

# WOODCREST BRIDGE PROJECT

Presented by: Mark Simpkins



## Client

Woodcrest Retreat



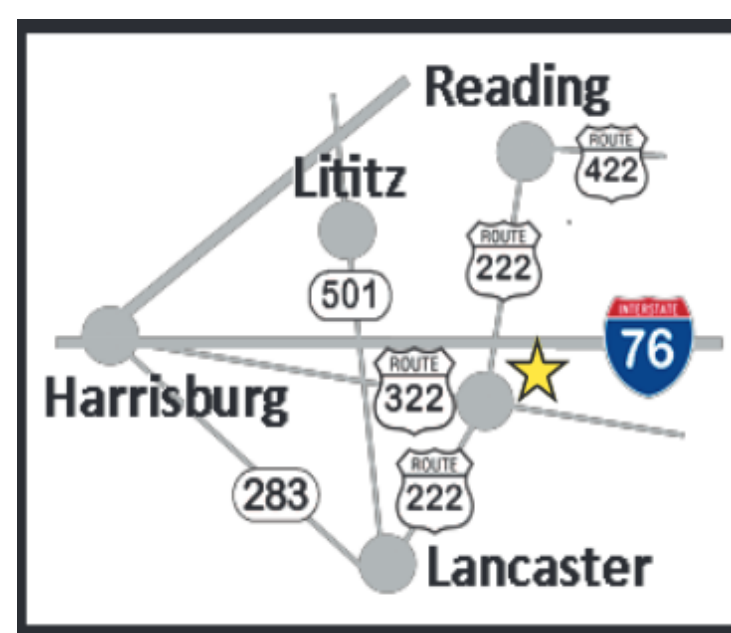
Woodcrest Retreat is a campground with a mission to introduce people to Jesus Christ and encourage Christian growth through wholesome programs and quality facilities in a wooded setting.

## Purpose of the Project

After seeing the bridges that the Messiah College Collaboratory designed and built in Panama, Cliff Martin, the Executive Director of Woodcrest Retreat, asked the Collaboratory to build a similar bridge structure at the campground.

The bridge will:

- Connect two hiking paths at the campground.
- Be visible as visitors enter the Woodcrest Retreat
- Serve as a distinctive feature of the campground.
- Attract new individuals to Woodcrest Retreat; a place where they can experience the love of Christ.
- Allow project members to gain valuable civil engineering experience, through the use of God-given talents.



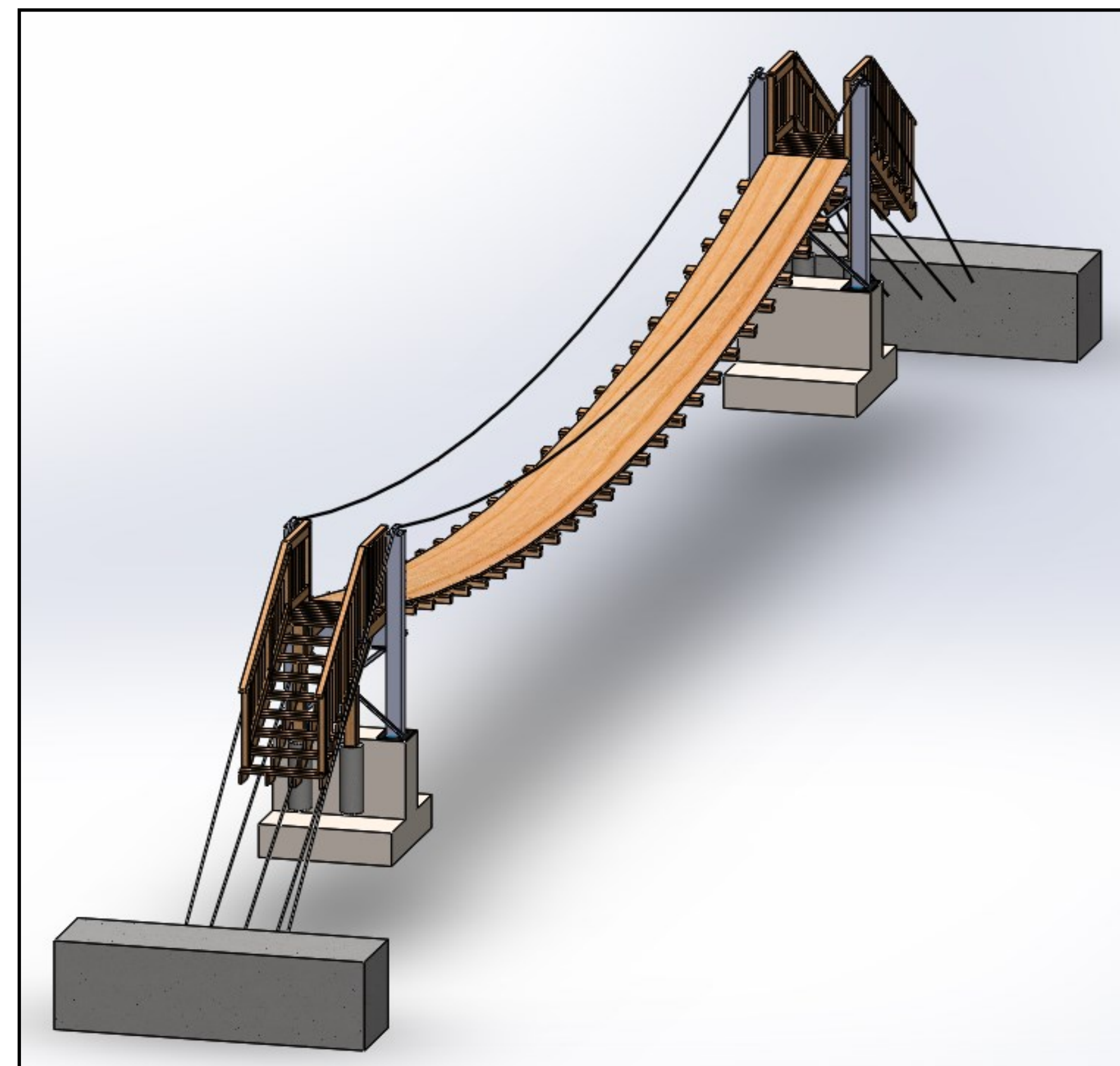
Location of Woodcrest Retreat



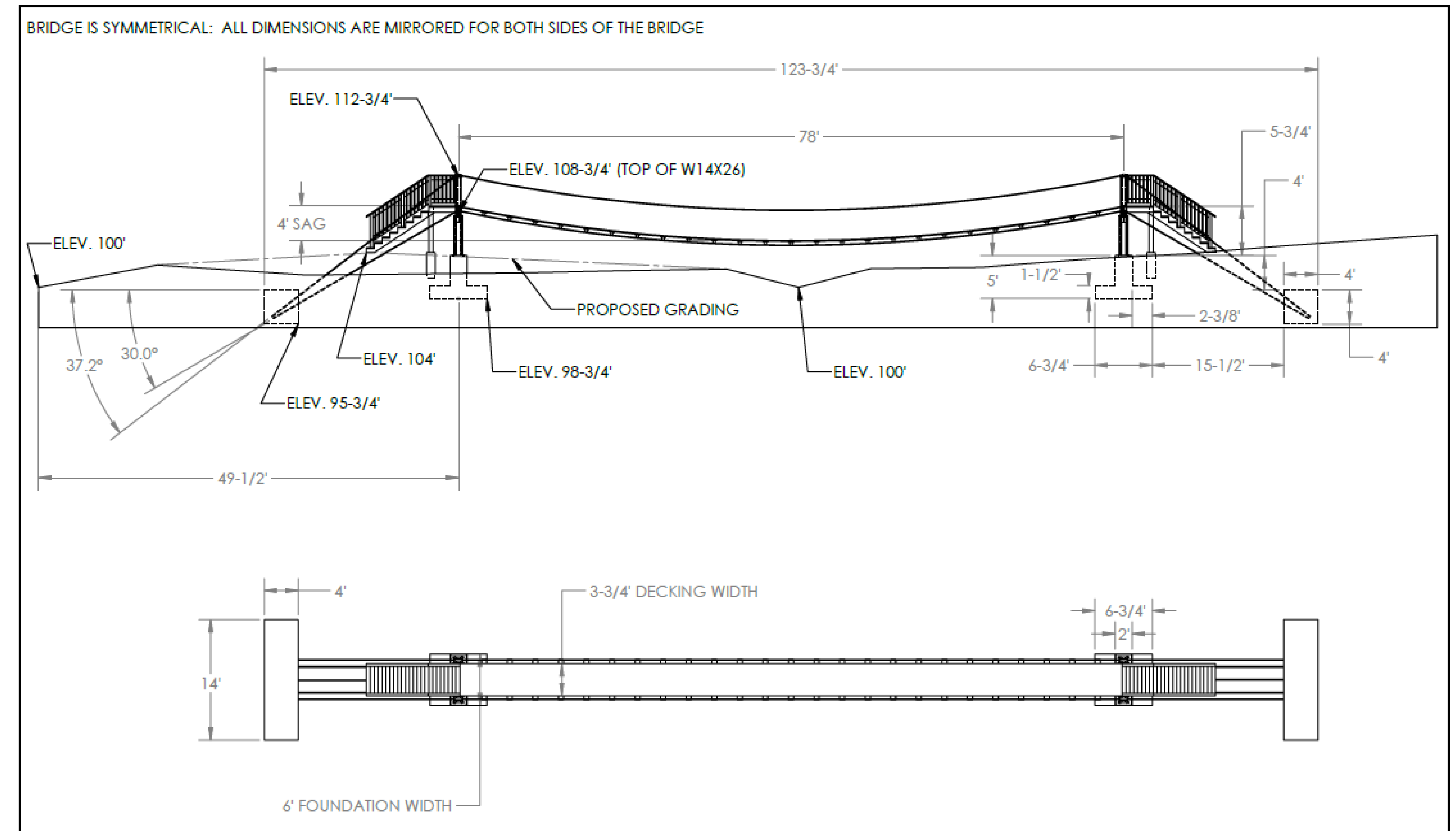
A children's event at Woodcrest Retreat

## Current Design

- Cable Suspended Bridge: 78-foot span length.
- 5 tensioned, structural cables.
- Reinforced concrete anchors and tower foundations.
- Steel I-beam towers.
- Timber decking and approach stairs.



Isometric model of the proposed bridge design.



## Next Steps

- Secure building permits
- Finalize design calculations and drawings
- Complete a construction sequence schedule

## Contact Us

Professor Scott Heisey: [sheisey@messiah.edu](mailto:sheisey@messiah.edu) ☎ FREY-235 ext. 2749  
 Dr. Brian Swartz: [bswartz@messiah.edu](mailto:bswartz@messiah.edu) ☎ FREY-221 ext. 2190  
 Dylan Clemente: [dc1277@messiah.edu](mailto:dc1277@messiah.edu)  
 Woodcrest Retreat: [info@WoodcrestRetreat.org](mailto:info@WoodcrestRetreat.org) ☎ (717) 738-2233

## Acknowledgements

### Advisors:

Professor Scott Heisey  
 Dr. Brian Swartz  
 Mr. Quentin Rissler  
 Mr. Michael Kuhns  
 Mr. Tyler Miller

### The Woodcrest Bridge Team:

Dylan Clemente (Student Project Manager)  
 Dexter Ehrenzeller  
 Brenden Good  
 Kurtis Platteel  
 Mark Simpkins  
 Bradley Sloop

### Partners and Sponsors:

