

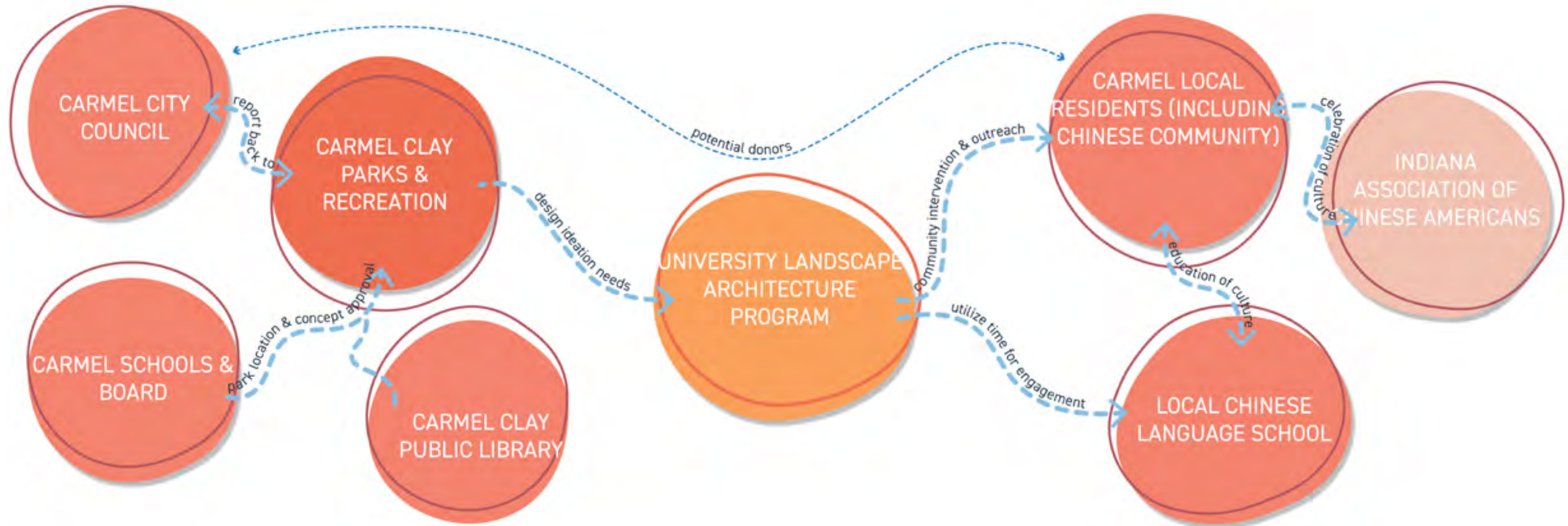
CARMEL CHINESE GARDEN

COMMUNITY ENGAGEMENT AND
CONCEPTUAL PLAN DEVELOPMENT

Final Report May 2023



Involved Organization Chart



Acknowledgement

We thank the individuals who have participated in our surveys, workshops, and presentations along the way. We also express gratitude to the support and acknowledgement from different entities, including but not limited to,

- Carmel Clay Parks & Recreation (CCPR),
- City of Carmel Community Services,
- City of Carmel Engineering,
- City of Carmel Community Relations & Economic Development,
- Carmel Clay School Board members,
- Carmel Clay School Director of Facilities,
- Carmel Clay Public Library,
- and Carmel City Mayor Offices

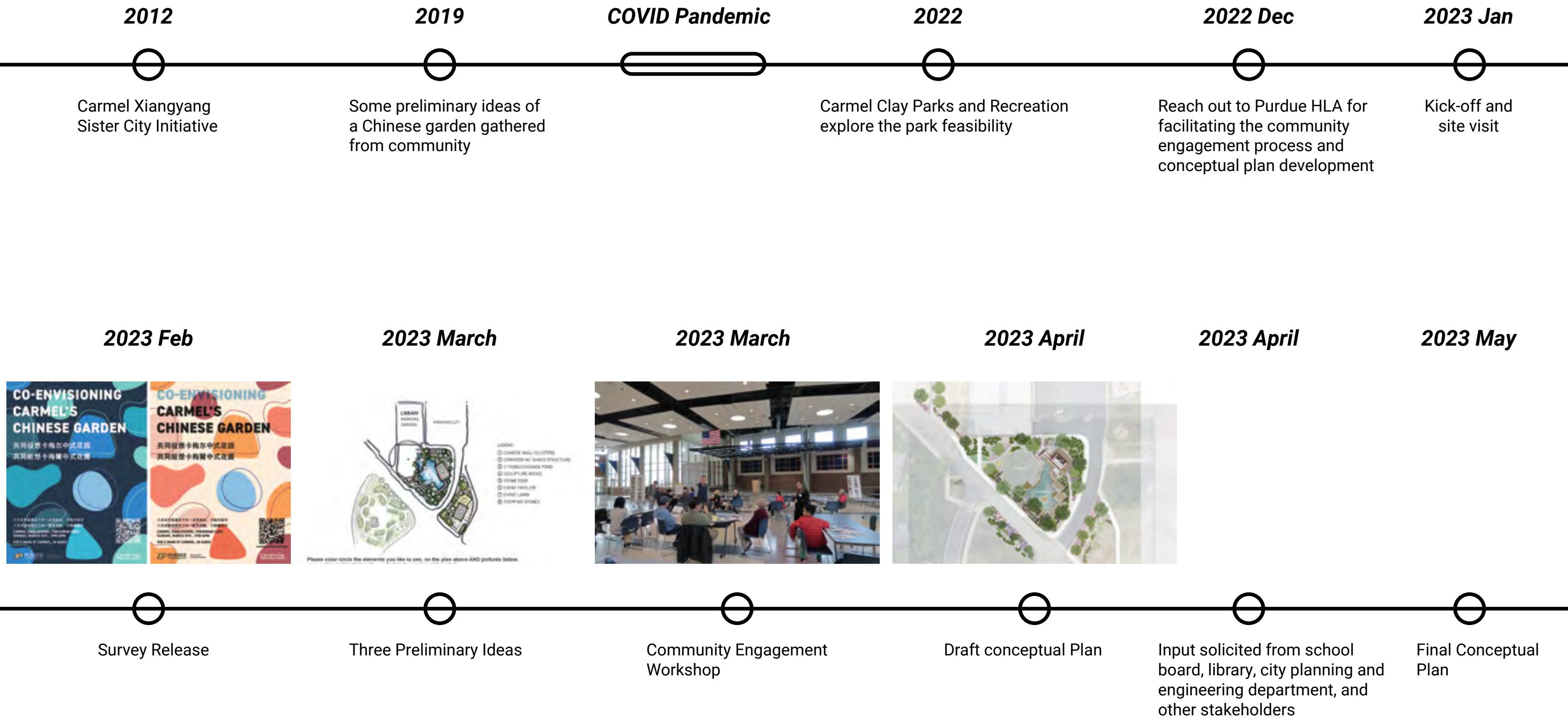
Project Development Team

Michael Klitzing, Director/CEO, Carmel Clay Parks & Recreation (CCPR)

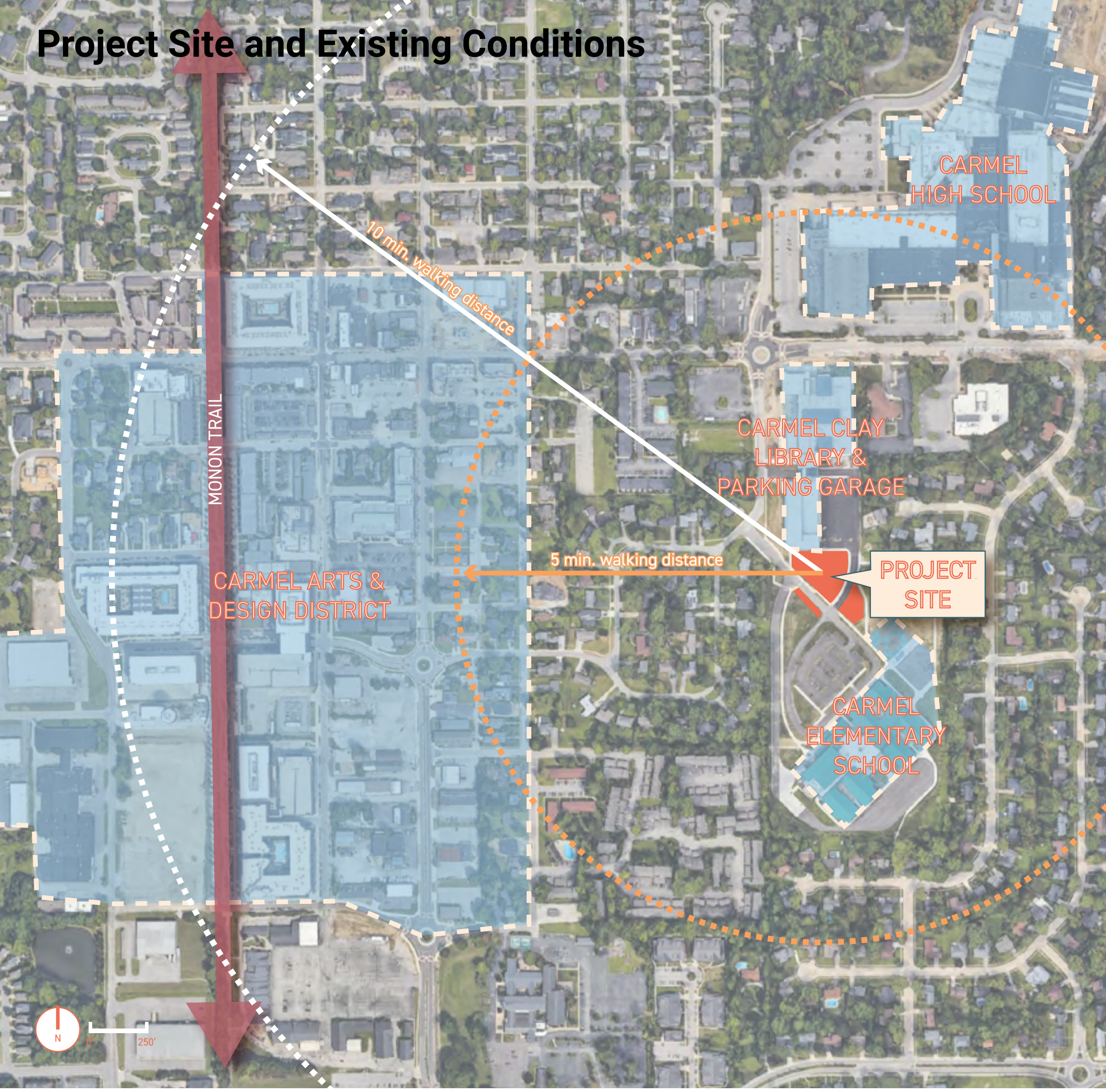
Consultant Team

- Yiwei Huang, Assistant Professor of Landscape Architecture, Purdue University
- Autumn McNinch, Undergraduate Student of Landscape Architecture, Purdue University
- Chloe Kennedy, Undergraduate Student of Landscape Architecture, Purdue University
- Molly Wimberg, Undergraduate Student of Landscape Architecture, Purdue University
- Jeffery Tseng, Undergraduate Student of Landscape Architecture, Purdue University
- Kayla Kramer, Undergraduate Student of Landscape Architecture, Purdue University
- Wanting Zhang, Graduate Student of Landscape System and Design, Purdue University

Project Timeline



Project Site and Existing Conditions



Site Analysis

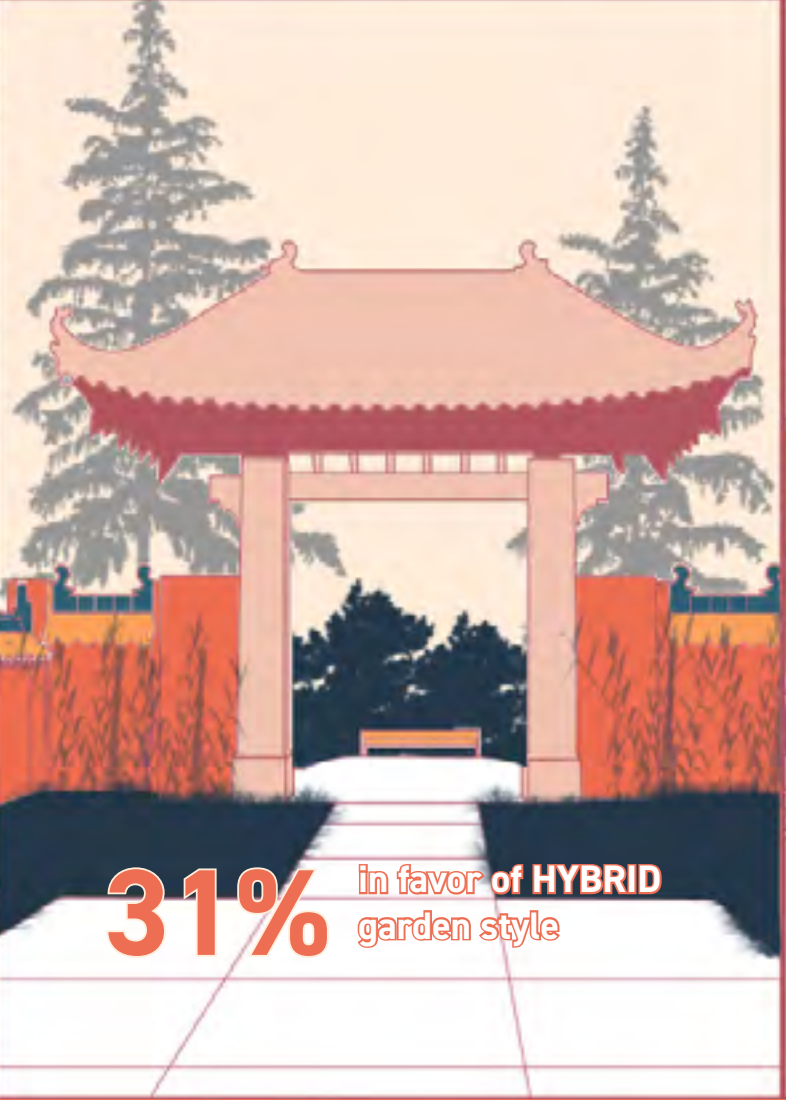
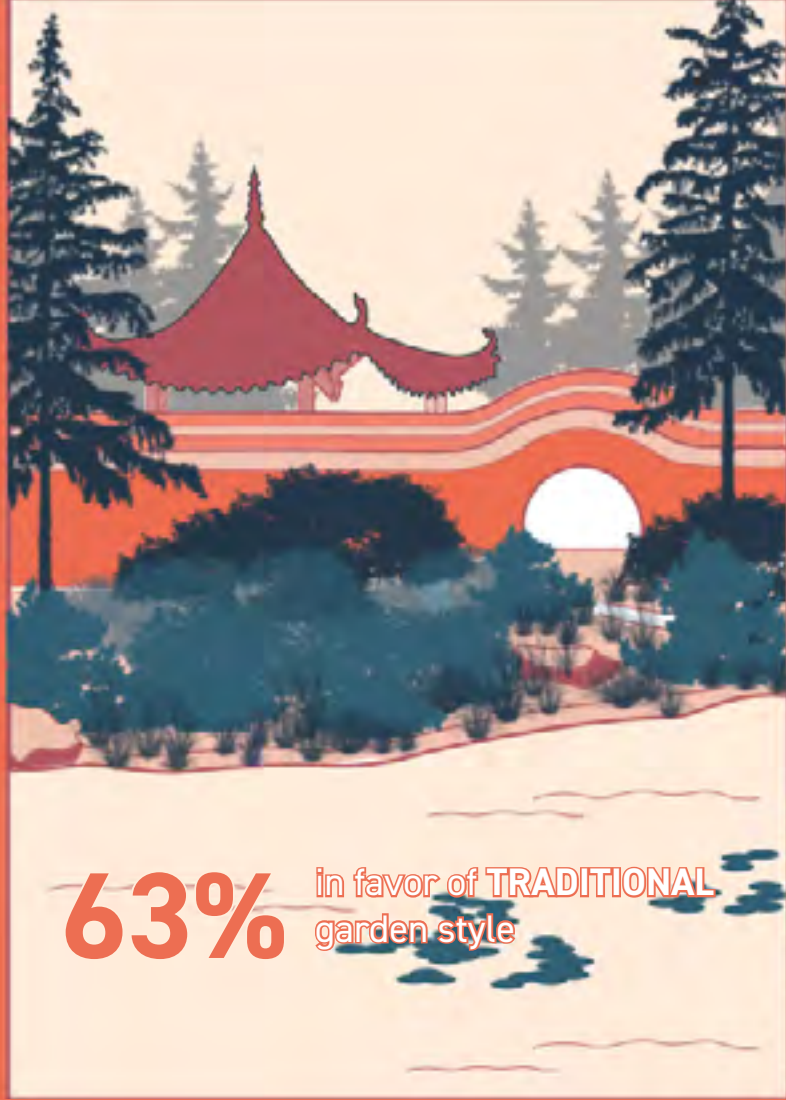
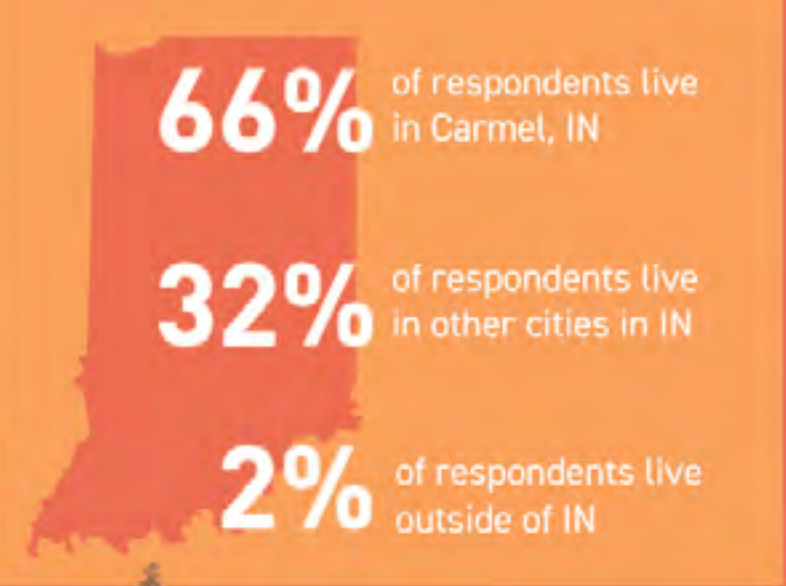


The proposed design will preserve the 36" oak tree on site, and as many mature woody plants as possible. The existing vehicle and pedestrian flow around Carmel Clay Library and Carmel Clay Elementary School will be maintained and respected.

Community Engagement Effort: Survey Summary



An online survey was distributed through various groupchats of the Carmel Chinese community, as well as posted online by the Carmel Parks & Recreation Department for people to participate.



A public bilingual survey was distributed online, from 02/23/2023 to 03/26/2023. The survey received responses from 247 individuals, of which 66% are Carmel local residents. Among all survey responses, 95.8% are in supportive of the addition of Chinese garden in Carmel. 63% are in favor of traditional garden style, over hybrid, or modern garden styles.

In Person Community Engagement and Design Workshop

stickers were handed out for individuals to vote on their top 5 choices of a variety of design elements. this allows for community members to actively express their interests and see their contribution towards the project design



community members were given abundant time to ask questions & express ideas

STUDENT-LED ENGAGEMENT

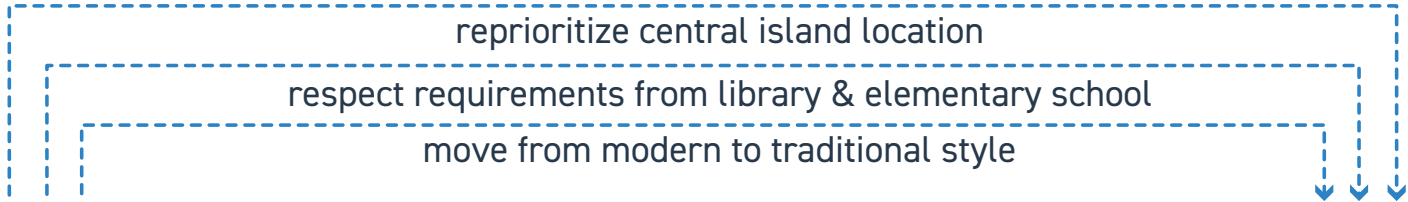
activities were led by university landscape architecture students, allowing for connections with community members



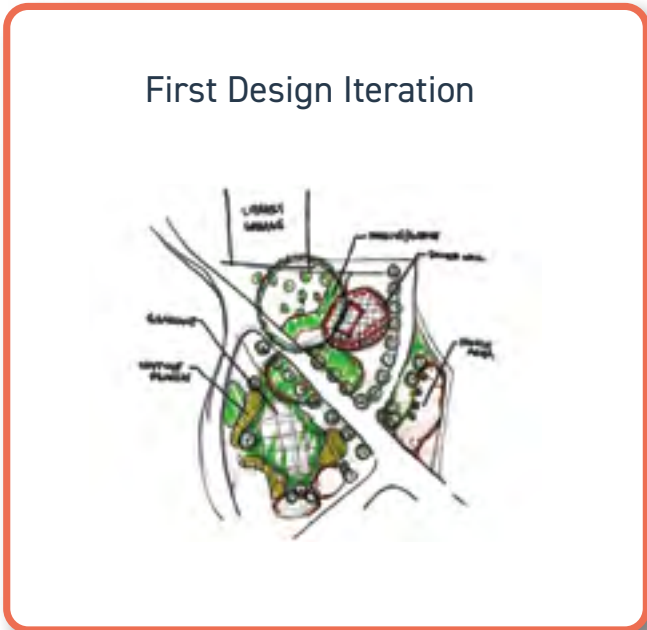
On March 5th, an in-person community engagement workshop was held at the local high school, which coincidentally is the Sunday Chinese language school. The workshop was held during and after the school session, so many members of the Chinese community had the opportunity to participate in the student-led activity.

Overall Design Iterations

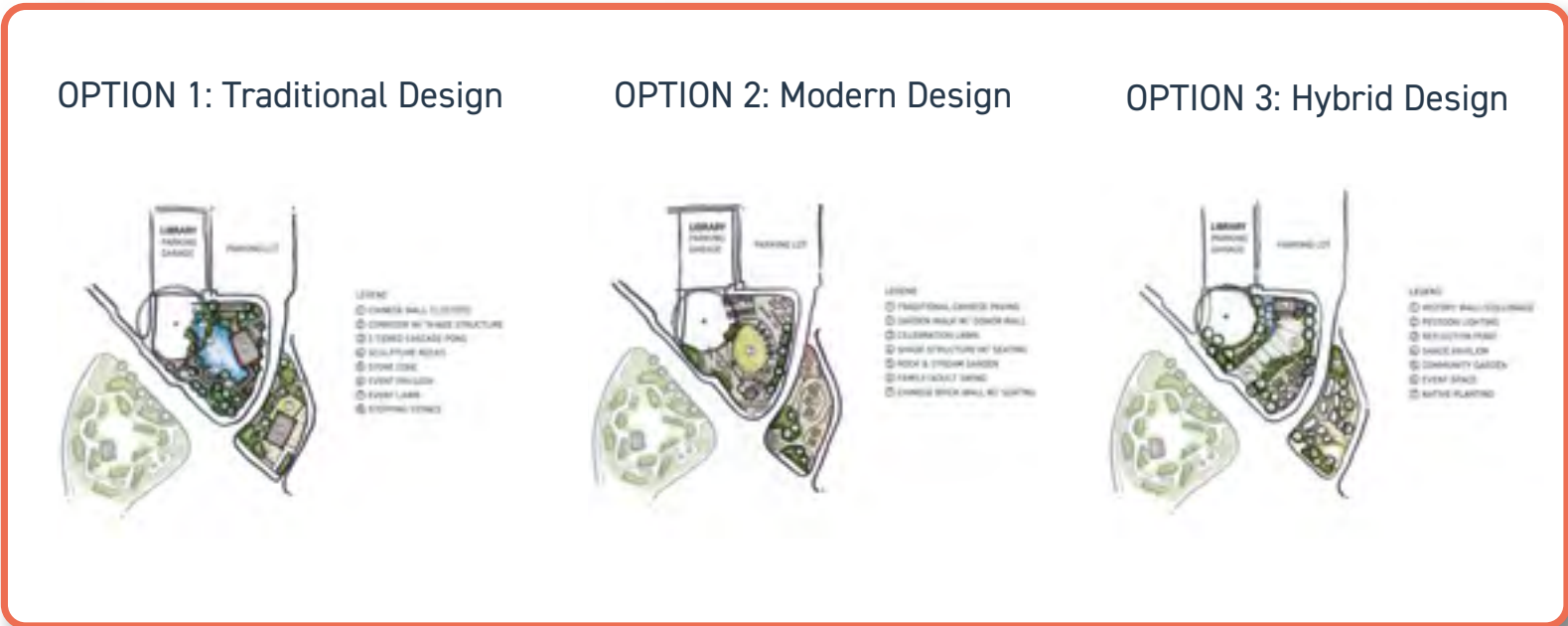
REVISIONS AFTER SURVEY RESULTS



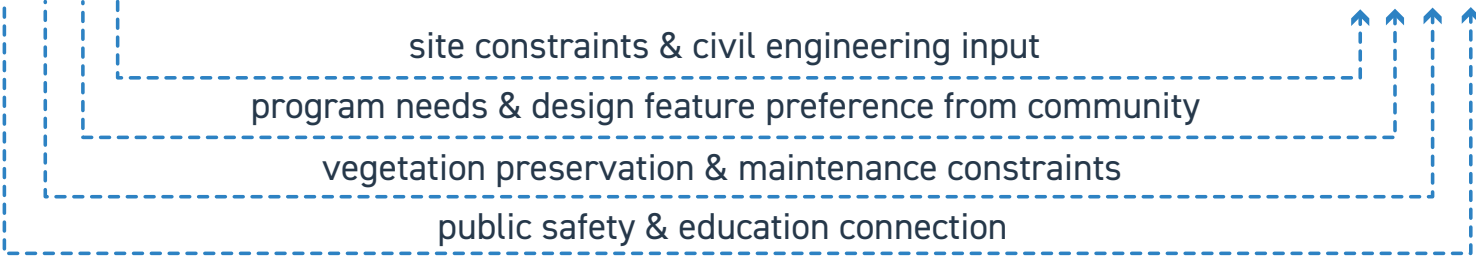
PHASE 1



PHASE 2



PHASE 3



REVISIONS AFTER COMMUNITY ENGAGEMENT EFFORTS

The Carmel Chinese Garden design has been through many design iterations, reflecting the wants and needs of community members. Other stakeholder input has also reflected the design, leading up to the final proposed master plan of the garden.

Survey and Engagement Summary

The proposal of a Chinese themed garden has garnered **significant support** from members of the community. An overwhelming 95.8% of the participants in the survey expressed agreement with the addition of a Chinese Garden in Carmel City.

The community is in favor of the construction of this garden, citing its potential to **improve and educate youth groups on important cultural representations in their surroundings**, as well as to introduce traditional Chinese culture to those who may not be familiar with it.

Based on the survey and engagement workshops, popular plant choices for the garden include lotus flowers, plum blossoms, bamboo, and Chinese peonies. It is worth noting that participants expressed a high level of sensitivity about local habitat protection and a willingness to use **localized alternatives for exotic plants** which are **not invasive**, as well as integrate native species to support local pollinators.

Traditional Chinese Garden styles were the clear favorite among survey participants and in-person workshop attendants.

There is a broad consensus that the Chinese themed garden will and should support important activities in the surrounding environment, and **offer programs to** youths, seniors, and residents from **all age groups**.

The idea of a **peony garden**, in particular, received strong support from participants in the community engagement workshop. Potential donation is available to create a garden with the most extensive collection of peony species in the region.

Conceptual Master Plan

- ① West Entrance
- ② South Entrance
- ③ North Entrance
- ④ Pavilion and Covered Walk
- ⑤ Central Water Feature
- ⑥ Peony Walk
- ⑦ Mural/Storytelling Walls
- ⑧ Passive Reading Space
- ⑨ Flower Meadow
- ⑩ Seatings and plantings

SCHOOL SIGN

EXISTING TREES

PAVILION

WATER MIRROR

Section-Elevations



A covered pavilion and water feature serve as the focal point of the design, and express Chinese culture. Storytelling/mural walls also give the opportunity for Chinese history and culture to be conveyed, as images, art, and calligraphy can be inscribed in these walls. Possible expression themes can be Chinese calligraphy (the art of handwriting), ancient Chinese art (porcelain, landscape paintings, ancient Chinese characters), history of 12 Chinese zodiac, and similar educational topics.

Perspective 1: Garden entrance from the west side



Large Oak viewed as asset to site & respected. Passive reading space can be created under the canopy.

Diverse plantings of culturally appropriate plants

Storytelling walls of Chinese history & culture

Fixed seating opportunities for passerbys & visitors

Contextual pavement to add interest & style through site

The garden design offers a welcoming entrance into the site, as textural/decorative pavement and plantings add interest and aesthetic. Plantings in this design act as both culturally appropriate to China and environmentally appropriate for Indiana.

Perspective 2: Mural/storytelling walls and diverse peony species



Storytelling/mural walls allow not only for aesthetics, but educational opportunities for Chinese community youths to learn about their heritage and educate those not familiar with Chinese culture. Wall openings and decorative windows will be integrated on walled features to allow for police patrol and public safety. A diverse selections of peonies will be clustered in this section of the garden.

Perspective 3: Along the entrance road to elementary school (actual relocation for school sign tbd)



Connecting feature of the community for many types of users

Protectivity of existing traffic patterns & flow

Potential relocation of school entrance sign

CARMEL
ELEMENTARY SCHOOL

FLOWER SALE PICK UP
APRIL 28 AND 29

This site is located in a setting with many different user groups and localities, making it a prime spot for connecting to the greater Carmel Arts District.

Some additional comments from engaged stakeholders and the general public include:

- For public safety, the edge of the pool should minimize the possibility of human-water interaction. The pool is not recommended to be too deep, and the maintenance of water quality requires further guidance from professional engineers.
- The landscape wall is to create a sense of scale in a Chinese garden. For the sake of public safety, the height of the landscape wall can be reduced, or the transparent design features can be increased.
- Based on the budget situation, the water area can be further reduced to increase the gathering space and hard ground.
- It is recommended to use textural materials for paving to echo the expression of white walls and classical culture.
- A complete wayfinding system is necessary. Parking signs need to be indicated at intersections (it is recommended that visitors and residents who visit the garden park in the parking lot or garage at the library).
- Mural/storytelling wall information will only be culturally and educationally relevant. Information about politics should be avoided.
- When special events occur in conjunction with the Chinese garden, the proximity to Carmel Elementary School provides the opportunity for additional event space within the school's parking lot and open space. Coordination with Carmel Clay Schools would be necessary.
- Some recommended plant species that have already thrived in the State of Indiana and have been proven non-invasive are: *Aster novae-angliae* (New England Aster), *Chrysanthemum x morifolium* (Garden Mum), *Liatris pycnostachya* (Prairie Blazing Star), *Nelumbo lutea* (Yellow Lotus), *Paeonia lactiflora* (Chinese Peony & other varieties), *Phyllostachys aureosulcata* (Yellow Groove Bamboo, contained), *Prunus cerasifera* (Cherry Plum), *Zelkova serrata* (Japanese Zelkova)
- A collaborative art piece is desired from local communities. This art piece can also become a potential fundraising opportunity for the future development and maintenance of the garden.

Opinion of Probable Cost

Carmel Chinese Garden					26-May-23
Opinion of Probable Cost v2					
Item	Qty.	unit	Unit Cost	Total (Sitetwork Contr.)	Remarks
Site Prep and Tree protection					
	51,350	sf	\$0.05	\$2,568	
Subtotal				\$2,568	
Demolition					
Clearing	0.00	AC	\$0.00		No existing structure for demolition
Subtotal					
Grading					
Fine grading and soil preparation*	51,350	sf	\$0.18	\$9,243	Fine grade and add amendments
Berm at the pavilion	536	cy	\$4.80	\$2,571	Fill materials from the pond excavation
Subtotal				\$11,814	
Hardscape					
Stone veneer edging at the pond	500	lf	\$175.00	\$87,500	16" thick X 12" wide stone veneer edging at the pond perimeter
Concrete pavement	3,500	sf	\$10.20	\$35,700	Sidewalks only
Stone paving area	8,070	sf	\$35.00	\$282,450	Remaining of the garden area
Stone veneer retaining wall with CMU core	190	sf	\$60.00	\$11,400	3 - 4' HT
Stone veneer stairs	1	ls	\$5,400.00	\$5,400	9 risers
Freestanding wall	380	sf	\$51.00	\$18,360	4 - 6' HT
Decomposed Granite	550	sf	\$9.60	\$5,280	
Subtotal				\$446,090	
Lighting/electrical					
Electrical pedestal, controllers, drivers, UG utility, etc.	1	ls	\$175,000.00	\$175,000	Cost related to electrical engineer work
Pedestrian Pole Light	20	ea	\$4,000.00	\$80,000	
Tree uplights	44	ea	\$2,400.00	\$105,600	BK Denali Flood light 2 per structure and ornamental tree
Power outlet	6	ea	\$2,400.00	\$14,400	
Cellphone charging station	10	ea	\$2,500.00	\$25,000	
Subtotal				\$400,000	
Drainage**					
8" trunk and lateral lines	425	lf	\$30.00	\$12,750	
French drain	190	lf	\$14.40	\$2,736	playground perimeter, pool edge, motorcourt planting island
Inlets @ landscape area	12	ea	\$420.00	\$5,040	12" round flush/atrium type
Subtotal				\$20,526	
Irrigation					
Lawn rotors	51,350	sf	\$2.00	\$102,700	
Planting beds	5,150	sf	\$2.50	\$12,875	
Irrigation (tree bubblers)	55	ea	\$60.00	\$3,300	1 flood bubblers/tree
Irrigation pedestal, controllers, main and lateral lines, etc.	1	ls	\$125,000.00	\$125,000	
Subtotal				\$243,875	
Planting					
Structural Trees	14	ea	\$1,800.00	\$25,200	100 gallon container grown
Ornamental Trees	8	ea	\$750.00	\$6,000	30 gallon container grown
Shrub	65	ea	\$50.00	\$3,250	Shrubs @ 30" o.c.
Groundcover	315	ea	\$15.00	\$4,725	Groundcover @ 18" o.c.
Ornamental Grass (24" O.C.)	535	ea	\$10.80	\$5,778	1 gallon containers @ 24" o.c.
Annuals	1,106	ea	\$3.60	\$3,983	4" pots @ 12" o.c.
Compost / Topsoil	15	cy	\$66.00	\$1,019	1" over all grassed areas w/ 20% compaction factor
Mixed soil for shrubs, GC, and annuals/per.	63	cy	\$66.00	\$4,154	5150 (sf) x 4" (depth)/27 mixed into existing soil
Hardwood mulch	31	cy	\$60.00	\$1,831	5150 (sf) x 2" (depth)/27
Bermuda Sod Grass	2,500	sf	\$0.54	\$1,350	Solid sod Bermudagrass, include sod strips along primary pathway adjacent to amenity center building and pool area
Hydroseeded Bermuda Grass	2,500	sf	\$0.06	\$150	Great Lawn + All other disturbed areas
Subtotal				\$57,440	
Furnishing					
Benches	8	ea	\$3,000.00	\$24,000	Brooklyn, 6' powdercoated cast aluminum
Trash receptacles	4	ea	\$1,977.60	\$7,910	Victor Stanley, Steelsites Series, 36 gal., powdercoated steel
Dog Waste Station	1	ea	\$600.00	\$600	
Shade Pavilion	1	ls	\$120,000.00	\$120,000	25'x40' wooden structure
Subtotal				\$152,510	
MISC					
Pond	1	ls	\$375,000.00	\$375,000	Including civil earthwork, waterproofing, etc. Water feature and MEP system are not included
Pedestrian Bridge	1	ls	\$90,000.00	\$90,000	Concrete bridge with stone paving surfacing
School signage relocation	1	ls	\$5,500.00	\$5,500	
Subtotal				\$470,500	

Total \$1,805,323

Construction Contingency + General Condition 20% \$361,065

Grand Total \$2,166,387

* Additional Civil cost will occur relating to the massing grading/earth work.
 ** Additional utility cost will occur, including but not limited to storm drain/sewer inlets, manhole, main and lateral line, water utilities, valves, etc.

For the proposed plan, the major cost driver will be hardscape (stone paving area), lightning and electrical, irrigation system, shade pavilion, and water feature engineering work. Additional Civil cost will occur relating to the massing grading/earth work. And additional utility cost will occur, including but not limited to storm drain/sewer inlets, manhole, main and lateral line, water utilities, valves, etc.

ESTIMATING DISCLAIMER. Any estimates provided in the Report are merely opinions of possible costs that could be encountered, based on the knowledge and experience of the consultant team, and are not estimates in the sense of being a calculation of the likely costs to be incurred. The estimates are NOT a guarantee or quotation for work to be carried out. The consulting team accepts no liability for any estimates provided throughout this report where they occur you agree to obtain and rely on independent quotations for the same work.

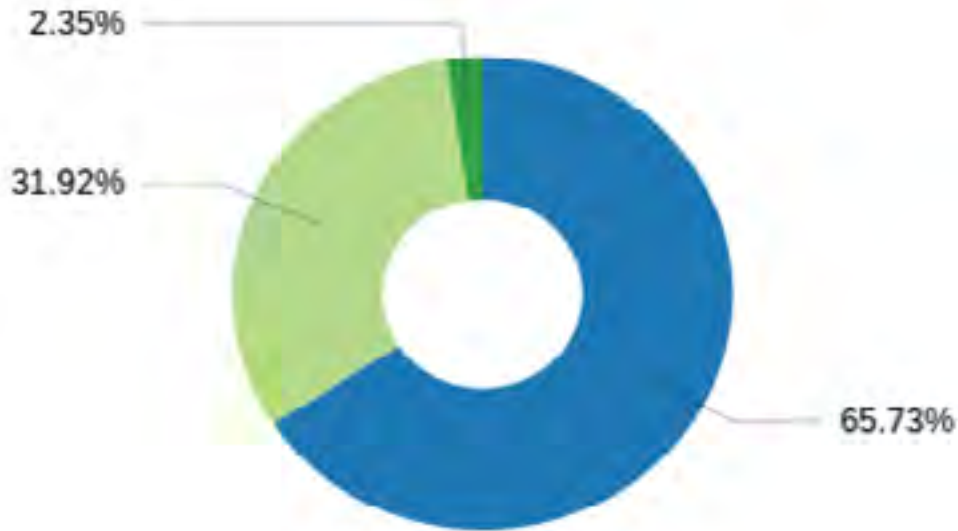
The diagram below indicated possible phases of construction. Phase 1 include the storytelling walls, street features, peony gardens, and textured pavings. Phase 2 include the shade pavilion, covered walk, and the central water feature. Phase 3 include the extended plantings, street furnitures, and additional softscape in adjacent islands.



The page is intentionally left blank

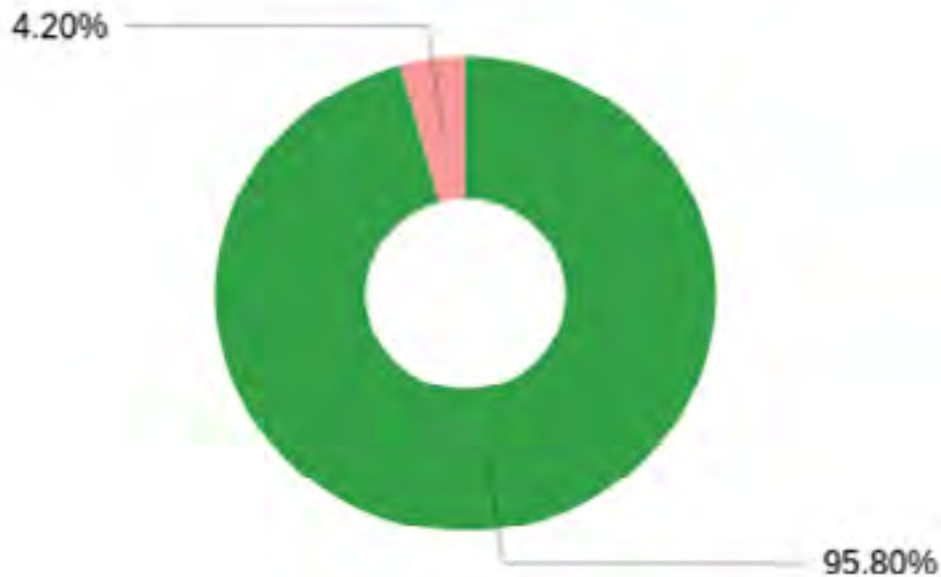
Appendix: Online Survey Result Summary (247 responses)

Q1 - Place or City of Residence



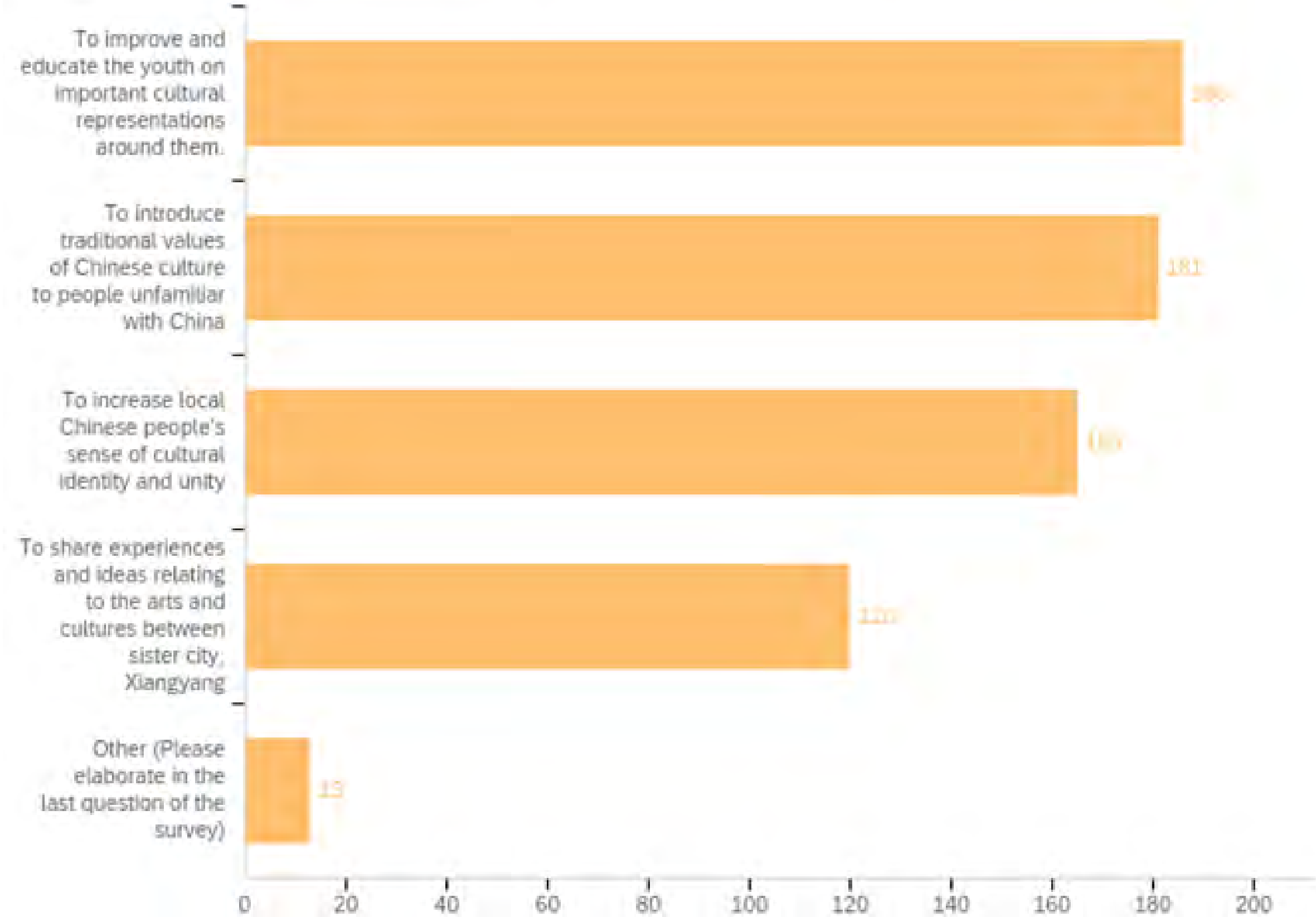
■ Residents of Carmel, Indiana ■ Residents from other cities in Indiana (Visiting Carmel, IN)
■ Residents Out of State

Q2 - What are your thoughts on a new Chinese garden in the city of Carmel, IN? D...
Do you think a Chinese garden would be a good addition to the parks and services in the city of Carmel, IN?

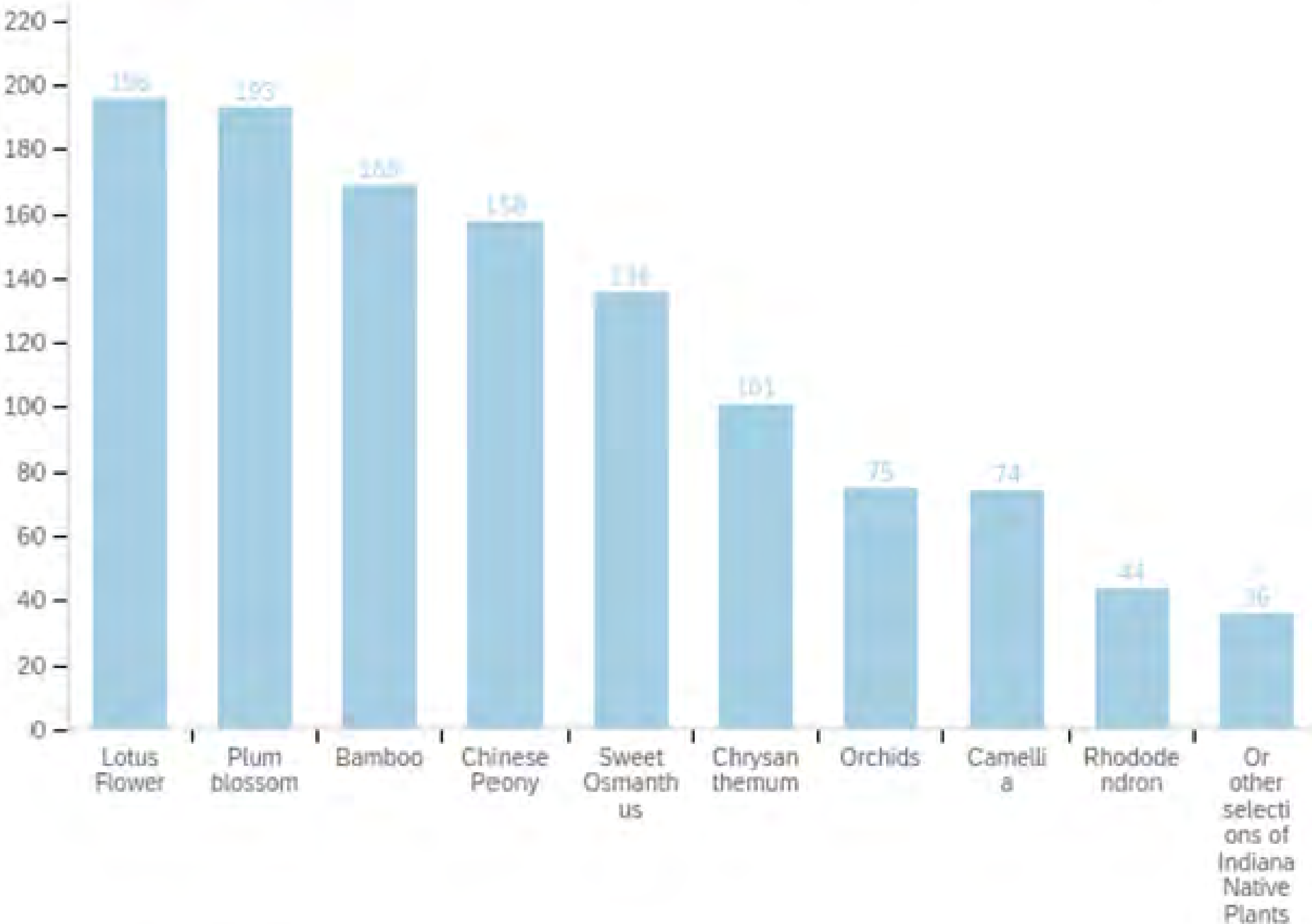


■ Agree ■ Disagree

Q3 - What is the significance of this garden if it was built? (Select all that a...

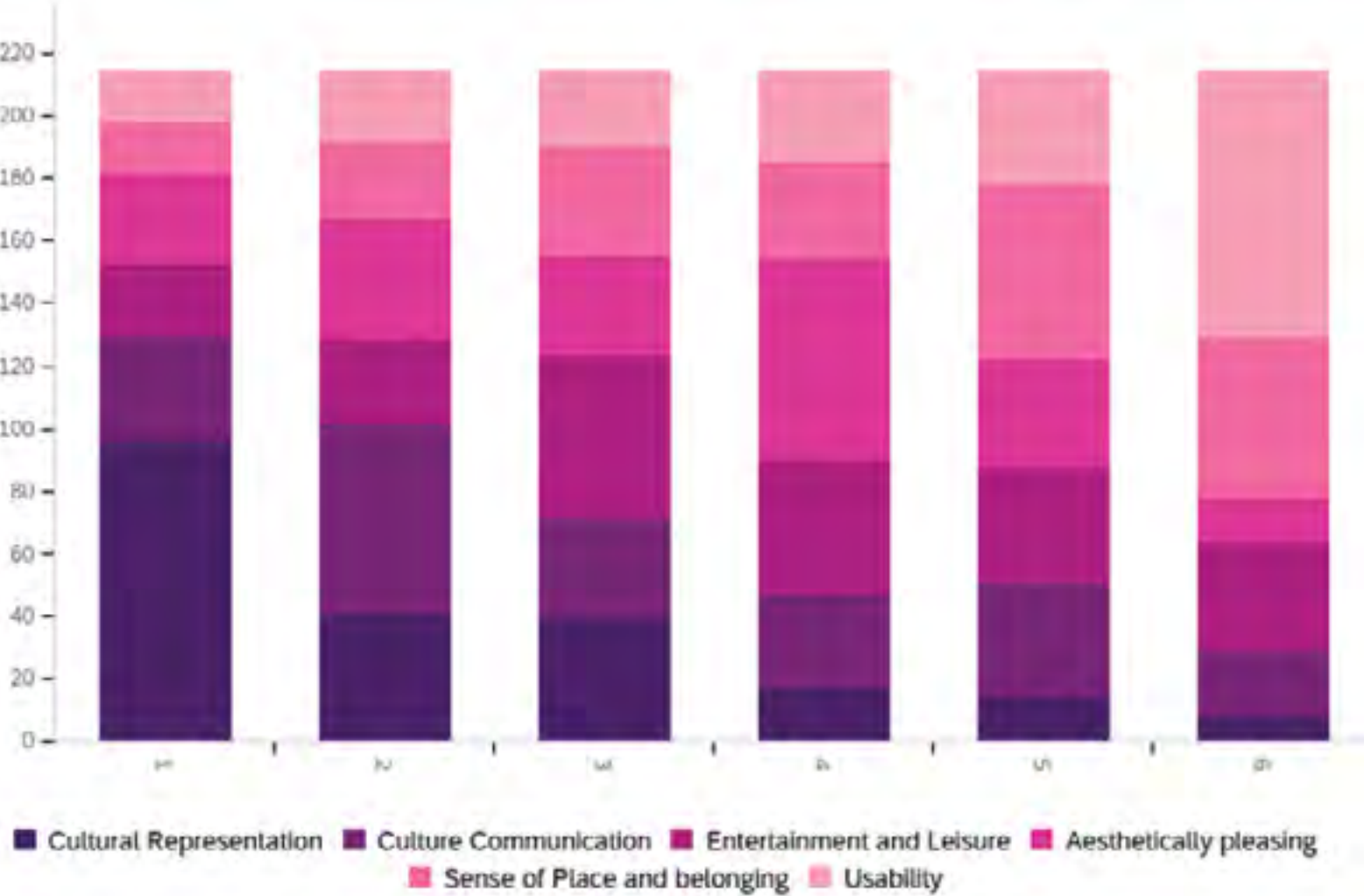


Q4 - Which of the following plants would you prefer in your garden if it was con...

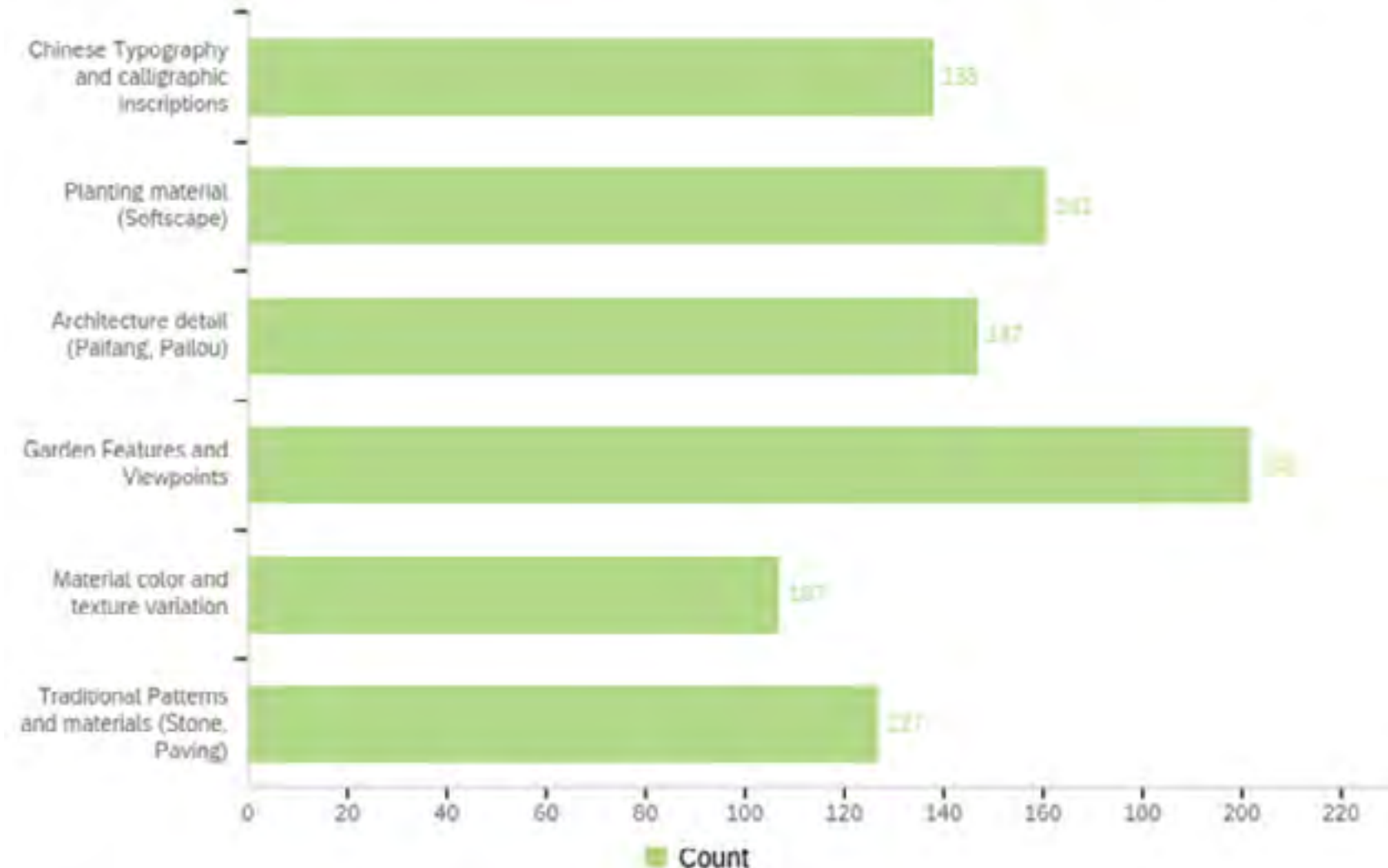


Online Survey Result Summary Continued

Q5 - Rank the following characteristics that would make for a successful Chinese Garden in the context of a U.S. city like Carmel.

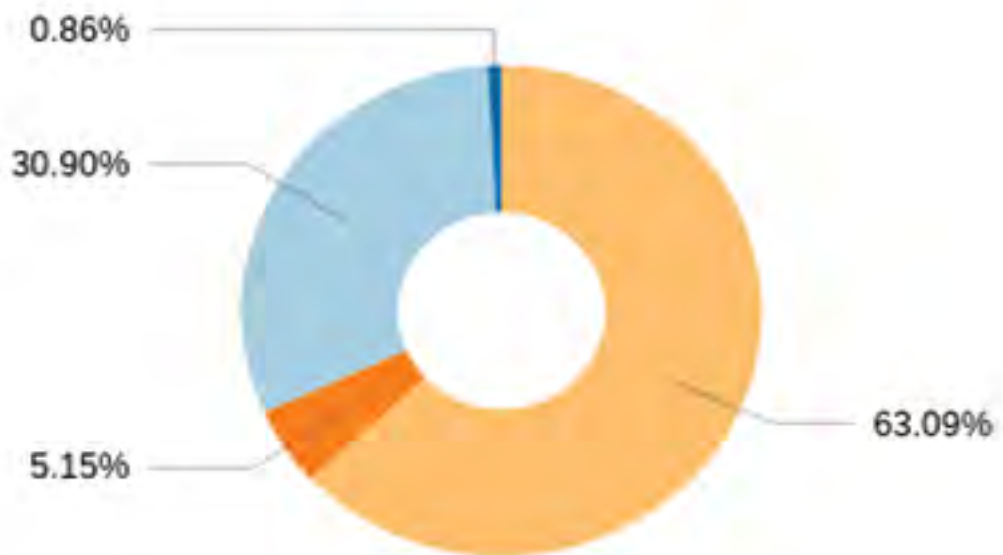


Q6 - Which of the following landscape elements would you like to see represented...



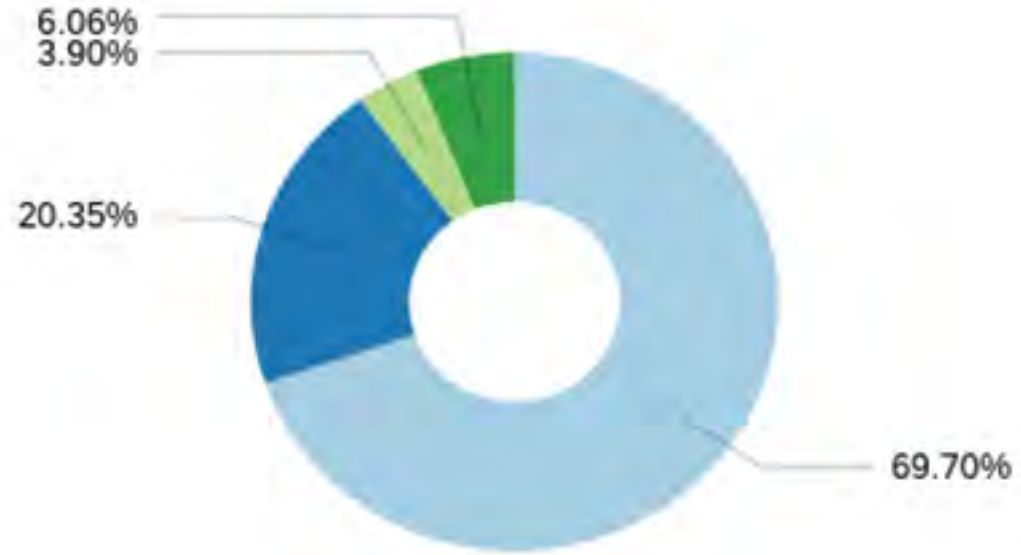
Online Survey Result Summary Continued

Q7 - Which of the following garden styles would you prefer?



- Traditional Chinese Garden
- Modern Chinese Garden
- A hybrid of traditional and modern characteristics, with reflection of local context
- Other (Please elaborate in the last question of the survey)

Q8 - Do you think it's necessary, and would you or your children be willing to participate in an event or organized program in this Chinese garden? (Activities such as encouraging children to express their creative spirits in painting)



- Necessary / willing to participate
- Not necessary / can participate if possible
- Necessary/unwilling to participate
- Not necessary/and will not participate

Community engagement (60+ participants in total)



Top-rated Garden/Park Feature Characteristics

Idea #1 Traditional Chinese Style Garden



Please color-circle the elements you like to see, on the plan above AND pictures below.
请在上面的草图和下面的图片中用颜色圈出您喜欢看到的元素。



Idea #2 A New Articulation of Chinese Garden



Please color-circle the elements you like to see, on the plan above AND pictures below.
请在上面的草图和下面的图片中用颜色圈出您喜欢看到的元素。



Idea #3 A Hybrid of Tradition and Modern

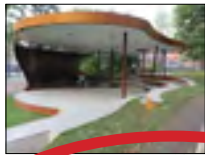



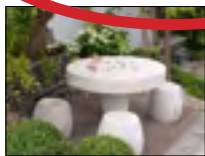

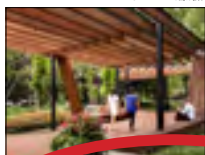


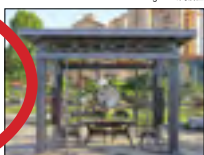
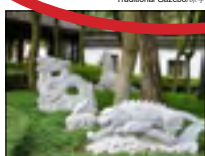

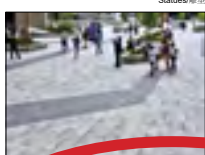





Please color-circle the elements you like to see, on the plan above AND pictures below.
请在上面的草图和下面的图片中用颜色圈出您喜欢看到的元素。

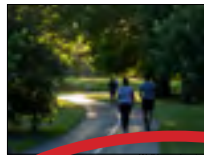

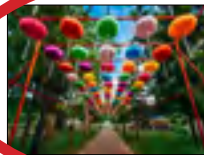








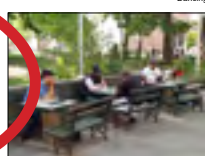

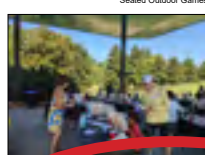




Top-voted Design Elements








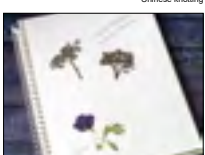




CARMEL CHINESE GARDEN features

	7		6
	28		2
	9		7
	5		6
	24		9
	10		2
	0		11
	18		3



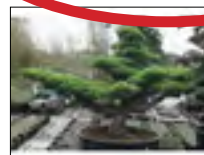

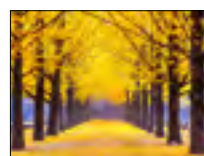









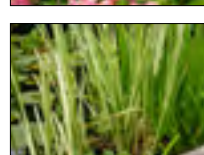

CARMEL CHINESE GARDEN activities

	3		4
	20		7
	5		12
	7		2
	5		9
	16		15
	3		8
	2		17

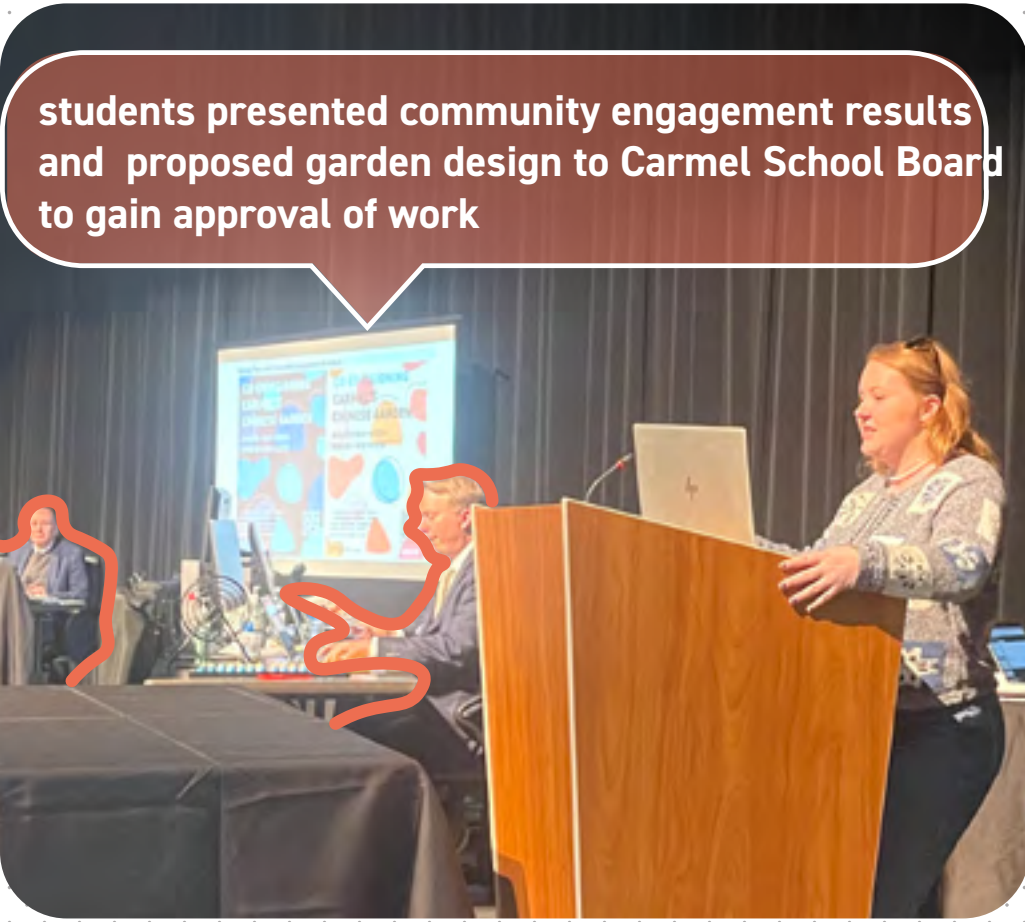
CARMEL CHINESE GARDEN Festival+Participation Activities

	19		4
	2		0
	10		27
	4		5
	2		1
	9		4
	9		6
	7		12

CARMEL CHINESE GARDEN plants

	18		3
	11		1
	13		7
	4		5
	0		4
	23		0
	1		5
	2		28

Stakeholder Engagement and Presentation Pictures



students presented community engagement results and proposed garden design to Carmel School Board to gain approval of work



engagement meeting with Carmel Parks & Recreation Team for design input and feasibility



meeting with Carmel Clay Public Library Board with Parks & Recreation Team



presentation of work and proposed design to Carmel's mayor