

GBMRTC

Newsletter for the GREATER *BUFFALO-NIAGARA* REGIONAL TRANSPORTATION COUNCIL
Metropolitan Planning Organization For Erie and Niagara Counties

Buffalo-Niagara envisioned as hub for hydrogen revolution

Niagara Falls State Park, the Niagara Frontier Transportation Authority (NFTA) and the University at Buffalo (UB) are taking the first steps toward a goal of establishing the Buffalo-Niagara region as a “hydrogen hub” to set the stage for a vision of making New York State “a world leader in hydrogen technology development and deployment” by the year 2020.

According to Michael Wise of the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP), the Niagara Falls State Park may become in the nearer term “the largest and most unique center” for hydrogen-fueled vehicles and apparatus in the world, with more than 20 examples, including a hydrogen fuel-celled Honda FCX, a Hythane vehicle using a blend of hydrogen and natural gas, a Toro hydrogen-powered mower, and other utility equipment.

Wise said the park program would be expedited when an electrolysis fueling station, is completed, probably in early 2008.

UB already has an exploratory program underway with hydrogen internal-combustion-engine vehicles and the NFTA is on the verge of launching one.

And down the road, by the year 2020, if the State Hydrogen Energy Vision is realized, “most fueling stations in New York will have hydrogen-fueling capacity” and hydrogen energy will be “part of the every day lives of the people of New York State.”

The vision is outlined in the final report of the New York State Hydrogen Energy Roadmap, released in October by the New



Water vapor is only emission of Honda FCX.

York State Energy Research and Development Authority (NYSERDA), a potential source of grants to encourage hydrogen projects, including \$380,000 awarded to Toro for ground-keeping equipment associated with Niagara Falls State Park.

The 2020 hydrogen vision asserts that “New York’s favorable business and regulatory climate has attracted many new jobs and high-tech industries and its competitive advantages in research and development, market pull and access to financial markets have all contributed to its success.”

The report declares, “By serving as an energy carrier from clean sources of energy, hydrogen will displace polluting, imported energy sources.” Hydrogen engines do not emit carbon dioxide, which has been identified as the critical factor behind climate change. The principal by-product of hydrogen-powered devices is “pure water.”

A “Hydrogen Highway” could provide refueling stations, and other hydrogen infrastructure, from Buffalo to New York with possible links to other states as well as Canada. “Future hydrogen pipelines might

be built along existing rights-of-way for gas pipelines, electric transmission lines, major highways or railroads.”

The Buffalo-Niagara region plays a pivotal role in the hydrogen strategy outlined in the roadmap. It is suggested that “Buffalo can be designated a ‘Hydrogen City’ as could other cities with an abundance of renewable energy resources that can be used to produce a sustainable supply of hydrogen.”

The region is regarded as a potential center for demonstration projects because of chemical plants here that generate hydrogen as a by-product and the New York Power Authority’s (NYPA) hydropower facilities along the Niagara River. Electrolysis generates hydrogen, as well as oxygen, from water.

For these reasons, the Buffalo-Niagara region can produce hydrogen “at half the cost of producing it anywhere else,” according to Skip Hauth, a vice-president of American Wind Power & Hydrogen LLC (AWP&H), a key player in some of the state’s early hydrogen projects.

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On Oct. 5, then Gov. George Pataki announced that the Board of Trustees of NYPA, a sponsor of the hydrogen roadmap, with NYSERDA and the Long Island Power Authority, had approved a grant of \$21 million for hydrogen demonstration projects in Western New York.

The money would be used to construct up to two electrolysis facilities for generation of hydrogen from water, at a Niagara Frontier Transportation Authority (NFTA) site, and another possibly at a state parks site. The electrolysis facilities would cost an estimated \$7.5 million, and would be “fully implemented,” with storage and fueling facilities, within three years. Another \$13.5 million would be for hydrogen-fueled vehicles operated by the NFTA and the Niagara Falls State Park.

As an initial step, the NFTA is considering a contract with AWP&H, headquartered in New York City, for servicing of two hydrogen-fueled light-duty vehicles, a Chevrolet Silverado and a Ford hybrid Escape, over a two-year period to familiarize NFTA personnel with the challenges posed by hydrogen storage, fueling and use. NYSERDA has been asked to provide half of the \$1.5 million cost.

The NFTA is also considering filing an application with the GBNRTC for federal funding from the Congestion Mitigation and Air Quality Improvement Program (CMAQ) to purchase “a number of additional vehicles in order to implement an enhanced effort to train personnel and resolve maintenance issues, which will be vitally necessary for the development of a hydrogen economy.”

The transit agency “recognizes its need to gain experience in dealing with hydrogen-fueled vehicles, prior to undertaking the introduction of the hydrogen-fueled transit vehicles,” according to its NYSERDA application.

“When the NYPA electrolysis facilities are completed, NFTA . . . can benefit from the lower-cost hydrogen generated from the renewable resources of Niagara Falls. . . .”

The University at Buffalo (UB) is already working with two hydrogen-fueled Toyota Prius hybrids in collaboration with AWP&H with financing from NYSERDA. Paul Hoffman, fleet maintenance supervisor for the university said UB may also ultimately apply for CMAQ funding to finance a separate electrolysis facility.

Hoffman acknowledges that hydrogen storage and fueling pose serious challenges.

According to a report in the Buffalo News, “Fueling takes about two hours at the filling station the university has set up, where a compressor pumps hydrogen from cylinders into tanks slung underneath the car.

“The tanks hold 1.6 kilograms of compressed hydrogen, the energy equivalent of about 1.5 gallons of gas. The pressure in the tanks is about 100 times that of the air in the tires.”

Because it is so light, hydrogen, which is the most abundant element in the universe, requires highly pressurized storage. That poses one of the major technological chal-



“Most fuel stations” would have hydrogen.

lenges. Huge tanks made of something that can stand the pressure, are required to store it as a compressed gas and they limit the range of the vehicles. The Prius cars can go only 70 to 80 miles before requiring a refill, and cost \$60,000 to equip, not including the cost of the Prius itself, according to the Buffalo News report.

Hoffman said the costs and efficiency of the Prius operation could be improved with access to an electrolysis facility. He said that present cost of hydrogen fuel, which he put at \$40 per gallon, could be reduced to as little as \$4 per gallon.

Also, technology is being developed to absorb the hydrogen in ways that allow storage into smaller tanks. In fact, two UB professors, Eli Ruckenstein, PhD, and Yun Huang Hu, PhD, in the Department of Chemical Engineering Department, have invented a technology that uses a combination of Lithium Nitride and Lithium Oxide to absorb hydrogen in a container of the size and weight of “regular gas tanks.”

“A regular automobile can travel 300 miles with one fill of such a fuel tank,” according to a UB report. “However, at this time it is likely to be slightly more expensive than a regular gas tank, since the purity of material required is 99 percent. Scalability and mass production of the material are readily possible.”

The refueling time is “around three minutes.”

The UB technology, which is being marketed, is focused on its use with fuel cells, although “there is the intention and potential to adapt and re-engineer this to suit other applications.”

Hydrogen fuel cells are regarded as the ultimate answer, although researchers concede it may take decades before the technological and marketing challenges are overcome. A fuel cell is defined as an electrochemical device that generates the electricity to power a vehicle from the chemical reaction of hydrogen (fuel) and oxygen from the air. Fuel cells operate without combustion and are described as “virtually pollution free.”

While a hydrogen-burning engine “pollutes less than one running gasoline, its energy efficiency is still less than half that of a fuel cell,” according to the Rocky Mountain Institute, a nonprofit organization that supports the “restorative use of resources.”

The state’s Office of General Services has provided NYS DOT with a Honda hydrogen fuel-celled vehicle for trial runs at Albany. According to Joseph Darling, the NYS DOT representative on the Roadmap Steering Committee, it is “very efficient.” However, it cost more than \$1 million to lease it for two years from Honda and can operate only in the Albany area because of limited range, compared with the \$109,000 cost of leasing the non-fuel cell hydrogen Prius vehicles from Toyota at UB. .

“Fuel cells need to be cost competitive, mass produced, durable and reliable,” according to the Hydrogen Roadmap. “There need to be uniform safety standards. . . . The public must understand and accept hydrogen fuel-cell technologies.”

The state’s hydrogen strategy involves using “the “current industrial hydrogen infrastructure, such as that located in Buffalo,” as “the primary sources of hydrogen for early projects.” This would gradually shift to “other sources,” until by 2020 100 percent of hydrogen production would be supplied from “biomass, nuclear, wind, municipal solid waste, renewable-based and electrolysis.”

One of the industries envisioned as a potentially major influence in introducing a hydrogen economy into Western New York is the Praxair, Inc. plant on East Park Drive in the Town of Tonawanda. Praxair, with headquarters in Danbury, Conn., is a worldwide producer of atmospheric, process and specialty gases and has been described as “a

leader in hydrogen gas technology.” It operates in 40 countries. The Tonawanda plant produces liquid hydrogen as a byproduct.

According to the Hydrogen Roadmap, “a possible demonstration project that would take advantage of the existing infrastructure could utilize byproduct hydrogen from the Praxair plant near Buffalo that is powered by a hydroelectric facility. In this potential demonstration, the hydrogen would be transported to a regional fueling station that would serve several light duty vehicles...”

Praxair had been scheduled to participate in the UB demonstration program but dropped out at the last minute for reasons that are not clear. Instead, the hydrogen for the UB project comes from Air Products and Chemicals, Inc. in Rochester.

Jack Solomon, director of technology assessment for Praxair, was on the Steering Committee for the state’s Hydrogen Roadmap. The Praxair plant in Tonawanda has also received \$4.7 million in federal funding, to be matched with \$2.6 million from Praxair, for research into an oxy-combustion process to use an oxygen transport membrane to capture and store carbon dioxide produced in coal-fired power plants.

The development of a technology for sequestering carbon-dioxide, either for storage or commercial uses, is a major goal of the Bush administration’s research program to reduce greenhouse gas emissions and pave the way for a hydrogen economy. Sequestration is a critical issue in “clean power plant projects,” for which the Huntley plant in Tonawanda is a major candidate.

(Carbon dioxide is also a byproduct in the production of hydrogen from carbon-based fuels such as natural gas, oil and coal.)

Praxair was a partner in the 2004 launching of a retail-designed hydrogen fueling station at the Los Angeles International Airport in California, which has become a partner with New York in the drive toward a hydrogen economy. The NYPA’s approval of \$21 million for hydrogen projects in the region was “based on the results of an engineering feasibility study carried out earlier this year by NYPA and the Electric Power Research Institute (EPRI)” of Palo Alto, California.

At a meeting in October, Gov. George Pataki met with California Gov. Arnold Schwarzenegger to discuss collaboration on an emissions trading system and other initiatives “to make our economies more competitive and improve our environment at the same

time.”

Other regional hydrogen-related organizations named in the state’s Roadmap include BOC Group, EnrG Inc., Harper International, MACOM Ceram Inc., and NanoDynamics.

The Rochester area also figures prominently in the Roadmap report. James Winebrake of the Rochester Institute of Technology (RIT) was on the Steering Committee. RIT, “working in partnership with NYSERDA,” has been designated as one of four new Hydrogen Technology Learning Centers by the U.S. Department of Energy.



A “hydrogen fuel only” monitor.

During her recent campaign for re-election, Sen. Hillary Clinton described the Rochester area as a potential “hub” for a hydrogen industry.

The state’s Hydrogen Roadmap concedes that “there is much uncertainty about future conditions and possibilities for hydrogen energy development.” It describes two possible scenarios for 2020:

1 — “Under a ‘low scenario,’ there could be tens of thousands hydrogen vehicles, mostly in fleets but some personal vehicles as well, particularly among the class of consumers referred to as early adopters. In this case it is expected that the number of hydrogen vehicles sold in New York in 2020 for personal travel to be about the same as the number of hybrid vehicles sold in New York in 2004.”

2 — “Under a ‘high scenario,’ there could be hundreds of thousands of hydrogen vehicles on the road in New York in 2020, encompassing both fleets and personal vehicles, thereby displacing up to 5 percent of transportation fuel with hydrogen.”

Energetics Incorporated, of Columbia, Maryland, which assisted in preparation of the state’s Hydrogen Roadmap, has spelled out the challenges as follows:

“Needed are better devices for storing hydrogen, better equipment for leak detection and prevention, better designs for fueling

stations, better local and on-site hydrogen production facilities, better methods for long distance transport, better understanding of hydrogen safety, and codes and standards that are specific to a hydrogen infrastructure.

“While the technical challenges are enormous, the task of educating the public, the business community, and the federal, state and local policy makers is also substantial.”

President George Bush’s Hydrogen Fuel Initiative has emphasized research and development in federal funding to realize a goal of making practical and cost-effective fuel cell vehicles widely available in automobile showrooms by 2020.

Hauth, who is in charge of AWP& H’S Buffalo-Niagara area projects, said that the early focus would be on the 40 percent of vehicles that caused 75 percent of the pollution. He added that vehicle fleets, such as delivery trucks (UPS, FedEx, etc.), garbage and other government services and transit vehicles, represented “the easiest conversion factor.”

“Their operators are willing to convert their vehicles and because their vehicles operate within a limited range and return to a central garage each day fueling is not a major issue. If we could convert even half of these vehicles we could reduce pollution by nearly 40 percent.”

“Then we could think about the more complicated problem of putting hydrogen-fueling stations in locations to serve consumer driven vehicles.”

Hydrogen represents only one of the alternative fuels with which the state is experimenting. According to Commissioner John Spano of the Office of General Services Commissioner, “New York has transformed its vehicle fleet from having almost no clean-fueled vehicles in 1995 to now having 6,143 alternative fueled-vehicles ... approximately 46 percent of total state vehicles and we have an additional 277 on order.”

Most are on compressed natural gas or ethanol. Others are hybrids, electric or use propane. Latest addition to the fleet is a “plug-in hybrid vehicle that can be charged through a standard household current to achieve significantly greater mileage.”

'First of its kind' New York-Ontario collaboration



The GBNRTC is playing a key role in a “first of its kind” collaboration between New York State and Ontario to deal with the growing challenges to cross-border mobility in the Erie-Niagara region.

Executive Director Hal Morse is a member of the Steering Committee for a Bi-National Transportation Coordinating Group that will lay out a “comprehensive strategy” for “tackling border delays and traffic congestion.”

According to the New York State Department of Transportation (NYSDOT) and the Ministry of Transportation Ontario (MTO), this will entail “developing a forum for improving coordination amongst the more than 20 governments and agencies sharing management of the border and approach corridors.”

The approach reflects, in some respects, a pattern of coordination that has evolved between the GBNRTC and the Transportation Division of Regional Niagara, the neighboring Ontario municipality.

The group’s Steering Committee, which has already held several meetings, also includes representatives of the Regional Municipality of Niagara, the Niagara International Transportation Technology Coalition (NITTEC), the New York State Thruway Authority (NYSTA), the Federal Highway Admin-

istration (FHWA), and Transport Canada.

Its efforts will include various forums to reach out to “industry stakeholders, partner agencies and customers for input and support as the effort progresses.”

In developing the strategy, Ontario and New York State “received input from more than 100 stakeholders, including trucking associations, the bus industry, local municipalities, bridge authorities, passenger and freight railroads and automobile associations, among others.”

“Through the Transportation Coordinating Group, using the Bi-National Transportation Strategy as a framework, New York State and Ontario will work together to develop sensible solutions to improve traffic flow across our borders while maintaining security,” according to the report.

The strategy would include:

- Identifying where increased capacity on roads and highways leading to the border would best ease bottlenecks and long waits;

- Maximizing use of all other transportation modes;

- Using technology for overall border management, such as providing drivers with advanced, real-time information about traffic conditions at border crossings.

The strategy emerged from a study, completed in December of 2005, by an international consultant firm, McCormick Rankin Corp (MRC), of Mississauga, under the supervision of a Bi-National Working Group, whose membership included Morse and Timothy Trabold, a principal transportation analyst with GBNRTC.

It had evolved out of a summit conference held in 2001 by Gov. George Pataki and then Ontario Premier Michael Harris.

“Delays and unpredictability sometimes experienced with cross-border trips are a prevailing concern for all surface transportation modes,” the MRC study noted. It suggested the ultimate goal of a “full electronic processing system” that would integrate all of the myriad crossing procedures into a smoothly operating mechanism to expedite passage.

“Early actions” that “support the longer-term vision,” according to the strategy report, include:

Support for shared border and incident management, plaza improvements at the Peace Bridge and Queenston-Lewiston Bridge, incorporation of security enhancement in plaza planning, promotion of FAST and NEXUS programs for electronic clearance, cooperation with the private sector to develop centers in advance of the border

for commercial vehicles, relocation of the Williamsville Toll Barrier, improvements to the Queen Elizabeth Way and the Route 63 corridor (which extends southeast from Batavia).

Relocation of the Williamsville Toll Barrier and improvements to the adjacent Thruway interchange with the Youngman Highway are earmarked for funding in GBNRTC's Transportation Improvement Program (TIP).

Longer-term strategy initiatives include "Grand Island Bridge expansion projects" and continued improvements to U.S. 219, which has sometimes been envisioned as part of a Continental One trade corridor to Miami. Construction is expected to start this spring on extension of the U.S. 219 freeway to Peters Road in Cattaraugus County.

"With the (recent) addition of a truck lane on the Queenston-Lewiston Bridge and planned capacity expansion at the Peace Bridge ('short to medium-term'), it is expected that there will be adequate highway capacity crossing the Niagara border for the next 30 years," according to the MRC study.

In order to ensure that the highway system can meet future travel demand, the report suggests

that MTO should "continue with environmental assessment to address capacity deficiency in the QEW corridor," which provides the primary connection between the Niagara Border and the Greater Toronto Area.

The study noted that other sections of the bi-national expressway system were at or near capacity during peak travel periods, including the Grand Island Bridges, and sections of the Interstate 90 Thruway and its Interstate 190 and 290 appendages.

It also stressed the need for an

early investigation into increasing the use of rail for cross-border freight to ease the growing pressures of truck traffic.

"... A recent study of freight rail opportunities has suggested that certain commodity types currently transported over long distances could be carried efficiently by rail thereby reducing some of the demand on highway, bridge and processing infrastructure.

"... Rail industry representatives indicate that railways can play a key role in reducing highway congestion and lowering greenhouse gas emissions.

"... There is rail capacity available for future growth," beyond the 15 percent of the total value of goods that

there are opportunities to strengthen their economic viability through modifications to legislative and regulatory frameworks..." to support industry efforts in such areas as cost reduction, productivity improvement and technology enhancement.

As for aerial shipments, the MRC report concluded, "Although a significant increase in air cargo shipment has been forecast, the impact on the local transportation system will be relatively minor as existing cargo volumes are low."

The MRC report detailed the role of NITTEC, a subsidiary of NYSDOT, for technological initiatives and noted that NYSDOT had sponsored "an overarching study" of Intelligent Transportation System (ITS) issues and strategies that have been integrated into the Bi-National Transportation Strategy.

"FAST and NEXUS programs for commercial and passenger vehicles respectively are recognized by both government agencies and stakeholders as being the preferred processing methods both now and in the future."

The Peace Bridge has both FAST and NEXUS programs. "In 2004, approximately 20 percent of

automobile users crossing during peak travel periods at the Peace Bridge were NEXUS registered, reflecting the comparatively high degree of repeat usage at this bridge," the MCR study found. "Outside the peak period, NEXUS usage is between 8 percent and 12 percent.

"The number of trucks registered in the FAST program at the Peace Bridge lies between 3 percent and 5 percent."

The Rainbow Bridge "serves passenger vehicles and buses only and



Montage above was used to highlight the Bi-national Strategy Report.

crossed the Niagara border by rail in 2002, even though that figure is "roughly equal" to the average rail freight share across the entire Canada-U.S. border (17 percent).

Factors that could affect the potential of the rail mode included "efficiency and predictability" of Customs processing, access to saltwater ports and multi-modal terminals, ability to meet "just-in-time" delivery needs of certain industries, and incentives and marketing.

The marine industry also "believes

NEXUS usage is about 2 percent.” The Whirlpool Bridge is exclusively for NEXUS users. The Queenston-Lewiston Bridge has been re-configured to include FAST processing and is expected to have NEXUS available after re-development of the Queenston Plaza, which is scheduled to start in 2007.

The report cautioned that new border-crossing requirements in the U.S. Trade and Bioterrorism Acts, the U.S. VISIT, and the Western Hemisphere Travel Initiative passports, could complicate the processing needs. (An earlier report on “New York’s Border Needs,” sponsored by NYSDOT and the U.S. Department of Transportation, had noted that the “stringent security requirements” to which commercial shippers must adhere for the FAST program were “impediments” to its success.)

The MRC conclusions were influenced by input from border inspection and enforcement agencies, municipalities, shippers, brokers and trucking associations, rail companies, auto and bus organizations, marine organizations; economic and tourism organizations, and private sector groups with proposals for new border crossings.

“It should be noted that the government of Canada has confirmed that it has granted the Peace Bridge Authority a six-mile franchise ensuring the authority exclusive right to construct a new bridge within that six-mile area,” the MRC report cautioned.

“Proponents for these new crossing proposals would be required to assess the need, nature and crossing locations and their impact on the existing road network through appropriate planning and environmental assessment approval processes.”

The report noted that the Niagara Frontier is home to Niagara Falls, “one of the world’s most distinctive attractions visited each year by 14 million people from all over the world.” These visitors to the Falls area spent some \$2 billion annually.

In a 2000 survey “nearly 60 percent of weekday and 65 percent of



weekend trips made to Ontario by New York residents were described as tourist related, while the corresponding figures are 25 percent and 50 percent of cross-border trips made by Ontario residents to New York.” The MTO is planning to undertake an updated origin – destination survey of auto travelers at the Niagara Bridges in the summer of 2007.

Also, the “four highway bridges and two active railway bridges across the Niagara River” make the “Niagara Frontier the second busiest... commercial crossing on the entire Canada-U.S. border – carrying about 16 percent of all Canada U.S. trade” with “an estimated 480,000 jobs in Ontario and 348,000 jobs in New York State ... dependent on cross-border trade.”

For automobile trips, the report noted that “only 19 percent of the cross-border trips made on a weekday by Ontario residents were for work purposes” and “less than 6 percent of the New York residents traveling to Ontario on a weekday cited work as their primary trip purpose.”

The report also noted that “from its peak in 1991 auto traffic across the Niagara international bridges has been in a general decline with a more marked drop appearing following the events of 9/11.”

However, “based on the projected population and tourism growth ... several recent studies have suggested an expected annual rate of growth in automobile traffic of between 1 percent and 2.8 percent per annum over the next 20

years,” although “these ... projections may be optimistic given the suggested changes to border processing and clearance requirements.”

For truck traffic the growth rate between 1990 and 2000 was 5.6 percent per annum, “an extraordinary increase compared to the Gross Domestic Product.” Truck traffic “has leveled off between 2000 and 2004 due to the events of 9/11 and more recently, a general economic slowdown.

“Nevertheless, based on correlation with such key economic indicators as the Gross Domestic Product and the value of the Canadian dollar measured against the U.S. dollar, the growth in commercial vehicle traffic across the Niagara Frontier has been estimated to range between 2.5 percent and 3.5 percent per annum over the next 20 years.

“... Over 15 million vehicles, of which 2.3 million were trucks, crossed the (Niagara) Frontier in 2004. Approximately \$70 billion worth of goods crossed the Niagara Frontier by truck and about \$14 billion by rail...”

“The auto industry, a key component of Ontario’s economy, producing about 17 percent of all North American motor vehicles, is a major user... Each day approximately 1,000 trucks carrying automotive related goods worth \$64 million cross at Niagara gateways.”

Parallel agreements on cross-border transportation coordination are under study between Ontario and Michigan and New York State and the province of Quebec.

Applications for human-service funds accepted

The GBNRTC has organized a regionally representative committee to review applications from non-profit agencies for federal funding to fill gaps and improve coordination in meeting the transportation needs of the economically disadvantaged and disabled.

The action is a part of an elaborate Human Services Transportation Plan developed for “persons with disabilities, older adults and individuals with lower incomes in the Erie and Niagara Counties area.” It is in response to a federal mandate in SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users), the national transportation act adopted by Congress in 2005.

“This is a plan that details how we can better work together to provide needed services to these people in a cost-effective form,” declared Executive Director Hal Morse at a meeting of the GBNRTC’s Planning and Coordinating Committee (PCC).

A six-member Review Team has been formed to recommend projects this spring to be submitted for approval by the membership of the GBNRTC, which includes representatives of the

Erie County Executive, Niagara County Legislature chairman, the mayors of Buffalo and Niagara Falls, the New York State Department of Transportation (NYSDOT) and Thruway Authority (NYSTA), and the Niagara Frontier Transportation Authority (NFTA).

The projects selected will be included in the 2008-2012 Transportation Improvement Program.

The available funding is from two SAFETEA-LU programs, Jobs Access and Reverse Commute (JARC) and New Freedom. JARC funds projects to transport welfare recipients and eligible low-income individuals to and from jobs and activities related to their employment. New Freedom is a new program that goes beyond the Americans With Disabilities Act in providing services and alternatives in the transportation of people with disabilities.

The available funding for Erie and Niagara Counties in the current fiscal year is \$490,000 for JARC and \$289,000 for New Freedom. The federal/local share for JARC is 50/50 and for New Freedom it is “flexible.” The deadline for applications is Feb. 15. Applicants may include local

government agencies, tribal governments, social services agencies, and other non-profit organizations, public transit operators, and private operators of public transportation services.

A goal of the plan is to “incorporate the results of the application process” for funding of another program, Elderly and Individuals with Disabilities Program (Section 5310), administered by NYSDOT, into a cohesive structure with the others. The GBNRTC is part of the NYSDOT review team for the latter program, which provides grants, usually for capital projects, on an 80 percent federal and 20 percent local match basis.

The objective is to provide an efficient framework for meeting the transportation needs of “the target population” through resources from multiple Federal Transit Administration programs. The plan is being carried out in close cooperation with the NFTA, NYSDOT and other transportation providers and community groups.

For more information about the plan and applications, check the GBNRTC web site, at www.gbnrtc.org

Federal funding for transportation enhancements



Funding will enhance site by Union Ship Canal.

Millions of dollars in federal transportation enhancement awards will bolster the cities of Buffalo and Niagara Falls in their strategies to redevelop their business district-waterfront connectivity.

A \$2 million award to Niagara Falls will be used toward restoration of the historic 1863 Customhouse, which would become an integral part of a proposed Inter-modal Transportation Center near the Whirlpool-Rapids Bridge that would help as “an anchor for a revitalized Niagara Falls.” The existing Amtrak station, a former freight warehouse in an outlying area near Hyde Park Boulevard, is “only marginally adequate.”

Another \$1,044,000 will be used for a Niagara USA Official Visitor Information Center “strategically located along the Great Lakes Seaway Trail on Rainbow Boulevard in the midst of frequently visited attractions.”

It would replace the city’s former official visitor center at Niagara and Fourth Streets that was transferred to the Seneca Nation in 2002 as part of the Casino Gaming Compact. An interim center in the Niagara Aerospace

Museum was affected by “lack of visibility on a major street and part-time hours for the museum,” according to the application by USA Niagara Development Corporation and Niagara Tourism & Convention Corporation.

Buffalo was awarded \$1 million for streetscape improvements in the Theatre District area of Main Street. It complements \$6 million earmarked by Congress to construct the first stage, from Tupper to Chippewa Streets, of the city’s plan to return vehicular traffic to downtown Main Street. It has been described as “the keystone toward revitalizing downtown Buffalo.”

The enhancement award would finance such amenities as “You Are Here” signage for theatre attractions, planters, decorative sidewalks, street furniture and lighting improvements, with a focus on “pedestrian amenity,” which will “link with the whole of downtown Buffalo,” and include bicycle accommodations with connection to the waterfront

Another \$1,430,199 in enhancement funding will go to Erie County for a 22-acre Union Ship Canal Public Open Space or “Park.” The site, a former “brownfield,” is part of the Buffalo Lakeside Commerce Park that’s being developed by the Buffalo Urban Development Corporation in collaboration with the Erie County Industrial Development Agency.

The project would provide pedestrian and bicycle accommodations with ties to a “regional trail that extends along a significant portion of the Lake Erie and Niagara River waterfronts.” It would enhance fishing potential and

includes “remedial measures to eliminate or mitigate environmental threats.”

The project has been described as “the final amenity that may be needed to spur private capital investment in the surrounding area.”

Other award winners, approved by State Commissioner of Transportation Thomas J. Madison Jr. and Gov. George Pataki, upon the recommendation of a Transportation Enhancements Advisory Committee, were as follows:

Town of Evans, \$2 million for a 4.25-mile extension of the Town of Evans Multi-Use Pathway along Old Lake Shore Road, from Sturgeon Point Road to Eighteen Mile Creek, as a component of the region’s shoreline bicycle and pedestrian system. The extension would “provide much improved access to businesses and recreational resources.”

Buffalo & Fort Erie Peace Bridge Authority, \$920,000, for an enhanced “aesthetic” lighting system at the Peace Bridge. It was described as part of the “ongoing efforts of multiple partners in Buffalo Niagara to bolster the tourism landscape.”

Village of East Aurora, \$755,141 for a system of interconnected pathways to link Main Street with the “various buildings of the historic Roycroft complex.”

City of Lackawanna, in collaboration with Our Lady of Victory Renaissance Corporation and Erie County, \$481,617, for a Baker Alley Walking Trail that will provide a streetscape and sidewalks along Baker Alley to “transform this former service



Baker Alley looking towards South Park Ave.

alleyway into a pedestrian thoroughfare” linked with cultural attractions, including Our Lady of Victory Basilica, and the South Park Intermodal Bus Loop.

Village of Lewiston, \$156,800, to relocate and renovate an historically significant house, the “Little Blue House” on Center Street, to serve as a “gateway” tourist welcome center in Academy Park.

Enhancement awards must be matched with at least 20 percent in local funding. The successful applicants were among 26 from Niagara and Erie

Counties reviewed by Timothy Trabold and Amy Weymouth of the GBNRTC and Greg Szewczyk, regional coordinator of the program for the New York State Department of Transportation (NYSDOT). The GBNRTC in collaboration with NYSDOT hosted workshops for potential applicants last spring.

The program, authorized in national transportation legislation (SAFETEA-LU), offers communities funding opportunities for such projects as “safe bicycle and pedestrian facili-

ties, scenic routes, beautification and other investments,” such as “revitalization of local and regional economies by restoring historic buildings, renovating streetscapes or providing transportation museums and visitors centers.”

It is a reimbursement rather than a grant program. Sponsors are required to pay project expenses before getting reimbursement from the Federal Highway Administration. The total in awards for Erie and Niagara Counties is nearly \$10 million with some \$6 million in matching funds.



Photo at left shows CSX Railroad’s modification last fall of Seneca Yard in Lackawanna to serve as a “Feeder Port” to handle overseas container traffic shipped by rail from overwhelmed Port of New York and New Jersey. Layout of tracks was modified to accommodate cranes to unload and store containers for further transport by trucks. Work on modifications will continue in the spring. Regional economists see project as opportunity for warehousing or assembly plants associated with distribution of imported goods to Ontario, Midwest and other markets.

ARTBA warns of ‘a recipe for gridlock’

A spokesman for the American Road and Transportation Builders Association (ARTBA) has forecast a 135 percent increase in the nation’s traffic levels by 2043 but only a 9 percent increase in highway capacity.

“It is a recipe for a gridlocked nation,” said William Buechner, Ph.D., “unless major steps are taken soon to add new highway and public-transit capacity to accommodate future U.S. growth.”

Buechner, vice president of economics and research at ARTBA, noted that the nation’s population recently reached 300 million, a 50 percent increase from the 200 million in 1968. And the U.S. Census Bureau has forecast that it would reach 400 million by 2043.

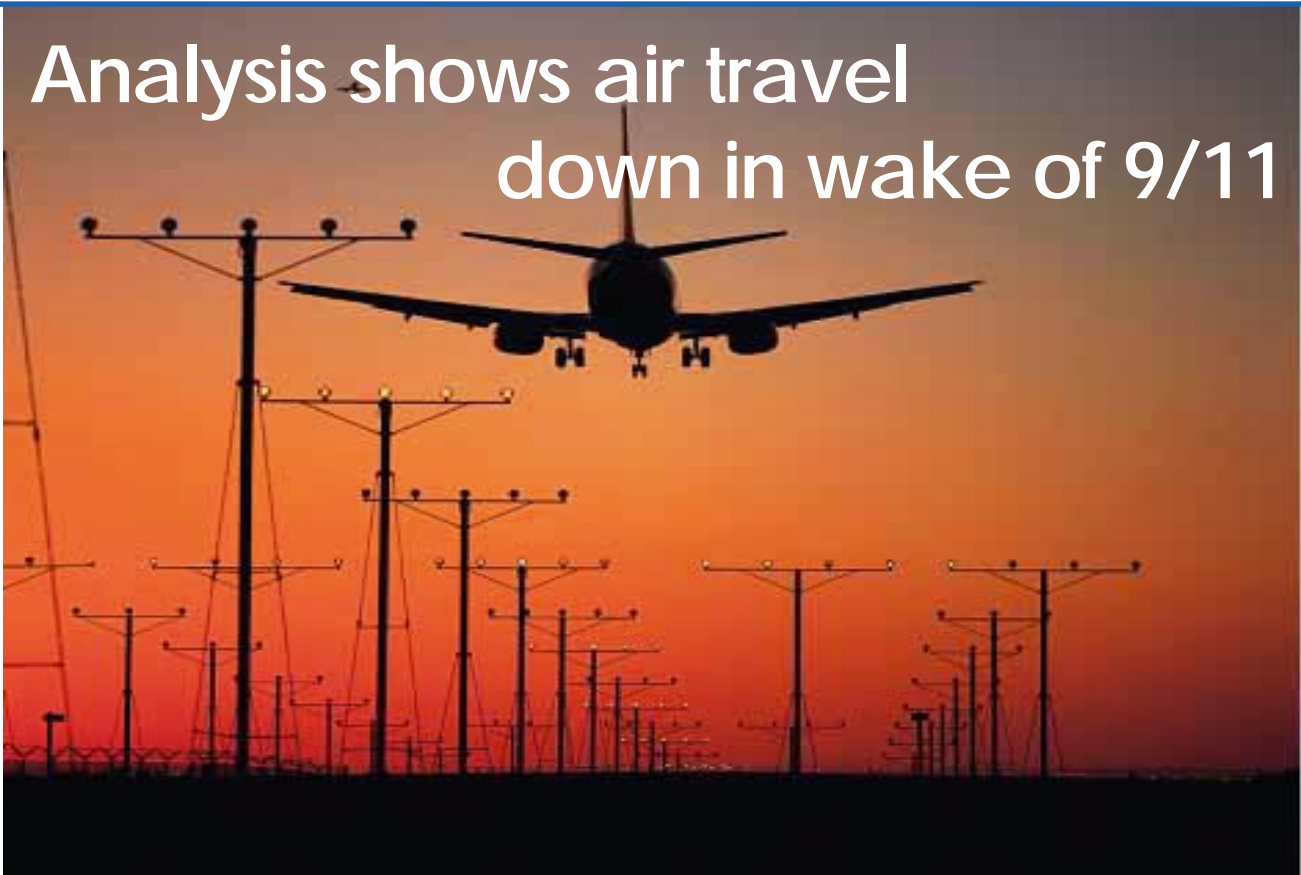
He said that the average motorist in 2043 could expect to spend 160 hours stuck in traffic delays, or the equivalent of four weeks per year, as traffic levels swell to more than seven-trillion vehicle miles traveled annually.

By comparison, the average traveler in the U.S. today spends 48 hours per year, or six full working days, in traffic delays. In 1968, “travelers spent less than 16 hours per year in traffic delays.”

He said that since 1968 there has been a 77 percent increase in homes, from 67 million to 124 million, an 88 percent jump in jobs, from 68 million to 134 million, and nearly a doubling of licensed drivers, from 107 million to 199 million.

Over the same period, he said, the vehicle miles traveled on highways has almost tripled, from one trillion to three trillion, while the number of lane miles of capacity has grown by 12 percent.

Analysis shows air travel down in wake of 9/11



The impact of the terrorist attacks of Sept. 11, 2001 has been analyzed by the U.S. Department of Transportation and four conclusions were reached:

1 – There was an immediate and continuing impact on air travel, which only slowly began to recover. Airline Revenue Passenger-Miles were “significantly lower than forecast” until December 2004, when they “began ... to approach the forecasted values.”

2 – An immediate, but temporary, decline, for one month, in highway travel.

3 – No impact on rail travel.

4 – There was a statistically significant switch from air to highway travel over the six-month period after 9/11, indicating that an increase in highway travel of about .41 percent can be expected for any 10 percent drop in air travel.

The analysis, by the Research and Innovative Technology Administration’s Bureau of Transportation Statistics, was based upon trips of 50 miles or more.

“While the obvious impacts were temporary, there may have been less obvious yet longer lasting changes in U. S. travel patterns.” Further research was suggested.

Vehicle miles traveled dropped for the month of September 2001, compared to the expected level, and again for September 2002, but did not show any unexpected deviations for the 11 months between.

“The only trip distance that showed a significant increase after 9/11 was in the shortest distance category of between 50 to 99 miles” during the period analyzed.

Although the data showed a decrease in international travel, especially by air, and “personal” business trips (for medical visits, shopping and trips to attend weddings and funerals), it did not show any significant decline in the percentage of business air travel or in air trips by individuals living in urban areas as compared to those in rural areas.

The data also did not show any of the expected decline in overall trips by older Americans and “little reduction in female long-distance travel patterns.” It had been hypothesized that “females tend to be more risk averse than males and thus might show a decline in their proportion of long-distance travel after 9/11.”

The impacts of 9/11 were studied in three different ways. Results of a 2001-2002 National Household Travel Survey were compared and weighted with travel trends that could be attributed to seasonality or economic change.

The decrease in air travel “between the pre-9/11 time period and the post-9/11 time period” was about 18.6 percent, after adjustment for “normal historical seasonal trends.” The unadjusted decline was between 22 percent and 26 percent.

California case puts focus on older drivers

The tragic story of an 89-year-old California driver recently convicted of felony manslaughter, after he lost control of his car and killed 10 people, has dramatized, and perhaps distorted, the challenge of dealing with a growing population of older drivers.

It clearly points up the fact that some of them should not be driving, but tends to obscure the fact that overall they have fewer accidents than any age group.

According to a Los Angeles Times account of the accident at the Santa Monica Farmers Market on July 16, 2003, George Russell Weller apparently unwittingly hit his accelerator with his foot, instead of his brake, and plowed through the market place.

“When firefighters arrived at the market ... shocked onlookers approached them with dying children in their arms, pleading for help. Lifeless bodies were splayed on the ground and blood stained the pavement. A body was stuck under Weller’s car. More than 60 people were injured. Fruits, vegetables and crumpled kiosks were scattered about.”

Weller was “allowed to miss the trial because he is ailing and he was not in Los Angeles County Superior Court when the verdict was read,” according to The Times. “He could be sentenced to 18 years in prison but in the end was sentenced only to probation because of illness.”

Weller has been described by a neighbor as unhappy, reclusive and remorseful since the crash. “White-haired with a thick mustache and heavy glasses, moving in a wheelchair,” he

reportedly recently suffered a seizure and lost some use of his hands.

One of the jurors said she was influenced by two witnesses who testified that, immediately after the crash, Weller said that if people had seen him coming through the market “they should have gotten out of the way.”

The drama and horror of the California case tends to obfuscate the sta-

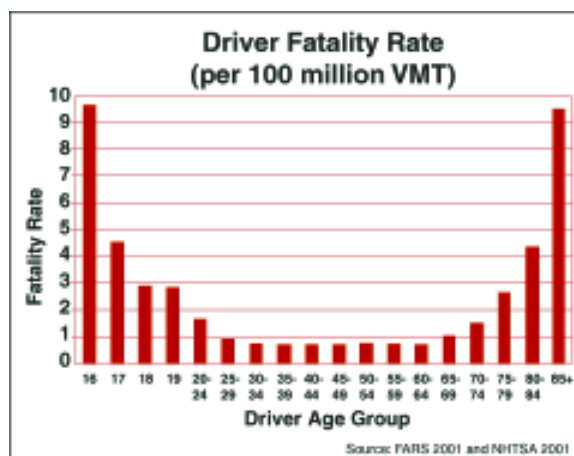
And many older persons whose driver skills have seriously eroded are able to recognize when the time has come “to surrender the keys.” The bad news is that there remains a significant number “who continue to drive when they are at risk.”

According to the Los Angeles Times, “The market tragedy led to a re-evaluation of California’s rules for licensing older drivers. Weller was not required to take a driving test in 2000 when the Department of Motor Vehicles (DMV) renewed his license.

“The DMV plans to begin a pilot program of graduated tests for those seeking to renew driver’s licenses, which is designed to identify and weed out problem drivers. But proposals for mandatory annual road tests for seniors – such as are required in Illinois – have been rejected by the California Legislature at the urging of the seniors’ lobby.”

Mandatory retesting of older drivers is sometimes proposed in New York State. However, a report by the Governor’s (New York) Traffic Safety Committee notes that drivers between 16 and 24 represent an equally high, if not higher, risk and “retesting only older drivers could be considered discriminatory.”

An Older Driver Family Assistance Help Network, established in 2001 by the Erie County Department of Senior Services, has been cited nationally for its “partnership of experts from the fields of aging, healthcare, law enforcement and transportation that provide assistance to caregivers concerned about an impaired or at-risk older driver.” It can be reached at 858-8526 or www.erie.gov/driving.



tistic reality that “seniors are generally safe drivers” with “fewer crashes per licensed driver than any other age group, the highest rate of seatbelt use, and the lowest level of alcohol-related incidents,” according to the National Association of Area Agencies on Aging.

“Unfortunately, due to greater physical frailty, they are more likely than drivers in other age groups to be injured or killed in the event of an accident. The risk of fatality is greatest for those drivers age 85 and older, 11 times that of drivers age 40 to 49 years.”

In a report on “Transportation in an Aging Society, the federal Transportation Research Board concluded, “... age alone is a poor predictor of individual driving ability.”

Long-Range Transportation Plan

The GBNRTC will be holding a series of **public meetings** to receive public input during its preparation of Long-Range Transportation Plan 2030, as follows:

January 23, 1 p.m. to 3 p.m.,
Erie County Public Library, Downtown
Central Meeting Room, Second Floor,
1 Lafayette Square, Buffalo.

January 25, 6 p.m. to 8 p.m.,
AAA Western and Central New York,
100 International Drive, Williamsville.

January 30, 1 p.m. to 3 p.m.,
Carnegie Building,
1022 Main St., Niagara Falls.

February 1, 6 p.m. to 8 p.m.,
Lockport Town Hall,
6560 Dysinger Road, Lockport.

For more background on the plan, check our
web site at www.gbnrtc.org/2030LRP/
For an update on the public meetings, check
www.gbnrtc.org/2030LRP/meetings_events.htm

Greater Buffalo-Niagara Regional Transportation Council

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GREATER BUFFALO-NIAGARA
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Greater Buffalo-Niagara Regional Transportation Council

POLICY COMMITTEE

Joel A. Giambra - County of Erie
Clyde Burmaster - Niagara County Legislature
Hon. Byron W. Brown - City of Buffalo
Hon. Vincenzo V. Anello - City of Niagara Falls
Thomas J. Madison Jr. - New York State Department of Transportation
Gregory Stamm - Niagara Frontier Transportation Authority
William G. Leslie - New York State Thruway Authority

PLANNING and COORDINATING COMMITTEE

John Loffredo - Erie County Department of Public works
Kevin P. O'Brien - Niagara County Department of Public Works
Daniel E. Kreuz - City of Buffalo Department of Public Works
Robert Curtis - City of Niagara Falls
Gary V. Gottlieb - New York State Department of Transportation
Walter D. Zmuda - Niagara Frontier Transportation Authority
Thomas E. Pericak - New York State Thruway Authority

Meeting Calendar

Planning and Coordinating Committee (PCC) *meetings begin at 9:30 A.M.*

- February 7** **Buffalo**
City Hall
Buffalo, New York
- March 7** **Erie County**
95 Franklin Street
Buffalo, New York
- April 4** **New York State Department of Transportation**
100 Seneca Street
Buffalo, New York

Policy Committee

January 19 **Niagara Falls**

*Meeting dates and times are subject to change:
please call (716) 856-2026 for confirmation.*

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