

# COMMUNITY

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### Project Statement

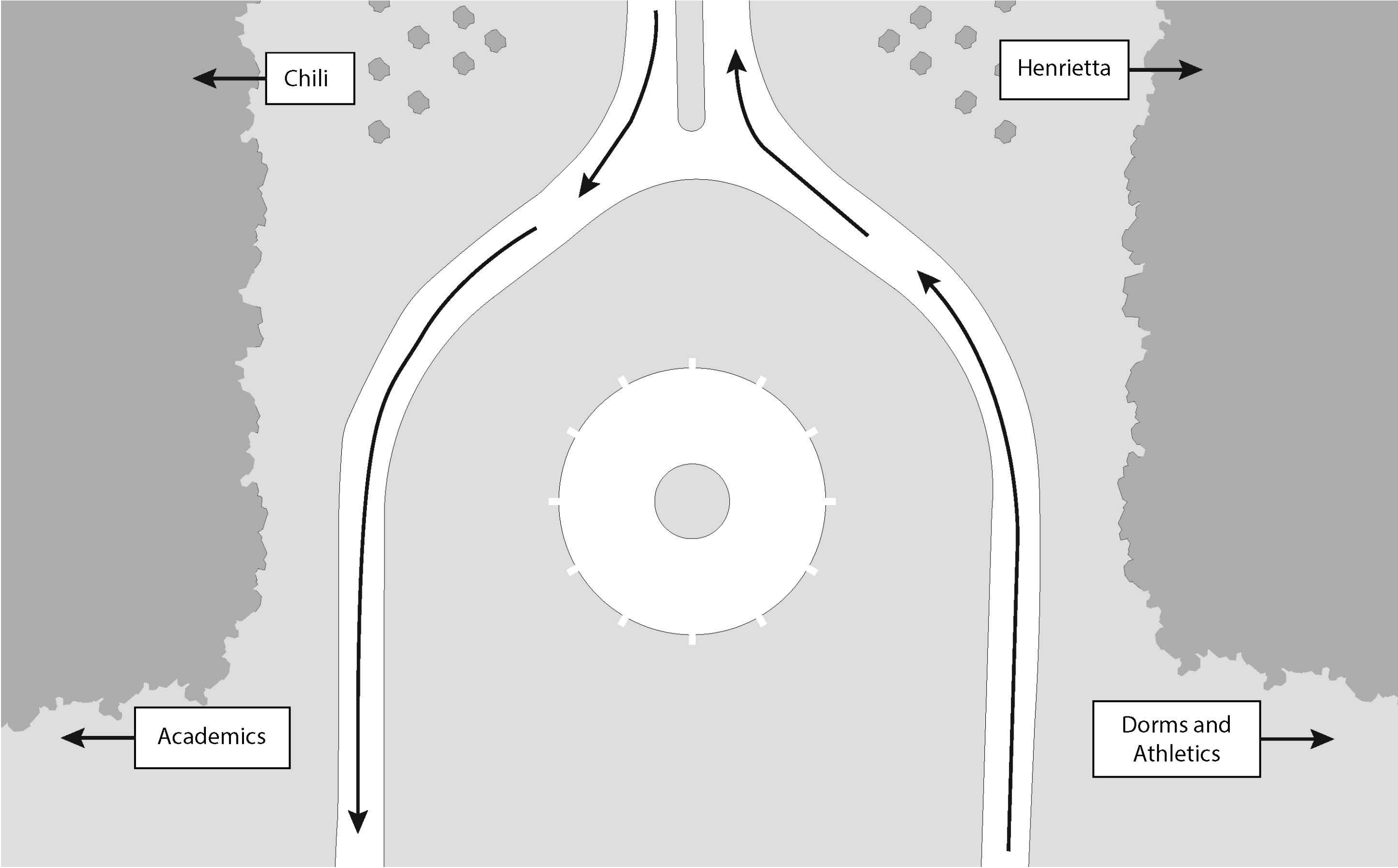
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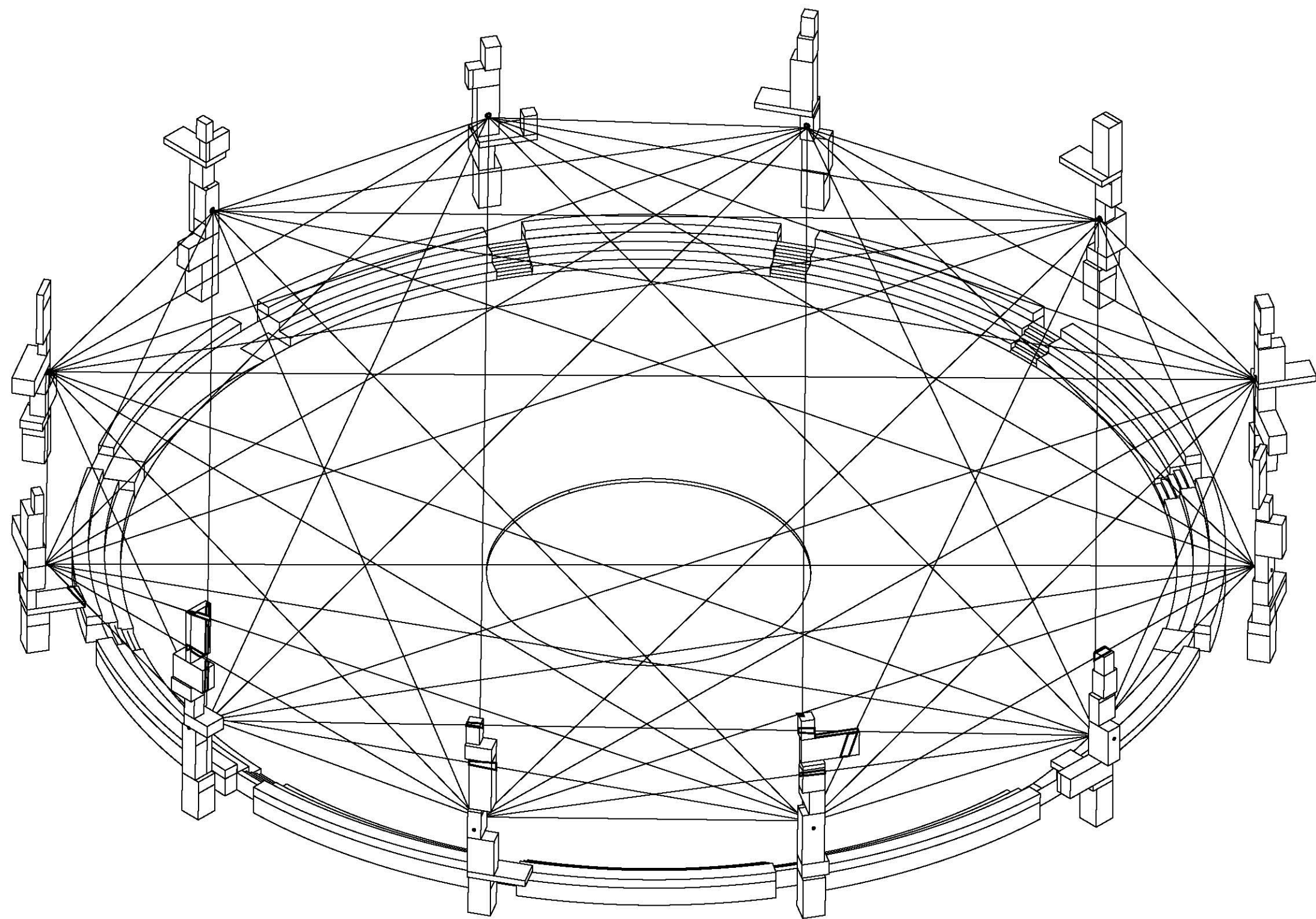
Whether from a plane, a car, or on foot, this piazza will be a gateway into RIT and a beacon for the Rochester community. This gathering place will act as a bridge between communities and provide a space for students to connect. The space will be like a plate with the potential for many different meals. In other words, an empty space for CAB and other campus organizations/clubs to use for whatever event they might need it for. RIT is full of communities and this space could be the thing that connects them all.

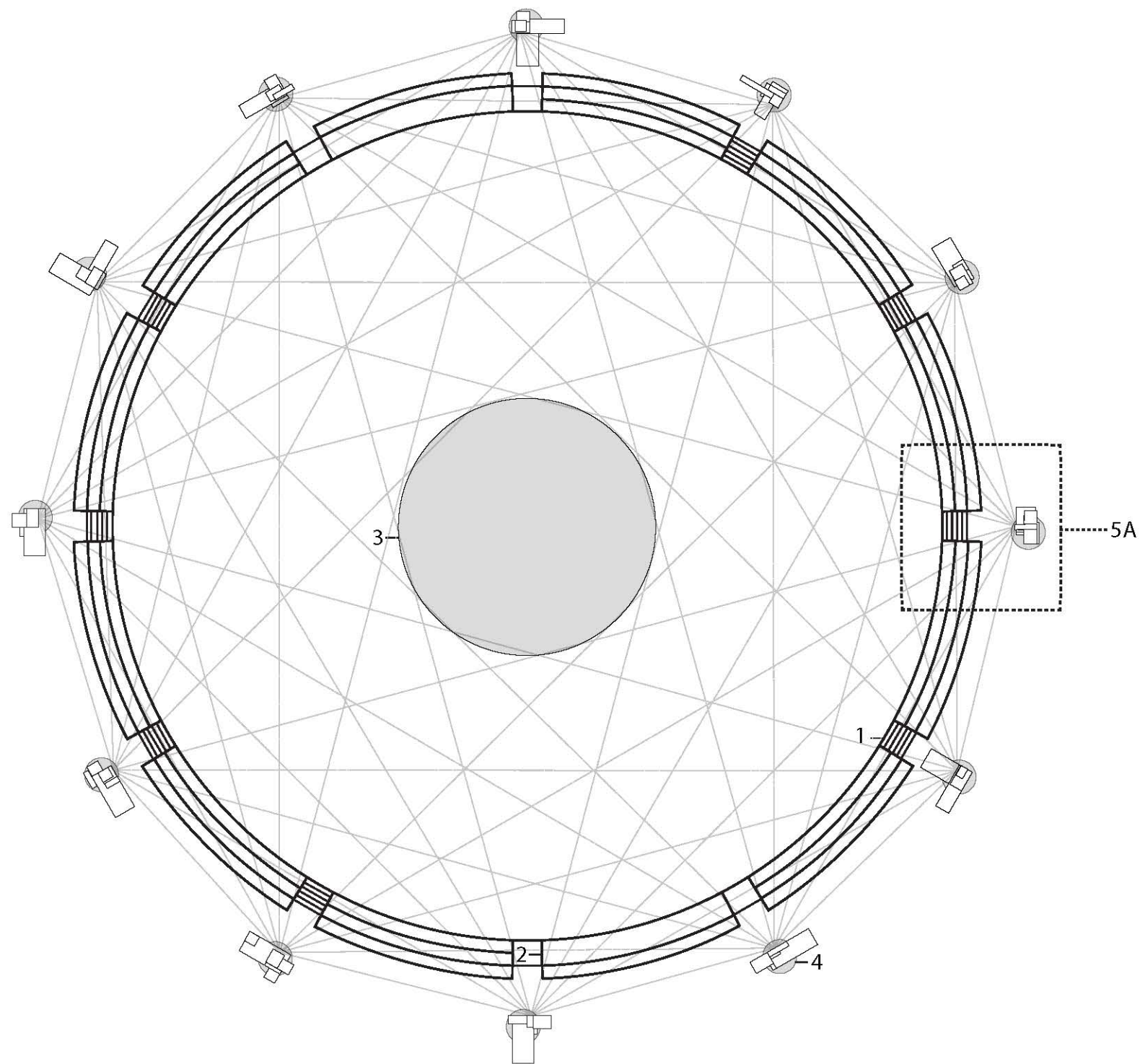
Quote

“There is immense power when a group of people with similar interests gets together to work towards the same goals.” – Idowu Koyenikan



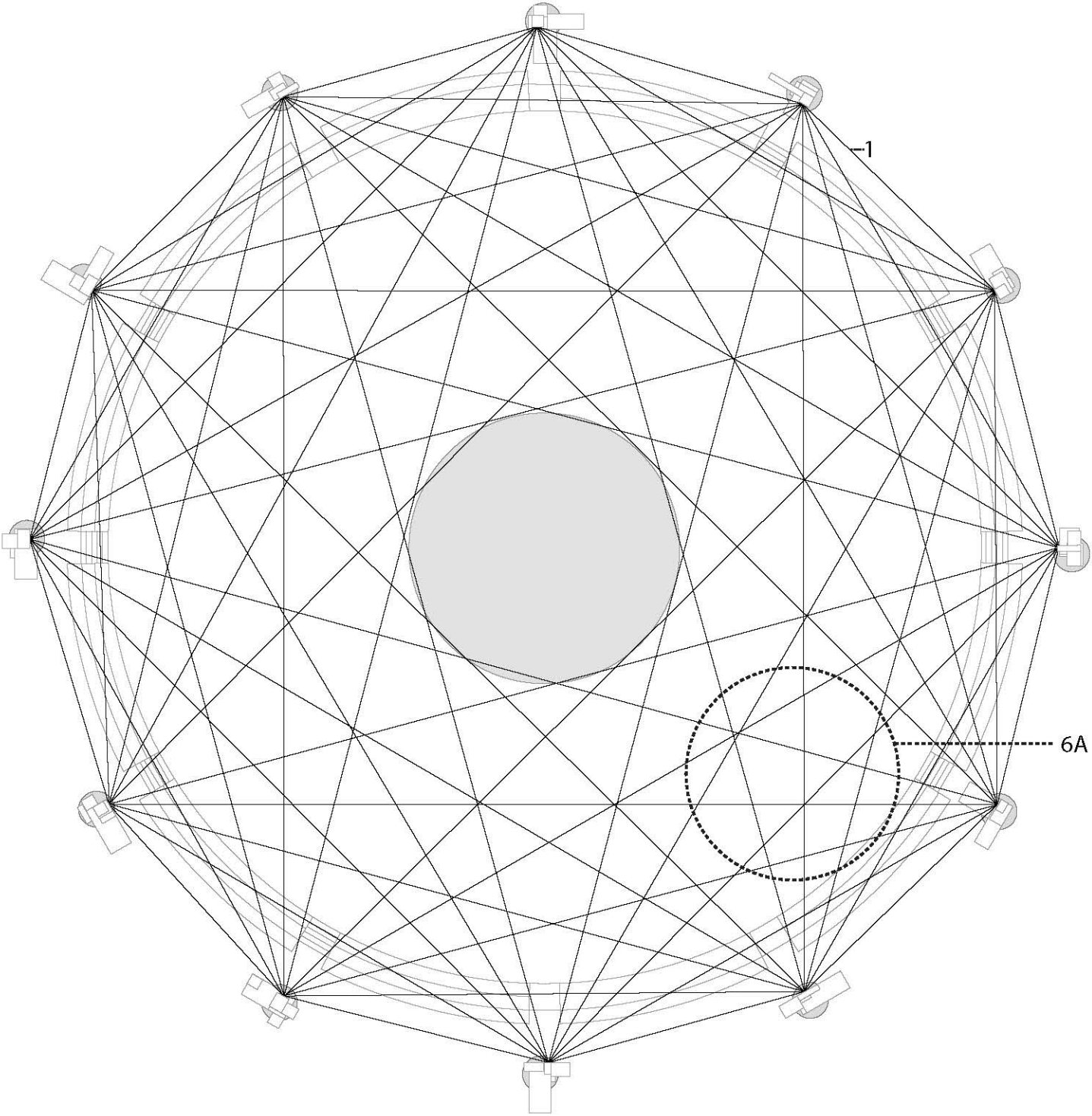






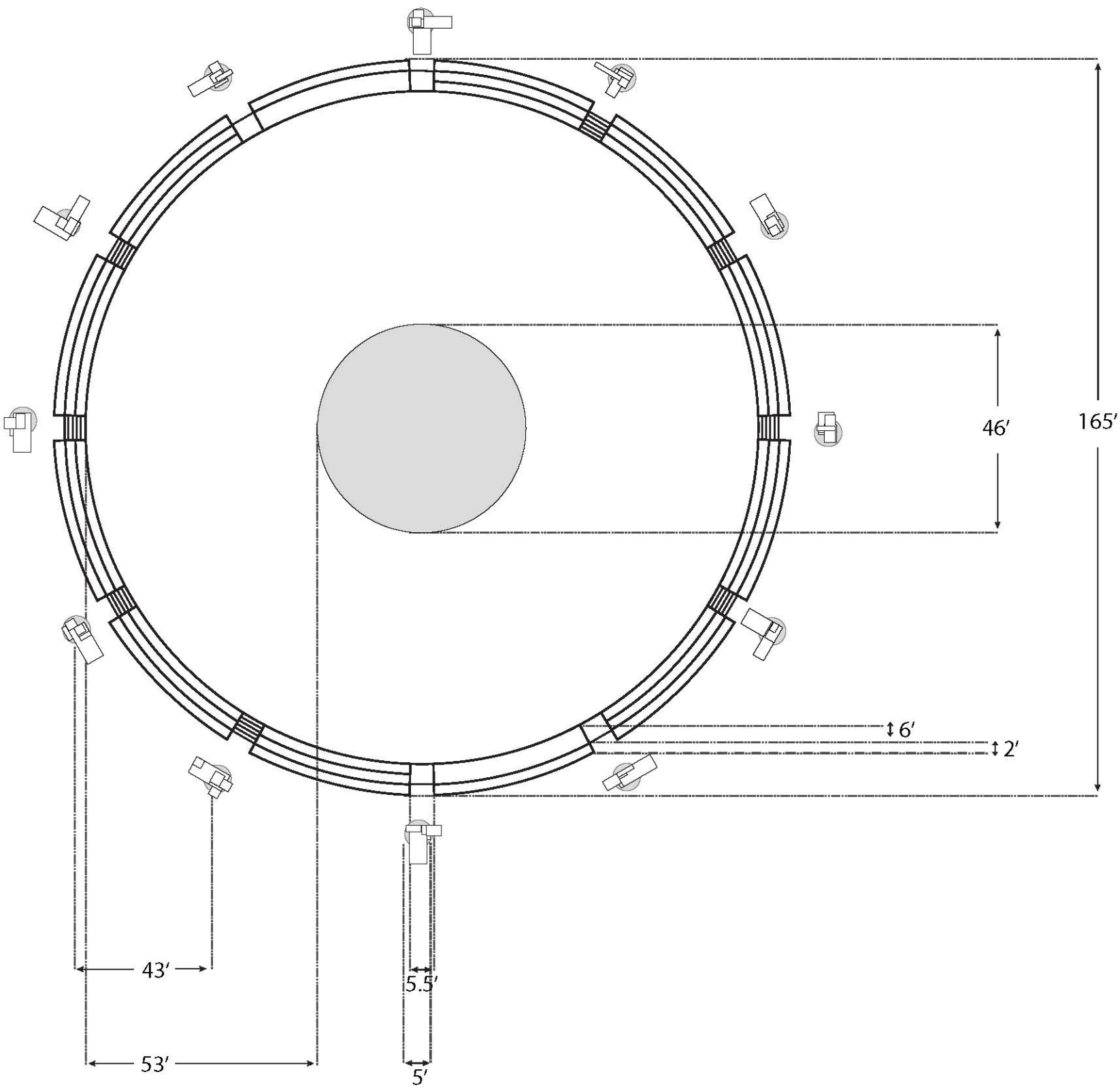
Floor Plan                      Scale 1:300

- 1      Stairs. LED strip lights should be added for safety.
- 2      ADA compliant ramp. LED strip lights should be added for safety.
- 3      Center circular lawn area for gathering. LED strip lights should be added around the circle pointing downward to provide a soft glow to the area.
- 4      Planters around the base of each tower for vines and other plants. *For reference see page 13.*
- 5      Electrical hatch to be located under seating with access panel for maintainance. Size and needs to be specified by electrical engineer.
- 5A    *See page 12 to view detail 5A*

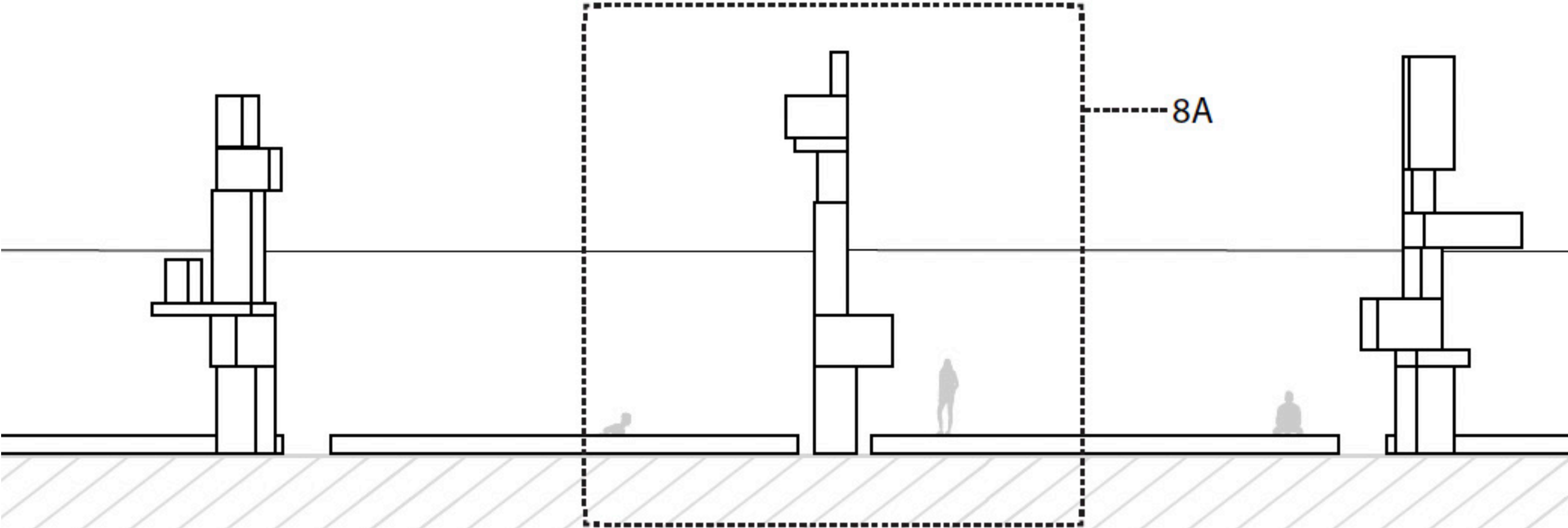


Arial View      Scale 1:300

- 1      LED cables connected to wire ropes with clips for partial roof. *See page 12 for details.* LED cable diameter and voltage to be specified by electrical engineer. *See page 19 for reference.* Wire rope type and diameter to be determined by a structural engineer. *See pages 19 and 20 for reference.* Total amount each: 55
- 6A      *See page 14 to view detail 6A*

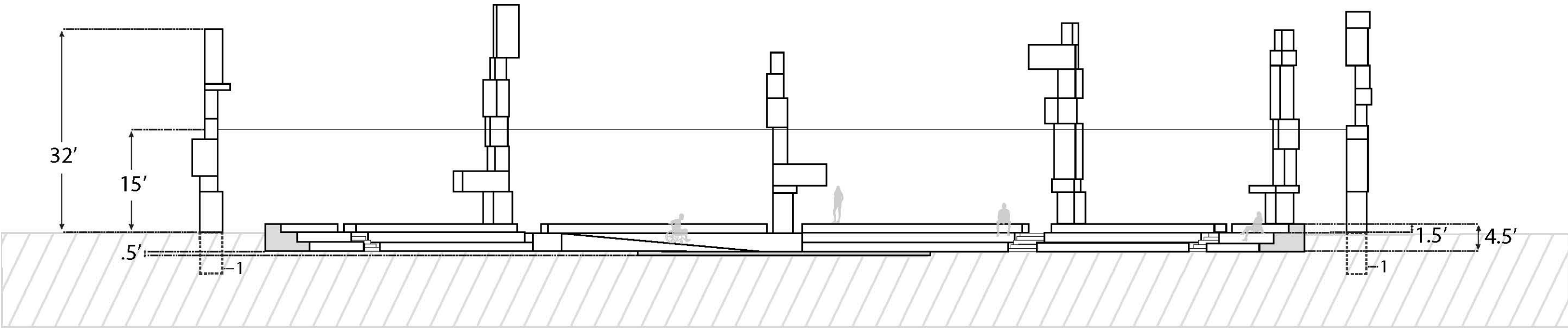


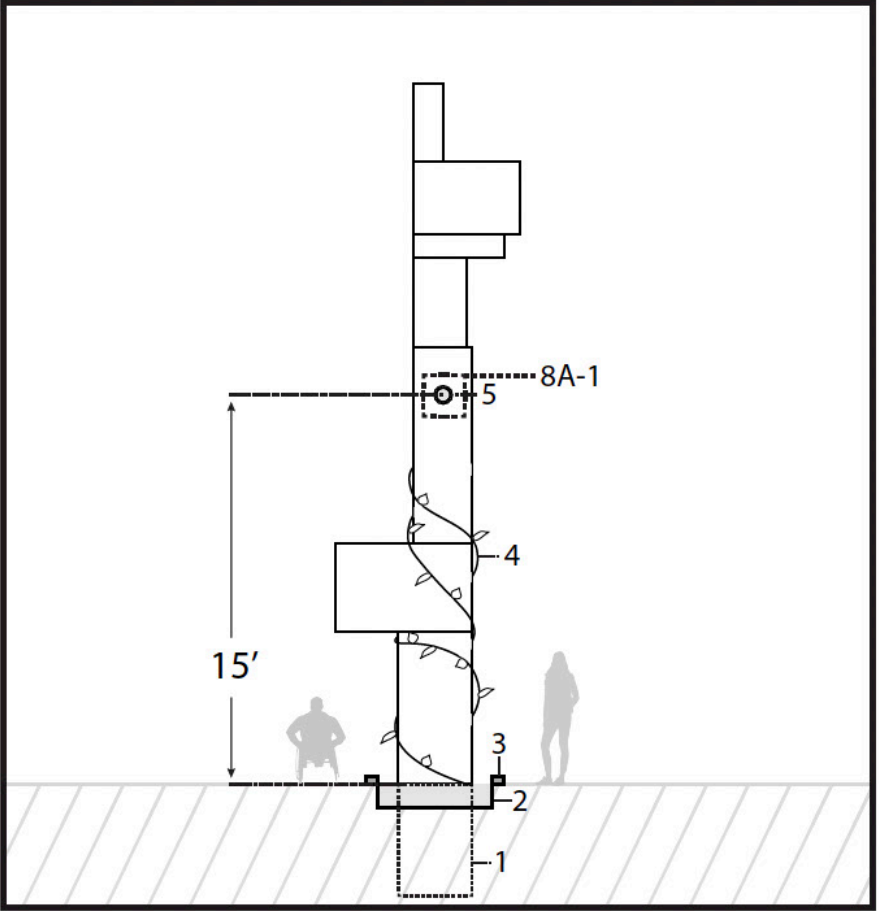
Podium      Scale 1:350



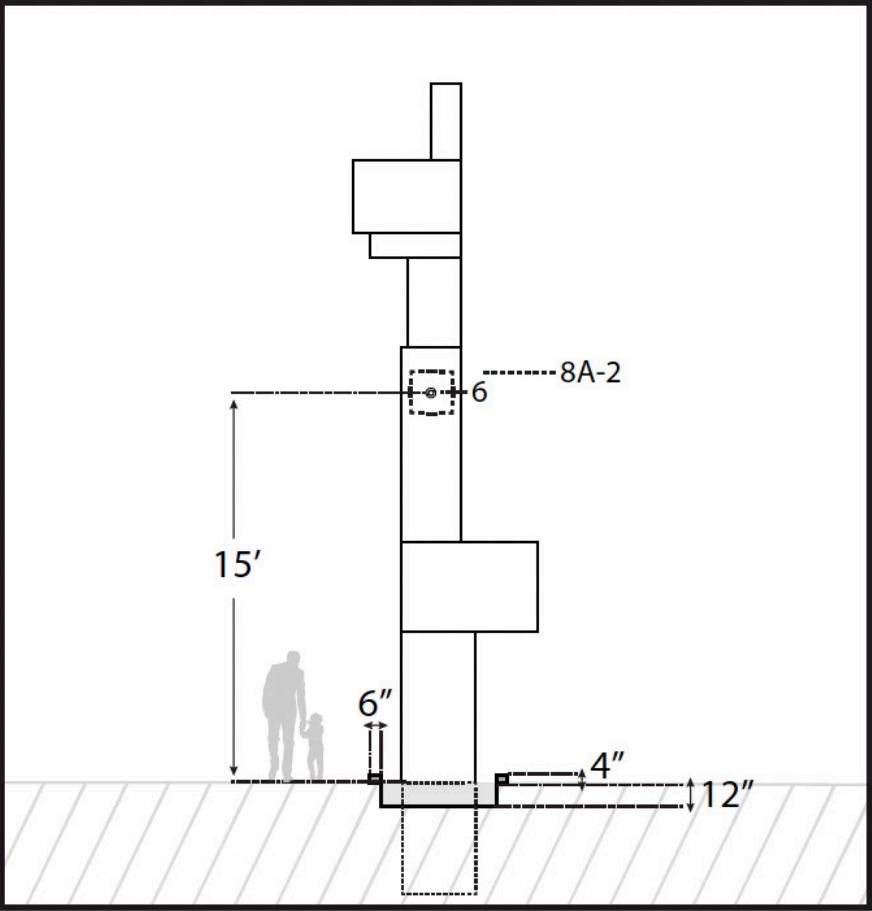
Section	Scale 1:200
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- |   |  |
|---|--|
| 1 | Anchors to be specified by structural engineer.<br><i>See page 20 for reference.</i> |
|   | <i>Tower dimensions to be specified by designers</i>                                 |





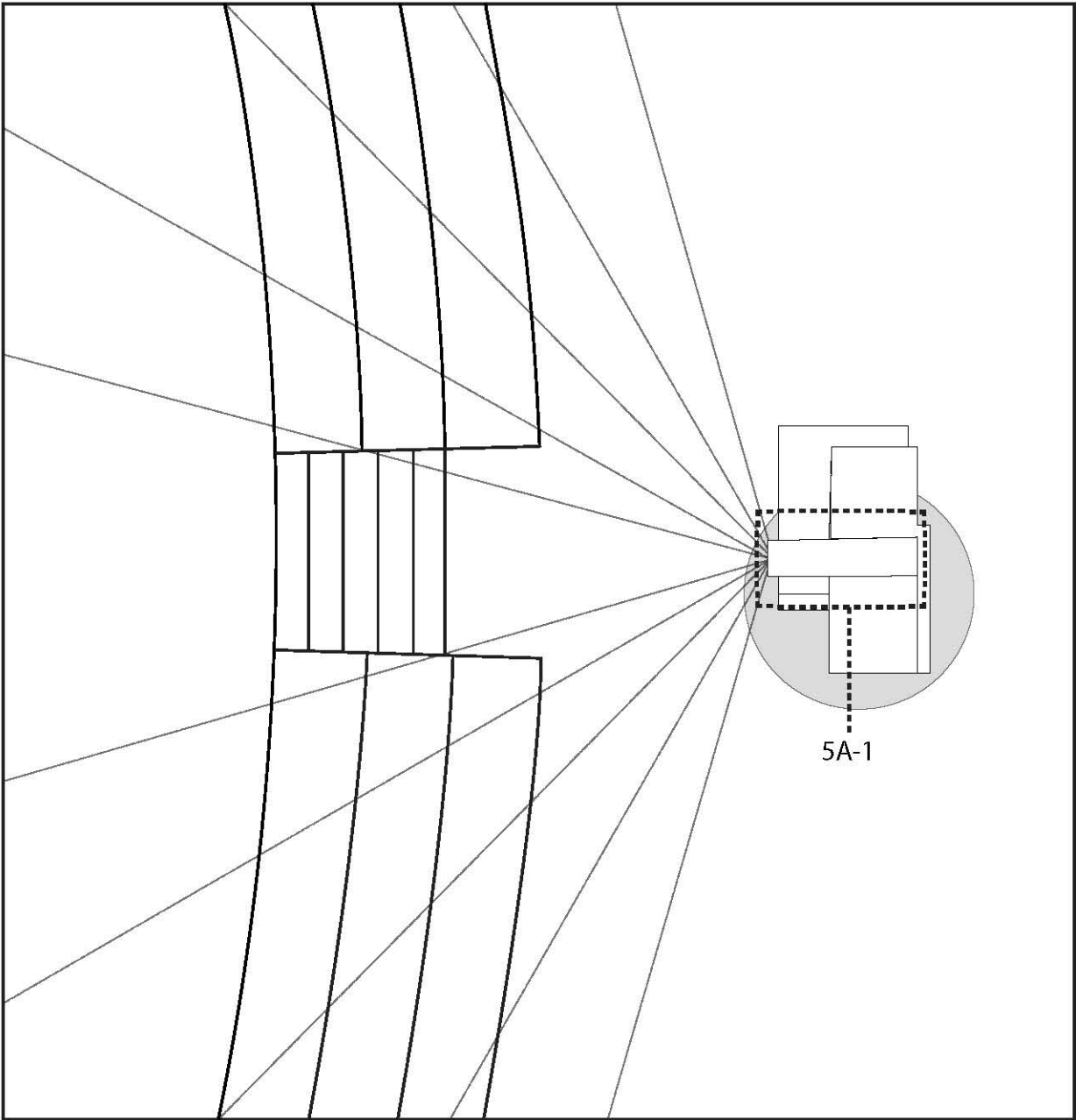
Front



Back

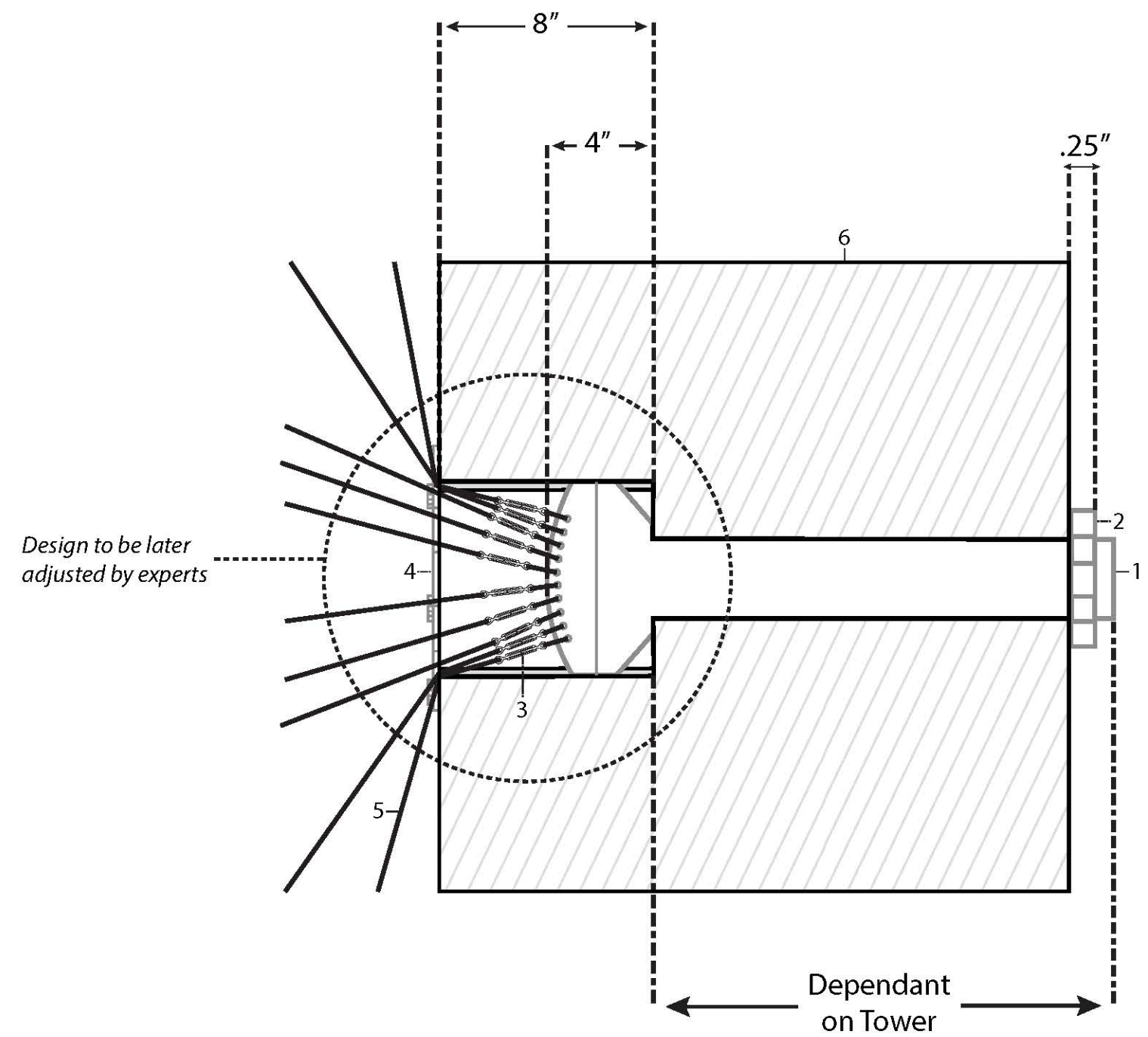
Detail 8A      Scale 1:100

- 1    Tower anchor to be specified by structural engineer. *See page 20 for reference.*
- 2    Circular planter
- 3    Raised edge of planter
- 4    Vines
- 5    Cable connection plate
- 6    Cable connection nut
- 8A-1   *See page 16 to view detail 8A-1*
- 8B-2   *See page 17 to view detail 8A-2*



Detail 5A                      Scale 1:50

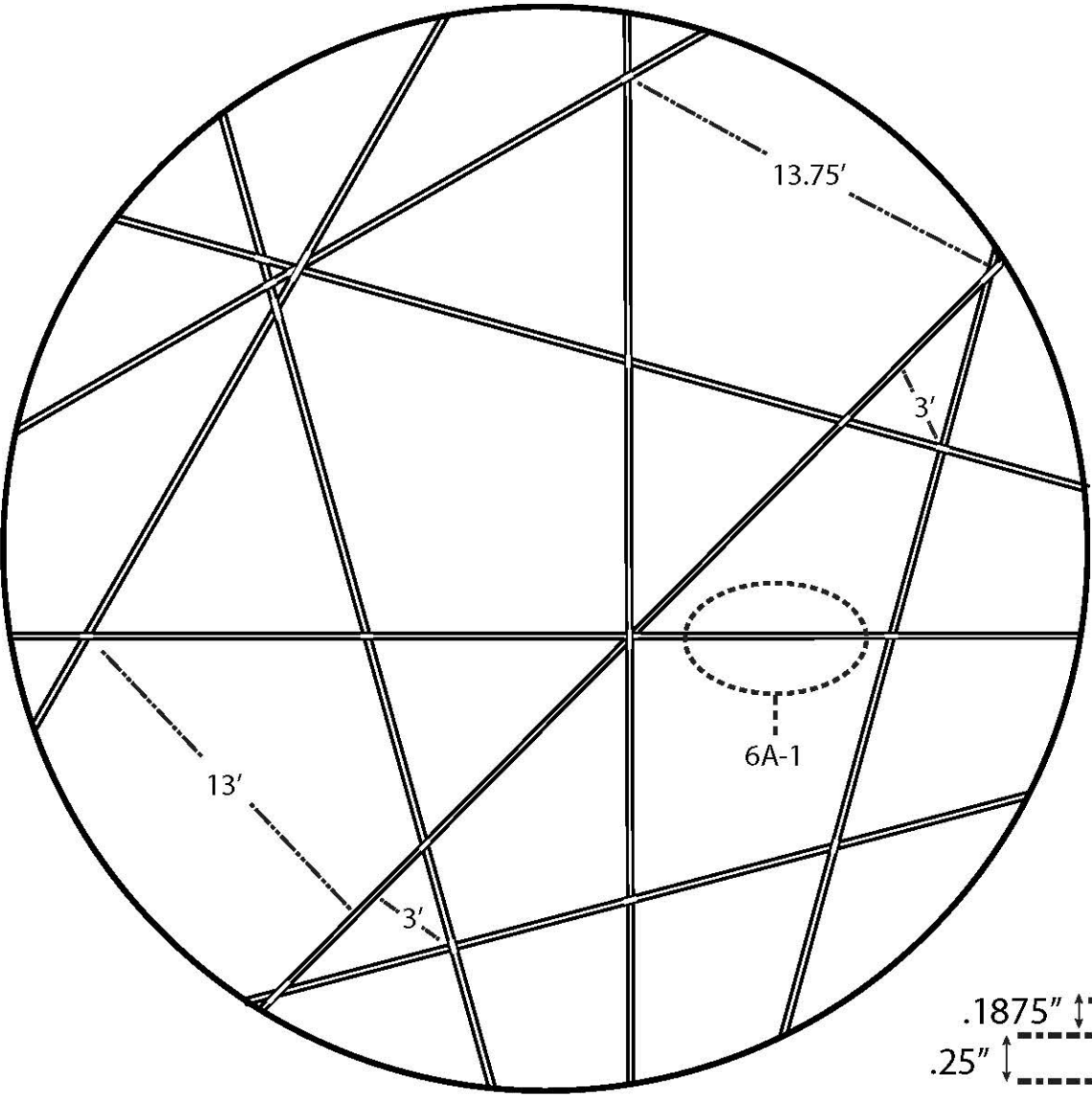
5A-1    *See page 13 to view detail 5A-1*



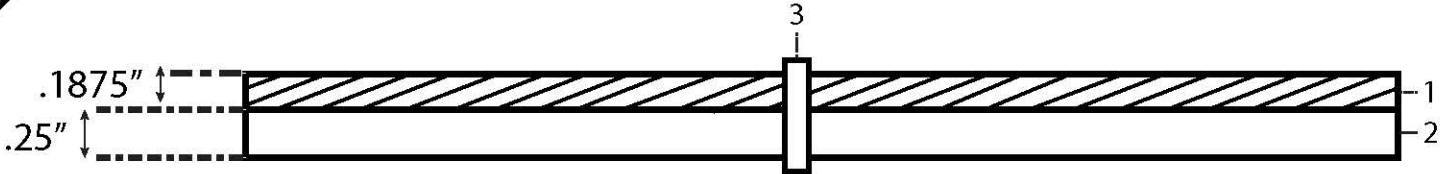
Detail 5A-1 Scale 1:5

- 1 Cable anchor
- 2 Nut
- 3 Turnbuckle
- 4 Plate
- 5 Cable
- 6 Tower

See pages 19 and 20 for design reference.

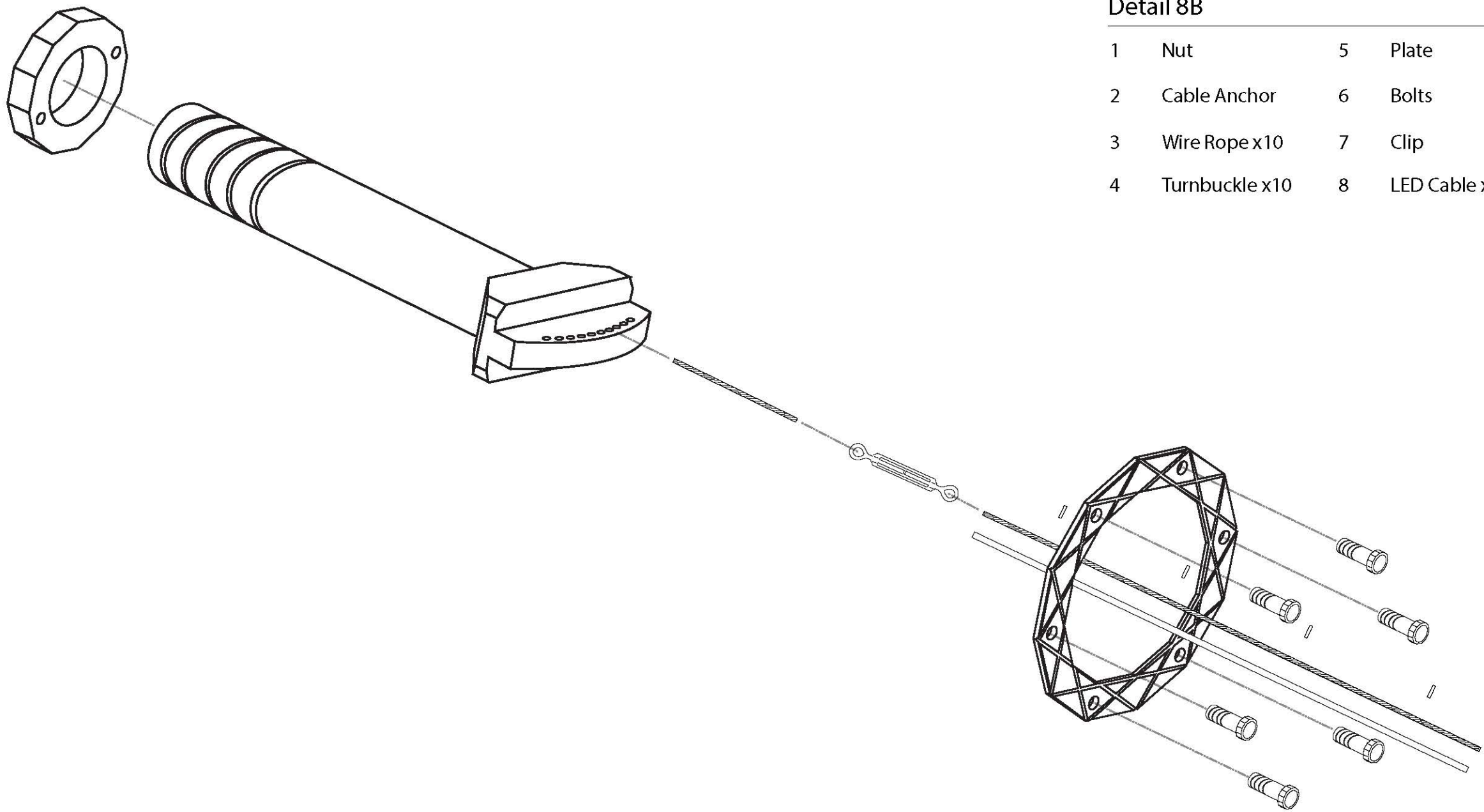


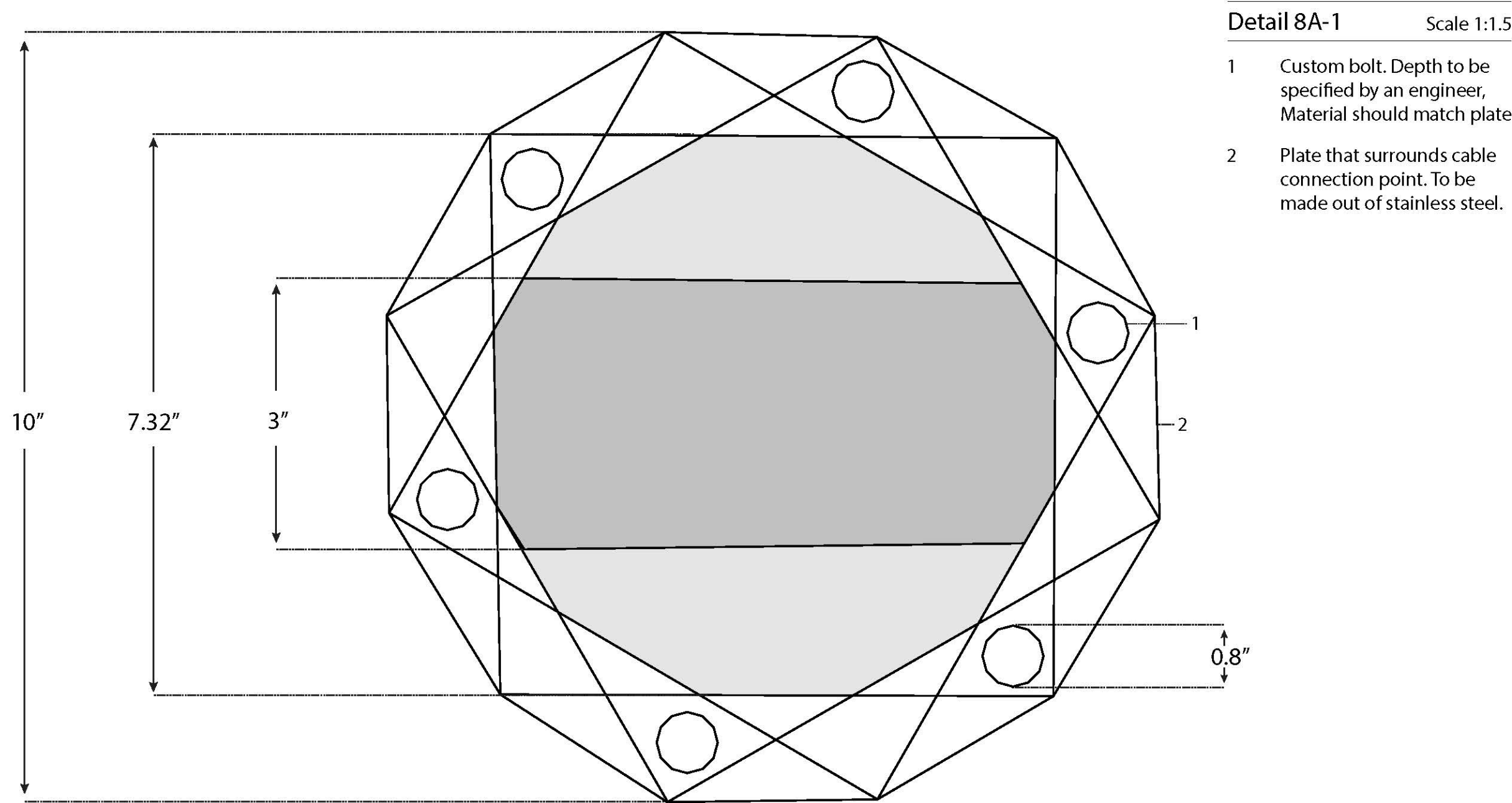
Detail 6A      Scale 1:75

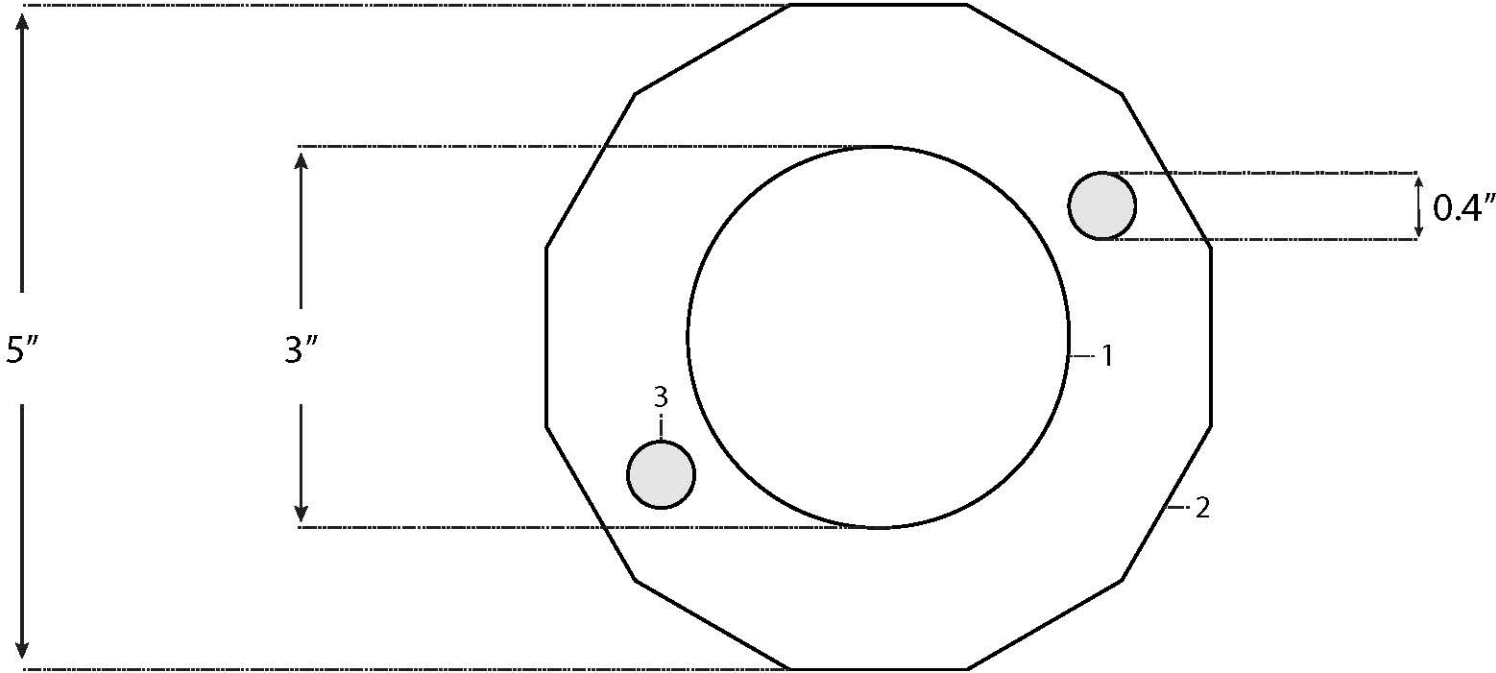


Detail 6A-1      Scale 1:1

- 1 Wire rope. Final diameter and type to be specified by structural engineer.
- 2 LED cable. Final diameter and voltage to be specified by electrical engineer. *See page 19 for reference.*
- 3 Clip. Connects LED cables to wire ropes. Should be around every foot.







Detail 8A-2                      Scale 1:1.5

- 1      Threaded back of the cable anchor. Diameter to be finalized by engineers
- 2      Custom nut. Material to match plate. Final nut size determined by final size of the threaded part of the cable anchor
- 3      Holes to be used by custom tool. Custom nuts are too close to round to be tightened by traditional tools. Size to be finalized by experts.



**Christian Valeris**

*Director of CAB*

- CAB is struggling to find spaces for events
  - They need areas that are a clean slate so that they can change them how they need for the different events
- Always looking for new innovative events
- Inclusive events
  - This sometimes means multiple events at once
- Top Events
  - Food-related
  - DIY
  - Carnival
- Give area a name to create a real identity and brand for it
- Rely on campus programs
- Drive community engagement through a series of opening events



**Darcie Jones**

*Student Government President*

- Hold generalized and focused group events
  - Generalized Examples: Food, movies, music, etc
- She can see the space being used for things like:
  - Orientation events
  - Tye-dye
  - Ice cream
- Adirondack chairs might get added later just like in Greek Lawn
- If the center is grass you need to make sure there is a way to get a lawnmower in
- This space will become a campus landmark like the Sentinel, Sundial, and Infinity Quad
- Speaking Pointers
  - Be confident
    - You know what you are talking about and you've done the research
  - Use RIT's words
    - Sense of belonging
    - Retention and persistence (getting students to stay on campus all 4 years)
    - Engaged and belonging to the community
    - Talk about collaborating with other
    - Hub of community or belonging
  - Break the ice - grabs people's attention - something to make you feel comfortable
    - Call it a mothership to the whole project
  - Paint a picture of how you envision the space to be used
  - Potential uses
  - Fusion of everything on campus
    - Tech, science, design
  - Write a speech and repeat it over and over



**Susan Pagano**

*School of Science Associate Professor*

- Bright lights can disorient birds
  - Causes bird strikes (birds flying into things like buildings)
- Consider the Lights Off Initiative
  - Turning lights off (from dusk to dawn) during peak migratory periods
    - From mid September to mid October and the month of May
  - Many cities are taking part in this
- Main worry would be upward beams of light
- LED cables would just be providing a glow which shouldn't be bright high enough to affect birds
- What is the max distance of the glow that is acceptable?
  - This will determine allowed brightness of lights
  - Especially if the cables are at a similar height to the already present street lights
- As long as the cables are vertically close enough together and horizontally not too close together than there should be no worry of birds getting trapped in the cables
- Animals will potentially visit the area but they shouldn't decide to stay there
  - Birds prefer more cover when nesting and would most likely not nest on the cables due to their sway
  - As long as there are no berries in the planters animals won't get too comfortable in this space
- Consider looking at native plants for planters
  - Ex: trumpet honeysuckles



**Chris Thomas**

*Estimator at O'Connell Electric*

- Mentioned maybe needing airport marker balls if towers are too tall
  - These are the red/orange balls on power lines
- What he found out:
  - Pretty sure that it is far enough away from the airport that I don't need to worry too much
  - Might need to talk to FAA to figure out if the lights will be a distraction
  - Might need to look at town permits and requirements
  - Should consider talking to people on campus and finding out who does the construction and figures out regulations and such and ask them if their is anything I should be aware of
  - Maybe find engineering/architecture firms and ask them questions
    - Bergan
    - FWBR
    - Labella
    - Pacaro
    - Etc
  - Their company usually is just on the construction side of things
    - People give them the designs that have already been 'fact checked'



**Gary Jacobs**

*3D Digital Design Assistant Professor  
Worked on ROC Airport Canopy Lighting*

#1 - Cables plus lights (for no sag)

- Lights can't be put under the tension needed to keep the lines flat at such a distance (they would snap)
  - A cable (aerospace cable? 1/8, 1/4, or 3/16 cable?) would be needed and a structural piece
  - They would be kept under tension using turnbuckles and connected to the towers using some sort of cable rail system
- Lights would be connected to cable using small buckles every so many feet
  - Maybe a clear material so you can't see it from the ground

#2 - Counter forces (tension) in the columns

#3 - Voltage and resistance matter along length

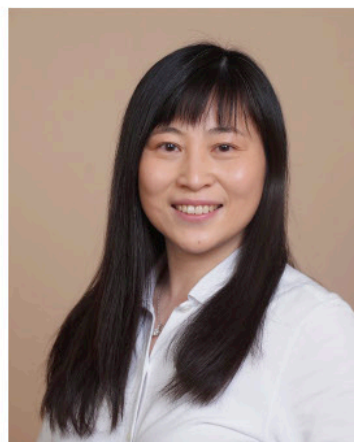
- Talk to electrical engineer
- Need at least 120V at each tower
- Colored LEDs might triple voltage requirement

#4 - Twinkly lights vs lines

- LINES (appears continuous)
- Lights every so many inches but they are in a cloudy tube that diffuses the light and makes it appear continuous

#5 - What is an acceptable amount of lighting?

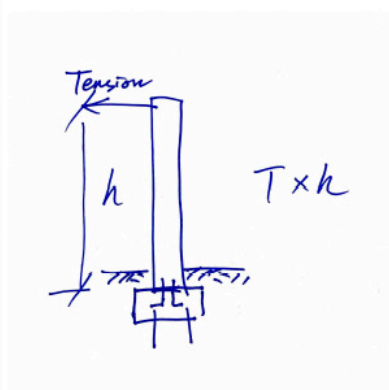
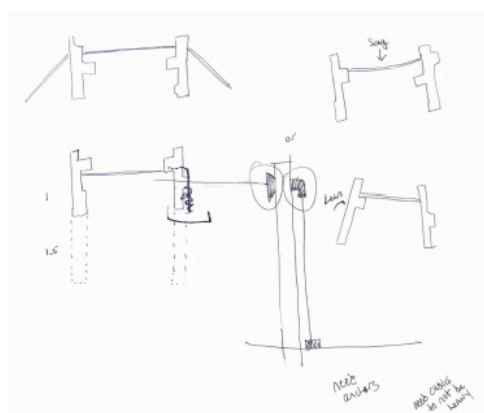
- LEDs will just be a glowy haze – not lighting to use to read
- Consider downward or upward lighting at towers
  - This could also emphasize the form of the towers
  - This lighting could also be programmed to match the color of the cables
- Having the cables appear to disappear into the towers would look the most interesting
  - Hole vs funnel hole
  - Should be a steel tube so erosion doesn't shift cables
- Because of how Fiber Optics work, the light would visibly fade going down the line
- EL wire is similar to LEDs but smaller
  - Is continuous lighting
  - Might not be bright enough
  - New version of neon lights
    - Neons are/were high maintenance
- Look into Calatrava Architect
- Find a datum (common height) of each tower for cable height
  - 15ft
- Maybe have a LED strip around the inside of the center circle to provide a down light to make the center glow like a fire
- Consider taking center cables out so a pentagon is formed in the center the size of the center circle



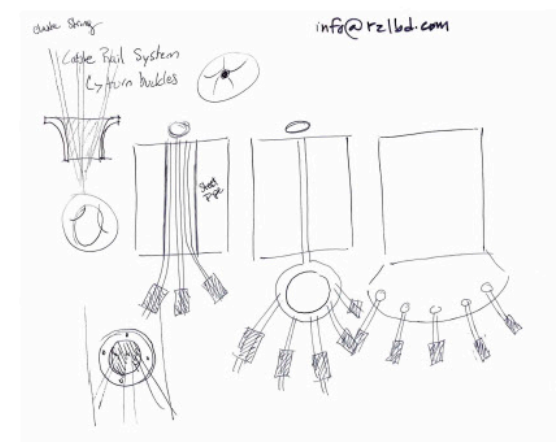
**Amanda Bao**

*Civil Engineering Associate Professor*

- If the towers are made out of concrete or something like then they should stand just fine under the tension of the cables
  - Make sure the tension times the height of the tower is less than the strength of whatever is anchoring the tower into the ground
- Options to help anchor towers if needed would be to have a longer support under ground or to add a cable off the back
- For the model I should use stretchy string to give the "cables tension"



**Josh Owen, RZLBD and Classmates**



- People using the event space will bring the things they need
  - This could include:
    - Chairs
    - Power
    - Lights
    - Speakers
    - Stage
    - Tables
    - Etc
- My job is to design the overall space which emphasizes the glowing cables
  - If people want they can add other light and power sources to the area later
- How do we get the community involved in helping take care of the vines and other plants?
  - Signs?
  - Sustainability clubs would be interested in helping out along with the student government sustainability committee chair
- Additional anchors might not be needed but the cable off the back could help the vines climb
- The connection point (cable to tower) could be super interesting – design the heck out of this
- Consider adding lights to steps so people don't fall
- Go to the area at night and see how dark it is