

UDOT C-170/C-171 Pedestrian Access Evaluation and Technical Infeasibility Form FAQ's

Why are the Pedestrian Access Evaluation (C-170) and Technical Infeasibility (C-171) now included on a single form, where do I get the form, and do I have to complete both the C-170 and C-171 for each access?

The forms have been combined to provide all applicable documentation of an access in one place. The PDF (C-170_C-171 Pedestrian Access Evaluation and Technical Infeasibility Form_) is available from UDOT's [ADA Resources](#) website. The C-170 portion must be completed for any Pedestrian Access Evaluation, regardless of whether there is a Technical Infeasibility (C-171). In cases of Technical Infeasibility, the C-171 portion must be completed, submitted, and approved in addition to the C-170.

What is the Access TS_ID?

The Access TS_ID is a unique database tracking number for each access ramp and can be found using the [ADA Access Inventory UPlan Map](#). Refer to "[How To Find or Request an ADA Access TS_ID](#)" for detailed instructions.

What if an Access TS_ID doesn't exist?

Follow the "[How To Find or Request an ADA Access TS_ID](#)" document on UDOT's [ADA Resources](#) website. This is to be done during the Preconstruction or Scoping phase. If an access TS_ID does not exist for an access under construction, please contact Trevor Egan (tegan@utah.gov, 801.706.5852). Trevor will arrange for a TS_ID and will also figure out why one was not generated during Preconstruction or Scoping.

What is the Primary St and Secondary St?

The Primary Street is the State Route or the larger street. Use the State Route designation number (i.e. SR-68) as the street name whenever possible. The Secondary Street is the Local Route or the smaller street. If both streets are of equal size, then use the primary project route as the Primary Street.

What is the Crossing Ctrl?

Crossing Control is to designate what type of vehicle control exists on the leg of the intersection containing the pedestrian street crossing.

What if there are multiple accesses at an intersection corner, island, or similar location?

If there are multiple accesses at a location, then a C-170/C-171 form needs to be completed for each access. If an access is missing a TS_ID, follow the procedure for "[How To Find or Request an ADA Access TS_ID](#)" as discussed above.

What is meant by the Parallel, Perpendicular, Combination, and At-Grade Access Types?

These terms refer to the definitions shown on PA 1 for "Parallel Ramp", "Perpendicular Ramp", "Combination Ramp", and "At-Grade Access". Also refer to Pedestrian Access Ramp Definition in Section 02771.

What is the Cardinal Location field for?

The Cardinal Location is used to designate the location of the Access at the intersection or street. For example, if the Access is on the Southeast corner of the intersection, then the SE is to be circled. If the Access is on the East side of the street of a midblock crossing, then the E is to be circled.

What is the Access Sketch and is it required?

The Access Sketch is to illustrate or clarify Access issues or situations. The Access Sketch is not required, but can be used as needed. Include a North Arrow when Access Sketch is used so that the orientation is clear.

What should be entered next to Position___?

The Position space is for entering identifiers to distinguish which position (e.g. LT, RT, Ctr) of the element is being evaluated when there are multiple elements of the same type. The following elements often occur in multiple positions on a single access and must have values entered for each position: Ramp, Flare, PAR, Crosswalk, and Pedestrian Push Button. For example, on a Combination Access that has parallel ramp elements on both sides of the turning space along with a center perpendicular ramp element in front of the turning space (i.e. a ramped DWS), the ramp elements should be designated as if facing the access from the crosswalk as follows: the ramp to your Left would be 'LT', the ramp to your right would be 'RT', and the ramp in the Center would be 'Ctr'. Identifiers such as N or E could also be used, but make certain it is clear what they are referring to (e.g. spatial location, crossing direction, or leg of the intersection).

What should be entered in Item Measurement fields that are blank?

Enter the actual measured value (e.g. width, depth, slope) in Item Measurement fields that are blank.

What if an Element doesn't apply to a particular access?

Record N/A in the Comments field to designate that the Element does not apply for the access.

If one Item in an Element fails, does this mean the whole Element fails and 'Fail' must be circled?

Yes, if one Item (row) of any Element fails, then Fail must be circled for that whole Element.

If one Element fails during a Preconstruction access evaluation, can the rest of the form be left blank?

No, even if one element fails, all applicable measurements for an access must be taken and recorded. This serves as documentation when uploaded to the UPlan Map and should be used in developing the scope of access elements to be reconstructed.

What exceptions are there to the maximum Cross Slope of 2.0%? (*Cross Slope Exception Criteria: $\leq 5.0\%$ if Not Controlled by Stop/Yield Sign, Match Road Grade at Midblock)

Refer to PA 1 "Dimension Reference Table" and "Crossing Slopes Detail" for information and illustration.

5% Maximum: Allowed Cross Slope of a Turning Space, Perpendicular Ramp, At-Grade Access, Clear Space, and the Pedestrian Crossing (Crosswalk) at an access where the vehicle control at the pedestrian crossing is Uncontrolled or Signal Controlled rather than being controlled by a Stop/Yield Sign.

Match Road Grade: Allowed Cross Slope of a Turning Space, Perpendicular Ramp, At-Grade Access, Clear Space, and the Pedestrian Crossing (Crosswalk) at a Midblock access.

Why can the cross slope be 5.0% at crossings that are Uncontrolled or Signal Controlled?

At crossings that are uncontrolled (e.g. free-right turn) or signal controlled (i.e. has a green phase), vehicles are able to proceed through the intersection without slowing or stopping. The 5.0% Cross Slope allowance in these locations is to avoid introducing roadway geometry (i.e. sudden grade change making a jump) that may cause unintended negative impacts on the control and safety of vehicles, their occupants, and pedestrians in the vicinity of the intersection.

What does this mean: Constrained (Perp or Combo: 1 side, Parallel: ≥ 2 sides)?

A Perpendicular/Combination Access is considered constrained if the rear side of the Turning Space is constrained, and a Parallel Access is considered constrained if 2 or more sides of the Turning Space are constrained. This Item is for circling Yes or No in regard to whether the Turning Space (T) is constrained, meaning it has a vertical difference greater than 3 inches on side(s) - refer to PA 1.

What is the parallel travel lane for the Clear Space Element?

The parallel travel lane is the vehicle traffic lane traveling parallel to the pedestrian crossing.

Can the Clear Space or other Elements of the Pedestrian Access Route (PAR) have a vertical difference in level between two adjacent surfaces (vertical discontinuity or lip)?

Vertical differences between surfaces are allowed to be up to 0.25 inches. Vertical differences of 0.25 to 0.5 inches maximum are allowed if a bevel of 2:1 (H:V) or flatter is applied across the entire vertical surface discontinuity. Vertical differences greater than 0.5 inches must be corrected by grinding to create a ramp slope (8.3% max). Required Element slopes must be maintained when grinding concrete or asphalt surfaces within the PAR to correct vertical discontinuities.

What does the Directional Item (Pass Criterion) mean within the DWS Element?

Directional refers to a ramp with a bottom grade break that occurs behind the top back of curb (TBC) as shown on PA 2 Detail D. If the ramp bottom grade break is 5' or less from the TBC, then place the DWS within 2 Inches of the ramp bottom grade break. If the ramp bottom grade break is more than 5' from the TBC on either side, then place the DWS in an angled orientation at the TBC.

Does an access fail if the Pedestrian Access Route (PAR) sidewalk is substandard?

This depends on whether the sidewalk run is being constructed or reconstructed as part of the project scope. If the sidewalk run is being constructed or reconstructed with the project, then the new sidewalk run is required to 'Pass' on the form. If the substandard sidewalk run is outside of the project scope, then an access doesn't fail for the sidewalk deficiencies. In this

case, record the measured values, circle N/A on the form, and transition the concrete to match existing sidewalk cross slopes within no more than one sidewalk panel while maintaining the cross slope of the access elements (i.e. Ramp, Turning Space).

Where is the Pedestrian Access Route (PAR) sidewalk to be measured?

At Accesses, the PAR is measured on the sidewalk panels adjacent to each Pedestrian Access Ramp. This is to be done for all accesses regardless of whether the sidewalk is being reconstructed.

Does an access fail if the Crosswalk is substandard?

This depends on whether the crosswalk (roadway) is being constructed or reconstructed as part of the project scope. If the crosswalk (roadway) is being constructed or reconstructed with the project, then the new crosswalk is required to 'Pass' on the form. If correcting the substandard crosswalk (roadway) slopes is outside of the project scope, then an access doesn't fail for the crosswalk deficiencies (refer to UDOT Policy 06C-16). In this case, record the measured values, circle N/A on the form, and complete the C-171 Technical Infeasibility Form for this element (if an approved C-171 is not already shown in the UPlan Map).

Where is the Crosswalk to be measured?

Crosswalk slopes are measured on the Crosswalk at a location between the center of the road and the Clear Space. This is to be done for all accesses regardless of whether the Crosswalk (roadway) is being reconstructed.

What if the Pedestrian Push Button Height is outside of the 42 ± 2 inches range?

If the Pedestrian push button is outside of the desirable 40-44 inch range, then it can be as low as 36 inches or as high as 46 inches with RE approval. If not approved, the button must be raised or lowered to be within the 42 ± 2 inches range. If the height is outside of the desirable 40-44 inch range during a Preconstruction evaluation, then a special item for adjusting the push button height may be included in the project work.

What is the purpose of the suggested work to meet Standards section?

This section is to document any work that needs to be completed to meet Standards. For a Construction evaluation this could be marked appropriately to signify that there is an associated Technical Infeasibility. For a Preconstruction evaluation, this could be marked to note the elements needing to be reconstructed for plan preparation.

What is the correct process for submitting completed forms?

All C-170 and C-171 forms must be filed in ProjectWise using the correct naming convention. If there is not a Technical Infeasibility, then use the C-170 naming convention; if there is a Technical Infeasibility, then use the C-171 naming convention. Individual PDF files for each access are preferred so they can be added to the access inventory. Provide notification of completion to ADAramps@utah.gov and the FHWA Area Engineer (see [ADA Contact Information.pdf](#) for Email Addresses by Region). Emails with the files attached are preferred in addition to ProjectWise links, but emails with only ProjectWise Links are acceptable. Submit completed forms within 14 days after all work affecting the pedestrian access ramp has been

completed. Submit un-expected Technical Infeasibility forms for approval as soon as the need is discovered (refer to UDOT Policy 06C-16).

Do C-170 and C-171 Forms need to be submitted for Preconstruction evaluations?

Yes, all C-170 and C-171 forms must be filed in ProjectWise using the correct naming convention. If there is not a Technical Infeasibility, then use the C-170 naming convention; if there is a Technical Infeasibility, then use the C-171 naming convention. Submit completed forms and obtain approval for known Technical Infeasibilities during the Preconstruction phase prior to project advertising. Individual files for each access are preferred so they can be added to the access inventory. For Preconstruction evaluations, provide the Certified Inspector name and omit the Certified Installer name. Email to ADAramps@utah.gov. File attachments are preferred in addition to ProjectWise links, but emails with only ProjectWise Links are acceptable. If there is already a complete C-170 shown on the UPlan map, confirm that the access still meets standards by completing a new C-170 and submitting as normal. If the UPlan map shows that an access has a Technical Infeasibility, verify that the Technical Infeasibility is still applicable. If the project scope changes the conditions causing the original Technical Infeasibility, then the access must be fixed to the extent practicable within the scope of the project (refer to UDOT Policy 06C-16).

What is a Technical Infeasibility and how do I obtain one?

A technical infeasibility is an exception from ADA compliance due to existing physical constraints that make it impracticable for altered elements, spaces, or facilities to fully comply with the requirements for new construction (refer to UDOT Policy 06C-16). To obtain a Technical Infeasibility, complete the C-171 portion in addition to the C-170, including the development of a detailed estimate showing the estimated costs to attain standards. This should primarily be completed in the Preconstruction phase, but may need to be completed during the Construction phase on occasion. Sign the form next to "Prepared By", and route for approval signatures to all persons noted next to "Approved By". When approved Technical Infeasibilities are subsequently encountered during construction, note and attach the approved C-171 to the newly measured access evaluation form and submit using the C-171 naming convention according to the correct process for submitting completed forms shown above.

Where there is a Technical Infeasibility, is there a hierarchy of Elements to be made compliant to the maximum extent practicable?

In cases of Technical Infeasibility, Elements should be made compliant to the maximum extent practicable in the following order of precedence, beginning with the highest priority: Turning Space, Detectable Warning Surface, Clear Space, Ramp, Flare, Pedestrian Push Button, Crosswalk, Sidewalk. Site conditions may vary, the order of precedence may be adjusted based on the Engineer's direction.