BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of the WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, BURLINGTON NORTHERN RAILROAD COMPANY, and THE NATIONAL RAILROAD PASSENGER CORPORATION for Modification of Order Regulating the Speed of Passenger Trains in Ferndale, Washington.	DOCKET NO. TR-940308
BURLINGTON NORTHERN RAILROAD COMPANY, Petitioner, v. FERNDALE, WASHINGTON, Respondent.	DOCKET NO. TR-940330 Volume I Pages 1-259

A hearing in the above matter was held on October 12, 1994 at 9:42 a.m., at 2222 Main Street, Ferndale, Washington, before Administrative Law Judge LISA ANDERL.

The parties were present as follows:

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION by JEANNE A. CUSHMAN, Assistant Attorney General, 905 Plum Street, P.O. Box 40113, Olympia, Washington 98504-0113.

BURLINGTON NORTHERN RAILROAD COMPANY by REXANNE GIBSON, Attorney, 110 110th Avenue Northeast, Suite 607, Bellevue, Washington 98004.

THE NATIONAL RAILROAD PASSENGER CORPORATION by ALDEN L. CLARK, Senior Director - Contract Operations, 90 Massachusetts Avenue Northeast, Washington, D.C. 22015.

Lisa K. Nishikawa, CSR, RPR

Court Reporter

ORIGINAL

CITY OF FERNDALE by GARY M. CUILLIER, City Attorney, 2084 Alder Street, P.O. Box 1126, Ferndale, Washington 98248.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION by ANN RENDAHL, Assistant Attorney General, 1400 South Evergreen Park Drive Southwest, Olympia, Washington 98504.

I N D E X

P R O C E E D I N G S

JUDGE ANDERL: This hearing will please come to order. The Washington Utilities and Transportation Commission has set for hearing at this time and place consolidated Docket Numbers TR-940308 and TR-940330. The first docket is a petition by the Washington State DOT, Burlington Northern, and Amtrak for modification of the Commission order regulating the speed of passenger trains in Ferndale.

The later docket is a petition by Burlington Northern to close a crossing in the city of Ferndale, and in that case Ferndale is the respondent.

My name is Lisa Anderl. I'm the administrative law judge assigned to hear the case today. We're convened in Ferndale on October 12, 1994. I would like to take appearances at this time beginning with Burlington Northern.

MS. GIBSON: Rexanne Gibson representing Burlington Northern Railroad Company, petitioner.

JUDGE ANDERL: And for the DOT?

MS. CUSHMAN: Good morning, I'm Jeanne Cushman representing Washington State Department of Transportation.

JUDGE ANDERL: And for the petitioner, Amtrak?

MR. CLARK: Alden L. Clark for Amtrak.

JUDGE ANDERL: Thank you. For the city of Ferndale?

MR. CUILLIER: Gary Cuillier for the City of Ferndale.

JUDGE ANDERL: And for Commission staff?

MS. RENDAHL: Ann Rendahl, assistant attorney general, representing the Commission staff.

JUDGE ANDERL: Before we went on the record, we discussed a number of things, including the order of presentation of witnesses today. Ms. Rendahl has asked for a witness to testify out of order and we will do that first as all of the parties have agreed to that.

We also premarked some exhibits which I'll identify in just a moment, but before we do any of those things, I believe that some of the parties do have an opening statement that they would like to make, so Ms. Gibson, we'll start with you.

MS. GIBSON: Thank you, your Honor. The joint petitioners here are Burlington Northern, Amtrak, and the Department of Transportation, and we are making the three requests that you just briefly referred to. First, an increase in passenger train speeds over that permitted currently by the Commission

orders. Of course, there is no passenger service on this line currently; it was discontinued in 1981, but Amtrak is planning to start it again and will require the 70 and 79 mile speed limits as is outlined in the petition.

We are also asking to close Thornton Road, which is this crossing I'm indicating here on the exhibit, in order to extend a siding which is shown by the dotted line. This is exhibit number what did we admit this?

JUDGE ANDERL: We didn't talk about the picture as an exhibit.

MS. GIBSON: All right.

JUDGE ANDERL: Let me just state for the record that Ms. Gibson is referring to a photograph, an aerial photograph that's, I don't know, probably three feet by four feet, and it's going to be offered as an exhibit in a reduced form 9 by 12 or something like that. We'll give it an exhibit number. We'll give it proposed Exhibit Number 10 since we premarked 1 through 9.

(Marked Exhibit No. 10.)

MS. GIBSON: All right. So looking at Exhibit Number 10 then, where there's this dotted line along the railroad track, that is a proposed extension

to the siding that Burlington Northern needs to make in order to accommodate the new passenger train service. That's because freight trains moving at a slower speed will need to move over onto a siding in order to allow Amtrak to pass on the main line track going at the speeds which are indicated in the petition.

There is now in existence a shorter siding, but it's not long enough to accommodate current and future freight train traffic, given the length of the freight trains which we will have.

The petition also seeks permission to upgrade signals at several different crossings in the city, specifically Hovander Road, Second Street, and Washington Street. This will give the city increased protection.

The court has taken -- the administrative law judge has taken an official notice now through admission of the exhibit of this Ferndale resolution which was done by the City of Ferndale in February of this year basically in support of this project to reinitiate passenger traffic on this line.

Apparently now the city has taken a different position, which as we understand it and which we have geared our evidence to meet is that,

number one, either Thornton Road crossing should remain open and then a connector road should be placed, and perhaps I'll approach Exhibit 10 again and just indicate this. That their position would be that Thornton Road crossing should remain open with a connector road going along here (pointing) next to I-5 and then with a connection to Portal Road interchange in order to provide access from the northern part of the town to Interstate 5 and the other side of Interstate 5. So that's one position that they are taking.

And then as I understand it, the other is if you close the Thornton Road crossing, then the petitioners essentially should be required to pay for an overpass over Thornton Road to the freeway, which I think the court will find is outside the scope of this hearing, and also the city's two proposals would, either one of them, would create a dangerous and unworkable situation, and that's what our evidence is prepared to show today.

This is a project -- the passenger rail project is part of a national scheme to reinitiate passenger service in order to take some of the stress, the ecological, the expense, all of the damage off of our nation's freeways and to put more traffic on the

rail in a more organized fashion.

We understand, petitioners are well aware that the city is having some growing pains, that they have some traffic flow problems. The point we will try to make by our presentation today and tomorrow is that the city has other options rather than trying to hold up a project which really does have national implications, that they have other ways of meeting their problems than by trying to stop the project.

JUDGE ANDERL: Thank you, Ms. Gibson. Ms. Cushman, do you have an opening statement?

MS. CUSHMAN: No.

JUDGE ANDERL: Mr. Cuillier?

MR. CUILLIER: I might clarify, the resolution that has been referred to that the City of Ferndale did sign and go along with indicates that the city would agree to discuss the possibility of closing non-essential grade crossings, but the main crux of the resolution was regarding the speed change that was being requested and the speed limit increases is what is referred to on the second page of the resolution after the whereas clauses.

And other than some possible fencing concerns or need for fencing along at least the northerly part of the Ferndale High School area where

the soccer and baseball fields are, the speed increases are something that the city as such as a governmental unit has more or less gone along with even though some members of the public and some residents within the community may appear to express some fear for the safety of individuals in and about the tracks with the increased speeds.

With regard to the closure of Thornton Road, the city's main point at this hearing is that it will basically deprive the city of the only feasible and economically viable way of meeting it's Growth Management Act obligations. The city, the testimony will show, has been experiencing terrific growth to the north and that traffic is funneled into the main part of town and funneled across the only bridge across the Nooksak River that is access to the city.

And as the growth projections for the next 20 years have shown through the testimony that will be presented of Mike Birdsall, the city's expert, the city will continue to grow rapidly in the area and north of the area of the Thornton connector, and it's always been a primary concern of the city going back for many years to eventually connect that street with the freeway. It creates various problems, not so much at this present time, but in the foreseeable future,

to not have a way to get the traffic to the freeway in that area.

And the city with its residential growth is not in the position in the foreseeable future to be able to fund the type of interchange modification or the type of overpass modification that would be required to meet the growth management traffic comprehensive plan requirements, and so being placed in the position of basically not having a viable plan in that area of the city, the city is asking that some alternatives to the complete closure of the crossing, such as a remodification of the interchange, be imposed as a condition of the approval of the closure or that it is set that the closure will not be allowed unless the parties comply with this state Growth Management Act.

The state Growth Management Act specifically says that state agencies have to comply with local plans and, therefore, if the administrative law judge were to say that the closure would only be allowed if that mandate of the law is complied with, perhaps these alternatives could be pursued in a more appropriate forum that would involve some options, alternatives, give and take, but at this point we're in the position of basically asking that any closure

be conditioned on compliance with the state law that binds state agencies under the 1991 amendment to the Growth Management Act, including the WUTC. Thank you.

JUDGE ANDERL: Okay. Thank you. Mr. Cuillier, let me just ask you, does the City of Ferndale have an approved comprehensive plan right now?

MR. CUILLIER: We have a traffic plan that's been approved and we also have a draft plan that's being -- it's in a formal document and it's being considered for final adoption under the Growth Management Act. In other words, since really as early as 1972 we have had written plans detailing the Thornton Road connection.

JUDGE ANDERL: Will some of those documents be offered as evidence?

MR. CUILLIER: Yes. I think it's tomorrow that we plan to bring those and present our case.

JUDGE ANDERL: Okay, thank you. Ms. Rendahl, an opening statement?

MS. RENDAHL: I have no opening statement, your Honor.

JUDGE ANDERL: Okay, thank you. In their opening statements some counsel did refer to the exhibits that we had marked before we went on the

record. Let me go through those now. I do have an indication from all the attorneys that they will stipulate to the admission of each of these exhibits, so as I identify them, I will also be admitting them unless there's an objection.

Exhibit Number 1 is Resolution Number 94-2-22 by the City of Ferndale dated 22nd of February 1994. Exhibit Number 2 is a letter to Mr. John Eley, E L E Y, dated August 29, 1994. Exhibit Number 3 is a small blue booklet entitled FRA Track Safety Standards, 1989.

Exhibit Number 4 is a color map of Ferndale, Washington. It's a reduced version of a document that we have on an easel here that I believe witnesses will be referring to. And Exhibit Number 5 is also a map. It shows Burlington Northern track, Everett to the Canadian border, also a reduced version of a document that we have blown up that I believe witnesses will be referring to.

Exhibit Number 6 is a multi-page document entitled Highway-Rail Crossing Accident/Incident and Inventory Bulletin, No. 16, for calendar year 1993. Exhibit Number 7 is a form entitled Highway Grade Crossing Inspection Report. Exhibit Number 8 is a resolution by the Washington state Transportation

Commission, Resolution Number 445.

Exhibit Number 9 is a photocopy of one page of Chapter 47.79 RCW, and then we've identified as Exhibit Number 10 the aerial photograph of the Ferndale area showing the Thornton Road crossing and I believe a section of Interstate 5 there.

Do the parties stipulate to the admission of all the exhibits including Number 10? Ms. Cushman?

(Marked Exhibits Nos. 1 through 10.)

MS. CUSHMAN: Yes.

JUDGE ANDERL: For the city?

MR. CUILLIER: Yes.

JUDGE ANDERL: Okay. For Commission staff?

MS. RENDAHL: Yes, your Honor.

JUDGE ANDERL: And Amtrak has no objection either?

MR. CLARK: No.

JUDGE ANDERL: Okay. Thank you. All Exhibits 1 through 10 will be admitted as identified and we will be getting a small version of Exhibit Number 10 for the official file.

As I said, we are going to take a witness out of order and, Ms. Rendahl, do you want to go ahead with that?

(Admitted Exhibits Nos. 1 through 10.)

MS. RENDAHL: Yes, your Honor. I would like to call Mr. Allen Dickson to the stand and I would also like to distribute several exhibits beforehand.

JUDGE ANDERL: Okay. While Mr. Dickson takes the stand, we will identify those exhibits. I'll mark for identification as Exhibit Number 11 a packet which includes some color photographs and an affidavit of publication.

(Marked Exhibit No. 11.)

Mr. Dickson, if you raise your right hand.

Whereupon,

ALLEN DICKSON,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

JUDGE ANDERL: Go ahead, Ms. Rendahl.

DIRECT EXAMINATION

BY MS. RENDAHL:

Q. Mr. Dickson, would you please state your full name and business address, spelling your last name for the reporter.

A. Allen Dickson, D I C K S O N. 2500 Elm Street, Suite B, in Bellingham, zip 98225.

Q. Who is your employer?

A. I'm employed by the Washington Utilities and Transportation Commission as a motor carrier law enforcement investigator grade 2.

Q. How long have you worked for the Commission?

A. Over 17 years.

Q. What generally are your responsibilities as a motor carrier law enforcement investigator 2?

A. Generally we work with the transportation industry regulating motor carriers, buses, limousines, on the areas of safety and economic enforcement and patrol.

Q. Did you have occasion as an investigator to post a notice of this hearing?

A. Yes, I did.

Q. Would you please tell us where and when you posted this notice.

A. On September 21 in the afternoon copies of the railroad hearing Docket Number TR-940330 were posted on the crossbucks, the railroad crossbuck at the Thornton Road main line BN crossing. They were taped on the -- both sides of the crossing, on the east and west side.

MS. RENDAHL: Your Honor, I'm going to approach the witness to hand him a copy of the

exhibit.

Q. (Handing.) You have before you a copy of what's been marked as Exhibit 11 for identification. Could you please identify the documents in Exhibit 11, what's been marked as Exhibit 11.

A. Yes. The photograph is of the actual crossbuck with the hearing notice attached right below the "2 tracks" sign there, and it shows both the uphill side and the downhill, east and west part of the crossing there of the Thornton Road.

Q. And the second and third pages, could you identify those as well.

A. On the 26th and 27th of September I went to the local newspapers in this area that served Whatcom County, those being The Westside Record-Journal in Ferndale and a notice of public hearing was posted in their legal section there which ran on the 5th of October and the affidavit of publication is signed there by their clerk. That is the second one.

The Bellingham Herald was also notified of the same hearing and they posted a public notice hearing that ran on October 8th, and their affidavit is the third page there signed by Gail Kihn.

Q. Looking at the first page of what's been marked as Exhibit 11, did you take these photographs

yourself?

A. Yes, I did.

Q. And is this a true and correct depiction of what you would see if you were at that crossing today?

A. Yes, it is.

MS. RENDAHL: Your Honor, I move admission of Exhibit 11.

JUDGE ANDERL: Is there any objection from any party?

MS. GIBSON: No objection.

MR. CUILLIER: Could I question the witness just a minute about this?

JUDGE ANDERL: Yes.

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. Mr. Dickson, did you take more than two photos, because looking at these two, they look -- they appear to be both looking eastward. They appear to be identical as far as the details in the photos. Both photos appear to have the same identical details on them.

A. Yes, I did take additional photos. Now, if you look at the top photo there, on the left-hand side, very far corner of that photo there's a for sale

-- what that is is a for sale sign. That's looking down the hill. And in the left portion there is kind of an open field, an open field, vacant lot.

The bottom one looks substantially the same, but there is none of that for sale sign, and it is in fact looking up the hill, looking west. They are different photos.

Q. I don't think it matters. I was just thinking your bottom photo appears to be identical except that it's moved over so that the for sale sign isn't showing on the left, but --

A. If you like, you can look at the originals here and I can point out --

Q. That doesn't matter. I was curious also, do you always post these notices so that people can't tell where the hearing is or the time and the place of the hearing by taping them both bottom and top with the last two pages behind the first one?

A. Well, in this case, in order to sustain the weather and wind, I taped them securely, and it was felt that persons having an interest in the time and date and place would be able to peel that off and read it.

Now, in addition, I might add that the two local residents in that area, the Gloria and Percy

Hanowells located at 1979 Thornton Road and the David Brocker family at 1980 Thornton Road, were hand served a copy of this order and were so advised of the hearing today.

Q. It's normal practice to tape them that way so people would have to cut the tape off the bottom rather than one under the other like so they could --

A. Yes, it is.

MR. CUILLIER: Okay, thank you.

JUDGE ANDERL: Any objection, then, to Exhibit Number 11? Hearing none, it will be admitted as identified. Although, I do want to say that on the original it is clearly a picture of the same stop sign. And that one is just simply moved further to the right than the other. You can see that there's graffiti on the stop sign in the original, that it seems to be that both photos are taken from the same side of the tracks and --

(Admitted Exhibit No. 11.)

MS. RENDAHL: I'll look at that and introduce a copy of another view if in fact that's the case, and I will apologize, your Honor, and will rectify that for the record.

JUDGE ANDERL: Did that conclude --

MS. RENDAHL: That's all I have, your

Honor.

JUDGE ANDERL: Is there any cross of this witness, Ms. Gibson?

MS. GIBSON: No. I have nothing.

JUDGE ANDERL: Ms. Cushman?

MS. CUSHMAN: No.

JUDGE ANDERL: Mr. Cuillier?

MR. CUILLIER: No.

JUDGE ANDERL: Thank you, Mr. Dickson, for your testimony. You may step down.

Let's go to the presentation of the petitioners' direct case then, Ms. Gibson.

MS. GIBSON: Yes. We'll call Wayne Hatton. Mr. Hatton, will you approach the stand, the chair here.

JUDGE ANDERL: Go ahead and take a seat. Raise your right hand to be sworn.

Whereupon,

WAYNE HATTON,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GIBSON:

Q. Would you say your full name, please, for the

record.

A. My name is Wayne Hatton, H A T T O N.

Q. Mr. Hatton, by whom are you employed?

A. I'm employed by Burlington Northern Railroad Company.

Q. What is your position?

A. I'm VP of transportation for the system.

Q. What other positions have you held at Burlington Northern?

A. Over a period of some 30 years I've been in the operating department of the railroad, trainmaster, superintendent, assistant vice president, regional vice president, VP of transportation.

Q. When did you become involved in this rail passenger demonstration project that ultimately is proposed to run through the city of Ferndale?

A. Approximately two years ago.

Q. Can you explain to the administrative law judge what the demonstration project is? Would it help you to use what's been admitted as Exhibit 5?

A. Certainly.

Q. We could move this over here so we can see it better.

JUDGE ANDERL: Mr. Hatton, when you do refer to that exhibit and you point at a place, if you

can also describe orally what part of the exhibit you're pointing at so that it's clear for subsequent review of the record.

THE WITNESS: Certainly.

Q. Mr. Hatton, if you stand on this side, then the judge will be able to see what it is you're pointing to.

Would you describe then what the project is, please.

A. Certainly. In 1992 the Federal Railway Administration designated what is called -- considered to be a high speed rail corridor between Eugene, Oregon and Vancouver, British Columbia. A segment of that corridor is the trackage that extends essentially from Seattle, Washington to Vancouver which is -- a portion of which is shown here on Exhibit 5.

Exhibit 5 depicts the portion of trackage -- Burlington Northern-owned trackage that runs from Everett, Washington, which is at the bottom, near the bottom of the exhibit, northward up to the international border at Blaine. As I mentioned, this is a portion of that high speed rail corridor. From Seattle to Vancouver, British Columbia is approximately 150 miles, 28 miles of which are in Canada.

What you see here, as I mentioned before, though, is from Everett to the border, and of course what we're talking about today is Ferndale, which is right near the northerly -- just south of Blaine on Exhibit 5.

Basically what this project is all about is to operate an Amtrak passenger train from Seattle to Vancouver, British Columbia at a designated time schedule of no more than three hours and fifty-five minutes. To accomplish that, there has to be some improvements made to the physical plant. Improvements in the track condition, new rail, improvements in the signaling system, improvements being made in crossing protection devices. This results in increased speeds for passenger trains.

As I mentioned before, it is essential that we run the train in three hours and fifty-five minutes from Seattle to Vancouver. To accomplish this project, Burlington Northern, Amtrak, and the state of Washington transportation department entered into an agreement which provides initially a $27 million expenditure of monies that will be spent on this corridor between Seattle and Vancouver, British Columbia.

What we're talking about here today is a

portion of the improvements that need to be made to accomplish the objectives that I've talked about earlier and, of course, it includes speed increases, sidings, and in certain cases as we have here today, a petition for the closure of some crossings.

Q. Are such improvements being requested at locations other than Ferndale?

A. Yes. There are improvements being made along the entire corridor.

Q. All right. You may resume your seat. Thank you.

To your knowledge, has Amtrak ever operated on this line before providing passenger service?

A. Yes. Amtrak operated here until October of 1981 when the train was taken off.

Q. Do you know why it was taken off, what happened to it?

A. It is my understanding that the economics simply did not support the expense of continued operation of the train.

Q. You mention the three hour and fifty-five minute figure. Is that part of the economics of the operation?

A. For any passenger train to be viable, there has to be a service that is attractive to the public,

and experience has shown that as with the previous passenger operation which I recall was in the neighborhood of four hours thirty minutes, that it was simply not competitive with the other modes of transportation that traverse this corridor, so it was determined that an absolute minimum of three hours and fifty-five minutes was needed to support an operation of this type.

Q. Is the current demonstration rail project part of a national drive to increase passenger train service?

A. Yes.

Q. How does this project fit into that national drive?

A. Well, this train will connect with other transcontinental Amtrak trains as well as regional trains, and this is simply one component of a national network that will support the entire effort being put forth by Amtrak.

Q. What is Burlington Northern's position on the project?

A. Burlington Northern is commited to make it work. We are cooperating fully with Amtrak, Washington DOT, and we are committed to see it through to completion.

Q. Let's talk about the freight train traffic for a minute. Are you familiar with the numbers of rail cars that are shipped on this line?

A. Yes.

Q. And on an annual basis?

A. In 1993 there was approximately 160,000 cars that moved through the city of Ferndale in terms of freight business. Our business is increasing in this part of our railroad. We are experiencing increases between 15 and 20 percent range in terms of freight business on this corridor.

Q. Is this line considered to be one of BN's main lines?

A. Yes.

Q. And the business that you just referred to on an annual basis, does that constitute a significant portion of Burlington Northern's northwest business?

A. It's a very significant portion of Burlington Northern's Pacific Northwest business. In this region we have only one other main line that handles more business than -- right now than what this line is handling.

Q. Those cars that move through this line, the rail cars, does that include shipments that are carried interstate commerce across state borders?

A. Yes. The shipments travel nationwide.

Q. Could you explain the relationship between Burlington Northern and Amtrak, particularly in this kind of situation where passenger service would be operated? Start with who owns the tracks.

A. Burlington Northern owns the track. We have a contract, as do other railroads in the United States, with Amtrak to accommodate the operation of their passenger trains, and basically Burlington Northern provides a route, provides a level of utility to operate that train on a defined schedule. It is a formalized contract. Amtrak reimburses Burlington Northern for costs that are incurred for the operation of said trains.

Q. Okay. I would like you to address now the specific changes that are requested at Ferndale. First of all, is there a request being made for any increase in freight train speeds?

A. No. No increase in freight train speeds.

Q. In order to explain these, would it assist you to use the Ferndale map, Exhibit Number 4?

A. Yes.

Q. Let me move that over to the easel.

Now, would you indicate where passenger train speed increases are requested and what that

specific request is?

A. Well, within the city of Ferndale I'll be referring to milepost numbers as a matter of reference. If we look at Exhibit -- what was it, 4?

Q. Four, yes.

A. You'll see milepost 105 near the bottom, just near Hovander Road, and as you move northward on the rail line you'll see the milepost 106, 107 on through to 108.7 up at Brown Road. The specific order requests an increase in speed from 105.1 to 105.8, which is basically coming into Ferndale from the south, to 70 miles an hour. Then there is a curve just after crossing the river where trains are restricted to 45 miles an hour. Then after coming around that curve at milepost 106.2 to 107.8 within the city limits of Ferndale, which is basically then tangent trackage, the request is for 79 miles an hour.

Q. Now, is Thornton Road closure also included in the request?

A. Yes, it is.

Q. And why is that necessary?

A. Part of the proposal, as has been discussed here earlier today, is to provide an extended and improved siding for the meeting and passing of trains. There is a siding at Ferndale and it's proposed to

extend that siding and there will be trains, freight trains, that will occupy that siding.

Q. Would you indicate on Exhibit 4 where the siding is today.

A. The siding today begins at about 106.1 and extends northward to 108 -- excuse me -- goes to 107.4 on the map. If you look northward, you see it says "107.48 remove switch." That's today's siding.

We are going to extend that siding 3,631 feet northward up to 108.16. That is the portion of the $27 million expenditure that I referred to earlier.

Q. Why is it necessary to make that extension?

A. The average freight train that traverses this route is approximately 7,000 feet in length, and if we're going to meet trains, we have to be able to find a place to put these trains away.

Q. How long is the existing extension?

A. The proposed --

Q. The existing extension.

A. The existing siding --

Q. Excuse me. I was using the wrong term. The existing siding, how long is it?

A. If my memory serves me correct, it's 5,800, 6,000 feet, something in that range.

Q. It's less than the amount necessary --

A. Yes.

Q. -- to accommodate the trains?

A. Yes. And I might add this same thing is being done on other locations in the corridor.

Q. Now, why is it necessary to close Thornton Road just because you're building an extension to the siding?

A. The roll of the siding is changing. It is now primarily used for stored industry cars. The local trains will sometimes be there. Now we're going to have to clear the main lines, which we don't do today in a lot of cases, because there's a passenger train running, and to run that train on schedule we have to clear the main line. So we have to have a siding long enough to accommodate our -- at least our average length train that traverses this corridor.

Q. Now, according to the petition, there are also some upgrades in signals that are planned. Is that part of the project?

A. Yes. As it relates to this specific area, there is a --

JUDGE ANDERL: Let me just interrupt for a minute. Ms. Gibson, you referred to this and I have seen this part of the request in the file, but as I

read the petition for closure of Thornton Road and the notice of hearing in that matter, the upgrades are not before the Commission or before me for decision at this time. So this is just background, is that right?

MS. GIBSON: Yes.

JUDGE ANDERL: Okay. Sorry for interrupting.

MS. GIBSON: It's just part of the project, the overall project. It impacts on the safety aspects and ultimately the Commission's decision.

JUDGE ANDERL: Okay. But you don't need --

MS. GIBSON: -- a ruling on it per se.

JUDGE ANDERL: -- commission approval.

A. A significant portion of the expenditures will be to improve the signal system and the installation of what was referred to as a centralized traffic control system which will be installed between Bellingham and the international border which will go through Ferndale. And basically centralized traffic control provides for the remote operation of switches and signals as opposed to the manual operation, and it provides a significant improvement in safety and the handling of trains.

Q. Now, how do these modifications at Ferndale fit into the overall project, the total demonstration

passenger rail project?

A. The improvements that I've discussed are simply one of numerous improvements that are being made along the entire corridor to accommodate the schedule that I earlier referred to, and every one of the improvements on the corridor are absolutely essential to achieve the three hours and fifty-five minutes schedule. Absenting an improvement at one location is simply going to virtually eliminate the possibility of achieving our objective of three hours and fifty-five minutes.

Q. So if Thornton Road is not closed, then can the project proceed?

A. Our position is that all of the sidings have to be built and the closures that are proposed will have to be accomplished for this to be a successful project.

Q. And does that include all of the speed request increases?

A. Yes.

Q. Are you familiar with the passenger service operation of the Great Northern Railway in the 1950s on this line?

A. Yes.

Q. Generally do you know what length of time

they operated from Seattle to Vancouver?

A. The -- my recollection is that the trains operated in something less than three hours and thirty minutes over this same route.

Q. Are you familiar with the basic speed of Amtrak trains on Burlington Northern tracks throughout the Burlington Northern system, and that would be unless there are curves or some sort of special conditions, what's the basic speed?

A. The basic speed on Burlington Northern is 79 miles per hour absenting restrictions. And that relates to the FRA track standards that are delineated in Exhibit -- what's been previously identified as Exhibit 3.

Q. And when you talk about the Burlington Northern system, what does that encompass?

A. Our system encompasses 25 states, approximately 25,000 miles, and we operate 16 Amtrak trains per day on our system currently.

Q. Those tracks on which Amtrak operates, does Burlington Northern maintain them to any particular standards?

A. Yes. They are maintained to the FRA classification standards earlier mentioned.

MS. GIBSON: All right. No further

questions.

JUDGE ANDERL: Thank you, Ms. Gibson. Any cross for this witness, Mr. Cuillier?

MR. CUILLIER: Briefly, your Honor.

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. Mr. Hatton, who arrived at the three hour and fifty-five minute time frame for this project, this route?

A. The schedule determination was a joint negotiation primarily authored/chaired by Amtrak and basically they having had experience at running trains in this corridor in something more than three hours and fifty-five minutes that was less than successful, that provided the impetus for arriving at an improved time, an improved time.

Q. Was it pretty much Amtrak's request that that timing be the time frame required or was it -- was it based, for example, on some of Amtrak's economic concerns such as having to utilize an extra crew member if it exceeds four hours?

A. The impetus for that decision was not directly related to an extra crew member. Amtrak is the expert in train scheduling. They had experience

in this corridor. It was jointly discussed, jointly agreed upon. The extra crew member is a labor agreement issue, was not the driving force in three hours and fifty-five minutes.

Q. Did Amtrak used to travel you say the same route in three hours and a half?

A. The former Great Northern Railroad prior to the advent of Amtrak. Amtrak was created in 1971. The Great Northern operated trains through Ferndale for many, many years, and there were many schedules which were less than three hours and fifty-five minutes, if not all of them.

Q. What were their speeds at that time, do you know?

A. The speeds varied. 79, 70, 60. It depended on the curvature of the track.

Q. So they were just either making fewer stops than presently proposed or they were going faster in some of the areas but never over 79?

A. They were going faster but -- I can't attest to what the maximum speeds were back in the '50s.

Q. Was any serious effort made to locate a place to put the siding that would not require the closure of a projected street?

A. A detailed analysis was made of the entire corridor to identify ideal passing track locations, yes.

Q. There's quite a bit of area to the south of Ferndale that's on straight track. Was there any effort to look at a siding there?

A. The entire corridor was looked at, so the answer would be yes.

Q. Do you know if there are any other viable alternatives to the present location here proposed or was that somebody else's job or determination?

A. There will be another I think subsequent testimony that can talk in more detail about that issue.

MS. GIBSON: You may want to address that to Marvin Nelson, Counsel.

MR. CUILLIER: Okay.

A. I might --

Q. Yes, sir, go ahead.

A. Scratch.

MR. CUILLIER: That would be fine. Thank you.

JUDGE ANDERL: Okay. Ms. Rendahl?

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. I just have a clarifying question concerning the side track. Would you say that the average length of a freight car, a Burlington Northern freight car is approximately 60 feet in length?

A. No. I would not.

Q. Okay. Now, the new siding you've testified is approximately -- it's going to be approximately 9,000 feet or 8,600 feet. Using a figure of about 60 feet per freight car, that equals about 157 cars. Do you know what the average length of freight trains is on the Burlington Northern track in this region?

A. I testified earlier that the average length on this corridor is approximately 7,000 feet.

MS. RENDAHL: Thank you. I have no further questions.

EXAMINATION

BY JUDGE ANDERL:

Q. Okay. I have a couple of clarifying questions just for the record here on Exhibits 4 and 5. On Exhibit Number 5 is the green line the

Burlington Northern track and the red line would perhaps be highway?

A. The green line is the Burlington Northern track, yes, ma'am.

Q. And are you the person to ask either the driving time or the driving distance between Seattle and Vancouver with an automobile or would another witness be able to answer that?

A. I cannot comment on the driving time. Stay within the law.

Q. And then again on Exhibit Number 4 -- that was the only question I had on Exhibit Number 5. On Exhibit Number 4, the generally vertical green line with the hash marks across it is the railroad tracks?

A. Yes, your Honor.

Q. Is each of those hash marks one-tenth of a mile apart, just for ease of reference?

A. I would say approximately.

Q. And the thinner green lines that parallel the heavy green line, are those siding tracks --

A. Yes.

Q. -- through the center of Ferndale?

A. Yes. Siding and industry tracks. We should keep in mind that we do have major customers.

Q. So at some point right around milepost

106.21 there are actually four tracks that go through Ferndale, is that correct, or is that a correct reading of this exhibit?

A. Yes.

Q. And then is it also correct that the siding track as it exists now already crosses Thornton Road?

A. Yes. I think I might be able to clarify there a little bit for you. The role of this passing track or siding is going to change.

Q. I think I understood that --

A. Under the current --

Q. -- it was going to just be blocked by freight trains, not that there would be an additional track at Thornton Road.

A. That's right. And it's not to be considered an indefinite blockage. It will be trains that are stopped, waiting for a passenger train to proceed, and then the freight train will proceed accordingly.

Q. And are you the person to ask about the way Thornton Road looks like right now in terms of does it dead-end at I-5 or --

MS. GIBSON: The next witness.

JUDGE ANDERL: The next witness. Those were all the clarifying questions I had. Is there any

redirect?

MS. GIBSON: No. I have nothing further.

JUDGE ANDERL: Thank you very much for your testimony.

MS. GIBSON: My next witness --

JUDGE ANDERL: Let's go off the record while you call your next witness.

(Discussion off the record.)

JUDGE ANDERL: Let's be back on the record. Mr. Cottingham, raise your right hand.

Whereupon,

KENNETH E. COTTINGHAM,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

JUDGE ANDERL: Go ahead.

DIRECT EXAMINATION

BY MS. GIBSON:

Q. Could you state your full name for the record, please.

A. Kenneth E. Cottingham, C O T T I N G H A M.

Q. And your occupation?

A. Consulting transportation engineer.

Q. And do you have your own firm, Mr. Cottingham?

A. Yes. Cottingham Transportation Engineering.

Q. How long have you been employed in that firm?

A. That firm was formed in April of 1980, so that would be, what, 14 years this year.

Q. Can you tell us what your prior employment experience has been.

A. Prior to that time I was an out-of-school associate traffic engineer for the City of Seattle. Followed by eight years with the Washington State Department of Highways as a district traffic engineer in District 7 on all freeway and city street matters. Followed by consulting engineer with Engineered Industrial Systems, a consulting firm, doing transportation engineering for communities in Washington, Oregon, Idaho, Montana, Alaska, for five years. Thence with Stevens, Thompson & Runyan, a consulting firm out of Portland, Oregon, doing work in the same area as this county/city traffic engineering, in the same states as well as California, Maryland, Illinois, as well as Alaska, Idaho, Montana, Washington, and Oregon.

Q. Do you have an engineering degree?

A. Yes.

Q. And where is that from?

A. I have a degree in engineering from the University of Washington and I'm a licensed professional engineer in Washington, Oregon, and California.

Q. You've been retained by Burlington Northern in this matter, is that right?

A. Yes.

Q. And did you investigate the general Ferndale area at my request?

A. Yes, I did.

Q. When did you do that initially?

A. Specifically for this project it was a week ago Monday. That would be, what, October 3, I believe.

Q. How did you go about making your investigation?

A. Being somewhat familiar with the area, having worked in Whatcom County and in Bellingham on other traffic matter, I wanted to look specifically at all of the grade crossings, the grade separations, the interchanges of I-5, where the track fell in relation to those interchanges, and specifically all of the city street/arterial system that would connect to either an overpass, a grade crossing, or an

interchange. So I took the evening of that Monday and looked at all of the streets, the community abutting to these arterials and access roads, the schools, the middle schools, the elementary schools, the high schools. I had maps with me as well as a file with me to assist in locating certain items, and I also drove through the county abutting the city of Ferndale.

Q. Using Exhibit 4, could you point out where you found the schools?

A. Yes. Three basic schools. At the intersection of Vista Road and Thornton Road we have in the southwest quadrant two schools. We have the elementary school, Skyline, I believe it is, and then there's the middle school just south of that. On the high school we have the running track shown with the oval I'm pointing to on the west side of the tracks abutting the track of the Burlington Northern with a grandstand and a fenced area of a play field, and that's the Ferndale High School. Just north of that running track are two additional fields that are multipurpose, primarily soccer, but baseball is up in that area also.

Q. All right. Did you also examine all of the crossings in the area, grade crossings?

A. Yes.

Q. Would you point out where those are.

A. There's five crossings -- pardon me. Let's go with the grade crossings first. Grade crossings of the track occur at Washington Street, Second, and at Thornton. Grade separations of city streets would be at the Axton Road, Main Street, Slater Road. Actually, Slater is down further, almost off of this exhibit, I believe. Portal Way is a grade separation at the interchange of I-5. Then just off the map, Exhibit 3, to the north is Grandview. Grandview obviously is just north of the city, which is the yellow part of this exhibit, and it's a full interchange with an east-west road.

Other roads that are named on here are Brown Road, which has a grade separation -- excuse me -- a grade crossing, but not interchange with I-5. And where I'm pointing on Brown Road on the Burlington Northern track. I'm pointing to Thornton which is a grade crossing, and then Washington, and Second.

Q. Is there a crossing at Hovander as well?

A. Down at the lower end is Hovander Road, and there's a grade crossing at grade, not a separation. So how many does that make? If you take Hovander, Second, Washington, Thornton, there's four, and outside of the city then would be Brown.

Q. And Grandview?

A. And Grandview. And those are north of the city limits, yes.

JUDGE ANDERL: Just for clarification, while we're at this point in the exhibit, what about First Avenue?

THE WITNESS: No. Second, yes, but I can see that there's lines drawn there but there's not a grade crossing.

JUDGE ANDERL: Thank you.

Q. In particular, did you examine the Washington Street crossing?

A. Yes.

Q. And what did you find there?

A. Washington, I'm pointing to it over here, is an east-west crossing, grade crossing. Washington is over four lanes wide and it has presently traffic control devices for the grade crossing and is a relatively level crossing. Washington also connects from the west end at the arterial Vista Road and it crosses over a grade crossing to the east side and thence to a jog gets to Portal Way, the interchange of I-5.

Q. Could you describe what you found at the Thornton Road crossing?

A. Thornton is two-lane two-way grade crossing. Crossbucks and stop signs protect it. As one would be eastbound over the grade crossing, there's then a dead-end sign just before you got to this point that takes you down to --

Q. Just before the crossing?

A. Just before the crossing -- a couple hundred feet before crossing -- actually, it's about 500 feet before the crossing. Just off -- as you turn off of Malloy Drive and go east, you would see the dead-end sign, then come to the crossing, and then the road pavement end where I'm pointing, as it makes a right turn to go south into a gravel access road, and then it doesn't even have a built turnaround, but one can turn a small car around in that area.

Q. And for the record, where you're pointing is on Exhibit 4 and you're indicating a line that projects south parallel with I-5. Where that line projects going to the south, what is that? What does that represent?

A. That's -- this small line I'm pointing with my finger is just a gravel access road of about 13 to 14 feet wide.

JUDGE ANDERL: Is that the black line?

MS. GIBSON: Yes.

THE WITNESS: Yes.

MS. GIBSON: That thin black line going south from Thornton.

Q. Are you familiar with the driving time between Seattle and Vancouver, B.C.?

A. Yes.

Q. What is it?

A. Present driving time could be considered three and one-half hours, three hours and thirty minutes.

Q. Now, you've heard the testimony of Mr. Hatton regarding Burlington Northern and Amtrak's plans to extend the siding and operate passenger trains on that main line together with freight trains?

A. Yes.

Q. Do you you see any potential for traffic problems if the Thornton Road crossing remains open and Amtrak were to be reinitiated?

A. Yes.

Q. What would that be?

A. One basic problem that couldn't be overcome would be the fact that the siding would be used for storing cars while Amtrak went through on the main line track. That train would block Thornton.

Q. The freight train?

A. The freight train would be pulled off on the siding and the length of, oh, 7,000 feet would block because there isn't enough storage on that siding without closing Thornton. So Thornton would have to be closed by a blocked train, waiting for Amtrak to go through, and then it would be open again. So there would be long periods of time of closure.

Q. What if the freight train crews separated the train so part of the freight train was on one side of the Thornton Road crossing and part of it was on the other side? Would that create any problems in your opinion?

A. That can be done. Separating a train to give an opening through for Thornton to cross as a grade crossing then creates the problem of the limited sight distance that you have for those cars using Thornton. They must creep out and look past a train that's been separated. And even if that train is separated with enough distance to provide sight distance, you're looking at 79 mile per hour approaching trains. A driver when he first sees a 79 mile per hour train cannot judge the position nor the speed, and this is especially true at night. It creates a very hazardous condition looking around a separated train of this type.

Q. Would you see that this situation would create any problems for the schools in the area or not?

A. It would create a problem in that the school traffic from particularly the high school that I'm pointing to here, the Ferndale High School, in their driving around, kids would go through that crossing because it accesses across the tracks into the possible access road connection on the other side of the tracks and between the tracks and the I-5 freeway.

Q. Mr. Cottingham, did you also assess the adequacy of the freeway interchanges for Ferndale?

A. Yes, I did.

Q. And which interchanges are those? Could you identify them?

A. Basically from a transportation view, there are four interchanges. There's Slater Road, the Axton Road/Main Street, and we'll just call it the Main Street interchange, then the Portal Way interchange and the Grandview interchange. The two close ones that are about a mile apart are the Axton and the Portal Way. They are at the minimum distance you want interchanges on the interstate highway system, one mile. They are very adequate for now. They have been

opened nearly 30 years now. There are little or no traffic problems associated because they are not near the capacity of the interchange. The ramps, of course, have a high capacity, but the interchange itself, the turning movements and the through street, have excess capacity. It appears that even after 30 years of opening and the present growth of traffic in the area, easily there's 20 years' more life before any widening or additional separations would have to be done to carry east-west traffic or interchange traffic, and I say that because I looked up the last five years of the interstate highway traffic at a permanent traffic recording counter just north of here at milepost 269, and for your purposes here, Portal Way is milepost
263, so just 269 up here the traffic has been increasing at only 2.4 percent per year for the last five years. Even compounding that, it's only a 12.8 increase over a five-year period altogether for a full five years, so it looks like with the state average increase in traffic being 4 to 5 percent, that this traffic is indeed only increasing at about half that rate on the interstate system and that these changes should be adequate for well into the year probably 2015 or 2020.

Q. Now, on Exhibit 4, we have a little pink tab that says Slater Road at the very bottom of the exhibit. In actuality, do you know how many miles that Slater Road interchange is from the Axton/Main Street interchange?

A. Let me take a quick look at this because -- the official 1994 highway map from the Department of Transportation does give that mileposting to the nearest mile. (Reading.) And that appears to be not listed on the map. Sorry about that.

Q. Do you recall how far north --

A. It's about three miles, my recollection. And I went through there this morning looking at the mileposts that were listed on the route and it's milepost 260. The Main Street is 262, so it is actually listed on the highway signs as two miles south of the Main Street interchange.

Q. And Grandview is how many miles north of Portal?

A. Grandview is just three miles north of the Portal Way. And the spread of my hands is about a mile, so you could say, one, two, and then three would be right -- I'm holding the pointer probably where Grandview is. Grandview is an east-west road right in this area here parallel to Brown Road, so it's three

miles north of Portal Way.

JUDGE ANDERL: So about a half a mile north off the map?

THE WITNESS: Yes.

Q. Mr. Cottingham, when you drove through the town and the surroundings, did you drive on Main Street in the vicinity of the interchange at Main and Axton?

A. Yes, I did.

Q. Now, if someone from the City of Ferndale were to tell you that they had counted 15,000 cars average daily traffic volume on Main Street in the vicinity of the interchange, from a traffic engineering perspective would that be considered high, moderate, slight, or what?

A. From my knowledge of Main Street, that would be a high count for Main. But you could find that traffic on a specific day that might be a weekend, a celebration, or something out at the outlying that would attract people in vacationing mode, but 15,000 is not a high traffic volume for an arterial. You usually consider that to be a two-lane traffic volume, 15,000. One lane each way. And 30,000 could be considered four lane. Then, of course, as we put traffic signals in and parking and

pedestrians, it alters these figures considerably.

Q. Is there any way to increase the capacity of the existing interchanges for the town?

A. Yes. These two basic interchanges a mile apart, the Portal Way and the Main Street, are just the way they were built originally. There's been no attempt to improve capacity since there's no capacity problem there, but simple traffic engineering improvements can be done that would probably increase 30 to 50 percent the capacity of turning movements and through east-west traffic without, and I should say without, adding structures or without adding an immense signal system either, just simple traffic engineering features.

Q. Generally is there funding available to cities to do these kinds of changes?

A. Yes. Particularly with an interchange of the interstate there's interstate money on a 90/10 basis, 90 federal and 10 local, for some improvements in capacity when it becomes a problem. And then there's the local gas tax funds, too, directly passed through the state to the city for traffic engineering improvements, traffic control devices, and all other what we call minor improvements. Then there's an addition, there's the Urban Arterial Board, now known

as the TIPs, T I P, program which gives federal money directly to the cities for more major improvements.

Q. We've talked about the adequacy of the freeway interchanges in this town, but have you also considered the adequacy of the townspeople's access to those interchanges, in other words, how they get from their homes and businesses over to the freeway interchanges? Did you consider that?

A. Yes.

Q. And what kinds of things did you consider?

A. Adequacy of the city street system to handle the traffic distribution to and from the freeway as well as crossing over and under the freeway.

Q. What was your assumption as to where the growth is for this town of Ferndale?

A. And I've assumed that the present growth as evident will continue to the north and to the west.

Q. And you're indicating on Exhibit 4 the area north and west immediately of Thornton Road?

A. Yes.

Q. What kind of development did you see when you drove through that area to the north and west of Thornton?

A. Moderate to expensive residential.

Particularly along Vista Drive and all the way out to Brown Road and Grandview there are many homes being built. Many have been built. Some rather expensive homes and developments in the area. And with the school system here in the southwest corner of Vista and Thornton, the attraction for families that have children is clearly evident. And well-kept homes. Even some along Thornton being, between Vista and Malloy, more modest homes, but then west of Vista more expensive homes.

Q. What is the most direct access for those residents to Interstate 5?

A. Vista. If you're going north on the freeway you can take Vista north to the Grandview interchange. If you want to pick up something at a grocery store, go downtown, you can come down Vista to Washington Street, cross right over the tracks of the grade crossing, and go into the Portal Way interchange or continue on Vista past the Malloy intersection into the downtown area. And of course you can then come off the downtown area and take the Axton/Main Street interchange to either go north or south. There's one problem here at Malloy and Vista. That intersection needs a traffic engineering analysis to handle traffic safely.

Q. When you say traffic engineering analysis, can you say more specifically what needs to be done there?

A. Yes. Most engineers would say you need to buttonhook Malloy into Vista, and it's a three intersections right now. There's three roads in there. And the way it's handled now is that the Vista people have to look too far to the right for approaching traffic to feel safe entering the intersection, and the capacity of that intersection is greatly reduced because of the present channelization, the geometrics of that intersection.

Q. To your knowledge, has the city done a traffic engineering study to try to improve that intersection?

A. I don't know of any traffic engineering study that's been done.

Q. Now, if that intersection at Vista and Malloy were improved, how would that affect the townspeople living in the north and west of the town? How would it affect their access to Interstate 5?

A. It helps in two ways. Beginning, let's say, at the intersection of Thornton and Vista and to another limited extent Malloy at Thornton, I'm pointing on the map. As they come down to this, let's

say, improved intersection of Vista and Malloy, it's just a short couple blocks to Washington Street. Washington then is an east-west arterial that bypasses the downtown.

Q. Is that crossing signalized there at Washington?

A. It's a grade crossing of the tracks, a grade crossing that will be upgraded under the proposed plan, and allows traffic to get over to Portal Way and then use the Portal Way interchange. Allows traffic to bypass the downtown by connecting into the Portal Way to get north without using the interchange. And to go south, Vista can come through and connect to the Main Street/Axton Road interchange to go south. So that Washington Street in its present four-lane plus configuration doesn't need anymore widening, but a little improvement in the grade crossing, signals, and the planking would assist it in being a good bypass road.

Q. Are there funds available to cities to undertake some projects as modifying this Vista/Malloy intersection?

A. Yes. The cities are eligible for what's called pass-through money from the federal and state and, of course, they are always eligible for their

share of the gas tax funds which they get annually.

Q. Do you have an opinion as to the adequacy of the crossings for serving the town of Ferndale if Thornton Road is closed?

A. Yes.

Q. And what is that opinion?

A. Thornton Road serves practically no traffic now. It is a dead end. The only traffic I've ever seen on the few visits I've been there have been persons like myself looking to find the place. I haven't seen anything -- anyone coming out of any of the businesses there, but there is a business on the northwest quadrant, but with the closure of that crossing, he just simply goes out the way he goes out now. He goes out to Thornton at Malloy and south or north or to Vista and goes south or north. The closure of Thornton will have no effect on any east-west traffic whatsoever as it stands today.

Q. And are there an adequate number of crossings to serve the city?

A. Yes.

Q. Other crossings?

A. There's enough crossings in this area to serve well into the future. At least a 20 year that we can see ahead.

MS. GIBSON: No other questions.

JUDGE ANDERL: Okay. Any cross for this witness from the city?

MR. CUILLIER: Thank you, your Honor.

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. Say, Mr. Cottingham, that there are enough crossings for Ferndale or enough ways to get to the freeway for Ferndale for the next 20 years, what population projection do you base that on for Ferndale in 20 years?

A. I have to admit that I'm lacking a comprehensive plan that would give me the future population and a future traffic plan. All I can do is look at the normal growth patterns that I see for the last five years on the interstate, they are the only recorded increases we see, at the 2.4 percent.

Q. Yes, and when you arrived at that percentage, that's in a location north of Ferndale as opposed to within Ferndale or between Ferndale and Bellingham, correct?

A. Oh, yes. It's a permanent traffic recording counter at milepost 269 with the Portal Way being, what, 263, so it's just six miles north, but

being on the interstate system, you'll find very little change in 10 to 15 miles of traffic volume on the interstate.

Q. Except that perhaps you could find a city growing faster than the traffic on an interchange and the city residents traversing the freeway towards the major city in the county, Bellingham, as opposed to where you took the traffic count possibly, right?

A. Yes, I would have to agree with you.

Q. The city could be growing faster than that rate?

A. Yes. The city could have east-west traffic that is not in any way reflected to the north-south traffic. Quite true.

Q. And would you agree generally -- you stated that you looked at the high school area, right, and you noticed that there are some fields there where students play baseball and soccer --

A. Yes.

Q. -- at the high school?

And do you recall about how far away from those fields to the north there that the tracks are?

A. To the north or did you mean to the east?

Q. Well, the tracks are to the east of the fields, but the northernmost fields are about how

close to the tracks would you say?

A. There's a drainage ditch and a lot of brush and I didn't make that measurement, but it shouldn't have changed in the last few years. I'm sure the right of way and the tracks are the same place the field -- the soccer field is. If I were to lift this exhibit off and look at the aerial photo, it does show that school. Just barely. I'm pointing to the oval running track on the aerial photo in Exhibit 10.

JUDGE ANDERL: In the far right-hand side?

THE WITNESS: Yes.

A. And one can see the track alignment, then there's green, and you would have to come up here as close as you could to do some photo interpretation. There's a greenbelt in there and you're speaking of the northerly baseball fields and I'm pointing to what appears to be a cross on the aerial photo and that's four softball fields. And we have a distance that I might estimate as 30, 40, 50 feet in there from the edge of the planted grass field to the edge of the clear right of way of the railroad.

Q. And are you aware the northernmost fields were purchased fairly recently for use by the district?

A. No, I'm not aware of that.

Q. And would you in your experience foresee a potential hazard if the trains are going past that area that close to the place where the students played ball without some sort of fencing there?

A. You mean in pedestrians moving across to go into the fields?

Q. Right. People going after the balls or people somehow getting into the area of the tracks where the trains are going 79 miles an hour.

A. It might be prudent for the school to consider extending that fence that they have around the football field up to their northerly play field. I think that would be a good consideration.

Q. Or for someone who is creating the situation to do that?

A. I'm not much on fencing expertise except for freeway fencing where you fence the limited access line. I think it would be good to have some barrier there and possibly a deep ditch, a water field ditch as you have back at this point here (pointing) --

JUDGE ANDERL: By the running track?

A. -- by the running track, right where that sign is, that says something about none -- or keep motorized traffic off the field, that's facing the ditch because evidently some people might have been

coming through there with trail bikes. It might be a good consideration to find where those people come through and put a stop to it, although it's a little unlikely that because of the nature of the other side of the tracks that that development -- what may happen over there, and I'm pointing to this area here, because we do have the freeway stopping pedestrians from making a through east-west trek there, so I think I would defer to some actual on-site experts in fencing and right of way control.

JUDGE ANDERL: When you just referred to the photo, you referred to the area west of the freeway and east of the tracks?

THE WITNESS: West of the freeway and east of the tracks and south of Thornton, correct.

Q. Thank you, sir. And you indicated that if the crossing at Thornton Road were used in conjunction with the proposed improvements, that there might be a sight distance problem, or in your opinion there actually would be a sight distance problem while the trains were separated there waiting for the Amtrak to come along, and that there might be a hazard for the students at the nearby high school who would be using that crossing, but assuming that crossing were made an arterial that connected to the interchange area, would

not adequate signalization as exists on Hovander Road and Second Avenue and Washington solve the sight distance problem and the problem of the students using the intersection if it had the arms that come down and so on?

A. They will try to get around the arms. All rail crossings are dangerous. All. If you can ever eliminate a grade crossing, you're going to save lives, there's no question to that. Can you positively close it off? Only with a grade separation where you took a bridge up and over Thornton and took it across and over I-5 and then back down again, and if you did a four-lane bridge and over, you've solved the grade crossing accident potential. But in doing so, you've also isolated those people next to that overpass by cutting off their access to Thornton Road. You can't have an up-and-over structure without taking width away and then, of course, the road in front of them isn't there anymore.

Q. So you're saying basically the upgraded crossings that are being proposed are dangerous also in the city and you would not agree that that type of signalization at Thornton Road would perform safely the job of keeping the people off the tracks when the Amtrak is coming?

A. That's a good question and there's no technical literature to support what I'm going to say now. In my own opinion, in working with grade crossings since the '60s, a remote grade crossing is less safe than a downtown one because of the constant surveillance you have by adjacent people, police, state police, county police, and city police. When you get out to Thornton Road, it will be a little less safe and if there's no one looking, they go around the gates.

Q. The statement you make about funding, now, are you saying that theoretically funding is available from several sources to make upgrades, but actually as a practical matter, you'll agree that the money is pretty tight for this type of interchange modification that you're referring to on Main Street and the other type of modifications you suggest the city should make to Vista and Malloy? As a practical matter there just isn't much money being doled out for that type of thing at the present time, is there?

A. There's a constant source of money but it's not enough to do all of the projects the city wants to do and that's why the city makes a six-year street program and puts the first item that item they wish to do each year as a new six-year street program is done,

and when that is funded through the gas tax money, why, then go to the second and third and the fourth project. Well, there's never enough to do all the programs. I looked at the six-year program. There's 16 projects for the City of Ferndale on that. And certainly there's not enough money to do them all. In fact, most of them aren't even indicated how much they would cost. But you asked is there money available to do these projects. The answer is, yes, they are eligible for that funding, but then there are other projects of higher priority that are also eligible and it's up to the city to determine which ones they wish to spend the money on.

Q. And you probably noticed some of the others as you traveled the city and saw some of the problems -- the other problems the city has with its streets, correct?

A. As a matter of fact, I didn't see a lot of problems the city had. I saw a pretty wide Vista Road, four-lane road made into a three-lane road with one lane in each direction. In other words, the capacity isn't needed. It can be made one lane each way with a two-way left-turn lane down the middle.

Q. Did you drive Church Road or Thornton Road to the west of Vista?

A. No. I turned around at Thornton. Didn't go out as far as Church. That's the next major arterial that's going to be upgraded, I believe.

Q. You said, I believe, that 15,000 cars on Main Street would in your opinion seem to be a pretty high count?

A. From what I've seen of Main Street, 15,000 appears to be a high count. It may not be what's called an average annual daily traffic, an AADT. It may be a peak day that did occur.

Q. Were you aware because of the refineries and Intalco, so on, west of the city that there are frequent peak periods on a very frequent basis where the shifts change for the refineries and Intalco?

A. Yes, there should be a definite peak-hour peak in which the hourly traffic would show easily 10 percent of the average daily traffic and perhaps even a higher percent. Some industrial areas as high as 20 percent.

Q. Did you witness the actual imposition of traffic on Main Street during any shift change, either refineries, west of town?

A. No, I did not. I came out for the a.m. peak hour this morning and witnessed some traffic which I consider to be very low volume. I have not

seen the evening peak hour on, say, a Friday afternoon.

Q. And you stated that the Main Street interchange could be improved without a whole lot of expense or trouble, I take it, to increase the traffic flow onto the interchange itself, but isn't the bridge a real problem with getting traffic to the freeway, the fact that the Main Street actually only has a two-lane bridge to get the traffic to the interchange?

A. The bridge -- under the bridge has more capacity than the intersections on each side. You work with the intersection, they have the capacity lowering effect. A free flowing lane under a bridge could run easily 1,200 cars per lane per hour in one direction, but the intersections can't handle it without some traffic engineering improvements.

Q. I'm talking about the bridge over the Nooksak River.

A. Excuse me. I think I was thinking of Axton Road.

Q. Right. I'm sorry. The problem here is that if we don't use Thornton Road as an additional connector, we're actually funneling all this new growth over a two-lane bridge over the Nooksak River, aren't we, regardless of what changes we make at Vista

and Malloy and at the interchange on Main Street?

A. Yes. And that bridge should be able to handle that increased traffic.

Q. And the Washington Street crossing where traffic can proceed out to the Portal Way interchange has shortcomings between the crossing itself and the interchange as far as the streets go there, isn't that true? They are very narrow and definitely not to arterial standards between the --

A. Well, Washington Street is the four lane or the wide street as it crosses the tracks and that's what I was addressing to. From there on, there's some narrowing streets that are short, block long that I would believe should be improved for turning traffic, particularly logging trucks and other tractor-trailers.

MR. CUILLIER: No other questions.

JUDGE ANDERL: Ms. Rendahl?

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. Just a few, Mr. Cottingham. You testified that you reviewed the area on the evening of Monday, October 3, is that correct?

A. Yes.

Q. And have you reviewed the crossing -- reviewed the area in Ferndale any other time before your testimony here today?

A. Yes. Some years ago. I've watched the growth of Ferndale since our company did work for the City of Ferndale in the Axton Road interceptor sewers, sewage treatment facilities, and I was the traffic engineer to advise our people how to open and close roads, flag traffic, and give traffic control plan. That was some years ago. And then I've come back here periodically since I have relatives in the area.

Q. Specifically for your testimony here today, how much time did you spend reviewing the Thornton Road crossing?

A. Specifically for this Thornton Road crossing? On Thornton Road only? Not very long. Probably not 20 minutes on the 3rd and not over 5 minutes this morning.

Q. Did you do any sort of independent traffic count of the traffic in the city of Ferndale for your testimony here today?

A. No. I simply used existing traffic data from several sources, and it appears that there's no special counts done in this area for a long, long time that would be viable, only the permanent recording

ones by the state which come through on July -- the ones that I gave this morning, the 2.4 percent increase, was a July of each year compared to a July of previous year of a permanent traffic recording.

Q. I may have misunderstood what you said, but I believe you said that there were some -- the Thornton Road crossing area, maintaining that crossing would create some problems for schools in the area. Were you referring just to the high school or were you referring to school bus traffic over that crossing?

A. Yes, both of those. School bus traffic, school traffic, and in addition, the increase in commercial traffic that would be on Thornton Road would be a disadvantage to the residential district that's generally around Malloy, Vista, and to the west. By connecting Thornton Road through as an overpass or as a frontage road to the Portal Way interchange would increase traffic in residential areas, increase noise. It's a four-way stop at Vista and Thornton. It's not a four-way stop at -- well, yes, it's a two-way stop for Thornton at Malloy. And so you have starting-up traffic all the time, and when you increase traffic, you've got to expect that commercial traffic is a little noisier than just automobile traffic.

But your question was specifically about school and school buses. It would be a disadvantage to school buses and to school traffic to have Thornton open as a grade crossing or as a grade separation.

Q. Did you review the current school bus traffic in the city to make that assumption?

A. Well, of course, I know that they are not using Thornton now because it's a dead end. So the current school bus routes wouldn't show what the proposed school bus routes could be with Thornton opened to an access road or as a grade separation over the freeway. No, I did not review the school bus routes.

MS. RENDAHL: I have no further questions.

EXAMINATION

BY JUDGE ANDERL:

Q. Okay. I have a couple of clarifying questions. You indicated that there is a business in the northwest quadrant of Thornton and Malloy?

A. Yes.

Q. What is east of Malloy on the north and south sides of Thornton before you get to the tracks?

A. A vacant or residential. There's actually some animals in there, some goats on the north side,

some cows on the south side.

Q. Okay. What is between the tracks at Thornton and I-5?

A. I'll refer to the aerial, Exhibit 10. This green area that I'm showing on that exhibit (pointing) is east of Malloy and west of I-5, just undeveloped nothing on the south of Thornton.

On the north side of Thornton we have, I believe, even one more residence than this aerial photo shows at the present time. Very difficult to see the existing residence I'm pointing to on the south side, just a single one there today.

Q. Okay. And part of this proposal by Burlington Northern is to construct an access road to Portal Way so that those people would not be trapped, is that correct, or am I understanding this right?

A. Yes. Extend this gravel road into a better standard, pave it, two lanes, 22 feet of paving and two feet of shoulder each side, bringing it in close to the ramp -- southbound off-ramp of I-5 with an intersection right where the head of the pointer is shown now.

Q. Which is Portal Way?

A. That is Portal Way, yes.

Q. And it shows on this Exhibit Number 5 -- or

Number 4, rather, as a dotted magenta line?

A. That's correct. And with a label "Construct access road."

Q. Right. Okay.

JUDGE ANDERL: Anything on redirect?

MS. GIBSON: Yes, I have a few questions, your Honor.

REDIRECT EXAMINATION

BY MS. GIBSON:

Q. Mr. Cottingham, with respect to that access road or access driveway at Thornton Road crossing between the tracks and the freeway, would you defer to the Department of Transportation's Mr. Josephson as to the details of that proposal?

A. Yes. He would have the details of that, would be more able to speak, because it does intersect Portal Way very close to the interchange of I-5 and would take some special geometrics to make that driveway work.

Q. Now, you were asked on cross-exam by Mr. Cuillier about fencing in the area of the school play fields and you made a comment about maybe the school should extend the fence. Was that comment based on the -- a speed increase of the trains or was it based

on the existing -- just the existence of the tracks or what was it based upon?

A. The question was asked with the increased speeds wouldn't a fence be appropriate, I believe was the way it was worded. And I would rather defer to fencing experts there because there's many miles of track without fence, and fences do create a problem, and there's very few fences kids can't get through, around, or over. All five of my kids can climb a six-foot chain-link fence quite easily. A barbwire fence you can go through and animals can get through and under. Fences require maintenance and so fencing experts are ones that you should refer to. If the school wants to make it safe all along the east side of their play field, I would think the schools would have some say-so in how the fence should be and probably fund it as well.

Q. Mr. Cuillier asked you about the safety of Thornton Road crossing if the crossing remains open and there is a large connector road put to connect access to the Portal interchange. What in your opinion would happen if that road crossing did -- Thornton Road remained open and Amtrak service was initiated and Burlington Northern freight trains had to block the crossing, then what would you say about

the safety and efficacy of the crossing in that instance?

A. Well, in that case the crossing is less than desirable and can't be depended upon as a through route. It would have to have turnarounds built into probably private driveways so that when the train does block, they could go another route. And if fire or police decided to route their traffic there when it's open and then find it closed sometimes, it's going to disrupt their response by having that -- a train blocking the crossing and, of course, a train has to block the crossing to come in on the siding. Even if you separate the train, there is a time when it's blocked, and a 7,000-foot train doesn't have people on the cars. It has people only on the front end leading. They have to come back to that point. So there's always a blockage time that's going to happen.

MS. GIBSON: Nothing else.

JUDGE ANDERL: Anything on recross? All right. Hearing nothing, then thank you, sir, for your testimony. You may step down. What I would like to do is go off the record for about a five-minute break. It looks like the next witness will probably take about a half an hour and so we'll try to get that witness done before lunch. Let's be off the record.

(Recess.)

JUDGE ANDERL: Let's be back on the record. While we were off the record, the next witness took the stand, identified by the schedule as Al Clark with Amtrak. Would you raise your right hand, please. Whereupon,

ALDEN L. CLARK,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

JUDGE ANDERL: Ms. Cushman, you're going to handle the direct on this witness?

MS. CUSHMAN: (Nods head.)

JUDGE ANDERL: Go ahead.

DIRECT EXAMINATION

BY MS. CUSHMAN:

Q. Mr. Clark, could you give your business address for the record.

A. Yes. My name is Alden L. Clark and my business address is 60 Massachusetts Avenue Northeast, Washington, D.C. 20002.

Q. Mr. Clark, who is your employer?

A. My employer is Amtrak. My position with Amtrak is senior director of contract operations. I've been with Amtrak for 22 years, essentially since

it's beginning. My background is a civil engineering graduate, registered professional engineer, state of New York. I have had a 40-year career in the railroad industry. In addition to my 22 years with Amtrak, I've been employed by freight railroad. In such employment, I've been a trainmaster, superintendent, been in engineering, marketing and transportation departments.

Q. Mr. Clark, could you please explain your job responsibilities with Amtrak.

A. My responsibilities with Amtrak include passenger train schedules as they relate to the contract, are found in the contracts, between Amtrak and the freight railroads. It also includes the evaluation of proposed and existing routes that Amtrak either does or may run over or may be requested to look at. It has also in the past included matters pertaining to grade crossings and speed restrictions. As a result of these responsibilities, I've ridden tens of thousands of miles on the head ends of our passenger trains. I've evaluated approximately 25,000 miles of rail lines. I've been an expert witness in federal court, and I've appeared before this Commission in the past.

Q. Mr. Clark, what is the mission of Amtrak?

A. Well, Amtrak was created by the rail passenger service of 1970 to operate and improve rail passenger service in United States. We operate a nationwide service over about 20,000 route miles. That mileage includes what we call 403 B routes. 403 B is a section of the Rail Passenger Service Act. In section 403 B provides that states or others may ask Amtrak to operate passenger routes and the states or others thereby participating in some or all of the deficits resulting from such operations. We employ about 14,000 people and in the Washington state we operate ten passenger trains daily. We have terminal facilities in Seattle, and we have a number of stations throughout the state.

Q. Thank you. Can you talk about the considerations that go into determining schedules and what effect speed restrictions have on the operation of passenger trains?

A. Well, schedules are preferred to be as short as possible for marketing reasons. On the other hand, schedules also need to be reliable so that people can count on time performance. So as a result, we look for opportunities to remove speed restrictions and thereby either be able to improve the reliability or shorten schedules. We have been directed by

Congress on several occasions to seek means of improving our schedules and to work with states and communities in such efforts. And in the past we have been here in Washington, we have looked at and worked with the Commission and with cities and towns, both the routes out of Spokane to Seattle and to Portland, Oregon, but our primary efforts have been focused on the Seattle to Portland corridor.

Q. Why is Amtrak joining in this petition to increase passenger speeds and close Thornton crossing?

A. Well, Amtrak was requested by the state of Washington to operate Seattle/Vancouver service, or perhaps I should say restore Seattle/Vancouver service, in accordance with section 403 B of the Rail Passenger Service Act. Amtrak previously operated service between Seattle and Vancouver period 1972 to 1981. That service was discontinued due to poor financial showing. It had relatively low passenger revenues and relatively high costs, and we believe one factor that contributed to the -- its demise was the lengthy four and a half hour schedule that was operated during those years.

Our concurrence with the state to operate once again this new service is based on an upgrading of the line to provide for a minimum goal of a three

hour and fifty-five minute schedule to eliminate speed restrictions that might prevent -- that would prevent reaching that goal, and without elimination of such speed restrictions, that goal cannot be reached and Amtrak will not operate the service because it would not be economically viable.

Q. How was the decision reached to set the schedule time for the run to be three hours and fifty-five minutes?

A. Originally our former president, now deceased, Mr. Graham Claytor, had a discussion with myself about what our goal should be in terms of a schedule if the service were to be restored. And we agreed that the schedule should be approximately three hours and thirty minutes, which is not unlike it was in prior years as Mr. Hatton has testified.

In reviewing with the state of Washington, its consultants, and Burlington Northern, and taking into consideration the amount of funds available for upgrading the line, it was concluded that we could not at this time reach a three hour and thirty minute goal and that the best schedule with a reasonable amount of recovery time would be approximately three hours and fifty-five minutes, and so the goal was redefined or at least the initial goal was set at three hours and

fifty-five minutes.

Q. Could you talk about your opinion of safety hazards in the Ferndale area in relation to these petitions?

A. After looking at the situation in Ferndale, and I've been through here a number of times on inspection trains and I've high railed it, and yesterday I had a chance to spend a fair amount of time on the ground --

Q. Could you explain what high railing is?

A. A high-rail vehicle is a highway vehicle that is equipped with small diameter wheels that can be lowered to permit it to operate on the track and it's frequently used by railroad officers and track inspection personnel to travel over the track and be able to inspect either the details of the track or the general situation.

Q. Okay. So but when you say you high railed the line, you basically drove over it on a truck that could run on railroad tracks?

A. That's correct.

Q. Okay.

A. With respect to Ferndale and the petitions that are before the Commission, we feel that raising the speed from the south corporatep limits to milepost

105.8, or approximately the bridge over the river, constitutes no increase in safety hazards. There is one crossing there, Hovander Road. It has excellent signal protection in the form of cantilevered flashers and gates. The motorists must slow to approximately 15 miles an hour because of the S curves so they have ample opportunity to see the crossing protection. There is no change in speed proposed on the five degree curve over the -- which is just north of the river and just south of Washington Street. So there is no change really proposed with respect to the Second and Washington Street crossings.

North of Washington Street as it's been previously testified, the track is tangent, proposed to raise the speed from 50 to 79 miles an hour, and close Thornton Road as has been discussed by others, and we see no local safety hazards in doing that, provided that Thornton Road is closed.

Q. Okay. What effect would the denial of the speed increase petition have?

A. The speed petition as it relates to Ferndale represents approximately one minute reduction or non-reduction, depending upon the decision, in the overall running time. There are roughly ten communities or so where speeds are being

increased. It is through such increases that we can achieve the three hour and fifty-five minute goal.

Denying increases, each community wants to say, Well, don't approve the speed -- the speed change in our community, but let the others do it. And we see that you've got to really have it happen in each community. If it's denied in one community, will have similar effects quite possibly in other communities, and the net effect is that the service will not operate.

Q. Do you have experience with crossing safety issues?

A. Yes. We've been dealing with crossing issues throughout the country. Crossings are obviously a controversial item. I've heard them described as we almost get into a matter of semantics between safest and safe. All railroad crossings in my view, if they have adequate protection, visibility, if there's an enforcement program, and the public is aware of them, such as through such programs as Operation Lifesaver, then all crossings are safe. It isn't to say that the safest situation isn't the absence of the crossing. It's sort of like flying versus non-flying. Flying is safe, but it's even safer if you don't fly.

Q. In your opinion, can trains operate safely at 70 miles per hour and in excess of 70 miles per hour?

A. Oh, yes. We operate trains daily, many trains' speeds 90 miles an hour and even above over grade crossings.

Q. Do you have any reason to believe that faster trains are safer?

A. From riding trains, I have personally observed that when trains are moving slow, people have a tendency to drive around the trains. It's almost the slower you go, the more the people have that innate desire to get around the train before it passes. Conversely, where trains are moving at high speeds, it appears that motorists respect the trains and they are aware that the train will clear the crossing properly and they appear to much more consistently comply with the crossing warning systems and with state laws, which they are supposed to.

Q. In the course of your work for Amtrak, do you have occasion to deal with the Federal Railroad Administration statistics on safety and crossings?

A. Yes. I've looked at the statistics from time to time and I even have talked a little bit about them. The statistics you're referring to, are those

some of those that are found in Exhibit 6 I think it was introduced as?

Q. Yes, that's correct.

A. Those statistics as I read them, and have read them for a number of years, they've been published now for 16 years and they seem to be amazingly consistent year after year after year. In 1993, looking at Table 16 in those statistics, we find that only 11 percent of the accidents/incidents involved trains operating at or above 50 miles per hour.

MS. CUSHMAN: Excuse me. For the benefit of the judge, it's the -- he's referring to Table 16 at page --

JUDGE ANDERL: It says 43.

MS. CUSHMAN: Page 4 of the exhibit. It's indicated as page 43 at the bottom of the copy.

JUDGE ANDERL: Thank you.

A. Looking at those figures further, it shows that trains operating less than 30 miles per hour were involved in 54 percent of the accidents or incidents, which again goes to my observation that slow trains tend to increase the probability of some people disobeying the law and not paying attention to the warning signals. There's also a number, surprisingly

large percentage, at least it's surprising to me, 25 percent of the accidents involve vehicles running into the sides of trains which, if anything, is an argument for higher speeds to reduce the exposure for such accidents.

Q. And that's because trains -- faster trains spend less time on the crossing?

A. That's right.

JUDGE ANDERL: I don't think I understand this table. Is it just raw numbers or are there percentages there that I should be seeing?

THE WITNESS: There are raw numbers. You have to convert them to percentages and you have to tabulate by groups to come to the numbers that I have used.

JUDGE ANDERL: So those are calculations that you did?

THE WITNESS: Yes. They are calculations derived using the numbers in those tables.

Q. If a train is traveling at a faster speed, how much warning time is there at a crossing?

A. Each crossing, of course, can be different, but the normal design, and I believe these crossings reflect a normal design, is to provide a minimum of 20 seconds, which I believe the railroads have

interpreted to say let's make it 30 seconds or they are at least close to 30 seconds of warning time. Now, if crossings do not have what are known as predictor circuits, then a slow-moving train, because it's approaching the crossing slowly, could lengthen much longer the amount of warning time, and that's the reason that predictor circuits were designed. The predictor circuit interprets the speed of the train and it turns the warning system on so as to provide an approximately uniform warning time, which I believe would be approximately 30 seconds.

Q. So you get 30 seconds whether the train is traveling at 45 miles per hour or 70 miles per hour?

A. That's basically correct.

Q. Could you talk a little bit about the rail safe operations of Amtrak?

A. Yes. Safety is our utmost concern at Amtrak and the highest priority and if in any way we felt that what we were proposing or what is being proposed in Ferndale or in other communities on this route was not safe, then we would not be a part of these proposals. As far as crossings are concerned, as I mentioned before, the essentials are a good warning system, an educational program, and very important is the enforcement of traffic laws, and I

think a prior witness commented about how crossings in downtown areas where police or sheriffs or other law enforcement officers are found frequently -- can observe the crossings frequently are -- tend to be -- have better compliance by motorists than those in outlying areas where law enforcement may be harder or fewer tickets may be issued or fewer warnings.

Q. Okay. In your opinion will raising speeds as requested in this petition be in accord with Federal Railroad Administration track and safety standards?

A. Yes. The track and safety standards provide that a class -- a track which meets FRA Class 4 standards is good for 80 miles per hour for passenger trains, and I think it would -- the BN witness will testify that the track does currently meet Class 4 standards. So as far as the FRA standards are concerned, this route is good for 80 miles an hour except where the geometry of curves precludes that speed.

Q. Do you have anything further that you would like to add?

A. No.

MS. CUSHMAN: Okay.

JUDGE ANDERL: Any cross for this witness

from the city?

MR. CUILLIER: Thank you, your Honor.

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. Mr. Clark, since you had to increase the time that you originally thought this trip should take from three hours and thirty minutes to three hours and fifty-five minutes, were you able to determine whether that would still be competitive?

A. I think competitive is a relative factor. If we had two hour schedules, it would be extremely competitive. If we have five hour schedules, it would be -- obviously not be competitive. There has to be some kind of a gradation in there. Three hour and thirty minute schedule would be more competitive than a four hour schedule, less competitive than a three hour schedule. It appears to me from just driving on route Interstate 5 that the driving times must vary considerably depending upon whether you're out on -- in Vancouver or in Seattle during the rush hours, or what the situation at the border is, whether you're complying with the speed limit, or whether you're driving along with the bulk of the motorists who appear to drive somewhat above the speed limit. All

of those things affect the travel time. I don't know what -- how anyone can say there's a precise travel time between Seattle and Vancouver by highway, but obviously the shorter the rail trip, rail running time, the more competitive the service would be.

Q. So would it be fair to say that three hours and fifty-five minutes is the figure that was arrived on for practical -- was arrived at for practical reasons, but it could go longer and still be competitive, just not as competitive?

A. The service came off in 1981 because it was economically unviable. We have -- and Mr. Hatton was not aware of some internal discussions that we've had within Amtrak. When we looked at restoring the service, we recognized the viability has two components to it. It has revenues and it has expenses. And as I think you alluded to in a question on the cross-examination of Mr. Hatton, we were looking also at the expenses. We want the service to be viable. We want it to stay on. And as you sort of alluded to, our labor agreements do permit the operation of train with a smaller crew if it operates on a schedule of less than four hours, so that was a factor in the conclusion. However, the three hours and fifty-five minutes actually came about not from

the economics of the operation, but rather from what the track speeds would permit, given the amount of funds available to upgrade the track, to upgrade the conditions. In other words, to have a shorter schedule would mean curve realignments or other expensive projects for which there are not at this point, to the best of my knowledge, funds available.

Q. Is the reason for another crew member, do you know if that has anything to do with safety or if that's --

A. No, sir. It has nothing to do with safety. We run hundreds of trains throughout the country every day with one man on the -- in the cab of the locomotive.

Q. Is it to allow somebody to take over somebody's function or is it to have an additional person to help with the function, do you know?

A. It was a settlement of issues between management and labor.

Q. Okay. And the trains that you will be using obviously don't have the cab signalization or the automatic stop features that they don't use any more, I assume?

A. There are different kinds of features. We will not have functional cab signals. It will have

what we call an alertor system, A L E R T O R. Alertor system requires a -- the locomotive engine person to basically be in continuous motion or a warning -- his body must be continuously making motions or a warning signal comes on, and if he fails within a few seconds to make a motion, such as touching the metal controls or panel, then the brakes apply automatically.

Q. There have been some statements in the press, I'm sure you're aware of, to the effect that Amtrak is -- or was in financial problems, had deteriorating equipment, and had a lot of problems to overcome to be viable or remain viable in the marketplace. Is there any thought on your part that this demonstration project might not last too long?

A. This service is being -- will be operated at the request of the state of Washington and it will, as far as I can see, project, it will operate as long as the state of Washington wants the service to operate. In the upcoming years as circumstances change, it may in fact come to a status where there will be no deficit. We do have some state-operated services at this point where there is no cost to the state each year because the revenues are high enough and the costs are low enough. So, yes, there is a

possibility that will end, but there is also a very good possibility that it will continue on throughout my life span.

Q. What would be the shortest time that it might end, that it would possibly end?

A. I don't know, sir. That would be primarily between the state and Amtrak. I don't know whether the state has -- could address that. I can't.

Q. So you would only continue with certain state assistance in the future?

A. Unless it becomes -- the costs in revenues become such that we could incorporate it into our basic system.

Q. And that's not foreseeable in the demonstration project?

A. I'm not sure that it isn't foreseeable, because we operate, as I mentioned, services in other states where that has happened, where the revenues have been such that the train continues to operate without any further state subsidy, and that's our goal -- that's certainly the goal of the state and here and that's what Amtrak would like to see and that's why it is so important that we have a marketable service, good schedules, and keep our costs under control.

Q. They call this a demonstration or a pilot

project. Usually that connotes that at some point it's going to be evaluated and a decision is going to be made whether it should become permanent. Is this the process you foresee?

A. Not as far as Amtrak is concerned.

Q. What is it as far as you're concerned?

A. We will continue to operate it as long as the state asks for it to be operated or unless, as I mentioned a moment ago, it becomes -- the economics become such that we can operate -- continue to operate it without state subsidy.

MR. CUILLIER: Thank you.

JUDGE ANDERL: Thank you. Ms. Rendahl?

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. Mr. Clark, I just have a few questions for you. Do you know if Amtrak has conducted any train time studies in conjunction with Burlington Northern to assess the mixed traffic of freight and passenger and how that would affect the three hour and fifty-five minutes time frame?

A. Well, let me answer you in a kind of circuitous manner, if I may. Federal law stipulates or states that passenger trains shall have the

priority over freight trains. That is the -- obviously the concern of Burlington Northern and is why sidings of adequate capacity are important to Burlington Northern. As between two -- as between two Amtrak trains, obviously one has to take the siding to clear the other. As between a freight train and an Amtrak passenger train, we would hope and expect under normal circumstances that the Amtrak train not be delayed. Did Amtrak make specific studies of where freight trains and passenger trains would meet? The answer is no.

Q. Just to clarify the record, I think you mentioned that the goal is for a three hour and fifty-five minute schedule with recovery time. What did you mean by recovery time?

A. We calculate -- sorry. Let me try again.

Recovery time is a part of the schedule of a train which is not needed if the train can operate under perfect or maximum speed conditions. In other words, the elements of our schedules as we build them are the minimum running time, an allowance for each stop or dwell and the acceleration and deceleration, plus a margin, if you would like to call it a margin, of safety. Slop is one of the words used. I prefer to call it recovery time. It's there. It's a few

extra minutes. It usually runs in the neighborhood of six to eight percent of the overall time of schedule and it's in there to help ensure a relatively high on-time performance.

Q. In your testimony in the direct examination there was a question as to whether faster trains are safer. You were referring, weren't you, during that time to the conflict between motor vehicle accidents and trains?

A. That's correct. Sorry I didn't make that clear.

Q. Also in your direct testimony you stated that there would be no local -- you did not see any local hazards, provided that the Thornton Road crossing is closed, is that correct?

A. That's correct.

Q. Have you assessed the area that you've -- that's been discussed this morning alongside the high school concerning the fencing issue? Have you considered that?

A. Yes. Trespassers are a nationwide problem. They are not a local safety hazard. We unfortunately find trespassers on railroad property throughout the nation. I would say that it's something that needs to be recognized, as also been pointed out by I think a

prior witness, but is certainly not a local or unique safety hazard. Trespassers can occur anyplace along the railroad.

MS. RENDAHL: I have no further questions, your Honor.

JUDGE ANDERL: Thank you. Ms. Cushman, anything on redirect?

MS. CUSHMAN: No.

JUDGE ANDERL: Thank you, Mr. Clark, for your testimony. You may step down. A couple of things before we break for lunch. Ms. Gibson, I just wanted to ask you, I have a question as it relates to the prior service back in '91 or '92 that Amtrak was offering as passenger service.

MS. GIBSON: You mean '81 or '82?

JUDGE ANDERL: Did I say '91 or '92?

MS. GIBSON: Yes.

JUDGE ANDERL: '81 or '82. And maybe Mr. Hatton could have answered it, but maybe one of your witnesses upcoming can answer it, and the question is how did freight trains get out of the way for passenger trains during that time through Ferndale.

MS. GIBSON: I'll see if we can find an answer for that.

JUDGE ANDERL: I'm afraid even if I write

it down I'll forget it, but now that everyone knows that is one of my questions, I'll have a better chance of getting an answer.

One of my other questions, on this Exhibit Number 4, one of the magenta designations which shows proposed change at milepost 106.2 does show an increase in the freight train speed. Is that an error?

MS. GIBSON: No. The request, according to the petition, is between 106.2 to 107.8, increase from 50 to 79 miles per hour for passenger. Are you saying it says freight increase in the map?

JUDGE ANDERL: At 106.2 it shows that 40 is the current freight train speed, I think.

MS. GIBSON: That should be 50. The current order is 50.

JUDGE ANDERL: That's fine.

MS. GIBSON: Does that answer that?

JUDGE ANDERL: Okay, thank you. All right. And when we come back after lunch, we'll give the public another opportunity if there are any members of the public who want to testify at that time, and then we'll go with the next witness which will be who?

MS. GIBSON: Mr. Scieszinski.

JUDGE ANDERL: Okay, great. Let's be off

the record. Let's be back in an hour and 15 minutes, please. That would be at 25 after, to be on the record at 1:30.

(Lunch recess taken at 12:10 p.m.)

AFTERNOON SESSION

1:30 p.m.

JUDGE ANDERL: Let's be on the record. We're on the record after our lunch recess. This is the opportunity for members of the public to testify. Two witnesses have indicated they would like to make their comments at this time. The first gentleman has taken the stand. Sir, if you would raise your right hand to be sworn.

Whereupon,

CLIFFORD BRYANT,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

JUDGE ANDERL: Thank you. Ms. Rendahl, do you want to go ahead.

DIRECT EXAMINATION

BY MS. RENDAHL:

Q. Would you please state your full name for the record and spell your last name.

A. My name is Clifford Bryant. The last name is B R Y A N T.

Q. And would you please give us your address.

A. 2057 Willow Court.

Q. Do you live in Ferndale?

A. Yes, I do.

Q. And how long have you lived in the city of Ferndale?

A. Off and on, this is my second time, but approximately this time two years.

Q. Are you appearing today on your own behalf or on behalf of a group?

A. On my own behalf.

Q. Please go ahead and make your statement.

A. I'm looking at all of this stuff today and we went over -- quite obviously went over it pretty good. Myself and quite a few of the neighbors went down to the city council and voted against the train tracks being down below Willow Court and which we got changed to go out by Brown Road. Since the time that that's been happened, the city council and the planning commission has changed the plans from moving the city of Ferndale out to the Brown Road. So that is affirmed now they are going to move the city limits out to Brown Road.

JUDGE ANDERL: Let me interrupt. So everybody can follow along, can you show me generally on this map where Brown Road is?

THE WITNESS: It should be or --

JUDGE ANDERL: Or maybe it's not on the

map.

MS. GIBSON: Your Honor, it's right at the northerly part of Exhibit 4. Do you see the green sticker that says Brown Road?

JUDGE ANDERL: Okay. Thanks. So it's --

A. And we got that changed and they are going to move it out to Brown Road and the -- my question is, and this is for everybody concerned, why can't they build a spur out off the railroad tracks from the present railroad tracks to store the cars out there rather than use the main track here so the main track could be used for Amtrak? Because theoretically Amtrak -- my personal feeling and I do not care who knows it, my personal feeling is it will not last over a year and a half. So I feel by using the main line for Amtrak and building a spur out by Brown Road or wherever it may be, because it's all industrial site anyway, the city council and the planning commission has designated as industrial area. So theoretically all the people out there if it becomes industrial area, they are going to need boxcars. And so put the boxcars into them, but then leave this main track for Amtrak only, then we have no questions of that whatsoever.

JUDGE ANDERL: All right. Mr. Bryant, let

me ask you where is Willow Court relative to all this?

THE WITNESS: Okay. Willow Court is right here.

JUDGE ANDERL: Okay. Let me -- so the record is clear, that is --

THE WITNESS: See, right now --

JUDGE ANDERL: Hang on a second. I'm still trying to get it on the map. Was that off of --

MS. RENDAHL: Your Honor, I believe that's north of Thornton Road.

THE WITNESS: Yes.

MS. RENDAHL: And west of the railroad.

JUDGE ANDERL: It's north of Thornton?

THE WITNESS: Yes.

A. This area right now has been designated for industrial, housing for 148 homes right here. It's not been built yet. So there's going to be 148 homes built -- individual homes built right in this area right here. What's going across the street, I don't know. But in this area right here I do know that it's been approved by the city council and the planning commission that it would be 148 homes put right in here.

JUDGE ANDERL: Mr. Bryant, across the street there where you referred to, is that -- by any

chance is that Johnson or Jensen Street?

THE WITNESS: I'm not quite aware of it. It's right across here (pointing.)

JUDGE ANDERL: Okay. I'm just trying to make it so anybody who reads this record later knows what you're referring to on the map, and I just can't figure out a way to describe it.

THE WITNESS: The police department can't even describe it. They don't know where it is.

JUDGE ANDERL: Okay. Did you have any other comments?

THE WITNESS: That's all I have, ma'am.

JUDGE ANDERL: Let's see if the attorneys have questions for you. Ms. Gibson?

MS. GIBSON: No, I don't have any questions.

MS. CUSHMAN: No.

JUDGE ANDERL: From the city?

MR. CUILLIER: No.

MS. RENDAHL: No, your Honor.

JUDGE ANDERL: Thank you very much for your comments. And the next witness? Take a seat.

Whereupon,

LLOYD J. ZIMMERMAN,

having been first duly sworn, was called as a witness

herein and was examined and testified as follows:

JUDGE ANDERL: Go ahead, Ms. Rendahl.

DIRECT EXAMINATION

BY MS. RENDAHL:

Q. Would you please state your full name for the record and spell your last name for the reporter, please.

A. Lloyd James Zimmerman, Z I M M E R M A N.

Q. And could you give us your address, please.

A. 2234 Main Street.

Q. And do you live in Ferndale?

A. Yes.

Q. And how long have you lived in Ferndale?

A. Three years going on four years.

Q. Are you appearing today on your own behalf or on behalf of a group?

A. Probably both.

Q. And what group would you be here on behalf of?

A. I'm currently president of the Ferndale Image Group.

Q. Could you explain to us what that group is.

A. It's a network of -- its a grassroots network of a multitude of groups, public schools, city

of Ferndale, non-profit organizations such as Kiwanis, Chamber of Commerce businesses. It's basically open to all citizens of Ferndale. Dedicated to make it a better place and to work on issues of, you know, public policy and things like this, transportation, trails, litter, beautification, economic development, a lot of -- a broad range of city interest.

Q. Okay. Please go ahead and make your statement.

A. I would have to speak negatively about the two changes that would be proposed, one, the closure of Thornton, and the other of the increase of speed limit. If it hasn't been noted, a number of years back there was a derailment that knocked out the telephone system for a number of years -- or months -- or weeks going into months and, you know, 79 miles an hour with the current technology of the weight and, you know, the track, the condition of the track, plus as Ferndale's growing, its transportation options need to be constantly updated and reevaluated, and the closure of these intersections would be a real financial hardship on the city as well as a major inconvenience to the citizens as well as a -- the public health interest of the school located close by.

We have pedestrians and students and I as a

general -- my personal comment is, you know, with big business and, you know, everyone is looking for a faster, more powerful speeding bullet, and my general strategy would be say, Hey, just put more trains on at a tighter schedule and make it more convenient for people if you're going to market it for people. It's not that they want to get there instantly, but they want something that's flexible to their schedules. Smaller trains going at more intervals would give people a greater amount of freedom for their scheduling when they want intercross paths with plane flights, bus schedules, a lot of these things.

Plus it's my opinion, I believe, that, you know, it's not even scheduled to stop at Ferndale, so this is kind of adding insult to injury with this general policy, you know. I think in our city we're in the process of laying out a city transportation plan and look at different scenarios that will help us into, you know, the next century and that, you know, we like -- the citizens of Ferndale like trains and would like to have it be part of their formula, but this kind of precludes a lot of the -- this planning precludes any involvement, so it's difficult.

Q. Does that conclude your statement?

A. Yes.

EXAMINATION

BY JUDGE ANDERL:

Q. Okay. Mr. Zimmerman, let me just ask you, do you personally use the Thornton Road crossing for any reason?

A. The Thornton Road? I would should it be open or, you know.

Q. Do you mean should it be connected so it's not a dead-end road any longer?

A. Correct.

Q. In its current configuration --

A. I don't live down there or have friends that live down there, but I --

Q. So basically you're relying on it becoming a through street and for that reason --

A. Yeah, in a future tense.

Q. And then as to the speed limits, you just feel that that's too fast?

A. Yeah. My representation would be actually to lower them, especially, you know, a lot of hazardous chemicals and different scenarios that can happen.

Q. You have to bear in mind the only thing we're talking about is --

A. -- passenger rail.

Q. That's right. So the freight trains are going to go through town at the same speed they have always gone.

A. Right, but they still will be parked there and there is quite a few, what, four to six tracks across there, so there's always, you know, hazardous chemicals and liquid, propane gas, and a lot of things sitting within our city limits with a 79 mile an hour train used to be zipping by.

Q. Anything else?

A. No.

JUDGE ANDERL: Any questions for this witness, Ms. Gibson?

CROSS-EXAMINATION

BY MS. GIBSON:

Q. Mr. Zimmerman, apparently you're not aware that the storage of rail cars is going to change from the current plan where they are stored in the city limits, they are all going to be moved to Cherry Point for long-term storage. You're not aware of that?

A. That would be a very nice change.

Q. And --

A. It should have happened a long time ago, I

mean some other facilities.

Q. It's true, isn't it, Mr. Zimmerman, you live here close to the library off Main Street?

A. Yes.

Q. So you wouldn't personally have any use for the Thornton Road crossing if there were an extension to it, is that right?

A. I think I would, yeah, almost on a daily basis, I would think.

Q. Where do you work?

A. I'm self-employed.

Q. So you work out of your home which is here near the library?

A. Yes.

Q. And your most direct access to I-5 from here is Main Street/Axton Road, is that right?

A. If I'm southbound, yeah.

Q. And if you're northbound, you would use Portal?

A. Yeah. I would cross over Washington and then go around and get on Portal.

MS. GIBSON: Nothing else.

JUDGE ANDERL: Ms. Cushman?

MS. CUSHMAN: No questions.

JUDGE ANDERL: Mr. Cuillier?

MR. CUILLIER: No questions.

JUDGE ANDERL: Ms. Rendahl, anything else?

MS. RENDAHL: No, your Honor.

JUDGE ANDERL: Okay. Mr. Zimmerman, thank you for your comments today.

THE WITNESS: Thank you.

JUDGE ANDERL: Is there anyone else from the public who wishes to testify at this time? All right, I see no response. Ms. Gibson, your next witness?

MS. GIBSON: Mr. Scieszinski.

JUDGE ANDERL: Okay. Raise your right hand, please.

Whereupon,

ROBERT SCIESZINSKI,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GIBSON:

Q. Would you say your full name, please.

A. It's Robert E. Scieszinski,

S C I E S Z I N S K I.

Q. Mr. Scieszinski, by whom are you employed?

A. The Federal Railroad Administration.

Q. And where are you employed?
A. In the regional office in Vancouver, Washington.
Q. And is that known as the FRA?
A. Region 8.
Q. How long have you been employed by the FRA?
A. Let's see. Twelve -- a little over 12 years.
Q. What is your current position?
A. I'm the supervisor -- supervisory specialist for signal and train control.
Q. What is the FRA, Mr. Scieszinski?
A. It's an agency of the U.S. Department of Transportation responsible for inspecting railroads for safety regulations in five different disciplines, track and signal and mode of power and equipment, operating practices and hazardous material, investigate train accidents, investigate waiver applications.
Q. Has the FRA formulated a policy regarding the closure of highway/railroad grade crossings?
A. Yes.
Q. And what is that policy just in general terms?
A. Well, in general, it's basically to reduce

the number of highway/railroad grade crossings nationwide.

Q. Why is that?

A. Due to the large number of crossing accidents and fatalities involved in the highway grade crossing accidents.

Q. Has the FRA identified any criteria to be applied to the selection of specific crossings for either consolidation or closure?

A. Yes. They recently published a booklet that contains basically seven guidelines for crossing closure.

Q. And do you have that booklet with you today?

A. Yes, I do.

Q. Referring to that booklet -- well, first of all I should ask you, have you been present for the testimony this morning?

A. Yes.

Q. And you have an understanding of what is at issue here with the Thornton Road crossing, do you?

A. (Nods head.)

Q. In your opinion, do any of the criteria for selection that the FRA has identified, do any of those criteria apply to the situation of the requested

closure of Thornton Road?

A. Yes. Item 2. Do you want me to read what these are?

Q. Yes. Would you read item 2.

A. Okay. Item 2 is consolidate crossings which have fewer than 2,000 vehicles per day and more than two trains per day if an alternate route is available.

Q. Are there any other criteria --

A. Yes.

Q. -- that are met?

A. Item 4. Link construction work with eliminations. This linkage will be especially important when upgrading rail corridors for high speed trains.

Q. Are there any others?

A. Yes. Item 5. When improving one crossing by grade separation or installation of automatic warning devices, consider eliminating adjacent crossings and rerouting traffic from these crossings to improve the crossing.

Q. And so are you considering then the improvements that are being made at Washington Street crossing as fitting into that criteria?

A. Right. Exactly.

Q. And are there any other of the criteria that meet the situation?

A. Yes. Item 7. Eliminate complex crossings where it is difficult to provide adequate warning devices or which have severe operating problems, multiple tracks, extensive switching operations, long periods blocked, et cetera.

Q. Earlier I believe you may have heard one of the other witnesses, Mr. Clark, speaking of some of the statistics in Exhibit 6, the Highway-Rail Crossing Accident/Incident and Inventory Bulletin.

A. Right.

Q. You're familiar with that booklet, are you?

A. Yes.

Q. And are these statistics which are contained in Exhibit Number 6, are they the latest statistics available through the FRA on this matter?

A. Yes. As you can tell on the cover, it was just published in July of '94.

MS. GIBSON: All right. I have no further questions of this witness.

JUDGE ANDERL: All right. Any cross, Mr. Cuillier?

MR. CUILLIER: Yes, please.

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. Sir, have you seen the crossing at issue here?

A. No, I have not.

Q. When you say that item 2 applies to the crossing, fewer than 2,000 people crossing, you're assuming it in its present condition --

A. Exactly.

Q. -- rather than improved as an arterial crossing?

A. Correct.

Q. And when you mention item 7 applies regarding the elimination of what, complex crossing situations?

A. Yeah. Well, I guess how that -- or how I interpret it to apply is if the crossing is left the way it is and high speed rail is actually -- you know, at some point in time the crossing is going to have to be eliminated either via an overpass or grade separation or -- rather than just remain the way it is, so, you know, it could involve a lot more work, I guess.

Q. Do you think it's a complex crossing because of -- see, it has -- it's level and it's

straight and the road meets it at 90 degrees. What do you feel is --

A. Well, there's testimony earlier about parking trains, you know, meeting trains on the siding and possibly splitting -- either blocking the crossing during these train meets or splitting the crossing, and a person would have to, you know, creep out there and --

Q. But with the appropriate signalization with the type of signals that prevent people from creeping out there, we really wouldn't have those type of sight distance or hazardous problems, would we?

MS. GIBSON: Object to the form of the question. Mischaracterizes prior testimony.

JUDGE ANDERL: I'm afraid I didn't understand the question myself, so I'm going to sustain that.

Q. I guess I'll rephrase it then.

Are you saying that the crossing would create a hazard because people would creep out onto the crossing?

A. Well, if there's -- you would have limited sight distance, right, and that would be a hazard in itself. I mean, between parked railroad cars you mean? I guess is what I'm looking at it as, being a

hazard if that type of practice developed.

Q. But what I'm asking is couldn't that problem be alleviated with keeping people from entering out onto the track until the train has passed?

A. By --

Q. -- the arms, the signal arms?

A. Oh, the installation of gates or something?

Q. Mm-hmm.

A. Possibly to some extent, yes.

MR. CUILLIER: No other questions.

JUDGE ANDERL: Ms. Rendahl, any questions for this witness?

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. Mr. Scieszinski, you were referring to a booklet or a report. Is this the booklet you were referring to?

A. Right.

MS. RENDAHL: Your Honor, I would request that the page that was referenced or the section that was referenced be introduced in the record for clarification because I believe a number of points were mentioned but I think that should really be put

into context.

JUDGE ANDERL: Are we referring to what's now Exhibit 6?

MS. GIBSON: No. It's a separate document, your Honor. It's page 35 of a different booklet. We can have a xerox copy made and include it in the record. I would have no objection to that.

JUDGE ANDERL: Okay, I think that would be appropriate. Let's give that Exhibit Number 12 right now, and can I see the cover there, please?

(Marked Exhibit No. 12.)

THE WITNESS: Sure.

JUDGE ANDERL: The Rail-Highway Crossing Safety Action Plan Support Proposals, and that's a document that's prepared by your agency?

THE WITNESS: Right.

JUDGE ANDERL: Okay. And you just wanted the one page, Ms. Rendahl?

MS. RENDAHL: That's acceptable, yes.

MS. GIBSON: Why don't I do the cover page and the page 35.

JUDGE ANDERL: Great. And is there any objection to that being made a part of the record?

MR. CUILLIER: No.

JUDGE ANDERL: That'll be admitted as

Exhibit Number 12 then.

(Admitted Exhibit No. 12.)

Q. I just have one other question, Mr. Scieszinski. Has the FRA issued any rules or regulations concerning the closure of grade crossings or these are just suggestions in this report?

A. No. These are guidelines. They are not regulations, no.

MS. RENDAHL: Thank you. I have no other questions, your Honor.

JUDGE ANDERL: Any redirect?

MS. GIBSON: Nothing else.

MS. CUSHMAN: (Shakes head.)

JUDGE ANDERL: Thank you, Mr. Scieszinski, for your testimony. You may step down. The next witness?

MS. CUSHMAN: The next witness is Mr. Ed Quicksall.

JUDGE ANDERL: Mr. Quicksall, if you would raise your right hand, please.

Whereupon,

EDWARD L. QUICKSALL,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

JUDGE ANDERL: Go ahead, Ms. Cushman.

DIRECT EXAMINATION

BY MS. CUSHMAN:

Q. Mr. Quicksall, would you please state your name and spell it for the record.

A. It's Edward Leon Quicksall, Q U I C K S A L L.

Q. Could you give us your business address.

A. 303 South Jackson, Seattle, Washington, 98104.

Q. Where are your offices located?

A. Right there at King Street Station in Seattle.

Q. Are you employed by The National Railroad Passenger Corporation, otherwise known as Amtrak?

A. Yes, I am.

Q. What is your position with Amtrak?

A. I'm transportation manager for the western division, 710.

Q. If Amtrak was operating trains today through this Ferndale area, would that be part of your territory?

A. Yes, it would be.

Q. What are your responsibilities as the transportation manager?

A. Every time I try to figure that out, I find

out I've got a few more, but basically it's the safety, the maintenance of on-time performance, budget compliance, train and engine crew evaluation and performance, fuel efficiency testing, and general overall management of other supervisors doing the same thing in Seattle. If you get right down to it, the buck stops right here with me on trains operating in and out of Seattle for Amtrak.

Q. You stated that you handle engine crew qualification and evaluation. Does that refer to engineers?

A. That's correct.

Q. Are you certified as a locomotive engineer pursuant to Section 49, Code of Federal Regulations, Part 240?

A. Yes, I am.

Q. Have you ever been employed as an engineer?

A. Yes. I started in San Antonio, Texas for the Southern Pacific Railroad in December of 1971 as a locomotive fireman. Was promoted to the position of engineer in November of 1973 where I was employed running both Amtrak trains and freight trains until November of 1988. At that time Amtrak took over the operation of their trains. Before that, SP supplied the crews. And I came to Amtrak as an engineer

working exclusively passenger service. And March of '90 I went into management with Amtrak.

Q. So that means you have 23 years of experience in operation of trains and about 6 years in passenger service?

A. That's correct.

Q. What differences do you find in operating passenger trains as compared to freight trains?

A. The actual operation?

Q. (Nods head.)

A. Braking is the major difference. With an Amtrak train, as soon as you apply the brakes, you feel the decelerating force, much like driving an automobile. When you step on the brakes, you feel the car slow. A passenger train, you get that immediate response versus a freight train where there's a slightly delayed response or sometimes even longer delayed response. But just like driving an automobile, the more brakes you put on, the quicker you stop. It's basically -- I always compare running a passenger train to driving a car. You put the brakes on, it stops.

Q. Since you've compared it to driving an automobile, if you were driving a train at 79 miles per hour and tried to stop, would it be comparable to

driving a car at 79 miles per hour and trying to stop?

A. No. I didn't mean to mislead you. But you've got weight and momentum going at 79, much greater than that of an automobile. So it takes a longer distance to bring a train to a stop from 79.

Q. How long does it take a train to stop at 79 miles per hour, a passenger train?

A. A planned stop, about half a mile approximately. That can vary with the weight of the engines, the total length of the track.

Q. Okay. So if it's a half a mile for a planned stop, how far is it for an emergency or a panic stop?

A. About a half a mile, the reason being you've got the declostats on coaches.

JUDGE ANDERL: Excuse me?

A. D E C L O S T A T S. They work like an anti-lock braking system does on your automobiles today. When they sense the wheels on the coaches are about to lock up, they start releasing a little bit of pressure to keep that from happening and keep the wheels from sliding. So they release, grab back, release, grab back, to keep the train from sliding. The only place you don't have declostats is on the engines. The engines will slide, in which case if you

do have sliding engines, you can actually have a longer distance to stop because it's kind of like wearing leather shoes on an ice skating rink. Metal against metal sliding on the rail. It can take longer to stop.

Q. From 45 to 50 miles per hour what is your estimate of the distance for a planned stop?

A. About three-eighths of a mile.

Q. So an emergency stop takes approximately three-eighths of a mile from 45 to 50 miles per hour?

A. No. What happens there, when we said half a mile for a 79 mile per hour planned stop versus half a mile for a 79 mile an hour emergency stop, you've got much greater momentum. From 45 or 50 miles an hour an emergency stop would be quicker than the same three-eighths of a mile for a planned stop. What you've got is a more abrupt stop, and if anybody is standing in the train at that lower speed, they are probably going to be propelled forward because of the abruptness because of the lesser force of the momentum and they may be injured in the process.

Q. So based on what you've told us and your experience, is it safer for passengers aboard a train to experience an emergency stop at 79 miles per hour than it is an emergency stop at 45 or 50 miles per

hour?

A. In the context of a?

Q. Striking an automobile.

A. Yes.

Q. What if they are striking a fuel truck?

A. Definitely you would go through the flames. Momentum would carry you through the flames.

Q. As compared to stopping in the middle of the fire?

A. Right. And that was proven. In Chicago I had an engineer a year ago, a little bit over a year ago, hit a propane truck. He chose through his own decision to go through that propane truck before he placed the train in emergency. None of the passengers were injured on that train. About two months after that, a train struck a fuel truck in Florida and the passengers that were injured were not injured from the collision with the fuel truck; they were injured because the train stopped on the crossing where the flames were and they were bailing out of the train into the flames.

Q. Okay. We've talked about speed and stopping inasmuch as crew and passenger safety is involved. How does speed and stopping distance affect the driver of the vehicle which is being struck by the

train?

A. That's really relative to where the vehicle is struck. A low-speed impact broadside will probably seriously injure or kill the driver just the same as a high-speed impact broadside.

At low speed a train has the tendency to take a vehicle down the tracks with it. At high speed, it has a tendency to knock it away to one side or the other. If you gave me my choice and said, You're going to sit in a car right here, do you want the guy to come down and hit you fast or slow? I would say if it's going to be broadside, it really makes me no difference. If you took the same vehicle and put the front or the rear of the car on the tracks and gave me my choice, I would ask you to get Casey Jones for the engineer because the train has a tendency then to shear -- when it doesn't get broadside, if it hits the front or the rear of the car, it has a tendency to shear that part of the car off and keep going. But low speed versus high speed, it really depends on where the impact is as far as injury or death to the driver.

Q. Okay. And you've had experience investigating accidents?

A. Yes, I have. I've also had experience

hitting cars at both low and high speed.

Q. As an operator?

A. As an engineer, yes.

Q. Have you or the railroad for which you were operating a train ever been found guilty by any court of law for any collision?

A. No.

Q. Mr. Quicksall, have you gone out and inspected the crossing at Thornton Road?

A. Yes. I spent about 35 minutes there this morning.

Q. And what is your opinion as to the viability of that crossing in the context of its safety as it relates to passenger train?

A. Poor. The safety of the crossing itself, a crossing is no more safer or unsafer than the people driving the vehicles that approach those crossings. But I don't know how many people in here have seen Thornton Road that are involved in this proceeding. I think most of them have.

First thing I noticed was visibility is poor there anyway. My opinion, the crossing is not a good risk today and probably should be shut down. You do have stop signs there that tell you to stop, but what you've got is something that no engineer likes to

see. You have a siding or a passing track, depending on what you want to call it, there which means that you have the capability of putting a train in there while an adjacent track will permit a train to come down the other side. Drivers tend to approach when they see a train standing and get a false safety illusion that there's a train, it's standing, I'm okay, go. And they don't realize there's another track on the other side, an adjacent track. That creates a trap for a driver.

I heard somebody earlier talk about we'll put gates on the crossing. That's even worse, in my opinion, and I see it all the time. Gates are down, people come up, train stopped, they look at this train stopped, it's actually on the siding waiting for the other train to come, they say, Well, that is the reason the gates are down, we'll run the gates, and here comes the other train right into the car. It happens too often. In my opinion, Thornton Road shouldn't exist today much less in the future.

Q. Okay. In general, what is your opinion as an engineer as to how accidents can be reduced?

A. Well, sure, I think Mr. Clark earlier said eliminate crossings. We know that we can't do that. We need to eliminate the unnecessary crossings. The

more traffic you put onto existing crossings, the better chance you have of not having an accident, because good drivers will block access to that crossing to following suicidal or careless drivers. They'll bring attention to inattentive drivers. We need programs like Operation Lifesaver which goes to community groups, schools, talking about crossing safety. They teach that engineers can't yield right of way to a car that darts out in front of you. It's just impossible.

We need strict enforcement of the crossing laws that are designed to keep cars from doing that. I can't tell you all the times I see a law officer not writing a ticket to a car that runs right in front of our trains. Makes no sense to me. We need stiff penalties for doing that.

And we need to quit blaming the engineers and the railroads when a vehicle is struck. There's no engineer that I've ever known in my career that went to work today to kill somebody. They become a victim too. And it wasn't their fault. The car got in front of them. They didn't jump off the track and run down the highway and hit the vehicle.

Q. I want to change the subject a little bit. Earlier in Mr. Clark's testimony he brought up the

subject of alertors, and I would like you to clarify why they are on the trains and what they do.

A. Alertor is a device that stops a train with a penalty application if the engineer doesn't respond in a certain way. Basically the alertor, it's a mechanical function which says, Are you awake? And the engineer by some action, movement, blowing the whistle, there's a lot of actions related there, let's this mechanical function know, yeah, I'm awake, I'm doing my job, don't worry about me. It can either be touching metal, breaking contact with metal, throttle manipulation, but it's something mechanical an engineer has to do to let it know. If the alertor malfunctions, then it's required by our rules by general road performance notices that an employee qualified on the rules must be up in the cab with the engineer. So it's not like we ever operate a train without either the alertor functioning or two people up on the cab. But if he doesn't respond within a certain period of time, which is usually about 20 to 30 seconds, the train will be brought into a penalty application. It will come into a total stop and it will take at least two minutes to get that train to move again.

MS. CUSHMAN: Thank you. I have no further

questions.

JUDGE ANDERL: Okay. Any cross for this witness, Mr. Cuillier?

MR. CUILLIER: Thank you.

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. Mr. Quicksall, do you think that it makes the overall situation safer to close a crossing if you're diverting the traffic onto a different crossing? In other words, you're diverting -- you're having traffic go to a different crossing across the tracks, just one crossing instead of having, say, half the traffic use each of two crossings?

A. Yeah. Much safer. You've got two reasons there. One is, in general -- or my response would be in general to any place we're talking about, a percentage of your drivers -- a large percentage of your drivers are careful and safe drivers. A very small percentage of those drivers are people who will take chances with their vehicles. The percentage of safe drivers stopping in front of that railroad crossing with an approaching train will hold up the unsafe guy back there. If he happens to be first, then there's nothing we can do about that.

But you also have a small percentage, I would think, of accidents that occur from inattentive drivers, people that just aren't paying any attention. Maybe they have the radio too loud, whatever else. The more cars you have got approaching the crossing to draw attention to the fact there's an approaching train, the less chance you have of somebody inadvertently getting out in front of the train.

Now, my second response to that is more specific to Thornton Road. Thornton Road has an adjacent track to it. And then I guess back to what I was saying earlier, you will quite often have a train, if we're operating a freight train standing there, which will give a false sense of security to somebody going, There's a train standing there, I'm okay. They won't realize there's two sets of tracks involved there and that there may be another train coming down. They could even hear a whistle and think it's the standing train that they can see.

Q. With that long siding, say it's nine or 10,000 feet, would there not be a way to set the trains back a ways from the crossings so that wouldn't be a problem?

A. I can't respond to that because I don't -- that would be more of a question that would be brought

to the BN about the length of the train that they are running and not me. Where I came from, we ran 10,000 foot trains. I mean we literally ran 10,000 foot freight trains. I don't know what BN runs.

Q. They don't -- they have not yet designed a signalization system that keeps people from running the signal -- running the gate?

A. Not that I've ever seen.

Q. So they just drive right through the gate?

A. They drive around the gates. They have people get out of their cars, raise gates. You would actually in my opinion at Thornton Road have a worse situation with a train standing and a signal system on that road because anybody approaching that crossing and seeing signals flashing, gates down, would think it was caused by the standing train and not by the approaching train.

Q. So what you're saying is that if BN is allowed to use that track for the purpose of allowing the Amtrak by, then there's little or no chance that the city would ever be able to use that crossing at grade?

A. I don't -- you know, I can't respond to that. That's beyond my knowledge. The only thing I can tell you is from having been out there today, I

seriously think that some people ought to go out there and look how much vision you've got today. It's not good as it is.

Q. We would be assuming it were an improved arterial and those traffic situations were corrected?

A. Yeah, you're out of my area.

MR. CUILLIER: Okay. Thank you. No other questions.

JUDGE ANDERL: Ms. Rendahl?

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. I just have a few clarifying questions.

A. Sure.

Q. You were talking about at the beginning of your testimony the difference between a passenger train and a freight train in stopping. And my question is, don't you get a more uniform braking on a passenger train than you would on a freight train?

A. You definitely do. You get not only uniform braking, you get predictable braking. Freight trains are -- the error is setting up -- and I shouldn't be here talking for BN because that's not my point here, so I'm only talking about my former experience as a freight engineer. Freight trains, the

brakes set up from the head end back, and what's happening is as the brakes set up, you're waiting for that response. On our trains, we're not running 100-car trains, we're not running 150-car trains. The brakes are setting up almost instantaneously throughout the whole train. It is -- it is a very maintained braking.

Q. Does the weight of the cars have any effect on the braking of the train?

A. It could have an effect on the amount of braking that you issue to that train. With Amtrak, we've got more brakes than we better be using, because we have people standing and walking in our trains. If we use every brake we've got, we're going to hurt somebody seriously.

MS. RENDAHL: I have no other questions, your Honor.

EXAMINATION

BY JUDGE ANDERL:

Q. Okay. Mr. Quicksall, one or two questions. How long typically are these Amtrak passenger trains which would be running through Ferndale?

A. I don't have an answer for that right now because that's still in the planning stages. We would

hope that it would be -- it would probably be a minimum of three coaches. I'm speculating there. We would hope, depending on ridership, hope to have it up to five or six.

Q. And then how many engines?

A. That would be a one-engine operation for that train. But once again, that will be something that will be discussed with the DOT between Amtrak on a different level than mine.

Q. And from a safety perspective, does it make any difference in your opinion whether those trains go through town at 50 miles per hour or 79 miles per hour?

A. From a safety perspective, it's safer, if you ask me, to go through town at 79. Most of the crossings we go across throughout this country are 79 mile per hour crossings. If we're involved in a grade crossing accident, my passengers are safer, in my opinion, at 79 then they are at 50 miles an hour.

You know, the momentum makes that a much smoother stop than what you're going to get at 50.

JUDGE ANDERL: Okay. Any redirect for this witness?

MS. CUSHMAN: No.

JUDGE ANDERL: All right. Thank you, Mr.

Quicksall, for your testimony. You may step down.

MS. GIBSON: Next witness is Russell Frazier.

JUDGE ANDERL: Mr. Frazier, if you would raise your right hand, please.

Whereupon,

RUSSELL J. FRAZIER,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GIBSON:

Q. Say your full name for the record, please.

A. Russell James Frazier.

Q. And your occupation, Mr. Frazier?

A. Manager signal maintenance, Burlington Northern Railroad.

Q. How long have you held that position?

A. About eight years now.

Q. What other positions have you held with Burlington Northern?

A. I started out as an assistant signalman installing signal systems and worked up through the scheduled ranks as a foreman and then on to a supervisor in the exempt. Worked as a maintenance

supervisor and now manager signal maintenance.

Q. In your current position can you tell us what your territory is?

A. My area of responsibility is from Vancouver, British Columbia to Bieber, California and from Aberdeen, Washington to Williston, North Dakota.

Q. So you're responsible for the signals here through the town of Ferndale and the surrounding area?

A. Yes, I am.

Q. Are you familiar with the improvements that are planned to the signal system for this line in conjunction with the new Amtrak service?

A. Yes.

Q. Okay. I would like you to go over to Exhibit 4, if you would, and describe what those changes are.

A. Initially, down here at Hovander Road, that currently is equipped with cantilevered signals and gates and a constant warning device called an HXP for monitoring the speed of the train and the activation for that train approaching the crossing. That equipment will remain the same and will adjust the approaches for that equipment to allow for the higher train speeds.

At Second Street in town here in Ferndale,

that crossing is also equipped with cantilevered signals and gates. That equipment will remain the same. The activation equipment will remain the same with lengthened approaches to handle the higher train speed.

Q. When you talk about lengthened approaches, what are you describing?

A. That's the distance that the activation equipment looks down the track to determine when the train arrives at the crossing. By using constant warning equipment, it measures the speed of the train to a known distance and calculates the time it will take that train to reach the crossing and starts the crossing so that there's a minimum of 20 seconds warning time.

Q. So you're just changing the approaches then because of the higher speeds?

A. That's correct.

Q. And what about Washington Street crossing, is there any change there?

A. Washington Street, because of the track changes -- but that I'll get into here in a minute -- will require the addition of some additional constant warning devices at that crossing. The cantilevered signals and gates will remain the same but we will be

adding some additional predictor equipment in that crossing.

Q. All right. And would you describe that additional equipment.

A. That's going to be -- the engineering isn't final on it yet, but it looks like there will be an additional two HXPs, which is our crossing activation equipment. One of them will be looking down the main track -- from the switch location north of the crossing down the main, and the other one will be looking from that switch on the siding, so that we can detect the approach of a train from either track.

Q. From the northerly direction?

A. Right.

Q. What changes were you alluding to that are being made on the track?

A. Okay. This whole territory from Bellingham to Blaine is what we call automatic block signals. This is going to be changed to a constant -- or to a CTC signal system which is centralized traffic control. In other words, the dispatcher will control switches and signals at a control point and he also has an indication coming into him as to the location of the trains that are out here.

Q. Is this considered a more sophisticated

method?

A. Definitely, yes.

Q. Do all the crossings have predictors now?

A. No. The ones in Ferndale do, yes.

Q. And that's what I meant.

A. Yes.

Q. All the crossings in Ferndale?

A. Yeah. All the signalized crossings in Ferndale do have predictors.

Q. Are they all set for that standard you mentioned of minimum 20-second warning?

A. Yes.

Q. Is there any kind of a fail-safe mechanism that's installed in the signals at the various crossings in Ferndale?

A. Yes.

Q. In other words, in case there's a failure of the system, what would happen?

A. All crossings' signal systems are designed to be a fail-safe system, and that is that if any component or vital component should fail, the crossing will be activated, the lights will flash, and the gate will come down to block the crossing. They are also designed with a battery backup system so that should the power fail, we don't have a dark crossing, it is

still protected and will function as a normal crossing.

Q. You've talked about how the roadway traffic will be warned of the approach of a train. With Amtrak and Burlington Northern both operating on the main line through this area, how will each of them know about the presence of the other train?

A. They really wouldn't have to know that there's another train out there. The dispatcher will be monitoring the movement of trains through the use of CTC in his board currently located in Seattle, and the wayside signals will govern the movement of the trains.

Q. What are the wayside signals?

A. That's the signals that control the movement of the train itself. They are located adjacent to the track at about two-mile intervals and they convey information to the train crew of what the condition of the track ahead is.

Q. So, for instance, let's say that there was a Burlington Northern train at -- near the old Thornton Road crossing which had not yet completely gotten over onto the siding track and there's an approaching Amtrak train. In that situation, what would the Amtrak train crew see?

A. At the point where the -- or the BN train is diverging from the main line, there would be a red absolute signal for the Amtrak train to stop at.

Q. What is a red absolute signal?

A. That means that they have to stop. They have to stop before any part of the train or engine passes that signal. And in advance to that, there would be a solid yellow signal which is a warning that they are approaching a signal that is going to require a stop and they have to reduce to a speed that will allow them to make that stop at that absolute signal.

Q. Do you have signal department people who are stationed in the area of Ferndale to do the maintenance on the signals?

A. Yes. I have two signal maintainers, both of them are headquartered here at Ferndale. One of them is assigned to the territory that is Ferndale. The other one is assigned a territory that is south of Ferndale.

Q. Are they on call in case there's any problem with the signal at any time?

A. Yeah. Signal maintainer has probably got the worst job in the country. He's on call 24 hours a day, six days a week. He has one day off a week and on that day the adjoining maintainer swaps with him so

that there's always somebody available for call.

Q. Do the signal maintainers do periodic inspections of all the signal equipment?

A. Yes. On crossing signals, signal maintainer in ABS or CTC territory is required to do an inspection to determine that the signals are functioning, all the lights will burn. And he has to do that every two weeks.

Q. Let me show you what we've marked Exhibit 7 (handing) for purposes of this hearing. What is that?

A. That's our Highway Grade Crossing Inspection Report. Every time that a maintainer or any signal person inspects that crossing, they are required to sign it, date it, the time that it was checked, and mark off whatever checks or inspections that they made.

Q. And how frequently do they perform these inspections?

A. They will -- on these crossings through town here they will do them every two weeks as far as basic inspection of the power, to determine that the light bulbs all light, that the crossing does activate properly. Then on a monthly basis they go through and check their battery backup system. On a

three-month inspection they come out and actually either observe a train going through the crossing and determine that the warning time is correct or they will place what we call a shunt: Go out and place a wire across the rails to activate the crossing. They have to do that on a three-month basis. And then on a six-month basis they go through and lubricate the gate mechanisms, clean all the light lenses, and check the lamp bulb, adjoining light bulbs.

MS. GIBSON: Thank you. I have no other questions.

JUDGE ANDERL: Okay. Mr. Cuillier, any cross for this witness?

MR. CUILLIER: Thank you, your Honor.

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. Mr. Frazier, do you know if there are any efforts being made in the field of signalization to develop an effective signal that will keep vehicles from running the signal or going around the signal?

A. There's some different things being talked about. I've not seen anything that has been placed in service anywhere.

Q. What is being talked about?

A. There's one company that's trying to develop a gate that would be suspended above the roadway and would actually drop down and entirely block the roadway to prevent any cars from getting into the crossing. If there was a car that tried to drive through it, it's designed to stop the car before it would get to the crossing. I'm not aware of any of those in service anywhere. They are using them as runaway-truck stops on mountain grade and they are using them for protection of highway workers where they've got a lane or a partial closure of a highway.

Q. Do you know when something like that might be available?

A. No, I don't.

Q. Do you have any idea as to what percentage of the highway-rail crossing accidents occur because people ignore this signal or the gate?

A. At gated or signalized crossings, all accidents occur because people ignore the lights.

Q. No, but how many of these accidents were at that type of crossing, do you know?

A. I don't have those figures, no.

Q. You don't even have a general vague idea of what percentage that would be?

A. No.

MR. CUILLIER: Okay, thank you. No other questions.

JUDGE ANDERL: Ms. Rendahl, any questions for this witness?

MS. RENDAHL: Yes, your Honor.

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. Mr. Frazier, you were talking about the constant activation warning system, the signals. Will that -- that will give a constant 20-second warning time for both low speeds and high speeds, is that correct?

A. It'll give a minimum of 20 seconds warning for the train regardless of the speed above two miles an hour.

Q. You also discussed the configuration at the Washington Street grade crossing and the proposal to put two -- I'm not sure I have the acronym correct -- HXPs?

A. That's correct.

Q. From looking at Exhibit 4, there appear to be four tracks that cross Washington Street, is that correct?

A. I believe that's correct, yes.

Q. Which of those tracks would these two -- would this upgraded HXP system protect?

A. Well, the additional equipment would be placed -- there's a proposal to put a power switch location north of the crossing that would allow the trains to divert from the main line and get onto the siding. The additional equipment would look north of that switch. Because of the location of that switch and the way we have to signalize that, we would place insulated joints in the rail, and the existing activation equipment can't be coupled around those insulated joints that close to the crossing so we have to add additional equipment north of the crossing to activate the crossing from a southbound train. So the existing tracks that are in the crossing now, the existing activation equipment would remain the same on those four tracks. The additional equipment would be placed north of the crossing.

Q. I guess I'm still a little confused. If there were a train on the -- on any of those side tracks, not the main line, if there were -- if there were trains on any of those side tracks, would the signals at that crossing protect traffic going on Washington Street crossing the railroad tracks? Would it indicate if there was a train on any of those

four tracks?

A. Yes, it would.

Q. And that's the way it's currently configured?

A. That's correct.

Q. So the upgraded system is merely the timing again?

A. The upgraded system is being installed because of some additional changes that are going to be made north of the crossing to the track structure.

Q. Have you been here the entire day of testimony?

A. No, I have not.

Q. Were you here this afternoon when a member of the public discussed the fact that the city limit has now been extended north or will be extended north?

A. I heard his statements, yes.

Q. Can you tell me if there are any planned signalization changes for the Brown Road crossing?

A. Yes, I can. Give me just a minute here, I'll look it up.

At Brown Road we're just going to lengthen the approaches, again because of the higher train speeds. The existing equipment is constant warning devices with cantilevered signals and gates.

Q. And Brown Road would also be a part of the centralized traffic control system?

A. They would be included in that CTC territory, yes.

MS. RENDAHL: I have no further questions, your Honor.

JUDGE ANDERL: Okay, thank you.

EXAMINATION

BY JUDGE ANDERL:

Q. Mr. Frazier, you explained that the Bellingham to Blaine area will be moving to the CTC system from the existing system?

A. Yes.

Q. And the existing system is called what?

A. Automatic block or ABS.

Q. And you were describing a situation in which the engineer would see a yellow warning light before seeing a red light which told him to stop, and I was wondering is this CTC system one that will monitor the traffic constantly so that if the freight train were to move fully onto the siding track after the engineer saw the yellow warning light, that that later light would then be green.

A. Provided that things -- that at that

location the train had cleared the what we call the OS section of the switch, and was in the clear of the main line, and the dispatcher would have that signal, then that signal would be green if everything else allowed it to come to that, to go green.

Q. And that happens virtually immediately upon the dispatcher's request?

A. Yeah, provided that there's nothing else on the track out there that would prevent it from clearing.

Q. Right. Mr. Frazier, just so that the record is clear, when a gate goes down on a railway crossing, is it correct that it only blocks the lane of traffic that is facing the railroad track, it doesn't extend across both lanes of, say, a two-lane roadway?

A. That's correct.

Q. So when people describe driving around the gates, that's how people are able to drive around the gates?

A. Yes. They drive over into the opposing traffic lanes to get around the end of the gate.

Q. Has a gate ever been developed or discussed that would extend across, say, both lanes of a two-lane road or is that practical?

A. There's talk of what they call four-quadrant gates which would be four gates at a two-lane crossing that would block both the access and egress of the crossing.

Q. Okay. Are those in use anywhere that you know of?

A. Not on Burlington Northern.

Q. Okay.

A. Well, I shouldn't say that. We do have one four-quadrant gate system. It's on an industry track in Auburn that the track is no longer being used. In fact, I don't think they ever put a car across that crossing.

Q. I guess that's a safe crossing then.

JUDGE ANDERL: All right. Anything on redirect?

MS. CUSHMAN: Could I ask one cross question, please?

JUDGE ANDERL: Okay. Sure.

CROSS-EXAMINATION

BY MS. CUSHMAN:

Q. Earlier you discussed the absolute red signal and then you talked about there's a yellow signal that precedes the absolute red signal. Isn't

it true that when an engineer sees the yellow warning signal, they must slow to 35 miles per hour and prepare to stop, it's a mandatory procedure?

A. Yes. Yes.

MS. CUSHMAN: Thank you.

JUDGE ANDERL: Anything else for this witness?

MS. GIBSON: Nothing else.

JUDGE ANDERL: Thank you for your testimony, Mr. Frazier. You may step down.

MS. GIBSON: Are we taking a break?

JUDGE ANDERL: Who's your next witness?

MS. GIBSON: James Kime. I'm taking them out of order, you probably noticed.

JUDGE ANDERL: I see that.

MS. GIBSON: That's what schedules are for, you know.

JUDGE ANDERL: Let's go ahead and take two short breaks this afternoon. Maybe that'll be a little bit easier on people. Let's take about eight to ten minutes right now.

(Recess.)

JUDGE ANDERL: Let's be back on the record after our afternoon recess. While we were off the record, the next witness has taken the stand. Sir,

if you would raise your right hand, please.

Whereupon,

JAMES L. KIME,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GIBSON:

Q. Will you say your full name for the record, please.

A. James L. Kime, K I M E.

Q. What is your occupation, Mr. Kime?

A. Manager of operating practices for the Burlington Northern Railroad.

Q. Where do you work out of now?

A. Cascade division at Everett, Washington.

Q. What are your duties in that position?

A. My duties are basically to write and certify and qualify locomotive engineers for licensing per the federal regulations.

Q. What prior positions have you held at Burlington Northern?

A. I have come up through the ranks as a brakeman, switchman, locomotive engineer, road foreman, trainmaster, and now manager of operating

practices.

Q. Working out of Everett is the track that runs through Ferndale. Is that part of the territory that you supervise engineers on?

A. Yes, it is.

Q. Are you aware of how many through freight trains operate per day on this track?

A. Yes. We operate four -- three trains each direction each day, making a total of six through freights per day.

Q. And just on a real general basis, would you be able to estimate how many rail cars are in a typical train, a through train?

A. A typical train would have between 80 and 100 cars.

Q. And so in terms of feet, how many is that generally?

A. Well, it's real difficult to say the exact length of a train because of the variation of the length of the cars that we handle, but on an average, our trains are in excess of 7,000 feet.

Q. Are there also local trains that operate on this line?

A. Yes, there are. There are three locals out of Bellingham that operate through the Ferndale area.

Q. For anyone who doesn't know the difference between local and through trains, could you explain that?

A. A through train is, for example, called on duty at Everett, Washington and the crew goes through to Vancouver, British Columbia, ties up for rest, and then the following day, or eight hours later or whatever, returns from Vancouver back to Everett.

A local would, like, go on duty at Bellingham, go out to an outlying point such as Intalco or Ferndale or Cherry Point and return back to Bellingham to tie up for the completion of their tour.

Q. If the Thornton Road crossing were to remain open and somehow Amtrak's service was started, could you explain what Burlington Northern crews would have to do in order to move out of the way of the Amtrak trains?

A. Well, we would have to send a brakeman or conductor back from the head end of the train, walk back on foot, or stop the train twice. We could stop and let him off at the crossing and then pull the train on in and through radio communication with the engineer sever or break the train in two to open the crossing.

Q. Okay. If a crewman has to walk back, how

long would that take roughly?

A. Well, the Thornton Road crossing is approximately three-quarters of the way back from the south end of the existing siding as it is known now, and so where the siding is 6,600 feet long, so you're looking at walking in the neighborhood of three-quarters of a mile and you're talking absolute minimum of 20 to 30 minutes.

Q. What would the ground surface be that the person was walking on?

A. It would be very uneven. It would be walking on ballast.

Q. And ballast is main line -- is rock?

A. Is rock, yes. Approximately two to three inches in diameter.

Q. All right. Then what would they do then when the crewman got to the area of the train that he wanted to be at at the crossing?

A. Then they would have to, of course, turn the angle cock or stop the airflow through the train and lift the pin lifter and give the engineer a signal to go ahead.

Q. What are the angle cock and pin lifter?

A. The angle cock is a device on the train line or the main air line of the train that allows air

to flow from the engine back to the last car in the train.

Q. What does the air do?

A. The air is what applies and releases the automatic air brakes.

Q. So the angle cock is located on each rail car then?

A. Yes. There's one on each end of each rail car.

Q. And the pin lifter, what is that?

A. The pin lifter is a device used for uncoupling the cars.

Q. Can you explain what a coupling device is?

A. A coupling device is the mechanism that allows us to put locomotives and cars together and move trains of any length.

Q. And how does the pin lifter on the coupler device function then to allow cars to either be put together or to be separated?

A. The pin lifter would be similar to like a doorknob on a door. You turn the doorknob to open the door, you lift the pin lifter to disengage the mechanism, allowing the car to be separated.

Q. What would the crewman then have to do after he had walked back to the crossing, moved the

angle cock and lifted the pin lifter?

A. Then the engineer would pull the train ahead a sufficient distance to allow vehicles to traverse the crossing, and stop, and then they would wait.

Q. Wait until the Amtrak train passed?

A. Yes, until the Amtrak or the other train -- another train passed, and then simply reverse the procedure to couple the train back together again.

Q. And then the crew member at the crossing would have to walk to the head end again?

A. Yes, he would.

Q. When we say head end, that's the locomotive?

A. Yes.

Q. How long would you estimate that whole process would take?

A. Not including the time waiting for the train, you're looking at a minimum of 45 minutes.

Q. Does Burlington Northern have projections about future business on the tracks in this area of Ferndale?

A. Of course we're a transportation company and we're always looking for additional business and our business has substantially increased over the last

few years.

Q. What kind of trend have you seen in the last few years?

A. We primarily operate general merchandise trains or intermodal type trains.

Q. Have you seen an increase or a decrease in freight moving on this line in the last few years?

A. Significant increase.

Q. What kind of increase, based on past years, are you expecting for this next calendar year?

A. Well, it's difficult to project the actual increase. We are hoping for, of course, 30 to 40 percent increase.

Q. And you have some statistic with you, don't you, about recent years?

A. Yes, I do.

Q. Would you look at those and tell me do you have statistics for 1993 traffic?

A. This is in total cars, 1993 on this area up here we operated 176,000 cars.

Q. And was that some kind of an increase over the previous year?

A. That was an 11 percent increase over 1992.

Q. And so far in calendar year 1994 are you seeing any percentage increase over the same period

in '93?

A. Yes, we have. From January of '94 to -- compared to January of 1992, we have seen a 21 percent increase. And then from January of '94 back to January of 1991 we have experienced a 43 percent increase.

Q. This increase in freight traffic, is this freight that would otherwise be going on the interstate highway system?

A. Yes, it very possibly would.

MS. GIBSON: All right. Thank you, Mr. Kime. I don't have anything else at this point.

JUDGE ANDERL: Any cross for this witness, Mr. Cuillier?

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. I'm sorry. I misunderstood the increase this year over the comparable months of last year.

A. From January of 1992 to January of 1994, in other words, the increase in 1993 was 21 percent over the previous year.

Q. But so far this year over last year from January to September, you don't have those figures?

A. I'm sorry, I don't understand. From

January when?

Q. Has it increased this year in '94 over '93 or do you have those figures?

A. I only have the figures up to January of '94.

Q. Okay. Thank you. I thought that's what I heard.

How many times a day for -- let's assume that the Thornton Road is not converted into an arterial for a number of years. The procedure that you have indicated as far as uncoupling the trains and so on would be necessary, at most, twice a day for the next year, right? You'll have one passenger train going north and one south each day?

A. That's correct.

Q. And you won't always have your passenger train passing a freight train at that particular siding, I assume?

A. Very possibly, yes.

Q. I mean, possibly that will be even less of an inconvenience than twice a day, correct? Do you see what I'm asking? It's possible that if you don't have to use that siding to let the Amtrak pass on one or the other or both of the trips each day, there won't be any uncoupling?

A. It's also possible that Amtrak will meet there and then the uncoupling would be --

Q. -- twice?

A. But to answer your question, yes, if Amtrak doesn't meet their -- if we meet any train there, as far as that goes, we're required by law to uncouple that and clear that crossing, so it would be a delay to meet any train, not just Amtrak.

Q. But this siding is primarily to be used because of Amtrak, I understand, is that not correct?

A. It would be, yes. It would be. We're asking for an extension because of Amtrak, yes, and to close the crossing because of Amtrak, yes.

Q. But are you saying that there will be freight crossing there?

A. Certainly.

Q. Is that going -- is that going to be a frequent occasion, do you think?

A. That's a question that I can't answer because the freight trains do not run on schedule.

Q. Okay. I assume that instead of having somebody walk back three-quarters of a mile to uncouple these cars, they would let the person off at the crossing normally, wouldn't they?

A. I would say yes.

Q. Do they do this routinely at other crossings in the state or nation? This is not an unusual method of clearing a crossing, is it?

A. It's the only method of clearing a crossing that we have.

Q. And clearing a crossing is not an unusual thing to have to do, is it?

A. No.

Q. You do that at a lot of crossings, I assume?

A. Every time we stop and block one, yes, we do it. I wouldn't say at a lot. We try and if we can, we'll hold back behind the crossing and wait for the other train to come in, but with the passenger schedule that Amtrak is asking for, we don't have that luxury.

Q. In fact, that's exactly what occurs at the Washington Street crossing at the city of Ferndale right now, right?

A. Yes.

MR. CUILLIER: Okay. Thank you. I believe that's all.

JUDGE ANDERL: Ms. Rendahl?

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. Mr. Kime, is a 9,000-foot siding track that's similar to the one that's been proposed in Ferndale, is that fairly typical of the length of side tracks along the -- I guess in your region, the Cascade region?

A. No. That's what we would like to have for all crossings -- or all sidings, but I can't tell you the average length of sidings.

Q. Is it fairly typical of the sidings in the Burlington Northern system?

A. Yes. If anything, it would be on the short side for the whole system.

Q. Concerning the Thornton Road crossing and your testimony about it taking a minimum of 45 minutes to have somebody walk back from the head end, uncouple the train, wait for the train, that's your estimate of time if the Thornton Road crossing were to remain open and the train were to be cut or split?

A. Yes. That is not counting the length of time that it would take for the opposing train to get there and pass.

Q. So the 45 minutes is just the time to walk back, cut the train in half, and then --

A. Yes.

Q. -- recouple the train and walk back to the head end?

A. Yes.

Q. Concerning cutting a train or splitting a train, I don't know if you're the witness to testify to this, but what's the distance from the crossing on each end, from the midpoint of the road, what's the distance beyond which you would cut a train? How far apart would the train be?

A. Oh. If length of the siding permits, we require that they leave 300 feet on each side of the crossing.

Q. Just one more question. You talked about having someone walk back from the head end of the train. Do any BN trains have cabooses?

A. Yes.

Q. So would there be situations where you would have somebody walking a shorter distance back up from the caboose as opposed to back from the head end?

A. That is possible.

Q. What percentage of trains have cabooses?

A. One percent or less.

MS. RENDAHL: I have no further questions, your Honor.

EXAMINATION

BY JUDGE ANDERL:

Q. Okay. I have a clarifying question or two. Perhaps I misunderstood this. Are you saying that if a Thornton Street grade crossing stays open, you are required by some law or regulation to split the train when it sits at that crossing?

A. Yes, your Honor.

Q. So you wouldn't be doing it as a courtesy or convenience, you would be doing it because you have to?

A. Yes, ma'am.

Q. Where, if you know -- strike that. Let's back up here. Do freight trains have to pass one another through the Ferndale area right now?

A. At this particular time I believe the Ferndale siding is used for storage of cars rather than passing or meeting trains.

Q. How is it controlled that trains don't meet or need to pass in the Ferndale area?

A. Well, because there's -- basically there's not an area for them to pass if they are using the siding as a storage track. See, what they do, is they will go on down to Bellingham or they will pass and meet up at Intalco. There's no siding at Intalco.

I'm not sure. I can't answer your question.

Q. Okay. So this is something that currently is controlled by your automatic block system?

A. Yes.

Q. So that even if the freight trains are not running on a schedule, there's advance notice as to when they are headed up or down the tracks?

A. Yes, there is.

Q. And if the Thornton Street crossing were to stay open at grade and you did use the siding track as passing track and you had to split the train, isn't it correct that much of the time that that took, the crossing would still be blocked by the whole train and that the train would actually be split for only a short period of that time?

A. That's right. Can I rephrase that? We do meet and -- meet trains at Ferndale. I'm sorry. I was thinking about Intalco is up -- the next one up is the storage track. We do meet and pass trains at Ferndale now.

Q. And how do you do that?

A. Well, the dispatcher determines which train will take the siding and which train holds the main line, and they issue them a track warrant stating which train they want to go in the siding and which

train holds the main line.

Q. Do you have any knowledge about how the dispatcher makes that decision? Does it have to do with the length of the train --

A. I'm sure.

Q. -- and the width?

A. I don't know. I think a lot of it is on who's going to get there first.

Q. And do you know then since you revised your answer, whether you currently do have to split the train at the Thornton Street grade crossing?

A. If they block it, they do, yes. They are supposed to.

Q. You testified that whole procedure would take approximately 45 minutes --

A. (Nods head.)

Q. -- and based on some cross-examination questions, maybe less if you dropped the employee off rather than made them walk back?

A. That's correct.

Q. About how much of the total time that that took would you say the crossing would still be blocked because the train was there or how much of that time would the crossing be open with split train, if you can tell me?

A. If they had to walk both directions, the crossing would -- out of the 45 minutes, the crossing would probably be open five minutes.

Q. And then if they didn't have to walk, then maybe the whole procedure would only take about 20 minutes?

A. Yes. But the crossing would still be only open five minutes, depending on how close the opposing train was and how quickly they got back.

JUDGE ANDERL: Okay, thanks, Mr. Kime, for your testimony. Is there any redirect?

REDIRECT EXAMINATION

BY MS. GIBSON:

Q. I have a few questions. This projected increase in freight traffic that you talked about earlier, does that translate to potentially longer trains in the future?

A. Yes, it would.

Q. Has the existence or the passage of the North American Free Trade Agreement affected the business on this line at all?

A. I couldn't answer that.

Q. Okay. Can you explain what a saw, S A W, new word, by, BY, move is?

A. Yes. A saw by is when you have a train -- one train is too long for the existing passing track, so what they do -- what we do is we will pull a train partially in the siding and then the other train comes up and stops if he's short enough on the main line, to let the second train pull out the opposing end of the track. Does that make sense?

MS. GIBSON: Thank you. Nothing else.

JUDGE ANDERL: Anything on recross? Mr. Cuillier?

MR. CUILLIER: No.

JUDGE ANDERL: Ms. Rendahl?

RECROSS-EXAMINATION

BY MS. RENDAHL:

Q. I would just like to ask Mr. Kime to explain what a track warrant is, to clarify the record.

A. A track warrant is the authority for a train in ABS or automatic block system to occupy the main track. And this is issued by the train dispatcher in Seattle. It gives the train the authority to move from point A to point B, and if he's got another train coming from point B to point A, then he has got to arrange a meeting point that is

conducive to both trains, and both trains must be aware of that meeting point when the orders are put out or the track warrant is put out. Does that answer your question? A track warrant is nothing more than an authority to the main track.

MS. RENDAHL: That's sufficient.

JUDGE ANDERL: Anything else?

MS. GIBSON: Nothing else.

JUDGE ANDERL: Thank you, Mr. Kime, for your testimony. You may step down. Next witness?

MS. GIBSON: Marvin Nelson, please.

JUDGE ANDERL: Mr. Nelson, would you raise your right hand, please.

Whereupon,

MARVIN J. NELSON,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GIBSON:

Q. Would you say your full name for the record, please.

A. Marvin J. Nelson.

Q. By whom are you employed?

A. Burlington Northern railroad.

Q. What is your position?

A. My current title is senior manager of engineering.

Q. And what are your duties in that position, Mr. Nelson?

A. My primary duties in the position of senior manager of engineering are working on passenger-related projects, commuter-related projects, the entire Burlington Northern system. With this program out in the state of Washington, I'm spending a majority of my time on this project.

Q. What other positions have you held at Burlington Northern?

A. Worked at Burlington Northern railroad 28 years now and I started out -- I've been in the road master or roadway supervisor position. I've been working in the bridge inspection maintenance programs, worked in building plans. I worked in system engineering planning at headquarters in St. Paul, Minnesota. I spent ten years as regional engineer in Chicago and in that part of the job there we worked with the commuter railroad in Chicago. They run as high as 70 commuter trains a day, and this included the state of Iowa, Illinois, Wisconsin, parts of Nebraska, and included all of the engineering type

activities for anything associated with the railroad.

Q. What is your educational background?

A. I have a degree in civil engineering and I'm a registered professional engineer in the state of Washington.

Q. You alluded to your current project, and what project is that?

A. The project I alluded to is the State of Washington program to initiate high speed rail service in the state of Washington, and at which the first part is to start the service from Seattle to Vancouver, B.C.

Q. Can you explain how you went about choosing the sites for the project?

A. We've had a lot of information here today.

JUDGE ANDERL: And you're referring now to the map which is Exhibit Number 5?

MS. GIBSON: Five.

A. We've been working on this project approximately a year -- just about two years now since we started, and about a year ago January, last January, we went out and worked with the State of Washington and decided what we're trying to do as far as what kind of new service to put on. So with that in mind, we then went out and looked at all of our

current freight operations, our current facilities, and we knew we needed to make improvements that would allow the train to achieve their objective of three hours and fifty-five minutes, and to do this we had to make speed increases to allow the trains to run faster, but more importantly than that, we had to make improvements to allow the trains to operate without other train meets.

And we went through and in this analysis we had several trips up and down in a high rail vehicle, as mentioned earlier, with the local supervisory people. We had the people from the dispatching, planning center run the train schedules, the freight, along with the Amtrak trains that would be proposed to operate, and totally looked at every aspect of the railroad outer, the inspection of tracks. Then we went out and looked at the facilities on the ground.

What we then looked at was where we needed locations to allow the passenger trains to meet. And one of the things that kind of stands out at Everett down here (pointing) going into Seattle, there currently is an Amtrak train and from that point into Seattle we basically have majority of double track so the trains could make meets. We go up here in a place called Spruce, B.C., which is about ten miles from

downtown Vancouver, that also is a location where there's double track into downtown so the trains could operate there without interference with each other. Between these two points there's a basic distance of about 110 miles where there's mostly single track and with some short sidings on there.

And running the traffic analysis and going through and determining what speeds we could run -- safe speeds we could run, it was found out that we could basically run a simulation to make this whole route in three hours and fifty-five minutes by making a lot of improvements to the track structure, to the signal system, and then adding these here capacities to allow the trains to meet.

One of the prime considerations when we did all the studies was we wanted to be sure that the customers that we now have serviced along this corridor would still remain good, viable freight service.

The comments that have been here earlier that the average train is about 7,000 feet and some sidings are up to 8,500 feet, the majority of our current sidings will not allow a train more than 6,000 feet in there without blocking a crossing, so we knew we had to do something to allow these trains to

be out of the way.

One of the things that we had looked at is when you leave Everett -- if a passenger train was to leave Everett and go north, before that freight train -- if a longer freight train was to leave Canada and he couldn't make a place to make a meet, he would have to wait two hours twenty-seven minutes before that passenger train got up there, and we could not accept that type of a delay.

These numbers that we have here, we got miles, and at each one of these, these are between proposed improvement points where the trains could make meets. The first number on the top is a mile. That's the railroad miles between the points where they pull from one siding into the next.

The next number underneath that is the minutes of time based on computer runs that passenger train would take to actually go from one point to the other. And that time is with all the improvements in place, and that includes increase in the track structure, adding a new rail, signal improvements, and removing some existing restrictions on the road crossings -- or on, excuse me -- in the city restrictions.

And below that number there is some

locations a freight train would be increasing the speed and what the actual freight train would operate under normal conditions.

So we're looking at all this here, and in between these areas we couldn't make a meet. To minimize the impacts of the freight service, we have to be able to move the freight trains and not wait two and a half hours twice a day either one end or the other, or if a train left Everett, the freight train would overtake it so he couldn't leave until the freight train got ahead of it.

Q. You mean the passenger train?

A. The passenger train would overtake it because it would be running faster. We looked at all the things and decided we needed -- in the vicinity of the current siding at Bow, Ferndale, and Blaine's customs area we needed to have capacity for the trains to meet. This would allow a freight train to leave Everett, get up here, clear this siding, while a freight train or passenger train came down from Canada, and this would minimize any delays that would impact freight service by having the choice of doing those activities out here that would help be able to allow our freight operations to coexist and give service to a customer that would need it.

Q. That three hour and fifty-five minute run for Amtrak, does that consider any interference with freight trains, any freight train traffic?

A. That three hours and fifty-five minutes included -- considered the fact that there are no other trains interfering with it, would not have to make a saw by meet or would not have to slow down because of another train ahead of it, because it would not be running at a faster speed than the freight trains.

Q. Earlier we had the question posed by the judge about how did freight trains get out of the way of Amtrak when it was operating in the early 1980s and prior to that. Do you know?

A. I'm not exactly sure how they got out of the way at that point in time. I know we looked at some of the record of the traffic in 1980, prior to Amtrak coming back. The traffic in 1981 when Amtrak ceased operation was less than half the traffic we are enjoying now in 1993 when we first started the study.

Q. Freight traffic you mean?

A. Yes. And so there was a lot less out there to affect Amtrak operations at that time.

Q. And Amtrak was operating on a much longer schedule than three hours and fifty-five minutes?

A. That is my understanding, yes.

Q. And how did you determine the speeds that Amtrak would have to travel? We know that you arrived at three hours and fifty-five minutes, but how was that determined?

A. We went through and we looked at every part of the track. We looked at every speed restriction where the trains could not run 79 miles per hour. We looked at every curve on the route to make sure that we were running the fastest speed that the curve would allow by FRA standards.

And as information on the route between Seattle and Vancouver, B.C., there are 220 curves, 150 miles. The total length of those curves is about 51 miles. And all those curves had various speed restrictions on them and some of them were as low as 20, 25 miles an hour. So to get a good average speed with these natural constraints, it was very difficult to get the desired running time, so we looked at every curve, we made every curve as fast as we could, we looked at speed restrictions in communities, gaining additional time.

And when we talk about 150-some miles of route and we have 51 miles of curve that restrict the speed, the distance between these curves too would

have to be controlled and maintained, so over 70 percent of your mileage is restricted by curvature. As we were up here, Chuckanut Drive area, down along the waterfront from Seattle to Everett, all these areas are very curvy. So to maintain and get a four-hour speed with these physical constraints and stay within FRA standards, we had to look at every possible area where the trains could run faster to get down to the three fifty-five.

Q. You've had earlier testimony about the speed limit increases for passenger trains that are requested here in Ferndale. Is each of those requests crucial to the completion of this project?

A. Yes.

Q. Why?

A. Every increase that was out there, every area where they could increase it because of not a physical constraint was had to be done. If we didn't do every one of those, we could not have made the three hours and fifty-five minutes schedule.

Q. Now, I see you have the copy of Exhibit 3, the FRA Track Safety Standards booklet.

A. Yes, I do.

Q. What does this booklet contain, just very generally?

A. That's a booklet that contains all the track maintenance standards for the different classes of railroad. It includes the procedures that you have to do to inspect track and it includes everything that is necessary to maintain the class of track for the level of service proposed.

Q. According to the FRA standards, what class of track is the line that passes through Ferndale?

A. The line currently and will be in the future is FRA Class 4 track.

Q. And is that diagrammed on page 10 of Exhibit 3?

A. Yes, it is.

Q. According to the FRA standards, Class 4 track is capable of moving trains -- passenger trains at what speed?

A. Maximum speed of 80 miles an hour.

Q. Now, does this booklet, Exhibit 3, does it also include the kinds of maintenance and inspection that's required for Class 4 track?

A. Yes, it does.

Q. Does Burlington Northern follow those regulations?

A. Burlington Northern follows all FRA regulations and most of our regulations for inspection

and maintenance are more strict and we maintain higher tolerance than FRA standards. These are minimum guidelines.

Q. What kinds of maintenance and inspection are performed on this track?

A. This track will be currently inspected twice a week, with additional inspections, a walk-in inspection, by the local track inspector. There's a track inspector that has assigned territory on the entire route.

Q. Does Burlington Northern have any detector cars and -- rail detector cars, anything of that sort?

A. Yes. Once a year we have what we call a geometry car.

Q. What is that?

A. A geometry car is a car that comes out and has a lot of electronic sensing equipment. It comes out and measures the smoothness of the track, it measures the gage of the track, it measures all key components of what we have to maintain the track condition to, the surface, the alignment. And the nice part about that car is that car is weighted down to represent the loaded car, so the measurements that you get are representing what's actually happening in the train. When this car goes through and does an

inspection, the local supervisor has people following the car, and if there's any defects or conditions found that need to be adjusted to meet the standards, they are done immediately.

Q. Are there any other special sorts of inspection cars that are used?

A. Yes. We also have a rail detector car. This is an ultrasonic testing device. This goes through and checks the rail for any internal defects and, similarly, this occurs once a year.

Q. Are there system planning inspections in addition to what you've mentioned?

A. Yes. In addition to the local inspector who has assigned territories here, we have a road master that goes out and checks on the track whenever he is available. He has a territory that's from the Kruse junction, which is north of Marysville, up to Vancouver, B.C. and the branch lines off of that. So he's out on a daily basis making spot inspections. The train crews whenever they see a condition or a soft spot or they feel something in the engine, they report it and local inspectors go out and make sure that they take corrective action as soon as possible.

We have system-wide people that look at the entire railroad for expertise in checking for

defective ties. Other people are equally qualified to go out and make the inspection on the rail so it's well maintained and well inspected to make sure all the standards are met.

Q. Are there any planned improvements to the track itself in conjunction with this new Amtrak service?

A. In the Ferndale area, yes, there is, and I would like to highlight a few of these.

Q. You're looking at Exhibit 4.

A. Within the city of Ferndale, as was mentioned earlier, we're extending the current siding ending right at this location. We're extending --

Q. "This location" is -- we need for the record to say what it is here.

JUDGE ANDERL: Refer to the milepost.

A. Milepost 107.48 is the end of the current siding. We're constructing a new track and extending that 3,621 feet to the north. At the south end of the current siding there's a number 11 turnout. That turnout will be replaced with a new turnout for the higher rail size.

Q. What is a turnout?

A. A turnout is a switch, is where a rail car can make a movement from one track to the other.

Q. Any other improvements?

A. Yes. There are a lot of improvements within the city limits of Ferndale, and currently the track over the river here with the curve is welded rail. After you get out of the end of the welded rail, this is bolted rail.

JUDGE ANDERL: Where's that?

A. Bolted rail is 39-foot pieces of rail that are held together by joints.

JUDGE ANDERL: And that starts where?

Q. It starts at Washington?

A. That starts just north of the curve, right down at about milepost 106.1. That bolted rail will be replaced with new welded rail to a point well beyond the city limits of Ferndale. The purpose of doing that, of course, is to improve the ride quality for the passengers.

I guess the comparison would be if you go out on the highway where you have the joints in the concrete, that's kind of the way the impact you have if you were riding on a bolted rail. Amtrak and other -- Amtrak and the State of Washington people felt that a good ride quality was also important to make the people want to use the trains, so the welded rail is continuous rail, there's no joints, so it's like

riding on a nice smooth piece of pavement out there. That's another -- that's an important factor of giving good quality service.

In addition, right down at about across from the highway -- or the -- excuse me -- the school stadium here there's a new turnout put in. This allows the Amtrak train to pull into the siding and use this siding for their meets with the other train. The existing rail in the old siding that will be used for the meeting track will be upgraded and replaced with secondhand welded rail. There is an elevator track serving Ferndale Grain Company and a switch that will be put in new.

Q. Where is that located?

A. That's at milepost 106.29.

JUDGE ANDERL: Just for clarification, that's on the west side of the track, whereas all the other sidings are on the east?

THE WITNESS: Yes, that is on the west side of the track.

A. So in essence the entire main line track structure that the Amtrak train would be running on through Ferndale will be upgraded and renewed with continuous welded rail, new turnouts, to allow for the higher speeds to operate safely.

Q. When are these improvements going to be made?

A. The materials are sitting at the job site, parts of them. Currently the gang that is going to be doing that work is working just south of Mount Vernon on similar type work. They are moving northward and they will have all the similar type work done up to the Canadian border by January 1 of this -- end of this year.

Q. Thank you. You may take your seat again. In working on this project, have you and the people you've been working with made any provisions or proposals about access for the property owners or tenants who live on the east side of the Thornton Road crossing in the event of closure of that crossing?

A. Yes. When we did our initial site analysis and looking for locations, one of the many things that we had to consider was the maximum length of train of 8,500 feet, and some of the conditions are we have a lot of wetland problems up in this part of the country, a lot of the ditches are wetland, so it's very difficult to construct new sidings. We have many, many areas where there's a highway, a road crossing where there's a lot of vehicles going over, most every mile. We got some major rivers scattered

up and down this line, some areas that we can't build because of big bridges, and so it is very difficult to find areas that we could build the desired length of siding and not have an impact on local areas.

So we had to choose areas that were the best candidate for that type of activity. And one of the things to minimize the impact to the environment -- we work very closely with the Washington Department of Ecology, the Corps of Engineers, and other people -- would be to use existing sidings and extend them. That would reduce the amount of new construction and reduce the amount of impacts to the environment. That's one of the prime considerations on that. And that's one of the reasons we looked at existing sidings. Also, of course, that reduced the amount of cost in the project.

When we looked at this here location, we looked at it several times. We come out and walked it and we felt there was only one at the time of the -- Thornton Road here -- at the time we looked at it, there was only one person living there that we could provide some alternate access to allow that person to get to their home and residence down off of Peace Portal Road with a driveway type access road, and that with the crossing in the middle of the siding would be

necessary to close the siding because of the train would be blocking it.

It was mentioned earlier about the average train length of 7,000 feet. On this crossing, this is the Thornton Road crossing (pointing) right at milepost 107.7, here is the (pointing) southerly end of where a train could park on the crossing.

JUDGE ANDERL: Where's that?

THE WITNESS: That is located at milepost 106.44.

A. From that point north up to Thornton Road is 3,255 feet. With the new extension and up to milepost 108.16, the end of the area where I could park a train and clear the main line safely would allow for a distance of 5,345 feet, so all the trains that we're talking about in this area that exceed that 5,345, people would have to be gone, which are basically all the trains that operate on this line, but we did choose the site because there was only one residence and we felt that we could offer that resident satisfactory access to their property.

JUDGE ANDERL: One resident east of the tracks?

THE WITNESS: One resident east of the track that would be affected by the closing of that

crossing.

Q. That was at the time that you were out there?

A. That is at the time we were out there a year ago when we started all these inspections.

Q. Did you then formulate an idea for this alternate access for this resident and propose it to the city?

A. Yes, we did. We looked at providing a roadway of sufficient size and alignment that would provide access for -- the driveway type access that was needed for that.

Q. And did you contain your ideas in Exhibit 2 which is a letter to Mr. John Eley, E L E Y, of the City of Ferndale?

A. Yes. I wrote a letter on August 29 proposing to Mr. Eley that we were proposing to construct this road, the city had property along the freeway right of way in which this road could be built, and we gave them a detailed design of what we proposed to build, and we asked Mr. Eley for their approval for the City of Ferndale to allow us to construct a road on their property. It would be done at no cost to the city. And that we would be using this as a construction access road, and then that

would be paved after the construction activity to repair any damage and that would provide an adequate access for the one person impacted by the crossing closing.

Q. Now, did that proposal consider that the access driveway would have to be constructed on, partially at least, on city property?

A. Yes, it did.

Q. And did you have a response from the city?

A. Yes. We did get a letter back and the city did not agree with us and rejected our offer to do this and turned the road over to it.

Q. Have you been working with the officials from the City of Ferndale throughout this process?

A. We've had some various meetings with them and have talked about various parts of this here, and we sent this letter on August 29 to make our official request to them for the approval of the roadway as well as putting it on the city property.

Q. In your discussions with city officials, have you made any modifications to the project at their request?

A. Yes. Initially the city said that they looked at this as an industrial site and that they would have to build a road to meet industrial

standards, which would be some 44-foot wide roadway with curbs and gutters, sewer lines, and we felt that it was more than needed to service one person, and we proposed a roadway to them that would be 22-foot wide with shoulders on either side, would be ten inches of gravel with three inches of asphalt, which is in excess of most of the county standards for similar type roads.

Q. Were there discussions about where to store cars within the city limits, that is, rail cars?

A. In the earlier -- one of the earlier proposals, we were going to build and store four tracks.

Q. Store what?

A. Four tracks at Ferndale.

Q. Where were you going to do that?

A. (Pointing) in the initial proposal, just north of the Thornton Road there would have been four tracks built and those tracks would have been built to store the cars that are now at Ferndale and some other locations. With long trains needing to be in the siding, we could not store the cars here. Through the process of putting out the NEPA, SEPA -- that's the National Environmental Protection Act and the State Environmental Protection Act -- would put out the

documentation to all of the local people, communities, to get responses, and a lot of the people from the Ferndale area were concerned about storage of rail cars at that location. We then went out and looked to find out if there was another location we could do that and we found the location we're now working on designed at what was known as the Cherry Point line. So this would allow the storage of the cars that are currently stored in Ferndale to be stored outside of the Ferndale city limits.

Q. And you are doing that part of the plan?

A. Yes. That part of the project is being progressed now.

Q. Even under that original proposal that you were working under, making the four lanes of storage tracks there above -- north of Thornton, would that have required closure of the crossing as well?

A. Yes, it would definitely have required closing of the crossing.

Q. How many businesses are serviced by Burlington Northern in Ferndale?

A. There are several businesses serviced by in Ferndale here, and as I mentioned, down here at this milepost 106.35, which is approximately 1,000 foot north of the Washington Street, we saved that end

of the track to store cars on for local businesses. We have -- you have several businesses in Ferndale. We had Ferndale Grain Company here and they received fifteen to 1600 car loads a year, so we needed to maintain a portion of the existing tracks to service our local businesses.

In addition, there's another track -- existing track off to the side we call a team track. A team track is a wider track. It has kind of a flat form off to the side. That track has about 50 cars a year that's brought in there for machinery, various miscellaneous materials, transformers for Bonneville Power, equipment for the refineries and other stuff, and that's one way they bring this heavy equipment into this area, and they unload it in the team track, and they haul it to the refineries or other facilities, so that normally records indicate about 50 cars of that activity there a year.

Q. Will Burlington Northern's service to these businesses in the city of Ferndale change as a result of the reinitiation of Amtrak's service?

A. Yes. And that's always been one of our prime concerns, is to make sure that all businesses are served, and we wanted to make sure that the Ferndale Grain which ships fifteen to 1600 cars a year

has ability to keep servicing it.

Q. I had asked whether the service to them would change and you said yes. Did you mean no?

A. I guess no.

Q. Will there be any changes?

A. No. We're hoping that the services that we now provide we can provide in the future, yes.

MS. GIBSON: Thank you. No other questions.

JUDGE ANDERL: Okay. Any cross for this witness, Mr. Cuillier?

MR. CUILLIER: Thank you, your Honor.

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. Mr. Nelson, there is a very large business called Samson Ocean Systems immediately west of the Thornton Road crossing.

JUDGE ANDERL: Can I get a spelling on that, please?

MR. CUILLIER: Samson, S A M S O N, Ocean, O C E A N, Systems.

Q. Are you familiar with that business that's located right next to the crossing on the north side of Thornton?

A. Yes. I have driven by there several times and noticed that business.

Q. And that's a very large building, is it not?

A. It is a quite large building, yes.

Q. And that business would use the Thornton connector to the Portal Way area, were that put in place, to get to the freeway? Would that be -- or show us on the map, if you could, where they have to go now to get to the freeway from that business, if you don't mind.

JUDGE ANDERL: Well, actually it would be better if he described it --

MR. CUILLIER: Yes.

JUDGE ANDERL: -- for the record.

Q. Can you describe for the record how they have to get to the freeway at this point in time from that location?

A. I'm not exactly sure how they would -- they have to get to the freeway, but the business you're referring to is located just immediately to the west of our track and north of the current Thornton Road and that's right at milepost 107.7. And you would -- they would have several choices to come down to Malloy Drive, down to Washington Street, out onto

the freeway to the southbound or the northbound. Or they could, if they wanted to, extend down to Main Street, get down to the freeway. If they wanted to go north, they would go up to Grandview Road where -- this intersection right here. Grandview Road is about seven-tenths of a mile from the Brown Trail crossing. So they do have several selections and opportunities to get out to the freeway with the current traffic and street patterns.

Q. Okay. Thank you. You can be seated if you wish.

Were you aware that they located there partly on the representations in the city's plans that there would be access to the freeway immediately from their place of business in the future?

A. I was not aware of that. That must be some local agreements that we didn't have access to.

Q. The property that we're addressing for an access road on the east side of the railroad tracks would be zoned manufacturing, is that your understanding?

A. I believe that's correct, yes.

Q. Could you estimate would 20 acres sound about right as far as the amount of property we're talking about between the freeway and the railroad

tracks?

A. I'm not exactly sure what the acreage and what area you're talking about.

Q. And you learned, in your work to try to develop some type of access here, that the city actually purchased all the property from Portal Way to the existing dead-end area of Thornton Road in order to put that connector in in the future, did you not?

A. Yes.

Q. And when you've offered here in your letter to install a road which would be satisfactory for one house, you somewhat overlooked the manufacturing potential of this 20 acres and perhaps its future development into many, many uses of an industrial nature? Would that be an accurate assessment of your approach on the offer here?

MS. GIBSON: I'll object to the form and it's argumentative also. Hasn't been established that it's 20 acres.

MR. CUILLIER: I'll rephrase it.

JUDGE ANDERL: Could you, please?

MR. CUILLIER: Yes.

Q. You basically overlooked the future likely use of the acreage between the freeway and the railroad when you offered to construct this access

road, correct?

A. We had conversations with the city and said their policy is when a new industry develops, they build half of the street on their side of the street, so our proposal was to them to build the center portion of the roadway, that way if the city -- or excuse me -- a developer or somebody else wanted to develop along that roadway, they could take that roadway, expand it, put the curb cuts and whatever service they need. This way the roadway as built would service the current needs and be very flexible into expanding into any future needs by the city or by a local developer.

Q. Isn't it most likely that what you proposed here would have to be torn out for an industrial grade roadway?

A. What you would probably have to do is add some more -- thicken the concrete, put some more asphalt on top to make it thicker and more strong.

Q. And your offer basically was to put in this type of roadway and then have the city assume the maintenance of it and take it over after you finished, is that correct?

A. That is correct.

Q. Have you had any discussions with the city

since the city's response to your letter here?

A. No, we have not had any further conversations.

Q. The sidings that you need in order to allow trains to pass to avoid two and a half hour waits are three from Ferndale to Vancouver, one at Custer, one at Ferndale -- excuse me -- from Bow to Vancouver -- one at Bow, Ferndale, and Custer. Is that it, you need those? Is it Bow, Ferndale, and Blaine?

A. That is correct.

Q. And so it's basically between Custer and Blaine that you would be proposing the third one?

JUDGE ANDERL: I'm sorry, where's Custer?

Q. It's north of -- can you show the judge Custer on that map?

A. Yes. (Pointing.)

MR. CUILLIER: It's north of Ferndale.

THE WITNESS: Custer. And for point of reference, this is the Arco plant, this is Cherry Point.

JUDGE ANDERL: That doesn't tell me anything for the record really. Is there any sort of a --

THE WITNESS: Custer would be at about milepost 112.

JUDGE ANDERL: On the railroad tracks?

THE WITNESS: On the railroad which is about four miles north of the proposed extension at Ferndale.

JUDGE ANDERL: And you're saying Custer is due east of what, the refinery?

THE WITNESS: Custer is, yes, due east of the refinery.

JUDGE ANDERL: Okay, thanks.

Q. I'm sorry. I thought I heard you originally say that the proposed siding would be at Custer. But it's not at Custer?

A. No. The proposed siding would not be at Custer. It would be at Blaine.

Q. At Blaine. And is that within the city or --

A. This is at a new location outside of the city. This is a track being constructed to accommodate customs inspection, which is different than the train meets. All of the freight trains that enter the United States have to be inspected by customs people. Currently that is done on a main line at Blaine because there's no siding to put the train into. That operation takes normally an hour, and if the customs inspectors want to get real detailed, it

could take four hours, so that new siding that we show up there as being for customs inspection at Blaine most generally would not be available for train meet when you may need it when an Amtrak or train would be there at the same time, so we could not rely on that as part of our meeting, but we had to provide that to allow customs inspection without blocking the main line.

Q. Are there any sidings existing now between Bow and Everett?

A. Yes, there is.

Q. And do you plan to make any more sidings available there?

A. In the future programs, yes. When additional money is authorized by the Washington state legislature, there will be additional improvements made to make that longer section down there more flexible for train operations.

Q. It looks like except for the expense involved, there would be some flexibility in where that siding is in Ferndale. In other words, that siding -- given the distance between Bow and Blaine, or Bow and Vancouver even, that siding could be moved down south of Hovander Road between Hovander and Slater, which is a straight, level piece of track if

the expense weren't such that you had to build a new bed there, whatever, I assume?

A. We looked at every possible location, like I mentioned earlier, road crossings, major bridges over rivers, environmentalal areas, wetlands. We don't allow in curves the switchings to be put, and as I mentioned, about a third of the mileage on this track is curves, so we can't put switches in the curve because that would make it very difficult for the ride. You would have an impact on the ride when you went through the switch if it was in a curve, so there's many, many physical restrictions that we looked at and we took into consideration to find an area -- to find a track that has 8,500 feet without a siding.

Q. I'm sorry. I guess what I'm asking is, south of Hovander there is that footage, there are all the features you would need, to my knowledge. Did you have a reason for rejecting that other than the fact that there's no siding track in place there now?

A. I don't exactly recall, but it possibly would not allow us to build a track that was 8,500 foot long. I'm not exactly sure of the measurements, but we looked at every place that we could.

Q. Maybe some of the other witnesses know.

Maybe it's the wetlands there or something. I'm not -- I was just curious why that was rejected.

The specific alternatives available other than Ferndale are not something that you would be able to address as to why they were rejected except in general terms, right?

A. They just -- you just couldn't make the track long enough without affecting a major highway or some other obstacle, as I mentioned earlier.

MR. CUILLIER: Thank you. No other questions.

JUDGE ANDERL: Ms. Rendahl, any questions?

MS. RENDAHL: Again, yes, I have some clarifying questions, Mr. Nelson.

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. When you were referring to the project with the State of Washington, are you referring to the state Department of Transportation?

A. Yes, I am.

Q. And you referred in your testimony to there being several short sidings. What do you mean by short?

A. That would be a siding that currently would

not be long enough for the train to normally operate in a line at which some of the southbound trains get up to 8,500 feet and average 7,000 feet.

Q. Concerning some of the improvements to the track structure you discussed, you mentioned that, referring to Exhibit 4, that you would be replacing the switch at 107 -- milepost 107.48 and moving that switch up to the end of the new siding at 108.16 and putting in a new type of turnout?

A. Yes. That current turnout there would be replaced with a new high speed turnout to allow the passenger trains or the freight trains to enter into the siding faster. And it is important to do that. That's where you clear the main line quicker so other trains can pass.

Q. Just for clarification, is a turnout a switch? Are they the same term?

A. Yes. I guess I used both of those words, and they are the same.

Q. You also mentioned that north of milepost 106.1 there's currently continuous welded rail and you will be replacing that rail with new rail, is that correct?

A. Starting at milepost 106.1 the bolted rail currently exists going north and we will be replacing

that with welded rail.

Q. What type of rail will you be replacing it with?

A. We will be using what is known as 136-pound rail. 136-pound rail is a rail three foot long that weigh 136 pounds. The rail will be welded in quarter-mile sections brought out to the site and then once it's installed in the track, welded together so there's no joints in the track section.

Q. Is that heavier than the rail that's currently in place?

A. Yes. The current rail is 112-pound rail.

Q. What is the benefit of the heavier rail?

A. The benefit of the heavier rail is it gives you a smoother ride, elimination of the joint. It's also better stability for the track, and it'll reduce the maintenance so you don't have to surface the track as much.

Q. You also mentioned that the existing siding, the rail will be upgraded to secondhand welded rail. What type of rail will you be replacing that siding with?

A. We will be putting in a siding secondhand welded rail that will be 132-pound rail that had been removed from our main lines in other locations.

Q. You also mentioned that there's a switch at milepost 106.29 that you will be replacing. What type of switch will you be replacing there? That's the siding on the west side of the main line?

A. The switch to the elevator is currently a number 11 turnout and we'll be replacing that with another number 11 turnout but will have 136-pound rail so the rail sections and the switches in the track will all be consistent and match.

Q. Going back to the siding, the secondhand welded rail that will be replaced, what type of rail is currently on the siding?

A. It's a lightweight rail. I'm not exactly sure. It's either 90- or 100-pound rail, and it's probably 50-plus years old and has jointed rail.

MS. RENDAHL: May I approach the witness?

JUDGE ANDERL: Yes.

Q. (Handing.) Mr. Nelson, I'm not sure if you're the witness to discuss this, but to clarify testimony earlier concerning the distance from the main line to the area along the softball fields, are you familiar with this document?

A. Yes, I am.

Q. Could you describe what this document is?

A. This is -- in the railroad industry this

is a track chart and we have on that the various information regards curvature, grades, the type of rail, and other information pertinent to what's out on the track.

JUDGE ANDERL: Okay. Ms. Rendahl, let me just mark that single-page document as Exhibit Number 13 for identification since this witness does seem to know what it is. Go ahead.

(Marked Exhibit No. 13.)

Q. Is this something that you use in the ordinary course of business?

A. Yes, it is.

MS. RENDAHL: I would ask that the document be admitted.

JUDGE ANDERL: Okay. Is there any objection to the admission of this Exhibit 13?

MS. GIBSON: No objection.

MR. CUILLIER: No.

JUDGE ANDERL: Okay. It's admitted as identified.

(Admitted Exhibit No. 13.)

Q. On this document there's a diamond shape on the left-hand side that reads ten five. The vertical line that runs through that, does that represent milepost 105.

A. That is correct.
Q. And then the vertical lines to the right each indicate a mile?
A. That is correct.
Q. So if you would look over to the next line over, what would be milepost 106 --
A. Yes.
Q. -- that corresponds to just roughly below the Washington Street crossing, is that correct?
A. The 106 would be at the Second Street and the Washington Street would be just slightly north of that.
Q. I'm looking here, there are -- at the top of Exhibit 13 there is a line that seems to vary in terms of grade. That line represents the increase and decrease in grade?
A. That is correct. That's the elevation of the track, the ground line that the track operates on.
Q. And the drawings below that indicate a view from above the track, is that correct?
A. That is correct. A schematic of what's out on the ground.
Q. And where it would indicate 50 feet or -- is that feet or inches?
A. 50 feet.

Q. 50 feet and 150 feet, that's the right of way on either side of the track, is that correct?

A. That is the width of the right of way from the center line of the track to the -- at that point.

Q. So this document would describe the right of way around the track in the city of Ferndale, is that correct?

A. That is correct.

MS. RENDAHL: I have no further questions, your Honor.

JUDGE ANDERL: I guess if you don't have any questions about this exhibit, I guess I need to know what it's supposed to be telling me because --

MS. RENDAHL: I'm introducing the exhibit because --

JUDGE ANDERL: -- I'm not getting it.

MS. RENDAHL: There were questions earlier about the distance between the playing fields and the track, and this may help clarify with later testimony by the city in terms of distance from those fields. This at least gives a distance -- the right of way -- the right of way distance from the track. I'll ask a few more questions, if that's helpful.

JUDGE ANDERL: Well, not if other witnesses are going to testify from it and explain it more

fully. It's just that right now there's a lot of information on this exhibit and I don't know how much of it is pertinent or how much of it I need to be concerned about, so -- aside from the right of way distances designated.

MS. RENDAHL: I believe there was a question earlier in terms of what the distance was from the track to the playing field.

JUDGE ANDERL: Mm-hmm.

MS. RENDAHL: And the playing field being at approximately 106.5. On this map it would show that there would be a distance of 150 feet from the main line as the right of way, and moving up to milepost 107 it would decrease so there would be a change in the right of way. That's merely why I'm introducing this, and maybe it won't be relevant, but if it is, I thought I would introduce it through this witness who seems to be --

JUDGE ANDERL: You might as well get it in with a witness who can tell us what it is.

MR. CUILLIER: I think it would be helpful for the school district's witness.

JUDGE ANDERL: That sounds great then. Fine. Thank you. Any further questions, Ms. Rendahl?

MS. RENDAHL: No further questions,

your Honor.

EXAMINATION

BY JUDGE ANDERL:

Q. I have a couple of clarifying questions. Just indulge me while I satisfy my curiosity. Can you continue operations over the main line while you're replacing the bolted rail with welded rail?

A. We normally get a window of time and the people who do this work work very closely with the people who operate the cranes and they normally give them a four- or five-hour period every day and then replace a section of it and then at the end of that work period they can operate trains again.

Q. Okay. You indicated that the new switch you would be installing would be one that was a high speed switch so the passenger train could use it if need be, is what I understood you to say. And I guess I'm curious as to if the passenger train would ever need to go on to the siding track or why.

A. The current switches at the end of the sidings are number 11s which would restrict any train going into the siding at 50 miles an hour. And a longer freight train or a passenger train going into the siding would take a great deal of time, and the

new switch at the north end of the crossover would be a number 20 crossover which is a -- which would allow the trains to go into the siding at 35 miles an hour and clear the main line much quicker.

JUDGE ANDERL: Okay. Ms. Gibson, is there going to be further testimony from other witnesses about the property owner or owners who are affected on the --

MS. GIBSON: At Thornton Road?

JUDGE ANDERL: Yes.

MS. GIBSON: We are attempting to locate one of the people who live there at the crossing who indicated an interest in testifying, but we haven't been able to contact her today. We frankly expected her to be here.

JUDGE ANDERL: Let me ask Mr. Nelson a couple of questions.

Q. To your knowledge, is there more than one residence now west of the freeway and east of the tracks at Thornton Road?

A. Yes. I have been in this area quite a few times and there appears to be a car recently in front of the residence, the buildings north of Thornton Road in that area. A year ago when we were looking at this, there were no cars there and it appeared to be

vacant.

Q. Now, what if the city doesn't let you construct this access or egress road on it's right of way to access the Portal Way road for those people who would otherwise be landlocked if the crossing were closed? I mean, how is this all going to play out?

A. Would probably have to do at that point in time, allow that one person that now lives there to break the train link described by Mr. Kime in earlier testimony and we would have to allow that one person to cross the tracks there.

Q. So it would be a private crossing?

A. In essence, yes.

JUDGE ANDERL: Anything on redirect for this witness?

MS. GIBSON: No, nothing else.

JUDGE ANDERL: Anything further for Mr. Nelson?

MS. RENDAHL: I just have one question that I meant to ask on cross.

JUDGE ANDERL: Go ahead.

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. Will the improvements on the track

structure and the installation of the new switches allow the passenger trains to move faster and more safely through Ferndale in your opinion?

A. The current track would support 79 mile an hour to 80 mile an hour speed as FRA Class 4. The new track would be more than adequate for that and would be very good track for that and would be, of course, much smoother, as I mentioned earlier, so it is an improvement to that extent, yes.

MS. RENDAHL: I have no further questions.

JUDGE ANDERL: Okay. Thank you, Mr. Nelson, for your testimony. I believe we have two other witnesses we're going to take today. Let's go ahead and take another ten-minute break and then be back for those other witnesses.

(Recess.)

JUDGE ANDERL: Let's be back on the record after our afternoon recess. The next witness has taken the stand. Sir, if you would raise your right hand, please.

Whereupon,

ROBERT JOSEPHSON,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

JUDGE ANDERL: Go ahead, Ms. Cushman.

DIRECT EXAMINATION

BY MS. CUSHMAN:

Q. Mr. Josephson, would you please state your name and spell your last name for the record.

A. My name is Robert Josephson, J O S E P H S O N.

Q. Please give us your business address.

A. I work for the Washington State Department of Transportation in the northwest region in Seattle.

Q. And the address for that office?

A. I've got to give an address? Okay. 15700 Dayton Avenue North, Seattle. And you want a zip code too?

Q. No.

A. 98133, just in case.

Q. Okay. Mr. Josephson, you stated that you work for the Washington State Department of Transportation. What is your job?

A. My job is manager of planning and local coordination.

Q. And what part of the state do you serve?

A. Okay. Northwest region is King, Snohomish, Kitsap -- no. King, Snohomish, Whatcom, Island, and Skagit counties.

Q. Okay. What are your responsibilities for this area?

A. Okay. My responsibilities -- basically I manage the planning section which handles all the growth management duties and the long-range planning for all the state highways and interstates in this region. I also manage what used to be called local programs and is now called trans aid section of the department.

JUDGE ANDERL: What's that?

A. Trans aid. It's not contagious. It's the group -- I shouldn't have said that -- but it's the group that basically work with all the city and county agencies and actually handles -- works as an advocate for those agencies and passes both state and federal money through the state to those other groups for basically highway and city street and road improvements. I also have responsibility over the group that handles all of the developer permits and in the counties all of the driveway permitting and so work with all of the developers in the region in terms of any major development activity.

Q. Are you a licensed engineer?

A. Yes. I'm a licensed engineer in the state of Washington, graduate civil engineer with bachelor's

and master's degrees from the University of Washington.

Q. Do you have experience in the area of road design?

A. Yes. I've been with the Department of Transportation for 25 years. I've got extensive experience both in design and construction and the last year in planning.

Q. Are you familiar with the I-5 corridor and the area surrounding Ferndale including the city and county roads?

A. Yes, I am.

Q. How is it that you're familiar with this area?

A. Well, basically through the rail proposal, the high speed rail proposal coming through here. I started to become involved in what's going on up here and how it interfaced with rail about a year ago and have made numerous trips up here, talked to city officials. I work routinely with Whatcom County Council of Governments in RTPO, the Regional Transportation and Planning Organization.

Q. How often do you meet with the RTPO?

A. I meet with the RTPO monthly up here.

Q. Is Ferndale represented in that group?

A. Yes, they are.

Q. Mr. Josephson, Burlington Northern and Washington State Department of Transportation have a plan for providing access to the residents on the east side of Thornton Road if the crossing is closed. Have you studied this plan?

A. Yes, I have.

Q. This plan assumes that the crossing would be closed, correct?

A. Correct.

Q. And what does this plan involve?

A. The plan that Burlington Northern has designed, and easier if I point --

Q. The witness is indicating a point on Exhibit 10. And you need to please describe it for the record.

A. Right. The plan improves the current road, if you will, driveway, that extends from Thornton Road part way down the freeway right of way.

JUDGE ANDERL: South?

A. Which is just west of the freeway and east of the railroad, but it runs immediately west of the freeway property and it extends from there on south following the freeway right of way to Portal Way.

JUDGE ANDERL: Following the off-ramp then?

THE WITNESS: Yeah.

A. Just is a road that sneaks on down here, comes out where there's an existing driveway into this field right off Portal Way.

Q. In considering how to build this access, what factors should be taken into account?

A. Okay. This access has given me a great deal of problem the whole time we've been looking at it. First off, normally when we come through to build an interstate highway, we reserve 300 feet of limited access from the freeway off-ramps on both sides of the cross street. We would reserve -- we would take limited access rights -- we would buy the access rights for a minimum of 300 feet.

JUDGE ANDERL: In which direction?

THE WITNESS: Well, in this way it would be to the south towards downtown Ferndale along Portal Way, and we would also go to the east and north up Portal Way for 300 feet if we were to do this today.

A. Now, the right of way for I-5 -- the right of way plan was developed in 1959 and the right of way purchased, I assume, shortly after that. The right of way currently has 80 feet of limited access. To the south of the freeway ramps is what was purchased.

JUDGE ANDERL: I'm sorry. You really have

to more specifically describe it for the record. Where you're pointing to is where?

A. From the southbound off-ramp to Portal Way, from that point south on Portal Way there is only 80 feet of limited access, where our desire would be to have 300 feet in that direction. In other words, we would not want to allow any access driveway or street intersection for a minimum of 300 feet from that freeway ramp intersection and that's whether you go south or whether you go north. That would be our desire. So proper design would dictate 300 feet.

Now, for building this driveway (pointing) to provide access for the two homes up here off Thornton, to provide a driveway access down, utilizing this current driveway into the field, light traffic volumes, driveway type use, intermittent use, I view it as perfectly safe. To have arterial intersection that close I don't believe would even work. The problem is when you come out onto Portal Way, you're only 80 feet from the southbound to Portal Way off-ramp and the Portal Way to southbound on-ramp, you're only 80 feet away. There's inadequate storage for all of the turning movements that would go on.

And for example, if this was developed -- well, the commercial use that supposedly would utilize

this arterial, if there's a couple of trucks in that traffic, they would block themselves.

JUDGE ANDERL: Okay. When you say "this arterial," you're referring to the proposed access road?

THE WITNESS: Excuse me. The proposed access road.

A. If that was an arterial instead of a driveway, and if there were truck traffic on it, and the first truck comes out waiting to make -- onto Portal Way and then waits to make a left turn to go southbound on Interstate 5, that would use up a majority of the storage. If another truck then tried to cross into that same path, it would then block southbound traffic on Portal way, creating a gridlock situation.

Q. So let me clarify. Your testimony is that if the access road through Thornton was built for public use and trucks used it, a truck coming out off of the Thornton Road onto Portal Way would block Portal Way in both directions if it was making a turn around onto the freeway ramp?

A. Well, if there was, say, two truck trailers there, it would block traffic. There's just not enough space.

Q. That's because the turn radius is too short?

A. Because the storage for the left turn onto the southbound on-ramp is too short. There's not enough separation. So there's too many conflicting movements that go on in order for the thing to safely operate or to carry an adequate capacity and that's why our standards require a 300-foot separation for those kind of intersections.

Q. Could you explain for us what storage is?

A. Well, storage is the left-turn lane, left-turn pocket where you sit waiting to make a left turn.

Q. And how long should that be?

A. Well, that's dictated depending on the traffic volumes and the types of vehicles. But in a situation like this where you're talking commercial use, major city arterial which diverts traffic from the downtown area, a 60-foot storage would be woefully inadequate for any kind of reasonable capacity.

Q. Have you discussed your concerns about this proposal with the city?

A. I've discussed it with the city, city councilmen. I sat about six months ago with Sid Morrison and several councilmen and went over this as well.

Q. So your opinion is that it is not viable from a traffic safety point of view to build a thoroughfare from Thornton through to Portal Way?

A. Well, to build and coming out immediately adjacent to these ramps is unsafe intersection design and it is inadequate in terms of being able to handle enough capacity to function as an arterial.

Other options, such as moving this intersection around this curve on Portal Way farther to the south to get an approximate 300-foot separation would be technically possible, but would -- basically would tend to use up most of this property for any commercial development. Plus any intersection on this curve there's a -- there's a curve immediately south of the ramp intersection on Portal Way. Makes it very difficult to bring an intersection in there that really operates safely because if there's any heavy traffic volumes, seeing around the curve is going to be blocked by traffic and it's going to make it difficult for an intersection to operate safely and, again, at reasonable capacity. Some total reconstruction through there might -- would probably be necessary in order to make it function at all well.

Q. So to review, could you please just state again what you think would be the best option.

A. Okay. And this I related to the city a couple of times. In looking at the functioning of any access on Portal Way from Thornton, there's a lot of difficulties, a lot of safety questions, and at the time when I talked about them, the terrain on Thornton is such that it's higher to the west, drops off down to the tracks and is pretty level across the tracks and Interstate 5 going east over to Portal Way, and so terrain fits quite well to raise Thornton or any other cross street in this area over the tracks, over I-5, coming back down on Portal Way. An intersection on Portal Way anywhere along this straight stretch to the east of I-5 could operate quite well, would be an easy design, would operate very well, and provides then ready access south to the Portal Way interchange, north to the interchange at Cedarview -- Grandview. It also provides then good access from the residential area that's building north and west of Ferndale.

To my understanding, much of this land along Portal Way is or is going to be zoned commercial, and a crossover somewhere in this zone would provide very good access to the commercial area and both freeway interchanges which allows a very rapid dispersion of traffic and would handle much higher future traffic volumes without consequence and

without any safety problems.

Q. So your opinion is that a driveway for those two residents opening up onto Portal Way would be a safe condition because there would be low traffic volume and small vehicles?

A. Yes. I feel that any access onto Portal Way in the area immediately south of the freeway ramps is only suitable for driveway type access.

Q. Mr. Joseph, what is a, quote, level of service, unquote?

A. Level of service is basically a measurement of the traffic congestion on a street.

Q. And how are they designated?

A. They are designated A through F, level of service A being free flowing, you can stand in the middle of the street blindfolded and you could probably walk across the street without getting hit. Level of service F, you could probably walk across the street, but that's because all the cars are sitting there parked. And then we see a lot of that in Seattle; you don't see quite as much up here.

Q. Where does the term "level of service" come from? What is it used for?

A. The level of service is used in terms of how we measure congestion on different streets.

Currently level of service has become a big issue with regard to growth management. Under growth management, all of the cities and counties in the state are required to set level of service on all of their major roads and then relate that into their transportation plans, future transportation and growth plans. Those plans then have to be financially constrained in terms of -- they have to be things that reasonably can be done to meet those level of service, to meet the level of service that's been decided, and that has to be consistent with the growth plans for the cities and counties in terms of where they are proposing to center their growth.

Presumably if the plans for transportation improvements and other necessary improvements, if those improvements can't be funded, presumably growth management ultimately will force the cities and counties to stop issuing building permits. That is my understanding of how growth management is supposed to work. We're a ways from getting to that point, but that's how level of service is being used and the effort is to try and get the state, cities, and counties to all work together to make sure that the transportation system all is consistent and works properly and the improvements needed can be funded.

Q. Okay. Does a city have discretion as to where the level of service is set for their area?

A. Absolutely. The city sets the level of service standards on their routes and are supposed to work with the state in terms of setting level of service standards for state routes that run through a city.

It's a difficult situation for all of us because if the standards are set too low, meaning, say, an E or F standard, very highly congested standard, then the city can go ahead with its growth plans, but when money is available to improve the transportation system, they won't be standing in line for the money because they are meeting their level of service standard. If they set the standard too high, say an A or a B standard, free flowing, and they can't fund those kinds of improvements, or the state can't fund those kinds of improvements, then, like I said, presumably they will have to curtail development. So it's a difficult juggling act that we're all having to deal with under growth management.

Q. So the level of service that's set by a city drives the city's plan for road improvements?

A. Absolutely.

Q. How do communities like Ferndale get state

or federal assistance for road improvement projects?

A. For road improvement projects, there's a certain amount of money that comes from the gas tax that's funneled state to the cities and counties, and Ferndale that's a relatively small amount. There's also additional funds that they can compete for on a statewide basis under the current Federal Transportation Act known as ISTEA.

Q. Could you spell --

A. Intermodal Surface Transportation Efficiency Act. And under the ISTEA act, it opened up a lot more federal money to be passed through to the cities and counties. Prior to ISTEA, we used to -- the biggest year that the Department of Transportation had we passed through $47 million to the cities and counties. This current fiscal year, which ended the end of September, we have passed through $150 million to the cities and counties for local street improvement work. So there's a lot more money out there that the cities and counties can compete for for street and road improvements.

Q. Does the level of service set by the city determine whether or not a project is selected for state or federal assistance and funding?

A. Not necessarily. That's one aspect of it.

But in order -- they have to compete for these funds on a statewide basis and competition is largely based on the level of how bad it really is and what -- how good the improvement is and cost-benefit analysis and those types of things are what is used primarily to judge these.

Q. Okay. Does Ferndale have a comprehensive plan?

A. I have not seen it. They are supposed to -- I understand they are working on one and will be reviewing it. My office will be reviewing it when it's submitted to us.

Q. And why do you review it?

A. We review it for consistency with the state plans and make -- to make sure that their needs for transportation improvements match our needs and what we can or can't do.

MS. CUSHMAN: Okay. No further questions.

JUDGE ANDERL: Mr. Cuillier, any cross for this witness?

MR. CUILLIER: Thank you.

CROSS-EXAMINATION

BY MR. CUILLIER:

Q. Mr. Josephson, when you say you haven't

seen the comp plan for Ferndale yet, you're speaking of the growth management comp plan that has to be prepared?

A. Right.

Q. As a member of RTPO, you have seen the 1991 Whatcom County urban transportation plan that you were involved with, is that correct?

A. Mm-hmm.

JUDGE ANDERL: Is that a yes?

A. Yes. Excuse me.

Q. And you recall in those plans that each of the agencies submit their roadway plans and basically these are consolidated with the help of COG, Council of Governments, into this document I'm not really introducing into evidence at this point, but just to ask you a few questions if you're familiar with it?

A. Yes, I am.

Q. And when they designate in these plans in 1991, the various municipalities designated committed roadway plan, what were they designating? Do you remember what a committed roadway plan is?

A. Under that document, no, I'm not familiar with what the word "committed" means. That was prior to my being involved in any of the planning up here. I'm familiar with what Ferndale has in their plans or has

had.

Q. All right. And are you aware, then, that Ferndale has shown in its plans in the past extending the Thornton Road in the manner that you basically described --

A. Absolutely.

Q. -- to the south to match up with Portal?

And I believe I understood from your testimony that Ferndale could carry through with its plan as far as DOT is concerned because the limited access there is only 80 feet, but if the state had it to do over again, they would reserve 300 feet, right?

A. Yes. The city has the legal right to go in and put an intersection in immediately adjacent to that 80-foot limited access line, however, the Department of Transportation would do everything we could possibly do to discourage it.

Q. So your policy has changed a little bit since 1987 apparently when DOT basically would have given it's blessing to that type of approach?

A. I don't believe that DOT gave it's blessing to that earlier document other than to accept it as, yes, that's their plan. There's been no detailed review of any intersection design. One of the things we do is we review detailed road and intersection

designs once the designs are prepared. I don't believe we have seen any such design for that intersection. That would be a very interesting design to see too, you know, four roads coming in immediately adjacent to each other.

Q. You would have to design that with signalization and actually, though, could not the city stay further away from the off-ramp than 80 feet?

A. Oh, as I stated, yeah. You eat up more of the adjacent property. The property the city owns basically puts any intersection in right adjacent to that 80 feet, however.

Q. You would have to shift the useable property to the other side of the street presumably.

Do you know of a John Klasell?

A. Yes.

Q. Engineer?

JUDGE ANDERL: Spelling?

MR. CUILLIER: Klasell.

THE WITNESS: K L A S E L L.

Q. And if he stated to the city in a letter from DOT in 1987, As long as limited access line is not violated, the city may permit access in development as it deems proper, you would agree with that, except now you would add the caveat that, however,

we would do what we could to discourage it, right?

A. Yes. Because it's -- I don't view it as being a safe, proper design for an intersection.

Q. Okay.

A. It effectively reduces the capacity of the whole interchange to carry traffic.

Q. Okay. But as you indicated, there have been no specific engineering plans to figure out how to do this, to your knowledge, right?

A. No.

Q. And this is not just a matter of going out and blading out a road and using it, right?

A. (Nods head.)

Q. Do you recall which cities Ferndale competes with for funding for road improvements, street improvements?

A. Well, they compete statewide with -- I mean, it's a statewide competition and there's urban and rural pots of money, the way the money is currently being broken up. So, yeah, the pots of money tend to get small.

Q. It gets small because Ferndale is competing with cities 5,000 and over, right?

A. (Nods head.)

JUDGE ANDERL: Is that a yes?

A. Yes.

Q. And someone earlier mentioned that there are all these monies available and you mentioned ISTEA money, but as a matter of actual fact, can you give us an idea how much that overpass you are proposing here would run?

A. I made a very rough estimate with no design in mind, just looking at rough square footage of the structure, and I came up with a very rough estimate of around $6 million for a two-lane facility. Yes, that's a significant amount of money to build an overpass.

Q. Do you have any idea how a basically residential community with 6,500 residents could ever finance that type of a road improvement?

A. With the different fundings available and assumably with some increase in the transportation funding statewide through an increased gas tax or some other way in the future, if there is a need for it and if Ferndale can demonstrate that need and start going after funding to do the necessary planning studies and those kinds of things, I don't see any reason why it eventually could not be funded.

Q. Would you argue with the concept that Ferndale only probably gets probably about 150,000 a

year in the gas tax?

A. The old way of apportioning funds was based on population and the gas tax money was pretty much divvied up around the state by population. Under ISTEA, that is slowly changing to a purely competitive effort. At least the goal is to turn that to competitive. I can't tell you whether that will get there or not because that involves politics and there's this idea of equity around the state, but it -- under a competitive way of doing business, if there's a need, there should be a way to get it funded.

Q. But would it surprise you to know that Ferndale has had this project, this Thornton Road extension, on it's wish list say, it's six-year plan, for years and years, year after year sometimes?

A. Yes. I'm aware that it's been on Ferndale's wish list. And personally I'm glad it didn't get built because with the combination of the interruptions at the rail crossing and then the difficulty at the intersection of Portal Drive, I don't see that it will provide the kind of level of service that the city is looking at. Now, I've seen the traffic projections showing roughly a demand through that corridor of 2,100 vehicles during the

peak hour, and you look at the ever increasing train traffic and the difficulty with the siding and the number of blockages at the railroad and then the traffic congestion that would happen at Portal Way because of a very difficult intersection design, I don't see it as being adequate to handle the kind of demand that's being projected for it. Basically at 2,100 vehicles per hour, and the projections showed 21,000 vehicles per day, you almost need four lanes to handle that and there's just too many difficulties with that frontage road concept, whereas if you punched it over the top to Portal Way, east of I-5, then you can easily absorb that kind of traffic volume.

Q. If you accept the fact you're never going to be able to punch it over the top, you're really funneling it down into either another crossing or a two-lane bridge is the problem?

A. I haven't studied -- I assume the city's traffic engineer studied the origin and destination of the traffic volumes, but there's two interchanges that -- well, three interchanges that are readily accessible by going through town and they are fairly close and traffic will distribute itself such that the time to get to and from where it's going will -- they

will equalize their time, and so I think with some improvements on the city streets in the interim, it would appear to me that most of that traffic can be absorbed. I'm not saying that's the ideal way to do it or the way that the city would like to, but I don't see the frontage road concept as absorbing enough traffic with the difficulties involved to be -- the cost estimate I've seen from the city was over $2 million, I believe, just to build that frontage road, and that seems an awful price for a poorly functioning piece of road.

Q. Would it be an option to redesign the intersection or the cloverleaf at Portal Way so that the traffic came over the freeway at that point?

A. So the traffic --

Q. Have it come off the east side and then up over the freeway perhaps?

JUDGE ANDERL: Wait before you answer that. Let's get a clarification of what Mr. Cuillier is describing because I didn't understand it.

A. Which traffic?

Q. Northbound traffic on the freeway coming north. Follow me? Approaching the intersection, come off to the right and over the freeway and link up with Thornton Road. No, it would have to angle up to the

north and link up with Thornton Road.

JUDGE ANDERL: Mr. Cuillier, you're losing me again, I'm sorry. Maybe --

Q. Is redesigning --

MS. GIBSON: I'm going to object. Without any design or picture image of this, it's very difficult for us to even speculate.

JUDGE ANDERL: I think I'm going to sustain the objection. Mr. Cuillier, take a second, think of the question in as few words as possible, and then let's give it one more try, otherwise I'm not going to allow this line of questioning because it's not clarifying the record.

Q. Could you redesign the interchange so that the northbound traffic on I-5 would come off at the interchange and loop over the freeway to join up with Thornton Road on the west?

A. Absolutely. Given unlimited money, I'm sure it could be done, but that would result in more structure.

Q. That would be what?

A. That would even be more structure to build than just going straight across between Portal Way and --

Q. But -- okay.

MS. CUSHMAN: Excuse me. Would you please finish your statement before -- "between Portal Way and" --

A. That would be a lot more construction and more structure to build than taking Thornton Road directly over the railroad and the freeway and coming down at Portal Way to the east.

Q. Okay. You can be seated. At least there's a process in place for redesigning that type of interchange, is there not, at the state level that can be done? Interchange redesigns are fairly common?

A. We do look at upgrading interchanges when the traffic congestion gets to the point where it can no longer handle the traffic volumes. We make improvements that are necessary.

Q. And if a person could fit this into an interchange redesign, there could be some practical benefits in timing and funding to accomplish the desired result, is that not a true statement?

A. Possibly.

MR. CUILLIER: That's all.

JUDGE ANDERL: Mr. Cuillier, just out of fairness to you, through one of your own witnesses you may have to clarify what you were describing because it didn't, to me, address the problems that Mr.

Josephson had brought up earlier about Thornton Road meeting Portal Way, okay?

MR. CUILLIER: All right.

JUDGE ANDERL: Ms. Rendahl?

CROSS-EXAMINATION

BY MS. RENDAHL:

Q. Mr. Josephson, in your testimony you talked about -- in talking about the access road, is it your testimony that if the crossing remains open and the road is constructed for industrial use as the city has proposed, that that would be an arterial? That is the arterial you were discussing?

A. Yes.

Q. Okay. And that if the crossing is closed and the access road serves just the two residences on that portion of Thornton Road, that that access road -- you described that as a driveway?

A. Yes.

Q. That's just to clarify your distinction between an arterial and a driveway?

A. Yes.

Q. Am I correct in understanding that the city of Ferndale has turned down the department's proposal to purchase the land to construct that access road?

Is that correct?

A. I'm not personally aware of that. The city does own the right of way such that a driveway could be built inside that right of way and I believe there was earlier testimony that that had been turned down. I'm not personally familiar with that.

MS. RENDAHL: Okay. I may have to hold these questions until the city's witnesses. Thank you. I have no further questions.

EXAMINATION

BY JUDGE ANDERL:

Q. Mr. Josephson, an overpass on Thornton Road going over the railroad tracks and I-5, would that do anything to address the potentially landlocked residents in between the tracks and the freeway?

A. No. That structure would be so far up in the air they would need wings to get there.

Q. So they would still be landlocked?

A. Without a driveway in there, they would still be landlocked, yes.

JUDGE ANDERL: Anything on redirect?

MS. CUSHMAN: No.

JUDGE ANDERL: Anything else for this witness? Thank you, Mr. Josephson, for your

testimony. You may step down. Is there one more witness we're going to call today.

MS. GIBSON: I don't think so. Mr. Flem, Lloyd Flem? We could call Gil Mallery. He may be more than half an hour, however.

JUDGE ANDERL: Ms. Rendahl, did you check and see how long we have the room for?

MS. RENDAHL: I can take a few minutes and check now. I understood last week that the room is booked for a 6:30 meeting and that they would prefer to have some time in between when we vacate the room and the next group comes in, but I can clarify with the library staff.

JUDGE ANDERL: Okay. Let's see if we can have the room for 45 or 50 more minutes, and then I'll ask among the other parties as to whether that will be enough time. Let's go off the record.

(Discussion off the record.)

JUDGE ANDERL: Let's be back on the record. While we were off the record, the next witness was called. Sir, if you would raise your right hand. Whereupon,

GILBERT O. MALLERY,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

JUDGE ANDERL: Go ahead, Ms. Cushman.

DIRECT EXAMINATION

BY MS. CUSHMAN:

Q. Please state your name and spell it for the record.

A. Gilbert Otto Mallery. The last name is M A L L E R Y.

Q. Mr. Mallery, where do you work?

A. I work for the Washington State Department of Transportation. I'm a rail branch manager and I reside in Olympia.

Q. Could you speak up just a little bit. I think the court reporter is having trouble hearing you.

A. I work for the Washington State Department of Transportation and I'm a rail branch manager and my office is in Olympia.

Q. What is your business address, please?

A. It's the Transportation Building, Olympia, Washington.

Q. Could you please describe your duties for WSDOT.

A. As a rail branch manager for the department, I'm responsible for overseeing the freight

reestablish passenger rail service in the Seattle to Vancouver, B.C. corridor. It also -- number 1 refers to the incremental upgrading of the existing rail service. And it also make references to, under number 3 of that resolution, talks about the increase in frequency of passenger rail service and the reduction of travel time, and those speak to some of the general policies that have been articulated.

Q. Could you please explain the concept of incremental upgrading.

A. Okay. The basic program is that there is an existing rail corridor running from Eugene all the way up to Vancouver, B.C. We feel that given that there is an existing corridor, it is more economical to take that corridor and through a series of incremental investments upgrade the track and signal system to allow increased frequency of service and faster service to accommodate what we intend to have ultimately to be a high speed rail system. And it is a system that has formally been embraced by the department as well as the legislature.

Q. High speed rail system is a term of art, isn't it?

A. Yes, it is. It's a state of -- term of art that has been provided to us through ISTEA, the

Intermodal Surface Transportation Efficiency Act of 1991. The state of Washington along with Oregon and British Columbia, that corridor running some 460 miles from Eugene to Vancouver, B.C., was designated as one of five national high speed rail corridors under Section 1010 of ISTEA.

Q. And how fast does a train have to go to be considered high speed?

A. You need to be making progress towards sustained speeds of 90 miles an hour and ultimately you need to achieve prolonged speeds of 125 miles an hour in at least some segments of your corridor. And I think the incremental strategy picks that up in that we currently have Class 4 track, as you heard earlier today, that reaches a top speed of 80 miles an hour. So the incremental strategy is, one, as the legislature provides funding over a series of bienniums, we will make incremental investments in the track and system and signal systems and intermodal depots to, over time, move from basically a railroad with the capacity of currently a top speed of 80 miles an hour ultimately to assist in what would accommodate stretches of speeds as high as 125.

Q. I am referring you now to what's been admitted as Exhibit Number 9. This is a copy of

Section 47.79.020 Revised Code of Washington. What is the significance of this chapter of our state code and to the rail program?

A. It represents official action by the Washington state legislature that declares the legislative intent that provides a foundation for our intercity passenger rail program in the state of Washington. It recognizes in the legislation that the corridor from Eugene all the way to Vancouver, B.C. over the next 20 years is going to experience rapid development in the legislation.

In the first paragraph it actually recites the projection that population will increase 40 percent over the next 20 years, that employment will increase by nearly 50 percent, and that the projection for increased intercity travel will be approximately 75 percent. It recognizes that the department and the legislature cannot accommodate that kind of growth without a balanced transportation system, and it makes the policy determination that rail is an important part of any balanced system because of safety, environmental issues, efficiency, cost advantages, environmental consideration, consistent with growth management policies, land-use policies.

Q. Mr. Mallery, this petition is brought by

Amtrak, Burlington Northern, and Washington State Department of Transportation, so we know that at least these three groups are involved in this project. Is there other work going on with other groups to facilitate this goal?

A. Yes. I think as I indicated, the project is really more global and more involved than just those entities. Clearly it's been recognized in national transportation legislation as one of the five nationally designated high speed corridors. We have a close working relationship not only with Amtrak and Burlington Northern as the owner of the right of way and Amtrak as the operator of the system, but we also have a partnership with the state of Oregon who has some 125 miles of corridor in their state as well as British Columbia which has about 35 miles of corridor in Canada.

And I think that that begins to express I think the importance that's being placed on the development of high speed rail within the corridor not only is it a national priority, not only is it a state priority, is it a regional priority in terms of Washington, Oregon, and British Columbia, but it also -- this corridor is really the only both bi-state as well as international designated high speed rail

corridor in the country.

Q. Has there been an agreement between the United States and Canada regarding customs and immigration for reinitiation of this service?

A. Yes, there has. As many of you recognize, there used to be rail service running between Seattle and Vancouver, B.C. That service was terminated in 1981 primarily because of delays at the border that made the service not viable. When the service ran, the train towards the end of that service was actually required to stop at Blaine and the passengers were actually required to leave the train and clear customs, which could take anywhere from a half hour to 45 minutes. That along with high access charges into Canada basically contributed to make the service not viable.

And as you've heard from other witnesses, to produce a viable service, one that will attract ridership and not require an inordinately high level of subsidy, we have established three hours and fifty-five minutes as the required time before we could have a viable service. In order to achieve that, we had to negotiate an international treaty. It's basically a bilateral trade agreement between the U.S. and Canada to allow for preclearance of customs

in the Vancouver station. That would mean that when this service goes into being in the spring of '95, passengers on the train will no longer have to be stopped at Blaine, but they will be able to continue into the station in Vancouver and will go through customs and immigration procedures after arriving in the station. If they are not able to clear customs, they will be held and returned to the U.S. Likewise, in a southbound direction, customs and immigrations will be handled prior to boarding the train for the U.S. This represents probably 18 months of negotiations with Canadian immigrations and customs, U.S. customs and immigrations, and numerous people at the state department and foreign ministry in Canada to achieve this.

Q. How important is it for reinitiation of this service for the plan to proceed as it has currently developed? I mean by that, for crossing closings to occur as proposed, for speed increases to occur as proposed, for the customs agreement to be actually initiated as proposed, what is the importance of all these factors combined?

A. I think you've heard there is -- this is an extremely complex project. Not only do you have two states and two countries, but you have issues as

speed limit increases, crossing closures, developing contracts with a railroad for investment program, working out service agreements with Amtrak. All of these things have to come together in a manner that would allow service to be initiated in a timely fashion.

I think one of the keys with our incremental program is that each biennium as we receive funding from the legislature, we commit to the legislature that we're going to perform and that what we had committed to for the '93-'95 biennium for the $40 million that was provided was basically three things. One was to add a fourth round trip to Portland, the second was to begin the renovation of 14 intermodal facilities, and the third was to reestablish service between Seattle and Vancouver, B.C.

For us to have any hope of receiving further funds to expand the program, it is critical that all of these different factors come together and that service is initiated in the spring of '95, so that has to go back to the legislature for discussion of future funding. We will have the ability to indicate that we have accomplished the goals set by the legislature and that the public has responded in

terms of ridership in such a manner that further investment on the part of the legislature is appropriate.

We have extremely good momentum based on the additional service we've added to Portland. We added a fourth round trip in April of this year with a Talgo, T A L G O, Spanish high speed train, and that train has been leased by the state of Washington for six months from April 1 through September 30. The initial projection from Amtrak was that train would carry between thirty and 35,000 passengers. That service ended the end of September and we carried over 58,000 passengers with an 80 percent occupancy level. We think that is going to speak very well for the demand for passenger rail service in the corridor.

We are obviously extremely anxious to start service between Seattle and B.C. We have a forecast of ridership for first year service of 100,000 people and we feel that at that level of ridership, the service will be very successful.

I think I should point out that when the service was terminated in 1981, ridership was actually growing. Ridership I believe in 1981 was about 80,000. It wasn't terminated due to lack of ridership. It was terminated due to slow run time

which was over four hours which in part was due to slow speeds and also to the delays at customs. We feel that with the pending speed increases that we're seeking throughout the corridor and with the resolution of customs through the bilateral trade agreement, that we are going to be able to offer very viable service, but, again, all of these things have to come together, and I've described it almost as a window of opportunity.

We've been given the opportunity to demonstrate that intercity rail can be effective, that the public will respond, and that it has a place as a part of a balanced transportation system, but that if we are not able to receive the speed increases or some critical permits or get some of the grade crossings closed, then we are going to have a problem initiating that service and it certainly could cause the program to unravel.

MS. CUSHMAN: I have no further questions of this witness at this time.

JUDGE ANDERL: Thank you. Mr. Cuillier, any questions for this witness?

MR. CUILLIER: No, I don't.

JUDGE ANDERL: Okay. Ms. Rendahl?

MS RENDAHL: No questions, your Honor.

C E R T I F I C A T E

As Court Reporter, I hereby certify that the foregoing transcript is true and accurate and contains all the facts, matters, and proceedings of the hearing held on: October 12, 1994

Lisa K. Nishikawa

CONTINENTAL REPORTING SERVICE, INC.

THE WITNESS: Thank you.

JUDGE ANDERL: Hang on a second. Okay. No, you are off the hook. I don't have any questions for you. Thank you for your testimony.

Is there anything further to come before us today? Okay. Thank you all for attending.

Before we go off the record, let me just say that I did talk to the attorneys about whether or not I would take a view of the Thornton Street crossing. I think it's fair to say that the petitioners were in favor of my doing that, Commission staff was neutral, and the City felt that if I were to do that, they kind of wanted me to look at the play fields also. Is that a fair characterization?

MR. CUILLIER: Yes, I would say so.

JUDGE ANDERL: And I think under the circumstances, since I do have pictures in the file and some pretty good word descriptions of the Thornton Street crossing, that I probably wouldn't gain anything from doing that and I am concerned at how involved it could get if I would take a view of the whole track, so I think I will rely on what I hear and see in the record rather than going out to the site. Let's stand in recess until 9:00 tomorrow morning.

(Adjourned at 5:26 p.m.)