

PURCHASING DEPARTMENT

**TOWN OF ARLINGTON
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October 27, 2023

Request for Proposals #23-63

**Landscape Architectural Design Services
Brackett Elementary School Playground**

66 Eastern Ave, Arlington, MA

ADDENDUM NO. 2

The Town of Arlington directs the attention of interested firms and individuals to additional project background information in the form of the following documents:

1. Playground Assessment and Recommendation Report prepared for the Arlington Public Schools by Playground Inspections of New England LLC in March 2020 is attached hereto.
2. Plans and Specifications for the Robbins Farm Park Playground project located across the street from the Brackett School are located on the Town's website.
<https://www.arlingtonma.gov/Home/Components/RFP/RFP/2834/>

All other terms and conditions of the bid documents remain unchanged.

**ADDENDUM MUST BE ACKNOWLEDGED IN THE PROPOSAL. FAILURE TO
ACKNOWLEDGE ANY OR ALL ADDENDA COULD RESULT IN REJECTION OF YOUR
PROPOSAL AS NON-RESPONSIVE.**

James Feeney, Town Manager

PLAYGROUND ASSESSMENT AND RECOMMENDATION REPORT

PREPARED FOR
ARLINGTON SCHOOLS, MASSACHUSETTS

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1. Individual Playground Assessments and Photographs

2. General Site Overview

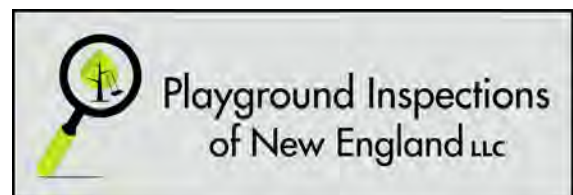
- Resilient Surfacing
- Signage and Safety Labeling
- Brief Statement Synopsis
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- Playground Ranking According to Hazard Type

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- Playground, Park and Recreation Frequently Used Terminology
- Grass Mat Sample over EWF
- Grass Mat Sample over EWF to Transfer Module
- Accessible Play Areas
- MAAB References

Prepared by:

Playground Inspections of NE, LLC
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P: 508.782.0263



PLAYGROUND NAME & ADDRESS: BISHOP SCHOOL PLAYGROUND, 25 Columbia Road

DATE OF SITE VISIT: 3/23/2020

AGE APPROPRIATE: 2-5 YRS 5-12 YRS 2-12 YRS

MANUFACTURER: HENDERSON, BERLINER, AND UNKNOWN

OVERALL CONDITION OF PLAYGROUND:

POOR: HAZARD 1: Loss of life, Permanent disability or body part.
Condition should be corrected immediately.

FAIR: HAZARD 2: Serious injury or illness resulting in temporary disability.
Condition should be corrected as soon as possible.

GOOD: HAZARD 3: Minor [non-disabling] injury/Non-Compliant
Condition should be corrected when time allows.

1. GENERAL SITE CONDITIONS AND APPROACH

Access to the location of the playground is good. It is located in a residential area with good site lines and protected by a partial fence. It is adjacent to a baseball field. Based on the proximity of the baseball field and age of users, there may be a concern of baseballs heading into the playground. The negative factor about this playground is that there is another structure in poor condition right next to it. The Park and Recreation Dept. of Arlington owns this adjacent structure and it should be removed. When questioning children onsite who attended the Bishop School – they all said they use both playgrounds.

2. VISUAL SURFACING REVIEW

The surfacing is loose fill - EWF. Although the playground does meet ADA, it does not meet MAAB. A curb cut is needed for users with disabilities to access the play area. The wood fiber needs to be spread evenly and then additional wood fiber is needed. There is a tree in the middle of the play area, causing a tripping hazard. Using 'wood' as a separator of surface changes is a good idea, however both sides have wood fiber thus this edging is not useful.

3. COMPONENT STRUCTURE REVIEW

The composite net structure is in good condition.

4. FREE STANDING EQUIPMENT [INCLUDING SWINGS]

The basket type swings [Cloud Nine] have been removed. The belt seats and 2 bay swings are in good condition. The hardware and chain on 2 of the swings need to be replaced. A wood music piece needs to be sanded and sealed. There are no mallets. There are 2 older rainbow climbers that have been painted. They comply with current guidelines. Note the rubber tires: they have latex. Some children are allergic to latex. The filter fabric is revealed inside of the rubber tires. The further indicates the need for additional wood fiber.

5. SITE AMENITIES

Trash receptacles and benches are in good condition. The Manufacturer is Dumor: request black paint for any touch ups. Both bike racks are in poor condition and should be removed and replaced if needed.

6. SUMMARY/RECOMMENDATIONS

- Surfacing is fair – needing special attention at the swings and tree area.
- Sand and paint the rainbow climbers.
- Contact the Manufacturer [Berliner] about the Cloud Nine swings.
- Clean out and /or remove edging around the tree. There is wood fiber on either side.
- Consider adding one more tier of the same profile of the wood perimeter edging. If the first tier is rotted, remove and replace.
- Bishop should consider having [poured in place rubber] PIP installed. The layout and design lends itself nicely to having the appropriate amount of PIP surfacing to meet MAAB. The entire area will not have to be PIP. The second choice is grassmats throughout the playground after the area is defined with edging.
- Safety labels must be affixed [especially to the rope climbers].

ADDITIONAL PLAYGROUND PHOTOS



PLAYGROUND NAME & ADDRESS: BRACKETT SCHOOL PLAYGROUND, 66 Eastern Avenue

DATE OF SITE VISIT: 3/23/2020

AGE APPROPRIATE: 2-5 YRS 5-12 YRS 2-12 YRS

MANUFACTURER: LANDSCAPE STRUCTURES

OVERALL CONDITION OF PLAYGROUND:

POOR: HAZARD 1: Loss of life, Permanent disability or body part.
Condition should be corrected immediately.

FAIR: HAZARD 2: Serious injury or illness resulting in temporary disability.
Condition should be corrected as soon as possible.

GOOD: HAZARD 3: Minor [non-disabling] injury/Non-Compliant
Condition should be corrected when time allows.

1. GENERAL SITE CONDITIONS AND APPROACH

Site lines and approach from the school and street are very good. The playground is across the street from Robbins Playground. The front structure is on a very busy street and is fenced in. The structure in the front is age appropriate for 5-12 years. There is another structure age appropriate for 2-5 years on the side [in a sloped area]. Multiple trees line the area, but site lines within the playground are limited.

2. VISUAL SURFACING REVIEW

The surfacing is loose fill – EWF – is compliant but needs maintenance. It has spread onto the concrete area and is slippery. There is no edging to hold it back. Due to the lack of edging, the wood fiber will continue to travel. The wood fiber on the concrete creates a tripping hazard and the change in surface is hard to see.

3. COMPONENT STRUCTURE REVIEW

The moving components on the large structure need to be replaced. The structure itself is in good condition. However, the decks and stairs all need to be replaced. All are worn and have open steel. It is unusual that all PVC coated deck materials need to be replaced. Had the PVC openings been seen and repaired early, patching could have been done to extend the life of the decks. If you need referrals to contractors to do this specific work I can provide.

Request the 2D designs for both structures from O'Brien and Sons.

3. COMPONENT STRUCTURE REVIEW - continued

There are two spiral slides on the 5 -12 structure and they are non-compliant. The distance between the edge of a slide side and post should be at least 21". Both are under 20" and need to be removed with something else to be put in its place. These are two costly components to lose. If assistance is needed with the rehabilitation of the play area, please let me know. The 2-5 transfer module and PVC coated belt bridge connection needs replacement [see photos].

4. FREE STANDING EQUIPMENT [INCLUDING SWINGS]

NONE

5. SITE AMENITIES

There are 3 benches that are in good condition in the 5-12 area.

6. SUMMARY/RECOMMENDATIONS

- Remove and replace all PVC stairs, transfer and decks on 5-12 structure.
- Install a perimeter edge around the 5-12 area.
- Appropriate safety labels needed on both structures.
- Track ride trollies need to be replaced.
- Two spiral slides need to be removed and replaced with a different component.
- Call the Manufacturer Rep to make a site visit and inventory the equipment needs. If you prefer I do this please let me know.
- There is ADA parking is behind the school, which is acceptable for the 2-5 area. There is a curb cut in the front for the 5-12 area ADA access, but I did not see any parking. Please review.
- The sidewalk on the lower side needs repair.
- The PIP access on the lower section is in good condition. 'Blow' at the edge and pour to close area between the sidewalk and the PIP.
- The step on transfer entry needs to be replaced. Unfortunately it is attached to the entire module, therefore the entire module needs to be replaced.

ADDITIONAL PLAYGROUND PHOTOS



ADDITIONAL PLAYGROUND PHOTOS



ADDITIONAL PLAYGROUND PHOTOS



ADDITIONAL PLAYGROUND PHOTOS



PLAYGROUND NAME & ADDRESS: DALLIN SCHOOL PLAYGROUND, Florence Street

DATE OF SITE VISIT: 3/23/2020

AGE APPROPRIATE: 2-5 YRS 5-12 YRS 2-12 YRS

MANUFACTURER: MIRACLE

OVERALL CONDITION OF PLAYGROUND:

POOR: HAZARD 1: Loss of life, Permanent disability or body part.

Condition should be corrected immediately.

FAIR: HAZARD 2: Serious injury or illness resulting in temporary disability.

Condition should be corrected as soon as possible.

GOOD: HAZARD 3: Minor [non-disabling] injury/Non-Compliant

Condition should be corrected when time allows.

1. GENERAL SITE CONDITIONS AND APPROACH

The playground area is 100% fenced and a vertical 4' fence protects it. The area does meet ADA and MAAB. The site is protected from the 2 streets abutting, and has clear site lines within the play area. Note: see the bench in front of the school. The Manufacturer is Dumor. The slat broke due to a stress crack and is most likely under warranty. It was not vandalism.

2. VISUAL SURFACING REVIEW

The surfacing is PIP and is in fair condition and needs some 'cut outs' and a full overlay. It has pulled away from all sides and cracks are visible. There is mold and mildew in areas. The surface needs to be 'blown out', weeded, power washed and reset.

3. COMPONENT STRUCTURE REVIEW

There are three structures on site. Two structures are age appropriate for 2-5 and one for 5-12. All equipment, except for the moving pieces, is in good condition. The chain ladder needs to be replaced due to wear. Removal of a component that is anchored in PIP can be problematic and should be done by a Professional especially if patching is involved.

4. FREE STANDING EQUIPMENT [INCLUDING SWINGS]

NONE

5. SITE AMENITIES

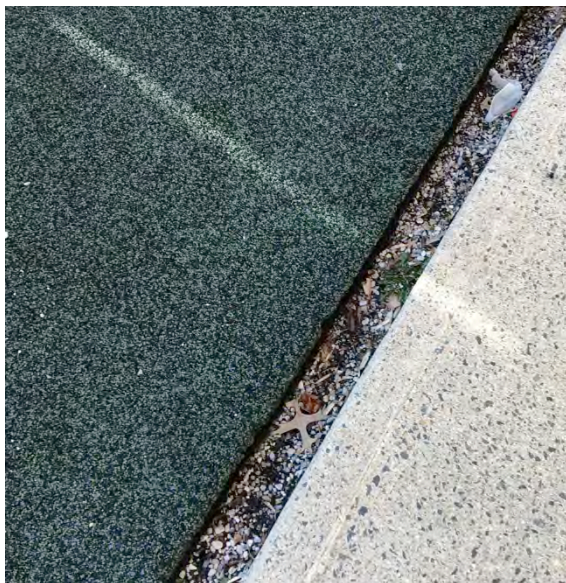
There are 3 benches that are PVC coated and are in good condition.

6. SUMMARY/RECOMMENDATIONS

- Ask the manufacturer to send appropriate labels for all 3 structures, as 2 age groups [2-5, 5-12] are represented.
- The PIP surface needs repair and overlay.
- The surfacing and all equipment needs power washing.
- The surfacing especially needs power washing, as there are 'ground in' items that may cause health hazards.
- The mold and mildew on the surface is due to its protection from the trees. The surface seems to stay somewhat damp. It has also pulled away on the sides due to poor drainage.

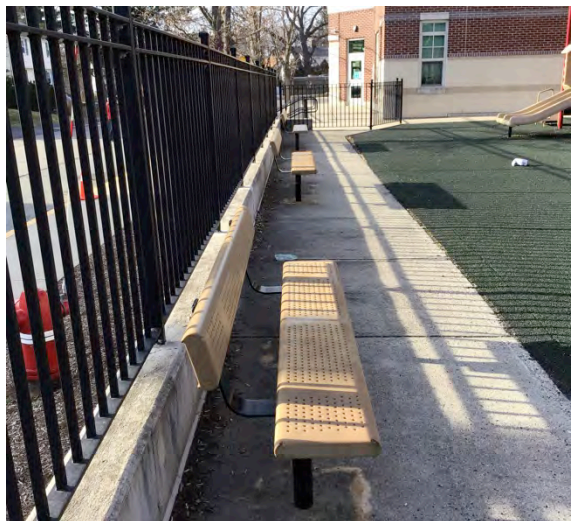


ADDITIONAL PLAYGROUND PHOTOS





ADDITIONAL PLAYGROUND PHOTOS





ADDITIONAL PLAYGROUND PHOTOS



PLAYGROUND NAME & ADDRESS: THOMPSON SCHOOL PLAYGROUND, 187 Everett Street

DATE OF SITE VISIT: 3/23/2020

AGE APPROPRIATE: 2-5 YRS 5-12 YRS 2-12 YRS

MANUFACTURER: XCCENT

OVERALL CONDITION OF PLAYGROUND:

POOR: HAZARD 1: Loss of life, Permanent disability or body part.

Condition should be corrected immediately.

FAIR: HAZARD 2: Serious injury or illness resulting in temporary disability.

Condition should be corrected as soon as possible.

GOOD: HAZARD 3: Minor [non-disabling] injury/Non-Compliant

Condition should be corrected when time allows.

1. GENERAL SITE CONDITIONS AND APPROACH

The site of the playground is open – and there are good site lines from all sides. The perimeter surface is 100% concrete and there are 2 curb cuts for access, not including the school access. There is one ADA parking space and there should be 2 available spaces. There are 4 streets surrounding the entire school and playgrounds, with light posts surrounding the areas. The fence is 3’ in height with 2 gates on both play areas.

2. VISUAL SURFACING REVIEW

The 5-12 surface is PIP and is in fair condition. There are cracks and chunks of PIP that are worn or have been vandalized. Rubber tiles were installed in the high wear area and are failing.

The 2-5 surface is PIP and is in good condition, but the transfer module is installed too high. See below.

3. COMPONENT STRUCTURE REVIEW

5 -12 structure: The stability of the composite structure is in good condition. However, there are a number of components that are non-compliant. The Transfer modules should be 11 – 18” off grade and they are at 20” off grade. The structure is based on continual or linked play – but it is not – thus giving a false positive

3. COMPONENT STRUCTURE REVIEW – continued

of 'connected equipment'. One rope section has worn to steel and needs replacement. The handhold is also worn. The openings on several components are too wide to enter and exit.

2-5 structure: The stability of the structure is in good condition. However, it does not comply with a number of ASTM and CPSC guidelines [see recommendations]. The transfer module and slide exit are too high and do not meet ADA.

4. FREE STANDING EQUIPMENT [INCLUDING SWINGS]

There are talk tubes, a spinner and panels. The spinner should be closed asap – the top portion/seat is cracked and rusted and need to be replaced. The three play panels are not handicap accessible, as they are too close to the fence and there is not enough space between panels for a wheel chair.

5. SITE AMENITIES

There is one bench in each playground – they are both in good condition.

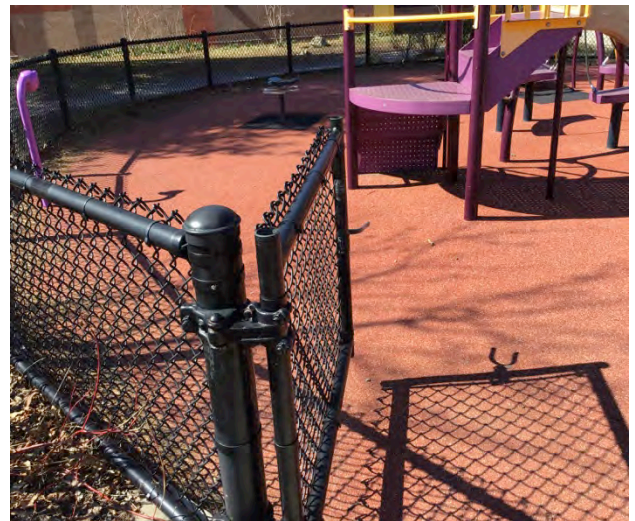
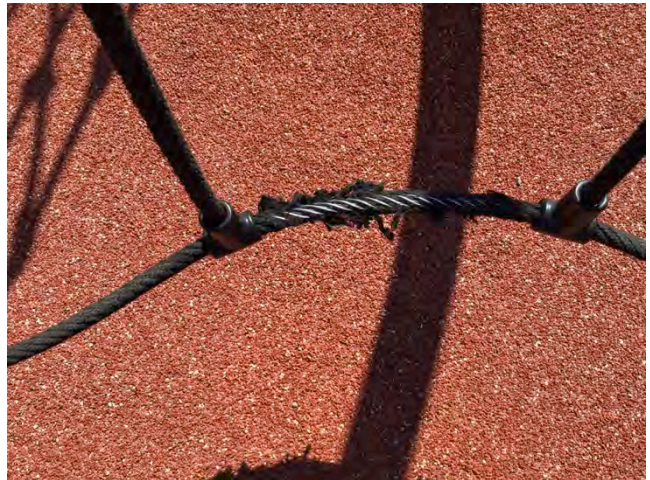
6. SUMMARY/RECOMMENDATIONS 5 – 12 AREA

- The overall condition of the 5-12 area is good. However, in my professional opinion, I believe the equipment seems very worn for being [what I believe to be] less than 5 years old.
- Review warranties for equipment and surfacing, there could be current warranties for repairs needed.
- Age appropriate labels are not on equipment; all safety labels are missing.
- The gates should open out only for ADA.
- The slope should be reviewed in a few areas to validate the ADA grade requirements.
- Tiles and PIP have sections that need repair.

7. SUMMARY/RECOMMENDATIONS 2-5 AREA

- The fence is 3' high and if this is a Pre-K playground, it does not meet state regulations. A 4' fence and share are required for a Pre-K playground.
- In my professional opinion, equipment at both playgrounds were either installed too high, or the PIP too low.
- Discuss with a PIP Installer – if these non-compliant hazards that can be rectified.

ADDITIONAL PLAYGROUND PHOTOS



ADDITIONAL PLAYGROUND PHOTOS



ARLINGTON SCHOOLS | GENERAL SITE OVERVIEW

RESILIENT SURFACING

Inadequate surfacing remains the number one reason why injuries occur on playgrounds. Loose fill, especially sand, engineered wood fiber [EWF], wood chips and pea stone are the least expensive way to meet compliance to ASTM 1292 – which is the ‘Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment’. However, for these surfaces to meet the impact attenuation required, the surfaces need to be maintained. The following types of playground surfacing are considered acceptable on the Federal [DOJ/ADA Dept. of Justice Americans with Disability Act] and State [MAAB – ‘Massachusetts Architectural Access Board’ level:

- **Sand:** acceptable for playground surfacing, but does not meet ADA and MAAB.
- **Pea Stone:** acceptable for playground surfacing, but does not meet ADA and MAAB.
- **Wood chips:** acceptable for playground surfacing, but does not meet ADA and MAAB.
- **Engineered Wood Fiber [EWF]:** acceptable for playground surfacing, does meet ADA, but does not meet MAAB.
- **Shredded Rubber:** acceptable for playground surfacing, but does not meet ADA and MAAB.
- **Poured in Place Rubber [PIP]:** accessible and acceptable to meet ADA and MAAB.
- **Playground Turf:** accessible and acceptable to meet ADA and MAAB.
- **Grass Mats** [*the product name*]: accessible and acceptable to meet ADA and MAAB.
- **Rubber Tiles:** accessible and acceptable to meet ADA and MAAB.

Over the past 8 – 10 years, there has been a strong effort in Massachusetts to install unitary materials at playgrounds to provide equal access for all abilities of users. MAAB requires that the route of travel into the playground must provide access to every piece of equipment. DOJ/ADA states that you can provide an accessible route to and into the playground with EWF. However, the MAAB overrules the DOJ/ADA guidelines. In Massachusetts, all playgrounds must use unitary materials. In Massachusetts, there are no grandfathered clauses, however variances are acceptable.

THOMPSON and DALLIN playgrounds have PIP Rubber, and both need repair. Due to the age of the Thompson playgrounds they may have warranties remaining. It would be cost effective if repair work were done at the same time for both sites. The cost will be considerably higher if each school is done at separate times. **BISHOP and BRACKETT** playgrounds both have loose fill surfacing [EWF – engineered wood fiber]. A loose fill surfacing will only last based on how well it is maintained, including keeping the surfacing within the intended area. Bishop has a good amount of EWF – and a lot of the loose fill ‘travels’. Sweeping it back each day and raking each week is not something that can reasonably be done to maintain the surfacing. A better solution would be to install a perimeter edging at both sites. Bishop needs better definition of the play area. The wood perimeter needs to be higher. The EWF at Brackett abuts concrete, but unless the concrete is at least 6” – 8” higher at a minimum the EWF will continue to be difficult to maintain. In the next year, an effort should be made to install a better edging that will hold in the loose fill surfacing. In the next 2-5 years, efforts should be made to become more accessible. The least expensive way, would be to use ‘Grass Mats’ which is accessible to meet ADA and MAAB. The mats are placed over the loose fill.

BRIEF STATEMENT SYNOPSIS

THOMPSON

Equipment was installed incorrectly, leaving the school with new equipment, but non-conforming equipment. There is no local representation for this Manufacturer (Xccent). Therefore, if you need assistance with determining how to proceed with issues at this playground, please let me know.

BISHOP

Remove the tires and the rainbow climbers. Redefine the entire area with edging. Advocate for the removal of the Bishop structure next to the school. Repair the two basket swings {Cloud Nine}, as they can service a large number of children at one time.

DALLIN

Poured in place rubber {PIP} repair is needed. Identification of age appropriateness is needed, as some equipment is age appropriate for ages 5-12. If Dallin 'Front' is used by Pre-K only, then the equipment is a hazard based on State Requirements. If the playground is used for Pre-K and K, than Pre-K area needs to be fenced in.

BRACKETT

Brackett is at a 'crossroads' with decisions of either new equipment or retrofit, and surfacing. All PVC decks and stairs need replacement. The two spiral slides do not conform to ASTM 1487. It may be more cost effective to save a few pieces and include in a new design layout.

SIGNAGE and SAFETY LABELING

In general, the signage and labeling is 'fair' at all locations. Signage with the name of the playground is not needed at the schools, but signage with rules would be a good idea to provide consistency throughout the schools. School playgrounds are not usually available for use by the general public during school hours. However, the ownership of the playgrounds at the schools fall under the Park and Recreation Department, so there may be a conflict with the maintenance, accident protocol, etc. For example, the equipment toward the front of Dallin is owned by the school Dept, but the equipment in the back is owned by the Park and Recreation Dept. and used by the schools. This type of situation is difficult in creating a standard of care. Who is taking care of equipment at the school where there are 2 different owners?

Safety labels at all sites is the best way to address hazards and comply with CPSC Guidelines. A sampling of signage is attached at the end of the report.

ARLINGTON SCHOOLS | RECOMMENDATIONS

GRASSMATS | PROVIDING ACCESSIBLE ROUTE OF TRAVEL

<u>School Name</u>	<u>Estimated Cost *</u>
• Brackett, 2 - 5 year area	\$19,000
• Brackett, 5 -12 year area.....	\$30,000
• Brackett, 5-12 year area.....	\$70,000 (includes retrofit and grassmats)

RETRO FIT EQUIPMENT | REPAIR SECTIONS OF PIP

<u>School Name</u>	<u>Estimated Cost *</u>
• Dallin.....	\$15,000
• Thompson	\$20,000 +

**Best guess estimate for budgeting purposes only*

ARLINGTON SCHOOLS | RECOMMENDATIONS

FULL PIP OR GRASS MATS WITH RETRO FIT ONLY

School Name

- Brackett, 5 – 12 area
- Brackett, 2 – 5 area

Note: no cost estimate provided

PLAYGROUND IN ORDER BY OVERALL BEST CONDITION

Playground Name

1. Thompson, 2-5
2. Thompson, 5-12
3. Dallin, 2-12
4. Bishop, 5-12
5. Brackett, 2-5
6. Brackett, 5-12

ARLINGTON SCHOOLS

PLAYGROUND RANKING ACCORDING TO HAZARD TYPE

DEFINITIONS OF REPAIR TYPE

Hazard 1: Playground is in Poor Condition

Hazard 1 is considered to be an issue/s in the playground that can result in loss of life, body part, or permanent disability.

Hazard 2: Playground is in Fair Condition

Hazard 2 is considered to be an issue/s in the playground that can result in serious injury or illness resulting in temporary disability.

Hazard 3: Playground is in Good Condition

Hazard 3 is considered to be an issue/s in the playground that can result in a minor or major non-disabling injury.









Name of Park

Repair Type

Brackett, 5 - 12 _____	Hazard 1
Thompson, 2-5, 5-12 _____	Hazard 2*
Bishop, 5 -12 _____	Hazard 2
Brackett, 2 - 5 _____	Hazard 2
Florence Dallin, 2-12 _____	Hazard 3

**due to incorrect installation*

EXAMPLE OF PLAYGROUND SAFETY LABELS

	<p>Strangulation Warning Label; (3.75" x 3.75") See CPSC Section 3.2.1, pages 14 and 15, and ASTM #F1487-11 Section 14.2.3. This label will inform, warn, and educate about the hazard of a user being strangled on the playground and what steps to take to mitigate it, and provides graphics for complete message clarity.</p> <p>Note: CPSC says to place this label on or near "slides or other equipment", however, entrances to the entire play area are the best locations so that the "message is conveyed" in a timely manner.</p>	
	<p>"Hot Surface" Warning Label; (2.5" x 2.5") See CPSC Sections 2.1, 2.4.2.1, 2.5.3, 5.3.6, and ASTM #F1487-11 Section 14.2.4. This label warns the caregiver about the hazard of burn injuries and to check surfacing and/or equipment before use to mitigate burn injuries.</p>	
	<p>Surfacing Warning Label (version "A") (2.5" x 2.5") complies with ASTM #F1487-11, Section 14.2.5. This label will inform, warn, and educate about the hazard of play equipment located over hard surfaces. The purpose of this label is to serve as a constant reminder to provide and maintain appropriate surfacing.</p>	
	<p>Surfacing Warning Label (version "B") (2.5" x 2.5") complies with ASTM #F1487-11, Section 14.2.5. This label will inform, warn, and educate about the hazard of play equipment located over hard surfaces. The purpose of this label is to serve as a constant reminder to provide and maintain appropriate surfacing.</p>	
	<p>"Adult Supervision Is Recommended" Label (2.5" x 2.5") tells users and caregivers that the playground is not intended as a place for unsupervised play. See CPSC Sections 1.6, 2.2.7, and the ASTM #F1487 "Introduction" and Section 14.2.2.</p>	
		 <p>Age Group Labels (2.5" x 2.5" each) help with age separation, which is critical to safety and correct inspection evaluations! "For kids ages 2-5 years", "For kids ages 5-12 years", "For kids ages 2-12 years". CPSC Section 2.2.6 says "Labels posted in the playground area or on the equipment should give some guidance to supervisors as to the age appropriateness of the equipment." Also, CPSC Section 2.2.7 says "Supervisors should look for posted signs indicating the appropriate age of the users and direct children to equipment appropriate for their age." See ASTM Standard #F1487 Section 5.2, and Section 14.2.1 that requires these labels as well.</p>

ADDITIONAL INFORMATION

- Park and Recreation Frequently Used Terminology
- Grass Mat Sample over EWF
- Grass Mat Sample over EWF to Transfer Module
- Accessible Play Areas
- MAAB
- CPSI Certification
- Disclosure

PLAYGROUND, PARK, AND RECREATION FREQUENTLY USED TERMINOLOGY

Anchor Park: A prominently located park, in a viable and populated area. This type of park draws people to it for many reasons, other than just the use of the playground equipment. The park itself can be the main reason the area thrives.

ASTM guidelines: ASTM stands for American Society for Testing and Materials. The organization develops over 12,500 voluntary consensus standards. They have over 140 technical standards-writing committees and represent many diverse industries.

CPSC Guidelines: The United States Consumer Product Safety Commission's Handbook for Public Playground Safety (CPSC Handbook) is the recognized standard for playground equipment safety.

Destination Playground: A piece of land, free of homes and buildings that is large and offers a wide variety of activities. People usually congregate in groups, but also offers space for the individual. The area is usually a large open space.

EPDM: E propylene Diene Monomer (M-class) rubber), is a type of synthetic rubber. The M refers to its classification in ASTM standard D-1418; the M class includes rubbers having a chain of the polyethylene type.

EWF: Stands for Engineered Wood Fiber, which is an economical playground surfacing. It has high impact absorbing qualities and still it is a firm, slip resistant surface that will meet accessibility guidelines.

GFRC: Stands for Glass Fiber Reinforced Concrete, this material are used with playground equipment often in a themed or natural play playground.

HIC: The Head Injury Criterion (HIC) is a measure of the likelihood of head injury arising from an impact. This means that the HIC includes the effects of head acceleration and the duration of the acceleration during impact.

Impact Attenuation: Impact attenuation of playground surfacing is a measure of the surface's ability to absorb shock from a falling object such as a child. This attenuation is critical in the ASTM guidelines for prevention of head or bodily injuries.

PLAYGROUND, PARK AND RECREATION FREQUENTLY USED TERMINOLOGY

Neighborhood Park: Neighborhood parks, which generally range in size, usually take in several blocks of users in a surrounding neighborhood. These parks serve as a social and recreational focal point for a neighborhood. Neighborhood parks usually provide 'relief' and 'rejuvenation' from the environment for residents. In some instances, the neighborhood takes ownership of the playground often helping and contributing to the maintenance and upkeep of the playground.

PIP: Stands for Poured in Place rubber. This is a common surfacing material used in playgrounds.

Play Value: The degree to which a playground and its equipment offers multiple layers of opportunities to develop social, physical, intellectual, and moral, development through play.

Plumb: Is a measure of the upright position of a post or main support column of a play structure i.e.; a net climber.

Pocket Park: Is a small park accessible to the general public. Pocket parks are frequently created on a single vacant building lot or on small, irregular pieces of land. Used primarily by the adjacent abutters.

Professional Judgment/Opinion: The ability of an individual with current knowledge, skill and experience in the field of playground, playground equipment, design, use and operation to form an opinion or make a decision using this level of expertise as a guideline.

PVC Coating: Polyvinyl chloride is a soft rubbery coating on playground equipment made of metal such as decks.

PVC Paste: PVC coating that can be used to fill in areas where the original PVC coating has worn off or has exposed the underlying metal. As well as used in areas where PVC coating cannot reach such as arches and other vulnerable areas.

Residential Play Toys: Any piece of plastic or metal play toy brought from home to add play to a playground. All 'play toys' should be removed.

Retrofit: to modify equipment that is already in service.

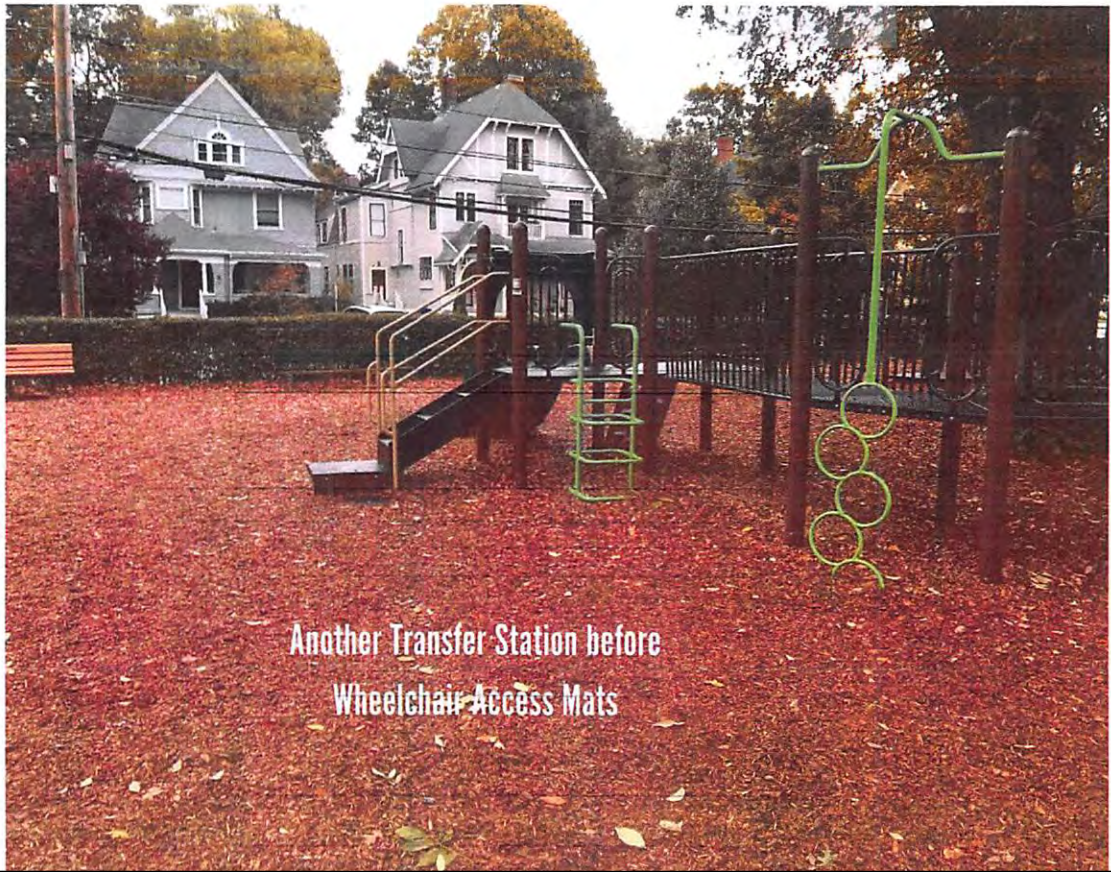
PLAYGROUND, PARK AND RECREATION FREQUENTLY USED TERMINOLOGY

SBR: Stands for Styrene Butadiene Rubber, is the basemat for poured in place rubber.

Spalling: Formal definition: break (ore, rock, stone, or concrete) into smaller pieces; to break off in fragments. "Cracks below the surface cause slabs of material to spall off". Hard material, which is starting to, or is currently shedding rust, usually in layers. I.e.: a deck that is PVC coated is losing its PVC from normal wear and tear. The steel shows, starts to rust, and then spalls. Rust flakes and settles on top of itself.

Use Zone: Use zones are typically set with playground equipment such as swings or slides mainly because of safety reasons. These zones help spacing between play structures or components to allow users ample amount of room so injuries are avoided.

3rd Party Playground Inspector: The inspection provided to clients remains free from bias or conflict of interest (i.e.: the 3rd party inspector is not a manufacturer's sales representative, installer of equipment or surfacing, etc.).



Another Transfer Station before
Wheelchair Access Mats

**GRASS MAT SAMPLE OVER
EWF TO TRANSFER MODULE**

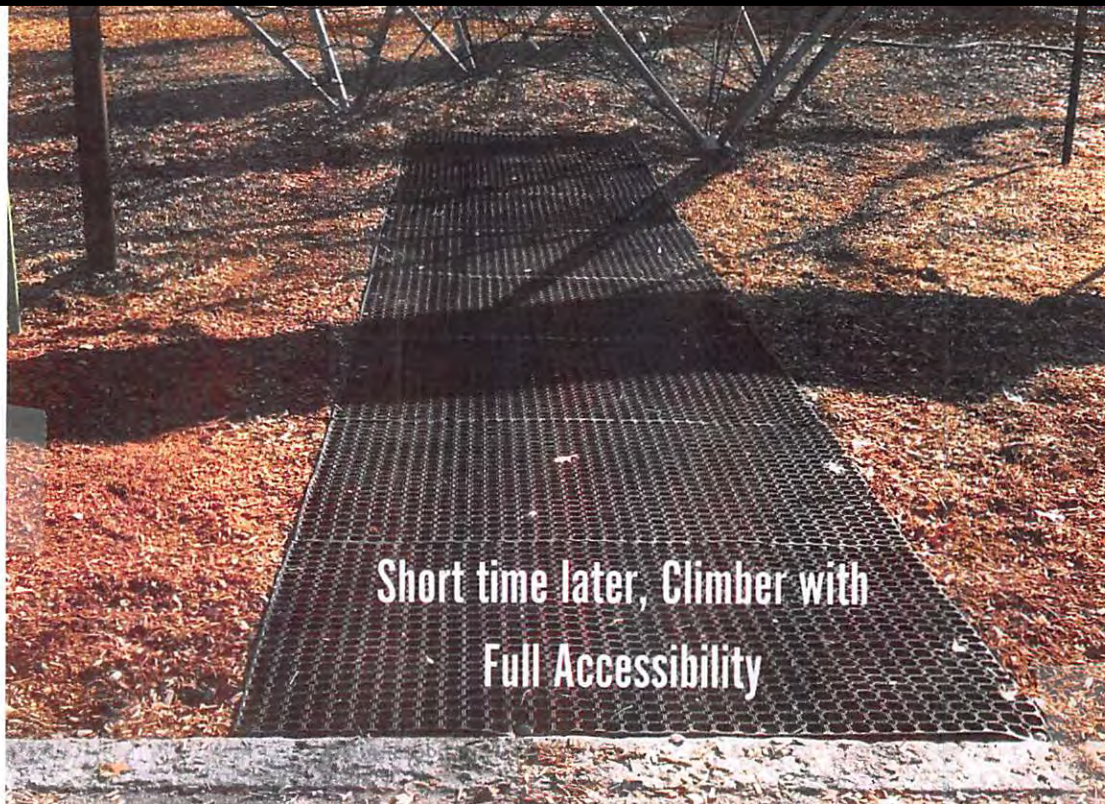


Wheelchair Accessible Matting Wraps around to
Slide Exit



Climber without Access

GRASS MAT SAMPLE OVER EWF



**Short time later, Climber with
Full Accessibility**

MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB)

* CMR 521

* STILL EVOLVING

*PUBLIC MEETINGS HELD IN 2018

*UNDERSTAFFED TO ENFORCE.

* NO "GRAND-FATHERING" IN.

ENORMOUS FINANCIAL IMPLICATIONS FOR
ALL GOVERNMENTAL ENTITIES

* IF COMPLAINT IS MADE WITH
MAAB, MUNICIPAL ENTITY WILL BE PLACED
ON NOTICE TO RECTIFY OTHERWISE FINED.

*** NOTE ENTIRE SECTION IS RED LINED
IDENTIFYING THAT ENTIRE CMR 521 FOR
PLAYGROUNDS WILL BE CHANGING.**

~~19.759.00: PLAYGROUNDS-PLAY AREAS~~

~~An accessible route, complying with 521 CMR 208.00: ACCESSIBLE ROUTE shall be provided to reach playground equipment and around the playground.~~

59.1 GENERAL

Play areas for children ages 2 and over shall comply with the following requirements.

Exceptions:

1. *Play areas* located in family child care facilities where the *proprietor* actually resides.
2. In existing *play areas*, where *play components* are relocated for the purposes of creating safe use zones and the ground surface is not altered or extended for more than one (1) *use zone*.

3. *Amusement attractions*; however they shall comply with the requirements of **521 CMR 48.00: AMUSEMENT RIDES**.

59.2 NUMBER AND TYPES

Ground Level Play Components or *Elevated Play Components*: Where provided, at least one (1) of each type shall be on an *accessible route* and shall comply with **521 CMR 59.3, Location**.

- 59.2.1 Where *elevated play components* are provided, *ground level play components* shall be provided in accordance with **Table 59.2**. Where two (2) or more required *ground level play components* or *elevated play components* are provided, per **Table 59.2**, they shall be dispersed throughout the *play area* and integrated with other *play components*.

Exception:

If at least 50 percent of the *elevated play components* are connected by a *ramp* and at least three (3) of the *elevated play components* connected by the *ramp* are different types of *play components*, the *play area* shall not be required to comply with **521 CMR 59.2.1**.

Table 59.2 Number and Types of Ground Level Play Components Required to be on Accessible Routes		
Number of <i>Elevated Play Components</i> Provided	Minimum Number of <i>Ground Level Play Components</i> Required to be on an <i>Accessible Route</i>	Minimum Number of Different Types of <i>Ground Level Play Components</i> Required to be on an <i>Accessible Route</i>
1	Not applicable	Not applicable
2 to 4	1	1
5 to 7	2	2
8 to 10	3	3
11 to 13	4	3
14 to 16	5	3
17 to 19	6	3
20 to 22	7	4
23 to 25	8	4
26 and over	8, plus 1 for each additional 3, or fraction thereof, over 25	5

59.3 LOCATION

Where separate *play areas* are provided within a *site* for specific age groups (e.g., preschool (ages 2 to 5) and school age (ages 5 to 12)), each *play area* shall independently comply with the requirements of **521 CMR 59.00: PLAY AREAS**. Where *play areas* are provided for the same age group on a *site* but are geographically separated (e.g., one is located next to a picnic area and another is located next to a softball field), they are considered separate *play areas* and each *play area* must comply with this section.

59.4 ACCESSIBLE ROUTES

An *accessible route* shall be provided to reach playground equipment and around the *perimeter* of the playground for the following *play components*:

- a. *Ground Level Play Components and Elevated Play Components*: At least one (1) *accessible route* shall be provided within the *play area*. The *accessible route* shall connect *ground level play components* and *elevated play components* required to comply with **521 CMR 59.2, Number and Types**, including entry and exit points of the *play components*.
Exceptions:
 1. Transfer systems complying with **521 CMR 59.5, Transfer Systems**, shall be permitted to connect *elevated play components*, except where 20 or more *elevated play components* are provided no more than 25 percent of the *elevated play components* shall be permitted to be connected by transfer systems.
 2. Where transfer systems are provided, an *elevated play component* shall be permitted to connect another *elevated play component* as part of an *accessible route*.
- b. *Soft Contained Play Structures*: Where three (3) or fewer entry points are provided for *soft contained play structures*, at least one (1) entry point shall be on an *accessible route*. Where four (4) or more entry points are provided for *soft contained play structures*, at least two (2) entry points shall be on an *accessible route*.
Exception:
 Transfer systems complying with **521 CMR 59.5, Transfer Systems** shall be permitted to be used as part of an *accessible route*.
- c. *Water Play Components*: Where the surface of the *accessible route, clear floor or ground spaces*, or turning spaces serving *water play components* is submerged, it shall comply with **521 CMR 54.8, Sloped Entries**. Transfer systems complying with **521 CMR 59.5, Transfer Systems**, shall be permitted to connect *elevated play components* in water.

59.4.1 The ground surface of *use zones, accessible routes* and turning spaces within *play areas* shall be firm, stable and slip resistant, permanent, and constructed of materials such as rubber resilient surfacing, urethane rubber composites or similar; and comply with commonly accepted impact attenuation criteria for safety surfacing materials within the *use zones* of *play area* equipment. Loose fill surfaces and aggregate surfaces including wood fiber, bark mulch, wood chips, shredded rubber, shredded foam, etc. are not acceptable for *accessible routes* within the playground. Molded rubber mats, if utilized, require adhesion to a permanent surface beneath.

59.4.2 The *clear width* of *accessible routes* to *play components* shall comply with the following:

- a. At ground level, the *clear width* of *accessible routes* shall be 60 inches (1524 mm) minimum.

Exceptions:

1. In *play areas* less than 1000 square feet (93 m²), the *clear width* of *accessible routes* shall be permitted to be 44 inches (1118 mm) minimum, if at least one (1) turning space complying with **521 CMR 6.2, Wheelchair Turning Space** is provided where the restricted *accessible route* exceeds 30 feet (9144 mm) in length.
2. The *clear width* of *accessible routes* shall be permitted to be 36 inches (914 mm) minimum for a distance of 60 inches (1524 mm) maximum provided that multiple reduced width segments are separated by segments that are 60 inches (1524 mm) wide minimum and 60 inches (1524 mm) long minimum.

59.4.3 The *clear width* of *accessible routes* connecting *elevated play components* shall be 36 inches (914 mm) minimum.

Exceptions:

1. The *clear* width of *accessible routes* connecting *elevated play components* shall be permitted to be reduced to 32 inches (813 mm) minimum for a distance of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1219 mm) long minimum and 36 inches (914 mm) wide minimum.
2. The *clear* width of transfer systems connecting *elevated play components* shall be permitted to be 24 inches (610 mm) minimum.

59.4.4 Where *play components* require transfer to entry points or seats, the entry points or seats shall be 11 inches (280 mm) minimum and 24 inches (610 mm) maximum from the *clear floor or ground space*. Where *play components* require transfer to entry points or seats, at least one (1) means of support for transferring shall be provided per **521 CMR 59.6.3**.

Exception:

Entry points of slides shall not be required to comply with the requirements of **521 CMR 59.5.2, Entry Points and Seats**.

59.4.5 At least one (1) turning space complying with **521 CMR 6.2, Wheelchair Turning Space**, shall be provided on the same level as *play components*. Where swings are provided, the turning space shall be located immediately adjacent to the swing.

59.4.6 *Clear floor or ground space* complying with **521 CMR 6.1, Clear Floor or Ground Space for Wheelchairs** shall be provided at *play components*. *Clear floor or ground spaces*, turning spaces, and *accessible routes* are permitted to overlap within *play areas*.

59.4.7 Within *play areas*, *ramps* connecting *ground level play components* and *ramps* connecting *elevated play components* shall comply with the following:

- a. *Ramp* runs connecting *ground level play components* shall have a *running slope* not steeper than 1:16.
- b. The rise for any *ramp* run connecting *elevated play components* shall be 12 inches (305 mm) maximum.

59.4.8 Where required on *ramps* serving *play components*, the handrails shall comply with the following:

Exceptions:

1. Handrails shall not be required on *ramps* located within *ground level use zones*.
2. Handrail extensions shall not be required.
 - a. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 0.95 inch (24 mm) minimum and 1.55 inches (39 mm) maximum. Where the shape of the gripping surface is non-circular, the handrail shall provide an equivalent gripping surface.
 - b. The top of handrail gripping surfaces shall be 20 inches (508 mm) minimum and 28 inches (711 mm) maximum above the *ramp* surface.

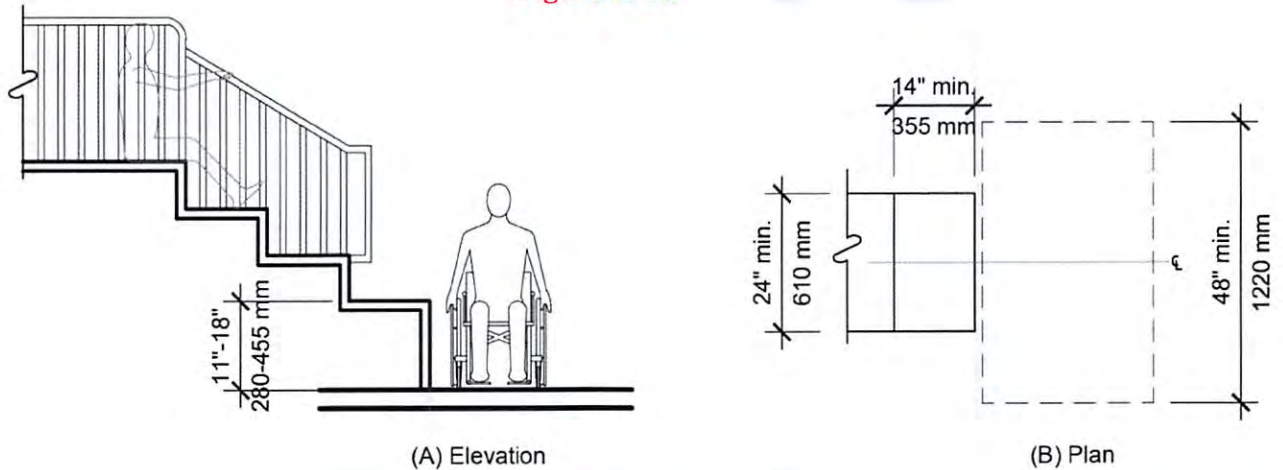
59.5 TRANSFER SYSTEMS

Where transfer systems are provided, consideration should be given to the distance between the transfer system and the *elevated play components*. Moving between a transfer platform and a series of transfer steps requires extensive exertion for some children. Designers should minimize the distance between the points where a child transfers from a wheelchair or mobility device and where the *elevated play components* are located. Where *elevated play components* are used to connect to another *elevated play*

component instead of an *accessible route*, careful consideration should be used in the selection of the *play components* used for this purpose.

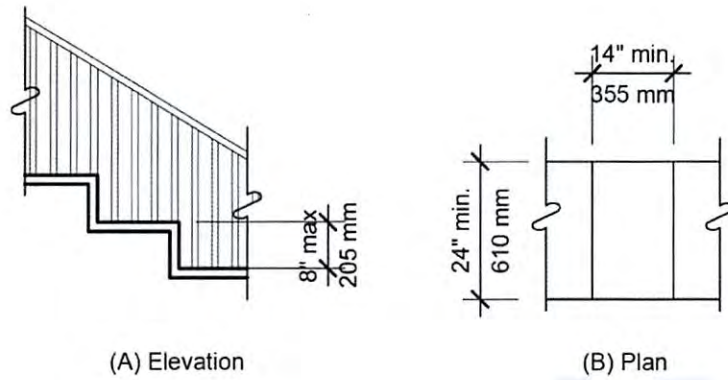
- 59.5.1 Transfer platforms shall be provided where transfer is intended from wheelchairs or other mobility aids. Transfer platforms shall comply with the following (See **Figure 59.5a**):
- Transfer platforms shall have *level surfaces* 14 inches (356 mm) deep minimum and 24 inches (610 mm) wide minimum.
 - The height of transfer platforms shall be 11 inches (280 mm) minimum and 18 inches (457 mm) maximum measured to the top of the surface from the ground or floor surface.

Figure 59.5a



- 59.5.2 A transfer space complying with **521 CMR 6.1, Clear Floor or Ground Space for Wheelchairs**, shall be provided adjacent to the transfer platform. The 48 inch (1219 mm) long minimum dimension of the transfer space shall be centered on and parallel to the 24 inch (610 mm) long minimum side of the transfer platform. The side of the transfer platform serving the transfer space shall be unobstructed.
- 59.5.3 At least one (1) means of support for transferring shall be provided. Transfer supports are required on transfer platforms and transfer steps to assist children when transferring. Some examples of supports include a rope loop, a loop type handle, a slot in the edge of a flat horizontal or vertical member, poles or bars, or D rings on the corner posts.
- 59.5.4 Transfer steps shall be provided where movement is intended from transfer platforms to levels with *elevated play components* required to be on *accessible routes*. Transfer steps shall comply with the following (See **Figure 59.5b**):
- Transfer steps shall have *level surfaces* 14 inches (356 mm) deep minimum and 24 inches (610 mm) wide minimum.
 - Each transfer step shall be 8 inches (203 mm) high maximum.

Figure 59.5a



59.6 PLAY TABLES

Where play tables are provided, knee clearance 24 inches (610 mm) high minimum, 17 inches deep (432 mm) minimum, and 30 inches (762 mm) wide minimum shall be provided. The tops of rims, curbs, or other obstructions shall be 31 inches (787 mm) high maximum.

Exception:

Play tables designed and constructed primarily for children five (5) years and younger shall not be required to provide knee clearance where the *clear floor or ground space* required by **521 CMR 59.5.4, Clear Floor or Ground Space** is arranged for a parallel approach.

DISCLAIMER

Playground Inspection Disclaimer (either Low, High, ReVisit or Assessment):

Playground Inspections of New England, LLC ("PINE") bases its playground inspection procedures on the standards of both the American Society for Testing and Materials ("ASTM") and the U.S. Consumer Product Safety Commission ("CPSC"), as those may be amended from time to time.

At the completion of the inspection, PINE will furnish to the customer a written report (the "Inspection Report") which shall identify possible noncompliance with ASTM 1487-17 and CPSC standards and which shall make recommendations with regard to further investigation (the "Inspection Results"). The inspection and the Inspection Report shall cover only the playground with respect to which PINE has been engaged to inspect (the "Playground"). The Inspection Report shall only reference the conditions of the Playground on the date of the inspection, which date shall be specifically provided for in the Report (the "Inspection Date"). It is specifically understood that PINE shall not perform any repairs or maintenance on the Playground as that is the sole responsibility of the customer.

PINE shall have no liability whatsoever with regard to any change in the condition of the Playground from and after the Inspection Date.

PINE shall have no liability relating to the Playground or the Inspection Report or relating in any way to any loss, cost, liability, damages, claims or suits whatsoever relating to the same unless due solely to the gross negligence or willful act of PINE.

An inspection of a playground is not an audit of said playground, but is rather a more generalized review designed to alert the customer to possible noncompliance with ASTM 1487-17 and CPSC and the Inspection Report is not to be deemed to be a certification as to the safety of the playground or its compliance with ASTM 1487-17 and CPSC.



National Recreation and Park Association

Let it be known that

NANCY WHITE

has met the requirements of the standards set forth by the
National Certification Board
and is hereby granted certification as a

Certified Playground Safety Inspector



**Certified
Playground
Safety Inspector**

CHAIRPERSON

NRPA PRESIDENT AND CEO

April 06, 2017

DATE CERTIFIED

38108-0520

CERTIFICATION NUMBER

May 01, 2020

EXPIRATION DATE

National Recreation and Park Association

This is to attest that

Nancy White

is a

**Certified Playground
Safety Inspector**



Certified
Playground
Safety Inspector

Certification Number: **38108-0520**
Expiration Date: **5/1/2020**