IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

RAILWARE, INC., Plaintiff, v. SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY, Defendant.	C.A. No. 2:24-cv-02963-JMY

DEFENDANT SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY'S OPENING CLAIM CONSTRUCTION BRIEF

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Abbr.	Document	Ex. No.
’782 Patent	U.S. Patent No. 9,517,782	Ex. 1001
RE’835 Patent	U.S. Reissue Patent No. RE47,835	Ex. 1002
RE’115 Patent	U.S. Reissue Patent No. RE49,115	Ex. 1003
’545 Patent	U.S. Patent No. 9,403,545	Ex. 1004
RE’835 File History	File History of RE’835 Patent (excerpted)	Ex. 1005
RE’115 File History	File History of RE’115 Patent (excerpted)	Ex. 1006
Petition for IPR in IPR2023-01179	Petition for *Inter Partes* Review of U.S. Patent No. 9,517,782, IPR2023-01179	Ex. 1007
Petition for IPR in IPR2023-01180	Petition for *Inter Partes* Review of U.S. Patent RE47835, IPR2023-01180	Ex. 1008
Petition for IPR in IPR2023-01181	Petition for *Inter Partes* Review of U.S. Patent RE49115, IPR2023-01181	Ex. 1009
POPR in IPR2023-01179	Patent Owner Preliminary Response, IPR2023-01179	Ex. 1010
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POPR in IPR2023-01181	Patent Owner Preliminary Response, IPR2023-01181	Ex. 1012
Decision Denying Institution in IPR2023-01179	Decision Denying Institution of *Inter Partes* Review, IPR2023-01179	Ex. 1013
Decision Denying Institution in IPR2023-01180	Decision Denying Institution of *Inter Partes* Review, IPR2023-01180	Ex. 1014
Decision Denying Institution in IPR2023-01181	Decision Denying Institution of *Inter Partes* Review, IPR2023-01181	Ex. 1015

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Ahmadian Decl.	Declaration of Mehdi Ahmadian Ph.D. In Support of Railware Inc.'s Claim Construction Submissions (excerpted)	Ex. 1016
Ahmadian Dep.	Transcript of the March 28, 2025 Deposition of Medhi Ahmadian, Ph.D. (excerpted)	Ex. 1017
Free On-Line Dictionary of Computing	Free On-Line Dictionary of Computing, *controller,* available at https://foldoc.org/controller (last accessed on May 7, 2025)	Ex. 1018
--	Work Zone Block Image (SEPTA_0002297)	Ex. 1019
Mar. 26, 2025 W.D.Pa. Hg. Tr.	Transcript of March 26, 2025 Proceedings before Chief Judge Mark R. Hornak in *Railware Inc. v. Southeastern Pennsylvania Transportation Authority,* 2:24-mc-01283-MRH (W.D. Pa.) (excerpted)	Ex. 1020
--	Manual of Patent Examining Procedure, § 1455	Ex. 1021

I. INTRODUCTION

In this patent infringement case, Railware has asserted 49 claims across three patents: U.S. Patent Nos. 9,517,782 (the "'782 Patent"); RE47,835 (the "RE'835 Patent"); and RE49,115 (the "RE'115 Patent") (together, the "Asserted Patents"). The patents all belong to the same family; in general, share the same figures and text, *i.e.*, the specification; and claim priority to the same original provisional patent application filed in October 2013.

The parties are now before this Court because they dispute the meaning of certain terms recited in the claims—and therefore contest the proper boundaries of the alleged invention. As a result, the patent law calls upon the Court to resolve the parties' impasse by interpreting the claims, as a matter of law, through a claim construction process roughly analogous to contract interpretation. *See, e.g.*, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005).

The parties' disputes fall into three groups. The first group concerns the "user terminal" language, most notably in the '782 Patent. *See* Section IV.A *infra*. In general, the Asserted Patents relate to the exchange of a "release code" between (a) a train dispatcher at a central office using a centralized traffic control ("CTC") apparatus, and (b) a railway maintenance worker in the field using a mobile device. To conduct railway maintenance, it is sometimes necessary to close a section of track to rail traffic, which the dispatcher does through the CTC apparatus. According to the patents, a release code may be used as a form of authentication to help mitigate the risk of a dispatcher opening a closed track section too soon, while a field worker is still on the track.

During various proceedings before the United States Patent and Trademark Office ("USPTO" or "Patent Office") before this litigation was filed, Railware took pains to delineate clearly between the *dispatcher*'s device, on the one hand, and the *field worker*'s device, on the

other. The dispatcher's device was referred to as "railway traffic control apparatus 105"; the field worker's device as "terminal 103." The main claim construction issue for the first group of terms is whether, for claim 5 of the '782 Patent in particular, Railware can adopt a definition of "user terminal" that idiosyncratically treats this term as referring to the *dispatcher*'s device—even when, as recently as two years ago, Railware was telling the Patent Office that in claim 5 "the user terminal….is in the field with the railway worker." Ex. 1010, POPR in IPR2023-01179, at 20. The Court should not accept Railware's erroneous interpretation.

The second group of claims terms at issue are the various alternative formulations by which the patents refer to the code exchanged between the dispatcher and the field worker: "release code," "removal code," "secret release code," and "secret code." *See* Section IV.B *infra*. Across these terms, Railware asks this Court to add a further gloss on the claim language, requiring the code to be "not readily available" to the dispatcher—whatever that means. In fact, as shown below, that is a fatal problem and the reason why Railware's construction should be rejected. As the Patent Office previously observed, the notion of being "not readily available" lacks an objective basis for assessing when a code meets that criterion, rendering any such proposed construction irredeemably indefinite and invalid.

Finally, the third group of terms consists of two phrases specific to the RE'835 Patent: "railway traffic controller" and "via the network." *See* Section IV.C *infra.* Here, SEPTA's proposed constructions seek simply to confirm the ordinary understandings of those terms and to eliminate any potential ambiguity that might arise in jurors' minds.

II. LEGAL PRINCIPLES GOVERNING CLAIM CONSTRUCTION

Claim construction is ultimately a question of law. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 325-26 (2015). "The words of a claim 'are generally given their ordinary and customary meaning,' which is 'the meaning that the term would have to a person of ordinary

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skill in the art.'" *SpeedTrack, Inc. v. Amazon.com*, 998 F.3d 1373, 1377 (Fed. Cir. 2021), *quoting Phillips*, 415 F.3d at 1312-13. Claims "must be read in view of the specification, of which they are a part." *Phillips*, 415 F.3d at 1315 (cleaned up). The specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Id.* (cleaned up). Moreover, "the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it otherwise would be." *Id.* at 1317. Indeed, a "patentee may, through a clear and unambiguous disavowal in the prosecution history, surrender certain claim scope to which he would otherwise have an exclusive right by virtue of the claim language." *SpeedTrack*, 998 F.3d at 1377, *quoting Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1324 (Fed. Cir. 2009). This concept applies to amendments and arguments made during the original prosecution of a patent, as well as during any post-grant patent proceedings, like *inter partes* review ("IPR") proceedings. *See Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1360 (Fed. Cir. 2017).

On the other hand, extrinsic evidence, such as expert testimony, while it can be considered, (a) "may not be used to diverge significantly from the intrinsic record," *Genuine Enabling Tech. LLC v. Nintendo Co.*, 29 F.4th 1365, 1373 (Fed. Cir. 2022); (b) "may not be used to vary or contradict the claim language," *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584 (Fed. Cir. 1996); and (c) "may not correct errors or erase limitations or otherwise diverge from the description of the invention as contained in the patent documents," *Aqua-Aerobic Sys. v. Aerators Inc.*, 211 F.3d 1241, 1245 (Fed. Cir. 2000). In short, a "court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written

record of the patent." *Phillips*, 415 F.3d at 1318 (cleaned up).

III. PATENT OVERVIEW AND HISTORY

Conceptually, the alleged invention and goal of the Asserted Patents are easy to understand: to provide "further safety measures to protect the lives of railway workers" performing track maintenance in the field. Ex. 1002, RE'835 Patent, col. 2, ll. 44-45. As the patents acknowledge, and as Railware's expert admits, for years railroads had used CTC systems to protect field workers; those systems allowed dispatchers at a central office to place blocks restricting train movement into the zones where field workers were present. *See, e.g.,* Ex. 1002, RE'835 Patent, col. 1, ll. 51-54; col. 2, ll. 30-32; Ex. 1017, Ahmadian Dep., 26:14-28:14, 35:7-18. The alleged invention purports to improve incrementally upon that established system by providing a "release code" or "removal code" to the worker—like a PIN code you enter into an ATM to authorize a withdrawal or a "two factor authentication" code sent to your phone before you can access your online bank account.

Railware filed its original patent application, Provisional Application No. 61/893,547, on October 21, 2013. *See* Ex. 1002, RE'835 Patent, at p. 1, item (60). This provisional application was converted to a non-provisional application a year later; the non-provisional application eventually issued on August 2, 2016 as U.S. Patent No. 9,403,545 (the "'545 Patent"). The '545 patent is the ultimate parent of the Asserted Patents. Illustrative claim 1 of the '545 Patent, which Railware later surrendered (as discussed below), recites in relevant part:[1]

> 1. A centralized railway control system comprising:
> [a] a rail personnel contact database…; and
> [b] a railway traffic control apparatus for controlling access to railway tracks, said

[1] Because the claims of the Asserted Patents are lengthy, illustrative portions are quoted here. Appendix A to this brief includes a complete copy of exemplary claims from the '545 Patent and the Asserted Patents.

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> railway traffic control apparatus comprising a processor…[and] executable instructions,
>
> [c] wherein execution of said one or more programs of executable instructions configures the processor to include:
>
> [c-1] a block placing part to place a block on one or more specified track sections…;
>
> [c-2] a code generation part to generate a removal code…and transmit the removal code to the electronic contact address of the railway field worker; and
>
> [c-3] a block removal part to remove only upon entry of the removal code, the block…

While this claim recites the dispatcher's "railway traffic control apparatus" sending a "removal code" to the "railway field worker," it does not specify a means by which the field worker communicates the removal code back to the dispatcher and CTC apparatus.

On June 9, 2016, Railware filed a continuation application descending from the parent '545 Patent. This continuation issued as the first of the three patents asserted in this litigation, the '782 Patent. In patent law, a continuation is a patent that claims the benefit of an earlier-filed application—in this case, Railware's original October 21, 2013 provisional application. *See, e.g.*, *Loughlin v. Ling*, 684 F.3d 1289, 1293 (Fed. Cir. 2012) ("The first sentence of § 120 permits an application to claim the benefit of an earlier filing date, such that the application is treated as having been effectively filed on the earlier date."); 35 U.S.C. § 120. Unlike illustrative claim 1 of the parent '545 Patent, the claims of the '782 Patent *do* specify a mechanism by which the field worker communicates the removal code back to the CTC apparatus—the code is sent "from the user terminal in return." Ex. 1001, '782 Patent, claims 1, 5.

On March 22, 2018, Railware filed a first application to reissue the parent '545 Patent. The Patent Act permits a patentee to "surrender" an original patent and have it reissued "with a new and amended application," when the "patent is, through error, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent." 35 U.S.C. § 251.

Relevant here, during these reissue proceedings, Railware extensively amended the specification of the parent '545 Patent. The USPTO reissued the '545 Patent as the RE'835 Patent, the second of the Asserted Patents, on February 4, 2020. Railware then pursued a continuation of this reissue, again amending the specification in multiple places, which ultimately reissued as the RE'115 Patent, the third and final of the Asserted Patents.[2]

Before Railware filed this lawsuit, on June 15, 2022, it filed a similar lawsuit against Amtrak, asserting the same three patents. *See Railware, Inc. v. National Railroad Passenger Corp. d/b/a Amtrak*, 1:22-cv-05013-KPF (S.D.N.Y.). During that litigation, Amtrak filed three petitions asking the USPTO to conduct an *inter partes* review ("IPR") to invalidate each of the Asserted Patents. *See* Ex. 1007, Petition for IPR in IPR2023-01179; Ex. 1008, Petition for IPR in IPR2023-01180; Ex. 1009, Petition for IPR in IPR2023-01181. For each of Amtrak's petitions, Railware submitted a Patent Owner Preliminary Response arguing against institution of the IPR proceeding and characterizing the alleged invention. *See* Ex. 1010, POPR in IPR2023-01179; Ex. 1011, POPR in IPR2023-01180; Ex. 1012, POPR IPR2023-01181. Railware's arguments were successful, and the Patent Office did not institute the requested IPRs.

IV. DISPUTED CLAIM TERMS

A. Group 1: Terms relating to the "user terminal"

1. The "user terminal" and "remote user terminal"

Claim Term	SEPTA's Construction	Railware's Construction
'782 Patent (claim 5)		
user terminal	railway field worker's mobile user device	user terminal of a terminal user (i.e., a dispatcher)
RE'835 Patent (claims 1, 20, 30, 40)		

[2] A full family tree of the '545 Patent is attached as Appendix B. This tree was generated by the patent research site PatDocs and illustrates the relationships between the relevant patents.

user terminal	railway field worker's mobile user device	user terminal of a railway field worker
RE'115 Patent (claims 20, 30, 31)		
remote user terminal	railway field worker's mobile user device	user terminal of a railway field worker

The main dispute between the parties is over the construction of "user terminal" in the '782 Patent, which is a continuation—and therefore child—of its parent '545 Patent, which Railware subsequently had reissued twice. As shown in the table above, the parties agree that in both reissue patents, the "user terminal" language refers to the *railway field worker*'s device, not a device used by the train dispatcher—exactly as proposed by SEPTA throughout. The central point of contention is whether, in the '782 Patent, Railware used the identical "user terminal" phrase in an idiosyncratic way to refer to the *dispatcher*'s device. None of the intrinsic evidence supports that interpretation, for at least three reasons. First, and significantly, Railware previously told the Patent Office and the public that "user terminal" in claim 5 of the '782 Patent refers to the *field worker's* device; that admission is binding and must control. Second, the plain language of the claims demonstrates that "user terminal" refers to the field worker's device, which Railware again confirmed when pursuing the RE'835 and RE'115 Patents. Finally, Railware's erroneous construction will only serve to confuse the jury.

a. Railware's binding Patent Office statements confirm that the user terminal is in the field with the railway worker.

Only two years ago—before Railware's counsel reviewed technical documents about SEPTA's accused product—Railware explicitly told the Patent Office that "the user terminal" of the '782 Patent was "in the field with the railway worker":

> Specifically, independent claims 1 and 5 each specify that the "release code" is generated and transmitted "to the electronic contact address accessible by the railway field worker via operation of the user interface of the user terminal." EX1001 at Cls. 1, 5. The claims specifically do not say that the "release code" is

> displayed to the dispatcher. Further, claims 1 and 5 each require that a track block be removed "***only*** upon receiving the release code from the user terminal in return." *Id.* (emphasis added). By using the word "only," the claims require that the "release code" is not readily available to the dispatcher until the 'release code' is received from the user terminal, **which is in the field with the railway worker**.

Ex. 1010, POPR in IPR2023-01179, at 20 (second emphasis added). These statements form part of the intrinsic record and are highly relevant to claim construction. *See, e.g. Aylus Networks*, 856 F.3d at 1360 (emphasizing the "public notice function of the intrinsic evidence" from "IPR proceedings") (cleaned up). For instance, in *Aylus*, the Federal Circuit expressly relied on the patentee's assertions in its IPR preliminary response to construe the scope of asserted claims, holding that "[s]tatements made by a patent owner during an IPR proceeding can be relied on to support a finding of prosecution disclaimer during claim construction." *Id.* at 1361; *see also Sequoia Tech., LLC v. Dell, Inc.*, 66 F.4th 1317, 1327 (Fed. Cir. 2023) (following *Aylus* and relying on IPR preliminary response statements to construe claim terms).

Indeed, like the patentee's statements in *Aylus*, Railware's preliminary response is a clear and unmistakable statement defining the scope of the "user terminal" term in the '782 Patent, thereby creating a prosecution disclaimer. *See, e.g.*, *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 (Fed. Cir. 2003). The prosecution disclaimer doctrine is "deeply rooted in Supreme Court precedent" and is "a fundamental precept in [the Federal Circuit's] claim construction jurisprudence." *Aylus Networks*, 856 F.3d at 1359, *quoting Omega Eng'g*, 334 F.3d at 1323-24. The doctrine "ensure[s] that claims are not argued one way in order to maintain their patentability and in a different way against accused infringers." *Aylus*, 856 F.3d at 1360.

In proposing its special "user terminal" construction for claim 5 of the '782 Patent, Railware attempts to do the very thing proscribed: construing claims "one way in order to order to obtain their allowance and in a different way against accused infringers." *Id.*, *quoting Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995). Patent law does

not allow this. Instead, the Court should adopt SEPTA's proposal which, consistent with Railware's IPR statements, makes clear that in *both* claims 1 and 5 of the '782 Patent, the "user terminal" "is in the field with the railway worker." Ex. 1010, POPR in IPR2023-01179, at 20. The Court could end its analysis here, but the entirety of the intrinsic record supports SEPTA.

b. The plain language of the claims and the specification confirms that "user terminal" refers to the railway field worker's device.

Before this lawsuit, Railware did not distinguish between claims 1 and 5 of the '782 Patent (its only independent claims), including as concerns the "user terminal" phrase that appears in both. That was the correct approach. Claims 1 and 5 are written in almost mirror-image terms, as shown below with relevant "user terminal" (and "user device") language bolded and in red:

Claim 1 (unasserted)	Claim 5 (asserted)
1. A system to enhance railway control, to protect safety of railway workers on or near railway tracks, the system comprising:	5. A method to enhance railway control, to protect safety of railway workers on or near railway tracks, said method comprising:
[a] a railway control apparatus….	[a] configuring a **mobile user device of a railway field worker** to provide a device user interface to display information received via network from the railway control apparatus and to permit the railway field worker to respond to prompts displayed thereon;
[b] a **user terminal provided to a railway field worker** and configured to…provide a user interface to display information received from the railway control apparatus and to permit the railway field worker to respond to prompts thereon,	
[c] wherein the railway control apparatus…includes:	[b] providing a terminal user interface on a terminal to permit a terminal user of the terminal [to] request the railway control apparatus to place a block on one or more specified track sections;
[c-1] a block placing part to place a block on one or more specified track sections….;	
[c-2] a code generation part to generate a release code and transmit the release code to an electronic contact address accessible by the railway field worker **via operation of the user interface of the user terminal**; and	[c] generating by the railway traffic control apparatus a release code and transmitting the release code to an electronic contact address accessible by the railway field worker **via operation of the user interface of the user terminal**; and
[c-3] a block removal part to remove only upon **receiving the release code from the user**	[d] permitting the block to said one or more track sections to be removed by the railway

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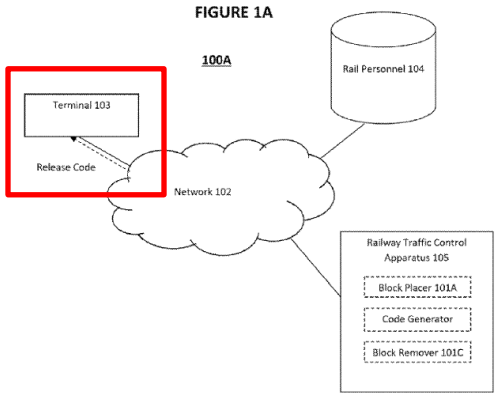
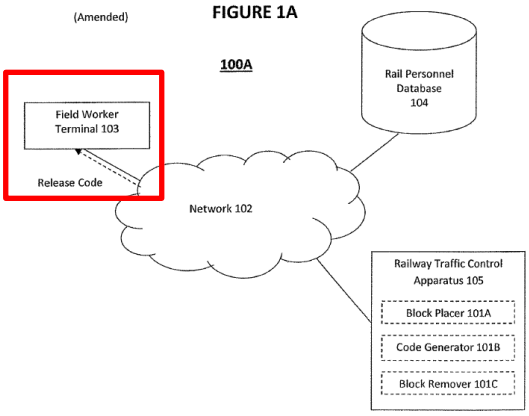
terminal in return….	control apparatus only upon **receiving the release code from the user terminal in return**.

Notably, both claims 1 and 5 recite in their respective final limitations the railway control apparatus "receiving the release code *from the user terminal in return*." The release code is only received "from the user terminal *in return*" if it is sent to the user terminal in the first place, as depicted in, for instance, Figure 1A, reproduced below from the Asserted Patents. Thus, the express language of Claim 5 alone supports SEPTA's construction, not Railware's.

Similarly, in the '782 Patent, "Terminal 103" in Figure 1A is what receives the release code, as shown on the left below. And in later reissue proceedings for the RE'835 and RE'115 Patents, Railware amended Figure 1A to make clear that "Terminal 103" is the "*Field Worker* Terminal 103" (emphasis added), as shown on the right.

'782 Patent	**RE'835 and RE'115 Patents**
	

In addition to clarifying Figure 1A, Railware in the reissue proceedings exhaustively amended the specification of the parent '545 Patent to clearly delineate between the field worker's device, on the one hand, and the train dispatcher's device, on the other. Originally, the parent specification had confusingly used the phrase "terminal" to refer to both the field worker's

device ("terminal 103") and the train dispatcher's separate device ("terminal 105").[3] However, in his first office action in the reissue proceedings for the RE'835 Patent, the patent examiner objected to this ambiguity about whose device the phrase "terminal" references:

> 28. The specification is objected to because:
>
> ….
>
> The detailed description of the drawings refers to element 105 as both a "terminal" (col. 4, l. 52) and an apparatus (col. 4, l. 56). Further, Figs. 1A and 1B include the text "…Apparatus 105". Thus, it is unclear whether element 105 is a "terminal" or an "apparatus". Since the remainder of the detailed description refers to element 105 as a "terminal" (see, for example, col. 5, l. 13, and col. 7, ll. 17), the examiner suggests: at col. 4, l. 52, change "terminal 105" to "apparatus (i.e., terminal) 105."
>
> The detailed description defines element 103 as a "terminal" (col. 4, l. 52) and goes on to state that "only one terminal is connected to the network 102" (col. 4, ll. 56-57). If each of element 105 and element 103 constitutes a "terminal", then it is inaccurate to state that "only one terminal" is connected to the network.

Ex. 1005, RE'835 File History, Jan. 23, 2019 Non-Final Office Action, at 18-19 (RAILWARE_(SEPTA)_0004564-0004565).

Railware accepted the examiner's objections[4] (which it was not obligated to do) and, in response, clarified to all reading Railware's patents that the "terminal" referenced in the specification is "terminal 103"—the *field worker*'s device. Specifically, Railware replaced all

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[3] *See e.g.,* Ex. 1004, '545 Patent, col. 4, ll. 50-53 ("FIG. 1A shows schematically an exemplary embodiment in which a system 100A includes a railway traffic control terminal 105, rail personnel data 104 and a terminal 103, each connected to the network 102."); col. 8, ll. 40-43 ("FIG. 10 shows an exemplary illustration of a message sent by the railway traffic control terminal 105 to a terminal 103 at a corresponding address of a maintenance worker assigned to work on a blocked track."); col. 8, ll. 49-51 ("By selecting one of the links embedded in the message, the terminal 103 sends the release code to the railway traffic control terminal 105.").

[4] *See* Ex. 1005, RE'835 File History, Apr. 23, 2019 Response to Jan. 23, 2019 Non-Final Office Action, at 40 (RAILWARE_(SEPTA)_0004655) (explaining that "[i]n section 28 of the Office Action, the specification was objected to because of alleged informalities therein" and "[i]n this Amendment, the claims, specification, and drawings have been amended to address the aforementioned formal issues")

instances in the parent specification where component 105 was called a "terminal" with the label "railway control apparatus 105."[5] After these clarifications, the RE'835 Patent specification consistently and exclusively used the word "terminal"—specifically, "terminal 103"— to refer to the *field worker*'s mobile device, not the train dispatcher's device. *See, e.g.*, Ex. 1005, RE'835 File History, Apr. 23, 2019 Response to Jan. 23, 2019 Non-Final Office Action, at 8 (RAILWARE_(SEPTA)_0004623) ("The release code is then sent to terminal [102] 103. This terminal [102] 103 is the contact associated with the designated worker…."); Ex. 1002, RE'835 Patent, col. 7, ll. 19-21.

Under governing patent law, these amendments to the parent specification are relevant to claim construction because they concern the same subject matter as the disputed "user terminal" language: Railware's amendments during reissue proceedings for the RE'835 Patent make clear that it intended "terminal" to specifically refer to the *field worker*'s device ("terminal 103"), just as it later told the Patent Office during IPR proceedings. *See, e.g.*, *Ormco Corp. v. Align Tech., Inc.*, 498 F.3d 1307, 1314 (Fed. Cir. 2007) ("When the application of prosecution disclaimer involves statements from prosecution of a familial patent relating to the same subject matter as the claim language at issue in the patent being construed, those statements in the familial application are relevant in construing the claims at issue."); *Teva Pharm. USA, Inc. v. Sandoz,*

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[5] *See* Ex. 1005, RE'835 File History, Apr. 23, 2019 Response to Jan. 23, 2019 Non-Final Office Action, at 3-4, 8-13 (RAILWARE_(SEPTA)_0004618-0004619, 0004623-0004628) (for instance, on p. 9: "Fig. 6 is an exemplary illustration of the user interface of the railway traffic control [terminal] apparatus 105"); *see generally* Ex. 1002, RE'835 Patent, col. 5, l. 4 to col. 10, l. 64 (corresponding portions of the published reissue specification using the notation "[terminal] *apparatus* 105" to show the deletion of "terminal" and insertion of "apparatus" to refer to component 105).

As the RE'835 Patent itself explains, it is conventional in a reissue patent to denote a deletion or omission with "heavy brackets[]" and an addition "in italics." Ex. 1002, RE'835 Patent, col. 1, ll. 4-9; *see also* Ex. 1021, Manual of Patent Examining Procedure, § 1455 ("II. Changes to the Original Patent").

Inc., 789 F.3d 1335, 1343 & n.5 (Fed. Cir. 2015) ("[P]ast and future prosecution of related patents may be relevant to the construction of a given claim term"); *T-Rex Property AB v. Regal Entertainment Group*, No. 6:16-cv-927, 2019 WL 4935264, at *2 (E.D. Tex. Mar. 5, 2019) (holding that "the prosecution history of the '470 Patent," a reissue of a parent, is "relevant to an understanding of [claim terms] in the '334 Patent," a continuation-in-part of the parent).[6]

c. Railware's proposed construction will only serve to confuse the jury.

Railware proposes construing "user terminal" for claim 5 of the '782 Patent as the "user terminal of a terminal user (i.e., a dispatcher)." This proposal is convoluted, unsupported by the intrinsic evidence, and would only confuse the jury. Railware's motivation is evident: By referencing a "terminal" twice, Railware seeks to link the "user terminal" language of claim 5 back to limitation [5][b], which recites "providing a terminal user interface on a terminal to permit a terminal user of the terminal [to] request the railway control apparatus to place a block on one or more specified track sections…."[7] In the context of this limitation [5][b], SEPTA agrees that the "terminal user" would be the train dispatcher placing the block and the specific "terminal" mentioned would be the dispatcher's device. Importantly, however, this does not answer the question of whether the distinct and different claim term at issue—the separate "*user* terminal" phrase later employed in limitations [5][c] and [5][d]—refers back to that dispatcher's device (in

[6] *See also Wang Labs. v. America Online, Inc.*, 197 F.3d 1377, 1384 (Fed. Cir. 1999) (using statements made in prosecution of unasserted parent patent to construe child continuation-in-part patent because the "subject matter is common"); *Jonsson v. Stanley Works*, 903 F.2d 812, 818 (Fed. Cir. 1990) (using prosecution statements from related first continuation-in-part application to construe claims in second continuation-in-part application claiming priority to the same parent application).

[7] In this particular segment of quoted claim language, the parties agree that the word "to" appears to have been inadvertently omitted. The parties agree to include the missing "to" if and when this language is presented to the jury.

limitation [5][b]) or to the "mobile user of a railway field worker" (in limitation [5][a]).

The intrinsic evidence here points persuasively to the latter, "mobile user device of a railway field worker" construction, for at least three reasons. First, by the plain language of limitation [5][d], and as mentioned above, the "user terminal" must send back the release code—"in return"—to the railway control apparatus, which means that the user terminal must have received the release code from the railway control apparatus in the first place. Crucially, the specification shows only "terminal 103," *i.e.*, the device in the field with the railway worker, as receiving (and thereafter returning) the release code, as depicted in Figures 1A-1B and 4 and their accompanying narrative description. Ex. 1001, '782 Patent, Figs. 1A, 1B and 4; *id.* col. 7, ll. 2-4 ("[T]he railway traffic control apparatus 105 may then generate a release code…. The release code is then sent to the terminal 102 [sic - 103]."); Ex. 1002, RE'835 Patent, col. 7, l. 20 ("The release code is then sent to terminal [102] *103*."); Ex. 1003, RE'115 Patent, col. 7, l. 23 (same).

Second, Railware cannot demonstrate that the phrase "user terminal" in the context of the claims and specification as a whole *excludes* the railway field worker's mobile device. In claim 1, for instance, Railware specifically refers to "a user terminal **provided to a railway field worker**." Ex. 1001, '782 Patent, col. 11, ll. 30 (emphasis added). The specification likewise references "user terminal" as including "terminal 103," which, as noted, explicitly references the *field worker*'s device as the equipment that first receives and then returns the release code. *See, e.g.*, Ex. 1001, '782 Patent, col. 6, ll. 18-20; Ex. 1002, RE'835 Patent, col. 7, ll. 20-22 (discussing Fig. 4: "The release code is then sent to the terminal [102] *103*. This terminal [102] *103* is the contact associated with the designated worker…."); *id.*, col. 7, ll. 28-35 ("Additionally, FIG. 4 shows the communication between the terminal [102] *103* and the railway traffic control apparatus 105 in the event that a block on a certain track is to be lifted…..The

terminal [102] *103* sends the release code to the railway traffic control apparatus 105.”).

Finally, while the specification references the “user terminal” of the dispatcher on two occasions, it does so in the context of the dispatcher placing a block—*not* in the context of the some other part of the CTC system sending a release code to the dispatcher’s “user terminal” to release the block, as Railware’s construction would suggest.[8] In short, Railware’s proposed construction, “user terminal of a terminal user (i.e., a dispatcher),” is not only confusing on its face, but when viewed in light of the intrinsic record, will only serve to further obscure to the jury the scope of what Railware allegedly invented. This disserves one of the important purposes behind claim construction and is further reason for rejecting Railware’s proposed construction. *See, e.g.*, *Power-One, Inc. v. Artesyn Techs.*, 599 F.3d 1343, 1348 (Fed. Cir. 2010) (the goal of claim construction proceedings is to “ensure that the jury fully understands the court’s claim construction rulings and what the patentee covered by the claims”) (cleaned up).

In construing “user terminal” in claim 5 of the ’782 Patent, this Court should hold Railware to the definitional statements it made to the Patent Office before conveniently attempting to abandon them here: the “user terminal” is the mobile device “in the field with the railway worker.” Ex. 1010, POPR in IPR2023-01179, at 20.

2. “From the user terminal in return,” “from the terminal,” and “from the user terminal”

Claim Term	SEPTA’s Construction	Railware’s Construction
’782 Patent (claim 5)		

[8] *See* Ex. 1001, ’782 Patent, at col. 2, ll. 47-51 (“For example, a centralized railway control system may be adapted . . .to include providing on a user terminal a user interface including a block placing part to place a block on one or more specified track sections….”); col. 3, ll. 23-25 (“In another example, the block removal user interface may be provided on the same user terminal on which the block placing part is disposed.”).

from the user terminal in return	transmitted from the user terminal (as previously defined)	See proposed construction for "user terminal." Otherwise, no construction necessary or plain and ordinary meaning.
RE'835 Patent		
from the terminal **(claims 20, 30)**	transmitted from the user terminal (as previously defined)	See proposed construction for "user terminal." Otherwise, no construction necessary or plain and ordinary meaning.
from the user terminal **(dependent claim 41)**	transmitted from the user terminal (as previously defined)	See proposed construction for "user terminal." Otherwise, no construction necessary or plain and ordinary meaning.

The dispute over these "from the" terms relates directly to the preceding dispute over the '782 Patent's "user terminal." Assuming the Court adopts SEPTA's construction, that the "user terminal" is the *railway field worker*'s device, SEPTA's concern is that Railware may nonetheless attempt to preserve an erroneous infringement theory by arguing that the release code is received "from the user terminal in return" when a field worker *verbally* provides the code to the dispatcher in real time, as in SEPTA's accused system. *See, e.g.*, Ex. 1019, SEPTA_0002297. Railware's technical expert appears to support that position in his claim construction declaration. *See, e.g.*, Ex. 1016, Ahmadian Decl. ¶ 287 ("the code can be returned in a number of different ways, including through the railway field worker providing it to the dispatcher orally to enter into the dispatcher's terminal…"). This presents a material dispute over the scope of the asserted claims and thus, under claim construction law, necessitates a claim construction—not, as Railware proposes, "no construction" or "ordinary meaning." *See, e.g.*, *O2 Micro Intl. Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1361-62 (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.").

SEPTA's proposed construction that "from the user terminal in return" (and variants) means "transmitted from the user terminal" finds support in the language and structure of claim 5 of the '782 Patent. Limitation [5][c] recites "transmitting" the code from the CTC to the field worker's device: "transmitting the release code to an electronic contact address accessible by the railway field worker via operation of the user interface of the user terminal." Logically, limitation [5][d], when it recites "receiving the release code from the user terminal in return," is the mirror-image operation: transmitting the code from the field worker's device to the CTC.

Figure 4 shows this same parallel relationship. In one step, the CTC system ("railway traffic control" apparatus in Figure 4) "send[s the] release code" to the field worker's device ("terminal").[9] In the subsequent return step, "FIG. 4 shows the communication between the terminal [102] *103* and the railway traffic control apparatus 105 in the event that a block on a certain track is to be lifted….The terminal [102] *103* sends the release code to the railway traffic control apparatus 105." *Id.*; *see also* Ex. 1001, '782 Patent, col. 7, ll. 11-20.

To similar effect, Figure 10 shows another embodiment in which the release code is transmitted directly from the field worker's device to the CTC system. Here, the field worker can click on a link on his or her device to automatically send the message back to the dispatcher's CTC system: "By selecting one of the links embedded in the message, the [field worker's] terminal 103 sends the release code to the railway traffic control [terminal] *apparatus* 105. The code can be transmitted through, but not limited to, text message, e-mail or voice message." Ex.

[9] *See* Ex. 1001, '782 Patent, Fig. 4 & col. 7, ll. 4-6 ("The release code is then sent to the terminal 102 [sic – 103]. This terminal 102 [sic – 103] is the contact associated with the designated worker…."); Ex. 1002, RE'835 Patent, Fig. 4 & col. 7, ll. 20-27 ("The release code is…sent to terminal [102] *103*.").

1002, RE'835 Patent, col. 9, ll. 17-21.[10] Indeed, whenever the specification discusses the field worker's device sending back the release code, the specification discusses a direct, automated transmission from the field worker's device to the CTC. For instance, when the specification discusses three "block removal user interface[s]" (at col. 3, ll. 16-37 of the RE'835 Patent, illustratively), two of them involve the field worker's terminal directly sending back the code, as in Figures 4 and 10.[11] And the third discusses a specialized technical "voice" or "oral" transmission involving speech-to-text processing and the automated "extraction" of a removal code from the message.[12] In fact, in later reissue proceedings, named inventor Ross Pirtle submitted an affidavit explaining that this speech interface embodiment would be implemented through software to automatically process a voice message. *See* Ex. 1006, RE'115 File History, October 8, 2021 Declaration of Ross Pirtle, at 1-2 (RAILWARE_(SEPTA)_0005316-0005317).

Tellingly, none of these embodiments disclose a field worker calling the dispatcher to verbally read off the release code in real time, as Railware apparently seeks to capture through its

[10] SEPTA's proposed construction uses the word "transmitted" instead of "sent," but that is of no consequence because the specification consistently uses the verbs "send" and "transmit" to refer to the same action, as in the preceding quote. *See also, e.g.*, Ex. 1002, RE'835 Patent, col. 7, ll. 33-34; col. 8, ll. 3-6; and col. 9, ll. 51-54.

[11] In one, "the block removal user interface may be provided within a mobile application or web page through which the railway field worker and enter the removal code manually…." Ex. 1002, RE'835 Patent, col. 3, ll. 20-24. In the other, "the removal code may be embedded in a link in a message transmitted by email or messaging to the electronic contact address of the railway field worker, and the railway field worker can simply cause the removal code to be entered by activating the link in the message received by the railway field worker." *Id.*, col. 3, ll. 24-31.

[12] In this embodiment, the field worker on his or her device first "can enter the removal code…orally (i.e., including a voice or speech interface part)." Ex. 1002, RE'835 Patent, col. 3, ll. 20-24. Then, on the dispatcher's side, "a voice or speech interface part may be disposed on the system-side to process a voice message (such as received via a telephone call from *terminal 103 of* the railway field worker, extract the removal code from the voice message, and enter the block removal code." *Id.*, col. 3, ll. 32-37.

"no construction" or "ordinary meaning" proposal. Had Railware wished to cover that scenario, it could have easily done so by including claim language indicating that the CTC or dispatcher would receive the release code "from *the field worker* in return." Railware knew how to use that phrase in the specification. *See* Ex. 1002, RE'835 Patent, Fig. 13 (step S1305 states "receive removal code via voice communications *from field person*") (emphasis added). But in the disputed claim language, Railware crucially recited "from *the terminal*"—not from *the worker*. Railware's deliberate linguistic choice evidences clear intent to limit claim 5 of the '782 Patent to only those embodiments where the release code is transmitted from the user terminal to the CTC system, as SEPTA's proposed construction would provide. Nor is there a requirement in patent law that every patent claim be construed to cover every embodiment of an alleged invention. *See, e.g.*, *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1383 (Fed. Cir. 2008) ("It is often the case that different claims are directed to and cover different disclosed embodiments. The patentee chooses the language and accordingly the scope of his claims."); *Baran v. Med. Device Techs. Inc.*, 616 F.3d 1309, 1316 (Fed. Cir. 2010) ("It is not necessary that each claim read on every embodiment."). Railware has other of its 49 asserted claims (such as claim 1 of the RE'835 Patent) that may cover other purported embodiments.[13]

3. "To respond to prompts displayed thereon" and "to respond to the message to release the block"

Claim Term	SEPTA's Construction	Railware's Construction
'782 Patent		
to respond to prompts displayed thereon **(claim 5)**	to respond through the mobile user device user interface to prompts displayed thereon	No construction necessary or plain and ordinary meaning.

[13] Claim 1 of the RE'835 Patent does not recite any step of transmitting the code back.

to respond to the message to release the block **(dependent claim 6)**	to respond through the mobile user device user interface to the message to release the block	No construction necessary or plain and ordinary meaning.

The dispute with respect to these "to respond" terms is similar to the dispute over the "from the terminal" terms. Claim 5 of the '782 Patent requires "configuring a mobile user device of the railway field worker to provide a device user interface" that, among other things, "permit[s] the railway field worker to respond to prompts thereon." Claim 6 further requires this field worker device user interface to "permit[] the railway field worker to respond to the message to release the block." This claim language is plainly directed to the specific "block user interface" embodiments discussed in the preceding section where, for example, the field worker may "enter[] the removal code manually" in a "mobile application or web page" on his device, Ex. 1001, '782 Patent, at col. 3, ll. 12-16, or may send the code back by "activating a link in the message received," *id.* at col. 3, ll. 16-22.

SEPTA's proposed constructions correctly capture these concepts. As with the terms in Section IV.A.2 above, SEPTA's concern is with Railware attempting to preserve an erroneous infringement argument that would cover any response, no matter how indirect, such as the separate and intervening act of the field worker placing a call to the dispatcher to read off the release code. This again presents a material dispute over the scope of claim language for which Railware's "no construction" or "ordinary meaning" position does not suffice. *See O2 Micro*, 521 F.3d at 1361-62 (Fed. Cir. 2008). The reasons to reject Railware's apparent expansive reading of the "to respond" terms are essentially the same as the reasons to reject Railware's position on the "from the terminal" terms in Section IV.A.2, and therefore are not repeated.

On the other hand, SEPTA's proposed construction is fully supported by the intrinsic

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record. Starting with the claim language itself, both claims 5 and 6 require the mobile "device user interface" to have the recited capabilities of enabling the field worker "to respond to prompts displayed thereon" or "to respond to the message to release the block." It only stands to reason that the field worker would use *that* recited "device user interface"—not some other tool or means—to provide the response. Moreover, as discussed in Section IV.A.2, each of the relevant embodiments show the field worker directly interacting with his mobile device and its device interface, like in the Figure 4 and 10 embodiments and the "block user interface" embodiments at col. 3, ll. 16-37 of the RE'835 Patent. Ex. 1002, RE'835 Patent; *see also* Ex. 1001, '782 Patent, col. 3, ll. 8-29 (corresponding disclosure of these embodiments). Railware cannot point to any intrinsic evidence supporting an alternative reading.

4. "Railway control apparatus" and "railway traffic control apparatus"

Claim Term	SEPTA's Construction	Railware's Proposed Construction
'782 Patent (claim 5), RE'835 Patent (claim 40), and RE'115 Patent (claims 20, 30)		
railway control apparatus	centralized traffic control (CTC) console used by the train dispatcher	No construction necessary or plain and ordinary meaning.
RE'835 Patent (claims 1, 10, 19, 20, 30)		
railway traffic control apparatus	centralized traffic control (CTC) console used by the train dispatcher	No construction necessary or plain and ordinary meaning

As noted, one important purpose of claim construction is to "ensure that the jury fully understands the court's claim construction rulings and what the patentee covered by the claims." *Power-One,* 599 F.3d at 1348, *quoting Sulzer Textil A.G. v. Picanol N.V.*, 358 F.3d 1356, 1366 (Fed. Cir. 2004). SEPTA seeks a construction of "railway control apparatus" and "railway traffic control apparatus" to ensure the jury has a clear distinction between the *dispatcher*'s device (the "railway control apparatus 105" or "railway traffic control apparatus 105" in the figures and the specification) and the *field worker*'s device (the "terminal 103"), just as Railware sought during

the reissue proceedings leading to the RE'835 Patent. *See, e.g.,* Ex. 1005, RE'835 File History, Apr. 23, 2019 Response, at 3-4, 8-13 (RAILWARE_(SEPTA)_0004618-0004619, 0004623-0004628).

The common specification of the Asserted Patents refers to the system or apparatus the dispatcher uses to control railway traffic as the "centralized traffic control" or "CTC" system:

> While interlocking systems can be operated manually, currently most interlocking systems are controlled electronically. One method of controlling all interlocks within a rail system is through a centralized traffic control (CTC), or traffic control system (TCS). A CTC is used for monitoring, tracking and operating trains traversing tracks throughout a network.

Ex. 1002, RE'835 Patent, col. 1, ll. 47-54; *see also* Ex. 1001, '782 Patent, col. 1, ll. 40-47 (same). Similarly, one of the articles Railware submitted during prosecution, cited on the face of the Asserted Patents, explains the following:

> Centralized traffic control (CTC) is a form of railway signaling that originated in North America…. The system consists of a centralized train dispatcher's office that controls railroad interlockings and traffic flows in the portions of the rail system designated as CTC territory. *One hallmark of CTC is a control panel with a graphical depiction of the railroad. On this panel the dispatcher can keep track of trains' locations across the territory that the dispatcher controls*.

Ex. 1005, RE'835 File History, Wikipedia, "Centralized Traffic Control," July 31, 2013, at 1 (RAILWARE_(SEPTA)_0004502) (emphasis added). It is this "hallmark" of a CTC system that SEPTA's proposed construction captures and, under the law, the foregoing is persuasive evidence that Railware intended its railway traffic control apparatus to be understood as the control console used by the dispatcher.[14] *See Sequoia Tech., LLC v. Dell, Inc.*, 66 F.4th 1317, 1328 (Fed. Cir. 2023) ("[W]hen a patentee cites prior art, it may have 'particular value as a guide

[14] The Asserted Patents similarly explain that "[i]nformation regarding track conditions, train traffic, scheduling, etc., is presented on *a control console* which may include a map of the entire rail system. Through the *control console*, the dispatcher has control of each interlock signal…." Ex. 1002, RE'835 Patent, col. 1, ll. 58-67 (emphasis added); Ex. 1001, '782 Patent, col. 1, ll. 48-59.

to the proper construction of the term, because it may indicate…that the patentee intended to adopt that meaning.'"), *quoting Arthur A. Collins, Inc. v. N. Telecom Ltd.*, 216 F.3d 1042, 1045 (Fed. Cir. 2000).

A construction short of this would permit Railware to blur the clear distinction between the dispatcher's control console/apparatus, and the field worker's terminal, by suggesting (as Railware does in connection with the '782 Patent) that the "railway traffic control apparatus" can include a "terminal." This concern is not hypothetical: Railware's technical expert asserts in his claim construction declaration that a "railway control apparatus" is a "collection of hardware and software components that controls a railway" (Ex. 1016, Ahmadian Decl. ¶¶ 186, 192) and argues that one of these components is the dispatcher's "terminal" (*id.* at ¶ 273). Because such a broad construction of railway control apparatus is unsupported in the intrinsic record and will only serve to confuse the jury, SEPTA's proposal should be adopted.

B. Group 2: The "code" terms

Claim Term	SEPTA's Construction	Railware's Construction
'782 Patent (claim 5)		
release code	Indefinite	A code that is not readily available to the terminal user (i.e., the dispatcher). Not indefinite.
RE'835 Patent		
removal code **(claims 1, 19 and dependent claims 26, 36)**	Indefinite	A code that is not readily available to the terminal user (i.e., the dispatcher). Not indefinite.
secret release code **(claims 20, 30)**	Indefinite	A code that is not readily available to the user of the railway traffic control apparatus (i.e., the dispatcher). Not indefinite.
secret code **(claim 40)**	Indefinite	A code that is not readily available to the user of the railway control apparatus (i.e., the dispatcher). Not indefinite.

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RE'115 Patent		
secret code **(claims 20, 30, 31)**	Indefinite	A code that is not readily available to the user of the railway control apparatus (i.e., the dispatcher). Not indefinite.

Each of the asserted claims includes either the term "release code," "removal code," secret release code," or "secret code." Notably, it is Railware—not SEPTA—who asks to further interpret these "code" terms. In the absence of claim construction, terms are "generally given their plain and ordinary meaning." *Phillips*, 415 F.3d at 1312 (cleaned up). The ordinary meaning of "release code" or "removal code" is a code that releases or removes something, in this case a train track block.[15] That is effectively what Railware's counsel told the Western District of Pennsylvania was the "crux of the inventive aspect" less than two months ago at a discovery hearing:

> When the dispatcher is placing the block, the code is sent out to the railway worker in the field and the block can only be released when that railway field worker provides the code back to the dispatcher. That is the crux of the inventive aspect, and ultimately this is what saves workers' live[s], prevents destruction of equipment and the like, and is the value in why it is being adopted across the industry….

Ex. 1020, Mar. 26, 2025 W.D.Pa. Hg. Tr., at 30:17-23.

Railware must demonstrate the need for this Court to further read into the "code" terms a requirement that the code "is not readily available" to the dispatcher, as Railware requests. But it is clear from the prosecution history that Railware's motivation here is tactical. During the *Amtrak* litigation two years ago, Amtrak filed IPR petitions discussing prior art—notably a

[15] The specification only presents what this code does at a general level. The code is sent to the field worker. *See, e.g.*, Ex. 1002, RE'835 Patent, Figs. 1A-1B, Fig. 2, & col. 6, ll. 3-10. The code is also received back at the CTC to release a block. *Id.* at Fig. 4 & col. 7, ll. 28-37 ("In order for a block on a certain track to be lifted, the release code has to be input into the railway traffic control apparatus.").

Federal Railroad Administration Final Report titled "Supporting Railroad Roadway Worker Communications with a Wireless Handheld Computer: Volume 1: Usability for the Roadway Worker"—showing that earlier publicly disclosed systems likewise involved the exchange of codes ("Form D codes") between the field worker and the dispatcher before a track block was released. *See* Ex. 1007, Petition for IPR in IPR2023-01179, at 11-12; Ex. 1008, Petition for IPR in IPR2023-01180, at 12-13; Ex. 1009, Petition for IPR in IPR2023-01181, at 13-14. To avoid this art, Railware in its preliminary response insisted that each of the "code" terms must be re-interpreted to include a requirement that the code not be "readily available" to the dispatcher. *See* Ex. 1010, POPR IPR2023-01179, at 10; Ex. 1011, POPR in IPR2023-01180, at 14; Ex. 1012, POPR in IPR2023-01181, at 13.

This Court should not adopt Railware's proposed construction, which violates settled claim construction principles. Railware's apparent position is that the "code" terms do not have an ordinary meaning, but are instead specialized terms coined by the patentee. Thus, one would conventionally look to the specification for the definition. Notably, however, the specification never uses the phrase "readily available" or its equivalents. In fact, the word "available" appears only three times in the specification, twice to refer to the availability of the field "maintenance worker" (Ex. 1002, RE'835 Patent, col. 10, ll. 41-48), and once to refer to a software interface button (*id.*, col. 8, ll. 47-50)—never to refer to the availability of a release code. On those few occasions when the specification takes up characteristics of the release code or how it is generated, its discussion is vague, high-level, and open-ended. For instance, at col. 6, ll. 3-6 of the RE'835 patent, the specification states that "[t]he code generator 101B is configured to produce a removal or release code, such as a cipher which is random, [pseudo-random,] secret, etc., and stored on the [terminal] *computer*." Ex. 1002, RE'835 Patent, col. 6:3-6. Through the

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use of the word "etc.," this list is open-ended, and it does not make clear either what being "secret" entails or whether being "secret" is necessary for there to be a "release code" within the meaning of the claims. Notably, some of the code terms Railware asks to construe explicitly recite the word "secret" while others do not, only further heightening the lack of clarity.

At bottom, this Court should not adopt Railware's construction because it fails to "provide objective boundaries for those of skill in the art" and would lead to indefinite claim terms, in violation of 35 U.S.C. § 112(b). *See, e.g., Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014); *see also Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 U.S. 898, 910 (2014) (Section 112 requires "a patent's claims, viewed in light of the specification and prosecution history, [to] inform a person of ordinary skill in the art about the scope of the invention with reasonable certainty"); *Ruckus Wireless, Inc. v. Innovative Wireless Solutions, LLC*, 824 F.3d 999, 1004 (Fed. Cir. 2016) ("If, after applying all other available tools of claim construction, a claim is ambiguous, it should be construed to preserve its validity.").

SEPTA is not alone in this position. During the IPR proceedings, the Patent Office reached an identical conclusion, noting the difficulty a person of ordinary skill in the art reading the specification would have "distinguish[ing]" between "a code that is 'readily available' to the dispatcher from a code that was not 'readily available.'":

> Further, for purposes of this Decision, we need not resolve whether Patent Owner's proposed express construction of 'removal code,' 'secret release code,' and 'secret code' is the proper meaning of the term in light of the Specification, which we note does not appear to expressly address how a person of ordinary skill in the art would have distinguished a code that is "readily available" to the dispatcher from a code that was not "readily available."

Ex. 1014, Decision Denying Institution IPR2023-01180, at 21 n.12.[16] Indeed, the phrase "readily

[16] *See also* Ex. 1013, Decision Denying Institution IPR2023-01179, at 20 n.11 (same statement); Ex. 1015, Decision Denying Institution IPR2023-01181, at 20 n.10 (same statement).

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available" is a term of degree that provides no "objective boundaries" as to when that claim limitation would be met and when it would not. *See, e.g.*, *Interval Licensing LLC v. AOL Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014).

Courts routinely reject similar terms of degree as indefinite when, as here, the specification provides no objective standard. *See, e.g.*, *J.R. Simplot Co. v. McCain Foods USA, Inc.*, 713 F. Supp. 3d 904, 940, 943 (D. Idaho 2024), *appeal pending*, No. 24-1845 (Fed. Cir. May 22, 2024) (finding "high electric field" indefinite because "it has no objective bounds and is virtually impossible to measure"); *Bayer Intell. Prop. GmbH v. Warner Chilcott Co.*, 2015 WL 1849015, at *1 (D. Del. Apr. 21, 2015), *aff'd* 645 F. App'x 993 (Fed. Cir. 2016) ("words of degree—i.e., 'high,' 'low,' 'satisfactory,' and 'reliable'—had no standards against which to draw comparisons, and the patent offered no suggestions for how to measure these criteria"); *Graphics Props. Holdings, Inc. v. Asus Computer Int'l, Inc.*, 2014 WL 4929340, at *19 (D. Del. Sep. 29, 2014) ("high information content" is indefinite because "there is no standard in the specification for measuring what differentiates 'high information content' from 'information content' generally").

Railware's attempts through its technical expert's declaration to specify what constitutes a "readily available" code only underscores and compounds the problem. The expert offers a grab bag of different further alternative formulations of the proposed "readily available" construction: "'secret' from the dispatcher" (Ex. 1016, Ahmadian Decl. ¶ 85); "saved to internal storage…largely automated, and automatically transmitted" (*id.* ¶ 89); and not "display[ed]…to the dispatcher….prior to receiving the code from elsewhere" (*id.* ¶ 90). Having explicitly triggered all these additional glosses, Railware's proposed construction contravenes the core purpose of claim construction, to "ensure that the jury fully understands the court's claim construction rulings and what the patentee covered by the claims." *Power-One*, 599 F.3d at 1348

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(cleaned up); *see Versata Software, Inc. v. Zoho Corp.*, 213 F. Supp. 3d 829, 837-38 (W.D. Tex. 2016) (finding "space constrained display" indefinite where an expert's proposed test failed to provide "any boundary" between "a display that is space constrained from one that is not").

Moreover, the specification explicitly references the dispatcher accessing the code in certain circumstances, demonstrating that the patent does contemplate the code in fact being available to the dispatcher: "If there is no maintenance worker available to transmit the random secret code, the code can be retrieved from the train traffic control [terminal] *apparatus* 105 by the train traffic controller (S1306)." Ex. 1002, RE'835 Patent, col. 10, ll. 44-48. Railware attempts to account for this disclosure by having its technical expert assert that the definition of release code means that there are "hurdles for the dispatcher to obtain the code." Ex. 1016, Ahmadian Decl. ¶ 119; *id.* at ¶ 121. But the term "hurdles" (or its equivalents) never appears in the specification, and Railware cannot provide any objective criteria for what constitutes a "hurdle" and what does not. Tellingly, at his deposition, when presented with various scenarios, Railware's technical expert failed to provide any clarity, instead asserting that:

> The reason I hesitate to answer the question as yes or no, as you wish me to do, is simply because there are a lot of parameters that are involved there that, absent of knowing those parameters, then the secretness of the code to the dispatcher or its availability or lack of cannot be definitively ascertained.

Ex. 1017, Ahmadian Dep., 100:19-25. This I-know-it-when-I-see-it assessment is precisely the kind of subjective treatment that renders a claim term indefinite. *See, e.g.*, *Intellectual Ventures I LLC v. T-Mobile USA, Inc.*, 902 F.3d 1372, 1381 (Fed. Cir. 2018) ("a term of degree that is 'purely subjective' and depends 'on the unpredictable vagaries of any one person's opinion' is indefinite"), *quoting Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350-51 (Fed. Cir. 2005).[17]

[17] In advance of claim construction briefing, Railware took the position that the indefiniteness invalidity defense should be litigated at the summary judgment stage, not during claim construction, citing *CSB-Sys. Int'l Inc. v. SAP Am., Inc.*, No. CIV.A. 10-2156, 2011 WL

C. Group 3: Additional terms of the RE'835 Patent

1. "Railway traffic controller" (dependent claims 2 and 11)

Claim Term	SEPTA's Construction	Railware's Construction
railway traffic controller	train dispatcher	No construction necessary or plain and ordinary meaning.

Whenever it appears in the specification, the phrase "railway traffic controller" (or its acronym "RTC") refers to a human, specifically the train dispatcher. *See* Ex. 1002, RE'835 Patent, col. 3, ll. 7-14 ("In another aspect, the adaptation may include a RTC user interface to permit a user (e.g. *railway traffic controller (RTC) or* train dispatcher) to specify a track section(s) to be blocked."); *see also, e.g.*, *id.* col. 7, l. 38 - col. 8, l. 19 (repeatedly referring to the human actions of the "railway traffic controller" in describing Figs. 5 and 6). SEPTA's proposed construction simply seeks to clarify that the "railway traffic controller" is the human dispatcher, not some computing component, thereby mitigating against possible jury confusion.

Railware's proposal does not adequately address this issue because, when dealing with the computing and software fields, the term "controller" often refers to a piece of software or circuity hardware. *See, e.g.*, Ex. 1018, Free On-Line Dictionary of Computing (defining "controller" as "[p]art of a computer, typically a separate circuit board, which allows the computer to use certain kinds of peripheral devices."). Indeed, the RE'835 Patent uses the term "controller" standing alone to likewise refer to a non-human computer component. *See* Ex. 1002, RE'835 Patent, col. 6, ll. 33-35 ("In the example of FIG. 3A, terminal device 200 includes a controller (or processor 202) that communicates with a number of other components…."). SEPTA's construction, which captures what should be an uncontroversial definition in light of

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3240838, at *18 (E.D. Pa. July 28, 2011). Accordingly, SEPTA does not ask the Court at this present stage to specifically rule that the "code" terms are invalid as indefinite under 35 U.S.C. § 112(b). SEPTA intends to make that motion at the summary judgment stage.

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col. 3, ll. 7-14 of the RE'835 Patent, should be adopted.

2. "Via the network" (claims 20, 30, and dependent claim 41)

Claim Term	SEPTA's Construction	Railware's Construction
via the network	via the same network used to transmit the secret release code	No construction necessary or plain and ordinary meaning.

In each of claims 20, 30, and 41 of the RE'835 Patent, the phrase "via the network" appears in a longer claim limitation. Using claim 20 as illustrative, the full phrase is "receive the secret release code *via the network*" (emphasis added). It immediately follows the preceding limitation: "transmit the secret release code to a user terminal *via a network*" (emphasis added). SEPTA's construction simply seeks to confirm a black-letter claim construction principle, that of antecedent basis. When a second instance of a term set forth in a claim begins with "said" or "the," it is treated as referring back the first instance of that term appearing in a claim, typically beginning with "a." *See, e.g.*, *Summit 6, LLC v. Samsung Elecs.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015) ("The use of the term 'said' indicates that this portion of the claim limitation is a reference back to the previously claimed 'pre-processing parameters.'"), *citing Baldwin Graphic Sys. v. Siebert, Inc.*, 512 F.3d 1338, 1343 (Fed. Cir. 2008).

Following this axiom, the construction of "via the network" is straightforward. Illustrative claim 20, like the other claims at issue here, first recites a step of "transmit[ting] the secret release code via *a* network" (emphasis added). Thus, in the next step, when the claims reference "receiv[ing] the secret release code via *the* network" (emphasis added), they must refer back to the same network used to transmit the secret release code—by operation of logic and the antecedent-basis rule explained in *e.g. Summit 6* and *Baldwin Graphic*.

V. CONCLUSION

For the reasons set forth above, the Court should adopt SEPTA's proposed constructions.

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APPENDIX A
Illustrative Claims Discussed in the Brief

Claim 1 of U.S. Patent No. 9,403,545 (now surrendered)

1. A centralized railway control system comprising:

[a] a rail personnel contact database registering, for each railway personnel, an electronic contact address of the railway personnel; and

[b] a railway traffic control apparatus for controlling access to railway tracks, said railway traffic control apparatus comprising a processor non-transitory medium storing one or more programs of executable instructions, and a network interface through which the railway traffic control apparatus communicates via a network with a user terminal,

[c] wherein execution of said one or more programs of executable instructions configures the processor to include:

[c-1] a block placing part to place a block on one or more specified track sections to permit a railway field worker to enter the track sections while blocking railway traffic to said track sections;

[c-2] a code generation part to generate a removal code, retrieve the electronic contact address of the railway field worker from the rail personnel contact database, and transmit the removal code to the electronic contact address of the railway field worker; and

[c-3] a block removal part to remove only upon entry of the removal code, the block placed by the block placing part on said one or more track sections.

Claim 1 of U.S. Patent No. RE47,835 (asserted)

1. A centralized railway control system comprising:

[a] a rail personnel contact database registering, for each railway personnel, an electronic contact address of the railway personnel; and

[b] a railway traffic control apparatus *configured for centralized control of traffic of a centrally controllable railway network including plural railways and a plurality of railway traffic interlocks dispersed in said plural railways constituting said railway network*, for controlling access to railway tracks, said railway traffic control apparatus comprising a processor, a non-transitory medium storing one or more programs of executable instructions, and a network interface through which the railway traffic control apparatus communicates via a network with a user terminal,

[c] wherein execution of said one or more programs of executable instructions configures *the railway traffic control apparatus comprising* the processor to include:

[c-1] a block placing part to place a block on one or more specified track sections *in any of said plural railways constituting said railway network that is managed by centralized*

control operation from the railway traffic control apparatus, the railway traffic control apparatus controlling, by said centralized control operation, one or more interlocks amongst the plurality of railway traffic interlocks dispersed in said plural railways constituting said railway network, to block railway traffic to the specified track sections and thereby to permit a railway field worker to enter the track sections while blocking railway traffic to said track sections [while blocking railway traffic to said track sections];

[c-2] a code generation part to generate a removal code, retrieve the electronic contact address of the railway field worker from the rail personnel contact database, and transmit the removal code to the electronic contact address of the railway field worker; and

[c-3] a block removal part to remove only upon entry of the removal code *by said centralized control operation from the railway control apparatus*, the block placed by the block placing part on said one or more track sections.

Claim 1 of U.S. Patent No. 9,517,782 (not asserted)

1. A system to enhance railway control, to protect safety of railway workers on or near railway tracks, the system comprising:

[a] a railway control apparatus comprising a processor, a non-transitory medium storing one or more programs of executable instructions, and a network interface through which the railway control apparatus communicates via a network; and

[b] a user terminal provided to a railway field worker and configured to communicate via the network with the railway control apparatus and to provide a user interface to display information received from the railway control apparatus and to permit the railway field worker to respond to prompts displayed thereon,

[c] wherein the railway control apparatus, by execution of said one or more programs of executable instructions by the processor, includes:

[c-1] a block placing part to place a block on one or more specified track sections to permit the railway field worker to enter the track sections while blocking railway traffic to said track sections;

[c-2] a code generation part to generate a release code and transmit the release code to an electronic contact address accessible by the railway field worker via operation of the user interface of the user terminal; and

[c-3] a block removal part to remove only upon receiving the release code from the user terminal in return, the block placed by the block placing part on said one or more track sections.

Claim 5 of U.S. Patent No. 9,517,782 (asserted)

5. A method to enhance railway control, to protect safety of railway workers on or near railway tracks, said method comprising:

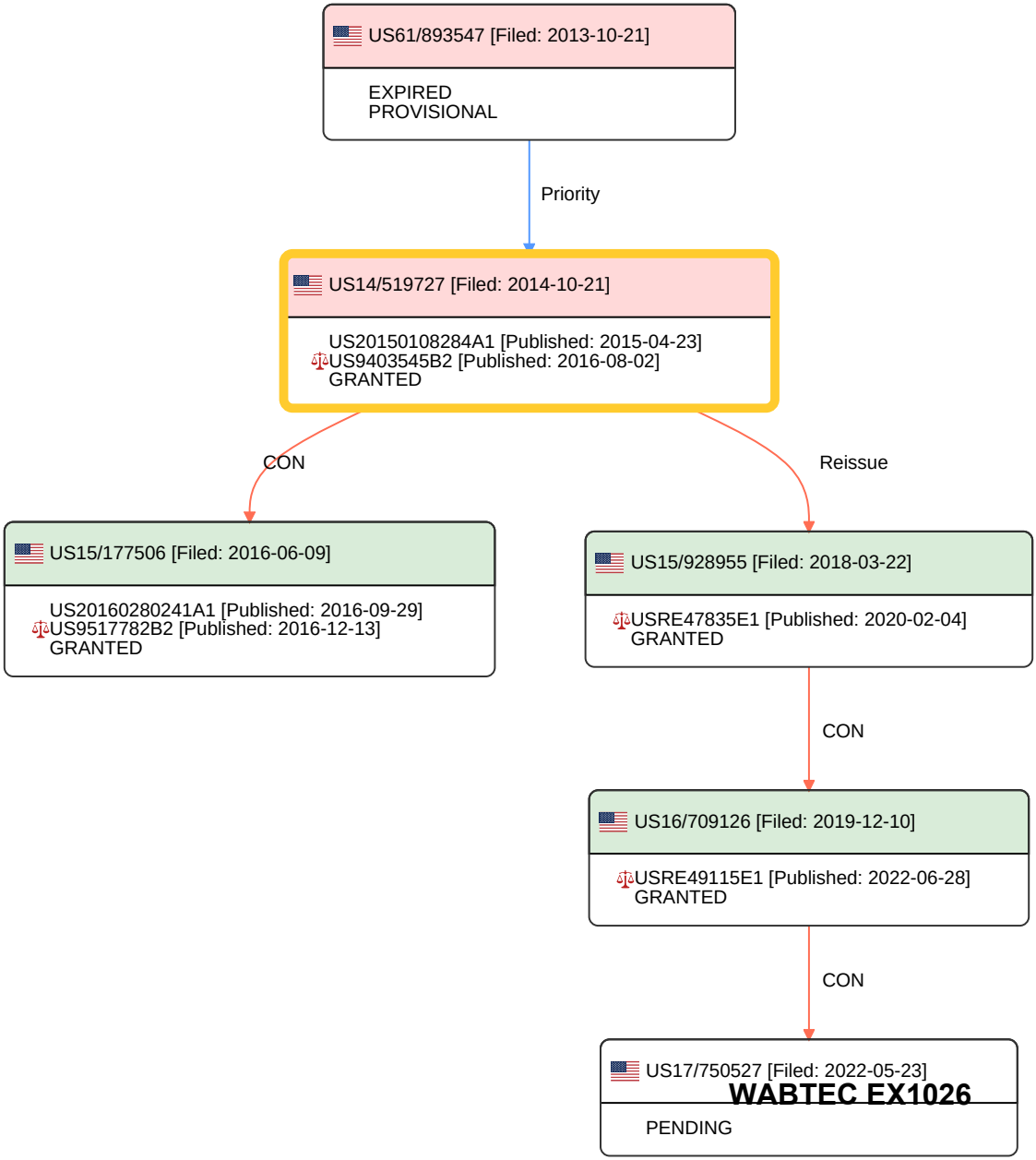
[a] configuring a mobile user device of a railway field worker to provide a device user interface to display information received via a network from a railway control apparatus and to permit the railway field worker to respond to prompts displayed thereon;

[b] providing a terminal user interface on a terminal to permit a terminal user of the terminal request the railway control apparatus to place a block on one or more specified track sections to permit a railway field worker to enter the track sections while blocking railway traffic to said track sections;

[c] generating by the railway control apparatus a release code and transmitting the release code to an electronic contact address accessible by the railway field worker via operation of the user interface of the user terminal; and

[d] permitting the block to said one or more track sections to be removed by the railway control apparatus only upon receiving the release code from the user terminal in return.

APPENDIX B



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CERTIFICATE OF SERVICE

I hereby certify that on May 9, 2025 a true and correct copy of the foregoing including all attachments was served via ECF on counsel of record for Railware, Inc.

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