

CHATHAM COUNTY - SAVANNAH METROPOLITAN PLANNING COMMISSION

P.O. BOX 8246, 110 E. STATE ST. SAVANNAH, GEORGIA 31412-8246 / TEL. 912-651-1440 FAX 912-651-1480

CHATHAM URBAN TRANSPORTATION STUDY

POLICY COMMITTEE MEETING SUMMARY

August 23, 2006

10:00 A.M.

<u>Voting Members</u> Russ Abolt	Representing Chatham County	Present x
Michael Brown	City of Savannah	X
Jason Buelterman	City of Tybee Island	
LTC Carl Coffman	Hunter Army Airfield	х
Patrick S. Graham	Savannah Airport Commission	
Glenn Jones	City of Port Wentworth	х
William W. Hubbard	Savannah Area Chamber of Commerce	
James Hungerpiller	Town of Vernonburg	
Otis Johnson	City of Savannah	Х
McArthur Jarrett	Chairman, ACAT	Х
Mike Lamb	City of Pooler	
Pete Liakakis	Chairman Chatham County Commission	n X
Harold Linnenkohl	GDOT	
Stephen R. Lufburrow	Chairman, MPC	Х
Doug J. Marchand	Georgia Ports Authority	
Clint Murphy	Chairman, CAC	Х
Carl Palmer	Chatham Area Transit Authority	
Anna Maria Thomas	Town of Thunderbolt	
Andy Quinney	City of Garden City	
Representative	CAT Board of Directors	
Wayne Tipton	City of Bloomingdale	
Eric R. Winger	Savannah Economic Development	
	Authority (SEDA)	
Voting Member Alternates	Representing	<u>Present</u>
George Fidler	Savannah Airport Commission	X
Matthew Fowler	GDOT-Atlanta	X
Diane Schleicher	City of Tybee Island	×
Israel Small	City of Savannah	×
Trip Tollison	Savannah Area Chamber of Commerce	X
Randy Weitman, P.E.	Georgia Ports Authority	X
		Λ

Others Present	<u>Representing</u>	Present
Allan Black, P.E.	Chatham County	х
Tommy Crochet	McGee Partners	х
Jack Knops	Preserving Savannah Neighborhoods	Х
Brian Leighton	Savannah Council of the Blind	х
Jane Love	MPO Staff	Х
Tom McQueen	GDOT – Planning	х
Keith Melton	GDOT – Atlanta	х
Teresa Scott	GDOT-Jesup	Х
Barbara Settzo	MPC Staff	Х
Radney Simpson	GDOT-Atlanta	х
Thomas Thomson, P.E., AICP	MPC Executive Director	Х
Wykoda Wang	MPO Staff	Х
Mike Weiner, P.E.	City of Savannah	Х
Robert Wilder	Garden City	Х
Mark Wilkes, P.E., AICP	MPO Staff	Х

Call to Order

Mr. Pete Liakakis called the August 23, 2006 Policy Committee Meeting to order.

I. Approval of Agenda

It was moved and seconded to approve the agenda as presented.

PC Action: the motion to approve the agenda of the August 23, 2006 Policy Committee meeting carried with none opposed.

II. Committee Reports (verbal)

A. Advisory Committee on Accessible Transportation

This report was received later in the meeting after Mr. McArthur Jarrett arrived. Mr. Jarrett reported on the August 16, 2006 ACAT meeting. Elections were held and he was elected Chairman and Mr. Brian Leighton was elected Vice Chairman, for 2-year terms each. He looks forward to working with the MPO. The ACAT endorsed all action items and had a good dialog with the new project manager, Brian Frank, of the CAT para-transportation service (Teleride). ACAT hopes to make a positive difference in this area.

B. Citizens Advisory Committee

Mr. Clint Murphy reported on the August 17, 2006 CAC meeting. Elections were held for a new Chairman (Clint Murphy) and Vice Chairman (Russ Peterson). Four new members

have joined the CAC, three representing the city and one representing the county. The CAC endorsed the two action items on the agenda. Mr. Murphy reported that the CAC is ready to work with the Policy Committee.

C. Technical Coordinating Committee

Mr. Mark Wilkes reported on the August 17, 2006 meeting of the Technical Coordinating Committee. The committee endorsed all action items on the agenda.

III. Action Items

A. Approval of the June 28, 2006 Policy Committee Meeting Minutes

It was moved and seconded to approve the June 28, 2006 Policy Committee Meeting Minutes.

PC Action: the motion to approve the June 28, 2006 Policy Committee Meeting Minutes carried with none opposed.

B. Approval of an Amendment to the FY 2007-2009 TIP to include Study of Savannah Northwest Tollway

Ms. Wykoda Wang explained the background of this proposed amendment. MPO staff received the request for the amendment from GDOT earlier this month. This study was initially identified in the 2030 LRTP to address congestion to and from the GA Port Authority. The Federal Highway Administration approved funding of the study in January 2006. These are H880 funds (\$590,000), with an 80/20% split between federal and state. For GDOT to access these funds for the study, it is necessary for the MPO to amend the FY 2007-2009 TIP to include this project.

The study is for a 4-lane limited access tollway between SR21 and I-16 to alleviate congestion on the SR21 corridor and to provide a reliable route for trucks to and from the ports. The TIP amendment process requires a 15-day public review and comment period. MPO staff has advertised this amendment in the newspaper and on the MPC website. The comment period is from August 6 – August 20, 2006. This month the ACAT, TCC and CAC all endorsed it at their regularly scheduled meetings. The staff is requesting that the Policy Committee approve this amendment so that the MPO can include this in the current TIP.

Mr. Liakakis asked if Representative Buddy Carter was invited to today's meeting as requested at the last meeting. Mr. Thomson said that that request was made in the discussion on the Benton Blvd issue, and that because staff needs time to study the questions asked about users of the potential Benton Blvd extension, staff was planning to invite Representative Carter to a later meeting. Mr. Liakakis and Mr. Abolt clarified that

Representative Carter should be invited when the MPO reviews any issues concerning the I-95 and SR 21 area.

Mr. Liakakis read the resolution to amend the FY 2007-2009 TIP to include Study of Savannah Northwest Tollway in its entirety.

It was moved and seconded to approve the resolution to amend the FY 2007-2009 TIP to include Study of Savannah Northwest Tollway.

PC Action: the motion to approve the Amendment to the FY 2007-2009 TIP to include Study of Savannah Northwest Tollway carried with none opposed.

C. Review Request to Amend the 2030 LRTP to clarify MPO Policy on enhancement projects.

Mr. Mark Wilkes reported that MPO staff is proposing the addition of language to the 2030 LRTP in order to clarify the MPO's policy on TE projects. The proposed language is as follows:

"The Georgia Department of Transportation (GDOT) administers the TE program in Georgia and funds projects every 2 years on a competitive basis by congressional district. Applications for TE funding are made directly to GDOT, and final project selections are made by the State Transportation Board. TE projects which meet current state and federal requirements for TE projects, and have been duly selected for funding by the State Transportation Board are considered to be consistent with the MPO's 2030 Long Range Transportation Plan."

Mr. Wilkes stated that the Policy Committee's conceptual agreement will authorize MPO staff to initiate the public review and comment period. The amendment will then come before this committee at a future meeting for final inclusion in the 2030 LRTP.

It was moved and seconded to approve the request to proceed with the amendment to the 2030 LRTP to clarify MPO Policy on enhancement projects.

PC Action: the motion to approve the request to proceed with the amendment to the 2030 LRTP to clarify MPO Policy on enhancement projects carried with none opposed.

D. Approval of FY 2007 UPWP Budget Amendment to fund Southwest Chatham Sector Study, Traffic Impact Review process, and the LRTP/SAFETEA-LU Interim Update

Mr. Wilkes reported that the FY 2006 PL budget has been reduced by \$123,000 and the MPO would like to incorporate these funds into the 2007 UPWP to help fund the

Southwest Chatham Sector Study, the Traffic Impact Review process, and the LRTP/SAFETEA-LU Interim Update.

It was moved and seconded to approve the FY 2007 UPWP Budget Amendment to fund Southwest Chatham Sector Study, Traffic Impact Review process, and the LRTP/SAFETEA-LU Interim Update.

PC Action: the motion to approve the FY 2007 UPWP Budget Amendment to fund Southwest Chatham Sector Study, Traffic Impact Review process, and the LRTP/SAFETEA-LU Interim Update carried with none opposed.

IV. Status Reports

A. SR 204/Abercorn Ext. Concept Development

Mr. Tommy Crochet, from McGee Partners gave the presentation. In March and April of this year his firm entered into contract with GDOT. He presented to the committee the projects he is dealing with (SR 204 from King George Blvd to Rio Rd., and SR 204 from Rio Road to the Truman Pkwy V). It is likely that the first project will be revised to run from US 17 to Rio Rd. He also outlined the contractual obligations with GDOT (traffic studies, concept design, environmental document, design alternatives, right of way acquisitions) and outlined a schedule for completion of each portion of the contract (2006 – 2009 time frame). GDOT would like the western section construction to take place in 2010 and the eastern section to take place in 2011. Methods and means of public involvement include stakeholder meetings, open houses, neighborhood meetings, meeting notices, and the GDOT web site. Technical issues to be addressed are volume of traffic, crash rate, and the build alternatives. Mr. Crochet is concerned about the higher than normal crash rate in this corridor. Operational improvements, such as reduced access, additional turn lanes and turn signals, which one typically employs to improve safety, already exist in this corridor.

Mr. Liakakis expressed concern about traffic increasing with the connection of the Truman Phase V to Abercorn/SR 204. Mr. Crochet acknowledged that this is critical and that he is very aware of the issues.

Mr. Crochet reminded everyone of the concept design meeting in this room today at 1:30.

B. Context Sensitive Design Workshop

Mr. Wilkes presented highlights of the recent workshop, recapping the purpose and the history of this process as well as the accomplishments to date. This event was hosted by MPO staff in conjunction with consultants Walter Kulash, Paul Moore, Ian Lockwood and Avanish Pendharkar of the firm of Glatting Jackson. The 3-day workshop is a step towards the creation of a Context Sensitive Design Manual, which will provide guidance in the design of area roadways. Day one included identification of proposed corridors to study at

this workshop, followed by field work to view these corridors and other areas of concern. Day two was an in-house work session, in which the consultants, MPO staff, and other agency professionals generated material for the next day and for the design manual. Day three included presentations to stakeholders on design principles and case studies, followed by mini-charettes in which possible plans were developed for three selected areas of interest chosen by workshop participants. The areas were: 1.) Victory Dr. between Truman Pkway and Skidaway Rd.; 2.) E. President St./Oglethorpe Landing; and 3.) DeRenne Avenue. Mr. Wilkes then reviewed the team recommendations for each of these areas.

Mr. Wilkes concluded with a series of slides showing an analysis of the Abercorn corridor, which the consultants had put together after the tour. The analysis illustrated the reduction in alternative routes around the Abercorn corridor as one travels from the historic district towards the south side. The suburban style of street networks places more stress on the Abercorn corridor to the south.

The next stage will be the consultants' submission of the guideline manual to the MPO.

Mayor Otis Johnson reported that "at the last town hall meeting the city council was challenged about this concept and I don't know whether the MPC can make a presentation at one of our pre-council workshops or not, but I think it's important for us to, as a group, to learn more about context design because we are doing a lot of work and we need to be up-to-date on this. I'm making a request that you get with the city manager and see if we can get a couple of hours or an hour to help us to understand the principles of this and how we can, as a council, apply it to our situation when we get these zoning requests, and as we go through neighborhoods like west Savannah as we redevelop this whole area how we can apply this concept to our work."

Mr. Thomson indicated the MPC would be happy to help with this and would work with the city manager.

V. Agency Reports (verbal)

A. GDOT

Ms. Scott referred the committee members to the hand-out of projects and then took questions. When asked about the timing of Diamond Causeway she stated that January 2008 is still the anticipated construction date. She also reported that work on US 17 is now progressing. Carroll & Carroll is the contractor now and they will be starting on the other side shortly. November 1, 2006 is the projected completion date for the section around Walmart. Middleground Rd is 50% completed and the drainage work has begun.

Mr. Liakakis asked if GDOT was monitoring APAC on a daily basis on the Middleground Rd project so as to avoid a recurrence of the fiasco on Stephenson Ave. Ms. Scott indicated they were.

Mr. Trip Tollison asked about improving the lighting at the interchange of I-16 and I-95. Mayor Johnson joined in his concern for safety at this interchange, stating that a whole redesign of the area was necessary. Ms. Scott said she would look into the question of lighting. Mr. Fowler addressed Major Johnson's concern, saying that GDOT is investing in a study of the interchange. Mr. Liakakis asked Ms. Scott to keep the Policy Committee updated on the study of this interchange.

Ms. Schleicher raised the issue of pedestrian safety on Butler Ave. She had brought with her the letter GDOT had sent in response to her own letter. GDOT's letter is attached. (Ms. Schleicher's letter of July 10, 2006 was included in the MPO information mailed prior to the meeting.) Regarding the request for raised sidewalks, GDOT had said this was inappropriate for a thoroughfare. Ms. Schleicher said that, because Hwy 80 ends in Tybee Island, it should not be treated as a thoroughfare in that segment. Ms. Scott said she knows GDOT plans to work on the crosswalk marking, but she didn't know about the raised crosswalks. That is not usually allowed on state highways. She will look into the matter.

Mr. Russ Abolt stated that he wanted to see the east side of Diamond Causeway construction underway by the end of this year.

B. Chatham County

Mr. Allan Black referred committee members to the hand-out. Right of way acquisitions are underway for Truman Phase V, the environmental process is not yet underway for the White Bluff Rd Extension, and a public hearing is to be held regarding US80 and I-516 to Victory Dr. Mr. Black explained that the issue on this project is the alignment of Ogeechee Rd and Victory Dr. Mr. Liakakis commented that this has dragged on for a very long time. Mayor Johnson said that the city is ready to move on this. The status on the Whitfield Avenue widening is that GDOT is looking at the new design concept.

C. City of Savannah

Mr. Mike Weiner presented a hand-out of city projects and reviewed project status. He also commented on the Ogeechee Rd/Victory Dr. issue, saying that GDOT is conducting an environmental study. Mr. Liakakis would like to see faster completion of these environmental studies and he asked Mr. Thomson "to put something together that we can recommend to our state and federal legislators" about the need for a speedier process for environmental studies to avoid costly project delays. Mr. Thomson reported that he and county engineer Mr. Al Bungard had recently met with officials in Atlanta about speeding

up the process. His report of that meeting will be presented at the October or December Policy Committee meeting.

D. Chatham Area Transit Authority

There was no report at this time.

E. Georgia Ports Authority

Mr. Randy Weitman reported that there was nothing new to report at this time. There were no questions.

F. Savannah-Hilton Head International Airport

Mr. George Fidler reported that the traffic lights at the I-95 ramps and Airways Rd. are under construction. All the signal work is scheduled to be completed by November 2006. Terminal expansion is underway with the addition of five gates and new concession areas. This is expected to be completed in spring 2007. The new parking garage across from the main terminal, with 1,690 spaces, is underway and expected to be completed in summer 2007. Gulfstream is expanding in the southwest quadrant. The crossings of the CSX rail line are temporary until December.

VI. Other Business

Mr. Thomson recognized Mr. McArthur Jarrett, who now sits on the Policy Committee as Chairman of ACAT. He also acknowledged Mr. Brian Leighton, who was in the audience today, as the new Vice Chair of ACAT. The MPC has prepared a press release about these new officers, as well as for the new officers of the CAC.

VII. Other Public Comments

Mr. Jack Knops, from Preserving Savannah Neighborhoods addressed the committee. He thanked Mr. Wilkes for his comments on the Context Design Workshop and said he was glad to be a participant of that workshop. Mr. Knops then read the following statement: (Statement scanned into the minutes as presented by Mr. Knops.)

To the members of the MPO,

At the June 28, 2006 MPO meeting Susu Cox and other members of Preserving Savannah Neighborhoods spoke on our opposition to the widening of Hampstead and DeRenne Avenues. Ms. Cox made several requests involving Connecting Savannah on behalf of Preserving Savannah Neighborhoods. They were:

1. The Connecting Savannah Comment cards be examined by an independent party and their validity verified. The results should be shared with your members and all those who were regular Connecting Savannah participants.

 An itemized status update of each recommendation in the Connecting Savannah Action Plan as approved at the June 22, 2005 MPO meeting.

3. That Connecting Savannah participants be reconvened as soon as possible as the participants requested at their last meeting. (P.7 MPO meeting minutes of 6/22/05)

We would like to know if there has been any progress on these requests.

As for item #1 involving the Connecting Savannah comment cards/surveys which were distributed and collected in May and June of 2005, we believe this community and its leaders have heard the voices of those who have encouraged reason and logic in making decisions regarding transportation and the impact it will have on peoples lives, neighborhoods and the character of Savannah. Even though the MPO June 22, 2005 vote was based on those comment cards, it is now apparent that a more reasonable approach to transportation is being taken in this community which values Savannah residents and their neighborhoods. Many of you have shown great leadership in listening to the concerns of our citizens. Basically, the results of the comment cards have been discounted by the voices of the citizens in this community and any verification of their validity is unnecessary. However, if in fact, an independent examination has been conducted we would appreciate receiving those findings, since our review identified numerous inconsistencies and concerns. In principle, it is simply unreasonable to base a \$65 million decision to widen roads and destroy homes and neighborhoods on uncontrolled, unreliable data.

As for item #2, as many of our members were Connecting Savannah participants, we continue to be very interested in the status of each recommendation in the Action Plan and again request an update on each item in the plan.

As for item #3, once again we are very interested in the reconvening of the participants of the Connecting Savannah process as was requested at their last meeting. These participants spent hours attempting to be a part of the development of transportation solutions which would enhance our community and as such deserve to be brought back together to continue the process.

On behalf of Preserving Savannah Neighborhoods, I appreciate your time and look forward to hearing from you in the near future.

Jack Knops Coordinator, Preserving Savannah Neighborhoods August 23, 2006 Following Mr. Knops statement, Mayor Johnson made the following comment:

"Connect Savannah was one of the most truly democratic processes that I have witnessed. and I have been here all my life. And like any issue of this magnitude there will be people who will agree with the majority and people who will disagree with the majority, and this is what we have with this situation. Right now we are moving toward getting some studies done on that corridor and the options that are made, and I see no reason why citizens will not be involved in that process again, but I can bet a pay check that when the report is done that there will be people who agree with it and there will be people who disagree with it, but sooner or later the people who are authorized to make these decisions about public transportation will have to step up to the plate and decide on a course of action to deal with this issue on DeRenne. So I think that we will continue to listen to all of the sides. I have a letter here from one side, you are representing one side, and there is even a third side out there, but we will give respect to all of these views in the process. But when that is over, in the interest of everybody in the community, we need to make a decision. It will test the will because we have politicians on all sides. It's going to take some will and some backbone to finally come up with what the best science and the best engineering tells us is the solution to this problem. I said very early on that we would never make everybody happy in this situation, because there are too many opinions of what ought to be done, and if my idea isn't the one that prevails then I guess I have signs printed up, take them out, and we have what we have now. Sooner or later the issue of that congestion on DeRenne must to be addressed and will be addressed, hopefully."

VIII. Adjournment

There being no other business to come before the Board, the August 23, 2006 Policy Committee meeting was adjourned.

Respectfully submitted

Marchiller

Mark Wilkes, P. E., AICP Director of Transportation Planning



Department of Transportation

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> EARL L. MAHFUZ TREASURER (404) 656-5224

August 4, 2006

S.R. 26/US 80 @ Various Locations City of Tybee, Chatham County

"OPERATIONAL IMPROVEMENTS"

Ms. Diane D. Schleicher, City Manager City of Tybee Island P.O. Box 2749 Tybee Island, GA 31328

Dear Ms. Schleicher:

In regards to the above referenced subject, this office made an on-site investigation of the locations contained in you letter dated July 10, 2006. The following is a list of recommendations for the subject intersections and segments of roadway.

- S.R. 26/US 80 @ Polk St. and S.R. 26/US 80 @ McKenzie St. Install left turn lane on S.R. 26/US 80. This work is to be accomplished under the proposed resurfacing project. (See attached design)
- S.R. 26/US 80 @ 12th St. Add left turn lane on S.R. 26/US 80, to be accomplished under the proposed resurfacing project. (See attached design) Add pedestrian crosswalks, to be accomplished by GDOT District Forces.
- S.R 26/US 80 @ Spanish Hammock. Signalization Study. This office will schedule a Traffic Engineering study to determine if signalization or other operational improvements can be implemented.
- Speed limit on S.R. 26/US 80. This office will conduct a speed study along this segment of roadway.
- Raised Crosswalks/Speed Tables. At this time we do not support this type of operation on this roadway classification. Typically, this operation is used on roadways with low speed and motorists perceive the road not to be a thoroughfare or classified as a major arterial roadway. (See attachment)

In Pavement LED Crosswalks. At the present time, this product is being evaluated by our Traffic Safety Electrical Facilities Office. As soon as we have an approved product, details and specifications we will notify your office. At that time, if the City decides to implement this type of control, the GDOT would require a Special Encroachment Permit for installation and maintenance on State Route System.

We appreciate the opportunity to meet with you and your staff and look forward to completing these proposed improvements. If you have any questions or comments please contact Rick Hardenbrook or Robert T. McCall at (912)427-5762 or P.O. Box 610, Jesup, GA 31598

Yours very truly,

FOR: Glenn W. Durrence, P.E. District Engineer

9 Mall

BY: Robert T. McCall District Traffic Engineer

RTM:REH:bhs

Copy: Donnie Williams, Area Engineer, Savannah Cynthia Phillips, District Access Mgmt. Supervisor are allowed to exit the street, but entrance occurs at side streets. Pedestrians and bicyclists are allowed to travel in both directions. Figure 109 illustrates typical curb extension and bulb-out designs.

Diverters and Street Closures

Diagonal diverters close roads and eliminate through traffic, while providing access to the surrounding neighborhood. The diverter island provides an area for landscaping and aesthetic enhancement. The island also provides a crossing refuge area for pedestrians.

Full street closures eliminate through traffic, improving the safety of the street by significantly reducing traffic volumes and speeds near the closure.

A disadvantage of full street closures and diagonal diverters is that they cut off emergency vehicle access unless another route can be provided. They also limit access opportunities for the affected residents. Through-traffic may transfer to other local streets in the area if not managed.

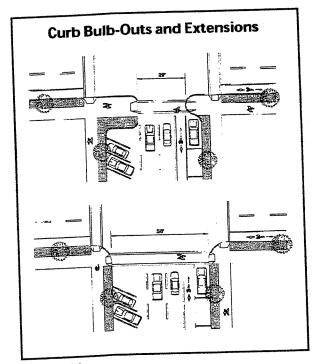
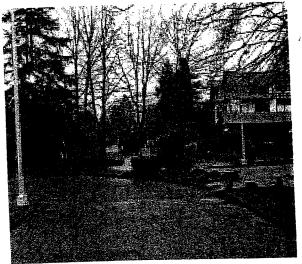


Figure 109



Diagonal diverter

Another concern is that the closure of streets may contradict other transportation and land use planning goals that encourage an open grid system of streets.

Partial street closures reduce through-traffic in one direction and partially in the other. Traffic is diverted, while allowing for emergency vehicle and local resident access.

When streets are either fully or partially closed, it is always important to continue to provide pedestrian and bicycle access through the closed area.

Raised Intersections

Raised (or tabled) intersections provide the advantage of slowing vehicles at one of the most critical locations for pedestrian crossing activity. Raised intersections are often paved with contrasting material (stamped, scored, or colored concrete or unit pavers) to the roadway and stand out visually to approaching motorists. The use of special paving also helps to delineate the pedestrian crossing area.

Raised intersections create an area clearly designated for pedestrians. Approaching motorists can see that the intersection is not a location designed for rapid, through-movement, which causes them to slow down and yield the right-of-way to pedestrians. Raised intersections are not appropriate for high speed thoroughfares and major arterials and collectors. Local requirements may prohibit their use under a variety of circumstances.

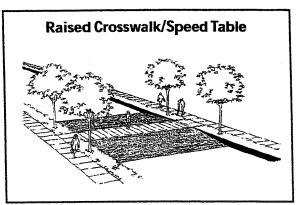
Raised intersections make it easier to meet the ADA requirements because the crosswalk is a natural extension of the sidewalk, with no change in grade. However, since the curb line is harder for sight-impaired pedestrians to detect at intersections, special treatment such as tactile warning strips or audible signals are needed to make them detectable.

Placement of drainage inlets is simplified at raised intersections, because surface water will drain away from the center of the intersection.

Changes in pavement color and texture at the intersection raise a motorist's awareness through increased visibility, noise, and vibration. Crossings constructed with special paving should use nonslip bricks or unit pavers. Scored or stamped and colored concrete surfaces can also be used, and are generally more durable over the long term than unit pavers, with more uniform joints and less chance of displacement. Special paving surfaces should be installed and maintained in a smooth, level, and clean condition. Care should be taken to ensure that grooves and joints are not so deep as to impact accessibility.

Raised Crosswalks/Speed/ Tables

Raised crosswalks are speed humps that are marked as designated crossings. They may be wider than typical speed hump designs. Raised crosswalks or speed tables are appropriate at midblock locations on local streets, some local and collector roads, and in other locations like at airport drop-off and pickup zones, shopping centers, and campuses. Raised crosswalks are typically marked with high visibility crosswalk designs or may be surfaced with special paving





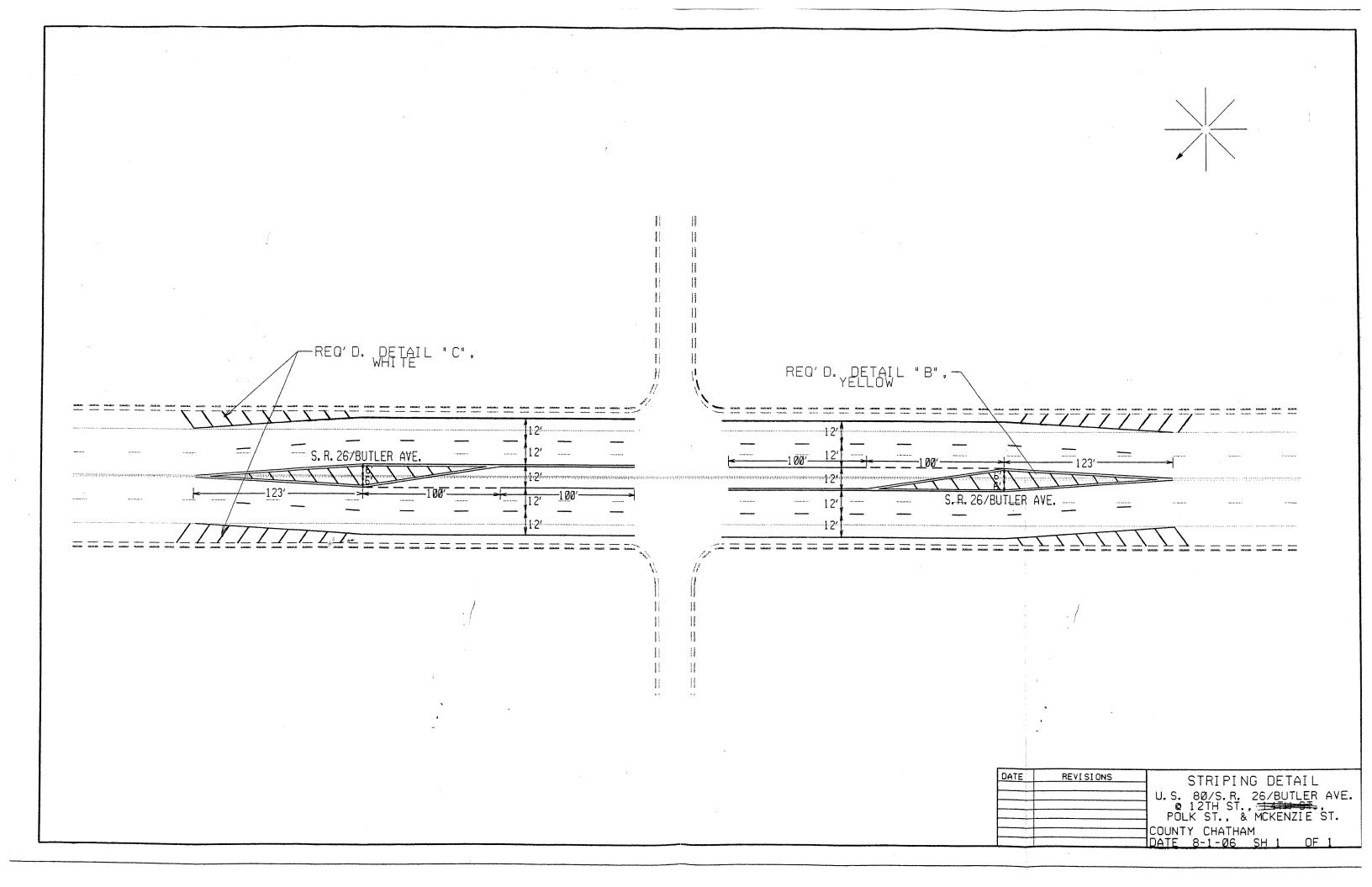
(see Raised Intersections). The recent FHWA report, *The Effects of Traffic Calming Measures on Pedestrian and Motorist Behavior*, summarizes research on raised crosswalks. It concludes that they can directly reduce motorists' speeds and increase the occurrence of motorists yielding to the crossing pedestrian. Figure 110 illustrates a typical raised crosswalk.

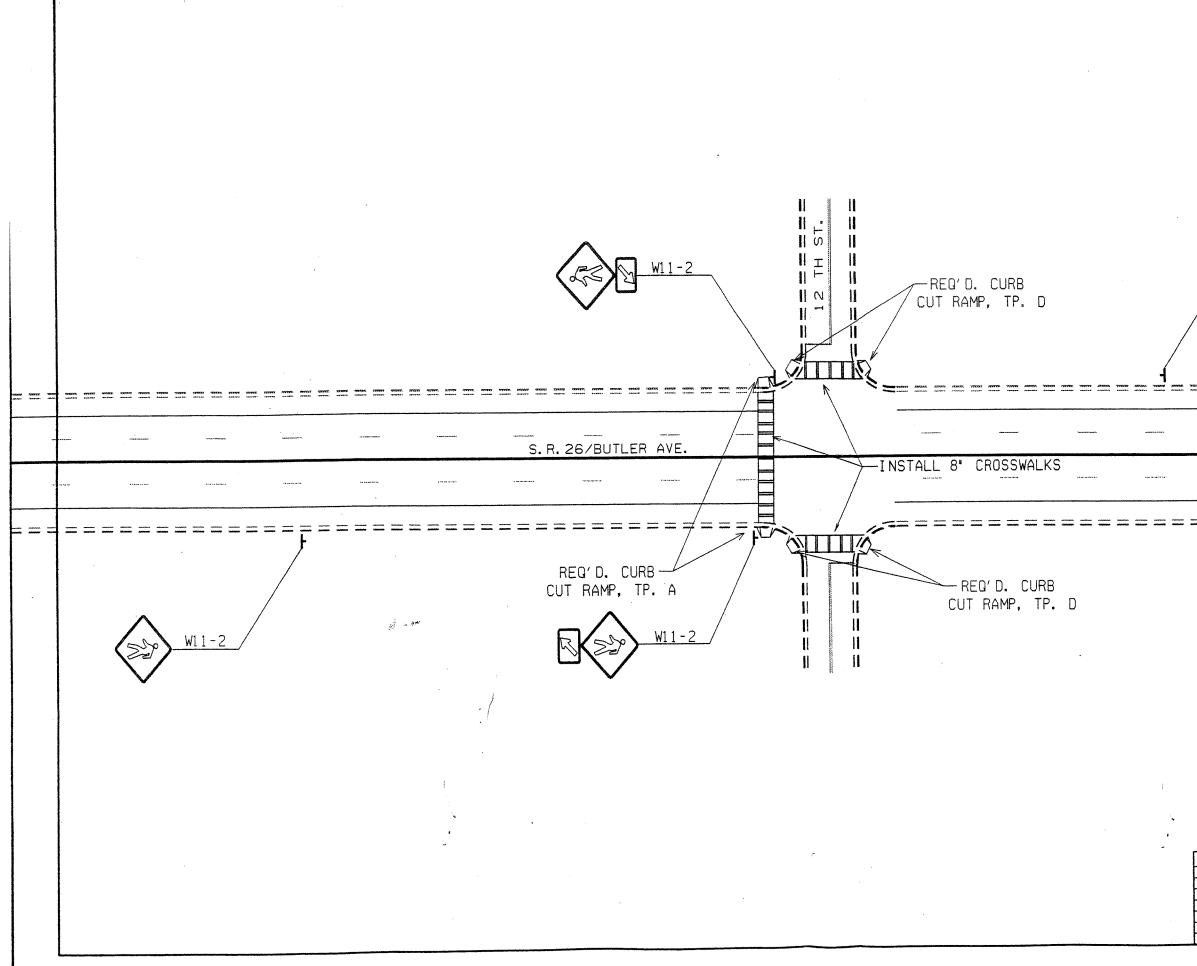
Gateways

Gateway treatments generally encompass a wide variety of techniques that provide neighborhood identification, such as signs, monuments, landscaping, special paving, narrowed entrances, and other elements. These enhancements help to provide an indication to motorists that they are entering a neighborhood area from an arterial road or other type of street where traffic was moving at higher speeds.

Traffic Calming on Arterial Streets

In many communities there are instances where residential streets have an arterial designation. Sometimes this is part of the original development scheme while other times it is a more recent designation as a consequence of community growth. In any event, there can be compelling reasons to limit speeds and introduce traffic calming on arterial streets. With some street networks, a neighborhood's pedestrian accessibility can be "cut-off" if all traffic is





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