UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

LIGHTBRIDGE CORPORATION

(Exact name of Registrant as specified in its charter)

| Nevada | Nevada | | | | | |
|---|---------------------|--|----------------------------|---------------------|--|--|
| (State or other juris | sdiction of | (IRS | (IRS Employer | | | |
| incorporation or org | ganization) | Identific | Identification Number) | | | |
| | 11710 P | Plaza America Drive, Suite 2000 | | | | |
| | | Reston, VA 20190 | | | | |
| | (Address, including | ng zip code, of principal executive offices) | | | | |
| | Lightbridge Co | rporation 2020 Omnibus Incentive Plan | | | | |
| | | (Full title of the plans) | | | | |
| | | Seth Grae | | | | |
| | | President and CEO | | | | |
| | I | Lightbridge Corporation | | | | |
| | 11710 P | Plaza America Drive, Suite 2000 | | | | |
| | | Reston, VA 20190 | | | | |
| | | (571) 730-1200 | | | | |
| (Name, | address and telepho | one number, including area code, of agent for | service) | | | |
| | | Copy to: | | | | |
| | | Paul Hilton | | | | |
| | 1.60 | Hogan Lovells US LLP | | | | |
| | 160 | 01 Wewatta Street, Suite 900 | | | | |
| | | Denver, CO 80202 | | | | |
| | | (303) 899-7300 | | | | |
| Indicate by check mark whether the | e Registrant is a l | arge accelerated filer, an accelerated filer, | a non-accelerated filer. | a smaller reporting | | |
| company or an emerging growth company | | | | | | |
| "emerging growth company" in Rule 12b-2 of | of the Exchange Act | | | | | |
| I | | A 1 | | | | |
| Large accelerated filer Non-accelerated filer | | Accelerated filer Smaller reporting company | | | | |
| Non-accelerated filer | | Emerging growth company | | | | |
| | | Emerging growth company | Ш | | | |
| If an emerging growth company ind | icate by check mark | x if the Registrant has elected not to use the e | extended transition period | l for complying wit | | |
| | • | uant to Section 7(a)(2)(B) of the Securities A | | F-78 | | |

EXPLANATORY NOTE

Lightbridge Corporation, a Nevada corporation (the "Registrant") previously filed a Registration Statement on Form S-8 (File No. 333-254717) and post effective amendments to existing Registration Statements on Form S-8 (File Nos. 333-229138, 333-135842 and 333-218796) with the Securities and Exchange Commission (the "Commission") on March 25, 2021 (collectively, the "Original Filings") and another Registration Statement on Form S-8 (File No. 333-274743) on September 28, 2023 (collectively with the Original Filings, the "Prior Filings"), in connection with the Lightbridge Corporation 2020 Omnibus Incentive Plan, as amended and restated (together with previous versions of such plan, the "Plan"). This Registration Statement on Form S-8 registers 700,000 additional shares of the Registrant's common stock, par value \$0.001 per share ("Common Stock"), to be issued pursuant to the Plan, as approved by the Registrant's shareholders on April 19, 2024. The contents of the Prior Filings, as updated by the information set forth below, are incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents filed by the Registrant with the Commission are incorporated by reference in this registration statement:

- (a) The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the Commission on March 4, 2024;
- (b) The portions of the Registrant's definitive proxy statement on <u>Schedule 14A</u>, filed with the Commission on March 8, 2024, that are incorporated by reference into the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2023;
- (c) The Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, filed with the Commission on May 10, 2024;
- (d) The Registrant's Current Reports on Form 8-K filed with the Commission on March 29, 2024 and April 22, 2024; and
- (e) The description of the Registrant's Common Stock contained in its registration statement on Form 8-A filed on July 18, 2006, as updated by Exhibit 4.2 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 filed with the Commission on March 31, 2022, including any amendments or reports filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, after the date hereof (excluding any documents or portions of such documents that are furnished under Item 2.02 or Item 7.01 of a Current Report on Form 8-K and any exhibits included with such Items), and prior to the filing of a post-effective amendment that indicates that all the securities offered hereby have been sold or that deregisters the securities offered hereby then remaining unsold, shall also be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents.

Any statement contained in this registration statement or in a document incorporated or deemed to be incorporated by reference in this registration statement will be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference in this registration statement modifies or supersedes that statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Item 8. Exhibits

The following exhibits are submitted herewith or incorporated by reference herein.

| Exhibit | |
|--------------|--|
| Number | Description |
| 4.1 | Lightbridge Corporation 2020 Omnibus Incentive Plan, as amended (incorporated by reference to Appendix A to the definitive proxy |
| | statement filed on March 8, 2024). |
| 4.2 | Form of Non-Statutory Stock Option Agreement for Employees under the 2020 Omnibus Incentive Plan (incorporated by reference to |
| | Exhibit 10.12 to the Form 10-K filed by the Company on March 25, 2021). |
| <u>4.3</u> | Form of Restricted Stock Unit Award Agreement for Employees under the 2020 Omnibus Incentive Plan (incorporated by reference to |
| | Exhibit 10.13 to the Form 10-K filed by the Company on March 25, 2021). |
| <u>4.4</u> | Form of Restricted Stock Unit Award Agreement for Non-Employee Directors under the 2020 Omnibus Incentive Plan (incorporated by |
| | reference to Exhibit 10.14 to the Form 10-K filed by the Company on March 25, 2021). |
| <u>4.5</u> | Form of Restricted Stock Award Agreement under the 2020 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.14 to the |
| | Form 10-K filed by the Company on March 31, 2022). |
| <u>4.6</u> | Articles of Incorporation of Lightbridge Corporation, as amended through October 27, 2022 (incorporated by reference to Exhibit 3.1 to |
| | the Form 10-K filed by the Registrant on March 30, 2023). |
| <u>4.7</u> | Amended and Restated Bylaws of Lightbridge Corporation, as amended through November 4, 2021 (incorporated by reference to Exhibit |
| | 3.1 to the Form 10-Q filed by the Registrant on November 8, 2021). |
| <u>5.1*</u> | Opinion of Gary R. Henrie, Esq. |
| 23.1* | Consent of BDO USA, P.C. |
| <u>23.2*</u> | Consent of Gary R. Henrie, Esq. (included in Exhibit 5.1). |
| <u>24*</u> | Power of Attorney (included on signature page hereto). |
| <u>107*</u> | Filing Fee Table. |
| | |

^{*} Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Reston, Commonwealth of Virginia, on the 5th day of June, 2024.

LIGHTBRIDGE CORPORATION

By: /s/ Seth Grae
Name: Seth Grae

Title: President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Seth Grae and Larry Goldman, and each of them severally, his or her true and lawful attorney-in-fact, with the power of substitution, for him or her in any and all capacities, to sign any amendments (including post-effective amendments) to this registration statement, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorneys-in-fact, or their substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated on June 5, 2024.

| Signature | Title | | | |
|---|--|--|--|--|
| /s/ Seth Grae Seth Grae | Chief Executive Officer, President and Director (Principal Executive Officer) | | | |
| /s/ Larry Goldman Larry Goldman | Chief Financial Officer (Principal Financial and Accounting Officer) | | | |
| /s/ Sweta Chakraborty Sweta Chakraborty | Director | | | |
| /s/ Jesse Funches Jesse Funches | Director | | | |
| /s/ Sherri Goodman Sherri Goodman | Director | | | |
| /s/ Daniel B. Magraw Daniel B. Magraw | Director | | | |
| /s/ Mark Tobin Mark Tobin | Director | | | |
| | 4 | | | |

Telephone: 307-200-9415

e-mail: grhlaw@hotmail.com

Gary R. Henrie Attorney at Law Licensed in the States of Utah and Nevada

619 South 1040 East American Fork, UT 84003

June 5, 2024

Lightbridge Corporation 11710 Plaza America Drive Suite 2000 Reston, VA 20190

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We are acting as special Nevada counsel for Lightbridge Corporation, a Nevada corporation (the "Company"), for the purpose of issuing this opinion letter in connection with the registration statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Act"). The Registration Statement relates to the offering of 700,000 additional shares of the Company's common stock, \$0.001 par value per share (the "Shares"), by the Company pursuant to the Lightbridge Corporation 2020 Omnibus Incentive Plan, as amended.

We have reviewed and are familiar with such corporate proceedings and other matters as we have deemed necessary for this opinion.

In rendering the opinion set forth below, we have assumed that (i) all information contained in all documents reviewed by us is true and correct; (ii) all signatures on all documents examined by us are genuine; (iii) all documents submitted to us as originals are authentic and all documents submitted to us as copies conform to the originals of those documents; (iv) each natural person signing any document reviewed by us had the legal capacity to do so; (v) the Registration Statement, and any amendments thereto (including post-effective amendments) will have become effective and comply with all applicable laws; (vi) all of the Shares will be issued and sold in compliance with applicable federal and state securities laws; (vii) there will not have occurred any change in law affecting the validity or enforceability of such Shares; (viii) at the time of the sale, issuance or delivery of the Shares, the authorization of such Shares by the Company's Board of Directors or applicable committee thereof will not have been modified or rescinded; (ix) with respect to the Shares, the Company will have a sufficient number of authorized but unissued shares thereof under its charter, and will have reserved from such authorized but unissued and unreserved shares, sufficient shares for the issuance thereof; (x) the certificates representing the Shares will be duly authorized, executed and delivered; and (xi) the Shares will be properly authenticated by the manual signature of an authorized representative of the transfer agent.

Based upon the foregoing, we are of the opinion that the 700,000 additional Shares to be issued by the Company pursuant to the Lightbridge Corporation 2020 Omnibus Incentive Plan, as amended, will be validly issued, fully paid and nonassessable, provided that (i) the Company's Board of Directors or an authorized committee thereof has specifically authorized the issuance of such Shares in exchange for a consideration that the Board of Directors or such committee determines as adequate ("Authorizing Resolutions"), (ii) the issuance and delivery of the Shares are in conformity with the Company's charter and bylaws, and do not violate any applicable law, or result in a default under or breach of any agreement or instrument binding on the Company or a violation of any restriction imposed by any court or governmental body having jurisdiction over the Company and (iii) the Company has received the consideration provided for in the applicable Authorizing Resolutions, if any.

In providing this opinion, we have relied as to certain matters on information obtained from public officials and officers or agents of the Company.

It is understood that this opinion is to be used only in connection with the Registration Statement.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is limited to matters governed by the Nevada Revised Statutes (including the statutory provisions and reported judicial decisions interpreting such law) and the laws of the State of Nevada. We disclaim any obligation to update this opinion or otherwise advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein, nor do we deliver any opinion as to the extent to which any laws other than the laws of the State of Nevada apply or the effect of any such other laws should they apply.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the use of our name under the caption "Legal Matters" in the Registration Statement and in the prospectus forming part of the Registration Statement and any supplement thereto. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder.

Sincerely,

/s/ Gary R. Henrie

Gary R. Henrie

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 4, 2024, relating to the consolidated financial statements of Lightbridge Corporation appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2023.

/s/ BDO USA, P.C.

Philadelphia, Pennsylvania June 5, 2024

Calculation of Filing Fees Table

Form S-8 (Form Type)

Lightbridge Corporation

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

| Security Type | Security Class Title | Fee Calculation Rule | Amount Registered | Proposed Maximum Offering Price Per Unit (2) | Maximum Aggregate Offering Price | Fee Rate | Amount of Registration Fee |
|------------------------|---|--------------------------------|--------------------|--|---|-------------------------|----------------------------------|
| Equity | Common Shares, \$0.001 par value per share | Rule 457(c) and Rule 457(h) | 700,000 shares (1) | \$2.71 | \$1,897,000 | \$147.60 per million | \$280.00 |
| Total Offering Amounts | | | | \$1,897,000 | | \$280.00 | |
| Total Fee Offsets | | | | | | - | |
| Net Fee Due | | | | | | \$280.00 | |

- (1) Represents 700,000 common shares reserved for issuance under the Lightbridge Corporation 2020 Omnibus Incentive Plan, as amended (the "Plan"). Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act") there are also registered hereunder such indeterminate number of additional shares as may become available for issuance pursuant to the Plan as a result of the antidilution provisions contained therein, including stock splits and other similar transactions.
- (2) Estimated in accordance with paragraphs (c) and (h) of Rule 457 of the Securities Act, based upon the average of the daily high and low prices of shares of the registrant's common stock on May 30, 2024, as reported on the Nasdaq Capital Market.