



Temporary Pedestrian Accessible Routes (TPAR), in Oregon

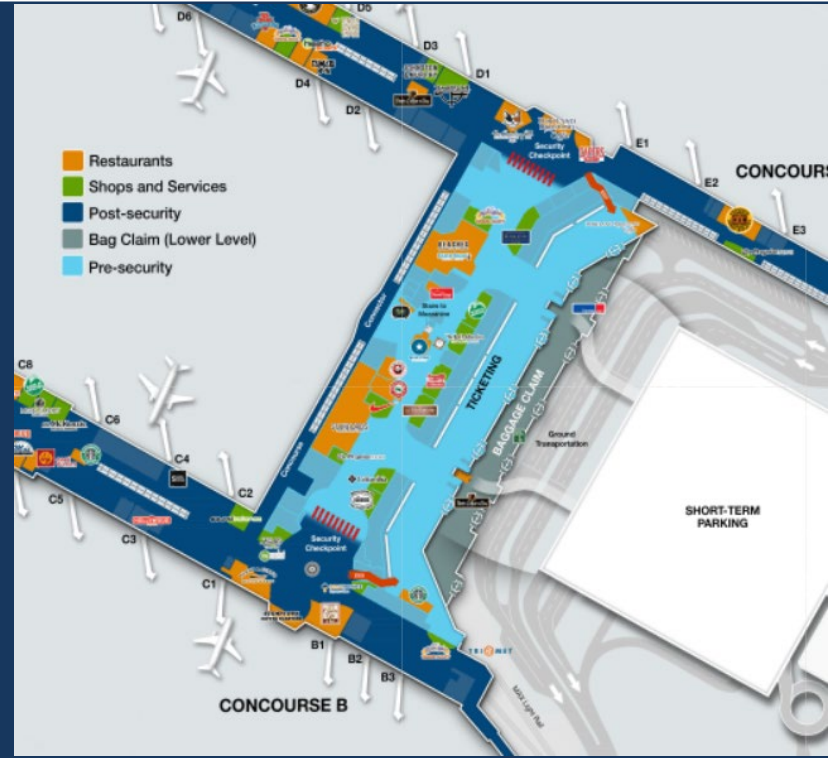
2023 NWPMA - TPAR

Justin King, ODOT State Work Zone Engineer





TPAR



TPAR History

US and Oregon, Pedestrian Accommodation Requirements

1973



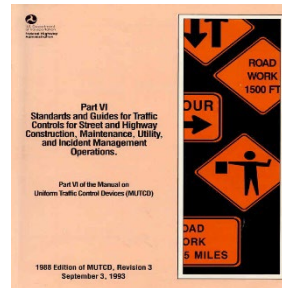
Section
504
Rehab.
Act

1991



ADAAG

1993



MUTCD

2002?



ODOT
Standards

2016



ODOT
Settlement

2023



PROWAG



TPAR

Critical Definitions

- ***“PEDESTRIAN” – Includes pedestrians with accessibility needs***
- ***“ACCESSIBILITY” – Continued access to facilities during work***
- ***“TEMPORARY PEDESTRIAN ACCESSIBLE ROUTE” (TPAR)***
 - **Area used by pedestrians to navigate through or around work area**
- ***“TEMPORARY PEDESTRIAN ACCESSIBLE ROUTE PLAN”***
 - **Written and/or drawn plan for the project**
 - **Identifies required responsibilities and components within TPARs**



TPAR - MUTCD

Pedestrian Accommodation Principles

1. Do not lead pedestrians into conflicts..
2. Use existing roadway features..
3. Provide a convenient, contiguous pathway that equals or exceeds existing path.
4. Minimize travel
5. Sign closures at and in advance of closures.
6. Provide public information



TPAR - MUTCD

Key Components of TPAR

1. A level of accessibility equal to or better than the existing pedestrian facility
2. Accessible Features – Sidewalk ramps, landing pads, traversable surfaces, manageable grades, cross slopes, etc.
3. Detectable Warning Features, detectable edges, curbs.
4. Route and route features meeting applicable ODOT and MUTCD Standards including
 1. Sidewalk ramps with a maximum running slope of 7.5%
 2. Constructed temporary sidewalks, paths and sidewalk ramps with a maximum cross slope of 1.5%
 3. 60 inch continuous sidewalk widths; or, 48 inch widths with 60 inch x 60 inch level landings (max. 2% slope) every 200 feet
 4. Continuous and detectable surfaces with vertical drops or edges less than 1/4 inch



TPAR - Standards

ODOT Traffic Control Plans Design Manual – Jan. 2023 Ed.
Accommodation Principles – During Design and Construction

- **MUTCD (Chapter 6), ADA; and...**
- **Provide “EQUAL TO” or “BETTER” Level of Accessibility (ODOT)**

Not necessarily “ADA-compliant”, but no new accessibility barriers



TPAR – Full Standards

- 60” width, ADA compliant ramps
- Temporary Path/Sidewalk with ADA compliant ramps
- Separation between path/sidewalk and work/traffic
- Continuous



TPAR Devices

Existing



PCD



Ramps



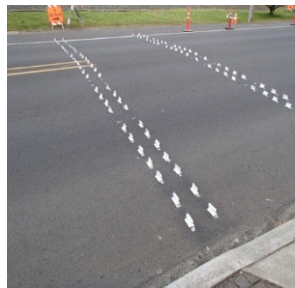
Signs



Vehicle



Markings



Transit



Flagger



Surface



Domes



TPAR – “EQUAL TO” or “BETTER”

Why not always meet full ADA Standards?



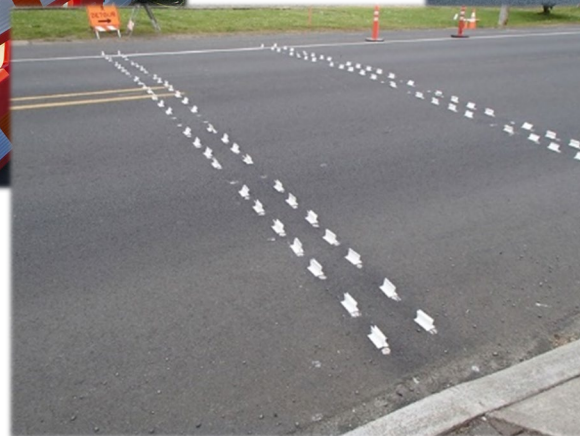
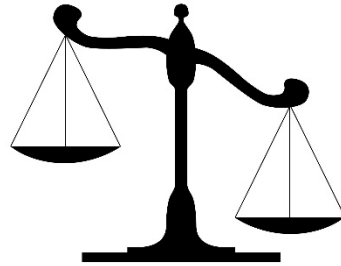
TPAR – “EQUAL TO” or “BETTER”

- Match Existing Level of Accessibility
- Provide an alternate method to accommodate peds
 - Detour / Alternate Route
 - Flaggers
 - Shuttle
 - Full Closure, all traffic



TPAR – Applications

Project specific solutions for each project



TPAR – Document Existing Condition

Document existing condition

- Survey
- Photos/Video
- TMP



TPAR – Document Exceptions

Document any TPAR exceptions versus existing condition

- TMP



TPAR – Design Considerations

- Existing Facility Inventory – What are we starting with?
- Anticipated Pedestrian Volumes – Generators? Destinations?
- Scope of Work
- Impact Duration and Severity
- TPAR Opportunities
- Staging
- Closures



TPAR – Design Considerations

PUBLIC NOTIFICATION & OUTREACH

- During Project Development **AND** through Construction
- Outreach to Media, Citizen Groups (AOCIL), Stakeholders
- Postings on the Project Site
- Notifications Updated over Life of the Project
 - As Project Design changes
 - 10-Day Advance Notification signing ***(ODOT Specifications)***
 - Pedestrian-Specific signing ***(ODOT Sign Policy)***



TPAR – Design Considerations

SHORT DURATIONS



- Brief, intermittent stoppages (1-5 mins).
- Workers may escort pedestrians around hazard.

LONG-TERM IMPACTS



- Longer-duration closures with detours.
- PCD, Curb ramps, and other devices used to maintain pedestrian mobility.



TPAR – Design Resources(ODOT)

ODOT Technical Services Bulletin, TSB17-01

PURPOSE

The purpose of this Technical Services Bulletin is to inform those responsible for the design and implementation of work zones of their obligations to include Temporary Pedestrian Accessible Routes. If pedestrians could travel through the area before the work zone is put in place, pedestrians, including people with disabilities, must be able to travel through or around the area once the work zone is in place. This requirement applies regardless of the type of facility or whether the facility has pedestrian features such as sidewalks. Temporary pedestrian routes through or around the work zone must be equivalent to or better than what existed for use before the work zone.

https://www.oregon.gov/ODOT/Engineering/Doc_TechnicalGuidance/TSB17-01D.pdf

OREGON DEPARTMENT OF TRANSPORTATION TECHNICAL SERVICES				
Technical Services DIRECTIVE				
SUBJECT Temporary Pedestrian Accessible Route Plans Required for Work Zones	FINAL NUMBER TSB17-01(D)	EFFECTIVE DATE 10/01/2017	VALIDATION DATE	SUPERSEDES or REVISIONS
WEB LINK(S) http://www.oregon.gov/ODOT/Engineering/Pages/Technical-Guidance.aspx		APPROVED SIGNATURE Original signed by: Bob Pappé, P.E. Technical Services Manager / Chief Engineer		
TOPIC/PROGRAM Traffic Control Plan Design				

PURPOSE

The purpose of this Technical Services Bulletin is to inform those responsible for the design and implementation of work zones of their obligations to include Temporary Pedestrian Accessible Routes. If pedestrians could travel through the area before the work zone is put in place, pedestrians, including people with disabilities, must be able to travel through or around the area once the work zone is in place. This requirement applies regardless of the type of facility or whether the facility has pedestrian features such as sidewalks. Temporary pedestrian routes through or around the work zone must be equivalent to or better than what existed for use before the work zone.

This obligation applies to all work zones included on any of the following:

- All work zones on or along the State Highway System, regardless of funding source.
- All work zones for projects funded by the federal-aid highway program.
- All work zones for projects that are contracted through ODOT. This includes projects off of the State Highway System.
- All work zones for projects delivered by ODOT work forces off the State Highway System.

The Maintenance and Operations Branch will lead the development of practices and procedures for maintenance forces and permitted third party work zones. Technical Services will lead the development of practices and procedures for STIP work zones.

GUIDANCE

ADA Regulations, the MUTCD and the ODOT ADA Settlement Agreement require ODOT to assure that all work zones accommodate pedestrians, including people with disabilities through or around the work zone if they could traverse that highway section before the work zone was established.

Every work zone currently requires some level of Traffic Control Plan (TCP). Each TCP should be appropriately scaled to fit the complexity of the work and duration of the work zone. For example, on a more complex project, the TCP requirement could be met by

TSB17-01 (D)
10/01/2017
Page 1 of 3



TPAR – Design Resources(ODOT)

ODOT TCP Design Manual

PURPOSE

The purpose of this manual is to provide an introduction to the standards, practices, devices and technologies that serve as the foundation for the temporary traffic control discipline. This manual provides an organized collection of traffic control plan design standards, guidelines, policies, and procedures to be used in the development of a temporary Traffic Control Plan (TCP).

Chapter 3.4.5 Pedestrian Accessibility Design

https://www.oregon.gov/odot/Engineering/Docs_TrafficEng/TCP-Design-Manual.pdf



TPAR – Design Resources(ODOT)

Oregon Standard Specifications for Construction

PURPOSE

Standards for building highway construction projects, including TPAR.

Sections 00220 – 00228, TPAR Specifications

https://www.oregon.gov/odot/Business/Specs/2024_STANDARD_SPECIFICATIONS.pdf

Oregon
Standard
Specifications
for Construction

2024

OREGON DEPARTMENT OF TRANSPORTATION
4040 FAIRVIEW INDUSTRIAL DRIVE SE
SALEM, OREGON 97302-1142



TPAR – Design Resources(ODOT)

ODOT Standard Drawings/Details

PURPOSE

Provide Plans for common traffic control setups.

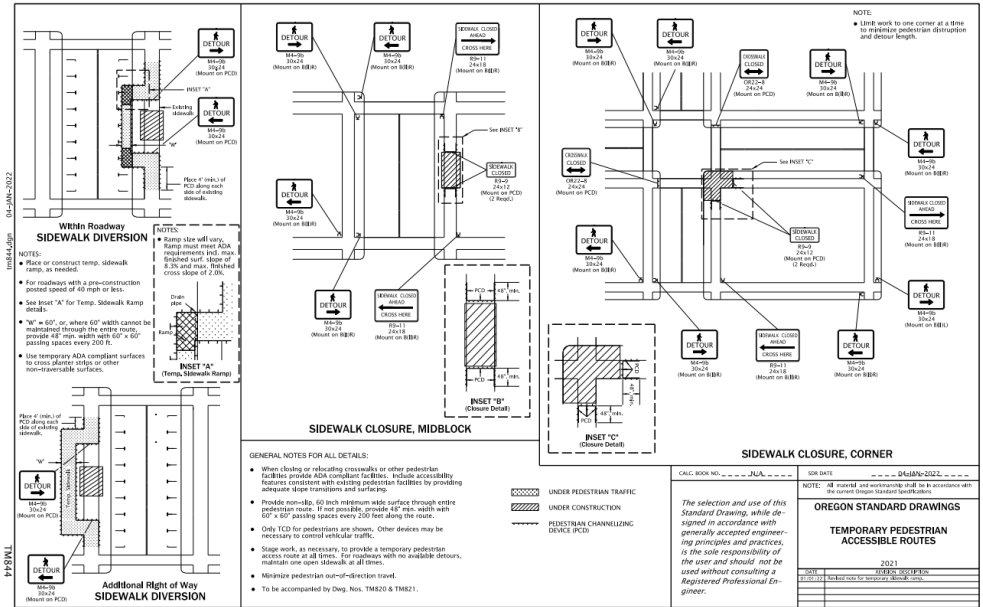
TPAR Related Standard Drawings/Details

Standard Drawings

TM800, TM844, TM851

Standard Details

DET4780 – DET 4787



Effective Date: December 1, 2022 – May 31, 2023

TM844

<https://www.oregon.gov/odot/engineering/pages/standards.aspx>



TPAR – Accommodation Challenges



TPAR – Accommodation Challenges

CHALLENGES: PAVING



TPAR – Accommodation Challenges

CHALLENGES: BRIDGES



TPAR – Accommodation Challenges

CHALLENGES: URBAN AREAS



TPAR – Accommodation Challenges

CHALLENGES: URBAN AREAS



TPAR – Accommodation Challenges

CHALLENGES: SUBURBAN AREAS



TPAR – Accommodation Challenges

CHALLENGES: RURAL AREAS



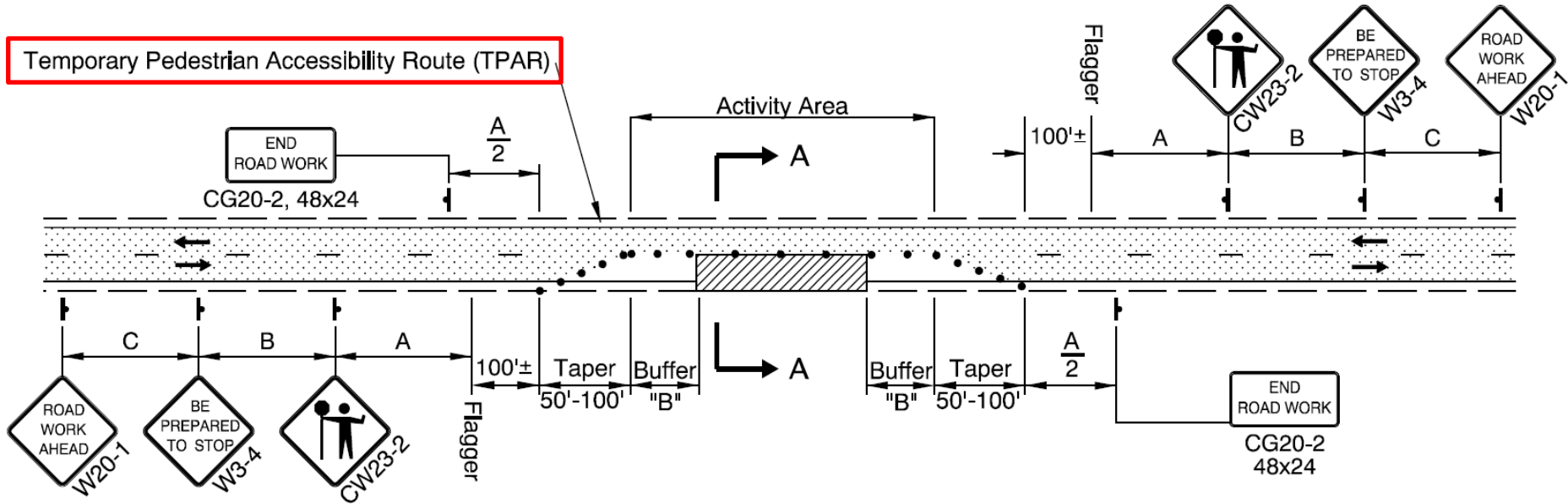
TPAR – Accommodation Developments



TPAR – Accommodation Developments

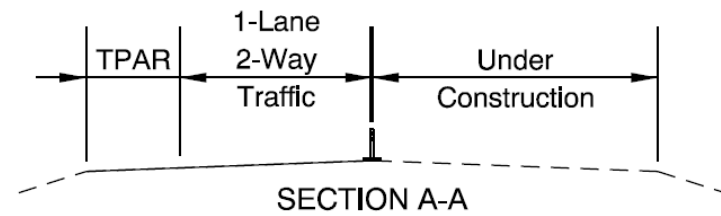
- **“EQUAL TO” or “BETTER” Level of Accessibility**

- TPAR Detail added to TM850



NOTE:

- When using pilot cars with flaggers to control traffic during paving operations, the Tubular Marker spacing along centerline may be increased to 200' within the Activity Area, as shown or as directed.
- Include CR4-23 signs mounted on Type II Barricade located approx. 50' before each Flagger.
- Coordinate and control pedestrians movements through the TPAR using Flaggers, other TCM, or as directed. When the existing shoulder is greater than or equal to 4' wide, provide a minimum of 4' of width for the TPAR.

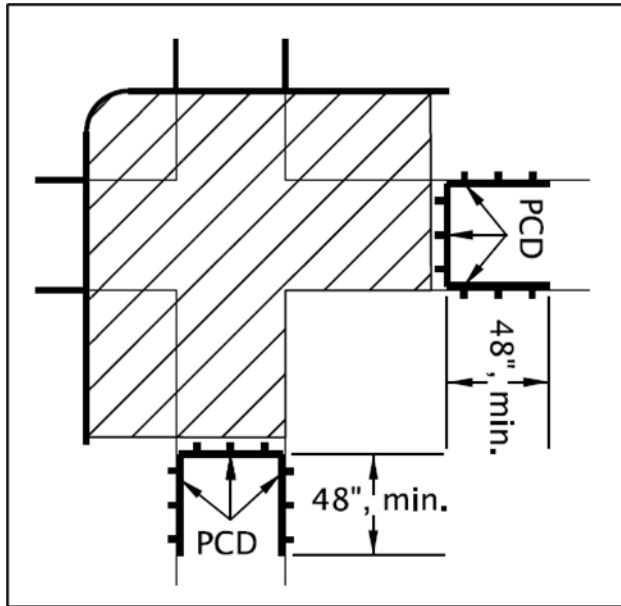


2-LANE, 2-WAY ROADWAY
ONE LANE CLOSURE



TPAR – Accommodation Developments

- *Sidewalk Closures and Signs mounted on PCD*

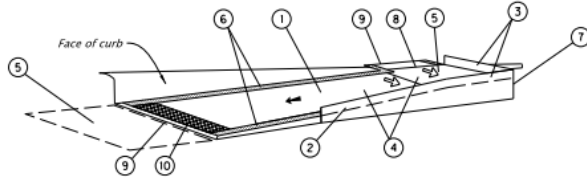


TPAR – Accommodation Developments

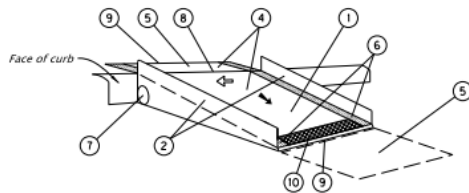
• Temporary Curb Ramps

14-JUL-2023

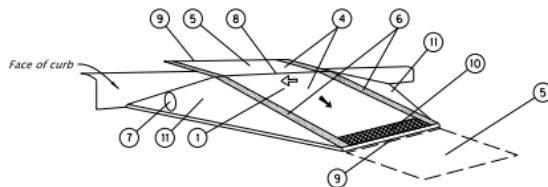
TM845.dgn



TEMPORARY CURB RAMP, PARALLEL TO CURB



WITH PROTECTIVE EDGE



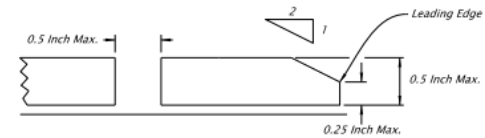
WITH SIDE FLARES

TEMPORARY CURB RAMP, PERPENDICULAR TO CURB

GENERAL CONSTRUCTION NOTES:

- ① Clear width shall be greater than or equal to 48 inches. The curb ramp surface shall be firm, stable and slip-resistant. The ramp surface shall have a 8.3% max. finished surface slope.
- ② Detectable edging with a min. 6 inch height shall be placed along the ramp run when there is a vertical drop exceeding 6 inches or is adjacent to a slope exceeding 1:3 (v:h).
- ③ Detectable edging with 6 inch min. height and contrasting color shall be placed on all turning spaces where the walkway changes direction.
- ④ Curb ramps and turning spaces shall have a 2.0% max. finished cross slope.
- ⑤ Clear space of 48 inch x 48 inch or greater shall be provided above and below the curb ramp.
- ⑥ The curb ramp walkway edge shall be marked with a contrasting color, 4 inch wide stripe. The marking is optional where contrasting detectable edging is used.
- ⑦ Provide an approved means to prevent water from accumulating at the bottom of the ramp, or overflowing onto the ramp surface.
- ⑧ Lateral joints or gaps between surfaces shall be less than 0.5 inch wide. Surface slopes that meet at grade break shall be flush. See edge treatment detail.
- ⑨ Changes between surface heights shall not exceed 0.5 inch. Lateral edges should be vertical up to 0.25 inch high, and beveled at 1:2 (v:h) between 0.25 inch and 0.5 inch height. See edge treatment detail.
- ⑩ Install a min. 2 ft wide detectable warning surface at pedestrian street crossings. Omit detectable warning surfaces at end of sidewalk transitions that are not at a crosswalk.
- ⑪ Side flares where provided shall have 10% max. slope.
- ⑫ The curb ramp surface shall be capable of supporting a min. surface load of approximately 800 pounds.
- ⑬ The curb ramp shall be either self-balancing or include an anchoring system capable of keeping the platform stationary under pedestrians traffic including motorized wheelchairs.
- ⑭ The curb ramp platform shall be free of sharp or rough edges or abrasive elements that may harm pedestrians.

← Max. 8.3% surface slope ← Max. 2.0% surface slope [Hatched Box] Detectable warning surface



EDGE TREATMENT DETAIL

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.	
OREGON STANDARD DRAWINGS	
TEMPORARY SIDEWALK RAMPS	
2024	
DATE	REVISION DESCRIPTION
07-2023	NEW DRAWING CREATED
CALC. BOOK NO.	N/A
SDR DATE	14-JUL-2023
	TM845

Effective Date: December 1, 2023 – May 31, 2024



TPAR – Accommodation Developments

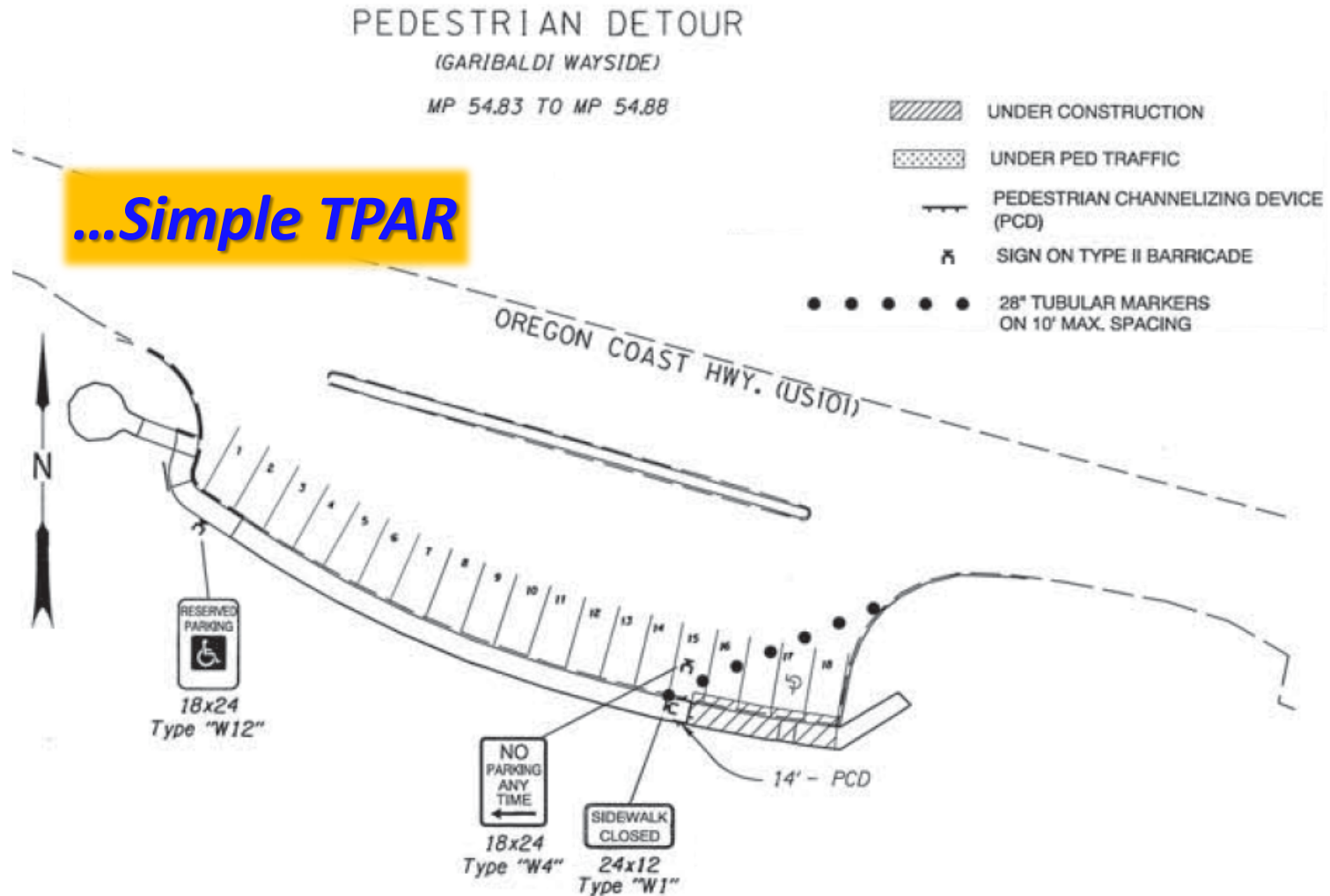
- *Midblock Crossings*



TPAR – Accommodation Developments

SCALABLE SOLUTIONS

- Proportionate to Duration, Impacts and Existing Facilities
 - Larger Impacts \approx Greater TPAR Detail, Complexity, Pay Item list

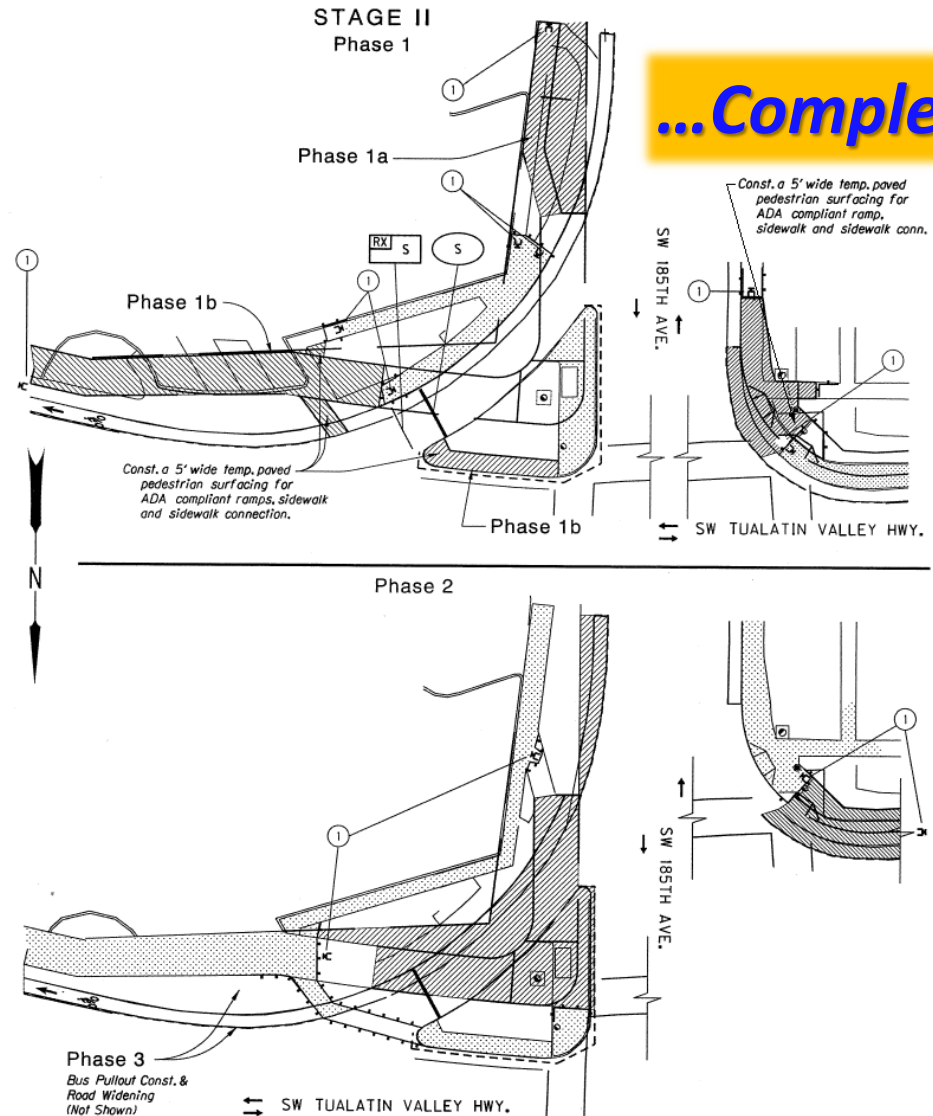
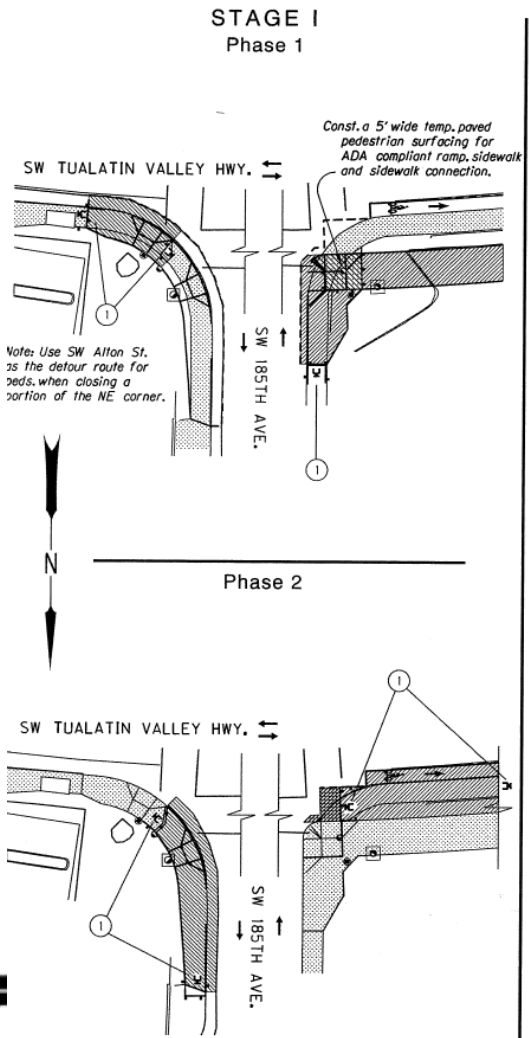


TPAR – Accommodation Developments

SCALABLE SOLUTIONS

- Proportionate to Duration, Impacts and Existing Facilities

...Complex TPAR



TPAR – Accommodation Developments

SCALABLE SOLUTIONS



TPAR – Construction Considerations

- It IS Required!



TPAR – Construction Considerations

- It HAS to work!



TPAR – Construction Considerations

- It HAS to work, AT ALL TIMES



TPAR – Construction Considerations

- It HAS to be maintained



TPAR – Construction Considerations

- It HAS to be Continuous



TPAR – Construction Considerations

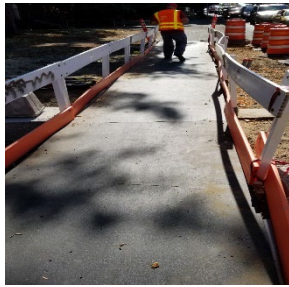
- Caution Tape is not a approved device for TPAR



TPAR

The Good

Surface



Access



Park



Path



Lot



Access



Signal



Detour



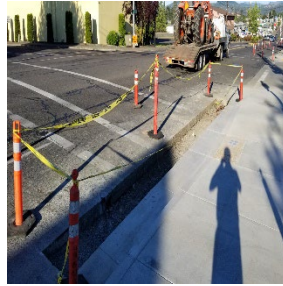
TPAR

The Bad

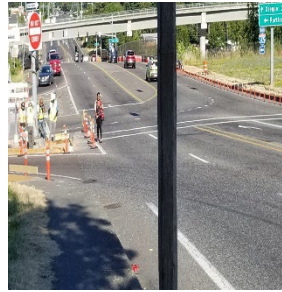
Closure



Tape



Routes



Signs



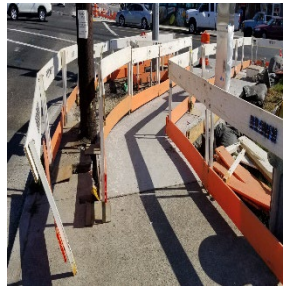
Ramps



PCD



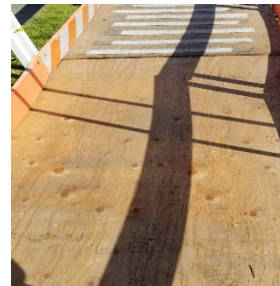
Maintain



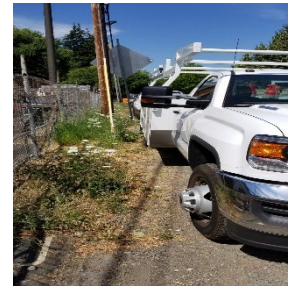
Routes



Surface



Continuous

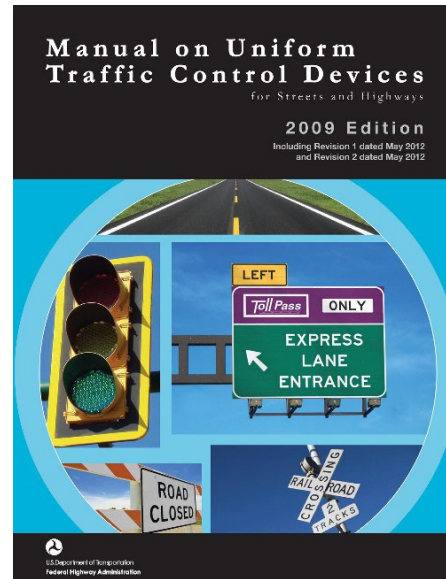


TPAR

Additional Information

<https://www.oregon.gov/ODOT/Engineering/Pages/Accessibility.aspx>
<https://www.oregon.gov/ODOT/Engineering/Pages/Work-Zone.aspx>
WorkZoneStandards@odot.state.or.us

Monthly TPAR Meeting, 3rd Tuesday of month, 1 PM, ODOT TLC



TPAR

Workday Oregon – TPAR Design class



Welcome to the Oregon Department of Transportation's (ODOT) Temporary Pedestrian Accessible Route Design course! This training provides Designers, Engineers or Technical Staff, members of City or County Public Works offices, Inspectors, and private Consultant Engineering Firms an introduction to the policy standards and deliverables that serve as the foundation for developing Temporary Pedestrian Accessible Route (TPAR) Plans for construction activities along Oregon's Highway System.

The lessons below are not intended to be fully comprehensive, but rather are designed to guide individuals who are working with ODOT to commonly referenced resources, materials, and standard practices to be utilized in the development of temporary pedestrian accessible route plans for use on Oregon's Highway System. Professionals conducting work outside of ODOT for other agencies should exercise caution in applying standards and practices within these lessons and resources as differences in design policy and standards may exist between ODOT and those established by other agencies.

Choose an activity below to get started!



TPAR

Comments / Questions / Discussion

