or wider, dep on level of use. Wider costs more.
    - Railing attached. 42-48 inches tall (height necc for bike safety). Also goes low to the ground for kids' safety.
    - 4100 linear feet total; longest stretch about 1000 ft.
    - Slip resistance not a problem for concrete. Wood might be slippery. Trex/wood composite option? Maybe slippery?
        - For concrete, broom finish is fine (better than DRT Route 55 bridge finish—too rough).
    - Concrete has efficiencies for long stretches; durable for maintenance vehicles.
    - Cost: about $1million/mile (based on HVRT).
    - See plans from Matt, and contacts for CHA Engineering (team for HVRT).
        - Construction system: https://www.permatrak.com/top-down-construction-concrete-boardwalk
        - CHA contact: Brian Healey: bhealey@chacompanies.com; 518-453-3979

- Stewart State Forest: wood boardwalk w/helical piles. Very narrow- 6 ft? no bikes allowed, not ADA (has stairs). May not be strong enough for maintenance vehicles.
    - Engineering firm: http://mrhengineeringpc.com/boardwalk-design-techno-metal-posts/
    - Photos: https://www.google.com/search?q=stewart+state+forest+boardwalk&rlz=1C1GGGE___US548US548&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjbkJqcodndAhUMx1kKHYJLBSYQ_AUIDygC&biw=1866&bih=1087#imgrc=oPEj1bdBIm0XCM

- For Dutcher Ave:
    - Likely 8-10 ft wide is ok.
    - Wood is cheapest up front, but doesn't last as long as concrete, composite, or fiber-reinforced polymer, especially in wet environments.
    - Consider ADA access- ramps. Check re need to plow in winter- is this an ADA requirement?
    - Length: could try to minimize boardwalk sections. Do sidewalk from north as far as possible?
        - About 2000 feet from end of sidewalk to South St.
    - Sidewalk: easier to maintain; longer life; may be cheaper to build.
    - Boardwalk: may be more expensive to build; has to be replaced eventually. Harder to maintain, depending on material.

Notes re potential funding options:

- CDBG: only if it is located in a low- and moderate-income area—it is **not**, per most recent map.

- Recreational Trails Program: Available every other year (odd years) for municipalities and non-profits, through the NYS Consolidated Funding Application: https://regionalcouncils.ny.gov/cfa. Approximately $2 million in funding available statewide. Minimum award is $25,000, maximum award is $250,000. See https://parks.ny.gov/grants/recreational-trails/default.aspx. Thomas.Hotaling@parks.ny.gov; (518) 474-0455.

- Hudson Valley Greenway [Pawling is a Greenway Compact community]: could do the project in phases, using smaller grants
    - Greenway Compact communities are eligible to receive more than $10,000 for projects that develop, approve, and implement a compact strategy consistent with the Greenway criteria and the Greenway Act. Typical grant amounts range between $5,000 and $25,000. https://hudsongreenway.ny.gov/grants-funding

- RTC: Doppelt Family Trail Development Fund: https://www.railstotrails.org/our-work/doppelt-family-trail-development-fund/

G: Wetland Boundary Survey

FLAGGED WETLAND BOUNDARY

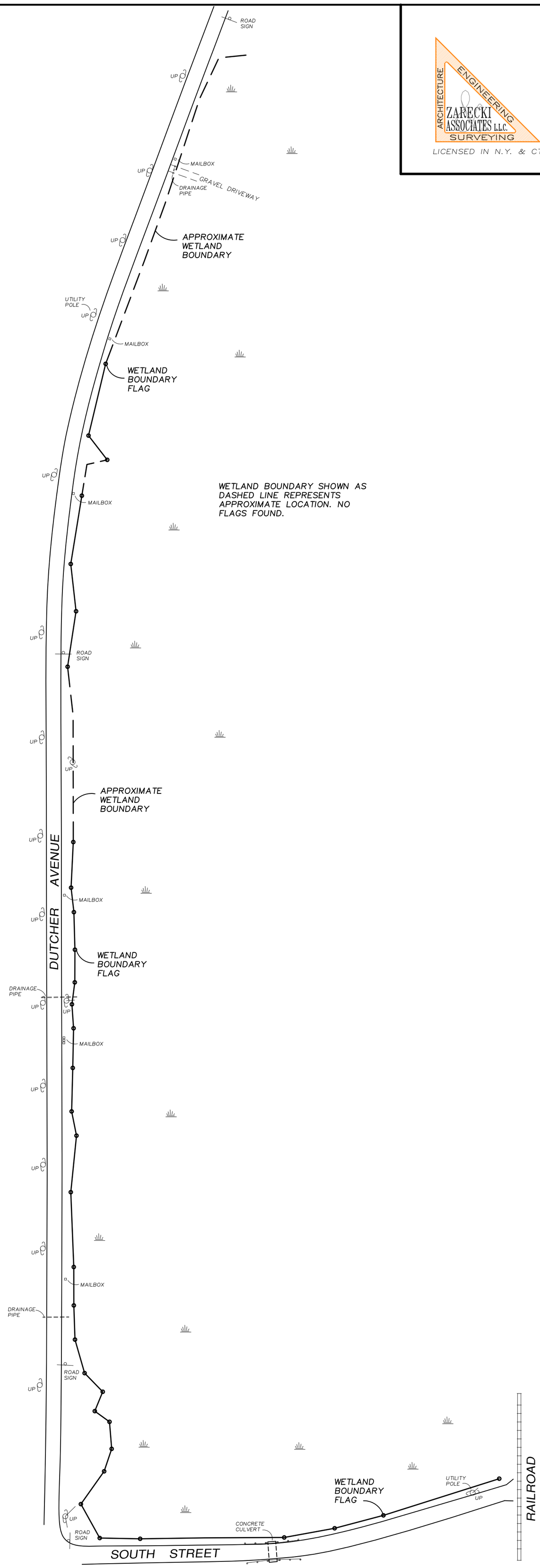
PREPARED FOR

VILLAGE OF PAWLING

TOWN OF PAWLING
DUTCHESS COUNTY, NEW YORK

ZARECKI ASSOCIATES L.L.C.
ARCHITECTURE ENGINEERING SURVEYING
LICENSED IN N.Y. & CT.

SCALE: 1" = 100'	DATE: 6-24-2019	PROJ.#.: 2007.028.32
ZARECKI & ASSOCIATES, L.L.C. Consulting Engineers - Land Surveyors - Architects 11 West Main St. Pawling, NY 12564 (845) 855-3771 (845) 855-3772 (Fax)		DWG. NO. 1 of 1



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

NORTH

H: Reservoir Road Fieldwork Notes

Reservoir Rd/High School Area Field Visit Notes: August 2018

These notes represent informal discussions as part of the planning process and are not indicative of an actual proposal. They are included as a reference for future planning.

Attendees: Emily Dozier & Dylan Tuttle, DCTC; John Burweger & Drew Montgomery, Task Force; Phil DeRosa, Town; Joe Zarecki, Engineer; Glen Freyer, Pawling Central School District.

High School/Middle School access options

Along Route 22:

- West side
  - Is overpass available to the public? Pursue an agreement with TP?
  - Overpass has stairs, so not accessible
  - Keep sidewalk on west side of 22 to Reservoir Rd
    - TP preference?
    - Extend sidewalk behind the guard rail to the track and to Reservoir Rd
  - Add crosswalk on north side of Reservoir/22 intersection (signalized).
  - Sidewalk could possibly extend to Corbin Road, but unclear if grades would allow a connection to Reservoir from Corbin—likely not.
  - Grades between track and Reservoir Rd may also be challenging

- East side
  - Coord with TP- private property. Are they willing?
    - Per Joe Z: east side is where kids walk now (thru TP property)
  - Best location? Possibly between the two lines of trees.
  - To avoid crossing Reservoir Rd at Route 22, sidewalk could continue along TP property on the south side of Reservoir to the Town/Village line and cross to the north side, then into school property via the 'Tiger Path'
  - Zarecki concept plan: sidewalk on East side from Pine to Reservoir
    - May be more room, better slopes than west side
    - Could piggy back on anticipated sewer work connecting new development to treatment plant

Reservoir Rd:

- Add sidewalk on Reservoir Rd to schools
  - Corner with 22- lots of brush/trees
    - Culvert on north side of corner
    - Drain on south side of corner

  - Diagonal piece:

- South side: 1 pole close to roadway; rock wall/drainage ditch
    - Joe believe slopes here are unworkable
- North side: drain/rocks; 2 crossings at triangle
- Roadway: 24.5 ft paved

- Straight piece: add sidewalk - either side, pros/cons.
    - Likely would want to continue sidewalk on same side of road as diagonal section; don't want an uncontrolled crossing on this part of the road
    - South side for ease of ROW acquisition, if slopes/drainage are feasible—likely not.
    - If crosswalk at 22 on north side, can continue along north side to school without another crosswalk (would have to cross multiple driveways).
    - Roadway: 23 ft paved
        - South side:
            - poles appear ~10 ft back from roadway, except for 2 closer to road (near school end)
            - drainage ditch & some pipes
            - just 1 parcel; 1 intersection at TP (from corner to 59/64 Reservoir Rd)
        - North side:
            - rocks 5-6 ft from roadway; poles 10 ft back or so
            - multiple parcels; 7 driveways/intersections (from corner to 59/64 Reservoir Rd)
                - more access to sidewalk for those residents, but more complex ROW acquisition.
        - Cross to north side before private stone wall with rocks in front- eg at Town/Village line
            - Uncontrolled crossing here is more visible and likely safer than at 22/Reservoir intersection
        - Run along north side to 'tiger path' shown on Zarecki plans
            - 1 pole on north side just before Tiger path

        - OR: run the sidewalk through TP property between their entrance road (near the dining hall) and service road, avoiding the high speeds on the curve and the Route 22/Reservoir Rd intersection, as well as engineering challenges due to slopes and drainage on Reservoir Rd.
            - Unlikely TP would want this, but could ask.

- Zarecki plans cross Reservoir Rd at 22 and put sidewalk on north side
    - Avoids drainage ditch on south side
    - Issues with crosswalk at 22—poor sight distance, esp for northbound right turn.
    - IF put crosswalk here, recc redesigning the Reservoir Rd approach to be more perpendicular to 22- right angle intersection.
        - Extend curb at south corner to slow traffic and improve visibility, esp for NB right turn.
            - However, this makes the southbound left turn more difficult.

- Add sidewalk on east side of Wagner Dr to connect with existing sidewalk - poss behind lights?
    - Short drainage ditch at NE corner of Reservoir/Wagner
    - recc- use Tiger Path instead.
        - Is School Dist willing to create a path between the Tiger Path and the existing crosswalks at the NW edge of the practice field?

On school property:

- Short sidewalk exists in front of HS, good condition; wide
- No sidewalk connection between HS and MS (through parking lot)
    - Recc a sidewalk connection along edge of parking lot near roadway to connect to crosswalk & path to field; then connect to the Tiger Path.
        - Would need to redesign parking lot for safe ped access
- MS has older sidewalk at southern end, a bit narrow (4 ft); but good condition
- Newer, wider sidewalk at northern end.
    - No ramp at southern end of newer sidewalk (by parking lot); adjacent end (brick) is flush (no ramp needed)

Corbin Rd:

- Hard to see how a sidewalk would cross Route 22. Likely not feasible (very steep).
- Triangle parcel- may be leftover NYSDOT ROW.
- RR xing also- safety issue
    - Suggest focusing on Reservoir Rd access first.

I: NYSDOT Meeting Notes

Village of Pawling Pedestrian Plan
NYSDOT Meeting
November 20, 2018
Notes

Attendees: DCTC: Mark Debald, Emily Dozier, Dylan Tuttle; NYSDOT: Greg Bentley, Lisa Mondello

1) Route 22/Coulter Ave

Greg and Lisa agreed that the uncontrolled crosswalk was not great for pedestrian safety. They suggested moving the crosswalk to the stop-controlled slip lane approach and providing a sidewalk along the north side of Pine Drive from the apartments to Route 22 and then from Route 22 to the slip lane. They recommended providing full crosswalks at the Route 22/Pine/Coulter intersection for complete access. Once the new crosswalks and sidewalks were constructed, the existing uncontrolled crosswalk and path to Route 22 could be removed.

Regarding closing the slip lane altogether, Greg thought that could be feasible based on traffic (though volumes there should be confirmed), but residents might be against it. It would also be more expensive. If it were removed, the curb radius at the northwest corner of 22/Coulter would need to be widened so that trucks could make the southbound right turn from 22 onto Coulter. Greg did not know when the slip lane was created but thought it was quite old [a later review of historical aerials shows it to be at least 50 years old]. He was not aware of any previous re-design concepts for this intersection.

In the short term, Greg recommended trimming or removing trees on the east side of Coulter to improve visibility and upgrading the pedestrian signage. According to Parcel Access, the Village owns the parcel between Coulter and Route 22.

The group discussed the bus stop shelter on Coulter Ave. [Emily confirmed later that it is served by Route E, which goes between the Hannaford, Kings Apartments, and the Chamber building on Charles Colman].

2) Route 22/East Main St

Greg and Lisa strongly recommended that a sidewalk extension from East Main St to Route 22 use the west/south side, to avoid the cemetery, stone wall, and signal pole, as well as to ensure that all crosswalks are controlled. The sidewalk could be curbed or be a path (5 feet min width) with a 5 foot buffer.

They suggested extending curbs/tightening the intersections at South St, Holm Run, and the southwest corner of Route 22 to slow traffic and shorten crossings.

Crosswalks would be provided across South St, Holm Run, and the south leg of Route 22, as well as Quaker Hill Rd. Greg thought a median refuge island could fit on the south leg of Route 22.

The group discussed a 'no right turn on red' sign activated when the walk signal comes on for crossing Route 22. Lisa and Greg thought this would be feasible, but the placement of the sign could be tricky. They also noted that the slope and concrete structure on the southeast corner of the intersection was a challenge, and may require that the crosswalk end in the shoulder, rather than having a ramp and sidewalk on that corner.

In the short term, Greg recommended trimming trees on the south side of East Main St to improve visibility.

[Note: In a follow-up conversation with Greg Bentley, he agreed that providing full access across the intersection with crosswalks on all four legs would be desirable, if feasible. The shoulder areas would serve as landings for the crosswalks. There would need to be an ADA-compliant turning area at the end of each crosswalk. The shoulder line on the northwest corner should be extended, and some additional shoulder width may also need to be paved.]

3) Route 22/Reservoir Rd

Greg felt that a sidewalk could be extended on the west side of Route 22, using the same cross-section as the existing sidewalk, within the NYSDOT right of way (outside of the Trinity Pawling guide rail). He noted that the guide rail is most likely not in the DOT right of way, and that utility poles are usually on the far side of DOT's right of way. He suggested that Trinity Pawling could add a fence if they wanted, and remove the rustic rail, since it is an old (not recommended) design.

At the north end of Trinity Pawling's track, there are wetlands and a slope, so the sidewalk would need to shift to the east side of Route 22. Greg suggested a pedestrian-activated HAWK signal at the crossing. The available NYSDOT right of way on the east side would need to be confirmed.

Greg and Lisa recommended against a sidewalk on Corbin Road, due to the railroad crossing, grades near Route 22, and substantially longer distance between the schools and downtown.

The group discussed changes to the Route 22/Reservoir Rd intersection. Greg and Lisa agreed with squaring off the northbound right turn to reduce speeds and adding a crosswalk with pedestrian signals and pushbuttons. Greg also recommended grading and clearing trees on the southeast corner to improve visibility.

For Reservoir Rd, several options were discussed. These included striping 5' shoulders on each side of the roadway, or constructing an uncurbed path (ideally 8' with a 5' buffer), or a curbed sidewalk, most likely on the north side, due to the substantial grade and drainage issues on the south side. Depending on Trinity Pawling's interest, there could potentially be a path on their property along the south side of the road.

J: Recommendations Summary

Pawling Pedestrian Plan: Recommendations Summary						
ID #	**Location/Topic**	**Recommendation**	**Phase**	**Responsible Entity (Lead)**	**Partners**	**Map/Image reference**
1. Main Street Corridor						
1.a	West Main Street	Replace the West Main Street sidewalk	1	Village		Map 11 - Infrastructure Recommendations
1.b	Main Street (3 locations)	Construct curb extensions on Main Street	1	Village		Map 11 - Infrastructure Recommendations
1.c	Main Street at CVS	Consider a crossing guard for the CVS/St. John's crosswalk	1	St. John's Church		Map 11 - Infrastructure Recommendations
2. East Main Street/Coulter Avenue Intersection						
2.a	Main Street/Coulter Avenue	Create a safe crossing at the East Main Street/Coulter Avenue intersection (stop sign, high visibility crosswalk, and curb ramps on the west leg)	1	Village		Map 11 - Infrastructure Recommendations & Drawing 1
2.b	Main Street/Coulter Avenue	Consider a median on the west leg of the East Street/Coulter Avenue intersection	1-2	Village		Map 11 - Infrastructure Recommendations & Drawing 1
2.c	Main Street/Coulter Avenue	Extend sidewalks and add full crosswalks at the East Street/Coulter Avenue intersection	2-3	Village	adjacent property owners	Map 11 - Infrastructure Recommendations
3. Village Center – Charles Colman Boulevard						
3.a	Charles Colman Blvd	Improve the Broad Street crosswalks (add median refuges, adjust northern curb ramp, realign northern crosswalk)	1	Village	Metro-North	Map 11 - Infrastructure Recommendations & Drawing 1
3.b	Charles Colman Blvd	Fill the Charles Colman Boulevard east sidewalk gap and pursue walkable development	1-2	Village, adjacent property owner	Metro-North	Map 11 - Infrastructure Recommendations
3.c	Village Green	Consider improvements to the Village Green to promote more active use	1-2	Village	Chamber of Commerce, Metro-North	Map 11 - Infrastructure Recommendations
4. Train Station Area						
4.a	Train Station Area	Improve accessibility within the station area (curb ramp, marked crossing, ramp)	1	Village	Metro-North	Map 11 - Infrastructure Recommendations & Drawing 2
4.b	Train Station Area	Extend the Memorial Avenue sidewalk & consider a second station access point	2-3	Village	Metro-North	Map 11 - Infrastructure Recommendations
5. Dutcher Avenue						
5.a	Dutcher Avenue	Extend the Dutcher Avenue sidewalk and construct a boardwalk to South Street	1-2	Village, Oblong Land Conservancy	Town, DEC, Dutchess County DPW	Map 11 - Infrastructure Recommendations & Drawing 3
6. South Street						
6.a	South Street	Construct a sidewalk along South Street	1-3	Village, Town	Cedar Valley, NYSEG, Metro-North, & other adjacent property owners; NYSDOT	Map 11 - Infrastructure Recommendations
7. Middle/High School Access						
7.a	School Property	Fill the sidewalk gap between the Middle & High School	2	School District		Map 11 - Infrastructure Recommendations
7.b	Route 22, Reservoir Road	Provide pedestrian access from Coulter Avenue to the Middle/High School (extend the Route 22 sidewalk, improve the Reservoir Road intersection, provide access along Reservoir Rd and into school property).	2-3	Village/Town	NYSDOT, Trinity-Pawling, School District, adjacent property owners	Map 11 - Infrastructure Recommendations
8. Route 22/Pine Street/Coulter Avenue Intersection						
8.a	Route 22/Pine Street/Coulter Avenue	Improve safety and pedestrian access at the Route 22/Pine Street/Coulter Avenue Intersection (sidewalk, crosswalks & pedestrian signals)	1-2	Village	NYSDOT, adjacent property owners	Map 11 - Infrastructure Recommendations
9. Route 22/East Main Street/Quaker Hill Road Intersection						
9.a	Route 22/East Main Street/Quaker Hill Road	Provide pedestrian access across Route 22 at East Main Street/Quaker Hill Road (crosswalks & pedestrian signals)	2	Village	NYSDOT, Castagna force main project	Map 11 - Infrastructure Recommendations
9.b	Route 22/East Main Street/Quaker Hill Road	Extend the East Main Street sidewalk to Route 22	3	Village	NYSDOT, adjacent property owners	Map 11 - Infrastructure Recommendations
10. Henry Street/Dutcher Avenue Intersection						
10.a	Henry Street/Dutcher Avenue	Extend curbs and mark a crosswalk at the Henry Street/Dutcher Avenue intersection	1-2	Village		Map 11 - Infrastructure Recommendations
11. Lakeside & Murrow Park Access						
11.a	West Main Street	Improve pedestrian access to Murrow Park (West Main Street sidewalk & crosswalk)	1	Village	Town	Map 11 - Infrastructure Recommendations & Drawing 4
11.b	West Dover Road	Evaluate relocating the Lakeside Park vehicle access to eliminate the five-way intersection	1	Town	Village, Dutchess County DPW	Map 11 - Infrastructure Recommendations

Pawling Pedestrian Plan: Recommendations Summary						
ID #	**Location/Topic**	**Recommendation**	**Phase**	**Responsible Entity (Lead)**	**Partners**	**Map/Image reference**
11.c	Lakeside/Murrow Parks	Improve connections between Murrow and Lakeside Parks	2	Town, Pawling Community Foundation, Oblong Land Conservancy	Village	n/a
11.d	Corbin Road	Consider a sidewalk along Corbin Road	3	Village/Town	adjacent property owners, Metro-North, NYSDOT	Map 11 - Infrastructure Recommendations
12. Coulter Avenue						
12.a	Coulter Avenue	Fill sidewalk gaps on Coulter Avenue	3	Village	adjacent property owners	Map 11 - Infrastructure Recommendations
13. Village-wide Infrastructure						
13.a		Upgrade pedestrian-related signage	1	Village		Map 7 - Marked Crosswalks & Pedestrian Signs
13.b		Repair/replace poor & fair condition sidewalks	1-2	Village	Adjacent property owners	Map 4 - Sidewalk Conditions
13.c		Address sidewalk issues	1-3	Village		Map 5 - Sidewalk Issues
13.d		Construct curb ramps where missing	2	Village		Map 6 - Curb Ramps
13.e		Add detectable warning strips at curb ramps	1-2	Village		Map 6 - Curb Ramps
13.f		Provide alternatives to stairs	2-3	Village		Map 6 - Curb Ramps
13.g		Replace diagonal curb ramps	3	Village		Map 6 - Curb Ramps
14. Parking						
14.a		Mark parking spaces and clarify restrictions	1	Village	Property owners	n/a
14.b		Conduct a parking study	2	Village		n/a
14.c		Implement a parking management plan	2	Village	Metro-North (for their property)	n/a
15. Bicycle Access						
15.a	Various	Install bicycle parking	1	Village	Property owners	n/a
15.b	Various	Consider bicycle wayfinding signage	1-2	Village		n/a
15.c	Charles Colman Blvd	Adjust sharrow markings on Charles Colman Boulevard and consider signage	2	Village		n/a
16. Codes & Policies						
16.a		Develop sidewalk design, construction and maintenance guidelines	1-2	Village		n/a
16.b		Restrict parking near crosswalks	1	Village		n/a
16.c		Review & revise codes and policies to promote walkable development	1-2	Village		n/a
16.d		Work with landowners to promote walkable development	1-3	Village	Property owners	n/a
16.e		Update parking requirements	1	Village		n/a
16.f		Adopt the Pedestrian Plan and designate an implementation entity	1	Village		n/a
17. Programs						
17.a		Develop a capital plan for sidewalk construction and maintenance	1	Village		n/a
17.b		Develop and implement a pedestrian safety education & enforcement campaign	1-2	Village	Civic groups, schools, County Traffic Safety Board	n/a