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SUPPLEMENT DATED NOVEMBER 23, 2026 TO
PROSPECTUS SUPPLEMENT DATED NOVEMBER 22, 2024
(to Prospectus dated January 17, 2024)



Maximum of 5,561,275 Shares
6.25% Series A Cumulative Redeemable Preferred Stock
(Liquidation Preference $25.00 Per Share)

This supplement amends certain information in the prospectus supplement, dated November 22, 2024, and the accompanying prospectus, dated January 17, 2024 (collectively, the "Prospectus") of Gladstone Capital Corporation (the "Company"). Unless otherwise indicated, all other information included in the Prospectus that is not inconsistent with the information set forth in this supplement remains unchanged. Capitalized terms not otherwise defined in this supplement have the same meaning as in the Prospectus.

On November 6, 2026, the Company's Board of Directors extended the Termination Date for the Company's offering of its Series A Preferred Stock by one year to the earlier of (1) December 31, 2027 (unless earlier terminated or extended by our Board of Directors) and (2) the date on which all 6,000,000 Shares are sold.

Investing in the Shares involves substantial risks that are described in the "*Risk Factors*" sections beginning on page S-9 of the prospectus supplement and on page 4 of the accompanying prospectus and discussed in our Annual Report on Form 10-K for the year ended September 30, 2026, and other reports and information that we file from time to time with the Securities and Exchange Commission (the "SEC"), which are incorporated by reference into the prospectus supplement and the accompanying prospectus.

Supplement dated November 23, 2026 to Prospectus Supplement dated November 22, 2024.