UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE PATENT TRIAL AND APPEAL BOARD

_____

KUBOTA NORTH AMERICA CORPORATION,

Petitioner,

v.

VERMEER MANUFACTURING COMPANY,

Patent Owner.

_____

IPR2025-00167

IPR2025-00168

IPR2025-00169

U.S. Patent No. 9,321,386

IPR2025-00170

U.S. Patent No. 9,975,750

IPR2025-00171

U.S. Patent No. 10,202,266

IPR2025-00381

U.S. Patent No. 11,465,891

PGR2025-00016

U.S. Patent No. 12,098,063

Deposition of DR. STEVEN ALAN VELINSKY

Conducted virtually via Zoom

Tuesday, January 6, 2026

1:04 p.m. CST

Job No.: 613974

Pages: 1 - 52

Reported by: THERESA A. VORKAPIC,

CSR, RMR, CRR, RPR

Deposition of Dr. Steven Alan Velinsky, conducted virtually via Zoom, pursuant to notice before Theresa A. Vorkapic, a Certified Shorthand Reporter, Registered Merit Reporter, Certified Realtime Reporter, Registered Professional Reporter and a Notary Public in and for the State of Illinois.

Vermeer Manufacturing Company – Ex. 2039
Kubota v. Vermeer
IPR2025-00170
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REPORTER'S NOTE: All quotations from exhibits are reflected in the manner in which they were read into the record and do not necessarily indicate an exact quote from the document.

A P P E A R A N C E S

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C O N T E N T S

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P R O C E E D I N G S

THE REPORTER: Would you raise your right hand, please.

(The witness was duly sworn.) 01:05:20

DR. STEVEN ALAN VELINSKY,

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

EXAMINATION 01:05:23

BY MR. VANDER TUIG: 01:05:23

Q Dr. Velinsky, I'm Mark Vander Tuig. I'm 01:06:04
one of Vermeer's back-up counsel in these IPRs. I 01:06:10
know that you were already deposed once in these 01:06:14
proceedings, so I won't go over a lot of the 01:06:17
background ground rules. But -- and I don't 01:06:20
anticipate that this will go that long today, but 01:06:21
if you need a break for any reason, just let me 01:06:23
know and I'd be happy to accommodate that. 01:06:26

A Okay. 01:06:28

Q Just before we went on the record, we went 01:06:29
over some of the logistics of the remote sharing 01:06:31
of exhibits. I think you have now already the 01:06:36
exhibit that was previously marked as 1042 which 01:06:40

is the second declaration that you submitted in 01:06:45
these proceedings. The one that I uploaded was, 01:06:47
in particular for the record, the Exhibit 1042 01:06:52
from proceeding IPR 2025-00167. 01:06:55
Do you have that in front of you, sir? 01:07:03
A Yes, I do. 01:07:06
Q If you turn to the second page of the 01:07:06
document, Paragraph 2 says that: "I understand 01:07:09
and agree with the board's construction of the 01:07:16
claim term 'mainframe' to mean 'the primary 01:07:18
supporting structure of the machine.'" 01:07:21
Do you see that statement? 01:07:25
A Yes. 01:07:26
Q Is this understanding of the meaning of 01:07:28
mainframe the same as or different than the 01:07:31
meaning of mainframe you applied in your first 01:07:34
declaration in these proceedings? 01:07:36
A It's been a while since I obviously wrote 01:07:41
those declarations, but I believe, yes, it is. 01:07:44
Q You believe it's the same definition in 01:07:48
this declaration as it was in your very first 01:07:51
declaration in these proceedings? 01:07:54

A Again, as best as I could recall. I 01:07:57
haven't -- haven't read those things in a long 01:08:00
time but yes. 01:08:03
Q Okay. And feel free to review the 01:08:07
declaration, but I see reference -- in addition to 01:08:09
the institution decision from the board, you also 01:08:13
addressed the KR996 reference. 01:08:16
Were there any other documents that you 01:08:21
reviewed as part of preparing this second 01:08:25
declaration? 01:08:28
A It was the, as you stated, the Korean 01:08:33
patent and then those portions of the board's 01:08:34
decision related to mainframe. 01:08:37
Q And no other documents were reviewed in 01:08:40
connection with preparing this declaration? 01:08:41
A No, sir. 01:08:43
Q In Paragraph 2 you say you understand and 01:08:53
agree with the board's construction, and then it 01:08:55
looks like the rest of the declaration, it seems 01:08:58
like you're applying that construction to the 01:09:01
KR996, but it doesn't seem like you're offering an 01:09:05
opinion on whether the board's preliminary 01:09:10

1 construction of mainframe is correct or not. Is 01:09:14
2 that accurate, that you're not opining on claim 01:09:18
3 construction but instead applying that claim 01:09:21
4 construction to the KR996 reference? 01:09:23
5 A I'm applying it. I haven't -- yes, I 01:09:34
6 would say that I agree with them. I do agree with 01:09:37
7 them, and that's why I am applying it. 01:09:39
8 Q You're not offering expert testimony on 01:09:45
9 what the meaning of mainframe is in connection 01:09:47
10 with the Vermeer patents, correct? 01:09:49
11 A No, I think that I'm applying their 01:09:57
12 definition. 01:09:59
13 Q Rather than opining on what the meaning of 01:10:03
14 the word is, right? 01:10:06
15 A No. It's my understanding of what the 01:10:09
16 word means and using their decision, their 01:10:12
17 definition. 01:10:19
18 Q But you don't -- you don't cite in this 01:10:21
19 declaration any evidence, for example, that 01:10:23
20 supports the meaning of the definition. You're 01:10:26
21 just applying the board's understanding of that 01:10:30
22 term to KR996; is that right? 01:10:32

A And, of course, my years of experience in 01:10:35
mechanical engineering. 01:10:45
Q But you're not citing any evidence in 01:10:46
support of the definition, correct, in this 01:10:48
document? 01:10:50
A I would say that's correct. 01:10:51
Q You mentioned a minute ago your 01:10:59
experience. So I think if you flipped down to 01:11:00
Paragraph 5 which appears starting on the bottom 01:11:03
of Page 3 of your second declaration, you say 01:11:05
that: "Also in my experience using these types of 01:11:11
construction machines in working with the 01:11:14
California State Department of Transportation," 01:11:17
and then you go on and make some assertions based 01:11:19
on that experience. 01:11:22
Do you see that? 01:11:23
A Yes. 01:11:24
Q To dive a little deeper into that 01:11:29
experience, is this work you did with the 01:11:31
California State Department of Transportation the 01:11:35
work you did when you were the director of the 01:11:36
Advanced Highway Maintenance and Construction 01:11:39

Technology Research Center at UC Davis? 01:11:43
A Yes, that's correct. 01:11:44
Q And I might refer to that as the acronym 01:11:47
that I noticed on the website of that 01:11:49
organization, AHMCT; is that familiar? 01:11:52
A Yes, kind of awkward, but yes. 01:11:56
Q Both the name and the acronym are a bit of 01:12:00
a mouthful, but I think the acronym is a little 01:12:02
bit easier. 01:12:05
A That's fine. 01:12:06
Q So in Paragraph 5, you refer to these 01:12:07
types of construction machines as mini skid 01:12:14
steers. 01:12:18
Do you see that? 01:12:18
A Yes. 01:12:24
Q What is your understanding of what a mini 01:12:25
skid steer is? 01:12:28
A It would be a -- there are the Bobcat-type 01:12:32
of size machines that are typically referred to as 01:12:37
skid steers. The mini skid steer would be a 01:12:40
smaller device, lighter weight, easier to 01:12:44
maneuver. 01:12:50

Skid steer is referring to the method of 01:12:51
steering as opposed to having an active steering 01:12:55
wheel and turning the tires. What a skid steer 01:12:58
does it has -- it drives each -- wheels on each 01:13:04
side of the vehicle, and it drives them at 01:13:07
different speeds in order to accomplish turning, 01:13:09
et cetera. 01:13:13
Q I'm going to load another exhibit. This 01:13:24
is going to be your first declaration, just for 01:13:26
reference on this point. I'm throwing that into 01:13:28
the chat right now. This was previously marked as 01:13:32
Exhibit 1003. 01:13:34
A Okay. 01:13:43
Q And this particular Exhibit 1003 was 01:13:43
submitted in IPR 2025-00167. Let me know when you 01:13:45
have that up. 01:13:51
A So I should just open it and it should 01:13:59
open? Okay. Okay. I have opened it. 01:14:02
Q If you could turn -- and feel free to 01:14:11
review any portion of this for context if you need 01:14:13
to, but if you turn to Page 11 of the document, 01:14:16
Paragraph 15 starts at the bottom of that page. 01:14:21

And let me know when you see that. 01:14:24
A Yes, I have Paragraph 15. 01:14:34
Q Okay. So in this paragraph, you define 01:14:35
skid steer. 01:14:41
Do you see that? 01:14:46
A Yes. 01:14:46
Q And you define it as "an equipment or 01:14:46
device that changes direction by propelling the 01:14:49
opposite sides of the machine at different rates 01:14:52
as opposed to actively turning the wheels, for 01:14:54
example."
Do you see that? 01:14:58
A Yes. 01:14:58
Q And then you go on to say that you have 01:14:59
experience with these types of skid steers dating 01:15:01
back to the early 1990s, when you were developing 01:15:06
wheeled mobile robots for use in highway 01:15:11
maintenance tasks. 01:15:13
Do you see that? 01:15:15
A Yes. 01:15:15
Q So do you consider the wheeled mobile 01:15:22
robots that you -- that you developed in the 1990s 01:15:24

to be skid steers? 01:15:27
A Yes, the differentially steered wheeled 01:15:29
mobile robots were skid steers, yes. 01:15:36
Q I believe in your first deposition, you 01:15:45
used the term "mini skid steer, compact utility 01:15:49
loader, compact track loader," all sort of 01:15:55
synonyms for the same type of machine. 01:15:58
Do you still agree that that's the case? 01:16:01
A I haven't -- you're talking about the 01:16:03
deposition? 01:16:06
Q Yeah, just as far as terminology during 01:16:07
the deposition, I think you used "compact utility 01:16:10
loader," which I think Vermeer's patents refer to. 01:16:13
"Mini skid steer" is another term and then 01:16:16
"compact track loader" were all kind of referring 01:16:19
to the same machine. 01:16:23
Do you agree with that, or are there 01:16:24
differences between the three? 01:16:26
A I don't recall specifically, you know, 01:16:28
saying that back then, but just as far as a 01:16:31
tracked vehicle would clearly have tracks as 01:16:37
opposed to wheels. But other than that, I'm fine 01:16:40

with using the same terminology to describe these 01:16:46
devices. 01:16:49
Q And would you consider your wheeled mobile 01:16:51
robots developed in the 1990s to be compact 01:16:53
utility loaders? 01:16:59
A Yes, some of them. 01:17:04
Q Going back to the first exhibit we were 01:17:24
looking at, Exhibit 1042, again, looking at 01:17:26
Paragraph No. 5. 01:17:30
A Yes. 01:17:36
Q This is towards the end of Paragraph 5, on 01:17:36
Page 4 of the document, you say: "For example, a 01:17:40
mini skid steer can be used for an individual task 01:17:43
only, such as routing pavement or placing crack 01:17:47
sealant on the highway." 01:17:51
Do you see that? 01:17:53
A Yes. 01:17:53
Q And have you developed or designed mini 01:17:57
skid steers for accomplishing the routing of 01:18:00
pavement or the placement of crack sealant on the 01:18:02
highway? 01:18:06
A Yes. 01:18:06

Q I'm going to mark another exhibit. This 01:18:28
one I'm going to mark as -- actually, this has 01:18:29
been previously marked as well. This one is 01:18:32
Exhibit 1036. It should be on its way. Let me 01:18:39
know when you have that pulled up. 01:18:51
A I've opened it. 01:18:52
Q So Exhibit 1036, as you can see, is a copy 01:18:53
of your CV that was submitted along with your 01:18:58
first declaration in these matters. 01:19:02
Do you recognize that? 01:19:11
A Yes. 01:19:12
Q And if you turn to Page 6 of your CV, 01:19:12
there is a -- this is part of a list of your 01:19:15
research publications. 01:19:24
Do you recognize that? 01:19:25
A Yes. 01:19:25
Q If we look at Research Publication No. 49, 01:19:34
you're listed as an author. The title of this 01:19:36
paper is: "Development of a Tethered Mobile Robot 01:19:39
for Highway Maintenance." 01:19:43
Do you see that? 01:19:44
A Yes. 01:19:45

Q Do you recognize this paper to be related 01:19:46
to the machine that you built for routing pavement 01:19:48
and applying sealant to highways? 01:19:52
A I would say certainly related to it. I 01:20:05
don't recall all the details of that report as we 01:20:08
speak, but generally, we developed a bunch of what 01:20:09
we called, you know, wheeled mobile robots for 01:20:12
highway maintenance. 01:20:16
MR. VANDER TUIG: I'm going to mark as a 01:20:39
new Exhibit A to this deposition a document that 01:20:40
I'm sending your way. 01:20:43
(A certain document was marked Velinsky 01:20:45
Deposition Exhibit A for identification,
as of 01/06/2026.) 01:21:01
BY MR. VANDER TUIG: 01:21:01
Q Let me know when you have that one pulled 01:21:01
up. 01:21:02
A I have it. 01:21:03
MR. O'DELL: I'm still downloading. 01:21:03
MR. VANDER TUIG: Okay. 01:21:05
MR. O'DELL: Okay. I'm ready. 01:21:07
BY MR. VANDER TUIG: 01:21:09

Q So I've pulled up a handful of research 01:21:14
reports, and this is the first one that we're 01:21:16
going to discuss on the AHMCT website that has 01:21:18
some of the final reports and various documents 01:21:24
that were prepared by you and your team back in 01:21:28
the day. 01:21:30
Do you recognize this report? 01:21:30
A Yeah. I mean, in general, yes. Until I 01:21:39
look at it I don't know all the details, but, 01:21:43
yeah, sure. 01:21:46
Q When we're looking at your list of 01:21:50
research publications in Exhibit 1036, number 49 01:21:52
referenced a document UCB-ARR-94-10-31-01. 01:21:58
Do you recognize -- 01:22:09
A This report is what you just -- 01:22:12
Q Right. Do you recognize that to be the 01:22:14
case? 01:22:16
A Sure, yes. 01:22:17
Q So this report was published or prepared 01:22:19
or finalized in October of 1994, and you're listed 01:22:21
as one of the authors on the first page. 01:22:26
Do you see that? 01:22:29

A That's correct. 01:22:30
Q If we turn to Page 11 of the document 01:22:36
which appears at PDF Page 19, let me know when 01:22:40
you're there. 01:22:45
A I'm there. 01:22:46
Q There's a Figure 3.4 that's labeled "TMR 01:22:48
Photograph." 01:22:54
Do you see that? 01:22:54
A Yes. 01:22:55
Q And TMR stands for tethered mobile robot, 01:22:56
correct? 01:23:00
A That's correct. 01:23:00
Q Is this a picture of the prototype of the 01:23:05
tethered mobile robot as of the date of this 01:23:08
report? 01:23:11
A Yeah, we were developing the methodology 01:23:12
for accurately measuring the position of the 01:23:15
device with respect to the support vehicle that it 01:23:19
works from and that's -- in the laboratory, that 01:23:26
is the laboratory prototype unit for measuring the 01:23:28
position accurately. 01:23:35
Q So this is the tethered mobile robot 01:23:39

prototype, correct? 01:23:43
A Yes, this is the early prototype without 01:23:54
having any tools on it. It was used to measure 01:23:56
the relative position accurately with respect to 01:23:58
the vehicle. That's what that aspect concerns. 01:24:02
Q When you reference the support vehicle, if 01:24:04
you look a couple of pages earlier, Page 9 of the 01:24:06
native document, which is Page 17 of the PDF? 01:24:12
A Yes. 01:24:13
Q There is a schematic there under 01:24:14
Figure 3-1 that's labeled the "Conceptual TMR 01:24:16
System Configuration." 01:24:20
Do you recognize that? 01:24:21
A Yes, that's correct. 01:24:24
Q And the support vehicle there is indicated 01:24:25
at the top which has the control hardware and the 01:24:28
materials for the crack sealant work and the power 01:24:31
supply. 01:24:35
Do you see that? 01:24:36
A Yes. 01:24:36
Q And the support vehicle would be what, 01:24:37
like a truck or what would the vehicle be? 01:24:39

A Yes, it's a truck. 01:24:42
Q And then there would be some sort of 01:24:45
mechanical arm or linkage that would hook to the 01:24:47
tethered mobile robot, correct? 01:24:50
A For this particular prototype, that's what 01:24:52
we were envisioning, was this arm. You see 01:24:55
mechanical linkage. And it would allow us to 01:25:00
measure the position accurately by having encoders 01:25:02
on the arm. 01:25:08
Q And so this prototype that we're seeing in 01:25:13
Figure 3-4, that we looked at a minute ago on 01:25:14
Page 11 of the document, do you consider than to 01:25:17
be a compact utility loader? 01:25:20
A Well, as it stands, there's not tools on 01:25:30
it. It's just a prototype being used in the 01:25:32
development of a compact utility loader. 01:25:38
Q So you would say that this is not itself a 01:25:42
compact utility loader? 01:25:44
A As it stands, no. 01:25:45
Q You still have Exhibit 1036 up, your CV. 01:25:53
If you could pull that back up and scroll down in 01:25:58
the list of research publications to Publication 01:26:01

No. 80. 01:26:03
A Yes. 01:26:10
Q Do you see that one? 01:26:11
A Uh-huh. 01:26:12
Q This is another research report where 01:26:13
you're listed as an author. This one is titled: 01:26:15
"Development of Tethered Mobile Routing Robot 01:26:18
(TMRR)." 01:26:23
A Yes. 01:26:24
Q Which is another AHMCT research report. 01:26:25
This one is identified as UCD-ARR-97-02-24-01. 01:26:30
Do you see that? 01:26:41
A Yes, I do. 01:26:42
Q And that one is from 1997, correct? 01:26:42
A Yes. 01:26:45
MR. VANDER TUIG: I want to load that 01:26:50
research report up as our next exhibit. Just a 01:26:51
second. 01:26:54
(A certain document was marked Velinsky 01:26:54
Deposition Exhibit B for identification,
as of 01/06/2026.) 01:27:05
BY MR. VANDER TUIG: 01:27:05

Q It should be on its way. It's a little 01:27:06
bit large. 01:27:08
A Yes, I opened it. 01:27:18
Q And here you're again on the front page 01:27:23
listed as one of the authors. 01:27:26
Do you recognize this to be the report 01:27:27
that's referenced on your CV? 01:27:30
A Yes. 01:27:32
Q No. 8. If you turn to Page 5 of the 01:27:34
native document which is PDF Page 11, please. 01:27:39
A Okay, got it. 01:27:53
Q On Page 5 of the native document there is 01:27:55
a Figure 2-2 which is a photograph of the front 01:27:57
view of the tethered mobile routing robot. 01:28:00
Do you see that? 01:28:03
A Yes. 01:28:05
Q And the acronym for this is TMRR, correct? 01:28:06
A Yes. 01:28:10
Q Is this an accurate photograph of the 01:28:12
tethered mobile routing robot that existed as of 01:28:16
1997? 01:28:21
A As best as I can tell from that 01:28:27

figure -- there are other views in here -- 01:28:29
Q Yeah, feel free to --
A -- that's in our laboratory, by the way. 01:28:38
Q Do you recognize this machine, though, to 01:28:39
be the tethered mobile routing robot that your 01:28:41
team created? 01:28:44
A To the best of my recollection, that looks 01:28:51
like the machine. 01:28:54
Q At a high level -- and you don't have to 01:28:56
get too detailed -- can you explain how this thing 01:28:58
worked? 01:29:01
A Sure. So basically you have cracks in the 01:29:06
pavement that you want to fill with material, 01:29:09
tar-like material, bituminous material. And so 01:29:16
what you like to do is enlarge the crack in such a 01:29:21
way that the material could penetrate and fill 01:29:26
that crack. And so there is a routing unit that 01:29:29
typically is -- looks like a person -- 01:29:36
(Reporter clarification.) 01:30:09
BY THE WITNESS:
A Okay. So the typical router is manually 01:30:12
operated. A person pushes around a device; it 01:30:14

1 looks like a big lawn mower, snow blower. But our 01:30:17
2 research center concerned automating highway 01:30:23
3 maintenance operations, and so we built our own 01:30:29
4 routing device, mounted it on a wheeled mobile 01:30:33
5 robot that was differentially steered. The basic 01:30:38
6 sensing was on the support vehicle, and then this 01:30:50
7 device had additional sensing on it to ensure that 01:30:56
8 the operator was moving over the cracks while the 01:31:01
9 device was routing, so the router was powered. 01:31:08
10 And the power to run the router came from the 01:31:13
11 support vehicle. 01:31:20
12 Q And, again, the support vehicle was like a 01:31:23
13 construction truck? 01:31:27
14 A Yes. 01:31:28
15 Q So this -- is this the photograph of the 01:31:31
16 tethered mobile robot with the tooling necessary 01:31:37
17 to achieve the routing and the sealing? 01:31:43
18 A As best as I could -- no, let me back up, 01:31:50
19 no. 01:31:53
20 The sealant was a different robot, so one 01:31:53
21 is routing and one is sealing. So this is the 01:31:57
22 routing robot as best as -- the picture is kind of 01:32:04

fuzzy, but it was a development stage in the 01:32:08
laboratory during the development part of the 01:32:10
machine where we were ensuring that we could 01:32:13
follow cracks and so on, and then later on moved 01:32:16
it out onto the pavement to actually route 01:32:23
pavement itself. 01:32:29
Q What did the sealing robot look like? 01:32:32
A Similar type of device being as it was a 01:32:40
wheeled mobile robot that was differentially 01:32:46
steered, and it had a patented sealant applicator 01:32:49
on it. 01:32:58
Q Would it be attached to a support vehicle 01:33:00
like the routing robot was? 01:33:03
A Yes, because it got its power and the 01:33:05
sealant was provided by the melter that existed on 01:33:10
the support vehicle. 01:33:16
Q Is my understanding correct that there 01:33:19
would be a separate pairing of the routing robot 01:33:20
and a support vehicle separate from a different 01:33:25
support vehicle and the sealing robot? 01:33:28
A No, not necessarily. It could be or they 01:33:32
could come from the same vehicle. 01:33:36

Q The two robots could share the same 01:33:44
support vehicle you're saying? 01:33:47
A Yes, that's correct. 01:33:48
Q So in Figure 2-2 of Exhibit B that we're 01:33:51
looking at, do you consider this to be a compact 01:33:55
utility loader? 01:33:58
A The road-going machine definitely was. 01:34:13
This could be considered one. 01:34:16
Q So you do or you do not consider this to 01:34:22
be a compact utility loader? 01:34:26
A I consider it to be a compact utility 01:34:28
loader, yes. 01:34:31
Q As part of your work in connection with 01:34:37
these cases, did you consider the definition of 01:34:39
"compact tool carrier" that's provided in 01:34:41
Vermeer's patents? 01:34:44
A Yes. 01:34:49
Q Just so we're on the same page, I'm going 01:34:49
to upload the '386 patent so you can take a look 01:34:52
at that. It should be on its way. This is 01:35:00
Exhibit 1001 previously marked. Let me know when 01:35:03
you have that up. 01:35:13

A This is the patent? 01:35:14
Q This is Vermeer's '386 patent, correct? 01:35:14
A Yes. 01:35:17
Q You are familiar with this patent, right? 01:35:17
A It's been a while since I reviewed it, so 01:35:19
I can't -- can't tell you the details of it, but, 01:35:23
you know, it's been quite a few months since we 01:35:26
went through and wrote those initial reports, and 01:35:32
I haven't read it recently but generally, yes, I'm 01:35:34
familiar with it. 01:35:37
Q If you could turn to PDF Page 10 which is 01:35:43
where the written description starts, Column 1. 01:35:46
Let me know when you're there. 01:35:48
A I'm there. 01:35:49
Q Under the heading "Background," there is a 01:35:49
description of compact tool carrier is the first 01:35:52
paragraph there. 01:35:55
Do you see that? 01:35:55
A Yes. 01:35:56
Q I'll just read it into the record so we're 01:35:58
on the same page here. It says: "Compact tool 01:36:03
carriers are tool-mounted machines that are 01:36:07

capable of working in tight spaces for utility or 01:36:09
do-it-yourself home projects. Compact tool 01:36:13
carriers are walk-behind units or include a 01:36:16
platform on which the operator may stand during 01:36:20
use." 01:36:22
It goes on to say that: "Compact tool 01:36:27
carriers are generally defined" -- citing a couple 01:36:30
of ISO and SAE standards -- "as 'a self-propelled 01:36:34
crawler or wheeled machine having an operating 01:36:41
mass of less than 1500 kilograms with a rigid 01:36:43
frame, having a pedestrian operating position or a 01:36:48
standing operator platform at the rear of the 01:36:51
machine and either front-mounted interchangeable 01:36:54
equipment or lift arms with an attachment bracket 01:36:58
capable of coupling to interchangeable 01:37:02
front-mounted attachments.' The tool carriers may 01:37:05
be attached to a variety of interchangeable tools 01:37:10
such as buckets, augers, forks, stump grinders, 01:37:14
tillers, rollers and the like." 01:37:18
Do you see that? 01:37:22
A I see that. 01:37:23
Q Applying this definition of compact tool 01:37:26

carrier in the Vermeer patents, you would agree 01:37:30
with me that the tethered mobile robot that we saw 01:37:34
in Exhibits A and B don't have these features, 01:37:39
correct? 01:37:47
A Well, I mean, I think the -- first of all, 01:37:50
I'm looking at this now after quite a period of 01:37:54
time, but a self-propelled machine certainly meets 01:37:58
that, certainly has a mass less than 01:38:04
1500 kilograms, certainly has a rigid frame and 01:38:07
generally defined as such. And so my definition 01:38:11
fits that. I generally define it as such. It's a 01:38:14
machine that -- also our machines can operate 01:38:18
remotely with teleoperation from someone walking 01:38:23
on the roadway. So generally our machines do meet 01:38:26
this definition, and in my opinion they do. 01:38:32
Q So did your machine have a pedestrian 01:38:36
operating position or a standing operator platform 01:38:39
at the rear of the machine? 01:38:43
A Our machines can be operated by a 01:38:45
pedestrian remotely, yes. Teleoperation, that's 01:38:49
what we're talking about. I believe in the patent 01:38:55
it also talks about that as well, that in addition 01:38:58

to riding on it, you can operate it, for example, 01:39:04
wirelessly or connected with a wire it has, so 01:39:08
yes. 01:39:17
Q But your robots were not designed to have 01:39:17
an operator on the robot, correct? 01:39:19
A No. 01:39:26
Q And your tethered robots were not designed 01:39:27
to have front-mounted interchange building 01:39:34
equipment or lift arms with an attachment bracket 01:39:37
capable of coupling to interchangeable 01:39:39
front-mounted attachments, correct? 01:39:42
A Well, we have -- we certainly have 01:39:48
interchangeable equipment, and the ones we're 01:39:50
looking at don't have lift arms on them, no. 01:39:54
Q When you say "the ones we're looking at," 01:40:01
were there other tethered mobile robots that you 01:40:04
designed with lift arms? 01:40:07
A Not that I can recall. 01:40:09
Q And your tethered mobile robots couldn't 01:40:13
be attached to buckets, augers, forks, stump 01:40:18
grinders, tillers, rollers or the like, correct? 01:40:23
A Well, there's other -- there were other 01:40:33

1 devices that have buckets on them. 01:40:34
2 Q Just so the board understands your 01:40:40
3 testimony, it's your understanding that your 01:40:42
4 tethered mobile robots that we saw in Exhibits A 01:40:43
5 and B are compact tool carriers as described in 01:40:47
6 Vermeer's patents? 01:40:49
7 A It's as I defined them based on reading 01:40:55
8 that, yes. 01:40:58
9 Q Kubota has represented to the Patent Trial 01:41:09
10 and Appeal Board that as to you and Vermeer's 01:41:16
11 expert, Dr. Flemming, that you are the one true 01:41:18
12 expert for compact utility loaders based on your 01:41:20
13 experience with the UC Davis AHMCT group. 01:41:24
14 Were you aware of that fact? 01:41:38
15 A I'm aware of the fact -- I'm sorry. If 01:41:45
16 you could repeat that, please. 01:41:47
17 Q Yeah. 01:41:48
18 Kubota has represented that based on your 01:41:49
19 experience with the AHMCT research center, that as 01:41:51
20 between you and Vermeer's expert, Dr. Flemming, 01:41:55
21 that you're the only true expert in compact 01:41:58
22 utility loaders. 01:42:03

1 Were you aware of their representation? 01:42:10
2 A No. 01:42:12
3 Q Do you agree with that? 01:42:12
4 A I don't know anything about the other 01:42:13
5 expert. I didn't even know they had an expert. 01:42:15
6 So I can't comment on that. I'm not -- not 01:42:18
7 prepared to discuss that now. 01:42:20
8 Q Okay. So you never reviewed 01:42:22
9 Dr. Flemming's expertise in his declaration or his 01:42:25
10 CV? 01:42:27
11 A No, not at all. 01:42:27
12 Q Did you review Dr. Flemming's declaration? 01:42:31
13 A No. 01:42:33
14 Q In making that representation, Kubota 01:42:37
15 cites to your first declaration. So if you could 01:42:47
16 pull that back up. We've previously marked at 01:42:50
17 Exhibit 1003. Let me know when you have that back 01:42:53
18 up on your screen. 01:43:01
19 A I'm going to close some of these. It's a 01:43:05
20 little awkward. 1003 was -- was my first exhibit. 01:43:07
21 Okay. My first declaration, yes. 01:43:18
22 Q Okay. And if you turn to Page 9 of that 01:43:20

first declaration, there's a Paragraph 10 there. 01:43:24
Let me know when you have that on your screen. 01:43:28
A Yes. 01:43:36
Q And this, again, is referring to the AHMCT 01:43:36
experience you had. 01:43:40
Do you see that? 01:43:41
A Yes. 01:43:41
Q In particular, you state in your 01:43:42
declaration that you designed and developed 01:43:47
automated highway maintenance and construction 01:43:51
machines. 01:43:53
Do you see that? 01:43:54
A Yes. 01:43:55
Q And there was a variety of highway tasks 01:43:57
that these different machines accomplished. And 01:44:00
then I'll just read. It says: "...the dispensing 01:44:03
and retrieval of highway cones, sealing of 01:44:06
pavement cracks, collection of roadway debris, 01:44:10
landscape maintenance, graffiti removal and 01:44:13
plowing of snow..." 01:44:17
Do you see that? 01:44:19
A Those were examples, yes. 01:44:20

Q Okay. I'd like to explore some of that 01:44:27
experience as well. 01:44:29
MR. VANDER TUIG: I'm going to mark as the 01:44:30
next exhibit -- let's see. We'll mark this as 01:44:31
Exhibit C. 01:44:44
(A certain document was marked Velinsky 01:44:51
Deposition Exhibit C for identification,
as of 01/06/2026.) 01:45:02
BY MR. VANDER TUIG: 01:45:02
Q Okay. The next exhibit, Exhibit C, should 01:45:02
be on its way. Let me know when you have that 01:45:04
pulled up. 01:45:06
A I have that exhibit pulled up. 01:45:07
Q And, for the record, Exhibit C is United 01:45:08
States Patent No. 6,056,498 that issued in May of 01:45:11
2000. 01:45:18
Do you recognize this patent? 01:45:18
A Yes, I do. 01:45:20
Q And you're listed as the first named 01:45:21
inventor on this patent, correct? 01:45:25
A That's correct. 01:45:26
Q And this is titled: "Apparatus for 01:45:29

retrieving conical roadway warning markers." 01:45:31
Do you see that? 01:45:34
A Yes. 01:45:35
Q Do you recognize this to be the apparatus 01:45:39
that you developed as part of the AHMCT work for 01:45:41
retrieving highway cones? 01:45:49
A Yes. 01:45:52
Q And if we look at, for example, Figure -- 01:45:54
let's see, Figure 3, does that show that this 01:45:58
apparatus that achieved that function was attached 01:46:03
to the side of a truck? Correct? 01:46:05
A That's correct. 01:46:08
Q Do you consider this apparatus to be a 01:46:10
compact utility loader? 01:46:14
A This specific one, no. 01:46:17
MR. VANDER TUIG: I'm going to mark 01:46:26
another exhibit. This will be Exhibit D. 01:46:27
(A certain document was marked Velinsky 01:46:33
Deposition Exhibit D for identification,
as of 01/06/2026.) 01:46:48
BY MR. VANDER TUIG:
Q It should be on its way. For the record 01:46:48

Exhibit D is United States Patent 6,809,294 issued 01:47:02
in October of 2004. 01:47:07
A That's right. 01:47:08
Q Do you recognize this patent? 01:47:09
A Yes. 01:47:12
Q This one is titled: "Apparatus For 01:47:12
Dispensing Pavement Sealants," and it lists you as 01:47:16
the first named inventor. 01:47:19
Do you see that? 01:47:20
A Yes. 01:47:26
Q In addition to the tethered mobile robot 01:47:26
for sealing cracks, is this another apparatus for 01:47:28
sealing cracks that you developed as part of the 01:47:32
AHMCT? 01:47:34
A Yes. 01:47:42
Q And if we look at Figure 1, this depicts 01:47:45
the apparatus for sealing cracks as a towable 01:47:51
trailer towed behind a truck which is not pictured 01:47:56
except for the Reference No. 12. 01:47:59
Do you see that? 01:48:02
A I'm sorry. Will you repeat what you -- 01:48:06
what you said this is? 01:48:09

Q Yes, sure. 01:48:10
So if we look at Figure 1, do you have 01:48:11
that up? 01:48:13
A I do. 01:48:13
Q So Figure 1 depicts the apparatus for 01:48:14
sealing cracks, correct? 01:48:17
A No. 01:48:19
Q What does Figure 1 show? 01:48:21
A Figure 1 is a sealant melter. The way 01:48:23
that the operations occur is that rather than 01:48:30
bringing molten tar out to the jobsite, there's a 01:48:37
sealant melter. And the sealant is brought out 01:48:43
in -- I'll call them cubes for a better 01:48:49
definition. They're not exactly cube-shaped. 01:48:52
And they go into this melter, and there is 01:48:55
certainly a lag in the period of time for them to 01:49:00
melt to where they can be dispensed as sealant to 01:49:04
the roadway. And so this part of the patent 01:49:10
concerns, I believe, us cutting up the material 01:49:14
into smaller sections so that it would melt 01:49:24
faster. If you look at Figure 7, for example, it 01:49:27
shows a mechanism to -- to do that. 01:49:29

Q How, if at all, does this apparatus relate 01:49:36
to the tethered mobile robot for sealing cracks? 01:49:38
A So this unique contribution relates to 01:49:48
being able to melt the material at a faster rate 01:49:51
because we were dispensing the material with the 01:49:57
device shown in Figure 11 at a much higher rate 01:49:58
than was ever done previously. 01:50:07
The sealant applicator itself is depicted 01:50:10
later on, and that's our patented device on how 01:50:14
we -- Figure 19 is a good figure of that. And so 01:50:19
that sealant applicator was then placed on a 01:50:22
wheeled device, differentially steered, skid steer 01:50:34
little device. And then the tether provided the 01:50:39
sealant from the trailer to that dispenser on the 01:50:41
compact utility loader, I'll call it. 01:50:49
Q So if I'm understanding correctly, the 01:50:54
Figure 19 is the applicator mechanism that would 01:50:57
be mounted on the tethered mobile robot, for 01:51:02
example. 01:51:06
A That's correct. 01:51:06
Q And what we saw in Figure 1 is the towable 01:51:08
trailer that is pulled behind the support vehicle 01:51:10

that helps melt the tar that will be used for the 01:51:13
sealing operation in a more efficient manner? 01:51:20
A Yes, that's correct. 01:51:22
MR. VANDER TUIG: We'll mark another 01:51:39
exhibit. 01:51:40
(A certain document was marked Velinsky 01:51:41
Deposition Exhibit E for identification,
as of 01/06/2026.) 01:51:50
BY MR. VANDER TUIG: 01:51:50
Q I'm marking the next one as Exhibit E. It 01:51:50
should be on its way. For the record, Exhibit E 01:52:04
is United States Patent No. 6,789,291 that issued 01:52:07
in September of 2004 titled "Telerobotic Nozzle 01:52:13
Positioning System For An Automated Roadway Debris 01:52:17
Vacuum Vehicle," listing you, sir, Dr. Velinsky, 01:52:21
as the first inventor. 01:52:29
Do you see that? 01:52:30
A Yes. 01:52:32
Q Do you recognize this patent?
A Yes. 01:52:32
Q Does this patent reflect the work you'd 01:52:32
done in developing a machine to collect roadway 01:52:35

debris? 01:52:38
A Yes. 01:52:38
Q If we look at Figure 1, does this show 01:52:50
that this apparatus is connected to a support 01:52:53
vehicle in the form of a truck that we see there? 01:52:55
A Yes. 01:52:58
Q At a high level, can you explain how this 01:52:59
apparatus worked to collect roadway debris? 01:53:01
A Sure. This -- the type of vehicle that 01:53:06
was the support vehicle is a truck that's 01:53:11
typically used. It's a large vacuum truck that's 01:53:18
typically used for clearing storm drains that -- 01:53:21
you may have seen them on the roadway. 01:53:27
And the idea was to be able to collect 01:53:30
debris from very challenging locations, like on 01:53:34
the freeway where it would get caught next to a 01:53:38
guardrail, and you had high-speed traffic passing 01:53:42
by, the goal being to remove people from the 01:53:44
roadway. 01:53:50
And so this was a teleoperated end 01:53:51
effecter, I'll call it, that goes on that vacuum 01:53:57
truck. And you could control the position of it 01:54:00

while the vacuum is sucking up the debris and 01:54:06
removing it from the roadway surface. 01:54:09
Q You wouldn't consider this particular 01:54:14
apparatus to be a compact utility loader, correct? 01:54:16
A No. 01:54:19
MR. VANDER TUIG: The next exhibit I'm 01:54:23
going to mark is going to be Exhibit F. 01:54:24
(A certain document was marked Velinsky 01:54:27
Deposition Exhibit F for identification,
as of 01/06/2026.) 01:54:33
BY MR. VANDER TUIG: 01:54:33
Q It should be on its way. Let me know when 01:54:33
you have that one open. 01:54:35
A It's open. 01:54:42
Q So this is another AHMCT report. This one 01:54:43
is dated December 31, 2001 and lists you as the 01:54:50
principal investigator. 01:54:59
Do you see that? 01:55:00
A Yes, uh-huh. 01:55:03
Q The title of this one is: "Assessment of 01:55:05
Graffiti Removal Practices and Initial Development 01:55:11
of a Tool for Removing Graffiti from 01:55:12

Retroreflective Signs." 01:55:16
Do you recall this project? 01:55:18
A You're reminding me of it, but yes, I 01:55:26
guess so. 01:55:29
Q If you turn or flip down to Page 65 of the 01:55:29
PDF which is Page 55 of the native document. 01:55:32
A 65. 55. 01:55:40
Q Of the native document. 01:55:51
A Yes, uh-huh. 01:55:52
Q So here we have a Figure 2-2 in your 01:55:53
report that's titled: "Conceptual sketch of a 01:55:56
sign cleaning tool," and depicted here is a 01:56:00
backpack-mounted battery power sign cleaning tool. 01:56:03
Do you see that? 01:56:07
A Yes. 01:56:08
Q Is this the work -- is this the apparatus 01:56:12
that you developed for removing graffiti? 01:56:16
A I wouldn't say we developed it. It's a 01:56:24
conceptual sketch. 01:56:26
Q Did you ever develop an actual graffiti 01:56:28
removal machine? 01:56:30
A I don't recall. It's certainly not 01:56:35

1 something like this. 01:56:45
2 Q Okay. You can close that one. 01:56:51
3 MR. VANDER TUIG: One more exhibit. This 01:57:00
4 one will be Exhibit G. 01:57:01
5 (A certain document was marked Velinsky 01:57:04
6 Deposition Exhibit G for identification,
7 as of 01/06/2026.) 01:57:10
8 BY MR. VANDER TUIG: 01:57:10
9 Q Which should be on its way. Let me know 01:57:11
10 when you have that pulled up. 01:57:12
11 A I have it. 01:57:24
12 Q So Exhibit G is another one of your 01:57:25
13 reports for the AHMCT Research Center listing you 01:57:30
14 as an author. This one is dated September 30, 01:57:33
15 2015. It's titled: "Evaluation of the TowPlow, 01:57:39
16 T-o-w-P-l-o-w for Caltrans Operations." 01:57:44
17 Do you see that? 01:57:50
18 A Yes. 01:57:51
19 Q Do you remember this project? 01:57:59
20 A Yes. 01:58:00
21 Q And if you turn to Page 19 of the PDF 01:58:01
22 which is native Page 2 of the document. 01:58:03

A Yes. 01:58:11
Q There is a Figure 1 with a photograph of a 01:58:12
TowPlow system in its deployed configuration. 01:58:14
Do you see that? 01:58:17
A Yes. 01:58:18
Q This is a trailer-type apparatus that is 01:58:19
pulled behind a snow plow, correct? 01:58:27
A That's correct. 01:58:31
Q At a high level, can you describe how this 01:58:31
apparatus worked? 01:58:33
A So just to make clear, we did not design 01:58:40
this device. We were testing it for Caltrans. 01:58:42
The goal of the device's use is to plow more than 01:58:52
one lane of snow with a snow plow. And so it's a 01:58:55
trailer that's steerable. The truck at the -- you 01:58:59
know, the wheels basically at the back of the 01:59:05
trailer are steerable, and there's a plow that 01:59:08
would reside on that trailer. 01:59:13
So the snow plow moves along. It directs 01:59:19
the snow that it plows from the truck back 01:59:22
to -- and off the road. And at the same time, the 01:59:29
trailer is directing snow off the road, so it 01:59:32

1 could do more than one lane at once. 01:59:35
2 Q So your testimony is you did not design or 01:59:40
3 develop this TowPlow system, correct? 01:59:43
4 A No, we were merely evaluating it as the -- 01:59:46
5 the report suggests and did a lot of analytical 01:59:50
6 work to look at the stability of it and the 01:59:56
7 handling of it and those kinds of things. 02:00:01
8 Q Did your group ever design or develop an 02:00:04
9 apparatus for plowing snow? 02:00:10
10 A We certainly worked on snow plow 02:00:14
11 operations, yes. 02:00:17
12 Q Did you ever design or develop a machine 02:00:19
13 for plowing snow? 02:00:24
14 A It depends on what you mean by defining 02:00:29
15 "machine for plowing snow." I'm a little -- 02:00:32
16 Q Well, we're looking at the TowPlow system. 02:00:34
17 You didn't design or develop that; you tested it? 02:00:37
18 A No. 02:00:39
19 Q Were there any other apparatus that you 02:00:39
20 were involved with with the -- in your experience 02:00:41
21 for plowing snow? 02:00:44
22 A Yes. 02:00:47

1 Q What were those? 02:00:48
2 A Well, one of the goals years ago was the 02:00:50
3 ability to control the snow plows in whiteout 02:00:59
4 conditions. And so the research center developed 02:01:04
5 sensing technology that went on the snow plows 02:01:11
6 that allowed them to stay in the lanes while they 02:01:19
7 were plowing. 02:01:26
8 Q Anything else? 02:01:27
9 A Similar with huge snow plowers that they 02:01:31
10 use to open up roads that had been closed over the 02:01:36
11 winter. 02:01:38
12 Q So that experience in connection with your 02:01:44
13 evaluation of the TowPlow, is that the sum total 02:01:46
14 of your experience with apparatus involved with 02:01:49
15 plowing snow? 02:01:52
16 A I don't know if it's the sum total of my 02:01:59
17 entire experience. Those are the projects that we 02:02:02
18 directly worked on, to the best of my 02:02:07
19 recollection, at HMCT. 02:02:10
20 Q The TowPlow system that we see in Figure 1 02:02:17
21 of Exhibit G is not a compact utility loader, 02:02:20
22 correct? 02:02:24

A No. 02:02:25
Q No, it isn't, or no, I'm not correct? 02:02:28
A No, it's not a compact utility loader, no. 02:02:30
Q Of these various machines that we looked 02:02:36
at in these declarations, which one of these do 02:02:41
you believe is closest to the Vermeer compact 02:02:44
utility loaders described in the patents that are 02:02:47
at issue in these proceedings in your opinion? 02:02:51
MR. O'DELL: Objection. Assumes he knows 02:02:57
what the Vermeer products are. 02:02:59
BY MR. VANDER TUIG: 02:03:03
Q Well, let me back up. 02:03:03
You've reviewed the Vermeer patents, 02:03:04
right, and you're familiar with what's depicted in 02:03:06
those patents, right? 02:03:08
A Yes. 02:03:12
Q So those mini skid steers, those compact 02:03:15
utility loaders that are depicted in Vermeer's 02:03:18
patents, my question is which of the machines that 02:03:26
we've seen in the exhibits that we've looked at 02:03:29
relating to your experience with the AHMCT 02:03:32
Research Center is most similar to those machines? 02:03:36

A Well, limiting to those that we looked at 02:03:44
here, then my wheeled robot technology is that 02:03:47
that is most closely related to their device. 02:03:53
Q And not limited to what we've looked at 02:03:57
here, are there any others that are closer? 02:03:59
A Well, we've -- the wheeled mobile robots 02:04:05
are -- we looked at ones that were in laboratory 02:04:09
testing in a laboratory. We actually have wheeled 02:04:17
robots that worked on the roadway that were parted 02:04:21
and were operated out in actual operations, so 02:04:27
those would be -- I also have a mower that 02:04:31
would -- I believe consider -- I believe is a 02:04:39
compact utility loader as well. It was a device 02:04:45
for -- a wheeled mobile device for mowing. 02:04:48
Q Did you design the mower in that case? 02:05:01
A We designed the device, yes. 02:05:03
Q You designed the mower or designed the 02:05:09
remote control operation of the mower? 02:05:12
A The wheeled robot that the mower would 02:05:13
attach to. 02:05:15
Q You designed the robot? 02:05:22
A The wheeled device, yes. 02:05:24

Q And did the wheeled device, the robot, did it have loader arms? 02:05:26 02:05:31

A No. 02:05:48

MR. VANDER TUIG: I don't have any further questions. Thanks for your time. 02:05:48 02:05:50

THE WITNESS: Thank you. 02:05:53

THE REPORTER: Counsel, do you have any questions. 02:06:02 02:06:05

MR. O'DELL: Maybe. I'd like to take a short break and then come back in, say, ten minutes. 02:06:06 02:06:08 02:06:10

(A recess was had.) 02:06:13

MR. O'DELL: This is David owe Dell. We have no further questions. 02:14:28 02:14:30

THE REPORTER: Would you like to go off the record? 02:14:35 02:14:36

MR. O'DELL: Yes. 02:14:37

(Off the record at 2:15 p.m. CST.) 02:15:15

CERTIFICATE OF COURT REPORTER - NOTARY PUBLIC

I, Theresa A. Vorkapic, Certified Shorthand Reporter No. 084-2589, CSR, RMR, CRR, RPR, and a Notary Public in and for the County of Kane, State of Illinois, the officer before whom the foregoing deposition was taken, do hereby certify that the foregoing transcript is a true and correct record of the testimony given; that said testimony was taken by me and thereafter reduced to typewriting under my direction; that reading and signing was not requested; and that I am neither counsel for, related to, nor employed by any of the parties to this case and have no interest, financial or otherwise, in its outcome.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal this 19th day of January, 2026.

My commission expires November 6, 2027.

Theresa A Vorkapic

_____

THERESA A. VORKAPIC

NOTARY PUBLIC IN AND FOR ILLINOIS

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