

Curb Ramps & the ADA

Part II: ADA Assessment - Pre-design, Design, Post Construction

WE KEEP PORTLAND MOVING.



PBOT
PORTLAND BUREAU OF TRANSPORTATION

Ramp Reports

Why?

To ensure that all ramps that are within the limits of all projects are compliant with the ADA guidelines.

Ramp Assessment - Pre

Why?

To identify the conditions of all sidewalk corners and legal crossing to see if they:

- Meet current ADA guidelines
- Will require reconstruction to meet current ADA guidelines

This information will be used to:

- Guide staff on where ramps need to be constructed or reconstructed
- Add to our GIS database to we can have confidence in how many of our street sidewalk corners and ramps are in compliance.

- SIDEWALK / PATH
- NO RAMP
- RAMP

Draw in ramps & crosswalks

LEGEND

- = YES
- = NO

DOUBLE

- | | |
|---|---|
| <input type="checkbox"/> SLOPE \leq 8.33% | <input type="checkbox"/> SLOPE \leq 8.33% |
| <input type="checkbox"/> THROAT WIDTH \geq 4' | <input type="checkbox"/> THROAT WIDTH \geq 4' |
| <input type="checkbox"/> ZERO CURB EXP | <input type="checkbox"/> ZERO CURB EXP |
| <input type="checkbox"/> RT FLARE $<$ 10% | <input type="checkbox"/> RT FLARE $<$ 10% |
| <input type="checkbox"/> LT FLARE $<$ 10% | <input type="checkbox"/> LT FLARE $<$ 10% |
| <input type="checkbox"/> TRUNC DOME | <input type="checkbox"/> TRUNC DOME |
| <input type="checkbox"/> POST 2010 | <input type="checkbox"/> POST 2010 |
| <input type="checkbox"/> CLR FLAT LDG AT TOP | <input type="checkbox"/> CLR FLAT LDG AT TOP |

OR

SINGLE

- SLOPE \leq 8.33%
- THROAT WIDTH \geq 4'
- ZERO CURB EXP
- RT FLARE \leq 10%
- LT FLARE \leq 10%
- TRUNC DOME
- POST 2010
- CLR FLAT LDG AT TOP

- SIDEWALK / PATH
- NO RAMP
- RAMP

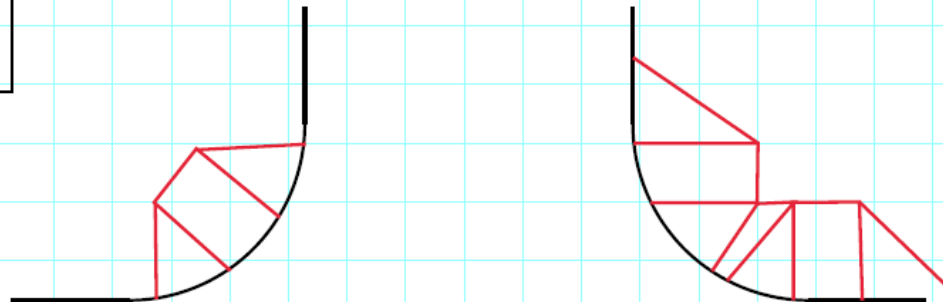
DOUBLE

- | | |
|--|--|
| <input checked="" type="checkbox"/> SLOPE \leq 8.33% | <input checked="" type="checkbox"/> SLOPE \leq 8.33% |
| <input checked="" type="checkbox"/> THROAT WIDTH \geq 4' | <input checked="" type="checkbox"/> THROAT WIDTH \geq 4' |
| <input checked="" type="checkbox"/> ZERO CURB EXP | <input checked="" type="checkbox"/> ZERO CURB EXP |
| <input checked="" type="checkbox"/> RT FLARE $<$ 10% | <input checked="" type="checkbox"/> RT FLARE $<$ 10% |
| <input checked="" type="checkbox"/> LT FLARE $<$ 10% | <input checked="" type="checkbox"/> LT FLARE $<$ 10% |
| <input checked="" type="checkbox"/> TRUNC DOME | <input checked="" type="checkbox"/> TRUNC DOME |
| <input type="checkbox"/> POST 2010 | <input type="checkbox"/> POST 2010 |
| <input checked="" type="checkbox"/> CLR FLAT LDG AT TOP | <input checked="" type="checkbox"/> CLR FLAT LDG AT TOP |

OR

SINGLE

- SLOPE \leq 8.33%
- THROAT WIDTH \geq 4'
- ZERO CURB EXP
- RT FLARE \leq 10%
- LT FLARE \leq 10%
- TRUNC DOME
- POST 2010
- CLR FLAT LDG AT TOP



SE Stark Street
STREET NAME

Example

Ramp Report - Design

Why?

It's not always possible to construct all corners to the most preferred/best design standard of:

- Bi-directional ramps
- Top landing that is at least 3" above gutter (to reduce storm gutter flow width)



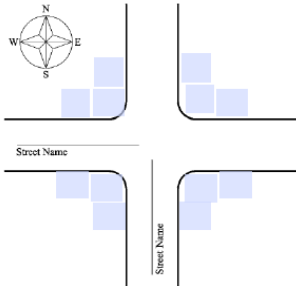
COMPLETED FORM TO:
 Designer _____
 Ped Coordinator _____
 Project File _____

ADA RAMP REPORT

PROJECT NAME: _____ PROJECT NO.: _____

PROJECT DESIGNER: _____ ENGINEER OF RECORD: _____

I. CURB RAMP LOCATION (ONE FORM PER INTERSECTION).



- SKETCH CURB RAMP.
- GIVE EACH CURB RAMP A REFERENCE NUMBER, 1 – 8.
- NOTE LOCATION OF NEARBY MID-BLOCK RAMP, IF APPLICABLE.

II. USE BACK OF THIS FORM TO IDENTIFY DESIGN CRITERIA FOR NEW RAMPS.

III. IDENTIFY CORNERS THAT DO NOT MEET THE DESIGN CRITERIA LISTED ON THE BACK OF THIS FORM.

- LIST THE CRITERIA THAT ARE NOT MET AND EXPLAIN WHY.
- DESCRIBE MITIGATION OPTIONS.
- PROVIDE RECOMMENDATION FOR ADDING TO TRANSITION PLAN LIST.

ADDITIONAL SPACE PROVIDED ON BACK OF THIS FORM.

APPROVALS*

*IF ALL CORNERS HAVE DOUBLE RAMPS AND THEY MEET DESIGN CRITERIA LISTED ON BACK, APPROVAL BY ADA TECHNICAL ADVISOR IS NOT REQUIRED.

 ENGINEER OF RECORD, Sign and Print Name DATE

 ADA TECHNICAL ADVISOR, Sign and Print Name DATE

DESIGN CRITERIA FOR NEW RAMPS

1	2	3	4	5	6	7	8	CHECK <input type="checkbox"/> IF ELEMENT MET
<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	A. 1. A DIAGONAL RAMP PROVIDING BOTH DIRECTIONS OF TRAVEL (D) OR 2. A SINGLE RAMP PROVIDING ONLY ONE DIRECTION OF TRAVEL (S) (E.G. ACROSS ONLY ONE STREET, INCLUDES MID-BLOCK RAMPS).
<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	B. IF DIAGONAL RAMP (D), (4' x 4') LANDING IN ROADWAY IS OUTSIDE OF TRAVEL WAY.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C. RAMP PERPENDICULAR TO THE FACE OF CURB.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D. RAMP THROAT IN ROADWAY IS COMPLETELY WITHIN THE LEGAL X-ING.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E. 7.2% MAXIMUM RAMP RUNNING GRADE WITH 1.1% FOR CONSTRUCTION TOLERANCE.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F. FLAT (4' x 4') LANDING IN SIDEWALK.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G. MINIMUM RAMP WIDTH (NOT INCLUDING WINGS) IS 48".
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	H. MAXIMUM DRAINAGE SLOPE OF THE GUTTER IS 2% WITH MAXIMUM CROSS SLOPE OF 5% AT THE GUTTER.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I. MAXIMUM RAMP TO STREET GRADE BREAK IS 11% MAXIMUM (ALGEBRAIC DIFFERENCE).

SPACE FOR ADDITIONAL COMMENTS.

Large empty blue box for additional comments.

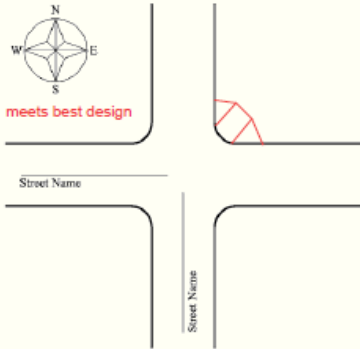


COMPLETED FORM TO:
 Designer _____
 Ped Coordinator _____
 Project File _____

ADA RAMP REPORT

PROJECT NAME: Main Street Redevelopment	PROJECT No.: 12345
PROJECT DESIGNER: Joe Engineer	ENGINEER OF RECORD: Bob Builder

I. CURB RAMP LOCATION (ONE FORM PER INTERSECTION).



- SKETCH CURB RAMP.
- GIVE EACH CURB RAMP A REFERENCE NUMBER, 1 TO 8.
- NOTE LOCATION OF NEARBY MID-BLOCK RAMP, IF APPLICABLE.

II. USE BACK OF THIS FORM TO IDENTIFY DESIGN CRITERIA FOR NEW RAMP.

III. IDENTIFY CORNERS THAT DO NOT MEET THE DESIGN CRITERIA LISTED ON THE BACK OF THIS FORM.

- LIST THE CRITERIA THAT ARE NOT MET AND EXPLAIN WHY.
- DESCRIBE MITIGATION OPTIONS.
- PROVIDE RECOMMENDATION FOR ADDING TO TRANSITION PLAN LIST.

There is insufficient right of way (due to zero setback building) to construct bi-directional ramps. Ramp width will be widened to 5 feet to accommodate bi-directional travel.

ADDITIONAL SPACE PROVIDED ON BACK OF THIS FORM.

DESIGN CRITERIA FOR NEW RAMP

1	2	3	4	5	6	7	8	CHECK <input type="checkbox"/> IF ELEMENT MET
<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	<input checked="" type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	<input type="checkbox"/> D	A. 1. A DIAGONAL RAMP PROVIDING BOTH DIRECTIONS OF TRAVEL (D) OR 2. A SINGLE RAMP PROVIDING ONLY ONE DIRECTION OF TRAVEL (S) (E.G. ACROSS ONLY ONE STREET, INCLUDES MID-BLOCK RAMP).
<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	<input type="checkbox"/> S	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B. IF DIAGONAL RAMP (D), (4: X 4) LANDING IN ROADWAY IS OUTSIDE OF TRAVEL WAY.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C. RAMP PERPENDICULAR TO THE FACE OF CURB.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D. RAMP THROAT IN ROADWAY IS COMPLETELY WITHIN THE LEGAL X-ING.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E. 7.2% MAXIMUM RAMP RUNNING GRADE WITH 1.1% FOR CONSTRUCTION TOLERANCE.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F. FLAT (4: X 4) LANDING IN SIDEWALK.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G. MINIMUM RAMP WIDTH (NOT INCLUDING WINGS) IS 48".
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	H. MAXIMUM DRAINAGE SLOPE OF THE GUTTER IS 2% WITH MAXIMUM CROSS SLOPE OF 5% AT THE GUTTER.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I. MAXIMUM RAMP TO STREET GRADE BREAK IS 11% MAXIMUM (ALGEBRAIC DIFFERENCE).

SPACE FOR ADDITIONAL COMMENTS.

Empty space for additional comments.

APPROVALS*

*IF ALL CORNERS HAVE DOUBLE RAMP AND THEY MEET DESIGN CRITERIA LISTED ON BACK, APPROVAL BY ADA TECHNICAL ADVISOR IS NOT REQUIRED.

Joe Engineer  07/07/15
 ENGINEER OF RECORD, Sign and Print Name DATE

Larry Constructor  07/14/15
 ADA TECHNICAL ADVISOR, Sign and Print Name DATE

Example

Ramp Report - Post

Why?

This is to ensure that all ramps, regardless if they are constructed via a capital project or by permit, that the ramps are in full compliance before accepting for city maintenance.

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Project #: _____ Federal Aid #: _____

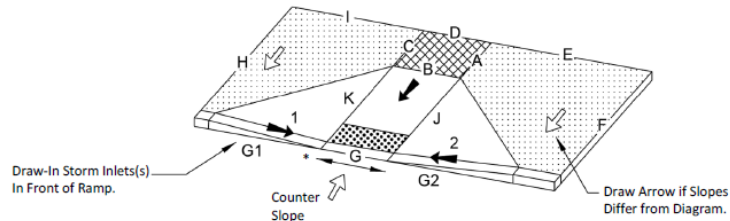
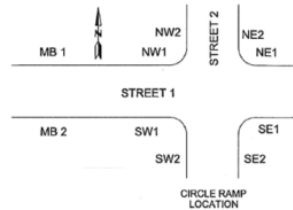
Inspected By: _____ Date: _____

Comments on Back of Page?

Street 1: _____

Street 2: _____

(Include Station as Needed for Location)



PERPENDICULAR SIDEWALK RAMP DETAIL

* Circle Direction of Slope

Measure Dimensions				Measure Slopes	
Length in Tenths of Feet	Slope	Meets Standard Detail Maximums?	Match Exts?	Percent Slopes	Is the Algebraic Difference < 11%?
A _____	_____ %	Y N	<input type="checkbox"/>	Counter Slope: _____ %	Y N
B _____	_____ %	Y N	<input type="checkbox"/>	Greater of J & K: _____ %	
C _____	_____ %	Y N	<input type="checkbox"/>	Relative Flare Slope no Greater than 10%?	
D _____	_____ %	Y N	<input type="checkbox"/>	Flare Slope 1: _____ %	Y N
E _____	_____ %	Y N	<input type="checkbox"/>	G1 (Street Slope) _____ %	
F _____	_____ %	Y N	<input type="checkbox"/>	Flare Slope 2: _____ %	Y N
G _____	_____ %	Y N	<input type="checkbox"/>	G2 (Street Slope) _____ %	
H _____	_____ %	Y N	<input type="checkbox"/>	Has the Ramp Been Altered From Design? Y N	
I _____	_____ %	Y N	<input type="checkbox"/>	Just Domes? Y N	
J _____	_____ %	Y N	<input type="checkbox"/>		
K _____	_____ %	Y N	<input type="checkbox"/>		

Detectable Warnings: Manufacturer: _____ Approved Federal Color: _____

Is the Ped. / Signal Pole Located Per Plans? Y N N/A (Explain and attach photo)

Is the Ramp-Lip Flush? Y N

Any Historical Features? Y N If 'Yes', Attach Picture

Note: Attach Design Engineer's explanation of design variances, if applicable.

Approved by: _____
Construction Manager (Print Name) (Signature)/(Date)

- Rules for Measuring:
1. Use 4'-0" smart level.
 2. Calibrate smart level every day before field work.
 3. Provide completed report to Construction Manager or Inspection Supervisor for review and signature.

Street 1: _____ Corner: _____

Street 2: _____

Comments: _____

Blank Form

PBOT

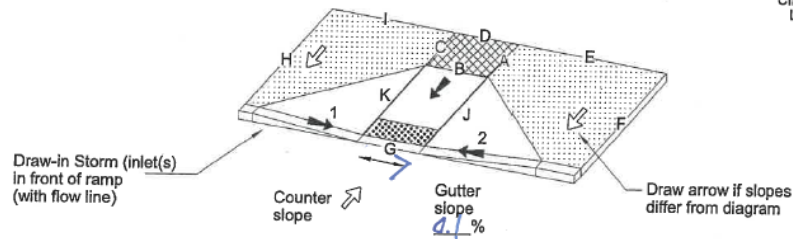
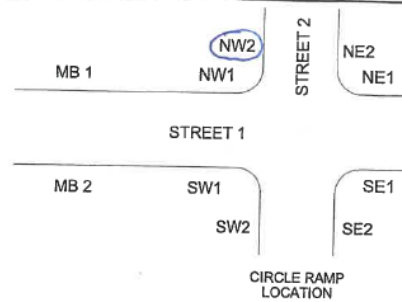
PORTLAND BUREAU OF TRANSPORTATION

Project #: TH0286

Street 1: N. Syracuse St.

Street 2: N. Leavitt Ave

(Include Station as needed for location)



PERPENDICULAR SIDEWALK RAMP DETAIL

Measure Dimensions			Measure Slopes		
Length in tenths	Slope	Meets Standard Detail minimums?	Match Extg.?	Percent Slopes	Meets Standard Detail minimums?
A <u>4²</u>	<u>1.2</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	Counter slope: <u>2.1</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
B <u>4²</u>	<u>2.0</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	Running slope: <u>6.5</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
C <u>4²</u>	<u>2.0</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	Flare slope 1: <u>4.9</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
D <u>4⁰</u>	<u>0.1</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	Flare slope 2: <u>4.7</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
E <u>3²</u>	<u>1.0</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>		
F <u>6⁸</u>	<u>1.7</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>		
G <u>4²</u>	<u>0.9</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>		
H <u>NA</u>	<u>0.1</u> %	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	Has the ramp been altered from design?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
I <u>NA</u>	<u>0.3</u> %	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>	Is this a retrofit?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
J <u>4²</u>	<u>6.3</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>		
K <u>4²</u>	<u>6.5</u> %	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/>		

Detectable Warnings: Manufacturer: Ammarcast Color: Yellow

Is the ped. / signal pole located per plan ? Y N N/A (Explain)

Is the ramp lip flush? Y N Incomplete

- RULES FOR MEASURING
- Use four foot calibrated smart level.
 - Provide completed report to Const. Mgr. or Permit Engineer for review.

Note: Attach Design Engineer's explanation of non-compliance design, if applicable.

Inspection Date: 10/5/16

Write comments if any on the back of this page.

Inspected by: _____ (Print Name) _____ (Signature)

Example

Questions

For more information

Visit:

<https://www.portlandoregon.gov/transportation/article/207301>

Contact:

chon.wong@portlandoregon.gov

