

Instructions for Completion of ADA Feature Pre-Construction Measurement Records For Contractor and Design/Builder

I. Basic Information

The instructions below are to be used by a Contractor when an ADA feature is constructed (project construction using either the typical design-bid-build or a Design/Build project).

A. Requirements of the Contractor

Per the contract specifications, "*Contractor Surveying – ADA Features*" requires the Contractor to stake, measure, record the information on WSDOT provided forms, and transmit the as-built information to the Project Engineer.

(April 2, 2018)

Contractor Surveying – ADA Features

ADA Feature Staking Requirements

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, and grades necessary for the construction of the ADA features. Calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility. The Contractor shall build the ADA features within the specifications in the Standard Plans and contract documents.

ADA Feature As-Built Measurements

The Contractor shall be responsible for providing electronic As-Built records of all ADA feature improvements completed in the Contract.

The survey work shall include but not be limited to completing the measurements, recording the required measurements and completing other data fill-ins found on the ADA Measurement Forms, and transmitting the electronic Forms to the Engineer. The ADA Measurement Forms are found at the following website location:

<http://www.wsdot.wa.gov/Design/ADAGuidance.htm>

In the instance where an ADA Feature does not meet accessibility requirements, all work to replace non-conforming work and then to measure, record the as-built measurements, and transmit the electronic Forms to the Engineer shall be completed at no additional cost to the Contracting Agency, as ordered by the Engineer.

Payment

Payment will be made for the following bid item that is included in the Proposal:

"ADA Features Surveying", lump sum.

The unit Contract price per lump sum for "ADA Features Surveying" shall be full pay for all the Work as specified.

B. Types of ADA Features to be Collected

The following ADA Features may be included in a project and measurements are to be recorded and transmitted to WSDOT:

- Curb Ramps
 - Perpendicular
 - Parallel
 - Combination
 - Parallel One-Direction
 - Median and Traffic Island Cut-Through (Added July 2018)
 - Sidewalk
 - Independent Shared Use Path (Added July 2018)
 - Driveway
 - End Ramps for a Sidewalk or Bridge End
 - APS Button and Signal
1. Equipment Needed for Measurements

The Contractor can use any method to collect the measurements. Past practice has been to use the tools below to complete the required measurements:

Smart Level – Slope Measurement

- Minimum of 2.0 feet in length
- Inclinomometer capable of slope accuracy measurements of maximum of 1/16” per foot
- Display slope measurements up to two-significant figures
- Display slope in percent
- Calibrate the level per the manufacturers’ recommendations, not less than once per day.

Steel Tape Measure – Dimension Measurements

- Capable of measuring to 0.01 foot

2. Forms



Record the measurements for the ADA Features identified above using the Excel spreadsheet, **ADA_Measurements.xlsm**, which can be downloaded from the ADA Guidance website located at:

<https://wsdot.wa.gov/engineering-standards/design-topics/design-ada>

When you follow the above link and open the ‘ADA Measurement Forms’ link, a dialog box will open asking you “What do you want to do with ADA_Measurements.xlsm?” You will want to ‘Save As’ in your own folder. You can then make as many copies as needed for your project.

HINT: Check the webpage often for the most current form. For your convenience, the form is being updated to help you in the completion of measurements and transmitting data more intuitive.

Form Design

-  Each form is a separate tab (worksheet) in the spreadsheet. When opening up the spreadsheet, the READ-ME tab is the default tab that it opens up to, to inform the user that there are a number of forms contained in the Excel spreadsheet that are to be used to record measurements.
-  The forms are designed to only include those measurement fields or information that are identified with the specific project phase. Select the **Phase** from the drop-down list that the data is being collected for:

- Scoping
- Design/Build
- Contractor As-Builts

The forms are designed to record the basic project information in the upper portion of the worksheet.

Each form has "Required Field" (Fuchsia color shaded cells) that need to be completed in order for the form to be submitted

As the form is filled-in, the shading disappears

Until there is no shading shown on the form

ADA Feature - Perpendicular Curb Ramp Measurements				Phase		Scoping	
Contract / Work Order		XL1234		Date Measured		6/7/2018	
Measured By				ADA Team #1			
Cross Street Name		Elm Street		Site		Island	
Plan Sheet Reference		Location		NW		SE	
Feature Location Code		Jurisdiction		WSDOT			
Site History		Constructed By					
Diagonally Oriented?		No		Clear Space Achieved?		n/a pass	
				SR		5	
				Milepost		2.3 A ?	
				Station		L	
				Geoportals		47.034085 -122.897 Geoportals	
				Instructions		Latitude Longitude Accuracy	
						Enter numbers only 1 = 1.00%, 2.25 = 2.25 ft, etc.	
						Measurement	
						Landing	

The forms have been designed for the recorder to select information found in a drop-down menu.

OR:

Information boxes are included in many of the drop-down lists to help the recorder input the correct information.

HINT: Sometimes the Information box may cover a portion of the drop-down cell. To move the Information box, just click on it, and using the mouse, drag the Information box to a new location.

Database Schema

SR

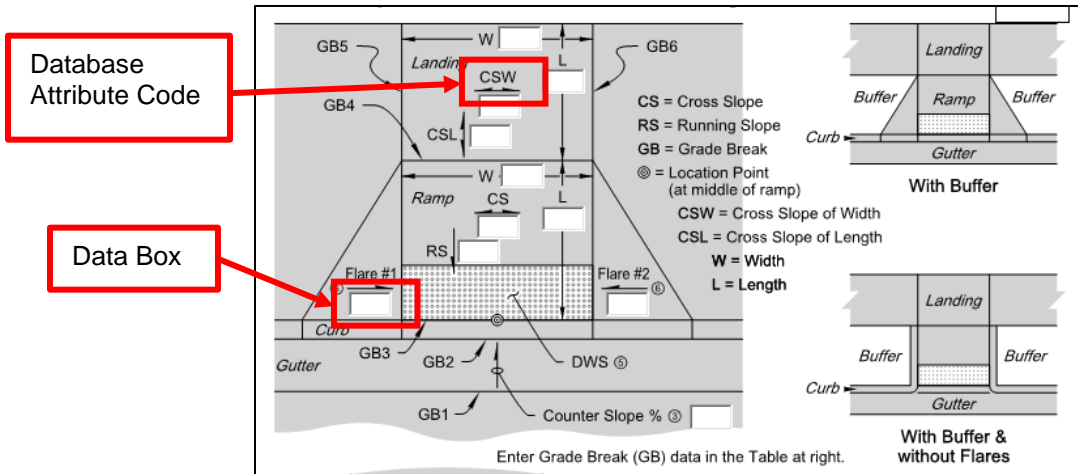
Milepost A/B

Station Lt or Rt?

Geoportal

Project Phase
 Select project phase:
 1. Scoping
 2. Design / Build
 3. Contractor As-Builts

Diagram(s) are provided to identify what and where the different measurements are found. The diagrams have a data box beside the database attribute code to help in completing the form correctly.



A measurement may be entered into the data box on the diagram and the information will be automatically populated onto the right side of the form.

Feature Location Code _____ Jurisdiction _____

Site History _____ Constructed By _____

Diagonally Oriented? Clear Space Achieved?

Instructions Latitude Longitude Accuracy

Enter numbers only
 1 = 1.00%, 2.25 = 2.25 ft, etc.

Measurement

Landing

pass → SW 1.80

CSL

W

L

Ramp Left #2

RS#2

CS#2

W#2

L#2

Enter Grade Break (GB) data in the Table at right.

OR

The measurement may be entered into the right side of the form

The diagram shows a landing area between two ramps. The landing has a width 'W' and a cross-slope 'CSL'. The ramps have widths 'W#2' and 'W#3', and cross-slopes 'CS#2' and 'CS#3'. The landing has a cross-slope 'CSW' and a width 'L'. The diagram also shows 'Curb' and 'Ramp (Left) #2' and 'Ramp (Right) #3'.

Landing		Measurement
pass	CSW	1.80
	CSL	1.5
	W	
	L	
Ramp Left #2		Measurement
	RS#2	

And after hitting the Enter button the measurement will automatically populate into the data box on the diagram.

The diagram is the same as above, but now the 'CSL' field in the diagram is highlighted in green, and a red arrow points from the 'CSL' field in the data table to it. The 'CSL' field in the data table is also highlighted in green.

The forms have been designed to provide sufficient information to the recorder so the correct format of information is placed onto the form.

Landing		Measurement
pass	CSW	1.75 2.00% Max
pass	CSL	1. Cross-Slope of Landing Width Enter number only, please: 1 = 1.00% 1.85 = 1.85% etc.
pass	W	6.
pass	L	4.

✎ As the measurements are performed and recorded into the form, the form will automatically identify if the measurement “Passes” or “Fails” the ADA Compliance Criteria.

ADA Feature - Perpendicular Curb Ramp Measurements

Contract XL5432 Date Measured 5/14/2018

Measured By Tester

Cross Street Name 176th St Corner/Side W

Plan Sheet Reference 14

Feature Location Code 4

Site History Replaces an Existing Feature

Diagonally Oriented? No Clear Space Achieved? n/a pass

Phase Contractor As-Built

SR 7

MP 17.54 A

Station 17+25 Lt or Rt?

Latitude 47.0338767 Longitude -122.89606

Database Schema: CR-PERP

Survey/Feature Status **FAIL**

MEF Status Standard ADA

MEF Reference

Measurement	Compliance Criteria	MEF Criteria
pass CSW	1.90	2.00% Max
FAIL CSL	2.10	2.00% Max
		% Max
		% Max

✎ The Survey/Feature Status of the feature will be identified as either “Pass”, “Fail”, or “Incomplete Form”.

The “Incomplete Form” message is displayed when required data is missing.

ADA Feature - Perpendicular Curb Ramp Measurements

Contract XL5432 Date Measured 5/14/2018

Measured By Tester

Cross Street Name 176th St Corner/Side W

Plan Sheet Reference 14

Feature Location Code 4

Site History Replaces an Existing Feature

Diagonally Oriented? No Clear Space Achieved? n/a pass

Phase Contractor As-Built

SR 7

MP 17.54 A

Station 17+25 Lt or Rt?

Latitude 47.0338767 Longitude -122.89606

Database Schema: CR-PERP

Survey/Feature Status **pass**

MEF Status Standard ADA

MEF Reference

Measurement	Compliance Criteria	MEF Criteria

ADA Feature - Perpendicular Curb Ramp Measurements

Contract XL5432 Date Measured 5/14/2018

Measured By Tester

Cross Street Name 176th St Corner/Side W

Plan Sheet Reference 14

Feature Location Code 4

Site History Replaces an Existing Feature

Diagonally Oriented? No Clear Space Achieved? n/a pass

Phase Contractor As-Built

SR 7

MP 17.54 A

Station 17+25 Lt or Rt?

Latitude 47.0338767 Longitude -122.89606

Database Schema: CR-PERP

Survey/Feature Status **incomplete form**

MEF Status Standard ADA

MEF Reference

Measurement	Compliance Criteria	MEF Criteria
pass CSW	1.90	2.00% Max
		% Max
		% Max

- Each form has the ability to document a measurement(s) that does not meet ADA compliance criteria but has been processed and received approval allowing the use of that dimension.

Maximum Extent Feasible (MEF) - The forms have been designed to include the tracking of a MEF dimension, slope, or other ADA compliance criteria that has been approved by the region's Assistant State Design Engineer and ADA Compliance Manager or Assistant State Construction Engineer.

It is intended that during the Design Phase, designers are to identify on the form where a value does not meet ADA compliance, obtain MEF approval, and provide the completed forms to the WSDOT Construction Project Engineer.

Contractors will need to coordinate with the Construction Project Engineer to obtain MEF information in order for the form to be completed properly. If not the Survey/Feature Status will show the feature as "FAIL".

The approved MEF document needs to be referenced on the form. Provide the "L #" (Design Work Order Number) in the MEF Reference box.

If there is an approved MEF, the form tests the recorded measurement against the MEF dimension or slope to determine "Pass" or "Fail".

The screenshot shows a form with the following fields and values:

- Contractor As-Built:** 5
- Database Schema:** CR-PERP
- Survey/Feature Status:** incomplete form
- MEF Status:** Has MEF
- MEF Reference:** (Red box highlights this field)
- MEF Documentation:** If this survey allows MEF, enter "L#" (Design Work Order Number)
- Measurement:** 2.30
- ADA Compliance Criteria:** 2.00% Max
- MEF Criteria:** 2.4% Max
- Landing:** pass, CSW

A red circle around the value '2.4' in the MEF Criteria column has a callout that says "Identify the MEF value".

Note: The MEF criteria can be set to be evaluated to the following parameters:

- Min
- Equal to
- Max

Slope

ADA Compliance Criteria		MEF Criteria	
2.00% Max		% Max	
2.00% Max		% Min	%
		% Max	

Length

100% Max		% Max	
1.00 ft Min		ft Min	
1.00 ft Min		ft Min	
		ft Max	

II. General Information for Completing a Form

A. First, identify the Phase – “Design/Build” or “Contractor As-Builts”.

Phase		Design / Build
SR	Scoping	
	Design / Build	
	Contractor As-Builts	

B. Basic information required for each Feature measured includes:

1. Some of the forms are site specific, and will need to be completed separately for each ADA Feature constructed (the various Curb Ramps, Sidewalk End Ramps, Cut Thru, Driveway, and APS Button/Signal), while other forms provide the capability to record more than one ADA Feature location on the same form (Sidewalk and Independent Shared Use Path).

READ-ME	Perpendicular	Parallel	Combination	Parallel-One_Direction	Sidewalk	Driveway	End Ramp	APS Button_Signal
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2. All the forms require basic information to be filled-out:

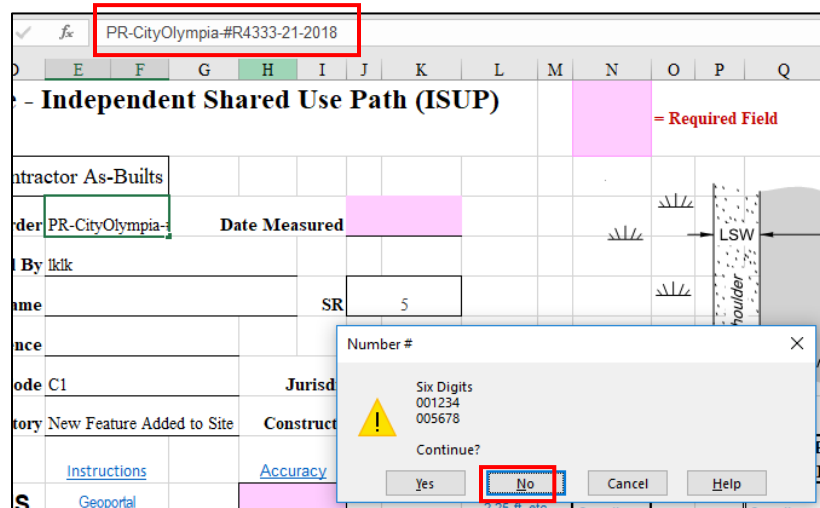
- As noted above, each form has “Required Field” (Fuchsia color shaded cells) that need to be completed in order for the form to be submitted.

ADA Feature - Parallel Curb Ramp				Phase		Contractor As-Builts		Database	
Measurements				SR		14		Survey/Feat	
Contract / Work Order	1	Date Measured	2	Milepost	15	A/B	?	16	M
Measured By	3	Site	9	Station	17	Lt or Rt?	18	MEF	
Cross Street Name	4	Location	10	10	Geoportal	19	20	21	
Plan Sheet Reference	5	Jurisdiction	11	Instructions	Latitude	Longitude	Accuracy		
Feature Location Code	6	Constructed By	12	Enter numbers only 1 = 1.00%, 2.25 = 2.25 ft, etc.		Measurement			
Site History	7			Landing					
Diagonally Oriented?	8	Clear Space Achieved?	13						

NOTES		
<div style="border: 1px solid red; width: 20px; height: 20px; display: inline-block; margin-left: 10px; margin-top: 10px;">22</div>		
Measurement Instrument Serial Number:	Calibrated by:	Date:
<div style="border: 1px solid red; width: 20px; height: 20px; display: inline-block; margin-left: 10px;">23</div>		

3. Field Descriptions:

1. **Contract** – Enter the contract number; six digits. “001234” (For non-WSDOT construction projects, enter the entire project number and when the reminder box pops up, select “Yes” to continue, which will allow the entire project number to be entered)



2. **Date Measured** – Enter the date measured.
3. **Measured By** – Enter the name/title of person completing the measurements.
4. **Cross Street Name** – Enter the name of the cross street, if available.
5. **Plan Sheet Reference** (if this is applicable) – Enter the contract plan sheet number the feature is found on.
6. **Feature Location Code** - Identify each feature by a Feature Location Code schema.

Provide a schematic plan that shows each ADA Feature and the associated unique Feature Location Code (this can be the designation from the contract plans, or any system to identify each location separately (sequentially, alphabetically, etc)).

7. **Site History** – Select from the drop-down list to identify what this feature is addressing.

Location Code

Site History

Diagonally Oriented?

Existing Feature
 Replaces an Existing Feature
 New Feature Added to Site

8. **Diagonally Orientated** – Identify whether or not the curb ramp points into the center of the intersection (diagonal).

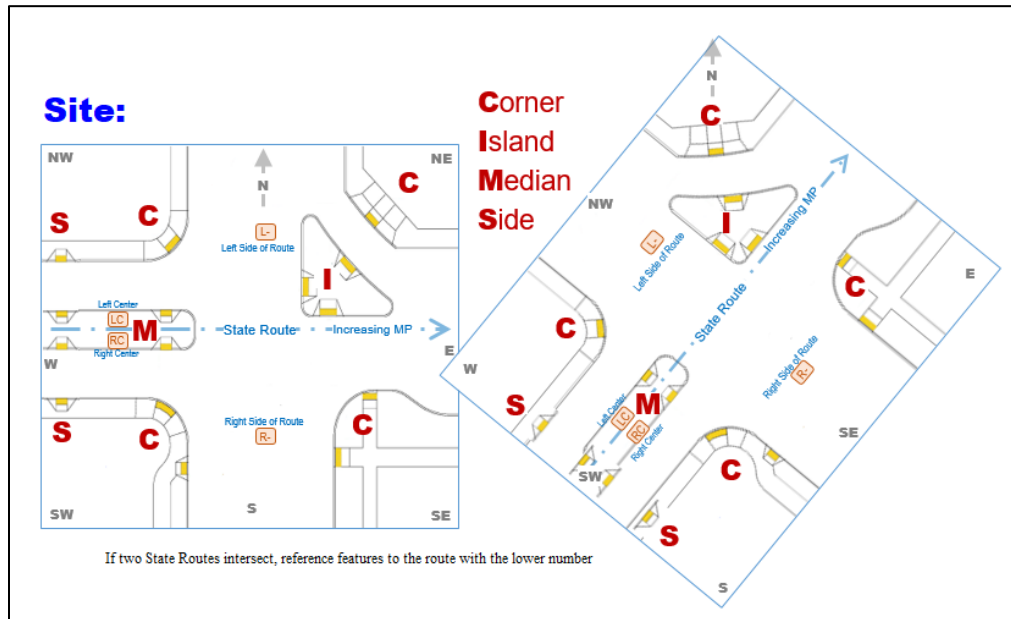
Diagonally Oriented?

Yes
 No

9. **Site** – Identify where the feature is located. Click on the hyperlink and the diagram (shown below) will provide more information about the Site.

Hyperlink

Site



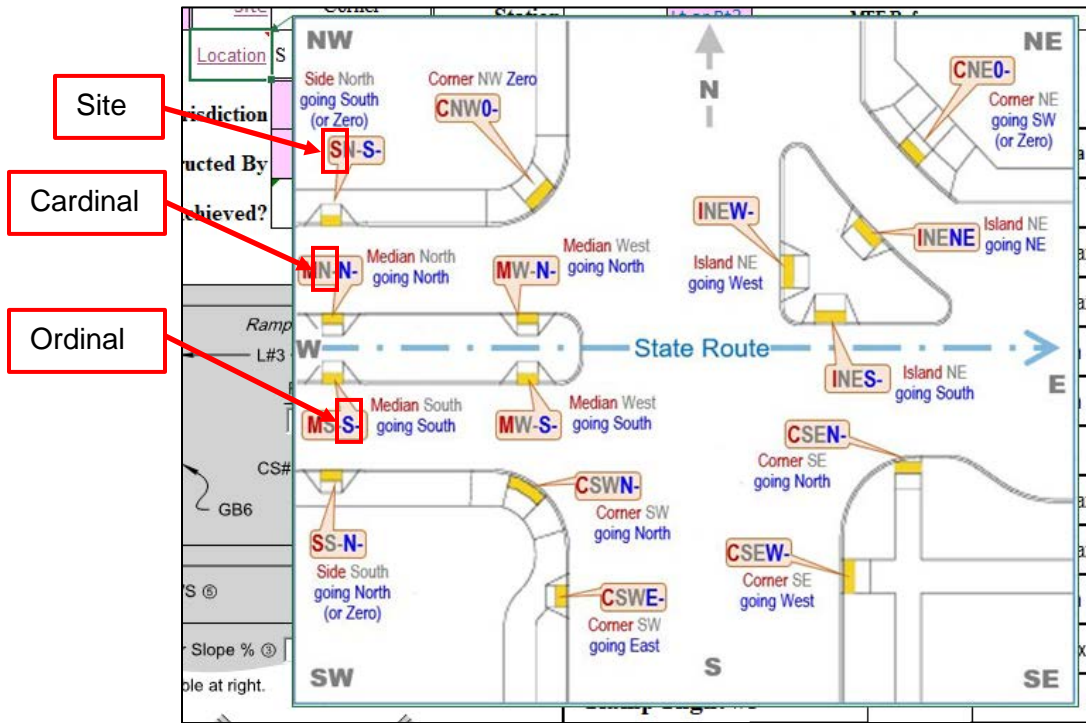
Select from the dropdown list the general location where the feature is located.

Site

Corner
 Island
 Median
 Side
 Other - NOTES

Which area of the roadway?
 Select which part of the roadway the feature is located:
 Is it on a corner, an island, a median, or on the side of the road?
 If it is not on any of those, pick "Other" and describe in NOTES.

10. **Location** – This is used provide more specific location detail to distinguish the feature’s location (especially when there are other similar features on the same corner). Move the mouse button over the “Location” cell and a schematic drawing (below) will pop up showing the naming convention used to identify the location of the feature.



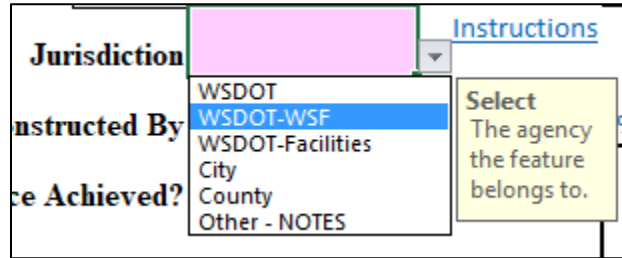
10a – **Corner Compass Location:** From the dropdown list identify the “Cardinal” Corner Compass Location for where the feature is located.

	Location
<p>Corner Compass Location As standing in the center of the intersection or roadway, which corner, side, island, or median is the feature located by compass point: Cardinal: N, S, E, W Ordinal: NE, SE, SW, NW Not Applicable: 0 - explain in NOTES</p>	<ul style="list-style-type: none"> N S E W NW NE SW SE

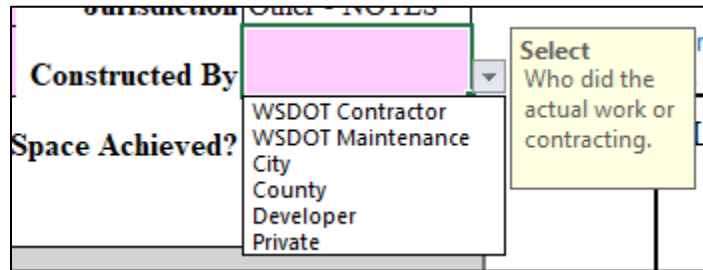
10b – **Compass Location:** From the dropdown list identify the “Ordinal” Corner Compass Location where the feature is located.

	<p>Multiple Like Features? If there is more than one of the same feature (curb ramp), indicate which is which (pick the direction on the corner or island that the ramp slopes to the roadway): Cardinal: N, S, E, W Ordinal: NE, SE, SW, NW Not Applicable, or only one feature (ramp): 0</p>
N/A	<ul style="list-style-type: none"> N S E W NW NE SW SE

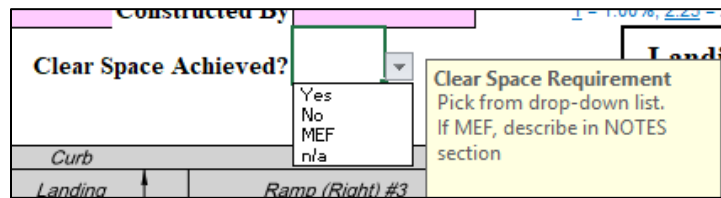
11. **Jurisdiction** – Identify who has jurisdiction of the feature from the dropdown list



12. **Constructed By** – Identify who constructed the feature from the dropdown list



13. **Clear Space Achieved** (Does not apply to all ramps) See details in the Section 4 below.



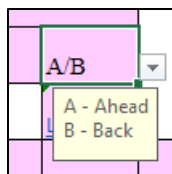
14. **SR** – Enter the State Route identification (number only).

15. **Mile Post** (MP) - Provide the State Route mile post for the feature.

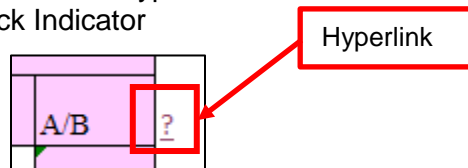
The MP can be calculated possibly using the contract plan information found on the vicinity map.

16. **Ahead/Back** Indicators (A/B) – Identify if the feature’s MP is ahead or back. For most State Routes this will typically be identified as “Ahead”.

The State Route Milepost Back (B) indicator designates whether the milepost value is the ‘back’ duplicate of a milepost value ‘ahead’ on the route.



Click on the hyperlink to see further documentation pertaining to Milepost Back Indicator



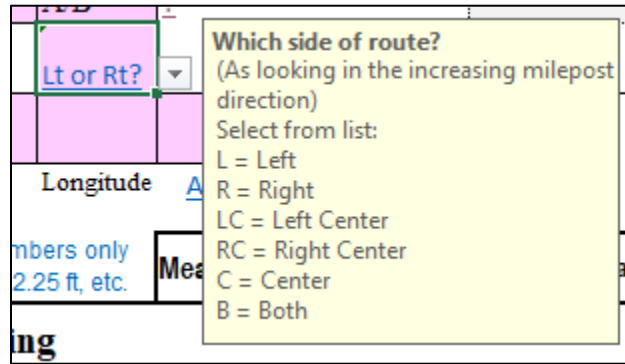
STATE ROUTE MILEPOST BACK (B) INDICATOR

The State Route Milepost Back (B) indicator designates whether the milepost value is the 'back' duplicate of a milepost value 'ahead' on the route. Ahead values have an implied 'A' (blank).

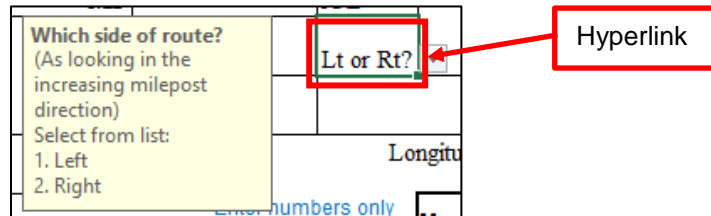
A back SRMP occurs as a result of:

- A realignment that lengthens a section of an SR other than at the end of the route.
- Adding mileage to the beginning of an SR.

17. **Project stationing** - Enter the Project station of the feature, if known.
18. **Lt or Rt** - Identify where the feature is located in relationship to the State Route centerline (while being oriented and facing in the Increasing MP direction on the SR) from the drop-down list.



For more information click on the hyperlink



LEFT/RIGHT INDICATOR

Features that get tagged with this code occur ALONG SIDE the main traveled way. All Left Right Indicators are assigned based on the INCREASING direction of travel, starting from the left and working to the right.

L = LEFT Represents features located along side the decreasing traveled way.

LC = LEFT CENTER Represents features located along side the median side of the decreasing traveled way.

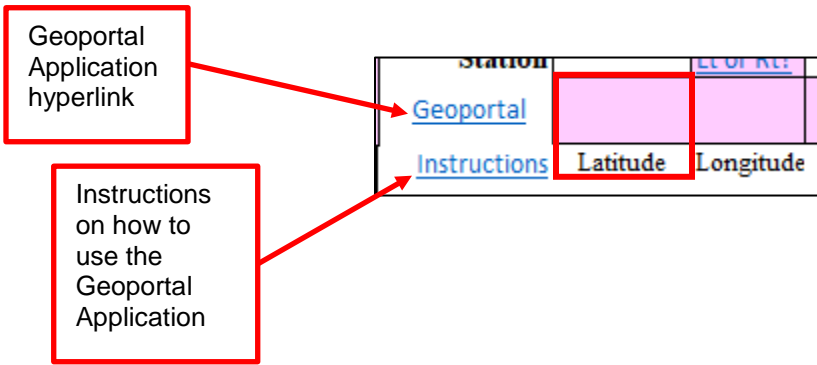
C = CENTER Represents a feature that occurs between the increasing and decreasing traveled way.

RC = RIGHT CENTER Represents features located along side the median side of the increasing traveled way.

R = RIGHT Represents features located along side the increasing traveled way.

B = BOTH The feature occurs along side both the increasing and decreasing traveled way.

19. **Latitude**– Provide the latitude coordinate for the feature.
- If the coordinate is not obtainable from a collection device, use the WSDOT Geoportal application to identify the coordinate. Instructions for using the Geoportal application can be found by click on the Instructions hyperlink.

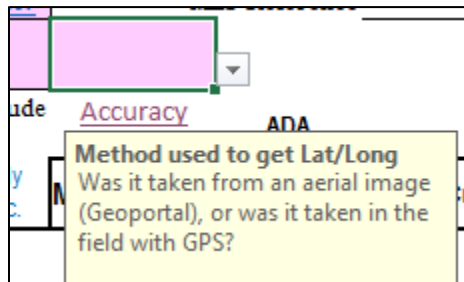


20. **Longitude** – Provide the longitude coordinate for the feature.

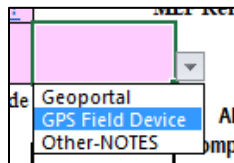
If the coordinate is not obtainable from a collection device, use the WSDOT Geoportal application to identify the coordinate. Instructions for using the Geoportal application can be found by click on the Instructions hyperlink.



21. **Accuracy** – Identify the method used to obtain the Lat/Long coordinates.



Select from the drop-down list



22. **NOTES** - Each form has a “Notes” block to provide additional details on a measurement or details about the feature.

23. **Measurement tool information and calibration** – Provide the following information pertaining to the measurement tool used to measure slopes.

- a) The serial number of the equipment used for measuring slopes
- b) The name of the person who did the calibration
- c) *The date the tool was calibrated.* At a minimum, the tool is to be calibrated daily.

III. Status of a Feature

The forms have been designed to provide immediate feedback.

A. Additional measurement or information data is needed to complete the form

Survey/Feature Status	incomplete form
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B. For each measurement recorded, the status of ADA compliancy is provided for immediate feedback

pass	CSW	1.88	2.00% Max
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Or

FAIL	CSW	2.15	2.00% Max
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C. In addition, as measurements are recorded, the running and then Final status of the feature will be shown on the form.

CR-COMB

Schema:	
Survey/Feature Status	incomplete form
MEF Status	Standard ADA

CR-PERP

Database Schema:	
Survey/Feature Status	pass
MEF Status	Standard ADA

Survey/Feature Status	FAIL
MEF Status	Standard ADA

Survey/Feature Status	pass
MEF Status	Has MEF
MEF Reference	XL2222

D. Acceptance

If, as measurements are being recorded, any of the measurements result in a “FAIL” to meet the compliance criteria, there is a **problem**. If there is no MEF information attributed to the measurement, the Feature Status will show “FAIL” and is considered non-compliant and will not be accepted by WSDOT.

IV. ADA Features

Each Feature has a different set of required measurements. Below is detailed information or an explanation of various data fields found on the various forms.

A. Curb Ramps

1. Forms to Record Data:

- Perpendicular
- Parallel Curb Ramp
- Parallel 1-Direction
- Combination

2. Data Fields Explanation:

a) *For each of the fields listed below select whether or not the attribute applies:*

- i) **Diagonally Orientated** – Identify whether or not the ramp points into the center of the intersection.

Diagonally Oriented? Yes No

- ii) **Clear Space Achieved** – Identify whether or not a clear space is provided at the bottom of the curb ramp.

Clear Space Achieved? 4 ft Min if Diagonally Oriented

Clear Space Achieved? 4 ft Min if Diagonally Oriented

Clear Space Requirement
Pick from drop-down list.
If MEF, describe in NOTES section

1510.09(2)(j) Clear Space

- Beyond the curb face where the bottom of a curb ramp or landing meets the gutter, a clear space of 4 feet minimum by 4 feet minimum shall be provided in the roadway that is contained within the width of the crosswalk and located wholly outside the parallel vehicle travel lane.

Note: Clear space is easily achieved when a separate curb ramp is provided, oriented in each direction of pedestrian travel within the width of the crosswalk it serves.

b) **Landing** – Provide measurements

Enter numbers only 1 = 1.00%, 2.25 = 2.25 ft, etc.		Measurement	Compliance Criteria	MEF Criteria
Landing				
CSW			2.00% Max	% Max
CSL			2.00% Max	% Max
W			4.00 ft Min	ft Min
L			4.00 ft Min	ft Min

1510.09(2)(d) Landing

A level landing is required either at the top of a perpendicular ramp or the bottom of a parallel curb ramp, as noted in 1510.09(1)(a) and (b) for the type of curb ramp used.

- Provide a landing that is at least 4 feet minimum length by 4 feet minimum width.
- The running and cross slopes of a curb ramp landing shall be 2% maximum.

Note: It is recommended that cross slopes be designed to be less than the allowed maximum to allow for some tolerance in construction. For example, design for a maximum 1.5% cross slope (rather than 2% maximum).

Exception: The running and cross slopes of landings for curb ramps at midblock crossings are permitted to match the street or highway grade.

c) **Ramp** – Provide measurements

Ramp				
RS			8.30% Max	% Max
CS			2.00% Max	% Max
W			4.00 ft Min	ft Min
L			15.00 ft Max	ft Max

 **Special Note:**

For Curb Ramp types Parallel and Combination, the feature may have or may not have a Ramp Left or Right associated it and requires the recorder to identify if the Ramp is Present or not.

Ramp Left #2		Present	
RS#2		Present Not Present	% Max
CS#2		Is there a Ramp (Left) #2? Present = YES Not Present = NO	
W#2			ft Min
L#2		15.00 ft Max	ft Max

Ramp Right #3		Present	
RS#3		Present Not Present	% Max
CS#3		Is there a Ramp (Right) #3? Present = YES Not Present = NO	
W#3			

(1) If the Ramp is present select **Present** from the drop-down list and record the information required.

Ramp Left #2			Present	
pass	RS#2	7.90	8.30% Max	% Max
pass	CS#2	1.80	2.00% Max	% Max
pass	W#2	4.90	4.00 ft Min	ft Min
pass	L#2	9.10	15.00 ft Max	ft Max

(2) If a ramp is not present, select **Not Present** and notice that the associated data cells and ramp Grade Breaks are shaded and auto-filled with "n/a".

Diagram labels: W, W#3, CS#3, GB6, GB7, DWS, Counter Slope % ③, Ramp, DWS-L, Landing, DWS-S, Curb Gap ④.

Legend:
 CS = Cross Slope
 RS = Running Slope
 CSW = Cross Slope of Width
 CSL = Cross Slope of Length
 W = Width
 L = Length
 GB = Grade Break
 ④ = Location Point (at middle of landing)

L		4.00 ft Min	ft Min
Ramp Left #2		Present	
RS#2		8.30% Max	% Max
CS#2		2.00% Max	% Max
W#2		4.00 ft Min	ft Min
L#2		15.00 ft Max	ft Max
Ramp Right #3		Not Present	
RS#3	n/a	8.30% Max	% Max
CS#3	n/a	2.00% Max	% Max
W#3	n/a	4.00 ft Min	ft Min
L#3	n/a	15.00 ft Max	ft Max
Counter Slope			
S		5.00% Max	% Max
CSW + S	sum	7.00% Max	% Max
Grade Breaks			
GB#1			
GB#2			
GB#3			
GB#4			
GB#5			
GB#6	n/a		
GB#7	n/a		

1510.09(2)(a) Clear Width

- The clear width of curb ramps and their landings shall be 4 feet minimum, excluding flares.

1510.09(2)(b) Running Slope

- The running slope of curb ramps shall not exceed 8.3% maximum.

Note: It is recommended that running slopes be designed to be less than the allowed maximum to allow for some tolerance in construction. For example, design for a maximum 7.5% curb ramp running slope (rather than the 8.3% maximum).

- The running slope of a perpendicular curb ramp shall intersect the gutter grade break at a right angle at the back of curb.
- The curb ramp maximum running slope shall not require the ramp length to exceed 15 feet.

1510.09(2)(c) Cross Slope

- The cross slope of curb ramp shall not be greater than 2%, measured perpendicular to the direction of travel.

Note: It is recommended that cross slopes be designed to be less than the allowed maximum to allow for some tolerance in construction. For example, design for a maximum 1.5% cross slope (rather than the 2% maximum).

Exception: The cross slopes of curb ramps at midblock crossings are permitted to match the street or highway grade.

d) **Flare Slope – Provide measurements**

Flare Slope			
FS#1	<input type="text"/>	10% Max	<input type="text"/> % Max
FL#2	<input type="text"/>	10% Max	<input type="text"/> % Max

1510.09(2)(e) Flares

- Flared sides are to be used only where a pedestrian circulation path crosses the curb ramp from the side.
- Flared sides are to have a slope of 10% maximum, measured parallel to the back of curb.

e) **Counter Slope – Provide measurement.**

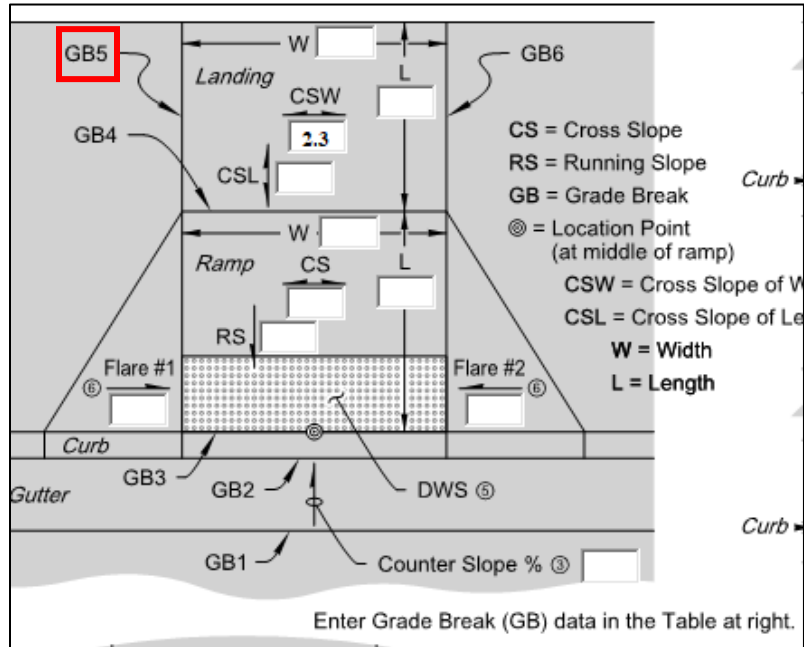
The form calculates the algebraic difference with the ramp slope to determine compliance.

Counter Slope			
S	<input type="text"/>	5.00% Max	<input type="text"/> % Max
RS + S	sum	11.00% Max	<input type="text"/> % Max

1510.09(2)(f) Counter Slope

- The counter slope of the gutter or street at the foot of a curb ramp or landing shall be 5% maximum.

f) **Grade Breaks** – Grade breaks (GB) are shown on the drawings.



Special Note:

Be aware that the diagram does not provide sufficient space for a data box, therefore, select the type of Grade Break from the drop-down list. Notice that a large check will show up on the diagram showing that the measurement was completed.

Grade Breaks	
GB#1	<input type="text"/>
GB#2	<input type="text"/> <ul style="list-style-type: none"> Flush 1/4-Inch or Less 1/4 to 1/2-Inch YES Bevel 1/4 to 1/2-Inch NO Bevel Greater than 1/2-Inch
GB#3	<input type="text"/>
GB#4	Grade-Break at Joint Choose measure: <ol style="list-style-type: none"> 1. Flush (0.00") No vertical Difference 2. 1/4-Inch (0.01 ft) or Less 3. Between 1/4 - 1/2-Inch WITH 1/4-inch Beveled at 2:1 4. Between 1/4 - 1/2-Inch WITHOUT 1/4-inch Beveled at 2:1 5. Greater than 1/2 Inch
GB#5	<input type="text"/>
GB#6	<input type="text"/>

ADA Measurement Forms
 Instructions For Contractor or Design-Build

CS = Cross Slope
 RS = Running Slope
 GB = Grade Break
 ⊙ = Location Point (at middle of ramp)
 CSW = Cross Slope of Width
 CSL = Cross Slope of Length
 W = Width
 L = Length

Enter Grade Break (GB) data in the Table at right.

Enter Color and Type in the Table

Detectable Warning Surface Detail

Notes:
 ① Always take measurement in the center of element, except where noted.
 ② GB must be flush—record worst case measure of vertical change over the length of each GB.
 ③ Measure Counter Slope between GB1 and GB2 (Gutter)—if no gutter, measure 1 ft. max. from GB2.
 ④ Slope arrow indicates positive read. Just record value when both directions shown.
 ⑤ Detectable Warning Surface—see detail.
 ⑥ Measure Flare Slope parallel to curb.

W	4.00 ft Min
L	4.00 ft Min
Ramp	
RS	8.30% Max
CS	2.00% Max
W	4.00 ft Min
L	15.00 ft Max
Flare Slope	
FS#1	10% Max
FL#2	10% Max
Counter Slope	
S	5.00% Max
RS + S	sum 11.00% Max
Grade Breaks	
pass	GB#1 Flush

Special Note:

If the form is being filled out in the field by hand first, record the measurement between the two surfaces so that the correct drop-down selection can be selected on the electronic form.

1510.09(2)(i) Grade Breaks

- Vertical alignment shall be planar within curb ramp runs, landings, and gutter areas within the pedestrian access route.
- Grade breaks at the top and bottom of curb ramps shall be perpendicular to the direction of travel on the ramp run.
- Surface slopes that meet at grade breaks shall be flush.

g) **Type of DWS** – Provide measurements. Also identify the type of DWS found (Select from the drop-down list)

Detectable Warning Surface

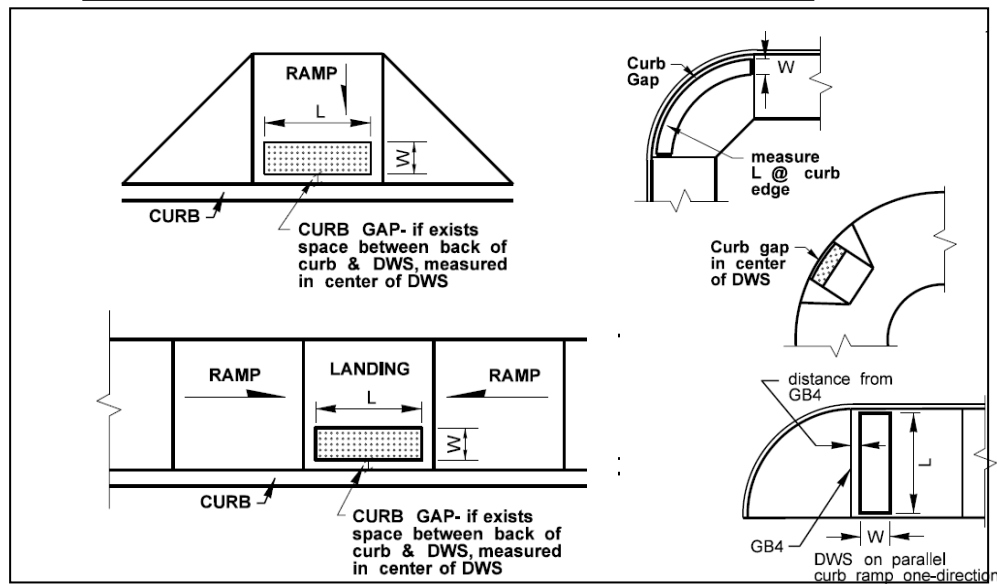
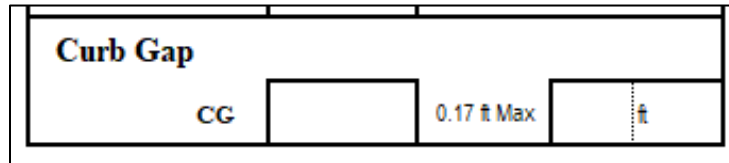
L		Match Ramp W	<input type="text" value=""/>
W		2.00 ft Min	<input type="text" value=""/>
Color		DOT - Yellow	<input type="text" value=""/>
Type		Truncated	<input type="text" value=""/>

1510.09(2)(g) Detectable Warning Surfaces

- Detectable warning surfaces are required where curb ramps or landings connect to a roadway. (See the *Standard Plans* for placement details and other applications.)
- Detectable warning surfaces shall contrast visually (either light-on-dark or dark-on-light) with the adjacent walkway surface, gutter, street, or highway.

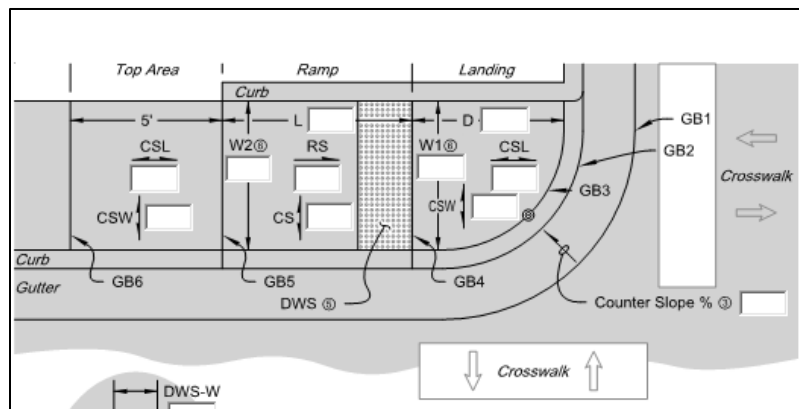
Note: Federal yellow is the color used to achieve visual contrast on WSDOT projects. Within cities, other contrasting colors may be used if requested by the city.

h) **Curb Gap – Provide measurement.**



i) **Top Area – Parallel 1-Direction Ramp only**

Provide measurements.



Special Note: CSL Measurement

CSL Measurement is informational only as it can follow the grade of the road.

Top Area		1.00 ft Min	ft Min
informational	CSL		
	CSW	2.00% Max	% Max
	W#2	4.00 ft Min	ft Min

B. Median and Island Cut Thru

1. Forms to Record Data:

- CutThru

ADA Feature - Cut-Through Median or Traffic = Required Field

Island Measurements

Contract / Work Order: [] Date Measured: []

Measured By: []

Cross Street Name: []

Plan Sheet Reference: []

Feature Location Code: [] Jurisdiction: []

Site History: [] Constructed By: []

Phase Contractor As-Built Database Schema: ISLAND_P MEDIAN_P

SR: [] Project Phase: 1. Scoping
2. Design / Build
3. Contractor As-Built

Milepost: []

Station: []

Geoportal: [] Latitude: [] Longitude: [] Accuracy: []

Instructions: []

Cut-thru Type: []

PAR Material: []

Median Cut-thru

MW = Median Cut-thru Width
 ML = Median Cut-thru Length
 CS = Cross Slope
 RS = Running Slope
 GB = Grade Break

Enter Color and Type in the Table
Detectable Warning Surface

	Measurement	ADA Compliance Criteria	MEF Criteria
Median			
MW	[]	5.00 ft Min	ft Min
ML	[]	6.00 ft Min	
RS	[]	Informational	
CS	[]	2.00% Max	% Max
Island			
C1RS	[]	Informational	
C1W	[]	5.00 ft Min	ft Min

2. Data Fields Explanation:

- a) **Cut-Thru – Type:** Select the type of roadway feature from the drop-down list.

Cut-thru Type []

Cut-thru Type
 Choose type from list:

- 1. Median
- 2. Island
- 3. Other

ADA Compliance Criteria

Measurement: [] Criteria: [] MEF: []

b) **PAR Material:** Select the material type the PAR thru the roadway feature is constructed of from the drop-down list.

Cut-thru Type Median

PAR Material

Driveway PAR Material Type:
 Choose type from list:

1. Asphalt
2. Cement Concrete
3. Dirt
4. Other

If "Other" describe in Notes.

Measurement Criteria M

5.00 ft Min

Special Note:

Depending on the type of Cut-thru selected, portions of the form that are not relevant are shaded.

(1) For a Median

Cut-thru Type Median

PAR Material 1. Asphalt

ADA Compliance Criteria

Enter number only 00%, 2.25 - 2.25 ft, etc.

	Parame	ADA Compliance Criteria	MEF Criteria
Median			
MW		5.00 ft Min	ft Min
ML		6.00 ft Min	
RS		Informational	
CS		2.00% Max	% Max
Island			
C1RS		Informational	
C1W		5.00 ft Min	ft Min
C1CS		2.00% Max	% Max
C2RS		Informational	
C2W		5.00 ft Min	ft Min
C2CS		2.00% Max	% Max
C3RS		Informational	
C3W		5.00 ft Min	ft Min
C3CS		2.00% Max	% Max
Detectable Warning Surface - C1			
L		Match Ramp W	
W		2.00 ft Min	
Color		DOT - Yellow	
Type		Truncated	
Detectable Warning Surface - C2			
L		Match Ramp W	
W		2.00 ft Min	
Color		DOT - Yellow	Exception - See Notes
Type		Truncated	
Detectable Warning Surface - C3			
L		Match Ramp W	

(a) Record the measurements for MW, ML, RS, CS

ADA				
Enter numbers only 1 = 1.00%, 2.25 = 2.25 ft, etc.		Measurement	Compliance Criteria	MEF Criteria
Median				
MW	<input type="text"/>	5.00 ft Min	<input type="text"/>	ft Min
ML	<input type="text"/>	6.00 ft. Min	<input type="text"/>	
RS	<input type="text"/>	Informational	<input type="text"/>	
CS	<input type="text"/>	2.00% Max	<input type="text"/>	% Max

(b) Record the measurements for C1 and C2

Detectable Warning Surface – C1				
L	<input type="text"/>	Match Ramp W	<input type="text"/>	
W	<input type="text"/>	2.00 ft Min	<input type="text"/>	
Color	<input type="text"/>	DOT - Yellow	<input type="text"/>	
Type	<input type="text"/>	Truncated	<input type="text"/>	
Detectable Warning Surface – C2				
L	<input type="text"/>	Match Ramp W	<input type="text"/>	
W	<input type="text"/>	2.00 ft Min	<input type="text"/>	
Color	<input type="text"/>	DOT - Yellow	<input type="text"/>	Exception – See Notes
Type	<input type="text"/>	Truncated	<input type="text"/>	

a. Record the measurements for grade breaks

Type	<input type="text"/>	Truncated
Grade Breaks (Input - fraction or decimal of an inch)		
GB#1	<input type="text"/>	<input type="text"/>
GB#2	<input type="text"/>	<input type="text"/>

(2) For an Island

Cut-thru Type	Island		
P&E Material	1. Asphalt		
	ADA Compliance		
<small>Enter numbers only .00, 2.25 - 2.25 ft, etc.</small>	Compliance	or	MEF Criteria
Median			
MM		5.00 ft Min	5 ft Min
ML		5.00 ft Min	5 ft Min
MS		Informational	
CS		2.00 ft Max	2 ft Max
Island			
C1RS		Informational	
C1M		5.00 ft Min	5 ft Min
C1CS		2.00 ft Max	2 ft Max
C2RS		Informational	
C2M		5.00 ft Min	5 ft Min
C2CS		2.00 ft Max	2 ft Max
C3RS		Informational	
C3M		5.00 ft Min	5 ft Min
C3CS		2.00 ft Max	2 ft Max
Detectable Warning Surface - C1			
L		Minimum Ramp W	
W		2.00 ft Min	
Color		DOT - Yellow	
Type		Tactile	
Detectable Warning Surface - C2			
L		Minimum Ramp W	
W		2.00 ft Min	
Color		DOT - Yellow	Exception - See Notes
Type		Tactile	
Detectable Warning Surface - C3			
L		Minimum Ramp W	
W		2.00 ft Min	
Color		DOT - Yellow	
Type		Tactile	
Grade Break (Height - location or items at or next)			
GB1			
GB2			

(a) Record the measurements for CRS, C1W, C1CS, C2RS, C2W, C2CS, C3RS, C3W, C3CS

Legend:
 MW = Median Cut-thru Width
 ML = Median Cut-thru Length
 CS = Cross Slope
 RS = Running Slope
 GB = Grade Break
 ● = Location Point

Notes:
 ① Always take measurement in the center of element, except where noted.
 ② GB must be flush—record worst case measure of vertical change over the length of each GB.
 ③ Slope arrow indicates positive read. Just record value when both directions shown.
 ④ Detectable Warning Surface—see detail.

CS	2.00% Max	% Max
Island		
C1RS	Informational	
C1W	5.00 ft Min	ft Min
C1CS	2.00% Max	% Max
C2RS	Informational	
C2W	5.00 ft Min	ft Min
C2CS	2.00% Max	% Max
C3RS	Informational	
C3W	5.00 ft Min	ft Min
C3CS	2.00% Max	% Max
Detectable Warning Surface – C1		
L	Match Ramp W	
W	2.00 ft Min	
Color	DOT - Yellow	
Type	Truncated	

(b) Record the measurements for C1, C2, and C3

Detectable Warning Surface – C1		
L		Match Ramp W
W		2.00 ft Min
Color		DOT - Yellow
Type		Truncated
Detectable Warning Surface – C2		
L		Match Ramp W
W		2.00 ft Min
Color		DOT - Yellow
Type		Truncated
Detectable Warning Surface – C3		
L		Match Ramp W
W		2.00 ft Min
Color		DOT - Yellow
Type		Truncated

(c) Record the measurements for grade breaks

Grade Breaks		(Input - fraction or decimal of an inch)
GB#1		
GB#2		
GB#3		

C. Sidewalk

1. Forms to Record Data:

- Sidewalk

ADA Feature - Sidewalk Measurements

Contract / Work Order [] **Date Measured** [] **Phase** As-Built **Contractor** [] **Database Schema:** SW-INTER

Measured By [] **SR** [] **Lt or Rt?** [] **Form Status:** incomplete form

Street Name [] **Site** [] **Side** [] **MEF Status:** Standard ADA

Plan Sheet Reference [] **Location** [] **0** **MEF Reference** []

Feature Location Code [] **Jurisdiction** [] **Measurements recorded on this form are for one side only. Do not mix measurements from both sides on the same form.**

Site History [] **Constructed By** []

Instructions **Accuracy** **Geospatial**

Enter numbers only
 $J = 1.00\%$, $2.25 = 2.25\%$, etc.

Location				Sidewalk		Sidewalk Width (SWW)		Cross Slope (CS)	
Latitude	Longitude	Station	MP	Characteristics	Obstruction Type	Measurement	MEF Criteria	Measurement	MEF Criteria
						ADA Compliance 4.00 ft Min		ADA Compliance 2.00% Max	
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max
							ft Min		% Max

OBSTRUCTIONS

OBJECT

This form allows multiple measurements to be recorded (on the same form) along one length of sidewalk. The limits of the sidewalk are from the edge of the curb ramp at one intersection to the edge of the curb ramp at the other end of the block.

Where the sidewalk is not interrupted by street intersections with curb ramps, it may begin and end with sidewalk end ramps. Use multiple forms to account for longer lengths of uninterrupted, paved sidewalk.

Special Note:

Note, if there is sidewalk on each side of the road, use separate forms for measurement collection; a form for the right side and a separate form for the left side.

For Sidewalk the "Site" location defaults to "Side"

Site: Side
 Location: Corner, Island, Median, Side, Other - NOTES

Jurisdiction
 Which area of the roadway? Select which part of the roadway the feature is located: Is it on a corner, an island, a median, or on the side of the road? If it is not on any of those, pick "Other" and describe in NOTES.

Measurements recorded on this form are for one side only. Do not mix measurements from both sides on the same form.

Location		Sidewalk		Obstruction Type	Sidewalk Width (SWW)	ADA Compliance	MEF Criteria
Latitude	Longitude	Station	MP	Characteristics	Enter numbers only 1 = 1.00%, 2.25 = 2.25 ft, etc.	4.00 ft Min	

2. Data Fields Explanation:

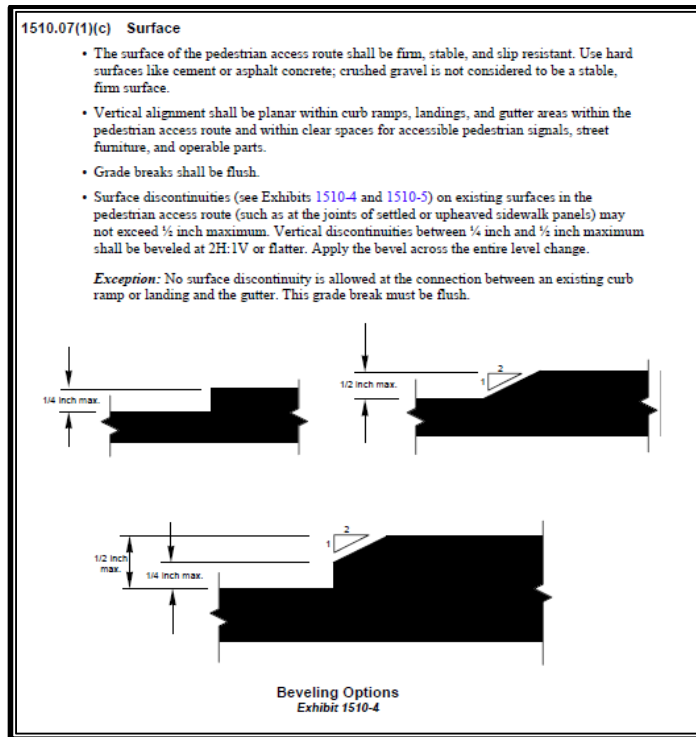
- a) **Latitude** – Provide the latitude coordinate for the feature.
- b) **Longitude** – Provide the longitude coordinate for the feature.
- c) Provide the **Station** if used
- d) Provide the **MP**
- e) **Sidewalk Characteristics** - There are eight choices that apply to construction

Select from the drop-down list to identify the context for the measurement.

MP	Characteristics	Obstruction Type	ADA Compliance 4.00 ft Min	MEF Criteria	ADA Compliance 2.00% Max	MEF Criteria
				ft Min		% Max
				ft Min		% Max
				ft Min		% Max
				ft Min		% Max
				ft Min		% Max
				ft Min		% Max
				ft Min		% Max
				ft Min		% Max

Sidewalk Characteristics
 Select one:
 1. Start of Sidewalk
 2. Interval Measurement
 3. Vertical Surface Discontinuity (>¼")
 4. Change In Width
 5. Change in Cross Slope
 6. End of Sidewalk
 7. Transition Segment to Existing Sidewalk
 8. Obstruction
 9. No Curb Ramp-ONLY in Scoping Phase

- (1) **Start of Sidewalk** – This identifies where the sidewalk begins. Could be where the curb ramp adjoins the sidewalk. Record the width and cross slope at that location.
- (2) **Interval Measurement** – At approx.. 50-ft intervals along the sidewalk record the width and cross slope.
- (3) **Vertical Surface Discontinuity** - Record any location where there is a vertical difference in sidewalk surfaces of more than ¼ inch.



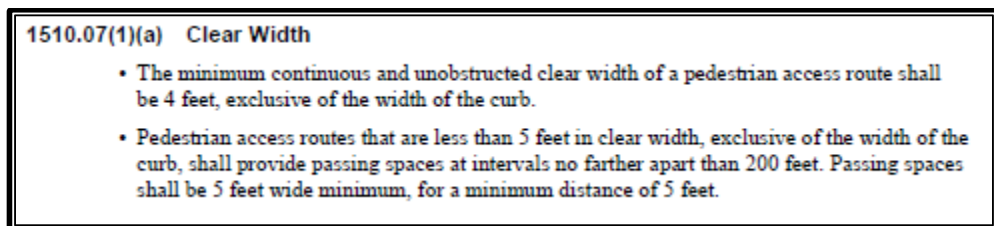
(4) *Change In Width* - Record any locations where there is a change in the sidewalk width. Record the width and cross slope at that location.

(5) *Change In Cross Slope* - Record any location where the cross slope changes. Record the width and cross slope at that location.

(6) *End of Sidewalk* – This identifies where the sidewalk section ends, or where a transition segment begins, or where the sidewalk adjoins a curb ramp. Record the width and cross slope at that location.

(7) *Transition Segment to Existing Sidewalk* – If the sidewalk transitions back to an existing sidewalk, record measurements at the match line with the existing sidewalk.

(8) *Obstruction* – An obstruction is any object within the sidewalk that reduces the **clear width** to less than 4-ft. Record any location where these are found.



Special Note:

If the reason for the measurement is related to an Obstruction, complete the Obstruction Type.

f) **Obstruction Type** - Select from the drop-down list to identify the obstruction type.

Enter numbers only 1 = 1.00%, 2.25 = 2.25 ft, etc.		Measurement	
		Sidewalk Width	
Sidewalk		ADA Compliance	MEF C
Characteristics	Obstruction Type	4.00 ft Min	
7. Obstruction			
Sidewalk Obstruction Type Only complete ONLY if obstruction is present. If no obstruction, skip. If MEF, describe in NOTES section.			

Sidewalk		ADA
Characteristics	Obstruction Type	
7. Obstruction		
	23. Shrubs	
	24. Sign	
	25. Signal Pole	
	26. Telephone Boc	
	27. Tree	
	28. Wall	
	29. Water Valve	
	30. Other	

Obstructions might include:

Bench	Branch	Bridge Expansion Joint
Building	Catch Basin	Fence
Fire Hydrant	Grate Inlet	Ground Cover
Guardrail	Guy Anchor	Guy Wire
Junction Box	Large Vault -Electric	Large Vault -Utility
Manhole	Newspaper Stand	Parking Meter
Parked Vehicle	Portable Sign Board	Power Pole
Shrubs	Sign	Signal Pole
Tree	Telephone Booth	Wall
Water Valve	Other	MEF

 **Special Note:**

If an obstruction has been documented as a MEF, select MEF from the drop-down list, record the measurements, and in the NOTES box on the form add any additional pertinent information.

						Sidewalk Width (SWW)		Cross
						Measurement		Measurem
Location			Sidewalk			ADA Compliance 4.00 ft Min	MEF Criteria	ADA Compliance 2.00% Max
Latitude	Longitude	Station	MP	Characteristics	Obstruction Type			
				8. Obstruction	17. MEF		ft Min	
							ft Min	
							ft Min	
							ft Min	
							ft Min	
							ft Min	

Enter numbers only
 J = 1.00%, 2.25 = 2.25 ft, etc.

Sidewalk Obstruction Type
 Only complete ONLY if
 obstruction is present.

 If no obstruction, skip.

 If MEF, describe in NOTES
 section.

g) **Sidewalk Width** – Record the sidewalk width at that location. **Cross Slope** – Record the cross slope of the sidewalk at that location.

D. Independent Shared Use Paths (ISUP)

- Forms to Record Data:
 - ISUP

ADA Feature - Independent Shared Use Path (ISUP)

Phase: _____ Database Schema: ISUP

Contract / Work Order: _____ Date Measured: _____ Form Status: complete form

Measured By: _____ MEF Status: Standard ADA

Cross Street Name: _____ SR: _____ MEF Reference: _____

Plan Sheet Reference: _____

Feature Location Code: _____ Jurisdiction: _____

Site History: _____ Constructed By: _____

Independent Shared Use Path

OBSTRUCTIONS	Location		ISUP		Left Shoulder Width (LSW)		ISUP Width (PW)		Right Shoulder Width (RSW)		Cross Slope (CS)		Running Slope (RS)			
	Latitude	Longitude	Station	MP	Characteristics	Obstruction Type	ADA Compliance 2 ft Min	MEF Criteria	ADA Compliance 10 ft Min	MEF Criteria	ADA Compliance 2 ft Min	MEF Criteria	ADA Compliance 2.00% Max	MEF Criteria	ADA Compliance 4.00% Max	MEF Criteria
	Measurement	MEF Criteria	Measurement	MEF Criteria	Measurement	MEF Criteria	Measurement	MEF Criteria	Measurement	MEF Criteria	Measurement	MEF Criteria	Measurement	MEF Criteria	Measurement	MEF Criteria
							ft Min		ft Min		ft Min		% Max		% Max	
							ft Min		ft Min		ft Min		% Max		% Max	
							ft Min		ft Min		ft Min		% Max		% Max	
							ft Min		ft Min		ft Min		% Max		% Max	
							ft Min		ft Min		ft Min		% Max		% Max	
							ft Min		ft Min		ft Min		% Max		% Max	

Enter numbers only
 J = 1.00%, 2.25 = 2.25 ft, etc.

OBSTRUCTIONS

Instructions: [Geoportal](#) Accuracy

< 10ft OBJECT

< 10ft WALL

Left Shoulder Width (LSW) ISUP Width (PW) Right Shoulder Width (RSW)

ADA Compliance 2 ft Min ADA Compliance 10 ft Min ADA Compliance 2 ft Min

Cross Slope (CS) Running Slope (RS)

ADA Compliance 2.00% Max ADA Compliance 4.00% Max

This form allows multiple measurements to be recorded on the same form along a shared use path.

For ISUP the "Site" location defaults to "Side"

Date Measured _____

Site	Side
Location	0

2. Data Fields Explanation:

- a) **Latitude** – Provide the latitude coordinate for the feature.
- b) **Longitude** – Provide the longitude coordinate for the feature.
- c) Provide the **Station** if used
- d) Provide the **MP** for each measurement, if available.
- e) **Characteristics** - There are nine choices, select from the drop-down list to identify the reason for the measurement. Enter the measurements made.

Instructions		Accuracy		Enter numbers only J = 1.00%, 2.25 = 2.25 ft, etc.		Left Shoulder Width (LSW)	
Geoportal						ADA Compliant	
Location				ISUP		2 ft Min	
Latitude	Longitude	Station	MP	Characteristics	Obstruction Type	Measurement	MEF Criteria
							ft Min
				1. Start of ISUP 2. Interval Measurement 3. Vertical Surface Discontinuity 4. Change in Width 5. Change in Cross Slope 6. Change in Running Slope 7. End of ISUP 8. Transition Segment			

ISUP Characteristics
 Select from drop-down list the location characteristic that prompts a measurement.

Is it the start of the path, just a regular interval, a change in the path, an obstruction, etc.

- (1) *Start of ISUP* – This identifies where the ISUP begins. Record the width and cross slope at that location.
- (2) *Interval Measurement* – At approx.. 50-ft intervals along the ISUP record the width and cross slope.
- (3) *Vertical Surface Discontinuity* - Record any locations where there is a vertical difference in surfaces of more than ¼ inch.
- (4) *Change In Width* - Record any locations where there is a change in the ISUP width. Record the width and cross slope at that location.
- (5) *Change In Cross Slope* - Record any location where the cross slope changes. Record the width and cross slope at that location.
- (6) *Change in Running Slope* – Record location where the running slope changes.
- (7) *End of ISUP* – This identifies where the ISUP section ends, or where a transition segment begins, or where the ISUP adjoins another feature. Record the width and cross slope at that location.
- (8) *Transition Segment to Existing ISUP* – If the ISUP transitions back to an existing ISUP, record measurements at the match line with the existing ISUP.
- (9) *Obstruction* – An obstruction is any object within the ISUP that reduces the **clear width** to less than 10-ft. Record any location where these are found.

 **Special Note:**

If the reason for the measurement is related to an Obstruction, complete the Obstruction Type.

f) **Obstruction Type** - Select from the drop-down list to identify the obstruction type.

Location			ISUP		2 ft
Longitude	Station	MP	Characteristics	Obstruction Type	Measu
			8. Obstruction		
				6. Fence 7. Fire Hydrant 8. Grate Inlet 9. Ground Cover 10. Guardrail 11. Guy Anchor 12. Guy Wire 13. Junction Box	

ISUP Obstruction Type
 Only complete ONLY if obstruction is present.
 If no obstruction, skip.
 If MEF, describe in NOTES section.

Obstructions might include:

Bench	Branch	Bridge Expansion Joint
Building	Catch Basin	Fence
Fire Hydrant	Grate Inlet	Ground Cover
Guardrail	Guy Anchor	Guy Wire
Junction Box	Large Vault -Electric	Large Vault -Utility
Manhole	Newspaper Stand	Parking Meter
Parked Vehicle	Portable Sign Board	Power Pole
Shrubs	Sign	Signal Pole
Tree	Telephone Booth	Wall
Water Valve	Other	MEF

 **Special Note:**

If an obstruction has been documented as a MEF, select MEF from the drop-down list, record the measurements, and in the NOTES box on the form add any additional pertinent information.

g) **Left Shoulder Width (LSW)** – Record the measurement.

Left Shoulder Width (LSW)	
ADA Compliance	
2 ft Min	
Measurement	MEF Criteria
3.00	ft Min

h) **ISUP Width (PW)** – Record the measurement.

ISUP Width (PW)	
ADA Compliance	
10 ft Min	
Measurement	MEF Criteria
12.00	ft Min

i) **Right Shoulder Width (RSW)** – Record the measurement.

Right Shoulder Width (RSW)	
ADA Compliance	
2 ft Min	
Measurement	MEF Criteria
2.00	ft Min

j) **Cross Slope (CS)** – Record the measurement.

Cross Slope (CS)	
ADA Compliance	
2.00% Max	
Measurement	MEF Criteria
1.85	% Max

k) **Running Slope (RS)** – Record the measurement.

Running Slope (RS)	
ADA Compliance	5.00% Max
Measurement	MEF Criteria
4.20	% Max

(a) Shared-Use Path Widths

The appropriate paved width for a shared-use path is dependent on the context, volume, and mix of users. The desirable paved width of a shared-use path, excluding the shoulders on either side, is 12 feet. The minimum paved width, excluding the shoulders on either side, is 10 feet.

A paved width of more than 12 feet, excluding the shoulders on either side, may be appropriate when substantial use by both pedestrians and bicyclists is expected or maintenance vehicles are anticipated.

Shared-use path shoulders are typically unpaved and 2 feet wide on either side. Exhibits 1515-3 through 1515-5 provide additional information and cross-sectional elements.

On bridges or tunnels, it is common to pave the entire shared-use path, including shoulders. This usable width can be advantageous for emergency, patrol, and maintenance vehicles and allows for maneuvering around pedestrians and bicyclists who may have stopped. It also keeps the structure uncluttered of any loose gravel shoulder material.

1. Exceptions to Minimum Path Widths

A reduced path width of 8 feet may be designed at spot locations that present a physical constraint such as an environmental feature or other obstacle. Refer to the [MUTCD](#) for signing and pavement markings for such conditions.

In very rare circumstances, a reduced width of 8 feet may be used where the following conditions prevail:

- Bicycle traffic is expected to be low, even on peak days or during peak hours.
- Pedestrian use of the facility is not expected to be more than occasional.
- Horizontal and vertical alignments provide frequent, well-designed passing and resting opportunities.
- The shared-use path will not be regularly subjected to maintenance vehicle loading conditions that would cause pavement edge damage.
- The share-use path is for a short distance such as a spur connection to a neighborhood.

(e) Clearances

The minimum horizontal clearance from the edge of pavement to an obstruction (such as bridge piers or guardrail) is 2 feet. Provide a minimum vertical clearance of 10 feet from the pavement surface to overhead obstructions to accommodate maintenance vehicles, bicyclists, and equestrians.

(a) Running Slopes

Design running slopes (grades) on shared-use paths less than or equal to 5% to accommodate all user types, including pedestrians with disabilities.

When the path is within the highway right of way, its running slope can match the general grade established for the adjacent roadway.

(b) Landings

Shared-use path landings provide users a level place to rest on extended grades. Exhibits 1515-6 and 1515-7 show these features.

Design landings to:

- Permit users to stop periodically and rest.
- Not exceed maximum running slopes and cross slopes of 2%.
- Be in line and as wide as the shared-use path. Landings are to be at least 5 feet long.
- Avoid abrupt grade changes or angle points. Design transitions to landings using vertical curves.

The diagram illustrates a cross-section of a path. It starts with a slope labeled '2.0% max.' leading to a horizontal landing area labeled 'Landing' with a length of '5' min'. The slope continues after the landing, also labeled '2.0% max.'. A transition curve is shown between the slope and the landing, with a label '≤ 5% - No max length' indicating the maximum slope and length of the transition. A second 'Landing' label points to the horizontal section of the transition curve.

Notes:

- Landings are desirable on extended grades.
- Design vertical curves to transition from the grade to the landing.
- Exhibit 1515-7 illustrates a landing and a rest area.

Shared-Use Path Landing Profile
Exhibit 1515-6

E. Driveways

1. Forms to Record Data:

- Driveway

ADA Feature - Driveway Measurements

Record measurements in the appropriate diagram according to driveway type. ONLY 1 driveway per form.

Contract / Work Order _____	Date Measured _____	SR _____	Phase _____	Database Schema: DW	
Measured By _____	Milepost _____	Station _____	A/B ?	Survey/Feature Status: incomplete form	MEF Status: Standard ADA
Cross Street Name _____	Site _____	Station _____	Location _____	MEF Reference _____	
Plan Sheet Reference _____	Location _____	Geoportal _____	Latitude _____	Longitude _____	Accuracy _____
Feature Location Code _____	Jurisdiction _____	Instructions _____			
Site History _____	Constructed By _____				

	Measurement	ADA Compliance Criteria	MEF Criteria
Driveway			
Type	<div style="border: 1px solid gray; padding: 2px;"> Driveway Type Choose type from list: 1. Access Across 2. Access Jogs Around 3. Parallel Access 4. No PAR** **Only in Scoping Phase </div>		
PAR			
Material			
Point 1			
W		2.00% Max	% Max
CS		8.30% Max	% Max
RS			
Point 2			
W		4.00 ft Min	ft Min

2. Data Fields Explanation:

a) **Driveway – Type:** Select the type of driveway from the drop-down list.

Enter numbers only
1 = 1.00%, 2.25 = 2.25 ft, etc.

	Measurement	ADA Compliance Criteria	MEF Criteria
Driveway			
Type	<div style="border: 1px solid gray; padding: 2px;"> Driveway Type Choose type from list: 1. Access Across 2. Access Jogs Around 3. Parallel Access 4. No PAR** **Only in Scoping Phase </div>		
PAR			
Material			
Point 1			
W		2.00% Max	% Max
CS			

Special Note:

Depending on which type of driveway was selected, some measurements are shaded out and are not measured.

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etc.	Measurement	Criteria	MEF Criteria
Driveway			
pass	Type	Access Jogs Around	
	Material		
Point 1			
	W	4.00 ft Min	ft Min
	CS	2.00% Max	% Max
pass	RS	8.30% Max	% Max
Point 2			
	W	4.00 ft Min	ft Min
	CS	2.00% Max	% Max
Point 3			
	W	4.00 ft Min	ft Min
	CS	2.00% Max	% Max
pass	RS	8.30% Max	% Max
Grade Breaks (Parallel Access ONLY) (Input - fraction or decimal of an inch)			
	GB#1		
	GB#2		
	GB#3		
	GB#4		

b) **Driveway – PAR Material** – Select the type of material the driveway is constructed of.

etc.	Measurement	Criteria	MEF Criteria
Driveway			
pass	Type	Access Jogs Around	
pass	PAR Material	Cement Concrete	
Point #1			
pass	W	6	Driveway PAR Material Type: Choose type from list: 1. Asphalt 2. Cement Concrete 3. Dirt 4. Other If "Other" describe in Notes.
pass	CS	2.25	
pass	RS	8.00	

- c) **Points #1, #2, and #3** – Using the pictures on the form, identify where the Point #'s are located, and record the width “W”, cross slope “CS”, and run slope “RS” measurements on the form.
- d) **Grade Breaks** – Provide measurements where shown on the drawings.

F. Ramp for Sidewalk or Bridge Ends

1. Forms to Record Data:

- End Ramp

ADA Feature - End Ramp Measurements

Contract / Work Order _____ Date Measured _____

Measured By _____

Cross Street Name _____

Plan Sheet Reference _____

Feature Location Code _____ Jurisdiction _____

Site History _____

Phase _____

SR _____

Milepost _____

Station _____

Latitude _____ Longitude _____ Accuracy _____

Select Ramp Type

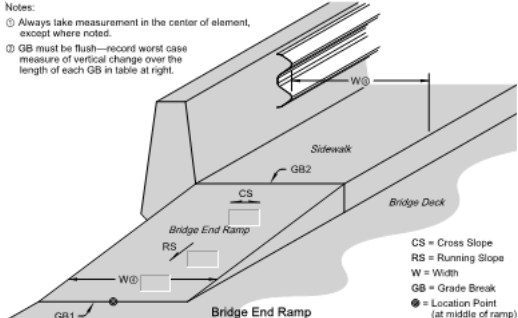
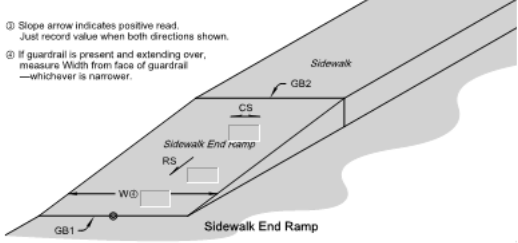
Survey/Feature Status: Incomplete Form

EF Status: Standard ADA

MEF Reference _____

Notes:

- ① Always take measurement in the center of element, except where noted.
- ② GB must be flush—record worst case measure of vertical change over the length of each GB in table at right.
- ③ Slope arrow indicates positive read. Just record value when both directions shown.
- ④ If guardrail is present and extending over, measure Width from face of guardrail—whichever is narrower.

CS = Cross Slope
 RS = Running Slope
 W = Width
 GB = Grade Break
 ● = Location Point (at middle of ramp)

	Measurement	Compliance Criteria	MEF Criteria
End Ramp Type			
Ramp	Bridge Sidewalk		
RS		8.30% Max	% Max
CS		2.00% Max	% Max
W		4.00 ft Min	ft Min
Grade Breaks (Input - fraction or decimal of an inch)			
GB#1			
GB#2			

2. Data Fields Explanation:

- a) **Location of Ramp** – Select from the drop-down list where the end ramp is located.

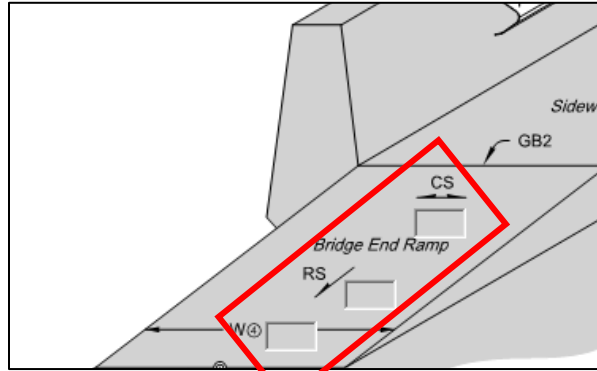
Enter numbers only
 1 = 1.00%, 2.25 = 2.25 ft, etc.

	Measurement	Compliance Criteria	MEF Criteria
End Ramp Type			
Ramp	Bridge Sidewalk		
RS		8.30% Max	% Max
CS		2.00% Max	% Max

End Ramp Type
 Select from list:

1. Bridge
2. Sidewalk

Once the type is selected the data box are unshaded to record the measurement on the drawing or in the form.



Notes:
 ① Always take measurement in the center of element, except where noted.
 ② GB must be flush—record worst case measure of vertical change over the length of each GB in table at right.

③ Slope arrow indicates positive road. Just record value when both directions shown.
 ④ If guardrail is present and extending over, measure Width from face of guardrail—whichever is narrower.

CS = Cross Slope
 RS = Running Slope
 W = Width
 GB = Grade Break
 L = Location Point (at middle of ramp)

Enter numbers only 1 = 1.00%, 2.25 = 2.25 ft, etc.		Measurement	Compliance Criteria	MEF Criteria
End Ramp Type		Bridge		
Ramp		End Ramp Type Select from list: 1. Bridge 2. Sidewalk		
RS		8.30%		
CS		2.00% Max	% Max	
W		4.00 ft Min	ft Min	
Grade Breaks				
GB#1				
GB#2				

- b) **Ramp** – Record measurements for run slope “RS”, cross slope “CS”, and width “W” on the form.
- c) **Grade Breaks** – Provide measurements where shown on the drawings.

Special Note:

The diagram does not provide sufficient space for a data box so select the proper Grade Break in the measurement box and a large check will show up on the diagram showing that the measurement was completed.

The diagram shows the same measurement form as above, but with a red checkmark in the 'W' measurement box and a red box around the selected grade break 'GB#2' in the 'Grade Breaks' section. The selected grade break is '1/2-Inch or Less'.

Special Note:

If the form is being filled out in the field by hand first, record the measurement between the two surfaces so that the correct drop-down selection can be completed on the electronic form correctly.

G. APS Button and Signals

1. Forms to Record Data:

- APS Button-Signal

ADA Feature - Accessible Pedestrian Signal Pushbuttons and Pedestrian Displays/Signals

Project / Work Order _____ Date Measured _____

Measured By _____

Cross Street Name _____ Plan Sheet Reference _____

Site Location Code _____ Jurisdiction _____

Site History _____ Structured By _____

Database Schema: APS_BUTT, APS_SIGN

Phase _____ Survey/Feature States: _____

SR _____ Milepost A/B _____ Station Lt or Rt? _____

Geoportals _____ Instructions Latitude _____ Longitude _____ Accuracy _____

Enter numbers only
 1 = 1.00%, 2, 25 = 2.25 ft, etc.
 Leave nothing blank (NA if NOT Applicable)

APS Pushbutton	Measurement		
	APSBut ton #1	APSBut ton #2	APSBut ton #3
Button Support Pole			
Distance			
Button to Curb	10 ft Max		
Button-PassThru	2 ft Max		
Button-Landing	2 ft Max		
Button-Clr Space	2 ft Max		
Between Buttons 1-2	If separated, 10 ft Min		
Between Buttons 2-3	If separated, 10 ft Min		
Between Buttons 3-1	If separated, 10 ft Min		
Clear Space			
APS Clr Space Size	2.50 ft by 4.00 ft Min		
Clr Space CS1	2.00% Max		
Clr Space CS2	2.00% Max		
Obstruction Area PAR & Clear Space	No		
Button			
Button Vertical Spacing	4.00 ft Max		
Button Diameter	0.17 ft Min		
Button Contrast	Contrast		
Button - With Braille	Yes		
Button - Vibrate	Yes		
Button - Audible Arrow	Yes		

APS - PUSH BUTTON LOCATION SEPARATE POLE

APS - PUSH BUTTON LOCATION SHARED POLE

Notes: ① Distances are measured from the button center.

2. Data Fields Explanation:

- a) *APS Pushbutton*

Depending on the location, there may be up to three button locations that information is needed. Using the picture on the form, determine the pole number orientation.

- (1) Button Support Pole

For each button, identify whether the button is located on a separate pole or co-located (shared) on a single pole.

A. **Pushbutton #1 – two options**

Criteria		Measurement		
APS Pushbutton		APSButton #1	APSButton #2	APSButton #3
	Button Support Pole			
Distance				
	Button to Curb	10 ft Max		
	Button-PassThru	2 ft Max		

Button Support Pole
 Choose type for APS Button #1:

1. Separate
2. Shared

B. **Pushbutton #2 & #3 – three options**

Criteria		Measurement		
APS Pushbutton		APSButton #1	APSButton #2	APSButton #3
	Button Support Pole			
Distance				
	Button to Curb	10 ft Max		
	Button-PassThru	2 ft Max		
	Button-Landing	2 ft Max		

Button Support Pole
 Choose type for APS Button #2:

1. Separate
2. Shared
3. NA - NOT Applicable if NOT present - Do NOT enter data into gray shaded cells

- If there is no button, select N/A, and the data cells are shaded and no further information is required.

Special Note:

Error messages will occur when combinations do not match:

A. Only one pushbutton provided:

Criteria		Measurement		
APS Pushbutton		APSButton #1	APSButton #2	APSButton #3
	Button Support Pole	INVALID - Check Support Pole	Shared	NA
Distance				
incomplete	Button to Curb	10 ft Max		
incomplete	Button-PassThru	2 ft Max		
incomplete	Button-Landing	2 ft Max		
incomplete	Button-Clr Space	2 ft Max		
	Between Buttons 1-2	If separated, 10 ft Min		
	Between Buttons 2-3	If separated, 10 ft Min		

Button Support Pole
 Choose type for APS Button #3:

1. Separate
2. Shared
3. NA - NOT Applicable if NOT present - Do NOT enter data into gray shaded cells

- I. In the case where there is only One pushbutton present, select “Separate” and select “N/A” for pushbuttons #2 and #3.
- II. Make a note in the NOTES box that there is only one pushbutton.

APS Pushbutton		APSButton #1	APSButton #2	APSButton #3
Button Support Pole		Separate	NA	NA
Distance				

- B. Cannot have a Shared, with a Separate, and N/A. If the pushbutton is shared then both have to be “shared”.

APS Pushbutton		APSButton #1	APSButton #2	APSButton #3
Button Support Pole	INVALID - Check Support Pole	Shared	Separate	NA
Distance				

- C. Cannot have a Shared, with a Separate, and N/A. If the pushbutton is shared then both have to be “shared”.

APS Pushbutton		APSButton #1	APSButton #2	APSButton #3
Button Support Pole	INVALID - Check Support Pole	Separate	Shared	NA
Distance				

(2) **Distance**

Using the pictures on the form, address the following:

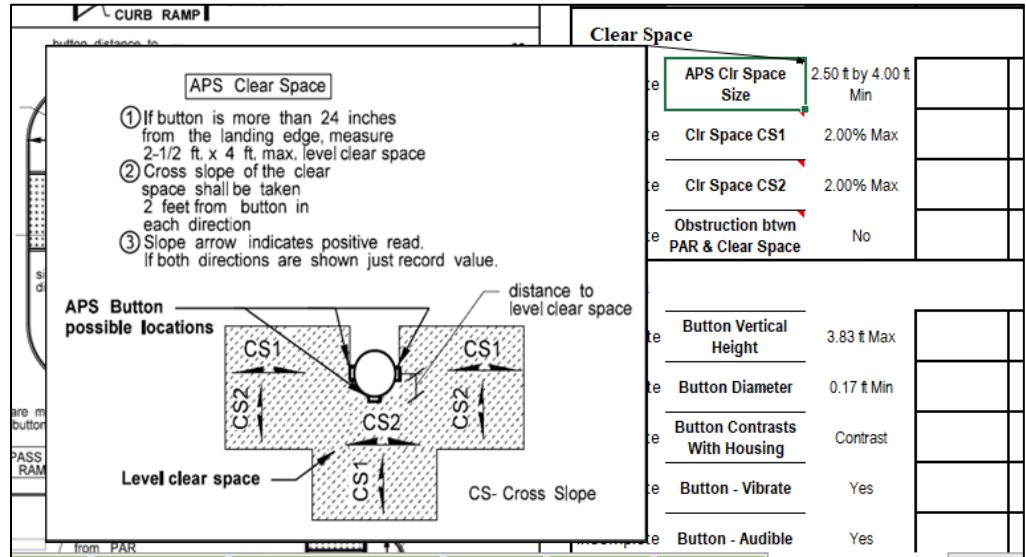
- A. *Button to Curb* – Record the distance from curb to button
- B. *Button-PassThru* – If the button is located in a pass thru island, record the distance; otherwise leave blank.
- C. *Button-Landing* - Distance from landing to button
- D. *Button-Clr Space* - Distance from the button clear space to the button
- E. *Between Buttons 1-2* - If the buttons are separated, record the distance.
- F. *Between Buttons 2-3* - If the buttons are separated, record the distance.
- G. *Between Buttons 3-1* - If the buttons are separated, record the distance.

(3) **Clear Space**

Record the following measurements:

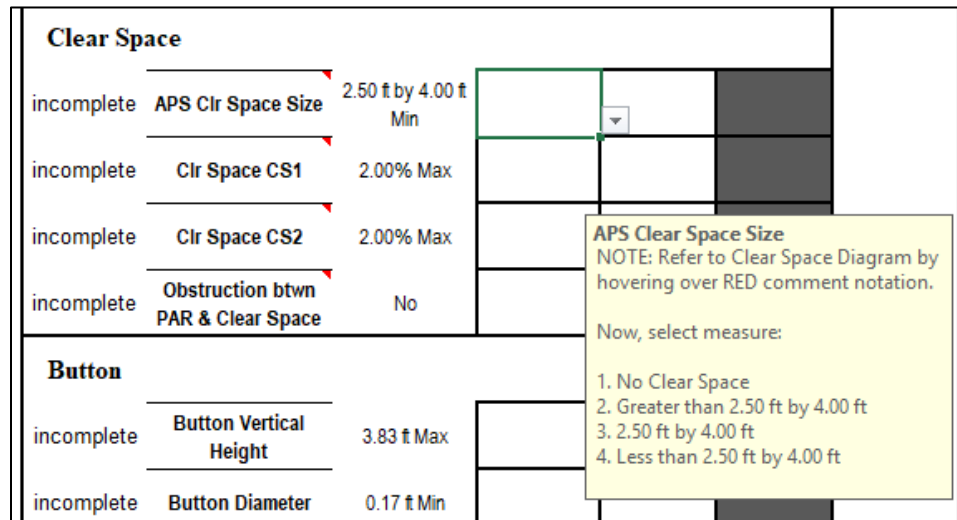
 **Special Note:**

There are additional diagrams for clear space to help with identifying the attribute. A diagram will appear when the mouse pointer is over the cell (or the cell with a red marker in the upper right corner is clicked)



Clear Space			
APS Clr Space Size	2.50 ft by 4.00 ft Min		
Clr Space CS1	2.00% Max		
Clr Space CS2	2.00% Max		
Obstruction btwn PAR & Clear Space	No		
Button			
Button Vertical Height	3.83 ft Max		
Button Diameter	0.17 ft Min		
Button Contrasts With Housing	Contrast		
Button - Vibrate	Yes		
Button - Audible	Yes		

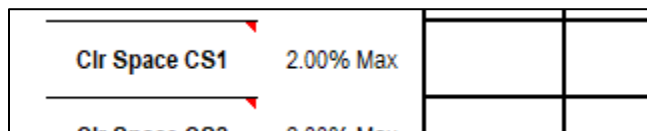
A. APS Clr Space Size – Select from the drop-down list



Clear Space			
incomplete	APS Clr Space Size	2.50 ft by 4.00 ft Min	
incomplete	Clr Space CS1	2.00% Max	
incomplete	Clr Space CS2	2.00% Max	
incomplete	Obstruction btwn PAR & Clear Space	No	
Button			
incomplete	Button Vertical Height	3.83 ft Max	
incomplete	Button Diameter	0.17 ft Min	

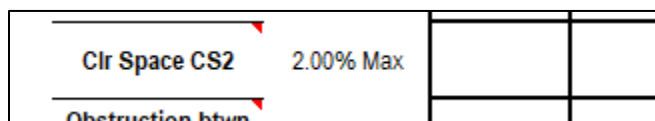
APS Clear Space Size
 NOTE: Refer to Clear Space Diagram by hovering over RED comment notation.
 Now, select measure:
 1. No Clear Space
 2. Greater than 2.50 ft by 4.00 ft
 3. 2.50 ft by 4.00 ft
 4. Less than 2.50 ft by 4.00 ft

B. Clr Space CS1 – Record the cross slope CS1



Clr Space CS1	2.00% Max		
Clr Space CS2	2.00% Max		

C. Clr Space CS2 – Record the cross slope CS2



Clr Space CS2	2.00% Max		
Obstruction btwn			

D. *Obstruction btwn PAR & Clear Space* – Is there an obstruction between the PAR and the clear space that will hinder access? Select from drop-down.

Obstruction btwn PAR & Clear Space	No		
		Yes No	
Button Vertical Height	4.00 ft Max	Obstruct Betwn PAR & Clear Space Pick from drop-down list.	

(4) **Button**

Using the pictures on the form, address the following:

A. *Button Vertical Height* - Record the measured distance between the surface of the sidewalk to the center of the button.

B. *Button Diameter* – Record the diameter of the button

Button Vertical Height			
Button Diameter	0.17 ft Min		

C. *Button Contrasts With Housing* – Select response from the drop-down list.

pass	Button Contrasts With Housing	Contrast	Yes	Yes	
pass	Button - Vibrate	Yes	Yes	Button Contrasts with Housing Pick from drop-down list.	
pass	Button - Audible	Yes	Voice	Beep	

D. *Button – Vibrate* – Select response from the drop-down list

pass	Button - Vibrate	Yes	Yes	Yes	
pass	Button - Audible	Yes	Vo	Button Vibrate Pick from drop-down list.	
pass	Arrow Parallel to Crosswalk	Yes	Yo		
	Button Arrow				

E. *Button – Audible* – Select response from the drop-down list

pass	Button - Audible	Yes	Voice	Beep	
pass	Arrow Parallel to Crosswalk	Yes	Beep	Audible Pick from drop-down list.	
pass	Button Arrow Contrast	Yes	Yo		
	Buttton Arrow				

F. *Arrow Parallel to Crosswalk* – Select response from the drop-down list.

pass	Arrow Parallel to Crosswalk	Yes	Yes	Yes	
pass	Button Arrow Contrast	Yes	Yes	Yes	
pass	Buttton Arrow	Yes	Yes	Yes	

Arrow Parallel to Crosswalk
Pick from drop-down list.

G. *Button Arrow Contrast* – Select response from the drop-down list.

pass	Button Arrow Contrast	Yes	Yes	Yes	
pass	Buttton Arrow Tactile	Yes	Yes	Yes	
Sign					

Button Arrow Contrast
Pick from drop-down list.

H. *Buttton Arrow Tactile* – Select response from the drop-down list.

pass	Buttton Arrow Tactile	Yes	Yes	Yes	
Sign			Yes	No	
Sign					

Buttton Arrow Tactile
Pick from drop-down list.

(5) **Sign**

The information in this section is **INFORMATIONAL ONLY**.

A. *Sign on Housing* – Select response from the drop-down list.

pass	Sign on Housing	Yes	Yes	Yes	
pass	Sign - Street Name	Yes	No-Separate Sign	Yes	
pass	Sign - St Name Braille	Yes	Yes	Yes	

Sign on Housing
Pick from drop-down list.

B. *Sign - Street Name* - Select response from the drop-down list.

pass	Sign - Street Name	Yes	Yes	Yes	
pass	Sign - St Name Braille	Yes	Yes	No	
pass	Sign - St Name Parallel to Crw	Yes	Yes	Yes	
Sign	Sign - St Name				

Sign - Street Name
Pick from drop-down list.

C. *Sign - St Name Braille* - Select response from the drop-down list.

pass	Sign - St Name Braille	Yes	Yes	Yes	
pass	Sign - St Name Parallel to Crw	Yes	Yes	Yes	
	Sign - St Name				

D. *Sign - St Name Parallel to Crw* - Select response from the drop-down list.

pass	Sign - St Name Parallel to Crw	Yes	Yes	Yes	
pass	Sign - St Name Audio	Yes	Yes	Yes	
	Arrow on Sign				

E. *Sign - St Name Audio* - Select response from the drop-down list.

pass	Sign - St Name Audio	Yes	Yes	Yes	
	Arrow on Sign				
	Sign - St Name				

F. *Arrow on Sign* - Select response from the drop-down list.

	Arrow on Sign		Yes	Yes	
	Sign - St Name Vibro		Yes	Yes	
	Signal Support				

G. *Sign - St Name Vibro* – Is the street name vibrotactile? Select response from the drop-down list.

	Sign - St Name Vibro		Yes	Yes	
	Signal Support				

b) *APS Display/Signal*

Depending on the location, there may be three signals that information is needed. Using the picture on the form, determine the pole number orientation.

(1) **Signal Support Pole**

For each signal, identify whether the signal is located on a separate pole or shared (co-located) on a single pole.

APS Display/Signal			APSSignal #1	APSSignal #2	APSSignal #3
Signal Support Pole			Shared	Shared	Shared
Distance					
	Between Signals 1-2	If separated, 10 ft Min			
	Between Signals 2-3	If separated, 10 ft Min			
	Between Signals 3-1	If separated, 10 ft Min			
Display/Signal					

Signal Support Pole
Choose type for APS Signal #3:

1. Separate
2. Shared
3. NA - NOT Applicable if NOT present - Do NOT enter data into gray shaded cells

- (a) In the case where there is only One display/signal present select "Separate" and select "N/A" for display/signals #2 and #3.
- (b) Make a note in the NOTES box that there is only one display/signal.

APS Display/Signal			APSSignal #1	APSSignal #2	APSSignal #3
Signal Support Pole			Separate	NA	NA
Distance					
	Between Signals 1-2	If separated, 10 ft Min			
	Between Signals 2-3	If separated, 10 ft Min			
	Between Signals 3-1	If separated, 10 ft Min			

Signal Support Pole
Choose type for APS Signal #1:

1. Separate
2. Shared

(2) **Distance**

Using the pictures on the form, record the following measurements:

Special Note:

- (a) If the signal is on the same pole "Shared", then no measurement is needed. The measurement boxes are shaded.

APS Display/Signal			APSSignal #1	APSSignal #2	APSSignal #3
Signal Support Pole			Shared	Shared	NA
Distance					
	Between Signals 1-2	If separated, 10 ft Min			
	Between Signals 2-3	If separated, 10 ft Min			
	Between Signals 3-1	If separated, 10 ft Min			

(b) If the signal are on "Separate" poles, then measurements are required. Record the measurements.

APS Display/Signal		APSSignal #1	APSSignal #2	APSSignal #3
	Signal Support Pole	Separate	Separate	Separate
Distance				
	Between Signals 1-2	If separated, 10 ft Min		
	Between Signals 2-3	If separated, 10 ft Min		
	Between Signals 3-1	If separated, 10 ft Min		

(3) Display/Signal

(a) Signal Type - Select from the drop-down list

Display/Signal				
	Signal Type			
incomplete	Signal Height	7 ft Min		
incomplete	Signal Audible Walk	Yes		
	Signal Audible Type			

Signal Type
 NOTE: Refer to Signal Type Diagram by hovering over RED comment notation.
 Now, select signal type:

1. Countdown
2. Signal-Other
3. Symbol
4. Symbol AND Countdown
5. Symbol AND Word
6. Word

(b) Signal Height – Record the measurement from the sidewalk surface to the bottom of the display/signal box.

incomplete	Signal Height	7 ft Min	7.2	
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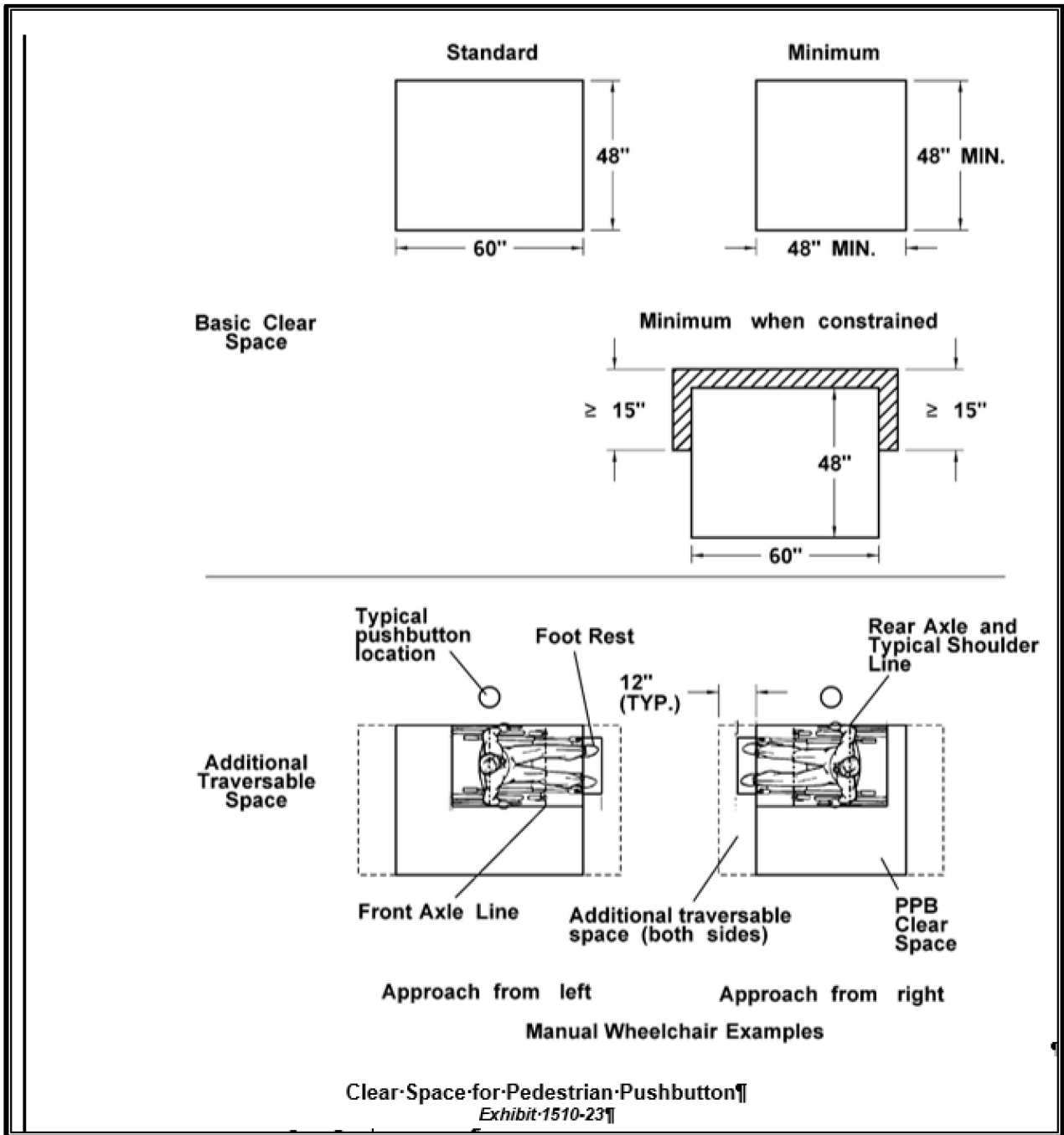
(c) Signal Audible Walk – Identify if the signal has an audible walk message. Select from the drop-down list

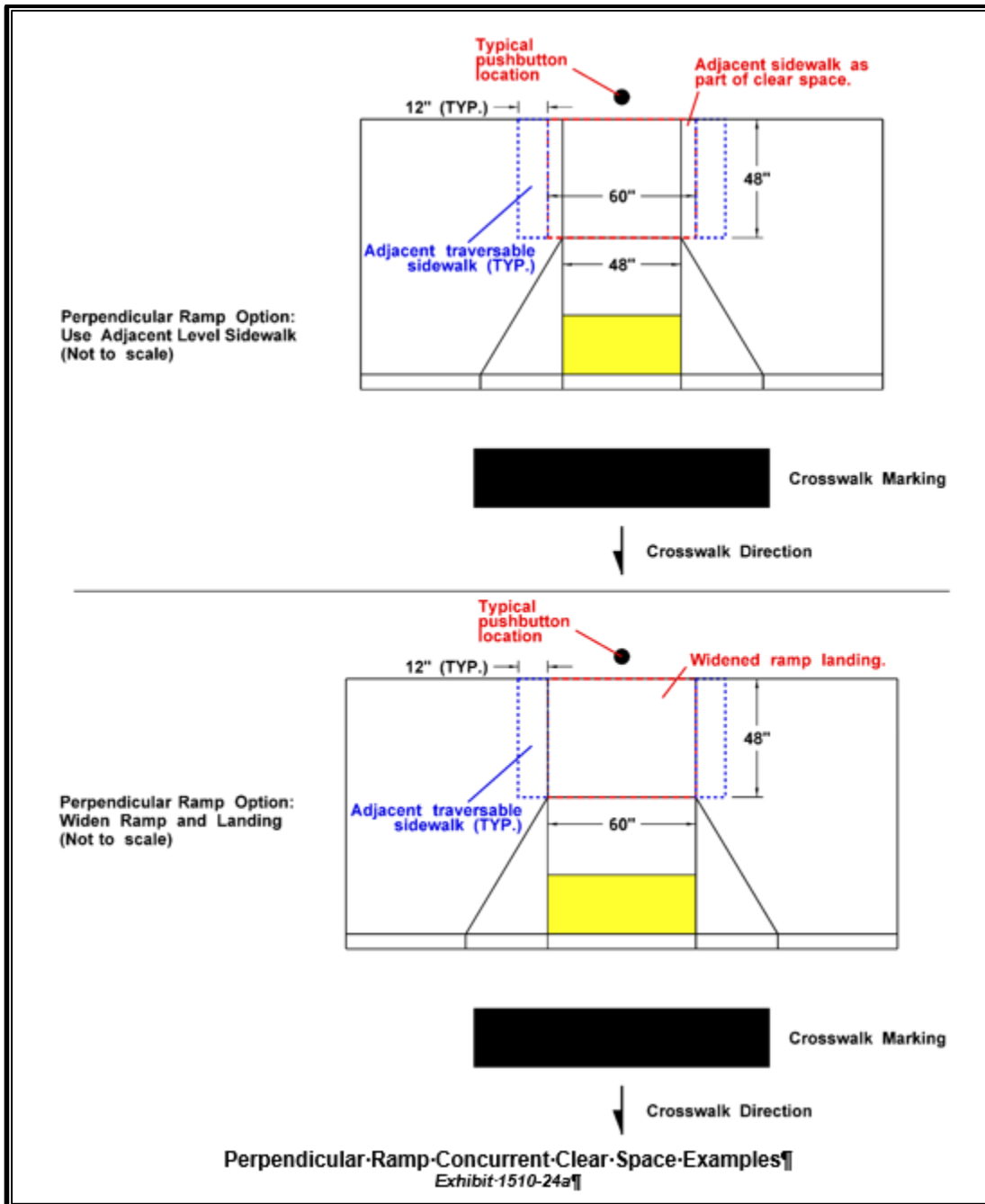
Display/Signal				
	Signal Type		Countdown	Cot
incomplete	Signal Height	7 ft Min	7	
pass	Signal Audible Walk	Yes	Yes	
	Signal Audible Type		Yes	No

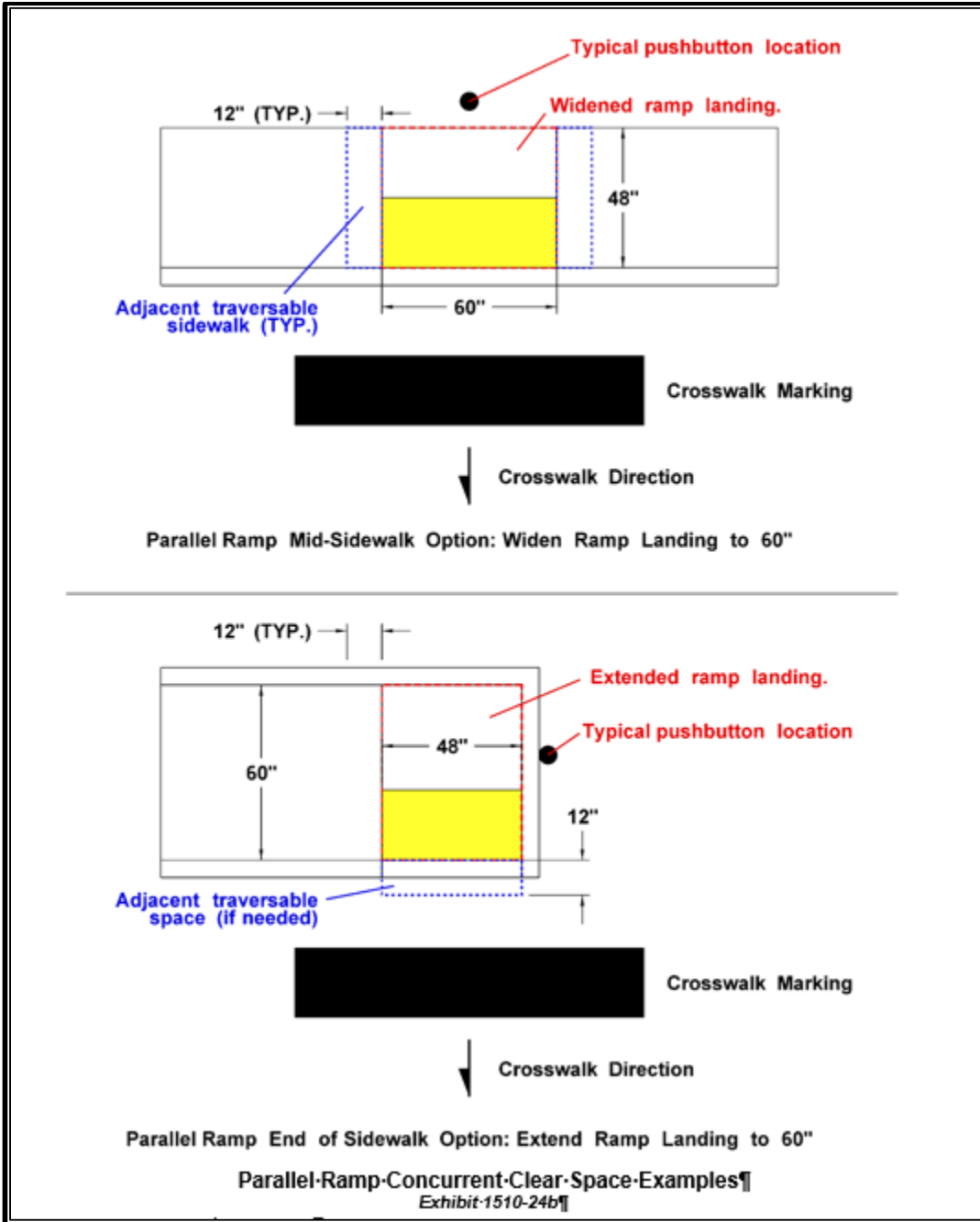
A. *Signal Audible Type* – Identify if the type of audible walk message. Select from the drop-down list

pass	Signal Audible Walk	Yes	Yes	Y
	Signal Audible Type		Tone	
			Speech	
			Tone	
			Other	

▪ **1510.12(1) ° Accessibility Criteria for All Pedestrian Pushbuttons (including APS)**¶
 ▪ **1510.12(1)(a) ° Location Requirements**¶
 •→ See [1330.04\(4\)](#) for pushbutton location requirements. These location requirements limit the potential locations for the pedestrian pushbutton clear space. ¶
 ▪ **1510.12(1)(b) ° Clear Space Requirements**¶
 •→ Grade: 2% maximum running and cross slopes. ¶
 •→ Clear space dimensions: ¶
 a. → Standard: 48 inches in width by 60 inches in length, with the pushbutton located along one of the long sides of the clear space. ¶
 b. → Minimum: 48 inches minimum width by 48 inches minimum length. Although the ADA minimum required clear space for an operational control is 30 inches by 48 inches, the narrow dimension is increased to 48 inches to allow for maneuvering, similar to a curb ramp landing (see [Exhibit 1510-23](#)). If the clear space is constrained on three sides, such that the clear space is set back 15 inches or more from the PAR, then the clear space shall be 48 inches minimum width by 60 inches minimum length, to allow for maneuvering within the constrained space. (see [Exhibit 1510-23](#)). ¶
 •→ Additional unobstructed or traversable space of 12 inches on either end of the clear space should be provided if possible, to allow for protruding equipment such as foot rests to extend beyond the clear space. This helps mobility assistance device users get their shoulder line closer to the pushbutton (see [Exhibit 1510-23](#)). ¶
 •→ Clear space is allowed to overlap other PAR elements (i.e., sidewalk/curb ramp landing) (see [Exhibits 1510-24a and 1510-24b](#)). ¶
 •→ Clear space must be connected to the crosswalk served by the pedestrian pushbutton with a PAR. ¶



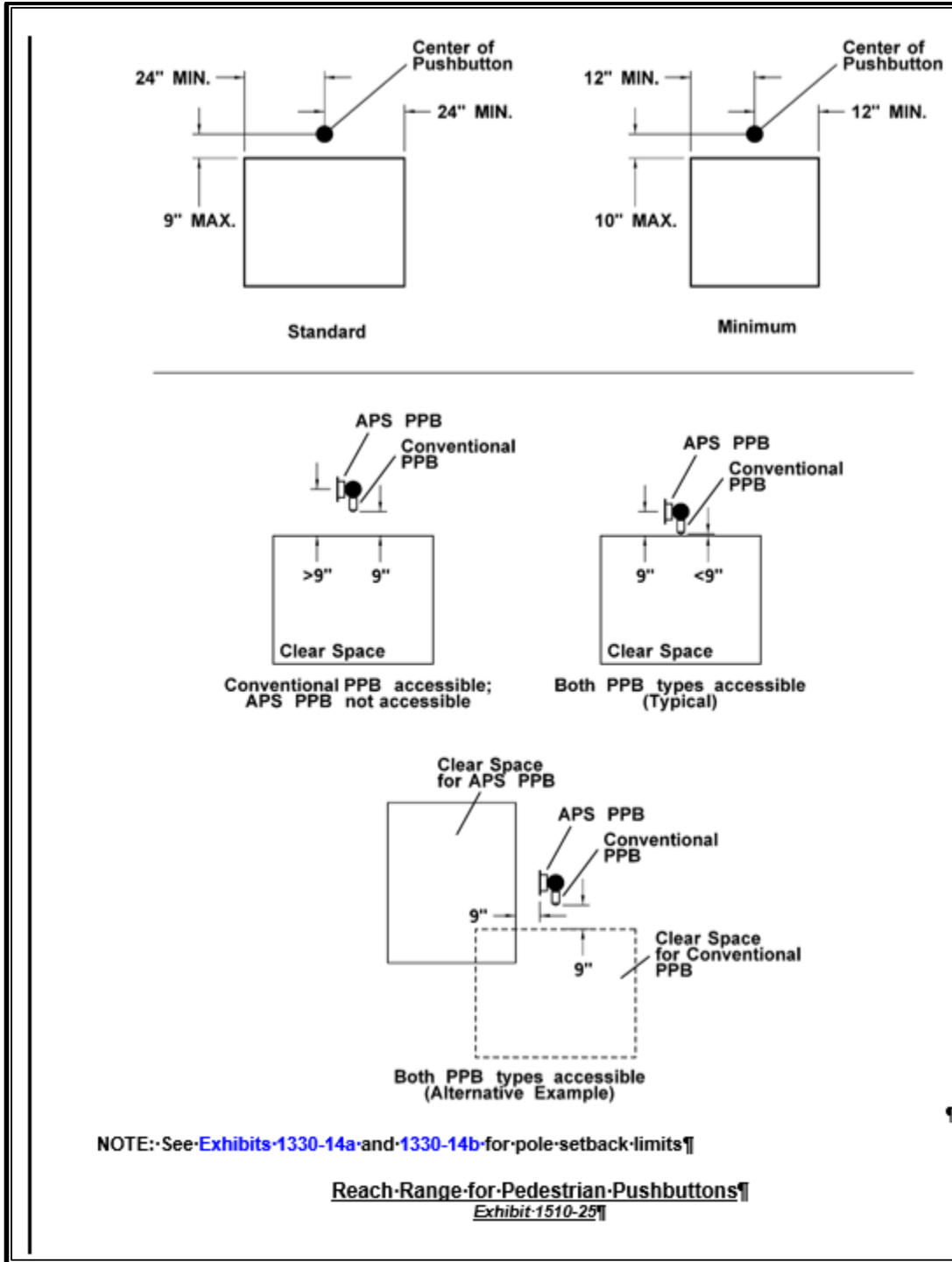




▪ **1510.12(1)(c) ° Reach-Range-Requirements ¶**

Pushbuttons are in locations considered unobstructed, and follow the allowable unobstructed reach distance requirements of the ADA accessibility requirements. This manual designs clear space for pushbuttons based on a parallel approach, due to difficulties in both accessibility and design when attempting to accommodate a forward reach. ¶

- The provided clear space must be within reach range of the pedestrian pushbutton. ¶
- The reach range is 10 inches maximum, as measured from the edge of the clear space to the center of the physical pushbutton (not just the housing). ¶
- For new construction, the center of the physical pushbutton shall be no more than 9 inches from the edge of the clear space. It is preferable to locate the pushbutton as close to the edge of the clear space as possible. ¶
- Different types of pushbuttons (front mount H-frame type versus side mount Accessible Pedestrian Signal type) will have different reach ranges on the same pole. Generally, designing for a side mount pushbutton will result in a front mount pushbutton also being within the required reach range. This is generally not true the other way around. (see [Exhibit 1510-25](#)) ¶
- The center of the physical pushbutton shall be 42 inches above the surface of the clear space. Existing installations may remain if they are within a range of 36 inches minimum to 48 inches maximum above the surface of the clear space. ¶
- The pushbutton shall be a minimum of 12 inches in from both ends of the clear space, and should be at least 24 inches in from both ends of the clear space. Ideally, the pushbutton should be centered along one side of the clear space. If the clear space is rectangular, the pushbutton shall be located along one of the long sides of the clear space. ¶



V. Transmitting Collected Data to the WSDOT Project Office

After completing the feature measurements, the Contractor shall transmit the completed electronic Excel "Passed" forms to the Project Engineer administering the contract.

Include the following information in the transmittal:

1. Contract Number
2. Date Measurements Completed
3. Name of Individual who completed the Measurement forms
4. A statement from the Prime Contractor certifying that the measurements in the electronic file are accurate and reflect ADA compliance.