

Heights Park Master Plan

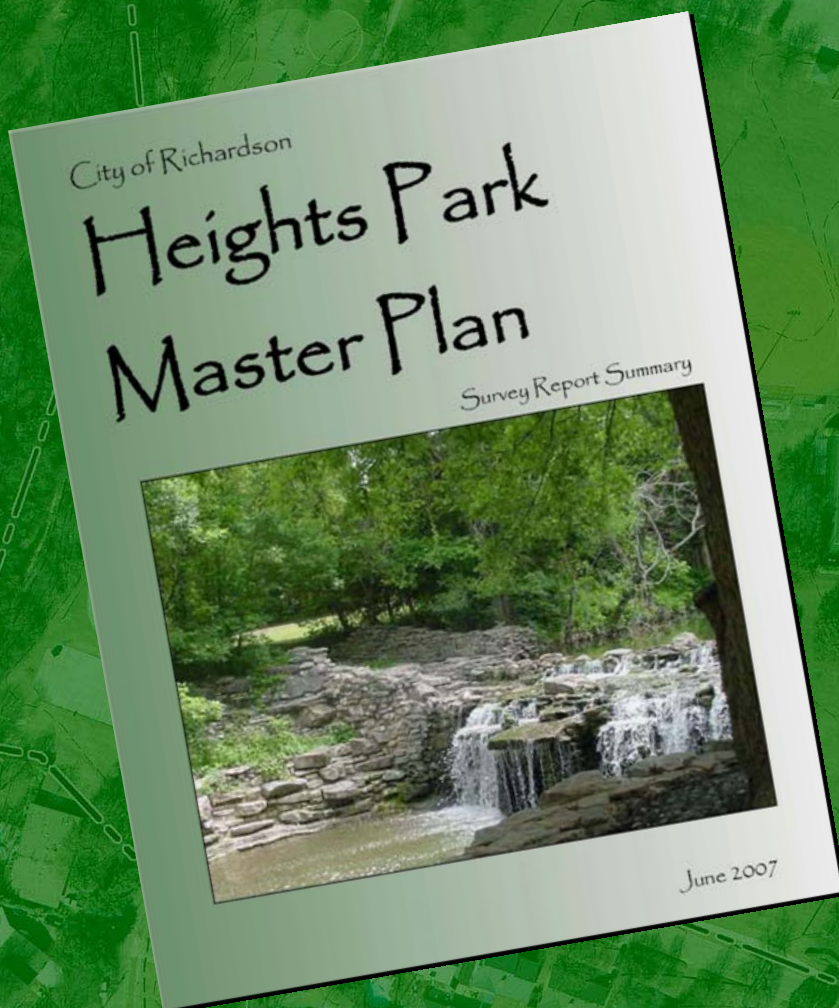
Playground Task Force Recommendations



**City Council Presentation
June 16, 2008**

Process To Date

- **First Public Open House** April 12, 2007
- **Focus Group Session** April 24, 2007
- **Community Survey** April-May 2007
- **Design Charette** April 24-25 2007
- **Second Public Open House** June 14, 2007
- **City Council Update** July 30, 2007
- **Third Public Open House** August 16, 2007
- **Park Commission Review** Sept. 11, 2007
- **City Council Review** November 5, 2007



The Master Plan



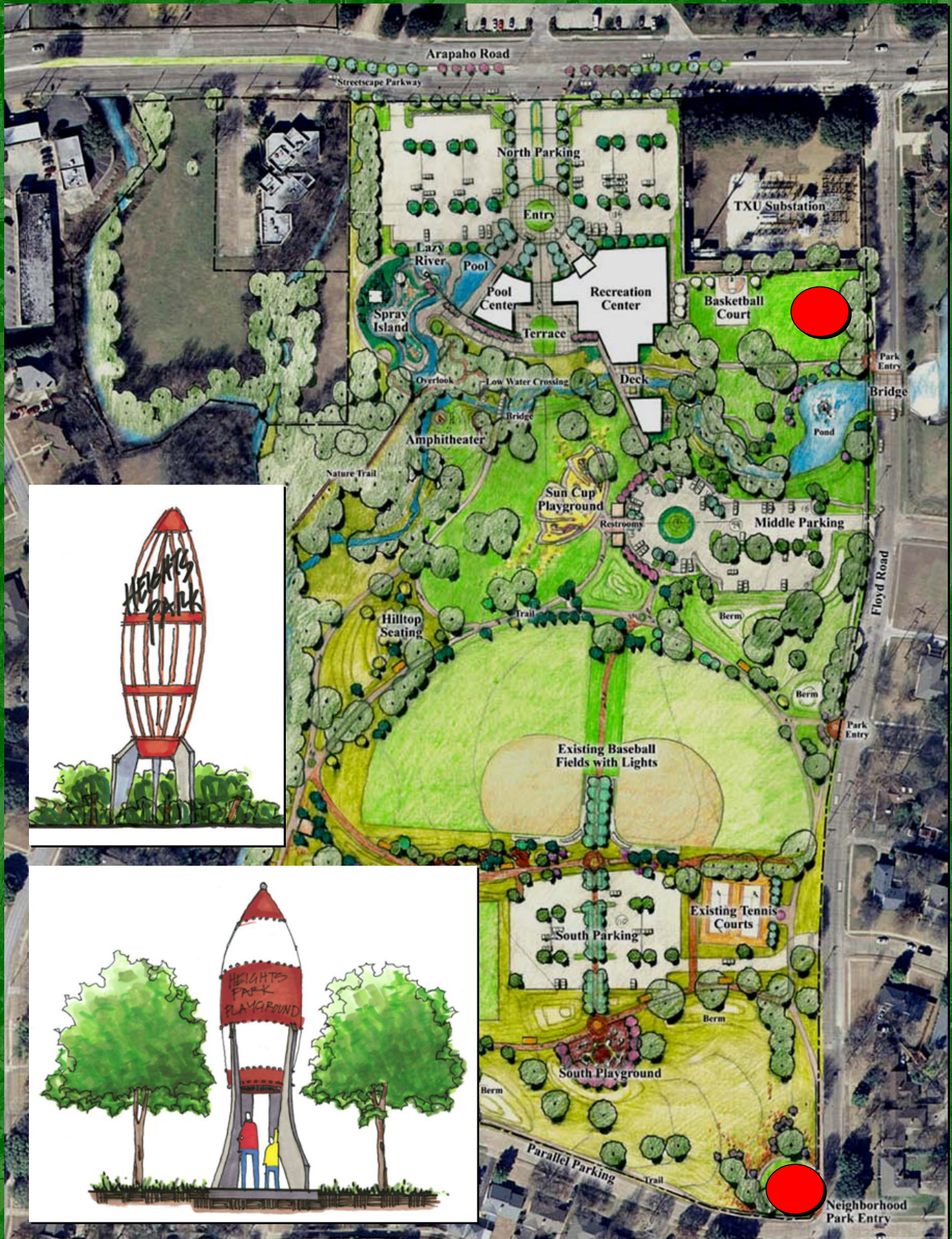
Heights Park Master Plan

South End Plan Details



Heights Park Master Plan

Alternative Rocket Locations



Heights Park Master Plan

Alternative Rocket Locations

And/Or... Create A New Rocket Playground



Heights Park Master Plan

Issue to Resolve:

1. What to do with the Rocket and Other Existing Playground Equipment?

Park and Recreation Commission recommends Task Force to identify solutions for use of the playground equipment.

Heights Park Master Plan

Heights Park Playground Task Force

Task Force Goal-

Evaluate all the playground equipment to determine future use for each piece at Heights Park.

Task Force Members-

Small group of interested citizens combined with Parks and Recreation Department staff who, through the course of the Heights Park Master Plan process, have demonstrated reasonable minds, care for safety, concern for historic preservation, appreciation for public art, understanding of the Heights Park playground culture.

Task Force to be led by Al Johnson, former Parks and Recreation Director and Executive Director of the Richardson Improvement Corporation

Task Force Members

- **Al Johnson**, Richardson Improvement Corporation, Executive Director, (Task Force Chairman).
- **Marcia Chandler**, Greenwood Hills Neighborhood Association President.
- **Janet DePuy**, Heights Park Neighborhood Association President (HPNA).
- **Andrew Dugan**, Landscape Architect, Richardson Resident.
- **Ed Hassler**, Texas Instruments (retired), Park Commissioner.
- **Andrew Laska**, Richardson Heights Homeowners Association Civic Chair.
- **Stephen Springs**, Architect, Park Commissioner, HPNA Board Member.
- **Angie Wright**, Landscape Architect, Richardson Resident.
- **Michael Massey**, Director of Parks and Recreation, City of Richardson.
- **Roger Scott**, Assistant Director of Parks and Recreation, City of Richardson.
- **Bryan Hull**, Superintendent of Park Planning, City of Richardson.



Heights Park Playground Task Force

- **Umbrella Goal/Mission Statement:**

“To evaluate the existing playground equipment in Heights Park and recommend the best use for, or disposition of, the equipment in the redevelopment of the park through the 2007 Heights Park Master Plan.”

Heights Park Playground Task Force

Work Plan:

- February 21, 2008 – **Americans with Disabilities Act**, Brian Bristow, Landscape Architect ADA expert.
- March 6, 2008 - **Historical, Cultural, and Aesthetic Considerations** Charissa N. Terranova, PhD: Frederick Turner; University of Texas at Dallas.
- March 20, 2008 – **Heights Park Playground Safety Audit**, Steve Plumb, Playground Safety Consultant, Nationally recognized playground safety expert.
- April 3, 2008 – **Dynamic Playground Design**, Terry Hendy, Playground Designer.

Heights Park Playground Task Force

Work Plan (continued):

- April 17, 2008 – **Metallurgical Opinion & Manufacturer's Opinion** - Mark M. Holland, Principal, Walter P. Moore Engineering; Don Hemingway, Executive Vice President, PlayPower (parent company of Miracle Recreation Equipment, builders of the rocket ship).
- May 1, 2008 – **Safety and Risk Management & Liability**, Mike Lorenzo, MA, Vice President Regional Risk Control Manager, Hilb Rogal & Hobbs; Joe Gorfida, Assistant City Attorney, Nichols, Jackson, Hagar & Smith
- June 4, 2008 – **Task Force discussion and recommendations.**

An aerial photograph of a residential neighborhood, showing houses, streets, and green spaces. The image is overlaid with a semi-transparent green filter. The text is white with a black outline, making it stand out against the background.

Americans with Disabilities Act, Brian Bristow, Landscape Architect ADA Expert

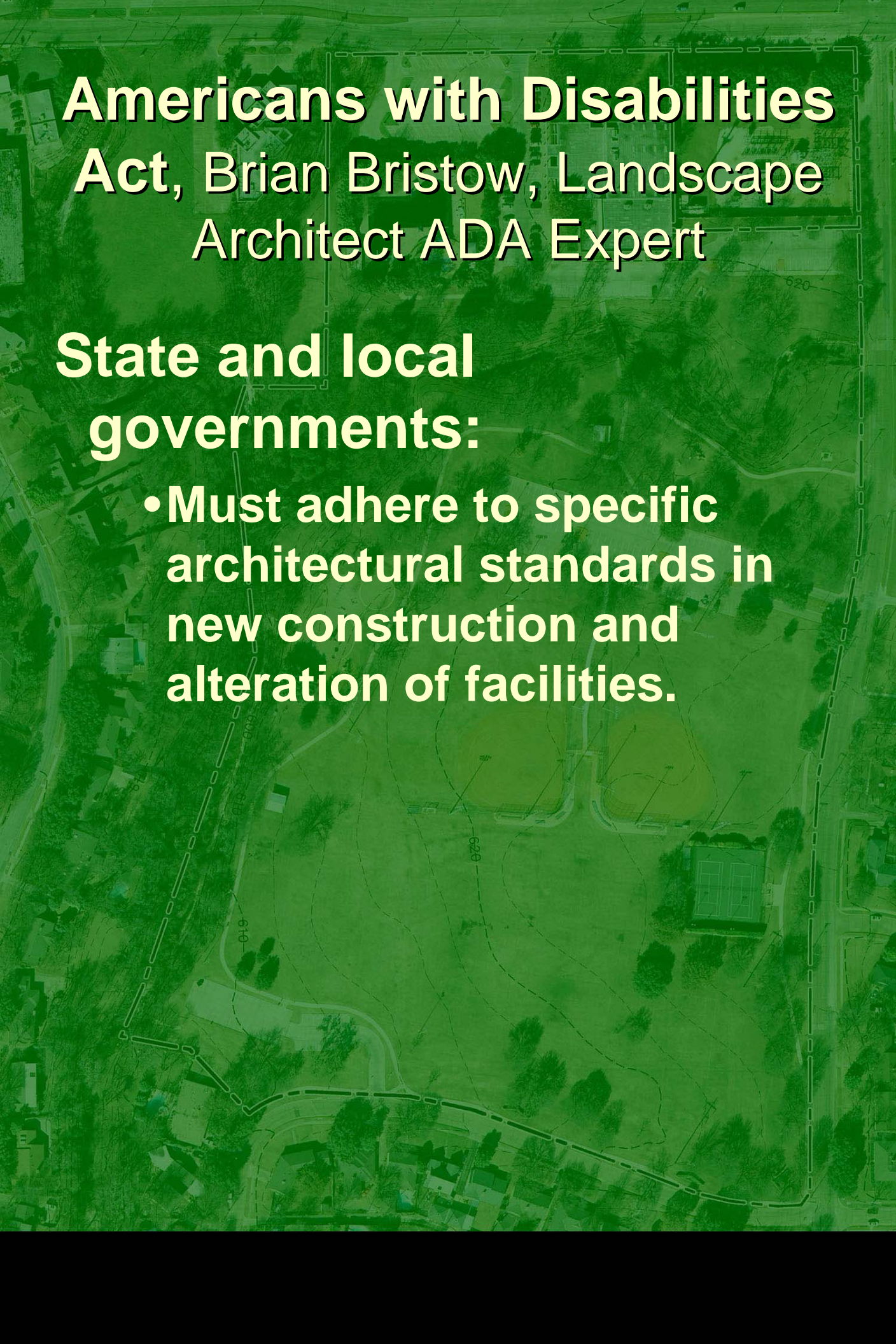
“No QUALIFIED person with a disability may be excluded from the programs, services, and activities provided by state and local governments.”

The Department of Justice enforces three areas --

Title I: Employment practices

Title II: Programs, services, and activities of State and local government

Title III: Public accommodations and commercial facilities

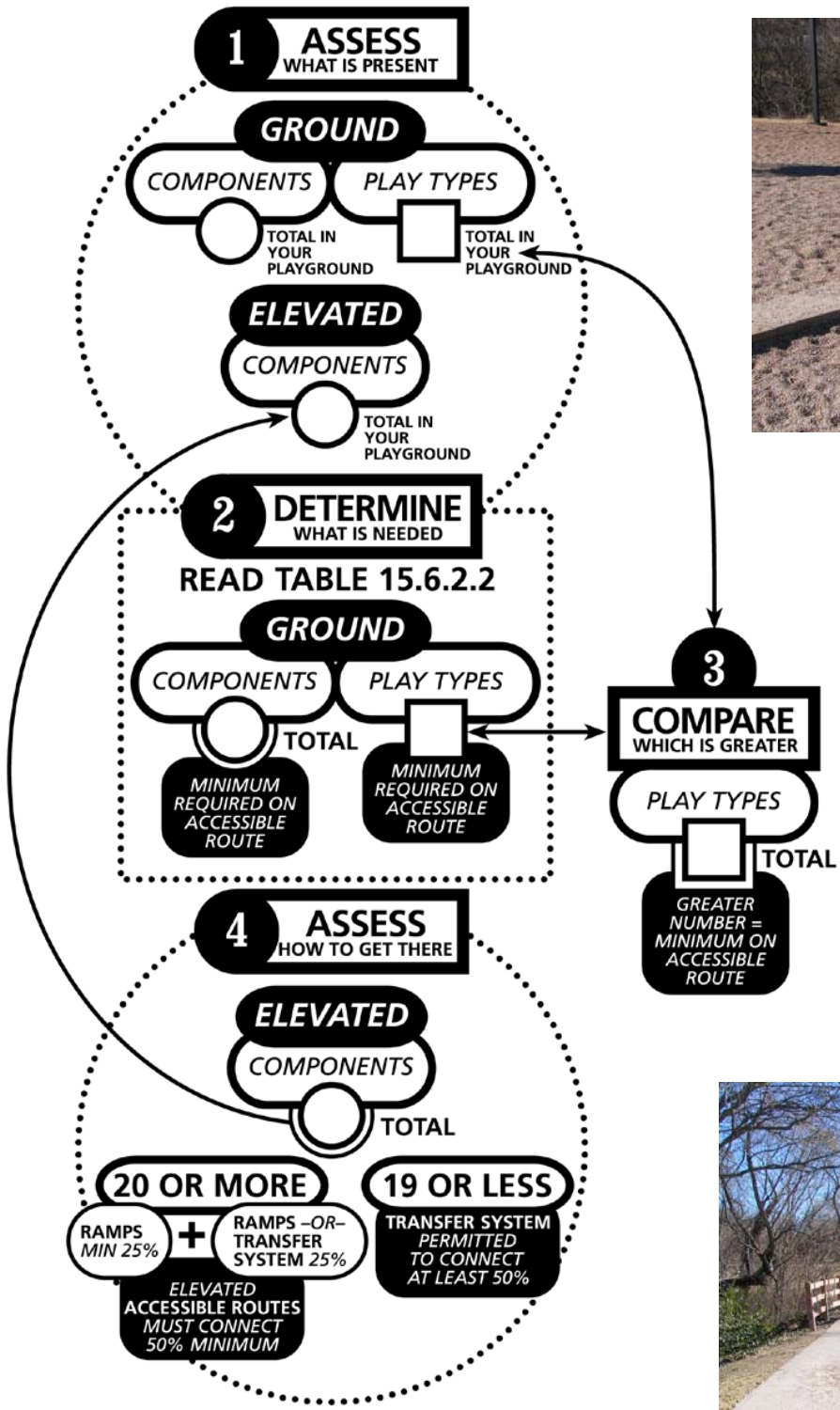


Americans with Disabilities Act, Brian Bristow, Landscape Architect ADA Expert

State and local governments:

- **Must adhere to specific architectural standards in new construction and alteration of facilities.**

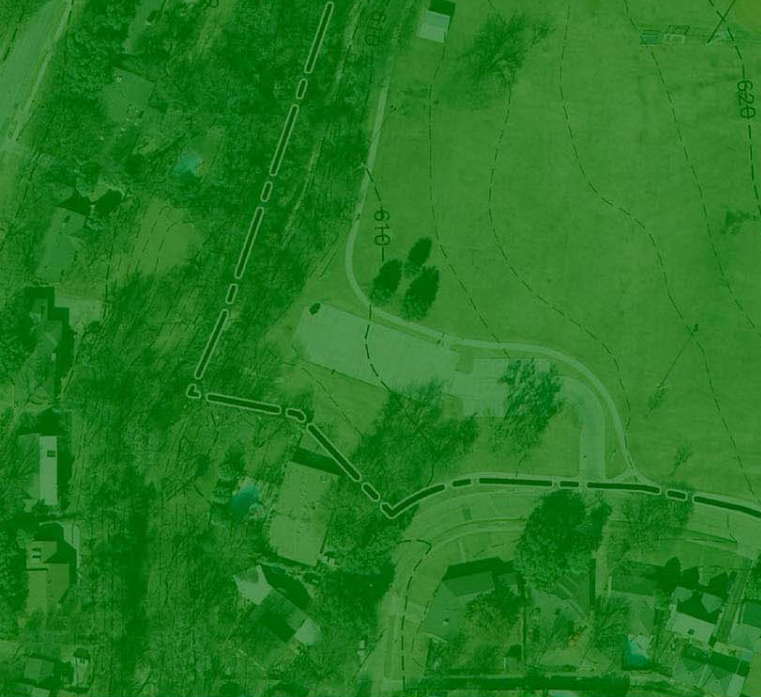
Americans with Disabilities Act, Brian Bristow, Landscape Architect ADA Expert



Americans with Disabilities Act, Brian Bristow, Landscape Architect ADA Expert



Americans with Disabilities Act, Brian Bristow, Landscape Architect ADA Expert



Americans with Disabilities Act, Brian Bristow, Landscape Architect ADA Expert

Do the play areas comply with the ADA Guidelines for Play Areas? ...NO


- **No accessible entrance at play area boundary**
- **Internal boundaries are barriers**
- **No accessible surface – gravel not compliant**
- **No accessible equipment**
- **No transfer stations at composite play structures**
- **Adult seating/benches not accessible**
- **Drinking fountains not compliant**

Americans with Disabilities Act, Brian Bristow, Landscape Architect ADA Expert

Can the play areas be left as is?

Technically YES...but...

- **Any alteration requires compliance**
- **Difficulty of retrofitting equipment**
- **Citizen demands/complaints**
- **Safety (CPSC); liability**
- **Park aesthetics**
- **Kid-attraction: color, variety of play types, heat absorption/comfort**
- **Adult accommodation**

An aerial photograph of a residential neighborhood, overlaid with a semi-transparent green filter. The image shows houses, trees, and streets. A white dashed line outlines a large area in the center, possibly a park or playground site. The text is overlaid on this area.

Americans with Disabilities Act, Brian Bristow, Landscape Architect ADA Expert

Can the playgrounds be modified to comply with ADA?

- **The playgrounds...yes, with extensive re-work of the entire site(s)**
- **The equipment...What is a disabled kid to play on?**
- **Remember...integration and blending**

An aerial photograph of a park area, overlaid with a semi-transparent green filter. The image shows various park features like paths, trees, and a tennis court. White text is superimposed on the image, posing a question about ADA requirements for play structures.

Americans with Disabilities Act, Brian Bristow, Landscape Architect ADA Expert

If we just modify the play structures, particularly the Rocket for safety reasons, would ADA requirements then apply or “kick in”?

- YES, the entire play area(s) would have to be brought into compliance.**

Historical, Cultural, and Aesthetic Considerations

Charissa N. Terranova, PhD

Frederick Turner

University of Texas at Dallas



Historical, Cultural, and Aesthetic Considerations

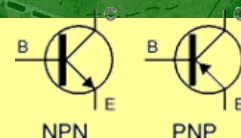
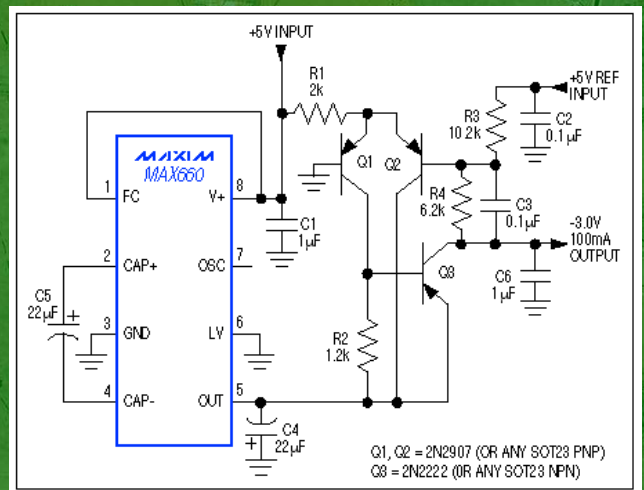
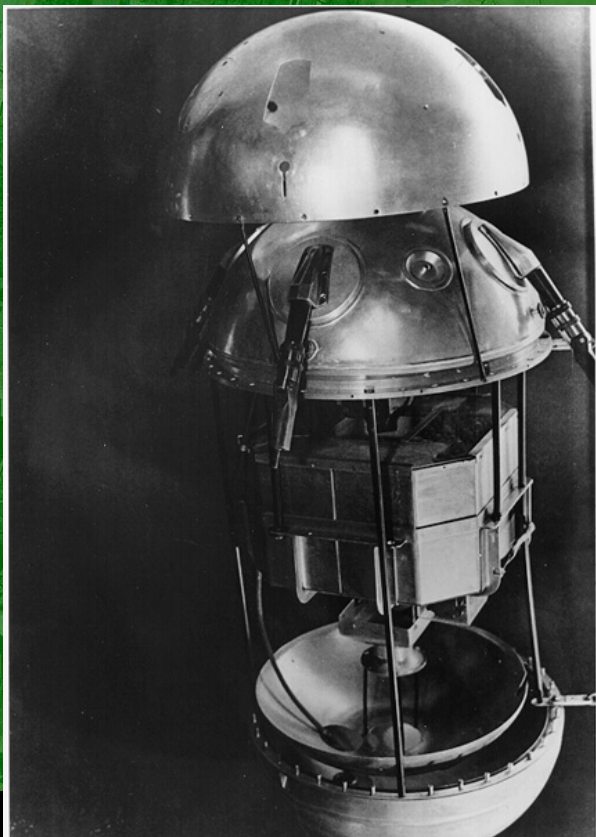
Charissa N. Terranova, PhD

Frederick Turner

University of Texas at Dallas

What is the historical value of the atomic playground at Heights Park?

Sometimes it is difficult for us to see the historical value of an object, or set of objects, because it is too close to us in time. This is especially the case with modern architecture and design.



Historical, Cultural, and Aesthetic Considerations

Charissa N. Terranova, PhD

Frederick Turner

University of Texas at Dallas

“The playground pieces are iconic to this community. The Recreation Center of the park; it too is useful and iconic. Its architectural style is late modern, wherein the building is conceived as a mega structure in miniature.”

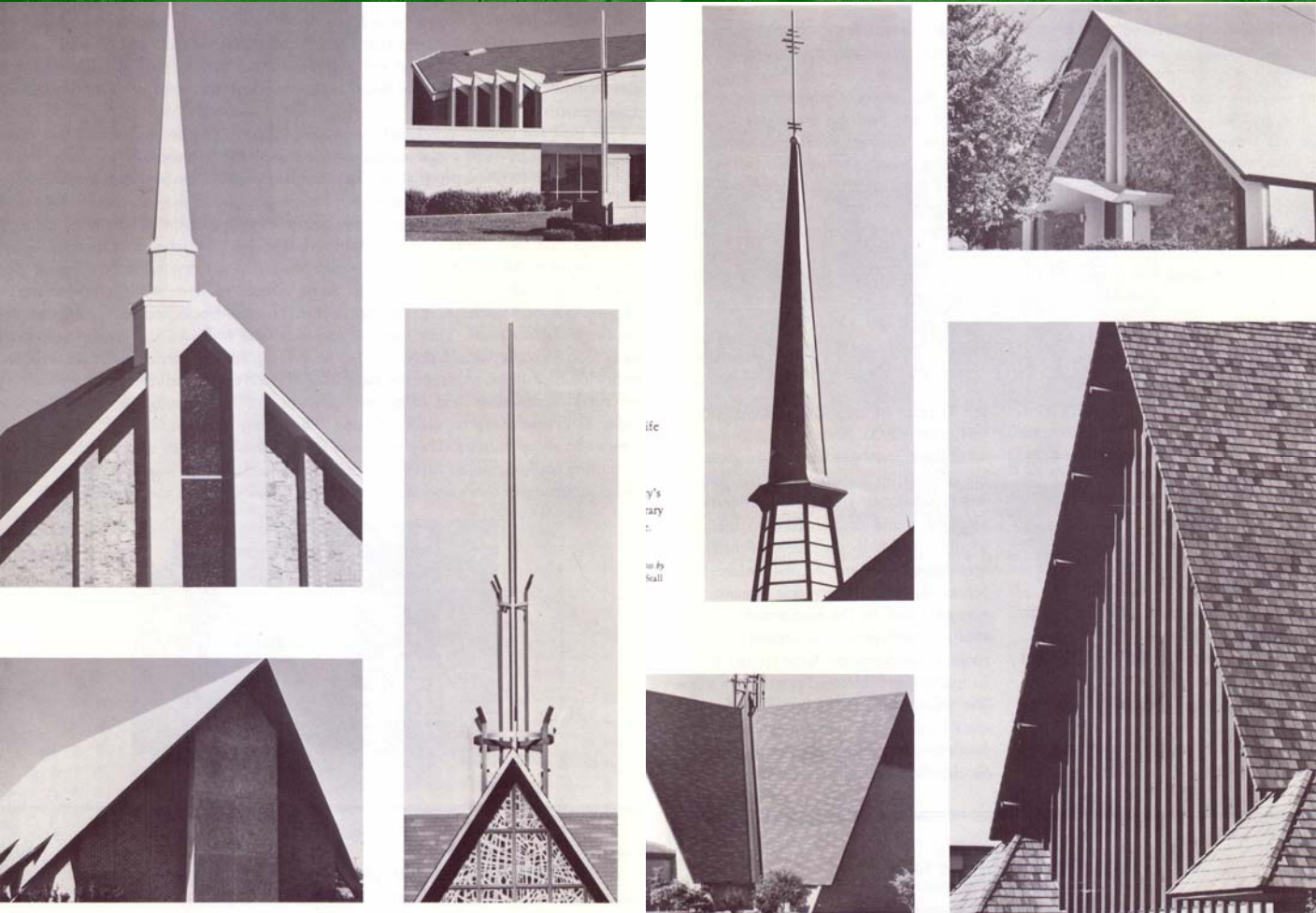


Historical, Cultural, and Aesthetic Considerations

Charissa N. Terranova, PhD

Frederick Turner

University of Texas at Dallas



“Richardson is full of architectural icons from another era. These icons make Richardson a “home”, create memories. People identify with those icons and it defines who we are as a community.”

Historical, Cultural, and Aesthetic Considerations

Charissa N. Terranova, PhD

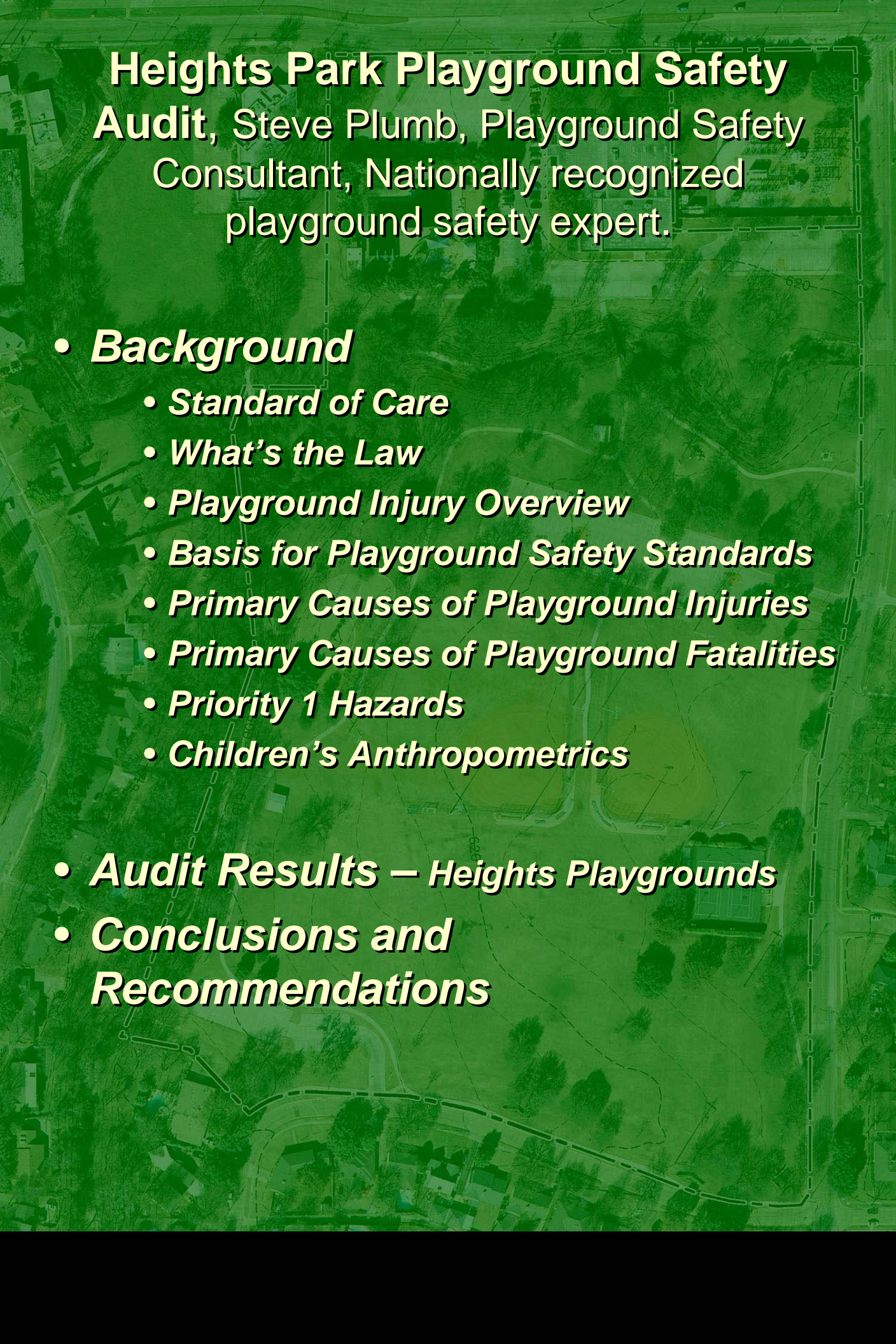
Frederick Turner

University of Texas at Dallas

“The playground at Heights park is a Richardson icon. Preservation is important!”

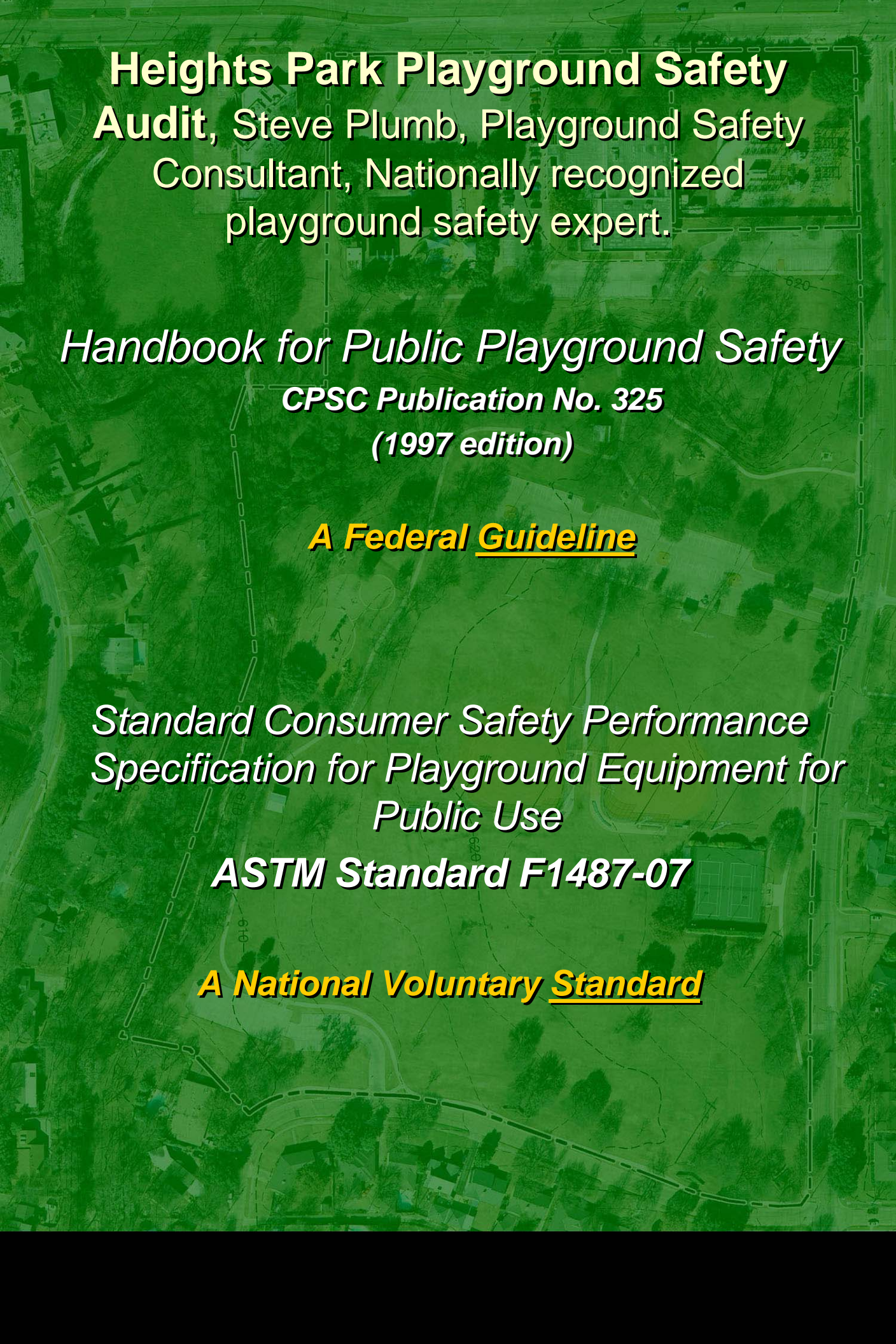
“The stories that are told about a boy and a girl who played there on a return visit for a man and wife and want to raise their kids here, are important. Don’t let that place be destroyed.”





Heights Park Playground Safety Audit, Steve Plumb, Playground Safety Consultant, Nationally recognized playground safety expert.

- ***Background***
 - ***Standard of Care***
 - ***What's the Law***
 - ***Playground Injury Overview***
 - ***Basis for Playground Safety Standards***
 - ***Primary Causes of Playground Injuries***
 - ***Primary Causes of Playground Fatalities***
 - ***Priority 1 Hazards***
 - ***Children's Anthropometrics***
- ***Audit Results – Heights Playgrounds***
- ***Conclusions and Recommendations***

An aerial photograph of a park area, overlaid with a semi-transparent green filter. The image shows various park features like trees, paths, and buildings. The text is centered and overlaid on this background.

**Heights Park Playground Safety
Audit, Steve Plumb, Playground Safety
Consultant, Nationally recognized
playground safety expert.**

Handbook for Public Playground Safety

CPSC Publication No. 325

(1997 edition)

A Federal Guideline

*Standard Consumer Safety Performance
Specification for Playground Equipment for
Public Use*

ASTM Standard F1487-07

A National Voluntary Standard

**Heights Park Playground Safety
Audit, Steve Plumb, Playground Safety
Consultant, Nationally recognized
playground safety expert.**

What's the Law in the U.S.?



**There is no Federal playground
safety law for the entire U.S.**

**Heights Park Playground Safety
Audit, Steve Plumb, Playground Safety
Consultant, Nationally recognized
playground safety expert.**



**Several states, including Texas,
have passed public playground
safety legislation.**

Heights Park Playground Safety Audit, Steve Plumb, Playground Safety Consultant, Nationally recognized playground safety expert.

What is a Priority 1 Hazard?



A readily accessible hazard that would typically cause an accident which would result in:

- Death***
- Brain Damage***
- Permanent Paralysis***
- Loss of Vision***
- Loss of Speech***
- Loss of Limb***
- Organ Destruction***



The Heights Playground Audit Process

- To identify conditions not in compliance with the standards.
- Develop a standards-based approach to removing very dangerous equipment.
- Determine removal or repairs according to hazard potential of each condition in non-compliance.

Hazard Priority Rating Form

1. Permanent disability, loss of life or body part .

Condition should be corrected *immediately.*

2. Serious injury resulting in temporary disability.

Condition should be corrected as *soon as possible.*

3. Minor (non-disabling) injury.

Condition should be corrected *very soon.*

4. Existing condition is compliant.

Hazard Priority Rating Form



Priority 1 Hazards...

Entanglement – hook at top of climber, bolts and rails w/in non-entanglement zone of straight slide, gap at tops of straight and high spiral slides, protruding bolt at top of sliding pole

Head Entrapment – in all yellow barriers, below activity panels, in handrails

Hazard Priority Rating Form



Head entrapment occurs when the torso probe goes through an opening and the head probe will not

Hazard Priority Rating Form



Priority 1 Hazards...

Entanglement – gaps at top of slide, rails in non-entanglement zone, bolts extend > .12”
Head Entrapment – above replacement step
Falls – no barrier at top of slide



Head entrapment in free-standing slide steps





***Small children
aren't always
supervised***



Priority 1 Hazards...

Entanglement – on poles

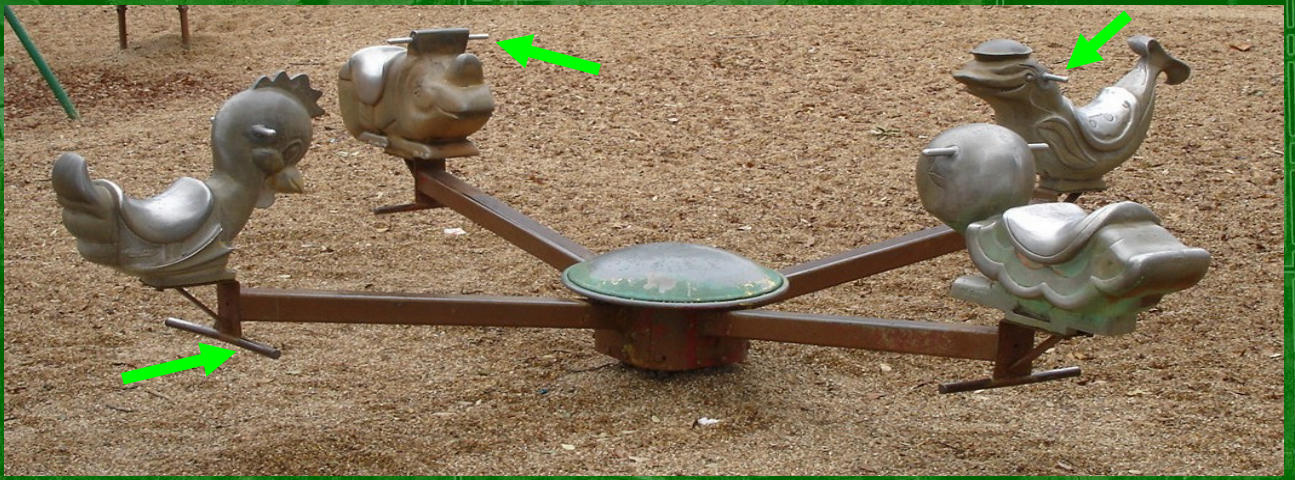
Fall Hazard – lower bars beneath upper bars



Priority 1 Hazards...

**Head Entrapment - between handrails, supports
Entanglement – on remaining giraffe horn**





Priority 1 Hazards...
Impalement - on handholds and footrests



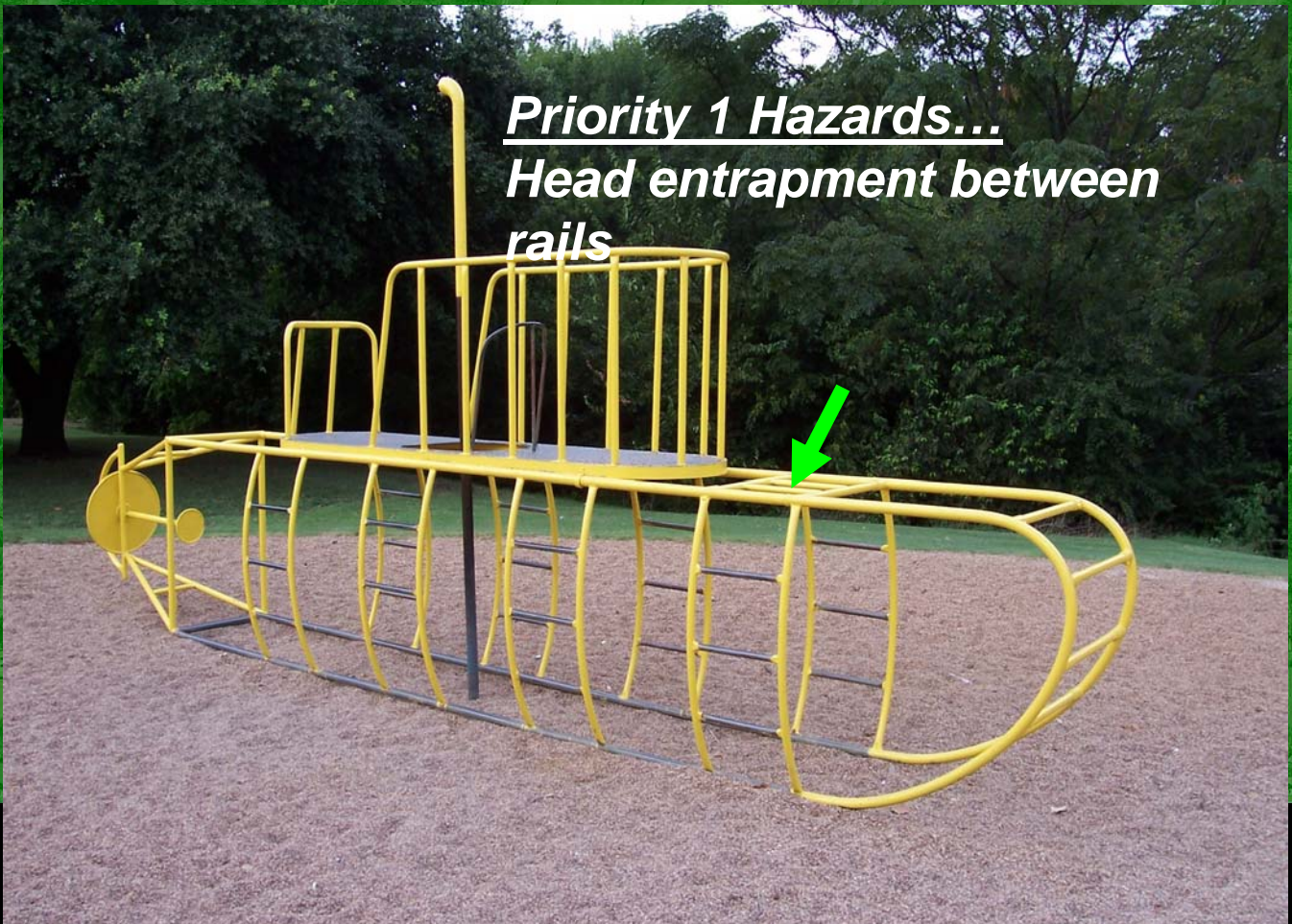
Priority 1 Hazards...
Falls – exposed concrete footer, concrete border in use zone



Priority 1 Hazards...
Head Entrapment - between tower rails
Falls – exposed footer



Priority 1 Hazards...
None



Priority 1 Hazards...
Head entrapment between rails



Priority 1 Hazards...

Entanglement...

Falls...

Head Entrapment...

Entanglement





***Falls...
Exterior falling due to
horizontal rails; critical
height of surfacing is
less than fall height of
equipment.***



Falls...

Exterior falling due to horizontal rails; critical height of surfacing is less than fall height of equipment.



***Head Entrapment...
between each pair
of rails***

Steve Plumb, Playground Safety Consultant, Nationally recognized playground safety expert.

Safety Expert Conclusions and Recommendations

If East Playground is to remain...

- 1. Implement a schedule to address Priority 1 Hazards*
- 2. Develop a plan to correct Priority 2 and 3 Hazards*
- 3. Drop test surfacing for impact attenuation (Fall Ht 116") or*
- 4. Replace surfacing w/ material that has Critical Ht \geq 116"*
- 5. Accessibility requirements for surfacing will be triggered*

If keeping equipment is not feasible...

- 1. Replace w/ new equipment and surfacing*
- 2. Equipment and surfacing must meet ADA/ABA Accessibility Guidelines*

Steve Plumb, Playground Safety Consultant, Nationally recognized playground safety expert.

West Playground...

- 1. Rocket should not be kept as functioning equipment*
- 2. Radar Tower should not be kept as functioning equipment*
- 2. Replace composite structure*
- 3. Replace and relocate both swing sets*
- 4. Keep Seesaw but modify handgrips and footrests*
- 5. Relocate Jungle Gym, Keep Saturn Climber*
- 6. Keep Submarine but modify entrapment hazard (simple)*
- 7. Keep Giraffe but modify entrapment hazards (difficult)*

Dynamic Playground Design, Terry Hendy, Playground Designer

What is good playground design?



Dynamic Playground Design, Terry Hendy, Playground Designer



Know the purpose of your playground
Are playgrounds a priority in your community?



Dynamic Playground Design, Terry Hendy, Playground Designer

PLAY...

is essential
for healthy
child
development.



**As children grow and develop, their
playgrounds must evolve to meet ever-
changing play needs and interests.**

Dr. Joe Frost

Dynamic Playground Design, Terry Hendy, Playground Designer

Heights Park Playground –

“Their unique presence and play opportunity has over the years placed them in the role of being icons for the community.”

“It is understandable that the community would resist the removal of these icons due to sentimental value.”



An aerial photograph of a residential neighborhood, showing houses, streets, and trees. The entire image is overlaid with a semi-transparent green filter. The text is centered and overlaid on the image.

Dynamic Playground Design, Terry Hendy, Playground Designer

“The Rocket Ship in reality has very limited play value. It is basically a climber to a slide. “

“The upper platforms provide a unique opportunity for a child to get quite high above the ground. I believe that it is this opportunity to perch and look out that is the primary attraction of the Rocket Ship.”

“It is natural and instinctive for children to seek out this kind of height. “

“The Rocket Ship has many very hazardous conditions that present a great danger to young children. “



Dynamic Playground Design, Terry Hendy, Playground Designer

“These hazards were quite accurately reflected in Mr. Plumb’s report and presentation. “

“The structure could possibly be modified but at great expense. Once you modify it you own the total liability for anything that happens on that structure. “

“The other equipment such as the radar dish and solar climber can probably be modified to be compliant; however their projected life expectancy and limited play value are really not worth the expense and liability.”



Dynamic Playground Design, Terry Hendy, Playground Designer

“It is my recommendation that the Rocket Ship and other equipment be removed. “

“I do believe that in its place another structure can be added that will provide the same sliding, climbing and look out opportunities as well as increasing the play value of the entire area.”



Dynamic Playground Design, Terry Hendy, Playground Designer

“It is my understanding that as part of the Master Plan for the park the pool and water play area will be expanded. “

“This water play area would provide a wonderful new home for the Rocket Ship. It is my recommendation that consideration be given to installing the Rocket Ship as the focal point of the new water play area. “

“The ship could be modified to prevent entry into the structure. The structure could have water play elements attached to it so that water blasts out from the base of the rocket just like a cloud of smoke at take off.”

Metallurgical Opinion

Mark M. Holland, Principal, Walter
P. Moore Engineering

Heights Park Rocket Ship Visual Structural Assessment



Summary of Initial Findings

- Structure has experienced significant wear and tear and needs repair.
- Given the age and lack of detailed maintenance, thorough restoration is warranted.
- Observed some relatively minor but significant structural damage, for example, cracks and connection problem at top end of side fins.

Metallurgical Opinion

Mark M. Holland, Principal, Walter
P. Moore Engineering



Metallurgical Opinion

Mark M. Holland, Principal, Walter
P. Moore Engineering

Recommendations

- Close structure until repairs are completed.
- Repairs:
 - Replace top section of fins.
 - Replace all bolts.
 - Replace all spliced and bent vertical bars.
- Excavate at base of fins to assess foundation connections and possible corrosion.
- Conduct thorough weld inspection and repair any deficient welds.

Manufacturer's Opinion

Don Hemingway, Executive Vice
President, PlayPower



- Represents many brands of Playground equipment.
- Promote safe, fun play for children.
- Perform a great deal of research and development for playgrounds.



Manufacturer's Opinion

Don Hemingway, Executive Vice
President, PlayPower

- Does not conform to existing playground standards
- Recommendation is to remove all unsafe playground equipment.
- Existing Rocket could be reused by:
 - Welding unit shut to be used as an Icon, but not a play piece
 - Adding skins to at least first 8-10' of exterior to prevent climbing of outside
 - Reuse fins from the existing unit on a new unit ??

Manufacturer's Opinion

Don Hemingway, Executive Vice
President, PlayPower



Safety and Risk Management

Mike Lorenzo, MA, Vice President
Regional Risk Control Manager

Goal

- Is for you (Task Force) to understand how I use the Risk Management process to draw conclusions...

Safety and Risk Management

Mike Lorenzo, MA, Vice President
Regional Risk Control Manager

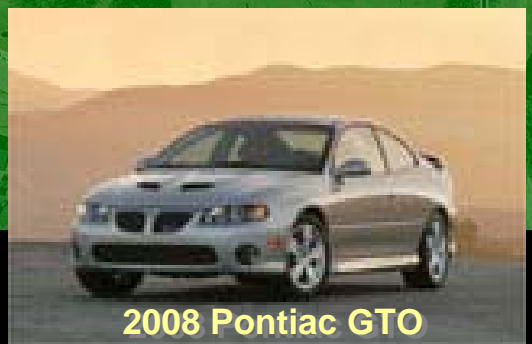
Safety 1965/2008

- **Crash-Avoidance Features**

- Antilock brake system, four-wheel vented disc, with Electronic Brake Assist
- Brake/transmission shift interlock on models with automatic transmissions
- StabiliTrak vehicle stability enhancement system
- Automatic Daytime Running Lamps
- Windshield defroster, washer, and multispeed wipers
- Inside day/night rearview mirror
- Power outside rearview mirrors
- Center high-mounted stop lamp
- Tinted glass
- Rear-window defogger
- Halogen headlamps and fog lamps
- Tires with built-in tread wear indicators
- Standard Tire Pressure Monitoring
- Tire Pressure Monitoring system (Does not apply to spare tire)
- Manual lap/shoulder safety belts for all seating positions
- Driver and front-passenger air bags
- Power window lockout
- Tires with built-in tread wear indicators
- Dual-stage frontal and side-impact, driver and right-front passenger and available head curtain side-impact,** front and rear outboard seating positions with Passenger Sensing System
- Safety belt cinch capability for child seats
- Child security door locks (rear)
- Security door locks and door retention components
- Laminated windshield glass, urethane-bonded
- LATCH Safety System (Lower Anchors and Top tethers for Children) for child safety seats in the 2 rear outboard seating positions only
- Side door beams



1965 Pontiac GTO



2008 Pontiac GTO

Safety and Risk Management

Mike Lorenzo, MA, Vice President
Regional Risk Control Manager

Identifying and analyzing exposures to accidental loss

- Playground Equipment - circa 1965
 - 43 years old
 - 1965 No Playground Safety Standards
 - Multiple Modifications on Equipment
 - Not up to 2008 codes – ADA/Accessibility , CPSC/Falls
 - 18' tall – Children will find a way!

Safety and Risk Management

Mike Lorenzo, MA, Vice President
Regional Risk Control Manager

Recommendations

- It is my professional opinion that :
 - Due to the age, condition, construction materials, and non compliance with a multitude of regulations, the space ship and other larger equipment be immediately closed, secured, and taken out of service.
 - The items can be used for decorations but they have reached the end of their life.

Liability

Joe Gorfida Jr., Assistant City Attorney, Nichols, Jackson, Hagar & Smith

TEXAS RECREATIONAL USE STATUTE

By Permitting a person to enter the premise for a recreational use, the city does not:

- (1) assure that the premises are safe for that purpose;
- (2) owe to the person a greater degree of care than is owed to a trespasser;
- (3) assume responsibility or incur liability for any injury to any individual or property caused by any act of the person to whom permission is granted.

Liability

Joe Gorfida Jr., Assistant City Attorney, Nichols, Jackson, Hagar & Smith

Duty owed to a Trespasser

- Not to injure that person willfully, wantonly, or through gross negligence.

Liability

Joe Gorfida Jr., Assistant City Attorney, Nichols, Jackson, Hagar & Smith

Recommendation

- Simply because the city may be immuned from liability, the mere existence of the Recreational Use Statute does not provide the rationale for allowing outdated playground equipment to exist within our playgrounds when the funds are available for replacement.
- Additionally, if a piece of equipment is deemed to be unsafe, that equipment should be removed regardless of the age or user attraction to the piece of equipment.

Liability

Joe Gorfida Jr., Assistant City Attorney, Nichols, Jackson, Hagar & Smith

Recommendation

“The ultimate goal for the City should be to provide the safest environment for our children to play.”

“Therefore, it is my recommendation that the Rocket Ship playground equipment be replaced and not left in the park merely because of the historical importance of the equipment.”

Heights Park Playground Task Force Conclusion

Basis for Task Force Recommendations:

- Information on playgrounds presented by the various experts on playground safety, accessibility, design, and legal/risk management.
- The view of the Task Force that the primary stakeholders in the existing and future playgrounds are:
 - The children who use Heights Park.
 - Secondary stakeholders are the parents of the children.
 - The tertiary stakeholders are former users of the playgrounds in Heights Park.

Heights Park Playground Task Force Conclusion

- That the existing playgrounds cannot continue in their current use, or for future use in the park.
- That the Rocket Ship is the primary landmark for the playground equipment and the primary piece of equipment to preserve in the future design of the park; however, there are at least seven other pieces that need to be considered for preservation in some manner.

Heights Park Playground Task Force Conclusion

- The seven playground pieces are broken down into the following groups:
 - Playground pieces linked to the Rocket Ship
 - Planet Climber
 - Submarine Climber
 - Radar Climber
 - Historical playground pieces
 - Jungle Gym Climber
 - American Slide
 - Bounce Animals
 - Giraffe Climber

Heights Park Playground Task Force Conclusion

– Preservations of these pieces can be by:

- Donation to a “Playground Museum”
- Making them an icon or sculpture in the future park design (not a piece of play equipment).
- Represented in a piece of commissioned art.
- As a part of the future plans for the park as determined by future decision-makers, designers and planners.

Heights Park Playground Task Force Recommendation

- Remove the existing playground equipment identified in the Playground Audit as soon as is practical.
- Replace the existing playgrounds with a playground(s) that has/have equal or greater play value and possesses the following features or play functions:
 - Elevated Play
 - Explorative Features
 - Imaginative Theme
 - Dynamic play
 - Challenging play
 - Artistic Quality



Heights Park Playground Task Force Recommendation

- Preserve the Rocket as an icon, piece of sculpture, or in some other manner to be determined, to honor the role it has played in making the park a destination and as a symbol of Richardson's historical contributions to the advancement of modern technology.

Heights Park Playground Task Force Recommendation

- Consider the preservation of seven other pieces of play equipment because of their link to the “Rocket” or their significance as a historical piece of play equipment. (Full report contains basis for Task Force Recommendations)

City Council Consideration

- Accept the recommendations of the Heights Park Playground Task Force and continue forward with the proposed 2007 Heights Park Master Plan.
- Prepare cost analysis of Heights Park Master Plan for the May 2010 Bond Program consideration.

City Council Consideration

- Based on the analysis and safety audit, remove the playground equipment as specified and repair other playground pieces if possible.
- Begin design process and seek funding for replacement playground immediately.
- Follow the Heights Park Master Plan and task force recommendation to find the best opportunity to preserve and celebrate Richardson's history through preservation of the rocket ship as an iconic art form in the park and allow the master plan process to determine the use of the other seven playground pieces within the park.
- Communicate
 - HOA's (upon invitation)
 - HOA President's Meeting
 - Post the Task Force report on the internet