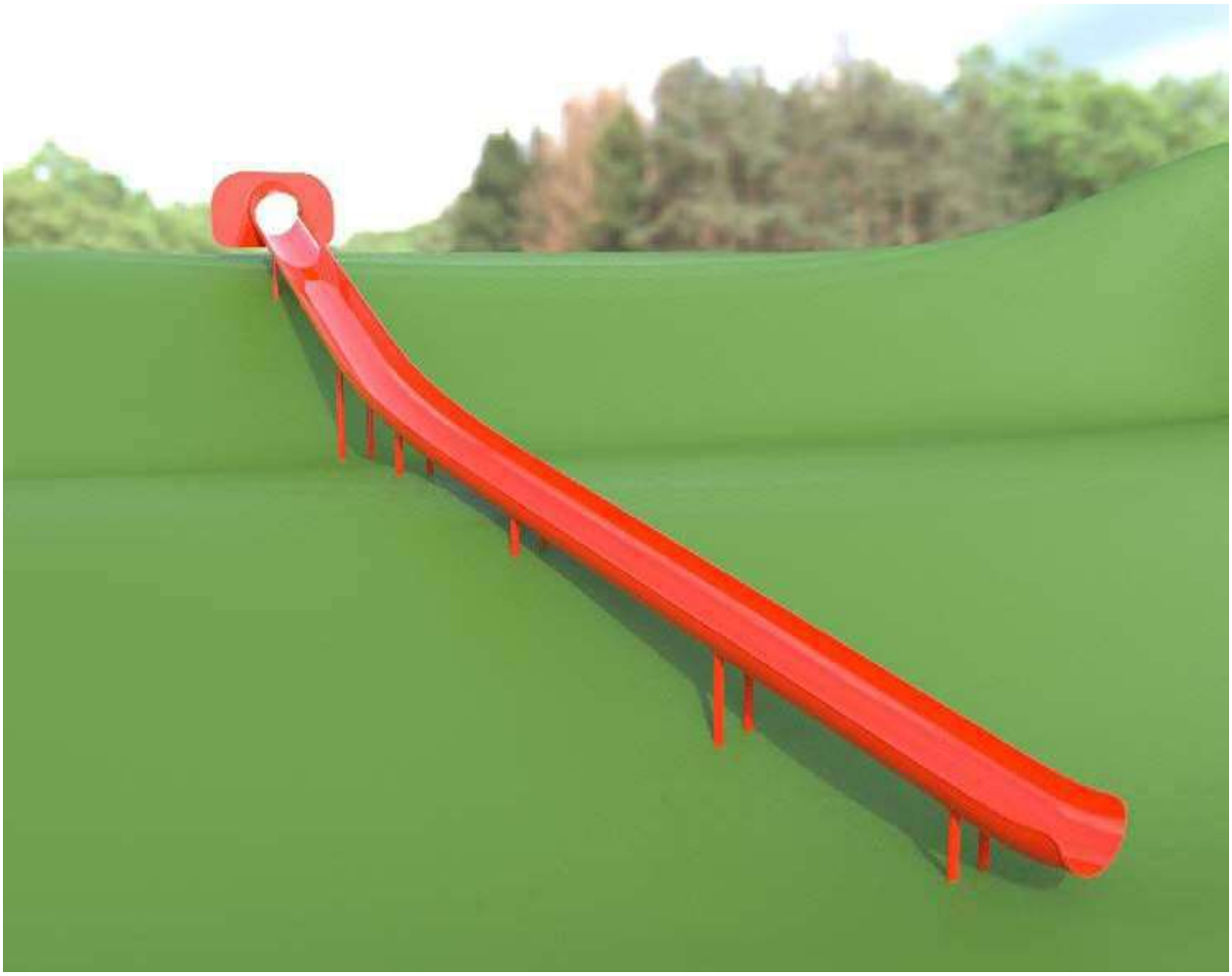
Embankment Slides



Embankment Slides might be a little confusing at first. We have put together some definitions and tip together to help explain.

Please review the following information, returning answers to the questions noted in RED!

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Embankment Slides are a fun way to move down a slope. Safety is important, we do not want Jack and Jill "tumbling" down the hill, but safely sliding! Hillside, embankment, or slope slides are NOT terribly complicated, but do take some planning to ensure that safety, form, and function all meet together at the end. An embankment slide is a good way to introduce a long bedway slide into a play area without the risk of steps, ladders, decks and fall heights. As an embankment slide, the bedway of the slide should never be more than one foot above the ground grade below it.

There is some important information needed when designing your slide. You will need to know:

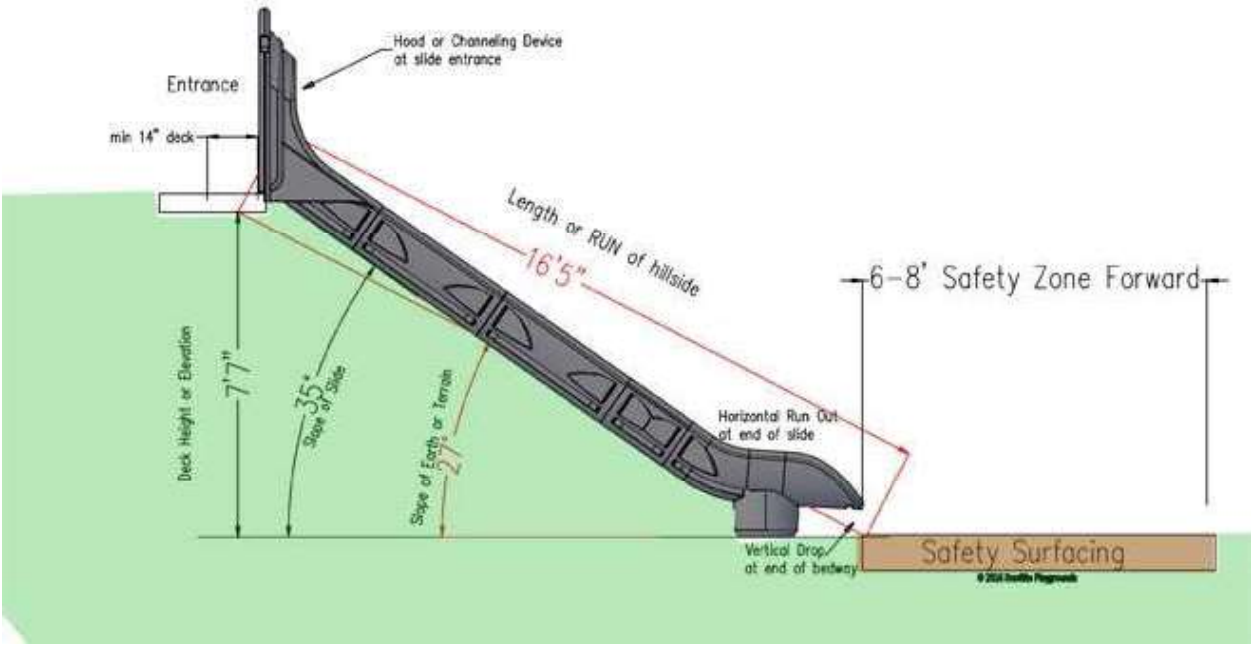
1. the **DECK HEIGHT** or elevation of the entrance: This is the industry term for the height of the hill. This can be somewhat difficult to measure when there is a hill beneath your feet. It is probably not possible to drop a plumb-bob down or measuring tape to determine how high up you are. There are some fancy and expensive devices that utilize GPS to determine elevation, such as above or below sea level. Many of these do not have accuracy within a few feet, so this is not usually the best tool to utilize for slide measurements. Landscaping plans or architectural plans may have this number recorded already. We can reverse engineer the numbers to determine height if you know **SLOPE** and **LENGTH**.

2. the **ANGLE** or slope amount: Too steep of a slide and the passenger will descend too rapidly, obviously with risk and danger involved. Too shallow of an angle and the passenger may not reach the end. While there may not be a high fall to the ground from spills overboard, we want to ensure that the ride is safe and successful. The angle and slope is prescribed by safety standards. Slides for toddlers average 24 degrees or less. Slides for preschoolers should be no steeper than 30 degrees. Many designs may include sections with higher angles up to 35 degrees. No portion of a slide or slide path should ever exceed 50 degrees!

3. the **LENGTH** of the slide bedway: The height, length and slope are always factors that relate to each other. Many times, you will know how long you want your slide to be. We can reverse engineer the numbers to determine the length if you know **HEIGHT** and **ANGLE**. Remember to allow proper room at the exit of the slide, with safety surfacing on the ground to have a safe "use zone" at the end. For "quick" math, the length is roughly DOUBLE the deck elevation. Thus a 7' deck height slide would be 14' long. This isn't the exact ratio or formula, your slide may be longer or shorter.

4. the slide **SHAPE** or design: With a hill slide or embankment slide, the general concept is 'down.' For more fun you may want or need to veer to one direction or introduce more of a winding "snake slide" path. Your final design will consider the shape and path with features implemented to enhance safety. A flat bedway with low side rails will be less expensive, but a tube or trough slide with a covered or deep bedway will work harder to contain the passenger where they are supposed to be. Turns may be introduced to reduce the passenger speed. Too many or too much of a turn and the passenger may go 'overboard.' A wider bedway may be considered for short distances. Longer distances suggest straight and narrow.

5. the grade (**CLASS**) of the slide: While "cheap" is good for the budget, price should not be your primary focus for your slide. The longer you make your slide, the higher the cost of materials and freight to get the slide to your location. Residential grade slides, backyard slides or playset slides are typically made from a different process that does nt hold up well to constant use. Heavy duty, commercial grade plastics are thicker, and joints or sections will bolt together more securely. Plastic thickness, deliberate design features to molded components, UV stabilizers and treatment for static discharge are important features found only in commercial grade slide. Metal slides, including aluminum slides and stainless-steel slide will include greater strength and durability for long term use of your slide.



PLANNING FOR YOUR SLIDE

1. Identify the area for the slide. You may need to consult a professional to stabilize the area to prevent unintended movement.

2. A photograph is a helpful tool that helps us to see the site through your eyes. Your landscaper, architect, builder, contractor or engineer may have already prepared a sketch of the site.

Stand at the area where the slide begins and look toward where the slide will exit. Take a photo! (SEND PHOTO)

Stand where the slide will end and look toward where the slide enters. (SEND PHOTO)

Stand BACK! Can you move to the side and look forward toward where the slide will be? Take a photo from the SIDE VIEW! (SEND PHOTO)

3. Mark your area intended for the slide. Measure the distance from the point at the high end, down to the exit at the low end. Measure the area and space forward of the exit of the slide that will be the safety perimeter or use zone.

4. Perhaps the most confusing step in planning is the measurement or calculation of the slope. Fortunately, there are free and low-cost applications available for smart phones and tablets (IOS and Android) that will help you determine slope. A 5" device on a 30' hill side is going to yield unreliable results. Using a long, flat, and straight board, place the board on your hillside. Now place your phone or tablet on the board. Obtain measurements throughout the descent of the area for your slide previously marked. Using visual clues, you may see areas that have distinctly different angles or slopes. With a table of measurements, we can create a "slope" using the recorded findings, and graph or draw this to paper.

5. SHARE your findings. With your goals in mind and your recorded findings, we will guide you the rest of the way...

What is the ELEVATION? _____

What is the SLOPE? _____

What is the LENGTH? _____

Is this slide in a residential area, for backyard use OR

Is this slide for a commercial venue, with public access or public use?

Residential or Commercial _____

SHARE YOUR SKETCH. The lines don't need to be straight, and perfect. Don't worry about creating a scaled drawing, we will work from your provided numbers and general drawing. (SEND SKETCH)

Water Slides

Is your slide exiting into water? (yes or no) _____

Water slides follow a few different rules. When water or wet passengers are added, the speed of the passenger may change. Turns must be used with caution or the passenger may eject over the sides. DRY SLIDES are usually NOT appropriate for water use. The side wall is not high enough. Add water flow to the bedway and the passenger may spill overboard. The most concerning problem with a dry slide exiting to water is at the end where the exit is. A dry slide is designed with the end being flat and horizontal, perpendicular to the ground. The goal is to keep the dry passenger from ejecting and stopping to a seated position before exiting the slide. With a water slide the goal is to eject the passenger into the water and NOT stop at the exit chute! The final angle of the exit depends on a lot of factors. The installer will need to adjust the angle of the exit to achieve the proper slope. Water slides are SPECIFIC and different from dry slides.

TYPES OF SLIDES

In your planning and selection phase, you will need to determine the type of slide you are looking for. Younger children may be safer in an enclosed tube. Higher traffic venues may suggest a metal slide for a longer life.

Commercial Grade

Open Bedway Slide

Sectional

Straight

Molded Plastic

Residential Grade

Closed Tube

Straight

Molded Plastic

Aluminum Tube

Closed

Straight

Commercial Grade

Open Bedway, Commercial Grade, Molded Plastic

Stainless Steel Bedway

Open Bedway

Commercial Grade

Straight

Aluminum Bedway

Trough Design (Half Pipe)

Powder Coated

Commercial Grade

Straight

What type of slide are you looking for?

Metal or Plastic? _____

Open Bedway or Closed Tube _____