other. Because our department is not a DOT, we may not run into some of the problems arising in states that have DOTs. Not all roads in Texas are part of the state system.

The department is not a preservation agency, but it does deal with cultural resources on a daily basis. Texas has a long transportation history. Many of our highways follow the early trails of settlers and cattle drives.

Conflicts occur between the need to supply fast, safe and efficient means of transportation and the preservation of existing transportation facilities and structures that have historical and cultural significance. Because conflicts in Texas have been rather infrequent, I can only speak in general theoretical terms. One thing is clear, though, that answers must be unique for each case.

HISTORIC PRESERVATION OF RAILROAD RELATED STRUCTURES

Eric Deloney, Historic American Engineering Research, U.S. Department of the Interior

In 1971, exactly 100 years after its construction, the Queen City Station Hotel in Cumberland, Md, was demolished. This was a tragic loss, because this structure, built by the B and O Railroad in the mountains of western Maryland, was a popular resort hotel for many people from Washington in the late 1800s. Thomas Heskett, the architect, designed the usual RR station facilities on ground level with several floors of hotel accommodations above. It was placed on the National Register in 1970, shortly after the railroad announced its abandonment of it, and was demolished in the fall of 1971 for lack of funds or support for its maintenance.

Many lessons can be learned from this episode. The State Historic Preservation Officer (SHPO) presented the nomination to the Governor's Review Board; it was rejected 3 times. Several adaptive re-use studies were made and rejected. There were problems between the SHPO and city council, the latter being non-supportive. The railroad offered to sell the structure and delay demolition. The SHPO accepted an offer of HUD funds, but the city council refused.

Although the event brought the community together, it is very apparent that preservation must be founded upon realistic economics. It requires grass roots education and acceptance if legislators and public and private agencies are to be responsive to concerns of community leaders.

There are several examples, however, of the saving of railroad-related structures that deserve mention.

Bolleman's Bridge, patented in 1852 and erected in Maryland in 1869, is the only remaining example of a design that facilitated the rapid expansion of early American railroads. It was moved from the main line about 1887. Its design combines a suspension and truss system. In 1966 there was a concerted campaign to restore the structure, including recasting the maker's name plates in aluminum, restore the little wooden tower caps that covered connections on abutment towers, plus extensive research to determine the Victorian color scheme. It survived the Agnes flood of 1972, while a vehicular bridge nearly washed out. Howard County Recreation Department provided a grant to prepare a restorative study after interest in it languished. A problem today is finding well qualified engineering consultants for historic preservation.

The Mt. Clare circular car shop in Baltimore, built by E. Francis Baldwin in 1884, was recorded by the Historic American Engineering Record in 1970. It could have served as a transportation museum. In 1974 it was restored for use by the B and O Railroad with some help from the City of Baltimore. Although the railroad was interested in historic preservation of the building and was sensitive to public relation values, the Mt. Clare shops were demolished in 1976.

The Aurora Roundhouse and Back Shops of the Chicago, Burlington and Quincy RR, in Aurora, Illinois, is the oldest roundhouse in the U.S., originally used in 1856. The walls are all stone. It is one of the few monuments in that city that has any real meaning to its citizens. In 1927 its use for locomotive repair was discontinued and in 1974 it was abandoned. There has been conflict over its ultimate use, or fate between the Burlington Northern, the present owners, and the Mayor's office and the redevelopment authority of the city.

A study conducted by the Historic American Engineering Record has identified only 11 surviving trainsheds in the U.S. One of these, the Reading RR Terminal in Philadelphia built in 1891-93, is the longest single span arched roof train shed in the world, with a span of 238.5 feet. The Reading Market is associated with the trainshed, now serving only as a commuter terminal. There has been a proposal to incorporate the headhouse, shed, and market into a multi-use shopping-office complex.

The St. Louis Union Station and Trainshed, built in 1891, is listed by the National Trust as an endangered building.

LEGAL PROBLEMS AND CONCERNS ASSOCIATED WITH HISTORIC PRESERVATION

Myra Harrison, Advisory Council on Historic Preservation

The Advisory Council on Historic Preservation is an independent agency with direct responsibility to the President and the Congress. The Council is made up of heads of various federal agencies, including the Secretary of Transportation, and 12 citizens appointed by the President.

Most of the problems and conflicts related to historic preservation, as seen from the vantage point of the Council, arise from section 106 of the National Historic Preservation Act of 1966. Section 106, as amended, requires that the head of any federal agency undertaking a program or project must afford the Council an opportunity for comment if the undertaking affects a property listed in or eligible for listing in the National Register of Historic Places.

To carry out this responsibility, the Council has published procedures which define the manner in which the Council offers its comments.

Basically, the procedures call on the federal agency that is funding, licensing or approving an undertaking affecting one or more of these properties to integrate historic preservation concerns with other project goals at the earliest stage of planning. The agency responsible must identify all properties that may be affected, must consult with the State Historic Preservation Officer (SHPO) on the nature of the effect, and must work with the SHPO and the council staff to resolve those situations in which a project will have an adverse effect on a historic property. In most cases a compromise is found which is detailed in a Memorandum of Agreement, signed by all parties, which stipulates how the agency will carry out the undertaking so as to avoid or minimize adverse impacts. If there is no agreement between the agency, the SHPO and the Council staff, the undertaking is referred to the full council for consideration, after which it provides comments to the agency sponsoring the proposed undertaking.

The important distinction between section 4(f) of the Department of Transportation Act and ection 106 is that section 4(f) presents an absolute standard: it must be proved that there is no feasible and prudent alternative to the taking of a historic property before a transportation project can be approved by the Secretary of Transportation. Section 106, on the other hand, is a public interest standard: whereas feasible and prudent alternatives that would avoid or mitigate adverse effects must be studied in the course of complying with the Council's procedures, project objectives and historic preservation concerns are balanced together, socio economic impacts are considered, and the result may well involve some loss of historic property that may not be as readily permitted under 4(f).

The most persistent legal problem involving historic preservation is the failure of federal agencies to comply with section 106, and the litigation that sometimes, though not always, is generated by that situation. The agency with the greatest number of projects affecting transportation-related structures is the Department of Transportation, which generally has a good record of compliance.

Perhaps the most widespread interaction between historically important transportation related structures and transportation planning occurs in the bridge replacement program. As you are aware, the original legislation on this program stipulated that monies could be used only for replacement, not for repair. This has resulted in the loss of many historically significant bridge structures that might be rehabilitated to provide continued modern transportation service. The Highway and Public Transportation Improvement Act of 1978 would remedy this situation by providing for repair as well as replacement. However, the current law creates a conflict in following council procedures which require considering alternatives to avoid adverse impacts before considering mitigative measurements. Without funds for repair, it is difficult to properly balance these two considerations.

The following case is illustrative of the problem. The Columbia Bridge in Fayette County, Ohio, a Pratt Truss bridge built by the Columbia Bridge Works of Dayton, Ohio, was declared by the Secretary of the Interior to be eligible for listing in the National Register of Historic Places. Ohio DOT had proposed in 1976 to demolish and replace the bridge because it was "narrow and weak" and would "inevitably collapse." The Preliminary Case Report submitted to the Council by ODOT identified a number of alternatives:

1. The no build or no action alternative was unacceptable from a safety standpoint;
2. Rehabilitation alternative -- because replacement funds were to be used, no money was available for rehabilitation. However, even if the state of Ohio was to use its own funds for rehabilitation, it was felt that it would be impossible to rehabilitate the bridge to meet the traffic demands without severely altering its appearance.
3. Dual Bridge System alternative -- retain the Columbia bridge as a one way bridge and build a second parallel bridge to carry traffic in the other direction. Since this alternative would also necessitate rehabilitation of the Columbia bridge it was rejected for the same reasons as the rehabilitation alternative.
4. Changed road alignment alternative- Columbia Bridge would be totally avoided and a new bridge would be constructed This alternative would involve purchase of adjacent land, construction of new abutments, and cosmetic repairs to the Columbia Bridge to prevent future deterioration. Cost of this alternative was prohibitive; also no money was available.
5. New construction alternative -- this alternative involved construction of a new bridge on the existing abutments and relocation of the Columbia Bridge to an adjacent site. The new bridge would be funded by the SBRP while the relocation cost of over $30,000 would be paid by the county. The county would also have to assume continued cost of maintenance for the Columbia Bridge. This alternative was unacceptable to the county.

The proposal that was finally agreed to by the council, the ODOT, the SHPO and the Federal Highway Administration involved the demolition of the Columbia Bridge and building a replacement bridge on the site. In order to mitigate the adverse effect of the demolition of the Columbia Bridge the following measures were to be taken.

1. The Columbia Bridge was to be recorded and documented according to Historic American Engineering Record standards.
2. As many structural members of the bridge superstruture as possible were to be salvaged for reuse in bridge repair projects throughout the state.
3. Ornamental parts of the bridge were to be salvaged and offered by the Ohio Historical Society to approved preservation and museum organizations through the state

4. The Federal Highway Administration prepared a monograph on the Columbia Bridge Company.

We have also negotiated agreements that historic bridges be kept as pedestrian bridges and as features in historic parks.

Another problem with legal implications that is often associated with transportation-related resources of historic importance is the adoption of the AASHTO standards by the Federal Highway Administration. Although these standards are designed to be flexible, they are rarely applied in a flexible manner by highway engineers who have an understably high concern that their facilities provide the utmost in highway safety. We find the inflexible application of these standards often has detrimental effects on historic structures. The Elm Bridge in Woodstock, Vermont, is one case in which we appear to have reached a happy accommodation between AASHTO standards and historic preservation values. The highest AASHTO standard called for a 30 feet wide bridge and was supported by the highway engineers. The 24 feet width was supported by environmental officials within FHWA and is the solution that higher officials within FHWA supported. However, the conflict between AASHTO standards and historic preservation are not always so happily resolved. It is the position of the Advisory Council that as these standards have been adopted as federal standards, they should be submitted to the council for comment in accordance with section 106. It is our hope that in time we will be able to find more and more ways to ameliorate the impact of these federally adopted standards on historic structures.

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