

current junction of U.S. 31 and the Causeway (Veteran's Memorial Highway).

- Work to develop a staging area for a cross-lake ferry near downtown.
- Work with Sappi officials to better manage truck traffic volume on Lakeshore Drive. Options include: physical modifications to entrance and unloading areas, as well as traffic flow management measures such as, restrictions/prohibitions on truck arrivals/ departures during commuting hours.
- Further study the development of alternative route from Lakeshore Drive to Sherman Blvd.

H. Zoning

Existing Conditions

With the exception of higher density residential areas, the City's existing lakeshore zoning includes almost every zoning classification found within the larger City. A few special designations such as Lakefront Recreation (L-R) and "Waterfront Marine" (W-2) are used to address the special types of land uses

which are encouraged along the lake (i.e. restaurants, hotels, recreational facilities).

Typical of most zoning schemes in mature urban areas, many aspects of the City's current zoning appear largely to affirm historic land uses, rather than attempting to change them in any profound way. Besides the aforementioned W-2 and L-R, the major classifications include Industrial (I-2), Open Space Conservation (OSC), and Business (B-2). Conspicuously absent, are most residential classifications although most would be allowed in other zones as a permitted or special use.

Recommendations:

Lakefront P.U.D.

In attempting to control the quality of development in sensitive lakeside areas, a Planned Unit Development (PUD) overlay zone is strongly suggested along the entire lakeshore. PUD should not be construed as an additional layer of regulatory control, but rather as a way to encourage a superior level of design, responsive to the particular characteristics of a given site.

Primary goals of such oversight are to encourage a higher level of aesthetics, preserve/ protect view-sheds, provide public access, and promote environmentally sensitive design in exchange for greater site plan flexibility.

Integral to an effective PUD program, is the adoption of specific design criteria for all residential, waterfront marine, commercial and industrial zones along the lake. Design considerations should include:

- Detached or recessed garages and carports (residential areas).
- Maximum setbacks or "build-to" lines (residential and commercial areas).
- Maximum/ minimum residential lot sizes (residential areas).
- Discourage/ prohibit gated communities (residential areas).

❑ Extension of street grid to the lakeward side of Lakeshore/ Shoreline Drives (all areas where feasible or practical).

❑ Require larger commercial buildings to be situated at right angles to the shoreline (except where a different treatment is warranted).

❑ Limit building “footprint” size through floor area ratio (FAR) or other bulk control devices (commercial and industrial).

❑ Promote/ require a reduction in the visual mass of larger buildings through such design devices as recessions and protrusions in the building wall, gables, L-shapes, change of roof height/ pitch etc. (all areas).

❑ Prohibit “pole-barn” type construction. (unarticulated building walls, metal surfaces etc.)

❑ Encourage buildings that have maximum transparency (numerous windows and other openings). Limit use of tinted or reflective glass).

❑ Require parking lots to have generous perimeter and interior landscaping.

❑ Apply maximum height and/or bulk restrictions in sensitive view-sheds. (*Note: Variance should be allowed if it can be shown that development minimally or favorably impacts an existing view-shed. Variance may also be allowed if the developer mitigates the view impact by narrowing the building footprint (bulk), orienting the building at an angle to the shoreline, or by dedicating and developing public access easement.)

I. Environmental Issues

As discussed above, the historical development of the Muskegon Lake shoreline involved extensive cutting, filling and dredging to accommodate waterfront dependent industry and commerce. It is widely known that much of the fill material used to create the numerous land spits and jetties were waste materials originating from these industries themselves; most notably foundry sands and lumber mill debris.

Foundry sand was commonly used as fill throughout the City, and is generally considered hazardous if disturbed. The latter material is mostly harmless (benign), but is notoriously unstable and often requires additional filling to prevent settling.

Other potential hazards include underground storage tanks especially in the vicinity of the petroleum tank farm where the remaining presence of petroleum based contaminants continues to pose a hazard to Muskegon Lake.

Finally hazardous runoff into Rudimann Creek and other tributaries continue to present hazards to local wildlife. While nearly the entire lakeshore has been classified as a “facility” by the Department of Environmental Quality (DEQ), there are no known CERCLA (Superfund) sites on the southern shore of Muskegon Lake.

As discussed in the *City of Muskegon Master Plan*, and in the *Muskegon Lake Remedial Action Plan (RAP)*,