UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.

Petitioner

v.

BULLETPROOF PROPERTY MANAGEMENT, LLC.

Patent Owner.

IPR2026-00204
Patent 12,227,184

PATENT OWNER'S PRELIMINARY RESPONSE

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Alexandria, VA 22313-1450

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Patent Owner's Exhibit List

Exhibit No.	Description
2001	RESERVED
2002	Case Readiness Status Report in *Bulletproof Property Management, LLC, v. Tesla, Inc.*, Case No. 1:25-cv-00665, Dkt. 34 (W.D. Tex. Mar. 10, 2026)("CRSR")
2003	Westlaw Analysis of Honorable Alan D. Albright's Stay Statistics in Intellectual Property Matters
2004	Notice of Venue Discovery in *Bulletproof Property Management, LLC, v. Tesla, Inc.*, Case No. 1:25-cv-00665, Dkt. 16
2005	Information Disclosure Statement in U.S. App. No. 18/928,130 (continuation application) (December 6, 2024)
2006	Non-Final Rejection in U.S. App. No. 18/928,130 (continuation application) (December 17, 2024)
2007	Scheduling Order Entered by Judge Albright in WDTX

I. Introduction

Pursuant to 37 C.F.R. § 42.107, Patent Owner Bulletproof Property Management, LLC ("Bulletproof" or "Patent Owner"), submits this Preliminary Response to the Petition for *Inter Partes* Review ("Petition" or "Pet.") of U.S. Patent No. 12,227,184 (the "'184 Patent"). Petitioner Tesla, Inc., ("Petitioner" or "Tesla") challenges the validity of claims 1-24 of the '184 Patent ("Challenged Claims"). The above-captioned proceeding is one of seven *inter partes* review petitions filed by the Petitioner concerning the patents asserted in the underlying Texas litigation. The full list of proceedings includes IPR2026-00227 (U.S. Pat. No. 11,932,230), IPR2026-00219 (U.S. Pat. No. 12,221,104), IPR2026-00204 (U.S. Pat. No. 12,227,184), IPR2026-00222 (U.S. Pat. No. 12,233,871), IPR2026-00228 (U.S. Pat. No.12,240,456), IPR2026-00205 (U.S. Pat. No. 12,240,457), and IPR2026-00229 (U.S. Pat. No. 12,240,458).

As pointed out in the Petition, the examiner determined that no prior art discloses elements 1[p] ("method of operating a motor vehicle having a steering control and a drive system operable to selectably drive wheels in a drive mode and in a reverse mode") and 1[b] ("the drive system changing from one of the drive mode and reverse mode to the other of the drive mode and reverse mode based on the steering control"). Pet. at 6.

Claim 1	
1[p]	A method of operating a motor vehicle having a steering control and a drive system operable to selectably drive wheels in a drive mode and in a reverse mode, the method comprising:
1[b]	the drive system changing from one of the drive mode and reverse mode to the other of the drive mode and reverse mode based on the steering control.

Claim 13[1]	
13[p]	A method of operating a motor vehicle having a steering control and a controller operable to selectably drive wheels in a drive mode and in a reverse mode, the method comprising:
13[b]	the controller changing from one of the drive mode and reverse mode to the other of the drive mode and reverse mode based on the steering control.

Petitioner has failed to identify these limitations in the prior art. They do not exist. Moreover, the Petition seeks to substitute and rely upon impermissible expert opinion and other forms of "general knowledge" to supply a missing claim limitation. The Office has confirmed that this is not appropriate. *See* Memorandum dated July 31, 2025. Additionally, Petitioner's failure to provide meaningful claim constructions has impermissibly shifted the burden to Patent Owner, and institution should be denied for this additional reason.

[1] The examiner also explained in their reasons for allowance that the prior art does not disclose or render obvious limitations 13[p] and 13[b]. TESLA-1002 at 235.

As such, the Petition has not established a reasonable likelihood that any of the Challenged Claims are obvious. Accordingly, Patent Owner respectfully requests that the Director deny institution.

II. Overview and Claim Construction of the '184 Patent

The '184 Patent discloses inventive systems for operating motor vehicles, and for a safer and more convenient unparking process. This process includes recognizing when the driver is likely to want to shift gears (from drive to reverse, or vice versa). Since so many car trips begin with the driver backing out of either a residential driveway or a parking space by using a recognizable pattern of non-shifting vehicle control inputs, Mr. Langlotz realized that the process could be learned and largely automated by the vehicle recognizing these patterns without screen-swiping or other directional input from the vehicle operator; this would decrease driver distraction, improve convenience, and keep the driver's eyes on the road and hands safely on the wheel. An example is provided in Figure 2.

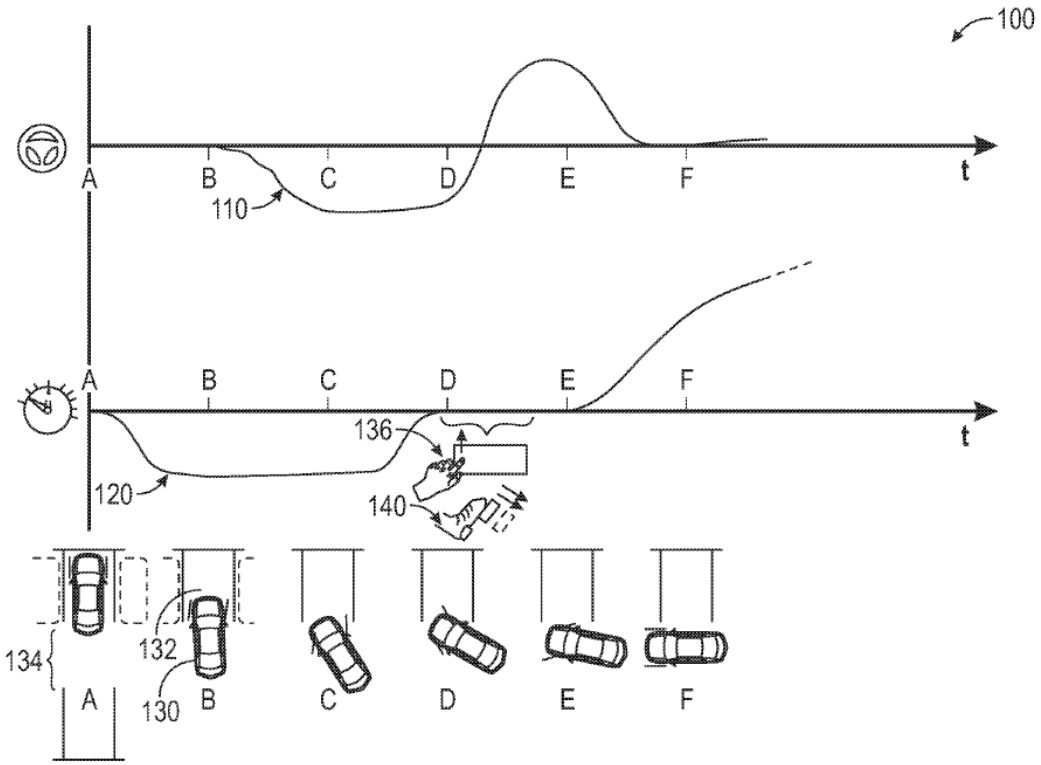


FIG. 2

Patent Owner states that, in claims 1 and 13, the phrase "steering control" means "***steering by the driver***."

P.O. Claim 1 and Claim 13 Proposed Construction	
steering control	***Steering by the driver***

This conclusion is supported by the specification. The specification defines the driver 34 and steering wheel or yoke 40. '184 Patent at 2:37-38; 2:48 (respectively, *See* also Fig. 1). The specification confirms that one of the purposes is to "serve to train cautious ***driver*** behavior." *Id*. at 4:41-44. "The typical operation of the system is in the context of 'unparking,' when a ***driver*** backs out of a parking spot in reverse, ***steers to adjust direction*** while reversing, then shifts to drive, ***steers the other direction***, then straightens out to proceed." *Id*. at 2:61-65.

Moreover, this is the only logically sound conclusion. There are only two entities capable of steering; the driver (operator) and the car itself (drive system). As the drive system is both monitoring the steering control and changing direction based on the steering control, it must be responding to the driver's steering. A drive system cannot respond to itself, and it is logically unsound to conclude otherwise. Nor is it a "response" if the controller dictates all movements and shifts of the vehicle without any operator input.

In contrast, Petitioner fails to set forth any specific construction for these terms that are necessary to support its position. 37 CFR § 42.104(b)(3) (a petition must set forth "[h]ow the challenged claim is to be construed."). Rather than meaningfully addressing claim construction, Petitioner has attempted to map an autonomous unparking process (in Joos) that does not comprise responding to driver inputs to claims which do comprise these limitations. As such, Petitioner has improperly attempted to shift its claim construction burden onto Patent Owner, and thus the Petition should be denied institution.

III. All Grounds fail because Petitioner has failed to show that it is more likely than not that any reference, alone or in combination, teaches or suggests the limitations of independent claim 1[b] or independent claim 13[b]

A. Petitioner has not supplied the missing claim limitations from the prior art

At the outset Patent Owner notes that the Office, on July 31, 2025, issued a memorandum stating that "applicant admitted prior art (AAPA), expert testimony, common sense, and other evidence that is not 'prior art consisting of patents or printed

publications' (collectively, 'general knowledge') may not be used to supply a missing claim limitation." Memorandum dated July 31, 2025. "[P]etition[s] for inter partes review (IPR) 'must specify where each element of the claim is found in the prior art patents or printed publications relied upon.'" *Id*. It is Petitioner's burden to establish a reasonable likelihood of invalidity of at least one Challenged Claim.

Patent Owner brings this up at the outset to explain that the Petition fails to comply with the July 31, 2025 memorandum and fails to supply evidence that the ***prior art*** discloses limitations 1[b] and 13[b]. This can be seen throughout the Petition, where citation to expert testimony is used in place of actual disclosure in the prior art. Petitioner's pattern takes the form of a conclusion citing to an expert, (TESLA-1003), a citation to either (1) a portion of Joos which does not disclose the limitation and/or (2) half of Joos (TESLA-1004), and a conclusion citing to the expert. ***The distinction between what Joos discloses, and what the Petition assumes and argues based on this disclosure***, is apparent throughout. Petitioner has mapped its arguments, not the prior art itself, to the Challenged Claims. A non-exhaustive list is provided below, and Patent Owner submits that each of the following is a distinct and additional reason why the Petition should be dismissed:

> Pet. at 15: Joos further discloses that changing from the reverse mode to the drive mode is ***based on the steering control***. TESLA-1003, ¶73. For example, Joos discloses that the steering control is turned to the right while reversing to reach end position E, and discloses that the end position E must be reached before the vehicle is shifted from reverse to drive. TESLA-1004, [0008], [0017]-[0018], [0036]-[0038], FIG. 2. Joos's auto-shift from reverse mode to drive mode is thus based on the steering control being steered correctly as needed for

the vehicle to reach the calculated end position E. TESLA-1003, ¶73.

The Petition provides no disclosure from Joos (despite citing large portions of it) in support of its expert's conclusion that Joos's auto-shift is based on steering control. The only disclosure cited by the Petition in Joos concerning the auto-shift feature is that it happens after reaching the end position. Joos at no point discloses or suggests mandating auto-shift based on any driving steering input as required by claims 1[b] and 13[b]. This is unsurprising, as Joos does not concern the driver of the vehicle. TESLA-1004 at [0008] ("it is preferably provided that the motor vehicle is manoeuvred fully autonomously during the unparking process. This means that the driver assistance system intervenes in the steering of the motor vehicle, the brake system and the drive motor.") The Petition fails to provide disclosure from Joos that Joos's controller must detect or react to driver steering angle inputs for any purpose — let alone for the purposes of shifting the vehicle. As no prior art is submitted as disclosing this limitation, the Petition must fail.

> Pet. at 16-17: Joos's disclosure also makes clear that the ***controller*** of the driver assistance system (***drive system***) auto-shifts to drive (***changing from reverse mode to drive mode***) at the end position of the unparking maneuver only after and in response to the steering control being steered in the opposite direction to set the pull-forward steering angle (***based on the steering control***) while the vehicle is stopped at the end position. TESLA-1003, ¶75. For example, Joos explicitly states that the driver "take[s] over directly and rapidly" from the driver assistance system to manually operate the vehicle once the vehicle shifts to drive. TESLA-1004, [0017], [0038]. The pull-forward steering angle would need to be set before the drive system/controller auto-shifts to drive for the driver to "take over directly and rapidly" as disclosed. TESLA-1003, ¶75.

Again, the distinction between what Joos discloses, and what Petitioner's expert concludes, is readily apparent. Joos does not condition the auto-shift on Joos's controller's setting of the forward steering angle. The only disclosure in Joos concerning the auto-shift feature is that it happens after reaching the end position. The Petition does not map Joos to limitations 1[b] and 13[b], it maps its expert's unsupported statements to these limitations.

> Pet. at 17: Additionally, Joos explains that the last action to occur when "the automatic or autonomous unparking manoeuevre is [] ended" is to "engage the forward gear." TESLA-1004, [0017]-[0018]; *see also id.*, [0009], [0011]-[0012], [0014]-[0015], [0037]-[0039]. This means that the pullforward steering angle must be set before the forward gear is engaged; indeed, the pull-forward steering angle is set by the driver assistance system before the automatic or autonomous unparking maneuver is ended. *Id.*; TESLA-1003, ¶76.

Joos does not explain that the "last action to occur when the automatic or autonomous unparking manoeuevre is ended is to engage the forward gear." Pet. at 17 (cleaned up). Joos instead explains "[i]t is in particular provided that the at least semiautonomous manoeuvring of the motor vehicle is ended, or the control of the motor vehicle is handed over to the driver, if the end position is reached, the specified steering angle ***has been set*** by the driver assistance system and the forward gear ***has been engaged***." TESLA-1004 at [0018] (emphasis added). Joos does not disclose that the last action to occur must be engaging the forward gear, nor does it disclose that the forward gear shift is based on a pull-forward steering angle. The Petition later acknowledges this, stating "[a] finite number of options exist for sequencing these actions ... [n]amely, the steering angle could only be set before, during, or after the auto-shift to drive of the

vehicle." Pet. at 19-20.

> Conditioning Joos's auto-shift to drive (***changing from reverse mode to drive mode***) at the end position E of the unparking trajectory on a determination that the steering system's pull-forward steering angle has been set (***based on the steering control***) also would have been obvious. TESLA-1003, ¶77.

The Petition provides no disclosure from Joos in support of this conclusion. Moreover, this demonstrates a tacit admission that Joos does not disclose this limitation, and that expert testimony or other forms of 'general knowledge' is required to reach this limitation. Moreover, Joos's pull-forward steering angle is set by the controller, not the driver and thus does not disclose limitations 1[b] and 13[b] regardless.

The Petitioner has completely missed the mark. Petitioner was required to show where in the prior art the limitations ***are disclosed***. Petitioner instead mapped its own assumptions and expert statements to the Challenged Claims, rather than the prior art.

B. The Petition fails to show that Joos, alone or in combination, teaches or suggests the limitations of independent claims 1[b] or 13[b], and has therefore not demonstrated a reasonable likelihood of prevailing as to claims 1-24.

The Petition challenges claims 1 and 13 in Grounds 1A, 2A and 3A. Petitioner relies heavily, and often exclusively[2], on Joos (US 2019/0233009) for disclosure of limitations 1[b] and 13[b]. As pointed out in the Petition, the examiner determined that no prior art discloses these limitations.

When properly considered, limitations 1[b] and 13[b] requires the drive system

[2] *See* Petition at 14-20.

to respond to a steering control ***by the driver***, and to change direction in response. [3] This limitation is not disclosed or suggested by Joos, Bettger, or Bayer, alone or in combination with one another.

At the outset it is important to understand that Joos does not concern operator input, or tracking operator input to determine whether to change directions; it concerns automated maneuvers. *See* TESLA-1004 at [0008] ("manoeuvred at least semi-autonomously… means that for example ***the driver assistance system intervenes in the steering***;" it is "preferably provided that the motor vehicle is manoeuvred ***fully autonomously*** during the unparking process. This means that ***the driver assistance system intervenes in the steering of the motor vehicle***, the brake system and the drive motor." (emphasis added). Indeed, it is only when this automated maneuver is finished that "control of the motor vehicle ***is returned back to the driver***." *Id*. Despite the clear absence in Joos, the Petition errantly alleges that Joos discloses limitations 1[b] and 13[b]. This is incorrect for at least the reasons explained below.

1. *Ground 1A fails because Joos does not disclose or suggest responding to driver steering control, let alone changing directions based thereupon*

Joos's controller ***generates*** steering control, it does not respond[4] to it. Joos's

[3] *See* Patent Owner's claim constructions above.

[4] Dr. Janet states Joos discloses that "changing from the reverse mode to the drive mode is ***based on the steering control***." *Id.* at ¶ 73 (emphasis in original). But in the very next sentence Dr. Janet acknowledges that "end position E must be reached before the vehicle is shifted from reverse to drive." *Id*. Joos's shift is not based on the steering control, it is (at most) based on reaching a pre-determined end point. Dr. Janet confirms this when stating that the "driver assistance system can ***set*** the steering angle of the vehicle to 'a predetermined or adjusted steering angle.'" *Id*. at ¶ 74.

only mention of a steering angle sensor (*i.e.*, an input device) appears in [0033] and merely states that "[t]he controller 3 can thus also receive data from a speed sensor and/or a steering angle sensor, for example." TESLA-1004. Joos then clarifies in the very next sentence that "the controller 3 is designed to ***output*** corresponding ***control signals to the steering system*** of the motor vehicle 1. Thus, an ***intervention into the steering*** of the motor vehicle can be carried out using the driver assistance system 2." *Id* (emphasis added).

Nevertheless, the Petition incorrectly asserts that "Joos further discloses that changing from the reverse mode to the drive mode is ***based on the steering control***." Petition at 15. As explained above, the steering angle movements made during Joos's maneuver are ***not made by the driver***, they are ***made by the driver system (i.e., the controller itself)***. The Petition does not, nor can it, dispute this. Since Joos does not respond to driver steering control, Joos fails to disclose or suggest limitations 1[b] and 13[b].

Additionally, Petitioner's position defies logic and is fatally flawed regardless of claim construction positions for at least three reasons. Petitioner posits that (1) Joos's controller somehow can respond to its (the controller's) own automated, pre-calculated movements, (2) that a pre-determined series of automated movements constitutes a pattern of independent movements rather than a singular maneuver, and (3) that an optional shift after the pre-determined series of automated movements constitutes a "response" to one of the intermittent prior steps in the pre-determined

series. None of these positions makes logical sense; Joos's controller is not responding to itself or its own pre-determined and pre-calculated movements, it is just performing a static pre-determined automated unparking maneuver.

Petitioner provides many reasons why Joos might be shifting in response to steering control, which are all *post hoc* fallacies (*e.g.*, confusion regarding correlation and causation, and the incorrect assumption that two events occurring together are taken to have established a cause-and-effect relationship) rather than actual disclosures in Joos. Furthermore, in addition to their inaccuracies, none of the following assertions addresses what matters:

> "Joos discloses that the steering control is turned to the right while reversing to reach end position E, and discloses that the end position E must be reached before the vehicle is shifted from reverse to drive," (Pet. at 15)
>
> "the driver assistance system [in Joos] sets the steering angle of the vehicle to 'a predetermined or adjusted steering angle,' e.g., 'a maximum steering angle,' at the end position E, before the assisted unparking procedure is ended and control handed back to the driver," (Pet. at 16),
>
> "the driver takes over directly and rapidly from the driver assistance system to manually operate the vehicle once the vehicle shifts to drive." (Pet. at 17).

Nor does it matter whether Petitioner is correct that "the last action to occur when the automatic or autonomous unparking manoeuevre is ended is to engage the forward gear." *Id*. What matters is ***why*** the Joos controller shifts, and Petitioner provides no evidence from Joos as to ***why*** the Joos controller shifts —only ***when*** Joos shifts. Joos plainly does not disclose shifting (or offering a shift) in response to steering input (manual driver or otherwise).

Moreover, Petitioner's many arguments concerning (1) what a POSITA would have found obvious, (2) what a POSITA would have tried, and (3) what is consistent with ordinary driving practices do not obviate Petitioner's duty to find the limitations ***in the prior art***. *See* Supra at §III(A). Pet. at 17-20. Instead, these arguments highlight that the prior art does not disclose this limitation.

2. *Ground 2A fails because there is no motivation for the proposed combination.*

Petitioner has not sufficiently explained why a POSITA would be motivated to add Bettger's manual steering angle input confirmation to initiate Joos's automated unparking maneuver. Patent Owner submits that such a combination would be confusing to a driver; requiring a driver to start Joos's automated maneuver with a manual steering angle input, but then changing directions automatically once this automated maneuver is completed is not intuitive. A POSITA would not have found it obvious to have a manual steering angle confirmation, followed by an automated unparking procedure, followed by an automatic direction change. Both a driver and a POSITA would find it more intuitive to either have a human driver perform these steps, or to have all steps fully automated. Patent Owner submits that Petitioner has not presented a reasonable likelihood of prevailing on Ground 2A for this additional reason.

3. *The combination in Ground 2A does not disclose or suggest limitations 1[b] and 13[b]*

Petitioner relies on Bettger in Ground 2A for the purposes of initiating the autonomous Joos unparking maneuver via Bettger's driver's steering angle input

confirmation. Pet. at 67-68. This combination is still flawed for all the reasons previously explained with respect to Joos, Bayer, and Kischkat. *See* Supra at §III(A)-(B)(2).

Additionally, limitations 1[b] and 13[b] require driver steering control that is responded to with a change of direction, ***not an automated unparking procedure***. Adding Bettger's driver's steering angle input confirmation does not alter the analysis. Joos's automated unparking procedure is ended before the alleged offer to auto-shift by Joos. TESLA-1004 at [0017] ("***after reaching the end position*** a forward gear is engaged or an instruction to engage the forward gear is issued to the driver."); *Id* at [0018] ("It is in particular provided that ***the at least semiautonomous manoeuvring of the motor vehicle is ended, or the control of the motor vehicle is handed over to the driver, if the end position is reached***.") Additionally, Joos does not disclose shifting (or offering to shift) based on driver input. *See supra* § III(B)(1). This does not teach a response to driver steering control, it teaches an initiation via steering angle input by a driver, then an unrelated automated unparking procedure that ends at a pre-defined endpoint. Finally, Ground 2A fails for all the additional reasons Ground 1A (Joos alone) fails. *See supra* § III(A)-(B)(1). Joos does not disclose or suggest responding to driver steering control, and Bettger does not supply this limitation

4. Ground 3A fails because Joos cannot be combined with Bayer

Petitioner relies on Bayer in Ground 3A for its "steering torque applied" "driving steering assistance" techniques. Namely, Petitioner contends that in a Joos-

Bayer vehicle, "the driver would be guided in steering the vehicle along a prescribed unparking trajectory as taught in Joos to the targeted 'end position E' of the unparking trajectory." Pet. at 62.

Petitioner seeks to combine Joos automated unparking maneuver with Bayer's steering torque applied driving steering assistance techniques (*i.e.*, manual steering by the driver, not the controller). This modification is suggested in an attempt to avoid the logical issues with Joos's controller responding to its own pre-calculated steering inputs and introduce an operator into Joos's otherwise operator-less maneuver. Petitioner provides five rationales for combining these references, all which contradict the plain intentions of Joos. *See* TESLA-1004 at [0010] ("In this way, overall the ***autonomous*** unparking of the motor vehicle from the cross-parking space can be carried out more safely.") (emphasis added); [0008] ("semi-autonomously … ***means that*** for example ***the driver assistance system intervenes in the steering***."). Turning an autonomous process into a manual process directly contradicts Joos. First, Second, Third, Fourth, and Fifth, A POSITA would not have "applied Bayer's steering assistance in Joos to assist drivers in properly following Joos's unparking trajectory," or "increase safety" because there is ***intentionally*** no driver providing steering inputs in Joos's unparking process and there is no motivation to add one beyond hindsight bias. Pet. at 63-65. The notion that returning an automated process to a manual process is safer is only ever true if there is automation failure, which is not contemplated in Joos and directly contradicts the purposes of Joos's automated

unparking maneuver. Moreover, the Petitioner's argument that "there were known problems associated with driver assistance systems available as of the Critical Date" appears to be a direct "teaching away" that would preclude combining Joos with any process. Pet. at 65.

Moreover, the lack of a motivation to combine can be seen in the inoperability of the suggested combination and the wholesale reconstruction that would be required for the suggested combination. Placing a human driver in charge of steering inputs in Joos destroys Joos's disclosed purposes behind calculating an unparking trajectory, TESLA-1004 at [0008] ("In principle, the unparking trajectory can be predetermined), and the calculation of an end position. TESLA-1004 at [0006] ("an end position is determined and the semi-autonomous manoeuvring of the motor vehicle along the unparking trajectory is ended at the end position.")

5. Ground 3A also fails for the same reasons Ground 1A

Ground 3A fails for at least the reasons Ground 1A (Joos alone) fails. *See supra* § III(A)-(B)(1). Joos does not disclose or suggest responding to driver steering control, and Bayer does not supply this limitation.

6. The Petition fails to show a reasonable likelihood of prevailing as to the dependent Challenged Claims.

Claims 2-12 and 14-24 are dependent upon claims 1 and 13, respectively. Petitioner has failed to show a reasonable likelihood of prevailing as to these claims at least for the reasons given above as to claims 1 and 13. *See* Supra at §III(A)-(B)(4).

IV. Conclusion

The Petition has not established a reasonable likelihood that any of the Challenged Claims are obvious. Accordingly, Patent Owner respectfully requests that the Director deny institution.

Dated: April 27, 2026

Respectfully submitted,

By /s/ Michael Doell

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CERTIFICATE OF COMPLIANCE

Pursuant to §42.24(d) and the Director's Memorandum on Interim Processes for PTAB Workload Management, the undersigned certifies that this paper contains no more than 14,000 words, not including the portions of the paper exempted by §42.24(b). According to the word-processing system used to prepare this paper, the paper contains 4059 words.

CERTIFICATE OF SERVICE

I certify that on April 27, 2026, the foregoing Patent Owner's Preliminary Response has been served on the Petitioners' counsel of record via email, at the following email addresses:

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