City of Angleton

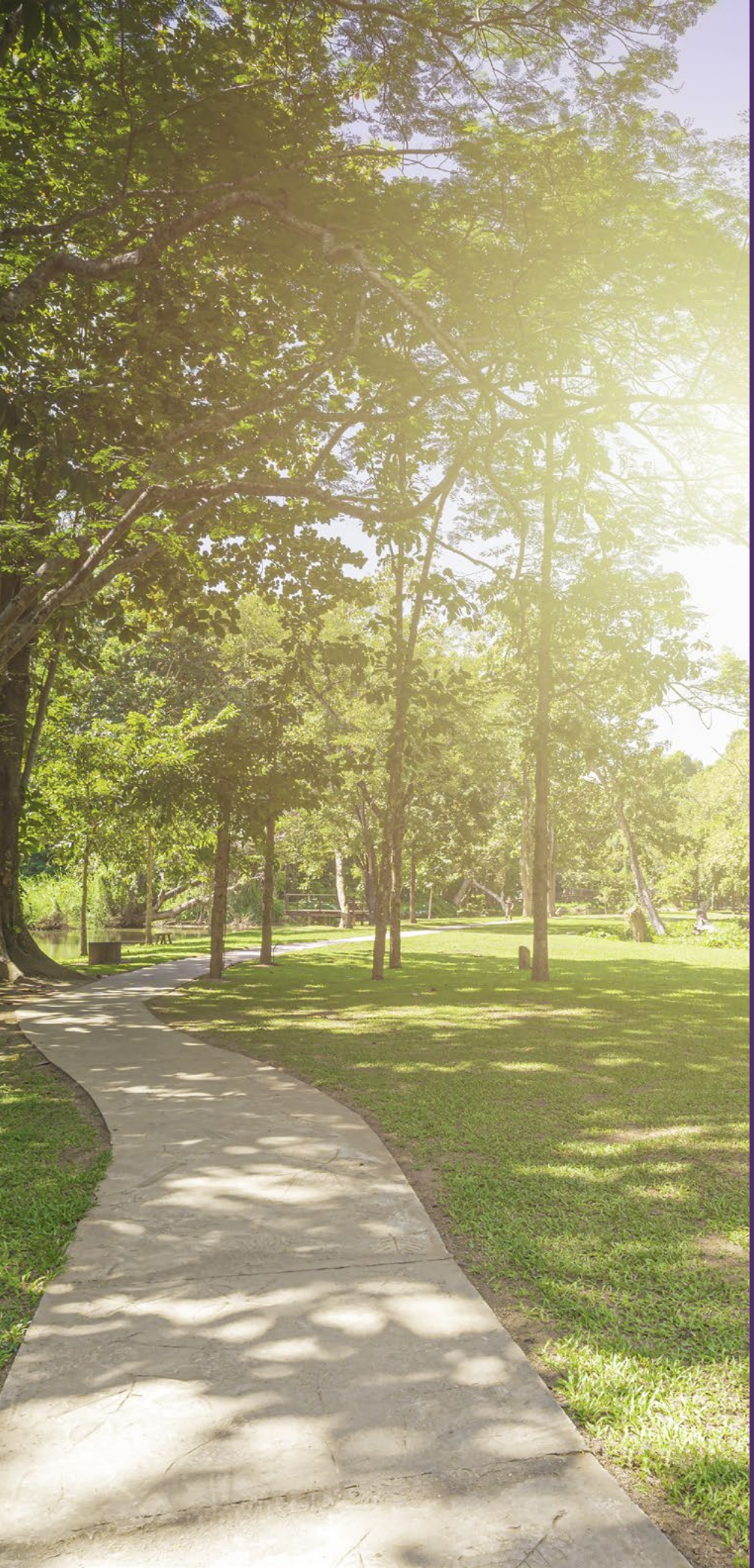
PARKS & RECREATION

DESIGN STANDARDS MANUAL

MAY 2022

THE HEART OF BRAZORIA COUNTY

ANGLETON



DESIGN STANDARDS MANUAL

City of Angleton Department of Parks & Recreation

CONTRIBUTING STAFF

Mayor and City Council

- Jason Perez - Mayor
- John Wright - Mayor Pro-Team Position 3
- Mikey Svoboda - Position 1
- Travis Townsend - Position 2
- Cecil Booth - Position 4
- Mark Gongora - Position 5

Parks and Recreation Board

- Chris Peltier - Chair
- Bill Ahlstrom
- Clara Dannhaus
- Bonnie McDaniel
- Steven Sebok
- Jaime Moreno
- Terry Roberts
- Mark Gongora- Council Liason

Angleton Better Living Corporation

- Jason Perez
- John Wright
- Charlyn Rogers
- Chris Peltier
- William Jackson
- Ellen Eby
- Rachel Ritter

Administration

- Chris Whittaker - City Manager

Parks and Recreation Staff

- Megan Mainer - Director of Parks and Recreation
- Kyle Livesay - Assistant Director of Parks and Recreation
- Stewart Crouch - Parks Superintendent Consultant Team

Consultant Team

Kimley»Horn

INTRODUCTION

The City of Angleton, Texas Park System is comprised of over 275 acres of public open space, with nearly 20 discrete individual sites, and serves a diverse demographic of approximately 20,000 citizens.

Stewardship of the system is the responsibility of the City's Department of Park and Recreation. This effort includes planning, management, operations, and maintenance related to active and passive components of the system such as athletic fields, playgrounds, recreation courts, trails, pools, and natural areas.

This Design Standards Manual (Standards) establishes minimum design, construction and performance expectations for City Park features. The Standards are intended to sustain life-cycle resources investment in public space by informing/guiding open space planning capital improvements, and operational capacity. The Standards are a reference instrument for selection of materials, products and systems that integrate City criteria with contemporary industry standards. Criteria are established for each Standard by performance/function, safety, environmental impact, and anticipated operational resources needs.

Although first-established in June 2022, the Standards are a living-document that will periodically be re-evaluated and updated coincident with industry advancements, changes to practices related to the City's open space system and evolving recreation needs. Current parks do not need to update or change their facilities immediately upon adoption of these Standards. However, if equipment or facilities are changed, refreshed, or replaced following the adoption of June 2022, it must comply with the current Standards. Any proposed exceptions or alternatives from the Standards, must be approved by Park and Recreation Staff. Accessibility consistent with the American with Disabilities Act (ADA) is required for all Standards. Domestic manufacture of identified products is preferred.

Any privately funded and developed property is not required to adhere to the Standards. However, all park or open space developments are required to conform to the most current edition of the City of Angleton Park Land Dedication Ordinance.

PAGE INTENTIONALLY LEFT BLANK

PARK STANDARDS

01. PARK DEVELOPMENT STANDARDS

- Signature Park (SP)
- Metro Park (MP)
- Community Park (CP)
- Neighborhood Park (NP)
- Natural Area (NA)
- Special Use Park (SU)
- Linear Park (LP)
- Urban Plaza (UP)
- Undeveloped Park or Passive Park (UD)
- Recommended Features by Classification

02. SITE FURNISHINGS

- Bench
- Bike Rack
- Drinking Fountain
- Flagpole
- Grill
- Pet Fountain
- Pet Waste Bag Dispenser
- Picnic Table
- Trash Receptacle
- Bollard

03. FENCING

- Chain Link Fence
- Metal Fence
- Wood Enclosure

04. PAVING

- Concrete Sidewalk
- Crushed Stone Trail
- Deck / Boardwalk
- Foot Bridge
- Natural Trail
- Parking Lot
- Park Walkways / Trails

05. PARK STRUCTURES AND SHELTERS

- Dugout Cover / Bleacher
- Metal Shelter
- Restroom Facility
- Shade Canopy
- Picnic Pavilion

06. PLAYGROUNDS

- Playground
- Playground Boundary
- Fall Surfacing - Engineered Wood Fiber
- Fall Surfacing - Poured in Place Rubber
- Fall Surfacing -Rubber Tile System

07. BALL COURTS AND ATHLETIC FIELDS

- Ball Courts
- Baseball / Softball Field
- Baseball and Softball / Backstop
- Basketball Court
- Court Surfacing
- Disc Golf
- Football Field
- Horseshoe Pit
- Soccer Field
- Tennis Court
- Volleyball Court

08. UTILITY SYSTEMS

- Park Utilities / Wireless Network Infrastructure
- Clearing / Site Prep

09. SIGNS

- General Sign Parameters
- Educational / Interpretive
- Wayfinding
- Entry
- Regulatory / Warning

10. LIGHTING

- Athletic Field
- Historic Pole
- Solar
- Street, Parking Lot, Path, and Area

11. PLANTING AND IRRIGATION

- Planting Design
- Irrigation

PAGE INTENTIONALLY LEFT BLANK

01. PARK DEVELOPMENT STANDARDS

- Signature Park (SP)
- Metro Park (MP)
- Community Park (CP)
- Neighborhood Park (NP)
- Natural Area (NA)
- Special Use Park (SU)
- Linear Park (LP)
- Urban Plaza (UP)
- Undeveloped Park or Passive Park (UD)
- Recommended Features by Classification

PAGE INTENTIONALLY LEFT BLANK

Signature Park (SP)

DEFINITION

A municipal outdoor recreation facility that is unique to the Angleton parks and recreation system. These sites serve a variety of ages and emphasize family and large organized group activities. Signature Parks often include facilities and supporting features that are of special use or single purpose such as fairgrounds, outdoor theaters, festivals or special-event areas. A user experience of up to a full-day is typically anticipated.

Signature Park typical amenity.

SIZE

Size varies depending on park facilities; typically greater than 100 acres in size.

STAFFING

Staffed with full-time or part-time municipal employees.

UTILITIES

Water, electric, telephone, sewer, Information Technology Systems (ITS), and stormwater management facilities.

UNIQUE FACILITIES

Substantial waterfront or other distinctive amenity.

TYPICAL FACILITIES

Multiple athletic fields and/or special events area, basketball, tennis, and volleyball courts, multiple playground areas, park trails, benches, multiple restrooms, Wi-Fi, vending machines, or concession areas, multiple picnic areas, large shelters, grills, large parking areas, specialized facilities for staff, stormwater management facilities, and maintenance buildings.

PAGE INTENTIONALLY LEFT BLANK

Metro Park (MP)

Dugout Area at Freedom Park

DEFINITION

A municipal outdoor recreation facility that provides a high-level of features and uses. These sites serve a variety of passive and active uses and feature multiple game-level athletic fields, skate parks, and/or disc-golf courses. Multiple age groups are served though organized sports programming while balancing protection of natural areas. A user experience of three-four hours is typically anticipated.

Pathway to playground at Freedom Park

SIZE

Size varies depending on park facilities; typically 50.1 to 100 acres.

STAFFING

Staffed full-time with municipal employees.

UTILITIES

Water, electric, telephone, sewer, and stormwater management facilities.

EXISTING SITES

- Freedom Park
- Bates Park
- BG Peck Complex

UNIQUE FACILITIES

Multiple athletic fields, skate parks, and/or disc golf courses.

TYPICAL FACILITIES

Basketball, tennis, volleyball courts, multiple playgrounds, large open play areas, park trails and benches, Wi-Fi, restrooms and vending machines or concession areas, multiple picnic areas, large shelters, and grills, large parking areas, kiosks, stormwater management facilities, and staff/maintenance buildings.

PAGE INTENTIONALLY LEFT BLANK

Community Park (CP)

Playground at Dickey Park

DEFINITION

A municipal outdoor recreation facility that provides a mid-range level of features and uses. These sites provide a balance of organized sports active uses and natural area based passive areas for various age groups. A user experience of two-three hours is typically anticipated.

Playground and Open Space at Dickey Park

SIZE

15.1 to 50 acres

STAFFING

Community parks are not generally staffed full-time. These parks may be staffed during programmed events by municipal staff or private/ non-profit organizations.

UTILITIES

Water, electric, telephone, sewer, Information Technology Systems (ITS), and stormwater management facilities.

EXISTING SITES

- Lakeside Park
- Dickey Park

TYPICAL FACILITIES

Multiple athletic fields, basketball, tennis, and volleyball courts, playground areas, park trails, benches, Wi-Fi, restrooms, vending machines, or concession areas, multiple picnic areas, large shelters, and grills, large parking areas, specialized facilities for staff, stormwater management facilities, and maintenance buildings.

PAGE INTENTIONALLY LEFT BLANK

Neighborhood Park (NP)

Playground at Masterson Park

DEFINITION

A municipal outdoor facility that provides a basic level of features and uses. These sites are limited to at-will group activities that serve various age groups with an emphasis on youth. Based on access and proximity of nearby residential areas, there is limited parking in comparison to higher level parks. Program features are typically customized based on nearby user community. A user experience of 1-2 hours is typically anticipated.

Playground at Masterson Park

SIZE

Small Neighborhood Park:

0.25-5 acres

Large Neighborhood Park:

5-15 acres

STAFFING

These parks are not staffed.

UTILITIES

Water, electric, telephone, sewer, Information Technology Systems (ITS), and stormwater management facilities.

EXISTING SITES

- Masterson Park
- Brushy Bayou Park
- Peach Street Detention

UNIQUE FACILITIES

Unlit practice diamonds and rectangular athletic fields, basketball, tennis, and/or volleyball courts, playground equipment, open play areas, park trails, benches, small shelters, picnic tables, and stormwater management facilities.

PAGE INTENTIONALLY LEFT BLANK

Natural Area (NA)

DEFINITION

A municipal outdoor area characterized by indigenous vegetation, wildlife and visual character in its natural state. These sites include sites of varying scale throughout the City. Retention of a natural state, visual relief and passive recreation such as informal trails/hiking birding, and environmental education are primary considerations. Passive waterway access, fishing, cultural/environmental site interpretation, and regional trail connectivity may be additional uses.

Natural Area

SIZE

There are no specific standards for size or acreage. Sites of sufficient size to protect cited resources and provide for appropriate use.

STAFFING

Natural areas can be staffed full-time or part-time; also, these parks may be staffed during programmed events or activities by municipal staff or private/non-profit organizations.

UTILITIES

Water, electric, sewer, and stormwater management facilities.

EXISTING SITES

- Northern Tract at Freedom Park/523 & Freedom Park
- Austin Town Site

UNIQUE FACILITIES

Natural or cultural elements to be preserved and/or interpreted.

TYPICAL FACILITIES

Park trails, overlooks, benches, water access, wayfinding signage, interpretive signage, and picnic tables.

PAGE INTENTIONALLY LEFT BLANK

Special Use Park (SU)

Officer Cash Memorial Dog Park

DEFINITION

A municipal outdoor or indoor facility dedicated to intensive singular or focused combined uses. These sites may include competitive athletic complexes for diamond/rectangular field sports, golf, recreation centers, and active water/boating access. In addition to standards cited herein, such uses may be subject to specialized design and facility service standards consistent with the Department of Parks and Recreation Strategic Plan.

Special Use Park typical amenity.

SIZE

Varies

STAFFING

Special use sites are typically staffed full time with municipal employees.

UTILITIES

Water access sites all have water, electric, telephone, and sewer.

EXISTING SITES

- Officer Cash Memorial Dog Park

SPECIAL USE SITE TYPES

- Athletic Complexes
- Recreation Centers
- Water Access Sites
- Resort Area Parks
- Gateway Parks
- Dog Parks
- Skate Parks
- BMX Park

PAGE INTENTIONALLY LEFT BLANK

Linear Park (LP)

DEFINITION

A municipal outdoor facility that provides or connects recreation, open space and community resources. These facilities are typically significantly greater in length than width and characterized by a primary trail with secondary connections, sequence of open spaces, extended viewsheds and a combination of active and passive uses. Multi-modal uses such as walking, biking and skateboarding are typical conditions of pass-through travel.

Linear Park typical amenity.

SIZE

A minimum 30 feet corridor width is recommended for linear parks. Park width may vary per contextual constraints or as approved by Park and Recreation Staff.

STAFFING

Linear Parks are typically not staffed.

UTILITIES

Water, electric, telephone, sewer, Information Technology Systems (ITS), and stormwater management facilities.

TYPICAL FACILITIES

Trails, overlooks, benches, bike racks, picnic tables, kiosks, and shelters (if appropriate).

PAGE INTENTIONALLY LEFT BLANK

Urban Plaza (UP)

DEFINITION

A municipal outdoor space located among dense commercial or institutional building area. The space may be located on public or private property, at the intersection of important streets, civic uses or commercial activities. The space is characterized by a comparatively high proportion of paved surfaces, promotion of social interaction and ability to accommodate large scale civic events and uses.

Urban Plaza activity such as a farmers market

SIZE

5 acres of less

STAFFING

Staffed only during events.

UTILITIES

Water, electric, telephone, sewer, Information Technology Systems (ITS), and stormwater management facilities.

EXISTING SITES

- Veteran's Park

UNIQUE FACILITIES

Fountains, amphitheaters, seat walls, decorative pavers, memorial, and outdoor art feature.

TYPICAL FACILITIES

Tree plantings, outdoor cafe seating, benches, Wi-Fi, transit stop pedestrian scale lighting, and multi-modal access.

PAGE INTENTIONALLY LEFT BLANK

Undeveloped Park or Passive Park (UD)

Angleton Recreation Center

DEFINITION

Parcels or a collection of land parcels that may be acquired by the City for grading, utility or drainage purposes that are held as easements or direct ownership. The land is typically not improved for recreation purposes but may be subject to future use(s) that are presently undefined. The sites typically remain in a natural state with exception of interpretive signs and informal use accessways.

Undeveloped parcel at Rueben Welch Park

SIZE

Varies

STAFFING

These parks are not staffed.

UTILITIES

Water, electric, telephone, and sewer.

EXISTING SITES

- Rueben Welch Park
- Municipal Pool
- Western Avenue
- Angleton Recreation Center
- Bryan Street Park Detention Area

UNIQUE FACILITIES

Environmental and/or interpretive signs.

TYPICAL FACILITIES

Trees, shrubs, grasses, and littoral plants, and softscape materials.

PAGE INTENTIONALLY LEFT BLANK

Recommended Features by Classification

	Signature Park (SP)	Metro Park (MP)	Community Park (CP)	Neighborhood Park (NP)	Natural Area (NA)	Special Use Park (SU)	Linear Park (LP)	Urban Plaza (UP)	Undeveloped Park or Passive Park (UD)
Benches	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bike Racks	✓	✓	✓	✓	✓	✓	✓	✓	✓
Drinking/Pet Fountain	✓	✓	✓	✓	✓	✓	✓	✓	
Flagpole	✓	✓						✓	
Grills	✓	✓	✓	✓					
Pet Waste Bag Dispenser	✓	✓	✓	✓	✓	✓	✓	✓	
Picnic Tables	✓	✓	✓	✓	✓		✓		
Trash Receptacles	✓	✓	✓	✓	✓	✓	✓	✓	
Bollards	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fencing	✓	✓				✓			✓
Walking/Jogging Paths	✓	✓	✓	✓	✓		✓		✓
Trail Connections	✓	✓	✓	✓	✓		✓		✓
Parking Lot	✓	✓	✓	✓	✓	✓	✓		
Picnic Shelters	✓	✓	✓	✓					
Restrooms	✓	✓	✓	✓			✓		
Maintenance Building	✓	✓	✓						
Playground	✓	✓	✓	✓					
Ball Courts	✓	✓	✓	✓					
Ball Fields	✓	✓							
Disc Golf	✓	✓	✓						
Horseshoe Pit	✓	✓	✓	✓					
Wireless Network	✓	✓	✓					✓	
Signage	✓	✓	✓	✓	✓	✓	✓	✓	✓
Security Lighting	✓	✓	✓	✓		✓	✓	✓	✓
Landscape	✓	✓	✓	✓			✓	✓	
Irrigation	✓	✓	✓	✓			✓	✓	

Standard Recommendations per Park Type

Playground at Dickey Park

PURPOSE

The chart above identifies recommended characteristics per park type. Park improvements may vary depending on park topography, size, environmental conditions, contextual constraints, community input, City program needs, and as approved by Park and Recreation Staff.

GENERAL INFORMATION

All parks to provide access for vehicles, bicycle, and pedestrians.

PAGE INTENTIONALLY LEFT BLANK

02. SITE FURNISHINGS

- Bench
- Bike Rack
- Drinking Fountain
- Flagpole
- Grill
- Pet Fountain
- Pet Waste Bag Dispenser
- Picnic Table
- Trash Receptacle
- Bollard

PAGE INTENTIONALLY LEFT BLANK

Bench

Tree Top Products, Champion Bench (Surface Mount)

STANDARD MODEL

Tree Top Products, Champion Bench (6 foot length)

- Surface Mount (2ZK2607)
- In-Ground (2ZK2608)

Finish: Premium Wood Grain

Wood: Ipe

OR CITY APPROVED EQUAL

PURPOSE

Locate park benches intermittently along paths and trails adjacent to activity areas.

GENERAL INFORMATION

Provide a back support to all standard, free-standing benches.

Site benches at a rate of 1 per 2 acres of greenspace, but no less than 2 per park.

MATERIALS AND FINISH

Construct benches of sturdy, durable, metal such as galvanized steel, ductile cast iron, or other metals designed for commercial and exterior use.

Provide a metal finishing of high-quality, permanently affixed powder coating, applied through a heat-finished process.

Metal elements on the bench is a black color.

Provide smooth welds, joints, and corners on metal elements. Joint fasteners are required to be embedded or sealed.

The use of recycled materials is acceptable. Benches with 70% post-consumer steel is acceptable.

FEATURES

Side arms and center bench arms may be added as approved by Park and Recreation Staff.

Memorial plaques may be included on benches as approved by Park and Recreation Staff.

INSTALLATION

Affix benches to a hardscape surface (concrete, pavers, etc.).

Provide a 3 feet 4 inches minimum hardscape clearance companion space on an accessible side of benches.

Hardscape surfaces must provide additional accessible companion space directly adjacent to the bench.

Locate trash or recycling cans 5 feet minimum from a bench.

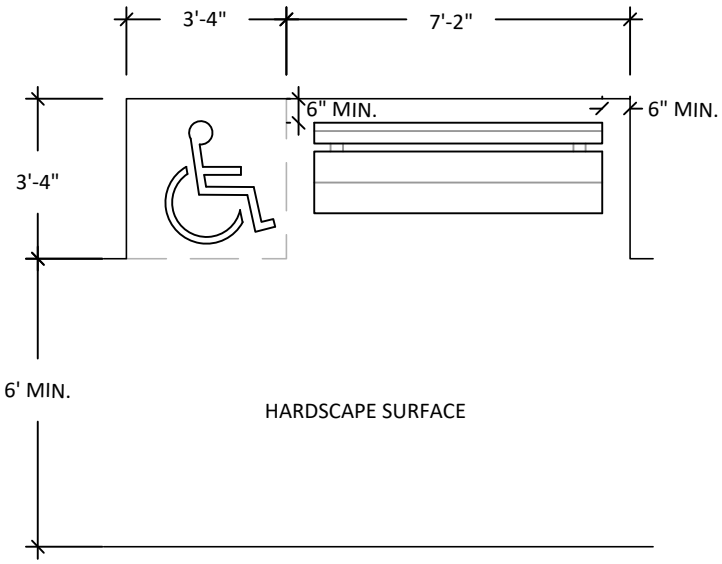
Locate bench in seasonally shaded areas when possible.

LIFE CYCLE EXPECTATIONS

A 10 year warranty is required.

Benches are anticipated to require replacement after 20 years of normal and ordinary use.

Bench



Bench with ADA space, plan view - Not to Scale

Bike Rack

MADRAX Metro Bike Rack

STANDARD MODEL

Madrax, Metro Bike Rack

Finish: Galvanized

OR CITY APPROVED EQUAL

PURPOSE

Provide bike racks at all parks and recreation facilities to support cycling transit.

GENERAL INFORMATION

Bike racks are to be Madrax Metro Bike Rack, “Inverted U” model type.

MATERIALS AND FINISH

Bike racks are to be hot dipped galvanized steel and powder-coated.

Metal products must have smooth welds, joints, and corners.

The use of recycled materials is acceptable.

FEATURES

Alternative bike racks are subject to approval by Park and Recreation Staff.

The preferred bike rack color is a powder coated grey finish, but alternatives may be approved by Park and Recreation Staff.

INSTALLATION

Mount bike racks on concrete, consistent with the manufacturer’s recommendations.

Mount bike racks to be firm and plumb.

Where required, install steel shims prior to anchoring in place. Base plates more than 3/8 inch from grade require high-strength epoxy non-shrink grout.

Install multiple racks parallel with adjacent units, 3 feet apart.

Locate bike racks so that parked bikes do not impede pedestrians.

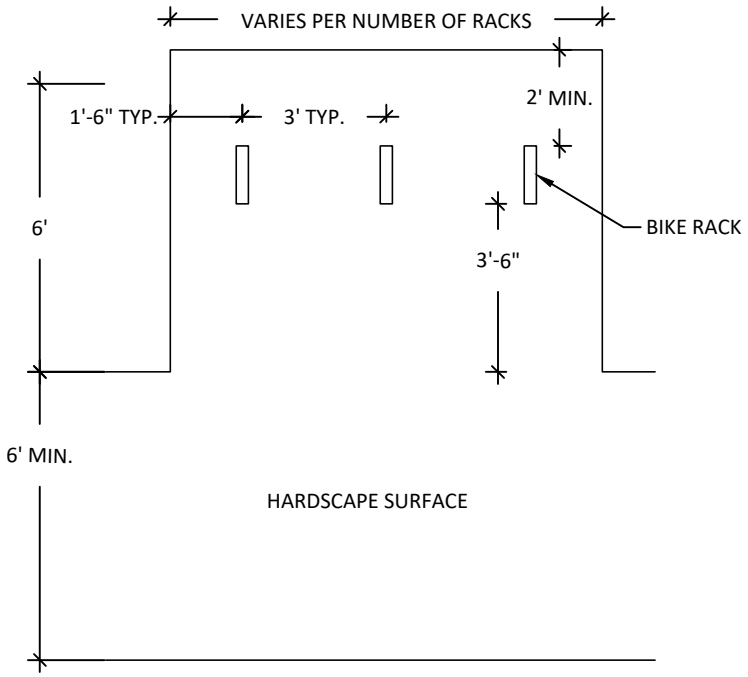
Located bike racks 3 feet - 6 inches minimum from adjacent walls.

LIFE CYCLE EXPECTATIONS

A 10 year minimum warranty is required.

Bike racks are anticipated to require replacement after 20 years of normal and ordinary use.

Bike Rack



Bike Rack Pad

Drinking Fountain

Drinking fountain with accessible bowl and bottle filler

STANDARD MODEL

Most Dependable Fountain Inc.

- Model 10145

Satin finish stainless steel bowl

Color: Stainless Steel or Black powder-coated galvanized steel pedestal

OR CITY APPROVED EQUAL

PURPOSE

Provide drinking fountains in parks where water supply is desirable, particularly near active park sites and playgrounds.

GENERAL INFORMATION

Provide fountains with standard and wheelchair accessible drinking options.

Drinking fountains must maintain 2 feet 3 inch minimum vertical clearance and 2 feet 10 inch maximum vertical clearance from finished grade.

Drinking fountains are to be activated by a low-weight, 5 lbs or less, push-button operation mechanism located below the bowl.

Include a vandal proof panel for access to interior systems and filters on all drinking fountains.

Locate fountains along pathways on a separate concrete pad with ADA accessibility.

MATERIALS AND FINISH

Provide a drinking fountain that consists of standard steel or stainless steel for commercial and exterior use.

Provide a black powder coat drinking fountain. Provide a satin finish stainless steel for drinking fountain bubbler, bowl, and buttons.

Drinking fountain to consist of smooth welds, joints, and corners.

Provide weather resistant hinges, latches, and mechanical parts.

Include bottle fillers and hose bib on drinking fountains.

The use of recycled materials is acceptable.

INSTALLATION

Surface mount drinking fountains to hardscape surfaces per manufacturer's recommendations.

Provide a 3 feet - 4 inch minimum horizontal dimension of hardscape surface at the accessible perimeter of each fountain.

Install drinking fountains by a licensed Plumber consistent with applicable City and State codes.

Slope the drinking fountain slab to shed water.

LIFE CYCLE EXPECTATIONS

A 1 year minimum warranty is required.

Drinking fountains are anticipated to require replacement after 5 years of normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

Flagpole

Flagpoles

FLAGPOLE LOCATION

Flagpole locations may include but are not limited to: parks, ball fields, and municipal and or institutional buildings

PURPOSE

Install flagpoles to display local, state, and federal flags.

GENERAL INFORMATION

Use flags and flagpoles consistent with the United States Flag Code.

Flagpoles are to be 30 feet maximum vertical height unless otherwise approved by Park and Recreation Staff.

The pulley system is to be interior and accessed by a locked panel at the base of the pole.

MATERIALS AND FINISH

Construct flagpoles of seamless extruded aluminum alloy tubing, with a minimum wall thickness of 5/32 inch, and brushed satin finish.

Provide a grey medium satin polish to flagpoles. Seal flagpole flashing collar with a clear, hard-coat wax.

Flagpoles are to be designed to fly a 6 feet by 10 feet American flag, a 5 feet by 8 feet Texas State flag, and a 4 feet by 6 feet City of Angleton flag in combination.

INSTALLATION

Locate flagpoles not to conflict with active uses or with existing or proposed vegetation. Locate flagpoles adjacent to accessible hardscape surfaces.

Install flagpoles in locations that do not disrupt pedestrian traffic. Provide a 3 feet 4 inch minimum horizontal width hardscape surface adjacent to accessible pathway.

Construct concrete footings consistent with plans designed by a Professional Engineer. Slope the top of footing to shed water.

Design flagpole footings for wind loading consistent with City of Angleton code.

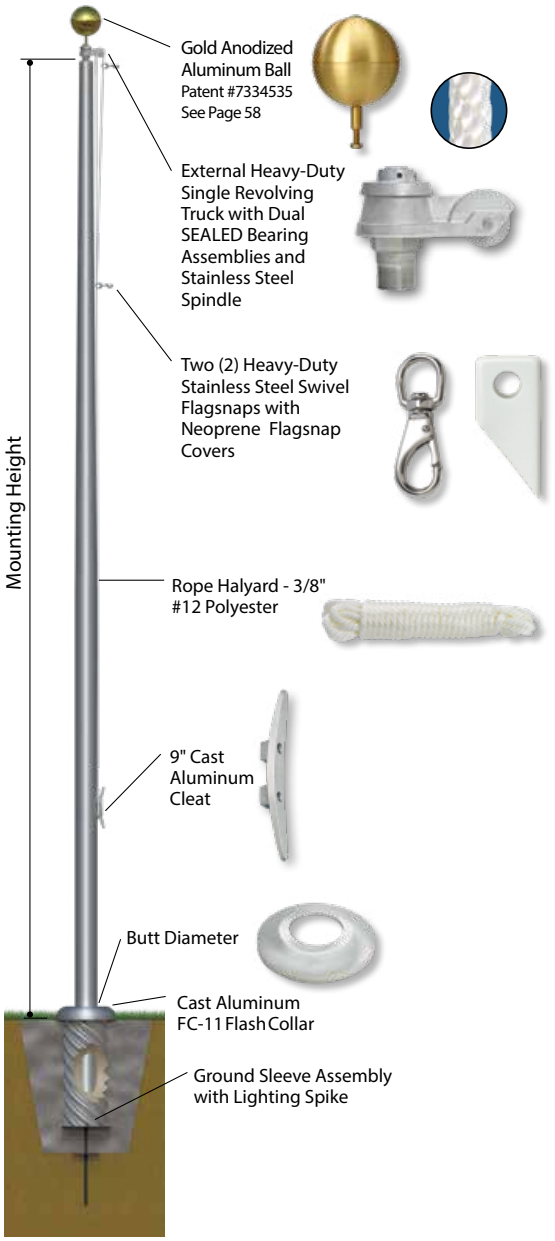
LIFE CYCLE EXPECTATIONS

A 10 year minimum warranty is required.

Flagpoles are anticipated to require replacement after 20 years of normal and ordinary use.

Flagpole

Standard Flagpole Accessories - 6" to 12" Butt Diameters



Flagpole

Grill

Grill

STANDARD MODEL

Pilot Rock

Model: H-16

OR CITY APPROVED EQUAL

PURPOSE

Locate grills in park areas where food consumption is encouraged.

GENERAL INFORMATION

Where grills are permitted, provide at least 1 grill in each park as wheelchair accessible, and 1 accessible grill per every 5 installed. Place grills at a rate of 1 per 5 acres on concrete pads, but no less than 1 per park.

The standard grill model is Pilot Rock, Model H-16, or as approved equal by Park and Recreation Staff.

Locate grills based on prevailing winds, in relationship to pavilions or nearest picnic area, and away from overhangs, low branches, eaves, or other overhead obstructions. Locate grills to minimize impact of smoke, odors, noise, and fire in relation to adjacent uses. Place grills at a safe distance from foot traffic.

Related Standards: Trash Receptacle

MATERIALS AND FINISH

Finish is to be a non-toxic, heat-resistant flat black enamel.

Units must not contain plastic, resin, wood or unfinished metal.

Metal products must have smooth welds, joints, and corners. Joint fasteners to be embedded or sealed.

The use of recycled materials is acceptable.

FEATURES

Provide a metal scoop with each grill to dispose of ashes/coals.

Provide an anti-theft cooking grate.

INSTALLATION

Mount pedestal grills on in-ground posts. Cover adjacent grade with a surface layer of compacted stone dust 3 inches vertical depth over filter fabric and extend 4 feet in all directions from the base of the pedestal.

Provide a minimum clear space of 5-feet extending in all directions.

Mount ADA grills between 1 foot - 6 inches and 2-feet from finished grade to the cooking surface. Mount standard grills up to 4 feet from finished grade to the cooking surface.

Provide a solid surface of 4 feet by 4 feet minimum accessible area at the perimeter of each ADA grill unit on the side facing the hard surface path.

Locate grills a minimum of 15 feet from any tree trunk or structure, and 50 feet from any playground.

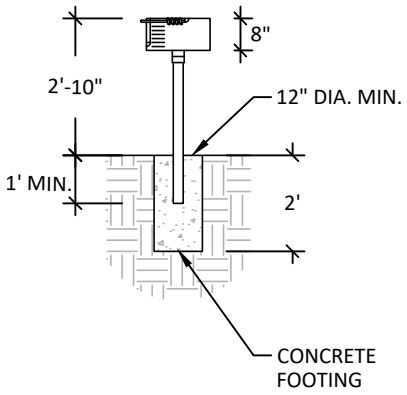
Slope the top of footing to shed water.

LIFE CYCLE EXPECTATIONS

A minimum warranty of 1 year is required.

Grills are anticipated to require replacement after 10 years of normal and ordinary use.

Grill



Grill Installation Detail

Pet Fountain

Drinking fountain with accessible bowl, bottle filler, and pet bowl

STANDARD MODEL

Most Dependable Fountain Inc.

- Model 10145 w/ Pet Fountain
- Model 300 (when accessibility requirements and pet water systems conflict)

Satin finish stainless steel bowl

Color/Finish: Black powder coated and stainless steel

OR CITY APPROVED EQUAL

PURPOSE

Install a drinking fountain with a ground level dog fountain in parks with dedicated pet areas and other areas receiving large amounts of pedestrian traffic.

GENERAL INFORMATION

Only authorized pet fountains may be attached to standard drinking fountain systems.

Refer to Drinking Fountain standard for other applicable standards.

MATERIALS AND FINISH

Provide a pet fountain that consists of standard steel or stainless steel for commercial and exterior use.

Provide a black powder coat pet fountain. Provide a satin finish stainless steel for drinking fountain bubbler, bowl, and buttons.

Pet fountain to consist of smooth welds, joints, and corners.

Provide weather resistant hinges, latches, and mechanical parts.

Include a bottle filler and hose bib on drinking fountains.

The use of recycled materials is acceptable.

INSTALLATION

Surface mount drinking fountains to hardscape surfaces per manufacturer's recommendations.

Provide a 3 feet - 4 inch minimum horizontal dimension of hardscape surface at the accessible perimeter of each fountain.

Install drinking fountains by a licensed plumber consistent with applicable City and State codes.

Slope the slab to shed water.

LIFE CYCLE EXPECTATIONS

A 1 year minimum warranty is required.

Pet fountains are anticipated to require replacement after 5 years of normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

Pet Waste Bag Dispenser

Pet Waste Dispenser

STANDARD MODEL

Namco

Dispenser Model: SKU 2129

Bags Model: SKU 2124B

OR CITY APPROVED EQUAL

PURPOSE

Provide dog waste bag dispensers to encourage pet owner's to clean up after their pets.

GENERAL INFORMATION

Dog waste bag dispenser is the Namco , Doggy Do Dispenser model type, number SKU 2129.

The refillable bags is the Namco, Doggy Do Bags model type, number SKU 2124B

Related Standards: Trash Receptacle, Chain Link Fencing

MATERIALS AND FINISH

Provide a powder-coated galvanized steel post for dispensers.

Dispenser are to be hot dipped galvanized steel and powder-coated.

Pet waste bag dispensers to consist of smooth, weld joints and corners.

The use of recycled materials is acceptable.

FEATURES

Biodegradable bags is preferred.

INSTALLATION

Affix dispensers using stainless steel hardware to a 2 inch by 2 inch metal post or fencing.

Locate dispensers for convenient use including at park entrances near parking lots, at fencing enclosure gates, and as directed by Park and Recreation Staff. Locate dispensers as ADA accessible.

Locate a trash receptacle within 5 feet of each dispenser.

LIFE CYCLE EXPECTATIONS

A 1 year minimum warranty is required.

Pet waste bag dispensers are anticipated to require replacement after 10 years of normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

Picnic Table

Tree Top Products Standard Traditional Picnic Table

Tree Top Products Accessible Traditional Picnic Table

STANDARD MODEL

Tree Top Products, Traditional Recycled Plastic Picnic Table (8 foot length)

- Standard Model (1ZK5530)
- Accessible (1ZK5643)

Color: Brown Table w/ Black Frame

OR CITY APPROVED EQUAL

PURPOSE

Locate picnic tables in designated areas of parks.

GENERAL INFORMATION

Secure tables to finished grade for tip resistance.

Locate tables to permit 'walk through' access.

Accessible picnic table are to be placed at a rate of 1 per 5 acres on concrete pads, but no less than 1 per park.

Related Standards: Trash Receptacle

FEATURES

Picnic tables are available in multiple configurations; the standard rectangle with side benches is preferred.

Benches can be configured as an 8 feet long table with 6 feet long benches for compliance with ADA.

MATERIALS AND FINISH

Provide galvanized steel or other durable metals designed for exterior commercial use for tables.

Provide a high-quality, permanently affixed black powder coating done through a electrostatic process, or high performance thermoplastic finish for tables.

Alternative colors are subject to approval by Park and Recreation Staff.

Tables to consist of smooth welds, joints, and corners. Embed joint fasteners or seal to avoid corrosion and personal injury.

Table tops and seats to consist of extruded, UV resistant, recycled high-density polyethylene. The use of recycled materials is acceptable.

INSTALLATION

Mount tables with anchor bolts, or consistent with the manufacturer's recommended in-ground method.

Provide an accessible hard surface path to all picnic table areas.

Slope hard surface pad for a minimum 1% cross slope and provide minimum of 3 feet 4 inches of clearance on all sides and a minimum of 5 feet on the accessible side.

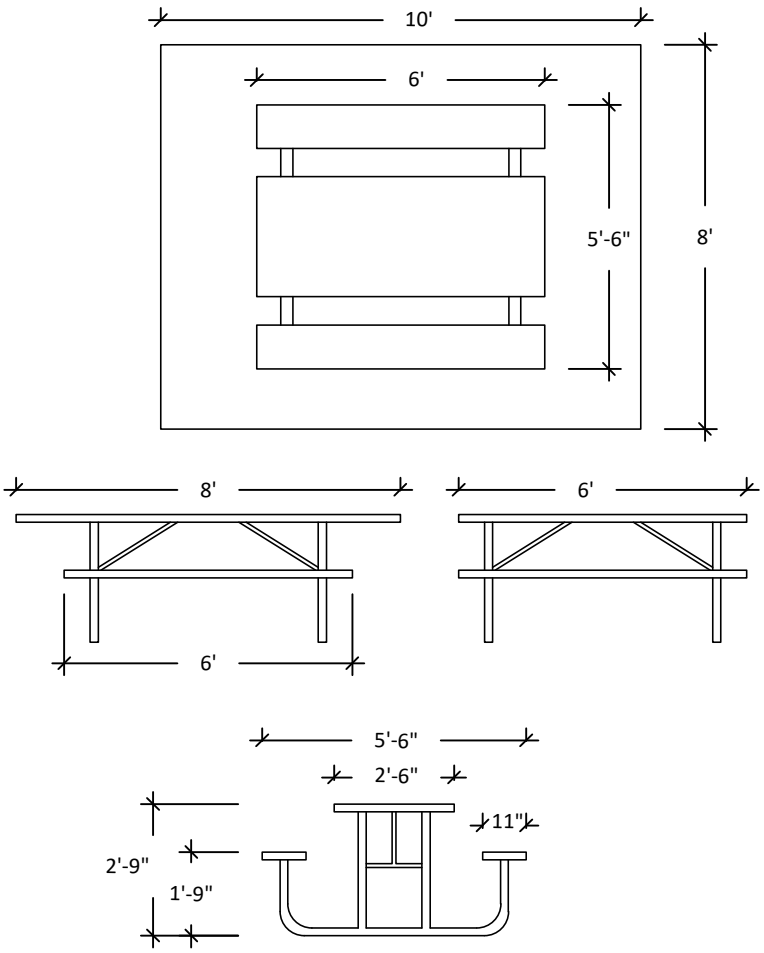
Locate tables in seasonal shade where possible. Locate a trash/recycling can within 15 feet, but 5 feet minimum from the picnic table.

LIFE CYCLE EXPECTATIONS

A 10 year minimum warranty is required.

Picnic tables are anticipated to require replacement after 15 years of normal and ordinary use.

Picnic Table



Typical Picnic Table and Concrete Pad Dimensions

Trash Receptacle

Primary Trash Receptacle

STANDARD MODEL

Tree Top Products

Model: Northgate Receptacles

OR CITY APPROVED EQUAL

Secondary Trash Receptacle

PURPOSE

Provide trash receptacles at activity centers, trail heads, and other high-traffic areas within and around the park to encourage visitors to maintain a clean park.

GENERAL INFORMATION

The primary trash receptacle model is the Tree Top Products, Northgate receptacle.

Provide matching plastic interior liners.

Locate primary trash receptacles around major facilities, plazas, recreation centers, pavilions, and other high traffic areas.

The secondary trash receptacle is a plastic barrel attached to a post with a rotating hinge.

Locate secondary trash receptacles along trails and within general open spaces such as disc golf.

MATERIALS AND FINISH

Trash receptacles to consist of sturdy, durable metal such as galvanized steel, ductile cast iron, or other metals designed for commercial and exterior use.

Finished metal to consist of high-quality, permanently affixed powder coating with smooth welds, joints and corners. Embed or seal all joint fasteners.

Provide weather resistant hinges, latches, and moving parts that are oiled at the time of purchase.

Trash receptacles are a black color.

Recycled materials are acceptable.

FEATURES

Provide a rain cover/bonnet on primary trash receptacles.

INSTALLATION

Surface mount primary trash receptacles to hard surfaces consistent with manufacturer recommendations.

Provide an accessible, hard surface area of 3 feet 6 inches by 3 feet 6 inches adjacent to pathways for primary trash receptacles. Locate trash receptacles not to impede pedestrian access.

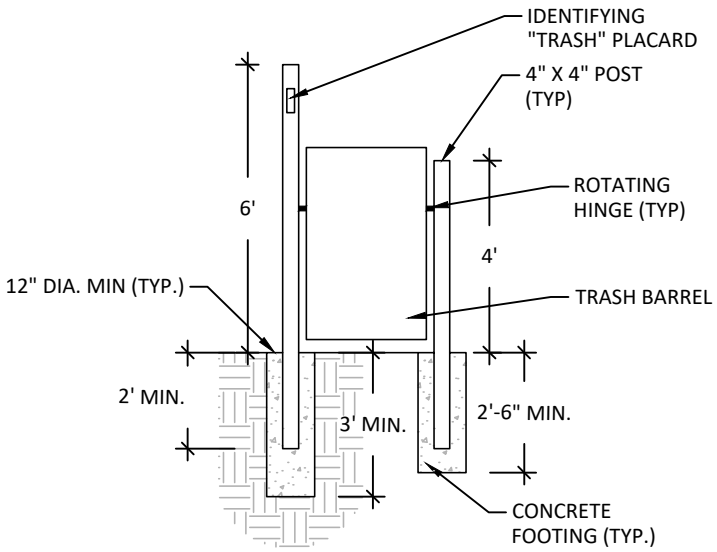
Locate all trash receptacles not to inhibit the monitoring or emptying of the contents.

LIFE CYCLE EXPECTATIONS

A 10 year minimum warranty is required.

Trash receptacles are anticipated to require replacement after 20 years of normal and ordinary use.

Trash Receptacle



Secondary Trash Receptacle Detail

Bollard

Preferred Natural Bollard

Alternative Metal Bollard

ALTERNATIVE BOLLARD

Manufacturer: Post Guard

Model: 6.6" D x 36" H Stainless Steel Bolt Down

OR CITY APPROVED EQUAL

PURPOSE

Use bollards to limit unauthorized vehicular traffic without restricting the movement of pedestrian and cyclists. Natural bollards are the preferred movement restriction method.

NATURAL BOLLARD

MATERIALS AND FINISH

Natural bollards include locally sourced boulders, trees, shrubs, or other natural material as approved by Park and Recreation Staff.

A licensed Landscape Architect in the State of Texas to approve condition of natural bollards.

INSTALLATION

Natural bollard spacing is approved by Park and Recreation Staff.

Construct per details provided by a licensed Landscape Architect or Professional Engineer in the State of Texas

If the design accommodates other obstructions, such as light poles or signage, these elements may contribute to the bollard spacing as approved by Park and Recreation Staff.

LIFE CYCLE EXPECTATIONS

A 2 year minimum warranty is required.

Natural bollards are anticipated to require replacement only if damaged.

METAL BOLLARD

MATERIALS AND FINISH

Metal bollards to consist of smooth welds, joints, and corners.

Hinges, latches and moving parts must be weather resistant and lubricated at time of purchase.

The use of recycled materials is acceptable.

FEATURES

In instances where a chain will provide an additional barrier, an eye-bolt is required.

Mounting options are permanent embedded, surface bolted, and/or sleeved/removable.

INSTALLATION

Metal bollards spacing is 3 feet - 6 inches minimum horizontal distance.

Collar relief from the surface cannot exceed 1/4 inch.

Where authorized and emergency access is needed, removable install is acceptable. Install a sleeve/casing 3 feet vertical depth minimum below finish grade. Secure removable bollards with lock and key.

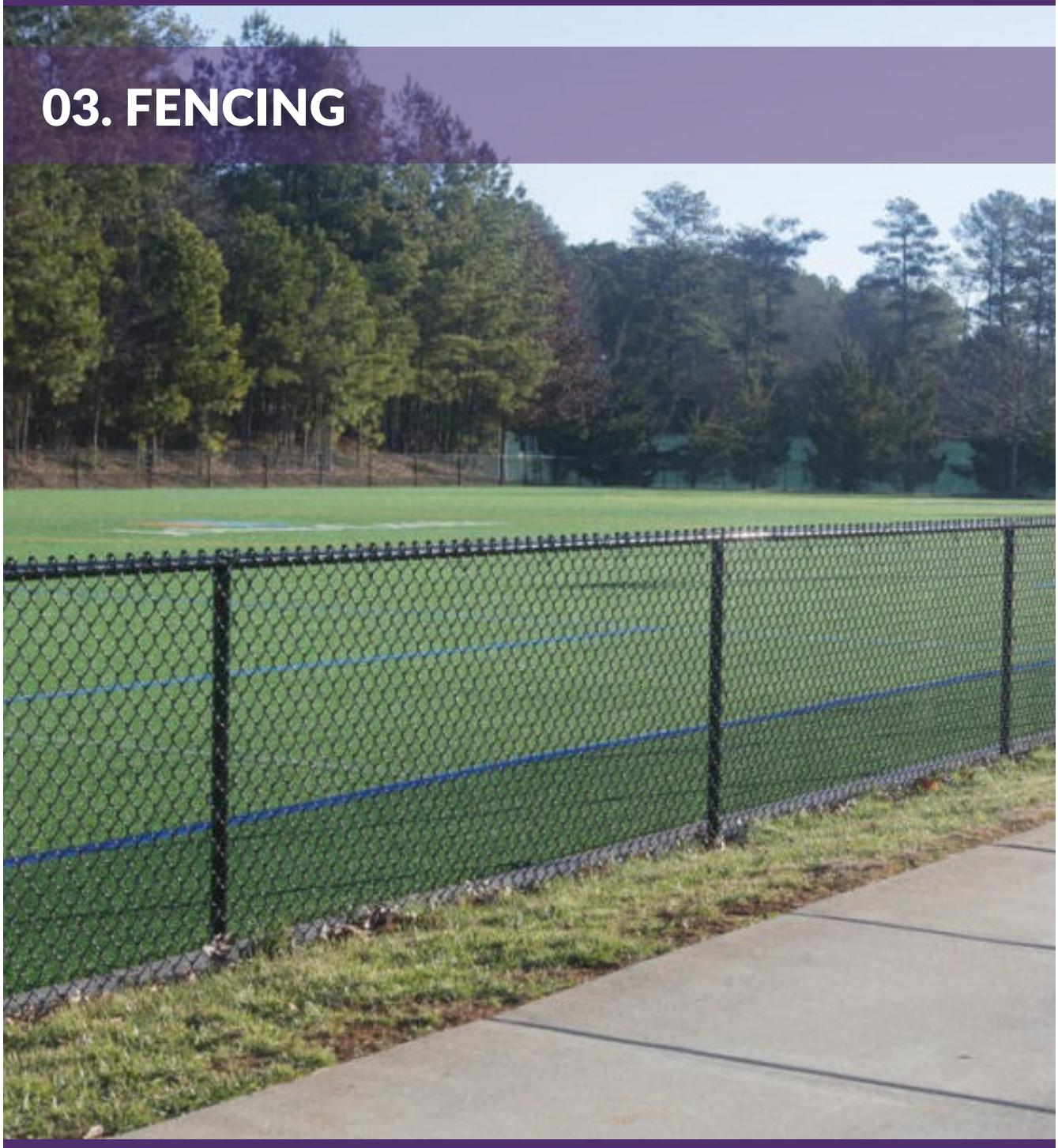
LIFE CYCLE EXPECTATIONS

A 5 year minimum warranty is required for metal bollards.

Metal bollards are anticipated to require replacement after 15 years of normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

03. FENCING



- Chain Link Fence
- Metal Fence
- Wood Enclosure

PAGE INTENTIONALLY LEFT BLANK

Chain Link Fence

Chain link fencing

PURPOSE

Chain link fences are to be used to separate athletic fields, ball courts, playgrounds and active recreation play areas from adjacent uses, and to secure property boundaries.

LIFE CYCLE EXPECTATIONS

A 5 year minimum warranty is required.

Chain link fencing is anticipated to require replacement after 15-20 years of normal and ordinary use.

GENERAL INFORMATION

Fence heights vary per use:

- 4 feet maximum height (playground and use-separation fences)
- 4 feet (baseball/softball field perimeter for ages 12 and under)
- 6 feet (baseball/softball field perimeter for ages 13 and up)
- 12 feet (ball courts).

Additional 15 feet maximum temporary netting is permitted around baseball/softball fields.

Park areas greater than 1/2 acre with fencing must have 2 entry points minimum.

Provide 4 feet minimum horizontal width pedestrian entrances.

MATERIALS AND FINISH

Provide matte, woodland/dark green or matte black in color for fencing.

Chain link fabric is PVC coated, Class 2b, thermally fused and bonded.

Provide a core wire diameter of 9 gauge for chain link fabric. Provide a 2 inches diamond mesh without knots or ties, except as knuckling at the top and bottom of the fabric.

Provide 6 inch outside diameter posts for corner and terminal posts. Provide 2-1/2 inches outside diameter line posts. Provide 1-5/8 inch outside diameter rails/braces.

A top and bottom rail is required for chain link fencing. A middle rail is required for fencing exceeding 6 feet in height.

FEATURES

Provide a “Poly-Cap” system on the top rail for fencing around diamond outfields.

Provide a lockable fork latch for single gates and a cane rod on double gates. Include a 2 feet horizontal width threshold the full length of the gate and posts.

Provide a 4 feet minimum width for single gates. Affix gate hinges to posts via clamps and pins that ensure hinges do not rotate on the post.

Provide 16 feet minimum horizontal width for maintenance access gates. Width variations may be approved by Park and Recreation Staff. Affix hinges to gate posts via clamps and pins that ensure hinges do not rotate on the post.

Include double entrance gates in order to provide leashing area for dog parks.

INSTALLATION

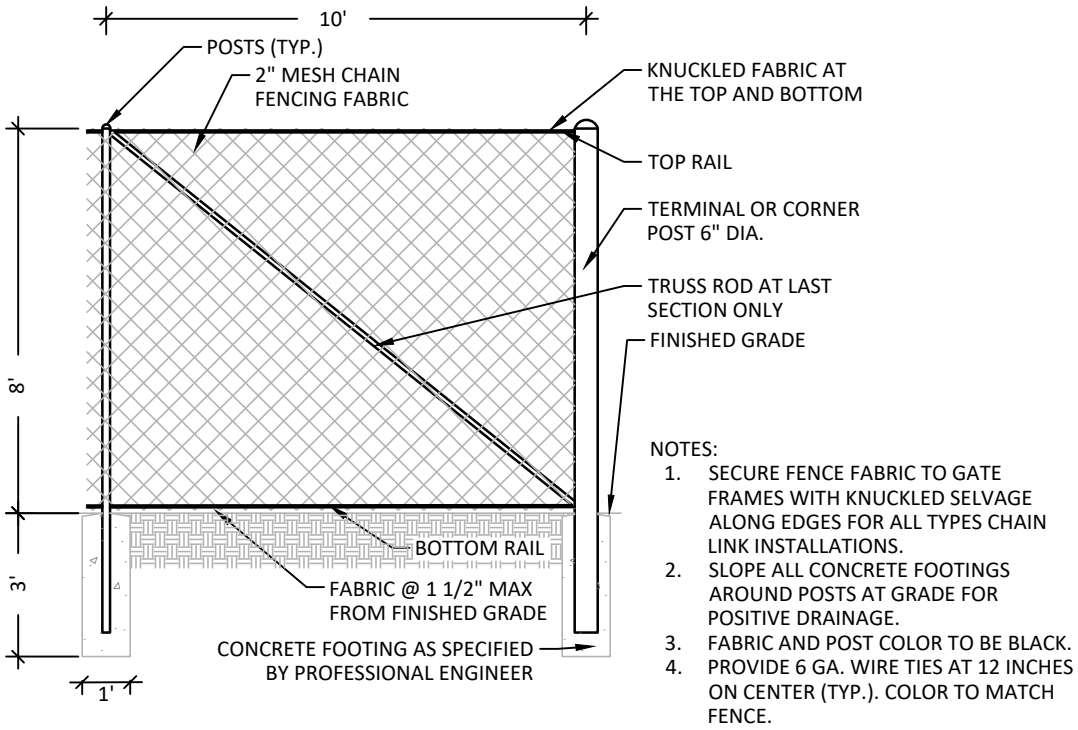
Fence posts and supports must be located outside the field of play for athletic facilities.

Fences must be permanently mounted into concrete footings, 1 foot-6 inches minimum diameter, 3 feet minimum depth. Top of footing is to be sloped to shed water.

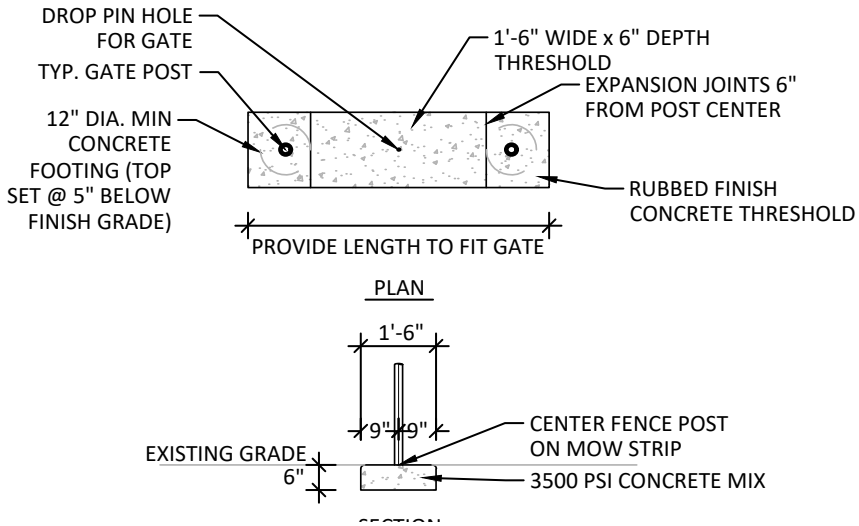
Footings must be installed flush to adjacent finish grade.

Fence fabric knuckling is to be installed 1-1/2 to 2 inches height above surrounding finish grade.

Chain Link Fence



Chain Link Specification



Chain Link Concrete Threshold

Metal Fence

Metal fencing

METAL FENCING

Ameristar Fencing - Echelon Plus

PURPOSE

Provide metal fencing in historic districts and special conditions of park use.

GENERAL INFORMATION

Do not exceed 6 feet vertical height for metal fences.

For use-separation, provide a 3 feet - 6 inches minimum vertical height.

Provide a 4 feet minimum horizontal width for pedestrian entrances.

MATERIALS AND FINISH

Metal fence is black in color.

Provide 2-1/2 inch minimum square line posts with a 14 gauge wall thickness, constructed of steel or other durable metal designed for exterior use.

Provide 3/4 inch minimum solid bar pickets constructed of steel or other durable metal designed for exterior use.

Provide 3 inches square steel tubing, with a 3/16 inch wall thickness for corner and terminal posts.

FEATURES

Provide a newell post ball cap sized to fit post top.

Provide a lockable fork latch for single gates. Provide a cane rod for double gates. Include diagonal bracing for gates.

INSTALLATION

Provide shop drawings of fencing fabrication for approved by Park and Recreation Staff.

Permanently imbed fencing posts in concrete footings.

Install top of footer flush to adjacent finish grade. Slope top of footing to shed water.

Bottom of pickets not to exceed 2 inches maximum vertical height from the surrounding finish grade.

Fence panels are to step panel-to-panel, do not slope panels with the topography of the site.

LIFE CYCLE EXPECTATIONS

A 10 year minimum warranty is required.

Metal fencing is anticipated to require replacement after 20-30 years of normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

Wood Enclosure

Cedar Wood Dumpster Enclosure

PURPOSE

Provide a solid board fence to create a physical/visual barrier surrounding dumpster areas only.

GENERAL INFORMATION

Solid board fences are 6 feet maximum vertical height.

Solid board fences consist of 8 inch by 1 inch (nominal dimensions) mounted horizontal to finish grade.

Board to board spacing not to exceed 1/8" inch.

Support posts are 6 inch by 6 inch (nominal sizes) square posts throughout.

Do not impede pedestrian access with wood enclosure.

MATERIALS AND FINISH

Provide pressure-treated cedar wood or as approved by Park and Recreation Staff.

Pressure-treated lumber treated with Chromated Copper Arsenate (CCA) is prohibited.

Provide stainless steel hardware.

Provide post top metal cap sized to fit post top.

Stain cedar wood a teak color. Paint steel posts black.

Fences with a decorative lattice or other patterns are prohibited.

LIFE CYCLE EXPECTATIONS

A 5 year minimum warranty is required.

Wood enclosures are anticipated to require replacement after 20 years of normal and ordinary use or if damaged.

INSTALLATION

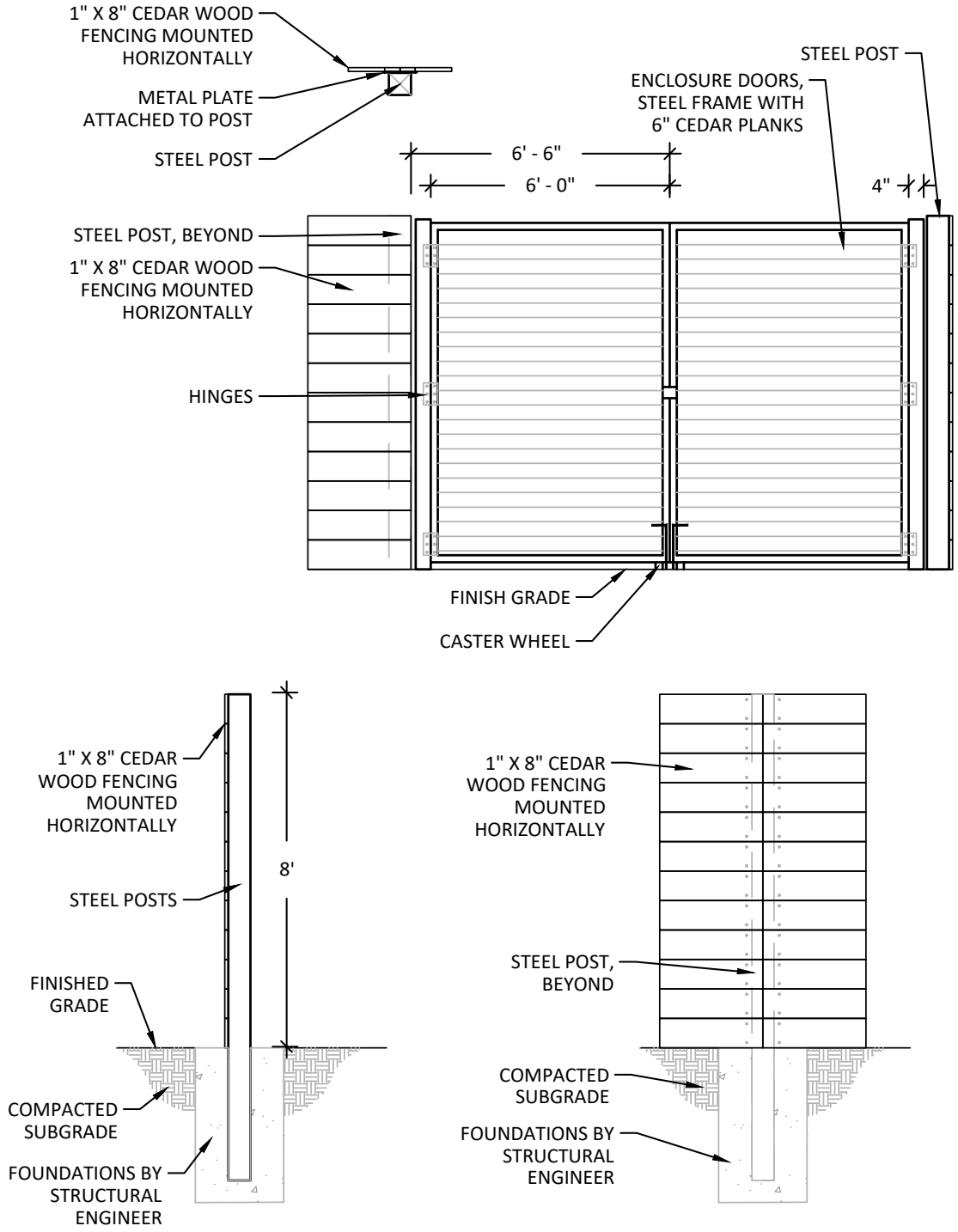
Mount fence posts in concrete. Footing size is 1 foot - 6 inches minimum diameter, 3 feet minimum depth. Install footing top flush with finished grade. Slope the top of footing to shed water.

Do not obstruct the view of parks and activity centers from public right-of-way.

Bottom of fence to be 1 inch maximum vertical height from the finish grade.

Fence panels are to step panel-to-panel, do not slope panels with the topography of the site.

Wood Enclosure



Wood Enclosure Details

04. PAVING

- Concrete Sidewalk
- Crushed Stone Trail
- Deck / Boardwalk
- Foot Bridge
- Natural Trail
- Parking Lot
- Park Walkways / Trails

PAGE INTENTIONALLY LEFT BLANK

Concrete Sidewalk

Concrete Sidewalk at Dickey Park

TYPICAL DIMENSIONS

Primary pathways: 10 feet in continuous width.

Secondary pathways: 6 feet in continuous width.

PURPOSE

Provide concrete paving materials for non vehicular circulation where a rigid system is desired.

GENERAL INFORMATION

Concrete materials including Portland cement, admixtures, aggregates, and reinforcement to comply with ASTM C-150 standards for Type I concrete.

Paved frontage with curbs and gutters for all required street frontages abutting the outside perimeter of the parkland.

Install a 4 foot minimum concrete sidewalk around play surfaces and along all street frontage of the park.

Trails designed and installed within the park to consist of 10 foot wide concrete trails for primary pathways and 6 foot wide concrete trails for secondary pathways.

All improvements to be reviewed by Texas Registered Accessibility Specialist and approved for compliance with the American Disabilities Act.

MATERIALS AND FINISH

Design mixes to appropriate project conditions, weather, site test results, and materials.

Finish exterior concrete pavement with a light broom finish perpendicular to travel direction unless otherwise specified.

Test concrete mixes for compressive strength, slump, and air content.

FEATURES

Include reinforcement, as determined by the Geotechnical or Professional Engineer.

Include integral color or decorative aggregate throughout the pavement section as approved by Park and Recreation Staff.

INSTALLATION

Include expansion and saw-cut control joints with concrete pavement.

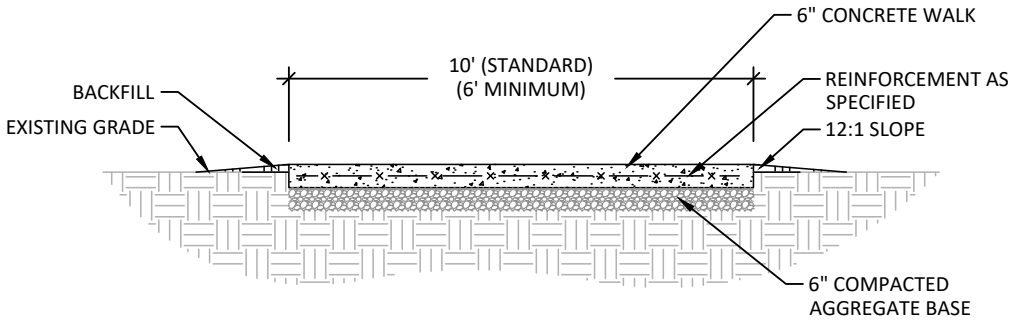
Forms and form release agents may be applied to appropriate concrete mixes and finishes, but must not impair subsequent treatment of the concrete.

Construct concrete pavement with a 2% minimum to 4.5% maximum slope, with a 1.5% cross slope.

LIFE CYCLE EXPECTATIONS

Pavement is anticipated to require replacement after 20-30 years of normal and ordinary use with regular maintenance.

Concrete Sidewalk



Typical concrete sidewalk cross section.

Crushed Stone Trail

Crushed stone trail at Freedom Park

TYPICAL DIMENSIONS

Primary pathways: 10 feet in continuous width.

Secondary pathways: 6 feet in continuous width.

PURPOSE

Provide crushed stone trails in environmentally sensitive and natural areas where pedestrian access is desired.

GENERAL INFORMATION

Walkways: 10 feet minimum width

In certain circumstances, the use of a 6' wide path may be appropriate for minor connections, as approved by Park and Recreation Staff.

Provide a 4 foot wide shoulder on trails for horseback riding.

MATERIALS AND FINISH

Construct crushed stone trails to consist of a range of particle sizes, from fine dust to 3/8 inch maximum. Locally source stone. Over 90% of stone to pass a 3/8 inch sieve analysis.

Construct a 2 inch minimum crushed stone depth with a 6 inch compacted aggregate base.

Stone color is a grey mix/blend or as approved by Park and Recreation Staff.

FEATURES

Clean stone mix from all debris and sharpened stone pieces.

INSTALLATION

Adjacent trail construction standard clearing limits is as follows:

- Clear brush and branches within 3 feet of the trail and overhead, to a 9 feet minimum vertical height.
- Remove all roots and organic debris to a depth of 4 inches, where appropriate.

Construct a 2% cross-slope in sub-grade materials and compact aggregates to Geotechnical or Professional Engineer specifications.

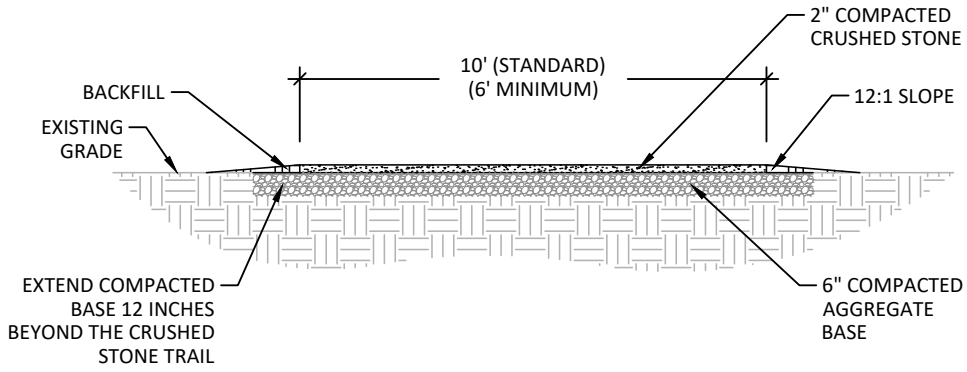
All tree work required for boardwalk install is performed or supervised by an ISA Certified Arborist.

LIFE CYCLE EXPECTATIONS

Crushed stone are anticipated to require replacement after 10 years of normal and ordinary use.

Replace crushed stone on an as-needed basis for areas of washout or erosion.

Crushed Stone Trail



Crushed Stone Trail

Deck / Boardwalk

Boardwalk

PURPOSE

Provide elevated structures, such as decks and boardwalks, where water bodies, unstable ground conditions, elevation changes, or other site conditions impede access, or for elevated pathways over protected natural scenic areas.

GENERAL INFORMATION

Construct structures and foundations consist with plans designed by a Structural Engineer licensed in the State of Texas.

Perform a subsurface and hydrologic investigation to inform structural designs.

Provide railings and handrails on elevated structures.

Provide a geotechnical report prior to structural design.

GENERAL INFORMATION CONTINUED

Design to floodplain performance requirements when decks, boardwalks, bridges, or other structures are located within the 100-year FEMA/FIRM floodplain.

Design structures to loading requirements. Loads include but are not limited to, dead, live, concentrated, vehicle, wind, and snow. Design structures to accommodate lightweight construction equipment and vehicles.

Design decks, boardwalks, bridges, or other structures consistent to the most current City parkland dedication ordinances, land development code, or other applicable standards within this document.

FEATURES

A 6 feet minimum horizontal clear width is required for all boardwalk and/or structures. Other features, such as handrails, load signs, limitations of vehicle load, and/or limitations of pedestrian/bike traffic, may be added as approved by Park and Recreation Staff.

MATERIALS AND FINISH

Deck and boardwalk materials to consist of marine grade weathering steel, fiberglass, composite resin, concrete or silicate impregnated lumber.

MATERIALS AND FINISH

Provide decking materials that are slip resistant.

Use wood materials on a limited basis. If wood is used, install crown side up. Hardwoods or silicate impregnated lumber must be approved by Park and Recreation Staff.

Construct concrete piling foundations with footing tops sloped to shed water.

Provide stainless-steel hardware.

INSTALLATION

Provide shop drawings to Park and Recreation Staff for approval prior to install.

Provide smooth approaches and transitions consistent to the current accessible standards. Transitions can not exceed 1/2 inch vertical dimensions.

Place deck planks perpendicular to travel direction.

Tree work required for boardwalk installation is performed or supervised by an ISA Certified Arborist.

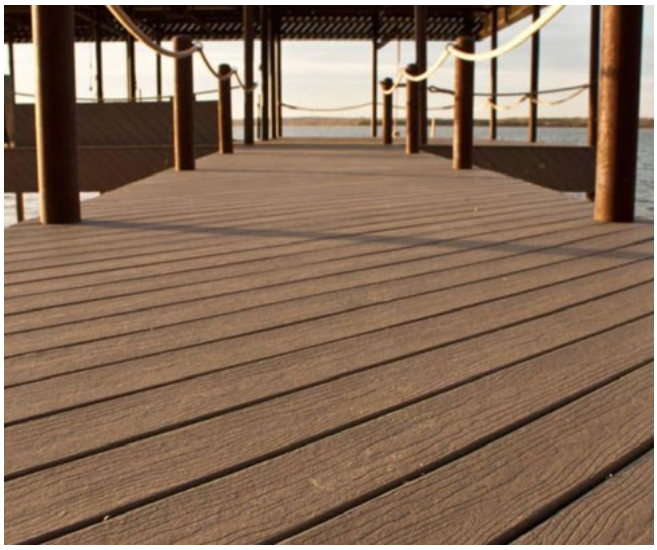
LIFE CYCLE EXPECTATIONS

A 10 year minimum warranty is required for natural woods.

A 10 year minimum warranty is required for synthetic materials.

Decking is anticipated to require replacement after 15 years based on normal and ordinary use.

Decks / Boardwalk



Composite Decking

Foot Bridge

Foot Bridge

TYPICAL DIMENSIONS

Prefabricated Bridge: 6 to 10 feet in width; clear spans from 20 to 100 feet; span-to-width ratio generally 12:1.

Where steep and unstable banks exist, add bridge length to account for bank re-grading and stabilization. Slope bank not to exceed 3:1 slope.

PURPOSE

Provide foot bridges to facilitate safe access across bodies of water, unstable ground conditions, elevation changes, or other site conditions

GENERAL INFORMATION

Construct bridges and abutments consistent to plans designed by a Structural Engineer licensed in the State of Texas.

Design bridges accounting for culverts subject to periodic flooding.

Design to floodplain performance requirements when decks, boardwalks, bridges, or other structures are located within the 100-year FEMA/FIRM floodplain.

Perform a subsurface and hydrologic investigation to inform structural designs.

Provide a geotechnical report prior to structural design.

Design structures to loading requirements. Loads include but are not limited to, dead, live, concentrated, vehicle, wind, and snow. Design structures to accommodate lightweight construction equipment and vehicles.

MATERIALS AND FINISH

Materials for foot bridges include:

- Composite Wood
- Concrete or timber abutments, treated for water contact
- Stainless steel hardware

Paint or stain finish as approved by Park and Recreation Staff.

Provide deck material that is slip resistant. Slope bridge surfaces to shed water.

FEATURES

Provide railings and handrails on elevated structures.

Stabilize side slopes; side slopes not exceed 3 to 1 slope. Provide wing walls as necessary.

INSTALLATION

Provide shop drawings to Park and Recreation Staff for approval prior to installation.

In remote or difficult to access locations, assemble bridges on-site.

Locate utilities within the bridge structure or hidden from external view.

Place deck planks perpendicular to travel direction.

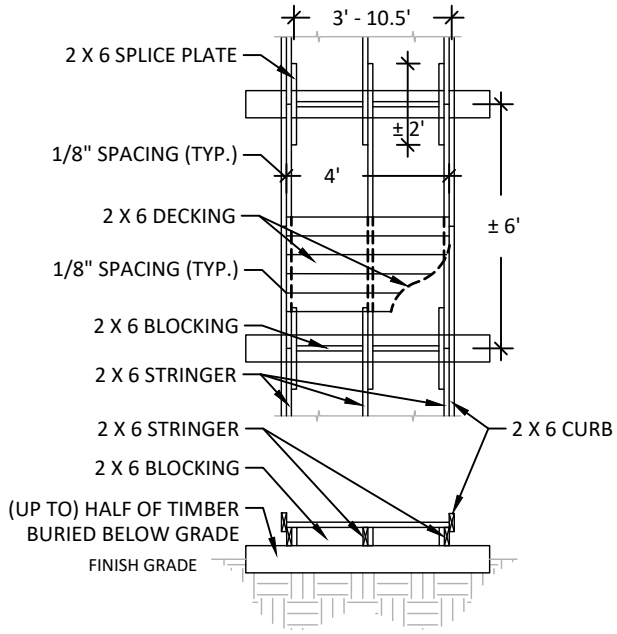
Tree work required for foot bridge installation is performed or supervised by an ISA Certified Arborist.

LIFE CYCLE EXPECTATIONS

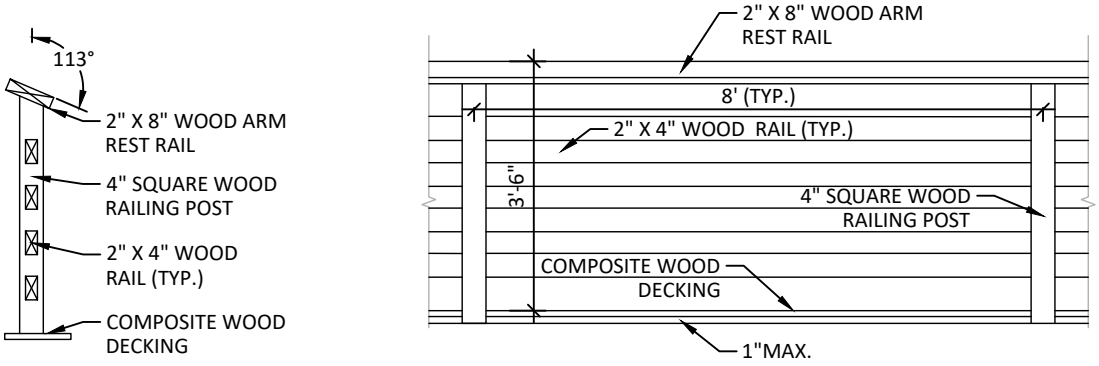
A 10 year minimum warranty for structural components and systems is required.

Bridges are anticipated to require replacement after 30 years based on normal and ordinary use.

Foot Bridge

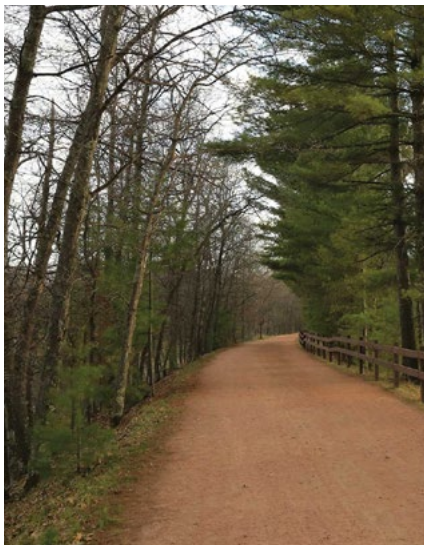


Raised Wooden Walkway



Railing Section and Elevation

Natural Trail



Nature trail

TYPICAL DIMENSIONS

Primary trails: 10 feet in continuous width.

Secondary trails: 6 feet in continuous width.

PURPOSE

For use in environmentally sensitive areas where pedestrian access is desired.

GENERAL INFORMATION

Walkways: 10 feet minimum width

In certain circumstances, the use of a 6' wide path may be appropriate for minor connections, as approved by Park and Recreation Staff.

Provide a 4 foot wide shoulder on trails for horseback riding.

Conduct an environmental impact study by a licensed Environmental Engineer in the State of Texas prior to design to limit disturbance to any environmentally sensitive areas.

Design and install natural trails to meet standards approved by Park and Recreation Staff, in accordance with related federal, national, state or local codes including, but not limited to, the following:

- United States Department of Agriculture Accessibility Guidebook for Outdoor Recreation and Trails
- United States Forest Service Trail Accessibility Guidelines

MATERIALS AND FINISH

Provide a 2" depth decomposed granite, aggregate base course, and compacted sub-grade for primary pathways.

Provide a 2" depth decomposed granite, and compacted sub-grade for secondary pathways.

Provide a brown mix/blend of granite fines or as approved by Park and Recreation Staff.

FEATURES

Provide clean friable fines free of debris and other foreign objects.

Provide wayfinding signs, bike racks, and lighting at trail heads and intersections or as directed by Park and Recreation Staff.

INSTALLATION

Adjacent trail construction clearing limits are as follows:

- Clear brush and branches within 3 feet of the trail and to 9 feet minimum vertical height.
- Remove all stumps, roots and organic debris to a depth of 4 inches.

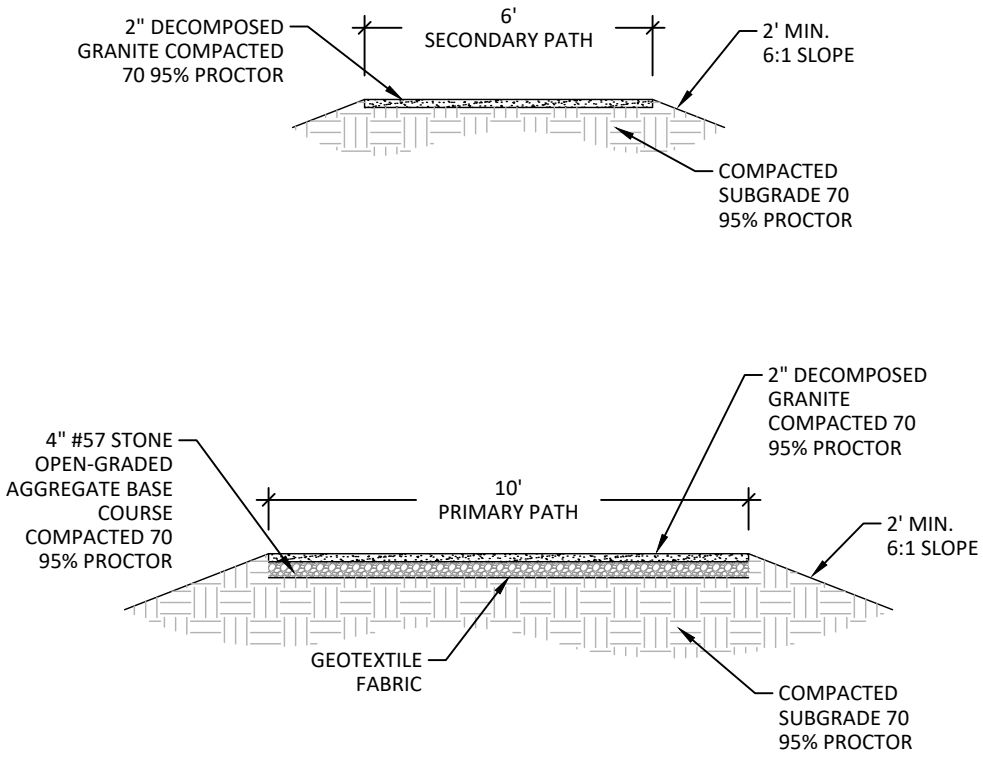
Construct a 2% cross-slope in sub-grade materials and compact aggregates to Geotechnical or Professional Engineer specifications.

LIFE CYCLE EXPECTATIONS

Granite fines are anticipated to require replacement every 10 years for normal and ordinary use.

Replace granite fines on an as-needed basis for areas of washout or erosion.

Natural Trail



Natural Trail Section

Parking Lot

Concrete Parking Lot at Freedom Park

PURPOSE

Design parking lots to provide safe and convenient access to the site and its facilities.

ENTRANCES/EXITS

Provide a clear visibility zone at entrances and exits. The zone will vary due to adjacent street widths and speeds.

Locate entrances and exits directly across from or as far as possible from street intersections. Provide paved frontages with curbs and gutters abutting the outside perimeter of the park.

GENERAL INFORMATION

A variety of paving options exist within the Angleton park system. Parking requirements will vary depending on park size.

Design parking lots to comply with the following:

- City of Angleton Zoning Ordinance, most recent edition
- AASHTO's policy of Geometric Design of Highways and Streets, most recent edition
- Americans with Disabilities Act
- Designed by a licensed Professional Engineer or Landscape Architect in the State of Texas

SAFETY

Provide infrastructure in parked vehicle areas for safe pedestrian routes including walkways, narrowed crosswalks, and striped paving.

Provide landscaping to separate, but maintain visibility, between pedestrian paths and vehicle paths.

Construct parking lots with a 2% minimum to 4.5% maximum slope, with a 1.5% cross slope.

LIFE CYCLE EXPECTANCY

Pavement is anticipated to require replacement after 20-30 years of normal and ordinary use with regular maintenance.

LOW IMPACT DEVELOPMENT (LID) STANDARDS

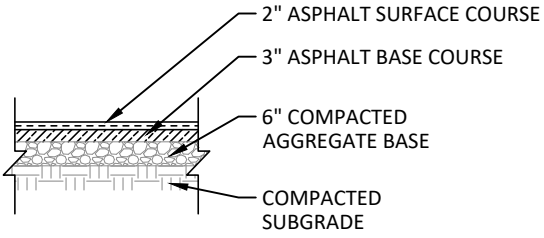
Provide methods of storm water management, such as LID techniques, into parking lots. These include:

- Create bio-retention cell(s) with under drain(s) and landscaping in terminal parking islands.
- Create bio-retention cells or drainage inlets (or curb cuts) in the terminal parking islands.
- Create bio-retention cells and bio-retention strips to collect runoff between head-in parking.
- Create bio-retention cells between lines of parking stalls to increase the total treatment surface area of these systems.
- One-way drive aisles to reduce impervious surfaces, as approved by Park and Recreation Staff.
- Permeable paving systems as approved by Park and Recreation Staff. Where permeable paving is not feasible in the entire parking lot, consider portions of the parking lot such as overflow areas and/or parking stalls.

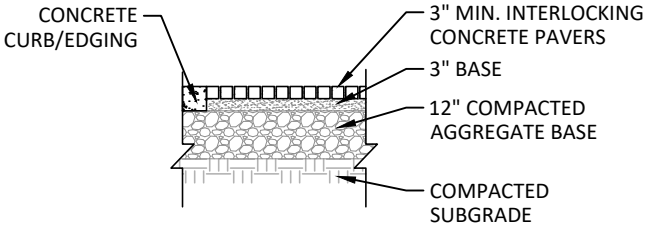
BICYCLE FACILITIES

Provide bicycle lanes and parking at ingress and egress routes.

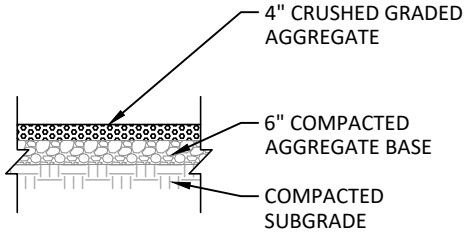
Parking Lot



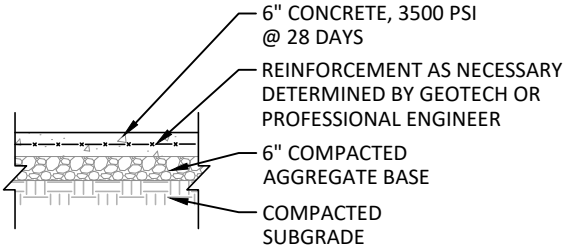
Asphalt Parking Lot



Pervious Parking Lot



Gravel Parking Lot



Concrete Parking Lot

ASPHALT PARKING LOT

USE: General standard for most applications.

EDGING: Preferred encroachment barriers include wheel stops or continuous concrete curbing of at least 6 inches in height.

STALL WIDTH: Standard parking space size is 9' x 20'. Install standard white thermoplastic striping to delineate all stalls.

ACCESSIBILITY GUIDELINES: Provide a minimum of two 8' x 20' parking stalls with a central van accessible area.

PERVIOUS PARKING LOT

USE: For use in environmentally sensitive areas or where a pervious pavement application is desired.

EDGING: Preferred encroachment barriers include wheel stops or continuous concrete curbing at 6 inches vertical height.

STALL WIDTH: Standard parking space size is 9' x 20'. Install standard white thermoplastic striping to delineate stalls if paving material allows. Otherwise, install contrasting color pavers, or alternate patterns to delineate stalls.

ACCESSIBILITY GUIDELINES: Consistent with asphalt parking lot.

GRAVEL PARKING LOT

USE: Gravel parking areas are acceptable low traffic and/or temporary parking areas, as approved by Park and Recreation Staff.

EDGING: Provide wheel stops for parking spaces.

STALL WIDTH: Standard size parking spaces are 9' x 20'.

ACCESSIBILITY GUIDELINES: Consistent with asphalt parking lot. Delineate spacing as stated above.

CONCRETE PARKING LOT

Concrete may be used for vehicular circulation as approved by Park and Recreation Staff.

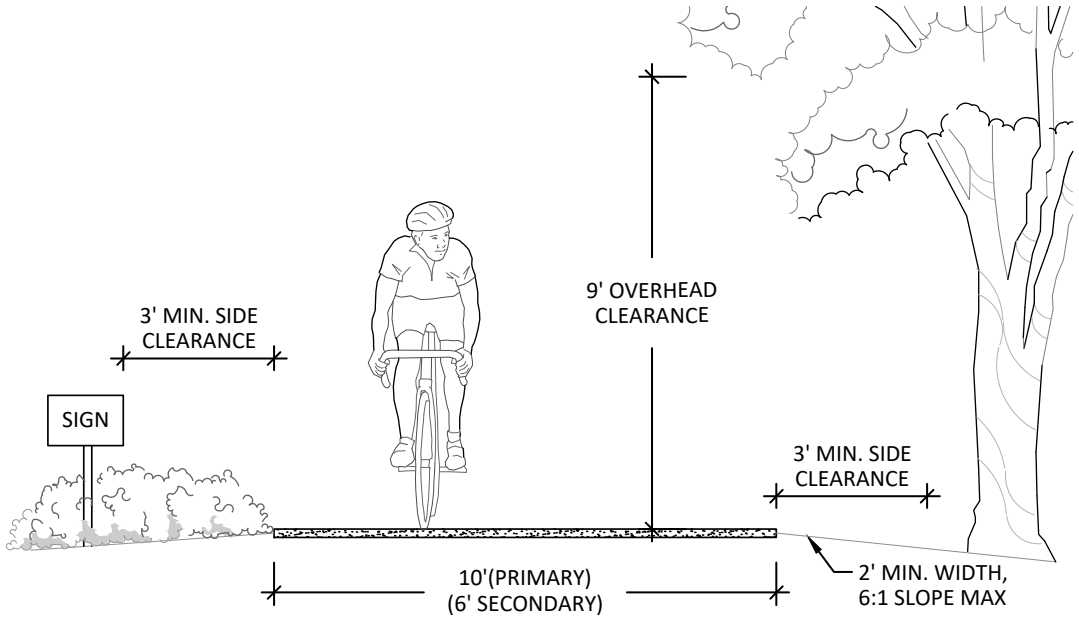
Design parking lot consistent with consistent with asphalt parking lot specifications.

Concrete materials include Portland cement, admixtures, aggregates and reinforcement consistent with ASTM C-150.

Test concrete for compressive strength, slump, and air content. Construct expansion and saw-cut control joints per Professional Engineer specifications.

Include steel reinforcement as determined by the Geotechnical or Professional Engineer. Reinforcement materials to comply with ASTM standards.

Park Walkways / Trails



Shared Pathway

Bike Pathway

PURPOSE

This section establishes standards for public walkways, trails, and internal pedestrian circulation systems that provide safe pedestrian access.

GENERAL INFORMATION

For additional information related to the development of safe trail facilities, refer to the most recent edition of the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities.

FEATURES

Provide continuous internal pedestrian walkways from the public walkway or right-of-way to the main entrance of buildings and active amenity areas on the site. Connect walkways to pedestrian activities including transit stops, street crossings, buildings, and major site amenities.

Provide a 9 feet minimum overhead clearance from any obstruction for all pathways. If the pathway is a fire lane, minimum overhead clearance is 14 feet.

Primary trail - 10 foot width

Secondary trail - 6 foot width

In certain circumstances, the use of 6’ wide paths may be appropriate for minor connections as approved by Park and Recreation Staff.

PAGE INTENTIONALLY LEFT BLANK

05. PARK STRUCTURES AND SHELTERS

- Dugout Cover
- Metal Shelter
- Restroom Facility
- Shade Canopy
- Picnic Pavilion

PAGE INTENTIONALLY LEFT BLANK

Dugout Cover / Bleacher

Dugout at Freedom Park

PURPOSE

Provide dugouts and bleachers for each diamond field for participant and spectator seating.

GENERAL INFORMATION

Provide 2 dugouts per diamond field; 1 along each foul line.

Construct bleachers to be consistent with the most current building and accessibility codes including requirements for guardrails and barriers. Bleachers capacity is 50 maximum patrons.

LIFE CYCLE EXPECTATIONS

A 5 year minimum warranty is required for dugout cover and bleacher.

Dugouts are anticipated to require replacement after 20 years of normal and ordinary use.

Bleachers are anticipated to require replacement after 10 years of normal and ordinary use.

PRIMARY DUGOUT STYLE

MATERIALS AND FINISH

The primary dugout style is a metal frame structure.

Corrugated metal roof is required on primary dugouts.

Provide black colored, metal roofs with exposed powder coated metal fascia's on all sides.

Provide stainless steel hardware.

SECONDARY DUGOUT STYLE

The use of the secondary dugout style must be approved by Park and Recreation Staff.

MATERIALS AND FINISH

The secondary dugout style is a wood frame structure.

Construct wood dugout consistent with the latest edition of the following guidelines and standards:

- American Institute of Timber Construction Standards
- Standard Specification for Glued Laminated Timber
- American National Standard of Wood Products - Structural Glued Laminated Timber
- American Institute of Timber Construction Inspection Manual
- American Wood Preserver's Association Standard
- International Building Code

All lumber to be pressure treated.

Provide architectural shingles or standing seam aluminum roof on wood dugout.

Provide stainless steel hardware.

Architectural shingles is required on secondary dugouts.

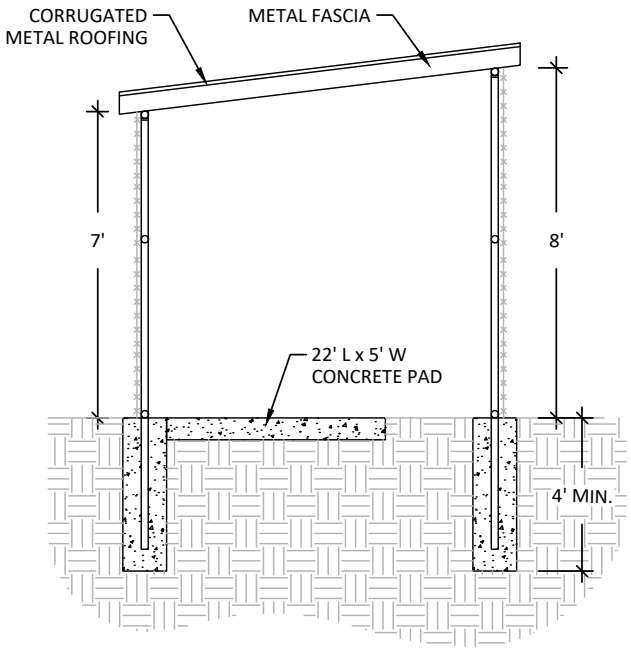
INSTALLATION

When dugouts are a pre-fabricated structure, install per the manufacturer's assembly instruction.

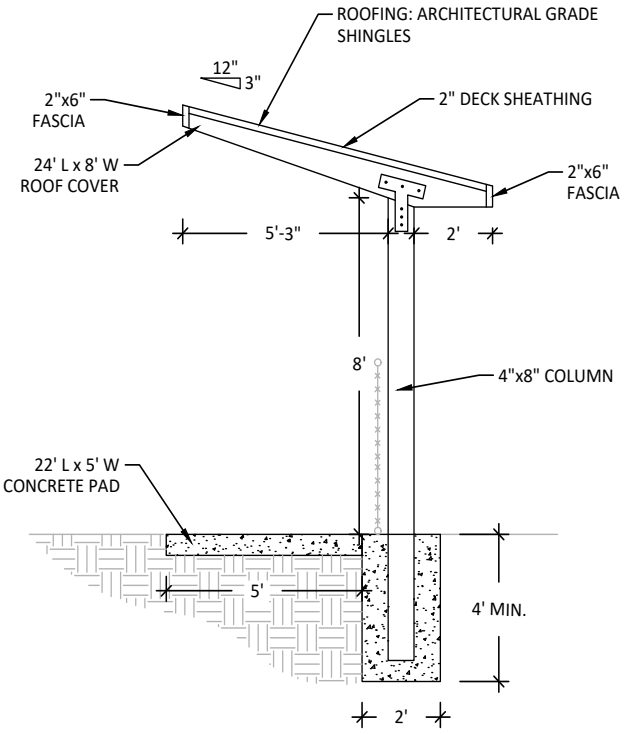
Provide shop drawings to Park and Recreation Staff for review prior to installation.

Design dugouts for wind loading consistent with City of Angleton code. Inspect dugout connections, foundations, roof, and other components every 5 years or after a high wind event.

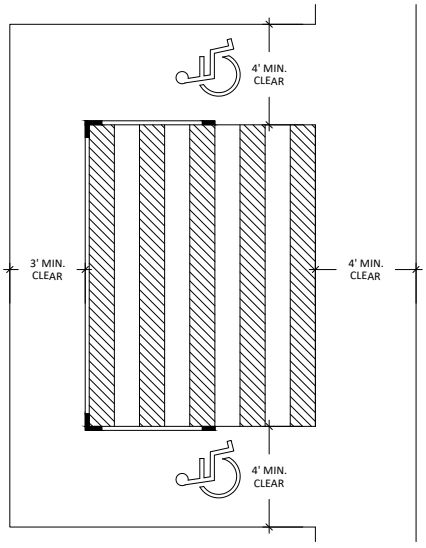
Dugout Cover / Bleacher



Primary Dugout Style



Secondary Dugout Style



Typical Bleachers, plan view. Not to scale

BLEACHERS

The bleacher model is Belson Outdoor, Model BGS-008, or as approved by Park and Recreation Staff.

MATERIALS AND FINISH

Construct bleacher seats of anodized aluminum.

Provide a guard rail with a chain link fall barrier on bleachers with more than 5 rows of seats.

Provide slip resistant ribbed surface for bleacher treads and seats. Provide seats as a continuous bench.

Furnished assembly to be free from sharp edges, pinch points, corners or protrusions.

INSTALLATION

Comply with manufacturer's recommendations for assembly.

Install bleachers on a hardscape surface with 4 feet minimum clear horizontal distance from the edge of structure on accessible perimeter.

Where possible, install bleachers adjacent to accessible hardscape surface pathways.

Stabilize bleachers with wedge anchors.

Bleachers are anticipated to be inspected annually.

Metal Shelter

Metal Shelter at Bates Park

PURPOSE

Provide metal shelters to shade activity areas and protect patrons from inclement weather.

GENERAL INFORMATION

Metal shelters are available in a variety of sizes and configurations. Size and configuration is as approved by Park and Recreation Staff.

The standard metal shelter manufacturer is RCP Shelters, or City approved equal.

Construct shelters consistent with current ADA/ADAAG standards and guidelines.

Do not impede movement of pedestrian access.

Provide at least 1 accessible covered picnic area per park. Provide covered picnic areas at a rate of 1 per 5 acres.

If a non pre-fabriacted shelter is desired, provide architectural plans designed by licensed Architect or Structural Engineer in the State of Texas.

MATERIALS AND FINISH

Provide a powder coat finish on all metal fascia's, roofs, rafters, columns and purlins of the metal shelter. Timber for interior structural components is acceptable.

Metal shelter component color is charcoal grey (SR.28 SRI 30).

Use A325 high-strength bolts, A563 structural nuts, and ASTM A307 grade anchor bolts for structural connections. Provide stainless steel for all hardware.

Stone veneer column bases may be provided as approved by Park and Recreation Staff.

Corrugated metal roof is required on metal shelters.

FEATURES

Architectural elements added to the roof, rafters, columns, fascia, or other component of the canopy must be approved by Park and Recreation Staff.

INSTALLATION

Provide shop drawings to Park and Recreation Staff for review prior to installation.

Locate metal canopies to minimize conflict with active uses or with vegetation.

Provide concrete footings consistent with manufacturer's recommendations. Slope the top of footing to shed water.

Provide a grounding device for shelters for lightning protection.

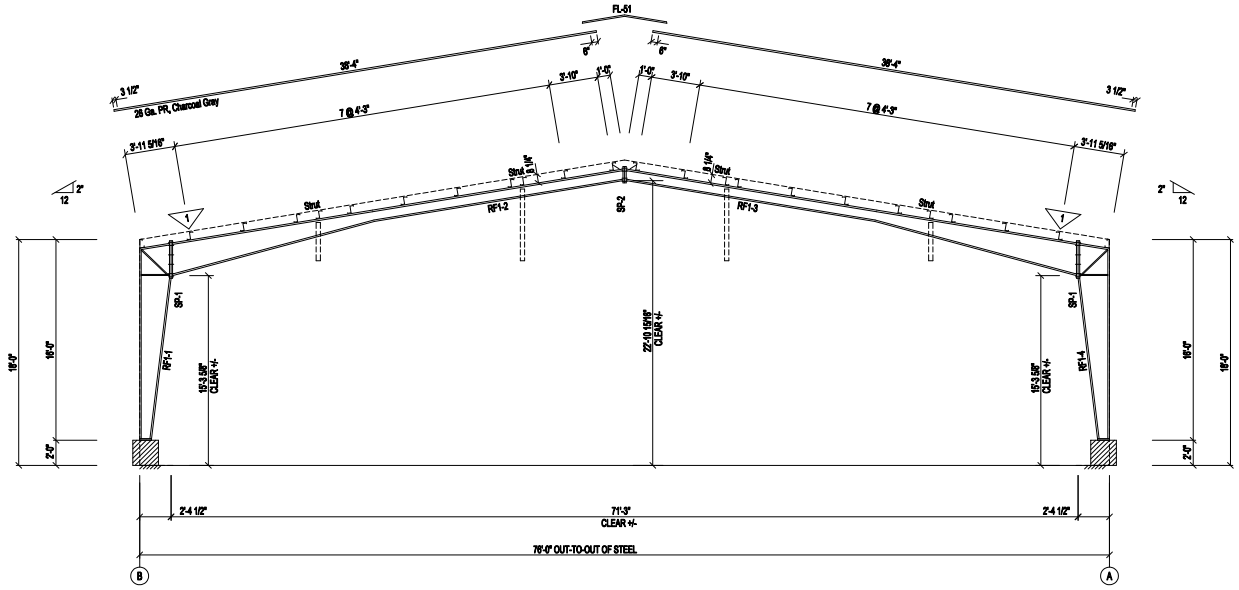
Design metal shelters for wind loading consistent with City of Angleton code. Inspect metal shelter connections, foundations, roof, and other components every 5 years or after a high wind event.

LIFE CYCLE EXPECTATIONS

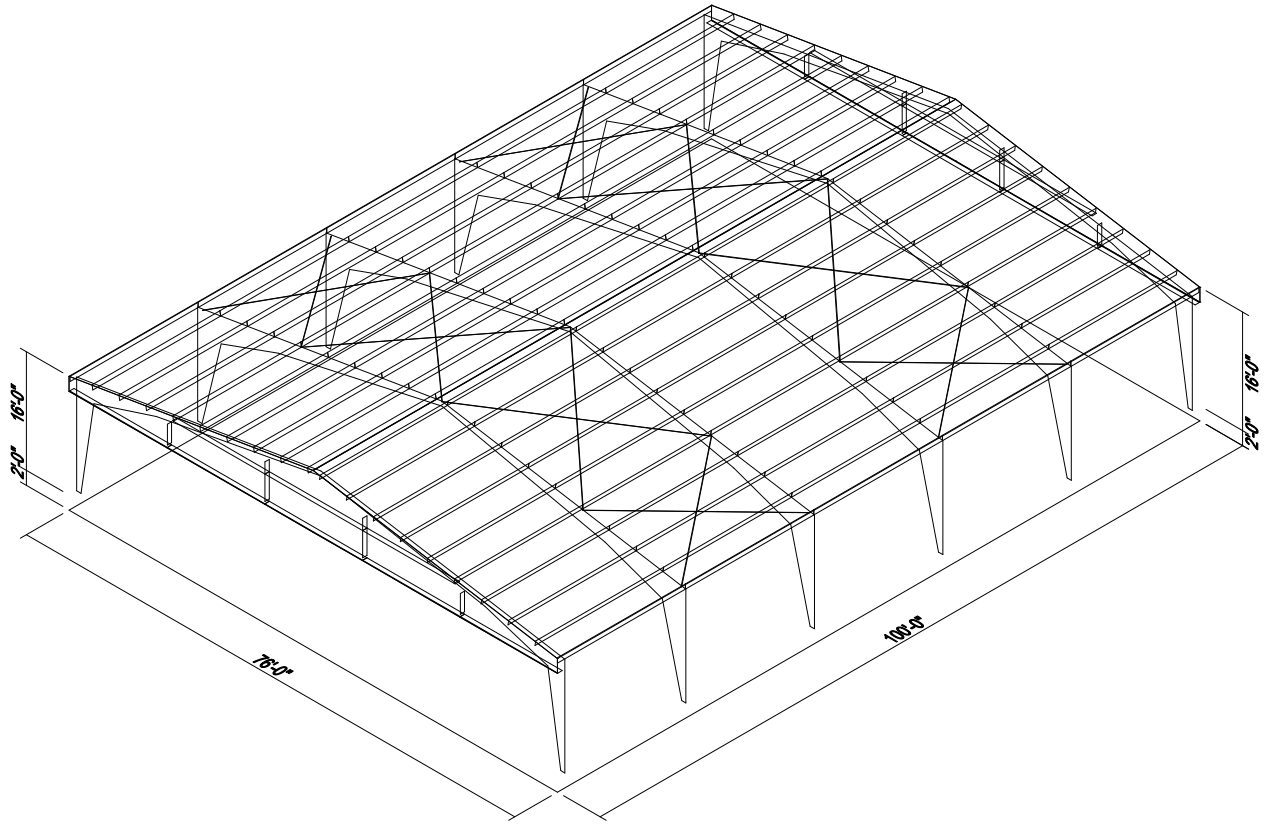
A 5 year minimum warranty is required for shade canopies.

Shade canopies are anticipated to require replacement after 20-30 years or normal and ordinary use.

Metal Shelter



Bates Park Metal Shelter



Bates Park Metal Shelter

Restroom Facility

Conceptual Building at Lakeside Park

PURPOSE

Restroom facilities provide convenience, shelter, and utility service in support of site programs.

GENERAL INFORMATION

Size and configuration of restroom facilities is as approved by Park and Recreation Staff. A prefabricated restroom facility is acceptable.

Site buildings to complement other facilities and the surrounding context in scale, materials, and placement.

Provide restroom facilities to City standards and be consistent with current ADA/ADAAG standards, International Building Codes, and International Plumbing Code.

Provide at least 1 restroom facility per park. Provide restroom facilities at a rate of 1 per 5 acres.

Design new restroom buildings inspired by City of Angleton Lakeside Park restroom facility.

Locate facility entrance to be clearly visible from adjacent public street or parking lot. Identify the primary building entry by articulation of the building mass or other architectural features.

If a non pre-fabriacted building is desired, provide architectural plans designed by licensed Architect in the State of Texas.

Reference Metal Shelter standard for preferred non-prefabricated building style and materials.

Related Standards: Metal Shelter

MATERIALS AND FINISH

Restroom facilities may vary in material but be consistent with City of Angleton Identity Master Plan. Materials may include:

- Cream Limestone
- Stone Veneer
- Concrete
- Aluminum
- Steel

Provide a powder coat finish on all exterior metals for the restroom facility.

Architectural shingles is required on restroom facilities.

FEATURES

Architectural elements added to the roof, rafters, columns, fascia, or other component of the canopy must be approved by Park and Recreation Staff.

Restroom facilities may incorporate storage or offices for park operations.

INSTALLATION

Provide shop drawings to Park and Recreation Staff for review prior to installation.

Locate restroom facilities to minimize conflict with active uses or with vegetation.

Provide concrete footings consistent with manufacturer's recommendations. Slope the top of footing to shed water.

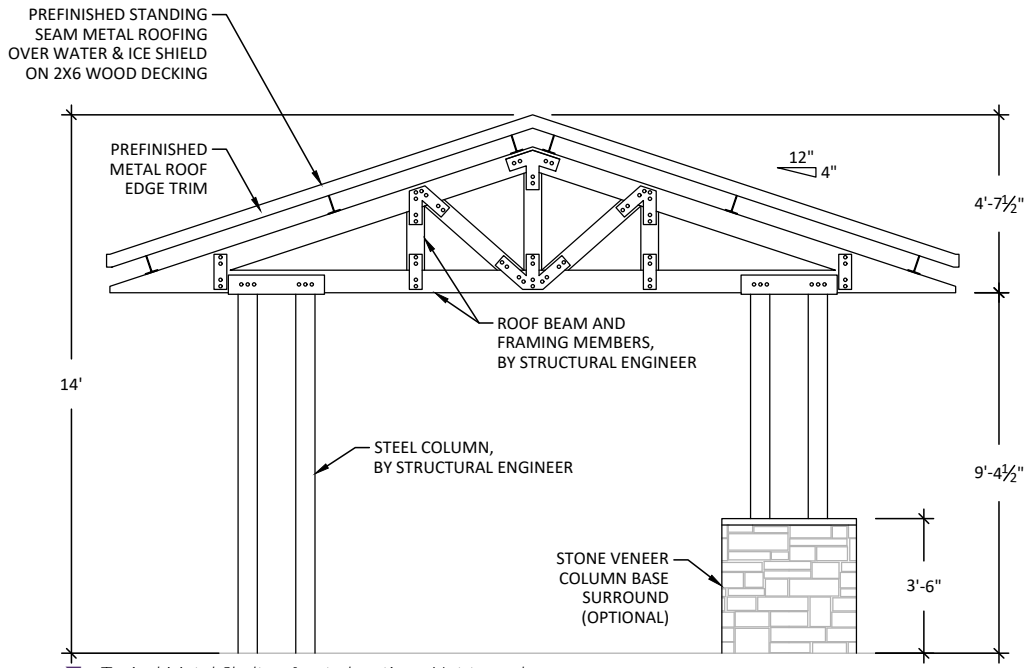
Design restroom facilities for wind loading consistent with City of Angleton code. Inspect restroom facility connections, foundations, roof, and other components every 5 years or after a high wind event.

LIFE CYCLE EXPECTATIONS

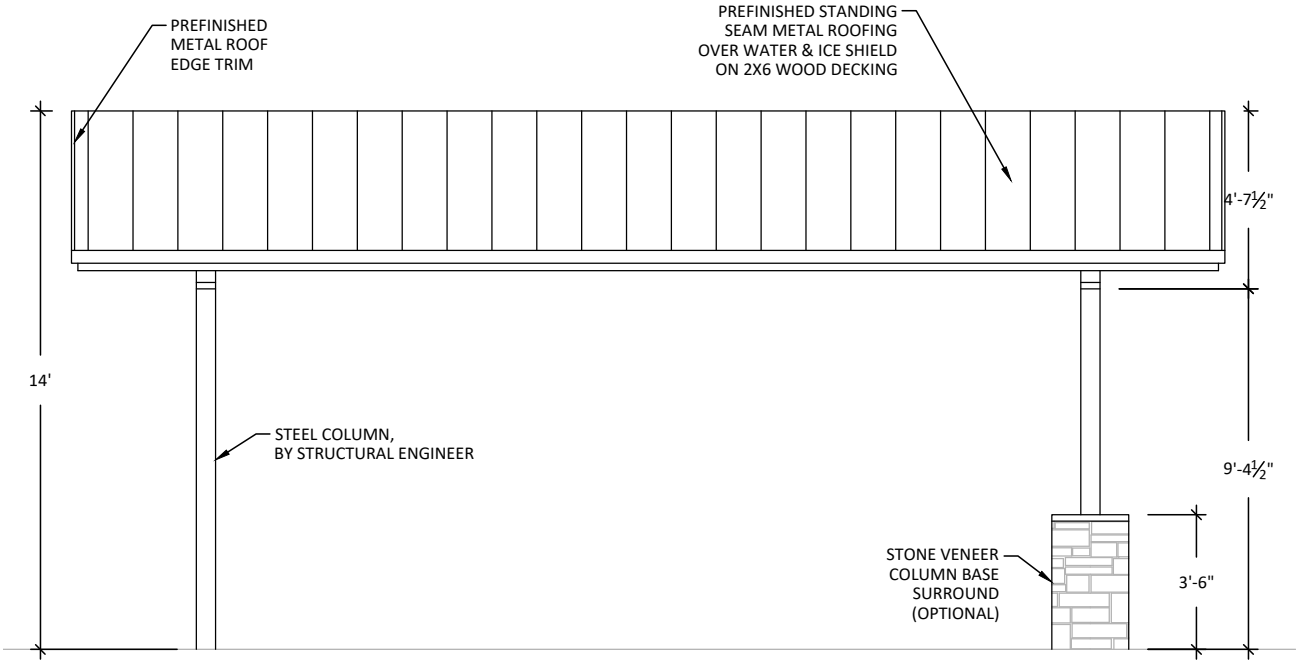
A 5 year minimum warranty is required for restroom buildings.

Restroom buildings are anticipated to require replacement after 30-40 years with normal and ordinary use.

Restroom Facility



Typical Metal Shelter, front elevation. Not to scale



Lakeside Park Restroom Facility elevation. Not to scale

Shade Canopy

Shade Canopy at Freedom Park

STANDARD MODEL

Superior Recreational Products, Hanging Cantilever Hip Shade Structure

- 18'L x 12'W x 11'H

Frame Color: Feather Gray

Shade Fabric: Midnight

OR CITY APPROVED EQUAL

PURPOSE

Provide shade canopies for shade and protection patrons from inclement whether in support of proposed facilities.

GENERAL INFORMATION

Shade canopies are available in a variety of sizes and configurations. Shade canopy size and configuration is as approved by Park and Recreation Staff.

Construct shade canopy to comply with the current ASTM standards and guidelines.

Do not impede movement of pedestrian access.

Example locations of a shade canopy use include: walking trail bench, athletic field/court benches, bleachers, playgrounds, or as directed by Park and Recreation Staff.

MATERIALS AND FINISH

Provide a powder coat finish on all metal posts of the shade canopy.

Shade canopy post and structure color is feather gray. Shade canopy fabric color is midnight.

Use A325 high-strength bolts, A563 structural nuts, and ASTM A307 grade anchor bolts for structural connections. Provide stainless steel for all hardware.

Stone veneer column bases may be provided as approved by Park and Recreation Staff.

FEATURES

Architectural elements added to the canopy, posts, or other component must be approved by Park and Recreation Staff.

INSTALLATION

Provide shop drawings to Park and Recreation Staff for review prior to installation.

Locate shade canopies not to conflict with active uses or with vegetation.

Install concrete footings consistent with manufacturer's recommendations. Slope the top of footing to shed water.

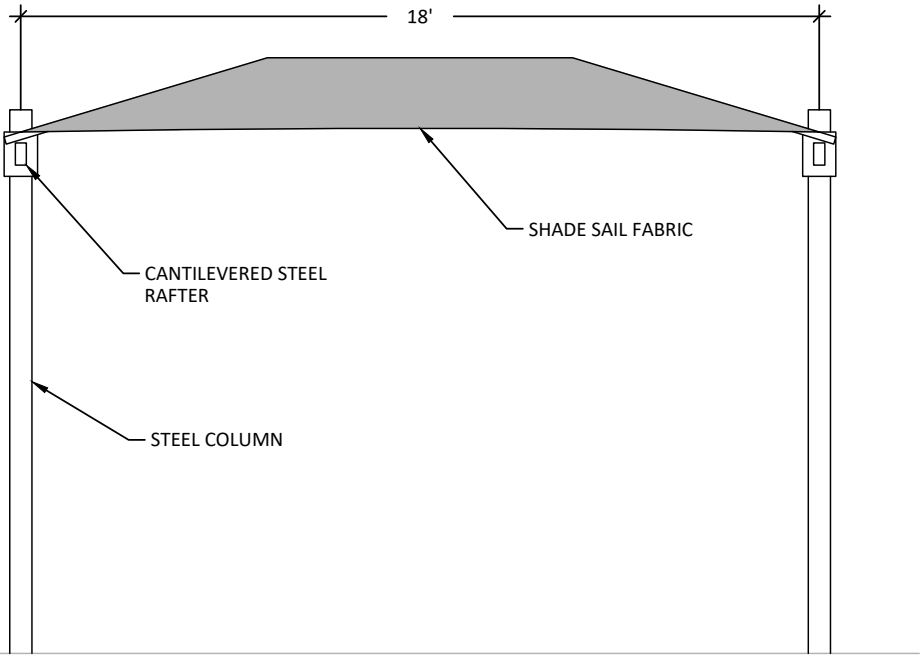
Design shade canopies for wind loading consistent with City of Angleton code. Inspect shade canopy connections, foundations, roof, and other components every 5 years or after a high wind event.

LIFE CYCLE EXPECTATIONS

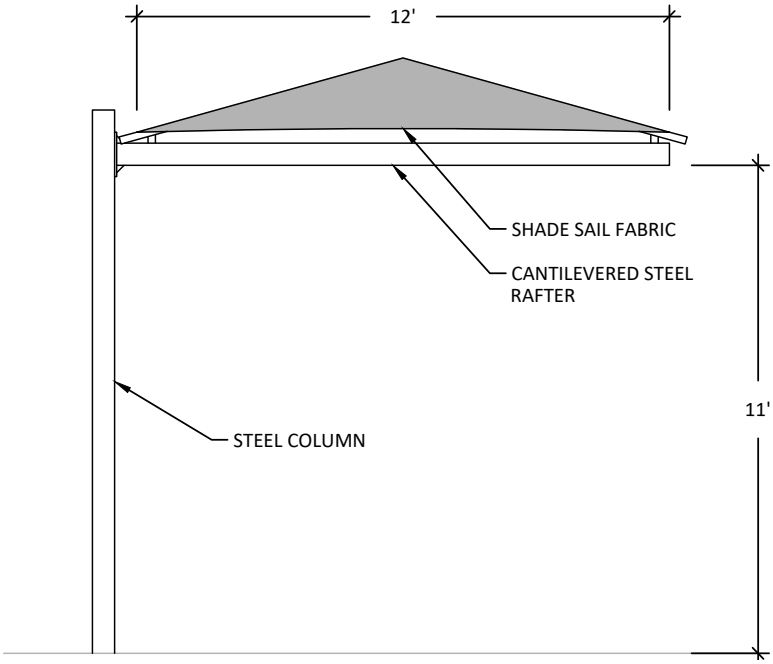
A 5 year minimum warranty is required for shade canopies.

Shade canopies are anticipated to require replacement after 10 years or normal and ordinary use.

Shade Canopy



Typical Cantilevered Shade Canopy, front elevation. Not to scale



Typical Cantilevered Shade Canopy, side elevation. Not to scale

Picnic Pavilion

Wood Shelter

PURPOSE

Provide picnic pavilion to shade picnic areas and protect patrons from inclement weather.

GENERAL INFORMATION

Picnic Pavilions are available in a variety of sizes and configurations. Picnic Pavilion size and configuration is as approved by Park and Recreation Staff.

Design picnic pavilions consistent with the latest edition of the following guidelines and standards:

- American Institute of Timber Construction Standards
- Standard Specification for Glued Laminated Timber
- American National Standard of Wood Products - Structural Glued Laminated Timber
- American Institute of Timber Construction Inspection Manual
- American Wood Preserver's Association Standard
- International Building Code

Construct picnic pavilions consistent with city standards and the requirements of the American with Disabilities Act (ADA). At least 1 picnic pavilion is required for parks larger than 5 acres.

MATERIALS AND FINISH

Provide wood materials consistent with the previously mentioned guidelines and standards.

Architectural shingles is required on picnic pavilions.

Provide stainless steel hardware.

Stone veneer column bases may be provided as approved by Park and Recreation Staff.

FEATURES

Architectural elements added to the roof, columns, fascia, or other component of the pavilion must be approved by Park and Recreation Staff.

INSTALLATION

If pavilions are pre-fabricated, install consistent with manufacturer's recommendations.

Construct footings at 4 feet minimum depth.

Design picnic pavilions for wind loading consistent with City of Angleton code. Inspect picnic pavilion connections, foundations, roof, and other components every 5 years or after a high wind event.

LIFE CYCLE EXPECTATIONS

A 5 year minimum warranty is required for picnic pavilions.

Picnic pavilions are anticipated to require replacement after 30 years of normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

06. PLAYGROUNDS

- Playground
- Playground Boundary
- Fall Surfacing - Engineered Wood Fiber
- Fall Surfacing - Poured in Place Rubber
- Fall Surfacing - Rubber Tile Surfacing

PAGE INTENTIONALLY LEFT BLANK

Playground

Playground equipment at Dickey Park

PURPOSE

Provide playground equipment in parks to maximize play value and safety, while minimizing long-term maintenance.

LIFE CYCLE EXPECTATIONS

Provide readily available replacement parts, maintenance kits, and fasteners for the life of the play equipment.

A warranty of 10 years minimum is required.

Play structures are anticipated to require replacement after 15-20 years based on normal and ordinary use.

GENERAL INFORMATION

Provide certified components to the International Playground Equipment Manufacturers Association or equal.

GENERAL INFORMATION

Provide playground equipment consistent with current CPSC and ASTM safety standards.

Provide equipment consistent with current ADA/ADAAG standards.

Provide playgrounds and equipment to intended age groups. Typical age ranges include: pre-school (2-5 years old (y.o.)), school (5-12 y.o.), and general (2-12 y.o.).

Provide a playground, concrete edging, and surfacing with a 30 child minimum capacity per industry standards. If a playground in a dedicated park is within 1/4th mile, provide other facilities such as athletic courts or splash pads.

Fully concealed areas are prohibited.

Install a 4 foot minimum concrete sidewalk continuous at perimeter of play spaces.

MATERIALS AND FINISH

Provide equipment consisting of durable material designed for exterior use and resistance to climate/vandalism.

Structures with excessive joints, rough welded corners, pinch points, or sharp points are prohibited.

Provide double powder coated finish on all play equipment.

Provide stainless steel hardware.

Provide slip resistant surfacing on play equipment.

Minimize light/bright colors for equipment finishes.

Recycled material is acceptable as approved by Park and Recreation Staff.

FEATURES

Clearly identify a manufacturer on all play equipment.

Provide an age group and playground use sign. Locate the sign in a clearly designated area.

Include inclusive play equipment and shade features.

Include a minimum of 1 accessible swing seat.

Minimize the use of cables, ropes, and chains.

Provide a clear viewing opening for all tubes or enclosed play features. Such components are not to exceed 4 feet in length.

Sand boxes and loose toys are prohibited.

INSTALLATION

Provide drawings to Park and Recreation Staff prior to installation.

Provide approved safety surfacing per the play component specifications.

Construct equipment consistent with manufacturer recommendations and industry safety specifications.

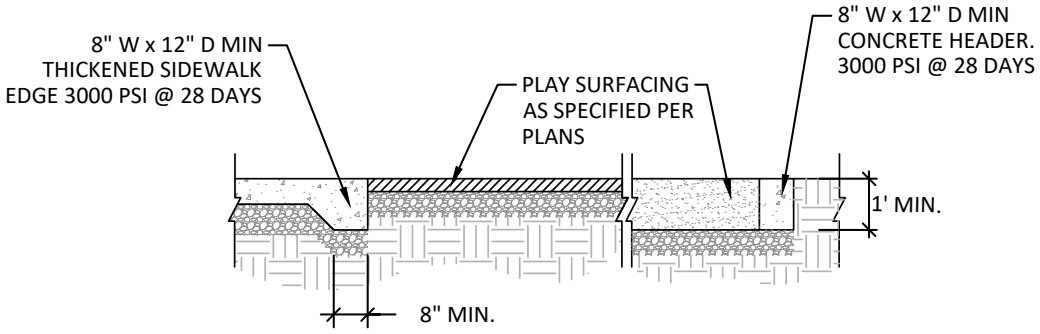
Construct equipment footings in the surfacing sub-grade. Construct approved safety surfacing over top of footing; exposed footings are prohibited.

Upon completion of playground installation, a Certified Playground Safety Inspector (CPSI) must audit the playground and equipment.

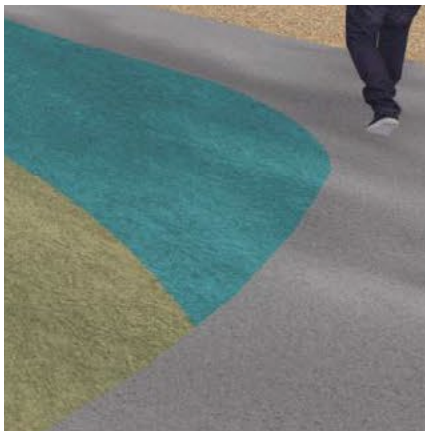
Owner is required to have a CPSI periodically inspect facility after acceptance.

PAGE INTENTIONALLY LEFT BLANK

Playground Boundary



Playground boundary conditions



Concrete playground boundary - Concept Plan for Lakeside Park

PURPOSE

Provide playground boundary to secure play surfacing for a safe and clean environment.

GENERAL INFORMATION

Enclose play surfacing with a concrete boundary. Design and install boundary to meet standards approved by Park and Recreation Staff, in accordance with related federal, national, state or local codes including, but not limited to, the following:

- International Play Equipment Manufacturer's Association (IPEMA)
- Consumer Product Safety Commission (CPSC) Handbook for Public Safety
- American Society for Testing and Materials (ASTM)
- Accessibility Standards for Play Areas through the ADA Accessibility Guidelines (ADAAG)

INSTALLATION

Construct containment borders wide enough to protect surfacing from mowing and other maintenance equipment.

Provide concrete sidewalk around play spaces and along all street frontage of park. at 4 feet minimum horizontal width.

Match concrete boundary finish grade to play surfacing finish grade.

Do not locate containment border within playground equipment use zone.

LIFE CYCLE EXPECTATIONS

A 3 year minimum warranty is required.

Concrete boundary are anticipated to require replacement after 20 years based on normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

Fall Surfacing - Engineered Wood Fiber

Engineered Wood Fiber

PURPOSE

Use engineered wood fiber on a limited basis with approval by Park and Recreation Staff in outdoor playgrounds and areas where an impact attenuating surface is desired at current facilities. Surface is not recommended for new facilities.

GENERAL INFORMATION

Install engineered wood fiber consistent with standards approved by Park and Recreation Staff, in accordance with related federal, national, state or local codes including, but not limited to, the following:

- International Play Equipment Manufacturer's Association (IPEMA)
- Consumer Product Safety Commission (CPSC) Handbook for Public Safety
- American Society for Testing and Materials (ASTM)
- Accessibility Standards for Play Areas through the ADA Accessibility Guidelines (ADAAG)

Construct a subsurface drainage system with all new safety surfacing. Connect playground subsurface drainage to stormwater collection system.

Related Standards: Playgrounds, Playground Boundary

MATERIALS AND FINISH

Install engineered wood fiber of Texas softwood or hardwoods that do not exceed 3/4 inches in length.

Use non-toxic materials. Chemicals, additives, recycled wood products, wood pallets or waste wood are prohibited.

Provide material free of disease, insects, invasive species, soil, leaves, bark, twigs, metals, or other foreign objects.

INSTALLATION

Coordinate installation of surfacing with play equipment installer.

Prior to installation, contractor to confirm existing sub-grade is free of weeds, and other debris.

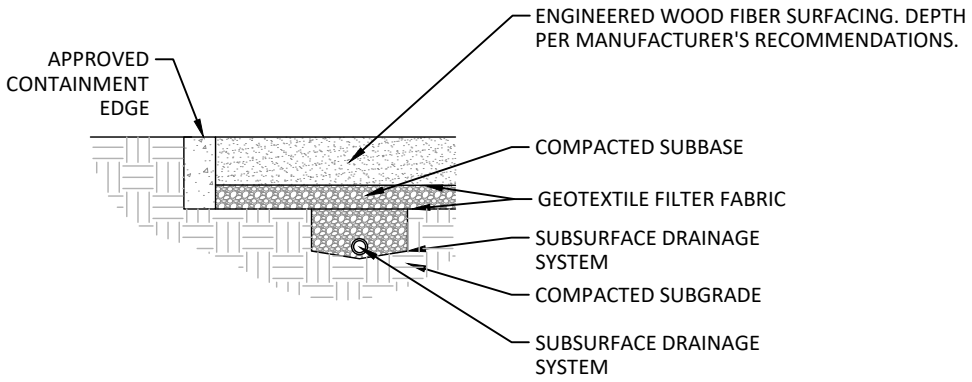
Install material according to depths specified by the manufacturer and CPSC guidelines.

After installation, a qualified third party must test the surfacing for GMAX and HIC scoring, consistent to ASTM standards.

LIFE CYCLE EXPECTATIONS

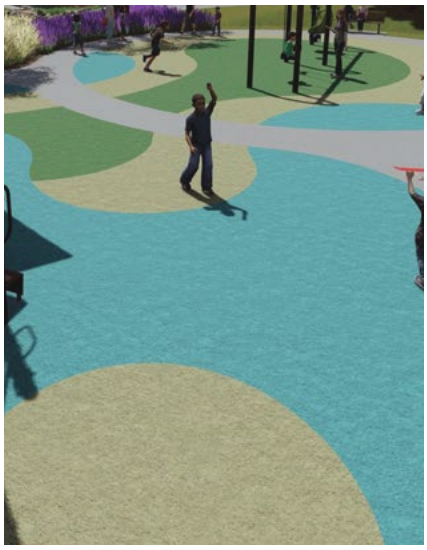
Engineered wood fiber is anticipated to require replenishment annually based on normal and ordinary use.

Fall Surfacing - Engineered Wood Fiber



Engineered Wood Fiber Surfacing section

Fall Surfacing - Poured in Place Rubber



Poured in Place Rubber Surfacing - Concept Plan for Lakeside Park

PURPOSE

Use poured in place rubber in outdoor playgrounds and areas where an impact attenuating surfacing is desired. Poured in place rubber is preferred for new facilities.

GENERAL INFORMATION

Construct a subsurface drainage system with all new safety surfacing. Connect playground subsurface drainage to stormwater collection system.

Related Standards: Playgrounds, Playground Boundary

GENERAL INFORMATION

Construct poured in place rubber consistent with standards approved by Park and Recreation Staff, in accordance with related federal, national, state or local codes including, but not limited to, the following:

- International Play Equipment Manufacturer's Association (IPEMA)
- Consumer Product Safety Commission (CPSC) Handbook for Public Safety
- American Society for Testing and Materials (ASTM)
- Accessibility Standards for Play Areas through the ADA Accessibility Guidelines (ADAAG)

MATERIALS AND FINISH

Install ethylene propylene diene monomer (EPDM) native rubber for surface material.

Minimize the use of light or bright colors. Color ratios should incorporate 25% black to 75% color.

Use 'aliphatic' 100% polyurethane with UV stabilizer binders.

Compacted aggregate is the preferred sub-base material. A minimum aggregate sub-base is 8 inches vertical depth.

Poured concrete may be used for poor or unstable soils.

Connect playground subsurface drainage to stormwater collection system.

Install surfacing as a two layer system consisting of EPDM. The minimum vertical depth of the top EPDM layer is 1/4 inch.

INSTALLATION

Coordinate installation of surfacing with play equipment installer.

Follow manufacturer installation recommendations. Install material consistent to manufacturer recommended depths and ASTM and CPSC guidelines.

Contractor to ensure sub-grade and all subsurface drainage systems drain properly.

A qualified third party to test the surfacing for GMAX and HIC scoring, consistent to ASTM standards, after installation.

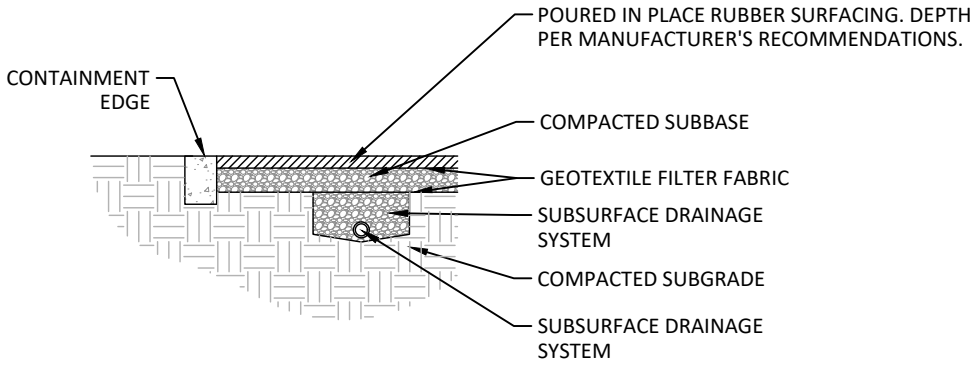
LIFE CYCLE EXPECTATIONS

A 5 year limited warranty is required.

Poured in place rubber is anticipated to require replacement after 10-15 years based on normal and ordinary use.

Areas of high traffic such as landing zones at apparatus may require spot replacement at more frequent intervals.

Fall Surfacing - Poured in Place



Poured in Place Rubber Surfacing section

Fall Surfacing - Rubber Tile System

SofSurfaces Rubber Tile System

RUBBER TILE SYSTEM

Manufactuerer: SofSurfaces
Product: SofTILE KrosLOCK

PURPOSE

Use rubber tiles in outdoor playgrounds and areas where an impact attenuating surfacing is desired.

GENERAL INFORMATION

The standard interlocking tile system is "SofTILE KrosLOCK" manufactureed by SofSurfaces, Inc., or City approved equal.

Construct a subsurface drainage system with all new safety surfacing. Connect playground subsurface drainage to stormwater collection system.

GENERAL INFORMATION

Construct poured in place rubber consistent with standards approved by Park and Recreation Staff, in accordance with related federal, national, state or local codes including, but not limited to, the following:

- International Play Equipment Manufacturer's Association (IPEMA)
- Consumer Product Safety Commission (CPSC) Handbook for Public Safety
- American Society for Testing and Materials (ASTM)
- Accessibility Standards for Play Areas through the ADA Accessibility Guidelines (ADAAG)

Related Standards: Playgrounds, Playground Boundary

MATERIALS AND FINISH

Use 2 inches minimum tile thickness, or greater, in compliance with CPSC and ASTM standard.

Minimize the use of light or bright colors. Color ratios should incorporate 25% black to 75% color.

Install tiles on concrete slab.

A poured concrete slab is the preferred sub-base for rubber tiles. Slope concrete sub-slab at 1% minimum to under-drains.

Connect playground subsurface drainage to stormwater collection system.

INSTALLATION

Coordinate installation of surfacing with play equipment installer.

Install material consistent to manufacturer recommended depths and ASTM and CPSC guidelines.

Contractor to ensure sub-grade and all subsurface drainage systems drain properly.

A qualified third party to test the surfacing for GMAX and HIC scoring, consistent to ASTM standards, after installation.

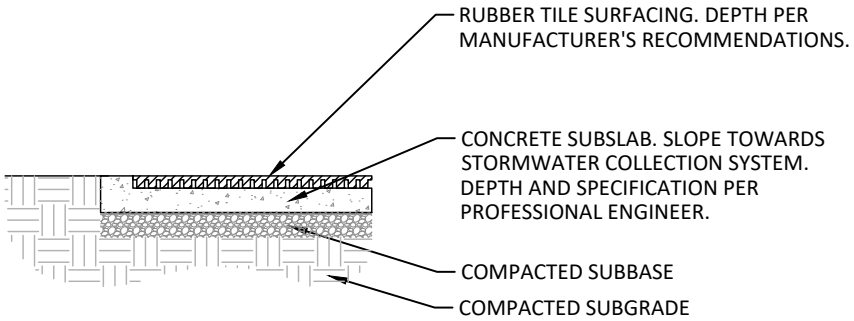
LIFE CYCLE EXPECTATIONS

An 8 year minimum warranty is required.

Rubber tile systems are anticipated to require replacement after 10-15 years based on normal and ordinary use.

Areas of high traffic such as landing zones at apparatus may require spot replacement at more frequent intervals.

Fall Surfacing - Rubber Tile System



Poured in Place Rubber Surfacing section

07. BALL COURTS AND ATHLETIC FIELDS

- Baseball / Softball Field
- Basketball Court
- Court Surfacing
- Disc Golf
- Football Field
- Horseshoe Pit
- Soccer Field
- Tennis Court
- Volleyball Court

PAGE INTENTIONALLY LEFT BLANK

Ball Courts

Tennis Court

Basketball Court

PURPOSE

Provide outdoor ball courts to serve the recreation needs of the community.

GENERAL INFORMATION

Ball courts to comply with related federal, national, state or local standards including but not limited to, the following:

- National Federation of State High School Associations (NFSH)
- Sports Turf Management Association (STMA)

Provide positive drainage, maximum 1% slope, from court centerline to the base lines on all ball courts.

Provide an accessible pedestrian pathways to all ball courts.

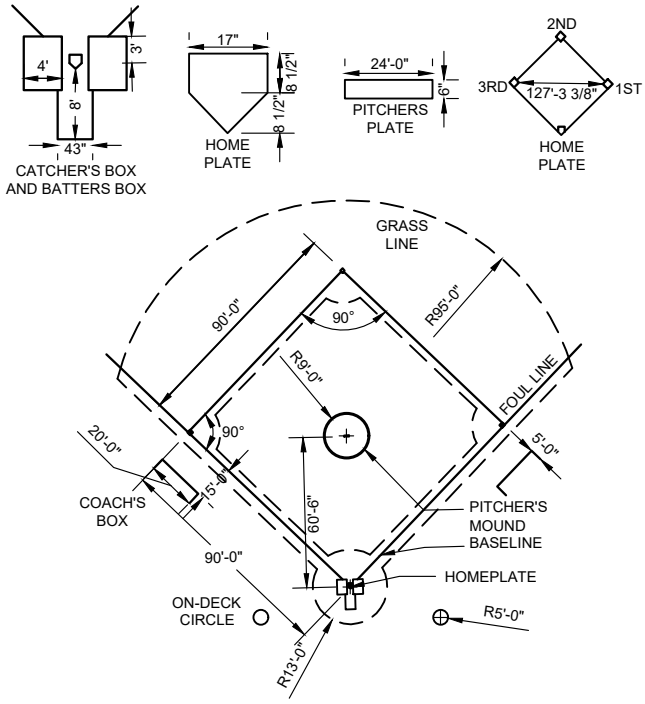
Orient ball courts north-south on the long axis, with maximum 11 degrees off axis for optimal solar alignment.

Ball courts may be designed to serve multiple sports as approved by Park and Recreation Staff.

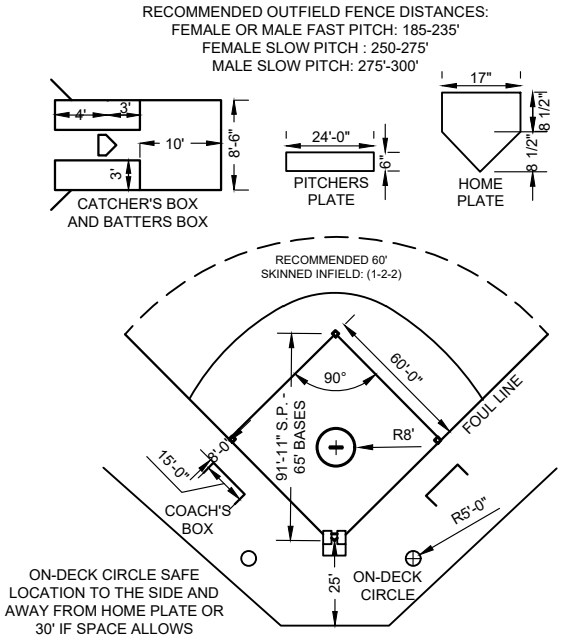
Related Standards: Court Surfacing, Basketball Court, and Tennis Courts.

PAGE INTENTIONALLY LEFT BLANK

Baseball / Softball Field

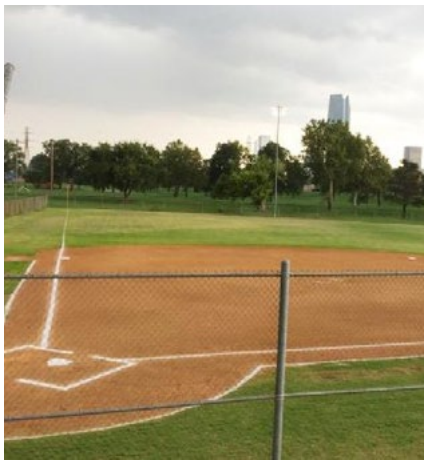


Baseball Field Diagram



Softball Field Diagram

Baseball Field



Softball Field

PURPOSE

To provide regulation fields for baseball or softball competition.

GENERAL INFORMATION - BASEBALL/SOFTBALL

Field layouts to conform to the most current National Federation of State High School Association (NFHS) standards or other governing bodies as appropriate.

Related Standards: Chain Link Fencing, Baseball/Softball Backstop

PAGE INTENTIONALLY LEFT BLANK

Baseball and Softball / Backstop

Backstop

PURPOSE

To provide a backstop with every diamond field.

GENERAL INFORMATION

Install backstops with a permanent, hooded, and flared/winged structure on diamond fields.

Backstop dimensions include:

- 16 feet minimum horizontal wings (each)
- 20 feet minimum horizontal center panel
- 12 feet minimum vertical height fence at the wings and rear of hood
- 20 feet minimum vertical height clearance at the front of hood

Related Standards: Baseball/Softball Field

MATERIALS AND FINISH

Use PVC coated, Class 2b, thermally fused and bonded for chain link fabric.

Install chain link fabric mesh with a core wire diameter of 9 gauge for the wings, hood, and center panels.

Use the color black for fabric mesh.

Include bottom rail on backstops.

Install 6 inches outside diameter, Schedule 40 for backstop posts.

Install hood frame rails 2 inches outside diameter.

Include a middle rail for fence panels over 6 feet in vertical height. Use 1-5/8 inch outside diameter middle rail/brace.

INSTALLATION

Site the diamond fields on a northeast or southeast orientation. Provide a 10-feet minimum unobstructed area within the foul area of the field.

Locate fence posts and supports outside the field of play for athletic facilities.

Mount posts in concrete footings to be flush to adjacent finished grade.

Slope the top of footing to shed water.

Footings and supports to be designed and sealed by a professional Structural Engineer.

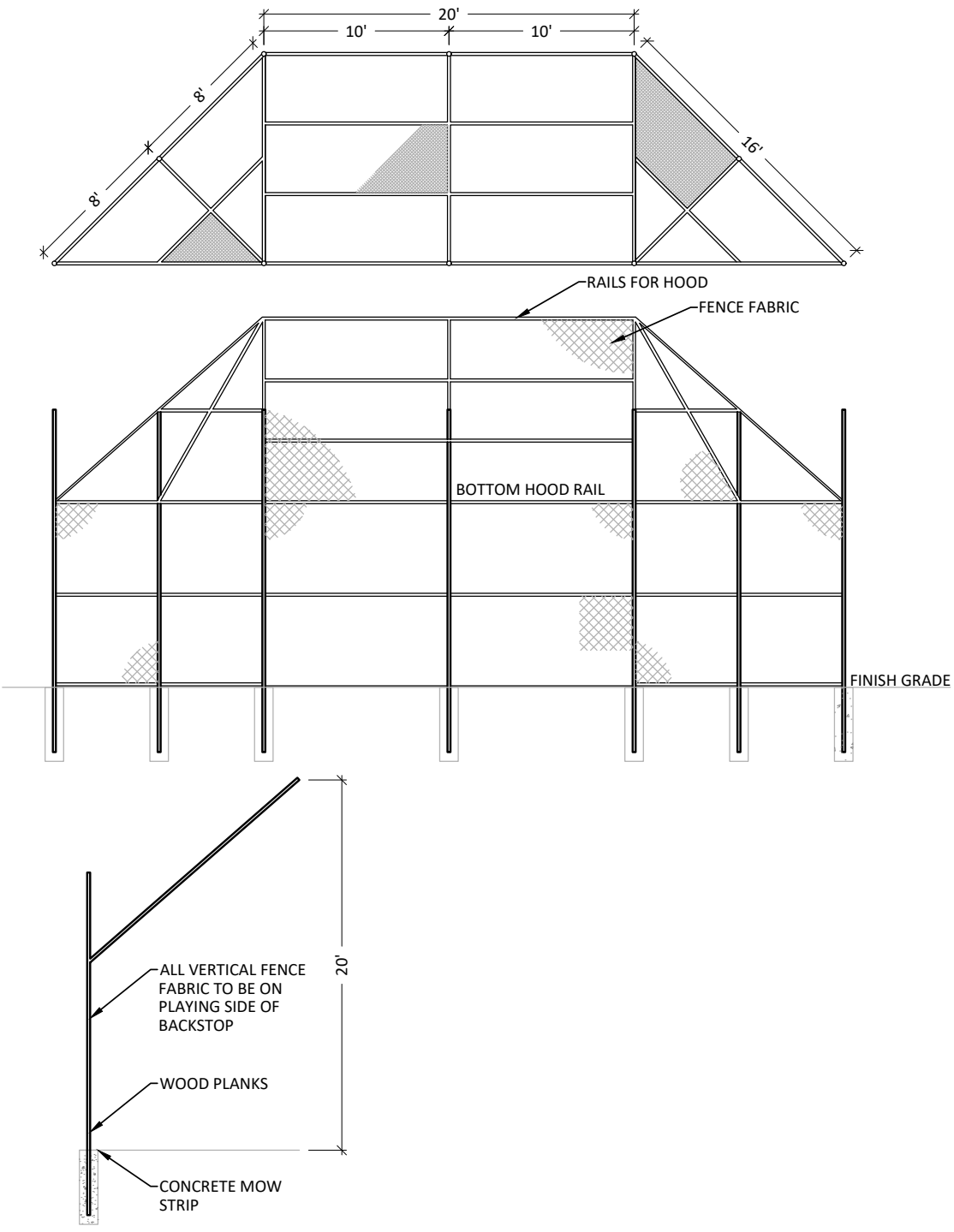
The fence fabric knuckling must not exceed 1-1/2 inches vertical height above the surrounding finish grade.

LIFE CYCLE EXPECTATIONS

A 5 year minimum warranty is required on metal framework.

Backstop structures are anticipated to require replacement after 20 years of normal and ordinary use.

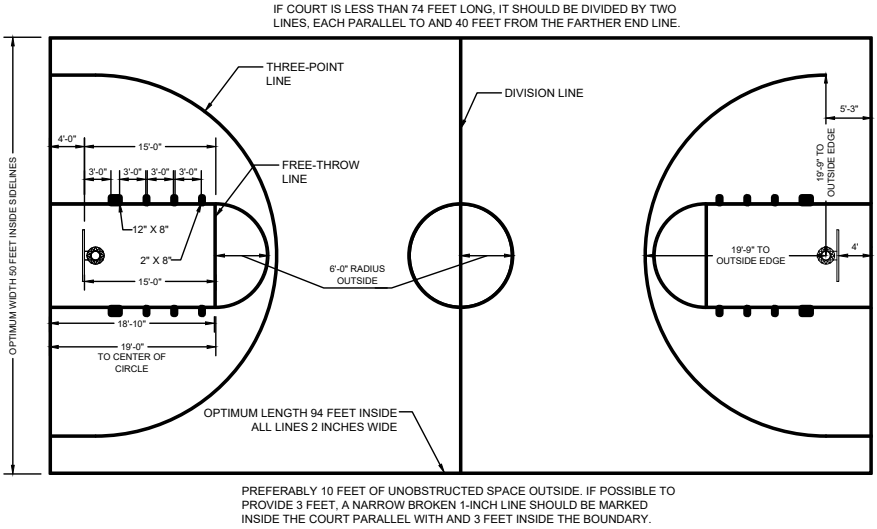
Baseball and Softball / Backstop



Backstop

Basketball Court

IPI by Bison BA873U Basketball Hoop



Court Diagram

PURPOSE

To provide competition style, heavy duty basketball hoops at outdoor basketball facilities.

GENERAL INFORMATION

Specify IPI by Bison BA873U for basketball hoop.

Construct court layouts to comply to the most current National Federation of State High School Associations (NFHS) standards or other governing bodies as appropriate.

Post systems to comply with National Collegiate Athletic Association (NCAA) regulations or other governing authority.

Site the basketball court on a north to south orientation. Provide a 10-feet minimum unobstructed area on all sides of the court.

Related Standards: Court Surfacing, Chain Link Fencing.

MATERIALS AND FINISH

Posts and supports to be 6 inches minimum square structural steel tubing with 1/4 inch thick walls.

Steel components to have a black color, double powder coat finish.

The backboard to be square, clear, unbreakable 1/2 inch thick polycarbonate with official perimeter and target area markings.

The goals to be double 5/8" diameter solid steel rim, with a continuous net attachment system.

The nets to be a white color, heavy duty, weather resistant nylon fiber.

FEATURES

Locate the backboard 4 feet inside the baseline with the rim 10 feet above the playing surface.

Provide post and backboard padding for upright posts located within court run out area.

INSTALLATION

Install posts consistent with manufacturer's recommendations. Position backboards consistent with NCAA standards.

Slope post foundations to shed water and be flush to finished grade.

Wind loading design to comply with American Society of Civil Engineers (ASCE) 7-98.

LIFE CYCLE EXPECTATIONS

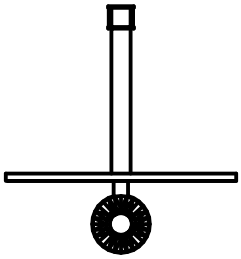
A 10 year minimum warranty is required.

Basketball hoops are anticipated to require replacement after 20 years of normal and ordinary use.

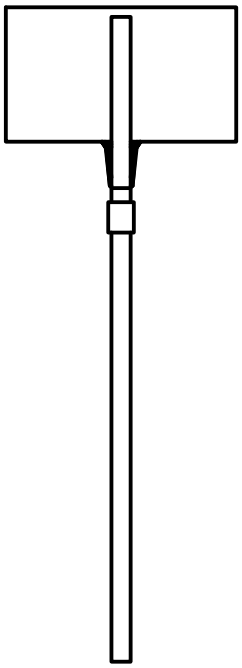
Nets are anticipated to require annual replacement with normal and ordinary use.

Posts are anticipated to require replacement after 10 years of normal and ordinary use.

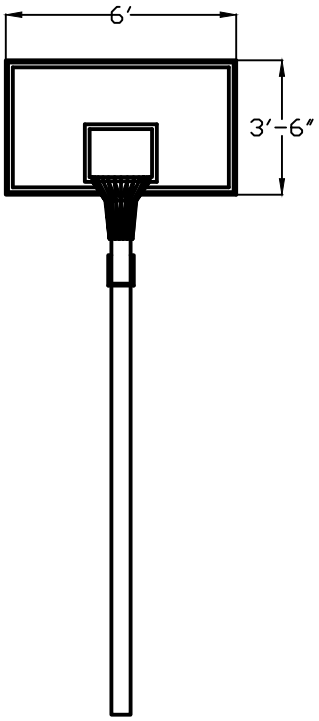
Basketball Court



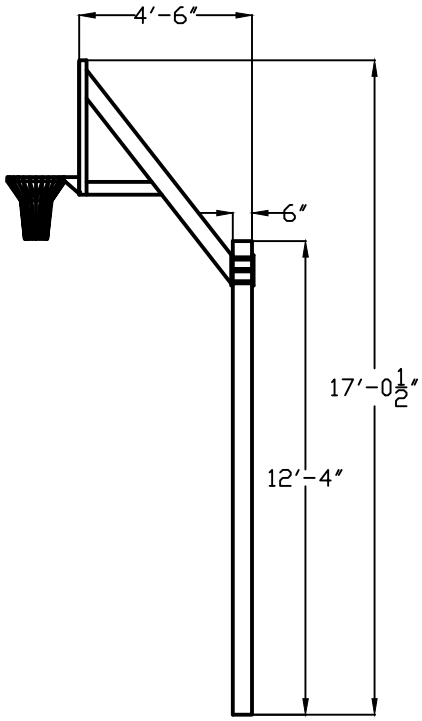
PLAN



SIDE ELEVATION



FRONT ELEVATION



BACK ELEVATION

Basketball Hoop

Court Surfacing

Basketball Court Surfacing

COURT SPECIFICATIONS

3” surfacing base minimum

4” Course base minimum

Colors: Purple or Gray

PURPOSE

All tennis, basketball, and multi-purpose courts to use a textured slip resistant surfacing.

GENERAL INFORMATION

Surfacing material and lining to meet United States Tennis Association standards and National Federation of State High School Associations.

Related Standards: Basketball Court, Tennis Court

MATERIALS AND FINISH

Construct courts on a 4 inch minimum depth aggregate base course compacted to specification by Geotechnical or Professional Engineer.

Construct asphalt surfacing to a 3 inch minimum depth.

Provide paved run out areas on all court sides at 10 feet minimum horizontal width.

Use primers or resurfacers to fill and seal the asphalt. Air pockets, holes, cracks, seams, depressions and other blemishes are unacceptable.

Color coating to consist of a mixture of 100% acrylic resins, water, sand and Portland cement.

Provide minimum two coats during color coating.

Provide solid and consistent black lines with sharp edges and corners.

FEATURES

The standard colors are Purple and Gray, with black lines.

Line tennis courts for both singles and doubles play.

Pickelball lines may be added as approved by Park and Recreation Staff.

INSTALLATION

Trained and certified crews to install court surfacing.

Courts to drain baseline-to-baseline at a 1% slope.

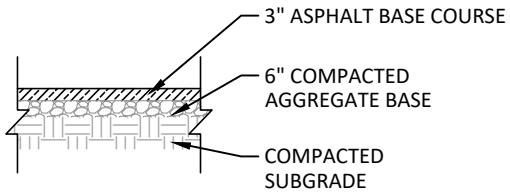
Ensure sub-grade and all subsurface drainage systems drain properly.

Standing water or water ponding on surfacing is unacceptable.

LIFE CYCLE EXPECTATIONS

Color coating is anticipated to require re-application after 5 years of normal and ordinary use.

Court Surfacing



Court Surfacing Section

Disc Golf

Disc Golf Basket at Bates Park

Disc Golf Tee Pad at Bates Park

DESCRIPTION

Disc Golf is played much like traditional golf, except players use a flying disc. A golf disc is thrown from a tee pad area to a target.

PURPOSE

Provide suitable disc golf baskets and tee for recreational play.

GENERAL INFORMATION

A well-balanced course has a mixture of holes that traverse through wooded and open areas. Typically, fairways in wooded area range from 20-40 feet wide. Small recreational courses typically fit two (2) to three (3) holes per acre depending on the terrain.

Fairways should not cross one another and be located far enough apart so errant throws do not become a safety hazard for other players. Avoid installing fairways that are close to public streets, sidewalks, and other areas where non-players congregate.

Course for recreational players should average less than 250 feet per hole, although, no hole should be shorter than 120 feet.

Courses are typically nine (9) or eighteen (18) holes.

MATERIALS AND FINISH

Provide one (beginner) and one (experienced) 5 feet width by 12 feet long tee pad for each hole. This provides opportunity for players of varying skill levels. Locate experienced tee pads 30 feet minimum from the back of the beginner tee pad.

Tee pads must be level from left to right. Provide a maximum slope of 1% from front to back of tee pad.

FEATURES

Provide a colored band at the top of the disc golf basket for visibility. Provide galvanized coating to basket chains to increase durability. Provide the corresponding hole number on the basket.

Provide a directional sign at each beginner tee pad. Provide the hole number, course map, and hole directional information on each sign.

Provide a heavy broom finish for increased traction and slip resistance on all tee pads.

INSTALLATION

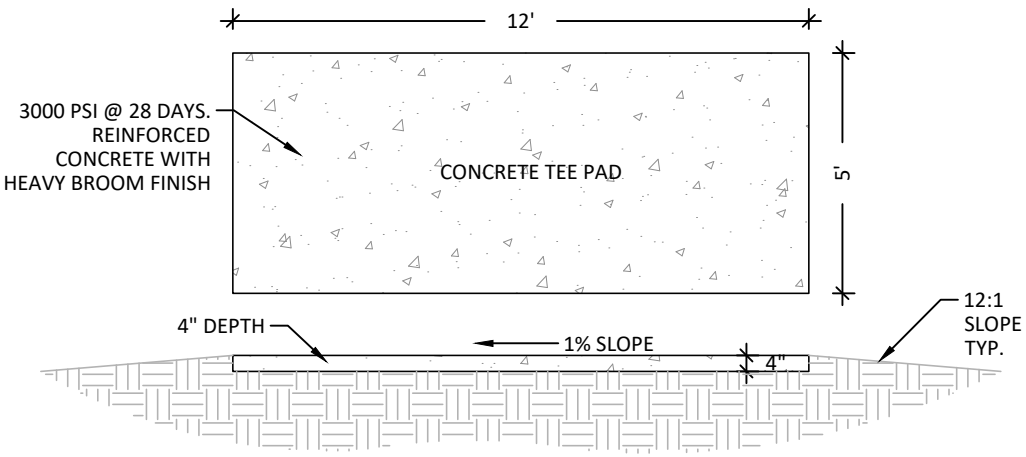
Locate baskets and tee pads in compliance to park design layout.

LIFE CYCLE EXPECTATIONS

A 5 year minimum warranty is required.

Disc golf baskets are anticipated to require replacement after 15 years of normal and ordinary use.

Disc Golf



Standard disc golf concrete tee pad layout and dimensions.

Football Field

GENERAL INFORMATION

Field layouts to conform to the most current National Federation of State High School Associations (NFHS) standards.

Site the football field on a north to south orientation. Provide a 10-feet minimum unobstructed area on all sides of the field.

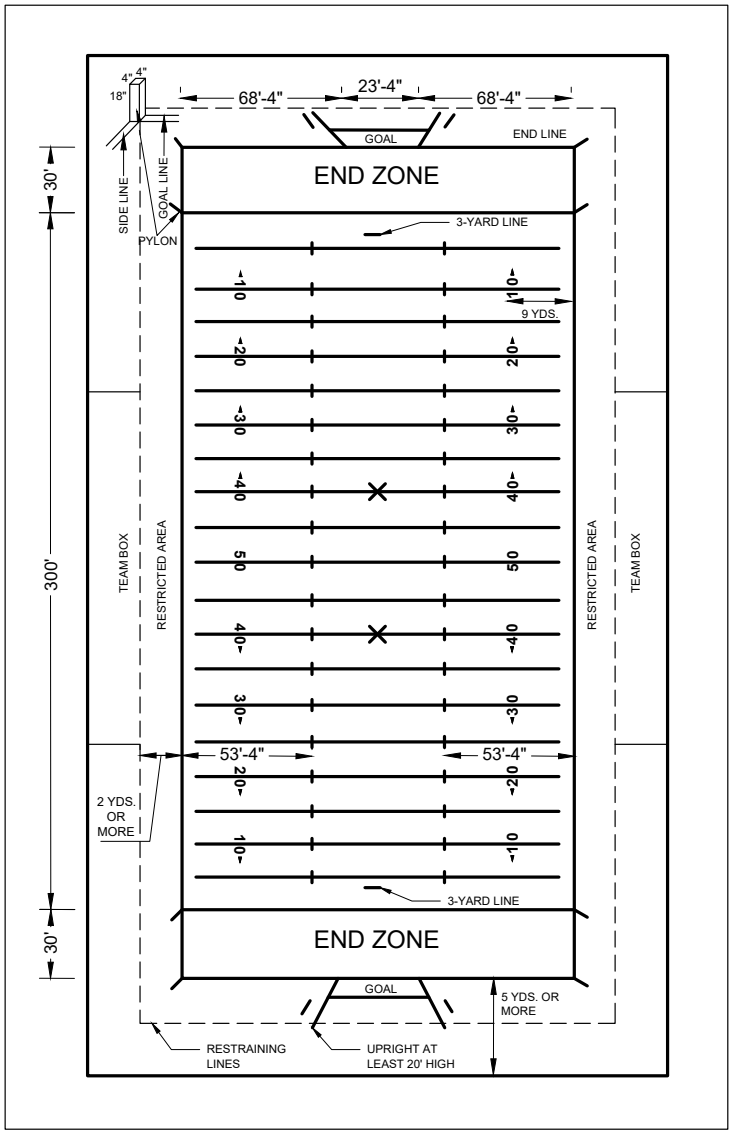
Related Standards: Fencing, Park Structures and Shelters, Ball Courts and Athletic Fields, Signage, Lighting, and Planting and Irrigation

FEATURES

Dimensions:

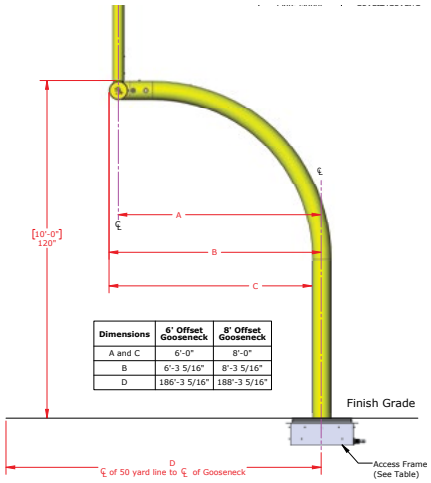
The total field width is measured from face of side line to face of side line.

The total field length is measured from face of back-end line to face of back-end line.

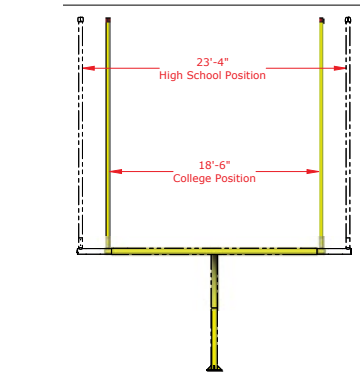


Field Diagram

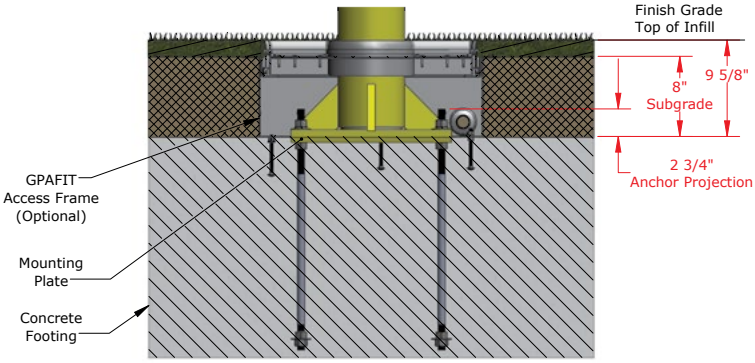
Football Field



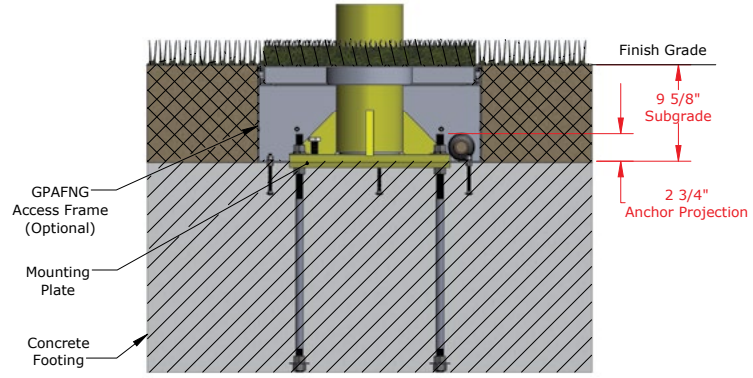
Goal Post Gooseneck



Goal Post Width

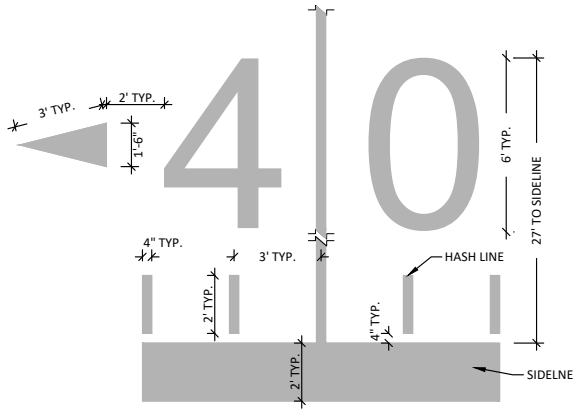


Synthetic Infill Turf Application

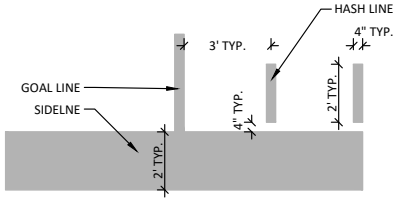


Natural Grass Application

Goal Post Natural and Synthetic Turf Install

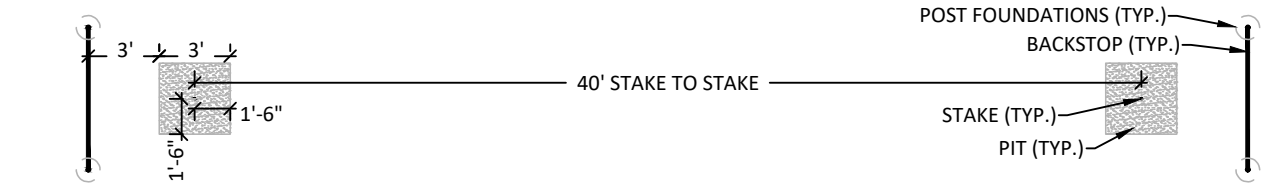


Football Hash Mark

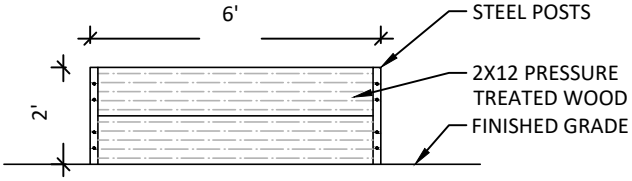


Football Goal Line

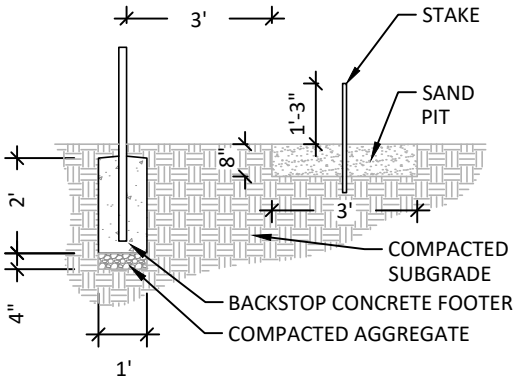
Horseshoe Pit



Horseshoe Pit Layout



Horseshoe Pit Backboard



Horseshoe Pit Section

Horseshoe Pit at Dickey Park

PURPOSE

Provide suitable horseshoe stakes and backstops at appropriate parks for recreational use.

GENERAL INFORMATION

Site horseshoe pits on a north to south axis.

Space adjacent courts at 12 feet minimum apart horizontal distance from stake to stake.

MATERIALS AND FINISH

Use pressure treated cedar wood for horseshoe backstops.

Paint backstops black.

Sand must be high quality sand, fast draining, free of shells, rocks, clay, and other debris.

INSTALLATION

Fill pit areas with sand, 8 inch depth minimum.

LIFE CYCLE EXPECTATIONS

Provide sand as a top layer annually based on normal and ordinary use.

Backstop boards are anticipated to be replaced every 5 years based on normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

Soccer Field

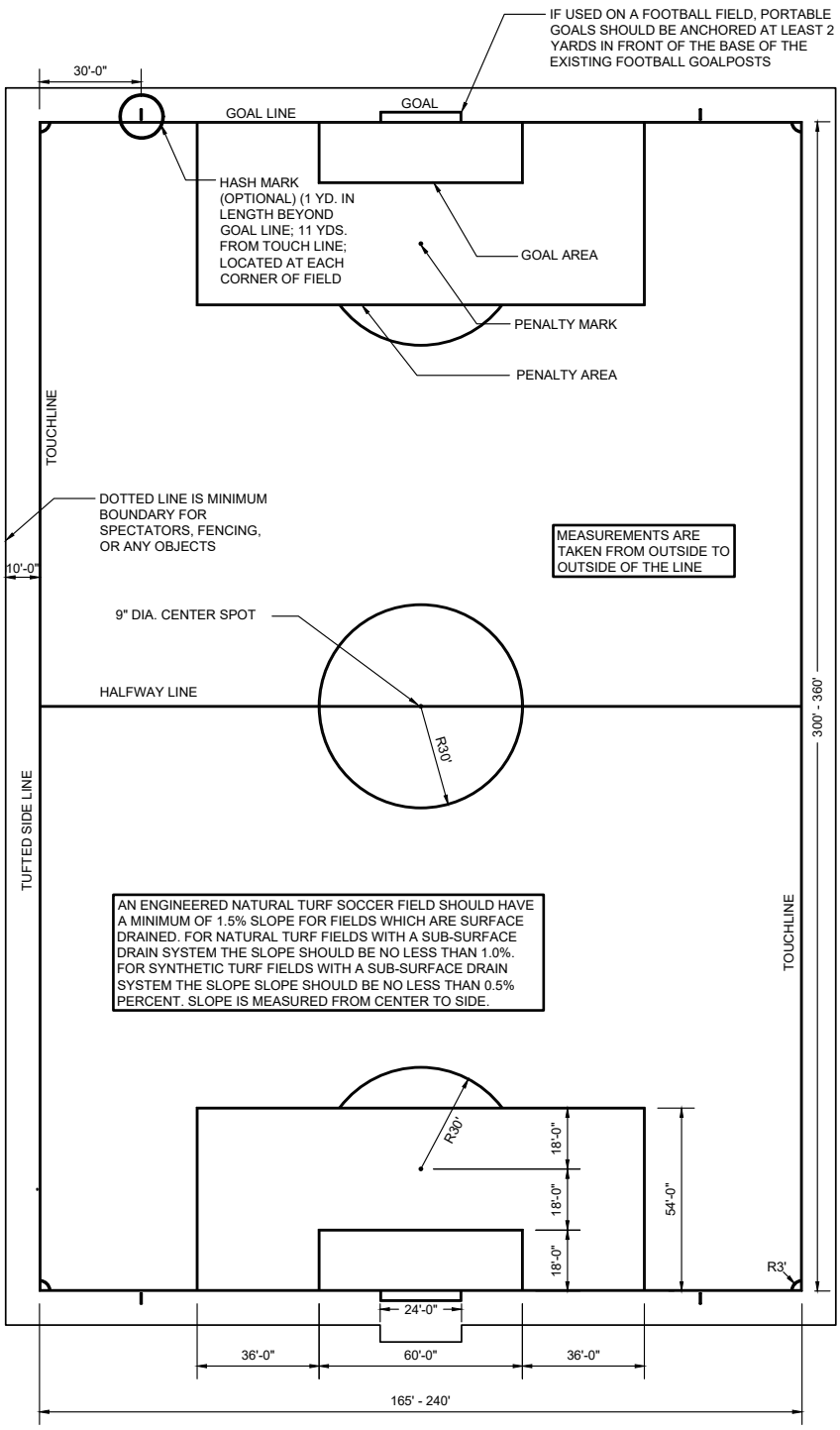
GENERAL INFORMATION

Field layouts to conform to the most current National Federation of State High School Associations (NFHS) standards or other approved governing bodies as appropriate.

Use soccer goal and football goal post combination goals on athletic fields that share the same field.

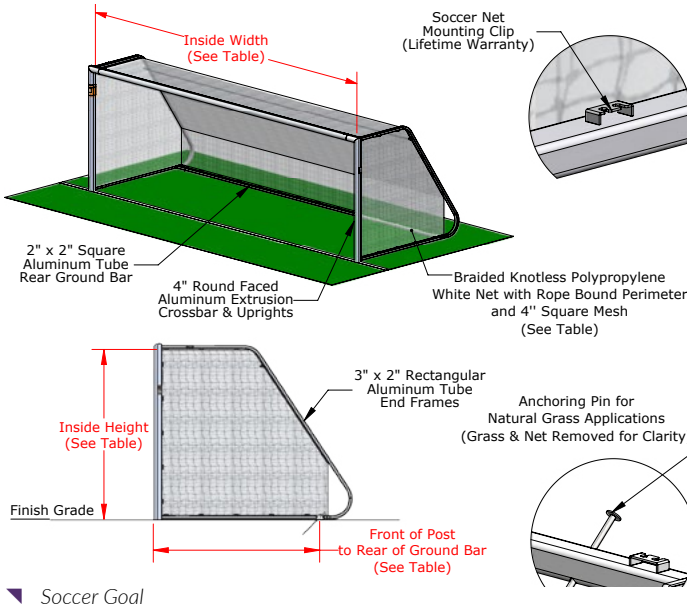
Site the soccer fields on a north to south orientation. Provide a 10-feet minimum unobstructed area on all sides of the field.

Related Standards: Fencing, Park Structures and Shelters, Ball Courts and Athletic Fields, Football Field Diagram, Signage, Lighting, and Planting and Irrigation.

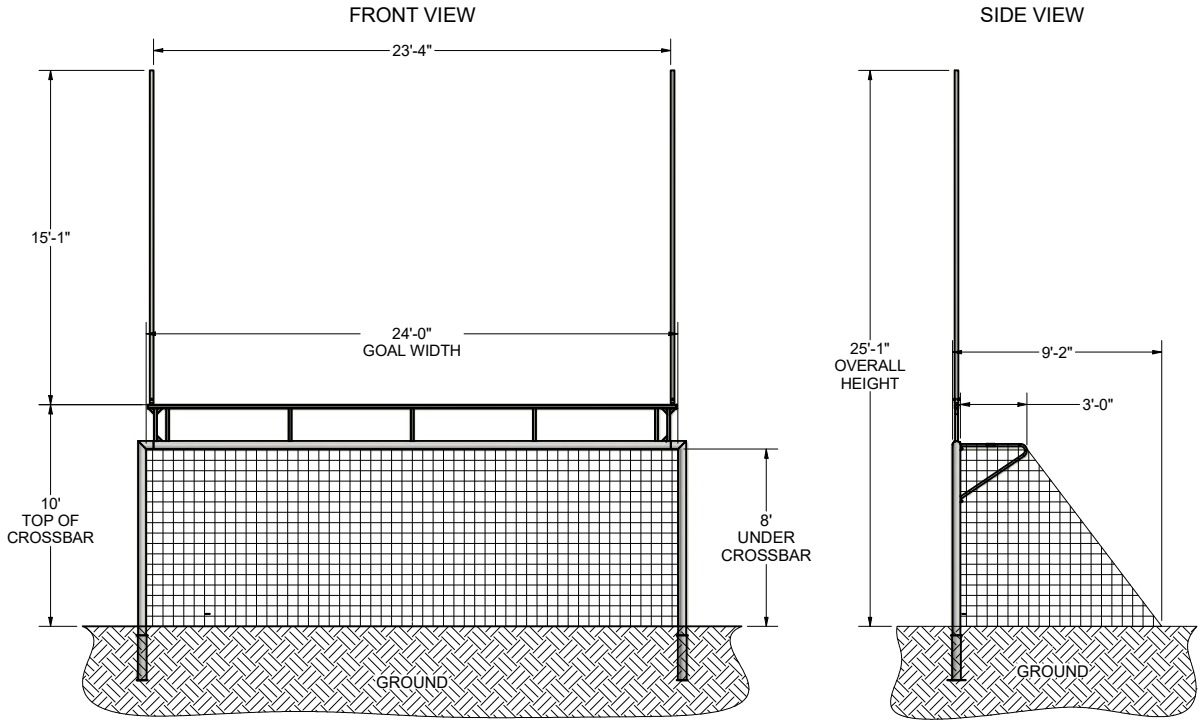


Field Diagram

Soccer Field



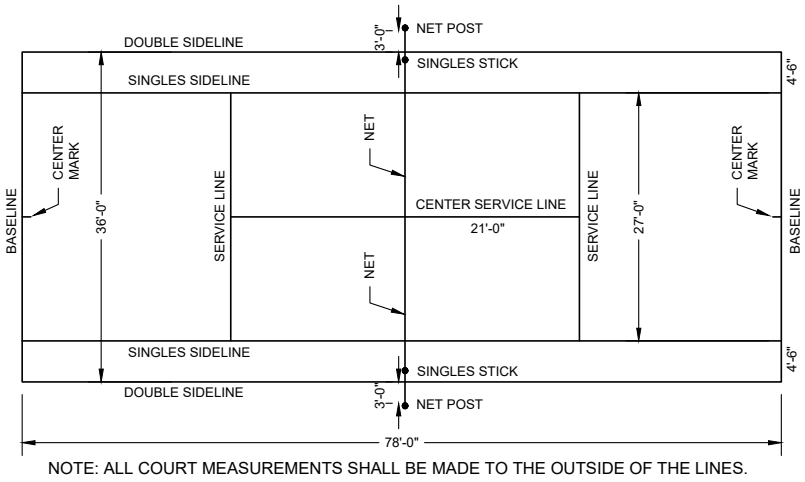
Soccer Goal



Soccer and Football Goal Combination

Tennis Court

Tennis Court



Court Diagram

PURPOSE

Provide regulation tennis net systems at outdoor tennis facilities.

GENERAL INFORMATION

Court layouts to conform to the most current United State Tennis Association (USTA) standards or other governing bodies as approved.

Regulation nets to comply with USTA standards or other governing authority.

Related Standards: Court Surfacing, Chain Link Fencing

LIFE CYCLE EXPECTATIONS

Posts require a 2 year minimum warranty and are anticipated to require replacement after 10 years of normal and ordinary use.

Nets are anticipated to require replacement annually with normal and ordinary use.

MATERIALS AND FINISH

Provide 3-1/2 inches min. aluminum or galvanized steel net posts with a green powder coat finish and caps.

Use weather resistant No. 36 nylon net fabric. Provide a galvanized top cable with a white headband on all nets. Install protective net edging at bottom and ends.

FEATURES

Provide a vandal resistant with heavy duty gear net tensioning reel.

Conceal, or install removable, wheel handle.

Provide center net anchors.

Install net posts foundations as designed by a Professional Engineer.

INSTALLATION

Site the tennis court on a north to south orientation. Provide a 10-feet minimum unobstructed area on all sides of the court.

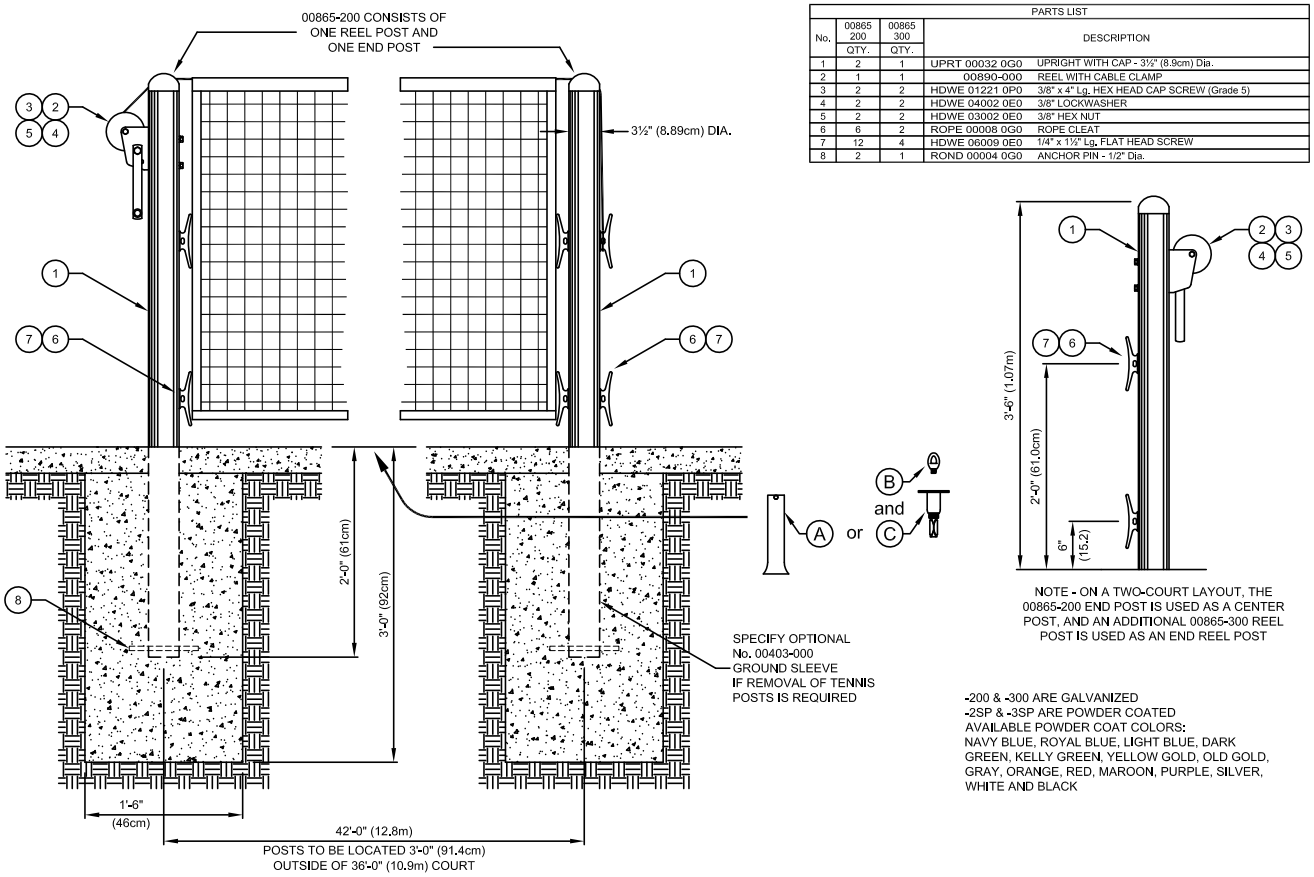
Install the posts in the ground prior to final surface installation and court lining.

Post layout to comply with USTA athletic standards.

Install the top of post foundation flush with final surface. Slope the top of footing to shed water. Install concrete net posts as 1 foot-6 inches diameter and 3 feet vertical depth minimum.

Set center net anchors in, 1 foot by 1 foot horizontal dimension and 1 foot minimum vertical depth, concrete footings.

Tennis Court



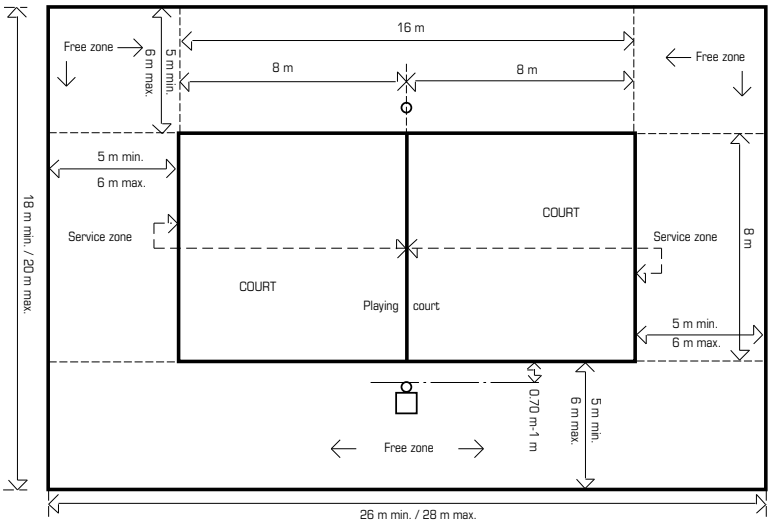
PARTS LIST

No.	00865 200 QTY.	00865 300 QTY.	DESCRIPTION	
1	2	1	UPRT 00032 0G0	UPRIGHT WITH CAP - 3½" (8.9cm) Dia.
2	1	1	00890-000	REEL WITH CABLE CLAMP
3	2	2	HDWE 01221 0P0	3/8" x 4" Lg. HEX HEAD CAP SCREW (Grade 5)
4	2	2	HDWE 04002 0E0	3/8" LOCKWASHER
5	2	2	HDWE 03002 0E0	3/8" HEX NUT
6	6	2	ROPE 00008 0G0	ROPE CLEAT
7	12	4	HDWE 06009 0E0	1/4" x 1½" Lg. FLAT HEAD SCREW
8	2	1	ROND 00004 0G0	ANCHOR PIN - 1/2" Dia.

Tennis Court Netting

Volleyball Court

Sand Volleyball Court



Court Diagram

PURPOSE

Provide volleyball court and sand mixes for safe athletic play at outdoor volleyball facilities.

GENERAL INFORMATION

Construct court layouts to conform to the most current standards of the International Federation of Volleyball or other governing bodies as appropriate.

Contain volleyball court sand within limits of the volleyball court area.

Provide a USDA soil classification analysis prior to installing court.

MATERIALS AND FINISH

Provide high quality, low clay content, and fast draining sand, free of shells, rocks and other debris.

Install volleyball court sand with 1 foot minimum continuous vertical depth.

Ensure sub-grade and all subsurface drainage systems drain properly.

Provide stainless steel hardware for net and boundary line components.

FEATURES

Install a nylon material volley ball net with dimensions of 36-feet long, by 39" wide, by 7' 4-1/8 inches tall, measured at the center of the playing court.

Define court boundary with 2 inch, black, UV treated vinyl lines.

INSTALLATION

Site the volleyball court on a north to south orientation. Provide a 10-feet minimum unobstructed area on all sides of the court.

Stake court boundary lines in sand. Bury stake in excess sand at 45 degree angle.

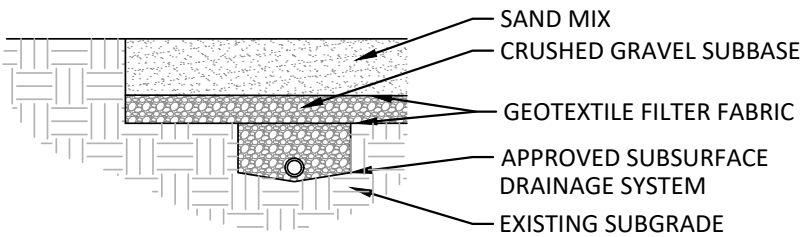
LIFE CYCLE EXPECTATIONS

Volleyball court sand is anticipated to require sieving, cleaning, and replenishing annually based on normal and ordinary use.

Nets are anticipated to require replacement annually with normal and ordinary use.

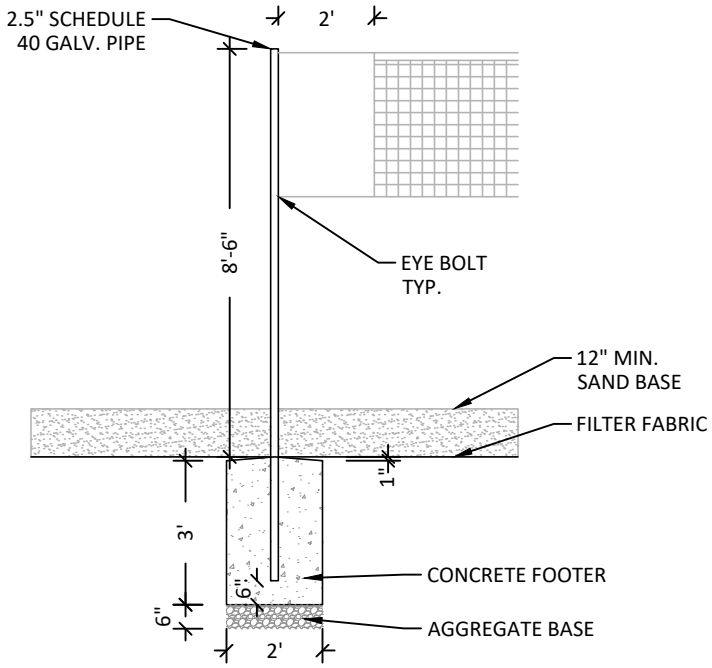
Posts are anticipated to require replacement after 10 years of normal and ordinary use.

Volleyball Court



Volleyball Court sand cross section

Volleyball Court Boundary Lines



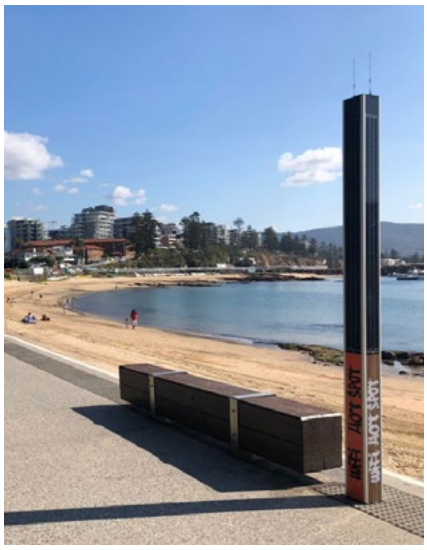
Volleyball Net

08. UTILITY SYSTEMS

- Park Utilities / Wireless Network Infrastructure
- Clearing / Site Prep

PAGE INTENTIONALLY LEFT BLANK

Park Utilities / Wireless Network Infrastructure



Wifi Hotspot Column

STANDARD MODEL

Manufacturer: Valen Energy

Model: 8 foot, 10W, WiFi Hotspot Column

OR CITY APPROVED EQUAL

PURPOSE

Provides wireless network throughout the extents of the park for patrons use.

GENERAL INFORMATION

Wireless network infrastructure is the Valen Energy, 8 foot, 10W Wifi Hotspot Column.

Provide a utility plan, including photometric lines, for all park developments.

MATERIALS AND FINISH

Construct wireless network of sturdy, durable, metal such as galvanized steel, ductile cast iron, or other metals designed for commercial and exterior use.

Provide a metal finishing of high-quality, permanently affixed black powder coating, applied through a heat-finished process.

Provide smooth welds, joints, and corners on metal elements. Joint fasteners are required to be embedded or sealed.

The use of recycled materials is acceptable.

FEATURES

Include a remote monitoring system on all wireless network infrastructure.

INSTALLATION

Design wireless network infrastructure footings for wind loading consistent with City of Angleton code.

Design foundations by a Professional Structural Engineer licensed in the State of Texas.

Locate WiFi columns in high traffic areas, but not to impede on pedestrian access.

Store additional network equipment within a secure location such as a maintenance building, bathroom storage closet, or other room intended for Park and Recreation Staff only.

LIFE CYCLE EXPECTATIONS

A 5 year warranty is required.

Wireless network infrastructure is anticipated to be upgraded in technology after 5-10 years.

PAGE INTENTIONALLY LEFT BLANK

Clearing / Site Prep

Tree protection measures

PURPOSE

All sites commencing for construction are prepared to protect the health, safety, and welfare of the public, construction crews, and surrounding natural and built environments.

GENERAL INFORMATION

Design and construct parks to meet City of Angleton and Brazoria County requirements , any standards approved by Park and Recreation Staff, and in accordance with related federal, national, state or local codes including but not limited to, the following:

- City of Angleton Land Development Code
- Texas 811 - Call 811 Before You Dig

Install erosion and sediment control and tree protection materials per plans as designed by a Professional Engineer or licensed Landscape Architect.

All tree work is to be performed or supervised by an ISA Certified Arborist.

Water wastewater, electrical services, and all other utilities provided to the remainder of the subdivision is to be provided to the park as part of standard subdivision improvements.

Contractor responsible to remove all trash, dead trees and other unusable materials from the property.

Disposing of construction materials within the park by the owner or developer's contractors, subcontractors, employees or agents at any time while the park is being built is prohibited. If materials are deposited or disposed of within the park, the owner is required to remove these materials within 72 hours of written notice by the City.

Contractors to mark each corner of the park land to be dedicated with a permanent monument consisting of 3/4 inch iron pins set in concrete. Locate and identify the corners on a recordable land survey completed by a land surveyor registered in the State of Texas and provide to the City.

PAGE INTENTIONALLY LEFT BLANK

09. SIGNS

- General Sign Parameters
- Educational / Interpretive
- Wayfinding
- Entry
- Regulatory / Warning

PAGE INTENTIONALLY LEFT BLANK

General Sign Parameters

Type A Sign from City of Angleton Gateways and Identity Master Plan

PURPOSE

To establish a consistency throughout the City of Angleton park system that identify, inform, regulate, protect, and educate park users.

GENERAL INFORMATION

Informational signs include:

- Educational/Interpretive
- Entry
- Regulatory / Warning
- Wayfinding

Other signs include:

- MUTCD Manual of Uniform Traffic Control Devices
- Site Specific Warnings and Regulation

New park developments are required to include a site sign package. The package will identify location and design of all signs.

Signs designating the area as a park is supplied by the developer.

MATERIALS AND FINISH

Sign types per the City of Angleton Gateway and Identity Master Plan vary in material. Materials may include:

- Cream Limestone
- Stone Veneer
- Concrete
- Aluminum
- Vinyl

FEATURES

Sign designs are to comply with the City of Angleton Gateways and Identity Master Plan or otherwise specified by Park and Recreation Staff.

INSTALLATION

Structural foundations for signs is to be designed by a licensed Structural Engineer in the State of Texas.

Locate signs not to conflict with existing or proposed vegetation or plantings.

LIFE CYCLE EXPECTATIONS

A 3 year minimum warranty is required on educational signs.

Signs are anticipated to require replacement after 20-30 years based on normal and ordinary wear.

PAGE INTENTIONALLY LEFT BLANK

Educational / Interpretive

Vacker Sign Story Walk Sign

STANDARD MODEL

Vacker Sign

Model: StoryWalk Sign

OR CITY APPROVED EQUAL

PURPOSE

Inform, educate, and communicate messages to patrons of parks, recreation areas, and open spaces.

GENERAL INFORMATION

The standard educational signage is the Vacker Sign, Model Story Walk, or City approved equal.

Locate educational and interpretive signs where:

- Significant historic or contemporary events occurred.
- There are thought-provoking features, structures, or processes.
- A change in the visitor's mindset or actions is encouraged.

Sign dimension is 16.75 inches tall with a 18 inches wide by 24 inches long panel.

Related Standards: Park Walkways / Trails

MATERIALS AND FINISH

Provide black, powder coated aluminum sign post and frame.

Provide stainless steel for all hardware.

FEATURES

Angled sign is preferred.

Education or interpretive graphics provided by owner.

QR codes may be included on signs as approved by Park and Recreation Staff.

INSTALLATION

Locate signs not to conflict with existing or proposed vegetation or plantings.

Locate signs a minimum of 3 feet from the edge of all shared-use paths or pedestrian walkways.

Install per manufacturer's recommendations.

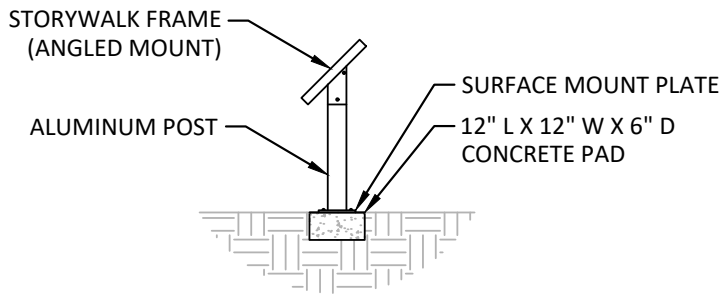
Slope the top of foundations to shed water and must be flush to finished grade.

LIFE CYCLE EXPECTATIONS

A 3 year minimum warranty is required on educational signs.

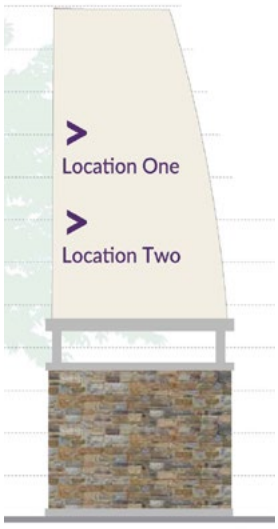
Signs are anticipated to require replacement after 15-20 years based on normal and ordinary wear.

Educational / Interpretive



StoryWalk Sign - Surface Mount Installation

Wayfinding



Type D Sign from City of Angleton Gateways and Identity Master Plan

Type F Sign from City of Angleton Gateways and Identity Master Plan

PURPOSE

Inform, orient, and direct patrons to nearby features, amenities, and spaces.

GENERAL INFORMATION

Wayfinding signs are an information system to guide people through the natural and built environment.

Signs emphasize direction, entry, and orientation.

Related Standards: Parking Lot, Park Walkways / Trails

MATERIALS AND FINISH

Sign types per the City of Angleton Gateway and Identity Master Plan vary in material. Materials for sign type D and F include:

- Vinyl
- Stone Veneer
- Concrete
- Aluminum

FEATURES

Sign designs to comply with the City of Angleton Gateways and Identity Master Plan or otherwise specified by Park and Recreation Staff.

INSTALLATION

Design structural foundations for signs by licensed Structural Engineer in the State of Texas.

Locate wayfinding signs at trail heads and intersections, entrance drives, and high traffic pedestrian areas.

Locate signs not to conflict with existing or proposed vegetation or plantings.

LIFE CYCLE EXPECTATIONS

A 3 year minimum warranty is required on educational signs.

Signs are anticipated to require replacement after 15-20 years based on normal and ordinary wear.

PAGE INTENTIONALLY LEFT BLANK

Entry

Type E Sign from City of Angleton Gateways and Identity Master Plan

PURPOSE

Locate identity signs at the entrances of city owned buildings and designated parks.

GENERAL INFORMATION

All new parks, except Undeveloped Park or Passive Park (UD), are to have an entry sign.

One entry sign per egress/ingress or as approved by Park and Recreation Staff.

Signs designating the area as a park is supplied by the developer.

Related Standards: Parking Lot

MATERIALS AND FINISH

Sign types per the City of Angleton Gateway and Identity Master Plan vary in material. Materials for sign type E include:

- Cream Limestone
- Stone Veneer
- Concrete
- Aluminum

FEATURES

Sign designs to comply with the City of Angleton Gateways and Identity Master Plan or otherwise specified by Park and Recreation Staff.

INSTALLATION

Design structural foundations for signs by licensed Structural Engineer in the State of Texas.

Locate entry signs outside the clear visibility zone of a parking lot egress/ingress.

LIFE CYCLE EXPECTATIONS

A 3 year minimum warranty is required on educational signs.

Signs are anticipated to require replacement after 20-30 years based on normal and ordinary wear.

PAGE INTENTIONALLY LEFT BLANK

Regulatory / Warning

Park Rules Sign at Dickey Park

PURPOSE

Permanent regulatory sign provide information such as park hours, rules, regulations, emergency contact information and non-essential programming at all parks.

GENERAL INFORMATION

State the name of the park, the City of Angleton as the park operator, and a contact number to report safety issues on all signs.

Post signs in unobstructed viewsheds near activity centers or park entrances.

Additional languages may be included on signs as approved by Park and Recreation Staff.

MATERIALS AND FINISH

Materials to be durable, reflective, weather resistant, UV resistant and low-glare.

Sign graphics, colors and fonts to comply with City of Angleton Brand Standards.

Signs to be 1/16 inch minimum thick aluminum.

INSTALLATION

Mount signs to fences or attached to a standard post.

Post signs at a 4 feet vertical height from finish grade to the center of the sign board.

Any outdated or repetitive signs to be removed at time of installation.

FEATURES

Sign designs are to comply with the City of Angleton Gateways and Identity Master Plan or otherwise specified by Park and Recreation Staff.

The following sign sizes are acceptable as determined by location, size of park, visibility, and as approved by Park and Recreation Staff:

- 24 inch length x 18 inches width
- 24 inch length x 24 inches width
- 36 inch length x 24 inch width
- 48 inch length x 36 inch width

QR codes may be included on signs as approved by Park and Recreation Staff.

Orient signs in a portrait direction.

Authorized signs are approved for the following areas:

- Fields/Active Recreation Sites
- Natural Areas
- Picnic Areas
- Playgrounds
- Ponds
- Residential Neighborhoods
- Waterfront, including Marina
- Dog Park

LIFE CYCLE EXPECTATIONS

A 3 year minimum warranty is required on educational signs.

Signs are anticipated to require replacement after 10-15 years based on normal and ordinary wear.

Regulatory / Warning Signs

PURPOSE

The following text is used for park regulatory signs.

ALL PARK AREAS

(except user specific, such as dog parks, waterfront parks, athletic fields, etc.)

- Park hours are from sunrise to sunset, except by permitted use
- Dogs must be on a leash and handlers must clean up after their pet
- Use trash cans to dispose of all waste
- No amplified sound, except by permitted use
- No firearms or explosives
- No alcoholic beverages or glass containers
- All vehicles in designated parking

For non-emergency police assistance, call 979-849-2283. For General recreation information, call 979-549-0410 opt. 5 or visit www.tx-angleton2.civicplus.com/394/Parks-Recreation. Use of this park is subject to the City of Angleton code.

NATURAL AREAS

- Park hours are from sunrise to sunset, except by permitted use
- Dogs must be on a leash and handlers must clean up after their pet
- Use trash cans to dispose of all waste
- No amplified sound
- No firearms or explosives
- No alcoholic beverages or glass containers
- All vehicles in designated parking
- Stay on trails to protect native plants and to avoid poison ivy
- Disturbing park wildlife or plants is prohibited

FIELD / ACTIVE RECREATION SITES

- Park hours are from sunrise to sunset, except by permitted use
- Dogs must be on a leash and handlers must clean up after their pet
- Use trash cans to dispose of all waste
- No amplified sound, except by permitted use
- No firearms or explosives
- No alcoholic beverages or glass containers
- No dogs allowed on field
- Field use by permit only
- No golfing
- Vehicles in designated areas only; the City of Angleton is not responsible for damages to vehicles in this lot.
- No vehicle maintenance allowed on site
- Add for diamond fields: No hitting balls into fence

PICNIC AREAS

- Park hours are from sunrise to sunset, except by permitted use
- Dogs must be on a leash and handlers must clean up after their pet
- Use trash cans dispose of all waste
- No amplified sound, except by permitted use
- No firearms or explosives
- No alcoholic beverages or glass containers
- All vehicles in designated parking
- No organized sports allowed in picnic areas
- Fires are permitted in park grills only
- Picnic areas available by reservation; reserve online at https://secure.rec1.com/TX/angleton-tx/catalog

10. LIGHTING

- Athletic Field
- Historic Pole
- Solar
- Street, Parking Lot, Path, and Area

PAGE INTENTIONALLY LEFT BLANK

Athletic Field

Typical Athletic Field Lighting

PURPOSE

Provides athletic field and court lighting systems to ensure safe play environments where athletic field/court use is desired beyond normal daylight hours.

LIFE CYCLE EXPECTATIONS

A 25 year warranty is required on athletic lighting systems.

Lighting systems are anticipated to require replacement after 40 years of normal and ordinary use.

GENERAL INFORMATION

Provide athletic field and court lighting as a complete sports lighting system.

The standard system is the LED Musco Light-Structure, or City approved equal.

Provide lighting levels for safe play for the programmed sports. The average foot candle level on a rectangular playing surface is 50 foot candles (fc) with uniformity at 2.0:1.0. The average foot candle level on a court playing surface is 30 fc with uniformity at 2.0:1.0.

Include photometric plan for all park developments. Provide ample overhead lighting throughout the park to provide a safe and secure environment.

Design lighting consistent with standards approved by Park and Recreation Staff, in accordance with related federal, national, state, or local codes, including, but not limited to, the following:

- Illuminating Engineering Society of North American (IESNA)

FEATURES

Include a remote monitoring system on all light systems for performance tracking.

Include a remote lighting control system on all light systems that allows operation via website, phone, and email. Program system up to a year in advance and accept a seven day schedule.

Include an accessible on-off selector switch located on one of the poles for all lighting systems.

Include pegs on poles for maintenance access on lighting.

Locate ballasts on individual poles.

Light BUG rating as approved by Park and Recreation Staff.

MATERIALS AND FINISH

Light poles and cross arms to be galvanized steel, and meet wind loading requirements of the IBC Building Code and AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals.

Use pre-stressed direct burial concrete for bases. Design foundations by a Professional Structural Engineer licensed in the State of Texas.

The mounting heights for athletic fields are 60-90 feet above the playing surface. Mounting heights for athletic courts are 20-40 feet above the playing surface.

Contain wiring inside the cross arms and poles.

Use 1500W or 1000W metal halide lamps with external visors to minimize light glare and spill on light fixtures.

Light fixture to emit between a 5,000 and 5,800 Kelvin temperature.

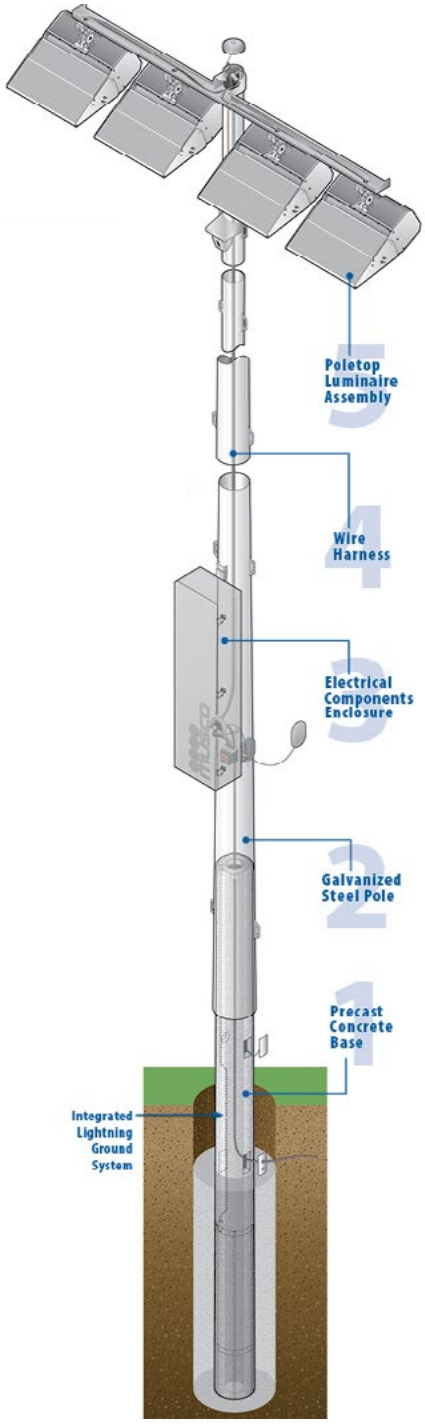
INSTALLATION

Light pole installation require separate permits.

Coordinate player-activated switches and timers to minimize additional infrastructure.

Include direct burial concrete bases for poles.

Athletic Lighting



Typical Athletic Lighting

Historic Pole

Amerlux AP24 Light Fixture

LIGHT FIXTURE

Amerlux

Model: AP24 (D131/AP24)

LIGHT POLE

Holophane

Model: Wadsworth Aluminum

PURPOSE

The historic pole light is used as a street, park road, or pathway light in the City's Historic District to illuminate portions of public land or right-of-way.

GENERAL INFORMATION

Amerlux AP24 Series light fixture is the approved light fixture in the Historic District. Alternatives must be approved by Park and Recreation Staff.

Include photometric plan for all park developments. Provide ample overhead lighting throughout the park to provide a safe and secure environment.

Design lighting consistent with standards approved by Park and Recreation Staff, in accordance with related federal, national, state, or local codes, including, but not limited to, the following:

- Illuminating Engineering Society of North American (IESNA)

MATERIALS AND FINISH

Mount light fixtures on Holophane Wadsworth aluminum poles.

Finish poles and fixtures with a satin black UV-resistant catalyzed urethane coating.

Light poles and fixtures are not to exceed 14 feet total height from finished grade to top of fixture.

Install an anchor base with poles.

The ornamental base must cover anchor bolts with one or two pieces, be vandal resistant, and finished to match the pole.

The pole top to meet the Department of Transportation and Environmental Services requirements.

A fixture cage, band, or finial is prohibited.

All metal finishing must be a high-quality, permanently affixed powder coating, done through a heat-finished process.

FEATURES

Light fixtures with separate ballast boxes are prohibited.

Light fixture to emit between a 3,000 and 4,000 Kelvin temperature.

Light BUG rating not to exceed 1.

Include full top reflectors for all globes/post top light fixtures.

INSTALLATION

Locate light poles not to conflict with existing or proposed vegetation or plantings.

Locate lights a minimum of 3 feet from the edge of all shared-use paths or pedestrian walkways.

Slope the top of light pole foundations to shed water and must be flush to finished grade.

Sleeve conduit and connections installed beneath paving.

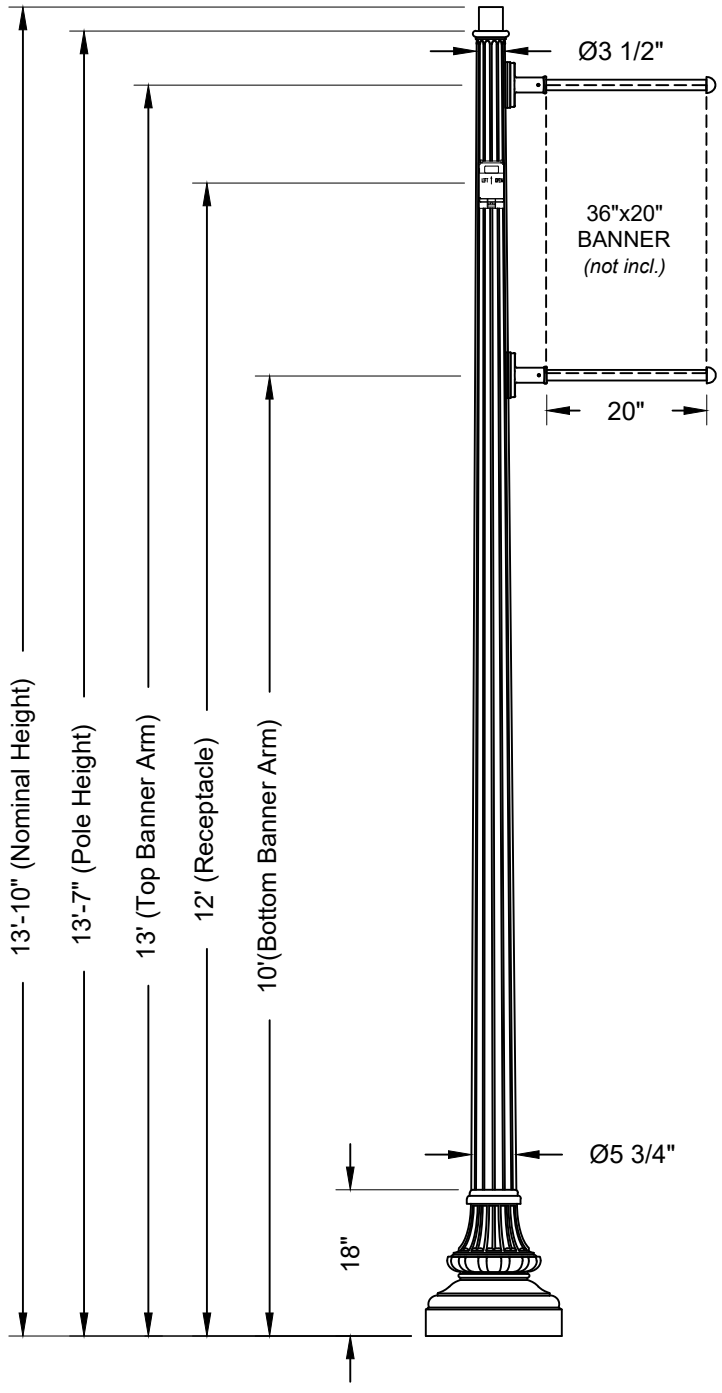
Install lights on a GFI circuit and switch.

LIFE CYCLE EXPECTATIONS

A 3 year minimum warranty is required on fixtures and poles.

Fixtures and poles are anticipated to require replacement after 20 years of normal and ordinary use.

Historic Pole

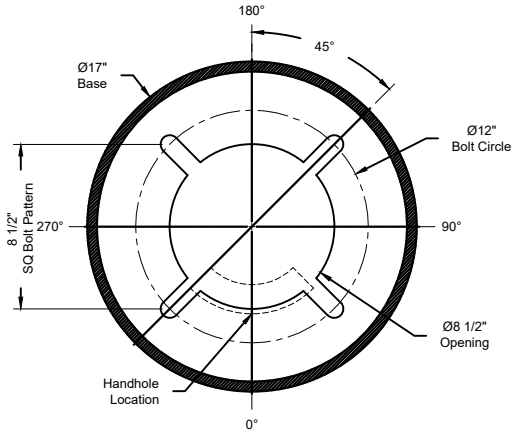


Holophane Wadsworth Aluminum Pole

Accessory Mounting Detail

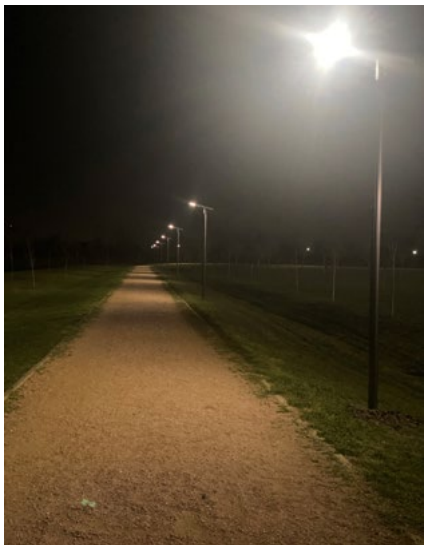
	Orientation	Height
RECEPTACLE	0°	12'-0"
BANNER ARMS	180°	13'-0 & 10'-0"

Anchorage Detail



Solar

JEC Solar Light



Solor Lights at Freedom Park

SOLAR

Manufacturer: JEC

Model: All In One Smart Solar Light

PURPOSE

Locate lighting to illuminate portions of the park including trail heads and intersections and designated areas.

GENERAL INFORMATION

The JEC All in One Smart Solar fixture may be installed in park locations as approved by Park and Recreation Staff.

Include photometric plan for all park developments. Provide ample overhead lighting throughout the park for a safe and secure environment.

Design lighting consistent with standards approved by Park and Recreation Staff, in accordance with related federal, national, state, or local codes, including, but not limited to, the following:

- Illuminating Engineering Society of North American (IESNA)

MATERIALS AND FINISH

Provide a black metal pole with a powder coat finish.

Light pole total height must not exceed 15 feet from finished grade to top of fixture. Recess anchor bolts anchor base casting. Provide tamper resistant covers.

FEATURES

Light fixtures to operate at 30W.

Light fixture to emit between a 3,000 and 4,000 Kelvin temperature.

Light BUG rating not to exceed 1.

INSTALLATION

Locate light poles not to conflict with existing or proposed vegetation or plantings.

Lights to be located a minimum of 3 feet from the edge of all shared-use paths or pedestrian walkways.

Mount light pole foundations to be flush to finished grade. Slope top of footing to shed water.

Sleeve conduit and connections installed beneath paving.

LIFE CYCLE EXPECTATIONS

A 5 year minimum warranty is required.

Lights are anticipated to require replacement after 20 years of normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

Street, Parking Lot, Path, and Area

National LED DoradoXLE Fixture

LIGHT POLE

National LED

Model: DoradoXLE

PURPOSE

Portions of the park, street, trails, roads, parking lots and designated areas is illuminated by standard LED lighting.

GENERAL INFORMATION

Install square, down light, National LED DoradoXLE fixtures in park locations subject to City of Angleton guidelines.

Include photometric plan for all park developments. Provide ample overhead lighting throughout the park to provide a safe and secure environment.

Design lighting consistent with standards approved by Park and Recreation Staff, in accordance with related federal, national, state, or local codes, including, but not limited to, the following:

- Illuminating Engineering Society of North American (IESNA)

MATERIALS AND FINISH

Black, die-cast aluminum powder coat finish for lamp housing and lens frame.

Install hinge assembly with lens frame for maintenance. Lens to be high-impact, clear tempered glass.

Metal poles to be black, powder coat finish with matching anchor base and tamper resistant cover.

Mount light fixture on square aluminum poles with an extended pole mounting arm to offset the fixture.

Pole bases to cover the anchor bolts in one or two pieces, be vandal resistant, and be finished to match the pole.

Pedestrian area light poles not to exceed 15 feet in height from finished grade to top of the fixture. Vehicular area light poles to comply with Department of Transportation Requirements.

FEATURES

Light fixtures that require separate ballast boxes are prohibited.

Lamps may include a wire guard.

Light fixture to emit between a 3,000 and 4,000 Kelvin temperature.

Light BUG rating not to exceed 1.

INSTALLATION

Locate light poles not to conflict with existing or proposed vegetation or plantings.

Locate lights a minimum of 3 feet from the edge of all shared-use paths or pedestrian walkways.

Slope the top of light pole foundations to shed water and be flush to finished grade.

Sleeve conduit and connections installed beneath paving.

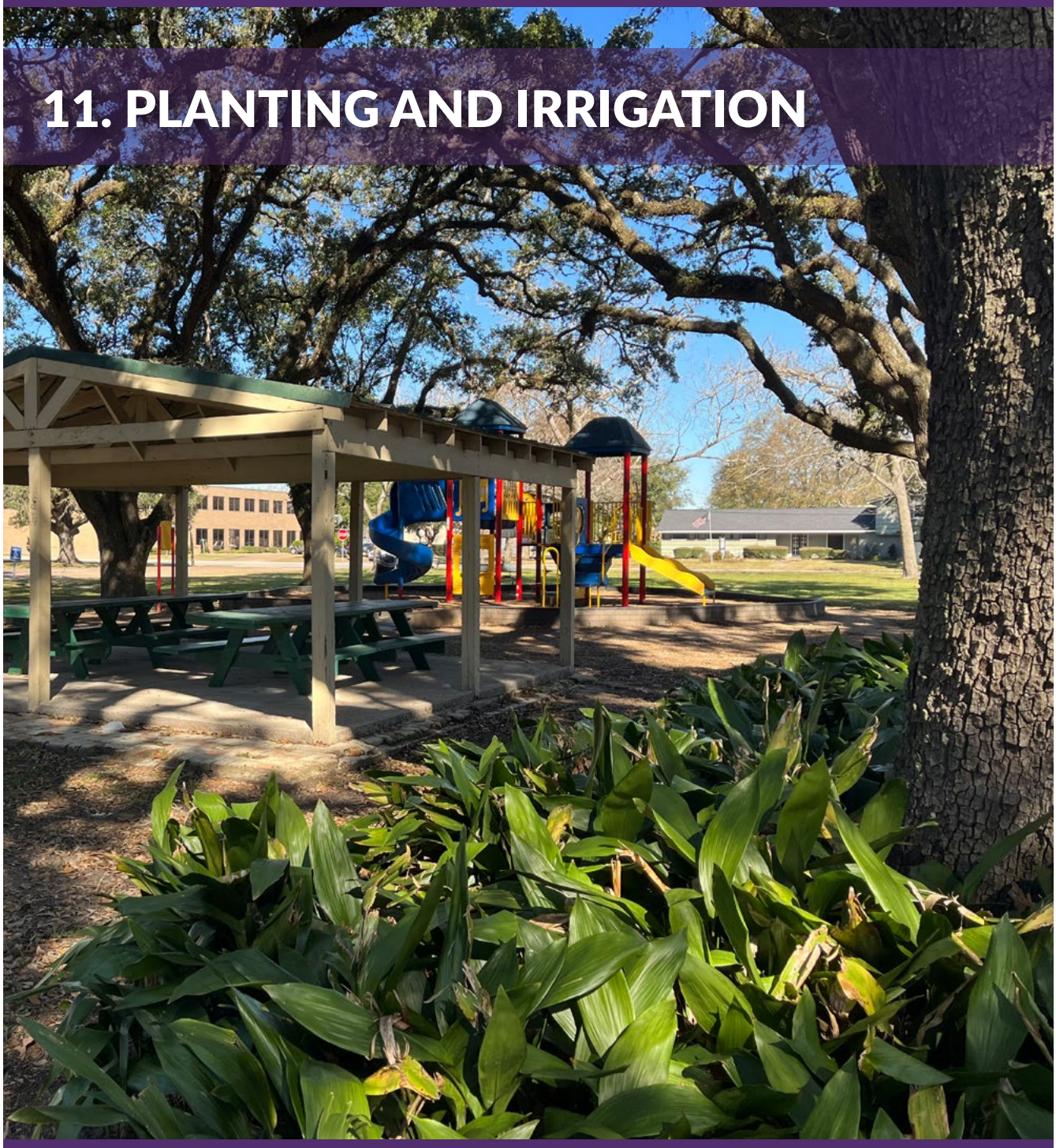
LIFE CYCLE EXPECTATIONS

A 3 year minimum warranty is required on all light fixtures and poles.

Lights are anticipated to require replacement after 20 years of normal and ordinary use.

PAGE INTENTIONALLY LEFT BLANK

11. PLANTING AND IRRIGATION



- Planting Design
- Irrigation

PAGE INTENTIONALLY LEFT BLANK

Planting Design

Southern Live Oak (Quercus virginiana)

PURPOSE

Provide a consistent palette of plantings that compliments existing native vegetation.

GENERAL INFORMATION

The City prefers plant material that is native, low-maintenance, drought-tolerant, cost effective, and conditioned to regional environmental and maintenance practices.

Include a landscape plan for all park developments. Focus landscape plans on tree and shrub massing with limited perennial/annual beds.

For the City preferred plant palette material and design principles, reference the current edition of the following documents:

- Angleton Gateway & Identity Master Plan
- Angleton Lakeside Park Master Plan
- American Nursery and Landscape Association Standards
- American Standard for Nursery Stock (ANSI Section Z60.1)
- Crime Prevention Through Environmental Design (CPTED)
- Native Landscape Certification Program Plant List (Houston Area)

Locate large canopy trees on the south and west sides of playgrounds.

MATERIALS AND FINISH

A licensed Landscape Architect in the State of Texas to approve condition of plant material.

Cover all planting areas with 3" of locally sourced shredded hardwood mulch. Do not mound mulch around or against the base of tree trunk.

FEATURES

Diversity of plant species is recommended in order to improve the health, sustainability, resiliency, and successional ecosystem benefits of the City.

INSTALLATION

Install per details provided by a licensed Landscape Architect in the State of Texas.

LIFE CYCLE EXPECTATIONS

A 1 year minimum warranty is required on all landscape material.

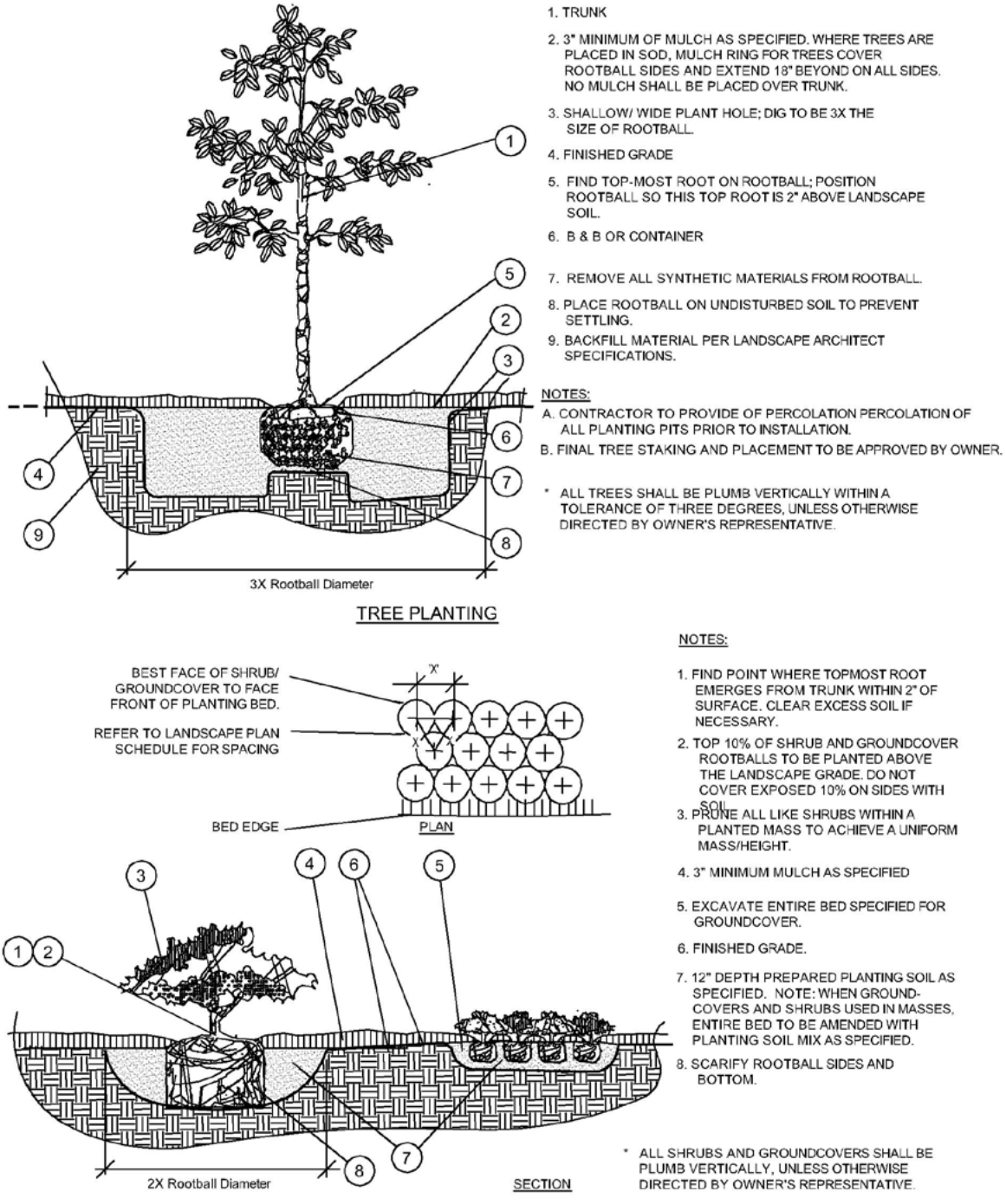
Trees are anticipated to require replacement after 30-50 years of normal and ordinary conditions.

Shrubs are anticipated to require replacement after 10-20 years of normal and ordinary conditions.

Mulch areas are anticipated to require replacement annually.

Plantings are anticipated to require replacement only if dead or damaged.

Planting Design



Typical Tree and Shrub/Groundcover Planting Details

Irrigation

Irrigation types from top to bottom: drip, spray head, rotors, and bubblers.

PURPOSE

Irrigation and water management systems is to provide supplementary water for plantings and turf areas during periods of drought.

GENERAL INFORMATION

Each park irrigation system will operate as a stand-alone system.

Standard irrigation components include: Hunter, Rainbird, Toro, or City approved equal.

MATERIALS AND FINISH

All irrigation systems must include communication devices to coordinate with the controller including: cluster control unit, site satellite or radio antenna, flow sensor, and rain sensor. Small sites may be exempt at the determination of Park and Recreation Staff.

Use heavy duty, H-20 loaded, Carson valve boxes with black covers. Include 3 inches minimum vertical depth of gravel at the base in all valve boxes.

FEATURES

All new irrigation installations to include an accurate, complete, data report of all components installed, precipitation rates and water pressure/flow rates.

Irrigation systems may include drip, spray-head, rotors, and bubblers as applicable for site specific needs.

INSTALLATION

Install irrigation systems consistent with plans designed by a Professional Irrigator licensed in the State of Texas.

Irrigation systems to operate at a minimum 60 static pressure unless otherwise noted by a Professional Irrigator licensed in the State of Texas.

Provide as-built drawings, detailing component type and information, location and connections, to Park and Recreation Staff.

Provide head-to-head (100%) coverage for all irrigation systems.

LIFE CYCLE EXPECTATIONS

A 5 year minimum warranty is required on communication components.

A 1 year minimum warranty is required on irrigation components.

THE HEART OF BRAZORIA COUNTY
ANGLETON

City of Angleton
Department of Parks & Recreation

121 S. Velasco St.
Angleton, TX 77515

979.849.4364

www.angleton.tx.us