

FREIGHT COMMITTEE
of the
REGIONAL TRANSPORTATION ADVISORY COUNCIL

Summary of the October 13, 2010 Meeting

The meeting was held in Conference Room 4 of the State Transportation Building.

1. Introductions and Chair's Report – *Walter Bonin, Co-Chair*

W. Bonin called the meeting to order at 1:05 PM. Members, guests, visitors, and staff introduced themselves (see the attached attendance list). There was no Chair's report.

2. Announcements

There were no announcements.

3. Approval of the draft September 15, 2010 Meeting Minutes – *Walter Bonin, Co-Chair*

The minutes were approved.

4. Comments on the Draft Massachusetts State Rail Plan – *Walter Bonin, Co-Chair*

W. Bonin gave a presentation about how the draft Massachusetts Rail Plan can help the state achieve its economic and environmental goals through corridor development. First, the state must confront the facts on its economy. The job growth rate in Massachusetts has been 33 percent of the nation's job growth rate for many decades. The state manufactures less and therefore exports less. Imports represent capital that won't return and acts as a drain on the state's finances. The highways are congested with many at capacity and the MBTA has serious financial problems that limit expansion. However, there is a considerable amount of unused or underutilized rail rights of way. These can help the state grow its manufacturing sector, move freight by rail, relieve congestion, and serve as a basis for corridor development.

Highway development is helter-skelter and consumes huge amounts of land. Developing around rail corridors would be better for the environment. This is how towns and cities developed in the past. The corridor model logically connects centers of development. In each center the outer ring should primarily be open space. Industrial development should be along the rail line with mixed use and commercial development in the core. South Coast Rail has adopted a form of this model through its Economic Development and Land Use Plan.

W. Bonin outlined six key points of his presentation:

- 1) The State Rail Plan should be merged with transit oriented development. Land should be zoned to support the corridor concept.
- 2) The State Rail Plan should be integrated with economic and environmental plans.

- 3) State government leaders in transportation, economic development, and environmental affairs should work together to implement the Plan.
- 4) Massachusetts needs to transition from a net consuming state to a net producing state to grow its economy.
- 5) Manufacturing must be restored in order to be a net producing state. Preserving rail right of way, industrial infrastructure, and industrial land is important.
- 6) Local objections to growth and industrial uses need to be managed.

The state's current path is not sustainable. Rail will support corridor development, manufacturing, economic growth, and the middle class.

5. Update on South Coast Rail Economic Development and Land Use Plan – *Kristina Egan, MassDOT*

K. Egan provided members with an update on the South Coast Rail project. She said that freight and passenger rail are both important and support the state's economy and mitigate climate change. South Coast Rail has a corridor plan, such as what W. Bonin is promoting.

The Economic Development and Land Use Plan was released last summer. It identified 33 priority development areas, mostly along rail lines, and 72 preservation areas. Station areas have been identified for transit oriented development (TOD) opportunities. The overall plan will protect open space between the TOD nodes and in areas of natural resource value. Executive Order 525 was signed two weeks ago. It says the state will align its infrastructure and open space investments with the priority development and preservation areas.

Over the past year, MassDOT has been studying possible freight development areas in the corridor. Southeastern Massachusetts could be a strong regional distribution center with particular competitive advantages in New Bedford and Fall River. Consultants working on the study used criteria to identify places suitable for industrial development. Eighteen suitable sites were identified. Nine of those are already in industrial use for rail, and there is potential for rail use on the other nine.

MassDOT is currently fixing three bridges in New Bedford that will help the project and be beneficial to freight rail and Mass Coastal Railroad. To date, the project design has been developed to accommodate both existing and future rail freight.

There are a few areas where the potential for conflict between transit oriented development and industrial development exists. Whale's Tooth is a freight yard, but has the greatest potential for economic development of all the potential South Coast Rail TOD sites. Some of the land will remain in freight use, but some is planned for transit oriented development. The Freetown station site could also be used as either industrial land or TOD, and the South Coast Rail project is pursuing TOD zoning with the town. At Weaver's Cove, one of the potential layover sites could reduce industrial land for other industrial uses. The South Coast Rail team and its freight rail consultants expected more potential for conflict between industrial use and transit oriented development than they found when they studied freight development areas.

Members Comments

- King’s Highway is another area of possible conflict. (Frank DeMasi, Wellesley)
- The “local veto” is a big obstacle. Legislation to give the state some control over key development sites is needed. (Dom D’Eramo, Millis)
- Dan Wahle of the Mass Coastal Railroad announced that they have made a strategic investment in industrial development. John Pearson is the industrial development manager. They need to develop land they serve in order to grow their business.
- The state could use something similar to 40B for the preservation of industrial uses (F. DeMasi).

Member Questions

In response to member questions, K. Egan made the following additional comments:

- The Economic Development and Land Use Corridor Plan was a bottom up process. Municipalities in the region identified priority development sites. This will help the Plan be implemented in a home rule context.
- Air rights were not considered for this project. They work better in denser environments such as Boston.

Jamey Tesler of MassDOT also addressed the Committee. J. Tesler said MassDOT is learning to work together with the short line railroads. They are looking at the potential for short line services in Eastern Massachusetts. There is capacity on the South Coast for shared use. This may not be true everywhere.

MassDOT is making progress on many of the things the Freight Committee cares about. However, they don’t always see the same thing because they have a different perspective. They would like to be more involved with the Committee.

Additional Member Comments

- We would like the MassDOT to view the Freight Committee as a resource and a group that can support the state’s goals. (W. Bonin)
- The Freight Committee hopes projects and policies from the Rail Plan are integrated into the MPO’s Regional Transportation Plan. (F. DeMasi)
- Railroad pricing is the biggest barrier to moving more freight by rail. There should be a way for the state to adjudicate rate disputes on state owned track. Cost based pricing is in the public interest. (Ken Patrick, resident of Plymouth)
- The chances of switching to cost based pricing are zero. The market bears the price. (Dan Wahle, Mass Coastal Railroad)

6. Views on the Benefits for Railroads of Allowing Higher Truck Weights on Highways – Ken Patrick, resident of Plymouth (presentation notes are attached)

Ken Patrick provided his point of view on the impact of heavy truck legislation on railroads and highways.

K. Patrick claimed that legislation allowing 97,000 pound trucks on highways would also require a sixth axle, which would spread the weight to the extent that each wheel would bear less load to the pavement than conventional trailer trucks at the current 80,000 pound limit. K. Patrick provided data (see attachment) on several truck chassis configurations and various weight limits, arguing that extra weight would not affect road wear and tear.

Additionally, K. Patrick proposed that allowing additional weight would benefit railroads and their container business. It would improve container on flat car (COFC) viability by allowing higher loads per rail car, which would improve through put and equipment utilization providing greater efficiency and competition with trucks over long hauls.

K. Patrick also explained his view that trailer on flatcar business is not profitable from the standpoint of equipment utilization and costs of rail-to-truck transfer. Trailers with less volumetric and weight capacity cannot match the efficiency of using double stacked heavy containers less the tear weight of chassis and wheels of the trailers.

K. Patrick's also explained the need to modifying the current deep well and container fleet of cars to accommodate the heavier and larger containers that would result if heavier truck loads were permitted. This would include well car configuration changes as well as rail car truck, wheel, and bearing considerations.

K. Patrick's presentation notes outline several constraints of TOFC (trailer on flat car)/COFC rail cars and their dynamics in train operation. It is noted that TOFC/COFC cars may be articulated, sharing one common truck between permanently coupled units in various multiple car configurations, as a way to reduce damage to containers/trailers by reducing coupler draft gear slack in conventional freight cars. Some railroads will not mix COFC and TOFC cars with other conventional rail cars in trains to realize the benefit of the permanently coupled units.

Member comments

- Higher truck weights will have a negative effect on bridges. Many bridges currently in service were designed for loads much lower than 97,000 pounds.0 (D. D'Eramo)
- Trucks compete more directly with short line railroads than Class 1 railroads. (F. DeMasi)
- Larger trucks would hurt the competitive playing field. Railroads ability to compete with trucks would be diminished. (D. Wahle)
- Heavier trucks will also decrease safety and cause more road wear and tear. Railroads can take weight. (D. Wahle)

A discussion ensued about the role of rates in the freight rail industry. K. Patrick said cost-based pricing should be used by railroads so more shippers will use rail and the public will benefit.

D. Wahle disagreed with K. Patrick's assertions. Pricing based on what the market will bear allow railroads to be more successful and move more freight.

F. DeMasi said he believes that K. Patrick's arguments apply to Class 1 railroads rather than short lines. The freedom of railroads to set rates based on what the market will bear allows railroads to serve a broader base of customers. Where railroads operate on public rail right of way and engage in public private partnerships, F. DeMasi said he would expect some consideration to be given to providing competitive rates with other modes to mitigate highway congestion and environmental and safety concerns. F. DeMasi said there should

be a discussion on this issue with the Massachusetts agencies involved in economic development, transportation, and the environment.

7. Briefing on Freight Rail Legislative Issues – Pamela Mann, Go-21

H.R. 1806 is the Freight Rail Infrastructure Capacity Act. It would provide a 25% tax credit incentive for any private company that uses its own funds to expand freight rail. The Senate version, S. 3739, was introduced 20 months into the current session. The House bill has more than 100 sponsors. It will not likely move before the next Congress. The new Congress will require work to start over again. This is the third time the bill has been introduced in Congress, but no action has been taken. It will be reintroduced in the next Congress.

A short line railroad tax credit is still sitting in Congress. It had support in the Senate, but did not move in the House of Representatives despite having support. It will come before Congress again next year. It has more than 300 co-sponsors.

It will be a long time before the next surface transportation bill is passed. It may not happen until 2013.

October 14 is the 30th anniversary of the Staggers Act, which greatly deregulated railroads. It established the Surface Transportation Board.

Also proposed in Congress is a bill that would limit truck size and weight. The bill is HR 1618 and Senate 779. The bill was introduced by Rep. McGovern in the House. It has 130 co-sponsors including Massachusetts Representatives Frank, Capuano, Delahunt, Tierney, and Markey. The Senate bill is sponsored by Senator Kerry. Go-21 does not take a position on truck weight. A sister organization, the Coalition Against Bigger Trucks, lobbies against higher truck weights.

8. Adjourn

The meeting was adjourned at 2:45 PM

Attachments:

- Attendance list
- K. Patrick's presentation notes

Attendance

Agencies

Kristina Egan, MassDOT
Jamey Tesler, MassDOT
Lynn Vikesland, Massport

Cities and Towns

Walter Bonin, Marlborough
Dom D'Eramo, Millis
Frank DeMasi, Wellesley
Steve Olanoff, Westwood

Advocacy/Citizens Groups

None

Guests and Visitors

Bob Gentile, Framingham
Jo Hart, Worcester
Ed Lowney, Malden
Pamela Mann, Go-21
Ken Patrick, Plymouth
Arnold Pinsley, Natick
Dan Wahle, Mass Coastal Railroad

MPO Staff

Mike Callahan

WHY HEAVIER TRUCKS ARE GOOD FOR RAILROADS

WEIGHT TO LENGTH CIRCA 1974

TANDEM AXLES 40-96IN 34000# 17000# AXLE
2 TANDEM AXLES 97" APART 38000# 19000#
3 AXLES 97" APART 42000# 21000#
ADDING 6TH AXLE + 17000# GVW TRACKS WITH SPACING I.E
SPREADER AXLES

TYPICAL CONFIGURATION AXLES 5+4 34000#, 36' BETWEEN OUTER
AXLE 5 AND AXLES 2 2+3 IS 36' STEERING AXLES (1) IS 12000# OVER ALL
LENGTH IS 51' EXCEPT FOR AUTO CARRIERS 65-75 FT

HISTORY OF TOFC.,
1950'S THINKING THAT IT WILL PREVENT FURTHER EROSION OF
INTERCITY FREIGHT RAIL TRAFFIC.

MISTAKE: COMPARATIVELY RAILROADS CARRY GREATER WEIGHT
AND VOLUME PER UNIT OF MEASURE THAN TRUCKS BUT ARE SLOW
(DISCUSS SYSTEM 20MPH , TERMINAL DWELL TIMES.
TRUCKS, LIMITED BY WEIGHT AND BRIDGE RULES , CARRY LITTLE
WEIGHT AND VOLUME PER UNIT BUT ARE FAST.

BY PUTTING TRUCKS ON TRAINS, RAILROADS GAVE UP THEIR TWO
STRENGTHS BUT KEPT THEIR ONE WEAKNESS.

TOFC- CONFUSED, MONEY LOSER. 89' FLAT 3RD GENERATION, 76
CLASSES (DISCUSS CLASS) 4 UNIT TOFC WITH DRAWBARS.
NIGHTMARE OF MANAGEMENT. CARRY 50 TONS BEST CASE PER FLAT.
TRYING TO ACCOMMODATE EVERY TYPE OF TRAILER. 97,000
PROBABLY YIELDS 14 MORE TONS PAYLOAD PER FLAT(7 PER TRAILER
(1.5 TONS FOR 6TH AXLE)

CANNOT RUN IN MERCHANDISE TRAINS. BUFF & DRAFT, COG
RESTRAINTS

DISCUSS 220K VERSUS 263K. WILL RAILROADS MOVE TO 263K FOR
TOFC? NO 220GRL 27.5 TONS/AXLE, 263 GRL 33 TONS/AXLE. 286 GRL 36
TONS/AXLE, 312 GRL 39 TONS AXLES 33', 36" 39"

NEED TO CHANGE WHEELS & AXLES & BEARINGS. SOME STEEL
6/1/2 X 12 6X9 7X12

30 WEEKS

US	CANADA	MEXICO
TRAILERS 955.0 +.5%	48.0 +.6%	-72.7%
CONT 5263.0 + 16%	1133.0 + 15.2%	103.0 13.2%

COFC

RECOGNIZED THAT TOFC WAS A LOSER. COFC TO GET MORE VOLUME PER RAILCAR. MORE FLEXIBILITY. MORE STANDARDIZATION.

5 UNITS 3 CLASSES LOPAC II 60 TONS PER WELL. PAYLOAD S OF 50 PER WELL

CONTAINER CONFIG 2-20% IN END UNITS

1-40 + 1-45 IN MIDDLE 3

ARTICULATION- LOW RAIL ROLLOVER. ADJOINING TRUCK IMPROVES STABILITY

ROAD-RAILER ECONOMICS IMPROVED BY 97K

S3705 HR 1799

**97000 SHORTAGE OF FREIGHT CAPACITY CATTLE SUGAR CORN
DISCUSS TC&W BEET SUGAR HARVEST**

TRUCKS-13% OF VEHICLE MILES, 11% OF ALL REGISTERED VEHICLES

6 AXLES TRUCKS SAVE \$14.5 BIL IN ANNUAL SHIPPING COSTSD

UTILIZE EMPTY SPACE 17% INCREASE IN TON/MILES/GAL

WISCONSIN- NO DROP IN RAILROAD REVENUES FROM 97K

CANADA/EUROPE 17,000# AXLES

**STATE APPLIED. FED GUIDELINES NO STATE LESS THAN 48' LENGTH
NO STATE LESS THAN 102''W
NO FED HGHT- STATES 13.6-14.6'**

**WEIGHT TO LENGTH 1974 . 2 OR MORE AXLES CANNOT EXCEED
WEIGHT BY FORMULA REGARDLESS OF TOTAL WEIGHT**

TANDEM 2 AXLES 40'' TO 96'' 34000# AXLE

2 AXLES 97'' + 38000#

3 AXLES 97'' 42,000#

RAILROAD IMPACT

TOFC PAYLOADS

***2 TRAILERS 97000-12000-23500= 61.5K X 2 = 61.5 TONS 34%**
30.75 TONS PAYLOAD PER TRAILER
NOW 80000-12000-22000= 46K X 2 = 46.0 TONS
23 PAYLOAD PER TRAILER

RAILCARS @220K 110-33 = 77TONS
85 X 2 = 85 TONS NEED UPGRADE TO 263 000#
UPGRADE COST \$25K 5 YEARS \$5K/YR / 36 TRIPS \$ 139/TRIP

600 MILE \$1800 + \$139 = \$1939/2 = \$970/CHASSIS /30.75 = \$31.54/TON
1800 900 26.00 34.62

*** 12K FOR CAB & POWER, 22000 FOR TRAILER 1500# FOR 6TH AXLE**

CONTAINERS

2-40' 27 TONS (80-12-14= 54 27TONSX2 = 54 TONS
35.5 TONS(97-12-14=71 35.5 TONS X 2= 70 TONS + 30%

CAPACITIES

PER WELL- A+ B (END UNITS) 2-20' * 40TONS
PER WELL CD&E 1- 40- LOWER, 1-45' UPPER 60 TONS**

NOW

*** 20 ' CONTAINER 60K GVW 30-8-4-4 = 14 TON PAYLOAD**
WEIGHT IN WELL 2X 18 = 36 TONS

**** 40' CONTAINER 80K GVW 40-8-5-5= 22 TON PAYLOAD**
GVW LESS TRACTOR LESS TRAILER LESS CONTAINER
WEIGHT IN WELL 27 TONS

45' CONTAINER 80GVW 21 TON PAYLOAD
SAME AS ABOVE EXCEPT CONTAINER IS 6 TONS
WEIGHT IN WELL 28 TONS

TOTAL WEIGHT IN WELL 27 + 28 = 55 TONS

AT 97000 ASSUME 20' CONTAINER CARRIES DENSER PRODUCT AND
CAN SPREAD ADDITIONAL AXLE

77 K GVW 38.5-9-5-5 = 19.5 TONS

WEIGHT IN WELL 19.5 + 5 = 24.5 X 2 = 49 TONS

40' CONTAINER 97K GVW 48.5-8-5-5= 30.5 TONS PAYLOAD

45' CONTAINER

29.5 TONS PAYLOAD

WEIGHT IN WELL 30.5 +5+ 29.5 + 5 = 70 TONS

NEED WHEELS, PIVOT ARMS,

POTENTIAL PROBLEM IN COG 78" ATR

LOW RAIL ROLL-OVER DERAILEMENTS

CAPACITY IMPROVEMENT 5 PAC

20' FROM 56TONS TO 78 TONS (4 CONTAINERS)

40' FROM 66 TONS TO 91.5 TONS (3 CONTAINERS)

45' FROM 63 TONS TO 88.5 TONS(3 CONTAINERS)

TOTAL

FROM 185 TONS TO 258 TONS 39.5% GAIN PER MOVE

WEIGHT/VOLUME DYNAMIC -

THE ABOVE TRUE FOR DENSE CUBES.

NEED TO FACTOR INCREASED HEIGHT IN DOUBLE-STACK TO

ACCOMMODATE LARGER WHEELS 3", TRUCK /BODY BOLSTERS 6"

AXLES 5"X 9" - 1.5"