I am Deputy Fire Chief Frank Kodzis of the Boston Fire Department. I have the position as Fire Marshal for the city. I am here on behalf of Fire Commissioner Roderick Fraser to formally & publicly endorse Mayor Menino’s desire to relocate the current Downtown Boston hazardous Cargo “through route” (the route) to a more appropriate transportation corridor outside of Boston.

The responsibility for administering the permit process for Hazardous Cargo transportation in the City of Boston resides with the Boston Fire Department (Department). The Department has always had concerns with the risk inherent in this current route designation using City streets in the heart of the Downtown Area and the potential consequences if an incident were to occur in this highly developed and populated area.

Accidents are no longer the only incidents public safety agencies must train and prepare for. Local officials now have to give consideration to identifying locations that terrorist might target to inflict the greatest amount of damage and casualties. It would have been negligent on the part of the City not to consider the issue of hazardous material transport through the City. It would have only compounded that negligence if the City ignored the post 911 realities and the Battelle report by not advocating for changes to the route designation now in place.

A common philosophy in Emergency Management is that when a hazard and risk assessment indicates that incident scenarios will overwhelm the emergency response capabilities, the best strategy for reducing that risk should be directed toward prevention. In this case that would be to remove or isolate the hazard by rerouting “through passage” cargo trucks carrying hazardous materials around the downtown area and limiting transport to only those HC trucks that have either pickup or deliveries in the area.

The North End neighborhood is one of the most densely populated neighborhoods per square mile in the country and sits at one end of the present downtown HC route. The route also passes directly through the heavily congested waterfront area, financial district, tourist sites, major commuter rail, subway and bus stations. Most of this route passes over the central artery tunnel system and also by a number of portals and vent buildings that supply critical ventilation air and house the tunnel escape stairwells.

The entire route is densely populated and packed with high importance historical, financial institutions, and infrastructure that any significant release or fire from a transporting truck caused either by accident or design could cause great numbers of human casualties along with damaging those targets. The study mentions that flammables such as gasoline, diesel, LNG, and propane make up 90% of the commodities passing through this area but the risk of fire alone is not the only danger.

As public safety officials, we must consider all the possible scenarios that could arise and attempt to plan or have a strategy for dealing with each type. Unfortunately, due to the density of the neighborhood and adjacent areas, the age and tight configuration of the streets and structures, as well as the environmental exposures and boundaries, our tactical options become very limited.
The strategic priorities at any event are always life safety first, followed by confinement of the incident and protection of property. The confinement of a fast moving fire or chemical vapor cloud in the North End and surrounding area would be extremely difficult to control. The tight streets and neighborhoods would add to the exposure problem. The age and construction of the buildings make the majority of them a high hazard for fire traveling from building to building or for allowing spilled fuel or vapors to travel easily into homes and basements. The potential for the hazardous product to enter the highway tunnels in the area are a serious threat due to the locations of the entrances. This adds to the complexity of fire ground operational tactics.

Generally for smaller scale incidents or fires, there is enough personnel and available equipment to address almost any contingency with our standardized strategies and tactical options. Except in rare events or conditions, we usually have the capability to address these strategies simultaneously.

In a catastrophic event on the downtown HC truck route, it is plausible that our 1st priority, (life safety), may be the overriding strategy to the exclusion of the other tactical operation protocols (confinement and property protection). Any delay or inability to obtain the required personnel or equipment would mean an exacerbation of the situation and more properties damaged, until such time as we have the resources and equipment available to change tactics to adequately confine the situation and eventually mitigate it.

The current HC route through Boston is relatively narrow and congested in comparison to interstate highways. Because the homes and businesses lining this route are within 20 feet or less of the passing trucks, time and the primary tactical option for utilizing distance and shielding are almost impossible. There is an immediate life threat to the people that may be incapable of escaping from the adjacent old homes and surrounding area making life safety the immediate concern. Protection in place will not be an option. All of our resources will be needed for evacuation of those in the immediate area and homes.

Initial personnel and equipment assignments would be quickly overwhelmed. Additional responding resources of personnel and equipment would be delayed in arriving due to the panic and grid lock on city streets. Adding to the complexity is that Boston is an old city with unusual street patterns. Utilizing a non-intervention strategy by allowing the incident to run its course while protecting exposures would not be a viable option in a congested neighborhood. Evacuating people in the path of a dangerous vapor cloud is difficult and in the older homes, the option of protecting them in place is unlikely due to the age, condition and design of the buildings.

The amount of radiant heat given off by a fuel fired tanker accident would prevent a close attack and quickly ignite adjacent exposures and easily spread through the neighborhood. The demand for foam at a hydrocarbon fire would quickly exceed readily available supply. The amount of water required for suppression would be limited to those pumps we could get into position. For these reasons, there is a serious threat to the occupants and firefighters who would attempt to rescue them as well as the likelihood of having to concede large sections of the neighborhood.

Another consideration that must be planned for is secondary fires or incidents that happen simultaneously in other areas remote from the main incident. This could occur due to exposure fires from traveling embers generated at a large fire, or the well known tactic of terrorists and arsonists where the plan calls for multiple simultaneous attacks or arson fires to complicate the demands on public safety.
The fact is that any fire department in the country would be overwhelmed by a catastrophic event given the parameters and challenges of the North End and downtown area. The best fire ground tactic would be to ISOLATE the incident. Isolation is impossible in the defined area of the current hazmat route through the city. Isolation is more highly achievable on an open interstate highway. Fire Department Tactic reports include this in incidents across the country. In 1999 there was a gasoline tanker fire that occurred on the stretch of road just beyond Freeport St on Rt. 93 southbound near the gas tanks. Fortunately that stretch of road was situated in an area with no immediately exposed homes and had a ditch adjacent that allowed the natural topography to direct some of the run off to a safe area.

Risk and hazard have been discussed in depth in the Battelle Hazmat Route Evaluation report and identified the current HC Boston route as having an exponentially higher risk ratio compared to alternative routes outside the downtown area of the city. The incidents of tanker truck accidents occur more frequently than is acceptable, even one accident would be one too many. We can look at the recent history of incidents in Saugus and Everett to remind us of the devastating results of these events. Can you picture this event in the heart of the city?

Even though the hazardous consequences are evident to those of us that work within this realm, the Battelle report very clearly illustrates that a HC incident on this route has a higher comparative consequence and requires us as a community to lobby for change to protect the public we serve.

In closing, as the Fire Marshal for the Boston Fire Department, I ask the Massachusetts Department of Transportation as routing agency for the Commonwealth to give the highest level of careful attention to the Battelle report and serous consideration to Mayor Menino’s petition to relocate hazardous cargo “through routing” outside of the City of Boston. The Battelle report has shown that the reason for change is undeniably obvious.

Frank Kodzis
Deputy Chief/Fire Marshal
Boston Fire Department