

City of Meriden, CT

Multi-Modal Improvements for the Transit Oriented Development District



2016 TIGER GRANT



Meriden, Connecticut is seeking a \$5.2 million TIGER grant to implement its Multi-Modal Roadway Improvement Plan in the downtown Transit Oriented Development (TOD) District. The project includes construction of roadway, pedestrian, and bicycle improvements that are critical to providing connectivity to employment, education, and housing for residents of an economically distressed area where significant economic development projects are planned or underway. Federal funds will be matched with \$2.8 million in non-federal funds. The project is a culmination of over a decade of planning and a community consensus around the need to improve roadways, sidewalks and restore two-way traffic in downtown Meriden.

The project is an outgrowth of a HUD Sustainable Challenge grant and a HUD Choice Neighborhoods Planning grant. The project will address past deficiencies of outdated transportation projects, increase access to the new commuter rail station, and create "Ladders of Opportunity". The project is a part of a regional commuter rail project that will have a significant impact on New Haven/Hartford area as well as the State of Connecticut and the northeastern United States.

City of Meriden, Connecticut Multi-Modal Transportation Improvements for the Transit Oriented Development (TOD) District

2016 TIGER GRANT

PROJECT CONTACT INFORMATION:

Primary Contact:	Robert J. Bass, P.E., Director, Department of Public Works
Project Type:	Capital Improvement in Surface Transportation (Highway/Bridge)
Location:	City of Meriden, New Haven County, Connecticut
Total Project Cost:	\$8,053,100
TIGER Grant Funds Requested:	\$5,234,515
Non-Federal Match:	\$2,818,585
Economically Distressed Area:	YES
Construction Start:	October 2016
Construction Completion:	October 2018

A. PROJECT DESCRIPTION

Meriden, CT is seeking a \$5.23 million TIGER grant to implement the Multi-Modal Roadway Improvement Plan in its Transit Oriented Development (TOD) District. The project includes construction of surface transportation infrastructure, including roadway, pedestrian, and bicycle facilities in downtown Meriden. The project is part of a regional commuter rail project that includes construction of a new \$20 million rail station in Meriden's City Center linked to the New Haven-Hartford-Springfield rail line that is scheduled to begin service in 2018. The project will have a significant impact on New Haven/Hartford metropolitan area, and is an outgrowth of both a HUD Sustainable Challenge grant (completed in 2013) and a Choice Neighborhoods Planning grant (completed in 2015). These grants recommended improving accessibility in the TOD district to foster accessibility to educational and employment opportunities for low income and minority residents. Federal funds will be matched with \$2.8 million in non-federal funds and will leverage \$62 million in infrastructure improvements and \$200 million in new private investment for projects.



The City of Meriden and its key partners, including the State of Connecticut Department of Transportation (DOT) and Department of Economic and Community Development (DECD), have taken major strides towards improving accessibility and advancing economic development in the Transportation Oriented Development District. The State of Connecticut has invested

millions in a new commuter rail service connecting Meriden to Hartford and New Haven via the new “Hartford Line” commuter rail service, and Meriden’s \$20 million improved Transit Center is slated to open in 2017, with increased train and bus use to follow shortly after. The City is nearing completion of a \$14 million park and flood control area at 1-77 State Street, and a \$30 million mixed use development and commuter parking garage at 24 Colony Street is under construction. Over \$200 million in mixed use developments (including both market rate and affordable housing units) are in final design, including 161-177 State Street, 1-77 State Street, and 11 Crown Street. Improvements to the local transportation network are critical to ensuring that current and future residents of the TOD district have access to the new commuter rail station and the economic and educational opportunities that the transportation system provides.

The City of Meriden Multi-Modal Roadway Improvement Plan is a culmination of over a decade of planning and a community consensus around the need to improve roadways, sidewalks and restore two-way traffic in downtown Meriden. The project will address deficiencies of poorly designed and outdated transportation projects; increase access to the new commuter rail station; and create “Ladders of Opportunity” through increased connectivity to employment, education, housing and economic development projects in the pipeline. The project will help ensure that pedestrians, bicyclists, vehicles, transit buses and the disabled are afforded safe and efficient access to the new Meriden Transit Center (MTC) and expanded commuter rail service beginning in 2018. The project will benefit the 7000 existing downtown residents and 600-1000 new residents expected to move into 600 new housing units to be constructed over the next five years. The project will also benefit 40 small businesses and non-profit organizations committed to transforming downtown Meriden.

Historically Meriden was a walkable community with a vibrant downtown. In the early 1900’s, Meriden had a robust public transportation system and for many years residents did not need to own automobiles. With the rise of the automobile and during the urban renewal era of the 1960’s, traffic patterns on key downtown and commercial corridors, such as West Main Street, Hanover Street, and Cook Avenue, were modified from two-way to one-way to move traffic through and out of town as efficiently as possible. By the mid 1970’s, following an era of silver manufacturing plant closings, downtown Meriden experienced significant disinvestment. The return of two-way traffic, promised upon arrival of Interstate 691, located one half mile to the north, never materialized due to lack of funding and public will to make it happen.

Under the present traffic configuration, all westbound traffic is funneled through two lanes on West Main Street, regardless of intended destination. At the intersection with Cook Avenue, which is State Route 71, half the traffic turns left to head southbound towards South Meriden. Cook Avenue between West Main Street and Hanover Street is southbound only. Northbound Route 71 requires the use of local roads prior to rejoining the

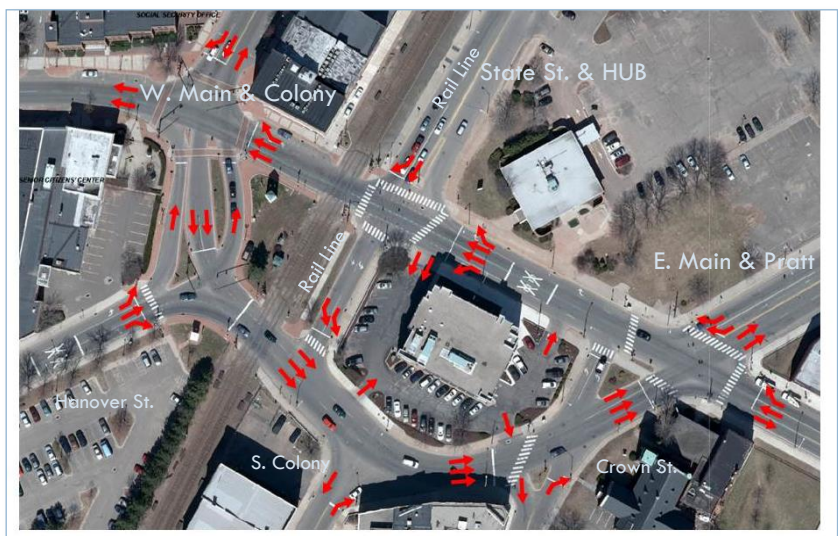


FIGURE 1: “VORTEX OF VEHICULAR DOOM” TRAFFIC PATTERN

Route 71 immediately west of Cook Ave on West Main Street, forcing traffic either through residential streets or through the downtown area. Eastbound traffic through and into downtown has even greater challenges. Vehicles are forced to make a right turn on Cook Ave, turn left onto Hanover Street, then go through the two traffic signals before having to make a left turn onto South Colony from a contra-flow lane to get to businesses on West Main Street. Today, the downtown roadway network has been aptly described as "...a sucking vortex of vehicular doom ...[where motorists] drive in confused circles wondering how you got there and more importantly how, and whether, you can ever get out again."

While the system is confusing for vehicle modes, it is also confusing and often dangerous for non-vehicle modes including pedestrians, bicyclists and the disabled. The downtown is currently served by Amtrak rail service (the Vermonter Line) and CT Transit fixed route transit bus service. Intercity bus service, which had been in Meriden at the Amtrak Station for over 30 years, ended when Greyhound and Peter Pan bus lines ceased serving Meriden in 2007. Access to the public transit system is hindered due to the fact that sidewalks and crosswalks are in disrepair, bus stops are not sheltered, wayfinding signs are haphazard, and bicycle lanes are non-existent. In a recent survey of downtown residents as part of the HUD Choice Neighborhood planning process, over 18% of survey respondents use public transit as their primary means of transportation and over 18% primarily walk or bike. Only 60% use or share a personal automobile and 32% percent said that they cannot afford a personal automobile. Over 80% of the survey respondents expressed a willingness to commute to work and/or obtain employment. However, pedestrian safety (such as interaction with speeding vehicles) was a key concern and a barrier to expanded use of the public transit system by downtown residents.



FIGURE 2: LACK OF PEDESTRIAN AMENITIES AT TRANSIT BUS STOP ON STATE STREET

Further compounding the confusing and often dangerous traffic patterns is that previous improvements did not account for long-term maintenance needs. In 1991, a downtown streetscape project was implemented that included brickwork and sidewalk bump outs. While some of the elements remain in fair condition, bump out configuration on West Main Street and Colony Street has made plowing and street sweeping time consuming and expensive. Brick pavers used in the sidewalks were thin set and have a tendency to pop out. Crosswalk pavers are missing at many locations due to potholes, utility work or the random vehicle strike. Trees have outgrown the tree wells, cracking the sidewalks and lifting the grates. Bump outs reduce the availability of on-street parking and vehicles in the act of parking cause all traffic to stop while they attempt to maneuver into the spaces. Vehicle speeds are high due to the lack of opposing traffic or pedestrian activity. There is frequent weaving as vehicles position for lanes and avoidance of the aforementioned parking vehicles. Overall, the existing streetscapes are difficult to maintain properly and the



FIGURE 3: DETERIORATING STREETSAPES W. MAIN

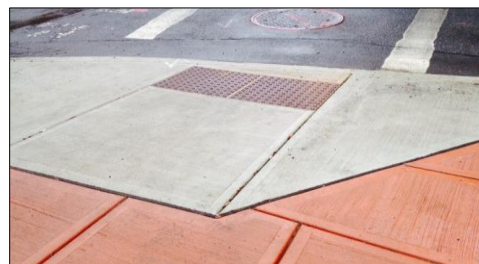


FIGURE 4: RECENTLY COMPLETED SECTION W.MAIN

overall appearance decreases quality of life throughout downtown Meriden.

The Multi Modal Roadway Improvement Plan for the TOD District, approved by the City with widespread community support, was developed to outline strategies and engineering designs that address the existing deficiencies of the downtown transportation system while ensuring that pedestrians, bicyclists, vehicles and transit buses are afforded safe and efficient access to the new Meriden Transit Center, commuter rail service, and new housing, economic and employment opportunities for years to come. The Plan includes 35% Preliminary Engineering Design, and guides the construction of roadway, sidewalk and signal improvements throughout Meriden's TOD District.

Since its initial 2012 TIGER Request for \$10 million, the City has continued with the planning, design and construction of the recommended roadway improvements. Using City funds, portions of the West Main Street sidewalk reconstruction have been completed. Additional sidewalk construction is slated for summer 2016, using over \$1 million in City funds and state bond funds. The City of Meriden was awarded \$3 million from the Connecticut Department of Transportation Congestion Mitigation and Air Quality (CMAQ) Program for Signal System Upgrades on the Arterial Roadway Network. Final design work on this project is anticipated to commence in fall 2016 with construction occurring between 2017 and 2019. The City is in the process of securing a \$3 million LOTCIP grant by the State of Connecticut to design and construct the Pratt Street Gateway, which will create a safer and aesthetically pleasing entrance to downtown, and make development along the corridor more viable. To supplement these activities, the City is competing for \$2 million in grants from the Connecticut Office of Policy and Management for infrastructure improvements such as new sidewalks continuing along the Colony Street corridor, along the new downtown park and adjacent to development sites. To ensure that the transportation network takes full advantage of these infrastructure improvements, the City in cooperation with the South Central Regional Council of Governments (SCRCOG) is also conducting a First / Last Mile Study for both the area adjacent to the transit center and major employment centers in Meriden, and neighboring Wallingford and Berlin, CT.

The City is requesting \$5.2 million from the TIGER Program to take the program for improving accessibility to completion. The proposed funding, along with the funds currently allocated from other sources, will allow for a completion of the TOD Multi-Modal Roadway Improvement Project as it was envisioned. TIGER funds will be used for roadway widening on East Main Street and realignment of Perkins Square which allow access to both the new park and the new development at 1-77 State Street, 161-177 State Street and 11 Crown Street. All roads within the TOD area, including East Main Street, West Main Street, Colony Street, Hanover Street, and Perkins Square will be paved to maintain the state of good repair. Signage and pavement markings will be modified to allow for two-way traffic. Additional sidewalks along Hanover Street and Colony Street will be improved to provide safe and efficient pedestrian access.

The implementation of the TIGER grant will benefit the existing and new residents of Meriden's TOD District, including census tracts 1701, 1702, 1703, 1709, 1710, and 1714. Residents from these census tracts have profound needs, ranging better housing conditions to employment, education and health care services. Improvements to the transportation system in the TOD district will help provide better access for these residents while better connecting downtown Meriden to the more prosperous region that includes New Haven and New York to the south and Hartford and Boston to the north and east. Also benefitting from the project are 40 businesses and nonprofit organizations actively engaged with the City and the Downtown

Neighborhood Association to create jobs, improve property values and make Meriden's downtown a dynamic and vibrant place to live and work.

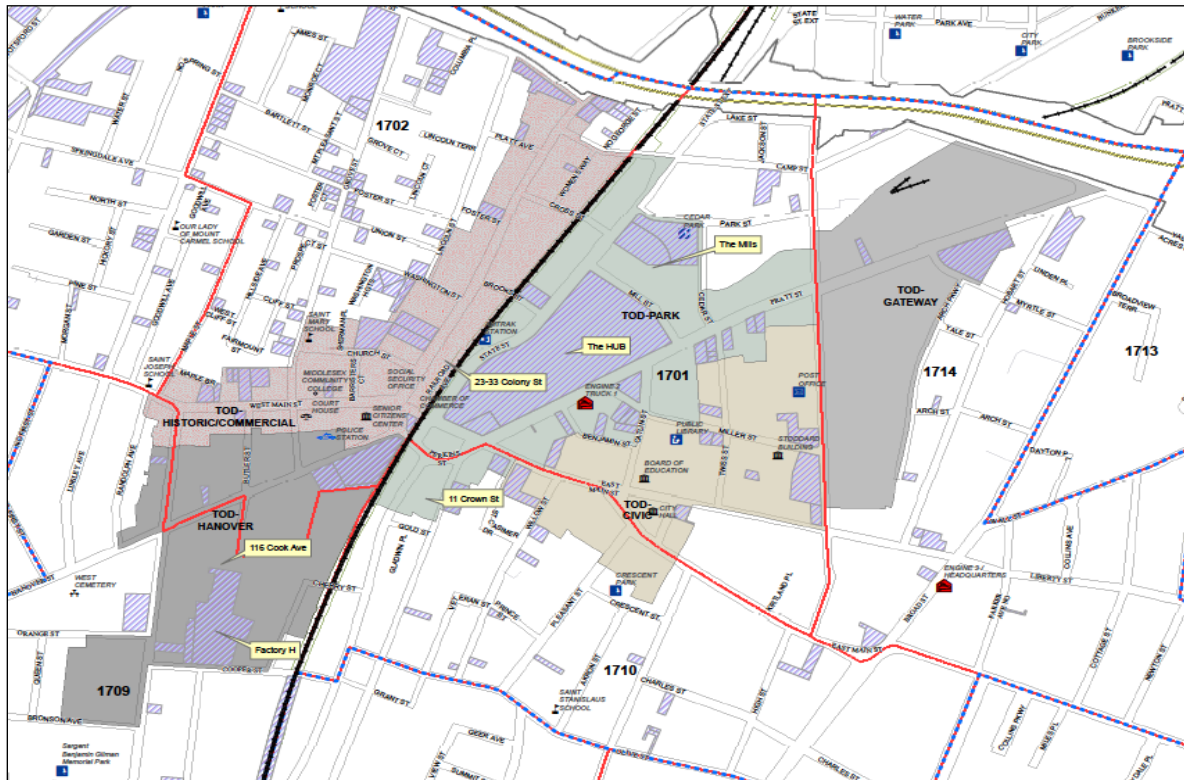


FIGURE 5: TIGER GRANT AREA OF FOCUS, DOWNTOWN MERIDEN, CT

B. PROJECT LOCATION

The City of Meriden, population 60,838, is located in central Connecticut at the intersections of Interstates I-91, I-691 and the Merritt Parkway (Route 15), midway between Hartford and New Haven and less than two hours from Boston and New York City. Meriden is home to 1,300 businesses employing over 25,000 people, 3,000 acres of park space, and a distinguished history. Once known as the “Silver City”, Meriden enjoyed economic prosperity through the 1950’s due to a thriving silver manufacturing industry. A decline in silver industries, related plant closings, and unsuccessful urban renewal policies resulted in significant disinvestment in Meriden’s city center in the 1960’s. Several attempts at downtown revitalization, including several million dollars spent on streetscape improvements, were undertaken from the 1970’s through the 1990’s. Those efforts, however, did not have the desired effect of spurring economic activity downtown. Two major floods in 1992 and 1996, which caused over \$26 million in property damage, halted new development activities from the late 1990’s to the present.

Meriden’s downtown today comprises residential and commercial areas most affected by the decline of the silver manufacturing industry and the associated job loss, economic disinvestment, and environmental hazards. According to the American Community Survey (2008-2012, 5-year estimate) the area is predominantly low income, with a median household

income of \$27,638; transient, with 48% of the population having moved in within the last five years; increasingly foreign born, with the number of foreign-born residents at 12%; and non-white, with a population that is 57% Hispanic and 10% African American. In almost every statistic, from individual and household income to educational attainment, downtown residents lag far behind other city and state residents. While 21% of all Meriden residents fall below the poverty line, 33.8% of the residents within the downtown fall below the poverty line. 59% of citywide households are owner occupied, but in the target area just 22% of households own their home. While the national economic downturn eased during 2014, residents of the target area continue to be impacted by high levels of unemployment and lack of economic opportunity. In March 2016, citywide unemployment was 7.7%, a decrease from prior years. However, a recent survey completed as part of the Choice Neighborhood planning process found that target neighborhood residents were significantly more likely to be unemployed than Meriden as a whole, with 25.6% of survey respondents reportedly not working and actively looking for work (Choice Neighborhoods Needs Assessment, November 2014). In that same survey, 17.8% of respondents reported that they struggle to find a job because they did not have the right skills; 16.9% said that they did not have the right education; and 23.5% said that they did not have adequate transportation. Improving access to public transportation is a key objective of the Choice Neighborhoods Transformation plan and a key component of providing economic opportunities for low and minority residents residing in Meriden’s downtown.

	TOD/TIGER Area of Focus: Census Tracts 1701-1703, 1708-1710, 1714	City: Meriden	State: Connecticut	National
Population	12,677 ⁶	60,868 ¹	3,574,097 ¹	308,745,538 ¹
Unemployment	20.7% ⁶	7.4% ²	6.4% ³	6.7% ³
Poverty Rate	33.8 ⁶	15.1% ⁴	9.7% ⁴	11.8% ⁴
Percent Minority	69% ⁶	26.5% ¹	22.4% ¹	26.7% ¹
Median HH Income	\$27,638 ⁶	\$49,144 ⁴	\$67,427 ⁴	\$51,371 ⁵
¹ U.S. Census Bureau, 2010 Census		² CT Department of Labor, Sept. 2014		
³ BLS, September 2014final		⁴ 2008-2010 ACS 3-Year Estimates		
⁵ 2009-2011 ACS		⁶ ACS 2008-2012 5 Year Estimate		

The lack of “Ladders of Opportunity” (i.e. the means by which individuals access economic opportunity and a better quality of life) in the target neighborhood is a continuing problem requiring residents to increasingly rely on state and federal aid. According to the 2010 Connecticut KIDS COUNT Data Book, child recipients of the Supplemental Nutrition Assistance Program in Meriden increased 32% from 2007-2009. The same source reports that 59% of children in Meriden are eligible for free or reduced-price lunches, and 1,588 children in Meriden were receiving assistance through Connecticut’s family welfare program (Temporary Family Assistance, TFA), a 10% increase from 2007 (while the state’s average increase was 2.3%). Young children bear the greatest burden of poverty with 68% of children under five living in families with incomes below the federal poverty level.

The City of Meriden and stakeholders from the areas of transportation, economic development, education, health care, business and workforce development have come together in recent years to reposition the downtown for significant change. Numerous efforts aimed at

transforming the downtown are underway. Ongoing projects range from the reconstruction of the transit center and the advent of commuter rail service, comprehensive flood control and resiliency planning, implementing targeted educational and social service programs, to redevelopment of 30 acres of brownfields. Several significant construction projects, including the construction of a \$20 million rail station, construction of a \$14 million park and flood control project, the redevelopment of a 140-unit distressed public housing project, and the construction of up to 600 new housing units in the TOD district is hastening the need to address the deficiencies of the local transportation network. The purpose of the TIGER grant application is to fund critical transportation improvements and transform the city center into a modern, urban area that offers new, mixed-use development in a pedestrian-friendly environment with public open space, improved access to public transit service, and access to a wide range of transportation choices, employment and educational opportunities located in Meriden and within the larger region, which includes Hartford, New Haven and the entire New York and Boston metropolitan areas.

C. PROJECT PARTIES

The City of Meriden is leading a multi-faceted, multi-partner effort aimed at transforming the Meriden Transit Center and the half-mile area surrounding it into a “transit oriented development” area that includes new residential and commercial development, public open space, and improved access to public transportation. Stakeholders in this process have included local, state and federal agencies (City of Meriden, Meriden Housing Authority, US Department of Housing and Urban Development, US Environmental Protection Agency, FEMA, CT Department of Economic & Community Development, CT Department of Transportation, CT Department of Energy and Environmental Protection, Connecticut Housing Finance Authority), educational institutions (Meriden Board of Education, Middlesex Community College), non-profit organizations (YMCA, Meriden Children’s First, CT Main Street Center, Midstate Chamber of Commerce, Meriden Economic Development Corp.), private developers (Westmount Development Group, Pennrose Properties LLC, POKO Partners, The Michaels Organization), residents, property owners, and small businesses located downtown. Throughout a decade or more of planning, residents have universally called for a return to a walkable, pedestrian friendly downtown, with access to public transportation, thriving commercial areas and residences intermingled and public open spaces for all to enjoy. Prior planning efforts include:

Master Planning

- “City Center Initiative” (2002), a vision to remake downtown Meriden
- Harbor Brook Flood Control Plan (1994-2012), a comprehensive plan to address flooding along Harbor Brook
- Linear Trail Master Plan, a regional greenway trail running along Harbor Brook
- TOD Master Plan (2012), a plan to bring transit oriented development downtown
- Completed downtown parking study (2015)

Planning & Zoning

- Adopted Plan of Conservation & Dev. (2009)
- Adopted TOD zoning regulations (2013)

Flood Control Planning

- Completion of Hub Site Reuse Planning & \$14 million Park & Flood Control Project
- Adopted 2012-2018 Capital Improvement Plan to implement \$21.75 million in flood control projects, and secured all permits.

Small Business Development

- Assisted 16 small businesses access capital and take advantage of local and state tax incentive programs
- Engaged 40 downtown businesses and nonprofits in the Meriden 2020 “Meet your downtown merchants” marketing & signage program

Roadway, Transit & Transportation

- Coordinated local planning efforts with the \$467 million NHHS commuter rail project
- Completed 35% traffic engineering design plans comprising the Multi-Modal Roadway Improvement Plan for the TOD District
- Initiated construction of Meriden Transit Center
- Completed West Main Street sidewalk reconstruction from Cook Ave. to S. Grove

Housing & Mixed Use Development

- Partnered with a private developer, the Meriden Housing Authority and CT DOT to construct a 63-unit, 11,000 square foot mixed use “transit oriented development”

- and commuter parking garage at 24 Colony Street. Project to be completed in 2016.
- Completed redevelopment planning for 140-unit Mills Memorial Housing Complex, a distressed and obsolete high-rise public housing complex under HUD “Choice Neighborhoods” Planning Grant. Secured approval to dispose of 24 public housing units and replace with 75 units of mixed income housing at 161-177 State Street.
- Completed TOD Developer RFQ/RFP and selected three private developers to construct mixed use development at four city owned sites (116 Cook Ave., former Factory H, HUB, 11 Crown St.)
- Completed “Choice Neighborhoods” Transformation Plan (2015)

Recently, the City of Meriden and over 200 stakeholders have been engaged in a planning process under the auspices of a US Department of Housing and Urban Development “Choice Neighborhoods Initiative (CNI)” planning grant. Collaborative efforts have resulted in a draft “Transformation Plan” (May 22, 2015) that puts forth goals and strategies and related to downtown living, transportation and accessibility. An award of TIGER funds will allow Meriden to fully implement the TOD Multi-modal Improvement Plan as envisioned and bring connectivity and mobility to downtown Meriden with the purpose of accomplishing the following goals:

- **Goal 1: Address the major deficiencies of the current roadway system, improve traffic flow and reinstitute two-way traffic in order to increase mobility and accessibility in the TOD district**
- **Goal 2: Increase transit ridership in concert with new commuter train service in order to reduce travel time between key destinations, create access to job opportunities, and provide energy and environmental benefits to the community.**
- **Goal 3: Ensure adequate parking is available throughout the TOD district, particular for the new development that envisions up to 600 new housing units to be constructed within five years.**
- **Goal 4: Improve downtown pedestrian safety by improving downtown wayfinding signage, lighting and adding shelters at downtown transit bus stops and provide better accessibility generally for pedestrians, bicyclists, and transit users.**



FIGURE 6: CNI TRANSFORMATION PLAN

Choice Neighborhoods TOD Strategies

Strategy 1: Reconstruct nine roadway sections in downtown Meriden to include improved traffic flow, two way traffic and “bump out” removal.

The project will reconstruct nine roadway sections in downtown Meriden to improve traffic flow, improve accessibility and increase safety. The project will convert one-way to two-way traffic flow in the City Center on West Main Street/ East Main Street, Hanover Street, Cook Avenue and Perkins Square; remove bump outs on West Main Street and Colony Street, and realign Perkins Square. Signals on State Route 71 will be reconstructed to accommodate two-way traffic and will be modified on West Main Street, Hanover Street and Church Street to accommodate two-way traffic. Finally, Pratt Street will replace State Street as the main access from the Interstate 691 and will be transformed into a gateway with landscaped medians welcoming visitors to the City Center.



FIGURE 7: TOD ROADWAY IMPROVEMENT AREA

Strategy 2: Implement “complete streets” design principles for roadway sections included in the TOD Roadway Plan that allows for safe use of the roadway by motor vehicles, pedestrians, bicyclists, and transit users.

Final design of the roadway improvements includes “complete streets” design principles so that vehicles, transit, pedestrians and bicyclists will be able to safely and efficiently circulate downtown. The overall plan includes the installation of dedicated bus stops, improved crosswalks and streetscapes with textured pavement and colored concrete. Impacts on adjacent properties will be minimal, with much of the activity occurring between the existing curbs.



FIGURE 8: EXISTING AND PROPOSED PRATT STREET GATEWAY



Strategy 3: Implement streetscape amenities, including pedestrian crosswalks, lighting and wayfinding signage, included in the TOD Roadway Plan that unify the TOD district and provide better accessibility and safety for pedestrians, bicyclists, and transit users.

The project will be designed to enhance the quality of life in downtown Meriden by incorporating streetscape improvements that also provide clear and safe passageways, improved view sheds,

and better accessibility for the disabled. Improvements will help ensure safe and efficient access to the new Meriden Transit Center and commuter rail service.

Strategy 4: Provide Meriden residents and job seekers better connections to regional educational and job opportunities through improved access to public transit service.

Meriden is home to several major employers and has a local workforce of over 32,000. In addition, 34,835 persons presently commute to jobs in Meriden. Once the rail service is operational, 138,620 jobs will be located within a 40-minute commute from Meriden.ⁱⁱ This indicates a significant pool of potential future residents who could commute to work by transit alone. With unemployment in Meriden above statewide and national levels, and unemployment in the Choice Neighborhood/downtown area significantly higher than citywide levels, it will be important to ensure that Meriden residents seeking employment opportunities have full access to the public transit and commuter rail system. By improving accessibility to the Meriden Transit Center, including the commuter rail service, fixed transit bus service provided by CT Transit, and possibly resuming private intercity bus service, implementation of the TOD Multi Modal Roadway Improvement Plan will help facilitate access to employment and education opportunities located outside of Meriden.

Strategy 5: Design the transportation system with long-term maintenance in mind.

All aspects of the project will be designed for long term maintenance. Low impact development techniques, such as landscaped medians, new trees, pervious tree pits and other techniques will be incorporated into final design and construction. Low maintenance materials, such as colored concrete to replace brick pavers, have proved to be cost effective and aesthetically pleasing.



**FIGURE 9: IMPROVED SIDEWALKS
WEST MAIN STREET**

Strategy 6: Incorporate sustainability into the roadway design.

Streetscape elements will include sustainability measures, such as the use of native and low maintenance plantings, and by confining construction primarily to the existing right of way.

Strategy 7: Ensure that affordable public parking continues to be provided in the TOD district.

While TOD Multi Modal Roadway Improvement Plan is designed to encourage and facilitate the increased use of public transit, automobile use is an essential component of everyday life and a requirement for many to access jobs, health care, shopping and other activities not located on a public transit line. The project design improves access and signage to existing on-street and off-street parking and adds 10-12 on-street parking spaces as a result of bump-out removal. Additionally, as part of the commuter rail project, the state will construct a 273-space parking garage at 24 Colony Street and an 80 surface space lot at 88 State Street to accommodate the users of the transit center. Signage developed will incorporate wayfinding to the existing City of Meriden parking lots and to the new State of CT commuter lots.

Strategy 8: Leverage transit systems investment currently underway in Meriden.

The Connecticut Department of Transportation is in the process of constructing a \$20 million rail station to replace the aging Amtrak station located at 60 State Street. The investment is part of the New Haven-Hartford-Springfield (NHHS) rail program, a \$467 million commuter/high speed rail service utilizing the existing AMTRAK rail corridor. Meriden has been designated a key station stop along the NHHS rail line. At full capacity, Meriden will have 56 bi-directional trains daily serving the Springfield to New Haven corridor and improved transit bus service.

Strategy 9: Leverage current private development and infrastructure investment.

Adjacent to the new transit station at 1-77 State Street, the City is constructing a \$14 million City park and flood storage area as part of a \$34 million citywide flood control infrastructure upgrade / linear trail system. Implementation of the flood control program will significantly reduce flooding risks for existing and new development downtown and create an attractive public park, linear greenway trail and central town green around which development can be constructed.



FIGURE 10: "MERIDEN GREEN" AND THE "SILVER CITY BRIDGE" AT 1-77 STATE ST. (FORMERLY THE HUB SITE)

In 2013, the City adopted a Transit Oriented Development District Zoning Regulation to ensure that new development is of high quality and blends with the existing historic character. Development of the TOD zoning codes was completed under the auspices of a HUD Sustainable Communities Challenge grant in 2013. A new, mixed-use development at 24 Colony Street is under construction and will be completed in 2016. The \$30 million project, which includes 63 housing units, 11,000 sf of commercial space, and a 273 space commuter parking garage, is the City's first new Transit Oriented Development project approved under the new TOD Zoning Ordinance.



FIGURE 11: 24 COLONY STREET DEVELOPMENT

Meriden will also receive Low Income Housing Tax Credit (9%) funds for the 161-177 State Street mixed use development project, which is phase one of a multi-phase project that includes demolition of the Mills public housing project and implementation of the Harbor Brook Flood Control project north of the Hub site. The proposed project will have 75-units of mixed-income family housing, with ground level retail space and a preschool. The property will include 8 supportive units and 60 units targeted for households with incomes of 60% or less of Area Median Income (AMI). In addition, 26 of the 60 units will be supported by project based Section

8. The new building will be within walking distance of the Meriden Transit Center. Project partners include Pennrose Properties, the Meriden Housing Authority and the City of Meriden.

In addition to the development at 24 Colony Street and 161-177 State Street, development agreements have been executed for city-owned 1-77 State Street (the Hub site) and 11 Crown Street.

Development agreements are in negotiation for 116 Cook Ave and the former Factory H site (104 Butler Street and 77 Cooper Street). These

developments represent up to 600 new residential units, 100,000 square feet of non-residential space, and a potential investment value of over \$200 million with the potential to create over 1,200 permanent and part time jobs.



FIGURE 12: MIXED USE DEVELOPMENT-177 STATE ST.

New development throughout the TOD District will take advantage of Meriden’s central location and proximity to major employment centers. An analysis of residential supply and demand indicates a potential demand for 600 to 1,000 housing units in the TOD District and service and specialty retail to support the new development. This new housing and retail will be attractive to young workers and empty nesters seeking high quality affordable and workforce housing.

Strategy 10: Provide links to the regional transportation system

The proposed transportation improvements are designed with regional connectivity in mind. This will be accomplished first through connection of the pedestrian and bikeway improvements to the regional linear trail system. The centerpiece of relation Trail Master Plan is the five mile Harbor Brook Linear Trail running southwest to northeast through the TOD District and new park. The Trail allows for multi-modal access in a dense urban environment. A 1,500-foot long segment of the Trail is included in TIGER Grant. This segment will serve as a vital link connecting the TOD District and HUB park to the existing 2.5 miles of trail that have been constructed in the southwest corner of the City, the 1 mile section presently in design and the ½ mile segment to be designed in the future. Improving multi-modal mobility via the Harbor Brook Linear trail will greatly enhance access to jobs and reduce congestion. The City is also undertaking a vital First Mile / Last mile in cooperation with the South Central Regional Council of Governments to determine where gaps in service exist between the existing and proposed transportation networks and places of employment, education and business in Meriden and regionally, particularly in Wallingford and Berlin, CT which are also on the rail line. This study will be completed in 2016.

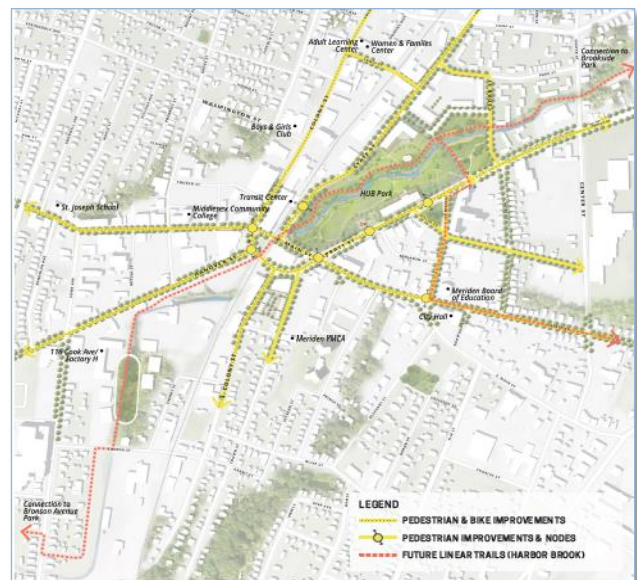


FIGURE 13: TOD ROADWAY AND TRAIL LINKAGES

D. Sources and Uses of Project Funds

The project will reconstruct nine roadway sections in downtown Meriden to improve traffic flow, improve accessibility and increase safety. The roadway sections were selected and analyzed for improvements in prior studies and investigations including the TOD Master Plan (completed in 2012 with the assistance of Parsons Brinkerhoff, Luchs Engineering, and Form + Place architects), and the 35% Engineering Design Plans completed by CDM Smith in 2015. These plans, along with input from the community over more than a decade, show that the local roadway, sidewalk and bicycle network is insufficient to meet current and future needs. The increased frequency of roadway closures due to the commuter rail project will significantly impact traffic operations, with nearly a half-minute of additional delay for every vehicle entering the Transit Oriented District. Increasing mobility and connectivity, as well as converting vehicles to other modes of transportation, are viewed as critical to the future success of Meriden and the viability of it as a transit oriented community.

The total cost of the roadway improvement project is \$8,724,100. Non-federal contributions will be \$2,818,585, representing 35% of the total project costs. The City seeks a TIGER grant in the amount of \$5,234,460. The project leverages over \$276 million in related projects. The cost estimate for the project was based on the State of Connecticut Department of Transportation Cost Estimating Guidelines – 2014. The guidelines recommend a conservative approach to cost estimating at Preliminary Design. Included in the cost estimates are the following:

- Minor items – 10% of all contract items
- Contingency – 15% of total project cost
- Incidentals – 23% of total project cost
- Escalation – 5% per year to 2017

CONSTRUCTION COST	\$ 7,931,000
Design %	10%
Design cost	\$ 793,100
TOTAL PROJECT COST	\$ 8,724,100
Non Fed Share	35%
GRANT REQUEST	\$ 5,234,515
NON FED SHARE	\$ 2,818,585

City Sidewalk bond account	\$ 800,000
City Linear Trail bond account	\$ 500,000
City Project Administration	\$ 300,000
Pratt Street design	\$ 100,000
City Paving accounts - 2017-2019	\$ 1,118,585
TOTAL LOCAL/NON-FEDERAL CONTRIBUTION	\$ 2,818,585

The project has been broken down into 9 Phases. Details of each phase of the project are explained below:

CONSTRUCTION PHASE 1		Est Constr. Cost
Section 1	Colony St from Church St to Camp St Sidewalks, Landscaping, Paving	\$1,431,000
Section 2	Cook Ave (Rt 71) from Hanover St to West Main St Landscaping, Two-way conversion (pending CMAQ signal completion 10/17)	\$133,000
Section 3	Hanover St from Cook Ave to South Colony St Sidewalks, including trail, Paving, Two-way conversion	\$483,000
Section 4	State St from East Main St to Camp St Sidewalks, Paving	\$1,288,000
CONSTRUCTION PHASE 2		
Section 5	Pratt St from Broad St to Center St Sidewalks, Landscaping, Lighting	\$1,243,000
Section 6	Pratt St from Center St to East Main St Sidewalks, Landscaping, Lighting	\$1,338,000
CONSTRUCTION PHASE 3		
Section 7	West Main St from Cook Ave (Rt 71) to Colony St Landscaping, Paving, Two-way conversion	\$641,000
Section 8	East Main St from St Casimir St to Colony St (includes RR) Road widening, Sidewalks, Paving, Two-way conversion, Bus Stop	\$442,000
Section 9	Perkins Square (includes RR) Road realignment, Sidewalks, Paving, Two-way conversion	\$932,000
		\$ 7,931,000

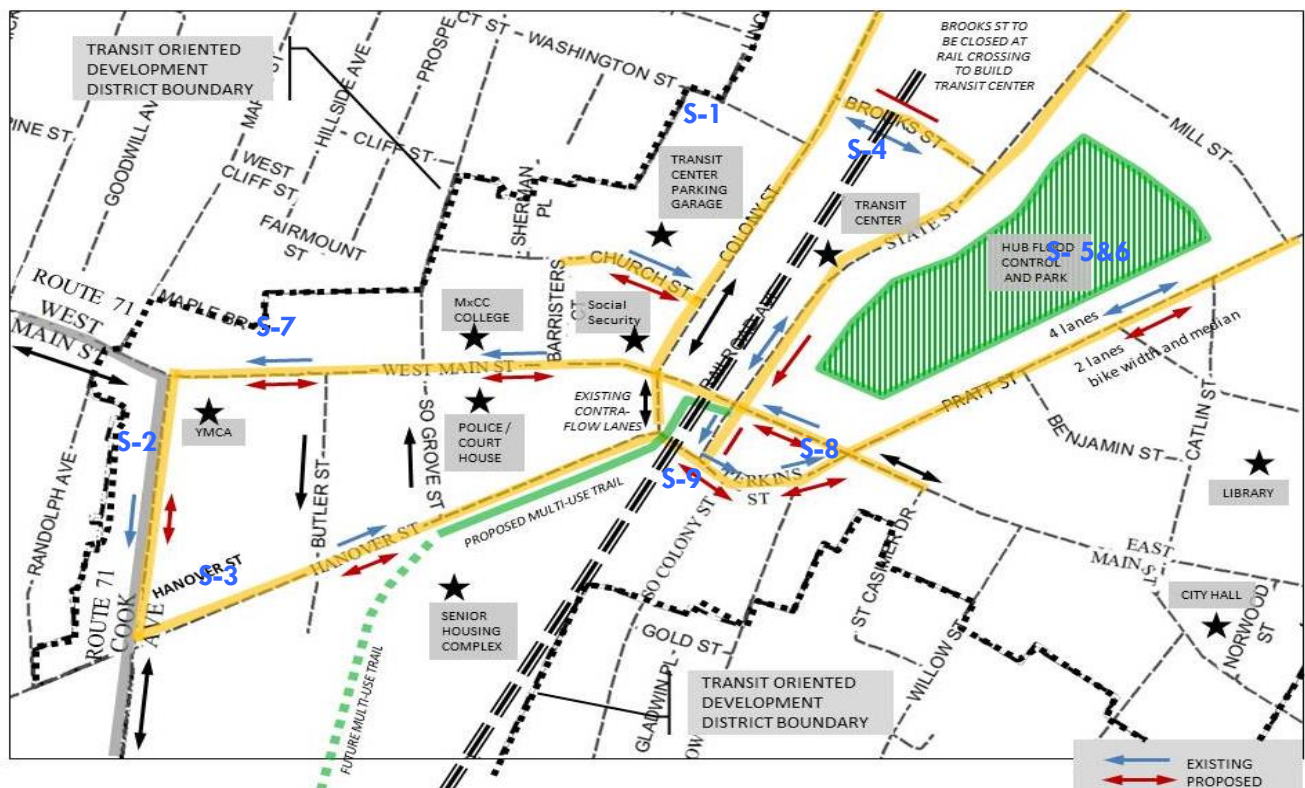


FIGURE 14: ROADWAY IMPROVEMENT PROJECT PHASES

CONSTRUCTION PHASE 1

Section 1 Colony St from Church St to Camp St

Key Tasks:

- Improve pedestrian and vehicular access through the removal and modification of bumpouts
- Add streetscape elements including colored pavement at key nodes, textured crosswalks and loading zones, wayfinding signage for motorists and pedestrians, plantings and cobble tree protection.
- Convert Church St. from one-way to two-way traffic at the intersection with Colony St..
- Make minor modification to one traffic signal.

Related Development Projects

- 24 Colony St., 63 residential units, 11,000 sf retail, 273-space parking garage, \$30 million total development costs (Construction underway, Westmount Development Group in cooperation with Meriden Housing Authority, 2015)
- \$20 million Meriden Transit Center, pedestrian access via 25-33 Colony St.

Section 2. Cook Ave (Rt 71) from Hanover St to West Main St

Key Tasks:

- Convert Route 71 (Cook Ave.) from Hanover St. to West Main St. from one-way to two-way traffic.
- Requires major modifications to two existing traffic signals, and includes new sidewalks at the intersections and new pavement. This will be performed through a CMAQ grant.

Related Development Projects:

- 72 Cook Ave., 6,000 sf adaptive reuse of commercial structure into laundromat and retail.
- 116 Cook Ave./Former Factory H, 184 residential units, \$55 million total development costs (proposed by POKO Partners LLC, 2015)
- 1 King Place, 265,000 sf structure on 5.6-acre brownfield site.

Section 3. Hanover St from Cook Ave to South Colony St

Key Tasks:

- Convert Hanover Street from Cook Ave. to South Colony Rd. from one-way to two-way traffic.
- Requires minor modifications to three traffic signals.
- Construct 1,500-foot long segment of multi-use linear trail on Hanover Street from South Colony to South Grove Street.

Related Development Projects:

- 72 Cook Ave. -United Laundry, 6000 sf commercial building (construction ongoing)

Section 4. State St from East Main St to Camp St

Key Tasks:

- Construct new sidewalks and paving to the north and adjacent to the HUB Park and Transit Center

Related Development Projects:

- Construction of \$20 million Meriden Transit Center, which is part of the New Haven Hartford Springfield Commuter Rail Program funded by the Connecticut Department of Transportation
- 161-177 State St. Mixed Use development
- HUB Flood Control, park and development sites

CONSTRUCTION PHASE 2

Section 5. Pratt St from Broad St to Center St

Key Tasks:

- Sidewalk construction and landscaping to complement to planned Pratt Street Gateway project, which will transform Pratt St. into gateway with the major realignment of Camp St. and installation of landscaped median and convert roadway from four lanes to two lanes, with wide travel lanes to accommodate bicycle use.
- Erect new Interstate signs to redirect I-691 traffic to Pratt St. as gateway.

Related Development Projects:

- Redevelopment of the Mills Public Housing Complex, 150 residential units, \$50 million total development costs (proposed by Pennrose Properties, 2015)

Section 6. Pratt St from Center St to East Main St

Key Tasks:

- Sidewalk construction and landscaping to complement to planned Pratt Street Gateway project, which will transform Pratt St. into gateway with the major realignment of Camp St. and installation of landscaped median and convert roadway from four lanes to two lanes, with wide travel lanes to accommodate bicycle use.

Related Development Projects:

- Redevelopment of the Mills Public Housing Complex, 150 residential units, \$50 million total development costs (proposed by Pennrose Properties, 2015)

CONSTRUCTION PHASE 3

Section 7. West Main St from Cook Ave (Rt 71) to Colony St

Key Tasks:

- Reconstruct West Main St. from Colony St. to Route 71 (Cook Ave.) with new sidewalks and pavement
- Convert West Main St. from one-way to two-way street from Colony St. to Cook Ave.
- Improve pedestrian, transit, commercial and vehicular access through the removal and modification of bumpouts.
- Add streetscape elements including colored pavement at key nodes, textured crosswalks and loading zones, wayfinding signage for motorists and pedestrians, plantings and cobble tree protection.
- Remove one traffic signal, make minor modifications to two signals, and major modifications to one signal.
- Coordinate sidewalk and road closures with key property owners and tenants including Meriden Housing Authority (143 W. Main redevelopment) Middlesex Community College, Meriden YMCA, Meriden Police Dept., CT Superior Court, and over 30 local merchants and property owners.

Section 8. East Main St from St Casimir St to Colony St (includes RR)

Key Tasks

- Convert East Main St. between Pratt St. and Colony St. from one-way to two-way traffic.
- Install bus pull-off on East Main St. at St. Casimir Dr.
- Add streetscape elements including colored pavement at key nodes, textured crosswalks, and wayfinding signage for motorists and pedestrians. Replacement of one traffic signal at Pratt St.

Related Development Projects:

- 1-77 State Street, \$14 million City of Meriden park and flood control project

- 3 acres of private development at 1-77 State Street, including 170 residential units, 85,000 sf commercial and visitor center, \$50 million total development costs (proposed by Pennrose Properties, 2015).

Section 9. Perkins Square (includes RR)

Key Tasks:

- Realign Perkins Square (Comprised of South Colony St., Perkins St. and Crown St.) to improve safety and convert from one-way to two-way traffic.
- Widen sidewalks and add crosswalks to improve pedestrian mobility.

Related Development Projects:

- 11 Crown St., \$27 million redevelopment project, including demolition of existing structure and construction of 81 housing units (proposed by The Michaels Organization, 2015).

Leveraged funds (previously spent or committed from outside sources)
<p>\$7.5 million - TOD roadway design and construction</p> <ul style="list-style-type: none"> • \$850,000 TOD Pilot, planning and engineering (state) • \$125,000 CT DOT TOD Pilot Grant - final design plans West Main St & Colony St (state) • \$1 million - West Main St / Colony St Sidewalks bumpout removal 2014-2016 (local) • \$3 million CMAQ Traffic Signal Replacement 2017 (federal/state) • \$2.5 million Pratt Street Gateway LOTCIP Program 2017 (state)
<p>\$20.05 million - Transit Improvements</p> <ul style="list-style-type: none"> • \$20 million (federal and state) for the Meriden Transit Center (NHHS Rail Program), • \$50,000 SCRCOG Urban Planning Work Program Grant to complete "First Mile/Last Mile" study for the Meriden Transit Center (state)
<p>\$6.1 million - Brownfields Mitigation</p> <ul style="list-style-type: none"> • \$350,000 HUD CDBG/Section 108 Loan for Cleanup at 116 Cook Ave. (federal) • \$221,000 CT DECD Interim Cleanup Loan 1 King Place (state) • \$200,000 CT DECD Municipal Brownfields Inventory & Assessment Grant, Mills (state) • \$2 million CT DECD Cleanup grant Mills site (state) • \$1.73 million CT DECD Cleanup grant 11 Crown Street (state) • \$577,000 CT DECD Cleanup Grant 177 State Street (state) • \$180,000 CT DECD Assessment Grant King Place (state) • \$240,000 USEPA Brownfields Cleanup at 50 East Main Street (federal) • \$200,000 USEPA Brownfields Assessment (federal, FY 2016) • \$130,000 USEPA Brownfields Cleanup at 116 Cook Ave. (federal) • \$200,000 FY 2015 USEPA Assessment grant (federal) • \$100,000 DECD Brownfields Areawide Assessment Grant (state)
<p>\$34.6 million - Flood Control</p> <ul style="list-style-type: none"> • \$13 million in improvements to the 1-77 State Street brownfields site (state, local) • \$21 million (local) in flood control infrastructure (2012-2018 Local) • \$600,000 HUB design and engineering (state)
<p>\$209 million - Housing and Mixed Use TOD Development</p> <ul style="list-style-type: none"> • \$500,000 US Dept. of HUD Choice Neighborhoods Planning Grant (federal) • \$970,000 to acquire land, and implement TOD zoning ordinance (federal) • \$3 million Mills Public Housing Demolition (state, local, private) • \$30 million for 24 Colony Street mixed use development project (state, private) • \$54 million development at 116 Cook/Factory H (Poko Partners LLC, private) • \$44 million development at HUB site (Pennrose Properties LLC, private) • \$50 million development at Mills site (Pennrose Properties LLC/MHA, private, state) • \$27 million at 11 Crown Street (The Michaels Organization, private)

E. PROJECT EVALUATION CRITERIA

1. PRIMARY

a) State of Good Repair

The project is consistent with state and regional plans to maintain transportation facilities and systems in a state of good repair and to address vulnerabilities. The project will improve the existing roads in the City Center by converting several roads from one-way to two-way traffic flow, improving signalization, increasing on-street parking, and providing new pedestrian, bike, vehicle and transit bus connections to the Meriden Transit Center and the new park at the HUB site. The project will also install way-finding signage and eliminate two at-grade rail crossings.

If left unimproved, the poor condition of the local roadway network will likely threaten future transportation network efficiency, accessibility to the Meriden Transit Center, inhibit use of the NHHS, and threaten future economic growth. This is evidenced by the economic benefits that will be realized following project construction. Without the project, the economic benefits will not be realized. The economic benefits of the project have been quantified in terms of travel time savings and the projected development of under-utilized parcels in the Transit Oriented Development District. The City forecasts that the project will generate over 92,000 hours of travel time savings per year following project implementation. Without the project, Meriden residents and those using the NHHS rail service will encounter significant delays. The City is in the process of finalizing four major mixed-use projects comprising 600 housing units with total construction costs estimated at \$200 million. Without the traffic improvements, these developments will be hindered by poor accessibility and aging infrastructure.

The project is appropriately capitalized upfront due to the fact that the roadways and systems are under direct City control and part of the City's assets. Minimal anticipated right of way acquisition is expected to implement the proposed improvements. Due to property swapping, there should be no costs associated with this acquisition and no delays to the implementation schedule are anticipated.

The City will maintain the roadways, bicycle and pedestrian facilities in a state of good repair over a 30-year period. The targeted roadways currently exhibit significant defects and poor to fair overall pavement conditions. Both traditional mill and overlays and full roadway reconstruction are included as part of the TIGER grant to bring the road network to ideal conditions and provide the greatest life cycle benefit. Without TIGER grant funding, pavement overlays would be employed on all roads, which will degrade at a higher rate, require more frequent repairs, cause delay and result in a greater life cycle cost. The roadway improvements will be incorporated into the City's pavement management system which has been in place for over a decade. The most recent pavement inspections were performed in summer, 2013. Also, the City will employ low-impact development (LID) techniques and best management practices (BMP's) in the construction and long-term operations of the proposed improvements to contribute to maintaining a state of good repair over a 30-year period.

The removal of the bumpouts will significantly improve maintenance activities, which are difficult and time consuming under the current configuration. Snow plowing and street sweeping are extremely difficult within the effective area of the bumpouts. To perform maintenance activities, nighttime and weekend work is needed, resulting in higher maintenance costs.

b) Economic Competitiveness

The project will contribute to the economic competitiveness of the US over the medium and long term by providing safe, efficient, multi-modal access to the New Haven- Hartford-Springfield (NHHS) Rail service. The State of Connecticut is upgrading the existing AMTRAK infrastructure from New Haven to Hartford to allow for commuter and intercity high- speed rail capabilities. The NHHS service, beginning in 2017, includes Meriden as a key station stop. The project will reduce travel time to key regional destinations, create access to jobs and provide environmental and energy benefits (<http://www.nhhsrail.com/benefits>). The proposed local roadway improvements in Meriden will help to ensure that safe and efficient access to the regional system is provided to the NHHS system in our locality.

The City completed a Market Analysis and request for development proposals (RFP) to explore the economic development potential in Meriden related to the implementation of regional commuter rail service. 4Ward Planning LLC, the City's consultant, found that 138,620 jobs will be located in the Meriden commuting shed, defined as a 40-minute one-way travel time, once the rail service is operational. This indicates that the NHHS rail service will make Meriden an attractive place to live and work for those that are interested in commuting to work by transit alone. However, ensuring that there are adequate facilities for pedestrians, bicyclists, vehicles and transit buses to access the MTC via the local roadway network is critical to make the overall system work. Within the one-half mile area surrounding the Meriden Transit Center there are numerous redevelopment sites. Four sites comprising 25 areas (HUB, 116 Cook Ave, former Factory H, and 11 Crown Street) are City owned and have a development partner selected. A separate development site, which includes the Mills Memorial Housing Complex and two city owned parcels (177 State Street and 62 Cedar Street), was the subject of a Choice Neighborhoods planning grant and a critical redevelopment site. The City found that development to these properties could yield private investment of nearly \$200 million and result in new tax revenues of over \$4 million.

The City's Market Analysis included an examination of the local demographics and the populations affected by the proposed roadway and other improvements. The analysis found that in the one-half mile surrounding the Meriden Transit Center, 7,294 residents currently reside and have a median household income of \$22,168. Ninety-six percent of the TOD area residents have household incomes below \$75,000. Improvements to the roadway system, the increase of affordable transit options, and the increase of economic opportunities will directly benefit Meriden's low and moderate income population as well as the elderly and minority populations.

The City of Meriden is considered a "distressed" community under Section 32-9j of the Connecticut General Statutes. It has been designed an "Entitlement" Community under the US Department of Housing and Urban Development for over 35 years. Currently, the downtown core has a number of underutilized buildings, vacant land, and deteriorating infrastructure. The implementation of the project will help the City further its vision of transforming the Meriden Transit Center (MTC), the HUB brownfields site, and the half- mile area around the MTC into a pedestrian friendly, urban, residential neighborhood intermingled with new commercial buildings and public open space within walking distance to improved rail and bus service.

Using the federal Council of Economic Advisors estimate that every \$76,923 in federal spending will result in the creation of one job, the City estimates that 217 jobs will be created directly from the roadway improvement program. Many of these jobs are likely to benefit low and moderate income workers from the New Haven-Meriden Area, which in 2015 had a median family income of \$83,400ⁱⁱⁱ.

c) Quality of Life

The project will increase quality of life by providing more transportation and access to transportation services for downtown residents and those living along the NHHS rail line. The removal of bumpouts will create additional parking spaces, bus spaces and loading zones, greatly enhancing the livability and economic competitiveness of the West Main Street and Colony Street areas.

As a part of the NHHS rail project, the state is in the process of constructing a new Transit Center in Meriden that includes a pedestrian flyover, expanded rail platforms, and two parking areas containing over 350 parking spaces. The plans include a new pedestrian walkway to Colony Street, transit bus queuing area along State Street, and links to the HUB Park. ConnDOT forecasts that over 400 daily commuter rail users will use the Meriden station. When the service begins in 2016, the NHHS program will provide commuter rail service every 30 minutes during peak rush hours and every 60 minutes on off-peak times. By 2030, ConnDOT plans to operate 25 or more daily commuter trains in each direction (up to 56 trains total). The project is designed to ensure that daily commuters can access the Meriden Transit Center and the NHHS service in a safe, reliable and efficient way.

The City forecasts this project will transfer up to ten percent of the vehicle trips to the Central Business District to non-vehicular modes, resulting in system-wide time savings, fuel reduction benefits and emissions reductions. Further, construction of pedestrian, bicycle and wayfinding infrastructure will enhance economic development by increasing the amount of “feet on the street” that is desired by the local business community.

Further, the NHHS rail program presents an opportunity to increase transit bus service both on local and inter-city routes. The City is working with Connecticut Transit to identify route improvements and dedicated bus stops in the TOD area. For example, the proposed improvements to State Street would allow for expanded bus service to accommodate up to seven buses simultaneously. Further, the proposed improvements to State Street will help foster transit bus usage and travel time savings by providing a dedicated travel lane for public transit buses south of the MTC. In addition, there are no designated stops along West Main Street. Dedicated bus stops will be incorporated into the final design stage. In 2015 and 2016, the South Central Regional Council of Governments in cooperation with the City of Meriden started a “first mile/last mile” study of the Meriden Transit Center to identify gaps in service that if implemented will help increase ridership. Findings and recommendations of this study will also be considered for inclusion in the final design plans. Components of the project including signalization and transit bus service are included on the South Central Regional Council of Governments TIP 2015-2018 (pages 62, 73, 74, 75 (http://www.scrkog.org/documents/TIP/FY15-18_TIP-10-22-14.pdf)). Roadway and bicycle improvements proposed will be included on the TIP as an amendment.

Finally, due to the proposed rail station, new transit oriented district and roadway improvements, the City believes that this is an ideal time for intercity bus service to recommence. Peter Pan Bus Company presently has no service to Meriden or the neighboring towns of Wallingford or Berlin, which are the other stations to be constructed as part of the NHHS service. The NHHS project, in a response to Peter Pan’s concerns about the high speed rail line’s competition to bus travel, recommended an expansion of bus service at nodes such as Meriden to provide better public transportation coverage to communities not served by rail. Middlesex Community College (MxCC) has also expressed interest in having an express shuttle service from the Meriden Transit Center and the Meriden campus of MxCC to the main branch of MxCC located in

Middletown, approximately 15 miles east of Meriden. The City has initiated discussion with Peter Pan Bus Company to provide commuter and long distance bus service from Meriden. Reinstating intercity bus service from Meriden to major employment centers, educational institutions and other transportation hubs (such as Bradley International Airport) will greatly enhance the City's position to promote access to jobs. It will also enhance the State's and Amtrak's investment in the transit corridor as it provides even greater access within Connecticut.

d) Environmental Sustainability

The project will improve energy efficiency, reduce dependence on oil, reduce greenhouse gas emissions, and benefit the environment by facilitating the use of the NHHS rail program and reducing wait times for the projected traffic that will increase as a result of the NHHS and associated development. The project also connects the Meriden Transit Center to the Meriden Linear Trail thereby providing an off-road transportation network for bicyclists and pedestrians to access jobs and services.

The project will result in energy efficiency and reduced dependence on oil including decreasing fuel use by 22,000 gallons per year. The fuel savings are a direct result of the travel time benefits from the proposed transportation improvements. A complete summary of the fuel savings reduction benefits are included as an attachment.

The project will result in reduced vehicle emissions including decreasing CO by 2.6 tons per year, VOC's by 0.164 tons per year NO₂ by 0.024 tons per year, PM by .0128 tons per year, and S0₂ by .01 tons per year. These emission reductions are a direct result of the travel time benefits from the proposed transportation improvements.

The project will result in reduced greenhouse gas reductions including decreasing CO₂ by 603.6 tons per year. These emission reductions are a direct result of the travel time benefits from the proposed transportation improvements. A complete summary of the GHG and other emissions benefits are included as an attachment.

e) Safety

The project will help improve safety by reducing the frequency and severity of crashes, injuries and fatalities in the TOD roadway network through a number of safety enhancements.

One-way streets will be converted to two-way streets, with new eastbound travel lanes on East Main Street and West Main Street, and new westbound lanes on Crown Street, Perkins Street, South Colony Road and Hanover Street. In addition, Cook Avenue will be converted to two-way with new lanes in the northbound direction. The new configuration will reduce turning movements and associated accidents, as well as the significant number of sideswipe accidents due to poor roadway alignment and weaving. Negative safety impacts from one-way to two way conversions are mitigated through advanced signage, pavement markings, and signal systems.

Safety analyses were conducted using three-year accident data obtained from the State of Connecticut. Crash reduction factors based on the FHWA Crash Reduction Factors (CRF) were developed based on the treatments proposed. Crashes that could be positively impacted by the proposed improvements were identified and categorized based on the DOT's KABCO (Fatality / Severity / Property Damage Only) scale and effective treatment. An aggregate CRF was developed, and the KABCO data was converted to the required AIS format to monetize the impacts of the safety enhancements. Due to construction activity in the area for the most recent

three years, the data used in previous TIGER submittals was kept for determining safety benefits.

In summary, the proposed improvements will reduce the number of crashes by 27 percent in the TOD area. A complete summary of the safety benefits is included as an attachment.

2. SECONDARY SELECTION CRITERIA

a) Innovation

All improvements will incorporate innovative design for maintenance and environmental sensitivity. The City will employ low-impact development (LID) techniques and best management practices (BMP's) to address construction and long-term maintenance of the road network. Complete Streets principles will be incorporated into the entire project to ensure that all users of the public right of way are considered. Multi-use trails, bicycle network, narrow roadways and textured pavements are all features that will be incorporated into the project. In addition, the City is actively exploring the use of Adaptive Traffic Control (ATSC) signals for all twelve signals in this project. ATSC's have been shown to significantly reduce delays and can react to changing traffic patterns more rapidly than traditional time- of-day signal controllers. The City has been in contact with the Federal Highway Administration regarding the use of this project as a pilot program to evaluate the effectiveness of ATSC.

b) Partnership

Funding commitment and partners to date include the following:

1. City of Meriden, Connecticut

Contact: Lawrence J. Kendzior, Esq., City Manager, City of Meriden,
142 East Main Street, Meriden, CT 06450, 203 630 4123, lkendzior@meridenct.gov

The City of Meriden, Connecticut, comprised of 60,686 residents (2010) is a small urban community located in central Connecticut approximately half way between Hartford and New Haven. Meriden is located on the on the New Haven-Hartford-Springfield (NHHS) commuter/high speed rail corridor, a joint federal-state project to develop commuter and high speed rail from New York to Montreal and Boston. The City is requesting \$5,234,515 in 2016 TIGER funds to improve vehicle, bicycle, pedestrian and transit bus mobility in the City Center and to improve accessibility to the Meriden Transit Center, which will serve the NHHS corridor. The project is of national and regional significance due to its location on the NHHS corridor and the need to improve access to the Meriden Transit Station. The project will be matched with \$2,818,585 (35% of the total project costs) in non-federal funding directly related to the project. The project will also leverage over \$70 million in related local infrastructure projects.

TIGER FUNDING COMMITTED:
\$2.8 million (Approved CIP Funds)

FUNDS LEVERAGED:
\$236 million in ongoing projects and prior investments for TOD, Flood Control and Transportation

2. Connecticut Department of Transportation

Contact: John Bernick, Connecticut Department of Transportation,
(860) 594-3304, John.Bernick@ct.gov

The State's leadership in implementing the NHHS rail service has been a catalyst to the City's redevelopment efforts in the downtown. In support of the City's efforts, the State has provided the City a grant in the amount of \$975,000 towards TOD planning and engineering activities centered on the MTC site. \$100,000 of the award will be used to finalize engineering design plans of the roadway improvements outlined in this application. ConnDOT is also providing technical assistance related to the implementation of the rail service and the state's investment in the upgrades to the MTC.

FUNDS LEVERAGED:
\$20 million NHHS Rail Infrastructure in Meriden

3. Connecticut Department of Economic and Community Development (DCED)

The DECD has also provided a wide range of support to the City in its redevelopment efforts. DECD funded the City's first visioning process in 2002 that resulted in the City Center Plan and a broad vision for a repurposed downtown. DECD has also provided funds for brownfields redevelopment at the HUB, 116 Cook Ave./Factory H and the Mills Memorial Housing Complete. CT DECD is a key partner in the effort to bring transit-oriented development to downtown Meriden.

Contact: Binu Chandy, Connecticut Department of Economic and Community Development,
505 Hudson Street, Hartford, CT 06106, phone 860 270 8154, binu.chandy@ct.gov

FUNDS LEVERAGED:
\$20 million brownfield assessment and remediation, for TOD redevelopment sites and the Hub park and flood control project

4. US Dept. of Housing and Urban Development

The US Dept. of Housing and Urban Development is a major partner in the Choice Neighborhood Planning process.

Contact: Suzanne Piacentini, Field Office Direct, HUD, 20 Corporate Center, Hartford CT

OTHER FUNDS LEVERAGED:
\$500,000 HUD Choice Neighborhoods Planning Grant (Completed 2015)

Other key partners include:

- United States Senator Richard Blumenthal
- United States Senator Christopher Murphy
- Congresswoman Elizabeth Esty, 5th Congressional District
- South Central Regional Council of Governments
- Greater Meriden Chamber of Commerce
- Meriden Housing Authority
- Westmount Development Group
- The Michaels Organization
- POKO Partners LLC
- Pennrose Properties LLC

F. RESULTS OF BENEFIT-COST ANALYSIS

Benefit Cost Analysis Summary	Benefit Value (7% Discount)
Safety	\$3,494,586
Travel Time - Two-Way	\$7,099,184
Travel Time - Adaptive Signal Control	\$5,180,485
Fuel Savings	\$852,755
Emissions	\$180,468
Vacancy Reduction / Residency Increase	\$1,952,038
Livability	\$1,680,748
Parking	\$106,594
Reduced Maintenance	\$319,783
State of Good Repair - Pavement Mgmt	\$660,574
Total Benefits	\$21,527,215

Total Benefit	\$21,527,215
Total Project Construction Value	\$8,053,100
BC Ratio	2.67

Current status / baseline & Problems to be addressed	Change to Baseline / Alternati	Type of Impacts	Population affected by impacts	Economic Benefit	Summary of Results	Page Reference in BCA
Streets in TOD are in poor to fair condition based on results of recent citywide pavement inspections.	Reconstruct streets to provide acceptable base and surface conditions	Restore ride quality, provide long-term quality, reduce vehicle wear and future construction delays.	All surface transportation users, including motorists, bicyclists, pedestrians and bus riders.	Monetized value of reduced construction costs	Life cycle cost analysis indicates significant benefit to roadway reconstruction in conjunction with TOD-related activity	State-of-good-repair.pdf
Downtown streets are one-way, commercial vacancy rates are high	Convert one-way streets to two-way	Reduced travel time to downtown destinations, lower vacancy rates, increased demand for residences	Motorists, businesses, residents, bus riders	Monetized value of tax benefits. Monetized value of Emissions savings	Increase in tax revenue from direct contribution of two-way conversion, reduced pollution	Economic-benefit.pdf Emissions-benefit.pdf
High Speed Rail project will increase number of trains, causing significant delay and queuing in TOD at major roadways.	Add approach lanes at rail at-grade crossings on East Main St and South Colony Road	Reduce delay and queuing, reduced emissions	Motorists, bicyclists and bus riders.	Monetized value of travel time savings. Monetized value of Emissions savings	Two way conversion provides substantial travel time savings for all users. Addition of lanes at rail crossing mitigates traffic impacts of NHHS Rail upgrades. Travel time savings show direct benefit on reduced pollution	Travel time-.pdf
Road network not walkable. Not livable. Needs improvement.	Use of Complete Streets principles	Diversion from vehicular to ped/bike/transit use.	Motorists, pedestrians, bicyclists and bus riders.	Monetized value of crash reductions, travel time and emissions	Wider sidewalks, safer ped crossings and dedicated bike ways will encourage non-vehicular travel	Livability.pdf
Major roads and intersections experienced significant number of accidents	Creating of median with turn lanes, better assignment of travel lanes	Improve safety, reduce injuries and property damage, reduce speeds	Motorists, pedestrians	Monetized value of crashes	Crash reduction is a major contributor to the project's benefits and can significantly reduce right and sideswipe crashes.	Safety-benefit.pdf

G. Project Readiness

i. Technical Feasibility

The City has completed 35% engineering design plans and completed a NEPA checklist and draft Categorical Exclusion (CE) document for the design plans. Final design plans are being prepared for Phase 1 and Phase 2 of the project, with construction set to begin in Fall 2016 or upon receipt of federal funding. Final design and construction of Phase 3 is in discussion with ConnDOT. Once the construction funds are in place for the remaining phases, the City will complete final design and begin construction within 12 months and complete the project by October 2018.

Statement of Work

(1) Preliminary Design (completed March 2014)

The City, along with engineering firm CDM Smith, has completed Preliminary Design Plans for the roadway network surrounding the Meriden Transit Center and other designated streets. The work is within existing curb limits in majority of the project. Pedestrian and bicycle accommodations are being provided as part of the preliminary design to facilitate movements into the Transit Center. There are no significant impacts anticipated to drainage and utilities within the project limits. The design is based on state and local standards. Funding for this activity was provided by the Connecticut Department of Transportation under a 2012 Transit Oriented Development Pilot Grant. Completed activities include:

- 35 percent design plans
- General Roadway Plans
- Traffic Management Details
- Traffic Signal Control Plans
- Pavement Marking and Signage Plans
- Streetscape Plans
- Preliminary Quantity and Cost Estimate
- Preliminary Set of Specifications
- Wayfinding/Signage Plan (1" = 100' scale)
- Preliminary Design Checklist and report

(2) NEPA Review-Preliminary Design Plans & Final Design Plans (substantially completed)

The City contracted with engineering firm CDM Smith to complete a NEPA Review of the Preliminary Design Plans. Funding for this activity was also provided by TOD Pilot Grant.

Preliminary analysis completed by the City suggests that qualifies as a Categorical Exclusion (CE) under both NEPA and CEPA for the following reasons:

- Improvements are within existing disturbed areas and primarily within existing curb limits (the only exception being a small area of existing commercial parking lot that will be acquired to meet road design standards)
- No sensitive features (e.g., wetlands, endangered species, historic or archaeological resources) will be affected by the improvements

CDM Smith completed a draft Categorical Exclusion (CE) document in March 2015 for NEPA compliance. The document was not authorized for review by either CT DOT or FHWA as there

was no project number assigned at that time. Immediately following the approval of the TIGER grant application, the City will proceed with completion of a joint NEPA/CEPA CE. The City plans to submit the appropriate documentation to FHWA and ConnDOT by July 2015. The City will also initiate the permitting process by July of 2015 and anticipates obtaining all necessary approvals. The City expects that the completion of the NEPA review will not cause delays to the implementation schedule.

(3) Final Design Plans

The City has issued a contract extension with CDM Smith to prepare final design plans for West Main Street and Colony Street. The City will complete the final design of the Pratt Street corridor, signal systems and Hanover Street / Perkins Square roadways via qualifications based selection procedures in compliance with applicable State and Federal requirements.

(4) Construction

The City will seek bids from qualified contractors to construct the following roadway improvements. Procurement of qualified contractors will be managed by the City's Purchasing Office, which is well qualified and has a demonstrated track record of managing procurements of this type and at comparable scale. Projects may be completed by one or more contractors over an estimated three year construction phase. Construction of the proposed traffic improvements will utilize Smart Growth and Complete Streets principles to facilitate access to the Meriden Transit Center, create a more attractive, vibrant and walkable downtown and attract transit-oriented development. The successful contractor will be required to use sustainable strategies to provide for a better quality of life and cleaner environment for city residents and workers.

(5) Project Inspection/Management

The City will arrange for independent inspections of all construction activities and management of construction contractors.

(6) Project Administration-State of Connecticut

The City anticipates that the State will manage the grant funds from the USDOT and serve as a pass-through entity so funds may travel from the USDOT to the City of Meriden.

(7) Project Administration-City of Meriden

The City will retain staff to manage and oversee the project, including

- Provide staff to oversee the implementation of the Project and oversee completion of all tasks included in the Scope of Work
- Manage the grant agreements between USDOT, ConnDOT and the City of Meriden
- Provide intellectual oversight and direction to the project so that ultimately the project implementation is consistent with the City of Meriden's long range goals, vision and financial capacity.

(8) Planning Approvals

The City of Meriden recognizes the importance of demonstrating project readiness and is confident that all federal, state and local approvals will be obtained for the roadway improvements before June 30, 2015. A detailed description of the permitting plan and status of the proposed work is included as an attachment.

The City has completed Preliminary Design (35%) plans and will complete final design in phases by October 2016. The preliminary design and final design plans will ensure that the City’s local roadway network is integrated with the NHHS rail station and ongoing redevelopment projects. The roadways will include “complete streets” design principles and will ensure that multiple modes--including bicycles and pedestrians--are accommodated. The project will convert one-way to two- way traffic flow in the City Center, improve signalization, increase on-street parking, and provide improved accessibility to the Meriden Transit Center for vehicles, transit buses, pedestrians and bicyclists. The project will also install way-finding signage and eliminate two at-grade rail crossings. The plans and presentation are available at <http://www.meriden2020.com/FileRepository/>

(10) Assessment of Project Risks and Mitigation Strategies

The City has identified a number of risks associated with TIGER grants in general and this project specifically. The following table lists these risks and details the mitigating strategies for addressing them.

Risk	Mitigation
Community Opposition	Stakeholder meetings with representation of all users and modes of travel (including bicycling, pedestrian, motorist, bus stansit, rail transit, elderly). Additional meetings held to discuss parking and loading needs, as well as pedestrian specific features. Letters of Support from community and civic groups
Final design and approvals not completed in time to meet award obligation by June 30, 2015	Close working relationship with DOT to expedite reviews and early concurrence on design challenges DOT acknowledgement of limited scope of review on City-owned and maintained roads Accelerated schedule built into design budget.
NEPA Documentation not completed in time for obligation	NEPA Process underway and expected to be a categorical exclusion. Expected completion date October, 2016 Checklist and summary of NEPA pogress included in appendix
Construction Financing	Bid discrete sections as individual contracts . This will allow adjustments to be made based on budgetary issues without impacting individual sections. City is postured financially to advance their share of project costs.
Permitting and Approvals	Flood Management Certificate as required City Planning and Zoning Review City Inland Wetlands City Flood Control Implmenation Agency

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Congressional Delegation

United States Senator Richard Blumenthal
United States Senator Christopher Murphy
Congresswoman Elizabeth Esty, 5th Congressional District

Letters of Support

Commissioner Connecticut Department of Transportation
Commissioner, Connecticut Department of Economic and Community Development
Executive Director, South Central Regional Council of Governments
Director of Planning, Peter Pan Bus Lines
President, Midstate Chamber of Commerce
Meriden Economic Development Corp.
Meriden Housing Authority
Middlesex Community College – Meriden Center
Meriden Transit District
Meriden Council of Neighborhoods
Downtown Neighborhood Association and 40 downtown businesses and nonprofit organizations
POKO
The Michaels Organization
Pennrose Properties

City of Meriden

Office of the Mayor
City Manager
Economic Development
Community Development
Department of Development and Enforcement
Department of Public Works – Engineering Division

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A copy of the 2016 TIGER grant application has been posted here for public review:

<http://www.meriden2020.com/Downtown-Redevelopment/tod-transportation-grant-2016/>

ⁱ <http://www.the sizeof connecticut.com/2012/07/this-exists-meriden-edition.html>

ⁱⁱ TOD Market Assessment, 4Ward Planning, 2013, <http://www.meriden2020.com/FileRepository/DownloadFile.aspx?FileID=16>

ⁱⁱⁱ HUD User FY 2015 Median Family Income Documentation System,

http://www.huduser.org/portal/datasets/il/il2015/2015MedCalc.odn?inputname=METRO35300MM5480*New+Haven-Meriden%2C+CT+HUD+Metro+FMR+Area&selection_type=hmf&year=2015&wherefrom=mfi&incpath=%24incpath%24