

SUMMARY OF **TPAR FEEDBACK FORM COMMENTS**

Minnesota Temporary Pedestrian Access Route (TPAR) Workshop and Demonstration June 23rd, 2010

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A. Development of accommodation guidelines

Please provide comments to help Mn/DOT develop guidelines for accommodations necessary based on the amount of time the accessible route is impacted, level of work zone attendance, or other factors. The end goal is layouts and guidance in the Field Manual chapter of the Minnesota Manual on Uniform Traffic Control Devices (MMUTCD) and perhaps a Best Practices document.

1. The current MMUTCD utilizes various time durations to define typical traffic control layout solutions. These durations include mobile (15 minutes or less), short duration (one hour or less), short term (12 hours or less), intermediate term (3 days or less) and long term. Please comment on the appropriateness of these existing duration divisions as they may apply to potential TPAR typical layout solutions. Please also offer suggestions for other durations that may work better with pedestrian TPAR installations.

Input varied, but a common remark is that the 5 different MMUTCD durations, as applied to TPAR, could be reduced or combined.

Suggestions included:

- *Attended and less than 1 day, Unattended and less than 1 day, greater than 1 day*
 - *Attended and less than 2 hours, Attended and 2 hours to 1 day, All unattended durations and all durations greater than 1 day*
 - *Less than 1 hour, 1hour to 1 day, greater than 1 day*
 - *Short term attended vs. long term TTC plans*
 - *Less than 2 hours, 2 hours to 3 days, greater than 3 days*
2. Provide your comments on how TPAR situations may be avoided by educating designers and contractors on the placement of signs, vehicles, equipment and materials such that they do not impede access to, or use of sidewalks, ped ramps and other pedestrian route infrastructure.

Response summary:

- *Provide a separate certification course for accessibility evaluators, until TPAR is totally incorporated into standard practice.*
- *Consider specifying: “no vehicles, equipment or materials shall block sidewalks, pedestrian ramps or other pedestrian infrastructure without approval of the engineer”.*
- *Include TPAR requirements in special provisions, field manual and permit forms to make enforceable.*
- *Train inspectors and project engineers to enforce TPAR restrictions.*
- *Place messages on plans and other bid documents to raise awareness of challenges posed by construction projects impacting pedestrian access routes.*
- *Include TPAR plans for large, pedestrian-impacted projects that include messages on maintenance of active pedestrian access routes during the project.*
- *Solicit input from local pedestrians including people with disabilities on types of devices and how they will be placed and used, and lengths and times of any closures.*

- *Consider movement of vehicles and equipment across pedestrian routes, appropriate storage and lay down areas, proper drainage near pedestrian routes, access to accessible features such as push buttons and bus stops, and proper placement of materials and equipment to maintain visibility between pedestrians and motorists/construction workers.*
 - *Provide work zone refresher training to construction personnel emphasizing TPAR's.*
 - *Provide design and device training to traffic staff as guidelines begin to develop.*
 - *Acknowledge that some impacts cannot be avoided and that those impacts apply to residents, businesses, motorists and pedestrians alike. However, good planning can minimize their duration and extent.*
3. Comment on how to determine if pedestrians should be routed through a construction area or routed around (ie: how to calculate or determine undue hardship for persons in the disabled community)

Response summary:

- *Solicit input from local pedestrians including people with disabilities.*
 - *Consider nature of work in the determination of a detour. Large, dangerous excavations are more likely to require a detour vs. smaller utility repairs that may be easier to route through.*
 - *Prioritize routing through if safe to do so – consider narrowing the route, placing in the street, and determine that the contractor will not need to cross the route frequently. If not safe, consider if “you” would take a particular detour, if a detour route is confusing, if a detour can be clearly communicated, if a detour is accessible, cuts off access to bus stops, requires crossing heavy traffic volumes or crosses wide intersection approaches.*
 - *Solicit trainers and people with disabilities to develop a list of concerns that cause undue hardship to evaluate prospective detour routes. This list might be subcategorized based on type of disability.*
 - *If a safe and accessible route cannot be maintained through or around construction, then other options should be explored.*
 - *Note that detours generally allow work to be completed in a shorter period of time.*
 - *Consider distance, quality of terrain, pedestrian volumes, vehicle volumes and required construction durations.*
4. Comment on when, how and under what conditions an alternate TPAR accommodation should be considered such as bus/van/taxi services when construction activity impacts a pedestrian route and pedestrian re-routing causes undue hardship.

Response summary:

- *When a substantial TPAR would be required, such as during a bridge closure.*
- *When a deaf/blind pedestrian is known to use the corridor on occasion.*
- *Depends on length and duration of closure, availability of a safe detour route, likelihood of disabled pedestrians (or other non-disabled pedestrians) willingness to use such offered services, and duration/frequency of transportation vehicle arrivals.*
- *When a safe route cannot be provided through a construction area, a change in staging cannot be accomplished, a detour route causes hardship, and pedestrian counts warrant. Develop a flowchart to assist with this decision making process (North Carolina DOT, Virginia DOT).*

- Consider developing a “Pedestrian Task Force” for use when all options seem to have been exhausted, or perhaps when TPAR accommodations appear unwarranted. The Task Force members would be chosen among various key functional groups within Mn/DOT (State Traffic Management Engineer, State Roadway Design Engineer, Division Construction Engineer, Project Development and Environmental Analysis Staff Engineer, State Roadway Construction Engineer, Division of Bicycle and Pedestrian Transportation Staff and Director). The Task Force would review the decision making process of the design team and either approve or advise another course of action.
- Solicit input from local pedestrians including people with disabilities, similar to requests for input for small business impact concerns.
- Consider a call button or phone number to obtain shuttle service.

B. TPAR Design Guidance

Please provide comments on the *Draft TPAR (Temporary Pedestrian Access Route) Design Guidance*, developed by OTST by combining ADAAG, PROWAG, and the Federal 2009 MUTCD. The end goal is a final document *Guidance for TPAR Facilities and Devices*, which will be used by designers of Traffic Control Plans. Please review the document and make comments. You may wish to mark this document up and hand it back at the registration desk or mail the document back to Ken Johnson. A few areas to consider are:

1. The words “should” and “shall” are both included in the Draft TPAR. Are there instances where “should” is better described by “shall”, or vice-versa?

Response Summary:

- Regardless, include text giving guidance on interpretation of should (i.e.: recommended) vs. shall.
- On Page 2, Slip-resistant (0.6 min. static coefficient of friction and 0.8 for ramps) appears to be a requirement, but neither shall nor should are shown for this item. Review document for other recommendations or requirements that do not include the words “shall” or “should”.
- For consistency, review the document for “required”, or statements that imply required, and replace or insert the word “shall” with the appropriate associated verbiage.
- Under grades, “Grades: Should be flatter than 20:1 with cross-slopes flatter than 50:1”. In PROWAG, isn’t the cross-slope requirement a shall? Might consider “Grades should be flatter than 20:1 and cross-slopes shall be flatter than 50:1”.
- Edge protection: “Edge side slopes steeper than...shall be treated...”, Handrails: “shall have handrails on both sides”, Audible message: “color shall contrast”

2. The Draft TPAR lists design requirements for various devices. Are any of the listed requirements substandard, excessive or in need of modification for the listed devices?

Response Summary:

- *Recommend revising 36” minimum surface width for TPAR walkways and ramps to 48” minimum. Language regarding 60” or greater recommended is ok as is.*
 - *Regarding ramps and landings, the Draft TPAR states: “Ramp sections shall not rise greater than 30” without a landing”. PROWAG states: “The rise for any ramp run shall be 76 cm (30in) maximum”. The Draft TPAR may be misinterpreted as allowing ramp runs rising greater than 30” just by putting in a landing. It doesn’t state that the landing has to be between two sections of ramp runs that each only rise a maximum of 30”, it just says with a landing – which could result in a 60” ramp with a landing at the end or on each end.*
 - *Consider use of crash approved pedestrian protection.*
 - *For curb ramps with a 90 degree turn, consider handrails instead of guiderails for improved safety.*
3. There are sections within the Draft TPAR that are italicized with green colored text. These are sections requiring clarification in this Draft TPAR. If you can provide information, please make comments on these sections.

Response Summary:

- *In the edge protection section, suggest changing “Edge side-slopes steeper than 3:1 or higher then 6” should be treated as a drop off condition” to “Edge side-slopes steeper than 3:1 or greater than 6” should be treated as a drop off condition”.*
 - *Suggest that TPAR detectible marking should extend across the full width of the TPAR.*
 - *Suggest obtaining clarification from the Access Board.*
4. The Draft TPAR also suggests some breakdown and terminology for Pay Items and specifications. Please make comments.

Response Summary:

- *If there is a full plan detailing the pedestrian accommodations, provide a “Lump Sum” item – perhaps “Temporary Pedestrian Access Route” – similar to “Traffic Control” lump sum items. Also consider contingency items that may need to be added to address revisions or other unforeseen events that occur during construction.*
 - *Regarding TPAR Walkway by the linear foot – consider square foot to account for various widths.*
 - *Regarding Detectable Warning by Each – consider linear foot to account for various lengths.*
 - *Keep pay items as a set (basic), add additional as needed.*
 - *Consider various curb ramp sizes to accommodate curb heights taller than 6”.*
5. Comment on the need for shop drawings for manufactured devices and/or contractor fabricated devices.

Response Summary:

- *Shop drawings are important to ensure that items that require loading are properly assembled.*
- *An approved products list would reduce the need for shop drawings to include only contractor creations or new products.*
- *Shop drawings help the Contractor ensure that items meet expectations prior to deployment efforts.*

- *Decide who will review the shop drawings – project engineer, traffic office or other specialty office?*

6. Which devices or installation schemes would best qualify for development of standard plates or standard plans?

Response Summary:

- *Contractor curb ramp*
- *Handi-Ramp curb ramp*
- *Figures A, B and C in the Draft TPAR Design Guidance Document*
- *Clear area protection*
- *TPAR route cross section (similar to drawing on page 2 of Draft TPAR Design Guidance Document)*
- *Note that many devices should be on an approved products list if approved.*
- *Addguard system, or Yodock wall system – with/without fence, light etc...*

7. Do you have any suggested best practice for methods of depicting TPAR devices or installations within a plan set or on Traffic Control Plan sheets? Please send any previously used plan sheets to Ken Johnson for review.

Response Summary:

- *Suggest standard symbols for items such as audible devices, pedestrian longitudinal channelizing devices, etc...*
- *Review 35W/Lyndale Bridge plans.*
- *Suggest indicating TPAR on the Traffic Control Plan sheets. TPAR could be indicated via a line style that is also depicted on the Traffic Control Plan legend. The TPAR line work on the plan could be noted “See TPAR Plans”. Recommend a separate TPAR Plan that will indicate placement of various TPAR elements and could also include additional notes and information such as information for the audible messages to be broadcast at the various audible message device sites, time restrictions for building access, etc...*

C. Demonstrated TPAR devices

Please provide comments on the devices demonstrated in this workshop. The numbering of the devices listed on the following pages is consistent with the numbering on the TPAR Device Demonstration Layout.

Make additional comments on back of sheet and refer to device and question number, such as 07D or 16C, etc.

DEVICE NUMBER:	01	03	04	05	06	07	08	09	16
Considerations:	TYPE IV Barricade	Addgard Fence	Concrete Barrier	Traffix Railing	Traffix Barrier	Pexco Railing	Premier Barrier	Yodock Barrier	PSS Railing
A) Color or Contrast Pros-Cons	-good -not very good -good -ok -may appear too much like a roadway device -good contrast	-good -good contrast -good color and contrast -good, light weight, flexible -more contrast needed -ok -good product -good, easy to see	-none -none -fine -none -too white -not a high vis color, it could blend in -not enough contrast	-good -good -ok, but lower portion color is white, no contrast -good -good -fine -good -ok -has some good color and contrast, may want additional color/contrast at entrance to ped route -good	-good -good color and contrast -good -good -good -fine -good -more contrast needed -good	-good -good color and contrast -ok -good -good -good -ok -good	-good -ok -good color and contrast -good -good -good -good -ok -good	-good -good -good color and contrast -good -good -good -good -ok -good, railing could have contrast wrap	-good -ok -good color and contrast on both sides of ped path, but may want additional posts -good -good -good -ok -good

DEVICE NUMBER:	01	03	04	05	06	07	08	09	16
	TYPE IV Barricade	Addgard Fence	Concrete Barrier	Traffix Railing	Traffix Barrier	Pexco Railing	Premier Barrier	Yodock Barrier	PSS Railing
Considerations:									
B) Snagging and/or Tripping Hazards	<i>-none -yes, bracket on bottom -no -yes tripping -legs could be a problem with tripping -leg stands are a tripping hazard -legs and ballast could cause a tripping hazard. Barricade boards could also snag. -base sticks out at bottom</i>	<i>-no -ok -could fall over if too much weight is on it -none -bottom stand a hazard -maybe -ok -not a problem</i>	<i>-ok -no -not a continuous barrier -none -none -ok -ok, not a problem</i>	<i>-ok -possibly at front of the device, otherwise ok -no -no -none -none -not bad -none -ok -ok, not a problem</i>	<i>-ok -no -no -no -none -none -looks good -none -ok -ok, good no problem</i>	<i>-could be a tripping hazard -legs pose a tripping and/or snaggin g hazard -maybe on the end of the stands -yes -none -maybe, bottom bracket -yes -ok, could be slight tripping hazard -tripping hazard</i>	<i>-gaps are too big along the top - possible snaggin g/trippin g hazard with the gaps, what are the gaps for? -space between -no -none -none -ok -ok</i>	<i>-no -no -ok -none -yes -ok -ok</i>	<i>-ok -no -no -no -none -none -ok -ok</i>

DEVICE NUMBER:	01	03	04	05	06	07	08	09	16
	TYPE IV Barricade	Addgard Fence	Concrete Barrier	Traffic Railing	Traffic Barrier	Pexco Railing	Premier Barrier	Yodock Barrier	PSS Railing
Considerations:									
C) Roughness and/or Abrasive Hazards for Hand Guidance	<i>-sign on barrier could cut -can't use as a guide because then a tripping hazard -vertical posts are problematic -none -pretty rough -yes -poor guidance -ok</i>	<i>-good -no -no -none -smooth -no -ok -not rough, but would like a handrail</i>	<i>-ok -no -none if chipped -none -ok -no -rough -smooth</i>	<i>-ok -there is a small roughness hazard where the railing fits together -no -need proper elev at corner -none -smooth -no -ok -ok, not a problem</i>	<i>-ok -part of the barrier juts up, which could be a small issue -no -no -none -smooth -ok -ok, not a problem</i>	<i>-ok -no -none -no -good -yes -ok, not a problem</i>	<i>-gaps are too big along the top -no roughness, but gaps in hand guidance -none -no -smooth -no guidance -ok</i>	<i>-ok -no -none -none smooth -yes -ok - railing is metal, needs a wrapping</i>	<i>-ok -the railing juts up a little, but not too high -none -no -none -smooth -no -ok smooth</i>
D) Ease for Use to Guide Would this device work for a meandering route vs. straight route? On devices # 05 & 16, does the width of the route appear adequate, especially in the turns?	<i>-heavy -it could be placed for either type of route, but the width would be hard to achieve because the legs stick</i>	<i>-ok -this looked like it could only go around a small work area such as a manhole -yes</i>	<i>-ok, but length of segments might limit use for turns -since the barrier is long, it is harder to place in meandering path, but can be done some -heavy, not for</i>	<i>-ok - meandering or straight -for one wheelchair only, turns are questionable -yes</i>	<i>-ok -yes, it could be used for a meandering path or straight path - yes, maybe</i>	<i>-ok -it probably could be used for a somewhat meandering path, but the sections</i>	<i>-ok -it could, but it would take up a lot of space. And then the gaps would probably</i>	<i>-ok - according to the manufacturer, this barrier has a transition</i>	<i>-ok -yes, it could be used for either a meandering path or straight path -width should be more than</i>

DEVICE NUMBER:	01	03	04	05	06	07	08	09	16
	TYPE IV Barricade	Addgard Fence	Concrete Barrier	Traffix Railing	Traffix Barrier	Pexco Railing	Premier Barrier	Yodock Barrier	PSS Railing
Considerations:	<p><i>out</i> <i>-not great</i> <i>-good</i> <i>-no</i> <i>-no</i> <i>-best for straight route</i> <i>-can use to guide but too easy to move out of place</i></p>	<p><i>-good</i> <i>-yes</i> <i>-yes</i> <i>-for straight or meandering route</i> <i>-ok, would work</i></p>	<p><i>curves because ends would be exposed</i> <i>-good</i> <i>-yes</i> <i>-straight route</i> <i>-many positives of good old fashioned concrete barrier</i> <i>1) non-proprietary, 2) contractors are familiar with it and have equipment to move it even though it is heavy, 3) provides the best protection from vehicles and lowest deflection-turn is too narrow, >36" when possible, straight route</i> <i>-ok, needs handrail</i></p>	<p><i>-travel width seemed narrow but was wide enough for a walker</i> <i>-good</i> <i>-yes</i> <i>-should be 48" apart</i> <i>-36" to narrow.</i> <i>Set 48" minimum.</i> <i>36" absolute minimum following departure request.</i> <i>-yes, too narrow</i> <i>-ok, would work</i></p>	<p><i>not in curves</i> <i>-yes</i> <i>-good</i> <i>-yes</i> <i>-straight</i> <i>-yes</i> <i>-straight</i> <i>-ok,</i> <i>would work</i></p>	<p><i>were a little longer</i> <i>-no</i> <i>-for straight routes</i> <i>-good</i> <i>-yes</i> <i>-no</i> <i>-best for straight route</i> <i>-ok,</i> <i>would work</i></p>	<p><i>y be more pronounced</i> <i>-straight routes</i> <i>-yes</i> <i>-good</i> <i>-yes</i> <i>-yes</i> <i>-both</i> <i>-no</i> <i>continuous railing, the opening is a problem</i></p>	<p><i>piece to allow it to better create a meandering route</i> <i>-yes, they have corner reactions, fence is good</i> <i>-good</i> <i>-yes</i> <i>-both</i> <i>-good railing, would work well</i></p>	<p><i>36"</i> <i>-yes</i> <i>-Travel width seemed narrow but was wide enough for avg walker, easy to angle</i> <i>-good</i> <i>-yes</i> <i>-should be wider 48"</i> <i>-36" too narrow, set 48" minimum-</i> <i>yes, appears to narrow</i> <i>-ok, good</i></p>

Make additional comments on back of sheet and refer to device and question number, such as 07D or 16C, etc.

DEVICE NUMBER:	01	03	04	05	06	07	08	09	16
Considerations:	TYPE IV Barricade	Addgard Fence	Concrete Barrier	Traffic Railing	Traffic Barrier	Pexco Railing	Premier Barrier	Yodock Barrier	PSS Railing
E) Blocking and Re-Direction If placed across a walkway, is it apparent the device is for Pedestrian Guidance?	<i>-it could if used in conjunction with a sign, but this device is used for all types of traffic control, so it may not be apparent. With that said, barricades have been used traditionally to close sidewalks, but they are not detectable without also being tripping hazards. People are used to walking around</i>	<i>-I suppose it is for guiding the pedestrian to walk around the obstruction, but not for closing a sidewalk. -only if signed -yes -no -yes -yes -may fall down -yes -yes</i>	<i>-this is not apparent only for pedestrian guidance because it is used a lot for vehicle guidance too. With signage and markings, it probably could be communicated. If placed across a walkway, it would communicate that the walkway is closed and it may be harder to walk around. It could even direct peds to a new path if used in conjunction with high vis, signing, or audibles, etc.</i>	<i>-yes because it leads the pedestrian into a path, has contrasting colors and is detectable. Plus, it looks like a path. -yes -yes -only if signed -yes -yes -yes -yes -yes</i>	<i>-I think it does with the top and bottom edging for detection, especially if it continues into the new path or there is signing or audibles directing peds to the next course of action. -yes -yes -only if signed -yes -no -yes -yes -yes</i>	<i>-yes, they look similar to barricades, which have traditionally been used to close sidewalks, but not as obvious as the traffic railing. It also could pose a snagging or tripping hazard, causing confusion to a vision impaired individual. -light weight, could move easily -yes -maybe -only if signed -yes</i>	<i>-not necessarily obvious for pedestrians, but certainly for some sort of channelization, so with signing it could be, but the gaps could be an issue. -yes, needs to be full, same cover between barriers -yes -yes -only if signed -no -yes -yes -yes -opening in barrier is a problem</i>	<i>-with the railing and fencing attached, it becomes more obvious and harder to get around. -yes -yes -only if signed -yes -no -yes -yes</i>	<i>-yes -yes -yes -only if signed -yes -yes -yes -yes, probably better if this was a solid surface</i>

DEVICE NUMBER:	01	03	04	05	06	07	08	09	16
Considerations:	TYPE IV Barricade	Addgard Fence	Concrete Barrier	Traffix Railing	Traffix Barrier	Pexco Railing	Premier Barrier	Yodock Barrier	PSS Railing
	<i>barricades. -only if signed -no -no -yes -yes -no for blind of deaf -no -yes</i>		<i>-yes -yes -no -only if signed -yes -no -yes -yes -yes</i>			<i>-yes -yes -yes -not especially, sort of open</i>			
F) Stability of the Device Would you trust this device to help balance you in unlevel ground situations?	<i>-could get out -no -no -ok -no -maybe -yes -no</i>	<i>-no -no, flimsy -yes -ok -no, too shaky -no -no -no</i>	<i>-yes -yes -yes -may appear to be for traffic -best -yes, absolutely -yes -yes -yes</i>	<i>-ok, but the railing seemed a little flexible and a little unstable when placing your weight against it. Railing was also slippery when wet. -yes -yes -maybe -ok -yes</i>	<i>-seems flimsy where it is not belted down -yes -ok, but the top rail seemed a little flexible. Railing was also slippery when wet. -no -good -yes, water or</i>	<i>-flimsy top panel, no, not stable -yes, but not as well as some of the other products -it seemed a little flexible. Railing was also slippery when wet. -no -ok I question it, vender said yes -no</i>	<i>-somewhat, some space between barriers no hand rails -yes -gaps would be a problem -no -good -yes -no -yes -yes</i>	<i>-stable, yes -yes -yes -very good -yes -yes -yes, with railing</i>	<i>-stable, yes -yes -yes -ok -yes -no -yes -If the sandbags are not placed correctly, this device becomes unstable. It is also somewhat flexible. Railing</i>

DEVICE NUMBER:	01	03	04	05	06	07	08	09	16
Considerations:	TYPE IV Barricade	Addgard Fence	Concrete Barrier	Traffix Railing	Traffix Barrier	Pexco Railing	Premier Barrier	Yodock Barrier	PSS Railing
				<i>-maybe -yes -yes</i>	<i>sand filled -yes -yes -yes</i>	<i>-yes</i>			<i>was slippery when wet. -no shaky feels unstable</i>
G) Durability for Daily Usage Would this device withstand daily, week-long, or month-long abuse under typical work zone conditions?	<i>-yes -yes -yes -ok -yes -good -yes -daily</i>	<i>-maybe not -yes -seems like this is more for a short term operation -ok -maybe -medium -no -daily</i>	<i>-yes -yes -yes -yes -best -yes -very durable -yes -yes -yes -month long</i>	<i>-if sand log hold, may take some work to put it up, have to have a wide sidewalk -yes -not sure, it may depend on where it is in the work zone and how much exposure -yes -ok -yes -medium -weekly</i>	<i>-yes, takes a lot of work to set up -yes -yes -maybe -good -yes -good -yes -monthly</i>	<i>-yes -yes -not sure, it may depend on where it is in the work zone and how much exposure -maybe -ok -I question it, vendor rep said yes -no -daily, maybe weekly</i>	<i>-yes -yes -yes -no -good -yes -medium -yes -weekly</i>	<i>-yes -yes -yes -very good -yes -yes -yes - -monthly, weekly</i>	<i>-yes -yes -not sure, it may depend on where it is in the work zone and how much exposure -yes -ok -yes -no -daily</i>

DEVICE NUMBER:	02
Considerations:	EMPCO-LITE Audible Message Device
A) Is the voice clear?	<p>-yes -no, could not understand at all when a lawn mower was operating in the background -had to listen twice to get the message, probably mostly because you may not be ready to hear the message if you are just walking by, not realizing what the device is</p> <p>-yes -yes -yes -could be better -needs to be clearer</p>
B) Is speech speed appropriate?	<p>-yes, -too fast, -it seemed fine -yes, -yes -it could talk a little slower -yes, -slow it down</p>
C) Does the device appear easy or intuitive to find?	<p>-high contrast color, visible and motion sensor, so yes -have to be in range to hear it -device should be accompanied with a sign "Pedestrian Information Center". Flashing light should be operational during day and night</p> <p>-yes -depends on background -yes -if light was blinking it would be better, activation is by motion which is not so intuitive</p>

DEVICE NUMBER:	10.a	10.b
Considerations:	Advance Traffic Markings Truncated Domes	ADA Solutions Truncated Domes
A) Is the device conspicuous by its color or contrast?	<p>-yes (10 times) -yes, but this does not seem needed -not particularly</p>	<i>This product did not appear at the demonstration as planned.</i>
B) Does the device itself pose any hazards such as tripping?	<p>-if the device edges do not, civil or domes separate, also if it stays in place -not too bad -no (6 times) -small -yes, unless anchored properly -possible</p>	
C) Does the manufacturer's glue down method appear adequate? Comments?	<p>-was it glued down? -yes -not for any long durations -yes -seems fine -yes -not sure</p>	

DEVICE NUMBER:	11
Considerations:	HANDI-RAMP – Temporary Curb Ramp with Detectable Surface
A) Is the device conspicuous by its color or contrast?	<p>-yes -yes -yes -yes <i>-side tapers could have a different color paint to point out the elevation difference.</i> -yes -yes -very -yes -yes -yes</p>
B) Does the device itself pose any hazards such as tripping?	<p><i>-the slope flares are not flush with curb</i> <i>-while I didn't slip, it appeared to be slippery</i> <i>-possible</i> <i>-no</i> <i>-it was narrower than the path so potentially it could be</i> <i>-no</i> <i>-possibly</i> <i>-no</i> <i>-no</i> <i>-width of recap should be the same as the walk it adjoins, I have concerns about tripping where this meets another surface.</i></p>

DEVICE NUMBER:	11
Considerations:	HANDI-RAMP – Temporary Curb Ramp with Detectable Surface
D) Does the material used for construction of the ramp influence the stability, practicality and usefulness of the ramp?	<p>-yes -yes <i>-yes, the material shown here seemed pretty stable</i> <i>-very portable and solves many issues with bituminous, drainage, etc... -yes</i> -yes -yes <i>-very good non-slip surface even in the rain</i> <i>-materials appear very durable and stable, weight will be a problem for installation</i> <i>-could be slippery in snow and ice.</i></p>
E) This device was designed for a 3" curb but being used on a 6" curb, increasing it to a 6:1 slope (16%). Provide comments on the need to stay within ADA guidelines for slope and how this slope might be tolerable for short durations and short lengths.	<p><i>-may work with limited space</i> <i>-product is too steep for a 6" curb – ADA allows for a 12:1 slope (8.33%) or less. Need a similar product of longer length to accommodate 4" and 6" curbs.</i> <i>-situation dictating, would appear to be fine.</i> <i>-I think it is fine to deviate from the standard for temp devices, seemed ok</i> <i>-this would make manual wheelchairs difficult to get up the ramp—the 3" curb ramp appears to be fine for shorter</i></p>

DEVICE NUMBER:	11
Considerations:	HANDI-RAMP – Temporary Curb Ramp with Detectable Surface
	<p><i>durations but for longer re-routes the 6” should be used</i></p> <p><i>-need to allow contractors to use simple methods that may solve the problem equally well. For example, some very good “projected” curb ramps made of HMA that create a ramp as good as or better than this proprietary device</i></p> <p><i>-this is much better than no treatment at all which is what frequently happens. A greater length ramp could put the touch down point closer to traffic lane or in it.</i></p> <p><i>- Are grades a shall or should in the TPAR guidance? The guidance says that steeper than 8:1 is not allowed, so this would not be acceptable. What defines a short duration? If we say in the guidelines it should be no steeper than 8:1, that is what we should allow. Otherwise we may have everyone trying to sneak in an exception. It only takes one pedestrian to have an issue with it.</i></p> <p><i>-slope is too steep, esp. in snow and ice conditions.</i></p>

DEVICE NUMBER:	12	13
	HANDI-RAMP – Temp Walking Surface (1/8” thick metal)	HORSE MAT – Temp Walking Surface (3/4” thick rubber)
Considerations:		
A) Is the device conspicuous by its color or contrast?	<p><i>-sort of</i></p> <p><i>-yes</i></p> <p><i>-bright color may be better (i.e.: orange, yellow)</i></p> <p><i>-yes</i></p> <p><i>-yes, shiny</i></p> <p><i>-so so</i></p> <p><i>-yes</i></p> <p><i>-contrast ok</i></p> <p><i>- No – should add contrasting colors at least at the beginning and end of the walkway and maybe along the sides.</i></p> <p><i>-no</i></p>	<p><i>-no</i></p> <p><i>-no</i></p> <p><i>-bright color may be better (i.e.: orange, yellow)</i></p> <p><i>-not really</i></p> <p><i>-not really</i></p> <p><i>-so so</i></p> <p><i>-yes</i></p> <p><i>-contrast poor</i></p> <p><i>- No – should add contrasting colors at least at the beginning and end of the walkway and maybe along the sides.</i></p> <p><i>-no</i></p>
B) Does the device itself pose any hazards such as tripping?	<p><i>-no</i></p> <p><i>-no</i></p> <p><i>-all transitions appear to work well. Would these require handrails or toe rails?</i></p> <p><i>-yes</i></p> <p><i>-no</i></p> <p><i>-yes</i></p> <p><i>-no as long as it is anchored properly</i></p> <p><i>-no</i></p> <p><i>- It seemed fine</i></p>	<p><i>-no</i></p> <p><i>-no</i></p> <p><i>-all transitions appear to work well. Would these require handrails or toe rails?</i></p> <p><i>-possible</i></p> <p><i>-no</i></p> <p><i>-yes</i></p> <p><i>-no</i></p> <p><i>-no</i></p> <p><i>- It seemed fine except for the</i></p>

DEVICE NUMBER:	12	13
	HANDI-RAMP – Temp Walking Surface (1/8” thick metal)	HORSE MAT – Temp Walking Surface (3/4” thick rubber)
Considerations:		
	<i>except for the connection between the two devices. If the ground was very uneven, one side of the device may stick up and pose a tripping hazard. -could be slippery in snow, ice and rain, could collect debris</i>	<i>connection between the two devices. However, with the flexibility of this surface, it may conform to ground irregularities, possible causing a tripping hazard if the ground is uneven. -could be unstable due to its softness and flexibility</i>
C) Does the device appear sturdy if the ground was slightly uneven?	<i>-yes -yes -did not shift around too much. -yes, also tippy -yes -no -yes -consider a highly compactable aggregate for bridging these grassy areas or areas of irregular terrain. Like a finely crushed limestone that you see on some recreational trails. If done properly this</i>	<i>-might require that existing surface is level prior to placement -did not shift around too much. -no -yes -no -seems a little soft but appears to work as long as ground is firm -yes, seemed to have good traction while it was raining. - If the ground was slightly uneven, the flexibility would</i>

DEVICE NUMBER:	12	13
	HANDI-RAMP – Temp Walking Surface (1/8” thick metal)	HORSE MAT – Temp Walking Surface (3/4” thick rubber)
Considerations:		
	<i>is a very hard surface -yes, seemed to have good traction while it was raining - If the ground was too uneven, the device would not flex and be unstable, but would probably be ok if only slightly uneven. -yes</i>	<i>allow the device to conform more to the ground surface, however with many irregularities, a tripping hazard could be introduced. -no</i>

DEVICE NUMBER:	14		
Considerations:	Contractor Supplied – Temporary Curb Ramp with handrail, detectable edges and anti-slip surfaces		
A) Is the device conspicuous by its color or contrast?	<p><i>-wood, no</i> <i>-no, might be good to require installation of reflective, high contrast tape to some of the components</i> <i>-no</i> <i>-handrails make it obvious, but paint may help</i> <i>-no</i> <i>-yes</i> <i>-it's wood</i> <i>-yes</i> <i>-need better contrasting colors</i></p>	D) Does the device appear sturdy to grab if the ground was slightly uneven?	<p><i>-yes</i> <i>-yes</i> <i>-yes</i> <i>-ok</i> <i>-appears very sturdy</i> <i>-yes</i> <i>-yes</i> <i>-yes</i> <i>-yes</i></p>
<p>B) Does the device itself pose any hazards such as: tripping, snagging, roughness or abrasive?</p> <p>1) Can canes get caught, along the bottom or between devices?</p> <p>2) Can hands glide along the top easily without danger of cuts or scratches?</p>	<p><i>-the roughness of the wood could leave slivers</i> <i>-could be prone to slivers on handrails, recommend that railings be constructed of plastic or perhaps composite material</i> <i>-Could the surface become slippery? Possible slivers?</i> <i>-no, only if kept up</i> <i>-it does not appear to/ no/ yes</i> <i>-minor/unsure/did not check</i> <i>-no, except approach plates at both entry and exit points/not really, maybe one spot/no, rough guide rails</i> <i>-was impressed with this device. Very stable. Liked the simplicity of it. Makes me think that we need to tap into contractor creativity. Consider a performance spec: give contractors the requirements and let</i></p>	<p>E) Does the width of the route appear adequate, especially in the turn?</p> <p>F) Is the railing necessary to aid ramp navigation for the slope constructed?</p>	<p><i>-it looks wider than other device layouts</i> <i>-yes</i> <i>-yes, although recommended is 60" x 60"</i> <i>-yes</i> <i>-yes</i> <i>-yes</i> <i>-yes</i> <i>-yes</i> <i>-yes</i></p> <p><i>-yes</i> <i>-might not be required according to draft TPAR document, but think it is a good idea to have it</i> <i>-handrails are required on switchback or dogleg ramps. The slope itself may not require handrails if the rise is only 6" and less than 72" long.</i> <i>-yes</i></p>

DEVICE NUMBER:	14		
Considerations:	<p align="center">Contractor Supplied – Temporary Curb Ramp with handrail, detectable edges and anti-slip surfaces</p>		
	<p><i>them use their skills.</i> <i>-no/ possible/ better handrails could be provided however rails seemed ok</i> <i>- No, unless the friction strips were not adhered properly. However, the device would have to be placed properly, because a pedestrian coming from the side of the ramp could trip. The path into the ramp should be obvious for individuals with low or no vision/ Possibly at the connection between the rubber path and the ramp and the friction strips if not adhered correctly. Or possibly at the bottom of the ramp if not flush or on unstable ground./ Possibility of splinters.</i> <i>-the metal edge at bottom is a tripping hazard/no/could get splinters, should be plastic handrails or wrap the wood rail</i></p>		<p>-yes -yes -yes -yes -yes</p>
<p>C) Does the device appear easy to navigate?</p>	<p>-yes -yes -yes -yes, very easy -yes -yes -yes, handrail helps navigation -yes, clear</p>	<p>G) This device was designed to a 12:1 slope (8%), but installed slopes may vary. Provide comments on the tolerance needed for variations in slope.</p>	<p>-would not recommend a steeper slope. -since the device was tight against the curb, drainage may be hindered. - better base support -I think it is ok for temporary short term use -do not go steeper -seemed fine -should meet ADA standards -slopes steeper than 1:12 are difficult to navigate and should not be used</p>

DEVICE NUMBER:	15
Considerations:	IMPACT RECOVERY – Non-trip Sign Base. Note: This product is generally used in crosswalk situations and is not only a workzone device.
A) Is the device conspicuous by its color or contrast?	<ul style="list-style-type: none"> -yes -yes -yes <i>-the base was not a bright color, however the attachments were.</i> -yes <i>-yes, stands out very well</i> -yes -yes <i>-the sign itself is fine</i>
B) Does the device itself pose any hazards such as: tripping or snagging?	<ul style="list-style-type: none"> <i>-the base may cause tripping for someone who is blind</i> <i>-depends on its orientation</i> <i>-yes, if used in the middle of a walkway</i> <i>-only if placed in a walkway.</i> <i>-yes, only if maintained, have seen a lot not maintained</i> <i>-it does not appear to. It is slightly higher than adjacent pavement.</i> <i>-no</i> <i>-seems like much of this channelization guidance could be done with simple non-proprietary devices if contractors know what is needed. Electronic devices like audible message devices are different but channelizing and providing physical guidance should be able to be accomplished with simple non-proprietary methods. Curb ramps, are the same way.</i> <i>-slight tripping hazard, should be ok.</i> <i>-the base sticks out, presenting a tripping hazard. It is black in color and does not contrast with the asphalt. It should be a bright color to make it obvious.</i>