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September 17, 2008

TO: Members of the MAG Transportation Review Committee

FROM: Tom Callow, City of Phoenix Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, September 25, 2008, 10:00 a.m.
MAG Office, Suite 200, Saguaro Room
302 North 1st Avenue, Phoenix

A meeting of the MAG Transportation Review Committee (TRC) will be held at the time and place noted above. **Please park in the garage under the building. Bring your ticket to the meeting as parking will be validated. Bicycles can be locked in the rack at the entrance to the parking garage.**

The next meeting of the MAG Transportation Review Committee will be held at the time and place noted above. Committee members or their proxies may attend **in person, via videoconference or by telephone conference call**. Those attending video conference must notify the MAG site three business days prior to the meeting. Those attending by telephone conference call please contact MAG offices for conference call instructions.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Christina Hopes at the MAG Office. Requests should be made as early as possible to allow time to arrange the accommodation.

Please be advised that under procedures adopted by the MAG Regional Council on June 26, 1996, all MAG committees need to have a quorum in order to conduct business. A quorum is a simple majority of the membership or twelve people for the MAG TRC. If you are unable to attend the meeting, please make arrangements for a proxy from your jurisdiction to represent you. If you have any questions or need additional information, please contact Eric Anderson or Christina Hopes at (602) 254-6300.

A Voluntary Association of Local Governments in Maricopa County

City of Apache Junction ▲ City of Avondale ▲ Town of Buckeye ▲ Town of Carefree ▲ Town of Cave Creek ▲ City of Chandler ▲ City of El Mirage ▲ Fort McDowell Yavapai Nation ▲ Town of Fountain Hills ▲ Town of Gila Bend
Gila River Indian Community ▲ Town of Gilbert ▲ City of Glendale ▲ City of Goodyear ▲ Town of Guadalupe ▲ City of Litchfield Park ▲ Maricopa County ▲ City of Mesa ▲ Town of Paradise Valley ▲ City of Peoria ▲ City of Phoenix
Town of Queen Creek ▲ Salt River Pima-Maricopa Indian Community ▲ City of Scottsdale ▲ City of Surprise ▲ City of Tempe ▲ City of Tolleson ▲ Town of Wickenburg ▲ Town of Youngtown ▲ Arizona Department of Transportation

TENTATIVE AGENDA

1. Call to Order

2. Approval of Draft August 28, 2008 Minutes

3. Call to the Audience

An opportunity will be provided to members of the public to address the Transportation Review Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Citizens will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Transportation Review Committee requests an exception to this limit

4. Transportation Director's Report

Recent transportation planning activities and upcoming agenda items for the MAG Management Committee will be reviewed by the Transportation Director.

5. Approval of Consent Agenda

Committee members can request that an item be removed from the Consent Agenda. Consent items are marked with an asterisk.

COMMITTEE ACTION REQUESTED

2. Approve Draft minutes of the August 28, 2008 meeting.

3. For information and discussion.

4. For information and discussion.

5. For information and possible action to approve the Consent Agenda.

CONSENT AGENDA

6.* ADOT Red Letter Process

In June of 1996, the MAG Regional Council approved the Arizona Department of Transportation (ADOT) Red Letter process, which requires MAG member agencies to notify ADOT of potential development activities in freeway alignments. Development activities include actions on plans, zoning and

6. For information, discussion, and possible action.

permits. ADOT has forwarded a list of notifications from January 1, 2008 to June 30, 2008. Please refer to the materials in Attachment One.

7.* Project Changes – Amendments, and Administrative Modifications to the FY 2008-2012 MAG Transportation Improvement Program

The FY 2008-2012 Transportation Improvement Program (TIP) was approved by Regional Council on July 25, 2007. Since that time, there have been requests from member agencies to modify projects in the programs. The proposed amendments and administrative modifications to the FY2008-2012 TIP are listed in Table A. An administrative modification does not require a conformity determination. Please refer to Attachment Two.

8.* Submittal of Paving of Unpaved Road Projects and PM-10 Certified Street Sweepers for MAG Federal Funding

The deadline for submitting applications projects for Paving of Unpaved Road Projects (FY2011, FY2012) and PM-10 Certified Street Sweepers (FY2009) for MAG Federal Funding is September 19, 2008. These projects will be entered into the TIP database, and the Congestion Mitigation and Air Quality (CMAQ) scores will be calculated. This Fall, the Street Committee will review the applications and the Air Quality Technical Advisory Committee (TAC) will rank them. Then, the TRC will review the Paving of Unpaved Road Projects TAC rankings and, in January 2009, will recommend a list of priority projects to receive CMAQ funds for the respective federal fiscal years. A list of the projects submitted (without scores) will be provided at the September meeting of the TRC.

7. For information, discussion and possible recommendation to approve amendments and administrative modifications to the FY 2008-2012 Transportation Improvement Program, as appropriate, to the Regional Transportation Plan 2007 Update, as shown in the attached table.

8. For information, discussion, and possible action.

ITEMS TO BE HEARD

9. TRC Guidelines for Recommending Projects for Federal Funding

The Draft MAG Federal Fund Programming Principles for fiscal year (FY) 2009 advise the Transportation Review Committee (TRC) to develop guidelines for recommending projects to be selected and programmed in the competitive project selection process for MAG Federal Funds. The TRC will be responsible to recommend Paving Unpaved Road Projects after the Technical Advisory Committees (TACs) administer a project evaluation process. At the August TRC meeting, Committee members agreed to use project selection factors that have been used in the past for the Draft TRC Guidelines to recommend projects for federal funding. Please refer to Attachment Three.

10. 2008 Annual Report on Status of the Implementation of Proposition 400

A.R.S. 28-6354 requires that MAG issue an annual report on the status of projects funded by the half-cent sales tax authorized by Proposition 400. The 2008 Annual Report is the fourth report in this series. MAG Staff will brief the Committee on the findings of the 2008 report, including the status of the Life Cycle Programs for Freeways/Highways, Arterial Streets, and Transit. Please refer to Attachment Four.

11. Design Guidelines for the Arizona Parkway

Since the acceptance of the Interstate 10-Hassayampa Valley Roadway Framework Study by the MAG Regional Council in February 2008, the Maricopa County Department of Transportation (MCDOT) has conducted a study to establish design guidelines for the construction of the Arizona Parkway. The Arizona Parkway is the name given to a functional classification of roadway recognized as having a high degree of access

9. For information and discussion.

10. For information and discussion.

11. For information and discussion.

management through an indirect left turning maneuver referred to as the “Michigan Left Turn.” This high degree of access management has been proven to yield higher capacities and improve safety. A presentation will be provided to the Committee on background of the study, how guidelines were established, and specific details on the Arizona Parkway constructability and phasing. A status report on the implementation of the Arizona Parkway in the MAG region will also be provided. Please refer to Attachment Five.

12. Proposed ADOT Contract Provisions for Commodity Price and Availability

Representatives from ADOT and Arizona Rock Products will present proposed contract provisions to provide for adjustments related to commodity prices and availability.

13. Member Agency Update

This section of the Agenda will provide Committee members with an opportunity to share information regarding a variety of transportation-related issues within their respective communities.

14. Next Meeting Date

The next regular TRC meeting will be scheduled Thursday, October 23, 2008 at 10:00 a.m. in the MAG Office, Saguaro Room.

12. For information and discussion.

13. For information.

14. For information.

DRAFT MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
TRANSPORTATION REVIEW COMMITTEE

August 28, 2008

Maricopa Association of Governments Office
302 North First Avenue, Suite 200, Saguaro Room
Phoenix, Arizona

MEMBERS ATTENDING

Phoenix: Tom Callow	Maricopa County: John Hauskins
ADOT: Kwi-Sung Kang for Floyd Roehrich	Mesa: Mike James for Scott Butler
Avondale: David Fitzhugh	Paradise Valley: Robert M. Cicarelli
*Buckeye: Scott Lowe	Peoria: David Moody
*Chandler: Patrice Kraus	*Queen Creek: Mark Young
El Mirage: Lance Calvert	RPTA: Bob Antilla for Bryan Jungwirth
Fountain Hills: Randy Harrel	Scottsdale: Dave Meinhart for Mary O'Connor
*Gila Bend: Vacant	Surprise: Randy Overmyer
*Gila River: David White	Tempe: Carlos de Leon
*Gilbert: Tami Ryall	Valley Metro Rail: John Farry
Glendale: Bob Darr for Terry Johnson	#Wickenburg: Gary Edwards
Goodyear: Cato Esquivel	Youngtown: Mark Hannah for Lloyce Robinson
Guadalupe: Jim Ricker	
Litchfield Park: Mike Cartsonis	

EX-OFFICIO MEMBERS ATTENDING

Regional Bicycle Task Force: Jim Hash, City of Mesa	Pedestrian Working Group: Brandon Forrey, City of Peoria
*Street Committee: Darryl Crossman, City of Litchfield Park	*Transportation Safety Committee: Kerry Wilcoxon, City of Phoenix
ITS Committee: Mike Mah	

* Members neither present nor represented by proxy. + - Attended by Videoconference
- Attended by Audioconference

OTHERS PRESENT

Eric Anderson, MAG	Eileen Yazzie, MAG
Jonathan Gelbart, MAG	Jenna Goad, City of Glendale
Bob Hazlett, MAG	Ray Dovalina, City of Phoenix
Sarath Joshua, MAG	Jim Mathien, Valley Metro Rail
Vladimir Livshits, MAG	Shirley Gunther, City of Avondale
Nathan Pryor, MAG	Brad Lundahl, City of Scottsdale
Steve Tate, MAG	Tom Remes, City of Phoenix
Tim Strow, MAG	Dianne Kresich, ADOT
Kevin Wallace, MAG	

1. Call to Order

Mr. Tom Callow from the City of Phoenix called the meeting to order at 10:07 a.m.

2. Approval of June 26, 2008 Draft Minutes

Mr. Callow asked if there were any changes or amendments to the meeting minutes. Mr. Dave Meinhart from the City of Scottsdale requested a modification to page five of the June 26, 2008 minutes. According to the draft minutes, one of the public speakers had lived in the Greenstone neighborhood. Mr. Meinhart requested a revision to the minutes clarifying that the individual lived in a neighborhood east of the 101. Mr. Cato Esquivel from the City of Goodyear moved to approve the minutes with the modifications requested by Mr. Meinhart. Mr. David Moody from the City of Peoria seconded, and the minutes were subsequently approved by unanimous voice vote of the Committee.

3. Call to the Audience

Mr. Callow stated that he had not received any request to speak cards from the audience, and moved on to the next item on the agenda.

4. Transportation Director's Report

Mr. Callow invited Mr. Eric Anderson to present the Transportation Director's Report. Mr. Anderson announced the addition of a new staff member to the Transportation Division, Mr. Tim Strow. Mr. Anderson informed the Committee that Mr. Strow's position would focus on freight, aviation, and general planning activities. The Committee then welcomed Mr. Strow to MAG.

Next, Mr. Anderson addressed cost and revenues and provided two handouts to Committee members. He directed the Committee to his first handout, which depicted the change in sales tax revenue by month for fiscal years 2005 through 2008. Mr. Anderson reported that July 2008 revenues were down 11.2 percent. He stated that the revenue decline track paralleled the experiences of MAG's local government member agencies, such as Gilbert and Phoenix. Mr. Anderson added that the July 2008 sales tax revenues were less than \$30 million, which was the first time this had occurred since September 2006.

Mr. Anderson reported participating in the Arizona Department of Transportation (ADOT) Risk Assessment Process on construction costs and revenues. According to Mr. Anderson, concerns were expressed about the economy by representatives from Joint Legislative Budget Committee (JLBC) and the Governor's Office and economists at the Risk Assessment Process Panel discussion on Wednesday,. The Panel expressed specific concerns about the state of the economy and made the general consensus that the legislature likely would need to reconvene to address the Fiscal Year 2009 State budget. He explained that State shared revenues may be on the table for discussion at that time. Mr. Anderson encouraged

Intergovernmental Liaisons to be cognizant of the situation and to assist member agencies in securing existing funding.

Next, Mr. Anderson discussed construction costs. He directed the Committee's attention to the second handout provided, which was from the Association of General Contractors and displayed historical construction cost trends since 2003. He stated that although the price of cement was down at the moment that construction costs are expected to continue to increase faster than the general level of inflation for the foreseeable future.

Mr. Anderson reported that an asphalt vendor at the panel discussion indicated a 75 percent increase in the cost of asphalt was likely. Mr. Anderson also reported that refinery production was down and explained that these cost increases would occur regardless of the decline in the house market. He continued explaining that India and China planned to spend three percent of their gross domestic product on infrastructure over the next ten years, which would have a significant impact on commodity prices and construction costs. A brief discussion followed.

Mr. John Farry from Valley Metro requested that Mr. Anderson email the Committee the graph and related materials from the Association of General Contractors. Mr. Anderson stated that he would email the PowerPoint presentation with the graphs to the Committee.

In conclusion, Mr. Anderson announced that ADOT would published revised RARF Revenue projections towards the end of September or early October. He expressed concerns about the impact of the revised forecasts on the freeway and transit life cycle programs. In addition, Mr. Anderson explained that the revised projections would impact the bonding ability for the freeway component. He stated that MAG Staff was meeting with each of the Transportation Policy Committee members individually about the issue adding that a policy discussion would probably occur later in the Fall. He also stated that a lot of work was need to bring the freeway life cycle program back into fiscal balance, as required by state law, due to the changes in costs and revenues.

Mr. Callow asked if there were any questions or comments on the Transportation Director's Report. There were none, and the Committee moved onto the next agenda item.

5. DRAFT MAG Federal Fund Programming Principles

Mr. Callow invited Ms. Eileen Yazzie from MAG to present on the MAG Federal Fund Programming Principles. Ms. Yazzie stated that the goal of the presentation was for the Committee to discuss possible guidelines and factors for recommending projects for federal funding. She reviewed Section 300.8 of the Draft MAG Federal Programming Principles, which previously had been emailed to the Committee. According to Section 300.8, "the TRC's role is to review the evaluation and analysis completed by the Technical Advisory Committees, and recommend projects to be selected and programmed with federal funds based on guidelines established for project selection." The section also states that the Committee would develop guidelines for project selection.

Ms. Yazzie informed the Committee that the upcoming schedule for competitive project selection distributed as an attachment to the agenda. She noted that the current schedule differed from the previous year's schedule. Ms. Yazzie explained that the Committee would be presented with a list of project applications submitted for the paving of unpaved roads and Street Sweepers in September. She added that the Technical Advisory Committees (TACs) would work on the applications from October through December. Then, the paving of unpaved road project application rankings would be presented to the Committee in January.

Next, Ms. Yazzie briefly summarized the Transportation Review Committee's history of using guidelines and factor for making project funding decisions. She stated that historically the Committee has relied on recommendations from the TACs, Congestion Mitigation and Air Quality (CMAQ) Evaluations, Regional Transportation Plan (RTP) funding allocation and/or goals, and the RTP priority criteria. Ms. Yazzie directed the Committee's attention to the agenda packet, which included printouts from chapter two of the RTP that discussed goals, objectives and priorities as well as printouts of part of the CMAQ Guidance from the Federal Highway Administration (FHWA).

Ms. Yazzie asked the Committee to document the guidelines and factors to be considered when recommending projects to receive federal funds between the current Committee meeting and December 2008 or January 2009. With that, she turned to floor over to the Committee discussion on the agenda item.

Mr. Callow asked which year the Committee would be selecting projects to receive federal funds. Ms. Yazzie replied that for federal fiscal year (FFY) 2009, the project selection would be for the paving of unpaved roads projects programed for FFY2011 - FFY2012 and street sweeper applications for FFY2009. She added that bicycle/pedestrian, arterial streets, and intelligent transportation systems applications would not be considered at this time because the projects are programmed until FFY2013.

Then, Mr. Callow asked the Committee for questions and comments on the agenda item. Mr. David Moody from the City of Peoria asked if decisions made about the paving of unpaved road and street sweeper project selection process would be extended to the programming of other projects after FFY2013. Ms. Yazzie replied yes.

Mr. Meinhart from the City of Scottsdale asked if the Committee's decisions would affect the Federal Fiscal Year Closeout Process (Closeout). Ms. Yazzie explained that it could impact Closeout, but added that Closeout currently has defined criteria in place. Mr. Anderson added that the Draft Principles would apply to Closeout; however, there are additional, specific criteria in place stemming from a documented Closeout process.

Ms. Patrice Kraus from the City of Chandler stated that unit costs and traffic count methodologies vary from jurisdiction to jurisdiction and expressed concerns about comparing these factors given the variations in methodologies applied. Ms. Kraus asked Ms. Yazzie if unit costs and traffic counts were the type of criteria that MAG would like applied to the selection process by the Committee. Ms. Yazzie explained that starting this year, the TACs would analyze unit cost and traffic count methodologies when reviewing applications. She stated that at least three different Technical Advisory Committee meetings would review

these methodologies. Discussion followed.

Mr. Callow asked if there were any additional questions or comments on this agenda item. There were none, and the Committee moved on to the next item on the agenda.

6. MAG Regional Transit Framework Study

Next, Mr. Callow invited Mr. Kevin Wallace from MAG to present the MAG Regional Transit Framework Study. Mr. Wallace stated the dynamic for transit had changed recently due to oil prices and the sustainability movement.

Mr. Wallace informed the Committee that the long term objectives for the MAG Regional Transit Framework Study were to assess long-range transit needs, develop a vision for metropolitan growth up to and beyond 2050, and develop project descriptions up to 2030. Other objectives included obtaining guidance for future Regional Transportation Plan (RTP) updates and funding initiatives. In addition, the study would determine the future role of transit in the region.

Mr. Wallace stated the study was technical in nature and would use tools and analysis to understand regional travel patterns. The study would define mobility needs by mode and trip purpose and/or length. He stated the study would also assess connections between activity centers and between land use and transportation in an effort to strengthen those connections through transit.

Mr. Wallace explained that the Regional Transit Framework Study was following a customer based approach. Toward that end, the project team was obtaining input from transportation system users as well as potential users. He added that the project team was working to incorporate the efforts of others such as RPTA, METRO, ADOT, and other local jurisdictions. Mr. Wallace stated the study was working to address local conditions and to provide policy makers with the technical tools to guide future policy decisions.

Then, Mr. Wallace explained that three scenarios would be developed for the study. Scenario One would review incremental low cost expansion and the potential acceleration of the RTP. Scenario Two would include a moderate increase in financial resources and the coordination of land use plans to reinforce transit patronage. Finally, Scenario Three would raise public transit to a level that makes it competitive with automobiles in congested corridors. Mr. Wallace explained that costs associated with the scenarios would increase as they progressed (ie. Scenario 1 - lowest cost; Scenario 3 - highest cost).

Mr. Wallace announced the development of regional service concepts for three geographic levels: community, subarea, and regional. The community geographic level included corridors up to eight miles in length. The Subarea level included corridors between five and 15 miles in length. Mr. Wallace noted the overlap between the community and subarea levels. He explained that subarea levels provides connections in longer corridors between major regional activity centers/population centers and other regional services and may include moderate-to-high density residential and commercial land use patterns. Finally, the

regional level included corridors in excess of 15 miles in length. Regional level corridors provide long distance connections between regional activity centers/population centers and includes high density activity center within corridor.

According to Mr. Wallace, as part of the study seven focus groups were conducted to date to obtain community feedback. The focus groups included two sessions with transit riders, two sessions with non-transit riders, and three sessions with representative from the disability community. Mr. Wallace summarized key finding from the focus group meetings, which included:

- residents in central locations are generally more satisfied with existing transit services;
- key words to describe the public transit system in the Valley were “slow,” “old,” and “prehistoric;”
- key words used to describe transit systems in other areas were “seamless” and “painless;”and,
- most transit riders and non-riders alike are excited and optimistic about light rail service in the Valley.

As part of the study, peer regions were determined. The peer regions were selected included Atlanta, Georgia; Dallas, Texas; Denver, Colorado; Salt Lake City, Utah; San Diego, California; and, Seattle, Washington. The study would review the transit in the peer regions in an attempt to learn from their success stories. Mr. Wallace continued providing a brief comparison of the number of modes provided, ridership, and expenditures for each peer and compared to the region.

Next, Mr. Wallace outlined the study’s project schedule. He reported that the research phase was completed in July 2008, and the current phase would evaluate the data to determine regional travel patterns and identify opportunities to increase transit market share. He announced that between August and October the project team would develop concepts and evaluate the methodology for service scenarios; he stated this phase should be complete by September 2008. Mr. Wallace reported that recommendations based on the study would be presented in the Fall of 2008. Finally, he informed the Committee that Peer Review Panel Workshop would be held in November and that a final draft of the study should be available in December 2008 or January 2009.

Mr. David Fitzhugh from the City of Avondale questioned how the study would address the lack of transit infrastructure in the West Valley per the approved the Regional Transportation Plan. Mr. Anderson stated that geographic equity was a part of the RTP and explained that different areas of the Valley requested specific types of infrastructure improvements (ie. freeways versus transit improvements) at the time of the development of the RTP, which lead to inequities by mode. However, Mr. Anderson assured the Committee that the RTP was geographically equitable. Mr. Fitzhugh acknowledged Mr. Anderson’s comments and expressed concerns that the RTP may not get built due to the current economic situation. A brief discussion followed.

Mr. Moody asked if the removal of the firewall established by Proposition 400 would be a possibility due to increased fuel costs. Mr. Anderson explained the firewalls were established in the Arizona Revised Statutes and stated a ballot initiative approved by the

voters would be required to remove the firewall. Mr. Anderson emphasized that the removal of the firewalls would be a challenge and would require the Regional Transportation Plan to be significantly revised. The discussion continued.

Mr. Callow asked if there were any additional questions or comments on this agenda item. There were none, and this concluded this agenda item.

7. MAG Access Management Scan

Continuing on to the next agenda item, Mr. Callow invited Ms. Christina Hopes from MAG to discuss the MAG Access Management Scan. Ms. Hopes thanked the Committee for their time and briefly explained her background in access management. She stated that prior to joining MAG Staff that she had worked as research faculty and the Center for Urban Transportation Research (CUTR) at the University of South Florida. While at CUTR, she was mentored by Kristine Williams, co-author of the Transportation Research Board's Access Management Manual and current Chair of the TRB Committee on Access Management.

Ms. Hopes informed the Committee that access management was the systematic control of the location, spacing, design, and operation driveways, median openings, interchanges, and street connections to a roadway. She add that access management also involved roadway design applications, such as median treatments auxiliary lanes and signal spacing. Ms. Hopes explained that by managing roadway access, member agencies could preserve the functional integrity of the roadway, increase public safety, reduce traffic congestion, and improve the appearance and quality of the built environment.

Ms. Hopes reported that numerous studies conducted over the past several years have shown that effective access management program can reduce congestion by 50 percent, increase roadway capacity up to 45 percent, and reduce travel time and delay up to 60 percent. She cautioned that without proper access management, the function and character of major roadway corridors could deteriorate rapidly. She added that failing to manage access was associated with the adverse social, economic, and environmental impacts, including:

- An increase in vehicular crashes;
- Accelerated reduction in roadway efficiency;
- Unsightly commercial strip development;
- More cut-through traffic in residential areas due to overburdened arterials; a continuous cycle of widening roads; and
- Increased commute times, fuel consumption, and vehicular emissions

Next, Ms. Hopes explained that MAG had the unique opportunity to aid local governments in the identification and implementation of effective access management strategies. She added that toward that end, MAG Staff was conducting a state of the practice scan to determine the current and best access management policies and practices in the region. Ms. Hopes stated that the short term objectives of the scan were to facilitate the sharing of current and best practices in the region and to educate member agencies and staff on the principles and benefits of access management. She also stated that the long term objectives of the scan were to help MAG determine how to assist member agencies in managing access and to

encourage continuity on multi-agency projects in the region.

Continuing on, Ms. Hopes informed the Committee that there were numerous techniques and tools to manage access including corner clearance standards, joint and cross access requirements, and retrofitting requirements. She explained that a common misconception about access management is that the goal is to take away driveways, which is not true. Ms. Hopes explained that the MAG Access Management Scan would focus on numerous techniques in addition to limits on driveways that would assist member agencies in managing access in their communities.

Then, Ms. Hopes summarized the Access Management Scan process. The first step included an access management survey, which was distributed to all MAG member agencies on July 30th. She informed the Committee that the deadline to submit surveys to MAG Staff was September 5th. Ms. Hopes explained the next step in the scan was to review key documents, such as general plans, design guidelines, and land development regulations, from each jurisdiction. She stated that the data collected would guide MAG Staff in their educational efforts. Specifically, the feedback received would be reflected in the topics covered at the MAG sponsored access management workshop in October/November 2008 that would address the principles and benefits of access management. Ms. Hopes also informed the Committee that a final report synthesizing current and best practices would be published during the summer of 2009.

Mr. Callow asked the Committee if there were any questions or comments about the agenda item. Mr. John Hauskins from Maricopa County encouraged Ms. Hopes to present access management to local developers. He stated that the Committee supported her presentation; however, dealing with the development community would be a significant barrier to implementation of access management. Ms. Hopes informed that Committee that at the workshop she would be distributing CDs from the Federal Highway Administration that addressed how access management was beneficial to businesses. In addition, she agreed with Mr. Hauskins that having the support of the development community was instrumental in effective access management. However, she cautioned that without the proper policy framework in place at the jurisdiction level that member agencies would not be able to require developers to adhere to access management standards.

Mr. Meinhart stated that the difficulty with access management occurs when trying to balance economic vitality with stability. Mr. Moody added that compromises between high commercial development and access management can be made to facilitate both. Discussion followed.

Mr. Callow asked if there were any additional questions or comments on the agenda item. There were none, and this concluded presentation on the Access Management Scan.

8. Member Agency Update

Mr. Callow asked members of the Committee if they would like to provide updates; address any issues or concerns regarding transportation at the regional level; and asked if any members in attendance would like to address recent information that was relevant to

transportation within their respective communities.

Mr. Farry reported that the overhead wires on the light rail were almost complete. He added that by mid to late September the light rail would be able to travel the entire 20 mile alignment powered by the overhead wires. Mr. Farry stated that the signals were also being installed. He announced the grand opening of light rail over the weekend of December 27th and 28th. He stated that approximately 300,000 people may be on hand for the opening ceremonies.

Mr. Callow announced that within the next week all of the paving on Central due to light rail would be complete. Mr. Callow asked if there were any additional comments, and there were none. This concluded the Member Agency Update.

9. Next Meeting Date

Mr. Callow informed members in attendance that the next meeting of the Committee would be held on September 25, 2008. There being no further business, Mr. Callow adjourned the meeting at 11:25 a.m.

ATTACHMENT ONE



**Arizona Department of Transportation
Intermodal Transportation Division**

206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Janet Napolitano
Governor

Victor M. Mendez
Director

Floyd
Roehrich Jr.
Acting State
Engineer

August 15, 2008

Mr. Dennis Smith
Executive Director
Maricopa Association of Governments
302 North First Avenue, Suite 300
Phoenix, Arizona 85003

Re: Red Letter Report - Notifications from January 1, 2008 to June 30, 2008

Dear Mr. Smith:

Below is a list of "Red Letter" notices received in our office from the period of January 1, 2008 to June 30, 2008. During this period, notifications were received from local municipalities as well as various Developers, Architects, Engineers and Attorney's.

<u>LOCAL AGENCIES</u>	<u>NOTICES RECEIVED</u>	<u>IMPACT RESPONSES</u>
City of Avondale	08	05
Town of Buckeye	09	02
City of Chandler	15	01
Town of Gilbert	24	01
City of Glendale	03	01
City of Goodyear	36	06
Maricopa County	52	08
City of Mesa	16	08
Miscellaneous Agencies	21	03
City of Peoria	05	02
City of Phoenix	102	43
State Land	13	03
City of Surprise	128	21
City of Tempe	03	02
Total Received	435	106

The Arizona Department of Transportation expends several resources to research future developments and plans adjacent to the state highway system to ensure ADOT's Right of Way is not jeopardized. Other notices received include; road access, zoning changes, outdoor advertising, and annexations.



2001 Award Recipient

Page 2
Mr. Dennis Smith
August 15, 2008

By early notification in the planning and design process, the "Red Letter" process helps in reducing costs, saving money for both ADOT and tax payers. The Department appreciates the cooperation of the Maricopa Association of Governments members and look forward to your continued support as we improve all lines of communication.

Our new Red Letter Coordinator is Annette Close, ADOT Right of Way Project Management, and can be reached at (602) 712-8876 or at aclose@azdot.gov .

Please feel free to contact my office should you have any questions. I can be reached at (602) 712-7900 or 205 S. 17th Avenue, MD 612E. Phoenix, Arizona 85007.

Sincerely,



John Eckhardt III, Manager
Right of Way Project Management

JE/ac

cc: Victor Mendez, Director. ADOT



MARICOPA ASSOCIATION OF GOVERNMENTS REPORT OF RED LETTERS

Of the 435 notices received 106 had an impact on the State's Highway System. Those 106 notices are summarized as follows:

AVONDALE:

1. I-10 & 99th Avenue, received Site Plan and Public Hearing notice. Advised the City the proposed project was within the I-10 widening project. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
2. I-10 from 111th Avenue to 119th Avenue, received notice of a Public Hearing. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
3. I-10 from 111th Avenue to 199th Avenue, received notification of a Zoning Change. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
4. South of Elwood Street, North of Southern between Avondale Boulevard and 107th Avenue, received notice of an Annexation Ordinance change. Advised the City the proposed project was within the study corridor for SR 801.
5. SEC of 107th Avenue and I-10, received General Plan. Advised the City a permit would be required due to proximity to I-10, provided contact information for obtaining a permit.

BUCKEYE:

1. SWC of Riggs Road and SR 85, received notice of a Zoning Change from a Law Firm. Recommended the City contact ADOT's Right of Way Coordinator due to the proximity of the project to SR 85.
2. SWC of Riggs Road and SR 85, received Site Plan. Had potential changes that would impact SR 85 for access. Referred them to Yuma District Office to obtain a permit.

CHANDLER:

1. SWC of Willis Road and Hamilton Road, received Zoning Change. Requested copy of plans from developer for review to ensure no access/encroachment or drainage issues existed.



GILBERT:

1. SEC of Market Street and Pecos Road, received notice of a Design Review Hearing and Site Plan from a Law firm. Advised the City due to the proximity of the project to 202L a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.

GLENDALE:

1. SEC of 101L and Bethany Home Road, received notice of a Public Hearing. Advised the City due to the proximity of the project to ^{101 (ETA)}202L a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.

GOODYEAR:

1. SWC of Cotton and Elwood Street, and NWC of Cotton and MC 85, received notice of a Zoning Change. Advised the City project was in the Study Corridor for the future 303L. Referred them to the Right of Way Coordinator for this area.
2. SWC of Cotton Road and Yuma Road, received Site Plan. Upon review of the plans, there was a discrepancy with the Right of Way lines. Advised the City due to the proximity of project to the 303L a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit. Referred them to the Right of Way Coordinator for this area.
3. SEC I-10 and Estrella Parkway, received Site Plan. Advised the City due to proximity of project to the 303L a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
4. SEC of Bullard and Estrella Parkway, received Site Plan. Advised the City the project was in the study corridor for the future 801. Referred them to the Right of Way Coordinator for this area.
5. NW of Estrella Parkway and I-10, received notice of a zoning change. Advised the City due to proximity of project to I-10 a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.



6. North of NEC of Indian School Road and Cotton Lane, received copy of Final Plat. Advised the City the project was in alignment of the future 303L. Requested the developer contact ADOT's Right of Way Coordinator so they can be kept apprised of the development through all planning stages.

MARICOPA COUNTY:

1. Southern Avenue and Avondale Boulevard, received notice of a Special Use Permit. Advised the County the project was within the study corridor for SR 801. Referred them to our website to review other alternatives.
2. Indian School Road between 391st Avenue and Wintersburg Road, received notice of a Public Hearing. Advised the County due to the proximity of the project to I-10 a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
3. SR 87, received notice of a Zoning Change and copy of a Preliminary Plat. Advised the County a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
4. 115th Avenue and Atlanta Avenue, received notice of a Zoning change and copy of a Preliminary Plat. Advised the County the project was within the study corridor for SR 801. Referred them to our Right of Way Coordinator for this area.
5. 8603 S. Highway 85, received copy of a Planned Area of Development. Advised the County the project was within the study corridor for SR 801. Referred them to our Right of Way Coordinator for this area.
6. 6426 S. 199th Avenue, received notice of a Special use Permit. Advised the County the project was within the study corridor for SR 801. Referred them to our Right of Way Coordinator for this area.
7. NEC of Camelback Road and SR 303L, received notice of a Special Use permit. Advised the County of the future interchange and proposed detention basin at Camelback and the 303L. Referred them to our Right of Way Coordinator.
8. SWC of 55th Avenue and Mohave, received copy of a Site Plan. Advised the County the project was located in the study corridor of the future South Mountain 202L. Provided link to our website to review other alternatives. Referred them to our Right of Way Coordinator.



CITY OF MESA:

1. NWC of 202L and Recker Road, received copy of Site Plan. Plans received did not coincide with out Right of Way lines. Referred them to our Right of Way Plans Department.
2. 5537 E. Thomas Road, received notice of a Zoning Change and General Plan. Due to proximity to 202L referred them to ADOT Right of Way Plans Department. Provided encroachment permit contact information.
3. NEC of Elliott and 202L, received notice of a Zoning Change. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
4. Williams Gateway Airport, received copy of a Preliminary Plat. Advised the City the proposed project was within the study corridor of the future 202L. Referred them to our Right of Way Coordinator.
5. Commerce Way and 202L, received copy of a Preliminary Plat. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
6. East and West of Dobson Road along the 202L, received notice of a Zoning Change. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
7. 8745 E. Warner Road, received notice of a Use Permit and two (2) Freeway Landmark Signs from a Law Firm. Advised the City the project was within the study corridor for the future 202L. Referred them to ADOT's Outdoor Sign Division and our Right of Way Coordinator.
8. SEC of Greenfield and 202L, received copy of a Final Plat. Provided the City with a copy of the Right of Way Plans for this area. Recommended they contact our Right of Way Coordinator for this area.

MISCELLANEOUS – LOCAL PUBLIC AGENCIES

1. SR 347, received General Plan for the City of Maricopa regarding their downtown redevelopment plan. Requested copies of their Site Plans to review due to the current study on SR 347.
2. SEC of Thunderbird Road and 127th Avenue, received copy of Plat for cemetery in Town of El Mirage. Advised the town a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.



3. SWC of Cactus Road and the 101L, received a Zoning Change from the City of Scottsdale. Due to the proximity to the 101L advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.

CITY OF PEORIA:

1. SWC of 101 and Thunderbird Road, received Amended Site Plan. Due to the proximity to the 101L, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
2. SWC of Olive and the 101L, received a copy of Site Plan. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.

CITY OF PHOENIX:

1. NWC of 75th Avenue and Latham, received copy of Site Plan. Due to the proximity of the project to I-10, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
2. SWC of 48th Street and Washington, received copy of Site Plan. Due to the proximity of the project to SR 143, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
3. SEC of 59th Avenue and Lower Buckeye Road, received copy of Site Plan. Advised the City project was in the proximity of the future South Mountain 202. Provided link to website to review alternates. Recommended they contact our Right of Way Coordinator for this area.
4. SEC of I-17 and Williams Drive, received copy of Site Plan from an Architect Firm. Due to the proximity of the project to I-17, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
5. I-17 and Bethany Home Road, received an email from the City. Requested copies of the Site Plan to review due to proximity to I-17.
6. SEC of 55th Avenue and Lower Buckeye Road, received an email from the City. Requested copies of the Site Plan to review due to project being in line with the South Mountain 202. Recommend they contact our Right of Way Coordinator.
7. 17th Street and Bethany Home, received an email from the City. Requested copies of the Site Plan to review due to the proximity to SR 51.



8. NWC of 56th Street and Deer Valley Road, received copy of Site Plan revision. Due to proximity to the 101L, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
9. 91st Avenue and Buckeye Road, received copy of Site Plan. Advised the City project was in the proximity of the future South Mountain 202. Provided link to website to review alternates. Recommended they contact our Right of Way Coordinator for this area.
10. NEC of I-17 and Filmore, received an email from the City. Requested copies of the Site Plan to review due to the proximity to I-17.
11. SWC of 101 and 16th Street, received an email from the City. Requested copies of the Site Plan to review due to the proximity to the 101L. Provided contact information for obtaining a permit.
12. NEC of Filmore and I-17, received copy of Site Plan. Due to proximity to the I-17, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
13. SEC 99th Avenue and Camelback, received an email from the City. Requested copies of the Site Plan to review due to the proximity to 101L.
14. NWC of 43rd Avenue and 101L, received copy of Preliminary Plan. Due to the proximity to I-17, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
15. NWC of 7th Avenue and 101L, received copy of Site Plan. Due to the proximity to I-17, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
16. SEC of I-10 and 83rd Avenue, received an email from the City. Requested copies of the Site Plan to review due to proximity to 101L.
17. SWC of Thomas and SR 51, received an email from the City. Requested copies of the Site Plan to review due to proximity to SR 51.
18. 17th Street and Bethany Home Road, received copy of Site Plan. Due to the proximity to SR 51 Southbound on-ramp, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
19. SEC Osborn and SR 51, received an email from the City. Requested copies of the Site Plan to review due to proximity to SR 51.



20. SEC of 63rd Avenue and I-10, received copy of Use Permit. Due to proximity to I-10 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
21. SWC of 40th Street and 202L, received copy of Master Site Plan from a Design Company. Due to the proximity to the 202L advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
22. NWC of 7th Avenue and 101L, received copy of Site Plan from a Development Company. Due to the proximity to the 101L advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
23. East of 63rd Avenue to 61st Avenue and South of Van Buren, received copy of Preliminary Site Plan. Advised the City project was in the proximity of the future South Mountain 202. Provided link to our website to review alternates. Recommended they contact our Right of Way Coordinator for this area.
24. SEC of I-17 and Williams Drive, received copy of Preliminary Site Plan. Due to proximity to I-17 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
25. NEC of 59th Avenue and Lower Buckeye Road, received copy of Site Plan. Advised the City project was in the proximity of the future South Mountain 202. Provided link to our website to review alternates. Recommended they contact our Right of Way Coordinator for this area.
26. 2207 S. 15th Street, received an email with the application and address. Due to proximity to I-17 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
27. SEC of 83rd Avenue and I-10, received copy of a Site Plan from an Engineering Company. Due to the proximity to I-10 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
28. I-17 and Bethany Home, received copy of Site Plan from an Architect Firm. Due to the proximity to I-17 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
29. SWC of Adobe and I-17, received an email from the City. Requested copies of the Site Plan to review due to the proximity to I-17.



30. NEC of Washington and 202L, received a Zoning Change from a Law Firm. Due to the proximity to the 202L, advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
31. Northwest of the NWC of 91st Avenue and Thomas, received an email from the City. Requested copies of the Site Plan to review due to proximity to the 101L.
32. NWC of 75th Avenue and I-10, received copy of a Site Plan. Due to the proximity to I-10 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
33. NWC of 7th Avenue and 101L, received copy of Site Plan. Due to the proximity to the 101L advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
34. 2033 E. Thomas Road, received an email from the City. Requested copies of the Site Plan to review due to proximity to SR 51.
35. NEC of 67th Avenue and I-10, received copy of Preliminary Plan. Due to the proximity to I-10 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
36. 4141 N. 17th Street, received an email from the City. Requested copies of the Site Plan to review due to the proximity to SR 51.
37. SWC of Central and I-10, received a Zoning Change from an Architect Firm. Provided contact information for obtaining a permit.
38. NEC of Indianola and I-17, received an email from the City. Requested copies of the Site Plan to review due to the proximity to I-17.
39. NWC of Sheridan Street and 20th Street, received an email from the City. Requested copies of the Site Plan to review due to the proximity to SR 51.
40. NEC of 43rd Avenue and Anthem Way, received copy of a Site Plan. Due to proximity to the I-17 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
41. NEC of 59th Avenue and Baseline, received an email from the City. Recommended they contact our Right of Way Coordinator as project is within the proximity of the future South Mountain 202.

42. NEC of Indianola and I-17, received copy of a Preliminary Site Plan from the City. Due to the proximity to I-17 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
43. NWC of 19th Avenue and Wahalla, received copy of Preliminary Site Plan from the City. Due to the proximity to I-17 advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.

STATE LAND DEPARTMENT:

1. SWC of 202L and Greenfield Road. Due to the proximity to the 202L advised the County a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
2. North Side of Pinnacle Peak Road, West of El Mirage Road. Advised the County a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
3. North and South of the 101L, East of SR 51, received notice of an application for the installation of 2 (two) 12" sewer mains. Advised the County a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.

CITY OF SURPRISE:

1. SEC 303 and Cactus Road, received copy of a Minor PAD Amendment. Recommended they contact our Right of Way Coordinator due to the project being within the 303L expansion plan.
2. Grand Avenue from 193rd Avenue to Patton Road, received notice of a Zoning Change. Recommended the City contact our Right of Way Coordinator, due to the project being in the proximity to US 60.
3. North of Cactus along the 303L, received a Site Plan. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
4. Grand and 193rd Avenue, received notice of a Zoning Change. Recommended the City contact our Right of Way Coordinator, due to the project being in the proximity to US 60.
5. Grand and 193rd Avenue, received copy of a Site Plan. Recommended the City contact our Right of Way Coordinator, due to the project being in the proximity to US 60. Provided contact information for obtaining a permit.

6. SWC of Grand and Happy Valley Road, received notice of a Zoning Change. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
7. SEC of Bell Road and the 303L, received copy of a Site Plan. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
8. SEC of Bell Road and the 303L, received copy of a Planned Area of Development. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
9. SWC of 227th Avenue and Grand Avenue, received copy of a General Plan Amendment. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
10. North of Cactus Road between Sarival and the 303L, received copy of a Final Plat. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
11. North of Cactus Road between Sarival and the 303L, received copy of a Final Plat – Phase II. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
12. Grand Avenue South of Deer Valley Road, received copy of a Zoning Change. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit. Recommended the contact our Right of Way Coordinator for this area.
13. North of SR 74 bounded by 211th Avenue and 187th Avenue, received copy of a General Plan Amendment. Project area is currently under study for the Right of Way Preservation project for SR 74. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
14. 24415 W. Rockaway Hills Drive in Morristown, AZ., received copy of a General Plan Amendment. Due to concerns with access to SR 74, referred the City to ADOT's Aeronautics Division to review their plans for an Airport.
15. Grand Avenue and Litchfield Road, received copy of a Final Plat. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.



16. SWC of Bell Road and the 303L, received notice of a Conditional Use Permit. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
17. SWC of Bell Road and the 303L, received copy of a Site Plan Amendment. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
18. Grand Avenue and Mountain View Boulevard, received notice of a Use Permit. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
19. West of Grand Avenue, North and South of Happy Valley Road, received notice of a Zoning Change. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit. Recommended the contact our Right of Way Coordinator for this area.
20. NWC of Grand, North of Deer Valley Road, received notice of a Zoning Change. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit. Recommended the contact our Right of Way Coordinator for this area.
21. SWC of Jomax Road and Grand Avenue, received notice of a Planned Area of Development. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit. Recommended the contact our Right of Way Coordinator for this area.

CITY OF TEMPE:

1. NEC of Baseline & Price Road, received copy of a Zoning Use Permit. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.
2. 430 N. Scottsdale Road, received copy of a PAD Overlay. Advised the City a permit would be required to access ADOT's Right of Way. Provided contact information for obtaining a permit.

ATTACHMENT TWO

Request for Project Change - 2008-2012 MAG Transportation Improvement Program

Table A - Transportation Review Committee September 2008

TIP #	Agency	Project Location	Project Description	Fiscal Year	Length	Fund Type	Local Cost	Federal Cost	Regional Cost	Total Cost	Requested Change
DOT08-835	ADOT	101L (Pima): Princess Dr to SR202L	Design and Construct Freeway Management System (FMS)	2008	14	State	\$2,441,000	-	-	\$2,441,000	Amend: Delete project - Construction of FMS is included in HOV project.
DOT07-708	ADOT	101 (Pima Fwy): SR-51 to Princess Dr	Design and construct FMS	2009	6	State	\$ 4,048,000	-	-	\$ 4,048,000	Admin Mod: Increase project costs and length of project.
DOT08-810	ADOT	303 (Estrella Fwy): Happy Valley Rd to Lake Pleasant Rd	Construct new interim freeway (FY 2009)	2009	7	RARF	-	-	\$ 162,000,000	\$ 162,000,000	Admin Mod: Project length has been modified, costs have decreased by \$13,500,000, and year of work has changed from 08 to 09.
DOT09-823	ADOT	303 (Estrella Fwy): Lake Pleasant Rd to I-17	Construct new interim freeway (FY 2009)	2009	6	RARF	-	-	\$ 147,500,000	\$ 147,500,000	Admin Mod: Project length has been modified, and costs have increased by \$13,500,000.
DOT09-915	ADOT	303 (Estrella Fwy): Lake Pleasant Rd to I-17	Landscape establishment project	2009	6	RARF	-	-	\$ 750,000	\$ 750,000	Amend: New Project
DOT09-916	ADOT	303 (Estrella Fwy): Happy Valley Rd to Lake Pleasant Rd	Landscape establishment project	2009	7	RARF	-	-	\$ 750,000	\$ 750,000	Amend: New Project
AVN09-904	Avondale	Avondale School Crosswalk Enhancement Projects	Install various traffic calming and other infrastructure devices: raised crosswalks, sidewalks and ramps, landscape medians, and pedestrian channelization	2009	NA	Federal Safe Routes to School	-	\$ 219,746	-	\$ 219,746	Amend: New Project
FTH09-908	Fountain Hills	Shea Blvd: Technology Drive to Cereus Wash	Acquisition of right-of-way for roadway improvement	2009	1	RARF	\$ 143,000	-	\$ 181,000	\$ 324,000	Admin Mod: Decrease local and regional cost to match the FY09 ALCP.
FTH09-907	Fountain Hills	Shea Blvd: Technology Drive to Cereus Wash	Design of roadway improvement	2009	1	RARF	\$ 389,000	-	\$ 907,000	\$ 1,296,000	Admin Mod: Increase local and regional cost to match the FY09 ALCP.
FTH10-901	Fountain Hills	Shea Blvd: Technology Drive to Cereus Wash	Construct roadway improvement	2010	1	RARF	\$ 1,978,000	-	\$ 4,614,000	\$ 6,592,000	Amend: New Project
GLB09-901	Gilbert	Sidewalk/Crossing Improvement Project	Install sidewalks, bicycle lanes, and traffic calming devices at twelve schools.	2009	NA	Federal Safe Routes to School	-	\$ 249,220	-	\$ 249,220	Amend: New Project
PHX09-912	Phoenix	Sidewalks for Mitchell School's Safe Route	Sidewalks will be installed on the streets closest to the school as part of a multi-year student pedestrian and bicyclist safety program.	2009	NA	Federal Safe Routes to School	-	\$ 231,034	-	\$ 231,034	Amend: New Project
SCT09-901	Scottsdale	Scottsdale Road and Indian Bend Road	Create access enhancement to the McCormick-Stillman Railroad Park by improving the parking area and pedestrian underpass	2009	NA	Federal High Priority Project	\$ 704,000	\$ 1,000,000	-	\$ 1,704,000	Amend: New Project

ATTACHMENT THREE

MAG Transportation Review Committee DRAFT Guidelines for Recommending Projects to be Programmed with Federal Funds

The MAG Transportation Review Committee (TRC) will use the following guidelines to recommend projects to be programmed with Federal funds in the MAG Transportation Improvement Program (TIP).

1. The rank ordered project application list from the Technical Advisory Committees (TAC).
2. Review and consideration of the Congestion Mitigation Air Quality (CMAQ) evaluation (cost effectiveness scoring) and it's part in the TAC review process.
3. The funding allocation recommendations from the MAG Regional Transportation Plan (RTP). Please see Appendix A.
4. The MAG RTP Goals. Please see Appendix B.
5. The MAG RTP Priority Criteria. Please see Appendix C.

APPENDIX A

RTP 2007 Update PERCENTAGE DISTRIBUTION OF REGIONAL REVENUES: FY 2008-2028 (Percentage of Funding Source Total)

Sources	Uses						Total
	Highways/ Freeways	Arterial Streets	Bus Transit	Light Rail Transit	Bicycle/ Ped.	Air Quality	
Proposition 400: Half Cent Sales Tax Extension (RARF)	56.2%	10.5%	18.9%	14.4%			100.0%
ADOT Funds (Includes HURF and Federal)	100.0%						100.0%
STAN (Funds)	100.0%						100.0%
Federal Transit (5307 Funds)			100.0%				100.0%
Federal Transit (5309 Funds)			17.0%	83.0%			100.0%
Federal Highway (MAG STP)	20.4%	79.6%					100.0%
Federal Highway (MAG CMAQ)	19.1%	13.4%	3.0%	32.9%	17.0%	14.6%	100.0%
Total	58.8%	9.6%	17.0%	13.4%	0.7%	0.6%	100.0%

APPENDIX B

RTP Goals and Objectives

A goal is a general statement of purpose that represents a long-term desired end to a specific state of affairs. It is generally measurable by qualitative means. By identifying broad goals that are both visionary and practical, and which respond to the values of the region, the focus of the planning process can be more readily communicated to the public. The goals, in turn, can be defined in greater detail by specifying multiple objectives for each goal.

An objective is very similar to a goal, as it represents a desired end to a specific state of affairs. However, an objective is an intermediate result that must be realized to reach a goal. The definition of an objective is usually more focused than that of a goal and is typically more subject to being measured. Objectives can be further assessed through performance measures that are identified for each objective.

Certain goals and objectives are related to the way in which the regional transportation system is performing overall. Others may be used to evaluate individual components of the overall transportation system or to evaluate proposed projects. They can also serve as the basis to monitor how the transportation system performs as the RTP is implemented. In addition, goals and objectives relate to the planning process, and the importance of accountability during the development and implementation of the plan. Individual goals with their supporting objectives are listed below.

Goal 1: System Preservation and Safety

Transportation infrastructure that is properly maintained and safe, preserving past investments for the future.

- **Objective 1A:** Provide for the continuing preservation and maintenance needs of transportation facilities and services in the region, eliminating maintenance backlogs.
- **Objective 1B:** Provide a safe and secure environment for the traveling public, addressing roadway hazards, pedestrian and bicycle safety, and transit security.

Goal 2: Access and Mobility

Transportation systems and services that provide accessibility, mobility and modal choices for residents, businesses and the economic development of the region.

- **Objective 2A:** Maintain an acceptable and reliable level of service on transportation and mobility systems serving the region, taking into account performance by mode and facility type.
- **Objective 2B:** Provide residents of the region with access to jobs, shopping, educational, cultural, and recreational opportunities and provide employers with reasonable access to the workforce in the region.
- **Objective 2C:** Maintain a reasonable and reliable travel time for moving freight into, through and within the region, as well as provide high-quality access between intercity freight transportation corridors and freight terminal locations, including intermodal facilities for air, rail and truck cargo.

- **Objective 2D:** Provide the people of the region with transportation modal options necessary to carry out their essential daily activities and support equitable access to the region's opportunities.
- **Objective 2E:** Address the needs of the elderly and other population groups that may have special transportation needs, such as non-drivers or those with disabilities.

Goal 3: Sustaining the Environment

Transportation improvements that help sustain our environment and quality of life.

- **Objective 3A:** Identify and encourage implementation of mitigation measures that will reduce noise, visual and traffic impacts of transportation projects on existing neighborhoods.
- **Objective 3B:** Encourage programs and land use planning that advance efficient trip-making patterns in the region.
- **Objective 3C:** Make transportation decisions that are compatible with air quality conformity and water quality standards, the sustainable preservation of key regional ecosystems and desired lifestyles.

Goal 4: Accountability and Planning

Transportation decisions that result in effective and efficient use of public resources and strong public support.

- **Objective 4A:** Make transportation investment decisions that use public resources effectively and efficiently, using performance-based planning.
- **Objective 4B:** Establish revenue sources and mechanisms that provide consistent funding for regional transportation and mobility needs.
- **Objective 4C:** Develop a regionally balanced plan that provides geographic equity in the distribution of investments.
- **Objective 4D:** Recognize previously authorized corridors that are currently in the adopted MAG Long-Range Transportation Plan; i.e., Loop 303 and the South Mountain Corridor.
- **Objective 4E:** Achieve broad public support for needed investments in transportation infrastructure and resources for continuing operations of transportation and mobility services.

APPENDIX C

RTP Priority Criteria

Arizona Revised Statute 28-6354.B directs MAG to develop criteria to establish the priority of corridors, corridor segments, and other transportation projects. These criteria include public and private funding participation; the consideration of social and community impacts; the establishment of a complete transportation system for the region; the construction of projects to serve regional transportation needs; the construction of segments to provide connectivity on the regional system; and other relevant criteria for regional transportation.

As part of the regional transportation planning process, MAG has applied these kinds of criteria, both for the development and the implementation of the Regional Transportation Plan (RTP). The RTP was developed through a performance-base process that evaluated alternatives relative to a range of performance measures. Also, specific criteria were considered as part of the process to schedule the implementation of transportation projects throughout the duration of the planning period. The discussion below describes how the criteria applied in the RTP planning process correspond to the categories included in ARS 28-6354.B.

Extent of Local Public and Private Funding Participation

A higher level of local public and private funding participation in the RTP benefits the region by leveraging regional revenues and helping ensure local government commitment to the success of the regional program. The extent of local public and private funding participation is addressed in a number of ways in the MAG transportation planning process.

- **Project Matching Requirements** - In developing funding allocations among the various RTP components and project types, local matching requirements have been established. The local matching requirements in the RTP are:
 - 30 percent major street projects, including ITS elements.
 - 30 percent bicycle and pedestrian projects.
 - For air quality and transit projects involving Federal funds, minimum Federal match requirements were assumed. Depending on the specific project funding mix, this match may be provided from regional revenue sources.
- **Private Funding Participation** - As part of the policies and procedures developed for the Arterial Street Life Cycle Program, private funding participation is recognized as applicable local match for half-cent funds for street and intersections projects. This policy helps free local monies that may then be applied to additional transportation improvements.
- **Local Government Incentives** - In the Arterial Street Life Cycle Program, incentives to make efficient use of regional funds have been established by ensuring that project savings by local governments may be applied to new projects in the jurisdiction that achieved those savings.

Social and Community Impacts

Regional transportation improvements can have both beneficial and negative social and community impacts. It is important to conduct a thorough assessment of these impacts, to ensure that they are taken into account in the decision-making process. The MAG planning effort assesses social and community impacts at each key stage of the transportation planning and programming process. In addition, it should be noted that similar efforts are carried out by the agencies implementing specific transportation improvement projects.

- **Public Participation and Community Outreach** - An aggressive citizen participation and outreach program is conducted to obtain public views on the potential community and social impacts of transportation improvements. In particular, input is sought regarding the possible impacts of specific transportation alternatives on the community's social values and physical structure.
- **Social Impact Assessment** - The social impact of transportation options is evaluated as part of the Title VI/Environmental Justice assessment. In this assessment, potential transportation impacts are evaluated for key communities of concern, including minority populations, low-income populations, aged populations, mobility disability populations, and female head of household populations. In addition, community goals are taken into account by basing future travel demand estimates, on local land use plans.
- **Corridor and Community Impact Assessment** - Corridor-level analyses are conducted, which assess the possible social and community impacts of alternative facility alignments based on neighborhood factors such as noise, air quality and land use. Community impacts of transportation facilities are further analyzed by assessing air quality effects through the emissions analysis of plan alternatives, as well as conducting a Federally required air quality conformity analysis of the RTP. In addition, the process for annually updating the Regional Transportation Improvement Program includes project air quality scores, which reflect the potential community impacts of the projects.

Establishment of a Complete Transportation System for the Region

The RTP calls for major investments in all elements of the regional transportation system over the next several decades. It is critical that these expenditures result in a complete and integrated transportation network for the region. The MAG planning process responds directly to this need by conducting transportation planning at the system level, giving priority to segments that can lead to a complete transportation system as quickly as possible, and maintaining a life cycle programming process for all the major modes.

- **System Level Planning Approach** - The regional planning effort is conducted at the system level, taking into account all transportation modes in all parts of the MAG geographic area. This systems level approach is applied in identifying and analyzing alternatives, as well as specifying the final RTP. In this way, the complete transportation needs of the region, as a whole, are identified and addressed in the planning process.
- **Project Development Process and Project Readiness** - The implementation of regional transportation projects requires a complex development process. This process involves extensive corridor assessments, environmental studies, and engineering concept analyses. This is followed by right-of-way acquisition and final design work, before actual

construction may begin. For a variety of reasons, certain projects may progress through this process more rapidly than others. By moving forward, where possible, on those projects with the highest level of readiness for construction, important transportation improvements can be delivered as quickly as possible.

- **Progress on Multiple Projects** - Major needs for transportation improvements exist throughout the MAG Region. The scheduling of projects is aimed at proceeding with improvements to the transportation network throughout the planning period in all areas of the region. This will lead toward a complete and functioning regional transportation system that benefits all parts of the MAG Region.
- **Revenues, Expenditures and Life Cycle Programming** - Cash flow patterns from revenue sources limit the amount of work that can be accomplished within a given period of time. Project expenditures need to be scheduled to accommodate these cash flows. Life cycle programs have been established that take these conditions into account and implement the projects in the RTP for the major transportation modes: freeways/highways, arterial streets, and transit. The life cycle programs provide a budget process that ensures that the estimated cost of the program of improvements does not exceed the total amount of revenues available. This ensures that a complete transportation system for the region will be developed within available revenues.

As part of the life cycle programming process, consideration is given to bonding a portion of cash flows to implement projects that provide critical connections earlier than might otherwise be possible. This has to be weighed against the reduction in total revenues available for constructing projects, which results from interest costs.

Construction of Projects to Serve Regional Transportation Needs

The resources to implement the RTP are drawn from regional revenue sources and should address regional transportation needs. Transportation projects that serve broad regional needs should have a higher priority than those that primarily only serve a local area. At the same time, the nature of regional transportation needs varies across the MAG Region and the same type of transportation solution does not apply everywhere in the region. Enhancing the arterial network may represent the most pressing regional need in one part of the region, whereas adding new freeway corridors may be the key need in another; and expanding transit capacity may represent the best approach in yet another area. The process to develop the RTP recognized that this was the nature of regional transportation needs in the MAG Region. As a result, the RTP is structured to respond to different types of needs in different parts of the MAG Region.

Although the modal emphasis of the transportation improvements identified in the RTP varies from area to area, the effects of these improvements can be assessed using common measures of system performance and regional mobility. The measures that were utilized for this purpose are described below. These criteria were applied in the development of the RTP to evaluate alternatives and establish implementation priorities. They can also be applied in the future to evaluate potential adjustments to the priority of corridors, corridor segments, and other transportation projects and services.

- **Facility/Service Performance Measures** - Facility performance measures focus on the amount of travel on specific facilities, the usage of transportation services, the degree of

congestion, and other indicators of the level of service as provided:

- Accident rate per million miles of passenger travel.
 - Travel time between selected origins and destinations.
 - Peak period delay by facility type and geographic location.
 - Peak hour speed by facility type and geographic location.
 - Number of major intersections at level of service "E" or worse.
 - Miles of freeways with level of service "E" or worse during peak period.
 - Average Daily Traffic on freeways/highways and arterials
 - Total transit ridership by route and transit mode.
 - Cost effectiveness: trips served per dollar invested.
- **Mobility Measures** - Mobility measures focus on the availability of transportation facilities and services, as well as the range of service options as provided:
 - Percentage of persons within 30 minutes travel time of employment by mode.
 - Jobs and housing within one-quarter mile distance of transit service.
 - Percentage of workforce that can reach their workplace by transit within one hour with no more than one transfer.
 - Per Capita Vehicle Miles of Travel (VMT) by facility type and mode.
 - Households within one-quarter mile of transit.
 - Transit share of travel (by transit sub-mode).
 - Households within five miles of park-and-ride lots or major transit centers

Construction of Segments that Provide Connectivity with other Elements of the Regional Transportation System

The phasing of the development of the transportation network should be done in a logical sequence, so that maximum possible system continuity, connectivity and efficiency are maintained. In the RTP, Appropriately located transportation facilities around the region enhance the general mobility throughout the region. To the extent possible, facility construction and transportation service should be sequenced to result in a continuous and coherent network and to avoid gaps and isolated segments, bottlenecks and dead-end routes. Segments that allow for the connection of existing portions of the transportation system should be given a higher priority than segments that do not provide connectivity.

Other relevant criteria developed by the regional planning agency

As part of the RTP, a series of objectives for the regional transportation network were identified. Two key objectives were to achieve broad public support for the needed investments, and to develop a regionally balanced plan that provides geographic equity in the distribution of investments. Specific criteria related to these objectives are:

- Transportation decisions that result in effective and efficient use of public resources and strong public support.
- Geographic distribution of transportation investments.
- Inclusion of committed corridors.

ATTACHMENT FOUR

DRAFT

2008 ANNUAL REPORT ON THE STATUS OF THE IMPLEMENTATION OF PROPOSITION 400

SUMMARY OF FINDINGS AND ISSUES

The *Draft 2008 Annual Report on the Status of the Implementation of Proposition 400* has been prepared by the Maricopa Association of Governments (MAG) in response to Arizona Revised Statute (ARS) 28-6354. ARS 28-6354 requires that MAG annually issue a report on the status of projects funded through Proposition 400, addressing project construction status, project financing, changes to the MAG Regional Transportation Plan, and criteria used to develop priorities. In addition, background information is provided on the overall transportation planning, programming and financing process. The key findings and issues from the 2008 Annual Report are summarized below.

MAG REGIONAL TRANSPORTATION PLAN

The MAG Regional Transportation Plan (RTP) provides the blueprint for the implementation of Proposition 400. By Arizona State law, the revenues from the half-cent sales tax for transportation must be used on projects and programs identified in the RTP adopted by MAG. The RTP identifies specific projects and revenue allocations by transportation mode, including freeways and other routes on the State Highway System, major arterial streets, and public transportation systems.

- The Update of the Regional Transportation Plan Update was postponed to FY 2009.

During FY 2008, a decision was made to postpone the update of the RTP until FY 2009. This was due to uncertainties regarding Federal policies for programming CMAQ funds and the completion date of a cost review of the Freeway/Highway Life Cycle Program. It is anticipated that the 2009 RTP Update will be developed consistent with the usual planning and programming cycle during FY 2009.

- A revised Freeway/Highway Acceleration Policy was adopted.

On February 27, 2008, the MAG Regional Council adopted a revised MAG Highway Acceleration Policy. This revision will replace the policy adopted in

March 2000, and includes improvements and clarifications that bring the policy in line with Proposition 400, resulting in a more effective process.

- The study findings from the Interstate 10 / Hassayampa Valley Transportation Framework Study were accepted.

On February 27, 2008 the MAG Regional Council accepted the findings of the Interstate 10 / Hassayampa Valley Transportation Framework Study. While the study the recommendations are not funded, the action to accept the study's findings allow the planning process to move forward in an illustrative manner. This will provide guidance to MAG and the affected agencies in the Hassayampa Valley for future activities, including updates to the Regional Transportation Plan.

- The study findings from the MAG Commuter Rail Strategic Plan were accepted.

On April 23, 2008, the MAG Regional Council accepted the findings of the MAG Commuter Rail Strategic Plan. The action by the Regional Council included accepting the findings of the Commuter Rail Strategic Plan as the guiding implementation framework for commuter rail. At this time, the RTP does not include funding to build and operate commuter rail in the MAG region.

HALF-CENT SALES TAX AND OTHER TRANSPORTATION REVENUES

The half-cent sales tax for transportation approved through Proposition 400 is the major funding source for the MAG Regional Transportation Plan (RTP), providing over half the revenues for the Plan. In addition to the half-cent sales tax, there are a number of other RTP funding sources, which are primarily from State and Federal agencies.

- Fiscal Year 2008 receipts from the Proposition 400 half-cent sales tax were 3.0 percent lower than receipts in FY 2007.

During FY 2007, receipts from the Proposition 400 half-cent sales for transportation totaled \$387 million. This amount is 3.0 percent lower than the receipts from the half-cent tax in FY 2007, which totaled 391 million. This represents the first decline in year-over-year revenues in the history of the half-cent sales tax for transportation since its inception in 1985.

- Forecasts of Proposition 400 half-cent revenues are 2.7 percent lower for the period FY 2009 through FY 2026, compared to the 2007 Annual Report.

Future half-cent revenues for the period FY 2009 through FY 2026 are forecasted to total \$13.7 billion. This amount is 2.7 percent lower than the

forecast for the same period presented in the 2007 Annual Report. ADOT will update the half-cent forecasts in the latter part of calendar 2008, taking into account recent slowing in revenue collections as appropriate.

- Forecasts of total ADOT Funds dedicated to the MAG area for FY 2009 through FY 2026 are unchanged from the 2007 Annual Report estimate.

The forecast for ADOT funds totals \$7.4 billion for FY 2009 through FY 2026, which is unchanged from the 2007 Annual Report forecast. This funding source represents nearly one-half of the total funding for the Freeway/Highway Life Cycle Program.

- Forecasts of total MAG Federal Transportation Funds for FY 2009 through FY 2026 are unchanged from the 2007 Annual Report estimate.

MAG Federal Transportation Funds for FY 2008 through FY 2026 are forecasted to total \$5.3 billion. This estimate is unchanged from the amount projected in the 2007 Annual Report. These funding sources have been allocated to arterial street, transit and highway projects in the Regional Transportation Plan.

FREEWAY/HIGHWAY LIFE CYCLE PROGRAM

The Freeway/Highway Life Cycle Program extends through FY 2026 and is maintained by the Arizona Department of Transportation (ADOT) to implement freeway/highway projects listed in the MAG Regional Transportation Plan (RTP). The program utilizes funding from the Proposition 400 half-cent sales tax extension, as well as funding from State and Federal revenue sources.

- The final segment in the Proposition 300 - Regional Freeway Program was completed.

The Red Mountain Freeway (Loop 202) was completed between University Dr. and Power Rd. This segment was under construction during FY 2008 and opened to traffic on July 21, 2008. This project represents the final segment in the Proposition 300 - Regional Freeway Program.

- A number of major freeway/highway construction projects were completed, underway, or advertised for bids during FY 2008.

Completed

- Higley Rd./US 60: T.I. improvements.
- 43rdAve.-51st Ave./I-10: T.I. improvements.
- Dixileta Dr./I-17: New T.I.
- Bullard Ave./I-10: New T.I.

- Bethany Home Rd./Loop 101: New T.I.

Under Construction

- Carefree Hwy./I-17: T.I. improvements.
- Jomax Rd.-Dixileta Dr./I-17: New T.I.
- 64th St./101L: New T.I.
- I-10 (101L to Sarival Ave): New HOV and general purpose lanes.
- I-10 (SR 143 to US 60): WB auxiliary lane.
- I-17 (101L to Jomax Rd.): New HOV and general purpose lanes.
- I-17 (Jomax Rd. to SR 74): New HOV and general purpose lanes.
- SR 51 (Shea Blvd. to Loop 101): New HOV lanes, including HOV ramp connections at Loop 101.
- Loop 101 (Princess Dr. to Red Mountain Fwy.): New HOV lanes.
- SR 85 (MC 85 to Southern Ave. and MP 139.01 to 141.71): Widen to four lanes.
- SR 87 (Forest Bndry. to New Four Peaks Rd.): Road improvements.
- SR 93 (Wickenburg Bypass): New roadway.

Advertised for Bids

- US 60 (I-10 to Loop 101): New general purpose lanes.
 - Loop 101 (Tatum Blvd. to Princess Dr.): New HOV lanes.
 - Loop 101 (202L/Red Mt. Fwy. To 202L/Santan Fwy.): New HOV lanes.
 - Loop 202 (Mill Ave. and Washington St.): Bridge widening.
 - Loop 202 (SR 51 to 101L): Design-build freeway widening.
 - Loop 303 (Cactus Rd., Waddell Rd., and Bell Rd.) T.I. structures.
- Material cost increases were experienced for a number of FY 2008 projects and projects in the FY 2009-2026 Life Cycle Program.

During FY 2008, the MAG Regional Council approved cost increases identified by ADOT and MAG totaling \$22 million for freeway/highway projects that were programmed for FY 2008. It was determined that the cost increases could be accommodated within available cash flow. Also, cost increases for certain projects in FY 2009-2026 Life Cycle Program totaled \$214 million.

- Based on unadjusted costs, the estimated future costs for the Freeway/Highway Life Cycle Program are in balance with projected revenues.

Funding available for use on freeway and highway projects through FY 2026 has been estimated to total \$10.3 billion (2008 \$'s). The estimated future uses identified in the Life Cycle Program for the period covering FY 2009

through FY 2026 total \$10.0 billion. Therefore, the estimated future costs are in balance with the projected future funds available, with available funds exceeding costs by \$264 million.

However, it is important to note that these projects costs are currently being updated and revised. These cost revisions indicate that the Freeway/Highway Life Cycle Program will require major adjustments in order to achieve a balance between estimated costs and projected revenues during the life cycle period.

- ADOT and MAG are cooperatively evaluating the impacts of construction cost increases and project scope changes on the cost, scheduling and delivery of the Freeway/Highway Life Cycle Program.

A Cost Estimate Assessment is underway to analyze the current status of the RTP Freeway Program including the following items:

- Evaluation of the growth in construction and right-of-way costs between 2003 and 2008, and future trends for these project costs.
- Evaluation of project costs to determine how these costs have increased since the inception of the RTP Freeway Program.
- Determination of the portion of additional costs attributable to recent escalation of costs for construction labor, materials and right-of-way acquisition.
- Evaluation of freeway projects to determine if cost increases occurred due to unforeseen conditions (scope changes) resulting from updated design concept reports and expanded environmental studies.
- Updating RTP Freeway Program costs for each project based upon refined project requirements and updated construction and right-of-way costs.

The results of this evaluation will provide the cost and schedule data to evaluate potential adjustments to the RTP Freeway program.

- The Freeway/Highway Life Cycle Program will potentially require major revision in order to achieve a balance between estimated costs and projected revenues during the life cycle period.

Two factors -- price inflation and detailing of project scopes -- have resulted in a significantly higher total cost for the Freeway/Highway Life Cycle Program. ADOT and MAG are reviewing the Life Cycle Program in light of higher

construction costs and additions to original project scopes. The new preliminary estimated program cost totals \$14.9 billion (2008 \$'s). This compares to a 2003 planning estimate of \$9.4 billion (\$8.5 billion without contingency allowance). Estimated future funding, plus funds already expended on the program, together total \$11.1 billion. Therefore, the new program estimate exceeds revenues by approximately \$3.8 billion. This difference could be subject to future increases, depending on the outlook for inflation, facility design contingencies, further cost estimate refinements, and updated revenue forecasts.

It is estimated that the new total program cost of \$14.9 billion consists of approximately the following components:

- \$8.5 billion: 2003 planning cost estimate (without contingency allowance).
- \$3.7 billion: Inflation 2003-2008.
- \$2.7 billion: Scope detailing (includes original contingency allowance plus additional scope enhancements).

Given the potential deficit of approximately \$3.8 billion for the Freeway/Highway Life Cycle Program, a major effort to achieve a balance between future program costs and available revenues will be required. This effort would include effective financing and cash flow management, phasing of project scopes, and plan and program adjustments as may be appropriate. Assumptions regarding future inflation and design contingencies also warrant thorough review, in view of the potential for continuing construction cost increases.

Potential approaches to achieving program balance could include: enhanced financing methods, project phasing, extension of the programming period, and adjustment of project schedules.

ARTERIAL STREET LIFE CYCLE PROGRAM

The Arterial Street Life Cycle Program (ALCP) extends through FY 2026 and is maintained by the Maricopa Association of Governments (MAG) to implement arterial street projects in the MAG Regional Transportation Plan (RTP). The Program receives major funding from both the Proposition 400 half-cent sales tax and Federal highway programs. Although MAG is charged with the responsibility of administering the overall program, the actual construction of projects is accomplished by local government agencies that provide funding to match regional level revenues. MAG provides the regional share of the funding on a reimbursement basis.

- The Arterial Street Life Cycle Program Policies and Procedures and Project Listing were updated during FY 2008.

On December 19, 2007, MAG adopted changes to the Arterial Life Cycle Program Policies and Procedures to facilitate efficient administration of the Program. In addition, on June 25, 2008 the FY 2009 ALCP project listing was adopted to reflect updated information regarding project development status.

- During FY 2008, \$28 million in reimbursements were distributed to local governments from the Arterial Street Life Cycle Program, and work is continuing for reimbursements in FY 2009.

Five jurisdictions received reimbursements for project work during FY 2008 totaling over \$28 million. This brings the total reimbursements to \$50 million since the initiation of the Program. A total of eight project agreements were executed in FY 2008. This brings the total of project agreements executed to date to 26. It is anticipated that an additional 17 agreements will be executed during FY 2009. During FY 2009, it is anticipated that a total of six jurisdictions will receive reimbursements amounting to approximately \$119 million.

- Work will be proceeding on a broad range of projects in the Arterial Street Life Cycle Program.

During the period FY 2009 through FY 2013, work will be proceeding on 104 different arterial street segments. Various stages of work will be conducted on these projects, including 79 with design activity, 80 with right-of-way acquisition, and 81 with construction work at some time during the five-year period.

- The total estimated future regional revenue disbursements for Arterial Street Life Cycle Program projects are in balance with projected revenues.

For the remainder of the Arterial Street Life Cycle Program, which covers the period FY 2009 through FY 2026, projected revenues are in balance with estimated future projects disbursements, with revenues exceeding costs by approximately ten percent through FY 2026. Since the ALCP is based on the principle of project budget caps, with a fixed amount of regional funding allocated to individual projects (on an inflation adjusted basis), it is anticipated that the balance between estimated future disbursements and projected revenues can be maintained in the future.

- Project implementing agencies have deferred \$46 million in Federal and regional funding from FY 2008 to later years.

Cost pressures and other implementation issues have resulted in the deferral of arterial projects by implementing agencies, due to the inability to provide matching funds, or other scheduling and resource issues. Lead agencies have deferred \$46 million in federal and regional funding from FY 2008 to later years. It is anticipated that project scope changes and rescheduling may continue to occur in the future, as local jurisdictions continue to face a variety of fiscal issues.

- MAG staff has developed Draft MAG Federal Fund Programming Principles that will help guide the FY 2009 programming process.

During FY 2008, MAG staff has continued to work closely with ADOT and member agencies to document and improve the review process for projects receiving Federal funds. MAG has developed Draft MAG Federal Fund Programming Principles that will help guide the FY 2009 programming process. The purpose of the Principles is to establish a transparent set of programming principles that clarify the application and programming process and ensure consistency with Federal Regulations.

TRANSIT LIFE CYCLE PROGRAM

The Transit Life Cycle Program is maintained by the Regional Public Transportation Authority (RPTA) and implements transit projects identified in the MAG Regional Transportation Plan. The RPTA maintains responsibility for administering half-cent sales tax revenues deposited in the Public Transportation Fund for use on transit projects, including light rail transit (LRT) projects. Although RPTA maintains responsibility for the distribution of half-cent funds for light rail projects, the nonprofit corporation of Valley Metro Rail, Inc. was created to oversee the design, construction and operation of the light rail starter segment, as well as future corridor extensions planned for the system.

- Bus service improvements continue on schedule.

New express and local/supergrid services continue to be implemented on schedule, despite the recent decline in excise tax revenues. Every effort has been made to ensure that the implementation schedule for services is not impacted by the downturn in the economy, especially given that transit demand has increased significantly due to the increase in gas prices. However, if revenues continue to decline, service implementation may be impacted in the future. Additionally, services that have been implemented will be reviewed to ensure that productivity goals are met. Unproductive services will be analyzed in detail to determine whether they should be modified, reduced or eliminated.

- Work is continuing on schedule on the construction of the Light Rail Minimum Operating Segment (MOS).

This facility will extend from Spectrum Mall to west Mesa. Construction and system testing and start-up are scheduled to be completed in 2008. Service is scheduled to begin for the entire system on December 27, 2008. Half-cent sales tax money from Proposition 400 will not be utilized to pay for major route construction or operation of the MOS, but is allocated toward certain elements of the support infrastructure (regional park-and-rides, bridges, vehicles, and for the cost to relocate utilities).

- RPTA continued planning studies in FY 2008.

The RPTA has a number of bus planning studies underway that will help define project and service concepts in greater detail and provide improved future cost estimates. The timely completion of these planning efforts will be essential for the continued implementation of regionally funded transit service.

The Main Street Bus Rapid Transit (BRT) design study was substantially completed. The construction is being bid out and is not expected to be completed by the beginning of service operations in December 2008. The service will begin to coincide with the opening of the MOS light rail operations. Temporary stops/stations will be used in the interim. RPTA has submitted a "Very Small Starts" application to the Federal Transit Administration (FTA) for federal funding of this project.

RPTA continues work on the Arizona Avenue Design Concept Report and the Comprehensive Arterial BRT Study. Arizona Avenue will be the second BRT line implemented under the RTP. Service on this line is scheduled to begin in FY 2011. RPTA will be submitting a Very Small Starts application to the FTA for federal funding for this project in 2009. The Comprehensive Arterial BRT Study will define the operational parameters of the arterial BRT network. It will also define how the system will integrate with Supergrid, fixed route bus, and LRT service to maximize the operational efficiencies of these transit networks.

- Valley Metro Rail Planning continued with necessary planning studies to implement future LRT service.

The LRT Configuration Study will evaluate the operational characteristics and needs of the full 57.7 mile LRT system identified in the Regional Transportation Plan. Phase I of the study was completed in 2007. Phase II of the study began in February 2008. Phase II includes modeling for the candidate corridors to estimate ridership and assess the cost effectiveness.

The Glendale Extension Study has compiled a notebook with three alignment options for the Glendale LRT extension identified in the RTP. The alignment options being evaluated include service from I-10 to the stadium complex

north of Bethany Home Road, service to downtown Glendale, or service to the ASU west campus on Thunderbird Avenue. The affected cities are reviewing the technical information.

The Alternatives Analysis (AA) for the Central Mesa Extension, the I-10 West Extension and the Tempe South Extension are in progress.

- Estimated future costs for the Transit Life Cycle Program are in balance with projected revenues.

For the remainder of the Transit Life Cycle Program, which covers the period FY 2009 through FY 2026, projected revenues are in balance with future projects costs but with very little left at the end of the program. Several capital projects were eliminated, including the vanpool maintenance facility, the rural bus maintenance facility and the Phoenix dial-a-ride maintenance facility. Additionally, many of the contingencies in the program were eliminated or reduced in order to ensure that revenues exceeded expenditures. Costs continue to rise faster than anticipated and revenues are not expected to keep pace, at least in the short term.

- Transit service and capital cost increases will represent an ongoing challenge for the Transit Life Cycle programming process.

Given recent trends of escalating wages and fuel prices, pressure will increase to balance operations costs with available revenues. Similarly, recent increases for right-of-way and construction materials will continue to drive up costs for transit capital facilities, as they have in the freeway and arterial programs. Costs for the Transit Life Cycle Program will need to be evaluated on a continuing basis as the program is implemented, and program adjustments made as warranted in order to maintain the cost/revenue balance.

RPTA will be examining closely the assumptions used in estimating both revenues and expenditures for the Transit Life Cycle Program during FY 2009. The issues include inflation assumptions, federal revenue estimates, bus fare revenue estimates, service costs and contingencies. If transportation excise tax revenue estimates decline, it is likely that service implementation will be affected. Financing for capital projects is assumed in the program, however the cost of borrowing will be considered carefully against the cost of delaying capital facilities construction to ensure that funds are expended appropriately.

- The outlook for Federal discretionary funding for transit will require continuous monitoring.

A large part of the funding for the LRT system extensions and for bus purchases is assumed to be from awards by the US Department of Transportation through the discretionary program. This funding is over-and-above the Federal funding contained in the 20-mile starter system Full Funding Grant Agreement. The timing and amounts of light rail transit New Start monies coming to the MAG region will be subject to a highly competitive process at the federal level. The prospects for awards from this program will require careful monitoring. Discretionary funding for the bus capital program is also highly competitive and the assumptions in the Transit Life Cycle Program will be reviewed carefully to ensure they are not overly aggressive. The pending reauthorization of SAFETEA-LU will also impact when and how FTA funding flows to the region.

PERFORMANCE MONITORING PROGRAM

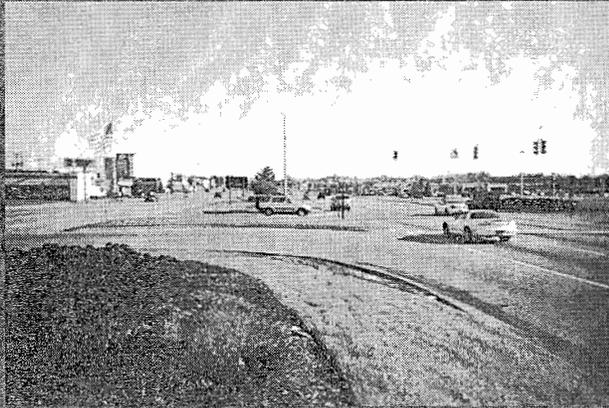
The MAG Transportation System Performance Monitoring and Assessment Program has been established to provide a framework for reporting performance at the system and project levels, and serve as a repository of historical, simulated and observed data for the transportation system in the MAG Region.

- During FY 2008, MAG initiated the Performance Measurement Framework consultant study for the regional roadway network.

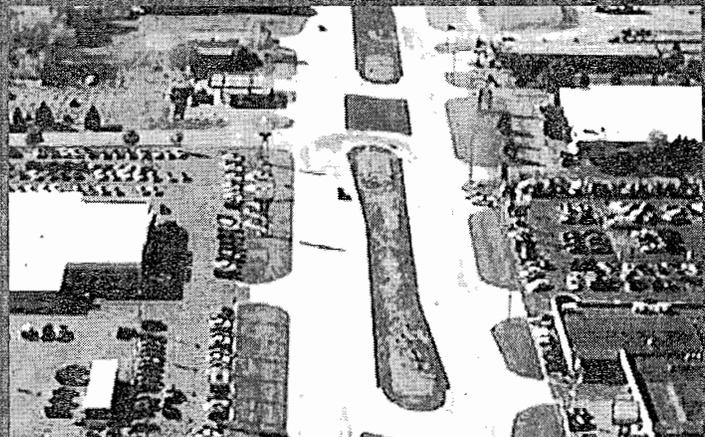
In June 2008, MAG initiated the Performance Measurement Framework consultant study to further refine and focus the performance monitoring approach for the regional roadway network. Based on the findings of this study and input from the Transit Performance Report, it is anticipated that MAG will annually produce a Transportation System Monitoring and Performance Report.

ATTACHMENT FIVE

Design Guideline Recommendations for the Arizona Parkway



Prepared for:
Maricopa County
Department of Transportation



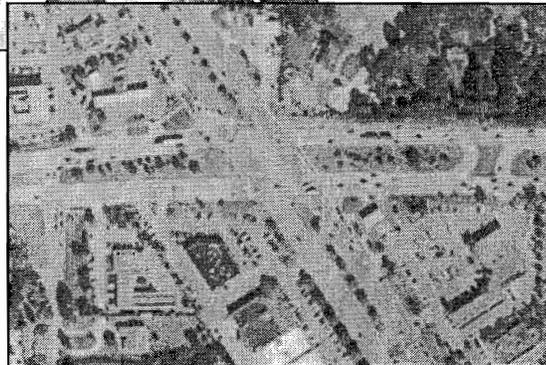
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August, 2008

Design Guideline Recommendations for the Arizona Parkway

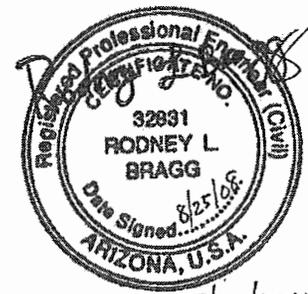


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Expires 9/30/2010

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SECTION 1 – INTRODUCTION

Recent long-range transportation planning efforts by the Maricopa Association of Governments (MAG), City of Surprise, Town of Buckeye, and Maricopa Department of Transportation (MCDOT) have identified the need for a new roadway facility type in order to handle projected travel demands. This new facility type has been identified as the “Arizona Parkway” which will include the use of an intersection treatment known as the indirect left-turn (also known as the Michigan u-turn or median u-turn). This intersection treatment eliminates left-turns at all cross-streets and utilizes a wide median in order to facilitate u-turns downstream of intersections. Drivers desiring to turn left from the major road (Parkway) onto an intersecting cross-street pass through the signalized intersection, execute a u-turn at the median opening downstream of the intersection and execute a right-turn at the cross-street. Drivers desiring to turn left from the cross-street onto the major street (Parkway) turn right at the signalized intersection, execute a u-turn at the median opening downstream of the intersection and proceed back through the intersection. Shown below is an example of a typical indirect left-turn intersection. By eliminating left-turns at the intersections, the traffic signals can be operated on a two-phase cycle which promotes signal progression along a corridor and allows more signal green time to be provided to the through movements, thus enhancing the traffic operations along the Parkway.

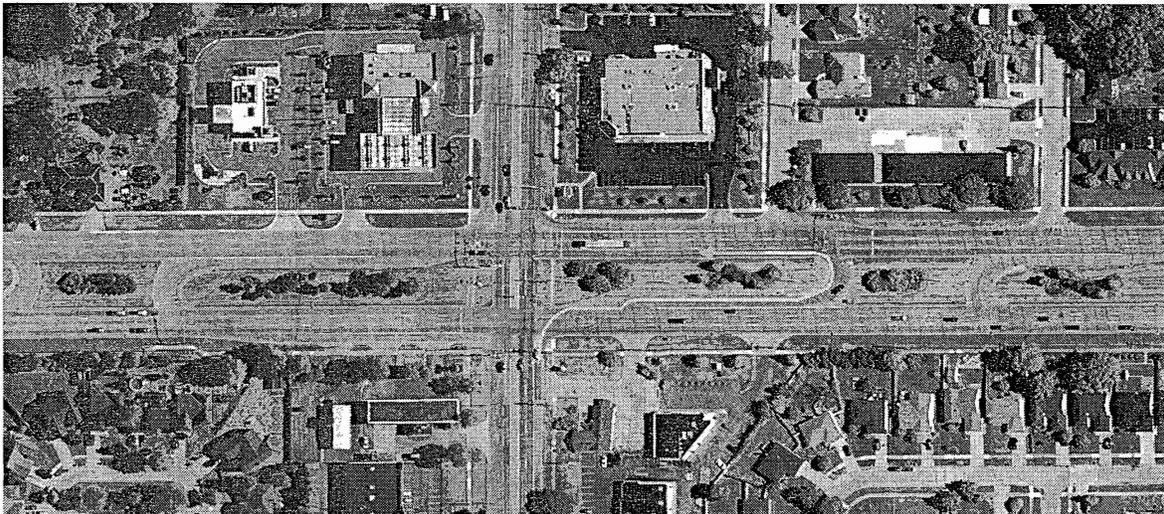


Figure 1
Metro Parkway at Ryan Road

(Source: Maps.Google.com)

Key

Red Line – Parkway traffic turning left onto crossroad

Green Line – crossroad traffic turning left onto Parkway

The purpose of this study is to develop design guideline recommendations for the implementation of the Arizona Parkway. The recommendations presented herein should be considered as minimums. The design for a specific roadway should normally equal or exceed the recommendations in this document. The recommendations contained in this document cannot apply to all situations as every project is unique and typically require their own variations to site-specific conditions.

This document represents the recommendations developed through a Technical Advisory Committee (TAC) which included:

Tim Oliver, Maricopa County Department of Transportation
Nicolaas Swart, Maricopa County Department of Transportation
Robert Herz, Maricopa County Department of Transportation
Michele Kogl, Maricopa County Department of Transportation
Dr. Robert Maki, City of Surprise
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Michael Manola, Town of Buckeye
Bob Hazlett, Maricopa Association of Governments
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Additional agency staff who contributed to the TAC include: James Sargent (MCDOT); Dr. John Abraham (City of Surprise); Renee Probst (MCDOT); Alex Arriaga (MCDOT); and George Williams (Town of Buckeye).

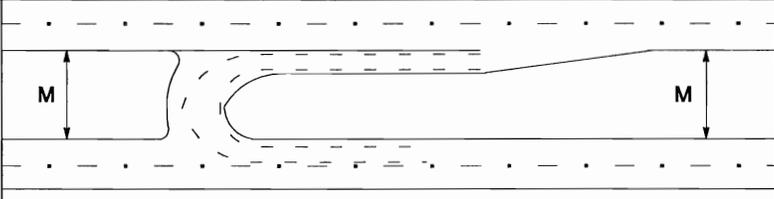
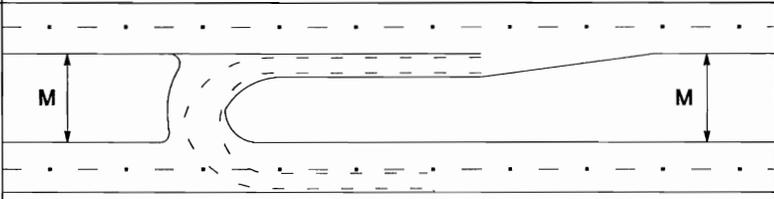
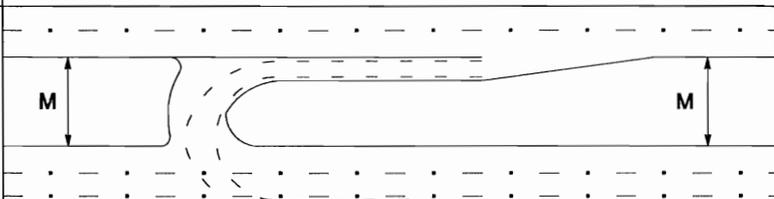
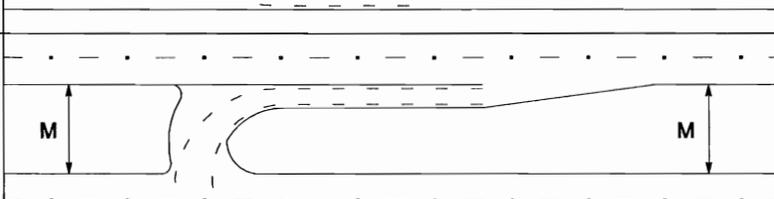
SECTION 2 – CROSS-SECTIONAL ELEMENTS

The recommended Parkway typical sections for both urban and rural areas are shown in Figure 2 (Parkway Typical Sections). The urban typical section accommodates the addition of a fourth lane in each direction of travel by widening into the median – see Section 9 (Phasing) for additional information regarding phased implementation.

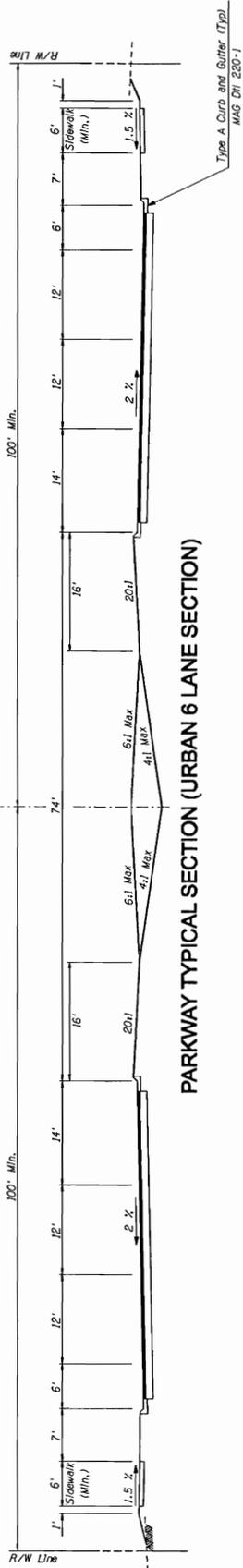
Median Width

The median width is a key feature of the cross-section as it allows large trucks to execute u-turns at the directional crossovers. The median width is controlled by the design vehicle and the number of receiving lanes adjacent to a u-turn location. The recommended minimum median widths are shown in Table 1 below. The WB-50 design vehicle should typically be used to size the median.

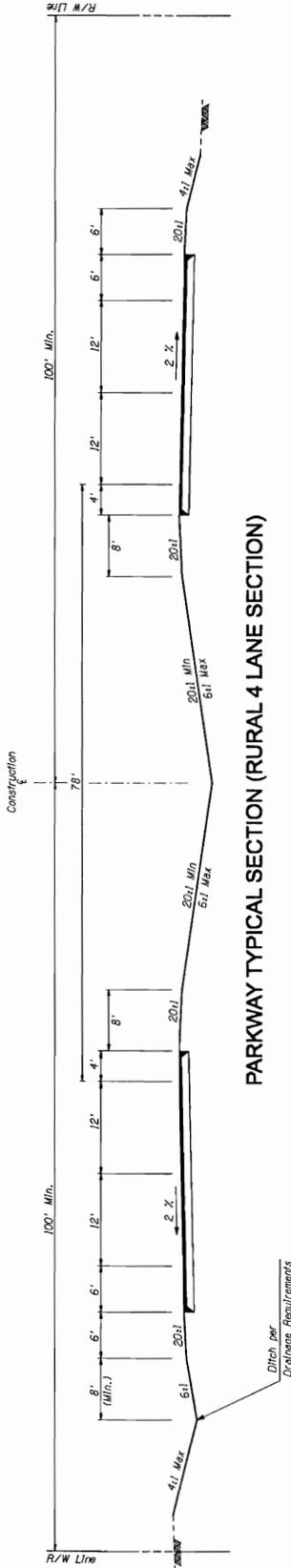
**Table 1
Minimum Median Widths**

Type of Maneuver		M = Min. width of median (feet) for design vehicle			
		P	SU	BUS	WB-50
Into 1st Lane		44'	76'	80'	82'
Into 2nd Lane		32'	64'	68'	70'
Into 3rd Lane		22'	54'	58'	60'
Into 4th Lane		16**	44'	48'	50'

*Based on 4' min. median width
Note: Based on 12' wide receiving lanes



PARKWAY TYPICAL SECTION (URBAN 6 LANE SECTION)



PARKWAY TYPICAL SECTION (RURAL 4 LANE SECTION)

Note: When curb is present, dimensions are to face of curb

FIGURE 2 - PARKWAY TYPICAL SECTIONS

The values shown in Table 1 (Minimum Median Widths) are based on the design vehicle being in the center of the departure and receiving lanes. The minimum centerline turning radius for a WB-50 design vehicle is 41' while the minimum radius of the front overhang is approximately 46'. These radii result in minimum swept paths of 82' and 92' for the centerline and front overhang, respectively. However, based on the geometrics of the directional median crossover, these values both increase to approximately 90' and 100' (an average increase of 9%), respectively, so the truck does not encroach into the median while passing through the crossover. These minimum radii values should be used to determine the minimum median width if variations are made to the receiving roadway width.

Lane Widths

It is recommended the travel lanes be 12' wide, exclusive of gutters/curbs. In restrictive situations, the travel lane width can be reduced to 11' (see below for additional information in restrictive areas).

Shoulder Width

In urban areas, the recommended inside shoulder width is 2' (including gutter, if applicable) while the recommended outside shoulder width is 6' (including gutter). In rural areas, the recommended inside paved shoulder width is 4' while the recommended outside paved shoulder width is 6'.

Edge Treatments

Per current local agency practice, MAG Type A curb and gutter (per MAG Detail 220-1) is recommended on the edge of the roadway in urban settings. On the inside (median) edge, a single curb (MAG Detail 222) is an acceptable alternative to curb and gutter. In rural settings, a MAG thickened edge should be used instead of curb, except at the directional crossovers where curb should be used. See Section 5 (Median Opening Geometrics) for additional information regarding the directional crossovers.

Right-of-Way

The standard minimum roadway right-of-way corridor should be 200'. Additional right-of-way and/or easements may be needed for turn lanes; bus bays; drainage structures and drainage facilities; and for side slopes, utilities, or landscaping.

Utility Easements

An additional 8' (minimum) public utility easement (PUE) outside of the Parkway right-of-way is suggested on each side of the Parkway. Utilities may be located in the median, but they should not obstruct sight lines, hinder drainage facilities nor require relocation as a result of future roadway widening into the median.

Cross-Section Elements Summary

Table 2 summarizes the recommended cross-sectional design elements discussed above.

**Table 2
Cross-Sectional Summary**

Criteria	Urban	Rural
Median Width	Varies based on number of lanes	Varies based on number of lanes
Lane Width	12' (exclusive of gutters/curbs); 11' minimum	12'; 11' minimum
Shoulder Width	Inside shoulder width is 2' (including gutter) while the outside shoulder width is 6' (including gutter)	Inside paved shoulder width is 4' while the outside paved shoulder width is 6'
Edge Treatment	Curb and gutter per MAG Detail 220-1, Type A; single curb allowable along median	Thickened Edge per MAG Detail 201
Right-of-Way	200' minimum	200' minimum

Special Considerations in Restricted Situations

The standard minimum roadway right-of-way corridor should be 200'. The primary cross-sectional element dictating the right-of-way corridor is the median width. The median widths shown in Table 1 (Minimum Median Widths) will accommodate a WB-50 design vehicle. In restrictive areas, it may not be possible to obtain the 200' roadway right-of-way. In these locations, it is possible to minimize the right-of-way footprint by reducing the median width, and therefore not accommodating the larger design vehicles at the directional crossovers within restricted segments. Some options include:

- Prohibiting large trucks from making u-turns at specific crossover locations with regulatory signs; or
- Not providing crossovers within the restrictive area.

In addition, the travel lanes can be reduced to 11', not including the gutter, and the distance from the back-of-sidewalk to the right-of-way line can be reduced. However, reducing the lane widths from 12' to 11' on the receiving side of the roadway at the crossover location effectively reduces the width available for a vehicle to execute a u-turn.

Additional right-of-way and/or easements may be needed for turn lanes; bus bays; drainage structures and drainage facilities; and for side slopes, utilities, or landscaping.

SECTION 3 – ELEMENTS OF DESIGN

A Parkway facility is basically a principal arterial with the indirect left-turn intersection treatment implemented on a corridor basis. Therefore, many of the design elements (design speed, design vehicle, etc.) recommended for the Parkway match the current practices for arterials.

Design Speed

The selection of a design speed typically depends on the facility classification and terrain through which the facility traverses. The design speed then dictates a number of geometric design parameters including, but not limited to, stopping sight distance, intersection sight distance, horizontal and vertical curvature, and taper rates.

For Parkways, the recommended minimum design speeds are shown in Table 3.

Table 3
Minimum Design Speeds

Terrain	Urban	Rural
Level	55 mph	65 mph
Rolling	50 mph	60 mph
Mountainous	45 mph	55 mph

Design Vehicle

The WB-50 is the recommended minimum design vehicle for intersections and median openings.

Superelevation

In urban areas, a maximum superelevation rate of 4% is recommended. On rural facilities, a maximum superelevation rate of 8% is recommended.

Clear Zone

The clear zone, or roadside recovery area, should be determined based on design speed, traffic volume and side slopes in accordance with the *AASHTO Roadside Design Guide*. For a design speed of 55 mph, a clear zone of 22' to 32' is recommended for a fill condition based on the side slope, and a clear zone of 16' to 24' is recommended for a cut condition based on the side slope. These distances increase up to a minimum of 30' in a fill condition and a minimum of 22' in a cut condition as the design speed increases up to 65 mph.

Sight Distances

Sufficient sight distance should be provided at the intersections as well as the directional crossovers (u-turn locations) in accordance with the current AASHTO Green Book.

SECTION 4 – ACCESS MANAGEMENT

The following access management guidelines should be considered as a minimum and may be supplemented or superseded by the guidelines and policies of the local agency which has jurisdiction over the roadway.

The following general access management guidelines apply to the Parkway facility:

- A divided cross-section with a 74' typical median (exclusive of turn lanes) (see Section 2 – Cross-Sectional Elements for additional information on the median width and the typical section).
- U-turn directional crossovers restricted to a maximum of eight per mile.
- Left-turns in any direction are prohibited at all intersections (full median break).
- Left-turns from a side-street or driveway onto the Parkway are prohibited.
- Left-turns from the Parkway to a side-street or driveway are discouraged due to conflicts between u-turns and right-turns. However, this can be accommodated by aligning the u-turn crossover with the side-street or driveway in order to facilitate left turns and u-turns.
- Intersections (full median breaks) preferably restricted to one-mile spacing and a minimum spacing of half-mile.
- No on-street parking.

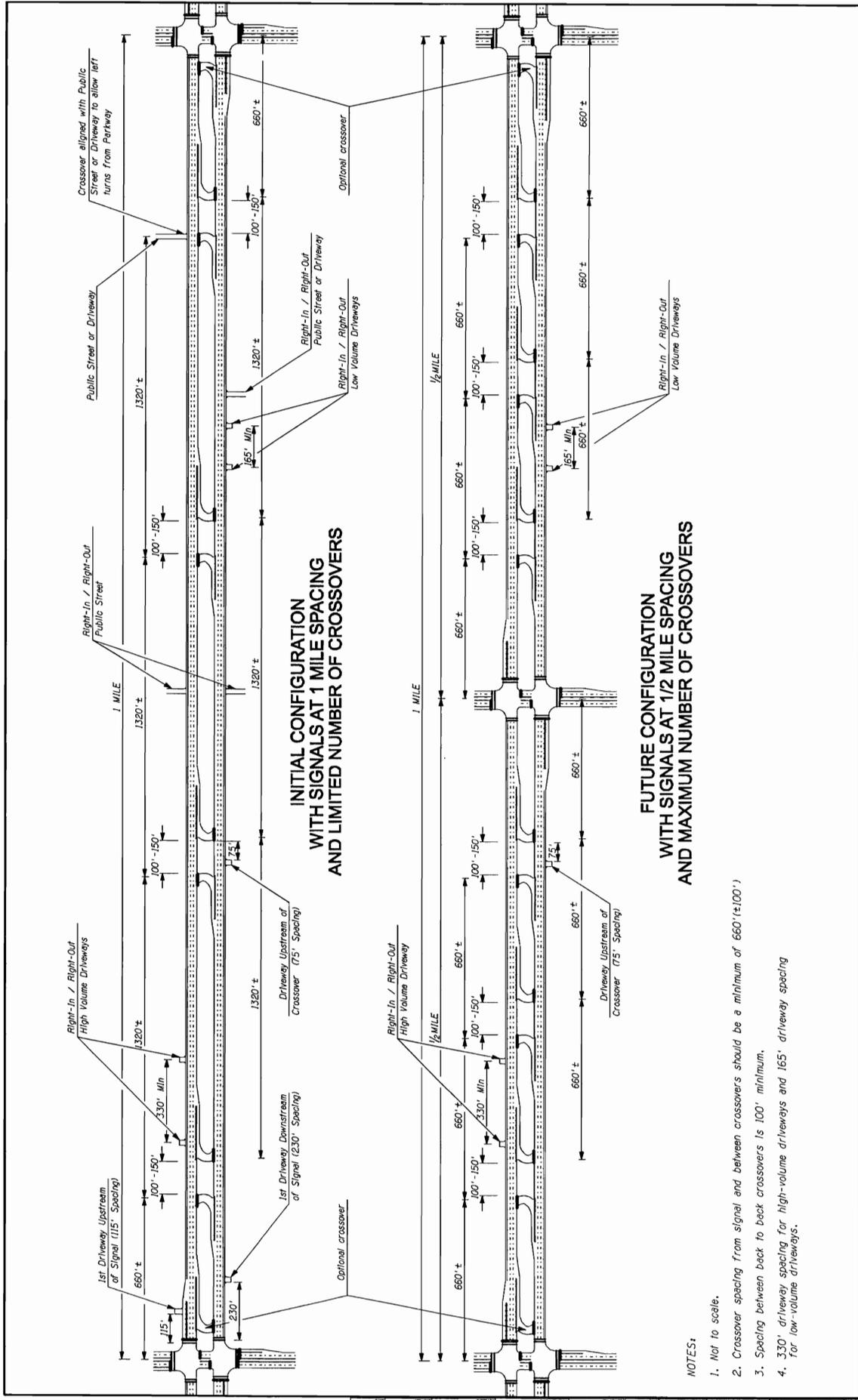
During an interim stage when the indirect left-turn is not fully implemented, direct left-turns may be allowed. See Section 9 (Phasing) for additional information regarding phased implementation.

Median Opening and Directional Crossover Spacing

Full median openings are only recommended at intersections with arterial or major collector streets. Left-turns will not be allowed at the full median breaks. All full median breaks will be signalized, based on MUTCD warrants. The recommended full median opening spacing is one mile while the minimum spacing is one-half mile.

Figure 3 (Typical Urban Parkway Access Plan) shows a typical one-mile segment of an urban Parkway with general information regarding access management for a typical initial configuration (with a limited number of crossovers) and for a typical future configuration (with the maximum number of crossovers). The recommended offset from the cross-street centerline to the first directional crossover is 660' ($\pm 100'$) downstream of a major intersection as shown in Figure 4 (General Placement of Directional Crossovers). In addition, for an urban area, a minimum 660' ($\pm 100'$) spacing is recommended along the corridor. In rural areas, a minimum 1200' ($\pm 200'$) spacing is recommended along the corridor.

It is undesirable to align public side-streets or driveways with the crossovers due to the vehicle conflicts between the right-turns (onto the Parkway) and the u-turns. However, in some situations, crossovers can coincide with a public side-street or a driveway to allow inbound left-turns (from Parkway to driveway or side-street) and u-turns. If allowed, the approach of the side-street or driveway should be blocked by the median on the Parkway, thus encouraging drivers to turn right, and right-turn channelization (raised median) should be installed on the approach.



**INITIAL CONFIGURATION
WITH SIGNALS AT 1 MILE SPACING
AND LIMITED NUMBER OF CROSSOVERS**

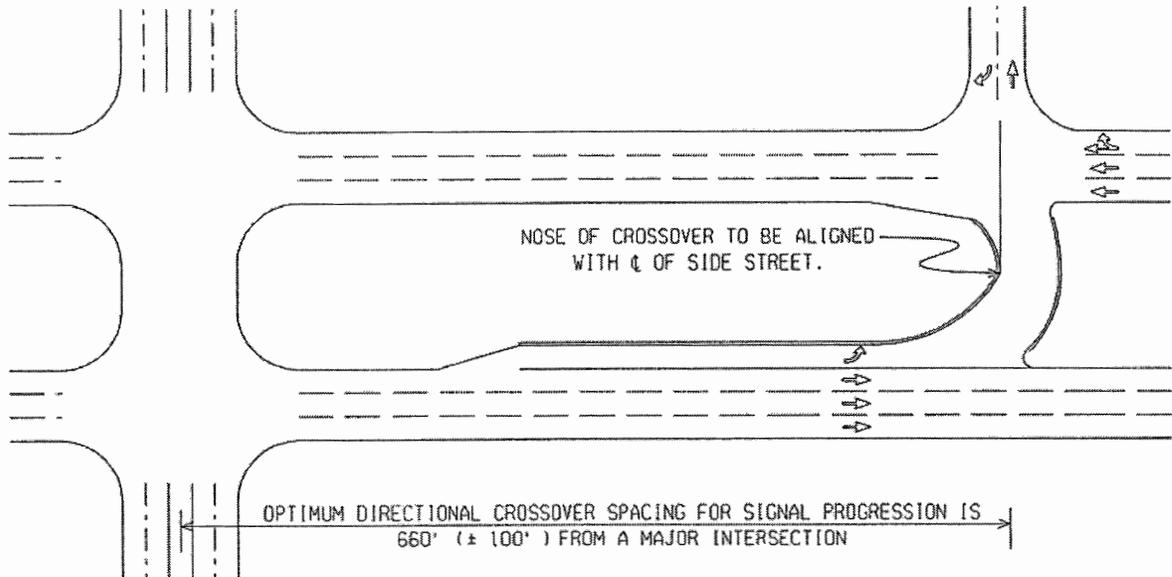
**FUTURE CONFIGURATION
WITH SIGNALS AT 1/2 MILE SPACING
AND MAXIMUM NUMBER OF CROSSOVERS**

- NOTES:
1. Not to scale.
 2. Crossover spacing from signal and between crossovers should be a minimum of 660' (±100')
 3. Spacing between back to back crossovers is 100' minimum.
 4. 330' driveway spacing for high-volume driveways and 165' driveway spacing for low-volume driveways.

FIGURE 3 - TYPICAL URBAN PARKWAY ACCESS PLAN

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Figure 4
General Placement of Directional Crossovers



A directional crossover can be located immediately upstream of a major/signalized intersection. A crossover in this location allows some traffic to make a u-turn maneuver prior to entering the major intersection and therefore removes that traffic from passing through the intersection twice (once prior to the u-turn and once after the u-turn). However, a crossover in this location creates additional conflicts with right-turn traffic from the cross-street. Crossovers in these locations should be considered when warranted by site-specific conditions. A crossover in this location is discouraged when driveways exist or are planned on the receiving side of the roadway.

Driveway Spacing

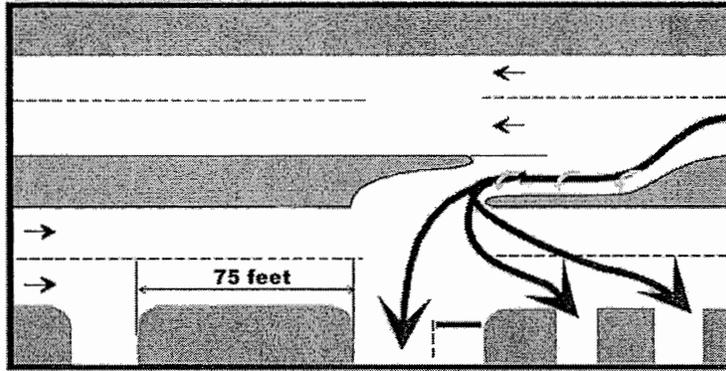
For a low-volume driveway, a 165' minimum spacing (from centerline to centerline) is recommended. For a high-volume driveway, a 330' minimum spacing (from centerline to centerline) is recommended. The typical driveway will be limited to right-in/right-out maneuvers.

Corner Clearances

Upstream of a signalized intersection, the recommended corner clearance is 115' from the edge of the cross-street to the edge of the first right-in/right-out driveway. Downstream of a signalized intersection, the recommended corner clearance is 230' from the edge of the cross-street to the edge of the first right-in/right-out driveway.

In addition, it is recommended access connections be located directly opposite or downstream from a directional crossover as shown in Figure 5 (Entry Maneuvers). Driveway access should be located a minimum of 75' upstream of the crossover to discourage wrong way maneuvers.

Figure 5
Entry Maneuvers



SECTION 5 – MEDIAN OPENING GEOMETRICS

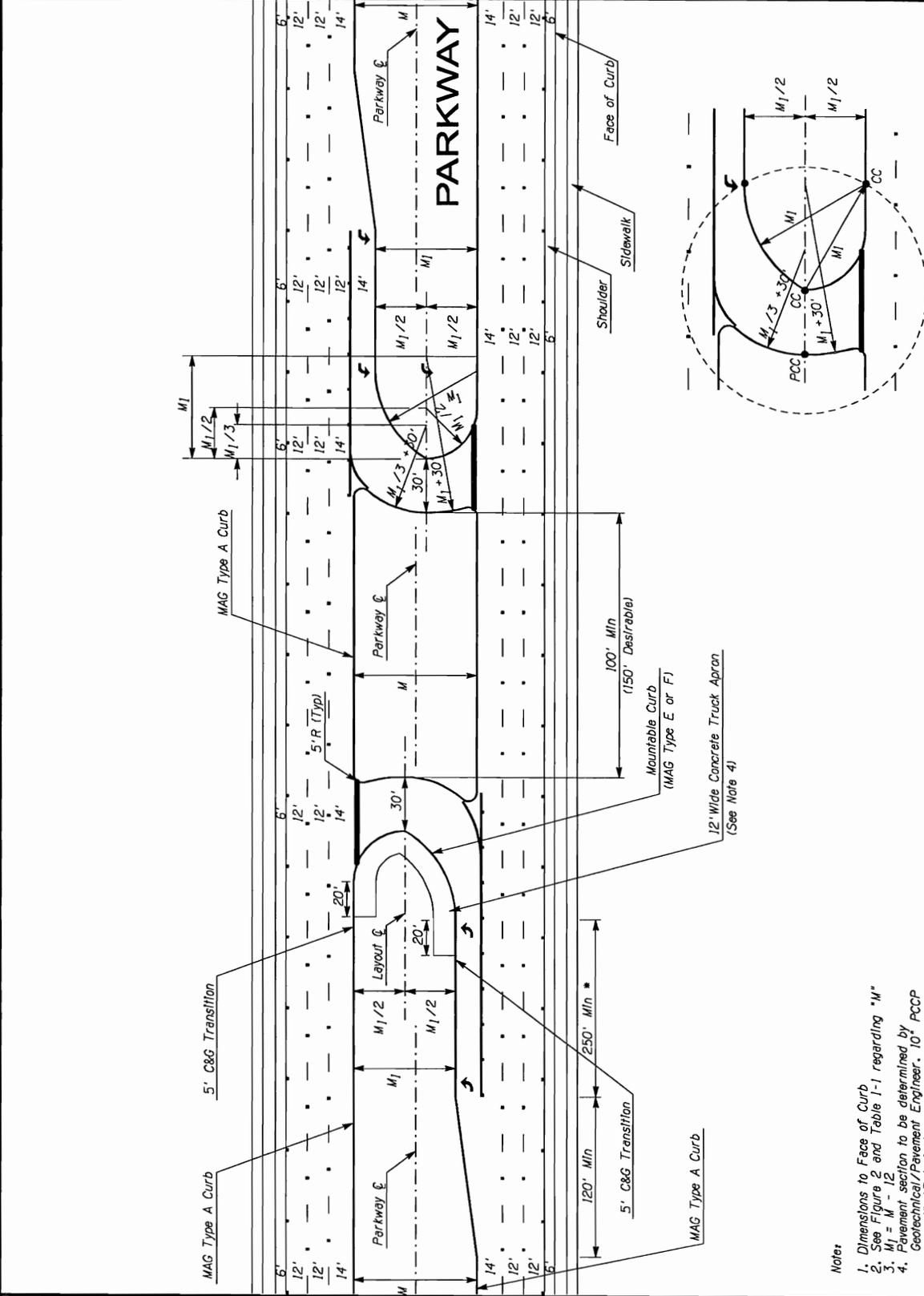
This section will provide suggested geometrics for full median openings at major intersections and for single-lane and dual-lane directional crossovers along urban and rural Parkways.

Major Intersections

At major intersections (full median breaks), left-turns are not allowed, so the intersection is designed to promote through movements and right-turns while discouraging left-turns, as shown in Figure 6 (Geometrics for Typical Parkway/Arterial Intersections). Due to the width of the median, major intersections are actually two intersections spaced close together.

Directional Crossovers

The directional crossovers allow u-turns in one direction of travel and are generally designed to accommodate a WB-50 design vehicle. For a single lane crossover, the opening should be 30' wide and both edges should contain compound curves as shown in Figure 7 (Geometrics for Typical Urban Single-Lane Directional Crossover). For a dual-lane crossover, the opening should be 36' wide as shown in Figure 8 (Geometrics for Typical Urban Dual-Lane Directional Crossover). Figure 9 (Geometrics for Typical Rural Single-Lane Directional Crossover) shows a single-lane crossover in a rural area. The minimum spacing between back-to-back crossovers in opposite directions should be 100' with a desirable spacing of 150'. In both urban and rural conditions, the median edges near the directional crossover should include curb which is easily mountable by trucks. In addition, the median on the inside of the crossover should include a concrete truck apron.

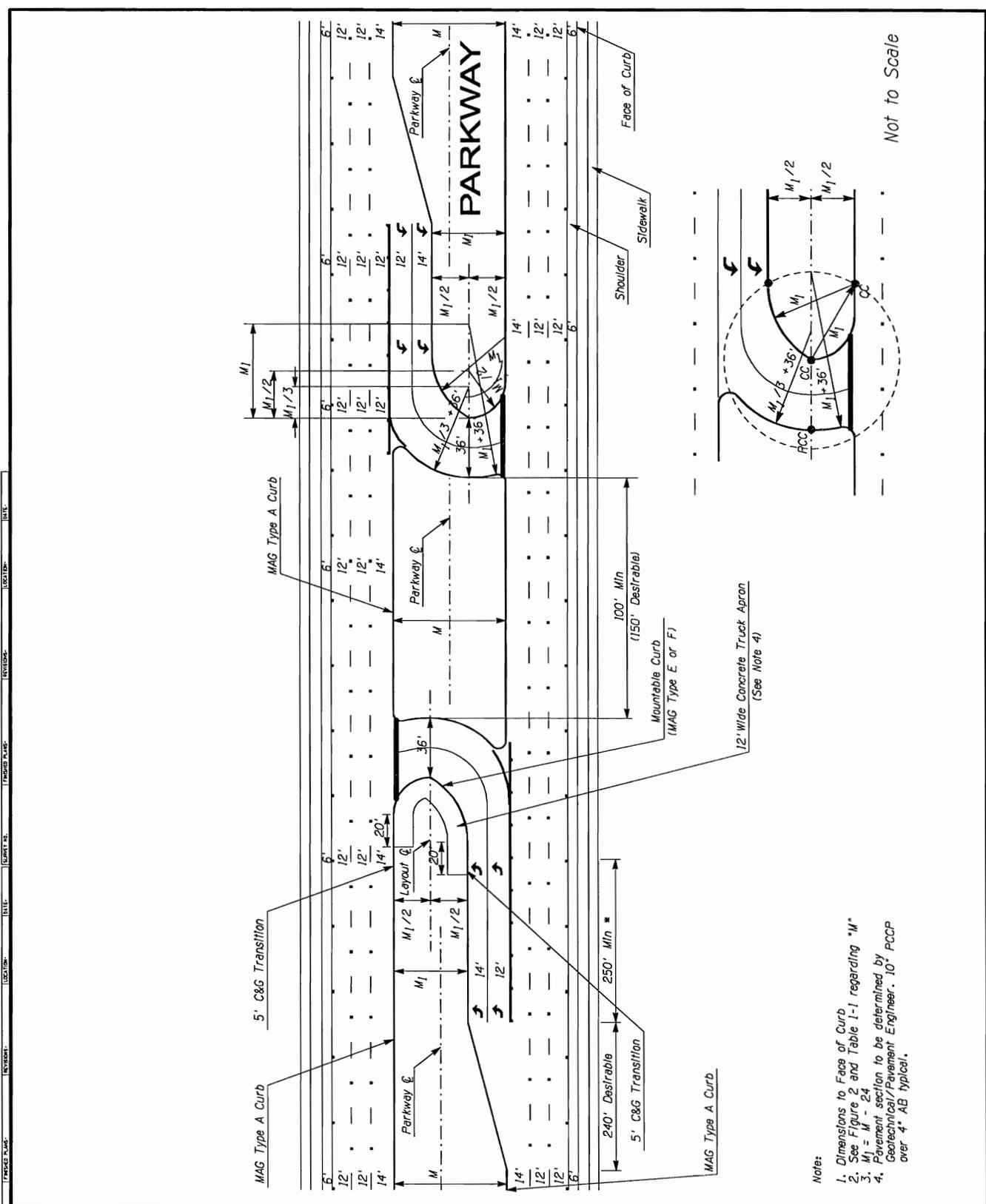


Not to Scale

* - LENGTH TO BE DETERMINED BY TRAFFIC ANALYSIS

- Note:
1. Dimensions to Face of Curb
 2. See Figure 2 and Table 1-1 regarding "M"
 3. $M_1 = M - 12$
 4. Pavement section to be determined by Geotechnical/Pavement Engineer. 10" PCC over 4" AB typical.

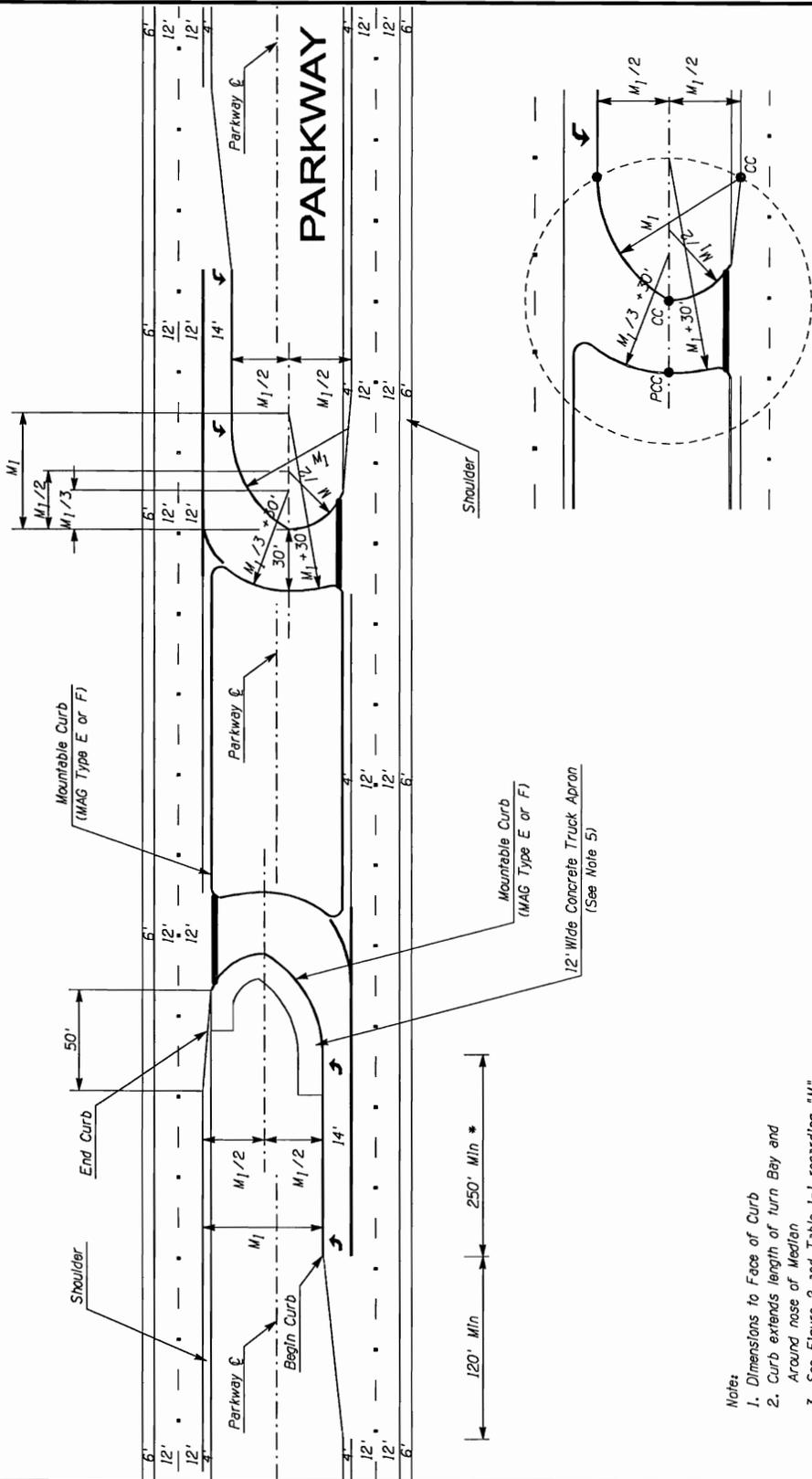
FIGURE 7 - GEOMETRICS FOR TYPICAL URBAN SINGLE-LANE DIRECTIONAL CROSSOVER



Not to Scale

- Note:
1. Dimensions to Face of Curb
 2. See Figure 2 and Table 1-1 regarding "M"
 3. $M_1 = M - 24$
 4. Pavement section to be determined by Geotechnical/Pavement Engineer. 10" PCCP over 4" AB typical.

FIGURE 8 - GEOMETRICS FOR TYPICAL URBAN DUAL-LANE DIRECTIONAL CROSSOVER



- Note:
1. Dimensions to Face of Curb
 2. Curb extends length of turn Bay and Around nose of Median
 3. See Figure 2 and Table 1-1 regarding "M"
 4. $M_1 = M - 10$
 5. Pavement section to be determined by Geotechnical/Pavement Engineer, 10" PCCP over 4" AB typical.

* - LENGTH TO BE DETERMINED BY TRAFFIC ANALYSIS

Not to Scale

FIGURE 9 - GEOMETRICS FOR TYPICAL RURAL SINGLE-LANE DIRECTIONAL CROSSOVER

SECTION 6 – MULTIMODAL ACCOMMODATIONS

In 1999, the USDOT developed a Policy Statement in response to Section 1202(b) of the Transportation Equity Act (TEA-21) which states bicycle and pedestrian ways shall be established in new construction and reconstruction projects in urban areas unless: bicyclists and pedestrians are prohibited by law; the cost would be excessively disproportionate to the probable use; or where sparse populations indicate an absence of need.

Accommodations for Pedestrians and Bicycles

In both urban and rural conditions, a shoulder is recommended which can accommodate bicycles. In urban areas, a 6' (minimum) sidewalk is recommended to accommodate pedestrians. Curb opening catch basins should be used rather than grated inlets due to the potential for bicycles adjacent to the gutter pan.

Accommodations for Buses

Bus stops should be located on the far-side of the intersection and should include a bus bay (see MAG Detail 252).

Accommodations for Light Rail Transit

The wide Parkway median provides room for the addition of bi-directional light rail transit (LRT) guideways. However, all guideway crossings would require signalization. Therefore, all crossovers would become signalized with the addition of LRT in the Parkway median.

SECTION 7 – TRAFFIC ELEMENTS

Signing

Signing is an important element of the Parkway facility in order to provide drivers with adequate guidance and to discourage wrong-way movements. At a full median break, regulatory signing should be provided to indicate the prohibition of left-turns at the intersection and to discourage wrong-way movements. As shown in Figure 10 (Typical Signing for Parkway/Arterial Intersections), numerous Wrong-Way, Do Not Enter, One-Way, and No Left Turn regulatory signs are recommended. In addition, guide signs (“fish-hook” signs) should be provided in the Parkway median and on the arterial approaches.

At directional crossovers, similar signing is recommended including regulatory signs and guide signs. However, the guide sign is slightly modified and two different versions are recommended depending on the location of the crossover. If the crossover is immediately downstream of an intersection, the guide sign should provide the name and cardinal direction of the Parkway facility and the adjacent arterial as shown in Figure 11 (Typical Signing for Single-Lane Stop Controlled Crossover). If the crossover is not immediately downstream of an intersection, the guide sign should only include the name and cardinal direction of the Parkway facility. Stop signs are recommended on the crossovers but can be replaced with Yield signs as long as the median is a minimum of 30’ wide. As shown in Figure 12 (Typical Signing for Dual-Lane Stop Controlled Crossover), additional signage is recommended at dual-lane crossovers to provide guidance to large trucks regarding lane usage.

Signals

The relationship of signal cycle length, signal spacing, and progression speed is shown in Table 4. As shown below, fewer signals at a uniform spacing improve traffic flow. As traffic volumes increase, longer cycle lengths are used to minimize lost time. A signal spacing of one-half mile provides opportunities to achieve signal progression at speeds of 30 mph to 40 mph, depending on the cycle length.

**Table 4
Progression Speed as a Function of Signal Spacing & Cycle Length**

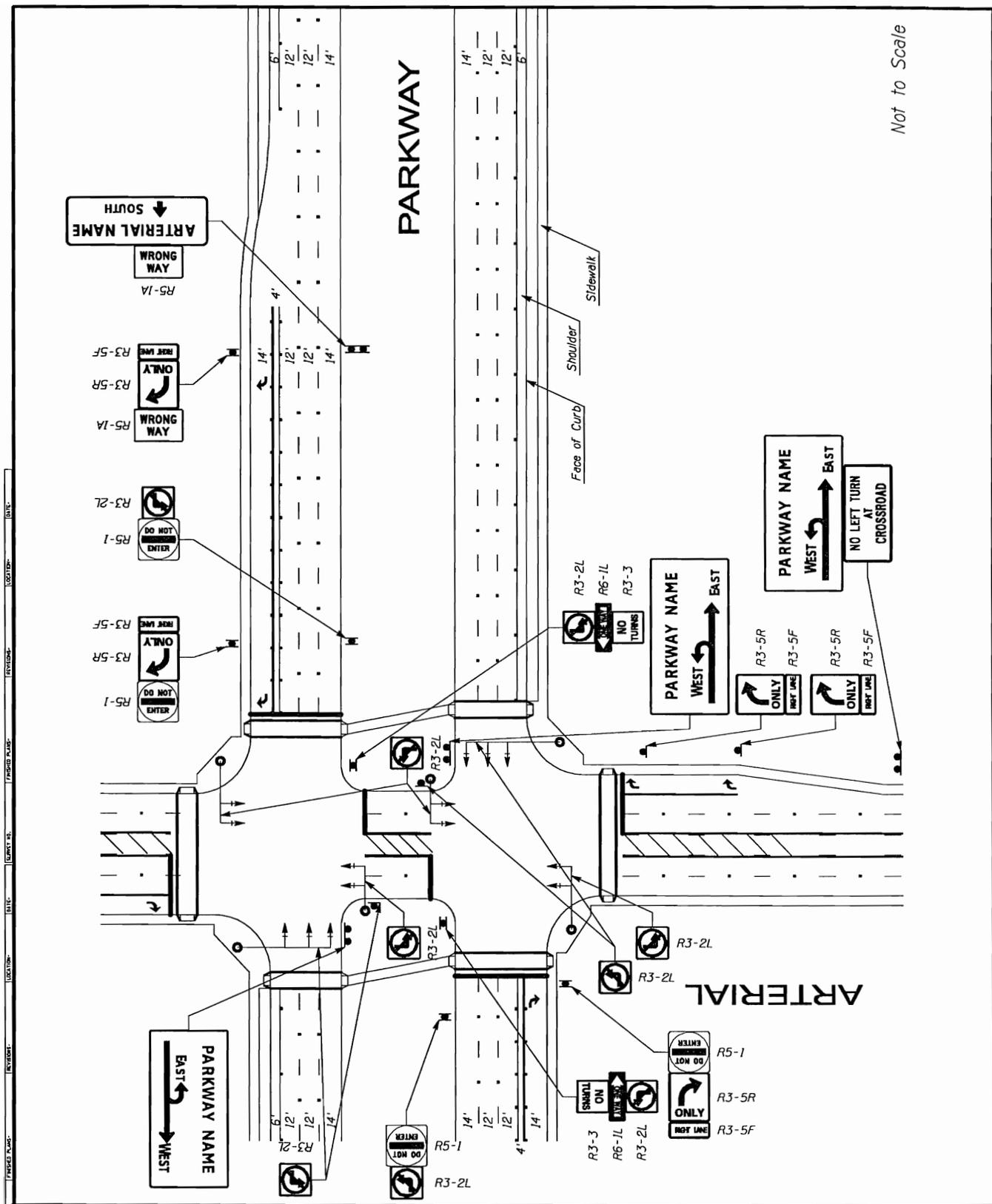
Cycle Length (sec)	Signal Spacing			
	1/8 mile (660 ft)	1/4 mile (1320 ft)	1/3 mile (1760 ft)	1/2 mile (2640 ft)
	Progression Speed (mph)			
60	15	30	40	60
90	10	20	27	40
120	7.5	15	20	30

Source: Access Management Manual, TRB (2003)

The recommended full median opening spacing is one mile while the minimum spacing is one-half mile. All full median breaks will eventually be signalized once warrants are met. In addition, directional crossovers may be signalized if warrants are met. The signals should be operated on a two-phase cycle with one phase for the Parkway traffic and one phase for the cross-street traffic. With this simple signal phasing, longer green times are available for the through traffic. The intersections should be operated by one signal controller with an extended green time at the full median breaks. This extended green time is used to discourage vehicles

from getting “trapped” in the median by providing an additional 3-4 seconds of green time on the downstream signal. Figure 13 (Typical Signal Layouts) shows a generalized signal pole layout for an arterial intersection and a signalized crossover. At a signalized crossover, only one-half of the Parkway is signal controlled. These signals should also operate with two phases; one for the through/right-turn traffic and one for the u-turn traffic. If a driveway or side-street is located across from the crossover, it is recommended that a stop-sign be installed for the side-street/driveway approach movement rather than signal heads as shown in Figure 13. This configuration will reduce the conflict between the u-turn and right-turn movements.

Maricopa County and numerous valley agencies have made a substantial investment in ITS technology over the past decade. AZTech is the model deployment and regional management of an Intelligent Transportation System (ITS) developed for the Phoenix Metropolitan area. The AZTech system uses a number of traffic control and traffic information technologies collectively known as ITS. These computer and communication tools provide real-time information to traffic control centers about traffic flow changes and emergency incidents and enable these centers to adjust traffic signals and provide motorist information about roadway conditions via dynamic message signs. Parkways will become one of the key facilities in the future transportation network and will require connectivity to regional traffic operations centers. Therefore, relatively large-count, single-mode fiber optic cable should be installed to provide communications along the corridors. ITS components utilized on Parkways should be similar to those currently being implemented on major arterial corridors, including vehicle detection and closed-circuit television cameras at signalized intersections. Vehicle detection should also be provided between signals to allow for traffic data collection. Currently, the preferred signal interconnection strategy includes “hard-wiring” with fiber optic cable between the signals. This strategy should also be implemented on the Parkways.



Not to Scale

FIGURE 10 - TYPICAL SIGNING FOR PARKWAY / ARTERIAL INTERSECTION

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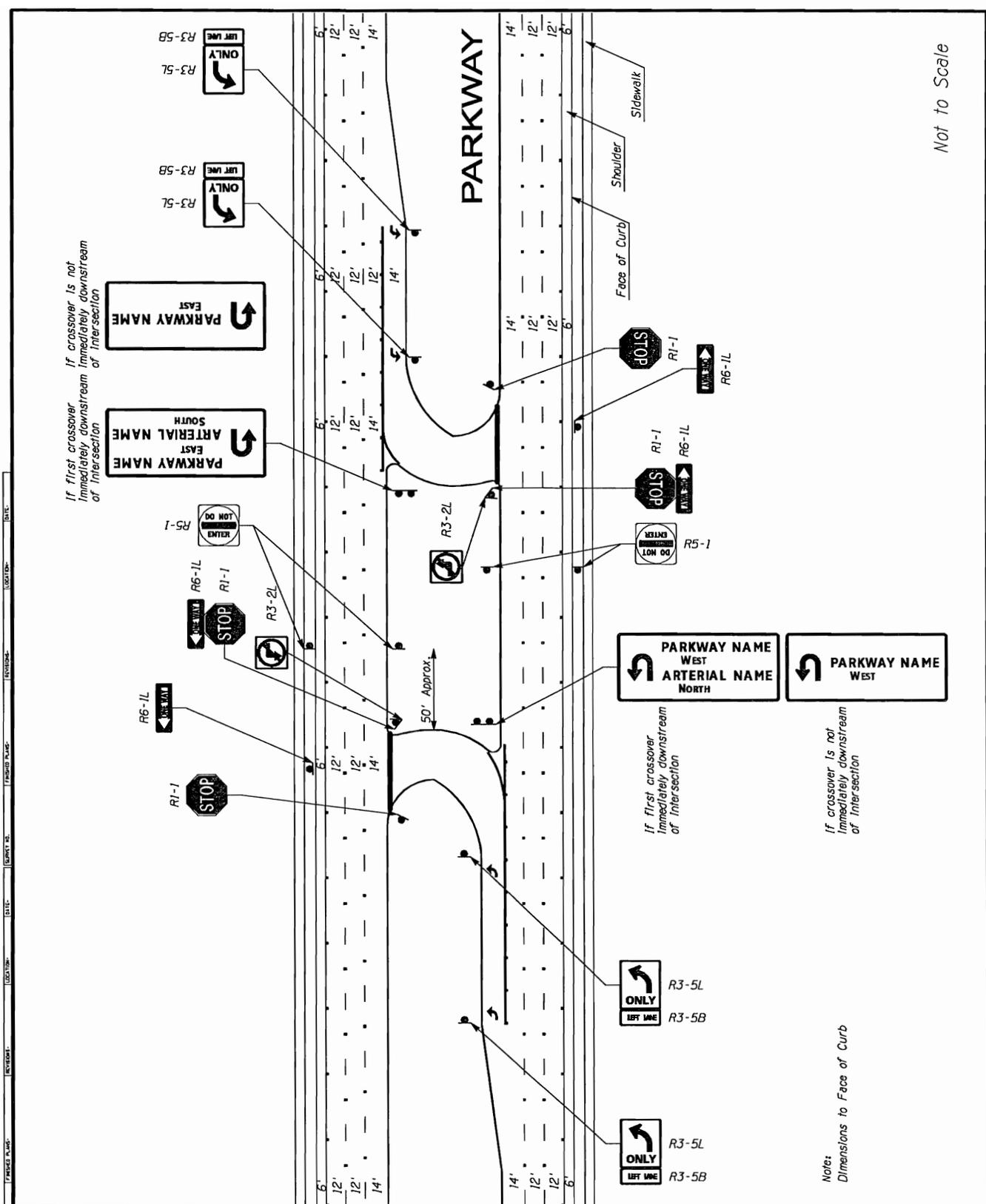
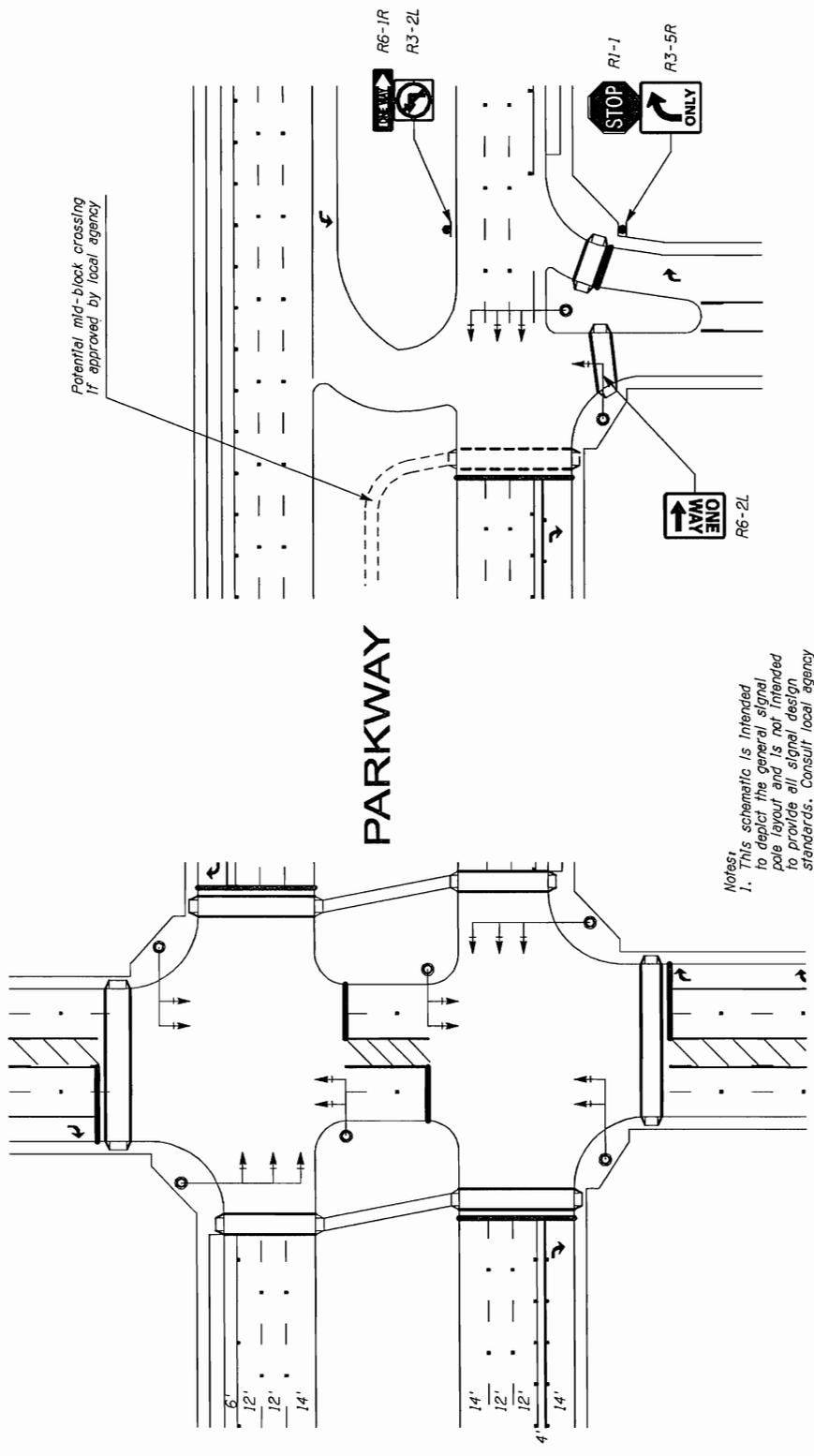


FIGURE 11 - TYPICAL SIGNING FOR SINGLE-LANE STOP CONTROLLED CROSSOVER



Potential mid-block crossing
If approved by local agency

- Notes:
1. This schematic is intended to depict the general signal pole layout and is not intended to provide all signal design standards. Consult local agency policies and standards for additional information.
 2. See Figure 10 & 11 for additional sign information.

SECTION 8 – OTHER CONSIDERATIONS

Facility Transitions

The Parkway facility is very similar to a principal arterial facility with a different intersection treatment. Therefore, no extraordinary conditions exist at a transition from a Parkway to an arterial. Standard engineering practice should be followed for these transitions.

When the raised median along a Parkway is terminated, it is recommended cross-hatching and raised pavement markers be used to delineate the paved area adjacent to the beginning of the raised median in order to discourage vehicles from entering this area. In addition, it is recommended driveways and side-streets be located at least 100' from this area in order to discourage vehicles from using the area to turn in or out of a driveway or side-street.

The roadway width should be tapered through the use of reverse curves. Using a 9964.48' curve radius (2% normal crown at 55 mph) would result in the following transition lengths (along a tangent centerline):

<u>Offset (ft)</u>	<u>Transition Length (ft)</u>
30	1093.09
40	1262.03
50	1410.81
80	1783.88
118	2165.48

Crossovers should not be located within a transition area that does not provide enough median width to accommodate u-turns. Crossover locations upstream and downstream of a transition should be evaluated to optimize the crossover spacing.

Median Grading

The median grading should account for several factors including drainage, utilities, potential future roadway widening, safety, erosion control, and maintenance. The median grading should provide recoverable side slopes within the clear zone and should not inhibit sight lines; provide accommodations for drainage and utilities (if necessary); provide flexibility for future roadway widening; not promote erosion or maintenance issues; and not promote the transfer of debris, soil or other materials from the median into the roadway. Utilities may be located in the median, but they should not obstruct sight lines, hinder drainage facilities nor require relocation as a result of future roadway widening into the median. Landscaping in the median should not inhibit sight lines and should conform to AASHTO guidance regarding clear-zone requirements.

Drainage

The drainage design criteria for a principal arterial roadway should be used for on-site roadway pavement drainage and for off-site cross-drainage. Curb opening catch basins should be used rather than grated inlets due to the potential for bicycles adjacent to the gutter pan. Stormwater retention/detention in the "ultimate" (50') median can be problematic given the maximum side slopes, minimum catch basin depths, and minimum pipe slopes. With a wider median, retention/detention in the median becomes more feasible. However, the future (potential 8-lane) conditions must be considered in the initial design.

Grade Separated Crossings

The wide median associated with the Parkway facility would result in a very wide structure when an overpass (Parkway going over) is required or a very long structure when an underpass (Parkway going under) is required. Therefore, it is recommended one of the two following options be used at an overpass: (1) two separate overpass structures; or (2) the median width be reduced. Both of these options result in the full median width not being carried across an overpass. The full lane widths and shoulder widths should be carried across the structure along with the sidewalk. There are numerous options for an underpass, including separate bridges over each direction of the Parkway or single multi-span bridge over the Parkway. The recommended option for an underpass is a single two-span bridge with a reduced median width to shorten the structure length.

SECTION 9 – PHASING

The construction of many roadway facilities involves phased implementation. The standard urban typical section shown in Figure 2 (Parkway Typical Sections) includes three travel lanes in each direction. The first phase may include only two lanes in each direction with the third lane, or future fourth lane, being added as warranted by traffic volumes. In addition, the roadway section may be implemented in phases with each half of the roadway being constructed at different times. This type of phasing typically results from half-street right-of-way dedications and roadway construction by an adjacent development.

Full-Width Phased Implementation

The typical sections shown in Figure 14 (Phased Urban Typical Sections) allow for the phased implementation of a full-width typical section. In some specific situations, the four-lane section could be implemented first. If a four-lane urban section is constructed, the crossovers should be designed and constructed in the location required for a six-lane section so the third lane can be added in the median and the crossover will not require reconstruction as shown in Figure 15 (Interim Urban Directional Crossover). With a four-lane section, the stop bar in the median crossover should be located approximately 12' behind the median curb as shown in Figure 15. With a four-lane section, this stop bar location improves sight-lines when compared to placing the stop bar near the median curb.

As warranted by traffic demands, the third lane in each direction would be added into the median. The six-lane typical section also allows for the future addition of a fourth travel lane into the median. The outside curb line can be constructed in its ultimate location with the first phase of implementation and will not require reconstruction due to the future addition of travel lanes. In addition, the lane lines of the rural typical section shown in Figure 2 (Parkway Typical Sections) align with the lane lines of the urban typical section in order to facilitate transitions between facility types.

Half-Street Phased Implementation

Ideally, the full right-of-way width would be obtained and the full typical section built with the initial construction. However, in many cases, the right-of-way is dedicated by an adjacent development, and therefore, only one-half of the eventual full right-of-way width is available for the initial construction. In this situation, the half-street should be constructed and operated as a traditional arterial roadway allowing left-turns at intersections. Following is a general description of phased implementation of a half-street:

- Build outside curb and gutter in its ultimate location and construct three travel lanes and appropriate shoulders;
- Operate with one lane in each direction of travel and with a striped median lane (continuous two-way left-turn lane);
- Allow left-turns at intersections similar to a traditional street;
- Do not build crossovers until the development patterns (and accompanying access locations) on both sides of the roadway have been established in order to optimize the crossover locations.

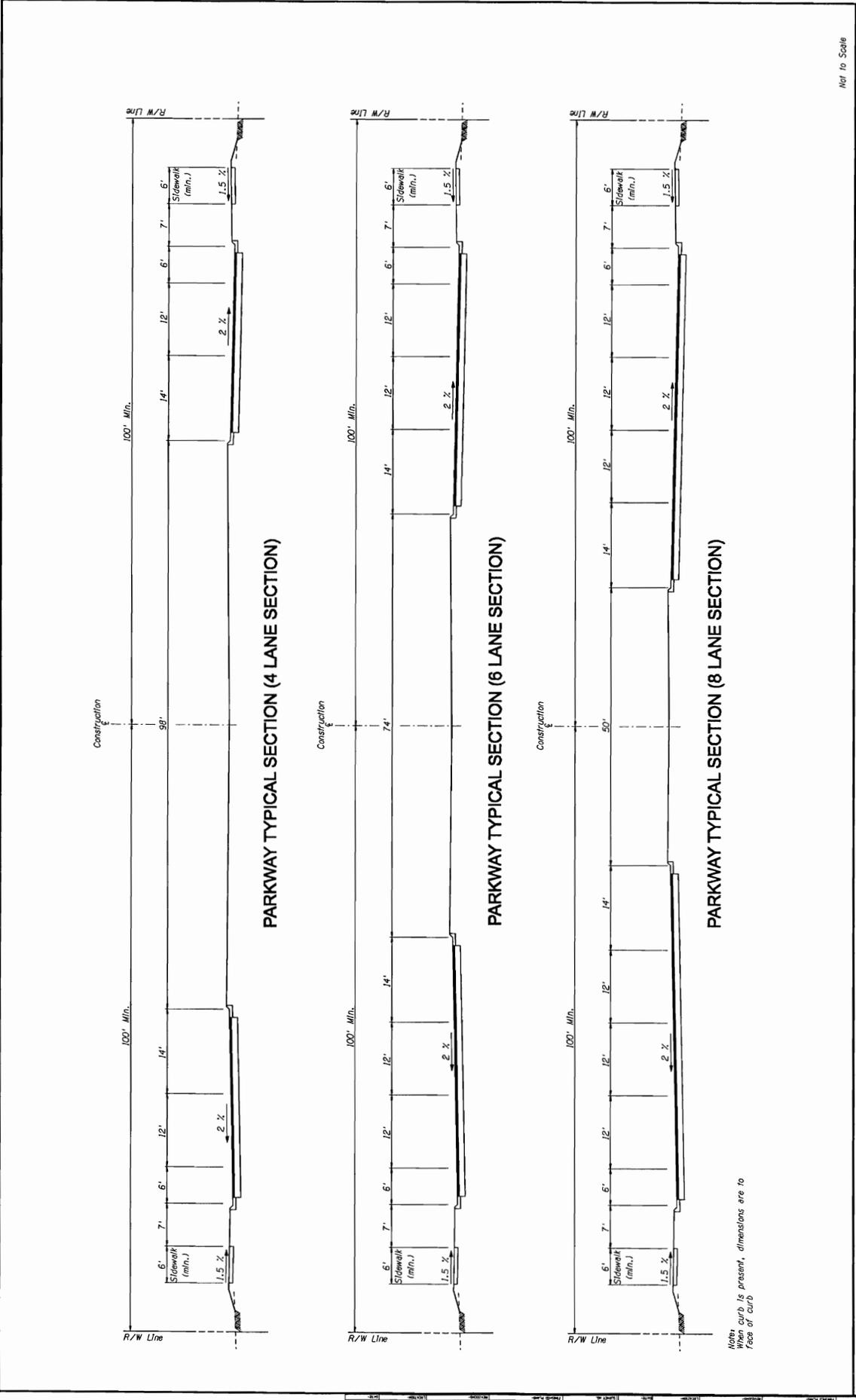
The minimum half-street width is approximately 44' which corresponds to one-half of the six-lane urban section and will accommodate three travel lanes in the interim condition. This initial half-street configuration could remain in place until travel demands warrant improvement or the

other half-street right-of-way is dedicated. Many options are available for the width of the initial construction and the resulting construction required in the second phase. In many cases, half-street implementation will result in “scaloped” streets – half-streets constructed on opposite sides of the centerline. This will be similar to a typical arterial “scaloped” street, except the offset between the half-streets is much greater and the resulting transitions will be longer (see Section 8 – Other Considerations for additional information on transitions).

It is recommended crossover locations not be determined during the initial phase, but rather with the later phase in order to ensure crossover locations are correctly placed based on the adjacent development on both sides of the roadway and not prematurely determined in the first phase.

Structures

In an underpass situation (Parkway going under), the bridge structure abutments and piers should be located so as not to inhibit the ultimate eight-lane facility. In an urban overpass situation (Parkway going over), an interim bridge should not be constructed which correlates to the urban four-lane section. Instead, the minimum phased bridge construction should be based on the urban six-lane section. In a half-street phased implementation, the minimum initial bridge width should accommodate three travel lanes and shoulders. In all cases, structures should be sized and located to facilitate (at a minimum not preclude) the ultimate eight-lane Parkway.



PARKWAY TYPICAL SECTION (4 LANE SECTION)

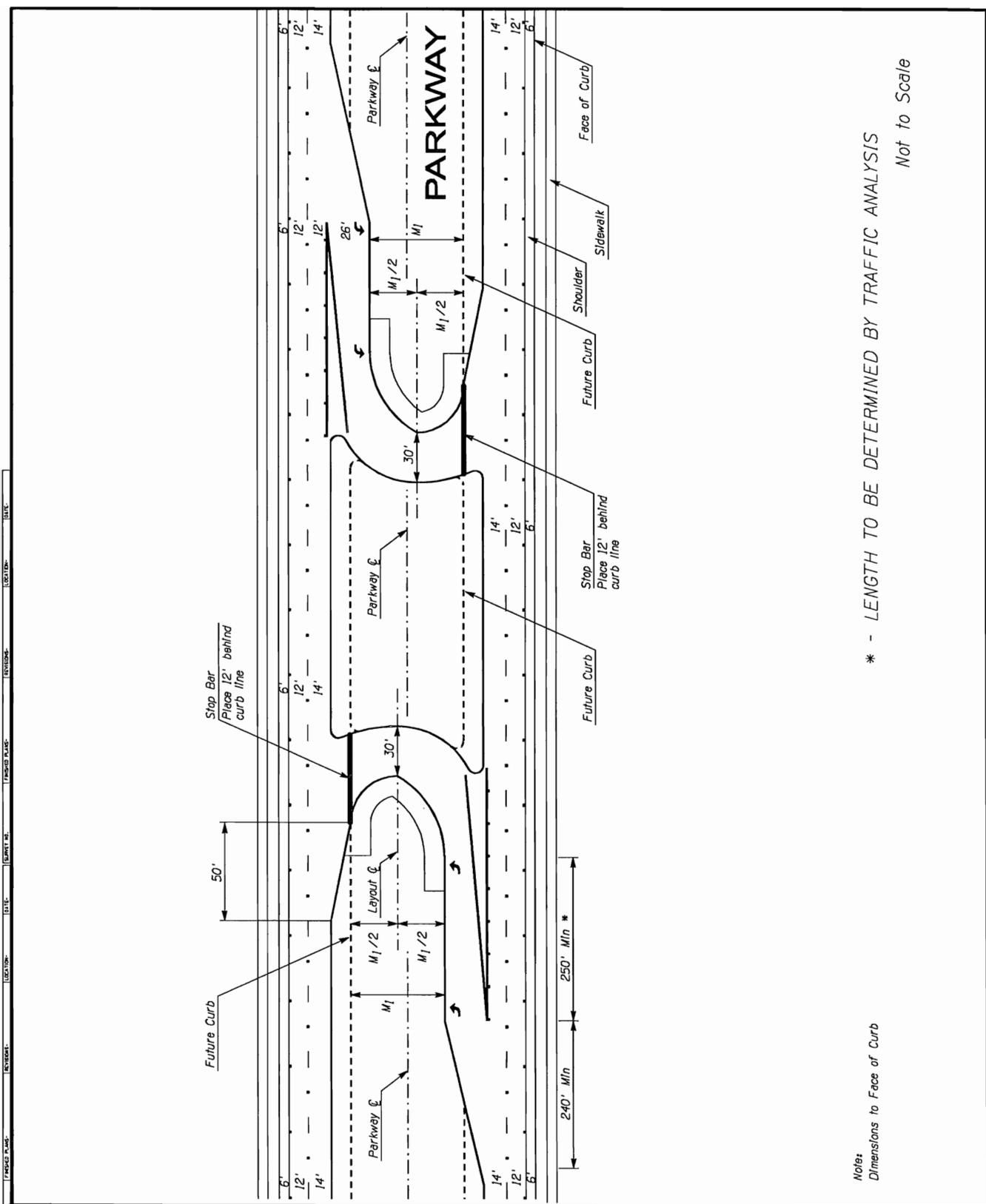
PARKWAY TYPICAL SECTION (6 LANE SECTION)

PARKWAY TYPICAL SECTION (8 LANE SECTION)

Notes:
When curb is present, dimensions are to face of curb

Not to Scale

FIGURE 14 - PHASED URBAN TYPICAL SECTIONS



SHEET NO. _____ DATE _____
 PROJECT NAME _____ LOCATION _____
 REVISION _____
 DATE _____

FIGURE 15 - INTERIM URBAN DIRECTIONAL CROSSOVER

Notes:
Dimensions to Face of Curb

* - LENGTH TO BE DETERMINED BY TRAFFIC ANALYSIS

Not to Scale

SECTION 10 – TYPICAL INTERSECTION CONFIGURATIONS

This section will describe the typical intersection configurations for three different at-grade intersections: collector/parkway; arterial/parkway; and parkway/parkway.

Collector Intersections

A majority of collector/parkway intersections will allow right-in/right-out movements only. A typical three-legged collector intersection will include one approach lane to the Parkway and one departure lane from the Parkway. All traffic approaching the Parkway will be required to execute a right-turn onto the Parkway. Drivers desiring to travel in the opposite direction will continue downstream to the next directional crossover and execute a u-turn. Standard signal warrants should be used to determine when a crossover should be signalized.

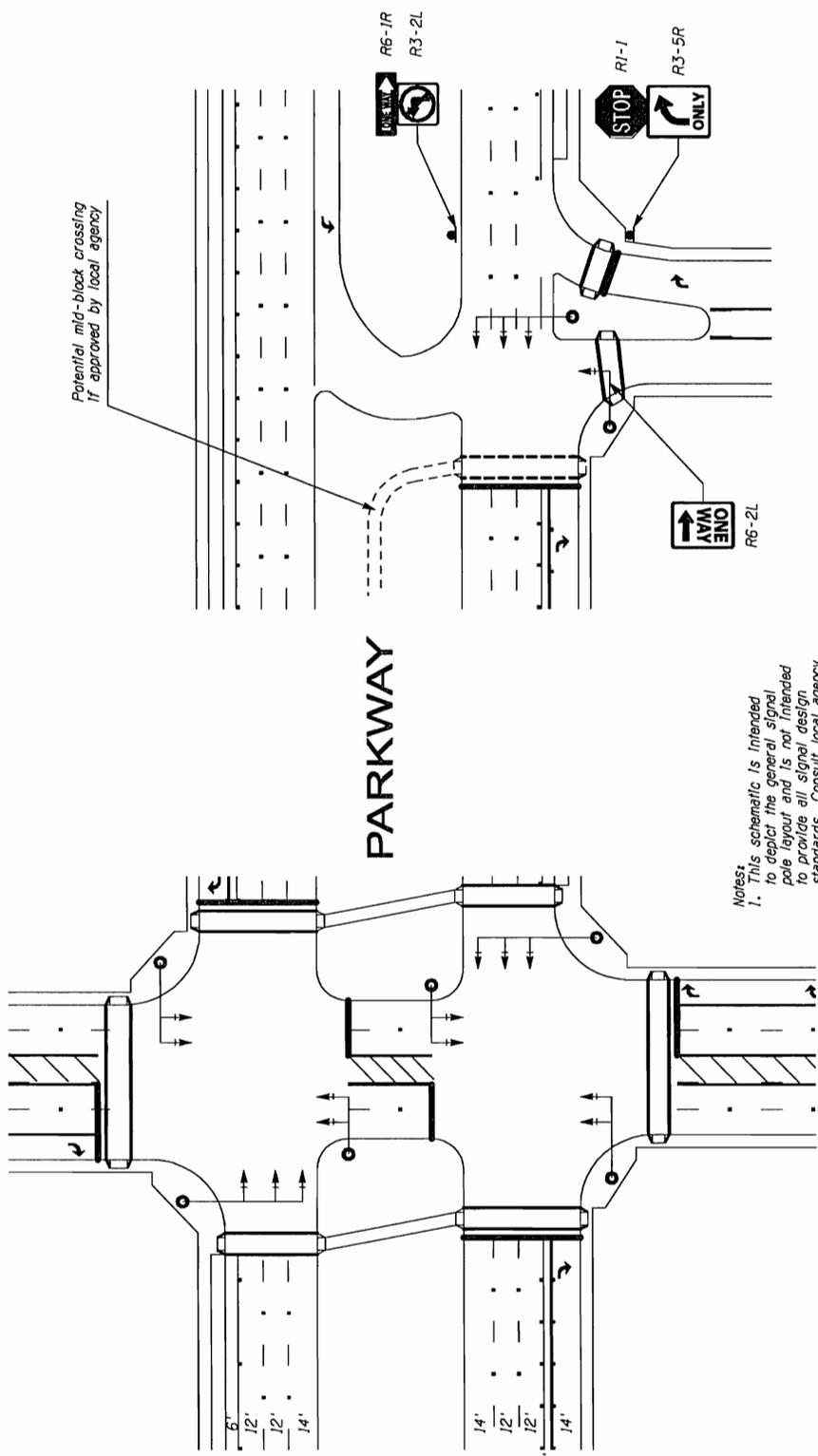
In some cases, a directional crossover can be aligned with a side-street in order to facilitate left-turns from the Parkway to the side-street. However, this configuration is undesirable since it creates additional conflicts between the u-turn traffic and the right-turn traffic. If a signal is installed, consideration should be given to only installing signal heads for the u-turn/left-turn movement and the through/right-turn movement on the Parkway. In this case, the side-street approach would be channelized and remain stop-controlled with the signal operating as a two-phase cycle, thus giving priority to the Parkway traffic and forcing all cross-street approach traffic to stop at a stop sign.

With a three-legged intersection, a crosswalk should only be installed when a signal is present. The crosswalk will only allow pedestrians to cross one-half of the Parkway and should only be installed when the remaining one-half of the Parkway can be crossed at an adjacent signalized intersection in close proximity, desirably less than 200'. In general, most three-legged intersections should not include pedestrian crossings. Pedestrian crossings between full median breaks need to be evaluated on a case-by-case basis.

A four-legged collector intersection can also be operated in a similar manner as described above without a full median break. Both approaches from the side-street would be required to turn right. A full median break should only be considered in the cases where a large volume of through traffic is anticipated on the side-street. In this case, a full median break can be provided as long as the one-half mile minimum spacing requirement is satisfied (see Section 4 – Access Management). Figure 16 (Typical Collector Intersections) shows typical collector/parkway intersections.

Arterial Intersections

A majority of the arterial intersections will include a full median break and will be signalized, when warrants are met, providing the signal spacing requirements of Section 4 (Access Management) are met. Left-turns will not be allowed in any direction. The arterial approaches should include advance signing for motorists approaching the Parkway facility. In addition, if a striped median exists, striped cross-hatching should be included near the Parkway intersection to indicate drivers should not utilize the striped median. Within the Parkway median, the arterial median should be striped and include cross-hatching. Figure 17 (Typical Arterial Intersections) shows a typical arterial/parkway intersection with a five-lane arterial approach roadway. Other approach widths, including seven lanes with or without a raised median, would follow a similar pattern.



- Notes:**
1. This schematic is intended to depict the general signal pole layout and is not intended to provide all signal design standards. Consult local agency policies and standards for additional information.
 2. See Figure 10 & 11 for additional sign information.

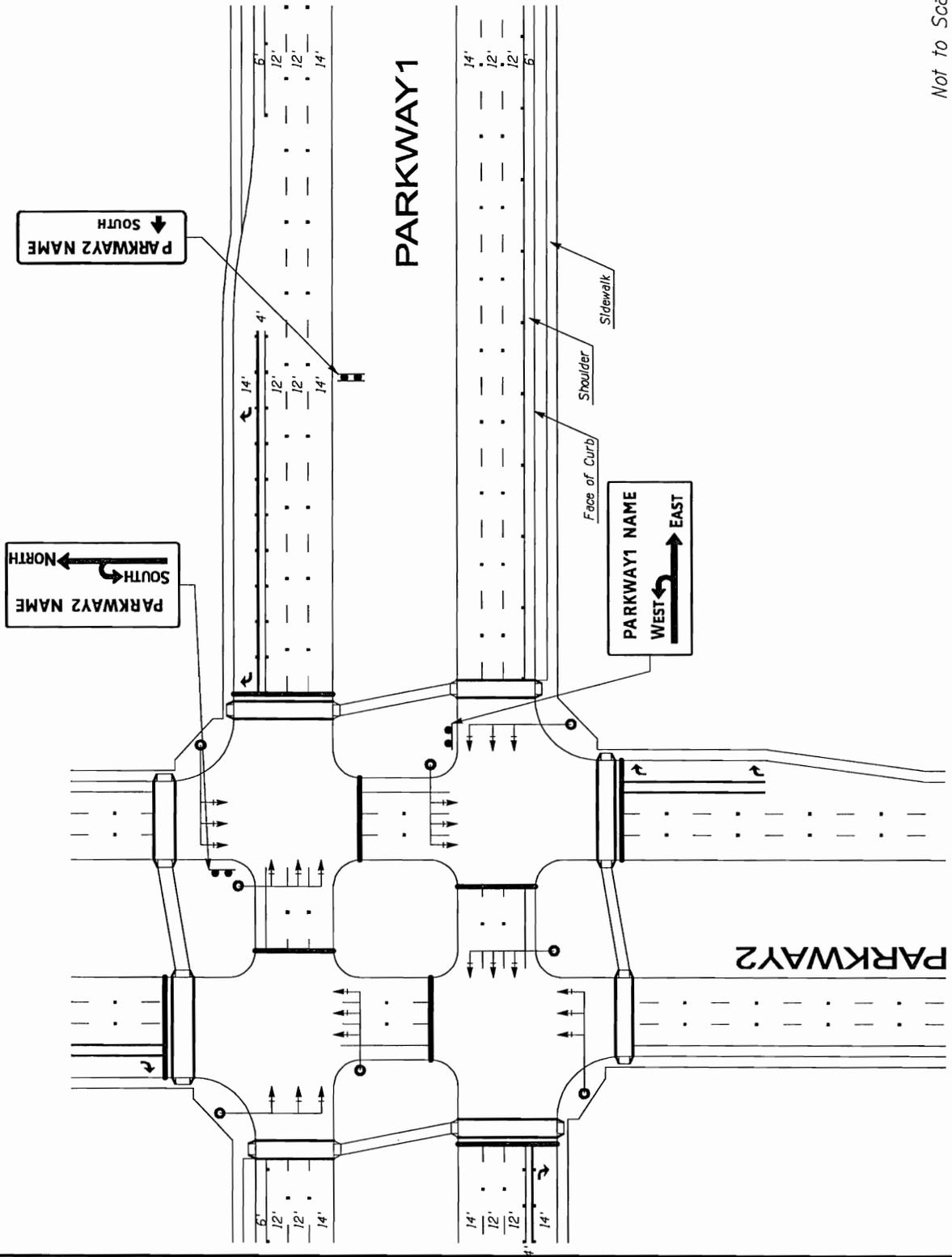
Not to Scale

FIGURE 16 - TYPICAL COLLECTOR INTERSECTION

Parkway Intersections

A parkway/parkway at-grade intersection will have a Parkway facility on all four legs of the intersection. Left-turns will not be allowed in any direction. Directional crossovers will be provided on each leg approximately 660' downstream of the intersection. Additional advance signing on the intersection approach is not needed since the driver has been traveling on a Parkway facility and should be aware of the indirect left-turn intersection treatments. At these intersections, the wide medians on the approaches will result in a raised median within the intersection. This median is suggested to provide channelization to the drivers and to provide separation between opposing traffic. Figure 18 (Typical Parkway Intersections) shows a typical parkway/parkway intersection with a six-lane Parkway approach roadway.

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FIGURE 18 - TYPICAL PARKWAY INTERSECTION

DESIGN FILE: m:\68848337\p\od\civ\Rep\nt83.dgn

APPENDIX

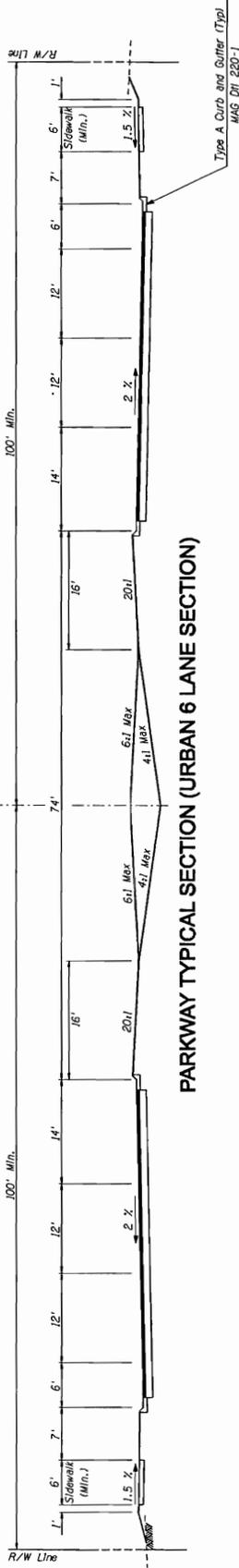
Parkway Typical Sections (1 sheet)

Typical Geometric Layouts (4 sheets)

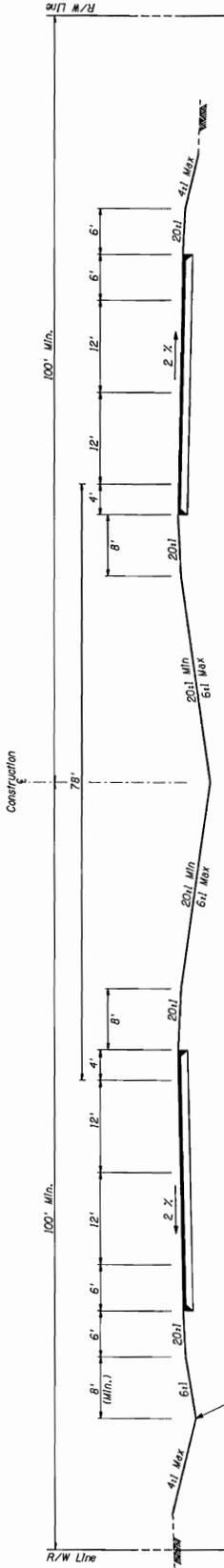
Typical Signing Plans (3 sheets)

Typical Striping Plans (3 sheets)

Interim Single-Lane Urban Crossover (1 sheet)



PARKWAY TYPICAL SECTION (URBAN 6 LANE SECTION)



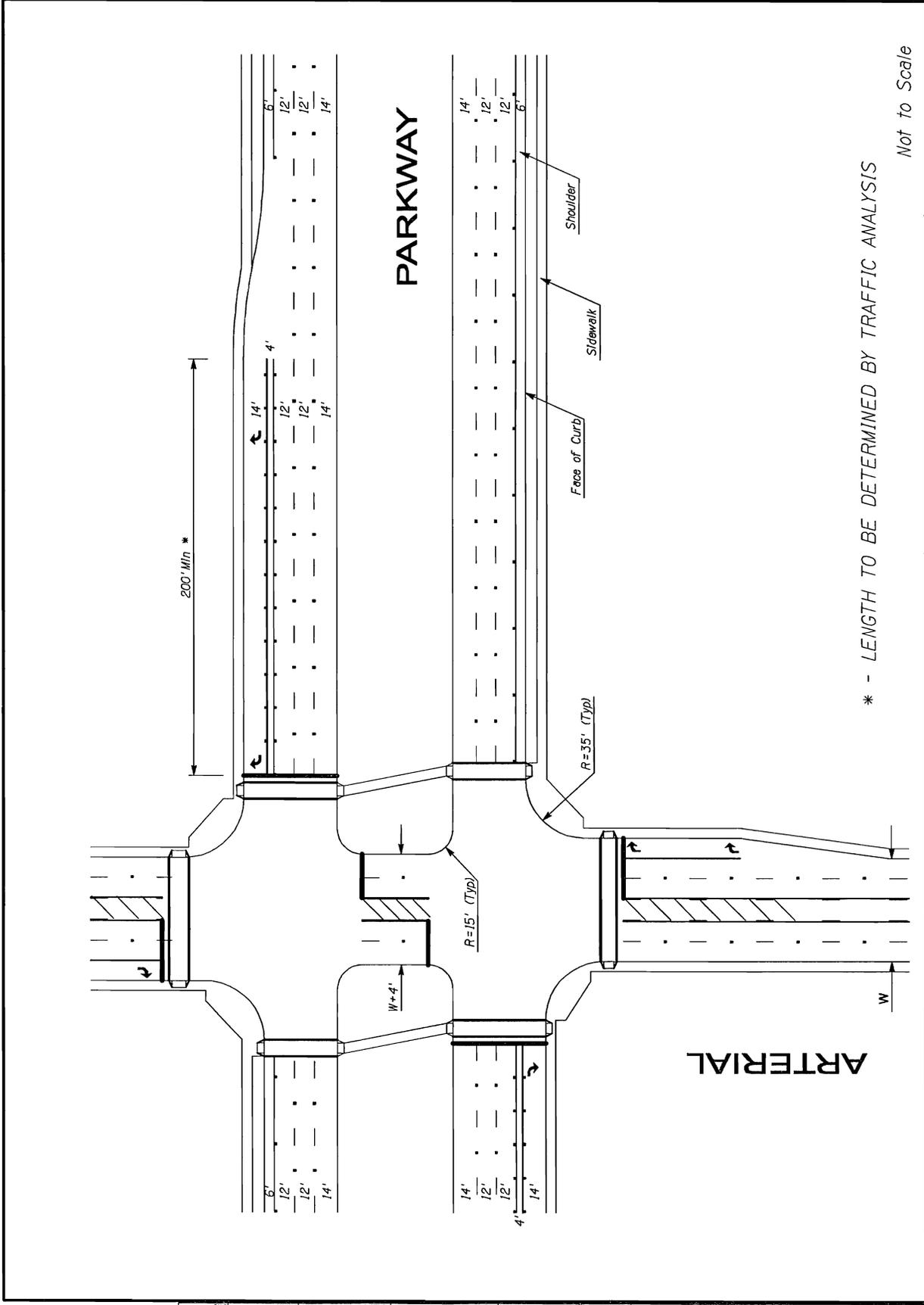
PARKWAY TYPICAL SECTION (RURAL 4 LANE SECTION)

Note: When curb is present, dimensions are to face of curb.

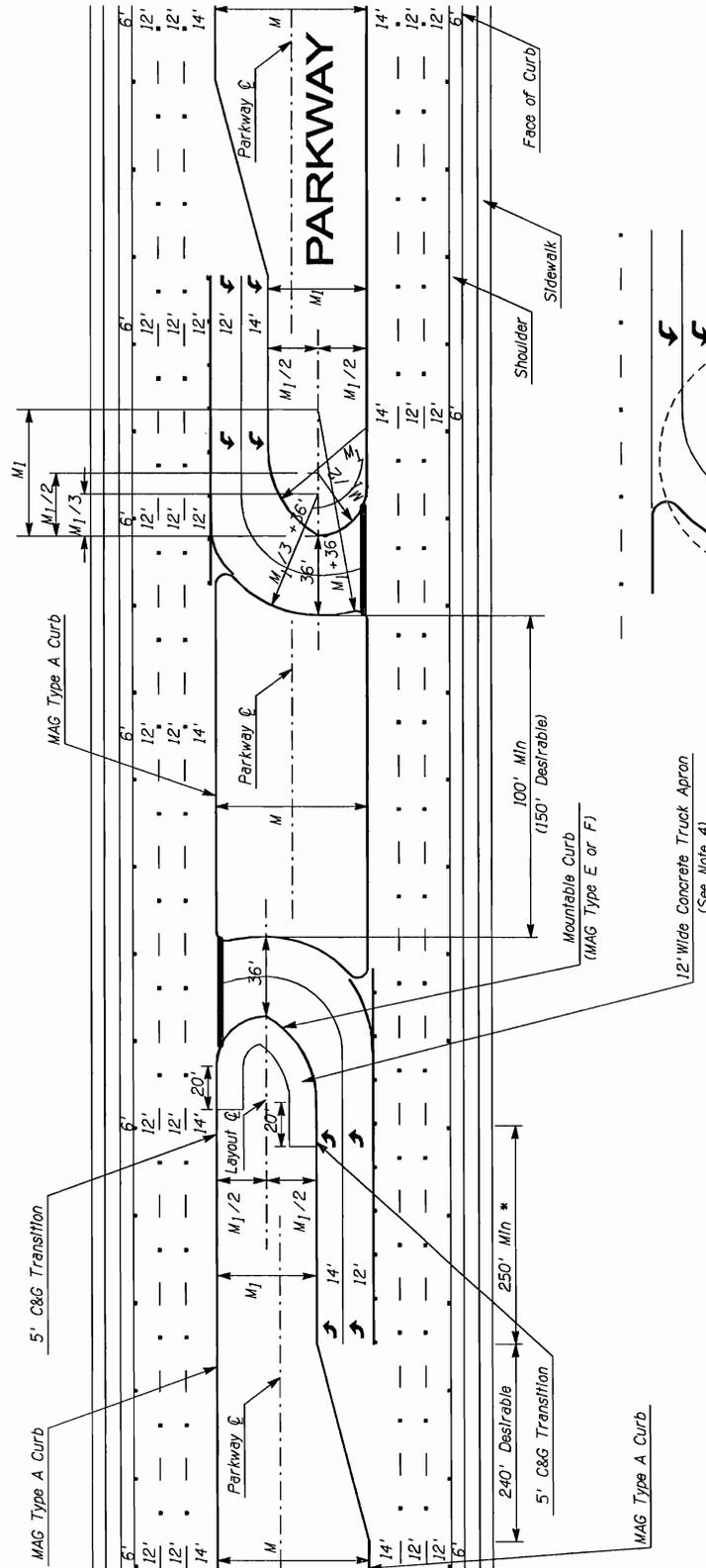
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DATE: 0808
SHEET NO: S-1

PARKWAY TYPICAL SECTIONS



GEOMETRICS FOR TYPICAL PARKWAY / ARTERIAL INTERSECTION	DATE: 08/08
SHEET NO: S-2	

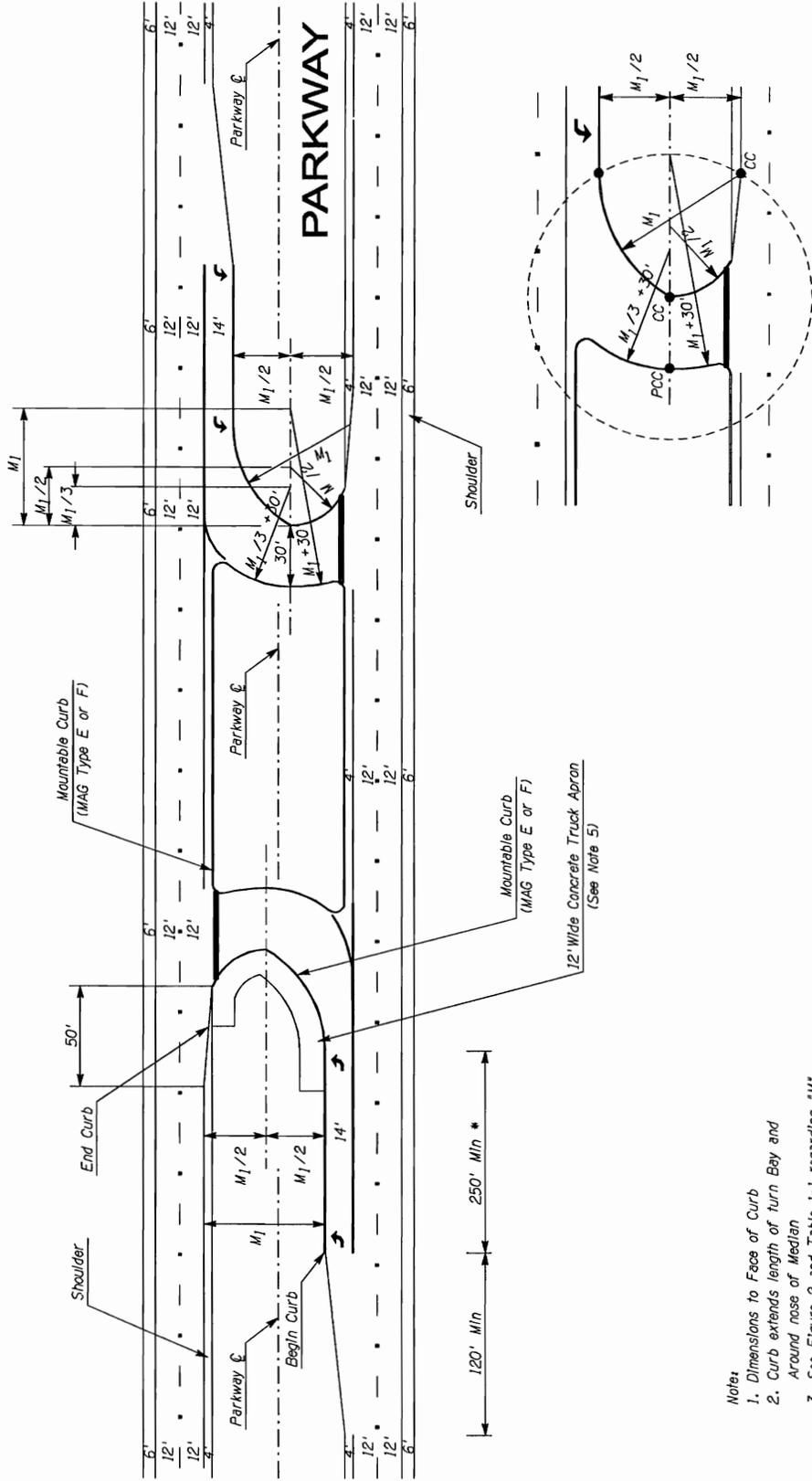


- Note:
1. Dimensions to Face of Curb
 2. See Figure 2 and Table 1-1 regarding "M"
 3. $M_1 = M \cdot 2$
 4. Pavement section to be determined by Geotechnical/Pavement Engineer, 10' RCCP over 4" AB typical.

Not to Scale

DATE: 08/08
SHEET NO: S-4

GEOMETRICS FOR TYPICAL DUAL-LANE DIRECTIONAL CROSSOVERS



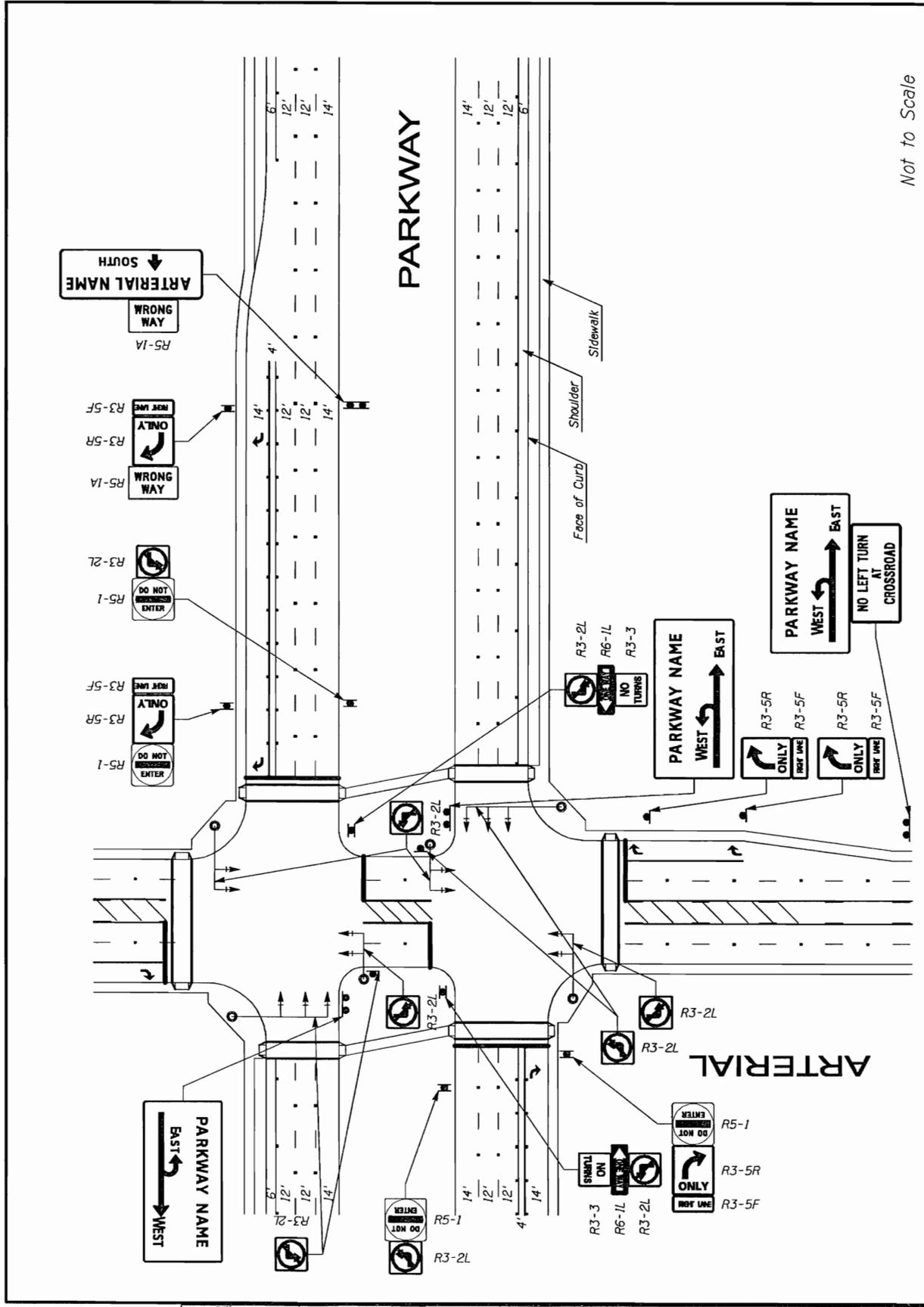
- Note:**
1. Dimensions to Face of Curb
 2. Curb extends length of turn Bay and Around nose of Median
 3. See Figure 2 and Table 1-1 regarding "M"
 4. $M_1 = M - 10$
 5. Pavement section to be determined by Geotechnical/Pavement Engineer, 10" PCCP over 4" AB typical.

* - LENGTH TO BE DETERMINED BY TRAFFIC ANALYSIS

Not to Scale

GEOMETRICS FOR TYPICAL RURAL SINGLE-LANE DIRECTIONAL CROSSOVERS

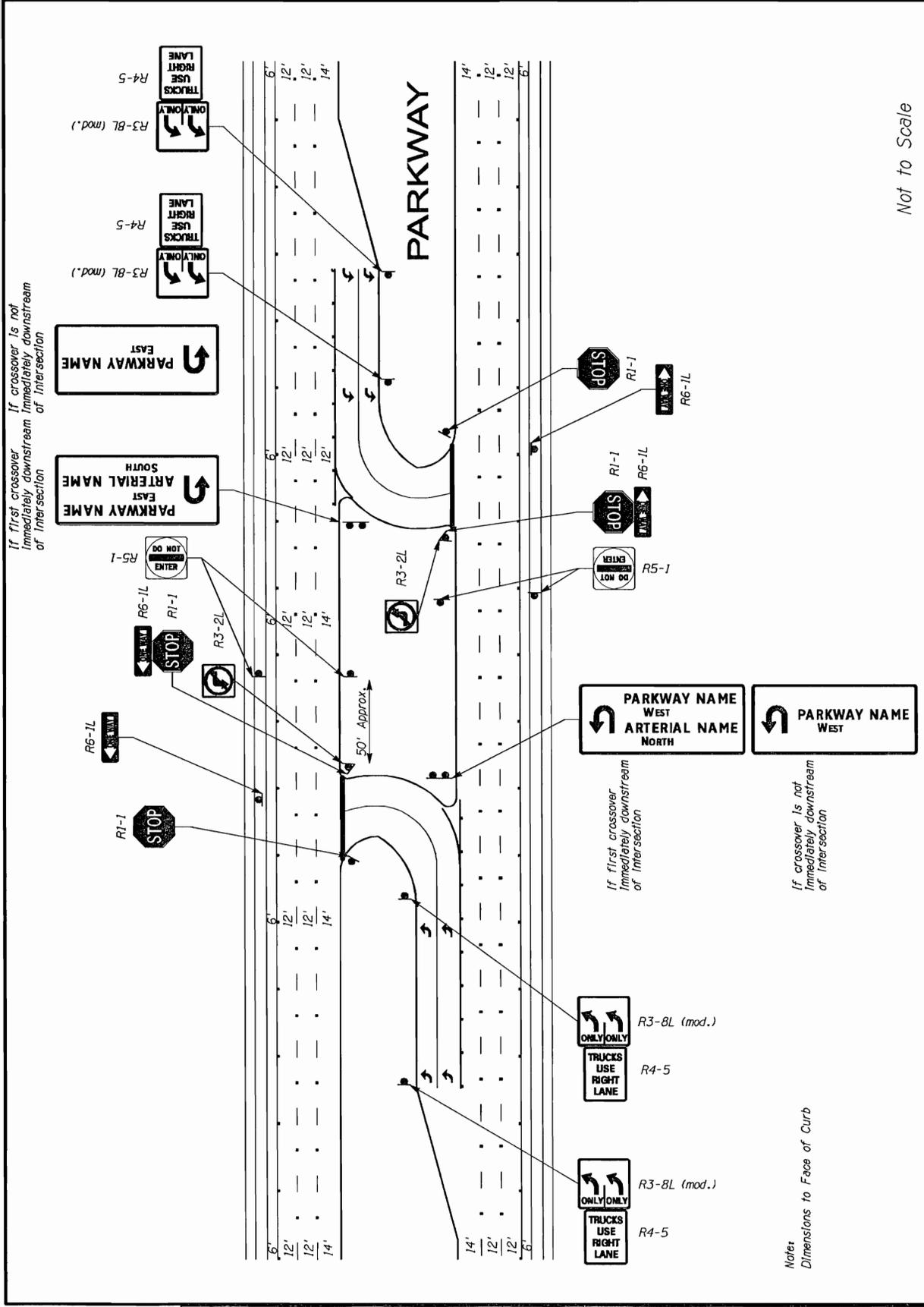
DATE: 08/08
SHEET NO: S-5



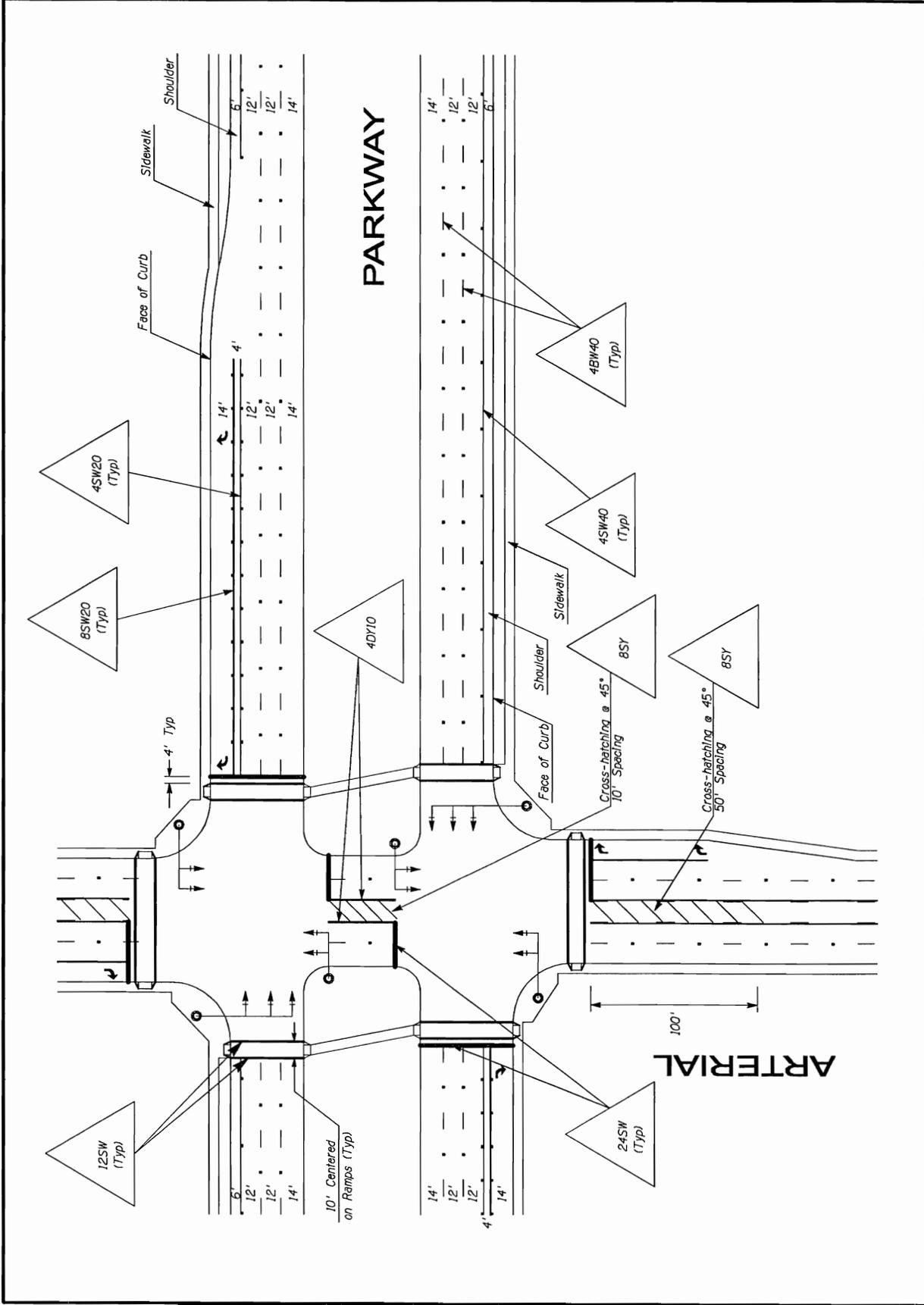
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DATE: 08/08
SHEET NO: S-6

TYPICAL SIGNING FOR PARKWAY / ARTERIAL INTERSECTION

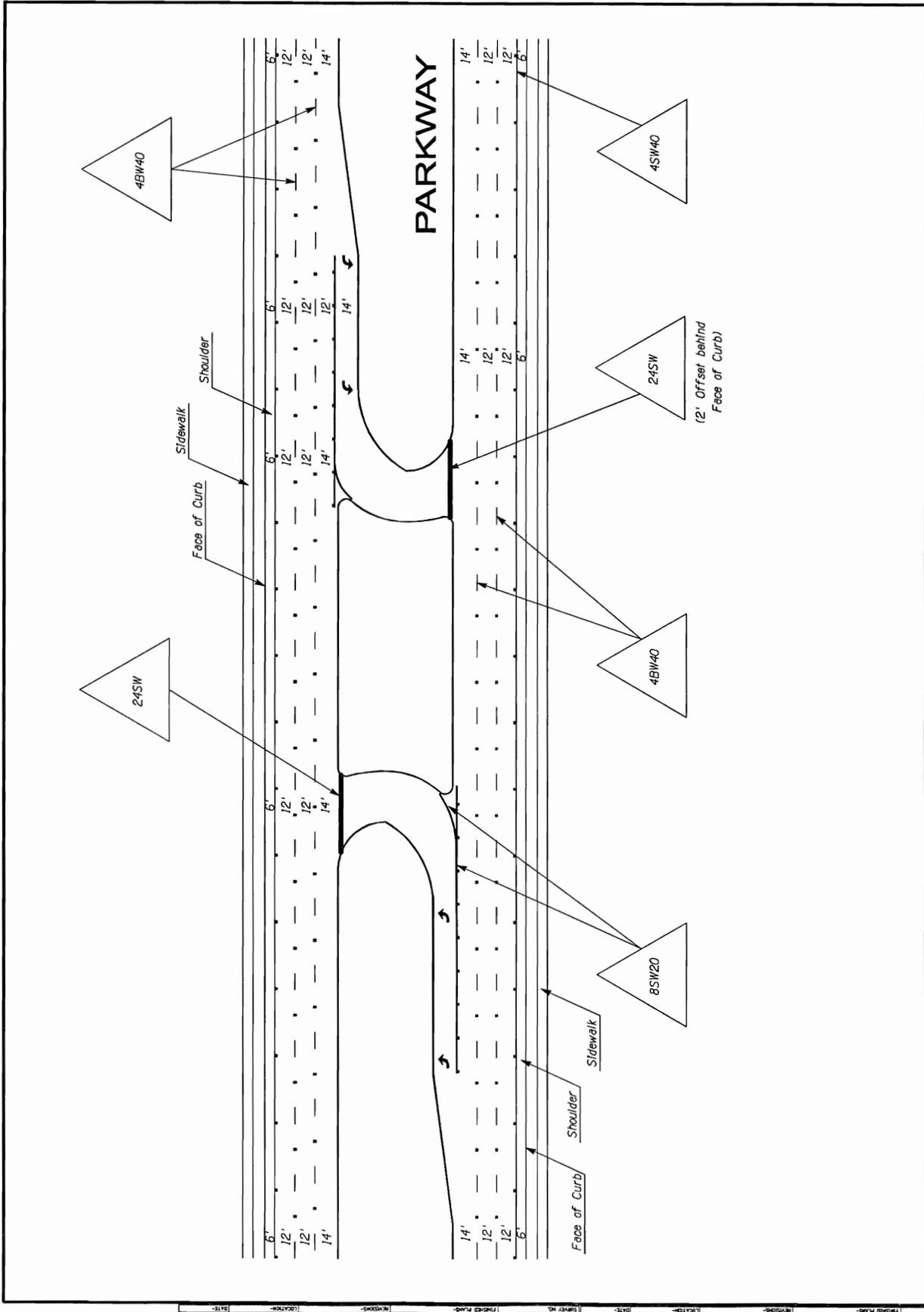


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**TYPICAL MARKINGS FOR
PARKWAY / ARTERIAL INTERSECTION**

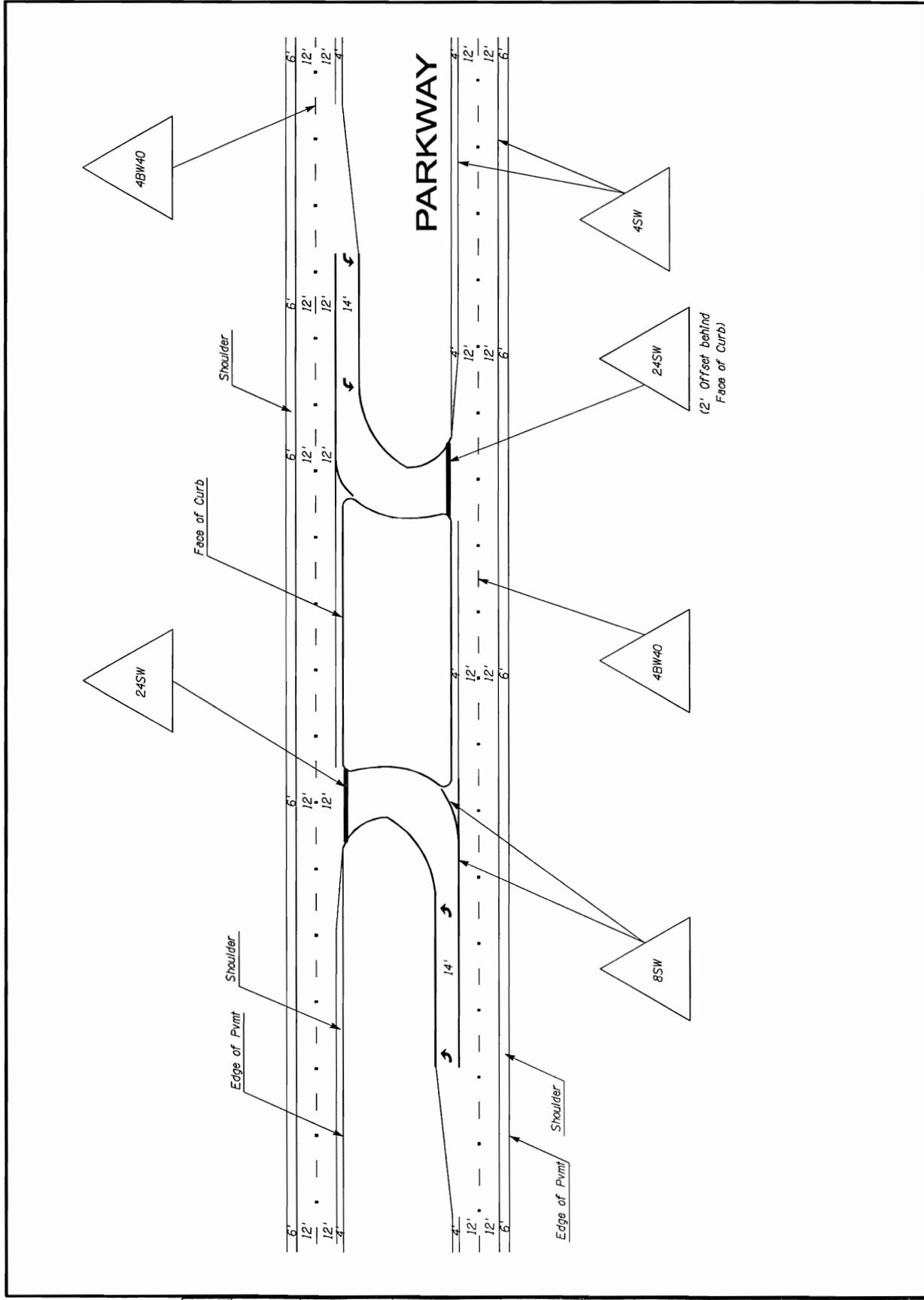
DATE: 08/08
SHEET NO: S-9



TYPICAL MARKINGS FOR
SINGLE-LANE STOP CONTROLLED CROSSOVER

DATE: 08/08

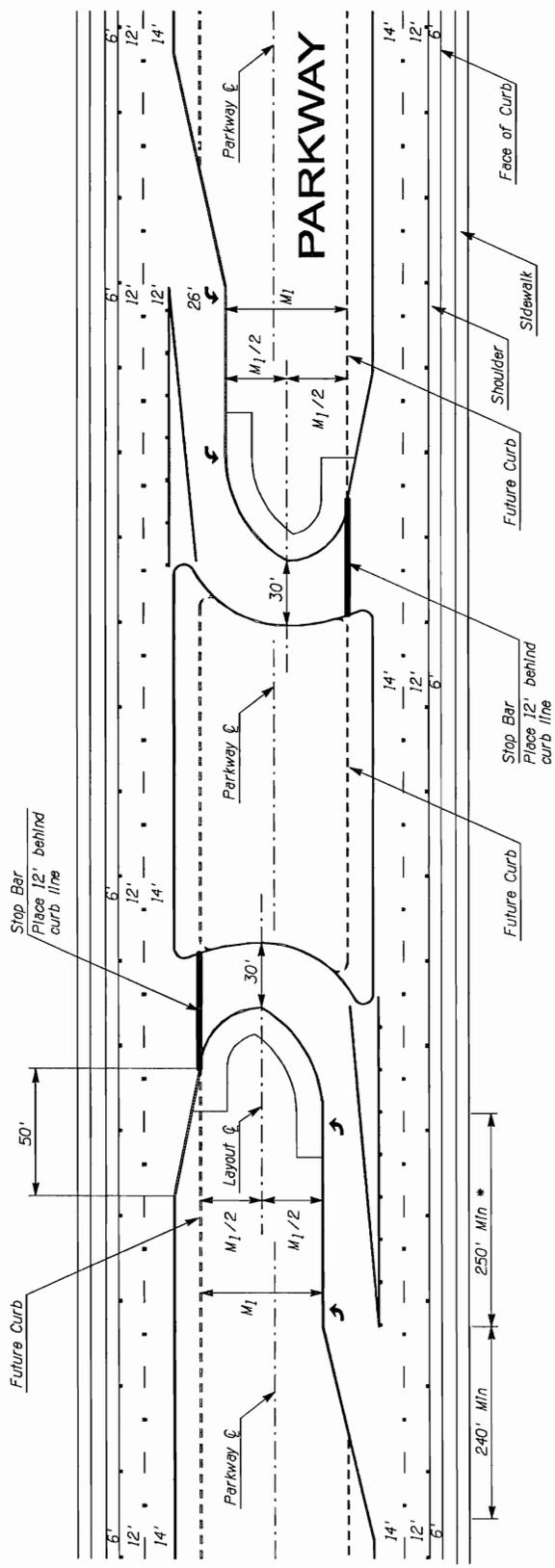
SHEET NO: S-10



TYPICAL MARKINGS FOR RURAL SINGLE-LANE STOP CONTROLLED CROSSOVER

DATE: 08/08

SHEET NO: S-11



Notes:
Dimensions to Face of Curb

* - LENGTH TO BE DETERMINED BY TRAFFIC ANALYSIS

Not to Scale

DATE: 08/08

SHEET NO: S-12

INTERIM URBAN DIRECTIONAL CROSSOVER