This design manual applies only to an expansion of, or a new retail/shopping center greater than 45,000 square feet regulated under Pima County Code Section 18.39.
Design Standards

The purpose of this manual is to provide design and siting guidelines for implementing the requirements listed in Section 18.39 General Commercial Zoning Standards.

These requirements encourage compatibility of retail buildings and centers with adjacent residential use. The design of buildings shall allow architectural expression including the relationship to public streets, the semipublic character of common areas and the service nature of the building.

This manual is divided into various facets of development to promote a functional and aesthetically pleasing design. The elements of the design manual are buildings, parking areas, outdoor areas, pedestrian and landscaping, performance standards for odor, noise and light and requirements for submittal.

Alternative landscaping, parking, noise, odor or lighting plans may be submitted as a substitute to these retail Commercial Design Manual guidelines and may be approved by the planning official if they attain the same result as that to be achieved through strict compliance with the Design Manual. Where there are conflicts between the Commercial Design Manual guidelines and the zoning code, the more restrictive applies.

1. Facades and Exterior Walls

Facades should be articulated to reduce the massive scale and the uniform, impersonal appearance of large retail establishment buildings and provide visual interest that will be consistent with the community’s identity, character and scale with emphasis on compatibility with established neighborhoods, historical districts and designated gateways in the vicinity.

Guideline: All building facades that are visible from public streets shall comply with the following requirements:

a. Facades greater than 100 feet in length, measured horizontally, shall incorporate wall plane projections or recesses having a depth of at least three percent of the length of the facade and extending at least twenty percent of the length of the facade. No uninterrupted length of any facade facing a public street shall exceed 100 horizontal feet.

Projections and recesses shall comprise at least 20% of facade length with a minimum depth of 3% of facade length.
b. Ground floor facades that face public streets shall have arcades, display windows, entry areas, awnings, or other similar features along no less than sixty percent of their horizontal length.

c. A building facade that faces a public street must include a repeating pattern that shall include no fewer than three of the elements listed below. At least one of these elements shall repeat horizontally. All elements shall repeat at intervals of no more than thirty feet, either horizontally or vertically.

- Color change
- Texture change
- Material module change
- Expression of architectural or structural bay through a change in plane no less than twelve inches in width, such as an offset, reveal or projecting rib.

d. Where the site is adjacent to residential uses, a buffer yard with an eight-foot decorative masonry wall. See 18.39.030C3, 18.39.050C4 and 18.39.060C3.

2. Roofs

Roof features shall be used to complement the character of adjoining neighborhoods. The following standards are intended to create variations in roofline to add interest to, and reduce the massive appearance of large buildings.

Guideline: Roof lines shall be varied with a change in height every 100 feet in the building length. Parapets, mansard roofs, gable roofs, hip roofs or dormers shall be used to conceal flat roofs and roof top equipment from public view. Alternating lengths and designs may be acceptable and can be addressed during the preliminary development plan.

a. Roofs shall have no fewer than two of the following features:

- Parapets concealing flat roofs and rooftop equipment, such as air-handling units, from public view. The average height of such parapets shall not exceed fifteen percent of the height of the supporting wall, and such parapets shall not at any point exceed one third of the height of the supporting wall. Such parapets shall feature three-dimensional cornice treatments.
- Overhanging eaves, extending no less than three feet past the supporting walls.
- Sloping roofs that do not exceed the defined average height of the supporting walls, with an average slope greater than or equal to one foot of vertical rise for every three feet of horizontal run and less than or equal to one foot of vertical rise for every one foot of horizontal run.
- Three or more roof slope planes.
3. Materials and Colors

Exterior building materials shall be aesthetically pleasing and compatible with materials used in adjoining neighborhoods. The following standards are intended to ensure that exterior building materials comprise a significant part of the visual impact of a building.

Guideline: Predominant exterior building materials shall be high quality materials, earthtone colored and not exceeding a light reflectivity value of sixty percent. These include, without limitation:

- Brick
- Wood
- Sandstone
- Native stone
- Stucco
- Adobe
- Exterior insulation and finish systems (EEFS)
- Tinted, textured, concrete masonry units or block

a. Building trim and accent areas may feature brighter colors, including primary colors, and neon tubing for building trim or accent areas.
b. Predominant exterior building materials shall not include the following:
   - Smooth-faced concrete block
   - Tilt-up concrete panels
   - Prefabricated steel panels

c. Transit stops, freestanding identification signs, buffer yard walls, raised planters and miscellaneous decorative site features shall use the same exterior materials or textures as the facade of the principal building. All sides of the buffer yard and property wall shall meet this requirement.

4. Customer Entrances

Entryway design elements and variations shall give orientation and aesthetically pleasing character to the building by providing clearly defined, highly visible customer entrances. Multiple building entrances reduce walking distances from cars, facilitate pedestrian and bicycle access from public sidewalks, and provide convenience where certain entrances offer access to individual stores or identified departments of a store.

Guideline: Each principal building on a site shall have clearly defined, highly visible customer entrances featuring no fewer than three of the following:

- Canopies or porticos
- Overhangs
- Recess or projections
- Arcades
- Raised corniced parapets over the door
- Peaked roof forms
- Arches
- Outdoor patios
- Display windows
- Architectural details such as tile work and moldings which are integrated into the building
- Integral planters or wing walls that incorporate landscaped areas and/or places for sitting

*Sample elevation utilizing elements listed in this section.*
5. **Back and Side Facades**

The rear or sides of buildings shall provide architectural and landscaping features that mitigate unattractive views of blank walls, loading areas, storage areas, HVAC units, garbage receptacles and other such characteristics. All facades of a building that are visible from adjoining properties and/or public streets should contribute to the pleasing scale of the building and encourage community integration by featuring characteristics similar to the front facade.

*Guideline:* For any building with a loading area directly facing the residential use, there should be a 200-foot setback from the property line on the same side as the loading area contiguous to an existing residential use. A 100-foot setback may be used from a residential property line without an exposed loading area (see diagram on page 8). The rear and sides of buildings shall comply with the following requirements:

a. Facades greater than 100 feet in length, measured horizontally, shall incorporate wall plane projections or recesses having a depth of at least three percent of the length of the facade and extending at least twenty percent of the length of the facade. No uninterrupted length of any facade facing a public street shall exceed 100 horizontal feet.

b. Building facades that face a public street shall include architectural or structural expression through a change in plane no less than twelve inches in width, such as an offset, reveal or projecting rib and no less than two of the following elements:
   - Color change
   - Texture change
   - Material change

*Example of change of color and plane.*

*Internal masonry wall visually screening loading area and deflecting sound inward.*
6. Parking Lots

Parking areas shall provide safe, convenient and efficient access. Landscaping is an important element in reducing the appearance of a large paved surface area and reducing the heat island effect. Landscaping can be used to define parking areas, reduce the overall scale, and provide primary vehicular drives and pedestrian areas in an aesthetic and environmentally pleasing manner.

Guideline: For any shopping center development, the planning of the site shall screen the parking lot from view by outlot development or bufferyards with the use of opaque screening materials such as vegetation, berms or walls.

a. See the landscaping requirements of Section 18.75.040B3 for landscaping within the parking lot area.

b. See the landscaping requirements of Section 18.75.040B3e for landscaping around a building.
7. Outdoor Storage, Trash Collection and Loading Areas

Loading areas and outdoor storage areas shall be screened, recessed or enclosed as these areas impose visual and noise impacts on surrounding neighborhoods. While screening and recesses can effectively mitigate these impacts, the selection of nonapproved screening materials can exacerbate the problem. Appropriate locations for loading and outdoor storage areas include areas between buildings, where more than one building is located on a site and such buildings are not more than 200 feet apart, or on those sides of buildings that do not have customer entrances or that do not face residential use.

**Guideline:** Areas for outdoor storage, truck parking, trash collection or compaction, loading, or other such uses shall not be visible from abutting streets.

a. Trash receptacles shall be enclosed by a decorative masonry wall.

b. No areas for outdoor storage, trash collection or compaction, loading, or other such uses shall be located within 100 feet of any public street, public sidewalk or contiguous residential use.

c. Loading docks, truck parking, outdoor storage, utility meters, HVAC equipment, trash collection, trash compaction, and other service functions shall be incorporated into the overall design of the building and the landscaping so that the visual and acoustic impact of these functions is out of view of adjacent properties and public streets to the greatest extent possible. Screening materials, colors and textures shall be the same as the principal materials of the building and landscape.
d. A loading dock wall shall be a minimum of fourteen feet in height measured on the loading area side, when using a 100-foot setback.

e. Non-enclosed areas for the storage and sale of seasonal inventory shall be permanently defined and screened with walls and/or fences of opaque materials, colors and design of screening walls and/or fences and the cover shall conform to those used as predominant materials and colors on the building. If such areas are to be covered, then the covering shall conform to the predominant design and colors on the building.

8. Pedestrian Flows and Landscaping

This section sets forth standards for public sidewalks and internal pedestrian circulation systems that can provide user-friendly pedestrian access as well as pedestrian safety, shelter, and convenience within the shopping center grounds.

Pedestrian accessibility opens auto-oriented developments to the neighborhood, thereby reducing traffic impacts and enabling the development to project a friendlier, more inviting image.

**Guideline:** Pedestrians shall have the alternative of access free of automobile traffic.

a. Sidewalks shall be provided along all sides of the lot that abut a public street. The four-foot sidewalk requirement is in addition to the required buffer yard.

b. A continuous internal pedestrian walkway, no less than four feet in width, shall be provided from the public sidewalk or right-of-way to the principal customer entrance of buildings on the site. At a minimum, walkways shall connect focal points of pedestrian activity such as, but not limited to, transit stops, street crossings, building and store entry points, and shall feature adjoining landscaped areas (a minimum of six feet in width) that include four trees per one hundred feet, shrubs, benches, flower beds, ground covers, or other such materials for their entire length.

c. Sidewalks, no less than eight feet in width, shall be provided along the full length of the building along any facade featuring a customer entrance.

d. Internal pedestrian walkways provided in conformance with parts (b) and (c) above shall provide weather protection features such as awnings or arcades within 30 feet of all customer entrances.
e. All pedestrian walkways internal to the site shall be distinguished from driving surfaces through the use of durable, low maintenance surface materials such as pavers, bricks, or concrete to enhance pedestrian safety and comfort, as well as the attractiveness of the walkways.

9. Central Features and Public Spaces

Buildings shall offer attractive and inviting pedestrian scale features, spaces and amenities. Entrances and parking lots shall be configured to be functional and inviting with walkways conveniently tied to logical destinations. Pedestrian ways shall be anchored by special design features and site furniture such as towers, arcades, porticos, pedestrian light fixtures, bollards, planter walls, and other architectural elements that define circulation ways and outdoor spaces. Examples of outdoor spaces are plazas, patios, courtyards, and window-shopping areas. The features and spaces shall enhance the building and the center as integral parts of the community.

**Guideline:** Each retail establishment subject to these standards shall enhance public spaces by providing at least two of the following:

- Patio seating area
- Pedestrian plaza with benches
- Transportation center
- Window shopping walkway
- Outdoor playground area
- Kiosk area
- Water feature, tower, or
- Other amenity areas and/or features that, in the judgment of the Design Review Committee, enhances such public spaces.

Any such areas shall have direct access to the public sidewalk network and such features shall be constructed of materials that are visually compatible with the principal materials of the building and landscape.

*Pedestrian plaza with picnic tables.*

*Patio seating area.*
10. Odor

An odor control compliance plan shall be developed that uses the best available control technology. Best available control technology (BACT) means the utilization of those technologies, processes, procedures, or operating methods or alterations by an industry or other source which results in the elimination or the maximum achievable reduction of odor from an odor emission point source.

Guideline: The compliance plan which must contain the following elements:

a. An inventory of potential or identified odor emission point sources associated with the industry or land use.

b. A plan detailing best available control technologies and appurtenances designed to eliminate or achieve the maximum reduction of odor emission from an emission point source inclusive of, but not necessarily limited to certain processes, procedures or operating methods intended to mitigate or control odor.

c. A specification of the documentation that will be made available for the county's review which will verify the data produced by the monitoring equipment, and which will verify that processes and procedures are conducted consistent with the specifications in the facility's odor control study and plan.

d. An approved schedule for the implementation and installation of the best available control technology, processes, procedures, operating methods and monitoring instrumentation designed to mitigate or control odors at the facility including an approved completion date.

e. An acknowledgment of the authority of the county and its agents to enter into the facility and its property to investigate complaints and to verify the facility's adherence to the compliance plan.

11. Noise

This section takes into account area residents' need for quiet and also the business limitations in providing a quiet environment while conducting business. This standard is intended to encourage that only quiet businesses would locate near residential uses. Noisy businesses should be located farther away from residential areas in order to avoid the added expense of noise reduction.

Guideline: A noise plan is required to address the noise resulting from loading and unloading of trucks, dynamic vehicle braking devices, truck idling, motor vehicle sound amplification equipment, warning devices, (i.e. backup alarms) store paging, music systems, mechanical equipment and air conditioning refrigeration units, any other noise producing devices attendant to business.

Sound projecting from property having one land use category onto property of another land use category with a lower sound-level limit shall not exceed the limits for the property of the land use category onto which it is projected. In other words, the level of sound emitting from a business to a residential use shall not exceed the limits set for the residential use.
Unless otherwise indicated, any decibel (dB) measurement made pursuant to the provisions of this section shall be based on the reference sound pressure and measured with a sound level meter using the A-weighting network. In this manual, the terms dB and dBA are synonymous unless otherwise stated.

Except as stated in this section, no person shall make or continue, cause to be made or continued, or allow to be made or continued, any sound exceeding the following limits as measured on the property receiving the sound:

- Large Scale Retail/Regional Shopping Center adjacent to Residential: Daytime 65dB, Nighttime 45dB
- Office/Commercial adjacent to Residential: Daytime 65dB, Nighttime 45dB
- Large Scale Retail/Regional Shopping Center adjacent to Office/Commercial: Daytime 75dB, Nighttime N/A

Identify Noise Sources (Including but not limited to):

- Trucks
- Exterior Marshalling Areas
- Truck Waiting/Idling Areas
- Outdoor Paging Systems
- Dynamic Vehicle Braking Devices
- Motor Vehicle Sound Amplification Equipment
- Mechanical Equipment, HVAC Units, Compressors, etc.
- Loading and Unloading Areas
- Garbage/Dumpster/Trash Compactor
- Fork Lift Operational Areas
- Warning Devices, i.e. Backup Alarms
- Music Systems

Identify Noise Source in Terms of:

- Sound Level
- Location
- Time of Operation
- Frequency Characteristics
- Height Above Grade

Noise Projections (All sources and identified in dB or dBA):

- At the property line
- At the adjacent residences

The noise projections shall be identified with mitigation measures or without mitigation measures. The noise projections shall be identified and described for pre- and post-development noise levels.

Document On-Site Background Noise:

- Minimum of one 24-hour measurement;
- Provide a Site Map Showing Measurement Point;
- Identify Regular Sources of Noise;
- Provide Site Photos Showing Measurement Point; and
- Describe the Weather Conditions at the Time of Measurement;
- Frequency Data (Optional).
12. Lighting

The standards for outdoor lighting provide lighting in outdoor public places where public health, safety and welfare are potential concerns, protect neighbors and the night sky from nuisance glare and stray light from poorly aimed, placed, applied, maintained or shielded light sources.

Guideline: To prohibit the nuisance created by outdoor lighting installations that result in glare and light trespass onto neighboring properties. Outdoor lighting is required for safety and personal security in areas where public assembly and traverse take place during hours of darkness. The glare-control requirements herein contained apply to lighting on all structures, including but not limited to architectural features, signs, and landscaping.

Light trespass is the presence of undesirable illumination coming from an off-property source. It includes the following examples: the classic “light shining in a window,” unwanted light on one’s property or excessive brightness in the normal field of vision (nuisance glare).

The following elements should be considered when submitting a lighting plan as required in chapter 15.12:

a. Outdoor lighting, on private residential, commercial, industrial, recreational or institutional property, is to be aimed, located, designed, fitted and maintained so as not to present a hazard to drivers or pedestrians by impairing their ability to safely traverse and so as not to create a nuisance by projecting or reflecting objectionable light onto a neighboring use or property.

b. Outdoor lighting fixtures are to be installed in such a manner that no light will be emitted above a horizontal plane passing through the lowest point of the light emitting element, so that direct light emitted above the horizontal plane is eliminated. All individual outdoor lighting fixtures that illuminate the area under outdoor canopies will be subject to this requirement. (See section 15.12.5.1B)

c. Lighting proposed for use after 10 p.m., or after the normal hours of operation for commercial, industrial, institutional or municipal applications, should be reduced by seventy-five percent from then until dawn.

d. Lighting fixtures should not be mounted in excess of ten feet above grade when adjacent to residential uses.

e. Directional fixtures such as flood lights, spot lights and sign lights should be installed or aimed so that they do not shine directly into the window of a neighboring residence, directly into a roadway, or skyward.

f. Fixtures will be equipped with or be modified to incorporate light directing and/or shielding devices such as shields, visors, skirts or hoods to redirect offending light distribution and/or reduce direct or reflected glare. (See section 15.12.4.7)