

# PERSHING STANDARD FILE LAYOUTS

**FILE LAYOUT FOR: SECURITY DESCRIPTION**

## GENERAL INFORMATION

File Frequency: Daily  
Record Size: 132 Characters  
Form Name: ISCA

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## DESCRIPTION

The ISCA file is created daily after the close of the business day. The securities on ISCA are based on the customer account holdings or activity attributed to a given site.

Records A, B, C and D contain general security information. Legacy price fields (smaller field sizes) are in Record B and, because of that, we recommend using Record F, which contains larger fields to accommodate prices greater than 99,999.99.

Records E, F, and G contain additional information, including global security and asset types. Record F contains expanded price fields and should be used for all prices instead of Record B.

Records H and I provide additional security information including option symbology.

Record J contains a factored market value multiplier, as well as other fields (some repeated) that are associated with price, for convenience.

Record K contains various SEDOL Numbers assigned to a security, along with their exchanges. Record K is optional and has to be selected.

Record L contains information regarding primary and secondary market status. Record L is optional and has to be selected.

Record M contains upcoming call date schedules. Record M is optional and has to be selected.

Record N contains upcoming step coupon interest rate schedules. Record N is optional and has to be selected.

Record O contains OAS Treasury Data. Record O is optional and has to be selected.  
Available 3<sup>rd</sup> Q, 2020.

A full file is transmitted nightly.

**Please Note:** All new requests to receive ISCA are automatically configured with the majority of the available records; only records K, L, M, N and O must be specifically requested. Many sites receive only the basic records, A through D. We recommend that you review the file layout to determine your specific business needs and submit a Service Center Request to add the records that make sense to you. It is important to note, also, that expanded price field sizes are found in record F. Pershing will not make any changes to existing configurations without specific instructions.

The symbol “**␣**” is used on our standard files to represent spaces.

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# PERSHING STANDARD FILE LAYOUTS

## FILE LAYOUT SPECIFICATIONS

### HEADER RECORD

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 018	X(18)	AN	Literally "BOF <b>B B B B B B B B</b> PERSHING <b>B</b> " (beginning of Pershing file)
019 - 036	X(18)	AN	Literally "EXPANDED <b>B</b> SEC <b>B</b> DESC <b>B</b> "
037 - 046	X(10)	AN	Literally " <b>B</b> DATA <b>B</b> OF <b>B B</b> "
047 - 056	X(10)	AN	DATE OF DATA = "MM/DD/CCYY"
057 - 067	X(11)	AN	Literally " <b>B</b> TO <b>B</b> REMOTE <b>B</b> "
068 - 071	X(04)	AN	REMOTE ID = "XXXX"
072 - 085	X(14)	AN	Literally " <b>B</b> BEGINS <b>B</b> HERE <b>B B</b> "
086 - 095	X(10)	AN	RUN DATE = "MM/DD/CCYY"
096 - 096	X(01)	AN	Not Used
097 - 104	X(08)	AN	RUN TIME = "HH:MM:SS"
105 - 118	X(14)	AN	Not Used
119 - 127	X(09)	AN	Indicates if the file is REFRESHED or UPDATED; literally "REFRESHED" or "UPDATED <b>B B</b> "
128 - 131	X(04)	AN	Not Used
132 - 132	X(01)	AN	Literally "A"; indicates the end of the header record

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD A

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "A"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 017	X(01)	AN	SECURITY TYPE; see Appendix B for values
018 - 018	X(01)	AN	SECURITY MODIFIER; see Appendix B for values
019 - 019	X(01)	AN	SECURITY CALCULATION CODE; see Appendix B
020 - 020	X(01)	AN	PRIMARY EXCHANGE; values include: "1" = New York Stock Exchange (NYSE) "2" = NYSE ALT (formerly AMEX) "3" = Philadelphia (PHIL) "4" = Over the Counter (OTC) "5" = Regional/Foreign "6" = Chicago Exchange (CHX) "7" = Chicago Board Options Exchange (CBOE) "8" = Over the Counter/NSCC, OTC/NASDAQ "9" = NYSE Arca (formerly PSE) "B" = BATS Exchange "E" = Investors Exchange (IEXG) (effective 3 <sup>rd</sup> Q 2019)
021 - 027	s9(04)v9(03)	N	COUPON RATE FOR FIXED INCOME SECURITIES or INDICATED DIVIDEND FOR EQUITIES
028 - 034	9(07)	N	MATURITY/OPTION EXPIRE DATE, in CCYYDDD format
035 - 043	X(09)	AN	UNDERLYING SECURITY CUSIP
044 - 052	s9(05)v9(04)	N	FIRST CALL PRICE FOR FIXED INCOME or STRIKE PRICE FOR OPTION
053 - 061	s9(05)v9(04)	N	FIRST PAR CALL PRICE FOR FIXED INCOME or UNITS FOR OPTION
062 - 071	X(10)	AN	PRIMARY SYMBOL
072 - 073	X(02)	AN	INTEREST FREQUENCY; see Appendix A for values
074 - 074	X(01)	AN	BOND CLASS; values include: "B" = Non-bond "1" = Registered "2" = Coupon "4" = Interchangeable "6" = Book Entry Only
075 - 076	X(02)	AN	FIRST COUPON DAY; values include: 01-31
077 - 077	X(01)	AN	CALL INDICATOR; values include: "B" = Non-bond "C" = Callable "E" = Called "H" = Prerefunded

(cont.)

# PERSHING STANDARD FILE LAYOUTS

POSITION	PICTURE	TYPE	DESCRIPTION
			"M" = Matured "N" = Not Callable "S" = Escrowed to Maturity
078 - 078	X(01)	AN	PUT INDICATOR; values include: "M" = Conditional or Limited Put "P" = Mandatory Put "1" = One Time Optional Put "B" = Not Applicable
079 - 085	9(07)	N	NEXT PAR CALL DATE, in CCYYDDD format
086 - 092	9(07)	N	PREREFUNDED DATE, in CCYYDDD format
093 - 099	9(07)	N	NEXT PREMIUM CALL DATE, in CCYYDDD format
100 - 106	9(07)	N	DATED DATE FOR FIXED INCOME or EX- DIVIDEND DATE FOR EQUITY, in CCYYDDD format
107 - 113	9(07)	N	FIRST COUPON FOR FIXED INCOME or PAYABLE DATE FOR EQUITY, in CCYYDDD format
114 - 120	9(07)	N	For Pershing Internal Use
121 - 121	X(01)	AN	FEDERAL MARGINABLE INDICATOR, effective 4 <sup>th</sup> Q 2020, TBA; values include: "Y" = Marginable "N" = Not marginable
122 - 122	X(01)	AN	CONTINUOUS NET SETT. (CNS) ELIGIBLE CODE; values: "1" = Eligible "B" = Not Eligible
123 - 123	X(01)	AN	DEPOSITORY TRUST & CLEARING CORPORATION (DTCC) ELIGIBLE CODE; values include: "1" = Eligible "B" = Not Eligible
124 - 124	X(01)	AN	NATIONAL SECURITIES CLEARING CORPORATION (NSCC) ELIGIBLE CODE; values include: "1" = Eligible "B" = Not Eligible
125 - 125	X(01)	AN	FOREIGN SECURITY; values include: "B" = Domestic "1" = Foreign "2" = Canadian or American Depositary Receipt
126 - 127	X(02)	AN	SECOND COUPON DAY; values include: 01-31 (only applicable to a semi-annual cycle)
128 - 128	X(01)	AN	DIVIDEND/INTEREST PAYMENT METHOD; values include: "B" = No Announcement "3" = Cash "5" = Stock "7" = Spin-Off

(cont.)

# PERSHING STANDARD FILE LAYOUTS

POSITION	PICTURE	TYPE	DESCRIPTION
			“8” = Bond Interest
129 - 131	X(03)	AN	MINOR PRODUCT CODE; see Appendix B for values
132 - 132	X(01)	AN	Literally “X”; indicates the end of record A

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD B

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "B"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 019	X(03)	AN	Not Used
020 - 020	X(01)	AN	ETF INDICATOR; values include: "Y" = Exchange Traded Fund "N" = Not Exchange Traded Fund
The next five fields contain prices from our legacy system, which are not as robust as the fields found in Record F. We encourage you to use Record F for your prices. The fields are considerably larger			
021 - 029	s9(05)v9(04)	N	BID PRICE
030 - 038	s9(05)v9(04)	N	ASK PRICE
039 - 047	s9(05)v9(04)	N	PREVIOUS DAY PRICE
048 - 056	s9(05)v9(04)	N	LATEST PRICE
057 - 065	s9(05)v9(04)	N	END OF MONTH PRICE
066 - 078	9(13)	N	ROUND LOT QUANTITY
079 - 079	X(01)	AN	DIVIDEND REINVESTMENT ELIGIBILITY INDICATOR (for Mutual Funds please refer to the MFDS file); values include: "A" = Auto UIT Reinvestment (effective early 2 <sup>nd</sup> Q 2016) "D" = DTC reinvestment "I" = Inactive "R" = Reinvest eligible "B" = Not reinvest eligible
080 - 086	9(07)	N	PREVIOUS PRICE DATE, in CCYYDDD format
087 - 093	9(07)	N	LATEST PRICE DATE, in CCYYDDD format
094 - 100	9(07)	N	END OF MONTH PRICE DATE, in CCYYDDD format
101 - 107	9(07)	N	RECORD DATE, in CCYYDDD format
108 - 108	X(01)	AN	FUNDVEST INDICATOR; values include: "Y" = Yes; participates in FundVest program "N" = No; does not participate in FundVest program "B" = Does not participate in FundVest program or N/A
109 - 111	X(03)	AN	COUNTRY CODE; see Appendix Q for values
112 - 115	X(04)	AN	STANDARD & POORS RATING; values can be found from S&P website; effective mid-March, 2012, values in this field will be displayed for customer destinations and only if the customer has a re-distribution agreement with S&P noted in Pershing's BPAI application; Pershing-specific internal values include: "007B" = Non-rated "008B" = No ratings available

# PERSHING STANDARD FILE LAYOUTS

POSITION	PICTURE	TYPE	DESCRIPTION
116 - 120	X(05)	AN	MOODYS RATING; values can be found from Moody's website; Pershing-specific internal values include: "007 <b>B B</b> " = Non-rated "008 <b>B B</b> " = No ratings available
121 - 121	X(01)	AN	BOND SUB CLASS; values include: " <b>B</b> " = Normal "3" = Bond in Default "7" = Bond Trading Flat
122 - 125	X(04)	AN	RESTRICTION INDICATOR; values include: "144A" = SEC Rule 144A "UNKN" = Unknown or Not Restricted
126 - 126	X(01)	AN	TRACE INDICATOR; values include: "Y" = Trace Security "N" = Non-Trace Security
127 - 127	X(01)	AN	NEW INTEREST CALCULATION CODE (replacing Rec. A, pos. 121); values include: " <b>B</b> " = Not Applicable "0" = Manually pre-figure coupon interest, if appropriate; otherwise, N/A "1" = 30/360 "2" = 30/365 "3" = 30/Actual "4" = Actual/360 "5" = Actual/365 "6" = Actual/Actual "A" = 30/360 ISMA (Int'l Securities Market Association)
128 - 131	X(04)	AN	STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE
132 - 132	X(01)	AN	Literally "X"; indicates the end of record B

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD C

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "C"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 017	X(01)	AN	STATE TAX INDICATOR; values include: "Y" = State taxable "N" = Not state taxable "U" = Unknown "B" = Not applicable
The following two fields break out the characteristics of the information in position 131, to be retired TBA			
018 - 018	X(01)	AN	FEDERAL TAXABLE STATUS INDICATOR; values include: "Y" = Subject to Federal income tax "N" = Not subject to Federal income tax "U" = Unknown "B" = Not applicable
019 - 019	X(01)	AN	ALT. MINIMUM TAX (AMT) INDICATOR; values include: "Y" = Subject to Alternative Minimum Tax "N" = Not subject to Alternative Minimum Tax "U" = Unknown "B" = Not applicable
020 - 020	X(01)	AN	REGULATED INVESTMENT COMPANY (RIC) INDICATOR; applies only to Equities, Mutual Funds and UITs; values include: "Y" = Elected to be treated as a Regulated Inv. Company "N" = Elected not to be treated as a Regulated Inv. Company "U" = Unknown "B" = Not applicable
021 - 021	X(01)	AN	NUMBER OF DESCRIPTION LINES
022 - 041	X(20)	AN	SECURITY DESCRIPTION LINE 1
042 - 061	X(20)	AN	SECURITY DESCRIPTION LINE 2
062 - 081	X(20)	AN	SECURITY DESCRIPTION LINE 3
082 - 101	X(20)	AN	SECURITY DESCRIPTION LINE 4
102 - 121	X(20)	AN	SECURITY DESCRIPTION LINE 5
122 - 123	X(02)	AN	USER CUSIP IDENTIFIER; values include: "UR" = Universally Recognized "UD" = User-Defined (User CUSIP)
124 - 130	9(07)	N	PRICE PURGE DATE, in CCYYDDD format
131 - 131	X(01)	AN	TAXABLE INDICATOR; values include ( pos. 18 & 19, will break out the data into two fields - to be retired, TBA): "Y" = Security is taxable "N" = Security is not taxable "A" = Security is subject to Alternative Min. Tax (AMT) Rate
132 - 132	X(01)	AN	Literally "X"; indicates the end of record C



# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD D

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "D"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
021 - 040	X(20)	AN	SECURITY DESCRIPTION LINE 6
041 - 049	s9(05)v9(04)	N	PUT PRICE
050 - 056	9(07)	N	PUT DATE, in CCYYDDD format
057 - 065	s9(05)v9(04)	N	SECOND PREMIUM CALL PRICE
066 - 072	9(07)	N	SECOND PREMIUM CALL DATE, in CCYYDDD format
073 - 079	9(07)	N	CALLED DATE, in CCYYDDD format (security that has been called)
080 - 087	X(08)	AN	POOL NUMBER
088 - 097	s9(02)v9(08)	N	FACTOR; displays the percentage value applied to a mortgage-backed pool, inflation protected bond, or other type of security to obtain a current amortized amount
098 - 104	9(07)	N	FACTOR DATE, in CCYYDDD format
105 - 114	s9(02)v9(08)	N	PREVIOUS FACTOR
115 - 121	9(07)	N	PREVIOUS FACTOR DATE, in CCYYDDD format
122 - 122	X(01)	AN	VARIABLE RATE INDICATOR; values include: "Y" = Variable Rate Security "N" = Not a Variable Rate Security "B" = Not Applicable
123 - 129	9(07)	N	NEXT/LAST COUPON DATE, in CCYYDDD format
130 - 130	X(01)	AN	STRUCTURED PRODUCT INDICATOR; effective 12/01/2017; values include: "Y" = Structured product "N" = Not a structured product
131 - 131	X(01)	AN	PERPETUAL BOND INDICATOR; values include: "Y" = Perpetual Bond "N" = Not a Perpetual Bond
132 - 132	X(01)	AN	Literally "X"; indicates the end of record D

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD E

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "E"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
021 - 038	s9(09)v9(09)	N	EXPANDED FIRST CALL PRICE FOR FIXED INCOME OR STRIKE PRICE FOR OPTION
039 - 056	s9(09)v9(09)	N	EXPANDED FIRST PAR CALL PRICE FOR FIXED INCOME OR EXERCISE QUANTITY FOR OPTION
057 - 074	s9(09)v9(09)	N	EXPANDED PUT PRICE
075 - 092	s9(09)v9(09)	N	EXPANDED SECOND PREMIUM CALL PRICE
093 - 124	X(32)	AN	NAME OF THE ISSUER OF THE SECURITY
125 - 127	X(03)	AN	ISSUING CURRENCY; see Appendix "N", Currency Codes
128 - 128	X(01)	AN	<p>GLOBALLY LOCKED SECURITY INDICATOR; values include:</p> <p>"Y" = Security is Globally Locked</p> <p>"N" = Security is not Globally Locked</p>
129 - 129	X(01)	AN	<p>GLOBALLY LOCKED REASON CODE; values include:</p> <p>"0" = DTCC applied Global Lock</p> <p>"1" = DTCC applied Global Lock - Compliance-related</p> <p>"N" = Security not on DTCC</p>
130 - 131	X(02)	AN	Not Used
132 - 132	X(01)	AN	Literally "X"; indicates the end of record E

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD F

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "F"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
Please use the prices on this record instead of those displayed in Record B. They are larger and can accommodate prices greater than 99,999.99, which record B cannot.			
021 - 038	s9(09)v9(09)	N	EXPANDED BID PRICE
039 - 056	s9(09)v9(09)	N	EXPANDED ASK PRICE
057 - 074	s9(09)v9(09)	N	EXPANDED PREVIOUS DAY PRICE
075 - 092	s9(09)v9(09)	N	EXPANDED LATEST PRICE
093 - 110	s9(09)v9(09)	N	EXPANDED END OF MONTH PRICE
111 - 127	s9(15)v9(02)	N	CONTRACT SHARE QUANTITY
128 - 131	9(04)	N	YEAR COVERED UNDER COST BASIS RULES, in CCYY format; (effective 10/24/2014) other value includes: "0000" = Cost basis date not established
132 - 132	X(01)	AN	Literally "X"; indicates the end of record F

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD G

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "G"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
The following three fields are effective 2 <sup>nd</sup> Q, 2020, TBA			
021 - 038	9(09)v9(09)	N	DELTA; the ratio of the change in market price of an option relative to the change in the market price of its underlying instrument
039 - 039	X(01)	AN	DELTA SIGN; values include: "+" = Positive Delta "-" = Negative Delta "B" = Not Applicable
040 - 040	X(01)	AN	DELTA VALUE PRESENCE INDICATOR; values include: "Y" = Delta value present for this security "N" = Delta value not present for this security "B" = Not Applicable
041 - 052	X(12)	AN	Not Used
053 - 064	X(12)	AN	ISIN CODE
065 - 079	X(15)	AN	ISSUER IDENTIFIER
080 - 084	X(05)	AN	Not Used
085 - 100	X(16)	AN	SYMBOL OF THE UNDERLYING SECURITY
101 - 108	X(08)	AN	ASSET TYPE; see Appendix B for values
109 - 116	X(08)	AN	ASSET SUBTYPE; see Appendix B for values
117 - 124	X(08)	AN	ASSET SUB-SUBTYPE; see Appendix B for values
125 - 127	9(03)	N	PAYMENT DAY DELAYS; number of calendar days
128 - 131	X(04)	AN	<i>Reserved for future Rating</i>
132 - 132	X(01)	AN	Literally "X"; indicates the end of record G

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD H

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "H"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
021 - 038	9(08)v9(10)	N	EXCH. RATE BETWEEN DENOM CURR. and USD
039 - 047	X(09)	AN	UNDERLYING CUSIP #1
048 - 051	X(04)	AN	Not Used
052 - 056	9(05)	N	DELIVERABLE UNIT QUANTITY
057 - 065	X(09)	AN	UNDERLYING CUSIP #2
066 - 069	X(04)	AN	Not Used
070 - 074	9(05)	N	DELIVERABLE UNIT QUANTITY
075 - 083	X(09)	AN	UNDERLYING CUSIP #3
084 - 087	X(04)	AN	Not Used
088 - 092	9(05)	N	DELIVERABLE UNIT QUANTITY
093 - 101	X(09)	AN	UNDERLYING CUSIP #4
102 - 105	X(04)	AN	Not Used
106 - 110	9(05)	N	DELIVERABLE UNIT QUANTITY
111 - 113	X(03)	AN	ANNUAL DIVIDEND CURRENCY CODE, effective 3 <sup>rd</sup> Q, 2016
114 - 131	9(16)v9(02)	N	OUTSTANDING SHARES
132 - 132	X(01)	AN	Literally "X"; indicates the end of record H

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD I (WILL BE SENT ONLY IF DATA IS POPULATED)

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "I"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
OCC DATA SET – The following four fields (in position 21 through 41) comprise the OCC DATA SET			
021 - 026	X(06)	AN	OPTION ROOT ID
027 - 032	9(06)	N	EXPIRATION DATE, in YYMMDD format
033 - 033	X(01)	AN	CALL/PUT INDICATOR, values include: "B" = Bank Pledge (Call) "C" = Call "D" = Bank Pledge (Put) "E" = Escrow Receipt "L" = Letter of Credit (Call) "M" = Letter of Credit (Put) "P" = Put
034 - 041	9(05)v9(03)	N	STRIKE PRICE
042 - 042	X(01)	AN	FUND TYPE, fund is leveraged or short; values include: "L" = Leveraged "S" = Short "B" = Undefined or Not Applicable
043 - 043	X(01)	AN	BROAD/NARROW INDICATOR; the underlying index. Required to determine margin treatment; values include: "B" = Broad based "N" = Narrow based "B" = Undefined or Not Applicable
044 - 061	9(09)v9(09)	N	LEVERAGE FACTOR; multiple of the performance of the underlying index or benchmark that fund is designed to generate
062 - 062	X(01)	AN	LEVERAGE FACTOR SIGN; values include: "+" = Positive factor "-" = Negative Factor "B" = Not Applicable
063 - 070	9(08)	N	OUTSTANDING SHARES UPDATE DATE, CCYYMMDD
071 - 086	X(16)	AN	EXPANDED SYMBOL (effective 04/04/2014)
087 - 088	X(02)	AN	STATE OF ISSUANCE (for Munis); see Appendix Q; additional values include: "PH" = Public housing "TR" = Multi-state issuer

# PERSHING STANDARD FILE LAYOUTS

POSITION	PICTURE	TYPE	DESCRIPTION
089 - 089	X(01)	AN	OPTION EXERCISE PRICING MODEL CODE (effective 11/3/2017); values include: “A” = American “E” = European “ <b>B</b> ” = Not Applicable or populated
090 - 097	9(08)	N	FIRST ACCRUAL DATE, CCYYMMDD (effective 4/4/2014)
098 - 103	X(06)	AN	TRANCHE CODE; see Appendix B for values (effective 6/20/14)
104 - 105	X(02)	AN	Not Used
106 - 106	X(01)	AN	WORTHLESS SECURITY INDICATOR (effective 02/2015); values include: “Y” = Security is worthless “N” = Security is not worthless
107 - 114	9(08)	N	UIT TERMINATION DATE, in CCYYMMDD format
115 - 122	X(08)	AN	FDIC CERTIFICATION NUMBER (applies to Certificate of Deposit Securities – update effective 1/22/2021)
123 - 125	X(03)	AN	REVENUE STREAM (applies to Municipal Securities only) effective late 2 <sup>nd</sup> Q 2019; values include: “DB” = Double barrel “GO” = General obligation “REV” = Revenue obligation “ <b>B</b> ” = Not applicable or populated
126 - 126	X(01)	AN	RESTRICTED MARIJUANA INDICATOR, effective late 2 <sup>nd</sup> Q 2019; values include: “Y” = Restricted “ <b>B</b> ” = No or not applicable
127 - 131	X(05)	AN	Not Used
132 - 132	X(01)	AN	Literally “X”; indicates the end of record I

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD J

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "J"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
021 - 038	9(09)v9(09)	N	LATEST PRICE
039 - 046	9(08)	N	LATEST PRICE DATE, in CCYYMMDD format
047 - 064	9(06)v9(12)	N	FACTORED MARKET VALUE MULTIPLIER (price * quantity * factored MV multiplier = Market Value) - please note format changed to 9(06)v9(12) on the evening of 10/24/2014
065 - 082	9(09)v9(09)	N	CURRENT YIELD (when available)
083 - 100	9(09)v9(09)	N	YIELD (when available)
101 - 101	X(01)	AN	PRICE SOURCE; values include: "V" = Vendor source "O" = Other source
102 - 103	X(02)	AN	COUNTRY OF ORIGIN; see Appendix Q, "Country of Issuance Codes"
104 - 104	X(01)	AN	RESTRICTED SECURITY CODE; values include: "R" = Security has a Restricted Legend "B" = Not Applicable
105 - 120	X(16)	AN	INTERNATIONAL NON-DOLLAR SYMBOL (effective 04/04/2014)
121 - 126	X(06)	AN	INTERNATIONAL EXCHANGE; see Appendix S for values
127 - 129	X(03)	AN	VARIABLE RATE CATEGORY CODE, effective early 8/2017; values include: "STP" = Step "FLT" = Floating "UNK" = Unknown "B B B" = Not Applicable
130 - 130	X(01)	AN	INTEREST RATE COMPLETION INDICATOR, effective early 8/2017; values include: "Y" = Includes a Step or Floating Interest Rate Schedule "N" = Does not include a Step or Floating Interest Rate Schedule "B" = Not Applicable
131 - 131	X(01)	AN	Not Used
132 - 132	X(01)	AN	Literally "X"; indicates the end of record J



# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD K (OPTIONAL - EFFECTIVE 10/24/ 2014)

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "K"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 019	X(03)	AN	EXCHANGE CODE FOR SEDOL 1
020 - 026	X(07)	AN	SEDOL 1
027 - 029	X(03)	AN	EXCHANGE CODE FOR SEDOL 2
030 - 036	X(07)	AN	SEDOL 2
037 - 039	X(03)	AN	EXCHANGE CODE FOR SEDOL 3
040 - 046	X(07)	AN	SEDOL 3
047 - 049	X(03)	AN	EXCHANGE CODE FOR SEDOL 4
050 - 056	X(07)	AN	SEDOL 4
057 - 059	X(03)	AN	EXCHANGE CODE FOR SEDOL 5
060 - 066	X(07)	AN	SEDOL 5
067 - 069	X(03)	AN	EXCHANGE CODE FOR SEDOL 6
070 - 076	X(07)	AN	SEDOL 6
077 - 079	X(03)	AN	EXCHANGE CODE FOR SEDOL 7
080 - 086	X(07)	AN	SEDOL 7
087 - 089	X(03)	AN	EXCHANGE CODE FOR SEDOL 8
090 - 096	X(07)	AN	SEDOL 8
097 - 099	X(03)	AN	EXCHANGE CODE FOR SEDOL 9
100 - 106	X(07)	AN	SEDOL 9
107 - 109	X(03)	AN	EXCHANGE CODE FOR SEDOL 10
110 - 116	X(07)	AN	SEDOL 10
117 - 119	X(03)	AN	EXCHANGE CODE FOR SEDOL 11
120 - 126	X(07)	AN	SEDOL 11
127 - 131	X(05)	AN	Not Used
132 - 132	X(01)	AN	Literally "X"; indicates the end of record K

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD L

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "L"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
Primary Market Status			
021 - 022	X(02)	AN	PRIMARY IDC MARKET EXCHANGE; see Appendix 6 for values; space is a valid value
023 - 023	X(01)	AN	PRIMARY MARKET EXCHANGE TRADING STATUS; values include: "A" = Active "I" = Inactive <b>B</b> = Not applicable or available
024 - 039	X(16)	AN	PRIMARY MARKET SYMBOL
040 - 047	9(08)	N	PRIMARY MARKET EXCHANGE EFFECTIVE DATE, in CCYYMMDD format
048 - 050	X(03)	AN	PRIMARY MARKET STATUS CODE; values include: "DEL" = Delisted "SUS" = Suspended <b>B B B</b> = Not applicable
Secondary Market Status			
051 - 052	X(02)	AN	SECONDARY IDC MARKET EXCHANGE; see Appendix 6 for values; space is a valid value
053 - 053	X(01)	AN	SECONDARY MARKET EXCHANGE TRADING STATUS; values include: "A" = Active "I" = Inactive <b>B</b> = Not applicable or available
054 - 069	X(16)	AN	SECONDARY MARKET SYMBOL
070 - 077	9(08)	N	SECONDARY MARKET EXCHANGE EFFECTIVE DATE, in CCYYMMDD format
078 - 080	X(03)	AN	SECONDARY MARKET STATUS CODE; values include: "DEL" = Delisted "SUS" = Suspended <b>B B B</b> = Not applicable
081 - 082	X(02)	AN	TICK SIZE PILOT GROUP, effective 3 <sup>rd</sup> Q, 2016; values include: "C <b>B</b> " = Control Group "G1" = Group One "G2" = Group Two "G3" = Group Three <b>B B</b> = Not applicable

# PERSHING STANDARD FILE LAYOUTS

POSITION	PICTURE	TYPE	DESCRIPTION
083 - 090	9(08)	N	TICK SIZE EFFECTIVE DATE, effective 3 <sup>rd</sup> Q, 2016, in CCYYMMDD format
091 - 098	9(08)	N	TICK SIZE CHANGE DATE, effective 3 <sup>rd</sup> Q, 2016, in CCYYMMDD format
The next three fields contain OAS LIBOR Rate data (effective 05/05/2017)			
099 - 106	9(08)	N	UPDATE DATE, in CCYYMMDD format
107 - 124	9(09)v9(09)	N	OAS LIBOR RATE
125 - 125	X(01)	AN	OAS LIBOR RATE SIGN, values include: “+” = Positive rate “-” = Negative rate “ <b>B</b> ” = Not applicable or available
126 - 131	X(06)	AN	Not Used
132 - 132	X(01)	AN	Literally “X”; indicates the end of record L

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD M - CALL DATE SCHEDULE (OPTIONAL)

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "M"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
First (Most Current) Upcoming Call			
021 - 021	X(01)	AN	<i>Reserved for future use</i>
022 - 029	9(08)	N	FIRST CALL DATE, in CCYYMMDD format
030 - 047	9(09)v9(09)	N	FIRST CALL PRICE
Second Call			
048 - 048	X(01)	AN	<i>Reserved for future use</i>
049 - 056	9(08)	N	SECOND CALL DATE, in CCYYMMDD format
057 - 074	9(09)v9(09)	N	SECOND CALL PRICE
Third Call			
075 - 075	X(01)	AN	<i>Reserved for future use</i>
076 - 083	9(08)	N	THIRD CALL DATE, in CCYYMMDD format
084 - 101	9(09)v9(09)	N	THIRD CALL PRICE
Fourth Call			
102 - 102	X(01)	AN	<i>Reserved for future use</i>
103 - 110	9(08)	N	FOURTH CALL DATE, in CCYYMMDD format
111 - 128	9(09)v9(09)	N	FOURTH CALL PRICE
129 - 131	X(03)	AN	Not Used
132 - 132	X(01)	AN	Literally "X"; indicates the end of record M

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD N - STEP COUPON INTEREST RATE SCHEDULE (OPTIONAL)

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "N"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
First (Most Current) Upcoming Step Interest Rate Schedule			
021 - 021	X(01)	AN	<i>Reserved for future use</i>
022 - 029	9(08)	N	FIRST STEP DATE, in CCYYMMDD format
030 - 047	9(09)v9(09)	N	FIRST STEP COUPON INTEREST RATE
Second Step Interest Rate Schedule			
048 - 048	X(01)	AN	<i>Reserved for future use</i>
049 - 056	9(08)	N	SECOND STEP DATE, in CCYYMMDD format
057 - 074	9(09)v9(09)	N	SECOND STEP COUPON INTEREST RATE
Third Step Interest Rate Schedule			
075 - 075	X(01)	AN	<i>Reserved for future use</i>
076 - 083	9(08)	N	THIRD STEP DATE, in CCYYMMDD format
084 - 101	9(09)v9(09)	N	THIRD STEP COUPON INTEREST RATE
Fourth Step Interest Rate Schedule			
102 - 102	X(01)	AN	<i>Reserved for future use</i>
103 - 110	9(08)	N	FOURTH STEP DATE, in CCYYMMDD format
111 - 128	9(09)v9(09)	N	FOURTH STEP COUPON INTEREST RATE
129 - 131	X(03)	AN	Not Used
132 - 132	X(01)	AN	Literally "X"; indicates the end of record N

# PERSHING STANDARD FILE LAYOUTS

## DETAIL RECORD O - OAS TREASURY DATA (OPTIONAL), AVAILABLE 4<sup>TH</sup> Q, 2020, TBA

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 001	X(01)	AN	RECORD INDICATOR = "O"
002 - 007	9(06)	N	RECORD ID SEQUENCE NUMBER; begins with "000001"
008 - 016	X(09)	AN	CUSIP NUMBER
017 - 020	X(04)	AN	Not Used
The following three fields are related to OAS Treasury Rate Information			
021 - 038	9(09)v9(09)	N	OAS TREASURY RATE
039 - 039	X(01)	AN	OAS TREASURY RATE SIGN, values include: "+" = Positive rate "-" = Negative rate <b>B</b> = Not applicable or available
040 - 047	9(08)	N	OAS TREASURY EFFECTIVE/UPDATE DATE, in CCYYMMDD format
The following two fields refer to the minimums associated with trading the instrument – this applies to all fixed income products			
048 - 062	9(12)v9(03)	N	MINIMUM PIECE; the minimum tradable quantity
063 - 077	9(12)v9(03)	N	MINIMUM INCREMENT; the minimum increment quantity in addition to the minimum piece
078 - 131	X(54)	AN	Not Used
132 - 132	X(01)	AN	Literally "X"; indicates the end of record O

# PERSHING STANDARD FILE LAYOUTS

## TRAILER RECORD

POSITION	PICTURE	TYPE	DESCRIPTION
001 - 018	X(18)	AN	Literally "EOF <b>B B B B B B</b> PERSHING <b>B</b> " (end of Pershing file)
019 - 036	X(18)	AN	Literally "EXPANDED <b>B</b> SEC <b>B</b> DESC <b>B</b> "
037 - 046	X(10)	AN	Literally " <b>B</b> DATA <b>B</b> OF <b>B B</b> "
047 - 056	X(10)	AN	DATE OF DATA = "MM/DD/CCYY"
057 - 067	X(11)	AN	Literally " <b>B</b> TO <b>B</b> REMOTE <b>B</b> "
068 - 071	X(04)	AN	REMOTE ID = "XXXX"
072 - 105	X(34)	AN	Literally " <b>B</b> END <b>B</b> HERE. <b>B</b> TOTAL <b>B</b> DETAIL <b>B</b> RECORDS: <b>B</b> "
106 - 115	9(10)	N	NUMBER OF DETAIL RECORDS
116 - 118	X(03)	AN	Not Used
119 - 127	X(09)	AN	Literally "UPDATED <b>B B</b> " or "REFRESHED" (this will indicate whether an updated or refreshed file was created on this day)
128 - 131	X(04)	AN	Not Used
132 - 132	X(01)	AN	Literally "Z"; indicates the end of the trailer record