



February 23, 2007

Ms. Becky Rodgers  
Neighbors in the Strip  
1212 Smallman Street  
Pittsburgh, Pennsylvania 15222

Subject: Summary of Findings  
Strip District Pedestrian Enhancement Study  
City of Pittsburgh, Pennsylvania

Dear Ms. Rodgers:

This letter is to summarize the review Trans Associates (TA) has performed of the pedestrian and traffic improvement program developed by the Neighbors in the Strip (NITS). This review is based upon information presented in meetings between TA and NITS, and supplemented by TA's field review of the study area. Based upon this review, the suggested plan of improvements appears to provide a reasonable balance between maintaining the smooth flow of traffic on arterial roadways, while improving the flow of cross traffic and pedestrians. TA's review was limited to determining whether the suggested program of improvements appears reasonable; no detailed traffic engineering, capacity analysis or warrant studies were conducted.

## **BACKGROUND**

At present, traffic flows in the Strip District are heavily oriented in the east-west direction, along the parallel roadways of Liberty Avenue, Penn Avenue and Smallman Street. Traffic signal control and all-way stop control are located at a number of intersections, in a pattern that appears to be largely related to traffic control needs at the individual intersections, and not part of a planned network. Liberty Avenue is a major arterial, carrying heavy traffic volumes at relatively high speeds. Penn Avenue, primarily a one-way roadway, carries heavy traffic volumes although it becomes extremely congested in certain business areas. Smallman Street is currently free-flowing between the signalized intersection at 11<sup>th</sup> Street and the all-way stop at 28<sup>th</sup> Street, making it an attractive route for trucks and commuter traffic. As the Strip District changes from an industrial area to a dynamic, mixed-use community, demand is increasing for access from parking facilities near the river to the arterial roadways, and for pedestrian traffic between businesses, residences and parking facilities located throughout the neighborhood.

Meetings were held between you, Mr. Jeff Kumar and Mr. Darryl Phillips of TA on December 22, 2006 and January 11, 2007. At these meetings, you presented the attached listing of suggested pedestrian and traffic improvements that were developed by NITS. TA understands that this list



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was developed based upon extensive consultation with area businesses, developers and patrons. These consultations indicated a strong desire for improved opportunities for pedestrians and traffic to cross streets, primarily Smallman Street and Penn Avenue, coordinated with existing signalized crossings of Liberty Avenue. However, it was recognized that the Strip District is a center of the produce industry, and the needs of truck traffic must be accommodated. To maintain an efficient flow of truck and automobile traffic, it is desirable to limit the number of locations where through traffic must stop due to signals or stop signs. The current pattern of traffic controls is largely oriented towards maintaining an efficient flow of traffic on the parallel arterials of Liberty Avenue, Penn Avenue and Smallman Street.

## **POTENTIAL IMPROVEMENTS**

To achieve these goals, the NITS consultation with the community identified a number of corridors that NITS believes should be emphasized and improved to better accommodate pedestrian flows and cross traffic. These corridors, shown in Figure 1 are located at 11<sup>th</sup> Street, 14<sup>th</sup> Street, 17<sup>th</sup> Street, 21<sup>st</sup> Street, 24<sup>th</sup> Street, 26<sup>th</sup> Street, and 28<sup>th</sup> Street, and are well spaced. In general, these corridors are currently controlled by signals or all-way stop control at one or more intersections. Focusing traffic and improvements on these corridors will help to prevent a haphazard system of traffic controls being implemented, although it is recognized that conditions at some individual intersections may require improvements that are not part of this system of corridors.

The following portions of this letter identify the potential improvements that have been identified by NITS in each corridor. As noted, TA has not performed any detailed traffic analyses or warrant studies of the improvements identified. Further study will be required to determine whether the suggested improvements are justified. Ongoing study may be required as development and changes continue to occur throughout the neighborhood.

### **11<sup>th</sup> Street**

11th Street is currently a well-controlled pedestrian environment, with traffic signals located at the intersections with Liberty, Penn and Smallman Street. NITS noted the need to keep pedestrian crosswalks maintained at these intersections. NITS also noted that the heavy volume of turning traffic at Smallman Street makes pedestrian crossings difficult, even with signal control. NITS identified an exclusive pedestrian crossing phase as a potential solution. In TA's review, it appears possible that phasing changes, modifications to the optically-programmed signals, and an advance pedestrian phase could improve matters with less disruption to traffic flow. It was noted that pedestrian access from the Strip District to the Convention Center is poor and that the available routes are not obvious and are not well



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marked. It was suggested that an existing tunnel under the Fort Wayne Bridge approaches could be improved to provide a more direct pedestrian access. If this is not possible, improved pedestrian signage is needed to direct the large number of visitors who park in the Strip District lots to the Convention Center entrances.

#### **14<sup>th</sup> Street**

14<sup>th</sup> Street was identified as a potential route for adjacent parking facilities to exit and to access the arterial roadway network. Currently, a portion of 14<sup>th</sup> Street operates one way; two-way operation would be required. Signal control would also be required at the intersections with Liberty Avenue, Penn Avenue and Smallman Street. Traffic signal design should include emergency vehicle preemption as appropriate to accommodate the fire station located on 14<sup>th</sup> Street. TA understands that the adjacent land owners are amenable to reconfiguring parking lot entrances and exits to focus traffic on 14<sup>th</sup> Street if these improvements could be made.

#### **17<sup>th</sup> Street**

17<sup>th</sup> Street has been identified for improvements primarily as a pedestrian corridor, as it is adjacent to 16<sup>th</sup> Street which currently carries a heavy volume of traffic. Two particular locations on 17<sup>th</sup> Street were identified with potential for improvements. The intersection of Liberty Avenue and 17<sup>th</sup> Street is currently unsignalized, but a Port Authority bus stop is located along the south curb line. The lack of a sidewalk on the south side of Liberty Avenue makes it difficult for pedestrians to access this stop, which is centrally located for access to the Strip District markets. NITS indicates that improving this crossing is a high priority for the community, potentially through signalization. An improved crossing of Smallman Street may be desirable in the future, if plans for redevelopment of the Market House should progress. The existing uncontrolled crossing of Penn Avenue appears to operate satisfactorily, although improved signage, crosswalk maintenance and parking restriction may be desirable.

#### **21<sup>st</sup> Street**

Currently, 21<sup>st</sup> is signalized at Liberty Avenue and Penn Avenue. The street operates one-way from Penn to Liberty Avenue. NITS has identified a desire to convert this to a two-way corridor, potentially providing the primary access to new development at the Market House and along the river. Improved control and crossings at Smallman Street are a high priority, possibly through signalization and construction of a pedestrian refuge island. In order to accommodate two-way traffic on 21<sup>st</sup> Street, parking removal may be required, particularly during the late night and early morning hours of heaviest truck traffic. This would also require relocation of the existing taxi stand to Penn Avenue.



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### **24<sup>th</sup> Street**

Currently, no controls are in place for crossings of traffic on 24<sup>th</sup> Street. NITS has identified a desire for signal control on Smallman Street, Penn Avenue and Liberty Avenue, and for all-way stop control at Railroad Street. As an interim measure, additional parking restrictions on Penn Avenue near the intersection of 24<sup>th</sup> Street would be helpful. As 24<sup>th</sup> Street, is narrow, parking should be restricted along the roadway. 24<sup>th</sup> Street is anticipated to provide the primary access to the residential and retail development that is part of the Armstrong Cork Factory.

### **26<sup>th</sup> Street**

The 26<sup>th</sup> Street corridor is currently relatively well controlled. Signals are located on Liberty and Penn Avenues. Signalization or all-way stop control at Smallman Street has been identified as desirable. Anticipated new development in this area, including residential uses, is anticipated to result in an increase in automobile and pedestrian traffic demand. Painted crosswalks at all intersections should be considered to better accommodate this traffic.

### **28<sup>th</sup> Street**

28<sup>th</sup> Street is currently relatively well controlled, and currently serves as an access route to riverfront uses. Signals are located at Penn Avenue and Liberty Avenue, and an all-way stop is located at Smallman Street. A multi-way stop is suggested for Railroad Street. Because of the complex intersection geometry, an exclusive pedestrian phase has been suggested at the Liberty Avenue signal. Appropriate pedestrian crosswalks and signs at all intersections would help to enhance awareness of pedestrian traffic in this area which is currently heavily industrial but is beginning to see new mixed-use developments.

### **Isolated Improvements**

While the desire of the community is to create a comprehensive plan of traffic control to minimize congestion, it also must be noted that some specific locations are candidates for improvements. All existing signalized and stop-controlled intersections should be provided with appropriate signage and crosswalks. Uncontrolled intersections, particularly along Smallman Street and Penn Avenue, should also be evaluated for the feasibility of pedestrian crosswalks and signage.

The intersection of 13<sup>th</sup> and Smallman Street is of particular concern, due to the heavy pedestrian traffic to and from the History Center museum. NITS has requested that this intersection be investigated for the possible installation of flashing beacons and crosswalks.



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NITS has also requested that the pedestrian crossing of Smallman Street under the 16<sup>th</sup> Street Bridge be investigated for improved signage, flashing beacons, better lighting and a painted crosswalk.

Additional or improved "one-way" signs have been requested on Penn Avenue near 16<sup>th</sup> Street

### **SUMMARY**

This letter summarizes TA's understanding of the program of traffic control improvements within the Strip District that has been identified by the Neighbors in the Strip as being priorities for the community. TA has reviewed these potential improvements, and it appears that they have the potential to provide a comprehensive network of pedestrian and traffic flows throughout the neighborhood. Detailed engineering studies and warrant analyses will need to be completed before the feasibility and desirability of any of these improvements can be determined. As the Strip District is changing rapidly, it may be necessary to monitor the study area intersections on an ongoing basis and to identify and implement new traffic control measures in response to changing conditions.

TA recommends that NITS present this document to the City of Pittsburgh Department of City Planning and Public Works to solicit their input and to determine the next steps toward implementation of this plan.

This concludes TA's review of the program of traffic control improvements identified by the Neighbors in the Strip. If you have any questions, please contact me.

Respectfully submitted,

Darryl C. Phillips, P.E., PTOE  
Senior Engineer

DCP:pah

cc: File – nitst00/06513/NITS Final Review Letter