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Draft to May 9, 2013

WORK PROGRAM

**FOR HART STAFF
TO UPDATE THE**

REGIONAL BICYCLE PLAN

(Includes comments from consultant Francisco Gomes, AICP, ASLA, Project Manager, FHI | Fitzgerald & Halliday, Inc.)

INTRODUCTION

For the July 2013 thru June 2014 program year, federal funds have been set aside for HART as a contractor to HVCEO “to prepare an update of the 1996 bicycle element of the Regional Transportation Plan.”

This work program is ambitious and we want to produce a product of value. But, as the funds for HART are modest we must be careful not to over promise what we can deliver. In addition the HVCEO – HART team has no site planning or civil engineering skills with which to detail elements.

So, we will focus on coordinating existing materials to the benefit of each municipality – something we can do well.

A considerable part of the planning work will be focused on internet search as to obtaining the best models and examples from elsewhere. Much bike planning has evolved since the last regional plan on this topic in 1996 and most of it is web accessible.

To what extent can HART include a citizens advisory committee and possible survey? This needs discussion. It would be desirable to have input from actual bikers who have opinions as to area bike routing and infrastructure needs.

Comment [FG1]: Cyclists are an enthusiastic community and are very helpful when engaged. I strongly recommend engaging cyclists at the outset of the study and near completion. Local bike shops and such as Brookfield Bike can be a resource for connecting to this community.

Comment [FG2]: Conducting a survey is a great idea and easy enough to do with tools such as survey monkey. If a bicycle advisory committee is convened, they may volunteer to formulate survey questions.

A key point that gets repeated: only after initial data sets are gathered will it become clear how the final report should be organized.

To be of most value to implementing agencies, conclusions and recommendations will be summarized on a town by town basis. That format provides the best support for incorporation of this regional work into municipal action plans of plans of conservation and development.

The final report is also to be promoted and utilized as an on-going component of transportation project development at CT DOT, HVCEO and HART.

This work program is organized to parallel *an initial draft table of contents* for the bike plan report. It is expected that the initial organization, to get the ball rolling, will naturally evolve as the research by HART proceeds and we see what information is available and what issues arise.

An initial draft table of contents for the bike plan is suggested as follows:

- 1) OVERVIEW AND POLICY OBJECTIVES
- 2) INVENTORY ROUTES AND PLANS
- 3) BIKE TRANSIT POLICY ELEMENTS
- 4) TOWN BY TOWN BIKE TRANSIT

The work program below follows the four section format above. Under each is shown some initial, draft, text segments, these supplemented by some ideas as to research needed and data sources.

To again suggest, only after the research is well underway will it be clear how research pieces are assembled to best fit together.

1) OVERVIEW AND POLICY OBJECTIVES

(As noted texts that are inserted in the work program such as the following are initial drafts. It will be clearer to HART how to massage or amend such cut and paste items as the work progresses. This is formatted in small font only to avoid taking up space at this document, and will be reformatted larger for plan, etc.) The report could start with such as:

This Regional Bicycle Plan offers an overview of how the Housatonic Valley Region can become a safer and more inviting place for people to ride bicycles.

It is ultimately up to individuals to make the choice to ride a bike, but local governments and citizen groups can change existing public policies and practices to make biking to work, school, or play a more attractive option in the community.

A successful approach to making biking realistic transportation options requires a combination of engineering, education and enforcement efforts, along with a lot of encouragement.

Some transportation facilities will have to be modified to allow bicyclists and motorists to share the road. In other cases engineers, planners, and public works officials need to be educated about bicyclists' needs in order to better understand how to design and build facilities where bicyclists feel safe.

The public needs to be educated about how to share limited road space and operate safely. Employers and educational institutions need to learn how to make it easier for employees and students to ride their bikes to work and class. And of course, police officers must enforce, and people must obey, traffic laws.

Expanding opportunities for bicycle transportation is a goal of the 2011 Regional Transportation Plan. It is also a goal of the parallel 2009 Regional Plan of Conservation and Development. This 2014 effort assists in pushing those goals into reality.

The HART research will look for models of policy objectives, to improve the draft above. The result needs to be somewhat "tight" and not wordy, careful to avoid any duplications, etc. Maybe also freshen up text from 1996 HVCEO Bicycle Plan.

Comment [FG3]: I think that the 1996 plan was pretty solid for its time and still contains relevant content. It makes sense to start with that and bring forward the text and content that is still relevant today. Not only does this save work, but provides a continuum in the planning.

But also, consider this rather nice approach adapted from the Pioneer Valley Regional Planning Commission in the Springfield Area of Massachusetts, inserted for your consideration: (this is formatted in small font only to avoid taking up space at this document, can be reformatted larger for plan, etc.)

GOAL #1 Create a Safe and Comfortable Physical Environment for Bicyclists In the Housatonic Valley Region. Objectives:

-- Municipal governments and advocacy groups will build a coordinated, comprehensive network of on-street and off-street bicycle facilities including bike paths and on-street bike routes.

-- All governmental organizations will comply with Mass Highway Engineering Directive E-98-003, (FIND OUT IF CONNECTICUT HAS THIS) which defines recommended travel lane widths and establishes a benchmark for reasonable bicycle accommodations.

Comment [FG4]: This is established in the CT DOT Highway Design Manual (2003, updated 2012) Chapter 15 Special Design Elements, Section 4.0 Bikeways. The manual defers to the AASHTO Guide for the Development of Bicycle Facilities (2012). Therefore if compliant with AASHTO, then compliant with CT standards.

GOAL #2 Integrate Bicycle Needs into the Transportation Planning Process. Objective:

-- Regional and local planners and bike advocates will review the Regional Transportation Plan and the Transportation Improvement Program to assure that bicycle planning elements of the programs and corresponding funding levels reflect local needs.

GOAL #3 Integrate Bicycle Needs into the Highway Design Process. Objectives:

-- Local transportation and public works officials will comply with Massachusetts law, chapter 87 (SEE IF CT HAS SOMETHING LIKE THIS) which requires consideration of bicyclist and pedestrian needs on all transportation projects.

Comment [FG5]: Connecticut has a complete streets law, enacted July 1 2009, which requires 1% of funding to go to bike ped projects.

-- Transportation planners, highway designers and maintenance staff will increase their understanding of the needs of bicyclists.

GOAL #4 Include Bicycle Needs in Roadway Management and Maintenance. Objective:

-- Highway designers, builders, and maintainers will assure that roads and bikepaths are maintained for bicycle use.

**Public Act No. 09-154
AN ACT IMPROVING BICYCLE AND PEDESTRIAN ACCESS**
From funds received by the department or any municipality for the construction, restoration, rehabilitation or relocation of highways, roads or streets, a reasonable amount shall be expended to provide facilities for all users, including, but not limited to, bikeways and sidewalks with appropriate curb cuts and ramps. On and after October 1, 2010, not less than one per cent of the total amount of any such funds received in any fiscal year shall be so expended. The department or municipality shall take future transit expansion plans into account where appropriate. Notwithstanding the provisions of this subsection, such provisions shall not apply in the event of a state or municipal transportation emergency.

GOAL #5 Integrate Bicycle Needs into the Design of Commercial, Residential and Industrial Developments. Objectives:

-- Government planners, elected officials and developers will consider the need of bicyclists in all new or retrofitted development in the Greater Danbury Area.

-- Local planning and zoning commission members will be provided training on the needs of bicyclists in the design of proposed developments.

GOAL #6 Decrease the Number of Bike Accidents. Objectives:

-- Encourage schools, colleges and community organizations to provide educational opportunities for youth and adults to develop skills that reduce their risk of injury while encouraging lifelong bicycling habits.

-- Encourage all motorists, pedestrians and bicyclists in the Region to be more aware of their responsibilities in relation to one another when sharing the roadway.

GOAL # 7 Double the Percentage of Commuting Trips Made by Bicycle in the Region. Objectives:

-- Area municipalities will actively encourage residents to bike to work and school.

-- Employers and major educational institutions will actively encourage employees and students to bicycle to work and school

2) INVENTORY ROUTES AND PLANS

2-1) Overview:

Create an inventory of the bicycle related routings contained within municipal, regional, state and other plans. Also, determine if any are relevant from the larger and well established commercially produced guidebooks.

Obtain in map format any existing or recommended travel routes. Those linear geographic features, obtained by HART from various plans, will be forwarded to the HVCEO GIS Manager, who will enter some of the geographic data on to a Regional Bicycle Transit Map.

But what classification system will the GIS processing use to categorize each item – this must be determined before such data can be categorized for mapping. See Section 3-4 below.

2-2) Examine Municipal Plans in Region:

Examine the plan of conservation and development for each of the ten municipalities within the region. Create an inventory of the contents, both routes and bike policies.

If none or minimal for that municipality, so state for that municipality. As noted excerpt text relevant to bicycle transit. Obtain in map format any existing or recommended travel routes.

Digital copy available from HVCEO: Town of New Milford 2012 Bike Master Plan Share the Road Sign Project. See also:

Report 139, 5/2009: [Central New Milford Pedestrian Loop Concept Plan](#)

A recommended pedestrian walkway from Bridge Street south to Lanesville Road, east across the Housatonic River and then back north to New Milford Center.

2-3) Examine Municipal and Regional Plans for Towns Adjacent to Region:

This is acknowledged to be a time consuming exercise, but it has not been done for many years and is a key inventory task for this planning process.

Examine the plan of conservation and development for each of the nine Connecticut municipalities adjacent to the region. These are Kent, Washington, Roxbury, Southbury, Oxford, Monroe, Easton, Weston and Wilton.

Examine regional plans for these same municipalities. These regions are Northwest Region, The Central Naugatuck Region, the Greater Bridgeport Region and the South Western Region.

Note that bike route proposals from these regions were summarized in the 1996 Plan. Check for changes from page 18 – 19 in the 1996 Plan, document the changes if found. Determine if any have been constructed.

Examine the six plans of the municipalities in adjacent New York State, which include Lewisboro, North Salem, Southeast, Patterson, Pawling and Dover. Examine regional plans for these municipalities, these regions are Westchester County, Putman Count and Dutchess County.

Note that bike route proposals from these counties in New York State were summarized in the 1996 Plan. Check for changes from page 20 – 21 in the 1996 Plan, document the change if found and determine if any have been constructed.

Research Connecticut and New York State Bicycle Plans, also any other plans, such as the Western Connecticut Greenway, determine if there are any other non-state based plans.

See also the 9-12 “Ride It Now: North – South Bike Route:

<http://www.hvceo.org/images/roadwaybikeroutes1.jpg>.

Obtain background on what is driving this, AASHTO status, if any segments active outside of the region, etc. Google “U.S. Bike Route System.”

In all the plans reviewed, look for more than physical routings. Seek also the better bike usage development policies that we can “clip” (with due credit given) for incorporation into this effort.

2-4. Determine Status Of Existing And Potential Routes In 1996 Plan:

Several were listed. As a start and for due diligence, determine what, if anything, happened during the intervening years to:

--- Berkshire Corporate Park route

--- Still River Greenway, identify sections suitable for bike transit.

--- Brookfield's Still River Multi - Use Trail, does full plan offer bike use or just trail?

--- GBRC Housatonic Railway Rails to Trails to Monroe – Newtown Line. This is a big priority with the GBRC, but we do not know much about it.

--- 1996 Plan page 21 and 22 items, check status of each as of today.

3) BIKE TRANSIT POLICY ELEMENTS

This section of the draft table of contents is the one most likely to change. Titles may be more intuitive, items may be combined, perhaps some sections below will grow to be their own chapters. These types of decisions can best be made in a later stage of the planning process.

3-1. Glean and Save Some Sections of 1996 Plan:

The 1996 effort was entitled "Regional Concept Plan for Bicycle Route Development." That 1996 work is quite dated today.

Determine what text segments can confidently be carried forward from the HVCEO's 1996 Bike Plan into the subsections above of the 2014 Plan update.

Unless better language can be "borrowed" from another bike route planning report, some of the text sections from 1996 might reasonably be refreshed or reused. Consider usefulness of generic general text on pages 5-7, also skill levels on page 8 if still the best terminology.

The text from 1996 available at :

<http://www.hvceo.org/transport/BicyclePlan.pdf>

3-2) Generally Assess Demand for Urban Bicycle Trips:

As a model for our area on this issue, in 1999 the Pioneer Valley Regional Planning Commission in Massachusetts began using a Bicycle Demand Sketch Model to identify areas of their region with a high potential for bicycle trips.

The model measured the relative amount of bicycle travel that would occur if there were no bicycle impediments. It used demographic data to quantify the proximity and magnitude of bicycle destinations along a road segment.

The premise for the Bicycle Sketch Model is that short trips are more likely than long trips and that more trips are likely to occur in areas where destinations are clustered near where people live, such as town centers, business districts, and the more dense suburban areas.

Comment [FG6]: Bicycle demand is highest in proximity to population. I would consider using Census tract data to map population. The demand will be in the areas of higher population. As far as which roadways within those higher population areas should be priorities, for the sake of a regional plan, you should direct efforts towards arterial and collector roadways. Generally speaking, local roadways don't have the traffic volumes that would normally warrant special bicycle facilities on the roadway. There are exceptions to this of course, but this is the general rule. By isolating arterial and collector roadways, you will be isolating a system that tends to be more regional in nature and that often draws upon state or federal funds for improvement. So the short of it is that arterial and collector streets in higher density areas should be the priority and will exhibit the most demand.

This HART research project does not have a budget that would enable the Pioneer Valley model to be applied. However, their conclusions appear intuitive and trustworthy, that policies must be developed for urban and higher density suburban bike use, not just town to town and outlying recreational bike transit.

This key distinction should be well reflected in the Plan. We need to provide draft policies for the urban areas, not just route lines on a map for recreational biking.

A good way to proceed would be to use the 2009 HVCEO Regional Plan categories of Regional Centers, Near Central Area and secondarily Primary Growth Area. These are nicely defined on a map and would fit the criteria for what the Pioneer Valley study said should be the urban bike policy area.

We will state that facilitation of short trips is most feasible here. HVCEO will provide a pdf map for the report and also a narrative text.

Also, town to town commuter journey to work tables will be available from a CERC study. Danbury urban to Bethel urban show high attractions, etc. HVCEO will provide the table and commentary to be included in the bike study.

Comment [FG7]: While this has value, most bike trips made for non-recreational purposes are short trips, not regional.

3-3) Suitability of State Routes for Bicycle Use:

Examine the state roadway bicycle route suitability system which assign each segment of state roadway one of five classifications ranging from most suitable to least suitable.

Prepare a text listing for each municipality the beginning and end points for the less favorable designations (HVCEO staff will provide this).

Perhaps this information will be of sufficient importance to include in the town by town summaries. This resource is available at: <http://www.ctbikemap.org/bikemap.html>

3-4) Selection Of Map Categories for Bike Route Development Policy

See pages 11 and 12 in the 1996 HVCEO report for definitions of “bicycle facility types.” Used then were shared roadway, wide curb lane, shoulder bikeway, bike lanes and multi-use path. The see details of these on pages 32 – 34 of the 1996 Plan.

Comment [FG8]: It’s time to update this. Refer to the 2012 Edition of the AASHTO Guide for Bicycle and pedestrian Facilities for standards. Also reference the 2011 NACTO Urban Bikeway Design Guide which is a great document and can provide excellent guidance, but is trumped by the AASHTO guide which has been adopted by CTDOT.

Does CT DOT now provide standard nomenclature that varies significantly from this? Is there agreement in CT on better nomenclature?

I would call this section a “Toolbox” and would include the following:

- Shared Roadway/Sharrow
- Bike Lanes
- Cycle Track
- Shared-Use Paths
- Bicycle Boulevard
- Bicycle Parking
- Intersection Treatments: Bike Pocket, Advanced Stop Bars, Bike Box

(I’ll attach a toolbox that I developed for your reference)

The 1996 work looks good – should we replace it – is there a CT standard to follow without losing any detailing? It would be preferable to capture detailing such that HVCEO can most realistically fit the policy to the roadway or facility.

Comment [FG9]: No agreement as to this.

The FHI 2009 region by region maps of bike routes used this map legend: Existing Multi-Use Trail (Off-Road); Existing On-Road Bicycle Facility; Proposed On-Road Bicycle / Multi-Use Trail Improvement; Proposed Improvement. Is this best? See: <http://www.ct.gov/dot/lib/dot/documents/dbikes/2009appendixj.pdf>

The regional COGCNV bike plan has Bike Lanes, Shared Lanes, Interregional Routes.

These examples have less detailing than proposed by HVCEO in 1996. HART will search for other examples and contact Kate Rattan at CT DOT for guidance.

Comment [FG10]: Being a statewide plan, it does lack detail and will only take you so far.

3-6) Bicycle Transit as Component of “Complete Streets” Policy:

Inventory state policies on complete streets. Ask HVCEO for excerpts from the 2009 HVCEO Regional Plan and draft 2015 Regional Transportation Plan. No great length here, but summarize the concept.

Comment [FG11]: Public Act No. 09-154 AN ACT IMPROVING BICYCLE AND PEDESTRIAN ACCESS

3-7) Intermodal Aspects of Bicycle Transit:

HART bus policies facilitate bike racks, etc. Find other examples, the regions railroad stations, other. Develop an inventory or policy.

Comment [FG12]: Reference MetroNorth’s bike policy and bike systems planned for the newer rail cars. <http://www.mta.info/mnr/html/getaways/bikerule.htm>
<http://www.ctpost.com/local/article/Metro-North-trains-to-get-bike-racks-2172957.php>

3-8) Incorporate Material from Bike Advisory Board:

Connecticut General Statutes (CGS) Sec. 13b-13a established a Connecticut Advisory Board (Board) within the CT Department of Transportation. In accordance with subsection (h), the Board must submit a report annually to the Governor.

Please examine these reports. We do not want to load up our report with a lot of “paste” text: lean and mean is the motto. Please examine this resource for policy research leads. Glean the reports <http://www.ct.gov/dot/cwp/view.asp?a=3535&q=499566>



What state objectives should we summarize to carry over into this effort? Process with upgrading the Connecticut Highway Design Manual to facilitate bikes? etc.

3-9) Zoning Models:

Find “zoning models” for citing as admiral and then posting full text in an appendix. Get advice so you pick only the best.

Comment [FG13]: Here is a great presentation from NYC on zoning for bikes, maybe a good resource for this plan: http://www.nyc.gov/html/dcp/pdf/bicycle_parking/zoning_bike_parking.pdf
And from Cambridge, MA which has been progressive on this front: <http://www.cambridgema.gov/cdd/Projects/Planning/bicycleparkingzoning.aspx>

LISTSERV NOTE 12/2012: Torrington has recently added a section to our Regulations, Section 5.13.4, regarding bicycle parking for new multi-family dwellings over 4 units; new office, retail, institutional developments over 10,000 sq. ft.; all transit transfer stations; and park and ride lots. We added this section when we reviewed our regulations and made changes to implement LID. See link below: http://www.torringtonct.org/Public_Documents/TorringtonCT_Planning/Section%205.pdf

3-10) Route 7 Corridor Transportation Study Model:

See Section 5-4 in the HVCEO – SWRPA Route 7 Plan. Summarize as an example of how bike transit is expertly integrated into a corridor plan:

http://www.hvceo.org/transport/route7_traffic_report_june2011.pdf

3-11) Signage Options:

An important task will be to determine what is appropriate and legal signage for bike routes on state and local roadways. It is assumed this is available from web searches and secondary sources. Review as a precedent the signage choices made for the 2012 New Milford bike Master Plan.

The 2012 New Milford Bike Master Plan is a fresh example of a municipal bike route and signage plan. It designates the specific locations for two different types of signs from the Manual of Traffic Signs” at www.trafficsign.us.

The applicability of these and other signs are to be investigated. See what other bike plans say, don't reinvent the wheel on this.

3-12) CT DOT Assistance:

Some of these tasks can be facilitated with advice from the CT DOT Bicycle Coordinator:

Ms. Katherine Rattan
Non-Motorized Coordinator
Connecticut Department of Transportation
2800 Berlin Turnpike
Newington, CT 06131
katherine.rattan@ct.gov

3-13) Determine Disclaimer:

That used in the HVCEO's 1996 “Regional Concept Plan for Bicycle Route Development” was “Connecticut roads were not designed for bicycle use and it is important to note that the discussion of a bicycle route or the inclusion of a bicycle route on a map in this report does not certify that it is a safe bicycle route. Use of these routes is at your own risk.”

Any better wording today?

4. TOWN BY TOWN BIKE TRANSIT

As discussed above HART material will be of greatest practical use if it is formatted to include a town by town summary. A big part of the job is to “regionalize” recommendations for towns such that intertown bike travel is facilitated.

We must be careful to define the distinctions between this effort and existing municipal bike plans. Any existing plans must be acknowledged and incorporated.

Comment [FG14]: Refer to the 2012 AASHTO Bike Guide and Chapter 9B of the MUTCD for this.

This is a “summary“ section, best left to prepare until after most of the research has been completed.

4-1) Bethel, CT Bike Transit Plan:

4-2) Bridgewater, CT Bike Transit Plan:

4-3) Brookfield, CT Bike Transit Plan:

4-4) Danbury, CT Bike Transit Plan:

4-5) New Fairfield, CT Bike Transit Plan:

4-6) New Milford, CT Bike Transit Plan:

The 2012 New Milford Bike Master Plan is a fresh example of a municipal bike route and signage plan. It designates the specific locations for two different types of signs from the Manual of Traffic Signs” at www.trafficsign.us.

4-7) Newtown, CT Bike Transit Plan:

4-8) Redding, CT Bike Transit Plan:

4-9) Ridgefield, CT Bike Transit Plan:

Press item to glean for leads:

<http://www.theridgefieldpress.com/15735/linc-envisions-a-town-connected-with-bike-walk-trails/>

4-10) Sherman, CT Bike Transit Plan: