"BEST PRACTICE" Opinion:

Embankment (Hill) Slides

Prior to 2014, the CAN/CSA-Z614 National Standard of Canada for Children's Playspaces and Equipment did NOT specifically address embankment (hill) slides within its scope of requirements. During that time us inspectors simply applied the dimensional rules for typical platform slides with regards to entrances, slopes, and exits. However with regards to use zones and fall protection we then could only apply our professional judgment opinions for "compliance acceptance".

Fortunately (for all parties) the 2014 edition of the Z614 Standard addressed that design gap. (Re: clauses 14.6. 15.5.9) The results of which, have now shown a significant increase in the use of embankment (hill) slides in our playgrounds.

In summary, the requirements include that:

- The exit is provided with an obstacle-free protective surfacing zone that measures to the requirements of impact fall protection for the defined height of the slide (starting height minus exit height). Re: measures at least 1.8m and is measured outward from the perimeter of the slide exit, starting at the beginning of the exit section.
- The impact performance of the required protective surfacing zone shall be measured at a fall height of at least 1.0m above the surface level.
- The sliding bedway (section in which the user is intended to be in motion) shall not be any greater than 300mm above the underlying surface.
- The ground surface adjacent to the sliding bedway does not require fall protection, however must be obstacle free. Re: no obstructions above the sliding bedway for at least 525mm outward
- The starting platform (or sitting section) shall be no greater than 300mm above the ground surface, at least 550mm in depth, approximately horizontal, and at least the full width of the sliding bedway.
  Note: the upper-hill ground surface itself may also be used as a slide's starting platform.
- The starting platform (or sitting section) shall also provide a means to "channel the user into a sitting position" (such as a guardrail cross bar or hood enclosure) within 125mm of the point at which the sliding bedway turns downward by 18 degrees

Further to the above technical references, it is my personal opinion that embankment style slides should be designed in a manner to limit or discourage the likelihood of users entering, exiting, or conflicting with other users along the hill-slope length of the sliding bedway. Within an age-restricted and highly supervised environment such as a childcare centre, it may suffice to simply control this behavior by a strong supervision plan. However, in an open-play setting such as a municipal park or schoolyard, this user-control becomes increasingly difficult to manage/predict. Overall site-layout designs should then include a designated access pathway trail or series of steps up the hill-embankment to the slide's starting platform, away from the slide's exit area back up to the starting area, that is well away from the predicted side-to-side use-zone of the sliding bedway. This access pathway should then be constructed with limited/minimal slope angles for both for ease of accessibility and for long-term maintenance. (ie: natural grass cover will quickly become compressed, "muddied-over", and slippery with time and usage on a hillside slope)

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