

# Nature Based Recreation: A Recipe for Community Health

## Central Team



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### Prepared on Behalf of

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UNIVERSITY OF MINNESOTA

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# Nature-Based Recreation: A Recipe for Community Health

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City of Brooklyn Park, Recreation and Parks



Nature Based Play Evaluation

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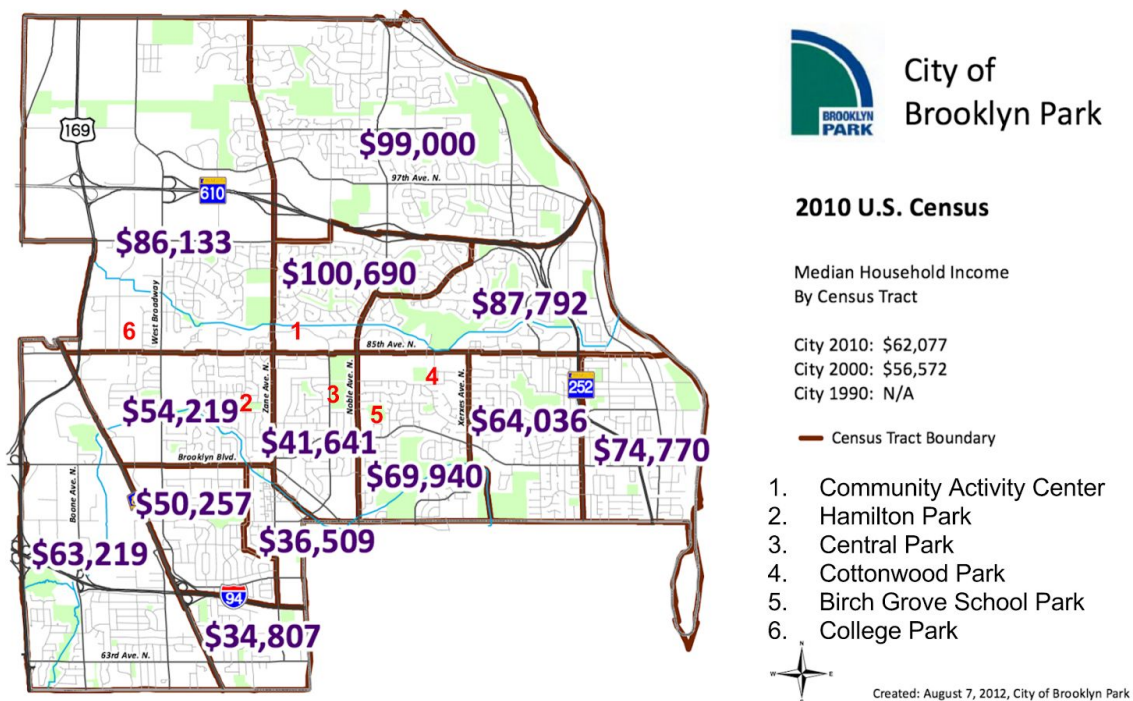
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## Background

The City of Brooklyn Park is neighbored by the cities of Osseo, New Hope, Crystal, Brooklyn Center, Coon Rapids, and Champlin, Minnesota. In 2010, Brooklyn Park had a population of 75,781, which was a 12.5% growth from 2000. Brooklyn Park is one of the most diverse communities in Minnesota and continues to follow that trend. In 1990, 91% of the city's population identified as white, while in 2010 that percentage dropped to 52.25%. In the same time period, the African American population grew from 4.97% to 24.39%. The Asian population has experienced the greatest growth, from 1,918 people (3.40%) to 11,687 (15.42%). The Hispanic population has also seen large growth, from 650 people (1.20%) in 1990 to 4,841 (6.39%) in 2010.

The median annual household income in Brooklyn Park was \$62,077.00 in 2010, and the city saw a decrease in the percentage earning over \$75,000 decrease from 2001 to 2010. During that same time, the number of households under \$75,000 increased in every income level. To meet the range of income levels, there is a wide variety of housing options and the city has a strategic plan to meet the varying needs. The City works to attract and retain businesses that will provide benefits and livable wages. In 2010 the unemployment rate was 5.90%



Map identifying the assigned park locations. Census tract boundaries identify the median household income for 2010.

## **Purpose**

To create a design and site recommendation for a new nature play area at various parks in the City of Brooklyn Park. To develop strategies for integrating nature play into existing parks programming. To create awareness and increase support for outdoor activities and recreation. The city of Brooklyn Park will use these results to obtain valuable information on their parks. More specifically the parks and recreation department within Brooklyn Park will be using this information on future plans within their parks.

## **Goals**

The goal of the project is to help city of Brooklyn Park evaluate existing nature play areas within its park system as well as potential for developing additional nature play areas.

## **Key Questions**

- What are the current conditions of the parks?
- What nature-based play elements exist, if any, in the parks?
- How can the city improve parks to include NBP spaces?

## **Nature Based Play**

Nature Based Play: “Natural play spaces are outdoor playgrounds that contain plants, sand, terrain, rocks, water, and other natural elements as sources of play. Play spaces where natural elements are installed for decorative purpose only, or where children are prohibited from engaging with the material, are not natural play spaces. Another aspect of natural play spaces is the integration of any play structures with these natural elements. Natural outdoor play spaces differ from play-equipment-based playgrounds, which comprise standardized equipment and rubber matting, also referred to as KFC—Kit, Fence, and Carpet playgrounds. Natural play spaces afford unstructured play while KFC playgrounds typically provide prescribed activities. The slide on a KFC playground is designed for the express purpose of sliding in a seated position, and adults will often prevent children from using the apparatus in other ways, such as climbing up the slide or sliding down headfirst. In contrast, at a natural play space, boulders arranged in a field can provide for multiple uses, such as climbing, jumping, sitting, scaling, etc.” (Brussonis and Harrington, 2015)



## **Logic Model**

### **Rationale**

- RCP helps to identify 15-30 potential projects that will advance local sustainability and resilience based on community identified environmental, social, and economic issues as needed.

### **Inputs**

- Repairs for sports equipment at parks as needed
- Designer or landscaper for creating new NBP models
- Grants, community fundraiser, or donations to fund park or NBP upgrades
- Volunteers for park repairs, maintenance, landscaping, or NBP installation

### **Outputs**

- New nature-based play areas at parks as needed
- More appealing recreation opportunities for the community that encourage socialization and engagement
- Increase physical activity time in children and adults
- Encouraging physical, cognitive, and emotional development
- Creating connection with nature

### **Reactions**

- Repeat engagement at new NBP areas
- Bringing new customers with varying backgrounds to the parks
- Increased satisfaction with park offerings

### **Learning Outcomes**

- Exposure to new types of recreation and play
- Impact on personal interests, encouraging exploration in nature

### **Behavioral Outcomes**

- Enhanced social integration among groups of people

### **Impacts**

- Love for nature
- Increased family involvement, improved family relations
- Awareness and support for nature and outdoor activities

## **Evaluation Method**

### **Data Needed**

- *Current park conditions* will be obtained through observation of parks according to a predetermined checklist regarding NBP criteria
- *NBP background information* will be obtained via the City of Brooklyn Park and academic journal searches
- *NBP equipment ideas* will be found using internet searches and creativity

**Data Collection Methods**

**Observation Form**

**Nature Based Play Site Observation**

Site Name: \_\_\_\_\_ Date: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_

Natural Play Areas are outdoor spaces designated for play that are made of natural components such as plants, logs, water, sand, mud, boulders, hills and trees. These components represent the larger wild environment in a way that feels safe and manageable to young visitors and their parents while inviting imaginative and explorative play (Oregon).

● **Natural features**

- Natural spaces

\_\_\_\_\_

- Trees and foliage

\_\_\_\_\_

- Open and unlandscaped fields

\_\_\_\_\_

- Minimal design structures, still functional

\_\_\_\_\_

- Natural structures

\_\_\_\_\_

- Rocks to climb and play on

\_\_\_\_\_

- Shaded spaces

\_\_\_\_\_

- Natural habitats

\_\_\_\_\_

- Multipurpose lawn spaces

\_\_\_\_\_

- Water feature

\_\_\_\_\_

- Sand, mulch, recycled rubber, playground pebble gravel, etc
- 

- Tiered spaces (levels)
- 

- Messy materials (mud, sand, twigs, etc)
- 

- Gathering spaces
- 

- **Physical features**

- Hard-surface play area
- 

- Dramatic play structures
- 

- Trees and natural areas
- 

- Active-play equipment
- 

- Fences, gates, walls
- 

- Green houses
- 

- Transitional spaces
- 

- Accessibility
- 

- **Safety**

- Fences around hazards
-

- Appropriate equipment

---

- Litter-free area

- 
- Fully functioning equipment

- 
- Secured equipment

- 
- No water hazards

- 
- No entanglement hazards

- 
- No traffic hazards
- 

- **Does the area?**

- Encourage play

- 
- Stimulate senses

- 
- Stimulate curiosity

- 
- Support physical needs

- 
- Support social needs

- 
- Allow adult-child interaction

- 
- Allow child-child interaction

- Support active play
- Support creative play
- Support imaginative play
- Support group play
- Support games
- Involve art or music
- Involve science
- Support nature-child interaction

Oregon Natural Play Initiative: Word Press (2014). Natural Play, What are Natural Play Areas? Retrieved from: <http://oregonplay.wordpress.com/guidelines/>

### **Evaluation Staff Training and Pilot Testing**

Staff will be trained before the evaluation begins so they are able to understand the observation form and what they should be looking for in terms of NBP. Training could be done online or in-person. Training will include background on what NBP is and what it looks like, as well as an overview of the observation form. Pilot-testing can be done at any park or even based on images of a park in order to allow evaluators to have practice using the observation form.

### **Analysis**

Observation data will be analyzed in order to determine if and how the selected parks adhere to nature based play guidelines. Qualitative data for each park will be entered in one final document, which will include the observations of each evaluator. This will create a document

that is a quick reference for how each selected park meets the observation form checklist. Notes will include details regarding natural spaces, equipment, safety, lawn spaces, climbing structures, and various other aspects.

In addition to these park summaries, each park will be analyzed according to the 7 C's. The 7 C's are an "evidence-based approach for designing children's play spaces that promotes diverse play" (Brussoni and Herrington, 2015). These evaluation criteria include character, context, connectivity, change, chance, clarity, and challenge.

Character refers to the "overall feel" of the play area. This is an influence into how participants perceive the play area. The character is influenced by play structures, materials, lighting, and overall layout and design. Context includes how the play space interacts with its surroundings, which in this case is the existing structures and nature. Elements include elevation/grade, climate, location, and other surroundings.

Connectivity is an indication of the physical and visual connectedness of the play space. This aspect is an influence for physical and cognitive development. If pathways and structure have some sort of hierarchy or organization, this provides a mental and physical challenge. Change refers to the range in structure size, as well as how the area will change throughout the seasons and throughout time. Change is linked to cognitive and social development, as children can often distinguish orders of magnitude by age three. It can also refer to how the space will change in relation to the child as they age, such as how their experience will change as they develop.

Chance provides an opportunity for creation, manipulation, and leaving an impression on one's surroundings. By three years old, most children are refining their fine motor skills and nature-based play is a great opportunity to further that development. Messy areas, such as sand, twigs, pebbles, water, and leaves, are prime objects that children are able to safely manipulate and explore. Clarity relates to the play structures and how they are perceived by the user. Since children are still developing their visual tracking it is important for play areas to be arranged so that there is mystery and room for spontaneous play. Equipment cannot be isolated and various play areas should be connected in some way, whether it is by a physical or visual path.

Challenge includes both the physical and cognitive challenges offered in the play space. It is important for children to take risks as it helps with development and growth, and helps them to learn to manage risk in other settings. But there must be careful consideration whether a play structure is a hazard or a challenge, where a hazard is a potential source of harm and a challenge can be recognized and evaluated by the user. Challenges cause children to evaluate the situation and decide if and how they should approach the challenge.

## Park Summaries

### Birchgrove School Park

Birchgrove School Park is a large park located at the Birchgrove Elementary school. This park is very widespread with open fields and a small section of playground equipment. Although this park has large amounts of open area relative to its location, the utilization of this area is very minimal. The usable space accounts for mostly blank area and a small sized baseball and soccer field. Birchgrove can occupy large gatherings of people but lacks appeal and recreational options for students and local citizens. This park has a potential increase in usability if NBP efforts were to be integrated. Although the current equipment is modern enough, it is overcasted by the quality of the park. Changes to the field usability and parking options could greatly increase its appeal to the public.



View of playing field from parking lot.



Partial view of playground from parking lot.

When evaluating the park using the 7 C's....

**Character:** The character of this park is minimal. The quality of the equipment is relatively modern and in decent condition. The remaining of this location is simply open field with lacking integration of NBP or convenient field equipment.

**Context:** Mostly open field. Can hold large numbers, but not comfortably or with recreational options, out of date baseball field. Only street parking is available, and not easily accessible. Does not stand out as inviting.

**Connectivity:** No spaces to connect. There is limited resources and convenience is limited. Equipment is modern but also lacking. Condition of the park is outdated and needing for upgrade to useable field space and perhaps integration of sheltered area.

**Change:** It won't change over time since it is just grass field, some tree landscape may change but nothing different.

**Chance:** The park has chance for change in the future. The location is large enough to integrate usable resources and increase mass appeal. Equipment is modern enough but overcasted by the quality of the park is influenced by the remaining of the area. Changes to the field usability and parking could greatly increase appeal.

**Clarity:** The park has plenty of open space, but is lacking with appeal to utilize the resources.

**Challenge:** The challenge this park may face is the lack of appeal. The area is limited with useable resources for social or leisure activity. Oriented for children, but even limited in this regard. Quality of the field is lacking in management and upkeep. The baseball field discouraging to use. Available parking space is also a factor influencing accessibility.

### **Central Park**

Central park is a large park that has many different aspects to it. It is located in a central area of Brooklyn Park. The location and amount of different aspects of this park make it very popular. This park has started to add nature based play areas to it's park already. In the playground area of the park they have added two large rocks. These are man made rocks and are there for the purpose of play. The park also has a very tall, large play structure. This play is different than a regular playground in the fact that it grows up has more than two levels. This adds a new element of play that isn't present if the playground was one level. The park also has a lot of different sports facilities that take up a lot of the space of this park. They are spread out through the park to make sure that all of the space is well done. Examples of these activities are Baseball fields and disc golf courses. This park has a lot going on and does a great job with the space they have. We do not suggest adding any more elements of nature based play to this park.

When evaluating the park using the 7 C's....

**Character:** This park had a lot of character. This park was very big and had lots of different, fun activities. Since they had all of these different aspects to the park, it gave it a fun character. The playground area also





had a lot of character. The main play structure is well themed and is very inviting.

**Context:** This park interacts well with its surroundings. The trees are integrated into the park well. They also added some rocks that are made just to play on. Also the aspects of nature that are present work well in their surrounding.

**Connectivity:** This park has some nature based play areas already present. The rock are present for the children to play on and learn through play. Also the play structure has lots of elements to help with cognitive learning.

**Change:** I am not sure if this park will be able to change much. There is a lot going on in this park, and not much will be able to change naturally. While there is room for the park to grow, this may need to be done with a purpose in mind

**Chance:** I think this park does a great job with creating chance. There is so much in this park that children could have many different opportunities to grow. Along with both the designated play areas and nature.

**Clarity:** There is a lot going on in this park. At times there can be a little too much going on, but they do a pretty good job at keeping what is there clear. At the moment everything that is present is clear, but I fear that if we add much more the clarity will be lowered.

**Challenge:** The park currently poses a lot of challenges. The fact that there is a lot going on and they have even started to add nature based play areas. There is also level changes that make it easier to pose challenges for children.



### **College Park**

College park is a large park located near the community college in Brooklyn Park. It is a larger park that is located inside of a neighborhood. Part of the park is surrounded by homes, and is a very residential area. The front of the park is a large field that can have a ice skating rink on it during the winter time. There is also a warming house close to the open field that is used during the winter time to keep people warm, or get their skates on. Behind this warming house is a



playground area that pretty up to date. This includes a few slides and a larger playground equipment such as slides and monkey bars. There is also a lot of open green space surrounding the area with the play equipment. This park has a lot of open space that can be filled without the park seeming to be over crowded.



Panoramic view of College Park, view of warming house and playing field.

When evaluating the parks using the 7 C's...

**Character:** This park has some character, while there is a decent amount of open space, I think the fact that they use it for an ice rink it adds character. The positioning of the park adds a level of community. But, there is lots of space to add character to the large open spaces that aren't used for the rink.

**Context:** I feel that the placement of the park is pretty good. While parking was a little hard, I think it is placed well in the community. I also think that adding a ice rink and warming house works really well in a Minnesota community and I would assume brings a lot of people in.

**Connectivity:** There isn't much to connect within this park. The areas are fairly open, but divided by the ice house. Everything is connected well due to the fact that there isn't much separation.

**Change:** I think this park could change over time. There is a decent amount of trees and landscape in this park. As time goes on these trees could continue to grow and create a different landscape. But, that being said, this would not be a large change.

**Chance:** This park has an element of chance, but there is room to improve. They have a lot of open space which means there is room to grow. But, there is small hill and a space for an ice rink which easily adds a level of play. But, the open unused space doesn't add much to chance.

**Clarity:** This park has very clear areas that are meant for the play areas, and the ice skating rink area. While it was a little hard to tell during the fall, once it is in use it will be very clear what the use of it is. The only part I felt was unclear was the giant



open grass field in the front of the park. I feel that this is wasted space that could be used for play opportunities.

**Challenge:** This park poses limited challenges. While this park has different elements it doesn't offer much room for kids to be challenged. In order for the children to be challenged you would need add more element to the park. Possibly in the back of the park if you want to keep the front of the park for sports and the ice skating rink.

### **Community Activity Center, Pond Area**

The Community Activity Center pond area is a condensed park, offering great opportunity for implementing nature-based play concepts. The pond offers a natural space, although it is not conducive for play as it may be a hazard and the water quality is not known. There are two lightly wooded areas on the east and west sides of the park, slightly separating the area from traffic. But there is not any natural buffer from the highway to reduce noise and traffic distractions. If the park play area were to be extended on the south side, there would need to be a natural buffer and fencing installed.



There are minimal design structures at the park. The only structures are two fishing docks, one large and one small. There are not any natural structures besides trees, which are too young for climbing. The park does not offer many shaded spaces besides tree cover. The most commonly used areas are not shaded. There is a small lawn and hill space but does not seem to be intended for play at this time. Gathering spaces may be provided by the docks, although this might not be as inviting to families with small children. There is not a large playing area other than the dock, but these do not provide the best opportunities for play.

The park does not offer any transition spaces between the areas. The grassy areas are only separated from the street and parking lot by curbs and sidewalks. But these sidewalks do make the park more accessible to people using wheelchairs or strollers. The park does not seem to have any hazards other than the open body of water. Since the pond is not intended for play, it likely does not pose a great hazard as long as children are supervised by an adult. There could be reason for concern if the lawn spaces were converted to play areas. The lawns are very close to the street and parking lot and some sort of natural looking barrier should be installed.

The area does not encourage play or stimulate the senses other than being a calm area. There is very little opportunity for exploration or physical activity since the space is smaller and is not currently designed for active play. The area does support social needs with the open areas as there is room for many people to interact.



Panoramic view of Pond Area, from the dock on the east side of the park.

When evaluating the park using the 7 C's....

**Character:** The area is very calming and welcoming, but there is not a true nature-play space at this park. Currently the park seems to be more for visual pleasure rather than being a play or activity space.

**Context:** There is little to no play space with which to connect to the surroundings, which is a busy highway, parking lot, and community center. The small fishing pond does connect with the two docks, but there are not any other spaces that may connect with the pond or other surroundings.

**Connectivity:** The park is a somewhat open area with little nature-based play aspects. There are not any aspects, besides the ability to fish, that link to physical or cognitive development.

**Change:** The foliage, trees, and pond will change over time even if it was not intended for the development of nature-based play. There are not many different spaces, and the few spaces there do not truly have the ability to change size over time. The space does not currently have the capacity to accommodate a large amount of children at one time. There are a variety of plants that children could observe throughout emotional and cognitive development.

**Chance:** There is very little opportunity for children to create, manipulate, and leave an impression on the space. The main attractions are the docks, which do not allow for any creativity other than imaginative play. There are not any



messy materials to play with other than fallen leaves and twigs. There is not much room for the chance of exploration and discovery.

**Clarity:**The area is quite open and connected which allows for slightly continuous activity. There are not many aspects for children to investigate and explore as the area is quite open and clear, besides a trail that is separated by a wooded area.

**Challenge:** There are little to no cognitive and physical challenges. The only cognitive challenge may be fishing. There are not and risks to be taken since the docks are a focus and there is not much space for play. There are not any activities or structures that children can be engaged with for a challenge.

### **Cottonwood Park**

Cottonwood Park is a very large and open area which seems to be great for playing and gathering. Although there is so much space, the park does not have any natural spaces intended for play. The park is more secluded than others, being tucked into the neighborhood and the fields being surrounded by woods. There are two large open fields but they are mowed and taken care of in order to be maintained for sports. While there are minimal design structures, the playground is the main focus. There are not any nature-based play structures available at Cottonwood Park, such as climbing rocks or logs, trees to play in or around, or small water features. There is a small cluster of pine trees that can provide some shade and can also serve as a small natural habitat for playing.



Cottonwood Park has a large L-shaped playing field. While this is currently intended for sports and games, the area is very conducive to becoming a nature-based play area. This area can be separated into two areas, one for sports and the other for nature-based play features. The first field, which is first seen when entering from the 84th Circle North entrance, should be converted to a nature-based play area so it will become the main attraction. The other field area behind the playground can remain a sports field, which makes people travel through the nature play area.



Since the park is very flat, there is great opportunity for development and creation of nature-based play areas.



Panoramic view of area where NBP could be implemented, parallel to 84th Circle N.

When evaluating the park using the 7 C's....

**Character:** The park has little character since there is only a play ground and a large L-shaped playing field. It was somewhat eerie when we were at the park-no one was there, it was beginning to drizzle, and the park was placed within a wooded area. There are not currently any outdoor play spaces at this park.

**Context:** The space doesn't really interact with it's surroundings since it is in the middle of a wooded area. There is also not a nature-play area that would connect to the surroundings.

**Connectivity:** There are not any nature spaces or structures that are linked to cognitive or physical development. The open field does not allow children to understand the area in time and space.

**Change:** There will be very little change over time besides the woods becoming denser and the cluster of pine trees growing larger. As this park does not have a true nature-based play area, there is not anything to evaluate the changes in cognitive and physical child development.

**Chance:** There is very little opportunity for children to create, manipulate, and leave an impression on the nature play space. The park does not have any messy materials besides fallen leaves and grass.

**Clarity:** There is no mystery or room for exploration and discovery at this park. There is nothing to evaluate for the flow of play and activities.

**Challenge:** As this is just an open playing field, there is no cognitive or physical challenge. There is no opportunity for children to take risks and explore.



## **Hamilton Park**

Hamilton Park is located at the intersection of Zane Avenue, and Candlewood Dr. This is an example of a park that is will managed with plenty of modern and up-to-date play equipment. The accessibility to this park is easy as there is ample parking and roadways. Hamilton Park stands out in not just its condition of amenities, but the recreational options provided. Within the park's limits there is a educational warm house which is usable all year round for multiple purposes, along with private restrooms. There is quite a bit of field space which can easily be used for large gathers and event hosting with a picnic shelter on the side. Park maintenance seems prevalent as each area was well kept and managed. This park is along a fairly busy residential street which makes it appeal open and inviting. With its current status, it was challenging to come up with suggestions and integrative comments.



When evaluating using the 7 C's...

**Character:** Well managed. Play equipments is modern and creative. The area is well developed and managed regularly. There is a new “energy” to the park that is inviting and diverse with leisure and recreational options.

**Context:** This park has plenty of available space that is open for various field options such as soccer, or baseball. There is a warm house/ learning center that is available to the public for educational or leisure purposes. When we observed it, it looked like the emphasis was child education. There is a shelter for social gatherings or event hosting. Lastly, there is a modern playground filled with new and innovative equipment that steer away from conventional models.

**Connectivity:** The park is well connected amongst the varying resources it



provides. The park is accessible and easy to locate and use leisurely. The only downside is its proximity to a busy street.

**Chance:** This park looks like it has been well funded and provides a great service to the community. It is inviting and user-friendly. It is modern and free-spirited. Financial efforts would be best used towards different parks or recreational areas.

**Clarity:** This condition of this park is clear and presented confidently. This location has an appeal by its quality and above average standard.

**Challenge:** No serious challenge to this location. One surprising thing was the lack of basketball court. Although, there is enough area to add one in the future with little environmental impact if needed.



## **Recommendations**

### **Birchgrove School Park**

Birchgrove is an example of a large park where much of it is unused fields. With its open area and nature themes, we believe that Birchgrove would be a great place to integrate NBP efforts and perform maintenance on its current assets. Parking happened to be the first component we noticed and would increase appeal if more options were available. As this was the only park we visited with direct affiliation to a school, we think it would be more beneficial and cost effective to integration NBP themes near the already existing playing equipment, opposed to the open areas for off near the trees. Suggestions for this park would be a separate section designated to NBP. This could include new structures such as man-made rocks carved to be intentionally climbed on. To increase NBP themes, we could include tree and foliage like structures that promote the integration of the forests and trails. The addition of a gardening sectional would be manageable with the access of unused field area. We could include innovative ways to promote hanging and swinging by formatting play equipment as tree branches. Supplying kids with an outlet that makes them think and explore nature concepts would be the best route, as this open area has little natural options available.

### **Central Park**

We have determined that central park has done a great job implementing aspects of nature based play to the park. This park also has a lot to different elements that work well together. If we add too many other elements to the park it would be overwhelming.



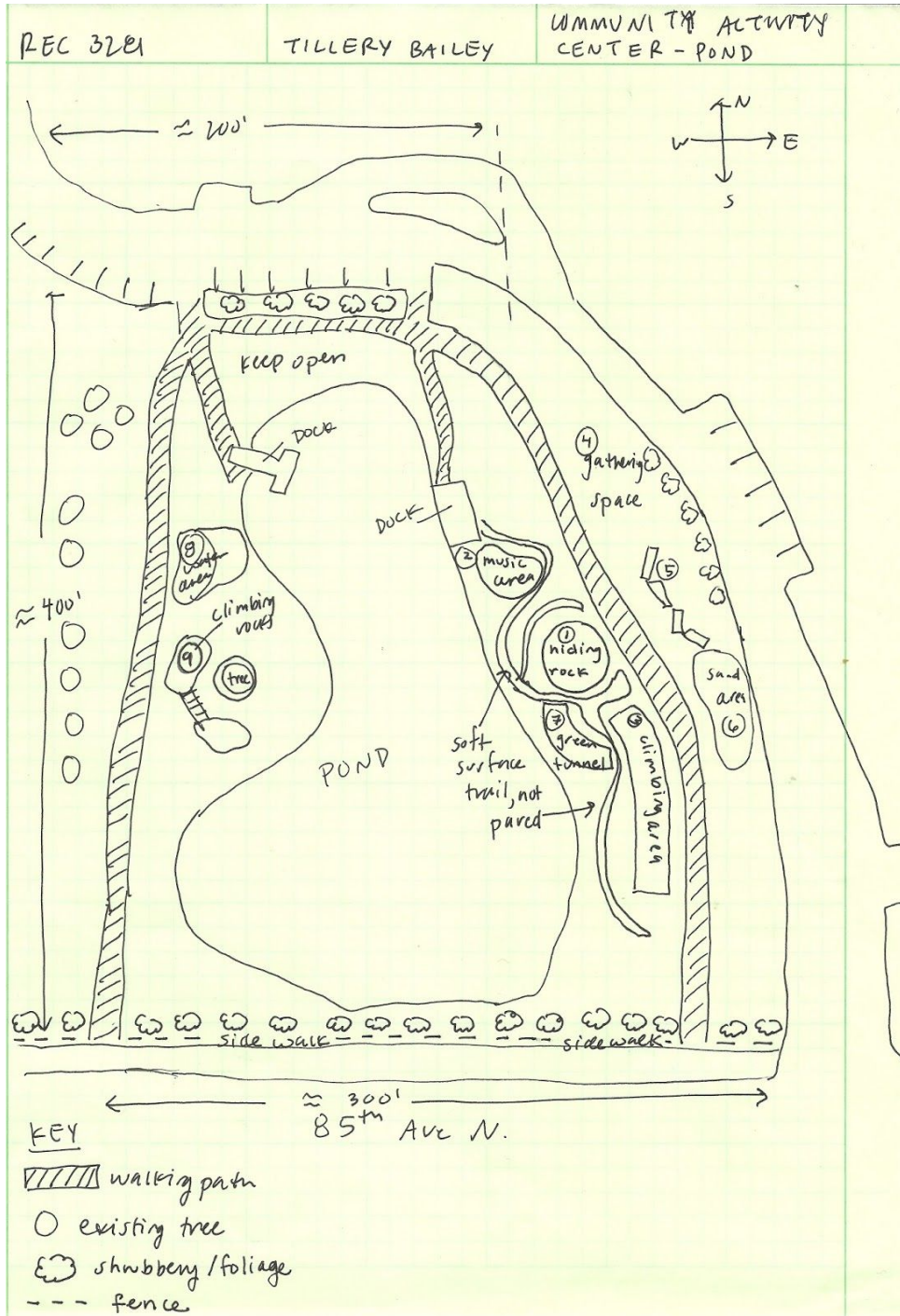
### **College Park**

This park seems to have great potential for adding new elements. When looking at this park, we also need to remember that a large part of the open field is used for an ice skating rink. Ice skating is very popular in Minnesota and I don't believe that putting a nature based play element over this section of the park. Since winter is a long season in Minnesota, having activities during these times of year is important. So, I would not suggest adding any elements of nature based play at the front of this park would be beneficial. That being said, there is still a lot of open grass space in the back of the park that could be perfect places to add a few elements of nature based play.

I would first suggest adding a large rock structure that the kids could climb on. When you add a large group of rocks on top of each other it creates an area that the kids could be welcomed to climb on. You could also add ropes that connect at the top of the large rock structure. If this was decided to be done, it would add new elements to the rock climbing that the kids would enjoy, while still encouraging the kids to explore. We would also suggest adding new levels to the park. This could be added by man made structures such as tunnels. These tunnels could be added to the slightly hilly area that already exists. I would also suggest adding stairs or another element to go over this tunnel. It would add another element to the tunnel, which would create more exploration of the land and nature around it.

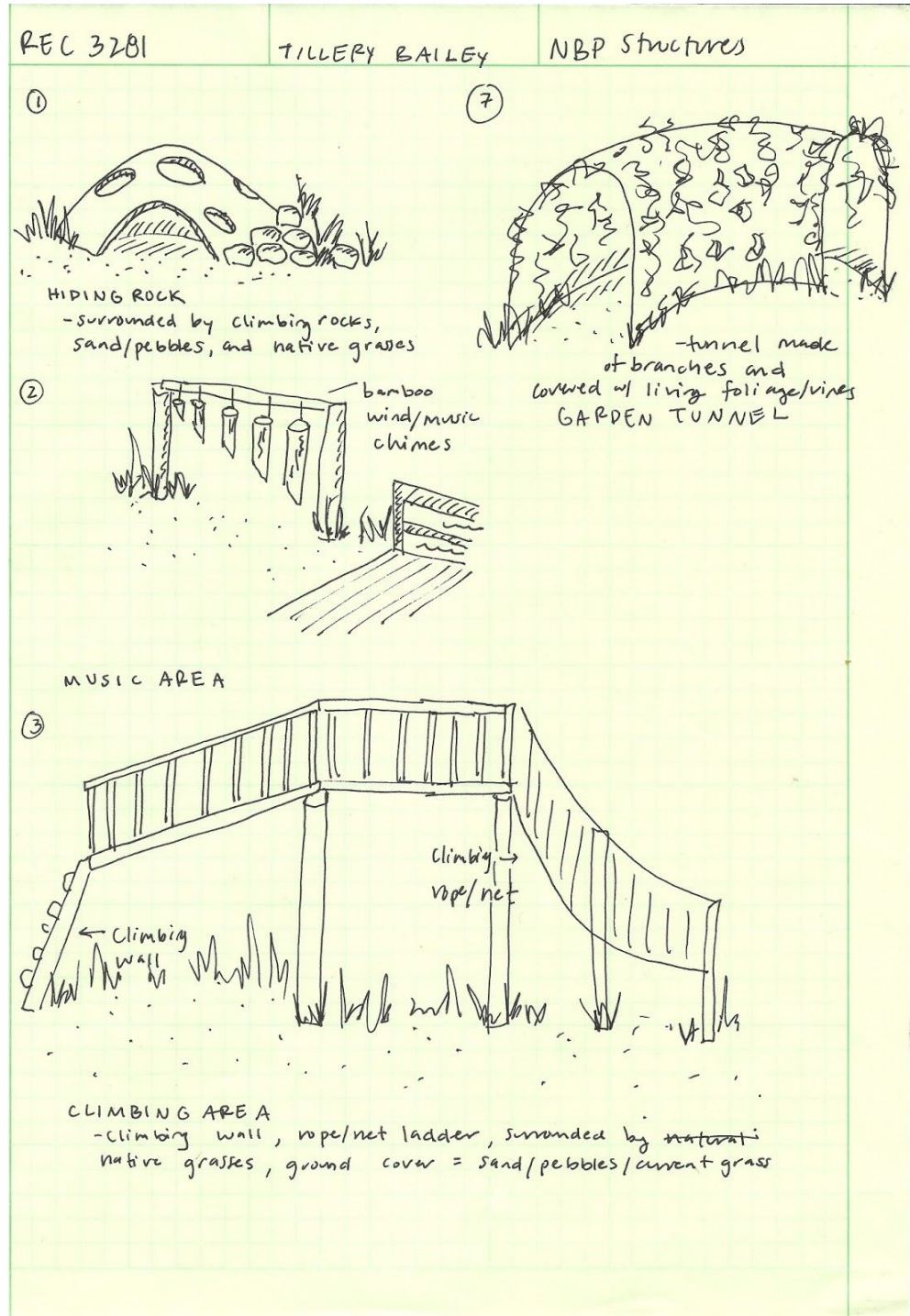
### **Community Activity Center, Pond Area**

This park seemed to have great potential for introducing nature-based play, which caused us to go more in-depth with recommendations. The map is on the following page.



Map of proposed nature-based play at the Community Activity Center pond area. The map includes current features: two fishing docks, parking lot, and walking paths. The proposed renovations include soft-surface paths between playing areas in order to create connections between the areas. Nature-based play areas/structures are numbered and then detailed in the following pages.

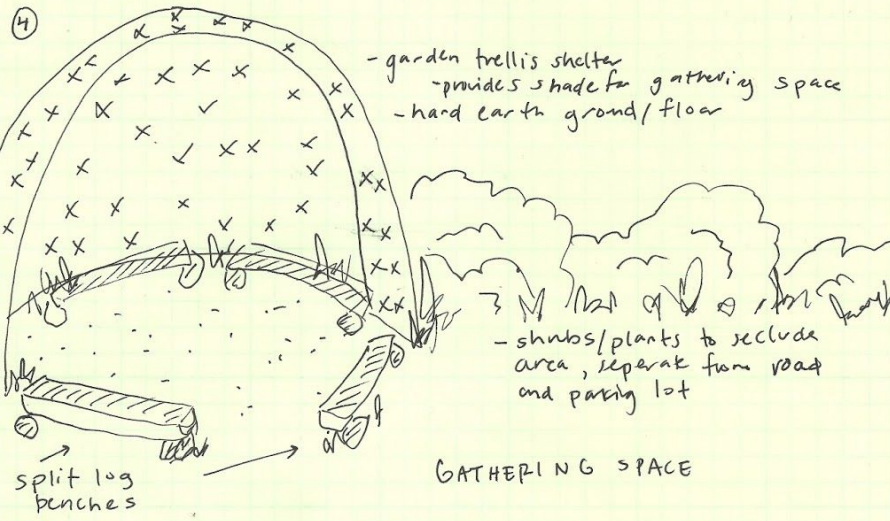
Structure 1 is a hiding rock surrounded by a few boulders to climb. The area is filled with sand to allow a soft surface and a play area. The structure and sand are surrounded by native Minnesota grasses. This rock gives a physical challenge of hiding and also provides a small hide-away in case some children are slightly less social. Structure 2 is a music area located near the east fishing dock. This is a simple addition. It only requires two supporting posts, a cross-bar, and windchimes and/or cowbells. The chimes and/or cowbells should be sized to offer a



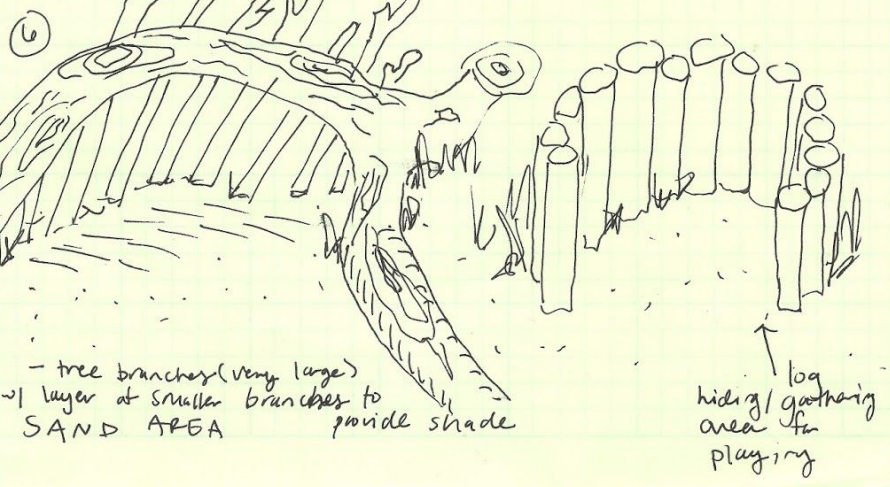
variety of pitches. Structure 3 is a climbing area. This is a wooden structure over a surface of sand, pebbles, and existing grasses. The structure includes a rope climbing net as well as a small climbing wall, which could include real stone hand holds. Structure 7 is a garden tunnel. This tunnel is made of posts and branches and is covered with living foliage. Plants will be chosen and arranged so that they “create” the tunnel. This will change through the seasons and over the years.

REC 3281

NBP Structures



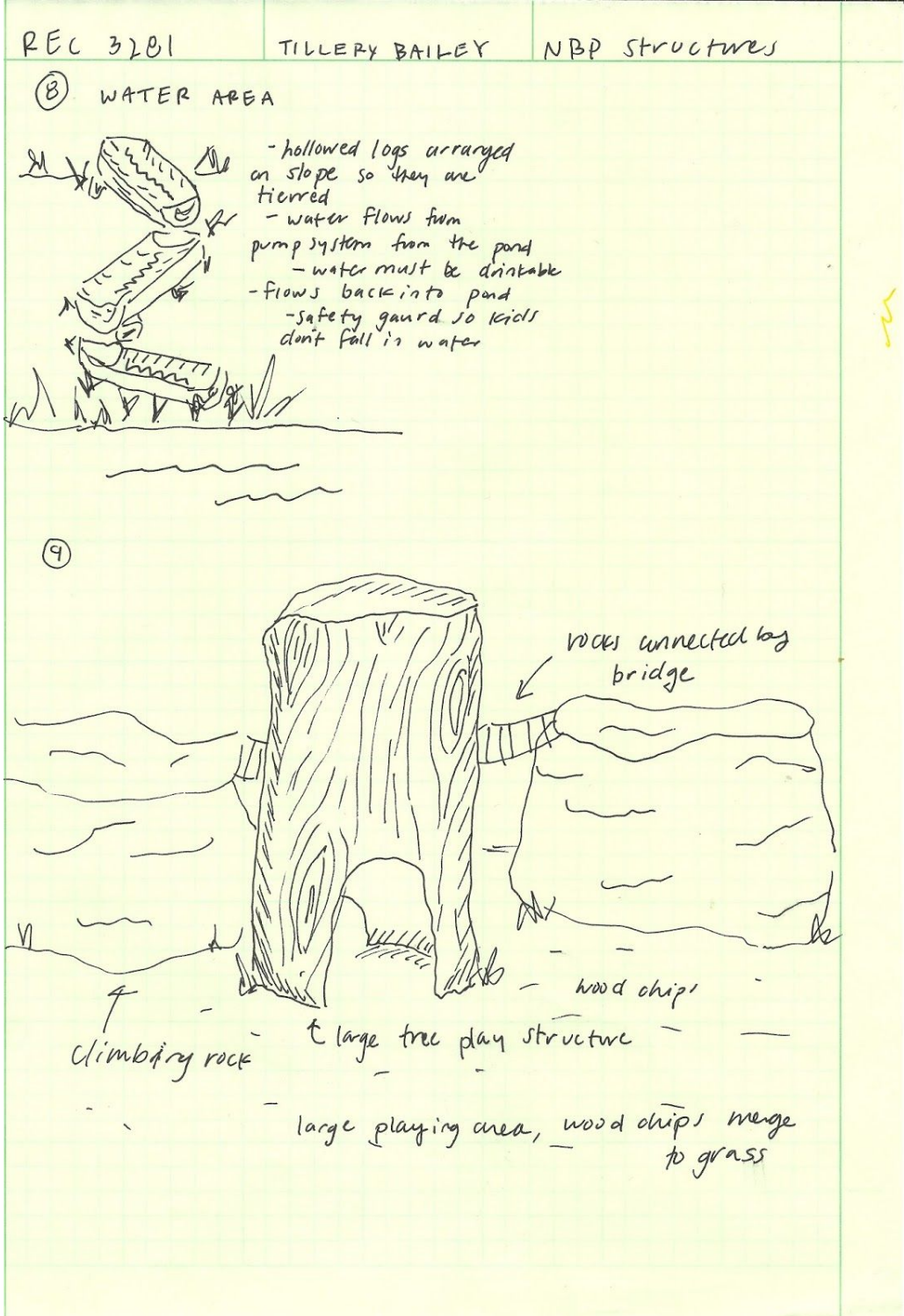
⑤ CLIMBING/BALANCING LOGS



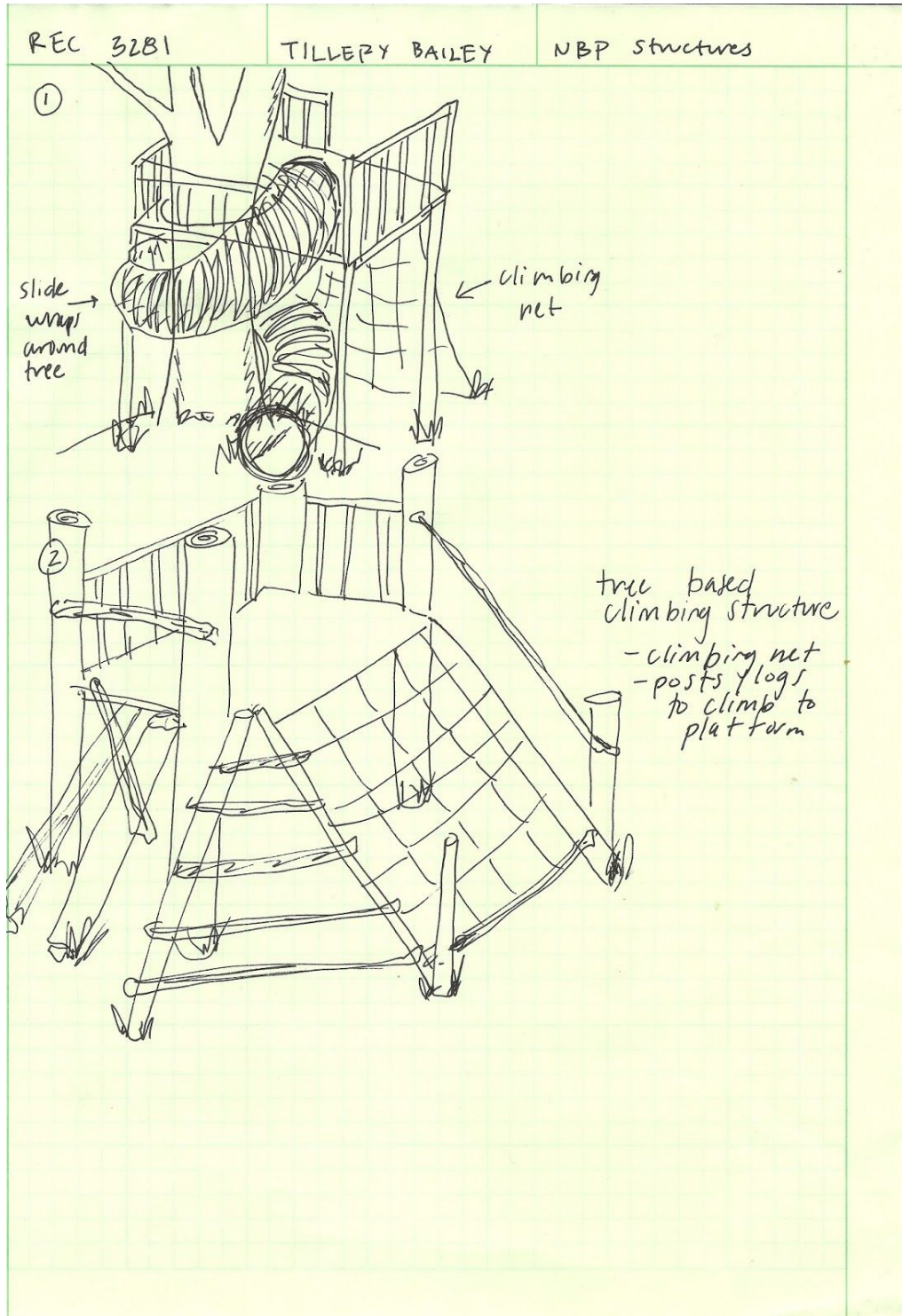
Structure 4 is a gathering space. This is a large garden trellis shelter, which will provide shade and a relaxing place to gather. The trellis will be covered with climbing plants, preferably native flowers, and will change through the seasons and over the years. There is a hard-earth floor and split log benches. There are shrubs and other plants to create a barrier from the road and parking lot. Structure 5 is climbing/balancing logs. These are large, somewhat smooth logs that connect the gathering space to the sand play area. Some logs are slightly raised or at an incline to give an

added challenge. The area is surrounded by sand and grass, which provide a soft surface and another play area. Structure 6 is a sand play area. There is a large tree branch with a layer of smaller branches to provide some shade. It can also double as a climbing structure. There is also a small hiding area within the open ring of standing logs. This provides another area within the large play area.

Structure 8 is a water play area. Hollowed logs are arranged on a slope so that they are tiered. Using a pump system, water travels from the pond to the top log. The water flows down the logs to end back in the pond. It must be ensured that the water is drinkable as children will be playing in it. A safety guard will need to be installed near the water's edge so children do not fall into the water. Structure 9 is rocks and a tree. There are two large climbing rocks around a large tree structure. These climbing rocks are often 10-15 feet wide and 4-6 feet tall. The rocks are connected by a rope bridge. The tree structure provides a play area and some shade. The ground is covered with woodchips that merge with the surrounding grass.





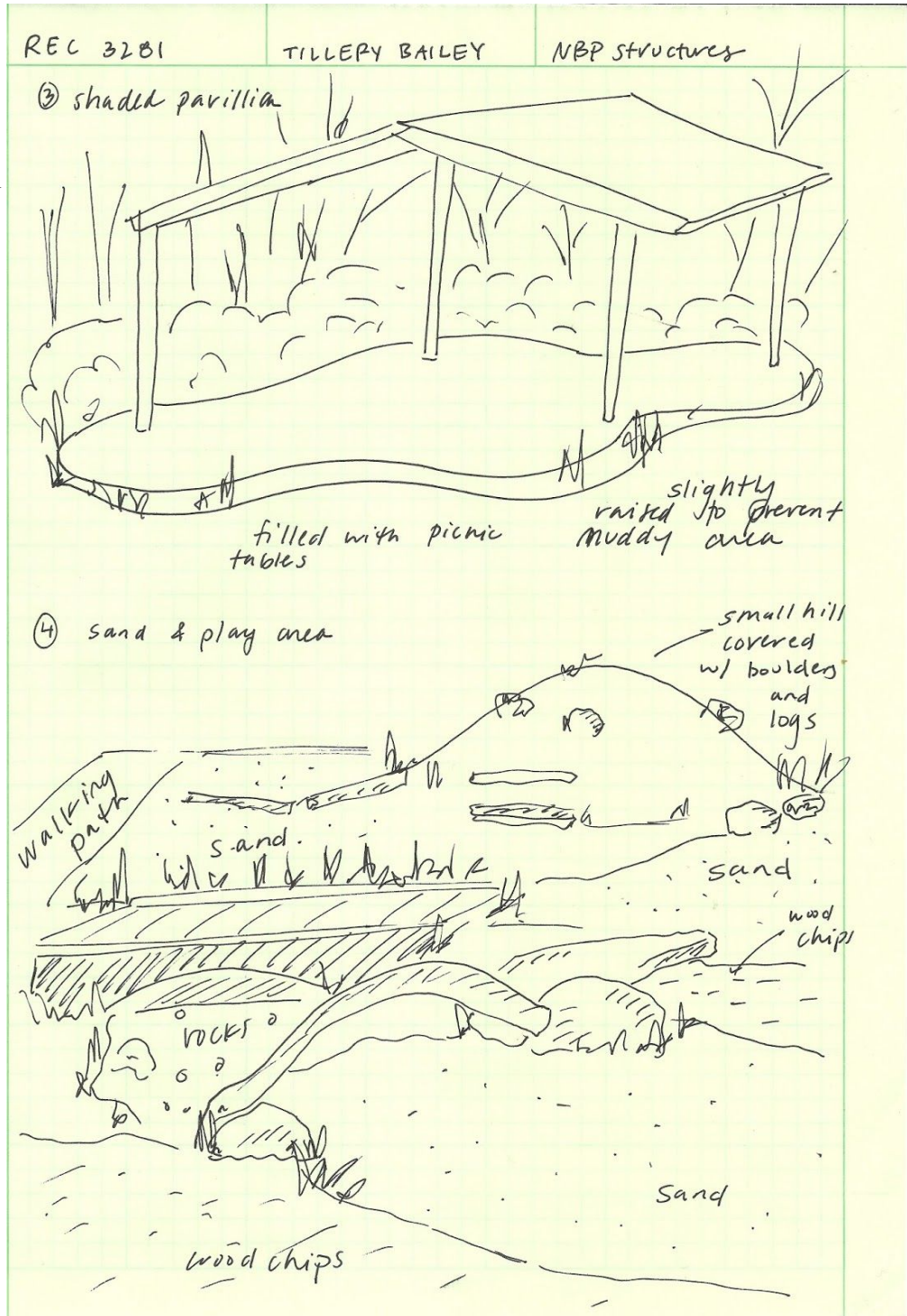


Structure 1 is a climbing platform and slide. This platform would be constructed around an existing tree in the park. There is a climbing net to reach the platform. The platform would be large enough to allow for some play there. The slide then wraps around the tree and lands in the grass.

Structure 2 is a tree/wood based climbing structure. This would be best installed around an existing tree, such as above, but could be easily installed standing alone. There is a central playing platform

that can be reached in multiple ways. The option on the left is large logs that provide a climbing and balancing challenge. The middle option is a ladder structure, which is two large logs or posts with branches for rungs. The option on the right is a climbing net, similar to the net for the above structure.

Structure 3 is a shaded pavilion. The hard surface is slightly raised in order to prevent a muddy area in the event of rain and snow. Part of the area is covered to provide full shade. The pavilion contains picnic tables, but does leave some area free for play. Structure 4 is a sand play area. This is a larger area in the park and is partially surrounded by the walking path. This area includes a sand area for playing, which contains a log for balancing and some smaller boulders for climbing and to separate the sections of this area. Leading into



the sand area is a small rock “creek” that has a small bridge running over it. Since this area is slightly inclined, there is the ability to create a small creek when there is rain. The bridge leads from the walking path to a smaller sand play area. This second sand area merges with a small hill that is covered with boulders and logs. These provide some physical challenge and exploration.

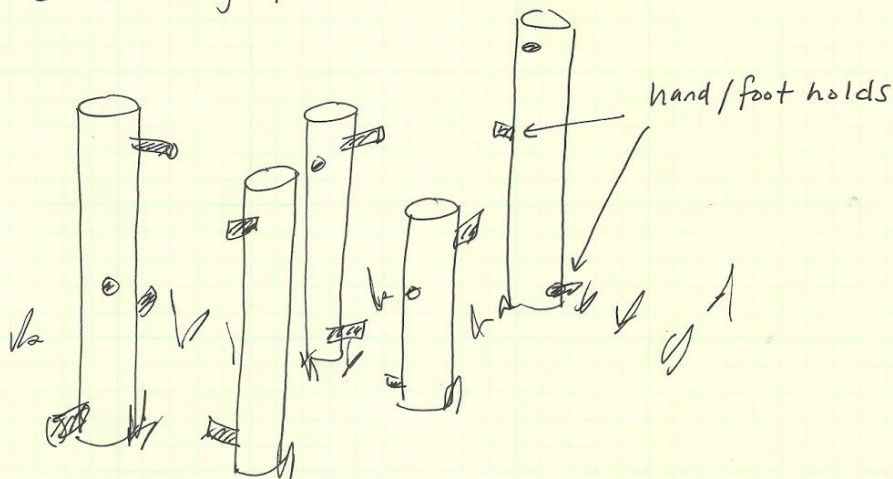


## ⑤ Hiding/climbing area

- tunnel to crawl through
- rocks to climb
- path to run



## ⑥ climbing posts



Structure 5 is a hiding/climbing area. There is a small hill with a tunnel running through it, which provide a crawling and hiding space. There are rocks to climb to the top of the small hill as well as a soft path to run over. There are some native grasses on the far side of the surface. The wood posts provide some separation from the rest of the park. Structure 6 is climbing posts. These are posts of varying heights that are spaced so that children would be able to travel between the posts using the hand and foot holds. They are surrounded by sand, which

provides a soft surface and play area. This structure provides a physical challenge involving balance and strength.

### **Hamilton Park**

Similar to Central park, Hamilton park has a very modern integration of play equipment, appeal, and usability. When evaluating this park, there seemed to be no direct need for NBP as it was already a well established park on its own. With the modern and innovative play equipment, open field, picnic shelter, educational warm house, and ample parking, this was an example of a park where further integration of any efforts, let alone NBP, would be over stimulating and a current waste of budget and planning compared to other parks in need of renovations.

## References

- Brussoni, Mariana, and Susan Harrington. "Beyond Physical Activity: The Importance of Play and Nature-Based Play Spaces for Children's Health and Development." *Current Obesity Reports* 4.4 (2015): 477-83. *SpringerLink*. Web. 7 Nov. 2016.
- Oregon Natural Play Initiative: Word Press (2014). Natural Play, What are Natural Play Areas?  
Retrieved from: <http://oregonplay.wordpress.com/guidelines/>

Appendix 1:  
Nature Based Play Site Observation Form

### Nature Based Play Site Observation

Site Name: \_\_\_\_\_ Date: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_

Natural Play Areas are outdoor spaces designated for play that are made of natural components such as plants, logs, water, sand, mud, boulders, hills and trees. These components represent the larger wild environment in a way that feels safe and manageable to young visitors and their parents while inviting imaginative and explorative play (Oregon).

- **Natural features**

- Natural spaces

\_\_\_\_\_

- Trees and foliage

\_\_\_\_\_

- Open and unlandscaped fields

\_\_\_\_\_

- Minimal design structures, still functional

\_\_\_\_\_

- Natural structures

\_\_\_\_\_

- Rocks to climb and play on

\_\_\_\_\_

- Shaded spaces

\_\_\_\_\_

- Natural habitats

\_\_\_\_\_

- Multipurpose lawn spaces

\_\_\_\_\_

- Water feature

\_\_\_\_\_

- Sand, mulch, recycled rubber, playground pebble gravel, etc
- 

- Tiered spaces (levels)
- 

- Messy materials (mud, sand, twigs, etc)
- 

- Gathering spaces
- 

- **Physical features**

- Hard-surface play area
- 

- Dramatic play structures
- 

- Trees and natural areas
- 

- Active-play equipment
- 

- Fences, gates, walls
- 

- Green houses
- 

- Transitional spaces
- 

- Accessibility
-

- **Safety**

- Fences around hazards

---

- Appropriate equipment

---

- Litter-free area

---

- Fully functioning equipment

---

- Secured equipment

---

- No water hazards

---

- No entanglement hazards

---

- No traffic hazards

---

- **Does the area?**

- Encourage play

---

- Stimulate senses

---

- Stimulate curiosity

---

- Support physical needs

---

- Support social needs

---

- Allow adult-child interaction

- 
- Allow child-child interaction

- 
- Support active play

- 
- Support creative play

- 
- Support imaginative play

- 
- Support group play

- 
- Support games

- 
- Involve art or music

- 
- Involve science

- 
- Support nature-child interaction
- 

Oregon Natural Play Initiative: Word Press (2014). Natural Play, What are Natural Play Areas?  
Retrieved from: <http://oregonplay.wordpress.com/guidelines/>



Appendix 2:  
Assessment of Birch Grove School Park

## Nature Based Play Site Observation

Site Name:  Birch Grove School Park  Date:  10/29

Evaluator Name:  Sydney, Tillery and Austin

Natural Play Areas are outdoor spaces designated for play that are made of natural components such as plants, logs, water, sand, mud, boulders, hills and trees. These components represent the larger wild environment in a way that feels safe and manageable to young visitors and their parents while inviting imaginative and explorative play (Oregon).

- **Natural features**

- Natural spaces
  - Lots of open green space
  - There is an open playing field surrounded by woods, but not intended for play
- Trees and foliage
  - No trees in the park area
  - There is only a wooded area at the far corner of the field
- Open and unlandscaped fields
  - Lots of open fields but they mowed
  - Yes, but they are mowed/maintained because of the baseball field
- Minimal design structures, still functional
  - Yes, they have play structures but not to many
  - The playground is the central focus, no nature design structures
- Natural structures
  - No, mostly open space
  - none
- Rocks to climb and play on
  - No
  - No
- Shaded spaces
  - No, no trees present
  - No, besides the woods
- Natural habitats
  - No
  - no
- Multipurpose lawn spaces
  - Yes, they have lots of open space to play many different games.
  - Yes there is a very large playing field

- Water feature
  - No, it is a school so it would be hard to have one
  - no
- Sand, mulch, recycled rubber, playground pebble gravel, etc
  - There are some pebble gravel
  - There are pebbles in the playground area
- Tiered spaces (levels)
  - No
  - No, the park is very flat since it's intended for
- Messy materials (mud, sand, twigs, etc)
  - No, not intended
  - none
- Gathering spaces
  - No
  - There are two benches near the playground
- **Physical features**
  - Hard-surface play area
    - Yes, lots of pavement
    - There is a basketball court as well as the parking lot area
  - Dramatic play structures
    - Yes, there is a play ground
    - None, besides the playground (not nature play)
  - Trees and natural areas
    - No trees just open space with grass
    - There are only trees at the corner of the park/field and they are not intended for playing.
  - Active-play equipment
    - Play ground was present, soccer net, basketball
    - There is a playground, but there are not any nature-based active play structures/equipment
  - Fences, gates, walls
    - Yes, they block traffic
    - Yes, there is a fence to separate the field from the busy street
  - Green houses
    - No
  - Transitional spaces
    - No, there is one main field
  - Accessibility

- No stairs, not really any place to park
  - There is no parking but there is a small access space from the street
- **Safety**
  - Fences around hazards
    - Yes
  - Appropriate equipment
    - Yes
  - Litter-free area
    - Yes
  - Fully functioning equipment
    - Yes, from what we were able to observe
  - Secured equipment
    - Yes
  - No water hazards
    - Yes
  - No entanglement hazards
    - Yes
    - swings
  - No traffic hazards
    - Yes
    - None except for school buses driving through that parking lot since it borders the playground
- **Does the area?**
  - Encourage play
    - Yes, mostly structured
    - Yes, but centered around the playground or sports
  - Stimulate senses
    - Not much mostly just on the playground
    - no
  - Stimulate curiosity
    - Mostly on the playground
    - no
  - Support physical needs
    - Accessible and easy for exercise
    - yes
  - Support social needs
    - With different games and sports that are structured
  - Allow adult-child interaction
    - No

- Allow child-child interaction
  - Yes, There are child play areas
- Support active play
  - Yes, lots of way to play
- Support creative play
  - No, very structured
- Support imaginative play
  - No
- Support group play
  - Yes, structured play
- Support games
  - Yes, Structured
- Involve art or music
  - No
- Involve science
  - No
- Support nature-child interaction

**No, there really isn't much options for any sort of interaction with nature at this park.**

### **The 7 C's**

**Character:** The character of this park is minimal. The quality of the equipment is relatively modern and in decent condition. The remaining of this location is simply open field with lacking integration of NBP or convenient field equipment.

**Context:** Mostly open field. Can hold large numbers, but not comfortably or with recreational options, out of date baseball field. Only street parking is available, and not easily accessible. Does not stand out as inviting.

**Connectivity:** No spaces to connect. There is limited resources and convenience is limited. Equipment is modern but also lacking. Condition of the park is outdated and needing for upgrade to useable field space and perhaps integration of sheltered area.

**Change:** It won't change over time since it is just grass field, some tree landscape may change but nothing different.

**Chance:** The park has chance for change in the future. The location is large enough to integrate usable resources and increase mass appeal. Equipment is

modern enough but overcasted by the quality of the park is influenced by the remaining of the area. Changes to the field usability and parking could greatly increase appeal.

Clarity: The park has plenty of open space, but is lacking with appeal to utilize the resources.

Challenge: The challenge this park may face is the lack of appeal. The area is limited with useable resources for social or leisure activity. Oriented for children, but even limited in this regard. Quality of the field is lacking in management and upkeep. The baseball field discouraging to use. Available parking space is also a factor influencing accessibility.

## Appendix 3: Assessment of Central Park

## Nature Based Play Site Observation

Site Name: Central Park Date: 10/29/16

Evaluator Name: Tillery, Austin, and Sydney

Natural Play Areas are outdoor spaces designated for play that are made of natural components such as plants, logs, water, sand, mud, boulders, hills and trees. These components represent the larger wild environment in a way that feels safe and manageable to young visitors and their parents while inviting imaginative and explorative play (Oregon).

- **Natural features**

- Natural spaces
  - Yes, there is a very large grass and hill area
  - There is a walking trail surrounding the park that runs through a wooded area and along a small creek
- Trees and foliage
  - Yes, there is a great variety of trees by age and type
  - There are two large wooded areas on opposite edges of the park, but they are likely not intended for play
- Open and unlandscaped fields
  - There is a small hill surrounding by an open grass area, but it is mowed
- Minimal design structures, still functional
  - The main focus is the picnic area and playground equipment, and even though they are quite functional they are not natural play structures
- Natural structures
  - There is a nice hill to play on, but there are not any natural playing or climbing structures
- Rocks to climb and play on
  - Yes, there are two large faux rocks for climbing, set aside from the playground
- Shaded spaces
  - Yes, there are partially covered park benches along the playground area
  - There is a large picnic shelter that provides a large amount of shade
  - There are not many trees to provide shade near the play area, but there are some trees that could provide shade in the summer closer to the parking lot
- Natural habitats
  - There is a wooded area behind the walking trail and playground, but it is likely not intended for play



- Multipurpose lawn spaces
  - Yes, there is a large open field surrounded by the walking trail
  - The hill also provides a smaller lawn space, but might not be as usable other than for playing
- Water feature
  - no
- Sand, mulch, recycled rubber, playground pebble gravel, etc
  - There is rubber and wood chips in the playground area
- Tiered spaces (levels)
  - There are not any true tiered spaces, but the park does have some natural sloping including a small hill for the high point of the park
- Messy materials (mud, sand, twigs, etc)
  - No messy materials besides fallen leaves
- Gathering spaces
  - Yes, there are many benches surrounding the playing area, multiple single picnic tables, and a large picnic shelter
- **Physical features**
  - Hard-surface play area
    - Yes, there are wide sidewalks that could be used for playing
  - Dramatic play structures
    - The playground is very dramatic as the main focus, but is not a natural play structure
    - The large climbing rocks do add some excitement to the park
  - Trees and natural areas
    - This park is a very large open space and the trees are all grouped together but are not intended for playing
    - There are not any natural playing areas besides playing in the grass
  - Active-play equipment
    - Yes, the playground provides great opportunity for active-play but not in a nature based way
  - Fences, gates, walls
    - no
  - Green houses
    - no
  - Transitional spaces
    - No, everything is merged into one large area
  - Accessibility

- The playing area is not very wheelchair accessible, but the park does have wide sidewalks to connect the various areas
  - The park was very easy to get to, either by car or by foot, and there is ample parking
- **Safety**
  - Fences around hazards
    - No hazards
  - Appropriate equipment
    - Yes, but seems to be mostly for older children
  - Litter-free area
    - yes
  - Fully functioning equipment
    - yes
  - Secured equipment
    - yes/NA
  - No water hazards
    - none
  - No entanglement hazards
    - none
  - No traffic hazards
    - None, the parking lot is far from the playing area
- **Does the area?**
  - Encourage play
    - yes
  - Stimulate senses
    - no
  - Stimulate curiosity
    - Slightly, but not curiosity towards nature
  - Support physical needs
    - yes
  - Support social needs
    - yes
  - Allow adult-child interaction
    - yes
  - Allow child-child interaction
    - yes
  - Support active play
    - yes
  - Support creative play

- yes
- Support imaginative play
  - yes
- Support group play
  - yes
- Support games
  - yes
- Involve art or music
  - no
- Involve science
  - no
- Support nature-child interaction
  - No, there is no true nature for anyone to interact with besides the lawn areas

Character: This park had a lot of character. This park was very big and had lots of different, fun activities. Since they had all of these different aspects to the park, it gave it a fun character. The playground area also had a lot of character. The main play structure is well themed and is very inviting.

Context: This park interacts well with it's surroundings. The trees are integrated into the park well. They also added some rocks that are made just to play on. Also the aspects of nature that are present work well in their surrounding.

Connectivity: This park has some nature based play areas already present. The rock are present for the children to play on and learn through play. Also the play structure has lots of elements to help with cognitive learning.

Change: I am not sure if this park will be able to change much. There is a lot going on in this park, and not much will be able to change naturally. While there is room for the park to grow, this may need to be done with a purpose in mind

Chance: I think this park does a great job with creating chance. There is so much in this park that children could have many different opportunities to grow. Along with both the designated play areas and nature.

Clarity: There is a lot going on in this park. At times there can be a little too much going on, but they do a pretty good job at keeping what is there clear. At the moment everything that is present is clear, but I fear that if we add much more the clarity will be lowered.

Challenge: The park currently poses a lot of challenges. The fact that there is a lot going on and they have even started to add nature based play areas. There is also level changes that make it easier to pose challenges for children.

Appendix 4:  
Assessment of College Park

## Nature Based Play Site Observation

Site Name: \_\_\_Collge Park\_\_\_\_\_ Date: \_\_\_10/29/16\_\_\_\_\_

Evaluator Name: \_\_\_Tillery, Austin, and Sydney\_\_\_\_\_

Natural Play Areas are outdoor spaces designated for play that are made of natural components such as plants, logs, water, sand, mud, boulders, hills and trees. These components represent the larger wild environment in a way that feels safe and manageable to young visitors and their parents while inviting imaginative and explorative play (Oregon).

- **Natural features**

- Natural spaces
  - Open fields for many activities
- Trees and foliage
  - Some trees, they are smaller or younger trees
- Open and unlandscaped fields
  - Can't tell where the private and public property meet
  - They are open fields, but they are mowed and taken care of
- Minimal design structures, still functional
  - Not minimal-they are man-made buildings and structures, but they are still functional
- Natural structures
  - Trees, not intended for climbing
- Rocks to climb and play on
  - no
- Shaded spaces
  - Yes-there is a large overhang on the warming house
  - Large picnic shelter
  - Small trees, may provide some shade in summer
- Natural habitats
  - no
- Multipurpose lawn spaces
  - Open fields, one is obviously used for an ice sheet in the winter
- Water feature
  - no
- Sand, mulch, recycled rubber, playground pebble gravel, etc
  - Wood chips in playground area
- Tiered spaces (levels)
  - No really, but the land is sloped downwards from the playground

- Messy materials (mud, sand, twigs, etc)
  - No-besides fallen leaves
- Gathering spaces
  - Yes-warming house, picnic shelter, playground benches
- **Physical features**
  - Hard-surface play area
    - no
  - Dramatic play structures
    - No-unless the playground is counted, but it is not a natural play structure
  - Trees and natural areas
    - Sparse trees, but too many may hinder running around and playing
  - Active-play equipment
    - Yes-the playground, ice sheet in winter
  - Fences, gates, walls
    - No but there are some private fences to separate the park from backyards
  - Green houses
    - No
  - Transitional spaces
    - No-very abrupt separation of public and private space in some areas
    - All seems to be on big area, the playing field and playground are together as one space
  - Accessibility
    - Easy to access by foot, but difficult to access by car for visitors. There is limited parking near the park
    - There is some wheelchair accessibility since there are paved areas but that is all
- **Safety**
  - Fences around hazards
    - No hazards, the play area is far from traffic
  - Appropriate equipment
    - Yes-playground is safe, there is a variety of options for different ages
    - There is not a nature based play area of equipment, no safety to judge
  - Litter-free area
    - yes
  - Fully functioning equipment
    - Yes, playground only
  - Secured equipment
    - N/A

- No water hazards
  - none
- No entanglement hazards
  - Swingset, climbing net on playground-but none from natural objects
- No traffic hazards
  - Very little, there is only a small parking lot a distance from the park area and a small cul de sac which likely has little traffic
- **Does the area?**
  - Encourage play
    - Yes-there is a playground, ice rink, and an open field for running
    - But there are no nature based play aspects that are available to encourage play
  - Stimulate senses
    - No, but it is a very calm and quiet area
  - Stimulate curiosity
    - no
  - Support physical needs
    - Yes, large area for running and playing
  - Support social needs
    - Yes, there are a variety of areas for children and families to interact-but they are all human-made
    - The park is tucked into the neighborhood which creates a main gathering space
  - Allow adult-child interaction
    - Yes, there are a variety things or activities that adults and children could do together, but the playground is more child-sized
    - There are not any nature areas for adult-child interaction besides the playing field
  - Allow child-child interaction
    - yes
  - Support active play
    - yes
  - Support creative play
    - Slightly, only the open field may stimulate creativity but there is nothing to play with or around besides grass and very small trees
  - Support imaginative play
    - Slightly, but none is nature based imagination
  - Support group play

- Yes, it is very large space where numerous groups could play at the same time or join together
- Support games
  - Yes, the open field is great for playing a variety of games, ranging from sports to imaginative games children may invent themselves
- Involve art or music
  - no
- Involve science
  - no
- Support nature-child interaction
  - Slightly, but there isn't much nature to interact with besides the grass and small trees

Oregon Natural Play Initiative: Word Press (2014). Natural Play, What are Natural Play Areas? Retrieved from: <http://oregonplay.wordpress.com/guidelines/>

Character: This park has some character, while there is a decent amount of open space, I think the fact that they use it for an ice rink it adds character. The positioning of the park adds a level of community. But, there is lots of space to add character to the large open spaces that aren't used for the rink.

Context: I feel that the placement of the park is pretty good. While parking was a little hard, I think it is placed well in the community. I also think that adding a ice rink and warming house works really well in a Minnesota community and I would assume brings a lot of people in.

Connectivity: There isn't much to connect within this park. The areas are fairly open, but divided by the ice house. Everything is connected well due to the fact that there isn't much separation.

Change: I think this park could change over time. There is a decent amount of trees and landscape in this park. As time goes on these trees could continue to grow and create a different landscape. But, that being said, this would not be a large change.

Chance: This park has an element of chance, but there is room to improve. They have a lot of open space which means there is room to grow. But, there is small hill and a space for an ice rink which easily adds a level of play. But, the open unused space doesn't add much to chance.

Clarity: This park has very clear areas that are meant for the play areas, and the ice skating rink area. While it was a little hard to tell during the fall, once it is in use it will be very clear what the use of it is. The only part I felt was unclear was the giant open grass field in the front of the park. I feel that this is wasted space that could be used for play opportunities.

Challenge: This park poses limited challenges. While this park has different elements it doesn't offer much room for kids to be challenged. In order for the children to be challenged you would



need add more element to the park. Possibly in the back of the park if you want to keep the front of the park for sports and the ice skating rink.

Appendix 5:  
Assessment of Community Activity Center  
Pond Area

## Nature Based Play Site Observation

Site Name: \_\_\_Community Center Activity Center (pond area)\_\_\_ Date: \_October 29th

Evaluator Name: \_\_\_Sydney Stoltenberg \_\_\_\_\_

Natural Play Areas are outdoor spaces designated for play that are made of natural components such as plants, logs, water, sand, mud, boulders, hills and trees. These components represent the larger wild environment in a way that feels safe and manageable to young visitors and their parents while inviting imaginative and explorative play (Oregon).

- **Natural features**

- Natural spaces
  - There are some pond and grass area around the pond
  - There is a small pond surrounded by a small grassy area
- Trees and foliage
  - There are lots of trees around the park. They are spread out around the park
  - There is no tree/foilage cover from/for the highway
  - There are some trees, but they are not very large
- Open and unlandscaped fields
  - None
  - none
- Minimal design structures, still functional
  - Yes, there are two docks on either side of the pond
  - Yes, there are two docks that can be used for
- Natural structures
  - Not many natural structures, there are a few hills and trees
  - None except for trees, but they are not great for climbing since they seem to be younger
- Rocks to climb and play on
  - none
- Shaded spaces
  - The trees that around can provide shade but, nothing else
  - Very little. There are some pine trees and some fuller trees that would provide shade in summer
- Natural habitats
  - There is nothing
  - no
- Multipurpose lawn spaces

- There are some that are featured away from the pond but nothing close
- There is one picnic table area, but it is small
- Water feature
  - The pond it self
  - pond
- Sand, mulch, recycled rubber, playground pebble gravel, etc
  - No
- Tiered spaces (levels)
  - Some hills but nothing extensive
  - Not really, but there is slight sloping into the pond
- Messy materials (mud, sand, twigs, etc)
  - There are lots of twigs and long grasses
  - There are some twigs fallen from trees
- Gathering spaces
  - There are some picnic tables, and a gazebo that is farther away
  - On the two docks as well as the picnic table area
- **Physical features**
  - Hard-surface play area
    - Dock, and paths
    - Docks, but might not be safe for playing-especially with smaller children
  - Dramatic play structures
    - none
  - Trees and natural areas
    - Lots of trees
    - Yes there are many trees, but there is no barrier between the pond and highway (not even a fence) which detracts from the nature experience
  - Active-play equipment
    - none
  - Fences, gates, walls
    - No
    - None, not even along highway
  - Green houses
    - no
  - Transitional spaces
    - None-you come from the street or parking lot straight to the grass and pond
  - Accessibility
    - Yes, there are no stairs and they provided paths

- **Safety**
  - Fences around hazards
    - No, fences around the pond
    - Dock railings
  - Appropriate equipment
    - There is a dock and a platform
  - Litter-free area
    - Yes, there are a few garbage cans
  - Fully functioning equipment
    - N/A
  - Secured equipment
    - N/A
  - No water hazards
    - There is no fence around the pond itself
    - It's an open body of water and there are not any barriers, but it is relatively shallow
  - No entanglement hazards
    - none
  - No traffic hazards
    - There is no fence around the traffic so you need to watch
    - There is not a barrier between the parking lot and park area
- **Does the area?**
  - Encourage play
    - No
  - Stimulate senses
    - No, but it is calming besides the traffic
  - Stimulate curiosity
    - No, unless you are into fishing
  - Support physical needs
    - There is a physical path for walking, but not much for running around or playing
  - Support social needs
    - Could allow for family time when fishing
    - Yes there is an open space and room for many people to interact
  - Allow adult-child interaction
    - Not much room for play
    - Slightly, since there is a fishing pond and picnic area, but that has to be something they both enjoy
  - Allow child-child interaction

- Not much room for play
- Slightly, it depends on the popularity of the sight since there is not any play equipment
- Support active play
  - There are not much open grass areas to play
  - There is little room/ability to run around and play, there is nothing to climb on
- Support creative play
  - There are not much open grass areas to play
- Support imaginative play
  - No
- Support group play
  - No
  - Yes, there are spaces for groups, but not as much area to run around
- Support games
  - No
  - Potentially room for small games on the docks
- Involve art or music
  - No
- Involve science
  - No
- Support nature-child interaction
  - The pond can provide a decent amount of interaction with nature when it comes to fishing but not much with grass
  - Slightly, but the long grasses do not seem inviting for playing, and there is not a smaller grassy area for playing

### **The 7 C's**

- Character
  - The area is very calming and welcoming, but there is not a true nature-play space at this park. Currently the park seems to be more for visual pleasure rather than being a play or activity space.
- Context
  - There is little to no play space with which to connect to the surroundings, which is a busy highway, parking lot, and community center. The small fishing pond does connect with the two docks, but there are not any other spaces that may connect with the pond or other surroundings.

- Connectivity
  - The park is a somewhat open area with little nature-based play aspects. There are not any aspects, besides the ability to fish, that link to physical or cognitive development.
- Change
  - The foliage, trees, and pond will change over time even if it was not intended for the development of nature-based play. There are not many different spaces, and the few spaces there do not truly have the ability to change size over time. The space does not currently have the capacity to accommodate a large amount of children at one time. There are a variety of plants that children could observe throughout emotional and cognitive development.
- Chance
  - There is very little opportunity for children to create, manipulate, and leave an impression on the space. The main attractions are the docks, which do not allow for any creativity other than imaginative play. There are not any messy materials to play with other than fallen leaves and twigs. There is not much room for the chance of exploration and discovery.
- Clarity
  - The area is quite open and connected which allows for slightly continuous activity. There are not many aspects for children to investigate and explore as the area is quite open and clear, besides a trail that is separated by a wooded area.
- Challenge
  - There are little to no cognitive and physical challenges. The only cognitive challenge may be fishing. There are not and risks to be taken since the docks are a focus and there is not much space for play. There are not any activities or structures that children can be engaged with for a challenge.

Appendix 6:  
Assessment of Cottonwood Park



## Nature Based Play Site Observation

Site Name: \_\_\_Cottonwood Park\_\_\_\_\_ Date: \_\_10/29/16\_\_\_\_\_

Evaluator Name: \_\_\_Tillery, Austin, and Sydney\_\_\_\_\_

Natural Play Areas are outdoor spaces designated for play that are made of natural components such as plants, logs, water, sand, mud, boulders, hills and trees. These components represent the larger wild environment in a way that feels safe and manageable to young visitors and their parents while inviting imaginative and explorative play (Oregon).

- **Natural features**

- Natural spaces
  - There is a very large, open field great for playing and it is surrounded by shrubbery and a small wooded area
  - There are not any natural spaces that are good for playing
- Trees and foliage
  - There are very many trees (younger, smaller ones) that serve as a border for the park
- Open and unlandscaped fields
  - Yes, they are open but they are mowed and taken care of
- Minimal design structures, still functional
  - The playground is the main focus
- Natural structures
  - no
- Rocks to climb and play on
  - no
- Shaded spaces
  - Yes, there are many trees to provide shade in the summer
- Natural habitats
  - There are some natural habitats since there is a cluster of pine trees that could be played in
- Multipurpose lawn spaces
  - Yes, there is a large L-shaped playing field but it is likely used for sports
- Water feature
  - no
- Sand, mulch, recycled rubber, playground pebble gravel, etc
  - There are pebbles and wood chips in the playground area
- Tiered spaces (levels)
  - No the park is very flat

- Messy materials (mud, sand, twigs, etc)
  - no
- Gathering spaces
  - Yes, there are a few benches as well as the open playing field
- **Physical features**
  - Hard-surface play area
    - no
  - Dramatic play structures
    - no
  - Trees and natural areas
    - Yes, there are many trees but there are not any other nature areas for playing
  - Active-play equipment
    - Yes, there is a playground but there are not any nature play areas
  - Fences, gates, walls
    - no
  - Green houses
    - no
  - Transitional spaces
    - No, this park is a very open area, except for the driveway to get into the park space.
  - Accessibility
    - This park is not very accessible for wheelchairs as there is not a sidewalk from the park driveway to the playground area. The park is very enclosed within the neighborhood and woods. It was not very inviting to get to the park.
- **Safety**
  - Fences around hazards
    - None, N/A
  - Appropriate equipment
    - yes
  - Litter-free area
    - yes
  - Fully functioning equipment
    - yes
  - Secured equipment
    - N/A
  - No water hazards

- none
  - No entanglement hazards
    - swings
  - No traffic hazards
    - None, this park is very secluded and does not have direct car access.
- **Does the area?**
  - Encourage play
    - yes
  - Stimulate senses
    - No, but it is very calming
  - Stimulate curiosity
    - It might, depending on the child
  - Support physical needs
    - Yes, there is a very large area for running around.
  - Support social needs
    - Yes, as the park does provide some gathering space but since it is so secluded it might inhibit socialization
  - Allow adult-child interaction
    - Yes
  - Allow child-child interaction
    - Yes
  - Support active play
    - Yes
  - Support creative play
    - Yes
  - Support imaginative play
    - Yes
  - Support group play
    - Yes
  - Support games
    - Yes
  - Involve art or music
    - No
  - Involve science
    - No
  - Support nature-child interaction
    - No, the only nature is the grass in the playing field

### The 7 C's

- Character
  - The park has little character since there is only a play ground and a large L-shaped playing field. It was somewhat eerie when we were at the park-no one was there, it was beginning to drizzle, and the park was placed within a wooded area. There are not currently any outdoor play spaces at this park.
- Context
  - The space doesn't really interact with it's surroundings since it is in the middle of a wooded area. There is also not a nature-play area that would connect to the surroundings.
- Connectivity
  - There are not any nature spaces or structures that are linked to cognitive or physical development. The open field does not allow children to understand the area in time and space.
- Change
  - There will be very little change over time besides the woods becoming denser and the cluster of pine trees growing larger. As this park does not have a true nature-based play area, there is not anything to evaluate the changes in cognitive and physical child development.
- Chance
  - There is very little opportunity for children to create, manipulate, and leave an impression on the nature play space. The park does not have any messy materials besides fallen leaves and grass.
- Clarity
  - There is no mystery or room for exploration and discovery at this park. There is nothing to evaluate for the flow of play and activities.
- Challenge
  - As this is just an open playing field, there is no cognitive or physical challenge. There is no opportunity for children to take risks and explore.

Appendix 7:  
Assessment of Hamilton Park

## Nature Based Play Site Observation

Site Name: \_\_\_Hamilton Park\_\_\_\_\_ Date: \_\_\_10/29/16\_\_\_\_\_

Evaluator Name: \_\_\_Tillery, Austin, and Sydney\_\_\_\_\_

Natural Play Areas are outdoor spaces designated for play that are made of natural components such as plants, logs, water, sand, mud, boulders, hills and trees. These components represent the larger wild environment in a way that feels safe and manageable to young visitors and their parents while inviting imaginative and explorative play (Oregon).

- **Natural features**

- Natural spaces
  - There are lots of trees and a large open field area
- Trees and foliage
  - There are shrubs surrounding the small building, but they are not intended/conducive for play
  - There are very many trees in the field and surrounding the park
- Open and unlandscaped fields
  - Not really-the fields are open but they are owed/maintained
- Minimal design structures, still functional
  - No-the playground is the main feature
  - There are not any nature based design structures
- Natural structures
  - Trees and very small rolling hills
- Rocks to climb and play on
  - no
- Shaded spaces
  - There is a large picnic shelter
  - There are some trees that would provide a large amount of shade in the summer
- Natural habitats
  - no
- Multipurpose lawn spaces
  - Yes, one appears to be for an ice rink in the winter
- Water feature
  - no
- Sand, mulch, recycled rubber, playground pebble gravel, etc
  - Mulch in the playground area
- Tiered spaces (levels)

- No, very flat park area
  - Messy materials (mud, sand, twigs, etc)
    - Woodchips in the playground area is all
  - Gathering spaces
    - There is a large picnic shelter and a small warming house that is used in the summer for youth programs
    - But the only nature based gathering spaces would be around trees sitting in the grass
- **Physical features**
  - Hard-surface play area
    - Sidewalks, but not truly intended for playing
  - Dramatic play structures
    - The playground is the only play structure, so there is not a nature-based play structure
  - Trees and natural areas
    - Yes there are very many older, larger trees at this park
    - The only other natural areas would involve sitting/playing in the grass
  - Active-play equipment
    - Playground, not nature based
  - Fences, gates, walls
    - There is only a fence surrounding the dumpster to keep it out of view, not intended for play
  - Green houses
    - no
  - Transitional spaces
    - No, one large open area
    - The different aspects of the park are not separated from each other
  - Accessibility
    - The playground isn't very accessible ADA wise
    - The different areas of the park are connected via sidewalks
    - The park is very easy to access by car or on foot, there is ample parking
- **Safety**
  - Fences around hazards
    - Yes there is a fence around the dumpster
  - Appropriate equipment
    - Yes there are different options for different age groups (playground)
  - Litter-free area

- No-there was some garbage and an old shirt scattered around the playground, but the rest of the park looked litter free
- Fully functioning equipment
  - Yes, the playground was very new
- Secured equipment
  - yes
- No water hazards
  - no
- No entanglement hazards
  - The playground did have many features that involved ropes
- No traffic hazards
  - The park is right next to a busy street and there is nothing separating the park from the street except for a sidewalk and a few feet of grass
- **Does the area?**
  - Encourage play
    - yes
  - Stimulate senses
    - no
  - Stimulate curiosity
    - Slightly, there is not much to be curious about but the playground is very unique from other playgrounds
    - There are not any nature based play areas that stimulate curiosity
  - Support physical needs
    - yes
  - Support social needs
    - yes
  - Allow adult-child interaction
    - yes
  - Allow child-child interaction
    - yes
  - Support active play
    - yes
  - Support creative play
    - yes
  - Support imaginative play
    - Slightly but it most likely takes place on the playground as there are no natural aspects that are worth playing on or around
  - Support group play
    - Yes, on the playground and in the playing field and around the trees



- Support games
  - Yes, on the playground and in the playing field and around the trees
- Involve art or music
  - No
- Involve science
  - No
- Support nature-child interaction
  - No, there is not any nature for children to interact with besides playing in the grass or looking at trees

Character: Well managed. Play equipments is modern and creative. The area is well developed and managed regularly. There is a new “energy” to the park that is inviting and diverse with leisure and recreational options.

Context: This park has plenty of available space that is open for various field options such as soccer, or baseball. There is a warm house/ learning center that is available to the public for educational or leisure purposes. When we observed it, it looked like the emphasis was child education. There is a shelter for social gatherings or event hosting. Lastly, there is a modern playground filled with new and innovative equipment that steer away from conventional models.

Connectivity: The park is well connected amongst the varying resources it provides. The park is accessible and easy to locate and use leisurely. The only downside is its proximity to a busy street.

Chance: This park looks like it has been well funded and provides a great service to the community. It is inviting and user-friendly. It is modern and free-spirited. Financial efforts would be best used towards different parks or recreational areas.

Clarity: This condition of this park is clear and presented confidently. This location has an appeal by its quality and above average standard.

Challenge: No serious challenge to this location. One surprising thing was the lack of basketball court. Although, there is enough area to add one in the future with little environmental impact if needed.