Item 23-0070: College Avenue Lane Reconfiguration Presentation
Municipal Services Committee
Mon, Jan 23, 2023 4:30PM

Alderperson William Siebers (District 1) 08:33
All right. That takes care of our action items, which leads us to 23-0070 College Avenue Lane reconfiguration presentation. Who's going to start?

Director Danielle Block (Department Of Public Works) 08:49
Can I just hand these out? That—Mike just walked in. I think everybody has one except for. I'll give you Jennifer.

Alderperson William Siebers (District 1) 09:11
I don't mind. **[note: he was talking to someone off mic.]**

Mayor Jake Woodford 09:23
Thank you, Chair. Thank you, Chair. Thank you and appreciate the opportunity to share this with the committee and we'll get this over to staff. I just wanted to start off with talking a little bit about how we got to this point. Why we're even talking about this in the first place. And that really starts with input from the public. I'm sure members of Council have experienced input from the public about increasing concerns about driver behavior, vehicle speeds, vehicle noise, issues like that across the city. We certainly seen that acutely in the downtown on College Avenue.

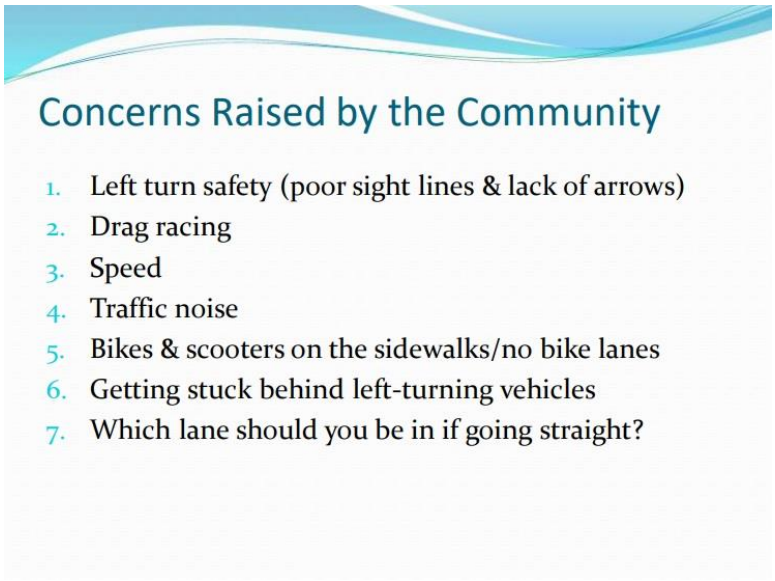
Mayor Jake Woodford 10:10
And since I took office, I've been fielding input from members of the business community, visitors to the community about their experiences downtown, when it relates to sort of general usability downtown for all types of users. So, whether you're in a car, you're walking, you're biking, you're riding a bird Scooter, and the interactions that we're seeing between these different uses. And that's really changed and intensified since the pandemic. Businesses really started to lean even more heavily on the what we call the amenity strip—that part of the terrace between the sidewalk and the street—really as extensions of their businesses, especially when indoor dining was in question and whether that was a good idea. It was really an important option for a lot of businesses. But that also led to more interaction between people who are just sitting outside and the experience of being next to a four lane highway that cuts through the downtown.

Mayor Jake Woodford 11:16
And so, as we're fielding this input, you know, I really got to the point of saying to our, our, our team, "Okay, we're getting all this input, here's some bad ideas." And I'll admit that I've sent them a lot of really bad ideas, maybe too expensive or totally impractical. And we just got to the point of "Okay, that's enough bad ideas, let us work on this and think about, you know, what, what would be possible here on College Avenue that could address as many of the issues that that the public is sharing with us as possible." So, with that, I'll hand it off to Director Block to get started and talk a little bit more about those concerns that were raised and the process of developing some concepts and potential solutions. All right. Do you want it yet or just at least...?

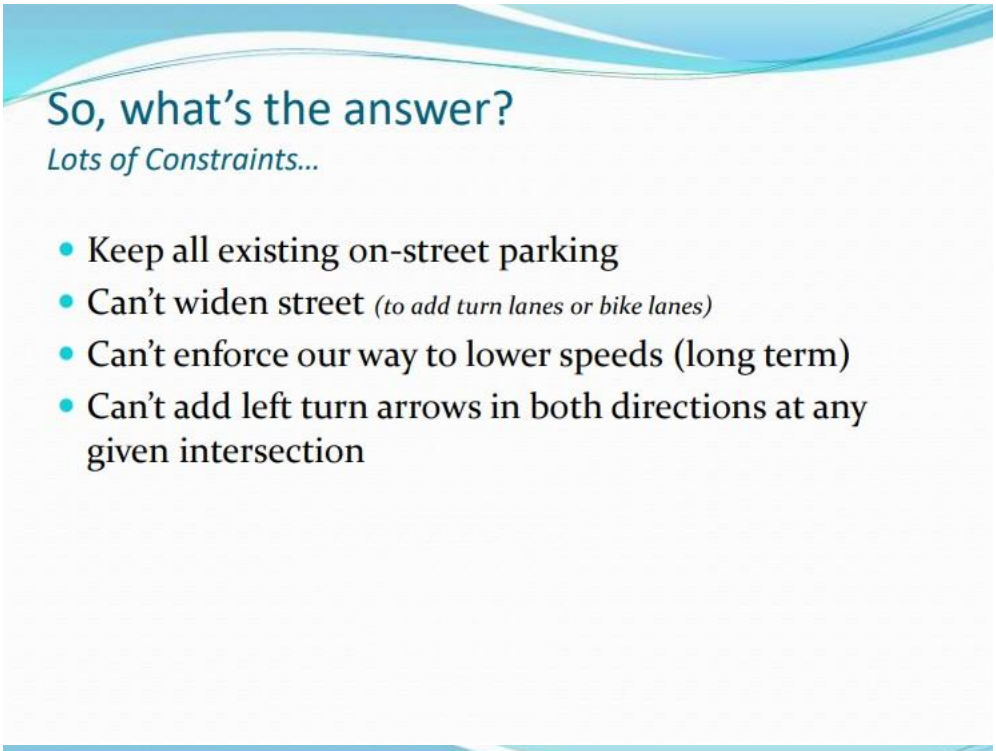
Director Danielle Block (Department Of Public Works) 12:08
Okay, thank you, Mayor. Thank you, committee, for having us present tonight and share this concept with you all. Again, I'm Director Block. I brought traffic engineering section with me, so, Eric Lom and Mike Hardy. As we go through the presentation, keep in mind we're attempting to answer, you know, a lot of these concerns raised by the community that's, you know, driving this this concept. And I'll also point out that the presentation and the memo will be attached to the meeting minutes. So, we'll make that happen. For those who couldn't be here tonight.

Director Danielle Block (Department Of Public Works) 12:50
There was also an update to the memo that I handed out to everybody highlighted in yellow. It just clarifies that the one lane in each direction, which traffic engineers will get into on our diagrams here.

Director Danielle Block (Department Of Public Works) 13:02
So, getting into some of the concerns raised by the community, and that this department has observed. Left turn safety. So, making that left turn onto the side streets off of College Avenue, poor sight lines and the inability to have you know, the dedicated arrow at every signal. Drag racing and speed, likely contributing to a higher level of traffic noise. Bikes and scooters on the sidewalks and no bike lanes really to accommodate a variety of users within the downtown. The concept of getting stuck behind the left turning vehicle and that whole idea of having to strategize as you drive down College Avenue. My husband and I will argue in the car about whose strategy is better as we as we navigate College Avenue. So, we're going to try to touch on a solution that we think could alleviate a lot of these concerns.



Director Danielle Block (Department Of Public Works) 14:07
So, what's the answer? Right? There's lots of constraints down in this section of College Avenue. We want to keep all the existing on street parking. We can't widen the street to add turn lanes or bike lanes; we're restricted there. And we can't enforce our way to lower speeds in the long term. That hasn't proven to be a solution that's going to work for us, and we cannot add left turn arrows in both directions at any given intersection. Which leads us into the idea the concept....



Eric Lom (City Traffic Engineer) 14:47
Okay, well, thanks. So, as we looked at this, we tried to look at what's been done in other places with the types of constraints and the type of situation that we have that are proven best practices that we that we could potentially apply in our case. And if you've read the agenda item that is that surprise is already gone.

Eric Lom (City Traffic Engineer) 15:18
So, what we're looking at is a four lane to three lane conversion. So, we're gonna go through, and I'm going to show you, in some depth what that three lane would look like and how we would transition in and out of it. There are—the technique that we're using here has been used in hundreds and hundreds of locations throughout the country, and in fact, it's been used here in Appleton and a number of cases. Franklin Street was converted from four lanes to three lanes.

Eric Lom (City Traffic Engineer) 15:51
And what they have found over time, as these as it's been applied in all these different places, is that it can handle a lot more traffic than we initially thought. Early on, we thought that they couldn't maybe handle 12,000 cars, and then we found out that boy, oh boy, we might be able to do 14 and 16. And we'll talk a little bit more about that. But the news has been overwhelmingly good in terms of how these have performed in other communities.

Eric Lom (City Traffic Engineer) 16:25
Before I get too deep into it, we have a three-and-a-half-minute video here, which we cut down from about a six minute video. Got all the fluff out of it. And really, I think does a really good job of explaining some of these dynamics as to why this works better for left turns, and, and so forth. So hopefully the audio works.

Film: Female Narrator Who Sounds Like A Computer In A Futuristic Dystopian Movie 16:52
Let's take a quick look at what a 4 to 3 lane conversion is. Here you see a typical four lane road. When we convert to a three lane, we keep the road the same size, but restripe it with one lane in each direction and a turn lane down the center. This often leaves room leftover which can be used for enhancements such as parking or bike lanes. There are many benefits to this new configuration, which we'll discuss a bit later. But first, let's talk about safety.

Film: Female Narrator Who Sounds Like A Computer In A Futuristic Dystopian Movie 17:23
Improved safety for all users is the main reason cities across Iowa have chosen a three-lane road. In this case, three is better than four because it results in fewer crashes and fewer injuries. This keeps traffic flowing, saving people time and money. In fact, converting a four-lane road to a three lane road has been shown to reduce crashes by up to 47%.

Film: Woman Who Sounds Like A Harried Mom Driving A Car 17:55
Let's see. groceries, pharmacy. What else? Whoa! What are you doing?

Film: Female Narrator Who Sounds Like A Computer In A Futuristic Dystopian Movie 18:10
With four lane roads, drivers may stop or slow down at any time to make a turn from the left lane. These unexpected actions result in frequent rear end crashes, sideswipes, or quick lane changes.

Film: Random Man 18:28
Hey, are you okay?

Film: Female Narrator Who Sounds Like A Computer In A Futuristic Dystopian Movie 18:29
Another common crash type on four lane roads is an angle crash. Due to line-of-sight issues on four lane roads, drivers trying to make that left hand turn often cannot see vehicles in the outside lane because they are hidden by vehicles in the inside lane. By design, a three-lane road makes these previously invisible cars visible, helping drivers navigate their turns more safely. Moving all left turns to the center lane reduces rear end and sideswipe crashes too. Fewer crashes also means that law enforcement will spend less of their time responding to crashes, allowing them to focus on other priorities.

Film: Law Enforcement Officer 19:15
The main reason we went to a three lane versus a four lane is for safety. We were covering a lot of accidents on the four lane and by going to a three lane it is decreased our accidents significantly. Also, it's a safety factor for our pedestrians.

Film: Female Narrator Who Sounds Like A Computer In A Futuristic Dystopian Movie 19:29
It's true. Research has shown that three lane roads are safer for pedestrians than four lane roads. There are fewer lanes to cross so pedestrians are exposed to traffic for a shorter time. And since there is only one lane of traffic in each direction, it's easier for pedestrians to judge how traffic is moving. A three-lane road also works well for emergency responders because drivers can move over quickly and easily.

Film: Some Dude 20:00
Compared to either a two-lane road or a four lane road, the three lane has a lot better response time because I mean, we can get across there a lot quicker.

Film: Female Narrator Who Sounds Like A Computer In A Futuristic Dystopian Movie 20:10
On a four-lane road, emergency vehicles can sometimes face bottlenecks, when drivers in the left lane try to move over, but can't. This problem goes away on a three-lane road.

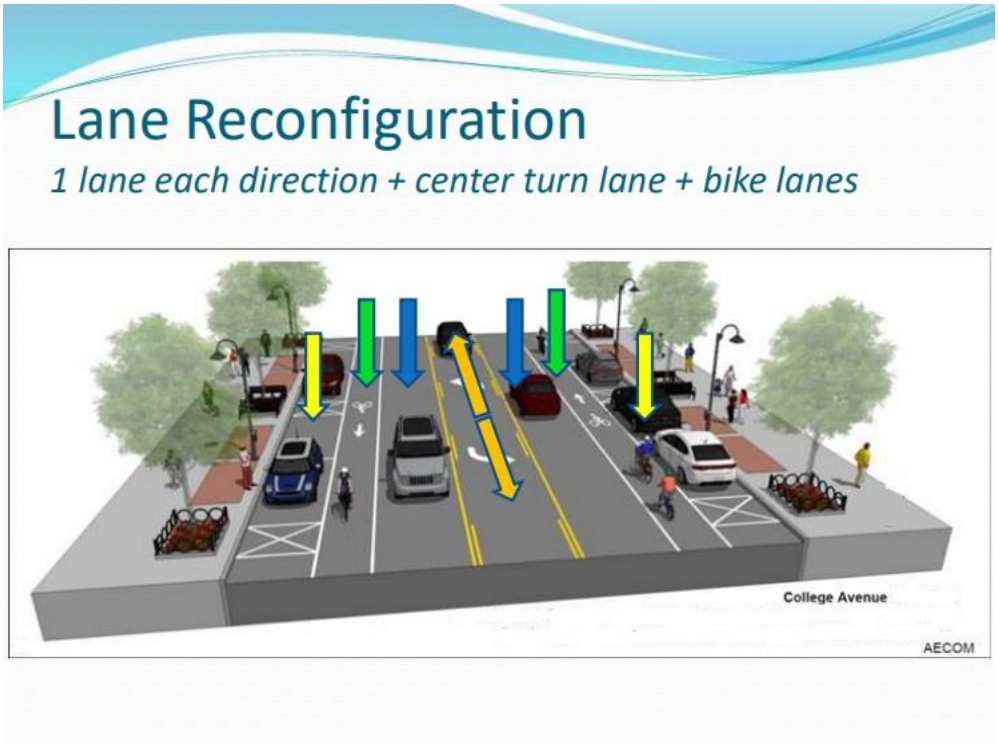
Film: Female Narrator Who Sounds Like A Computer In A Futuristic Dystopian Movie 20:21
The three-lane highway here in Atlantic works really good for us because the center lane is usually open for us. So, we see very little slow time going through town.

Film: Female Narrator Who Sounds Like A Computer In A Futuristic Dystopian Movie 20:32
The flexibility of a three-lane road improves emergency response. And for drivers, traffic flows more consistently at appropriate speeds, making their drive times more predictable.

Eric Lom (City Traffic Engineer) 20:51
Okay, so obviously, we are not Iowa. Iowa just did a really good job of putting together a video and saved us some money. So, we recognize that our downtown is different than the downtown that was shown there. But

what you'll see as we move through this presentation is that the work that we've done to—a lot of work's been put into how this would actually work right here in Appleton with our traffic volumes and our situations.

Eric Lom (City Traffic Engineer) 21:24
So again, this is your what a three-lane section would look like in Appleton, and this particular rendering shows, you know, with our streetscape and everything how this would look. We have our center turn lane in the middle, we have our two thru lanes, and our two bike lanes. And we're of course keeping the parking.

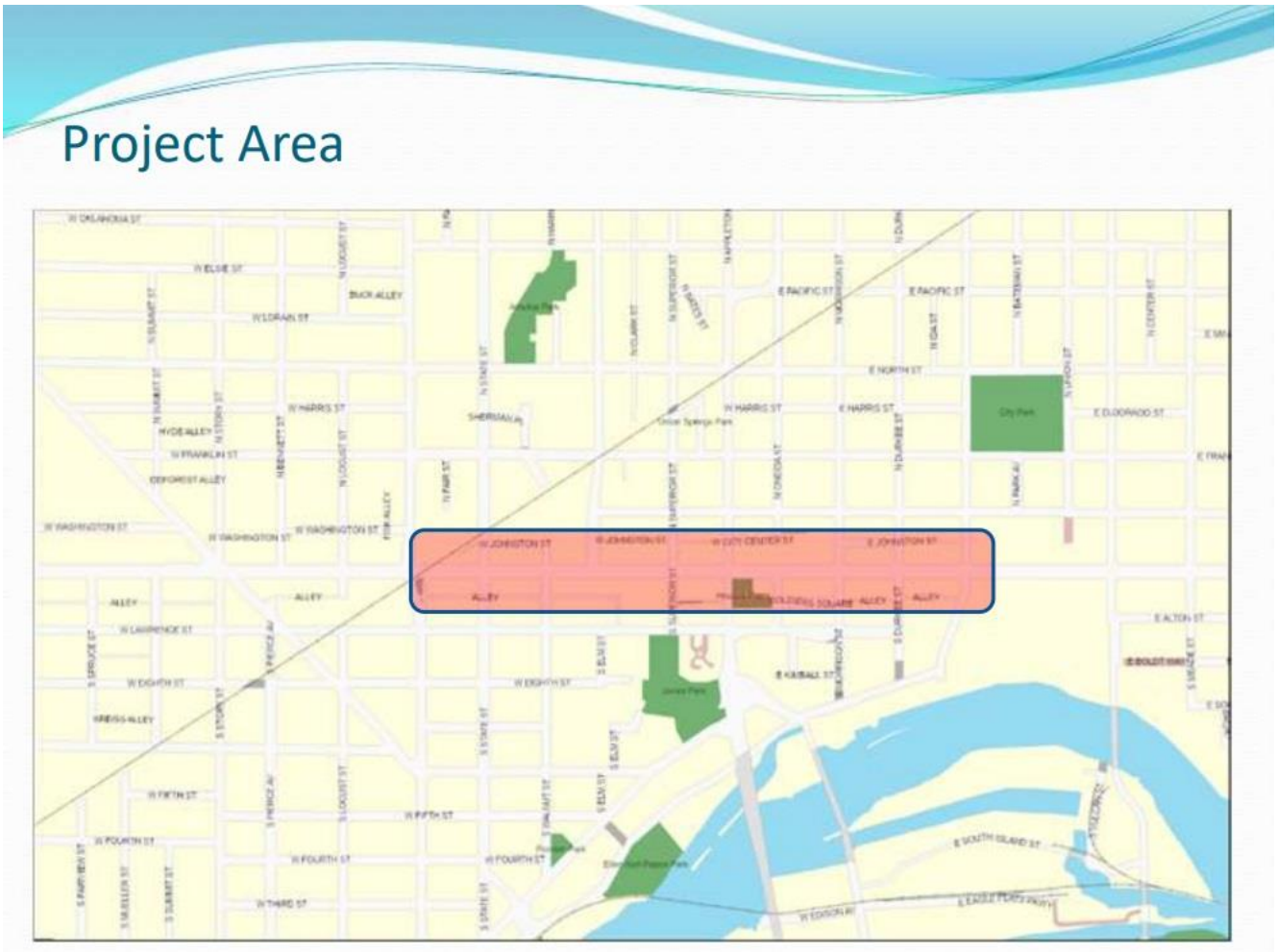


Eric Lom (City Traffic Engineer) 21:46
Some of you might recognize this rendering, it was part of the 2016 Mobility Study. And for those of you that weren't around for that or are not aware of it, the 2016 Mobility study was undertaken as a way of really looking at our downtown as a whole and looking for opportunities to improve mobility for all users, whether it be bicyclists, pedestrians, people eating their dinner in the amenity strip. And it was a pretty comprehensive study. And near the end of that study, the idea of a three-lane conversion was brought up, and our funding was quite limited at the time. We added a very small add on to the study and asked our consultant to do a fairly cursory review of what that might look like right in the core of downtown by College and Appleton.

Eric Lom (City Traffic Engineer) 22:46
At that time, the congestion that we saw when we when that model was run—and keeping in mind that at that time, Appleton Street was still a one-way street, a lot of our other one streets down and around the YMCA were still showing up as one way streets in the network. We did see congestion. And but what we really didn't understand at that time was how far that—what that congestion might look like further away from that College and Appleton intersection that was being analyzed. The congestion that we're seeing in the models now and Mike will go into this in quite some detail in a little while, is fairly similar to what we saw then, at that location. But what we found is that there's a lot less congestion comparatively as you move away from that intersection.

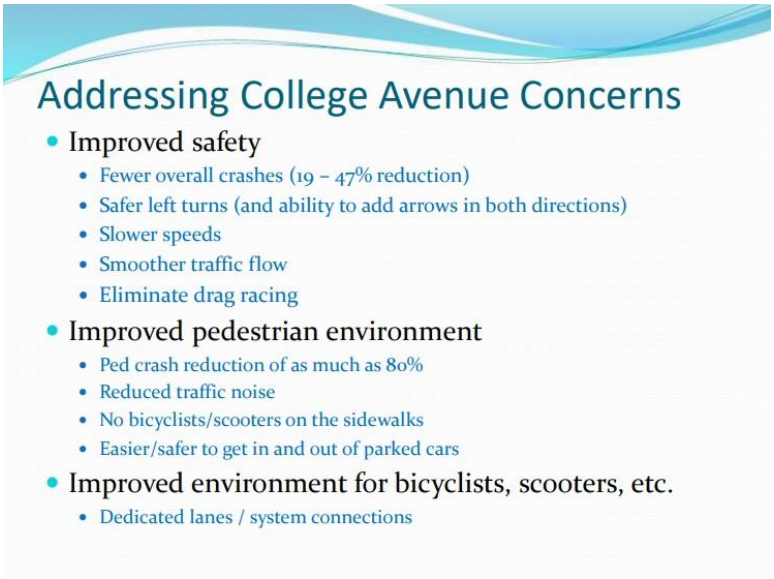
Eric Lom (City Traffic Engineer) 23:41
The other thing that's important. I think, what has changed since 2016, is we think at least that the mood has changed a little bit in Appleton and that the priorities of the people that we answer to have also changed, whether that's because of COVID, or because of more interest in bicycling, and that congestion isn't the only thing we're thinking about. There's a lot of other benefits that might come from a four lane to three lane conversion, that might help offset that little bit of additional congestion that Mike's going to talk about.

Eric Lom (City Traffic Engineer) 24:19
So, for those that didn't get a chance to look at the wall over there earlier, our project area is from Richmond Street to Drew Street. We do have a transition then on either end of that to get from four lanes down to three lanes and then again back out to four on the other end. And that you can see the details over there on the wall if you're interested.



Eric Lom (City Traffic Engineer) 24:47
So, the types of concerns. Just drilling down into that a little bit more. Or the types of things that we think we can address with this approach, rather, is improved safety. You heard in the video, fewer overall crashes. And it's pretty significant. I mean, increase—uh decreases in, in crashes from 20 to 50% if we're rounding off. Safer left turns for a couple of reasons. One, the video I thought did a great job of showing sight distance. You can actually see if there's traffic coming and not have to worry about that invisible car that invariably is back there. And a lot

of times, what happens now is, is people just simply are just going to wait until the light turns red until they're going to finally make their left turn because they just can't see. And guess what that means we already have a three-lane street because people are just camping in the left lane, waiting for the light to turn red.



Eric Lom (City Traffic Engineer) 25:41
We, the other part with as it relates to the safety of left turns is our ability then to add arrows in both directions at a particular intersection. If it makes sense, and it doesn't always make sense. But you with our current configuration, you may or may not have noticed that when the—just geometrically the way it works is you can have an arrow at a particular intersection, you can have an arrow in one direction, but you cannot have an arrow in both directions. And if you kind of think through that in your head, it becomes kind of obvious why we can't do that, because we don't have a left turn lane. So, this would give us the option to do that in those locations where we think it would make sense.

Eric Lom (City Traffic Engineer) 26:21
Slower speeds. And this is a big one. If you think about right now, if you're one of those drivers, those 15% of drivers usually who are intent on breaking, going 10 miles an hour over the speed limit, chances are, you're gonna be able to pull that off, because you're gonna be able to weave through the people that are driving a little bit slower than you want to. Soon as you go to one lane in each direction, it becomes lowest common denominator, whoever's in the front of the line sets the pace. And if they happen to be someone who drives a little bit faster, the second person in line is going to set the pace. And it creates a structural situation where you can't drive 10 miles an hour over the speed limit, even if you want to, because there's likely to be someone in the group who wants to drive slower than that. And those that will find that to be a con with this are precisely the people that we're trying to slow down.

Eric Lom (City Traffic Engineer) 27:22
So, the other thing is smoother traffic flow. We touched on that in the video. You can just kind of understand right now, as Director Block mentioned, you need a strategy to get down on College Avenue. Do you hang in the left lane? Do you hang in the right lane? There's pros and cons to both. You're switching back and forth and trying to figure out how you're going to get through. With three lanes, it's very smooth. Everything if you're—you know where you need to be, you don't have all these lane changing going on. And what it almost certainly

would do is eliminate drag racing. It's kind of hard to drag race if there's no one next to you. So, because you don't have two through lanes coming off of a red light, drag racing goes away.

Eric Lom (City Traffic Engineer) 28:10
Improve pedestrian environment. This is a little bit more of an intangible thing. But certainly we know that for pedestrians crossing the street, whether they're crossing on a walk light and dealing with right turns on red and left turns on green, we know that these the three lane conversion can offer a pedestrian crash reduction of as much as 80%.

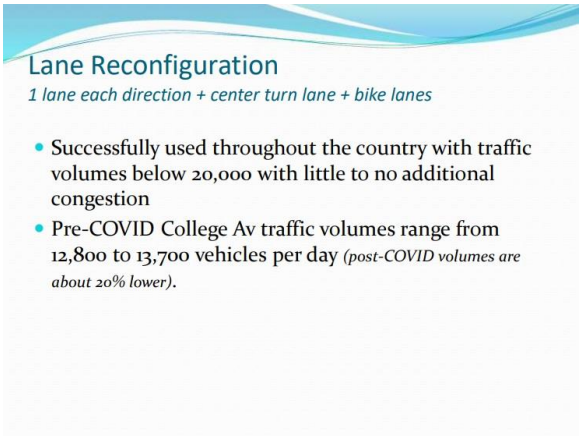
Eric Lom (City Traffic Engineer) 28:37
We know, sort of I think intuitively, that if you're going to reduce drag racing and you're going to reduce speeds, you're going to reduce noise. You're not going to eliminate it. You're still going to have the people who love to come downtown and rev their engines between two buildings so they can hear how loud their car is. But certainly, there's some level of traffic noise that would go down, and that benefits the pedestrians, creates a better environment for sitting and trying to have lunch on the amenity strip and not having to scream at the person across from you.

Eric Lom (City Traffic Engineer) 29:12
It gets—it creates a reasonable option for bikes and scooters. We currently have a ordinance that says bikes and scooters can't be on the sidewalk, and that's great. But we give them no alternative. And it creates a really tough situation for our enforcement folks. Not everybody's going to want to ride in the bike lanes, but a good percentage of those people will, and we're giving them a reasonable option to do so. So that benefits the pedestrians because they're not having to dodge quite so many scooters and bikes on the sidewalks.

Eric Lom (City Traffic Engineer) 29:47
And finally, it makes it easier to get in and out of your parked car. So, if you can imagine right now when you go to open up your door, there's traffic 18 inches from your car. With this scenario we have a six-foot bike lane adjacent to the parked cars. You still obviously need to pay attention to those bicyclists, but generally speaking, it's going to be a lot easier to get in and out of parked cars.

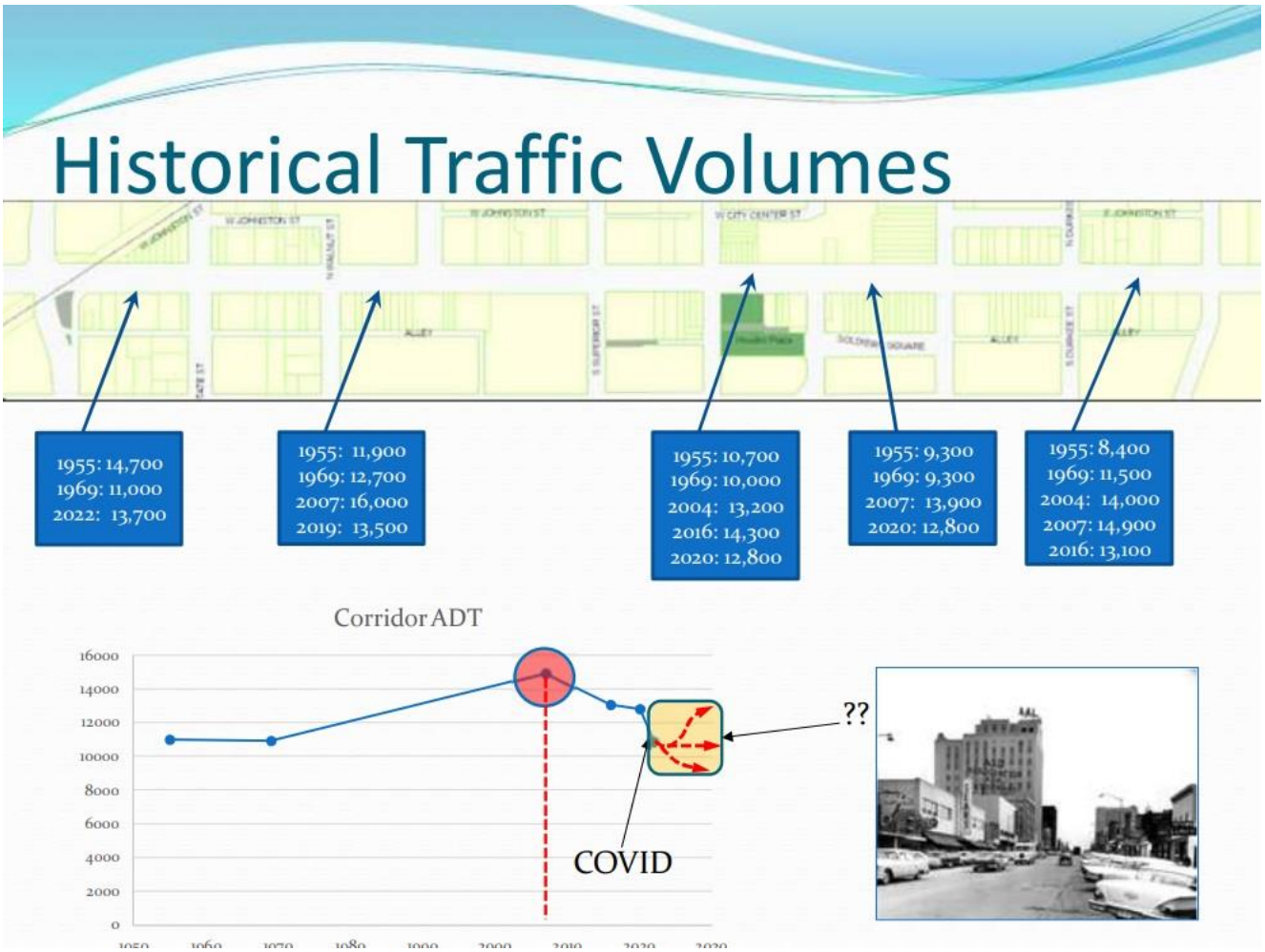
Eric Lom (City Traffic Engineer) 30:12
And as I noted, finally, dedicated lanes for the bikes and scooters, which helps kind of connect a lot of the other bike lanes and other facilities that we have around town.

Eric Lom (City Traffic Engineer) 30:26
As I noted, this is something that we—as this has been tested and retested throughout the country, we know that as kind of a rule of thumb, that it can handle up to about 20,000 cars per day. Now, that's going to depend on a lot of factors, right? Like, do we have parked—do we have people that are parking, parallel parking that is going to restrict that a little bit? How many traffic signals do we have? How closely spaced are the traffic signals? So, while, that rule of thumb says that 20,000 is about what you can handle, which frankly, that wasn't good enough for us. And a lot, a lot of work that has been put into this was really geared towards determining what how much it can really handle in Appleton. And it's less than 20,000 because we have a lot of traffic signals and we have a lot of cars getting parked and unparked. College



Avenue—our volumes range from about 13 to 14,000 cars a day, or at least they did before COVID hit. So, we have a lot of a lot of buffer between what we actually had for traffic volumes pre COVID and what—that 20,000 figure.

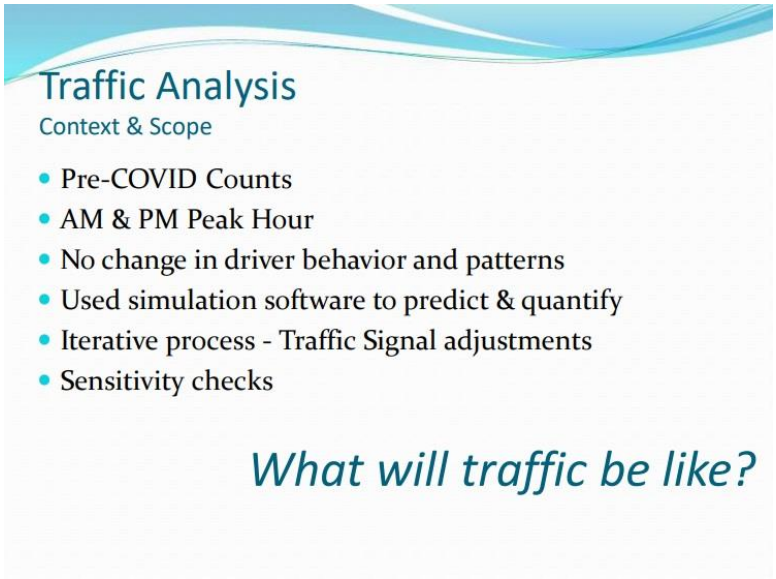
Eric Lom (City Traffic Engineer) 31:48
So, what we did was we went back and we looked at historical traffic volumes on College Avenue. And what you have across the bottom of this chart is time ranging from 1952 to current. And what you have along the y axis is the traffic volumes. So, you can see that in the 60s 70s 80s 90s, we saw a pretty consistent traffic growth across College Avenue. And in fact, we—it was about a 10% traffic growth during that time period. And what we saw is it sort of peaked in the late 2000s. Right here. And ultimately, we saw it drop off a little bit coming into about 2012. And then we saw a big drop off right around COVID.



Eric Lom (City Traffic Engineer) 32:40
So importantly, as we talk about what we used for assumptions when we started to model this is we're using pre COVID numbers. In other words, we're not looking at this dip way at the end and saying "Ha-ha, that's the traffic volumes we're going to use". We're going back and trying to use a more reasonable number that that came be for COVID hit.

Eric Lom (City Traffic Engineer) 33:05
And ultimately, we need to try and figure out what where do we go from here. And there's a couple There's any number of options, the traffic volumes could continue to decrease. We don't think that will happen, but it's possible. Traffic volumes could stay consistent with where they were at their lowest after COVID. And traffic volumes could rebound after from the post COVID numbers. And if they rebound, which is the most likely scenario, the million dollar question is how do they rebound? And how do we calculate what that might look like? So, with that, I'm going to hand it over to Mike, who has spent a good portion of the last month or two trying to answer those questions.

Mike Hardy (Assistant City Traffic Engineer) 33:59
All right before I get into the meat and potatoes, let's just kind of set the table here. I want to talk about kind of some context and some scope of analysis. Eric already mentioned we looked at using pre COVID numbers making sure we're comfortably representing what's out there. Our analysis did look at the am and pm peak hour in both am and in the pm. So, in the am that was representative of about 7:30 to 8:30 in the morning. In the pm that's about 4:30 to 5:30. Now intersection to intersection there could be some variances, but for the most part the inner the intersections with the most concentration kind of drive that.



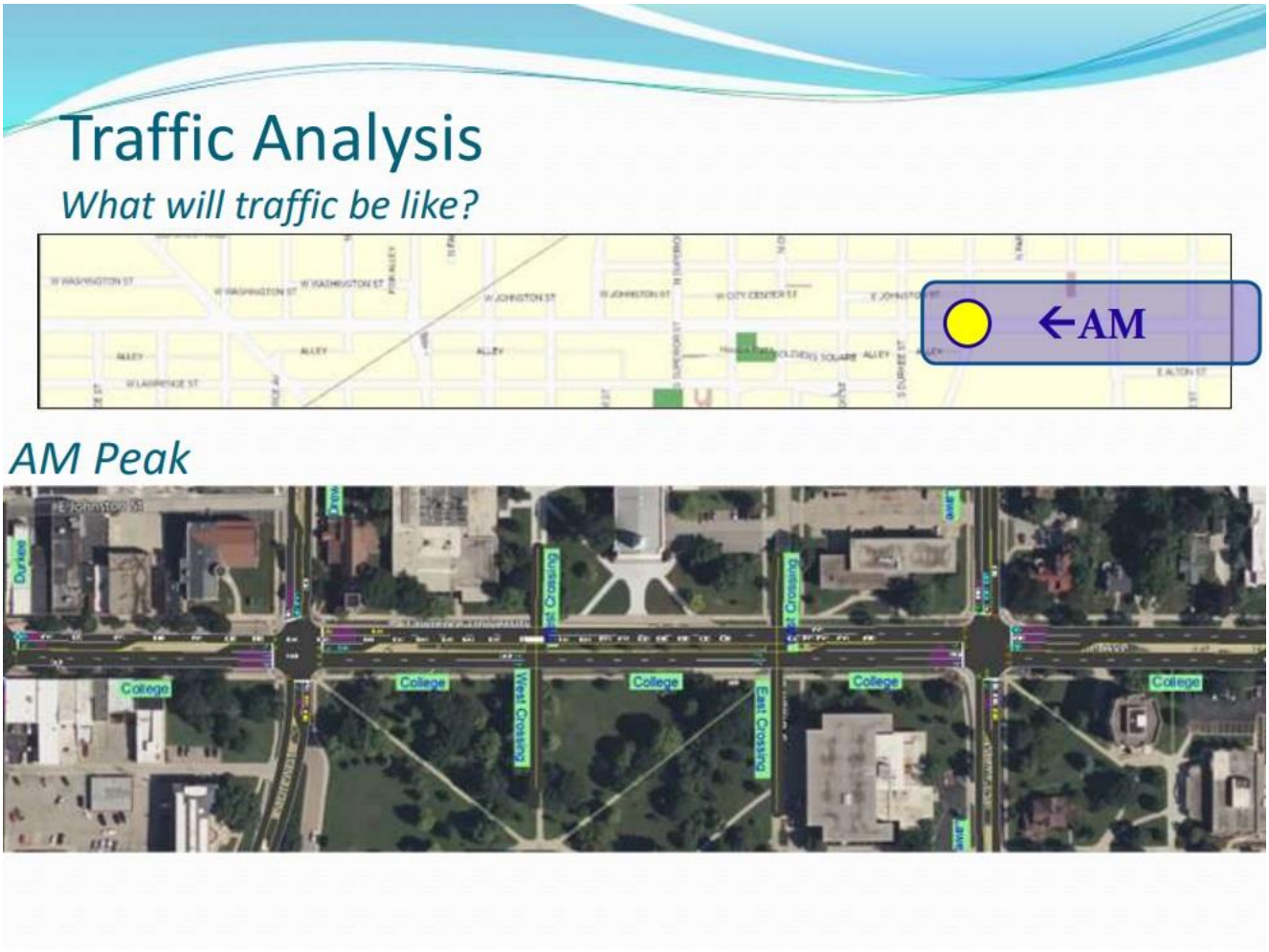
Mike Hardy (Assistant City Traffic Engineer) 34:39
One assumption we made (and this is kind of intentional as a way of control) is we assume no change in driver behavior or patterns. So, if you come in downtown in the morning at eight o'clock, we're gonna assume you're going to keep doing that. If you continue to take College Avenue all the way through or halfway through to your destination, you're going to continue to do that even with the lane reconfiguration. So, it's a way for was to really make sure we firmly understand the cause and effect.

Mike Hardy (Assistant City Traffic Engineer) 35:06
That was kind of hinted. We use a simulation software to give us a chance to predict and quantify. You'll see some of that coming up here. It's an iterative process. So as we run a couple scenarios, we learn where the challenging locations are going to be, we tweaked some of our signal timings or do some of the things that we can do within the scope that Danni had mentioned, of not being able to add travel lanes and thing and widen. It allows us to kind of make those changes and adjustments and reapply and see if the effect is.

Mike Hardy (Assistant City Traffic Engineer) 35:36
And near the end, we get into something we call, in our world, kind of sensitivity checks. So, this is where we say, "Okay, now if some of that behavior or patterns changed, what happens? Does it get better? Does it get not? Where that traffic does go, does that how does that have a cause and effect?"

Mike Hardy (Assistant City Traffic Engineer) 35:53
So, with that, this is all about trying to answer that question. Eric, and Dani explain quite a bit of the benefits that you get with the three-lane configuration. But what do we need to—what is the cause and effect to have for it in Appleton? So that's ultimately the question I'm trying to answer for everybody.

Mike Hardy (Assistant City Traffic Engineer) 36:12
So, we're going to start in the am. And rather than throw you a bunch of tables and numbers, I'm showing you the actual visual side of the traffic simulation. So, in the AM, the transition, as it was described, is at Drew Street, And from a traffic standpoint, this is our area of focus, if we're trying to look at where we're going to have some challenges and find ways to improve. So, it's coming in from the east, from the College Avenue Bridge. If you just kind of look at the city, there's not a lot of access points coming in because of the river. So, there's a lot of concentration of traffic here. So, when I do start to hit play on this, you're gonna see the simulation effect. The white vehicles are straight, the ones that turn blue are for left turns the ones that turn yellow are right turns. But my goal here is to kind of help you not through numbers, but through visuals—through visualization—understand the queuing and the backups that the model is kind of telling us we're expecting to see. So, I'm going to go ahead and just start to let it play. And one thing to hint is the speed that you're seeing here is not real time, this is four times real time. So, two seconds is really eight seconds. And it's just a way that you can kind of in more of a faster way of processing in your mind understand really what's going on.



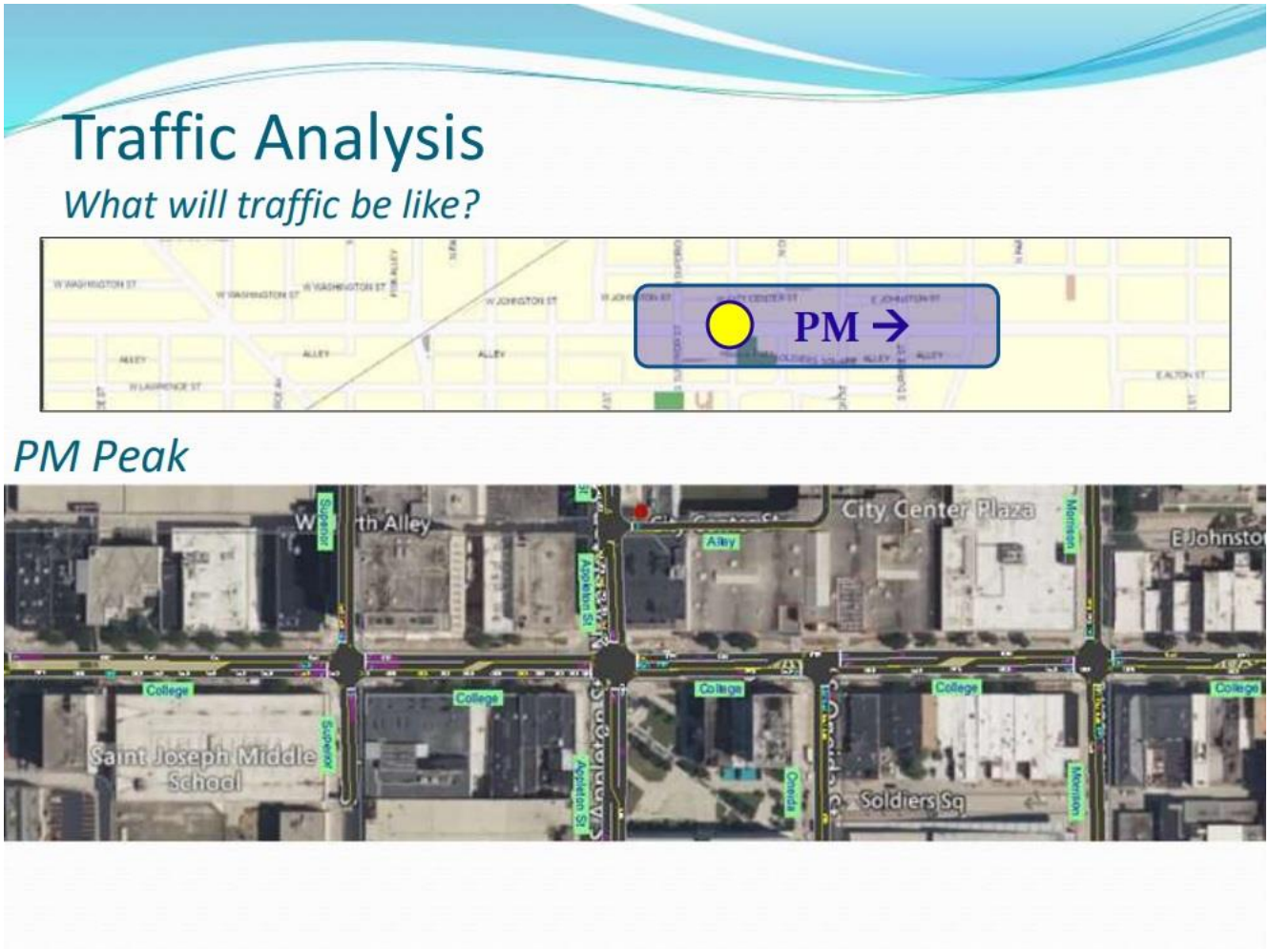
Mike Hardy (Assistant City Traffic Engineer) 37:34
So as I let this play, you're seeing the intersection of the (where's the cursor? Here it is.) Lawe Street here. Here's the first crosswalk of Lawrence. Here's the second crosswalk of Lawrence. And then here's Drew Street. And at Drew Street, this is where the right lane becomes a right turn only so that the left lane can continue into downtown. And as you'd expect, there's a lot of redistribution of that traffic into the left lane. The queuing that the model is predicting that we're going to see is going to vary during the peak hour. Some of it will start earlier in the hour, similar to like it is now even with both lanes, but some of that will then extend through approaching Lawe street. Where these cars stop every so often, like right there, you see that car stop? That's because there's pedestrian interaction as taking place. Obviously at this scale, you're not seeing the pedestrians. But that's an example of knowing that they are factored into this. So, you kind of get to see how as you vehicle stop for pedestrians even under nowadays times, you're starting to see how they can react and get back into the flow.

Mike Hardy (Assistant City Traffic Engineer) 38:44
But here's an example where that queuing now is in front of the chapel about halfway between. The traffic now continues from Lawe street kind of catches the back end and then it becomes kind of a smooth line of it moving through downtown. Once you get past this point in the AM as traffic starts to sparse off into their destination, whether it's the yellow ramp, whether it's other places, the YMCA, this is where we start to see the traffic start to drop and then the **[indecipherable]** of service becomes pretty smooth the rest of the way.

Mike Hardy (Assistant City Traffic Engineer) 39:12
As far as coming in from the west in the am no significant issues were identified. There's ample ability to handle that traffic. And again, I want to remind you, we're presuming there's no change in behavior and patterns as it pertains to this meaning we're not—there's no suggestion that anybody's changing the route or the time they come in.

Mike Hardy (Assistant City Traffic Engineer) 39:35
The other thing that's sort of comes it has value in this layout is with the right lane dropping at Drew Street, you can see the majority of people are transitioning to the left lane it does open up that right lane so if traffic does want to go around College Avenue because, for their reason, they determined it's too much traffic to you know too much queuing or if they want to find in a different way into downtown. We think this'll be good to keep traffic out of the neighborhoods adjacent to Lawrence University to the north. We're not impeding any congestion in both lanes here so that people are turning off at Lawe or Mead Street and trying to cut through on those streets. Maybe try to use Washington Street or Franklin Street to kind of cut over. So, it's our way to kind of manage that as well.

Mike Hardy (Assistant City Traffic Engineer) 40:22
With this, I'm going to move on then to the next. So, in the PM, a little bit different story, a lot more traffic, business is booming now versus in the morning, before 9am. So, what we're looking at here is focusing on, as the intersection of Appleton and College. It was alluded—as it was alluded to, during the mobility study, there was a quick glance at this to see if College Avenue would be a candidate for lane configuration adjustment. And based on the effort of the modeling, they determined that the level of service would be too significant. Now, they were only focusing on the intersection of Appleton and College; they weren't looking at this from a whole systematic standpoint. So obviously, we were able to kind of take a look at some new numbers that we did have. There was a little bit of growth of traffic post that study which was done in 2016. So, we were able to capture some numbers that are more representing of at least what it was before COVID. And we also were able to capture some numbers after the Appleton Street was converted to two way traffic as well, real quick, before COVID did hit.



Mike Hardy (Assistant City Traffic Engineer) 41:31
So we do have some numbers, that give us a good indication of what it could be like. As it was noted, the congestion levels that were identified back in the mobility study, we're seeing the same performance indicators as far as congestion. But at least at this level, I want to be able to show you what that queuing might look like. So, I'm going to go ahead and hit play now. Eastbound is where we see the concentration of traffic is heading eastbound. If you think about trying to head back over to the east side, eventually get through Lawrence University, get to the College Avenue Bridge, and head back out. Whereas to the north to the south to the west, there's many other options of the transportation network to support that. So, we're seeing a very heavy dense traffic flow coming in in the eastbound direction into the Appleton intersection which is which is right here.

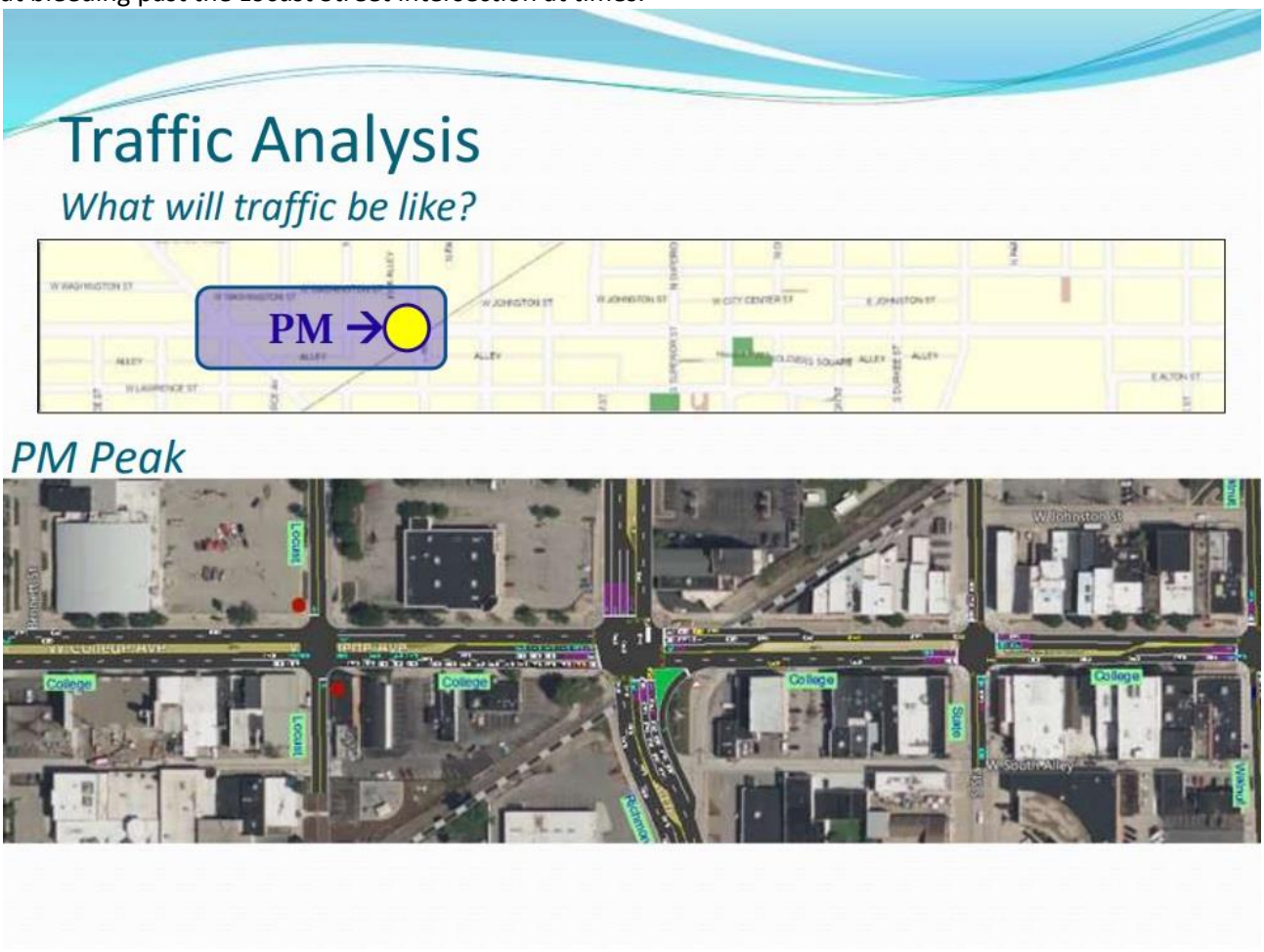
Mike Hardy (Assistant City Traffic Engineer) 42:27
So, with that queuing, the model is saying that, kind of giving us prediction, that that queuing is going to extend through Superior intersection approaching the Division Street intersection. There also is a little bit of queuing in the southbound direction of Appleton street between College and Washington that fluctuates depending on the peeking in the surging throughout the hour.

Mike Hardy (Assistant City Traffic Engineer) 42:53

So again, I want to emphasize we're not shifting any traffic from the four-lane section to this, we're not rerouting any traffic under this scenario. What you're seeing here is if all those cars continue to proceed through under the lane configuration adjustment.

Mike Hardy (Assistant City Traffic Engineer) 43:08
As far as the duration of this, certainly within an hour, there is some peeking. You know, it's not always distributed evenly throughout the entire hour. Some 15 minutes, you might see a little bit more surge of traffic. Think of it as you know, when the shift lets out or when people are leaving work at about 4:30 where there's a higher percentage of that. With the with looking at this modeling, while I'm only showing you a little bit of it, there is a little bit of this will anticipate this kind of at maybe not the entire hour but approaching maybe a half hour to 45 minutes where you could be experiencing this type of queueing.

Mike Hardy (Assistant City Traffic Engineer) 44:04
So what I want to move on now is to one other location that we identified as where we're going to see some challenges. So, the same way in the morning we dropped the one of the lanes on Drew coming in from the east, on the other end, we also have to do the same. And the lane drop in this case, if you've seen the board or had a chance to look at in detail, the actual lane drop is at State Street. The left lane becomes a left turn only. The modeling is sort of predicting, though, that a lot of the human behavior and drivers is going to be to try to get in that right lane before you get to Richmond though to try to transition that. So, I'm gonna go ahead and kind of let it simulate now. With this we do anticipate some queuing coming back from the Richmond Street. Some of that bleeding past the Locust Street intersection at times.



Mike Hardy (Assistant City Traffic Engineer) 45:19
So, in this case, you can see some of the cars, they're not pulling up all the way, they're kind of saying, "Hey, I gotta get over." It's kind of no different than the behavior you see on the freeway when the left lane's closed ahead, everybody stops a mile in advance and start jumping over in the right lane. So, we do feel this is representing of that behavior that we might see. Now, certainly, some of the drivers that are more familiar with the area and might be a little bit more aggressive, they'll continue in that left lane and then merge over here, between Richmond and, and State Street.

Mike Hardy (Assistant City Traffic Engineer) 45:48
So collectively, though, across these two segments, is if you are trying to at least put some statistic to this, or some value to this, it takes about five minutes on average to get from Richmond street all the way across downtown through Lawrence University to Meade Street. I didn't touch on it in the AM, but in the AM, it would add less than 30 seconds of delay across that whole corridor. Even though you're seeing that queuing across Lawrence University there, it would add less than 30 seconds on average per vehicle. Now obviously, during the fif—some 15 minutes, you're gonna see a little bit more surging and that but on average, that's, that's what you'd see.

Mike Hardy (Assistant City Traffic Engineer) 46:25
In this case in the pm across the segment here and the segment that I showed you that was happening at Appleton Street, instead of five minutes to get across, you'd take about seven minutes. So, you're looking at an additional two minutes, if you're one of those persons that's really intent on getting all the way across, kind of using it more as a highway to get through from the west side to the east side.

Mike Hardy (Assistant City Traffic Engineer) 46:56
So now, what I want to do is touch on a little bit of the sensitivity review we did. So, Franklin Street is the street that parallels College Avenue from Richmond all the way to Drew. So that's the street that has continuity and continuousness from where we drop, or where we end and transition from the four lane to the three lane on the west end, as well as on the east end.

Mike Hardy (Assistant City Traffic Engineer) 47:20
With looking at some of the comments we add and some of the modeling did we feel pretty confident Franklin Street can handle a lot more traffic than it currently does. If you think of the history of Franklin Street, it was already indicated it already was had a lane reconfiguration already happened. It did go from four lanes to three. Over time, I think the last 10 years, I think out of the mobility study, we actually had to remove two traffic signals that were still in operation. If you remember there was a traffic signal at Franklin and Superior as well as Franklin/Oneida. So, another indication of just how much available traffic capability Franklin Street has.

Mike Hardy (Assistant City Traffic Engineer) 47:59
Just hard numbers we did. We modeled an additional 200 cars, eastbound and another additional 200 cars in the westbound direction, which would effectively double the what's out there now. And it can perform in a satisfactory manner. So, Franklin Street has a lot of capability to support. I think what we're experiencing now is people can use College Avenue. It's serviceable to get them across, and there's no need to use those streets. But the reality is, is that a lot of capacity and capability to support College Avenue, under this circumstance of a lane configuration.

Mike Hardy (Assistant City Traffic Engineer) 48:35
The other thing we did is knowing that we were obviously pretty pushing the limit on how much traffic we can push through eastbound in the PM, both in this in Richmond Street intersection as well as the Appleton and College intersection. We ran a scenario where what if we could just take 100 cars during the busiest hour and send them up to Franklin Street. So, we adjusted the model traffic count to transition 100 cars to make a left turn at Richmond street instead of continuing straight. That replicates about roughly 13% of the peak hour count that would that does go eastbound.

Mike Hardy (Assistant City Traffic Engineer) 49:15
So, with that, that does pretty good effect of reducing that queuing. The queuing does extend some—on occasion past Locust, but for the most part is contained within that first block. And you're starting to see less traffic trying to bottle up that left lane there. They're actually trying to use that left lane to get to the left turn lane to make that to head north on Richmond to get to Franklin Street. No issues with that traffic then transitioning down Franklin Street ultimately then coming back to College Avenue on Drew street. So, for again, to try to make sure that we're taking the worst kind of a worst case scenario here to make sure we fully understand the capability of the network. We sent those 100 cars up Richmond, east on Franklin, and back down on Drew to make a left to continue then back onto College Avenue.

Mike Hardy (Assistant City Traffic Engineer) 50:03
Also, because those 100 cars now are going through the Appleton/College intersection, the amount of queuing that we anticipate is not much more than what you see out there today when you drive it. For the most part, the queuing is contained between the block of Superior and Appleton. On occasion, it might backup through the Superior intersection, but definitely not to the extent of the queuing I was showing you earlier in the previous scenario.

Mike Hardy (Assistant City Traffic Engineer) 50:36
So additional things to be that we're aware of and considering. So special events, obviously, what I'm showing you doesn't show what happens when a PAC event happens, overlapping a Friday afternoon. What I can say is, is when the PAC first opened, there was a strategy in place that involved special signal timings as well as officers on the ground and people, staff that would help direct traffic. I'm not saying this is turning into Lambeau Field, but at the same time, there are strategies that you can do to manage traffic under those situations. In fact, as

we were discussing this, we're reminded that there's even actually a storage locker in the Green Ramp that still has cones and signs, I believe that were once **[audio cuts out.]**

Mike Hardy (Assistant City Traffic Engineer) 51:21
Railroad, certainly the train company doesn't tell us when they're coming. So, it's a little bit of a guess. So, we know that we're going to have some additional queuing beyond what you see today, when the train does come through. We know that we're going to have to be more aggressive to flush some of that traffic out of downtown as quick as we can to get things back to normal. At the same time coming into downtown, we got to try to get that queue moving as quick as we can, efficiently as we can to kind of keep traffic moving. So, we understand that we got to get things restored as quick as possible after that train, especially if it's a long one does go through.

Mike Hardy (Assistant City Traffic Engineer) 51:58
Parking maneuvers. So, we did a quick count of during the 430 to 530 timeframe of some of the blocks. The parking maneuvers range from 10 to 25 maneuvers per block per direction. So, about half of those are people pulling in to park the other half is people pulling out. So, in the instance where people are leaving, it's pretty quick, not too much impact. So, I think what we're looking at is about anywhere from 10 to 15 maneuvers, where people are pulling in to park. Of those observations, about half of them take advantage of the space. We have every two stalls that exed out area, and they kind of just pull in even under the existing four lane configuration. So under that circumstance, the impact to any blocking of traffic is only a few seconds. The other half, about eight of them or so per hour, they kind of follow what you and I were all taught when we took DMV is that you back in. So, under those circumstances, the delay that we counted was induced was anywhere from 10 to 20 seconds.

Mike Hardy (Assistant City Traffic Engineer) 53:02
So, when we look at what we've the amount of delay that's induced in general from the traffic movement, in general, the timing of the lights, while certainly there is some delay that's factored in and recognized in our analysis, we do not anticipate it to be anything of significance that's going to completely fail out the operation.

Mike Hardy (Assistant City Traffic Engineer) 53:26
Deliveries, majority of the deliveries we see in the downtown happened before nine o'clock before a lot of the businesses get going. There's a lot of open parking spots for them to use. Some of them are using the loading zones that we do have on some of the side streets. Once the parking does get active like it is right now outside, a lot of those deliveries are coming to an end. We anticipate there's probably gonna still be some UPS and some Amazon deliveries that are still going to be out and about.

Mike Hardy (Assistant City Traffic Engineer) 53:53
As we've been reconstructing our streets or modifying our streets, we've been conscious of that in adding loading zones. We added the one next to Houdini Plaza, when we redid Appleton Street there to two-way. As we redo some of these bluff side streets, we're also going to be incorporating some of those loading zones. So, and I think is if this was to be implemented, it's something that we'd be mindful and make adjustments as we go.

Mike Hardy (Assistant City Traffic Engineer) 54:18
Growth and development. So, if you think back to the scenario in the afternoon, where I mentioned, we modelled shifting 100 cars off of College Avenue up to Franklin Street. And under that scenario, that opens up that operation. So, you're not seeing that those queuings and the backups that we were, that I was showing you might be evident without any of that if behaviors didn't change. I think what this is kind of demonstrated to us is you're going to have a natural filter point in the morning at Drew. And once you get past that filter, it's smooth.

In the in the PM once you get past that filter point of Richmond Street, and 100 cars divert, it's going to be smooth. So, I think what that's telling us is if we can get some of the traffic to find alternative ways to access downtown that it doesn't—everybody's not just taking College Avenue as the only route. If they start taking some of the parallel streets, whether it's the Franklin Street, the Lawrence Street, if they find finding alternative ways to get in, that's going to ease the burden, and it's going to distribute the traffic that right now seems to be so concentrated on College Avenue. It's going to start to distribute that onto the side streets that have ample ability to take on more traffic. And we're going to end up with more of a distributed network of traffic. Through that process, that's how you're going to be able to accommodate any additional vehicle traffic with growth and development that happens.

Mike Hardy (Assistant City Traffic Engineer) 55:41
The other thing. Certainly, we've seen a growth in residential in our downtown. The way we see it is those are a lot of trips than that don't have to be vehicle trips. These are people then they're now going to be choosing to walk to work, walk to their destinations instead of driving. And certainly the saturation and the queuing we're seeing is all people coming into downtown. So, if these people for some reason choose to live downtown, but want to work outside of downtown, they're going in the other direction, a lot of times when they're when they're heading to their jobs. So, with that, I'll turn it back over to Dani to touch on timeline.

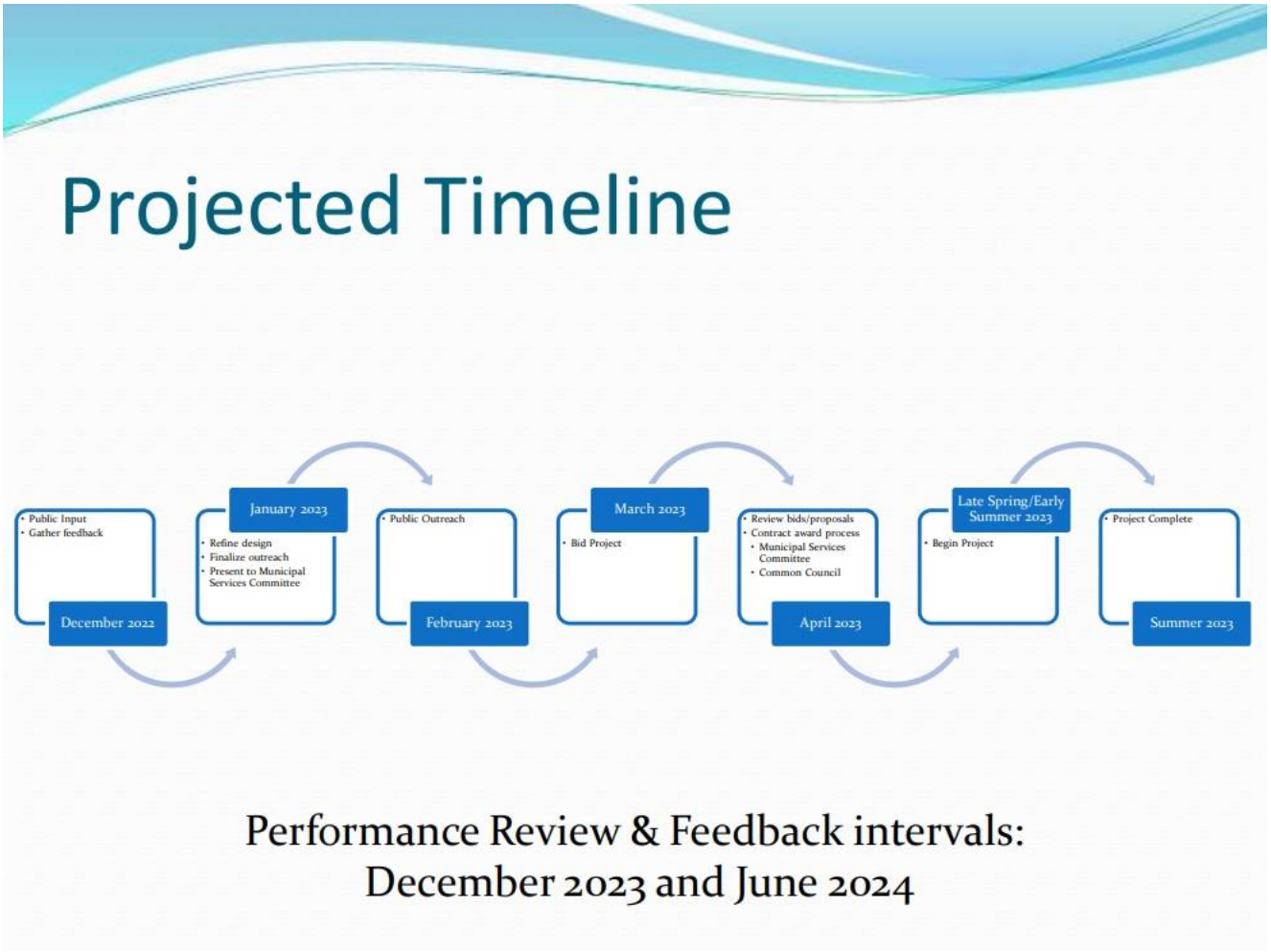
Director Danielle Block (Department Of Public Works) 56:21
Okay, briefly here, our projected timeline. A little about where we've been. In December of last year, we were working through this concept, doing some analysis. And we brought together a stakeholder group, both internal various city departments and a few external stakeholders as well, gave a similar presentation, shared concepts and asked for feedback. That feedback has been looked at through January. Traffic has continued to tweak the model, as we explained in in earlier slides, and refine the concept. So that brings us here today to Municipal Services Committee.

Director Danielle Block (Department Of Public Works) 57:09
We will continue in February on providing this information to the public, stakeholders that are interested, ADI. The **[indecipherable]** board members are interested in seeing this presentation. And we are happy to provide that and answer questions that may come in.

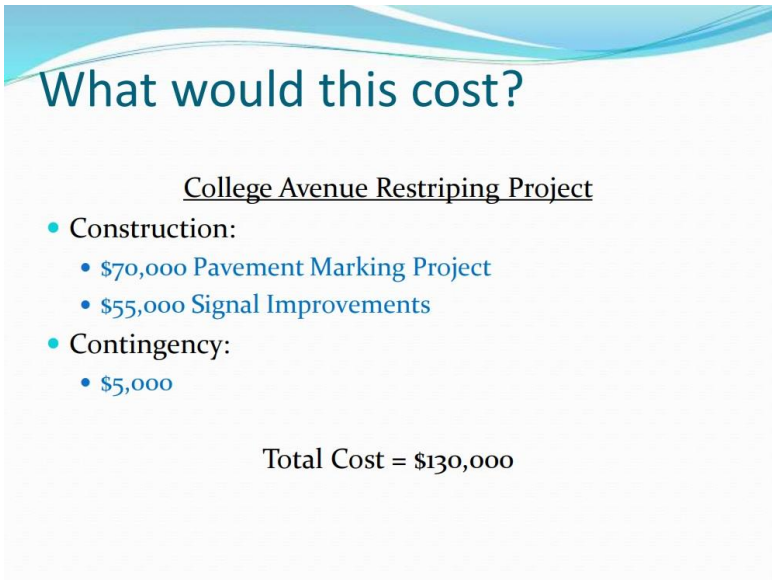
Director Danielle Block (Department Of Public Works) 57:29
March, we anticipate bidding this project, and this is a restriping project. There is a College Avenue crack filling project which will likely would need to occur prior to the striping contract that was already scheduled, and that's a maintenance project. And we would schedule the striping restriping contract right after that.

Director Danielle Block (Department Of Public Works) 57:52
In April, we'd be reviewing the bids and proposals and bringing it forward to municipal services committee. It'll be a service contract. And then the committee would consider and it would go on to the Council.

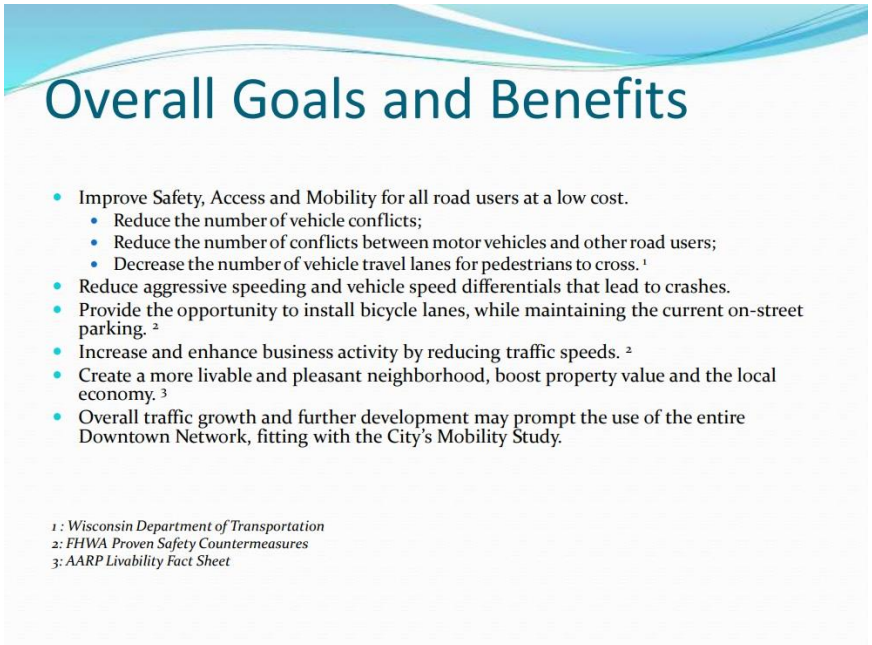
Director Danielle Block (Department Of Public Works) 58:07
Our goal is late spring, early summer beginning the project, and concluding the project in summer of 2023. It's all dependent on you know contractor availability and when we get that project out for bid and the weather, of course. We have tentatively scheduled in there performance review and feedback intervals. Traffic will be you know gathering data. We'd be looking at, you know, feedback from stakeholders, roughly December and then into next year, giving us, you know feedback on how traffic is responding to this concept and how all users are responding.



Director Danielle Block (Department Of Public Works) 58:54
What would this project cost? Restriping. Roughly $70,000 is pavement markings. $55,000 on signal improvements that were included in the model and that's how the model was built. So those would be implemented. We also have a contingency built in. That contingency could be used on changes during construction and also traffic data monitoring services to provide that feedback as we go on. Total cost $130,000. This was designated 2021 Excess Fund Balance, so that's where this money is coming from.



Director Danielle Block (Department Of Public Works) 59:37
Overall goals and benefits. Just wanted to provide some literature here on what we're trying to achieve for the College/App corridor. Of course, improving safety, access and mobility for all users, reducing number of conflicts between vehicles, conflicts between vehicles and other road users. Reducing aggressive speeding, and that vehicle speed differential—people going slow versus people going 10 miles per hour over. Providing the opportunity to install those bike lanes while maintaining the current on-street parking is a large benefit to this corridor. We want to increase and enhance business activity by reducing those traffic speeds, allowing those amenities strips, perhaps a greater, more conducive environment to sit outside and use those areas, which leads into creating a more livable and pleasant neighborhood. And overall traffic growth and further development may prompt the use of the entire downtown network, which would fit with the mobility study. And it kind of leads back to earlier points on the network of Franklin Street, Richmond to Franklin and then back to Drew. With that, we'd be happy to field questions and feedback from...



Alderperson William Siebers (District 1) 1:01:03
I want to ask what the time is.

Alderperson William Siebers (District 1) 1:01:10
In all due respect to the Finance Committee, I'm going to limit the questions to five minutes. That doesn't mean that that you can't contact Public Works after the meeting that national same questions. This is going to come back again, right?

Director Danielle Block (Department Of Public Works) 1:01:35
So right now on the schedule, based on the type of contract it is, the striping contract would come back through municipal services committee.

Alderperson William Siebers (District 1) 1:01:44
I would like this to be on the agenda on a regular basis. It just for information so we can continue to generate questions, you know, because I'm going to cut it off today. So next time, hopefully, you know, we'll have more time.

Director Danielle Block (Department Of Public Works) 1:02:03
Okay.

Alderperson William Siebers (District 1) 1:02:03
Okay. Five minutes. Alderperson Van Zeeland.

Alderperson Katie Van Zeeland (District 5) 1:02:08
Thank you Chair. I just wanted to say that I would hope that we would be able to have someone from the police department comment on this. Because the information I received from some of the officers is they're very much in favor of this. And I think it would be great for the public to hear from them. Thank you.

Alderperson William Siebers (District 1) 1:02:27
Alderperson Hartzheim, did I see your hand? Okay.

Alderperson Sheri Hartzheim (District 13) 1:02:32
My question is, just briefly, if Engineer Lom perhaps has any information from when we did this on Franklin Street, like what was the learning curve for folks? Did it take forever for them to figure out what the heck they're doing? Or did it sort of slide in pretty easily for us?

Eric Lom (City Traffic Engineer) 1:02:48
I would tell you that I don't believe there was a learning curve. I think it's very intuitive for people how to use it. It's pretty standard pavement markings and so forth. And honestly, we never really—I don't think we ever received a bit of bad feedback on that project ever.

Alderperson William Siebers (District 1) 1:03:11
Alderperson Del Toro, you don't have a mic, do you?

Alderperson Israel Del Toro (District 4) 1:03:18
So, my quick question is, if there is any consideration of this project being expanded out beyond Drew Street onto Meade Street. My concern there is that the potential traffic that builds up, then pushes sort of the

speeders out into a more residential area with a higher potential of collisions with say, Lawrence students or community members that are crossing at the Meade intersection? And what would that look like?

Eric Lom (City Traffic Engineer) 1:03:51
I can start. We definitely looked quite a bit at where the eastern boundary of the project should be. And we did strongly consider what it would look like if we went to Lawe Street, and there's a lot of things to think about with that. And five minutes isn't really enough to do that. But I think just to touch on a couple of points, right now any traffic that wants to get off of College Avenue and say get to the yellow ramp can carry in that right lane all the way up to Drew Street and without any issues. Soon as we move the limits of this project out to Lawe Street, and people then are going to make that right hand turn on Lawe Street or maybe they're going to make it on Meade Street, and they're going to be cutting through all those neighborhoods on the north side of College Avenue to get to their destination, and that presents a number of issues.

Eric Lom (City Traffic Engineer) 1:04:52
As far as—I don't know, is there anything else that you wanted to touch on with that Mike? I mean, there—well I guess another big aspect of that is, if you go...The what College Avenue looks like once you get east of Drew Street is very different, all of a sudden, we have an island down the middle, right, and we have these pedestrian crossings. And it becomes a very sort of awkward thing to come in and sort of just paint your way out of this into this sort of three lane conversion, which would really just be two lanes. And so, what we what we really ended up looking at was that if you're going to go east of Drew Street, there's some pretty substantial work that would need to be done to re—to move curves around and really reconstruct what that block looks like. And that really wasn't within the scope of what we were able to do as part of this project.

Alderperson William Siebers (District 1) 1:05:52
Okay. Again, my apologies for cutting the short one. I want to be respectful of Finance. Yes.

Alderperson Chad Doran (District 15) 1:06:01
Can I ask one quick question?

Alderperson William Siebers (District 1) 1:06:03
One quick question.

Alderperson Chad Doran (District 15) 1:06:04
Just since we have a representative of the business community here, if she'd like to speak, but I'm just curious what your initial feedback was from, from downtown businesses. And so far?

Director Danielle Block (Department Of Public Works) 1:06:15
I can share some of the feedback we've received via email from ADI. A lot of I would say, forms of questions as to special event modeling. How does parking impact? Loading areas for businesses? Was growth and development accommodated? So those were some of the shifts that we incorporated into the presentation versus when we gave this presentation in December, trying to tackle a few of those questions and provide the analysis related to delay or the significance of those movements into the presentation. So, if they came up again, that they'd have their answers, but...

Alderperson William Siebers (District 1) 1:07:00
Can we have our next meeting center our attention on that, and somebody from ADI could be present and have a more extensive discussion. That would be helpful.

Director Danielle Block (Department Of Public Works) 1:07:15
We certainly could. We also have a presentation specifically for ADI coming up mid-February. That's during the daytime for their members and stakeholders.

Alderperson William Siebers (District 1) 1:07:26
Okay, then we'll do it after that?

Director Danielle Block (Department Of Public Works) 1:07:28
Yeah, that would that would give them a chance to...

Alderperson William Siebers (District 1) 1:07:30
Okay. Again, my apologies. But in all fairness, and respect to Finance. Thank you very much for the presentation or the information. Which leads us to item number seven.

Alderperson Katie Van Zeeland (District 5) 1:07:48
Motion to adjourn.

Alderperson William Siebers (District 1) 1:07:49
Second?

Alderperson Joss Thyssen (District 8) 1:07:51
Second.

Alderperson William Siebers (District 1) 1:07:52
Motion has been made and moved and seconded to adjourn. All in favor signify by saying aye. Those opposed? Chair votes aye. Five zero. We're adjourned.