Date: April 19, 2022

Case: Public Evidentiary Hearing

ACE·FEDERAL

Page 2722

SURFACE TRANSPORTATION BOARD

REMOTE PUBLIC EVIDENTIARY HEARING FOR

"Application of the National Railroad

Passenger Corporation Under 49 U.S.C. Section

24308(e) CSX Transportation, Inc., and Norfolk

Southern Railway Company."

Volume VIII

`   Tuesday, April 19, 2022

9:34 a.m.

Via Zoom Government

     The above-titled matter came on, pursuant to

notice, at 9:34 a.m., Chairman Martin Oberman,

presiding.

1   P R O C E E D I N G S

2   CHAIRMAN OBERMAN: Good morning

3   everyone. We are reconvening the hearing on

4   Amtrak's application under 24308(e). I believe we

5   are ready to begin Amtrak's case.

6   Ms. Bracey, are you the person in

7   charge this morning?

8   MS. BRACEY: Yes, sir, I am.

9   CHAIRMAN OBERMAN: All right. Proceed.

10   MS. BRACEY: Amtrak calls Mr. Thomas

11   Crowley. State your -- I guess he needs to be

12   sworn.

13   CHAIRMAN OBERMAN: Mr. Crowley. Yes.

14   I couldn't see him. There, I see him now.

15   Mr. Crowley, please raise your hand.

16   Do you swear or affirm that the testimony you are

17   about to give in this proceeding is the truth, the

18   whole truth and nothing but the truth?

19   THE WITNESS: I do.

20   CHAIRMAN OBERMAN: Please proceed.

21   State your name.

22   THE WITNESS: Thomas Crowley,

1   C-r-o-w-l-e-y.

2   CHAIRMAN OBERMAN: All right. Proceed,

3   Ms. Bracey.

4   Whereupon,

5   THOMAS CROWLEY

6   called as a witness by counsel for Amtrak, and

7   after having been first duly sworn, was examined

8   and testified as follows:

9   DIRECT EXAMINATION

10   BY MS. BRACEY:

11   Q.   Tell us about your education and

12   background.

13   A.   I received a Bachelor of Science degree

14   from the University of Maine in 1968. I have

15   taken graduate courses in transportation from GW

16   University.

17   Q.   And where do you work?

18   A.   I work with L.E. Peabody and

19   Associates.

20   MR. WARREN: Mr. -- Mr. Chairman, I'm

21   sorry -- sorry to interject. I see some documents

22   in front of Mr. Crowley. Could Kali ask him what

1   those documents are.

2   MS. BRACEY: Sure --

3   CHAIRMAN OBERMAN: Well -- well, if she

4   doesn't mind. He hasn't referred to any documents

5   but go ahead.

6   MS. BRACEY: It's just a notebook of

7   his verified statements.

8   MR. WARREN: Okay. We -- we have no

9   objection. I just wanted -- wanted to know what

10   they are. Thank you.

11   MS. BRACEY: Sure.

12   BY MS. BRACEY:

13   Q.   Where do you work, sir?

14   A.   L.E. Peabody and Associates.

15   Q.   And what is L.E. Peabody and

16   Associates?

17   A.   L.E. Peabody and Associates is an

18   economic consulting firm specializing in

19   transportation and field supply issues.

20   Q.   And how long have you worked there?

21   A.   Fifty-one years.

22   Q.   And where did you work before that?

1   A.   I was in the United States Army for

2   three years.

3   Q.   Do your clients at L.E. Peapod include

4   both the freights and Amtrak?

5   A.   Yes. We have clients in the railroad

6   industry, both class one railroads and short line

7   railroads, as well as a -- a number of passenger

8   operations around the country, including Amtrak.

9   We represent shippers, federal government, state

10   governments, all different sorts of things related

11   to transportation and energy.

12   Q.   What were you asked to do in this case?

13   A.   We were asked to review, verify and

14   audit the -- the testimony of Mr. Banks and Mr.

15   Guthrie and of the Port witness -- Port witness.

16   Q.   Did you work with anyone else on your

17   verified statement?

18   A.   I filed a joint verified statement with

19   Dan Fapp, who is senior vice president of L.E.

20   Peapod and Associates.

21   Q.   And what was the division of labor

22   between you and Mr. Fapp?

Page 2727

1   A.   We really didn't have a division of

2   labor. We both participated in all aspects of our

3   review.

4   Q.   What is RTC modeling?

5   A.   RTC modeling are rail traffic control

6   models, is a capacity model. It's electronic,

7   mathematical model that requires a series of

8   inputs and other developed outputs that measure

9   operations -- operations, operating changes,

10   capacity, capacity enhancements, things that make

11   the evaluated rail line run better.

12   Q.   Is RTC modeling a valid way to

13   determine rail capacity, rail line capacity?

14   A.   Yes, it is.

15   Q.   And how many RTC models have you

16   submitted to the STB?

17   A.   Over the past 15 or 20 years probably

18   20, 15, 20, 25, in that neighborhood.

19   Q.   And what data are those models based

20   on?

21   A.   They're based on the actual data that

22   we request from the rail carriers, the rail

1   carrier that's involved in the litigation. That

2   includes train movement files, car movement files,

3   dispatcher reports, track charts, all of the

4   things that we need to create the inputs to put

5   into the model.

6   Q.   And have you reviewed the RTC model

7   submitted in this case?

8   A.   I have.

9   Q.   And when did you receive the model?

10   A.   We received the model that was in the

11   Banks-Guthrie statement after they filed their

12   statement on November 3rd.

13   Q.   And why do you call it the

14   Banks-Guthrie statement?

15   A.   They're the only ones that verified

16   the -- the model and they attached a report that

17   arguably was authored by somebody else. But they

18   did not verify that report. Only Banks-Guthrie

19   verified the evidence.

20   Q.   Did you have everything you needed in

21   the RTC model in order to conduct your own RTC

22   model?

1   A.   No.

2   Q.   Did you -- well what was missing?

3   A.   There were a number of things that --

4 that were missing: trains that were developed by

5 Banks and -- and Guthrie are the railroads that

6 were not tied to any specific documents, a number

7 of the randomized Excel files, the proprietary

8 files that Banks-Guthrie or whoever created that

9 model could use to develop trains. While they

10 mentioned it they used a proprietary model to

11 convert one Excel file to another Excel file,

12 which they called the TRAIN file or the PERMIT

13 file. They never provided that linking software

14 so we were unable, not only to test how they

15 developed the trains, but test how they input them

16 into the model.

17   MEMBER PRIMUS: Excuse me. I'm sorry,

18 Ms. Bracey. There seems to be a knocking noise.

19 That I don't know about anybody else here's that.

20   MS. BRACEY: Our building is under

21 construction.

22   MEMBER PRIMUS: Okay, all right.

1   MS. BRACEY: We can see if we can do

2   something about that. My apologies but we can see

3   if we can do something about the knocking.

4   MEMBER PRIMUS: Thank you. I

5   appreciate that. Thank you.

6   BY MS. BRACEY:

7   Q.   Did you follow up on what was missing?

8   A.   Yes, we -- counsel for Amtrak sent a

9   number of letters to the railroads requesting data

10   in the course of our review of the Banks-Guthrie,

11   you know, opening verified statement.

12   Q.   And what were you told?

13   A.   Well, for some -- for some of the train

14   developments we were told there were no records,

15   that they were rather based on conversations or

16   the expertise of some unnamed people in the field.

17   THE COURT REPORTER: Pardon, this is --

18   excuse me. Sorry, this is Kim, the court

19   reporter. The -- the knocking, it's intermittent,

20   but maybe if the witness could move -- move the

21   microphone closer to him. He's the only one I'm

22   having trouble hearing. Is that possible?

1   THE WITNESS: Where's the microphone?

2   MS. BRACEY: Where is the microphone?

3   I'm sorry, can you mute for a second.

4   I'll have Mr. Crowley speak up because

5   our -- our microphone and our camera don't move.

6   They are stationary. So we're sorry about that.

7   BY MS. BRACEY:

8   Q.   In your expert opinion what conclusions

9   have you drawn about the Banks-Guthrie model?

10   A.   Well it's not in my opinion usable for

11 what it was presented to be and that is an

12 indication of what capacity enhancements are

13 needed to function properly with freight service

14 and passenger service on the New Orleans to Mobile

15 rail line.

16   Q.   Is your testimony today going -- going

17 to address all of the problems you had with the

18 model?

19   A.   No.

20   Q.   Is there anyone else who is going to

21 address any other problems with the model?

22   A.   Yeah, Dan Fapp will be testifying in a

1   couple of weeks I guess and he will address a

2   number of issues as well.

3   Q.   Let's talk for a minute about trains

4   and the data. Describe how the Banks and Guthrie

5   model address the use of train -- train movement

6   data.

7   A.   Train movement data is generally the --

8   one of the key ingredients to developing the TRAIN

9   input file. What Banks and Guthrie did was they

10   took two months worth of 2019 data and created

11   some randomized values associated with the actual

12   trains that they identified in the TRAIN movement

13   file that moved over these rail lines. They then

14   created an Excel file and applied this proprietary

15   model that created the TRAIN file, and all of

16   those steps I've just described, we were not able

17   to review or verify. In addition, they added a

18   lot of trains into the model that did not appear

19   in the data that they provided.

20   Q.   How is train movement data normally

21   addressed, in your experience?

22   A.   When you develop an RTC model, the

1 first thing -- one of the first things you do is

2 create a base case in order to demonstrate to the

3 other side, the opposition and to the party

4 reviewing the RTC model that the simulation that

5 you're presenting replicates actual real-world

6 operations. In order to do that, you have to put

7 in railroad trains and all the associated things

8 that happen to those trains as they move between

9 origin and destination on the rail line in order

10 to replicate and represent that what you are

11 presenting is in fact a representation of what

12 happened in the real world.

13   Q.   Describe how train departure times are

14 addressed in the Banks and Guthrie model.

15   A.   Train departure times are one of the

16 inputs that Banks and Guthrie used a -- a random

17 distribution method to develop rather than using

18 the actual departure times identified in the -- in

19 their own records. As I -- as I stated a few

20 moments ago, they looked at two months' worth of

21 data to identify these specific inputs. They

22 created an Excel file, they applied their

1   proprietary software to that file and created a

2   TRAIN input file, and that's what went into their

3   RTC model.

4   Q.   What does it mean to link and document

5   the data?

6   A.   Well one of the things that the board

7   in the past has insisted that parties present to

8   them, when they're using a model such as RTC, is

9   to be able to demonstrate the process from the raw

10   data, step by step, through the answer. In this

11   case, Banks-Guthrie did not provide the data

12   necessary to link the actual data to what they

13   modeled.

14   Q.   And what did they provide instead?

15   A.   They provided randomized values for

16   trains and the linking or the tying to actual data

17   was not provided.

18   Q.   And why is that insufficient?

19   A.   It's insufficient because the parties

20   reviewing the data are unable to verify and/or

21   audit the accuracy of the data.

22   Q.   Let's talk for a moment about the

1   inputs and the setting.

2   Banks and Guthrie claim that their RTC

3   simulations were -- they submitted were

4   conservative and reflected typical operations. In

5   your opinion was that the case?

6   A.   Well, as -- as I've noted, it was not

7   possible to tell whether they were typical of

8   railroad operations because Banks and Guthrie used

9   or did not use the actual data in their model.

10 Rather they used data that they developed through

11 this randomization process that they followed.

12   Q.   Let's talk about the use of the 95%

13 on-time performance metric. What is the 80%

14 on-time performance metric?

15   A.   The 80% that's been talked about is the

16 FRA's metric that FRA identifies and it represents

17 on-time performance for two consecutive quarters.

18 In other words, if the 80% on-time performance by

19 passenger trains or passenger service is not met

20 for two consecutive months, then the STB can step

21 in and evaluate what's causing those problems and

22 offer solutions.

1   Q.   And how does the Banks-Guthrie model

2   hope to achieve 80% OTP?

3   A.   They -- they equated 95% on-time

4   performance in the RTC model to the 80% real-world

5   on-time performance factor.

6   Q.   And would you have used a 95% OTP to

7   yield an 80% real-world OTP?

8   A.   No.

9   Q.   Why not?

10   A.   There's -- there's no tie between those

11 two values. The experience that we have seen and

12 that we recognize in our verified statement is

13 that the 80% on-time performance calculated by the

14 RTC model is a reasonable proxy for the 80% factor

15 in the FRA document.

16   Q.   And what is that experience based on?

17   A.   This were two -- two studies that we

18 cited in our -- our statement that actually

19 evaluated the difference between the RTC model and

20 a real-world experience and the differential was

21 very small.

22   Q.   And how did Banks and Guthrie use the

1   95% customer OTP?

2   A.   They -- it appears they added

3   infrastructure until that 95% factor was achieved

4   or was an output of the formula.

5   Q.   And how do you know that that --

6   MEMBER FUCHS: Ms. Bracey, Ms. Bracey?

7   MS. BRACEY: Yes.

8   MEMBER FUCHS: I'm sorry to interrupt.

9   You said "customer OTP". I didn't -- I don't

10   recall -- could you all clarify whether or not you

11   were referring to OTP by train by station or

12   actually by customer, as in weighted by customer.

13   THE WITNESS: The on-time performance

14   is measured at the destination of the arriving

15   train.

16   MEMBER FUCHS: So -- so -- it -- it

17   would not be in this instance customer OTP?

18   THE WITNESS: Depending on how you

19   define "customer," if your customer is Amtrak, if

20   you're a railroad and your customer's Amtrak, then

21   you would measure Amtrak's on-time performance

22   based on the arrival of that train at its

1   destination.

2   MEMBER FUCHS: I -- I only ask because,

3   you know, the FRA regulation differentiates

4   customer OTP to have a specific meaning, which

5   weights by customer. Sorry, I just wanted to make

6   sure that I -- I -- I'm tracking what is being

7   claimed as the terminology. But thank you.

8   CHAIRMAN OBERMAN: Patrick, when it --

9   maybe it -- what would be more accurate is talking

10   about passenger rather than customer, since Mr.

11   Crowley points out you could consider Amtrak as an

12   entity of the customer.

13   Isn't it passenger OTP we're talking

14   about.

15   THE WITNESS: Yes.

16   CHAIRMAN OBERMAN: Patrick, I didn't

17   want to step on your point but --

18   MEMBER FUCHS: Well, but you could --

19   you could consider it. I -- I just would -- I

20   would just say that in the nomenclature of FRA

21   that's not what is customer OTP.

22   CHAIRMAN OBERMAN: Yeah, okay. Thank

1   you.

2   BY MS. BRACEY:

3   Q.   And how do you know that Banks and

4   Guthrie used a 95% customer OTP for infrastructure

5   purposes?

6   A.   Well I would -- that's I think what

7   their verified statements say and that's what they

8   testified to.

9   Q.   And did you hear Mr. Guthrie and Mr.

10 Dingler testify in this case?

11   A.   I did.

12   Q.   And what are they saying now about how

13 they used the 95% customer OTP?

14   A.   Well, that was less than clear to me.

15 It seemed like they were -- were saying that --

16 that it wasn't really a big deal for them.

17 Ninety-five percent just happened to be the result

18 and they kind of backed away from linking it to

19 the 80% FRA factor.

20   Q.   And how was that different from what

21 they said in their report?

22   A.   My reading of their report was that

1   there was a -- a link between the 95% and the 80%.

2   In other words they were saying in their report

3   that you had to achieve a 95% on-time performance

4   metric in the model in order to replicate the 80%

5   on-time factor in the FRA standards.

6   Q.   Is there any evidence in the record

7   that 95% OTP is a necessary performance target to

8   lead to 80% OTP?

9   A.   No.

10   Q.   And would you have started adding

11   infrastructure as a first step?

12   A.   No.

13   Q.   What would you have done?

14   A.   If I were asked to model this traffic,

15   I would have first evaluated the rail operations

16   to see if -- if they could be modified, changed or

17   improved to add this passenger business and not

18   interfere with the freight business. After that

19   evaluation, assume it didn't solve the problem, I

20   would look to the model to identify locations

21   where there was a lot of congestion, a lot of

22   operating problems, and I would then look to solve

1   each of those problems individually and I would do

2   the addition of infrastructure on a

3   location-by-location basis in order to see what

4   improvement each location -- infrastructure in

5   each location provided and therefore be able to

6   present to them, to the client or whoever was

7   asking me to evaluate it, what would be needed and

8   what would be achieved with the addition of each

9   potential infrastructure change.

10   Q.   Would you have conducted a cost-benefit

11   analysis?

12   A.   Generally when we do RTC analyses for

13   our industry clients, that's a necessary outcome

14   of the model. But the thing that most clients

15   are -- are interested in is the cost of providing

16   the infrastructure. Is the cost worth

17   incorporating not only changes but additions to

18   the system as someone is going to have to pay for

19   it.

20   Q.   Let's talk for a moment about inputs.

21   What are inputs to the RTC model?

22   A.   Inputs are the pieces that -- that go

Page 2742

1   into any model, any model that we're using to

2   identify, in this case capacity changes requires

3   the identification of what you are actually

4   attempting to evaluate and, to be more specific,

5   in this case when we're evaluating, or what

6   Banks-Guthrie was evaluating, what are the

7   movements of trains over the rail lines between

8   Mobile and New Orleans, and all of the things that

9   happened to that train en route need to be

10   identified, quantified and put into the model.

11   Each one of those elements is an input to the

12   model.

13   Q.   And what impact do they have on the

14   models and simulation results?

15   A.   They identify -- the bottom line is

16   they identify the result. They tell you where the

17   problem areas are and they actually highlight the

18   areas that need to be fixed in order to

19   accommodate the additional traffic. All of this

20   is after you have demonstrated that your base

21   case, your base traffic level that you're modeling

22   actually performs as it did in the real world.

1   Q.   So I'm -- let's talk about track

2   outages for a minute. What are track outages?

3   A.   Track outages are situations where the

4   track is -- is taken out of service for a number

5   of reasons. Track outages can occur during

6   roadway maintenance. Track outages can occur when

7   you're lifting a drawbridge. Track outages impact

8   traffic in different ways. They can preclude

9   traffic from running over the line to -- they can

10   slow the speed of the traffic down.

11   Q.   And how are they modeled?

12   A.   In -- in the RTC model, they have what

13   they call you PERMIT file and PERMIT files are

14   developed to identify on a location-by-location

15   basis the track outages that are needed in order

16   to have your traffic run.

17   In the Banks-Guthrie RTC model, the

18   PERMIT file was another area where they used these

19   randomized values and their proprietary software

20   to create their PERMIT files.

21   Let me say that a different way. If

22   you have TRAIN movement files, you can identify in

1   real time when a bridge is opening or when a line

2   is taken out of service for roadway maintenance or

3   any other cause and they will tell you specific

4   times, specific locations that those tracks are

5   down and what the condition of that PERMIT is.

6   What Banks-Guthrie did is, they started

7   with this two months of 2019 of actual data, they

8   created an Excel file, they applied their

9   proprietary software to that Excel file and

10   created a PERMIT file that they put into the RTC

11   model.

12   Our problem, coming behind them to

13   evaluate and verify and audit what they did, is we

14   cannot see how they did any of those steps in

15   developing the PERMIT file. We can see the

16   results of the PERMIT file and we can see it run

17   in the model, but we cannot check or audit

18   anything down stream from that PERMIT file.

19   Q.   And how does that affect the model?

20   A.   Well, it -- it -- the model will still

21   run, obviously, because it did run, and -- but

22   the -- the results are suspect. The results are

1   nonverifiable. The results are, in my mind,

2   not -- not able to be used for what they're

3   talking about if they cannot be verified.

4   Q.   Let's talk for a minute about train

5   delays. In your experience how do you account for

6   train delays?

7   A.   Train delays are a function of actual

8   data, like any other component of the movement of

9   a train in the RTC modeling. If you have the

10   railroad records and you're modeling actual

11   trains, you can actually see the train delays as

12   it --as the trains traverse the modeled territory.

13   Q.   And so what did Banks and Guthrie do to

14   account for train delays?

15   A.   Train delays again was another one of

16   these randomized values that they developed and

17   included into -- into the model and -- and they

18   followed the same process of starting with the

19   actual data, we think -- that's what they claim --

20   and creating a file, applying this proprietary

21   software or this proprietary model that they have

22   to create what they call an input file, a TRAIN

1   input file, and that's the process they used on --

2   on that value as well.

3   Q.   And how did this affect the output of

4   the model?

5   A.   It affects it from the standpoint of we

6   cannot evaluate the legitimacy of the model.

7   Q.   You mentioned in your report that Banks

8   and Guthrie modeled 257% more trains than actually

9   moved during the peak period. How do you know

10   that they modeled 257% more trains?

11   A.   We took the same two months that they

12   used in 2019 and compared it and -- and counted

13   the trains by type of train that appeared in the

14   data and compared that to the number of trains

15   that were included in the Banks-Guthrie model.

16   "I" type of train -- I believe that was

17   the first table that we presented in our reply

18   verified statement and identified by train type

19   the difference in that train count -- the bottom

20   line was that there were 257% more trains in the

21   model than appeared in the data.

22   Q.   And you have reviewed the Banks and

1   Guthrie rebuttal verified statement?

2   A.   Yes.

3   Q.   And it states that the RTC modelers

4   assumed that 1,265 trains had no counterpart in

5   the train data.

6   A.   That's correct.

7   Q.   And what does that mean?

8   A.   That means that that is the count of

9   trains that we could not audit or verify.

10   Q.   And the verified statement, the

11   Banks-Guthrie rebuttal verified statement, also

12   mentions that there are many -- many data of the

13   data sources were provided through narratives.

14   A.   That's correct.

15   Q.   And what does that mean?

16   A.   Well that means first -- first and

17   foremost they didn't have an actual data source

18   file. Secondly, in listening to the statements or

19   the testimony of CSX and NS witnesses, it

20   developed a number of trains, quite a few trains

21   based on telephone interviews or conversations

22   between parties, the parties weren't identified.

1   There were no records of these -- of these

2   conversations. And more importantly it was never

3   explained why they didn't use their actual data if

4   in fact these trains did exist.

5   Q.   It also states that certain yard

6   trains, light engines and bridge tenders also had

7   no counterparts in the train data. What does that

8   mean?

9   CHAIRMAN OBERMAN: I'm sorry, Ms.

10   Bracey, when you say "it" says, what are you

11   referring to? Mr. Crowley's statement?

12   MS. BRACEY: The Banks-Guthrie rebuttal

13   verified statement.

14   CHAIRMAN OBERMAN: Okay. It would just

15   be more helpful when you're asking a question

16   about a document, to tell us which document it is?

17   Thank you.

18   MS. BRACEY: My -- my apologies.

19   THE WITNESS: The -- the yard -- the

20   yard locals and --

21   MS. BRACEY: I can repeat the question.

22   THE WITNESS: Please.

1   BY MS. BRACEY:

2   Q.   What does the -- having no yard trains,

3   light engines and bridge tenders mean that have no

4   counterpart in the train data mean?

5   A.   That means that another source of data

6   is needed to identify those movements as they

7   traverse the main lines. Railroads keep records

8   of all movements on their lines. They don't

9   necessarily result in a TRAIN file movement, but

10   when a yard train or a light engine is on the main

11   line, it's -- it's absorbing a space on the line,

12   it's absorbing rail capacity, and more importantly

13   the dispatchers have to keep track of this in

14   order to safely run and dispatch their railroad.

15   Q.   How does having no yard trains, light

16   engines and bridge tenders impact the

17   Banks-Guthrie RTC model?

18   A.   Well, what it does is increase the

19   total count of trains that they modeled and

20   results in the absorption of capacity and that

21   capacity could be used for other trains, other

22   trains that are actually running on the tracks,

1   but unless they are identified properly and

2   accounted for properly --

3   Q.   Does the rebuttal verified statement

4   give you any doubt that the Banks-Guthrie model --

5   that Banks and Guthrie modeled 257% more trains?

6   A.   No, it does not.

7   Q.   CSX and NS have submitted for the

8   Board's consideration your verified statement in

9   the Metra case. What is that?

10   A.   Currently there is a document before

11   the STB where Canadian Pacific and the Kansas City

12   Southern railroads are asking to merge. Canadian

13   Pacific has a huge presence in Chicago where Metra

14   runs passenger trains. Metra asked Peabody &

15   Associates to evaluate the application and to

16   develop an RTC model to demonstrate the impact on

17   its service of this proposed merger.

18   Q.   And what was your role in the Metra

19   case? Or was your role in the Metra case?

20   A.   We were asked to review the application

21   and concentrate on the impacts this proposed

22   merger will have on Metra's operations.

1   Q.   And who worked on the verified

2   statement in the Metra case with you?

3   A.   Well, like the -- like the case we're

4   talking about here for Amtrak, our -- our staff

5   worked on it. There was not a particular person

6   or set of persons assigned to the task, but two of

7   us verified the data and presented a -- a verified

8   statement, myself and Robert Mulholland, a senior

9   vice president of our company.

10   Q.   Did you complete an RTC model in the

11 Metra case?

12   A.   We did.

13   Q.   And how were you able to do so?

14   A.   We requested data that was not in the

15 application and received that data from CP, the

16 Canadian Pacific, and Metra. We were provided

17 data by Metra as Metra owns some of these rail

18 lines that we evaluated. And using that data, we

19 created an RTC model.

20   Q.   And how you were you able to do so?

21   A.   The data was complete. The data

22 included all of the inputs that we needed to

1   calculate a base case and then the alternate cases

2   that we presented in that merger case.

3   Q.   Was there any narrative data in the

4   Metra case?

5   A.   No.

6   Q.   Why didn't you create an RTC model in

7   this case when you did for the Metra case?

8   A.   I guess two primary reasons come to

9   mind. One would be, as we've been talking about

10   this morning, the data was not sufficient. We --

11   we ran into the dilemma of having to speculate as

12   to what data we would use and how we would use it.

13   We would get into a -- a quandary as to whose

14   speculation was better, our speculation or the

15   railroad's. And the other, and if -- as important

16   or more important reason was timing. We got the

17   data that we needed after counsel requested it in

18   mid October. We saw the railroads' evidence on

19   November 3rd and we had to file a reply on

20   December 3rd. To do a model, an RTC model of this

21   scale, would require much more time than we had

22   available.

1   Q.   Do you agree that RTC modeling is the

2   best way to an analyze and measure the capacity of

3   a rail line and the impact of added service to

4   existing operation?

5   A.   It's an acceptable way and it's a way

6   that the STB has used in the recent past in

7   evaluating operations, rail operations.

8   Q.   Is RTC modeling the standard for

9   proceedings before the STB?

10   A.   I don't know that I would go that far.

11   I think the STB would evaluate any model that was

12   presented to them. The RTC model has been used

13   and has been accepted. And because that has been

14   accepted, I assume that's why the parties use that

15   model in these kinds of cases.

16   Q.   In the CP/KCS, the Metra case, did you

17   also criticize the use of a mathematical formula

18   to determine theoretical capacity on a rail line?

19   A.   I did. What I criticized was the

20   simplicity of the model or the use of the model.

21   Let me see if I can't explain that.

22   In the Metra case, we were modeling

1   double track and triple track territory, very

2   complicated operations. A simple mathematical

3   model would be a tool that you could use

4   effectively on a single track railroad but when

5   you get into double track and triple track you

6   need a more complicated or sophisticated model

7   like the RTC model. Both are mathematical models

8   but one is more suited for more complicated

9   operations, and that would be what the RTC model

10   is.

11   MS. BRACEY: I don't have anything

12   further.

13   CHAIRMAN OBERMAN: I have a few

14   questions, Mr. Crowley. I'm really trying to

15   follow the work that you did here in this case.

16   I'm sure that CSX will have some questions but I'd

17   really like to get in a couple of the basic points

18   here.

19   Ms. Bracey asked you why -- why you did

20   not create an RTC model. Were you asked to create

21   an RTC model by Amtrak?

22   THE WITNESS: I don't know as -- as the

1   discussions having got that far. We were asked

2   initially to critique, evaluate and audit what was

3   done and, by the time we got an understanding of

4   what was done, it was the middle of October and I

5   don't think a discussion of restating the RTC was

6   even on the board.

7   CHAIRMAN OBERMAN: Well, did you

8   suggest to Amtrak that it would be helpful if you

9   could create an RTC model to come up with your own

10   views of delays that might have came from the

11   passenger service?

12   THE WITNESS: I did not and I did not

13   because of the timing. We were -- we were middle

14   October. We had two weeks to file and it just was

15   not time to do that.

16   CHAIRMAN OBERMAN: Well, as I

17   understand it, Mr. Crowley, you said you have

18   submitted many RTC studies to the STB, so I take

19   it you've been involved in other cases before the

20   STB?

21   THE WITNESS: That's correct.

22   CHAIRMAN OBERMAN: And you're not a

1   lawyer, I take, correct?

2   THE WITNESS: That's correct.

3   CHAIRMAN OBERMAN: But you are aware

4   that the STB has discovery processes akin to those

5   in court, are you not?

6   THE WITNESS: Yes.

7   CHAIRMAN OBERMAN: And aren't you also

8   aware that the STB can be asked to extend a

9   discovery schedule if there's good reason for it?

10   THE WITNESS: I suppose that's so. I

11   mean, I don't know that. I mean, I know discovery

12   was closed --

13   CHAIRMAN OBERMAN: Well --

14   THE WITNESS: I know that we --

15   CHAIRMAN OBERMAN: -- did you ask

16   anybody if discovery could be opened so you could

17   get the data you felt you needed?

18   THE WITNESS: No.

19   CHAIRMAN OBERMAN: Did the lawyers tell

20   you it was possible to extend discovery to get

21   that?

22   THE WITNESS: No.

1   CHAIRMAN OBERMAN: You -- you just

2   thought you were stuck, I take it?

3   THE WITNESS: Yes.

4   CHAIRMAN OBERMAN: The -- when you said

5   that -- well, in -- in your statement, I'm a

6   little confused by this. In your rebuttal

7   statement, or I guess it's surrebuttal statement,

8   you said that, on page four --

9   MS. BRACEY: Sorry, is it okay if he

10 turns to page four?

11   CHAIRMAN OBERMAN: Surely.

12   You -- you say that, without the

13 detailed and linked supporting files that you

14 referred to, quote, "any restatement on our part

15 would be pure speculation".

16   Do you -- do you recall making that

17 statement? And I think you talked this morning

18 about it would be speculation for you to try to

19 restate the RTC study.

20   THE WITNESS: That's correct.

21   CHAIRMAN OBERMAN: I'm trying to figure

22 out, if you don't have the data, how your

1 criticism of the data is anything but speculation

2 as well. All you've said is what you don't have

3 but how can you say it's wrong if you don't have

4 it without speculating that it's wrong?

5   THE WITNESS: Well, we -- I didn't --

6 we wrote the statement in the context of what's

7 normally done in presenting RTC's models, and

8 whenever -- whenever in the past that we have

9 presented RTC models, it was very clear to us that

10 the board required us to provide a very specific

11 data trail in order to demonstrate to the board

12 what we were doing. And these conversations that

13 we're talking about here did not have that data

14 trail.

15   Now we could have said they're wrong,

16 we could have said why they were wrong, if we

17 could come up with a reason, and we could have

18 modeled that. The model was there. We could have

19 done that but what would we have had? What kind

20 of result would we have? We'd be sitting here

21 talking about whose speculation is better, theirs

22 or ours.

1   CHAIRMAN OBERMAN: Well, Mr. Crowley, I

2   understand why you said you couldn't create your

3   own model but that wasn't the question I posed.

4   My question is, how can you criticize

5   their data without just speculating on it since

6   you say you haven't seen the actual data? Isn't

7   it -- isn't your criticism as much speculation as

8   your own RTC model would have been, unless you had

9   gotten access to the actual data? What's the

10 difference?

11   THE WITNESS: Okay. Well probably

12 there isn't a -- a large difference at all.

13   CHAIRMAN OBERMAN: And particularly,

14 I -- I wanted to get at, just in terms of how you

15 reached your conclusions. This -- this isn't the

16 first time you've been -- interacted with the

17 Banks-Guthrie firm, is it? I mean, you know them

18 to be in the business similar to yours of

19 consulting with railroads and doing these kinds of

20 studies?

21   THE WITNESS: Yes.

22   CHAIRMAN OBERMAN: Well I -- I'm a

1   little nonplussed as to your approach here.

2   You've asked us to accept your statement that they

3   had 1,265 more trains than actually existed. Did

4   you think that Banks -- the Guthrie firm was just

5   lying about it and making up numbers on the whole

6   cloth? Is that what you want us to accept?

7   THE WITNESS: No, I wasn't suggesting

8   that they were lying. I was suggesting that the

9   way they modeled these trains resulted in many

10 more trains than actually existed.

11   CHAIRMAN OBERMAN: Well, if they --

12 they put in their model more trains than you

13 believe actually existed, they'd have to be lying

14 about it, wouldn't they? I mean, they either

15 existed or they don't exist.

16   THE WITNESS: Well, let me give you --

17 I can give you an example if you'd like.

18   CHAIRMAN OBERMAN: Well I'd like to

19 understand where you're coming from here, because

20 one of the reasons we're having this proceeding is

21 for the board to determine credibility of the

22 cases presented by all the parties. So, when you

1   tell me that they put in 257% more trains, that's

2   not a rounding error. So I don't know how that

3   could happen unless in your mind they were just

4   making it up. Can you explain that?

5   THE WITNESS: Yes. I'll give you a

6   couple of examples. One example is what we were

7   just talking about in that these foreign trains

8   that were based on discussions, there were no

9   records to show that these trains moved. Now

10 whether they moved or not, we were not in a

11 position to say one way or the other. But those

12 are trains that don't appear in the data that were

13 modeled. Another example is the way they modeled,

14 yard trains as an example. A yard train has

15 multiple moves every shift. The Banks-Guthrie

16 folks -- let's say a train, a yard train has five

17 blocks of cars in the moves during the course of

18 its shift. That is one train in the data that

19 moves. And the way the RTC model accounts for

20 that train is that it links each one of those

21 blocks together. So only one train appears in the

22 modeling.

1   What Banks-Guthrie did in their model

2   is they looked at each one of those blocks in a

3   separate train and a separate train takes up

4   additional capacity. It has to be considered in

5   the model for dispatch purposes differently than

6   one train doing its business one block at a time.

7   CHAIRMAN OBERMAN: Well, I'm still

8   trying to find out. Did -- did those movements

9   take up space on the track or not? Isn't that

10 what we're trying to figure out here?

11   THE WITNESS: That's exactly -- that's

12 exactly the point. Those trains did take up space

13 on the track but not the way that Banks and

14 Guthrie modeled them. Banks and Guthrie modeled

15 them in a way that it took up way more time than

16 they actually did.

17   CHAIRMAN OBERMAN: How do you know that

18 since you haven't seen the data? You're just

19 speculating, aren't you?

20   THE WITNESS: No, not on -- not on that

21 part of the example. That part of the example is

22 based on actual movements in their records that

1   they provided, the way they modeled these trains.

2   CHAIRMAN OBERMAN: Well you -- you've

3   told us -- I think we heard from their witnesses

4   that they gathered this data through field

5   interviews, which you say there is no record of.

6   THE WITNESS: That's the first example

7   I gave you.

8   CHAIRMAN OBERMAN: Yeah, all right, but

9   in fact whether -- whether the records exist or

10 not doesn't really tell us whether those field

11 interviews provided actual, real-life data. We --

12 right? We can't really reject it all just based

13 on your saying there's no records. They may well

14 exist, those movements. Isn't that right?

15   THE WITNESS: You -- you don't have to

16 reject the base just on my statement. Your staff

17 can look at the data and see exactly what we saw:

18 that the data was not there for those trains.

19   CHAIRMAN OBERMAN: Well the fact that

20 the data wasn't supplied doesn't mean that the

21 trains didn't exist, does it? We just don't know.

22 And any conclusion to the contrary would be

1   speculation, on your part and our part at this

2   point, wouldn't it?

3   THE WITNESS: Well if -- if your

4   assignment is to verify what was done, to audit

5   what was done, you have to have a trail back to

6   the actual data to make that demonstration.

7   CHAIRMAN OBERMAN: All right. Why is

8   there some reason to challenge the -- and a

9   verification needed in the first place?

10   THE WITNESS: I'm sorry?

11   CHAIRMAN OBERMAN: Why can't we just

12   accept the RTC model? Why do you have to verify

13   it?

14   THE WITNESS: What if it's not

15   accurate?

16   CHAIRMAN OBERMAN: Yeah, what if it's

17   not? I can't find -- I can't figure that out from

18   your testimony. That's all I'm trying to get at.

19   Ir may not be accurate but I don't know how you

20   have a basis to say it's not accurate because you

21   said, without the data, it's all speculation.

22   THE WITNESS: We said -- we said we

1   were unable to verify and audit the data because

2   it was not provided, did not exist.

3   CHAIRMAN OBERMAN: Well, is there some

4   reason for us to just throw out the data then

5   because you couldn't audit it?

6   THE WITNESS: Well if we present

7   evidence to the STB and we don't have any basis

8   for that evidence, I would think you would throw

9   it out.

10   CHAIRMAN OBERMAN: Well, we had the

11   sworn testimony of two witnesses who gathered the

12   facts. Is that a basis?

13   THE WITNESS: I guess if that's

14   sufficient to you, then that would be a basis.

15   CHAIRMAN OBERMAN: You don't think it's

16   sufficient?

17   THE WITNESS: I do not.

18   CHAIRMAN OBERMAN: Well, in order to

19   reject sworn testimony, don't we have to have some

20   reason to think the people are lying? That's all

21   I'm trying to get at.

22   THE WITNESS: Well I'm not in a

1 position to say somebody's lying or not. I'm in a

2 position to tell you what we found or did not

3 find, and we did not find a basis to verify and

4 audit this analysis that was presented.

5   CHAIRMAN OBERMAN: Well, when you do

6 RTC studies, do you take into account movements

7 that aren't in the .TRAIN file?

8   THE WITNESS: Yes.

9   CHAIRMAN OBERMAN: So in fact, this RTC

10 model, trying to take these movements into

11 account, that would be normal?

12   THE WITNESS: Yes, as long as -- as

13 long as there's a trail back to the data you did

14 rely on.

15   CHAIRMAN OBERMAN: All right. You

16 realize, do you not, that you could have asked the

17 lawyers to go and find out that trail and you did

18 not, I take it -- ask -- make that request?

19   THE WITNESS: We -- we asked for data

20 and we got data but it didn't go any further than

21 that.

22   CHAIRMAN OBERMAN: All right. Well

1   that's all I have for the moment. I don't know if

2   any of the other board members have any questions.

3   MEMBER PRIMUS: I -- I have a couple,

4   if -- if you don't mind, Mr. Crowley.

5   THE WITNESS: Sure.

6   MEMBER PRIMUS: I -- I just, if you

7   could, sort of clarify the timeline. So from the

8   time that you began to work on -- on -- on this --

9   this model or you were hired by Amtrak, how -- how

10   long did it take? What was that -- that timeline

11   until that -- until you -- until you submitted

12   your statement or -- or you said you -- you

13   verified or -- or couldn't audit the -- the

14   report?

15   THE WITNESS: We were -- we were

16   retained in -- in October. We received and we

17   reviewed the data that was available at that time.

18   We received the opening evidence of the railroad

19   on November 3rd. We asked for a bunch of

20   supporting data which the -- which the Amtrak

21   lawyers requested of the railroads. We reviewed

22   that data in order to understand as best we could

1   what was presented and we presented our reply

2   evidence on December 3rd.

3   MEMBER PRIMUS: Do you -- do you

4   recall -- thank you. Do you recall when you

5   submitted the letter to the railroads for more

6   data?

7   THE WITNESS: It would have been after

8   the November 3rd filing.

9   MEMBER PRIMUS: And -- and you -- your

10   report in December, do you remember when that came

11   out?

12   THE WITNESS: December 3rd.

13   MEMBER PRIMUS: So is it safe to assume

14   that -- that there was probably less than a couple

15   weeks between that letter and -- and your report?

16   THE WITNESS: There's multiple letters

17   but, yes, there was still time after we received

18   the data.

19   MEMBER PRIMUS: And -- and again,

20   clarification for those letters. What sort of

21   data were you looking for?

22   THE WITNESS: I don't -- I don't recall

1   all the specifics but it would have been the

2   information to support the assumptions that

3   were -- that were made in the Banks-Guthrie

4   statements.

5   MEMBER PRIMUS: Was -- was there any

6   set key? I mean, you -- you don't recall them all

7   but was there one specific data point that -- that

8   you felt was absolutely necessary in order for you

9   to completely or -- or confidently audit or verify

10   that?

11   THE WITNESS: Well, it would have been

12   the missing data, the data that was based on

13   speculation or interviews or however you want to

14   characterize those trains. We asked for data

15   supporting that type of analysis.

16   MEMBER PRIMUS: And -- and -- and

17   again, in your -- in your, you know, your reply

18   earlier, you -- you mentioned that, especially

19   with train delays, the randomized values. How did

20   you -- you come to that conclusion, for the

21   randomized values?

22   I -- I -- sorry, I mean, sorry, sorry,

1   you know, especially when you don't -- you -- you

2   did not have the information to accurately say

3   whether it was randomized or it was too low or too

4   high?

5   THE WITNESS: That was a process

6   that -- the railroads' fault. They used a

7   randomized process in their development of the

8   TRAIN file and in their development of the PERMIT

9   file. And the steps that they followed to develop

10 these values that were inputs into these TRAIN

11 files or input files was based on a randomized

12 process and proprietary software that they didn't

13 provide in order to develop these metrics.

14   MEMBER PRIMUS: Okay, but I -- I guess

15 what I'm getting back to a little bit what -- what

16 the chairman said, but because you don't the --

17 you didn't have -- you didn't have the data, is

18 that why you're -- you're characterizing it as

19 randomized?

20   THE WITNESS: No. I was just

21 explaining what they did. The process we would

22 have followed would have been to use the data that

1   was their step one that they did not use, the

2   actual data. They -- they took the actual data

3   and went through this process to get a TRAIN file,

4   rather than taking the actual data and creating a

5   TRAIN file.

6   MEMBER PRIMUS: So -- so -- well, in --

7   in the -- the CSX and NS, their witnesses actually

8   laid out where those trains and how those trains

9   were accounted for. Were -- were -- did you --

10   were you listening to that -- to their testimony

11   when they did that?

12   THE WITNESS: I was.

13   MEMBER PRIMUS: And -- and so how do

14   you justify sort of that answer to -- to your

15   randomization statement?

16   THE WITNESS: Well -- well, my

17   characterization of the randomization is what they

18   did, not what we did.

19   MEMBER PRIMUS: Right.

20   THE WITNESS: It's the process that

21   followed. I mean, they -- they articulated that

22   in their work papers. They explained specifically

1   that they -- that they followed that process.

2   They started with the actual data and they went

3   through all these steps that I've articulated to

4   get a TRAIN file. That was their doing, not our

5   doing. All I'm doing is explaining that to you.

6   Because I -- I never heard that explained by the

7   railroads. They just said, "Oh, we got a TRAIN

8   file. Oh, we use actual data". So they started

9   with actual data and got a TRAIN file. They never

10   explained those steps in the middle that they went

11   through or why they used them, rather than just

12   relying on the actual data.

13   MEMBER PRIMUS: I -- I -- I'm just

14   trying to figure out -- that's why I was asking,

15   my initial question, like what data were you

16   looking for? Is that the data that was missing?

17   I mean, that -- that's -- you said, you know, when

18   you asked for the data and those letters, I'm

19   trying to find out who data is missing that --

20   that you need to -- to adequately verify or audit

21   the report. And that's why I'm trying to ask you,

22   you know, you were saying things were randomized,

1   you know, things were proprietary. And I don't

2   even understand, like, you know, if an RTC model,

3   like, what's the -- what's the proprietary

4   software that you're -- that you're alluding to?

5   Is that part of the model -- the RTC modeling or

6   is it -- what --

7   THE WITNESS: No. No. No. This is a

8   step that they in their process of developing a

9   TRAIN file -- TRAIN file, let's -- let's go

10   backwards from the TRAIN file. A TRAIN file is

11   what you input into the model to -- so the model

12   can take the trains that you input and run them

13   through the model. So that's kind of the first or

14   second step in this process. If you go back from

15   there, they did a number of steps in between the

16   raw data, the actual train movement files and

17   associated data in the development of that TRAIN

18   file. What they did in between those two things

19   is they created an Excel file, they applied a

20   proprietary model or a proprietary software to

21   that Excel file, created another Excel file that

22   they put into the TRAIN file. The stuff between

1   the raw data and the actual TRAIN file was not

2   provided. We -- we don't know what the

3   proprietary model did. We don't know what their

4   randomization process was. We just know that they

5   felt that this randomized approach was better than

6   using actual data. And we would question that as

7   being an accurate way of doing an RTC model.

8   MEMBER PRIMUS: Okay. And I --I guess

9   I'm still a little confused because it says -- I'm

10   trying to figure out what -- then what the data --

11   still what data you're requesting. If you -- is

12   it is the proprietary data? Is it the Excel

13   spreadsheets? Is it -- you know, what -- what

14   would you -- what were you looking for?

15   THE WITNESS: All of that. All of

16   that. Show me your process.

17   MEMBER PRIMUS: Okay. Last question

18   is -- is just, you said they -- they compiled two

19   months worth of data and you thought that was

20   inadequate. Is it inadequate because it's only

21   two months and have you seen RTC models that have

22   been modeled on two month's worth of information,

1   two month's of -- two month's data?

2   THE WITNESS: I did not mean to imply

3   that two months of data is -- is not adequate.

4   Yeah, I don't believe I said that, and if I did, I

5   didn't mean to say that.

6   They used to two months of data to

7   create 14 days of data through this randomized

8   process, rather than taking a peak week out of

9   that two months of data and using that process.

10   So they just did a -- a different approach.

11   That's -- their approach was all part of this

12   process that they followed rather than modeling

13   the actual trains.

14   MEMBER PRIMUS: Thank you.

15   CHAIRMAN OBERMAN: Karen, I just want

16   to have a quick follow-up and then I'll call you.

17   Mr. Crowley, when you do an RTC study,

18   such as you did on the Metra case where you got

19   the data from the other side, how long does it

20   take you to do such a study?

21   THE WITNESS: The Metra case, it

22   probably took us, oh, three, three and a half

1   months.

2   CHAIRMAN OBERMAN: Is that typical?

3   THE WITNESS: It depends on how complex

4   the line is. The Metra -- the Metra lines were

5   very complicated.

6   CHAIRMAN OBERMAN: Well it sounds like

7   if you had gotten every piece of data you wanted

8   in the November 3rd filing by CSX and NS, you

9   would have been hard pressed to get an RTC study

10   done by what you understood was your drop-dead

11   date of December 3rd.

12   THE WITNESS: That would not have been

13   possible.

14   CHAIRMAN OBERMAN: So, no matter how

15   much data you had gotten, if they -- if CSX and NS

16   had supplied you with every jot and tittle of

17   every piece of information you could have asked

18   for on November 3rd, you could not have gotten the

19   RTC study done by December 3?

20   THE WITNESS: Probably not.

21   CHAIRMAN OBERMAN: So the reason it

22   seems to me that you didn't do the RTC study is

1   not only the lack of data, but that apparently

2   Amtrak asked for a discovery schedule which you

3   thought you couldn't move and which wouldn't allow

4   you to do the job that you think you should have

5   done.

6   That be a fair way to understand it?

7   THE WITNESS: Well...

8   CHAIRMAN OBERMAN: That's okay. You

9   don't need to answer.

10   Karen, go ahead.

11   MEMBER HEDLUND: Mr. Crowley, the

12   randomization process that they used, is this the

13   first time in your experience you have seen such a

14   process used in connection with an RTC study?

15   THE WITNESS: Yes.

16   MEMBER HEDLUND: Thank you.

17   MEMBER FUCHS: Marty?

18   CHAIRMAN OBERMAN: Patrick?

19   MEMBER FUCHS: Thank you.

20   Mr. Crowley, I recall you mentioned

21   that CSX did not perform a cost-benefit analysis

22   for any of its infrastructure projects. Should I

1   take it that you find cost-benefit useful for

2   judging reasonableness of an action?

3   THE WITNESS: What I said was

4   cost-benefit analyses are an integral part of the

5   RTC analysis that we perform for our commercial

6   customers. What -- what somebody does in

7   litigation is dependent on what the assignments

8   are. But I personally believe that cost-benefit

9   analyses are an integral part of evaluating the

10   infrastructure.

11   MEMBER FUCHS: They're basically for

12   determining whether or not ordering infrastructure

13   would be a good idea?

14   THE WITNESS: That's correct.

15   MEMBER FUCHS: Okay. Did you or are

16   you aware of anything in the record that looks at

17   the benefits of passenger rail in this case?

18   THE WITNESS: No.

19   CHAIRMAN OBERMAN: And is there

20   anything in the record to judge how any -- any

21   benefits of passenger rail stack up against any

22   costs imposed on the freight network?

1   THE WITNESS: No.

2   MEMBER FUCHS: Is it your contention

3   that there aren't any costs imposed on the freight

4   network or are there costs imposed and if so what

5   do you think they are based on your review of the

6   evidence?

7   THE WITNESS: Well I think that's what

8   the RTC model was designed -- designed to present

9   in this case and we could never get to a

10 conclusion on that question.

11   MEMBER FUCHS: But -- but based on your

12 reflections on totality of what was presented,

13 what you can verify and what you can't, are you

14 able to fashion an opinion as to whether there are

15 any costs or are you contending that you can't

16 even establish that there's a -- any cost

17 whatsoever?

18   THE WITNESS: The latter. We -- we

19 have not had enough information to draw any

20 conclusions.

21   MEMBER FUCHS: And -- and I -- I take

22 it that if the -- you know, similar to how if the

1   board were to evaluate whether or not

2   infrastructure was a good idea and cost benefit

3   would be useful, suppose that the board were to

4   find that there is some cost on the freight

5   network. Would it also be useful to take a look

6   at whether or not the benefits of passenger rail

7   justify those costs?

8   THE WITNESS: Absolutely.

9   MEMBER FUCHS: Okay, all right. Thank

10   you. And then switching to 95% OTP, there has

11   been some debate about whether 95% was an input or

12   an output. Did I hear you correctly to say that

13   you believe that 95% was an input?

14   THE WITNESS: No. No, no. It is an

15   output.

16   MEMBER FUCHS: Okay. So talk me

17   through how you believe the most likely way that

18   CSX designed in RTC to achieve that output.

19   THE WITNESS: Well, after they created

20   their randomized base case, they added

21   infrastructure. I believe they added 11 projects

22   to the system and one of the outputs of rerunning

1   the RTC model with those 11 projects and the

2   Amtrak trains was a 95% OTP.

3   MEMBER FUCHS: Well there -- there was

4   some evidence that was presented that suggested

5   that the Amtrak OTP, the high Amtrak OTP was

6   achieved prior to infrastructure and that the

7   infrastructure products were then added to

8   mitigate whatever freight delivery costs were

9   outputted by the model. Is it your view that the

10   RTC model without infrastructure did -- would not

11   have achieved that high of an RTC -- or that high

12   of an OTP?

13   CHAIRMAN OBERMAN: I think if the model

14   were done properly, I'd be in a position to answer

15   that question but --

16   MEMBER FUCHS: So how do you know

17   that -- how do you know that the infrastructure

18   was added to achieve a 95% OTP if you don't know

19   whether or not the model achieved a 95% OTP

20   without infrastructure?

21   THE WITNESS: The two are independent

22   calculations. You run the model and one of the

1   outputs is on-time performance. And you run it

2   with or without the infrastructure, you're going

3   to get an on-time performance factor and you can

4   compare --

5   MEMBER FUCHS: I thought -- I had

6   thought you had just testified that they added

7   infrastructure until they achieved a 95% OTP.

8   Is -- is that not the case?

9   THE WITNESS: They -- they achieved 95%

10 when they added the infrastructure. They

11 didn't -- they didn't add the infrastructure in

12 steps. They just added the infrastructure.

13   MEMBER FUCHS: If the model were to be

14 run with -- in the 2019 base case, if the model

15 were to be run without infrastructure, what would

16 have been the OPT at Amtrak?

17   THE WITNESS: I don't know.

18   MEMBER FUCHS: So how do you know

19 whether or not the infrastructure was key to 95%

20 OTP?

21   THE WITNESS: Because the model that

22 they ran with the infrastructure produced a 95% --

1   MEMBER FUCHS: But that doesn't prove

2   that the infrastructure is what itself produced a

3   95% OTP is it -- does it?

4   THE WITNESS: Well if -- if they ran it

5   out of the case that didn't have the 95%, then it

6   would. They didn't -- I -- I don't recall some

7   running a case that achieved 95% without the

8   infrastructure. Maybe they did and I missed it.

9   I -- I don't know.

10   MEMBER FUCHS: Okay. And then -- so,

11 as I understand it, the actual input as it

12 pertains to preference for Amtrak trains are

13 controlled by the -- the -- conflict rank and the

14 delay minimum and maxim imputed for each train in

15 a model, not just Amtrak, but all trains. And

16 then that's what governs the degree of preference

17 that a particular train gets in the model.

18   Is that basically right.

19   CHAIRMAN OBERMAN: Yes.

20   MEMBER FUCHS: Was there anything --

21 now suppose some of Amtrak's rank and delay in the

22 minimum/maximum were higher in the Gulf Coast

1 model than they maybe were in say rate cases? Is

2 there anything to suggest that the rank and the

3 delay minimum/maximum selected by CSX in this case

4 would afford Amtrak a higher degree of preference

5 than is reflected in past cases, materially, a

6 higher degree of preference that would lead to

7 material different outcomes, compared to say past

8 cases or what is reasonable?

9   THE WITNESS: Well, that is something

10 that you can test but it's not something that we

11 tested and I don't believe the Banks-Guthrie

12 models tested that theory either. So I guess the

13 short answer is I don't know.

14   MEMBER FUCHS: Okay. All right, so

15 then just my last question is, if -- if the

16 board -- if the board did have preference that the

17 Amtrak trains without infrastructure achieved say

18 over a 90- or 95% OTP, would that change your

19 assessment of whether or not the 95% OTP should be

20 regarded as something that was the target of the

21 infrastructure?

22   THE WITNESS: No.

Page 2785

1   MEMBER FUCHS: Why not?

2   THE WITNESS: It -- it's a result.

3   MEMBER FUCHS: Well, what I mean to say

4   is caused by the infrastructure.

5   If -- if without the infrastructure the

6   board had evidence that you'd achieved let's say

7   over a 90- or 95%, would that change your

8   assessment of whether or not that particular

9   output was caused by the infrastructure?

10   THE WITNESS: No. If you -- if you ran

11   the model and -- and your first run was 95% OTP, I

12   don't think you would need the infrastructure.

13   MEMBER FUCHS: Well, if you wanted the

14   infrastructure to mitigate freight costs,

15   wouldn't -- wouldn't that be a reason to add it?

16   THE WITNESS: Well, you'd have to make

17   a demonstration that it's impacting the freight

18   operations.

19   MEMBER FUCHS: Okay, okay. I

20   appreciate it. Thank you so much.

21   MEMBER HEDLUND: Can I ask a

22   clarification --

Page 2786

1   CHAIRMAN OBERMAN: Sure, go ahead.

2   MEMBER HEDLUND: -- with Patrick's

3   line.

4   They did a model of 2019 with Amtrak

5   and without infrastructure. Is that correct?

6   THE WITNESS: "They" being Banks and

7   Guthrie?

8   MEMBER HEDLUND: Yes.

9   THE WITNESS: Yes, that's correct.

10   MEMBER HEDLUND: And was there an OTP

11   output from that model?

12   THE WITNESS: I'm sure there was.

13   MEMBER HEDLUND: Do you recall what it

14   was?

15   THE WITNESS: I do not.

16   MEMBER HEDLUND: Okay. I think that

17   would help maybe answer that other question that

18   he had, but we'll go back and look at that. Thank

19   you.

20   MEMBER FUCHS: I totally agree.

21   Thanks, Karen.

22   CHAIRMAN OBERMAN: Any other board

1   members have questions?

2   Matt, are you the designated hitter for

3   the moment?

4   MR. WARREN: I am.

5   CHAIRMAN OBERMAN: All right. Why

6   don't you proceed if you have some cross.

7   CROSS-EXAMINATION

8   BY MR. WARREN:

9   Q.   Good morning Mr. Crowley.

10   A.   Morning.

11   Q.   So Mr. Crowley, it -- it's fair to say

12   that you have extensive experience with the RTC

13   model, right?

14   A.   Yes.

15   Q.   And so you know what a -- a -- a .INFRA

16   file is, I-N-F-R-A?

17   A.   It's one of the -- one of the files

18   that is used in the model.

19   Q.   Yeah, but and am -- am I right that

20   the -- the .INFRA file is the file that reflects

21   the physical rail layouts that you're going to use

22   in the model?

1   Is that right?

2   A.   That's short for infrastructure. Yes,

3   that would be correct.

4   Q.   Yeah, so that's where you would put in

5   your rail lines, your sidings, whether it's single

6   or double track, that -- that that would go in the

7   .INFRA file?

8   A.   Yes.

9   Q.   Have you ever worked -- in the RTC

10   models you've worked on, have you ever worked to

11   build a .INFRA file from scratch based on track

12   charts or other information you have available?

13   A.   Yes.

14   Q.   And do you know how to adjust the

15   .INFRA file to add infrastructure or take

16   infrastructure away?

17   A.   Yes.

18   Q.   So if you wanted to add a siding, you

19   know how to add a siding to the .INFRA file,

20   right?

21   A.   That's correct.

22   Q.   And if you want to take away a siding,

1   you know how to take away a siding from the .INFRA

2   file? Okay.

3   A.   That's correct.

4   Q.   And you -- you know what a .TRAIN file

5   is, right? Right.

6   A.   Right.

7   Q.   And you've obviously worked with .TRAIN

8   files extensively?

9   A.   Yes.

10   Q.   Have you ever developed to do .TRAIN

11   files from scratch to use in an -- an RTC model?

12   A.   Yes.

13   Q.   Okay. And -- and when you're working

14   with a .TRAIN file, do you know how to add a train

15   to the .TRAIN file?

16   A.   I do.

17   Q.   And you know how to take trains away

18   from the .TRAIN file, correct?

19   A.   Correct.

20   Q.   And you know how to change the

21   characteristics of trains in the .TRAIN file,

22   right? If you -- if you don't understand my

1   question, let me know.

2   A.   No, I know how to change

3   characteristics. Yes.

4   Q.   And if I were to ask you the same

5   questions about other RTC input files like .PERMIT

6   files or .OPTION files, you would have the same

7   answer, right, that you understand how to make

8   changes to those files?

9   A.   That's correct.

10   Q.   Okay. Just so I understand your --

11   your testimony, because I'm still a -- a little

12   clear -- still a little unclear, I -- I -- I know

13   that you did not develop an independent RTC model,

14   but did you ever make changes to the input files,

15   into the 2021 Gulf Coast RTC model and run the

16   model to see what changes -- what effect those

17   changes would -- would have?

18   A.   No.

19   Q.   Did you ever suggest to Amtrak that

20   that would be something you could do?

21   MS. BRACEY: Objection. That calls for

22   a privileged answer.

1   CHAIRMAN OBERMAN: What is the basis of

2   your privilege contention?

3   MS. BRACEY: That he -- that Mr. Warren

4   is asking what he told Amtrak, what Mr. Crowley

5   told Amtrak.

6   CHAIRMAN OBERMAN: Well, I don't know

7   where that's privileged. It -- what -- what --

8   what privilege are you claiming?

9   MS. BRACEY: The attorney/client and

10   the work product privilege, sir.

11   CHAIRMAN OBERMAN: Well the Peabody

12   firm is not your client, was it?

13   THE WITNESS: No, but the work product

14   privilege applies.

15   CHAIRMAN OBERMAN: What Mr. Crowley

16   suggest to you invokes -- how does that invoke the

17   work product privilege?

18   MS. BRACEY: In advance of writing his

19   report, anything in response is subject to the

20   work product privilege.

21   CHAIRMAN OBERMAN: I -- I don't accept

22   that. I'm going to let him answer the question.

Page 2792

1   MS. BRACEY: You may need to repeat the

2   question.

3   MR. WARREN: Yeah, well, why -- yeah,

4   why -- why don't I repeat the question.

5   BY MR. WARREN:

6   Q.   So my -- my question, Mr. Crowley, was

7   whether you ever told -- asked Amtrak whether you

8   should, you know, run the RTC model, you know,

9   change -- change the inputs and run the RTC model.

10   A.   I don't recall such a conversation with

11   Amtrak.

12   Q.   Okay. So, Mr. Crowley, you -- you've

13   been involved in many cases before the STB where

14   the RTC model was used, right?

15   A.   Yes.

16   Q.   Yeah, so it's fair -- you testified

17   earlier you'd been involved with, you know, 15,

18   20, 25 RTC models. Were many of those in STB

19   proceedings?

20   A.   Those were the ones that were in STB

21   proceedings.

22   Q.   Okay. And in particular you used the

1   RTC model in -- in quite a number of standalone

2   cost proceedings? Is that right?

3   A.   Yes.

4   Q.   So -- and in a standalone cost

5   proceeding the -- the way they work is, in the

6   complainant's opening evidence, typically the

7   complainant will use an RTC model to sort of, you

8   know, test the validity of it's operating plan.

9   Is that right?

10   A.   Yes.

11   Q.   Yes. Okay. So, and then in the

12   railroad's reply evidence, the railroad will --

13   will often also submit an RTC model, sometimes

14   adjusting inputs into the shippers' model.

15   Is that right?

16   A.   Yes.

17   Q.   And then the shipper will have rebuttal

18   evidence and that rebuttal evidence often includes

19   another RTC model, which typically will make some

20   adjustments based on the railroad's evidence and

21   will -- will tweak that opening RTC model?

22   A.   Correct.

1   Q.   And in -- in some proceedings, the STB

2   sometimes asks for supplemental modeling, right,

3   so we have additional rounds of RTC models. Is

4   that right?

5   A.   Correct.

6   Q.   And is it fair to say that -- that

7   the -- this back and forth between RTC models is

8   typically not with completely new models but is

9   rather back and forth about, you know, particular

10 inputs to the RTC model?

11   A.   Well that be would fair if there was no

12 disagreement on the inputs. If there was -- I

13 never had a situation in one of these 15, 20, 25

14 standalone cases where the inputs into the .TRAIN

15 file or the .PERMIT file was based on anything

16 other than actual verifiable railroad-provided

17 data.

18   So, the situation here and the

19 situation in the standalone case are totally

20 different.

21   MR. WARREN: All right. Mr. Chairman,

22 I'd move to strike that response -- that answer as

1   not responsive to my question.

2   MS. BRACEY: Mr. Chairman, we object

3   about it. It was responsive to his question.

4   CHAIRMAN OBERMAN: Can I hear the

5   question and answer again, please.

6   THE COURT REPORTER: Yes, one moment,

7   please.

8   "Question: And is it fair to say

9   that -- that the -- this back and forth between

10   RTC models is typically not with completely new

11   models but is rather back and forth about, you

12   know, particular inputs to the RTC model?

13   "Answer: Well that be would fair if

14   there was no disagreement on the inputs. If there

15   was -- I never had a situation in one of these 15,

16   20, 25 standalone cases where the inputs into the

17   .TRAIN file or the .PERMIT file was based on

18   anything other than actual, verifiable

19   railroad-provided data.

20   "So, the situation here and the

21   situation in the standalone case are totally

22   different."

1   CHAIRMAN OBERMAN: He actually answered

2   the question in his first phrase when he said that

3   will be fair. I'll let that stand. The rest of

4   it went way beyond the question so I'll ask the --

5   I will order it stricken.

6   Go ahead.

7   MR. WARREN: Thank you.

8   BY MR. WARREN:

9   Q.   So, Mr. Crowley, it's fair to say that

10   in -- in sale and cost cases there are often

11   pretty substantial disputes about what inputs

12   should be made to the RTC model.

13   Is that right?

14   A.   Yes.

15   Q.   So, you know, inputs about, for

16   example, how many trains should go in the model,

17   right?

18   A.   That could be an issue.

19   Q.   Yeah. You -- you worked on the Dupont

20   case, right?

21   A.   I did.

22   Q.   Yeah, and I -- I guess I should be

1   specific. The -- the Dupont being the Norfolk

2   Southern case. Is that what you're referring to?

3   A.   If that's what you're referring to,

4   that's what I'm referring to.

5   Q.   Yes. I -- I think that there -- there

6   have been a few, but I think that that was the

7   only, you know, SAC case that -- that went to a

8   final decision.

9   And -- and -- so, but in the Dupont

10   case, if you recall, was -- was that not a case in

11   which, you know, sort of the basis of the

12   board's -- one -- one of the prime bases of the

13   board's final decision was, you know, disputes

14   about how many trains to be input into the RTC

15   model?

16   A.   That was sometime ago and I don't

17   really recall all of the short stokes in that

18   case.

19   Q.   Okay.

20   A.   So I'm not able to answer that.

21   Q.   Okay, that -- that -- that's fine.

22   So do you recall any case in the many

1   standalone cost cases that you've been involved in

2   in which, after the shipper put it in the RTC

3   model with its opening evidence, the railroad

4   said, "That RTC model is no good so I'm not even

5   going to bother putting in my own"?

6   A.   No.

7   Q.   Well, Mr. Crowley, you --

8   CHAIRMAN OBERMAN: Matt, I have to ask

9   you, what is the relevance of what -- how people

10 try the SAC case under a different statute than

11 we're operating in here? Is there some relevance

12 to that point?

13   MR. WARREN: So -- so, Mr. Chairman,

14 I -- I -- I do think I was getting ready to move

15 on if you're concerned about the relevance, but --

16 but I do think that this is a witness that

17 actually has offered some testimony in his

18 verified statement about how he thinks things, you

19 know, typically proceed in STB cases, citing a

20 bunch of SAC cases, and I think it's relevant

21 that, in the board's typical litigation process,

22 the board has actually made it clear in several

1   SAC cases that, you know, when a party puts in

2   evidence on opening, that the party that is in the

3   reply position believes is flawed, it is on that

4   party to -- to respond to that evidence and

5   correct it and not simply to say, "No burden of

6   proof. We're not going to put in our own

7   evidence".

8   CHAIRMAN OBERMAN: Well --

9   MR. WARREN: And this is --

10   CHAIRMAN OBERMAN: -- you know, the --

11   MS. BRACEY: I'm going to object to

12   that. I'm going to object to that as counsel was

13   testifying.

14   CHAIRMAN OBERMAN: Well I've -- I've

15   asked a question, Ms. Bracey. I think it's fair

16   for him to respond when I ask a question. But

17   we're operating under a statute which everybody in

18   this proceeding has made clear is a case of first

19   impression in which the burden of proof is

20   expressly stated in the statute and there is no

21   similar language to my knowledge in SAC cases, so

22   I'm not -- that's all the reason I think we have

1   to figure out how things are done in a case like

2   this and it's a case of first impression.

3   MR. WARREN: Yeah.

4   CHAIRMAN OBERMAN: So I -- I'm not

5   saying you can't ask the question. You asked it

6   but I just think to me -- it seems to me we're

7   getting off into another world here that doesn't

8   relate to our resolving this case. But why don't

9   you --

10   MR. WARREN: Yeah, I will. We could --

11   whenever we get to closing we -- we -- we -- we

12   can talk about that a little more --

13   CHAIRMAN OBERMAN: Yes.

14   MR. WARREN: -- at that time.

15   CHAIRMAN OBERMAN: And I think --

16   MR. WARREN: But I am moving on.

17   CHAIRMAN OBERMAN: I think the legal

18   argument at that point would be appropriate.

19   MR. WARREN: All right.

20   BY MR. WARREN:

21   Q.   So Mr. Crowley, you talked a fair

22   amount in your direct testimony about the

1   information you had access to when you -- when you

2   started working for Amtrak. So, is -- is it --

3   when you were retained by Amtrak, I believe you

4   said that was in mid October. Do I have -- do I

5   have that right?

6   A.   Sometime in October, yes.

7   Q.   Okay. All right, sometime in October.

8   So, at that time did -- did -- did you

9   ask Amtrak for -- or, I won't ask what you asked.

10   Were you given access to all of the information

11   that had been produced in discovery to that point?

12   MS. BRACEY: I'm going to object, your

13   Honor -- I mean, Mr. Oberman, on the same grounds,

14   the privilege grounds.

15   MR. WARREN: I -- I believe the witness

16   talked extensively in his direct testimony about

17   the information that he had and did not have. So

18   I'm not actually asking about his communications

19   with counsel. I've tried to phrase my question

20   that way. I'm just asking the witness if -- what

21   he had.

22   CHAIRMAN OBERMAN: Well, can you just

1   state the question again, Matt?

2   MR. WARREN: Sure, sure.

3   BY MR. WARREN:

4   Q.   When -- when you were retained by -- by

5   Amtrak, were you given access to the information

6   that had been produced in discovery?

7   CHAIRMAN OBERMAN: He can answer that

8   question.

9   THE WITNESS: I believe so.

10   BY MR. WARREN:

11   Q.   Did -- did you review for example

12   responses to interrogatories or responses to

13   requests for admission, documents like that?

14   A.   We reviewed the data that was provided.

15   We never tied it back to the -- we were not

16   involved in that part of the process of drafting

17   questions or requests for production but we did

18   review the data that we were provided by Amtrak.

19   Q.   Right. And -- and understanding

20   that -- that you weren't retained but those

21   questions were being drafted, did -- were you --

22   did you see the -- the final documents, the final

1   interrogatory responses that --

2   A.   Well we saw the data. I'm not sure we

3   saw the responses.

4   Q.   Okay.

5   A.   We might have. I -- I just don't

6   recall.

7   MR. WARREN: All right. Well, let's --

8   let -- all right, so -- so at this point, Mr.

9   Chairman, I'm going to sort of walk -- walk

10   through a few documents and I -- I am going to ask

11   to start with CSXNS 65. And I believe we have --

12   just to try to keep things moving, we have I think

13   already emailed documents. We -- we-- we've

14   emailed a couple of additional exhibits that we're

15   going to be showing Mr. Crowley, so that should be

16   popping into everybody's inboxes soon.

17   CHAIRMAN OBERMAN: Are -- are these --

18   are these in the voluminous and weighty books that

19   were shipped to us?

20   MR. WARREN: This -- this -- this --

21   this one is, Mr. Chairman. This in the voluminous

22   and weighty CSXNS joint exhibits and this is --

1   CHAIRMAN OBERMAN: Well, I have mine

2   sitting here.

3   MR. WARREN: -- Exhibit 65.

4   CHAIRMAN OBERMAN: I have mine sitting

5   here. Give me thirty seconds and I'll have it.

6   MR. WARREN: Okay, just let me know

7   when you're ready.

8   MS. BRACEY: I'm just going to object

9   to asking him about documents he's never -- he

10   just testified he's never seen before.

11   MR. WARREN: I'm going to show him a

12   couple of things in the document and -- and if he

13   establishes that he's never seen it before, after

14   I show him the things I'm going to show, then I'll

15   accept that answer.

16   CHAIRMAN OBERMAN: Well, it's perfectly

17   proper on cross-examination to use a document to

18   show him if he can't answer the questions about

19   it. I can't find -- I can't find it. Hold on.

20   (Brief pause.)

21   CHAIRMAN OBERMAN: This -- this is in

22   the -- not the overall joint book but the CSXNS

1   joint book?

2   MR. WARREN: Yes -- yes -- yes, that's

3   right, Mr. Chairman.

4   CHAIRMAN OBERMAN: Do the other board

5   members have this document?

6   MEMBER PRIMUS: I'm -- I'm pulling it

7   up right now. I'm getting my workout.

8   MEMBER FUCHS: One of -- it's in volume

9   one of two.

10   CHAIRMAN OBERMAN: Yeah, I got it.

11   MR. WARREN: Okay, does everybody --

12   does everybody have it? Does Mr. Crowley have it?

13   MS. BRACEY: Yeah, I will give Mr.

14   Crowley a copy.

15   BY MR. WARREN:

16   Q.   Mr. Crowley, let me know when you're

17   ready.

18   A.   Okay, I'm ready.

19   Q.   All right. Mr. Crowley, have you seen

20   this document before?

21   A.   I don't believe so.

22   Q.   Okay. And these are -- these are

1   interrogatory responses. Is that right?

2   A.   These are -- these are both

3   interrogatories and responses.

4   Q.   All right. If -- if -- if we -- if we

5   could take a look at -- at page 12 of 13. It's

6   near -- near the back, Mr. Crowley. So these --

7   these are -- these are dated on September 2nd,

8   2021. Is that right?

9   A.   Yes.

10   Q.   Okay. And -- and now I'm going to ask

11   you -- sorry for making you flip back and forth --

12   now I'm going to ask you to take a look at page

13   four, the response to interrogatory number one.

14   Do you see that?

15   A.   I do.

16   Q.   All right, and then the response to

17   interrogatory number one, there is a listing of

18   persons that CSX has identified in request -- in

19   response to Amtrak's request to identify persons

20   who assisted in the preparation of these

21   interrogatories or have knowledge related to the

22   topics of these interrogatories.

1   Is that right?

2   A.   I guess so.

3   Q.   Did -- did you -- did -- at any point,

4   even if you didn't see this document, did Amtrak,

5   you know, give you this list of individuals who --

6   who were knowledgeable about the case?

7   A.   No.

8   Q.   No?

9   A.   Not that I recall.

10   Q.   Okay. And this includes, you know,

11 five -- five individuals, including Hannah Rosse

12 and Will Roseborough. Is that right?

13   A.   Yes, it does.

14   Q.   Okay. But Amtrak -- you never --

15 you've never seen this before today, right?

16   MS. BRACEY: Objection, asked and

17 answered.

18   CHAIRMAN OBERMAN: It's

19 cross-examination. It's okay. You can answer.

20   THE WITNESS: I -- I certainly don't

21 recall seeing this document.

22 BY MR. WARREN:

1   Q.   Okay. Well -- well, let -- let's --

2   let's move on then.

3   So the next document that I'm going to

4   show you is -- is a document that is -- is not

5   going to be in -- in the big binders. It's CSXNS

6   312 and that is the document that was emailed

7   around a couple minutes ago. So, let me know if

8   everybody's gotten it. It is a letter dated

9   September 9th, 2021.

10   CHAIRMAN OBERMAN: Which one, 312?

11   MR. WARREN: Yes, 312.

12   CHAIRMAN OBERMAN: I seem to have it

13   but it won't open.

14   MS. BRACEY: Chairman Oberman, if we

15   can wait until we have printed copies for the

16   witness.

17   CHAIRMAN OBERMAN: That's okay with me

18   because I can't open this. I don't know why. It

19   says it's a ZIP file, but it -- it shows up on

20   the -- when I open the emails a Adobe file. Is

21   that right?

22   MR. WARREN: It should -- it should be

1   an Adobe file that shouldn't be too long. Would

2   it --

3   MEMBER PRIMUS: It should be -- Marty,

4   I -- I think the one I opened it up it had -- it

5   said "preview" and I was able to open it up. Is

6   there a place you can preview it?

7   CHAIRMAN OBERMAN: No.

8   MEMBER PRIMUS: Because I'm not --

9   CHAIRMAN OBERMAN: All right. When I

10   open the attachment, I get a thing that shows

11   three exhibit numbers. Yeah, I -- I'm a limited

12   test person.

13   MS. BRACEY: Your Honor, I was able

14   to open it by just clicking on exhibit number 032

15   or whatever it was.

16   CHAIRMAN OBERMAN: Yeah, well I click

17   on it, nothing happens.

18   MS. BRACEY: Nothing happens, okay.

19   MR. WARREN: Yeah, so would -- would

20   this be a good time for a break so that we can

21   get -- get this out and Kali can get them printed,

22   or everybody can get them open?

1   CHAIRMAN OBERMAN: Well, it's on the

2   screen, so I can just read it on the screen.

3   MS. BRACEY: Chairman Oberman, it would

4   be great if we can have printed copies for Mr.

5   Crowley.

6   CHAIRMAN OBERMAN: Okay. Are we

7   getting that for him?

8   MS. BRACEY: Yes. So we don't object

9   to a break at this time. It shouldn't take us

10   terribly long.

11   CHAIRMAN OBERMAN: All right. It's --

12   MEMBER FUCHS: May I ask -- may I

13   ask we knock all the --

14   CHAIRMAN OBERMAN: Go ahead, Patrick.

15   MEMBER FUCHS: Unless it -- Matt,

16   unless it interrupts your questioning and the

17   pattern of your questioning, et cetera, does it

18   make sense to use the break to make all printouts

19   that you're planning to reference or --

20   MR. WARREN: Yes, so -- so I -- I -- I

21   will -- I will double check. I -- I believe that

22   the only new documents that I am planning on using

1 are the ones that just got emailed. So -- so we

2 tried to do -- we tried to do them all at once.

3   MEMBER FUCHS: Okay, great. Thank you.

4   MR. WARREN: I -- I -- I won't promise

5 that but that I -- that I -- that's -- that's my

6 current plan, unless I think of something.

7   CHAIRMAN OBERMAN: All right. We'll

8 break -- it's 11:17. We'll break until 11:30.

9   MR. WARREN: Okay, thank you.

10   (Recess taken.)

11   CHAIRMAN OBERMAN: All right, does

12 everybody have the documents we need now? Ms.

13 Bracey, does your witness have the documents you

14 wanted to show him?

15   MS. BRACEY: Yes, I'm ready to hand

16 them to him.

17   CHAIRMAN OBERMAN: All right. Yes,

18 Matt, is that where you are in your examination?

19   MR. WARREN: Yes, yes, I am.

20   CHAIRMAN OBERMAN: All right. Why

21 don't you provide Mr. Crowley with the documents

22 and then we'll proceed. We're back on the record.

1

2   BY MR. WARREN:

3   Q.   Okay, Mr. Crowley, do you have what's

4   been marked as CSXNS 312 in front of you?

5   A.   Is that what this is? Oh, yeah, right

6   down there. Yes, I -- I have it.

7   Q.   Okay. And this -- and this is a letter

8   from Amtrak's counsel, Kali Bracey, dated

9   Thursday, September 9th, 2021?

10   A.   Yes.

11   Q.   All right, have you seen this letter

12   before?

13   A.   I do not believe so.

14   Q.   Okay. And -- and we won't spend a lot

15   of time here but in -- in that -- that first

16   paragraph of the letter, indicates that this is a,

17   you know, a discovery follow-up letter, you know,

18   asking about, you know, what documents CSX plans

19   to provide and, you know, and -- and places where

20   Amtrak is asking CSX to provide more information.

21   Is that right?

22   A.   Yes.

1   Q.   Yes.   And in your experience and, you

2 know, litigation of the STB and in other forums,

3 you know -- you know, follow-up discovery letters

4 like this are -- are a pretty common way for

5 parties to get the information they want.

6   Is that right?

7   MS. BRACEY: Objection, foundation.

8   CHAIRMAN OBERMAN: Can you rephrase the

9 question, Matt.

10 BY MR. WARREN:

11   Q.   In -- in -- in your experience in

12 litigation for the STB, which you testified to on

13 direct, is it your experience the parties will

14 often in the discovery process send follow-up

15 letters like this where they don't feel like

16 they've gotten the information they need or if

17 they want to make sure that they're going to get

18 the information that they want?

19   MS. BRACEY: I also object on the

20 grounds it's compound.

21   CHAIRMAN OBERMAN: He -- he can answer,

22 if he can.

1   THE WITNESS: I can -- I would say it's

2   not unusual for follow-up letters.

3   BY MR. WARREN:

4   Q.   You -- you've often contributed to

5   follow-up letters in other cases, right?

6   A.   I don't -- I don't recall any specific

7   examples, but it's possible for sure.

8   Q.   Okay. All right. So -- and so that --

9   so that, CSXNS 312, you -- you can -- you can set

10   that aside. I'm going to ask you to look at, if

11   you've got it in front of you, CSXNS 313, and let

12   me know when you have that.

13   A.   I have it.

14   Q.   And -- and -- and this letter is dated

15   Monday -- or no -- it doesn't say "Monday". This

16   letter is dated September 13th, 2021. Is that

17   right?

18   A.   Yes.

19   Q.   And -- and you can see in that first

20   paragraph that this letter is in response to the

21   September 9th, 2021 letter that we were just

22   looking at.

Page 2815

1   Is that right?

2   A.   It's in response to a September 9th

3 letter.

4   Q.   Yes. Do we need to flip back to 312 to

5 see that that -- that is a September 9th letter?

6   A.   It is a September 9th letter.

7   Q.   Okay, all right. So let's -- let's go

8 back to 313 and I'm going to direct your attention

9 to the interrogatory section that starts at the

10 bottom of page one.

11   A.   Okay.

12   Q.   Okay. And -- and -- and am I right

13 that that reads -- I --I guess one question I

14 should ask you, Mr. Crowley. Did -- did you -- do

15 you recall ever seeing this -- this explanatory

16 letter before?

17   A.   No.

18   Q.   No. Okay. So, that -- that bottom

19 paragraph on page one indicates that today,

20 September 13th, CSX produced the rail traffic

21 file -- RTC files in its possession, custody or

22 control associated with the incomplete 2020/2021

1   RTC study performance by HDR.

2   Is that right?

3   A.   Yes.

4   Q.   Were -- were -- were you -- were you

5   given all -- all of this -- all of these RTC files

6   by Amtrak?

7   A.   I believe so.

8   Q.   All right. Were -- were you aware that

9   they were all produced to Amtrak on September

10   13th?

11   A.   I don't -- I don't recall.

12   Q.   Okay, let -- let's -- let's turn to the

13   next page, Mr. Crowley, and in the section on

14   interrogatory number eight, I would direct your

15   attention towards that. Let's see, it's the

16   second sentence starting about four lines down

17   indicating that on September 2nd, 2021, CSXT

18   produced track charts covering its rail lines

19   between New Orleans and Mobile for the years 2015

20   and 2021.

21   Do you see that?

22   A.   I do.

1   Q.   And did Amtrak give you access to those

2   track charts that were produced?

3   A.   We had some -- we have some track

4   charts but I don't know if they were these. But

5   we got some track charts from Amtrak.

6   Q.   Okay. And then I'd also direct your

7   attention to that last sentence of the paragraph

8   indicating that "Today, September 13th, CSXT

9   produced the files from HDR's 2020/'21 RTC study

10   as well as base case files located with respect to

11   HDR's 2016 RTC study".

12   Do you see that?

13   A.   I do.

14   Q.   Were you given access to those files by

15   Amtrak?

16   A.   I believe so.

17   Q.   Okay. And did Amtrak explain to you

18   when it gave you the RTC files that CSX had

19   pointed out, you know, which files were for --

20   from the '20/21 HDR study and which files were for

21   the 2016 RTC study?

22   MS. BRACEY: Objection, communications

1   between counsel and the expert.

2   CHAIRMAN OBERMAN: He may -- he may --

3   he may answer that question.

4   THE WITNESS: I think the files were

5   self-explanatory if I recall properly but I'm not

6   sure exactly what the exchange was with counsel.

7   BY MR. WARREN:

8   Q.   Okay, but you -- you were able --

9   this -- this letter identifies, you know,

10   particular Bates number ranges associated, you

11   know, with these studies. Is that right?

12   A.   Yes.

13   Q.   And -- and -- and you were aware that

14   those -- those particular files and those

15   particular Bates ranges were associated with these

16   studies?

17   A.   I assume so. I -- I don't really

18   recall any of this, so.

19   Q.   Okay. So all right. Well, let's --

20   let's go down to interrogatory number nine. I'll

21   direct your attention to that first paragraph. We

22   got a little too far in our -- our screen there.

1   So you see in that first paragraph that

2   indicates that in CSXT's first production from,

3   you know, Bates number one to ten were data on

4   train schedules and actual train movements.

5   Do you see that?

6   A.   Sorry, no, I don't see that.

7   Q.   Okay. Well I'll -- I'll -- I'll --

8   maybe I shouldn't paraphrase. I'll read exactly.

9   In response to interrogatory number

10   nine, CSXT stated that it "would provide Amtrak

11   with data on train schedules and actual train

12   movements. As promised, these documents were

13   produced at CSX, Amtrak GC-" lots of zeros one "to

14   CSX Amtrak GC-" lots of zeros ten. "This data

15   covers the time period of January 1st, 2015 to

16   August 29th, 2021 and will enable Amtrak to view

17   how train schedules did or did not change over

18   time as well as how actual train movements

19   departed for the corresponding operating plants".

20   Did -- did I read that correctly?

21   A.   Yes.

22   Q.   All right. And we -- and is -- were --

1   were you -- was the data described in that

2   paragraph provided to you?

3   A.   I believe so.

4   Q.   Okay. All right. Let's -- let's flip

5   to the next page and skip a couple of these and --

6   and I'd like to direct your attention to the --

7   the explanation for request number six. And

8   again, this -- this request number six again, you

9   know, indicates that it was on September 2nd, 2021

10   that CSX produced train operating plans and data

11   on actual train movements as well as track charts

12   for 2015 and 2021.

13   Is that right?

14   A.   That's what it says.

15   Q.   Okay. And you were given access to all

16   that information, right?

17   A.   I believe so.

18   Q.   Okay. And -- and would you agree that

19   that middle sentence, in request number six which

20   indicates that "The TRAIN data includes

21   substantial detail regarding CSXT's traffic

22   volumes with respect to the number of loads in

1   empty rail cars in each departure and arrival

2   point as well as the length and weight of

3   departing rail cars".

4   A.   I don't remember what the data actually

5   showed.

6   Q.   Okay. And if we could just turn to the

7   last page, Mr. Crowley, page four, request number

8   ten, CSX indicated in its letter that -- that "The

9   track charts and RTC files from past studies

10   provide Amtrak with the necessary information to

11   model the proposed Gulf Coast passenger service

12   and ascertain any historical alterations to the

13   line over the discovery period".

14   Do you see that?

15   A.   I do.

16   Q.   Were you aware that as of the date of

17   this letter, September 13th, 2021, CSX had

18   produced sufficient data that in CSX's view gave

19   Amtrak the necessary information to model the

20   proposed Gulf Coast passenger service?

21   MS. BRACEY: Objection as to what CSX

22   viewed and whether or not Mr. Crowley can testify

1   to that.

2   CHAIRMAN OBERMAN: Can you rephrase the

3   question, Matt.

4   MR. WARREN: Sure.

5   BY MR. WARREN:

6   Q.   You were not -- were you aware --

7   excuse me. Let me get a drink of water.

8   Were you aware that -- that CSX had

9   indicated to Amtrak that it believes that as of

10   September 13th it had provided Amtrak with the

11   necessary information to model the Gulf Coast

12   passenger service?

13   A.   Well that's what this says but I can't

14   tie that to anything that I know.

15   Q.   Okay. So the -- the answer is you --

16   you were not aware?

17   A.   I'm not --

18   Q.   All right, then this letter was not

19   shared with you?

20   A.   Not that I recall.

21   Q.   Okay. Thank you. I -- I'm -- I'm

22   now -- the -- the next document I'm going to show

1   you, Mr. Crowley, is one that -- that is in those

2   big CSXNS binders. It is CSXNS 072.

3   CHAIRMAN OBERMAN: Well what is the

4   document? What is the document?

5   MR. WARREN: So the document is, it's

6   CSXNS 072. It's a November 1st, 2021 letter.

7   CHAIRMAN OBERMAN: Hold on a minute.

8   MR. WARREN: Sure. And just --

9   everyone, there's a few documents in a row there

10   that I'm going to be asking about, 73, 74, 76.

11   Because we're skipping --

12   MS. BRACEY: May I inquire of Mr.

13   Warren through Chairman Oberman whether or not

14   this was included in the email?

15   MR. WARREN: I -- this was not included

16   in the email. So this is -- this is a -- this and

17   I believe, let me just confirm, I believe every

18   other document I'm going to use is a document that

19   was -- that should be in those -- that should be

20   in those binders that was previously provided.

21   Do we have the documents or are we

22   still -- we're still pulling them up? I'm happy

1   to wait.

2   CHAIRMAN OBERMAN: I have mine. Ms.

3   Bracey, have you located the document?

4   MS. BRACEY: Yes, sir, we have.

5   CHAIRMAN OBERMAN: And does Mr. Crowley

6   have it?

7   MS. BRACEY: Yes, Mr. Crowley has it.

8   CHAIRMAN OBERMAN: And the other board

9   members, are you all on board here.

10   (Board members give thumb's up.)

11   MEMBER PRIMUS: I have mine.

12   CHAIRMAN OBERMAN: Okay.

13   BY MR. WARREN:

14   Q.   All right, Mr. Crowley, directing your

15   attention to CSXNS 072, this is a letter dated

16   November 1st, 2021 from Amtrak's counsel, Kali

17   Bracey. Is that right?

18   A.   Yes.

19   Q.   Have you seen this document before?

20   A.   I don't believe so.

21   Q.   All right. Do you -- this -- and this

22   document is dated November 1st. Is that right?

1   A.   Yes.

2   Q.   And so that -- that is about six weeks

3   after the September 13th production of RTC files,

4   correct?

5   A.   Yes.

6   Q.   Okay. And even if you haven't seen

7   this letter, did you -- does -- does this letter

8   reflect any input from you, who at that point had

9   been hired as Amtrak's RTC expert?

10   A.   I don't recall.

11   Q.   Okay. Did you -- you testified in

12 direct that -- that there were letters that you

13 believe that -- that were sent to ask -- ask for

14 data.

15   Is that right?

16   A.   Yes.

17   Q.   Is this -- is this one of those letters

18 to which you were referring?

19   A.   Could be.

20   Q.   Okay. All right. Well, let's -- you

21 don't recall. Let's -- let's move to CSXNS 073,

22 which should be the next document in the binders.

1   Mr. Crowley, do you have that in front of you?

2   A.   Yes.

3   Q.   And this -- have you seen this document

4   before?

5   A.   I don't recall.

6   Q.   Okay.   And -- and this -- this is a

7   November 8th, 2021 letter from me back to Kali

8   Bracey responding to the letter that was sent on

9   November 1st.   Is that right?

10   A.   Yes.

11   Q.   And -- and Mr. Crowley, do you want to

12   take a look at the second page of the letter to

13   see if that jogs your memory?

14   A.   Yeah, I -- I recall seeing this data.

15   Q.   Okay.   You -- okay good.   So you

16   recall -- recall seeing this -- you recall seeing

17   this data, okay.

18   So -- so after you saw this data from

19   Amtrak, did you, you know, indicate that this

20   answered your question?

21   A.   I don't think -- I'm sorry, Mr. Warren,

22   but my memory I guess is not that good.   I

1   don't -- I don't recall exactly what we did with

2   this. We partly analyzed it but I don't -- I

3   don't recall any specific response.

4   Q.   Okay, fair -- fair enough. Well

5   let's -- let's move on to CSXNS 74. And just to

6   orient on -- on timeline, and I believe you

7   testified to this on direct -- but, you know,

8   November 3rd, 2021 is -- is the date on which

9   CSXNS, you know, submitted their evidence.

10   Is that right?

11   A.   November 3rd? Yes.

12   Q.   Yes. So, this -- so have you seen

13   this -- this document before, CSXNS 74?

14   A.   I don't believe so.

15   Q.   Okay. Could I -- could I ask you to

16   flip through the -- the whole document, see if you

17   recognize pages two and three?

18   A.   Yeah, that would have been -- that

19   looks familiar.

20   Q.   Okay. Good. So -- so let's --

21   let's -- let's turn back -- turn back to the first

22   page, and -- and so this is -- this is another

1   letter from -- from -- you know, from Ms. Bracey

2   to -- to counsel for CSX.

3   MR. WARREN: Could we -- could we

4   actually open up that -- the image we're showing,

5   to show the date on the top of the letter, please.

6   BY MR. WARREN:

7   Q.   And that was sent November 17th, 2021.

8   Is that right?

9   A.   Yes.

10   Q.   And -- and -- and -- and this -- this

11   document is essentially a -- a request for

12   additional work papers. Is that right?

13   A.   Yes, correct -- well --

14   Q.   Okay.

15   A.   It was asking for a subset that was

16   provided before that wasn't correct.

17   Q.   And -- and did you provide to -- to

18   Amtrak the list of questions that they were going

19   to ask about the work papers?

20   A.   Are you talking about the information

21   on pages two --

22   MS. BRACEY: Objection. I'm going to

1   object to communications between counsel and the

2   expert.

3   CHAIRMAN OBERMAN: Read the question --

4   state the question again, Matt.

5   MR. WARREN: The -- the -- the -- the

6   question is whether Mr. Crowley, you know,

7   provided Amtrak with a list of questions about the

8   work papers that were proposed in this letter.

9   CHAIRMAN OBERMAN: He may answer.

10   (Brief interruption.)

11   CHAIRMAN OBERMAN: Matt restated the

12 question. He may answer that question.

13   THE WITNESS: This looks likes

14 something we put together.

15 BY MR. WARREN:

16   Q.   Thank you. So, just directing your

17 attention to page -- to pages two and three, this

18 is the -- this is the list of questions that --

19 that you provided?

20   MS. BRACEY: Asked and answered.

21   MR. WARREN: Okay. I'll -- I'll --

22 I'll withdraw it.

Page 2830

1   CHAIRMAN OBERMAN: Okay.

2   BY MR. WARREN:

3   Q.   Let -- let me ask you this, Mr.

4   Crowley. Is there -- is there any other requests

5   that you made -- any other -- any other request

6   that you made of Amtrak's counsel of work paper

7   clarifications that did not get included in this

8   list?

9   A.   I don't recall.

10   Q.   Okay. Did you ask for example for

11   field personnel interviews?

12   MS. BRACEY: Objection, foundation.

13   CHAIRMAN OBERMAN: You may answer.

14   THE WITNESS: I don't recall.

15   BY MR. WARREN:

16   Q.   Did you ask for more information on the

17   randomizer process you were talking about on

18   direct by which the trains were compiled --

19   compiled for the RTC model?

20   A.   I don't recall.

21   Q.   But those aren't reflected on this

22   document, right?

1   A.   I do --

2   MS. BRACEY: Objection, foundation. He

3   says he didn't recall.

4   CHAIRMAN OBERMAN: He can answer

5   whether the information he testified to was

6   reflected on this document.

7   MS. BRACEY: If he testified that he

8   didn't recall.

9   CHAIRMAN OBERMAN: No, he didn't

10   testify. He hasn't answered that question. He

11   may answer it.

12   THE WITNESS: I don't see those

13   questions here or those requests here, so.

14   BY MR. WARREN:

15   Q.   Okay, thank -- thank you. We -- we can

16   move on to CSXNS 76.

17   A.   Seventy-six?

18   Q.   Yeah, 76. Let me know when you have

19   that.

20   A.   I have that.

21   Q.   Okay. So have you seen this document

22   before?

1   A.   Yes.

2   Q.   All right. And -- and -- and this is a

3   November 19th, 2021 letter from -- letter from me

4   to Kali Bracey. Is that right?

5   A.   Yes.

6   Q.   And just directing your attention to

7   that first paragraph, the letter indicates that,

8   "We are writing in response to your November 17th,

9   2021 letter asking questions about certain work

10   papers for the opening evidence filed by CSXT and

11   NSR on November 3rd, 2021. We respond to each of

12   your questions below".

13   Is that right?

14   A.   That's what it says.

15   Q.   Were -- and were you -- were you

16   provided this -- this response?

17   A.   I believe so.

18   Q.   Okay. And just -- just turning to, you

19   know -- we have the -- we have the written

20   response there with a few formulas that I won't go

21   through, and then there's an -- an appendix A,

22   "Work Papers Index," correct? This is starting on

1   page four of the document?

2   A.   Yes.

3   Q.   And you were provided that as well,

4   correct?

5   A.   Yes.

6   Q.   After you got this response, did you

7   ask for any additional work paper requests to be

8   posed?

9   A.   I don't recall.

10   Q.   At any point in this -- during your

11   retention by Amtrak, did you suggest that more

12   discovery needed to be taken?

13   A.   I don't recall that either.

14   Q.   You don't recall if there was any point

15   where you suggested that might need to be some

16   depositions of CSX or NS witnesses?

17   MS. BRACEY: Objection. That was

18   not -- I -- Mr. Crowley, I mean, that was just not

19   in the schedule. Mr. Crowley cannot testify.

20   CHAIRMAN OBERMAN: He may answer.

21   THE WITNESS: No.

22   BY MR. WARREN:

1   Q.   Mr. Crowley, were you aware that CSX

2   and NS had actually proposed a schedule extension

3   which would have provided more time for discovery

4   and more time for the parties to provide -- to put

5   their evidence together?

6   MS. BRACEY: Objection, foundation.

7   CHAIRMAN OBERMAN: The question is did

8   he have a foundation.   He can answer.   Was he

9   aware of it.

10   THE WITNESS: No.

11   BY MR. WARREN:

12   Q.   Did you suggest that more time would be

13   needed in the schedule?

14   A.   No.

15   Q.   So, Mr. Crowley, are you aware that as

16   part of this proceeding Amtrak personnel were --

17   given access to, you know, enter CSX's Choctaw

18   Yard and do some -- you know, do a site visit?

19   Are you aware of that?

20   A.   No.

21   Q.   I think I know the answer to this

22   question.   Did you -- did you attend that site

Page 2835

1   visit?

2   A.   No.

3   Q.   No, right.   Did anyone from your team

4   go?

5   A.   No.

6   Q.   Did you ask Amtrak to have you or -- or

7   somebody else from your team high rail the line?

8   A.   No.

9   Q.   No.   Did -- did you ask Amtrak to allow

10   you or somebody else from your team to visit New

11   Orleans, to visit the New Orleans operations?

12   A.   No.

13   Q.   How about the Mobile operations?

14   A.   No.

15   Q.   So, Mr. Crowley, I -- I -- I think we

16   covered this earlier, but you're aware that the

17   information, all of the information that was

18   provided by CSX to HDR for the joint RTC model

19   that HDR was preparing was included in the

20   discovery that Amtrak received.

21   A.   I don't know that.

22   Q.   You're aware that HDR was able to build

1   a base case about in 2020 for its RTC model?

2   A.   Yes, that's what they presented, I

3   believe.

4   Q.   Okay. And you're aware that they were

5   able to build a passenger case as well, correct?

6   A.   I believe so, yes.

7   Q.   And that was based on the -- the data

8   that they had received from CSX and NS and Amtrak,

9   right?

10   MS. BRACEY: Objection, foundation.

11   CHAIRMAN OBERMAN: Ask him if he knows.

12   BY MR. WARREN:

13   Q.   If -- if you know.

14   A.   No, I don't know.

15   Q.   So I'm going to switch gears, Mr.

16   Crowley. In your reply verified statement you and

17   Mr. Fapp identified I think 582 trains in the Gulf

18   Coast RTC model .TRAIN file that, according to

19   you, shouldn't have been included.

20   Is that right?

21   A.   No, I didn't say they shouldn't be

22   included. I said they weren't in the

Page 2837

1   documentation that was provided.

2   Q.   So are you not sure whether they should

3   have been included or not?

4   A.   I have no idea what the basis for them

5   is. That was what our testimony is about:

6   unverifiable data.

7   Q.   Did you -- did you watch the -- the --

8   have you been watching the testimony in this case?

9   A.   Yes.

10   Q.   And you read all of the evidence,

11   right?

12   A.   Yes.

13   Q.   Okay, including the -- the -- the

14   rebuttal RTC reports?

15   A.   Yes.

16   Q.   And the -- the rebuttal statements

17   from, you know, Hannah Rosse and Holly Sinkkanen?

18   You read that?

19   A.   Yes.

20   Q.   But you in your reply evidence -- now

21   you're testifying that you're not sure -- but in

22   your reply evidence you said that these trains

1   didn't belong.

2   Isn't that right?

3   A.   Yes.

4   Q.   And -- and you provided a -- a detailed

5   list of all of the trains that in your view didn't

6   belong, correct?

7   A.   Correct.

8   Q.   Okay. But you didn't run the RTC model

9   without those trains, right?

10   A.   Correct.

11   Q.   So you haven't actually presented any

12   evidence about what removing those trains would do

13   to the RTC results, right?

14   A.   Correct.

15   Q.   So -- and you're aware that -- the --

16   the -- when we talked about the RTC model, we were

17   actually talking about multiple RTC runs, correct?

18   A.   Yes.

19   Q.   Okay, just to orient you a little bit.

20   One of those runs is of course the 2019 base case,

21   right?

22   A.   The base case that you characterized,

1   yes.

2   Q.   Yes.   The -- the base case that was --

3   that presented in opening evidence is what I'm

4   talking about?

5   A.   Correct.

6   Q.   All right.   And in that base case --

7   it -- it is modeled -- it -- it assumes no

8   passengers and adds no additional infrastructure,

9   right?

10   A.   Correct.

11   Q.   All right.   And you're aware that RTC

12 was able to dispatch the 2019 base case?

13   A.   Yes.

14   Q.   Okay.   Even though it contains the

15 trains that you say shouldn't be there?

16   A.   Yes.

17   Q.   Right.   And the only difference between

18 the 2019 base case and the 2019 passenger case is

19 the addition of passenger trains, right?

20   A.   Yes.

21   Q.   Right.   And for the 2039 base case,

22 which assumes the 2039 growth and, you know, no

Page 2840

1   new passenger trains and no infrastructure other

2   than what's already been planned, the 2039 base

3   case also dispatches without incident, right?

4   A.   Well, it dispatches, yes.

5   Q.   Okay. Even though the 2039 base case

6   also includes the trains that you say shouldn't be

7   there?

8   A.   Yes.

9   Q.   So like -- just like with the 2019

10 case, the only difference between the 2039 base

11 case and the 2039 passenger case is the addition

12 of the Amtrak trains, right?

13   A.   And the gross trains.

14   Q.   Yes, but for the 2039 base case

15 includes the growth trains. You know, I apologize

16 if my question was confusing.

17   The 2039 base case includes the growth

18 trains, right?

19   A.   Correct.

20   Q.   Right. So the only difference between

21 the 2039 base case and the 2039 passenger case

22 are -- is the addition of the four Amtrak

1   passenger trains, right?

2   A.   And the growth trains. That's the

3   difference between the two.

4   Q.   But the growth -- the growth trains --

5   let me ask again. So -- and -- maybe we -- we --

6   maybe I'm not being clear.

7   The 2039 base case includes the growth

8   trains, right?

9   A.   Yes.

10   Q.   And so the 2039 passenger case doesn't

11   include new growth trains, right?

12   A.   That's correct.

13   Q.   The only difference is the new

14   passenger trains?

15   A.   If you're comparing it to the 2019

16   case, that would not be correct.

17   Q.   That -- that -- that's -- that is --

18   that is true, Mr. Crowley. I -- I wasn't and I

19   apologize if I misspoke. But I was comparing 2039

20   to 2039.

21   A.   Okay.

22   Q.   So Mr. Crowley, you're aware that there

1   are several movable bridges on the line, right?

2   A.   Yes.

3   Q.   And several of those bridges are -- are

4   currently manned by bridge tenders, correct?

5   A.   Correct.

6   Q.   And for a couple of those bridges -- I

7   think four of those bridges -- the bridge tenders

8   have to get to their assignments on a high rail

9   truck.

10   Is that right?

11   A.   That's correct.

12   Q.   And so, when that's happening in the

13   real world, you know, the dispatcher has to make

14   sure that the line is clear for the high rail

15   truck to get on, take -- take the -- the crew to

16   their station and -- and get off, correct?

17   A.   Correct.

18   Q.   So the fact that we've got these high

19   rail trucks that have to get on and off the line

20   is going to affect the -- the way that the line

21   has to be dispatched to the real word, right?

22   A.   Yes.

1   Q.   And it's important for RTC to account

2   for that, correct?

3   A.   Yes.

4   Q.   Okay. Are you aware, Mr. Crowley, that

5   there is a crossing diamond in Mobile where CN

6   crosses the CSX tracks?

7   A.   Yes.

8   Q.   And when CN trains are coming through

9   that diamond, the dispatchers have to make sure

10   that the diamond is clear, correct?

11   A.   When the CN trains?

12   Q.   I'm sorry -- sorry for going too fast.

13   Let me ask again.

14   Would a -- if a CN train is going to be

15   crossing through the diamonds, it's important for

16   the -- for the dispatcher to understand that to

17   make sure that, you know, a CSX train doesn't --

18   doesn't -- doesn't move onto the diamond at the

19   same time, right?

20   A.   That's correct.

21   Q.   And it's important for the RTC model to

22   account for that, right?

1   A.   Yes.

2   Q.   But in your accounting of all the

3 trains that you say shouldn't be on the line or

4 that you couldn't verify, you said that there

5 should be no bridge tender high rail movements and

6 no CN foreign trains, right?

7   A.   I think the high rail movements are

8 different than the -- the CN train, but, yes,

9 that's what we said.

10   Q.   Mr. Crowley, how many CSX and NS yards

11 are on the Gulf Coast routes that Amtrak wants to

12 use?

13   A.   There would be the Sibert, Choctaw and

14 then the one down in -- adjacent to New Orleans.

15   Q.   All right. So Sibert and Choctaw.

16 Gentilly, is that what you're referencing?

17   A.   Right.

18   Q.   And Oliver Yard too, right?

19   A.   Right.

20   Q.   Okay. So it's pretty common -- so

21 that's -- so four: Sibert, Oliver, Gentilly,

22 Choctaw. It -- it's pretty common for railroads

1   to have yard trains, right?

2   A.   Yes.

3   Q.   Yes.   Often multiple yard trains per

4   day, correct?

5   A.   I guess some yards do, yes.

6   Q.   Some yards do.   Okay.

7   Now in your verified statements, you

8   said that, out of the 570 yard trains represented

9   in the 2021 Gulf Coast RTC model, you didn't think

10   that 562 of them belonged.

11   Have I got that right?

12   A.   Something like that, yeah.   It was a

13   high number.

14   Q.   All right.   So -- and so 570 -- 570

15   minus 562 is eight trains, right?

16   A.   Yes.

17   Q.   And the RTC study period covered 14

18   days, right?

19   A.   Right.

20   Q.   So if we've got four yards in two weeks

21   and only eight trains, that averages out to one

22   yard train per yard per week, right?

1   A.   Assuming your math is correct, I'd say

2   yes.

3   Q.   Do you think that represents operations

4   in the real world?

5   A.   Yes.

6   Q.   You believe -- okay. Okay.

7   So just, I want to make sure you

8   understood my question. So you believe that one

9   yard train per yard per week represents operations

10   in the real world?

11   MS. BRACEY: Asked and answered.

12   CHAIRMAN OBERMAN: He can answer.

13   THE WITNESS: Yes.

14   BY MR. WARREN:

15   Q.   Okay. So Mr. Crowley, you talked a

16   little bit in your direct testimony about the --

17   your -- your work for Metra in the CP/KCS merger

18   proceeding. So I am going to show you what has

19   been marked as CSXNS 306.

20   MR. WARREN: And let me know if

21   everyone has it. I -- I will say that this --

22   this was a late add to the exhibit list, so it may

1   not be in the exhibit binder. So please let me

2   know if everybody doesn't have it.

3   Oh, this -- this was actually -- we put

4   this in the email that we sent earlier.

5   MS. BRACEY: Mr. Crowley has a copy.

6   MR. WARREN: Okay, great.

7   CHAIRMAN OBERMAN: I don't have it but

8   I'm going to -- is this just the verified

9   statement?

10   MR. WARREN: This -- this -- this is

11   the verified statement for Metra. Mr. Chairman,

12   this was included in the email that we sent

13   earlier.

14   CHAIRMAN OBERMAN: Well, I'm just going

15   to look on the screen because I couldn't open it

16   and I don't think there's enough time.

17   MR. WARREN: Okay.

18   CHAIRMAN OBERMAN: Well, wait a minute.

19   I'm sorry. Maybe -- I have it. Never mind. I

20   was sent. Okay, go ahead.

21   BY MR. WARREN:

22   Q.   Okay. Mr. Crowley, did you review this

Page 2848

1   verified statement in preparation for your

2   testimony today?

3   A.   Is this the highly confidential record?

4   Q.   This -- this is the public version. I

5   should say that -- say that on the record. This

6   is the -- this is the public version.

7   A.   Okay. Yes, I did.

8   Q.   Okay, good.

9   MR. WARREN: Could we flip forward and

10   show page 77 to Mr. Crowley, please.

11   BY MR. WARREN:

12   Q.   Mr. Crowley, is this your signature on

13   page 77?

14   A.   Yes, it is.

15   Q.   And you -- you signed under a

16   verification under penalty of perjury that you've

17   read this verified statement on behalf of Metra,

18   that you know the contents thereof and that the

19   same were true you and correct.

20   Is that right?

21   A.   Yes.

22   Q.   And this was -- this was signed on

1   March 15th, 2022, correct?

2   A.   Yes.

3   Q.   So, Mr. Crowley, in -- in your verified

4   statement that you've submitted for Metra, you

5   specifically attack the applicants, CP and KCS,

6   for modeling capacity using what you said was a

7   simple mathematical formula for calculating

8   theoretical maximum capacity.

9   Is that right?

10   A.   Right.

11   Q.   Okay --

12   CHAIRMAN OBERMAN: Could you -- can you

13   give us a page number where you --

14   MR. WARREN: Yes, I'd be -- yeah,

15   I'd -- I'd be happy to.   Let -- let's turn to page

16   43 of the document.

17   BY MR. WARREN:

18   Q.   Okay.   And that -- that language I

19   was -- I was quoting from, Mr. Crowley, is that --

20   that there the first sentence underneath section B

21   that's talking about a simple mathematical

22   formula?

1   A.   That was what CP and KCS stated.

2   Q.   Yes, that -- yes, that -- that's right.

3   That was your criticism of them.

4   So let's -- let's turn --

5   CHAIRMAN OBERMAN: That -- that

6   sentence doesn't contain a criticism.   It just

7   says what they stated.

8   MR. WARREN: That -- fair enough, Mr.

9   Chairman.   Why don't we move forward to the

10   criticisms.   Why don't we -- could we turn to

11   page -- maybe I should start this way.

12   BY MR. WARREN:

13   Q.   Mr. Crowley, you criticized the -- the

14   applicants in this verified statement for using a

15   simple mathematical formula.   Is that right?

16   A.   For using MultiRail, yes.

17   Q.   Turn to page -- the bottom of page 44,

18   please.   So at the bottom of page 44, carrying

19   over to 45, you testified to Metra that the STB

20   long ago moved away from using purely mathematical

21   calculations to determine track capacity and

22   operating requirements and has instead adopted a

Page 2851

1   more sophisticated approach of rail traffic

2   simulation to determine a rail line's capacity.

3   Is that right?

4   A.   Yes.

5   Q.   Is it fair to say that your opinion is

6   that rail simulation through RTC is superior to

7   purely mathematical calculations?

8   A.   Well it's superior to what CP and KCS

9   did in this proceeding.

10   Q.   You -- you -- you said that. You --

11   you certainly did testify to that. But in this

12   particular part of your verified statement, you

13   didn't just limit it to what CP and KCS were

14   doing. You said that RTC was -- was superior to

15   using purely mathematical calculations to

16   determine track capacity and operating

17   requirements, right?

18   A.   Yes, that's what it says.

19   Q.   Okay. And that's -- that's what you

20   verified as true and correct to the best of your

21   knowledge, right?

22   A.   You have to put it in the context that

Page 2852

1   we wrote it, but, yes, that's correct.

2   Q.   Well, we'll -- we'll certainly put it

3   in the context, but the context is sworn

4   testimony, right?

5   A.   The context is that the MultiRail total

6   is something that the STB has rejected in the past

7   and it is a purely mathematical formula, as is the

8   RTC model a -- a mathematical formula. So I'm not

9   sure where you're going with this.

10   Q.   We'll -- we'll -- we'll -- we'll see,

11   Mr. Crowley. MultiRail has been accepted by the

12   STB in multiple cases, hasn't it?

13   A.   As an operating tool, not as a capacity

14   tool.

15   Q.   Okay. I just wanted to make sure, when

16   you said that MultiRail had been rejected, that

17   wasn't actually right.

18   A.   Yes, as a capacity tool, yes, that is

19   exactly right.

20   Q.   Turn to page 46, kind of get -- get

21   into your criticisms of what you say is a

22   mathematical rail capacity model, and it's right

1 that, you know, I'm just -- I'm not going to do a

2 lot of reading of quotes, but just directing your

3 attention to -- to page 46, if you want to follow

4 along, one of the criticisms you made is that

5 there -- you said that their modeled line segment

6 would travel at the same speed, right? And I'm

7 happy to direct your attention to the particular

8 language I'm -- I'm looking at if you'd like. I'm

9 just trying to move things along.

10   MS. BRACEY: I would just ask that Mr.

11 Warren read the entire sentence as opposed

12 to excerpts.

13   MR. WARREN: I would be happy to.

14 BY MR. WARREN:

15   Q.   Why don't -- so, just -- "The CP/KCS

16 model assumes that all trains operating over a

17 line segment will travel at the same speed. But

18 CP's own time tables show that this is not the

19 case".

20   A.   That's what I wrote.

21   Q.   That's right. And that reflects your

22 opinion that one of the problems with this

1   mathematical rail capacity model was that it

2   assumed that all trains should be traveling at the

3   same speed, right?

4   A.   It's the model that CP and KCS used.

5   That's correct.

6   Q.   So if there were a different

7   mathematical rail capacity model that had trains

8   traveling at the same speed, you wouldn't have the

9   same criticism?

10   A.   Not necessarily. You'd have to

11   evaluate the model and you'd have to evaluate the

12   circumstances.

13   Q.   Okay. So -- and then at the -- at the

14   bottom of the page, I'll -- I'll -- I'll read

15   again, that -- that -- that bottom paragraph, "The

16   CP/KCS simple mathematical capacity model also

17   assumes average meet factors will be the same for

18   all trains.

19   "However, the time it takes trains to

20   clear into sidings is impacted by numerous factors

21   including train length, train weight and turnout

22   type of configuration that are not included of

Page 2855

1   the -- in the CP/KCS model."

2   Is that right?

3   A.   That's what I wrote.

4   Q.   That's what -- that's -- that's what

5   you wrote. And do you think that that is a

6   problem with mathematical rail capacity models,

7   that they just assume that the average meet

8   factors will be the same for all trains, right?

9   A.   That's the problem with the CP/KCS

10   mathematic model.

11   Q.   Okay, would -- and it doesn't apply to

12   other mathematical capacity models?

13   A.   Not necessarily.

14   Q.   You also, later -- and again, it's page

15   48 to 50. I -- I won't quote unless someone would

16   like me to. You cite the CN/EJ&E proceeding as an

17   example of the superiority of RTC, the theoretical

18   capacity analyses.

19   Is that right?

20   A.   Yes.

21   Q.   And then you discuss a 2014 study by

22   the TRB that talks about the limitations of

1   mathematical models used to determine rail line

2   capacity. Is that right?

3   CHAIRMAN OBERMAN: What -- what page

4   are you on now, Matt?

5   MR. WARREN: Yes, I -- my -- my

6   apologies. Let -- let's go to -- here, Steven

7   let -- let's -- maybe I should slow down. Trying

8   to go quickly on day eight of our trial but maybe

9   I should slow down.

10   BY MR. WARREN:

11   Q.   On page 49, you -- you talk about the

12   CN/EJ&E proceeding, right, and use that as an

13   example of why RTC is superior, correct?

14   A.   Yes.

15   Q.   Okay. And so now let's -- let's turn

16   to page 50, all, so we can get there. And page 50

17   is when you discussed -- here we're pointing it

18   out -- you relied in part on a 2014 study by the

19   National Cooperative Highway Research Program

20   under the auspices of the Transportation Research

21   Board, or -- or TRB, that reviewed strictly

22   mathematical models to determine rail line

1   capacity in these models' limitations, right?

2   A.   Yes.

3   Q.   And that's -- and that's something that

4   you -- you -- you discuss in this Metra verified

5   statement, correct?

6   A.   Yes. And again you have to keep it in

7   context, all in relation to what CP and KCS filed.

8   Q.   Right. So it's -- it's not like I can

9   tell, Mr. Crowley, you spent about 12 pages of

10   your Metra verified statement giving example after

11   example of the problems with theoretical capacity

12   analysis.

13   Is that right?

14   A.   No. I -- I spent those pages

15   critiquing CP and KCS' models.

16   Q.   And isn't it right that you

17   particularly noted that theoretical capacity

18   analyses aren't suited to evaluating lines that

19   have a mix of freight and passenger traffic,

20   right?

21   A.   The -- again it's the model that CP and

22   KCS used. That's what we're evaluating.

1   Q.   Well why don't we turn to page 52 and

2   you can see what we're talking about.

3   Now I'm looking at that middle sentence

4   where you say that, "The presence of significant

5   passenger train volumes and the mix of traffic

6   moving over this line make the capacity issue even

7   more complex, given passenger trains contractual

8   priority and significantly different operating

9   characteristics of all the train types that

10 actually use the line segment that's being

11 studied".

12   That was your testimony, right?

13   A.   Yes.

14   Q.   And -- and the -- the fact that adding

15 significant passenger train -- passenger train

16 volumes into the mix of traffic moving over a

17 line, the fact that that -- let me start again.

18 That was a confusing question.

19   The -- the fact that the presence of

20 significant passenger train volumes of the traffic

21 mix, the fact that that makes capacity more

22 complex wasn't something that you just limited to

1   the CP/KCS theoretical capacity model, right?

2   A.   No.   It reflects what is actually

3   moving on these Metra lines.   It's -- there's a

4   tremendous amount of passenger traffic every day

5   on these Metra lines by comparison to most any

6   other passenger line in the country.

7   Q.   But Mr. -- Mr. Crowley, my -- my

8   question is, the principal that, when you have a

9   complex traffic mix already and you're adding

10   passenger trains in, the -- the fact that that

11   creates a situation where a theoretical capacity

12   analysis is less useful, does that principal only

13   apply in your testimony for Metra and it doesn't

14   apply in other contexts?

15   A.   When you evaluate passenger service

16   that are averaging 85 passenger trains a day on

17   specific line segments and try to compare that to

18   a freight line that operates four passenger trains

19   a day, you are mixing apples and oranges when you

20   try to make those operating comparisons.

21   You have to read my Metra testimony in

22   the context that it was written, and that is, in

1 evaluating freight service and passenger service

2 in Chicago -- and that doesn't even -- my comments

3 don't even account for the Amtrak trains that are

4 going through there. So this is totally a

5 different set of circumstances that we're

6 critiquing in Metra than we were talking about in

7 Mobile to New Orleans.

8   Q.   Mr. Crowley, isn't it actually right

9 that -- that in your Metra statement, when you're

10 talking about all the reasons why RTC is a

11 superior methodology, you actually use this

12 proceeding as an example of parties using RTC to

13 test capacity?

14   A.   Well, can you point that out for me?

15   Q.   Oh, I'd be happy to. Let's go back a

16 little bit, page 49. It's footnote 71, which I

17 think actually may start on page 48. So we see --

18 that's where it starts and just to -- just to set

19 up the context, this paragraph on page 48 you cite

20 general principals for why the STB now relies upon

21 and endorses more sophisticated train simulation

22 models to evaluate rail line capacity, talk about

1 RTC and then you drop a footnote giving examples

2 of how useful RTC can be for evaluating --

3 evaluating rail line capacity.

4   Do you see that?

5   And then let's turn to the next page,

6 because that footnote carries over --

7   MS. BRACEY: I would ask that Mr.

8 Warren -- I would just ask that Mr. Warren not

9 characterize what's in the paragraph and instead

10 read what's in the paragraph.

11   MR. WARREN: I -- I am happy to read it

12 word for word if that would be helpful but I think

13 we --

14   CHAIRMAN OBERMAN: Well, that would --

15 I think that would be preferable.

16   MR. WARREN: I -- I'd -- I'd be happy

17 to. So the paragraph --

18   CHAIRMAN OBERMAN: What page are we on

19 now?

20   MR. WARREN: We are now at the bottom

21 of page 48 and I -- I'll read -- I'll read the

22 paragraph: "Recognizing the limitations simple

1   mathematical models have in identifying railroad

2   capacity issues, the STB now relies upon and

3   endorses more sophisticated train simulation

4   models to evaluate rail line capacity.

5   "In its decision in STB docket No.

6   42057, the STB noted the existence of several rail

7   simulation tools including the RTC model to

8   evaluate rail line capacity.

9   "The RTC model has since become the

10   dominant rail simulation model used by parties in

11   proceedings before the STB. Users adopted the RTC

12   model because it provides greater levels of

13   granularity for evaluating capacity requirements

14   than simple mathematical models."

15   That was your testimony, right, Mr.

16   Crowley?

17   A.   Yes.

18   Q.   And you did not limit in this paragraph

19   your analysis to the particular mathematical model

20   you were criticizing in CP/KCS, right?

21   A.   I don't use CP/KCS in this sentence,

22   but this whole verified statement is about CP/KCS.

1   I -- I don't know how you can detach the two.

2   Q.   Okay. Well, and now -- now I'm going

3   to read -- I -- I'm going to note that coming off

4   of this paragraph we have footnote 71. I won't

5   read the full case citations but I -- I will do my

6   best to read it accurately. In footnote 71 you

7   say, "See for example Excel Otter Tail, Western

8   Fuels, Dupont". Now we can go to the next page,

9   "Outside of maximum reasonable rate proceedings

10   before the STB, parties have used the RTC model to

11   test rail line capacity in docket No. FD 36496,

12   Application of the National Railroad Passenger

13   Corporation under 49 U.S.C. 24308(e), CSX

14   Transportation Inc. and Norfolk Southern

15   Corporation filed March 16th, 2021".

16   Did I read that accurately?

17   A.   Yes.

18   Q.   So, I'll -- I'll, again to ask my

19   question, isn't it right that in the Metra case

20   you cited this proceeding as a good example of

21   parties using rail line capacity analyses -- or

22   using -- excuse me, using RTC to test rail line

1   capacity?

2   A.   This was a case where the parties used

3   that model, where the party, a party used that

4   model. That's all I'm saying is yes, and here's a

5   case where the party used the model.

6   Q.   So, Mr. Crowley, when you -- when you

7   built your RTC model for -- for Metra, and I want

8   to just -- let me start by getting the -- the --

9   the timing right. When you were -- when were you

10   retained?

11   A.   I'm not sure I can talk about all that,

12   Mr. Warren.

13   Q.   I -- all I want is the date that you

14   were retained by Metra. And it's okay if you

15   don't have an exact date. If you could just

16   estimate.

17   A.   We've been working for Metra for years.

18   Q.   Well maybe I need to be more specific.

19   When -- when was the date that you were

20   retained by Metra to work in the CP/KCS proposed

21   merger?

22   A.   Well actually I think we were retained

Page 2865

1   by counsel and not by Metra for this particular

2   assignment.

3   Q.   Oh, okay. What was the date when you

4   were retained by counsel for Metra?

5   A.   I don't recall.

6   Q.   You're aware that, you know, Metra

7   requested a number of RTC files from -- from CPS

8   for use in preparing its evidence, right?

9   A.   Yes.

10   Q.   And you're aware that Metra publicly

11   filed a motion for extension with the STB pointing

12   out that many of those RTC files were not produced

13   until February 15th, correct?

14   A.   Something like that, yes.

15   Q.   Okay. And then you actually submitted

16   your testimony from Metra on March 15th, right?

17   A.   That's correct.

18   Q.   Okay. So that's 28 days later, right,

19   four weeks?

20   A.   Right.

21   Q.   And we had established from some of the

22   earlier letters we looked at that, you know, RTC

Page 2866

1   modeling files were provided by CSX to Amtrak on

2   September 13th, correct?

3   A.   Yes.

4   Q.   And you submitted a reply verified

5   statement on December 3rd, right?

6   A.   Correct.

7   Q.   And you actually were permitted to

8   submit a surrebuttal on February 1st, right?

9   A.   That's correct.

10   Q.   Okay, February 1st is about

11   four-and-a-half months after mid September, right?

12   A.   Yes.

13   Q.   And it's about three-and-a-half months

14   after mid October, right?

15   A.   Yes.

16   Q.   So Mr. Crowley, when you were building

17   your RTC model for Metra, you started by building

18   a base case, right?

19   A.   Yes.

20   Q.   And to do that, part of -- part of your

21   job there was to create a .TRAIN file, right?

22   A.   Yes.

Page 2867

1   Q.   And you did that in part with the data

2 that you got from CP, correct?

3   A.   Correct.

4   Q.   But the -- the data that you got from

5 CP didn't include foreign trains, did it?

6   A.   Correct.

7   Q.   But in -- for purposes of your RTC

8 model, you added in some of the foreign trains

9 that you didn't see in the CP data, right?

10   A.   We added in two foreign trains based on

11 documents that CP provided.

12   Q.   They weren't the event data, though,

13 were they?

14   A.   Pardon me?

15   Q.   They weren't in the train event data,

16 though, were they?

17   A.   They were not.

18   Q.   Right. Because in your judgment as an

19 RTC modeler, you know, it -- it was important for

20 you to have the model reflect what was actually

21 happening on the line, right?

22   A.   That's based on the data that was

1   provided by CP. We didn't -- we didn't model a

2   lot of trains that we knew were on the line

3   because we didn't have the data to verify that.

4   Q.   Right. But Mr. Crowley, you just

5   testified that you added trains -- and we can

6   do -- look at it in your Metra statement, too --

7   you just testified that you added foreign trains

8   that weren't in the data, right?

9   A.   They were not in the train movement

10   files. We added two trains, not the hundred

11   trains that moved over these Metra lines. We did

12   not add those trains because we did not have the

13   data from CP to verify those trains.

14   Q.   Why don't we take a look at page 59 of

15   your Metra verified statements. And I'm going to

16   direct your attention. I'll go ahead and read

17   these sentences looking at, you know, at line

18   four. "CP's train event data was missing data" --

19   CHAIRMAN OBERMAN: What -- what page

20   are we on? I'm sorry.

21   MR. WARREN: Oh, I'm sorry. I'm sorry,

22   Mr. Chairman, page 59.

1   CHAIRMAN OBERMAN: No I just -- you

2   don't have to be sorry. I just was distracted

3   there for a moment.

4   MR. WARREN: That's all right.

5   CHAIRMAN OBERMAN: All right.

6   BY MR. WARREN:

7   Q.   So you -- you -- here at -- in your

8   discussion talking about how you developed the

9   .TRAIN file for Metra, you note that, "CP's train

10   event data was missing data for foreign freight

11   trains. We conservatively added two daily foreign

12   freight trains in the form of daily roundtrip

13   local trains, one UP train operating between

14   Proviso Yard and Bensenville Yard over the IHB and

15   one NS train operating between Kalamata and

16   Bensenville Yard over the BRC in accordance with

17   CP/KCS' description of the Chicago Interchange

18   Operations".

19   Did I read that correctly?

20   A.   Yes.

21   Q.   So you added additional trains that

22   were not in the data based on a narrative

1   description that you thought reflected what was

2   actually happening on the line, right?

3   A.   It's -- no, I -- no, that's not right.

4   We added two trains because those are

5   two trains we can verify from data provided by CP.

6   This -- these are not our documents. These are

7   documents from CP. We wanted to include all of

8   the foreign trains. There's a hundred of them or

9   more but we couldn't -- not get that data from CP.

10   Q.   All right. So, Mr. Crowley, I'm asking

11   you something different.

12   I do understand that you indicated that

13   there were foreign trains you didn't include but

14   I'm asking you about the foreign trains that you

15   did include and the only thing I'm asking you to

16   acknowledge is what you wrote in your verified

17   statement, which is that you added two foreign

18   trains that were not in the data because you had a

19   description and because you, as an RTC modeler,

20   thought those trains were moving in the real

21   world?

22   A.   These two trains were not in the train

1   data. That is correct. I would agree with that.

2   Q.   That -- that -- that -- that is -- that

3   is all I was -- I was asking.

4   A.   The witness.

5   Q.   So I will say -- did you use a peak

6   week when developing your -- your base case for

7   Metra?

8   A.   We used a ten-day peak period: a -- a

9   two-day warm-up, seven-day model, Monday

10   cool-down.

11   Q.   All right. But that period wasn't

12   actually the period reflecting peak volumes on the

13   line, right?

14   A.   I think it was, yes.

15   Q.   Okay. Well let's -- let's -- let's

16   take a look at page 61 of your verified statement.

17   In that last sentence of the first paragraph you

18   say, "However, we were careful to avoid selecting

19   a week in which anomalous events caused unusual

20   volumes and/or train delays," right?

21   A.   Yes.

22   Q.   And -- and going through --

1   MS. BRACEY: I'm sorry. I'm sorry.

2   Are you on page 61? Is that --

3   MR. WARREN: I -- I am on -- yes, I'm

4   on page 61. Let -- let me know when you're --

5   when you have it.

6   MS. BRACEY: I'm sorry. I got it.

7   MR. WARREN: Okay.

8   MS. BRACEY: Sorry about that.

9   MR. WARREN: That's all right.

10   BY MR. WARREN:

11   Q.   So and then in -- in the next couple

12   paragraphs, you list off several high-volume weeks

13   that you rejected because you believe that there

14   were particular circumstances that made those too

15   high, right? You take -- take a minute to review

16   them if you'd like.

17   A.   Yes, yes. We tried to get the peak

18   week reflect normal actual operations. So we --

19   we eliminated the anomalous weeks.

20   Q.   Right. So -- so it isn't exactly a

21   peak week then, right?

22   A.   It is by our definition.

1   Q.   Okay. But it -- it's -- it's a week

2   that you thought was -- was a good representation

3   of -- of -- of ordinary operations on the line,

4   right?

5   A.   It was a peak week representing a

6   normal operations.

7   Q.   It wasn't "the" peak week, right,

8   because you rejected the high-volume weeks?

9   A.   Well, the testimony stands for itself.

10   It says what we did.

11   Q.   Okay.

12   A.   Why we did it.

13   Q.   All right. Okay. All right, and --

14   and so -- and after you developed the base case,

15   you developed a number of metrics that were -- you

16   were going to use to sort of compare the base case

17   against other cases, right?

18   A.   Correct.

19   Q.   Let's turn to page 63 of your statement

20   where you list the metrics that you used.

21   CHAIRMAN OBERMAN: Matt, before you

22   move to another page, can you -- can we have some

1   timing estimates here? We're getting around our

2   lunch break time. How much more time do you

3   anticipate here with Mr. Crowley?

4   MR. WARREN: That is a -- a good

5   question, Mr. Chairman. Give me a minute to

6   think. I -- I -- I suspect that I have at least

7   half an hour and maybe -- maybe 45 minutes or so.

8   So I would not object if the court wants to have a

9   lunch break now. I also don't mind pushing you

10   forward.

11   CHAIRMAN OBERMAN: Well, if you were --

12   if you were on the same train of thought, I didn't

13   want to interrupt it. If you were switching to a

14   new thought, then this might be a place for a

15   break, but I don't think we should wait 'till you

16   finish because that's a little too long.

17   MR. WARREN: Yeah, I -- I -- I --

18   CHAIRMAN OBERMAN: You tell me if it's

19   a convenient time.

20   MR. WARREN: I -- I think now is a

21   convenient time to pause.

22   CHAIRMAN OBERMAN: All right. Does

1 that meet with the acceptance of the other board

2 members? It's 12:34, which is usually around the

3 time we break. Is that okay with my colleagues?

4   MEMBER FUCHS: Whatever is good with

5 the parties is good with me.

6   CHAIRMAN OBERMAN: Yeah, okay. All

7 right. I don't hear anything else. So we are

8 going to break and it's 25 minutes of 1:00. Why

9 don't we just -- so we're not rushed, there's a

10 lot of things going on here -- come back at 1:10.

11   MR. WARREN: Okay. That -- that

12 makes -- Mr. Chairman, just the standard request

13 that counsel for Amtrak not -- not talk with Mr.

14 Crowley about his testimony during the lunch

15 break.

16   CHAIRMAN OBERMAN: Do you understand

17 that, Mr. Crowley?

18   THE WITNESS: I do.

19   CHAIRMAN OBERMAN: All right. Thank

20 you all.

21   (Whereupon at 12:35 p.m. a luncheon

22 recess was taken.)

1   A F T E R N O O N   S E S S I O N

2   (Whereupon at 1:14 p.m. the hearing

3   resumed.)

4   CHAIRMAN OBERMAN: So with that, we

5   will continue with the cross-examination of Mr.

6   Crowley.

7   Mr. Crowley, you understand you remain

8   under oath?

9   THE WITNESS: I do.

10   CHAIRMAN OBERMAN: Proceed, Matt.

11   MR. WARREN: Thank you, Chairman.

12   BY MR. WARREN:

13   Q.   Mr. Crowley, I'm going to pick up where

14   we left off on your Metra verified statement. I

15   was getting ready to ask you about the metrics

16   that you had calculated to use in sort of

17   evaluating those RTC results. And I'll direct

18   your attention to page 63, which is up on the

19   screen now.

20   And is it correct that you developed

21   four metrics that you used to -- to assess the --

22   the RTC model runs you did for Metra?

Page 2877

1   A.   Yeah, we developed these four metrics

2   you see in the middle of that page.

3   Q.   Okay. And the first one is average

4   train speed, right?

5   A.   Yes.

6   Q.   And -- and the second one I'm going to

7   read. "Delay percentage is the delay time

8   represented as a percent of total transit time and

9   is a valuable indicator of congestion on the

10   modeled network, where a delay of ten minutes is

11   less significant for a ten-hour movement than it

12   is for a one-hour movement".

13   Is that right?

14   A.   Yes.

15   Q.   So it -- it's your opinion that a delay

16   percentage is a -- is a useful metric to use as a

17   RTC model?

18   A.   For this particular metric, yes.

19   Q.   Okay. And this -- and this explanation

20   that you -- you gave for why percentage was useful

21   for telling the differences between a -- a

22   ten-minute delay and a ten-hour movement and a

Page 2878

1   one-hour delay -- I -- I apologize. Let me -- let

2   me withdraw that poorly formulated question.

3   This -- your -- your opinion here that

4   delay percentage is a useful metric, isn't this

5   essentially the same thing that Mark Dingler

6   testified to last week?

7   MS. BRACEY: I would just ask for him

8   to -- for Mr. Warren to be a little more specific.

9   MR. WARREN: Sure.

10   BY MR. WARREN:

11   Q.   Did -- did -- Mr. Crowley, did you

12   listen to Mark Dingler's testimony last week?

13   A.   Yes.

14   Q.   Do you recall his testimony on why he

15   believed that using a -- a percentage to measure

16   delays was a useful metric in RTC modeling?

17   A.   No.

18   Q.   You don't -- you don't recall?

19   A.   That's correct.

20   Q.   Okay. Your third -- your third metric

21   here is delay per hundred train miles, right?

22   A.   Yes.

1   Q.   And then total delay hours?

2   A.   Correct.

3   Q.   Okay.   And -- and then just that

4   sentence underneath, your opinion is that, quote,

5   "These metrics are common and recognized

6   approaches to analyzing the results of rail

7   simulations".

8   Is that right?

9   A.   Correct.

10   Q.   Okay.   And so after you developed the

11   base case for Metra, which we talked about before

12   the break, you developed a future case, as well.

13   Is that right?

14   A.   Yes.

15   Q.   So, and in the future case, you added

16   projected growth and CP -- and CP/KCS trains -- or

17   I guess I should say CP/KC trains, and you added

18   in projected growth in Metra trains and you

19   modeled the additional infrastructure that

20   applicants CP and KCS had proposed to build.

21   Is that right?

22   A.   In various simulations, yes.

1   Q.   Okay.   And then ultimately what you did

2   is you compared the base case metrics with the

3   future case metrics.   Is that right?

4   A.   Yes.

5   Q.   Okay.   Well let's flip ahead to -- to

6   where you did that.   I'm going to direct your

7   attention to page 72, table seven.   And so we've

8   got a table here and then that first full

9   paragraph, "As shown in table seven above, while

10   the future case ran to completion after reducing

11   future train volumes, we found a decline in

12   average train speeds across all train types and

13   increases in delay percentages, delay per hundred

14   train miles and aggregate delay hours.

15   "This indicates that even with fewer

16   trains than CP/KCS and Amtrak proposed to add,

17   service will significantly decline for Metra and

18   all other train operators."

19   Did I read that correctly?

20   A.   Yes.

21   Q.   And that's your opinion as to what --

22   what the metrics produced by your base case and

1   future case show?

2   A.   Yes, for the CPS/KCS study that we did,

3   yes.

4   Q.   Okay. All right. So let -- I want to

5   take a look at a couple of these metrics. If --

6   if I could direct your attention to that -- that

7   first column is -- is average speed, right?

8   A.   Yes.

9   Q.   Or I guess I should say the -- the

10   first column is train crew. The second column is

11   average speed --

12   CHAIRMAN OBERMAN: Just for -- just for

13   the record, we're on --

14   MR. WARREN: We -- we are on page --

15   Mr. Chairman, we are on page 72 of CSXNS 306 and

16   looking at table seven.

17   CHAIRMAN OBERMAN: Okay.

18   MR. WARREN: Okay?

19   CHAIRMAN OBERMAN: Yup.

20   BY MR. WARREN:

21   Q.   So in that -- that average speed

22   column, am I right the average speed for Metra is

1   31.52 miles per hour. Is that right?

2   A.   Yes.

3   Q.   And that's in the base case. And so if

4   we look down to the future case, the average speed

5   in miles per hour for Metra is 30.83 miles per

6   hour. Is that right?

7   A.   Correct.

8   Q.   So, the difference between 31.52 and

9   30.83 is a little less than .7 miles per hour.

10   Isn't that right?

11   A.   Correct.

12   Q.   And in this case, Amtrak has suggested

13   that an aggregate delay of .7 miles per hour --

14   excuse me, an aggregate speed decline of .7 miles

15   per hour is not significant. Isn't that right?

16   A.   We -- we are showing the results of the

17   model and you're taking -- you're asking me about

18   one component or one train group within the model.

19   It -- it is what it is, it shows what it shows,

20   but I'm not sure I'm getting the connection.

21   Q.   All right, I -- I -- I agree that it

22   shows what it shows. Would you agree that --

1   well, I'd be happy to walk through some other

2   metrics. Maybe we should do that first.

3   Let's look at delay per one hundred

4   train miles. So there in the base case for Metra,

5   you identified that from the base case 1.06

6   minutes delay per one hundred train miles for

7   Metra.

8   Is that right?

9   A.   Yes.

10   Q.   Okay, and then looking down at the

11   future case, you identified 5.37 minutes of delay

12   per one hundred train miles, right?

13   A.   Yes.

14   Q.   And so the difference between 5.37 and

15   1.06 is, you know, 4.31 minutes, right?

16   A.   Yes.

17   Q.   It's about four minutes and 20 seconds,

18   right?

19   A.   Right.

20   Q.   Okay. And your -- and your opinion

21   that we just read from the paragraph below is that

22   these metrics, .7 miles -- you know a .7 decline

1   in speed and a -- you know, an additional four

2   minutes and 20 seconds of delay equated to, quote,

3   "service will significantly decline for Metra,"

4   right?

5   A.   Well, it was not just based on these

6   metrics. These metrics show what the models

7   produced.

8   Q.   I -- I'm -- Mr. Crowley, I thought we

9   just did the metrics. Doesn't -- are there other

10   metrics that aren't in table seven?

11   A.   Well there are all of these metrics.

12   There are metrics for all train types.

13   Q.   You -- you said specifically -- they

14   are metrics for all train types, Mr. Crowley, but

15   you opined and testified to the board that these

16   metrics showed that quote "service will

17   significantly decline from Metra," right?

18   CHAIRMAN OBERMAN: Where -- where are

19   you reading from, Matt?

20   MR. WARREN: Oh, I -- I am -- I am

21   reading from that first paragraph underneath, Mr.

22   Chairman, the second sentence.

1   THE WITNESS: Yes --

2   CHAIRMAN OBERMAN: The second sentence,

3   "This indicates" --

4   MR. WARREN: "This indicates" -- I'll

5   read the full sentence. "This indicates" --

6   CHAIRMAN OBERMAN: I have it. I have

7   it.

8   Matt, you know, you're in one of the

9   few areas that I know something about. Isn't it

10   fair to understand that a few minutes delay in a

11   commuter service which prides itself on a

12   six-minute window for on-time measurement is a

13   little different than delay to freight trains

14   which don't arguably even have schedules?

15   I mean, what -- what -- what's the

16   merit of this comparison on this particular point?

17   I've been following you up to now but it doesn't

18   seem to me these are apples to apples to what

19   we're focused on in this case and I'm trying to

20   speed this along.

21   MR. WARREN: No, I -- well I --

22   CHAIRMAN OBERMAN: But go ahead.

1   MR. WARREN: I -- I -- I think that

2   apples to apples are -- are related to, Mr. -- you

3   know, the different positions that Mr. Crowley has

4   taken at this proceeding and the Metra proceeding.

5   CHAIRMAN OBERMAN: Well, I've been

6   following that but a few minutes delay of a Metra

7   train I think we could all agree is a completely

8   different orange than a few minutes delay to a

9   freight train which doesn't even have a schedule.

10   MR. WARREN: Yes, well, maybe -- maybe

11   I can respond to that comment in part by asking

12   Mr. Crowley another question.

13   CHAIRMAN OBERMAN: All right.

14   BY MR. WARREN:

15   Q.   Mr. Crowley, what is the average delay

16   per one hundred train miles shown in the

17   comparison between the 2019 base case that -- that

18   CSX and NS presented and the 2019 passenger case?

19   Do you know?

20   A.   Are we talking about Metra?

21   Q.   No -- no. We're -- we're not talking

22   about Metra. So we -- we -- table seven makes

1   clear that it -- that it's four point -- 4.3,

2   which you indicate shows the service will

3   significantly decline. I'm asking you if you know

4   the difference -- the delay per one hundred train

5   miles metric from the Gulf Coast model.

6   A.   Yeah, I believe those numbers are in

7   our testimony. I -- I don't know them off the top

8   of my head, but I think there's a table in there

9   that shows that.

10   Q.   Yeah, was -- was it more than five

11   minutes?

12   A.   I don't -- don't recall. Can you point

13   me to that table? I'll --

14   Q.   I -- I -- I don't actually -- I believe

15   it's in your work papers, Mr. Crowley, and it's

16   actually in a demonstrative. So but I'm just

17   going to ask you what -- what you remember right

18   now.

19   A.   I don't remember.

20   Q.   Is it more than -- was it more than ten

21   minutes per hundred train miles?

22   MS. BRACEY: Objection, he says he

1   doesn't remember.

2   CHAIRMAN OBERMAN: Sustained.

3   BY MR. WARREN:

4   Q.   Do you remember if it was more or less

5   than 4.3?

6   MS. BRACEY: Objection. Same

7   objection.

8   CHAIRMAN OBERMAN: Sustained.

9   BY MR. WARREN:

10   Q.   Mr. Crowley, did you contribute to the

11   demonstrative exhibits that Amtrak submitted into

12   the record or I -- I withdraw that last phrase.

13   Did you contribute to the demonstrative

14   Peapod exhibits that Amtrak put on its exhibit

15   list?

16   A.   If you can show me what you're talking

17   about, I can respond.

18   Q.   Well the question is, if you -- the

19   demonstrative exhibits that came in as Amtrak

20   Exhibit 5, demonstrative exhibits, did you look at

21   any demonstrative exhibits that Amtrak was

22   preparing to submit in this case?

1   A.   Yes.

2   Q.   And do those demonstrative exhibits,

3 you know, reflect input from you?

4   A.   Yes.   The ones I looked at, yes, they

5 do.

6   MR. WARREN: Okay.   The Board's

7 indulgence for a minute.

8   (Brief pause.)

9   MR. WARREN: You know let -- let -- let

10 me move on, because I think we'll get to this

11 evidence later about the exact time differentials

12 here.

13 BY MR. WARREN:

14   Q.   So, Mr. Crowley, in addition to the

15 base case and the future case, did you also do a

16 build case for Metra?

17   A.   Yes.

18   Q.   Okay, and in that build case you

19 identified 11 additional infrastructure projects

20 that you proposed, correct?

21   A.   Correct.

22   Q.   In your report did you identify any

1   potential operational changes that could have

2   made -- been made instead of proposing those

3   infrastructure changes?

4   A.   No.

5   Q.   Well earlier we talked about -- let

6   me -- let me actually orient you. Let's turn back

7   to -- earlier in your Metra verified statement we

8   talked about the TRB, 2014 TRB study that you

9   referenced. This was on page 50.

10   A.   Of the Metra statement?

11   Q.   Of your -- of your Metra statement.

12 That's right.

13   A.   Page 50?

14   Q.   Yeah, page 50, the 2014 TRB report that

15 you referred to in the bottom paragraph.

16   A.   Yes.

17   Q.   In footnote 79.

18   A.   Yes.

19   Q.   So you reviewed that TRB study in -- in

20 connection with preparing your Metra testimony?

21   A.   Yes, I did.

22   Q.   And that TRB study indicates that the

Page 2891

1   ordinary planning timeline was -- for capacity

2   projects was 20 years, right?

3   A.   That's what they said, yes.

4   Q.   Thank you.

5   MR. WARREN: All right, I'm going to --

6   I'm going to -- we could take down the -- the

7   Metra exhibit.

8   BY MR. WARREN:

9   Q.   Mr. Crowley, I'm going to -- I'm

10   wrapping up. I'm -- I'm going to ask you a couple

11   of questions about -- about OTP. It is correct,

12   is it not, that in your surrebuttal testimony you

13   indicated that, you know, OTP was not an input to

14   the Gulf Coast RTC model, right?

15   A.   Yes.

16   Q.   Right. Because there's not a way to --

17   you can put a lot of stuff into RTC but you can't

18   tell it, like, "I want this train to have a really

19   high, you know, performance," right?

20   A.   Not as currently configured. You could

21   certainly program around it but not as it's

22   currently configured.

Page 2892

1   Q.   Right, understood. And -- and Mr.

2   Crowley, I think you testified that among the

3   things you reviewed was the rebuttal RTC report,

4   right?

5   A.   Yes.

6   Q.   Okay.

7   MR. WARREN: Could -- could we put up

8   the rebuttal RTC report. It has been previously

9   admitted, Mr. Chairman, as Joint Exhibit 41B. And

10 again I think it's JE, so it's all the parties'

11 joint -- joint exhibits.

12   CHAIRMAN OBERMAN: Forty-one E or D?

13   MR. WARREN: Forty-one B, B as in boy,

14 and this will be the public version of the

15 rebuttal RTC modeling report.

16   MS. BRACEY: We're just grabbing it for

17 Mr. Crowley.

18   MR. WARREN: Okay. Let -- let me know

19 when you have.

20   MS. BRACEY: Okay.

21   (Brief pause.)

22   MS. BRACEY: Mr. Crowley has a copy.

1   MR. WARREN: Okay, thank you.

2   BY MR. WARREN:

3   Q.   So Mr. Crowley, in -- in earlier

4   questioning from, you know, Member Hedlund I

5   believe in talking -- and Member Fuchs as well,

6   there was some questioning about OTP.

7   Do you recall that?

8   A.   Generally, yes.

9   Q.   Yes. And do you recall that there were

10   questions about whether or not there was any

11   evidence in the record about what the OTP was of

12   Amtrak trains in the -- in the passenger cases,

13   before any infrastructure was built, right?

14   A.   I -- I believe you asked those

15   questions.

16   Q.   Yes. Or I -- I didn't but I think some

17   of the members did, so I wanted to try to

18   illuminate that.

19   Could -- could you turn to page 14

20   of -- of the rebuttal report. And we have our

21   previously noted numbering issues here, so I'm

22   actually -- it's 14 on the exhibit numbering at

1   the bottom but it was 13 when this -- this was

2   originally submitted?

3   CHAIRMAN OBERMAN: This is the RTC

4   rebuttal report?

5   MR. WARREN: Yes, that's right, Mr.

6   Chairman.   And we -- we -- we could take that up a

7   little bit.

8   BY MR. WARREN:

9   Q.   And Mr. Crowley, I'm going to direct

10   your attention.   You indicated already that you

11   viewed this document.   I'm going to direct your

12   attention to table two, which is titled "2019

13   Train OTP with Different Passenger Priority

14   Settings".

15   Do you see that first column there for

16   "Original Passenger Case"?

17   A.   Middle column?

18   Q.   Yes, that middle column.

19   A.   Okay.

20   Q.   Yes.   And -- and does -- and does that

21   column indicate that the OTP in the passenger case

22   before any infrastructure was added?

1   A.   I -- I assume so. I -- I don't know.

2   I'd have to read this document again. But go

3   ahead.

4   Q.   Okay. If -- if -- if you'd like a

5   moment, Mr. Crowley, to -- to read around it, you

6   can have it.

7   A.   All right. Let me hear your question

8   and I'll let you know if I have to read it.

9   Q.   Okay. Let's look -- looking again at

10   that -- at that middle -- middle column you see,

11   you know, four rows for four Amtrak trains, right,

12   and in that middle column the numbers are 96.3,

13   99.2, 79.2 and 88.5.

14   Am I reading that correctly?

15   A.   Yes.

16   Q.   And does that refresh your recollection

17   about whether there was any evidence in the record

18   about what the OTP was for passenger trains before

19   any infrastructure was added?

20   A.   These are for the four -- excuse me,

21   these are for four of the 30 trains that they

22   modeled and they indicate that the OTP is either

1   right around 80% or higher.

2   Q.   Mr. Crowley, what do you mean by four

3   of the 30 trains they modeled?

4   A.   The 23 OTP, 24 OTP, 25 OTP, 26 OTP...

5   I assume those are the numbers they assigned to

6   the 30 models that they ran. Am I

7   misunderstanding that?

8   Q.   Yeah, I -- I think -- are you talking

9   about the seeds?

10   A.   The what?

11   Q.   The seeds.

12   A.   Seeds?

13   Q.   Yes.

14   A.   Well, that term has been used and

15   misused a lot. So if you're referring to a seed

16   as a run then, yes, I am talking about that.

17   Q.   Right. But these -- these aren't

18   referring to the seeds though. If you look at the

19   table -- and if you want to take some time to look

20   around it, you can. These are the four trains,

21   the two daily roundtrips back and forth -- one

22   two, three four. There's four of them, not 30.

1   A.   Okay. Well, okay, fine.

2   Q.   Okay. Right and you would agree --

3   CHAIRMAN OBERMAN: Matt -- Matt, I am

4 thoroughly confused here now. Does this table

5 reflect the average of all 30 runs for these four

6 trains? I -- I can't follow the questioning at

7 all unless I understand that.

8   MR. WARREN: Yes -- yes -- yes -- yes

9 it does. But I think that's -- that -- that's --

10 that's why I indicated it. But, yes, those --

11 those -- those are the -- those are the -- yeah,

12 all of the numbers in the report reflect the --

13 the averages from all of the 30 runs.

14   CHAIRMAN OBERMAN: So these are just

15 the numbers for the four different Amtrak trains

16 today but the OTP percentage is based on an

17 average of 30 times running it through this -- the

18 RTC model. Is that --

19   MR. WARREN: Yeah, I -- I -- I think

20 that -- that -- that's -- that's what the evidence

21 has shown.

22   CHAIRMAN OBERMAN: Okay. Is that the

1   way you understand it, Mr. Crowley.

2   THE WITNESS: I did not understand it

3   that way but it could very well be.

4   BY MR. WARREN:

5   Q.   So Mr. Crowley -- Mr. Crowley, I don't

6   want -- I don't want -- I don't want to belabor

7   this but you would agree that the numbers that we

8   see in table two reflect pretty high OTP, right?

9   A.   Yes.

10   Q.   Yes. And is that -- that's the result

11   in large part of the preference that Amtrak track

12   trains got of the RTC model?

13   A.   In the original case I guess that would

14   be what you'd draw if those numbers are correct,

15   yes.

16   Q.   Yeah. And you see in -- in table three

17   the 2019 freight train metrics, right?

18   A.   Yes.

19   Q.   And -- and those -- and those metrics,

20   which I'm sure you're familiar with in the

21   original passenger case, you know, 45 -- 45.4%

22   increase in CSX local trains delay, 22.7 in

1   overall train delay and 33.6 in interchange

2   traffic delay, right?

3   A.   That's what it says, yes.

4   Q.   All right. So is -- is it your

5   testimony that the infrastructure projects that

6   were proposed in -- in the RTC modeling were

7   designed to increase the OTP that was already high

8   or to mitigate these freight train metrics?

9   A.   My understanding was that the -- the

10   RTC models, the CSXNS RTC models characterized it

11   as needing the 11 projects in order to achieve the

12   95% or maintain or whatever. But it was -- the

13   two were related, it was my understanding.

14   Q.   It was your understanding. But you

15   would agree with me that the original passenger

16   case already had -- had -- very high OTP for these

17   four -- for the four Amtrak trains, right?

18   A.   Based on what I see on this table but

19   nothing more than that.

20   Q.   Mr. Crowley, I -- is it fair to say

21   that you've spent much of your career, you know,

22   representing, you know, freight rail shippers in

Page 2900

1   various contexts?

2   A.   As opposed to what -- what, Mr. Warren?

3   Q.   I -- I -- I -- I'm not -- not -- not a

4   trick question, Mr. Crowley. Is it -- is it fair

5   to say that in -- in the STB that, you know,

6   amongst your clients have been many -- many

7   consumers of freight rail services -- freight rail

8   service?

9   A.   Yes.

10   Q.   Okay. So if -- if -- if a freight rail

11   shipper came to you and told you that their first

12   mile last -- first mile/last mile service to their

13   facility, that the delays had increased by 45.4%,

14   would you say that that's not a big deal or that

15   that's something that needed to be addressed?

16   A.   I would ask them what that was based on

17   and evaluate the data they provided.

18   Q.   And if the data they provided showed a

19   45.4% increase in delays, would you tell them that

20   that wasn't something to worry about?

21   A.   You know, it would depend on the

22   service, depend on the -- the traffic they were

1   moving, depends on their schedules, what they

2   needed.

3   For some people it might not be a big

4   deal and for others it might be a big deal.

5   MR. WARREN: So Mr. Chairman, I -- I

6   don't have any further questions but I believe Mr.

7   Donahoe for Norfolk Southern has just a couple

8   questions for Mr. Crowley.

9   MEMBER FUCHS: Matt, can I ask if Mr.

10 Donahoe's questions are going to be on this

11 particular topic?

12   MR. WARREN: They -- they are not.

13   MEMBER FUCHS: Okay, could we put the

14 table --

15   MR. WARREN: You want me to keep going?

16   MEMBER FUCHS: Yeah, could we put the

17 table. I just -- I think it's worth just spending

18 another minute to get absolute clarity on what Mr.

19 Crowley is or is not saying. I just want clarity.

20   So, the 23 and 24 trains, or the

21 morning trains, are over 95%. The 25 and the 26

22 trains -- I think particularly the 25 trains, or

1   the 4:30 out of Mobile -- those are below 95%.

2   Mr. Crowley, are you testifying that

3   CSX added the infrastructure to get those two

4   numbers above 95%? Is that your testimony?

5   THE WITNESS: No.

6   MEMBER FUCHS: Okay.

7   THE WITNESS: My testimony is that the

8   railroads achieved the 95% on-time performance

9   factor, according to their presentation, by

10   including the 11 infrastructure projects.

11   MEMBER FUCHS: Okay.

12   THE WITNESS: That's where we stopped.

13   MEMBER FUCHS: But -- so you do not --

14   you do not conclude or you are not testifying that

15   the railroad systematically added infrastructure

16   until they got each of the trains above 95%. That

17   is not what you're testifying.

18   THE WITNESS: I think they said just

19   the opposite, that they included all 11 and

20   calculated -- and calculated an on-time

21   performance and the output was 95%.

22   MEMBER FUCHS: Okay. So the only claim

1   you're making as far as I understand it is that

2   you observed a relationship between the 2019 -- I

3   guess would be the 2019 build case and the 95%

4   OTP, and you observed that that -- you observed

5   that relationship, but you're not -- you are

6   not -- sorry?

7   THE WITNESS: I just coughed. I'm

8   sorry.

9   MEMBER FUCHS: Oh, I'm sorry.

10   So you're just testifying as to the

11   observation of that relationship. You're not

12   going any further to suggest that anything

13   included in the build case was added for the

14   specific purpose of getting over 95%? You're not

15   testifying to that. You're just observing that

16   there's a -- there -- that there is 95% and

17   there's the build case and they match up?

18   THE WITNESS: Yes, with one qualifier,

19   and that is --

20   MEMBER FUCHS: Uh-huh.

21   THE WITNESS: -- I'm simply repeating

22   what I understood the railroads to be saying.

1   CHAIRMAN OBERMAN: I -- I understand.

2   I think there -- that there has been some debate

3   about whether or not the railroads had it as an

4   input. We all -- I think everybody has testified

5   that you can't really input it in the model. You

6   can put rank and delay min/max and -- and then I

7   think there was some conflict about whether or not

8   railroads added infrastructure projects until they

9   got to 95%. And I think you're saying you're not

10 testifying to that. You're just saying you looked

11 at the build case, you saw 95%, that's -- that's

12 the testimony.

13   THE WITNESS: After the 11 projects

14 were put in place.

15   MEMBER FUCHS: Right.

16   THE WITNESS: That's correct.

17   MEMBER FUCHS: Right, right. And then

18 looking at the -- I guess the passenger case, two

19 of the four trains are already over 95%. One of

20 them is getting close to 90 and -- and that's --

21 that's as far as you're testifying in terms of

22 that relationship, is that -- that you -- you

Page 2905

1   confirm that you see that?

2   THE WITNESS: Right.

3   MEMBER FUCHS: Okay. All right. Thank

4   you.

5   BY MR. WARREN:

6   Q.   One -- one clarifying question, which

7   you may know the answer to, Mr. Crowley.

8   Do -- do you recall that the train

9   numbers that Amtrak assigned to the trains in

10 their originally proposed schedule?

11   A.   No, I don't.

12   Q.   No. So you don't recall that those

13 train numbers were 23, 24, 25 and 26?

14   A.   No.

15   MS. BRACEY: Asked and answered.

16   THE WITNESS: No.

17   CHAIRMAN OBERMAN: He may -- he may

18 answer.

19   THE WITNESS: No.

20   MR. WARREN: Okay. All right. Well,

21 I -- I don't have any further questions but Mr.

22 Donahoe has -- has -- has just a couple.

Page 2906

1   MR. DONAHOE: Mr. Chairman, if I my

2   proceed.

3   CHAIRMAN OBERMAN: Go ahead.

4   CROSS-EXAMINATION

5   BY MR. DONAHOE:

6   Q.   Mr. Crowley, my name is Daniel Donahoe.

7   I'm a lawyer representing the Norfolk Southern.

8   Are you familiar with the term the

9   "back belt"?

10   A.   Yes.

11   Q.   And have you ever been to the back

12   belt?

13   A.   Yes.

14   Q.   When were you there last,

15   approximately?

16   A.   Ten, 15 years ago.

17   Q.   Okay. So for this project that you're

18   involved in the Gulf Coast, you didn't go down

19   there to the back belt at all?

20   A.   I did not.

21   Q.   Do you think the back belt's the same

22   today as it was ten or 15 years ago?

1   A.   It probably is not.

2   Q.   And for that matter did you go to the

3   Port at all in this -- for this proceeding?

4   A.   I did not.

5   Q.   And I think counsel asked you about

6   high-rail vehicles on the Gulf Coast line. I'm

7   just going to ask you in general, for this

8   proceeding did you go anywhere and perform any

9   type of site visit anywhere on the Gulf Coast

10   line?

11   A.   No, sir.

12   Q.   And there was drone footage produced in

13   these cases by the parties. Prior to this hearing

14   did you review any of the drone footage?

15   A.   Yes, I did.

16   Q.   And when did you review that?

17   A.   Shortly after we received it and I'm

18   not sure what that date was.

19   Q.   Fair enough. Do you know how many

20   freight railroads intersect at the back belt?

21   A.   Not off the top of my head, no.

22   Q.   Would you agree with me that it's a

1   major intersection for the freight railroads on

2   the back belt?

3   A.   It's a major intersection for Norfolk

4   Southern. I'm not sure I would -- I would

5   characterize it that way for all of the class one

6   railroads, but.

7   Q.   Are -- are you aware that that

8   intersection is the gateway to the western

9   railroads, specifically Union Pacific?

10   A.   Yes.

11   Q.   Do you agree that people who actually

12   went down to the back belt and looked at it are in

13   a better position to talk about capacity and

14   congestion in the back belt than you are?

15   A.   No.

16   Q.   So you don't believe that people who

17   actually went down there, looked at what was

18   currently going on are in a better position to

19   talk about congestion and capacity than yourself

20   who hasn't been there for 15 years?

21   MS. BRACEY: Objection. Asked and

22   answered.

1   CHAIRMAN OBERMAN: She can answer.

2   THE WITNESS: What we're measuring is

3   the impact on capacity of the back belt and the

4   rest of the rail lines using a simulation model.

5   One does not have to see the -- the track or

6   traffic on the ground to evaluate what's included

7   in an RTC model.

8   BY MR. DONAHOE:

9   Q.   In RTC modeling that you've been

10   involved in, you never did any summaries,

11   interviews or site visits for the RTC model?

12   A.   Generally not.

13   Q.   Did you hear Mr. Guthrie's testimony?

14   A.   I did.

15   Q.   Do you agree that capacity issues can

16   result in problems outside of the back belt?

17   A.   What kind of problems are we talking

18   about?

19   Q.   Back-ups or congestion on other lines,

20   like the Union Pacific line I mentioned or the

21   five other freight railroads that intersect at the

22   back belt.

1   A.   There could be some upstream/downstream

2   impacts.

3   Q.   Did you review any data supplied by

4   Norfolk Southern on the back belt?

5   A.   Yes.

6   Q.   Did you review the summaries produced

7   by Holly Sinkkanen about field interviews she

8   conducted?

9   A.   I did.

10   Q.   When were you retained in this matter?

11   A.   In October, early October, I believe.

12   Q.   So you would agree with me that this --

13   this action was brought by Amtrak in February and

14   you were not retained until eight months later?

15   A.   That sounds like the proper math.

16   Q.   Were you aware of the board's decision

17   on August 5th requesting the parties to -- to

18   conduct modeling?

19   A.   No.

20   Q.   You were not aware of that?

21   MS. BRACEY: Asked and answered.

22   CHAIRMAN OBERMAN: Yes, it is -- it has

1   been asked and answered.

2   MR. DONAHOE: Fair enough, fair enough.

3   I'll withdraw it.

4   BY MR. DONAHOE:

5   Q.   So you would agree with me that if

6   there was a board decision on August 5th

7   requesting that the parties conduct RTC modeling

8   or some other type of modeling that you were not

9   retained until two months after that board's

10   order?

11   A.   That's -- that's correct. I was

12   retained in October.

13   Q.   Did I hear your testimony correctly

14   that the Metra model you did was completed in four

15   weeks?

16   A.   No.

17   CHAIRMAN OBERMAN: I think he said

18   three and a half months.

19   MR. DONAHOE: Okay, thank you.

20   BY MR. DONAHOE:

21   Q.   So if you were retained in October,

22   would you have had three and a half months to

1   conduct RTC modeling prior to this hearing?

2   CHAIRMAN OBERMAN: I think you're

3   asking him about what the board might order if

4   time was needed. So I -- I think you're asking

5   him a perspective -- a legal question about the

6   board. Maybe you should rephrase --

7   MR. DONAHOE: Sure, let me rephrase.

8   CHAIRMAN OBERMAN: -- phrase it

9   differently.

10   MR. DONAHOE: Let -- let me rephrase.

11   BY MR. DONAHOE:

12   Q.   Mr. Crowley, did you request of

13   Amtrak's counsel any type of continuance of any

14   type so that you could do RTC modeling?

15   MS. BRACEY: I'm going to object to

16   this question because it's been asked of the

17   witness about four times at this point.

18   CHAIRMAN OBERMAN: I asked it but Mr.

19   Donahoe didn't. I'll let him ask it again.

20   BY MR. DONAHOE:

21   Q.   Sir, did you hear my question?

22   A.   Yes. The answer is no.

1   Q.   Last question, sir. Is it your

2   testimony that Mr. Banks and Mr. Guthrie are

3   either lying or fabricating data?

4   A.   I -- I've never accused either

5   gentlemen of lying or -- or making anything up.

6   It is my testimony that the data --

7   Q.   Sir, I just asked you a yes/ no

8   question. Counsel can come back on redirect but I

9   just asked you yes or no.

10   MS. BRACEY: It's not a yes or no

11   question.

12   MR. DONAHOE: It is a yes or no

13   question.

14   CHAIRMAN OBERMAN: I think he can

15   answer. I'm going to let him answer the way he

16   needs to answer it.

17   So finish your answer, Mr. Crowley.

18   THE WITNESS: My assignment was to

19   evaluate the data and attempt to verify the models

20   that Mr. Banks and Mr. Guthrie presented in this

21   case. And my report or my verified statement

22   demonstrates that a lot of the data that they

1   relied upon was undocumented, unverifiable, and

2   those are my conclusions, nothing more than that.

3   BY MR. DONAHOE:

4   Q.   Are you aware of any allegations by

5   Amtrak that the data was fabricated?

6   A.   No.

7   Q.   Is it your testimony that Hannah Rosse

8   and Holly Sinkkanen either fabricated data or lied

9   in their testimony?

10   A.   It is not.

11   Q.   Is it your testimony that Mark Dingler

12   has either lied or fabricated his testimony?

13   A.   It is not.

14   MR. DONAHOE: I have no further

15   questions.

16   CHAIRMAN OBERMAN: All right. Are

17   there any -- does the Port have any questions for

18   Mr. Crowley?

19   MR. WIMBISH: Yes, sir. We -- we have

20   just a few questions. I understand that Mr. Fapp

21   is going to be testifying later and we will save

22   the bulk of our questions for his subsequent

Page 2915

1   testimony.

2   CROSS-EXAMINATION

3   BY MR. WIMBISH:

4   Q.   Mr. Crowley, I understand that Mr. Fapp

5   and you offered verified written testimony in

6   response to the verified written testimony of the

7   Port's Robert N. Golden. Is that correct?

8   A.   Yes.

9   Q.   Did you -- did you happen to observe

10   Mr. Golden's trial testimony yesterday?

11   A.   Yes, I did.

12   Q.   Mr. Crowley, have you ever been

13   employed as a train dispatcher?

14   A.   No.

15   Q.   Have you ever been employed as a train

16   master?

17   A.   No.

18   Q.   As a yard master?

19   A.   No.

20   Q.   As a railroad general manager?

21   A.   No.

22   Q.   A train and engine servicer?

1   A.   No.

2   Q.   Have you ever been employed in any

3   real-word railroad operation capacity?

4   A.   Now, on that one, Mr. Wimbish, when you

5   say "employed," you mean where I'd get a W-2 at

6   the end of the year or as a consultant where I

7   would be hired to evaluate operations?

8   Q.   Let me rephrase the question.

9   Have you ever been employed in a

10   capacity where you directed railroad operations on

11   an actual railroad?

12   A.   No, sir.

13   MR. WIMBISH: That concludes my

14   questions.

15   CHAIRMAN OBERMAN: Any other board

16   member questions, or if not we'll send it back to

17   Ms. Bracey for redirect.

18   Ms. Bracey, your witness.

19   MS. BRACEY: Thank you.

20   REDIRECT EXAMINATION

21   BY MS. BRACEY:

22   Q.   So the RTC files provided in September,

Page 2917

1   were those from the 2021 RTC study?

2   A.   No.   Those were from the attached

3   report we were talking about.

4   Q.   And what do you mean by the "attached

5   report"?

6   A.   It was a study performed in '19 or

7   earlier time period.

8   Q.   Okay.   And what did you mean by didn't

9   belong vs. could not verify with respect to the

10   high rails of a yard train?

11   A.   The high rails were something that has

12   to be included in the modeling if it's taking up

13   main line rail capacity and the way that's

14   included normally in an RTC simulation is based on

15   actual data.   And in this case it was based on a

16   randomized approach that we talked about at length

17   earlier.

18   MS. BRACEY: Mr. Peterson, can you pull

19   up CSXNS 076.   This is also for the record Joint

20   Exhibit 31Y.

21   BY MS. BRACEY:

22   Q.   So this is a letter that Mr. Warren

1   asked you a couple of questions about, and this is

2   a letter from Mr. Warren to me. Is that correct?

3   A.   Yes.

4   Q.   And if you could read --

5   MS. BRACEY: If you could pull up

6   paragraph eight, Mr. Peterson. Okay.

7   BY MS. BRACEY:

8   Q.   Can you read that paragraph out loud,

9   please.

10   A.   "The development of a .TRAIN file

11   requires an RTC user to condense down several

12   months of train data into two weeks of train data

13   that best represent normal operations on a given

14   route for the purpose of train simulation.

15   "Therefore there is no formula,

16   document or work paper that captures the iterative

17   process between the RTC modelers and CSX with

18   respect to creating the .TRAIN file."

19   Q.   And what does this paragraph mean to

20   you?

21   A.   This means we could not trace the data

22   trail back to the original documents. There --

1   there has to be a link between the base data that

2   the railroads keep in the normal course of

3   business and RTC model in order for an analyst to

4   be able to verify, audit that trail. That was not

5   in this case.

6   MR. WARREN: I -- I'm going to object

7   and move to strike. The witness can't testify as

8   to what the paragraph means because he didn't

9   write the letter and he testified earlier that

10   he -- well, because he didn't write the letter.

11   CHAIRMAN OBERMAN: Let me speed this

12   up.

13   If you were asked, "How did you

14   understand the paragraph," would your answer be

15   the same, Mr. Crowley?

16   THE WITNESS: Yes, sir. I thought

17   that's what I was asked.

18   CHAIRMAN OBERMAN: All right. I'll let

19   the answer stand with that clarification.

20   MS. BRACEY: I have no further

21   questions.

22   CHAIRMAN OBERMAN: I just have one

1   question, Mr. Crowley, which I meant to ask you.

2   Did anyone ask you to evaluate the so-called FRA

3   projects that were in the Gulf Coast working group

4   report in terms of how they would impact service

5   of freighted passenger on this line?

6   THE WITNESS: No, sir.

7   CHAIRMAN OBERMAN: And -- and you have

8   not undertook such an evaluation?

9   THE WITNESS: That's correct.

10   CHAIRMAN OBERMAN: Could you have run

11   an RTC study by using those projects as

12   distinguished from the projects that the -- the

13   Guthrie-Banks model used?

14   THE WITNESS: Yes.

15   CHAIRMAN OBERMAN: All right. And what

16   would be involved with your -- what kind -- how

17   complex is that? How much time would it take?

18   What's involved?

19   THE WITNESS: Well, as -- as I've

20   testified, and I don't mean to repeat myself, but

21   you wouldn't get a legitimate answer to that

22   question using the Banks-Guthrie model. You'd

1   have to start basically from ground zero and

2   recreate that model to reflect the data that was

3   available. And we don't -- that's not in the

4   record as best I can see.

5   CHAIRMAN OBERMAN: Could -- could you

6   take the Banks-Guthrie model -- just for -- humor

7   me here for a minute --

8   THE WITNESS: Okay.

9   CHAIRMAN OBERMAN: -- based on the data

10   that's in the model, however it got there, and

11   then just run the results by putting in the FRA

12   projects as distinguished from the 14 projects

13   they put in.

14   Could you do that?

15   THE WITNESS: Yes.

16   CHAIRMAN OBERMAN: You're -- I take it

17   you're saying, even you could do that and you

18   could tell us what the results are, it doesn't

19   satisfy your view that you'd like to have the

20   backup data before you relied on the data that's

21   in the model that's been produced.

22   Is that a fair way to understand it?

1   THE WITNESS: Yes, that's correct, sir.

2   CHAIRMAN OBERMAN: All right. And you

3 know I followed along all the -- tried to follow

4 along all the letters back and forth that Mr.

5 Warren showed you about various requests for data.

6 Could -- could, you in a very simple way -- I

7 don't want you to repeat everything -- tell us

8 what you would need to be -- to get the data that

9 you believe is needed to run a proper RTC model.

10 What -- what -- could you summarize, what is

11 needed that you don't have?

12   THE WITNESS: Well, we need

13 documentation for the trains that were modeled.

14 We have it for some. And we would have to model

15 the trains -- well, if we're going to follow the

16 Banks-Guthrie approach, we don't have to -- we

17 don't have to do that but there is -- there is so

18 many steps along the way that, in our opinion,

19 need to be corrected before you get a legitimate

20 result. So if you start with the assumption the

21 model works, then we would need data to

22 demonstrate that the trains that they put in the

1   model are in fact trains that ran on the system.

2   CHAIRMAN OBERMAN: Well, I'm -- I'm

3   trying to figure out, not the -- and I understand

4   your concerns. You've stated those clearly, I

5   believe at least to me. But we are -- we're at

6   where we are right now. So the 1,265 trains,

7   which seems to be one of the focal points of your

8   concerns, the -- there's no written record

9   apparently of those, other than what was inputted

10   into the model. Is there any way that you could

11   understand getting the backup data, other than

12   going back out into the field and talking to the

13   same people that Ms. Rosse and Ms. Sinkkanen

14   talked to, and getting the numbers directly from

15   them?

16   Is there any other way to get the

17   backup data, to your knowledge?

18   THE WITNESS: Yes.

19   CHAIRMAN OBERMAN: What would it be?

20   THE WITNESS: Any train that moves over

21   the main line during any day, any hour, is

22   documented somewhere in the railroad records. We

Page 2924

1   have found that to be true. The historical

2   records in the railroad are quite inclusive. And

3   just for safety reasons you can't have trains

4   running around on your railroad that you don't

5   know where they are. So there -- there is

6   documentation out there.

7   CHAIRMAN OBERMAN: All right. Let

8   me -- bear with me here, because I haven't been in

9   an operations position either on a railroad.

10   So as I understand it, some of these

11   1,265 trains are a yard train that had to move

12   back and forth out onto the main line to make a

13   switch because the yard tracks were too short.

14   Is that an accurate understanding of

15   some of these 1,265 trains?

16   THE WITNESS: Yes.

17   CHAIRMAN OBERMAN: And to -- on your --

18   on your experience, what record would a railroad

19   have of that movement? Would it be in the

20   dispatching records?

21   THE WITNESS: For those yard trains,

22   it's an RTC modeling issue, not a documentation

1   issue.

2   CHAIRMAN OBERMAN: Well, I'm trying to

3   understand where you said the railroads keep track

4   of every train movement. I thought the issue in

5   your mind was that the yard trains that come out

6   onto the main track are not in the .TRAIN files,

7   so you only know about them through the filed

8   interviews.

9   Did I misunderstand that?

10   THE WITNESS: No, that's correct. But

11   the dispatch --

12   CHAIRMAN OBERMAN: Yeah, so there's

13   some other record other than a field interview

14   which you can look at it to see how many times a

15   yard train had to come out of the main track to

16   make a switch.

17   THE WITNESS: I would think the

18   dispatcher records would show that.

19   CHAIRMAN OBERMAN: So to that degree,

20   would you find it acceptable, in terms of the data

21   you say is missing, if you had those dispatching

22   records in lieu of written documented interviews

1   with the field personnel?

2   THE WITNESS: To document those trains,

3   I think that that would be a good starting point.

4   CHAIRMAN OBERMAN: All right. What

5   about in the high rail movements? Would they also

6   be in the dispatching records, as you -- as you

7   understand it?

8   THE WITNESS: Right.

9   CHAIRMAN OBERMAN: All right. So

10   dispatching records -- and you don't have those, I

11   take it?

12   THE WITNESS: Right.

13   CHAIRMAN OBERMAN: What other gaps are

14   there if any in the data that you say you don't

15   have?

16   THE WITNESS: Well, it -- it's a bit of

17   an iterative process. You get the documents that

18   you think you need and then compare them, then do

19   your audit and see if you've identified all the

20   trains, and if we've ticked off all the trains and

21   in fact they are there, and they are there at the

22   right time, fine. You end your audit and say we

1   were able to check everything. If they're not

2   there, we go back and ask for more additional

3   information based on the specific category of

4   trains.

5   CHAIRMAN OBERMAN: Well what else would

6   satisfy in your view a data source other than

7   dispatching records that you don't have? Now what

8   else is there? We know about .TRAINS. Now you've

9   told us about dispatching records. What other

10   kind of data recordings do railroads ordinarily

11   keep, in your experience, that you think would

12   fill in any of the data that you don't have, other

13   than field interviews?

14   THE WITNESS: It would be yard

15   movements, yard files, yard -- the yard master

16   would keep track of his movements and know when

17   his -- his crews were going out on the main line.

18   It's be --

19   CHAIRMAN OBERMAN: In your

20   experience -- just stop there. Are those -- in

21   your experience -- obviously I'm not asking you to

22   guess about something you haven't looked at -- are

1   those records, kinds of records typically kept by

2   class one railroads?

3   THE WITNESS: Yes.

4   CHAIRMAN OBERMAN: All right. What --

5   what other data sources that you don't have might

6   there be to allow you to verify or audit the

7   numbers that were given?

8   THE WITNESS: Well, the bridge openings

9   would be -- would be an issue, was an issue in

10   this case, the number of bridge openings, the

11   times associated with those openings --

12   CHAIRMAN OBERMAN: Well, wasn't a

13   database supplied to you with those bridge

14   openings?

15   THE WITNESS: Some of them. Not all of

16   them. They had more bridge openings than we had

17   data for.

18   CHAIRMAN OBERMAN: What other data

19   source is there about bridge openings other than

20   the ones you got?

21   THE WITNESS: I don't know. That's one

22   of the issues. We would have to ask specifically

Page 2929

1   for information that would inform that question.

2   CHAIRMAN OBERMAN: Well on your -- in

3   your experience -- this isn't the first line

4   you've dealt with that has bridge openings, is it?

5   THE WITNESS: No.

6   CHAIRMAN OBERMAN: So what other data

7   is there other than what the railroads supplied

8   you, typically?

9   THE WITNESS: I --

10   CHAIRMAN OBERMAN: What kind of data I

11   mean. I'm sorry, I talked over you. I'm sorry.

12   Pardon?

13   THE WITNESS: I -- I don't have a

14   specific document I can tell you about. And

15   generally when we ask for documents, if we know

16   the document name, we ask for that, but we

17   generally ask for the information that we're

18   looking for and the railroads will -- will provide

19   that information.

20   If you give a railroad a specific name

21   for a document, they may call it something else

22   but have the same information. So I think you

1   have to be a little more specific in your request

2   for data, so.

3   CHAIRMAN OBERMAN: Well as I understand

4   it the railroads here say they've given you all

5   the data about the bridge openings. So I'm trying

6   to figure out what's missing.

7   THE WITNESS: Well, if -- if that's the

8   case, then there's some bridges -- some bridge

9   openings that are not in the data. I mean, that's

10   how we started this thing. How do we get -- how

11   do we get to verify these missing trains and --

12   CHAIRMAN OBERMAN: Are you saying that

13   there are bridge openings shown in the RTC model

14   that are not in the data that you've been

15   supplied?

16   THE WITNESS: That's correct.

17   MEMBER FUCHS: Marty?

18   CHAIRMAN OBERMAN: Yeah, go ahead,

19   Patrick.

20   MEMBER FUCHS: Can I ask on this topic,

21   unless you have more?

22   CHAIRMAN OBERMAN: No, no. Well, no,

1   I'm just trying to figure out where -- where we

2   might go from here, Patrick. So I'm happy to --

3   MEMBER FUCHS: I know. I -- I know. I

4   have a couple -- I -- I -- I appreciate that.

5   I -- I had -- I thought the explanation

6   in the record was that there were more bridge

7   openings than might be actual because there were

8   some bridges that are left open. So there was

9   assumed to be a uniform distribution of openings

10   as opposed to blocks where they're left open. So

11   in some hours it'll reduce the impact; in some

12   hours it'll increase the impact.

13   Is -- is there any -- first of all, is

14   that your understanding that the cause of some of

15   the -- you know, what would be planned excess

16   openings, and are there other causes that you're

17   bringing to light?

18   THE WITNESS: Are you still talking to

19   the chairman or are you talking to me?

20   MEMBER FUCHS: No, no, that was a

21   question to you, Mr. Crowley.

22   CHAIRMAN OBERMAN: Yeah, a question to

1 you, Mr. Crowley. I've deferred to Patrick here.

2   THE WITNESS: Well I'm not sure I

3 remember the question. I'm sorry.

4   MEMBER FUCHS: Well, let me -- let me

5 ask it -- maybe I'll ask it another way.

6   If you account for changes in the

7 bridge openings, like calculating bridge openings

8 to smooth out the distribution of bridges that

9 would otherwise remain open, are there other

10 causes that you can point to for excess bridge

11 openings?

12   In other words, if you removed those,

13 would that solve your excess bridge opening

14 concern? Did you look into that or is there

15 anything else you can tell us on the subject?

16   THE WITNESS: No, we didn't look at

17 that, but bridge openings, like a train

18 identification, is something that should be

19 readily available, readily apparent in

20 the -- in the files. I mean, it shouldn't be

21 something we have to calculate. The time it

22 opens, the time it goes back into service, all

1   that should be readily available.

2   MEMBER FUCHS: Okay, and then coming

3   back to Marty's question about the -- the trains,

4   you know, I -- I think the rebuttal report points

5   out that, you know, there are some errors that you

6   all make or alleges that you all make errors with

7   regard to data sources and counting train symbols

8   as trains and that sort of thing...

9   What is -- do -- do you have -- does

10   that account for some of the 1,200 plus kind of

11   missing trains, as you -- as you call them?

12   THE WITNESS: No. We -- we couldn't

13   link those statements back to those trains. They

14   were -- they were just general statements that we

15   didn't understand what were doing and that's why

16   we got this differential.

17   But we didn't need any additional data

18   to show that we were wrong.

19   MEMBER FUCHS: So you've seen the

20   waterfall chart that freights have submitted into

21   evidence, right?

22   THE WITNESS: Yes.

1   MEMBER FUCHS: Okay. And so, is it --

2   is it your testimony that -- are -- are any of the

3   five categories that the freights allege bring

4   down that count, do -- are you -- do you find

5   merit in any of those categories?

6   THE WITNESS: No.

7   MEMBER FUCHS: Okay. So could you

8   explain to me why the point about counting yard

9   train symbols, you know, as -- as trains is not a

10   valid point?

11   THE WITNESS: It's not a valid point in

12   what context?

13   MEMBER FUCHS: Is not valid in terms of

14   reducing the 1,200 missing trains and bringing

15   that number down. The freights I think allege

16   that something like around 200 of your 1,200, as I

17   understand it -- this is their allegation -- is --

18   are -- are counting yard train symbols as

19   movements. Is that -- could you -- could you

20   respond to that?

21   THE WITNESS: Sure, sure.

22   In the RTC model a yard train has a

1   symbol, like every other train, but a yard train

2   handles operations differently than a manifest

3   train, for example. And let's assume, for sake of

4   this discussion, that the yard train that we're

5   evaluating has five different blocks of cars that

6   it handles during the course of its shift. It all

7   has the same train symbol but with a different

8   letter after it that's not assigned when the train

9   goes on duty but assigned by the RTC modelers in

10 this case. And what that does in the model is,

11 rather than have one yard train, it has five yard

12 trains. So there are five trains to handle the

13 one train -- yard train's duty that day.

14   Now what -- what does that mean from an

15 RTC perspective? The RTC sees five trains that it

16 has to dispatch, has to slide them in and out of

17 the model. And you get things like the second

18 block of cars being dispatched before the first

19 block of cars or the third before the second, one

20 issue. The other issue is, because it's a

21 separate train that has to be dispatched by the

22 model, it takes up the capacity of five trains

1 rather than one linked yard train that would just

2 keep performing under the original yard train

3 symbol.

4   Does that help?

5   MEMBER FUCHS: So let me -- let me --

6 may I -- may I explain it back as I heard it and

7 then you could correct me?

8   THE WITNESS: Sure.

9   MEMBER FUCHS: So I could have absolute

10 clarity on this point.

11   So is -- you -- you are saying it is

12 true that freights use the same yard train profile

13 to multiple movements?

14   THE WITNESS: Yes.

15   MEMBER FUCHS: But -- but the

16 movements -- while it's multiple movements, those

17 movements should course -- they should all be part

18 of one movement within the RTC as opposed to

19 multiple movements because you'd be overstating

20 the impact of the movement?

21   Is that -- I mean, that's basically

22 a -- a -- a -- a paraphrasing. That's what you're

1   saying?

2   THE WITNESS: Yes.

3   MEMBER FUCHS: And then, can you --

4   CHAIRMAN OBERMAN: Can I -- Patrick,

5   let me just ask for clarification here.

6   The -- the five yard train movements

7   that you're hypothesizing here, are -- are they

8   occupying the track at different points of time or

9   is this all within a few minutes?

10   I'm -- I'm trying to understand, if

11   they aren't -- if they're five separate movements,

12   don't they occupy track at five different times?

13   Wouldn't that warrant including five different

14   trains?

15   THE WITNESS: They do occupy it at

16   different times. They occupy it at the times that

17   are assigned in the RTC model.

18   CHAIRMAN OBERMAN: So what difference

19   does it make if you tell them one train or five

20   trains? You've still got to account for five

21   different times the tack is occupied, don't you?

22   THE WITNESS: You have to account for

1   the movement of the trains as they hit the main

2   line, but the RTC model is keeping track of what

3   is dispatched and when it's dispatched and it's

4   looking -- it sees in its cue these five trains as

5   opposed to one train doing the work of the yard

6   train. So it's looking at five trains, not one

7   train, the way they modeled this thing. And

8   there -- and there's a common toggle in the RTC

9   model to take care of this issue, and that's the

10   linking of these trains together. And -- and they

11   do that sometimes. I think there are some yard

12   trains where they actually linked them properly

13   but then there are others where they don't.

14   CHAIRMAN OBERMAN: But would the

15   linking depend on what -- I -- I thought this was

16   all about occupying tracks so that some other

17   train can't move there. Would -- wouldn't it

18   depend on what the yard train was doing, about how

19   to include it in the model?

20   THE WITNESS: Well, yes, it would. But

21   it -- it still has the model looking to dispatch

22   these trains, and it's going to push it out there

1   when it has the opportunity. It's not going to

2   necessarily do it in the order that one linked

3   yard train would perform its duty.

4   Now, if you looked at it as one train,

5   they may be on the main line only once during the

6   course of that duty. If you're looking at five,

7   they may have to come back and forth to get the

8   trains or get the blocks of cars and move those on

9   the line.

10   So almost by definition you're going to

11   absorb more capacity with unlinked yard trains

12   than you are with a linked train.

13   CHAIRMAN OBERMAN: Okay, go ahead,

14   Patrick.

15   MEMBER FUCHS: Okay, I -- I was just

16   going to ask generally to -- to respond to the

17   incorrect data set point.

18   THE WITNESS: The -- I'm sorry, what?

19   MEMBER FUCHS: The -- the -- within the

20   waterfall chart there is an allegation that 295

21   trains as -- as you claim are -- are -- that is

22   overstated -- the 295 is an overstatement because

1   of an incorrect data set for actual volumes.

2   And -- and -- and so, you know, basically as I

3   understand it it's because you all didn't --

4   there's allegations that you all didn't use the

5   raw data that was in the work papers. And I was

6   wondering if -- if -- if you used the raw data

7   whether or not you'd have the same finding?

8   THE WITNESS: Well, we used the data

9   that they used to do their randomization process

10   and we were under the impression that was the raw

11   data.

12   MEMBER FUCHS: But -- but you're --

13   you're not able to rule out whether or not there

14   was a different data set in the work papers that

15   would lead to a different result?

16   THE WITNESS: No, I'm not able to rule

17   that out.

18   MEMBER FUCHS: Marty, did you have more

19   on this? I think you had already explored the --

20   the high rail and whether or not there are --

21   Just to make sure I'm absolutely clear,

22   on this middle category, which is the large one

1   about inclusive of trains that would not be in the

2   data, the chairman asked a number of questions...

3   Is it your view that all of the 582

4   would be in dispatching data? Are there any -- I

5   mean, I'm looking at different categories like

6   light engines and I think, you know, there were

7   high rails that were mentioned and other things --

8   you know, engine switches I think we're going to

9   say for light engines.

10   Is there extent data for all of these

11   582 to be verified?

12   THE WITNESS: There should be. I mean,

13   if the -- if the train, the light engine or high

14   rail, whatever vehicle was on the main line, the

15   dispatchers have to know about this, and they will

16   record that sort of thing, it's been my

17   experience.

18   MEMBER FUCHS: Okay.

19   CHAIRMAN OBERMAN: I -- I just

20   wanted -- I just wanted to see if we could pursue

21   fully what other data sources a railroad typically

22   would have that you have not seen that would allow

1 you to fill in any if not all of the gaps in the

2 data that you've received other than going back

3 out and interviewing the field people who Ms.

4 Rosse and Ms. Sinkkanen interviewed.

5   MEMBER FUCHS: Right, and before there

6 is a response, just to piggyback on your point,

7 Mr. Chairman, you know, I thought Mr. Crowley said

8 some on the main line -- some of the activities

9 occurred just in the yard, though, right?

10   So maybe, as you respond to the

11 chairman, just work that into your response.

12   CHAIRMAN OBERMAN: Thank you, yes.

13   THE WITNESS: Well, I think the

14 category of trains that we're talking about are

15 these foreign trains and then the question is how

16 does CSX in this case keep track of foreign trains

17 on its line?

18   And as far as the yard train -- and

19 that would be the documents we would be looking

20 for. As far as the yard trains going in and out

21 of the yard, yes, that's -- that's critical in RTC

22 modeling because going in and out of the yard

1   blocks the main line. It precludes the main line

2   from being used for something else. It takes up

3   capacity in the model.

4   Does that answer your questions?

5   MEMBER FUCHS: Yeah -- yeah. I just --

6   I had just thought that and I had read that some

7   of the alleged trains would not have triggered

8   dispatching controls. So I -- let me -- there are

9   some examples that were provided, for example,

10   switching at the south end of Gentilly, switching

11   CSXT to Sibert yard, in the yard, and there was

12   a -- there was a view put forward that someone not

13   touch the dispatching controls. And I'm trying to

14   make sense of your claim that all that should be

15   in the dispatching data.

16   I agree that -- well I -- I -- I think

17   that there are some that you would think would

18   trigger the dispatching controls and then there

19   are some that wouldn't, and I'm trying to marry

20   that up with your claim that the dispatching data

21   would have all of the 582. And so I'm just trying

22   to work through that.

1   THE WITNESS: Well I don't know if the

2   dispatching data would have all 582. What -- what

3   I do know is that, if a yard train or any train

4   hits the main line that is a recorded piece of

5   information.

6   Now you can have a lot of yard service

7   these blocks that we were talking about a few

8   minutes ago be delivered without hitting the main

9   line, without blocking any main line. So it

10   really depends on a case-by-case basis what the

11   data shows.

12   MEMBER FUCHS: Thank you Marty. That's

13   it for me.

14   CHAIRMAN OBERMAN: In terms of the

15   foreign trains, Mr. Crowley, are you saying that

16   that data you received did not record all the

17   foreign trains that used to go on this line?

18   THE WITNESS: That's correct. We had

19   to -- we only had -- I don't think we had any

20   documentation. I think that was all based on

21   these interviews.

22   CHAIRMAN OBERMAN: Are foreign trains

1 not typically put in the .TRAIN file?

2   THE WITNESS: I guess it depends on the

3 railroad.

4   CHAIRMAN OBERMAN: Well based on your

5 experience, what would you expect to find?

6   THE WITNESS: Well, I think it's a

7 little -- it's almost like a 50/50 thing where we

8 have ran in -- we have run into that similar

9 problem elsewhere.

10   CHAIRMAN OBERMAN: Well if they're not

11 in -- in the .TRAIN file, what other kinds of

12 records do railroads typically keep of foreign

13 trains, based on your experience?

14   THE WITNESS: Well, it's the movement

15 over the -- over the rail line so it probably

16 would be in some sort of a dispatch record.

17   CHAIRMAN OBERMAN: And do -- do

18 dispatching records that you reviewed typically

19 distinguish between foreign trains and the host

20 trains?

21   THE WITNESS: Not that we could tell,

22 no.

1   CHAIRMAN OBERMAN: No, I don't mean in

2   this case, but typically in other rail --

3   railroad records you've seen.

4   THE WITNESS: Yes, they -- they would

5   have initials and numbers on -- on these trains.

6   CHAIRMAN OBERMAN: That would -- that

7   would enable you to determine whether they were

8   foreign or host?

9   THE WITNESS: Yes.

10   CHAIRMAN OBERMAN: All right. So, just

11   to try to wrap this up, you could take the

12   existing RTC model that was produced to you and

13   just input the FRA, so-called FRA projects and run

14   it, get a result. But if you were asked to give

15   us information that we could rely on, in your view

16   you need this other data that we have just gone

17   over at some length here?

18   THE WITNESS: The other data and some

19   changes to the model.

20   CHAIRMAN OBERMAN: What -- what changes

21   to the model.

22   THE WITNESS: Just what -- what we were

1   talking about on how they -- how they do their

2   permits, how they handle walking speed, how they

3   do some of the things we've criticized them for.

4   CHAIRMAN OBERMAN: But you could make

5   those changes to the model without getting more

6   information from the railroads, right? Those

7   would just be modeling choices that you could make

8   on your own, I take it?

9   THE WITNESS: That's correct.

10   CHAIRMAN OBERMAN: All right --

11   MEMBER HEDLUND: I've got a question,

12   to follow on.

13   CHAIRMAN OBERMAN: Yeah, just to

14   finish, Karen. One second.

15   I -- I'm just trying to explore what

16   would be needed to do the work that you've

17   disclosed here hasn't been done.

18   I think -- sounds like we've covered it

19   all, have we, Mr. Crowley? Have we left anything

20   out?

21   THE WITNESS: I don't think so. I

22   think we're --

1   CHAIRMAN OBERMAN: Okay. Karen has a

2   question. She's --

3   MEMBER HEDLUND: Yeah --

4   CHAIRMAN OBERMAN: Go ahead.

5   MEMBER HEDLUND: You've talked about

6   the randomization based on proprietary software

7   but you couldn't replicate that. Is that correct?

8   THE WITNESS: That's correct.

9   MEMBER HEDLUND: So even if you had all

10   this additional information, you couldn't verify

11   the model and you couldn't run the -- could you

12   run the model without having the randomization and

13   proprietary software.

14   THE WITNESS: Yes.

15   MEMBER HEDLUND: So you would run it

16   without randomizing the information?

17   THE WITNESS: That we would have to do

18   it that way.

19   MEMBER HEDLUND: Right, and how long

20   would that take.

21   THE WITNESS: "Without randomizing."

22   Wait a minute. Let me go back and answer that

1   question again.

2   No, we would not to able to

3   un-randomize what they did.

4   MEMBER HEDLUND: Right.

5   THE WITNESS: We would have to start

6   with their .TRAIN file, which is what goes into

7   the model.

8   MEMBER HEDLUND: Right.

9   THE WITNESS: So we would have to

10   accept that as being correct, which is one of the

11   things we have criticized and do not believe it is

12   correct or verifiable at least.

13   MEMBER HEDLUND: Right.

14   THE WITNESS: And -- but from the

15   .TRAIN file going forward to a result, you could

16   do that.

17   MEMBER HEDLUND: So you could -- you

18   could do a new RTC model with their .TRAIN file

19   plus the additional information we've just been

20   discussed -- discussing without randomizing it and

21   get a result?

22   THE WITNESS: Yes.

1   MEMBER HEDLUND: Okay.

2   CHAIRMAN OBERMAN: Okay, any other

3   board members?

4   Now that we've explored this fully, I

5   think other counsel should have an opportunity to

6   go into it in whatever order.

7   Ms. Bracey, do you have questions for

8   this witness at this point?

9   MR. WARREN: No.

10   CHAIRMAN OBERMAN: Pardon?

11   MR. WARREN: I -- I -- I was --

12   CHAIRMAN OBERMAN: I'd just like to

13   hear Ms. Bracey's response.

14   MS. BRACEY: I may have some based on

15   Mr. Warren's questions but I don't have any

16   additional.

17   CHAIRMAN OBERMAN: All right. Matt, do

18   you have questions?

19   MR. WARREN: I -- I -- I do, I was just

20   going to suggest that -- that I might go first

21   because then, you know, Kali can be able to make a

22   decision if she wants to ask anything.

1   CHAIRMAN OBERMAN: The point is moot.

2   You can go first.

3   MR. WARREN: Okay, thank you.

4   RECROSS-EXAMINATION

5   BY MR. WARREN:

6   Q.   So, just a couple of questions, Mr.

7   Crowley.   I'm going to bring back what's been a --

8   a popular document today, which is CSXNS 076.   And

9   I -- I guess this has another -- another number on

10 it too that I don't recall when -- when Kali put

11 it up.   But this is the November 19th, 2021

12 document.   Let's go to the first page.

13   So in this document, I'm -- I'm going

14 to draw your attention, Mr. Crowley, to appendix

15 A, which is RTC Work Papers Index.

16   MS. BRACEY: I'm going to object as

17 beyond the scope of the board's questions.

18   MR. WARREN: I -- I -- I think --

19   CHAIRMAN OBERMAN: Well, I'm not sure

20 what the scope of the board's questions were, so

21 I'm going to let him answer.

22   MR. WARREN: I -- I -- I -- I think --

1   I think the relevance will -- will be -- be clear

2   in a moment. One thing I'll say -- you can

3   turn -- turn to the next page. This -- this --

4   this is marked as confidential but this had to be

5   designated. This is on our -- on our public list.

6   BY MR. WARREN:

7   Q.   So Mr. Crowley, do you -- or did you --

8   did you see this document when it -- when it came

9   through?

10   A.   Yes.

11   Q.   Originally. Okay. And this is an

12   index of the RTC modeling work papers that were

13   provided with a November 3rd, 2021 opening

14   evidence, right?

15   A.   I've seen that. I don't know when it

16   was provided.

17   Q.   Okay. Well, the - the -- the first

18   section of this is, you know, 1.0 CSX and NS

19   Provided Inputs, and then there's a list of CSX

20   input files.

21   A.   Right.

22   Q.   Is that right?

Page 2953

1   A.   Yes. Right at the top.

2   Q.   All right. And we've got a few

3   different files here --

4   MS. BRACEY: Can I just have a minute,

5   Matt, to give him a copy?

6   MR. WARREN: Oh, oh absolutely. Just

7   let me know when he's ready.

8   MS. BRACEY: What page are you on?

9   MR. WARREN: This is page five of 11.

10   It's --it's the first page of Exhibit A.

11   CHAIRMAN OBERMAN: Ok. This -- this is

12   what exhibit number?

13   MR. WARREN: This is Exhibit CS --

14   CSXNS 076.

15   CHAIRMAN OBERMAN: Okay. Is that in

16   the book?

17   MR. WARREN: Yes, it is. I think -- I

18   think we established that it's in volume one.

19   THE WITNESS: Okay.

20   BY MR. WARREN:

21   Q.   Okay, Mr. Crowley, you've got it?

22   A.   I do.

1   Q.   Okay.   And in this list in the CSX

2   input files provided in the work papers, you see

3   that second line -- or the second row, rather,

4   "Descriptions of Nonstandard Train Movements".

5   Is that right?

6   A.   Yes.

7   Q.   And that includes descriptions of local

8   train movements that might not be clear in the

9   data, right?

10   A.   That's what it says.

11   Q.   And is that one of the files that you

12   had available you to?

13   A.   I believe so.   I don't -- I don't

14   recall that specific file, but.

15   Q.   Okay.   Well reading down and the

16   next -- next -- next level is -- is OS Data:

17   Right, for control -- for control point on station

18   data?   Is that one of the files that were

19   available to you?

20   A.   Yes.

21   Q.   And am I right that that's really the

22   basis of your criticism that there were files that

1   weren't in the train event data. What you were

2   saying they weren't in -- so you're saying they

3   weren't in the OS data, right?

4   A.   That's correct.

5   Q.   And you heard the testimony from Ms.

6   Rosse and Sinkkanen about all the reasons why

7   particular kinds of trains and movements wouldn't

8   show up in the OS data, right?

9   A.   Right.

10   Q.   Right. Because if it doesn't pass a

11   control point, it's not going to be in the OS

12   data, right?

13   A.   Right.

14   Q.   And that's the reason why, you know,

15   foreign trains going through a crossing aren't

16   going to in the OS data, they don't cross the CSX

17   control point, right?

18   A.   I don't -- I don't -- you see, you hit

19   my problem, Mr. Warren. We're not able to verify

20   any of that.

21   Q.   Okay.

22   A.   I mean, you say that's what happens but

1   if you're seeing as an auditor with a charge to

2   verify the data and all you have is a statement

3   that somebody says, "Well, it didn't hit

4   something," that's not a frame of endorsement of

5   the data as being valid.

6   Q.   Right. And you -- and you just

7   testified a few minutes ago that what you needed

8   was the dispatch data, right?

9   A.   That I testified about what?

10   Q.   Sorry, I'll slow down. That what you

11   needed was the dispatch data, correct?

12   A.   I said that would be where I would

13   start.

14   Q.   Okay. Okay. Could -- could I ask you

15   to read, let's see, the one, two, three, four,

16   five -- the sixth row. What's the file name

17   there?

18   A.   The "TRAIN Profile Data".

19   Q.   One below that one, please.

20   A.   "Dispatch Data"?

21   Q.   Yes. So the dispatch -- so dispatch

22   data was in fact included in CSXNS work papers,

1   wasn't it?

2   A.   I guess there were some.

3   Q.   And you have a couple of explanatory

4   files underneath that:

5   "Dispatchscreensfromcsx.doc,"

6   dispatchscreens.pptx, and -- but the main data --

7   the main data file there is that Excel

8   dispatchdatadocs.xlsb file, right?

9   A.   I don't know that.

10   Q.   Okay. Well, let's turn -- let's turn

11   to the next page just to cover something. So at

12   the top here, and this is again following 11.1,

13   you see a number of fields there for drawbridge

14   input data, various bridge logs. So that -- that

15   was also included, as well?

16   A.   Well that's what it says here. These

17   are their inputs. I don't recall seeing this

18   data.

19   Q.   Well it -- you -- you -- you recall

20   seeing this list of the work papers, right, at the

21   time it was sent?

22   A.   Yes.

1   Q.   Did -- did you tell -- at -- at the

2   time did you say, "There's some of this data

3   that's not here and I need it"?

4   A.   I don't recall what -- I mean,

5   you're -- you're giving me all these files and

6   saying -- and asking me what's in them. It's

7   difficult to say what we followed up on or what we

8   needed them for.

9   We were unable -- we did not find the

10 source among any of these so-called input files

11 that allowed us to count those trains we were

12 talking about.

13   Q.   Okay.

14   A.   I mean, we reviewed all of this stuff

15 and we were not able to verify those trains.

16   CHAIRMAN OBERMAN: Matt, I just want to

17 avoid confusion here.

18   Do I understand you to be saying, Mr.

19 Crowley, that whatever these files that were

20 provided for you to you did not account in your

21 view for all the trains that showed up in the RTC

22 study?

Page 2959

1   THE WITNESS: That's correct, sir.

2   CHAIRMAN OBERMAN: Well I -- I was just

3   asking you, we weren't talking about the dispatch

4   files. To your understanding, are there other

5   dispatch files that would fill in those gaps? I

6   mean, maybe -- maybe they don't have any. That's

7   where I'm puzzled here.

8   THE WITNESS: Well, so am I, and -- and

9   that's part of our problem. We were given a file

10   of trains that moved and modeled -- and they were

11   modeled, but yet they don't have a -- a data trail

12   back to where those trains came from. And you can

13   point to all these files and say, "Lookit, we gave

14   you all these files, but we could find nothing in

15   these files that showed us anything about these

16   trains".

17   CHAIRMAN OBERMAN: So, if you've been

18   given what appear to be the dispatch files and

19   these -- the trains still aren't in there, then it

20   seems to me, either you have to conclude that the

21   trains were made up, or there's some other

22   recordkeeping system.

1   Would that be a way to understand the

2   dilemma here?

3   THE WITNESS: Yes. I -- I think what

4   you do is you go back to the carrier and ask them

5   to document where they get these specific trains

6   from.

7   CHAIRMAN OBERMAN: Well, that's what I

8   was trying to pursue here, is that where else

9   could you get data if it's not in the data that

10 purportedly is the place where this data should

11 show up? Where -- where else could it be, in

12 your -- based on your experience?

13   THE WITNESS: It's -- it's got to be

14 there somewhere. It's got to be within their

15 system somewhere.

16   I don't know -- I'm sitting here in a

17 quandary because I can't give you a specific name

18 of a file or a model that would generate the data

19 that we're missing. I don't know the proper names

20 clearly because we don't have the data.

21   But there's got to be some trail that

22 allows you to verify that the trains that they put

1 into their model existed.

2   MEMBER SCHULTZ: Marty, can I ask a

3 question?

4   CHAIRMAN OBERMAN: How would you

5 suggest we go about finding that out?

6   THE WITNESS: I would suggest, if we

7 want to pursue that, to get a list of these

8 trains, the actual trains that they say existed,

9 and have them give you a data trail. Could they

10 get them?

11   CHAIRMAN OBERMAN: Could you -- do you

12 have that list of trains? Could you prepare such

13 a list?

14   THE WITNESS: I'm sure we could.

15   CHAIRMAN OBERMAN: From the data you've

16 been given?

17   THE WITNESS: Yes, because we modeled

18 them.

19   CHAIRMAN OBERMAN: Okay, somebody else

20 had a question. I cut some -- I didn't hear who

21 it was.

22   MEMBER SCHULTZ: It was me.

1   CHAIRMAN OBERMAN: Oh, Michelle, go --

2   go ahead.

3   MEMBER SCHULTZ: Thank you.

4   Mr. Crowley, upon receipt of all the

5   files that were submitted here and after you

6   completed your review and determined there was

7   missing information, at that point in time did

8   you -- did you create a list of all the missing

9   information and submit that back to CSX requesting

10   it?

11   THE WITNESS: I -- I don't know if it

12   was submitted to CSX exactly that way. We --

13   counsel asked for a number of different things

14   after the November 3rd filing and, as the

15   information trickled in, we evaluated it. But at

16   the end of the day, as we were writing our

17   verified statement, we still had this dilemma of

18   all these trains that were modeled that we

19   couldn't link back to the base period data.

20   MEMBER SCHULTZ: Sure, but -- but I

21   think what -- what you're saying is is that there

22   was no documentation summarizing the deficiencies

1   in -- in the files that had been submitted to you.

2   Is that -- would -- would that be fair?

3   THE WITNESS: That would be fair.

4   MEMBER SCHULTZ: Okay, thank you.

5   CHAIRMAN OBERMAN: Thank you, Michelle.

6   Any other -- well, I interrupted. Matt, I don't

7   know that you were finished.

8   THE WITNESS: I -- I -- I -- I was

9   getting pretty -- pretty close to being done.

10   BY MR. WARREN:

11   Q.   I -- I'd just ask you, Mr. Crowley,

12   you -- you reviewed the -- the rebuttal RTC

13   verified statement of Hannah Rosse and Holly

14   Sinkkanen. Is that right?

15   A.   Yes.

16   Q.   And is it right that that rebuttal

17   verified statement walks through in great detail

18   the different train categories and what the

19   different data sources show and what they don't

20   show?

21   A.   There was -- I'm not sure about great

22   detail but they did have -- they did have

1   testimony to that effect, but the bottom line, Mr.

2   Warren, is they didn't provide any data trail back

3   to the actual data that shows that these were

4   trains that should have been put in the RTC model.

5   They were definitely in the .TRAIN file but there

6   is no trail going back to the actual data.

7   Q.   I -- I -- I think we got a little --

8   little -- little beyond my question there.   But

9   they provided sworn testimony explaining, you

10   know, what -- how they -- how they created the --

11   the .TRAIN file and -- an how they identified these

12   trains, right?

13   A.   Yes.

14   Q.   Yeah, twice in fact.   They provided

15   sworn testimony in verified statements and then

16   they provided sworn testimony to the board, right?

17   A.   Yes.

18   Q.   All right.   And I -- and I recall -- in

19   your response to Mr. Donahoe's questions you

20   agreed that you were not accusing them of making

21   anything up, right?

22   A.   I think I said I wasn't accusing them

1   of fabricating data. That's correct.

2   MR. WARREN: Okay. Thank you. I -- I

3   don't have anything further.

4   CHAIRMAN OBERMAN: Any other questions

5   for Mr. Crowley?

6   MS. BRACEY: I have a couple --

7   probably one.

8   CHAIRMAN OBERMAN: All right. Go

9   ahead.

10   MS. BRACEY: Mr. Peterson, can you pull

11   up the November 19th letter, CSXNS 076.

12   REDIRECT EXAMINATION

13   BY MS. BRACEY:

14   Q.   Mr. Crowley, you were asked a lot of

15   questions about this letter. What's the date on

16   this letter?

17   A.   November 19th, 2021.

18   Q.   And when was our -- or when was

19   Amtrak's rebuttal evidence due or reply evidence

20   due?

21   A.   December 3rd, 2021.

22   MS. BRACEY: Okay. That's all I have.

1   CHAIRMAN OBERMAN: Any other questions?

2   Mr. Crowley.

3   THE WITNESS: Sir.

4   CHAIRMAN OBERMAN: Thank you for your

5   patience under long circumstances. You are

6   excused.

7   THE WITNESS: Thank you, sir.

8   (Witness is excused.)

9   CHAIRMAN OBERMAN: We're going to break

10   at about 3:30 Eastern, so I'd like to proceed, Ms.

11   Bracey, with your next witness if you can at this

12   point, so we can at least get started.

13   MS. BRACEY: Can I just have a couple

14   minutes to clean up? I have paper everywhere.

15   CHAIRMAN OBERMAN: I think that is a

16   very fair request. Well, I don't think we need to

17   go off the record. We can -- I mean, if it's a

18   couple of minutes, or do you want a -- do you want

19   a five-minute break?

20   MS. BRACEY: I'll take five minutes.

21   CHAIRMAN OBERMAN: All right. We'll

22   take a five-minute break. We'll come back -- it's

1   2:46. We'll come backs at 2:51. All right?

2   Thank you.

3   (Recess taken.)

4   CHAIRMAN OBERMAN: All right, I

5   apologize. It turns out we had some stuff that

6   had to be done as well.

7   So, Ms. Amunson, I take it you're

8   calling the next witness?

9   MS. AMUNSON: I am, Mr. Chair.

10   Amtrak's next witness is Jim Blair, and before I

11   call him, Mr. Chair, I just wanted to raise

12   something with the board with respect to

13   scheduling.

14   I believe it's highly unlikely that we

15   will finish Mr. Blair's testimony today and so I

16   wanted to get some clarity on the scope of any

17   instruction to Mr. Blair. He is our client and is

18   someone whom I regularly consult with on this

19   matter as well as other matters. We would of

20   course not talk with him about the scope of his

21   testimony, but given the length of time between

22   now and when the -- the proceeding is scheduled to

Page 2968

1   commence again, May 9th, it would work a hardship

2   on Amtrak not to be able to -- for Mr. Blair to be

3   completely sequestered from doing anything with

4   respect to the Gulf Coast when that's a part of

5   his regular responsibilities.

6   CHAIRMAN OBERMAN: Well, it may depend

7   on whether cross-examination has begun by the time

8   we finish today. If he's still in the middle of

9   direct testimony, I -- I would in my discretion

10 not bar you from talking to him, given the fact

11 that there is a two- or three-week delay.

12   If he's in the middle of

13 cross-examination at the time, we'll have to put

14 some kind of restrictions on it. But, you know,

15 these are not only private clients but public

16 entities with obligations to perform and I don't

17 think we can shut down the system because of the

18 trial schedule. So I'm glad you raised the point.

19 Let's see where we end up at 5:00 o'clock.

20   MR. DONAHOE: Mr. Chair, if I can get a

21 clarification. I thought what counsel was asking

22 for is if she can have discussions with Mr. Blair

Page 2969

1   not involving this case in the interim. And

2   obviously we're fine with that.

3   CHAIRMAN OBERMAN: Well, I appreciate

4   that, but it sounded like there may be discussions

5   involving the Gulf Coast system, even if it's not

6   in this case, and that might be a hard line to

7   draw.

8   MR. DONAHOE: Okay.

9   CHAIRMAN OBERMAN: So -- but I

10   appreciate your observation there, Mr. Donahoe,

11   and I think that is a good way to think about it.

12   So let's -- let's see where we are at 5:00

13   o'clock.

14   MS. AMUNSON: Thank you, Mr. Chair.

15   Amtrak calls Jim Blair.

16   (Jim Blair on the witness stand.)

17   CHAIRMAN OBERMAN: Mr. Blair, would you

18   raise your right hand. Do you swear or affirm

19   that the testimony you're about to give in the

20   proceeding -- in this proceeding is the truth, the

21   whole truth and nothing but the truth?

22   THE WITNESS: I do.

1   CHAIRMAN OBERMAN: Please state your

2   name.

3   THE WITNESS: Jim Blair, B-l-a-i-r.

4   CHAIRMAN OBERMAN: All right. Ms.

5   Amunson, proceed.

6   MS. AMUNSON: Thank you.

7   Whereupon,

8   JIM BLAIR

9   called as a witness by counsel for Amtrak, and

10   after having been first duly sworn, was examined

11   and testified as follows:

12   DIRECT EXAMINATION

13   BY MS. AMUNSON:

14   Q.   Good afternoon, Mr. Blair. Can you

15   introduce yourself to the board?

16   A.   I'm Jim Blair. I'm the assistant vice

17   president of Host Railroads for Amtrak.

18   Q.   Can you tell me a little bit about your

19   educational background?

20   A.   I received a Bachelor of Science in

21   business logistics from Penn State University with

22   a concentration in transportation management. And

1   I received an MBA from St. Joseph's University in

2   Philadelphia.

3   Q.   And the MBA was also in transportation

4   management?

5   A.   No, it was just a general MBA.

6   Q.   And can you tell us a little bit about

7   your work experience?

8   A.   So, upon leaving college I worked

9   several years at General Motors in a final

10   assembly plant in Linden, New Jersey, after which

11   I joined Consolidated Rail Corporation, better

12   known as Conrail, and was there for about 12

13   years. While at Conrail I worked in the marketing

14   and sales department and then at strategic

15   planning doing network analysis and merger and

16   acquisition work. When I left Conrail, I joined a

17   management consulting firm also doing railroad

18   work, including merger and acquisition support as

19   well as network -- some network analysis for

20   railroads and worked for other clients, as well.

21   I also worked for a second management

22   consulting firm doing general transportation

1   consulting, including ports, trucking, a variety

2   of consulting projects within the transportation

3   sector.

4   Q.   And --

5   A.   And then I joined Amtrak.

6   Q.   And prior to joining Amtrak, the

7   clients that you worked for, did those include

8   class one railroads?

9   A.   Yes.

10   Q.   And then you joined Amtrak in -- when?

11   A.   2008 I joined Amtrak. I joined in the

12   Host Railroad Group and have been in that group

13   ever since. I joined as a principal in the group

14   working in contract matters primarily but also

15   on -- on certain performance issues and was later

16   promoted to a senior director in Host Railroads

17   and most recently as an assistant vice president.

18   Q.   And can you tell the board what the

19   Host Railroads Group at Amtrak does?

20   A.   So we are the liaison department of the

21   30 railroads that Amtrak operates over around the

22   country. We manage the business relationship with

1   those railroads and the contracts that govern

2   those operations, and we also monitor the

3   performance of those -- of our trains on Host

4   Railroad property.

5   Q.   And you submitted a verified statement

6   in this proceeding, correct?

7   A.   Yes, I did.

8   Q.   Just for the record, that verified

9   statement is attached as Exhibit 2 to Amtrak's

10   reply of December 3rd and designated in this

11   proceeding as Joint Exhibit 32C. And you have a

12   copy of that statement in a binder in front of

13   you, correct?

14   A.   Yes, I do.

15   Q.   Does your current position involve

16   working with Host Railroads on new or expanded

17   Amtrak service?

18   A.   Yes, it does.

19   Q.   And in general what are Amtrak's plans

20   for new or expanded service?

21   A.   So, in April of 2021, Amtrak announced

22   an Amtrak Connects Its Vision, which included new

1 or expanded service in 64 different corridors

2 around the country and we are working with states

3 to -- to try and implement that vision in the

4 next -- in the next decade or more.

5   Q.   Why is Amtrak trying to grow or expand

6 service?

7   A.   Amtrak's network is largely unchanged

8 since our 1971 formation and -- but the -- the

9 demographics and the -- the country have changed

10 and the -- and the country's transportation needs

11 have changed. So Amtrak is looking to expand into

12 markets that we have previously served and markets

13 that we have yet to -- so serve -- to provide

14 service in going forward.

15   Q.   And does Amtrak have a congressional

16 mandate to grow and expand service?

17   A.   Yes, we do. It's a part of our -- it's

18 a part of the goals that Congress has established

19 for Amtrak.

20   Q.   How does the Gulf Coast fit into

21 Amtrak's plans to grow and expand service?

22   A.   It's one of the corridors that we're

1   looking to progress in the near term and we have a

2   lot of public support for that and -- as well as

3   congressional interest in progressing this

4   corridor.

5   Q.   Are you familiar with Amtrak's efforts

6   to restore inter-city passenger service to the

7   Gulf Coast over the past several years?

8   A.   Yes, I am.

9   Q.   And are you familiar with Amtrak's

10   prior use of the corridor to run the Sunset

11   Limited and Gulf Coast Limited?

12   A.   Yes.   Amtrak previously operated on the

13   corridor between New Orleans and Mobile with two

14   services.   Amtrak operated at two different times

15   the Gulf Coast Limited, which was a -- a corridor

16   train that operated just between New Orleans and

17   Mobile, and Amtrak also operated the Sunset

18   Limited, which was the first transcontinental

19   train operating from Los Angeles to Miami over

20   this same corridor.

21   Q.   And during the times when the Gulf

22   Coast Limited was running, do you recall what the

1 trip time was for the Gulf Coast Limited as

2 compared to the trip time that's proposed for the

3 Gulf Coast service that we're talking about in

4 this proceeding?

5   A.   Yes. It was about ten minutes faster

6 in the -- in its prior incarnation than what we've

7 proposed here.

8   Q.   And do you recall about how many

9 freight trains ran on the line when Amtrak was

10 previously operating as compared to today?

11   A.   Yes. There was a -- there was a

12 document filed in connection with the Conrail

13 case, of which I was a part, that indicated that

14 about 21 trains were operating on this corridor in

15 1995.

16   Q.   And do you recall the testimony

17 about -- about how many trains are operating on

18 this corridor now?

19   A.   Yes, I believe it's about half of that.

20   Q.   And when Amtrak was previously

21 operating on this corridor, did Amtrak work with

22 CSX at that time to make any infrastructure

1   improvements along the corridor?

2   A.   Yes.   In connection with the -- the

3   Sunset Limited extension of the train from New

4   Orleans to Miami, Amtrak invested about $5M in the

5   corridor.

6   Q.   And who owns and uses those

7   improvements today?

8   A.   CSX does.

9   Q.   And why was the service stopped?

10   A.   In 2005 Hurricane Katrina washed out a

11   significant part of the right-of-way.   Amtrak

12   suspended service and we have not returned since.

13   Q.   When did Amtrak first try to restore

14   service?

15   A.   I have communications in our file that

16   we've reached -- we've reached out to CSX in 2006

17   to engage to restart the service.

18   Q.   Did Congress eventually get involved in

19   efforts to restore the service?

20   A.   Yes.   In 2015 the Fast Act required the

21   Secretary of Transportation and ultimately FRA to

22   form the Gulf Coast Working Group to prepare a

Page 2978

1   plan for the restoration of service to the Gulf

2   Coast.

3   Q.   And who were the key members of the

4   Gulf Coast Working Group?

5   A.   FRA was the lead, Amtrak was a member,

6   the Southern Rail Commission, which represented

7   the three participating states: Mississippi,

8   Louisiana and Alabama. And there were a number of

9   metropolitan planning organizations and cities

10   that were also involved in the Gulf Coast Working

11   Group process.

12   Q.   Were the parties who are in this

13   proceeding today members of the Gulf Coast Working

14   Group?

15   A.   CSX was. I don't know to what degree

16   NS was involved.

17   Q.   What did the Gulf Coast Working Group

18   do?

19   A.   The Gulf Coast Working Group developed

20   a plan for the restoration of service to the Gulf

21   Coast, working with the parties that I just

22   identified and ultimately presented a report to

1   Congress.

2   They also established a demonstration

3   train that ran across the corridor to -- to help

4   generate local interest in the operation and that

5   was -- that was a very successful operation.

6   Q.   And you mentioned the Gulf Coast

7   Working Group before. I am - I am going to ask

8   you to take a look at that report, which is

9   designated as Joint Exhibit 32F, and it is

10   attached as I believe appendix C to your

11   statement.

12   And I'm going to ask, first before I

13   direct you there, what -- what did the report

14   recommend as its --

15   CHAIRMAN OBERMAN: Ms. Amunson, is this

16   the one with the cover sheet that says "Final

17   Report July 2017"?

18   MS. AMUNSON: I believe so. Let me --

19   THE WITNESS: Yes.

20   CHAIRMAN OBERMAN: I want to make sure

21   we're looking at the same document. I have a --

22   MS. AMUNSON: Yes, that's correct.

Page 2980

1   CHAIRMAN OBERMAN: Okay, thank you.

2   MS. AMUNSON: Sure.

3 BY MS. AMUNSON:

4   Q.   And what did the report recommend as

5 its preferred option for restoring the Gulf Coast

6 service?

7   A.   It recommended to the restart of a

8 daily long-distance service from New Orleans to

9 Orlando with a -- a corridor service from New

10 Orleans to Mobile to follow shortly thereafter.

11   Q.   And I'm going to ask you to turn to

12 page ES3 of that report. So executive summary

13 three.

14   A.   Okay, I'm there.

15   Q.   And do you see the table on that page

16 there?

17   A.   Yes.

18   Q.   Can you just explain what we're looking

19 at there, specifically with the -- the New Orleans

20 to Mobile corridor?

21   A.   So the table presents a capital cost

22 summary for FRA's identified improvements for the

1   restoration of the Gulf Coast service. The New

2   Orleans to Mobile lists two columns: one is listed

3   as the minimum needed for passenger rail service,

4   which totals $5.376M. The second lists service

5   level for ongoing and operations, which lists

6   $94,881,000.

7   Q.   Thank you.

8   MS. AMUNSON: Mr. Peterson, you can

9   take that back down.

10 BY MS. AMUNSON:

11   Q.   Do you know what that recommendation

12 was based on?

13   A.   It was based on FRA's evaluation of

14 the corridor for what was needed to start

15 the service versus what was needed to improve the

16 conditions on the route over time.

17   Q.   And -- and what did FRA do to develop

18 that recommendation?

19   A.   FRA reviewed data from CSX, including

20 string lines, track charts, aerial photos. I

21 believe there was some on-the-ground survey as

22 well and that was the basis upon which they

1   developed a series of projects that were

2   identified in the appendix to this document that

3   details specifically what investments were -- they

4   were recommending.

5   Q.   And did CSX concur with the

6   recommendation that it would take about $5.3M as

7   the minimum needed to restore service and

8   approximately $95M needed for operations over

9   time?

10   A.   No, they did not.

11   Q.   Did CSX come up with its own

12   recommendation about what would be required to

13   restart passenger service on the Gulf Coast

14   corridor?

15   A.   Yes.   CSX conducted a -- a study along

16   with HDR, an RTC modeling study is my

17   understanding, that identified $1.1B in capital

18   investments for the restart of service between New

19   Orleans -- just New Orleans and Mobile.

20   Q.   And -- and I do just want to clarify

21   for a moment.   That was 1.1B between New Orleans

22   and Mobile.   We've also heard a $2.3B number

1   referred to in these proceedings.

2   Do you recall what that $2.3B was?

3   A.   Yes. My understanding was that 2.3B

4   represented the operation of the long-distance

5   train all the way from New Orleans to Orlando.

6   Q.   And after CSX said that it would

7   require at least $1.1B to restore service between

8   New Orleans and Mobile, did CSX express a

9   willingness to continue to work with members of

10   the Gulf Coast Working Group?

11   A.   No. I -- I had heard about that from

12   coworkers but it's also reported in the Gulf Coast

13   Working Group report that they did not want to

14   continue to work with the Gulf Coast Working

15   Group.

16   Q.   And did Amtrak nonetheless attempt to

17   continue to engage with CSX on the restoration of

18   service?

19   A.   Yes, we did. We still feel this is a

20   corridor that has high potential.

21   Q.   And do you recall when Amtrak kind of

22   next sort of reached out and tried to -- to get

1   the restoration of service underway?

2   A.   My involvement in that began in -- in

3   2018 with the sending of a letter from our Amtrak

4   CEO, Richard Anderson, to CSX CEO Jim Foot

5   requesting that the parties reengage to -- to

6   progress the Gulf Coast service.

7   Q.   And did that outreach eventually result

8   in any agreement about RTC modeling?

9   A.   Yes, it did.

10   Q.   And before I -- I get into the asking

11   you about that RTC study, just in general, does

12   Amtrak use RTC modeling itself?

13   A.   Yes, we do. We have a -- a small group

14   within Amtrak that utilizes RTC modeling for the

15   Northeast Corridor, which is a very high-density

16   corridor operation, and we utilize that model in

17   working with state and commuter agencies in

18   developing new service or making modifications to

19   existing service where those modifications can't

20   be done with models other than RTC.

21   Q.   And when Amtrak uses RTC modeling, does

22   it model operational changes?

Page 2985

1   A.   Yes, it -- it does.   In some

2 circumstances, my understanding, we typically do

3 that in a very transparent fashion.   We share

4 data, we share inputs, we share actual files, the

5 RTC files and, you know, try to work out the

6 issues in the high-density corridor using the RTC

7 model.

8   Our -- our thought is fundamentally

9 that the best solution will come about from all

10 the parties providing input to -- to the modeling

11 effort.

12   Q.   And returning now to the 2020 Gulf

13 Coast RTC study, was that open and transparent in

14 the way that Amtrak normally does RTC modeling?

15   A.   No, it was not.

16   Q.   Can you describe a little bit about

17 your -- about your answer there, about why you

18 feel it was not open and transparent in the way

19 that Amtrak normally conducts RTC modeling?

20   A.   Well, we had great difficulty getting

21 information from the railroads to validate the --

22 the data that we -- to validate the base case and

1   difficulty getting information to validate the

2   no-build case. In fact it was a very contentious

3   negotiation just to get to the agreements and the

4   discussions were contentious all through the

5   process.

6   Q.   And did you ever raise concerns with

7   CSX and NS about a lack of transparency?

8   A.   Yes. On two different occasions I had

9   written letters to NS and CSX and it -- it was a

10   regular topic on our weekly phone calls.

11   Q.   And just what type of data were you

12   looking for?

13   A.   We were looking for data for -- to --

14   to validate the base case, looking for data that

15   would give us another -- a better understanding of

16   their operations on the line, what sorts of

17   service criteria that they might have, did they

18   have premium service, customers that needed to be

19   served, a better understanding of local operations

20   that might be on the line, the -- the -- and a

21   better understanding of the infrastructure, the

22   fundamental infrastructure, what the tracks --

1   what the condition of the tracks were, the speeds

2   at various locations along the way, the turnout

3   radius, various things that would help us get an

4   understanding for the corridor and how Amtrak's

5   operation could dovetail into their operations.

6   Q.   So things like track charts and

7   signals, things like we've seen CSX and NS

8   witnesses talk about in this proceeding, right?

9   A.   Yes.

10   Q.   And how did they respond when you asked

11   for this data?

12   A.   Initially we were asked for a basis for

13   why we wanted it and having supplied that several

14   times they ultimately said no.

15   CHAIRMAN OBERMAN: Could we -- could we

16   put a time frame on when these requests, this back

17   and forth that Mr. Blair is just talking about?

18   THE WITNESS: Sure. Do you want me --

19   would you like me to do that?

20   MS. AMUNSON: Sure.

21   THE WITNESS: So the -- the study

22   started in January of 2020. We had -- I -- I

1   believe I -- I believe I wrote my first letter in

2   April of 2020 to request more transparency for the

3   analysis going forward. That was during the

4   building of the base case, which would have been

5   the 2019 era traffic flows. The -- the second

6   communication I had with the railroads was in

7   August of 2020 and that was where we had -- we had

8   detailed for them at their request what

9   information specifically we wanted and we provided

10   that in a multipage letter, which I think is

11   attached to my verified statement, and we received

12   a response that we would not be getting that

13   information.

14   CHAIRMAN OBERMAN: Mr. Blair -- if you

15   don't mind, Ms. Amunson, I just think it would

16   help.

17   At this point in time, I think you said

18   a few minutes ago that Amtrak has internal people

19   who work with RTC studies.

20   THE WITNESS: Yes.

21   CHAIRMAN OBERMAN: Is -- were you

22   working with them in terms of knowing what data

Page 2989

1   you wanted?

2   THE WITNESS: Yes.

3   CHAIRMAN OBERMAN: All right. So you

4   were not working with Mr. Crowley or an outside

5   firm at that point?

6   THE WITNESS: No. The - the outside

7   firm was engaged -- we engaged with HDR to run the

8   model but we did use our in-house experts on what

9   data would be most appropriate to validate

10   information that the consultant was developing.

11   CHAIRMAN OBERMAN: Okay, thank you.

12   THE WITNESS: Sure.

13   BY MS. AMUNSON:

14   Q.   Mr. Blair, what reason did CSX and NS

15   provide you for not giving the data to Amtrak?

16   A.   They indicated that it was commercially

17   sensitive data and security sensitive data.

18   Q.   And did Amtrak offer to enter into

19   other agreements to protect the confidentiality of

20   that data?

21   A.   Yes. We ventured into many

22   nondisclosure agreements, even with NS and CSX on

1 data exchange, but we were not allowed to see the

2 data even with that offer.

3   Q.   And -- so you said they also said it

4 was commercially sensitive. Is that right?

5   A.   Yes.

6   Q.   Have you since seen some emails from

7 CSX and NS that have led you to believe there may

8 have been different reasons they didn't want to

9 provide their data to Amtrak?

10   A.   Yes, I have.

11   Q.   And I'd -- I'd like to avoid going into

12 confidential session, but just generally, those

13 include the emails that we have discussed in this

14 proceeding in the confidential sessions with the

15 witnesses from CSX and NS?

16   A.   Yes.

17   Q.   And just in general terms, after

18 viewing those emails, do you -- what do you now

19 believe is the reason that CSX and NS would not

20 provide their data to Amtrak?

21   A.   I believe they were concerned that

22 Amtrak and/or FRA would have access to the data

1   that would undermine their objective of securing

2   specific infrastructure and perhaps unreasonable

3   infrastructure in the corridor.

4   Q.   And this 2020 study, was it governed by

5   any agreements?

6   A.   Yes, there were three interconnected

7   agreements that governed the 2020 study.

8   Q.   Can you just say what those agreements

9   were.

10   A.   We had the RTC study agreement, which

11 was a -- a -- a -- it covered the -- the scope of

12 the study. We had a data sharing agreement that

13 governed the confidentiality of certain data and

14 also dealt with some of the process of data

15 exchange and commitments from the parties to share

16 data, and we had the scope of work with the

17 third-party consultant, HDR, that governed

18 specifically what the consultant was being tasked

19 to do in the RTC study process.

20   MR. WIMBISH: Excuse me, excuse me, if

21 I may. I'm sorry to interrupt but Ms. Amunson I'm

22 not seeing you on the screen. I don't know if

1   anybody else is having the same issue.

2   MS. AMUNSON: Oh. Apologies. Well,

3   let me try to see if I can address that issue.

4   CHAIRMAN OBERMAN: I don't -- I don't

5   think this is your fault, Ms. Amunson, so. You --

6   you may have disappeared into Narnia.

7   MS. AMUNSON: We're calling our --

8   our -- our tech people are on the way. I'm not

9   sure --

10   CHAIRMAN OBERMAN: Well, I'll tell you

11   what, it is 3:26. We have to break at 3:30 as it

12   is, so we'll do that.

13   I just want to make an observation on

14   the record. We've now had testimony unobjected to

15   about the emails that were discussed in the

16   confidential session. I am still quite concerned

17   about whether those -- the public should

18   understand what's going on in this case. So I'm

19   going to ask counsel, I'm not going to decide it

20   today, but since obviously we're not going to

21   finish with Mr. Blair before May 9th, I'm going to

22   really encourage all the parties to get their

1   heads together. I -- I think these records should

2   be released to the public. I know there was a

3   pending argument. I won't get into it. But while

4   it's fresh in my mind, I just think this is a

5   matter of significant public interest, this entire

6   case and everything that should be in the public

7   view should be there. So I'll just encourage you

8   all to work this out and if not I think the board

9   will be prepared to make some rulings on it by the

10   time we come back on May 9th.

11   So with that, it is now 3:28. We will

12   reconvene at 4:00 Eastern, and we'll go for an

13   hour. We'll get as far as we can. All right?

14   (Whereupon a recess was taken from 3:28

15   p.m. to 4:04 p.m.)

16   CHAIRMAN OBERMAN: All right, Mr.

17   Blair, you remain sworn. You understand?

18   THE WITNESS: Yes, sir.

19   CHAIRMAN OBERMAN: All right. Ms.

20   Amunson -- Jessie, go ahead.

21   MS. AMUNSON: Thank you.

22   BY MS. AMUNSON:

Page 2994

1   Q.   Mr. Blair, where we left off, I believe

2 you were telling us about the -- the agreements

3 that governed the 2020 RTC study.

4   What did Amtrak hope to accomplish with

5 those agreements?

6   A.   We had hoped to -- to work through the

7 process that was basically established in the Gulf

8 Coast Working Group to identify the specific

9 infrastructure projects that might be needed in

10 the future for future improvements in the -- in

11 the corridor and come to agreement with the

12 parties on a near-term start of service.

13   Q.   And was it -- how was the 2020 RTC

14 study funded?

15   A.   The -- the study was funded primarily

16 from FRA, although Amtrak expected to be

17 supplementing that amount for certain of the

18 scenarios that Amtrak may want in excess of the

19 ones that -- that FRA had authorized.

20   Q.   And did FRA also want the same sort of

21 data transparency that Amtrak was asking for as

22 part of the 2020 study?

Page 2995

1   A.   Yes, they did.

2   Q.   And why?

3   A.   FRA had indicated that, without the

4 transparency, the data was not usable for purposes

5 of discretionary grant funding and that

6 fundamentally it really wouldn't allow them to

7 validate whether or not the model was accurate in

8 projecting both its current or future cases.

9   Q.   And were you here for Mr. Hunt's

10 testimony?

11   A.   Yes, I was.

12   Q.   And did you hear Mr. Hunt suggest that

13 Amtrak got itself "over its skis" with respect to

14 different data requirements in its funding

15 agreement with the FRA?

16   A.   Yes, I did hear that.

17   Q.   And how did you react to that

18 statement?

19   A.   Well, I would disagree with Mr. Hunt.

20 Both Amtrak and FRA knew that there were

21 differences in the data that Amtrak was -- was

22 seeking and what FRA had requested in -- in the

1   grant agreement and that's partly why the Amtrak

2   supplemental funding was set up, so that we could

3   address any of the discrepancies that might have

4   existed there.

5   Ultimately that didn't turn out to be a

6   problem because, by the time -- the amount of the

7   delay that we experienced in the study and the

8   lack of transparency, we didn't need to continue

9   the study absent FRA funding. We both agreed that

10   the study was not worth progressing.

11   Q.   And I believe you testified that HDR

12   was the consultant who conducted the 2020 study.

13   Is that right?

14   A.   That's correct.

15   Q.   And you may have heard CSX and NS

16   witnesses refer to HDR as "Amtrak's consultant".

17   Did you consider HDR to be Amtrak's consultant

18   with respect to the 2020 study?

19   A.   Well HDR was under contract to Amtrak

20   but HDR was selected ultimately by CSX. HDR had

21   access to CSX's data for the infrastructure and

22   the -- the prior data from the 2015 study and CSX

Page 2997

1   indicated they would not be willing to share that

2   with a consultant other than HDR. So we conceded

3   to utilize HDR for the 2020 study.

4   Q.   And what sort of procurement did you

5   have to use in order to -- to engage HDR then?

6   A.   Under the federal procurement

7   regulations, we had to justify that as a sole

8   source procurement.

9   Q.   What was the duration of the RTC study

10   agreement and the data-sharing agreement that you

11   signed in January 2020?

12   A.   It was set up as a one-year agreement

13   for a study that was expected to take six months.

14   Q.   And did the study finish in six months?

15   A.   No.

16   Q.   Did it finish in a year?

17   A.   No, it didn't. In fact, when the

18   agreement expired, we were only two -- we had only

19   completed two of the six tasks in the original

20   scope of work.

21   Q.   How long did you expect it would take

22   to complete the study?

1   A.   We had conversations with HDR in

2   December and January and expected that the study

3   could last another year.

4   Q.   Were you here for the opening

5   statements?

6   A.   Yes, I was.

7   Q.   And did you hear Mr. Atkins on behalf

8   of CSX open the proceedings by saying that "The

9   process of adding passenger service has two key

10 ingredients: the first is a robust study to

11 examine the impacts on existing freight service

12 and the second is collaboration"?

13   What was your reaction to that

14 statement?

15   A.   I thought that was exactly the opposite

16 of what I felt needed to be done and that seemed

17 to be the model that was adopted in the 2020

18 study, where we didn't have the opportunity to

19 collaborate up front, to work on operational

20 solutions or schedule adjustments or things that

21 might minimize the interference to both parties.

22 Instead, we had a model that was done largely

1 without collaboration and then we were asked to

2 agree to its -- to its -- to its construct.

3   Q.   And did you hear Mr. Hunt testify that

4 there had have been other projects involving

5 Amtrak that use RTC modeling? I believe he

6 mentioned the Piedmont Project, the Roanoke

7 Project and the Norfolk Project.

8   Was Amtrak actually a party to the RTC

9 modeling that was conducted in those cases?

10   A.   No, we were not. We were not invited

11 to participate in the RTC modeling.

12   Q.   So you said that the term of the

13 January 2020 RTC study was for one year. When it

14 expired in January 2021, what happened?

15   A.   I notified the railroads on our weekly

16 call that we were not -- we would not extend -- we

17 were not intending to extend the agreement, and

18 just a few days later I sent them a letter asking

19 that they consent to the start of the Gulf Coast

20 service.

21   Q.   And when you sent that letter, for whom

22 did Amtrak propose to operate the Gulf Coast

Page 3000

1   service?

2   A.   Proposed to operate the service on

3   behalf of the Southern Rail Commission, which is a

4   multi-state agency.

5   Q.   And what states are involved with

6   the -- it's -- it's also been called here the SRC,

7   right?

8   A.   SRC.

9   Q.   And what states are involved in the

10   SRC?

11   A.   Mississippi, Louisiana and Alabama.

12   Q.   And are you aware that in this

13   proceeding some officials from Alabama have

14   expressed some reservations about restoration of

15   the Gulf Coast service?

16   A.   Yes, I am aware of that.

17   Q.   And what is your reaction to the

18   reservations that have been expressed?

19   A.   Well, I think we're -- you know, Amtrak

20   is disappointed with the reservation they have

21   expressed. We are hopeful that we'll be able to

22   resolve those issues. But we -- we are comforted

Page 3001

1   by the fact that there was a lot of individual

2   support letters filed on behalf of Alabama

3   citizens for the service and we think there's a

4   significant value proposition the State of Alabama

5   and for the City of Mobile in particular with the

6   reintroduction of Amtrak service between New

7   Orleans and Mobile.

8   Q.   So you testified I think that when the

9   study expired you sent this letter in January of

10   2021 formally requesting an answer by a date

11   certain to upgrade the service, correct?

12   A.   Yes. We asked for a response by March

13   15th.

14   Q.   And in that letter did you propose

15   payments for the Gulf Coast service that you were

16   seeking to restore?

17   A.   Yes, we did. The individual operating

18   agreements with both CSX and NS provide that when

19   we request service we should -- we are to propose

20   specific payment in accordance with that

21   service modification.

22   Q.   And just in general, how do your

1   operating agreements with CSX and NS or your

2   operating agreements in general treat Amtrak's

3   payments to Host Railroads for infrastructure

4   costs versus payments for operating service?

5   A.   The operating agreements by their

6   nature and by their name fundamentally deal with

7   the regular operations of Amtrak trains on Host

8   Railroad property. When we do capital projects,

9   we typically do them outside of the operating

10   agreement through a -- through a construction

11   agreement or through an authorization that is

12   processed.

13   Q.   And the letter that Amtrak sent in

14   January 2021, did that propose a schedule for the

15   Gulf Coast service?

16   A.   Yes, it did.

17   Q.   And how was that schedule determined?

18   A.   So generally schedules start with a --

19   a market assessment, and in the case of the Gulf

20   Coast we had the historic pattern of -- of

21   operations. We looking to wanting -- looking to

22   establish a service that arrived in the respective

Page 3003

1   cities in the morning and would return in the

2   evening, so people could spend an entire day in

3   each of the cities.

4   We had historical operations of the

5   trains that we could work from to -- to determine

6   what an appropriate schedule was on the same

7   corridor. We had ride studies that had been

8   completed in the 1990s that also gave us

9   validation. And once we had a straw man from

10   that, we worked with HDR to try and slot the train

11   into the freight activity in the corridor by the

12   use of a heat map.

13   Q.   Can you explain a little bit about

14   these heat maps?

15   A.   I believe Hannah Rosse explained that a

16   little bit. It -- it was a picture that

17   represented by color what the level of train

18   activity would be. So it ranged from blues cold,

19   meaning no activity, to reds or whites, meaning

20   higher levels of activity. It was really a

21   substitute for string lines, which was a much more

22   common tool for us to use. And we overlaid our

Page 3004

1 schedule on the heat map and then adjusted it to

2 see if we could get out of the hot zones and

3 into the colder zones so we could minimize the

4 amount of impact we might have on the freight

5 operations.

6   We took six efforts, six times to -- to

7 analyze that schedule and finally decided on a

8 schedule that we thought could be operated

9 effectively in the corridor.

10   Q.   Are you aware that the statute that is

11 at issue here requires that the board consider

12 when deciding whether to order service, the

13 statutory goal of Amtrak to implement schedules

14 that attain a systemwide average speed of at least

15 60 miles an hour that can be adhered to with a

16 high degree of reliability and passenger comfort?

17   A.   Yes, I am.

18   Q.   Will the Gulf Coast service be

19 compatible with that statutory goal?

20   A.   We believe it will. The maximum

21 authorized speeds on the line are 79 miles an hour

22 for passenger trains and so that gives us a good

Page 3005

1   opportunity to -- to try and meet that standard.

2   Q.   What is Amtrak's basis for believing

3   that it will be able to achieve the 80% on-time

4   performance standard for the schedule that it has

5   proposed?

6   A.   So, first of all, we had some data

7   on -- on our prior operations on the corridor and

8   second we have a number of corridors that are

9   similar in nature in terms of length and, you

10   know, single track with passing siding structures.

11   So we looked at those two data -- two sets of

12   data. We also in our work with HDR had them

13   assess what the performance of the train would be

14   and it performed well in their analysis. I believe

15   even the respondents have identified that the trains

16   would perform well in their analysis.

17   Q.   There's been a -- a lot of discussion

18   in these proceedings about the 95% on-time

19   performance metric that was in the -- the 2021

20   Banks-Guthrie and Dingler RTC study.

21   You're aware of what I'm referring to

22   there?

1   A.   Yes.

2   Q.   And so we saw earlier today I believe a

3 chart that showed that, in the 2019 base case,

4 which is the -- just the existing infrastructure

5 with -- with just passenger service added, that

6 three out of four Amtrak trains were achieving

7 on-time performance in the high -- 95% or over.

8   Do you recall that?

9   A.   I recall the chart.

10   Q.   And one was achieving almost 100%

11 on-time performance in their model, correct?

12   A.   I -- I don't recall the specific number

13 but I do recall that it was high OTP performance.

14   Q.   Are you aware of any CSX or NS line

15 that achieves on-time performance numbers like

16 those that were in that chart?

17   A.   Not currently, no.

18   Q.   And what is the -- what would be the

19 consequence of modeling preference for Amtrak in

20 order to achieve such high on-time performance?

21   A.   Well I'm not a -- a modeler, but it

22 would seem to inflate the amount of infrastructure

Page 3007

1   that might be needed or the amount of delay that

2   might be occurred in connection with the operation

3   of the Amtrak trains.

4   Q.   Are you aware that the Banks-Guthrie

5   and Dingler RTC study modeled things such that

6   Amtrak would only use a siding when meeting

7   another Amtrak train?

8   A.   Yes.

9   Q.   Is it Amtrak's position that it can

10   never take a siding when it meets a freight train?

11   A.   No. In fact, often that allows us to

12   make better time across a route. Obviously we --

13   on a single track railroad, we would have to meet

14   trains en route and oftentimes a siding can be

15   used for a meet or an overtake that would be an

16   efficient move for a passenger train.

17   Q.   And what is the consequence of modeling

18   such that Amtrak can never use a siding when it

19   meets a freight train?

20   MR. DONAHOE: Objection, Chair, this is

21   beyond the scope of his expertise.

22   MS. AMUNSON: Mr. Chair --

Page 3008

1   CHAIRMAN OBERMAN: Let me just hear the

2   question again, Jessie.

3   MS. AMUNSON: Sure.

4   BY MS. AMUNSON:

5   Q.   What is your understanding of the

6   consequence of modeling such that Amtrak can never

7   use a siding when it meets a freight train?

8   CHAIRMAN OBERMAN: He can answer to the

9   extent he has an understanding.

10   THE WITNESS: My belief is that it

11   would cause the delays to be overstated and -- and

12   potentially the infrastructure to also be

13   overstated.

14   BY MS. AMUNSON:

15   Q.   Mr. Blair, we -- you heard Mr.

16   Dingler's testimony, correct?

17   A.   Yes.

18   Q.   And Mr. Dingler said a -- a number of

19   times that he could just rerun the model to change

20   various assumptions.

21   What is Amtrak's view of the utility of

22   rerunning the model that's been presented in this

Page 3009

1   case?

2   A.   Well, I guess Amtrak is not sure or

3   certain yet that we can even validate the base

4   case upon which the model is built. I think these

5   other concerns that were raised in Mr. Crowley's

6   testimony today are also concerning and we're also

7   concerned about the 20-year perspective on

8   infrastructure, that infrastructure would be built

9   on the basis of a -- of a 20-year forecast.

10   I mean, I -- I knew when my daughter

11   was born that she would need a car in 20 years but

12   I didn't buy it then.

13   Q.   And if we had to rerun the RTC model

14   again, how many RTC models would we be up to for

15   this service?

16   A.   Well, I think this would be the third.

17   I think this is probably the most RTC model route

18   we have ever encountered.

19   Q.   Are you aware that --

20   A.   This would be the report.

21   Q.   The report. That's right. That's

22   right. In addition to the FRA study, as well,

Page 3010

1   right?

2   A.   Yes.

3   Q.   You're aware that CSX and NS have

4   claimed that the Gulf Coast corridor is unique,

5   right?

6   A.   Yes.

7   Q.   And one of the bases on which they have

8   made that claim is that there are seven movable

9   bridges along the -- the portion of the route that

10   Amtrak would travel.

11   Does Amtrak travel over other corridors

12   with movable bridges?

13   A.   Yes, in fact even higher density

14   corridors with movable bridges, such as the

15   Northeast Corridor.

16   Q.   And another reason that they say that

17   the Gulf Coast corridor is unique is that it is

18   primarily single track.

19   Does Amtrak travel over other routes

20   that are primarily single track?

21   A.   Yes. I think I cited that in my

22   verified statement as well. Most of Amtrak's

1   operations off of the Northeast Corridor are on

2   single track.

3   Q.   They've also said it's unique because

4   there are 160 grade crossings.

5   Does Amtrak travel over other routes

6   that have comparable numbers of grade crossings?

7   A.   I haven't done the counting myself but

8   there are a number of corridors where we have a

9   high percentage or a high incidence of -- of grade

10   crossings and there are other corridors -- I think

11   I cited one in my verified statement -- that has

12   more grade crossings in a shorter distance than

13   the Gulf Coast corridor.

14   Q.   They've also said that this is unique

15   in that there are unusually high freight demands

16   along this corridor.

17   In Amtrak's experience operating over

18   other mixed-use corridors, is this a line that has

19   unusually high freight demands?

20   A.   I wouldn't consider it to be so. I

21   might think of the Southwest Chief, which

22   navigates a hundred BN Santa Fe freight trains a

Page 3012

1   day, as being a higher density corridor.

2   Q.   They have also said that the corridor

3   is unique because the sidings are too short.

4   Are the sidings too short for an Amtrak

5   train?

6   A.   No.

7   Q.   For whom are the sidings too short?

8   A.   For the size of trains that they're

9   operating today, in some circumstances.

10   Q.   And they have said that the corridor is

11   unique because there are some busy ports.

12   Are there other places Amtrak runs

13   where there are busy ports?

14   A.   Yes. I could think of Seattle, Tacoma,

15   Oakland, on the east coast Baltimore, Wilmington,

16   Norfolk, as places where we are -- have

17   operations around large port areas -- Newport

18   News.

19   Q.   And --

20   CHAIRMAN OBERMAN: Could I just

21   intervene here just a minute.

22   Are those -- any of those ports ones

1   where there's a setup to the Port of Mobile were

2   there's a short line or a Port operated train that

3   actually has to use the main line of the class

4   one? Do any of those ports have a similar kind of

5   setup?

6   THE WITNESS: Nothing comes to mind

7   exactly like that. We do have a Port short line

8   operation, such as in Baltimore, with Canton

9   Railroad. There are also Port operations with

10   short lines in other areas. But I -- I -- I don't

11   know that there is one identical to the

12   circumstance of Mobile.

13   CHAIRMAN OBERMAN: Well are there --

14   are there ones where the Amtrak trains run on the

15   same tracks as the short line serves the Port, for

16   any length of time?

17   THE WITNESS: I don't know that I can

18   think of one off the top of my head, sir.

19   CHAIRMAN OBERMAN: All right. Thank

20   you.

21   BY MS. AMUNSON:

22   Q.   Mr. Blair, they've said -- CSX and NS

Page 3014

1 have said that the Gulf Coast corridor is unique

2 because there's no other route over which Amtrak

3 travels that has all of these things that I've

4 just gone through with you in combination.

5   What is your reaction to that

6 statement?

7   A.   Well I -- I -- I think perhaps it's --

8 it's unique, like a snowflake, in the sense that,

9 you know, it -- it has -- it does have certain

10 elements that we don't have elsewhere. I don't have

11 train that operates through Bay St. Louis.

12 But I think that fundamentally, you know, Amtrak's

13 approached each corridor, uses the tools that we

14 have when the train runs, what size the train is

15 and how much recovery time is in the schedule to

16 try and accommodate whatever circumstances are

17 presented to us.

18   Q.   In Mr. Hunt's testimony he compared the

19 New Orleans terminal to -- to Chicago. How many

20 Amtrak trains currently use the New Orleans

21 terminal?

22   A.   There's five trains daily.

Page 3015

1   Q.   And if the Gulf Coast service were

2   added, how many Amtrak trains would be using the

3   New Orleans terminal daily?

4   A.   Nine trains, though less than ten.

5   Q.   And how many Amtrak trains are in and

6   out of Chicago every day?

7   A.   Fifty trains daily.

8   Q.   And how many of those run on NS and CSX

9   lines?

10   A.   I believe there are 16 that run on NS

11   and CSX lines out of Chicago.

12   Q.   Did you also hear Mr. Hunt say that on

13   the back belt they have to shut down their

14   operations for 45 minutes to an hour prior to

15   Amtrak arrival to ensure on-time performance for

16   the Crescent?

17   A.   Yes, I did hear that, but I don't think

18   I had heard that before.

19   Q.   Is it Amtrak's experience that the back

20   belt is shut down for an hour every time Amtrak

21   comes into the back belt?

22   A.   I would have expected, were that the

1   case, that we would not experience significant

2   delays on the back belt, so I did check that out

3   and over the past five years we've experienced

4   about 155 hours -- hours of delay in that route

5   and then over in -- in -- in the last month we had

6   three trains that experienced more than 40 minutes

7   of delay on that route each --

8   MR. DONAHOE: Objection, move to

9   strike. This is beyond his verified statement.

10   CHAIRMAN OBERMAN: I'm going to let it

11   stand. I think the board has a -- I would like to

12   know this.

13   I'd actually have a follow-up question,

14   Mr. Blair. Are these delays for the entire route

15   of the Crescent all the way to -- I've forgotten

16   where it goes to -- Virginia?

17   THE WITNESS: No. This is just over

18   the -- the segment that includes the back belt to

19   the next station.

20   CHAIRMAN OBERMAN: I see. And the next

21   station is --

22   THE WITNESS: Slidell.

1   CHAIRMAN OBERMAN: Thank you.

2

3   BY MS. AMUNSON:

4   Q.   Mr. Blair, I'd like to -- to talk to

5   you a little bit about -- about Amtrak's position

6   here. What is Amtrak's position on the need to

7   construct infrastructure prior to starting the

8   Gulf Coast service?

9   A.   We really are following the -- the

10   structure of the Gulf Coast Working Group Report

11   in that the only infrastructure that is required

12   for the start of service is that which is

13   associated with the passenger facilities and the

14   layover track for the train in Mobile.

15   Q.   If the board were to determine that all

16   14 projects -- well, actually I'm not sure whether

17   it's 14 or 15 now, but, all of the projects that

18   CSX and NS say are necessary to mitigate -- to

19   mitigate Amtrak impacts -- impact must be

20   constructed before the Gulf Coast service can

21   start, how long would that take?

22   MR. DONAHOE: Objection.   That's beyond

1   his expertise. He's not an engineer.

2   CHAIRMAN OBERMAN: He has -- if he

3   knows. You can cross-examine him on his

4   foundation. I'll let it --

5   THE WITNESS: I would expect it would

6   take several years to construct.

7   BY MS. AMUNSON:

8   Q.   And to what degree is the funding for

9   infrastructure improvements contingent on -- on

10   receiving funds from FRA?

11   A.   Do you mean the 14 or 15 projects or

12   just any -- well let me -- I can answer, with

13   respect to the station improvements, those

14   projects are already underway and Amtrak is

15   funding those improvements.

16   With the extent of any future

17   infrastructure that might be needed, Amtrak has

18   received additional monies through the IIJA Law

19   and there are also significant monies available

20   through FRA's discretionary grant, I believe about

21   $28B available through the discretionary -- or

22   through -- through Amtrak's funds and through the

1   discretionary grant programs available through

2   IIJA.

3   Q.   What is the $66M grant that -- that

4   Amtrak has referred to in its -- in its opinion, I

5   believe it's in your verified statement as well?

6   A.   Yes. The SRC, so the rail commission,

7   applies for a KRISI grant, which is a -- a

8   discretionary grant program administered by FRA,

9   and we're awarded a $33M grant which had $33M of

10   match monies. Some of those monies came from

11   Amtrak. And those were for high priority projects

12   selected from among the projects supplied by FRA in the

13   Gulf Coast Working Group report.

14   Q.   Is -- is one of those projects the

15   layover track at Mobile?

16   A.   Yes, it is.

17   Q.   And what is the current plan for a

18   layover track.

19   A.   Amtrak would like to construct a

20   layover facility adjacent to the current platform

21   in Mobile. That seems to have -- have come up as

22   the common theme through the testimonies here --

1   through the hearing and we were trying to work

2   with the city who controls that property to -- to

3   do that.

4   Q.   And does Amtrak -- if that cannot be

5   constructed in a timely fashion, does Amtrak have

6   a -- an alternative plan for a layover track?

7   A.   If that cannot be constructed in a

8   timely fashion, we would like to reconstruct the

9   track that Amtrak used to lay over at in Choctaw

10 Yard where the Gulf Coast Limited used to lay

11 over. It was called the Amtrak track. And we're

12 looking at any other alternatives that we can find

13 in the meantime.

14   CHAIRMAN OBERMAN: Could I, Jessie, ask

15 here...

16   What -- what is a timely fashion that

17 you're referring to in constructing a station

18 track? What do you mean by "timely."

19   THE WITNESS: We hope that we could

20 have the construction in a number of months if --

21 if we were able to secure the property. But I --

22 I don't know what the -- the construction would

1   be. Our engineers have only estimated -- you

2   know, based on their review they've only estimated

3   what could be done but I don't have the -- the

4   specific timing.

5   CHAIRMAN OBERMAN: So but is it your

6   understanding that construction time would take a

7   few months? Is that the range?

8   THE WITNESS: That -- that is one of

9   the discussions that they had about -- based on

10   the type of construction that they had proposed

11   that could be done. I don't know that they have

12   information, enough information on what condition

13   they -- on what conditions they might find on the

14   railroad. They did conduct a survey in December

15   of the -- the line and did some preliminary

16   drawings on that basis, but I -- I don't think we

17   have been back to evaluate the construction --

18   the -- you know, site further for construction.

19   CHAIRMAN OBERMAN: There was some

20   reference by an earlier witness that the platform

21   in the area where the Amtrak station was was owned

22   by CSX. You said -- you said it was controlled by

1   the city. Can you enlighten us a little more on

2   what's involved to build a station track there.

3   THE WITNESS: I believe it is owned by

4   the city. The -- the platform is -- is -- I -- I

5   believe is owned by CSX. That's typically normal

6   because it was in the right-of-way. So what we've

7   been talking with the city about is a -- is

8   possibly a shared use development at that site

9   that would include both the layover track, a

10   station and other plans that the city has for use

11   at that site.

12   CHAIRMAN OBERMAN: Well on the aerial

13   depictions we've seen -- depending how long this

14   layover track is; we've heard one thousand, two

15   thousand, three thousand -- it seems to run along

16   the CSX right-of-way south of Mobile.

17   Is that all city-owned land too or is

18   that CSX land?

19   THE WITNESS: No, I believe that's

20   CSX-owned land. The only property that we

21   understand to be owned by the city is the former

22   station site, so I -- I assume just a few feet off

1   of the platform would be city-owned property.

2   CHAIRMAN OBERMAN: All right. And

3   you're -- and you're in discussions with the city

4   now about some kind of an arrangement between

5   Amtrak and the city?

6   THE WITNESS: Yes. I would

7   characterize those as early discussions.

8   CHAIRMAN OBERMAN: Okay, thank you.

9   BY MS. AMUNSON:

10   Q.   Mr. Blair, you also testified that

11   there is some work that Amtrak is funding on

12   station rehabilitation. Is that right?

13   A.   Yes.

14   Q.   And what's the status of that work?

15   A.   We are awaiting certain approvals from

16   CSX on making modifications to the stations as

17   we'll be operating -- as we'll be working within

18   the fundamentally safety envelope of CSX's

19   right-of-way. Presuming that we get those

20   approvals quickly, we believe we'll have all of

21   the station improvements completed before the end

22   of the year.

Page 3024

1   Q.   And what -- Amtrak needs to of course

2   qualify crews to operate the Gulf Coast service,

3   correct?

4   A.   Yes.

5   Q.   And what is happening with Amtrak's

6   plans for crew qualification?

7   A.   We had made a request to Norfolk

8   Southern to qualify crews. That request was

9   denied. We brought that issue before the board

10   for their resolution.

11   Q.   Does Amtrak have crews sort of ready

12   and waiting?

13   A.   Yes. We have hired crews already and

14   they are awaiting the opportunity to qualify, to

15   begin qualifications.

16   Q.   Mr. Blair, I'm going to ask you to look

17   back at the Gulf Coast Working Group report once

18   again. Again this is Joint Exhibit 32F and I

19   believe it's your verified statement.

20   I'm going to ask you to look at page 22

21   of that report. It's the section titled "Amtrak

22   Recommendations".

Page 3025

1   Do you see that?

2   A.   Yes, I do.

3   Q.   And we have that I believe up on the

4 screen. And I'm going to ask you to look at the

5 last paragraph and just read it aloud for me if

6 you would.

7   A.   Okay. "In terms of capacity

8 improvements Amtrak supports a phased approach

9 after service is restored. Initial phases would

10 include improvements that provide routes around

11 major rail yards to increase speed and minimize

12 risk of delays and provide flexibility for meets

13 between opposing Amtrak trains.

14   "Subsequent phases would involve

15 improvements that would facilitate meets and

16 overtakes between Amtrak and freight trains.

17   "After Gulf Coast service is restored,

18 the process of identifying exact infrastructure

19 improvements would involve a more in-depth review

20 of the existing infrastructure and be informed by

21 actual experience.

22   "See Amtrak's November 10th, 2016

1   letter to FRA in appendix A for more details on

2   their recommendation."

3   Q.   Thank you.   Is that still Amtrak's

4   position?

5   A.   Yes.

6   Q.   And in this proceeding Amtrak wants an

7   order to start service?

8   A.   Yes.   I think that would be the most

9   helpful thing that we could get is to have an

10   order to -- that would permit us to start service

11   on a date certain.   That would eliminate the delay

12   that we've experienced up to this time.

13   Q.   And Amtrak thinks that identifying

14   infrastructure improvements is best informed by

15   the actual experience on the route once the

16   service is up and running?

17   A.   Yes.   We've had -- there have been many

18   different evaluations of the corridor.   Each was

19   slightly different analyses for what the

20   infrastructure would -- would be best for the

21   corridor and our concern is, without a -- without

22   a consensus, in that sense it would be best to --

1   to get actual experience with the operations

2   train.

3   Q.   And based on your experience, how do

4   you feel about Amtrak's ability to operate the

5   service on the Gulf Coast corridor without causing

6   unreasonable interference to freight

7   transportation?

8   A.   Based on my experience and the

9   information we have about the corridor, we believe

10 that we can operate the service without

11 unreasonable interference to freight

12 transportation.

13   Q.   And on the other corridors on which

14 Amtrak operates, does Amtrak often work with its

15 Host Railroads to identify infrastructure

16 improvements based on the experience of operating

17 on the railroads?

18   A.   Yes. We do that regularly on every

19 corridor that we operate on, as we look for ways

20 to reduce delays and improve the efficiency on the

21 corridor, increase safety and reduce drift times.

22   Q.   Why did Amtrak bring this proceeding to

1   the STB?

2   A.   Because, absent the -- the -- an order

3   from the STB, we've been unable to get the

4   carriers to agree to the start of service, as --

5   in accordance with Amtrak's statutory rights

6   and -- and congressional intent.

7   Q.   And you've heard CSX and NS talk about

8   and -- and they've asked for the board to order

9   board-sponsored mediation.

10   What -- what is Amtrak's position on

11   board-sponsored mediation?

12   A.   We're concerned that that would just be

13   more delay in -- in the process and we feel as

14   though the Gulf Coast citizens have waited a long

15   time and we'd like to initiate the service as soon

16   as possible.

17   Q.   What in your view is the most important

18   thing the board can do in this proceeding?

19   A.   I think the most important thing we

20   believe is to have an order that would allow us to

21   start the service on a date certain.

22   MS. AMUNSON: Thank you, Mr. Blair.   I

1   don't have any further questions.

2   Mr. Chair I believe you're on mute.

3   CHAIRMAN OBERMAN: It's almost 4:45, so

4   I think that Ray Atkins' suggestion that we defer

5   cross until you return -- we're not going to lose

6   much by finishing this case in 15 minutes.

7   I actually have a few questions which

8   I'd like to ask and other board members may as

9   well.

10   So, the first question is, is that I

11   understand that Amtrak participated in the Gulf

12   Coast Working Group study and endorsed the

13   conclusions.

14   THE WITNESS: Yes, sir.

15   CHAIRMAN OBERMAN: Which included $100M

16   roughly of infrastructure. I assume that's based

17   on 2017 dollars, correct?

18   THE WITNESS: Yes.

19   CHAIRMAN OBERMAN: So you must have

20   come to some conclusion that $100M was needed or

21   you wouldn't have endorsed it.

22   THE WITNESS: Well the -- the Gulf

1   Coast study report, Mr. Chairman, indicates --

2   indicates that that would be monies that would be

3   spent for improvements to -- - to reduce trip

4   time, to increase liability over time. Those were

5   not the requirements, based on the -- on the Gulf

6   Coast Working Group report, to establish service

7   initially.

8   CHAIRMAN OBERMAN: Well whether it was

9   over time or whenever it was, you -- Amtrak

10   wouldn't have endorsed spending the money if it

11   didn't conclude that at some period of time that

12   kind of investment was needed.

13   THE WITNESS: Yes, sir.

14   CHAIRMAN OBERMAN: So the overtime

15   part, what -- what -- what was the working

16   group's -- did they have a -- they didn't have an

17   RTC study, I take it?

18   THE WITNESS: No, they did not.

19   CHAIRMAN OBERMAN: So how -- how are we

20   supposed to understand what will happen to freight

21   service if all you build before you start

22   operating is a station track and none of these

1   other $95M projects are built? We don't know, I

2   gather, based upon the information you have, if

3   you don't accept the Banks-Guthrie study, we just

4   don't know what impact it will have on freight.

5   Would that be accurate?

6   THE WITNESS: I -- I wouldn't

7   characterize it that way, sir. I think that the

8   FRA study was -- was a robust study in the sense

9   that it looked at string line data. I know Mr.

10   Guthrie did not provide much support for string

11   line but Amtrak does use them. And so CSX -- so

12   CSX traffic data was viewed and reviewed by the

13   FRA in terms of their assessment of where

14   infrastructure might be needed over a longer term.

15   They also looked at the infrastructure that was

16   extant at the time, bridges. They -- they looked

17   at where siding capacity was, what the signaling

18   and speeds of those sidings were, what the turnout

19   sizings were. So it represented a pretty detailed

20   evaluation of the corridor.

21   Similarly Amtrak, in 2016, was asked by

22   the SRC to do its own evaluation of the corridor

1   and Amtrak came up with its own conclusions on the

2   corridor. They were similar to the FRA

3   conclusions, not identical, and those were

4   likewise based an evaluation of the corridors.

5   So I think we have two evaluations of

6   the corridor that took place absent an RTC model

7   that both came up with similar results.

8   CHAIRMAN OBERMAN: Well, you -- you

9   would have understood at the time of the Gulf

10   Coast Working Group that the infrastructure

11   recommended there, if it was going to be built,

12   would be funded by the taxpayers, right? Or did

13   you -- right. You weren't assuming CSX was going

14   to pay for it?

15   THE WITNESS: No, we were not assuming

16   CSX was going to pay for it.

17   CHAIRMAN OBERMAN: So here we have a

18   conclusion that $100M of public money is

19   recommended to be spent and you've talked about

20   the fact that Amtrak uses RTC studies and has

21   internal RTC experts...

22   How could Amtrak as a quasi-public

1 institution, or however we're describing it these

2 days, recommend I guess to the Congress and all

3 the others that $100M should be spent without

4 running your own RTC study? I mean -- mean,

5 that's a lot of money to spend if -- without an

6 RTC study, isn't it?

7   I mean, we keep hearing the RTC is the

8 Gold's standard. Everybody uses it; you use it.

9 I -- I'm trying to figure out what the

10 decision-making process was at Amtrak when they

11 decided to support the 100M. Maybe that -- you

12 can comment on that.

13   THE WITNESS: Well, I -- I wasn't a

14 part of the team at the time but I -- we -- there

15 are many times that we introduced service without

16 RTC modeling. And, you know, we do that on the

17 basis of looking at other documents, looking at

18 dispatch data, looking at string line data, you

19 know, that represent actual train movements over a

20 corridor.

21   So it -- it -- not every analysis or

22 not every new service is introduced as a result of

1   an RTC study.

2   CHAIRMAN OBERMAN: No, but here it

3   wasn't only introducing the service, it was also

4   the working group's conclusion that $100M of

5   public money was going to have to be spent at some

6   point and I don't see anything in the Gulf Coast

7   Working Group that says we're not going to spend

8   it without an RTC study.

9   So I'm trying to figure out, from

10   Amtrak's point of view, why it would go along with

11   that approach.

12   THE WITNESS: I -- I'm sorry. I'm not

13   sure I understand the question. You -- you said

14   the Gulf Coast Working Group didn't support the

15   RTC study?

16   CHAIRMAN OBERMAN: As I recall -- I

17   read the report a while back -- there's nothing in

18   the Gulf Coast Working Group report that says, "We

19   recommend $100M in infrastructure but don't spend

20   it without an RTC study". It just recommends

21   those infrastructure projects that are detailed in

22   the report, Amtrak endorsed the conclusion, and

1   I -- I'm trying to figure out, that's a lot of

2   money to be spent without an RTC study, which

3   appears to be the standard used by everybody,

4   including Amtrak, in -- in other situations. So

5   it's not only introducing service here but it's

6   introducing service with the anticipation of

7   spending $100M.

8   So I'm trying to understand Amtrak's

9   decision tree I suppose on how it arrived -- could

10 arrive at recommending that much public money

11 without an RTC study to -- to know maybe you need

12 less or maybe you need different projects than the

13 ones that are in there.

14   THE WITNESS: Well I think the -- the

15 projects that were identified in the -- the Gulf

16 Coast Working Group report I -- were -- are -- are

17 not necessarily projects that RTC would identify

18 in and of itself.

19   So, for example, the larger radius

20 turnouts that were identified in the Gulf Coast

21 Working Group report, the improvements in the

22 miter rails for the bridges that would give,

1   greater speed opportunities there, the

2   changing of the signal system on sidings to allow

3   both passenger and freight trains to move more

4   quickly through sidings. Those are things that

5   could be simulated as -- through an RTC modeling

6   effort but it didn't require an RTC -- RTC

7   modeling effort to identify.

8   CHAIRMAN OBERMAN: No, wouldn't you

9   want to know what the impact of those changes

10   would be before you invested the public's money in

11   making the changes?

12   THE WITNESS: You mean that -- that --

13   that an RTC modeling study would have to -- are --

14   are you suggesting an RTC modeling study would

15   have to be performed to -- to determine that there

16   would be value in increasing in speeds in a -- a

17   siding? I -- I don't know that we would feel that

18   that needs to happen.

19   CHAIRMAN OBERMAN: Well, I think the

20   question is, wouldn't you want to know if in fact

21   you had made the kind of improvements you've

22   talked about it would have enough of a positive

1   impact on either a passenger or a freight to

2   warrant the expenditure of the money?

3   THE WITNESS: Are -- are you -- are you

4   saying, you know, whether -- whether benefits were

5   measured as a -- with -- with respect to the

6   specific improvement?

7   CHAIRMAN OBERMAN: I'm asking whether you

8   would want to know whether the RTC -- an RTC model

9   would show benefits from such improvements before

10   you went ahead and requested spending that much

11   money. How you else would you know whether it was

12   worth spending the money?

13   THE WITNESS: Well we -- we --

14   improvements to increase speed allow us to

15   increase -- or reduce trip time and -- and again

16   we don't necessarily -- we don't need an RTC model

17   necessarily to determine that.

18   CHAIRMAN OBERMAN: Well you could

19   increase speed at one place and if you needed a

20   siding at some place else, which is going to slow

21   the train down, it might not be enough benefit.

22   You know, we keep hearing that these

1   projects are all working together, they're a suite of

2   projects. I don't know if you agree with that but

3   it just puzzles me as to how a person who has

4   something to say about spending public money --

5   and I guess we arguably may have something

6   indirectly to say about it -- can figure out

7   whether the money is worth spending unless you

8   model it to see what kind of results you get.

9   That's a -- otherwise you're just guessing about

10   the future.

11   THE WITNESS: I -- I'm not -- I'm not

12   sure that I agree that RTC is the only way to

13   evaluate the benefit or efficacy of making an

14   improvement.

15   CHAIRMAN OBERMAN: Well, while you have

16   the -- you know something, we only have a few

17   minutes and I actually have a few other questions.

18   I'm just going to ask one. Karen Hedlund had a

19   question and I know she's got to run to catch an

20   Amtrak train to get to Washington tomorrow. So

21   I'm -- let me just ask this...

22   Why do you have the RTC experts in

1   house that you said Amtrak has?

2   THE WITNESS: Well certain -- certain

3   questions are best answered with RTC modeling but

4   not all questions have to be answered with RTC

5   modeling.

6   For example -- I'm sorry, I was going

7   to provide an example.

8   NS approached us several years ago

9   about operating trains during daylight hours in

10   the Northeast Corridor. We did not need to run an

11   RTC model to identify windows of operation during

12   daylight that we could make available to -- to NS

13   to operate oil trains.

14   CHAIRMAN OBERMAN: Well, I'd like to

15   pursue this further. I'm trying to understand

16   where the RTC technology fits in this world we're

17   trying to decide this case in. So I think we'll

18   take time to explore that further when you come

19   back.

20   But Karen had -- had a question she'd

21   like to pose before we recess today.

22   Karen, you're muted.

1   MEMBER HEDLUND: I think you just said,

2 Mr. Blair, that the FRA projects were designed to

3 reduce trip times and improve Amtrak's

4 reliability. Is that right?

5   THE WITNESS: Those were some of the

6 benefits that they cited but they also indicated

7 that there were secondary benefits to freight

8 operations as well.

9   THE WITNESS: When you say secondary,

10 what does that mean, that -- that they were

11 primarily designed to assist you in running more

12 reliable service and -- and by the way they might

13 help reduce delays to freight trains?

14   THE WITNESS: I don't know that I would

15 be able to characterize specifically what the --

16 how the benefits were assessed or -- I -- I only

17 had the report to go on, which indicates that the

18 projects that FRA identified would have both

19 benefits to freight and -- both freight and

20 passenger benefits.

21   MEMBER HEDLUND: But the FRA study

22 didn't measure the consequences -- the delays to

1   freight trains that would be the result of adding

2   the Amtrak trains?

3   THE WITNESS: It did not.

4   MEMBER HEDLUND: Thank you.

5   MS. AMUNSON: Mr. Chair, may I ask just

6   one clarifying question.

7   CHAIRMAN OBERMAN: Sure, and then I

8   think it'll be time to recess.

9   BY MS. AMUNSON:

10   Q.   Mr. Blair, the -- the $100M that is

11 recommended in the Gulf Coast Working Group

12 report, what portion of that does the Gulf Coast

13 Working Group report recommend must be sent prior

14 to starting service?

15   A.   I'd go back to the table: $5.376M.

16   MS. AMUNSON: Thank you.

17   CHAIRMAN OBERMAN: And that's for the

18 station track, right?

19   THE WITNESS: That -- that's the

20 station improvements at -- at each of the five --

21 or the five stations on the line and the station

22 track. Yes, sir.

1   CHAIRMAN OBERMAN: All right. Thank

2   you much, Mr. Blair. So, going forward here,

3   we're not going to limit your ability to discuss

4   needed business with Amtrak's lawyers and you are

5   not on cross-examination yet, so the usual strict

6   restrictions I don't think need to apply.

7   But I do think, in the exercise of

8   discretion, Jessie, you don't want to be talking

9   to this witness about going over the testimony

10   he's already given, other than just bringing him

11   up to date so we can start when we get back.

12   MS. AMUNSON: Understood. Thank you.

13   CHAIRMAN OBERMAN: All right. So we

14   will recess this hearing until 9:30 Eastern time

15   on May 9th and then we will have a session on May

16   11th. And, Jessie, I am counting on Amtrak to

17   finish in those two days.

18   MS. AMUNSON: Hope springs eternal, Mr.

19   Chair.

20   CHAIRMAN OBERMAN: And I -- I only want

21   to put it in the nature of hope. I'm not ordering

22   it but we really need to get this concluded, so.

Page 3043

1   All right, thank you all.

2   Mr. Blair, thank you for your patience.

3   THE WITNESS: Thank you.

4   CHAIRMAN OBERMAN: And we will see you

5   on May 9th.

6   (Whereupon at 4:58 p.m. the hearing

7   stood in recess until May 9th at 9:30 a.m.)

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

Page 3044

1   C O N T E N T S

2   WITNESSES: PAGE:

3   THOMAS CROWLEY

13

14

15

16

17

18

19

20

21

22

```
 1              CERTIFICATE OF NOTARY PUBLIC

 2        I, KIM M. BRANTLEY, C.S.R., the officer

 3   before whom the foregoing hearing was taken, do

 4   hereby, certify that the proceedings were taken by

 5   me in stenotype and thereafter reduced to

 6   typewriting under my direction; that said hearing

 7   is a true record of the proceedings; that I am

 8   neither counsel for, related to, nor employed by

 9   any of the parties to the action in which this

10   hearing was taken; and, further, that I am not a

11   relative or employee of any counsel or attorney

12   employed by the parties hereto, nor financially or

13   otherwise interested in the outcome of this

14   action.

15

16               _____

                 KIM M. BRANTLEY, C.S.R.

17               Notary Public in and for

                 the District of Columbia

18

19

20

21   My commission expires: October 31, 2024

22
```

A

a.m 2722:11,15 3043:7
ability 3027:4 3042:3
able 2732:16 2734:9
  2741:5 2745:2 2751:13
  2751:20 2779:14
  2797:20 2809:5,13
  2818:8 2835:22 2836:5
  2839:12 2919:4 2927:1
  2940:13,16 2949:2
  2950:21 2955:19
  2958:15 2968:2
  3000:21 3005:3
  3020:21 3040:15
above-titled 2722:14
absent 2996:9 3028:2
  3032:6
absolute 2901:18 2936:9
absolutely 2769:8 2780:8
  2940:21 2953:6
absorb 2939:11
absorbing 2749:11,12
absorption 2749:20
accept 2760:2,6 2764:12
  2791:21 2804:15
  2949:10 3031:3
acceptable 2753:5
  2925:20
acceptance 2875:1
accepted 2753:13,14
  2852:11
access 2759:9 2801:1,10
  2802:5 2817:1,14
  2820:15 2834:17
  2990:22 2996:21
accommodate 2742:19
  3014:16
accomplish 2994:4
account 2745:5,14
  2766:6,11 2843:1,22
  2860:3 2932:6 2933:10
  2937:20,22 2958:20
accounted 2750:2 2771:9
accounting 2844:2
accounts 2761:19
accuracy 2734:21
accurate 2738:9 2764:15
  2764:19,20 2774:7
  2924:14 2995:7 3031:5
accurately 2770:2 2863:6
  2863:16
accused 2913:4
accusing 2964:20,22
achieve 2736:2 2740:3
  2780:18 2781:18
  2899:11 3005:3

3006:20
achieved 2737:3 2741:8
  2781:6,11,19 2782:7,9
  2783:7 2784:17 2785:6
  2902:8
achieves 3006:15
achieving 3006:6,10
acknowledge 2870:16
acquisition 2971:16,18
Act 2977:20
action 2778:2 2910:13
  3045:9,14
activities 2942:8
activity 3003:11,18,19,20
actual 2727:21 2732:11
  2733:5,18 2734:12,16
  2735:9 2744:7 2745:7
  2745:10,19 2747:17
  2748:3 2759:6,9
  2762:22 2763:11
  2764:6 2771:2,2,4
  2772:2,8,9,12 2773:16
  2774:1,6 2775:13
  2783:11 2794:16
  2795:18 2819:4,11,18
  2820:11 2872:18
  2916:11 2917:15
  2931:7 2940:1 2961:8
  2964:3,6 2985:4
  3025:21 3026:15
  3027:1 3033:19
add 2740:17 2782:11
  2785:15 2788:15,18,19
  2789:14 2846:22
  2868:12 2880:16
added 2732:17 2737:2
  2753:3 2780:20,21
  2781:7,18 2782:6,10,12
  2867:8,10 2868:5,7,10
  2869:11,21 2870:4,17
  2879:15,17 2894:22
  2895:19 2902:3,15
  2903:13 2904:8 3006:5
  3015:2
adding 2740:10 2858:14
  2859:9 2998:9 3041:1
addition 2732:17 2741:2
  2741:8 2839:19
  2840:11,22 2889:14
  3009:22
additional 2742:19
  2762:4 2794:3 2803:14
  2828:12 2833:7 2839:8
  2869:21 2879:19
  2884:1 2889:19 2927:2
  2933:17 2948:10

2949:19 2950:16
  3018:18
additions 2741:17
address 2731:17,21
  2732:1,5 2992:3 2996:3
addressed 2732:21
  2733:14 2900:15
adds 2839:8
adequate 2775:3
adequately 2772:20
adhered 3004:15
adjacent 2844:14
  3019:20
adjust 2788:14
adjusted 3004:1
adjusting 2793:14
adjustments 2793:20
  2998:20
administered 3019:8
admission 2802:13
admitted 2892:9
Adobe 2808:20 2809:1
adopted 2850:22 2862:11
  2998:17
advance 2791:18
aerial 2981:20 3022:12
affect 2744:19 2746:3
  2842:20
affirm 2723:16 2969:18
afford 2784:4
afternoon 2970:14
agencies 2984:17
agency 3000:4
aggregate 2880:14
  2882:13,14
ago 2733:20 2797:16
  2808:7 2850:20
  2906:16,22 2944:8
  2956:7 2988:18 3039:8
agree 2753:1 2786:20
  2820:18 2871:1
  2882:21,22 2886:7
  2897:2 2898:7 2899:15
  2907:22 2908:11
  2909:15 2910:12
  2911:5 2943:16 2999:2
  3028:4 3038:2,12
agreed 2964:20 2996:9
agreement 2984:8
  2991:10,12 2994:11
  2995:15 2996:1
  2997:10,10,12,18
  2999:17 3002:10,11
agreements 2986:3
  2989:19,22 2991:5,7,8
  2994:2,5 3001:18

3002:1,2,5
ahead 2725:5 2777:10
  2786:1 2796:6 2810:14
  2847:20 2868:16
  2880:5 2885:22 2895:3
  2906:3 2930:18
  2939:13 2948:4 2962:2
  2965:9 2993:20
  3037:10
akin 2756:4
Alabama 2978:8 3000:11
  3000:13 3001:2,4
allegation 2934:17
  2939:20
allegations 2914:4
  2940:4
allege 2934:3,15
alleged 2943:7
alleges 2933:6
allow 2777:3 2835:9
  2928:6 2941:22 2995:6
  3028:20 3036:2
  3037:14
allowed 2958:11 2990:1
allows 2960:22 3007:11
alluding 2773:4
aloud 3025:5
alterations 2821:12
alternate 2752:1
alternative 3020:6
alternatives 3020:12
amount 2800:22 2859:4
  2994:17 2996:6 3004:4
  3006:22 3007:1
Amtrak 2723:10 2724:6
  2726:4,8 2730:8
  2737:19,20 2738:11
  2751:4 2754:21 2755:8
  2767:9,20 2777:2
  2781:2,5,5 2782:16
  2783:12,15 2784:4,17
  2786:4 2790:19 2791:4
  2791:5 2792:7,11
  2801:2,3,9 2802:5,18
  2807:4,14 2812:20
  2816:6,9 2817:1,5,15
  2817:17 2819:10,13,14
  2819:16 2821:10,19
  2822:9,10 2826:19
  2828:18 2829:7
  2833:11 2834:16
  2835:6,9,20 2836:8
  2840:12,22 2844:11
  2860:3 2866:1 2875:13
  2880:16 2882:12
  2888:11,14,19,21

2893:12 2895:11
2897:15 2898:11
2899:17 2905:9
2910:13 2914:5 2968:2
2969:15 2970:9,17
2972:5,6,10,11,19,21
2973:17,21,22 2974:5
2974:11,15,19 2975:12
2975:14,17 2976:9,20
2976:21 2977:4,11,13
2978:5 2983:16,21
2984:3,12,14,21
2985:14,19 2988:18
2989:15,18 2990:9,20
2990:22 2994:4,16,18
2994:21 2995:13,20,21
2996:1,19 2999:5,8,22
3000:19 3001:6 3002:7
3002:13 3004:13
3006:6,19 3007:3,6,7
3007:18 3008:6 3009:2
3010:10,11,19 3011:5
3012:4,12 3013:14
3014:2,20 3015:2,5,15
3015:20 3017:19
3018:14,17 3019:4,11
3019:19 3020:4,5,9,11
3021:21 3023:5,11
3024:1,11,21 3025:8,13
3025:16 3026:6,13
3027:14,14,22 3029:11
3030:9 3031:11,21
3032:1,20,22 3033:10
3034:22 3035:4
3038:20 3039:1 3041:2
3042:16
Amtrak's 2723:4,5
2737:21 2783:21
2806:19 2812:8
2824:16 2825:9 2830:6
2912:13 2965:19
2967:10 2973:9,19
2974:7,21 2975:5,9
2987:4 2996:16,17
3002:2 3005:2 3007:9
3008:21 3010:22
3011:17 3014:12
3015:19 3017:5,6
3018:22 3024:5
3025:22 3026:3 3027:4
3028:5,10 3034:10
3035:8 3040:3 3042:4
Amunson 2967:7,9
2969:14 2970:5,6,13
2979:15,18,22 2980:2,3
2981:8,10 2987:20

2988:15 2989:13
2991:21 2992:2,5,7
2993:20,21,22 3007:22
3008:3,4,14 3013:21
3017:3 3018:7 3023:9
3028:22 3041:5,9,16
3042:12,18 3044:12
analyses 2741:12 2778:4
2778:9 2855:18
2857:18 2863:21
3026:19
analysis 2741:11 2766:4
2769:15 2777:21
2778:5 2857:12
2859:12 2862:19
2971:15,19 2988:3
3005:14,16 3033:21
analyst 2919:3
analyze 2753:2 3004:7
analyzed 2827:2
analyzing 2879:6
and/or 2734:20 2871:20
2990:22
Anderson 2984:4
Angeles 2975:19
announced 2973:21
anomalous 2871:19
2872:19
answer 2734:10 2771:14
2777:9 2781:14
2784:13 2786:17
2790:7,22 2791:22
2794:22 2795:5,13
2797:20 2802:7
2804:15,18 2807:19
2813:21 2818:3
2822:15 2829:9,12
2830:13 2831:4,11
2833:20 2834:8,21
2846:12 2905:7,18
2909:1 2912:22
2913:15,15,16,17
2919:14,19 2920:21
2943:4 2948:22
2951:21 2985:17
3001:10 3008:8
3018:12
answered 2796:1
2807:17 2826:20
2829:20 2831:10
2846:11 2905:15
2908:22 2910:21
2911:1 3039:3,4
anticipate 2874:3
anticipation 3035:6
anybody 2729:19

2756:16 2992:1
apologies 2730:2 2748:18
2856:6 2992:2
apologize 2840:15
2841:19 2878:1 2967:5
apparent 2932:19
apparently 2777:1
2923:9
appear 2732:18 2761:12
2959:18
appeared 2746:13,21
appears 2737:2 2761:21
3035:3
appendix 2832:21
2951:14 2979:10
2982:2 3026:1
apples 2859:19 2885:18
2885:18 2886:2,2
applicants 2849:5
2850:14 2879:20
application 2722:4
2723:4 2750:15,20
2751:15 2863:12
applied 2732:14 2733:22
2744:8 2773:19
applies 2791:14 3019:7
apply 2855:11 2859:13
2859:14 3042:6
applying 2745:20
appreciate 2730:5
2785:20 2931:4 2969:3
2969:10
approach 2760:1 2774:5
2775:10,11 2851:1
2917:16 2922:16
3025:8 3034:11
approached 3014:13
3039:8
approaches 2879:6
appropriate 2800:18
2989:9 3003:6
approvals 3023:15,20
approximately 2906:15
2982:8
April 2722:10 2973:21
2988:2
area 2743:18 3021:21
areas 2742:17,18 2885:9
3012:17 3013:10
arguably 2728:17
2885:14 3038:5
argument 2800:18
2993:3
Army 2726:1
arrangement 3023:4
arrival 2737:22 2821:1

3015:15
arrive 3035:10
arrived 3002:22 3035:9
arriving 2737:14
articulated 2771:21
2772:3
ascertain 2821:12
aside 2814:10
asked 2726:12,13
2740:14 2750:14,20
2754:19,20 2755:1
2756:8 2760:2 2766:16
2766:19 2767:19
2769:14 2772:18
2776:17 2777:2 2792:7
2799:15 2800:5 2801:9
2807:16 2829:20
2846:11 2893:14
2905:15 2907:5
2908:21 2910:21
2911:1 2912:16,18
2913:7,9 2918:1
2919:13,17 2941:2
2946:14 2962:13
2965:14 2987:10,12
2999:1 3001:12 3028:8
3031:21
asking 2741:7 2748:15
2750:12 2772:14
2791:4 2801:18,20
2804:9 2812:18,20
2823:10 2828:15
2832:9 2870:10,14,15
2871:3 2882:17
2886:11 2887:3 2912:3
2912:4 2927:21 2958:6
2959:3 2968:21
2984:10 2994:21
2999:18 3037:7
asks 2794:2
aspects 2727:2
assembly 2971:10
assess 2876:21 3005:13
assessed 3040:16
assessment 2784:19
2785:8 3002:19
3031:13
assigned 2751:6 2896:5
2905:9 2935:8,9
2937:17
assignment 2764:4
2865:2 2913:18
assignments 2778:7
2842:8
assist 3040:11
assistant 2970:16

2972:17
assisted 2806:20
associated 2732:11
2733:7 2773:17
2815:22 2818:10,15
2928:11 3017:13
Associates 2724:19
2725:14,16,17 2726:20
2750:15
assume 2740:19 2753:14
2768:13 2818:17
2855:7 2895:1 2896:5
2935:3 3022:22
3029:16
assumed 2747:4 2854:2
2931:9
assumes 2839:7,22
2853:16 2854:17
assuming 2846:1 3032:13
3032:15
assumption 2922:20
assumptions 2769:2
3008:20
Atkins 2998:7
Atkins' 3029:4
attached 2728:16 2917:2
2917:4 2973:9 2979:10
2988:11
attachment 2809:10
attack 2849:5
attain 3004:14
attempt 2913:19 2983:16
attempting 2742:4
attend 2834:22
attention 2815:8 2816:15
2817:7 2818:21 2820:6
2824:15 2829:17
2832:6 2853:3,7
2868:16 2876:18
2880:7 2881:6 2894:10
2894:12 2951:14
attorney 3045:11
attorney/client 2791:9
audit 2726:14 2734:21
2744:13,17 2747:9
2755:2 2764:4 2765:1,5
2766:4 2767:13 2769:9
2772:20 2919:4
2926:19,22 2928:6
auditor 2956:1
August 2819:16 2910:17
2911:6 2988:7
auspices 2856:20
authored 2728:17
authorization 3002:11
authorized 2994:19

3004:21
available 2752:22
2767:17 2788:12
2921:3 2932:19 2933:1
2954:12,19 3018:19,21
3019:1 3039:12
average 2854:17 2855:7
2877:3 2880:12 2881:7
2881:11,21,22 2882:4
2886:15 2897:5,17
3004:14
averages 2845:21
2897:13
averaging 2859:16
avoid 2871:18 2958:17
2990:11
awaiting 3023:15
3024:14
awarded 3019:9
aware 2756:3,8 2778:16
2816:8 2818:13
2821:16 2822:6,8,16
2834:1,9,15,19 2835:16
2835:22 2836:4
2838:15 2839:11
2841:22 2843:4 2865:6
2865:10 2908:7
2910:16,20 2914:4
3000:12,16 3004:10
3005:21 3006:14
3007:4 3009:19 3010:3

———————————
B
———————————

B 2849:20 2892:13,13
B-l-a-i-r 2970:3
Bachelor 2724:13
2970:20
back 2764:5 2766:13
2770:15 2773:14
2786:18 2794:7,9
2795:9,11 2802:15
2806:6,11 2811:22
2815:4,8 2826:7
2827:21,21 2860:15
2875:10 2890:6
2896:21 2906:9,11,19
2906:21 2907:20
2908:2,12,14 2909:3,16
2909:22 2910:4 2913:8
2916:16 2918:22
2922:4 2923:12
2924:12 2927:2
2932:22 2933:3,13
2936:6 2939:7 2942:2
2948:22 2951:7
2959:12 2960:4 2962:9

2962:19 2964:2,6
2966:22 2981:9
2987:16 2993:10
3015:13,19,21 3016:2
3016:18 3021:17
3024:17 3034:17
3039:19 3041:15
3042:11
Back-ups 2909:19
backed 2739:18
background 2724:12
2970:19
backs 2967:1
backup 2921:20 2923:11
2923:17
backwards 2773:10
Baltimore 3012:15
3013:8
Banks 2726:14 2729:5
2732:4,9 2733:14,16
2735:2,8 2736:22
2739:3 2745:13 2746:7
2746:22 2750:5 2760:4
2762:13,14 2786:6
2913:2,20
Banks-Guthrie 2728:11
2728:14,18 2729:8
2730:10 2731:9
2734:11 2736:1 2742:6
2743:17 2744:6
2746:15 2747:11
2748:12 2749:17
2750:4 2759:17
2761:15 2762:1 2769:3
2784:11 2920:22
2921:6 2922:16
3005:20 3007:4 3031:3
bar 2968:10
base 2733:2 2742:20,21
2752:1 2763:16
2780:20 2782:14
2817:10 2836:1
2838:20,22 2839:2,6,12
2839:18,21 2840:2,5,10
2840:14,17,21 2841:7
2866:18 2871:6
2873:14,16 2879:11
2880:2,22 2882:3
2883:4,5 2886:17
2889:15 2919:1
2962:19 2985:22
2986:14 2988:4 3006:3
3009:3
based 2727:19,21
2730:15 2736:16
2737:22 2747:21

2761:8 2762:22
2763:12 2769:12
2770:11 2779:5,11
2788:11 2793:20
2794:15 2795:17
2836:7 2867:10,22
2869:22 2884:5
2897:16 2899:18
2900:16 2917:14,15
2921:9 2927:3 2944:20
2945:4,13 2948:6
2950:14 2960:12
2981:12,13 3021:2,9
3027:3,8,16 3029:16
3030:5 3031:2 3032:4
bases 2797:12 3010:7
basic 2754:17
basically 2778:11
2783:18 2921:1
2936:21 2940:2 2994:7
basis 2741:3 2743:15
2764:20 2765:7,12,14
2766:3 2791:1 2797:11
2837:4 2944:10
2954:22 2981:22
2987:12 3005:2 3009:9
3021:16 3033:17
Bates 2818:10,15 2819:3
Bay 3014:11
bear 2924:8
began 2767:8 2984:2
begun 2968:7
behalf 2848:17 2998:7
3000:3 3001:2
belabor 2898:6
belief 3008:10
believe 2723:4 2746:16
2760:13 2775:4 2778:8
2780:13,17,21 2784:11
2801:3,15 2802:9
2803:11 2805:21
2810:21 2812:13
2816:7 2817:16 2820:3
2820:17 2823:17,17
2824:20 2825:13
2827:6,14 2832:17
2836:3,6 2846:6,8
2872:13 2887:6,14
2893:5,14 2901:6
2908:16 2910:11
2922:9 2923:5 2949:11
2954:13 2967:14
2976:19 2979:10,18
2981:21 2988:1,1
2990:7,19,21 2994:1
2996:11 2999:5

3003:15 3004:20
3005:14 3006:2
3015:10 3018:20
3019:5 3022:3,5,19
3023:20 3024:19
3025:3 3027:9 3028:20
3029:2
believed 2878:15
believes 2799:3 2822:9
believing 3005:2
belong 2838:1,6 2917:9
belonged 2845:10
belt 2906:9,12,19
2907:20 2908:2,12,14
2909:3,16,22 2910:4
3015:13,20,21 3016:2
3016:18
belt's 2906:21
benefit 2780:2 3037:21
3038:13
benefits 2778:17,21
2780:6 3037:4,9 3040:6
3040:7,16,19,20
Bensenville 2869:14,16
best 2753:2 2767:22
2851:20 2863:6
2918:13 2921:4 2985:9
3026:14,20,22 3039:3
better 2727:11 2752:14
2758:21 2774:5
2908:13,18 2971:11
2986:15,19,21 3007:12
beyond 2796:4 2951:17
2964:8 3007:21 3016:9
3017:22
big 2739:16 2808:5
2823:2 2900:14 2901:3
2901:4
binder 2847:1 2973:12
binders 2808:5 2823:2,20
2825:22
bit 2770:15 2838:19
2846:16 2860:16
2894:7 2926:16
2970:18 2971:6
2985:16 3003:13,16
3017:5
Blair 2967:10,17 2968:2
2968:22 2969:15,16,17
2970:3,8,14,16 2987:17
2988:14 2989:14
2992:21 2993:17
2994:1 3008:15
3013:22 3016:14
3017:4 3023:10
3024:16 3028:22

3040:2 3041:10 3042:2
3043:2 3044:11
Blair's 2967:15
block 2762:6 2935:18,19
blocking 2944:9
blocks 2761:17,21 2762:2
2931:10 2935:5 2939:8
2943:1 2944:7
blues 3003:18
BN 3011:22
board 2722:1 2734:6
2755:6 2758:10,11
2760:21 2767:2 2780:1
2780:3 2784:16,16
2785:6 2786:22
2798:22 2805:4 2824:8
2824:9,10 2856:21
2875:1 2884:15 2911:6
2912:3,6 2916:15
2950:3 2964:16
2967:12 2970:15
2972:18 2993:8
3004:11 3016:11
3017:15 3024:9 3028:8
3028:18 3029:8
board's 2750:8 2797:12
2797:13 2798:21
2889:6 2910:16 2911:9
2951:17,20
board-sponsored 3028:9
3028:11
book 2804:22 2805:1
2953:16
books 2803:18
born 3009:11
bother 2798:5
bottom 2742:15 2746:19
2815:10,18 2850:17,18
2854:14,15 2861:20
2890:15 2894:1 2964:1
boy 2892:13
Bracey 2723:6,8,10
2724:3,10 2725:2,6,11
2725:12 2729:18,20
2730:1,6 2731:2,7
2737:6,6,7 2739:2
2748:10,12,18,21
2749:1 2754:11,19
2757:9 2790:21 2791:3
2791:9,18 2792:1
2795:2 2799:11,15
2801:12 2804:8
2805:13 2807:16
2808:14 2809:13,18
2810:3,8 2811:13,15
2812:8 2813:7,19

2817:22 2821:21
2823:12 2824:3,4,7,17
2826:8 2828:1,22
2829:20 2830:12
2831:2,7 2832:4
2833:17 2834:6
2836:10 2846:11
2847:5 2853:10 2861:7
2872:1,6,8 2878:7
2887:22 2888:6
2892:16,20,22 2905:15
2908:21 2910:21
2912:15 2913:10
2916:17,18,19,21
2917:18,21 2918:5,7
2919:20 2950:7,14
2951:16 2953:4,8
2965:6,10,13,22
2966:11,13,20 3044:4,8
3044:10
Bracey's 2950:13
BRANTLEY 3045:2,16
BRC 2869:16
break 2809:20 2810:9,18
2811:8,8 2874:2,9,15
2875:3,8,15 2879:12
2966:9,19,22 2992:11
bridge 2744:1 2748:6
2749:3,16 2842:4,7
2844:5 2928:8,10,13,16
2928:19 2929:4 2930:5
2930:8,13 2931:6
2932:7,7,10,13,17
2957:14
bridges 2842:1,3,6,7
2930:8 2931:8 2932:8
3010:9,12,14 3031:16
3035:22
Brief 2804:20 2829:10
2889:8 2892:21
bring 2934:3 2951:7
3027:22
bringing 2931:17
2934:14 3042:10
brought 2910:13 3024:9
build 2788:11 2835:22
2836:5 2879:20
2889:16,18 2903:3,13
2903:17 2904:11
3022:2 3030:21
building 2729:20 2866:16
2866:17 2988:4
built 2864:7 2893:13
3009:4,8 3031:1
3032:11
bulk 2914:22

bunch 2767:19 2798:20
burden 2799:5,19
business 2740:17,18
2759:18 2762:6 2919:3
2970:21 2972:22
3042:4
busy 3012:11,13
buy 3009:12

C

C 2723:1 2979:10 3044:1
C-r-o-w-l-e-y 2724:1
C.S.R 3045:2,16
calculate 2752:1 2932:21
calculated 2736:13
2876:16 2902:20,20
calculating 2849:7
2932:7
calculations 2781:22
2850:21 2851:7,15
call 2728:13 2743:13
2745:22 2775:16
2929:21 2933:11
2967:11 2999:16
called 2724:6 2729:12
2970:9 3000:6 3020:11
calling 2967:8 2992:7
calls 2723:10 2790:21
2969:15 2986:10
camera 2731:5
Canadian 2750:11,12
2751:16
Canton 3013:8
capacity 2727:6,10,10,13
2727:13 2731:12
2742:2 2749:12,20,21
2753:2,18 2762:4
2849:6,8 2850:21
2851:2,16 2852:13,18
2852:22 2854:1,7,16
2855:6,12,18 2856:2
2857:1,11,17 2858:6,21
2859:1,11 2860:13,22
2861:3 2862:2,4,8,13
2863:11,21 2864:1
2891:1 2908:13,19
2909:3,15 2916:3,10
2917:13 2935:22
2939:11 2943:3 3025:7
3031:17
capital 2980:21 2982:17
3002:8
captures 2918:16
car 2728:2 3009:11
care 2938:9
career 2899:21

careful 2871:18
carrier 2728:1 2960:4
carriers 2727:22 3028:4
carries 2861:6
carrying 2850:18
cars 2761:17 2821:1,3
   2935:5,18,19 2939:8
case 2723:5 2726:12
   2728:7 2733:2 2734:11
   2735:5 2739:10 2742:2
   2742:5,21 2750:9,19,19
   2751:2,3,11 2752:1,2,4
   2752:7,7 2753:16,22
   2754:15 2775:18,21
   2778:17 2779:9
   2780:20 2782:8,14
   2783:5,7 2784:3
   2794:19 2795:21
   2796:20 2797:2,7,10,10
   2797:18,22 2798:10
   2799:18 2800:1,2,8
   2807:6 2817:10 2836:1
   2836:5 2837:8 2838:20
   2838:22 2839:2,6,12,18
   2839:18,21 2840:3,5,10
   2840:11,11,14,17,21,21
   2841:7,10,16 2853:19
   2863:5,19 2864:2,5
   2866:18 2871:6
   2873:14,16 2879:11,12
   2879:15 2880:2,3,10,22
   2881:1 2882:3,4,12
   2883:4,5,11 2885:19
   2886:17,18 2888:22
   2889:15,15,16,18
   2894:16,21 2898:13,21
   2899:16 2903:3,13,17
   2904:11,18 2913:21
   2917:15 2919:5
   2928:10 2930:8
   2935:10 2942:16
   2946:2 2969:1,6
   2976:13 2985:22
   2986:2,14 2988:4
   2992:18 2993:6
   3002:19 3006:3 3009:1
   3009:4 3016:1 3029:6
   3039:17
case-by-case 2944:10
cases 2752:1 2753:15
   2755:19 2760:22
   2784:1,5,8 2792:13
   2794:14 2795:16
   2796:10 2798:1,19,20
   2799:1,21 2814:5
   2852:12 2873:17

2893:12 2907:13
   2995:8 2999:9
catch 3038:19
categories 2934:3,5
   2941:5 2963:18
category 2927:3 2940:22
   2942:14
cause 2744:3 2931:14
   3008:11
caused 2785:4,9 2871:19
causes 2931:16 2932:10
causing 2735:21 3027:5
CEO 2984:4,4
certain 2748:5 2832:9
   2972:15 2991:13
   2994:17 3001:11
   3009:3 3014:9 3023:15
   3026:11 3028:21
   3039:2,2
certainly 2807:20
   2851:11 2852:2
   2891:21
CERTIFICATE 3045:1
certify 3045:4
cetera 2810:17
Chair 2967:9,11 2968:20
   2969:14 3007:20,22
   3029:2 3041:5 3042:19
chairman 2722:15
   2723:2,9,13,20 2724:2
   2724:20 2725:3 2738:8
   2738:16,22 2748:9,14
   2754:13 2755:7,16,22
   2756:3,7,13,15,19
   2757:1,4,11,21 2759:1
   2759:13,22 2760:11,18
   2762:7,17 2763:2,8,19
   2764:7,11,16 2765:3,10
   2765:15,18 2766:5,9,15
   2766:22 2770:16
   2775:15 2776:2,6,14,21
   2777:8,18 2778:19
   2781:13 2783:19
   2786:1,22 2787:5
   2791:1,6,11,15,21
   2794:21 2795:2,4
   2796:1 2798:8,13
   2799:8,10,14 2800:4,13
   2800:15,17 2801:22
   2802:7 2803:9,17,21
   2804:1,4,16,21 2805:3
   2805:4,10 2807:18
   2808:10,12,14,17
   2809:7,9,16 2810:1,3,6
   2810:11,14 2811:7,11
   2811:17,20 2813:8,21

2818:2 2822:2 2823:3,7
   2823:13 2824:2,5,8,12
   2829:3,9,11 2830:1,13
   2831:4,9 2833:20
   2834:7 2836:11
   2846:12 2847:7,11,14
   2847:18 2849:12
   2850:5,9 2856:3
   2861:14,18 2868:19,22
   2869:1,5 2873:21
   2874:5,11,18,22 2875:6
   2875:12,16,19 2876:4
   2876:10,11 2881:12,15
   2881:17,19 2884:18,22
   2885:2,6,22 2886:5,13
   2888:2,8 2892:9,12
   2894:3,6 2897:3,14,22
   2901:5 2904:1 2905:17
   2906:1,3 2909:1
   2910:22 2911:17
   2912:2,8,18 2913:14
   2914:16 2916:15
   2919:11,18,22 2920:7
   2920:10,15 2921:5,9,16
   2922:2 2923:2,19
   2924:7,17 2925:2,12,19
   2926:4,9,13 2927:5,19
   2928:4,12,18 2929:2,6
   2929:10 2930:3,12,18
   2930:22 2931:19,22
   2937:4,18 2938:14
   2939:13 2941:2,19
   2942:7,11,12 2944:14
   2944:22 2945:4,10,17
   2946:1,6,10,20 2947:4
   2947:10,13 2948:1,4
   2950:2,10,12,17 2951:1
   2951:19 2953:11,15
   2958:16 2959:2,17
   2960:7 2961:4,11,15,19
   2962:1 2963:5 2965:4,8
   2966:1,4,9,15,21
   2967:4 2968:6 2969:3,9
   2969:17 2970:1,4
   2979:15,20 2980:1
   2987:15 2988:14,21
   2989:3,11 2992:4,10
   2993:16,19 3008:1,8
   3012:20 3013:13,19
   3016:10,20 3017:1
   3018:2 3020:14 3021:5
   3021:19 3022:12
   3023:2,8 3029:3,15,19
   3030:1,8,14,19 3032:8
   3032:17 3034:2,16
   3036:8,19 3037:7,18

3038:15 3039:14
   3041:7,17 3042:1,13,20
   3043:4
challenge 2764:8
change 2741:9 2784:18
   2785:7 2789:20 2790:2
   2792:9,9 2819:17
   3008:19
changed 2740:16 2974:9
   2974:11
changes 2727:9 2741:17
   2742:2 2790:8,14,16,17
   2890:1,3 2932:6
   2946:19,20 2947:5
   2984:22 3036:9,11
changing 3036:2
characteristics 2789:21
   2790:3 2858:9
characterization 2771:17
characterize 2769:14
   2861:9 2908:5 3023:7
   3031:7 3040:15
characterized 2838:22
   2899:10
characterizing 2770:18
charge 2723:7 2956:1
chart 2933:20 2939:20
   3006:3,9,16
charts 2728:3 2788:12
   2816:18 2817:2,4,5
   2820:11 2821:9
   2981:20 2987:6
check 2744:17 2810:21
   2927:1 3016:2
Chicago 2750:13 2860:2
   2869:17 3014:19
   3015:6,11
Chief 3011:21
Choctaw 2834:17
   2844:13,15,22 3020:9
choices 2947:7
circumstance 3013:12
circumstances 2854:12
   2860:5 2872:14 2966:5
   2985:2 3012:9 3014:16
citations 2863:5
cite 2855:16 2860:19
cited 2736:18 2863:20
   3010:21 3011:11
   3040:6
cities 2978:9 3003:1,3
citing 2798:19
citizens 3001:3 3028:14
city 2750:11 3001:5
   3020:2 3022:1,4,7,10
   3022:21 3023:3,5

city-owned 3022:17
    3023:1
claim 2735:2 2745:19
    2902:22 2939:21
    2943:14,20 3010:8
claimed 2738:7 3010:4
claiming 2791:8
clarification 2768:20
    2785:22 2919:19
    2937:5 2968:21
clarifications 2830:7
clarify 2737:10 2767:7
    2982:20
clarifying 2905:6 3041:6
clarity 2901:18,19
    2936:10 2967:16
class 2726:6 2908:5
    2928:2 2972:8 3013:3
clean 2966:14
clear 2739:14 2758:9
    2790:12 2798:22
    2799:18 2841:6
    2842:14 2843:10
    2854:20 2887:1
    2940:21 2952:1 2954:8
clearly 2923:4 2960:20
click 2809:16
clicking 2809:14
client 2741:6 2791:12
    2967:17
clients 2726:3,5 2741:13
    2741:14 2900:6
    2968:15 2971:20
    2972:7
close 2904:20 2963:9
closed 2756:12
closer 2730:21
closing 2800:11
cloth 2760:6
CN 2843:5,8,11,14
    2844:6,8
CN/EJ&E 2855:16
    2856:12
coast 2783:22 2790:15
    2821:11,20 2822:11
    2836:18 2844:11
    2845:9 2887:5 2891:14
    2906:18 2907:6,9
    2920:3 2968:4 2969:5
    2974:20 2975:7,11,15
    2975:22 2976:1,3
    2977:22 2978:2,4,10,13
    2978:17,19,21 2979:6
    2980:5 2981:1 2982:13
    2983:10,12,14 2984:6
    2985:13 2994:8

2999:19,22 3000:15
    3001:15 3002:15,20
    3004:18 3010:4,17
    3011:13 3012:15
    3014:1 3015:1 3017:8
    3017:10,20 3019:13
    3020:10 3024:2,17
    3025:17 3027:5
    3028:14 3029:12
    3030:1,6 3032:10
    3034:6,14,18 3035:16
    3035:20 3041:11,12
cold 3003:18
colder 3004:3
collaborate 2998:19
collaboration 2998:12
    2999:1
colleagues 2875:3
college 2971:8
color 3003:17
Columbia 3045:17
column 2881:7,10,10,22
    2894:15,17,18,21
    2895:10,12
columns 2981:2
combination 3014:4
come 2752:8 2755:9
    2758:17 2769:20
    2875:10 2913:8 2925:5
    2925:15 2939:7
    2966:22 2967:1
    2982:11 2985:9
    2993:10 2994:11
    3019:21 3029:20
    3039:18
comes 3013:6 3015:21
comfort 3004:16
comforted 3000:22
coming 2744:12 2760:19
    2843:8 2863:3 2933:2
commence 2968:1
comment 2886:11
    3033:12
comments 2860:2
commercial 2778:5
commercially 2989:16
    2990:4
commission 2978:6
    3000:3 3019:6 3045:21
commitments 2991:15
common 2813:4 2844:20
    2844:22 2879:5 2938:8
    3003:22 3019:22
communication 2988:6
communications 2801:18
    2817:22 2829:1

2977:15
commuter 2885:11
    2984:17
company 2722:7 2751:9
comparable 3011:6
compare 2782:4 2859:17
    2873:16 2926:18
compared 2746:12,14
    2784:7 2880:2 2976:2
    2976:10 3014:18
comparing 2841:15,19
comparison 2859:5
    2885:16 2886:17
comparisons 2859:20
compatible 3004:19
compiled 2774:18
    2830:18,19
complainant 2793:7
complainant's 2793:6
complete 2751:10,21
    2997:22
completed 2911:14
    2962:6 2997:19 3003:8
    3023:21
completely 2769:9
    2794:8 2795:10 2886:7
    2968:3
completion 2880:10
complex 2776:3 2858:7
    2858:22 2859:9
    2920:17
complicated 2754:2,6,8
    2776:5
component 2745:8
    2882:18
compound 2813:20
conceded 2997:2
concentrate 2750:21
concentration 2970:22
concern 2932:14 3026:21
concerned 2798:15
    2990:21 2992:16
    3009:7 3028:12
concerning 3009:6
concerns 2923:4,8 2986:6
    3009:5
conclude 2902:14
    2959:20 3030:11
concluded 3042:22
concludes 2916:13
conclusion 2763:22
    2769:20 2779:10
    3029:20 3032:18
    3034:4,22
conclusions 2731:8
    2759:15 2779:20

2914:2 3029:13 3032:1
    3032:3
concur 2982:5
condense 2918:11
condition 2744:5 2987:1
    3021:12
conditions 2981:16
    3021:13
conduct 2728:21 2910:18
    2911:7 2912:1 3021:14
conducted 2741:10
    2910:8 2982:15
    2996:12 2999:9
conducts 2985:19
confidential 2848:3
    2952:4 2990:12,14
    2992:16
confidentiality 2989:19
    2991:13
confidently 2769:9
configuration 2854:22
configured 2891:20,22
confirm 2823:17 2905:1
conflict 2783:13 2904:7
confused 2757:6 2774:9
    2897:4
confusing 2840:16
    2858:18
confusion 2958:17
congestion 2740:21
    2877:9 2908:14,19
    2909:19
Congress 2974:18
    2977:18 2979:1 3033:2
congressional 2974:15
    2975:3 3028:6
connection 2777:14
    2882:20 2890:20
    2976:12 2977:2 3007:2
Connects 2973:22
Conrail 2971:12,13,16
    2976:12
consecutive 2735:17,20
consensus 3026:22
consent 2999:19
consequence 3006:19
    3007:17 3008:6
consequences 3040:22
conservative 2735:4
conservatively 2869:11
consider 2738:11,19
    2996:17 3004:11
    3011:20
consideration 2750:8
considered 2762:4
Consolidated 2971:11

construct 2999:2 3017:7
3018:6 3019:19
constructed 3017:20
3020:5,7
constructing 3020:17
construction 2729:21
3002:10 3020:20,22
3021:6,10,17,18
consult 2967:18
consultant 2916:6
2989:10 2991:17,18
2996:12,16,17 2997:2
consulting 2725:18
2759:19 2971:17,22
2972:1,2
consumers 2900:7
contain 2850:6
contains 2839:14
contending 2779:15
contention 2779:2 2791:2
contentious 2986:2,4
contents 2848:18
context 2758:6 2851:22
2852:3,3,5 2857:7
2859:22 2860:19
2934:12
contexts 2859:14 2900:1
contingent 3018:9
continuance 2912:13
continue 2876:5 2983:9
2983:14,17 2996:8
contract 2972:14
2996:19
contracts 2973:1
contractual 2858:7
contrary 2763:22
contribute 2888:10,13
contributed 2814:4
control 2727:5 2815:22
2954:17,17 2955:11,17
controlled 2783:13
3021:22
controls 2943:8,13,18
3020:2
convenient 2874:19,21
conversation 2792:10
conversations 2730:15
2747:21 2748:2
2758:12 2998:1
convert 2729:11
cool-down 2871:10
Cooperative 2856:19
copies 2808:15 2810:4
copy 2805:14 2847:5
2892:22 2953:5
2973:12

Corporation 2722:5
2863:13,15 2971:11
correct 2747:6,14
2755:21 2756:1,2
2757:20 2778:14
2786:5,9 2788:3,21
2789:3,18,19 2790:9
2793:22 2794:5 2799:5
2825:4 2828:13,16
2832:22 2833:4 2836:5
2838:6,7,10,14,17
2839:5,10 2840:19
2841:12,16 2842:4,5,11
2842:16,17 2843:2,10
2843:20 2845:4 2846:1
2848:19 2849:1
2851:20 2852:1 2854:5
2856:13 2857:5
2865:13,17 2866:2,6,9
2867:2,3,6 2871:1
2873:18 2876:20
2878:19 2879:2,9
2882:7,11 2889:20,21
2891:11 2898:14
2904:16 2911:11
2915:7 2918:2 2920:9
2922:1 2925:10
2930:16 2936:7
2944:18 2947:9 2948:7
2948:8 2949:10,12
2955:4 2956:11 2959:1
2965:1 2973:6,13
2979:22 2996:14
3001:11 3006:11
3008:16 3024:3
3029:17
corrected 2922:19
correctly 2780:12
2819:20 2869:19
2880:19 2895:14
2911:13
corresponding 2819:19
corridor 2975:4,10,13,15
2975:20 2976:14,18,21
2977:1,5 2979:3 2980:9
2980:20 2981:14
2982:14 2983:20
2984:15,16 2985:6
2987:4 2991:3 2994:11
3003:7,11 3004:9
3005:7 3010:4,15,17
3011:1,13,16 3012:1,2
3012:10 3014:1,13
3026:18,21 3027:5,9,19
3027:21 3031:20,22
3032:2,6 3033:20

3039:10
corridors 2974:1,22
3005:8 3010:11,14
3011:8,10,18 3027:13
3032:4
cost 2741:15,16 2779:16
2780:2,4 2793:2,4
2796:10 2798:1
2980:21
cost-benefit 2741:10
2777:21 2778:1,4,8
costs 2778:22 2779:3,4
2779:15 2780:7 2781:8
2785:14 3002:4
coughed 2903:7
counsel 2724:6 2730:8
2752:17 2799:12
2801:19 2812:8 2818:1
2818:6 2824:16 2828:2
2829:1 2830:6 2865:1,4
2875:13 2907:5
2912:13 2913:8 2950:5
2962:13 2968:21
2970:9 2992:19 3045:8
3045:11
count 2746:19 2747:8
2749:19 2934:4
2958:11
counted 2746:12
counterpart 2747:4
2749:4
counterparts 2748:7
counting 2933:7 2934:8
2934:18 3011:7
3042:16
country 2726:8 2859:6
2972:22 2974:2,9
country's 2974:10
couple 2732:1 2754:17
2761:6 2767:3 2768:14
2803:14 2804:12
2808:7 2820:5 2842:6
2872:11 2881:5
2891:10 2901:7
2905:22 2918:1 2931:4
2951:6 2957:3 2965:6
2966:13,18
course 2730:10 2761:17
2838:20 2919:2 2935:6
2936:17 2939:6
2967:20 3024:1
courses 2724:15
court 2730:17,18 2756:5
2795:6 2874:8
cover 2957:11 2979:16
covered 2835:16 2845:17

2947:18 2991:11
covering 2816:18
covers 2819:15
coworkers 2983:12
CP 2751:15 2849:5
2850:1 2851:8,13
2854:4 2857:7,15,21
2867:2,5,9,11 2868:1
2868:13 2870:5,7,9
2879:16,20
CP's 2853:18 2868:18
2869:9
CP/KC 2879:17
CP/KCS 2753:16
2846:17 2853:15
2854:16 2855:1,9
2859:1 2862:20,21,22
2864:20 2879:16
2880:16
CP/KCS' 2869:17
CPS 2865:7
CPS/KCS 2881:2
create 2728:4 2733:2
2743:20 2745:22
2752:6 2754:20,20
2755:9 2759:2 2775:7
2866:21 2962:8
created 2729:8 2732:10
2732:14,15 2733:22
2734:1 2744:8,10
2751:19 2773:19,21
2780:19 2964:10
creates 2859:11
creating 2745:20 2771:4
2918:18
credibility 2760:21
Crescent 3015:16
3016:15
crew 2842:15 2881:10
3024:6
crews 2927:17 3024:2,8
3024:11,13
criteria 2986:17
critical 2942:21
criticism 2758:1 2759:7
2850:3,6 2854:9
2954:22
criticisms 2850:10
2852:21 2853:4
criticize 2753:17 2759:4
criticized 2753:19
2850:13 2947:3
2949:11
criticizing 2862:20
critique 2755:2
critiquing 2857:15

2860:6
cross 2787:6 2955:16
  3029:5
cross-examination
  2787:7 2804:17
  2807:19 2876:5 2906:4
  2915:2 2968:7,13
  3042:5 3044:5,6,7
cross-examine 3018:3
crosses 2843:6
crossing 2843:5,15
  2955:15
crossings 3011:4,6,10,12
Crowley 2723:11,13,15
  2723:22 2724:5,22
  2731:4 2738:11
  2754:14 2755:17
  2759:1 2767:4 2775:17
  2777:11,20 2787:9,11
  2791:4,15 2792:6,12
  2796:9 2798:7 2800:21
  2803:15 2805:12,14,16
  2805:19 2806:6 2810:5
  2811:21 2812:3
  2815:14 2816:13
  2821:7,22 2823:1
  2824:5,7,14 2826:1,11
  2829:6 2830:4 2833:18
  2833:19 2834:1,15
  2835:15 2836:16
  2841:18,22 2843:4
  2844:10 2846:15
  2847:5,22 2848:10,12
  2849:3,19 2850:13
  2852:11 2857:9 2859:7
  2860:8 2862:16 2864:6
  2866:16 2868:4
  2870:10 2874:3
  2875:14,17 2876:6,7,13
  2878:11 2884:8,14
  2886:3,12,15 2887:15
  2888:10 2889:14
  2891:9 2892:2,17,22
  2893:3 2894:9 2895:5
  2896:2 2898:1,5,5
  2899:20 2900:4 2901:8
  2901:19 2902:2 2905:7
  2906:6 2912:12
  2913:17 2914:18
  2915:4,12 2919:15
  2920:1 2931:21 2932:1
  2942:7 2944:15
  2947:19 2951:7,14
  2952:7 2953:21
  2958:19 2962:4
  2963:11 2965:5,14

2966:2 2989:4 3044:3
Crowley's 2748:11
  3009:5
CS 2953:13
CSX 2722:6 2747:19
  2750:7 2754:16 2771:7
  2776:8,15 2777:21
  2780:18 2784:3
  2806:18 2812:18,20
  2815:20 2817:18
  2819:13,14 2820:10
  2821:8,17,21 2822:8
  2828:2 2833:16 2834:1
  2835:18 2836:8 2843:6
  2843:17 2844:10
  2863:13 2866:1
  2886:18 2898:22
  2902:3 2918:17
  2942:16 2952:18,19
  2954:1 2955:16 2962:9
  2962:12 2976:22
  2977:8,16 2978:15
  2981:19 2982:5,11,15
  2983:6,8,17 2984:4
  2986:7,9 2987:7
  2989:14,22 2990:7,15
  2990:19 2996:15,20,22
  2998:8 3001:18 3002:1
  3006:14 3010:3
  3013:22 3015:8,11
  3017:18 3021:22
  3022:5,16,18 3023:16
  3028:7 3031:11,12
  3032:13,16
CSX's 2821:18 2834:17
  2996:21 3023:18
CSX-owned 3022:20
CSXNS 2803:11,22
  2804:22 2808:5 2812:4
  2814:9,11 2823:2,2,6
  2824:15 2825:21
  2827:5,9,13 2831:16
  2846:19 2881:15
  2899:10 2917:19
  2951:8 2953:14
  2956:22 2965:11
CSXT 2816:17 2817:8
  2819:10 2832:10
  2943:11
CSXT's 2819:2 2820:21
cue 2938:4
current 2811:6 2973:15
  2995:8 3019:17,20
currently 2750:10 2842:4
  2891:20,22 2908:18
  3006:17 3014:20

custody 2815:21
customer 2737:1,9,12,12
  2737:17,19,19 2738:4,5
  2738:10,12,21 2739:4
  2739:13
customer's 2737:20
customers 2778:6
  2986:18
cut 2961:20

D

D 2723:1 2892:12
daily 2869:11,12 2896:21
  2980:8 3014:22 3015:3
  3015:7
Dan 2726:19 2731:22
Daniel 2906:6
data 2727:19,21 2730:9
  2732:4,6,7,10,19,20
  2733:21 2734:5,10,11
  2734:12,16,20,21
  2735:9,10 2744:7
  2745:8,19 2746:14,21
  2747:5,12,13,17 2748:3
  2748:7 2749:4,5 2751:7
  2751:14,15,17,18,21,21
  2752:3,10,12,17
  2756:17 2757:22
  2758:1,11,13 2759:5,6
  2759:9 2761:12,18
  2762:18 2763:4,11,17
  2763:18,20 2764:6,21
  2765:1,4 2766:13,19,20
  2767:17,20,22 2768:6
  2768:18,21 2769:7,12
  2769:12,14 2770:17,22
  2771:2,2,4 2772:2,8,9
  2772:12,15,16,18,19
  2773:16,17 2774:1,6,10
  2774:11,12,19 2775:1,3
  2775:6,7,9,19 2776:7
  2776:15 2777:1
  2794:17 2795:19
  2802:14,18 2803:2
  2819:3,11,14 2820:1,10
  2820:20 2821:4,18
  2825:14 2826:14,17,18
  2836:7 2837:6 2867:1,4
  2867:9,12,15,22 2868:3
  2868:8,13,18,18
  2869:10,10,22 2870:5,9
  2870:18 2871:1
  2900:17,18 2910:3
  2913:3,6,19,22 2914:5
  2914:8 2917:15
  2918:12,12,21 2919:1

2921:2,9,20,20 2922:5
  2922:8,21 2923:11,17
  2925:20 2926:14
  2927:6,10,12 2928:5,17
  2928:18 2929:6,10
  2930:2,5,9,14 2933:7
  2933:17 2939:17
  2940:1,5,6,8,11,14
  2941:2,4,10,21 2942:2
  2943:15,20 2944:2,11
  2944:16 2946:16,18
  2954:9,16,18 2955:1,3
  2955:8,12,16 2956:2,5
  2956:8,11,18,20,22
  2957:6,7,14,18 2958:2
  2959:11 2960:9,9,10,18
  2960:20 2961:9,15
  2962:19 2963:19
  2964:2,3,6 2965:1
  2981:19 2985:4,22
  2986:11,13,14 2987:11
  2988:22 2989:9,15,17
  2989:17,20 2990:1,2,9
  2990:20,22 2991:12,13
  2991:14,16 2994:21
  2995:4,14,21 2996:21
  2996:22 3005:6,11,12
  3031:9,12 3033:18,18
data-sharing 2997:10
database 2928:13
date 2776:11 2821:16
  2827:8 2828:5 2864:13
  2864:15,19 2865:3
  2907:18 2965:15
  3001:10 3026:11
  3028:21 3042:11
dated 2806:7 2808:8
  2812:8 2814:14,16
  2824:15,22
daughter 3009:10
day 2845:4 2856:8
  2859:4,16,19 2923:21
  2935:13 2962:16
  3003:2 3012:1 3015:6
daylight 3039:9,12
days 2775:7 2845:18
  2865:18 2999:18
  3033:2 3042:17
deal 2739:16 2900:14
  2901:4,4 3002:6
dealt 2929:4 2991:14
debate 2780:11 2904:2
decade 2974:4
December 2752:20
  2768:2,10,12 2776:11
  2776:19 2866:5

2965:21 2973:10
2998:2 3021:14
decide 2992:19 3039:17
decided 3004:7 3033:11
deciding 3004:12
decision 2797:8,13
2862:5 2910:16 2911:6
2950:22 3035:9
decision-making 3033:10
decline 2880:11,17
2882:14 2883:22
2884:3,17 2887:3
defer 3029:4
deferred 2932:1
deficiencies 2962:22
define 2737:19
definitely 2964:5
definition 2872:22
2939:10
degree 2724:13 2783:16
2784:4,6 2925:19
2978:15 3004:16
3018:8
delay 2783:14,21 2784:3
2877:7,7,10,15,22
2878:1,4,21 2879:1
2880:13,13,14 2882:13
2883:3,6,11 2884:2
2885:10,13 2886:6,8,15
2887:4 2898:22 2899:1
2899:2 2904:6 2968:11
2996:7 3007:1 3016:4,7
3026:11 3028:13
delays 2745:5,6,7,11,14
2745:15 2755:10
2769:19 2871:20
2878:16 2900:13,19
3008:11 3016:2,14
3025:12 3027:20
3040:13,22
delivered 2944:8
delivery 2781:8
demands 3011:15,19
demographics 2974:9
demonstrate 2733:2
2734:9 2750:16
2758:11 2922:22
demonstrated 2742:20
demonstrates 2913:22
demonstration 2764:6
2785:17 2979:2
demonstrative 2887:16
2888:11,13,19,20,21
2889:2
denied 3024:9
density 3010:13 3012:1

departed 2819:19
departing 2821:3
department 2971:14
2972:20
departure 2733:13,15,18
2821:1
depend 2900:21,22
2938:15,18 2968:6
dependent 2778:7
depending 2737:18
3022:13
depends 2776:3 2901:1
2944:10 2945:2
depictions 3022:13
depositions 2833:16
describe 2732:4 2733:13
2985:16
described 2732:16
2820:1
describing 3033:1
description 2869:17
2870:1,19
descriptions 2954:4,7
designated 2787:2 2952:5
2973:10 2979:9
designed 2779:8,8
2780:18 2899:7 3040:2
3040:11
destination 2733:9
2737:14 2738:1
detach 2863:1
detail 2820:21 2963:17
2963:22
detailed 2757:13 2838:4
2988:8 3031:19
3034:21
details 2982:3 3026:1
determine 2727:13
2753:18 2760:21
2850:21 2851:2,16
2856:1,22 2946:7
3003:5 3017:15
3036:15 3037:17
determined 2962:6
3002:17
determining 2778:12
develop 2729:9 2732:22
2733:17 2750:16
2770:9,13 2790:13
2981:17
developed 2727:8 2729:4
2729:15 2735:10
2743:14 2745:16
2747:20 2789:10
2869:8 2873:14,15
2876:20 2877:1

2879:10,12 2978:19
2982:1
developing 2732:8
2744:15 2773:8 2871:6
2984:18 2989:10
development 2770:7,8
2773:17 2918:10
3022:8
developments 2730:14
diamond 2843:5,9,10,18
diamonds 2843:15
difference 2736:19
2746:19 2759:10,12
2839:17 2840:10,20
2841:3,13 2882:8
2883:14 2887:4
2937:18
differences 2877:21
2995:21
different 2726:10
2739:20 2743:8,21
2775:10 2784:7
2794:20 2795:22
2798:10 2844:8 2854:6
2858:8 2860:5 2870:11
2885:13 2886:3,8
2894:13 2897:15
2935:5,7 2937:8,12,13
2937:16,21 2940:14,15
2941:5 2953:3 2962:13
2963:18,19 2974:1
2975:14 2986:8 2990:8
2995:14 3026:18,19
3035:12
differential 2736:20
2933:16
differentials 2889:11
differentiates 2738:3
differently 2762:5 2912:9
2935:2
difficult 2958:7
difficulty 2985:20 2986:1
dilemma 2752:11 2960:2
2962:17
Dingler 2739:10 2878:5
2914:11 3005:20
3007:5 3008:18
Dingler's 2878:12
3008:16
direct 2724:9 2800:22
2801:16 2813:13
2815:8 2816:14 2817:6
2818:21 2820:6
2825:12 2827:7
2830:18 2846:16
2853:7 2868:16

2876:17 2880:6 2881:6
2894:9,11 2968:9
2970:12 2979:13
3044:4,12
directed 2916:10
directing 2824:14
2829:16 2832:6 2853:2
direction 3045:6
directly 2923:14
director 2972:16
disagree 2995:19
disagreement 2794:12
2795:14
disappeared 2992:6
disappointed 3000:20
disclosed 2947:17
discovery 2756:4,9,11,16
2756:20 2777:2
2801:11 2802:6
2812:17 2813:3,14
2821:13 2833:12
2834:3 2835:20
discrepancies 2996:3
discretion 2968:9 3042:8
discretionary 2995:5
3018:20,21 3019:1,8
discuss 2855:21 2857:4
3042:3
discussed 2856:17
2949:20 2990:13
2992:15
discussing 2949:20
discussion 2755:5 2869:8
2935:4 3005:17
discussions 2755:1
2761:8 2968:22 2969:4
2986:4 3021:9 3023:3,7
dispatch 2749:14 2762:5
2839:12 2925:11
2935:16 2938:21
2945:16 2956:8,11,20
2956:21,21 2959:3,5,18
3033:18
dispatchdatadocs.xlsb
2957:8
dispatched 2842:21
2935:18,21 2938:3,3
dispatcher 2728:3
2842:13 2843:16
2915:13 2925:18
dispatchers 2749:13
2843:9 2941:15
dispatches 2840:3,4
dispatching 2924:20
2925:21 2926:6,10
2927:7,9 2941:4 2943:8

2943:13,15,18,20
2944:2 2945:18
dispatchscreens.pptx
2957:6
Dispatchscreensfromcs...
2957:5
disputes 2796:11 2797:13
distance 3011:12
distinguish 2945:19
distinguished 2920:12
2921:12
distracted 2869:2
distribution 2733:17
2931:9 2932:8
District 3045:17
division 2726:21 2727:1
docket 2862:5 2863:11
document 2734:4
2736:15 2748:16,16
2750:10 2804:12,17
2805:5,20 2807:4,21
2808:3,4,6 2822:22
2823:4,4,5,18,18
2824:3,19,22 2825:22
2826:3 2827:13,16
2828:11 2830:22
2831:6,21 2833:1
2849:16 2894:11
2895:2 2918:16 2926:2
2929:14,16,21 2951:8
2951:12,13 2952:8
2960:5 2976:12
2979:21 2982:2
documentation 2837:1
2922:13 2924:6,22
2944:20 2962:22
documented 2923:22
2925:22
documents 2724:21
2725:1,4 2729:6
2802:13,22 2803:10,13
2804:9 2810:22
2811:12,13,21 2812:18
2819:12 2823:9,21
2867:11 2870:6,7
2918:22 2926:17
2929:15 2942:19
3033:17
doing 2758:12 2759:19
2762:6 2772:4,5,5
2774:7 2851:14
2933:15 2938:5,18
2968:3 2971:15,17,22
dollars 3029:17
dominant 2862:10
Donahoe 2901:7 2905:22

2906:1,5,6 2909:8
2911:2,4,19,20 2912:7
2912:10,11,19,20
2913:12 2914:3,14
2968:20 2969:8,10
3007:20 3016:8
3017:22 3044:6
Donahoe's 2901:10
2964:19
double 2754:1,5 2788:6
2810:21
doubt 2750:4
dovetail 2987:5
drafted 2802:21
drafting 2802:16
draw 2779:19 2898:14
2951:14 2969:7
drawings 3021:16
drawbridge 2743:7
2957:13
drawn 2731:9
drift 3027:21
drink 2822:7
drone 2907:12,14
drop 2861:1
drop-dead 2776:10
due 2965:19,20
duly 2724:7 2970:10
Dupont 2796:19 2797:1,9
2863:8
duration 2997:9
duty 2935:9,13 2939:3,6

—————————————
E
—————————————

E 2723:1,1 2876:1,1
2892:12 3044:1
earlier 2769:18 2792:17
2835:16 2847:4,13
2865:22 2890:5,7
2893:3 2917:7,17
2919:9 3006:2 3021:20
early 2910:11 3023:7
east 3012:15
Eastern 2966:10 2993:12
3042:14
economic 2725:18
education 2724:11
educational 2970:19
effect 2790:16 2964:1
effectively 2754:4 3004:9
efficacy 3038:13
efficiency 3027:20
efficient 3007:16
effort 2985:11 3036:6,7
efforts 2975:5 2977:19
3004:6

eight 2816:14 2845:15,21
2856:8 2910:14 2918:6
either 2760:14 2784:12
2833:13 2895:22
2913:3,4 2914:8,12
2924:9 2959:20 3037:1
electronic 2727:6
elements 2742:11
3014:10
eliminate 3026:11
eliminated 2872:19
email 2823:14,16 2847:4
2847:12
emailed 2803:13,14
2808:6 2811:1
emails 2808:20 2990:6,13
2990:18 2992:15
employed 2915:13,15
2916:2,5,9 3045:8,12
employee 3045:11
empty 2821:1
en 2742:9 3007:14
enable 2819:16 2946:7
encountered 3009:18
encourage 2992:22
2993:7
endorsed 3029:12,21
3030:10 3034:22
endorsement 2956:4
endorses 2860:21 2862:3
energy 2726:11
engage 2977:17 2983:17
2997:5
engaged 2989:7,7
engine 2749:10 2915:22
2941:8,13
engineer 3018:1
engineers 3021:1
engines 2748:6 2749:3,16
2941:6,9
enhancements 2727:10
2731:12
enlighten 3022:1
ensure 3015:15
enter 2834:17 2989:18
entire 2853:11 2993:5
3003:2 3016:14
entities 2968:16
entity 2738:12
envelope 3023:18
equated 2736:3 2884:2
era 2988:5
error 2761:2
errors 2933:5,6
ES3 2980:12
especially 2769:18

2770:1
essentially 2828:11
2878:5
establish 2779:16
3002:22 3030:6
established 2865:21
2953:18 2974:18
2979:2 2994:7
establishes 2804:13
estimate 2864:16
estimated 3021:1,2
estimates 2874:1
et 2810:17
eternal 3042:18
evaluate 2735:21 2741:7
2742:4 2744:13 2746:6
2750:15 2753:11
2755:2 2780:1 2854:11
2854:11 2859:15
2860:22 2862:4,8
2900:17 2909:6
2913:19 2916:7 2920:2
3021:17 3038:13
evaluated 2727:11
2736:19 2740:15
2751:18 2962:15
evaluating 2742:5,6
2753:7 2778:9 2857:18
2857:22 2860:1 2861:2
2861:3 2862:13
2876:17 2935:5
evaluation 2740:19
2920:8 2981:13
3031:20,22 3032:4
evaluations 3026:18
3032:5
evening 3003:2
event 2867:12,15 2868:18
2869:10 2955:1
events 2871:19
eventually 2977:18
2984:7
everybody 2799:17
2805:11,12 2809:22
2811:12 2847:2 2904:4
3033:8 3035:3
everybody's 2803:16
2808:8
evidence 2728:19 2740:6
2752:18 2765:7,8
2767:18 2768:2 2779:6
2781:4 2785:6 2793:6
2793:12,18,18,20
2798:3 2799:2,4,7
2827:9 2832:10 2834:5
2837:10,20,22 2838:12

2839:3 2865:8 2889:11
2893:11 2895:17
2897:20 2933:21
2952:14 2965:19,19
EVIDENTIARY 2722:3
exact 2864:15 2889:11
3025:18
exactly 2762:11,12
2763:17 2818:6 2819:8
2827:1 2852:19
2872:20 2962:12
2998:15 3013:7
examination 2724:9
2811:18 2916:20
2965:12 2970:12
3044:4,8,12
examine 2998:11
examined 2724:7
2970:10
example 2760:17 2761:6
2761:13,14 2762:21,21
2763:6 2796:16
2802:11 2830:10
2855:17 2856:13
2857:10,11 2860:12
2863:7,20 2935:3
2943:9 3035:19 3039:6
3039:7
examples 2761:6 2814:7
2861:1 2943:9
Excel 2729:7,11,11
2732:14 2733:22
2744:8,9 2773:19,21,21
2774:12 2863:7 2957:7
excerpts 2853:12
excess 2931:15 2932:10
2932:13 2994:18
exchange 2818:6 2990:1
2991:15
excuse 2729:17 2730:18
2822:7 2863:22
2882:14 2895:20
2991:20,20
excused 2966:6,8
executive 2980:12
exercise 3042:7
exhibit 2804:3 2809:11
2809:14 2846:22
2847:1 2888:14,20
2891:7 2892:9 2893:22
2917:20 2953:10,12,13
2973:9,11 2979:9
3024:18
exhibits 2803:14,22
2888:11,14,19,20,21
2889:2 2892:11

exist 2748:4 2760:15
2763:9,14,21 2765:2
existed 2760:3,10,13,15
2961:1,8 2996:4
existence 2862:6
existing 2753:4 2946:12
2984:19 2998:11
3006:4 3025:20
expand 2974:5,11,16,21
expanded 2973:16,20
2974:1
expect 2945:5 2997:21
3018:5
expected 2994:16
2997:13 2998:2
3015:22
expenditure 3037:2
experience 2732:21
2736:11,16,20 2745:5
2777:13 2787:12
2813:1,11,13 2924:18
2927:11,20,21 2929:3
2941:17 2945:5,13
2960:12 2971:7
3011:17 3015:19
3016:1 3025:21
3026:15 3027:1,3,8,16
experienced 2996:7
3016:3,6 3026:12
expert 2731:8 2818:1
2825:9 2829:2
expertise 2730:16
3007:21 3018:1
experts 2989:8 3032:21
3038:22
expired 2997:18 2999:14
3001:9
expires 3045:21
explain 2753:21 2761:4
2817:17 2934:8 2936:6
2980:18 3003:13
explained 2748:3
2771:22 2772:6,10
3003:15
explaining 2770:21
2772:5 2964:9
explanation 2820:7
2877:19 2931:5
explanatory 2815:15
2957:3
explore 2947:15 3039:18
explored 2940:19 2950:4
express 2983:8
expressed 3000:14,18,21
expressly 2799:20
extant 3031:16

extend 2756:8,20
2999:16,17
extension 2834:2 2865:11
2977:3
extensive 2787:12
extensively 2789:8
2801:16
extent 2941:10 3008:9
3018:16

F

F 2876:1
fabricated 2914:5,8,12
fabricating 2913:3
2965:1
facilitate 3025:15
facilities 3017:13
facility 2900:13 3019:20
fact 2733:11 2748:4
2763:9,19 2766:9
2842:18 2858:14,17,19
2858:21 2859:10
2923:1 2926:21
2956:22 2964:14
2968:10 2986:2
2997:17 3001:1
3007:11 3010:13
3032:20 3036:20
factor 2736:5,14 2737:3
2739:19 2740:5 2782:3
2902:9
factors 2854:17,20
2855:8
facts 2765:12
fair 2777:6 2787:11
2792:16 2794:6,11
2795:8,13 2796:3,9
2799:15 2800:21
2827:4,4 2850:8 2851:5
2885:10 2899:20
2900:4 2907:19 2911:2
2911:2 2921:22 2963:2
2963:3 2966:16
familiar 2827:19 2898:20
2906:8 2975:5,9
Fapp 2726:19,22 2731:22
2836:17 2914:20
2915:4
far 2753:10 2755:1
2818:22 2903:1
2904:21 2942:18,20
2993:13
fashion 2779:14 2985:3
3020:5,8,16
fast 2843:12 2977:20
faster 2976:5

fault 2770:6 2992:5
FD 2863:11
Fe 3011:22
February 2865:13
2866:8,10 2910:13
federal 2726:9 2997:6
feel 2813:15 2983:19
2985:18 3027:4
3028:13 3036:17
feet 3022:22
felt 2756:17 2769:8
2774:5 2998:16
fewer 2880:15
field 2725:19 2730:16
2763:4,10 2830:11
2910:7 2923:12
2925:13 2926:1
2927:13 2942:3
fields 2957:13
Fifty 3015:7
Fifty-one 2725:21
figure 2757:21 2762:10
2764:17 2772:14
2774:10 2800:1 2923:3
2930:6 2931:1 3033:9
3034:9 3035:1 3038:6
file 2729:11,11,12,13
2732:9,13,14,15
2733:22 2734:1,2
2743:13,18 2744:8,9,10
2744:15,16,18 2745:20
2745:22 2746:1
2747:18 2749:9
2752:19 2755:14
2766:7 2770:8,9 2771:3
2771:5 2772:4,8,9
2773:9,9,10,10,18,19
2773:21,21,22 2774:1
2787:16,20,20 2788:7
2788:11,15,19 2789:2,4
2789:14,15,18,21
2794:15,15 2795:17,17
2808:19,20 2809:1
2815:21 2836:18
2866:21 2869:9
2918:10,18 2945:1,11
2949:6,15,18 2954:14
2956:16 2957:7,8
2959:9 2960:18 2964:5
2964:11 2977:15
filed 2726:18 2728:11
2832:10 2857:7
2863:15 2865:11
2925:7 2976:12 3001:2
files 2728:2,2 2729:7,8
2743:13,20,22 2757:13

2770:11,11 2773:16
2787:17 2789:8,11
2790:5,6,6,8,14
2815:21 2816:5 2817:9
2817:10,14,18,19,20
2818:4,14 2821:9
2825:3 2865:7,12
2866:1 2868:10
2916:22 2925:6
2927:15 2932:20
2952:20 2953:3 2954:2
2954:11,18,22 2957:4
2958:5,10,19 2959:4,5
2959:13,14,15,18
2962:5 2963:1 2985:4,5
filing 2768:8 2776:8
2962:14
fill 2927:12 2942:1
2959:5
final 2797:8,13 2802:22
2802:22 2971:9
2979:16
finally 3004:7
financially 3045:12
find 2762:8 2764:17
2766:3,3,17 2772:19
2778:1 2780:4 2804:19
2804:19 2925:20
2934:4 2945:5 2958:9
2959:14 3020:12
3021:13
finding 2940:7 2961:5
fine 2797:21 2897:1
2926:22 2969:2
finish 2874:16 2913:17
2947:14 2967:15
2968:8 2992:21
2997:14,16 3042:17
finished 2963:7
finishing 3029:6
firm 2725:18 2759:17
2760:4 2791:12
2971:17,22 2989:5,7
first 2724:7 2733:1,1
2740:11,15 2746:17
2747:16,16 2759:16
2763:6 2764:9 2773:13
2777:13 2785:11
2796:2 2799:18 2800:2
2812:15 2814:19
2818:21 2819:1,2
2827:21 2832:7
2849:20 2871:17
2877:3 2880:8 2881:7
2881:10 2883:2
2884:21 2894:15

2900:11,12 2929:3
2931:13 2935:18
2950:20 2951:2,12
2952:17 2953:10
2970:10 2975:18
2977:13 2979:12
2988:1 2998:10 3005:6
3029:10
fit 2974:20
fits 3039:16
five 2761:16 2807:11,11
2887:10 2909:21
2934:3 2935:5,11,12,15
2935:22 2937:6,11,12
2937:13,19,20 2938:4,6
2939:6 2953:9 2956:16
2966:20 3014:22
3016:3 3041:20,21
five-minute 2966:19,22
fixed 2742:18
flawed 2799:3
flexibility 3025:12
flip 2806:11 2815:4
2820:4 2827:16 2848:9
2880:5
flows 2988:5
focal 2923:7
focused 2885:19
folks 2761:16
follow 2730:7 2754:15
2853:3 2897:6 2922:3
2922:15 2947:12
2980:10
follow-up 2775:16
2812:17 2813:3,14
2814:2,5 3016:13
followed 2735:11
2745:18 2770:9,22
2771:21 2772:1
2775:12 2922:3 2958:7
following 2885:17 2886:6
2957:12 3017:9
follows 2724:8 2970:11
Foot 2984:4
footage 2907:12,14
footnote 2860:16 2861:1
2861:6 2863:4,6
2890:17
forecast 3009:9
foregoing 3045:3
foreign 2761:7 2844:6
2867:5,8,10 2868:7
2869:10,11 2870:8,13
2870:14,17 2942:15,16
2944:15,17,22 2945:12
2945:19 2946:8

2955:15
foremost 2747:17
forgotten 3016:15
form 2869:12 2977:22
formally 3001:10
formation 2974:8
former 3022:21
formula 2737:4 2753:17
2849:7,22 2850:15
2852:7,8 2918:15
formulas 2832:20
formulated 2878:2
forth 2794:7,9 2795:9,11
2806:11 2896:21
2922:4 2924:12 2939:7
2987:17
Forty-one 2892:12,13
forums 2813:2
forward 2848:9 2850:9
2874:10 2943:12
2949:15 2974:14
2988:3 3042:2
found 2766:2 2880:11
2924:1
foundation 2813:7
2830:12 2831:2 2834:6
2834:8 2836:10 3018:4
four 2757:8,10 2806:13
2816:16 2821:7 2833:1
2840:22 2842:7
2844:21 2845:20
2859:18 2865:19
2868:18 2876:21
2877:1 2883:17 2884:1
2887:1 2895:11,11,20
2895:21 2896:2,20,22
2896:22 2897:5,15
2899:17,17 2904:19
2911:14 2912:17
2956:15 3006:6
four-and-a-half 2866:11
FRA 2735:16 2736:15
2738:3,20 2739:19
2740:5 2920:2 2921:11
2946:13,13 2977:21
2978:5 2981:17,19
2990:22 2994:16,19,20
2995:3,15,20,22 2996:9
3009:22 3018:10
3019:8,12 3026:1
3031:8,13 3032:2
3040:2,18,21
FRA's 2735:16 2980:22
2981:13 3018:20
frame 2956:4 2987:16
freight 2731:13 2740:18

2778:22 2779:3 2780:4
2781:8 2785:14,17
2857:19 2859:18
2860:1 2869:10,12
2885:13 2886:9
2898:17 2899:8,22
2900:7,7,10 2907:20
2908:1 2909:21 2976:9
2998:11 3003:11
3004:4 3007:10,19
3008:7 3011:15,19,22
3025:16 3027:6,11
3030:20 3031:4 3036:3
3037:1 3040:7,13,19,19
3041:1
freighted 2920:5
freights 2726:4 2933:20
2934:3,15 2936:12
fresh 2993:4
front 2724:22 2812:4
2814:11 2826:1
2973:12 2998:19
Fuchs 2737:6,8,16
2738:2,18 2777:17,19
2778:11,15 2779:2,11
2779:21 2780:9,16
2781:3,16 2782:5,13,18
2783:1,10,20 2784:14
2785:1,3,13,19 2786:20
2805:8 2810:12,15
2811:3 2875:4 2893:5
2901:9,13,16 2902:6,11
2902:13,22 2903:9,20
2904:15,17 2905:3
2930:17,20 2931:3,20
2932:4 2933:2,19
2934:1,7,13 2936:5,9
2936:15 2937:3
2939:15,19 2940:12,18
2941:18 2942:5 2943:5
2944:12
Fuels 2863:8
full 2863:5 2880:8 2885:5
fully 2941:21 2950:4
function 2731:13 2745:7
fundamental 2986:22
fundamentally 2985:8
2995:6 3002:6 3014:12
3023:18
funded 2994:14,15
3032:12
funding 2995:5,14
2996:2,9 3018:8,15
3023:11
funds 3018:10,22
further 2754:12 2766:20

2901:6 2903:12
2905:21 2914:14
2919:20 2965:3
3021:18 3029:1
3039:15,18 3045:10
future 2879:12,15 2880:3
2880:10,11 2881:1
2882:4 2883:11
2889:15 2994:10,10
2995:8 3018:16
3038:10

_____

G

G 2723:1
gaps 2926:13 2942:1
2959:5
gateway 2908:8
gather 3031:2
gathered 2763:4 2765:11
GC- 2819:13,14
gears 2836:15
general 2860:20 2907:7
2915:20 2933:14
2971:5,9,22 2973:19
2984:11 2990:17
3001:22 3002:2
generally 2732:7 2741:12
2893:8 2909:12
2929:15,17 2939:16
2990:12 3002:18
generate 2960:18 2979:4
Gentilly 2844:16,21
2943:10
gentlemen 2913:5
getting 2770:15 2798:14
2800:7 2805:7 2810:7
2864:8 2874:1 2876:15
2882:20 2903:14
2904:20 2923:11,14
2947:5 2963:9 2985:20
2986:1 2988:12
give 2723:17 2750:4
2760:16,17 2761:5
2804:5 2805:13 2807:5
2817:1 2824:10
2849:13 2874:5
2929:20 2946:14
2953:5 2960:17 2961:9
2969:19 2986:15
3035:22
given 2801:10 2802:5
2816:5 2817:14
2820:15 2834:17
2858:7 2918:13 2928:7
2930:4 2959:9,18
2961:16 2967:21

2968:10 3042:10
gives 3004:22
giving 2857:10 2861:1
2958:5 2989:15
glad 2968:18
go 2725:5 2741:22
2753:10 2766:17,20
2773:9,14 2777:10
2786:1,18 2788:6
2796:6,16 2810:14
2815:7 2818:20
2832:20 2835:4
2847:20 2856:6,8
2860:15 2863:8
2868:16 2885:22
2895:2 2906:3,18
2907:2,8 2927:2
2930:18 2931:2
2939:13 2944:17
2948:4,22 2950:6,20
2951:2,12 2960:4
2961:5 2962:1,2 2965:8
2966:17 2993:12,20
3034:10 3040:17
3041:15
goal 3004:13,19
goals 2974:18
goes 2932:22 2935:9
2949:6 3016:16
going 2731:16,16,20
2741:18 2782:2
2787:21 2791:22
2798:5 2799:6,11,12
2801:12 2803:9,10,15
2804:8,11,14 2806:10
2806:12 2808:3,5
2813:17 2814:10
2815:8 2822:22
2823:10,18 2828:18,22
2836:15 2842:20
2843:12,14 2846:18
2847:8,14 2852:9
2853:1 2860:4 2863:2,3
2868:15 2871:22
2873:16 2875:8,10
2876:13 2877:6 2880:6
2887:17 2891:5,6,9,10
2894:9,11 2901:10,15
2903:12 2907:7
2908:18 2912:15
2913:15 2914:21
2919:6 2922:15
2923:12 2927:17
2938:22 2939:1,10,16
2941:8 2942:2,20,22
2949:15 2950:20

2951:7,13,16,21
2955:11,15,16 2964:6
2966:9 2974:14 2979:7
2979:12 2980:11
2988:3 2990:11
2992:18,19,19,20,21
3016:10 3024:16,20
3025:4 3029:5 3032:11
3032:13,16 3034:5,7
3037:20 3038:18
3039:6 3042:2,3,9
Gold's 3033:8
Golden 2915:7
Golden's 2915:10
good 2723:2 2756:9
2778:13 2780:2 2787:9
2798:4 2809:20
2826:15,22 2827:20
2848:8 2863:20 2873:2
2874:4 2875:4,5 2926:3
2969:11 2970:14
3004:22
gotten 2759:9 2776:7,15
2776:18 2808:8
2813:16
govern 2973:1
governed 2991:4,7,13,17
2994:3
government 2722:12
2726:9
governments 2726:10
governs 2783:16
grabbing 2892:16
grade 3011:4,6,9,12
graduate 2724:15
grant 2995:5 2996:1
3018:20 3019:1,3,7,8,9
granularity 2862:13
great 2810:4 2811:3
2847:6 2963:17,21
2985:20
greater 2862:12 3036:1
gross 2840:13
ground 2909:6 2921:1
grounds 2801:13,14
2813:20
group 2882:18 2920:3
2972:12,12,13,19
2977:22 2978:4,11,14
2978:17,19 2979:7
2983:10,13,15 2984:13
2994:8 3017:10
3019:13 3024:17
3029:12 3030:6
3032:10 3034:7,14,18
3035:16,21 3041:11,13

group's 3030:16 3034:4
grow 2974:5,16,21
growth 2839:22 2840:15
2840:17 2841:2,4,4,7
2841:11 2879:16,18
guess 2723:11 2732:1
2752:8 2757:7 2765:13
2770:14 2774:8
2784:12 2796:22
2807:2 2815:13
2826:22 2845:5
2879:17 2881:9
2898:13 2903:3
2904:18 2927:22
2945:2 2951:9 2957:2
3009:2 3033:2 3038:5
guessing 3038:9
Gulf 2783:22 2790:15
2821:11,20 2822:11
2836:17 2844:11
2845:9 2887:5 2891:14
2906:18 2907:6,9
2920:3 2968:4 2969:5
2974:20 2975:7,11,15
2975:21 2976:1,3
2977:22 2978:1,4,10,13
2978:17,19,20 2979:6
2980:5 2981:1 2982:13
2983:10,12,14 2984:6
2985:12 2994:7
2999:19,22 3000:15
3001:15 3002:15,19
3004:18 3010:4,17
3011:13 3014:1 3015:1
3017:8,10,20 3019:13
3020:10 3024:2,17
3025:17 3027:5
3028:14 3029:11,22
3030:5 3032:9 3034:6
3034:14,18 3035:15,20
3041:11,12
Guthrie 2726:15 2729:5
2732:4,9 2733:14,16
2735:2,8 2736:22
2739:4,9 2745:13
2746:8 2747:1 2750:5
2760:4 2762:14,14
2786:7 2913:2,20
3031:10
Guthrie's 2909:13
Guthrie-Banks 2920:13
GW 2724:15

_____

H

half 2775:22 2874:7
2911:18,22 2976:19

hand 2723:15 2811:15
2969:18
handle 2935:12 2947:2
handles 2935:2,6
Hannah 2807:11 2837:17
2914:7 2963:13
3003:15
happen 2733:8 2761:3
2915:9 3030:20
3036:18
happened 2733:12
2739:17 2742:9
2999:14
happening 2842:12
2867:21 2870:2 3024:5
happens 2809:17,18
2955:22
happy 2823:22 2849:15
2853:7,13 2860:15
2861:11,16 2883:1
2931:2
hard 2776:9 2969:6
hardship 2968:1
HDR 2816:1 2817:20
2835:18,19,22 2982:16
2989:7 2991:17
2996:11,16,17,19,20,20
2997:2,3,5 2998:1
3003:10 3005:12
HDR's 2817:9,11
head 2887:8 2907:21
3013:18
heads 2993:1
hear 2739:9 2780:12
2795:4 2875:7 2895:7
2909:13 2911:13
2912:21 2950:13
2961:20 2995:12,16
2998:7 2999:3 3008:1
3015:12,17
heard 2763:3 2772:6
2936:6 2955:5 2982:22
2983:11 2996:15
3008:15 3015:18
3022:14 3028:7
hearing 2722:3 2723:3
2730:22 2876:2
2907:13 2912:1 3020:1
3033:7 3037:22
3042:14 3043:6 3045:3
3045:6,10
heat 3003:12,14 3004:1
Hedlund 2777:11,16
2785:21 2786:2,8,10,13
2786:16 2893:4
2947:11 2948:3,5,9,15

2948:19 2949:4,8,13,17
2950:1 3038:18 3040:1
3040:21 3041:4
help 2786:17 2936:4
2979:3 2987:3 2988:16
3040:13
helpful 2748:15 2755:8
2861:12 3026:9
hereto 3045:12
high 2770:4 2781:5,11,11
2835:7 2842:8,14,18
2844:5,7 2845:13
2872:15 2891:19
2898:8 2899:7,16
2917:10,11 2926:5
2940:20 2941:7,13
2983:20 3004:16
3006:7,13,20 3011:9,9
3011:15,19 3019:11
high-density 2984:15
2985:6
high-rail 2907:6
high-volume 2872:12
2873:8
higher 2783:22 2784:4,6
2896:1 3003:20
3010:13 3012:1
highlight 2742:17
highly 2848:3 2967:14
Highway 2856:19
hired 2767:9 2825:9
2916:7 3024:13
historic 3002:20
historical 2821:12 2924:1
3003:4
hit 2938:1 2955:18
2956:3
hits 2944:4
hitter 2787:2
hitting 2944:8
Hold 2804:19 2823:7
Holly 2837:17 2910:7
2914:8 2963:13
Honor 2801:13 2809:13
hope 2736:2 2994:4
3020:19 3042:18,21
hoped 2994:6
hopeful 3000:21
host 2945:19 2946:8
2970:17 2972:12,16,19
2973:3,16 3002:3,7
3027:15
hot 3004:2
hour 2874:7 2882:1,5,6,9
2882:13,15 2923:21
2993:13 3004:15,21

3015:14,20
hours 2879:1 2880:14
2931:11,12 3016:4,4
3039:9
house 3039:1
huge 2750:13
humor 2921:6
hundred 2868:10 2870:8
2878:21 2880:13
2883:3,6,12 2886:16
2887:4,21 3011:22
Hunt 2995:12,19 2999:3
3015:12
Hunt's 2995:9 3014:18
Hurricane 2977:10
hypothesizing 2937:7

I

I-N-F-R-A 2787:16
idea 2778:13 2780:2
2837:4
identical 3013:11 3032:3
identification 2742:3
2932:18
identified 2732:12
2733:18 2742:10
2746:18 2747:22
2750:1 2806:18
2836:17 2883:5,11
2889:19 2926:19
2964:11 2978:22
2980:22 2982:2,17
3005:15 3035:15,20
3040:18
identifies 2735:16 2818:9
identify 2733:21 2740:20
2742:2,15,16 2743:14
2743:22 2749:6
2806:19 2889:22
2994:8 3027:15
3035:17 3036:7
3039:11
identifying 2862:1
3025:18 3026:13
IHB 2869:14
IIJA 3018:18 3019:2
illuminate 2893:18
image 2828:4
impact 2742:13 2743:7
2749:16 2750:16
2753:3 2909:3 2920:4
2931:11,12 2936:20
3004:4 3017:19 3031:4
3036:9 3037:1
impacted 2854:20
impacting 2785:17

impacts 2750:21 2910:2
2998:11 3017:19
implement 2974:3
3004:13
imply 2775:2
important 2752:15,16
2843:1,15,21 2867:19
3028:17,19
importantly 2748:2
2749:12
imposed 2778:22 2779:3
2779:4
impression 2799:19
2800:2 2940:10
improve 2981:15 3027:20
3040:3
improved 2740:17
improvement 2741:4
3037:6 3038:14
improvements 2977:1,7
2980:22 2994:10
3018:9,13,15 3023:21
3025:8,10,15,19
3026:14 3027:16
3030:3 3035:21
3036:21 3037:9,14
3041:20
imputed 2783:14
in-depth 3025:19
in-house 2989:8
inadequate 2774:20,20
inboxes 2803:16
incarnation 2976:6
incidence 3011:9
incident 2840:3
include 2726:3 2841:11
2867:5 2870:7,13,15
2938:19 2972:7
2990:13 3022:9
3025:10
included 2745:17
2746:15 2751:22
2823:14,15 2830:7
2835:19 2836:19,22
2837:3 2847:12
2854:22 2902:19
2903:13 2909:6
2917:12,14 2956:22
2957:15 2973:22
3029:15
includes 2728:2 2793:18
2807:10 2820:20
2840:6,15,17 2841:7
2954:7 3016:18
including 2726:8 2807:11
2837:13 2854:21

2862:7 2902:10
2937:13 2971:18
2972:1 2981:19 3035:4
inclusive 2924:2 2941:1
incomplete 2815:22
incorporating 2741:17
incorrect 2939:17 2940:1
increase 2749:18 2898:22
2899:7 2900:19
2931:12 3025:11
3027:21 3030:4
3037:14,15,19
increased 2900:13
increases 2880:13
increasing 3036:16
independent 2781:21
2790:13
index 2832:22 2951:15
2952:12
indicate 2826:19 2887:2
2894:21 2895:22
indicated 2821:8 2822:9
2870:12 2891:13
2894:10 2897:10
2976:13 2989:16
2995:3 2997:1 3040:6
indicates 2812:16
2815:19 2819:2 2820:9
2820:20 2832:7
2880:15 2885:3,4,5
2890:22 3030:1,2
3040:17
indicating 2816:17
2817:8
indication 2731:12
indicator 2877:9
indirectly 3038:6
individual 3001:1,17
individually 2741:1
individuals 2807:5,11
indulgence 2889:7
industry 2726:6 2741:13
inflate 3006:22
inform 2929:1
information 2769:2
2770:2 2774:22
2776:17 2779:19
2788:12 2801:1,10,17
2802:5 2812:20 2813:5
2813:16,18 2820:16
2821:10,19 2822:11
2828:20 2830:16
2831:5 2835:17,17
2927:3 2929:1,17,19,22
2944:5 2946:15 2947:6
2948:10,16 2949:19

2962:7,9,15 2985:21
2986:1 2988:9,13
2989:10 3021:12,12
3027:9 3031:2
informed 3025:20
3026:14
INFRA 2787:15,20
2788:7,11,15,19 2789:1
infrastructure 2737:3
2739:4 2740:11 2741:2
2741:4,9,16 2777:22
2778:10,12 2780:2,21
2781:6,7,10,17,20
2782:2,7,10,11,12,15
2782:19,22 2783:2,8
2784:17,21 2785:4,5,9
2785:12,14 2786:5
2788:2,15,16 2839:8
2840:1 2879:19
2889:19 2890:3
2893:13 2894:22
2895:19 2899:5 2902:3
2902:10,15 2904:8
2976:22 2986:21,22
2991:2,3 2994:9
2996:21 3002:3 3006:4
3006:22 3008:12
3009:8,8 3017:7,11
3018:9,17 3025:18,20
3026:14,20 3027:15
3029:16 3031:14,15
3032:10 3034:19,21
ingredients 2732:8
2998:10
initial 2772:15 3025:9
initially 2755:2 2987:12
3030:7
initials 2946:5
initiate 3028:15
input 2729:15 2732:9
2734:2 2742:11
2745:22 2746:1
2770:11 2773:11,12
2780:11,13 2783:11
2790:5,14 2797:14
2825:8 2889:3 2891:13
2904:4,5 2946:13
2952:20 2954:2
2957:14 2958:10
2985:10
inputs 2727:8 2728:4
2733:16,21 2735:1
2741:20,21,22 2751:22
2770:10 2792:9
2793:14 2794:10,12,14
2795:12,14,16 2796:11

2796:15 2952:19
2957:17 2985:4
inputted 2923:9
inquire 2823:12
insisted 2734:7
instance 2737:17
institution 3033:1
instruction 2967:17
insufficient 2734:18,19
integral 2778:4,9
intending 2999:17
intent 3028:6
inter-city 2975:6
interacted 2759:16
interchange 2869:17
2899:1
interconnected 2991:6
interest 2975:3 2979:4
2993:5
interested 2741:15
3045:13
interfere 2740:18
interference 2998:21
3027:6,11
interim 2969:1
interject 2724:21
intermittent 2730:19
internal 2988:18 3032:21
interrogatories 2802:12
2806:3,21,22
interrogatory 2803:1
2806:1,13,17 2815:9
2816:14 2818:20
2819:9
interrupt 2737:8 2874:13
2991:21
interrupted 2963:6
interruption 2829:10
interrupts 2810:16
intersect 2907:20
2909:21
intersection 2908:1,3,8
intervene 3012:21
interview 2925:13
interviewed 2942:4
interviewing 2942:3
interviews 2747:21
2763:5,11 2769:13
2830:11 2909:11
2910:7 2925:8,22
2927:13 2944:21
introduce 2970:15
introduced 3033:15,22
introducing 3034:3
3035:5,6
invested 2977:4 3036:10

investment 3030:12
investments 2982:3,18
invited 2999:10
invoke 2791:16
invokes 2791:16
involve 2973:15 3025:14
3025:19
involved 2728:1 2755:19
2792:13,17 2798:1
2802:16 2906:18
2909:10 2920:16,18
2977:18 2978:10,16
3000:5,9 3022:2
involvement 2984:2
involving 2969:1,5
2999:4
Ir 2764:19
issue 2796:18 2858:6
2924:22 2925:1,4
2928:9,9 2935:20,20
2938:9 2992:1,3
3004:11 3024:9
issues 2725:19 2732:2
2862:2 2893:21
2909:15 2928:22
2972:15 2985:6
3000:22
it'll 2931:11,12 3041:8
iterative 2918:16
2926:17

_____

_____**J**_____

January 2819:15
2987:22 2997:11
2998:2 2999:13,14
3001:9 3002:14
JE 2892:10
Jersey 2971:10
Jessie 2993:20 3008:2
3020:14 3042:8,16
Jim 2967:10 2969:15,16
2970:3,8,16 2984:4
3044:11
job 2777:4 2866:21
jogs 2826:13
joined 2971:11,16 2972:5
2972:10,11,11,13
joining 2972:6
joint 2726:18 2803:22
2804:22 2805:1
2835:18 2892:9,11,11
2917:19 2973:11
2979:9 3024:18
Joseph's 2971:1
jot 2776:16
judge 2778:20

judging 2778:2
judgment 2867:18
July 2979:17
justify 2771:14 2780:7
　2997:7

_____
K
Kalamata 2869:15
Kali 2724:22 2809:21
　2812:8 2824:16 2826:7
　2832:4 2950:21
　2951:10
Kansas 2750:11
Karen 2775:15 2777:10
　2786:21 2947:14
　2948:1 3038:18
　3039:20,22
Katrina 2977:10
KCS 2849:5 2850:1
　2851:8,13 2854:4
　2857:7,22 2879:20
KCS' 2857:15
keep 2749:7,13 2803:12
　2857:6 2901:15 2919:2
　2925:3 2927:11,16
　2936:2 2942:16
　2945:12 3033:7
　3037:22
keeping 2938:2
kept 2928:1
key 2732:8 2769:6
　2782:19 2978:3 2998:9
Kim 2730:18 3045:2,16
kind 2739:18 2758:19
　2773:13 2852:20
　2909:17 2920:16
　2927:10 2929:10
　2933:10 2968:14
　2983:21 3013:4 3023:4
　3030:12 3036:21
　3038:8
kinds 2753:15 2759:19
　2928:1 2945:11 2955:7
knew 2868:2 2995:20
　3009:10
knock 2810:13
knocking 2729:18 2730:3
　2730:19
know 2725:9 2729:19
　2730:11 2737:5 2738:3
　2739:3 2746:9 2753:10
　2754:22 2756:11,11,14
　2759:17 2761:2
　2762:17 2763:21
　2764:19 2767:1
　2769:17 2770:1

2772:17,22 2773:1,2
2774:2,3,4,13 2779:22
2781:16,17,18 2782:17
2782:18 2783:9
2784:13 2787:15
2788:14,19 2789:1,4,14
2789:17,20 2790:1,2,12
2791:6 2792:8,8,17
2793:8 2794:9 2795:12
2796:15 2797:7,11,13
2798:19 2799:1,10
2804:6 2805:16 2807:5
2807:10 2808:7,18
2812:17,17,18,19
2813:2,3,3 2814:12
2817:4,19 2818:9,11
2819:3 2820:9 2822:14
2826:19 2827:7,9
2828:1 2829:6 2831:18
2832:19 2834:17,18,21
2835:21 2836:13,14
2837:17 2839:22
2840:15 2842:13
2843:17 2846:20
2847:2 2848:18 2853:1
2863:1 2865:6,22
2867:19 2868:17
2872:4 2883:15,22
2884:1 2885:8,9 2886:3
2886:19 2887:3,7
2889:3,9 2891:13,19
2892:18 2893:4 2895:1
2895:8,11 2898:21
2899:21,22 2900:5,21
2905:7 2907:19 2922:3
2924:5 2925:7 2927:8
2927:16 2928:21
2929:15 2931:3,3,15
2933:4,5 2934:9 2940:2
2941:6,8,15 2942:7
2944:1,3 2950:21
2952:15,18 2953:7
2955:14 2957:9
2960:16,19 2962:11
2963:7 2964:10
2968:14 2978:15
2981:11 2985:5
2991:22 2993:2
3000:19 3005:10
3013:11,17 3014:9,12
3016:12 3020:22
3021:2,11,18 3031:1,4
3031:9 3033:16,19
3035:11 3036:9,17,20
3037:4,8,11,22 3038:2
3038:16,19 3040:14

knowing 2988:22
knowledge 2799:21
　2806:21 2851:21
　2923:17
knowledgeable 2807:6
known 2971:12
knows 2836:11 3018:3
KRISI 3019:7

_____
L
L.E 2724:18 2725:14,15
　2725:17 2726:3,19
labor 2726:21 2727:2
lack 2777:1 2986:7
　2996:8
laid 2771:8
land 3022:17,18,20
language 2799:21
　2849:18 2853:8
large 2759:12 2898:11
　2940:22 3012:17
largely 2974:7 2998:22
larger 3035:19
late 2846:22
Law 3018:18
lawyer 2756:1 2906:7
lawyers 2756:19 2766:17
　2767:21 3042:4
lay 3020:9,10
layouts 2787:21
layover 3017:14 3019:15
　3019:18,20 3020:6
　3022:9,14
lead 2740:8 2784:6
　2940:15 2978:5
leaving 2971:8
led 2990:7
left 2876:14 2931:8,10
　2947:19 2971:16
　2994:1
legal 2800:17 2912:5
legitimacy 2746:6
legitimate 2920:21
　2922:19
length 2821:2 2854:21
　2917:16 2946:17
　2967:21 3005:9
　3013:16
let's 2732:3 2734:22
　2735:12 2741:20
　2743:1 2745:4 2761:16
　2773:9,9 2785:6 2803:7
　2808:1,2 2815:7,7
　2816:12,12,15 2818:19
　2818:20 2820:4,4
　2825:20,21,21 2827:5,5

2827:20,21,21 2849:15
2850:4,4 2856:6,7,15
2856:15 2860:15
2861:5 2871:15,15,15
2873:19 2880:5 2883:3
2890:6 2895:9 2935:3
2951:12 2956:15
2957:10,10 2968:19
2969:12,12
letter 2768:5,15 2808:8
　2812:7,11,16,17
　2814:14,16,20,21
　2815:3,5,6,16 2818:9
　2821:8,17 2822:18
　2823:6 2824:15 2825:7
　2825:7 2826:7,8,12
　2828:1,5 2829:8 2832:3
　2832:3,7,9 2917:22
　2918:2 2919:9,10
　2935:8 2965:11,15,16
　2984:3 2988:1,10
　2999:18,21 3001:9,14
　3002:13 3026:1
letters 2730:9 2768:16,20
　2772:18 2813:3,15
　2814:2,5 2825:12,17
　2865:22 2922:4 2986:9
　3001:2
level 2742:21 2954:16
　2981:5 3003:17
levels 2862:12 3003:20
liability 3030:4
liaison 2972:20
lied 2914:8,12
lieu 2925:22
lifting 2743:7
light 2748:6 2749:3,10,15
　2931:17 2941:6,9,13
likes 2829:13
likewise 3032:4
limit 2851:13 2862:18
　3042:3
limitations 2855:22
　2857:1 2861:22
limited 2809:11 2858:22
　2975:11,11,15,18,22
　2976:1 2977:3 3020:10
Linden 2971:10
line 2726:6 2727:11,13
　2731:15 2733:9
　2742:15 2743:9 2744:1
　2746:20 2749:11,11
　2753:3,18 2776:4
　2786:3 2821:13 2835:7
　2842:1,14,19,20 2844:3
　2853:5,17 2856:1,22

2858:6,10,17 2859:6,17
2859:18 2860:22
2861:3 2862:4,8
2863:11,21,22 2867:21
2868:2,17 2870:2
2871:13 2873:3 2907:6
2907:10 2909:20
2917:13 2920:5
2923:21 2924:12
2927:17 2929:3 2938:2
2939:5,9 2941:14
2942:8,17 2943:1,1
2944:4,9,9,17 2945:15
2954:3 2964:1 2969:6
2976:9 2986:16,20
3004:21 3006:14
3011:18 3013:2,3,7,15
3021:15 3031:9,11
3033:18 3041:21
line's 2851:2
lines 2732:13 2742:7
2749:7,8 2751:18
2776:4 2788:5 2816:16
2816:18 2857:18
2859:3,5 2868:11
2909:4,19 2981:20
3003:21 3013:10
3015:9,11
link 2734:4,12 2740:1
2919:1 2933:13
2962:19
linked 2757:13 2936:1
2938:12 2939:2,12
linking 2729:13 2734:16
2739:18 2938:10,15
links 2761:20
list 2807:5 2828:18
2829:7,18 2830:8
2838:5 2846:22
2872:12 2873:20
2888:15 2952:5,19
2954:1 2957:20 2961:7
2961:12,13 2962:8
listed 2981:2
listen 2878:12
listening 2747:18
2771:10
listing 2806:17
lists 2981:2,4,5
litigation 2728:1 2778:7
2798:21 2813:2,12
little 2757:6 2760:1
2770:15 2774:9
2790:11,12 2800:12
2818:22 2838:19
2846:16 2860:16

2874:16 2878:8 2882:9
2885:13 2894:7 2930:1
2945:7 2964:7,8,8
2970:18 2971:6
2985:16 3003:13,16
3017:5 3022:1
loads 2820:22
local 2869:13 2898:22
2954:7 2979:4 2986:19
locals 2748:20
located 2817:10 2824:3
location 2741:4,5
location-by-location
2741:3 2743:14
locations 2740:20 2744:4
2987:2
logistics 2970:21
logs 2957:14
long 2725:20 2766:12,13
2767:10 2775:19
2809:1 2810:10
2850:20 2874:16
2948:19 2966:5
2997:21 3017:21
3022:13 3028:14
long-distance 2980:8
2983:4
longer 3031:14
look 2740:20,22 2763:17
2780:5 2786:18 2806:5
2806:12 2814:10
2826:12 2847:15
2868:6,14 2871:16
2881:5 2882:4 2883:3
2888:20 2895:9
2896:18,19 2925:14
2932:14,16 2979:8
3024:16,20 3025:4
3027:19
looked 2733:20 2762:2
2865:22 2889:4
2904:10 2908:12,17
2927:22 2939:4
3005:11 3031:9,15,16
looking 2768:21 2772:16
2774:14 2814:22
2853:8 2858:3 2868:17
2881:16 2883:10
2895:9 2904:18
2929:18 2938:4,6,21
2939:6 2941:5 2942:19
2974:11 2975:1
2979:21 2980:18
2986:12,13,14 3002:21
3002:21 3020:12
3033:17,17,18

Lookit 2959:13
looks 2778:16 2827:19
2829:13
Los 2975:19
lose 3029:5
lot 2732:18 2740:21,21
2812:14 2853:2 2868:2
2875:10 2891:17
2896:15 2913:22
2944:6 2965:14 2975:2
3001:1 3005:17 3033:5
3035:1
lots 2819:13,14
loud 2918:8
Louis 3014:11
Louisiana 2978:8
3000:11
low 2770:3
lunch 2874:2,9 2875:14
luncheon 2875:21
lying 2760:5,8,13
2765:20 2766:1 2913:3
2913:5

——————————
M
——————————
M 3045:2,16
main 2749:7,10 2917:13
2923:21 2924:12
2925:6,15 2927:17
2938:1 2939:5 2941:14
2942:8 2943:1,1 2944:4
2944:8,9 2957:6,7
3013:3
Maine 2724:14
maintain 2899:12
maintenance 2743:6
2744:2
major 2908:1,3 3025:11
making 2757:16 2760:5
2761:4 2806:11 2903:1
2913:5 2964:20
2984:18 3023:16
3036:11 3038:13
man 3003:9
manage 2972:22
management 2970:22
2971:4,17,21
manager 2915:20
mandate 2974:16
manifest 2935:2
manned 2842:4
map 3003:12 3004:1
maps 3003:14
March 2849:1 2863:15
2865:16 3001:12
Mark 2878:5,12 2914:11

marked 2812:4 2846:19
2952:4
market 3002:19
marketing 2971:13
markets 2974:12,12
marry 2943:19
Martin 2722:15
Marty 2777:17 2809:3
2930:17 2940:18
2944:12 2961:2
Marty's 2933:3
master 2915:16,18
2927:15
match 2903:17 3019:10
material 2784:7
materially 2784:5
math 2846:1 2910:15
mathematic 2855:10
mathematical 2727:7
2753:17 2754:2,7
2849:7,21 2850:15,20
2851:7,15 2852:7,8,22
2854:1,7,16 2855:6,12
2856:1,22 2862:1,14,19
Matt 2787:2 2798:8
2802:1 2810:15
2811:18 2813:9 2822:3
2829:4,11 2856:4
2873:21 2876:10
2884:19 2885:8 2897:3
2897:3 2901:9 2950:17
2953:5 2958:16 2963:6
matter 2722:14 2776:14
2907:2 2910:10
2967:19 2993:5
matters 2967:19 2972:14
maxim 2783:14
maximum 2849:8 2863:9
3004:20
MBA 2971:1,3,5
mean 2734:4 2747:7,15
2748:8 2749:3,4
2756:11,11 2759:17
2760:14 2763:20
2769:6,22 2771:21
2772:17 2775:2,5
2785:3 2801:13
2833:18 2885:15
2896:2 2916:5 2917:4,8
2918:19 2920:20
2929:11 2930:9
2932:20 2935:14
2936:21 2941:5,12
2946:1 2955:22 2958:4
2958:14 2959:6
2966:17 3009:10

3018:11 3020:18
3033:4,4,7 3036:12
3040:10
meaning 2738:4 3003:19
3003:19
means 2747:8,16 2749:5
2918:21 2919:8
meant 2920:1
measure 2727:8 2737:21
2753:2 2878:15
3040:22
measured 2737:14
3037:5
measurement 2885:12
measuring 2909:2
mediation 3028:9,11
meet 2854:17 2855:7
2875:1 3005:1 3007:13
3007:15
meeting 3007:6
meets 3007:10,19 3008:7
3025:12,15
member 2729:17,22
2730:4 2737:6,8,16
2738:2,18 2767:3,6
2768:3,9,13,19 2769:5
2769:16 2770:14
2771:6,13,19 2772:13
2774:8,17 2775:14
2777:11,16,17,19
2778:11,15 2779:2,11
2779:21 2780:9,16
2781:3,16 2782:5,13,18
2783:1,10,20 2784:14
2785:1,3,13,19,21
2786:2,8,10,13,16,20
2805:6,8 2809:3,8
2810:12,15 2811:3
2824:11 2875:4 2893:4
2893:5 2901:9,13,16
2902:6,11,13,22 2903:9
2903:20 2904:15,17
2905:3 2916:16
2930:17,20 2931:3,20
2932:4 2933:2,19
2934:1,7,13 2936:5,9
2936:15 2937:3
2939:15,19 2940:12,18
2941:18 2942:5 2943:5
2944:12 2947:11
2948:3,5,9,15,19
2949:4,8,13,17 2950:1
2961:2,22 2962:3,20
2963:4 2978:5 3040:1
3040:21 3041:4
members 2767:2 2787:1

2805:5 2824:9,10
2875:2 2893:17 2950:3
2978:3,13 2983:9
3029:8
memory 2826:13,22
mentioned 2729:10
2746:7 2769:18
2777:20 2909:20
2941:7 2979:6 2999:6
mentions 2747:12
merge 2750:12
merger 2750:17,22
2752:2 2846:17
2864:21 2971:15,18
merit 2885:16 2934:5
met 2735:19
method 2733:17
methodology 2860:11
Metra 2750:9,13,14,18
2750:19 2751:2,11,16
2751:17,17 2752:4,7
2753:16,22 2775:18,21
2776:4,4 2846:17
2847:11 2848:17
2849:4 2850:19 2857:4
2857:10 2859:3,5,13,21
2860:6,9 2863:19
2864:7,14,17,20 2865:1
2865:4,6,10,16 2866:17
2868:6,11,15 2869:9
2871:7 2876:14,22
2879:11,18 2880:17
2881:22 2882:5 2883:4
2883:7 2884:3,17
2886:4,6,20,22 2889:16
2890:7,10,11,20 2891:7
2911:14
Metra's 2750:22
metric 2735:13,14,16
2740:4 2877:16,18
2878:4,16,20 2887:5
3005:19
metrics 2770:13 2873:15
2873:20 2876:15,21
2877:1 2879:5 2880:2,3
2880:22 2881:5 2883:2
2883:22 2884:6,6,9,10
2884:11,12,14,16
2898:17,19 2899:8
metropolitan 2978:9
Miami 2975:19 2977:4
Michelle 2962:1 2963:5
microphone 2730:21
2731:1,2,5
mid 2752:18 2801:4
2866:11,14

middle 2755:4,13
2772:10 2820:19
2858:3 2877:2 2894:17
2894:18 2895:10,10,12
2940:22 2968:8,12
mile 2900:12,12
mile/last 2900:12
miles 2878:21 2880:14
2882:1,5,5,9,13,14
2883:4,6,12,22 2886:16
2887:5,21 3004:15,21
min/max 2904:6
mind 2725:4 2745:1
2752:9 2761:3 2767:4
2847:19 2874:9 2925:5
2988:15 2993:4 3013:6
mine 2804:1,4 2824:2,11
minimize 2998:21 3004:3
3025:11
minimum 2783:14
2981:3 2982:7
minimum/maximum
2783:22 2784:3
minus 2845:15
minute 2732:3 2743:2
2745:4 2823:7 2847:18
2872:15 2874:5 2889:7
2901:18 2921:7
2948:22 2953:4
3012:21
minutes 2808:7 2874:7
2875:8 2877:10 2883:6
2883:11,15,17 2884:2
2885:10 2886:6,8
2887:11,21 2937:9
2944:8 2956:7 2966:14
2966:18,20 2976:5
2988:18 3015:14
3016:6 3029:6 3038:17
missed 2783:8
missing 2729:2,4 2730:7
2769:12 2772:16,19
2868:18 2869:10
2925:21 2930:6,11
2933:11 2934:14
2960:19 2962:7,8
Mississippi 2978:7
3000:11
misspoke 2841:19
misunderstand 2925:9
misunderstanding
2896:7
misused 2896:15
miter 3035:22
mitigate 2781:8 2785:14
2899:8 3017:18,19

mix 2857:19 2858:5,16
2858:21 2859:9
mixed-use 3011:18
mixing 2859:19
Mobile 2731:14 2742:8
2816:19 2835:13
2843:5 2860:7 2902:1
2975:13,17 2980:10,20
2981:2 2982:19,22
2983:8 3001:5,7 3013:1
3013:12 3017:14
3019:15,21 3022:16
model 2727:6,7 2728:5,6
2728:9,10,16,21,22
2729:9,10,16 2731:9,18
2731:21 2732:5,15,18
2732:22 2733:4,14
2734:3,8 2735:9 2736:1
2736:4,14,19 2740:4,14
2740:20 2741:14,21
2742:1,1,10,12 2743:12
2743:17 2744:11,17,19
2744:20 2745:17,21
2746:4,6,15,21 2749:17
2750:4,16 2751:10,19
2752:6,20,20 2753:11
2753:12,15,20,20
2754:3,6,7,9,20,21
2755:9 2758:18 2759:3
2759:8 2760:12
2761:19 2762:1,5
2764:12 2766:10
2767:9 2773:2,5,11,11
2773:13,20 2774:3,7
2779:8 2781:1,9,10,13
2781:19,22 2782:13,14
2782:21 2783:15,17
2784:1 2785:11 2786:4
2786:11 2787:13,18,22
2789:11 2790:13,15,16
2792:8,9,14 2793:1,7
2793:13,14,19,21
2794:10 2795:12
2796:12,16 2797:15
2798:3,4 2821:11,19
2822:11 2830:19
2835:18 2836:1,18
2838:8,16 2843:21
2845:9 2852:8,22
2853:16 2854:1,4,7,11
2854:16 2855:1,10
2857:21 2859:1 2862:7
2862:9,10,12,19
2863:10 2864:3,4,5,7
2866:17 2867:8,20
2868:1 2871:9 2876:22

2877:17 2882:17,18
2887:5 2891:14
2897:18 2898:12
2904:5 2909:4,7,11
2911:14 2919:3
2920:13,22 2921:2,6,10
2921:21 2922:9,14,21
2923:1,10 2930:13
2934:22 2935:10,17,22
2937:17 2938:2,9,19,21
2943:3 2946:12,19,21
2947:5 2948:11,12
2949:7,18 2960:18
2961:1 2964:4 2984:16
2984:22 2985:7 2989:8
2995:7 2998:17,22
3006:11 3008:19,22
3009:4,13,17 3032:6
3037:8,16 3038:8
3039:11
modeled 2734:13
2743:11 2745:12
2746:8,10 2749:19
2750:5 2758:18 2760:9
2761:13,13 2762:14,14
2763:1 2774:22 2839:7
2853:5 2877:10
2879:19 2895:22
2896:3 2922:13 2938:7
2959:10,11 2961:17
2962:18 3007:5
modeler 2867:19 2870:19
3006:21
modelers 2747:3 2918:17
2935:9
modeling 2727:4,5,12
2742:21 2745:9,10
2753:1,8,22 2761:22
2773:5 2775:12 2794:2
2849:6 2866:1 2878:16
2892:15 2899:6 2909:9
2910:18 2911:7,8
2912:1,14 2917:12
2924:22 2942:22
2947:7 2952:12
2982:16 2984:8,12,14
2984:21 2985:10,14,19
2999:5,9,11 3006:19
3007:17 3008:6
3033:16 3036:5,7,13,14
3039:3,5
models 2727:6,15,19
2742:14 2754:7 2758:7
2758:9 2774:21
2784:12 2788:10
2792:18 2794:3,7,8

2795:10,11 2855:6,12
2856:1,22 2857:15
2860:22 2862:1,4,14
2884:6 2896:6 2899:10
2899:10 2913:19
2984:20 3009:14
models' 2857:1
modification 3001:21
modifications 2984:18,19
3023:16
modified 2740:16
moment 2734:22 2741:20
2767:1 2787:3 2795:6
2869:3 2895:5 2952:2
2982:21
moments 2733:20
Monday 2814:15,15
2871:9
money 3030:10 3032:18
3033:5 3034:5 3035:2
3035:10 3036:10
3037:2,11,12 3038:4,7
monies 3018:18,19
3019:10,10 3030:2
monitor 2973:2
month 3016:5
month's 2774:22 2775:1
2775:1
months 2732:10 2735:20
2744:7 2746:11
2774:19,21 2775:3,6,9
2776:1 2866:11,13
2910:14 2911:9,18,22
2918:12 2997:13,14
3020:20 3021:7
months' 2733:20
moot 2951:1
morning 2723:2,7
2752:10 2757:17
2787:9,10 2901:21
3003:1
motion 2865:11
Motors 2971:9
movable 2842:1 3010:8
3010:12,14
move 2730:20,20 2731:5
2733:8 2777:3 2794:22
2798:14 2808:2
2825:21 2827:5
2831:16 2843:18
2850:9 2853:9 2873:22
2889:10 2919:7
2924:11 2938:17
2939:8 3007:16 3016:8
3036:3
moved 2732:13 2746:9

2761:9,10 2850:20
2868:11 2959:10
movement 2728:2,2
2732:5,7,12,20 2743:22
2745:8 2749:9 2773:16
2868:9 2877:11,12,22
2924:19 2925:4
2936:18,20 2938:1
2945:14
movements 2742:7
2749:6,8 2762:8,22
2763:14 2766:6,10
2819:4,12,18 2820:11
2844:5,7 2926:5
2927:15,16 2934:19
2936:13,16,16,17,19
2937:6,11 2954:4,8
2955:7 3033:19
moves 2761:15,17,19
2923:20
moving 2800:16 2803:12
2858:6,16 2859:3
2870:20 2901:1
Mulholland 2751:8
multi-state 3000:4
multipage 2988:10
multiple 2761:15 2768:16
2838:17 2845:3
2852:12 2936:13,16,19
MultiRail 2850:16
2852:5,11,16
mute 2731:3 3029:2
muted 3039:22

———————————

N

N 2723:1 2876:1,1,1
2915:7 3044:1,1
name 2723:21 2906:6
2929:16,20 2956:16
2960:17 2970:2 3002:6
names 2960:19
Narnia 2992:6
narrative 2752:3 2869:22
narratives 2747:13
National 2722:4 2856:19
2863:12
nature 3002:6 3005:9
3042:21
navigates 3011:22
near 2806:6,6 2975:1
near-term 2994:12
necessarily 2749:9
2854:10 2855:13
2939:2 3035:17
3037:16,17
necessary 2734:12

2740:7 2741:13 2769:8
2821:10,19 2822:11
3017:18
need 2728:4 2742:9,18
2754:6 2772:20 2777:9
2785:12 2792:1
2811:12 2813:16
2815:4 2833:15
2864:18 2922:8,12,19
2922:21 2926:18
2933:17 2946:16
2958:3 2966:16 2996:8
3009:11 3017:6
3035:11,12 3037:16
3039:10 3042:6,22
needed 2728:20 2731:13
2741:7 2743:15 2749:6
2751:22 2752:17
2756:17 2764:9
2833:12 2834:13
2900:15 2901:2 2912:4
2922:9,11 2947:16
2956:7,11 2958:8
2981:3,14,15 2982:7,8
2986:18 2994:9
2998:16 3007:1
3018:17 3029:20
3030:12 3031:14
3037:19 3042:4
needing 2899:11
needs 2723:11 2913:16
2974:10 3024:1
3036:18
negotiation 2986:3
neighborhood 2727:18
neither 3045:8
network 2778:22 2779:4
2780:5 2877:10
2971:15,19,19 2974:7
never 2729:13 2748:2
2772:6,9 2779:9
2794:13 2795:15
2802:15 2804:9,10,13
2807:14,15 2847:19
2909:10 2913:4
3007:10,18 3008:6
new 2731:14 2742:8
2794:8 2795:10
2810:22 2816:19
2835:10,11 2840:1
2841:11,13 2844:14
2860:7 2874:14
2949:18 2971:10
2973:16,20,22 2975:13
2975:16 2977:3 2980:8
2980:9,19 2981:1

2982:18,19,21 2983:5,8
2984:18 3001:6
3014:19,20 3015:3
3033:22
Newport 3012:17
News 3012:18
nine 2818:20 2819:10
3015:4
Ninety-five 2739:17
no-build 2986:2
noise 2729:18
nomenclature 2738:20
nondisclosure 2989:22
nonplussed 2760:1
Nonstandard 2954:4
nonverifiable 2745:1
Norfolk 2722:6 2797:1
2863:14 2901:7 2906:7
2908:3 2910:4 2999:7
3012:16 3024:7
normal 2766:11 2872:18
2873:6 2918:13 2919:2
3022:5
normally 2732:20 2758:7
2917:14 2985:14,19
Northeast 2984:15
3010:15 3011:1
3039:10
Notary 3045:1,17
note 2863:3 2869:9
notebook 2725:6
noted 2735:6 2857:17
2862:6 2893:21
notice 2722:15
notified 2999:15
November 2728:12
2752:19 2767:19
2768:8 2776:8,18
2823:6 2824:16,22
2826:7,9 2827:8,11
2828:7 2832:3,8,11
2951:11 2952:13
2962:14 2965:11,17
3025:22
NS 2747:19 2750:7
2771:7 2776:8,15
2833:16 2834:2 2836:8
2844:10 2869:15
2886:18 2952:18
2978:16 2986:7,9
2987:7 2989:14,22
2990:7,15,19 2996:15
3001:18 3002:1
3006:14 3010:3
3013:22 3015:8,10
3017:18 3028:7 3039:8

3039:12
NSR 2832:11
number 2726:7 2729:3,6
2730:9 2732:2 2743:4
2746:14 2747:20
2773:15 2793:1
2806:13,17 2809:14
2816:14 2818:10,20
2819:3,9 2820:7,8,19
2820:22 2821:7
2845:13 2849:13
2865:7 2873:15
2928:10 2934:15
2941:2 2951:9 2953:12
2957:13 2962:13
2978:8 2982:22 3005:8
3006:12 3008:18
3011:8 3020:20
numbering 2893:21,22
numbers 2760:5 2809:11
2887:6 2895:12 2896:5
2897:12,15 2898:7,14
2902:4 2905:9,13
2923:14 2928:7 2946:5
3006:15 3011:6
numerous 2854:20

O

O 2723:1 2876:1,1,1
3044:1
o'clock 2968:19 2969:13
Oakland 3012:15
oath 2876:8
Oberman 2722:15
2723:2,9,13,20 2724:2
2725:3 2738:8,16,22
2748:9,14 2754:13
2755:7,16,22 2756:3,7
2756:13,15,19 2757:1,4
2757:11,21 2759:1,13
2759:22 2760:11,18
2762:7,17 2763:2,8,19
2764:7,11,16 2765:3,10
2765:15,18 2766:5,9,15
2766:22 2775:15
2776:2,6,14,21 2777:8
2777:18 2778:19
2781:13 2783:19
2786:1,22 2787:5
2791:1,6,11,15,21
2795:4 2796:1 2798:8
2799:8,10,14 2800:4,13
2800:15,17 2801:13,22
2802:7 2803:17 2804:1
2804:4,16,21 2805:4,10
2807:18 2808:10,12,14

2808:17 2809:7,9,16
2810:1,3,6,11,14
2811:7,11,17,20 2813:8
2813:21 2818:2 2822:2
2823:3,7,13 2824:2,5,8
2824:12 2829:3,9,11
2830:1,13 2831:4,9
2833:20 2834:7
2836:11 2846:12
2847:7,14,18 2849:12
2850:5 2856:3 2861:14
2861:18 2868:19
2869:1,5 2873:21
2874:11,18,22 2875:6
2875:16,19 2876:4,10
2881:12,17,19 2884:18
2885:2,6,22 2886:5,13
2888:2,8 2892:12
2894:3 2897:3,14,22
2904:1 2905:17 2906:3
2909:1 2910:22
2911:17 2912:2,8,18
2913:14 2914:16
2916:15 2919:11,18,22
2920:7,10,15 2921:5,9
2921:16 2922:2 2923:2
2923:19 2924:7,17
2925:2,12,19 2926:4,9
2926:13 2927:5,19
2928:4,12,18 2929:2,6
2929:10 2930:3,12,18
2930:22 2931:22
2937:4,18 2938:14
2939:13 2941:19
2942:12 2944:14,22
2945:4,10,17 2946:1,6
2946:10,20 2947:4,10
2947:13 2948:1,4
2950:2,10,12,17 2951:1
2951:19 2953:11,15
2958:16 2959:2,17
2960:7 2961:4,11,15,19
2962:1 2963:5 2965:4,8
2966:1,4,9,15,21
2967:4 2968:6 2969:3,9
2969:17 2970:1,4
2979:15,20 2980:1
2987:15 2988:14,21
2989:3,11 2992:4,10
2993:16,19 3008:1,8
3012:20 3013:13,19
3016:10,20 3017:1
3018:2 3020:14 3021:5
3021:19 3022:12
3023:2,8 3029:3,15,19
3030:8,14,19 3032:8,17

3034:2,16 3036:8,19
3037:7,18 3038:15
3039:14 3041:7,17
3042:1,13,20 3043:4
object 2795:2 2799:11,12
2801:12 2804:8 2810:8
2813:19 2829:1 2874:8
2912:15 2919:6
2951:16
objection 2725:9 2790:21
2807:16 2813:7
2817:22 2821:21
2828:22 2830:12
2831:2 2833:17 2834:6
2836:10 2887:22
2888:6,7 2908:21
3007:20 3016:8
3017:22
objective 2991:1
obligations 2968:16
observation 2903:11
2969:10 2992:13
observe 2915:9
observed 2903:2,4,4
observing 2903:15
obviously 2744:21
2789:7 2927:21 2969:2
2992:20 3007:12
occasions 2986:8
occupied 2937:21
occupy 2937:12,15,16
occupying 2937:8
2938:16
occur 2743:5,6
occurred 2942:9 3007:2
October 2752:18 2755:4
2755:14 2767:16
2801:4,6,7 2866:14
2910:11,11 2911:12,21
3045:21
offer 2735:22 2989:18
2990:2
offered 2798:17 2915:5
officer 3045:2
officials 3000:13
oftentimes 3007:14
oh 2772:7,8 2775:22
2812:5 2847:3 2860:15
2865:3 2868:21
2884:20 2903:9 2953:6
2953:6 2962:1 2992:2
oil 3039:13
Ok 2953:11
okay 2725:8 2729:22
2738:22 2748:14
2757:9 2759:11

REDACTED - PUBLIC VERSION

2770:14 2774:8,17
2777:8 2778:15 2780:9
2780:16 2783:10
2784:14 2785:19,19
2786:16 2789:2,13
2790:10 2792:12,22
2793:11 2797:19,21
2801:7 2803:4 2804:6
2805:11,18,22 2806:10
2807:10,14,19 2808:1
2808:17 2809:18
2810:6 2811:3,9 2812:3
2812:7,14 2814:8
2815:7,11,12,18
2816:12 2817:6,17
2818:8,19 2819:7
2820:4,15,18 2821:6
2822:15,21 2824:12
2825:6,11,20 2826:6,15
2826:15,17 2827:4,15
2827:20 2828:14
2829:21 2830:1,10
2831:15,21 2832:18
2836:4 2837:13 2838:8
2838:19 2839:14
2840:5 2841:21 2843:4
2844:20 2845:6 2846:6
2846:6,15 2847:6,17,20
2847:22 2848:7,8
2849:11,18 2851:19
2852:15 2854:13
2855:11 2856:15
2863:2 2864:14 2865:3
2865:15,18 2866:10
2871:15 2872:7 2873:1
2873:11,13 2875:3,6,11
2877:3,19 2878:20
2879:3,10 2880:1,5
2881:4,17,18 2883:10
2883:20 2889:6,18
2892:6,18,20 2893:1
2894:19 2895:4,9
2897:1,1,2,22 2900:10
2901:13 2902:6,11,22
2905:3,20 2906:17
2911:19 2917:8 2918:6
2921:8 2933:2 2934:1,7
2939:13,15 2941:18
2948:1 2950:1,2 2951:3
2952:11,17 2953:15,19
2953:21 2954:1,15
2955:21 2956:14,14
2957:10 2958:13
2961:19 2963:4 2965:2
2965:22 2969:8 2980:1
2980:14 2989:11

3023:8 3025:7
Oliver 2844:18,21
on-the-ground 2981:21
on-time 2735:13,14,17,18
2736:3,5,13 2737:13,21
2740:3,5 2782:1,3
2885:12 2902:8,20
3005:3,18 3006:7,11,15
3006:20 3015:15
once 2811:2 2939:5
3003:9 3024:17
3026:15
one-hour 2877:12 2878:1
one-year 2997:12
ones 2728:15 2792:20
2811:1 2889:4 2928:20
2994:19 3012:22
3013:14 3035:13
ongoing 2981:5
open 2808:13,18,20
2809:5,10,14,22 2828:4
2847:15 2931:8,10
2932:9 2985:13,18
2998:8
opened 2756:16 2809:4
opening 2730:11 2744:1
2767:18 2793:6,21
2798:3 2799:2 2832:10
2839:3 2932:13
2952:13 2998:4
openings 2928:8,10,11,14
2928:16,19 2929:4
2930:5,9,13 2931:7,9
2931:16 2932:7,7,11,17
opens 2932:22
operate 2999:22 3000:2
3024:2 3027:4,10,19
3039:13
operated 2975:12,14,16
2975:17 3004:8 3013:2
operates 2859:18
2972:21 3014:11
3027:14
operating 2727:9
2740:22 2793:8
2798:11 2799:17
2819:19 2820:10
2850:22 2851:16
2852:13 2853:16
2858:8 2859:20
2869:13,15 2975:19
2976:10,14,17,21
3001:17 3002:1,2,4,5,9
3011:17 3012:9
3023:17 3027:16
3030:22 3039:9

operation 2753:4 2916:3
2979:4,5 2983:4
2984:16 2987:5 3007:2
3013:8 3039:11
operational 2890:1
2984:22 2998:19
operations 2726:8 2727:9
2727:9 2733:6 2735:4,8
2740:15 2750:22
2753:7,7 2754:2,9
2785:18 2835:11,13
2846:3,9 2869:18
2872:18 2873:3,6
2916:7,10 2918:13
2924:9 2935:2 2973:2
2981:5 2982:8 2986:16
2986:19 2987:5 3002:7
3002:21 3003:4 3004:5
3005:7 3011:1 3012:17
3013:9 3015:14 3027:1
3040:8
operators 2880:18
opined 2884:15
opinion 2731:8,10 2735:5
2779:14 2851:5
2853:22 2877:15
2878:3 2879:4 2880:21
2883:20 2922:18
3019:4
opportunities 3036:1
opportunity 2939:1
2950:5 2998:18 3005:1
3024:14
opposed 2853:11 2900:2
2931:10 2936:18
2938:5
opposing 3025:13
opposite 2902:19
2998:15
opposition 2733:3
OPT 2782:16
option 2790:6 2980:5
orange 2886:8
oranges 2859:19
order 2728:21 2733:2,6,9
2740:4 2741:3 2742:18
2743:15 2749:14
2758:11 2765:18
2767:22 2769:8
2770:13 2796:5
2899:11 2911:10
2912:3 2919:3 2939:2
2950:6 2997:5 3004:12
3006:20 3026:7,10
3028:2,8,20
ordering 2778:12

3042:21
ordinarily 2927:10
ordinary 2873:3 2891:1
organizations 2978:9
orient 2827:6 2838:19
2890:6
origin 2733:9
original 2894:16 2898:13
2898:21 2899:15
2918:22 2936:2
2997:19
originally 2894:2
2905:10 2952:11
Orlando 2980:9 2983:5
Orleans 2731:14 2742:8
2816:19 2835:11,11
2844:14 2860:7
2975:13,16 2977:4
2980:8,10,19 2981:2
2982:19,19,21 2983:5,8
3001:7 3014:19,20
3015:3
OS 2954:16 2955:3,8,11
2955:16
OTP 2736:2,6,7 2737:1,9
2737:11,17 2738:4,13
2738:21 2739:4,13
2740:7,8 2780:10
2781:2,5,5,12,18,19
2782:7,20 2783:3
2784:18,19 2785:11
2786:10 2891:11,13
2893:6,11 2894:13,21
2895:18,22 2896:4,4,4
2896:4 2897:16 2898:8
2899:7,16 2903:4
3006:13
Otter 2863:7
outages 2743:2,2,3,5,6,7
2743:15
outcome 2741:13
3045:13
outcomes 2784:7
output 2737:4 2746:3
2780:12,15,18 2785:9
2786:11 2902:21
outputs 2727:8 2780:22
2782:1
outputted 2781:9
outreach 2984:7
outside 2863:9 2909:16
2989:4,6 3002:9
overall 2804:22 2899:1
overlaid 3003:22
overstated 2939:22
3008:11,13

overstatement 2939:22
overstating 2936:19
overtake 3007:15
overtakes 3025:16
overtime 3030:14
owned 3021:21 3022:3,5
  3022:21
owns 2751:17 2977:6

_____

P
_____

P 2723:1
p.m 2875:21 2876:2
  2993:15,15 3043:6
Pacific 2750:11,13
  2751:16 2908:9
  2909:20
page 2757:8,10 2806:5,12
  2815:10,19 2816:13
  2820:5 2821:7,7
  2826:12 2827:22
  2829:17 2833:1
  2848:10,13 2849:13,15
  2850:11,17,17,18
  2852:20 2853:3
  2854:14 2855:14
  2856:3,11,16,16 2858:1
  2860:16,17,19 2861:5
  2861:18,21 2863:8
  2868:14,19,22 2871:16
  2872:2,4 2873:19,22
  2876:18 2877:2 2880:7
  2881:14,15 2890:9,13
  2890:14 2893:19
  2951:12 2952:3 2953:8
  2953:9,10 2957:11
  2980:12,15 3024:20
  3044:2
pages 2827:17 2828:21
  2829:17 2857:9,14
paper 2830:6 2833:7
  2918:16 2966:14
papers 2771:22 2828:12
  2828:19 2829:8
  2832:10,22 2887:15
  2940:5,14 2951:15
  2952:12 2954:2
  2956:22 2957:20
paragraph 2812:16
  2814:20 2815:19
  2817:7 2818:21 2819:1
  2820:2 2832:7 2854:15
  2860:19 2861:9,10,17
  2861:22 2862:18
  2863:4 2871:17 2880:9
  2883:21 2884:21
  2890:15 2918:6,8,19

2919:8,14 3025:5
paragraphs 2872:12
paraphrase 2819:8
paraphrasing 2936:22
Pardon 2730:17 2867:14
  2929:12 2950:10
part 2757:14 2762:21,21
  2764:1,1 2773:5
  2775:11 2778:4,9
  2802:16 2834:16
  2851:12 2856:18
  2866:20,20 2867:1
  2886:11 2898:11
  2936:17 2959:9 2968:4
  2974:17,18 2976:13
  2977:11 2994:22
  3030:15 3033:14
participate 2999:11
participated 2727:2
  3029:11
participating 2978:7
particular 2751:5
  2783:17 2785:8
  2792:22 2794:9
  2795:12 2818:10,14,15
  2851:12 2853:7
  2862:19 2865:1
  2872:14 2877:18
  2885:16 2901:11
  2955:7 3001:5
particularly 2759:13
  2857:17 2901:22
parties 2734:7,19
  2747:22,22 2753:14
  2760:22 2813:5,13
  2834:4 2860:12
  2862:10 2863:10,21
  2864:2 2875:5 2907:13
  2910:17 2911:7
  2978:12,21 2984:5
  2985:10 2991:15
  2992:22 2994:12
  2998:21 3045:9,12
parties' 2892:10
partly 2827:2 2996:1
party 2733:3 2799:1,2,4
  2864:3,3,5 2999:8
pass 2955:10
passenger 2722:5 2726:7
  2731:14 2735:19,19
  2738:10,13 2740:17
  2750:14 2755:11
  2778:17,21 2780:6
  2821:11,20 2822:12
  2836:5 2839:18,19
  2840:1,11,21 2841:1,10

2841:14 2857:19
  2858:5,7,15,15,20
  2859:4,6,10,15,16,18
  2860:1 2863:12
  2886:18 2893:12
  2894:13,16,21 2895:18
  2898:21 2899:15
  2904:18 2920:5 2975:6
  2981:3 2982:13 2998:9
  3004:16,22 3006:5
  3007:16 3017:13
  3036:3 3037:1 3040:20
passengers 2839:8
passing 3005:10
patience 2966:5 3043:2
Patrick 2738:8,16
  2777:18 2810:14
  2930:19 2931:2 2932:1
  2937:4 2939:14
Patrick's 2786:2
pattern 2810:17 3002:20
pause 2804:20 2874:21
  2889:8 2892:21
pay 2741:18 3032:14,16
payment 3001:20
payments 3001:15
  3002:3,4
Peabody 2724:18
  2725:14,15,17 2750:14
  2791:11
peak 2746:9 2775:8
  2871:5,8,12 2872:17,21
  2873:5,7
Peapod 2726:3,20
  2888:14
penalty 2848:16
pending 2993:3
Penn 2970:21
people 2730:16 2765:20
  2798:9 2901:3 2908:11
  2908:16 2923:13
  2942:3 2988:18 2992:8
  3003:2
percent 2739:17 2877:8
percentage 2877:7,16,20
  2878:4,15 2897:16
  3011:9
percentages 2880:13
perfectly 2804:16
perform 2777:21 2778:5
  2907:8 2939:3 2968:16
  3005:16
performance 2735:13,14
  2735:17,18 2736:4,5,13
  2737:13,21 2740:3,7
  2782:1,3 2816:1

2891:19 2902:8,21
  2972:15 2973:3 3005:4
  3005:13,19 3006:7,11
  3006:13,15,20 3015:15
performed 2917:6
  3005:14 3036:15
performing 2936:2
performs 2742:22
period 2746:9 2819:15
  2821:13 2845:17
  2871:8,11,12 2917:7
  2962:19 3030:11
perjury 2848:16
permit 2729:12 2743:13
  2743:13,18,20 2744:5
  2744:10,15,16,18
  2770:8 2790:5 2794:15
  2795:17 3026:10
permits 2947:2
permitted 2866:7
person 2723:6 2751:5
  2809:12 3038:3
personally 2778:8
personnel 2830:11
  2834:16 2926:1
persons 2751:6 2806:18
  2806:19
perspective 2912:5
  2935:15 3009:7
pertains 2783:12
Peterson 2917:18 2918:6
  2965:10 2981:8
phased 3025:8
phases 3025:9,14
Philadelphia 2971:2
phone 2986:10
photos 2981:20
phrase 2796:2 2801:19
  2888:12 2912:8
physical 2787:21
pick 2876:13
picture 3003:16
piece 2776:7,17 2944:4
pieces 2741:22
Piedmont 2999:6
piggyback 2942:6
place 2764:9 2809:6
  2874:14 2904:14
  2960:10 3032:6
  3037:19,20
places 2812:19 3012:12
  3012:16
plan 2793:8 2811:6
  2978:1,20 3019:17
  3020:6
planned 2840:2 2931:15

planning 2810:19,22
  2891:1 2971:15 2978:9
plans 2812:18 2820:10
  2973:19 2974:21
  3022:10 3024:6
plant 2971:10
plants 2819:19
platform 3019:20
  3021:20 3022:4 3023:1
please 2723:15,20
  2748:22 2795:5,7
  2828:5 2847:1 2848:10
  2850:18 2918:9
  2956:19 2970:1
plus 2933:10 2949:19
point 2738:17 2762:12
  2764:2 2769:7 2798:12
  2800:18 2801:11
  2803:8 2807:3 2821:2
  2825:8 2833:10,14
  2860:14 2885:16
  2887:1,12 2912:17
  2926:3 2932:10 2934:8
  2934:10,11 2936:10
  2939:17 2942:6 2950:8
  2951:1 2954:17
  2955:11,17 2959:13
  2962:7 2966:12
  2968:18 2988:17
  2989:5 3034:6,10
pointed 2817:19
pointing 2856:17
  2865:11
points 2738:11 2754:17
  2923:7 2933:4 2937:8
poorly 2878:2
popping 2803:16
popular 2951:8
port 2726:15,15 2907:3
  2914:17 3012:17
  3013:1,2,7,9,15
Port's 2915:7
portion 3010:9 3041:12
ports 2972:1 3012:11,13
  3012:22 3013:4
pose 3039:21
posed 2759:3 2833:8
position 2761:11 2766:1
  2766:2 2781:14 2799:3
  2908:13,18 2924:9
  2973:15 3007:9 3017:5
  3017:6 3026:4 3028:10
positions 2886:3
positive 3036:22
possession 2815:21
possible 2730:22 2735:7

2756:20 2776:13
  2814:7 3028:16
possibly 3022:8
potential 2741:9 2890:1
  2983:20
potentially 3008:12
preclude 2743:8
precludes 2943:1
preferable 2861:15
preference 2783:12,16
  2784:4,6,16 2898:11
  3006:19
preferred 2980:5
preliminary 3021:15
premium 2986:18
preparation 2806:20
  2848:1
prepare 2961:12 2977:22
prepared 2993:9
preparing 2835:19
  2865:8 2888:22
  2890:20
presence 2750:13 2858:4
  2858:19
present 2734:7 2741:6
  2765:6 2779:8
presentation 2902:9
presented 2731:11
  2746:17 2751:7 2752:2
  2753:12 2758:9
  2760:22 2766:4 2768:1
  2768:1 2779:12 2781:4
  2836:2 2838:11 2839:3
  2886:18 2913:20
  2978:22 3008:22
  3014:17
presenting 2733:5,11
  2758:7
presents 2980:21
president 2726:19 2751:9
  2970:17 2972:17
presiding 2722:16
pressed 2776:9
Presuming 3023:19
pretty 2796:11 2813:4
  2844:20,22 2898:8
  2963:9,9 3031:19
preview 2809:5,6
previously 2823:20
  2892:8 2893:21
  2974:12 2975:12
  2976:10,20
prides 2885:11
primarily 2972:14
  2994:15 3010:18,20
  3040:11

primary 2752:8
prime 2797:12
PRIMUS 2729:17,22
  2730:4 2767:3,6 2768:3
  2768:9,13,19 2769:5,16
  2770:14 2771:6,13,19
  2772:13 2774:8,17
  2775:14 2805:6 2809:3
  2809:8 2824:11
principal 2859:8,12
  2972:13
principals 2860:20
printed 2808:15 2809:21
  2810:4
printouts 2810:18
prior 2781:6 2907:13
  2912:1 2972:6 2975:10
  2976:6 2996:22 3005:7
  3015:14 3017:7
  3041:13
priority 2858:8 2894:13
  3019:11
private 2968:15
privilege 2791:2,8,10,14
  2791:17,20 2801:14
privileged 2790:22
  2791:7
probably 2727:17
  2759:11 2768:14
  2775:22 2776:20
  2907:1 2945:15 2965:7
  3009:17
problem 2740:19
  2742:17 2744:12
  2855:6,9 2945:9
  2955:19 2959:9 2996:6
problems 2731:17,21
  2735:21 2740:22
  2741:1 2853:22
  2857:11 2909:16,17
proceed 2723:9,20
  2724:2 2787:6 2798:19
  2811:22 2876:10
  2906:2 2966:10 2970:5
proceeding 2723:17
  2760:20 2793:5
  2799:18 2834:16
  2846:18 2851:9
  2855:16 2856:12
  2860:12 2863:20
  2886:4,4 2907:3,8
  2967:22 2969:20,20
  2973:6,11 2976:4
  2978:13 2987:8
  2990:14 3000:13
  3026:6 3027:22

3028:18
proceedings 2753:9
  2792:19,21 2793:2
  2794:1 2862:11 2863:9
  2983:1 2998:8 3005:18
  3045:4,7
process 2734:9 2735:11
  2745:18 2746:1 2770:5
  2770:7,12,21 2771:3,20
  2772:1 2773:8,14
  2774:4,16 2775:8,9,12
  2777:12,14 2798:21
  2802:16 2813:14
  2830:17 2918:17
  2926:17 2940:9
  2978:11 2986:5
  2991:14,19 2994:7
  2998:9 3025:18
  3028:13 3033:10
processed 3002:12
processes 2756:4
procurement 2997:4,6,8
produced 2782:22 2783:2
  2801:11 2802:6
  2815:20 2816:9,18
  2817:2,9 2819:13
  2820:10 2821:18
  2865:12 2880:22
  2884:7 2907:12 2910:6
  2921:21 2946:12
product 2791:10,13,17
  2791:20
production 2802:17
  2819:2 2825:3
products 2781:7
profile 2936:12 2956:18
program 2856:19
  2891:21 3019:8
programs 3019:1
progress 2975:1 2984:6
progressing 2975:3
  2996:10
project 2906:17 2999:6,7
  2999:7
projected 2879:16,18
projecting 2995:8
projects 2777:22 2780:21
  2781:1 2889:19 2891:2
  2899:5,11 2902:10
  2904:8,13 2920:3,11,12
  2921:12,12 2946:13
  2972:2 2982:1 2994:9
  2999:4 3002:8 3017:16
  3017:17 3018:11,14
  3019:11,12,14 3031:1
  3034:21 3035:12,15,17

3038:1,2 3040:2,18
promise 2811:4
promised 2819:12
promoted 2972:16
proof 2799:6,19
proper 2804:17 2910:15
  2922:9 2960:19
properly 2731:13 2750:1
  2750:2 2781:14 2818:5
  2938:12
property 2973:4 3002:8
  3020:2,21 3022:20
  3023:1
propose 2999:22 3001:14
  3001:19 3002:14
proposed 2750:17,21
  2821:11,20 2829:8
  2834:2 2864:20
  2879:20 2880:16
  2889:20 2899:6
  2905:10 2976:2,7
  3000:2 3005:5 3021:10
proposing 2890:2
proposition 3001:4
proprietary 2729:7,10
  2732:14 2734:1
  2743:19 2744:9
  2745:20,21 2770:12
  2773:1,3,20,20 2774:3
  2774:12 2948:6,13
protect 2989:19
prove 2783:1
provide 2734:11,14
  2758:10 2770:13
  2811:21 2812:19,20
  2819:10 2821:10
  2828:17 2834:4
  2929:18 2964:2
  2974:13 2989:15
  2990:9,20 3001:18
  3025:10,12 3031:10
  3039:7
provided 2729:13
  2732:19 2734:15,17
  2741:5 2747:13
  2751:16 2763:1,11
  2765:2 2774:2 2802:14
  2802:18 2820:2
  2822:10 2823:20
  2828:16 2829:7,19
  2832:16 2833:3 2834:3
  2835:18 2837:1 2838:4
  2866:1 2867:11 2868:1
  2870:5 2900:17,18
  2916:22 2943:9
  2952:13,16,19 2954:2

2958:20 2964:9,14,16
  2988:9
provides 2862:12
providing 2741:15
  2985:10
Proviso 2869:14
proxy 2736:14
public 2722:3 2848:4,6
  2892:14 2952:5
  2968:15 2975:2
  2992:17 2993:2,5,6
  3032:18 3034:5
  3035:10 3038:4 3045:1
  3045:17
public's 3036:10
publicly 2865:10
pull 2917:18 2918:5
  2965:10
pulling 2805:6 2823:22
pure 2757:15
purely 2850:20 2851:7,15
  2852:7
purportedly 2960:10
purpose 2903:14 2918:14
purposes 2739:5 2762:5
  2867:7 2995:4
pursuant 2722:14
pursue 2941:20 2960:8
  2961:7 3039:15
push 2938:22
pushing 2874:9
put 2728:4 2733:6
  2742:10 2744:10
  2760:12 2761:1
  2773:22 2788:4 2798:2
  2799:6 2829:14 2834:4
  2847:3 2851:22 2852:2
  2888:14 2891:17
  2892:7 2901:13,16
  2904:6,14 2921:13
  2922:22 2943:12
  2945:1 2951:10
  2960:22 2964:4
  2968:13 2987:16
  3042:21
puts 2799:1
putting 2798:5 2921:11
puzzled 2959:7
puzzles 3038:3

Q

qualification 3024:6
qualifications 3024:15
qualifier 2903:18
qualify 3024:2,8,14
quandary 2752:13

2960:17
quantified 2742:10
quarters 2735:17
quasi-public 3032:22
question 2748:15,21
  2759:3,4 2772:15
  2774:6,17 2779:10
  2781:15 2784:15
  2786:17 2790:1
  2791:22 2792:2,4,6
  2795:1,3,5,8 2796:2,4
  2799:15,16 2800:5
  2801:19 2802:1,8
  2813:9 2815:13 2818:3
  2822:3 2826:20 2829:3
  2829:4,6,12,12 2831:10
  2834:7,22 2840:16
  2846:8 2858:18 2859:8
  2863:19 2874:5 2878:2
  2886:12 2888:18
  2895:7 2900:4 2905:6
  2912:5,16,21 2913:1,8
  2913:11,13 2916:8
  2920:1,22 2929:1
  2931:21,22 2932:3
  2933:3 2942:15
  2947:11 2948:2 2949:1
  2961:3,20 2964:8
  3008:2 3016:13
  3029:10 3034:13
  3036:20 3038:19
  3039:20 3041:6
questioning 2810:16,17
  2893:4,6 2897:6
questions 2754:14,16
  2767:2 2787:1 2790:5
  2802:17,21 2804:18
  2828:18 2829:7,18
  2831:13 2832:9,12
  2891:11 2893:10,15
  2901:6,8,10 2905:21
  2914:15,17,20,22
  2916:14,16 2918:1
  2919:21 2941:2 2943:4
  2950:7,15,18 2951:6,17
  2951:20 2964:19
  2965:4,15 2966:1
  3029:1,7 3038:17
  3039:3,4
quick 2775:16
quickly 2856:8 3023:20
  3036:4
quite 2747:20 2793:1
  2924:2 2992:16
quote 2757:14 2855:15
  2879:4 2884:2,16

quotes 2853:2
quoting 2849:19

R

R 2723:1 2876:1
radius 2987:3 3035:19
rail 2727:5,11,13,13,22
  2727:22 2731:15
  2732:13 2733:9
  2740:15 2742:7
  2749:12 2751:17
  2753:3,7,18 2778:17,21
  2780:6 2787:21 2788:5
  2815:20 2816:18
  2821:1,3 2835:7 2842:8
  2842:14,19 2844:5,7
  2851:1,2,6 2852:22
  2854:1,7 2855:6 2856:1
  2856:22 2860:22
  2861:3 2862:4,6,8,10
  2863:11,21,22 2879:6
  2899:22 2900:7,7,10
  2909:4 2917:13 2926:5
  2940:20 2941:14
  2945:15 2946:2
  2971:11 2978:6 2981:3
  3000:3 3019:6 3025:11
railroad 2722:4 2726:5
  2733:7 2735:8 2737:20
  2745:10 2749:14
  2754:4 2767:18
  2793:12 2798:3 2862:1
  2863:12 2902:15
  2915:20 2916:3,10,11
  2923:22 2924:2,4,9,18
  2929:20 2941:21
  2945:3 2946:3 2971:17
  2972:12 2973:4 3002:8
  3007:13 3013:9
  3021:14
railroad's 2752:15
  2793:12,20
railroad-provided
  2794:16 2795:19
railroads 2726:6,7
  2729:5 2730:9 2749:7
  2750:12 2759:19
  2767:21 2768:5 2772:7
  2844:22 2902:8
  2903:22 2904:3,8
  2907:20 2908:1,6,9
  2909:21 2919:2 2925:3
  2927:10 2928:2 2929:7
  2929:18 2930:4
  2945:12 2947:6
  2970:17 2971:20

2972:8,16,19,21 2973:1
2973:16 2985:21
2988:6 2999:15 3002:3
3027:15,17
railroads' 2752:18
2770:6
rails 2917:10,11 2941:7
3035:22
Railway 2722:7
raise 2723:15 2967:11
2969:18 2986:6
raised 2968:18 3009:5
ran 2752:11 2782:22
2783:4 2785:10
2880:10 2896:6 2923:1
2945:8 2976:9 2979:3
random 2733:16
randomization 2735:11
2771:15,17 2774:4
2777:12 2940:9 2948:6
2948:12
randomized 2729:7
2732:11 2734:15
2743:19 2745:16
2769:19,21 2770:3,7,11
2770:19 2772:22
2774:5 2775:7 2780:20
2917:16
randomizer 2830:17
randomizing 2948:16,21
2949:20
range 3021:7
ranged 3003:18
ranges 2818:10,15
rank 2783:13,21 2784:2
2904:6
rate 2784:1 2863:9
raw 2734:9 2773:16
2774:1 2940:5,6,10
Ray 3029:4
reached 2759:15 2977:16
2977:16 2983:22
react 2995:17
reaction 2998:13 3000:17
3014:5
read 2810:2 2819:8,20
2829:3 2837:10,18
2848:17 2853:11
2854:14 2859:21
2861:10,11,21,21
2863:3,5,6,16 2868:16
2869:19 2877:7
2880:19 2883:21
2885:5 2895:2,5,8
2918:4,8 2943:6
2956:15 3025:5

3034:17
readily 2932:19,19
2933:1
reading 2739:22 2853:2
2884:19,21 2895:14
2954:15
reads 2815:13
ready 2723:5 2798:14
2804:7 2805:17,18
2811:15 2876:15
2953:7 3024:11
real 2733:12 2742:22
2744:1 2842:13,21
2846:4,10 2870:20
real-life 2763:11
real-word 2916:3
real-world 2733:5 2736:4
2736:7,20
realize 2766:16
really 2727:1 2739:16
2754:14,17 2763:10,12
2797:17 2818:17
2891:18 2904:5
2944:10 2954:21
2992:22 2995:6
3003:20 3017:9
3042:22
reason 2752:16 2756:9
2758:17 2764:8 2765:4
2765:20 2776:21
2785:15 2799:22
2955:14 2989:14
2990:19 3010:16
reasonable 2736:14
2784:8 2863:9
reasonableness 2778:2
reasons 2743:5 2752:8
2760:20 2860:10
2924:3 2955:6 2990:8
rebuttal 2747:1,11
2748:12 2750:3 2757:6
2793:17,18 2837:14,16
2892:3,8,15 2893:20
2894:4 2933:4 2963:12
2963:16 2965:19
recall 2737:10 2757:16
2768:4,4,22 2769:6
2777:20 2783:6
2786:13 2792:10
2797:10,17,22 2803:6
2807:9,21 2814:6
2815:15 2816:11
2818:5,18 2822:20
2825:10,21 2826:5,14
2826:16,16,16 2827:1,3
2830:9,14,20 2831:3,8

2833:9,13,14 2865:5
2878:14,18 2887:12
2893:7,9 2905:8,12
2951:10 2954:14
2957:17,19 2958:4
2964:18 2975:22
2976:8,16 2983:2,21
3006:8,9,12,13 3034:16
receipt 2962:4
receive 2728:9
received 2724:13
2728:10 2751:15
2767:16,18 2768:17
2835:20 2836:8
2907:17 2942:2
2944:16 2970:20
2971:1 2988:11
3018:18
receiving 3018:10
recess 2811:10 2875:22
2967:3 2993:14
3039:21 3041:8
3042:14 3043:7
recognize 2736:12
2827:17
recognized 2879:5
Recognizing 2861:22
recollection 2895:16
recommend 2979:14
2980:4 3033:2 3034:19
3041:13
recommendation
2981:11,18 2982:6,12
3026:2
Recommendations
3024:22
recommended 2980:7
3032:11,19 3041:11
recommending 2982:4
3035:10
recommends 3034:20
reconstruct 3020:8
reconvene 2993:12
reconvening 2723:3
record 2740:6 2763:5
2778:16,20 2811:22
2848:3,5 2881:13
2888:12 2893:11
2895:17 2917:19
2921:4 2923:8 2924:18
2925:13 2931:6
2941:16 2944:16
2945:16 2966:17
2973:8 2992:14 3045:7
recorded 2944:4
recordings 2927:10

recordkeeping 2959:22
records 2730:14 2733:19
2745:10 2748:1 2749:7
2761:9 2762:22 2763:9
2763:13 2923:22
2924:2,20 2925:18,22
2926:6,10 2927:7,9
2928:1,1 2945:12,18
2946:3 2993:1
recovery 3014:15
recreate 2921:2
Recross-examination
2951:4 3044:9
redirect 2913:8 2916:17
2916:20 2965:12
3044:8,10
reds 3003:19
reduce 2931:11 3027:20
3027:21 3030:3
3037:15 3040:3,13
reduced 3045:5
reducing 2880:10
2934:14
reengage 2984:5
refer 2996:16
reference 2810:19
3021:20
referenced 2890:9
referencing 2844:16
referred 2725:4 2757:14
2890:15 2983:1 3019:4
referring 2737:11
2748:11 2797:2,3,4
2825:18 2896:15,18
3005:21 3020:17
reflect 2825:8 2867:20
2872:18 2889:3 2897:5
2897:12 2898:8 2921:2
reflected 2735:4 2784:5
2830:21 2831:6 2870:1
reflecting 2871:12
reflections 2779:12
reflects 2787:20 2853:21
2859:2
refresh 2895:16
regard 2933:7
regarded 2784:20
regarding 2820:21
regular 2968:5 2986:10
3002:7
regularly 2967:18
3027:18
regulation 2738:3
regulations 2997:7
rehabilitation 3023:12
reintroduction 3001:6

reject 2763:12,16
  2765:19
rejected 2852:6,16
  2872:13 2873:8
relate 2800:8
related 2726:10 2806:21
  2886:2 2899:13 3045:8
relation 2857:7
relationship 2903:2,5,11
  2904:22 2972:22
relative 3045:11
released 2993:2
relevance 2798:9,11,15
  2952:1
relevant 2798:20
reliability 3004:16
  3040:4
reliable 3040:12
relied 2856:18 2914:1
  2921:20
relies 2860:20 2862:2
rely 2766:14 2946:15
relying 2772:12
remain 2876:7 2932:9
  2993:17
remember 2768:10
  2821:4 2887:17,19
  2888:1,4 2932:3
REMOTE 2722:3
removed 2932:12
removing 2838:12
repeat 2748:21 2792:1,4
  2920:20 2922:7
repeating 2903:21
rephrase 2813:8 2822:2
  2912:6,7,10 2916:8
replicate 2733:10 2740:4
  2948:7
replicates 2733:5
reply 2746:17 2752:19
  2768:1 2769:17
  2793:12 2799:3
  2836:16 2837:20,22
  2866:4 2965:19
  2973:10
report 2728:16,18
  2739:21,22 2740:2
  2746:7 2767:14
  2768:10,15 2772:21
  2791:19 2889:22
  2890:14 2892:3,8,15
  2893:20 2894:4
  2897:12 2913:21
  2917:3,5 2920:4 2933:4
  2978:22 2979:8,13,17
  2980:4,12 2983:13

3009:20,21 3017:10
  3019:13 3024:17,21
  3030:1,6 3034:17,18,22
  3035:16,21 3040:17
  3041:12,13
reported 2983:12
reporter 2730:17,19
  2795:6
reports 2728:3 2837:14
represent 2726:9 2733:10
  2918:13 3033:19
representation 2733:11
  2873:2
represented 2845:8
  2877:8 2978:6 2983:4
  3003:17 3031:19
representing 2873:5
  2899:22 2906:7
represents 2735:16
  2846:3,9
request 2727:22 2766:18
  2806:18,19 2820:7,8,19
  2821:7 2828:11 2830:5
  2875:12 2912:12
  2930:1 2966:16 2988:2
  2988:8 3001:19 3024:7
  3024:8
requested 2751:14
  2752:17 2767:21
  2865:7 2995:22
  3037:10
requesting 2730:9
  2774:11 2910:17
  2911:7 2962:9 2984:5
  3001:10
requests 2802:13,17
  2830:4 2831:13 2833:7
  2922:5 2987:16
require 2752:21 2983:7
  3036:6
required 2758:10
  2977:20 2982:12
  3017:11
requirements 2850:22
  2851:17 2862:13
  2995:14 3030:5
requires 2727:7 2742:2
  2918:11 3004:11
rerun 3008:19 3009:13
rerunning 2780:22
  3008:22
Research 2856:19,20
reservation 3000:20
reservations 3000:14,18
resolution 3024:10
resolve 3000:22

resolving 2800:8
respect 2817:10 2820:22
  2917:9 2918:18
  2967:12 2968:4
  2995:13 2996:18
  3018:13 3037:5
respective 3002:22
respond 2799:4,16
  2832:11 2886:11
  2888:17 2934:20
  2939:16 2942:10
  2987:10
respondents 3005:15
responding 2826:8
response 2791:19
  2794:22 2806:13,16,19
  2814:20 2815:2 2819:9
  2827:3 2832:8,16,20
  2833:6 2915:6 2942:6
  2942:11 2950:13
  2964:19 2988:12
  3001:12
responses 2802:12,12
  2803:1,3 2806:1,3
responsibilities 2968:5
responsive 2795:1,3
rest 2796:3 2909:4
restart 2977:17 2980:7
  2982:13,18
restate 2757:19
restated 2829:11
restatement 2757:14
restating 2755:5
restoration 2978:1,20
  2981:1 2983:17 2984:1
  3000:14
restore 2975:6 2977:13
  2977:19 2982:7 2983:7
  3001:16
restored 3025:9,17
restoring 2980:5
restrictions 2968:14
  3042:6
result 2739:17 2742:16
  2749:9 2758:20 2785:2
  2898:10 2909:16
  2922:20 2940:15
  2946:14 2949:15,21
  2984:7 3033:22 3041:1
resulted 2760:9
results 2742:14 2744:16
  2744:22,22 2745:1
  2749:20 2838:13
  2876:17 2879:6
  2882:16 2921:11,18
  3032:7 3038:8

resumed 2876:3
retained 2767:16 2801:3
  2802:4,20 2864:10,14
  2864:20,22 2865:4
  2910:10,14 2911:9,12
  2911:21
retention 2833:11
return 3003:1 3029:5
returned 2977:12
returning 2985:12
review 2726:13 2727:3
  2730:10 2732:17
  2750:20 2779:5
  2802:11,18 2847:22
  2872:15 2907:14,16
  2910:3,6 2962:6 3021:2
  3025:19
reviewed 2728:6 2746:22
  2767:17,21 2802:14
  2856:21 2890:19
  2892:3 2945:18
  2958:14 2963:12
  2981:19 3031:12
reviewing 2733:4
  2734:20
Richard 2984:4
ride 3003:7
right 2723:9 2724:2
  2729:22 2763:8,12,14
  2764:7 2766:15,22
  2771:19 2780:9
  2783:18 2784:14
  2787:5,13,19 2788:1,20
  2789:5,5,6,22 2790:7
  2792:14 2793:2,9,15
  2794:2,4,21 2796:13,17
  2796:20 2800:19
  2801:5,7 2802:19
  2803:7,8 2805:3,7,19
  2806:1,4,8,16 2807:1
  2807:12,15 2808:21
  2809:9 2810:11 2811:7
  2811:11,17,20 2812:5
  2812:11,21 2813:6
  2814:5,8,17 2815:1,7
  2815:12 2816:2,8
  2818:11,19 2819:22
  2820:4,13,16 2822:18
  2824:14,17,21,22
  2825:15,20 2826:9
  2827:10 2828:8,12
  2830:22 2832:2,4,13
  2835:3 2836:9,20
  2837:11 2838:2,9,13,21
  2839:6,9,11,17,19,21
  2840:3,12,18,20 2841:1

2841:8,11 2842:1,10,21
2843:19,22 2844:6,15
2844:17,18,19 2845:1
2845:11,14,15,18,19,22
2848:20 2849:9,10
2850:2,15 2851:3,17,21
2852:4,17,19,22 2853:6
2853:21 2854:3 2855:2
2855:8,19 2856:2,12
2857:1,8,13,16,20
2858:12 2859:1 2860:8
2862:15,20 2863:19
2864:9 2865:8,16,18,20
2866:5,8,11,14,18,21
2867:9,18,21 2868:4,8
2869:4,5 2870:2,3,10
2871:11,13,20 2872:9
2872:15,20,21 2873:4,7
2873:13,13,17 2874:22
2875:7,19 2877:4,13
2878:21 2879:8,13,21
2880:3 2881:4,7,22
2882:1,6,10,15,21
2883:8,12,15,18,19
2884:4,17 2886:13
2887:17 2890:12
2891:2,5,14,16,19
2892:1,4 2893:13
2894:5 2895:7,11
2896:1,17 2897:2
2898:8,17 2899:2,4,17
2904:15,17,17 2905:2,3
2905:20 2914:16
2919:18 2920:15
2922:2 2923:6 2924:7
2926:4,8,9,12,22
2928:4 2933:21 2942:5
2942:9 2946:10 2947:6
2947:10 2948:19
2949:4,8,13 2950:17
2952:14,21,22 2953:1,2
2954:5,9,17,21 2955:3
2955:8,9,10,12,13,17
2956:6,8 2957:8,20
2963:14,16 2964:12,16
2964:18,21 2965:8
2966:21 2967:1,4
2969:18 2970:4 2987:8
2989:3 2990:4 2993:13
2993:16,19 2996:13
3000:7 3009:21,22
3010:1,5 3013:19
3023:2,12 3032:12,13
3040:4 3041:18 3042:1
3042:13 3043:1
right-of-way 2977:11

3022:6,16 3023:19
rights 3028:5
risk 3025:12
roadway 2743:6 2744:2
Roanoke 2999:6
Robert 2751:8 2915:7
robust 2998:10 3031:8
role 2750:18,19
Roseborough 2807:12
Rosse 2807:11 2837:17
  2914:7 2923:13 2942:4
  2955:6 2963:13
  3003:15
roughly 3029:16
rounding 2761:2
rounds 2794:3
roundtrip 2869:12
roundtrips 2896:21
route 2742:9 2918:14
  2981:16 3007:12,14
  3009:17 3010:9 3014:2
  3016:4,7,14 3026:15
routes 2844:11 3010:19
  3011:5 3025:10
row 2823:9 2954:3
  2956:16
rows 2895:11
RTC 2727:4,5,12,15
  2728:6,21,21 2732:22
  2733:4 2734:3,8 2735:2
  2736:4,14,19 2741:12
  2741:21 2743:12,17
  2744:10 2745:9 2747:3
  2749:17 2750:16
  2751:10,19 2752:6,20
  2753:1,8,12 2754:7,9
  2754:20,21 2755:5,9,18
  2757:19 2758:9 2759:8
  2761:19 2764:12
  2766:6,9 2773:2,5
  2774:7,21 2775:17
  2776:9,19,22 2777:14
  2778:5 2779:8 2780:18
  2781:1,10,11 2787:12
  2788:9 2789:11 2790:5
  2790:13,15 2792:8,9,14
  2792:18 2793:1,7,13,19
  2793:21 2794:3,7,10
  2795:10,12 2796:12
  2797:14 2798:2,4
  2815:21 2816:1,5
  2817:9,11,18,21 2821:9
  2825:3,9 2830:19
  2835:18 2836:1,18
  2837:14 2838:8,13,16
  2838:17 2839:11

2843:1,21 2845:9,17
  2851:6,14 2852:8
  2855:17 2856:13
  2860:10,12 2861:1,2
  2862:7,9,11 2863:10,22
  2864:7 2865:7,12,22
  2866:17 2867:7,19
  2870:19 2876:17,22
  2877:17 2878:16
  2891:14,17 2892:3,8,15
  2894:3 2897:18
  2898:12 2899:6,10,10
  2909:7,9,11 2911:7
  2912:1,14 2916:22
  2917:1,14 2918:11,17
  2919:3 2920:11 2922:9
  2924:22 2930:13
  2934:22 2935:9,15,15
  2936:18 2937:17
  2938:2,8 2942:21
  2946:12 2949:18
  2951:15 2952:12
  2958:21 2963:12
  2964:4 2982:16 2984:8
  2984:11,12,14,20,21
  2985:5,6,13,14,19
  2988:19 2991:10,19
  2994:3,13 2997:9
  2999:5,8,11,13 3005:20
  3007:5 3009:13,14,17
  3030:17 3032:6,20,21
  3033:4,6,7,16 3034:1,8
  3034:15,20 3035:2,11
  3035:17 3036:5,6,6,13
  3036:14 3037:8,8,16
  3038:12,22 3039:3,4,11
  3039:16
RTC's 2758:7
rule 2940:13,16
rulings 2993:9
run 2727:11 2743:16
  2744:16,21,21 2749:14
  2773:12 2781:22
  2782:1,14,15 2785:11
  2790:15 2792:8,9
  2838:8 2896:16
  2920:10 2921:11
  2922:9 2945:8 2946:13
  2948:11,12,15 2975:10
  2989:7 3013:14 3015:8
  3015:10 3022:15
  3038:19 3039:10
running 2743:9 2749:22
  2783:7 2897:17 2924:4
  2975:22 3026:16
  3033:4 3040:11

runs 2750:14 2838:17,20
  2876:22 2897:5,13
  3012:12 3014:14
rushed 2875:9

_____

_____ S _____

S 2723:1 2876:1,1,1
  3044:1
SAC 2797:7 2798:10,20
  2799:1,21
safe 2768:13
safely 2749:14
safety 2924:3 3023:18
  3027:21
sake 2935:3
sale 2796:10
sales 2971:14
Santa 3011:22
satisfy 2921:19 2927:6
save 2914:21
saw 2752:18 2763:17
  2803:2,3 2826:18
  2904:11 3006:2
saying 2739:12,15 2740:2
  2763:13 2772:22
  2800:5 2864:4 2901:19
  2903:22 2904:9,10
  2921:17 2930:12
  2936:11 2937:1
  2944:15 2955:2,2
  2958:6,18 2962:21
  2998:8 3037:4
says 2748:10 2774:9
  2808:19 2820:14
  2822:13 2831:3
  2832:14 2850:7
  2851:18 2873:10
  2887:22 2899:3
  2954:10 2956:3
  2957:16 2979:16
  3034:7,18
scale 2752:21
scenarios 2994:18
schedule 2756:9 2777:2
  2833:19 2834:2,13
  2886:9 2905:10
  2968:18 2998:20
  3002:14,17 3003:6
  3004:1,7,8 3005:4
  3014:15
scheduled 2967:22
schedules 2819:4,11,17
  2885:14 2901:1
  3002:18 3004:13
scheduling 2967:13
SCHULTZ 2961:2,22

2962:3,20 2963:4
Science 2724:13 2970:20
scope 2951:17,20
2967:16,20 2991:11,16
2997:20 3007:21
scratch 2788:11 2789:11
screen 2810:2,2 2818:22
2847:15 2876:19
2991:22 3025:4
Seattle 3012:14
second 2731:3 2773:14
2816:16 2826:12
2877:6 2881:10
2884:22 2885:2
2935:17,19 2947:14
2954:3,3 2971:21
2981:4 2988:5 2998:12
3005:8
secondary 3040:7,9
Secondly 2747:18
seconds 2804:5 2883:17
2884:2
Secretary 2977:21
section 2722:5 2815:9
2816:13 2849:20
2952:18 3024:21
sector 2972:3
secure 3020:21
securing 2991:1
security 2989:17
see 2723:14,14 2724:21
2730:1,2 2740:16
2741:3 2744:14,15,16
2745:11 2753:21
2763:17 2790:16
2802:22 2806:14
2807:4 2814:19 2815:5
2816:15,21 2817:12
2819:1,5,6 2821:14
2826:13 2827:16
2831:12 2852:10
2858:2 2860:17 2861:4
2863:7 2867:9 2877:2
2894:15 2895:10
2898:8,16 2899:18
2905:1 2909:5 2921:4
2925:14 2926:19
2941:20 2952:8 2954:2
2955:18 2956:15
2957:13 2968:19
2969:12 2980:15
2990:1 2992:3 3004:2
3016:20 3025:1,22
3034:6 3038:8 3043:4
seed 2896:15
seeds 2896:9,11,12,18

seeing 2807:21 2815:15
2826:14,16,16 2956:1
2957:17,20 2991:22
seeking 2995:22 3001:16
seen 2736:11 2759:6
2762:18 2774:21
2777:13 2804:10,13
2805:19 2807:15
2812:11 2824:19
2825:6 2826:3 2827:12
2831:21 2933:19
2941:22 2946:3
2952:15 2987:7 2990:6
3022:13
sees 2935:15 2938:4
segment 2853:5,17
2858:10 3016:18
segments 2859:17
selected 2784:3 2996:20
3019:12
selecting 2871:18
self-explanatory 2818:5
send 2813:14 2916:16
sending 2984:3
senior 2726:19 2751:8
2972:16
sense 2810:18 2943:14
3014:8 3026:22 3031:8
sensitive 2989:17,17
2990:4
sent 2730:8 2825:13
2826:8 2828:7 2847:4
2847:12,20 2957:21
2999:18,21 3001:9
3002:13 3041:13
sentence 2816:16 2817:7
2820:19 2849:20
2850:6 2853:11 2858:3
2862:21 2871:17
2879:4 2884:22 2885:2
2885:5
sentences 2868:17
separate 2762:3,3
2935:21 2937:11
September 2806:7
2808:9 2812:9 2814:16
2814:21 2815:2,5,6,20
2816:9,17 2817:8
2820:9 2821:17
2822:10 2825:3 2866:2
2866:11 2916:22
sequestered 2968:3
series 2727:7 2982:1
serve 2974:13
served 2974:12 2986:19
serves 3013:15

service 2731:13,14
2735:19 2743:4 2744:2
2750:17 2753:3
2755:11 2821:11,20
2822:12 2859:15
2860:1,1 2880:17
2884:3,16 2885:11
2887:2 2900:8,12,22
2920:4 2932:22 2944:6
2973:17,20 2974:1,6,14
2974:16,21 2975:6
2976:3 2977:9,12,14,17
2977:19 2978:1,20
2980:6,8,9 2981:1,3,4
2981:15 2982:7,13,18
2983:7,18 2984:1,6,18
2984:19 2986:17,18
2994:12 2998:9,11
2999:20 3000:1,2,15
3001:3,6,11,15,19,21
3002:4,15,22 3004:12
3004:18 3006:5
3009:15 3015:1 3017:8
3017:12,20 3024:2
3025:9,17 3026:7,10,16
3027:5,10 3028:4,15,21
3030:6,21 3033:15,22
3034:3 3035:5,6
3040:12 3041:14
servicer 2915:22
services 2900:7 2975:14
session 2990:12 2992:16
3042:15
sessions 2990:14
set 2751:6 2769:6 2814:9
2860:5,18 2939:17
2940:1,14 2996:2
2997:12
sets 3005:11
setting 2735:1
Settings 2894:14
setup 3013:1,5
seven 2880:7,9 2881:16
2884:10 2886:22
3010:8
seven-day 2871:9
Seventy-six 2831:17
share 2985:3,4,4 2991:15
2997:1
shared 2822:19 3022:8
sharing 2991:12
she'd 3039:20
sheet 2979:16
shift 2761:15,18 2935:6
shipped 2803:19
shipper 2793:17 2798:2

2900:11
shippers 2726:9 2899:22
shippers' 2793:14
short 2726:6 2784:13
2788:2 2797:17
2924:13 3012:3,4,7
3013:2,7,10,15
shorter 3011:12
shortly 2907:17 2980:10
show 2761:9 2774:16
2804:11,14,14,18
2808:4 2811:14
2822:22 2828:5
2846:18 2848:10
2853:18 2881:1 2884:6
2888:16 2925:18
2933:18 2955:8
2960:11 2963:19,20
3037:9
showed 2821:5 2884:16
2900:18 2922:5
2958:21 2959:15
3006:3
showing 2803:15 2828:4
2882:16
shown 2880:9 2886:16
2897:21 2930:13
shows 2808:19 2809:10
2882:19,19,22,22
2887:2,9 2944:11
2964:3
shut 2968:17 3015:13,20
Sibert 2844:13,15,21
2943:11
side 2733:3 2775:19
siding 2788:18,19,22
2789:1 3005:10 3007:6
3007:10,14,18 3008:7
3031:17 3036:17
3037:20
sidings 2788:5 2854:20
3012:3,4,7 3031:18
3036:2,4
signal 3036:2
signaling 3031:17
signals 2987:7
signature 2848:12
signed 2848:15,22
2997:11
significant 2858:4,15,20
2877:11 2882:15
2977:11 2993:5 3001:4
3016:1 3018:19
significantly 2858:8
2880:17 2884:3,17
2887:3

similar 2759:18 2779:22
  2799:21 2945:8 3005:9
  3013:4 3032:2,7
Similarly 3031:21
simple 2754:2 2849:7,21
  2850:15 2854:16
  2861:22 2862:14
  2922:6
simplicity 2753:20
simply 2799:5 2903:21
simulated 3036:5
simulation 2733:4
  2742:14 2851:2,6
  2860:21 2862:3,7,10
  2909:4 2917:14
  2918:14
simulations 2735:3
  2879:7,22
single 2754:4 2788:5
  3005:10 3007:13
  3010:18,20 3011:2
Sinkkanen 2837:17
  2910:7 2914:8 2923:13
  2942:4 2955:6 2963:14
sir 2723:8 2725:13
  2791:10 2824:4
  2907:11 2912:21
  2913:1,7 2914:19
  2916:12 2919:16
  2920:6 2922:1 2959:1
  2966:3,7 2993:18
  3013:18 3029:14
  3030:13 3031:7
  3041:22
site 2834:18,22 2907:9
  2909:11 3021:18
  3022:8,11,22
sitting 2758:20 2804:2,4
  2960:16
situation 2794:13,18,19
  2795:15,20,21 2859:11
situations 2743:3 3035:4
six 2820:7,8,19 2825:2
  2997:13,14,19 3004:6,6
six-minute 2885:12
sixth 2956:16
size 3012:8 3014:14
sizings 3031:19
skip 2820:5
skipping 2823:11
skis 2995:13
slide 2935:16
Slidell 3016:22
slightly 3026:19
slot 3003:10
slow 2743:10 2856:7,9

2956:10 3037:20
small 2736:21 2984:13
smooth 2932:8
snowflake 3014:8
so-called 2920:2 2946:13
  2958:10
software 2729:13 2734:1
  2743:19 2744:9
  2745:21 2770:12
  2773:4,20 2948:6,13
sole 2997:7
solution 2985:9
solutions 2735:22
  2998:20
solve 2740:19,22 2932:13
somebody 2728:17
  2778:6 2835:7,10
  2956:3 2961:19
somebody's 2766:1
soon 2803:16 3028:15
sophisticated 2754:6
  2851:1 2860:21 2862:3
sorry 2724:21,21 2729:17
  2730:18 2731:3,6
  2737:8 2738:5 2748:9
  2757:9 2764:10
  2769:22,22,22 2806:11
  2819:6 2826:21
  2843:12,12 2847:19
  2868:20,21,21 2869:2
  2872:1,1,6,8 2903:6,8,9
  2929:11,11 2932:3
  2939:18 2956:10
  2991:21 3034:12
  3039:6
sort 2767:7 2768:20
  2771:14 2793:7
  2797:11 2803:9
  2873:16 2876:16
  2933:8 2941:16
  2945:16 2983:22
  2994:20 2997:4
  3024:11
sorts 2726:10 2986:16
sounded 2969:4
sounds 2776:6 2910:15
  2947:18
source 2747:17 2749:5
  2927:6 2928:19
  2958:10 2997:8
sources 2747:13 2928:5
  2933:7 2941:21
  2963:19
south 2943:10 3022:16
Southern 2722:7 2750:12
  2797:2 2863:14 2901:7

2906:7 2908:4 2910:4
  2978:6 3000:3 3024:8
Southwest 3011:21
space 2749:11 2762:9,12
speak 2731:4
specializing 2725:18
specific 2729:6 2733:21
  2738:4 2742:4 2744:3,4
  2758:10 2769:7 2797:1
  2814:6 2827:3 2859:17
  2864:18 2878:8
  2903:14 2927:3
  2929:14,20 2930:1
  2954:14 2960:5,17
  2991:2 2994:8 3001:20
  3006:12 3021:4 3037:6
specifically 2771:22
  2849:5 2884:13 2908:9
  2928:22 2980:19
  2982:3 2988:9 2991:18
  3040:15
specifics 2769:1
speculate 2752:11
speculating 2758:4
  2759:5 2762:19
speculation 2752:14,14
  2757:15,18 2758:1,21
  2759:7 2764:1,21
  2769:13
speed 2743:10 2853:6,17
  2854:3,8 2877:4 2881:7
  2881:11,21,22 2882:4
  2882:14 2884:1
  2885:20 2919:11
  2947:2 3004:14
  3025:11 3036:1
  3037:14,19
speeds 2880:12 2987:1
  3004:21 3031:18
  3036:16
spend 2812:14 3003:2
  3033:5 3034:7,19
spending 2901:17
  3030:10 3035:7
  3037:10,12 3038:4,7
spent 2857:9,14 2899:21
  3030:3 3032:19 3033:3
  3034:5 3035:2
spreadsheets 2774:13
springs 3042:18
SRC 3000:6,8,10 3019:6
  3031:22
St 2971:1 3014:11
stack 2778:21
staff 2751:4 2763:16
stand 2796:3 2919:19

2969:16 3016:11
standalone 2793:1,4
  2794:14,19 2795:16,21
  2798:1
standard 2753:8 2875:12
  3005:1,4 3033:8 3035:3
standards 2740:5
standpoint 2746:5
stands 2873:9
start 2803:11 2850:11
  2858:17 2860:17
  2864:8 2921:1 2922:20
  2949:5 2956:13
  2981:14 2994:12
  2999:19 3002:18
  3017:12,21 3026:7,10
  3028:4,21 3030:21
  3042:11
started 2740:10 2744:6
  2772:2,8 2801:2
  2866:17 2930:10
  2966:12 2987:22
starting 2745:18 2816:16
  2832:22 2926:3 3017:7
  3041:14
starts 2815:9 2860:18
state 2723:11,21 2726:9
  2802:1 2829:4 2970:1
  2970:21 2984:17
  3001:4
stated 2733:19 2799:20
  2819:10 2850:1,7
  2923:4
statement 2726:17,18
  2728:11,12,14 2730:11
  2736:12,18 2746:18
  2747:1,10,11 2748:11
  2748:13 2750:3,8
  2751:2,8 2757:5,7,7,17
  2758:6 2760:2 2763:16
  2767:12 2771:15
  2798:18 2836:16
  2847:9,11 2848:1,17
  2849:4 2850:14
  2851:12 2857:5,10
  2860:9 2862:22 2866:5
  2868:6 2870:17
  2871:16 2873:19
  2876:14 2890:7,10,11
  2913:21 2956:2
  2962:17 2963:13,17
  2973:5,9,12 2979:11
  2988:11 2995:18
  2998:14 3010:22
  3011:11 3014:6 3016:9
  3019:5 3024:19

statements 2725:7 2739:7
2747:18 2769:4
2837:16 2845:7
2868:15 2933:13,14
2964:15 2998:5
states 2726:1 2747:3
2748:5 2974:2 2978:7
3000:5,9
station 2737:11 2842:16
2954:17 3016:19,21
3018:13 3020:17
3021:21 3022:2,10,22
3023:12,21 3030:22
3041:18,20,21
stationary 2731:6
stations 3023:16 3041:21
status 3023:14
statute 2798:10 2799:17
2799:20 3004:10
statutory 3004:13,19
3028:5
STB 2727:16 2735:20
2750:11 2753:6,9,11
2755:18,20 2756:4,8
2765:7 2792:13,18,20
2794:1 2798:19 2813:2
2813:12 2850:19
2852:6,12 2860:20
2862:2,5,6,11 2863:10
2865:11 2900:5 3028:1
3028:3
stenotype 3045:5
step 2734:10,10 2735:20
2738:17 2740:11
2771:1 2773:8,14
steps 2732:16 2744:14
2770:9 2772:3,10
2773:15 2782:12
2922:18
Steven 2856:6
stokes 2797:17
stood 3043:7
stop 2927:20
stopped 2902:12 2977:9
strategic 2971:14
straw 3003:9
stream 2744:18
stricken 2796:5
strict 3042:5
strictly 2856:21
strike 2794:22 2919:7
3016:9
string 2981:20 3003:21
3031:9,10 3033:18
structure 3017:10
structures 3005:10

stuck 2757:2
studied 2858:11
studies 2736:17 2755:18
2759:20 2766:6
2818:11,16 2821:9
2988:19 3003:7
3032:20
study 2757:19 2775:17
2775:20 2776:9,19,22
2777:14 2816:1 2817:9
2817:11,20,21 2845:17
2855:21 2856:18
2881:2 2890:8,19,22
2917:1,6 2920:11
2958:22 2982:15,16
2984:11 2985:13
2987:21 2991:4,7,10,12
2991:19 2994:3,14,15
2994:22 2996:7,9,10,12
2996:18,22 2997:3,9,13
2997:14,22 2998:2,10
2998:18 2999:13
3001:9 3005:20 3007:5
3009:22 3029:12
3030:1,17 3031:3,8,8
3033:4,6 3034:1,8,15
3034:20 3035:2,11
3036:13,14 3040:21
stuff 2773:22 2891:17
2958:14 2967:5
subject 2791:19 2932:15
submit 2793:13 2866:8
2888:22 2962:9
submitted 2727:16
2728:7 2735:3 2750:7
2755:18 2767:11
2768:5 2827:9 2849:4
2865:15 2866:4
2888:11 2894:2
2933:20 2962:5,12
2963:1 2973:5
subsequent 2914:22
3025:14
subset 2828:15
substantial 2796:11
2820:21
substitute 3003:21
successful 2979:5
sufficient 2752:10
2765:14,16 2821:18
suggest 2755:8 2784:2
2790:19 2791:16
2833:11 2834:12
2903:12 2950:20
2961:5,6 2995:12
suggested 2781:4

2833:15 2882:12
suggesting 2760:7,8
3036:14
suggestion 3029:4
suite 3038:1
suited 2754:8 2857:18
summaries 2909:10
2910:6
summarize 2922:10
summarizing 2962:22
summary 2980:12,22
Sunset 2975:10,17
2977:3
superior 2851:6,8,14
2856:13 2860:11
superiority 2855:17
supplemental 2794:2
2996:2
supplementing 2994:17
supplied 2763:20
2776:16 2910:3
2928:13 2929:7
2930:15 2987:13
3019:12
supply 2725:19
support 2769:2 2971:18
2975:2 3001:2 3031:10
3033:11 3034:14
supporting 2757:13
2767:20 2769:15
supports 3025:8
suppose 2756:10 2780:3
2783:21 3035:9
supposed 3030:20
sure 2725:2,11 2738:6
2754:16 2767:5 2786:1
2786:12 2802:2,2
2803:2 2813:17 2814:7
2818:6 2822:4 2823:8
2837:2,21 2842:14
2843:9,17 2846:7
2852:9,15 2864:11
2878:9 2882:20
2898:20 2907:18
2908:4 2912:7 2932:2
2934:21,21 2936:8
2940:21 2951:19
2961:14 2962:20
2963:21 2979:20
2980:2 2987:18,20
2989:12 2992:9 3008:3
3009:2 3017:16
3034:13 3038:12
3041:7
Surely 2757:11
SURFACE 2722:1

surrebuttal 2757:7
2866:8 2891:12
survey 2981:21 3021:14
suspect 2744:22 2874:6
suspended 2977:12
Sustained 2888:2,8
swear 2723:16 2969:18
switch 2836:15 2924:13
2925:16
switches 2941:8
switching 2780:10
2874:13 2943:10,10
sworn 2723:12 2724:7
2765:11,19 2852:3
2964:9,15,16 2970:10
2993:17
symbol 2935:1,7 2936:3
symbols 2933:7 2934:9
2934:18
system 2741:18 2780:22
2923:1 2959:22
2960:15 2968:17
2969:5 3036:2
systematically 2902:15
systemwide 3004:14

_____

T

T 2876:1 3044:1,1
table 2746:17 2880:7,8,9
2881:16 2884:10
2886:22 2887:8,13
2894:12 2896:19
2897:4 2898:8,16
2899:18 2901:14,17
2980:15,21 3041:15
tables 2853:18
tack 2937:21
Tacoma 3012:14
Tail 2863:7
take 2755:18 2756:1
2757:2 2762:9,12
2766:6,10,18 2767:10
2773:12 2775:20
2778:1 2779:21 2780:5
2788:15,22 2789:1,17
2806:5,12 2810:9
2826:12 2842:15,15
2868:14 2871:16
2872:15,15 2881:5
2891:6 2894:6 2896:19
2920:17 2921:6,16
2926:11 2938:9
2946:11 2947:8
2948:20 2966:20,22
2967:7 2979:8 2981:9
2982:6 2997:13,21

3007:10 3017:21
3018:6 3021:6 3030:17
3039:18
taken 2724:15 2743:4
2744:2 2811:10
2833:12 2875:22
2886:4 2967:3 2993:14
3045:3,4,10
takes 2762:3 2854:19
2935:22 2943:2
talk 2732:3 2734:22
2735:12 2741:20
2743:1 2745:4 2780:16
2800:12 2856:11
2860:22 2864:11
2875:13 2908:13,19
2967:20 2987:8 3017:4
3028:7
talked 2735:15 2757:17
2800:21 2801:16
2838:16 2846:15
2879:11 2890:5,8
2917:16 2923:14
2929:11 2948:5
3032:19 3036:22
talking 2738:9,13 2745:3
2751:4 2752:9 2758:13
2758:21 2761:7
2828:20 2830:17
2838:17 2839:4
2849:21 2858:2 2860:6
2860:10 2869:8
2886:20,21 2888:16
2893:5 2896:8,16
2909:17 2917:3
2923:12 2931:18,19
2942:14 2944:7 2947:1
2958:12 2959:3
2968:10 2976:3
2987:17 3022:7 3042:8
talks 2855:22
target 2740:7 2784:20
task 2751:6
tasked 2991:18
tasks 2997:19
taxpayers 3032:12
team 2835:3,7,10
3033:14
tech 2992:8
technology 3039:16
telephone 2747:21
tell 2724:11 2735:7
2742:16 2744:3
2748:16 2756:19
2761:1 2763:10 2766:2
2857:9 2874:18

2891:18 2900:19
2921:18 2922:7
2929:14 2932:15
2937:19 2945:21
2958:1 2970:18 2971:6
2972:18 2992:10
telling 2877:21 2994:2
ten 2819:3,14 2821:8
2877:10 2887:20
2906:16,22 2976:5
3015:4
ten-day 2871:8
ten-hour 2877:11,22
ten-minute 2877:22
tender 2844:5
tenders 2748:6 2749:3,16
2842:4,7
term 2896:14 2906:8
2975:1 2999:12
3031:14
terminal 3014:19,21
3015:3
terminology 2738:7
terms 2759:14 2904:21
2920:4 2925:20
2934:13 2944:14
2988:22 2990:17
3005:9 3025:7 3031:13
terribly 2810:10
territory 2745:12 2754:1
test 2729:14,15 2784:10
2793:8 2809:12
2860:13 2863:11,22
tested 2784:11,12
testified 2724:8 2739:8
2782:6 2792:16
2804:10 2813:12
2825:11 2827:7 2831:5
2831:7 2850:19 2868:5
2868:7 2878:6 2884:15
2892:2 2904:4 2919:9
2920:20 2956:7,9
2970:11 2996:11
3001:8 3023:10
testify 2739:10 2821:22
2831:10 2833:19
2851:11 2919:7 2999:3
testifying 2731:22
2799:13 2837:21
2902:2,14,17 2903:10
2903:15 2904:10,21
2914:21
testimonies 3019:22
testimony 2723:16
2726:14 2731:16
2747:19 2764:18

2765:11,19 2771:10
2790:11 2798:17
2800:22 2801:16
2837:5,8 2846:16
2848:2 2852:4 2858:12
2859:13,21 2862:15
2865:16 2873:9
2875:14 2878:12,14
2887:7 2890:20
2891:12 2899:5 2902:4
2902:7 2904:12
2909:13 2911:13
2913:2,6 2914:7,9,11
2914:12 2915:1,5,6,10
2934:2 2955:5 2964:1,9
2964:15,16 2967:15,21
2968:9 2969:19
2976:16 2992:14
2995:10 3008:16
3009:6 3014:18 3042:9
thank 2725:10 2730:4,5
2738:7,22 2748:17
2768:4 2775:14
2777:16,19 2780:9
2785:20 2786:18
2796:7 2811:3,9
2822:21 2829:16
2831:15,15 2875:19
2876:11 2891:4 2893:1
2905:3 2911:19
2916:19 2942:12
2944:12 2951:3 2962:3
2963:4,5 2965:2 2966:4
2966:7 2967:2 2969:14
2970:6 2980:1 2981:7
2989:11 2993:21
3013:19 3017:1 3023:8
3026:3 3028:22 3041:4
3041:16 3042:1,12
3043:1,2,3
Thanks 2786:21
theirs 2758:21
theme 3019:22
theoretical 2753:18
2849:8 2855:17
2857:11,17 2859:1,11
theory 2784:12
thereof 2848:18
they'd 2760:13
thing 2733:1 2741:14
2809:10 2870:15
2878:5 2930:10 2933:8
2938:7 2941:16 2945:7
2952:2 3026:9 3028:18
3028:19
things 2726:10 2727:10

2728:4 2729:3 2733:1,7
2734:6 2742:8 2772:22
2773:1,18 2798:18
2800:1 2803:12
2804:12,14 2853:9
2875:10 2892:3
2935:17 2941:7 2947:3
2949:11 2962:13
2987:3,6,7 2998:20
3007:5 3014:3 3036:4
think 2739:6 2745:19
2753:11 2755:5
2757:17 2760:4 2763:3
2765:8,15,20 2777:4
2779:5,7 2781:13
2785:12 2786:16
2797:5,6 2798:14,16,20
2799:15,22 2800:6,15
2800:17 2803:12
2809:4 2811:6 2818:4
2826:21 2834:21
2835:15 2836:17
2842:7 2844:7 2845:9
2846:3 2847:16 2855:5
2860:17 2861:12,15
2864:22 2871:14
2874:6,15,20 2886:1,7
2887:8 2889:10 2892:2
2892:10 2893:16
2896:8 2897:9,19
2901:17,22 2902:18
2904:2,4,7,9 2906:21
2907:5 2911:17 2912:2
2912:4 2913:14
2925:17 2926:3,18
2927:11 2929:22
2933:4 2934:15
2938:11 2940:19
2941:6,8 2942:13
2943:16,17 2944:19,20
2945:6 2947:18,21,22
2950:5 2951:18,22
2952:1 2953:17,18
2960:3 2962:21 2964:7
2964:22 2966:15,16
2968:17 2969:11,11
2988:10,15,17 2992:5
2993:1,4,8 3000:19
3001:3,8 3009:4,16,17
3010:21 3011:10,21
3012:14 3013:18
3014:7,12 3015:17
3016:11 3021:16
3026:8 3028:19 3029:4
3031:7 3032:5 3035:14
3036:19 3039:17

3040:1 3041:8 3042:6,7
thinks 2798:18 3026:13
third 2878:20,20 2935:19
 3009:16
third-party 2991:17
thirty 2804:5
Thomas 2723:10,22
 2724:5 3044:3
thoroughly 2897:4
thought 2757:2 2774:19
 2777:3 2782:5,6 2870:1
 2870:20 2873:2
 2874:12,14 2884:8
 2919:16 2925:4 2931:5
 2938:15 2942:7 2943:6
 2968:21 2985:8
 2998:15 3004:8
thousand 3022:14,15,15
three 2726:2 2775:22,22
 2809:11 2827:17
 2829:17 2896:22
 2898:16 2911:18,22
 2956:15 2978:7
 2980:13 2991:6 3006:6
 3016:6 3022:15
three-and-a-half 2866:13
three-week 2968:11
throw 2765:4,8
thumb's 2824:10
Thursday 2812:9
ticked 2926:20
tie 2736:10 2822:14
tied 2729:6 2802:15
till 2874:15
time 2744:1 2752:21
 2755:3,15 2759:16
 2762:6,15 2767:8,17
 2768:17 2777:13
 2800:14 2801:8
 2809:20 2810:9
 2812:15 2819:15,18
 2834:3,4,12 2843:19
 2847:16 2853:18
 2854:19 2874:2,2,19,21
 2875:3 2877:7,8
 2889:11 2896:19
 2912:4 2917:7 2920:17
 2926:22 2932:21,22
 2937:8 2957:21 2958:2
 2962:7 2967:21 2968:7
 2968:13 2976:1,2,22
 2981:16 2982:9
 2987:16 2988:17
 2993:10 2996:6
 3007:12 3013:16
 3014:15 3015:20

3021:6 3026:12
3028:15 3030:4,4,9,11
3031:16 3032:9
3033:14 3037:15
3039:18 3041:8
3042:14
timeline 2767:7,10
 2827:6 2891:1
timely 3020:5,8,16,18
times 2733:13,15,18
 2744:4 2897:17
 2912:17 2925:14
 2928:11 2937:12,16,16
 2937:21 2975:14,21
 2987:14 3004:6
 3008:19 3027:21
 3033:15 3040:3
timing 2752:16 2755:13
 2864:9 2874:1 3021:4
titled 2894:12 3024:21
tittle 2776:16
today 2731:16 2807:15
 2815:19 2817:8 2848:2
 2897:16 2906:22
 2951:8 2967:15 2968:8
 2976:10 2977:7
 2978:13 2992:20
 3006:2 3009:6 3012:9
 3039:21
toggle 2938:8
told 2730:12,14 2763:3
 2791:4,5 2792:7
 2900:11 2927:9
tomorrow 3038:20
tool 2754:3 2852:13,14
 2852:18 3003:22
tools 2862:7 3014:13
top 2828:5 2887:7
 2907:21 2953:1
 2957:12 3013:18
topic 2901:11 2930:20
 2986:10
topics 2806:22
total 2749:19 2852:5
 2877:8 2879:1
totality 2779:12
totally 2786:20 2794:19
 2795:21 2860:4
totals 2981:4
touch 2943:13
trace 2918:21
track 2728:3 2743:1,2,3,4
 2743:5,6,7,15 2749:13
 2754:1,1,4,5,5 2762:9
 2762:13 2788:6,11
 2816:18 2817:2,3,5

2820:11 2821:9
2850:21 2851:16
2898:11 2909:5 2925:3
2925:6,15 2927:16
2937:8,12 2938:2
2942:16 2981:20
2987:6 3005:10
3007:13 3010:18,20
3011:2 3017:14
3019:15,18 3020:6,9,11
3020:18 3022:2,9,14
3030:22 3041:18,22
tracking 2738:6
tracks 2744:4 2749:22
 2843:6 2924:13
 2938:16 2986:22
 2987:1 3013:15
traffic 2727:5 2740:14
 2742:19,21 2743:8,9,10
 2743:16 2815:20
 2820:21 2851:1
 2857:19 2858:5,16,20
 2859:4,9 2899:2
 2900:22 2909:6 2988:5
 3031:12
trail 2758:11,14 2764:5
 2766:13,17 2918:22
 2919:4 2959:11
 2960:21 2961:9 2964:2
 2964:6
train 2728:2 2729:12
 2730:13 2732:5,5,7,8
 2732:12,15,20 2733:13
 2733:15 2734:2
 2737:11,15,22 2742:9
 2743:22 2745:4,6,7,9
 2745:11,14,15,22
 2746:13,16,18,19
 2747:5 2748:7 2749:4,9
 2749:10 2761:14,16,16
 2761:18,20,21 2762:3,3
 2762:6 2766:7 2769:19
 2770:8,10 2771:3,5
 2772:4,7,9 2773:9,9,10
 2773:10,16,17,22
 2774:1 2783:14,17
 2789:4,7,10,14,14,15
 2789:18,21 2794:14
 2795:17 2819:4,4,11,11
 2819:17,18 2820:10,11
 2820:20 2836:18
 2843:14,17 2844:8
 2845:22 2846:9
 2854:21,21 2858:5,9,15
 2858:15,20 2860:21
 2862:3 2866:21

2867:15 2868:9,18
2869:9,9,13,15 2870:22
2871:20 2874:12
2877:4 2878:21
2880:11,12,12,14,18
2881:10 2882:18
2883:4,6,12 2884:12,14
2886:7,9,16 2887:4,21
2891:18 2894:13
2898:17 2899:1,8
2905:8,13 2915:13,15
2915:22 2917:10
2918:10,12,12,14,18
2923:20 2924:11
2925:4,6,15 2932:17
2933:7 2934:9,18,22
2935:1,1,3,4,7,8,11,13
2935:21 2936:1,2,12
2937:6,19 2938:5,6,7
2938:17,18 2939:3,4,12
2941:13 2942:18
2944:3,3 2945:1,11
2949:6,15,18 2954:4,8
2955:1 2956:18
2963:18 2964:5,11
2975:16,19 2977:3
2979:3 2983:5 3003:10
3003:17 3005:13
3007:7,10,16,19 3008:7
3012:5 3013:2 3014:11
3014:14,14 3017:14
3027:2 3033:19
3037:21 3038:20
train's 2935:13
trains 2729:4,9,15 2732:3
 2732:12,18 2733:7,8
 2734:16 2735:19
 2742:7 2745:11,12
 2746:8,10,13,14,20
 2747:4,9,20,20 2748:4
 2748:6 2749:2,15,19,21
 2749:22 2750:5,14
 2760:3,9,10,12 2761:1
 2761:7,9,12,14 2762:12
 2763:1,18,21 2769:14
 2771:8,8 2773:12
 2775:13 2781:2
 2783:12,15 2784:17
 2789:17,21 2796:16
 2797:14 2830:18
 2836:17 2837:22
 2838:5,9,12 2839:15,19
 2840:1,6,12,13,15,18
 2841:1,2,4,8,11,14
 2843:8,11 2844:3,6
 2845:1,3,8,15,21

2853:16 2854:2,7,18,19
2855:8 2858:7 2859:10
2859:16,18 2860:3
2867:5,8,10 2868:2,5,7
2868:10,11,12,13
2869:11,12,13,21
2870:4,5,8,13,14,18,20
2870:22 2879:16,17,18
2880:16 2885:13
2893:12 2895:11,18,21
2896:3,20 2897:6,15
2898:12,22 2899:17
2901:20,21,22,22
2902:16 2904:19
2905:9 2922:13,15,22
2923:1,6 2924:3,11,15
2924:21 2925:5 2926:2
2926:20,20 2927:4,8
2930:11 2933:3,8,11,13
2934:9,14 2935:12,12
2935:15,22 2937:14,20
2938:1,4,6,10,12,22
2939:8,11,21 2941:1
2942:14,15,16,20
2943:7 2944:15,17,22
2945:13,19,20 2946:5
2955:7,15 2958:11,15
2958:21 2959:10,12,16
2959:19,21 2960:5,22
2961:8,8,12 2962:18
2964:4,12 2973:3
2976:9,14,17 3002:7
3003:5 3004:22
3005:15 3006:6 3007:3
3007:14 3011:22
3012:8 3013:14
3014:20,22 3015:2,4,5
3015:7 3016:6 3025:13
3025:16 3036:3 3039:9
3039:13 3040:13
3041:1,2
transcontinental 2975:18
transit 2877:8
transparency 2986:7
2988:2 2994:21 2995:4
2996:8
transparent 2985:3,13,18
transportation 2722:1,6
2724:15 2725:19
2726:11 2856:20
2863:14 2970:22
2971:3,22 2972:2
2974:10 2977:21
3027:7,12
travel 2853:6,17 3010:10
3010:11,19 3011:5

traveling 2854:2,8
travels 3014:3
traverse 2745:12 2749:7
TRB 2855:22 2856:21
2890:8,8,14,19,22
treat 3002:2
tree 3035:9
tremendous 2859:4
trial 2856:8 2915:10
2968:18
trick 2900:4
trickled 2962:15
tried 2801:19 2811:2,2
2872:17 2922:3
2983:22
trigger 2943:18
triggered 2943:7
trip 2976:1,2 3030:3
3037:15 3040:3
triple 2754:1,5
trouble 2730:22
truck 2842:9,15
trucking 2972:1
trucks 2842:19
true 2841:18 2848:19
2851:20 2924:1
2936:12 3045:7
truth 2723:17,18,18
2969:20,21,21
try 2757:18 2798:10
2803:12 2859:17,20
2893:17 2946:11
2974:3 2977:13 2985:5
2992:3 3003:10 3005:1
3014:16
trying 2754:14 2757:21
2762:8,10 2764:18
2765:21 2766:10
2772:14,19,21 2774:10
2853:9 2856:7 2885:19
2923:3 2925:2 2930:5
2931:1 2937:10
2943:13,19,21 2947:15
2960:8 2974:5 3020:1
3033:9 3034:9 3035:1,8
3039:15,17
Tuesday 2722:10
turn 2816:12 2821:6
2827:21,21 2849:15
2850:4,10,17 2852:20
2856:15 2858:1 2861:5
2873:19 2890:6
2893:19 2952:3,3
2957:10,10 2980:11
2996:5
turning 2832:18

turnout 2854:21 2987:2
3031:18
turnouts 3035:20
turns 2757:10 2967:5
tweak 2793:21
twice 2964:14
two 2732:10 2733:20
2735:17,20 2736:11,17
2736:17 2744:7
2746:11 2751:6 2752:8
2755:14 2765:11
2773:18 2774:18,21,22
2775:1,1,3,6,9 2781:21
2805:9 2827:17
2828:21 2829:17
2841:3 2845:20 2863:1
2867:10 2868:10
2869:11 2870:4,5,17,22
2894:12 2896:21,22
2898:8 2899:13 2902:3
2904:18 2911:9
2918:12 2956:15
2975:13,14 2981:2
2986:8 2997:18,19
2998:9 3005:11,11
3022:14 3032:5
3042:17
two- 2968:11
two-day 2871:9
tying 2734:16
type 2746:13,16,18
2769:15 2854:22
2907:9 2911:8 2912:13
2912:14 2986:11
3021:10
types 2858:9 2880:12
2884:12,14
typewriting 3045:6
typical 2735:4,7 2776:2
2798:21
typically 2793:6,19
2794:8 2795:10
2798:19 2928:1 2929:8
2941:21 2945:1,12,18
2946:2 2985:2 3002:9
3022:5

_____
U
_____

U.S.C 2722:5 2863:13
Uh-huh 2903:20
ultimately 2880:1
2977:21 2978:22
2987:14 2996:5,20
un-randomize 2949:3
unable 2729:14 2734:20
2765:1 2958:9 3028:3

unchanged 2974:7
unclear 2790:12
undermine 2991:1
underneath 2849:20
2879:4 2884:21 2957:4
understand 2755:17
2759:2 2760:19
2767:22 2773:2 2777:6
2783:11 2789:22
2790:7,10 2843:16
2870:12 2875:16
2876:7 2885:10 2897:7
2898:1,2 2903:1 2904:1
2914:20 2915:4
2919:14 2921:22
2923:3,11 2924:10
2925:3 2926:7 2930:3
2933:15 2934:17
2937:10 2940:3
2958:18 2960:1
2992:18 2993:17
3022:21 3029:11
3030:20 3034:13
3035:8 3039:15
understanding 2755:3
2802:19 2899:9,13,14
2924:14 2931:14
2959:4 2982:17 2983:3
2985:2 2986:15,19,21
2987:4 3008:5,9 3021:6
understood 2776:10
2846:8 2892:1 2903:22
3032:9 3042:12
undertook 2920:8
underway 2984:1
3018:14
undocumented 2914:1
uniform 2931:9
Union 2908:9 2909:20
unique 3010:4,17 3011:3
3011:14 3012:3,11
3014:1,8
United 2726:1
University 2724:14,16
2970:21 2971:1
unlinked 2939:11
unnamed 2730:16
unobjected 2992:14
unreasonable 2991:2
3027:6,11
unusual 2814:2 2871:19
unusually 3011:15,19
unverifiable 2837:6
2914:1
upgrade 3001:11
upstream/downstream

2910:1
usable 2731:10 2995:4
use 2729:9 2732:5 2735:9
 2735:12 2736:22
 2748:3 2752:12,12
 2753:14,17,20 2754:3
 2770:22 2771:1 2772:8
 2787:21 2789:11
 2793:7 2804:17
 2810:18 2823:18
 2844:12 2856:12
 2858:10 2860:11
 2862:21 2865:8 2871:5
 2873:16 2876:16
 2877:16 2936:12
 2940:4 2975:10
 2984:12 2989:8 2997:5
 2999:5 3003:12,22
 3007:6,18 3008:7
 3013:3 3014:20 3022:8
 3022:10 3031:11
 3033:8
useful 2778:1 2780:3,5
 2859:12 2861:2
 2877:16,20 2878:4,16
user 2918:11
Users 2862:11
uses 2977:6 2984:21
 3014:13 3032:20
 3033:8
usual 3042:5
usually 2875:2
utility 3008:21
utilize 2984:16 2997:3
utilizes 2984:14

_____

V

valid 2727:12 2934:10,11
 2934:13 2956:5
validate 2985:21,22
 2986:1,14 2989:9
 2995:7 3009:3
validation 3003:9
validity 2793:8
valuable 2877:9
value 2746:2 3001:4
 3036:16
values 2732:11 2734:15
 2736:11 2743:19
 2745:16 2769:19,21
 2770:10
variety 2972:1
various 2879:22 2900:1
 2922:5 2957:14 2987:2
 2987:3 3008:20
vehicle 2941:14

vehicles 2907:6
ventured 2989:21
verifiable 2794:16
 2795:18 2949:12
verification 2764:9
 2848:16
verified 2725:7 2726:17
 2726:18 2728:15,19
 2730:11 2736:12
 2739:7 2745:3 2746:18
 2747:1,10,11 2748:13
 2750:3,8 2751:1,7,7
 2767:13 2798:18
 2836:16 2845:7 2847:8
 2847:11 2848:1,17
 2849:3 2850:14
 2851:12,20 2857:4,10
 2862:22 2866:4
 2868:15 2870:16
 2871:16 2876:14
 2890:7 2913:21 2915:5
 2915:6 2941:11
 2962:17 2963:13,17
 2964:15 2973:5,8
 2988:11 3010:22
 3011:11 3016:9 3019:5
 3024:19
verify 2726:13 2728:18
 2732:17 2734:20
 2744:13 2747:9 2764:4
 2764:12 2765:1 2766:3
 2769:9 2772:20
 2779:13 2844:4 2868:3
 2868:13 2870:5
 2913:19 2917:9 2919:4
 2928:6 2930:11
 2948:10 2955:19
 2956:2 2958:15
 2960:22
version 2848:4,6 2892:14
versus 2981:15 3002:4
vice 2726:19 2751:9
 2970:16 2972:17
view 2781:9 2819:16
 2821:18 2838:5
 2921:19 2927:6 2941:3
 2943:12 2946:15
 2958:21 2993:7
 3008:21 3028:17
 3034:10
viewed 2821:22 2894:11
 3031:12
viewing 2990:18
views 2755:10
VIII 2722:9
Virginia 3016:16

vision 2973:22 2974:3
visit 2834:18 2835:1,10
 2835:11 2907:9
visits 2909:11
volume 2722:9 2805:8
 2953:18
volumes 2820:22 2858:5
 2858:16,20 2871:12,20
 2880:11 2940:1
voluminous 2803:18,21
vs 2917:9

_____

W

W-2 2916:5
wait 2808:15 2824:1
 2847:18 2874:15
 2948:22
waited 3028:14
waiting 3024:12
walk 2803:9,9 2883:1
walking 2947:2
walks 2963:17
want 2738:17 2760:6
 2769:13 2775:15
 2788:22 2813:5,17,18
 2826:11 2846:7 2853:3
 2864:7,13 2874:13
 2881:4 2891:18
 2896:19 2898:6,6,6
 2901:15,19 2922:7
 2958:16 2961:7
 2966:18,18 2979:20
 2982:20 2983:13
 2987:18 2990:8
 2992:13 2994:18,20
 3036:9,20 3037:8
 3042:8,20
wanted 2725:9,9 2738:5
 2759:14 2776:7
 2785:13 2788:18
 2811:14 2852:15
 2870:7 2893:17
 2941:20,20 2967:11,16
 2987:13 2988:9 2989:1
wanting 3002:21
wants 2844:11 2874:8
 2950:22 3026:6
warm-up 2871:9
warrant 2937:13 3037:2
Warren 2724:20 2725:8
 2787:4,8 2791:3 2792:3
 2792:5 2794:21 2796:7
 2796:8 2798:13 2799:9
 2800:3,10,14,16,19,20
 2801:15 2802:2,3,10
 2803:7,20 2804:3,6,11

2805:2,11,15 2807:22
 2808:11,22 2809:19
 2810:20 2811:4,9,19
 2812:2 2813:10 2814:3
 2818:7 2822:4,5 2823:5
 2823:8,13,15 2824:13
 2826:21 2828:3,6
 2829:5,15,21 2830:2,15
 2831:14 2833:22
 2834:11 2836:12
 2846:14,20 2847:6,10
 2847:17,21 2848:9,11
 2849:14,17 2850:8,12
 2853:11,13,14 2856:5
 2856:10 2861:8,8,11,16
 2861:20 2864:12
 2868:21 2869:4,6
 2872:3,7,9,10 2874:4
 2874:17,20 2875:11
 2876:11,12 2878:8,9,10
 2881:14,18,20 2884:20
 2885:4,21 2886:1,10,14
 2888:3,9 2889:6,9,13
 2891:5,8 2892:7,13,18
 2893:1,2 2894:5,8
 2897:8,19 2898:4
 2900:2 2901:5,12,15
 2905:5,20 2917:22
 2918:2 2919:6 2922:5
 2950:9,11,19 2951:3,5
 2951:18,22 2952:6
 2953:6,9,13,17,20
 2955:19 2963:10
 2964:2 2965:2 3044:5,9
Warren's 2950:15
washed 2977:10
Washington 3038:20
wasn't 2739:16 2759:3
 2760:7 2763:20
 2828:16 2841:18
 2852:17 2858:22
 2871:11 2873:7
 2900:20 2928:12
 2957:1 2964:22
 3033:13 3034:3
watch 2837:7
watching 2837:8
water 2822:7
waterfall 2933:20
 2939:20
way 2727:12 2743:21
 2753:2,5,5 2760:9
 2761:11,13,19 2762:13
 2762:15,15 2763:1
 2774:7 2777:6 2780:17
 2793:5 2796:4 2801:20

2813:4 2842:20
2850:11 2891:16
2898:1,3 2908:5
2913:15 2917:13
2921:22 2922:6,18
2923:10,16 2932:5
2938:7 2948:18 2960:1
2962:12 2969:11
2983:5 2985:14,18
2987:2 2992:8 3016:15
3031:7 3038:12
3040:12
ways 2743:8 3027:19
we'll 2786:18 2811:7,8,22
2852:2,2,10,10,10,10
2889:10 2916:16
2966:21,22 2967:1
2968:13 2992:12
2993:12,13 3000:21
3023:17,17,20 3039:17
we're 2731:6 2738:13
2742:1,5 2751:3
2758:13 2760:20
2762:10 2798:11
2799:6,17 2800:6
2803:14 2811:22
2823:11,22 2828:4
2856:17 2857:22
2858:2 2860:5 2874:1
2875:9 2881:13
2885:19 2886:21,21
2892:16 2909:2
2922:15 2923:5
2929:17 2935:4 2941:8
2942:14 2947:22
2955:19 2960:19
2966:9 2969:2 2974:22
2976:3 2979:21
2980:18 2992:7,20
3000:19 3009:6 3019:9
3020:11 3028:12
3029:5 3033:1 3034:7
3039:16 3042:3
we've 2752:9 2803:13
2842:18 2845:20
2864:17 2880:7
2926:20 2947:3,18
2949:19 2950:4 2953:2
2976:6 2977:16,16
2982:22 2987:7
2992:14 3016:3 3022:6
3022:13,14 3026:12,17
3028:3
we-- 2803:13
week 2775:8 2845:22
2846:9 2871:6,19

2872:18,21 2873:1,5,7
2878:6,12
weekly 2986:10 2999:15
weeks 2732:1 2755:14
2768:15 2825:2
2845:20 2865:19
2872:12,19 2873:8
2911:15 2918:12
weight 2821:2 2854:21
weighted 2737:12
weights 2738:5
weighty 2803:18,22
went 2734:2 2771:3
2772:2,10 2796:4
2797:7 2908:12,17
3037:10
weren't 2747:22 2802:20
2836:22 2867:12,15
2868:8 2955:1,2,3
2959:3 3032:13
western 2863:7 2908:8
whatsoever 2779:17
whites 3003:19
willing 2997:1
willingness 2983:9
Wilmington 3012:15
Wimbish 2914:19 2915:3
2916:4,13 2991:20
3044:7
window 2885:12
windows 3039:11
withdraw 2829:22
2878:2 2888:12 2911:3
witness 2723:19,22
2724:6 2726:15,15
2730:20 2731:1
2737:13,18 2738:15
2748:19,22 2754:22
2755:12,21 2756:2,6,10
2756:14,18,22 2757:3
2757:20 2758:5
2759:11,21 2760:7,16
2761:5 2762:11,20
2763:6,15 2764:3,10,14
2764:22 2765:6,13,17
2765:22 2766:8,12,19
2767:5,15 2768:7,12,16
2768:22 2769:11
2770:5,20 2771:12,16
2771:20 2773:7
2774:15 2775:2,21
2776:3,12,20 2777:7,15
2778:3,14,18 2779:1,7
2779:18 2780:8,14,19
2781:21 2782:9,17,21
2783:4 2784:9,22

2785:2,10,16 2786:6,9
2786:12,15 2791:13
2798:16 2801:15,20
2802:9 2807:20
2808:16 2811:13
2814:1 2818:4 2829:13
2830:14 2831:12
2833:21 2834:10
2846:13 2871:4
2875:18 2876:9 2885:1
2898:2 2902:5,7,12,18
2903:7,18,21 2904:13
2904:16 2905:2,16,19
2909:2 2912:17
2913:18 2916:18
2919:7,16 2920:6,9,14
2920:19 2921:8,15
2922:1,12 2923:18,20
2924:16,21 2925:10,17
2926:2,8,12,16 2927:14
2928:3,8,15,21 2929:5
2929:9,13 2930:7,16
2931:18 2932:2,16
2933:12,22 2934:6,11
2934:21 2936:8,14
2937:2,15,22 2938:20
2939:18 2940:8,16
2941:12 2942:13
2944:1,18 2945:2,6,14
2945:21 2946:4,9,18,22
2947:9,21 2948:8,14,17
2948:21 2949:5,9,14,22
2950:8 2953:19 2959:1
2959:8 2960:3,13
2961:6,14,17 2962:11
2963:3,8 2966:3,7,8,11
2967:8,10 2969:16,22
2970:3,9 2979:19
2987:18,21 2988:20
2989:2,6,12 2993:18
3008:10 3013:6,17
3016:17,22 3018:5
3020:19 3021:8,20
3022:3,19 3023:6
3029:14,18,22 3030:13
3030:18 3031:6
3032:15 3033:13
3034:12 3035:14
3036:12 3037:3,13
3038:11 3039:2 3040:5
3040:9,14 3041:3,19
3042:9 3043:3
witnesses 2747:19 2763:3
2765:11 2771:7
2833:16 2987:8
2990:15 2996:16

3044:2
wondering 2940:6
word 2842:21 2861:12,12
words 2735:18 2740:2
2932:12
work 2724:17,18 2725:13
2725:22 2726:16
2754:15 2767:8
2771:22 2791:10,13,17
2791:20 2793:5
2828:12,19 2829:8
2830:6 2832:9,22
2833:7 2846:17
2864:20 2887:15
2918:16 2938:5 2940:5
2940:14 2942:11
2943:22 2947:16
2951:15 2952:12
2954:2 2956:22
2957:20 2968:1 2971:7
2971:16,18 2976:21
2983:9,14 2985:5
2988:19 2991:16
2993:8 2994:6 2997:20
2998:19 3003:5
3005:12 3020:1
3023:11,14 3027:14
worked 2725:20 2751:1,5
2788:9,10,10 2789:7
2796:19 2971:8,13,20
2971:21 2972:7
3003:10
working 2789:13 2801:2
2864:17 2920:3
2972:14 2973:16
2974:2 2977:22 2978:4
2978:10,13,17,19,21
2979:7 2983:10,13,14
2984:17 2988:22
2989:4 2994:8 3017:10
3019:13 3023:17
3024:17 3029:12
3030:6,15 3032:10
3034:4,7,14,18 3035:16
3035:21 3038:1
3041:11,13
workout 2805:7
works 2922:21
world 2733:12 2742:22
2800:7 2842:13 2846:4
2846:10 2870:21
3039:16
worry 2900:20
worth 2732:10 2733:20
2741:16 2774:19,22
2901:17 2996:10

3037:12 3038:7
wouldn't 2760:14 2764:2
2777:3 2785:15,15
2854:8 2920:21
2937:13 2938:17
2943:19 2955:7 2995:6
3011:20 3029:21
3030:10 3031:6 3036:8
3036:20
wrap 2946:11
wrapping 2891:10
write 2919:9,10
writing 2791:18 2832:8
2962:16
written 2832:19 2859:22
2915:5,6 2923:8
2925:22 2986:9
wrong 2758:3,4,15,16
2933:18
wrote 2758:6 2852:1
2853:20 2855:3,5
2870:16 2988:1

_____
X
_____
Y
_____

yard 2748:5,19,20 2749:2
2749:10,15 2761:14,14
2761:16 2834:18
2844:18 2845:1,3,8,22
2845:22 2846:9,9
2869:14,14,16 2915:18
2917:10 2924:11,13,21
2925:5,15 2927:14,15
2927:15,15 2934:8,18
2934:22 2935:1,4,11,11
2935:13 2936:1,2,12
2937:6 2938:5,11,18
2939:3,11 2942:9,18,20
2942:21,22 2943:11,11
2944:3,6 3020:10
yards 2844:10 2845:5,6
2845:20 3025:11
yeah 2731:22 2738:22
2763:8 2764:16 2775:4
2787:19 2788:4 2792:3
2792:3,16 2796:19,22
2800:3,10 2805:10,13
2809:11,16,19 2812:5
2826:14 2827:18
2831:18 2845:12
2849:14 2874:17
2875:6 2877:1 2887:6
2887:10 2890:14
2896:8 2897:11,19
2898:16 2901:16

2925:12 2930:18
2931:22 2943:5,5
2947:13 2948:3
2964:14
year 2916:6 2997:16
2998:3 2999:13
3023:22
years 2725:21 2726:2
2727:17 2816:19
2864:17 2891:2
2906:16,22 2908:20
2971:9,13 2975:7
3009:11 3016:3 3018:6
3039:8
yes/ 2913:7
yesterday 2915:10
yield 2736:7
Yup 2881:19

_____
Z
_____

zero 2921:1
zeros 2819:13,14
ZIP 2808:19
zones 3004:2,3
Zoom 2722:12

_____
0
_____

032 2809:14
072 2823:2,6 2824:15
073 2825:21
076 2917:19 2951:8
2953:14 2965:11

_____
1
_____

1,200 2933:10 2934:14,16
1,265 2747:4 2760:3
2923:6 2924:11,15
1.0 2952:18
1.06 2883:5,15
1.1B 2982:17,21 2983:7
1:00 2875:8
1:10 2875:10
1:14 2876:2
100% 3006:10
100M 3029:15,20
3032:18 3033:3,11
3034:4,19 3035:7
3041:10
10th 3025:22
11 2780:21 2781:1
2889:19 2899:11
2902:10,19 2904:13
2953:9
11.1 2957:12
11:17 2811:8
11:30 2811:8

11th 3042:16
12 2806:5 2857:9
2971:12
12:34 2875:2
12:35 2875:21
13 2806:5 2894:1
13th 2814:16 2815:20
2816:10 2817:8
2821:17 2822:10
2825:3 2866:2
14 2775:7 2845:17
2893:19,22 2921:12
3017:16,17 3018:11
15 2727:17,18 2792:17
2794:13 2795:15
2906:16,22 2908:20
3017:17 3018:11
3029:6
155 3016:4
15th 2849:1 2865:13,16
3001:13
16 3015:10
160 3011:4
16th 2863:15
17th 2828:7 2832:8
19 2722:10 2917:6
1968 2724:14
1971 2974:8
1990s 3003:8
1995 2976:15
19th 2832:3 2951:11
2965:11,17
1st 2819:15 2823:6
2824:16,22 2826:9
2866:8,10

_____
2
_____

2 2973:9
2.3B 2982:22 2983:2,3
2:46 2967:1
2:51 2967:1
20 2727:17,18,18 2792:18
2794:13 2795:16
2883:17 2884:2 2891:2
3009:11
20-year 3009:7,9
20/21 2817:20
200 2934:16
2005 2977:10
2006 2977:16
2008 2972:11
2014 2855:21 2856:18
2890:8,14
2015 2816:19 2819:15
2820:12 2977:20
2996:22

2016 2817:11,21 3025:22
3031:21
2017 2979:17 3029:17
2018 2984:3
2019 2732:10 2744:7
2746:12 2782:14
2786:4 2838:20
2839:12,18,18 2840:9
2841:15 2886:17,18
2894:12 2898:17
2903:2,3 2988:5 3006:3
2020 2836:1 2985:12
2987:22 2988:2,7
2991:4,7 2994:3,13,22
2996:12,18 2997:3,11
2998:17 2999:13
2020/'21 2817:9
2020/2021 2815:22
2021 2790:15 2806:8
2808:9 2812:9 2814:16
2814:21 2816:17,20
2819:16 2820:9,12
2821:17 2823:6
2824:16 2826:7 2827:8
2828:7 2832:3,9,11
2845:9 2863:15 2917:1
2951:11 2952:13
2965:17,21 2973:21
2999:14 3001:10
3002:14 3005:19
2022 2722:10 2849:1
2024 3045:21
2039 2839:21,22 2840:2,5
2840:10,11,14,17,21,21
2841:7,10,19,20
21 2976:14
22 3024:20
22.7 2898:22
23 2896:4 2901:20
2905:13
24 2896:4 2901:20
2905:13
24308(e) 2722:6 2723:4
2863:13
25 2727:18 2792:18
2794:13 2795:16
2875:8 2896:4 2901:21
2901:22 2905:13
257% 2746:8,10,20
2750:5 2761:1
26 2896:4 2901:21
2905:13
2724 3044:4
2787 3044:5
28 2865:18
28B 3018:21

2906 3044:6
2915 3044:7
2916 3044:8
295 2939:20,22
2951 3044:9
2965 3044:10
2970 3044:12
29th 2819:16
2nd 2806:7 2816:17
   2820:9

_____

3

3 2776:19
3:26 2992:11
3:28 2993:11,14
3:30 2966:10 2992:11
30 2895:21 2896:3,6,22
   2897:5,13,17 2972:21
30.83 2882:5,9
306 2846:19 2881:15
31 3045:21
31.52 2882:1,8
312 2808:6,10,11 2812:4
   2814:9 2815:4
313 2814:11 2815:8
31Y 2917:20
32C 2973:11
32F 2979:9 3024:18
33.6 2899:1
33M 3019:9,9
36496 2863:11
3rd 2728:12 2752:19,20
   2767:19 2768:2,8,12
   2776:8,11,18 2827:8,11
   2832:11 2866:5
   2952:13 2962:14
   2965:21 2973:10

_____

4

4.3 2887:1 2888:5
4.31 2883:15
4:00 2993:12
4:04 2993:15
4:30 2902:1
4:45 3029:3
4:58 3043:6
40 3016:6
41B 2892:9
42057 2862:6
43 2849:16
44 2850:17,18
45 2850:19 2874:7
   2898:21 3015:14
45.4 2898:21 2900:13,19
46 2852:20 2853:3
48 2855:15 2860:17,19

   2861:21
49 2722:5 2856:11
   2860:16 2863:13

_____

5

5 2888:20
5.37 2883:11,14
5.376M 2981:4 3041:15
5.3M 2982:6
5:00 2968:19 2969:12
50 2855:15 2856:16,16
   2890:9,13,14
50/50 2945:7
52 2858:1
562 2845:10,15
570 2845:8,14,14
582 2836:17 2941:3,11
   2943:21 2944:2
59 2868:14,22
5M 2977:4
5th 2910:17 2911:6

_____

6

60 3004:15
61 2871:16 2872:2,4
63 2873:19 2876:18
64 2974:1
65 2803:11 2804:3
66M 3019:3

_____

7

7 2882:9,13,14 2883:22
   2883:22
71 2860:16 2863:4,6
72 2880:7 2881:15
73 2823:10
74 2823:10 2827:5,13
76 2823:10 2831:16,18
77 2848:10,13
79 2890:17 3004:21
79.2 2895:13

_____

8

80% 2735:13,15,18
   2736:2,4,7,13,14
   2739:19 2740:1,4,8
   2896:1 3005:3
85 2859:16
88.5 2895:13
8th 2826:7

_____

9

9:30 3042:14 3043:7
9:34 2722:11,15
90 2904:20
90- 2784:18 2785:7

94,881,000 2981:6
95% 2735:12 2736:3,6
   2737:1,3 2739:4,13
   2740:1,3,7 2780:10,11
   2780:13 2781:2,18,19
   2782:7,9,19,22 2783:3
   2783:5,7 2784:18,19
   2785:7,11 2899:12
   2901:21 2902:1,4,8,16
   2902:21 2903:3,14,16
   2904:9,11,19 3005:18
   3006:7
95M 2982:8 3031:1
96.3 2895:12
99.2 2895:13
9th 2808:9 2812:9
   2814:21 2815:2,5,6
   2968:1 2992:21
   2993:10 3042:15
   3043:5,7