

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,

Petitioner,

v.

BOOTLER, LLC,

Patent Owner.

PATENT OWNER'S PRELIMINARY RESPONSE TO PETITION FOR
INTER PARTES REVIEW OF U.S. PATENT NO. 10,445,683

Case No. IPR2025-00967

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

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INTRODUCTION AND SUMMARY OF DEFICIENCIES

I. INTRODUCTION

Patent Owner Bootler LLC (“Bootler” or “Patent Owner”) submits the following Preliminary Response (“Response”) to the Petition (“Pet., p. __”) filed by Google LLC (“Google” or “Petitioner”) on May 06, 2025, requesting *inter partes* review of claims 1–16 of U.S. Patent No. 10,445,683 (the “Patent” or “’683 Patent”). Patent Owner respectfully requests that the Patent Trial and Appeal Board (“Board” or “P.T.A.B.”) decline institution of an *inter partes* review of the ’683 Patent because Petitioner has failed to show a reasonable likelihood of prevailing as to any of the claims challenged in the Petition.

The Petition should be denied for two reasons. *First*, Petitioner has failed to offer *any* construction for *any* term essential to its analysis, in violation of 37 C.F.R. § 42.102(b). The rule requiring Petitioner to provide a claim construction is *not* met by meaningless gestures, but demands compliance. “[A]n agency is bound by its regulations.” *Wagner v. U.S.*, 365 F.3d 1358, 1361 (Fed. Cir. 2004) (citing Supreme Court cases). Petitioner’s single attempt at satisfying its mandate is its tautological statement that the words of the claims should be given their plain and ordinary meaning.

That is not enough. The Federal Circuit has made clear—repeatedly—that the plain and ordinary meaning is not *itself* a construction, but instead a description of the guidepost to determine the proper construction. “The proper claim construction is ‘the ordinary and customary meaning ... that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application.’” *LG Elec., Inc. v. Bizcom Elec., Inc.*, 453 F.3d 1364, 1375 (Fed. Cir. 2006), overruled on other grounds, *Quanta Computer, Inc. v. LG Elec., Inc.*, 553 U.S. 617 (2008) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)). The plain and ordinary meaning is not the *end*, but is instead the *beginning of the analysis*, as the Federal Circuit explained: “The inquiry into how a person of ordinary skill in the art understands a claim term provides an *objective baseline from which to begin claim interpretation.*” *Phillips*, 415 F.3d at 1313 (emphasis added). Petitioner starts at the beginning, but never leaves the starting line. That failure can be neither waived nor ignored, and the Petition should be denied for that reason alone.

Second, the references cited in the Petition are no more pertinent than the considered art. The references neither disclose nor suggest the

specific limitations of the challenged claims, and there is no reasonable basis to combine them in a manner proposed by Petitioner. And, to make the combinations Petitioner alleges would require an explicit construction of claim terms that Petitioner affirmatively declines to make. Without a claim construction, Petitioner is unconstrained to make freewheeling associations between elements of the prior art and the claims without supporting either the legal or logical reasons for doing so. Failure to enforce the claim construction requirement identified above only encourages such hand-waving. Here, no amount of Petitioner's hand-waving can make the cited references render the challenged claims unpatentable.

The Petition should therefore be denied.

II. SUMMARY OF DEFICIENCIES

Each of the challenged claims fails on every challenged ground. Specifically, Petitioner's application of the art to the challenged claims, on every ground and for every claim, requires an express construction that is nowhere provided, and therefore fails to comply with 37 C.F.R. § 42.104(b)(3). *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008) (A "determination that a claim term 'needs no

construction’ or has the ‘plain and ordinary meaning’ may be inadequate when a term has more than one ‘ordinary’ meaning or when reliance on a term’s ‘ordinary’ meaning does not resolve the parties’ dispute.”).

Second, for the obviousness grounds, Petitioner has failed to meet its burden to show how the challenged claims are unpatentable over specific proffered combinations and to provide sufficient evidence to combine the references in the manner claimed. Accordingly, Petitioner’s failure to carry its burden is fatal and all obviousness grounds should be denied for at least this reason.

With respect to the Petition’s failure to provide an express construction for disputed claim terms, a summary of the deficiencies is shown in the below chart, where it is evident that every challenged claim (independent claims shown with an *) and every ground is legally insufficiently presented to merit institution:

<u>CLAIM</u>	<u>LIMITATION</u>	<u>COMPLIES WITH 37 C.F.R. § 42.104(b)(3)?</u>	<u>APPLIES TO GROUND:</u>
1*, 2–10, 11*, 12–13, 14*, 15–16	“aliasing”	No	1, 2, 3, 4
1*, 2–10,	“master menu item”	No	1, 2, 3, 4

<u>CLAIM</u>	<u>LIMITATION</u>	<u>COMPLIES WITH 37 C.F.R. § 42.104(b)(3)?</u>	<u>APPLIES TO GROUND:</u>
14*, 15–16			
1*, 2–10, 11*, 12–13, 14*, 15–16	“master data set”	No	1, 2, 3, 4
1*, 2–10, 11*, 12–13, 14*, 15–16	“data structure”	No	1, 2, 3, 4

ARGUMENT

III. OVERVIEW OF THE PATENT AND PRIMARY CITED REFERENCES RAHLE AND RHODES

A. The Patent

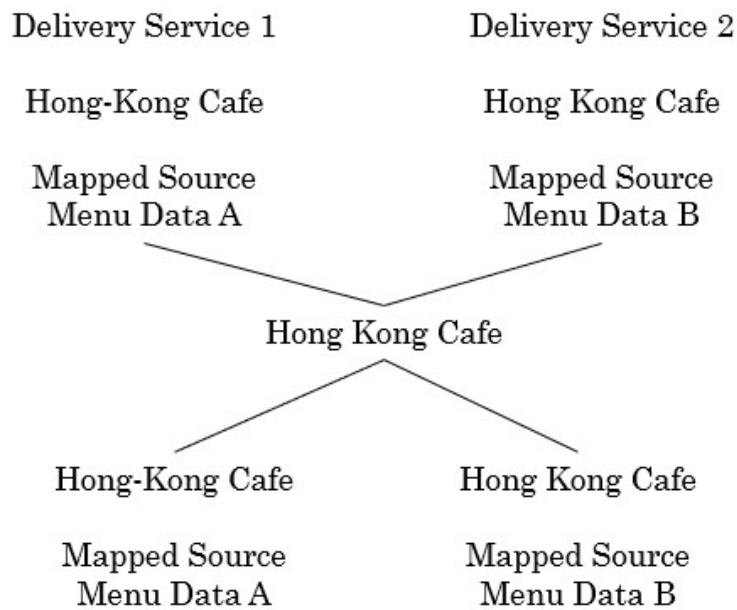
The Patent provides methods for “standardizing,” “linking,” and “aggregating” menu information acquired from multiple online delivery services. (Ex. 1001, 5:44–51.) The inventors of the Patent have recognized that there is “no convenient way for a... customer to search and compare aggregated restaurants and some or all of their menu items from multiple [delivery] service sources” as menu items “from different delivery services [are]... provided in different... formats, as such data was not created or stored with the goal of compatibility.” (Ex. 1001, 3:37–47.) Accordingly,

the Patent aims to solve these data aggregation challenges (*e.g.*, entity matching and data heterogeneity) by providing a “searchable aggregated data structure,” enabling customers to search across all delivery service platforms. Embodiments include a “data acquisition and processing module configured to acquire source data from a plurality of... delivery services and provide a master data set of formatted data... representing multiple menu items provided by the plurality of food delivery services.” (Ex. 1001, 5:29–36.)

Since the raw source data acquired by the data acquisition and processing module “may be in multiple formats,” a “mapping module” transforms the received raw files by “converting the raw files from its particular source format to a standardized format,” to provide “formatted data.” (Ex. 1001, 11:22–26, 2:31–33.) This transformation is performed by “aliasing one field from the delivery service’s... format to a respective field in the standardized format” (see *infra* § V.A for an exemplary depiction of aliasing performed by the mapping module). (Ex. 1001, 11:28–44.)

A “linking module” identifies a “[master] restaurant... that may be common across multiple delivery services based on... identification data [(*e.g.*, restaurant name, geocoordinates, street address, etc.)] ... and links

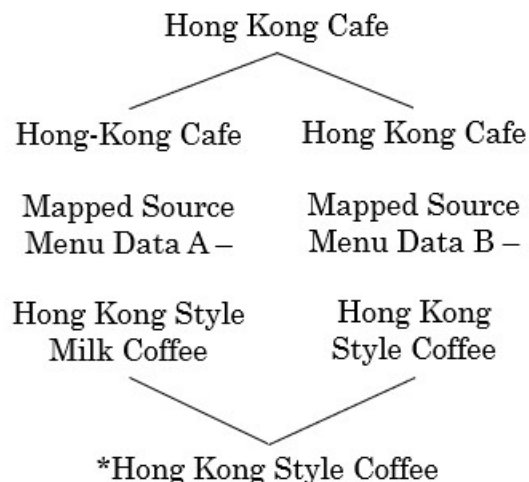
the mapped... [formatted] data to data associated with that master restaurant.” (Ex. 1001, 11:45–67, 12:1–9.) For instance, the same restaurant can exist on two different delivery service platforms but titled slightly differently on each platform, *e.g.*, “Hong Kong Café” and “Hong-Kong Café.” The linking module “links” (groups) these two restaurant records and each record’s associated “mapped source [menu] data” into one unified “master restaurant” record (*e.g.*, “Hong Kong Café”). (Ex. 1001, 11:51–56.) The illustration below depicts an exemplary “record linkage” performed by the “linking module.”



As illustrated, the “linking module” groups “Hong-Kong Café” from Delivery Service 1 and “Hong Kong Café” from Delivery Service 2 to master restaurant “Hong Kong Café.” (Ex. 1001, 11:45–12:46.) The master

restaurant record further comprises each linked restaurant's mapped source menus ("formatted data") (*e.g.*, "mapped source menu data A" and "mapped source menu data B"). (*Id.*)

A "menu combining module" combines the "multiple source menus from the linked restaurants into a single master menu." (Ex. 1001, 12:47–50.) Further, the "menu combining module" identifies "identical [menu] items among the multiple source menu items" and for "each set of identical items that is identified, all items in the set are linked (*e.g.*, related) to a combined master menu item." (Ex. 1001, 13:1–5, 12:47–67, 13:1–21 (for discussion on a trained algorithm of the menu combining module).) For instance, as illustrated below, the same menu item (*e.g.*, "Hong Kong Style Milk Coffee" and "Hong Kong Style Coffee") can exist on multiple delivery service platforms with slight variations in name on each platform. The "menu combining module" identifies identical menu items and links all known instances into one "master menu item" (*e.g.*, "Hong Kong Style Coffee") (the master menu item shown with an *) (see also table *infra* § VI.A). (Ex. 1001, 12:55–13:5.)



The “combination of linked master restaurants with their corresponding combined master menus” provides a “golden master consolidated” (or “aggregated”) data set, which can be imported into a data warehouse and is “searchable by users” via a “web application,” “stand alone application,” or the like. (Ex. 1001, 13:41–43, 14:27–29, 14:57–59.)

B. Primary Cited References Rahle and Rhodes

Rahle discloses methods for providing “structured information about nodes on a social networking system.” (Ex. 1005, Rahle ¶ [0001].) “A social graph includes nodes connected by edges that are stored on a social networking system.” (Ex. 1005, Rahle ¶ [0014].) “Nodes” include “users and objects of the social networking system,” *e.g.*, “pages, users, and entities.” (Ex. 1005, Rahle ¶ [0014], [0016]; Pet., p. 4.) “Edges represent a particular interaction between two nodes, such as when a user expresses

an interest in a new restaurant.” (Ex. 1005, Rahle ¶ [0014].) “The social graph may record interactions between users of the social networking system as well as interactions between users and objects of the social networking system by storing information in the nodes and edges that represent these interactions.” (Ex. 1005, Rahle ¶ [0014].) Additionally, “information about nodes may be generated and shared using sub-nodes.” (Ex. 1005, Rahle ¶ [0005].) “A node in a social networking system... may be associated with sub-nodes that are definable by the owner of the node, such as menu items for a restaurant or albums of songs for an artist.” (Ex. 1005, Rahle ¶ [0005].)

Rahle discloses various methods for generating sub-nodes for page objects. For instance, “a third-party external system may have listings of sub-nodes that are associated with the page object, such as menu items that a particular restaurant serves.... Through an interface with the social networking system, sub-nodes may be generated for respective page objects representing the restaurant... to include the menu items served by the restaurant.” (Ex. 1005, Rahle ¶ [0022], [0038] (“[A] page owner of a page object for a restaurant may already have menu items listed on an external website. The data gathering module may be used to gather such

menu information for *that page object*” (i.e., the restaurant’s page object)).) Further, “[i]nexact matching, including fuzzy matching that accounts for misspellings, and feedback from users and administrators of pages on the social networking system may also be used in matching sub-node objects to attributes of page objects.” (Ex. 1005, Rahle ¶ [0022].) “In this way, users of a social networking system may search for the best burrito in San Francisco, Calif. by searching for all restaurants that serve burritos and reading reviews of burritos eaten by the users’ connections on the social networking system, viewing pictures of burritos, and analyzing other user generated content, such as ratings and recommendations.” (Ex. 1005, Rahle ¶ [0023].) Further, the social networking system “may aggregate this information around the sub-node object for “burrito” and rank restaurants represented by page objects based on consumption by users.” (Ex. 1005, Rahle ¶ [0023].)

Rhodes discloses a “service” that enables “customers to order food items from a variety of restaurants, and may arrange for couriers to deliver the food items from the restaurants to the customers.” (Pet., p. 7; Ex. 1006, Rhodes, 1:11–15.)

IV. STATEMENT OF LAW COMMON TO ALL GROUNDS: THE PETITION FAILS TO SATISFY ITS THRESHOLD BURDEN TO PROVIDE REQUIRED CLAIM CONSTRUCTIONS AND THEREFORE INSTITUTION SHOULD BE DENIED

A. The Petition Should Be Dismissed Under 37 C.F.R. § 42.104(b)(3) Because Petitioner Failed to Offer Any Claim Construction Beyond a Conclusory Statement

All of Petitioner's Grounds must fail because the Petitioner has not provided *any* proposed claim construction (explicit or implicit) for any claim term essential to its invalidity analysis. Each petition must:

(b) Identification of challenge. Provide a statement of the precise relief requested for each claim challenged. The statement must identify the following:

(3) How the challenged claim is to be construed. Where the claim to be construed contains a means-plus-function or step-plus-function limitation as permitted under 35 U.S.C. 112(f), the construction of the claim must identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function[.]

37 C.F.R. § 42.104(b)(3). When the Petition fails to provide a claim construction the Petition should be denied. *ams AG v. 511 Innovations, Inc.*, No. IPR2-16-01792, 2017 WL 1052498, at *5–6 (P.T.A.B. Mar. 16, 2017); *see also*, *O2 Micro*, 521 F.3d at 1361.

Here, Petitioner summarily states that claim terms should be given their “ordinary and customary meaning,” without offering any further

support for what that meaning is. (Pet., p. 4.) This statement is insufficient under the standards set forth in 37 C.F.R. § 42.104(b)(3), which expressly requires that a petition identify how the challenged claims should be “*construed*.”

The plain and ordinary meaning is not itself a satisfactory claim construction, but rather is the very thing the claim construction process is seeking to ascertain. “The proper claim construction is ‘the ordinary and customary meaning ... that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application.’” *LG Elec.*, 453 F.3d at 1375. The plain and ordinary meaning is not the end, but is instead the beginning of the analysis, as the Federal Circuit explained: “The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation.” *Phillips*, 415 F.3d at 1313 (emphasis added).

Without a clear and express construction of meaning, the Petition prevents Patent Owner from understanding Petitioner’s application of the art to the challenged claims. Accordingly, as the Petition does not comply with 37 C.F.R. § 42.104(b)(3), the Petition is deficient and trial cannot be

instituted on this Petition. *See Willis Elec. Co. v. Polygroup Macau Ltd.*, No. IPR2017-00330, 2017 WL 2304440, at *6 (P.T.A.B. May 25, 2017) (denying institution for failure to comply with 37 C.F.R. § 42.104(b)(3)); *ams AG*, 2017 WL 1052498, at *5–6(same).

B. The Board Cannot Effectively Waive the Requirement of 37 C.F.R. § 42.104(b)(3) and Must Require Petitioners to Provide a Claim Construction Beyond Simply Restating the Legal Standard

When a statute imposes a mandatory duty, an agency (*e.g.*, such as the USPTO) is required to follow it without discretion. *Bennett v. Spear*, 520 U.S. 154, 172, 117 S. Ct. 1154, 1165–66, 137 L. Ed. 2d 281 (1997) (When a regulation uses mandatory languages such as “shall,” the agency is required to follow it without discretion.); *Arens v. United States*, 969 F.2d 1034, 1039 (Fed. Cir. 1992); *Sierra Club v. Leavitt*, 355 F. Supp. 2d 544, 549–50 (D. D.C. 2005). Further, such non-discretionary, mandatory language requires agencies to actively and meaningfully implement certain directives, with no room for passive or minimal compliance. *Gerber v. Norton*, 294 F.3d 173, 185–86 (D.C. Cir. 2002) (“When a statute requires an agency to make a finding as a prerequisite to action, it must do so. Merely referencing a requirement is not the same as complying with that requirement. And stating that a factor was considered—or found—is not a

substitute for considering or finding it.”) (quotations omitted); *see also*, *Cigar Ass’n of Am. v. U.S. Food & Drug Admin.*, 964 F.3d 56, 61 (D.C. Cir. 2020).

The Federal Circuit addressed an agency’s requirement to comply with its own regulations in *Wagner v. U.S.*, saying

We begin with the initial premise that an agency is bound by its own regulations. *Service v. Dulles*, 354 U.S. 363, 388, 77 S.Ct. 1152, 1 L.Ed.2d 1403 (1957); *see also Carmichael v. United States*, 298 F.3d 1367, 1373–74 (Fed. Cir. 2002); *Voge v. United States*, 844 F.2d 776, 779 (Fed. Cir. 1988) (“It has long been established that government officials must follow their own regulations, even if they were not compelled to have them at all....”). In *Service*, the Supreme Court reversed the Secretary of State’s exercise of his statutorily authorized discretion to dismiss employees with questionable loyalty where the Secretary had exercised that authority in violation of self-imposed regulatory constraints in excess of statutory requirements. 354 U.S. at 388, 77 S.Ct. 1152.

Wagner, 365 F.3d at 1361. The court there limited the agency’s non-compliance to instances of “harmless error.” *Id.* at 1363. It differentiated “harmless error” from errors that involve “structural defects in the constitution of the trial mechanism, which defy analysis by ‘harmless-error’ standards.” *Id.* (quoting *Arizona v. Fulminante*, 499 U.S. 279, 309 (1991)). When an error has the effect of “def[y]ing assessment by a reviewing body,” the error is not harmless. *Id.* at 1364. The cases in which

the failure to properly do claim construction (*e.g.*, *O2 Micro*, 521 F.3d at 1361) or decide a case on an incorrect claim construction, are too numerous to mention. Claim construction failures are not, and cannot be, harmless errors.

37 C.F.R. § 42.104(b)(3) explicitly mandates that an *inter partes* review petition “*must* identify... [h]ow the challenged claim is to be construed.” This language does not confer discretion to the USPTO to accept petitions with insufficient claim constructions, nor does it allow the USPTO to adopt an interpretation of the regulation that reduces this duty to a minimal compliance or exercise.

Despite the regulation’s clear directive, in the past, the Board has held that it is enough for a petitioner to provide a statement that the claim term “is presumed to take on its ordinary and customary meaning,” unless the claim term has more than ordinary meaning or when reliance on the term’s ordinary meaning does not resolve the parties dispute. *Apple v. SMR Innovations LTD*, IPR2024-01047, 2025 WL 319932, at *4 (P.T.A.B. Jan. 28, 2025) (denying institution); *Peloton Interactive, Inc. v. Nec Corp.*, No. IPR2023-01239, 2024 WL 947529, at *7 (P.T.A.B. Mar. 4, 2024); *Tesla, Inc. v. Graphite Charging Co. LLC*, No. IPR2024-00387, 2024

WL 3708165, at *8–9 (P.T.A.B. Aug. 7, 2024). However, this statement (or those similar) should not relieve the Board’s obligations under 37 C.F.R. § 42.104(b)(3). The regulation requires the Board to obligate petitioners to state how “the challenged claim is to be *construed*.” 37 C.F.R. § 42.104(b)(3). Simply allowing petitioners, such as Petitioner here, to state that the claim terms are presumed to take on their “ordinary and customary meaning” is just a restatement of the legal standard employed by the PTAB in *inter partes* review proceedings and not an actual construction of the claims. Instead, petitioners must be required to apply this standard to the specific terms in the challenged claims. The petition must *explain* what the plain and ordinary meaning as understood by a POSITA and/or in the context of the specification and prosecution history, and not just that the standard applies (*e.g.*, “Term X is construed in accordance with its ordinary and customary meaning, *which is* ‘Y,’ and such understanding is supported by the patent’s specification.”). The Board finding any claim construction as acceptable, short of a petitioner explaining what the plain and ordinary meaning is, is insufficient under 37 C.F.R. § 42.104(b)(3) and undermines the agency’s own regulatory requirements, in violation of law. Without an

express construction, patent owners are left without an understanding of how the asserted cited art actually maps to the challenged claims; this would effectively shift effort and cost to Patent Owner. Further, petitioners' failure to provide express constructions may reflect an effort to preserve alternative positions regarding claim construction in parallel or subsequent district court proceedings. Thus, were the Board to permit such unfair cost shifting and gamesmanship, it would eviscerate the Board's regulation to the contrary.

Moreover, 37 C.F.R. § 42.5(b) does not provide the Board with any safe harbor from failing to obligate petitioners to provide adequate claim construction. Under 37 C.F.R. § 42.5(b), the Board has the authority to "waive or suspend a requirement of ... [§] 42." However, every application of that discretion that Patent Owner could find involved *procedural* issues which do not implicate patentability, not substantive issues. Application of the permissible waiver of 37 C.F.R. § 42.5 has been applied only to avoid some fundamental unfairness or disproportionate remedy given the nature of the rule being waived, *e.g.*, excusing minor word limit violations, or failing to properly mail or serve an exhibit, or failure to make explicit a fact or argument already made

of record elsewhere. *See, e.g., Samsung Display Co., Ltd. v. Pictiva Displays Int'l Ltd.*, No. IPR2024-00855, 2025 WL 88289, at *3 (P.T.A.B. Jan. 10, 2025) (“[T]he Board can adjust word counts and deadlines if the requesting party shows good cause.”).¹ Claim construction is an inherently substantive issue because claim construction establishes the scope of the challenged claims by defining the challenged claim terms, which is essential for patentability. Accordingly, claim construction should be treated as a mandatory requirement that must be satisfied for the Board to institute trial. The Board should deny institution for failure to provide adequate claim construction rather than waiving the deficiency under § 42.5(b). The Board should not circumvent essential requirements implicating patentability, *e.g.*, 37 C.F.R. § 42.104(b)(3), by granting relief under § 42.5(b). Furthermore, given the absence of clear precedential guidance on how the Board interprets the requirements of

¹ The only case in which the Board waived the requirement to identify a claim construction was where the parties had already litigated the claim construction and applied a claim construction from a prior proceeding. *See Denso Corp. v. Collision Avoidance Techs. Inc.*, No. IPR2017-01709, 2018 WL 557911, at *7 (P.T.A.B. Jan. 23, 2018). That situation differs markedly from here where there is no record of any claim construction as Petitioner has taken no position on claim construction in the underlying district court case, which has not even proceeded past the motion to dismiss stage.

37 C.F.R. § 42.104(b)(3), particularly in cases with no prior district court litigation history, it is essential the Board do so. Moreover, because P.T.A.B. institution decisions are not reviewable, it is all the more important the Board demonstrate its commitment to compliance with 37 C.F.R. § 42.104(b)(3) lest the Board render its own mandatory regulations empty letter. Patent Owner respectfully requests the Board enforce its own regulations, as the law demands.

**V. STATEMENT OF LAW COMMON TO SEVERAL GROUNDS:
IN ADDITION TO SUPRA SECTION IV, SEVERAL TERMS
ARE IN DISPUTE AND MUST BE CONSTRUED UNDER
P.T.A.B. AND FEDERAL CIRCUIT PRECEDENT**

Even setting aside the Petition’s threshold failure to provide *any* claim constructions (discussed *supra* § IV.A), certain claim terms are clearly in dispute. Petitioner relies on interpretations for these terms that are clearly inconsistent with the way the terms are used in the Patent, yet Petitioner provides no express constructions for these terms. This failure is legally significant insofar as Petitioner’s inconsistent interpretations create a disputed issue of claim scope, which is exactly the kind of situation that requires construction under both P.T.A.B. and Federal Circuit precedent. *Apple*, IPR2024-01047, 2025 WL 319932, at *4 (denying institution) (finding that terms “in controversy” need to be

construed.); *Pats. v. LLC*, No. IPR2023-00425, 2024 WL 3387429, at *6 (P.T.A.B. July 12, 2024) (“[T]erms that are in controversy need to be construed...”); *O2 Micro*, 521 F.3d at 1361 (Fed. Cir. 2008) (A “determination that a claim term ‘needs no construction’ or has the ‘plain and ordinary meaning’ may be inadequate when a term has more than one ‘ordinary’ meaning or when reliance on a term’s ‘ordinary’ meaning does not resolve the parties’ dispute.”).

Petitioner’s attempt to quietly transform the claim term meanings without acknowledging the inconsistency of these meanings with the Patent is why the regulation and P.T.A.B. precedent require express constructions. Without such express constructions, institution should be denied. Below, Patent Owner addresses each term in dispute and demonstrates how Petitioner’s implicit constructions are inconsistent with how the terms are used in the Patent.

A. Petitioner’s Grounds 1–4 Rely on a Contradicting Interpretation of “Aliasing,” Yet No Express Construction Is Provided, and Should Therefore Be Denied

Petitioner’s hand-waving of its claim construction obligation is immediately apparent in its failure to identify any meaningful construction to support its assertion that “aliasing” is found in Rahle. To

find “aliasing” in Rahle, Petitioner—implicitly at best—defines “aliasing” as simply “linking” or “associating.” Petitioner, however, makes no effort to explain how it got there, especially as the challenged claims and the specification of the Patent (“Specification”) use all three terms: “aliasing,” “linking” and “associating.” (Ex. 1001, 4:51–55, 4:60–65, 6:19, 13:56–60.)

Petitioner’s silent premise appears to be that all three mean the same thing, and that premise is *foundational* to its argument that Rahle meets the claim’s requirement of “aliasing.” But, if that is so, then Petitioner must address why, how, or even if, “aliasing” has a meaning that is distinct, or possibly the same as, “linking” or “associating.” Petitioner does not do so, and it is not clear from Petitioner’s arguments that “aliasing” has any customary or ordinary meaning that equates it with “associating” or “linking,” as Petitioner alleges. Petitioner certainly offers no evidence—intrinsic or extrinsic—to support that implied assertion. And, Petitioner’s entire unpatentability argument, for all its grounds, depends on being able to locate “aliasing” in Rahle. It does this, however, without identifying what in Rahle it is actually looking for. Is “aliasing” the same

as Rahle’s “mapping”? (Ex. 1005, Rahle ¶ [0039].) If not, what is the difference? Petitioner never says, but must for its arguments to work.

For example, the term “aliasing,” as informed by the Specification, describes a *data standardization process* where data from different sources is transformed into a single, “standardized format.” (Ex. 1001, 11:22–44.) This can include, but is not limited to, renaming fields from different sources and rescaling or converting values to fit the standardized format. (*Id.*) For instance, as disclosed in the Specification (Ex. 1001, 11:34–44), the source data of delivery service 1 comprises the following information:

```
delivery_fee: 5.00,  
delivery_fee_is_taxable: true.
```

While the source data of delivery service 2 comprises the following information:

```
delivery_percentage: 5.
```

The system of the Patent (“System”) “aliases” each set of source data into a standardized format, such that service 1’s data becomes:

```
delivery_fee': {  
    'as_percentage': false,  
    'flat': 500,  
    'taxable': true};
```

and service 2's data becomes:

```
    'delivery_fee': {  
        'as_percentage': true,  
        'percent': 5,  
        'taxable': false}.
```

(*Id.*) As depicted, the System “aliases” fields by mapping (*e.g.*, “delivery_fee_is_taxable” → “taxable”), renaming (*e.g.*, “delivery_percentage” → “percent”), and rescaling or converting (*e.g.*, “5.00” to “500”) fields from their original format in the delivery services computers into a standard field. Further, even though delivery charges among different services vary, such as those for service 1 and service 2 as depicted above (*e.g.*, service 1 charges a flat delivery fee, while service 2 charges delivery as a percentage of the total), the System captures both delivery fee methods under one standardized structure.

Petitioner states that in Rahle “where sub-nodes represent menu items and a menu item can be provided by multiple delivery services, this results in mapping to the same sub-node different mentions of the same menu item from different delivery service computers that may use different terminology or spelling for that item, such that sub-node fields and the various source fields having different terminology spelling are aliases of each other.” (Pet., p. 25.) To Petitioner’s credit, Petitioner

correctly acknowledges that “aliasing” in the Patent (and understood by POSITAs) includes mapping “fields used by delivery services (which may be in different forms...) to describe the same concept... to a standardized set of one or more fields in a database.” (*Id.*, p. 24.) However, within the same breath, Petitioner attempts to conflate the “aliasing” performed by the Patent’s System with the purported “aliasing” performed by Rahle’s system to support its argument. (*Id.*, p. 25.) This position is flawed.

Setting aside the fact that Rahle’s system does not perform the function Petitioner claims it does (see also, *infra* § VI.A, § VI.B.2), it is clearly evident that the activities in Rahle and those in the Patent are functionally distinct. Specifically, as discussed above, the term “aliasing,” as used in the Patent, describes a *data standardization process* which is entirely different from the purported node/sub-node association process described by Petitioner. Specifically, the Patent transforms “raw files,” *e.g.*, raw menu data, from external delivery sources by “transforming” the “raw files” to a “standardized format.” (Ex. 1001, 11:22–35.) As depicted in the example in the Specification (Ex. 1001, 11:34–44.), such transformation involves methods such as, but not limited to, renaming, rescaling, converting, or aligning fields and data from particular sources

formats to the System’s standard format. (See Ex. 1001, 11:22–44 for non-limiting example of data mapping.) Petitioner’s unsupported claim (see also, *infra* § VI.A, § VI.B.2) that Rahle’s system maps “different mentions of the same menu item” to the “same sub-node” (Pet., p. 25) cannot be assumed to be equivalent to the “aliasing” described in the Patent without making express whatever underlying construction Petitioner is implying in that analysis. Further, Petitioner has not pointed to anything in the Patent to suggest the inventors acted as their own lexicographer to give the term “aliasing” an uncommon meaning, *e.g.*, “associating” or “grouping” like data. See *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (“Where an inventor chooses to be his own lexicographer and to give terms uncommon meanings, he must set out his uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change.”) (quoting *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387–88 (Fed. Cir. 1992)). Therefore, Petitioner’s plethora of unstated assumptions, couched in observations of how the term would be understood based on the intrinsic record, creates a disputed issue of claim scope that requires an express construction from Petitioner.

The only other attempt by Petitioner to somewhat accurately equate the two functionalities comes in the form of a conclusory statement: “[s]toring the menu information in Rahle’s format involves mapping, *e.g.*, converting the information from the format in which it existed on the third-party websites/systems into Rahle’s format.” (Pet., p. 24.) However, this functionality is not discussed anywhere in Rahle and is thus entirely unsupported. Further, such statement is inconsistent with Petitioner’s other observation of the term (*id.*, p. 25), thus creating an inconsistency within the Petition itself.

Petitioner’s failure constitutes fatal noncompliance with 37 C.F.R. § 42.104(b)(3). Because Petitioner’s unpatentability analysis relies on an unstated and shifting assumed interpretation of “aliasing” that Petitioner never even alleges is “ordinary and customary,” the Petition has failed to comply with 37 C.F.R. § 42.104(b)(3).

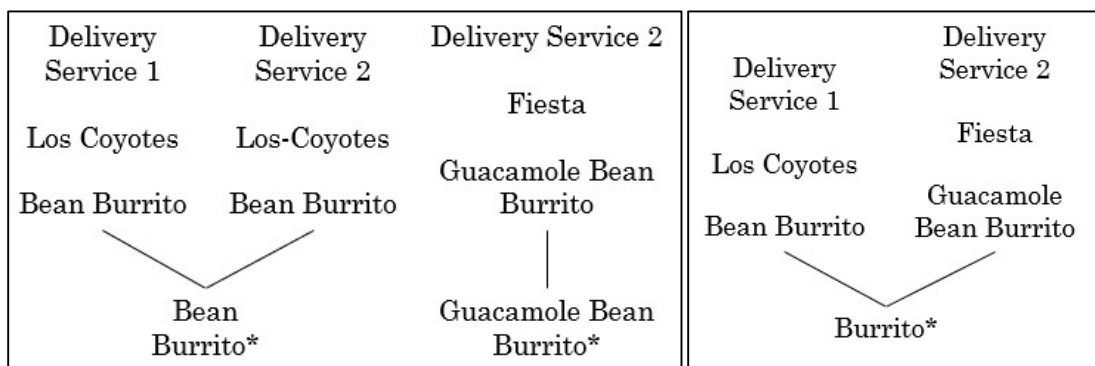
Because “aliasing” is found in every independent claim, and is therefore also incorporated in every dependent claim, *see In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988) (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”), Petitioner has failed to comply with 37 C.F.R. §

42.104(b)(3) with respect to *any challenged claims* in Grounds 1–4, and therefore the Petition should be denied.

B. Petitioner’s Grounds 1–4 Rely on a Contradicting Interpretation of “Master Menu Item,” Yet No Construction Is Provided, and Should Therefore Be Denied

Petitioner relies on an implicit interpretation of the term “master menu item” that begs for a construction because Petitioner’s use would conflate the meaning of “master menu item” with another concept expressly identified in the Patent, the “associated item.” (Ex. 1001, 13:56–60.) For example, in the Patent, “master menu item” is referred to as a record linking *identical* menu items from the *same* restaurant across different delivery services. (Ex. 1001, 12:47–67, 13:1–5.) Petitioner, however, treats “master menu item” as meaning “a logical representation of a menu item that is linked to the corresponding item on the menus of *various* restaurants... for example, if multiple restaurants have pizza as a menu item, those source menu items may all be associated with a master menu item representing pizza.” (Pet., p. 30.) Petitioner’s interpretation suggests that a “master menu item” links menu items that are *similar or common* across different restaurants and delivery services, and such an interpretation does not align with the meaning set forth in the Patent.

Petitioner’s example stating that “a sub-node for burritos... may be used for all restaurants serving burritos... thus a sub-node... representing a food item such as a burrito is a master menu item” only underscores Petitioner’s misunderstanding of the term. (*Id.*) The distinction between Petitioner’s interpretation and how the term is used in the Patent is illustrated below.



As illustrated on the left, the Patent’s System links “master menu items” (master menu items shown with an *) to *identical* menu items from the *same* restaurant across different delivery service platforms. (Ex. 1001, 12:47–67, 13:1–5.) While “bean burrito” and “guacomole bean burrito” may be similar menu items, they are not identical nor are they from the same restaurant, thus the Patent’s System does not link them under the same “master menu item.” On the other hand, Petitioner’s interpretation links both of these menu items to one “master menu item,” misinterpreting the Patent’s capability.

The problem with not having expressly identified its implied “master menu item” construction is that it frees Petitioner from confronting what would seemingly be an identical construction of the term “*common* menu items” linked via “tag or cuisine descriptors.” (Ex. 1001, 13:56–60 (“[T]he full set of tags or cuisine descriptors used for each master restaurant are indexed. This indexing allows for the user to search for terms such as ‘pizza’ and find all restaurants associated with that label.”).) This separate functionality should not be muddled with “master menu item.” Petitioner’s erroneous observation with how the term would be understood based on the intrinsic record creates a disputed issue of claim scope that requires an express construction from Petitioner.

Because Petitioner’s invalidity analysis relies on an interpretation of “master menu item” that departs from its ordinary and customary meaning as understood by the intrinsic record and because Petitioner failed to provide an express construction, the Petition has failed to comply with 37 C.F.R. § 42.104(b)(3). Because “master menu item” is found in independent claims 1 and 14, and is therefore also incorporated in every corresponding dependent claim, *see In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988) (“Dependent claims are nonobvious under section 103 if the

independent claims from which they depend are nonobvious.”),
Petitioner has failed to comply with 37 C.F.R. § 42.104(b)(3) with
respect to *any challenged claims* in Grounds 1–4. Thus, all of the
Grounds are legally deficient and therefore the Petition should be denied.

**C. Petitioner’s Grounds 1–4 Rely on a Broad Interpretation
of “Master Data Set” and “Aggregated Data Structure”
Not Supported by the Intrinsic Record, Yet No
Construction Is Provided, and Should Therefore Be
Denied**

The term “master data set,” as informed by the Specification, is
understood to mean “the combined linked data” and “the master menu
items.” (Ex. 1001, 2:40–41.)

Petitioner states the “master data set” represents “the multiple
menu items provided by the plurality of food delivery services,” glossing
over the Patent’s clear clarification that “multiple menu items” refers to
the “master menu items” and the “plurality of delivery services” refers to
the “linked data.” (*Id.*, 1:67–2:1.) By ignoring the clarifying language in
the Specification (and, notably, defined within claim element [1F] itself),
Petitioner is essentially cherry picking the broadest portions that suit
Petitioner’s position while ignoring the remaining clarifying portions that

need to be considered together for a comprehensive understanding of the claim term.

By relying on an incomplete, broader interpretation that is not supported by the intrinsic record, Petitioner is able to effectively claim that *any* data set is a “master data set,” which is wholly unsupported by the intrinsic record.

Petitioner’s improper broadening of “master data set” is not an isolated event because it also further improperly broadens the meaning of “aggregated data structure.” As informed by the Specification, “aggregated data structure” includes the “master data set.” (*Id.*, 4:24–25 (“the master data set and the restaurant identifier data are imported into the searchable aggregated data structure.”).)

Furthermore, Petitioner’s interpretation that the “aggregated data structure” is “Rahle’s social graph... containing nodes representing restaurants and sub-nodes representing menu items,” ignores the intrinsic record and improperly broadens the claim term to encompass an array of data structures. (Pet., p. 32.) For instance, under Petitioner’s interpretation, any two-tiered graph-like structure is an “aggregated data structure.” That assertion is so broad as to effectively deprive the term

“aggregated data structure” of any meaning. If so broad a construction is necessary to Petitioner’s arguments, it owed Patent Owner (and the Board) an explanation of how “aggregated data structure” can be interpreted so broadly. At bottom, even the “broadest reasonable interpretation” standard *still* requires fidelity to the Patent—a party cannot interpret the words of the claim in a vacuum because they do not exist in a vacuum. After all, the standard is not simply that claims are given their “broadest reasonable interpretation,” but rather that claims are given their “broadest reasonable interpretation *consistent with the specification.*” *In re Man Machine Interface Tech. LLC*, 822 F.3d 1282, 1286 (Fed. Cir. 2016) (emphasis added).

Petitioner improperly broadening the scope of “master data set” and “aggregated data structure” beyond what is supported by the intrinsic record results in a claim dispute requiring express construction.

Because Petitioner’s unpatentability analysis relies on an interpretation of “master data set” and “aggregated data structure” that depart from their ordinary and customary meaning as understood by the intrinsic record and because Petitioner failed to provide express

constructions, the Petition has failed to comply with 37 C.F.R.

§ 42.104(b)(3).

Because “master data set” and “aggregated data structure” are found in every independent claim (either explicitly and implicitly), and are therefore also incorporated in every dependent claim, *see In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988) (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”), Petitioner has failed to comply with 37 C.F.R.

§ 42.104(b)(3) with respect to *every challenged claim* in Grounds 1–4, and therefore the Petition should be denied.

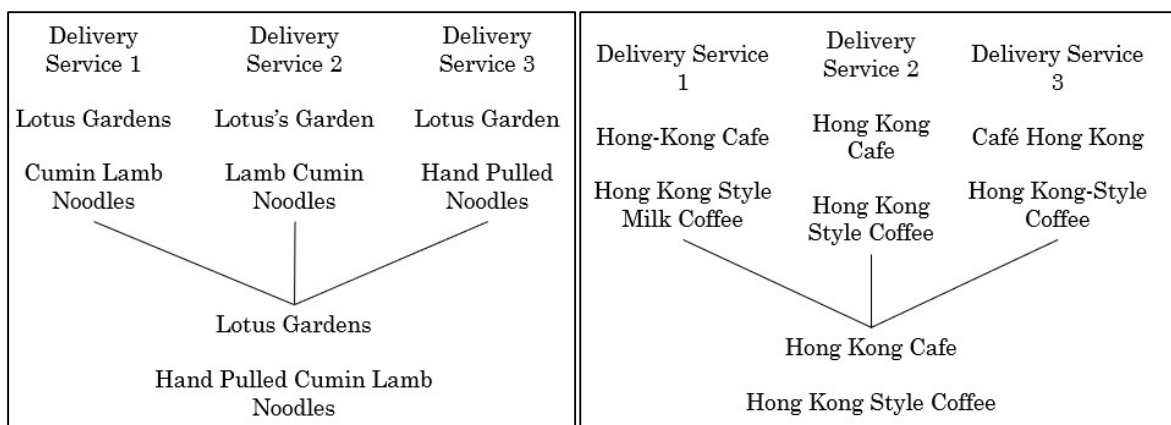
VI. GROUND 1 FAILS BECAUSE RAHLE-RHODES FAILS TO RENDER THE CLAIMS OBVIOUS

A. Rahle-Rhodes Does Not Render Obvious the Patent Because There Is No Reasonable Expectation of Success in Combining Rahle-Rhodes to Arrive at Claimed Invention in the ’683 Patent

The ’683 Patent solves data aggregation issues by transforming disparate data that “would otherwise not be linked to one another and that are stored in varying formats” into an aggregated data structure (*e.g.*, “master data structure”). (Ex. 1001, 4:31–34.) As discussed in the Patent, food delivery services use a “plurality of [data] formats” for storing restaurant menu data as “such data was not created or stored with the

goal of compatibility.” (Ex. 1001, 2:27, 3:40–43.) This causes issues when attempting to aggregate menu data from multiple delivery services. There is no method to recognize the same restaurant or menu item across different delivery services, thus creating a long-felt need for this type of aggregation. (Ex. 1001, 3:37–47.)

The ’683 Patent aggregates disparate menu data into a “master dataset” by (1) acquiring “source data,” which includes “data representing multiple source menu items provided by multiple restaurants,” (2) “mapping” the raw source data into a standard, “predetermined data format” (as shown *supra* § V.A), (3) using “restaurant identifiers” to link the formatted data entries to “common restaurants,” (4) identifying identical menu items in the formatted data and linking them to a “master menu item,” and (5) aggregating the data into a searchable “master data set.” (Ex. 1001, 6:15–19.) This aggregation allows users to view identical menu items from the same restaurant found on multiple delivery services in a single view. (Ex. 1001, 9:38–42, FIGs. 11, 12.) For instance, shown below is a simplified, visual representation of linking unlinked restaurant and menu item data acquired from multiple delivery sources under the Patent (*see also*, FIGs. 11, 12):



As illustrated, the System determines that “Lotus Gardens,” “Lotus’s Garden,” and “Lotus Garden” refer to the same restaurant location (with the use of “restaurant identifiers”). (*Id.*, 11:45-55.) Additionally, the System recognizes that “Cumin Lamb Noodles,” “Lamb Cumin Noodles,” and “Hand Pulled Noodles” are variations of the same item “Hand Pulled Cumin Lamb Noodles” (the resulting “master menu item”). (*Id.*, 12:47–13:5.) Further, illustrated below is an abridged representation showing how resulting information is aggregated by the System into a “master data set” (see Fig. 4 of Patent for a further detailed depiction). (Ex. 1001, 13:22–40, FIG. 4.)

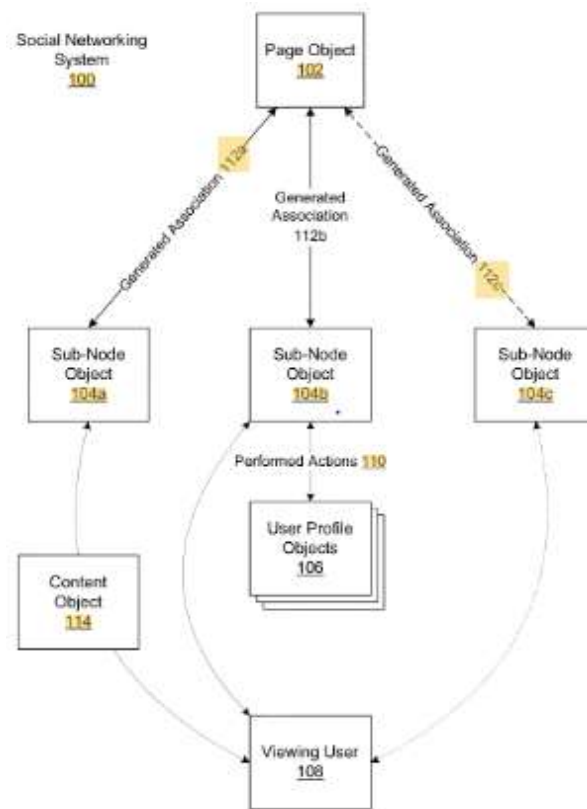
<u>DATA SOURCE</u>	<u>MASTER ITEM ID</u>	<u>SOURCE ITEM ID</u>	<u>ITEM NAME</u>	<u>SECTION NAME</u>	<u>ITEM PRICE</u>	<u>SOURCE ITEM IDS</u>	<u>ITEM PRICES</u>
5	NULL	A1234	Hong Kong Style Milk Coffee	Beverage	4.99	NULL	NULL
4	NULL	4567B	Hong Kong Style Coffee	Drinks	4.99	NULL	NULL
1*	1234	NULL	Hong Kong-Style Coffee	Drinks	NULL	A1234, 4567B	4.99, 4.99

****the master menu item.***

As illustrated, the sample table contains source menu items linked to a master menu item (master menu item shown with an *). The aggregated data includes, but is not limited to, (1) a unique identifier for the delivery service (“data source”), (2) an identifier for the master menu item used in the System’s database (“master item ID”), (3) an identifier used by the food delivery service (“source item ID”), (4) the name of the item and the section in which it appears in the source menus or in an example master menu (“item name”), and (5) the price charged for that item by the food delivery service (“item price”). (Ex. 1001, 13:22–40, FIG. 4.) The System queries this aggregated data set in response to user requests and visually presents the information in a unified manner to “provide an interactive comparison between the transformed data.” (Ex. 1001, 4:35–40, FIG. 4.)

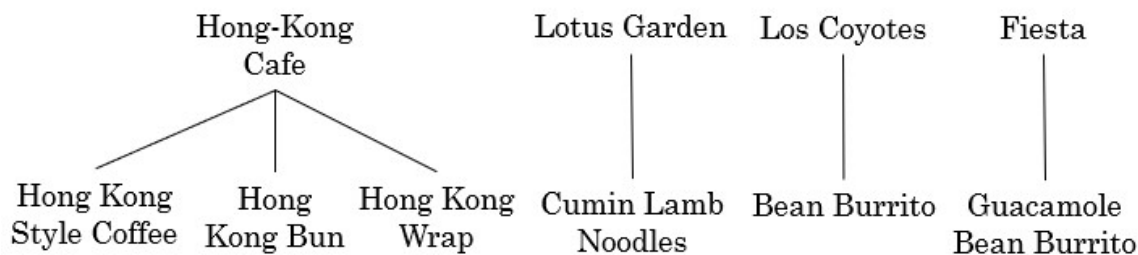
Rahle-Rhodes does not render obvious the foregoing functionality because there is no reasonable expectation of success in combining these cited arts to arrive at the claimed invention described in the Patent and any attempt by Petitioner to suggest otherwise is a clear misunderstanding of Rahle’s “social graph” and node capabilities. While

Rahle's system performs some data linking, described as “mapping”² in Rahle, such “mapping” does not equate to the level of “linking” performed by the Patent. As disclosed in Rahle and the Petition, the “data mapping module” maps sub-nodes “to the correct page object” node (*e.g.*, restaurant) in the system. (Ex. 1005, Rahle ¶¶ [0038]–[0039]; Pet., p. 6.) Simply put, the processor in Rahle “maps” a menu item to a corresponding restaurant. This relationship is illustrated in fig. 1 (shown below).



² To align with the terminology used in Rahle, “linking” will henceforth be referred to as “mapping” when referencing Rahle.

(Ex. 1005, Rahle, Fig. 1.) As depicted, sub-node objects 104a, 104b, and 104c are mapped to page object 102. The illustration below shows what an exemplary association would look like.



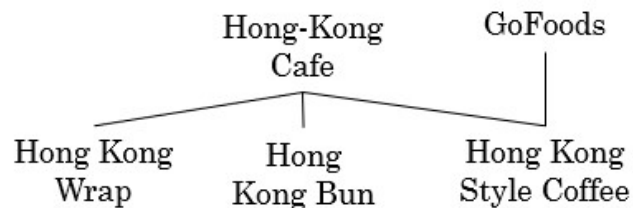
As illustrated, each of the menu items listed in level two (the sub-node level), *e.g.*, “Hong Kong Style Coffee,” are mapped to a corresponding restaurant in level one (the node level), *e.g.*, “Hong-Kong Café.”

In its Ground 1, what Petitioner claims is that given “Rahle’s teaching to gather information about restaurants’ menu items from third-party websites... POSAs would...have been motivated and reasonably expected success to implement Rahle’s system to obtain such information from delivery services like Rhode’s,” the resulting implementation would “shar[e] information about applicable delivery fees for ordering... menu items from various delivery services.” (Pet., pp. 9–10 (citations omitted).) Petitioner states this implementation is possible because “Rahle teaches... that... any concept that can be embodied in a[n] [external] webpage may become a node in the social graph... [T]hus,... POSAs would have been

motivated and reasonably expected success to represent each delivery service as a node...in the social graph.... In the resulting implementation, a restaurant's page object node and menu-item sub-nodes would be linked... with each delivery service's page object node in the social graph, because both are attributes of the delivery service's webpage.” (*Id.*, pp. 11–12 (citations omitted).) Further, Petitioner states “POSAs would have reasonably expected success because Rahle teaches that nodes...and sub-nodes can be linked to multiple different other nodes and sub-nodes” and “POSAs would have been motivated to associate menu-item sub-nodes with delivery-service page objects to beneficially allow users to search for a menu item and be presented with options for delivery services providing that item.” (*Id.*, p. 12 (citations omitted).) Hereafter, the purported implementation described by Petitioner (as stated herein this paragraph) will be referred to as “Purported Implementation” throughout this Response.

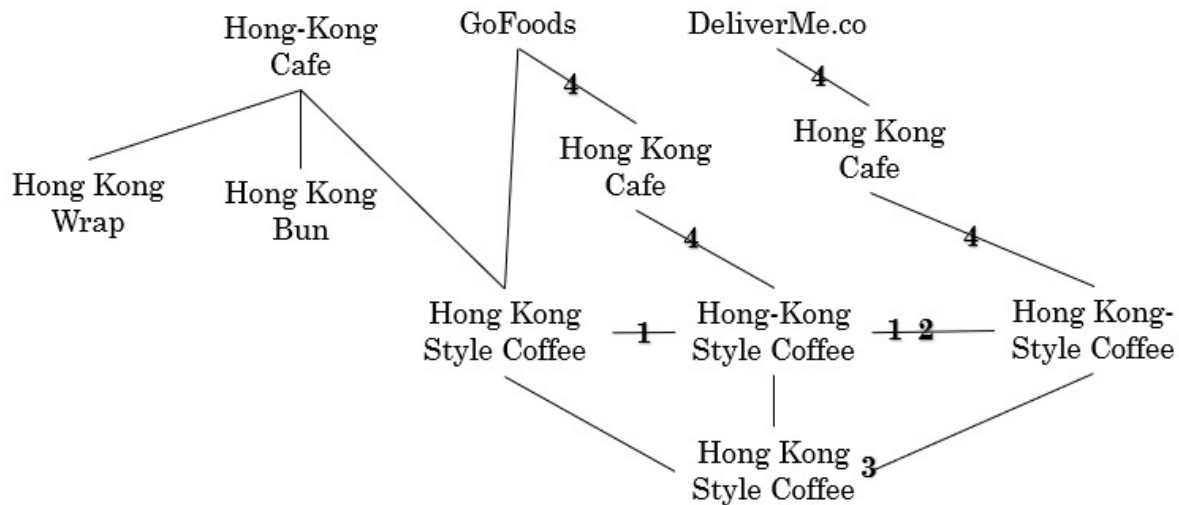
First, even if it were possible for Rahle's system to ingest information from external delivery services like Rhode's, Rahle and the Petition notably omit the most critical step: “linking” (as described in the Patent) the delivery services' *source menu data* to the corresponding

menu-item sub-nodes and restaurant nodes. Rahle and the Petition only discloses that menu item sub-nodes (*e.g.*, “Hong Kong Style Coffee”), that are mapped to restaurant object nodes (*e.g.*, “Hong Kong Café”), can also be connected to *delivery service object nodes* (*e.g.*, “GoFoods”). (Ex. 1005, Rahle ¶ [0040]; Pet., p. 12.) This is where the Rahle functionality ends. The illustration below shows an exemplary association of this *limited* functionality.



As further illustrated below, what Rahle fails to disclose is how a restaurant menu item sub-node (*e.g.*, “Hong Kong Style Coffee”) is linked to the *identical* menu item (*e.g.*, “Hong-Kong Style Coffee”) listed in a delivery service (*e.g.*, “GoFoods”) for that restaurant (see “1” in chart). Without this linkage, the restaurant menu item is only connected to the delivery service object node, and there is no logical mapping or aggregation of identical menu items between both the restaurant and delivery service. The issue is only exacerbated when additional delivery services are considered. For instance, as illustrated below, Rahle fails to

disclose (1) how Hong-Kong Café's Hong Kong Style Coffee menu item is linked to the same menu item on GoFoods and DeliverMe.co (see "1" in chart), (2) how the GoFoods and DeliverMe.co menu items (and other additional delivery services) are linked (see "2" in chart), and (3) how the restaurant menu item and the delivery service menu items are linked to a common, master record (see "3" in chart).



Critically, Petitioner also provides no further explanation or argument beyond mere conclusory statements along with undeveloped, unsupported ideas all because Rahle discloses the ability to ingest "external data." (Pet., pp. 12-13 (Petitioner's conclusory statement stating "Rahle's system is intended to be flexible to provide links between sub-nodes and various types of page objects... Adapting Rahle's system which... gathers information... from third party websites.... to collect such menu data...

would have been a simple adaption of Rahle’s software programming...”)); *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (“[R]ejections on obviousness cannot be sustained by mere conclusory statements.”); see also, *InTouch Techs., Inc. v. VGO Commc’ns, Inc.*, 751 F.3d 1327, 1352 (Fed. Cir. 2014) (finding an expert “succumbed to hindsight bias” where the “testimony primarily consisted of conclusory references to her belief that one of ordinary skill in the art could combine these references, not that they would have been motivated to do so”). This unanswered gap is precisely what the Patent solves. Where Rahle and Petitioner are silent, the Patent speaks – specifically, the Patent “map[s] the acquired source data according to a predetermined data format to provide formatted data, link[s] the formatted data to common restaurants based on restaurant identifier data such that at least one food or beverage delivery service is linked to each common restaurant and its source menu items,... identifies common menu items among the source menu items in the formatted data, and, for each identified common menu item, associate[es] the source menu items with a master menu item (via a menu combining module), combin[es] the linked data and the master menu items into a master data set, and import[s] the master data set and the restaurant identifier data

into the searchable aggregated data structure.” (Ex. 1001, 6:5–20; *see also, supra* § III.A.)

Second, as disclosed throughout Rahle, Rahle’s “tree-like” social graph, is limited to a two-tiered hierarchy (node → sub-node), meaning it can only support two levels of data organization. While this structure might be sufficient for the type of data organized by Rahle’s system, such as broad general node categories (*i.e.*, restaurants, musicians, entities, people, etc.) and their immediate sub-node categories (*i.e.*, menu item, songs, cast, etc.), it fails in scenarios requiring additional hierarchies. That is not to say nodes and sub-nodes cannot be linked to multiple different other nodes and sub-nodes, they supposedly can.³ However, each individual branch (a path from an object node to a sub-node) is constrained to just two levels (the node and sub-node) (along with user profiles and content objects all connected by edges). (Ex. 1005, FIG. 1.) Thus, even if Rahle’s system can ingest information from external delivery services like Rhode’s, the existing two-tiered data structure does not support the additional levels inherently required for this type of data.

³ This statement is not an admission by Patent Owner of Rahle’s functionality, but a reference to what is disclosed in Rahle. See Patent Owner’s argument within the same section refuting such functionality.

Petitioner offers no explanation as to how the Rhodes data would be implemented in Rahle's system. Petitioner offers no combination or reference to ordinary skill in the art. *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd*, 821 F.3d 1359, 1369 (Fed. Cir. 2016). Further, modifying Rahle to incorporate Rhodes's data would be a "lot of work" and a POSITA would not have seen the point in making such a modification. *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1327 (Fed. Cir. 2016) (considering expert's opinion that modification of the prior art would be "a lot of work" in finding a *prima facie* case of obviousness).

Delivery services data inherently requires additional levels to reflect a more detailed data relationship, such as a first delivery service "grandparent" node, a second restaurant "parent" node, and a third menu item "child" sub-node, which Rahle's system cannot support. Therefore, as illustrated in the chart above (see "4" in chart), a delivery service object node (e.g., "GoFoods") cannot be linked to a restaurant object node/sub-node (e.g., "Hong Kong Café") which is linked to a menu item node/sub-node (e.g., "Hong Kong Style Coffee") because Rahle's system does not support a data hierarchy larger than two levels. Attempting to do otherwise would likely result in disorganized, duplicative, and potentially

disparate data within the Rahle system, which falls short of the capability disclosed in the Patent. Petitioner may argue that Patent Owner’s foregoing position is unsupported as Rahle discloses “gather[ing] information about restaurants’ menu items from third party websites and external systems.” (Pet., p. 9; Ex. 1005, Rahle ¶ [0038].) However, upon a closer read of Rahle, it is clear this data gathering functionality (*e.g.*, via the “external data gathering module”) is intended for the limited purpose of updating restaurant object nodes *not* for creating the Purported Implementation discussed in the Petition. (Pet., pp. 8–12 (discussing purported implementation)); (Ex. 1005, Rahle ¶ [0038] (“[A] page owner of a page object for a restaurant may already have menu items listed on an external website. The data gathering module may be used to gather such menu information for *that page object*” (*i.e.*, the restaurant’s page object))); (Pet., p. 10 (“not all restaurant owners may be attentive to providing or updating their own information... whereas delivery service’s information... may be more likely up-to-date,” thus “obtaining restaurant menu-item data from sources other than restaurant owner” is preferred to *update the restaurant object node*)); (Ex. 1005, Rahle ¶ [0021], Pet., pp. 8–9 (“a third party external system, *e.g.*, a restaurant review website, can

provide... menu items... to be *associated with a particular restaurant's page object.*") Rahle does not implicitly or explicitly suggest anything further.

"An invention 'composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.'" *Volkswagen Grp. of Am., Inc. v. Velocity Patent LLC*, IPR2015-00276, Paper No. 8 at 10 (P.T.A.B. Jun. 1, 2015) (*quoting KSR*, 550 U.S. at 418). "A party that petitions the Board for a determination of obviousness must show that 'a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.'" *Apotex Inc. v. Wyeth LLC*, IPR2014-00115, Paper No. 94 at 11 (P.T.A.B. Apr. 20, 2015) (*quoting Proctor & Gamble Co. v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 994 (Fed. Cir. 2009)); see also *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1379 (Fed. Cir. 2012) ("Obviousness requires a court to walk a tightrope blindfolded (to avoid hindsight)—an enterprise best pursued with the safety net of objective evidence."). Obviousness arguments "should be made explicit," and it "can be important to identify a reason that would

have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR*, 550 U.S. at 418; *see also*, *Apple Inc. v. Samsung Elecs. Co., Ltd.*, 839 F.3d 1034, 1064 (Fed. Cir. 2016) (“[i]t is undisputed that [references] are analogous art ... the relevant question is whether a skilled artisan would be motivated to combine the references to solve the problem addressed by the [patent]”).

Thus, in view of the foregoing, there was no teaching, suggestion, or motivation in the prior art to combine the references in the manner alleged by Petitioner to implement the Purported Implementation. Any attempt to suggest otherwise is not only a clear misunderstanding of Rahle’s intent but also impermissible hindsight. *KSR*, 550 U.S. at 421. Further, assuming *arguendo* that the cited art could be combined as claimed by Petitioner, the resulting implementation, at best, would not function as claimed by Petitioner because it would result in an entirely different implementation and, at worst, it would not operate at all for the reasons discussed throughout this Response.

B. Responding to Petitioner’s Mapping of Challenged Claims in § VI.D.1 (Claim 1) of the Petition

Patent Owner does not concede Petitioner’s mapping of the challenged claims, but focuses the Response on specific claim elements for which Petitioner’s analysis is particularly deficient. Silence as to other elements should not be construed as agreement.

To institute an IPR, the Petitioner must show a “reasonable likelihood” that the claims at issue are unpatentable, which Petitioner has not as described herein this section and throughout this Response. 35 U.S.C. § 314(a) see also, *Statistica Inc. v. Christopher*, 102 F.3d 1577, 1582 (Fed. Cir. 1996) (“[T]o prevail, [party] must establish not only some significant error..., but also that there was a substantial chance.”).

- 1. “[1C] mapping, by the processor, the acquired source data according to a predetermined data format to provide formatted data, wherein said mapping comprises aliasing fields of the acquired data from formats used by the plurality of delivery service computers to respective fields of the predetermined data format;” (Petition § VI.D.c.)**

As recited in the claim element, the term “mapping” comprises “aliasing fields...” As discussed *supra* § V.A, the proper understanding of “aliasing” describes a data standardization process, wherein data is transformed into a standard format. Petitioner interpreting “aliasing” to

mean mapping “different mentions of the same menu item” to the “same sub-node” clearly fails to meet this element (nor is this purported function supported by Rahle’s disclosure, see *supra* § VI.A). Yet, Petitioner simply conflates both functions without addressing the functional differences or sufficiently explaining why a POSITA would equate them.

Rahle does not disclose or suggest a standardization process as claimed (discussed *supra* § V.A). And Petitioner’s conclusory statement that it does is not only entirely unsupported (as it is not disclosed explicitly or implicitly in Rahle, see *supra* § V.A) and inconsistent with its other observation, but also inconsistent with what Rahle sets out to do. (See Pet., p. 24 (“Storing the menu information in Rahle’s format involves mapping, *e.g.*, converting the information from the format in which it existed on the third-party websites/systems into Rahle’s format.”).) The “social network” concept in Rahle is meant to be somewhat fluid. For users to share and connect (*e.g.*, via “edges”) with content, the underlying data is required to exist in its most authentic, unbridled form. Thus, Petitioner’s unsupported statement is entirely driven by hindsight rather than a motivation in the teachings. *KSR*, 550 U.S. at 421.

Moreover, Rhodes similarly fails to remedy this deficiency. While Rhodes discloses a food delivery service, it is silent on any data standardization, which is to be expected since Rhodes is a singular delivery service and not a collection of delivery services requiring data aggregation. (Ex. 1006, Rhodes, 1:12–15.) Therefore, the Petition fails to establish that this limitation is disclosed or suggested by Rahle-Rhodes.

Additionally, since claim elements [1D] – [1G] (Petition § VI.D.d.–g) rely on the formatted data recited in this claim element, Petitioner’s invalidity arguments with respect to those elements must also fail.

Furthermore, as discussed *supra* § V.A, because Petitioner’s invalidity analysis relies on an interpretation of “aliasing” that departs from its ordinary and customary meaning as understood by the intrinsic record and because Petitioner failed to provide an express construction, the Petition has failed to comply with 37 C.F.R. § 42.104(b)(3). Since claims 1–16 each recite this limitation and Grounds 1–4 rely on those claims, the Petition should be denied in its entirety for failing to comply with 37 C.F.R. § 42.104(b)(3).

2. “[1E] identifying common menu items among the source menu items in the formatted data, and, for each identified common menu item, associating the source menu items with a master menu item;” (Petition § VI.D.e.)

As a threshold matter, as discussed *supra* § V.A and VI.B.1, Petitioner’s analysis relies on an interpretation of “aliasing” that necessarily implicates unresolved claim construction issues. “Aliasing” creates the “formatted data” recited herein [1E.] (Ex. 1001, 11:45-47.) Further, as discussed *supra* § V.B, Petitioner’s analysis relies on an interpretation of “master menu item” that departs from its ordinary and customary meaning. Since Petitioner failed to provide an express construction for these terms, the Petition has failed to comply with 37 C.F.R. § 42.104(b)(3) and Petitioner’s invalidity analysis in § VI.D.e. should fail for this reason alone.

a. “identifying common menu items among the source menu items in the formatted data”

Petitioner claims that Rahle-Rhodes discloses the claim limitation “identifying common menu items among the source menu items in the formatted data.” Petitioner offers no further explanation or argument beyond citing to § VI.C of its own Petition. As discussed *supra* § VI.A, in § VI.C of the Petition, Petitioner offers only mere conclusory statements to

support its position, which is not enough to sustain an obviousness claim. *KSR*, 550 U.S. at 418 (“[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”).

Furthermore, as discussed *supra* § VI.A, Petitioner’s reliance on Rahle is misplaced because the reference fails to disclose or suggest the claimed functionality. Petitioner offers no evidence or rationale for a POSITA to modify Rahle-Rhodes to arrive at the claimed element. Thus, the Petition fails to establish that the first part of this claim limitation is disclosed or suggested by Rahle-Rhodes.

b. “for each identified common menu item, associating the source menu items with a master menu item”

Petitioner claims that Rahle-Rhodes discloses the claim limitation “for each identified common menu item, associating the source menu items with a master menu item.” As discussed *supra* § V.B, “master menu item” is a record (or the like) linking *identical* menu items from the *same* restaurant across different delivery services. (Ex. 1001, 12:47–67, 13:1–5.) Petitioner interpreting “master menu item” to mean linking menu items

that are *similar or common* across different restaurants and delivery services clearly fails to meet this requirement (discussed *supra* § V.B), yet Petitioner still conflates both meanings. (Pet., pp. 29–30.)

As discussed *supra* § V.B and § VI.A, under the correct understanding of “master menu item” (see *supra* § V.B), as disclosed by the Specification, Rahle-Rhodes fails to disclose or suggest the recited linking process as claimed (Ex. 1001, 12:47–13:21), nor does Petitioner offer evidence or rationale for a POSITA to modify Rahle-Rhodes to arrive at the claimed element. Furthermore, as discussed *supra* § V.B and § VI.A, the example provided by Petitioner to support its position not only highlights Petitioner’s misunderstanding of the functionality, but reinforces Patent Owner’s position that Rahle-Rhodes does not disclose the claimed functionality recited in the claim element. If it did, a more relevant example/embodiment would have been cited to, rather than one bearing superficial resemblance.

Moreover, Rhodes similarly fails to remedy this deficiency. While Rhodes discloses a food delivery service, it is silent on linkage of identical menu items because Rhodes’s system is not aggregating data across

multiple services. Therefore, the Petition fails to establish that this limitation is disclosed or suggested by Rahle-Rhodes.

Additionally, since claim elements [1F] – [1H] (Pet., § VI.D.f.–h.) and the claim term “aggregated data structure” rely on the master menu item recited in this claim element, Petitioner’s invalidity arguments with respect to those elements must also fail.

Somehow, Petitioner must differentiate how it reads “master menu item” from “associated item” to fully map this limitation to the asserted art. (Ex. 1001, 13:56–60 discussing associated items versus 12:47–67, 13:1–5 discussing “master menu item.”) Petitioner fails to do so, ignoring the issue entirely, in contravention of its obligation under 37 C.F.R. § 42.103(b)(3), and making any analysis of this aspect of the Petition impossible. Since claims 1–10 and 14–16 each recite this limitation and Grounds 1–4 rely on those claims, the Petition should be denied in its entirety for failing to comply with 37 C.F.R. § 42.104(b)(3).

3. “[1F] combining, by the processor, the linked data and the master menu items into a master data set” (Pet., § VI.D.1.f)

As discussed *supra* § V.C, Petitioner improperly broadens the scope of “master data set” to essentially encompass *any* data set. By doing so,

Petitioner grants itself broad latitude to claim that “the menu item data gathered from external systems... *linked* to page objects [and] sub-nodes representing food items are *master menu items*...thus, Rahle-Rhodes meets... master data set, *i.e.*, the set of formatted source menu-item data and sub-node data.” (Pet., p. 31.) Setting aside Petitioner’s incorrect interpretation of “master menu items” (discussed *supra* § V.B, § VI.B.2), what Petitioner describes is a “master data set” under *Petitioner’s* interpretations of the term (emphasis on “Petitioner’s”). However, many types of data sets can be a “master data set” under Petitioner’s interpretation, which is something the Specification does not support.

Under the correct understanding, as supported by the Specification, Rahle-Rhodes does not disclose or suggest a “master data set” as claimed. In view of the Specification, the “master data set” includes “the linked data and the master menu items.” (Ex. 1001, 1:67–2:1.) As discussed *supra* § V.B, § VI.A, and § VI.B.2, Rahle-Rhodes fails to disclose or suggest the intrinsic functionality required to create a “master data set.” For instance, under the correct understanding of “master menu item” (see *supra* § V.B), Rahle-Rhodes does not disclose a linking process to link *identical* menu-items to a “master menu item.” (see *supra* § V.B and §

VI.A). (Ex. 1001, 12:47–67, 13:1–5.) Thus, without “master menu items” there is no “master data set.”

Additionally, Rhodes similarly fails to remedy this deficiency. Therefore, the Petition fails to establish that this limitation is disclosed or suggested by Rahle-Rhodes, nor does Petitioner offer any convincing evidence or rationale for a POSITA to modify Rahle-Rhodes to arrive at the claimed element.

Furthermore, as discussed *supra* § V.C, because Petitioner’s invalidity analysis relies on an interpretation of “master data set” that departs from its ordinary and customary meaning as understood by the intrinsic record and because Petitioner failed to provide an express construction, the Petition has failed to comply with 37 C.F.R. § 42.104(b)(3). Since independent claims 1, 11, and 14 each recite this limitation and Grounds 1–4 rely on those claims, the Petition should be denied in its entirety for failing to comply with 37 C.F.R. § 42.104(b)(3).

C. Responding to Petitioner’s Remaining Mappings of Challenged Claims in § VI.D. (Claim 2–16) of the Petition

Patent Owner does not concede to Petitioner’s mapping of the remaining challenged claims, but focuses the Response on specific claim

elements for which Petitioner’s analysis is particularly deficient. Silence as to other elements should not be construed as agreement.

Rahle-Rhodes does not meet Petitioner’s invalidity arguments for Claim 5, Claim Elements 14[C], 14[D], 14[E], 14[F], 14[G], and 15[H] for the reasons discussed in the corresponding sections listed below.

Rahle-Rhodes does not obviate independent Claims 1 (as discussed *supra*) and 14 of the Patent, thus Petitioner’s arguments to the accompanying dependent claims must all fail for the same reason. *See In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988) (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”)

<u>CLAIM/CLAIM ELEMENT</u>	<u>ADDRESSED IN SECTION</u>
Claim 5	§ V.B, § VI.A, § VI.B.2
Claim Element 14[C]	§ V.A, § VI.A, § VI.B.1
Claim Element 14[E]	§ V.B, § VI.A, § VI.B.2
Claim Element 14[F]	§ V.C, § VI.A, § VI.B.3
Claim Element 14[G]	§ V.C, § VI.A, § VI.B.3
Claim Element 14[H]	§ V.C, § VI.A, § VI.B.3

VII. INSTITUTION SHOULD BE DENIED ON ALL REMAINING GROUNDS AS WELL BECAUSE PETITIONER CANNOT DEMONSTRATE THAT RAHLE-RHODES, THE PRIMARY REFERENCES FOR ALL GROUNDS, IS PRIOR ART IN FURTHER VIEW OF BELOUSOVA AND/OR JIN

The cited primary references, Rahle and Rhodes, do not disclose or suggest all elements of the challenged claims, nor does Petitioner offer any convincing evidence or rationale for a POSITA to modify Rahle-Rhodes to arrive at the claimed elements. The secondary references cited by Petitioner (Belousova and Jin) do not cure the deficiencies of Rahle-Rhodes. Belousova and Jin fail to supply any missing claim limitation and the teaching or motivation to combine. Accordingly, there is no basis for a POSITA to have been motivated to implement or modify the teachings of the Rahle-Rhodes in view of Belousova and/or Jin. Accordingly, Petition should be denied in entirety on all Grounds.

VIII. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION IN LIGHT OF THE PETITION'S MANY DEFICIENCIES

Institution of an IPR is discretionary. *SAS Inst. Inc. v. Iancu*, 584 U.S. 357, 366 (2018). At the same time, once instituted, the Board lacks discretion as to which challenged claims to review; the Board must review *all of them*. *Id.* As the Supreme Court noted,

[W]hile § 314(a) invests the Director with discretion on the question *whether* to institute review, it doesn't follow that the statute affords him discretion regarding *what* claims that review will encompass. The text says only that the Director can decide "whether" to institute the requested review—not "whether *and to what extent*" review should proceed.

Id. (emphasis in original).

Here, even if arguments as to a few claims might have been properly presented in the Petition, a decision to institute here would require the Board to address—for the first time and with no Petitioner input—critical claim construction issues affecting nearly every claim and every ground. That task would undermine the requirements of 37 C.F.R. § 42.104(b)(3) (requiring the Petition to provide claim constructions) as well as the Board's stated position that it is "improper[]" to "shift the burden of construing the claim term ... to the Board." *ams AG*, 2017 WL 1052498, at *3.

To institute on this Petition would set a dangerous precedent. A Petitioner could argue a single claim, with appropriate claim construction arguments under 37 C.F.R. § 42.104(b)(3), and consciously avoid the effort and cost of doing the required claim construction for every other challenged claim. Were the Board to permit such

gamesmanship, it would eviscerate the Board's regulations to the contrary.

Institution would impose an impermissible burden on the Board and reward Petitioner's minimalist and insufficient Petition. The Board should not condone that type of gamesmanship and instead, deny the Petition.

CONCLUSION

For all of the foregoing reasons, the Petition should be denied in its entirety.

Date: August 14, 2025

Respectfully submitted,

/s/ Daniel H. Shulman

Daniel H. Shulman

Reg. No. 45,106

VEDDER PRICE P.C.

Attorneys for Patent Owner

CERTIFICATION UNDER 37 C.F.R. § 42.24

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Preliminary Patent Owner Response totals 11,484 words, which is less than the 14,000 allowed under 37 C.F.R. § 42.24(b)(1).

Date: August 14, 2025

Respectfully submitted,

/s/ Daniel H. Shulman

Daniel H. Shulman

Reg. No. 45,106

VEDDER PRICE P.C.

Attorneys for Patent Owner