SOUTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS

5 Connecticut Avenue, Norwich, Connecticut 06360

(860) 889-2324/Fax: (860) 889-1222/Email: office@seccog.org

December 27, 2022

NOTICE OF MEETING

TO: SCCOG Executive Committee

FROM: Danielle Chesebrough, First Selectman, Stonington

The Executive Committee will hold a meeting on <u>Tuesday</u>, <u>January 3</u>, <u>2022</u>, at 8:30 a.m. via Zoom.

AGENDA

- 1. Regional Code Enforcement Program/RPIP Grant
- 2. STIP/TIP Amendments:

Proj#	Rte/Sys	Town	<u>Description</u>	<u>Phase</u>	<u>Year</u>	Tot\$(000	Fed\$(00	Sta\$(000	Loc\$(00	Comments
)	<u>0)</u>)	<u>0)</u>	
0103-0281	VARIOUS	NORWICH	NORWICH MOBILITY STUDY	PL	2023	250	200	13	38	NEW PROJECT
0414-XXXX	SEAT	Norwich	CTDOT/SEAT - Facility Modernization & Deployment of BEBs - FY22 Discretionary	ALL	2023	25,493	20,394	5,099	0	NEW PROJECT
0414-XXXX	SEAT	NORWICH	SEAT - PURCHASE OF 5 SMALL BUSES FY22	ACQ	2023	625	500	125	0	NEW PROJECT

3. LOTCIP

- a. Endorsement: Application for Norwich Project: New London Turnpike Sidewalks and Rehabilitation, \$2,849,200.
- b. Re-endorsement (cost increase): L094-003 New London Williams & Broad Street Roundabout, \$4,088,399.12.
- 4. Update on Code Enforcement Services/RPIP Grant
- 5. Speaker Requests
- 6. Adjournment

Zoom Meeting Instructions: Join Zoom Meeting: https://us02web.zoom.us/j/9927249843

Join via phone: 1-929-205-6099 Meeting ID: 992 724 9843

Attachments: TIP Project Sheets

KR Memo re Norwich LOTCIP & Application

KR Memo re New London LOTCIP & Cost Justification Memo

Member Municipalities:

Bozrah * Colchester * East Lyme * Franklin * Griswold * Borough of Jewett City * City of Groton * Town of Groton Lebanon * Ledyard * Lisbon * Montville * New London * North Stonington * Norwich * Preston * Salem * Sprague Stonington * Stonington Borough * Waterford * Windham

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION



PROJECT MEMORANDUM

			OF TRA		DATE: 11/29/2022
To: Darren E. Meyers	MC	DD#	RPM	From:	Marlon Peña
Director of Capital Serv				PE or PL Pr	
Bureau of Finance & Ac					oject ID:
					roject ID:
Please Review Project Informa	tion and Estimate f	or Approv	al:		roject ID:
Project Description (short):					·
22 (30 Characters)			obility along the co	orridors at the nexus	of Route 2, Route 82, Route 32,
					ct thru 6/30/25; PAED 12/28/28.
193 (254 Characters)					
(254 Gharacters)					
1 46	T. (4)				
Justification:		-	•	•	imodal safety, livability, mobility,
820 (1333 Characters)			-		enter as well as other ed for improved pedestrian,
				-	nd West Side neighborhoods,
			•	The state of the s	ation hub. There have been
			•	•	e limits of the proposed study
			-		rossing distances for
	pedestrians are no	ot safe. Th	is study will devel	op alternatives to the	current configuration and traffic
Project Manager:	flows in the corrido	or to impro	ove multimodal saf	ety.	
Elise Greenberg, AICP	Non-PODI determ	ination ma	ade by Kurt Salmo	raghi of FHWA on 9/2	2/22. This project is planned to
Project Engineer:	be funded with 80°	% Federa	, 5% State, and 15	5% Local funds using	Federal appropriation code
Marlon Peña	Z23E and/or Y230				
Scope Code:	#N/A				
Reques	ted Schedule (Pro	j. Manag	er):	Assigned S	Schedule (Capital Planning):
	1/1/2023	PL S	Start		PE Auth
		Des	ign Approval/FD/	RW FI	D/RW Auth
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☐ Town ADV		DCI)		DCD
Town ABV		AD\	1		ADV
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PE or PL FD	\$250,000 \$0			CG IN	\$0 \$0
				NI	\$0 \$0
Total	\$250,000			NF	\$0 \$0
				UT	\$0
Project	EST Amount			RF	\$0
Туре	Requested			SF	\$0
				TF	\$0
RW	\$0			СМ	\$0
Total	\$0			Total	\$0
Project Gran	d Total (Sum of	Project 1	Types) = \$250.0	00	
110,000 014	a rotal (oam or l	· rojout	() poo		
Submitted by: (sign & date)				Approved by: (sign & da	te)
				-	
Assistant Planning Director (Print Nar	ne)			Bureau Chief (Print Name)
Planning Director (Print Name)				Director of Capital Servi	ces - Darren E. Meyers

Estim	Estimates for PL, PD, portion of PE, or total PE (if no PD/FD split):						RPM		Project ID	DOT	010302	81PL	
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PE													
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	TIP ACTION OF	R AMENDMENT FORM
PROJECT NO.	0414-XXXX	PROJECT MANAGER Sandy Infantino PHONE/E-mail: sandy.infantino@ct.gov
DATE:	12/5/2022	
PROJECT DESCRIPTION	REASON FOR ACTION	& Deployment of BEBs - FY22 Discretionary I OR AMENDMENT REQUEST MENT section needs to be completed
01 - Move from one year in the STIP to another	Funding limitations Outstanding ROW issue Outstanding Permit issue Other (SPECIFY)	
02 - Fiscal Constraint issues	Funding category fully programmed State match not available Local match not available	
03- Design schedule change	Permit issue ConnDOT staffing issue Local staffing issue ROW issue Other	
04- Revised cost estimates	Increase due to inflation Increase due to cost of (SPECIFY) Decrease due to (SPECIFY) Other	
05- New Project	Project requested by (SPECIFY)	The Department applied and was awarded a Bus and Bus Facilities Discretionary grant for the modernization of the Southeast Area Transit District facility and for the Deployment of Electrict Buses. The award will provide funding for a modern facility located in Preston, CT that will include upgraded systems and infrastructure that will support zero emission electric buses. In addition, battery electrict buses (BEB) will be purchased and deployed which will introduce zero emission buses in the Southeast Region of the State. Total \$25,492,500; federal \$20,394,000.
06- New Phase	ROW now required CON phase required	
08- Delete phase	Phase not required Phase changed to State funds Phase changed to Local funds	
09- Delete project	Project no longer supported by State Project no longer supported by Regior Project no longer supported by Town Changed to all State funds Changed to all Local funds Other	
11-Phase/Financing/Funding Revision	Due to project schedule Due to funding limitations Other	

^{**} change codes 7 Administrative Requirement; 10 Correction and 12 No Revision are not listed - they are self explanatory

	TIP ACTION OR	AMENDMENT FORM
PROJECT NO.	0414-XXXX	PROJECT MANAGER PHONE/E-mail:
DATE:	11/10/2022	
PROJECT DESCRIPTION	SEAT - ADMIN CAPTIAL/MISC SUPPO	ORT FY 22
01. Maya from ana year in	REASON FOR ACTION check those that apply COMMI	OR AMENDMENT REQUEST ENT section needs to be con
01 - Move from one year in the STIP to another	Funding limitations Outstanding ROW issue Outstanding Permit issue Other (SPECIFY)	
02 - Fiscal Constraint issues	Funding category fully programmed State match not available Local match not available	
03- Design schedule change	Permit issue ConnDOT staffing issue Local staffing issue ROW issue Other	
04- Revised cost estimates	Increase due to inflation Increase due to cost of (SPECIFY) Decrease due to (SPECIFY)	
	Other	This STIP action will ad
05- New Project	Project requested by (SPECIFY)	X expansion vehicles. 5 a Norwich location. Additi of the buses.
06- New Phase	ROW now required CON phase required	
08- Delete phase	Phase not required Phase changed to State funds Phase changed to Local funds	
09- Delete project	Project no longer supported by State Project no longer supported by Region Project no longer supported by Town Changed to all State funds Changed to all Local funds Other	
11-Phase/Financing/Funding		

Revision	Due to project schedule Due to funding limitations	
	Other	\vdash

^{**} change codes 7 Administrative Requirement; 10 Correction and 12 No Revision are not listed - the

Sandy Infantino
sandy.infantino@ct.gov
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d a new SEAT project for the purchase of
dditional small buses are requested for the
onal information was requested for the need

SOUTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS

5 Connecticut Avenue, Norwich, Connecticut 06360 (860) 889-2324/Fax: (860) 889-1222/Email: office@seccog.org

MEMORANDUM

TO: Amanda Kennedy, SCCOG

FROM: Kate Rattan, SCCOG DATE: December 8th, 2022

SUBJECT: LOTCIP Norwich (and Montville) "New London Turnpike Sidewalks and

Rehabilitation" L103-xxxx

Staff requests referral to the COG and endorsement of the application for the Norwich LOTCIP project "New London Turnpike Sidewalks and Rehabilitation" for \$2,849,200. The application is complete and has addressed all staff and consultant comments related to the review of the Original Application. Endorsement is necessary to submit to CTDOT for review and Commitment to Fund.

This project stems from the 2021 solicitation for projects. The project will provide continuous sidewalk and pavement rehabilitation from Route 82 south to Route 32 in Montville. Norwich is the project sponsor and manager, and Montville is coordinating with the City regarding their portion of the roadway. The project will build upon improvements made in the TAP-funded project on New London Turnpike north of Route 82 and the Route 82 improvements anticipated under state projects 103-274 and 103-275. In addition to maintaining a state of good repair, the project will create new pedestrian linkage for regional assets, including the Norwich Skating Rink, Three Rivers Community College, UCONN Agricultural Extension, a golf course and jobs in the Route 32 and Route 82 corridors.

Project Timeline

Original Application 9/6/2022

Revised Application 10/24/2022 \$ 2,849,200

Anticipated Bid Date 04/01/2024

ENCLOSURES:

New London Turnpike Sidewalks and Pavement Rehabilitation application Backup Information

Cc: Wendy LeClair

Member Municipalities:



Connecticut Department of <u>Transportation</u>



Local Transportation Capital Improvement Program Application

Municipality:	COG	
Route/Road:		
Project Title:	_	
Roadway Functional Classification (if applicable):		
COG Contact Information:		
	Name	Title
	Phone Number	Email
Municipal Contact Information:		
	Name	Title
	Phone Number	Email

The applicant must answer the questions below which are intended to address basic issues about existing conditions, project management, project costs, impacts on private property, utilities, wetlands, etc. You may provide your answer in the space provided below or submit separate answer sheets. It is important that the application be as thorough as possible, as missing information will delay the review process. All project-related sections must be completely filled out or the application will be returned and will require resubmittal.

The intent of the application is to establish eligibility, service life, and to ensure the Municipality is considering all pertinent aspects associated with major infrastructure improvements consistent with the purpose and need of the project.

(A) Project Information

1. Select the type of proposed improvement (select all that apply):

Please note: The entire application must be completed for all projects in addition to any necessary supplemental sections (K through P) as determined by the type of project. Roadway Geometric Improvement Stand-Alone Sidewalk Construction Bicycle/Pedestrian Improvement, including Multi-Use Trail Facilities ☐ Intersection Improvement Provide additional information as required in section K ☐ Bridge Rehabilitation/Replacement Provide additional information as required in section L Major Drainage Improvement Provide additional information as required in section M Pavement Structure Improvement Provide additional information as required in section N Traffic Signal Replacement/Upgrade/New Installation/Coordination Provide additional information as required in section O Other (please specify):

Provide additional information as required in section P

2. Describe the purpose and need of the project (i.e. what are the problems to be corrected?). Please provide adequate detail to clearly convey the nature of the problem(s) to be corrected. Provide photographs to document the existing conditions and support the purpose and need. (Attachments acceptable)

3. Provide a project description, including project limits and length, that specifically describe how the proposed improvements will correct the problem(s) identified in the purpose and need. Describe what alternative(s) were considered. (Attachments acceptable)

4.	suffici	ently	ncept plans of the proposed improvement. The plans must be developed and provide enough detail on a scaled drawing (including ography base mapping if possible) to identify the following:
	Inc.	N/A	
			Project location
			Limits of project
			Approximate limits and extent of any pavement widening or realignment
			Proposed number of lanes, widths, and arrangements
			Approximate limits and extent of any anticipated ROW acquisitions (based on available ROW information from Assessors maps, GIS data, etc.)
			Structures (i.e. Retaining walls, bridges)
			Watercourses
			Typical Cross Section including lane and shoulder widths, pavement structure, etc.
5.			improvements at this location been previously submitted to the t for funding? No Yes
	If yes	, wher	n and under what program?
6.		•	ther Federal or State funding sources been applied for or awarded overnents at this location?
	If yes	, pleas	se list source, amount, and when awarded in detail below:

7.	Does the project impact any State-owned Facilities (i.e. roads, bridges, etc.)? $\hfill \square$ No $\hfill \square$ Yes
	If yes, describe the impacts:
8.	In the area of the project, are there any known proposed developments?
	□ No □ Yes
	If yes, describe the proposed developments:
9	Design Standards to be used:
O.	☐ Established municipal standards
	☐ AASHTO Policy on Geometric Design of Highways and Streets
	☐ Connecticut Department of Transportation Highway Design Manual
	AASHTO LRFD Bridge Design Specifications and Connecticut Department of Transportation Bridge Design Manual
	Other, please specify:
(B) Righ	nts of Way
1.	Are any Right of Way (ROW) impacts anticipated? No Yes
	If yes, describe the nature, extent, and type of impacts:

	2.	If ROW acquisitions will be require perform acquisition activities?	red, who does the Municipality plan to have
		☐ Municipal staff ☐ Consultar	nt hired by Municipality State
	3.	·	erformed by the Municipality's staff or their seeking reimbursement for ROW costs?
		☐ No ☐ Yes	
(C)) Utili	ties	
	1.	List all utilities within the project ar	rea, including their owners.
		<u>Overhead</u>	<u>Underground</u>
	2.	Are any utility impacts anticipated	? No Yes
		If yes, explain the nature and exte	nt of the impacts:
		Note: Costs appointed with utility	, betterments/ungrades that are not required
		-	betterments/upgrades that are not required ransportation improvement are not eligible
	3.		contacted to identify any plans to expand or d compromise the service life of the proposed
		☐ No ☐ Yes	
		If yes, describe any proposed imp	rovements and their schedule:

D) Stor	m water drainage system and under drains
1.	Do any existing storm water drainage problems exist? No Yes
	If yes, describe the problem(s):
2.	Is any storm water drainage system work anticipated, including any new or modified drainage outlets? \square No \square Yes
	If yes, explain the nature and extent of the improvements:
2	And the are any existing westerness are existing that are proposed to be used if indi-
3.	Are there any existing watercourse crossings that are proposed to be modified, rehabilitated, or replaced as part of the project? No Yes
	If yes, indicate the type of improvement needed and the reason for it. Please also indicate if any existing watercourse crossings have inadequate hydraulic capacity:
	capacity.
E) Dail	Overeine
E) Kali	Crossings
1.	Are there any railroad crossings that are likely to be impacted as part of the project?
	□ No □ Yes
	∐At-grade ∐Grade separated
	If yes, describe impacts and any necessary modifications:

(F) Pedestrian/Bicycle Safety and Mobility

1. Complete and attach the Department's Bicycle and Pedestrian Needs Assessment Form to this application (a copy of this form is included in Appendix D). In accordance with Connecticut General Statutes, Section 13a – 153f, and the Department's focus on accommodating non-motorized travel modes, accommodation of all users shall be a routine part of the planning, design, construction, and operating activities of all highways. The need for inclusion of accommodations for bicyclists and pedestrians, including those with disabilities, must be reviewed for every project, regardless of funding source.

(G) Traffic

The information below needs to be provided or reviewed (as specified) by the designer for all project types except for stand-alone sidewalk projects and bicycle/pedestrian improvements, and multi-use trail facilities that do not involve pedestrian crossings

1. Volumes

Provide existing and 20-year Projected ADTs and Turning Volumes. Refer to the Preliminary Engineering/Preliminary Design section for guidance on traffic volumes.

2. Crash Experience See attachment in Backup Information.

Provide a summary of crash experience using the most current three year data, including a crash summary diagram, and analysis noting any discernable crash patterns.

3. Traffic Signals

The existing signal plan at Route 32 (Norwich-New London Tpke) has been requested. The added pedestrian ramp will be adjacent to the pedestrian push button.

Review the existing traffic signal plans for projects involving signalized intersections

4. Speed Data

Provide 85th percentile speeds in the project area

Provide all posted speed limits in the project area

(H) Environmental Resource Involvement

Refer to Application Process/Preliminary Project Submittals - Information provided by the Department for more information.

 Parks, Ce 	meteries, Hi	storic Structures
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a.	Are there any parks, cemet	eries, or	historic structures	that are	likely to
	be affected by the project?	No	☐ Yes		-

2. Wetlands
a. Are there any wetlands that are likely to be affected by the project?No Yes
If yes, describe the type and extent of the anticipated impact.
3. Hazardous or Contaminated Sites
 a. Has the potential for hazardous or contaminated sites and materials in the project area been investigated? No Yes
If yes, describe the type and extent of the anticipated impact.
(I) Public Involvement
Refer to Preliminary Engineering/Project Design - Public Involvement section for more information.
1. Has public involvement been conducted? No Yes
If yes, describe the public involvement effort, when it was conducted, and any public support or opposition to the project:

If yes, describe the type and extent of the anticipated impact.

If no, describe the planned public involvement effort should the project move forward:

SSSSSSSSSSWWWWW

(J) Cost Estimate

- 1. Attach a preliminary cost estimate identifying:
 - a. Approximate quantities and assumed unit prices of the major contract items
 - b. An allowance for minor items (percentage of a)
 - c. Standard lump sum items (i.e. clearing and grubbing, mobilization, construction staking, maintenance and protection of traffic), as applicable (percentages of a + b)
 - d. Total contract items (a + b + c)
 - e. Contingencies (10% of d)
 - f. Incidentals to construction, (i.e. construction inspection, materials testing) (10% of d)
 - g. Rights of way costs
 - h. Eligible utility relocation costs (in accordance with CGS13a-98f)

 Note: Costs associated with utility betterments/upgrades that are not required to accommodate the proposed transportation improvement are not eligible project costs
 - i. Total project costs (d + e + f + g + h)

Sample cost estimate form provided in Appendix M and the Excel spreadsheet is available for download from the Department's LOTCIP webpage: https://www.ct.gov/dot/lotcip

Refer to the Department's most current Cost Estimating Guidelines for cost estimate guidance or use town-generated unit prices. The anticipated costs for each phase of the project shall be well documented and based on reasonable anticipated costs.

The guidelines are located at:

http://portal.ct.gov/-/media/DOT/documents/AEC/costestimatingguidelinespdf.pdf

ADDITIONAL INFORMATION TO BE PROVIDED BASED ON IMPROVEMENT TYPE SELECTED IN SECTION (A)1:

(K) Roadway Geometric Improvements

Proposed Design Speed

(L) Intersection Improvements

Capacity Analyses (For build and no-build conditions using existing and projected traffic volumes).*

(M) Bridge Rehabilitation/Replacement

Latest Condition Report

(N) Major Drainage Improvement

Material, Age, Hydraulic adequacy assessment of existing drainage system (Condition Report, post-cleaning is preferred)

(O) Pavement Structure Improvement

The level of investigation will be dependent upon the proposed improvements. Cores or test pits must be performed such that a representative sample of the existing roadway condition is obtained. If varying pavement conditions exist along the roadway indicating the possibility of different pavement conditions, a test pit should be performed in each roadway section. Pavement thickness and type, sub-base thickness and type, and the presence of fines and/or groundwater must be noted. Attach the data obtained. If full depth reconstruction is proposed, cores or test pits may be required to justify the scope of the proposed improvements.

Approximate percentage of heavy vehicles:

5%

What is the existing pavement type, condition, and thickness?

The existing pavement is approximately 9 inches. 6 inches of Class 4 and 3 inches of class 1

What is the anticipated pavement design? Describe the type and depth of each course including the base that is suitable for the ADT and percentage of heavy vehicles. Does it meet current design standards? Describe the cross-section (i.e. lanes and shoulder widths, etc.).

The anticipated pavement design is for 3 inches of pavement installed in two equal lifts with 1-1/2 inch of class one at the bottom and 1-1/2 inch of class 2 as wearing course. The cross slope will be 1/4" per foot. The geometry will remain the same with an average of 30 feet pavement width curb to curb.

Describe how the service life requirement for the proposed pavement design was determined:

(P) Traffic Signal Replacement/Upgrade/New Installation/Coordination

Who is/will be responsible for ownership, maintenance, and electrical costs

Age of existing signals

Capacity Analyses (For build and no-build conditions using existing and projected traffic volumes).*

Warrant Analysis for new signals

Systems Engineering Analysis Form (SEAFORM) for Intelligent Transportation Systems (ITS) projects

(Q) Other

To be determined based on type of improvement proposed.

*Capacity Analysis: For the purposes of this application, a simplified analysis may be performed for signalized intersections that do not require detailed assumptions, proprietary software or specialized traffic engineering skills. The "Quick Estimation Method" is described in detail in the 2010 Highway Capacity Manual, with accompanying worksheets that can be completed by hand. A brief description of the method is also described in Section 3.3.6 of the FHWA Signal Timing Manual, where it is referred to as a "Critical Movement Analysis." The relevant section of the FHWA publication can be accessed at: http://ops.fhwa.dot.gov/publications/fhwahop08024/chapter3.htm. This simplified analysis will yield an approximate critical volume/capacity ratio that can be used to assess overall operation of the intersection. The build and no-build conditions should be analyzed for the existing and projected traffic volumes.

APPLICATION SUBMISSION

This application and supporting documents must be submitted by the Municipality to their COG. At such time when the application is to be forwarded to the Department of Transportation by the COG, it must be forwarded electronically to:

Hugh.Hayward@ct.gov

Mr. Hugh H. Hayward, P.E. Department of Transportation 2800 Berlin Turnpike P.O. Box 317546 Newington, CT 06131-7546

Prepared by: Brian Long P.E.	05/27/2020
Name, Title and stamp of Responsible P.E. (Municipal or	Consultant)
Signature	(Stamp)
Reviewed/Recommended by: John Salomone, City Manager	Date: 05/27/2020
Name and Title of Municipal Chief Administrative Officer	
Signature	
Reviewed/Recommended by: Ronald K. McDaniel, Montville Mayor	Date: 05/27/2020
Name and Title of Municipal Chief Administrative Officer	
Lua ·	si
Signature	
Endorsed/Recommended by: Name and Title of COG Executive Director	Date:

Signature

Norwich Commission for Persons with Disabilities Norwich City Hall 100 Broadway Norwich, CT 06360

March 27, 2020

Mr. James S. Butler, AICP Executive Director Southeastern Connecticut Council of Governments 5 Connecticut Avenue Norwich, CT 06360

Dear Mr. Butler:

I am writing on behalf of the Norwich Commission for Persons with Disabilities to support the New London Turnpike/Montville Project application submitted jointly by the City of Norwich and the Town of Montville for funding from the Local Transportation Capital Improvement Program (2020). Part of this funding will be directed to sidewalk improvements and installation of curb ramps.

A 2015 article (bmjopen.bmj.com/content/5/11/e008396) by epidemiologist and attorney John D. Kraemer (lead author) and Connor S. Benton concludes that 1) wheelchair users are 1/3 more likely to be killed in vehicular accidents and 2) drivers in 75% of such accidents refrain from exercising avoidance actions. This devastating conclusion corresponds to anecdotal reports from users of mobility equipment, who often report the many hazards of traversing along streets, among them: lack of curb ramps that would enable crossing; rough, cracked surfaces that present tripping and roll-over hazards; and lack of sidewalks that force people to travel directly on the streets, dodging vehicular traffic.

People with other disabilities, especially visual disabilities, are equally at risk in the absence of properly constructed sidewalks and curb ramps. In addition, people with visual disabilities are further circumscribed in their ability to safely navigate urban environments by the frequent lack of audible traffic light signals.

By limiting safe, independent travel, these conditions contradict the promise of integration and equal access in the Americans with Disabilities Act (ADA). The Commission for Persons with Disabilities urges you to fund this proposal in the interest of comporting with the values and requirements enshrined in the ADA, which, indeed, create a safer, more usable environment for everyone.

Sincerely,

Elanah Sherman Chair, Norwich Commission for Persons with Disabilities James S. Butler, AICP Executive Director Southeastern Connecticut Council of Governments 5 Connecticut Avenue Norwich, CT 06360

RE: Letter of Support

New London Turnpike - Norwich / Montville Application - Local Transportation Capital Improvement Program (LOTCIP) - 2020 City of Norwich & Town of Montville

Dear Mr. Butler.

I am writing on behalf of the Mohegan Tribal Nation to show our support for the New London Turnpike Norwich / Montville Project submitted by the City of Norwich and the Town of Montville for the Local Transportation Capital Improvement Program (LOTCIP) - 2020 Program. Norwich and Montville are seeking funding to increase efforts to provide streets that are safe and accessible for all users, ages, and abilities. The project will improve livability, mobility, access to essential services, and safe routes to school for residents and visitors to the New London Turnpike Corridor and Mohegan Sun through expanded bike facilities and improved sidewalks.

New London Turnpike ranks 6th in the Top 10 Routes in the City of Norwich for crashes according to the UConn Connecticut Crash Data Repository, with 212 crashes between January of 2015 and January of 2019. This funding opportunity will allow the City to implement measures that will consider the needs of all users, improving operations and safety, while increasing connectivity along a major corridor in the City. Making biking and walking easier choices will help to improve the health and fitness of residents, along with increasing the economic vitality of the community.

The intersection of New London Turnpike / Fitch Hill Road / Holly Hill Drive / CT 32 in the Town of Montville has been the location of 56 crashes over the past five years according to the UConn Connecticut Crash Data Repository. A number of these crashes resulted in injuries to network users, and a fatal crash occurred just to the south of the intersection in August of 2015.

If funded, the project will offer the opportunity to provide an integral connection in the regional bicycle network. Additionally, sidewalk improvements will allow for greater access to the employees of Mohegan Sun who live along the New London Turnpike corridor, many of whom do not own vehicles. Improved mobility for all transportation system users is essential to continuing the positive economic growth of the City of Norwich and the Town of Montville.

We sincerely hope that you give the New London Turnpike Norwich / Montville Project the consideration that it is well deserving of, and greatly appreciate the Southeastern Connecticut Council of Governments support in helping municipalities work toward enhancing transportation networks in order to improve the quality of life for people who live, play, and work in the region.

Sincerely,

Charles F. Bunnell Chief of Staff Mohegan Tribe (860) 862-6120

TOWN OF MONTVILLE

Fire Services & Emergency Management

310 Norwich-New London Tpke Uncasville, CT 06382 860-848-6781

March 4, 2020

James S. Butler, AICP Executive Director Southeastern Connecticut Council of Governments 5 Connecticut Avenue Norwich, CT 06360

RE: Letter of Support

New London Turnpike - Norwich / Montville Application - Local Transportation Capital Improvement Program (LOTCIP) - 2020 City of Norwich & Town of Montville

Dear Mr. Butler,

I am writing on behalf of the Montville Fire Services and Emergency Management to show our support for the New London Turnpike Norwich / Montville Project submitted by the City of Norwich and the Town of Montville for the Local Transportation Capital Improvement Program (LOTCIP) - 2020 Program. Norwich and Montville are seeking funding to increase efforts to provide streets that are safe and accessible for all users, ages, and abilities. The project will improve livability, mobility, access to essential services, and safe routes to school for residents and visitors to the New London Turnpike Corridor and Mohegan Sun through expanded bike facilities and improved sidewalks.

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TOWN OF MONTVILLE Fire Services & Emergency Management

re Services & Emergency Managem 310 Norwich-New London Tpke Uncasville, CT 06382 860-848-6781

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Sincerely,

William J. Bundy, (III

Montville Fire Marshal & EMD

TOWN OF MONTVILLE PLANNING DEPARTMENT

310 NORWICH NEW LONDON TURNPIKE UNCASVILLE, CONNECTICUT 06382 PHONE (860) 848-6779 FAX (860) 848-2354

planningdept@montville-ct.org

March 4, 2020

James S. Butler, AICP Executive Director Southeastern Connecticut Council of Governments 5 Connecticut Avenue Norwich, CT 06360

RE: Letter of Support

New London Turnpike - Norwich / Montville Application – Local Transportation Capital Improvement Program (LOTCIP) - 2020 City of Norwich & Town of Montville

Dear Mr. Butler,

I am writing on behalf of the Montville Planning Department to show our support for the New London Turnpike Norwich / Montville Project submitted by the City of Norwich and the Town of Montville for the Local Transportation Capital Improvement Program (LOTCIP) - 2020 Program. Norwich and Montville are seeking funding to increase efforts to provide streets that are safe and accessible for all users, ages, and abilities. The project will improve livability, mobility, access to essential services, and safe routes to school for residents and visitors to the New London Turnpike Corridor and Mohegan Sun through expanded bike facilities and improved sidewalks.

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We sincerely hope that you give the New London Turnpike Norwich / Montville Project the consideration that it is well deserving of, and greatly appreciate the Southeastern Connecticut Council of Governments support in helping municipalities work toward enhancing transportation networks in order to improve the quality of life for people who live, play, and work in the region.

Sincerely,

Marcia Vlaun Montville Town Planner



TOWN OF MONTVILLE Department of Police Services

March 4, 2020

James S. Butler, AICP Executive Director Southeastern Connecticut Council of Governments 5 Connecticut Avenue Norwich, CT 06360

RE:

Letter of Support

New London Turnpike - Norwich / Montville

Application - Local Transportation Capital Improvement Program (LOTCIP) - 2020

City of Norwich & Town of Montville

Dear Mr. Butler,

I am writing on behalf of the Montville Police Department to show our support for the New London Turnpike Norwich / Montville Project submitted by the City of Norwich and the Town of Montville for the Local Transportation Capital Improvement Program (LOTCIP) - 2020 Program. Norwich and Montville are seeking funding to increase efforts to provide streets that are safe and accessible for all users, ages, and abilities. The project will improve livability, mobility, access to essential services, and safe routes to school for residents and visitors to the New London Turnpike Corridor and Mohegan Sun through expanded bike facilities and improved sidewalks.

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Sincerely,

Lt. David Radford

LT. Dulle

Montville Police Department



ECONOMIC DEVELOPMENT66 FRANKLIN STREET
NORWICH, CT 06360
860.887.6964

► askncdc.com

March 4, 2020

Mr. James S. Butler, AICP Executive Director Southeastern Connecticut Council of Governments 5 Connecticut Avenue Norwich, Connecticut 06360

SUBJECT

Letter of Support - New London Turnpike — City of Norwich / Town of Montville Application Local Transportation Capital Improvement Program (LOTCIP) — 2020

Dear Mr. Butler,

I am writing in support for the New London Turnpike Norwich / Montville Project submitted by the City of Norwich and the Town of Montville for the Local Transportation Capital Improvement Program (LOTCIP) - 2020 Program.

These communities are seeking funding to provide roads that are safe and accessible for all users – a critical part of economic development. Roads are the conduit of economic opportunity. While it is important that roads enable the efficient movement of goods and services – typical economic metrics, it is also important that these roads are safe and useful to all users.

But the current road is not working. The accident volume and lack of accommodation of all users are indicators of a road that is out of alignment with community needs. This project is an important step in fixing these flaws, and in doing so, improving the ability of students to access Three Rivers Community College, workers to access Mohegan Sun Casino, and residents to enjoy the great attributes of their neighborhood, including Norwich Golf Course, and Trading Cove.

Thank you for your consideration of this project.

Sincerely,

Robert Mills President Mr. James S. Butler, AICP Executive Director Southeastern Connecticut Council of Governments 5 Connecticut Avenue Norwich, CT 06360

RE: Letter of Support

Local Transportation Capital Improvement Program (LOTCIP) – 2020 Application New London Turnpike - Norwich / Montville

Dear Mr. Butler,

I am writing on behalf of the City of Norwich Public Works and Capital Improvement Committee to show our support for the New London Turnpike Norwich / Montville Project submitted by the City of Norwich and the Town of Montville for the Local Transportation Capital Improvement Program (LOTCIP) - 2020 Program. Norwich and Montville are seeking funding to provide streets that are safe and accessible for all users, ages, and abilities. The project will improve livability, mobility, access to essential services, and safe routes to school for residents and visitors to the New London Turnpike corridor and Mohegan Sun through additional sidewalks and better bicycle accommodations.

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We sincerely hope that you give the New London Turnpike Norwich / Montville Project the consideration that it is well deserving of, and greatly appreciate the Southeastern Connecticut Council of Governments support in helping municipalities work toward enhancing transportation networks in order to improve the quality of life for people who live, play, and work in the region.

Sincerely,

Joseph DeLucia,

Chairman Norwich Public Works & Capital Improvement Committee





CITY OF NORWICH

POLICE DEPARTMENT



March 4, 2020

James S. Butler, AICP Executive Director Southeastern Connecticut Council of Governments 5 Connecticut Avenue Norwich, CT 06360

RE:

Letter of Support

New London Turnpike - Norwich / Montville

Application - Local Transportation Capital Improvement Program (LOTCIP) - 2020

City of Norwich & Town of Montville

Dear Mr. Butler,

I am writing on behalf of the Norwich Police Department to show our support for the New London Turnpike Norwich / Montville Project submitted by the City of Norwich and the Town of Montville for the Local Transportation Capital Improvement Program (LOTCIP) - 2020 Program. Norwich and Montville are seeking funding to increase efforts to provide streets that are safe and accessible for all users, ages, and abilities. The project will improve livability, mobility, access to essential services, and safe routes to school for residents and visitors to the New London Turnpike Corridor and Mohegan Sun through expanded bike facilities and improved sidewalks.

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Singerely,

Patrick J. Daley

Local Traffic Authority

Chief of Police

James S. Butler, AICP Executive Director Southeastern Connecticut Council of Governments 5 Connecticut Avenue Norwich, CT 06360

RE: Letter of Support

New London Turnpike - Norwich / Montville Application – Local Transportation Capital Improvement Program (LOTCIP) - 2020 City of Norwich & Town of Montville

Dear Mr. Butler,

I am writing on behalf of Three Rivers Community College (TRCC) to show our support for the New London Turnpike Norwich / Montville Project submitted by the City of Norwich and the Town of Montville for the Local Transportation Capital Improvement Program (LOTCIP) - 2020 Program. Norwich and Montville are seeking funding to increase efforts to provide streets that are safe and accessible for all users, ages, and abilities. The project will improve livability, mobility, access to essential services, and safe routes to school for residents and visitors to the New London Turnpike Corridor and Mohegan Sun through expanded bike facilities and improved sidewalks.

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Mary Ellen Juha ki

Mary Ellen Jukoski, Ed.D.

President



Project Number(s)

CONNECTICUT DEPARTMENT OF TRANSPORTATION BICYCLE AND PEDESTRIAN TRAVEL NEEDS ASSESSMENT FORM (BPTNA)



In accordance with Connecticut General Statutes, Section 13a-153f, Accommodations and Provisions of Facilities for All Users and the Department's Policy Statement No. EX.0-31, It is the policy of the Department to consider the needs of all users of all abilities and ages (specifically including pedestrians, bicyclists, transit users, and vehicle operators) in the planning, programming, design, construction, retrofit and maintenance activities related to all roads and streets as a means of providing a "safe, efficient transportation network which enhances quality of life and economic vitality." Therefore, the need for inclusion of accommodations specifically for bicyclists and pedestrians, including those with disabilities, must be reviewed for every project.

This form shall apply to all Department projects, mainline utility projects within the state right-of-way, the Office of the State Traffic Administration (OSTA) certificate applications receiving state or federal funding, and municipal transportation projects that receive state or federal funding. This form provides designers the documentation and information needed to make decisions on the need and extent of bicycle and pedestrian features that should be included in a project. This form is not intended to dictate what features should be included in a project design, as guidance on those questions can be found in numerous other reference documents. This form should be completed to the extent practical (at least Sections 1 & 2) during the project scoping phase and finalized by the completion of the Preliminary Design. Once signed, this form should be retained with the project documents.

Pouto(c).

1 Toject (tallisel (s):		Noute(5).					
Project Name:							
Municipality(s):		Planning Region	n(s):				
SECTION 1: APPL	CABILITY						
Although bicycle and pedestrian accommodations should be considered for all projects, certain types of projects (e.g. bridge deck patching, culvert re-lining, projects on expressway mainlines) do not typically provide reasonable opportunity to provide improvements for these travel modes. Considering the <u>project type</u> answer the question below. If the question below is answered <u>no</u> , please explain why, then skip to the last page, sign the form, and file this form with the project documents. If the answer is <u>yes</u> , go to Section 2 and complete the rest of the form.							
Does this project type	Does this <u>project_type</u> provide reasonable opportunity to provide improvements for non-motorized access? Yes No						No □
If no, why?							

SECTION 2: ASSESSMENT OF STUDY AREA

2.1 Study Area Map

Identify any non-motorized and/or transit generators located within the Study Area (Study Area is generally defined as approximately ½ mile radius from the project limits). Using the letters in the code column below, create a map from a location plan or aerial photograph indicating the location of existing or planned non-motorized or transit user generators identified below (for planned facilities, precede the letter with a P-).

Non-Motorized/Transit User Generators	Code
Residential Areas: Indicate any general areas of dense residential housing	R
Parks: Include areas that would attract people, whether officially designated as a park or not	Р
Recreational Areas: Examples include athletic fields, dog parks	RA
Religious Facilities	С
Schools (including public and private schools, colleges, universities, daycare or other educational institution)	S
Health / Medical Facilities	Н
Town Centers: typically would include areas where Town Halls, Libraries and other public facilities exist	тс
Shopping Centers: especially centers with businesses where non-motorized customers might be expected (restaurants, bookstores, drug stores, etc.)	М
Large Employment Businesses: Factories, large office buildings, hospitals, government offices	Е
Bus Stops	В
Public Transit Facilities: train/bus stations, airports	Т
Shared-use trail access / parking	TA
Other: other known facilities expected to generate or attract non-motorized users	О

2.2 Analysis of Study Area					
about location	the map prepared in Section 2.1, and the resources suggested below, answer the follo the study area. [For State/District-wide or Division of Traffic Engineering projects with use the "Multi-location Table" at: https://www.ct.gov/dot/lib/dot/bptna-table wer questions marked with an (*)]	Explain as needed (attach additional sheet(s) if needed)			
a.	* Referencing the CTDOT Interactive Bike Map located at: http://www.ctbikepedplan.org/interactivemap.html is this project located on the Connecticut Statewide On-Road or Off-Road Bicycle Planning Network?	Yes □ No □			
b.	* Have all existing bicycle, pedestrian and transit features within and just beyond the project limits (such as: features and ADA accessibility of existing bus stops, sidewalks, shoulder widths, bicycle markings/signs, shared-use paths, etc.) been identified and assessed for condition and need? (If assistance is needed identifying Transit requirements a request can be sent to: DOT.PTransBikePed@ct.gov)	Yes □ No □			
C.	* Are there any areas of concern where physical impediments to non-motorized travel through the study area exist? Physical impediments can be excessive grade, limited width of roads/bridges, gaps or need for sidewalks (indicated by worn foot paths), utility poles or other appurtenances restricting access, etc.	Yes □ No □			
d.	* Is there any reason to anticipate an increase in travel by non-motorized and /or transit users through the project limits in the future?	Yes □ No □			
e.	* Based on the U.S. Access Board's <u>Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG)</u> , are there barriers to mobility inhibiting continuous access between schools, hospitals, senior care, or community centers, etc. for persons with disabilities that <u>cannot</u> be addressed in this project?	Yes □ No □			
f.	* Is there a pattern of bicycle or pedestrian crashes within the project area? Crash information can be found by accessing the UCONN Crash Repository at (https://www.ctcrash.uconn.edu/).	Yes □ No □			

g.	Does the project provide <u>unique or primary access</u> (defined as access which is not otherwise available within approximately one-half mile of the project): • across a river, highway corridor or other natural and/or man-made barrier? • into or out of any of the bicycle and pedestrian generators listed above? • between communities?	Yes No Yes No Yes No Yes No	
h.	Is the project located near or provide new access or connectivity to state parks, forests or CT Designated Greenways? Information on State Parks, Forests and Greenways can be found at: <pre>http://www.ct.gov/deep/cwp/view.asp?a=2707&q=323852</pre> and http://www.ct.gov/deep/parkmaps If yes, please notify the Trails and Greenways Program Coordinator at the Department of Energy & Environmental Protection, State Parks Division, by sending a location and description of the project to: deep.stateparks@ct.gov . This is for notification and not intended to be a formal review and /or concurrence.	Yes □ No □	
i.	In accordance to the Complete Streets Policy, the Department will include non-motorized users in traffic counts to the extent possible. Has the existing pedestrian and/or bicyclist usage patterns within the project limits, particularly at intersection and midblock crossings, been observed / collected?	Yes □ No □	
j.	Has there been any documented public concern or comments about non-motorized and/or transit needs in the area?	Yes □ No □	
k.	Are there any comprehensive regional or local planning documents (such as Complete Streets Plan, Sidewalk Plan, Plan of Conservation & Development, etc.) that address bicyclists, pedestrian or transit user conditions within or proximate to the project limits? (Can usually be found on applicable website) Contact the RPO Coordination or Intermodal Planning units in the Bureau of Policy and Planning if assistance is needed.	Yes □ No □	

SECTION 3: NON-MOTORIZED AND TRANSIT ACCOMMODATIONS Identify any non-motorized and/or transit user accommodations/improvements that may be considered as part of this project. This section is provided as a list of countermeasures that may be appropriate and is not intended to dictate what features should be included in the project design. [For State/District-wide or Division of Traffic Engineering projects with many locations answer this section by considering all sites as if they were one location] 3.1 Pedestrian Facilities and Crossina Treatments 3.2 Bike Facilities (Cont.) a. New sidewalks Yes 🗆 N/A □ e. Signage and/or pavement markings Yes 🗆 N/A 🗆 Bicycle parking, bike racks/lockers Pedestrian median crossing island Yes 🗌 N/A 🗆 Yes 🗆 N/A 🗆 c. Curb extension/bulb-outs Yes 🗆 N/A □ g. Trail Improvements, including parking Yes 🗌 N/A □ N/A □ N/A 🗆 d. Reduced Corner Radius Yes 🗌 h. Special height railings Yes 🗌 e. Pedestrian bridge/tunnel Yes 🗆 N/A □ 3.3 Bike & Pedestrian Treatments New or relocated unsignalized or mid-block Yes 🗌 N/A □ Yes 🗆 N/A □ a. Road diet crossing Enhanced illumination at pedestrian crossings Yes 🗆 N/A □ b. Narrowing travel lane width Yes 🗆 N/A □ Yes 🗆 N/A □ Yes 🗆 N/A □ h. Pedestrian signing and yield lines c. Corridor-wide speed calming Parking restrictions near crossings Yes 🗆 N/A □ 3.4 Transit Facilities i. Pedestrian hybrid beacon [PHB; also known as a. New or revised bus stops Yes \square N/A □ the High intensity Activated crossWalk Yes 🗆 N/A □ b. Bus shelters Yes 🗆 N/A 🗆 (HAWK)] N/A □ k. Rectangular rapid flashing beacon (RRFB) Yes 🗆 c. Standing pads Yes 🗆 N/A □ Pedestrian fencing on bridges Yes 🗌 N/A □ d. New or revised crossing for bus stop Yes 🗌 N/A □ 3.5 Streetscape Elements a. Landscaping, street trees, planters, buffer 3.2 Bike Facilities Yes 🗆 N/A □ strips, etc. a. Dedicated bike lane or cycle track Yes 🗆 N/A □ b. Decorative lighting Yes \square N/A □ N/A □ N/A □ Yes 🗆 b. Shared-used lanes Yes 🗆 c. Public seating or benches c. Shared-used path Yes 🗆 N/A □ 3.6 Other (please specify):

Yes \square

N/A □

d. Wider shoulders

Once completed this form should be signed, attached to the Preliminary Design Statement, and filed with the project documents in ProjectWise. If the answer to the question under Section 1 "Applicability" is "Yes", please email the link to the completed form in ProjectWise (or a PDF copy) to:

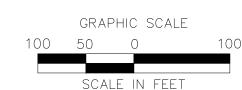
CTDOT.BikePedReviews@ct.gov. Comments will be provided if necessary however, designers are not required to obtain concurrence to move forward with design. This form will be maintained and periodically updated by the Office of Strategic Planning & Projects in the Bureau of Policy & Planning.

Prepared By:			
	Project Engineer - Print Name		
		Date:	
	Signature		
Approved By:			
	Project Manager - Print Name		
		Date	
	Signature		





THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF FREEMAN COMPANIES, LLC



FREEMAN
COMPANIE
LAND DEVELOPMENT ENGINEERING DESIGN CONSTRUCTION SERV
DBE | DAS | MBE | GNMSDC CERTIFIED
CIVIL | GEOTECHNICAL
SURVEY | ENVIRONMENTAL

FREEMAN COMPANIES, LLC

36 JOHN STREET
HARTFORD, CT 06106
WWW.FREEMANCOS.COM
TEL:(860)251-9550
TOLL FREE:(800)604-5141
FAX:(860)986-7161

ELEVATE YOUR EXPECTATIONS

NEW LONDON TURNPIKE SIDEWALKS & ROAD REHABILITATION

DESIGNED: C.S.
DRAFTED: C.S.
CHECKED: Y.L.
APPROVED: P.A.R.
SCALE: AS NOTED
FC PROJECT NO.: 2022-0107
DATE: 04/27/202
CAD:Study Area Map

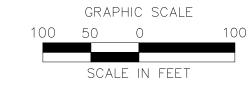
7171 5

STUDY AREA MAP

MAP-1



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COMPANIE
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ELEVATE YOUR EXPECTATIONS

NEW LONDON TURNPIKE SIDEWALKS & ROAD REHABILITATION

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DRAFTED: C.S.
CHECKED: Y.L.
APPROVED: P.A.R.
SCALE: AS NOTED
FC PROJECT NO.: 2022-0107
DATE: 04/27/202
CAD:Study Area Map

TITLE:

STUDY AREA

MAP

MAP-2

Construction Cost Estimate - 50% Design New London Turnpike Sidewalks & Road Rehabilitation

Najor and Minor Contract Items

DEMONIX OF TREES	0201011		_			Unit \$	To	otal Cost
DECESTION OF MAILBOX		REMOVAL OF TREES	ΕΛ					
10202529	0201500		LA	/		,	·	
DODGOOD SEDIMENT CONTROL SYSTEM F 1500 \$.6.50 \$.9.750	0201300	RELOCATION OF MAILBOX		11	_	150.00	\$	1,650
D2199011 SEDIMENT CONTROL SYSTEM AT CATCH BASIN EA 56 \$ 11.000 \$ 6.50 \$ 9.750	0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF			3.00		12,300
D219011 SEDIMENT CONTROL SYSTEM AT CATCH BASIN EA 556 \$ 110.00 \$ 6,160	0209001	FORMATION OF SUBGRADE	SY	865	_	4.00	\$	3,460
OBJOADO22 PROCESSED AGGREGATE BASE CY 250 \$ 48.00 \$ 12.000	0219001	SEDIMENT CONTROL SYSTEM	LF	1500	_	6.50	\$	9,750
MAGS170	0219011	SEDIMENT CONTROL SYSTEM AT CATCH BASIN	EA	56	\$	110.00	\$	6,160
MONESTED MAN SO.5 10.00 5 292,500	0304002	PROCESSED AGGREGATE BASE	CY	250	\$	48.00	\$	12,000
MAS 0.375	0406170	HMA S1.0	TON	300		140.00	\$	42,000
MATERIAL FOR TACK COAT	0406171	HMA S0.5	TON	2250	\$	130.00	\$	292,500
Automotive	0406172	HMA S0.375	TON	2175	\$	115.00	\$	250,125
ASPANJIS AND SEALING JOINTS	0406236	MATERIAL FOR TACK COAT	GAL	90	\$	6.00	\$	540
0406999A ASPHALT ADJUSTMENT COST	0406267A	FINE MILLING OF HMA (0"-4")	SY	24000	\$	5.00	\$	120,000
SOSTONOGE TYPE "C" CATCH BASIN TOP	0406303	SAWING AND SEALING JOINTS	LF	75	\$	38.00	\$	2,850
ST ST ST ST ST ST ST ST	0406999A	ASPHALT ADJUSTMENT COST	EST	1	\$	50,000.00	\$	50,000
Section Sect	0507006	TYPE "C" CATCH BASIN TOP	EA	56	\$	750.00	\$	42,000
Section Sect	0519004	ELASTOMERIC MEMBRANE WATERPROOFING	SY	160	\$	50.00	\$	8,000
Section Sect	0601651A	EMBANKMENT WALL (SITE 1)	LS	1	\$	99,000.00	\$	99,000
Section Sect	0601652A	EMBANKMENT WALL (SITE 2)	LS	1	\$	82,500.00	\$	82,500
Section BITUMINOUS CONCRETE LIP CURBING	0813021	6" GRANITE STONE CURBING	LF	3625	\$	55.00	\$	199,375
D910170 METAL BEAM RAIL (TYPE R-B 350) LF 175 \$ 35.00 \$ 6,125	0813031	6" GRANITE CURVE STONE CURBING	LF	135	\$	65.00	\$	8,775
D910170 METAL BEAM RAIL (TYPE R-B 350) LF 175 \$ 35.00 \$ 6,125	0815001	BITUMINOUS CONCRETE LIP CURBING	LF	15	\$	8.00	\$	120
Degree D			LF	175	\$			
O921001A CONCRETE SIDEWALK SF 17625 \$ 13.50 \$ 237,938			LF	290	\$	16.00	\$	4,640
0921005A CONCRETE SIDEWALK RAMP SF 1020 \$ 25,500 \$ 25,500 0921013A CONCRETE DRIVEWAY APRON SF 780 \$ 20,00 \$ 15,600 0921039A DETECTABLE WARNING STRIP EA 13 \$ 250,00 \$ 3,250 0922501 BITUMINOUS CONCRETE DRIVEWAY SY 60 \$ 53,00 \$ 3,180 0944000A FURNISHING AND PLACING TOPSOIL SY 1050 \$ 8.00 \$ 8,400 0950005A TURF ESTABLISHMENT SY 1050 \$ 1.50 \$ 1,575 0969060A CONSTRUCTION FIELD OFFICE, SMALL MO 5 \$ 2,800,00 \$ 14,000 0970007 TRAFFIC PERSON (MUNICIPAL POLICE OFFICER) EST 1 \$ 34,000 \$ 34,000 0970007 TRAFFIC PERSON (UNIFORMED FLAGGER) HR 400 \$ 60.00 \$ 24,000 117111A RECTANGULAR RAPID FLASHING BEACON EA 2 \$ 10,000,00 \$ 20,000 1206023A REMOVAL AND RELOCATION OF EXISTING SIGNS LS 1 \$ 5,000 \$ 5,000	0921001A	CONCRETE SIDEWALK	SF	17625	\$	13.50	\$	
15,600 1	0921005A	CONCRETE SIDEWALK RAMP	SF	1020	\$		\$	-
DETECTABLE WARNING STRIP	0921013A	CONCRETE DRIVEWAY APRON	SF	780	\$		\$	
Degree BITUMINOUS CONCRETE DRIVEWAY SY 60 \$ 53.00 \$ 3,180	0921039A	DETECTABLE WARNING STRIP	EA	13	\$		\$	3,250
SY 1050 \$ 8.00 \$ 8,400			-	60			\$	
TURF ESTABLISHMENT	0944000A	FURNISHING AND PLACING TOPSOIL	SY	1050	_			8,400
0969060A CONSTRUCTION FIELD OFFICE, SMALL MO 5 \$ 2,800.00 \$ 14,000					-			
0970006 TRAFFIC PERSON (MUNICIPAL POLICE OFFICER) EST 1 \$ 34,000.00 \$ 34,000 0970007 TRAFFIC PERSON (UNIFORMED FLAGGER) HR 400 \$ 60.00 \$ 24,000 1117111A RECTANGULAR RAPID FLASHING BEACON EA 2 \$ 10,000.00 \$ 20,000 1206023A REMOVAL AND RELOCATION OF EXISTING SIGNS LS 1 \$ 5,000.00 \$ 5,000 1208931A SIGN FACE - SHEET ALUMINIUM (TYPE IX RETROREFLECTIVE SHEETING) SF 50 \$ 56.00 \$ 2,800 1210101 4" WHITE EPOXY RESIN PAVEMENT MARKINGS LF 13500 \$ 0.50 \$ 6,750 1210102 4" YELLOW EPOXY RESIN PAVEMENT MARKINGS LF 13400 \$ 0.50 \$ 6,700 1210105 EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS SF 1300 \$ 4.00 \$ 5,200 1303196 RELOCATE FIRE HYDRANT EA 1 \$ 2,750.00 \$ 2,750 Major Items Subtotal Minor Items Subtotal 15 % of Line "A" \$ 250,329 Other Item Allowances Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$ 38,38					_			
0970007 TRAFFIC PERSON (UNIFORMED FLAGGER) HR 400 \$ 60.00 \$ 24,000 1117111A RECTANGULAR RAPID FLASHING BEACON EA 2 \$ 10,000.00 \$ 20,000 1206023A REMOVAL AND RELOCATION OF EXISTING SIGNS LS 1 \$ 5,000.00 \$ 5,000 1208931A SIGN FACE - SHEET ALUMINIUM (TYPE IX RETROREFLECTIVE SHEETING) SF 50 \$ 56.00 \$ 2,800 1210101 4" WHITE EPOXY RESIN PAVEMENT MARKINGS LF 13500 \$ 0.50 \$ 6,750 1210102 4" YELLOW EPOXY RESIN PAVEMENT MARKINGS LF 13400 \$ 0.50 \$ 6,700 1210105 EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS SF 1300 \$ 4.00 \$ 5,200 1303196 RELOCATE FIRE HYDRANT EA 1 \$ 2,750.00 \$ 2,750 Major Items Subtotal Minor Items Subtotal 15 % of Line "A" \$ 250,329 Other Item Allowances Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$ 38,384								
1117111A RECTANGULAR RAPID FLASHING BEACON EA 2 \$ 10,000.00 \$ 20,000 1206023A REMOVAL AND RELOCATION OF EXISTING SIGNS LS 1 \$ 5,000.00 \$ 5,000 1208931A SIGN FACE - SHEET ALUMINIUM (TYPE IX RETROREFLECTIVE SHEETING) SF 50 \$ 56.00 \$ 2,800 1210101 4" WHITE EPOXY RESIN PAVEMENT MARKINGS LF 13500 \$ 0.50 \$ 6,750 1210102 4" YELLOW EPOXY RESIN PAVEMENT MARKINGS LF 13400 \$ 0.50 \$ 6,700 1210105 EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS SF 1300 \$ 4.00 \$ 5,200 1303196 RELOCATE FIRE HYDRANT EA 1 \$ 2,750.00 \$ 2,750 Major Items Subtotal								
1206023A REMOVAL AND RELOCATION OF EXISTING SIGNS LS 1 \$ 5,000.00 \$ 5,000 \$ 1208931A SIGN FACE - SHEET ALUMINIUM (TYPE IX RETROREFLECTIVE SHEETING) SF 50 \$ 56.00 \$ 2,800 \$ 1210101 4" WHITE EPOXY RESIN PAVEMENT MARKINGS LF 13500 \$ 0.50 \$ 6,750 \$ 6,750 \$ 1210102 4" YELLOW EPOXY RESIN PAVEMENT MARKINGS LF 13400 \$ 0.50 \$ 6,700 \$ 1210105 EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS SF 1300 \$ 4.00 \$ 5,200 \$ 1303196 RELOCATE FIRE HYDRANT EA 1 \$ 2,750.00 \$ 2,750 \$ 2,7					_			
SIGN FACE - SHEET ALUMINIUM (TYPE IX RETROREFLECTIVE SHEETING) SF 50 \$ 56.00 \$ 2,800					_	·		
1210101 4" WHITE EPOXY RESIN PAVEMENT MARKINGS LF 13500 \$ 0.50 \$ 6,750 1210102 4" YELLOW EPOXY RESIN PAVEMENT MARKINGS LF 13400 \$ 0.50 \$ 6,700 1210105 EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS SF 1300 \$ 4.00 \$ 5,200 1303196 RELOCATE FIRE HYDRANT EA 1 \$ 2,750.00 \$ 2,750 Major Items Subtotal \$ 1,668,863 Minor Items Subtotal 15 % of Line "A" \$ 250,329 Major and Minor Contract Items Subtotal (A + B) \$ 1,919,192 Other Item Allowances Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$ 38,384					-	· ·		
1210102 4" YELLOW EPOXY RESIN PAVEMENT MARKINGS LF 13400 \$ 0.50 \$ 6,700 1210105 EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS SF 1300 \$ 4.00 \$ 5,200 1303196 RELOCATE FIRE HYDRANT EA 1 \$ 2,750.00 \$ 2,750 Major Items Subtotal \$ 1,668,863 Minor Items Subtotal 15 % of Line "A" \$ 250,329 Major and Minor Contract Items Subtotal (A + B) \$ 1,919,192 Other Item Allowances Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$ 38,384								
1210105 EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS SF 1300 \$ 4.00 \$ 5,200 \$ 1303196 RELOCATE FIRE HYDRANT EA 1 \$ 2,750.00 \$ 2,750 \$								
1303196 RELOCATE FIRE HYDRANT EA 1 \$ 2,750.00 \$ 2,750 Major Items Subtotal \$ 1,668,863 Minor Items Subtotal 15 % of Line "A" \$ 250,329 Major and Minor Contract Items Subtotal (A + B) \$ 1,919,192 Other Item Allowances Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$ 38,384					_		_	
Major Items Subtotal \$1,668,863 Minor Items Subtotal 15 % of Line "A" \$250,329 Major and Minor Contract Items Subtotal (A + B) \$1,919,192 Other Item Allowances Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$38,384							_	
Minor Items Subtotal 15 % of Line "A" \$ 250,329 Major and Minor Contract Items Subtotal (A + B) \$ 1,919,192 Other Item Allowances Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$ 38,384	1303130	RELOCATE TIRE TITURANT	LA		7	2,730.00		
Major and Minor Contract Items Subtotal (A + B) \$ 1,919,192 Other Item Allowances Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$ 38,384	<u> </u>							,668,863
Other Item Allowances Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$ 38,384	Minor Items Su	ubtotal	15	% of Line "A"			\$	250,329
Clearing and Grubbing (suggested 0.5% - 2%) 2 % of Line "C" \$ 38,384	Major and Minor Contract Items Subtotal (A + B)							,919,192
	Other Item Allowances							
	Clearing and G	rubbing (suggested 0.5% - 2%)	2	% of Line "C"			\$	38,384
	M & P of Traffic	c (suggested 2% - 5%)	4					
Mobilization (suggested 4% - 10%) 6 % of Line "C" \$ 115,151			6					
Construction Staking (suggested 1% - 2%) 2 % of Line "C" \$ 38,384								
	Other Items Su			1			\$	268,687

Date: 10/20/2022

E CONTRACT SUBTOTAL (C + D)			\$ 2,187,879		
Inflation Costs (Simple Method)					
Date of Estimate (provide date of estimate)	Oct-22				
Anticipated Bid Date (provide anticipated bid date)	Apr-24				
Annual Inflation (5% annually, 0% at Final Design)	5%				
F Inflation Subtotal	7.0%	of Line "E"	\$ 153,151		
TOTAL CONTRACT COST ESTIMATE (E + F) (Rounded to nearest \$1000)					

LOTCIP Project Costs Summary		
Contract Cost Estimate (Line "G")		\$ 2,341,000
Contingencies	10%	\$ 234,100
Incidentals	10%	\$ 234,100
ROW	LS	\$ 40,000
RELOCATION OF UTILITY POLE BY OTHERS (100% PARTICIPATING - 10 EA)	LS	\$ 150,000
TOTAL PROJECT COST		\$ 2,849,200

New London Turnpike

Sidewalks & Rehabilitation, Norwich & Montville, CT

LOTCIP Project Number: TBD

Project Estimate: \$2,849,200

Project Schedule:

Hire Design Consultant March 15, 2022

Complete Survey May 31, 2022

Public Informational meeting March 15, 2023

Semi-Final design complete April 30, 2023

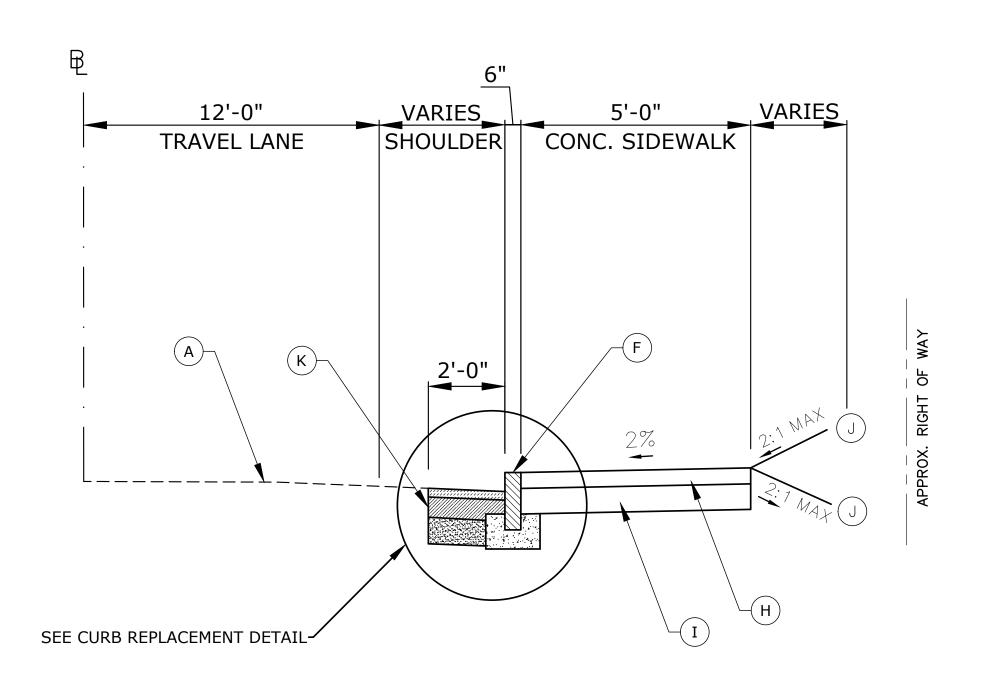
Final Plans complete May 31, 2023

DOT Approval June 30, 2023

Advertise for Bids: July 31, 2023

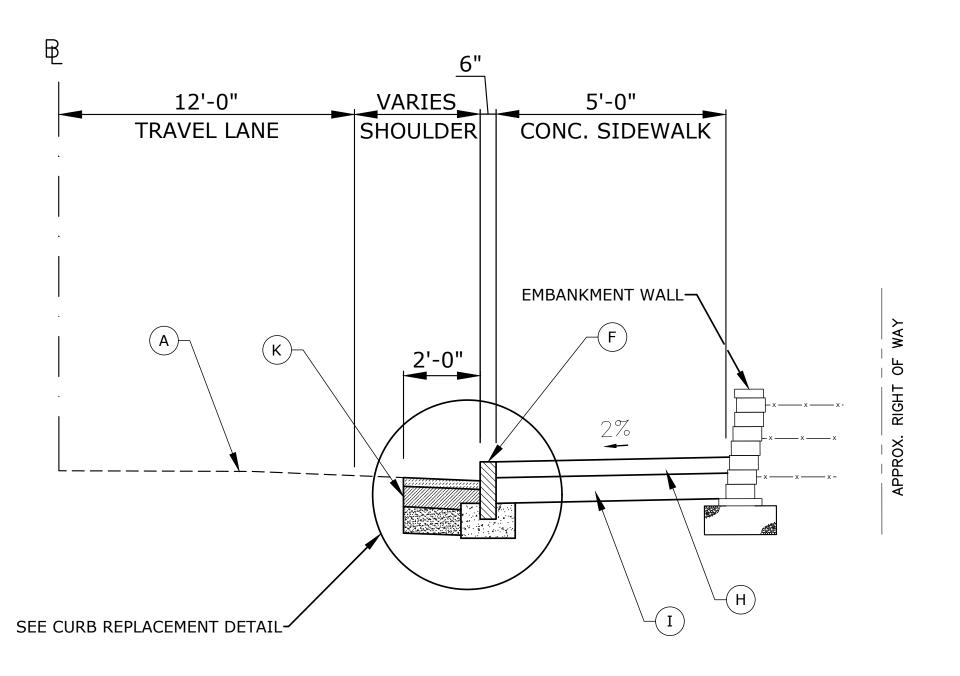
Open Bids September 1, 2023

Start Construction: April 1, 2024



TYPICAL SECTION NO.1

STA. 44+95 - STA. 54+08 STA. 65+71 - STA. 68+25 STA. 70+25 - STA. 77+75 STA. 83+25 - STA. 84+00



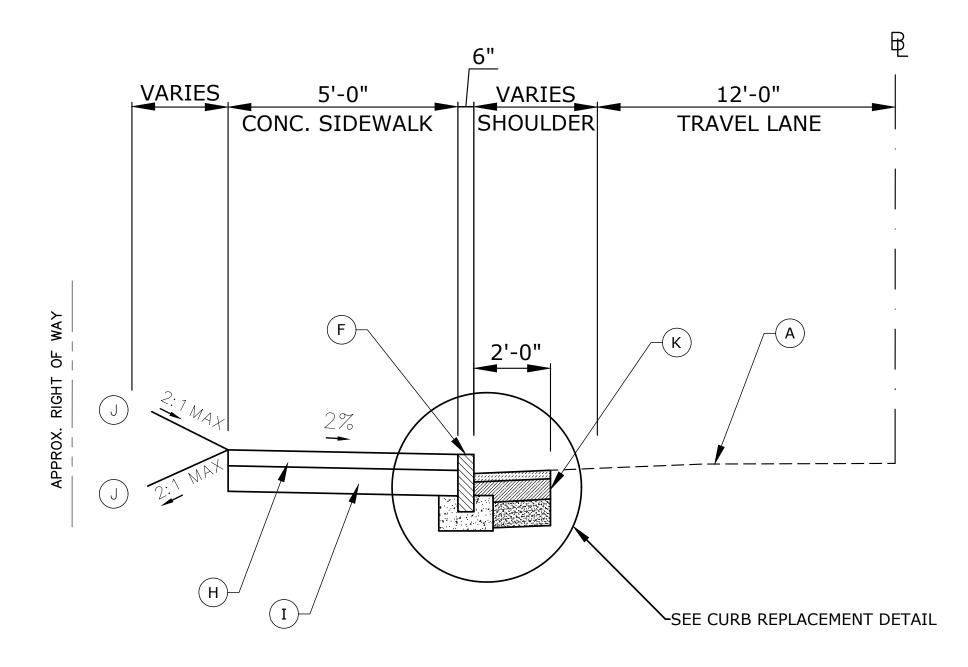
TYPICAL SECTION NO.3

STA. 68+25 - STA. 70+25

NOTES:

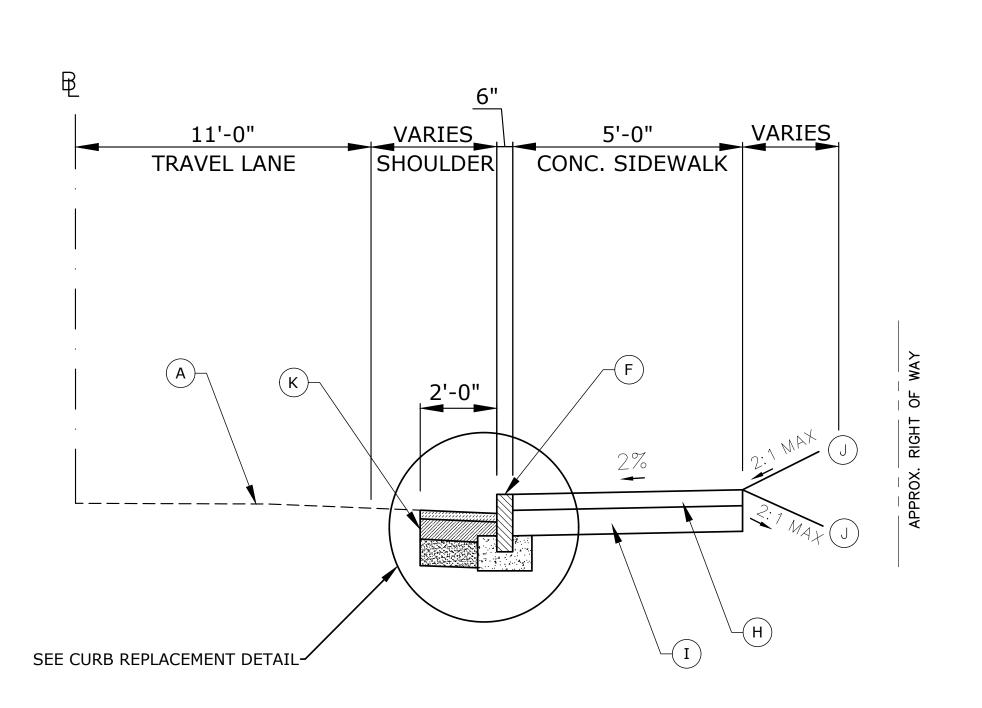
- 1. MINIMUM LENGTH OF CURB STONES-6', MAXIMUM LENGTH OF CURB STONES-10'.
- 2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
- 3. ALL CURVED CURB SHALL BE TRUE RADIAL CUT.
- 4. JOINTS BETWEEN STONES SHALL BE $\frac{1}{4}$ " MIN, $\frac{1}{2}$ " MAX; FILL JOINTS WITH MORTAR TO TOP.
- 5. GRANITE CURB REVEALS VARY. REFER TO CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ** SEE HIGHWAY STANDARD SHEET NO. HW-921-01

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF FREEMAN COMPANIES, LLC



TYPICAL SECTION NO.2

STA. 53+97 - STA. 65+81

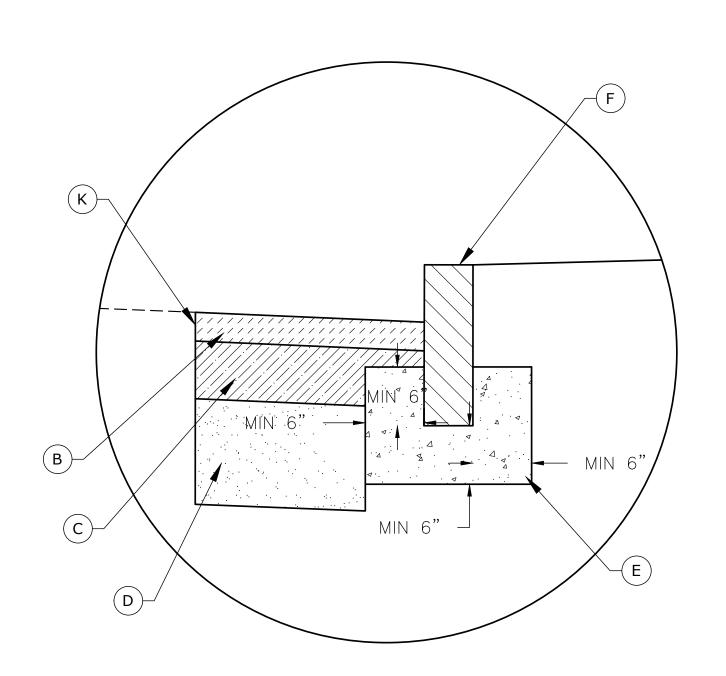


TYPICAL SECTION NO.4

STA. 77+75 - STA. 80+75 STA. 82+25 - STA. 83+25

TYPICAL SECTION LEGEND

- A MILL 3" OF EXISTING SURFACE AND OVERLAY 1.5" HMA SO.375 OVER 1.5" HMA SO.5
- (B) 3" HMA SO.5 LEVEL 3 (PLACED IN SINGLE LIFT)
- (C) 6" HMA S1.0 LEVEL 3 (PLACED IN 2 EVEN LIFTS)
- D) 10" PROCESSED AGGREGATE BASE
- 3,000 PSI CONCRETE AT JOINTS, PROCESSED GRAVEL FOUNDATION ELSEWHERE
- F GRANITE STONE CURB WITH SAWN TOP
- G 6" x 6" W2.1 x W2.1 welded wire fabric mid-depth
- (H) 5" CONCRETE SIDEWALK
- (I) 8" PROCESSED GRAVEL BASE
- J) 6" TOP SOIL & TURF ESTABLISHMENT
- (K) SAW CUT & TACK COAT JOINT SEAL AFTER PAVING
- 8" REINFORCED CONCRETE DRIVEWAY APRON**
- BITUMINOUS CONCRETE DRIVEWAY



CURB REPLACEMENT DETAIL

NO. DATE DESCRIPTION

DOMPANIE

DBE | DAS | MBE | GNMSDC CERTIFIED

CIVIL | GEOTECHNICAL

SURVEY | ENVIRONMENTAL

FREEMAN COMPANIES, LLC

36 JOHN STREET
HARTFORD, CT 06106
WWW.FREEMANCOS.COM
TEL:(860)251-9550
TOLL FREE:(800)604-5141
FAX:(860)986-7161

ELEVATE YOUR EXPECTATION

NEW LONDON TURNPIKE SIDEWALKS & ROAD REHABILITATION

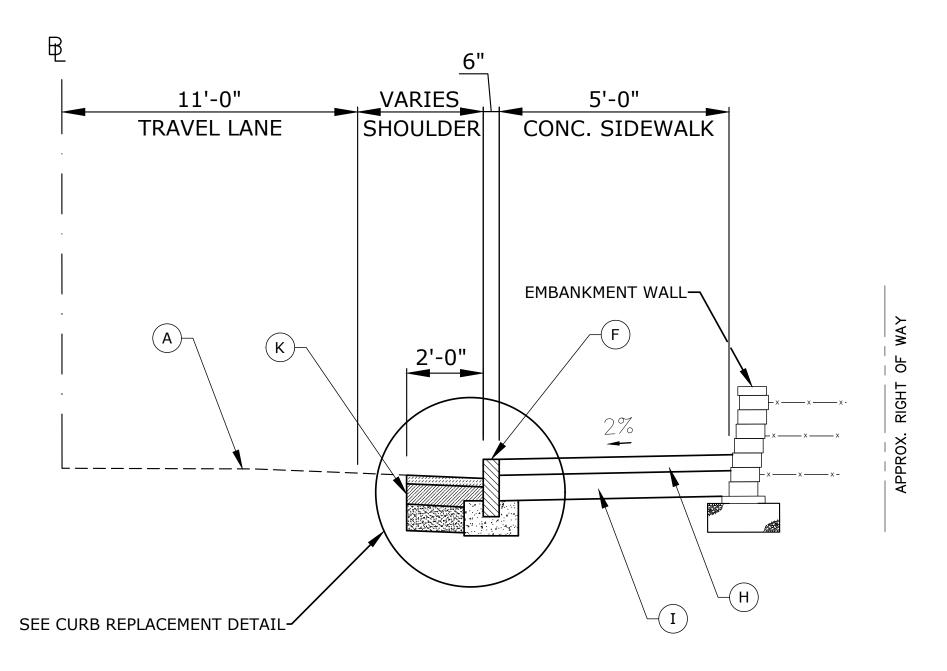
DESIGNED: C.S.
DRAFTED: C.S.
CHECKED: Y.L.
APPROVED: P.A.R.
SCALE: N.T.S.
FC PROJECT NO.: 2022-010

CAD:HW_MSH_2022_0107_TY
TITLE:

TYPICAL SECTION

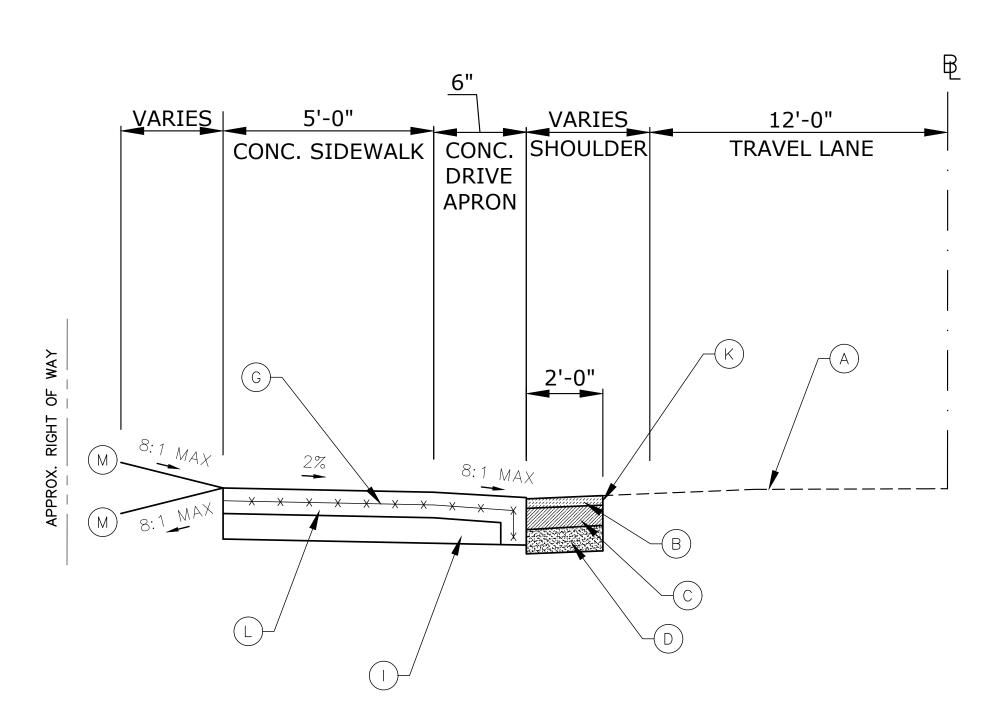
TYP-01

SHEET NO .:



TYPICAL SECTION NO.5

STA. 80+75 - STA. 82+25



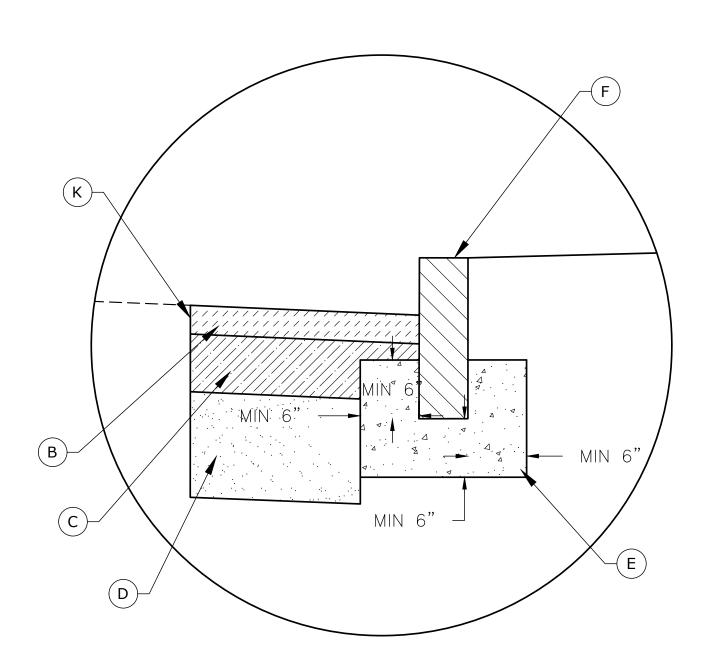
TYPICAL CONC. DRIVEWAY APRON SECTION

NOTES:

- 1. MINIMUM LENGTH OF CURB STONES-6', MAXIMUM LENGTH OF CURB STONES-10'.
- 2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
- 3. ALL CURVED CURB SHALL BE TRUE RADIAL CUT.
- 4. JOINTS BETWEEN STONES SHALL BE $\frac{1}{4}$ " MIN, $\frac{1}{2}$ " MAX; FILL JOINTS WITH MORTAR TO TOP.
- 5. GRANITE CURB REVEALS VARY. REFER TO CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ** SEE HIGHWAY STANDARD SHEET NO. HW-921-01

TYPICAL SECTION LEGEND

- A MILL 3" OF EXISTING SURFACE AND OVERLAY 1.5" HMA S0.375 OVER 1.5" HMA S0.5
- (B) 3" HMA SO.5 LEVEL 3 (PLACED IN SINGLE LIFT)
- 6" HMA S1.0 LEVEL 3 (PLACED IN 2 EVEN LIFTS)
- 10" PROCESSED AGGREGATE BASE
- 3,000 PSI CONCRETE AT JOINTS, 3,000 PSI CONCRETE AT JOIN IS, PROCESSED GRAVEL FOUNDATION ELSEWHERE
- GRANITE STONE CURB WITH SAWN TOP
- 6" x 6" W2.1 x W2.1 G 6" x 6" W2.1 x W2.1 WELDED WIRE FABRIC MID-DEPTH
- 5" CONCRETE SIDEWALK
- 8" PROCESSED GRAVEL BASE
- 6" TOP SOIL & TURF ESTABLISHMENT
- SAW CUT & TACK COAT JOINT SEAL AFTER PAVING
- 8" REINFORCED CONCRETE DRIVEWAY APRON**
- (M) BITUMINOUS CONCRETE DRIVEWAY



CURB REPLACEMENT DETAIL

FREEMAN

DBE | DAS | MBE | GNMSDC CERTIFIED

CIVIL | GEOTECHNICAL

SURVEY | ENVIRONMENTAL

FREEMAN COMPANIES, LLC

36 JOHN STREET
HARTFORD, CT 06106
WWW.FREEMANCOS.COM
TEL: (860)251-9550
TOLL EDE: (890)064, 5144 TOLL FREE: (800)604-5141 FAX: (860)986-7161

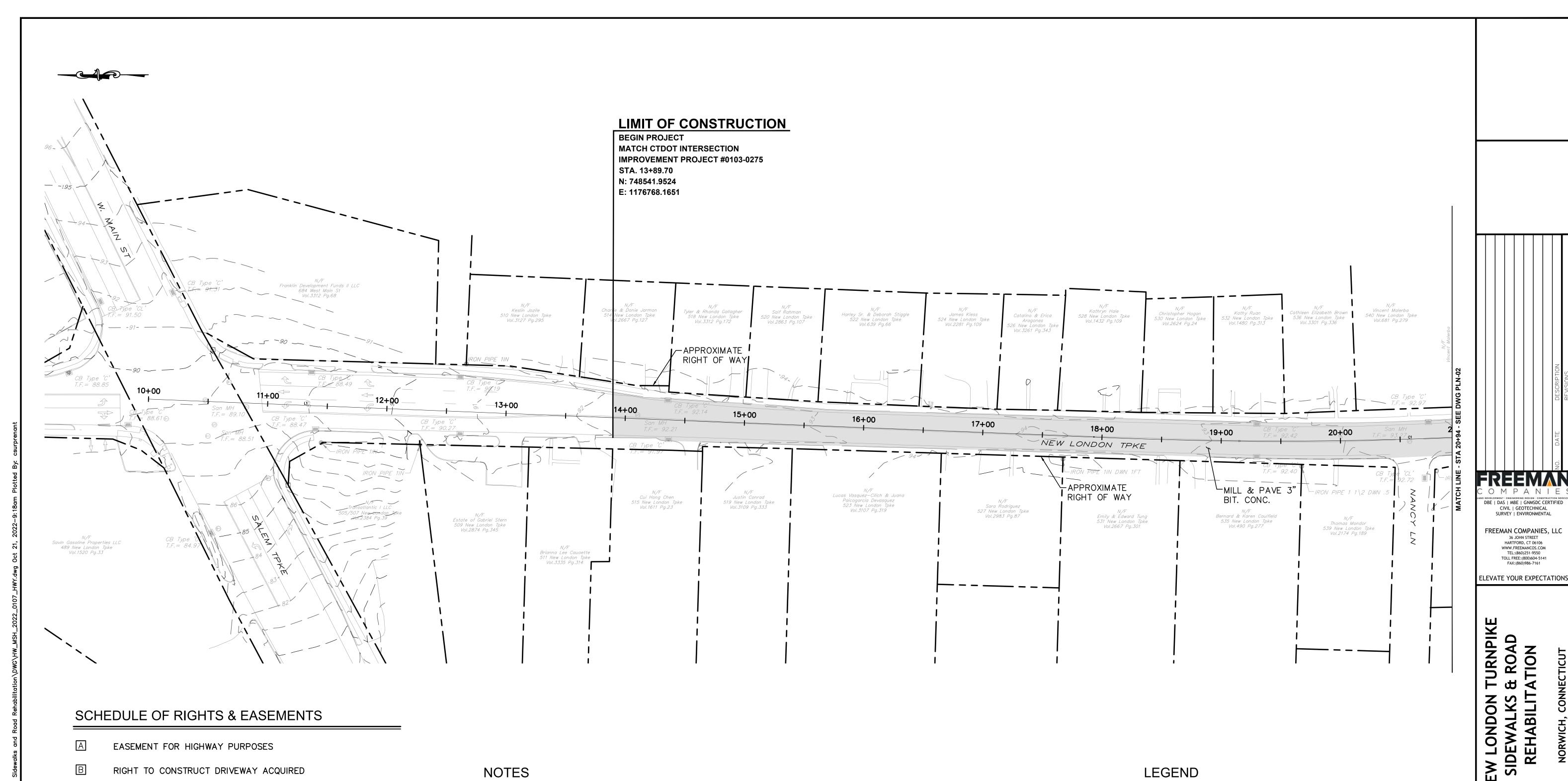
ELEVATE YOUR EXPECTATION

C PROJECT NO.: 2022-010

TYPICAL SECTION

CAD:HW_MSH_2022_0107_T\

TYP-02



SCHEDULE OF RIGHTS & EASEMENTS

- EASEMENT FOR HIGHWAY PURPOSES
- RIGHT TO CONSTRUCT DRIVEWAY ACQUIRED
- RIGHT TO GRADE AND INSTALL SEDIMENTATION CONTROL ACQUIRED

	Curve Table: Alignments						
Cı	urve #	Radius	Length	Delta Angle	Chord Direction	Start Point	End Point
	C1	3445.00	606.29	10.0836	S2° 26' 55"E	(1176752.02,748138.69)	(1176777.89,747533.74)

Line	Table:	Alignments
Line #	Length	Direction
L1	793.20'	S2° 17′ 32″W

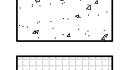
NOTES

- 1. ALL SOIL DISTURBANCES SHALL BE TREATED WITH 6" TOPSOIL & TURF ESTABLISHMENT.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- 3. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER REGARDING THE LIMITS OF RESTORATION TO ENSURE A SMOOTH TRANSITION FROM NEW CONSTRUCTION TO EXISTING CONDITIONS.
- 4. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (CBYD) 1-800-922-4455 PRIOR TO COMMENCING CONSTRUCTION.
- 5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 6. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY FOR MANHOLES, GATES, BOXES AND FRAMES ETC., AFFECTED BY THE CONSTRUCTION ACTIVITIES WHICH ARE NOT IDENTIFIED AS BEING REMOVED SHALL BE RESET OR RECONSTRUCTED (AS REQUIRED) TO THE PROPER GRADE.
- 7. EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.
- 8. ALL CATCH BASIN TOPS WITHIN LIMITS OF MILL AND PAVE TO BE REMOVED AND REPLACED WITH NEW TOPS SET TO GRADE.

LEGEND



3" MILL & PAVE BIT. CONC.



CONCRETE SIDEWALK / CONCRETE DRIVEWAY APRON



BIT. CONCRETE DRIVEWAY

CUT/FILL APPROXIMATE SLOPE LIMITS SEDIMENTATION CONTROL SYSTEM

———— HIGHWAY LINE

GRAPHIC SCALE SCALE IN FEET

RAFTED: C.S. CHECKED: P.A.R. APPROVED: AS NOTED SCALE: C PROJECT NO.: 2022-010 CAD:HW_MSH_2022_0107_H\ **ROADWAY PLAN**

36 JOHN STREET

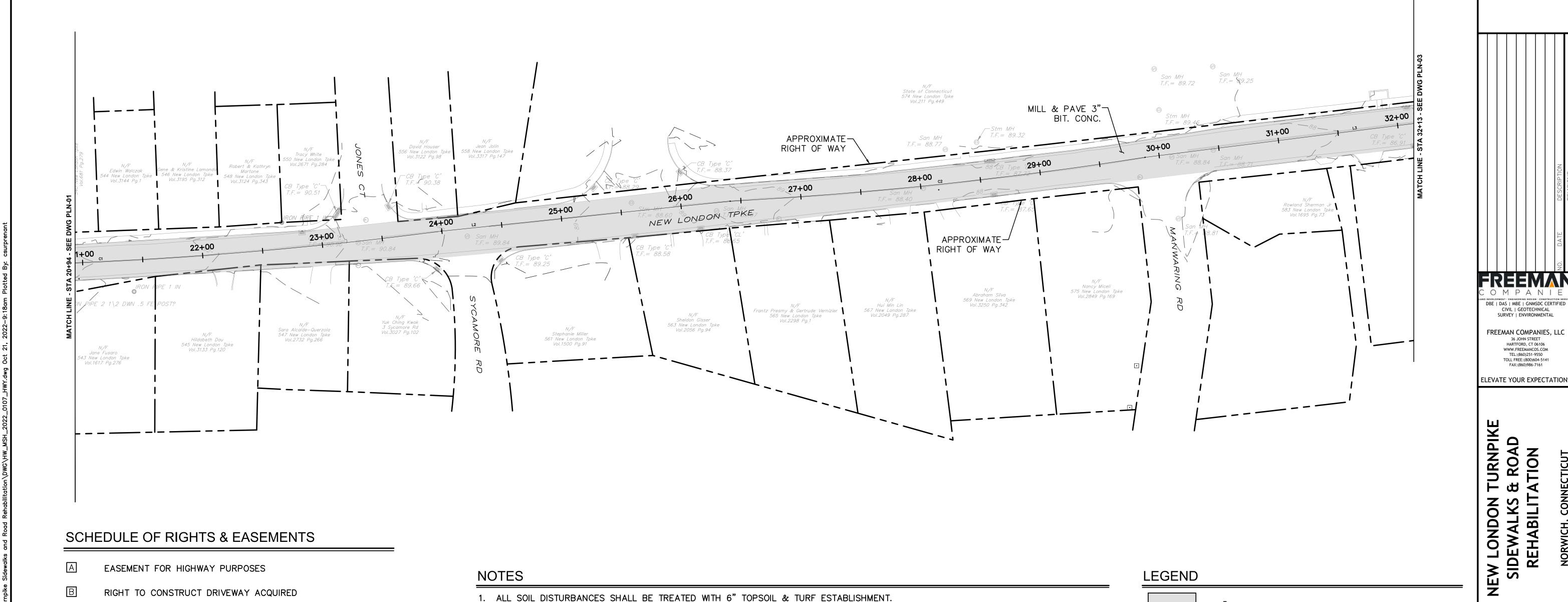
HARTFORD, CT 06106

WWW.FREEMANCOS.COM TEL:(860)251-9550

TOLL FREE: (800) 604-5141 FAX: (860)986-7161

PLN-01





SCHEDULE OF RIGHTS & EASEMENTS

- EASEMENT FOR HIGHWAY PURPOSES
- RIGHT TO CONSTRUCT DRIVEWAY ACQUIRED
- RIGHT TO GRADE AND INSTALL SEDIMENTATION CONTROL ACQUIRED

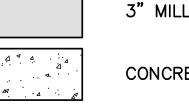
	Curve Table: Alignments						
Curve #	Radius	Length	Delta Angle	Chord Direction	Start Point	End Point	
C1	3445.00	606.29	10.0836	S2° 26' 55"E	(1176752.02,748138.69)	(1176777.89,747533.74)	
C2	3415.00	347.17	5.8247	S6° 01' 57"E	(1176802.81,747293.48)	(1176839.28,746948.39)	

Line	Table:	Alignments
Line #	Length	Direction
L2	241.54	S5° 55' 18"E
L3	340.39	S7° 09' 37"E

NOTES

- 1. ALL SOIL DISTURBANCES SHALL BE TREATED WITH 6" TOPSOIL & TURF ESTABLISHMENT.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- 3. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER REGARDING THE LIMITS OF RESTORATION TO ENSURE A SMOOTH TRANSITION FROM NEW CONSTRUCTION TO EXISTING CONDITIONS.
- 4. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (CBYD) 1-800-922-4455 PRIOR TO COMMENCING CONSTRUCTION.
- 5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 6. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY FOR MANHOLES, GATES, BOXES AND FRAMES ETC., AFFECTED BY THE CONSTRUCTION ACTIVITIES WHICH ARE NOT IDENTIFIED AS BEING REMOVED SHALL BE RESET OR RECONSTRUCTED (AS REQUIRED) TO THE PROPER GRADE.
- 7. EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.
- 8. ALL CATCH BASIN TOPS WITHIN LIMITS OF MILL AND PAVE TO BE REMOVED AND REPLACED WITH NEW TOPS SET TO GRADE.

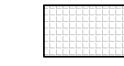
LEGEND



3" MILL & PAVE BIT. CONC.



CONCRETE SIDEWALK / CONCRETE DRIVEWAY APRON



BIT. CONCRETE DRIVEWAY

CUT/FILL APPROXIMATE SLOPE LIMITS SEDIMENTATION CONTROL SYSTEM

———— HIGHWAY LINE

GRAPHIC SCALE SCALE IN FEET

RAFTED: C.S. CHECKED: APPROVED: P.A.R. AS NOTED FC PROJECT NO.: 2022-010 CAD:HW_MSH_2022_0107_HW **ROADWAY PLAN**

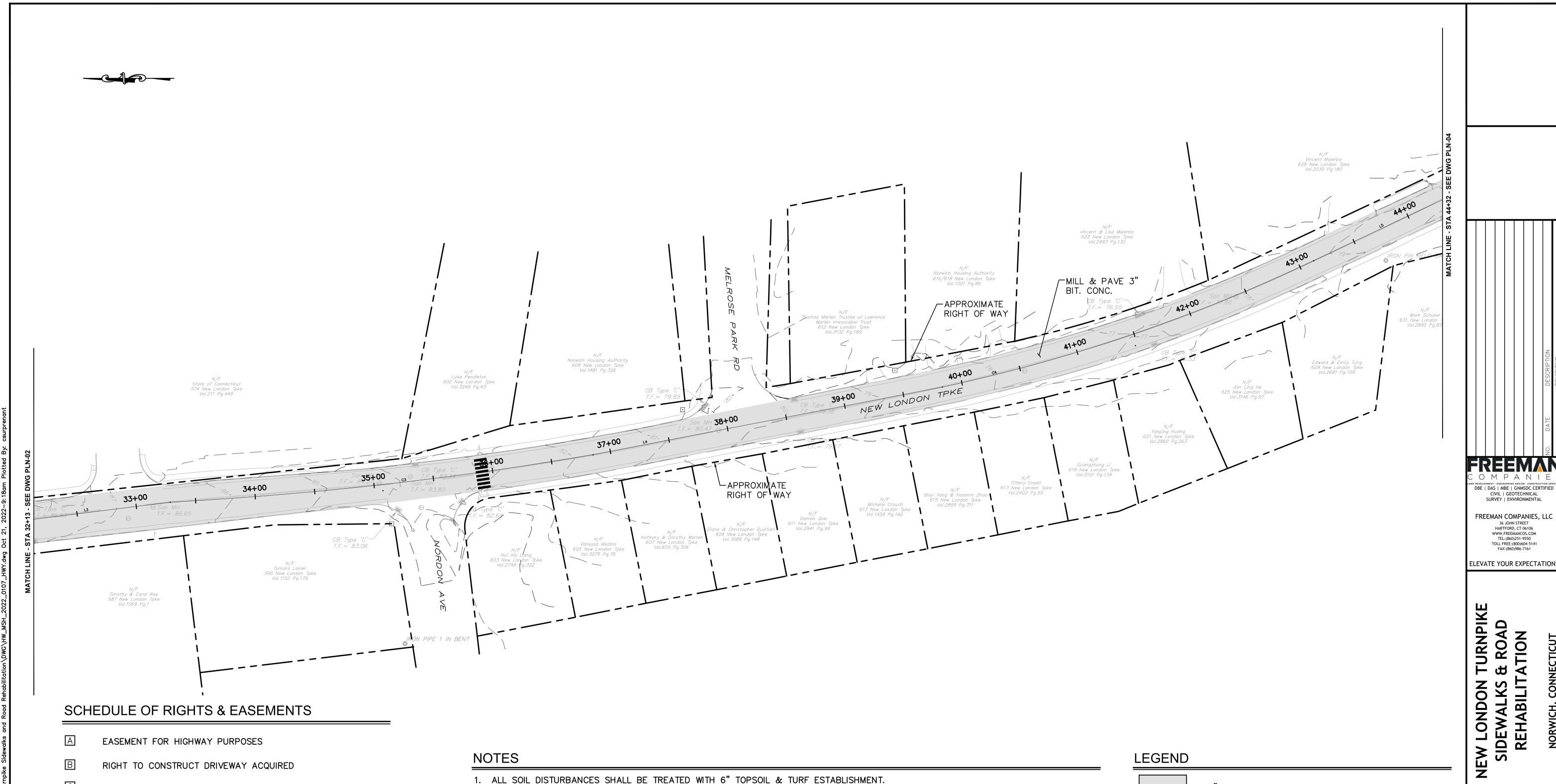
CIVIL | GEOTECHNICAL SURVEY | ENVIRONMENTAL

36 JOHN STREET

HARTFORD, CT 06106 WWW.FREEMANCOS.COM

TEL: (860)251-9550 TOLL FREE: (800)604-5141 FAX: (860)986-7161

PLN-02



RIGHT TO GRADE AND INSTALL SEDIMENTATION CONTROL ACQUIRED

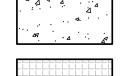
	Curve Table: Alignments						
Curve #	Radius	Length	Delta Angle	Chord Direction	Start Point	End Point	
С3	3075.00	356.63	6.6450	S6° 24' 16"E	(1176881.71,746610.66)	(1176921.47,746256.45)	
C4	1415.00	329.37	13.3369	S18° 48' 07"E	(1176978.17,745963.92)	(1177084.08,745652.83)	

Line	Table:	Alignments
Line #	Length	Direction
L3	340.39'	S7° 09' 37"E
L4	297.97	S10° 58′ 11″E
L5	416.36'	S25° 21' 11"E

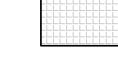
- 1. ALL SOIL DISTURBANCES SHALL BE TREATED WITH 6" TOPSOIL & TURF ESTABLISHMENT.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- 3. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER REGARDING THE LIMITS OF RESTORATION TO ENSURE A SMOOTH TRANSITION FROM NEW CONSTRUCTION TO EXISTING CONDITIONS.
- 4. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (CBYD) 1-800-922-4455 PRIOR TO COMMENCING CONSTRUCTION.
- 5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 6. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY FOR MANHOLES, GATES, BOXES AND FRAMES ETC., AFFECTED BY THE CONSTRUCTION ACTIVITIES WHICH ARE NOT IDENTIFIED AS BEING REMOVED SHALL BE RESET OR RECONSTRUCTED (AS REQUIRED) TO THE PROPER GRADE.
- 7. EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.
- 8. ALL CATCH BASIN TOPS WITHIN LIMITS OF MILL AND PAVE TO BE REMOVED AND REPLACED WITH NEW TOPS SET TO GRADE.



3" MILL & PAVE BIT. CONC.



CONCRETE SIDEWALK / CONCRETE DRIVEWAY APRON

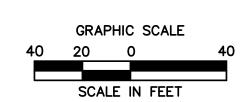


BIT. CONCRETE DRIVEWAY

SEDIMENTATION CONTROL SYSTEM

CUT/FILL APPROXIMATE SLOPE LIMITS

————— HIGHWAY LINE



C PROJECT NO.: 2022-010 CAD:HW_MSH_2022_0107_HW **ROADWAY PLAN**

C.S.

P.A.R.

AS NOTED

RAFTED:

CHECKED:

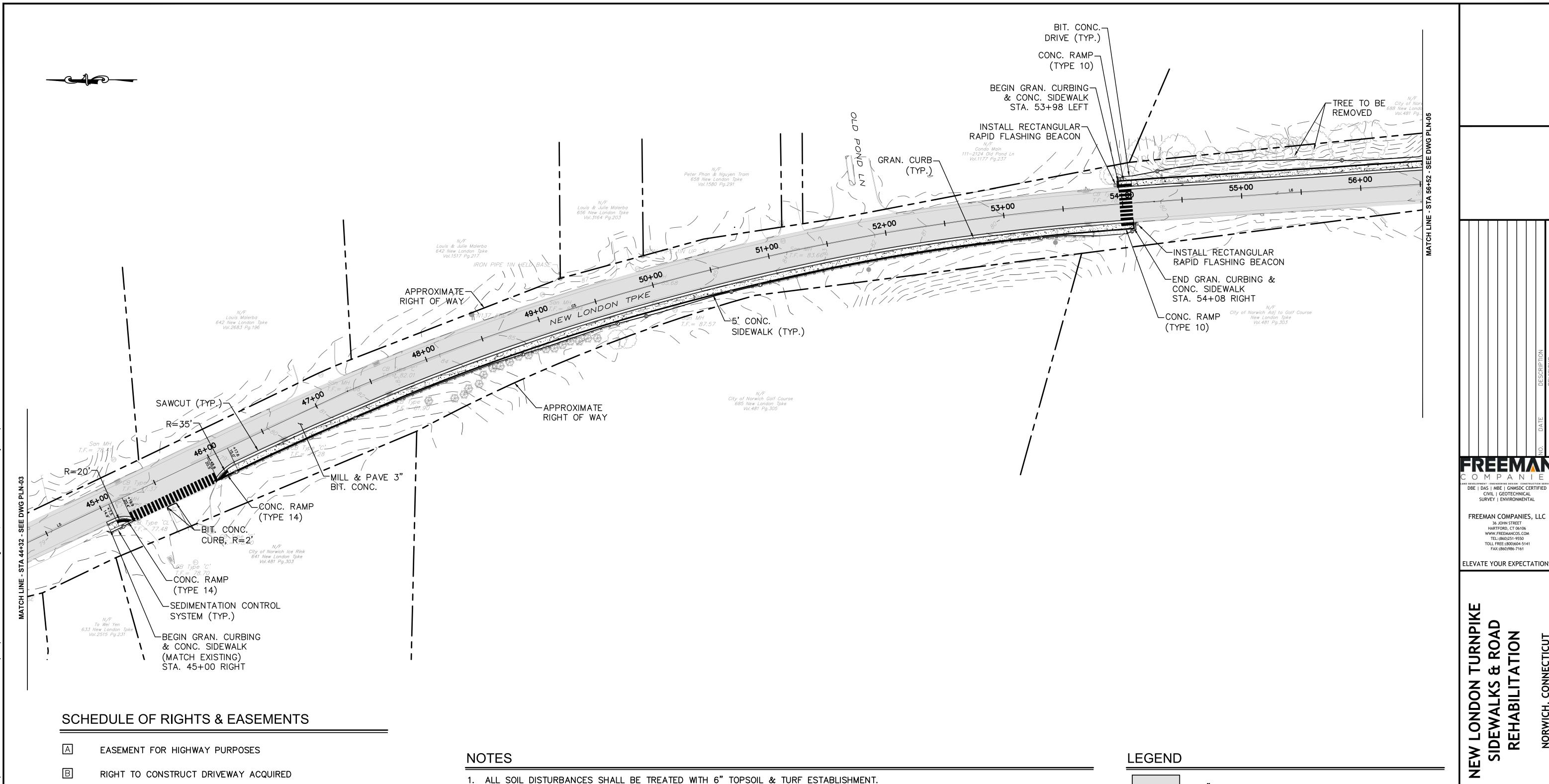
APPROVED:

36 JOHN STREET HARTFORD, CT 06106 WWW.FREEMANCOS.COM

TEL: (860)251-9550

TOLL FREE: (800)604-5141 FAX: (860)986-7161

PLN-03



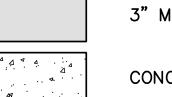
- RIGHT TO CONSTRUCT DRIVEWAY ACQUIRED
- RIGHT TO GRADE AND INSTALL SEDIMENTATION CONTROL ACQUIRED

			Cu	rve lable: Al	ignments	
Curve #	Radius	Length	Delta Angle	Chord Direction	Start Point	End Point
C5	2056.00	697.57	19.4397	S13° 13′ 42″E	(1177262.37,745276.57)	(1177421.23,744600.76)

Line	Table:	Alignments
Line #	Length	Direction
L5	416.36'	S25° 21' 11"E
L6	1387.57	S3° 44' 44"E

Granite St	one Curb
STA. 45+00 -	STA. 56+52
STRAIGHT	L=1,016'
R=20'	L=14'
R=35'	L=20'

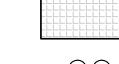
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3" MILL & PAVE BIT. CONC.



CONCRETE SIDEWALK / CONCRETE DRIVEWAY APRON

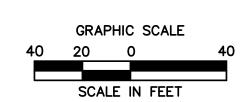


BIT. CONCRETE DRIVEWAY

CUT/FILL APPROXIMATE SLOPE LIMITS

SEDIMENTATION CONTROL SYSTEM

----- HIGHWAY LINE



SIGNED: C.S. RAFTED: C.S. CHECKED: Y.L. P.A.R. APPROVED: AS NOTED SCALE: C PROJECT NO.: 2022-0107 04/27/202 CAD:HW_MSH_2022_0107_HW

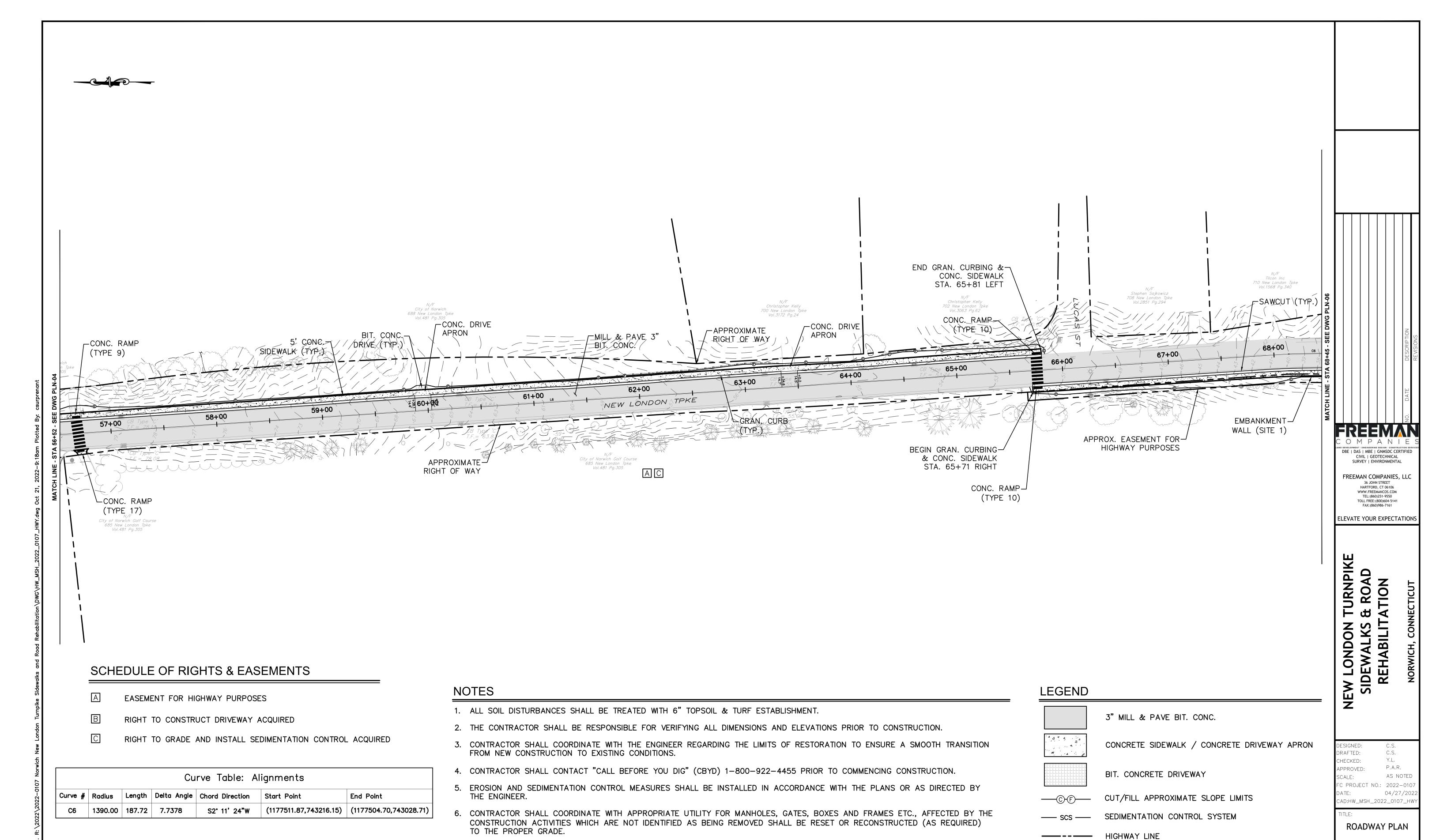
CIVIL | GEOTECHNICAL SURVEY | ENVIRONMENTAL

FREEMAN COMPANIES, LLC 36 JOHN STREET HARTFORD, CT 06106 WWW.FREEMANCOS.COM

TEL:(860)251-9550 TOLL FREE: (800)604-5141 FAX: (860)986-7161

ROADWAY PLAN

PLN-04



8. ALL CATCH BASIN TOPS WITHIN LIMITS OF MILL AND PAVE TO BE REMOVED AND REPLACED WITH NEW TOPS SET TO GRADE.

PLN-05

GRAPHIC SCALE

SCALE IN FEET

7. EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.

L6 1387.57' S3' 44' 44"E

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF FREEMAN COMPANIES, LLC

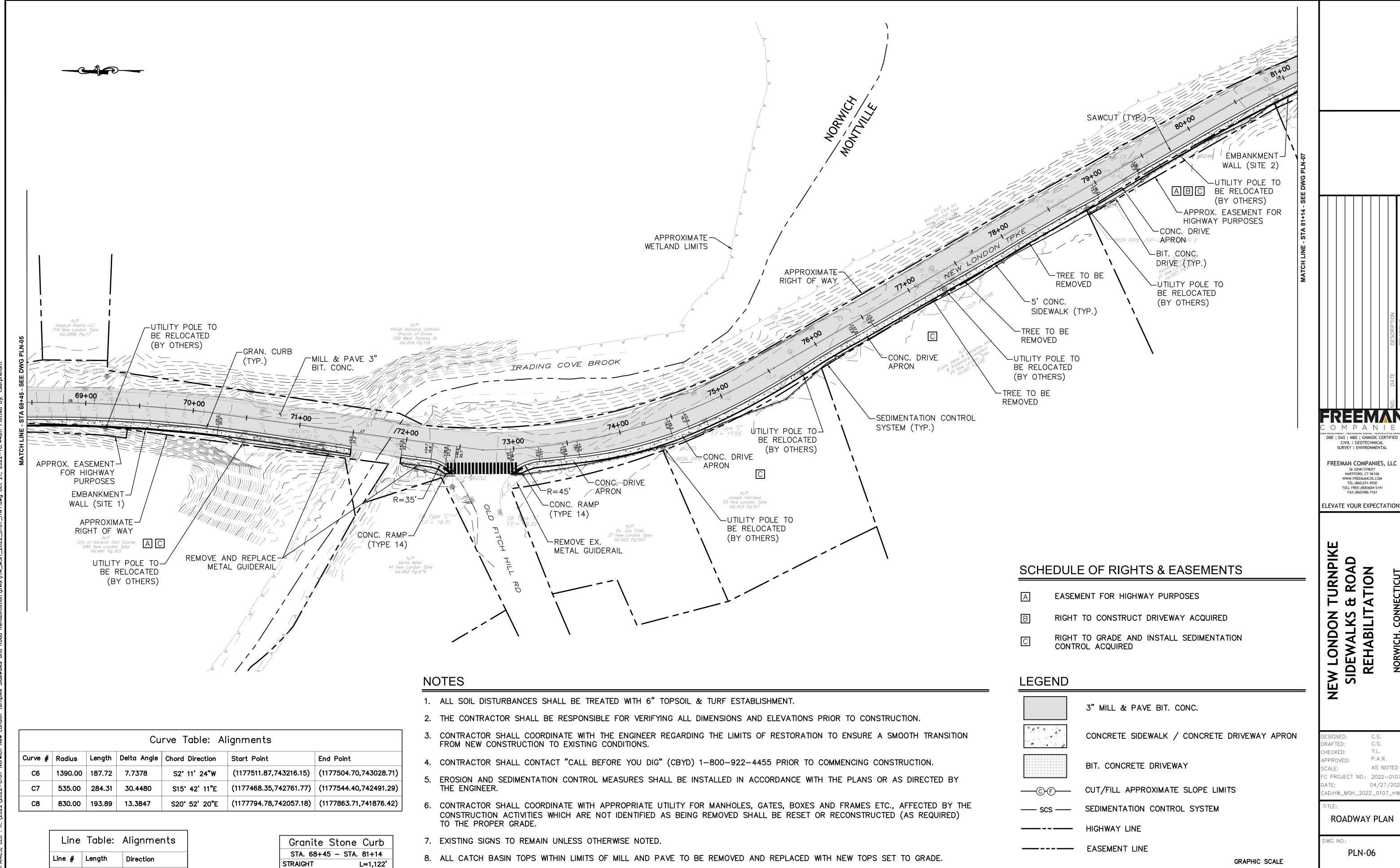
Granite Stone Curb

STA. 56+52 - STA. 68+45

L=1,186'

Line Table: Alignments

Line # | Length



L=25'

L=30'

R=35'

R=45'

S7° 45' 19"W

S29° 58′ 33″E

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF FREEMAN COMPANIES, LLC

269.40'

501.14

40 20 0 SCALE IN FEET C.S.

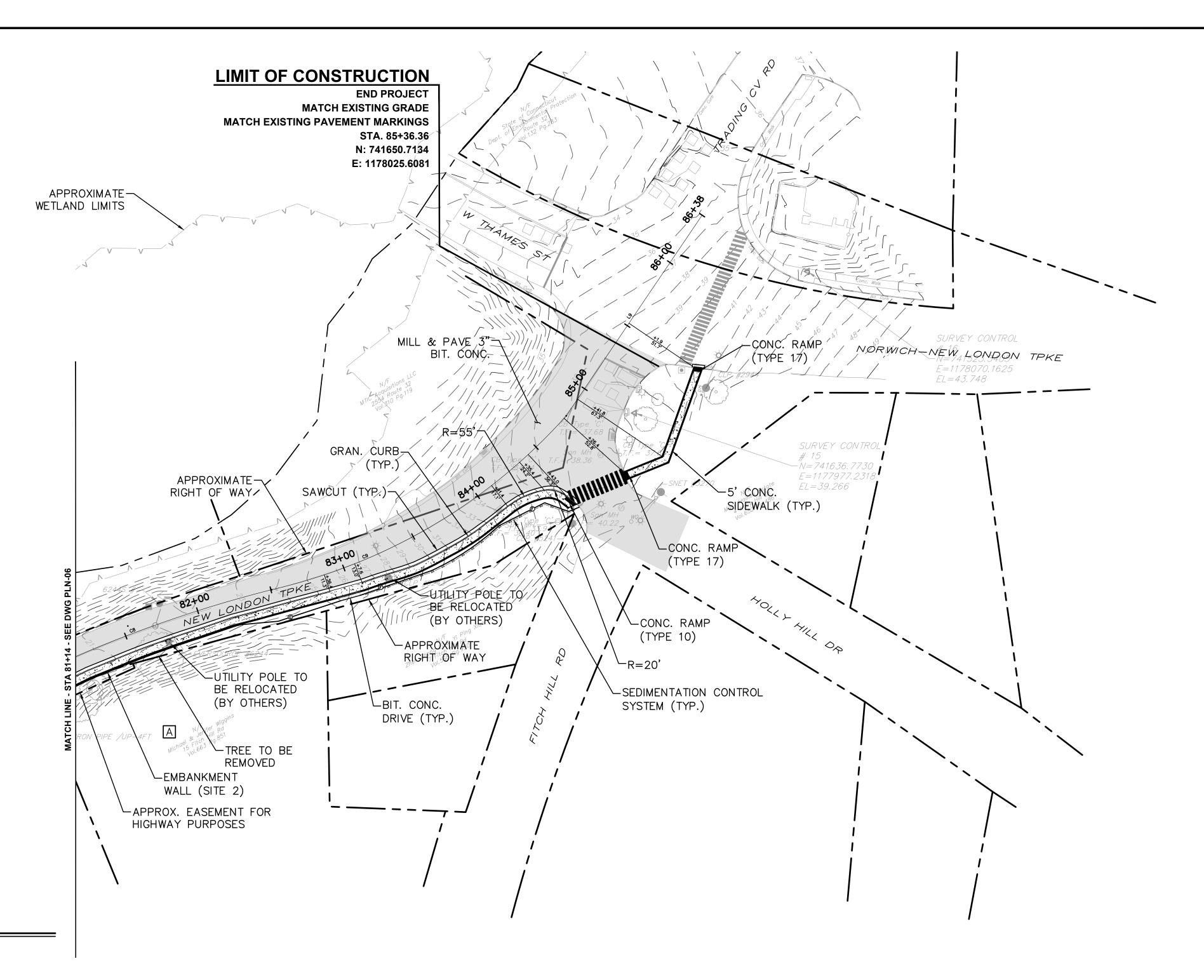
C.S. Y.L.

P.A.R.

AS NOTED

04/27/20





SCHEDULE OF RIGHTS & EASEMENTS

- EASEMENT FOR HIGHWAY PURPOSES
- RIGHT TO CONSTRUCT DRIVEWAY ACQUIRED
- RIGHT TO GRADE AND INSTALL SEDIMENTATION CONTROL ACQUIRED

	Curve Table: Alignments									
Curve #	Radius	Length	Delta Angle	Chord Direction	Start Point	End Point				
С8	830.00	193.89	13.3847	S20° 52' 20"E	(1177794.78,742057.18)	(1177863.71,741876.42)				
C9	370.00	228.01	35.3119	S30° 32' 11"E	(1177863.71,741876.42)	(1177977.73,741683.13)				

Li	ne	Table:	Alignments
Line	#	Length	Direction
LS)	158.98'	S55° 54' 01"E

Granite Stone	Curb
STA. 81+14 - STA.	85+36
STRAIGHT	L=295'
R=55'	L=27'
R=20'	L=16'

NOTES

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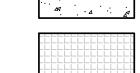
LEGEND



3" MILL & PAVE BIT. CONC.



CONCRETE SIDEWALK / CONCRETE DRIVEWAY APRON

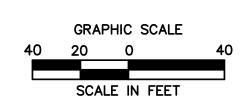


BIT. CONCRETE DRIVEWAY

CUT/FILL APPROXIMATE SLOPE LIMITS

SEDIMENTATION CONTROL SYSTEM

---- HIGHWAY LINE



FREEMAN DBE | DAS | MBE | GNMSDC CERTIFIED CIVIL | GEOTECHNICAL SURVEY | ENVIRONMENTAL FREEMAN COMPANIES, LLC

TOLL FREE:(800)604-5141 FAX:(860)986-7161 ELEVATE YOUR EXPECTATION

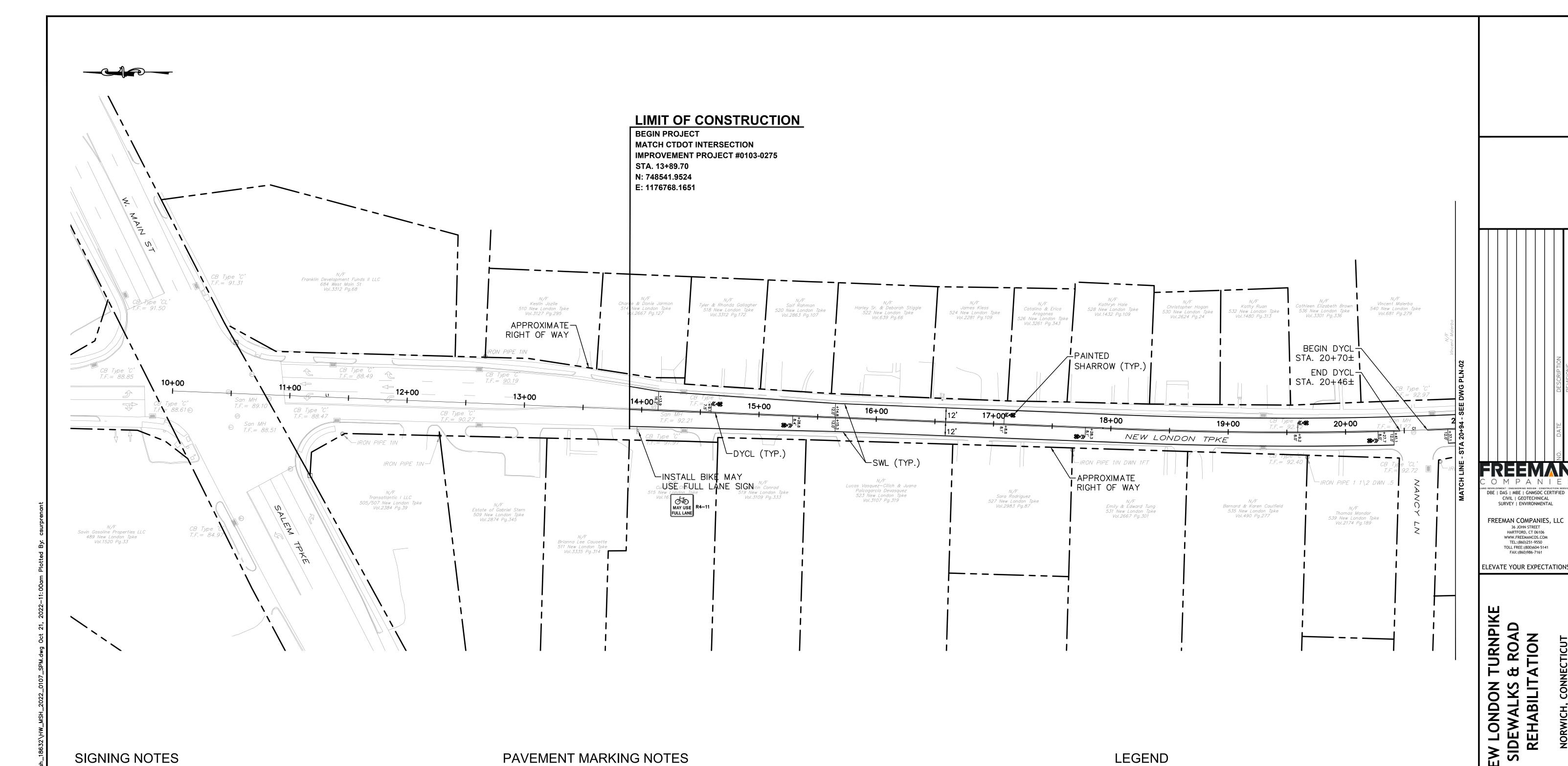
36 JOHN STREET HARTFORD, CT 06106 WWW.FREEMANCOS.COM TEL: (860)251-9550

EW LONDON 'SIDEWALKS REHABILITA

SIGNED: RAFTED: C.S. CHECKED: P.A.R. APPROVED: AS NOTED SCALE: FC PROJECT NO.: 2022-010 CAD:HW_MSH_2022_0107_HW

ROADWAY PLAN

PLN-07



- 1. INSTALL ALL SIGNS AS INDICATED.
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- 3. ALL EXISTING SIGNS OUTSIDE THE LIMITS OF CONSTRUCTION TO REMAIN UNLESS OTHERWISE NOTED ON PLANS OR DIRECTED BY THE ENGINEER.
- 4. EXACT SIGN LOCATIONS TO BE DETERMINED IN THE FIELD.
- 5. WHEN A SIGN IS TO BE REPLACED, THE EXISTING SIGN SHOULD NOT BE REMOVED UNTIL THE NEW REPLACEMENT SIGN IS INSTALLED.
- 6. INSTALL SIGNS IN ACCORDANCE WITH CTDOT STANDARD SHEETS "SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS" AND "METAL SIGN POSTS AND SIGN MOUNTING DETAILS".

PAVEMENT MARKING NOTES

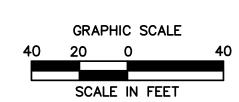
- 1. ALL FINAL PAVEMENT MARKINGS TO BE EPOXY UNLESS OTHERWISE NOTED ON THE PLANS.
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- 3. PAVEMENT MARKINGS TO BE INSTALL IN ACCORDANCE WITH TRAFFIC STANDARD SHEETS TR-1210_04, TR1210_08 AND TR-1210_09 EXCEPT AS OTHERWISE DIMENSIONED OR SHOWN ON
- 4. EXISTING PAVEMENT MARKINGS SHALL BE REMOVED BY CONTRACTOR WHERE IN CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS BY A METHOD WHICH IS ACCEPTABLE BY CTDOT DISTRICT OFFICE AND THE CITY. GRINDING IS NOT ALLOWED.

LEGEND

CROSSWALK

4" SOLID WHITE LINE DYCL 4" DOUBLE YELLOW CENTERLINE DYDEL DOUBLE YELLOW DOTTED EXTENSION LINE 12" SOLID WHITE STOP BAR SWSB

16" WIDE, 10' LONG, 24" SPACE



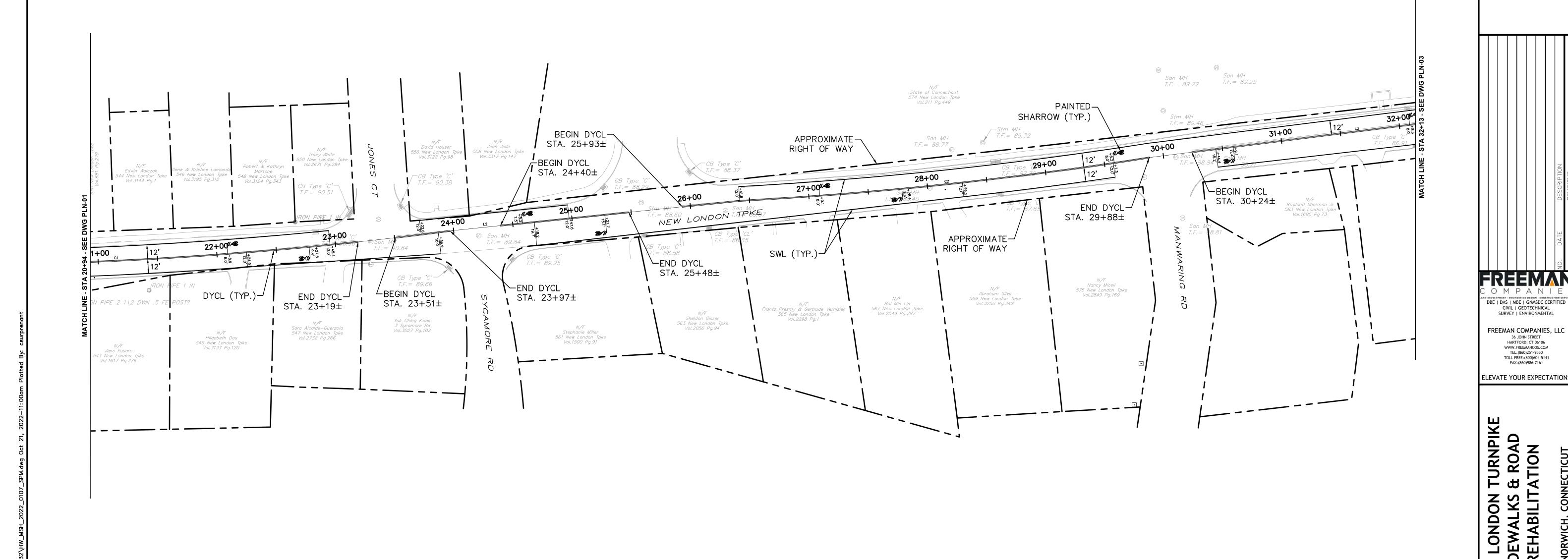
RAFTED: C.S. CHECKED: P.A.R. APPROVED: AS NOTED SCALE: FC PROJECT NO.: 2022-010 CAD:HW_MSH_2022_0107_SP SIGNAGE & PAVEMEN

SIGNED:

MARKING PLAN

SPM-01





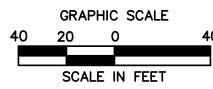
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LEGEND

4" SOLID WHITE LINE DYCL 4" DOUBLE YELLOW CENTERLINE DOUBLE YELLOW DOTTED EXTENSION LINE SWSB 12" SOLID WHITE STOP BAR CROSSWALK 16" WIDE, 10' LONG, 24" SPACE



SIGNAGE & PAVEMEN MARKING PLAN SPM-02

RAFTED:

CHECKED:

APPROVED:

SCALE:

36 JOHN STREET

HARTFORD, CT 06106 WWW.FREEMANCOS.COM

TEL: (860)251-9550 TOLL FREE: (800)604-5141 FAX:(860)986-7161

SIDI

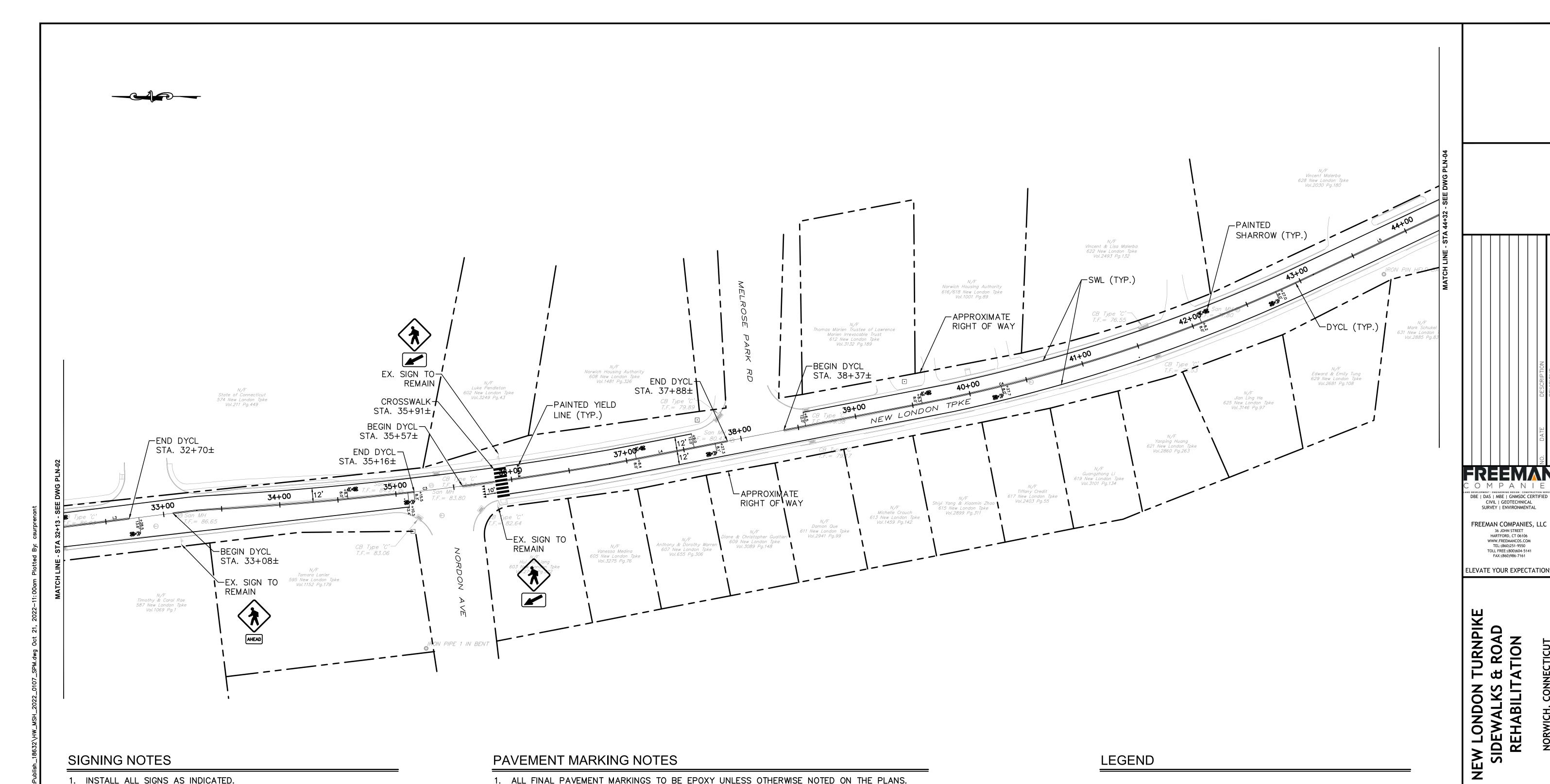
C.S.

P.A.R.

FC PROJECT NO.: 2022-010

CAD:HW_MSH_2022_0107_SP

AS NOTED



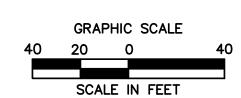
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LEGEND

SWL	4" SOLID WHITE LINE
DYCL	4" DOUBLE YELLOW CENTERLINE
DYDEL	DOUBLE YELLOW DOTTED EXTENSION LINE
SWSB	12" SOLID WHITE STOP BAR
CROSSWALK	16" WIDE, 10' LONG, 24" SPACE

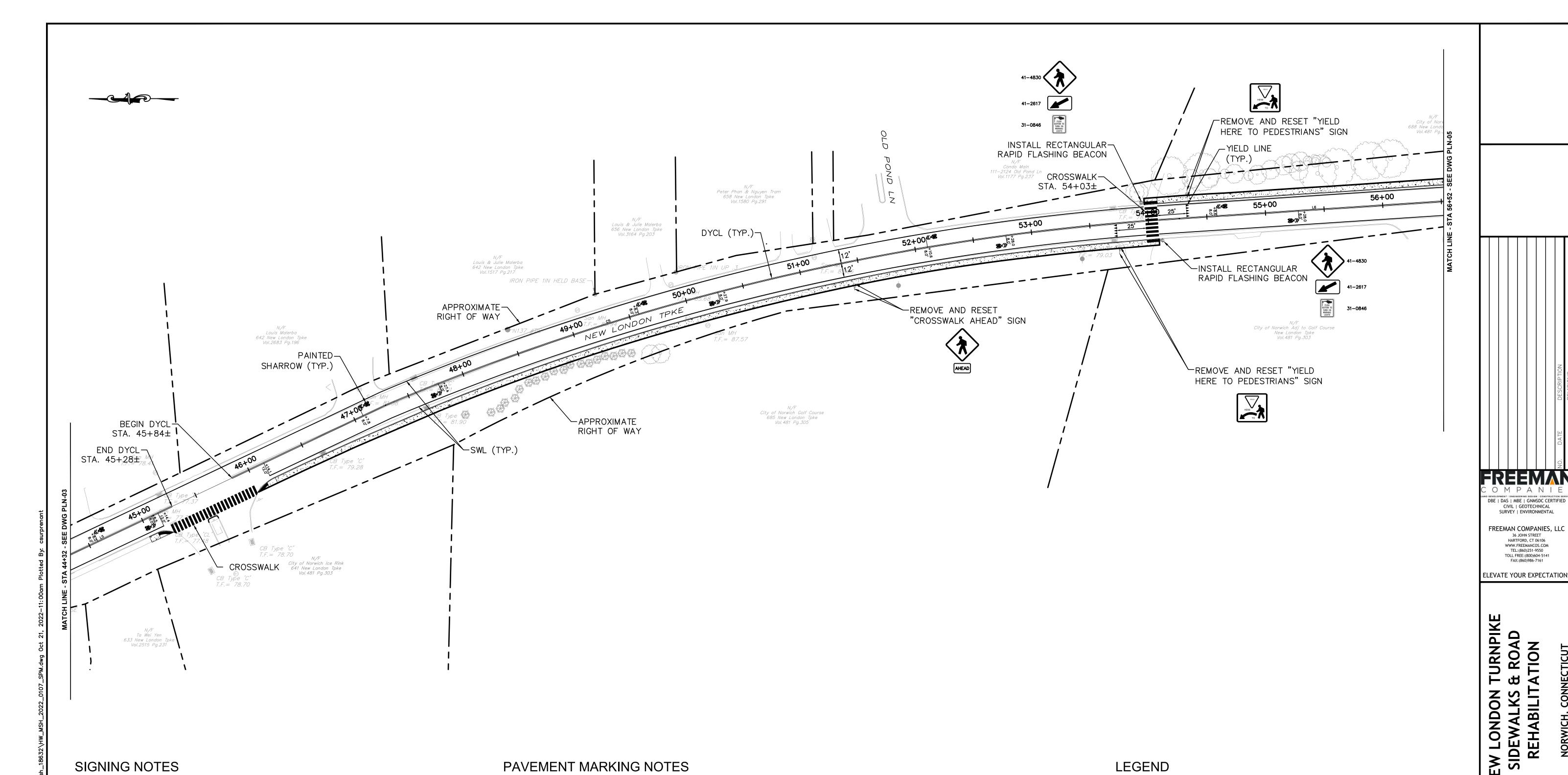


RAFTED: C.S. CHECKED: P.A.R. APPROVED: AS NOTED SCALE: FC PROJECT NO.: 2022-010

SIGNAGE & PAVEMEN MARKING PLAN

CAD:HW_MSH_2022_0107_SP

SPM-03



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LEGEND

CROSSWALK

4" SOLID WHITE LINE DYCL 4" DOUBLE YELLOW CENTERLINE DYDEL DOUBLE YELLOW DOTTED EXTENSION LINE 12" SOLID WHITE STOP BAR SWSB

16" WIDE, 10' LONG, 24" SPACE

GRAPHIC SCALE

ESIGNED:

RAFTED:

CHECKED:

APPROVED:

SCALE:

C.S.

C.S.

P.A.R.

FC PROJECT NO.: 2022-010

CAD:HW_MSH_2022_0107_SP

SIGNAGE & PAVEMEN

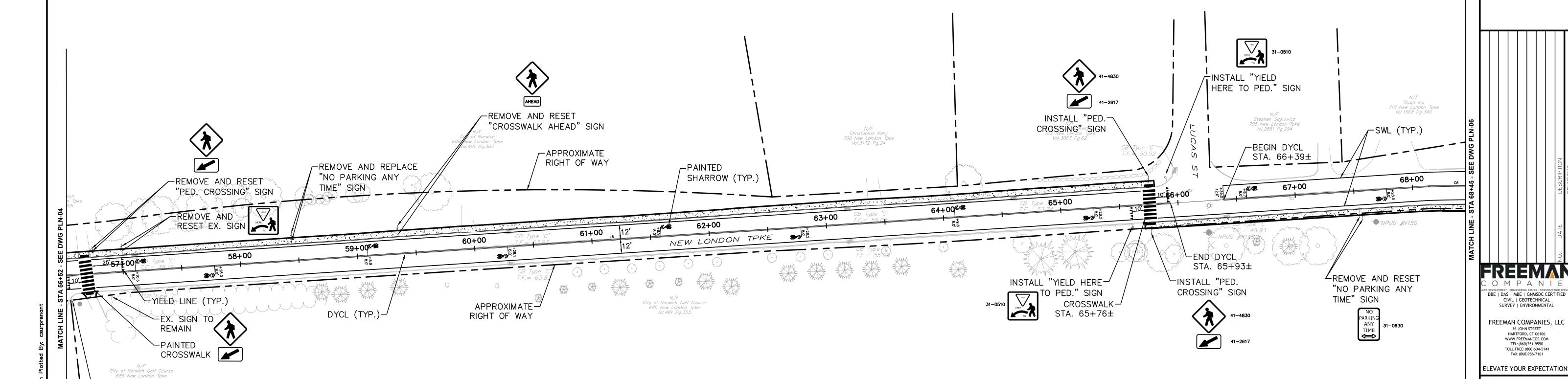
MARKING PLAN

SPM-04

AS NOTED

SCALE IN FEET





-EX. SIGN TO

HERE TO

REMAIN

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LEGEND

SWL 4" SOLID WHITE LINE

DYCL 4" DOUBLE YELLOW CENTERLINE

DYDEL DOUBLE YELLOW DOTTED EXTENSION LINE

SWSB 12" SOLID WHITE STOP BAR

CROSSWALK 16" WIDE, 10' LONG, 24" SPACE

GRAPHIC SCALE

40 20 0 40

SCALE IN FEET

SIGNAGE & PAVEMENT MARKING PLAN

FC PROJECT NO.: 2022-010

CAD:HW_MSH_2022_0107_SP

C.S.

C.S.

Y.L.

P.A.R.

AS NOTED

TURNPIKE & ROAD -ATION

EW LONDON SIDEWALKS REHABILITA

SIGNED:

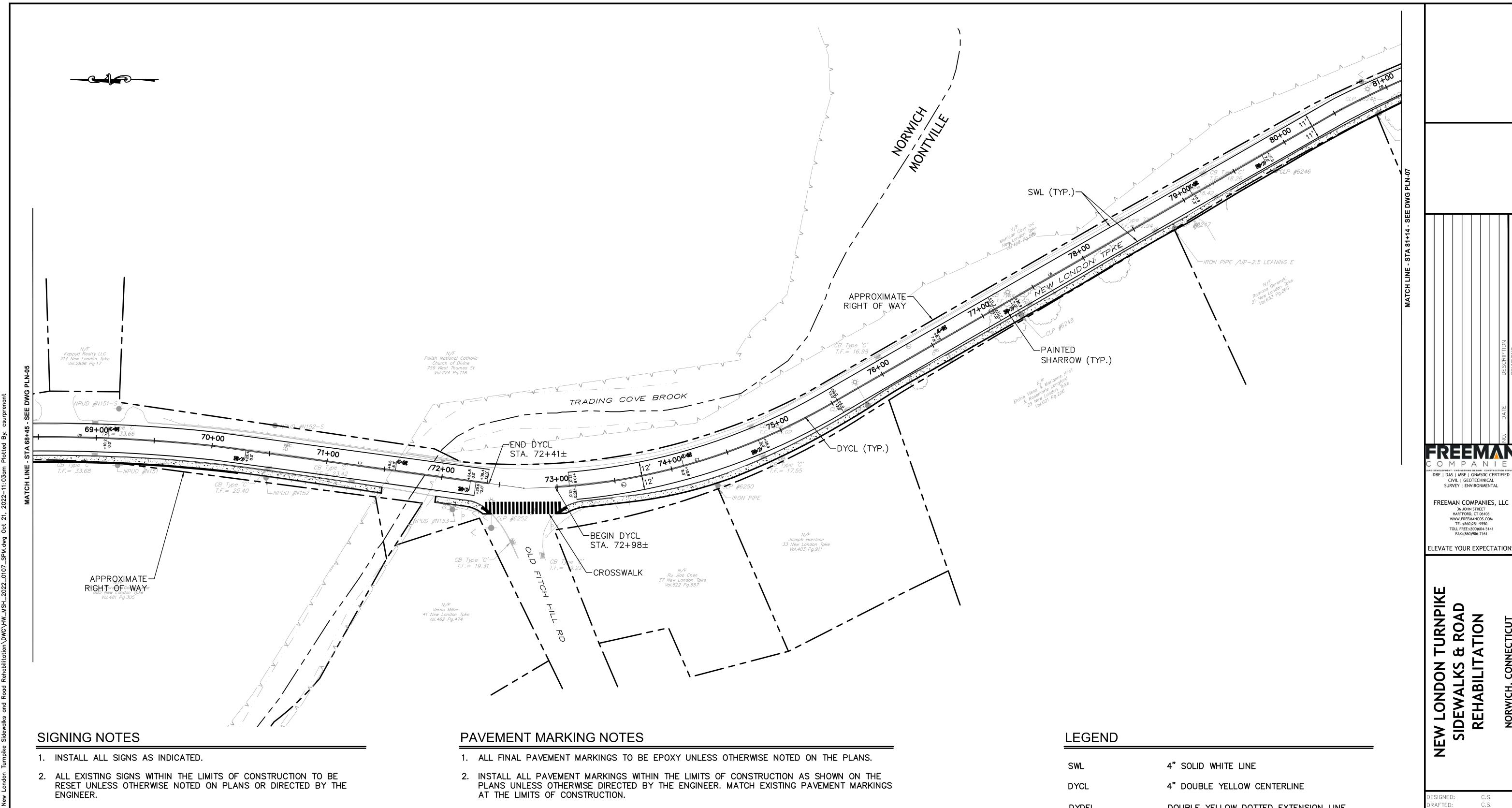
RAFTED:

CHECKED:

APPROVED:

SCALE:

SPM-05



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- 6. INSTALL SIGNS IN ACCORDANCE WITH CTDOT STANDARD SHEETS "SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS" AND "METAL SIGN POSTS AND SIGN MOUNTING DETAILS".

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF FREEMAN COMPANIES, LLC

- 3. PAVEMENT MARKINGS TO BE INSTALL IN ACCORDANCE WITH TRAFFIC STANDARD SHEETS TR-1210_04, TR1210_08 AND TR-1210_09 EXCEPT AS OTHERWISE DIMENSIONED OR SHOWN ON THE PLANS.
- 4. EXISTING PAVEMENT MARKINGS SHALL BE REMOVED BY CONTRACTOR WHERE IN CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS BY A METHOD WHICH IS ACCEPTABLE BY CTDOT DISTRICT OFFICE AND THE CITY. GRINDING IS NOT ALLOWED.

DYDEL DOUBLE YELLOW DOTTED EXTENSION LINE 12" SOLID WHITE STOP BAR SWSB

16" WIDE, 10' LONG, 24" SPACE

CROSSWALK

GRAPHIC SCALE

SCALE IN FEET

36 JOHN STREET HARTFORD, CT 06106

TEL: (860)251-9550

FAX: (860)986-7161

C.S.

C.S.

Y.L.

FC PROJECT NO.: 2022-010

CAD:HW_MSH_2022_0107_SP

SIGNASJENEA BÆVÆMEN

PAWEMEKITI GARRIANI GS

SPM-06

P.A.R.

AS NOTED

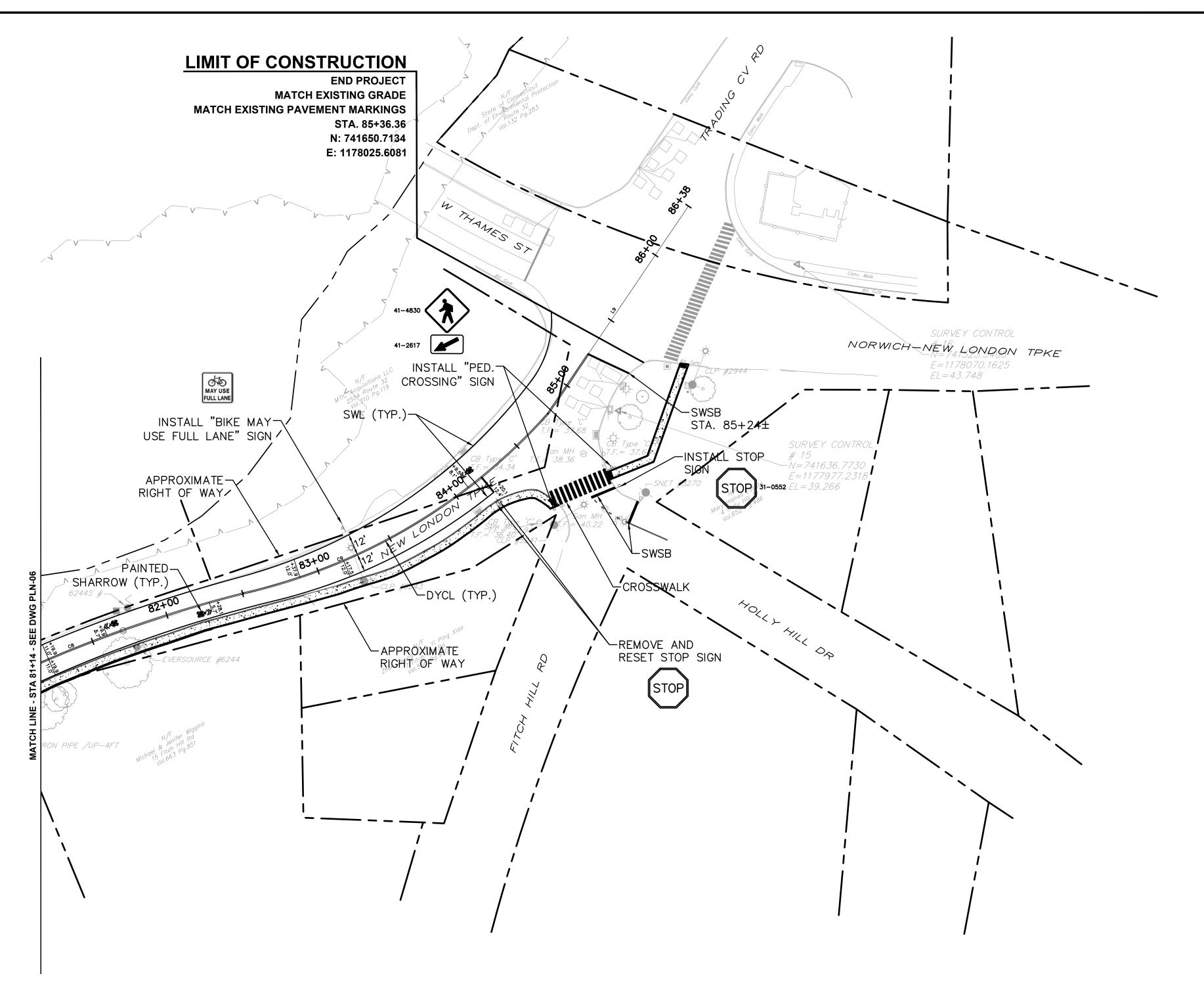
04/27/202

CHECKED:

APPROVED:

SCALE:





- 1. INSTALL ALL SIGNS AS INDICATED.
- 2. ALL EXISTING SIGNS WITHIN THE LIMITS OF CONSTRUCTION TO BE RESET UNLESS OTHERWISE NOTED ON PLANS OR DIRECTED BY THE ENGINEER.
- 3. ALL EXISTING SIGNS OUTSIDE THE LIMITS OF CONSTRUCTION TO REMAIN UNLESS OTHERWISE NOTED ON PLANS OR DIRECTED BY THE ENGINEER.
- 4. EXACT SIGN LOCATIONS TO BE DETERMINED IN THE FIELD.
- 5. WHEN A SIGN IS TO BE REPLACED, THE EXISTING SIGN SHOULD NOT BE REMOVED UNTIL THE NEW REPLACEMENT SIGN IS INSTALLED.
- 6. INSTALL SIGNS IN ACCORDANCE WITH CTDOT STANDARD SHEETS "SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS" AND "METAL SIGN POSTS AND SIGN MOUNTING DETAILS".

PAVEMENT MARKING NOTES

- 1. ALL FINAL PAVEMENT MARKINGS TO BE EPOXY UNLESS OTHERWISE NOTED ON THE PLANS.
- 2. INSTALL ALL PAVEMENT MARKINGS WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. MATCH EXISTING PAVEMENT MARKINGS AT THE LIMITS OF CONSTRUCTION.
- 3. PAVEMENT MARKINGS TO BE INSTALL IN ACCORDANCE WITH TRAFFIC STANDARD SHEETS TR-1210_04, TR1210_08 AND TR-1210_09 EXCEPT AS OTHERWISE DIMENSIONED OR SHOWN ON
- 4. EXISTING PAVEMENT MARKINGS SHALL BE REMOVED BY CONTRACTOR WHERE IN CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS BY A METHOD WHICH IS ACCEPTABLE BY CTDOT DISTRICT OFFICE AND THE CITY. GRINDING IS NOT ALLOWED.

LEGEND

CROSSWALK

4" SOLID WHITE LINE DYCL 4" DOUBLE YELLOW CENTERLINE DOUBLE YELLOW DOTTED EXTENSION LINE 12" SOLID WHITE STOP BAR SWSB

16" WIDE, 10' LONG, 24" SPACE

GRAPHIC SCALE SCALE IN FEET

DBE | DAS | MBE | GNMSDC CERTIFIED

CIVIL | GEOTECHNICAL SURVEY | ENVIRONMENTAL

FREEMAN COMPANIES, LLC 36 JOHN STREET HARTFORD, CT 06106 WWW.FREEMANCOS.COM TEL: (860)251-9550 TOLL FREE:(800)604-5141 FAX:(860)986-7161

ELEVATE YOUR EXPECTATION

EW LONDON TO SIDEWALKS (REHABILITA

ESIGNED:

DRAFTED:

CHECKED:

APPROVED:

SCALE:

C.S.

C.S.

P.A.R.

FC PROJECT NO.: 2022-0107

CAD:HW_MSH_2022_0107_SP

SIGNAGE & PAVEMEN

MARKING PLAN

SPM-07

AS NOTED

SOUTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS

5 Connecticut Avenue, Norwich, Connecticut 06360 (860) 889-2324/Fax: (860) 889-1222/Email: office@seccog.org

MEMORANDUM

TO: Amanda Kennedy, Executive Director FROM: Kate Rattan, Planner III/Program Manager

DATE: December 27, 2022

SUBJECT: LOTCIP Williams and Broad Street (L094-0003), referral to the COG

New London's project, Williams and Broad Street (L094-0003) requires re-endorsement by the COG.

The current Preliminary Design (PD) estimate is \$4,099,919.19, including two non-participating items, and \$4,088,399.19, excluding the two non-participating items. The March 10, 2022 commitment to fund was in the amount of \$3,214,401.63. The difference between the original commitment to fund and this revision is \$881,961.10. The cost escalation is detailed in the <u>03 - PD Estimate Justification Memo .pdf</u>, and was found to be reasonable by both COG staff and CTDOT. The three areas of cost escalation were: a refinement of the design, unit and price increases and compounded costs (contingencies, etc.) that are a percentage of major items. The scope of the project has not changed.

The LOTCIP Guidance indicates scope changes or cost increases of 20% or more should be approved by the COG. The full PD package can be found here: CTFnumber2.

CC: Wendy LeClair



Estimate Justification Memorandum

TO: Kate Rattan, AICP | Senior Transportation Planner | Southeastern COG

FROM: John Guzze, PE | Project Manager | Fuss & O'Neill

DATE: November 28, 2022

RE: Preliminary (30%) Design Construction Estimate – State Project #L094-0003

Intersection Improvement / Roundabout Installation

Williams Street and Broad Street

City of New London

This memorandum is an estimate justification summary which has been prepared to describe the changes from the Local Transportation Capital Improvement Program (LOTCIP) Application to the Preliminary Design (PD) 30% estimate conducted by Fuss & O'Neill per the November 2021 LOTCIP Guidelines. Due to a construction cost increase by more than 20%, this memorandum will serve as the justification document outlining the updates and differences the City of New London and their design consultant (Fuss & O'Neill) have identified.

The Connecticut Transportation of Department (CTDOT) has allocated and approved a budget of \$3,214,401.63 on March 10, 2022 as noted in the Commitment to Fund letter for LOTCIP Participating Items. The project was anticipated to cost approximately \$3,217,958.09 for all items during the application phase. The Preliminary Design estimate developed is \$4,099,919.19 including two Non-Participating items and \$4,088,399.19 excluding the two Non-Participating items. The difference between the total project costs is \$881,961.10.

Attached is an estimate justification analysis comparing the Application estimate versus the PD estimate. The following factors were identified and summarized below further clarifying and explaining the cost increase.

Preliminary Design Unit Price and/or Quantity Increases:

It was determined that due to various unit price and quantity adjustments, the PD estimate was increased by \$465,666.50. This accounted for approximately one half of the total increase. Contributing factors or significant cost increases included Item No. 0506017 – Retaining Wall (\$68,750.00), Item No. 0686000.15 – 15" R.C. Pipe – 0' – 10' Deep (\$57,500.00), Item No. 0922005 – Stamped Bituminous Concrete (\$51,325.00), Item No. 0969060 – Construction Field Office, Medium (\$51,000.00), and Item No. 0970007 – Trafficperson Uniformed Flagger (\$158,464.00). Additionally, due to today's current market and increased inflation, the imbalances of supply and demand, cost of labor, and increased prices of natural resources, these circumstances have strained the construction environment and inflated the cost to perform such activities and/or projects.



Kate Rattan November 28, 2022 Page 2

Preliminary Design Additional Items:

The second contributing factor to the cost increase was due to additional or new items added which account for \$188,925.00 of the \$881,961.10 cost difference. These items consisted of:

- Storm Water Pollutions Control
- Reset Manhole (Storm)
- Reset Catch Basin Top
- Manhole 0'-10' Deep
- Manhole (6' Diameter) 0'-10' Deep
- Type 'C' Catch Basin Top
- Remove Drainage Structure 0'-10' Deep
- Clean Exiting Catch Basin
- Clean Drainage System
- Clean Existing Manhole
- Remove Existing Pipe 0'-10' Deep
- Granite Stone Transition Curbing
- Reset Granite Stone Curbing
- Detectable Warning Surface
- Bituminous Concrete Driveway (Commercial)
- Bituminous Concrete Driveway
- Tree Planting Pit
- Street Tree
- Removal of Existing Retaining Wall
- Type DE-3 Delineator
- 8" White Epoxy Resin Pavement Markings
- Removal of Pavement Markings
- Construction Signs
- Adjust Gate Box (Water)
- Remove Hydrant (Water Main)
- Hydrant Water Main
- Water Meter
- Reset Manhole (Sanitary Sewer)

Typically, the minor item allocation is decreased from 20% during the application phase to 15% when submitting PD, 10% for 60% design, 5% for 90% design, and 0% for Final Design. The 5% reduction accounted for a portion of the new Major Items (A) added during the PD process, but not all.

Additional Allowances:

Lastly, with the Major Items (A) increased by \$614,601.50 due to the two above-mentioned contributing factors, the estimate was then compounded by required allowances (Minor Item allocation, LS items, Inflation, Contingencies, and Incidentals) bringing the total net difference to approximately \$881,961.10.



Kate Rattan November 28, 2022 Page 3

Most notably, the LS items were increased by \$111,013.83 which included a 1% increase in Maintenance & Protection of Traffic due to the complexity of construction that will occur within a very urban downtown setting. With the summation of contract items in Line G (Total Contract Cost Estimate) at \$3,395,765.99 during PD instead of \$2,660,798.41 as shown in the Application estimate, applying 20% for contingencies and incidentals to a value (\$734,967.58) higher generated a \$146,993.52 increase.

Fuss and O'Neill believes the PD construction cost is a detailed cost estimate that includes all related construction activities at this time. During the next phase, Semi-Final Design (60%), the project will be advanced to include additional activities or items such as sedimentation control measures (silt sock and/or silt fence), supplemental truck apron items (transverse contraction joint, welded wire fabric, galvanized deformed steel bars), MPT items (traffic cones, traffic drums, barricade warning lights, and/or type III barricades), and potentially items that were communicated during the public information meeting on November 10th. These items included Rectangular Rapid Flashing Beacons and Silva Cells which are modular suspended pavement systems that uses soil to create forest-like conditions in urban settings.

In summary, Fuss & O'Neill and the City of New London recommend the implementation of the roundabout. The roundabout will provide significant pedestrian safety benefits by reducing vehicles speeds and eliminating erratic and illegal driving such as speeding through the intersection and/or disobeying red lights. The roundabout will also reduce operational and environmental impacts all while improving traffic operations and flow. One of the main goals of the project is to reduce crashes and eliminate fatal collisions such as the accident that occurred in November of 2020. The city supports the roundabout, one of nine proven lifesaving roadway safety strategies as cited by U.S. DOT's Federal Highway Administration (FHWA).

The PD construction estimate provides a much more comprehensive and detailed major item breakdown. Both the City of New London and Fuss & O'Neill believe the estimate accurately depicts the infrastructure needed to complete this project during a time where the cost of labor and materials has significantly risen.

Attachment: Estimate Justification Analysis

cc: Brian Sear – City of New London

Estimate Justification Analysis	CITY OF	NEW LONDON
FOR THE CONSTRUCTION OF:	PROJECT NO.	L094-0003
Intersection Improvement / Roundabout Installation	PREPARED BY	AJC / ST
Williams Street and Broad Street	CHECKED BY	JAG
	DATE	11/23/2022

			DATE	11/2	3/2022				
Application Estimate						PD 30% Estimate			App. vs. 30% PD
NO.	ITEM	UNIT	QUANTITY	PRICE	AMOUNT	QUNATITY	PRICE	AMOUNT	\$ Difference
0000159	9 2" SCHEDULE 40 PVC CONDUIT IN TRENCH	l.f.	665	\$10.00	\$6,650.00				-\$6,650.00
0000462	2 600V COPPER WIRE NO 6. AWG	l.f.	795	\$3.00	\$2,385.00				-\$2,385.00
0000564	4 CENTRAL ISLAND LIGHTING AND CONTROLS	l.s.	1	\$10,000.00	\$10,000.00	1	\$45,000.00	\$45,000.00	\$35,000.00
0202000	0 EARTH EXCAVATION	c.y.	2260	\$25.00	\$56,500.00	2600	\$20.00	\$52,000.00	-\$4,500.00
0202100	0 ROCK EXCAVATION	c.y.	260	\$75.00	\$19,500.00	250	\$120.00	\$30,000.00	\$10,500.00
020245	1 TEST PIT EXCAVATION	ea.	4	\$500.00	\$2,000.00				-\$2,000.00
0202512	2 CUT CONCRETE SIDEWALK	l.f.	70	\$5.00	\$350.00	120	\$8.00	\$960.00	\$610.00
0202513	3 REMOVAL OF CONCRETE SIDEWALK	s.y.	1415	\$18.00	\$25,470.00	130	\$10.00	\$1,300.00	-\$24,170.00
0202529	9 CUT BITUMINOUS CONCRETE PAVEMENT	l.f.	500	\$3.00	\$1,500.00	500	\$4.00	\$2,000.00	\$500.00
0202533	3 REMOVAL OF EXISTING CURBING	l.f.	2020	\$4.00	\$8,080.00				-\$8,080.00
0205004	4 ROCK IN TRENCH EXCAVATION 0'-10' DEEP	C.y.	150	\$100.00	\$15,000.00				-\$15,000.00
020900	1 FORMATION OF SUBGRADE	s.y.	4800	\$3.50	\$16,800.00	5000	\$4.00	\$20,000.00	\$3,200.00
0219004	4 STORM WATER POLLUTION CONTROLS	l.s.			·	1	\$3,000.00	\$3,000.00	\$3,000.00
021900	1 SEDIMENTATION CONTROL SYSTEM	l.f.	3025	\$7.00	\$21,175.00				-\$21,175.00
021901	1 SEDIMENT CONTROL SYSTEM AT CATCH BASIN	ea.	10	\$120.00	\$1,200.00	16	\$150.00	\$2,400.00	\$1,200.00
0304002	2 PROCESSED AGGREGATE BASE	C.y.	1600	\$45.00	\$72,000.00	1700	\$55.00	\$93,500.00	\$21,500.00
0406002	2 TEMPORARY PAVEMENT	s.y.	220	\$55.00	\$12,100.00	500	\$35.00	\$17,500.00	\$5,400.00
0406159	9 PMA S0.5	ton	700	\$135.00	\$94,500.00	600	\$135.00	\$81,000.00	-\$13,500.00
0406160	0 PMA \$1.0	ton	400	\$130.00	\$52,000.00	175	\$130.00	\$22,750.00	-\$29,250.00
	1 HMA \$0.5	ton	800	\$125.00	\$100,000.00	1050	\$120.00	\$126,000.00	\$26,000.00
040623	6 MATERIAL FOR TACK COAT	gal	500	\$6.00	\$3,000.00	500	\$9.50	\$4,750.00	\$1,750.00
0406999	9 ASPHALT ADJUSTMENT COST	est.	5000	\$1.00	\$5,000.00	2000	\$1.00	\$2,000.00	-\$3,000.00
0506017	7 RETAINING WALL	s.f.	650	\$125.00	\$81,250.00	1200	\$125.00	\$150,000.00	\$68,750.00
0507758	8 reset manhole (storm)	ea.				3	\$1,000.00	\$3,000.00	\$3,000.00
	A RESET CATCH BASIN TOP	ea.				2	\$700.00	\$1,400.00	\$1,400.00
	0 TYPE 'C' CATCH BASIN - 0' - 10' DEEP	ea.	8	\$3,900.00	\$31,200.00	10	\$4,500.00	\$45,000.00	\$13,800.00
0586500.	1 MANHOLE - 0"-10' DEEP	ea.				4	\$4,800.00	\$19,200.00	\$19,200.00
	6 MANHOLE (6" DIAMETER) - 0'-10' DEEP	ea.				2	\$6,500.00	\$13,000.00	\$13,000.00
	3 CONVERT CATCH BASIN TO MANHOLE	ea.	2	\$1,750.00	\$3,500.00	1	\$2,500.00	\$2,500.00	-\$1,000.00
	O TYPE 'C' CATCH BASIN TOP	ea.				2	\$1,300.00	\$2,600.00	\$2,600.00
	1 REMOVE DRAINAGE STRUCTURE - 0'-10' DEEP	ea.				5	\$1,000.00	\$5,000.00	\$5,000.00
	0 STAMPED CONCRETE	s.f.	5200	\$30.00	\$156,000.00				-\$156,000.00
	0 STAMPED CONCRETE - TRUCK APRON	s.f.		1.000	,,	3200	\$30.00	\$96,000.00	\$96,000.00
	1 STAMPED CONCRETE - SPILLER ISLAND & SNOW SHELF	s.f.				3550	\$30.00	\$106,500.00	\$106,500.00
	0 CENTRAL ISLAND GATEWAY FEATURE OR RAIN GARDEN	l.s.	1	\$30,000.00	\$30,000.00	1	\$25,000.00	\$25,000.00	-\$5,000.00
	1 CLEAN EXISTING CATCH BASIN	ea.		400,000.00	455,550.00	5	\$350.00	\$1,750.00	\$1,750.00

Application Estimate					App. vs. 30% PD			
NO. ITEM	UNIT	QUANTITY	PRICE	AMOUNT	QUNATITY	PRICE	AMOUNT	\$ Difference
0653002 CLEAN DRAINAGE SYSTEM	l.s.				1	\$5,000.00	\$5,000.00	\$5,000.00
0653010 CLEAN EXISTING MANHOLE	ea.				3	\$250.00	\$750.00	\$750.00
0686000.15 15" R.C. PIPE - 0' - 10' DEEP	l.f.	500	\$65.00	\$32,500.00	1000	\$90.00	\$90,000.00	\$57,500.00
0686850.1 REMOVE EXISTING PIPE - 0'-10' DEEP	l.f.				450	\$10.00	\$4,500.00	\$4,500.00
0813001 5" GRANITE STONE CURBING	l.f.				500	\$60.00	\$30,000.00	\$30,000.00
0813011 5" GRANITE CURVED STONE CURBING	l.f.				345	\$70.00	\$24,150.00	\$24,150.00
0813021 6" GRANITE STONE CURBING	l.f.	2200	\$55.00	\$121,000.00				-\$121,000.00
0813023 2" MOUNTABLE GRANITE CURVED STONE CURBING	l.f.	250	\$70.00	\$17,500.00	240	\$75.00	\$18,000.00	\$500.00
0813024 4" MOUNTABLE GRANITE STONE CURBING	l.f.	600	\$65.00	\$39,000.00	350	\$75.00	\$26,250.00	-\$12,750.00
0813026 MOUNTABLE GRANITE CURVED STONE CURBING WITH 4" REVEAL	. I.f.				325	\$80.00	\$26,000.00	\$26,000.00
0813033 4" MOUNTABLE GRANITE CURVED STONE CURBING	l.f.	500	\$75.00	\$37,500.00				-\$37,500.00
0813034 CENTRAL ISLAND GRANITE CURVED STONE CURBING WITH 6" REV	VEAL I.f.				120	\$75.00	\$9,000.00	\$9,000.00
0813451 GRANITE STONE TRANSITION CURBING	l.f.				140	\$80.00	\$11,200.00	\$11,200.00
0814002 RESET GRANITE STONE CURBING	l.f.				1700	\$35.00	\$59,500.00	\$59,500.00
0921001 CONCRETE SIDEWALK	s.f.	13200	\$13.00	\$171,600.00	11500	\$12.00	\$138,000.00	-\$33,600.00
0921005 CONCRETE SIDEWALK RAMP	s.f.	935	\$25.00	\$23,375.00	1400	\$20.00	\$28,000.00	\$4,625.00
0921013 CONCRETE DRIVEWAY APRON	s.f.	1090	\$20.00	\$21,800.00	2000	\$25.00	\$50,000.00	\$28,200.00
0921039 DETECTABLE WARNING STRIP	ea.	20	\$250.00	\$5,000.00				-\$5,000.00
0921048 DETECTABLE WARNING SURFACE	s.f.				300	\$35.00	\$10,500.00	\$10,500.00
0922005 STAMPED BITUMINOUS CONCRETE	s.f.	725	\$23.00	\$16,675.00	1700	\$40.00	\$68,000.00	\$51,325.00
0922500 BITUMINOUS CONCRETE DRIVEWAY (COMMERCIAL)	s.y.				40	\$125.00	\$5,000.00	\$5,000.00
0922501 BITUMINOUS CONCRETE DRIVEWAY	s.y.				30	\$95.00	\$2,850.00	\$2,850.00
0939001 SWEEPING FOR DUST CONTROL	hr	20	\$75.00	\$1,500.00	20	\$65.00	\$1,300.00	-\$200.00
0942001 CALCIUM CHLORIDE FOR DUST CONTROL	ton	5	\$750.00	\$3,750.00	10	\$650.00	\$6,500.00	\$2,750.00
0943001 WATER FOR DUST CONTROL	m.gal	350	\$28.00	\$9,800.00	375	\$10.00	\$3,750.00	-\$6,050.00
0944000 FURNISHING AND PLACING TOPSOIL	s.y.	750	\$8.00	\$6,000.00	750	\$11.00	\$8,250.00	\$2,250.00
0947303 BUS PASSENGER SHELTER	ea.				2	\$7,500.00	\$15,000.00	\$15,000.00
0947304 BUS STOP CONCRETE PAD WITH SHELTER	ea.	2	\$5,000.00	\$10,000.00				-\$10,000.00
0949435 TREE PLANTING PIT	ea.				8	\$500.00	\$4,000.00	\$4,000.00
0949440 STREET TREE	ea.				8	\$1,100.00	\$8,800.00	\$8,800.00
0950005 TURF ESTABLISHMENT	s.y.	900	\$2.00	\$1,800.00	1000	\$5.00	\$5,000.00	\$3,200.00
0950050 DRIP LINE IRRIGATION SYSTEM	l.s.	1	\$7,500.00	\$7,500.00	1	\$25,000.00	\$25,000.00	\$17,500.00
0969060 CONSTRUCTION FIELD OFFICE, SMALL	mo.	12	\$2,500.00	\$30,000.00	18	\$4,500.00	\$81,000.00	\$51,000.00
0970006 TRAFFICPERSON (MUNICIPAL POLICE OFFICER)	est.	144000	\$1.00	\$144,000.00	151200	\$1.00	\$151,200.00	\$7,200.00
0970007 TRAFFICPERSON (UNIFORMED FLAGGER)	hr	1920	\$50.00	\$96,000.00	3584	\$71.00	\$254,464.00	\$158,464.00
0974005 REMOVAL OF EXISTING RETAINING WALL	l.s.				1	\$7,500.00	\$7,500.00	\$7,500.00
1001001 TRENCHING AND BACKFILLING	l.f.	600	\$35.00	\$21,000.00	50	\$25.00	\$1,250.00	-\$19,750.00
1002110 DECORATIVE LIGHT POLE FOUNDATION	ea.	8	\$750.00	\$6,000.00	8	\$1,750.00	\$14,000.00	\$8,000.00
1003595 DECORATIVE LIGHT POLE AND LIGHT FIXTURE	ea.	8	\$7,250.00	\$58,000.00	8	\$10,000.00	\$80,000.00	\$22,000.00
1008127 2" POLYVINYL CHLORIDE CONDUIT IN TRENCH	l.f.				700	\$12.50	\$8,750.00	\$8,750.00
1010001 CONCRETE HANDHOLE	ea.	10	\$600.00	\$6,000.00	10	\$1,350.00	\$13,500.00	\$7,500.00
1012010 NO. 10 SINGLE CONDUCTOR	l.f.				1250	\$3.00	\$3,750.00	\$3,750.00
1012036 NO. 6 SINGLE CONDUCTOR	l.f.				1500	\$3.70	\$5,550.00	\$5,550.00

	Application Estimate								App. vs. 30% PD	
NO.	ITEM	UNIT	QUANTITY	PRICE	AMOUNT	QUNATITY	PRICE	AMOUNT	\$ Difference	
1017014 DECO	RATIVE LIGHT CONTROL CABINET	ea.	1	\$25,000.00	\$25,000.00	1	\$20,000.00	\$20,000.00	-\$5,000.00	
1111201 TEMPC	DRARY DETECTION (SITE 1)	l.s.	1	\$5,000.00	\$5,000.00	1	\$5,000.00	\$5,000.00	\$0.00	
1118012 REMO	VAL AND/OR RELOCATION OF TRAFFIC SIGNAL EQUIPMENT	l.s.	1	\$15,000.00	\$15,000.00	1	\$7,500.00	\$7,500.00	-\$7,500.00	
1118051 TEMPC	Drary Signalization (site no. 1)	l.s.	1	\$10,000.00	\$10,000.00	1	\$15,000.00	\$15,000.00	\$5,000.00	
	DE-3 DELINEATOR	ea.				20	\$95.00	\$1,900.00	\$1,900.00	
1206023 REMO	VAL AND RELOCATION OF EXISTING SIGNS	l.s.	1	\$2,000.00	\$2,000.00	1	\$1,750.00	\$1,750.00	-\$250.00	
1208931 SIGN F	FACE - SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING)	s.f.	400	\$35.00	\$14,000.00	400	\$75.00	\$30,000.00	\$16,000.00	
1210101 4" WHI	ITE EPOXY RESIN PAVEMENT MARKINGS	l.f.	3060	\$0.50	\$1,530.00	2400	\$0.75	\$1,800.00	\$270.00	
1210102 4" YELL	LOW EPOXY RESIN PAVEMENT MARKINGS	l.f.	2700	\$0.75	\$2,025.00	2650	\$0.75	\$1,987.50	-\$37.50	
1210104 8" WHI	ITE EPOXY RESIN PAVEMENT MARKINGS	l.f.				25	\$1.00	\$25.00	\$25.00	
1210105 EPOXY	Y RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	s.f.	1460	\$4.50	\$6,570.00	1400	\$4.50	\$6,300.00	-\$270.00	
1211001 REMO	VAL OF PAVEMENT MARKINGS	s.f.		·		300	\$2.50	\$750.00	\$750.00	
1220027 CONS	TRUCTION SIGNS	s.f.				300	\$20.00	\$6,000.00	\$6,000.00	
	ST GATE BOX (WATER)	ea.				14	\$300.00	\$4,200.00	\$4,200.00	
1302062 ADJUS	ST GATE BOX (GAS)	ea.				12	\$300.00	\$3,600.00	\$3,600.00	
	VE HYDRANT (WATER MAIN)	ea.				2	\$2,750.00	\$5,500.00	\$5,500.00	
1303198 HYDR <i>A</i>	ANT WATER MAIN	ea.				2	\$2,500.00	\$5,000.00	\$5,000.00	
1303280 WATER	R METER	ea.				1	\$3,500.00	\$3,500.00	\$3,500.00	
1403501 RESET	MANHOLE (SANITARY SEWER)	ea.				4	\$1,000.00	\$4,000.00	\$4,000.00	
	MANHOLE (TELEPHONE)	ea.				6	\$1,000.00	\$6,000.00	\$6,000.00	

	Application Es	stimate					PD 30% Estimate		App. vs. 30% PD
NO.	ITEM	UNIT	QUANTITY	PRICE	AMOUNT	QUNATITY	PRICE	AMOUNT	\$ Difference
	A Major Items Subtotal (EXCLUDES CLEARING AND GRUBBING, M	1&PT MOBILIZATION, CON	ISTRUCTION STAKING)	\$1,795,585.00			\$2,410,186.50	\$614,601.50
	B Minor Items Subtotal (0% at Final Design)	20	% of Line "A"		\$359,117.00	15	% of Line "A"	\$361,527.98	\$2,410.97
	C Major and Minor Contract Items Subtotal (A + B)				\$2,154,702.00			\$2,771,714.48	\$617,012.48
	Other Item Allowances								
	Clearing and Grubbing (suggested 0.5% - 2%)	0.5	% of Line "C"		\$10,773.51	0.5	% of Line "C"	\$13,858.57	\$3,085.06
	M & P of Traffic (suggested 2% - 5%)	4	% of Line "C"		\$86,188.08	5	% of Line "C"	\$138,585.72	\$52,397.64
	Mobilization (suggested 4% - 10%)	7	% of Line "C"		\$150,829.14	7	% of Line "C"	\$194,020.01	\$43,190.87
	Construction Staking (suggested 1% - 2%)	2	% of Line "C"		\$43,094.04	2	% of Line "C"	\$55,434.29	\$12,340.25
	D Other Items Subtotal				\$290,884.77			\$401,898.60	\$111,013.83
	E CONTRACT SUBTOTAL (C + D)				\$2,445,586.77			\$3,173,613.07	\$728,026.30
	F Inflation Subtotal	8.8%			\$215,211.64	7%		\$222,152.92	\$6,941.28
	G TOTAL CONTRACT COST ESTIMATE (E + F)				\$2,660,798.41			\$3,395,765.99	\$734,967.58
	Project Costs Summary								
	Contract Cost Estimate (Line "G")				\$2,660,798.41			\$3,395,765.99	\$734,967.58
	Contingencies (10% for all LOTCIP projects)	10%			\$266,079.84	10%		\$339,576.60	\$73,496.76
	Incidentals (10% for all LOTCIP projects)	10%			\$266,079.84	10%		\$339,576.60	\$73,496.76
	ROW	LS			\$25,000.00	LS		\$25,000.00	\$0.00
	Utilities	LS			\$0.00	LS		\$0.00	\$0.00
	TOTAL PROJECT COST				\$3,217,958.09			\$4,099,919.19	\$881,961.10

<u>Legend:</u>	
Non-Participating Items	PD 30% Price and/or Quantity Increase
Items added during PD 30%	PD 30% Price and/or Quantity Decrease
Items removed in PD 30%	Items numbers / descriptions revised in PD 30%
NET DIFFERENCE / TOTAL	
NET DIFFERENCE / TOTAL \$188,925.00	
-\$46,255.00	
-\$3,335.00	\$614,601.50

\$9,600.00

\$465,666.50