Form 5500-SF

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Short Form Annual Return/Report of Small Employee Benefit Plan

This form is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA), and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

▶ **Complete all entries in accordance with the instructions to the Form 5500-SF.**

OMB Nos. 1210-0110
1210-0089

2018

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A This return/report is for:
- [X] a single-employer plan
- [ ] a multiple-employer plan (not multiemployer) (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)
- [ ] a one-participant plan
- [ ] a foreign plan

B This return/report is
- [ ] the first return/report
- [ ] the final return/report
- [ ] an amended return/report
- [ ] a short plan year return/report (less than 12 months)

C Check box if filing under:
- [X] Form 5558
- [ ] automatic extension
- [ ] DFVC program
- [ ] special extension (enter description)

Part II Basic Plan Information—enter all requested information

1a Name of plan
DETREX CORPORATION EMPLOYEES' RETIREMENT SAVINGS P

1b Three-digit plan number (PN) ▶ 004

1c Effective date of plan 01/01/1994

2a Plan sponsor's name (employer, if for a single-employer plan)
Mailing address (include room, apt., suite no. and street, or P.O. Box)
City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions)
DETREX CORPORATION

1000 BELT LINE STREET
CLEVELAND, OH 44109-2800

2b Employer Identification Number (EIN) 38-0480840

2c Sponsor's telephone number 216-749-2605

2d Business code (see instructions) 325100

3a Plan administrator's name and address [X] Same as Plan Sponsor.

3b Administrator's EIN

3c Administrator's telephone number

4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report.
a Sponsor's name
c Plan Name

4b EIN

4d PN

5a Total number of participants at the beginning of the plan year	**5a**	90
b Total number of participants at the end of the plan year	**5b**	115
c Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**5c**	92
d(1) Total number of active participants at the beginning of the plan year	**5d(1)**	67
d(2) Total number of active participants at the end of the plan year	**5d(2)**	92
e Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	**5e**	0

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	07/25/2019	ROBERT A. LUNOE
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE	Filed with authorized/valid electronic signature.	07/25/2019	ROBERT A. LUNOE
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor

6a Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) ☒ Yes ☐ No

b Are you claiming a waiver of the annual examination and report of an independent qualified public accountant (IQPA) under 29 CFR 2520.104-46? (See instructions on waiver eligibility and conditions.) ☒ Yes ☐ No

If you answered "No" to either line 6a or line 6b, the plan cannot use Form 5500-SF and must instead use Form 5500.

c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (see ERISA section 4021)? ☐ Yes ☐ No ☐ Not determined

If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year_____. (See instructions.)

Part III Financial Information

7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	11715319	12137266
b Total plan liabilities	7b		
c Net plan assets (subtract line 7b from line 7a)	7c	11715319	12137266

8 Income, Expenses, and Transfers for this Plan Year		(a) Amount	(b) Total
a Contributions received or receivable from: (1) Employers	8a(1)	209599	
(2) Participants	8a(2)	541845	
(3) Others (including rollovers)	8a(3)	339679	
b Other income (loss)	8b	-225483	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		865640
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	420122	
e Certain deemed and/or corrective distributions (see instructions)	8e	0	
f Administrative service providers (salaries, fees, commissions)	8f	23571	
g Other expenses	8g	0	
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		443693
i Net income (loss) (subtract line 8h from line 8c)	8i		421947
j Transfers to (from) the plan (see instructions)	8j		

Part IV Plan Characteristics

9a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions:
2E 2J 2F 2G 2K 3D 3H 2T

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristic Codes in the instructions:

Part V Compliance Questions

10 During the plan year:		Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? (See instructions and DOL's Voluntary Fiduciary Correction Program)	10a		X	
b Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.)	10b		X	
c Was the plan covered by a fidelity bond?	10c	X		1000000
d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	10d		X	
e Were any fees or commissions paid to any brokers, agents, or other persons by an insurance carrier, insurance service, or other organization that provides some or all of the benefits under the plan? (See instructions.)	10e	X		22491
f Has the plan failed to provide any benefit when due under the plan?	10f		X	
g Did the plan have any participant loans? (If "Yes," enter amount as of year-end.)	10g	X		192026
h If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	10h		X	
i If 10h was answered "Yes," check the box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	10i			

Part VI Pension Funding Compliance

11	Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and line 11a below)		☐ Yes ☒ No
11a	Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40	**11a**	
12	Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section 302 of ERISA? (If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.)		☐ Yes ☒ No
a	If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions, and enter the date of the letter ruling granting the waiver. Month _____ Day _____ Year _____		
	If you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.		
b	Enter the minimum required contribution for this plan year	**12b**	
c	Enter the amount contributed by the employer to the plan for this plan year	**12c**	
d	Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount)	**12d**	
e	Will the minimum funding amount reported on line 12d be met by the funding deadline?		☐ Yes ☐ No ☐ N/A

Part VII Plan Terminations and Transfers of Assets

13a	Has a resolution to terminate the plan been adopted in any plan year?		☐ Yes ☒ No
	If "Yes," enter the amount of any plan assets that reverted to the employer this year	**13a**	
b	Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?		☐ Yes ☒ No

c If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

13c(1) Name of plan(s):	**13c(2)** EIN(s)	**13c(3)** PN(s)

A Name of Plan	B Three-digit plan Number
Detrex Corporation Employees' Retirement Savings Plan	004
C Plan sponsor's name as shown on line 2a of Form 5500	**D Employer Identification Number**
Detrex Corporation	380480840

Schedule C Formula Description and/or EIC Statement Description

Service Provider Name	Service Provider EIN	Service Provider Address	Formula / EIC Statement
American Century	431646043		American Century received estimated Investment Management Fees of 1% with respect to plan assets held in the Mid Cap Value (American Century) separate account (SIA-CDJ).
American Century	446006315		American Century received estimated Investment Management Fees of 0.97% with respect to plan assets held in the Growth Investors (American Century) separate account (SIA-W6).
Fidelity Investments	046056833		Fidelity Investments received estimated Investment Management Fees of 0.68% with respect to plan assets held in the Contrafund (Fidelity) separate account (SIA-W2).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual provided the Plan with the required written disclosure for float revenue received by MassMutual.
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Sub-TA Fees of 0.30% with respect to plan assets held in the Real Estate (OFI) separate account (SIA-CB).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Wrap Fees of 0.25% with respect to plan assets held in the Contrafund (Fidelity) separate account (SIA-W2).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Sub-TA Fees of 0.25% with respect to plan assets held in the Contrafund (Fidelity) separate account (SIA-W2).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated 12b-1 Fees of 0.25% with respect to plan assets held in the Int'l New Discovery (MFS) separate account (SIA-WR).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Sub-TA Fees of 0.25% with respect to plan assets held in the Int'l New Discovery (MFS) separate account (SIA-WR).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Wrap Fees of 0.25% with respect to plan assets held in the New Horizons (T. Rowe Price) separate account (SIA-W4).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Sub-TA Fees of 0.15% with respect to plan assets held in the New Horizons (T. Rowe Price) separate account (SIA-W4).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Administrative Fees of 0.15% with respect to plan assets held in the Premier Balanced (Barings) separate account (SIA-M).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Sub-TA Fees of 0.35% with respect to plan assets held in the Mid Cap Value (American Century) separate account (SIA-CDJ).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Wrap Fees of 0.25% with respect to plan assets held in the Growth Investors (American Century) separate account (SIA-W6).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Administrative Fees of 0.15% with respect to plan assets held in the Premier Core Bond (Barings) separate account (SIA-E).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Administrative Fees of 0.25% with respect to plan assets held in the MM RetireSMART by JPM 2020 separate account (SIA-K1).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Administrative Fees of 0.25% with respect to plan assets held in the MM RetireSMART by JPM 2030 separate account (SIA-K6).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Administrative Fees of 0.25% with respect to plan assets held in the MM RetireSMART by JPM 2040 separate account (SIA-M1).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Administrative Fees of 0.25% with respect to plan assets held in the MM RetireSMART by JPM 2050 separate account (SIA-H5).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Sub-TA Fees of 0.35% with respect to plan assets held in the Growth Investors (American Century) separate account (SIA-W6).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Administrative Fees of 0.15% with respect to plan assets held in the Premier Int'l Equity (OFI Inst) separate account (SIA-I).
Massachusetts Mutual Life Insurance Company	041590850		MassMutual received estimated Administrative Fees of 0.35% with respect to plan assets held in the Select TRP/LS Blue Chip Growth separate account (SIA-W1).

Massachusetts Mutual Life Insurance Company (MassMutual), 1295 State Street, Springfield, Massachusetts 01111-0001.

Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Administrative Fees of 0.15% with respect to plan assets held in the Select Strategic Bond (Western) separate account (SIA-TE).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Administrative Fees of 0.15% with respect to plan assets held in the Sel Gr Opportunities (Sands/JSP) separate account (SIA-SD).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Administrative Fees of 0.15% with respect to plan assets held in the Sel SmCoVal (Fed Clov/TRP/INVSC) separate account (SIA-SY).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Administrative Fees of 0.25% with respect to plan assets held in the MM RetireSMART by JPM In Ret III separate account (SIA-J6).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Administrative Fees of 0.25% with respect to plan assets held in the MM S&P 500 Index (Northern Trust) separate account (SIA-X).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Administrative Fees of 0.35% with respect to plan assets held in the Select Mid Cap Gr (TRP/Frontier) separate account (SIA-W9).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.5% with respect to plan assets held in the MM RetireSMART by JPM 2020 separate account (SIA-K1).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.51% with respect to plan assets held in the Premier Balanced (Barings) separate account (SIA-M).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.38% with respect to plan assets held in the Premier Core Bond (Barings) separate account (SIA-E).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.51% with respect to plan assets held in the MM RetireSMART by JPM 2030 separate account (SIA-K6).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.52% with respect to plan assets held in the MM RetireSMART by JPM 2040 separate account (SIA-M1).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.52% with respect to plan assets held in the MM RetireSMART by JPM 2050 separate account (SIA-H5).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Administrative Fees of 0.15% with respect to plan assets held in the Sel Fundamental Val (BrwHnly/BsPt) separate account (SIA-SK).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Administrative Fees of 0.15% with respect to plan assets held in the Select Equity Opps (Wellington/TRP) separate account (SIA-SV).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Administrative Fees of 0.25% with respect to plan assets held in the MM RetireSMART by JPM In Retirement separate account (SIA-J1).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.61% with respect to plan assets held in the Select TRP/LS Blue Chip Growth separate account (SIA-W1).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.85% with respect to plan assets held in the Premier Int'l Equity (OFI Inst) separate account (SIA-I).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.39% with respect to plan assets held in the Select Strategic Bond (Western) separate account (SIA-TE).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.7% with respect to plan assets held in the Sel Gr Opportunities (Sands/JSP) separate account (SIA-SD).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.09% with respect to plan assets held in the MM S&P 500 Index (Northern Trust) separate account (SIA-X).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.49% with respect to plan assets held in the MM RetireSMART by JPM In Ret III separate account (SIA-J6).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.69% with respect to plan assets held in the Select Mid Cap Gr (TRP/Frontier) separate account (SIA-W9).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.85% with respect to plan assets held in the Sel SmCoVal (Fed Clov/TRP/INVSC) separate account (SIA-SY).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.6% with respect to plan assets held in the Sel Fundamental Val (BrwHnly/BsPt) separate account (SIA-SK).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.49% with respect to plan assets held in the MM RetireSMART by JPM In Retirement separate account (SIA-J1).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual received estimated Investment Management Fees of 0.69% with respect to plan assets held in the Select Equity Opps (Wellington/TRP) separate account (SIA-SV).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual provided the plan with the required written disclosure for soft dollar compensation received by the subadviser with respect to Premier Balanced (Barings) separate account (SIA-M).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual provided the plan with the required written disclosure for soft dollar compensation received by the subadviser with respect to Premier Int'l Equity (OFI Inst) separate account (SIA-I).

Massachusetts Mutual Life Insurance Company (MassMutual), 1295 State Street, Springfield, Massachusetts 01111-0001.

Massachusetts Mutual Life Insurance Company	041590850	MassMutual provided the plan with the required written disclosure for soft dollar compensation received by the subadviser with respect to Select TRP/LS Blue Chip Growth separate account (SIA-W1).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual provided the plan with the required written disclosure for soft dollar compensation received by the subadviser with respect to Sel Gr Opportunities (Sands/JSP) separate account (SIA-SD).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual provided the plan with the required written disclosure for soft dollar compensation received by the subadviser with respect to Sel SmCoVal (Fed Clov/TRP/INVSC) separate account (SIA-SY).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual provided the plan with the required written disclosure for soft dollar compensation received by the subadviser with respect to Select Mid Cap Gr (TRP/Frontier) separate account (SIA-W9).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual provided the plan with the required written disclosure for soft dollar compensation received by the subadviser with respect to Sel Fundamental Val (BrwHnly/BsPt) separate account (SIA-SK).
Massachusetts Mutual Life Insurance Company	041590850	MassMutual provided the plan with the required written disclosure for soft dollar compensation received by the subadviser with respect to Select Equity Opps (Wellington/TRP) separate account (SIA-SV).
MFS Investment Management	042468583	MFS Investment Management received estimated Investment Management Fees of 0.87% with respect to plan assets held in the Int'l New Discovery (MFS) separate account (SIA-WR).
Oppenheimer	223849391	Oppenheimer received estimated Investment Management Fees of 0.88% with respect to plan assets held in the Real Estate (OFI) separate account (SIA-CB).
T. Rowe Price	520791372	T. Rowe Price received estimated Investment Management Fees of 0.64% with respect to plan assets held in the New Horizons (T. Rowe Price) separate account (SIA-W4).

MassMutual

Schedule C Soft Dollar Compensation
Eligible Indirect Compensation Statement

Mutual fund investments of the plan (whether direct or indirect through a separate investment account) may have soft dollar arrangements pursuant to which the investment advisor or sub-advisor to the mutual fund (and/or its affiliates) may direct trades to certain brokers in exchange for research and other services, other than just trade execution. For plans investing directly or indirectly in the MassMutual Premier or Select Funds, MassMutual provided the required written disclosure regarding soft dollar compensation on the Schedule C Formula Description and/or EIC Statement Description Attachment. For all other mutual funds, MassMutual provided the required written disclosure in the Statement of Additional Information ("SAI").

For additional information on soft dollar compensation, refer to the section of the mutual fund's SAI that discusses brokerage allocation and other practices.