The Natural Spline Matrix for 5 Pieces

A_1	B_1	A_2	B_2	A_3	B_3	A_4	B_4	A_5	B_5	
1	$-p_{10}$									0
p_{10}	p_{10}^2	p_{21}								$+\frac{q_{21}}{p_{21}} - \frac{q_{10}}{p_{10}}$
	p_{10}^2	$-p_{20}$	$p_{10}p_{21}$							$-\frac{q_{21}}{p_{21}} + \frac{q_{10}}{p_{10}}$
		p_{21}	p_{21}^2	p_{32}						$+\frac{q_{32}}{p_{32}} - \frac{q_{21}}{p_{21}}$
			p_{21}^2	$-p_{31}$	$p_{21}p_{32}$					$-\frac{q_{32}}{p_{32}} + \frac{q_{21}}{p_{21}}$
				p_{32}	p_{32}^2	p_{43}				$+\frac{q_{43}}{p_{43}} - \frac{q_{32}}{p_{32}}$
					p_{32}^2	$-p_{42}$	$p_{32}p_{43}$			$-\frac{q_{43}}{p_{43}} + \frac{q_{32}}{p_{32}}$
						p_{43}	p_{43}^2	p_{54}		$+\frac{q_{54}}{p_{54}} - \frac{q_{43}}{p_{43}}$
							p_{43}^2	$-p_{53}$	$p_{43}p_{54}$	$-\frac{q_{54}}{p_{54}} + \frac{q_{43}}{p_{43}}$
								1	$2p_{54}$	0

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