

# Bus/Rail Interface Design Guideline Manual



Prepared by  
Southern California Rapid Transit District  
Planning Department



SCRTD  
1988  
-B87  
c.2

October 1988

S. C. R. T. D. LIBRARY

# Bus/Rail Interface Design Guideline Manual

## TABLE OF CONTENTS

<u>Chapter</u>		<u>Page</u>
1.0	Introduction	1
2.0	Location Considerations	1
	2.1 Relation to Major Arterial Streets	1
	2.2 Access and Turning Movements	1
	2.3 Pedestrian Access	2
3.0	Selection Criteria for Station Design	2
	3.1 Off-Street Terminals	2
	3.2 On-Street Stops	2
4.0	Functions Provided at Bus/Rail Interface Stations	2
	4.1 Bus Operations Functions	2
	4.1.1 On-Street Facilities	2
	4.1.2 Off-Street Facilities	3
	4.1.3 Scheduling Bus Interface	4
5.0	Background Bus System Modification Criteria	4
	5.1 Application of Policy	4
	5.1.1 Terminating Lines	4
	5.1.2 Through Lines	5
	5.2 New Lines	6
	5.3 Review of Route Changes	6
	5.4 Service Level Modifications	7
6.0	Joint Development Opportunities	7
7.0	Provision of Station Amenities	7
	7.1 Facility Covering	7
	7.2 Seating Requirements	7
	7.3 Lighting	8
	7.4 Transit Information	8
	7.5 Communications	8
	7.6 Restrooms	8
	7.7 Security	8
	7.8 Elderly and Handicapped Requirements	8
8.0	Minimum Design Requirements	8
	8.1 Passenger Considerations	8
	8.2 Size and Placement of Roadways	9
	8.3 Loading Bays	9
	8.4 Kiss and Ride	10
	8.5 Park/Ride Facilities	10
APPENDIX		19

## INDEX OF FIGURES

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	In-Line Bus Stop Design	11
2	Adjacent Station Entrance Design	12
3	Linear Bus Bay Design	13
4	Sawtooth Design	14
5	Cul-De-Sac Design	15
6	Typical Off-Street Transit Center	16
7	Typical Off-Street Transit Center (for cases of constrained right-of- way availability)	17
8	Prototype Off-Street Transit Center Design	18

## 1.0 INTRODUCTION

The purpose of this document is to provide a guide for the design and placement of bus related facilities and amenities when integrated with rail operation. Frequently, requirements for bus and passenger access to rail services are overlooked. Yet, according to UTPS patronage projections, bus ridership will produce around 55% to 65% of actual rail boardings for planned systems within Los Angeles County. Therefore, it is very important to clearly delineate requirements and outline a criteria for bus/rail interface design.

Attractive and practically designed facilities can lead to increased ridership and lower operating costs. Passenger convenience and the ease with which a bus operator can utilize a facility are very critical to the success of a particular project. These must be carefully considered when planning feeder bus service and designing all integrated components of the facility.

This manual presents criteria for station site location and delineates functions to be provided at bus/rail interface stations. Rationale for revising existing bus routes to serve rail stations is also presented. Types of amenities to be furnished along with rationale that justify provision are discussed. Finally, design criteria are provided that indicate minimum specifications for acceptable operation. Typical layouts and designs that indicate minimum or desired arrangements for an operationally acceptable and desired design configuration at bus/rail interface locations are also presented.

## 2.0 LOCATION CONSIDERATIONS

The site and position of rail/bus interface stations will be influenced by the following factors:

- 2.1 Relation to Major Arterial Streets - Bus/rail interface stations should be constructed as close to major intersecting arterial streets and/or major traffic generators as practical. A station spacing of at least one mile should be considered in non-CBD areas in order to ensure acceptable rail running times. For light-rail systems, grade separation should be considered if projected rail operation causes surface street operation to reach Level of Service E during the peak hour. Level of Service E is defined as severe congestion with some long standing lines on critical approaches because surface street traffic cannot clear the intersection with the green time that is available for a particular vehicular movement.
- 2.2 Access and Turning Movements - Interface stations will be situated on their sites in a manner such that ease of access for buses will be maximized. This implies that turns into and out of the stations can safely be made within acceptable turning radii, and without interfering with other vehicular traffic flow. In addition, traffic control measures should be investigated to minimize delay to buses entering or leaving station entrances or exits.

- 2.3 Pedestrian Access - The station should be situated so that it will be possible for pedestrians to attain access from the street, building or other facilities with a minimum of effort. The access route should be direct, appropriately signed and avoid unnecessary circuitry.

### 3.0 SELECTION CRITERIA FOR STATION DESIGN

Bus/rail interface stations will be designed as off-street terminals, or they will be served by on-street bus stops. The type of facility provided will be dependent upon the following criteria:

#### 3.1 Off-Street Terminals

Off-Street terminals (or Transit Centers) will be considered if the existing bus route network can be modified to make full use of such a facility. Full use is realized through bus routing and scheduling techniques such as route diversions, route extensions and short-line operations.

Transit Centers are provided for the purpose of making rail-to-bus and bus-to-bus interchange more convenient and desirable for the patron. Provision of such a facility is therefore more appropriate where the primary activity at the location is the interchange of passengers.

Off-street terminals are not as important in dense City-Center locales, where the majority of trips start or end (i.e., trips for work, business, shopping, etc.), or at any location where the primary activity is not the interchange of passengers.

#### 3.2 On-Street Stops

Stations will be served by on-street bus stops in all cases where off-street terminals are not justified.

### 4.0 FUNCTIONS PROVIDED AT BUS/RAIL INTERFACE STATIONS

The functions that take place at bus/rail interface stations are related to three categories: train operation, bus operation and other uses (joint development). The latter two categories are discussed in further detail below:

- 4.1 Bus Operation Functions - The functions that take place during bus operation at bus/rail interface stations fall into three categories; boarding or alighting from buses, waiting for buses, and bus layover. The nature of the facilities to be provided will depend upon whether the facilities are to be on-street or off-street.

- 4.1.1 On-Street Facilities - On-street facilities are bus stops located on public streets that should be as close to the station as practical. This will minimize walking distance and delays to transferring passengers. Bus stops not directly located adjacent to station entrances will be of the in-line type, and normal bus stop specifications will be applied to determine the amount of curb space to be provided. These stops will be located so that patrons have ready access to a signalized crosswalk (see Figure 1).

Stops located adjacent to a station entrance will be placed as near to the station entrance as practical. In heavily congested areas a curb stop will be made within the existing travelled way of the street. Preferably a bus-only or high-occupancy-vehicle lane should be provided through the entire block length where such station stops are made to accommodate bus operation as indicated in Figure 2. However, a bus turnout may be required as a traffic mitigation measure if a separate through lane cannot be provided due to right-of-way constraints. In that event the turnout bay should be designed with specifications indicated in Figure 3. This type of design is only appropriate for an upper threshold of 12 buses per hour.

For bus routes that terminate at a rail interface station, between-trip recovery should be taken as close as practical to the stop from which the bus will depart on its next trip. If bus and vehicular traffic warrant, lay-over time should be taken at the loading bus stop. Otherwise, the time should be taken at the closest adjacent location that is environmentally acceptable. Locations should be used that minimize distance and travel time from the arrival unloading zone and to the departure loading zone (these may be the same location).

- 4.1.2 Off-Street Facilities - Off-street facilities are bus stations that are constructed on the same site as the rail station, and are an integral part of the design of the rail station. These stations will be provided with access roadways and bus loading bays in accordance with design criteria described below. Loading bays will be of the "saw-tooth" design so that all routes serving the station can be assigned a specific bay in accordance with the design criteria. This will avoid passenger and operator confusion and will be easy for the patron to comprehend. See Figure 4 for appropriate design standards.

Passenger waiting space will be provided on platforms adjacent to the loading bays. The platform shall have a minimum width of ten feet; the need for additional width will be dependent upon whether or not benches or shelters are provided, and the maximum number of passengers that are expected to board at that location during the peak 20-minute period. See Section 8.3 for further passenger considerations.

For bus routes that terminate at bus/rail interface stations, between-trip recovery time should preferably be taken at the bus bay assigned to that line. If more than one line is assigned to a single bus bay, or if the service frequency of a single line is greater than the typical layover time, then a separate lay-over location should be provided. This space should be in a remote section of the station grounds. The amount of time spent in travelling between the layover location and the loading platform should be no more than three minutes (round trip). For terminating lines that require more than one lay-over bay, additional loading bay(s) should be provided if sufficient space is available.

- 4.1.3 Scheduling Bus Interface - During peak periods, the bus arrival/departure times will not be governed by rail arrival/departure times. In the mid-day and other off-peak times, feeder lines with service frequencies that are 20-minutes or greater and terminate at a rail facility will be scheduled to arrive at least four minutes before departure of the rail service. When predominant passenger directional movement is from rail-to-bus, terminal buses will be scheduled to depart four minutes after the scheduled arrival of the rail service. Every attempt will be made to make similar connections as noted above with through routed bus lines that serve stations in the off-peak hours and have frequencies of 20-minutes or greater.

## 5.0 BACKGROUND BUS SYSTEM MODIFICATION CRITERIA

Service Policy: Access between the rail and bus systems shall be maximized, and access time shall be minimized. At the same time impacts on non-rail (i.e., through) bus riders shall be minimized. Bus-to-rail access time shall be minimized by diverting appropriate lines from their previous routes to stops adjacent to a rail station entrance.

Bus lines will not be diverted when:

- Bus route diversion time is greater than walking time from the closest stop on the existing route to the rail station entrance.
- The street system, traffic patterns and limited curb space for bus stops limits physical access.
- The negative impacts for through bus riders are greater than the benefits gained by connecting riders (measured in units of time).

Competing parallel express or limited service bus lines will be discontinued where duplication exists. The rail service is considered a replacement for the expedited portion of these bus lines; connections to the rail service may be provided by the former local service (if any) of discontinued express or limited service bus routes.

### 5.1 Application of Policy

#### 5.1.1 Terminating Lines

Any bus line that ends within one mile of a rail station will be extended to terminate at that station. Lines that terminate at distances greater than one mile from a rail station may be extended to the station if such rerouting would establish a valuable link in the regional transportation network by providing a connection to a major traffic generator, or by causing a reduction in travel time for a significant number of riders.

### 5.1.2 Through Lines

Through lines with respect to a specific rail service are bus routes that run parallel to or intersect the rail route, and then divert to serve some other area. The extent to which a through bus line will be diverted to serve a rail station is dependent upon the type of bus interchange facilities that are provided, and upon the density of ridership in the immediate area of the station.

#### .1 Criteria for On-Street Bus Stops

On-street bus stops are located adjacent to rail station entrances.

Parallel Lines - A bus route that runs parallel to a rail line will be diverted to serve one or more rail stations only if all of the following criteria are met:

- Walking time from the closest stop on the existing route to the rail station entrance is greater than three minutes;
- Total bus diversion time in one direction is five minutes or less;
- Average three hour peak period load at the point of diversion is less than 50% of seated capacity;
- Estimated rider interchange with the rail system is such that passenger minutes of delay in using alternate access from the rail station to the bus route (transferring via connecting bus routes) is greater than the estimated passenger minutes of delay for through passengers;
- There is sufficient curb space available for arriving and departing buses;
- Access to station stops can be obtained without circuitous routing.

Intersecting Lines - A bus route that runs perpendicular to, or intersects a rail route will be diverted to serve the closest rail station, provided all of the following criteria are met:

- Total bus diversion time in one direction is five minutes or less;
- The average three-hour peak period load at the point of diversion is less than 75% of seated capacity;



- Estimated ridership interchange with the rail system is such that using alternate access from the rail station to the bus route (transferring via connecting bus routes) is greater than the estimated passenger minutes of delay for through passengers;
- There is sufficient curb space available for arriving and departing buses;
- Access to station stops can be obtained without circuitous routing.

## .2 Criteria for Off-Street Passenger Loading Facilities

If a rail station is designed with an off-street bus terminal with facilities for loading and waiting passengers, then this station should be considered a transit center or major transfer point. Such stations will normally not be located within the existing high density Central Business District or other similar core areas. These stations should be major contributors of riders for lines serving high density areas, and all passenger activity at the station will take place within the off-street facility. Off-street facilities used only for bus layovers are not considered to be transit centers, and route diversion criteria do not apply to these facilities.

Parallel Lines - Any bus line that operates parallel to a rail line and within one-half mile of a rail station/transit center will be considered for a diversion to serve that station, pending a review of passenger impacts and cost considerations. Parallel lines that travel within one-half mile of more than two consecutive rail station/transit centers may alternate stations served (i.e., may be diverted to serve every other station).

Intersecting Lines - Any bus line that crosses a rail line within one mile of a rail station/transit center will be considered for diversion to serve that station, pending a review of passenger impacts and cost considerations. Establishment of an alternate route or short-line operation will be considered in the analysis.

## 5.2 New Lines

An entirely new feeder service may be considered to serve a single or series of rail stations, if a particular need can be demonstrated, and if sufficient funding is available.

### 5.3 Review of Route Changes

Upon implementation of a new rail service and rerouting of bus lines to serve those stations, usage of the rerouted services will be monitored at six-month intervals. If at the end of two years a diverted line does not meet diversion criteria, it will be considered for rerouting back to its original and direct route.

### 5.4 Service Level Modifications

- All bus routes that run parallel to and within 1/2 mile of a guideway facility and which are determined to be competitive with the rail service will initially be implemented at a reduced service level, commensurate with an appropriate schedule analysis of projected passenger impacts. Three months, six months and one year after implementation, a schedule check and re-evaluation of the current schedule will be undertaken. Thereafter, an annual evaluation will be conducted. Line eliminations will also be considered for competing services within 1/2 mile of a guideway facility. Parallel lines within 1/2 to one mile from a rail station may also be considered for service reduction, pending a review of system effects.
- All bus routes that run perpendicular to a rail line and are rerouted to a station, should maintain current service levels. A re-evaluation of service levels will take place at four-month intervals during the first year, biannually during the second year and at annual intervals thereafter.
- Service levels on bus lines that travel perpendicular to a newly implemented rail line will be retained as they were before the rail implementation. This provision is, however, subject to funding availability.

## 6.0 JOINT DEVELOPMENT OPPORTUNITIES

Activities other than those related to bus or rail operations may be provided at an interface station. Such activities should, however, be kept separate from transit functions, so that there is not a conflict between transit and joint development users. Policies and procedures for implementing Joint Development of Metro Rail and Bus Facilities will be adhered to as adopted by the Board of Directors on August 13, 1987 (see Appendix A).

## 7.0 PROVISION OF STATION AMENITIES

Certain passenger comfort features are to be included in the design of all bus/rail interface stations. Other features will be provided only under certain conditions. The types of amenities that are to be provided and the rationale under which they will be provided are discussed below:

- 7.1 Facility Covering - The area used by passengers in waiting for a bus, or boarding or alighting from a bus, should be provided with a shelter at each loading bay to protect riders from rain and direct sunshine

during warm weather. Full platform canopies will be considered when there are high levels of passenger activity to the extent that boarding passengers cannot be accommodated within the shelter area.

- 7.2 Seating Requirements - A limited amount of seating will be provided for waiting passengers at each bus bay. These facilities are primarily intended for elderly and handicapped passengers, and there will be at least four seats at each bus bay.
- 7.3 Lighting - Sufficient lighting will be provided to ensure adequate visibility at all times the facility is in operation. Such visibility should be sufficient for reading, to avoid injury due to physical hazards, and to discourage crime.
- 7.4 Transit Information - Bulletin boards or kiosks will be provided, and maintained with maps and schedules of the rail and bus lines that serve the station. Fare and tariff information will also be posted. Appropriate signage will be provided to clearly indicate rail station access points and direction to bus lines from rail access points, where appropriate. The location and prominence of this signing will have precedence over art work and advertising. In addition, individual line route and schedule information should be provided at each bay for the line(s) serving that bay. This information will be updated within 24 hours of any service change.
- 7.5 Communications - Pay telephones will be provided at all stations that have off-street bus facilities. A direct line to transit information should also be considered.
- 7.6 Restrooms - Restrooms will be provided for employees only, at stations where at least one bus line terminates. These facilities should be separate for men and women, and are to be used by operators during recovery (layover) and by other station employees. In addition, public restrooms may be considered at key stations within the system, pending a review of cost, convenience and safety implications.
- 7.7 Security - Each station will be supplied with a Closed Circuit Television (CCTV) security system that is to be monitored during all hours of operation of each station. Roving patrol who will be in radio contact with the police dispatch function at all times, will be deployed during all hours of operation. Additional security requirements will be dependent upon an analysis of specific needs and conditions at individual stations. This could imply use of a permanently assigned officer(s) at problem locations to ensure appropriate security during pre-determined periods.
- 7.8 Elderly and Handicapped Requirements - All stations will be designed for access to the Elderly and Handicapped. Appropriate curb cuts will be made and elevators will be installed where required to meet access needs.

## 8.0 MINIMUM DESIGN REQUIREMENTS

It is recognized that each station will have special requirements based on right-of-way availability and the geometry of the parcel. However, the following items are general specifications for off-street loading areas.

8.1 Passenger Considerations - Facilities for bus passengers will be placed to optimize the circulation of people throughout the station.

- Placement of Facilities and Amenities - Lines will be assigned to the loading bays so that the routes with the heaviest interchange are assigned to the stalls that are closest to the station access point. All seating and waiting areas should be under shelter for protection from heat and rain, and located adjacent to the bus stop loading standard (i.e., adjacent to where the primary bus loading door will be located). All other amenities should be generally located in the center of the facility for the convenience and security of passengers.
- Circulation and Access - All facilities will be located to optimize the circulation of passengers throughout the station area and to eliminate or avoid passenger/vehicle conflicts. Waiting areas (for seated and standing passengers) at each bus bay will be located at least six feet from the platform edge, so as to allow sufficient room for queuing passengers. In addition, provision will be made for a pathway of at least five feet in width behind any bench or shelter for the entire length of the loading platform to facilitate circulation.

Access will be provided between the loading area and public streets, for use by passengers not transferring to or from a train or another bus. This access will be as direct as possible, and entrances and exits will be clearly marked.

8.2 Size and Placement of Roadways - Roadways directly adjacent to loading and unloading areas should be for bus use only. Access lane widths in tangent sections should have a minimum 12 foot width; sufficient width for passing should be incorporated in the design, with total roadway widths from 21 feet minimum to 24 feet (preferred) provided for one-way movement. Loops should have a preferred outside radius of 60 feet (55 foot minimum) and an inside radius of 30 feet, to accommodate a complete 180 degree movement (See Figure 5). Bus roadways on station property should be located so as to minimize access time from outside the station to and from the passenger loading area. In cases where it is necessary to mix bus and auto park-ride or kiss-ride traffic, this common usage should be limited to access roadways, if possible. Facilities should ideally be designed to fully separate park-ride and kiss-ride from bus interface operation.

8.3 Loading Bays - Passenger loading areas at stations will be located as close as practical to the entrance to the concourse and the train loading areas. Lines are to be assigned by position. The positions that are to be used by standard buses will be of the "saw tooth" design. Positions to be used by articulated buses will be of tangent design, 65 feet in length, with a clear area of 100 feet for departing buses.

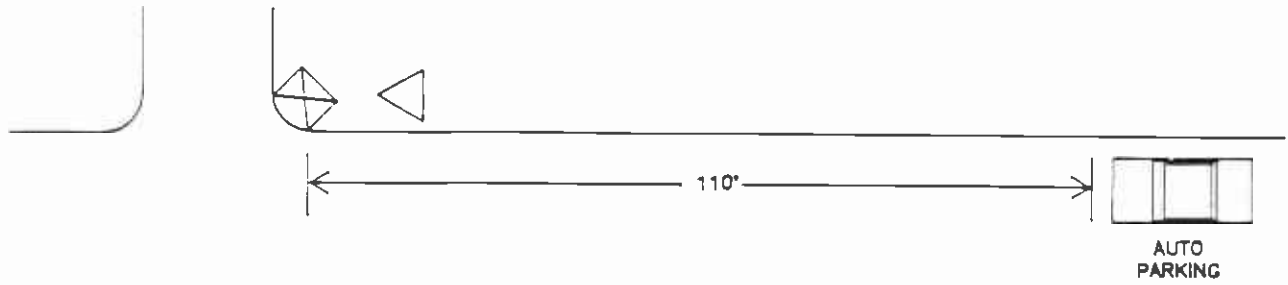
- Number of Bays - To the extent possible, one loading bay should be provided for each line serving the station. In cases where space is restricted, two through lines may be assigned to the same bay if both have peak headways of 20-minutes or greater (i.e., does

not exceed a 12 trips per hour threshold). A separate bay will be provided for each line or direction when service on either exceeds 12 trips per hour.

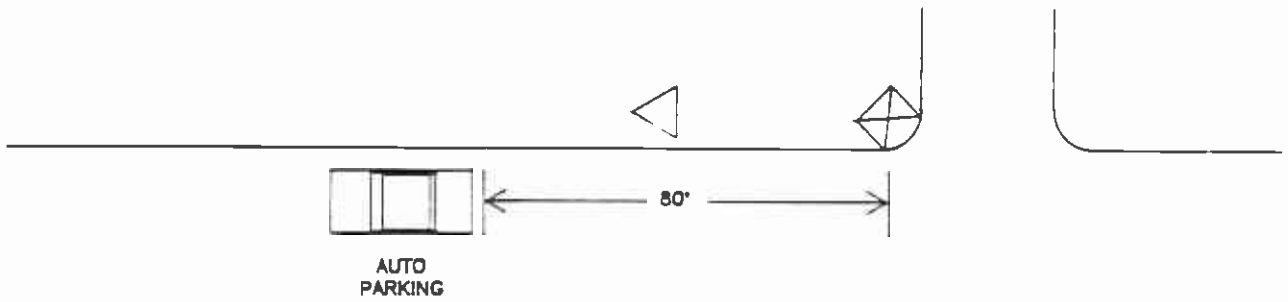
- Layover Positions - Bus lines that terminate at a station should spend recovery (layover) time in the stall to which that line is assigned. If occupation of loading bays will preclude use of that bay by other buses of the same line (because layover is greater than the minimum headway), a separate layover space will be provided. If space is available, a second loading bay (adjacent to the first) should be assigned to the line. If additional space is not available in the passenger loading area for another stall, then a separate layover area will be provided. This location may be in a remote area of the station property; however, it should be no more than two minutes travel time from the passenger loading area. One parking space will be provided for the maximum number of buses that are scheduled to use the layover facility at any one time. Bus parking in these remote areas may be of the "in-line" or "herringbone" design. Access roadways and turning areas must meet design specifications for the station areas.
- 8.4 Kiss and Ride - Kiss and Ride parking spaces will be considered at stations where the anticipated demand is at least 200 per day, and where right-of-way can be acquired at a reasonable cost. One parking space shall be provided for each 10 outbound kiss-ride passengers arriving during the afternoon peak hour. Kiss-ride parking spaces will be located as close as possible to the station entrance. The design should be such that it encourages passenger ingress/egress to a single point thereby avoiding conflicts with bus movement. No separate kiss-ride capability will be provided in CBD areas or at high volume activity centers.
- 8.5 Park/Ride Facilities - Parking spaces at rail stations will be provided only when right-of-way can be acquired at a reasonable cost. In dense urban areas parking strategies should be developed that encourage the use of public transportation for access to the rail mode thereby negating the need for expensive parking structures. A minimum of 75 parking spaces is preferred at any station to ensure that efficient and regular clean-up activities can be conducted at park/ride locations throughout the system. Bus ingress/egress movements must be entirely separate from vehicular traffic for any park-ride lot that exceeds a design capacity of 500 vehicles.

Concepts for integration of off-street buses, kiss-and-ride and park-ride facilities are shown on Figures 6, 7 and 8. Full separation of pedestrian and bus traffic is highly desirable. The concept illustrated in Figure 7 should be used only in cases in which a large number of bus bays is desirable, and the availability of right-of-way for a transit center is constrained laterally (with respect to the station platform), thus precluding the complete separation of pedestrians and bus movements.

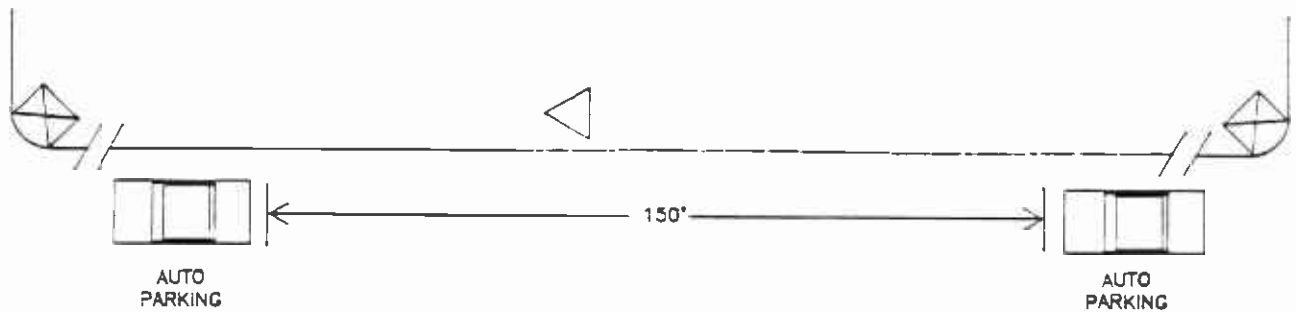
NORMAL ACCESSIBLE NEARSIDE BUS STOP



NORMAL ACCESSIBLE FARSIDE BUS STOP

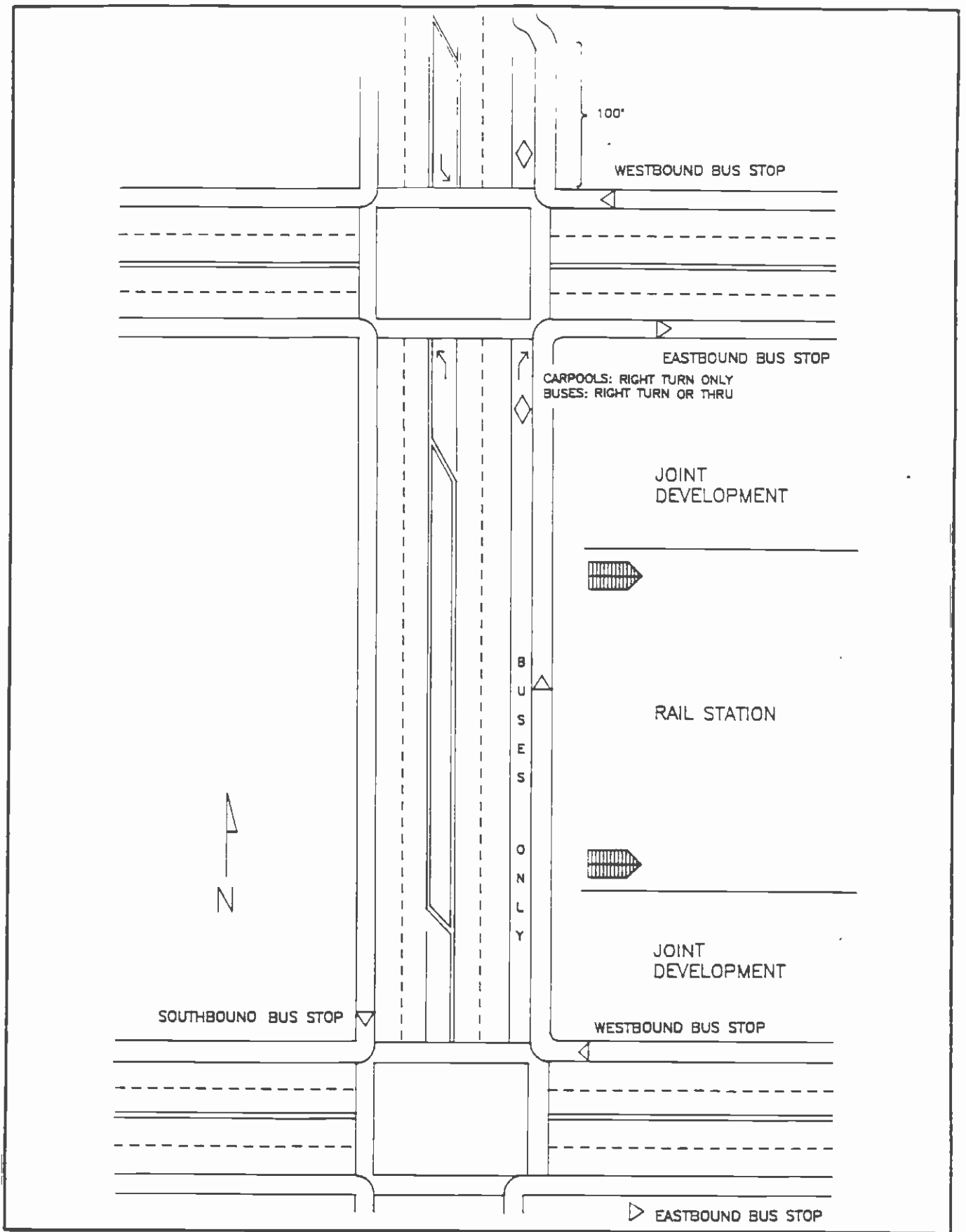


NORMAL ACCESSIBLE MIDBLOCK BUS STOP



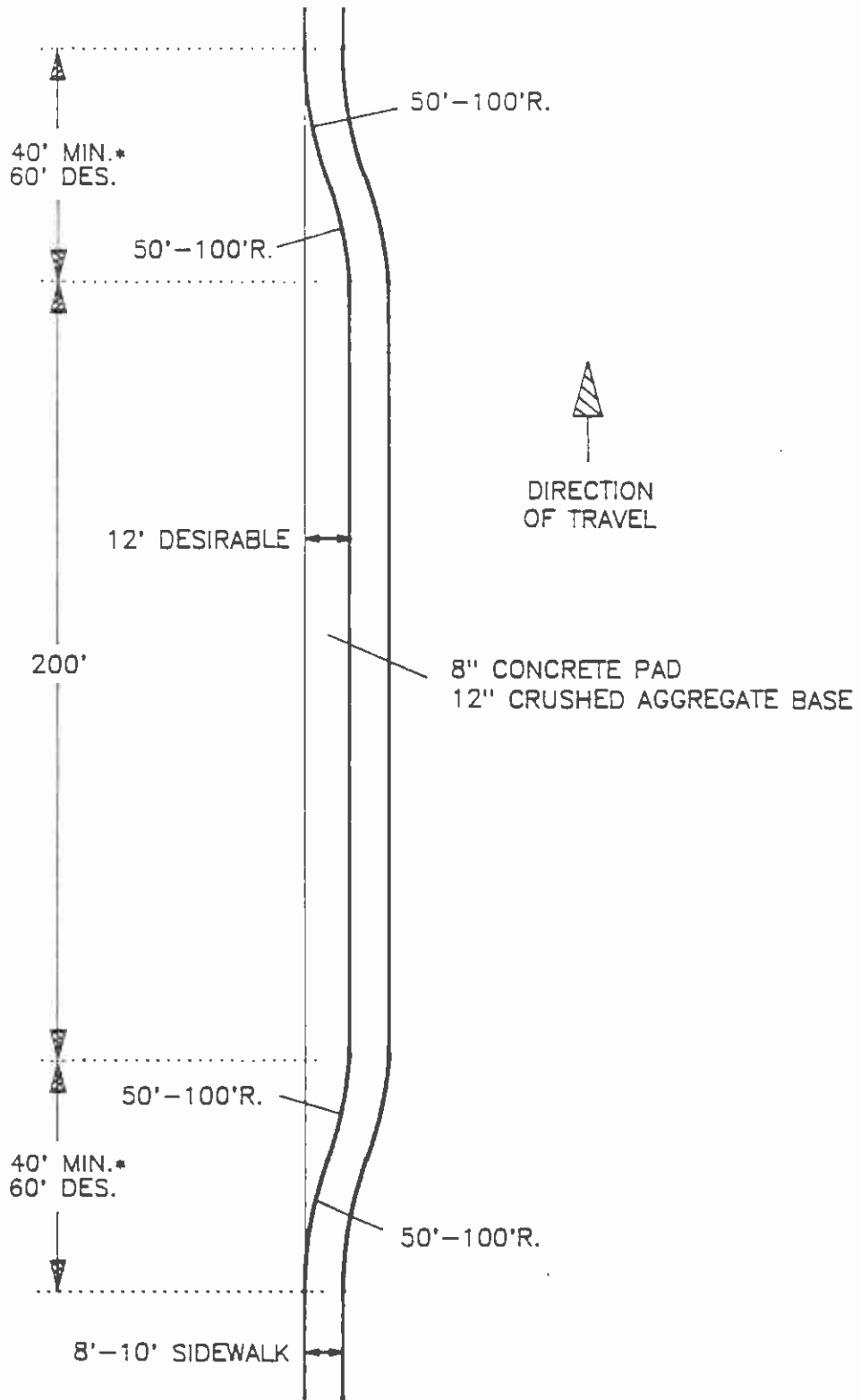
IN-LINE BUS STOP DESIGN

FIGURE 1



ADJACENT STATION  
ENTRANCE DESIGN

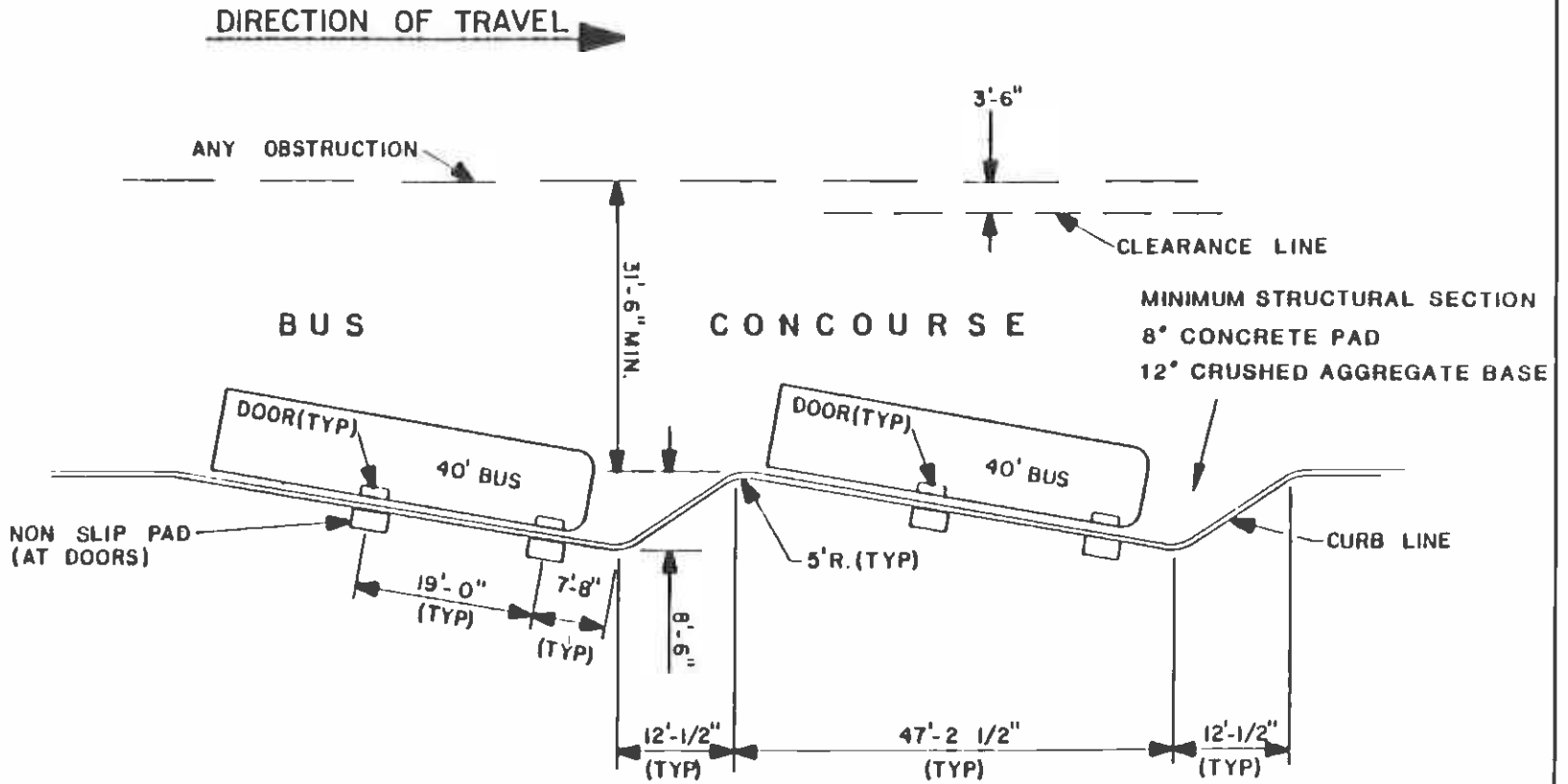
FIGURE 2

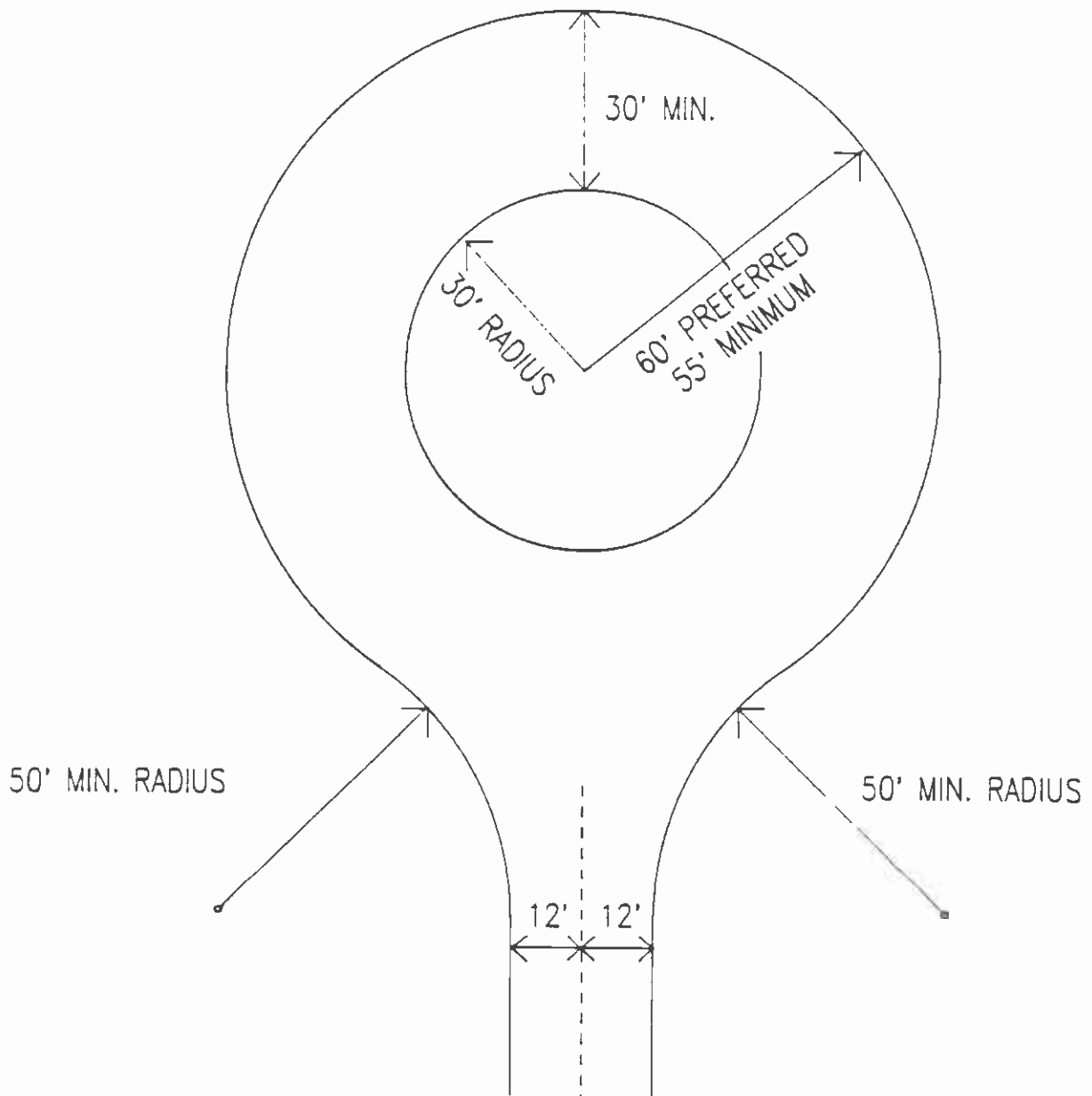


LINEAR BUS BAY DESIGN

FIGURE 3

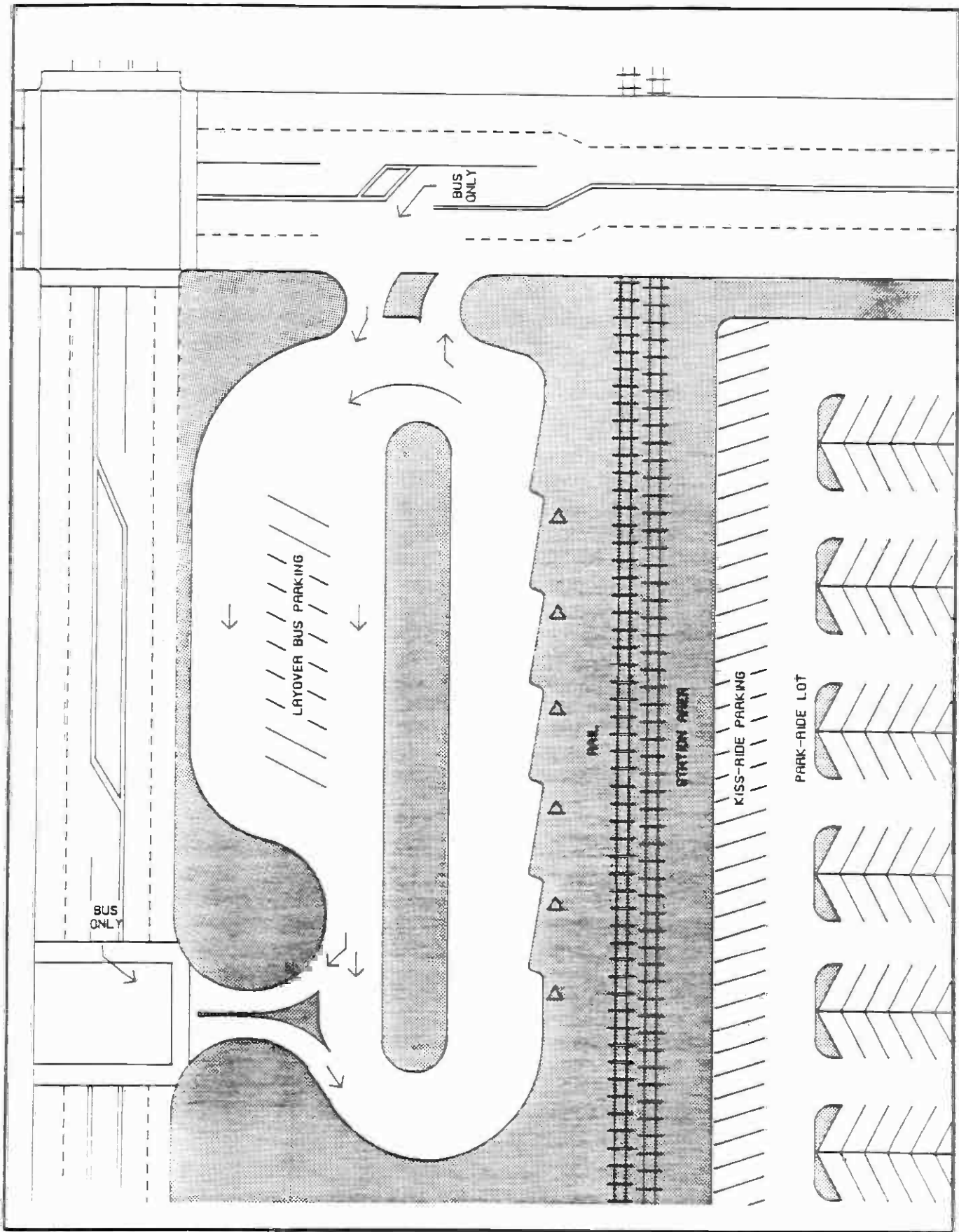






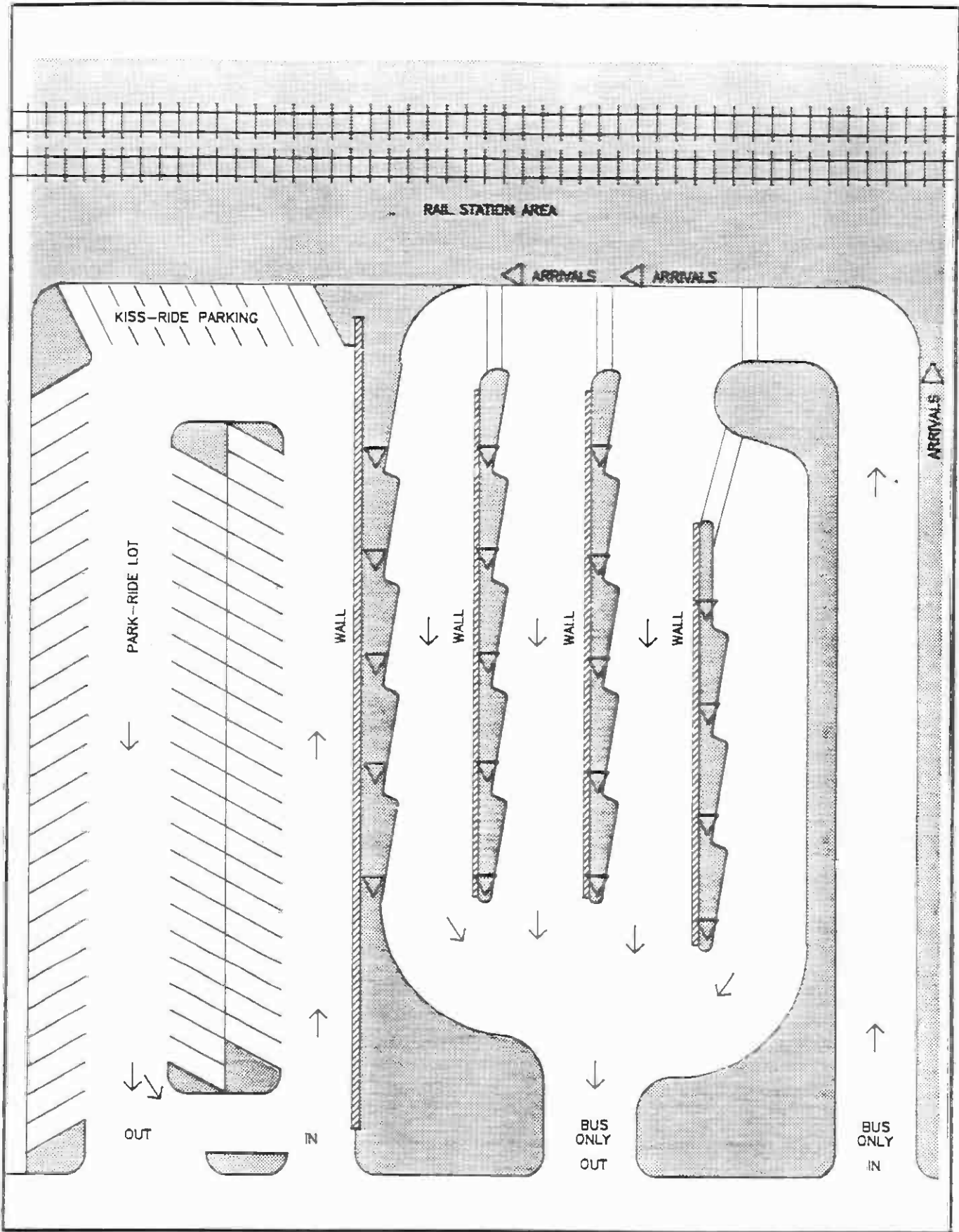
CUL DE SAC DESIGN

FIGURE 5



TYPICAL OFF STREET  
TRANSIT CENTER

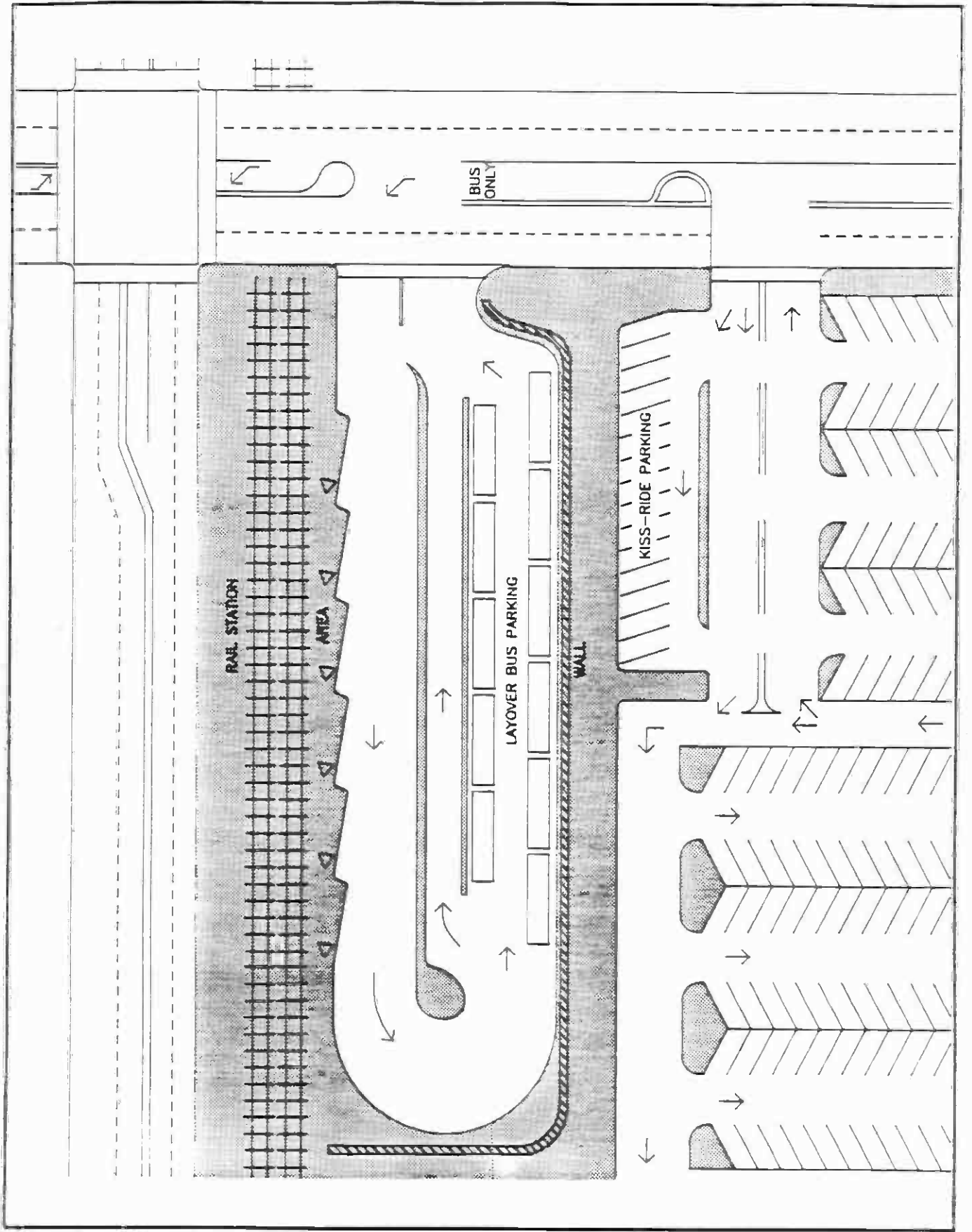
FIGURE 6



**TYPICAL OFF STREET  
TRANSIT CENTER**

(For cases of constrained right of way availability)

**FIGURE 7**



PROTOTYPE OFF STREET  
TRANSIT CENTER DESIGN

FIGURE 8

## Appendix A

The District Board of Directors has approved the following policies and procedures for implementing Joint Development at Metro Rail and Bus Facilities. This document provides for a positive response regarding inquiries from the public and the development community. Implementation of these policies and procedures in the future is expected to produce revenues from joint development opportunities that exist around sites adjacent to rail interface stations.

## 1.0 POLICIES FOR JOINT DEVELOPMENT OF METRO RAIL SITES

### Comprehensive Planning

1. Coordinate comprehensive planning and development around station sites.
2. Encourage land use plans which are designed to enhance system ridership and provide needed public amenities during Metro Rail operation.
3. Ensure that all uses of District owned property are consistent with local jurisdiction's adopted land use plans.
4. Promote and reinforce local land use plans which provide for the creation of high-quality development at each station; where the local governmental entity's adopted land use plans call for maintenance of a residential area, maintain consistency with those plans.
5. Provide agency support and interagency representation.
6. Encourage local jurisdictions to structure their land use plans to promote uses supportive of transit adjacent to station areas.
7. Select joint development projects that promote transit ridership, increased mobility, economic development including job creation, and other community needs.

### Control of Joint Development Activities

8. Obtain and retain station facility and related transportation service design and location authority.
9. Maintain an active role in all public/private coventure activities.
10. Retain ownership of land and air rights acquired for Metro Rail and jointly develop these with the private sector for the purpose of establishing long term revenues to support Metro Rail capital, operating, and maintenance requirements.

### Implementation

11. Package real estate projects.
12. Establish a joint development decision making process which fosters positive relations with the private sector and other public agencies.
13. Solicit proposals for joint development of District owned property through a competitive selection process.

14. Infuse public sector capital or "in lieu" contributions where appropriate to create more viable joint development projects.
15. Ensure the involvement of disadvantaged and women business enterprises in joint development projects through the establishment of procedures for active participation in various aspects of joint development including but not limited to project planning, design, financing, equity participation, and construction.

#### Enhancement of Metro Rail System

16. Evaluate and consider the potential for enhancement of Metro Rail operations through joint development prior to selection and configuration of sites for Metro Rail stations.
17. Encourage direct connections to stations from surrounding developments in order to expand the pedestrian domain around the stations and to increase the usability of the system; encourage land uses which promote pedestrian activities and promote the safety and security of patrons.
18. Review Metro Rail station design and, where feasible, incorporate design features that will facilitate future joint development.
19. Make most efficient use of District real property in order to carry out the District's responsibilities to achieve maximum public benefit arising out of necessary public expenditures.

#### Revenue Generation, Cost Sharing and Value Capture

20. Negotiate joint agreements between the District and developers using District land and/or property rights to create a long-term source of revenue for the operation and maintenance of the system.
21. Use station cost sharing, connector fees, joint ventures, and lease agreements, among other mechanisms, to ensure long term value capture in support of the public benefit.
22. When construction of adjacent joint development projects precede or parallel construction of Metro Rail, negotiate offsets to Metro Rail costs through station cost sharing.
23. Require connector fees or equivalent consideration from any property owner/developer of any building who requests a physical link to a Metro Rail station; the cost of such connectors, including additional design costs, and maintenance costs will be borne by the property owner/developer and will be negotiated.
24. Require, where appropriate, that property owners/developers who propose to be directly connected to stations, where there is no benefit assessment district, to pay fees substantially equivalent to benefit assessment as set for other stations; fees which are collected in lieu of such benefit assessments shall be in addition to all other fees, contributions, or considerations.



25. Structure connector fees or capital offset fees in the form most appropriate to the transaction; for example, lump sum payments, participation in the revenue created by the development, "in lieu" dedication payments of private property and/or easements, or combinations of forms.
26. Ensure that joint development projects contain some provision for financial security against future adverse impacts on transit operations by the owners/occupants of the joint developments.

#### Land Acquisition and Disposition

27. Plan property acquisitions to obtain the best possible combination of cost savings on site acquisition and joint development potential on the sites after system construction.
28. Where joint development is not feasible or is a long-range project, consider leasing land and air rights at the current market rate.
29. Dispose of real property only when it is economically advantageous or otherwise to the District's benefit.

## 2.0 POLICIES FOR JOINT DEVELOPMENT OF BUS FACILITY SITES

1. Make the most efficient use of District-owned bus facility sites in order to maximize revenues and/or other benefits to the District.
2. Negotiate joint agreements for development of bus facility sites, where appropriate, between the District and other entities when such development would create a long-term source of revenue for bus capital, operating and maintenance requirements.
3. Establish a joint development decision-making process which fosters positive relations with the private sector and thorough coordination with all affected departments within the District.
4. Maintain an active role in all public/private coventure activities at bus facility sites.
5. Ensure that all joint development uses of District-owned bus facility sites are consistent with local jurisdiction's adopted land use plans.
6. Select joint development projects that promote increased mobility, economic development including job creation, and other community needs.
7. Retain fee ownership of land and air rights needed for bus operations and jointly develop these rights through long-term leases or joint ventures with the private sector.
8. Ensure that joint development of bus facility sites does not adversely impact bus operations and maintenance.
9. Ensure that joint development projects contain some provision for financial security against future adverse impacts on bus operations by the owners/occupants of the joint developments.
10. Select proposals for joint development of bus facility sites through a competitive selection process.
11. Ensure the involvement of disadvantaged and women business enterprises in joint development projects through the establishment of procedures for active participation in various aspects of joint development including but not limited to project planning, design, financing, equity participation, and construction.
12. Consider the potential for joint development in the selection of new sites for bus operations and in the design of new bus facilities.
13. Dispose of bus facility sites only when it is economically advantageous or otherwise to the District's benefit.

### 3.0 PROCEDURES FOR JOINT DEVELOPMENT OF METRO RAIL SITES

The following is the process to be used by the District in implementing its adopted policies regarding joint development of Metro Rail stations and related facilities:

1. The District may initiate joint development of a Metro Rail site or such a proposal may be initiated by an inquiry from a private developer, public agency or other person.
2. Any recommendation by a department of the District, or any inquiry from a person outside the District regarding joint development opportunities on a Metro Rail site shall be referred to a joint staff committee of the Real Estate, Planning, Transit Facilities, Legal, Operations, Local Government and Community Affairs, and Equal Opportunity Departments (Joint Staff Committee).
3. Upon receipt of a request for joint development on a Metro Rail site, the Joint Staff Committee shall analyze the feasibility and benefits of the proposed development.
4. If a preliminary analysis by the Joint Staff Committee indicates that a proposed development on a Metro Rail site may be feasible and beneficial, following Executive Staff review, the General Manager will be requested to submit the proposal to a closed meeting of the Finance and Joint Development Committee for further consideration.
5. If the Finance and Joint Development Committee finds that the development proposal is feasible and beneficial, it may submit a recommendation to the Board to approve the issuance of a Request For Interest and Qualifications (RFIQ) for development of the site.
6. Notice of the District's intent to issue an RFIQ for a Metro Rail site shall be given in a newspaper of general circulation, and in other specialized publications, if appropriate, for a minimum of 30 days prior to the submittal deadline; notice shall also be given to adjacent property owners and to any person specifically requesting such notice from the District.
7. The District's RFIQ shall contain: (1) site description, (2) basic project description and development guidelines, (3) special District requirements for interface with the transit operations, (4) requirements for benefit to the District, (5) selection process, (6) responsibilities of the Developer, (7) form of the development proposal, and (8) statement of policy regarding participation by disadvantaged and women business enterprises.
8. Responses to a District RFIQ shall contain: (1) description of the development entity, (2) financial capability of the Developer, (3) project description including conceptual site plans and elevations

showing interface with Metro Rail and other transit operations, (4) proposed financing of project, (5) conceptual benefit to the District, (6) previous development experience, and (7) potential opportunities for disadvantaged and women business enterprises including, if known, partnership arrangements.

9. The Joint Staff Committee shall review all RFIQ submittals and may recommend that a maximum of three submittals be presented to the Finance and Joint Development Committee for further evaluation; no submittal will be forwarded to the Finance and Joint Development Committee that does not respond to all the requirements of the RFIQ.
10. The Finance and Joint Development Committee will evaluate the submittals from the Joint Staff Committee and submit a recommendation to the full Board for consideration of the issuance of Requests for Proposals to the approved development entities.
11. Development entities approved by the District Board shall be sent Requests for Proposals (RFP) which shall require a comprehensive proposal including but not limited to: (1) letter to the General Manager requesting an exclusive right to negotiate, (2) detailed project description including dimensioned site plans, elevations, circulation and parking plans and a description of the interface with Metro Rail operations during and after construction, (3) pro forma financial analysis including development cost and ten-year cash flow projections, (4) benefits to the District, (5) costs to the District, (6) evidence of market feasibility, (7) construction schedule, (8) interface with Metro Rail operations during and after construction, (9) identification of disadvantaged and women business participation at all levels at which such involvement is proposed, and (10) other information appropriate to the particular project.
12. The development entities will respond within the time set in the RFP; the Joint Staff Committee shall evaluate the additional information provided in each response to the RFP and shall make a recommendation to the General Manager for presentation to the Finance and Joint Development Committee. Said recommendation shall include the staff's analysis of each development proposal.
13. The Finance and Joint Development Committee may recommend one proposal to the Board. The Board may authorize the General Manager to enter into a 180-day Agreement to Negotiate Exclusively with that development entity.
14. A development entity that enters into an Agreement to Negotiate Exclusively with the District for a Metro Rail site shall submit a good faith deposit of \$30,000 or an amount equal to one percent of total development value whichever is greater; said deposit shall not bear interest and shall be refundable only if the development entity uses its best efforts to negotiate a development agreement with the District.

15. The General Manager and/or designated staff shall negotiate with the development entity approved by the Board to reach a draft development agreement which shall be forwarded to the Finance and Joint Development Committee for review; the negotiating team shall consult with the Joint Staff Committee and the Executive Staff on a regular basis during the negotiation process.
16. Upon receipt of a draft development agreement, the Finance and Joint Development Committee may forward the proposed agreement to the Board for action or may require further negotiations.
17. The District may deviate from its RFIQ and RFP procedures for joint development of a Metro Rail site in any case where the District has entered into a Memorandum of Understanding (MOU) with a local government that is participating in the joint development process; procedures for implementing the joint development shall be specified in the MOU which shall be subject to approval by the Board.
18. The District may deviate from its RFIQ and RFP procedures for joint development of a Metro Rail site if the interested party is an adjacent property owner and the District finds that combining the District site with an adjacent property is the proposal most likely to result in a joint development that is feasible and beneficial to the District; procedures for implementing the joint development shall be specified in a written agreement between the District and the adjacent property owner and subject to approval by the Board.

#### 4.0 PROCEDURES FOR JOINT DEVELOPMENT CONNECTIONS TO METRO RAIL STATIONS

The following is the process to be used by the District in implementing its adopted policies regarding joint development of Metro Rail sites, particularly those policies related to connections to stations:

1. The District may initiate connections (knock out panels, portals and/or pedways) into Metro Rail stations or such connections may be initiated by requests from private developers, public entities or other persons.
2. Any recommendation by a department of the District, or any inquiry from a person outside the District regarding joint development connections to a Metro Rail station shall be referred to a joint staff committee of the Real Estate, Planning, Transit Facilities, Legal, Operations, Local Government and Community Affairs, and Equal Opportunity Departments (Joint Staff Committee).
3. Upon receipt of a request for a connection to a Metro Rail station, the Joint Staff Committee shall analyze the feasibility, costs, and benefits of the proposed connection.
4. If a preliminary analysis by the Joint Staff Committee indicates that a proposed connection to a Metro Rail station may be feasible and beneficial, following Executive Staff review, the General Manager will be requested to submit the proposal to a closed meeting of the Finance and Joint Development Committee for further consideration.
5. If the Finance and Joint Development Committee finds that the connection proposal is feasible and beneficial, it shall direct the General Manager and/or designated staff to negotiate a draft agreement for the connection; the negotiating team shall consult with the Joint Staff Committee and the Executive Staff on a regular basis during the negotiation process.
6. A draft agreement for a connection to a Metro Rail station shall be reviewed by the Finance and Joint Development Committee and, if acceptable, shall be forwarded to the Board for approval.

## 5.0 PROCEDURES FOR JOINT DEVELOPMENT OF BUS FACILITY SITES

The following is the process to be used by the District in implementing its adopted policies regarding joint development of bus facility sites:

1. The District may initiate joint development of a bus facility site or such a proposal may be initiated by an inquiry from a private developer, public agency or other person.
2. Any recommendation by a department of the District, or any inquiry from a person outside the District regarding joint development opportunities on a bus facility site shall be referred to a joint staff committee of the Real Estate, Planning, Bus Facilities, Legal, Operations, Local Government and Community Affairs, and Equal Opportunity Departments (Joint Staff Committee).
3. Upon receipt of a request for joint development on a bus facility site, the Joint Staff Committee shall analyze the feasibility and benefits of the proposed development.
4. If a preliminary analysis by the Joint Staff Committee indicates that a proposed development on a bus facility site may be feasible and beneficial, following Executive Staff review, the General Manager will be requested to submit the proposal to a closed meeting of the Finance and Joint Development Committee for further consideration.
5. If the Finance and Joint Development Committee finds that the development proposal is feasible and beneficial, it may submit a recommendation to the Board to approve the issuance of a Request For Interest and Qualifications (RFIQ) for development of the site.
6. Notice of the District's intent to issue an RFIQ for a bus facility site shall be given in a newspaper of general circulation, and in other specialized publications, if appropriate, for a minimum of 30 days prior to the submittal deadline; notice shall also be given to adjacent property owners and to any person specifically requesting such notice from the District.
7. The District's RFIQ shall contain: (1) site description, (2) basic project description and development guidelines, (3) special District requirements for operation of the bus facility, (4) requirements for benefit to the District, (5) selection process, (6) responsibilities of the Developer (7) form of the development proposal, and (8) statement of policy regarding participation by disadvantaged and women business enterprises.
8. Responses to a District RFIQ shall contain: (1) description of the development entity, (2) financial capability of the Developer, (3) project description including conceptual site plans and elevations showing interface with bus facility operations, (4) proposed financing of project, (5) conceptual benefit to the District, (6) previous development experience, and (7) potential opportunities for disadvantaged and women business enterprises including, if known, partnership arrangements.

9. The Joint Staff Committee shall review all RFIQ submittals and may recommend that a maximum of three submittals be presented to the Finance and Joint Development Committee for further evaluation; no submittal will be forwarded to the Finance and Joint Development Committee that does not respond to all the requirements of the RFIQ.
10. The Finance and Joint Development Committee will evaluate the submittals from the Joint Staff Committee and submit a recommendation to the full Board for consideration of the issuance of Requests for Proposals to the approved development entities.
11. Development entities approved by the District Board shall be sent Request for Proposals (RFP) which shall require a comprehensive proposal, including but not limited to: (1) letter to the General Manager requesting an exclusive right to negotiate, (2) detailed project description including dimensioned site plans, elevations, circulation and parking plans and a description of the interface with bus operations during and after construction, (3) pro forma financial analysis including development cost and ten-year cash flow projections, (4) benefits to the District, (5) costs to the District, (6) evidence of market feasibility, and (7) construction schedule, (8) interface with bus operations during and after construction, (9) identification of disadvantaged and women business participation at all levels at which such involvement is proposed, and (10) other information appropriate to the particular project.
12. The development entities will respond within the time set in the RFP; the Joint Staff Committee shall evaluate the additional information provided in each response to the RFP and shall make a recommendation to the General Manager for presentation to the Finance and Joint Development Committee. Said recommendation shall include the staff's analysis of each development proposal.
13. The Finance and Joint Development Committee may recommend one proposal to the Board. The Board may authorize the General Manager to enter into a 180-day Agreement to Negotiate Exclusively with that development entity.
14. A development entity that enters into an Agreement to Negotiate Exclusively with the District for a bus facility site shall submit a good faith deposit of \$30,000 or an amount equal to one percent of total development value whichever is greater; said deposit shall not bear interest and shall be refundable only if the development entity uses its best efforts to negotiate a development agreement with the District.
15. The General Manager and/or designated staff shall negotiate with the development entity approved by the Board to reach a draft development agreement which shall be forwarded to the Finance and Joint Development Committee for review; the District negotiating team shall consult with the Joint Staff Committee and the Executive Staff on a regular basis during the negotiation process.



16. Upon receipt of a draft development agreement, the Finance and Joint Development Committee may forward the proposed agreement to the Board for action or may require further negotiation.
17. The District may deviate from its RFIQ and RFP procedures for joint development of a bus facility site in any case where the District has entered into a Memorandum of Understanding (MOU) with a local government that is participating in the joint development process; procedures for implementing the joint development shall be specified in the MOU which shall be subject to approval by the Board.
18. The District may deviate from its RFIQ and RFP procedures for joint development of a bus facility if the interested party is an adjacent property owner and the District finds that combining the District site with an adjacent property is the proposal most likely to result in a joint development that is feasible and beneficial to the District; procedures for implementing the joint development shall be specified in a written agreement between the District and the adjacent property owner and subject to approval by the Board.

## 6.0 PROCEDURES FOR SALE OR LONG-TERM LEASE OF SURPLUS BUS FACILITY OR OTHER SITES

The following is the process to be used by the District in implementing its adopted policies regarding bus facility or other sites, particularly those policies related to the sale or long-term lease of surplus properties:

1. The District may initiate the sale or long-term lease of any bus facility or other site (Site) or such a sale may be initiated by an inquiry from a private developer, public agency or other person.
2. Any recommendation by a department of the District, or any inquiry from a person outside the District, regarding sale or long-term lease of a Site shall be referred to a joint staff committee of the Real Estate, Planning, Bus Facilities, Legal, Operations and Equal Opportunity Departments (Joint Staff Committee).
3. Upon receipt of a request to sell a Site, the Joint Staff Committee shall analyze the feasibility and potential costs and benefits of discontinuing bus or other current operations at that location.
4. If a preliminary analysis by the Joint Staff Committee indicates that sale or long-term lease of the Site is feasible and beneficial, the Committee may recommend to the General Manager that approval be obtained from the Board authorizing the General Manager to initiate efforts to sell the site.
5. Upon the General Manager's recommendation, the Board, after finding that the Site is unnecessary for existing and future District operations, and is not feasible for joint development, may direct the General Manager to sell or lease the Site following standard procedures for the sale or lease of surplus land.

6.0 PROCEDURES FOR SALE OR LONG-TERM LEASE  
OF SURPLUS BUS FACILITY OR OTHER SITES

The following is the process to be used by the District in implementing its adopted policies regarding bus facility or other sites, particularly those policies related to the sale or long-term lease of surplus properties:

1. The District may initiate the sale or long-term lease of any bus facility or other site (Site) or such a sale may be initiated by an inquiry from a private developer, public agency or other person.
2. Any recommendation by a department of the District, or any inquiry from a person outside the District, regarding sale or long-term lease of a Site shall be referred to a joint staff committee of the Real Estate, Planning, Bus Facilities, Legal, Operations and Equal Opportunity Departments (Joint Staff Committee).
3. Upon receipt of a request to sell a Site, the Joint Staff Committee shall analyze the feasibility and potential costs and benefits of discontinuing bus or other current operations at that location.
4. If a preliminary analysis by the Joint Staff Committee indicates that sale or long-term lease of the Site is feasible and beneficial, the Committee may recommend to the General Manager that approval be obtained from the Board authorizing the General Manager to initiate efforts to sell the site.
5. Upon the General Manager's recommendation, the Board, after finding that the Site is unnecessary for existing and future District operations, and is not feasible for joint development, may direct the General Manager to sell or lease the Site following standard procedures for the sale or lease of surplus land.