

ArcGIS StoryMaps

Designing a STEM
Center for
Underrepresented Youth



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Today's Agenda

1 Introduction

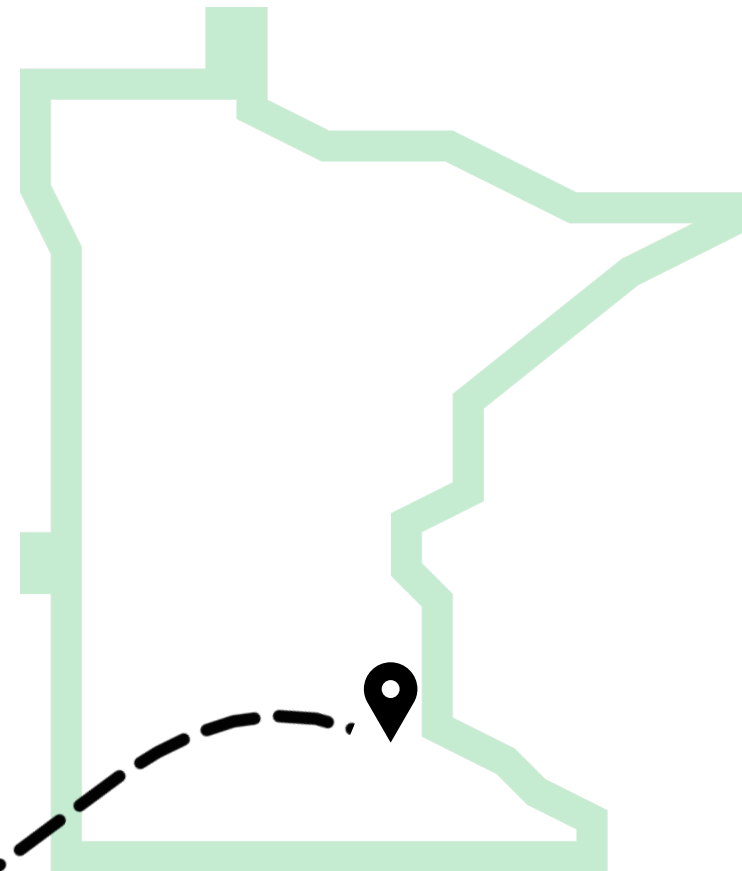
2 Application

3 Exemplars

4 Conclusion

Introduction

Jamez Staples, the founder of Renewable Energy Partners, invested \$1.5 million in a STEM center for underrepresented youth in the North Loop area, Minneapolis.

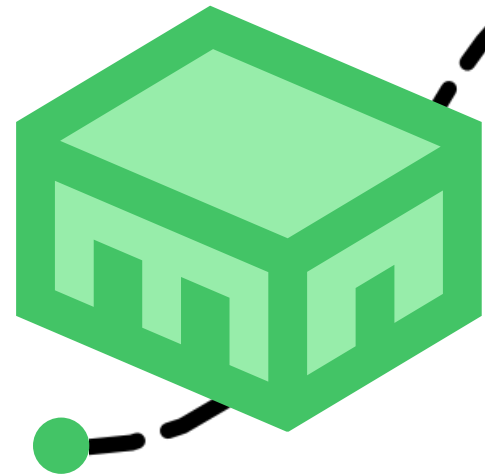


Jamez Staples

A \$1.6 million grant was awarded to this project [1].

Image @Startribune

IDES 2604 Spring 2020



1200 Plymouth Avenue
North, Minneapolis, MN 55411



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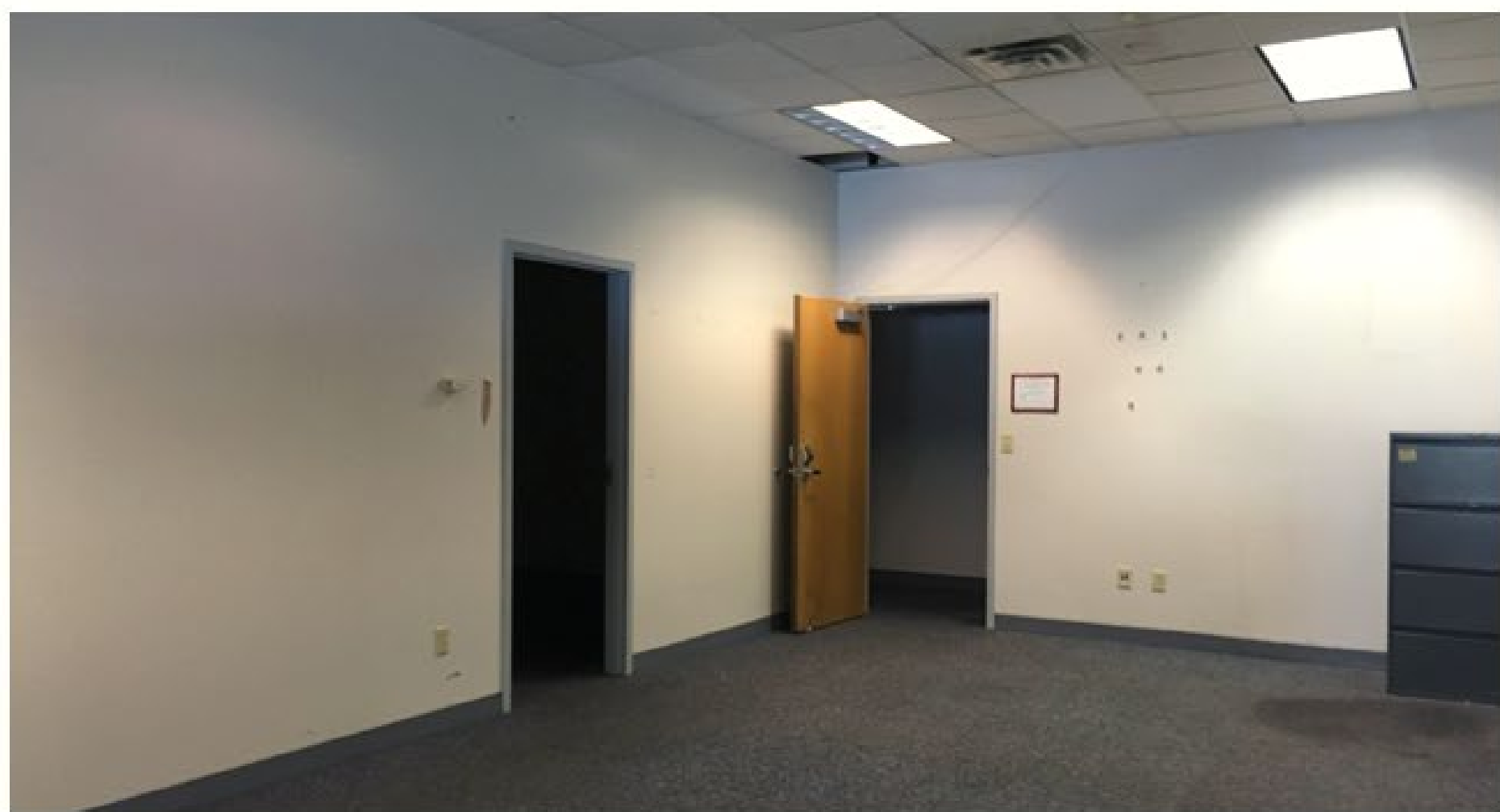
STEM center (10,870 sq.ft.),
150 middle and high school
students, 7 spaces.

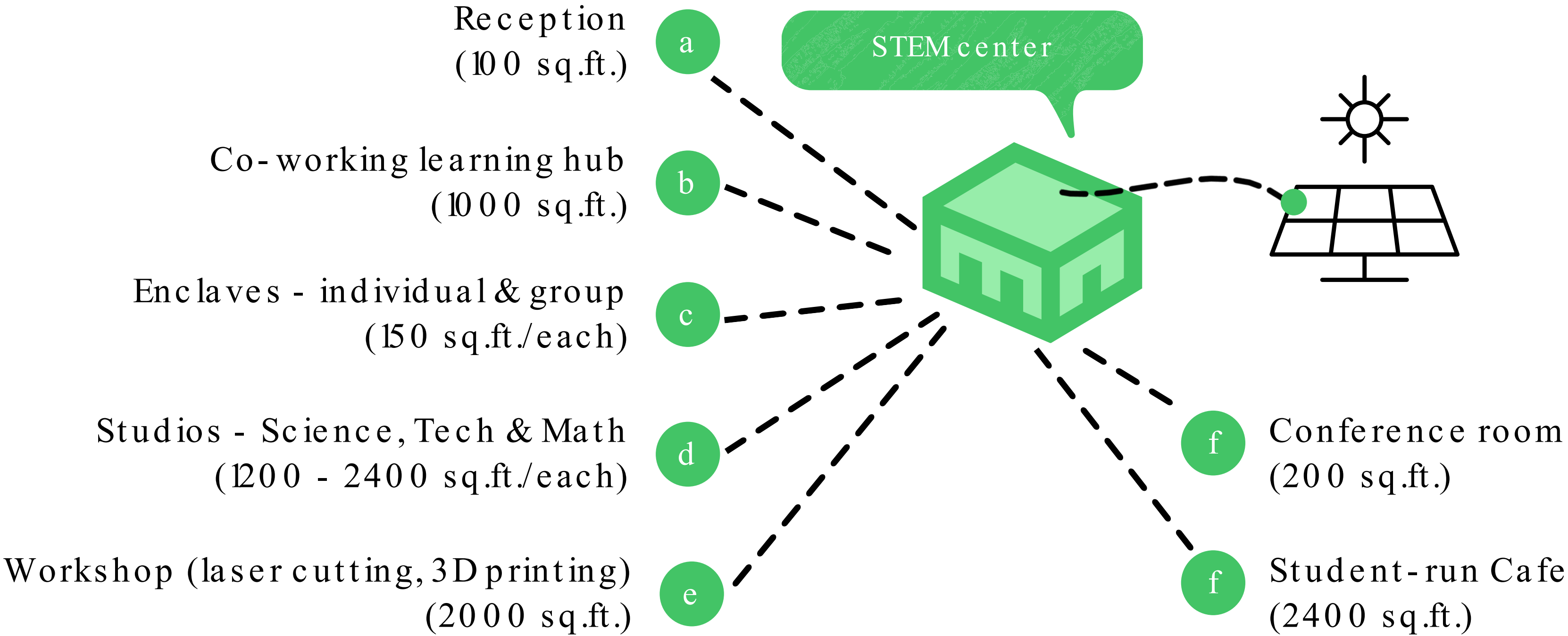
13

Sophomores in the Interior
Design program, University of
Minnesota.

7

Weeks of concept and
schematic, design development,
construction document, and
presentation.







Jamez Staples

...I wanted to create economic opportunity for people who have traditionally been left behind.

Images and quote@CERTs [2].



Application

ArcGIS and StoryMaps helped students research and present their design solutions.

Students attended two workshops with hands-on exercises from the U-Spatial office to learn ArcGIS/StoryMaps.



ArcGIS



StoryMaps

IDES
2604

Concept & Schematic

Design development

Presentation

Arc GIS

ESRI Database:
Racial makeups
Occupations
Age groups
Transportations & facilities

Enrichment:
Travel distance from the
building venue



BIM

Building Information
Modeling (BIM):
Revit
Enscape
AutoCAD

Stakeholder:
Feedback sessions with
Jamez Staples



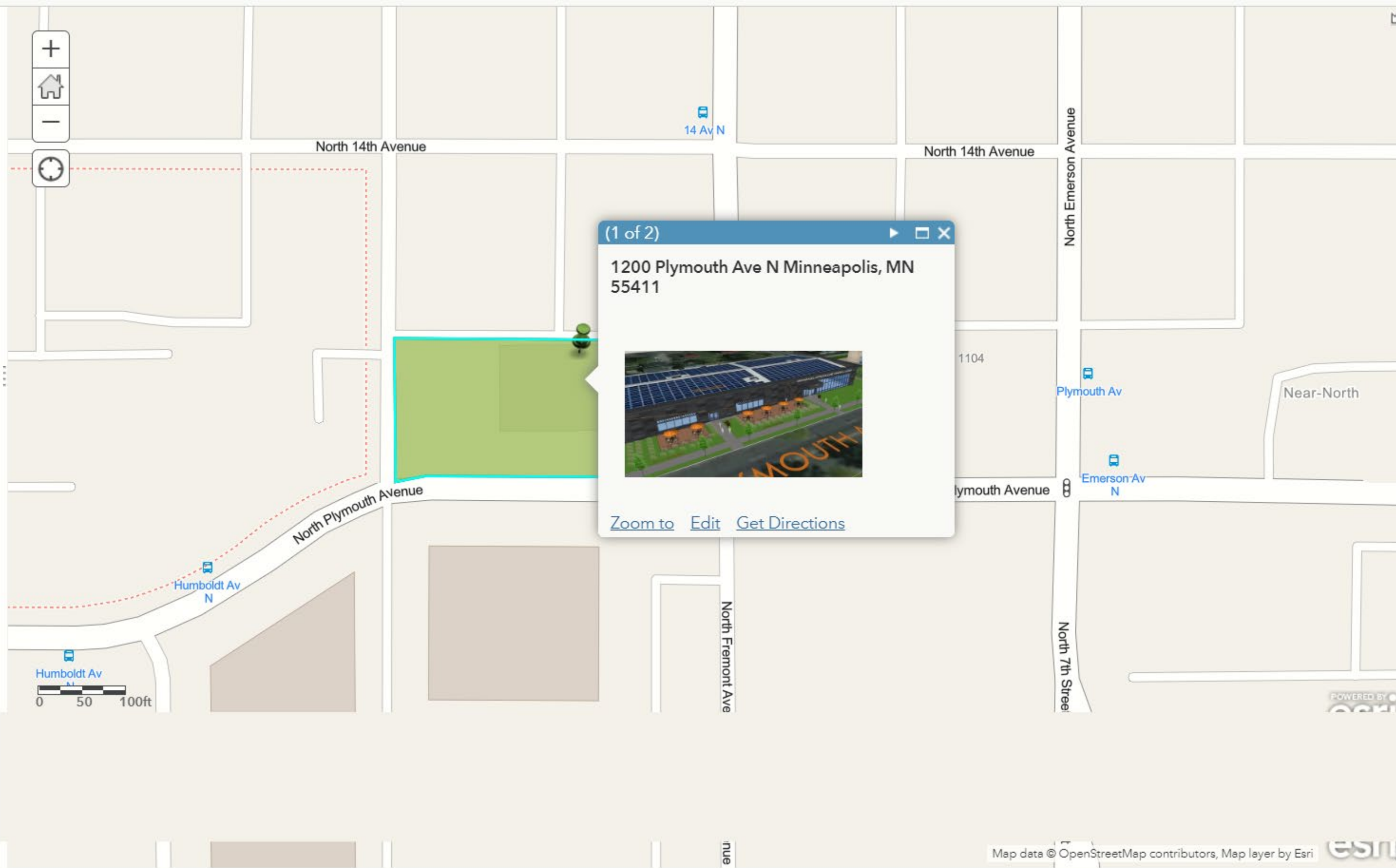
Story Maps

Interaction:
Base maps with layers of
information and data
enrichment

Story-telling:
Demonstrations of the
design solutions via images,
texts, and videos

Contents

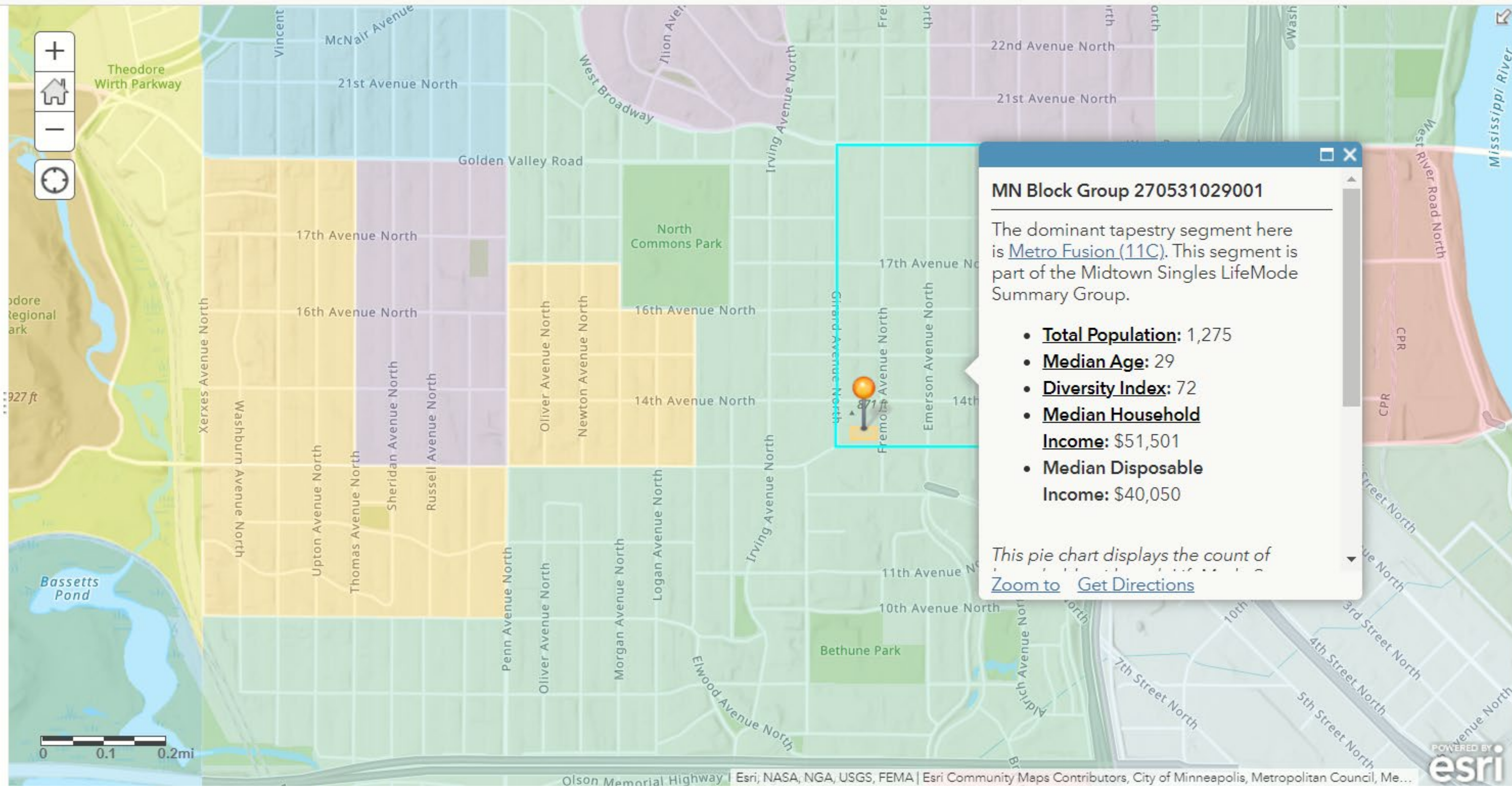
- ☒ Site and Building
 - Work Coffee
 - Map Notes
 - ☒ Enriched Site and Building (Areas)
 - MPLS Bike Network
 - Travel from Enriched Work Coffee (Points) (10 Minutes)
 - Travel from Work Coffee (Points) (40 Minutes)
 - Enriched Work Coffee (Points)
 - USA Block Groups
 - Minnesota Historic Sites
 - USA Counties
 - Minnesota Cities
 - 2019 USA Tapestry Segmentation
 - OpenStreetMap



Legend


2019 USA Tapestry Segmentation

- Block Group
- L1: Affluent Estates
 - L2: Upscale Avenues
 - L3: Uptown Individuals
 - L4: Family Landscapes
 - L5: GenXurban
 - L6: Cozy Country Living
 - L7: Ethnic Enclaves
 - L8: Middle Ground
 - L9: Senior Styles
 - L10: Rustic Outposts
 - L11: Midtown Singles
 - L12: Hometown
 - L13: Next Wave
 - L14: Scholars and Patriots
 - Unclassified




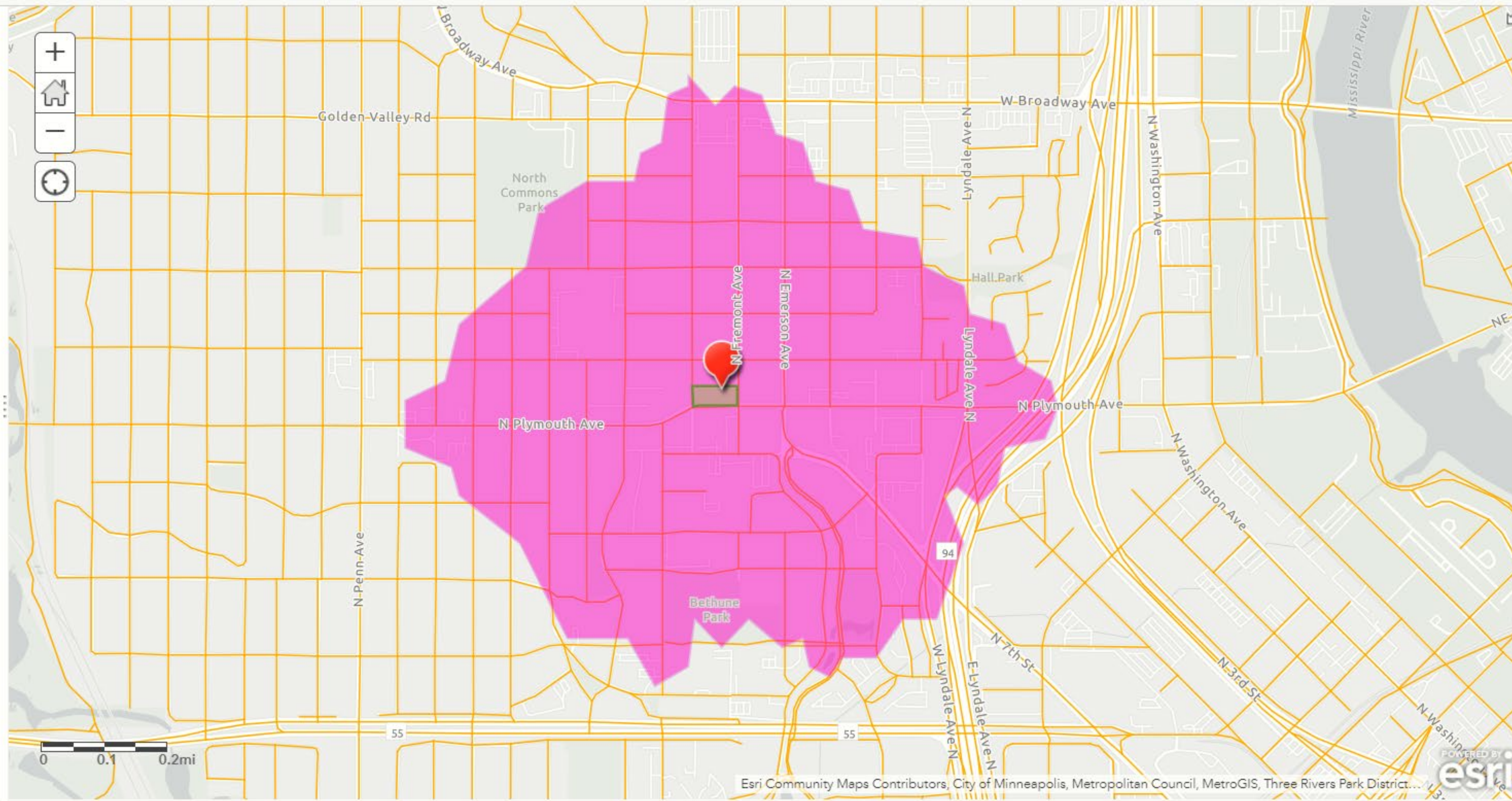
Legend

Travel_from_Site_and_Building(10_Minutes)

 10.0 Minutes

MPLS_Bike_Network





Exemplars

Level Up and Beyond the Borders.

The two teams (3 students in Level Up and 4 students in Beyond the Borders) represented the vision of Jamez Staples via sustainable/universal design solutions.



Level
Up

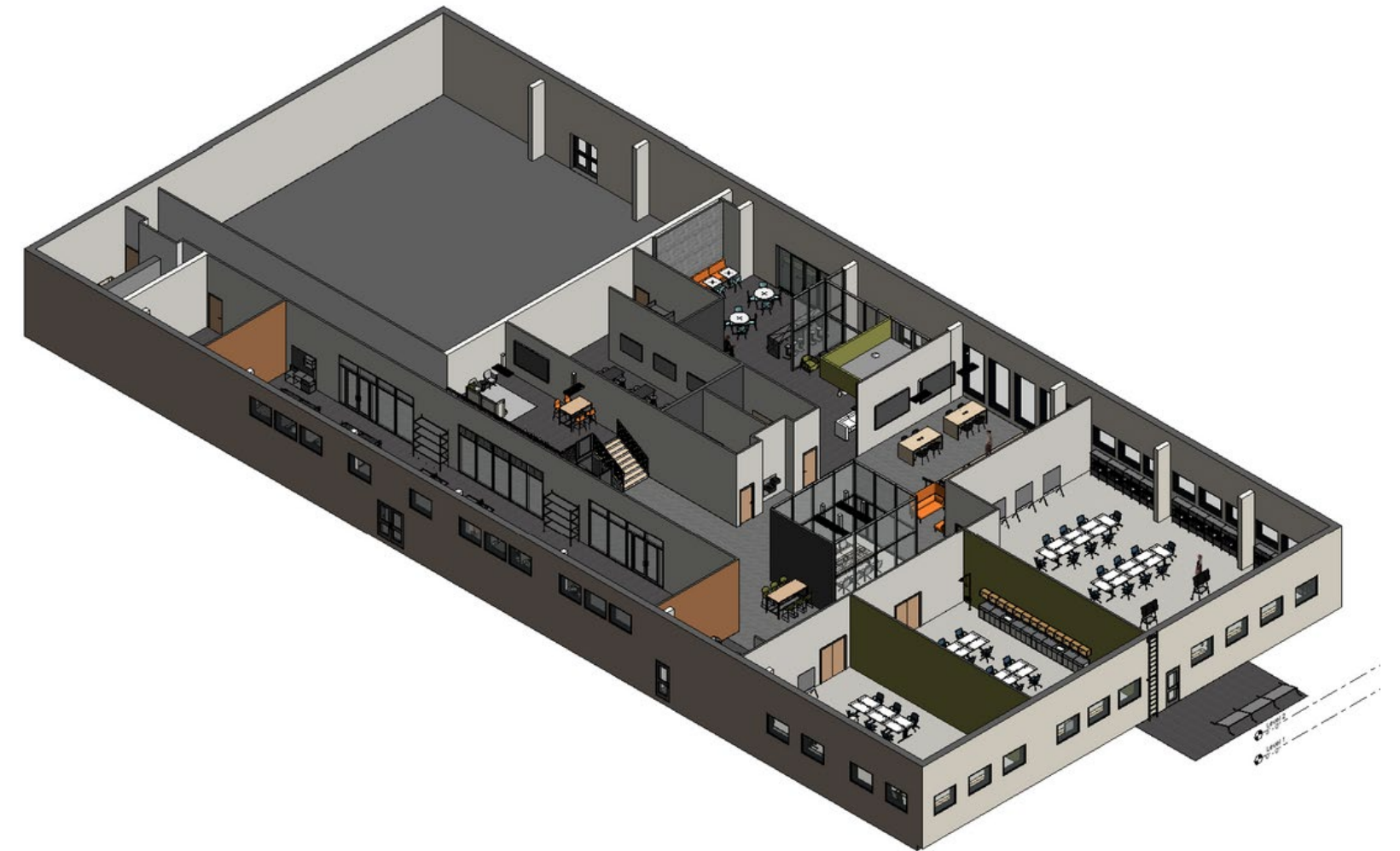


Beyond the Borders

Level Up

"The floor plan with circulation and rooms that lead up to one another encouraged the youth of Minneapolis and the surrounding areas to use this center as a resource for learning, experience, and collaboration in order to excel in their goals."

Brooke Ericksen, Brookelynn Nowak, Jacey Super





**SURROUND YOURSELF WITH PEOPLE WHO
FORCE YOU TO LEVEL UP.**

The background image shows the interior of a modern building. On the left, a green wall features the 'RENEWABLE ENERGY PARTNERS' logo. In the center, a white reception desk is visible. On the right, a white wall has large, bold, black text that reads: 'SOMETIMES YOU HAVE TO LEVEL UP. LEVEL UP YOUR SKILLS. LEVEL UP YOUR WORK ETHIC. LEVEL UP YOUR CONSISTENCY. LEVEL UP YOUR DREAMS.' Several white, cone-shaped pendant lights hang from the ceiling. The floor is dark.

Renewable Energy Partners Building Skills Center

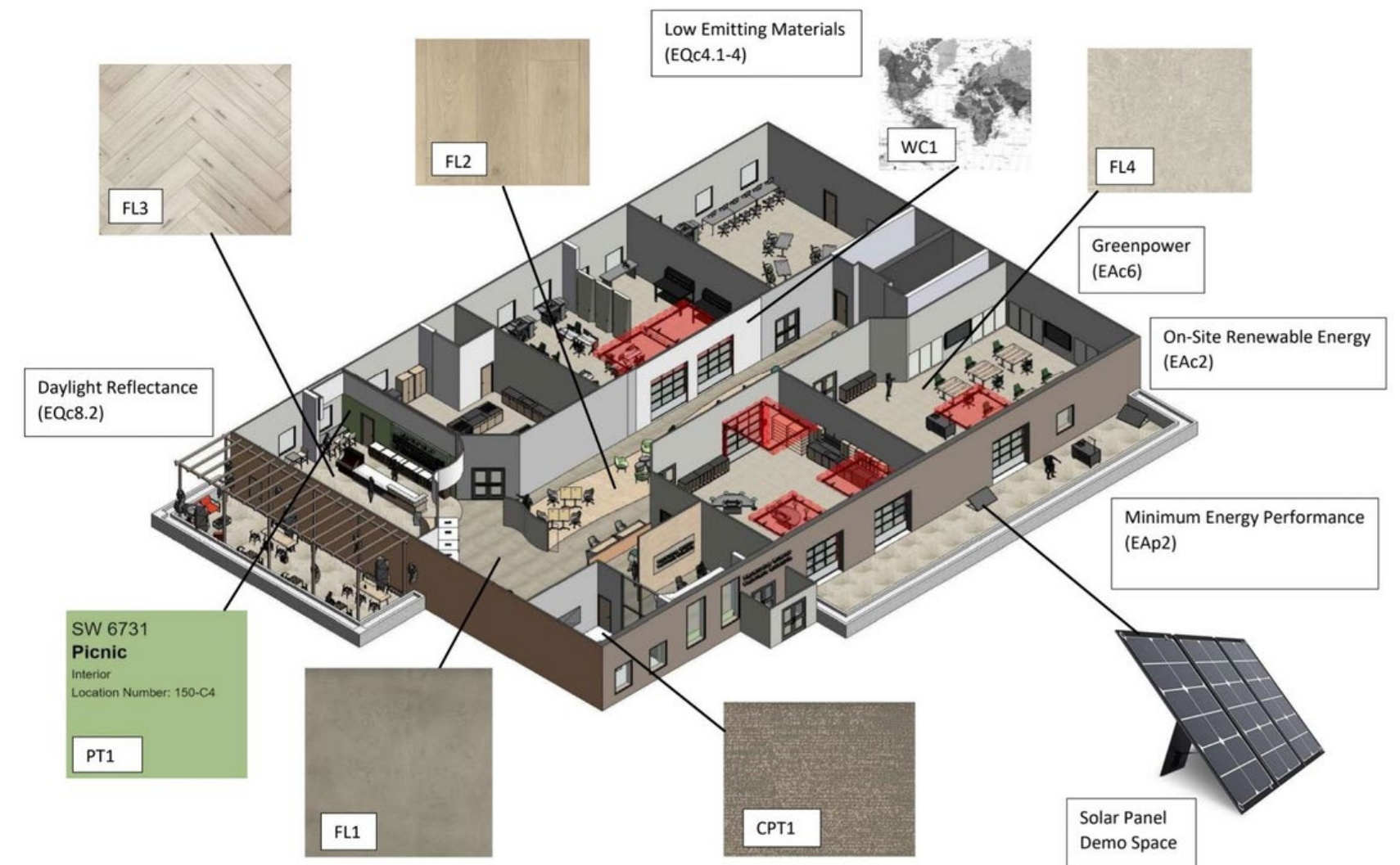
"Empower the youth with skills which are not available to them via a welcoming, collaborative, and innovative environment."

Brooke Ericksen, Brookelynn Nowak, Jacey Super | May 4, 2020

Beyond the Borders

"Moving beyond the borders is living life without limitations: taking every opportunity given to you and existing outside of ordinary expectations... There are no boundaries to what you can accomplish beyond the borders."

Lindsey Lamirande, Vanessa Nguyen, Karla Villanueva, Katrina Zastrow





RENEWABLE ENERGY
PARTNERS BUILDING



RENEWABLE ENERGY PARTNERS BUILDING

LINDSEY LAMIRANDE, VANESSA NGUYEN, KARLA VILLANUEVA, KATRINA ZASTROW |

January 14, 2021

Conclusion

Jamez Staples was pleased with the design solutions and is in the process of putting the students' works into constructions.

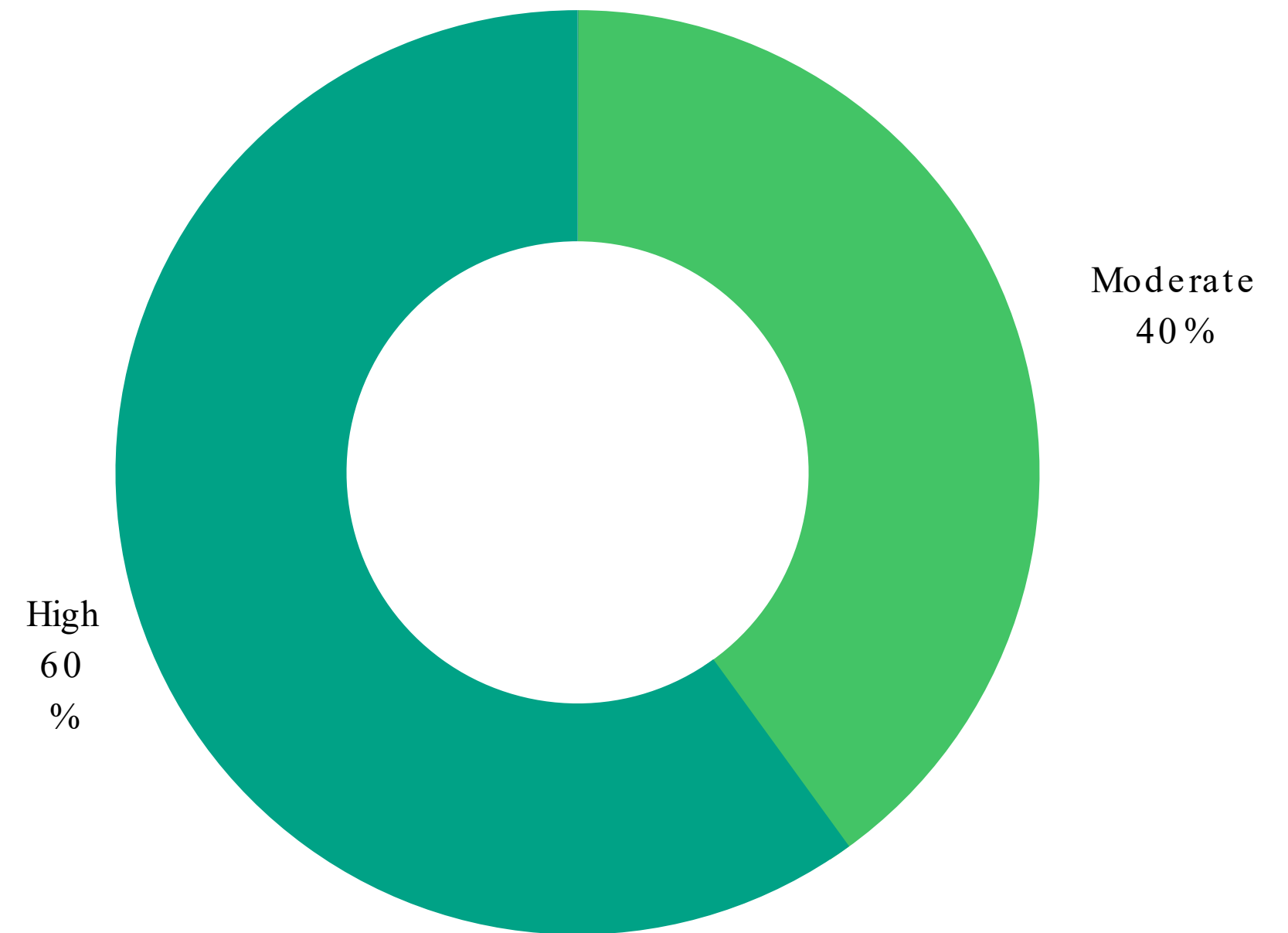
Students were praised for the comprehensive research with ArcGIS and the engaging presentation on StoryMaps.



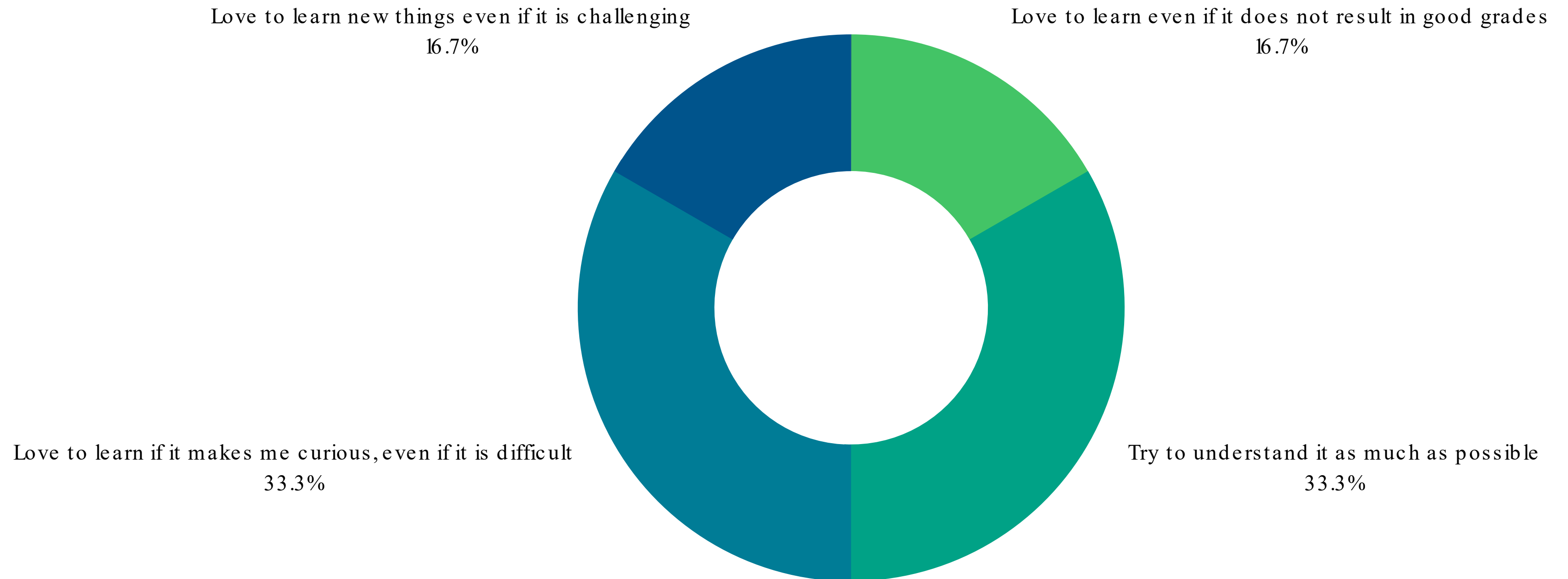
How familiar students were with
ArcGIS/StoryMaps?



How comfortable students were with
technology, in general?

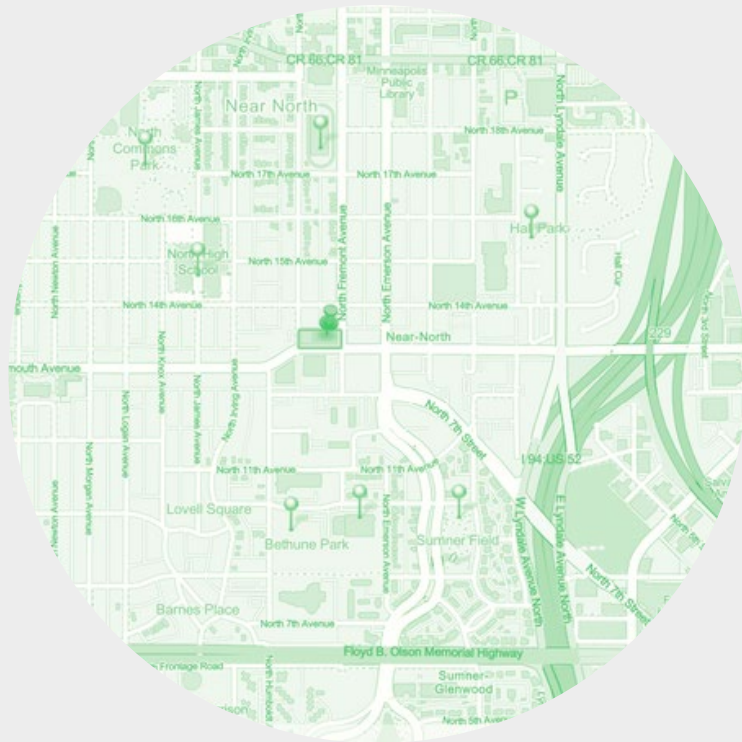


How students felt about learning ArcGIS/StoryMaps?



References

Questions & inquiries:
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voxxx248@umn.edu



[1] N. Norfleet, “Energy entrepreneur's plan to create training center in north Minneapolis stalls,” 12-Jun-2019. [Online]. Available: <https://www.startribune.com/energy-entrepreneur-plan-to-create-training-center-in-north-minneapolis-stalls/511002842/?refresh=true>. [Accessed: 26-Apr-2021].

[2] CERTs, “Reshuffling the deck with clean energy,” Clean Energy Resource Teams. [Online]. Available: <https://www.cleanenergyresourceteams.org/reshuffling-deck-clean-energy>. [Accessed: 26-Apr-2021].

Thank You!