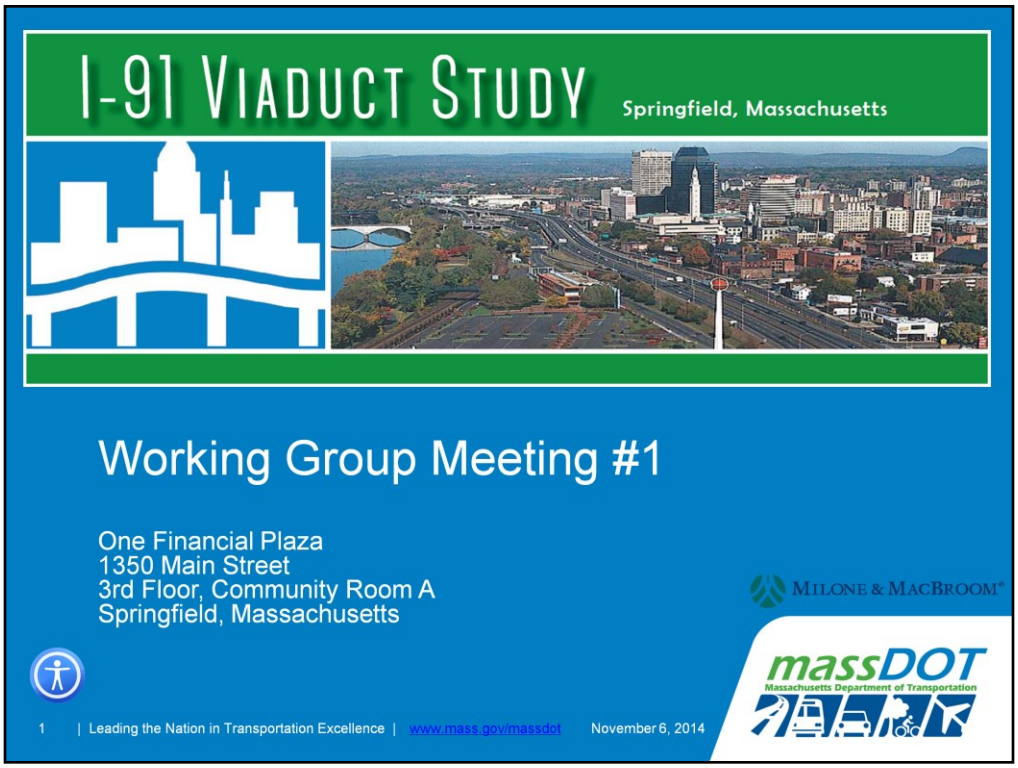
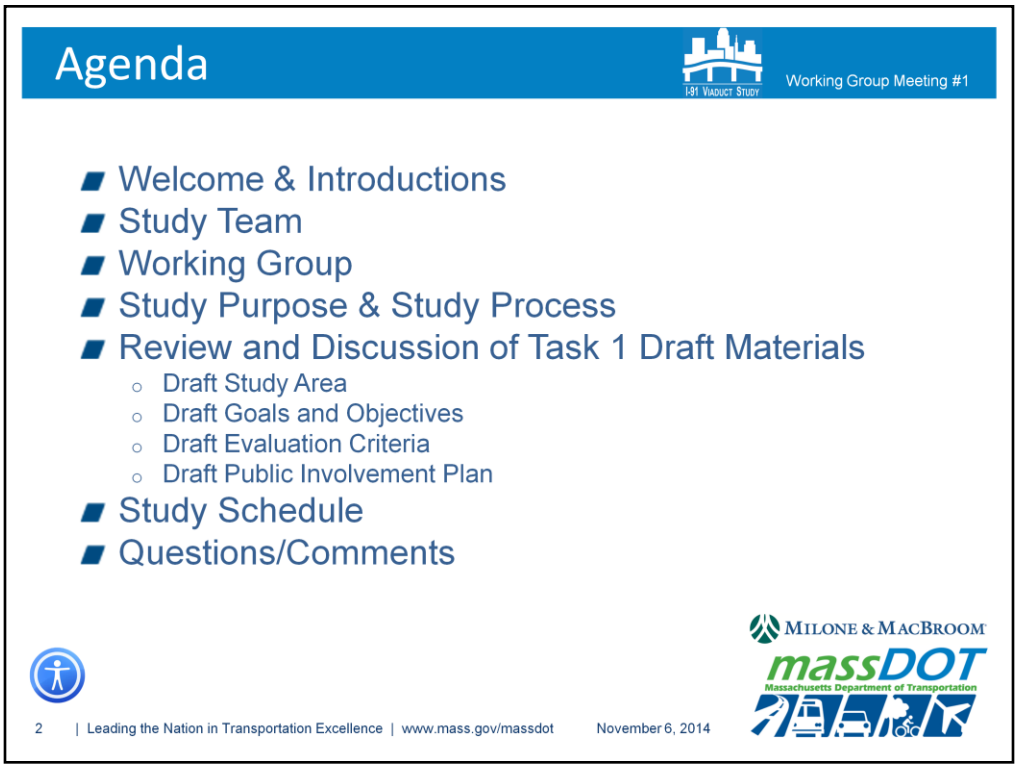
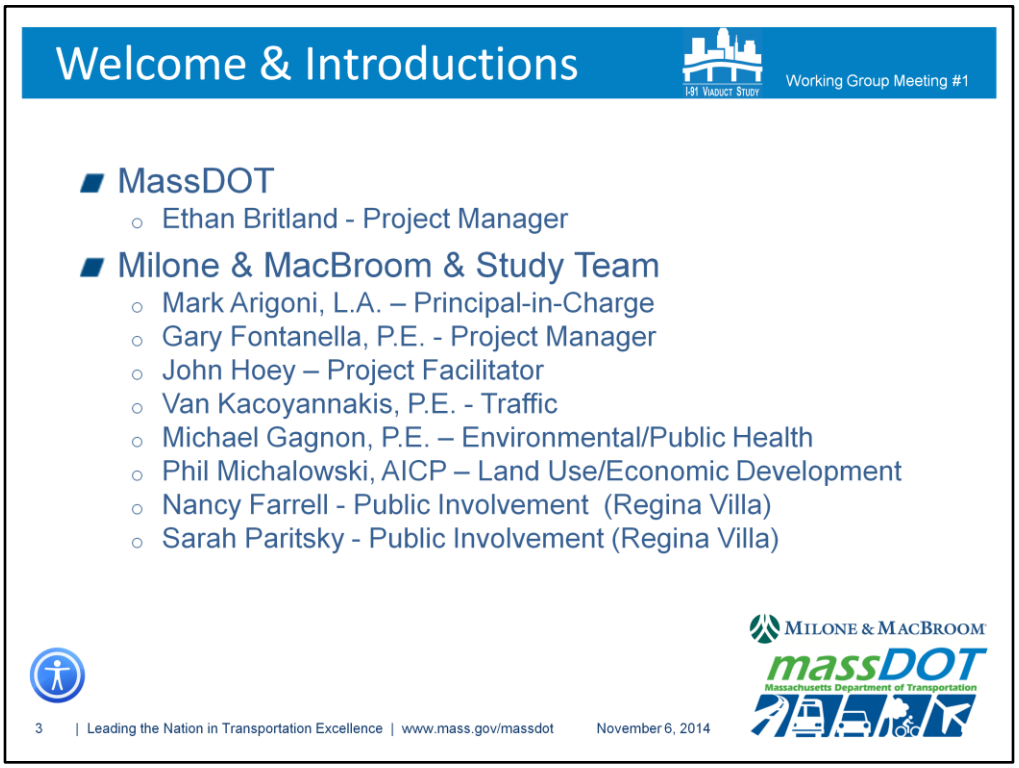


This first slide is the cover slide of the presentation for the I-91 Viaduct Study Working Group Meeting number 1. The presentation takes place at One Financial Plaza, 1350 Main Street, 3rd Floor, Community room A in Springfield, Massachusetts. The date is November 6, 2014. The slide depicts a photo of the I-91 Viaduct looking from the top of the basketball statue at the basketball hall of fame north towards downtown Springfield. The Memorial Bridge and Connecticut river are on the left and the limits of downtown are on the right with the hills in the background. A custom logo for the I-91 Viaduct Study looking from the river towards the viaduct, depicted as a simple line drawing of viaduct in the foreground and the skyline in the background.



Slide 2 Outlines the presentation

1. Welcome & Introductions
2. The Study Team Composition
3. The Working Group Composition
4. The Study Purpose & Study Process
5. Review and Discussion of Task 1 Draft Materials Including:
    - The Draft Study Area
    - The Draft Goals and Objectives
    - The Draft Evaluation Criteria
    - The Draft Public Involvement Plan
6. The Study Schedule
7. Questions/Comments



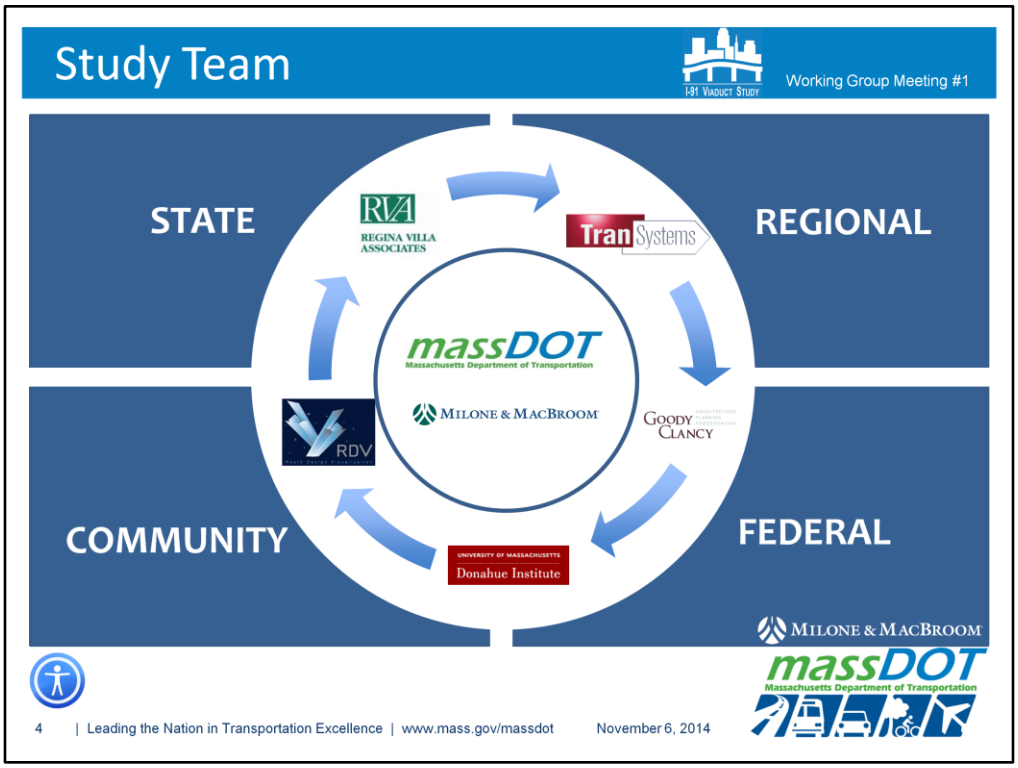
Slide 3 outlines the presenters:

From MassDOT

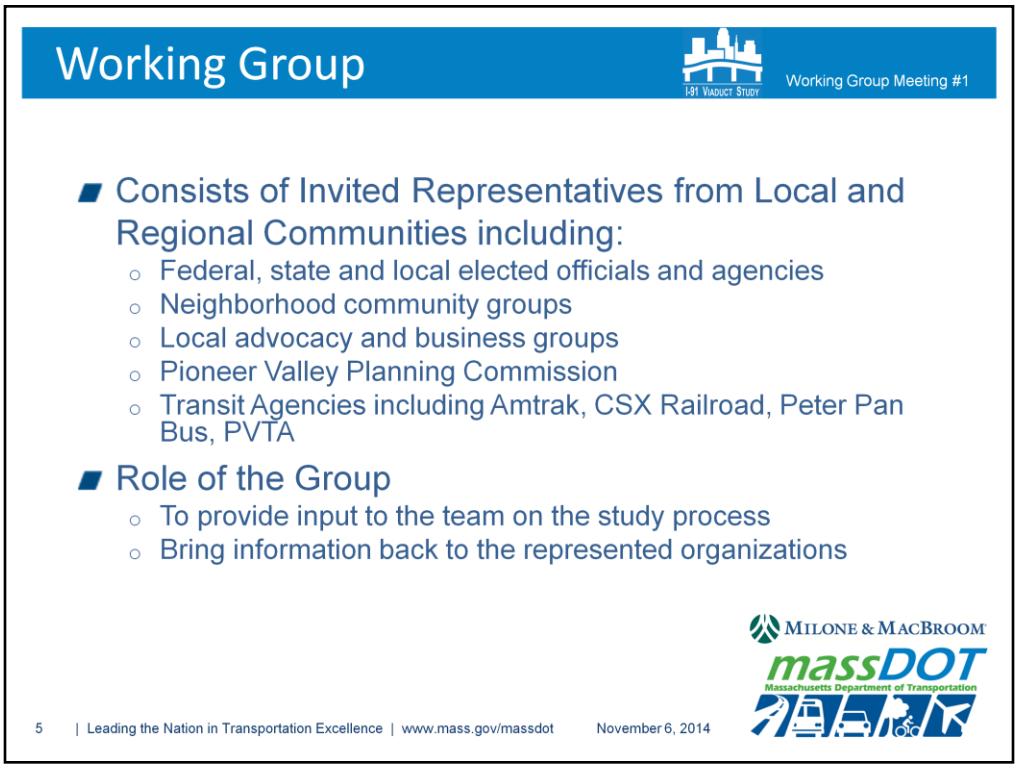
- Ethan Britland - Project Manager

From Milone & MacBroom & Study Team

- Mark Arigoni, L.A. – Principal-in-Charge
- Gary Fontanella, P.E. - Project Manager
- John Hoey – Project Facilitator
- Van Kacoyannakis, P.E. - Traffic
- Michael Gagnon, P.E. – Environmental/Public Health
- Phil Michalowski, AICP – Land Use/Economic Development
- Nancy Farrell - Public Involvement (Regina Villa)
- Sarah Paritsky - Public Involvement (Regina Villa)



This slide depicts a diagram showing the inter-relationships of the study team between the Massachusetts Department of Transportation (MassDOT) and the consult firm of Milone and MacBroom. MassDOT and Milone and MacBroom are the nucleus of the study team. Surrounding Milone and MacBroom and MassDOT are the sub consultant firms consisting of TranSystems, Regina Villa Associates, Goody Clancy, The Donahue Institute and RDV. These sub consultant firms under the direction of Milone and MacBroom will provide help and services to the study team, each having their own role in the study. Also in association with the Study group will be State, Regional, Federal and Community agencies, civic groups and stakeholders whom will be of significant importance within the study team for support, feedback and responsive participation.

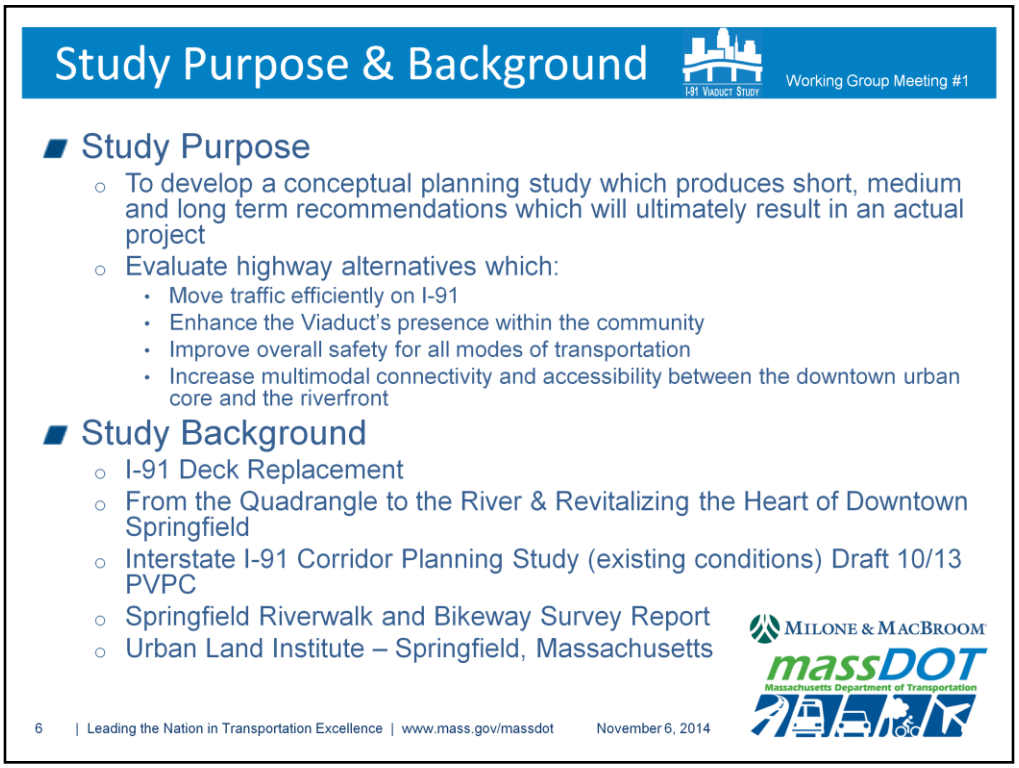


This slide outlines the Invited Representatives from Local and Regional Communities including:

- Federal, state and local elected officials and agencies
- Neighborhood community groups
- Local advocacy and business groups
- Pioneer Valley Planning Commission
- Transit Agencies including Amtrak, CSX Railroad, Peter Pan Bus, PVTA

It also outlines the role of the Group

- To provide input to the team on the study process
- Bring information back to the represented organizations

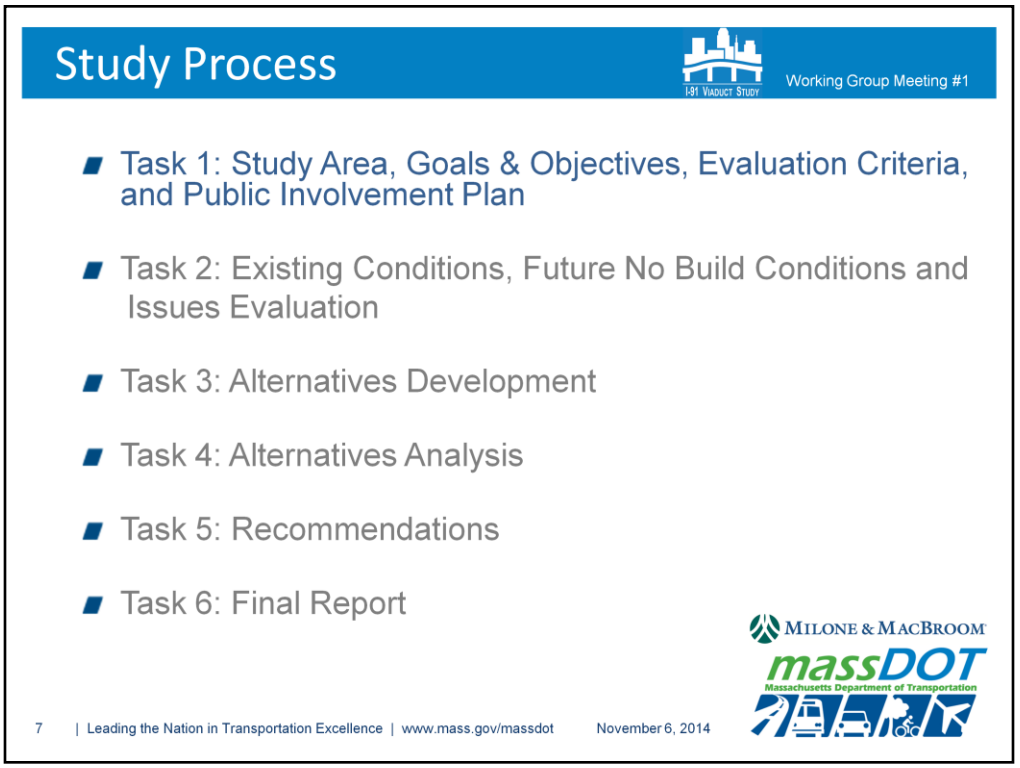


This slide discusses the study purpose:

- To develop a conceptual planning study which produces short, medium and long term recommendations which will ultimately result in an actual project
- Evaluate highway alternatives which:
  - Move traffic efficiently on I-91
  - Enhance the Viaduct's presence within the community
  - Improve overall safety for all modes of transportation
  - Increase multimodal connectivity and accessibility between the downtown urban core and the riverfront

It also discusses the study background

- I-91 Deck Replacement
- From the Quadrangle to the River & Revitalizing the Heart of Downtown Springfield
- Interstate I-91 Corridor Planning Study (existing conditions) Draft 10/13 PVPC
- Springfield Riverwalk and Bikeway Survey Report
- Urban Land Institute – Springfield, Massachusetts



This slide outlines the study process:

Task 1: Study Area, Goals & Objectives, Evaluation Criteria, and Public Involvement Plan

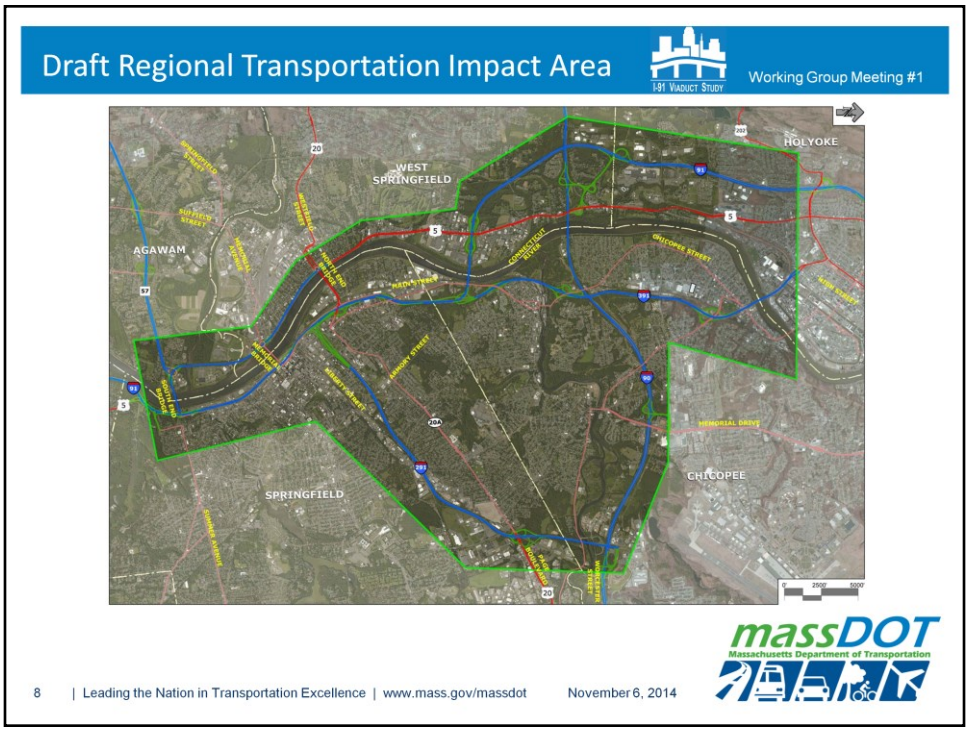
Task 2: Existing Conditions, Future No Build Conditions and Issues Evaluation

Task 3: Alternatives Development

Task 4: Alternatives Analysis

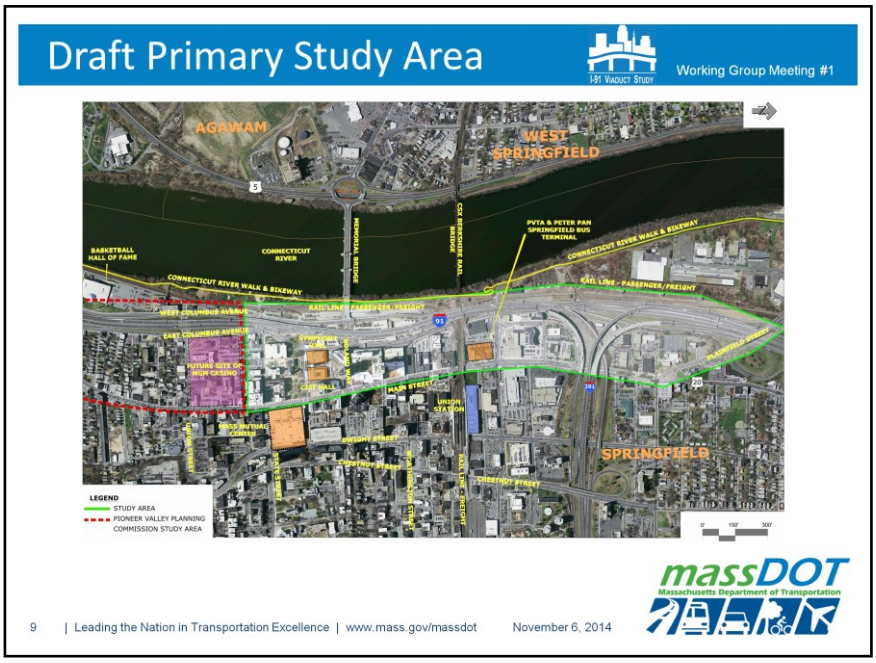
Task 5: Recommendations

Task 6: Final Report



The draft regional transportation area is a map identifying a portion of Western Massachusetts consisting of the following cities and towns; Agawam, West Springfield, Holyoke, Chicopee and Springfield. The regional study area includes roadway network surrounding and within these cities and towns that will be affected by alternatives for the I-91 Viaduct. North is pointing to the right of the page. A description of the regional study area which is outlined on the map and is as follows:

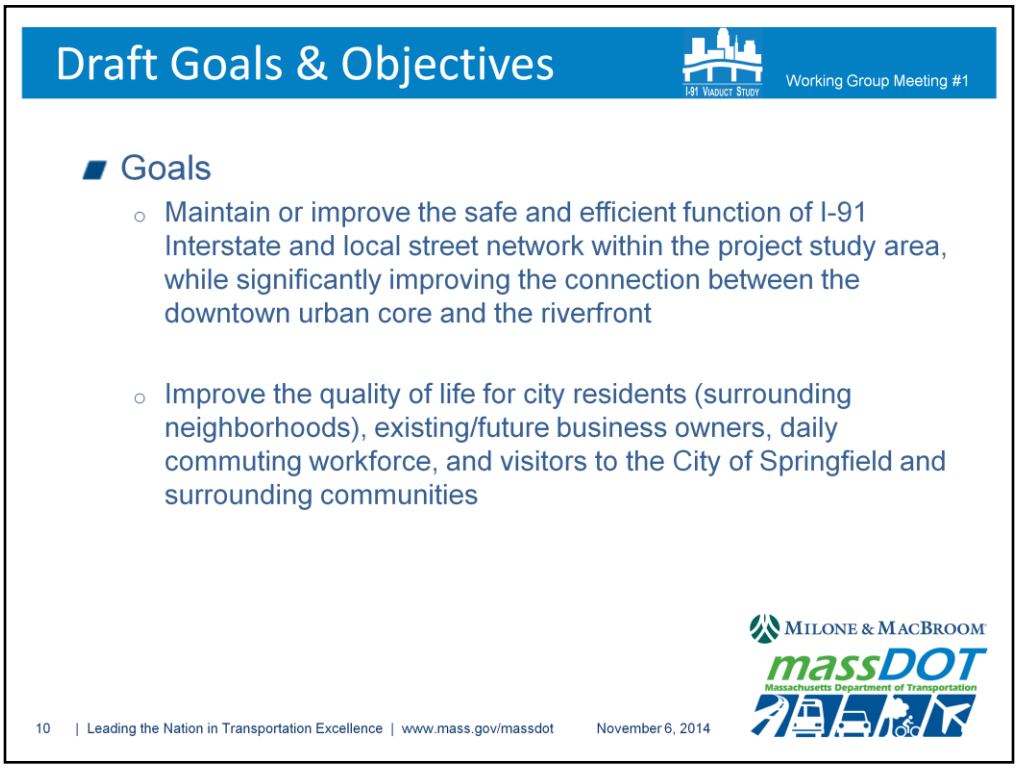
- The Southerly portion is bounded by the South End Bridge , the west being U.S. Route 5 and the east being Interstate 91
- The eastern side of the regional study area, the boundary consists of Interstate 91 up to Interstate 291 and continues along Interstate 291 up to the Mass Pike – Interstate 90
- Northerly, the region is bounded by the Mass Pike in Chicopee up to Interstate 391, which the boundary runs easterly
- Easterly it is bounded by Interstate 391 into Holyoke which is then bounded northerly by High and South Streets
- The Western Side of the Regional Study Area is bound by Interstate 91 southerly to the Interchange with U.S. Route 5
- At that point its western boundary is Rout5 5 along the CT River where it meets with the South End Bridge.



The primary study area is a map that consists mainly Springfield Massachusetts in the vicinity of the Downtown Area. The Connecticut River is shown on the map separating Springfield form the neighboring cities of Agawam and West Springfield. The primary study area is outline on the map which consists of Interstate 91 from the State Street then running northerly to the Interstate 291 interchange. The map also identifies a separate study being conducted by the Pioneer Valley Planning Commission which runs along Interstate 91 south of State Street. On this map North is pointing to the right of the page. Additional surrounding streets that will be focused on which are in proximity of Interstate 91 are:

- Main Street
- Dwight Street
- Chestnut Street
- East Columbus Avenue
- West Columbus Avenue.

The Primary Study Area will encompass the area where the improvements will take place. Some notable features labeled on this map are; the Basketball Hall of Fame, Site of the Future MGM, Mass Mutual Center, City Hall, Symphony Hall and Union Station. The Connecticut River Walk & Walkway is also identified, running the entire page, north to south along the Connecticut River west of Interstate 91. The Memorial Bridge and CSX Rail Bridge are also identified; they both cross the Connecticut River, connecting West Springfield and Springfield.



This slide discusses the goals

- Maintain or improve the safe and efficient function of I-91 Interstate and local street network within the project study area, while significantly improving the connection between the downtown urban core and the riverfront

- Improve the quality of life for city residents (surrounding neighborhoods), existing/future business owners, daily commuting workforce, and visitors to the City of Springfield and surrounding communities

This slide discusses the objectives, slide 1 of 2

- Maintain or improve highway operations: I-91 North & South; I-91 & I-291 Interchange; I-291 on and off ramps within study area
- Improve safety on the Interstate
- Maintain or improve functionality, level of service and safety at key intersections within project area (regional and local)
- Enhance entrances/access points to City of Springfield from West (Memorial Bridge) and the riverfront
- Enhance and create new ADA compliant pedestrian (walking, jogging, bicycling, rollerblading, strollers, etc.) connections from the downtown (neighborhoods and business center) to the riverfront, as well as to the Hall of Fame and Union Station
- Coordinate with the Knowledge Corridor improvements and operations

This slide discusses the objectives, slide 2 of 2

○Create multimodal accommodations at street level for safe mobility to and from key destinations in conjunction with corridor improvements

○Create more attractive, economically viable waterfront connection(s)

○Enhance access to existing development parcels, and create new development parcels

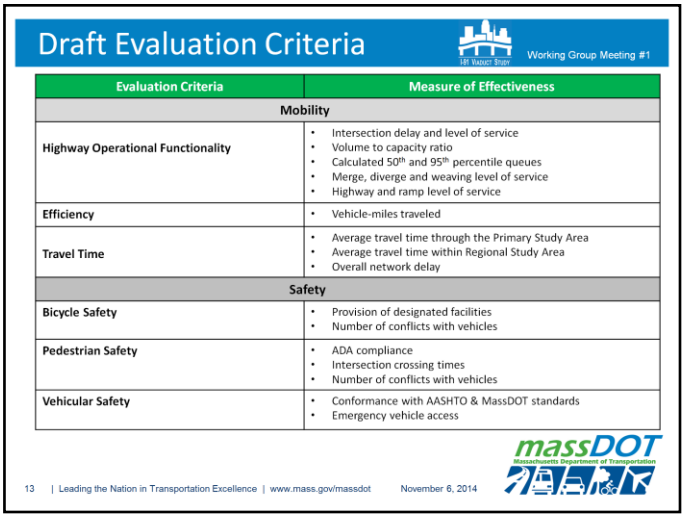
○Minimize environmental impacts (air, water, noise)

○Improve public health and awareness

○Environmental Justice

○Enhance intermodal connectivity (passenger vehicle, bus, rail, parking)

○Improve the overall visual presence of the Interstate on the community(s) traversed or served



Evaluation Criteria	Measure of Effectiveness
Mobility	
Highway Operational Functionality	• Intersection delay and level of service • Volume to capacity ratio • Calculated 50th and 95th percentile queues • Merge, diverge and weaving level of service • Highway and ramp level of service
Efficiency	• Vehicle-miles traveled
Travel Time	• Average travel time through the Primary Study Area • Average travel time within Regional Study Area • Overall network delay
Safety	
Bicycle Safety	• Provision of designated facilities • Number of conflicts with vehicles
Pedestrian Safety	• ADA compliance • Intersection crossing times • Number of conflicts with vehicles
Vehicular Safety	• Conformance with AASHTO & MassDOT standards • Emergency vehicle access

This slide is titled draft evaluation criteria depicting a table of evaluation criteria and the measure of effectiveness

The category of mobility, evaluation criteria number 1 - highway operational functionality. The measures of effectiveness are as follows:

- Intersection delay and level of service
- Volume to capacity ratio
- Calculated 50th and 95th percentile queues
- Merge, diverge and weaving level of service
- Highway and ramp level of service

The category of mobility, evaluation criteria number 2 – efficiency. The measures of effectiveness are as follows:

- Vehicle-miles traveled

The category of mobility, evaluation criteria number 3 - travel time. The measures of effectiveness are as follows:

- Average travel time through the Primary Study Area
- Average travel time within Regional Study Area
- Overall network delay

The category of safety, evaluation criteria number 1 – bicycle safety. The measures of effectiveness are as follows:

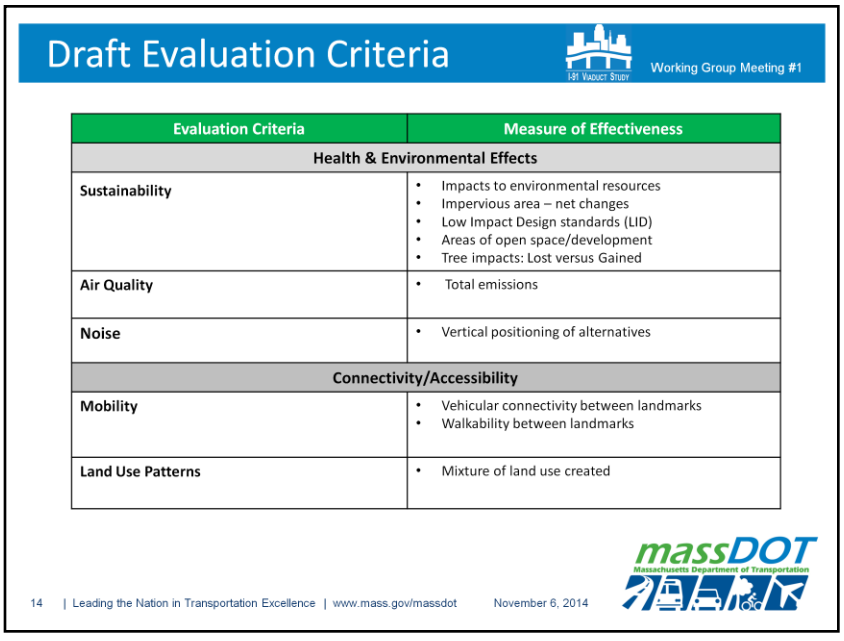
- Provision of designated facilities
- Number of conflicts with vehicles

The category of safety, evaluation criteria number 2 - pedestrian safety. The measures of effectiveness are as follows:

- ADA compliance
- Intersection crossing times
- Number of conflicts with vehicles

The category of safety, evaluation criteria number 3 – vehicular safety. The measures of effectiveness are as follows:

- Conformance with AASHTO & MassDOT standards
- Emergency vehicle access



This slide is a continuation of the draft evaluation criteria depicting a table of evaluation criteria and the measure of effectiveness

The category of health & environmental effects, evaluation criteria number 1 - sustainability. The measures of effectiveness are as follows:

•Impacts to environmental resources

•Impervious area – net changes

•Low Impact Design standards (LID)

•Areas of open space/development

•Tree impacts: Lost versus Gained

The category of health & environmental effects, evaluation criteria number 2 – air quality. The measure of effectiveness is as follows:

•Total emissions

The category of health & environmental effects, evaluation criteria number 3 – noise. The measure of effectiveness is as follows:

•Vertical positioning of alternatives

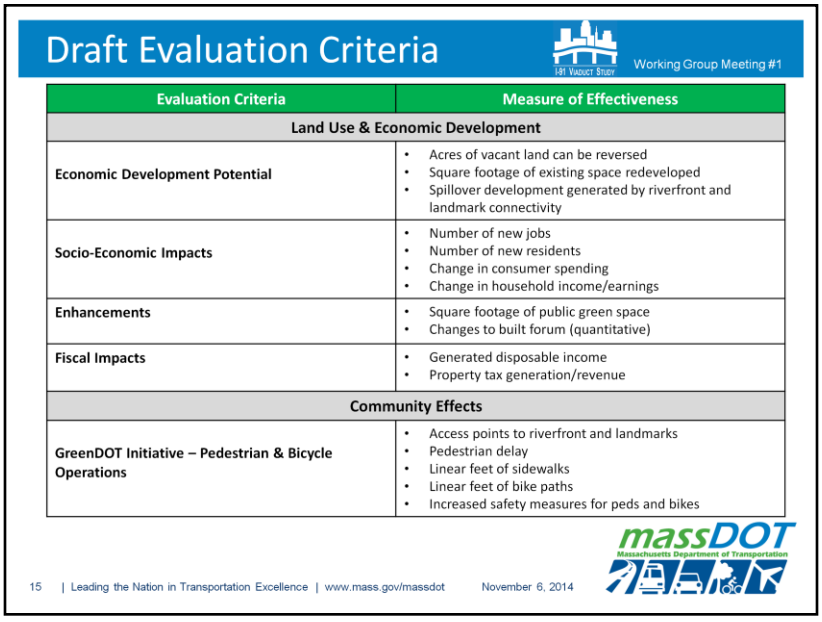
The category of connectivity and or accessibility, evaluation criteria number 1 - mobility. The measures of effectiveness are as follows:

•Vehicular connectivity between landmarks

•Walkability between landmarks

The category of connectivity and or accessibility, evaluation criteria number 2 – land use patterns. The measure of effectiveness is as follows:

•Mixture of land use created



This slide is a continuation of the draft evaluation criteria depicting a table of evaluation criteria and the measure of effectiveness

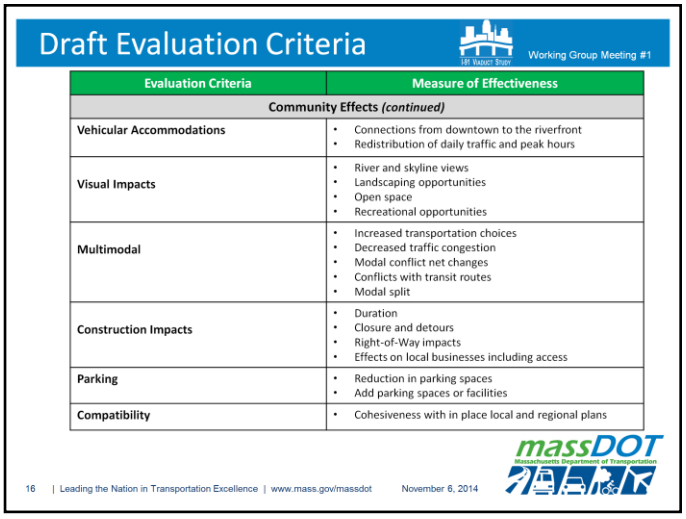
The category of land use & economic development, evaluation criteria number 1 – economic development potential. The measures of effectiveness are as follows:
- Acres of vacant land can be reversed
- Square footage of existing space redeveloped
- Spillover development generated by riverfront and landmark connectivity

The category of land use & economic development, evaluation criteria number 2 – socio-economic impacts. The measures of effectiveness are as follows:
- Number of new jobs
- Number of new residents
- Change in consumer spending
- Change in household income/earnings

The category of land use & economic development, evaluation criteria number 3 – enhancements. The measures of effectiveness are as follows:
- Square footage of public green space
- Changes to built forum (quantitative)

The category of land use & economic development, evaluation criteria number 4 – fiscal impacts. The measures of effectiveness are as follows:
- Generated disposable income
- Property tax generation/revenue

The category of community effects, evaluation criteria number 1 – greendot initiative – pedestrian and bicycle operations. The measures of effectiveness are as follows:
- Access points to riverfront and landmarks
- Pedestrian delay
- Linear feet of sidewalks
- Linear feet of bike paths
- Increased safety measures for peds and bikes



Evaluation Criteria	Measure of Effectiveness
Community Effects *(continued)*	
Vehicular Accommodations	• Connections from downtown to the riverfront • Redistribution of daily traffic and peak hours
Visual Impacts	• River and skyline views • Landscaping opportunities • Open space • Recreational opportunities
Multimodal	• Increased transportation choices • Decreased traffic congestion • Modal conflict net changes • Conflicts with transit routes • Modal split
Construction Impacts	• Duration • Closure and detours • Right-of-Way impacts • Effects on local businesses including access
Parking	• Reduction in parking spaces • Add parking spaces or facilities
Compatibility	• Cohesiveness with in place local and regional plans

This slide is a continuation of the draft evaluation criteria depicting a table of evaluation criteria and the measure of effectiveness

The category of community effects, evaluation criteria number 2 – vehicular accommodations. The measures of effectiveness are as follows:
•Connections from downtown to the riverfront
•Redistribution of daily traffic and peak hours

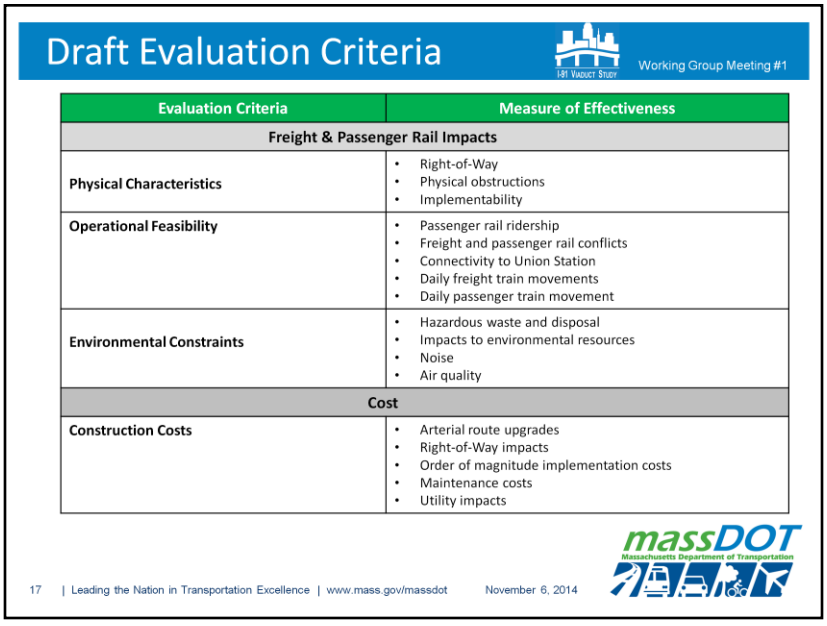
•The category of community effects, evaluation criteria number 3 – vehicular visual impacts. The measures of effectiveness are as follows:
•River and skyline views
•Landscaping opportunities
•Open space
•Recreational opportunities

The category of community effects, evaluation criteria number 4 – multi-modal. The measures of effectiveness are as follows:
•Increased transportation choices
•Decreased traffic congestion
•Modal conflict net changes
•Conflicts with transit routes
•Modal split

The category of community effects, evaluation criteria number 5 – construction impacts. The measures of effectiveness are as follows:
•Duration
•Closure and detours
•Right-of-Way impacts
•Effects on local businesses including access

The category of community effects, evaluation criteria number 6 – parking. The measures of effectiveness are as follows:
•Reduction in parking spaces
•Add parking spaces or facilities

The category of community effects, evaluation criteria number 7 – compatibility. The measure of effectiveness is as follows:
•Cohesiveness with in place local and regional plans



This slide is the final continued slide of the draft evaluation criteria depicting a table of evaluation criteria and the measure of effectiveness

The category of freight and passenger rail impacts, evaluation criteria number 1 – physical characteristics. The measures of effectiveness are as follows:
- Right-of-Way
- Physical obstructions
- Implementability

The category of freight and passenger rail impacts, evaluation criteria number 2 – operations feasibility. The measures of effectiveness are as follows:
- Passenger rail ridership
- Freight and passenger rail conflicts
- Connectivity to Union Station
- Daily freight train movements
- Daily passenger train movement

The category of freight and passenger rail impacts, evaluation criteria number 3 – environmental constraints. The measures of effectiveness are as follows:
- Hazardous waste and disposal
- Impacts to environmental resources
- Noise
- Air quality

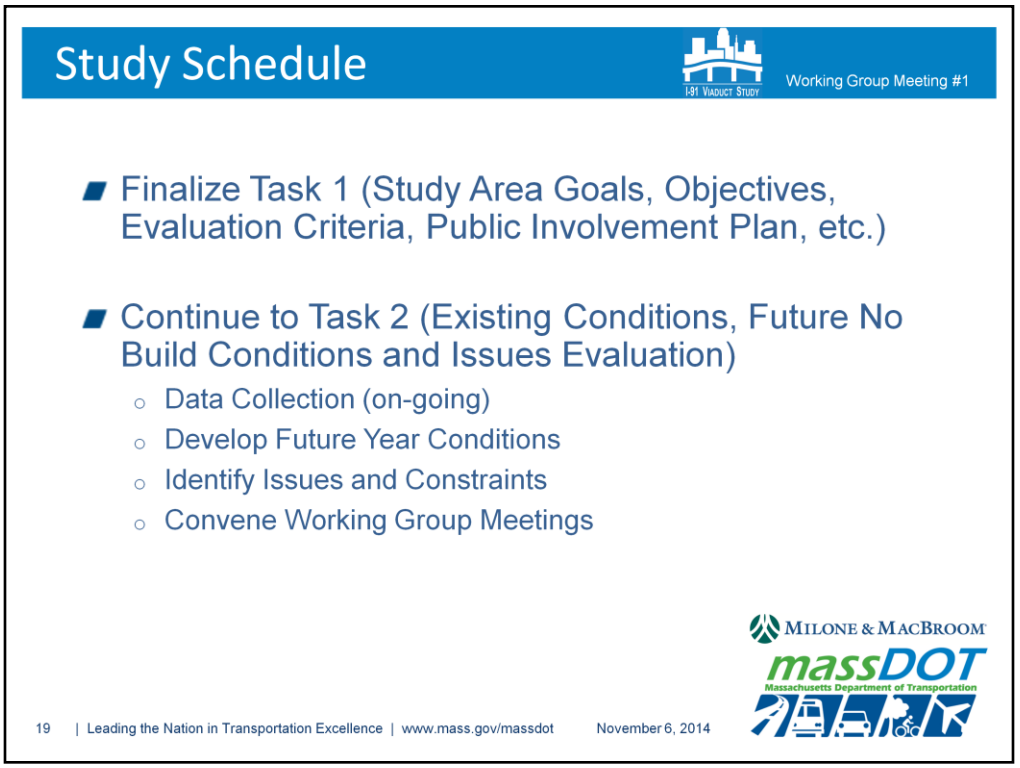
The category of cost, evaluation criteria number 1 – construction costs. The measures of effectiveness are as follows:
- Arterial route upgrades
- Right-of-Way impacts
- Order of magnitude implementation costs
- Maintenance costs
- Utility impacts

This slide outlines the public involvement plan

The Responsive Study Team

Working Group
- Represents local and regional study area
- Multimodal participants
- (9) Working group meetings
  - (Fall 2014 through Fall 2015)

Public Outreach
- Project Website
- (3) Public Meetings
  - Spring 2015
  - Summer 2015
  - Fall 2015
- Sign up for study email list
- MassDOT social media

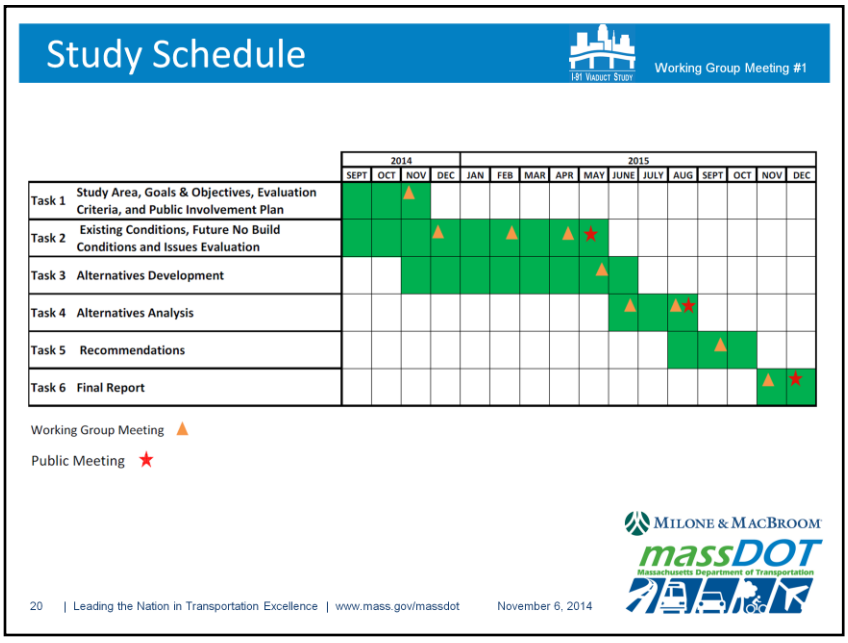


This slide outlines the study schedule

Finalize Task 1 (Study Area Goals, Objectives, Evaluation Criteria, Public Involvement Plan, etc.)

Continue to Task 2 (Existing Conditions, Future No Build Conditions and Issues Evaluation)

- Data Collection (on-going)
- Develop Future Year Conditions
- Identify Issues and Constraints
- Convene Working Group Meetings



This slide indicates the study schedule which depicts a gnat style chart. On the top of the chart the date is shown in months ranging from September 2014 to December 2015. On the bottom of the chart is a legend which contains a triangle representing Working Group Meetings and a Star representing Public Meetings. On the left hand side of the chart are six rows consisting of the following data in this order:

Task 1 – Study Area, Goals & Objectives, Evaluation Criteria, and Public Involvement Plan

Task 2 – Existing Conditions, Future No Build Conditions and Issues Evaluation

Task 3 – Alternatives Development

Task 4 – Alternatives Analysis

Task 5- Recommendations

Task 6 – Final Report

Task 1 will begin in September of 2014 and end the last day of November 2014, a Working Group Meeting is scheduled for the beginning of November. Task 2 will begin in September of 2014 and end the last day of May 2015, a Working Group Meeting is scheduled for the beginning of December 2014, the end of February 2015 and also in April of 2015. The first Public Meeting is scheduled for early May 2015. Task 3 will begin in November of 2104 and extend until the last day of June 2015. One Working Group is scheduled as part of Task 3 at the end of Amy 2015. Task 4 will begin June 1, 2015 and end the last day of August 2015. Two Working Group meetings will be tentatively scheduled for Task 4 at the end of June 2015 and the beginning of August 2015. The second Public Meeting is tentatively scheduled the second half of August 2015. Task 5 will begin on August 1, 2015 and end the last day of October 2015. One Working Group meeting is scheduled for the last week of September 2015. Task 6 is scheduled to start on the first day of November 2015 and end the last day of December 2015. One Working Group Meeting is scheduled for the first half of November 2015, and the final Public Meeting is scheduled for the first half of December.

This slide concludes the presentation and begins the question and comments portion of the program.

The slide contains various random pictures of the viaduct and downtown Springfield.

The questions and comments are provided in a separate document