



# MULTIFAMILY CONNECTICUT AVENUE SECURITIES TRUST 2019-01

Issuer

### **Fannie Mae**

Trustor, Administrator and Master Servicer

# MULTIFAMILY CONNECTICUT AVENUE SECURITIES, SERIES 2019-01

\$472,719,000 (Approximate) Confidential Term Sheet

### **REVISED**

October 21, 2019

Wells Fargo Bank, N.A. Indenture Trustee, Exchange Administrator and Custodian

U.S. Bank Trust National Association
Delaware Trustee





Structuring Lead and Bookrunner

Co-Lead Manager



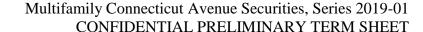
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opinions or other tax analyses) that are provided relating to such tax treatment and tax structure. For this purpose, "tax structure" is limited to facts relevant to the U.S. federal and state income tax treatment of the proposed transaction described herein and does not include information relating to the identity of the parties, their affiliates, agents or advisors.

THIS DOCUMENT DOES NOT DISCLOSE ALL THE RISKS AND OTHER SIGNIFICANT ISSUES RELATED TO AN INVESTMENT IN THE SECURITIES. PRIOR TO INVESTING IN THE SECURITIES, POTENTIAL INVESTORS SHOULD READ THE FINAL OFFERING MEMORANDUM RELATING TO THE SECURITIES AND ENSURE THAT THEY FULLY UNDERSTAND THE TERMS OF THE SECURITIES AND ANY APPLICABLE RISKS.

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# CLASS M-7, CLASS M-10, CLASS B-10 AND CLASS C-E NOTES\* \$472,719,000\*\* (Approximate)

	Approximate Initial Cla or Class Notional		Expected Approximate				Interest	
Class or Interest	Amount Issued	Reference Tranches	Initial Credit Support (%)	Class Coupon <sup>(2)</sup>	Expected WAL (yrs)(1)	Principal Payment Window (mos) <sup>(1)</sup>	Accrual Basis	Maturity Date <sup>(3)</sup>
A-H <sup>(4)</sup>	Reference Tranche Only	\$12,584,383,672	4.430%	Reference Tranche Only				
M-7*(5)(6)	\$80,702,000		3.785%	1mL +%	5.64	1 – 74	Actual/360	October 2049
M-7-H <sup>(4)</sup>	Reference Tranche Only	\$4,248,000	3.785%	Reference Tranche Only				
M-10*(5)(6)	\$327,101,000		1.170%	1mL +%	8.77	74 – 110	Actual/360	October 2049
M-10-H <sup>(4)</sup>	Reference Tranche Only	\$17,216,456	1.170%	Reference Tranche Only				
B-10*(5)(6)	\$41,280,000		0.840%	1mL +%	9.23	110 - 115	Actual/360	October 2049
B-10-H <sup>(4)</sup>	Reference Tranche Only	\$2,173,454	0.840%	Reference Tranche Only				
C-E*(5)	\$23,636,000		0.651%	1mL +%	10.58	115 – 129	Actual/360	October 2049
C-E-H <sup>(4)</sup>	Reference Tranche Only	\$1,244,000	0.651%	Reference Tranche Only				
C-H <sup>(4)</sup>	Reference Tranche Only	\$85,728,793	0.000%	1mL + 15.00% <sup>(7)</sup> Reference Tranche Only				
Total	\$472.719.000**	\$12,694,994,375						

<sup>\*</sup> Offered on the Closing Date (the "Offered Notes").

Holders of certain Classes may exchange them for Classes of the corresponding Classes of Related Combinable and Recombinable Notes (the "RCR Notes") to be delivered at the time of exchange. The Classes of RCR Notes are the Class M-7-A, Class M-7-X, Class M-10-A, Class M-10-X, Class B-10-A and Class B-10-X Notes. For a more detailed description of the RCR Notes, see Schedule I hereto.

<sup>\*\*</sup> Including only Offered Notes.



Information is preliminary and subject to final collateral and legal review. The analyses, calculations and valuations herein are based on certain assumptions and data provided by third parties that may vary from the actual characteristics of the final collateral. Investors should rely on the information contained in the final offering memorandum.

- (1) The principal amounts and notional amounts presented in this term sheet are approximate and subject to a +/- 5% variance. Weighted average lives and principal payment windows (if applicable) with respect to the Class M-7 Notes, Class M-10 Notes, Class B-10 Notes and Class C-E Notes (together with the Classes of RCR Notes set forth on Schedule I hereto, the "Notes") assume that no Credit Events or Modification Events occur, prepayments occur at the pricing speed of 0% CPY (calculated from the Closing Date), the Notes pay on the 25<sup>th</sup> day of each month beginning in November 2019 and are not redeemed prior to the Maturity Date.
- (2) Each Class of Offered Notes will be sold at a price of par.
- (3) The Class Principal Balance of any outstanding Notes will be paid in full on the earliest to occur of the Maturity Date, the Optional Redemption Date, if any, and the CPA Redemption Date, if any.
- (4) The Class A-H Reference Tranche, Class M-7-H Reference Tranche, Class M-10-H Reference Tranche, Class B-10-H Reference Tranche, Class C-E-H Reference Tranche and Class C-H Reference Tranche will not have corresponding Notes and will be referenced only in connection with making calculations of payments required to be made by the Issuer and reductions and increases in the principal amounts of the Notes.
- (5) The Class M-7 Notes, Class M-10 Notes, Class B-10 Notes and Class C-E Notes will have corresponding Reference Tranches for the purpose of making calculations of principal payments required to be made by the Issuer and reductions and increases in the principal amounts of the Notes.
- (6) The Class M-7, Class M-10 and Class B-10 Notes are collectively referred to as the "Exchangeable Notes." The Holders Exchangeable Notes may exchange all or part of those Classes for proportionate interests in the RCR Notes in the applicable combinations set forth on Schedule I hereto, and vice versa.
- (7) The Class C-H Reference Tranche is assigned a class coupon solely for purposes of calculations in connection with the allocation of Modification Loss Amounts to the Subordinate Reference Tranches.



### **Transaction Overview**

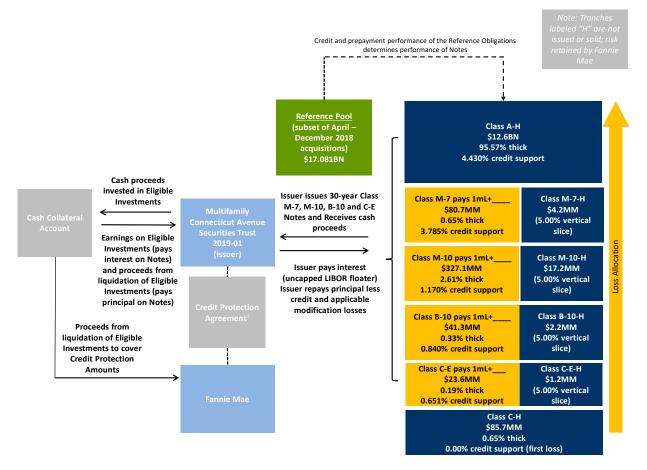
On the Closing Date, the Issuer will issue the Notes. The Initial Purchasers will sell the Notes and the Issuer will deliver the gross proceeds of the sale of the Notes to the Custodian for deposit in a securities account (the "Cash Collateral Account"). The Notes will be subject to the credit and principal payment risk of the related portion of a certain pool (the "Reference Pool") of multifamily mortgage loans (the "Reference Obligations") held in various Fannie Maeguaranteed MBS. The actual cash flows from the Reference Obligations will never be paid to the holders of the Notes (the "Noteholders" or "Holders," and each, a "Noteholder" or a "Holder"). The Issuer will make monthly payments of accrued interest and periodic payments of principal to the Noteholders. The Notes will be issued at par and, except for the Interest Only RCR Notes (as defined herein), will be 30-year, uncapped LIBOR-based floaters.

On the Termination Date, the Class Principal Balances of all outstanding Notes will be paid in full. If there are unrecovered losses on any Notes as of the Termination Date, holders of those Notes will be entitled to certain projected recovery payments on that date.

The "Offered Notes" consist of the Class M-7, Class M-10, Class B-10 and Class C-E Notes. The transaction is structured to transfer to investors economic exposure to the Reference Obligations and provide Fannie Mae reimbursement for specified losses it incurs with respect to Reference Obligations that experience losses relating to Credit Events and Modification Events. Reimbursement of Fannie Mae for such specified losses is achieved in part by allowing the Issuer to reduce the outstanding Class Principal Balances of the Notes related to the designated Credit Events and Modification Events on the Reference Obligations. The occurrence of certain Credit Events or Modification Events on the Reference Obligations could result in write-downs of the Class Principal Balances of the Notes to the extent losses are realized on such Reference Obligations as a result of these events. In addition, the interest entitlement of the Notes may be subject to reduction based on the occurrence of Modification Events on these Reference Obligations to the extent losses are realized with respect thereto. As described in "MORTGAGE LOANS IN REFERENCE POOL—Loss Sharing," the Reference Obligations are subject to loss sharing arrangements between Fannie Mae and the applicable lenders. In no event will the Class Principal Balances of the Notes or the interest entitlement of the Notes be subject to write-downs or reduction, respectively, in respect of losses borne by the lenders pursuant to these arrangements.

The sources of payments on the Notes consist of investment earnings and liquidation proceeds of short-term, liquid investments held in the Cash Collateral Account and amounts received by the Issuer under the Credit Protection Agreement. The transaction has been structured so that the capital structure and cash flow allocations relative to principal payments of the Notes are reflective of private label senior/subordinate multifamily mortgage backed securities. Accordingly, the Notes may not receive allocations in respect of unscheduled principal unless target credit enhancement and delinquency percentages have been maintained. However, unlike securities in some senior/subordinate private label multifamily mortgage-backed securitizations, the principal payments required to be paid by the Issuer on the Notes will be based in part on the principal that is actually collected on the Reference Obligations, rather than on the entire amount of scheduled payments due on those Reference Obligations as further described herein.

Capitalized terms used in this term sheet are defined when first used or in the "GLOSSARY OF CERTAIN DEFINED TERMS."



† Provides for (i) payment by Fannie Mae of Credit Premium Amounts and Credit Protection Reimbursement Amounts, if any, to Issuer and (ii) payment by Issuer of Credit Protection Amounts, if any, to Fannie Mae.

Credit Premium Amounts are transferred to Holders in respect of interest on the Notes; Distributable Reimbursement Amounts and Investment Liquidation Contributions are transferred to Holders in respect of principal of the Notes.



#### **GENERAL INFORMATION**

**Issuer** Multifamily Connecticut Avenue Securities Trust 2019-01, a

Delaware statutory trust

Trustor, Administrator and

**Master Servicer** 

Fannie Mae

Title of Series Multifamily Connecticut Avenue Securities, Series 2019-01

Offered Notes Class M-7, Class M-10, Class B-10 and Class C-E Notes

**Delaware Trustee**U.S. Bank Trust National Association. Fees, expenses and

indemnities of the Delaware Trustee will be paid by the

Administrator.

**Indenture Trustee** Wells Fargo Bank, N.A. Fees, expenses and indemnities of the

Indenture Trustee will be paid by the Administrator.

**Exchange Administrator** Wells Fargo Bank, N.A. The Exchange Administrator for the

RCR Notes and the Exchangeable Notes will, among other duties, administer all exchanges of RCR Notes for Exchangeable Notes and vice versa, which will include receiving notices of requests for such exchanges from Noteholders, accepting the Notes to be exchanged, and giving notice to the Indenture Trustee of all such

exchanges.

Custodian Wells Fargo Bank, N.A. Pursuant to a securities account control

agreement among the Issuer, the Indenture Trustee, the

Custodian, the Securities Intermediary and the Administrator (the "Securities Account Control Agreement"), the Custodian will hold all Eligible Investments in the Cash Collateral Account and

will serve as securities intermediary. Fees, expenses and indemnities of the Custodian will be paid by the Administrator.

**Investment Agent** Wells Fargo Bank, N.A. or an affiliate thereof. Pursuant to an

investment agency agreement among the Investment Agent, the Custodian, the Administrator and the Issuer (the "Investment Agency Agreement"), the Investment Agent will invest the funds in the Cash Collateral Account in Eligible Investments. The Investment Agency Agreement will set forth investment guidelines and will specify the Eligible Investments. Fees and

expenses of the Investment Agent will be paid by the

Administrator.

**Lead Managers** Credit Suisse (Structuring Lead and Bookrunner) and BofA

Securities (Co-Lead Manager)



**Selling Group Member** 

Samuel A. Ramirez & Company, Inc.

**Payment Date** 

The 25th day of each calendar month (or, if not a business day, the next succeeding business day), commencing in November 2019. The "Remittance Date" is the business day immediately preceding each Payment Date.

Assets of the Issuer

The Cash Collateral Account (including the investments held therein), the Note Distribution Account, and the right, title and interest of the Issuer in, to and under the Credit Protection Agreement, the Securities Account Control Agreement, the Investment Agency Agreement and the Administration Agreement, all of which will be pledged to the Indenture Trustee for the benefit of Fannie Mae, as protected party under the Credit Protection Agreement, and the Holders.

**Cash Collateral Account** 

An account to be established on the Closing Date in the name of the Issuer. The Custodian will invest (at the direction of the Investment Agent) amounts held in the Cash Collateral Account in Eligible Investments pursuant to the Investment Agency Agreement. The Investment Agent will direct the Custodian to liquidate Eligible Investments held in the Cash Collateral Account to pay Credit Protection Amounts due to Fannie Mae on any Remittance Date, if any, and, to the extent available after payment of such Credit Protection Amounts, deposit the proceeds in the Note Distribution Account for payment to Noteholders in respect of principal due on the Notes on the related Payment Date. Investment earnings on Eligible Investments held in the Cash Collateral Account during the related Investment Accrual Period will be deposited in the Note Distribution Account for payment to Noteholders in respect of interest (with any investment earnings in excess of the aggregate Interest Payment Amount for such Payment Date to be retained in the Cash Collateral Account and available for deposit to the Note Distribution Account for payment to Noteholders in respect of interest on subsequent Payment Dates).

The rights of the Noteholders in the Cash Collateral Account will be subordinate to Fannie Mae's right to receive Credit Protection Amounts for so long as the Notes remain outstanding.

**Eligible Investments** 

Each of the following investments, provided such investment is scheduled to mature on or before the immediately following Remittance Date, and all cash proceeds thereof: (a) obligations issued or fully guaranteed by the U.S. government or a U.S. government agency or instrumentality; (b) repurchase obligations involving any security described in (a) above and entered into



with a depository institution or trust company (as principal) subject to supervision by federal or state banking authorities, provided that such institution has a short-term issuer rating of 'A-1+', 'P1', 'F1+' or equivalent from a nationally recognized statistical rating organization; or (c) U.S. government money market funds; provided, however, that in the event an investment fails to qualify under (a), (b) or (c) above, the proceeds of the sale of such investment will be deemed to be liquidation proceeds of an Eligible Investment for all purposes herein provided such liquidation proceeds are promptly reinvested in Eligible Investments. With respect to money market funds, the maturity date will be determined under Rule 2a-7 under the Investment Company Act.

The offering memorandum will set out any additional requirements relating to Eligible Investments.

# **Securities Account Control Agreement**

The Issuer will enter into the Securities Account Control Agreement with the Indenture Trustee, the Custodian, the Securities Intermediary and the Administrator. Pursuant to the Securities Account Control Agreement, the Issuer will appoint the Custodian as the custodian to hold all Eligible Investments in the Cash Collateral Account.

## **Note Distribution Account**

An account to be established on the Closing Date in the name of the Indenture Trustee for the benefit of the Noteholders. The Note Distribution Account will include deposits from time to time of (a) investment income earned on Eligible Investments held in the Cash Collateral Account (up to the amount of the aggregate Interest Payment Amount for a Payment Date), (b) proceeds from the liquidation of those Eligible Investments, and (c) due and payable Credit Premium Amounts, Distributable Reimbursement Amounts and Investment Liquidation Contributions, if any.

# Credit Protection Agreement

Simultaneously with the issuance of the Notes, Fannie Mae, the Issuer and the Indenture Trustee will enter into a Credit Protection Agreement.

The Credit Protection Agreement will provide that, on each Remittance Date:

Fannie Mae will pay to the Issuer, by deposit into the Note
Distribution Account or otherwise, (a) the Credit Premium
Amount for such Remittance Date, <u>plus</u> (b) the Credit
Protection Reimbursement Amount, if any, for such
Remittance Date (with the Distributable Reimbursement
Amount to be deposited in the Note Distribution Account



and the remaining amount to be deposited in the Cash Collateral Account), <u>plus</u> (c) an amount equal to the excess, if any, of (i) the principal amount (book value) of Eligible Investments liquidated in respect of such Remittance Date over (ii) the liquidation proceeds of such Eligible Investments (such amount, the "Investment Liquidation Contribution"); and

• the Issuer will pay to Fannie Mae the Credit Protection Amount, if any, for such Remittance Date.

The Credit Protection Agreement is subject to termination following the occurrence of certain events described below. The "CPA Early Termination Date" is a Payment Date that is designated as an early termination date following the occurrence of such an event or following any termination of the Credit Protection Agreement. The occurrence of a CPA Early Termination Date as a result of a CPA Trigger Event will result in the payment in full of the Notes on such CPA Early Termination Date (the "CPA Redemption Date").

The CPA Early Termination Date will be the Payment Date following the earliest to occur of the following events (each, a "CPA Early Termination Event"):

- the occurrence of the Maturity Date;
- the occurrence of an Optional Redemption Date;
- acceleration of the maturity of the Notes under the Indenture;
- the occurrence of a Reporting Period in which there occurs the final payment or other liquidation of the last Reference Obligation remaining in the Reference Pool or the disposition of any REO in respect thereof;
- the occurrence of a Reporting Period in which there occurs the removal of the last Reference Obligation remaining in the Reference Pool or any REO in respect thereof;
- a final SEC determination that the Issuer must register as an investment company under the Investment Company Act; or
- a failure of Fannie Mae to make a required payment under the Credit Protection Agreement, which failure continues unremedied for 30 days following notice of such failure.

Additionally, Fannie Mae may in its sole discretion designate as the CPA Early Termination Date the Payment Date following



the occurrence of any of the following events (each, a "CPA Trigger Event"):

- accounting, insurance or regulatory changes after the Closing Date that, in Fannie Mae's reasonable determination, have a material adverse effect on Fannie Mae;
- legal, regulatory or accounting requirements or guidelines that, in Fannie Mae's reasonable determination, materially affect the financial position, accounting treatment or intended benefit of or to Fannie Mae;
- a requirement, in Fannie Mae's reasonable determination after consultation with external counsel (which will be a nationally recognized and reputable law firm), that Fannie Mae or any other transaction party must register as a "commodity pool operator" under the Commodity Exchange Act;
- material impairment of the Fannie Mae's rights under the Credit Protection Agreement due to the amendment or modification of any transaction document; or
- failure of the Issuer to make a required payment under the Credit Protection Agreement, which failure continues unremedied for 30 days following receipt of written notice of such failure.

#### **Credit Premium Amount**

For any Remittance Date, the excess of (a) the aggregate Interest Payment Amount for the related Payment Date over (b) the investment earnings on Eligible Investments in the Cash Collateral Account during the related Investment Accrual Period.

#### **Credit Protection Amount**

For any Remittance Date, the aggregate Tranche Write-down Amounts, if any, allocated to reduce the Class Principal Balance of each applicable outstanding Class of Notes on the related Payment Date (without regard to any exchanges of Exchangeable Notes for any RCR Notes).

# **Credit Protection Reimbursement Amount**

For any Remittance Date, an amount equal to the Tranche Writeup Amount, if any, allocated to increase the Class Principal Balance of each applicable outstanding Class of Notes for the related Payment Date (without regard to any exchanges of Exchangeable Notes for any RCR Notes).

The "Distributable Reimbursement Amount" for any Remittance Date is the Subordinate Percentage of the Credit Protection Reimbursement Amount for such date. Fannie Mae will deposit the Distributable Reimbursement Amount if any, for a



Remittance Date in the Note Distribution Account for payment to the applicable Noteholders in respect of principal on the related

Payment Date.

**Cut-off Date** For this term sheet and for the offering memorandum, October 1,

2019

Closing Date On or about October 30, 2019

**Notes Accrual Period** With respect to each Payment Date, the period beginning on and

including the prior Payment Date (or, in the case of the first Payment Date, the Closing Date) and ending on and including the day preceding such Payment Date. Interest will be calculated based on the actual number of days in a Notes Accrual Period and

a 360-day year.

**Investment Accrual Period** With respect to a Payment Date, the calendar month immediately

preceding the month of such Payment Date.

Class Coupon The Class Coupon for each Class of Notes for any Notes Accrual

Period will be equal to the per annum rate equal to One-Month LIBOR plus the spread specified for such Class as set forth in the final offering memorandum (or, in the case of certain Classes of RCR Notes, the interest entitlements described in Schedule I

hereto).

**Legal Status** The Notes will be secured obligations of the Issuer. The RCR

Notes represent interests in the related Exchangeable Notes. The United States does not guarantee the Notes or any interest or return of discount on the Notes. The Notes are not debts or obligations of Fannie Mae, the United States or any agency or

instrumentality of the United States.

**Notes** The Class M-7, Class M-10, Class B-10 and Class C-E Notes

(together with the RCR Notes set forth on Schedule I hereto).

The Class M-7, Class M-10 and Class B-10 Notes are the

"Exchangeable Notes."

The Notes will receive principal payments, if entitled to receive principal, and will be allocated reductions and increases in Class Principal Balance or Class Notional Amount, as applicable, in accordance with such allocations to the related Reference

Tranches.

**RCR Notes** The Related Combinable and Recombinable Notes, or "RCR

Notes" are set forth on Schedule I hereto. Holders of

Exchangeable Notes may exchange all or part of those Notes for



proportionate interests in the related RCR Notes, and vice versa, at any time on or after the earlier of (i) the tenth business day following the Closing Date or (ii) the first business day following the first Payment Date; provided, that no such exchange will occur on any Payment Date or Record Date. Schedule I attached hereto sets forth the available combinations (the "Combinations") and characteristics of the RCR Notes. For the avoidance of doubt, an investor that would otherwise become a Holder of a Class of Exchangeable Notes on the Closing Date may specify, no later than 2:00 P.M. (New York City time) on the third business day prior to the Closing Date, any permissible combination of proportionate interests in related RCR Notes or Exchangeable Notes for receipt by such investor on the Closing Date, in which case any exchange procedures and fees otherwise applicable to such exchange will be waived. RCR Notes that are held by Holders will receive interest payments that are allocable to the related Exchangeable Notes, calculated at the applicable class coupon rate, and all principal amounts that are payable by the Issuer on the related Exchangeable Notes will be allocated to and payable to the related RCR Notes entitled to principal. In addition, Tranche Write-down Amounts that are allocable to Exchangeable Notes will be allocated to reduce the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero). Further, Tranche Write-up Amounts that are allocable to Exchangeable Notes will be allocated to increase the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes.

Certain of the RCR Notes set forth on Schedule I hereto are interest only RCR Notes (the "Interest Only RCR Notes"). The Interest Only RCR Notes are not entitled to receive payments of principal. Each Class of Interest Only RCR Notes has a "Class Notional Amount" as of any Payment Date equal to the specified percentage of the outstanding Class Principal Balance of the applicable Class of Exchangeable Notes.

### **Reference Tranches**

The "References Tranches" are:

Class A-H Reference Tranche;

Class M-7 Reference Tranche;

Class M-7-H Reference Tranche;

Class M-10 Reference Tranche;

Class M-10-H Reference Tranche:

Class B-10 Reference Tranche;

Class B-10-H Reference Tranche;



Class C-E Reference Tranche:

Class C-E-H Reference Tranche; and

Class C-H Reference Tranche.

The Reference Tranches are described solely for the purpose of calculating principal payments required to be made on the Notes by the Issuer, any reductions or increases of principal on the Notes as a result of Credit Events on the Reference Obligations and any reductions in the interest or principal entitlements of the Notes as a result of Modification Events on the Reference Obligations. Only the Class M-7 Reference Tranche, Class M-10 Reference Tranche, Class B-10 Reference Tranche and Class C-E Reference Tranche will have corresponding Classes of Notes on the Closing Date.

#### **Senior Reference Tranche**

The Class A-H Reference Tranche (the "Senior Reference Tranche").

## Mezzanine Reference Tranches

The "Mezzanine References Tranches" are:

Class M-7 Reference Tranche; Class M-7-H Reference Tranche; Class M-10 Reference Tranche; Class M-10-H Reference Tranche; Class B-10 Reference Tranche; and Class B-10-H Reference Tranche.

# **Subordinate Reference Tranches**

The Mezzanine Reference Tranches, the Class C-E Reference Tranche, the Class C-E-H Reference Tranche and the Class C-H Reference Tranche (collectively, the "Subordinate Reference Tranches").

# Class Notional Amount of Reference Tranches

As of any Payment Date and with respect to each Reference Tranche, a notional amount equal to the initial Class Notional Amount of such Reference Tranche,

- minus the aggregate amount of Senior Reduction Amounts and Subordinate Reduction Amounts allocated to such Reference Tranche on such Payment Date and all prior Payment Dates,
- minus the aggregate amount of Tranche Write-down Amounts allocated to reduce the Class Notional Amount of such Reference Tranche on such Payment Date and on all prior Payment Dates,
- plus the aggregate amount of Tranche Write-up Amounts



allocated to increase the Class Notional Amount of such Reference Tranche on such Payment Date and on all prior Payment Dates, and

 plus, in the case of the Class A-H Reference Tranche, any amount allocated to increase the Class Notional Amount of such Reference Tranche as described in "Structural Features – Unscheduled Principal."

For the avoidance of doubt, no Tranche Write-up Amount or Tranche Write-down Amount will be applied twice on the same Payment Date.

**Settlement** 

The Notes will settle with no accrued interest.

Form of Offering

Exempt from registration with the SEC under the Securities Act. The Notes are being offered only to "Qualified Institutional Buyers" (as defined in Rule 144A under the Securities Act) in the United States.

**Reporting Period** 

The calendar month preceding the month of each Payment Date. The delinquency status of each Reference Obligation will be determined as of the close of business on the first day of the related Reporting Period.

**Maturity Date** 

The Issuer will be obligated to retire the Notes by paying an amount equal to their full remaining Class Principal Balances, plus accrued and unpaid interest, on the Payment Date in October 2049 (the "Maturity Date").

The Notes will be retired prior to the Maturity Date on the earliest to occur, if any, of (a) the Optional Redemption Date, (b) the CPA Redemption Date or (c) the Payment Date on which the aggregate Class Principal Balance of all outstanding Notes is otherwise reduced to zero.

If on such date a Class of RCR Notes is outstanding, all amounts payable on the Exchangeable Notes that were exchanged for such RCR Notes will be allocated to and payable on the applicable RCR Notes entitled to receive those amounts.

**Early Redemption Option** 

Fannie Mae, as holder of the certificate evidencing ownership of the Issuer, may elect to direct the Issuer to exercise a redemption of the Notes, in whole or in part, on the Payment Date occurring in December of any year commencing with the Payment Date in December 2026 (such right, the "Early Redemption Option;" any such Payment Date on which the Early Redemption Option is



exercised, the "Preliminary Optional Redemption Date").

In the event the Early Redemption Option is exercised, each thenoutstanding Reference Obligation will be subject to a Reference Pool Removal on the Preliminary Optional Redemption Date. In the event that the Allocable Portion of the aggregate unpaid principal balance of the Credit Event Reference Obligations for which Net Liquidation Proceeds have not yet been finally determined as of the Preliminary Optional Redemption Date (collectively, the "Post-Redemption Credit Event Reference Obligations") exceeds the Class Notional Amount of the C-H Reference Tranche as of such date, then the Notes will remain outstanding until the earliest to occur of (x) the Payment Date immediately following the date on which the related Net Liquidation Proceeds have been finally determined for all Post-Redemption Credit Event Reference Obligations, (y) the Payment Date immediately following the date on which the Allocable Portion of the aggregate unpaid principal balance of the Post-Redemption Credit Event Reference Obligations is less than the Class Notional Amount of the Class C-H Reference Tranche as of such date; and (z) the Payment Date occurring in the month that is eighteen months following the Preliminary Optional Redemption Date. On the date that is eighteen months following the Preliminary Optional Redemption Date, Fannie Mae will allocate payments on the Notes based on the Projected Recovery Amount.

The "Optional Redemption Date" is the date on which the Notes are finally retired pursuant to the Early Redemption Option.

The Notes will no longer be outstanding upon the earliest of the following (the "Termination Date"):

- (1) the Maturity Date;
- (2) the Optional Redemption Date;
- (3) the CPA Redemption Date; and
- (4) the Payment Date on which the aggregate initial Class Principal Balance (after giving effect to any allocations of Tranche Write-down Amounts or Tranche Write-up Amounts related to the Notes on such Payment Date and all prior Payment Dates) and accrued and unpaid interest due on the Notes plus related unpaid fees, expenses and indemnities of the Indenture Trustee, Exchange Administrator, Custodian, Investment Agent and Delaware Trustee have otherwise been paid in full.

**Termination Date** 

# **Expected Credit Enhancement**

Notes/Tranches	Tranche Size	Approximate Initial Credit Support
Class A-H	95.57%	4.430%
Class M-7 and Class M-7-H	0.65%	3.785%
Class M-10 and Class M-10-H	2.61%	1.170%
Class B-10 and Class B-10-H	0.33%	0.840%
Class C-E and Class C-E-H	0.19%	0.651%
Class C-H	0.65%	0.000%

The Subordinate Reference Tranches are subordinate to, and provide credit enhancement for, the Senior Reference Tranche and for each Class of more senior Subordinate Reference Tranches.

# Fannie Mae Retention of Minimum 5% of Underlying Credit Risk

Fannie Mae will retain at least 5% of the underlying credit risk corresponding to a vertical slice of each of the Reference Tranches. Moreover, Fannie Mae will retain 100% of the underlying credit risk corresponding to the Class C-H Reference Tranche.

# Notes Acquired by Fannie Mae

Fannie Mae may from time to time acquire any of the Notes at any price at closing, in the open market or otherwise.

### STRUCTURAL FEATURES

# **Scheduled Principal**

With respect to each Payment Date, the Allocable Portion of all monthly scheduled payments of principal on the Reference Obligations (other than balloon payments due at maturity) that were collected by the related servicer during the related Reporting Period as reported to Fannie Mae as Master Servicer.

### **Unscheduled Principal**

With respect to each Payment Date, the Allocable Portion of:

- (a) all partial principal prepayments on the Reference Obligations collected during the related Reporting Period, plus
- (b) all principal payments in respect of balloon payments due at maturity on the Reference Obligations collected during the related Reporting Period, *plus*
- (c) the aggregate unpaid principal balance of all Reference



Obligations that became subject to Reference Pool Removals during the related Reporting Period (excluding (i) Credit Event Reference Obligations and (ii) the portions of any prepayments in full that consist of scheduled principal collections), *plus* 

- (d) decreases in the unpaid principal balance of all Reference Obligations as the result of loan modification or data corrections, *plus*
- (e) permanent reductions in Fannie Mae's loss exposure with respect to any Reference Obligations as a result of increases in the loss exposure of the related lenders, *minus*
- (f) increases in the unpaid principal balances of all Reference Obligations as the result of loan modifications, reinstatements due to error, or data corrections.

In the event that (f) above exceeds the sum of (a) through (e), the Unscheduled Principal for such Payment Date will be zero, and the Class A-H Notional Amount will be increased by the amount of such excess.

# **Excess Credit Event Amount**

With respect to each Payment Date, the excess, if any, of the Credit Event Amount for such Payment Date over the Tranche Write-down Amount for such Payment Date.

### **Senior Reduction Amount**

An amount determined with respect to each Payment Date as set forth below.

- (A) If the Delinquency Test and the Minimum Credit Enhancement Test are both satisfied for such Payment Date, the sum of:
  - (i) the Senior Percentage of the Scheduled Principal for such Payment Date;
  - (ii) the Senior Percentage of the Unscheduled Principal for such Payment Date;
  - (iii) the Senior Percentage of the Excess Credit Event Amount for such Payment Date; and
  - (iv) the Senior Percentage of the Tranche Write-up Amount for such Payment Date.
- (B) If either the Delinquency Test or the Minimum Credit Enhancement Test is <u>not</u> satisfied for such Payment Date and the Test Cure Condition is <u>not</u> satisfied for such Payment Date, the sum of:
  - (i) the Senior Percentage of the Scheduled Principal for such Payment Date;

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- (ii) 100% of the Unscheduled Principal for such Payment Date:
- (iii) 100% of the Excess Credit Event Amount for such Payment Date; and
- (iv) 100% of the Tranche Write-up Amount for such Payment Date.
- (C) If either the Delinquency Test or the Minimum Credit Enhancement Test is <u>not</u> satisfied for such Payment Date and the Test Cure Condition is satisfied for such Payment Date, the sum of:
  - (i) the Senior Percentage of the Scheduled Principal for such Payment Date;
  - (ii) 100% of the Unscheduled Principal for such Payment Date, up to the Test Cure Amount for such Payment Date;
  - (iii) the Interim Senior Percentage of the Excess Unscheduled Principal for such Payment Date;
  - (iv) the Interim Senior Percentage of the Excess Credit Event Amount for such Payment Date; and
  - (v) the Interim Senior Percentage of the Tranche Write-up Amount for such Payment Date.

The "Senior Percentage" for a Payment Date is the percentage equivalent to a fraction, the numerator of which is the Class Notional Amount of the Senior Reference Tranche immediately prior to such Payment Date and the denominator of which is the Allocable Portion of the aggregate unpaid principal balance of the Reference Obligations at the end of the previous Reporting Period.

The "Test Cure Condition" is a condition that is satisfied for any Payment Date if (i) the *sum of* (x) the Senior Percentage of Scheduled Principal for such Payment Date *plus* (y) 100% of the Unscheduled Principal for such Payment Date is greater than the Test Cure Amount for such Payment Date and (ii) the Class Notional Amount of the Senior Reference Tranche immediately preceding such Payment Date is greater than the Test Cure Amount for such Payment Date.

The "Test Cure Amount" means, for any Payment Date with respect to which the Delinquency Test or the Minimum Credit Enhancement Test is <u>not</u> satisfied, the amount, if any, by which the Class Notional Amount of the Senior Reference Tranche immediately preceding such Payment Date would need to be



reduced to cause both the Delinquency Test and the Minimum Credit Enhancement Test to be satisfied for such Payment Date.

The "Interim Senior Percentage" for any Payment Date is the percentage equivalent to a fraction, the numerator of which is (x) the Class Notional Amount of the Senior Reference Tranche immediately prior to such Payment *minus* (y) the *sum* of (i) the Senior Percentage of the Scheduled Principal for such Payment Date *plus* (ii) the Test Cure Amount for such Payment Date, and the denominator of which is (x) the Allocable Portion of the aggregate unpaid principal balance of the Reference Obligations at the end of the previous Reporting Period *minus* (y) the *sum* of (i) the Senior Percentage of the Scheduled Principal for such Payment Date *plus* (ii) the Test Cure Amount for such Payment Date.

The "Excess Unscheduled Principal" for any Payment Date is the *excess*, if any, of the Unscheduled Principal for such Payment Date *over* the Test Cure Amount for such Payment Date.

# **Subordinate Reduction Amount**

With respect to each Payment Date, the sum of the Scheduled Principal, Unscheduled Principal, Excess Credit Event Amount and Tranche Write-up Amount for such Payment Date, less the Senior Reduction Amount.

# Allocation of Senior Reduction Amount

On each Payment Date prior to the Termination Date, the Senior Reduction Amount will be allocated to the Senior Reference Tranche until its Class Notional Amount is reduced to zero, and then to the Subordinate Reference Tranches, in order of seniority, per "Allocation of Subordinate Reduction Amount."

Because the Class M-7, Class M-10, Class B-10 and Class C-E Notes correspond to the Class M-7, Class M-10, Class B-10 and Class C-E Reference Tranches, respectively, any portion of the Senior Reduction Amount that is allocated to the Class M-7, Class M-10, Class B-10 or Class C-E Reference Tranche will result in a corresponding reduction in the Class Principal Balance of the Class M-7, Class M-10, Class B-10 or Class C-E Notes, as applicable. Such reductions in the Class Principal Balance of the Class M-7, Class M-10 or Class B-10 Notes will result in a corresponding reduction in the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero).

# Allocation of Subordinate Reduction Amount

On each Payment Date prior to the Termination Date, the Subordinate Reduction Amount will be allocated to the



#### **Subordinate Reference Tranches:**

- (i) *first*, concurrently, on a pro rata basis based on their Class Notional Amounts, to the Class M-7 and Class M-7-H Reference Tranches until their Class Notional Amounts have been reduced to zero;
- (ii) second, concurrently, on a pro rata basis based on their Class Notional Amounts, to the Class M-10 and Class M-10-H Reference Tranches until their Class Notional Amounts have been reduced to zero;
- (iii) third, concurrently, on a pro rata basis based on their Class Notional Amounts, to the Class B-10 and Class B-10-H Reference Tranches until their Class Notional Amounts have been reduced to zero;
- (iv) *fourth*, concurrently, on a pro rata basis based on their Class Notional Amounts, to the Class C-E and Class C-E H Reference Tranches until their Class Notional Amounts have been reduced to zero; and
- (v) *fifth*, to the Class C-H Reference Tranche until its Class Notional Amount has been reduced to zero.

Any Subordinate Reduction Amount remaining after the allocation in the immediately preceding sentence will be allocated to reduce the Class Notional Amount of the Class A-H Reference Tranche.

Because the Class M-7, Class M-10, Class B-10 and Class C-E Notes correspond to the Class M-7, Class M-10, Class B-10 and Class C-E Reference Tranches, respectively, any portion of the Subordinate Reduction Amount that is allocated to the Class M-7, Class M-10, Class B-10 or Class C-E Reference Tranche will result in a corresponding reduction in the Class Principal Balance of the Class M-7, Class M-10, Class B-10 or Class C-E Notes, as applicable. The Class C-H Reference Tranche will not have corresponding Notes.

If any RCR Notes are held by Holders, any Subordinate Reduction Amount that is allocable in the *first*, *second*, *third* or *fourth* priority above on any Payment Date to the related Exchangeable Notes will be allocated to reduce the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero).



### Loss Allocation Framework

#### General

Upon the occurrence of Modification Events affecting the Reference Obligations and to the extent that losses are realized with respect thereto, the interest entitlements of the Notes will be subject to reduction and the Class Principal Balances thereof will be subject to write-downs as further described under "Allocation of Modification Loss Amounts" below. Any such reductions or write-downs will be applied first to the most subordinate Class of Notes with an outstanding Class Principal Balance (once the Class Notional Amount of the Class C-H Reference Tranche has been reduced to zero).

Upon the occurrence of Credit Events affecting the Reference Obligations and to the extent that losses are realized with respect thereto, the Class Principal Balances of the Notes will be subject to write-downs as further described under "Allocation of Tranche Write-down Amounts" below. Any such reductions or write-downs will be allocated first to the most subordinate Class of Notes with an outstanding Class Principal Balance (once the Class Notional Amount of the Class C-H Reference Tranche has been reduced to zero).

### **Modifications**

Reference Obligations that undergo a temporary or permanent modification will not be removed from the Reference Pool unless they otherwise meet the criteria for Reference Pool Removal.

### **Modification Event**

With respect to any Reference Obligation, certain mortgage rate modifications or principal balance reductions on account of principal forgiveness relating to such Reference Obligation; it being understood that in the absence of such mortgage rate modifications or principal balance reductions on account of principal forgiveness, a conversion of an adjustable rate to a fixed rate, a forbearance or a term extension with respect to a Reference Obligation will not constitute a Modification Event. Moreover, a mortgage rate modification that includes certain mitigating features such as a "hope note" or that results in an increased mortgage rate with respect to any Reference Obligation (after giving effect to all scheduled mortgage rate modifications thereon) will not constitute a "Modification Event."

#### **Modification Loss Amount**

With respect to each Payment Date and any Reference Obligation that has experienced a Modification Event, the *sum* of

(i) the *excess*, if any, of the Original Accrual Rate *multiplied* by the unpaid principal balance of such Reference Obligation, *over* the Current Accrual Rate, *multiplied* by



the interest bearing unpaid principal balance of such Reference Obligation, *multiplied* by the applicable Reference Obligation Payment Allocation Factor, in each case, subject to the interest rate accrual conventions applicable to such Reference Obligation; *plus* 

(ii) the amount of any principal balance reduction on the Reference Obligation on account of principal forgiveness, *multiplied* by the applicable Reference Obligation Payment Allocation Factor.

# Allocation of Modification Loss Amounts

On each Payment Date on or prior to the Termination Date, the Preliminary Principal Loss Amount, Preliminary Tranche Writedown Amount, Preliminary Tranche Write-up Amount and Preliminary Class Notional Amount will be computed prior to the allocation of the Modification Loss Amount.

On each Payment Date on or prior to the Termination Date, any Modification Loss Amount for such Payment Date will be allocated in the following order of priority:

*first*, to the Class C-H Reference Tranche, until the amount allocated to the Class C-H Reference Tranche is equal to the Class C-H Reference Tranche Interest Accrual Amount;

second, to the Class C-H Reference Tranche, until the amount allocated to the Class C-H Reference Tranche is equal to the Preliminary Class Notional Amount of the Class C-H Reference Tranche for such Payment Date;

third, to the Class C-E and Class C-E-H Reference Tranches, pro rata, based on their Class Notional Amounts immediately prior to such Payment Date, until the amount allocated to the Class C-E Reference Tranche is equal to the Class C-E Notes Interest Accrual Amount:

fourth, to the Class C-E and Class C-E-H Reference Tranches, pro rata, based on their Preliminary Class Notional Amounts for such Payment Date, until the aggregate amount allocated to the Class C-E and Class C-E-H Reference Tranches is equal to the aggregate of the Preliminary Class Notional Amounts of the Class C-E and Class C-E-H Reference Tranches for such Payment Date;

*fifth*, to the Class B-10 and Class B-10-H Reference Tranches, pro rata, based on their Class Notional Amounts immediately prior to such Payment Date, until the amount allocated to the Class B-10 Reference Tranche is equal to the Class B-10 Notes Interest



### Accrual Amount:

sixth, to the Class B-10 and Class B-10-H Reference Tranches, pro rata, based on their Preliminary Class Notional Amounts for such Payment Date, until the aggregate amount allocated to the Class B-10 and Class B-10-H Reference Tranches is equal to the aggregate of the Preliminary Class Notional Amounts of the Class B-10 and Class B-10-H Reference Tranches for such Payment Date;

seventh, to the Class M-10 and Class M-10-H Reference Tranches, pro rata, based on their Class Notional Amounts immediately prior to such Payment Date, until the amount allocated to the Class M-10 Reference Tranche is equal to the Class M-10 Notes Interest Accrual Amount;

eighth, to the Class M-10 and Class M-10-H Reference Tranches, pro rata, based on their Preliminary Class Notional Amounts for such Payment Date, until the aggregate amount allocated to the Class M-10 and Class M-10-H Reference Tranches is equal to the aggregate of the Preliminary Class Notional Amounts of the Class M-10 and Class M-10-H Reference Tranches for such Payment Date:

*ninth*, to the Class M-7 and Class M-7-H Reference Tranches, pro rata, based on their Class Notional Amounts immediately prior to such Payment Date, until the amount allocated to the Class M-7 Reference Tranche is equal to the Class M-7 Notes Interest Accrual Amount; and

tenth, to the Class M-7 and Class M-7-H Reference Tranches, pro rata, based on their Preliminary Class Notional Amounts for such Payment Date, until the aggregate amount allocated to the Class M-7 and Class M-7-H Reference Tranches is equal to the aggregate of the Preliminary Class Notional Amounts of the Class M-7 and Class M-7-H Reference Tranches for such Payment Date.

Any amounts allocated to the Class C-E, Class B-10, Class M-10 or Class M-7 Reference Tranches in the *third*, *fifth*, *seventh* or *ninth* priority above will result in a corresponding reduction of the Interest Payment Amount of the Class C-E, Class B-10, Class M-10 or Class M-7 Notes, as applicable (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). The Class C-H Reference Tranche is assigned a class coupon solely for purposes of calculations in connection with the allocation of Modification Loss Amounts to the

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Subordinate Reference Tranches, and any amounts allocated to the Class C-H Reference Tranche in the *first* priority above will not result in a corresponding reduction of the Interest Payment Amount of any Class of Notes.

Any amounts allocated to the Class C-H, Class C-E, Class B-10, Class M-10 or Class M-7 Reference Tranches in the *second*, *fourth*, *sixth*, *eighth* or *tenth* priority above will be included in the calculation of the Principal Loss Amount.

If any RCR Notes are held by Holders, any Modification Loss Amount that is allocable in the *fifth*, *seventh* or *ninth* priorities above on any Payment Date to the related Exchangeable Notes will be allocated to reduce the Interest Payment Amount of the applicable RCR Notes in accordance with the exchange proportions applicable to the related Combination.

### **Principal Loss Amount**

With respect to any Payment Date, the sum of:

- (a) the aggregate amount of Credit Event Net Losses for all Credit Event Reference Obligations for the related Reporting Period;
- (b) the aggregate of the *product* of (x) any court-approved principal reductions ("Cramdowns") on the Reference Obligations in the related Reporting Period, *multiplied* by (y) the applicable Reference Obligation Payment Allocation Factors;
- (c) the aggregate amount of Municipal Conversion Losses on the Reference Obligations in the related Reporting Period;
- (d) subsequent losses on any Reference Obligation that became a Credit Event Reference Obligation on a prior Payment Date and with respect to which Net Liquidation Proceeds have already been determined; and
- (e) amounts included in the *second*, *fourth*, *sixth*, *eighth* and *tenth* priorities under "*Allocation of Modification Loss Amount*" above.

# **Principal Recovery Amount** With respect to any Payment Date, the sum of:

- (a) the aggregate amount of Credit Event Net Losses for all Reversed Credit Event Reference Obligations for the related Reporting Period;
- (b) subsequent recoveries on any Reference Obligation that



became a Credit Event Reference Obligation on a prior Payment Date and with respect to which Net Liquidation Proceeds have already been determined;

- (c) the aggregate amount of the Credit Event Net Gains of all Credit Event Reference Obligations for the related Reporting Period; and
- (d) the Projected Recovery Amount on the Termination Date.

#### **Credit Event**

With respect to any Payment Date on or before the Termination Date and any Reference Obligation, the first to occur of any of the following events during the related Reporting Period, as reported by the servicer to Fannie Mae, if applicable: (i) a short sale is settled, (ii) the related mortgaged property is sold to a third party during the foreclosure process, (iii) an REO disposition (other than an REO JV Disposition) occurs, (iv) a mortgage note sale is executed on a loan that is at least 120 days delinquent when offered for sale, or (v) the related mortgage note is charged off. With respect to any Credit Event Reference Obligation, there can only be one occurrence of a Credit Event.

# **Credit Event Reference Obligation**

With respect to each Payment Date, any Reference Obligation in the Reference Pool for which a Credit Event has occurred and is reported during the related Reporting Period.

# Tranche Write-down Amount

With respect to each Payment Date, the excess, if any, of the Principal Loss Amount for such Payment Date over the Principal Recovery Amount for such Payment Date.

With respect to each Payment Date, the Class Notional Amount of the Senior Reference Tranche will be increased by the excess, if any, of the Tranche Write-down Amount for such Payment Date over the Credit Event Amount for such Payment Date.

## **Tranche Write-up Amount**

With respect to each Payment Date, the excess, if any, of the Principal Recovery Amount for such Payment Date over the Principal Loss Amount for such Payment Date.

# **Allocation of Tranche Write-down Amounts**

On each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount and Subordinate Reduction Amount, any Tranche Write-down Amount for such Payment Date will be allocated to reduce the Class Notional Amount of each Reference Tranche in the following order of priority, in each case until its Class Notional Amount is reduced to zero:



first, to the Class C-H Reference Tranche,

*second*, to the Class C-E and Class C-E-H Reference Tranches, pro rata, based on their Class Notional Amounts,

*third*, to the Class B-10 and Class B-10-H Reference Tranches, pro rata, based on their Class Notional Amounts.

*fourth*, to the Class M-10 and Class M-10-H Reference Tranches, pro rata, based on their Class Notional Amounts,

*fifth*, to the Class M-7 and Class M-7-H Reference Tranches, pro rata, based on their Class Notional Amounts, and

sixth, to the Class A-H Reference Tranche.

Because the Notes correspond to the related Reference Tranches, any Tranche Write-down Amounts allocated to a Reference Tranche will result in a corresponding reduction in the Class Principal Balance of the related Class of Notes (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-down Amount that is allocable to the related Exchangeable Notes will be allocated to reduce the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes (to the extent such RCR Notes have a Class Principal Balance or Class Notional Amount, as applicable, greater than zero). The Class C-H Reference Tranche will not have corresponding Notes.

Allocation of Tranche Write-up Amounts

On each Payment Date on or prior to the Termination Date, after allocation of the Senior Reduction Amount and Subordinate Reduction Amount and Tranche Write-down Amounts, any Tranche Write-up Amount for such Payment Date will be allocated to increase the Class Notional Amount of each Reference Tranche in the following order of priority until the cumulative Tranche Write-up Amount so allocated is equal to the cumulative Tranche Write-down Amount previously allocated to such Reference Tranche on or prior to such Payment Date:

*first*, to the Class A-H Reference Tranche,

*second*, to the Class M-7 and Class M-7-H Reference Tranches, pro rata, based on their Class Notional Amounts.

third, to the Class M-10 and Class M-10-H Reference



Tranches, pro rata, based on their Class Notional Amounts.

*fourth*, to the Class B-10 and Class B-10-H Reference Tranches, pro rata, based on their Class Notional Amounts,

*fifth*, to the Class C-E and Class C-E-H Reference Tranches, pro rata, based on their Class Notional Amounts, and

sixth, to the Class C-H Reference Tranche;

For the avoidance of doubt, through the Termination Date, a Tranche Write-up Amount may be applied to any related Reference Tranche even if the Class Notional Amount of such Reference Tranche has previously been reduced to zero (until the cumulative Tranche Write-up Amount allocated to such Class is equal to the cumulative Tranche Write-down Amount previously allocated to such Class; any such Tranche Write-up Amount being applied in priorities second, third, fourth or fifth above will be applied to the related Reference Tranches pro rata based on the ratio between their respective Class Notional Amounts as of the Closing Date). To the extent that the Tranche Write-up Amount on any Payment Date exceeds the Tranche Write-up Amount allocated on such Payment Date pursuant to the priority set forth above, such excess will be allocated to increase the Class Notional Amount of the Class C-H Reference Tranche (regardless of whether such Class Notional Amount may previously have been reduced to zero).

Because the Notes correspond to the related Reference Tranches, any Tranche Write-up Amounts allocated to a Reference Tranche will result in a corresponding increase in the Class Principal Balance of the related Class of Notes (without regard to any exchanges of Exchangeable Notes for RCR Notes for such Payment Date). If any RCR Notes are held by Holders, any Tranche Write-up Amount that is allocable to the related Exchangeable Notes will be allocated to increase the Class Principal Balance or Class Notional Amount, as applicable, of the related RCR Notes. The Class C-H Reference Tranche will not have corresponding Notes.

### Credit Event Reversals and Reference Pool Removals

Reversed Credit Event Reference Obligation

With respect to any Payment Date, a Reference Obligation that was formerly in the Reference Pool and that became a Credit Event Reference Obligation in a prior Reporting Period and (i) that is repurchased by the lender or with respect to which the lender enters into a full indemnification of Fannie Mae, (ii) with



respect to which the party responsible for the representations and warranties and/or servicing obligations or liabilities with respect to the Reference Obligation (A) has declared bankruptcy or has been put into receivership and a successor approved by Fannie Mae has not assumed such responsibilities or (B) has otherwise been relieved of such obligations or liabilities by operation of law or by agreement, and an Eligibility Defect is identified that could otherwise have resulted in a repurchase, (iii) with respect to which a violation of certain specified Eligibility Criteria is discovered as a result of a data correction or (iv) on the date that is eighteen months following the Preliminary Optional Redemption Date, is a Post-Redemption Credit Event Reference Obligation for which Net Liquidation Proceeds have not yet been finally determined due to ongoing deficiency judgment proceedings.

## Reference Pool Removals

A Reference Obligation will be removed (a "Reference Pool Removal") from the Reference Pool upon the occurrence of any of the following:

- (1) the Reference Obligation becomes a Credit Event Reference Obligation;
- (2) the Reference Obligation is paid in full;
- (3) the lender repurchases the Reference Obligation or enters into a full indemnification agreement;
- (4) Fannie Mae elects to sell (a) a delinquent Reference Obligation that is less than 120 days delinquent at the time it is offered for sale or (b) a Reference Obligation that previously had been seriously delinquent and is current at the time it is offered for sale;
- (5) the Reference Obligation becomes subject to an REO JV Disposition;
- (6) the discovery of any of certain specified violations of the Eligibility Criteria for such Reference Obligation as a result of data correction;
- (7) the Reference Obligation is converted from an adjustable rate to a fixed rate (x) at the option of the related borrower pursuant to the terms of the related mortgage loan documents or (y) in connection with a modification of the terms of the Reference Obligation;
- (8) the party responsible for the representations and warranties and/or servicing obligations or liabilities with respect to the Reference Obligation (A) has declared bankruptcy or has been put into receivership or (B) has



otherwise been relieved of such obligations or liabilities by operation of law or by agreement, and an Eligibility Defect is identified that could otherwise have resulted in a repurchase;

- (9) the exercise by Fannie Mae of the Early Redemption Option; or
- (10) the outstanding principal balance of the Reference Obligation is otherwise reduced to zero.

A Reference Obligation will be removed from the Reference Pool or will become a Reversed Credit Event Reference Obligation if a loan data change occurs that causes the Reference Obligation to no longer meet one or more of the criteria set forth in clauses (a), (e), (f) and (g) of the definition of Eligibility Criteria.

### MORTGAGE LOANS IN REFERENCE POOL

### **Reference Obligations**

The Reference Pool consists of mortgage loans acquired by Fannie Mae between April 1, 2018 and December 31, 2018 that meet the Eligibility Criteria, as defined below. The Reference Pool summary attached to this term sheet provides additional details about the Reference Obligations in the Reference Pool.

# Reference Pool Eligibility Criteria

Each mortgage loan in the Reference Pool must satisfy the following criteria (the "Eligibility Criteria"):

- (a) is a first-lien Mortgage Loan secured by a multifamily mortgaged property, with an original term of 29 to 144 months;
- (b) was acquired by Fannie Mae between April 1, 2018 and December 1, 2018;
- (c) had an original principal balance greater than or equal to \$30,000,000 at its origination;
- (d) has not been 30 or more days delinquent from the date of acquisition to September 1, 2019;
- (e) was not originated as part of a credit facility extended by a DUS lender to one or more affiliated borrowers pursuant to an agreement between the borrowers, the DUS lender and Fannie Mae permitting borrowers to finance multiple multifamily mortgaged properties and to release, add and substitute mortgaged properties securing the facility, under specified circumstances and subject to compliance with facility level credit requirements;
- (f) has an original debt service coverage ratio that is greater



than or equal to (x) 1.25x (or, in the case of a multifamily affordable housing loan, greater than or equal to 1.15x); and

(g) has an original loan-to-value ratio that is less than or equal to (x) 80% (or, in the case of a multifamily affordable housing loan, less than or equal to 90%).

## **Loan Acquisition Practices**

All of the Reference Obligations were acquired from and serviced by loan sellers and servicers who are approved by Fannie Mae to conduct business with Fannie Mae. Fannie Mae relies on loan sellers to comply with Fannie Mae's standards and make underwriting decisions that result in investment quality loans. See "Delegated Underwriting and Servicing Model" below. To protect Fannie Mae from acquiring loans that do not meet Fannie Mae's prescribed underwriting standards, loan sellers are required to make representations and warranties as to certain facts and circumstances concerning the loan sellers themselves and the mortgage loans they are selling. Representations and warranties required by Fannie Mae are described in the Mortgage Selling and Servicing Contract (for loans delivered prior to May 2019) or the Mortgage Selling and Servicing Agreement (for loans delivered commencing in May 2019) and the Multifamily Selling and Servicing Guide (all such agreements, the "Guide") and other contracts Fannie Mae enters into with individual lenders that obligate such lenders to abide by the terms of the Guide, including the representations and warranties contained in them, (collectively, the "Lender Contract"). Violation of any representation and warranty is a breach of the Lender Contract, entitling Fannie Mae to pursue certain remedies.

# Delegated Underwriting and Servicing Model

Lenders generally are pre-approved and given authority to underwrite and service loans on Fannie Mae's behalf that meet Fannie Mae's standards, resulting in investment quality loans. Fannie Mae's Multifamily business is based on three key principles:

- 1. Delegation lenders have delegated authority to underwrite and service mortgage loans and share in the risk of loss in exchange for this delegation, thereby aligning interests.
- 2. Underwriting lenders underwrite to Fannie Mae's standards, including generally basing mortgage loan amounts on actual rather than projected income. In limited circumstances, projected income may be used to underwrite mortgage loans on newly built or substantially rehabilitated properties. Borrowers also generally have significant equity



in financed projects at the time of mortgage loan origination and for many mortgage loans, a guaranty of non-recourse carve-outs is obtained from a sponsor entity.

3. Loss Sharing – DUS lenders and most specialty lenders share in any credit losses, aligning their interests with Fannie Mae's desire to minimize mortgage loan losses.

To protect Fannie Mae from acquiring loans that do not meet prescribed underwriting standards and other requirements, lenders are required to make representations and warranties as to certain facts and circumstances concerning the lenders themselves and the mortgage loans they are selling. The required representations and warranties required are described in the Guide, which is available at www.fanniemae.com. Violation of any representation or warranty is a breach of the Lender Contract, which may entitle Fannie Mae to pursue certain remedies, including changes to the lender's loss share obligation, indemnification and, in rare instances, repurchase, as further described under "Fannie Mae's OC Process," below.

**Loss Sharing** 

Lender loss sharing aligns the interests of Fannie Mae and lenders with respect to losses incurred and provides significant financial incentives for a lender to adhere to Fannie Mae requirements and follow best practices when underwriting and servicing mortgage loans for Fannie Mae. The lender makes two elections when it first enters into a mortgage sale and servicing agreement with Fannie Mae: the method of loss sharing (either pari passu or standard DUS loss sharing) and the valuation date as of which loss will be determined (either as of foreclosure or as of property disposition). A lender's election of loss sharing method will generally apply to all mortgage loans that it delivers; but the lender may change its valuation date election once every three years. Although a lender may request a change of loss sharing method at any time, such changes are rare and usually the result of a change in control at the lender. To the extent a lender changes its loss sharing method while Notes relating to the Reference Obligations remain outstanding, the Noteholders will get the benefit to the extent that such change results in reduced losses to Fannie Mae with respect to the Reference Obligations. To the extent that the change results in increased losses to Fannie Mae, those loss increases will not be passed on to Noteholders.

Pari Passu Loss Sharing: The lender bears 33.333% of losses, costs and/or expenses based on the unpaid principal balance of the mortgage loan at the applicable asset valuation date and Fannie Mae bears any remaining losses, costs and/or expenses



related to resolving the mortgage loan.

Standard DUS Loss Sharing: Losses generally are allocated as follows: (i) the lender bears all losses generally up to the first 5% of the then-outstanding unpaid principal balance of the mortgage loan; (ii) the lender bears 25% of any losses on the next 20% of the then-outstanding principal balance of the mortgage loan and Fannie Mae bears the other 75%; (iii) the lender bears 10% of any losses on the remaining then-outstanding balance of the mortgage loan and Fannie Mae bears the other 90%, provided, however, that the lender's maximum loss obligation is capped at 20% of the original unpaid principal balance of the mortgage loan. The percentage ranges of losses borne by lenders under standard DUS loss sharing may be higher than the percentages indicated in the preceding sentences depending on the pricing and risk ratings Fannie Mae assigns to the mortgage loan at loan commitment.

Modified Loss Sharing: Fannie Mae manages its counterparty risk by limiting the size of transactions for which a lender can accept full loss sharing (e.g., 33.333% for a lender that has elected pari passu loss sharing). If Fannie Mae determines to reduce its lender counterparty risk on a given loan, Fannie Mae will reduce the percentage of full loss sharing on that loan to 75%, 50% or a minimum of 25% of full loss sharing. This modified loss sharing percentage is determined prior to Fannie Mae's commitment to the loan. The percentage is also used to calculate the final loss to the lender (e.g., if the modified loss sharing percentage is 75%, pari passu loss sharing would be reduced to 75% of 33.333%). When a lender's loss sharing obligation is reduced on a loan, the lender generally is required to pay Fannie Mae a higher guarantee fee to compensate for the reduced loss sharing.

In addition, with respect to each of pari passu, standard and modified loss sharing, Fannie Mae may increase a lender's loss share obligation percentage in response to a loan's perceived higher risk profile or in response to the discovery of lender breaches of origination or servicing representations and/or warranties. A permanent increase in a lender's loss share obligation will result in a corresponding reduction in the loss exposure borne by the Notes. In the event of a permanent decrease in a lender's loss share obligation, the resulting increase in Fannie Mae's loss exposure will not be allocated to Noteholders.

Depending on whether a lender has elected to have its loss sharing obligation determined at mortgage loan foreclosure or REO disposition, certain losses, costs and/or expenses related to



the disposition of a property may not be included in the loss sharing calculation. Any such losses, costs and/or expenses not otherwise included in the loss sharing calculation for a Reference Obligation generally will be borne by Fannie Mae and will be included in the related Principal Loss Amount calculations.

For each Reference Obligation, the applicable form of loss sharing is indicated in the offering memorandum.

# Reference Obligation Payment Allocation Factor

Fannie Mae has assigned to each Reference Obligation a payment allocation factor, referred to as a "Reference Obligation Payment Allocation Factor," based on the loss sharing method applicable to such Reference Obligation. The Reference Obligation Payment Allocation Factor for each Reference Obligation is indicated in the offering memorandum. The aggregate initial notional principal balance of the Reference Tranches is equal to the aggregate of the product for each Reference Obligation of the unpaid principal balance of such Reference Obligation as of the Cut-off Date multiplied by the applicable Reference Obligation Payment Allocation Factor.

### **Underwriting Standards**

Fannie Mae's Guide establishes the baseline credit standards for mortgage loans that Fannie Mae acquires from Fannie Mae's approved loan sellers.

Fannie Mae's credit underwriting and eligibility standards establish requirements that lenders must follow in evaluating the capacity and willingness of borrowers to repay the loans Fannie Mae acquires and the adequacy of the pledged property as collateral. Fannie Mae considers all stages of the life cycle of loans under various economic scenarios.

The lender is expected to analyze all reasonably identifiable strengths and weaknesses of the proposed transaction in a transaction approval memo. All factors that could impact the transaction during the term of the mortgage loan or at the maturity date of the mortgage loan must be reflected appropriately and mitigated in the ultimate underwriting conclusions and approved mortgage loan structure. Among other things, the lender must address:

- the mortgaged property's financial performance and trends;
- the mortgaged property's current physical condition and expected condition over the term of the mortgage loan;
- the ability of the mortgaged property to be refinanced at the maturity date of the mortgage loan;
- the borrower's key principal's or sponsor's financial capacity



and experience; and

• the mortgaged property market's performance and trends.

If a mortgage loan fully complies with Fannie Mae's multifamily underwriting standards, Fannie Mae generally will rely on the lender's underwriting team and will purchase the loan with little, if any, additional review. For all other loans, Fannie Mae's internal credit teams generally review the lender's submission before purchasing the loan in a process referred to as "Pre-Review." Fannie Mae will not purchase loans that are designated for Pre-Review (including loans that deviate from the requirements of the Guide) unless the lender has obtained Fannie Mae's approval of the loan terms.

**Servicing Practices** 

The primary servicing of the mortgage loans that are held in Fannie Mae's multifamily mortgage loan portfolio or that back Fannie Mae's MBS is generally performed by the applicable originating lender on Fannie Mae's behalf. Each servicer is required to service the applicable Reference Obligations in accordance with Fannie Mae's servicing guidelines as stated in Fannie Mae's Guide and related announcements, including applicable contract variances. Fannie Mae's servicing guidelines may be revised from time to time at Fannie Mae's sole discretion.

Fannie Mae's servicing guidelines, asset management, credit risk management and quality control procedures are the same for the Reference Obligations as for all of the eligible mortgage loans. Fannie Mae applies standard servicing, credit risk management and quality control procedures to all eligible mortgage loans, including all of the Reference Obligations. Additionally, Fannie Mae does not notify lenders which mortgage loans are and are not included in risk transfer transactions. Lenders are expected to service all eligible mortgage loans, including those included in the Reference Pool, in the same manner.

On September 6, 2008, Fannie Mae was placed in conservatorship. The conservator, the Federal Housing Finance Agency ("FHFA"), succeeded to all rights, titles, powers and privileges of Fannie Mae and of any shareholder, officer or director of the company with respect to the company and its assets. Accordingly, FHFA has broad discretion to implement changes in Fannie Mae policy, including with respect to servicing practices.

**Fannie Mae's OC Process** 

General

In addition to the process it uses to certify the accuracy and completeness of mortgage loan files when it acquires a mortgage



loan, Fannie Mae has established quality control policies and procedures to evaluate mortgage loans on a comprehensive basis with the primary goal of confirming that the mortgage loans it acquires meet its underwriting and eligibility requirements. Fannie Mae periodically re-evaluates its quality control procedures and standards to further improve their accuracy and effectiveness consistent with Fannie Mae's mandate to support liquidity, stability and affordability in the secondary mortgage market.

Fannie Mae's loan level post-purchase quality control reviews are designed to allow Fannie Mae to evaluate independently whether loans it has acquired meet its underwriting and eligibility requirements, based on Fannie Mae's determinations regarding the borrowers' credit and income and the value of the properties collateralizing the loans. These reviews are based on a combination of the documents and information submitted to Fannie Mae by the originating lender together with information regarding the borrowers and the properties that Fannie Mae develops itself.

When Fannie Mae acquires a mortgage loan from a lender, Fannie Mae relies on representations and warranties made by the lender with respect to various aspects of the mortgage loans. These representations and warranties cover such matters as the:

- accuracy of the information provided by the borrower;
- accuracy and completeness of any information provided by the lender;
- validity of each mortgage loan as a first-lien on the mortgaged property;
- fact that payments on each mortgage loan are current at the time of delivery;
- physical condition of the mortgaged property at the time of acquisition;
- originator's compliance with all applicable federal, state and local laws; and
- lender's compliance with Lender Contracts, including the Guide and other terms approved by Fannie Mae.

Fannie Mae's reliance on representations and warranties is a means of enhancing liquidity in the mortgage origination process while also providing Fannie Mae with protection with regard to any acquired mortgage loans that fail to meet the prescribed standards. Violation of any representation or warranty is a breach



of the Lender Contract, entitling Fannie Mae to pursue certain remedies, including requiring indemnification from the lender for losses on the loan, increasing the lender's loss sharing percentage for the mortgage loan, reducing the lender's servicing fee, and increasing the guaranty fee for the mortgage loan.

Fannie Mae's quality control policies and procedures are generally subject to revision over time as a result of changes in the economic environment as well as changes in regulatory policies and requirements, among other factors. Further, Fannie Mae may at any time modify the applicable servicing requirements and other procedures in light of evolving business needs and to minimize losses, among other purposes. It is possible that such modifications may have a negative impact on Noteholders.

**Due Diligence Review** 

In connection with the issuance of the Notes, Fannie Mae engaged Venable LLP to conduct a review of the loan documents for each Reference Obligation to assure the completeness of the loan file and assure the accuracy of certain information disclosed on Annex A to the offering memorandum. Fannie Mae paid the fees and expenses for Venable LLP's review and determined the scope and design of the legal reviews. In addition, Fannie Mae retained Cushman and Wakefield to review the underwriting narratives, appraisals and other documents relating to the underwriting of the Reference Obligations and prepared asset level summaries ("ASRs") for certain of the Reference Obligations. Potential initial investors may review the ASRs by requesting access to them from the Initial Purchasers.

Multifamily Lender Assessment and Oversight The Fannie Mae multifamily business has a cross-functional team dedicated to performing lender assessment and oversight. Most lenders receive a formal assessment every other year while higher risk lenders receive annual assessments. Prior to an assessment, the group collects internal qualitative and quantitative information about that lender's deliveries. Each assessment includes a review of the lenders for these assessment categories: corporate structure/governance, production/origination, underwriting/credit management, commitment/closing/delivery, servicing operations, asset/portfolio management, financial management, insurance, and legal. Fannie Mae collects and reviews lender documentation, develops pre assessment risk questions and then conducts an assessment meeting with the lender. The assessment process produces an assessment report, a rating disclosed to the lender in the assessment report, and a future outlook indicator assigned to the lender. Fannie Mae reports issues identified in its assessments to its senior



management and senior management at the related lenders and develops remediation action plans, if needed, and validates a lender's progress against any such remediation plans. Fannie Mae adjusts its financial ratings and maximum exposure limits of the lenders based on, among other things, the results of these reviews, the performance of the acquired mortgage loans, and compliance with Fannie Mae's remediation action plans.

#### THE NOTES

#### **Indenture**

The Notes will be issued pursuant to an Indenture. The permissible Combinations of RCR Notes that may be issued in exchange for Exchangeable Notes are set forth on Schedule I hereto.

#### **Class Principal Balance**

As of any Payment Date and for the Notes (in each case without regard to any exchange of Exchangeable Notes for RCR Notes):

- (a) the maximum dollar amount of principal to which the Holders of each related Class of Notes are then entitled, with such amount being equal to the initial Class Principal Balance of such Class of Notes, *minus*
- (b) the aggregate amount of principal paid by the Issuer on such Class of Notes on such Payment Date and all prior Payment Dates, *minus*
- (c) the aggregate amount of Tranche Write-down Amounts allocated to reduce the Class Principal Balance of such Class of Notes on such Payment Date and on all prior Payment Dates, and *plus*
- (d) the aggregate amount of Tranche Write-up Amounts allocated to increase the Class Principal Balance of such Class of Notes on such Payment Date and on all prior Payment Dates.

The Class Principal Balance of each Class of Notes (other than RCR Notes) will at all times equal the Class Notional Amount of the Reference Tranche that corresponds to such Class of Notes. For the avoidance of doubt, no Tranche Write-up Amount or Tranche Write-down Amount will be applied twice on the same Payment Date. The Class Principal Balance of each outstanding Class of RCR Notes entitled to principal will be equal to the outstanding Class Principal Balance of the Exchangeable Notes that were exchanged for such RCR Notes.

#### **Interest Accrual Amount**

With respect to each outstanding Class of Notes (and, solely for purposes of calculating allocations of any Modification Loss



Amounts, the Class C-H Reference Tranche) and any Payment Date, an amount equal to the accrued interest at the class coupon on the Class Principal Balance or Class Notional Amount, as applicable, of each Class of Notes immediately prior to such Payment Date (or, in the case of certain RCR Notes, the interest entitlement described in Schedule I hereto).

#### **Interest Payment Amount**

With respect to each outstanding Class of Notes and any Payment Date, an amount equal to the Interest Accrual Amount for such Class of Notes, less any Modification Loss Amount for such Payment Date allocated to reduce such amount for such Class of Notes. In each case, interest amounts that are payable by the Issuer on the related Exchangeable Notes will be allocated to and payable on any outstanding RCR Notes.

#### **Payments of Principal**

On each Remittance Date, the Investment Agent will direct the Custodian to liquidate Collateral in the Cash Collateral Account to the extent necessary for the Issuer to pay any Credit Protection Amounts to Fannie Mae and to pay principal on the Notes as required under the Indenture, and deposit the amount payable as principal, together with the interest earned on the Collateral during the related Note Accrual Period, to the Note Distribution Account. Additionally, on each Remittance Date, Fannie Mae is required to deposit to the Note Distribution Account the Distributable Reimbursement Amount and the Investment Liquidation Contribution, if any, pursuant to the Credit Protection Agreement for payment to the applicable Holders in respect of principal of the Notes.

Except as described below, on each Payment Date, the Indenture Trustee will withdraw from the Note Distribution Account and pay as principal to the Holders of each outstanding Class of Notes (without regard to any exchanges of Exchangeable Notes for RCR Notes) an amount equal to the portion of the Subordinate Reduction Amount and/or Senior Reduction Amount, as applicable, allocated to reduce the Class Notional Amount of the corresponding Reference Tranche on such Payment Date. No payments of principal will be made to the Reference Tranches.

On the Maturity Date, the Issuer will pay 100% of the outstanding Class Principal Balance to Holders of each Class of Notes, after allocations of the Tranche Write-down Amount and the Tranche Write-up Amount for such Payment Date (without regard to any exchanges of Exchangeable Notes for RCR Notes).

In each case, principal amounts that are payable by the Issuer on the related Exchangeable Notes will be allocated to and payable



on any outstanding RCR Notes that are entitled to principal.

In addition, on the Termination Date, the Projected Recovery Amount will be included in the calculation of the Principal Recovery Amount.

**Event of Default** 

An "Event of Default" for the Notes under the Indenture will consist of:

- (a) any failure by the Issuer to pay principal or interest on a Note that continues unremedied for 30 days;
- (b) any failure by the Issuer to pay the then-outstanding Class Principal Balance of any Note on its Maturity Date, to the extent payable under the Indenture;
- (c) any failure by the Issuer to perform in any material respect any other obligation under the Indenture if the failure continues unremedied for 60 days after the Indenture Trustee receives notification by the Holders of at least 25% of the outstanding Class Principal Balance of the Notes (with the outstanding Class Principal Balances of the Exchangeable Notes to be determined without regard to any exchanges for RCR Notes);
- (d) specified events of bankruptcy, insolvency or similar proceedings involving the Issuer;
- (e) the Indenture Trustee ceases to have a valid and enforceable first priority security interest on the assets of the Issuer that are subject to the lien of the Indenture, or such security interest proves not to have been valid or enforceable when granted or purported to have been granted;
- (f) it becomes unlawful for the Issuer to perform or comply with any of its obligations under the Notes, the Indenture or any related document to which it is a party; or
- (g) the occurrence of the CPA Early Termination Date as a result of (A) a final SEC determination that the Issuer must register as an investment company under the Investment Company Act or (B) a failure of Fannie Mae to make a required payment under the Credit Protection Agreement, which failure continues unremedied for 30 days following notice of such failure.

Holders of RCR Notes will be entitled to exercise all the voting or direction rights that are otherwise allocated to the related Exchangeable Notes; <u>provided</u>, <u>however</u>, that Holders of any outstanding RCR Notes (other than the Interest Only RCR Notes)



will be entitled to exercise their pro rata shares of 99% of the voting or direction rights that are otherwise allocated to the related Exchangeable Notes, and Holders of any outstanding Interest Only RCR Notes will be entitled to exercise 1% of the voting or direction rights that are otherwise allocated to the related Exchangeable Notes.

The appointment of a conservator (or other similar official) by a regulator having jurisdiction over Fannie Mae, whether or not Fannie Mae consents to such appointment, will not constitute an Event of Default.

# Rights Upon Event of Default

If an "Event of Default" set forth in clauses (a) through (c) of the definition thereof will have occurred and be continuing, and the Indenture Trustee (at the direction of the Majority Noteholders) or the Majority Noteholders have declared the Notes due and payable and such declaration and the consequences of such "Event of Default" and acceleration have not been rescinded and annulled, or if an Event of Default set forth in clauses (d) through (g) of the definition thereof will have occurred, the Issuer agrees that the Indenture Trustee will, upon direction of the Majority Noteholders, to the extent permitted by applicable law, exercise one or more of the following rights, privileges and remedies:

- (i) institute proceedings for the collection of all amounts then payable on the Notes or otherwise payable under the Indenture, whether by declaration or otherwise, enforce any judgment obtained, and collect from the assets of the Issuer any monies adjudged due;
- (ii) exercise any remedies of a secured party under the New York Uniform Commercial Code, as amended, and take any other appropriate action to protect and enforce the rights and remedies of the Noteholders under the Indenture; and
- (iii) exercise any other rights and remedies that may be available at law or in equity.

If an Event of Default occurs and is continuing, and the Notes have been declared due and payable and such declaration and the consequences of such Event of Default and acceleration have not been rescinded and annulled, the Majority Noteholders may direct the Indenture Trustee to (i) liquidate all assets (other than assets which are held in the form of cash) held in the Cash Collateral Account into cash, (ii) if entitled to do so under the Credit Protection Agreement, give notice of a CPA Early Termination Event to Fannie Mae (if the Credit Protection Agreement has not



yet terminated), (iii) demand payment from Fannie Mae of any amounts due under the Credit Protection Agreement and (iv) distribute from the Note Distribution Account funds in the amounts and priorities as described in the Indenture.

"Majority Noteholders" means the Holders of at least a majority of the aggregate Class Principal Balance of the outstanding Classes of Notes (without giving effect to exchanges of Exchangeable Notes for RCR Notes); provided, however, that any Notes held by Fannie Mae will be disregarded for such purposes (unless at such time all outstanding Classes of Notes are held by Fannie Mae).

No Noteholder has any right under the Indenture to institute any action or proceeding at law or in equity or in bankruptcy or otherwise, or for the appointment of a receiver or trustee, or for any other remedy, unless:

- (a) the Noteholder has previously given the Indenture Trustee written notice of an Event of Default and of the continuance thereof;
- (b) except as otherwise provided in the Indenture, the Majority Noteholders have made written request of the Indenture Trustee to institute proceedings in respect of such Event of Default in its own name as Indenture Trustee hereunder and such Holders have offered to the Indenture Trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred in compliance with such request; and
- (c) the Indenture Trustee for 30 days after its receipt of such notice, request and offer of indemnity set forth in clause (b) above has failed to institute any such proceeding; and
- (d) no direction inconsistent with such written request has been given to the Indenture Trustee during such 30-day period by the Majority Noteholders.

The Majority Noteholders may waive, rescind or annul such declaration of acceleration of the maturity of the Notes as further described in the Indenture.

Holders of such RCR Notes will be entitled to exercise all the voting or direction rights otherwise allocable to the related Exchangeable Notes as further described in the offering memorandum.



#### **Exchange Administration**

Under the Indenture, the Exchange Administrator will be engaged by Fannie Mae to perform certain administrative functions with respect to exchanging Exchangeable Notes for RCR Notes and vice versa. The Exchange Administrator will, among other duties set forth in the Indenture, administer all exchanges of Exchangeable Notes for RCR Notes and vice versa, which will include receiving notices of requests for such exchanges from Noteholders, accepting the Notes to be exchanged, and giving notice to the Indenture Trustee of all such exchanges. The Exchange Administrator will notify the Indenture Trustee with respect to any exchanges of Exchangeable Notes for RCR Notes (and vice versa) at the time of such exchange, and the Indenture Trustee will make all subsequent payments in accordance with such notice, unless notified of a subsequent exchange by the Exchange Administrator.

#### **INVESTMENT CONSIDERATIONS**

# **United States Federal Tax Consequences**

The Issuer expects to receive an opinion from Hunton Andrews Kurth LLP that, (i) although the matter is not free from doubt, each of the Class M-7 and Class M-10 Notes sold on the Closing Date to a person unrelated to the Issuer will be, and each of the Class B-10 Notes sold on the Closing Date to a person unrelated to the Issuer should be, characterized as indebtedness for U.S. federal income tax purposes and (ii) although the matter is not free from doubt, the Issuer will not be subject to tax on its net income as an association taxable as a corporation, a publicly traded partnership taxable as a corporation or a taxable mortgage pool. The Issuer and each Holder of a Class M-7, Class M-10 or Class B-10 Note, by acceptance of such Note, will agree to treat such Note as indebtedness of the Issuer for all U.S. federal income tax purposes unless otherwise required by law. The arrangement under which the RCR Notes are created will be classified as a grantor trust for U.S. federal income tax purposes. The RCR Notes represent beneficial ownership interests in the applicable Exchangeable Notes for U.S. federal income tax purposes.

The Class B-10 Notes and related RCR Notes will be subject to tax-related transfer restrictions set forth in the offering memorandum, including among other things that the Class B-10 Notes may not be transferred or held in an amount less than the related minimum denomination. In addition, a purchaser of a Class B-10 Note will be required to complete and deliver to the Indenture Trustee certain transferee certifications substantially in the form of Exhibit A hereto.



The Class C-E Notes will be subject to tax-related restrictions on transfer, including that they may only be held by "United States persons" and will be issued in definitive form.

# **Investment Company Act Considerations**

The Issuer has not registered and will not register with the SEC as an investment company under the Investment Company Act of 1940 in reliance on Section 2(b) of the Investment Company Act of 1940.

### Volcker Rule Considerations

The Issuer has been structured so as to not constitute a "covered fund" for purposes of the regulations adopted to implement Section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, commonly known as the Volcker Rule.

#### **ERISA Considerations**

Subject to the terms and considerations in the offering memorandum, the Class M-7 and Class M-10 Notes are eligible to be purchased by employee benefit plans and entities holding the assets of any such plan.

#### **Legal Investment**

The Notes will not be "mortgage related securities" for purposes of the Secondary Mortgage Market Enhancement Act of 1984, as amended ("SMMEA"). No representation is or will be made as to the proper characterization of the Notes for legal investment or other purposes, the ability of particular investors to purchase Notes for legal investment or other purposes or the ability of particular investors to purchase the Notes under applicable legal investment or other restrictions.

#### **Commodity Pool**

Fannie Mae has not registered as a commodity pool operator with the CFTC in reliance on the No-Action Letter issued to Fannie Mae by the CFTC Division of Swap Dealer and Intermediary Oversight. In the event of a determination that Fannie Mae or any other transaction party must register as a "commodity pool operator" and Fannie Mae does not elect to designate a CPA Early Termination Event in respect of any resulting CPA Trigger Event, the Indenture Trustee will be directed under the Indenture to take reasonable steps to assist Fannie Mae in satisfying any requirements that arise from such a determination and to notify the Noteholders of such steps.

# Notes are not Asset-Backed Securities

The Notes are not expected to be "asset-backed securities" as defined under Section 3(a)(79) of the Securities Exchange Act of 1934, as amended.

#### **Notes Not Listed**

At the time of issuance, the Notes are not expected to be listed on any national securities exchange or traded on any automated quotation systems of any registered securities association.



Registration and Denomination

The Class M-7 and Class M-10 Notes (and related RCR Notes) will be issuable in book-entry form through DTC in minimum denominations of \$10,000 with integral multiples of \$1 in excess thereof. The Class B-10 Notes (and related RCR Notes) will be issuable in book-entry form through DTC in minimum denominations of \$1,500,000 with integral multiples of \$1 in excess thereof. The Class C-E Notes will be issued in definitive form in minimum denominations of \$1,500,000 with integral multiples of \$1 in excess thereof. The Notes are being offered only to "Qualified Institutional Buyers" (as defined in Rule 144A under the Securities Act) in the United States.

**Record Date** 

The business day preceding a Payment Date, with respect to beneficial interests in book-entry Notes and the last business day of the preceding month of a Payment Date, with respect to definitive Notes.



#### **EXAMPLE OF PAYMENTS**

The following sets forth an example of reporting of principal payments from borrowers on the Reference Obligations and payments on the Notes for the Payment Date in November 2019:

Example Date	Term	Description
October 1 through	Reporting Period	The Master Servicer will report principal
October 31		payments on the Reference Obligations received
		during the related Reporting Period (October 1
		through October 31) from borrowers including
		scheduled principal and full and partial principal
		prepayments.
November 19	Master Servicer	Master Servicer will provide remittance file in
	Remittance Date	respect of the Reference Obligations to the
		Indenture Trustee on or prior to the 19th calendar
		day of each month (or if the 19th day is not a
		business day, the next business day).
November 22	Record Date	Distributions on each Payment Date will be made
		to Holders of record for all classes of Notes as of
		the business day immediately preceding such
		Payment Date.
November 22	Remittance Date	On the 22nd calendar day of the month (or if the
		22nd day is not a business day, the next business
		day), the Indenture Trustee withdraws from the
		Cash Collateral Account (i) amounts payable to
		Fannie Mae under the Credit Protection
		Agreement and (ii) amounts for deposit to the
		Note Distribution Account. In addition, Fannie
		Mae deposits to the Note Distribution Account
		amounts required under the Credit Protection
		Agreement. Amounts in the Note Distribution
		Account are payable to Noteholders on the
November 25	Dayment Data	Payment Date.
INOVEHIDEL 23	Payment Date	On the 25th calendar day of each month (or if the 25th day is not a business day, the next business
		day), the Issuer will make payments to
		Noteholders.
		INUICHUIGEIS.

Succeeding months will follow the same pattern.



#### **SCHEDULE I**

## MULTIFAMILY CONNECTICUT AVENUE SECURITIES, SERIES 2019-01 RCR NOTES AVAILABLE COMBINATIONS AND RECOMBINATIONS

Combination	Class of Exchangeabl e Note	Maximum Original Balance (\$)	Exchange Proportions (%) <sup>(1)</sup>	Class of RCR Note	Maximum Original Balance / Notional Amount (\$)	Exchange Proportions (%) <sup>(1)</sup>	Class Coupon (%)
1	M-7	\$80,702,000	100.0000000000%	M-7-A	\$80,702,000	100.0000000000%	1mL +%
				M-7-X	\$80,702,000(2)	100.0000000000%	% <sup>(3)</sup>
2	M-10	\$327,101,000	100.0000000000%	M-10-A	\$327,101,000	100.0000000000%	1mL +%
				M-10-X	\$327,101,000(2)	100.0000000000%	%(3)
3	B-10	\$41,280,000	100.0000000000%	B-10-A	\$41,280,000	100.0000000000%	1mL +%
				B-10-X	\$41,280,000(2)	100.00000000000%	% <sup>(3)</sup>

<sup>(1)</sup> Exchange proportions are constant proportions of the original Class Principal Balances or Class Notional Amounts, as applicable, of the Class or Classes of Exchangeable or RCR Notes being exchanged. The exchange proportions shown relate to the aggregate original Class Principal Balance of the Class or Classes of Exchangeable or RCR Notes being exchanged. In accordance with the exchange proportions, Holders of Exchangeable Notes may exchange those Notes for RCR Notes, and vice versa.

<sup>(3)</sup> The interest payment on each of these Classes of Interest Only RCR Notes for a Payment Date represents a portion of the interest payment on the Class of Exchangeable Notes included in the related Combination for that Payment Date. For any Payment Date for which One-Month LIBOR is less than the applicable value set forth below (the "Negative LIBOR Trigger"), the interest payment on the specified Class of Interest Only RCR Notes will be calculated as the lesser of (x) the amount calculated based on the Class Coupon set forth above for that Class and (y) the excess of (i) the interest amount payable on the related Class of Exchangeable Notes for that Payment Date over (ii) the interest amount payable on the Class of floating rate RCR Notes included in the same Combination for that Payment Date.

Class of	Negative
Interest Only RCR Notes	LIBOR Trigger
Class M-7-X Notes	%
Class M-10-X Notes	%
Class B-10-X Notes	%

This Class is an interest only class with a Class Notional Amount as of any Payment Date equal to a specified percentage of the outstanding Class Principal Balance of the related Class of Exchangeable Notes.



#### GLOSSARY OF CERTAIN DEFINED TERMS

"Allocable Portion" means, for any calculation as of any date, the weighted average of the Reference Obligation Payment Allocation Factors with respect to those Reference Obligations that are included in the applicable calculation.

"Credit Event Amount" means, with respect to each Payment Date, the aggregate, for each Credit Event Reference Obligation for the related Reporting Period, of the *product of* (i) the Credit Event UPB of such Credit Event Reference Obligation, *multiplied by* (ii) the applicable Reference Obligation Payment Allocation Factor for such Credit Event Reference Obligation.

"Credit Event Net Gain" means, with respect to any Credit Event Reference Obligation, an amount equal to the *excess*, if any, of:

- (a) the sum of:
  - (i) the related Net Liquidation Proceeds; and
- (ii) net cash flow received in connection with the related Credit Event Reference Obligation; over
  - (b) the *sum* of:
    - (i) the related Credit Event UPB; and
  - (ii) delinquent accrued interest thereon, calculated at the applicable Current Accrual Rate from the related last-paid interest date through the date such Reference Obligation has been reported as a Credit Event Reference Obligation.

"Credit Event Net Loss" means, with respect to any Credit Event Reference Obligation, an amount equal to the *excess*, if any, of:

- (a) the sum of:
  - (i) the related Credit Event UPB; and
- (ii) delinquent accrued interest thereon, calculated at the related Current Accrual Rate from the related last paid interest date through the date such Reference Obligation has been reported as a Credit Event Reference Obligation, *over*
- (b) the sum of:
  - (i) the related Net Liquidation Proceeds; and
- (ii) net cash flow received in connection with the related Credit Event Reference Obligation.



As indicated below, the Net Liquidation Proceeds for any Credit Event Reference Obligation will be determined based on the proceeds received (net of related expenses and credits) during the period including the month in which such Reference Obligation became a Credit Event Reference Obligation together with the immediately following three-month period. Any proceeds or expenses received or incurred thereafter with respect to such Credit Event Reference Obligation will be determined on a monthly basis for inclusion in the calculation of the Principal Recovery Amount or Principal Loss Amount, as applicable.

"Credit Event Reference Obligation" means, with respect to any Payment Date, any Reference Obligation with respect to which a Credit Event has occurred.

"Credit Event UPB" means, with respect to each Credit Event Reference Obligation, the unpaid principal balance of such Reference Obligation as of the end of the Reporting Period related to the Payment Date that it became a Credit Event Reference Obligation.

"Current Accrual Rate" means, with respect to each Payment Date and any Reference Obligation, the current mortgage rate (as adjusted for any Modification Event).

"Delinquency Test" means, for any Payment Date, a test that will be satisfied if:

- (a) the sum of the SDQ Principal Balance for the current Payment Date and each of the preceding two Payment Dates, divided by three, is less than
- (b) 40% of the excess of (i) the product of (x) the Subordinate Percentage and (y) the aggregate unpaid principal balance of the Reference Obligations as of the preceding Payment Date over (ii) the Principal Loss Amount for the current Payment Date.

"Loss Sharing Recoveries" means, with respect to any Credit Event Reference Obligation or any Reference Obligation subject to a Municipal Conversion Event, the sum of (i) the full amount of any loss sharing recoveries Fannie Mae is entitled to receive from the related lender (whether or not such recoveries are actually received by Fannie Mae) in connection with such Reference Obligation plus (ii) servicing fees for such Reference Obligation that are accrued and unpaid as of time of the occurrence of the related Credit Event or Municipal Conversion Event, as applicable.

"Minimum Credit Enhancement Test" means, for any Payment Date, a test that will be satisfied if the Subordinate Percentage (solely for purposes of such test, rounded to the sixth decimal place) is greater than or equal to 4.000000%.

"Municipal Conversion Event" means, with respect to a Reference Obligation, the full condemnation, taking through eminent domain or any conveyance in lieu or in anticipation thereof with respect to the related mortgaged property, by or to any governmental or quasi-governmental authority or other entity with condemnation powers over such mortgaged property.

"Municipal Conversion Loss" means, for any Reference Obligation that does not have a full payment guaranty from a borrower principal or affiliate and for which the related mortgaged property has experienced a Municipal Conversion Event, the excess, if any, of (x) the UPB of the Reference Obligation at the time of such Municipal Conversion Event over (y) the *sum* of (1) the





Municipal Conversion Proceeds for such mortgaged property *plus* (2) any Loss Sharing Recoveries on the related Reference Obligation in respect of such Municipal Conversion Event.

"Municipal Conversion Proceeds" means, with respect to a Reference Obligation, any awards or other proceeds resulting from a Municipal Conversion Event affecting the related mortgaged property.

"Net Liquidation Proceeds" means, with respect to any Credit Event Reference Obligation, the sum of the related liquidation proceeds, any proceeds received from the related servicer and any related Loss Sharing Recoveries, less related expenses and credits, including but not limited to taxes and insurance, legal costs, maintenance and preservation costs, in each case during the period including the month in which such Reference Obligation became a Credit Event Reference Obligation together with the immediately following three-month period.

"Original Accrual Rate" means, with respect to (a) any Reference Obligation with a fixed interest rate, the interest rate as of the Cut-off Date and (b) any Reference Obligation with an adjustable interest rate and each Payment Date, an interest rate calculated for such Payment Date using the interest rate benchmark and spread that was applicable to such Reference Obligation as of the Cut-off Date.

"Preliminary Class Notional Amount" means, for a Payment Date and Reference Tranche, an amount equal to the Class Notional Amount of a Reference Tranche immediately prior to such Payment Date after the application of the Preliminary Tranche Write-down Amount in accordance with the priorities set forth in the Allocation of Tranche Write-down Amount for the related Notes and after the application of the Preliminary Tranche Write-up Amount in accordance with the priorities set forth in the Allocation of Tranche Write-up Amount.

"Preliminary Principal Loss Amount" means, for a Payment Date, an amount equal to the Principal Loss Amount computed without giving effect to clause (e) of the definition thereof.

"Preliminary Tranche Write-down Amount" means, for a Payment Date, and amount equal to the Tranche Write-down Amount computed using the Preliminary Principal Loss Amount instead of the Principal Loss Amount.

"Preliminary Tranche Write-up Amount" means, for a Payment Date, an amount equal to the Tranche Write-up Amount computed using the Preliminary Principal Loss Amount instead of the Principal Loss Amount.

"Projected Recovery Amount" means, as of the Termination Date, the aggregate amount of subsequent recoveries (including without limitation Loss Sharing Recoveries), net of expenses and credits, projected to be received, as calculated by Fannie Mae in its sole discretion to be appropriate for purposes of the foregoing projection in light of historical loss experience and then-current market conditions. Information regarding the formula and results of the related calculations will be provided to Holders through Payment Date statements in advance of the Termination Date. In the absence of manifest error, Fannie Mae's determination of the Projected Recovery Amount will be final.



"REO JV Disposition" means, with respect to a Reference Obligation, an REO disposition to a joint venture between Fannie Mae and a third party. Under the joint venture agreement, Fannie Mae offers the joint venture the right to purchase each multifamily REO, debt instrument secured by multifamily property scheduled for foreclosure and multifamily property foreclosure, in each case valued at more than \$2.5 million. In the case of REO property, the lender on the foreclosed mortgage loan related to the REO may purchase within ten days after Fannie Mae acquires the property. If the lender declines to purchase the REO, the joint venture may purchase the property within the following 60-day period. The joint venture agreement generally has a five-year term and is subject to repeated renewals if Fannie Mae and the third party so elect.

"SDQ Principal Balance" means, for any Payment Date, the aggregate unpaid principal balance of the Reference Obligations that are 60 days or more delinquent or are otherwise in foreclosure, bankruptcy or REO status.

"Subordinate Percentage" means, with respect to each Payment Date and the Notes, 100% minus the Senior Percentage for such Payment Date.



#### Weighted Average Life and Modeling Assumptions

Weighted average life of a Class of Notes refers to the average amount of time that will elapse from the date of issuance of such Class of Notes until each dollar is distributed and any Tranche Write-down Amount is allocated in reduction of its principal balance. The weighted average lives of the Notes will be influenced by, among other things, the rate at which principal of the mortgage loans that are Reference Obligations is paid, which may be in the form of scheduled amortization, prepayments or liquidations and the timing and rate of allocation of Tranche Write-down Amounts and Tranche Write-up Amounts.

Prepayments on mortgage loans are commonly measured relative to a constant prepayment standard or model. The models used in this term sheet for the Reference Obligations are a Constant Prepayment Rate (or "CPR") and Constant Prepayment Yield ("CPY"). CPR assumes that the outstanding principal balance of a pool of mortgage loans prepays at a specified constant annual rate after any applicable prepayment lockout period; CPY assumes that the outstanding principal balance of a pool of mortgage loans prepays at a specified constant annual rate after any applicable prepayment lockout period and any applicable yield maintenance period. In projecting monthly cashflows, such rate is converted to an equivalent monthly rate. CPR and CPY do not purport to be either a historical description of the prepayment experience of mortgage loans or a prediction of the anticipated rate of prepayment of any mortgage loans, including the Reference Obligations. The percentages of CPR and CPY in the tables below do not purport to be historical description of relative prepayment experience of the Reference Obligations or predictions of the anticipated relative rate of prepayment of the Reference Obligations. Variations in the prepayment experience and the principal balance of the Reference Obligations that prepay may increase or decrease the percentages of initial Class Principal Balance (and weighted average lives) shown in the following tables. Such variations may occur even if the average prepayment experience of all such Reference Obligations equals any of the specified percentages of CPR or CPY.

The Weighted Average Life Tables, Declining Balances Tables, Credit Event Sensitivity Tables, Cumulative Note Write-down Amount Tables and Yield Tables below were prepared based on the following assumptions (collectively, the "Modeling Assumptions"):

- (1) the initial Class Principal Balances or Class Notional Amounts are as set forth in the table on page 4;
- (2) the scheduled monthly payment for each Reference Obligation is based on its outstanding principal balance, current mortgage rate and remaining amortization term to maturity so that it will amortize in amounts sufficient for the repayment thereof over its remaining amortization term;
- (3) each monthly payment of scheduled principal and interest on the Reference Obligations is timely received on the first day of each month commencing in November 2019;
- (4) other than with respect to the Declining Balances Tables, the Reference Obligations experience Credit Events at the indicated CDR percentages and there is no lag between the related Credit Event Amounts and the application of any related Excess Credit Event Amount or Tranche Write-up Amount; the Principal



- Loss Amount is equal to 25% of the Credit Event Amount; in the case of the Declining Balances Tables, it is assumed that no Credit Events occur;
- (5) the Delinquency Test is satisfied for each Payment Date;
- (6) there are no partial principal prepayments on the Reference Obligations;
- (7) the Reference Obligations prepay at the indicated CPR and CPY percentages;
- (8) except as specified in the tables, there are no defaults or delinquencies on the Reference Obligations;
- (9) Payment Dates occur on the 25<sup>th</sup> day of each month commencing in November 2019;
- (10) Remittance Dates occur on the 24<sup>th</sup> day of each month commencing in November 2019:
- (11) there are no purchases, removals, reinstatements, or substitutions of Reference Obligations;
- there are no Modification Events or data corrections in connection with the Reference Obligations;
- (13) the Maturity Date is the Payment Date in October 2049;
- there is no Early Redemption Option exercised (except in the case of Weighted Average Life (years) to Optional Redemption Date);
- (15) the Closing Date is October 30, 2019;
- (16) One-month LIBOR stays constant at 1.92%;
- (17) there are no Reversed Credit Event Reference Obligations;
- (18) the Projected Recovery Amount is zero;
- (19) the Credit Protection Agreement does not terminate prior to the Payment Date in October 2049;
- (20) in the case of Weighted Average Life (years) to Optional Redemption Date, the Notes are redeemed in full on the Preliminary Optional Redemption Date in December 2026;
- (21) there is no Event of Default under the Indenture;
- there are no losses or delays in the liquidation of Eligible Investments in the Cash Collateral Account; and
- the Class M-7 margin is equal to 2.75%, the Class M-10 margin is equal to 5.50%, the Class B-10 margin is equal to 8.50% and the Class C-E margin is equal to 11.00%.

The following default sensitivity tables assume a constant rate of Reference Obligations becoming Credit Event Reference Obligations each month relative to the then outstanding aggregate principal balance of Reference Obligations. This credit event rate (or "CDR") does not purport to be either an historical description of the default experience of the Reference Obligations or a prediction of the anticipated rate of defaults on the Reference Obligations. The rate and extent of actual defaults experienced on the Reference Obligations are likely to differ from those assumed and may differ significantly. A rate of 1.0% CDR assumes Reference Obligations become Credit Event Reference Obligations at an annual rate of 1.0% which remains in effect through the remaining lives of such Reference Obligations. Further, it is unlikely the Reference Obligations will become Credit Event Reference Obligations at any specified percentage of CDR.

#### **Declining Balances Tables**

Percentages of Original Class Principal Balances Outstanding and Weighted Average Lives

#### Class M-7

	$\mathbf{C}$	PR Prepa	ayment A	ssumpti	on	<b>CPY Prepayment Assumption</b>					
Date	0%	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	
Closing Date	100	100	100	100	100	100	100	100	100	100	
October 25, 2020	99	0	0	0	0	99	86	74	61	47	
October 25, 2021	98	0	0	0	0	98	73	54	41	35	
October 25, 2022	97	0	0	0	0	97	61	41	32	24	
October 25, 2023	93	0	0	0	0	93	49	29	21	16	
October 25, 2024	89	0	0	0	0	89	34	13	5	1	
October 25, 2025	32	0	0	0	0	32	0	0	0	0	
October 25, 2026 Weighted Average Life (years)	0	0	0	0	0	0	0	0	0	0	
to Maturity	5.64	0.30	0.14	0.09	0.07	5.64	3.59	2.60	2.05	1.45	
to Optional Redemption Date*	5.64	0.30	0.14	0.09	0.07	5.64	3.59	2.60	2.05	1.45	

#### Class M-10

	C	PR Prepa	ayment A	ssumpti	on	<b>CPY Prepayment Assumption</b>					
Date	0%	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>09</u>	<u>′</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
Closing Date	100	100	100	100	100	10	0	100	100	100	100
October 25, 2020	100	83	41	0	0	10	0	100	100	100	100
October 25, 2021	100	51	0	0	0	10	0	100	100	100	100
October 25, 2022	100	27	0	0	0	10	0	100	100	100	100
October 25, 2023	100	9	0	0	0	10	0	100	100	100	100
October 25, 2024	100	0	0	0	0	10	0	100	100	100	100
October 25, 2025	100	0	0	0	0	10	0	96	92	90	82
October 25, 2026	99	0	0	0	0	99	)	86	82	79	77
October 25, 2027	98	0	0	0	0	98	3	83	79	77	76
October 25, 2028	20	0	0	0	0	20	)	12	8	3	0
October 25, 2029	0	0	0	0	0	0		0	0	0	0
Weighted Average Life (years)											
to Maturity	8.77	2.23	0.96	0.50	0.07	8.7	7	8.37	8.22	8.11	7.79
Weighted Average Life (years)											
to Optional Redemption Date*	7.14	2.23	0.96	0.50	0.07	7.1	4	7.01	6.96	6.93	6.84

<sup>\*</sup> The Optional Redemption Date occurs on the first eligible Payment Date.



Class B-10

	C	PR Prepa	ayment A	ssumpti	on	<b>CPY Prepayment Assumption</b>					
Date	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	
Closing Date	100	100	100	100	100	100	100	100	100	100	
October 25, 2020	100	100	100	99	0	100	100	100	100	100	
October 25, 2021	100	100	86	0	0	100	100	100	100	100	
October 25, 2022	100	100	0	0	0	100	100	100	100	100	
October 25, 2023	100	100	0	0	0	100	100	100	100	100	
October 25, 2024	100	61	0	0	0	100	100	100	100	100	
October 25, 2025	100	0	0	0	0	100	100	100	100	100	
October 25, 2026	100	0	0	0	0	100	100	100	100	100	
October 25, 2027	100	0	0	0	0	100	100	100	100	100	
October 25, 2028	100	0	0	0	0	100	100	100	100	0	
October 25, 2029	0	0	0	0	0	0	0	0	0	0	
Weighted Average Life (years)											
to Maturity	9.23	5.16	2.20	1.14	0.07	9.23	9.18	9.16	9.13	8.76	
Weighted Average Life (years)											
to Optional Redemption Date*	7.15	5.16	2.20	1.14	0.07	7.15	7.15	7.15	7.15	7.15	

#### Class C-E

	C	PR Prepa	ayment A	ssumpti	on	<b>CPY Prepayment Assumption</b>					
Date	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	
Closing Date	100	100	100	100	100	100	100	100	100	100	
October 25, 2020	100	100	100	100	0	100	100	100	100	100	
October 25, 2021	100	100	100	0	0	100	100	100	100	100	
October 25, 2022	100	100	0	0	0	100	100	100	100	100	
October 25, 2023	100	100	0	0	0	100	100	100	100	100	
October 25, 2024	100	100	0	0	0	100	100	100	100	100	
October 25, 2025	100	31	0	0	0	100	100	100	100	100	
October 25, 2026	100	0	0	0	0	100	100	100	100	100	
October 25, 2027	100	0	0	0	0	100	100	100	100	100	
October 25, 2028	100	0	0	0	0	100	100	100	100	100	
October 25, 2029	97	0	0	0	0	97	75	72	70	69	
October 25, 2030	0	0	0	0	0	0	0	0	0	0	
Weighted Average Life (years)											
to Maturity	10.58	5.95	2.63	1.35	0.07	10.58	10.29	10.21	10.12	9.88	
Weighted Average Life (years)											
to Optional Redemption Date*	7.15	5.95	2.63	1.35	0.07	7.15	7.15	7.15	7.15	7.15	

<sup>\*</sup> The Optional Redemption Date occurs on the first eligible Payment Date.



#### Credit Event Sensitivity Table

#### **Cumulative Credit Events (as % of the Cut-off Date Balance)**

		CPR Prep	payment As	ssumption	<b>CPY Prepayment Assumption</b>					
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.25%	0.54%	0.20%	0.09%	0.05%	0.01%	0.54%	0.51%	0.49%	0.48%	0.46%
0.50%	1.07%	0.40%	0.19%	0.10%	0.01%	1.07%	1.01%	0.98%	0.96%	0.91%
0.75%	1.59%	0.59%	0.28%	0.15%	0.02%	1.59%	1.49%	1.45%	1.42%	1.36%
1.00%	2.10%	0.79%	0.37%	0.19%	0.03%	2.10%	1.97%	1.91%	1.88%	1.79%
1.50%	3.09%	1.17%	0.55%	0.29%	0.04%	3.09%	2.90%	2.82%	2.76%	2.64%
2.00%	4.05%	1.54%	0.73%	0.39%	0.05%	4.05%	3.79%	3.68%	3.61%	3.45%
3.00%	5.83%	2.26%	1.09%	0.58%	0.08%	5.83%	5.47%	5.32%	5.22%	4.99%

#### Cumulative Note Write-down Amount Tables

#### Class M-7 Cumulative Write-down Amount (as % of Class M-7 Original Class Principal Balance)

		CPR Prep	payment As	ssumption	<b>CPY Prepayment Assumption</b>					
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2.00%	33.62%	0.00%	0.00%	0.00%	0.00%	33.62%	1.16%	0.00%	0.00%	0.00%
3.00%	85.61%	0.00%	0.00%	0.00%	0.00%	85.61%	74.42%	60.10%	46.45%	25.39%



Class M-10 Cumulative Write-down Amount (as % of Class M-10 Original Class Principal Balance)

		CPR Prep	oayment As	ssumption	<b>CPY Prepayment Assumption</b>					
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.75%	16.22%	0.00%	0.00%	0.00%	0.00%	16.22%	12.36%	10.69%	9.61%	7.16%
1.00%	35.74%	0.00%	0.00%	0.00%	0.00%	35.74%	30.66%	28.45%	27.04%	23.82%
1.50%	73.60%	0.00%	0.00%	0.00%	0.00%	73.60%	66.18%	62.94%	60.87%	56.19%
2.00%	100.00%	14.02%	0.00%	0.00%	0.00%	100.00%	100.00%	96.08%	93.39%	87.34%
3.00%	100.00%	41.38%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Class B-10 Cumulative Write-down Amount (as % of Class B-10 Original Class Principal Balance)

		CPR Prep	oayment As	sumption		<b>CPY Prepayment Assumption</b>						
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>		
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
0.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
0.50%	70.76%	0.00%	0.00%	0.00%	0.00%	70.76%	50.10%	41.15%	35.41%	22.23%		
0.75%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
1.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
1.50%	100.00%	98.57%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
2.00%	100.00%	100.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
3.00%	100.00%	100.00%	75.21%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		

Class C-E Cumulative Write-down Amount (as % of Class C-E Original Class Principal Balance)

		CPR Prep	payment As	sumption		<b>CPY Prepayment Assumption</b>						
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>		
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
0.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
0.50%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
0.75%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
1.00%	100.00%	71.17%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
1.50%	100.00%	100.00%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
2.00%	100.00%	100.00%	43.17%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		
3.00%	100.00%	100.00%	100.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%		



#### Classes Yield Tables

#### Class M-7 Pre-Tax Yield to Maturity (Price = 100.00000%)

		CPR Pre	payment As	ssumption			CPY Prep	payment As	ssumption	
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
0.00%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%
0.25%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%
0.50%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%
0.75%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%
1.00%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%
1.50%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%	4.72%
2.00%	0.44%	4.72%	4.72%	4.72%	4.72%	0.44%	4.58%	4.72%	4.72%	4.72%
3.00%	(29.57%)	4.72%	4.72%	4.72%	4.72%	(29.57%)	(26.56%)	(24.26%)	(22.17%)	(17.44%)

**Class M-10 Pre-Tax Yield to Maturity (Price = 100.00000%)** 

		<b>CPR Prep</b>	ayment A	ssumption			<b>CPY Prep</b>	payment As	ssumption	
CDR	0%	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
0.00%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%
0.25%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%
0.50%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%
0.75%	6.09%	7.54%	7.54%	7.54%	7.54%	6.09%	6.47%	6.62%	6.71%	6.90%
1.00%	3.74%	7.54%	7.54%	7.54%	7.54%	3.74%	4.39%	4.66%	4.81%	5.06%
1.50%	(3.67%)	7.54%	7.54%	7.54%	7.54%	(3.67%)	(1.83%)	(1.13%)	(0.73%)	(0.13%)
2.00%	(23.89%)	3.80%	7.54%	7.54%	7.54%	(23.89%)	(20.69%)	(15.06%)	(12.98%)	(10.32%)
3.00%	(47.44%)	(8.47%)	7.54%	7.54%	7.54%	(47.44%)	(44.73%)	(42.98%)	(41.86%)	(40.44%)

**Class B-10 Pre-Tax Yield to Maturity (Price = 100.00000%)** 

		CPR Prep	payment As	sumption		<b>CPY Prepayment Assumption</b>					
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	
0.00%	10.65%	10.65%	10.65%	10.65%	10.66%	10.65%	10.65%	10.65%	10.65%	10.65%	
0.25%	10.65%	10.65%	10.65%	10.65%	10.66%	10.65%	10.65%	10.65%	10.65%	10.65%	
0.50%	3.89%	10.65%	10.65%	10.65%	10.66%	3.89%	6.64%	7.57%	8.10%	9.13%	
0.75%	(16.55%)	10.65%	10.65%	10.65%	10.66%	(16.55%)	(14.32%)	(13.11%)	(12.42%)	(11.48%)	
1.00%	(31.52%)	10.65%	10.65%	10.65%	10.66%	(31.52%)	(29.25%)	(27.76%)	(26.80%)	(25.67%)	
1.50%	(61.09%)	(12.50%)	10.65%	10.65%	10.66%	(61.09%)	(58.87%)	(57.03%)	(55.59%)	(53.64%)	
2.00%	(87.79%)	(50.93%)	10.65%	10.65%	10.66%	(87.79%)	(85.91%)	(84.02%)	(82.30%)	(79.53%)	
3.00%	*	*	(12.07%)	10.65%	10.66%	*	*	*	*	*	

<sup>\*</sup>Indicates a yield less than (99.99)%.



#### Class C-E Pre-Tax Yield to Maturity (Price = 100.00000%)

<b>CPR Prepayment Assumption</b>						<b>CPY Prepayment Assumption</b>					
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	
0.00%	13.27%	13.27%	13.27%	13.27%	13.28%	13.27%	13.27%	13.27%	13.27%	13.27%	
0.25%	13.27%	13.27%	13.27%	13.27%	13.28%	13.27%	13.27%	13.27%	13.27%	13.27%	
0.50%	(6.40%)	13.27%	13.27%	13.27%	13.28%	(6.40%)	(4.42%)	(3.43%)	(2.86%)	(2.08%)	
0.75%	(25.46%)	13.27%	13.27%	13.27%	13.28%	(25.46%)	(23.33%)	(21.89%)	(20.97%)	(19.89%)	
1.00%	(44.93%)	4.77%	13.27%	13.27%	13.28%	(44.93%)	(42.76%)	(41.03%)	(39.77%)	(38.14%)	
1.50%	(81.19%)	(46.13%)	13.27%	13.27%	13.28%	(81.19%)	(79.31%)	(77.48%)	(75.74%)	(72.90%)	
2.00%	*	(84.38%)	5.23%	13.27%	13.28%	*	*	*	*	*	
3.00%	*	*	*	13.27%	13.28%	*	*	*	*	*	

<sup>\*</sup>Indicates a yield less than (99.99)%.



#### Weighted Average Life Tables

#### Class M-7 Weighted Average Life to Maturity (in Years)

		CPR Prep	payment As	ssumption			CPY Prep	payment As	ssumption	
CDR	0%	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
0.00%	5.64	0.30	0.14	0.09	0.07	5.64	3.59	2.60	2.05	1.45
0.25%	5.44	0.30	0.14	0.09	0.07	5.44	3.46	2.48	1.95	1.35
0.50%	5.56	0.30	0.14	0.09	0.07	5.56	3.45	2.47	1.90	1.28
0.75%	6.02	0.30	0.14	0.09	0.07	6.02	3.77	2.75	2.13	1.30
1.00%	6.37	0.30	0.14	0.09	0.07	6.37	4.47	3.15	2.40	1.42
1.50%	7.00	0.29	0.14	0.09	0.07	7.00	5.45	4.15	3.13	1.61
2.00%	7.66	0.29	0.14	0.09	0.07	7.66	6.30	4.87	3.75	2.01
3.00%	5.22	0.29	0.14	0.09	0.07	5.22	4.84	4.10	3.30	1.97

#### Class M-10 Weighted Average Life to Maturity (in Years)

		CPR Prep	payment As	ssumption			CPY Prep	payment As	ssumption	
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
0.00%	8.77	2.23	0.96	0.50	0.07	8.77	8.37	8.22	8.11	7.79
0.25%	8.87	2.28	0.97	0.50	0.07	8.87	8.45	8.30	8.19	7.84
0.50%	9.26	2.34	0.97	0.50	0.07	9.26	8.98	8.81	8.67	8.22
0.75%	9.16	2.44	0.98	0.50	0.07	9.16	9.19	9.10	9.00	8.55
1.00%	8.59	2.58	0.99	0.51	0.07	8.59	8.71	8.75	8.72	8.33
1.50%	7.08	3.14	1.02	0.51	0.07	7.08	7.32	7.43	7.48	7.36
2.00%	5.32	3.34	1.06	0.52	0.07	5.32	5.68	5.87	5.97	6.02
3.00%	3.48	3.04	1.19	0.53	0.07	3.48	3.61	3.71	3.78	3.87

Class B-10 Weighted Average Life to Maturity (in Years)

		CPR Prep	oayment As	ssumption			<b>CPY Prep</b>	oayment As	sumption	
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	0%	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
0.00%	9.23	5.16	2.20	1.14	0.07	9.23	9.18	9.16	9.13	8.76
0.25%	10.81	5.46	2.25	1.15	0.07	10.81	10.71	10.59	10.48	10.13
0.50%	9.18	5.86	2.31	1.17	0.07	9.18	9.87	10.13	10.27	10.27
0.75%	5.52	6.71	2.39	1.18	0.07	5.52	5.82	6.00	6.11	6.27
1.00%	4.13	8.06	2.48	1.20	0.07	4.13	4.29	4.40	4.48	4.57
1.50%	2.75	5.67	2.76	1.24	0.07	2.75	2.82	2.88	2.93	3.01
2.00%	2.06	3.07	3.25	1.28	0.07	2.06	2.10	2.14	2.18	2.24
3.00%	1.38	1.71	3.75	1.42	0.07	1.38	1.39	1.41	1.43	1.49



#### **Class C-E Weighted Average Life to Maturity (in Years)**

		<b>CPR Prep</b>	payment As	ssumption			<b>CPY Prep</b>	payment As	ssumption	
CDR	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>	<u>0%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>100%</u>
0.00%	10.58	5.95	2.63	1.35	0.07	10.58	10.29	10.21	10.12	9.88
0.25%	10.98	6.34	2.72	1.38	0.07	10.98	10.92	10.91	10.86	10.49
0.50%	6.16	7.47	2.83	1.40	0.07	6.16	6.53	6.74	6.87	7.06
0.75%	4.06	8.78	2.98	1.43	0.07	4.06	4.22	4.33	4.40	4.49
1.00%	3.05	7.58	3.18	1.46	0.07	3.05	3.13	3.21	3.26	3.34
1.50%	2.03	2.98	3.90	1.53	0.07	2.03	2.07	2.11	2.15	2.21
2.00%	1.53	1.96	5.04	1.64	0.07	1.53	1.55	1.57	1.60	1.65
3.00%	1.02	1.18	1.63	2.03	0.07	1.02	1.03	1.04	1.05	1.10



#### **Reference Pool Summary**

Statistics for the Reference Obligations listed below are based on statistical Cut-off Date information as of October 1, 2019.

Refer	rence Pool Summary			
	<u>Aggregate</u>	Weighted Average	Minimum	Maximum
Aggregate Unpaid Principal Balance	\$17,081,169,851.31	\$50,238,734.86(1)		
Allocable Portion of Unpaid Principal Balance	\$13,167,713,375.15	\$38,728,568.75(1)		
Mortgage Rate at Closing Date	-	4.322%	3.099%	5.300%
Current Loan-to-Value Ratio	-	63.11%	27.76%	80.00%
UW NCF DSCR <sup>(2)</sup>	-	1.64x	1.20x	3.34x
% Fixed Rate	92.92%			
% Floating Rate	7.08%			
% Interest Only	53.70%			
Physical Occupancy		93.45%		
Economic Occupancy		93.30%		
Original Term		119.84 months		
Loan Age		13.35 months		
Top Three Geographic Concentrations of Mortgag	ge Loans (States)			
CA	30.8%			
FL	9.6%			
TX	6.2%			

<sup>(1)</sup> Average.

<sup>(2)</sup> Represents the ratio of the annualized underwritten net cash flow of a mortgaged property to the annualized principal and interest payments due on the related mortgage loan and any debt service on pari passu debt, other Fannie Mae mortgage loan debt and subordinate third party debt, if applicable.



			Unpaid Prince	ipal Balance	es as of the Cut-	off Date			
Range of Unpaid Principal Balance (	\$)	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
10,000,000 - 19,999	,999	1	14,434,000	0.1	9,622,715	0.1	1.91	54.4	3.470
30,000,000 - 39,999	,999	145	5,019,434,597	29.4	3,780,969,287	28.7	1.57	64.8	4.439
40,000,000 - 49,999	,999	88	3,880,683,550	22.7	2,870,095,296	21.8	1.62	63.5	4.328
50,000,000 - 99,999	,999	96	6,331,670,705	37.1	5,017,907,030	38.1	1.67	62.9	4.302
100,000,000 - 249,9	99,999	9	1,364,947,000	8.0	1,175,784,147	8.9	1.77	60.0	4.110
250,000,000 or grea	ter	1	470,000,000	2.8	313,334,900	2.4	1.91	54.4	3.950
Total:		340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322
Minimum (\$)  Maximum (\$)  Average (\$)	470,0	33,999.91 00,000.00 88,734.86							

		Underwrit	ten Debt Se	rvice Coverage l	Ratio			
Range of UW DSCI	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
1.20x - 1.24x	2	126,090,000	0.7	84,060,420	0.6	1.20	62.4	4.619
1.25x - 1.29x	110	5,044,457,318	29.5	3,829,577,171	29.1	1.25	70.8	4.573
1.30x - 1.39x	36	1,529,606,319	9.0	1,105,797,612	8.4	1.34	65.4	4.474
1.40x - 1.49x	17	680,022,819	4.0	516,415,860	3.9	1.43	67.0	4.071
1.50x - 1.74x	38	2,068,940,000	12.1	1,653,236,121	12.6	1.67	61.1	4.387
1.75x or greater	137	7,632,053,396	44.7	5,978,626,191	45.4	1.98	57.7	4.126
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322
Minimum Maximum W.A.	1.20x 3.34x 1.64x							



		Geographi	<u>c Concentration</u>	ı of the Mortgage L	oans			1
State or Territory	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1</sup>	Allocable Portion of Unpaid Principal Balance (\$) (1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
CA	91	5,259,121,321	30.8	4,170,659,690	31.7	1.84	58.8	4.180
FL	39	1,637,410,200	9.6	1,253,265,008	9.5	1.52	64.2	4.447
TX	27	1,058,987,900	6.2	802,361,647	6.1	1.42	68.2	4.508
NY	9	948,160,405	5.6	713,921,397	5.4	1.77	56.3	4.176
WA	18	899,520,315	5.3	723,056,347	5.5	1.69	61.4	4.314
MD	13	655,258,000	3.8	501,559,368	3.8	1.39	70.5	4.458
GA	14	645,802,400	3.8	490,492,670	3.7	1.55	65.1	4.308
IL	10	616,842,900	3.6	526,535,854	4.0	1.61	66.3	4.431
CO	14	586,354,537	3.4	407,160,273	3.1	1.57	63.8	4.337
AZ	11	562,218,475	3.3	407,693,812	3.1	1.56	64.3	4.203
NC	14	537,525,253	3.1	404,517,468	3.1	1.46	66.2	4.400
VA	7	301,267,879	1.8	232,227,817	1.8	1.78	63.4	4.421
UT	7	290,164,000	1.7	216,091,804	1.6	1.71	63.9	4.130
TN	7	252,256,800	1.5	204,331,867	1.6	1.52	65.3	4.563
IN	5	246,000,000	1.4	187,742,230	1.4	1.41	70.1	4.779
MA	4	217,863,671	1.3	145,243,173	1.1	1.78	60.1	4.172
MN	4	216,117,000	1.3	164,278,182	1.2	1.40	68.2	4.299
CT	4	205,262,000	1.2	167,790,607	1.3	1.25	76.9	4.437
PA	4	202,078,500	1.2	167,530,032	1.3	2.00	59.7	4.108
MI	4	195,436,000	1.1	130,291,318	1.0	1.43	69.8	4.813
ОН	4	194,423,000	1.1	153,884,159	1.2	1.25	77.8	4.570
NV	5	187,781,000	1.1	145,648,667	1.1	1.78	59.4	4.471
OR	4	181,181,582	1.1	125,829,874	1.0	1.64	61.2	4.492
NJ	3	175,734,000	1.0	138,072,836	1.0	1.49	66.9	4.316
AL	3	149,487,280	0.9	99,658,685	0.8	1.27	71.3	4.380
NH	3	125,490,000	0.7	83,660,418	0.6	1.60	65.5	4.524
DC	1	111,372,000	0.7	100,234,800	0.8	1.25	62.9	4.350
SC	3	102,711,000	0.6	75,870,903	0.6	1.62	65.3	4.246
MO	3	97,333,433	0.6	72,045,846	0.5	1.26	77.6	4.648
RI	1	57,693,000	0.3	38,462,192	0.3	1.26	73.3	4.500
KS	1	56,030,000	0.3	37,353,520	0.3	1.87	65.0	4.280
NM	1	43,220,000	0.3	28,813,477	0.2	1.25	69.6	4.580
DE	1	34,500,000	0.2	31,050,000	0.2	1.60	59.7	4.070
MS	1	30,566,000	0.2	20,377,435	0.2	1.64	55.0	4.290
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322



Loan-to-Value Ratio as of the Cut-Off Date											
Range of Cut-off Date LTV (	Number of Mortgage %) Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$)(1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)			
59.9 or less	93	5,419,150,519	31.7	4,185,383,097	31.8	1.94	54.1	4.152			
60.0 – 64.9	115	5,683,142,739	33.3	4,442,444,156	33.7	1.66	62.9	4.320			
65.0 – 69.9	54	2,453,246,300	14.4	1,832,866,589	13.9	1.50	67.1	4.355			
70.0 or greater	78	3,525,630,294	20.6	2,707,019,533	20.6	1.27	74.6	4.565			
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322			
Minimum (%) Maximum (%) W.A. (%)	27.76 80.00 63.11										

Loan-to-Value Ratio as of Loan Maturity											
Range of Loan Maturity LTV	V (%)	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) (1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)		
34.9 or less		3	150,757,873	0.9	138,172,297	1.0	2.44	30.5	3.912		
35.0 – 59.9		131	7,054,414,617	41.3	5,392,439,443	41.0	1.78	57.0	4.247		
60.0 – 64.9		121	5,871,419,961	34.4	4,552,214,802	34.6	1.63	64.8	4.325		
65.0 – 69.9		67	3,122,374,300	18.3	2,369,366,119	18.0	1.44	71.0	4.460		
70.0 or greater		18	882,203,100	5.2	715,520,714	5.4	1.26	78.7	4.487		
Total:		340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322		
Minimum (%) Maximum (%) W.A. (%)	7	0.00 /4.70 60.13									



Mortgage Rate at Origination											
Range of Original Mortgage Rates (%)	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%)(1)	Allocable Portion of Unpaid Principal Balance (\$)(1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)			
3.000 - 3.499	6	414,575,122	2.4	346,885,345	2.6	2.05	59.7	3.426			
3.500 - 3.999	43	2,811,472,124	16.5	2,203,522,388	16.7	1.94	57.1	3.869			
4.000 - 4.499	175	8,703,405,413	51.0	6,684,658,116	50.8	1.68	62.6	4.283			
4.500 - 4.999	112	5,005,963,735	29.3	3,810,806,670	28.9	1.38	67.5	4.695			
5.000 - 5.499	4	145,753,458	0.9	121,840,856	0.9	1.39	68.2	5.157			
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322			
Minimum (%) Maximum (%) W.A. (%)	3.113 5.300 4.323										

Original Term to Maturity (months)	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) (1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
29	1	14,434,000	0.1	9,622,715	0.1	1.91	54.4	3.470
60	2	65,000,000	0.4	50,730,111	0.4	1.87	66.4	4.226
84	39	2,155,094,151	12.6	1,676,068,091	12.7	1.65	63.3	4.225
120	229	11,396,181,135	66.7	8,669,110,594	65.8	1.69	61.7	4.300
126	3	148,173,000	0.9	144,468,675	1.1	1.86	63.9	3.920
144	66	3,302,287,565	19.3	2,617,713,189	19.9	1.48	67.7	4.486
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322
W.A. (months)	120							·



Remaining Term to Maturity of the Mortgage Loans												
Range of Remaining Term to Maturity (months)	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) (1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)				
13 - 24	1	14,434,000	0.1	9,622,715	0.1	1.91	54.4	3.470				
37 - 48	1	31,700,000	0.2	28,530,000	0.2	2.36	65.0	3.519				
49 - 60	1	33,300,000	0.2	22,200,111	0.2	1.41	67.8	4.900				
61 - 72	23	1,318,205,000	7.7	1,039,616,900	7.9	1.69	64.2	4.117				
73 - 84	16	836,889,151	4.9	636,451,191	4.8	1.59	61.9	4.395				
97 - 108	160	8,137,244,677	47.6	6,203,828,017	47.1	1.71	61.5	4.227				
109 - 120	72	3,407,109,458	19.9	2,609,751,252	19.8	1.64	62.4	4.458				
121 - 132	46	2,414,953,200	14.1	1,946,819,373	14.8	1.52	67.7	4.363				
133 - 144	20	887,334,364	5.2	670,893,817	5.1	1.36	67.7	4.822				
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322				
Minimum (months)	13											
Maximum (months)	135											
W.A. (months)	106											

Original Amortization Terms of the Mortgage Loans											
Original Amortization Term (months)	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$)(1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)			
0	162	9,173,153,522	53.7	7,210,019,800	54.8	1.93	58.5	4.175			
29	1	14,434,000	0.1	9,622,715	0.1	1.91	54.4	3.470			
360	177	7,893,582,329	46.2	5,948,070,860	45.2	1.31	68.4	4.495			
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322			



	Remaining Amortization Terms of the Mortgage Loans											
Range of Remaining Amortization Terms (months)	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) (1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)				
0 - 11	162	9,173,153,522	53.7	7,210,019,800	54.8	1.93	58.5	4.175				
12 - 23	1	14,434,000	0.1	9,622,715	0.1	1.91	54.4	3.470				
336 - 347	10	421,004,195	2.5	305,244,476	2.3	1.46	60.9	4.170				
348 - 359	8	301,264,808	1.8	242,701,671	1.8	1.47	60.4	4.587				
360 or greater	159	7,171,313,326	42.0	5,400,124,713	41.0	1.30	69.2	4.510				
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322				
Minimum (months)	13											
Maximum (months)	360											

	Loan Age as of the Cut-off Date											
Range of Cut-off Date Loan Ages (months)	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$)(1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)				
7 - 9	9	377,559,233	2.2	277,510,080	2.1	1.70	61.2	4.609				
10 - 12	138	6,830,058,597	40.0	5,222,115,646	39.7	1.64	62.5	4.389				
13 - 15	101	5,090,203,012	29.8	4,001,718,613	30.4	1.65	64.0	4.283				
16 - 18	92	4,783,349,009	28.0	3,666,369,036	27.8	1.64	63.2	4.246				
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322				
Minimum (months)	9											
Maximum (months)	18											

	Amortization Type of the Mortgage Loans											
Amortization Type	Number of Mortgag Loans	Unpaid	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)				
Interest Only/Balloon	162	9,173,153,522	53.7	7,210,019,800	54.8	1.93	58.5	4.175				
Interest Only/Amortizing/Ballo	pon 159	7,171,313,326	42.0	5,400,124,713	41.0	1.30	69.2	4.510				
Amortizing/Balloon	18	722,269,003	4.2	547,946,147	4.2	1.47	60.7	4.344				
Fully Amortizing	1	14,434,000	0.1	9,622,715	0.1	1.91	54.4	3.470				
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322				
Minimum IO term (months)	0											
Maximum IO term (months)	144											



Loan Purpose of the Mortgage Loans										
				Allocable	Allocable			W.A.		
	Number		Unpaid	Portion of	Portion of		W.A.	Mortgage		
	of	Unpaid	Principal	Unpaid	Unpaid	W.A.	Cut-off	Rate at		
	Mortgage	Principal	Balance	Principal	Principal	UW	Date LTV	Closing		
Loan Purpose	Loans	<b>Balance</b> (\$) <sup>(1)</sup>	$(\%)^{(1)}$	<b>Balance</b> (\$) (1)	Balance (%) <sup>(1)</sup>	DSCR	Ratio (%)	Date (%)		
Refinance	206	10,602,911,990	62.1	8,271,696,677	62.8	1.70	61.2	4.282		
Acquisition	134	6,478,257,861	37.9	4,896,016,698	37.2	1.55	66.2	4.389		
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322		

		Prepayment	Protection of	of the Mortgage	Loans			
Form of Prepayment Protection	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) (1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
YM(114), 1%(3), O(3)	181	8,792,148,580	51.5	6,763,902,567	51.4	1.68	61.6	4.363
YM(138), 1%(3), O(3)	58	2,911,872,565	17.0	2,328,764,499	17.7	1.46	67.7	4.483
YM(78), 1%(3), O(3)	21	1,114,570,151	6.5	881,919,548	6.7	1.66	62.7	4.254
L(12), 1%(105), O(3)	21	928,581,122	5.4	680,601,924	5.2	1.68	64.4	3.696
YM(84), 1%(33), O(3)	20	923,708,433	5.4	713,875,068	5.4	1.64	64.9	4.431
YM(114), O(6)	2	500,953,000	2.9	333,970,337	2.5	1.90	55.0	3.979
YM(60), 1%(21), O(3)	10	407,708,800	2.4	292,517,783	2.2	1.57	64.5	4.431
L(24), 1%(36), O(24)	1	249,000,000	1.5	228,250,830	1.7	2.14	60.0	3.369
YM(48), 1%(33), O(3)	3	236,300,000	1.4	157,534,121	1.2	1.25	66.4	4.480
5%(24), 4%(24), 3%(24), 2%(24), 1%(21), O(3)	4	207,290,000	1.2	147,760,554	1.1	1.56	58.0	4.618
Other	19	809,037,200	4.7	638,616,145	4.8	1.68	65.5	4.324
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322

Property Sub-type of the Mortgage Loans											
Property Sub-type	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$)(1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)			
Multifamily	311	15,815,475,056	92.6	12,158,101,803	92.3	1.65	63.0	4.309			
Dedicated Student	14	595,102,076	3.5	492,511,765	3.7	1.57	65.4	4.547			
Seniors	10	421,589,182	2.5	313,499,796	2.4	1.70	62.2	4.466			
Manufactured Housing	5	249,003,537	1.5	203,600,010	1.5	1.56	63.4	4.376			
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322			



		Physical C	Оссирапсу а	s of the Cut-off	Date			
Range of Cut-off Dat Physical Occupancy		Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) (1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
79.9 or less	7	509,602,000	3.0	453,424,178	3.4	1.54	62.5	4.263
80.0 - 84.9	1	31,864,000	0.2	30,270,800	0.2	1.25	68.3	4.385
85.0 - 89.9	17	745,295,382	4.4	597,515,072	4.5	1.40	68.5	4.650
90.0 - 94.9	152	7,769,597,377	45.5	5,947,636,488	45.2	1.70	61.8	4.269
95.0 - 99.9	163	8,024,811,092	47.0	6,138,866,836	46.6	1.62	63.9	4.347
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322
Minimum (%)	70.0							
Maximum (%)	98.4							

Underwritten Economic Occupancy								
Range of UW Econor Occupancy (%)	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$)(1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
79.9 or less	2	107,530,000	0.6	96,777,000	0.7	1.46	66.1	3.850
80.0 - 84.9	2	63,864,000	0.4	59,070,800	0.4	1.52	64.7	4.843
85.0 - 89.9	29	1,260,425,382	7.4	964,332,322	7.3	1.48	67.0	4.523
90.0 - 94.9	194	9,686,915,153	56.7	7,394,403,572	56.2	1.66	63.0	4.308
95.0 - 99.9	113	5,962,435,317	34.9	4,653,129,681	35.3	1.66	62.3	4.307
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322
Minimum (%)	70.70							
Maximum (%)	97.50							

Year Built or Most Recently Renovated								
Range of Build/Renovation Years	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$)(1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
1950 or earlier	3	127,397,000	0.7	102,454,141	0.8	1.53	66.6	4.758
1951 - 1999	176	9,144,705,872	53.5	7,099,897,791	53.9	1.67	63.5	4.262
2000 - 2009	55	2,877,462,336	16.8	2,218,912,546	16.9	1.63	62.7	4.310
2010 - 2014	19	894,540,400	5.2	682,573,190	5.2	1.67	63.9	4.334
2015 or later	87	4,037,064,242	23.6	3,063,875,707	23.3	1.59	62.3	4.451
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322
Minimum	1947							
Maximum	2018							



Green Financing Status of Mortgage Loans								
Green Financing Status	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) (1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A. UW DSCR	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
Green Building Certification	1	44,850,000	0.3	29,900,150	0.2	1.82	65.0	4.490
Green Rewards	109	5,063,001,756	29.6	3,895,276,493	29.6	1.50	67.6	4.444
None	229	11,939,318,096	69.9	9,219,869,952	70.0	1.70	61.2	4.270
Other Green Financing	1	34,000,000	0.2	22,666,780	0.2	1.71	61.9	4.470
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322

Originator	Number of Mortgage Loans	Unpaid Principal Balance (\$) <sup>(1)</sup>	Unpaid Principal Balance (%) <sup>(1)</sup>	Allocable Portion of Unpaid Principal Balance (\$) (1)	Allocable Portion of Unpaid Principal Balance (%) <sup>(1)</sup>	W.A.	W.A. Cut-off Date LTV Ratio (%)	W.A. Mortgage Rate at Closing Date (%)
CBRE Multifamily Capital, Inc.	45	2,342,872,693	13.7	1,669,787,030	12.7	1.71	62.9	4.121
Wells Fargo Bank, N.A.	29	2,012,983,685	11.8	1,341,995,833	10.2	1.75	59.5	4.184
Walker & Dunlop, LLC	36	2,004,239,922	11.7	1,803,815,930	13.7	1.75	61.9	4.304
Berkadia Commercial Mortgage LLC	36	1,634,492,463	9.6	1,126,582,605	8.6	1.35	71.2	4.546
Prudential Multifamily Mortgage, LLC	22	1,329,600,879	7.8	1,254,911,741	9.5	1.85	59.4	4.096
KeyBank National Association	27	1,140,686,702	6.7	760,461,603	5.8	1.55	61.7	4.422
Capital One, National Association	23	1,140,198,352	6.7	815,998,084	6.2	1.79	60.9	4.249
Greystone Servicing Corporation, Inc.	20	1,022,116,305	6.0	945,849,575	7.2	1.36	69.2	4.615
Berkeley Point Capital LLC	18	766,217,000	4.5	510,813,887	3.9	1.79	60.0	4.267
NorthMarq Capital Finance, L.L.C.	15	665,367,948	3.9	604,739,228	4.6	1.52	64.3	4.466
M&T Realty Capital Corporation	14	658,268,900	3.9	488,054,393	3.7	1.59	62.7	4.361
Arbor Commercial Funding I, LLC	10	426,829,000	2.5	390,371,100	3.0	1.43	65.6	4.758
PNC Bank, National Association	8	385,087,122	2.3	267,055,281	2.0	1.62	61.7	4.231
Jones Lang LaSalle Multifamily, LLC	7	322,115,000	1.9	289,903,500	2.2	1.77	65.5	4.323
Regions Bank	6	312,116,000	1.8	208,078,374	1.6	1.61	63.3	4.335
Grandbridge Real Estate Capital LLC	5	208,823,000	1.2	139,216,029	1.1	1.88	58.6	4.284
Bellwether Enterprise Mortgage Investments, LLC	5	180,301,873	1.1	168,667,833	1.3	1.78	59.1	4.446
Barings Multifamily Capital LLC	4	138,895,500	0.8	92,597,463	0.7	1.58	61.1	4.487
ORIX Real Estate Capital, LLC	3	122,727,971	0.7	81,819,056	0.6	1.45	70.7	4.489
SunTrust Bank	3	108,650,000	0.6	72,433,696	0.6	1.25	70.9	4.713
Hunt Mortgage Capital, LLC	3	104,176,537	0.6	93,758,884	0.7	1.29	68.5	4.850
Dougherty Mortgage, LLC	1	54,403,000	0.3	40,802,250	0.3	1.35	61.4	4.365
Γotal:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322



California Concentration of Mortgage Loans as of the Cut-off Date								
	Number of Mortgage	Unpaid Principal	Unpaid Principal Balance	Allocable Portion of Unpaid Principal	Allocable Portion of Unpaid Principal	W.A. UW	W.A. Cut-off Date LTV	W.A. Mortgage Rate at Closing
Location	Loans	Balance (\$) <sup>(1)</sup>	(%) <sup>(1)</sup>	<b>Balance</b> (\$) (1)	Balance (%) <sup>(1)</sup>	DSCR	Ratio (%)	Date (%)
Other than California	249	11,822,048,530	69.2	8,997,053,685	68.3	1.55	65.0	4.385
Southern California	64	3,723,205,349	21.8	2,879,357,187	21.9	1.86	58.5	4.165
Northern California	27	1,535,915,972	9.0	1,291,302,502	9.8	1.81	59.6	4.218
Total:	340	17,081,169,851	100.0	13,167,713,375	100.0	1.64	63.1	4.322



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**EXHIBIT A** 

# FORM OF ADDITIONAL TRANSFEREE CERTIFICATION REQUIRED UNDER SECTION 2.11 OF THE INDENTURE

#### MULTIFAMILY CONNECTICUT AVENUE SECURITIES TRUST 2019-01

Wells Fargo Bank, N.A., as Indenture Trustee and Registrar MAC N9300-070 600 South Fourth Street, 7th Floor Minneapolis, Minnesota 55479

Attention: Corporate Trust Services – MF CONN-AVE 2019-01

Re: \$472,719,000 MULTIFAMILY CONNECTICUT AVENUE SECURITIES TRUST 2019-01, Series 2019-01, Class [B-10][B-10-A][B-10-X] Notes

Reference is hereby made to the Indenture, dated as of October 30, 2019 (the "Indenture"), among MULTIFAMILY CONNECTICUT AVENUE SECURITIES TRUST 2019-01, a Delaware statutory trust (together with its permitted successors and assigns, the "Issuer"), Wells Fargo Bank, N.A., a national banking association, in its capacity as indenture trustee (the "Indenture Trustee"), in its capacity as exchange administrator (the "Exchange Administrator") and in its capacity as Custodian (the "Custodian"), and Fannie Mae, a federally-chartered corporation, as administrator of the Issuer (the "Administrator"). Capitalized terms used but not defined herein are used as defined in the Indenture.

The undersigned (the "<u>Transferee</u>") intends to purchase a beneficial interest in a Class [B-10][B-10-A][B-10-X] Note representing \$\_\_\_\_\_ [principal][notional] balance from [the Issuer] [\_\_\_\_ [the Transferor named in the Transfer Certificate to which this Transferee Certification is attached]. In connection with the transfer of such beneficial interest in such Note (the "<u>Transfer</u>"), the Transferee does hereby certify that:

either (a) it is not and will not become for U.S. federal income tax purposes a partnership, a grantor trust or an S corporation (a "flow-through entity") or (b) if it is or becomes a flow-through entity then, (x) none of the direct or indirect beneficial owners of any of the interests in such flow-through entity has or ever will have more than 50% of the value of its interest in such flow-through entity attributable to the beneficial interest of such flow-through entity in the Notes and (y) it is not and will not be a principal purpose of the arrangement involving the flow-through entity's beneficial interest in any Class [B-10][B-10-A][B-10-X] Note to permit any partnership to satisfy the 100-partner limitation of section 1.7704-1(h)(1)(ii) of the Treasury regulations necessary for such partnership not to be classified as a publicly traded partnership under the Code;



- (ii) it is not acquiring any beneficial interest in the Class [B-10][B-10-A][B-10-X] Notes and it will not sell, transfer, assign, participate, or otherwise dispose of any beneficial interest in the Class [B-10][B-10-A][B-10-X] Notes and it will not cause any beneficial interest in the Class [B-10][B-10-A][B-10-X] Notes to be marketed, in each case on or through an "established securities market" or a "secondary market (or the substantial equivalent thereof)," each within the meaning of section 7704(b) of the Code, including, without limitation, an interdealer quotation system that regularly disseminates firm buy or sell quotations;
- (iii) its beneficial interest in the Class [B-10][B-10-A][B-10-X] Notes is not and will not be in an amount that is less than the minimum denomination for the Class [B-10][B-10-A][B-10-X] Notes set forth in the Indenture, and it does not and will not hold any beneficial interest in the Class [B-10][B-10-A][B-10-X] Notes on behalf of any person whose beneficial interest in the Class [B-10][B-10-A][B-10-X] Notes is in an amount that is less than the minimum denomination for the Class [B-10][B-10-A][B-10-X] Notes set forth in the Indenture and it will not sell, transfer, assign, participate, or otherwise dispose of any beneficial interest in the Class [B-10][B-10-A][B-10-X] Note or enter into any financial instrument or contract the value of which is determined by reference in whole or in part to the Class [B-10][B-10-A][B-10-X] Notes, in each case if the effect of doing so would be that the beneficial interest of any person in a Class [B-10][B-10-A][B-10-X] Note would be in an amount that is less than the minimum denomination for the Class [B-10][B-10-A][B-10-X] Notes set forth in the Indenture;
- (iv) it will not transfer any beneficial interest in the Class [B-10][B-10-A][B-10-X] Note (directly, through a participation thereof, or otherwise) unless, prior to the transfer, the transferee will have executed and delivered to the Indenture Trustee, and any of its successors or assigns, a transferee certification substantially in the form provided in the Indenture;
- (v) it will not take any action and will not allow any other action that could cause the Issuer to become taxable as a corporation for U.S. federal income tax purposes;
- (vi) the Transferee understands that tax counsel to the Issuer has provided an opinion substantially to the effect that the Issuer will not be taxable as a corporation for U.S. federal income tax purposes and that the validity of such opinion is dependent in part on the accuracy of the representations herein;
- (vii) this Transferee Certification has been duly executed and delivered and constitutes the legal, valid and binding obligation of the Transferee, enforceable against the Transferee in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws or equitable principles affecting the enforcement of creditors' rights generally and general principles of equity, and indemnification sought in respect of securities laws violations may be limited by public policy; and





(viii) it acknowledges that the Issuer, the Administrator, the Indenture Trustee, and others will rely on the truth and accuracy of the foregoing representations and warranties, and agrees that if it becomes aware that any of the foregoing made by it or deemed to have been made by it are no longer accurate, it will promptly notify the Issuer.

THE UNDERSIGNED HEREBY ACKNOWLEDGES THAT ANY TRANSFER TO OR BY THE UNDERSIGNED IN VIOLATION OF ANY OF THE FOREGOING WILL BE OF NO FORCE AND EFFECT, WILL BE VOID AB INITIO AND WILL NOT OPERATE TO TRANSFER ANY RIGHTS TO OR BY THE TRANSFEREE, NOTWITHSTANDING ANY INSTRUCTIONS TO THE CONTRARY TO THE ISSUER, THE INDENTURE TRUSTEE OR ANY OTHER PERSON.

[TRANSFEREE]	
By:	
Name:	
Title:	