AFTERNOON SESSION:

DR. ANGEL MACAGNO, resumed, having been previously duly sworn, is examined and testified as follows:

THE COURT: Okay. Let's get the jurors.

THE COURT OFFICER: Jury entering.

(Whereupon, the jury enters the courtroom.)

THE COURT: Be seated, everyone. Doctor, I will remind you, you are still under oath. We have shifted to the face shield to see if doctor might be able to be more easily understood, at least by our court reporter, hopefully by you as well.

Mr. Shafer, you may continue.

MR. SHAFER: Thank you, your Honor.

CROSS-EXAMINATION

BY MR. SHAFER: (Cont'd.)

Q Good afternoon, doctor.

Doctor, you agree that discs lose their internal -- that as disc degenerate, they lose their internal strength?

A Of course.

Q They get compressed?

A Yes.

Q The foramen become more narrowed and rougher?

A Yes.

Q Discs don't dry out overnight, do they, doctor?

A No, not always, that is not completely correct,

sometimes could dry out after trauma, after significant injury.

Q Over what period of time, doctor?

A It is difficult to say, but it could be weeks.

Q By disc generally, for the average person, begin drying out as of --

A Over time, yes as I explained before with age.

Q And everybody's discs dry out over time, right?

A Yes.

Q Dried out discs are indicated by a darkish appearance as opposed to a light appearance; correct?

A Correct.

Q And in fact the stresses and strains of every day living cause wear and tear to the spine?

A Correct.

Q Now, earlier you were telling us what you saw in the December, 2015 cervical spine MRI?

A Correct.

Q I didn't hear you mention stenosis with uncovertebral spurring at C3/C4; correct?

A Yes, I don't remember saying that.

Q I don't remember hearing you say at the C4/5 level that there was stenosis with uncovertebral spurring either?

A Yes, that correct.

Q Both of those things could be an indication of degeneration; correct?

A Correct.

Q And I think what you -- you first saw Ms. Pelaez January of 2019; correct?

A Correct.

Q Okay. And at that point you found muscle spasm in the neck and low back; correct?

A Correct.

Q There was tenderness to palpation, right?

A Correct.

Q Now, the cervical spine is made up of cervical extensor muscles?

A Yes, it have, it is not made of, it has extensor muscles. That is part of the system.

Q And as part of the system, it has lateral flexors?

A They are not called lateral flexors, they have multiple functions. But one thing is lateral flex and rotate.

Q And they have scalenes?

A Excuse me?

Q Scalene muscles are also part of the system?

A Yes.

Q Okay. And suboccipital muscles are also part of the cervical system?

A Yes, it is one of the muscles that are part of the system.

Q And in fact scalene muscles are three muscles found on

each side of the neck?

A They are three muscles in the side of the neck.

Q And they stand between the transverse process of the cervical vertebra and the upper two ribs?

A Not the three of them.

But yes, basically coming from the spine to the ribs and to the -- have some insertion in disc capsula and some insertion in the clavicle.

Q And you have the scalenus interior, scalenus medius and the scalenus posterior muscles?

A Correct.

Q And the location of the symptoms related to scalene muscles would be the neck, the chest, the arm, the upper back and headaches, correct?

A No, I did not understand the question.

Q Sure.

Symptoms related to the scalene muscles would be located in the neck?

A I would rephrase it another way.

Injuries of the neck or middle back or the ribs or the clavicle could give spasm of the scalene muscles, but not the way around.

Q It could also cause headaches?

A Headaches are not produced by scalene muscles, they are lateral muscles, headaches are produced more posterior muscles

that traction of the muscles.

Q More like the suboccipital muscles?

A One of those suboccipital muscles.

Q And the most common symptoms related to the scalene muscles would be pain that persists or worsens?

A Say it again.

Q The common symptoms related to the scalene muscles would be pain that persists or worsens?

A Yes, but what kind of pain? It is a different graduation. It is not any pain related to that, it is different situation, completely different to the cervical muscles, not considered cervical muscles, not part of it.

Q Excessive coughing could cause scalene muscle pain, correct?

A Yes.

Q Extended periods of a tilted head could cause scalene muscle pain?

A Yes, I do believe so.

Q Bad posture with hunching could cause scalene muscle pain?

A I do believe so.

Q The suboccipital muscles that's a group of four muscles located inferior to the occipital bone, right?

A Yes, correct.

Q And in fact, when you first saw Ms. Pelaez you found

tenderness to palpation, correct?

A Correct.

Q Now, I'm going to and I didn't see Dr. Sutera's records in your file, am I correct, I think we went through that?

A Yes, I didn't see it.

Q Okay. Doctor, I am going to show you what's been received in evidence as Plaintiff's Exhibit 22.

(Handing.)

Q Do you see a page with an examination in there right in the beginning?

A One here.

Q Do you see a date on that?

MR. SHAFER: Actually, can I approach, your Honor?

THE COURT: Yes.

Q Do you see a date at the top right indicating when that visit was?

A Yes, 11/13/2015.

Q Do you see a visit before that?

A Not here, this is 11/13.

Q Okay, thank you. Doctor, did anybody fill you in on Dr. Sutera's testimony here on Friday?

A I am not sure who Dr. Sutera is.

Q The chiropractor.

A Okay.

Q Did anyone fill you in on his testimony on Friday?

A No.

Q You are not aware that he testified that he treated the plaintiff between July of 2011 and December of 2011?

A Not in the testimony that he said he gave here.

Q Okay. When you examined Ms. Pelaez's cervical spine in January, 2019, were you able to palpate tenderness?

A Say again.

Q When you examined Ms. Pelaez in January of 2019, were you able to palpate tenderness or was it tender to palpation?

A That synonymous, palpate tenderness and tender to palpation is the same thing.

Q And I think you didn't say you did offer Ms. Pelaez additional conservative treatment; correct?

A No, I always when discuss the surgery with the patient I discuss that she could continue, that doesn't mean that I offered her, I don't believe that this is the treatment at this time she should consider seriously surgery.

But she still have the option to do, I always discuss the same, nothing, do absolutely nothing, do physical therapy, continue medications, do more injections, et cetera, et cetera. Doesn't mean that she's not a candidate for surgery at this time.

Q Okay. People who are not involved in motor vehicle accidents have surgery that you described, correct?

A Correct.

Q And people with no known injury have that surgery; correct?

A Correct.

Q Now, so the surgery was April 1st, right, doctor?

A The surgery was April 1st, 2019.

Q Okay. And before the surgery, did you have to send Ms. Pelaez for any preoperative testing?

A Correct.

Q And did that preoperative testing include any radiographs or films?

A I normally, as a routine, I send the patient to get radiograph from presurgical planning. You take measurements, you can have an idea what is going to be the length of the plate, you have an idea what are going to be the length of the screws, what kind of cages you're going to use, everything is part of the presurgical plans, yes.

Q You want to make sure that the patient doesn't have anything going on that might adversely affect the surgery?

A Correct, it is a limited study, x-rays it is mainly already presurgical planning.

Q But you would send the patient for x-rays?

A I always send as a routine, correct.

Q X-rays of what part of the body?

A The cervical spine.

Q How about the lungs?

A This is part of the -- I don't send the patient this is part of the primary doctor or the medical doctor that are going to send just to check the lung as part of the pre-op status.

Q It is important to check the lungs?

A Absolutely, the heart, the lungs everything is important.

Q And when you send the patient out for preoperative study of the lungs, you relied on that radiology to report to you what they find; correct?

A In the case of the lungs it is totally different first. I will not get involved in that, because it is not my field of expertise, what to do with the lungs.

If they tell me that they have a possible trauma or something I would believe that, that I will leave it to the doctor that's in charge of that, it is totally different than what happened with the cervical spine.

Q Right. But if they found something on that x-ray, that was of concern, you would expect them to put it into the report; correct?

A Correct.

Q And you rely on that radiologist to put what they find into the report; correct?

A Correct.

Q Okay. And in this case, was there an x-ray of the chest in connection with this pre-op testing?

A I believe so. I don't recall right now.
Q I'm going to show you --
(Handing.)
A I am not sure what I am looking for here.
Q You are looking for the chest x-ray, the preoperative testing, I am sorry, yeah.
A This is a lot of record here.
Q Preoperative testing, it is a chest x-ray, two films, two views.
A Do you have it marked or anything? It is a lot of records here.
Q Let me see if I can find it.
MR. SHAFER: Can I approach?
THE COURT: Yes.
Q Do you see the report of the chest x-rays?
A Correct.
Q And where were the x-rays done?
A Mercy Medical Center.
Q And is the reading radiologist indicated?
A Jonathan Lerner.
Q Do you know Jonathan Lerner?
A Say again.
Q Do you know Jonathan Lerner?
A No, I don't, personally no.
MR. SHAFER: Thank you, nothing further.

THE COURT: Any redirect?

MR. FORDE: Sure.

REDIRECT EXAMINATION

BY MR. FORDE:

Q All right. Now, Doctor, Mr. Shafer was asking you some questions about the final narrative that you prepared that was dated 9/22/20, do you recall that?

A Yes.

Q And you were asked to refer to the section of that record that dealt with discussion, do you remember that?

A Correct.

Q And that was a section where the discussion stated, "patient is temporarily totally disabled." Do you recall being asked those questions?

A Yes.

Q And there were -- there was something added after that?

A Correct.

Q Okay.

(Handing.)

Q Okay. So the portion that was additional after the patient being totally disabled, can you read what it says?

A "Patient temporarily totally disabled at this time she cannot return to her previous occupation as a dental hygienist which requires long periods of standing. Her return to work status remains guarded."

Q Why was that added?

A Because this is, can I explain how a narrative works for everyone to understand?

Q Yes.

A One thing is the regular records where everything that you dictate at the moment of the consult you are going sign it and it is going to be there, you cannot change it unless you amend it, it cannot be changed or can be amended in the future, but it is going to the insurance or other places.

Narrative is something that we do each in the record in this case because the system that we have it, it has to be done in that way. But you can do it outside, you can do it in a Word document. It is not really part of the record.

Because you can take it the first day and to dictate it, and over the weekend normally we go over it and we make the changes that are necessary, you don't need to no amend that because it is not going to go to any place you're just going to release the last final document that would be the one that I have here.

Q Okay.

MR. FORDE: Can I have that back, officer?

(Handing.)

Q Doctor, within this same Exhibit 19 which is the New York Spine Institute chart, you were asked to look for the actual 2015 MRI reports that you saw, I am asking you do you

remember being asked that on cross-examination?

A Correct.

Q Now, you said you specifically remember looking at those MRI reports from 2015?

A This is written in the chart, when you go to my initial consult --

Q No, my question is, do you recall that you had them available to review?

A Correct. If I wrote it here, it were available, I could not make any other presumption with that.

Q Okay. So on that page of 19 there's a section that says radiology, can you read what it says under the heading radiology?

A "I have personally reviewed all the studies available today including interpretation of actual images, cervical MRI from 7/8/18, showing multiple layers of disc bulge/slash herniation more significant C5/C6, C4/C5 with arthrodesis.

MRI of the lumbar spine from 12/11/15 multiple layer disc budge/herniation, no CD available for review."

And then I wrote about an EMG.

Q So, that indicates that you had those reports available for your review but there was no CD?

A Correct.

Q Okay. Now you also were asked questions about a surgical MRI, I am sorry, surgical x-ray that was done by a

Jonathan Lerner just a few minutes ago?

A Correct, the chest x-rays.

Q Right.

A Yes.

Q Can you find where that is?

A I cannot find it here.

I found it.

Q Okay. So, first of all, what is the purpose of this chest x-ray that's being done preoperative, why do you give a patient who's going in for surgery an x-ray of their chest and lungs?

A Medical clearance have to be sure that the patient is fit for surgery.

Q Is it meant to diagnose the condition of the cervical spine or the lumbar spine?

A Absolutely not.

Q Okay. And in this report, what portion of the patient's body was x-rayed?

A Lungs.

Q What was the x-ray of?

A Say it again, I am sorry.

Q What portion of the body was x-rayed?

A Lungs.

Q Did anything show up in the lungs that would have prevented the surgery from taking place?

A It says no active disease, that is the impression.

Q And above the impression where it says visualized osseous structures are normal, what does that mean?

A The thorax includes the chest, includes clavicle, ribs, costal cartilage, sternum, these are the structures of the chest.

Q Does it refer to the osseous structures of the cervical spine or the lumbar spine?

A Absolutely not, they are not included in the chest.

Q Okay. Previously Mr. Shafer was asking you about certain ranges of the motion from I think one particular date at National Neuro Labs, do you recall that?

A Yes.

Q And for example, you were asked about the finding that her lumbar range of motion was 70 degrees out of a potential 90 degrees, do you recall that?

A Not exactly, but yes, I do believe that they are the right numbers.

Q Percentagewise, that would represent an over 20 percent restriction of function?

A 90 to 70, I am not really good at math, but it is about, it is yes, it is about that.

Q And restriction of motion of 20 degrees out of 30 degrees would be a one-third restriction of motion, isn't that correct?

A Correct.

Q As far as restriction of motion in general, can someone have restriction of motion without, with or without pain?

A No, that is really difficult unless the patient have a special pathology, that is not the case. 99 percent of the cases that we see the range of motion limitation is related to the pain and the muscle spasm.

Q Okay.

A It is not an obstruction of the muscle that you cannot move it, it is going to change day-to-day, it is going to change depending if the patient take medication previously, it is going to be the range of motion is going to be much better than if the patient is coming with significant pain.

Q It can vary from day-to-day?

A Absolutely.

Q It can is vary depending on whether someone is taking medication?

A Correct.

Q In any event, the restriction of motion would be accompanied by pain?

A Correct.

Q The findings of stenosis and spurring that Mr. Shafer was asking you about, those findings with regard to a patient this age, would you say that that's an unusual thing to see in a 51-year-old patient?

A No, these are pretty common findings.

MR. FORDE: Thank you.

MR. SHAFER: Just quickly, judge, I am looking for 3101(d) response and I can't seem to put my hands on it.

THE WITNESS: Is that it here?

MR. SHAFER: Thank you.

(Handing.)

RECROSS-EXAMINATION

BY MR. SHAFER:

Q Before I get started, you had said that there is some indication in your file that you had reviewed the December 2015 films?

A No, that I reviewed the report.

Q The report?

A Correct.

Q That's noted in your chart someplace?

A Correct. In the first initial visit, I just read it.

Q Okay.

Now, I'm going to ask you again to take a notice of expert witness exchange dated October 14, 2020.

(Handing.)

Q You don't see the 2015 films listed there; do you?

A The report?

Q In terms of what you reviewed?

A No, they are not in the report.

Q Okay. Thank you.

A You're welcome.

Q You're not saying that Luz Pelaez couldn't return to work at all in any capacity, are you, doctor?

A No, I didn't say that. I said that she has a partial disability and she cannot perform some kind of activities, she should not return to work, to the same work that she was performing because it is too demanding, too much demand for her neck and lower back.

Q Okay. And standing for long periods of time and bending adversely impacts your neck and back; correct?

A Correct.

MR. SHAFER: Thank you, I don't have anything further.

MR. FORDE: Nothing further, judge.

THE COURT: Thank you, doctor. You can step down.

(Whereupon, the witness steps down from the stand.)

MR. SHAFER: Judge, before the next witness, if we can have a break.

THE COURT: We are going to take our break a little early because I know we have a few legal issues to discuss.

Do not discuss the case, it will be about 10 or 15 minutes.

THE COURT OFFICER: All rise, jury exiting.

(Whereupon, the jury exits the courtroom.)

MR. SHAFER: If I can approach, your Honor.

(Handing.)

THE COURT: Okay, I think I have a flavor of it, you may begin, Mr. Shafer.

MR. SHAFER: Sure, judge, we've got a couple of issues here.

THE COURT: Bring your microphone.

MR. SHAFER: We have got a couple of issues here. One being that having adopted the defense biomechanical expert as their own, the plaintiff should be precluded from calling a second biomechanical expert because that testimony is going to be cumulative, your Honor.

THE COURT: Okay.

MR. SHAFER: The other thing is and we placed plaintiff on notice and I've got my affirmation here that the exchange of the biomechanical expert A, was late, extremely late. In fact we didn't receive it until April 25, 2022.

And in addition, there is, there has been no attempt to excuse the late filing. And I sufficiently rebutted the presumption of service. So I'm entitled to examine the people who prepared and served their purported 3101 for Al Vangura.

And there has been no good cause shown for the late disclosure on March 31st, April 25th certainly not May 3rd

when I received the report.

THE COURT: Obviously the report wasn't received until April 28th or later because it is dated April 28th.

MR. SHAFER: But there is no good cause shown. The exchange was in 2019, your Honor.

THE COURT: My point is I am not sure when plaintiffs claim that they served their 3101(d) but the report itself isn't dated until April 28th, your Exhibit C.

MR. SHAFER: Right.

MR. FORDE: That's right, that's correct.

THE COURT: And looks like the Exhibit A here, I am not sure it was signed, but I guess that's from the Nicole Snyder, I don't know what that is, from Maria Colon to Snyder, et cetera, et cetera.

MR. SHAFER: Right.

THE COURT: April 25th saying we mailed it out March 31st.

MR. SHAFER: Every other recent response we got was mailed and e-mailed. This one was not e-mailed, it was not searched by the person who normally served it. I rebutted the presumption of service and I would like to examine the person who signed the affidavit of service and the person who notarized the affidavit of service.

THE COURT: Okay. Mr. Forde?

MR. FORDE: Sure, yes, judge.

First of all, I have a Court of Appeals case on the issue of adopting witnesses. The Court of Appeals is very clear on it.

First of all, just to back up, in the course of Mr. Toosi's testimony there became a point where there was a specific issue as to whether or not he had performed any analysis with regard to the right side of the defendant's vehicle, that was the sole issue and I believe your Honor said that if he wanted to question him on that issue because it is outside of what his examination was.

My point was that it shouldn't have been outside of his analysis, but if he was going to be questioned on that issue, that I would have to make him my own witness for that purpose, so I did.

The decision was clear that just because you question a witness on cross-examination on an issue outside of the scope of their direct, it does not mean that you adopt their entire findings.

You're not making him your witness for all and every purposes or accepting his opinions as my biomechanical expert, that's not what the law says. And there is a Court of Appeals case directly on point.

It is Spanpinato versus ABC Consolidating Corp. 35 N.Y.2d 285. I believe it is a 1974.

So, that's as far as the issue of adopting him as

my witness, we didn't do that.

Mr. Vangura was identified as a trial witness from the very beginning, that he was going to be a rebuttal witness that was going to respond to the calling of Mr. Toosi.

So, from the very beginning, the 3101(d) said that he was going to be a rebuttal witness.

THE COURT: When you say from the very beginning, when are we talking about?

MR. FORDE: The 3101(d) was done March 31st, identifying him as a biomechanical engineer, that we were going to call at the time of trial.

When his report was completed, we sent the report after the 3101(d) disclosure had been mailed.

We had a number of conferences in this case and I specifically recall that the court was asking if there were any curve balls or issues that would have to be brought up. And there was no mention at that time that there was going to have to be some kind of evidentiary hearing as to whether my office mailed something or didn't mail something.

We have an affidavit of service that was done by the young lady who sends out the mail, who prepared it and actually physically mailed that 3101(d) on March 31st.

In any event, Judge, the 3101(d) does not require, there is no time frame that is spelled out in 3101(d) that a

report has to be exchanged or a 3101(d) has to be exchanged at any particular time, especially for a rebuttal witness, because rebuttal witnesses are going to testify after one of the other parties calls a witness to offer testimony as evidence in chief.

Now, we, as a courtesy, because Mr. Toosi was not going to be available this week, that's the only reason he testified Friday out of order during the plaintiff's main case, but nonetheless, Mr. Vangura is a rebuttal witness in response to that witness being called and would have ordinarily been called after the defendant had rested.

So, there is no question that the defendants in this case had notice that we were calling him, why we were going to be calling him and they had had his report for two weeks now since we have been on trial, in order to prepare to cross-examine Mr. Vangura. So there is no basis to preclude Mr. Vangura at this time.

MR. SHAFER: May I be heard, judge? I was just handed a Court of Appeals case. I haven't studied it, but it appears to address the defendant's characterization on summation of the plaintiff adopting the testimony of the against expert. That's not what we are talking about here.

I personally conferenced this case. Judge Lubell made himself available to try and settle the case and at that time I represented that there was no, they had no

radiologist and they had no biomechanical expert.

And, now after that, I got a radiologist and I got this biomechanical expert.

And what is glaring, your Honor, is Mr. Forde's office has been very good about e-mailing things, but somehow this late served biomechanical expert exchange was not e-mailed and not served by the person who had been serving them before.

The law is clear, an affidavit of service creates a rebuttal presumption. I have rebutted the presumption by stating the policy and procedure in my office and I want to examine the two people who served that 3101(d), if you're going to consider allowing Mr. Vangura to testify.

THE COURT: With respect to the adoption of Dr. Toosi, in my mind the, without even looking at the Court of Appeals case, at best, the plaintiff would have adopted Dr. Toosi and his opinions as to the guardrail and the questions that were asked specifically with the guardrail.

I would agree again without even looking at the Court of Appeals case, that the plaintiff did not necessarily adopt all of Dr. Toosi's opinions that he had given prior to adopting him as their witness for the purpose of going into the questions about the guardrail and the impact against the guardrail.

I am a little bit troubled with the late disclosure

here, the 3101(d) I guess would have been, if it was in deed mailed out on March 31st, would be 30 days prior to jury selection which although of course it is somewhat late, it is within the time that I think generally has been found to be reasonable.

A report that is generated two days before jury selection is a little bit more troubling and I haven't looked at that report.

But this witness is being called to rebut the testimony of a witness who I guess had already had a report that plaintiff had seen. I am not sure what took him so long to do this report, but I will at least agree with Mr. Shafer that he's accurately stating that there is a rebuttal presumption of proper service when there is an affidavit of service and I believe Mr. Shafer has adequately rebutted that to the degree that he's entitled to inquire of the two people that he has cited.

However, I would prefer that we not stop the trial at this point for that purpose.

So, I am more inclined to give you that opportunity, but to let the witness go ahead and testify and if we have to strike the testimony, we will strike the testimony.

MR. FORDE: Judge, the lady who actually sent it out and signed the affidavit of service is in the courtroom.

THE COURT: Even better.

MR. FORDE: The other court staff who notarized her signature, she's the notary, I am not exactly sure that the notary is you know you want her, I can get her to come across the street, but she's here.

THE COURT: All right. Why don't we -- this is the lady here?

MR. SHAFER: I want both, your Honor, but I think you make a good suggestion.

THE COURT: Ma'am, come on up.

LUZ CALDERON, having been first duly sworn, is examined and testified as follows:

THE COURT: Sit down, have a seat tell us your name and speak into the microphone.

THE WITNESS: Luz Calderon, L-U-Z C-A-L-D-E-R-O-N.

THE COURT: Mr. Shafer, you may inquire.

DIRECT EXAMINATION

BY MR. SHAFER:

Q Thank you, your Honor. Good afternoon, Ms. Calderon. By whom are you employed?

A Omrani & Taub.

Q How long have you been employed by Omrani & Taub?

A About three years.

Q What is your position with Omrani & Taub?

A Legal assistant.

Q Okay. And as a legal assistant, what are your duties and responsibilities?

A I prepare the mail, I do specials, I do legal paperwork, a little bit of everything.

Q In connection with preparing the mail, what do you do?

A I am told where it needs to be sent, I put it inside the envelope, I prepare the stamp and I take it to the mailbox, USPS or Fed Ex or whichever way it has to be sent out.

Q Okay. And do you that every night?

A About, so, yes.

Q Okay. Are there some nights when you don't do that?

A When there's no mail.

Q When you say you take it to the USPS, physically where is that?

A It is around the corner on Fisher or Quarropas.

Q And specifically now I am referring to this 3101(d), there is an affidavit of service that indicates that you mailed this on March 31st, 2022?

A I did.

Q And when was this affidavit of service prepared?

A That same day that I took it.

Q Was it prepared before or after you took it?

A Before.

Q Who is Maria Colon?

A Maria Colon is the notary, she is the manager of the

office.

Q And in addition to taking -- in addition to mailing this 3101(d) for Al Vangura, did anybody ask you to e-mail it?

A No.

MR. SHAFER: Thank you, your Honor, nothing further.

THE COURT: Mr. Forde, no questions?

MR. FORDE: No questions.

THE COURT: Okay. Ma'am, you can step down.

(Whereupon, the witness steps down from the stand.)

THE COURT: Mr. Shafer, are you satisfied with that or are you going to need the notary as well?

MR. SHAFER: No, I'm not going to take the notary, your Honor.

THE COURT: Thank you.

Any further argument about this issue?

MR. SHAFER: We have a lateness, but in terms of service, no.

THE COURT: Mr. Forde, you're not planning on trying to put Mr. Vangura's report in evidence, are you?

MR. FORDE: Into evidence, no.

THE COURT: All right. Defense application is denied.

Let's take five minutes and then we will continue.

MR. SHAFER: Note my exception, please.

THE COURT: Noted. Thank you.

(Whereupon, a brief recess is taken.)

COURT OFFICER: All rise, jury entering.

(Whereupon, the jury enters the courtroom.)

THE COURT: Have a seat everyone.

Mr. Forde has called his witness, his name is Al Vangura, we have put him up to save time. If you would stand put your left hand on the Bible and raise your right hand.

ALBERT VANGURA, called as a witness by the plaintiff, having been first duly sworn, is examined and testified as follows:

THE COURT: Have a seat, state and spell your name for the record and give us your business address.

THE WITNESS: Albert Vangura. V-A-N-G-U-R-A.

And I live at 813 Whippoorwill Hill Road, that's in Gibsonia, Pennsylvania 15044.

THE COURT: So far you're doing great. Speak into the microphone, project your voice into the back of the courtroom, the jurors are right in front of you and the lady in front of you has to take down everything you're saying.

Go ahead, Mr. Forde.

MR. FORDE: Thank you.

DIRECT EXAMINATION

BY MR. FORDE:

Q Good afternoon.

A Good afternoon.

Q What is your current occupation, sir?

A I am an engineer.

Q Is there a particular specialty that you have as far as engineering?

A Yes, I am a bioengineer.

Q What does that mean?

A I am actually, you know, it is more than just that. There is a larger field of biomechanics and inside the field I do that and then also I do bioengineer.

Currently I am a director of engineering as a small firm, developing a ventilator.

Q And specifically within the field of biomechanics, can you explain what that is?

A Biomechanics is, if you break up the word up, it is the best way to look at it. Bio means life, and mechanics is the long standing study of mechanics which is how forces interact between objects.

Q And can you describe what your education and certifications are relevant to the field of biomechanics?

A Yes, I have an associates degree in mechanical engineering technology. I have a bachelors in kinesiology which

is basically biomechanics. And I have a masters degree in bioengineering. And I have went through my comprehensive tests a PhD in bioengineering.

Q What is your professional experience, if you can just give us a summary, dealing with issues such as biomechanics?

A Okay, yes.

I started doing biomechanical evaluations about almost 20 years ago. I started with one firm and basically I do it on my own right now for a variety of different groups.

Q Okay. Do you have any kind of publications or any type of articles, scholarly articles or anything like that you have prepared specifically with the field of biomechanics and even more specifically with regard to motor vehicle accidents?

A I don't have any specifically for motor vehicle accidents.

What we do as bioengineers can be applied in a lot of different ways. So most notably is my masters thesis which was on the shoulder was the soft tissues of the shoulder and how they can fail.

So, and I have a bunch of other publications as well.

Q And do you have any professional certifications now?

A Not currently. I have in the past, there is no need for me to continue them at this point.

Q Okay. Engineering, as far as any type of engineering affiliations, anything like that?

A Not currently.

Q Okay. And have you testified before, have you been qualified in court to testify as a biomechanical engineer?

A Yes, I have. I have testified in probably about ten or 11 states, pretty extensively here in New York, in all five boroughs, state and federal court.

Q Have you testified on behalf of both plaintiffs and also defendants in litigation?

A Yes, it is roughly 50/50 depending what year. It would be 60/40 or 40/60 really depends.

Q Are you being compensated for your evaluation of this case and preparing for trial and testifying?

A Yes.

Q And what is the amount of the compensation you are receiving?

A I receive $395 an hour for all hours worked, plus any expenses.

Q Do you know how many hours you have so far in this case?

A Maybe 18 or 20 hours.

Q Okay.

MR. FORDE: Your Honor, I would ask that Mr. Vangura be qualified as an expert in the field of biomechanical engineering.

MR. SHAFER: No objection, your Honor.

THE COURT: Very good, he is qualified to give opinions in the field of biomechanical engineering.

MR. FORDE: Thank you, judge.

Q Now, Mr. Vangura, you are not a medical doctor; is that correct?

A No.

Q And any conclusions or opinions that you may have formed are not meant to be a substitute for medical diagnoses, is that correct?

A That's correct. We only -- I only look at what the doctors have diagnosed themselves.

Q You don't attempt to draw any conclusions on your own as far as structures of the spine or what kind of injuries or a particular plaintiff may have sustained in an accident, is that right?

A No. I have extensive training to work with medical doctors, but I do not do any diagnosis. I use the medical, all the medical reports that are provided to me.

Q Were you asked to perform an analysis of this particular accident in order to testify here today?

A Yes, I was.

Q And what type of material did you review?

A There is a wide variety of documents provided, that includes all the court documents, any testimony that was issued testimonies, pictures of the vehicles, medical records, police

reports, damage estimates, that's about it.

Q Okay. In particular, did you have an opportunity to review the report of Kevin Toosi?

A Yes, that came attached to a court document, his report was attached to it, yes.

Q Did that also form a part of your analysis to look at the findings of Mr. Toosi?

A Yes, it is quite common to look at the expert reports from both sides.

Q All right. You also had medical records for Ms. Pelaez?

A Yes.

Q So, based on the information that you were provided, what was your understanding of how this accident happened?

A So Ms. Pelaez was the passenger, front seat passenger in a 2013 Civic Honda which she owned it was a four-door, her son I believe was driving.

They were stopped in traffic on southbound 9A Saw Mill Boulevard I think it was. And while they were waiting for a car in front of them to turn, they were struck from behind by a 2013 in Nissan MV 200 van, driven by Mavis, it struck them in the rear end and went off and contacted the guardrail.

Q Now, the photographs that you looked at, did you have an opportunity to look at photos from both the Honda and the Nissan?

A Yes, there were a number of color photographs.

Q What was the principal area of damage to the Honda?

A The Civic was struck on the back right corner, I believe, the way I see the accident it was an offset angular rear end which goes along with the testimony of the driver of the van, where he tried to avoid and swung to the right and he clipped the back right corner. That's where contact was on the van it was the front left corner.

Q Why is that significant as opposed to a straight hit in the rear?

A Well, you know, I take the cases as they come. If it's directly from behind, we have to look at how those forces get moved into the car.

And an offset rear end causes rotation often. And the testimony of Ms. Pelaez's son demonstrated that the vehicle did in deed rotate to his right after being impacted.

Q And as far as your understanding of the accident, was the Honda completely stopped when the impact happened?

A Yes, based on the testimony it was completely stopped and his foot was on the brake.

Q What happened to the Honda immediately after the accident as a result of the impact?

A Well, it was caused to move forward and rotate to the right anywhere between four to five maybe five to six feet.

Q Did you also have an opportunity to review the

deposition testimony of the driver of the Mavis van?

A Yes, I did, Mr. Littleton I think his name was.

Q Mr. Littleton; yes. What was understanding of Mr. Littleton's description of what happened?

A Well, he was driving down the road at about well it was 45 there, I think he said he noticed a problem at about 35, the stopped vehicle. And he put on the brake and the brakes didn't work. He testified that he impacted their vehicle at about 30 miles per hour.

And then he testified that he struck the guardrail at the same time. However, the driver, Ms. Pelaez's son said it was afterwards. And based on the dimensions it had to be afterwards. There is just too much distance between the two.

Q As far as the distance between the lane of moving travel on Saw Mill River Road and the right side where the guardrail was located, would it have been possible for a car to strike for the van, to strike the left front corner of the Honda and also make contact with the guardrail at the same time?

A Based on the width of the MV200 based on the Nissan van's width, based on the dimensions that I have seen on the internet, it measures about, basically the same as the Civic, they are about 69 inches wide.

And there is standards berm is at least that. So it would be extremely difficult, very unlikely that there was impact with both the guardrail and the vehicle at the same time,

it would have been subsequent to, which is consistent with the driver's of the Honda's testimony.

Q Okay. So, when the Mavis vehicle made contact with the Honda at 30 miles per hour, what happened after that with regard to the positioning of the two vehicles?

A Well, Mr. Littleton testified that he, upon noticing that there would be an impact, and that the brakes weren't working, he tried to steer away from it. Unfortunately, he wasn't able to get far enough over.

So, he impacted the back of the Honda Civic and then continued to move to the right. The Civic rotated and went forward, while they went off and while the Nissan impacted the guardrail with the front right corner.

And there is both testimony was that there was only one impact on the Civic and then there was impact with the guardrail.

Q Okay. Now, you did have that opportunity to look at Mr. Toosi's report, correct?

A Yes, I did.

Q What is your understanding of the speed that Mr. Toosi said was at the moment of impact?

A It kind of confused me where it came from I went through his analysis and he did two sets of calculations to understand what he was going to estimate as the vehicle speed, and I don't really quite understand why he would do that when we

have testimony of it being 30. But he did that.

He gave one analysis and said 18 and he plugged it into another one and came up with a similar answer and then assumed that it was 18.

Q All right.

A Miles per hour, 18 mile an hour impact.

Q Could you see anything in Mr. Toosi's analysis that would have accounted for him reducing the speed of the Mavis vehicle from 30 miles per hour down to 18 miles per hour?

A No, it's kind of backwards. When I do my analysis I start with what's been testified to. And if I look at the calculations and the damage and the injuries and I see that maybe they don't work, then you start to work your way down. You don't start with some theoretical number and then it completely avoid what has been testified to.

So you have an obligation to at the very least, analyze what's been testified to so that you can in some way either refute or confirm the testimony.

Q And also the fact that Mr. Littleton testified that he was going 35 miles an hour when he realized there was a problem as you said, and that he applied his brakes and they didn't work, how would that affect the ability of that vehicle to slow down before impact?

A Well, it wouldn't. It wouldn't be able to slow down at all. So, it makes sense that he as testified, that he impacted

at 30 miles per hour.

Q Do you have any reason to think in reading Mr. Littleton's deposition testimony that he was confused about what the moment the impact was at the time the collision took place?

A No, he seemed to be pretty clear about exactly what speed he was going.

Q So, now, as far as your analysis of what the forces that were in play involved in this accident, what did your analysis consist of?

A Well, I looked at the damage, this is what I do each and every time, I try and evaluate the damage based on photographs alone and then I often will tie in any estimates that are there.

You have to realize too that the estimates are -- they don't take the vehicle completely apart, so there is usually more. So it is a good place to start, if it says it is $5,000 worth of damage you can go with that, often as they tear it down there is more damage involved because you can't see up underneath.

So I look at that. Then obviously I review all the documents to try and understand what was testified to, in this case it was 30 miles an hour.

And with it being an offset angular rear end, I basically used the second formula that Mr. Toosi used in his

calculations called the conservation momentum. It is a rather simple calculation which takes the weight of the vehicles and their speed and gives an estimate, a calculation range.

I also try and do a range, I don't say hey, you're 9 miles an hour, we don't really have all the information.

So, starting with that 30 miles per hour I was able to see, that based upon the weights that the Delta-v, I don't know if you know what that is, but with a car sitting still and something bangs into it, it is going to be accelerated due to the size of the vehicle, the weight of the vehicle.

And that acceleration is the change in velocity.

So when the Nissan MV200 is it about 3 to 500 pounds heavier than the Civic was. So it imparts more energy and momentum into the Civic.

So, the Delta-v that I calculate was pretty consistent with, you know, using that. I did it two ways I did 30 and I did 18, because Mr. Toosi had done the 18.

So I verified my own calculations that when I ran it in a purely, simplistic way I got basically the same Delta-v's around 9 to 10 miles an hour Delta-v's.

Then I ran it a second time plugging in the 30 miles per hour. Before I did the 30, it was clear to me, based upon my review of the medical records and all of my experience in reviewing all the testing data that other engineers like I do, and then report them in journals, that all of these injuries

were very consistent that are being claimed, were very consistent with what people have found in the past.

And when we do those studies, we do them at lower velocities. So some of the studies are done at two and five miles an hour. And people who were in the studies had whiplash associated disorders. They weren't real extensive because these were highly controlled tests.

Q What is a whiplash associated disorder?

A So back in 1928 a gentleman coined the term whiplash. And the reason he coined it, it is very much like a whip what happens to our body when we get impacted, it was originally thought it was only from the rear, but it can be from any direction.

It is basically the motion that your spinal will take, so you get acceleration at the lower part of your body where it stays not moving and then the other part of your body catches up. So you get this like lash like event, it can happen from the side, the front it is most commonly associated with rear ends type collisions. But it can happen in any type situation, and that's the lash like, that's what whiplash is.

After studying these for many years, they came to realize that it wasn't just a rear end car crash that can cause it. They call it whiplash associated disorders.

If you are sitting in a chair and somebody is slammed into you, you can potentially get whiplash associates disorders

from it depending on how hard they hit you.

It is mostly commonly associated with motor vehicles but we came to understand it is from any direction that you can get it from.

Q Does the person's age of the passenger have anything to do with the energy causing a potential injury to the neck or back?

A Yeah, what we find is that there are a number of people that are more susceptible to injury in the same situation.

And this car crash is a great example. You have an 18, 19 year-old person driving and a 51 year-old person next to them and the 18, 19 year-old had hardly anything happen, he said he had a sore back.

So woman in their fourth and fifth and sixth decades, so 40, 50, 60 years old are very susceptible to whiplash associates disorders. Older people are in general, so men just behind them. Anybody with preexisting conditions, any other problems that they may have had, any other strains or anything.

So, yeah, there are some people that have a greater propensity for these kind of things to have a real impact with.

Q So, as far as you said you did the calculations twice. So whether the speed of the impact at the time moment of impact was 30 or it was 18, is it your testimony that the injuries were still possible, based on the energy that was in this crash?

A Yeah. Interestingly, Mr. Toosi's analysis had it about

9 to 10 miles per hour with the 18 mile an hour speed. And that's plenty of energy for injuries like this to occur.

And when I changed it to 30, you see other thing that matters too is the accelerations that happen. So when you are struck from behind you get a Delta-v, the car, our calculations give us the car's Delta-v. I am not sure if you guys would get this, but when in you're a vehicle your seat has some softness to it.

So when the car gets accelerated, you move backwards into your seat. And then once that car stops, you're going forward and that's that lash moment.

So the seat is impacting your spine in specific pattern and if you all know you have curves in your back and when they get impacted, from behind those get straightened.

So when you get to 30 miles per hour the Delta-v that I calculated was about 15 or 16 miles an hour and the accelerations were almost double.

So there is really, this would be considered a -- this isn't a low speed rear end. There are three different types, there is low speed where you get two to five, upwards to 15 miles per hour an hour as an impact speed. Then I have done rear end that have been 55 miles per hour. So, we are in the mid range.

This isn't a low speed, it is not a high speed, it is a mid size, mid range speed. There is so much energy in these

crashes that is there plenty of room for, plenty of energy that gets transferred to the occupants and can cause injury.

Q That's -- I was just going to ask you that. So, when you say that the crash that, there is a lot of energy in the crash, what happens to the energy that's created by the impact between the two vehicles?

A The first thing you have is you have vehicle crush. You get things damaged. Once that force of crushing stops and there is still an excess of energy, it gets transferred to the vehicle. And that's why when you get hit from behind the car will jump forward, this case it was angle and it didn't just jump forward, it turned.

The people that are inside aren't rigidly attached to the vehicle, can bounce around inside. And that's why there is some side to side movement, you can bang into doors, and the little console that you have, knees can strike things inside and your head can be turned to the side and you can have not just whiplash in the forward direction but you can also get it to the side.

So there can be a bunch of different occupant impacts inside the vehicle when there was only one in the back, just the way the body moves inside.

Q Does the fact, if a passenger is not aware that an impact is about to happen, does that have any impact at all on what can happen to their body when it does happen?

A Yeah, exactly what's one of the preexisting or one of the conditions that make people more susceptible to injury is the fact that they don't see it coming.

You've all heard like someone is drunk that they can walk away from a bad crash because they are not fighting. You see we have something called startle reflex inside of each one of us.

You may have experienced it. Someone comes behind you and smack their hands or firework goes off. What you will see the person do just like that. (Indicating.) They will make a motion and it is a very consistent motion. We have actually studied it.

What happens is you almost go into the fetal position because you are afraid and you pull your joints in. But the take home message is that when you're scared, you have a muscle response and what happens is your muscles don't -- imagine all those forces that I was talking to you about are banging you around inside the car. Now inside your body, it is even doing more. So you have muscles in your neck that are contracting and it adds to the forces inside.

So there are some studies that have shown that occupants can experience three to five times the forces of the crash because of the way in which they react inside of the vehicle.

Q Okay. And I'm going to show you some photographs that

have been marked into evidence, Mr. Vangura. You also have in front of you a laser pointer that you may be able to use.

Can you identify which of the two vehicles this one is, Plaintiff's Exhibit 3 in evidence?

A Yes, that's the Nissan MV200 van. You see damage on both the left front side and the right front side.

Q And the damage to the left front side was from the initial impact with the Honda?

A Yes.

Q And then the right front side was from the guardrail?

A Yes, you can see it is actually shaped like it.

Q Right. Okay.

This is Plaintiff's Exhibit 5 in evidence. Can you identify what's in that picture?

A This is the front of the same vehicle, front left side. There is the driver's wheel. The driver would be sitting in this area right here. You can see a tremendous amount of body damage here. This guy right here is the battery, this is a very extensive crash right here.

Q So the crush impact analysis that you mentioned before is that one of the things that Mr. Toosi used?

A Yes, he -- there is a book that it comes from, it is chapter eight of that book that explains to you how to do these kind of analyses.

Q When how is that supposed to work; what dimensions are

you supposed to measure?

A Well, one of the first things you're supposed to do is look at the width of the crush the width is always in the left to right so basically parallel with the wheels.

So the width that's here, I told you before the distance from left to right on this vehicle is about 69, 70 inches.

So here is midline, so from here to the outside is -- so midline would be 35 we will call and we are a good six, eight inches in. So it's really not I think he mentioned 42 inches and four inches of crush.

So, the next part that I want to tell you, we do the width first and I estimate that to be about 30 inches. I think that's what he said on his, it was 42 on the other one. But he used five inches.

So the measurements are supposed to be done perpendicular to this direction, so perpendicular to the width you take 6 measurements, those 6 measurements are kind of correlated to tests that were done by this other group that wrote this book and they correlated it really well. So that when you took these six measurements and you do it the right way and plug it in to the formula and put in all the right stuff, you come up with a value.

Mr. Toosi used five inches on this, 30 inches for width and five inches. If you just take a look at this wheel right

here, this wheel is about 24 inches I think and it is about 11 inches wide and you see that this is not five inches.

Q How much crush would there be on this vehicle looking at this photo?

A In the proper direction, based on the calculations from the book that he cited you take six here, you're looking at approximately 12 to 14 inches here and upwards of 25 here.

Q So it is exponentially more than the crash impact that he calculated making his assessment?

A Yes, actually, if you're using five but it's really averages out to ten, you're getting substantially more. So the reason that he came with you 18 was because I don't think he did these correctly.

Q Right. So, the lower the numbers you use in doing the photographic estimate, the lower the speed you're going to come up with for the impact, correct?

A Correct.

Q I am going to show you what's been marked as Plaintiff's Exhibit 6 in evidence. Have you seen that photograph before?

A Yes, this is the front right corner of the same vehicle.

Q Okay. What can you tell us about the damage that you observed in this vehicle with relation to the type of analysis that you just described?

A Well, there was no calculation for this side from Mr. Toosi. One part of me understands there were, there was no injury caused by this side, so you might have wanted to avoid it.

But I would disagree. Because if you are trying to say it was 18 and not 30, how did the vehicle get from impacting the Honda to smash and do a substantial amount of damage to the right side vehicle. There was a lot of extra energy still available because it was going much faster. The damage estimate shows the tie-rod broken in here.

Q You mean the property damage estimate?

A The property damage estimate I would venture to say that there was going to be a few more things cracked in here, I would think this tire graft by the guardrail bent over, but there is a lot of crush still in here yet.

So I was a bit confused as to why that wasn't analyzed in Mr. Toosi's report overall, especially when you're trying to make the argument that it was only 18 when it was testified that it was truly 30 miles per hour.

Q So, let's say, hypothetically if the left front of the van hit the Honda at 18 miles an hour and then there would have been obviously energy absorbed at that point, would that be correct?

A Yes.

Q If the van continued to move and hit the guardrail,

would you expect there to be enough energy to cause this kind of damage after the collision with the Honda?

A Absolutely. And that's not, that's also considering the fact that the crush dimensions were drastically small compared to what was really on there.

When you say it is five and it really works out to 12 to 30 inches, you drastically underestimated the speed of the vehicle.

So, I would think that you would, you would then really try to come up with why you think it's 18, but there is no discussion of it and there was no calculation for 30.

So, it is just not proper for guys like us to review all this and ignore some of the evidence; it should have been evaluated.

Q Okay. I am going to show you what has been marked as Plaintiff's Exhibit 11 and ask you if you can tell us what's shown in that photograph.

A Yes, this is the right rear of the Pelaez Civic.

Q Okay. As far as the evaluation of the crush impact and what kind of damage was caused as a result of that initial impact that Mr. Toosi came up with, what can you tell us about that?

A Well, again as I stated, the Civic is about 69 inches in width and midline which would be, you split the license plate right there would be 35 we are drastically over.

So it seems to me that he actually made his crash measurement his width from here to here, which is not the way that the book explains to do it.

The procedures for this are to make sure you measure your width in this plane which is left to right, which appears to me to be maybe 12, 15 inches. And then the depths would be the six depths that you would take would be much longer as well.

So this would be consistent with a higher impact as well, than 18 miles an hour.

Q Now, you had a chance to review the injury analysis Mr. Toosi prepared; correct.

A Yes.

Q Do you have it as part of your chart?

A What do you mean my chart?

Q Your records.

A Oh, yeah, I have it in my records, yeah.

Q Do you have it in front of you?

A No, it is electronic.

Q Were there certain types of normal activities that Dr. Toosi attributed that could cause the injuries that he observed, ordinary activities?

A Yeah, you know, years ago people did some studies. They would take some special sensors and they would put them on people and they would have them ride a roller coaster, or ride in a car, jump into a chair, fall down and trip and they

reported these things.

And then defense type people tried to take those measurements and say well gee, you experienced five or six G's when you jumped into that chair, then there is no way you could have experienced five or six G's in a car and not got hurt.

But that has been refuted many times over because some of the varied research articles that are in Mr. Toosi's paper which I have as well, if you look very closely, there is a one in particular by a guy named Brault, he tested 42 people and presented all the data from impacts of two and five miles per hour.

And if you are not careful you will miss it, but there is a little section that talks about injuries there. 48 percent of the people that experienced those two and a half to five miles an hour rear-ends, have whiplash associated disorders which lasted up to 111 hours.

So we are talking five, six days, this is a highly controlled experiment where people were taking out, if they have any issues, these are healthy people. Otherwise, very healthy people. A lot of them are usually young.

But they themselves were injured, 48 percent of the people in these highly controlled studies.

So you have to be careful what you put in your reports because the very data that he is placing in there refutes what he argues as something that just couldn't happen.

Q So, did you as a result of your analysis and looking over Dr. Toosi's findings and looking at the photographs, all the materials we sent, do you have an opinion with a reasonable degree of biomechanical certainty as to whether the crash forces at the moment of this impact were sufficient to cause the neck and back injuries that have been diagnosed by Ms. Pelaez's doctors?

A Yes, my analysis specifically supported the diagnosis from the statements from three of the doctors that there were, that this crash was causally related to her injuries.

MR. FORDE: Okay. Thank you, Mr. Vangura, I have nothing further.

MR. SHAFER: Can we take a five minute break?

THE COURT: Let's take a very quick five minute break, folks. Don't discuss the case.

THE COURT OFFICER: All rise, jury exiting.

(Whereupon, the jury exits the courtroom.)

(Whereupon, a brief recess is taken.)

THE COURT: Ready.

THE COURT OFFICER: All rise, jury entering.

(Whereupon, the jury enters the courtroom.)

THE COURT: Have a seat everyone.

(Whereupon, the witness resumes the stand.)

THE COURT: Mr. Vangura, I remind you, you are still under oath and Mr. Shafer you may inquire.

MR. SHAFER: Thank you.

CROSS-EXAMINATION

BY MR. SHAFER:

Q Mr. Vangura, you and I never met before; is that correct?

A Just out in the hallway.

Q I saw you in the hallway?

A That's it.

Q I immediately identified myself, correct?

A Oh, yeah.

Q Okay but we haven't discussed this case, correct?

A No, not at all.

Q Great. You have had an opportunity to discuss this case with the attorney for Ms. Pelaez, correct?

A Yes.

Q When were you first contacted with regard to this case?

A I don't recall, probably within the last 30 days. I can't remember exactly.

Q I do have a report here that you drafted and today you mentioned some other measurements with regard to the crush. I didn't see any calculations in your report with regard to crush measurements; did I miss it?

A No, I didn't do any crush measurements.

Q Okay.

A I didn't put them in my report, I did look at them,

because it was in Mr. Toosi's report.
Q But you didn't put it in your report?
A No.
Q But you did see Mr. Toosi's crush analysis, correct?
A Yes, I read his report.
Q You don't have a Ph.D.; correct?
A Not currently.
Q And in fact your course of study in connection with that is inactive, correct?
A Yes, that was the birth of my seventh child so I stopped to pay for school.
Q And you said you were an engineer?
A I do bioengineering, biomechanics.
Q Are you an engineer?
A I do bioengineering and biomechanics, I do work as an engineer for companies, yes.
Q Are you a professional engineer?
A No, I am not.
Q Are you a licensed professional engineer?
A That's the same thing, no, I'm not.
Q In fact you have no medical degrees; correct?
A No, as I testified to, I have lots of training in medical course work, but I am not a medical doctor.
Q You never practiced as a medical doctor, is that correct?

A That would be illegal.
Q You are certainly not doing any teaching, is that correct?
A Not currently.
Q Did you bring any articles with you?
A No, they are in my report.
Q Do you yourself have any peer reviewed, you don't have any peer reviewed publications; is that correct?
A Yes, I do. It is in my CV.
Q Now, in your report you indicated that Dr. Toosi did two analyses; correct?
A Yes.
Q In fact he did three, correct?
A No, I think there's just two.
Q You saw the crush energy analysis?
A Yes.
Q You saw the momentum analysis?
A Yes.
Q You saw the analysis for the stopping distance?
A Yeah, I guess technically, yeah, stopping distance doesn't -- doesn't apply to the energy applied to the vehicles, that's a separate analysis.
Q But it is --
A Talking about Delta-v's those are created -- they are analyzed, via those two analyses.

Q He did three analyses; correct?

A Not the same, he did a total of three, two being with Delta-v, one being --

Q But a total of three.

With the analysis that Dr. Toosi did, you didn't disagree with the methodology, correct?

A Yeah, I said that it was incorrect. The methods were not correct per the book that he cited.

Q Right. But those calculations are not your report; correct?

A No, I didn't need to because I felt that even if he agreed that it was 18 miles an hour there was more than enough energy and then I did both 18 and 30 to have a better understanding.

Q Right.

A Which is exactly why he did what he did; he just didn't plug in the 30.

Q Now, if we have the Delta-v of the Honda and the Delta-v of the Nissan, then we can calculate the closing velocity?

A No, the way you do the conservation of momentum is you start with the impact speed. So the vehicle speed for the Civic was zero, if you plug in 30 or 18, you plug that in early and then you spit out a Delta-v and then acceleration if you continue it, which is the important part.

Q Okay. Now, you said you looked at Mr. Littleton's testimony?

A Yes.

Q Did you read his entire testimony?

A Yeah, I normally do.

Q The whole transcript, you read it?

A I didn't read the glossary but I read everything that he stated.

Q Did you read the part at page 20 beginning at line 13 --

MR. FORDE: Judge, I have an objection to counsel reading his own client's EBT transcript.

MR. SHAFER: Your Honor, the witness testified to reading it, relying on it and I now want to confirm that he read the portions that conflict with his opinions.

THE COURT: Overruled for now.

Q Did you read the part beginning on page 20 line 13 where he was asked these questions:

"QUESTION: Prior to this vehicle being stopped, did you see the vehicle that you were in contact with slow down?

"ANSWER: Yes.

"QUESTION: Did the rear brake lights come on?

"ANSWER: Yes.

"QUESTION: How much time before the actual contact

occurred did you see the rear brake lights of the vehicle in front of illuminate?

"ANSWER: At least 30 feet".

Q Did you see that and read that?

A Yes.

Q And did you read the part on page 27, line 12:

"QUESTION: When you pressed on the brake, did you have any power at all to stop the vehicle?

"ANSWER: I had some power, yes.

"QUESTION: How much time passed from the time you first pressed the brake pedal up until the point of contact between the two vehicles?

"ANSWER: 15 seconds.

Q Did you see that part?

A Yes, I did.

Q And then did you see the part on page, beginning on page 39 line 8:

"QUESTION: Did your vehicle skid as a result of this pressing on the brake?

"ANSWER: Yes.

"QUESTION: Did you leave a skid mark in the roadway, if you know?

"ANSWER: I did.

"QUESTION: Did your vehicle have antilock brakes?

"ANSWER: I don't know.

"QUESTION: Do you know what year it was?

"ANSWER: Might have been 2015, I don't recall.

"QUESTION: What distance did your vehicle skid?

"ANSWER: Like 15 feet."

Q Did you read that part plaintiff Littleton's testimony?

A Yes, I did.

Q You didn't see any indication that the air bag went off in the Nissan; did you?

A I don't believe any of the air bags went off.

Q Well, at 30 miles per hour the air bags certainly would have gone off, right?

A Do you think?

Q Do you disagree?

A They didn't go off. When you have -- when you have angled collisions, they don't always go off. It really depends on, a lot on the way air bag module is done at the time and the conditions of the crash.

So the module would have been detecting braking, but there was no braking according to the testimony or it was underpowered, so I don't know if any of that would have been calculated.

Q The air bags are designed to go off at between 15 and 20 miles per hour?

A I am sorry, can you repeat that?

Q The air bags are designed to go off at between 15 and

20 miles an hour, correct?

A I am not entirely sure what the MV200 does.

Q Okay.

A But I do know that it is calculated off of braking as well and a whole bunch of other factors and clearly it was testified that there was problems with the braking so it may not have been correct.

Plus it was an offset, so that decreases the components of that that is measured by the vehicle for that, so, I don't know that that would be very reliable.

I think the one reliable part is when he said he was going 30 when he impacted the vehicle, that's the most important one.

Q It seems to me like you didn't read the rest of the testimony, did you?

MR. FORDE: Objection.

THE COURT: Sustained.

Q Now, the testimony by Mr. Farbre, the person who is said to have been driving the Honda, was that the vehicle moved five to six feet, correct?

A Yes.

Q In fact, his testimony was he turned to the right to avoid hitting the vehicle in front of him; correct?

A Not Mr. Farbre.

Q He didn't testify that he turned the wheel to the right

to avoid hitting the vehicle in front of him?

A I don't remember that. I know Mr. Littleton did. It wouldn't matter because he was fully braked, so I don't know why anybody would turn their wheel to avoid it because you don't have any steering.

Q If the Honda moved less than five to six feet, then the closing velocity would be different; correct?

A Well, I guess, I guess what I don't understand you're asking me if he said these things and Mr. Toosi ignored one of them, which was 30 miles per hour, why would he pay attention to those for the braking but not for the other one; it doesn't make much sense.

It is like cherry picking, say, well he's taking all these numbers over here, but he ignored this one and this is the most important one, this is the 30 miles per hour.

Q But did you the same calculation that Dr. Toosi did and came up with the same result?

A I did not do the same calculations, I already told you I just did the conservation momentum.

Q But you substituted 30 miles per hour for 18 miles per hour; right?

A No, I did them both, which is what he should have done as well. And irregardless, the 9 miles an hour is plenty of speed to cause the injury, so it is a moot point.

Q To cause the whiplash associated disorder?

A To cause her injuries.
Q A whiplash associated disorder?
A To cause her injuries.
Q You didn't write in your report associated disorder?
A Yes, but those disorders are injuries, those are Mrs. Pelaez's injuries.
Q Okay. If the Honda didn't move at all, that would significantly impact the calculation; correct?
A It didn't. He testified that it moved.
Q But do you know that Ms. Pelaez said first that it didn't move at all and second maybe it moved a little bit?
A Um-hmm.
Q Would that information change your calculation?
A No, because that's not involved in the conservation momentum.
Q So, how far the vehicle is pushed as a result of an impact wouldn't have any impact on the calculation?
A No, all the research papers that I am relating this to do not calculate those either. They don't add in that portion of how far did this car move or that car move.
What happens is they take the Delta-v and correlate with the injuries. So I was just consistent with all the research papers.
Q To you it doesn't matter if the car didn't move at all, doesn't matter if the car moved a little bit, that doesn't

matter?

A I didn't say that. I said it is not part of the calculations.

Q Okay. Are you aware that Ms. Pelaez also testified that the Nissan hit the guardrail first, are you aware of that?

A I remember that, yeah.

Q Okay. But you discounted that?

A I didn't discount it, I went by what the driver, Mr. Littleton said. They were pretty clear.

Q You didn't do your own independent analysis?

A Are you serious?

Q You did the same analysis that Dr. Toosi did but came up with different numbers?

A No, I did my complete analysis, that's what I do in every case.

Q Now, in your report you talk about injury causing positions.

What injury causing positions are you talking about?

A Can you read more of the paragraph so I know where you're at in my report?

Q That was your testimony about injury causing positions.

A When did I testify to that?

Q You didn't testify to that today?

A I don't remember I was talking about injury causing positions. I know it's in my report, I am just wondering where

you're reading from.

Q Now, you also testified that people can come into contact with the interior of the vehicle as a result of accidents; right?

A Yes, that can be from inertia or from impact.

Q Are you aware that Ms. Pelaez testified that her body did not impact any part of the interior of the vehicle, are you aware of that?

A Completely aware. And it is very very common for people to not recognize that they impact.

Q But you have no reason to believe that Ms. Pelaez was not correct about what she contacted?

A Many people, many people don't fully -- it happens in 100, 200 milliseconds it is very fast, it is very difficult to remember everything that happens to you.

Important to the whole thing to inertially can happen the same way. With that vigorous of a, that heavy of an impact as far as my opinion goes, there is no way that she didn't impact things.

Q But that was not her testimony, you are aware of that?

A I understand that. It is my opinion based upon all of what I reviewed that there is no way that she didn't impact some other parts of the vehicle. Was too violent, it was too violent a crash.

Q Mr. Vangura, I am looking at your findings at paragraph

6, on your report, do you have your report?

A No.

Q You don't have your report. So you indicated I calculated the same Delta-v's for the Honda and Nissan as Toosi using the same variables for vehicle curb weight, optimum weight and a point 100 millisecond crash cycle, I think you probably meant point 100 seconds, not milliseconds; right?

A It is 100 milliseconds.

Q So it is not point 100, it is 100 millisecond?

A 100 seconds, 100 milliseconds.

Q Right. So, if you wrote in your report zero point 100 milliseconds that would be an error, correct?

A Say again. Zero point --

Q If you wrote in your report zero point 100 milliseconds?

A Yes, that incorrect. It is 100 milliseconds. It is a typo.

Q Okay.

A That one part of the training that Mr. Toosi used in his analysis as well 100 milliseconds, that's pretty common that's what everybody uses.

Q So Dr. Toosi actually came up with 18 miles per hour from analyzing the crash analysis?

A Probably.

Q Stopping distance?

A No, they are separate, they are not together.
Q Correct. They are independent?
A Yeah.
Q Right. And the testimony?
A And he ignored the 30 miles per hour.
Q Three independent analyses.

A They are not independent, he purposely didn't put in the 30 miles per hour in there, he could have done the 18 but then make sure he did 30 as well and evaluate it. It is improper for him to not do that.
Q Mr. Mr. Vangura, if it was 30 miles an hour and not 18 miles an hour, that vehicle would have moved 12 feet not six feet, isn't that right?
A We don't really know exactly what they moved, nobody measured it. And we don't know if any vehicle has antilock braking.

MR. SHAFER: Thank you, nothing further, your Honor.

THE COURT: Very short time for redirect if you need it.

MR. FORDE: Just one thing.

REDIRECT EXAMINATION

BY MR. FORDE:

Q Mr. Vangura, you were read some testimony from

Mr. Littleton, on page 27, line 16, how much time past from the first time you first pressed the brake pedal up until the point of contact between the two vehicles ad his answer was 15 seconds.

All right. How far does a vehicle going 30 miles per hour travel in 15 seconds?

A Pretty far. I'm not a calculator, I can't calculate.

Q So, do you know what the formula is for calculating how many feet per second a car is traveling based on miles per hour?

A Yeah.

Q Can you tell us approximately what that is?

A Well, there's 5,280 feet in a mile so you just divide that.

Q Okay. So, in 15 seconds, at 30 miles per hour, his car would have traveled a heck of a lot further then --

A Yeah.

Q Like 30 feet or 40 feet or something like that?

A I agree with that.

MR. FORDE: No further questions.

MR. SHAFER: Nothing further, your Honor.

THE COURT: Thank you, Mr. Vangura, you can step down.

(Whereupon, the witness steps down from the stand.

MR. SHAFER: Actually, your Honor, that's okay.

THE COURT: Okay, folks, that's all we can do for

today. 9:30 tomorrow. Same place.

I can let you know on Wednesday we will be starting later, probably about 11:00. So you will be able to take your time getting in here Wednesday morning.

Thank you very much. Do not discuss the case.

COURT OFFICER: Jury exiting.

(Whereupon, the jury exits the courtroom.)

(Whereupon, the trial is adjourned to Tuesday, May 10, 2022 at 9:30 a.m.)

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