

5.3.4.5 Design of Paths. Paths that link major activity centers to Parkways or to the Regional Trail System, or that become part of the Regional Trail System, shall meet the following minimum design standards:

- A.** Paths shall be visually distinguished from roads, driveways, and parking spaces.
- B.** Paths shall have a standard unobstructed width of 10 feet.
- C.** Where necessary, pedestrian paths shall be separated from bicycle and/or equestrian paths.

5.3.5 Standards for Transit

5.3.5.1 Consistency with Plans. Transit facilities shall be provided consistent with the Denver Comprehensive Plan, including any adopted supplements, such as district, neighborhood or corridor plans. Transit facilities shall also be consistent with adopted plans of the Regional Transportation District or other managing entity.

5.3.5.2 Design of Transit Facilities. Transit facilities shall be designed according to the standards of the Regional Transportation District and the design guidelines of any applicable design review regulations. If the transit facility in question is not managed by RTD, it shall be designed according to the standards of the managing entity, including but not limited to the Ski Train, AmTrack, Bus Companies and/or Denver International Airport.

5.3.5.3 Connections. Transit facilities shall be located adjacent to and accessible from activity centers and commercial areas.

5.3.6 Standards for Railroads and Truck Routes

5.3.6.1 Consistency with Plans. Freight routes, including railroads and truck routes, shall be provided consistent with federal, state, Public Utility Commission and City and County of Denver plans.

5.3.6.2 Designated Truck Routes. Truck routes may be shown in the General Development Plan and shall be compatible with the anticipated development program.

5.3.7 Criteria for Approval

Street system improvements required to accommodate existing and proposed land uses and projected traffic are compatible with the existing adjacent uses and uses shown in Blueprint Denver for the subject and adjacent properties, including:

- A.** Provide an interconnected transportation system that encourages multiple modes of transportation, disperses traffic, and provides streets that accommodate multiple transportation modes including motor vehicles, transit, bicycles and pedestrians.
- B.** The existing or proposed street system is adequate to accommodate trips from existing and planned land uses without creating safety hazards.
- C.** The existing or proposed street system continues Denver’s traditional street patterns of arterials, collectors and local streets on a grid system and continues Denver’s physical character, including interconnected street networks, connectivity to existing roads, parkways, tree-lined streets and detached sidewalks.
- D.** The GDP provides clear and adequate pedestrian connections and linkages between buildings and transit facilities, public rights of way and transit facilities, and between multiple modes of transit. The existing or proposed street system connects pedestrians and bicyclists to significant locations, such as parks, transit, housing, trails, shopping, schools, and public facilities.
- E.** The proposed street spacing creates block sizes that provide pedestrian scale to development.
- F.** The street network improves the flow of traffic, eliminates conflicts between vehicles, improves pedestrian and

bicycle safety, enhances the walking environment, and allows space for street amenities such as on-street parking and street trees.

- G.** Inter-modal transit centers integrate appropriate facilities for all modes of travel.
- H.** Transit stops provide safe, secure, convenient and comfortable locations to access transit.
- I.** The bicycle system is connected to and continues an interconnected systems of bicycle lanes, bicycle routes and off-street paths.
- J.** The block and street layout for all development is compatible with existing and planned development of adjacent parcels.
- K.** The number, location and design of proposed streets minimizes traffic impacts to local neighborhood streets.
- L.** Provisions have been made to connect to or continue regional trails through the GDP area.

Section 5.4 TRANSPORTATION DEMAND MANAGEMENT PLAN

5.4.1 Intent

- A.** To integrate transportation demand management (TDM) strategies into overall roads and transportation infrastructure needs assessment.
- B.** To integrate transportation demand management strategies into overall parking needs assessment.
- C.** To provide a general framework for all TDM plans that can be modified for the needs of a site-specific General Development Plan.

5.4.2 Applicability

A Transportation Demand Management (TDM) plan requirement may be included as part of the General Development Plan approval to address one of two issues relating to transportation:

- A. Reduction in Parking:** Should the applicant request a reduction in parking as permitted in the mixed-use zone districts (4.2.B Chart 3) a TDM plan will be required.
- B. Trip Reduction Plan:** Should the applicant request a discount for traffic (5.3.2.10) due to the presence of transit, a TDM plan would be required to document how the Trip Reduction Goal will be achieved.

5.4.3 Reduction in Parking

- A.** TDM plan: A TDM plan to address a discount taken in the parking requirements may include but not be limited to one or more of the following:

1. TDM Program Coordinator

Designation of a TDM Program Coordinator responsible for the administration of the TDM program and coordination with outside entities, including the City.

2. TDM Program

TDM program elements may include but are not limited to:

- i.** parking management provisions, including preferential parking and reduced rates for carpool and/or vanpools;
- ii.** employee parking cash-out;
- iii.** transit bus pass subsidies;

- iv. bike lockers, showers, clothes lockers or bike station facility;
- v. alternative work schedules and flex-time;
- vi. telecommuting;
- vii. ride-matching and guaranteed ride home programs;
- viii. on-site transit/paratransit circulation services;
- ix. vanpool/carpool programs;
- x. incentive programs to encourage employee to use alternative modes of transportation; and
- xi. other acceptable industry practices as demonstrated in other developments in the country.

3. A TDM Study

A study based on the phasing of the applicant’s project will identify an agreed upon time frame until a specified build-out to determine the proportion of single occupant vehicle use, success of the TDM program, and proposed program changes. The method for determining the proportion of single occupant vehicle use should be representative of the typical trip making characteristics of residents, employees and visitors in the area identified in the TIS. The study method and documentation shall be agreed upon by the applicant and the Manager of Public Works.

4. Transportation Management Association (TMA)

Establishment of a Transportation Management Association (TMA) or participation in an existing TMA.

- B. Good Faith Effort:** The entity responsible for managing off street, non-residential parking and the TDM plan shall submit its initial TDM program to the Manager of Public Works for review and a determination of “good faith effort.” Subsequent submittals shall be submitted to the Manager or Public Works for review and a determination of “good faith effort” on the an agreed upon schedule. Determination of a “good faith effort” shall be based on the following criteria:
1. Compliance with minimum requirements specified in the agreed upon TDM Plan.
 2. Comprehensiveness of the strategies included, not to exceed that which would be considered reasonable given similar activities property owners or employers around the country.
 3. Applicability and consistency of the strategies identified in the **Denver Comprehensive Plan, Blueprint Denver, Metro Vision** – the Denver Regional Council of Governments (DRCOG) regional growth management plan and the **Blueprint for Clean Air** – the Regional Air Quality Council’s long range air quality plan.
- B. Non-attainment of Goals:** Should a determination of “good faith effort” not be made, then the Manager of Public Works shall give the applicant responsible for managing off street, non-residential parking and the TDM program 15 days to respond to this determination. If at the end 15 days, no response is given or the City’s Manage of Public Works again determines a “good faith effort” has not been made, the Manager will submit a program of mandatory transportation demand management actions for implementation within 60 days. Mandatory actions could include financial penalties, required participation in the RTD EcoPass Program or other measures.

5.4.4 Trip Reduction Strategy Plan

- A. Traffic Impact Study (TIS)** must document the Trip Reduction Goal (TRG) that was assumed for the analysis; this is the reduction in standard trip generation due to the proximity to transit, the mixed-use nature of the project, and any other features of the development that would result in reduced trip generation. The applicant will submit a list of TDM strategies or formal TDM plan and when those strategies are required for implementation. As the development is phased, the applicant should show associated strategies with the phasing plan.

B. Monitoring

A Monitoring Program may be required to evaluate achievement of the Trip Reduction Goal.

5.4.5 Criteria for Approval

- A.** Transportation demand will shift from single occupancy vehicles to other modes of travel;
- B.** Access to transit service will increase for residents, workers and visitors to a development that is within 1,500 feet or a permanent transit facility;
- C.** Trip reduction strategies will encourage successful mixed-use development;
- D.** Transportation mode split for work trips into and around the project area will achieve or exceed that identified in the Traffic Impact Study (TIS);
- E.** Amount of air emissions will be lowered; and
- F.** Demand on existing City infrastructure will be reduced, lessening maintenance requirements and necessary capital improvements.

Section 5.5 WATER AND WASTEWATER SYSTEMS

5.5.1 Intent

- A.** To protect natural resources from the adverse impacts of development;
- B.** To preserve the quality and availability of safe drinking water from the potential of contamination and degradation due to the proximity of specific land uses or activities;
- C.** To maintain standards of water quality and quantity within local bodies of water by establishing provisions regulating the management of stormwater;
- D.** To prevent the contamination of surface waters and sanitary sewers from stormwater runoff;
- E.** To preserve environmentally sensitive or beneficial areas including lakeshores, wetland areas, areas harboring protected species, fisheries and/or conservation areas;
- F.** To preserve the natural function of all floodways and floodplain areas and limit the potential of flood damage by regulating development and land use activities within the delineated 100-year flood zone;
- G.** To ensure that water and sanitary sewer utilities and facilities are available concurrent with new development.

5.5.2 Technical Studies and Plans

5.5.2.1 Required Plans. The following information must be approved by the Department of Public Works prior to approval of the General Development Plan:

- A.** Master Sanitary Sewer Study
- B.** Master Drainage Study

5.5.2.2 Development Phasing. If a development is to be constructed by stages, storm drainage and sanitary sewer studies shall be submitted and approved for the entire development before construction of any one phase can be initiated. When developing in phases, the applicant shall be required to covenant that all storm drainage and sanitary sewer facilities and on-site grading will be constructed in accordance with approved storm drainage and sanitary sewer studies and/or plans for the entire development. No person(s) shall have the authority to redesign or alter the construction of any phase of the develop-

ment without first obtaining written approval from the Manager of Public Works. When all phases of construction have been completed, inspected and accepted by the Manager of Public Works, the applicant may request, if applicable, termination of the Covenant.

5.5.2.3 Department of Public Works Technical Resources

- A.** Rules and Regulations Governing Sewerage Charges and Fees and Management of Wastewater
- B.** Storm Drainage Design and Technical Manual
- C.** Sanitary Sewer Design Technical Manual
- D.** Urban Drainage and Floor Control District Drainage Criteria Manual
- E.** City and County of Denver Storm Drainage Master Plan
- F.** City and County of Denver Water Quality Master Plan

5.5.3 Stormwater Standards

5.5.3.1 Limitation of the amount of stormwater runoff. No development shall cause adjacent land owners, water courses, channels, or conduits to receive stormwater runoff from the proposed development site at a higher peak flow rate or at higher velocities than would have resulted from the same storm event occurring over the site of the proposed development with the land in its undeveloped condition. Both major and minor storm events shall be considered per the technical manual requirements.

5.5.3.2 Stormwater detention. On-site or regional detention basins or equivalent management facilities shall be provided within the development in order to properly limit surface runoff. All stormwater management facilities shall be constructed within the confines of the proposed development, except in the case of approved regional stormwater detention facilities.

5.5.3.3 Timing of stormwater management facility construction. Where the development of a site could result in danger to persons, land or wildlife due to runoff during construction, the facilities for stormwater runoff control shall be constructed prior to any earth moving or drainage construction on the site.

5.5.3.4 Compatibility with open spaces. Where possible, stormwater runoff facilities shall use human-made and natural drainageways for compatible use as parks, open space, trails, recreation facilities and/or wildlife corridors.

5.5.3.5 Compatibility with urban design goals. All stormwater runoff facilities shall be designed using Best Management Practices that result in safe, efficient, attractive, and environmentally sustainable facilities that meet or further the urban design goals of the development.

5.5.3.6 Compatibility with existing master plans. All stormwater runoff facilities shall be designed using the City’s most current master drainage plan.

5.5.4 Water Quality and Erosion Control Standards

Stormwater quality and erosion control is required as part of the City’s municipal stormwater discharge permit which authorizes the discharge of stormwater from regulated small Municipal Separate Storm Sewer Systems (MS4s). The Environmental Protection Agency (EPA) requires that discharges from regulated small Municipal Separate Storm Sewer Systems (MS4s) must be covered under the National Pollutant Discharge Elimination System (NPDES) program. All development shall be required to

meet the following standards of the Department of Public Works:

5.5.4.1 Post Construction Water Quality Control. Stormwater Quality Control shall be addressed in the Master Drainage Study and shall establish specific water quality requirements that must be met by individual parcels or a Metropolitan District where regional facilities for storm drainage detention and water quality are proposed. Shared detention facilities are encouraged.

5.5.5 Water Standards

5.5.5.1 Public water accessible. Where an approved public water supply is reasonably accessible or procurable, the applicant shall make application to Denver Water to connect to such water supply. If approval is granted, the applicant shall connect to the system and install water lines to make the water supply available to each lot within the development.

5.5.5.2 Water supply not accessible. Where an approved public water supply is not reasonably accessible or procurable, alternate arrangements satisfactory to Denver Water, the Manager of Community Planning and Development, the Manager of the Department of Public Works and the Chief of the Denver Fire Department shall be determined prior to any approval of the General Development Plan.

5.5.5.3 Firefighting water supply or fire hydrants. The developer shall provide a fire fighting water supply or fire hydrants within the development. Such hydrants shall be of the type, size, number and installed in such locations as determined by the Denver Fire Chief.

5.5.5.4 Location within streets and rights-of-way. Water facilities shall be installed in the same rights-of-way to the greatest extent possible. Where not practical, water facilities may be placed within easements or rights-of-way provided for the particular facilities.

5.5.6 Sanitary Sewer Standards

5.5.6.1 Public Sanitary Service. Where a public sanitary sewer system is located within five hundred (500) feet, and legal access is attainable, the applicant shall connect to such sanitary sewer system and provide adequate connection lines to development parcels. Sanitary sewer service may be made available by the extension of the City sewerage system. The developer shall make provision for adequate sewer services to the development site.

5.5.6.2 Location within streets and rights-of-way. Sanitary sewer facilities shall be installed in rights-of-way to the greatest extent possible. Where not practical, sanitary sewer facilities may be placed within easements or rights-of-way provided for the particular facilities.

5.5.6.3 Compatibility with existing master plans. All sanitary sewers shall be designed using the City’s most current master sanitary sewer plan.

5.5.6.4 Criteria for Approval

Proposed wastewater and water systems shall address drainage, water quality, sanitary sewer service and water supply service in a comprehensive manner, including:

- A.** Maximizing levels of public safety and property protection related to flooding, stormwater conveyance, and water quality;
- B.** Integration of appropriate storm water detention and water quality Best Management Practices;

- C. Using multi-purpose facilities where appropriate, such as incorporating linear open space within riparian corridors by integrating drainage facilities and features with natural waterways, recreation areas, trails and open space.
- D. Enhancing public safety and avoiding water-related hazards;
- E. Designing drainage facilities and features to complement and enhance the urban design goals of the development area.
- F. Ensuring compatibility with current and proposed land uses and needs;
- G. Minimizing negative environmental impacts;
- H. Maximizing opportunities for water quality enhancements;
- I. Ensuring the Master Drainage Study includes project(s) identified in the Denver Capital Improvements Program, the Six-Year Needs Assessment, the Denver Storm Drainage Master Plan and other approved facilities plans.

Section 5.6 UTILITIES

5.6.1 Intent

- A. To ensure that adequate utilities will be available concurrent with development;
- B. To provide for the appropriate location, layout, engineering and design of new facilities.

5.6.2 Standards for Utility Location, Layout, Engineering and Design

5.6.2.1 Location within streets and rights-of-way. Utilities and transportation facilities shall be installed in the same rights-of-way to the greatest extent possible. Where not practical, utility lines may be placed within easements or rights-of-way provided for the particular facilities.

5.6.2.2 Buried utilities required. New telephone, communications, electric, gas and other similar utility lines and services shall be placed underground except where this requirement is in conflict with the requirements of public and private utility companies or other regulatory agencies. Transformers, switching boxes, terminal boxes, metering, roadway lighting, signal devices, gas regulators, compressor stations or other similar facilities necessarily appurtenant to underground facilities may be placed above ground, but should be placed so that they do not compromise sight distance from site access points and so that they are as unobtrusive as possible with respect to the character of the streetscape. To the extent possible, these facilities should be located in the rear yard or alley rather than the front yard.

5.6.2.3 Minimize environmental impacts. Environmental impacts resulting from installation or maintenance of utilities shall be minimized. Areas disturbed during construction shall be replanted with native vegetation or other planting as approved in a Landscape Plan and maintained until firmly established. Clearing shall be confined to that necessary to allow installation and to prevent interference by vegetation once the system is in operation.

5.6.2.4 Coexistence with street trees. Utilities located in the tree lawn, amenity zone or sidewalk area of the public right of way shall be located to avoid conflict with the root systems of street trees. Utility conduits shall be located as far from the tree lawn center line as possible.

5.6.2.5 Fees. The developer shall be responsible for all construction or installation charges including those required by the utility provider (except those installed at the expense of the utility company involved). Utilities are subject to all other applicable City, State and Federal regulations.

5.6.2.6 Compatibility with stormwater facilities. All utility systems and facilities, such as communication, water, gas and electrical systems, installed in any area of special flood hazard shall be designed, located and/or constructed to eliminate damage from flood waters.

5.6.2.7 Consistent with public utility standards. The design, layout and construction of utilities shall conform with the standards of the permitting utility.

5.6.3 Standards for Easements

5.6.3.1 Location of Easements. New utility easements shall be planned so as to be free from conflicting legal encumbrances, to avoid unnecessary removal of trees or excessive excavations, to avoid locations or routes where street tree plantings or landscape screening is either required or customary, and to be free from obstructions.

5.6.3.2 Dimensions. Standard easement widths shall be provided as required by the relevant utility company.

5.6.3.3 Joint Location of Easements. Where easements are combined with a watercourse, drainage way, channel or stream, a usable utility easement of at least ten (10) feet in width outside that required for water shall be provided if the use would be in conflict with drainage requirements. Multiple use of a given easement is encouraged. The developer is encouraged, in lieu of providing easements on each and every lot line, to propose a layout based upon a plan for providing the necessary utilities in order to reduce the number, width, and complexity of easements. Such a proposal is subject to approval by the utility agencies involved and by the City. Easements may also be required under certain conditions for the right-of-way to include signs, walkways and other special areas.

5.6.4 Criteria for Approval

- A.** Utilities are available to directly serve the area of the proposed land use or other arrangements (contractual, development agreement, performance bond, etc.) have been made to ensure that adequate utilities will be available concurrent with development.
- B.** Utilities are designed to be compatible with the urban design, open space and land use goals of the development.

Section 5.7 URBAN DESIGN

5.7.1 Intent

- A.** To develop guidelines for the area or sub-areas that will result in an attractive urban setting with a pedestrian friendly environment, an interconnected street grid system, transit corridors, a system of parks and parkways, and natural features.
- B.** To develop guidelines for amenities within public right-of-way and open space, including sidewalks and amenity zones with tree lawns or trees in grates, landscaping, street furniture, signage and lighting.
- C.** To develop design guidelines for private sector design, private aggregated open space, parking, and pedestrian pathways.
- D.** To support the balanced mix of land uses within a high quality built and natural environment.
- E.** To determine arrangements for on-going maintenance and repair of streetscape and public amenities.

5.7.2 Urban Design Standards and Guidelines Document

Design guidelines may be approved as part of a GDP and shall be required in a T-MU-30 zone district prior to application for a Site Plan. If not adopted as part of the GDP approval, design guidelines may be adopted separately as rules and regulations pursuant to section 12-18 of the Denver revised municipal code.

Sample Table Of Contents For Design Standards And Guidelines

- A.** Introduction: Location, context, history, development goals and vision, explanation of terms and organization of document
- B.** Procedures for Design Review: Participants, review process and schedule, submittal requirements, public notification and involvement, approval authority, procedures for appeal
- C.** Standards and Guidelines
 - 1.** Subareas: specific architectural or site standards for smaller areas or buildings
 - 2.** Site Related Issues: public right of way and streetscape, vehicular access, pedestrian access, parking and parking structures
 - 3.** Building Location and Orientation: building placement, setbacks and build-to lines or zones
 - 4.** Building Massing: building adjacencies, building form
 - 5.** Building Facades: architectural scaling elements, surface variation, materials, percentage of window to wall, window glazing transparency, window detailing
 - 6.** Landscape: public and private open space, walls, fencing, pedestrian paths
 - 7.** Special relationships to significant planned or existing features or infrastructure
 - 8.** Signage design
 - 9.** Master sign plan: parameters for identification, directional, interpretation, wayfinding and other signage.

5.7.3 Urban Design Standards

The following urban design standards are to be addressed in the General Development Plan and/or shall be incorporated in the Design Standards and Guidelines Document for application to PlanSite Plans or applied to Special Review Uses included in the GDP.

5.7.3.1 Site Design

Site design shall achieve all of the following standards:

- A.** Provide safe, direct and attractive pedestrian and bicycle connections to building entries and public sidewalks within parking lots and transit facilities
- B.** Utilize building site and design strategies to create mixed-use environments that encourage complementary use relationships and that minimize the adverse impacts between diverse uses, including noise and wind mitigation.
- C.** Locate, screen, and buffer service, storage, delivery, and refuse areas to minimize the view from streets, adjacent zone lots, and open spaces
- D.** Minimize the visual and functional impacts of parking areas, parking structures, and residential garages on streets, pedestrian and bicycle circulation, open spaces, and adjoining development
- E.** Improve the efficiency of parking areas by allowing multiple uses to share parking spaces, curb cuts, and circulation drives
- F.** Detail requirements for streetscape design and lighting in the public right of way

5.7.3.2 Building Design

Building design shall achieve all of the following standards:

- A.** Locate buildings to reinforce and complement the quality, character and function of adjoining public space and rights of way.
- B.** Provide an operable building entrance facing or clearly visible from the public right of way or other public vantage point.
- C.** Provide architecturally finished and detailed elevations for all exposures of the building with the primary façade, typically the street-facing elevation, having appropriate architectural expression
- D.** Create buildings that provide human scale and interest through use of varied forms, materials, details, and colors.
- E.** Use durable materials that complement Denver’s tradition as a city of brick and masonry
- F.** Minimize the use of highly reflective glass, particularly at the street level

5.7.3.3 Transit Mixed-Use

In addition to the site and building design criteria above, the following criteria shall apply in districts with fixed transit service:

- A.** Configure buildings to emphasize and reinforce their relationship to the transit facility.
- B.** Provide clear and adequate pedestrian visual connections and access linkages between buildings and transit facilities, public rights of way, and transit facilities, and connecting all other modes of travel.
- C.** Configure the site so that a clear, safe, and attractive pedestrian system is the primary public element to which buildings are oriented, with the transit facility as an easily identifiable component.
- D.** Maximize pedestrian amenities such as street furniture and open space near transit facilities and along the primary pedestrian connections to transit facilities.
- E.** Arrange building uses, heights, and scaling devices to reinforce the main station area and to provide a reasonable transition to adjoining development.

