Crash Analysis Studio – Session 12 Transcript

Introductory Trailer

Chuck Marohn: I want to give you two scenarios. Scenario number one a plane crashes. Scenario number two, two cars collide. In scenario number one, we pull out all the stops – we bring in the NTSB, we try to figure out exactly what went wrong. Scenario number two – we send out the cops, we sweep up the mess, and we go on our way.

John Pattison: If we, collectively – everyone on this call and the broader Strong Towns movement – if we do this right, we're going to save thousands of lives.

Edward Erfurt: Mayors and local council members want to do the right thing. They have the ability to solve it. We're going to help provide those tools for them.

Session

Tony Harris: Okay. Hello everyone. I know some participants and attendees are still filing in, so I'm gonna give that just a moment and then we will get started.
Great. Well, welcome to the Strong Towns Crash Analysis Studio. We are very glad that you're here today. My name is Tony Harris. I'm the action team coordinator with strong towns. And in a moment I'll introduce you to the rest of our expert panel. But first, let's talk about why we're here.

So last year, over 40,000 people died in automobile crashes in the United States alone. Hundreds of thousands more suffered traumatic injuries. And despite the best efforts of public safety officials, these numbers have been increasing and they affect all of our lives. There's a prevalent misconception that car crashes are caused solely by mistakes that drivers make. Looking at your phone, changing the radio, drinking alcohol, speeding. When a crash occurs, the North American response is to send out law enforcement and insurance agencies to assign blame. We ask questions like, who made the mistake that caused this crash? Who should

we blame? The reality is the crashes are caused by multiple factors, not just driver error. When a traumatic crash occurs, we need to identify all of the contributing factors and learn all we can from the experience so that we can reduce the number of deaths and traumatic injuries in our communities.

So what you're going to see today is a Crash Analysis Studio drawing from the best practices of the medical profession. We've convened a panel to review a crash that happened in Rochester, New York. During this collision, a motorist hit a pedestrian who was walking his dog. This pedestrian did not survive and the motorist was arrested as a result of the crash.
So today I'll start by introducing you to our panel, then review the facts of the crash, and with our guests, we will assess the design factors that contributed to this collision.

Again, our goal is not to assign blame. Our objective is to learn as much as possible about what happened and identify the many factors that contributed to this unfortunate event.

So before we get into the details and talk with our experts, we need to begin with the fact that this tragedy resulted in the death of Edgar Santa Cruz and his dog Rosie.

So our local experts, and I want to share a photo with you, which I believe you can see on my shared screen now of a recently finished mural that was painted to acknowledge Edgar and Rosie for anyone on the webinar who's local to Rochester. You can see this mural in person at the Lincoln Branch Library. So please take a moment of silence with me to honor Edgar, Rosie, and all of the joy that they enriched the community with both in Rochester and beyond.

Thank you. I'm now going to introduce our expert panel for today.

So first we have Preston Buehrer, a professional engineer and an engineer who has over a decade of experience, he emphasizes delivering safety focused transportation and placemaking projects. As a project manager, Preston specializes in projects that integrate novel engineering

approaches to solve issues of safety, mobility, and equity in the design process. Preston brings a passion for data analysis to his work with a focus on illustrating imbalances and inequities in the transportation system. His work emphasizes the importance of creating public spaces that allow people to move safely and intuitively, while also welcoming them to linger and become part of a community. So welcome Preston.

Next we have James Dietz, who is the Advocacy and Policy Manager at Reconnect Rochester. In his role, James runs multiple programs, expands community outreach efforts, and leads a variety of advocacy activities. James has worked on projects related to economic and housing justice with both the Taproot Collective and city roots community Land Trust. James has been fascinated by urban and downtown spaces for most of his life, and he hopes to build better transportation infrastructure within Rochester and raise awareness about traffic safety through projects like the studio.

And next we have Evan Lowenstein, who is a 25-year resident of Rochester, New York. Evan has been an urban cyclist for 35 years. He has considered himself to be a safe streets advocate since earning his master's in urban and environmental planning from the University of Virginia in 1998. Evan is an engaged and concerned citizen. He is also the person who nominated this crash for our review and helped gather materials that we are looking at today.

And then our final panelist for today is Edward Erfurt, who is the director of Community Action at Strong Towns. Edward is a trained architect and urban designer with over 20 years of public sector and private sector experience. Edward has a skilled eye when it comes to evaluating the safety issues posed by intersections, roads, and streets, similar to the ones that we'll be looking at today.

So now I will walk us through the details of this crash in Rochester.

Going to share my screen again.

So let's start with what we know. We know that Edgar Santa Cruz and his dog, Rosie, were walking westbound. Prior to the crash, they were crossing the south side of Park Avenue when they were struck by Master Bevel who ran a red light while driving northbound on South Goodman Street. The crash happened at 5:51 PM on December 22nd, 2022.
Santa Cruz was transported to Strong Memorial Hospital after the collision. His time of death was listed as 6:28 PM and we know that Rosie also died at the scene of the crash.
Even though Bevel left the scene, he was found and arrested the day after the crash.
And we know from weather reports that it was rainy, dark, and cloudy in Rochester that evening.

So during information gathering, Evan documented for us that the speed limit on Goodman is 30 miles per hour. And the diagram in the crash report shows us that Santa Cruz was struck on the east crossing segment on the south side of the intersection.

We know that bevel was indicted in March on charges of manslaughter, and we know from an article that was released at the end of November, November 29th, I believe that Bevel did plead guilty and will serve somewhere between two and six years in prison.

So here you can see a map and I have outlined the crash location in red, and you can see some of the different restaurants and community institutions that surround the location.
And then on this next visual, we've zoomed in on the intersection so that you can see both roadways.

Now I've illustrated Santa Cruz with the blue shape here crossing to the west. And then Bevel, we have depicted with this yellow rectangle that's traveling north. And once again, the crash location is outlined in red.

So a little bit more information on site conditions. We know that this segment of South Goodman Street has sidewalks on either side. There's a through traffic lane in each direction, so one going north and one going south. And then there's a center lane that's dedicated to left-hand turns.

There are street lights placed over the traffic signals on all four legs of the intersection with Park Avenue. And these traffic signals are not back plated, at least not yet.

There are crosswalks painted with pedestrian push buttons and signals present and easy to identify. And then there are also stop bars striped at the intersection for motorists.

So Evan gathered some photos of the crash location for us as well that I'm going to walk us through briefly.

This first one shows the intersection from the southeast sidewalk, which is where we believe Santa Cruz would've been.

And then we've included a shot that shows a view of the crash location from that southeast corner where one might start crossing the intersection.

Now I added this still image in from a video that displays what it would look like for a northbound motorist to approach the intersection.

And then we've added in another shot from that same vantage point actually entering into the intersection with Park, right.

And the next is a pedestrian view standing at that northwest corner looking southeast. And I believe the crash location would be right around where this orange car here is in this photo.

And next we have some measurements of the crash location that Evan gathered, I believe, with some help from a representative of the city. So you can see that the sidewalk on the left hand side here is eight feet wide. The southbound through traffic lane is 12 feet wide. That center

turn lane that I had mentioned before, that's 10 feet wide and the northbound through traffic lane is 12 and a half feet wide. And then finally that east sidewalk on the right hand side is 13 feet wide. So that makes the pavement width here 34 and a half feet. And then the full crossing width that includes sidewalks on either side would come up to 55 and a half feet.

So we're looking at what we would describe as a compact walkable urban development pattern here. The crash location is north of Interstate four 90 and state route 31, and it's also south of state Route 96. We know that there are multiple buses that stop at this intersection and in the area surrounding it and that there's a mixture of residential and commercial uses, including multiple restaurants, which I believe I mentioned earlier.

So you can see the area outlined here on this map. And I wanted to just point out the major roadways down here marked in yellow. So we have four 90 and 31 and then 96 is up here. Then I also think it's worth noting that there's a museum and I think at least one or two hotels in the area as well.

So a little bit more information that Evan helped us gather. We know that Park Avenue is due for milling and resurfacing a milling and resurfacing project in 2024.
And as part of that milling and resurfacing project, the Monroe County Department of Transportation has made a few recommendations.

So the first recommendation that they've made is replacing crosswalks with high visibility type L crosswalk markings. And to my knowledge, this recommendation will be implemented during the milling and resurfacing project. And then there were two other recommendations that were made. The first would be adding reflective back plates to traffic signals to improve visibility. And then the second was the the installation of accessible pedestrian signal buttons. So to my knowledge at this time, I don't believe the Monroe County Department of Transportation made any further recommendations about lane configuration or traffic signals, and I think a city representative also helped provide us with this information. So thank you for the assistance.

And then finally, Evan managed to conduct a speed study for us as well, right? So Evan tracked 250 cars in each direction, so that would be 250 cars going north and 250 south on Goodman. And we found that 54% of drivers that were tracked were speeding beyond that 30 mile an hour limit, right? We also found that 4% of drivers were going 10 miles or more over that limit 10 miles per hour or more over that limit with the motorists that was traveling at 64 miles per hour, of course being an outlier. And then we found in our calculations that 85% of drivers were traveling at or below 36 miles per hour.

So I'm gonna stop sharing my screen and I would like to turn to our panel so that we could walk through some factors that are at work here. Preston, if we could start with you, could you tell us, you know, just based on what we've gone over today and what you've reviewed up until this point, what factors you think might have contributed to this crash? And if you have Google Street view up and you'd like to screen share anything, please feel free.

Preston Buehrer: Thank you, Tony. Yes, I will share my screen and I think I'd like to pick things up with that compact, walkable urban development pattern that you mentioned.
Starting from a network level, you know, we're looking at a street grid here. There's very fine grain.

It's typically the sort of street grid that is good at dispersing traffic amongst many streets. And that allows, excuse me, that allows streets in general to be a little smaller in size, which is great. And indeed, the two streets in this intersection, Goodman and Park, are both two lane arterials. So we're looking at streets that only have one through lane in each direction. That being said, if we look a little closer at the network, there's some connections and barriers that are really going to have a lot of bearing on how vehicles move through here. So specifically, if we look at connections to 490 to the south or connections past the railroad tracks in the north, it really becomes apparent that there's a smaller subset of streets that are going to be much more useful to drivers trying to travel through the area.

And specifically for drivers traveling north or south, we're really looking at a sort of confined set of streets, including Goodman, that are going to see an increased pressure to facilitate drivers specifically traveling through the area, not stopping, but traveling through.
So from a network level, that's one of the first things that stuck out to me.

And diving deep a little deeper into the corridor that pressure bears bears out in the data, I have a screenshot here of Goodman Street looking north. This is about 1600 feet in advance of the Park intersection. This is the direction the driver was headed prior to the crash. You can see Goodman to two lane street, it's tree lined, has a nice canopy, pedestrian scale lighting, there's parking lane lines, a lot of things that increase a driver's perception speed and sort of encourage slower speeds. So as was mentioned before, you know, the median speed was 30 miles an hour in the data, which is the speed limit.

Of course, that means half of drivers are traveling faster and as was noted, one driver traveling up to 63 miles an hour. When we look at this image between here at this point and park out, there are no marked crosswalks. There are no stop signs and there are no stoplights. So it's a clear straight shot all the way through. So the context may encourage slower speeds, but there's nothing in the design that actually enforces it.

And when we continue to dive down and look more at the intersection specifically, one of the first things that jumps out to me is really the change in context, right? The tree canopy is gone, the lighting changes from pedestrian scale to a highway scale, the grass buffer ends, and there are a lot of reasons why we might want to increase visibility, provide that, you know, space for additional movements at an intersection. But it's really important that we also recognize what this does to a driver's perception of speed as they approach an intersection. We're taking away a lot of that nearby friction that provides context that says slow down right as we get to the intersection.

So focusing a little bit more in the intersection itself, as was mentioned before, you know signal heads that don't have back plates that can reduce visibility. The signals themselves are placed above the roadway and behind the intersection. That's fairly typical, but what that does is it takes a driver's line of sight, it pulls it up from a roadway and beyond the intersection. So immediately before we even get there, we're trying to get the drivers to focus on what's behind the intersection.

I also want to focus specifically on the street lighting. This was mentioned, this was a nighttime crash. So I think there's a lot to be aware of there. As I mentioned, the pedestrian scale lighting is sort of typified on the right here. If there's a black post with a light that's not too high off the ground, it's typical for the corridor that the driver was traveling along. Once we get to the intersection, the streetlights actually become overhead. More of a highway style lighting and sort of, regardless of the quality of the lighting in either scenario, that's a change. And the human eye has to react to that change.
We don't, our eyes don't react instantaneously. So when lighting conditions change, right, there's a lag there during which people are likely to have reduced visibility.

And if we sort of stick on this idea of lighting for a moment, on the left is the aerial of the crash site. Goodman running up and down park out east west path of the driver is the arrow in red and the sort of red lollipops are rough approximations of the overhead lights. Those overhead lights, first and foremost, they're overhead. They're going to light the top of a pedestrian.

Drivers see the sides of people, not the tops. So that style of lighting is less conducive than the pedestrian scale lighting to actually highlighting people who are in the roadway.
The placement of the overhead lights also correlates with the signal equipment and that placement is above and behind the intersection. So you'll note that the overhead light for the northbound travel lane is actually behind both crosswalks, and that's true for agro approach during this intersection.

So certainly we would expect the style and placement of lighting fixtures to have bearing on the driver's visibility here. In sticking with that, I think the last thing I wanna talk about before passing on to some of my fellow panelists is the specific context of the crash, the dark rainy conditions. This is a photo from one of the news articles The night of the crash, you can see the, it's, it's incredibly difficult to see the glare on the roadway obscures pavement markings. It's a lot for a driver to take in and this is a clear shot. This is not looking through a windshield or you know, we're not taking into account any sort of, are the wipers working on a car or anything like that.

This is a very clear shot from a hundred feet away from the intersection, less than half of the stopping site distance. And I wanna give credit to one of my colleagues I was discussing this with, she pointed out there's a pedestrian in here in this image and props to anyone who noticed that before I said it, there's a police officer standing just to the left of the fire truck. Here again, we're less than half the stopping site distance away from crash site fence. It's incredibly difficult to notice a pedestrian. So just the cognitive load that is placed upon drivers necessitates, you know, thinking about can we do something to slow down drivers because these tor these types of conditions, dark, rainy conditions are prevalent all over.

But I think I will pause there. Like I said, those are the things that jumped out to me first and I'll, I'll pass it on to some of my fellow fellow panelists.

Tony Harris: Great, thank you Preston. I appreciate that the, the detail on lighting I find really fascinating. And then also what you were stating about context versus design, right, with speed enforcement, I think is, is another salient piece. Maybe Evan, would you like to go next on factors?

Evan Lowenstein: Sure. Just hearing, hearing Preston identify all these factors is, I'm trying to hold my jaw here, listening to all of these things that I, I hadn't considered my first reaction, to

be perfectly honest, it from an urban design and urban planning perspective, which I have some training, is that this intersection seems to have a lot of positives for pedestrian accessibility and friendliness. That was my first reaction. By no means perfect, but certainly a lot of things we like to see.

So hearing each of these elements brought out that, that I hadn't, I hadn't considered just in the last few minutes, is really, it's stunning, but in a good way it's like expanded my knowledge of the relevant factors in real time. So I really appreciate that.

My, my impression though is I started looking further into this, is that there were, there were problems and liabilities in the design, many of which have been already articulated.
One of the, one of the things I have been obsessing about as my fellow panelists had can attest to leading up to this is the, the turn lanes, and this again is more of a question than an observation, is the, the attempt to increase throughput efficient throughput of vehicles on this very busy section, which as Preston pointed out is, is one of those three north south
streets that gets a lot of traffic. I should add that the other two that you pointed out, Preston Culver Road in in particular, there's, there's a lot of intersection crashes at East and Culver. I've witnessed the aftermath of them all the time.

Is the turn lanes, the, the attempt to try to increase throughput with traffic lights and turn lanes, is that in itself a liability to pedestrians?

So again, I emphasize this is more of a, more of a question than it is a conclusion, but one of my observations was, hey, is the, does the turn presence of the turn lanes in addition to the light, which facilitates going right through a, a liability in any way for visibility and safety of pedestrians? And if so, what are the remedies? So as I, as I gathered the evidence, the speed study and the photographs and the video and so forth, just the, and James will be able to speak to this because he lives right in this neighborhood, like right in it is what seems to be a relatively friendly place for pedestrians is a pretty, can be a very hostile environment.

And I can speak to this from being a cyclist and being a pedestrian and spending some intensive time there collecting the data would appear to be very generous sidewalks and crosswalks and all that. There's still, there's still sort of a feeling of, of danger, which unfortunately many people are desensitized to at this point, both as pedestrians and drivers in this area with pedestrians being close to cars exceeding a, a lethal speed limit, regularly proximity to the, the, these speeding cars on sidewalks or in the crosswalks. So the list goes on. So my ob my observations were as much learning as they were corroborating things I already knew, but just the experience of doing all this research certainly illuminated things that were invisible to me before, but also emphasized some of the things I had already experienced.

Tony Harris: Thank you, Evan. I think the, the sense of danger that you highlighted when you're close to cars that are traveling at a lethal speed is really important to keep in mind. And I also appreciate that you mentioned, you know, when we first started looking at this crash and at this intersection, I know my reaction also was, hmm, this seems like it could be a pretty, a pretty safe place, right? It could be a decent place and then when you start to kind of peel back the layers, maybe the reality might be a little bit different. So I appreciate that. I think we could move on to James and then if, if there are other factors that come up, Evan, that you'd like to weigh back in on, please feel free.

Evan Lowenstein: Well, the only other thing I would add very quickly is in my time down there collecting the data, there were a lot of stressful cringey moments where people crossing with walkers, people crossing with baby strollers and really a very close, close passes between vehicles and pedestrians even in this environment. And it was, it was stressful for sure.

Tony Harris: Noted. Thank you. Thank you, Evan. James, yeah, I'd love to hear from you.

James Dietz: Yeah, yeah, so as Evan mentioned, I do live in this neighborhood. I live in this area. I'm a couple, two streets west from South Goodman there, but actually right out, right by that

intersection is my bus stop pretty much every single day I catch the 41 Crosstown bus that goes up Goodman Street to get to the office and I stand and I wait out there outside of that sort of building to the right there, locals here know is Matt Hatter. There's bus stop out there and that's my bus stop and it is just standing on that patch of grass there. And it is uncomfortable and it is quite uncomfortable as I, as I watch many, many people jog by.

Thankfully I do tend to be there during more congested times of the day. So, you know, nobody's, you know, barreling through necessarily, but it, I have used that bus stops during other times of the day and regardless of the time of day of the traffic conditions, it, it, it's uncomfortably that close to the street. And, and same goes for in the intersection.
I think as Evan also kind of alluded to, a lot of folks, even myself initially at first, really tend to think of this Park Ave area as being the most walkable, pedestrian friendly area in Rochester. And in parts that might be true, but this particular intersection, when we meet with Goodman, which carries a lot of heavier traffic along it, it it, it makes it far less comfortable. I just happened to remember the other day when I mentioned I was doing this to my partner, the first words out of their mouth was, oh, I hate walking over by that intersection. It's, it's awful, it's uncomfortable.

It is just clearly that despite this perception of this area being very walkable and pedestrian friendly, we have a lot of, lot of long ways to go. And I do just want to share briefly if I could share my screen quickly just to bring some historical kind of context to this. So we're talking about one crash today, and maybe folks may might feel, oh, the circumstances of this crash, regardless of kind of what we talk here kind of sounds like maybe it's a once in a once in a lifetimes and then it'll happen once a million chance, but that's not the case in the last 10 years. There have been other crashes that have occurred here, not necessarily fatal ones.
I think this is the only fatal one that we've had at this intersection in the last 10 years, but I won't spend too much time showing off. You can see this crash map on our website, reconnect rochester.org/monroe County traffic crash map. But other, other crashes that have happened there have resulted in injuries. And I just wanna note as well, when I look through the reports

for those crashes and this, this crash map, those happened during the day during daylight conditions, unlike this, this crash.

And so I just, I just wanna make sure we had that context as well here, that this isn't just a once a one-time thing that happened, there have been previous crashes here and in similar intersections around the city.

I think that's, that's all I have for now.

Tony Harris: Great, thank you. I will be checking out the website to get a copy of that crash map for sure. Perfect. Edward, could we turn to you for factors?

Edward Erfurt: Yeah, I, I, I really appreciate what everybody shared. I'm learning a lot from this, of listening to the pieces on the ground and I I greatly appreciate hearing the experiences from our local experts, from James and Evan when they talk about this particular intersection and this street being uncomfortable from a pedestrian environment.

I could also see it being uncomfortable from my driving position when I, as I look down the street, there's a couple of things that I'm observing as we're approaching this intersection at, and this is something that precedent at chair, when we look at this street on, on Goodman, this is south of the intersection where the, if I look at this, the curb lines don't change through this intersection for Goodman. So the extra amount of asphalt doesn't change, but the environment around it does. We can see curb cuts here, we can see parallel parking, the canopy of trees, the and and the tree lawns along this area.

So I know on this street there is some level of comfort and, and turn movements that are occurring that aren't signaled moving in and outta driveways. We've all been behind a car that has had to parallel park on the street. So this is a, this is occurring and, and looking at the Google Earth images over the years, lots of cars are parallel parking on the street.

As we get closer to the intersection, you can see the things that made it nicer. The, the canopy of trees, again, those disappear, this intersection visually opens up, even though the buildings are getting closer to the street, a lot of the things that we've seen in other crashes start to get removed on the edge conditions with the wide sidewalks. So, well-intentioned for commercial corridor for things on the sidewalks to be clear. But we can see a lot of those optical components that kind of embrace us. And when we're in an intersection or down the street, that would lead us to be going a little bit slower and more compact.

We, we could see that as, as I come to this intersection, there's something that I always pay close attention to.

And I, I'm looking at these curb ramps and I'm looking at this experience about where, why it might be uncomfortable for somebody to be at this type of intersection.
When I look at where you have to stand while you're waiting to cross the street, you have to actually almost be in the intersection. These are non-directional. The crossings are pushed really, really close up to the intersection.

And I think in some of the pictures we've shown, you can see how close the cars, when they actually stop at a light, how close they are to those crosswalks. So there's no breath, there's no room.

You have to almost second guess look twice, look three times to make sure that car's actually truly parked. And, and I could see that being something at this particular intersection.
And, and the other piece is when you add in the dedicated left turn lanes, I, I looked on the traffic data viewer that the city has through the state to show trips the, there's like less than 6,000 trips on the, the cross street and, and Goodman is, you know, probably double that when you add these turn these dedicated turn lanes that's allowing the faster flow of, of car movement and looking at the speed study that was done for this. And you know, this is not, this is a volunteer doing it, it's not an engineer, but we can see right away that people are driving

faster than what's posted. And what that leads me to believe, as I look at this intersection when this is the only section that has a dedicated turn lane when this is a section that doesn't have on street parking when this is a section that doesn't have the canopy of trees, this is what would, as a driver would give me cues that I can move a little bit faster and, and I think we've all seen it.

Traffic lights, when there's a traffic light, we're eyeing that, we're focused on that and appreciate Preston explaining how from an engineering standpoint that your eyes are actually lifted up and above the pedestrian looking beyond the intersection, you also have in the back of your mind, am I gonna make the green?

And I don't know how folks drive in Rochester, but I, I've been lots of places where yellow is the go faster button, which which leads to the, you know, I've gotta hurry and get through this because I don't want to have to wait the 30 seconds for the light to change.

So all of those types of features and, and pieces, the intersection for the pedestrian is actually really tight.

The view corridor for the driver is really far. And that image that Preston showed at the crash scene with a police officer standing in the intersection is shocking to me because you're at a, you're at area that at 25 miles per hour, I would have time to realize what was there, to slow and stop if I'm going 30 miles an hour or speeding through this intersection, I, I, I think that is an, is another piece to it.

I also wanna kind of refer back to the, this crash and some of the, the really sad factors to this, a driver drove through a red light, a a driver broke the law on what was supposed to be there. And we, we believe that driver is going faster than what the speed limit would be in, in that action. There's a couple of things that I would take away from that.

There is nothing in this intersection other than that small light to tell them to stop an individual in the intersection wasn't enough of a queue to let a driver know that they need to stop the conditions of the intersection weren't enough to, to slow them down at this place. And after this horrific trauma, the driver continued to drive on in, in, in panic because again, thinking about these things, what what I've experienced in my own neighborhood, and I think many people can relate to, I suspect there's a lot of local folks that drive on this street and and everybody involved in this are probably local.

We become comfortable on local streets so that when these things, you know, the, in my neighborhood they say the stop signs are, are not for the locals in these types of locations. And in, in areas you become familiar with, you sometimes do things both from a driving position but also a cycling and biking condition. You make some judgements of, of what you can do and can't do. And maybe you press the envelope of that. So at this particular intersection, the, the wider lanes, the crunched in crosswalks where you have to stand on that sidewalk waiting for the light to turn would add to some comfort levels that increases risk at this intersection where people will do things that can result in these horrible, horrible, tragic tragedies. Keeping that margin of error so fine that a simple mistake is such a fatality.

So yeah, really reinforcing what, what everybody else said, but I, what I would look at is a little bit more into this intersection.

There's some, some pieces to it that are really prioritizing the cars moving through and not the pedestrians in an area that's appears to be very highly walkable. And, and, you know, our our panelists are telling us people are walking there, but not at this intersection.

Tony Harris: Thank you, Edward. Much appreciated. Any other thoughts on factors from any of our panelists?

Evan Lowenstein: Just one quick thing and James, you can either corroborate this or, or qualify it is, I, I do think there is quite a bit of pedestrian movement in this area, which is what creates the, the scary conflict. There's a very popular retail store, probably one of the most popular in

Rochester, especially this time of year, right on that corner, there's apartment building and another retail store on the other corner. There's very popular restaurants in within a one minute walk. A lot of people are moving on foot in the area. So while it is a hostile environment, and I think that may be a deterrent to some people moving around there, I I think it's a, it it's a very popular place to walk in Rochester and I think again, that's what, that's what creates the scary conflict.

Preston Buehrer: Yeah, if I can sort of pick up where, sure. Evan was there. I really appreciate, you know, how much everyone here on this call recognizes that there's so much that I think we would all sort of consider that's been done right in this area. You know, there's, there's reasons for the design choices that were made to facilitate the businesses that yield a a, a beautiful walkable neighborhood. And yet here we are.

And so I really, I find this, you know, particular studio really interesting to dive into for that reason. We're not looking at a location that at first pass someone might look at and say, you know, there's, there's an egregious safety issue here, but clearly this is not working. And clearly we need to be thinking harder about how we prioritize the outcomes that we wanna see here. And I think we may get into this a little more with the recommendations, so I'll I'll save it for now. But yeah, I just wanted to acknowledge that, you know, that this is in many ways such a typical intersection and an example of things that could be done better and you know, we, we clearly still as an industry, there's a lot for us to think about and improve upon.

Tony Harris: Definitely. Thank you. Yeah, I appreciate what Evan was saying too with walkability. And for me, I think in some of these sessions, thinking about like levels of compatibility, right? With like motorists and moving through an intersection quickly in a car and also people walking or cycling and kind of taking that vantage point or perspective can be helpful. Yeah,go ahead Evan,

Evan Lowenstein: I'm sorry. I know we're running short on time, but I, I felt compelled to say this too, that I think that even though James and I have described a hostile environment, I do

think there's also a lot of people who perhaps have a false sense of security walking in this environment. That's the other thing that I think is worth noting.

People who see the wide sidewalk, you saw them in the pictures, there's nice wide, wide sidewalks there. Like some places there are no sidewalks, right? Right. And interesting human scale things to experience and look at. And so even though we, James and I and others may perceive this as a hostile environment, I think there's plenty of people who may perceive it as too safe when it really isn't. So I just felt like it was important to add that.

Tony Harris: Definitely. Thank you for adding that. If we're ready to move on to recommendations, I would like to return to Preston if we could to, to move through recommendations on making this place and this intersection safer, more secure, less prone to accidents or crashes I should say.

Preston Buehrer: Yeah, thank you Tony. And you know, I'm glad to hear that a lot of the things I would flag on here as short-term recommendations sound like they've been rolled into an existing project talking about upgrading the crosswalk. So we're using retroreflective thermoplastic and a high visibility style striping, changing out the signal heads so they have bright LEDs and signal back plates. You know, things like that can happen really quickly and easily. So I'm, I'm encouraged to hear that that's already underway.

Some other ideas that might fall in the sort of short term to medium term category, what can we do along Goodman Street, along that corridor that we know is gonna see a lot of pressure from traffic for some time as long as the interstate's there, as long as the railroad's there. Could we think about creating horizontal or vertical deflection, you know, shifting parking from one side to the other. So it forces drivers to move from one side of the road to the other and interrupts that long continuous sight line.

And we think about replacing some of the lighting at the intersection and or along the corridor, sort of making sure that we're adhering to best practices about lighting for pedestrians and making sure they're very visible to drivers.

Are there crossings that could be added along Goodman, speed tables or raised crosswalks? Again, things that would prevent the sort of egregious levels of speed that some drivers show on this corridor and more long term. This is getting to what I was saying earlier, I think we as an industry are grappling with these issues of lighting and nighttime crashes. There's a fantastic article in the New York Times just earlier this week about how much these nighttime crashes are contributing to the overall upward trend in crashes. And we don't necessarily have all the answers yet. So I think a, a lot of this is us, us being transportation professionals, land use professionals, auto automobile manufacturers, everyone involved in this.

Legislators taking a close hard look at what are the factors that are causing such a dramatic spike in nighttime crashes.

I know there's an N-C-H-R-P report coming out, it's a research report that's going to look at industry best practices for lighting and, you know, establishing root causes of some of the pedestrian traffic crashes at night. And I'm, my understanding is that's gonna be a fairly comprehensive report, but I'm sure that won't be the last one. So I think in terms of, of long-term, given that there is so much that seems to be done right here, I think what we need is really like an industry-wide reckoning with why is this happening? Even at what at first pass looks like a, you know, a wonderful walkable neighborhood intersection.
I think there's a lot to unpack there and we're really, really just starting.

Tony Harris: Great, thank you Preston. I appreciate that. Could we move to maybe James next on recommendations or thoughts?

James Dietz: Yeah, I guess more thoughts than recommend than, you know, concrete recommendations.

And I think I shared a little bit this kind of on the, on the Connections show if anybody caught that on Wednesday. But I really see this as this sort of typical example of just how much we are still prioritizing cars on our roadway and on our roadways that even in in a, in a more allegedly safer sort of design and environment to pedestrians, I'll say pedestrians mostly, I know cyclists it's not so comfortable to cycle on Park Ave either or Goodman, I've done both, but yeah, it's, yeah, I think, I think it is part of this conversation and, and kind of on the topic of, you know, the turn lanes helping to move traffic through there faster.

Well we're gonna have to reckon with the fact that we want safer roads, cars are gonna have to slow down. They're gonna have to be, you know, stuck behind buses. You won't hear me complaining about that, but I know some people will be. But yeah, we'll we, we have to slow down car traffic and what has to come from that then is we have to move away from cars as a predominant mode to get around our city. I, again, I really see this as sort of an intersection that could exist any that does probably exist in similar missions anywhere else around Rochester where you have one sort of arterial almost road that carries twice as mile of traffic as the local road or the road going across it.

And you have that, you have that mix that causes that, that stress for, for folks not in the car and even for folks inside of vehicles.

But, you know, I I think it's, I think there's a lot to reckon with there about what, how we're deciding to use these roads and the context that they are in around them and believing that this, this neighborhood is a walkable and pedestrian and cyclists they neighborhood, but still has this very traffic heavy street running right through it that causes crashes like this.

Tony Harris: Well said. Thank you, James. Evan, could we move to you for recommendations?

Evan Lowenstein: Yeah, again, like James, some of my thoughts are more, probably more thoughts than recommendations. Certainly, I'd like to learn more about my thoughts and their

viability as recommendations. But I, I would say with some confidence, certainly what Preston mentioned with the lighting and the trees and the crosswalks and the other technical aspects, I had to look up what a backplate was.

So, so thank you for the, the new knowledge. All those make a lot of sense. But akin to what James is saying, I think the inconvenient truth underlying this is that the priority at this intersection is the efficiency and convenience of the motorist, the efficiency, not inefficiency, the efficiency and convenience of the motorist. And it shows one thing I've been positing with all the necessary disclaimers because I don't have the same kind of experience and knowledge as Preston and Edward is out in the suburbs where I I do drive from time to time. There's one very busy intersection that is a four-way stop sign and not a traffic light and not as busy as this intersection but pretty darn busy.

And my observation is people are more careful at four-way stop signs. There's enough doubt about who goes, everybody has to stop the technology to, and signage to ensure that people stop is pretty good in that area.

And it seems like a very civilized thing for a very suburban environment. And it's because of the four-way stop in lieu of a traffic light. Now I know that I've been around here long enough to know that if you were to recommend a four-way stop sign at this busy intersection in lieu of a traffic light, you would get a lot of pushback because it would congest the area potentially, probably it's already busy, it would slow drivers down. People would have to wait longer, they would have to go slower.

And I think there would be a lot of pushback because again, the, the preliminary mindset, the mental model is the efficiency and throughput of vehicles even in an environment like this. So I keep coming back and I would say it's an, an obsession rather than a a, a scientifically proven recommendation at this point. But a four-way stop, I wonder if it would really would have reduced the chance of this crash because a four-way stop the chances of a, a vehicle being

slowed or stopped in front of the perpetrator probably would've been greater reducing that person's chance of blowing right through a, the inner red light or a green light and maybe introduce enough extra level of caution versus the the green light.

You know, the green light is the symbol of this is yours, go, it's all you. So I'm still fixated on this as a potential solution.

I've mentioned it to people who have said, ah, it's just not viable for a place with this much traffic and congestion. And my reaction to that is, hey, congestion is one of the things that will make this safer for pedestrians, but are we, do we have the courage to do this? I'll just close with that.

Tony Harris: Great, thank you Evan. Edward, could we move to you?

Edward Erfurt: Yeah, I, you know, let me, let me expand a little bit on Evan's thought of what would happen if you put a stop sign here.

I, I lived in Florida for a long time and you would get hurricanes and the power would go out and we'd have to put up in the county the temporary stop signs was sandbags around at the intersections.

One of the things, if that's something as a community that you wanted to try, that would be an easy couple day exercise to do to turn the lights off, put up, stop signs, monitor it, see what happens, test that idea and see if that goes forward. And, and I think in a, in a condition like this, testing a lot of ideas is what you need to do. And not in a public meeting actually doing some physical modifications, we, you know, at strong times we would identify doing stuff with straw bales and cones. So, you know, I I would encourage you if that's something that is momentum in the community to test, there are ways to do that to test it.

That could also lead to other results.

When I look at this intersection and knowing that Park Avenue is gonna be repaved, knowing that that that is happening, that provides you, when you think about milling and repaving, you get to erase all the lines on the, the street and you get to put things back differently. You don't have to put them back the way you found them. You can put them back in a better way.

When I look at this intersection, the and, and I don't have the, the drawings or the, the plans, so I'm just speaking to what I'm seeing here.

If I think of PROWAG[1], if I think about what accessibility is and what the requirement and when that triggers for roadways, I'm not sure that this intersection and all of these curb ramps meet the, the latest requirements and guidance in PROWAG. They're not directional.

Some of the grades and slopes of those I don't think meet, there's not the the proper landing to it. We'd have to go out there with a scale and, and a level and, and, and look at those pieces. But looking at these non-directional crossings, I don't think meet those standards and, and they're folks that are more skilled in that. But looking at those, there's an opportunity at an intersection if you're going to do a full stop of the traffic light, if you're gonna have the sign up that is no turn on red, it provides you the opportunity to actually reset those curb lines to a much tighter curb radius, which again would help slow down the traffic.

When I look at Park and I think about where that goes, this is not a road that goes through the whole part of the city. It has less than half the trips that is on Goodman.

I'm not sure on those streets if that turn lane is necessary. And some of the things that Evan, you are trying to achieve with a four-way stop where people have to wait in line so that you've,

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[1] Public Right-of-Way Accessibility Guidelines

you've got that kind of natural congestion, getting rid of that left turn lane may be a benefit to that and you may have to in order to get the proper curb ramp because you have to extend a little bit further out into the intersection to get things properly leveled. So in the striping plan, I would look really, really hard at that dedicated left turn lane on park and challenge that considerably. I will look really hard at the intersections where the pedestrians are in those curb ramps and anything you could do to get the stop bars pushed further back so the stop condition is occurring further from the intersection so people are more aware of it.

The high visibility crosswalk getting those pushed out of the intersection. Again, further back to again, queue up this in a more advanced way up before you get to the intersection and you think about that sight line of looking up at a light, getting more the pedestrian activity, the crossing into the foreground of where that before you're looking above them, they're actually be in your line of sight.

I also really like the, the ideas and things that Preston was sharing with that recent New York Times article related to the, the vast increase of pedestrian deaths in our country.

I don't think it's a lighting issue of why more pedestrians are being killed on our roads at night. I think it is a congestion issue when we remove cars from the street as in this crash. So the off peak time we were designing our roads so that the, you know, a four lane road, so all the cars are stacked in the road. We fill all that capacity for the morning and evening rush hour peak, but all the rest of the time during the day, we remove all of that friction.

We saw the same thing in, in when COVID-19 occurred when people were working from home and we weren't, we didn't see those commuting patterns. When you take away the friction of people driving on the street, we can go faster. We have all that extra road to fill into, makes us less aware of what's in our surroundings. Our speeds go up and it results in this trauma results in a crash. So on this sort of street, one of the things of getting rid of some of those turn lanes i'll, you can actually put in more congestion by adding in not only the people

stopping at waiting for turns, which I don't think there are that many based off of the, the trip generation, but you also can add back in things like on street parking or narrow curb lines up to tighten those dimensions up to add in natural congestion and a street like this, we should be designing for the ideal condition, which is probably more of the off peak, the the time where you would see more pedestrians and less cars because of the highly walkable neighborhood. And I think looking at the repaving that's coming through, that's an opportunity to start to do that in the short term.

Looking at these things, you could really go out, the city could go out tomorrow and block out the turn lanes or narrow the road up. So everybody has to go to the center with cones. We, we say straw bales, but the the temporary MOU that you would use in a city, when a waterline breaks that, whether it's the orange jersey barriers, the orange cones, white delineator sticks, those are things that could be implemented like tomorrow to tighten this up, to actually engage the public in a way that all users would be engaged in that exercise. And we could observe that with the, the city and with residents to see what behaviors change in that condition so that when it gets, when this road gets milled and repaved in its near future, we could actually install that.

So I, I think there's a lot of different little things that could be done here.

I was actually shocked that this was in the queue for crash analysis studio because at first glimpse, this is a neighborhood intersection that should be at low speed. There's a traffic light, there's crosswalks, but as we dive into it, there's lots of fine grained things. When you're working in an urban environment, we're really talking about inches.

It's really all of that super fine grained things that we never really can fully get in an engineering drawing. And when they go out to contract, then not all that stuff actually gets translated exactly the way it should be with the contractor.

So inches are important. Looking at some of these small minor changes that we could do with temporary measures. It, it is really what I would encourage to go forward at, at, at this site.

Tony Harris: Great. Thank you, Edward. I appreciate that. Anything further on recommendations or responses?

Preston Buehrer: I think the, the thing that I would want to highlight from what all of the, the panelists have said, I think is really this, this emphasis on slower is the goal, right? I think a lot of our industry, a lot of our history has been around how do we increase mobility? How can we let people go faster further?

And reframing that discussion such that slower isn't a negative, it's a positive, is critically important. There are spaces where mobility is critical, but there are many, many spaces including all these beautiful walkable neighborhoods that we have where slower is the goal. And we need to be upfront about that and be able to enumerate all the benefits and the reasons why that is a good thing. And I think discussions like this are really good for pulling those ideas together.

Edward Erfurt: I, I love that. I like this idea of compatible mobility. If, if the post is speed on the street, on Good- Goodman goes down to 20 miles an hour, that's half a second savings of a driver in this area, but it may result in a hundred more people walking through the intersection in the week.

So we're increasing the variety of mobilities and there's so many beautiful voices we've heard from this community of folks that wanna walk and beautiful small shops that are out there. None of these shops have large parking lots, so they're reliant on multiple modes to get there. So making that, getting the speed to the right setting through design so that it's compatible for all the users and in a, in a walk, highly walkable, compact, urban neighborhood. That's an expectation. I think people have that. That makes a lot of sense.

Tony Harris: Well stated. Anything further before we move into our closeout segment?

Okay, well I would like to offer some acknowledgements and thank yous as we wrap up our session today. I'm gonna share my screen one more time.

So I would like to say thank you to Preston, Evan, Edward, and James for being our panelists today. A big special thank you to Evan for nominating this crash in the first place and helping gather all of the resources and supporting me and my work along the way. I'd like to say thank you to Rochester City staff, community members, and other colleagues that have helped us prepare for this session. And thank you to the sponsor of this event and anonymous donor and thank you to Strong Town Staff who have been helpful over the past several months. Getting ready for today.

So you can find a recording of this session and all of our Crash Analysis Studio sessions by going to strong towns.org/crash-studio. There you will also soon find resources for establishing a crash analysis studio in your own community and our next studio session with Strong Towns will take place on January 19th, and you'll be able to find more information about that on our website as well.

So on behalf of my colleagues and the assembled panel, thank you for watching this session of the Crash Analysis Studio and keep doing what you can to build a strong town. Take care.