Western Hills Viaduct | Dec. 3, 2020 Public Meeting
Presentation Transcript

The following transcript was taken from the presentation delivered by project team representatives at the Western Hills Viaduct Public Meeting held on Dec. 3, 2020. The content of the transcript pairs with the Western Hills Viaduct Public Meeting Presentation which is posted on the project website at www.cincinnati-oh.gov/WHV and begins with Slide 3. Minor edits to the transcript have been made to improve readability.

(Slide 3) Ursula Miller, City of Cincinnati:
Welcome, everyone. Thanks for joining us. My name is Ursula Miller and I'm the communications manager for the city of Cincinnati's department of transportation. I'd like to remind everyone that your cameras are off and you're muted because this is a webinar format. After the presentation, we're going to conduct a Question and Answer session, and we'll explain that process as we get closer to that part of the meeting. To get us started, we're going to ask you, our audience, several questions as part of a poll, and I'm going to let Haley Taylor take over and explain how that will work. Thank you.

(Slide 4) Haley Taylor:
Good evening. We have set up a very short poll for you all to take this evening. On this slide, we have divided our region geographically into several zones. Please use this map as a reference to answer the first question when the poll appears. There are three questions and they should only take a few seconds to answer. Go ahead and start answering at your leisure here.

Okay - about 30% of you have answered. We're going to give it a few more minutes or a few more seconds, rather. You'll need to scroll down to answer all three questions. Maybe 10 more seconds. We have about 50% of you participating. Okay. I'm going to end the poll and here are the results. It looks like the majority are coming from Cincinnati West side area, and most of you are using the viaduct less than once a week, and you heard about the meeting online or via the website. Thank you for taking the poll; now we will go back to Ursula for the introduction.

(Slide 5) Ursula Miller, City of Cincinnati:
All right. Tonight, we're going to have several speakers. The first is Eric Beck. Eric is the County engineer for Hamilton County. Following Eric will be Bill Shefcik. Bill's the project manager for the Replacement Project for the city of Cincinnati, and then our esteemed consultant, Sajid Abbas, with T.Y. Lin International. Eric, you can take it now.

(Slides 6 and 7) Eric Beck, Hamilton County Engineer:
Thank you, Ursula. Good evening. My name is Eric Beck, and I'm the Hamilton County Engineer, representing all residents in Hamilton County. I would like to thank you for your attendance and

interest in this very important project. Many of you on this call are here because you have a vested interest. You travel on the bridge, you depend on it to get to work, to get to school, and the other places you travel. If you're from Westwood, Cheviot, Green Township, Camp Washington, Price Hill, wherever you are coming from in the county, this bridge has a major impact on our local economy beyond the direct impact on travelers. This major infrastructure project creates jobs, impacts growth, and spurs development, not just on the West side of Hamilton County, but to all the residents in Hamilton County and the tri-state area.

(Slides 8 and 9) Eric Beck, Hamilton County Engineer:
This project is a great example of good governance. When we work together, the outcomes benefit all. Hamilton County Engineer's Office has a longstanding relationship with the city's Department of Transportation and Engineering. Part of this relationship is an agreement to commit $1 million of municipal road funds annually to 27 bridges within the city of Cincinnati. One of these bridges is Western Hills Viaduct. Some of the projects that have been recently completed with this relationship are the Eighth Street Viaduct, Marburg Avenue Bridge, and Kennedy Avenue Bridge. Tonight, we're here to update you on where we stand with the Western Hills Viaduct project. It is the largest project my office has undertaken, both in complexity and cost. Comments from previous public hearings, as well as those from our other partners, the Ohio Department of Transportation, the railroads and public utilities, have also weighed into the decisions made in getting the design to the point that it is now.

I would like to stress that the images you'll be seeing are just renderings at this point. During the final design, there may be changes made for any number of reasons, including potential input received as a result of the meeting tonight. Again, thank you for being here, and now I'd like to turn it over to Bill Shefcik to discuss the details of the structure.

(Slide 10) Bill Shefcik, WHV Project Manager:
Thank you, Eric. Hopefully everybody can hear me, and good evening. Thank you to all who are participating tonight. In our presentation, we'll be talking about a few things. First, I want to touch on the current condition of the viaduct. Second, we'll talk a little bit about the history of the project and the status of the project, where it is today. Third, we'll be talking about the recent study done by our consultant, T.Y. Lin, the study to determine really the best bridge type to replace the existing viaduct. And finally, we'll talk about what's coming next, like status of funding. Then, we'll be here to answer any questions that you may have. To start, we'll talk about the condition of the viaduct.

(Slide 11) Bill Shefcik, WHV Project Manager:
Tthe first thing I'd like to say and stress is that the viaduct is safe for the traveling public. Our intention is to keep the viaduct safe and operational until we can get a replacement structure in place. We are vigilant in performing inspections and doing maintenance several times a year to ensure the safety of the viaduct and the traveling public. Recently, there were weight limits posted on the viaduct which are restricting very heavy trucks from using the viaduct. At this point, it's only

heavy trucks. We're not reducing any buses or any other normal truck traffic, even semis. It's just very heavy trucks that are limited to use the viaduct. Shortly, we will be installing some netting on the viaduct over the lower deck [east side] to help catch debris from falling onto the lower deck. The viaduct is considered to be in poor condition. As many of you probably know, it's 88 years old. It's at the end of its useful life, and it needs to be replaced.

(Slide 12) Bill Shefcik, WHV Project Manager:
So, a little bit about the history. Back in 2010, the city and the county began planning how to address the issue of the aging viaduct. Following 2010, and over eight years following, considerable study was made with input from the public and key stakeholders to decide what to do with the viaduct. Basically, at the end of that study period, it was decided that the best option was to replace the existing viaduct with a new bridge immediately south of the existing viaduct. The timeline shown on the slide shows where we're currently at in life of the project. As you can see right now, we're in final engineering, the final design phase of the project. I'd just like to say, although no physical construction has been started yet, there's been a lot of good work done to date on the project, including our pursuit of funding, which I'll speak about a little bit later in the presentation.

(Slide 13) Bill Shefcik, WHV Project Manager:
This slide shows the project area. To the north, there is the existing viaduct and to the south, with the red lines through it, is the proposed alignment of the new viaduct. The limits of the project extend at the west to the intersection of Harrison, Queen City, and Westwood, and going to the east, extend to the intersection of the viaduct, McMillan and Central Parkway.

The new bridge will be constructed approximately 50 feet south of the existing viaduct. Constructing the new bridge to the south allows the existing viaduct to remain in place and open to traffic for the majority of the bridge construction, reducing impact to traffic and inconvenience to the traveling public while the new bridge is being constructed. The new bridge will be a single deck with four lanes of traffic in each direction. There will be an eight-foot sidewalk on the north side of the new bridge, and there'll be a 14-foot wide shared-use path on the south side.

At the west, the shared-use path will connect into the new path constructed as part of the MSD Lick Run project. There will also be a connection with the shared-use path down to State Street. At the east end, the shared-use path will connect directly with Central Parkway. The project also includes improvements at the McMillan/Central Parkway intersection, introducing the ability to make a left-hand turn from McMillan to Central Parkway which doesn't exist today. Finally, to the east, there's a new tie in to I-75. The total cost of the project is estimated at $335 million.

(Slide 14) Bill Shefcik, WHV Project Manager:
The picture in this slide shows the current interchange at I-75. This interchange will be rebuilt to connect into the new viaduct as part of various improvements along I-75 which are being designed, constructed, and funded by the Ohio Department of Transportation. The cost of the new

interchange and improvements along I-75 needed to build the new interchange is approximately $153 million. Now, this $153 million is an additional cost to the $335 million needed for the viaduct construction.

(Slide 15) Bill Shefcik, WHV Project Manager:
The most recent activity on the project and engineering study has been to determine the optimal bridge type to replace the existing viaduct. The study was performed by our consultant T.Y. Lin International. During the study, T.Y. Lin had significant collaboration and input from the city and the county, ODOT, the major railroads and utilities affected by the project. As a result of the study, the type of bridge selected is an extradosed-type bridge. Determining the bridge type is a milestone in life of a project, we think. Here to talk more about the study and the proposed bridge is Sajid Abbas from T.Y. Lin. At this point, I'd like to turn the presentation over to Sajid.

(Slides 16 and 17) Sajid Abbas, T.Y. Lin Project Manager:
Thank you, Bill. Good evening and thank you to all participants for making time to attend this meeting. I am a Dr. Sajid Abbas, project manager for the design consultant T.Y. Lin International. One of the primary challenges in this project is to span over the Queensgate Railyard without causing any significant interruptions to the railway operations. Queensgate Railyard, which is operated by CSX Railways, is one of the largest railyards in the country. It receives freight trains. Trains are then classified and assembled in the classification yard. Locomotives are serviced and refueled. Assembled trains are then stored on departure tracks, and then released based on a predetermined schedule. To the right-hand side of the slide, you can also see the intermodal yard. The intermodal yard manages container traffic, containers which are moved to and from the trains. It's a very busy yard.

(Slide 18) Sajid Abbas, T.Y. Lin Project Manager:
At the top right corner of the slide, you can see an image of immense expanse of the railyard. Western Hills Viaduct is at the southern end of the yard. As you know, CSX Railways operates the railyard. Also, Norfolk Southern operates three tracks that go through the railyard. The railyard operates 24/7, 365 days of the year. Construction access over railroad tracks is limited to short time vendors. This has a direct impact on the type of bridge that can be built across the railyard.

(Slide 19) Sajid Abbas, T.Y. Lin Project Manager:
As Bill mentioned earlier, the selected bridge type is an extradosed bridge. Let's talk a little bit more about the various bridge types considered for this project and the evaluation criteria used to make the selection.

We looked at several families of bridges. These included bridges which are fully assembled next to the railyard and then launched across the tracks using self-propelled motorized tractors. This would be the arch bridge. Bridges assembled in short segments of 60 to 90 feet and then incrementally launched across the railyard is the next family. This would include the truss and the trapezoidal steel

box. The next family is bridges which are built in cantilever. No false work is required in the railyard and all construction is from the top using form travelers. This would include the extradosed, segmental concrete, and cable stay bridges.

The team prepared preliminary design concepts and had extensive discussions with all important stakeholders, foremost being CSX and Norfolk Southern Railways. We also had several meetings with Duke Energy which owns a substation in the railyard close to the proposed bridge alignment. Designs were presented to and discussed with ODOT and Federal Highway Administration; their comments and input were solicited.

These designs were evaluated using the criteria listed on the right-hand side of this slide. The criteria include cost (which is very important of course); aesthetics; durability; railroad preference; this one is the most important – constructability – how easy it is for the contractor to assemble this bridge over the railyard; claims potential – addressing potential risks with a given bridge type in the context of keeping the railyard operations going; traffic flow; and last but not the least, bridge drainage. Poor drainage can cause all sorts of corrosion in the bridge. These criteria were then given appropriate weights and compared in a metrics format. The extradosed bridge was the highest scoring bridge type and therefore selected for further design development. The next slides will show more details of this selected bridge type.

(Slide 20) Sajid Abbas, T.Y. Lin Project Manager:
Let's talk about definition a little bit. The extradosed bridge has elements bought from a pre-stressed concrete girder bridge and a cable stayed bridge. The term “extrados” is used [to describe] the exterior curve of an arch, as shown in the lower left corner of the slide. It was first used by Jacques Mathivat, a very famous, well-known French bridge engineer, alluding into the form of the cables connected to the shadow tower, as you see on the right-hand side of the slide.

(Slide 21) Sajid Abbas, T.Y. Lin Project Manager:
As Bill said earlier, the bridge will be located on an alignment slightly south of the existing viaduct. It will have a single deck with four lanes in each direction. The inner lanes will carry the traffic to and from the interstate (I-75), and outer lanes will handle local traffic. There'll be a 14-foot wide shared-use path on the south side of the bridge, and an eight feet wide pedestrian walkway on the north side.

(Slide 22) Sajid Abbas, T.Y. Lin Project Manager:
Here's a rendering of the bridge looking southwest. The bridge has a main span over the railyard of 560 feet and then two sides span of about 280 feet. The overall length of the bridge is about 2,700 feet.

(Slide 23) Sajid Abbas, T.Y. Lin Project Manager:
This is a view of the bridge looking southeast towards the downtown. As you can see, the main bridge has four concrete towers. The total height of the towers from the ground is about 150 feet and above the deck is about a hundred feet. There's a harp pattern of cable stays on the bridge. It looks quite elegant, of course, in my opinion. The superstructure consists of steel longitudinal box girders and transfer floor beams with a composite concrete deck on the top.

(Slide 24) Sajid Abbas, T.Y. Lin Project Manager:
Here's a view of the shared-use path. This is on the south side of the bridge. It's about 14-feet wide. The railing and the lighting details, these will be developed during the detailed design phase and based on the input that we get from the public. What you see in these renderings are simply placeholders for now.

(Slide 25) Sajid Abbas, T.Y. Lin Project Manager:
This image shows the construction sequence that will be used for the new Western Hills Viaduct. In a typical erection sequence, elements of the longitudinal girders - this is the long girders – will go up first. These will be hooked up to cable stays, which are in turn connected to the towers. Next, transfer girders are lifted into position and next concrete deck panels are added. You can see the panels at the very tip of the cantilever there. The key thing about this method is it does not require any support from the ground and minimizes any interruptions for the rail tracks underneath. All the work is done from the top. The bridge that you see in the image is the Port Mann Bridge in Vancouver, British Columbia. This is a project designed by T.Y. Lin.

And now, back to Bill Shefcik.

(Slides 26 and 27) Bill Shefcik, WHV Project Manager:
Thank you very much, Sajid. That was very good. So, now that we have a preferred structure, we will continue on working on necessary property acquisitions for the project and we'll be moving forward with relocating Duke Energy electric transmission lines and the substation and relocating a railroad track within the railroad yard, which are necessary for the construction of the bridge. These construction activities will start as early as 2021, starting at the West end of the project with building demolitions, site preparations and potentially early bridge foundation work. We are planning on putting it out to bid to start the work next year.

(Slide 28) Bill Shefcik, WHV Project Manager:
As stated previously in the presentation, the current estimate to replace the viaduct is $335 million. The city and county have been aggressively pursuing funding. To date, we have more than one third of the amount needed to replace the viaduct. The majority of that funding has been secured over the last two years.

(Slide 29) Bill Shefcik, WHV Project Manager:
Given the momentum on the funding we've received already, we're confident that we're going to be able to secure the remaining dollars needed for the project. We continue to pursue every avenue of funding available, including the potential funding sources listed on the slide here.

(Slide 30) Bill Shefcik, WHV Project Manager:
We value and appreciate any feedback we get. If you go to our project website, you will find a feedback form, which you can fill out online and submit. Like I said, we'll appreciate any feedback and if you have the time to fill out the feedback form, that would be great. You can do it after this meeting, at any time. It'll be posted on our website for at least 30 days.

(Slide 31) Bill Shefcik, WHV Project Manager:
Wrapping up, I would again like to take the opportunity to thank everyone who has participated. Now, we will go on to our Question and Answer session tonight, and I will turn the session over to Laura.

(Slide 32) Project Team
Click here to review the questions asked and responses provided during the Question and Answer session.

(Slide 33) Ursula Miller, City of Cincinnati:

Thank you so much. Thank you so much to everyone for participating, and all the great questions. I think I counted 50 questions, so really appreciate it. Your opportunity to follow up, we have an online feedback form on our website, which is what Laura just mentioned: www.cincinnati-oh.gov/whv. There's the online feedback form there. There's also a copy of the PowerPoint presentation, a couple of fact sheets, the renderings themselves, and a meeting summary, which will highlight the key points that were talked about during the presentation. Most of the content is up right now, but once we sign off, I'm going to go and do a couple more updates so the rest of the information is on. I have to wait until after the meeting to assess how many people were participating, and some other details. As this slide shows, the recording for tonight's meeting, [will be provided though] a YouTube link.

That's a pretty long link, apologize for that, but we don't have a custom link yet. We need a hundred subscribers to get there. If you go to our website, you'll be able to easily click on that link for YouTube. Just one click of a button via whatever device you use. So that'll get you there. It's also going to be on City Cable as well. Contacts, if you have more follow-up questions, would be me, Ursula Miller, and of course, Bill Shefcik, the project manager. Our contact information is listed here on this slide and will be repeated on the website.

Just a final note. I'd like the audience to know that we're following guidelines that are known as NEPA, which is National Environmental Policy Act. That's to make sure we're providing a lot of outreach and opportunity for public feedback. Please read more about that requirement, and how we're following it. We're always open for suggestions and ideas. Thank you so much to everyone, and with that, I'll say good evening.

Western Hills Viaduct | Dec. 3, 2020 Public Meeting
Question & Answer Session Transcript

The following questions were asked during the Western Hills Viaduct Public Meeting held on Dec. 3, 2020. Responses were provided by project team representatives during the meeting, with post meeting notes added as appropriate. Minor adjustments have been made to the content and flow of the questions and answers to improve readability; otherwise, the content is unchanged from what was shared during the meeting.

How are the city and county going to let this project? Will it be a design build project, a low bid construction project that's being fully designed by the city and county, or will there be a best value procurement process?

Bill Shefcik, WHV Project Manager for the City of Cincinnati: Right now, the project is on a traditional design-bid-build path. We are investigating different procurement methods going forward, looking at possible general manager, general contractor arrangements. We're trying to get a contractor onboard early to get some involvement into the design process. We intend for the project to be phased since we do not have all the funding in place. Our plan is to spend the funding that we have in place already to build as much as we can, where we can. Some of those projects may be bid as traditional. Going forward we may expand the procurement into different methods.

Are there plans for the space at the west end of the current viaduct when it is removed?

Bill Shefcik: There are currently no plans for the space.

Is access to Spring Grove Avenue going to be maintained?

Bill Shefcik: Based on what we're showing on the plan, there's no direct access to Spring Grove Avenue from the new viaduct. As it is with the existing viaduct, we have the lower deck connecting to Spring Grove. The future connection to Spring Grove is related to the interchange at I-75 and will depend on how that final configuration is going to occur. That interchange is going to be studied more in detail starting this summer. ODOT is going to be hiring a consultant to start the design work on the interchange itself. At that time, we will be investigating the connections to Spring Grove and how traffic can get there from the viaduct.

Since construction is being done around maintaining access for the railyard functions, how will the existing Western Hills viaduct be demolished?

Sajid Abbas, Project Manager for T.Y. Lin International: The demolition of the bridge is going to be quite challenging if we are not going to interrupt rail operations. What would need to be done is remove things in a manner that debris does not fall on rail tracks. We will start in the middle of the upper deck. We would basically sawcut the concrete deck into small segments while it is still supported on the beams underneath. Then, we will basically flip these small elements up and load them on trucks and cart them away.

Once the deck elements are gone, we will remove the beams in between, then gradually work towards the abutments. Once the upper deck is all gone, we will work on the lower deck. The real challenge will be how we remove the [in-ground] columns. I think we need to do some more work because columns would require access to the railyard, and there may be ram hoes [hydraulic rock hammer] working over there in the railyard.

Will the shared-use paths be officially designated as bike ways, so that bikes can legally ride on them?

Bill Shefcik: It's the intent that the shared-use path will allow bikes to legally use them.

They're taking out all left-hand exits along [this portion of] I-75, and they put a right hand exit in for Hopple Street. There's going to be an exit for the viaduct, correct?

Bill Shefcik: Right.

> **What properties are going to be affected by that right-hand exit?**
>
> Bill Shefcik: As far as I know, no properties are. It's going to be a tight diamond interchange. Scott Brown from ODOT is here and maybe he can answer a little more on that. But with respect to the interchange, it will not be like a Hopple Street interchange. It'll be a tight diamond and there will be no property takes for the interchange itself.
>
> **So, actually, there won't be any property as far as Central Parkway or McMillan area that will be used for the viaduct?**
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> Bill Shefcik: Essentially, that's correct. We have to still do a little more work on the intersection of McMillan and Central Parkway, but we are trying to avoid [taking] property as much as we can.

Can you say more about the ODOT plan for the I-75 ramps?

Bill Shefcik: It is a little hard to see in this drawing here *(referring to WHV Public Meeting Presentation Slide 13)*, but where the bridge crosses over I-75, local traffic is on the outside of the bridge and that traffic's going to and from Central Parkway and the McMillan intersection. Interstate traffic is going to be carried in the center. There's a difference in elevation, a difference in height, between those two. The interstate traffic [lanes are] lower than the other ones. Essentially, there's going to be ramps coming up alongside, parallel to the highway, up to the bridge over I-75. All interstate traffic is going to be in the middle of the new bridge of the viaduct.

Will there be exits to State Street and Harrison Road on the west side of the new bridge?

Bill Shefcik: At this point, there is not a roadway [vehicular] connection [planned to those roads]. The only connection we are planning now [from the new viaduct to State Avenue] is from the shared-use pedestrian/bike path down to State Avenue.

As far as the demolition of the existing viaduct goes, are the costs for that demolition included in the project costs currently?

Bill Shefcik: Yes, they are.

Will there be lanes spacing out bike and other vehicles (i.e., scooters) versus people walking? Also, what other considerations are made to modify the path as needed, such as adding benches or trees?

Bill Shefcik: To be honest, I don't think I can satisfactorily answer that question [at this time]. I'd have to look into that a little more to give you a better answer. I would say we're still early in design here, so we haven't looked at all the aspects of the shared-use path or some of the aspects of the bridge. That's definitely something we'll look at.

Will the shared-use path on the Western Hills Viaduct connect to shared-use path in the Lick Run Area?

Bill Shefcik: The answer to that is yes. The shared-use path that will connect into the Lick Run Greenway project running along the south side of the viaduct. That's what we're proposing. There will be a street-level crossover at the intersection of Harrison and Westwood to get to the trail for Lick Run.

What kind of procurement method will the city and county utilize? Design build, low bid construction, best value?

Bill Shefcik: Right now, it's the traditional design-bid-build path, but we are looking at different procurement methods.

What happened to the determination that a double decker bridge would be the most efficient design? During the last public hearings, this was identified as the most efficient design.

Bill Shefcik: When we were doing the preliminary engineering on the project, we did not have a good way to make this bridge a single deck. From comments that we received from the public, however, it seemed like it was preferable to have a single deck, if just from user experience of the facility. The change that happened in our most recent study was we considered putting the interstate traffic down the center of the bridge. By doing that, it really improved the roadway geometry at both ends of the project. Sajid, I'm going to kick this to you a bit to see if you want to say anything more about that change. I know it's something you and the folks at your company came up with, which we all thought was a very good idea.

Sajid Abbas: I think the best benefit we have from a divider deck on a single deck solution is an improvement in traffic flow. We were able to get rid of, basically, additional ramps that we were going to build on the west end to take care of the [traffic] weave [or merge] distance. We don't have to do that anymore. It's simple and straightforward.

The other issue with the double decker solution was that the mid-sections were very heavy. When hoisting the heavy sections above the rail tracks, you need longer [work] windows. The windows that we can get from the railways are two hours, at most, four hours. So, if you want to run a six-hour

operation swinging a very heavy mid-section into position and bolting it there above rail traffic, that's very difficult. That's very challenging. And this particular solution [the extradosed bridge type] was more acceptable to both Railway CSX and Norfolk Southern.

During the construction of the existing Western Hills Viaduct, the railroads financed quite a bit of money towards construction. Are they going to contribute this time?

Bill Shefcik: That is true. When the original viaduct was constructed, the railroads contributed approximately two-thirds of the cost of the construction of new viaduct, and the rest was left to city, and (I think) a streetcar company at the time. At this time, there's no talk or offer from the railroad to contribute anything toward the construction of the new bridge. At this point, they're cooperating with us and working out the design, working out the logistics of how we're going to construct it, but that's really it. It's as far as we've gotten.

What utilities will share the bridge with the traffic? Are they contributing to the financing as well?

Bill Shefcik: There is a water main on the existing viaduct. There's also telephone and electric crossing the viaduct. At this point, however, there will be no utilities on the new viaduct other than what's needed for streetlights and the road operations itself. No private, quasi-public, private utilities are planned to be on the new bridge.

Will there be capability on the new bridge to support light rail in the future?

Bill Shefcik: The bridge will be designed with significant strength to accommodate light rail. Sajid, I'm going to ask you to elaborate a bit on that, if you could.

Sajid Abbas: Yes, indeed. We will design the structure to carry a light rail transit. I think it'll have to wait for the future plans developed by the city to bring light trail to this route (we have done this on several projects before). Primarily, [the bridge would] carry hybrid traffic, but would have enough strength and capacity to carry light rail. We have to do a few things: work out the loading that would be imposed by the light rail and introduce stricter protection in the design. We will do all of those things and make sure that the structure is prepared to receive it.

Is [Greater Cincinnati] Water Works currently in the design phase for relocating the water main that's on the current viaduct? And will that happen before the viaduct project itself starts?

Bill Shefcik: They're looking at alternate routes to replace the existing main. Whether that occurs before the construction of the viaduct is yet to be determined. They are aware of our plans for the new viaduct, so they'd be working around our proposed structure if they're going to put an alignment down in, say, State Avenue or elsewhere near the existing viaduct. But at this point, whether the line is on the existing viaduct or not, it's not really impeding our progress of the replacement project.

Is the Central Parkway work part of the ODOT project or would that be part of the viaduct project itself?

Bill Shefcik: That's to be determined. At this point, I think it's part of the viaduct project, but how that all interfaces and coordinates with the interchange is yet to be determined. That'll be more fleshed out when the interchange design is more fully developed.

Has the city considered pursuing FRA – CRISI [Federal Railroad Administration – Consolidated Rail Infrastructure and Safety Improvements Program] funding for at least the railroad work associated with the viaduct?

Bill Shefcik: Yes, we have. We've not submitted any applications for it. We discussed it with CSX during the last round of funding that announced a call for applications, but, at the time, we didn't pursue it. It didn't seem like a good fit.

Could you share some thoughts on the lifespan of the new viaduct? Are eight lanes sufficient for the anticipated traffic volume in the future? And is there going to be a breakdown lane?

Bill Shefcik: We're looking at trying to do things to build a structure with an extended life, 100, 125 years or more, hopefully. We're looking at different options as far as stainless steel for the rebar, high performance concrete, anything we can do to limit future maintenance and make the bridge as maintainable as possible and long-lasting.

There's not a significant amount of growth anticipated in the area as far as traffic volumes go. Currently, the existing viaduct has four lanes on the upper deck, three lanes on the lower deck. Between those, they're sharing the traffic coming from the interstate and the local road network. So, we feel that eight lanes will be sufficient for future traffic volumes.

With respect to a breakdown lane, we'll have two 12-foot lanes with four-foot shoulders running in each direction to and from the interstate. The local traffic will have 11-foot lanes, also with a four-foot shoulder. So, there's certainly ample room. If a breakdown does occur, a vehicle can pull off the side of the roadway onto the four-foot shoulder and be mostly out of the travel lane.

Will this design keep a connection to State Avenue from Westwood Avenue?

Bill Shefcik: Currently, the only connection we're proposing is the connection from the shared-use path down to State Avenue, which would be strictly a pedestrian/bicycle connection.

Living so close to the viaduct, we were wondering if there was a list of properties to be acquired. Just wondering how we would know.

Bill Shefcik: On the west end [of the project], the properties we are acquiring for the project are essentially properties that are in the direct path of the new alignment. There are five [non-residential] properties that we are purchasing or have purchased already. There's the old Q-Labs building on Harrison Avenue, right in the corner of Harrison and State. Then there is a string of properties leading toward Westwood on the south side: a car dealership, a tire store, Corcoran & Harnist Heating and Cooling, and there's a storage place there. It's really a vacant lot. There's a storage place behind that we're not taking, but another vacant lot. But if you want to know more detail, certainly you can ask that question offline and I'll be glad to give you more information on that.

Can the art deco beams on the existing Western Hills Viaduct can be preserved.

Bill Shefcik: There are two thoughts on that question. One of the things we will be doing with the existing viaduct is that we intend to memorialize the existing viaduct somehow, either with plaques or monuments on either side of the valley demonstrating the history and the historic value of the old viaduct. As far as salvaging anything on the viaduct, it's not the intent to salvage anything. However, we will consider incorporating some art deco elements into the new bridge as much as possible. I know there are arches over Spring Grove Avenue and the Mill Creek, and there may be some opportunity to incorporate some of that into the design of the new bridge.

In the aerial depiction of the new viaduct [slide 13], the project seems to end suddenly on the west end. How will that ultimately resolve itself with some future roadway plan? Did you already address that and I just missed it?

Bill Shefcik: No, I didn't really address it. That image may be a little misleading because [the aerial photo behind the viaduct graphic] is an older aerial image that was taken before basically any of the work was done on Lick Run. If you look where the project abruptly ends there, there's a red line that continues to the left and a little bit to the upwards there. Essentially, that is the alignment of the new bridge that's been constructed over the new Lick Run Greenway. So, there's a bridge that connects into Harrison Avenue there.

Is Greater Cincinnati Water Works (GCWW) actively working to design the relocation of the water main on the viaduct and Central Parkway? And will this be done prior to the viaduct project itself?

Bill Shefcik: Yes, I think I've already answered. *[Post meeting note: As previously answered, GCWW is looking at alternate routes to replace the existing main and they would be working around the proposed viaduct. Whether that occurs before the construction of the viaduct is yet to be determined.]*

What is the extent of the possible work on McMillan and east of Central Parkway towards UC? I think several property owners would appreciate any clarification as to what the design would affect. Apparently, some of the owners have already been contacted with the possibility of changes to the size of their property.

Bill Shefcik: I'm not aware of why they would have been contacted for changes to the size of their property. Our intent is to avoid properties on McMillan as much as possible. At the very most, there may be a slight amount of widening on McMillan that would need some minor strip takes of properties along McMillan. If that question can be submitted offline, we can definitely look into that in more detail and get a better answer.

[Post meeting note: The proposed realignment shown in the presentation would be accompanied by an increase in the road elevation of McMillan up to approximately 2 feet. To accommodate the change in elevation, the retaining walls along the east side of McMillan may need to be modified and the work may require temporary easements along the backyards of some properties located along McMicken, between 2321 through 2351. Plans are still under development and the precise impacts have not yet been determined. Going forward, it is the city's intent to minimize or avoid disturbance to these properties as much as possible.]

What are the plans for the water main currently connected to the current structure?

Bill Shefcik: [GCWW] is looking for a new alignment for that water main. That does not include a crossing on the new viaduct.

Does the new I-75 interchange incorporate both east and west exits from both north and south
I-75?

Bill Shefcik: It'll be a full movement and have connections from north and south I-75, and connections to the west from the interstate. ODOT's going to be studying the interchange in further detail later this summer.

Scott Brown, ODOT: One thing I'll add is that the interchange for I-75 and the Western Hills Viaduct is actually the very northern end of our Brent Spence Bridge replacement project. There was some preliminary engineering done for the Brent Spence Bridge replacement project that had identified a preferred alternative for the interchange with the Western Hills Viaduct. This was prior to [any design] development of the Western Hills Viaduct replacement project. One thing I would encourage folks to do is check out our Brent Spence webpage [brentspencebridgecorridor.com] that has all of our historical documents, including the preferred alternative that we determined for the I-75 and Western Hills Viaduct interchange.

One thing to note is our preferred alternative identified an interchange located to the south of the existing Western Hills Viaduct, so we conceptually designed it to tie into the existing Western Hills Viaduct. But we have been working with the city, tweaking the location of the interchange to coincide with the development of the viaduct's replacement.

Plans for the interchange are still pretty conceptual. We've identified funding that we intend to use to get into more detailed design and that's going to start in 2021. We'll be working hand in hand with the city in developing the interchange along with their viaduct project in more detail. But I would encourage anyone that's interested in information on the I-75 interchange to check out the information that we have on our brentspencebridgecorridor.com website.

You are showing concrete dividers between the two pairs of eastbound lanes along with the two pairs of westbound lanes [on slide 21]. Will there be dividers between the east and westbound lanes?

Bill Shefcik: There's not an intent to be a divider in the middle.

Can you give us a brief overview of the foundation? Is this a pile foundation and does the vibration from the rail traffic affect the foundation design?

Sajid Abbas: We are thinking about using drilled shafts here. These are large diameter, six-foot diameter concrete piles that we would be placing in the ground. So, these are drill shafts – you basically drill a hole into the ground and then use a casing to hold the ground back. [We would] place a rebar cage in there and pour in concrete. There are a couple of benefits here. We are not going to be driving any piles. At least at this point, we are not visualizing that for the main foundations. That would prevent any vibration affecting the rail tracks. If we are drilling, it's not going to affect any structures around as well, because that does not cause vibrations. So, this is the appropriate method for this site. It works for the railways, it works for us, and I think it will work for the neighborhood also.

How can you justify the expense of this project? Why not prioritize other city services rather than matching millions of federal funds on car infrastructure?

Bill Shefcik: The bridge is needed [to support] the road network. We have a deteriorating bridge in place that we need to do something about. It's a matter of, if we do nothing, eventually we'll have to close the existing viaduct. The viaduct now carries 55,000 vehicles a day. Diverting that traffic to other routes currently in place really isn't feasible or practical. Eliminating a route that's been relied on for 80 plus years [would be] pretty significant.

How many years will it take to pay for this project with the taxes from the users of the infrastructure?

Bill Shefcik: That's yet to be determined. It depends on if and when we sell bonds for the project, and we have not done that yet. It could be 20 years, it could be 30 years.

Eric Beck, Hamilton County Engineer: At this point, we really don't know yet. We haven't got our final funding yet. We're not sure how we're going to pay for everything. We're still working on that, trying to obtain any funding we can get. Like Bill said, we have not sold bonds yet, and we don't know what that burden would be at this point.

Bill Shefcik: We have local matches in place for the funding we do have. Right now, it's been pay as we go. So, at this point, we're not really going into any debt with the work we've done so far.

Why could we not just simply close the viaduct to car traffic and make it a pedestrian area and a bikeway? Hopple and US 50 can handle the traffic instead.

Bill Shefcik: This goes hand-in-hand with the other couple questions. [Considering] the volume of traffic that's on the viaduct now and the traffic that's on Hopple and US 50, it doesn't seem like a practical solution to divert all the traffic from Western Hills.

Eric Beck: If I can add to that. The local street grid going north and south is really not capable of supporting an additional 55,000 users moving either north or south to another bridge.

Will the design affect the Brighton Bridge over Central Parkway? And has the plan for that bridge been finalized?

Bill Shefcik: The plan for the Brighton Bridge has not been finalized and we are currently looking at options for that bridge. That bridge is also in poor condition and something definitely needs to be done with it. But no, nothing has been finalized on that yet.

Given you have opposing traffic and adjacent lanes with no divider, what is the planned maximum speed for those lanes?

Bill Shefcik: The legal speed and design speed is 35 miles per hour.

Is there a preliminary engineering report that the public can access and read?

Bill Shefcik: Yes. The current study that was done by T. Y. Lin is posted on our website [www.cincinnati-oh.gov/WHV] under Replacement Project.

Will the SORTA funding be used to help fund this project?

Eric Beck: Yes, the county passed an infrastructure tax with SORTA. The collection of that money started this year. They have not seen revenue from that yet; I think that happens in December. At that point, probably early January or February, SORTA will be putting out grant applications. We're not sure how those will be configured at this point, but we know we'll apply for them. We're anticipating, hopefully, we can get some money from that. But at this point, we're still waiting to see how SORTA configures the application process and the requirements for obtaining that transit tax money.

The planned shape of the new viaduct mirrors that of the older Western Hills Viaduct. Is there a reason for the shape and the plan rather than designing a more straightened viaduct? Also, the change occurs in the span rather than at one of the major structural elements. Can you discuss that design a little bit in more detail?

Bill Shefcik: We did as much as possible to try to put a straight span across the railroad yard. The long span with the towers, supported by the towers and the cables is the straight portion of the bridge. In order to tie into the existing road networks at the west and at the east, we did have to

introduce some curves in the road. It's really mainly the environment and the roadway network and what we're tying into at each end that dictated the alignment of the new bridge and roadway.

Sajid Abbas: If we try to straighten [the bridge] towards the south, the alignment would go over the intermodal yard and the railroads do not like that. If we were to try to straighten it towards the north side, we would be interfering with the existing viaduct, and we need to keep the existing viaduct open to keep the traffic running during construction. These are the constraints which pushed us in this direction. A curve can be nice. If you are driving on a curve and coming on to a cable-stayed bridge, you can basically see a changing view as you drive and you can look at the whole expanse of the structure. So, it can be fun.

It sounds like you are not sure of the ultimate cost, yet you say it is worth it. How do you justify that position without data in hand?

Bill Shefcik: We believe we can build the entire project within the $335 million estimate. We have done a Benefit/Cost analysis that has shown that by building the viaduct at this cost, the benefit/cost ratio is four to one. Sometimes those analyses are necessary to apply for federal funds and we've submitted it in several funding packages to the agencies we're seeking grants from. These benefit/cost analyses have been reviewed and vetted by those agencies, and while they may not agree exactly with the number of four to one, the benefit/cost certainly is greater than one, and the project is therefore worthwhile.

I believe there were some steel wires that will be used for the saddle system if I understand it correctly. Would those wires rust over time or would they lose strength over time?

Sajid Abbas: Cable stay technology has evolved so much by this time that there are elements with at least a hundred years design life. There are several layers of protection over the high-strength steel strands. There is an outer layer and then there is the pipe itself. There have been no instances of corrosion reported in modern cable stay structures. There have been issues with the first-generation cable stays which were built in the early sixties or seventies, but nothing has been reported with the modern structures. They are very well-protected. That'll be the case over for this bridge project also.

Could you go into more detail about the I-75 interchange at the Parkway and also the impact on McMillan and the properties there?

Bill Shefcik: I don't believe there's going to be any impact to the properties along McMillan. I would like to ask Scott to comment a little more on that question though.

Scott Brown: The I-75 interchange is conceptually designed to be a tight diamond interchange. If you're going northbound on I-75, you'll be able to exit. You'll also be able to enter northbound 75, and the same thing for southbound. You'll be able to exit to the viaduct going southbound on 75 and then reenter 75 southbound if you're coming across the viaduct. I believe that the preferred alternative for that interchange basically maintains all the movements that currently can be made at the interchange. Again, I'd encourage folks to check out our Brent Spence Bridge Corridor website [www.brentspencebridgecorridor.org]. You can find a lot more information there.

What will happen to the subway tubes at the East end of the bridge?

Bill Shefcik: The subway tubes are, at this point, going to remain in place. We don't have a plan to remove them, and actually, we haven't looked at that in too close of detail, as far as the realignment of Central Parkway goes.

You mentioned that you were using some bonds to cover the costs. This is not the only expense for the city during this period. I encourage you to reflect on the burden that this adds to our tax base, and to withdraw this project in favor of more financially stable solutions to transportation.

Bill Shefcik: That comment is noted.

Will the existing viaduct be open to traffic throughout construction?

Bill Shefcik: Yes. The plan is to keep the existing viaduct open, fully open to the extent possible, during the construction of the new bridge. At some point, there will be a full closure of the viaduct to do the tie-ins at both the east and west ends. The extent of that timeframe is not yet determined. It's heavily influenced by the construction of the [I-75/Western Hills Viaduct] interchange and how the ramps can be built in stages and phases. The overall intent is to build the new bridge offline from the existing viaduct so we can maintain traffic on the old viaduct as long as possible.

Where will the new Duke Substation be located?

Bill Shefcik: Currently, the existing substation is on the south side of the existing viaduct between Buck Street and Spring Grove Avenue. The location of the new substation will be north of the existing viaduct, along with a new transmission line that currently is crossing the existing railroad yard on the south side of the existing viaduct. That transmission line is going to move to the north.

Was there any consideration for using and maintaining the existing viaduct for pedestrians and as a bike path only, or maybe as a park and recreation area?

Bill Shefcik: Right now, the plan is to remove the viaduct once it's no longer being used, or used for traffic. At this point, there's been no serious consideration to do [using it for a bike/pedestrian path].

Several street exits are being eliminated. Do you have a list of which ones?

Bill Shefcik: Not offhand here, but I can [get that information].We can follow up on that question.

[Post meeting note: There are two connections to the existing viaduct which will be affected. First, there is the 800-foot long segment of Harrison Ave which connects from State Avenue to the Western Hills Viaduct. This connection is to be eliminated due to the reconfiguration of the new viaduct. Approximately one-half the length of the street segment will remain for access to private properties. Traffic currently using that segment to access the Western Hills Viaduct will be able access the viaduct from State Avenue via Queen City Avenue to Harrison Avenue. The other connection being affected is the connection from the lower deck of the existing viaduct to Spring Grove Avenue. Traffic currently using that connection, approximately 9,000 vehicles per day, will be able to access Spring Grove from the new viaduct via an alternate route(s) to be determined.]

How does the city plan on securing the remaining $200 million in the price of the viaduct?

Bill Shefcik: As we showed in the presentation, there are a number of grants and potential funding sources that we could potentially use for the construction new viaduct: federal funds, other state funds, and possible funds from the new transit tax.

Will the concrete channel in the Mill Creek be extended below the new bridge?

Bill Shefcik: There are no plans to do that.

What percentage of daily traffic would be impacted from the elimination of traffic access from Spring Grove Avenue? I assume this traffic will have to use alternative local roads to get to Central Parkway in Western Hills Viaduct. Has there been any thought as to the impact and cost of this rerouting?

Bill Shefcik: Currently, there are approximately 9,000 vehicles a day (pre-COVID) using the existing viaduct's lower deck to go to and from Spring Grove. We have looked at the possibility of eliminating that connection using traffic demand models and at where that traffic [can be] diverted. When ODOT gets further into the detailed design of the interchange at Western Hills Viaduct, I believe that's going to be studied in more detail.

Would the rainwater be drained into the Lick Run Greenway?

Bill Shefcik: Storm water from the bridge itself is going to be captured and piped into existing storm sewers or new storm sewers that [would] be built to accommodate the drainage.

An argument was made for the [extradosed] bridge-type based on four-hour work windows. Are the existing pier removals and construction of the new drilled shafts going to take place in four-hour work windows also?

Bill Shefcik: The four-hour work windows were basically the window of time that we had to work over [the rail] tracks. Some tracks in the railroad yard are busier than others. For most of the tracks, a four-hour window was the upper limit of time that the railroad expected they would have the tracks free from train traffic. [For others], getting a four-hour window of time over a railroad track is near impossible, with the two-hour window being more reasonably expected.

Sajid Abbas: The middle 560 feet of the railyard is very busy. That's the area where we have the two-hour, four-hour window restriction. The construction of the foundations is outside that area and is not impacted by those windows. It is the overhead work, swinging the load into position, putting a beam into position, and making a connection which is subject to that requirement.

What are the plans for the land remaining when the two large cloverleaf ramps are eliminated?

Bill Shefcik: Right now, there is no plan.

The Parkway appears to be moved to the west. Is there a plan for the unused property?

Bill Shefcik: There's no plan on that yet.

Does the city need to pay the railroads for the property for the new bridge?

Bill Shefcik: There will have to be a new easement established for the new bridge. Currently, the existing bridge is over railroad property and it is there through an aerial easement. Most likely, we'll have to pay for the increase in easement area for the new bridge. That dollar amount has not yet been established, though.

Will the construction of the bridge and approaches begin in 2021, or will it just be the adjacent support work? Like local roadway realignments and the like? If so, when in 2021?

Bill Shefcik: In 2021, we expect demolition of the buildings to begin on the west side and some site preparation. We're also looking at early foundation work, starting at the west and moving east until the transmission lines across the railroad yard are relocated. We're a little restricted on how much

work we can actually do within the railroad yard and underneath the electric lines. Essentially, we would be moving from west to east on the early phases of construction.

Can you go into more detail about the I-75 interchange at the Parkway, and also the impact to McMillan and properties there?

Bill Shefcik: I think we've answered that. I think Scott did a good job explaining that also.

[Post meeting note: As noted in previous responses, the interchange is going to be a tight diamond interchange. It will not be like the Hopple Street interchange. It'll be a tight diamond and there will be no property takes for the interchange itself.]

Will a retaining wall be needed on the south side of the Western approach by the self-storage building?

Bill Shefcik: There will be retaining walls along the roadway beginning at State Avenue and heading west. By the time we get to the storage building area, we may be completely at grade at that point. If we're not, the retaining walls will not be that high.

Will this recording be posted after the meeting?

Laura Whitman: Yes, we will be posting the recording of this meeting. You can get a link to it on the city website at www.cincinnati-oh.gov/WHV.