History of the rail yard committee

The rail yard committee was struck during the summer of 2016. Its first meeting was June 7, 2016. At the first meeting its members included myself, Ken Barnes, Art Coggan and Ray Hortness. By January 2017 Mike Dupuis, Don Harben and Trish Oberg joined the committee. A sub-committee named "Timeline committee" was struck in January, 2017 to determine how much work should be done during the first phase, also to create a budget. Members of this sub-committee included myself, Art Coggan and Mike Dupuis.

The railyard committee was to review the railyard boat storage capacity, by possibly relocating some rails, lengthening some rails and improvements to the drainage that should eliminate movement of the rails due to frost action.

A survey was completed of the rail yard in 2016 to get a handle on what is happening in the railyard. The southeast side (closest to the beach) rails have not shifted. Nor has the transfer rail. The N/W (Whitehouse side) side of the railyard tells a different story. It's been subject to significant frost heaving over the years, resulting in the rails rising by varying amounts. One rail rose over 16". This has resulted in many rails with sufficient grade to compromise the safe storage of boats. On other rails, the spikes that hold the rails to the ties have lifted significantly. In fact, the last two rails on the N/W side have lifted all their spikes.

Even though the summer of 2016 was a very dry and we could not have fires on the beach because of burning restrictions, the water table on the northwest side of the yard was high for the whole summer season.

Order of events

1. Test holes were done in the fall of 2015.These holes were in the N/W part or the rail yard. These test holes were covered with plywood so they could be monitored. Test holes show water levels anywhere from 8" – 21" below the top of the rails. Depending on the time of year. Summer being the lowest water level
2. Fall of 2016 we did exploratory excavation along the proposed routing of the culvert. Which was beside the existing culvert location. Found bedrock that was not allowing the N/W section of the rail yard to drain properly. Received a quote of $3,800.00 to blast the bedrock.
3. For the space between rails, we measured the cradle with the widest guide posts. After some math it was determined a 10' distance between rails would be the minimum so all boats can go on all rails. After measuring the yard, it was determined we would lose two rails with the 10' distance between the rails. One on each side of the transfer car rail. But since we are doing an offset of the rails, we would be gaining up to 10 boat spots. To take full advantage of rail off setting, all rails should be 60' in length to accommodate 2

larger boats. Due to the fact that the average length of boats are getting longer year after year.

4. The culvert should end at the water's edge at the higher high water level (which is 1.5 meters above chart datum). So we could monitor if the culvert is working properly. The culvert is 200' long. At a slope of 1/16" per foot (from the Standard Horizontal Drainage Pipe Slope for a pipe 8" or larger) the culvert would be 12" higher at the catch basin. The bottom of the culvert at the catch basin, would be 48" below the bench mark. It was determined that there was no need for a culvert on N/W side of the rail yard. Two 4" Weeping tiles would be used instead. One in the center of the rail and the other at the end of the rail. Running parallel to the transfer car rail. One dumping into the catch basin and the other into the culvert. Since the frost line is at 4', even though according to the Standard Horizontal Drainage pipe slope is 1/8" per foot for a pipe 3" – 6" we chose to use 1/16" per foot of slope. Due to the fact that we are beginning at the catch basin 48" below grade (bench mark) with a 1/8" slope for a 160' distance we would end up 20" higher. That would be 28" below grade, so we chose to use the 1/16" slope. Which will raise the drainage pipe 10". We will end up 38" below grade. Which is above the frost line. But since we wanted the water to drain, it was a compromise. The rest of the railyard will be draining west. When the distance below grade of the drain pipes are equal, determines the point where the drainage begins going east or west.
5. Behind the white house there is a mountain. When it rains or when the snow melts, the surface water runs into the railyard. This surface water brings fine material and silt into the rail yard and will eventually slow the draining of the rail yard. To prevent the surface water from entering the rail yard, a swale/ditch needs to be completed.
6. Approval of the first phase, of this multiyear project, was granted at the 2017 spring planning meeting, Phase one was to include blasting the bedrock. Excavating to the proper depth for the culvert, the short spur line and under the new position of rail #15. Once the culvert was put in place. on a graded bed of ¾" clear stone, two weeping tiles (one on each side of the culvert) were put in place. The two weeping tiles that go into the yard were also put in place, attaching one to the catch basin (after the catch basin was installed) and the other midway down the N/W rail. Then backfilled with 3" minus (Type B) aggregate. Topped with 6" – 8" of ¾" clear stone in the rail yard. The catch basin was installed. Rail #15 and the spur line were moved into place.
7. Approval of the second phase, of this multiyear project, was granted at the 2018 spring planning meeting. Phase one was done in house except for the blasting. Phase two was contracted out. NCYC prepared the sight by removing 4 rail sections and ties (an area 60 feet by 65 feet), Excavated a ditch 60' feet away from the transfer rail. This shows the contractor the outer edge of the excavation area. Found an electrical wire underground while we excavated. The contractor excavated an area 60' X 65' X 4'+/- down. The top 12" -16" was good material, so we kept that material. It's in the back forty. The clay was trucked away to the dump. NCYC then installed the weeping tile. Contractor backfilled around the weeping tile with ¾" clear stone to facilitate drainage. Then backfilled the excavated area with Type 2 "B'' aggregate to 6" from grade. Aggregate was applied in three uniform lifts, each lift compacted with a minimum of three passes with a vibrating plate or vibrating roller compactor. Then he applied top covering of 3⁄4' clear stone.

.When NCYC reinstalled the rails .The spacing between the rails was ten feet. Then we offset 3 rails on the other side of the transfer rail with a 10’ offset.

8. Approval of the budget for diverter ditch, extending the transfer rail and installing the short spur line was also approved at the spring planning meeting of 2018. Extending the transfer rail and installing the short spur line were completed. The diverter ditch was completed in 2019. It was contracted out. During that process bedrock was found by the N/E corner of the white house. This means that behind the white house and going west from that point, the surface water is still going into the railyard.