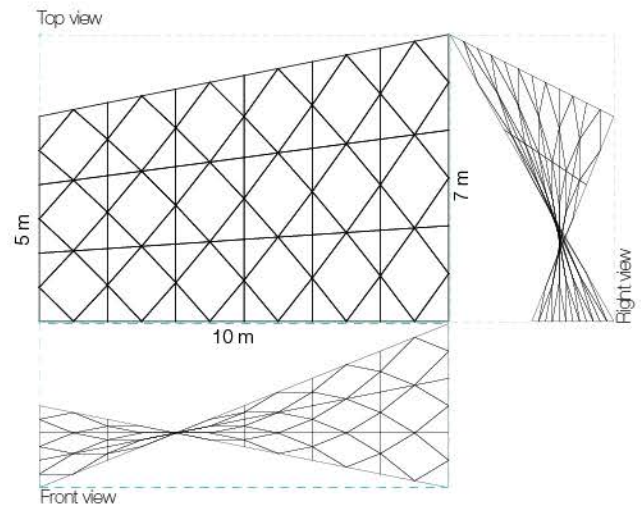
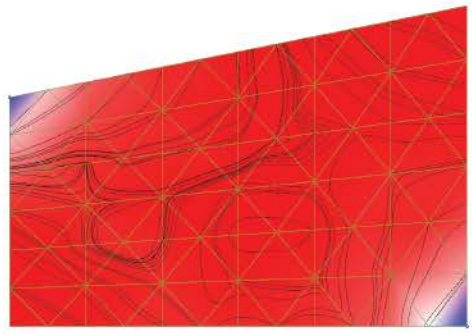


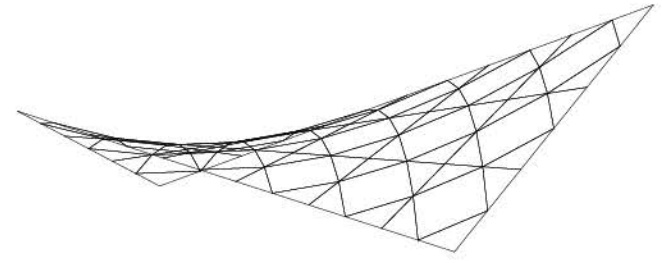
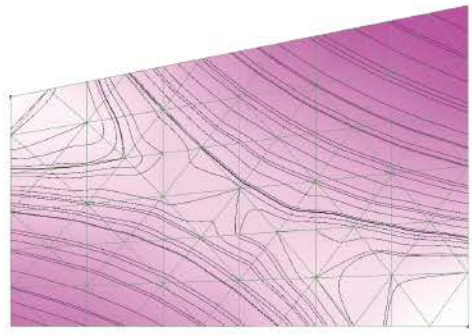
# Original surface



Utilization (isolines)

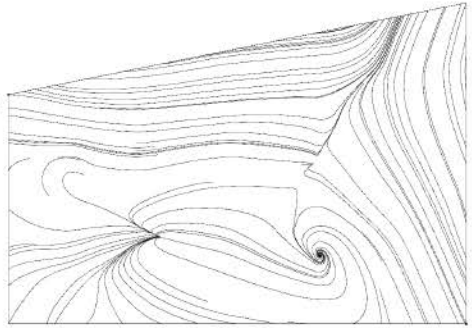


Displacement (isolines)

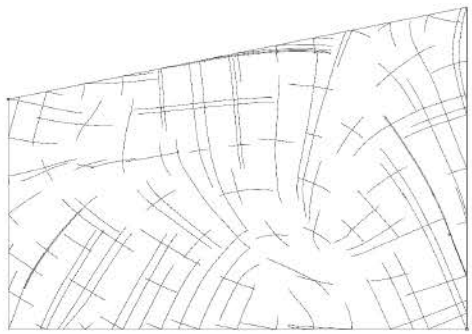


Perspective

Force flow lines



Principal stress lines



Material: Concrete  
 Thickness: 60 cms  
 Span between supports: 10 m

	utilization
C	0.3%
C	2.5%
C	4.8%
C	7.0%
C	9.2%
C	11.5%
C	13.7%
C	15.9%
T	18.2%
T	20.4%
T	22.6%
T	24.9%
T	27.1%
T	29.4%
R	31.6%
R	33.8%
R	36.1%

	res.disp.[cm]
C	-4.87e-09
C	3.05e-02
C	6.09e-02
C	9.14e-02
C	1.22e-01
C	1.52e-01
C	1.83e-01
C	2.13e-01
T	2.44e-01
T	2.74e-01
T	3.05e-01
T	3.35e-01
T	3.66e-01
T	3.96e-01
R	4.26e-01
R	4.57e-01
R	4.87e-01

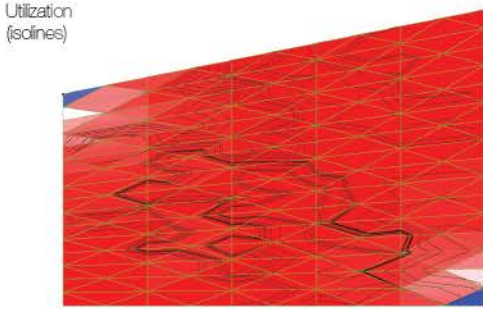
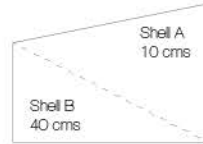
Displacement

	{0;0;0;0}
0	0.004874

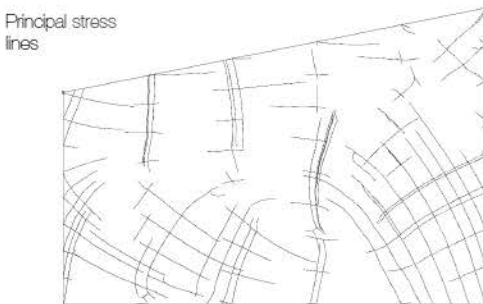
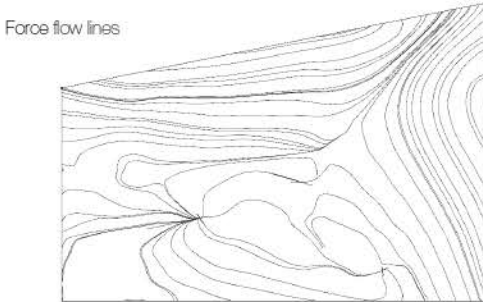
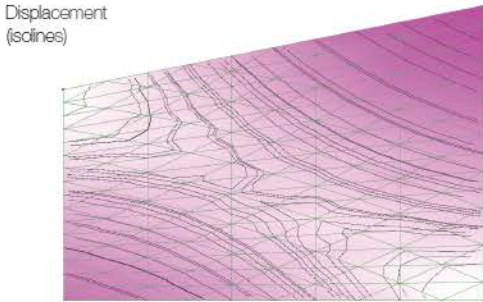
Mass

	{0;0;0}
0	96032.405097

# Changing Cross Section



	utilization	res.disp.[cm]
	0.2%	-1.28e-08
	5.3%	8.03e-02
C	10.4%	1.61e-01
	15.5%	2.41e-01
	20.5%	3.21e-01
	25.6%	4.01e-01
	30.7%	4.82e-01
	35.8%	5.62e-01
T	40.8%	6.42e-01
	45.9%	7.22e-01
	51.0%	8.03e-01
	56.1%	8.83e-01
	61.1%	9.63e-01
	66.2%	1.04e+00
R	71.3%	1.12e+00
	76.3%	1.20e+00
	81.4%	1.28e+00



**% change in displacements**  
{0;0;0;0}  
0 263.500205

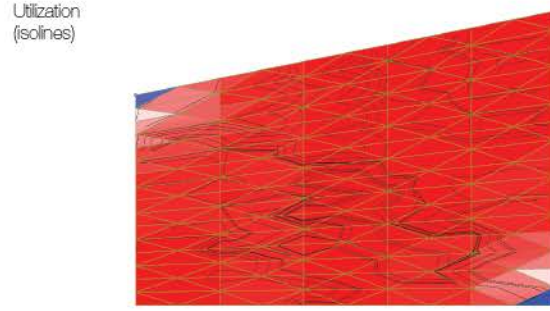
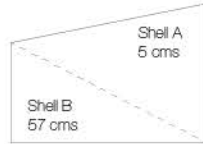
**New displacement**  
{0;0;0;0}  
0 0.012843

**Displacement original**  
{0;0;0;0}  
0 0.004874

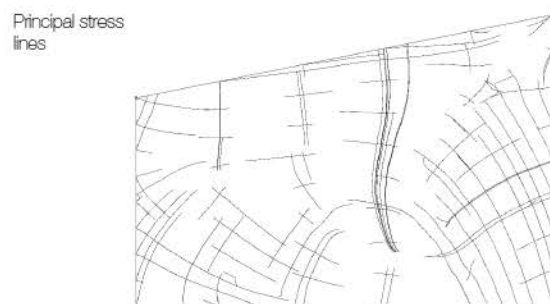
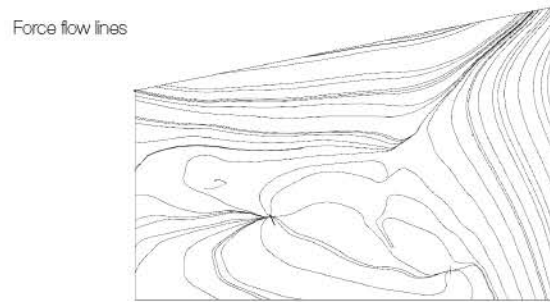
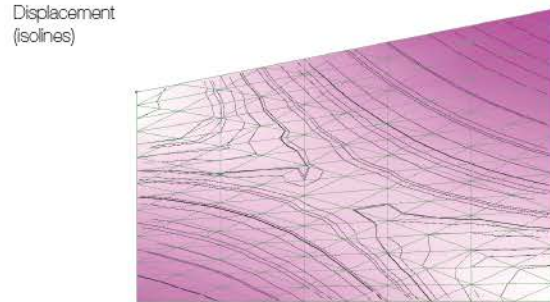
**% change in mass**  
{0;0;0;0}  
0 83.304219

**New mass**  
{0;0;0;0}  
0 79999.045023

**Original mass**  
{0;0;0;0}  
0 96032.405097



	utilization	res.disp.[cm]
	0.1%	-4.61e-09
	2.8%	2.88e-02
C	5.5%	5.76e-02
	8.3%	8.64e-02
	11.0%	1.15e-01
	13.7%	1.44e-01
	16.5%	1.73e-01
	19.2%	2.02e-01
T	21.9%	2.30e-01
	24.7%	2.59e-01
	27.4%	2.88e-01
	30.1%	3.17e-01
	32.9%	3.46e-01
	35.6%	3.74e-01
R	38.3%	4.03e-01
	41.1%	4.32e-01
	43.8%	4.61e-01



**% change in displacements**  
{0;0;0;0}  
0 94.521953

**New displacement**  
{0;0;0;0}  
0 0.004607

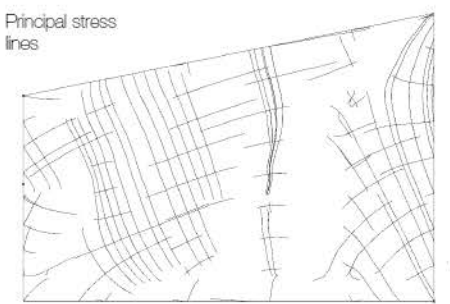
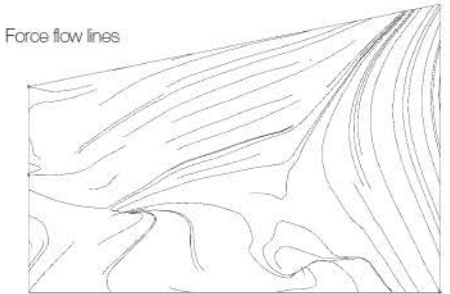
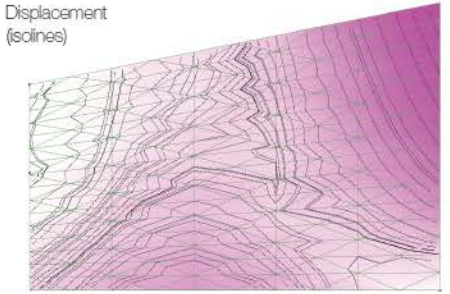
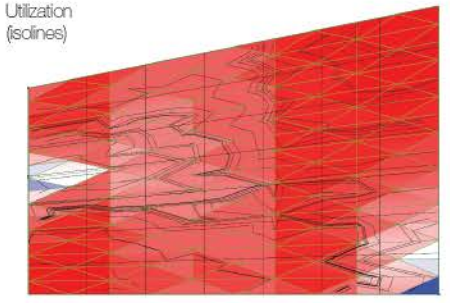
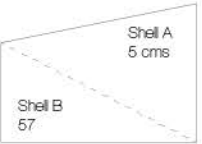
**Displacement original**  
{0;0;0;0}  
0 0.004874

**% change in mass**  
{0;0;0;0}  
0 103.297232

**New mass**  
{0;0;0;0}  
0 99198.815828

**Original mass**  
{0;0;0;0}  
0 96032.405097

# Changing Supports

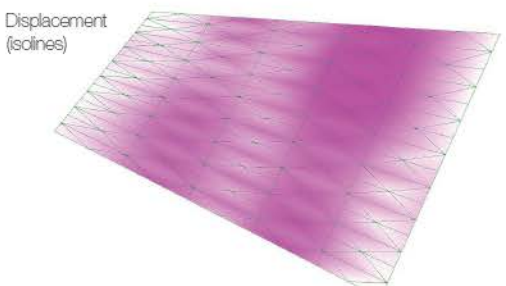
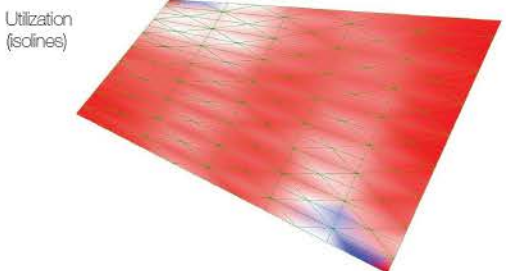


	utilization	res.disp.[cm]
C	0.0%	-7.96e-10
	0.8%	4.98e-03
	1.6%	9.95e-03
	2.3%	1.49e-02
	3.1%	1.99e-02
	3.8%	2.49e-02
T	4.6%	2.99e-02
	5.4%	3.48e-02
	6.1%	3.98e-02
	6.9%	4.48e-02
	7.7%	4.98e-02
	8.4%	5.47e-02
R	9.2%	5.97e-02
	9.9%	6.47e-02
	10.7%	6.97e-02
	11.5%	7.46e-02
	12.2%	7.96e-02

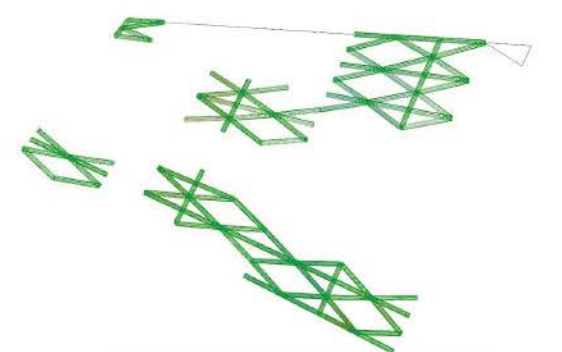
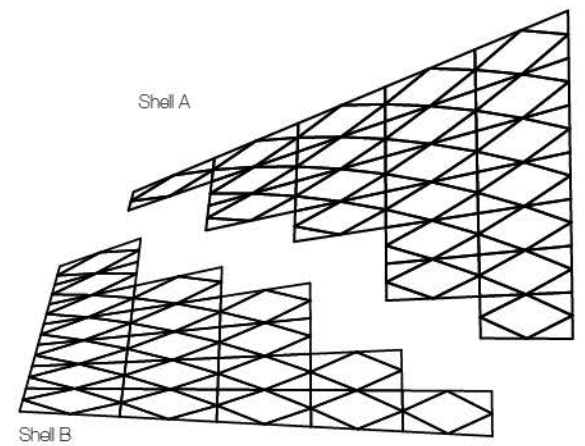
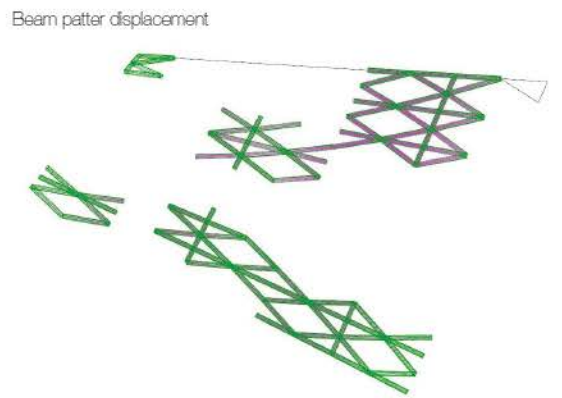
<i>New displacement</i>	
	{0;0;0;0}
0	0.000796
<i>Original displacement</i>	
	{0;0;0;0}
0	0.024103
<i>% change in displacements</i>	
	{0;0;0;0}
0	3.302493

<i>New mass</i>	
	{0;0;0}
0	99198.815828
<i>Original mass</i>	
	{0;0;0}
0	99198.815828
<i>% change in mass</i>	
	{0;0;0}
0	100.0

# Beams



	utilization	utilization	res.disp.[...]	res.disp.[...]
C	-46.0%	0.0%	-6.10e-09	-6.10e-09
	-40.5%	0.7%	3.81e-02	3.81e-02
	-35.0%	1.4%	7.63e-02	7.63e-02
	-29.6%	2.1%	1.14e-01	1.14e-01
	-24.1%	2.8%	1.53e-01	1.53e-01
	-18.6%	3.5%	1.91e-01	1.91e-01
	-13.1%	4.2%	2.29e-01	2.29e-01
T	-7.7%	4.8%	2.67e-01	2.67e-01
	-2.2%	5.5%	3.05e-01	3.05e-01
	3.3%	6.2%	3.43e-01	3.43e-01
	8.8%	6.9%	3.81e-01	3.81e-01
	14.2%	7.6%	4.20e-01	4.20e-01
	19.7%	8.3%	4.58e-01	4.58e-01
	25.2%	9.0%	4.96e-01	4.96e-01
R	30.7%	9.7%	5.34e-01	5.34e-01
	36.1%	10.4%	5.72e-01	5.72e-01
	41.6%	11.1%	6.10e-01	6.10e-01



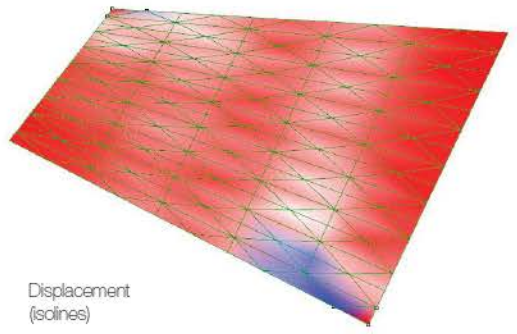
Mass
{0; 0; 0}
0 16126.323444

Displacement i...
{0; 0; 0; 0}
0 0.006104

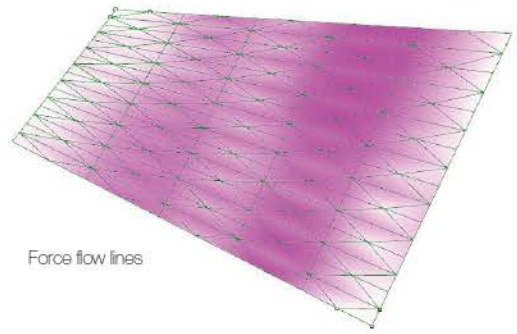
Displacements

# Beams

Utilization (isolines)



Displacement (isolines)



Force flow lines



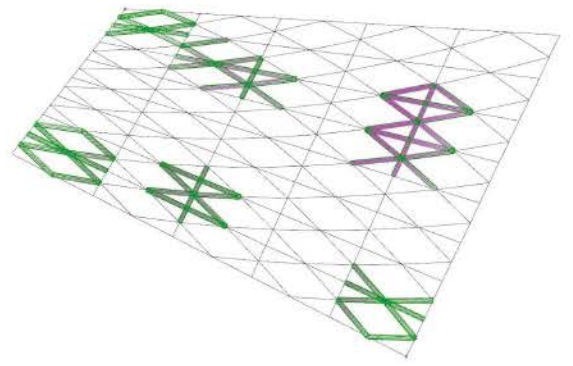
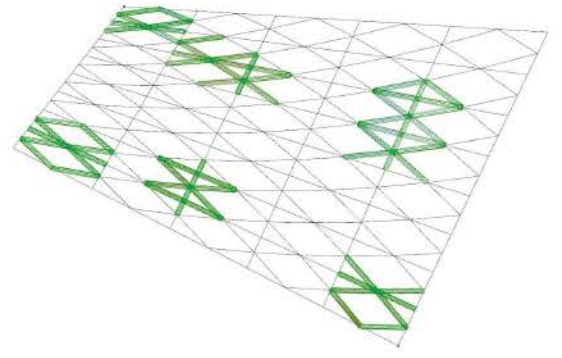
	utilization
C	0.0%
	0.8%
	1.6%
	2.4%
	3.1%
	3.9%
	4.7%
	5.5%
T	6.3%
	7.1%
	7.9%
	8.7%
	9.4%
	10.2%
R	11.0%
	11.8%
	12.6%

	utilization
C	59.9%
	52.7%
	45.5%
	38.3%
	31.1%
	23.9%
	16.7%
	9.5%
T	-2.3%
	4.9%
	12.1%
	19.3%
	26.6%
	33.8%
	41.0%
R	48.2%
	55.4%

	res.disp.[...]
C	-7.77e-09
	4.86e-02
	9.72e-02
	1.46e-01
	1.94e-01
	2.43e-01
	2.92e-01
	3.40e-01
T	3.89e-01
	4.37e-01
	4.86e-01
	5.35e-01
	5.83e-01
	6.32e-01
	6.80e-01
R	7.29e-01
	7.77e-01

	res.disp.[...]
C	-7.69e-09
	4.81e-02
	9.62e-02
	1.44e-01
	1.92e-01
	2.40e-01
	2.89e-01
	3.37e-01
T	3.85e-01
	4.33e-01
	4.81e-01
	5.29e-01
	5.77e-01
	6.25e-01
	6.73e-01
R	7.21e-01
	7.69e-01

Beam patten displacement



**Mass**

{0;0;0}

0 15817.144505

**Displacement i...**

{0;0;0;0}

0 0.007775

**Displacements**