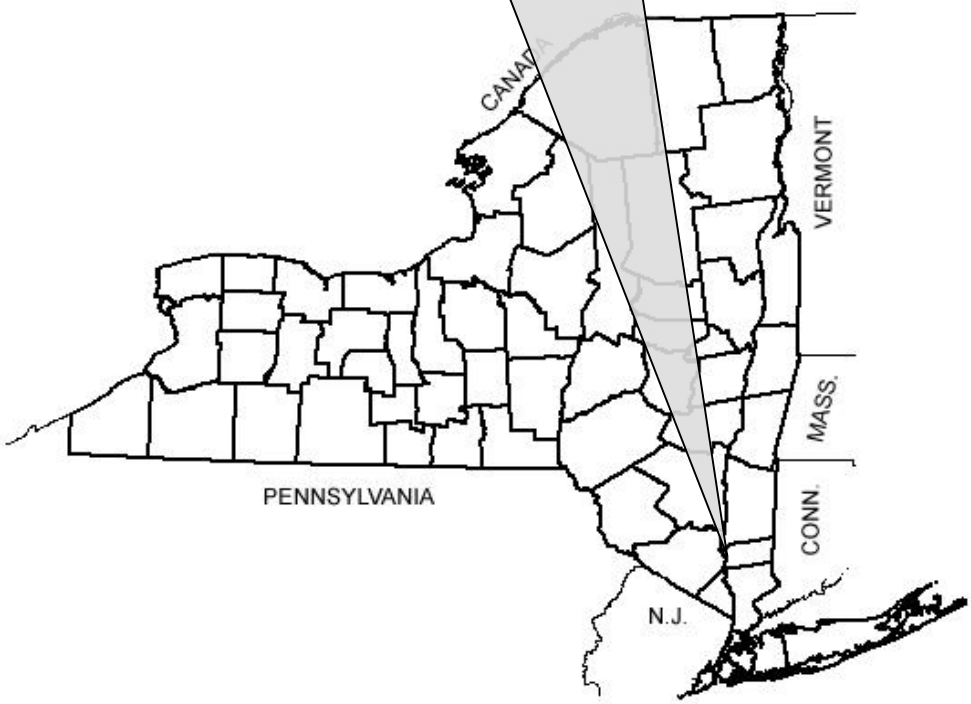
# TRANSPORTATION PROJECT REPORT

## *FINAL DESIGN REPORT*

**May 2014**

Highway Project
P.I.N. 8759.53 & 8760.04
Main Street and Ancillary Streets
Putnam County
Village of Cold Spring




U.S. Department of Transportation Federal Highway Administration

NEW YORK STATE DEPARTMENT OF TRANSPORTATION
ANDREW M. CUOMO, Governor JOAN MCDONALD, Commissioner

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# CHAPTER 1 - EXECUTIVE SUMMARY

## 1.1. Introduction

This transportation project proposes to make improvements to existing infrastructure and pedestrian facilities along Main Street, Furnace Street and the intersection of Mountain Avenue and Fishkill Avenue in the Village of Cold Spring, Putnam County, New York. Project objectives will focus on sidewalks, crosswalks, pavement and drainage enhancements to Main Street, Furnace Street and the Mountain Avenue and Fishkill Avenue intersection in the Village of Cold Spring. This report presents design alternatives and documents the improvements that will result from completion of the project and the potential consequences and impacts associated with the proposed work. The intent of this report is to provide information to all interested parties and serve as a decision making tool and a means of documenting decisions, ultimately leading to Design Approval of a proposed improvement.

The project is classified as a National Environmental Policy Act (NEPA) Class II (Automatic Categorical Exclusion) in accordance with 23 CFR 771. The project is also classified as a Type II action in accordance with the State Environmental Quality Review Act (SEQRA). The Federal Highway Administration (FHWA) is the Lead Agency for NEPA, while the Village of Cold Spring is the lead agency for SEQRA.

This report was prepared in accordance with the New York State Department of Transportation (NYSDOT) Project Development Manual (PDM), 6 NYCRR Part 617, and 23 CFR 771.

## 1.2. Purpose and Need

### 1.2.1. Where is the Project Located?

(1) Route number - None
(2) Route name – Main Street, Furnace Street, Mountain Avenue, Fishkill Avenue
(3) SH number and official highway description - none
(4) BIN number and feature crossed - none
(5) City/Village/Township – Village of Cold Spring
(6) County – Putnam County
(7) Length – 2, 000 ft. (0.38 miles)
(8) Any other description information which is pertinent – Limits along Main Street are from Depot Square to NYS Route 9D. Limits on Furnace Street are from Main Street to Wall Street. Project includes the reconstruction of the Mountain Avenue and Fishkill Avenue intersection.

See Project Location Map (figure 1) and Site Location Map (figure 2) in Appendix A.

### 1.2.2. Why is the Project Needed?

Main Street and Furnace Street are two of the most heavily traveled roadways in the Village of Cold Spring. Drainage issues along Furnace Street have not been addressed in many years and have led to deterioration of the existing pavement. Several of the existing drainage basins along Main Street no longer function as intended to due to the age of the structures and subsequent curb modifications. The existing sidewalks along Main Street are in poor condition with numerous spot repairs, severe cracking, and uneven surfaces. These poor sidewalk conditions pose a tripping hazard to pedestrians and hinder access for persons with disabilities. The existing curb ramps from Depot Square to NYS Route 9D are not in compliance with

current ADA standards with respect to running slope, surface condition, vertical alignment, and detectable warnings. The drainage basins at the Mountain Avenue and Fishkill Avenue intersection are deteriorated and not functioning as designed, which is resulting in stormwater ponding and infiltrating the pavement structure, which is leading to deterioration of the pavement and subgrade.

### 1.2.3. What are the Objectives/Purposes of the Project?

**Objectives:**

1. Improve sidewalk conditions and provide a pedestrian facility on Main Street meeting ADA accessibility guidelines.
2. Improve drainage deficiencies on Main Street, Furnace Street and the Mountain Avenue and Fishkill Avenue intersection.
3. Improve pavement conditions on Furnace Street and the Mountain Avenue and Fishkill Avenue intersection.

## 1.3. What Alternative(s) Are Being Considered?

For a more in-depth discussion of the design criteria and nonstandard features see Section 3.2.3. Design Criteria for Feasible Alternative.

## 1.4 How will the Alternative(s) affect the Environment?

**Exhibit 1.4**
**Environmental Summary**

| | | | | |
|---|---|---|---|---|
| NEPA Classification | NEPA Class II | BY | FHWA | Date |
| SEQR Type: | Type II | BY | Village of Cold Spring | Date |

Anticipated Permits/Certifications/Coordination:

Permits:

- Utility Work Permits
  - Time Warner
  - Verizon
  - Central Hudson

NYSDOS - The village of Cold Spring has a Local Waterfront Revitalization Strategy dated 2011.

Coordination:

- Coordination with Federal Highway Administration
- Coordination with New York State Historic Preservation Officer (SHPO)
- Coordination with the US Fish and Wildlife Service
- Coordination with the New York Natural Heritage Program
- Coordination with New York State Department of Environmental Conservation

## 1.5. What Are The Costs & Schedules?

Design Approval is scheduled for summer of 2014 with Construction scheduled to last 4 months beginning in the spring of 2015.

| Exhibit 1.5A<br>Project Schedule | |
|---|---|
| **Activity** | **Date Occurred/Tentative** |
| Design Approval | Summer 2014 |
| ROW Acquisition | N/A |
| Construction Start | Spring 2015 |
| Construction Complete | Summer 2015 |

| Exhibit 1.5 B<br>Comparison of Alternatives Project Costs | | | |
|---|---|---|---|
| Activities | Alternative 2 | | |
| | Total | Share 1: PIN 8759.53 | Share 2: PIN 8760.04 |
| Construction Costs | $475,000 | $155,000 | $320,000 |
| Incidentals 10% | $50,000 | $20,000 | $30,000 |
| Subtotal (2014 Dollars) | $525,000 | $175,000 | $350,000 |
| Contingency (15% of Construction Cost @ Design Approval) | $75,000 | $25,000 | $50,000 |
| Subtotal (2014 Dollars) | $600,000 | $200,000 | $400,000 |
| Field Change Order | $30,000 | $10,000 | $20,000 |
| Subtotal (2014 Dollars) | $630,000 | $210,000 | $420,000 |
| Mobilization (4%) | $25,000 | $10,000 | $15,000 |
| Subtotal (2014 Dollars) | $655,000 | $220,000 | $435,000 |
| Expected Award Amount (Inflated @ 5%/yr to midpoint of construction (2014 Dollars)) | $690,000 | $230,000 | $460,000 |
| Construction Inspection (9%) | $65,000 | $20,000 | $45,000 |
| ROW Costs (2014 Dollars) | $0 | $0 | $0 |
| **Total Project Costs** | **$755,000** | **$250,000** | **$505,000** |

## 1.6. Which Alternative is Preferred?

Alternative 2 has been identified as the alternative that best meets the project objectives. This was determined after evaluation of environmental concerns, comments on the draft design approval documents and on comments received from the public information meeting. See Appendix D for public comments received to date.

## 1.7. What are the Opportunities for Public Involvement?

**Exhibit 1.7**
**Public Involvement Plan Schedule of Milestone Dates**

| Activity | Date Occurred/Tentative |
|---|---|
| Meeting with Village Representatives | January 2012 |
| Public Informational Meeting | September2012 |
| Current Project Letting date | Spring 2015 |

The preferred alternative will be selected by the Village of Cold Spring with input from stakeholders, involved agencies, and the public.

A summary of the project development process is included in Section 2.1 of this report.

You can provide your thoughts by contacting:

J. Ralph Falloon, Mayor
Village of Cold Spring
85 Main Street
Cold Spring, NY 10516

Please include the six digit Project Identification Numbers (PIN's) 8759.53 & 8760.04

The remainder of this report is a detailed technical evaluation of the existing conditions, the proposed alternatives, the potential impacts of the alternatives, copies of technical reports and plans and other supporting information.

# CHAPTER 2 - PROJECT CONTEXT: HISTORY, TRANSPORTATION PLANS, CONDITIONS AND NEEDS

This chapter addresses the history and existing context of the project site, including the existing conditions, deficiencies, and needs for this part of the Main Street corridor.

## 2.1. Project History

In 2011 the Village of Cold Spring developed a Local Waterfront Revitalization Strategy (LWRS). The project is consistent with the goals set forth in the Local Waterfront Revitalization Strategy (LWRS) of providing adequate pedestrian facilities that meet the needs of the Village of Cold Spring. The project is currently on the approved Transportation Improvement Program (TIP) as project number NY 384 HPP #1301 and NY 266 HPP # 101.

## 2.2. Transportation Plans and Land Use

### 2.2.1. Local Plans for the Project Area

#### 2.2.1.1. Local Master Plan

The proposed pedestrian facilities improvements are consistent with the goals set forth in the Local Waterfront Revitalization Strategy (LWRS) and the Village of Cold Spring Draft Comprehensive Plan.
The Village of Cold Spring Report on Street and Sidewalks, dated November 28, 2010, identifies ADA curb ramps as a need along Main Street.

#### 2.2.1.2. Local Private Development Plans

There are no approved developments planned within the project area that will impact traffic operations.

### 2.2.2. Transportation Corridor

#### 2.2.2.1. Importance of the Project Route Segment

Main Street is the center of the business district for the Village of Cold Spring.

#### 2.2.2.2. Alternate Routes

There are no feasible alternative routes for pedestrian or vehicular traffic that would be suitable as a permanent detour.

#### 2.2.2.3. Corridor Deficiencies and Needs

The primary deficiencies identified along the project corridor is the lack of adequate pedestrian facilities through the Village main business district that meet current ADA standards as well as drainage facilities that no longer function as intended.

### 2.2.2.4. Transportation Plans

This project is on the approved Transportation Improvement Program (TIP) as project Nos. NY 384 HPP #1301 and NY 266 HPP # 101.

### 2.2.2.5. Abutting Highway Segments and Future Plans for Abutting Highway Segments

The Village of Cold Spring has confirmed that there are no plans to reconstruct or widen this highway segment, or the adjoining segments, within the next 20 years.

Furnace Street abuts the southern side of Main Street and consists of a 20 ft. curbed, one-way section in the southbound direction with on-street parking on the east side of the street and sidewalks on both side of the street.

Fishkill Avenue abuts the north side of Main Street and consists of a 28 ft., curbed, two-way section with sidewalks on both side of the street. On-street parking is permitted on both sides of the street.

Mountain Avenue abuts the east side of Fishkill Avenue and consists of a 35 ft. curbed two-way section with sidewalks on both sides of the street. On-street parking is permitted on both sides of the street.

## 2.3. Transportation Conditions, Deficiencies and Engineering Consideration

### 2.3.1. Operations (Traffic and Safety) & Maintenance

### 2.3.1.1. Functional Classification and National Highway System (NHS)

**Exhibit - 2.3.1.1**
**Classification Data**

| Route(s) | Main Street | Furnace Street | Mountain Avenue | Fishkill Avenue |
|---|---|---|---|---|
| Functional Classification | Urban Collector | Local Urban Road | Local Urban Road | Local Urban Road |
| National Highway System (NHS) | No | No | No | No |
| Designated Truck Access Route | No | No | No | No |
| Qualifying Highway | No | No | No | No |
| Within 1.0 mile of a Qualifying Highway | No | No | No | No |
| Within the 16.0 ft. vertical clearance network | No | No | No | No |

### 2.3.1.2. Control of Access

Main Street, Furnace Street, Mountain Avenue and Fishkill Avenue are not controlled access highways.

### 2.3.1.3. Traffic Control Devices

Traffic control devices within the project limits include pavement markings, traffic signs and traffic signals. The existing pavement markings are in fair to poor condition and are generally in compliance with the Manual of Uniform Traffic Control Devices (MUTCD).

The NYS Route 9D intersection is controlled by a traffic signal. All other side roads within the project limits are controlled by stop signs.

### 2.3.1.4. Intelligent Transportation Systems (ITS)

There are no ITS systems in operation or planned for the project area.

### 2.3.1.5. Speeds and Delays

| Exhibit - 2.3.1.5<br>Speed Data | | | | |
|---|---|---|---|---|
| Route | Main Street | Furnace Street | Mountain Avenue | Fishkill Avenue |
| Existing Speed Limit | 25 mph | 25 mph | 25 mph | 25 mph |

Design speeds were estimated based on posted speed limits and observed traffic operations within the project limits.

### 2.3.1.6. Traffic Volumes

### 2.3.1.6. (1) Existing traffic volumes

Refer to Exhibits 2.3.1.6-1 through 2.3.1.6-2 for a summary of the traffic data. A discussion of the traffic count methodology and existing and forecasted traffic volumes are included in Appendix C.

| Exhibit - 2.3.1.6-1<br>Traffic Data | |
|---|---|
| Route | Main Street |
| Directional Distribution | 50% EB / 50% WB AM, 54% EB / 46% WB PM |
| Peak Hour Factor | 0.97 AM / 0.89 PM |
| % Peak Hour Trucks | 3% AM, 1% PM |
| % Daily Trucks | 2% |

### 2.3.1.6. (2) Future no-build design year traffic volume forecasts

The Estimated Time of Completion (ETC) +10 design year was selected per PDM Appendix 5. An ETC+20 year projection was not completed as the project is not categorized as a reconstruction or major bridge rehabilitation. Refer to Exhibit 2.3.1.6-2 for a summary of the design year volumes.

**Exhibit 2.3.1.6-2**
**Existing and Forecast Traffic Volumes**

| Roadway | Existing (2011) | | ETC[1] (2013) | | ETC+10 (2023) | |
|---|---|---|---|---|---|---|
| | ADT[1] | DHV[1] | ADT | DHV | ADT | DHV |
| Main Street | 4150 | 330 | 4190 | 335 | 4410 | 350 |

(1) ETC is the Estimated Time of Completion, ADT is the Average Daily Traffic and DHV is the Design Hourly Volume for the 30th highest hour.

### 2.3.1.7. Level of Service and Mobility

### 2.3.1.7. (1) Existing level of service and capacity analysis

A capacity analysis was not completed for this project as it is a sidewalk project, and there will be no changes to existing capacity. From field observations, the corridor operates at LOS C or better and will operate at an acceptable LOS in the design year.

### 2.3.1.8. Safety Considerations, Accident History and Analysis

An accident analysis was performed in accordance with the Highway Design Manual Chapter 5. Accident analyses were conducted for the intersections and roadway segments within the project limits using police reports obtained by the Cold Springs Municipal Police for the three-year period of March 1, 2009 to February 28, 2012. These accident records documented 25 accidents occurring within the study area during this time period. Of the 25 accidents, 22 occurred at intersections and the remaining occurred on roadway links. Approximately 90% of the accidents were property damage only (PDO's) with the remaining 10% being personal injury accidents including one accident involving a pedestrian. The majority of accidents were classified as sideswipes and parking, accounting for 72% of all accidents. All of the sideswipe accidents involved a parked vehicle. The statewide accident rate for this type of facility is 2.88 ACC/MVM. The calculated accident rate for the corridor including intersections is 7.76 ACC/MVM. Although the calculated rate is higher than the statewide average, as stated above, the majority of accidents are parking related and are typical of downtown business districts. There are no high accident locations within the study area.

Summaries of accident severity for project area intersections and links are provided in Exhibit 2.3.1.8

| Exhibit 2.3.1.8<br>Intersection and Link Accident Summary by Severity | | | | | |
|---|---|---|---|---|---|
| **Location** | **Fatal** | **Injury** | **Property Damage Only (PDO)** | **Non-Reportable** | **Total** |
| **Intersections** | | | | | |
| Main Street & Cedar Street | 0 | 0 | 1 | 0 | 1 |
| Main Street & Locust Ridge | 0 | 1 | 0 | 0 | 1 |
| Main Street & Fishkill Ave/ Academy Street | 0 | 1 | 1 | 0 | 2 |
| NYS Route 9D ( Morris Ave/Chestnut St) & Main Street | 0 | 1 | 5 | 0 | 6 |
| Main Street & Furnace Street | 0 | 0 | 2 | 0 | 2 |
| Main Street & Church Street | 0 | 0 | 3 | 0 | 3 |
| Main Street & Garden Street/Kemble Avenue | 0 | 0 | 2 | 0 | 2 |
| Main Street & Fair Street | 0 | 0 | 1 | 0 | 1 |
| Main Street & Rock Street | 0 | 0 | 1 | 0 | 1 |
| Main Street & Stone Street | 0 | 0 | 2 | 0 | 2 |
| Main Street & Depot Square | 0 | 0 | 1 | 0 | 1 |
| **Links** | | | | | |
| Main Street Between Orchard Street & B Street | 0 | 0 | 1 | 0 | 1 |
| Main Street Between Church Street and Garden Street/ Kemble Avenue | 0 | 0 | 1 | 0 | 1 |
| Furnace Street Between Wall Street and Main Street | 0 | 0 | 1 | 0 | 1 |
| **Total** | **0** | **3** | **22** | **0** | **25** |

An accident analysis including an accident summary is in Appendix C.

### 2.3.1.9. Existing Police, Fire Protection and Ambulance Access

The Village of Cold Spring Fire Department is located within the project limits at the intersection of Church Street and Main Street.

### 2.3.1.10. Parking Regulations and Parking Related Conditions

On-street parking is permitted along Main Street and is generally restricted to a maximum of four hours between 9am and 5pm. There are no on-street parking restrictions along Main Street between the hours of 5pm and 9am. Parking along Main Street is controlled through the use of both pavement markings and regulatory signs within the project limits. On-street parking is permitted along the east side of Furnace Street. On-street parking is permitted along Mountain

Avenue. On-street parking is permitted along the west side of Fishkill Avenue within the proposed reconstruction limits.

#### 2.3.1.11. Lighting

There is street lighting within the project limits and generally consists of aluminum bracket arm light fixtures attached to utility poles.

#### 2.3.1.12. Ownership and Maintenance Jurisdiction

| Existing Maintenance Jurisdiction | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Highway** | **Limits** | **Feature(s) being Maintained** | **Centerline (mi)** | **Lane (mi)** | **Agency** | **Authority** | **Owner** |
| Main Street | Railroad tracks to Route 9D | Snow removal pavement and shoulders | 0.4 | 0.8 | Putnam County Highway Department | Putnam County | Village of Cold Spring |
| Main Street | Railroad tracks to Route 9D | Sidewalks, landscaping and lighting | 0.4 | 0.8 | Village of Cold Spring Highway Department | Village of Cold Spring | Village of Cold Spring |
| Furnace Street | Main Street to Wall Street | Entire roadway, shoulders, drainage, landscaping and lighting | 0.1 | 0.1 | Village of Cold Spring Highway Department | Village of Cold Spring | Village of Cold Spring |
| Fishkill Avenue | Fishkill Avenue/Mountain Avenue Intersection | Entire roadway, shoulders, drainage, landscaping and lighting | 0.1 | 0.1 | Village of Cold Spring Highway Department | Village of Cold Spring | Village of Cold Spring |

### 2.3.2. Multimodal

#### 2.3.2.1. Pedestrians

The existing pedestrian facilities within the project limits include continuous sidewalks along both sides of Furnace Street and Main Street; however, the existing sidewalks along Main Street are in poor condition with numerous spot repairs, severe cracking, and uneven surfaces. These poor sidewalk conditions pose a tripping hazard to pedestrians and hinder access for persons with disabilities. The existing curb ramps from Depot Square to NYS Route 9D are not in compliance with current ADA standards with respect to running slope, surface condition, vertical alignment, and detectable warnings. A Pedestrian Generator checklist is included in Appendix C.

#### 2.3.2.2. Bicyclists

There are no separate provisions for bicyclists. There are no plans for a bicycle route within the project limits.

#### 2.3.2.3. Transit

A Metro – North commuter railroad station is located at the western end of the project limits adjacent to Depot Square.

#### 2.3.2.4. Airports, Railroad Stations, and Ports

There are no airports or port entrances within or in the vicinity of the project limits. A Metro – North commuter railroad station is located at the western end of the project limits.

#### 2.3.2.5. Access to Recreation Areas (Parks, Trails, Waterways, State Lands)

There are no entrances to recreation areas within the project limits.

### 2.3.3. Infrastructure

#### 2.3.3.1. Existing Highway Section

Main Street consists of a two-lane roadway with parking lanes on both sides between Depot Square and Route 9D. The existing pavement surface has an asphalt concrete surface. Concrete curbs are located along both sides of Main Street from Depot Square to Route 9D. There is one signalized intersection along Main Street within the project limits at the NYS Route 9D intersection.

The existing horizontal alignment of Main Street is generally straight. The vertical alignment along Main Street slopes downward from east to west with grades varying from 3.1% to 8.3%.

Furnace Street consists of a one-way one-lane roadway in the southbound direction with a parking lane on the east side. The existing pavement surface has an asphalt concrete surface. Concrete curbs are located along both sides of Furnace Street.

The existing horizontal alignment of Furnace Street is straight. The vertical alignment along Furnace Street slopes downward from Wall Street to Main Street with grades varying from 2.0% to 3.0%.

Fishkill Avenue consists of a two lane roadway with a parking lane on the east side within the reconstruction limits. The existing pavement surface has an asphalt concrete surface. Concrete curbs are located along both sides of Fishkill Avenue.

Mountain Avenue consists of a two lane roadway with a parking lane on both sides within the reconstruction limits. The existing pavement surface has an asphalt concrete surface. Concrete curbs are located along both sides of Mountain Avenue.

The existing horizontal alignments along Fishkill Avenue and Mountain Avenue do not consist of any curves. The vertical alignment along Fishkill Avenue slopes downward from Mountain

Avenue to Main Street with grades varying from 3.0% to 5.8%. The vertical alignment along Mountain Avenue within the reconstruction limits slopes downward toward Fishkill Avenue with grades varying from 0.6% to 7.7%.

See Typical Sections, Plan and Profile sheets in Appendix A.

### 2.3.3.2. Geometric Design Elements Not Meeting Standards

#### 2.3.3.2. (1) Critical Design Elements

There are three non-standard features that exist as discussed below.

Pedestrian Accommodations: The existing sidewalk ramps do not meet current ADA standards.

Stopping Sight Distance: The existing stopping sight distance on Fishkill Avenue is 149.5ft at its approach to Mountain Avenue. This is 50.5ft below the minimum 200ft design standard for a local urban street with a design speed of 30mph.

Modifications to the roadway profile to correct the sight distance to meet the minimum requirement of 200ft would result in considerable impacts to adjacent driveways and properties and would be beyond the scope of this project. The stopping sight distance will be retained to minimize project impacts and costs.

Pavement Cross Slope: The existing pavement cross slope on Fishkill Avenue is approximately 4.0%. The design standard for pavement cross slope on a local urban street with a design speed of 30mph is 2.0%.

Correction of the pavement cross slope to meet the 2.0% would require extending the limits of reconstruction on both Mountain Avenue and Fishkill Avenue and would be beyond the scope of this project. The pavement cross slope will be retained to minimize project impacts and costs.

Copies of the non-standard feature justification forms are located in Appendix E.

#### 2.3.3.2. (2) Other Design Parameters

There are no existing non-conforming features.

### 2.3.3.3. Pavement and Shoulder

A visual inspection of the existing pavement surface was conducted in August 2011 to note general pavement condition. Field observations show Main Street has low severity cracking longitudinal and transverse cracking. The pavement along Main Street is in overall good condition. Field observations show that Furnace Street has medium to high severity longitudinal and transverse cracking and the pavement is in overall poor condition. Field observations show that the intersection of Fishkill Avenue and Mountain Avenue has medium to high severity cracking and considerable settlement and heaving.

### 2.3.3.4. Drainage Systems

The existing drainage system within the project consists of a closed system of catch basins along the curb lines interconnected with drainage pipes. New drainage structures will be added

along both side of Furnace Street as well as at the Fishkill Avenue and Mountain Avenue Intersection. Some drainage modifications will also be required at the intersections along Main Street due to the construction of ADA compliant ramps.

See Plan sheets in Appendix A.

### 2.3.3.5. Geotechnical

There are no special geotechnical concerns with the soils or rock slopes within the project area that would affect the design of the proposed improvements.

### 2.3.3.6. Structure

There are no bridges within the project limits.

### 2.3.3.6. (2) Waterway

No waterways are located within the project limits; therefore, a Coast Guard Checklist is not required

### 2.3.3.7. Hydraulics of Bridges and Culverts

There are no bridges or culverts over waterways within the project limits.

### 2.3.3.8. Guide Railing, Median Barriers and Impact Attenuators

There is no guide railing, median barriers or impact attenuators within the project limits.

### 2.3.3.9. Utilities

The following utilities are known to exist within the project limits.

**Exhibit - 2.3.3.9**
**Existing Utilities**

| Owner | Type |
|---|---|
| Time Warner | Cable (Overhead) |
| Verizon | Telephone (Overhead) |
| Central Hudson | Electric (Overhead) |
| Village of Cold Spring | Sanitary Sewer (UG) |
| Village of Cold Spring | Waterline (UG) |

### 2.3.3.10. Railroad Facilities

The Metro - North commuter railroad is present within the project limits. The railroad divides Main Street just east of Market Street and west of Depot Street.

| Exhibit - 2.3.3.10<br>Existing Railroad Tracks | | | | | |
|---|---|---|---|---|---|
| **Owner** | **Location** | **Crossing** | **Side** | **Length** | **Condition** |
| **Metro North** | **East of Market Street /West of Depot Street** | **Divides Main Street** | **Both** | **40 ft** | **Good** |

### 2.3.4. Potential Enhancement Opportunities

This section focuses on the existing areas to identify potential enhancement opportunities related to the project and to help avoid and minimize impacts. Chapter 4 focuses on the impacts, enhancements, and mitigation.

#### 2.3.4.1. Landscape

The landscaping features within the project limits consist of a mixture of planting beds, trees, brick, concrete and natural stone features. Street trees line both side of Main Street within the project limits. The landscaping features within the project limits are assorted and diverse with little continuity between landscape features.

#### 2.3.4.1. (1) Terrain

The general terrain within the project limits is rolling with generally a downhill grade toward the Hudson River.

#### 2.3.4.1. (2) Unusual Weather Conditions

There are no unusual weather conditions within the project area.

#### 2.3.4.1. (3) Visual Resources

The visual characteristics of the project area are dominated by a colorful and eclectic assortment of 19$^{th}$ century storefronts and historical buildings. Views looking west from Main Street are dominated by the Hudson River and the cliffs of Storm King State Park.

#### 2.3.4.2. Opportunities for Environmental Enhancements

There are no practical opportunities for environmental enhancements in the project limits beyond the enhancements of the existing manmade streetscape features.

# CHAPTER 3 – ALTERNATIVES

This chapter discusses the alternatives considered and examines the engineering aspects for all feasible alternatives to address project objectives in Chapter 1 of this report.

## 3.1. Alternatives Considered and Eliminated from Further Study

Project alternatives were developed to meet the project objectives. The alternatives were developed using the engineering design criteria in section 3.2.3 of this report. All reasonable alternatives were considered.

The following alternative was considered and dismissed from further study:

Alternative 1 – The NO Build "NULL" Alternative
The No Action/ Maintenance or Null alternative includes continued maintenance of the existing sidewalks and drainage system. The current pedestrian facilities will not be improved to meet current ADA design standards. This alternative does not satisfy the project objectives or the programming goal, but serves as a baseline to measure the impacts of the proposed build alternative. Therefore this alternative will not be considered further.

## 3.2. Feasible Build Alternatives

### 3.2.1. Description of Feasible Alternatives

**Alternative 2** –

This alternative consists of constructing new sidewalks and curb ramps along Main Street to comply with ADA requirements and addressing drainage issues along Furnace Street. Key elements of this alternative include:

| | |
|---|---|
| Geometry | • This alternative includes constructing pedestrian ramps and spot repairs of sidewalks to meet current ADA standards.<br>• This alternative includes the full-depth pavement reconstruction of Furnace Street and the Mountain Avenue and Fishkill Avenue intersection. |
| Operational | • This alternative does not affect traffic operations. |
| Control of Access | • All existing access points will be maintained |
| Right of Way | • This project will not require any permanent or temporary ROW acquisitions. All work will be performed within existing highway boundaries. |
| Environmental | • There are no wetland impacts, significant noise or visual impacts associated with the proposed project. |
| Cost | • Total estimated construction cost of this alternative is $0.755 M. |
| Project Goals | • These improvements meet the overall objective to address improved pedestrian accessibility along Main Street and improve drainage and pavement along Furnace Street and the Mountain Avenue and Fishkill Avenue intersection |

| Exhibit 1.5 B<br>Comparison of Alternatives Project Costs | | | |
|---|---|---|---|
| Activities | Alternative 2 | | |
| | Total | Share 1: PIN 8759.53 | Share 2: PIN 8760.04 |
| Construction Costs | $475,000 | $155,000 | $320,000 |
| Incidentals 10% | $50,000 | $20,000 | $30,000 |
| Subtotal (2014 Dollars) | $525,000 | $175,000 | $350,000 |
| Contingency (15% of Construction Cost @ Design Approval) | $75,000 | $25,000 | $50,000 |
| Subtotal (2014 Dollars) | $600,000 | $200,000 | $400,000 |
| Field Change Order | $30,000 | $10,000 | $20,000 |
| Subtotal (2014 Dollars) | $630,000 | $210,000 | $420,000 |
| Mobilization (4%) | $25,000 | $10,000 | $15,000 |
| Subtotal (2014 Dollars) | $655,000 | $220,000 | $435,000 |
| Expected Award Amount (Inflated @ 5%/yr to midpoint of construction (2014 Dollars)) | $690,000 | $230,000 | $460,000 |
| Construction Inspection (9%) | $65,000 | $20,000 | $45,000 |
| ROW Costs (2014 Dollars) | $0 | $0 | $0 |
| **Total Project Costs** | **$755,000** | **$250,000** | **$505,000** |

### 3.2.2. Preferred Alternative

Alternative 2 has been identified as the alternative that best meets the project objectives.

### 3.2.3. Design Criteria for Feasible Alternative(s)

#### 3.2.3.1. Design Standards

The proposed project will be designed in accordance with NYSDOT HDM Chapter 2

#### 3.2.3.2. Critical Design Elements

The design criteria for the critical design elements of the project are as follows:

**Exhibit 3.2.3.2. (1)**
**Critical Design Elements for Main Street**

**Main Line Design Criteria** (in accordance with HDM Chapter 2)

| | | | |
|---|---|---|---|
| PIN: | 8759.53 & 8760.04 | NHS (Y/N): | Yes |
| Route No. & Name: | Main Street | Functional Class: | Urban Collector |
| Project Type: | Reconstructed | Design Classification (AASHTO Class) | Urban Collector |
| % Trucks: | 2.0% | Terrain: | Level |
| ADT: | 4150 | Truck Access/Qualifying Hwy. : | Neither |

| Element | | Standard Criteria | HDM § Reference | Existing Conditions | Proposed Conditions |
|---|---|---|---|---|---|
| 1 | Design Speed | 30mph(See Note 2) | HDM §2.7.2.2.A. | 25 mph | 25 mph |
| 2 | Travel Lane Width | 10.0ft Min; 12.0ft Desirable; Parking Lane: 8.0ft. Min.; 11.0ft Desirable | HDM §2.7.2.2.B. (TABLE 2-4) | 11.0 ft Travel Lane/ 8.0ft. Parking Lane | 11.0 ft Travel Lane/ 8.0ft. Parking Lane |
| 4 | Shoulder Width | Right 0.0 ft min. 2.0 ft Desirable | HDM §2.7.2.2.C. (TABLE 2-3) | 0.0 ft. | 0.0 ft. |
| 5 | Bridge Roadway Width | Full Approach Width | Bridge Manual §2.3.1 | N/A | N/A |
| 6 | Max. Grade | 9.0% | HDM §2.7.2.2.E. (TABLE 2-4) | 8.2% | 8.2% |
| 7 | Min. Horizontal Radius | 250 ft @ e = 4.0% | HDM §2.7.2.2.F. (TABLE 2-4) | 3250 ft. | 3250 ft |
| 8 | Max. Superelevation | 4.0% (max.) | HDM §2.7.2.2.G. | N/A | N/A |
| 9 | Stopping Sight Distance | 200 ft. (min.) | HDM §2.7.2.2.H. (TABLE 2-4) | 550 ft | 550 ft |
| 10 | Horizontal Clearance | | | | |
| | with Barrier = | 0 ft. (min.) | HDM §2.7.2.2.I. | 0 ft. (min.) | 0 ft. (min.) |
| | w/o Barrier = | 1.5 ft. (min.) | HDM §2.7.2.2.I. | 1.5 ft. (min.) | 1.5 ft. (min.) |
| | Intersections = | 3.0 ft. (min.) | HDM §2.7.2.2.I. | 3.0 ft. (min.) | 3.0 ft. (min.) |
| 11 | Vertical Clearance | - | - | - | - |
| | Bridges over Highways | N/A | Bridge Manual §2.4.1 | N/A | N/A |
| | Bridges over Streams (Freeboard) | N/A | Bridge Manual §2.4.3 | N/A | N/A |
| | Bridges over Railroad Mainlines | N/A | Bridge Manual §2.4.2 | N/A | N/A |
| 12 | Pavement Cross Slope | 1.5% to 2.0% Travel Lanes 1.5% to 5.0% Parking Lanes | HDM §2.7.2.2.K. | Approx. 2% Parking Lanes & Travel Lanes | Approx. 2% Parking Lanes & Travel Lanes |
| 13 | Rollover Between Travel Lanes | 4.0% | HDM §2.7.2.2.L. | N/A | N/A |
| 14 | Rollover At Pavement Edge | 8.0% | HDM §2.7.2.2.L. | N/A | N/A |
| 15 | Min. Structural Capacity | N/A | Bridge Manual §2.6.1 | N/A | N/A |
| 16 | Pedestrian Accommodations | HDM Chapter 18 and ADAAG | HDM §2.7.2.2.N. | (See Note 1) | HDM Chapter 18 and ADAAG |

**Notes:**

1. Existing pedestrian facilities are not compliant with ADA guidelines.
2. The posted speed limit is 25MPH.

## Exhibit 3.2.3.2. (2)
## Critical Design Elements for Furnace Street

**Main Line Design Criteria** (in accordance with HDM Chapter 2)

| | | | |
|---|---|---|---|
| PIN: | 8759.53 & 8760.04 | NHS (Y/N): | No |
| Route No. & Name: | Furnace Street | Functional Class: | Urban Local |
| Project Type: | Reconstructed | Design Classification (AASHTO Class) | Local Urban Street |
| % Trucks: | 2.0% | Terrain: | Level |
| ADT: | 400 | Truck Access/Qualifying Hwy. : | Neither |

| Element | | Standard Criteria | HDM § Reference | Existing Conditions | Proposed Conditions |
|---|---|---|---|---|---|
| 1 | Design Speed | 30mph(See Note 2) | HDM §2.7.2.2.A. | 25 mph | 25 mph |
| 2 | Travel Lane Width | 9.0ft Min; 10.0ft Desirable; Parking Lane: 7.0ft. Min.; 8.0ft Desirable | HDM §2.7.2.2.B. (TABLE 2-4) | 12.0 ft Travel Lane/ 8.0ft. Parking Lane | 12.0 ft Travel Lane/ 8.0ft. Parking Lane |
| 4 | Shoulder Width | Right 0.0 ft min. 2.0 ft Desirable | HDM §2.7.2.2.C. (TABLE 2-3) | 0.0 ft. | 0.0 ft. |
| 5 | Bridge Roadway Width | Full Approach Width | Bridge Manual §2.3.1 | N/A | N/A |
| 6 | Max. Grade | 15.0% | HDM §2.7.2.2.E. (TABLE 2-4) | 4.9% | 3.0% |
| 7 | Min. Horizontal Radius | 250 ft @ e = 4.0% | HDM §2.7.2.2.F. (TABLE 2-4) | N/A (See Note 3) | N/A (See Note 3) |
| 8 | Max. Superelevation | 4.0% (max.) | HDM §2.7.2.2.G. | N/A | N/A |
| 9 | Stopping Sight Distance | 200 ft. (min.) | HDM §2.7.2.2.H. (TABLE 2-4) | 400 ft | 661 ft |
| 10 | Horizontal Clearance | | | | |
| | with Barrier = | 0 ft. (min.) | HDM §2.7.2.2.I. | 0 ft. (min.) | 0 ft. (min.) |
| | w/o Barrier = | 1.5 ft. (min.) | HDM §2.7.2.2.I. | 1.5 ft. (min.) | 1.5 ft. (min.) |
| | Intersections = | 3.0 ft. (min.) | HDM §2.7.2.2.I. | 3.0 ft. (min.) | 3.0 ft. (min.) |
| 11 | Vertical Clearance | - | - | - | - |
| | Bridges over Highways | N/A | Bridge Manual §2.4.1 | N/A | N/A |
| | Bridges over Streams (Freeboard) | N/A | Bridge Manual §2.4.3 | N/A | N/A |
| | Bridges over Railroad Mainlines | N/A | Bridge Manual §2.4.2 | N/A | N/A |
| 12 | Pavement Cross Slope | 1.5% to 2.0% Travel Lanes 1.5% to 5.0% Parking Lanes | HDM §2.7.2.2.K. | Approx. 2% Parking Lanes & Travel Lanes | Approx. 2% Parking Lanes & Travel Lanes |
| 13 | Rollover Between Travel Lanes | 4.0% | HDM §2.7.2.2.L. | N/A | N/A |
| 14 | Rollover At Pavement Edge | 8.0% | HDM §2.7.2.2.L. | N/A | N/A |
| 15 | Min. Structural Capacity | N/A | Bridge Manual §2.6.1 | N/A | N/A |
| 16 | Pedestrian Accommodations | HDM Chapter 18 and ADAAG | HDM §2.7.2.2.N. | (See Note 1) | HDM Chapter 18 and ADAAG |

**Notes:**

1. Existing pedestrian facilities are not compliant with ADA guidelines.
2. The posted speed limit is 25MPH.
3. Furnace Street within the project limits contains no horizontal curves.

**Exhibit 3.2.3.2. (3)**
**Critical Design Elements for Mountain Avenue**

**Main Line Design Criteria** (in accordance with HDM Chapter 2)

| | | | |
|---|---|---|---|
| PIN: | 8759.53 & 8760.04 | NHS (Y/N): | No |
| Route No. & Name: | Mountain Avenue | Functional Class: | Urban Local |
| Project Type: | Reconstructed | Design Classification (AASHTO Class) | Local Urban Street |
| % Trucks: | 2.0% | Terrain: | Level |
| ADT: | 400 | Truck Access/Qualifying Hwy. : | Neither |

| Element | | Standard Criteria | HDM § Reference | Existing Conditions | Proposed Conditions |
|---|---|---|---|---|---|
| 1 | Design Speed | 30mph(See Note 2) | HDM §2.7.2.2.A. | 25 mph | 25 mph |
| 2 | Travel Lane Width | 10.0ft Min; 11.0ft Desirable; Parking Lane: 7.0ft. Min.; 8.0ft Desirable | HDM §2.7.2.2.B. (TABLE 2-4) | 10.0 ft Travel Lane/ 7.0ft. Parking Lane | 10.0 ft Travel Lane/ 7.0ft. Parking Lane |
| 4 | Shoulder Width | Right 0.0 ft min. 2.0 ft Desirable | HDM §2.7.2.2.C. (TABLE 2-3) | 0.0 ft. | 0.0 ft. |
| 5 | Bridge Roadway Width | Full Approach Width | Bridge Manual §2.3.1 | N/A | N/A |
| 6 | Max. Grade | 15.0% | HDM §2.7.2.2.E. (TABLE 2-4) | 7.7% | 7.7% |
| 7 | Min. Horizontal Radius | 250 ft @ e = 4.0% | HDM §2.7.2.2.F. (TABLE 2-4) | N/A (See Note 3) | N/A (See Note 3) |
| 8 | Max. Superelevation | 4.0% (max.) | HDM §2.7.2.2.G. | N/A | N/A |
| 9 | Stopping Sight Distance | 200 ft. (min.) | HDM §2.7.2.2.H. (TABLE 2-4) | N/A (See note 4) | N/A (See note 4) |
| 10 | Horizontal Clearance | | | | |
| | with Barrier = | 0 ft. (min.) | HDM §2.7.2.2.I. | 0 ft. (min.) | 0 ft. (min.) |
| | w/o Barrier = | 1.5 ft. (min.) | HDM §2.7.2.2.I. | 1.5 ft. (min.) | 1.5 ft. (min.) |
| | Intersections = | 3.0 ft. (min.) | HDM §2.7.2.2.I. | 3.0 ft. (min.) | 3.0 ft. (min.) |
| 11 | Vertical Clearance | - | - | - | - |
| | Bridges over Highways | N/A | Bridge Manual §2.4.1 | N/A | N/A |
| | Bridges over Streams (Freeboard) | N/A | Bridge Manual §2.4.3 | N/A | N/A |
| | Bridges over Railroad Mainlines | N/A | Bridge Manual §2.4.2 | N/A | N/A |
| 12 | Pavement Cross Slope | 1.5% to 2.0% Travel Lanes 1.5% to 5.0% Parking Lanes | HDM §2.7.2.2.K. | Approx. 2% Parking Lanes & Travel Lanes | Approx. 2% Parking Lanes & Travel Lanes |
| 13 | Rollover Between Travel Lanes | 4.0% | HDM §2.7.2.2.L. | N/A | N/A |
| 14 | Rollover At Pavement Edge | 8.0% | HDM §2.7.2.2.L. | N/A | N/A |
| 15 | Min. Structural Capacity | N/A | Bridge Manual §2.6.1 | N/A | N/A |
| 16 | Pedestrian Accommodations | HDM Chapter 18 and ADAAG | HDM §2.7.2.2.N. | (See Note 1) | HDM Chapter 18 and ADAAG |

**Notes:**
1. Existing pedestrian facilities are not compliant with ADA guidelines.
2. The posted speed limit is 25MPH.
3. Mountain Avenue within the project limits contains no horizontal curves.

**Exhibit 3.2.3.2. (4)**
**Critical Design Elements for Fishkill Avenue**

**Main Line Design Criteria** (in accordance with HDM Chapter 2)

| | | | |
|---|---|---|---|
| PIN: | 8759.53 & 8760.04 | NHS (Y/N): | No |
| Route No. & Name: | Fishkill Avenue | Functional Class: | Urban Local |
| Project Type: | Reconstructed | Design Classification (AASHTO Class) | Local Urban Street |
| % Trucks: | 2.0% | Terrain: | Level |
| ADT: | 400 | Truck Access/Qualifying Hwy. : | Neither |

| Element | | Standard Criteria | HDM § Reference | Existing Conditions | Proposed Conditions |
|---|---|---|---|---|---|
| 1 | Design Speed | 30mph(See Note 2) | HDM §2.7.2.2.A. | 25 mph | 25 mph |
| 2 | Travel Lane Width | 9.0ft Min; 10.0ft Desirable; Parking Lane: 7.0ft. Min.; 8.0ft Desirable | HDM §2.7.2.2.B. (TABLE 2-4) | 10.0 ft Travel Lane/ 8.0ft. Parking Lane | 10.0 ft Travel Lane/ 8.0ft. Parking Lane |
| 4 | Shoulder Width | Right 0.0 ft min. 2.0 ft Desirable | HDM §2.7.2.2.C. (TABLE 2-3) | 0.0 ft. | 0.0 ft. |
| 5 | Bridge Roadway Width | Full Approach Width | Bridge Manual §2.3.1 | N/A | N/A |
| 6 | Max. Grade | 15.0% | HDM §2.7.2.2.E. (TABLE 2-4) | 5.8% | 5.8% |
| 7 | Min. Horizontal Radius | 250 ft @ e = 4.0% | HDM §2.7.2.2.F. (TABLE 2-4) | N/A (See Note 3) | N/A (See Note 3) |
| 8 | Max. Superelevation | 4.0% (max.) | HDM §2.7.2.2.G. | N/A | N/A |
| 9 | Stopping Sight Distance | 200 ft. (min.) | HDM §2.7.2.2.H. (TABLE 2-4) | 149.5 ft | 149.5 ft |
| 10 | Horizontal Clearance | | | | |
| | with Barrier = | 0 ft. (min.) | HDM §2.7.2.2.I. | 0 ft. (min.) | 0 ft. (min.) |
| | w/o Barrier = | 1.5 ft. (min.) | HDM §2.7.2.2.I. | 1.5 ft. (min.) | 1.5 ft. (min.) |
| | Intersections = | 3.0 ft. (min.) | HDM §2.7.2.2.I. | 3.0 ft. (min.) | 3.0 ft. (min.) |
| 11 | Vertical Clearance | - | - | - | - |
| | Bridges over Highways | N/A | Bridge Manual §2.4.1 | N/A | N/A |
| | Bridges over Streams (Freeboard) | N/A | Bridge Manual §2.4.3 | N/A | N/A |
| | Bridges over Railroad Mainlines | N/A | Bridge Manual §2.4.2 | N/A | N/A |
| 12 | Pavement Cross Slope | 1.5% to 2.0% Travel Lanes 1.5% to 5.0% Parking Lanes | HDM §2.7.2.2.K. | Approx. 4% Parking Lanes & Travel Lanes | Approx. 4% Parking Lanes & Travel Lanes |
| 13 | Rollover Between Travel Lanes | 4.0% | HDM §2.7.2.2.L. | N/A | N/A |
| 14 | Rollover At Pavement Edge | 8.0% | HDM §2.7.2.2.L. | N/A | N/A |
| 15 | Min. Structural Capacity | N/A | Bridge Manual §2.6.1 | N/A | N/A |
| 16 | Pedestrian Accommodations | HDM Chapter 18 and ADAAG | HDM §2.7.2.2.N. | (See Note 1) | HDM Chapter 18 and ADAAG |

**Notes:**

1. Existing pedestrian facilities are not compliant with ADA guidelines.
2. The posted speed limit is 25MPH.
3. Fishkill Avenue within the project limits contains no horizontal curves.

### 3.2.3.3. Other Design Parameters

| Exhibit 3.2.3.3<br>Other Design Parameters | | | |
|---|---|---|---|
| Highway or Feature | | | |
| Element | | Standard Criteria | Proposed Condition |
| 1 | Level of Service | "D" Minimum / "C" Desirable | "D" Minimum / "C" Desirable |
| 2A | Design Vehicle – Main Street | SU | SU |
| 2B | Design Vehicle – Side Roads | SU | SU |
| 3 | Closed Drainage System | Closed Drainage: 10 year frequency | Closed Drainage: 10 year frequency |

## 3.3. Engineering Considerations

### 3.3.1. Operations (Traffic and Safety) & Maintenance

#### 3.3.1.1. Functional Classification and National Highway System

This project will not change the functional classification of the highway.

#### 3.3.1.2. Control of Access

No control of access will be provided.

#### 3.3.1.3. Traffic Control Devices

3.3.1.3. (1) Traffic Signals: No new traffic signals are proposed.

3.3.1.3. (2) Signs: Existing signs will be evaluated and replaced as necessary. New signs will be added where required. All signs replaced will conform to the current Manual of Uniform Traffic Control Devices (MUTCD).

#### 3.3.1.4. Intelligent Transportation Systems (ITS)

No ITS measures are proposed.

#### 3.3.1.5. Speeds and Delay

3.3.1.5. (1) The existing posted speed limit of 25 mph will be retained upon completion of the project.

3.3.1.5. (2) Travel Time Estimates

Travel time estimates were not calculated as the feasible alternatives will not change the capacity.

| Exhibit - 3.3.1.5<br>Speed Data | | |
|---|---|---|
| Route | Main Street | Furnace Street |
| Posted Speed Limit | 25 mph | 25 mph |

### 3.3.1.6. Traffic Volumes

Since there are no anticipated changes in traffic volumes (see Section 2.3.1.6 for Existing and No-Build traffic volumes)**.** Refer to Exhibits 2.3.1.6-1 and 2.3.1.6-2 for a summary of the traffic data.

### 3.3.1.7. Level of Service and Mobility

3.3.1.7 (1) At Project Completion & Design Year

A capacity analysis was not completed for this project as it is primarily a sidewalk and drainage improvement project, and there will be no changes to existing capacity. From field observations, it has been determined the corridor operates at approximately a LOS C or better and will operate at an acceptable LOS in the design year.

### 3.3.1.8 (2) – Work Zone Safety & Mobility

A. Work Zone Traffic Control Plan

The sidewalks and sidewalk ramps along Main Street will be constructed using short duration traffic controls as necessary. Furnace Street and the Mountain Avenue and Fishkill Avenue intersection will be constructed using short duration lane closures with at least one lane remaining open during peak hours and both lanes open during non-working hours. No offsite detours will be required for construction of the project. Some driveways along Furnace Street may need to be closed for short durations during construction. Access to all commercial establishments will be maintained at all times during construction.

B. Special Provisions

The work zone traffic control will be coordinated with local officials, emergency response agencies, and business owners during the final design phases.

C. Significant Projects (per 23 CFR 630.1010)

The proposed project is not considered to be a significant project per 23CFR 630.1010, nor are there any known significant projects in the project vicinity.

### 3.3.1.8. Safety Considerations, Accident History and Analysis

Overall there were no clusters or patterns of correctable accidents along Main Street within the project limits. One pedestrian accident did occur at the intersection of Main Street and Fishkill Avenue / Academy Street. According to the accident report, the accident was the result of the pedestrian failing to look before crossing the street while running on the wrong side of the roadway.

This project will improve pedestrian facilities along the corridor, and bring them up to ADA standards. In addition, the project will include new pavement markings at pedestrian crosswalks to improve the delineation of the crossing.

#### 3.3.1.9. Impacts on Police, Fire Protection and Ambulance Access

Access for emergency vehicles will be maintained and open during construction. Access to and from the Village fire department, located at the corner of Main Street and Church Street will be maintained at all times.

#### 3.3.1.10. Parking Regulations and Parking Related Issues

No changes are proposed to existing parking regulations.

#### 3.3.1.11. Lighting

The project will include the addition of new lighting at the Main Street/Garden Street/Kemble Avenue intersection and the Main Street/Lunn Terrace intersection to bring the pedestrian crossing areas up to current standards.

#### 3.3.1.12. Ownership and Maintenance Jurisdiction

No changes to maintenance jurisdiction are proposed refer to Chapter 2 Section 2.3.1.12.

#### 3.3.1.13. Constructability Review

A formal constructability review will not be completed for this project.

### 3.3.2. Multimodal

#### 3.3.2.1. Pedestrians

The preferred alternative provides improvements along Main Street that include repair to the existing sidewalks, the construction of sidewalk ramps from Depot Square to High Street that meet current ADA standards, and the reconstruction of sidewalks along both sides of Furnace Street and the Fishkill Avenue and Mountain Avenue intersection. A Pedestrian Generator Checklist is included in Appendix C.

Crosswalks will be delineated with new pavement markings on the side streets from Depot Square to High Street and across Main Street at Stone Street, Rock Street, Fair Street, Garden Street and Kemble Avenue. A crosswalk will also be delineated across Mountain Avenue at the Mountain Avenue and Fishkill Avenue intersection.

#### 3.3.2.2. Bicyclists

No special provisions are proposed to accommodate bicyclists.

#### 3.3.2.3. Transit

There will be no changes to transit within the project corridor.

### 3.3.2.4. Airports, Railroad Stations, and Ports

The Metro - North commuter railroad is present within the project limits. The railroad divides Main Street just east of Market Street and west of Depot Street. No work is proposed in the vicinity of the Metro-North commuter rail.

### 3.3.2.5. Access to Recreation Areas (Parks, Trails, Waterways, and State Lands)

No changes are proposed to access to recreational areas.

### 3.3.3. Infrastructure

### 3.3.3.1. Proposed Highway Section

The proposed project includes the repair of sidewalks and the construction of sidewalks ramps that meet current ADA standards along Main Street between Depot Square and High Street. Improvements along Main Street will also include the addition of marked crosswalks on the side streets from Depot Square to High Street and across Main Street at Lunn Terrace, Stone Street, Fair Street, Garden Street, Kemble Avenue and Furnace Street.

No changes to the Main Street horizontal or vertical alignment are proposed as part of the project. The existing highway section along Main Street will remain the same.

The proposed project also includes the reconstruction of Furnace Street and adjacent sidewalks from Main Street to Wall Street. The proposed Furnace Street highway section includes an 8 ft. parking lane along the east side, a 12 ft. travel lane on the west side and 5 ft. sidewalk along both sides. Due to right-of-way limitation and the close proximity of residential buildings, the proposed horizontal and vertical alignments will closely follow the existing horizontal and vertical alignments.

Finally, the proposed project includes the reconstruction of the Mountain Avenue and Fishkill Avenue intersection and adjacent sidewalks. The reconstruction of the Mountain Avenue and Fishkill Avenue intersection will match the existing geometry and dimensions.

Typical section and plans are included in Appendix A.

### 3.3.3.2. Special Geometric Design Elements

### 3.3.3.2(1) Non-Standard/Non-Conforming Features

Stopping Sight Distance: The existing stopping sight distance on Fishkill Avenue is 149.5ft. This is 50.5ft below the minimum 200ft design standard for a local urban street with a design speed of 30mph.

Modifications to the roadway profile to correct the sight distance to meet the minimum requirement of 200ft would result in significant impacts to adjacent driveways and properties and would be beyond the scope of this project. In addition, vehicle speeds are greatly reduced at this location since motorists are approaching a stop condition or turning ninety degrees. The stopping sight distance will be retained to minimize project impacts and costs. See Appendix E for Non-standard Features Justification Forms.

Pavement Cross Slope: The existing pavement cross slope on Fishkill Avenue is approximately 4.0%. The design standard for pavement cross slope on a local urban street with a design speed of 30mph is 2.0%.

Correction of the pavement cross slope to meet the 2.0% would require extending the limits of reconstruction on both Mountain Avenue and Fishkill Avenue and would be beyond the scope of this project. The pavement cross slope will be retained to minimize project impacts and costs. See Appendix E for Non-standard Features Justification Forms.

#### 3.3.3.3. Pavement and Shoulder

The purpose of the project is to provide sidewalk ramps that comply with current ADA standards and to repair areas of sidewalk that are in disrepair along Main Street. In addition, the proposed project will include the reconstruction of the Mountain Avenue and Fishkill Avenue intersection and Furnace Street. Reconstructed Furnace Street will include a 12 ft. travel lane and an 8 ft. parking lane.

#### 3.3.3.4. Drainage Systems

The proposed project includes the replacement of drainage along Furnace Street within the reconstruction limits as well as at the Mountain Avenue and Fishkill Avenue intersection. The project will also include the altering of existing structures in locations where curb lines have been relocated to accommodate proposed ADA ramps.

See general plan sheets in Appendix A for proposed drainage changes.

#### 3.3.3.5. Geotechnical

No special geotechnical considerations are needed as part of this project.

#### 3.3.3.6. Structures

There are no proposed bridges within the project limits.

#### 3.3.3.7. Hydraulics of Bridges and Culverts

There are no bridges or culverts over waterways included in the project.

#### 3.3.3.8. Guide Railing, Median Barriers and Impact Attenuators

There is no guide rail within the project limits.

#### 3.3.3.9. Utilities

It is anticipated that no modifications will be required for the utilities along Main Street with the exception of altering valve boxes and top of frame elevations to match the proposed sidewalk grade.

Existing utilities along Furnace Street will have to be altered within the reconstruction limits. Possible alterations or relocations will require coordination with the following utility providers:

- Time Warner
- Verizon
- Central Hudson

#### 3.3.3.10. Railroad Facilities

There are no railroad facilities within the construction limits

### 3.3.4. Landscape and Environmental Enhancements

Refer to Chapter 4 for complete discussion.

#### 3.3.4.1. Landscape Development and Other Aesthetics Improvements

This project will provide landscaping as part of the overall enhancement and aesthetic improvement efforts for this project. The extent of landscaping will be determined during the final design phase. Refer to Chapter 4 for a more detailed discussion.

#### 3.3.4.2. Environmental Enhancements

Environmental enhancements are limited due to the urban nature of the project area.

# CHAPTER 4 - SOCIAL, ECONOMIC and ENVIRONMENTAL CONDITIONS and CONSEQUENCES

## 4.1 Introduction

The purpose of this chapter is to identify any social, economic, or environmental consequences of the preferred alternative presented in Chapter 3; identify feasible avoidance or mitigation measures; satisfy the applicable, social, economic and environmental regulations; and identify all permits and approvals needed for the project.

### 4.1.1 Environmental Classification

#### NEPA Classification

After completion of the NEPA Assessment Checklist (included in Appendix B) it has been determined that the project is a Class II Automatic Categorical Exclusion. As an Automatic Categorical Exclusion, the project is exempt under NEPA from the requirement to prepare an Environmental Impact Statement (EIS) or an Environmental Assessment (EA).

#### SEQR Classification and Lead Agencies

In accordance with 17 NYCRR, Part 15, “Procedures for Implementation of State Environmental Quality Review Act”, this project has determined to be a SEQR Type II Action. No further SEQR processing is required because Type II projects are actions which have been determined not to have a significant impact on the environment.

### 4.1.2 Coordination with Agencies

#### NEPA Cooperating and Participating Agencies

The following agencies have been identified as Cooperating Agencies in accordance with 23 CFR 771:

- Federal Highway Administration (FHWA)
- NYS Department of Transportation (NYSDOT)
- NYS Department of Environmental Conservation (NYSDEC)
- Army Corps of Engineers (ACOE)
- State Historic Preservation Office (SHPO)

## 4.2 Social

The purpose of this section is to discuss the social environment within the project corridor.

This project involves the reconstruction of Furnace Street from the Main Street intersection to the Wall Street intersection and the Mountain Avenue and Fishkill Avenue intersection, but primarily involves pedestrian improvements along Main Street. This section will address impacts on minority or disadvantaged populations, how the proposed alternative relates to any local and/or regional comprehensive planning initiatives, and how the alternative will affect the social environment of the existing community.

### 4.2.1 Land Use

#### Demographics and Affected Population

This project is not located in an Environmental Justice Area. The project area is composed of both commercial and residential buildings. The proposed project is not anticipated to significantly impact the general population of the project area.

#### Comprehensive Plans and Zoning

Since the project will not affect existing land uses, it will not in itself affect local planning or zoning. The implementation of this project will not impact travel patterns. The proposed pedestrian improvements along Main Street and the reconstruction of Furnace Street and the Mountain Avenue and Fishkill Avenue intersection are consistent with the Village of Cold Spring Local Waterfront Revitalization Strategy (LWRS).

### 4.2.2 Neighborhoods and Community Cohesion

#### Community Cohesion

The project will not divide neighborhoods, isolate part of a neighborhood, generate new development or otherwise affect community cohesion. The age and ethnic background of the affected population is of a similar composition as the rest of the Village of Cold Spring. The proposed project will enhance the existing corridor by providing new ADA compliant sidewalk ramps and landscaping along Main Street as well as a reconstructed Furnace Street.

#### Home and Business Relocations

Since this project involves the repair of existing sidewalks and the reconstruction of an existing highway on predominately the existing alignment and does not require the acquisition of occupied dwellings/businesses, it will not cause adverse impacts upon neighborhood character and stability. The proposed alternative would not result in any displacement of residences or businesses and there would be no relocation impacts.

### 4.2.3 Social Groups Benefited or Harmed

#### Elderly and/or Disabled Persons or Groups

A review of US Census data for Putnam County indicates that there is no significant concentration of elderly or disabled persons in the project area. The existing highway is deficient in infrastructure accommodations for handicapped and elderly, due to the lack of existing sidewalks ramps and crosswalks. This project proposes new sidewalks ramps and crosswalks and will improve accessibility accommodations for these user groups.

### Transit Dependent, Pedestrians, and Bicyclists

There are no existing transit facilities within the construction limits. Pedestrian facilities constructed for this project will be accessible and usable by people with disabilities in accordance with ADA requirements. The project will not include upgrading of accommodations for bicyclists.

### Low Income, Minority and Ethnic Groups (Environmental Justice)

This project is not located in an Environmental Justice Area. The project area is composed of both commercial and residential buildings. The proposed project is not anticipated to significantly impact the general population of the project area.

## 4.2.4 School Districts, Recreational Areas, and Places of Worship

### School Districts

The proposed project is within the Cold Spring-School District. There are no schools or school properties within or near the project corridor.

### Recreational Areas

There are no recreational areas within the project limits.

### Places of Worship

The Episcopal Church of Saint Mary in the Highlands is located on Main Street between Furnace Street and Chestnut Street(Route 9D) and the Cold Spring Methodist Church is located at the intersection of Main Street and Orchard Street. Neither church will be directly impacted by the proposed project. However, better pedestrian facilities in the surrounding area will provide better accessibility to these places of worship. There are no other churches, synagogues, mosques, temples or other places of worship in the project area.

## 4.3 Economic

The purpose of this section is to evaluate and analyze the economic effects of the proposed project and construction activities

## 4.3.1 Regional and Local Economies

The proposed project will not require the acquisition or relocation of any businesses. No long-term negative impacts will occur to the local development, tax revenues, public expenditures, employment opportunities, retail sales, or property values of the project area.

## 4.3.2 Business Districts

### Established Business Districts

There is an established downtown business district located along Main Street within the project limits. The proposed project will not involve the relocation of any businesses, nor will it

permanently obstruct vehicular or pedestrian access to businesses. No long-term negative impacts to any businesses are anticipated.

**Effects on Business Districts**

Long-term impacts to the existing business district are anticipated to be positive. This determination is based upon improvements to pedestrian movements, and to the enhancement of the roadway corridor. The addition of ADA compliant sidewalks ramps and visible crosswalks will improve access to businesses. The re-establishment of a tree lined streetscape with amenities such as brick paving, benches, and period (19$^{th}$ century) style lighting will enhance usage for window shoppers, tourists, and local leisure users.

### 4.3.3 Specific Business Impacts

**Established Businesses**

The existing businesses within the project corridor are predominately retail businesses with several restaurants and antique shops. As described in section 3.3.3.1 in Chapter 3, the feasible alternatives will not require the displacement of existing businesses.

**Effects Assessment**

There may be minor impacts to the businesses along Main Street during replacement of portions of sidewalk and construction of sidewalk ramps. Other than these minor impacts, the business climate along Main Street should not have any appreciable changes. The Village will work with the businesses to minimize disruptions during peak business periods. Business access will be maintained during construction.

## 4.4 Environmental

### 4.4.1 Wetlands

**State Freshwater Wetlands**

According to the New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetland Map (West Point USGS Quadrangle) there are no regulated freshwater wetlands or regulated adjacent areas (100ft) within the work limits. A site visit verified this. No further investigation is required and Environmental Conservation Law, Article 25 is satisfied.

**State Tidal Wetlands**

A review of the NYSDEC GIS wetland data files indicates that there are no NYSDEC jurisdictional tidal wetlands or regulated adjacent areas within or near the project limits, and ECL Article 24 does not apply.

**Federal Jurisdiction Wetlands**

The project site has been reviewed for wetlands in accordance with the criteria defined in the 1987 US Army Corps of Engineers Wetland Delineation Manual. It has been determined the project will not impact areas that meet this criteria.

### Executive Order 11990

Based on a site visit, and database research, there are no wetlands located within the project's area of potential effect. Executive Order 11990 does not apply to this project.

### Mitigation Summary

No wetland mitigation/monitoring plan is required for this project, since no wetlands are impacted.

## 4.4.2 Surface Waterbodies and Watercourses

### Surface Waters

The project activities do not involve excavation in or the discharge of dredged or fill material into, Waters of the U.S. No permits under this Section are anticipated.

### Surface Water Classification and Standards

Based upon a review of the NYSDEC GIS data maps for regulated streams, there are no surface waterways within the proposed project limits nor will any be secondarily impacted from project activities. Therefore seasonal restrictions will not be necessary to protect fish spawning areas.

The project is not located within or adjacent to a TMDL Watershed.

### Stream Bed and Bank Protection

Based upon a review of the NYSDEC GIS database, and as verified by a site visit, there are no protected streams, nor 50-ft. regulated stream banks (on either side of a regulated stream) in the project area.

### Mitigation Summary

No impacts to streams or other surface waters are proposed; therefore mitigation is not required

### Airport and Airway Improvement

There are no airports in the project corridor or within the proximity to the project corridor that would require coordination.

## 4.4.3 Wild, Scenic, and Recreational Rivers

### State Wild, Scenic and Recreational Rivers

There are no NYSDEC Designated, Study or Inventory State Wild, Scenic or Recreational Rivers within or adjacent to the proposed project site. No further review is required.

### National Wild and Scenic Rivers

The project does not involve a National Wild and Scenic River as shown by the Nationwide Rivers Inventory List of National Wild and Scenic Rivers. No further review is required.

**Section 4(f) Involvement**

The proposed project does not involve work in or adjacent to a wildlife or waterfowl refuge. No further consideration is required.

**Mitigation Summary**

No wild, scenic, and recreational rivers mitigation is required since no rivers are impacted.

### 4.4.4 Navigable Waters

**State Regulated Waters**

There are no state regulated navigable waters located within the project's area of potential effect that will be impacted by the work.

**Office of General Services Lands and Navigable Waters**

There are no OGS underwater holdings located within the project's area of potential effect that will be impacted by the work.

**Rivers and Harbors Act – Section 9**

Since the project does not involve the construction or modification of any bridge, dam, dike, or causeway over any navigable water of the United States, Section 9 is not applicable.

**Rivers and Harbors Act – Section 10**

Since the project does not involve the creation of any obstruction to the navigable capacity of any of the waters of the United States, or in any manner alter or modify the course, location, condition, or capacity of any navigable water of the United States, Section 10 is not applicable.

### 4.4.5 Floodplains

**State Flood Insurance Compliance Program**

The 100 year floodplain of the Hudson River extends to the Metro North railroad tracks as indicated by FEMA on the GIS data base.

In accordance with the provisions of 6 NYCRR 502 - Flood Plain Management for State Projects, this action has considered and evaluated the practicality of alternatives to any floodplain encroachments. As a result of this evaluation, it is concluded that a significant encroachment does not exist.

**Executive Order 11988**

The project will not impact any floodplains. EO 11988 does not apply.

### 4.4.6 Coastal Resources

#### State Coastal Zone Management Program

This SEQR Type II project is located in a State Coastal Zone Management area, the Hudson Highlands Scenic Area of Statewide Significance, and is federally funded, but does not require any federal permits. A Federal Aid Notification will be completed and sent to NYSDOS.

#### State Coastal Erosion Hazard Area

The proposed project is not located in or near a Coastal Erosion Hazard Area.

#### Waterfront Revitalization and Coastal Resources Program

The proposed project is located within the boundaries of the Village of Cold Spring Local Waterfront Revitalization Program (LWRP) area. The proposed project is consistent with the Village of Cold Spring Local Waterfront Revitalization Program.

#### Federal Coastal Barrier Resources Act (CBRA) and Coastal Barrier Improvement Act (CBIA)

The proposed project is not located in, or near a coastal area under the jurisdiction of the Coastal Barrier Resources Act (CBRA) or the Coastal Barrier Improvement Act (CBIA).

### 4.4.7 Groundwater Resources, Aquifers, and Reservoirs

#### Aquifers

NYSDEC aquifer GIS data files have been reviewed and it has been determined that the proposed project is not located in an identified Primary Water Supply or Principal Aquifer Area. No further investigation for NYSDEC designated aquifers is required.

#### Drinking Water Supply Wells (Public and Private Wells) and Reservoirs

There are no municipal drinking water wells, wellhead influence zones, or reservoirs within or near the project area, according to the *NYS Atlas of Community Water System Sources*, dated 1982, issued by the NYS Department of Health

### 4.4.8 Stormwater Management

This project will disturb less than one acre and will not require a SPDES permit. While this project is not required to assess the requirements for stormwater management practices, they will be considered where reasonable and feasible.

### 4.4.9 General Ecology and Wildlife Resources

#### Fish, Wildlife, and Waterfowl

As the project will not impact natural vegetative communities, the project is not expected to have an adverse effect on the fish, wildlife, or waterfowl in the area

### Habitat Areas, Wildlife Refuges, and Wildfowl Refuges

The proposed project does not involve work in, or adjacent to, a wildlife or waterfowl refuge. No further consideration is required.

### Endangered and Threatened Species

The project corridor is within an urban setting that is predominately sidewalks and pavement.

The NYSDEC Natural Heritage Program (NHP) was contacted regarding the presence of State listed endangered and threatened species and ecological communities within the project corridor. The NHP responded on October 14, 2011 (See Appendix B) with a report of rare or state-listed animals, plants, and ecological communities and that their database indicates occur, or may occur, within the project corridor or in the immediate vicinity of the project corridor. These include:

**Species**

- Bald eagle (Haliaeetus leucocephalus) threatened (NYS)
- Tiger spiketail (Cordulegaster erronea) unlisted (NYS)
- Shortnose sturgeon (*Acipenser brevirostrum*) - endangered (federal & NYS)
- Atlantic sturgeon (*Acipenser oxyrinchus*) – candidate for listing (federal) No open season (NYS)
- Atlantic silverside (*Menidia menidia*) unlisted (NYS)
- Fence lizard (*Sceloporus undulates*) threatened (NYS)
- Long's bittercress (*Cardimine longii*) threatened (NYS)
- Saltwater aster (*Symphyotrichum subulatum var. subulatum*) threatened (NYS)
- Timber rattlesnake (Crotalus horridus) threatened (NYS)

**Communities**

- Chestnut oak forest – unlisted (NYS)
- Oak tulip tree forest - unlisted (NYS)

**Others**

- Anadromous fish concentration area – unlisted (NYS)
- Waterfowl winter concentration area - unlisted (NYS)

The USFWS website was reviewed for the list of federally-protected species known to occur in Putnam County (See Appendix B). This list identified six species:

- Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) – candidate, primarily occurring in the Hudson River,
- Bald eagle (*Haliaeetus leucocephalus*) – delisted but protected under the Bald and Golden Eagle Protection Act (BGEPA),
- Bog turtle (historic) (*Clemmys [=Glyptemys] muhlenbergii*) – threatened,
- Indiana bat (W/S) (*Myotis sodalis*) – endangered, likely extirpated in the area,
- New England cottontail (*Sylvilagus transitionalis*) – candidate, and
- Shortnose sturgeon (*Acipenser brevirostrum*) – endangered, primarily occurring in the Hudson River.

A field investigation to identify the habitats of the project corridor was completed on October 5, 2011. This information was used to determine if the habitats of the above listed species occur within the project corridor.

The project impacts include modifications or improvements to already developed, paved, or maintained surfaces. Therefore the project will not displace vegetative communities, impact water quality or create new wildlife hazards. Therefore none of the listed species, ecological communities, or wildlife congregation areas will be impacted by the proposed project.

A threatened and endangered species impact assessment report was prepared and submitted to the NYSDEC and USFWS on April 16, 2012. This report concludes that "based on an inventory of the habitats present at the project site, and evaluation of the habitat requirements of the listed species, the project will not impact any of the above indicated species." Therefore we have determined that the project will have "no effect" on the listed species. See Appendix B for NYSDEC response dated June 18, 2012.

**Invasive Species**

A review of the existing project corridor did not indicate any significant presence of known invasive species. Precautions will be taken to prevent the introduction of invasive species, intentionally or accidentally, during project design and construction.

**Roadside Vegetation Management**

The project corridor consists of existing roadway and sidewalks. Roadside vegetation is limited to street tree and planter boxes. Wildlife-supporting vegetation will not be removed in the course of construction.

### 4.4.10 Critical Environmental Areas

**State Critical Environmental Areas**

According to information obtained from NYSDEC, the proposed project does not involve work in or near a Critical Environmental Area.

**State Forest Preserve Lands**

According to information obtained from NYSDEC, the proposed project does not involve work in or near state forest preserve lands.

### 4.4.11 Historic and Cultural Resources

**National Heritage Areas Program**

The proposed project will not impact areas identified as National Heritage Areas.

**National Historic Preservation Act – Section 106 / State Historic Preservation Act – Section 14.09**

The proposed project lies within the Cold Spring Historic District and is listed on The National Register and has been identified within the project's area of potential effect. However, the

project's activities do not have the potential to cause effects on any historic property. Correspondence with SHPO has taken place and a formal determination of "No Adverse Effect" was received on February 12, 2013. See Appendix B for a copy of the Determination letter received from SHPO.

**Architectural Resources**

The proposed project lies within the Cold Spring Historic District and is listed on The National Register and has been identified within the project's area of potential effect. However, the project's activities do not have the potential to cause effects on any historic property. Correspondence with SHPO has taken place and a formal determination of "No Adverse Effect" was received on February 12, 2013. See Appendix B for a copy of the Determination letter received from SHPO.

The proposed project will not require project activities within previously undisturbed areas that will impact historic properties

**Archaeological Resources**

The proposed project will not require project activities within previously undisturbed areas that have the potential to contain archeological resources. Thus, a 4(f) evaluation will not be required for archaeological resources.

**Historic Bridges**

There are no bridges located within the project's area.

**Historic Parkways**

This project does not have to potential to impact any Historic Parkways.

**Native American Involvement**

This Project will be following the Section 106 Process of the National Historic Preservation Act (36 CFR 800) through coordination with affected Native American Tribes and NYSDOT. This ensures compliance with the Archaeological Resources Protection Act.

**Section 4(f) Involvement**

The proposed project will not require project activities that will impact any historical properties or previously undisturbed areas that have the potential to contain archeological resources. A 4(f) evaluation will not be required for historic or archaeological resources.

### 4.4.12 Parks and Recreational Resources

**State Heritage Area Program**

The proposed project will not impact areas identified as State Heritage Areas.

### National Heritage Areas Program

The proposed project will not impact areas identified as National Heritage Areas.

### National Registry of Natural Landmarks

There are no listed nationally significant natural areas within, or adjacent to, the project area.

### Section 4(f) Involvement

There are no publicly owned parks or recreational facilities, protected under Section 4(f) of the USDOT Act, in or adjacent to the project area. No further action is required under this section.

### Section 6(f) Involvement

The project does not impact parklands or facilities that have been partially or fully federally funded through the Land and Water Conservation Act. No further consideration under Section 6(f) is required.

### Section 1010 Involvement

This project does not involve the use of land from a park to which Urban Park and Recreation Recovery Program funds have been applied.

## 4.4.13 Visual Resources

### Effects Assessment

The proposed project, which mostly includes sidewalk reconstruction on the existing alignment, is adjacent to a number of historic structures. There will be three primary viewer groups of the proposed project: highway traffic users, residential occupants, and pedestrians.

The Village is a collection of 19$^{th}$, and 20$^{th}$ century historic buildings, oriented toward the roadway. The sidewalk system in certain segments is deteriorated and not well maintained. The corridor includes several examples of restored and well-maintained historic homes and commercial buildings. The proposed sidewalk reconstruction will result in minor alterations to the streetscape settings of these structures.

The existing streetscape is noticeably lacking in curbs ramps for handicapped accessibility. The viewshed of the pedestrian and motorist viewer groups, passing through the project corridor, is generally contained by the residential and commercial buildings. Residents' viewshed is primarily the same, with the exception of those in two- and three-story structures that afford views over the facing buildings to the surrounding mountains and wooded areas. Exceptions to this limited viewshed are found at the roadway approaches to the Village from the east, due to their somewhat higher topography. The proposed project will have minor impacts to the extent of the viewshed, due to the introduction of street trees.

The most prominent proposed streetscape alteration will be the addition of new ramps and crosswalks at all the corners proposed to better define and facilitate pedestrian crossings. Additional streetscape features include street tree plantings, some period benches, and possibly, as the budget allows, period lighting. The existing concrete sidewalk will be replaced

with a concrete sidewalk, bordered by a stamped concrete in a traditional red brick pattern. There will also be minor alteration of street intersection radii.

The project is expected to have positive effects to the existing visual corridor. New elements and fixtures introduced to the streetscape will be selected to reflect and enhance the context and architecture of the existing structures.

### 4.4.14 Farmlands

#### State Farmland and Agricultural Districts

Based on a review of the NYS Agricultural District Maps for Putnam County, the proposed project is not located in or adjacent to an Agricultural District.

#### Federal Prime and Unique Farmland

The proposed project activities will not convert any prime or unique farmland, or farmland of state or local importance, as defined by the USDA Natural Resources Conservation Service, to a nonagricultural use.

### 4.4.15 Air Quality

#### Transportation Conformity

This project is located in Putnam County which is considered an ozone attainment area. The project is considered an exempt project as per Table 2 in Section 93.126 of 40 CFR. In addition, this project is also exempt from Regional Emissions Analysis as per Table 3 in Section 93.127 of 40 CFR. Therefore, no additional analysis is required for this project.

#### Carbon Monoxide (CO) Microscale Analysis

An air quality analysis for CO is not required since this project will not increase traffic volumes, reduce source-receptor distances by 10% or more, or change other existing conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards. The project does not require a project-level conformity determination.

#### Mesoscale Analysis

A Mesoscale Analysis is not required for this project since it does not significantly affect air quality conditions over a large area and is not a regionally significant project.

### 4.4.16 Energy

The proposed project is classified as a categorical exclusion and will not require an energy analysis since, by definition; it will not significantly impact energy utilization. Therefore, the project will not significantly affect energy consumption.

### 4.4.17 Noise

The project will not significantly change either the horizontal or vertical alignment, or increase the number of through-traffic lanes. Therefore, this project is not a Type I noise project and does not require a traffic noise analysis as per 23 CFR 772.

### 4.4.18 Asbestos Screening

An asbestos screening has been performed for this project and it has been determined that relative to underground utilities, bridges, large culverts, or other structures, there are no areas of potential asbestos material concerns, based on the fact that the scope of this project is limited to surface disturbances and does not involve underground utilities, bridges, large culverts, or structure demolitions. However, it should be noted that suspect materials were identified on roadway and/or sidewalk surfaces in the form of black roadway sealant, grey sidewalk sealant, and black sidewalk joint compound.

**Mitigation Summary**

Suspect surface materials will require sampling and analysis to determine asbestos content and may require removal if they are to be impacted by the proposed construction activities.

### 4.4.19 Hazardous Waste and Contaminated Materials

A Hazardous Waste/Contaminated Materials Site Screening has been conducted in accordance with NYSDOT Environmental Procedures Manual, Chapter 5, in order to document the likely presence or absence of hazardous/contaminated environmental conditions. A hazardous/ contaminated environmental condition is the presence or likely presence of any hazardous substances or petroleum products (including products currently in compliance with applicable regulations) on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.

The Hazardous Waste/Contaminated Materials Site Screening included a review of NYSDEC regulatory data files, review of historical use resources, and a site ‘walkover’ conducted on October 12, 2011.

**Mitigation Summary**

A limited number of sites have been identified as potentially representing sources of hazardous waste/contaminated materials impacts to areas of the project corridor. Based on anticipated soil/surface disturbances during construction activities, the following locations have been determined to be of specific concern:

- 40-46 Main Street – former service garage
- 150-154 Main Street – former service garage/auto supply/gas station

Impacts to these areas of concern will be determined during final design. A Hazardous Waste/Contaminated Materials Site Assessment will be performed to assess potential impacts to these areas and if necessary a Remediation Plan will be developed after a complete review of the results of the Hazardous Waste/Contaminated Materials Site Assessment. A copy of the Hazardous Materials Screening Form is included in Appendix B.

## 4.5 Construction Effects

### Construction Impacts

The anticipated construction impacts from the proposed project include minor noise, air and traffic disruptions during construction operations. There are no long-term impacts to the environment anticipated as a result of the activities proposed during construction.

To minimize effects to businesses, access to businesses will be maintained for the duration of construction. Traffic delays will be minimized through the development of detailed Maintenance and Protection of Traffic Plans. These plans will require coordination with adjacent property and business owners to minimize the potential effects of the construction. They will also specify restriction on the time and length of lane closures. Dust control measures, as well as requirements for mufflers on all equipment exhaust systems, will be included in the construction specifications

Pedestrian accommodations will be maintained along Main Street, Furnace Street and the Mountain Avenue and Fishkill Avenue intersection during construction.

### Mitigation Measures

Most work zone traffic control measures will be developed during final design. Nighttime work will be restricted from this project as a means to abate potential noise disturbance to surrounding residences.

## 4.6 Indirect and Secondary Effects

### Indirect Socioeconomic Effects

The proposed project will not change the existing land use or community character within or adjacent to the project area. In addition, the project will not change the highway classification of Main Street, Furnace Street, Mountain Avenue or Fishkill Avenue. No significant secondary impacts are anticipated.

### Social Consequences

There are no social consequences anticipated with this project.

### Economic Consequences

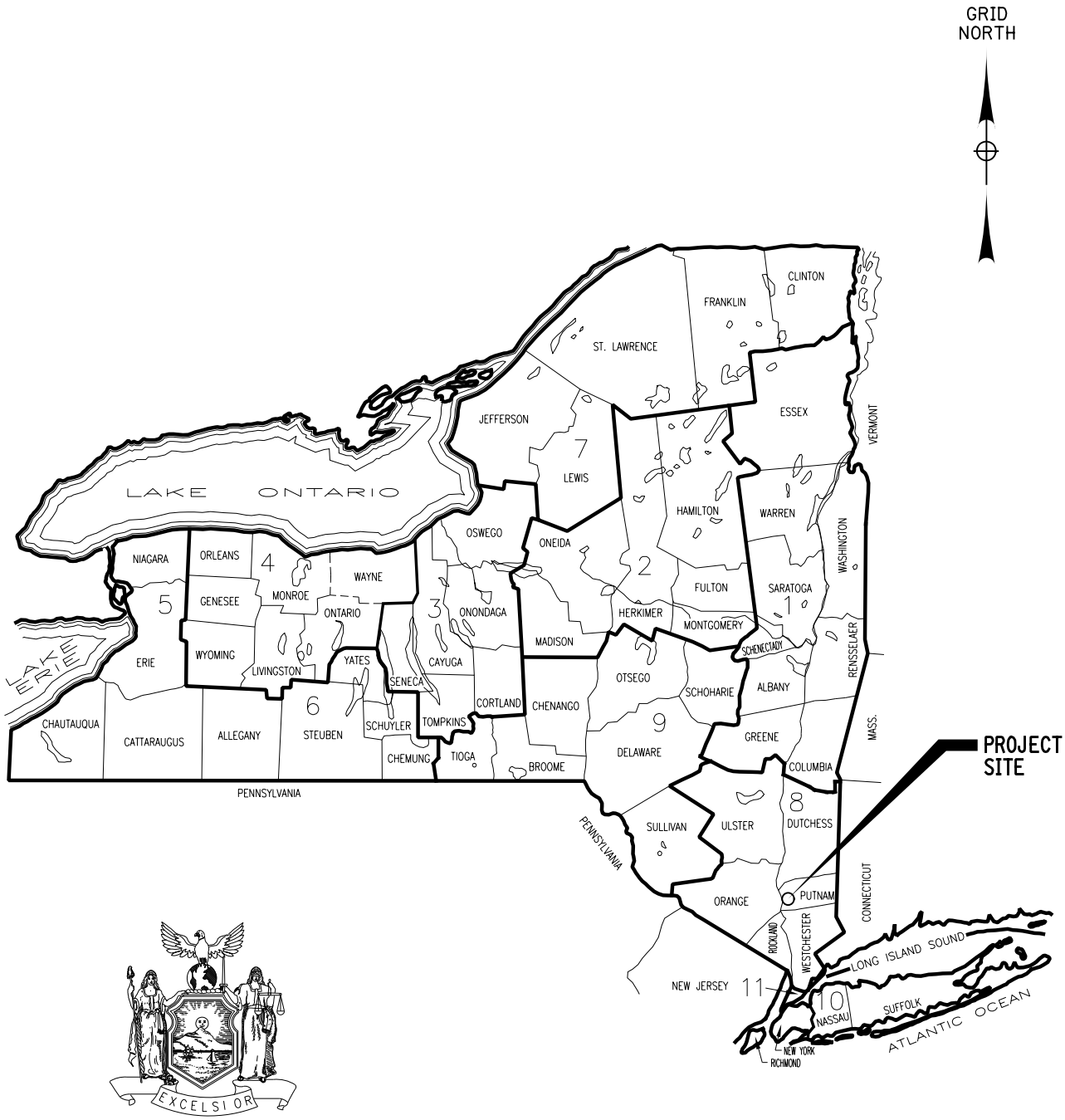
There are no negative economic consequences anticipated with the proposed project.

## 4.7 Cumulative Effects

There are no anticipated cumulative effects to be caused by this project.

# APPENDIX A

# Maps, Plans, Profiles & Typical Sections







MAP OF THE

STATE OF NEW YORK

SHOWING

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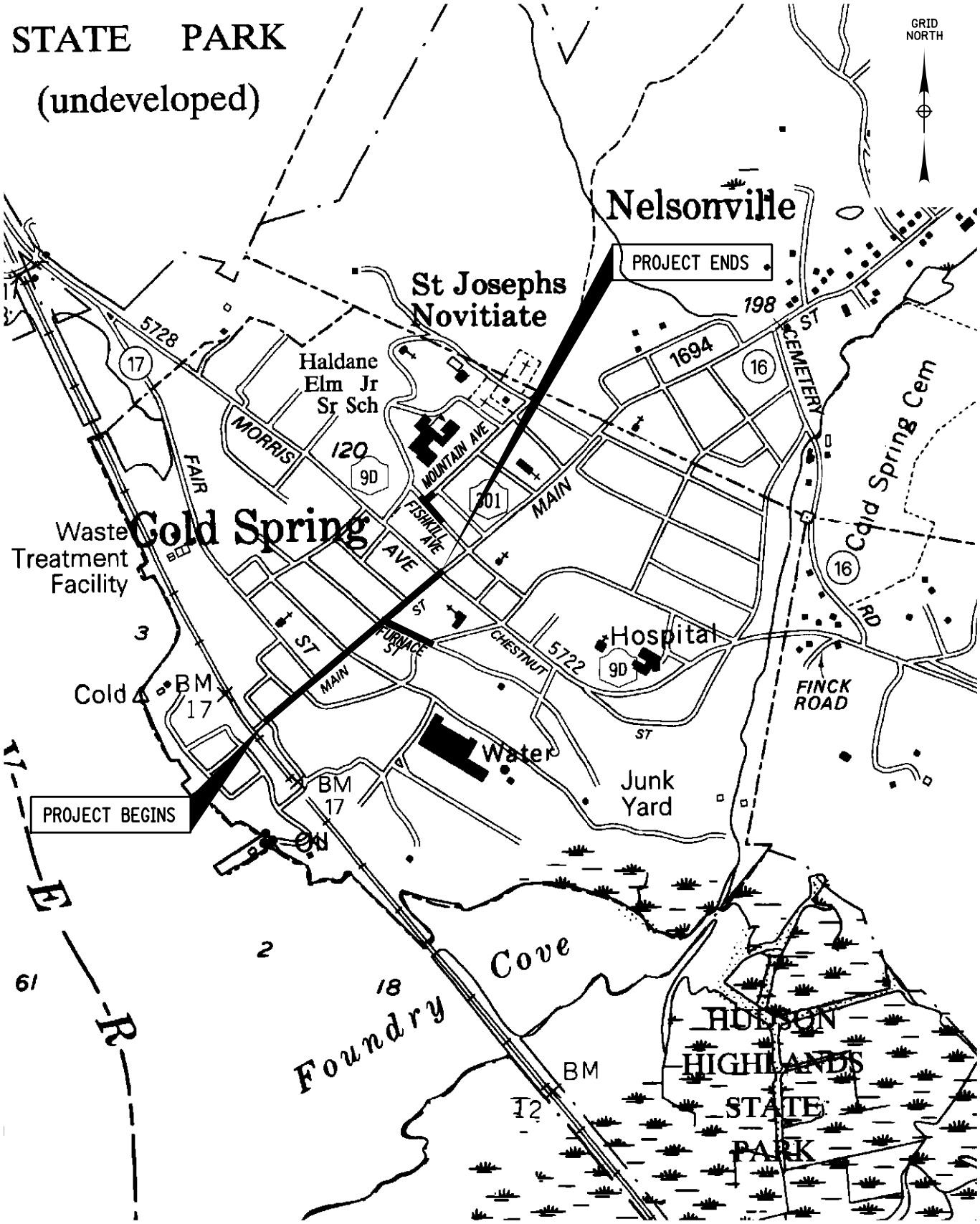
# PROJECT LOCATION MAP

MAIN STREET CORRIDOR IMPROVEMENTS
VILLAGE OF COLD SPRING

FIGURE

1

DATE: 2/13

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SITE LOCATION MAP

MAIN STREET CORRIDOR IMPROVEMENTS
VILLAGE OF COLD SPRING

FIGURE
2

DATE: 4/14

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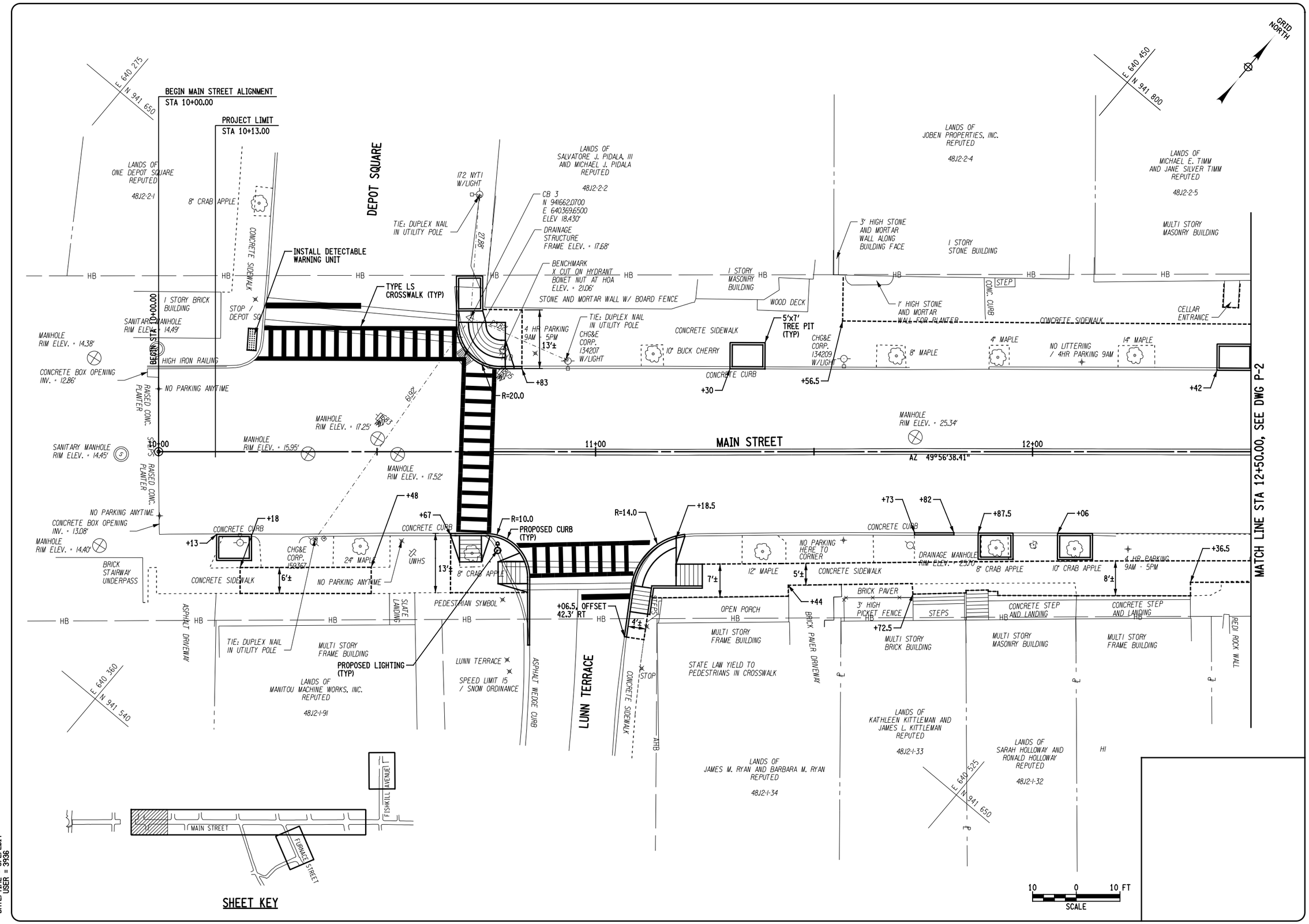


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MAIN STREET &
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PIN 8759.53 & 8760.04

GENERAL PLAN

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**P-1**

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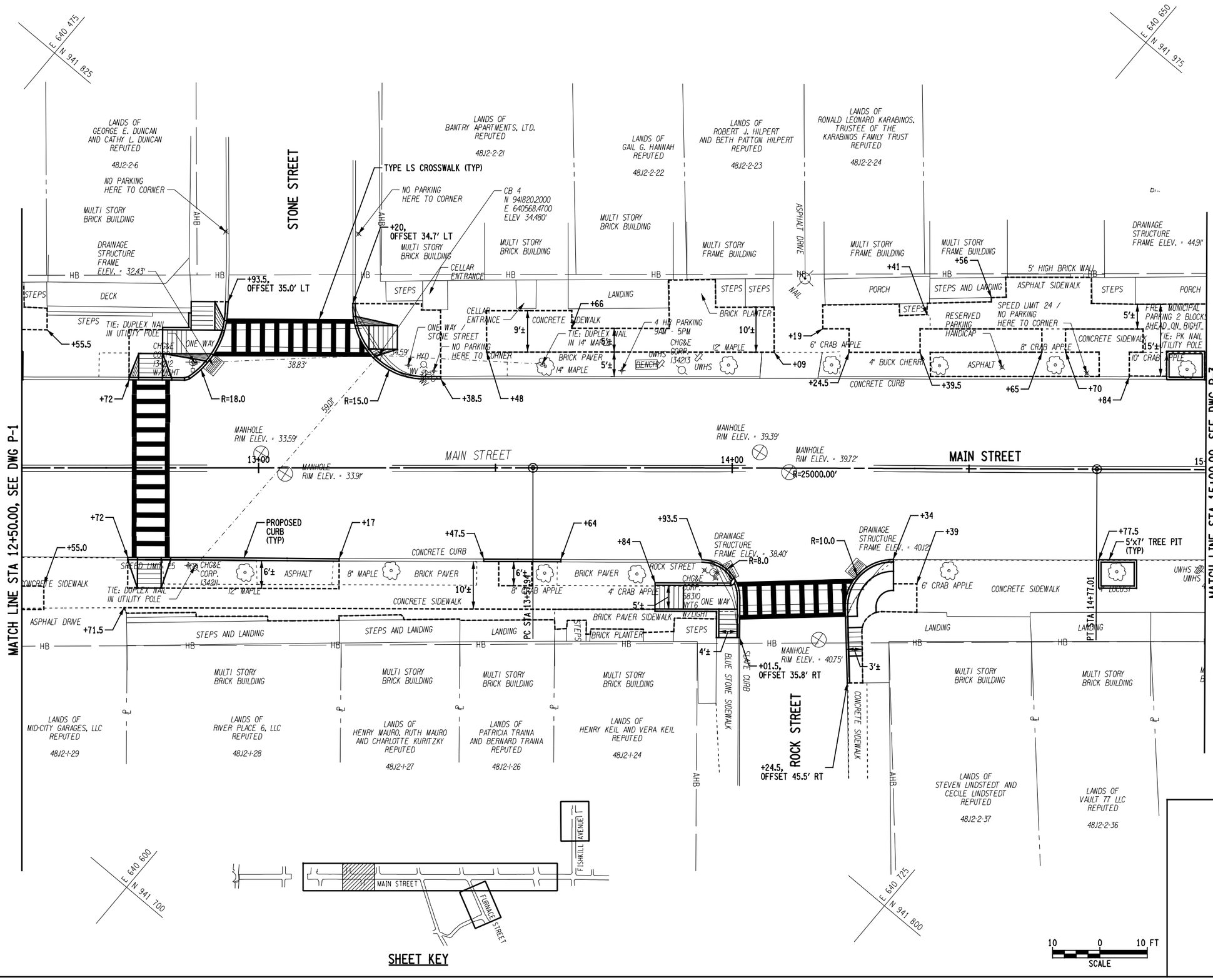


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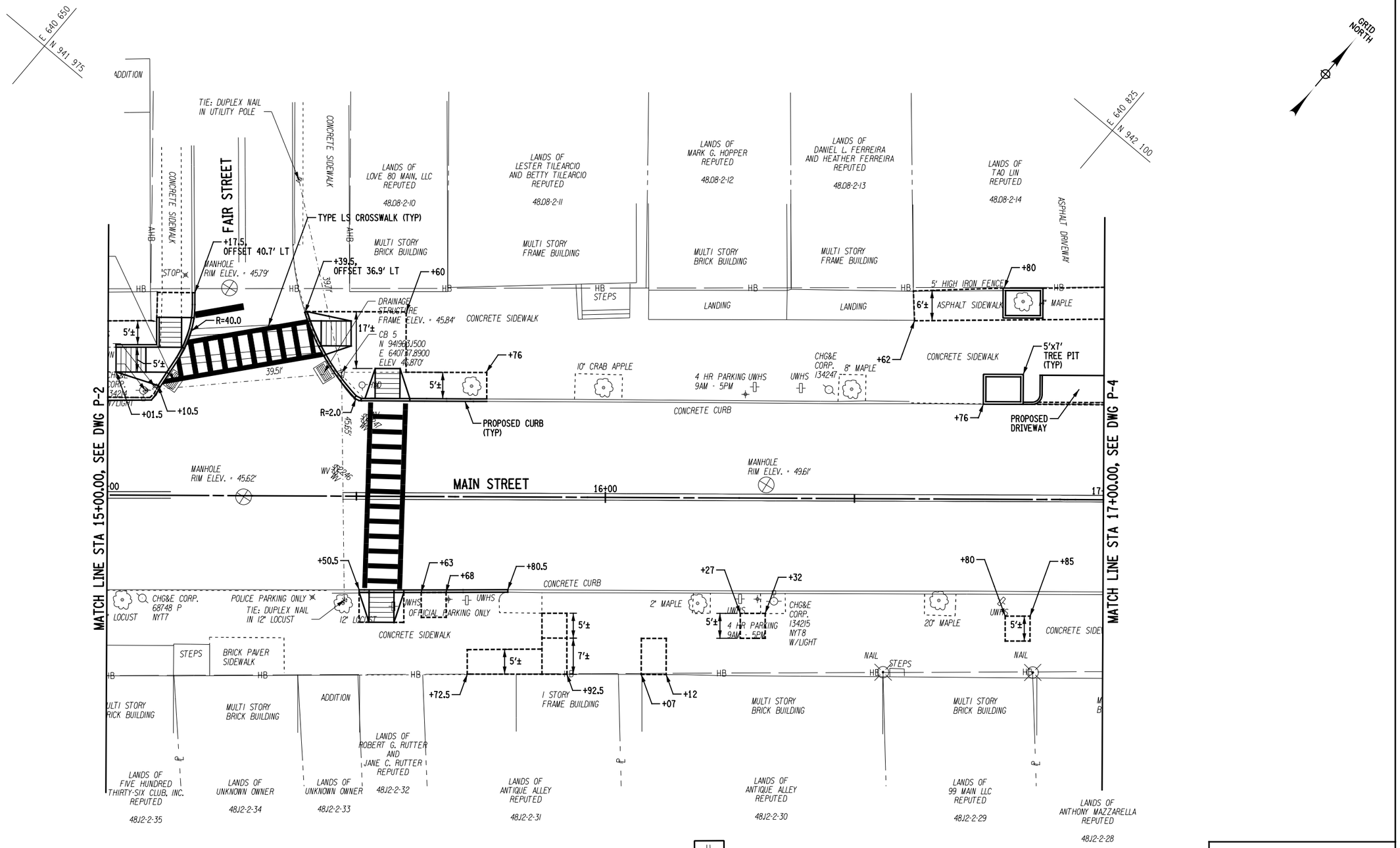


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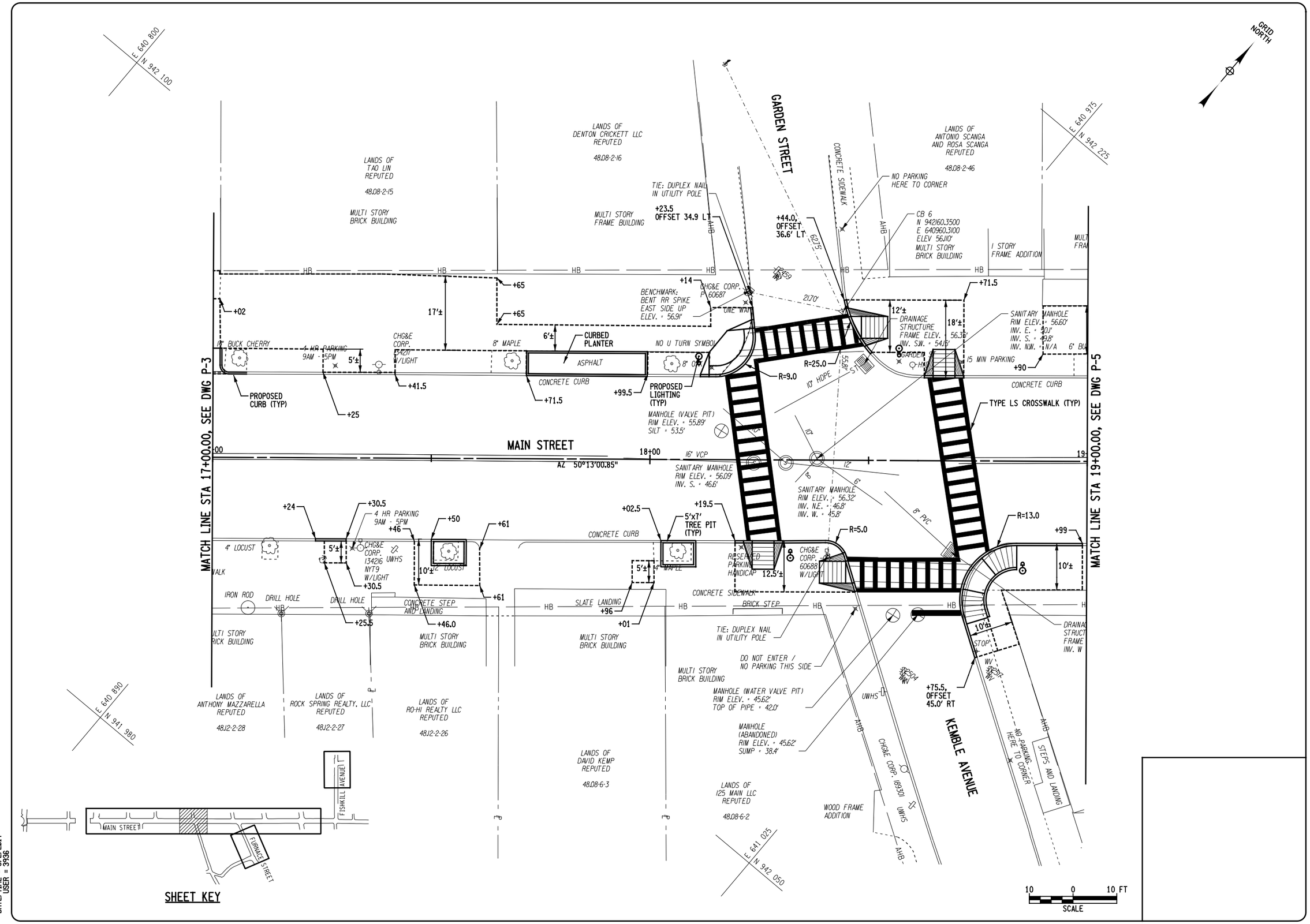


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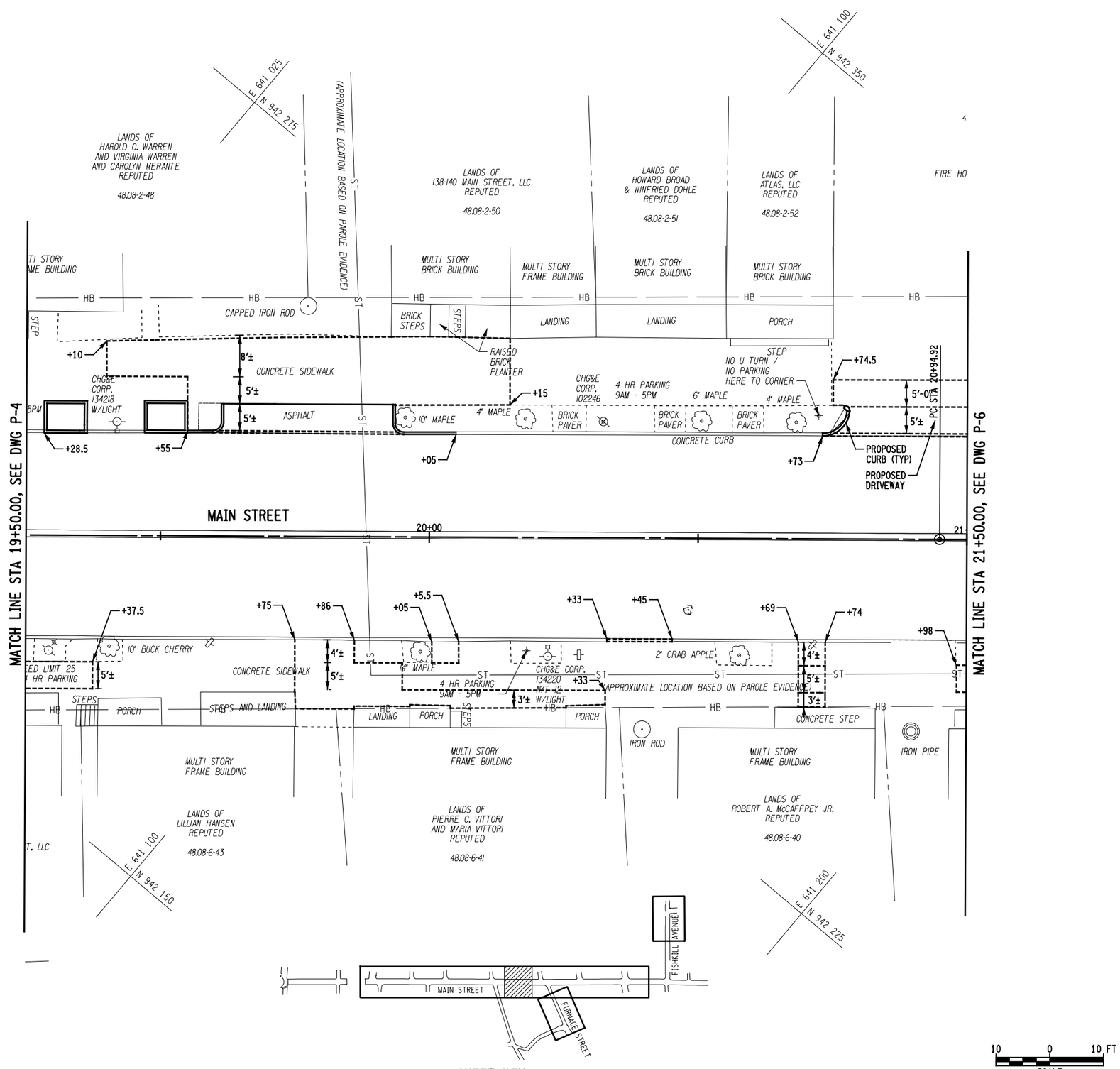


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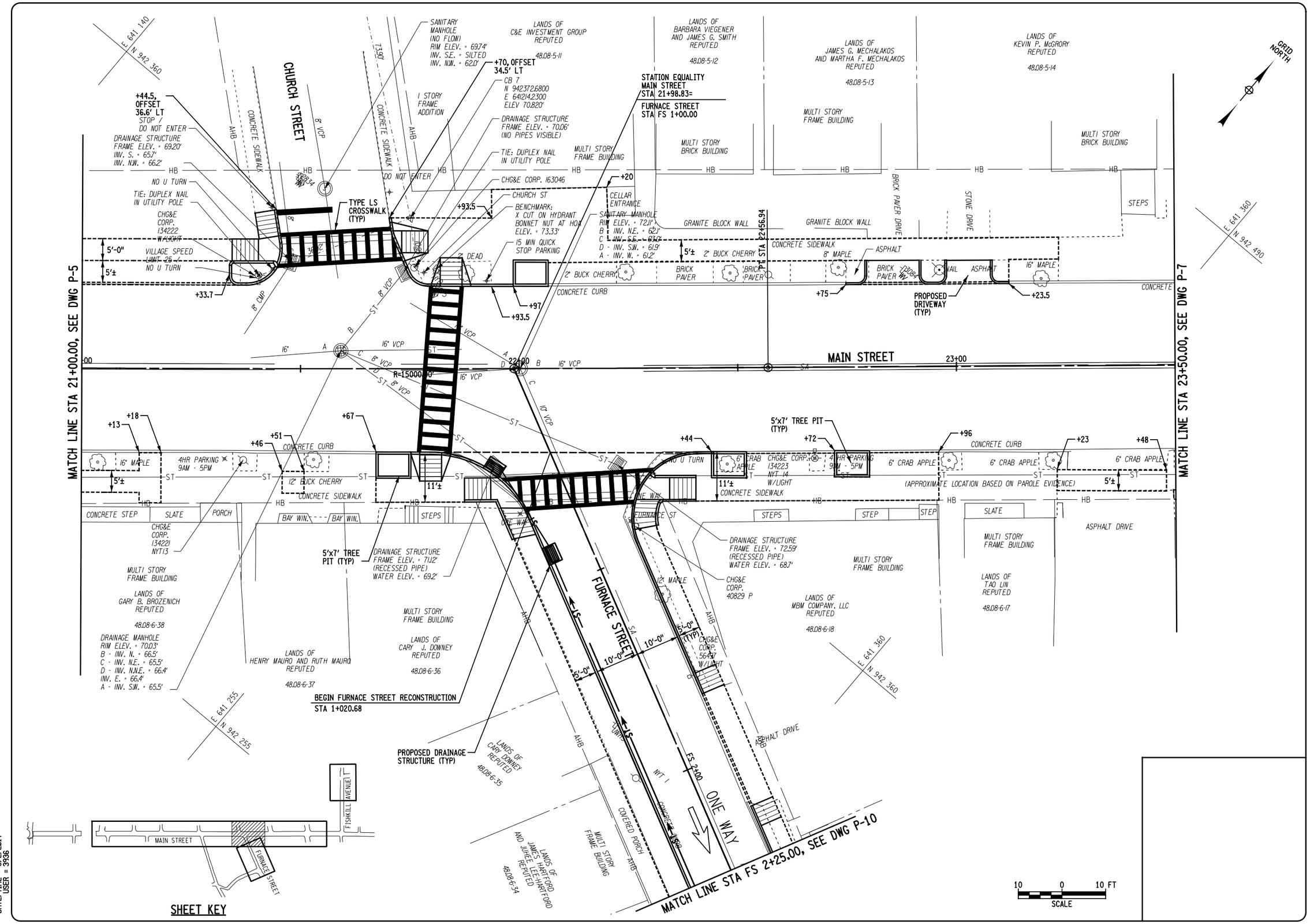


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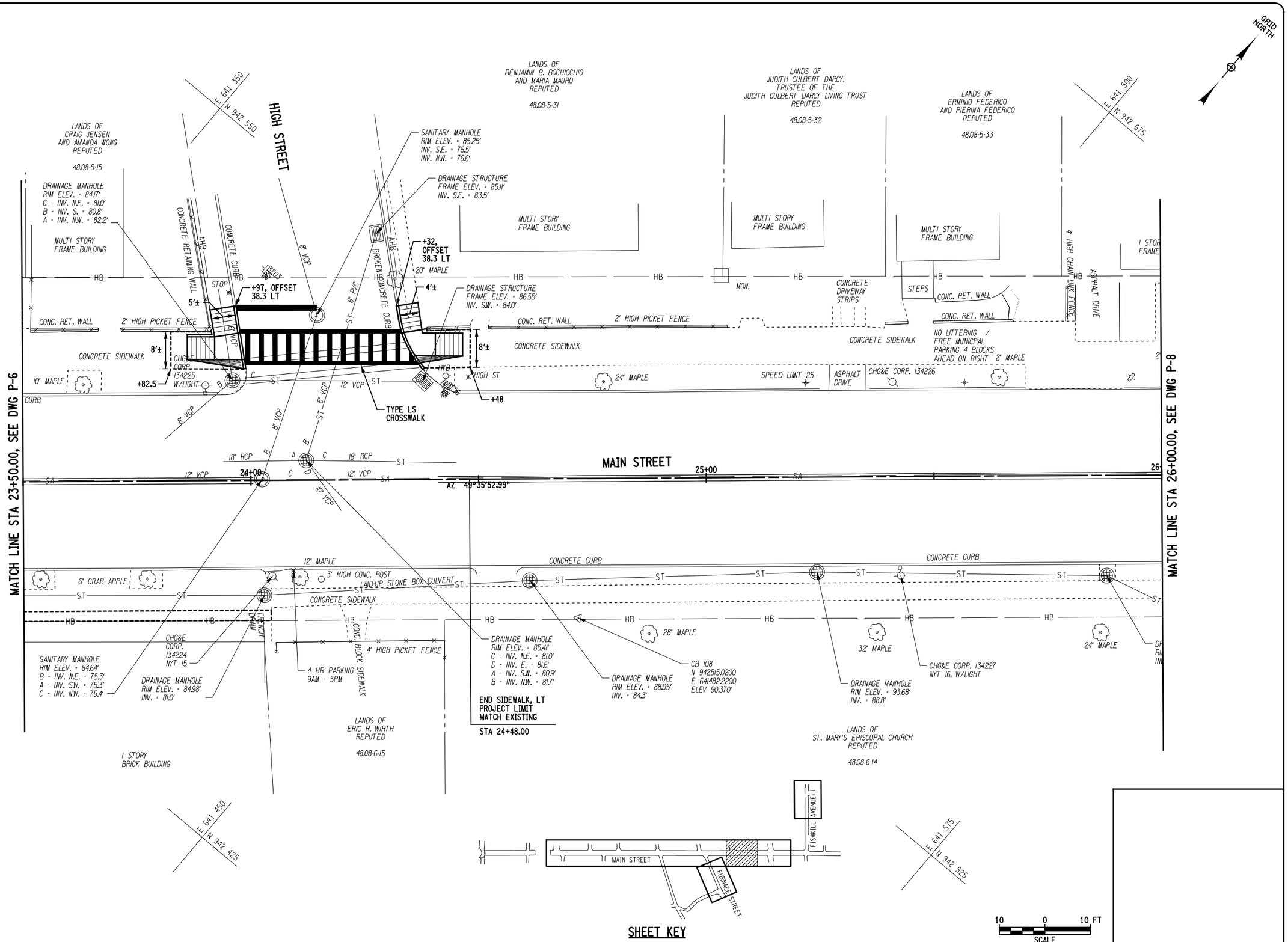


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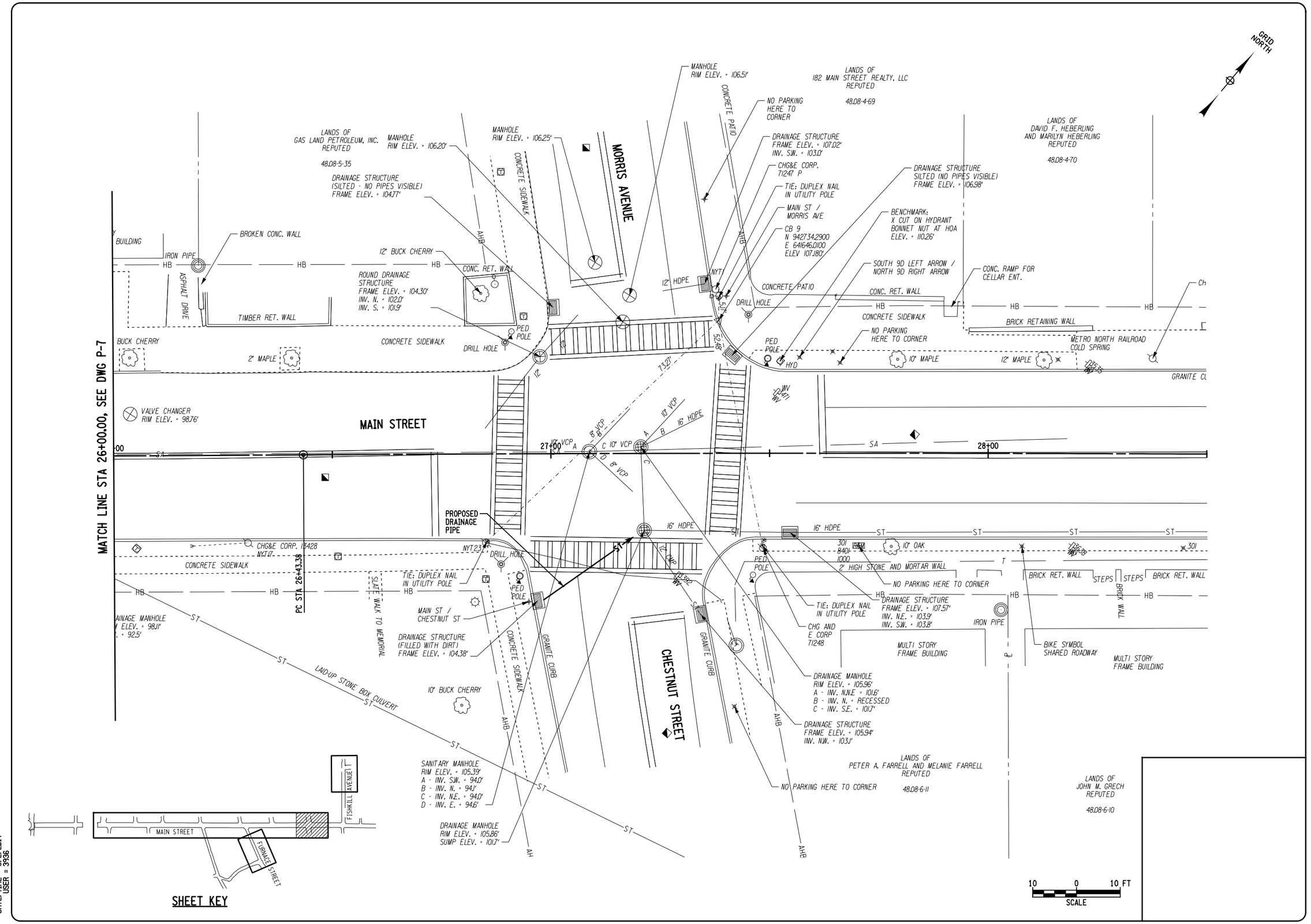


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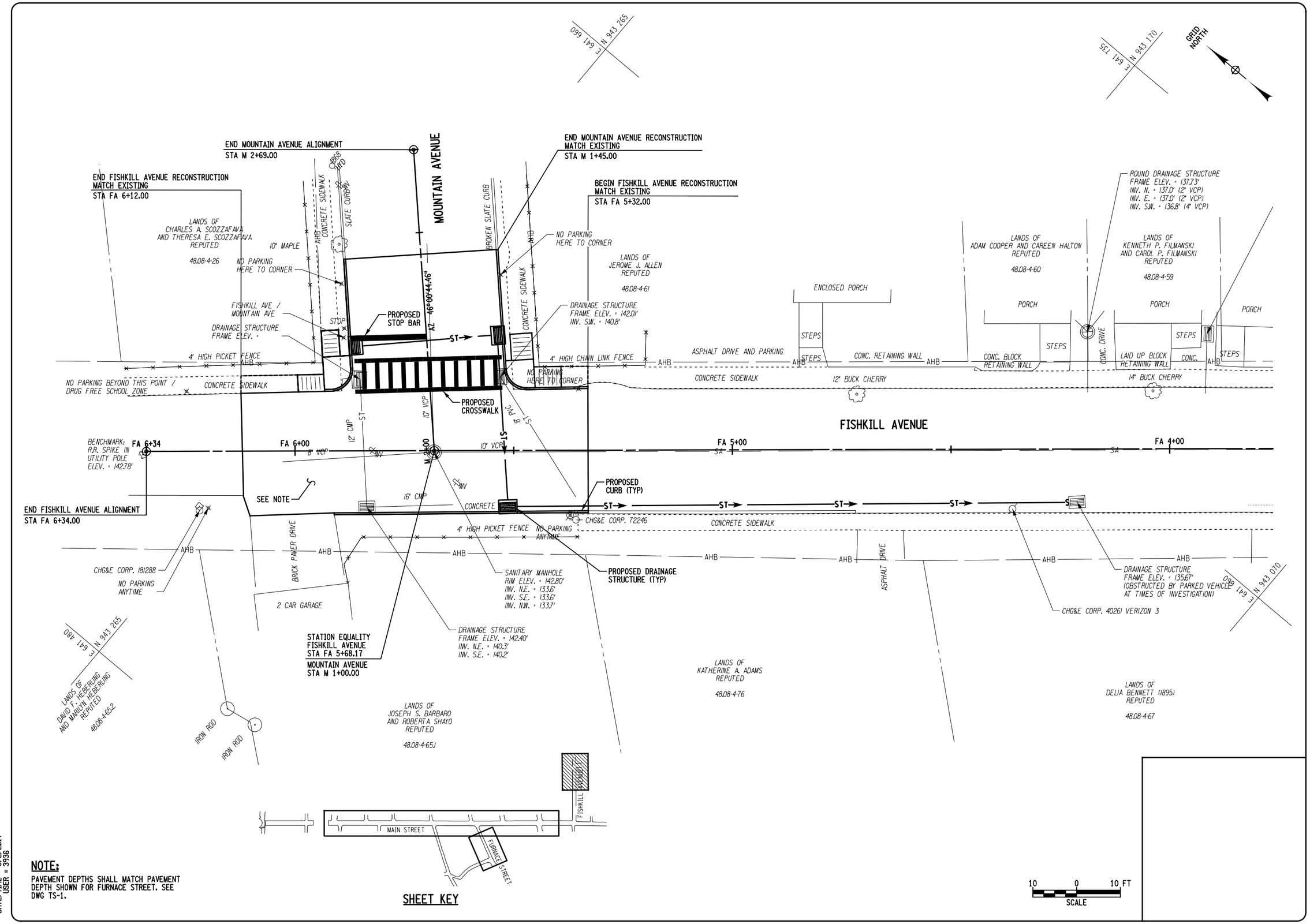


**NOTE:**

PAVEMENT DEPTHS SHALL MATCH PAVEMENT DEPTH SHOWN FOR FURNACE STREET. SEE DWG TS-1.

SHEET KEY

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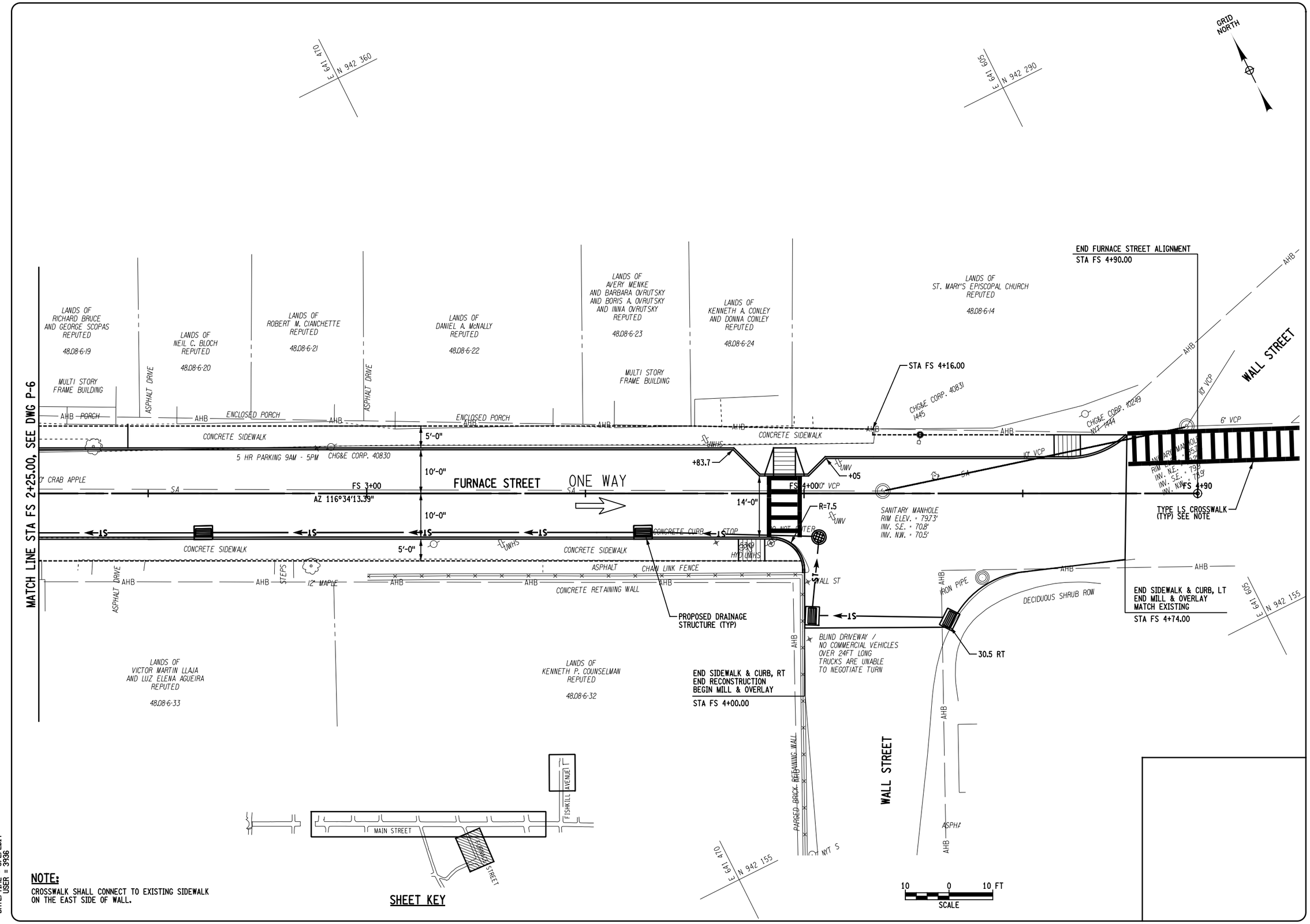


**NOTE:**

CROSSWALK SHALL CONNECT TO EXISTING SIDEWALK ON THE EAST SIDE OF WALL.

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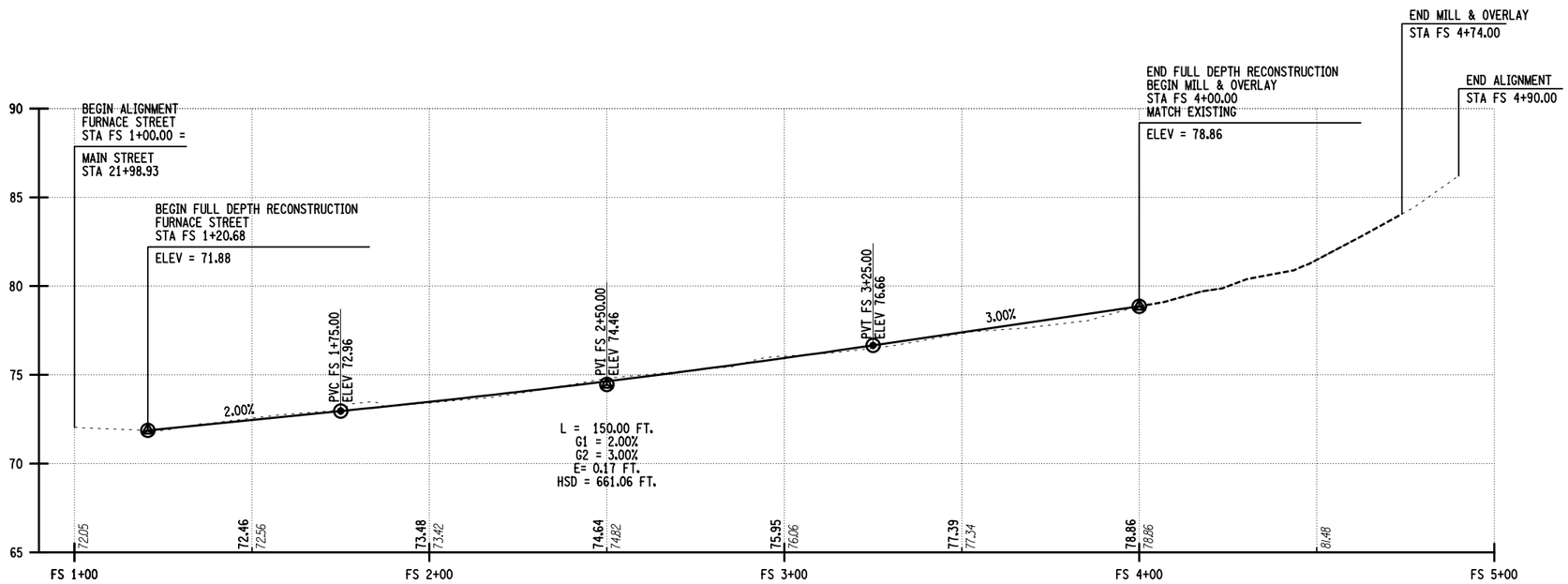
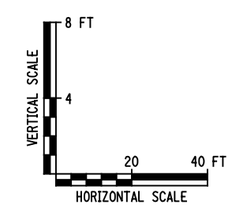



FURNACE STREET

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PROFILE

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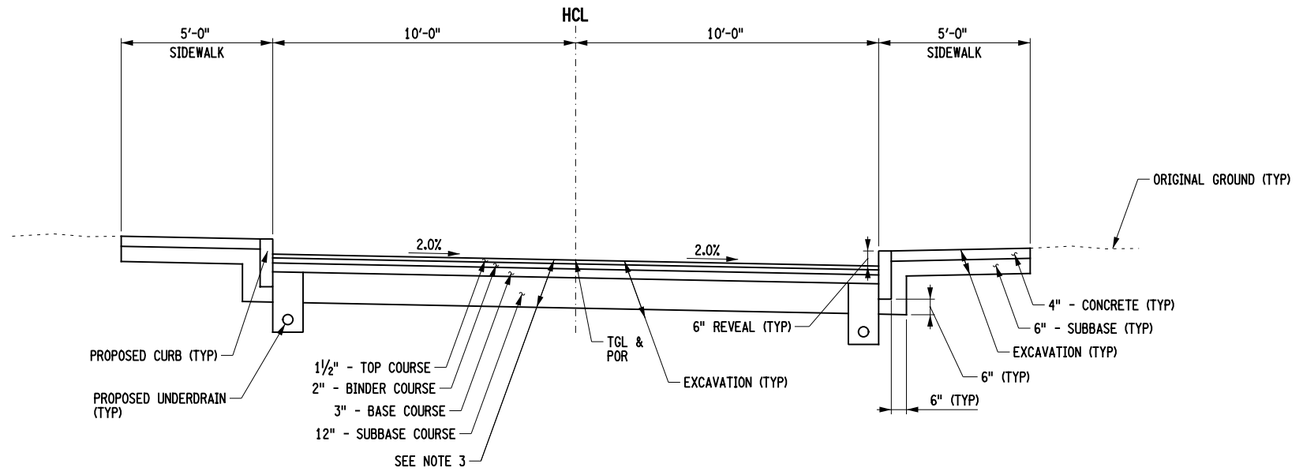
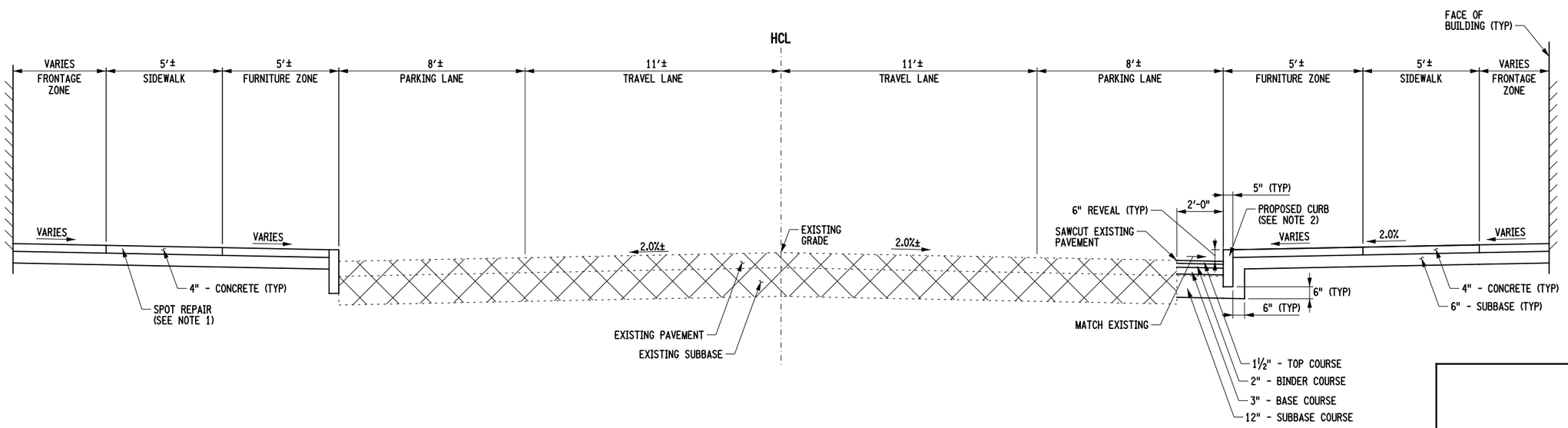



## FURNACE STREET TYPICAL SECTION

NTS




## MAIN STREET TYPICAL SECTION

NTS

**NOTES:**

1. SEE GENERAL PLANS FOR REPAIR LOCATIONS IN THE FRONTAGE ZONE, FURNITURE ZONE, AND SIDEWALK.
2. SEE GENERAL PLANS FOR LOCATIONS OF CURB REPLACEMENT.
3. MOUNTING AND FISHKILL AVENUE RECONSTRUCTION SHALL MATCH PAVEMENT DEPTHS SHOWN FOR FURNACE STREET.

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Mail: (518) 453-4500 - www.chacompanies.com

Designed: RD | Drawn: KCF | Checked: MTS

MAIN STREET &
ANCILLIARY STREETS
PIN 8759.53 & 8760.04

TYPICAL SECTION

Issue Date: | Project No.: | Scale: AS SHOWN

**TS-1**

SHEET OF XX

# APPENDIX B

# Environmental Information

# NEPA Assessment Checklist

# NEPA ASSESSMENT CHECKLIST

**(Revised 12-29-03)**

Date: **4/22/2014**
PIN:
**8759.53&8760.04**
Project Description: **Main Street Sidewalks and Lighting**

Answer the following questions by checking YES or NO.

## I. THRESHOLD QUESTION

1. Does the project involve unusual circumstances as described in 23 CFR '771.117(b)? **YES**☐ **NO**☒

☐ If **YES**, the project does not qualify as a Categorical Exclusion and an EA or EIS is required. You may STOP COMPLETING THE CHECKLIST.

**- OR-**

☒ If **NO**, continue…

## II. AUTOMATIC CATEGORICAL EXCLUSION

2. Is the project an action listed as an Automatic Categorical Exclusion in 23 CFR '771.117(c) (C List) and/or is the project an element-specific project classified by FHWA as a Categorical Exclusion on July 22, 1996? **YES**☒ **NO**☐

☒ If **YES** to question 2, the project qualifies for a C List Categorical Exclusion, "Automatic Categorical Exclusion". You may STOP COMPLETING THE CHECKLIST. The checklist should be included in the appendix of the Final Design Report (or Project Scoping Report/Final Design Report). The CATEGORICAL EXCLUSION DETERMINATION memo is to be sent to the appropriate Main Office Design liaison unit with a copy of the Final Design Report (or Project Scoping Report/Final Design Report). A copy of the CATEGORICAL EXCLUSION DETERMINATION memo must also be sent to the Office of Budget and Finance, Project and Letting Management, and others (see sample DETERMINATION memo attached).

(Note - Even if YES to question 2, there may be specific environmental issues that still require an action such as an EO 11990 Wetland Finding or a determination of effect on cultural resources. The project is still an Automatic Categorical Exclusion but the necessary action must be taken, such as obtaining FHWA's signature on the wetland finding. Refer to the appropriate section of the Environmental Procedures Manual for guidance.)

**-OR-**

☐ If **NO** to question 2 above, continue below…

## III. PROGRAMMATIC CATEGORICAL EXCLUSION

3. Is the project on new location or does it involve a change in the functional classification or added mainline capacity (add through-traffic lanes)? **YES**☐ **NO**☐

4. Is this a Type I project under 23 CFR 772, "Procedures for Abatement of Highway Traffic Noise and Construction"? **YES**☐ **NO**☐

5. If the project is located within the limits of a designated sole source aquifer area or the associated stream flow source area, is the drainage pattern altered? **YES**☐ **NO**☐

6. Does the project involve changes in travel patterns? **YES**☐ **NO**☐

7. Does the project involve the acquisition of more than minor amounts of temporary or permanent right-of-way (a minor amount of right-of-way is defined as not more than 10 percent of a parcel for parcels under 4 ha (10 acres) in size, 0.4 ha (1 acre) of a parcel 4 ha to 40.5 ha (10 to 100 acres) in size and 1 percent of a parcel for parcels greater than 40.5 ha (100 acres) in size? **YES**☐ **NO**☐

8. Does the project require a Section 4(f) evaluation and determination in accordance with the FHWA guidance? **YES**☐ **NO**☐

9. Does the project involve commercial or residential displacement? **YES**☐ **NO**☐

10. If Section 106 applies, does FHWA=s determination indicate an opinion of adverse effect? **YES**☐ **NO**☐

11. Does the project require an ACOE Nationwide Permit #23 – Approved Categorical Exclusion?* **YES**☐ **NO**☐

12. Does the project require any work in wetlands requiring an “Individual” Executive Order 11990 Wetland Finding?* **YES**☐ **NO**☐

* Corrections as per memo dated 8/22/96, from M. Sengenberger & M. Ivey to Reg. Environmental Contacts

13. Has it been determined that the project will significantly encroach upon a flood plain based on preliminary hydraulic analysis and consideration of EO 11988 criteria as appropriate? **YES**☐ **NO**☐

14. Does the project involve construction in, across or adjacent to a river designated as a component proposed for or included in the National System of Wild and Scenic Rivers? **YES**☐ **NO**☐

15. Does the project involve any change in access control? **YES**☐ **NO**☐

16. Does the project involve any known hazardous materials sites or previous land uses with potential for hazardous material remains within the right-of-way? **YES**☐ **NO**☐

17. Does the project occur in an area where there are Federally listed endangered or threatened species or critical habitat? **YES**☐ **NO**☐

18. Is the project, pursuant to EPM Chapter 1A and Table 2 and Table 3 of 40 CFR Parts 51 and 93, non-exempt or does it exceed any ambient air quality standard? **YES**☐ **NO**☐

19. Does the project lack consistency with the New York State Coastal Zone Management Plan and policies of the Department of State, Office of Coastal Zone Management? **YES**☐ **NO**☐

20. Does the project impact or acquire any Prime or Unique Farmland as defined in 7 CFR Part 657

of the Federal Farmland Protection Policy Act and are there outstanding compliance activities necessary? (Note: Interpret compliance activity to mean completion of Form AD 1006.) **YES**☐ **NO**☐

☐ If **NO** for questions, 3-20, go on to answer question 21…

**-OR-**

☐ If **YES** to any question 3-20, project will not qualify as a Programmatic Categorical Exclusion. Answer questions 21 and 22 for documentation only and go on to question 23…

21. Does the project involve the use of a temporary road, detour or ramp closure? **YES**☐ **NO**☐

☐ If **NO** to questions 3-20 and **NO** to question 21, the project qualifies as a Programmatic Categorical Exclusion. You may STOP COMPLETING THE CHECKLIST. The checklist should be included in the appendix of the Final Design Report (or Scope Summary Memorandum/Final Design Report). The CATEGORICAL EXCLUSION DETERMINATION memo is to be sent to the appropriate Main Office Design liaison unit with a copy of the Final Design Report (or Scope Summary Memorandum/Final Design Report). A copy of the Categorical Exclusion memo must also be sent to the Office of Budget and Finance, Project and Letting Management, and others.

**-OR-**

☐ If **YES** to question 21, preparer should complete question 22 (i-v). If questions 3-20 are **NO** and 21 is **YES**, the project will still qualify as a Programmatic Categorical Exclusion if questions 22 (i-v) are **YES**.

22. Since the project involves the use of temporary road, detour or ramp closure, will all of the following conditions be met:

    i. Provisions will be made for pedestrian access, where warranted, and access by local traffic and so posted. **YES**☐ **NO**☐

    ii. Through-traffic dependent business will not be adversely affected. **YES**☐ **NO**☐

    iii. The detour or ramp closure, to the extent possible, will not interfere with any local special event or festival. **YES**☐ **NO**☐

iv. The temporary road, detour or ramp closure does not substantially change the environmental consequences of the action. **YES**☐ **NO**☐

v. There is no substantial controversy associated with the temporary road, detour or ramp closure. **YES**☐ **NO**☐

☐ If questions 3-20 are **NO**, 21 is **YES** and 22 (i-v) are YES, the project qualifies for a Programmatic Categorical Exclusion. You may STOP COMPLETING THE CHECKLIST. The checklist should be included in the appendix of the Final Design Report (or Scope Summary Memorandum/Final Design Report). The CATEGORICAL EXCLUSION DETERMINATION memo should be sent to the appropriate Main Office Design liaison unit with a copy of the Final Design Report (or Scope Summary Memorandum/Final Design Report.) A copy of the CATEGORICAL EXCLUSION DETERMINATION memo must also be sent to the Office of Budget and Finance, Project and Letting Management, and others.

**-OR-**

☐ If questions 3-20 are **NO** or effect is **clarified**, 21 is **YES** and any part of 22 is **NO**, go on to question 23.

23. Is the project section listed in 23 CFR '771.117(d) (D List) or is the project an action similar to those listed in 23 CFR '771.117(d)? **YES**☐ **NO**☐

For those questions which precluded a Programmatic Categorical Exclusion, documentation should be provided for any **YES** response to questions 3-20 or for a **NO** response to any part of questions 22 (i-v). This documentation, as well as the checklist, should be included in the Design Approval Document, i.e., Final Design Report, etc., to be submitted to the Main Office/FHWA Design liaison unit for submission to the FHWA Division for classification of the project as a D List Categorical Exclusion, "Categorical Exclusion with Documentation".

# SHPO Response Letter

OFFICE OF PARKS · RECREATION · HISTORIC PRESERVATION
NEW YORK STATE

# New York State Office of Parks, Recreation and Historic Preservation

Division for Historic Preservation
P.O. Box 189, Waterford, New York 12188-0189
518-237-8643

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

February 12, 2013

Joseph F. Cimino, P.E.
Project Manager
CHA
III Winners Circle, PO BOX 5269
Albany, NY 12205-0269

Re: **FHWA/DOT PIN 8759.53**
**Main Street (walks, ADA, drainage, lighting)**
**V/Cold Spring, Putnam County**
**12PR00130**

Dear Mr. Cimino:

Thank you for continuing consultation with the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland and may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon our review of the submitted plans, it is the SHPO's opinion the project will have No Adverse Effect upon properties in or eligible for inclusion in the National Register of Historic Places.

If you have any questions regarding this letter or your project, please feel free to contact me. Ext. 3273.

Sincerely,

Kenneth Markunas
Historic Sites
Restoration Coordinator

Cc: Seth Gallagher, Mayor of Cold Spring

# Hazardous Waste Screening Form and Summary

**HAZARDOUS WASTE SCREENING FORM**

TO: Village of Cold Spring

FROM: CHA Consulting, Inc. DATE: 10/12/11

PIN: PIN 8760.04 COUNTY: Putnam

PROJECT: Main St. and Ancillary St. Improvements CITY/TOWN/VILLAGE: Cold Spring

DESCRIPTION ADA Curbs, Sidewalks, Storm Water Drainage, & Paving COUNTY: Putnam

NOTE: The Designer completes I and II and coordinates with the Regional Environmental Contract (REC) on III.

**I. SITE INSPECTION FROM (☒) SITE WALK OVER AND/OR (☒) AERIAL PHOTOS**

☐ Presence of noxious odors from ☐ soil and/or ☐ water
☐ Discoloration of ☐ soil, ☐ water, and/or ☐ foundation
☐ Site contains ☐ dead vegetation and/or ☐ little or no vegetation
☐ Observed ☐ leaking pipes, ☐ transformers, ☐ tanks, ☐ barrels
☒ No potential hazardous waste observed

**II. IDENTIFY HAZARDOUS WASTE GENERATORS ON THE PROJECT**

| CHECK | TYPE | NAME | ROW ACQUISITION (YES OR NO) |
|---|---|---|---|
| X | Auto Body/Repair Shop | 12-14 Market Street, 40-46 Main Street, refer to attached summary | No |
| | Chemical Plant/Refinery | | NA |
| X | Chemical Spill Area | 178 Main Street, 180-184 Main Street | No |
| | Dry Cleaning Plant | | NA |
| | Electronics Manufacture | | NA |
| | Electro-Plating | | NA |
| | Junk/Scrap Recycling | | NA |
| | Metal/Machine Fabricating | | NA |
| | Municipal Landfill | | NA |
| | Paint Shop | | NA |
| | Printing Shop | | NA |
| | Sludge Management Area | | NA |
| X | Gasoline Service Station | 150-154 Main Street, 180-184 Main Street, refer to attached summary | No |
| | Other | Electric Light Plant - 150-154 Main Street | No |
| | | | NA |
| | | | NA |
| | Asbestos Consultant Needed (Check with Dave Wohlbach, REC) | | |

(Demolition of building or structures/bridges, where record plans or visual inspection indicate asbestos present.)

**REGIONAL REVIEW (Coordinate with Dave Wohlbach (REC) or Bill Peckham)**

☐ Project was reviewed by the Regional Hazardous Waste Coordinator for possible listing as an Inactive Hazardous Waste Disposal Site and for potential conflict with unknown Hazardous Waste Generators.
☐ A Hazardous Waste Assessment is required. (Determined by REC)
☐ No further investigation is required (Determined by REC)

Hazardous Waste Screening Summary

**12-14 Market Street** – Former Auto Body/Repair Shop – Located south of lower Main Street, the property was shown on the assessment record with a property class use of "Auto Body" as well as having a residence on the same parcel. There was a small one bay garage observed during the site visit, however this building is currently used by Hudson Valley outfitters for canoe/kayak and equipment storage. The garage is located at an assumed cross-gradient direction from the corridor and the work in this area is expected to be mainly lighting upgrades with very minimal subsurface impacts.

**40-46 Main Street** – Former Garage – This parcel was shown on the 1937 & 1965 Sanborn Maps as a Garage. It is unclear whether this was a repair shop or simply a parking garage, due to its proximity to the train station. This building is currently a commercial building and does not appear to be the same building identified as a garage in the 1937 and 1965 Sanborn Mapping. One gas tank was depicted as associated with the facility.

**150-154 Main Street** – Former Garage /Auto Supply/Gas Station – This parcel was shown on the 1912-1965 Sanborn Maps as a garage/auto supply/gasoline station. The 1912 Sanborn Map shows a buried 50 gallon gasoline tank present on the north end of the parcel. Subsequent construction appears to have occcured in the location of the underground tank. The 1937 mapping indicates 2 gas tanks, both located under the roadways on Main Street and Church Streets.

**178 Main Street** – Spill Site – This parcel has two reported spills with contamination concerns believed to be originating from the neighboring gas station. The 1905 and 1912 Sanborn mapping depicted this parcel as the location of the Cold Spring Electric Light Plant.

**180 Main Street** – Gasoline Service Station & Spill Site – This parcel had an operating gasoline service station present at the time of the site visit (10/12/11). Sanborn mapping indicates that a fueling station with two gas tanks has been present at this location as early as 1927. There are multiple spills reported at this location on the NYSDEC spills database however all are shown as closed at this time. The NYSDEC tank registry indicates that two active underground storage tanks are registered to this facility, as well as, several closed historic tanks.

# Asbestos Field Form

**Asbestos Screening Field Form**

Project Name: Village of Cold Spring - Main Street and Ancillary Streets:ADA Curbs, Sidewalks, Storm Water Drainage, & Paving

Project # PIN 8760.04

Inspection Date: 10/12/2011

| Proposed Homogenous Sample # | Material | Color | Location | Quantity | TSI,SM,MM | Friable | Damage | Comments |
|---|---|---|---|---|---|---|---|---|
| 001A-001C | 1/2" - 1" wide sealant | Black | Applied Over Cracks in Asphalt Roadway - Main Street East of NYS Route 9D (Chestnut Street) and at intersection of Fishkill Avenue and Mountain Avenue | Throughout Section | MM | No | No | This suspect asbestos-containing sealant was observed applied to most cracks in the road surface in the area noted. |
| 002A-002C | 1" - 2" wide sealant | Grey | Applied to seal sidewalk/building interface at south corner of Academy Street and Main Street | 16.7 meters (55 linear feet) | MM | No | No | This suspect asbestos-containing material appears to be plieable and similat to a caulk material. |
| 003A-003C | 1/2" wide pre-mold joint material | Black | Sidewalk seams, typically at ADA crosswalk locations, but also at other random locations. | 19.8 square meters (65 linear feet) | MM | No | No | This black sidewalk seam sealant was observed in approximately 13 locations along the Main Street sidewalkk, east of Chestnut street. |

Notes: TSI = thermal system insulation

SM = surfacing material

MM = miscellaneous material

# NYSDEC No Impact Letter

**New York State Department of Environmental Conservation**
**Division of Environmental Permits, Region 3**
21 South Putt Corners Road, New Paltz, New York 12561-1620
**Phone:** (845) 256-3054 **FAX:** (845) 255-4659
**Website:** www.dec.ny.gov

Joe Martens
Commissioner

June 18, 2012

Sue J. Vilord, CHA
111 Winners Circle
P.O. Box 5269
Albany NY 12205-0269

Re: Main Street Sidewalks
Village of Cold Spring, Putnam County

Dear Ms. Vilord:

The New York State Department of Environmental Conservation (DEC or the Department) received your request for concurrence from DEC regarding potential impacts on protected species from this proposal to repair existing sidewalks and drainage structures in the Village. For satisfaction of Section 7 of the federal Endangered Species Act, concurrence should be sought from the US Fish & Wildlife Service. DEC can only provide a determination with regard to potential impacts to NYS-listed species protected under Article 11, Title 5 of the NYS Environmental Conservation Law.

Review was limited due the lack of details on the proposed work which was described as improvement to "existing sidewalk, crosswalks, pavement and drainage systems". As indicated in your request, this site is in proximity to known occurrences of NYS-listed species. Based on the limited information, DEC has determined the following:

| Species | NYS status | Potential impacts |
|---|---|---|
| Bald eagle (*Haliaeetus leucocephalus*) | Threatened | Given the close proximity (<0.5 mile) to a winter feeding area and the potential use of high decibel machinery, activities must be limited to the period April 1st to November 30th of any given year to avoid impact. |
| Shortnose sturgeon *(Acipenser brevirostrum)* Atlantic sturgeon *(Acipenser oxyrhynchu)* | Endangered | These species inhabit the Hudson River and the Hudson Highlands area is known summer habitat for Atlantic sturgeon. If the proposed work includes modification to existing stormwater features which drain into the Hudson River, there is potential for impact. As you have indicated per our phone conversation of June 18, 2012 that the proposed drainage work is limited to in-kind replace of drain pipes only, no impact is expected. |
| Timber rattlesnake (*Crotalus horridus)* | Threatened | The nearest occurrence is across the river in Orange County. The closest known den on the east side is over 2.5 miles away. Therefore no impacts are expected. |

This determination is valid for 2 years from the date of this letter.

Sincerely,

Rebecca S. Crist
Environmental Analyst

Ecc: V. of Cold Spring Lisa Masi, DEC Bur of Wildlife Kathy Hattala, DEC Bur of Hudson R. Fisheries

# NYSDEC NHP Report

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**
**Division of Fish, Wildlife & Marine Resources**
625 Broadway, 5th Floor, Albany, New York 12233-4757
**Phone:** (518) 402-8935 • **Fax:** (518) 402-8925
**Website:** www.dec.ny.gov

**Joe Martens**
**Commissioner**

October 14, 2011

Sue J. Vilord
Clough Harbour Associates
111 Winners Circle
Albany, NY 12205

Dear Ms. Vilord:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the proposed Main Street Sidewalk Improvements, drainage and lighting, area as indicated on the map you provided, West Street to Cedar Street, located in the Village of Cold Spring, Putnam County.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

The enclosed report may be included in documents that will be available to the public. However, any enclosed maps displaying locations of rare species are considered sensitive information, and are intended only for the internal use of the recipient; they should not be included in any document that will be made available to the public, without permission from the New York Natural Heritage Program.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.ht ml.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,

Jean Pietrusiak, Information Services
NYS Department Environmental Conservation

Enc.
cc: Region 3

RECEIVED

OCT 18 2011

# 990

# Natural Heritage Report on Rare Species and Ecological Communities

NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor,
Albany, NY 12233-4757
(518) 402-8935

~The information in this report includes only records entered into the NY Natural Heritage databases as of the date of the report. This report is not a definitive statement on the presence or absence of all rare species or significant natural communities at or in the vicinity of this site.
~Refer to the User's Guide for explanations of codes, ranks and fields.
~Location maps for certain species and communities may not be provided 1) if the species is vulnerable to disturbance, 2) if the location and/or extent is not precisely known, 3) if the location and/or extent is too large to display, and/or 4) if the animal is listed as Endangered or Threatened by New York State.

Natural Heritage Report on Rare Species and Ecological Communities

## BIRDS

### *Haliaeetus leucocephalus*

**Bald Eagle**
Nonbreeding

**NY Legal Status:** Threatened
**Federal Listing:**
**Last Report:** **
**County:** Putnam
**Town:** Philipstown
**Location:** At, or in the vicinity of, the project site.

**NYS Rank:** S2S3B,S2N - Imperiled
**Global Rank:** G5 - Secure
**EO Rank:** **

Office Use
5782
ESU
S

**General Quality and Habitat:** **For information on the population at this location and management considerations, please contact the NYS DEC Regional Wildlife Manager for the Region where the project is located.

## COMMUNITIES

### Chestnut oak forest

This occurrence of Chestnut Oak Forest is considered significant from a statewide perspective by the NY Natural Heritage Program. It is either an occurrence of a community type that is rare in the state or a high quality example of a more common community type. By meeting specific, documented significance criteria, the NY Natural Heritage Program considers this occurrence to have high ecological and conservation value.

Office Use
1886

**NY Legal Status:** Unlisted
**Federal Listing:**
**Last Report:** 2009-06-26
**County:** Dutchess, Putnam
**Town:** Fishkill, Philipstown
**Location:** Bull Hill

**NYS Rank:** S4
**Global Rank:** G5
**EO Rank:**

**General Quality and Habitat:** This is an oak-dominated community of moderate size in a good landscape of connected natural areas, with good species diversity and relatively few exotic species overall. However, high recreational use and invasive species have impacted some locales andlow tree regeneration may be occurring due to lack of fire and/or high deer densities in some areas. The community consists of four patches of forest to woodland dominated by chestnut oak, red oak, black oak, and red maple, occupy northeast trending upper slopes and south-facing rocky hillsides on the east side of the Hudson River. The surrounding landscape is dominated by Appalachian oak hickory forest and mesic oak-tulip tree forest, which grades into the chestnut oak forest on dry upper slopes. Numerous rocky outcrops occur along the ridge and on shoulder slopes. Most of these are currently definedas pitch pine-oak-heath rocky summit or red cedar rocky summit and all exhibit varying degrees of tree and shrub cover, graminoid dominance, and exposed rock outcrop, and are well-buffered by the surrounding large patches of chestnut oak forest. Rocky su

## Oak-tulip tree forest

This occurrence of Oak-Tulip Tree Forest is considered significant from a statewide perspective by the NY Natural Heritage Program. It is either an occurrence of a community type that is rare in the state or a high quality example of a more common community type. By meeting specific, documented significance criteria, the NY Natural Heritage Program considers this occurrence to have high ecological and conservation value.

Office Use 4933

**NY Legal Status:** Unlisted
**Federal Listing:**
**Last Report:** 2004
**County:** Dutchess, Putnam
**Town:** Beacon -City, Fishkill, Philipstown
**Location:** Breakneck Scofield Fishkill Ridge

**NYS Rank:** S2S3
**Global Rank:** G4
**EO Rank:**

**General Quality and Habitat:** This is a large and intact occurrence of this generally fragmented community located in an extensive forested landscape with natural gradients and processes intact. It is estimated that half of the occurrence is "A" grade and half is "B" grade based on 1998 surveys and interpretation of 2000 and 2004 orthoimages. This is an extensive example of this mesic forest community which skirts the low slopes of almost the entire ridge and extends up into stream drainages to higher elevations. This forest intergrades with an extensive Appalachian oak-hickory forest and chestnut oak forest patches at higher elevations in a broad transitional zone. Small patches of hemlock-northern hardwood forest occur in the deep ravines and in broader, north-facing ravines at the same elevations. The lowlands dominated by this communityshow signs of land-use history and associated disturbances including logging roads, access roads, stone walls and the associated cut stumps and exotic species populations. The ridge and its forests are primarily intact with medium-aged to maturing forest

## DRAGONFLIES and DAMSELFLIES

### *Cordulegaster erronea*

**Tiger Spiketail**

Office Use 9019

**NY Legal Status:** Unlisted
**Federal Listing:**
**Last Report:** 2007-08-07
**County:** Putnam
**Town:** Philipstown
**Location:** Highlands

**NYS Rank:** S1 - Critically imperiled
**Global Rank:** G4 - Apparently secure
**EO Rank:** Good or Fair

**General Quality and Habitat:** The rank is based on a comparison to other sites in New York State. There have been a moderate number of individuals observed at four locations over a seven year period. Between 3 and 10 individuals have been observed in a survey year. There is evidenceof reproduction. Philipse Brook: The spiketails were observed at several spring seepage areas on the east hillside above Philipse Brook. The seeps flow across a fairly level area on the hillside and then proceed down a fairly steep slope. The seeps are characterized by flowing water and a mix of skunk cabbage, jewelweed, sedges, and ferns. The substrates contain a mix of gravel, muck, and leaf litter. The surrounding forest contains sugar maple (Acer sacarrarum), tulip tree (Lirodendron tulipifera), black birch, hemlock (Tsuga canadensis), red oak (Quercus rubra), witch hazel, mockernut hickory, beech (Fagus grandifolia), and striped maple. Recently constructed playing fields are present on the plateau immediately above the hillside. Trickle: The spiketails were observ

## FISH

### *Acipenser brevirostrum*

**Shortnose Sturgeon**

Office Use 1091
HRF BOF
USFWS

**NY Legal Status:** Endangered
**Federal Listing:** Endangered
**Last Report:** **
**County:** Albany, Bronx, Columbia, Dutchess, Greene, New York, Orange, Putnam, Rensselaer, Rocklanc
**Town:** Albany - City , Athens, Beacon -City, Bethlehem, Catskill, Clarkstown, Clermont, Coeymans, Colonie
**Location:** At, or in the vicinity of, the project site.

**NYS Rank:** S1 - Critically imperiled
**Global Rank:** G3 - Vulnerable
**EO Rank:** **

**General Quality and Habitat:** Shortnose sturgeon are found in the long tidal portion of Hudson River. The river constitutes the lower part of a 315 mile stream system. It is fed upstream by two large main channel streams, which provide 80% of the freshwater input, and numerous other For more information, including management considerations, please contact the NYS DEC Hudson River Fisheries Unit at 845-256-3071.

### *Acipenser oxyrinchus*

**Atlantic Sturgeon**

**NY Legal Status:** No Open Season
**Federal Listing:** Candidate
**Last Report:** 1997
**County:** Dutchess, Orange, Putnam, Rockland, Westchester
**Town:** Beacon -City, Cornwall, Cortlandt, Fishkill, Highlands, New Windsor, Newburgh - City, Newburgh - T
**Location:** Lower Hudson River
**General Quality and Habitat:** The rank is based on the draft element global ranking form of 1994. The fish were observed in a river.

**NYS Rank:** S1 - Critically imperiled
**Global Rank:** G3 - Vulnerable
**EO Rank:** Excellent or Good

Office Use
11464
HRF
USFWS

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### *Menidia menidia*

**Atlantic Silverside**

**NY Legal Status:** Unlisted
**Federal Listing:**
**Last Report:** 1986-pre
**County:** Putnam
**Town:** Philipstown
**Location:** Constitution Marsh
**General Quality and Habitat:** The fish were found in a marsh.

**NYS Rank:** S2S3 - Imperiled
**Global Rank:** G5 - Secure
**EO Rank:** Extant

Office Use
11813

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## OTHER

### Anadromous Fish Concentration Area

**NY Legal Status:** Unlisted
**Federal Listing:**
**Last Report:** 1986
**County:** Putnam
**Town:** Philipstown
**Location:** Constitution Marsh
**General Quality and Habitat:** 400 acres wetland, tidal, brackish, freshwater, emergent marsh.

**NYS Rank:** S3 - Vulnerable
**Global Rank:** GNR - Not ranked
**EO Rank:** Extant

Office Use
607
S

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### Waterfowl Winter Concentration Area

**NY Legal Status:** Unlisted
**Federal Listing:**
**Last Report:** 1986
**County:** Putnam
**Town:** Philipstown
**Location:** Constitution Marsh
**General Quality and Habitat:** 400 acre wetland, tidal, brackish, freshwater, emergent marsh.

**NYS Rank:** S3S4 - Vulnerable
**Global Rank:** GNR - Not ranked
**EO Rank:** Extant

Office Use
1513
S

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### Anadromous Fish Concentration Area

**NY Legal Status:** Unlisted
**Federal Listing:**
**Last Report:** 1986
**County:** Dutchess, Orange, Putnam, Rockland, Westchester
**Town:** Cornwall, Cortlandt, Fishkill, Highlands, Peekskill - City, Philipstown, Stony Point
**Location:** Hudson River Mile 44-56
**General Quality and Habitat:** The habitat is a 12 mile section of deep turbulent narrow river.

**NYS Rank:** S3 - Vulnerable
**Global Rank:** GNR - Not ranked
**EO Rank:** Extant

Office Use
9586
S

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## REPTILES

### *Sceloporus undulatus*

**Fence Lizard**

**NY Legal Status:** Threatened
**Federal Listing:**
**Last Report:** **
**County:** Putnam
**Town:** Philipstown
**Location:** At, or in the vicinity of, the project site.

**NYS Rank:** S1 - Critically imperiled
**Global Rank:** G5 - Secure
**EO Rank:** **

Office Use
1602
ESU

**General Quality and Habitat:** **For information on the population at this location and management considerations, please contact the NYS DEC Regional Wildlife Manager for the Region where the project is located.

## VASCULAR PLANTS

### *Cardamine longii*

**Long's Bittercress**

**NY Legal Status:** Threatened
**Federal Listing:**
**Last Report:** 2003-08-14
**County:** Putnam
**Town:** Philipstown
**Location:** Constitution Island

**NYS Rank:** S2 - Imperiled
**Global Rank:** G3? - Vulnerable
**EO Rank:** Good or Fair

Office Use
391

**General Quality and Habitat:** A minimum of 75 plants are in a well protected tidal marsh complex. The plants are located in the intertidal area along tidal creeks/tributaries and bays of the Hudson River. The plants are located near the edge of the dense marsh vegetation of the marsh communities and into the more open mud flat communities. The plants occur on mucky soils over solid gravel. The area is completely open with no shrub or tree canopy. The herbaceous cover is moderate to sparse. Most of this area was subject to a major heavy metal cleanup project and the soils were completely removed.

### *Symphyotrichum subulatum var. subulatum*

**Saltmarsh Aster**

**NY Legal Status:** Threatened
**Federal Listing:**
**Last Report:** 2000-10-11
**County:** Putnam
**Town:** Philipstown
**Location:** Constitution Marsh

**NYS Rank:** S2 - Imperiled
**Global Rank:** G5T5 - Secure
**EO Rank:** Fair

Office Use
5475

**General Quality and Habitat:** This is a small population in a well-protected area with more available habitat to search. The first population is located within a sparsely vegetated rocky intertidal shore. The second population is located in a tall graminoid marsh with perhaps 40% Phragmites and 40% cattail dominance. The plants are located at the edge of the marsh along the bank of a tidal channel. The tidal channel is without shallow margins and emergent vegetation. The channel banks are abrupt with no evidence of disturbance (e.g., muskrat).

13 Records Processed

More detailed information about many of the rare and listed animals and plants in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org, from NatureServe Explorer at http://www.natureserve.org/explorer, from NYSDEC at http://www.dec.ny.gov/animals/7494.html (for animals), and from USDA's Plants Database at http://plants.usda.gov/index.html (for plants).

More detailed information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org. For descriptions of all community types, go to http://www.dec.ny.gov/animals/29384.html and click on Draft Ecological Communities of New York State.

# Natural Heritage Report on Rare Species

NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor,
Albany, NY 12233-4757
(518) 402-8935

~The information in this report includes only records entered into the NY Natural Heritage databases as of the date of the report. This report is not a definitive statement on the presence or absence of all rare species or significant natural communities at or in the vicinity of this site.
~Refer to the User's Guide for explanations of codes, ranks and fields.
~We do not provide maps for species most vulnerable to disturbance.

## Natural Heritage Report on Rare Species and Ecological Communities

### REPTILES

***Crotalus horridus***
**Timber Rattlesnake**

**NY Legal Status:** Threatened
**NYS Rank:** S3 - Vulnerable
**Global Rank:** G4 - Apparently secure
Office Use: 7891
ESU

**Federal Listing:**
**County:** Orange
**Town:** Highlands
**Location:** Documented within 1.5 miles of project site. Animals can move 1.5 miles or more from documented locations. For information on the population at this location and management considerations, please contact the NYS DEC Regional Wildlife Manager for the Region where the project is located.

1 Records Processed

More detailed information about many of the rare and listed animals in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org, from NatureServe Explorer at http://www.natureserve.org/explorer, and from NYSDEC at http://www.dec.ny.gov/animals/7494.html.

# USFWS Response

# United States Department of the Interior

FISH AND WILDLIFE SERVICE

New York Field Office
3817 Luker Road, Cortland, NY 13045
Phone: (607) 753-9334
Fax: (607) 753-9699

Long Island Field Office
3 Old Barto Rd., Brookhaven, NY 11719
Phone: (631) 776-1401
Fax: (631) 776-1405

## Endangered Species Act List Request Response Cover Sheet

This cover sheet is provided in response to a search of our website* for information regarding the potential presence of species under jurisdiction of the U.S. Fish and Wildlife Service (Service) within a proposed project area.

Attached is a copy of the New York State County List of Threatened, Endangered, and Candidate Species for the appropriate county(ies). The database that we use to respond to list requests was developed primarily to assist Federal agencies that are consulting with us under Section 7(a)(2) of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). Our lists include all Federally-listed, proposed, and candidate species known to occur, as well as those likely to occur, in specific counties.

The attached information is designed to assist project sponsors or applicants through the process of determining whether a Federally-listed, proposed, or candidate species and/or "critical habitat" may occur within their proposed project area and when it is appropriate to contact our offices for additional coordination or consultation. You may be aware that our offices have provided much of this information in the past in project-specific letters. However, due to increasing project review workloads and decreasing staff, we are now providing as much information as possible through our website. We encourage anyone requesting species list information to print out all materials used in any analyses of effects on listed, proposed, or candidate species.

The Service routinely updates this database as species are proposed, listed, and delisted, or as we obtain new biological information or specific presence/absence information for listed species. If project proponents coordinate with the Service to address proposed and candidate species in early stages of planning, this should not be a problem if these species are eventually listed. However, we recommend that both project proponents and reviewing agencies retrieve from our online database an *updated* list every 90 days to append to this document to ensure that listed species presence/absence information for the proposed project is *current.*

**Reminder:** Section 9 of the ESA prohibits unauthorized taking** of listed species and applies to Federal and non-Federal activities. For projects not authorized, funded, or carried out by a Federal agency, consultation with the Service pursuant to Section 7(a)(2) of the ESA is not required. However, no person is authorized to "take**" any listed species without appropriate authorizations from the Service. Therefore, we provide technical assistance to individuals and agencies to assist with project planning to avoid the potential for "take**," or when appropriate, to provide assistance with their application for an incidental take permit pursuant to Section 10(a)(1)(B) of the ESA.

Additionally, endangered species and their habitats are protected by Section 7(a)(2) of the ESA, which requires Federal agencies, in consultation with the Service, to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. An assessment of the potential direct, indirect, and cumulative impacts is required for all Federal actions that may affect listed species.

For instance, work in certain waters of the United States, including wetlands and streams, may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended;16 U.S.C. 661 *et seq.*), the Service may concur, with or without recommending additional permit conditions, or recommend denial of the permit depending upon potential adverse impacts on fish and wildlife resources associated with project construction or implementation. The need for a Corps permit may be determined by contacting the appropriate Corps office(s).*

For additional information on fish and wildlife resources or State-listed species, we suggest contacting the appropriate New York State Department of Environmental Conservation regional office(s) and the New York Natural Heritage Program Information Services.*

Since wetlands, ponds, streams, or open or sheltered coastal waters may be present in the project area, it may be helpful to utilize the National Wetlands Inventory (NWI) maps as an initial screening tool. However, they may or may not be available for the project area. Please note that while the NWI maps are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes. Online information on the NWI program and digital data can be downloaded from Wetlands Mapper, http://wetlands.fws.gov/mapper_tool.htm.

Project construction or implementation should not commence until all requirements of the ESA have been fulfilled. After reviewing our website and following the steps outlined, we encourage both project proponents and reviewing agencies to contact our office to determine whether an accurate determination of species impacts has been made. If there are any questions about our county lists or agency or project proponent responsibilities under the ESA, please contact the New York or Long Island Field Office Endangered Species Program at the numbers listed above.

Attachment (county list of species)

*Additional information referred to above may be found on our website at:
http://www.fws.gov/northeast/nyfo/es/section7.htm

** Under the Act and regulations, it is illegal for any person subject to the jurisdiction of the United States to ***take*** (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import or export, ship in interstate or foreign commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any endangered fish or wildlife species and most threatened fish and wildlife species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. “Harm” includes any act which actually kills or injures fish or wildlife, and case law has clarified that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.

**Putnam County**

**Federally Listed Endangered and Threatened Species and Candidate Species**

This list represents the best available information regarding known or likely County occurrences of Federally-listed and candidate species and is subject to change as new information becomes available.

| Common Name | Scientific Name | Status |
|---|---|---|
| Atlantic sturgeon[2] | *Acipenser oxyrinchus oxyrinchus* | C |
| Bald eagle [1] | *Haliaeetus leucocephalus* | D |
| Bog turtle | *Clemmys [=Glyptemys] muhlenbergii* | T |
| Indiana bat (S) | *Myotis sodalis* | E |
| New England cottontail | *Sylvilagus transitionalis* | C |
| Shortnose sturgeon[2] | *Acipenser brevirostrum* | E |

Status Codes: E=Endangered, T=Threatened, P=Proposed, C=Candidate, D=Delisted.

W=Winter S=Summer

[1] The bald eagle was delisted on August 8, 2007. While there are no ESA requirements for bald eagles after this date, the eagles continue to receive protection under the Bald and Golden Eagle Protection Act (BGEPA). Please follow the Service's May 2007 Bald Eagle Management Guidelines to determine whether you can avoid impacts under the BGEPA for your projects. If you have any questions, please contact the endangered species branch in our office.

[2] Primarily occurs in Hudson River. Principal responsibility for this species is vested with the National Oceanic and Atmospheric Administration/Fisheries.

Information current as of: 9/22/2011

April 16, 2012

Ms. Robyn Niver
United States Department of the Interior
Fish and Wildlife Service
3817 Luker Road
Cortland, New York 13054

**RE: PIN #8759.53 Main Street Sidewalks and Lighting**
**Threatened & Endangered Species Impact Evaluation**
**Village of Cold Spring, Putnam County, NY**
**CHA Project No.: 21204**

Dear Ms. Niver:

On behalf of the Village of Cold Spring, CHA is submitting a request for review for the proposed sidewalk, drainage and lighting improvements on Main Street project. The proposed project is located in the Village of Cold Spring, Putnam Co., NY (USGS West Point Quadrangle). Refer to Attachment 1 for a site location map. The approximate center-point coordinates of the project site are Latitude 41° 25' 02" N; Longitude 73° 56' 36" W (NAD 27).

Funding and approval of this project will be through the Federal Highways Administration (FHWA) thus a Section 7 consultation is required. The proposed project is to improve and enhance the existing sidewalk, crosswalks, pavement and drainage systems located along Main Street (NYS Route 301) from Depot Square to NYS Route 9D and on Furnace street from Main Street to Wall Street in the Village of Cold Spring. Minor excavation will be required to repair the existing sidewalks and drainage structures.

The USFWS website was reviewed for the list of federally-protected species known to occur in Putnam County (Attachment 2). This list identified six species:

- Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) – candidate, primarily occurring in the Hudson River
- Bald eagle (*Haliaeetus leucocephalus*) – delisted but protected under the Bald and Golden Eagle Protection Act (BGEPA)
- Bog turtle (historic) (*Clemmys [=Glyptemys] muhlenbergii*) – threatened
- Indiana bat (W/S) (*Myotis sodalis*) – endangered and likely extirpated in the area
- New England cottontail (*Sylvilagus transitionalis*) – candidate

- Shortnose sturgeon (*Acipenser brevirostrum*) – endangered and primarily occurring in the Hudson River.

The habitats of the project site were documented during an October 5, 2011 site visit. The following summarizes CHA's findings with regards to threatened, endangered and otherwise protected species.

**Vegetative Community Impacts**

The project is located within a highly developed area consisting of residential and business uses and associated utility infrastructure and landscaping. Representative species of trees located along the street consist of maple species (*Acer saccharum*, *Acer saccharinum*, and *Acer platanoides*), pin oak (*Quercus palustris*), black cherry (*Prunus serotina*) and honey locust (*Gleditsia triacanthos var. inermis*). Trees ranged in size from 10-15 foot saplings to 30+ feet mature trees. The majority of the streetscape consisted of planted vegetative species such as hostas and lilies and various grasses. No streams or water features are located within the project area, however there is a small stream located approximately 20+ feet south of Main St. between Parsonage St. and Academy St. The stream originates from the mapped state wetland located to the north of the project area but is confined to culverts until it reaches this area. The stream is 'daylighted' for approximately 300 yards then once again enters a culvert system. It was not determined where the outfall is located, but it is assumed that it empties into the Hudson River. The proposed project will have no impact on this stream or the adjacent resources.
Photographs of the project area are located in Attachment 3.

These vegetative communities have been compared to the known habitats of each species listed above and the potential of the project to impact each species has been assessed as follows:

**Species Habitat Requirements and Potential Impacts**

**Atlantic sturgeon**s are anadromous meaning they live in the ocean but spawn in freshwater. The Atlantic sturgeons spawn in freshwater in the spring and early summer in moderately flowing water in deep parts of large rivers. Larvae migrate downstream using benthic structures as refuges. Juveniles usually reside in estuarine waters for months to years. Subadults and adults live in coastal waters and estuaries when not spawning, generally in shallow (10-50 m depth) near shore areas dominated by gravel and sand substrates[1].

- The project site is approximately 200 yards from the edge of the Hudson River. No impacts to the Hudson River or any **Atlantic sturgeon** habitat is anticipated.

According to the New York Natural Heritage website, the **bald eagle** is a species that prefers undisturbed areas near large lakes and reservoirs, marshes and swamps, or stretches along rivers where they can find open water and their primary food, fish. Nests are usually located high in a tall, large white pine tree near water and their primary food, fish[2]. This species will also nest in

[1] http://www.nmfs.noaa.gov/pr/species/fish/atlanticsturgeon.htm
[2] Bald Eagle Fact Sheet. NYSDEC Website. http://www.dec.ny.gov/animals/9383.html

deciduous trees and tends to avoid areas with nearby human activity (boat traffic, pedestrians) and development (buildings). Non-breeding adults and wintering birds are known to have communal roost sites. During the winter, the roost sites may be farther away from food sources. Feeding areas during the winter months usually have a high concentration of fish and waterfowl and open water (NatureServe 2005)[3].

- The project area is a busy commercial and residential area. Although the trees within the project area are suitable for nesting, the continual disturbance in the area would discourage any eagles from nesting or roosting within the project area. Therefore it is not anticipated that the proposed project will have any impact on **bald eagles**.

According to descriptions provided by the New York Natural Heritage Program and USFWS, **bog turtles** prefer open canopy wet meadows with soft, saturated soils such as sedge meadows, and fens fed by seeps and springs of cold groundwater that has been in contact with calcium-rich bedrock or soils. In New York, bog turtles are very often found in or near rivulets having deep mucky substrate, but where above-surface water depths are very shallow, usually only a few inches deep at most.

- The project will not impact **bog turtles** because habitat suitable for this species does not occur on or near the project site.

The **Indiana bat** is a species that hibernates in caves during the winter months, emerges in spring and then disperses to summer habitats. Females form maternal roost colonies on trees under exfoliating bark, crevices and other suitable habitats[4].

- Impacts to **Indiana bats** will not occur because the project does not anticipate the cutting of any trees nor does the site contain suitable habitat trees, caves or mines.

**New England Cottontail** prefers early successional forests, often called thickets, with thick and tangled vegetation. These young forests are generally less than 25 years old[5].

- The project area is highly disturbed and contains an abundance of impermeable surfaces. The project will not impact **New England Cottontail** since there is no habitat within the project site to support this species present.

**Shortnose sturgeons** inhabit the main stems of natal rivers, migrating between freshwater and mesohaline river reaches. Spawning occurs in upper, freshwater areas, while feeding and overwintering activities may occur in both fresh and saline habitats.[6]

- The project site is approximately 200 yards from the edge of the Hudson River. No impacts to the Hudson River or any **Shortnose sturgeon** habitat is anticipated.

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[3] Bald Eagle. New York Natural Heritage Program. http://www.acris.nynhp.org/guide.php?id=6811
[4] Indiana Bat Project Review Fact Sheet. US Fish & Wildlife Service, New York Field Office. July 2006.
[5] http://www.fws.gov/northeast/indepth/rabbit/
[6] NMFS 1998. Recovery Plan for the Shortnose Sturgeon (Acipenser brevirostrum). Silver Spring MD. 104 pages.

**Summary**

Based on an inventory of the habitats present at the project site, and evaluation of the habitat requirements of the listed species, we feel that the project will not impact any of the above indicated species.

We are requesting a response of concurrence with this assessment for use in reporting documents. If you have any questions or require additional information, please feel free to contact me at svilord@chacompanies.com or (518) 453-3953. Thank you for your time.

Sincerely,

Sue J. Vilord
Senior Ecologist

SV/sc

Enclosures

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# United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Field Office
3817 Luker Road
Cortland, NY 13045
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo

To: Sue Vilord Date: May 23, 2012

USFWS File No: 120316

Regarding your: ☒ Letter ☐ FAX ☐ Email Dated: April 16, 2012

For project: Main Street sidewalks and lighting, PIN 8759.53

Located:

In Town/County: Village of Cold Spring / Putnam County

Pursuant to the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Fish and Wildlife Service:

☐ Acknowledges receipt of your "no effect" and/or no impact determination. No further ESA coordination or consultation is required.

☒ Acknowledges receipt of your determination. Please provide a copy of your determination and supporting materials to any involved Federal agency for their final ESA determination.

☐ Is taking no action pursuant to ESA or any other legislation at this time but would like to be kept informed of project developments.

As a reminder, until the proposed project is complete, we recommend that you check our website (http://www.fws.gov/northeast/nyfo/es/section7.htm) every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project area is current. Should project plans change or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered.

USFWS Contact(s): Noelle Rayman

Supervisor: Patricia Cole Date: 5/23/12

# APPENDIX C

# Traffic Information

# Traffic Analyses

# Traffic Analyses

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Appendix C-1 Traffic Counts

# Traffic Analyses

The following discussion describes the traffic data used for this project: Main Street (NYS Route 301), Village of Cold Spring, Putnam County, NY. The exhibits that are also printed in the main body of the design report follow the design report naming convention. Exhibits unique to this appendix begin with the letter "C".

## 1.0 DESIGN YEAR

The following design years are used in accordance with the NYSDOT Project Development Manual Appendix 5:

- Existing (2011)
- Estimated time of completion (ETC) (2013)
- ETC + 10 (2023)
- ETC + 20 (2033)

## 2.0 GROWTH RATES

A uniform growth rate of 0.50% per year was used for this project. From historic count data, it was found that volumes have decreased over the last few years. To be conservative, a small amount of growth is estimated for the project design years.

## 3.0 STUDY AREA

The traffic study area includes the project limits described in Section 1.2.1 of the design report.

## 4.0 TRAFFIC DATA

### 4.1 Traffic Speeds

The existing posted speed limit on Main Street is 25 mph.

### 4.2 Travel Time & Delays

Since this is not a capacity improvement project, no travel time and delay runs were performed for this project.

### 4.3 Traffic Volume Source

Existing traffic volumes on Main Street were obtained from traffic count data collected in November 2011. Video vehicle detection equipment was installed on Main Street to collect hourly traffic volumes and vehicular classification data.

### 4.4 Traffic Data & Forecasts

The following Exhibits 2.3.1.6-1 and 2.3.1.6-2 represent the 2011 existing and projected future No-Build and Build traffic volumes, and directional distributions for the study area.

| Exhibit - 2.3.1.6-1<br>Traffic Data | |
|---|---|
| Route | Main Street |
| Directional Distribution | 50% EB / 50% WB AM, 54% EB / 46% WB PM |
| Peak Hour Factor | 0.97 AM / 0.89 PM |
| % Peak Hour Trucks | 3% AM, 1% PM |
| % Daily Trucks | 2% |

| Exhibit 2.3.1.6-2<br>Existing and Forecast Traffic Volumes | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Existing (2011) | | ETC[1] (2013) | | ETC+10 (2023) | | ETC+20 (2033) | |
| Roadway | ADT[1] | DHV[1] | ADT | DHV | ADT | DHV | ADT | DHV |
| Main Street | 4150 | 330 | 4190 | 335 | 4410 | 350 | 4630 | 370 |

(1) ETC is the Estimated Time of Completion, ADT is the Average Daily Traffic and DHV is the Design Hourly Volume for the 30th highest hour.

## 5.0 TRAFFIC CHANGES DUE TO BUILD ALTERNATIVES

The Preferred Build Alternative would not change the traffic patterns in the area. Therefore, the Build Alternative traffic volumes are the same as the volumes for the No-Build Alternative.

## 6.0 TRUCK TRAFFIC

Heavy vehicle (truck) traffic for the corridor was approximately 2% of the daily traffic. Heavy vehicle (truck) traffic during the peak hours was calculated to be 3% in the AM peak hour and 1% in the PM peak hour based on collected field data.

## 7.0 SAFETY CONSIDERATIONS, ACCIDENT HISTORY AND ANALYSIS

Accident analyses were conducted for the intersections and roadway segments within the project limits using police reports obtained by the Cold Springs Municipal Police for the three-year period of March 1, 2009 to February 28, 2012. These accident records documented 25 accidents occurring within the study area during this time period. Of the 25 accidents, 22 occurred at intersections and the remaining occurred on roadway links. Approximately 90% of the accidents were property damage only (PDO's) with the remaining 10% being personal injury accidents including one accident involving a pedestrian. The majority of accidents were classified as sideswipes and parking, accounting for 72% of all accidents. All of the sideswipe accidents involved a parked vehicle.

Summaries of the accident severity for the project area intersections and links are provided in Exhibit 2.3.1.8. Exhibit C.7-1 summarizes the accident types for intersections and links within the project limits.

**Exhibit 2.3.1.8**
**Intersection and Link Accident Summary by Severity**

| Location | Fatal | Injury | Property Damage Only (PDO) | Non-Reportable | Total |
|---|---|---|---|---|---|
| **Intersections** | | | | | |
| Main Street & Cedar Street | 0 | 0 | 1 | 0 | 1 |
| Main Street & Locust Ridge | 0 | 1 | 0 | 0 | 1 |
| Main Street & Fishkill Ave/ Academy Street | 0 | 1 | 1 | 0 | 2 |
| NYS Route 9D ( Morris Ave/Chestnut St) & Main Street | 0 | 1 | 5 | 0 | 6 |
| Main Street & Furnace Street | 0 | 0 | 2 | 0 | 2 |
| Main Street & Church Street | 0 | 0 | 3 | 0 | 3 |
| Main Street & Garden Street/Kemble Avenue | 0 | 0 | 2 | 0 | 2 |
| Main Street & Fair Street | 0 | 0 | 1 | 0 | 1 |
| Main Street & Rock Street | 0 | 0 | 1 | 0 | 1 |
| Main Street & Stone Street | 0 | 0 | 2 | 0 | 2 |
| Main Street & Depot Square | 0 | 0 | 1 | 0 | 1 |
| **Links** | | | | | |
| Main Street Between Orchard Street & B Street | 0 | 0 | 1 | 0 | 1 |
| Main Street Between Church Street and Garden Street/ Kemble Avenue | 0 | 0 | 1 | 0 | 1 |
| Furnace Street Between Wall Street and Main Street | 0 | 0 | 1 | 0 | 1 |
| **Total** | **0** | **3** | **22** | **0** | **25** |

**TABLE C.7-1**
**Intersection and Link Accident Summary by Type**

| Location | Angle | Rear End | Fixed Object | Over take | Sides wipe | Left-Turn | Pedestrian/ Bike | Head-On | Backing | Parking | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersections** | | | | | | | | | | | |
| Main Street & Cedar Street | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Main Street & Locust Ridge | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Main Street & Fishkill Ave/ Academy Street | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Main Street & NYS Route 9D ( Morris Ave/Chestnut St) | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 4 | 6 |
| Main Street & Furnace Street | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Main Street & Church Street | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Main Street & Garden Street/Kemble Avenue | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Main Street & Fair Street | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Main Street & Rock Street | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Main Street & Stone Street | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Main Street & Depot Square | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **Links** | | | | | | | | | | | |
| Main Street Between Orchard Street & B Street | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Main Street Between Church Street and Garden Street/ Kemble Avenue | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Furnace Street Between Wall Street and Main Street | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| **Total** | 2 | 1 | 1 | 0 | 9 | 1 | 1 | 0 | 1 | 9 | 25 |

Overall there were no clusters or patterns of correctable accidents along Main Street within the project limits. One pedestrian accident did occur at the intersection of Main Street and Fishkill Avenue / Academy Street. According to the accident report, the accident was the result of the pedestrian failing to look before crossing the street while running on the wrong side of the roadway. Although the pedestrian was at fault for the accident, this project will improve pedestrian facilities along the corridor, and bring them up to ADA standards.

# APPENDIX C - 1

## *TRAFFIC COUNT*

CHA
III Winners Circle
Albany, NY 12205
518-453-8735

Site Code:
Station ID:

Latitude: 0' 0.000 Undefined

| Start | 14-Nov-11 | | Tue | | Wed | | Thu | | Fri | | Sat | | Sun | | Week Average | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB | NB |
| 12:00 AM | * | * | 7 | 8 | 4 | 18 | 5 | 10 | * | * | * | * | * | * | 5 | 12 |
| 01:00 | * | * | 6 | 1 | 5 | 12 | 1 | 2 | * | * | * | * | * | * | 4 | 5 |
| 02:00 | * | * | 4 | 1 | 2 | 5 | 3 | 4 | * | * | * | * | * | * | 3 | 3 |
| 03:00 | * | * | 3 | 4 | 3 | 4 | 2 | 1 | * | * | * | * | * | * | 3 | 3 |
| 04:00 | * | * | 12 | 9 | 13 | 8 | 13 | 8 | * | * | * | * | * | * | 13 | 8 |
| 05:00 | * | * | 34 | 23 | 44 | 24 | 41 | 20 | * | * | * | * | * | * | 40 | 22 |
| 06:00 | * | * | 106 | 85 | 101 | 69 | 106 | 65 | * | * | * | * | * | * | 104 | 73 |
| 07:00 | * | * | 118 | 108 | 130 | 113 | 120 | 121 | * | * | * | * | * | * | 123 | 114 |
| 08:00 | * | * | 102 | 99 | 126 | 114 | **141** | **132** | * | * | * | * | * | * | 123 | 115 |
| 09:00 | * | * | 101 | 108 | 115 | 106 | 94 | 91 | * | * | * | * | * | * | 103 | 102 |
| 10:00 | * | * | 124 | 89 | 115 | 92 | 122 | 92 | * | * | * | * | * | * | 120 | 91 |
| 11:00 | * | * | **135** | **125** | **140** | **123** | 133 | 107 | * | * | * | * | * | * | **136** | **118** |
| 12:00 PM | * | * | 168 | 122 | **174** | 129 | 156 | 110 | * | * | * | * | * | * | **166** | 120 |
| 01:00 | * | * | 169 | 156 | 146 | 153 | 121 | 145 | * | * | * | * | * | * | 145 | 151 |
| 02:00 | * | * | **173** | 164 | 140 | 172 | 123 | 143 | * | * | * | * | * | * | 145 | 160 |
| 03:00 | * | * | 135 | 160 | 168 | 142 | 145 | 150 | * | * | * | * | * | * | 149 | 151 |
| 04:00 | * | * | 146 | 170 | 164 | 138 | 156 | 159 | * | * | * | * | * | * | 155 | 156 |
| 05:00 | * | * | 140 | 127 | 169 | 137 | **167** | 139 | * | * | * | * | * | * | 159 | 134 |
| 06:00 | * | * | 164 | **187** | 159 | **207** | 150 | **167** | * | * | * | * | * | * | 158 | **187** |
| 07:00 | * | * | 148 | 136 | 115 | 141 | 117 | 123 | * | * | * | * | * | * | 127 | 133 |
| 08:00 | * | * | 103 | 95 | 80 | 102 | 71 | 96 | * | * | * | * | * | * | 85 | 98 |
| 09:00 | * | * | 61 | 52 | 34 | 71 | 41 | 72 | * | * | * | * | * | * | 45 | 65 |
| 10:00 | * | * | 36 | 76 | 17 | 37 | 36 | 35 | * | * | * | * | * | * | 30 | 49 |
| 11:00 | * | * | 25 | 28 | 16 | 21 | 22 | 22 | * | * | * | * | * | * | 21 | 24 |
| Lane | 0 | 0 | 2220 | 2133 | 2180 | 2138 | 2086 | 2014 | 0 | 0 | 0 | 0 | 0 | 0 | 2162 | 2094 |
| Day | 0 | | 4353 | | 4318 | | 4100 | | 0 | | 0 | | 0 | | 4256 | |
| AM Peak | | | 11:00 | 11:00 | 11:00 | 11:00 | 08:00 | 08:00 | | | | | | | 11:00 | 11:00 |
| Vol. | | | 135 | 125 | 140 | 123 | 141 | 132 | | | | | | | 136 | 118 |
| PM Peak | | | 14:00 | 18:00 | 12:00 | 18:00 | 17:00 | 18:00 | | | | | | | 12:00 | 18:00 |
| Vol. | | | 173 | 187 | 174 | 207 | 167 | 167 | | | | | | | 166 | 187 |
| Comb. Total | 0 | | 4353 | | 4318 | | 4100 | | 0 | | 0 | | 0 | | 4256 | |
| ADT | ADT 4,257 | | AADT 4,257 | | | | | | | | | | | | | |

CHA
III Winners Circle
Albany, NY 12205
518-453-8735

Site Code:
Station ID:

Latitude: 0' 0.000 Undefined

WB

| Start Time | Cars & Trailers | Medium Duty | Heavy Duty | Blank | Blank | Column Name | Column Name | Column Name | Column Name | Column Name | Blank | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/15/11 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 01:00 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 02:00 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 03:00 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:00 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 05:00 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| 06:00 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| 07:00 | 113 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118 |
| 08:00 | 95 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| 09:00 | 95 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 |
| 10:00 | 120 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 |
| 11:00 | 131 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 12 PM | 165 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 168 |
| 13:00 | 167 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 169 |
| 14:00 | 167 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 173 |
| 15:00 | 129 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 16:00 | 144 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 146 |
| 17:00 | 139 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140 |
| 18:00 | 163 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 164 |
| 19:00 | 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 148 |
| 20:00 | 103 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103 |
| 21:00 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 |
| 22:00 | 35 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| 23:00 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| Total | 2170 | 49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2220 |
| Percent | 97.7% | 2.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

CHA
III Winners Circle
Albany, NY 12205
518-453-8735

Site Code:
Station ID:

Latitude: 0' 0.000 Undefined

WB

| Start Time | Cars & Trailers | Medium Duty | Heavy Duty | Blank | Blank | Column Name | Column Name | Column Name | Column Name | Column Name | Blank | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/16/11 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 01:00 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 02:00 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 03:00 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:00 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 05:00 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 |
| 06:00 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 |
| 07:00 | 125 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 08:00 | 124 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 126 |
| 09:00 | 113 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115 |
| 10:00 | 110 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115 |
| 11:00 | 136 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140 |
| 12 PM | 171 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 174 |
| 13:00 | 141 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 146 |
| 14:00 | 136 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140 |
| 15:00 | 161 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 168 |
| 16:00 | 161 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 164 |
| 17:00 | 167 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 169 |
| 18:00 | 158 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 159 |
| 19:00 | 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115 |
| 20:00 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 |
| 21:00 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| 22:00 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 23:00 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| Total | 2135 | 41 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2180 |
| Percent | 97.9% | 1.9% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

CHA
III Winners Circle
Albany, NY 12205
518-453-8735

Site Code:
Station ID:

Latitude: 0' 0.000 Undefined

WB

| Start Time | Cars & Trailers | Medium Duty | Heavy Duty | Blank | Blank | Column Name | Column Name | Column Name | Column Name | Column Name | Blank | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/17/11 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 01:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 02:00 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 03:00 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:00 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 05:00 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| 06:00 | 104 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| 07:00 | 118 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120 |
| 08:00 | 136 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 |
| 09:00 | 90 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| 10:00 | 116 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 11:00 | 126 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 133 |
| 12 PM | 148 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 156 |
| 13:00 | 114 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| 14:00 | 121 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 123 |
| 15:00 | 143 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 145 |
| 16:00 | 148 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 156 |
| 17:00 | 165 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 167 |
| 18:00 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| 19:00 | 117 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 |
| 20:00 | 70 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 21:00 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| 22:00 | 35 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| 23:00 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| Total | 2029 | 52 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2086 |
| Percent | 97.3% | 2.5% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Grand Total | 6334 | 142 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6486 |
| Percent | 97.7% | 2.2% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

CHA
III Winners Circle
Albany, NY 12205
518-453-8735

Site Code:
Station ID:

Latitude: 0' 0.000 Undefined

EB

| Start Time | Cars & Trailers | Medium Duty | Heavy Duty | Blank | Blank | Column Name | Column Name | Column Name | Column Name | Column Name | Blank | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/15/11 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 01:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 02:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 03:00 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 04:00 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 05:00 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 06:00 | 85 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
| 07:00 | 103 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 |
| 08:00 | 97 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 |
| 09:00 | 103 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 |
| 10:00 | 86 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 |
| 11:00 | 120 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 |
| 12 PM | 117 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 13:00 | 153 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 156 |
| 14:00 | 159 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 164 |
| 15:00 | 157 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160 |
| 16:00 | 167 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 170 |
| 17:00 | 125 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 127 |
| 18:00 | 185 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 187 |
| 19:00 | 136 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 136 |
| 20:00 | 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 |
| 21:00 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 |
| 22:00 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76 |
| 23:00 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 |
| Total | 2088 | 43 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2133 |
| Percent | 97.9% | 2.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

CHA
III Winners Circle
Albany, NY 12205
518-453-8735

Site Code:
Station ID:

Latitude: 0' 0.000 Undefined

EB

| Start Time | Cars & Trailers | Medium Duty | Heavy Duty | Blank | Blank | Column Name | Column Name | Column Name | Column Name | Column Name | Blank | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/16/11 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 01:00 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 02:00 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 03:00 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 04:00 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 05:00 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 06:00 | 68 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 |
| 07:00 | 109 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 113 |
| 08:00 | 109 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 114 |
| 09:00 | 104 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| 10:00 | 89 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 |
| 11:00 | 120 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 123 |
| 12 PM | 127 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 129 |
| 13:00 | 148 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 153 |
| 14:00 | 169 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 172 |
| 15:00 | 137 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 142 |
| 16:00 | 133 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138 |
| 17:00 | 136 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 137 |
| 18:00 | 205 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 207 |
| 19:00 | 141 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 |
| 20:00 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| 21:00 | 71 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 22:00 | 36 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 23:00 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| Total | 2094 | 42 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2138 |
| Percent | 97.9% | 2.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

CHA
III Winners Circle
Albany, NY 12205
518-453-8735

Site Code:
Station ID:

Latitude: 0' 0.000 Undefined

EB

| Start Time | Cars & Trailers | Medium Duty | Heavy Duty | Blank | Blank | Column Name | Column Name | Column Name | Column Name | Column Name | Blank | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/17/11 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 01:00 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:00 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 03:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:00 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 05:00 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 06:00 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 |
| 07:00 | 117 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| 08:00 | 128 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132 |
| 09:00 | 87 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 |
| 10:00 | 88 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 |
| 11:00 | 101 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 |
| 12 PM | 106 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110 |
| 13:00 | 135 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 145 |
| 14:00 | 139 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 143 |
| 15:00 | 145 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| 16:00 | 157 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 159 |
| 17:00 | 136 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 139 |
| 18:00 | 166 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 167 |
| 19:00 | 123 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 123 |
| 20:00 | 96 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96 |
| 21:00 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 |
| 22:00 | 33 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| 23:00 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| Total | 1961 | 48 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2014 |
| Percent | 97.4% | 2.4% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Grand Total | 6143 | 133 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6285 |
| Percent | 97.7% | 2.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

# Pedestrian Generator Checklist

**PIN: 8759.53 & 8760.04**
**DESCRIPTION: Main Street Sidewalks and Lighting (West Street to Cedar Street) and Main Street & Ancillary Streets, ADA Curbs, Sidewalks, Storm Water Drainage & Paving.**
**MUNICIPALITY/COUNTY: Village of Cold Spring/ Putnam County**
**PEDESTRIAN GENERATOR CHECKLIST**
**DATE: 2/12 PREPARED BY:** RD **REVIEWED BY:**

*Note: The term "generator" in this document refers to both pedestrian generators (where pedestrians originate) and destinations (where pedestrians travel to). A check of yes indicates a potential need to accommodate pedestrians and coordination with the Regional Bicycle and Pedestrian Coordinator is necessary during project scoping. Answers to the following questions should be checked with the local municipality to ensure accuracy.*

| | | |
|---|---|---|
| **1.** | Is there an existing or planned sidewalk, trail, or pedestrian crossing facility?<br>**Comments: Currently, sidewalks exist on both sides of the Main Street corridor and Furnace Street. The proposed project will improve the conditions of the existing sidewalk and ensure ADA compliance. Furnace Street sidewalk will be extended on the North Side to Wall Street intersection.** | **YES**☒ **NO**☐ |
| **2.** | Are there bus stops, transit stations or depots/terminals located in or within 800m of the project area?<br>**Comments: A trolley service runs through the Village of Cold Spring Friday-Sunday, May-December and on holidays. However there are no designated bus stops or stations in the vicinity of the project area.** | **YES**☐ **NO**☒ |
| **3.** | Is there more than occasional pedestrian activity? Evidence of pedestrian activity may include a worn path.<br>**Comments: Main Street is a popular tourist location during the summer and fall months. On a normal basis there are many businesses that generate pedestrian trips. Existing sidewalk conditions can confirm this.** | **YES**☒ **NO**☐ |
| **4.** | Are there existing or approved plans for generators of pedestrian activity in or within 800m of the project that promote or have the potential to promote pedestrian traffic in the project area, such as schools, parks, playgrounds, places of employment, places of worship, post offices, municipal buildings, restaurants, shopping centers or other commercial areas, or shared-use paths?<br>**Comments: There are several generators of pedestrain activity within and around the proposed project area. The corridor has several retail and retaurant establishments, as well as municipal buildings.** | **YES**☒ **NO**☐ |
| **5.** | Are there existing or approved plans for seasonal generators of pedestrian activity in or within 800m of the project that promote or have the potential to promote pedestrian traffic in the project area, such as ski resorts, state parks, camps, amusement parks?<br>**Comments:** | **YES**☐ **NO**☒ |
| **6.** | Is the project located in a residential area within 800m of existing or planned pedestrian generators such as those listed in #4?<br>**Comments: There are several generators of pedestrain activity within and around the proposed project area. The corridor has several retail and retaurant establishments, as well as municipal buildings.** | **YES**☒ **NO**☐ |
| **7.** | From record plans, were pedestrian facilities removed during a previous highway reconstruction project?<br>**Comments: Pedestrian Facilities have not been removed during previous highway reconstruction projects.** | **YES**☐ **NO**☒ |
| **8.** | Did a study of secondary impacts indicate that the project promotes or is likely to promote commercial and/or residential development within the intended life cycle of the project?<br>**Comments: The project is not likely to promote commercial or residential development within the life cycle of the project** | **YES**☐ **NO**☒ |
| **9.** | Does the community's comprehensive plan call for development of pedestrian facilities in the area?<br>**Comments: The community comprehensive plan calls for improved walkability in the project area** | **YES**☐ **NO**☒ |
| **10.** | Based on the ability of students to walk and bicycle to school, would the project benefit from engineering measures under the Safe-Routes-To-School-Program? Eligible infrastructure-related improvements must be within a 3.2km radius of the project.<br>**Comments:** | **YES**☐ **NO**☒ |

**ADDITIONAL COMMENTS:**
*Include comment on exceptional circumstances from EI 04-011 if pedestrian accommodations are warranted but not provided.*

***Note**: This checklist should be revisited due to a project delay or if site conditions or local planning changes during the project development process.*

# APPENDIX D

# Public Involvement

Village of Cold Spring, NY
Main Street and Ancillary Streets: Corridor Improvements
Summary of Comments Resulting from the Public Information Meeting
September 12, 2012

**Written Comments Received from the Public:**

Comment #1:

By all means, please use the most energy efficient lighting given the progress that LED lighting has made.

The status quo of lighting is very wasteful.

Also, please keep in mind the nature of our hillside community in terms of runoff and flooding.

Any efficiency we might build in to accommodate runoff, flooding and erosion will be appreciated by the village for decades to come.

Comment #2:

Re: Drains, Curbing, Paving at Fishkill Avenue/Mountain Avenue.

Thank you for addressing this issue. It is desparately needed. I keep the drain clean at corner of Fishkill/Mountain but due to its design, the water still roars right over it in heavy rain.

Timing – if work could be done over the summer, that would be optimal. Many school children walk this route to/from school.

Curbing – Please don't use the curbing that the State used on Rte 301 (i.e. B Street/301 and Orchard Street/301) It is extraordinarily slippery in rain and snow.

Traffic – Even though there is a "Stop" sign, many cars do not stop on Mountain Avenue. They often go right through, actually cutting the opposite corner very tight. It is presently a dangerous intersection for pedestrians. On the north side, the drain and road present a dangerous condition. Pedestrians have fallen and drivers have gotten their cars stuck in this "pit." Appropriate curbing and a crosswalk will help tremendously.

Thank you for your consideration.

Comment #3:

Very excited to see progress on all this!

Please make recommendations for improvements beyond target area that impact the target area.

Please make recommendations that would prioritize or most benefit pedestrians, calming traffic, encourage walking and cycling.

Consider a shade tree opposite 5 Furnace, please! The driveway to that parking lot does not have to be so wide, and there is room for a tree.

Where possible, make improvements or recommendations to prevent run-off from roofs and roof leaders onto sidewalks – there are quite a few that cause ice to form.

Please coordinate if possible telephone pole replacement with sidewalk work.

Furnace St – consider laying conduit in street and under sidewalks to houses for future power line burial.

Furnace St – consider inspecting watermain and sewer pipe condition while road is being replaced.

Tell the Village to put a bike rack on front of "Trolly".

Thanks!

**At Boards following the formal presentation and Q/A Session:**

Comment #4:

The Street labeled West Street on the boards is actually High Street.

Comment #5:

Light pole #134218 in front of 126 Main Street (STA 19+50 LT) is leaning and possibly has a short in it. It keeps going on and off.

Comment #6:

Light pole #134220 in front of 137-141 Main Street (STA 20+00 RT) is out.

Comment #7:

Tree in front of 133-135 Main Street (STA 19+40 RT) has a tree/sewer conflict issue.

Comment #8:

Exiting driveway onto Main Street at 137-141 Main Street (STA 19+80 RT) has poor visibility.

Comment #9:

The property labeled 152 Main Street is actually 154 Main Street.

Comment #10:

Stop Sign Suggested at corner of Furnace Street/Wall Street/Marion Avenue on Wall Street southwestbound.

Comment #11:

Check driveway transitions to new roadway. Specifically on Furnace Street where the existing transition is already not ideal.

**VILLAGE OF COLD SPRING NEW YORK**

**Public Information Meeting**
**Main Street and Ancillary Streets: Corridor Improvements**
**Village of Cold Spring, Putnam County, New York**

Name M. ARMSTRONG Date 9/12/12

Address 7 MORRIS AVE

City/Town /Village COLD SPRING State NY Zip Code 10516

Email ARMSTRONGMICHAELJOHN@GMAIL.COM Phone 845-265-3240

I/We wish to comment about the following aspects of the project:

(Please return comments by **September 28, 2012**) **Please Print Neatly or Type**

• RATHER THAN BURYING HUNDREDS OF FEET OF PIPE ANTICIPATING FUTURE BURIAL OF THE POWER LINES, JUST BURY PIPE 150' OR SO BETWEEN GARDEN ST & STONE ST, WHERE THERE ARE TALL BUILDINGS AND SERIOUS SAFETY CONCERNS VIS A VIS GETTING A LADDER TRUCK IN TO CONTROL FIRES; THIS AREA ALSO SHOWS PLANS FOR UTILITY STRIP UPGRADES.

• BIKE RACKS ARE NEEDED ALONG MAIN ST.

• PLAN FOR PAYS FOR MULTI MOTOR PARKING METERS ON UTILITY STRIP.

Return to:

Mr. Seth Gallagher, Mayor
Village of Cold Spring
85 Main Street
Cold Spring, NY 10516

OR by email at mayor@coldspringny.gov
OR by fax at 845-265-1002

**VILLAGE OF**
**COLD SPRING**
**NEW YORK**

**Public Information Meeting**
**Main Street and Ancillary Streets: Corridor Improvements**
**Village of Cold Spring, Putnam County, New York**

Name Dick Weissbrod Date

Address

City/Town /Village State Zip Code

Email Phone 845-265-6055

I/We wish to comment about the following aspects of the project:

(Please return comments by **September 28, 2012**) **Please Print Neatly or Type**

Fire SAFETY on MAIN Between
GARDEN ST & STORE ST
BURY UTILITY Lines

Return to:

Mr. Seth Gallagher, Mayor
Village of Cold Spring
85 Main Street
Cold Spring, NY 10516

OR by email at mayor@coldspringny.gov
OR by fax at 845-265-1002

**VILLAGE OF COLD SPRING NEW YORK**

**Public Information Meeting**
**Main Street and Ancillary Streets: Corridor Improvements**
**Village of Cold Spring, Putnam County, New York**

Name CAROL FILMANSKI Date 9/15/12

Address 10 FISHKILL AVENUE, COLD SPRING, NY 10516

City/Town /Village _____ State _____ Zip Code _____

Email carolfilmanski@yahoo.com Phone 845 265-2202

I/We wish to comment about the following aspects of the project:

(Please return comments by **September 28, 2012**) **Please Print Neatly or Type**

Re: Drains Curbing, Paving at Fishkill Avenue/Mountain Avenue

Thank you for addressing this issue. It is desparately needed. I keep the drain clean at corner of Fishkill/Mountain but due to its design, the water still roars right over it in heavy rain.

Timing - if work could be done over the summer, that would be optimal. Many school children walk this route to/from school.

Curbing - Please don't use the curbing that the State used on Rte 301. (ie B Street / 301 and Orchard Street/301) It is extraordinarily slippery in rain and snow.

Traffic - Even though there is a "Stop" sign, many cars do not stop on Mountain Avenue. They often go right through, actually cutting the opposite corner very tight. It is presently a dangerous intersection for pedestrians. On the north side, the drain and road present a dangerous condition. Pedestrians have fallen and drivers have gotten their cars stuck in this "pit". Appropriate curbing and a crosswalk will help tremendously.

Thank you for your consideration. Carol Filmanski

Return to:

Mr. Seth Gallagher, Mayor
Village of Cold Spring
85 Main Street
Cold Spring, NY 10516

OR by email at mayor@coldspringny.gov
OR by fax at 845-265-1002

**VILLAGE OF COLD SPRING NEW YORK**

RECEIVED
SEP 13 2012
VILLAGE OF COLD SPRING

**Public Information Meeting**
**Main Street and Ancillary Streets: Corridor Improvements**
**Village of Cold Spring, Putnam County, New York**

Name James Hartford Date 9/12/2012
Address 5 Furnace St
City/Town /Village Cold Spring State _____ Zip Code _____
Email James@riverarchitects.com Phone 265-2254

I/We wish to comment about the following aspects of the project:

(Please return comments by **September 28, 2012**) **Please Print Neatly or Type**

Very excited to see progression all this!

- Please make recommendations for improvements beyond target area that impact the target area.
- Please make recommendations that would prioritize or most benefit pedestrians, calming traffic, encourage walking + cycling.

- Consider a shade tree opposite 5 Furnace, please! - The driveway to that parking lot does not have to be so wide, + there is room for a tree
- where possible, make improvements or recommendations to prevent run-off from roofs + roof leaders onto sidewalks - there are quite a few that cause ice to form

- please coordinate if possible telephone pole replacement w/ sidewalk work.
- Furnace St - consider laying conduit in street + under sidewalks to houses for future power line burial.

Return to:

Mr. Seth Gallagher, Mayor
Village of Cold Spring
85 Main Street
Cold Spring, NY 10516

OR by email at mayor@coldspringny.gov
OR by fax at 845-265-1002

- Furnace St - consider inspecting water main + sewer pipe condition while road is being replaced.
- Tell the village to put a bike rack on front of "Trolly"

Thanks!

**Village of Cold Spring, NY**
**Main Street and Ancillary Streets: Corridor Improvements**
**Summary of Public Information Meeting**
**September 12, 2012**

**Introduction by Mayor Seth Gallagher**
The purpose of tonight is to present general project information and get public input on the Main Street Improvement Project.

**History**
Had a committee of residents to walk the job and give insight to the Village and CHA.

This is basically 2 projects
1. $800,000 – Main Street Sidewalks and Ancillary Roads. Paving and sidewalks
2. $200,000/$250,000 – Sidewalks and Lighting

The two projects are being combined because of overlap.

The primary concern along this corridor is HC accessibility. All intersections need to be ADA compliant.

Project started 8 years ago. It takes a lot of planning to get to a point get the project process done.

The Village chose among 10-12 firms to do engineering. Chose CHA in 2009.

**Introduce CHA**
Joe Cimino – Project Manager
Scott Lewendon – Landscape Architect
Rom Danciu – Project Engineer

**Joe Cimino (JC):**
**Agenda**
Project Process
Objectives
Budget
Existing
Strategy for Reconstruction
Questions

Once the paperwork and formalities were done CHA began the field investigation and design in 2011.

CHA met with village and steering committees to talk about specifics along the roadway.

**Project limit**
From Metro North Railroad to NYS 9D, plus Mountain Avenue and Fishkill Avenue intersection.

**Village of Cold Spring, NY**
**Main Street and Ancillary Streets: Corridor Improvements**
**Summary of Public Information Meeting**
**September 12, 2012**

**Public Meeting and Design Process**

Today's Public Meeting is a Federal Requirement and beneficial to get information from property owners.

There are comment sheets and sign in sheets here today (attached). Please sign in so we can stay in touch. Comment forms can be filled out and left tonight in box or mailed to Village of Cold Spring by Friday September 28, 2012.

We will then go through the Comment Process

Design Concepts and Environmental Studies will be finalized after public comment period and sent to NYSDOT for Design Approval. Design Approval is anticipated this winter. That is when we will decide with the Village what is going to be built and it will be documented as part of public record. Design Approval means that State and Feds accept our design concepts.

Then we must advertise when the project will be built but this is dependent on State and Federal final review. That time period can vary tremendously.

**Project objectives**

- ADA compliant
- Aesthetic Improvements
- Safety Improvements
- Infrastructure Improvements
    - Reconstructing some of the roadway where drainage improvements are needed and some asphalt pavement conditions require reconstruction.

**Budget**

Construction Budget = $780,000
- Includes construction inspection by independent party

This is almost all federal and state money with a small match by the Village. There is no increase in the budget. Not a full blown reconstruction project because it is an enhancement project. You can supplement it but that is very difficult in these economic times. It would take more than $5M to fund a complete reconstruction. Need to do partial reconstruction thus requiring us to prioritize the work.

One of each of the CHA employees will be at the boards afterwards. There is a legend on the board to understand what is being proposed at each location. The areas in color are the areas that we propose work being done. The dark grey is where we propose full depth pavement reconstruction and the drainage underneath it. Furnace Street was chosen due to the failing conditions. Mountain Avenue and Fishkill Avenue Intersection was chosen due to failing conditions of drainage improvements. Plans also show proposed lighting, tree pits, painted cross walks.

**Village of Cold Spring, NY**
**Main Street and Ancillary Streets: Corridor Improvements**
**Summary of Public Information Meeting**
**September 12, 2012**

**Scott Lewendon (SL):**

**The Corridor**

This street corridor has always been a beautiful attractive street scape. As you look closer there is a lot of wear and tear and it is not accessible.

1st order of business is to work on the intersections, fix curbs and ramps. We are required by law to get this done.

2nd priority is to look at sidewalks and upheaval. We break up the sidewalk into 3 areas due to different treatments. Middle section is the sidewalk. The sidewalk needs a certain slope and traction where people walk. One side of street the sidewalk is 5' wide while the other side of street has a 4' wide sidewalk. Between sidewalk and roadway there is utility strip or furniture zone. The furniture needs to be out of the way of pedestrians. The furniture zone does not have strict ADA requirements, slopes can be steeper and the overhead minimum clearance is not as strict.

The building transition space is between the sidewalk and the front of the buildings. Used for dining, sitting, displays, businesses. This area shows off the character of the street and the buildings. There are requirements to get people into those businesses. We need to try to make entrances accessible if possible but is not required by ADA law. If we can make the transition without a step then we will do that wherever we can.

Furnace Street is a difficult street; it has difficult slopes and no difference between sidewalk and roadway.

Mountain and Fishkill – Rough drainage tore the intersection up.

**Street Trees**

Village had a grant for a street tree inventory which was helpful. CHA worked with street tree committee identified close to 20 locations for new trees. Put the tree pits in the contract. May not put the trees in the contract because the Village may pay for that separately which will be more bang for their buck.

An urban planting mix will be specified. This is a special mix formulated by Cornell University. Unlike topsoil it is designed to support sidewalks and has voids. This urban mix is designed especially for this environment when trying to grow trees in sidewalks.

The edges of these tree pits will be treated with rocks or granite to prevent mulch from washing away.

**Lighting**

Putting utility lines underground will cost millions of dollars. This cost is not just to pay utility company to do the utility work and take out much of the trees but there is also an additional cost to connect from the main to the individual buildings. Unfortunately the

cost to connect to the individual building is passed on to building owners along street. Therefore out of the question.

There are a lot of street lights on utility poles. Therefore we need to prioritize which light poles are included in the contract. We will concentrate at Garden Street intersection (the main intersection of concern) and increasing the lighting near the underpass.

**Street Furniture**

There are a lot of benches along Main Street. Some face sidewalk and some face street. The benches and trash receptacles may be paid for separately by the Village because it will probably save the Village money.

**Questions:**

1. When the sidewalks are being replaced will the businesses have access at that time?
    a. JC: Yes, the contractor must coordinate with the business owner as to when the sidewalk and driveways in front of their property will be replaced to minimize impact to property owner.
2. Are the trash receptacles out of the project?
    a. SL: Yes, they are probably out of the federally funded part of the project. The Village may add it in their budget. It was in the lower level priority items.
    b. Mayor – The Village is talking about unified recycling containers and it is cheaper for Village to do versus the project.
3. Structural Soil for trees – what extent that will be placed.
    a. SL: Put in a pit as large as we want the tree to be. The soil is designed to support the sidewalk. If the existing sidewalk in good condition then it won't be ripped up to put the soil in. We'll put it in as much as we can. The roots will follow the structural soil.
4. What trees are preferred by the utility companies and what is the maintenance to these trees.
    a. SL: We try to use trees that are not big large oak or maple trees. We use species that are compatible with the utilities. The Village has narrow sidewalks which mean the trees are going to last at most 15-20 years. We advise municipalities to set up a tree management program. There may not be a formal process but the Village of Cold Spring is aware of pruning, taking out dead ones and the required maintenance. There are trees the utility companies recommend. But we don't like all of them because we need limbs we can have people walk under especially with narrow sidewalks like Cold Spring. Therefore a happy medium needs to be reached.

5. What are the specifications for the plans?
    a. JC: There are specifications for everything we use in this project. The NYSDOT has specifications that we must use. These are all available to the Village online.
    b. SL: Are you also referring to design guidelines? Yes, the designs are well documented in the design report. This document is part of public record and will be passed on with the history of this street. This meeting is of public record and will also follow this project.
6. Can conduits be placed under the utility strip for the possibility of placing utilities underground in the future?
    a. JC: That is a great idea but the improvements we are proposing are not continuous throughout the corridor. There is a lot of disconnect. We will be ripping up less than what we are not ripping up.
    b. JC: When the road is fully reconstructed is when you'd look to do this.
7. We appreciate your appreciation for our Town/Village. What point in the chain of command do we have an input of materials used on the project? What about next generation of sidewalk materials saving money down the line? Porous concrete? Erosion and flooding are a major problem. Efficiency and sustainability is very important. We are a hillside town.
    a. SL: The scope of the project is such that we won't be able to globally address these. The porous concrete requires a base underneath is and a collection system below it. We have some discretion in the utility strip. We are thinking about 3 different materials in utility strip. We are thinking about grass as is used elsewhere, we are looking at locations more intentionally used in front of businesses are concrete. Other locations are pavers. Ultimately the surfaces used will be chosen with input from the property owners.
    b. Lighting – can we use LED lighting? Turn it over to Joe.
    c. JC: We are taking notes about what you'd like to see and we will take it back to the office to consider within this project. We accept attachments to the comment forms if you have specific drawings or items you think would be beneficial.
    d. Mayor: Cross-walks don't currently exist across Main Street we are adding them for safety.
8. Would the cross-walks be ones that the pedestrians have the right of way?
    a. Mayor: Yes, pedestrians always have the right of way unless it is signalized. Let's hope the traffic doesn't back up.
9. Provisions for truck traffic or bus parking or bicycles or bike parking.
    a. JC: Truck Parking and bicycle accommodations – we have not provided any assistance with this as it is not part of the scope. If you have ideas and want to portray them then we would be happy to take them.
    b. SL: In past projects we have provided bicycle parking at intersections so they can park them and then walk along the street. Thus not crowding the sidewalk.

10. Shade trees in other areas. They need shade trees to protect the houses from sun. A particular shade tree has recently come down and was 50-60 years old.
    a. SL: NYSDOT has a sign off agreement that allows a project like this to plant trees on outside public ROW if it benefits the public. Please write on your comment forms where you think shade trees would benefit the public.
11. Budget – are we noting the areas that need to be fixed and what the money needs to be used for and saying that's it or are we noting other areas that could be fixed in the future? For example Furnace Street gets a lot of water from other areas. Do you call attention to this?
    a. JC: In Design Report we will speak to what is draining to Furnace Street because we are reconstructing it.
12. Noticed when walking around on Wall Street the stone walls are starting to cave down due to trees getting large. Don't know whose responsibility this is? Did you notice this? It is a small street.
    a. JC: I did not notice this due to the scoping of this project. The money is strictly supposed to be Main Street and we have been able to push it slightly to Furnace. Wall Street is more of a local concern.
13. Not addressing much in terms of lighting. Will you be taking dark skies initiative into lighting?
    a. JC: Yes, we will coordinate with the Village.

This formal presentation and general questions was followed by a 15 minute question and answer session at the boards where the public could ask specific questions to the engineers and landscape architect.

Village of Cold Spring, NY
Main Street and Ancillary Streets: Corridor Improvements
Public Information Meeting Sign-In Sheet
September 12, 2012

| NAME | ADDRESS | TOWN | STATE | ZIP | EMAIL | TELEPHONE |
|---|---|---|---|---|---|---|
| Carol Filmanski | 10 Fishkill Ave | Cold Spring | NY | 10516 | carolfilmanski@yahoo.com | 845-265-2202 |
| Lillian Moser | 133 Main St | Cold Spring | NY | 10516 | csfc13015@hotmail.com | 845-234-5604 |
| Susan Early | 28 Garden St | Cold Spring | NY | 10516 | | 845-265-2138 |
| Mike Armstrong | 7 Morris Ave | Cold Spring | NY | 10516 | armstrongmichaeljohn@gmail.com | 845-265-3240 |
| Steve Etta | 2 Whitehill Place | Cold Spring | NY | 10516 | setta4@optonline.com | 845-265-2521 |
| Robert Cianchette | 8 Furnace St | Cold Spring | NY | 10516 | rcianche@verizon.net | 845-265-2382 |
| Doug Cunningham | PCN+R (Putnam County News and Recorder) | | | | doug@pcnr.com | |
| James Hartford | 5 Furnace St | Cold Spring | NY | 10516 | james@riverarchitects.com | 845-265-2254 |
| Dick Weissbrod | 8 Chestnut St | Cold Spring | NY | 10516 | brod@bestweb.net | 845-265-6055 |
| Stephanie Hawkins | 15 Academy St | Cold Spring | NY | 10516 | peashoot@gmail.com | 845-265-3180 |
| Jen Zwarich | 192 Main St | Cold Spring | NY | 10516 | jzwarich@gmail.com | 917-209-0910 |
| Cathy Carnevale | 10 Fair St | Cold Spring | NY | 10516 | carnevalevmd@aol.com | 845-809-5685 |
| Liz Schevtchuk Armstrong | Philipstown.info (new media) | | | | scriptor-exemplar@hotmail.com | 845-265-9159 |

# APPENDIX E

# Non-Standard Feature Justification Forms

## NON-STANDARD FEATURE JUSTIFICATION

**(in accordance with HDM §2.8)**

| | | | |
|---|---|---|---|
| PIN: | 8759.53 &8760.04 | NHS (Y/N): | No |
| Route No. & Name: | NYS 301 /Main Street | Functional Class: | Urban Local |
| Project Type: | 2R | Design Class: | Local Urban Street |
| % Trucks: | 2% | Terrain: | Level |
| ADT: | 400 | Truck Access/Qualifying Hwy. | Neither |

**a. - Description of Non-Standard Feature**

| | | | |
|---|---|---|---|
| Type of Feature (e.g., horizontal curve radius): | Stopping Sight Distance (see profile, next sheet) | | |
| Location: | Fishkill Avenue | | |
| Standard Value: | 200 ft. | Design Speed: | 30 mph |
| Existing Value: | 149.5 ft. | Recommended Speed: | |
| Proposed Value: | 149.5 ft. | Recommended Speed: | |

**b. - Accident Analysis**

| | |
|---|---|
| Current Accident Rate: | N/A |
| Statewide Rate: | N/A |
| Is the non-standard feature a contributing factor? | No |
| Anticipated Accident Rates, Severity, and Costs: | The proposed project is not anticipated to affect the existing accident rates. |

**c. - Cost Estimates**

| | |
|---|---|
| Cost to Fully Meet Standards: | $ 80,000 |
| Cost(s) For Incremental Improvements: | N/A |

**d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):**

None identified.

**e. - Compatibility with Adjacent Segments & Future Plans:**

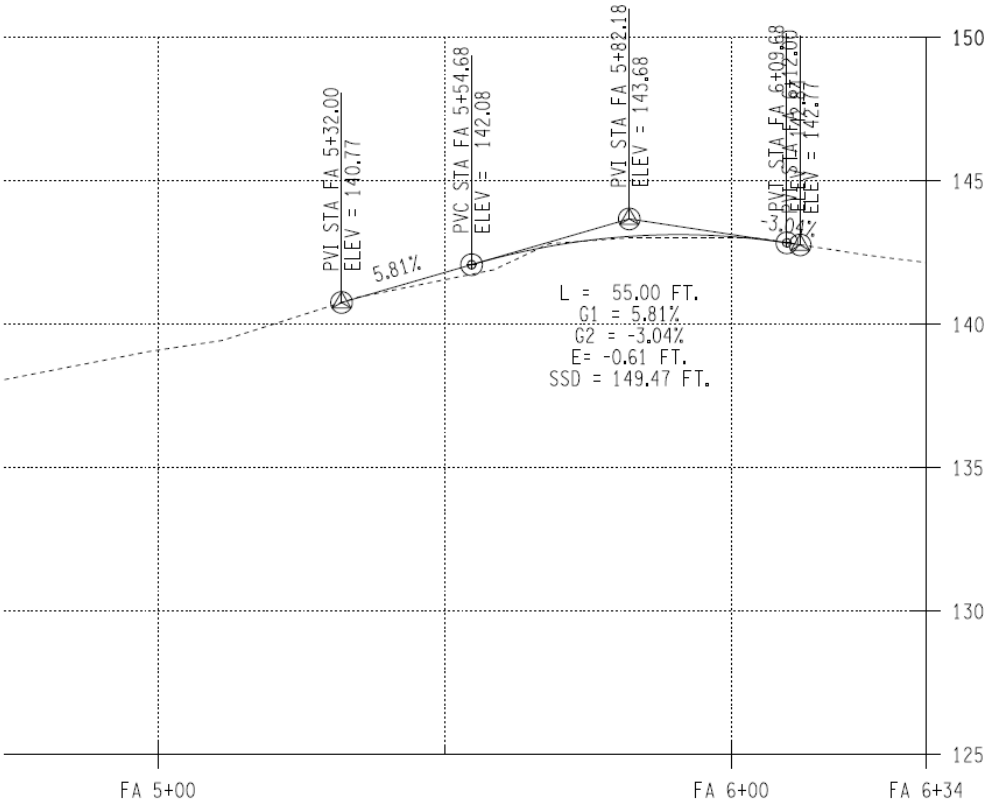
The proposed stopping sight distance will match the existing stopping sight distance at the Fishkill Avenue and Mountain Avenue intersection.

**f. - Other Factors (e.g., Social, Economic & Environmental):**

Changing the stopping sight distance would impact adjacent properties and driveways and would require ROW acquisitions.

**g. - Proposed Treatment (i.e., Recommendation):**

The proposed stopping sight distance will be retained. There is no accident history associated with the stopping sight distance.




# Fishkill Avenue Profile

## NON-STANDARD FEATURE JUSTIFICATION

**(in accordance with HDM §2.8)**

| | | | |
|---|---|---|---|
| PIN: | 8759.53 &8760.04 | NHS (Y/N): | No |
| Route No. & Name: | NYS 301/main Street | Functional Class: | Urban Local |
| Project Type: | 2R | Design Class: | Local Urban Street |
| % Trucks: | 2% | Terrain: | Level |
| ADT: | 400 | Truck Access/Qualifying Hwy. | Neither |

**a. - Description of Non-Standard Feature**

| | | | |
|---|---|---|---|
| Type of Feature (e.g., horizontal curve radius): | Pavement Cross Slope | | |
| Location: | Fishkill Avenue | | |
| Standard Value: | 1.5% to 2.0% | Design Speed: | 30 mph |
| Existing Value: | 4.0% | Recommended Speed: | |
| Proposed Value: | 4.0% | Recommended Speed: | |

**b. - Accident Analysis**

| | |
|---|---|
| Current Accident Rate: | N/A |
| Statewide Rate: | N/A |
| Is the non-standard feature a contributing factor? | No |
| Anticipated Accident Rates, Severity, and Costs: | The proposed project is not anticipated to affect the existing accident rates. |

**c. - Cost Estimates**

| | |
|---|---|
| Cost to Fully Meet Standards: | $ 100,000 |
| Cost(s) For Incremental Improvements: | N/A |

**d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):**

None identified.

**e. - Compatibility with Adjacent Segments & Future Plans:**

The proposed pavement cross slope will match the existing pavement cross slope at the Fishkill Avenue and Mountain Avenue intersection.

**f. - Other Factors (e.g., Social, Economic & Environmental):**

Changing the pavement cross slope would impact adjacent properties and driveways and would require extending the work limits on Mountain Avenue and Fishkill Avenue.

**g. - Proposed Treatment (i.e., Recommendation):**

The existing pavement cross slope will be retained. There is no accident history associated with the pavement cross slope.