

TO: James L. App, City Manager
FROM: Doug Monn, Director of Public Works Director
SUBJECT: Intersection Improvements – 13th Street / Riverside Avenue
DATE: November 21, 2006

NEEDS: For the City Council to consider removing right-turn restrictions between 3:00 p.m. and 5:30 p.m. and re-striping lanes at 13th and Riverside.

FACTS:

1. On March 21, 2006, City Council directed staff to restrict turn movements at 13th and Riverside on a trial basis.
2. The trial has been evaluated by Associated Transportation Engineers (see attached report dated August 31, 2006).
3. This item was presented to the Streets & Utilities Committee on October 27, 2006 for their consideration

**ANALYSIS &
CONCLUSION:**

The traffic engineer's analysis concludes: (1) the green time for the northbound approach is required to run longer with the turn restriction in place, since right-turning vehicles must wait for a green light; (2) the additional green time allocation for the northbound approach reduces the green time allocations for the other approaches; (3) this adds to the delays for all vehicles using the intersection and contributes to queuing and congestion.

It is recommended that the "No Right Turn On Red" restriction be removed to provide more efficient operations, and that City Council consider re-striping the 13th Street eastbound lanes as follows (see attached diagram):

- a) Re-stripe the eastbound right-turn lane at 13th/Riverside to allow one through lane and a shared right and through lane,
- b) Re-stripe to allow two eastbound through lanes on the Highway 101 overcrossing bridge, and
- c) Re-stripe the eastbound right-turn lane at 13th/Paso Robles Street to allow one through lane and a shared right and through lane.

Additionally, "Do Not Block Intersection" pavement markings could be placed at 13th and Riverside to remind motorists not to block the intersection.

The above re-striping recommendations would provide additional capacity for peak heavy traffic flows at this intersection. The re-striping and pavement markings

would reduce queuing and congestion at 13th/Riverside as well as 13th/Paso Robles Street.

As part of the 13th Street Bridge project, the signals at Riverside/Paso Robles/River Roads will be synchronized. The conduits have been installed and the traffic engineer has performed traffic counts and is now preparing the signal synchronization timing. Installation of the synchronization timing would coincide with the proposed re-striping and removal of the limited turn movements.

POLICY

REFERENCE: Circulation Element of the General Plan

FISCAL

IMPACT: Re-striping the eastbound lanes will cost less than \$3,000, and can be included in the 13th Street Bridge Project Budget.

- OPTIONS:**
- a. Accept a recommendation from the Streets & Utilities Committee to make the following changes at the 13th/Riverside intersection:
 - 1) remove the turn restrictions at 13th/Riverside,
 - 2) re-stripe the eastbound lanes as recommended by the traffic engineer, and
 - 3) install “Do Not Block” pavement markings at intersection.
 - b. Amend, modify, or reject the above option.

Prepared by:
Ditas Esperanza, P.E., Capital Projects Engineer

Attachments (1)
1) Traffic Engineer’s Report

TECHNICAL MEMORANDUM

August 31, 2006

TO: Ditas Esperanza, Capital Projects Engineer

FROM: Dan Dawson, Associated Transportation Engineers (ATE)

REGARDING: 13th Street/Riverside Avenue Right Turn On Red Restriction

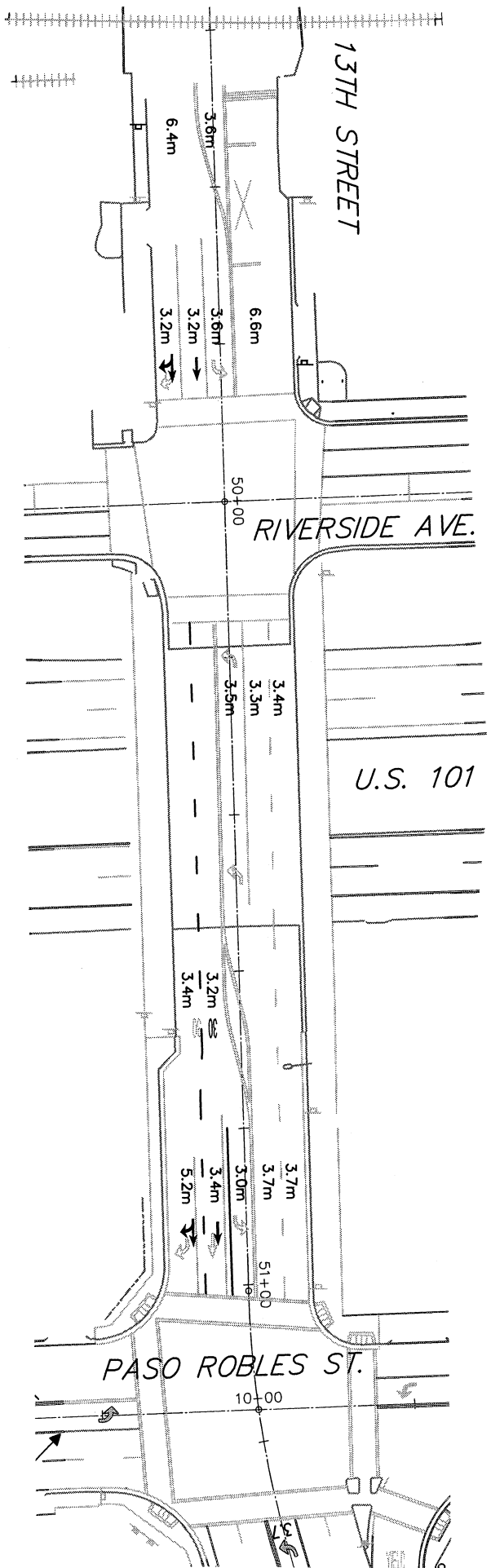
Issue: The City installed a "No Right Turn On Red" restriction at the 13th Street/Riverside Avenue intersection. The turn restriction is for the northbound Riverside Avenue right-turn to eastbound 13th Street movement during the 3:30 to 5:30 P.M. period.

Analysis: The green time for the northbound approach is required to run longer with the turn restriction in place, since right-turning vehicles must wait for a green light. Thus, the additional green time allocation for the northbound approach reduces the green time allocations for the other approaches. This adds to the delays for all vehicles using the intersection and contributes to queuing and congestion.

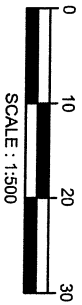
Recommendation: It is recommended that the "No Right Turn On Red" restriction be removed from the intersection to provide more efficient operations.

It is our understanding that the turn restriction is intended to reduce/eliminate vehicles blocking other movements within the intersection (vehicles getting stuck within the intersection). Operations should be assessed after the 13th Street Signal Timing Project is implemented. Synchronizing the signals will reduce queuing and congestion on 13th Street between Riverside Avenue and River Road.

ATE also recommends that the City consider re-striping the 13th Street eastbound lanes, as shown on the attached plan. The eastbound right-turn lane at 13th/Riverside Avenue would be restriped to a shared through+right lane, two eastbound through lanes would be striped on the Highway 101 overcrossing bridge, and the eastbound right-turn lane at 13th/Paso Robles Street would be restriped to a shared through+right lane. The restriping project would provide additional capacity for the heavy eastbound flows on 13th Street. The restriping project, along with synchronizing the signals, would reduce queuing and congestion at the two intersections.



- NOTES: 1. BOLD FACE PLAN SYMBOLS ARE PROPOSED LAYOUT.
 HALF-TONE SYMBOLS ARE EXISTING.
2. LANE WIDTHS SHOWN ARE MEASURED USING PROPOSED LANE LAYOUT.



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98032.02

CITY OF EL PASO DE ROBLES			
13TH STREET			
CONCEPT PLAN			
13TH STREET PROPOSED STRIPING			
DESIGNED BY	DRAWN BY	CHECKED BY	JOB NUMBER
AMZ	AMZ	AMZ	1300
SCALE	SHEET	OF	
	1	2	