

CHAPTER 12

TRANSPORTATION

TRANSPORTATION

Statement of Purpose

The transportation system for the City of Lebanon shall serve to enhance the quality of life of the individual citizens of Lebanon, to improve the attractiveness of the neighborhoods in which they live, and to support the planned regional growth of business and industry. It shall not support changes which merely speed or increase vehicular traffic flow to and through the City without consideration for the citizen walking or bicycling to his/her destination. Transportation decisions shall be based on ecologically sound and health promoting principles, shall focus more on reinforcing Lebanon's residential neighborhoods, and shall be more pedestrian and bicycle friendly.

Overview of Existing Conditions

Mass Transit. While public bus transportation (Advance Transit) serves only a small percentage of the City's population, its existence benefits all citizens of Lebanon through traffic and pollution reduction. Lebanon School District moves nearly 1,500 students to and from schools for 180 days per year; it also provides nearly 750 special trips per year. Several not-for-profit organizations in Lebanon operate their own smaller or larger transportation systems for their particular clients. Because of economics and the Upper Valley's location, ownership of at least one private automobile per household (and often one automobile per adult) is a likelihood in the foreseeable future.

Rail Transportation. There is no passenger rail transportation in the City. Railroad rights of way are privately owned and in poor and deteriorating condition. Railroad rights of way offer the simplest and most direct routes for human-powered transportation uses from Lebanon's eastern border (with Enfield) to West Lebanon. Among the privately-owned railroad properties are an historic roundhouse and large yard in West Lebanon.

Pedestrians and Bicycles. Road improvements largely have ignored the needs of pedestrians and bicyclists. Pedestrian/bicycle traffic is

utilitarian, ecologically sound, and pleasurable. The inability of citizens to use City streets comfortably creates feelings of sterility and emptiness. Lack of pedestrian/bicycle traffic encourages vehicular traffic to increase in volume and speed. These trends are contrary to preservation of Lebanon as a city of neighborhoods where people, live, work, and play.

Environmental Quality. Automobile-centered development over the past fifty years has reduced Lebanon's attractiveness for pedestrian and bicycle traffic, and has increased vehicular traffic with its attendant air and noise pollution. According to an article in the Valley News, New Hampshire ranks seventh in the nation in per capita carbon dioxide emissions.

Roads. In recent years, Lebanon has been the Upper Valley's primary focus of commercial and service growth. Unfortunately, Lebanon's recent character has been shaped increasingly by imperatives of road and highway construction including Interstate Highway 89 and its intersections, and Lebanon's major state highways: Routes 4, 10, 12-A and 120. Lebanon's future must not be determined by road construction. The City must enforce its road construction standards, especially concerning carrying capacity and construction.

Road Intersections. Congestion at certain intersections is making vehicular and pedestrian/bicycle traffic dangerous. Many intersections make no provision at all for pedestrian/bicycle traffic. Design of numerous intersections (particularly on routes 120 and 12A) are no longer adequate to handle current and anticipated traffic flow.

Air Transportation. Lebanon Municipal Airport offers a unique transportation advantage to the City's residents and to residents of neighboring towns. It is particularly useful to Dartmouth College, health institutions, and to businesses.

While the Airport should remain an important commuting airport its growth and that of the Industrial Park needs to be continually

evaluated in terms of its potential impact due to increased air and surface traffic on the quality of life in the surrounding residential areas of Lebanon.

Neighborhoods. The City's neighborhoods are threatened: Lebanon must offer and maintain a high quality of life in its neighborhoods while meeting the City's and the area's transportation needs.

Issue Identification

The City of Lebanon should establish land use and other regulations which encourage (rather than simply allow for) increased pedestrian traffic, use of people-powered vehicles, and use of mass transit. While such active encouragement would be a departure from current policy and practice, it is necessary to improve immediately the quality of life for all Lebanon's citizens over the long term.

The following strengths, weaknesses, threats and opportunities with regard to Lebanon's current transportation system:

Strengths:

- Interstate highways
- Reasonably good commuter airport
- Good state roads into, out of, and through the City: Routes 120 and 4
- Few flood-prone roads
- Good City administration of highways
- Police good at traffic control
- Maintenance very good roads; mostly well-marked
- Plenty of private car (taxi) service to meet the need
- Near interstate bus lines
- Crossed by railroad rights of way
- Near an infrequently used Amtrack route

Weaknesses:

- Public transit is underutilized and inadequately coordinated with private transportation networks.
- Certain sections of roads are overloaded at certain times of day (Routes 12A, 120).

- A few dangerous intersections
 - Lack of walking paths and bike trails
 - Lack of strong convenient alternatives to private cars
 - Poor urban sidewalks
 - Some secondary roads very poor
 - Average time to drive through town is increasing
 - Limited, poorly maintained crosswalks
 - Lack of general public's adherence to traffic laws, especially in relation to pedestrian crossings
 - Overuse of roads by heavy trucks

Opportunities:

- ISTEA-Intermodal Surface Transportation Efficiency Act: Money for other than roads alone, including pollution control
- National Clean Air Act
- Impact fee systems for infrastructure improvements
- Additional development along Route 120
- NH may improve Exit 18 of I-89
- Keene's heavy truck ordinance proves such an ordinance can be implemented

Threats:

- Increase in large truck traffic
- NH doesn't appropriate money--for mass transit
- Increased development at interstate exits
- Additional development along Route 120
- Private ownership railroad rights of way.

Vision

The City needs to reawaken Lebanon's sense of itself as a place where people live, work, and play, and to diminish Lebanon's sense of itself as solely a strip mall or highway confluence. To this end, our recommended actions give precedence to mass transit, pedestrian and bicycle routes, and neighborhood safety and preservation. The high priority recommendations for action are as follows:

- * Complete a plan for coordinating public transportation and various not-for-

profit organizations transportation system.

- * Create incentives for developers to develop along existing public transit routes. Such incentives may include a reduced impact fee assessment or a return of a portion of that assessment.
- * Require developers to build bus stop shelters and easy access turnoffs for public transportation "Park n' rides".
- * Study the feasibility of inter-municipal greenways, bikeways, (Hanover/Lebanon; Lebanon/ Enfield; Lebanon/Meriden; Lebanon/Plainfield).
- * Continue to work with Upper Valley Lake Sunapee Council's regional transportation planning group.
- * Create and adopt a Master Plan for sidewalks and bicycle paths throughout the City; especially for downtown Lebanon to Mechanic Street, Mechanic Street to West Lebanon, West Lebanon to 12A, West Lebanon to Hanover.
- * Install on-demand crossing signals and barrels; maintain current crosswalks and install new ones where necessary, especially Route 12A, downtown Lebanon, Miracle Mile, downtown West Lebanon, and Route 120.
- * Work with state agencies to equalize the maximum load limits on interstate and state highways.
- * Designate the interstate highways as the only through-truck route for vehicles with greater than an 8,000 pound empty weight for through travel in Lebanon.
- * Mechanic Street must be improved as soon as possible.
- * Provide on-demand pedestrian crosswalks at Route 12A traffic lights.

* Redesign intersection at
Mascoma/High/Mechanic Streets.

- * Enhance pedestrian transportation through increased availability of convenient mass transit, pedestrian-friendly sidewalks and crosswalks, and attractive and practical bicycle paths.
- * Maintain Hanover Street bridge as a footbridge only.
- * Discourage the state's planned double left turn lanes from Route 120 into the Mount Support neighborhood.

Special Issue-Connector Road

On March 12, 1990, City voters voted 1262 Yes and 393 NO to the following questions:

Shall the City of Lebanon publicly oppose the building, within the next 15 years, of a bridge across the Connecticut River between Wilder and West Lebanon which will cost between 60 to 160 million dollars?

Based on the above the City maintains the following position:

The City of Lebanon does not now see a need for third river crossing, or for a Route 10/Route 120 connector road for the next five to ten years, at least. When traffic congestion begins to indicate the necessity to act, The City will further investigation an alternative which links Lahaye Drive and I-91.

Difference of opinion on Route 120:

The Route 120 intersections must be redone eventually. As stipulated in agreements with DHMC the \$2,000,000 can only be spent on Route 120 even though there are more pressing problems on which Lebanon should spend its projected \$2,000,000. share. Route 120 is a problem only twice each work day during rush hours and therefore does not merit such spending at this time as recently confirmed by the City Council.

ACTION PROGRAM FOR TRANSPORTATION

The following are the issues and corresponding goals, objectives, and actions for resolution. Those actions with an asterisk are of high priority.

Issue 1: Lebanon Municipal Airport and the Airport Industrial Park will continue to grow modestly.

Background: Lebanon Municipal Airport offers an unique transportation advantage to the City's residents and to residents of neighboring towns. It is particularly useful to Dartmouth College students. The Airport Industrial Park is a major contributor to the City's Industrial tax base. Regular availability of air transportation has contributed greatly to the development of a vigorous regional business environment. The Airport should remain an important commuting airport without sacrificing the quality of life in the surrounding Poverty Lane neighborhood.

Goals 1.1: As Phase II of the Airport Industrial Park is developed, improvements to Poverty lane will be necessary to maintain smooth traffic flow without sacrificing the residential feel and rural nature of the area.

Objective 1.1.1: Improve surface transportation flow to and from the airport and industrial park while maintaining residential character of surrounding neighborhood.

Action	Office , Estimated Cost & Timing
1.1.1.1: Monitor Poverty Lane semi-annually.	Lebanon DPW Minimal 6 months
1.1.1.2: Coordinate Phase II at the Lebanon Airport Industrial Park with improvements to Poverty Lane.	Lebanon Airport Administrative Cost 5 years
A. Improve Poverty Lane as appropriate:	Department of Public Works \$100,000 Longest 5 years (depends on Industrial Park Development).
B. Enlarge when necessary the Police Station and industrial park only to accommodate their growth needs.	
C. Install right turn lane on Route 4 eastbound; widen for easy turning for all vehicles.	Department Of Public Works \$50,000 Longest 5 years
1.1.1.3: Support expansion of Advance Transit to airport and Industrial Park.	City Council Increase Lebanon's subsidy to Advance Transit. 6 months.

Objective 1.1.2: Protect rural neighborhood character of surrounding Poverty Lane area.

Action	Office, Estimated Cost & Timing
1.1.2.1: Insure sidewalks, bicycle path, etc. and other pedestrian amenities when Poverty Lane is improved.	Department of Public works Part of above cost 5 years
1.1.2.2: Maintain zoning consistent with current residential uses along Poverty Lane.	City Council No cost 6 months and ongoing
1.1.2.3: Maintain buffers.	
1.1.2.4: Preserve neighborhoods.	
1.1.2.5: Preserve scenic roads.	
1.1.2.6: See objective 9.1.2 and its actions regarding neighborhood preservation.	
1.1.2.7: Examine lighting of airport runways, aprons, parking lots with the intent of safely reducing wherever possible light pollution to the surrounding areas.	
1.1.2.8: Enforce the use of only approved approaches to the Lebanon Airport by all air traffic.	
1.1.2.9: All Lebanon air traffic should arrive and depart from Lebanon Airport.	

Goal 1.2: Lebanon's commuting airport shall be an example of safety and efficiency.

Objective 1.2.1: Maximize safety and efficiency features at the airport.

Action	Office, Estimated Cost & Timing
1.2.1.1: Support safety and funding initiatives of the Lebanon Municipal Airport.	City Council Minimal 6 months and ongoing

Issue 2: Mass transit is grossly underutilized in greater Lebanon.

Background: Public bus transportation in Lebanon is provided by Advance Transit, a private, not-for-profit corporation funded primarily through Federal funds, whose services impact directly only a small percentage of Lebanon citizens and indirectly a much larger percentage through traffic and pollution reduction. For example the Lebanon School district moves nearly 1,500 students to and from schools for 180 days per year; it also provides nearly 750 special bus trips per year. Several not-for-profit human service organizations in Lebanon operate their own smaller or larger transportation systems for their clients. It is recognized that Lebanon's, and the Upper Valley's rural character, combined with national policy and the easy availability of automobile fuel, make ownership of at least one private automobile per household (and often one automobile per adult) a likelihood in the foreseeable future.

Recommendations:

1. The Upper Valley Lake Sunapee Council (UVLSC) should take the lead in coordinating efforts of local private not-for-profit organizations with their own transportation systems (vehicles, drivers, funding) and Advance Transit, to create more efficient, effective, and ecological use of transportation resources.
2. The City and the Lebanon School District should study the advantages and disadvantages of turning over responsibility to Advance Transit for school children living within 1.5 miles of Lebanon's schools, with the dual objectives of maximizing efficiency and increasing options for both student and adult commuters.
3. Lebanon Public Works Department should work with Advance Transit to plan modifications necessary to make bus stops in the City both safer and more accessible for riders, and safer and less obtrusive for traffic flow.

4. A system of park and ride lots should be established where necessary to encourage use of a shuttle service linking those lots to the Lebanon and West Lebanon commercial centers.

5. Railroad rights of way should be maintained open over their entire length. Alternative uses should not preclude the eventual return of rail service to greater Lebanon.

6. Land use planning should consider transportation issues. Developments which cannot be served adequately by public Transit should be discouraged.

7. Institute a Rideshare program similar to that in Vermont.

8. The City of Lebanon should continue to support Advance Transit and should pay its fair share into the regional public transit system. Although Lebanon increased its share in 1991, it accounts for 40% of the ridership but only 33% of municipal contributions.

Goal 2.1: Public Transportation must be widely and easily accessible and affordable to City residents and those who work in the City; that is, it should be a desirable alternative to automobile transportation.

Objectives 2.1.1: Increase availability/accessibility of mass transit for Lebanon and the Upper Valley residents.

Action	Office, Estimated Cost & Timing
2.1.1.1: Investigate increased funding for mass transit through ISTEA.	City Manager with Advance Transit and UVLSC. Minimal planning money ISTE
2.1.1.2: Increase Lebanon's municipal contribution to equal its internship percentage.	City Council \$7,000-\$10,000 6 months
2.1.1.3: Increase Lebanon's municipal contribution and negotiate amount for expanded service, such as to airport.	City Council Unknown 6 months
2.1.1.4: Create safe busstops/pull-overs for Advance Transit buses, such as Mechanic Street, and Hanover Street.	Lebanon Department of Public Works Up to \$10,000 2 years
2.1.1.5: Create busstop shelters in high use areas, e.g. transfer points, park-n-rides, etc.	Lebanon Department of Public Works \$10,000-\$15,000 2 years

Goal 2.2: Public transportation of all types should be coordinated together with private, not-for-profit transportation.

Objective 2.2.1: Coordinate transport services of various not-for-profit groups in Lebanon area, together with Advance Transit.

Action	Office, Estimated Cost & Timing
2.2.1.1: Complete a plan for coordinating public transportation and various not-for-profit organizations transportation systems.	City Manager UVLSC Advance Transit to be paid through ISTE funds - minimal to the city 2 years

Objective 2.2.2: Coordinate Lebanon school district and Advance Transit to move all people.

Action	Office, Estimated Cost & Timing
2.2.2.1: Complete a plan for integrating Lebanon school district transportation with Advance Transit services.	City Manager Advance Transit Superintendent of schools. Minimal 2 years
2.2.2.2: Encourage the school system to provide incentives for riding the school buses and disincentives for auto use.	

Goal 2.3: Residential development shall occur along routes easily served by existing public transportation.

Objective 2.3.1: Encourage residential developments which are easily served by public transit.

Action	Office, Estimated Cost & Timing
2.3.1.1: Create incentives for developers to develop along existing public transit routes such as reduced impact fees.	Planning Board Minimal 2 years

Objective 2.3.2: Require developers to provide easy access to public transportation.

Action	Office, Estimated Cost & Timing
2.3.2.1: Require developers to build busstop shelters and easy access turnoffs for public transportation.	Planning Board No cost to the City. 2 years
2.3.2.2: Reward complying developers with rebated impact fees when new Advance Transit routes are established to the development.	Planning Board Unknown 2 years

Goal 2.4: Successful mass transit is a shared responsibility for all communities and major employers of the Upper Valley.

Objectives 2.4.1: Seek cooperation with

neighboring towns and major employers to create more efficient and ecological means of transportation.

Action	Office, Estimated Cost & Timing
2.4.1.1: Study feasibility of inter-municipal park and rides along Route 4, Route 120 from the south, and Route 12A from the south.	City Manager UVLSC Business Leaders Major Employers Minimal 2 years
2.4.1.2: Study feasibility of intermunicipal greenways, walkways, bikeways, (Hanover-to-Lebanon; Lebanon to Enfield; Lebanon to Meriden: Lebanon to Plainfield)	Conservation Commission UVLSC Business Leaders Major Employers City Council Minimal 2 years
2.4.1.3: Continue working with UVLSCRT Group.	Planning Board Administrative On-going

Issue 3: The City should make transportation related decisions in consideration of environmental quality.

Background: Although Lebanon is situated beautifully and many of its neighborhoods retain their character, automobile-centered development over the past fifty years has reduced the City's attractiveness for pedestrian and bicycle traffic, and increased vehicular traffic with its attendant air and noise pollution.

RECOMMENDATIONS:

1. As they break down or are replaced, certain City owned vehicles should be converted to less polluting or non-polluting fuels (such as propane or electricity) in order to reduce atmospheric pollution.
2. The City Council should ban through traffic of trucks greater than 8,000 pounds.

Goal 3.1: The volume of toxic or otherwise

environmentally harmful vehicle exhaust and vehicle noise shall be reduced in Lebanon.

Objective 3.1.1: Institute ecological transportation measures in municipal government.

Action	Office, Estimated Cost & Timing
3.1.1.1: When replaced, convert certain municipal vehicles to non-polluting powered vehicles (e.g. propane, electric).	City Manager Department of Public Works Police Fire Department Minimal According to replacement schedule
3.1.1.2: Provide City employees with incentives for using mass transit or alternative forms of transportation when commuting to work.	City Manager City Council Minimal 6 months
3.1.1.3: Adopt a resolution recognizing the priority of making Lebanon's roads pedestrian and bicycle friendly.	City Council Minimal 6 months

Goal 3.2: The volume of through truck traffic in the City shall be reduced.

Objective 3.2.1: Limit the volume of heavy trucks through Lebanon's neighborhoods.

Action	Office, Estimated Cost & Timing
3.2.1.1:* Work with state agencies to equalize load limit between state highways and interstates.	City Council State Representative Minimal 6 months
3.2.1.2:* Designate the interstate highway as the only through truck route for vehicles with greater than an 8,000 pound empty weight for through travel in Lebanon.	City Council Minimal 6 months
3.2.1.3: Adopt an ordinance which bans through traffic of trucks with greater than and 8,000 pound empty weight.	City Council Minimal 6 months
3.2.1.4: Encourage local commercial trucks to use alternate non-residential routes (to avoid residential areas) unless making pick-ups and deliveries.	
3.2.1.5: Encourage use of rails for commercial purposes whenever possible to reduce the volume of heavy truck traffic.	

Issue 4: It is not now safe, pleasant and efficient for citizens to move throughout the City on their own power.

Background: Road improvements in the City have largely ignored the quality of pedestrian and bicycle passage through the City, even when minor provision for these forms of transportation have been made. It must be understood that pedestrian and bicycle traffic is both utilitarian (such as for commuting), ecologically sound, and pleasureable. The inability of citizens to use City streets comfortably and pleasurably creates feelings of sterility and emptiness; lack of pedestrian traffic encourages vehicular traffic to increase in volume and speed. These trends are contrary to preservation of Lebanon's existence as a city of neighborhoods where people live, work, and play.

Recommendations:

1. All proposed road improvements within the City, other than the interstate highway, must include improvements designed to make pedestrian and bicycle travel safer, easier, and more esthetically pleasant.
2. Safe passageways for bicycles should be created throughout the City from the Mascoma Border through downtown to West Lebanon and the plazas, from downtown Lebanon to Hanover, from downtown Lebanon to the Meriden border, and from the plazas to Hanover.
3. Railroad rights of way should be rendered safe and efficient for bicycle and pedestrian traffic. Maintenance for resumption of rail traffic should not be ruled out.
4. Provisions for safe and efficient bicycle commuting on the City's main roads or along parallel corridors (Route 120, Route 4, 12A and Route 10) should be made.
5. Bicycle racks should be installed by the City on the Mall, in downtown West Lebanon, and elsewhere when bicycle paths are created. New developments which are subject to site plan review, should make provision for adequate bicycle racks.
6. An ongoing public education campaign must take place to keep drivers informed of rules such as stopping for pedestrians in cross-walks, pulling over for emergency vehicles, using directional signals when changing lanes, driving defensively and courteously, etc.
7. The City should take the lead in offering incentives to its employees who use other forms of transportation than the personal automobile to commute to work. The City should encourage other employers to offer similar incentives.
8. The City's Class VI highways (location, access) should be catalogued by the recreation commission and publicized as opportunities for walking, jogging, cross-country skiing, etc.

9. The City should seek cooperation from neighboring towns, the Dartmouth-Hitchcock Medical Center, and other key employers to create incentives for employees to utilize alternatives to automobile commuting, especially one individual to one automobile.

10. The City should install user-operated, on-demand crosswalk signals at the following existing intersections: several from the Glen Road South on Route 12A; around Colburn Park; at Heater Road and Route 120.

Goal 4.1: People on foot and on bicycle shall move safely, pleasantly and efficiently throughout the City.

Objective 4.1.1: Include pedestrian/foot travellers and alternative transportation modes in development planning.

Action	Office, Estimated Cost & Timing
4.1.1.1: * Create and adopt a master plan for sidewalks and bicycle paths throughout the City: especially downtown Lebanon to Mechanic St.; Mechanic St. to W. Lebanon; W. Lebanon to 12A; West Lebanon to Hanover via Rt. 10 (both sides); Route 120 to Hanover.	Department of Public Works Minimal 2 years
4.1.1.2: Adopt additional land use regulations which require developers to provide pedestrian and bicycle path links to existing/planned sidewalks and bicycle paths.	City Planner Minimal 5 years
4.1.1.3: * Install on demand crossing signals where necessary, especially Rout12A, downtown Lebanon, Miracle Mile, Downtown W. Lebanon, and Route 120.	Department of Public Works Unknown 2 years
4.1.1.4: Install municipal bicycle racks at the Mall, City Hall, Library, and the Post Office.	Lebanon Department of Public Works \$2,000 years
4.1.1.5: Provide and implement community sponsored public education programs for drivers an pedestrians.	Police Department

Objective 4.1.2: Adopt human-powered transportation issues as a municipal priority.

Action	Office, Estimated Cost & Timing
4.1.2.1: Adopt a resolution recognizing the priority of making Lebanon's roads pedestrian and bicycle friendly.	City Council No cost 6 months
4.1.2.2: Provide City employees with incentives to use public transportation.	City Manager City Council \$5,000 2 years

Issue 5: Railroad rights-of-way are wide, direct transportation corridors which the City should use to the advantage of its citizens.

Background: There is no passenger rail transportation in the City. The railroad

infrastructure (track, building, etc.) is privately owned (Guilford Transportation) and is in poor and deteriorating condition. The railroad right of way offers the simplest and most direct route from the Mascoma border to West Lebanon for human powered forms of transportation (walking, bicycling). Among railroad associated properties is an historic roundhouse and a large yard in West Lebanon.

Recommendations:

1. The railroad rights of way must be maintained free and clear of obstructions for immediate use as walkways and eventual use as bicycle paths, jogging trails, etc., and for potential long-term use as a light rail transportation corridor.

2. The West Lebanon railroad yard occupies a relatively large piece of land along the Connecticut River in what is otherwise a densely occupied section of the City. When considering proposed uses for that space, the Planning Board should take into consideration the yard's potential to serve again as a hub for regional transit, whether by rail or by road.

Goal 5.1: Railroad rights of way will be used as transportation corridors by Lebanon's citizens.

Objectives 5.1.1: Convert railroad ROW's into usable means of transportation.

Actions	Office, Estimated Cost & Timing
5.1.1.1: Negotiate citizen use of railroad right of ways with current owners.	City Manager Minimal 2 years
5.1.1.2: Create bicycle and foot paths on railroad rights of way after permission is secured.	Recreation Commission Department of Public Works \$50,000 5 years to complete

Objective 5.1.2: Explore transportation or

other potential use or railroad rights of way infrastructure.

Action	Office, Estimated Cost & Timing
5.1.2.1: Estimate for cleanup of West Lebanon Railroad yard for ultimate use as City park or transportation hub.	Conservation Commission Minimal 5 years

Issue 6: There are new patterns of traffic which are placing new stresses on the City's roads.

Background

Roads: Lebanon is the Upper Valley's primary focus of commercial and service growth as evidenced by the move of the Dartmouth-Hitchcock Medical Center, establishment of Centerra, and other plans for future development. Unfortunately, Lebanon's recent character has been shaped increasingly by imperatives of road and highway construction, beginning with Interstate Highway 89 and its intersections, and including major state highways, Routes 120, 4,10 and 12-A. Careful planning and advocacy must occur to prevent Lebanon's future development from proceeding along these same lines. The City's road construction standards, especially concerning carrying capacity and construction, must be enforced scrupulously.

Recommendations:

1. **Route 120:** is one of the City's major vehicular and development corridor. As such, it must be maintained safely and efficiently.
 - a. Limit future access by constructing service roads to serve development.
 - b. Assess carefully the impact of current bottlenecks on peripheral roads such as Mount Support, Old Etna, Evans Drive, Etna Road and Heater Road.
 - c. Add a parallel bicycle path.

d. Synchronize traffic lights better.

2. The Meriden Road: (Route 120 South of Colburn Park) must be redesigned to the sharp corner and made a safer road.

3. Mechanic Street: (Route 4) from Exit 19 to Colburn Park has lost its character as a residential street. The City must provide for safe pedestrian and bicycle traffic all along its length.

4. Route 10: from West Lebanon to the Hanover border must be widened with provision for pedestrian and bicycle traffic added, or a parallel path created. A cooperative agreement with Hanover should be sought to allow commuters to ride bicycles the entire length of Route 10 from the of Town Hanover. At present, Route 10 is too narrow to permit both vehicles and pedestrians safety, although it is an increasingly used walking, jogging, and bicycling path.

5. Road Intersections: Congestion at certain large road intersections is making vehicular and pedestrian traffic more dangerous. Design of certain intersections is no longer adequate to handle current and anticipated traffic flow. The committee heard presentations from the City's Director of Public Works regarding State/City plans for the intersections of I-89 and state highways, and discussed other current situations with the Public Works Director and the police and fire chiefs.

a. I-89, Exit 18 - Improvements include widening the bridge and adding lanes to facilitate exit from and entrance to I-89 from Route 120. Traffic lights should be synchronized to facilitate traffic flow.

b. Route 12A intersections from Glen Road to Interchange Drive - Planned improvements as long as easy and safe pedestrian and bicycle movement is ensured.

c. Mascoma/High/Mechanic Street - This intersection is among the more troublesome in the City. It should have been redesigned when

Macoma Street itself was rebuilt, in order to make the intersection safe for vehicles and pedestrians/bicycles.

d. I-89, Exit 17 - If this is not really an effective "truck escape", the sign should be removed.

e. Glen Road/Route 4 - Study effects of eliminating left turn for Route 4 westbound.

f. Mechanic Street/Poverty Lane - When the police station is completed, traffic will increase at this already unusual intersection. Further traffic increases are anticipated as Phase II of the Airport's development kicks in.

Goal 6.1: Road construction and reconstruction shall occur as necessary to relieve congestion without compromising neighborhood integrity.

Objective 6.1.1: Improve traffic flow along major city transportation corridors.

Action	Office, Estimated Cost & Timing
6.1.1.1: * Improvements to Mechanic Street to include:	Department of Public Works City Council \$5,000,000 2 years
(a) redesign to eliminate sharp curves	
(b) provide left turn lanes to facilitate flow at Mascoma St./Slayton Hill intersections.	
(c) widen to six feet the bicycle and pedestrian paths along the entire length on one side minimum.	

Action	Office, Estimated Cost & Timing
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6.1.1.2: Improvements to Route 12A to include:	City Council Department of Public Works \$10,000,000.
(a) provide left turn lanes at traffic lights only;	2 years
(b) extend median barriers;	2 years
(c) reinvestigate development of service road on westerly and easterly sides;	6 months
(d) provide bicycle path/sidewalks both sides;	2 years
(e) provide pedestrian crosswalks at traffic lights; synchronize with traffic lights;	6 months
(f) maintain crosswalks in good repair;	now
(g) synchronize traffic lights to improve flow;	6 months
(h) install another traffic light on south end of strip when additional approved development occurs approved.	2-5 years

Action	Office, Estimated Cost & Timing
6.1.1.3: Improvements to Route 120: *	

MAJORITY OPINION - Support proposed improvements which include enlarging Route 120 to be funded in part by using currently available impact fees (which expire in 1994).	Dept. of Public Works \$2,500,000 (2 million from City funds; .5 million from impact fees) 2 years
MINORITY OPINION - (as proposed in #2 of Cannon Associates proposed improvements for 120, 8/4/88) - enlarge/improve intersections only, using currently available impact fees to accommodate fluctuating traffic.	Dept. of Public Works City Manager \$500,000 (impact fees) Now
Enlarge route according to proposed improvements once state funds become available:	Dept. of Public Works City Manager \$2,000,000+ 2-5 years
(a) synchronize traffic lights;	Dept. of Public Works Minimal Now
(b) include left turn arrows;	Dept. of Public Works Minimal Now
(c) extend green light duration along route 120 during peak traffic times;	Dept. of Public Works Minimal Present
(d) discourage strip development by prohibiting additional "curb cuts";	Dept. of Public Works Minimal 6 months
(e) review traffic flow to Heater Road and Mount Support Road neighborhood;	Dept. of Public Works Minimal 6 months
(f) increase warning signals on sharp curve on Route 120 at South Street;	Dept. of Public Works \$2,000 2 years
(g) consider rerouting Route 120 traffic along LaPlante Road as major developments occur along Route 120 South corridor;	Dept. of Public Works City Council 5 years
(h) provide parallel bicycle and pedestrian paths to Hanover;	Dept. of Public Works City Council \$75,000 2 years
(i) provide a bicycle path/sidewalk on Route 120S residential corridor.	Dept. of Public Works \$50,000 2 years

* Note: In July of 1993 the City Council voted not to move ahead with designed improvements to Route 120 but suggested other minor improvements.

Issue 7: There are a number of unsafe and congested intersections in the City.

Goal 7.1: The City's intersections will be safe and efficient.

Objective 7.1.1: Improve safety features of the City's intersections and roads.

Action	Office, Estimated Cost & Timing
7.1.1.1: *Reconstruct intersection at Mascoma/High/ Mechanic Streets.	Department of Public Works \$1,000,000. 2 years
7.1.1.2: Monitor I-89 Exit 19 north and south and adjacent Poverty Lane traffic.	Department of Public Works Minimal 6 months
7.1.1.3: Monitor I-89 Exit 17 as transportation needs increase.	Department of Public Works Minimal 6 months
7.1.1.4: Improve I-89 Exit 17 as a heavy truck exit.	Department of Public Works Minimal to the City 2 years
7.1.1.5: Adopt a "pot hole ordinance" requiring commercial driveways to be kept in good repair.	City Council None to the City 2 years
7.1.1.6: Change stop sign at Route 120/Hanover Street intersection to stop Hanover Street southbound (dead end)traffic.	City Council Department of Public Works Minimal to the City 2 years

Issue 8: Some of Lebanon's neighborhoods are threatened by increased vehicular traffic.

Goal 8.1: Lebanon's neighborhoods shall be preserved as places for people to live and recreate without threat of increased vehicular traffic.

Objective 8.1.1: Protect Lebanon's existing neighborhoods from encroachment by traffic.

Action	Office, Estimated Cost & Timing
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8.1.1.1: Require road capacity studies to assess residential impact prior to large-scale residential developments.	Department of Public Works None to the City 6 months
8.1.1.2: * Enhance pedestrian transportation as outlined.	
8.1.1.3: Adopt and maintain zoning ordinances consistent with neighborhood preservation.	City Council None Immediate
8.1.1.4: * Establish a designated truck route as outlined in 5.2.	City Council Minimal 6 months
8.1.1.5: * Maintain Hanover Street as a footbridge only.	City Council None Immediate
8.1.1.6: * Discourage the State's planned two left turn lanes from Route 12 north to Mount Support neighborhood.	City Manager City Council None 6 months

Objective 8.1.2: Increase quality of life in City's neighborhoods.

Action	Office, Estimated Cost & Timing
8.1.2.1: Study use of night time noise and light ordinances and implement in neighborhood areas.	City Council None 6 months
8.1.2.2: Continue to monitor air and surface traffic patterns and resulting noise/light levels and their impact on neighborhoods throughout Lebanon.	City Council None 6 months