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PROGRAM CFRAME

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RUN DATE = 31-OCT-2019

RUN TIME = 14.14.33

BRACED EXCAVATION EXAMPLE

*** JOINT DATA ***

JOINT	X --- FT ---	Y --- FT ---	-----FIXITY-----					
			X ---	Y ---	R ---	KX ---LB /	KY IN---	KR IN-LB /RAD
1	.00	.00						
2	.00	-5.00	*					
3	.00	-17.00	*					
4	.00	-28.00	*					
5	.00	-40.00	*	*				
6	.00	-45.00						

*** MEMBER DATA ***

MEMBER	END END		LENGTH FT	I IN**4	A IN**2	AS IN**2	E PSI	G PSI
	A	B						
1	1	2	5.00	.1842E+03	.7940E+01	.0000E+00	.2900E+08	.1115E+08
2	2	3	12.00	.1842E+03	.7940E+01	.0000E+00	.2900E+08	.1115E+08
3	-3	-4	11.00	.1842E+03	.7940E+01	.0000E+00	.2900E+08	.1115E+08
4	4	5	12.00	.1842E+03	.7940E+01	.0000E+00	.2900E+08	.1115E+08
5	5	6	5.00	.1842E+03	.7940E+01	.0000E+00	.2900E+08	.1115E+08

*** LOAD CASE 1

MEMBER	LA FT	PA LB / FT	LB FT	PB LB / FT	ANGLE DEG
1	.00	.0000E+00	5.00	.6600E+03	.00
2	.00	.6600E+03	6.25	.1485E+04	.00
2	6.25	.1485E+04	12.00	.1485E+04	.00
3	.00	.1485E+04	11.00	.1485E+04	.00
4	.00	.1485E+04	5.75	.1485E+04	.00
4	5.75	.1485E+04	12.00	.6600E+03	.00
5	.00	.6600E+03	5.00	.0000E+00	.00

1 LOAD CASE 1

JOINT	JOINT DISPLACEMENTS		
	DX IN	DY IN	DR RAD
1	.1281E+00	.0000E+00	-.2117E-02
2	.0000E+00	.0000E+00	-.2209E-02
3	.0000E+00	.0000E+00	.2468E-02
4	.0000E+00	.0000E+00	-.2468E-02
5	.0000E+00	.0000E+00	.2209E-02
6	.1281E+00	.0000E+00	.2117E-02

MEMBER END FORCES						
MEMBER	JOINT	AXIAL LB	SHEAR LB	MOMENT IN-LB	MOMENT EXTREMA IN-LB	LOCATION IN
1	1	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.00
	2	.0000E+00	.1650E+04	-.3300E+05	-.3300E+05	60.00
2	2	.0000E+00	.7009E+04	-.3300E+05	.2739E+06	77.76
	3	.0000E+00	.8233E+04	.0000E+00	-.3300E+05	.00
3	3	.0000E+00	.8167E+04	.0000E+00	.2695E+06	66.00
	4	.0000E+00	.8168E+04	.0000E+00	.0000E+00	.00
4	4	.0000E+00	.8233E+04	.0000E+00	.2739E+06	66.24
	5	.0000E+00	.7009E+04	-.3300E+05	-.3300E+05	144.00
5	5	.0000E+00	.1650E+04	-.3300E+05	.0000E+00	60.00
	6	.0000E+00	.0000E+00	.0000E+00	-.3300E+05	.00

STRUCTURE REACTIONS			
JOINT	FORCE X LB	FORCE Y LB	MOMENT IN-LB
2	.8659E+04	.0000E+00	.0000E+00
3	.1640E+05	.0000E+00	.0000E+00
4	.1640E+05	.0000E+00	.0000E+00
5	.8659E+04	.0000E+00	.0000E+00

TOTAL	.5012E+05	.0000E+00	
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MEMBER END FORCES							
MEMBER	LOAD CASE	JOINT	AXIAL LB	SHEAR LB	MOMENT IN-LB	MOMENT EXTREMA IN-LB	LOCATION IN
1	1	1	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.00
		2	.0000E+00	.1650E+04	-.3300E+05	-.3300E+05	60.00
2	1	2	.0000E+00	.7009E+04	-.3300E+05	.2739E+06	77.76
		3	.0000E+00	.8233E+04	.0000E+00	-.3300E+05	.00
3	1	3	.0000E+00	.8167E+04	.0000E+00	.2695E+06	66.00
		4	.0000E+00	.8168E+04	.0000E+00	.0000E+00	.00
4	1	4	.0000E+00	.8233E+04	.0000E+00	.2739E+06	66.24
		5	.0000E+00	.7009E+04	-.3300E+05	-.3300E+05	144.00
5	1	5	.0000E+00	.1650E+04	-.3300E+05	.0000E+00	60.00
		6	.0000E+00	.0000E+00	.0000E+00	-.3300E+05	.00