FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| STATEMENT | OF CHANGES | S IN BENEFICIAI | L OWNERSHIP |
|------------------|------------|-----------------|-------------|

| l | OMB APPRO | OVAL |
|---|------------------------|-----------|
| | OMB Number: | 3235-0287 |
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person* <u>Lanning Mark R</u> | | | | | | 2. Issuer Name and Ticker or Trading Symbol AtriCure, Inc. [ATRC] | | | | | | | | | Check all | onship of Reporting F all applicable) Director | | Person(s) to Issuer 10% Owner | | |
|--|--|----------|------------------|-------------------------------------|-------------------|---|---|-------------|---|--------|---|--|-----------|----------------------|---|--|---|---|-----------------------|--|
| (Last) | ` | iirst) (| (Middle) | | | 3. Date of Earliest Transaction (Month/Day/Year) 10/28/2009 | | | | | | | | | | fficer (give ti elow) | cer (give title ow) | | Other (specify below) | |
| (Street) OLDENE | | | 47036 (Zip) | | 4. If | 4. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | | | | | on | | | | | |
| | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | | |
| Date | | | | | /Day/Year) if | | 2A. Deemed Execution Date, if any (Month/Day/Year) | | Transaction Disposed Code (Instr. 5) | | ities Acquired (A) d Of (D) (Instr. 3, 4 | | | nd Se Be Ow | Amount of curities neficially med Followin | F0 | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | | | | | | Code V Amou | | Amount | (1 | A) or D) | Price | ੑ Tra | Reported Transaction(s) (Instr. 3 and 4) | | | (11150.4) | | |
| Common | mon Stock 10/28/ | | | | 8/2009 | /2009 | | A | | 1,856 | 6 A \$00 | | 13,994 | | | D | | | | |
| | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | | | | | | | | |
| 1. Title of Derivative Security (Instr. 3) | ivative Conversion Date Execution Date, Tra- curity or Exercise (Month/Day/Year) if any Co | | Transa Code (| ansaction of ode (Instr. Derivative | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) | | str. 3 | 8. Price Derivati Security (Instr. 5) | derivativ | e es ally g | Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | | | |
| Code | | v | (A) | (D) | Date Exercisal | | Expiration Date | Title | Amo or Nun of Sha | nber | | | | | | | | | | |

Explanation of Responses:

1. Restricted shares awarded pursuant to the AtriCure, Inc. 2005 Equity Incentive Plan for services as a director. The shares will vest and be released on October 28, 2010.

/s/ Julie A. Piton as Attorneyin-Fact for Mark R. Lanning

10/30/2009

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.