

C.C.I.S.D. Greenhouse Project Proposal

Document Control

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1 Background

1.1 Fit

The Community Transition Program started a greenhouse project in 2002. The students planted seeds and grew seedlings under fluorescent lights in the classroom. The plants were sold to the public in a temporary greenhouse structure during the last months of the school year. Karyn Juntunen purchased the hoop house greenhouse structure through a Michigan Transition Services grant.

In 2004, Copper Country Mental Health offered the use of their 24' x 24' commercial greenhouse structure that in years past had been used for growing hydroponic tomatoes with Copper Country Mental Health clients. The structure was being used for storage for many years after they stopped the hydroponic program. The Community Transition Program students have used this greenhouse structure to start their plants from seeds every spring from 2004 - 2017.

Each year the students plant seeds for green peppers, jalapeno peppers, basil, five varieties of tomatoes, three varieties of Zinnia flowers, and two varieties of Marigolds. They have had returning customers from across the Copper Country for the past 15 years. They also donate surplus plants to nursing homes, the Oak House group home, and the Michigan Tech University raised bed garden project.

At the start of this school year, (2017-2018) Copper Country Mental Health informed me of their plans to remove the greenhouse structure and build a storage building in its place. They offered to give us the greenhouse at no charge if the Copper Country ISD (CCISD) was interested.

I had a meeting with George Stockero and Katrina Carlson regarding the greenhouse structure donation from Copper Country Mental Health. They approved accepting the donation. The decision was made to pursue the structure being constructed at the CCISD Learning Center grounds to provide a greenhouse classroom to all of the CCISD classroom students and staff.

1.2 Need

The focus of this proposal is to develop a plan to utilize this opportunity to its fullest potential. The CCISD has been given a 24' x 24' Vail style commercial greenhouse with galvanized steel supports and polycarbonate sheeting sides along with the automatic shutter side venting, heater, and air exchanger. Copper Country Mental Health built the structure in 1987. The retail value of a new structure is \$12,000.

The greenhouse has been such a wonderful asset to the Community Transition Program for teaching Science, gardening, work skills, marketing skills, retail skills, and developing a strong connection to our community over the past 15 years. The plan is to expand these opportunities to all of the CCISD programs with a commercial greenhouse structure classroom area.

In the past, the greenhouse was only used by the Community Transition Program. Now the greenhouse can be used by all of the CCISD students in all of the programs. I envision each classroom having an area in the greenhouse to start seeds of their choice, transplant the plants, maintain the plants, marketing sales (if they sell the plants for classroom fundraising), and selling the plants to the public using customer service skills. There are other possibilities of utilizing composting materials (i.e. food scraps) from the lunch room to

supplement the soil, growing herbs to use in cooking activities in the classroom, and growing plants for vegetables to use in the lunch room similar to what is done at the Wadsworth Café at Michigan Tech University. Our donated tomato, green pepper, and jalapeno pepper plants are planted in the Michigan Tech University raised bed gardens to grow vegetables to supplement the salad bar in the cafeteria.

I have contacted a few resources in the community to determine what is required to make this a reality in order to start planting seeds in the greenhouse in April 2019. One of my contacts resulted in an anonymous donation for \$3,000 made in honor of one of my current students for this project.

Upon approval from George Stockero, the dismantled greenhouse structure has been moved to the CCISD Lindrus garage area for storage over the winter months by A-1 Drywall. The A-1 Drywall invoice for a total of \$200 has been paid from the donation money.

1.3 Readiness

We are very fortunate to obtain this greenhouse as a donation; however, we are even more fortunate that the directions, blueprints, and manuals were all kept and handed over to me.

I have broken the project down to 3 phases to accomplish before the seeds are planted.

Phase 1: Foundation poured by June 2018

- Determine what is needed for the greenhouse structure foundation for the proposed location (i.e. footings, plumbing)
- Acquire an estimate of time and materials required for the foundation including plumbing.
- Acquire an architect approval of the plans.
- Acquire any necessary permits.

Phase 2: Construction completed by November 2018

- Determine what is needed for the greenhouse structure construction for the proposed location (i.e. electrical, security, entry)
- Acquire an architect approval of the plans (electrical)
- Acquire any necessary permits

Phase 3: Interior universal design for classroom and student use

- Determine what is needed for the greenhouse structure interior for universal design to provide access for all disabilities based on staff input via survey/questionnaire.
- Determine usage and storage needs based on staff input via survey/questionnaire.

2 Proposal

The project that I am proposing is to initiate the foundation and construction of the donated 24' x 24' commercial steel and polycarbonate sheeting greenhouse structure with all its components on the CCISD Learning Center grounds to be completed and functional by April 2019. To achieve this goal the following will be initiated according to the above mentioned phases.

Phase 1: Foundation poured by June 2018

- Acquire an estimate of the required needs (i.e. time and materials) for the foundation including plumbing. (Volunteer)
- Based on the estimate, acquire any donations of said time and materials from local businesses. (Donations and Volunteer)
- If needed, based on the estimate minus the donations of time and materials, write a bid proposal for any work still needed to complete the foundation.
- If needed, advertise for construction companies to submit bids for the remaining work required.
- Architect approval of structure (Volunteer?)
- Permits not required for construction, however inspector will be notified.

Phase 2: Construction completed by November 2018

- Acquire estimate of the required needs (i.e. time and materials) for the construction of the structure including electrical, security and entry (Volunteer)
- Based on the estimate, acquire donations of said time and materials from local businesses. (Donations and Volunteer)
- Architect approval of structure (Volunteer?)
- Electrical permit required. Inspector will be notified.
- Recruit the CTE Construction class students with other community volunteers to assemble the greenhouse structure based on the materials provided by the Copper Country Mental Health. (CTE, volunteers)

Phase 3: Interior universal design for classroom and student use

- Develop a survey/questionnaire to be distributed to all CCISD staff to collect information on ideas and possibilities of how the greenhouse will be used, what accommodations are needed for students, and any other input to make the greenhouse accessible and successful.
- Acquire a list of the estimated needs based on the information gathered from the CCISD staff.
- Implement the information gathered from the staff into the interior greenhouse design. (CTE construction class, volunteers, CCISD staff)

**Note: Tax deductible cash donations will be gladly accepted for all phases of the proposal. A separate line item has been established at the CCISD financial department for the greenhouse project.

2.1 Evidence

Our CCISD Learning Center mission statement:

The Copper Country Learning Center Teachers and Support Staff believe our students are lifelong learners and valued community members. We envision students in our classrooms will progress in the curriculum and experience success at school, at home, the work place, and in the community.

My vision is to have the greenhouse continue to provide the benefits I have seen with my program by expanding it into the other classrooms. Michigan Common Core Science lessons can be taught through hands on activities in the greenhouse. Teaching students how to grow their own plants to produce food is a lifelong lesson. The lessons taught by selling the plants for a fundraiser have taught many skills to generalize into the work place and the community.

My 3 goals are:

1. To have the greenhouse structure foundation site ready with the help of community members and businesses by June 2018.
2. To have the CTE construction class assemble the structure based on project specifications by the end of October* 2018. October is Farm to School Month.
3. To have the Copper Country ISD students and staff participating in Science lessons based on the Michigan Common Core standards by planting seeds and growing plants in the greenhouse structure by April 2019.

2.2 Resources

Project Resources				
Type	Quantity	Labor	Contractor, if known	Price/Estimate of cost
Move and store structure in the Lindrus building			A-1 Drywall	\$200.00 Paid
				Estimated cost:
Mobilize/haul equipment				\$500.00
Clear topsoil	60 sq. yds	4 hours		\$600.00
Sand cushion	25 cu. Yds			\$500.00
Excavation		2 hours		\$300.00
Grade prep/compact/form		8 hours x 2		\$1000.00
Backfill		2 hours		\$300.00
Rebar	#5 12" Off Center each way plus #5 perimeter bar (1365# w/lap)			\$1300.00
Column Ties with hooks	5			\$300.00
Concrete	19 cu. Yds. 6 PWS 18"x18" perimeter thickened edge			\$3800.00
Finishing	545 sq ft.			\$500.00
Cleanup		3 hours		\$200.00
Topsoil	10 cu. Yds.			\$300.00
Pick up tools		2 days		\$200.00
Power trowel				\$150.00
Anchor bolt set (or drilled)?				
			Estimated TOTAL:	\$10,000.00

2.3 Capacity/Budget

What we currently have in the CCISD budget:

- Anonymous Donation in honor of a student (Adam): \$3,000
- A-1 Drywall invoice : - \$200

Projected Fundraising:

- Community monetary donations to the project paid directly to the CCISD.
- Community donations of time and materials.
- Donorschoose.org website to purchase specific items for the interior of the greenhouse.

Projected Grants:

- Available local and state grants to fund the project

2.4 Reporting

Biweekly (or weekly as needed) updates on the project status will be emailed to George Stockero, Chris Salo, Katrina Carlson, and Ed Semmens. I will also maintain a blog with updates on the progress of the project at <https://communitytransition.wordpress.com/>

2.5 Risks & Issues

Project Risks		
Risk	Details	Likelihood
Not having the funding for the foundation ready by June	If we are not able to secure enough funding or donated time and materials then it would delay the construction.	Low risk It is unlikely that this will happen given the one anonymous donation and the support of the community.
Unavailable contractors	We could run into a problem with getting a contractor to pour the foundation given the time of the year.	Medium risk Unlikely, however we could move our timelines to accommodate the contractors.
Replacing panels	Some panels may need to be replaced due to the age of the structure	Medium risk Dependent on the condition of the panels after being dismantled and moved to the storage area.
Project Issues		
Issue	Details	Impact
Storage of the greenhouse structure	The Lindrus building is scheduled to be remodeled and the greenhouse is in the old bus garage at this time.	We do not have another storage place for the greenhouse at this time. Some components of the greenhouse system should not be stored outside.

3 Appendix

3.1 Supporting Documentation

Photos of the greenhouse structure in the original location at the Rice Memorial building in Houghton.



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