

April 25, 2023

Mr. Joe Roach, Town Manager
Town of Rangeley
15 School Street
Rangeley, Maine 04970

SUBJECT: Oquossoc Park Capital Improvement Plan

Dear Joe,

The Town's park in Oquossoc is now several years old and in need of improvements to make the park's features safe for citizens to use. One of the primary issues to be addressed is the condition of the tennis and basketball courts. Frost action over the years has caused the underlying large stones and boulders to rise to the surface resulting in an uneven playing surface. The town has identified some improvements they would like to undertake to upgrade the park and add new features.

To gain input from area citizens, an on-line survey was created and shared on the town website and Facebook pages. The most mentioned items people would like to see for improvements at the park include improving the tennis and basketball courts, adding lines on the courts for pickleball, adding benches and covered picnic tables, and adding some shade trees within the park area.

Descriptions of the improvements that are grouped into this capital improvement plan are presented below. A figure showing the proposed improvements is included as Appendix A.

Tennis, Basketball & Pickleball Courts

The existing tennis and basketball courts are in need of repairs as the surface of the courts have become uneven and cracks have developed due to frost moving larger stones and rocks towards the surface. There was overwhelming support for updating the courts and adding lines for pickleball in the survey responses.

To repair the courts, it is suggested to remove the top surface materials, add underdrain piping and replace the top 12-inches of material with a fine graded gravel and new surface material. There are a few options for surfaces on outdoor tennis/basketball/pickleball courts including a hard surface or clay surface. Clay surfaces are slightly easier on the human body as the surface helps absorb the ball bounce and allows the players to slide into position easier rather than having to come to a complete stop. Hard surface courts have lower energy absorption than clay courts which makes the ball bounce higher and move faster. However, the hard surface is more durable and costs less to maintain.

A standard pickleball court is 22-feet by 44-feet and requires an overall area of 30-feet by 60-feet for overruns. The existing tennis court is 60-feet by 120-feet and regulation size. Up to four pickleball court markings could be placed on the tennis court. Provisions would need to be made for the different net configurations should

pickleball courts be lined on the tennis court surface. The conceptual drawing shows one pickleball court in line with the tennis court configuration to minimize net assembly alterations to the court.

The basketball court is approximately 90-feet by 50-feet. The common outdoor court flooring is asphalt or concrete base with a court micro surface topcoat as it offers a smooth and unobstructed area and ideal ball bounce. If the basketball court was utilized for a pickleball court, only 1 court could be placed within the current footprint and additional court alterations would need to be made for net assembly.

The maintenance of the courts will allow maximum use over their lifespan. Yearly inspections should be done to ensure there are limited factors that could affect the playability or cause potential injury. Cleaning and power washing should be completed prior to opening the courts for use. The seasonal climate changes effect the courts which creates some cracking overtime. Resurfacing of the courts should be considered on a 8 to 10-year basis depending on condition of the surfaces.

Covered Pavilion

The Waterfront Park in downtown Rangeley has several pavilions over the picnic areas. The same structure can be added to Oquossoc Park to provide some shelter from rain or from hot sunny days. The survey responses generally favored 1 or 2 pavilions within the park area. Like the units at the waterfront park, the pavilions would be constructed on wood decking material or concrete pad. One pavilion will provide shelter to a standard picnic table while the other could provide a handicap accessible picnic table. All materials used for the pavilions picnic tables should match to provide continuity, ease of maintenance and match the Rangely aesthetics.

Playground Area

A larger playground received limited support in the survey results. Responders did note that some added amenities would be welcome such as shade trees near the equipment and some additional equipment for toddlers and kids of all ages, more swings, and additional wood chips or resilient materials surrounding the equipment. Given the overall size of the area, additional swings would not be feasible with the consideration of the other desired site amenities. A balancing beam, ABC log steps, and toddler spinning seat has been added to the conceptual plan along with a fence enclosure, safety surface rubber tiles and additional benches for caregivers. The rubber tile safety surface has been recommended due to the versatility, durability, and maintenance of the material. Though it is more expensive than mulch, it has a 12-15 year expected lifespan, requires minimal maintenance, reduces risk of splinters and swallowing/choking by young children. Photographs of the proposed playground equipment is included in Appendix B.

Parking and Walkways

Along Franklin Street there are three paved parking spots across from the public restrooms. Parking is also available along the gravel shoulders of Franklin Street towards Carry Road. A couple of spots are available from Rangeley Avenue which the town Public Services Department uses to maintain the park area. Four additional spaces could easily be accommodated along Franklin Street. A sidewalk would be established on the park side of the parking area and connected to Carry Road. Improvements to the parking and sidewalk configuration along Franklin Street will likely be addressed or at a minimum coordinated with the Oquossoc

Transportation Study. A defined walkway is proposed from the parking on Franklin to the playground area and covered pavilion.

Drainage Improvements

Soil conditions in Oquossoc village can be characterized as having poor soil conditions and a high groundwater table. Much of the area consists of fill materials. In the park area there is a wetland along the west property line and surface drainage has trouble reaching the enclosed drainage system along Carry Road and Franklin Street. The high groundwater conditions leads to frost buildup under the playing surfaces. As part of any work on the tennis and basketball courts, underdrains should be incorporated to reduce impacts from groundwater. Underdrains can also be considered within the park area and along the post and rail fence to facilitate drier surface conditions. Catch basins would also be added in Franklin Street along the proposed sidewalk to collect runoff and divert it to the enclosed drain system in Carry Road and by the Fire Station. In order to provide the proper pitch to the tennis court, a vegetated swale is recommended on the east side of the courts to capture stormwater runoff before it reaches the sidewalk or roadway.

Fencing

Fencing in the park area currently consists of a post and rail fence along the north property boundary towards Carry Road and a chain link fence surrounding the tennis court. The post and rail fence is in good condition, with a few sections that could use replacement. The tennis court fence is in fair condition with some posts out of plumb due to frost action.

The standard height for a tennis court is 10-feet. The majority of the tennis balls will bounce to the ends or corners of the court. At a minimum, high fence is required at each end, returning along the sides for a minimum of 20-feet. Due to the proximity of the road and adjacent court, it is recommended to continue fencing along the perimeter of the tennis court and provide two portal entrances on the west side.

The proposed fence enclosure at the playground is recommended to help caregivers while supervising their children while they play. It helps minimize the likelihood of children being easily abducted, running out near the adjacent roadway and deter balls striking children from the other surrounding park activities. It is recommended that the fence enclosure be a minimum of 4-feet in height, have a single patron gate, and a maintenance double gate for easier access. To reduce the risk of children climbing or getting stuck on the fence, the ASTM #F2049 fencing standard should be met. The conceptual estimate provides provisions for a powder coated chain-link fence as an economic option and meets design standards.

Proposed Schedule for Improvements

The improvements and modifications noted above must be planned and schedule over the next 10-year period. We have arranged the projects into 3 categories with Immediate Needs, 3 to 5 Year Needs, and 5 to 10 Year Needs. From a logistical standpoint it makes sense to complete the park improvements in phases beginning with the basketball and tennis courts, the playground area, and then the area between the playground and Franklin Street. The table below summarizes the suggested improvements and suggested priority. Detailed cost estimates are included in Appendix C.

4/25/2023

Mr. Joe Roach, Town Manager

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Table 1 CIP Implementation Plan & Estimated Costs

	1- Immediate Needs	2 – 3-5 Year Needs	3 – 5-10 Year Needs
Priority	Capital Item	Timeline for Implementation	Estimated Project Cost
1	Repair Tennis and Basketball Courts	2024	\$311,000
1	Tennis Court Fencing Improvements	2024	\$65,000
1	Underdrain additions (post and rail fence area) and evergreen buffer	2025	\$74,000
2	Franklin St Parking and Sidewalk	2026	\$65,000
2	Playground Equipment, Benches, Enclosure and Sidewalk	2027	\$277,000
3	Covered Pavilions & Picnic Tables & Shade Trees	2028	\$93,000

Please let us know if have any questions or comments regarding the proposed improvements.

Sincerely,

WRIGHT-PIERCE



Jeffrey D. Preble, PE
Regional Group Leader

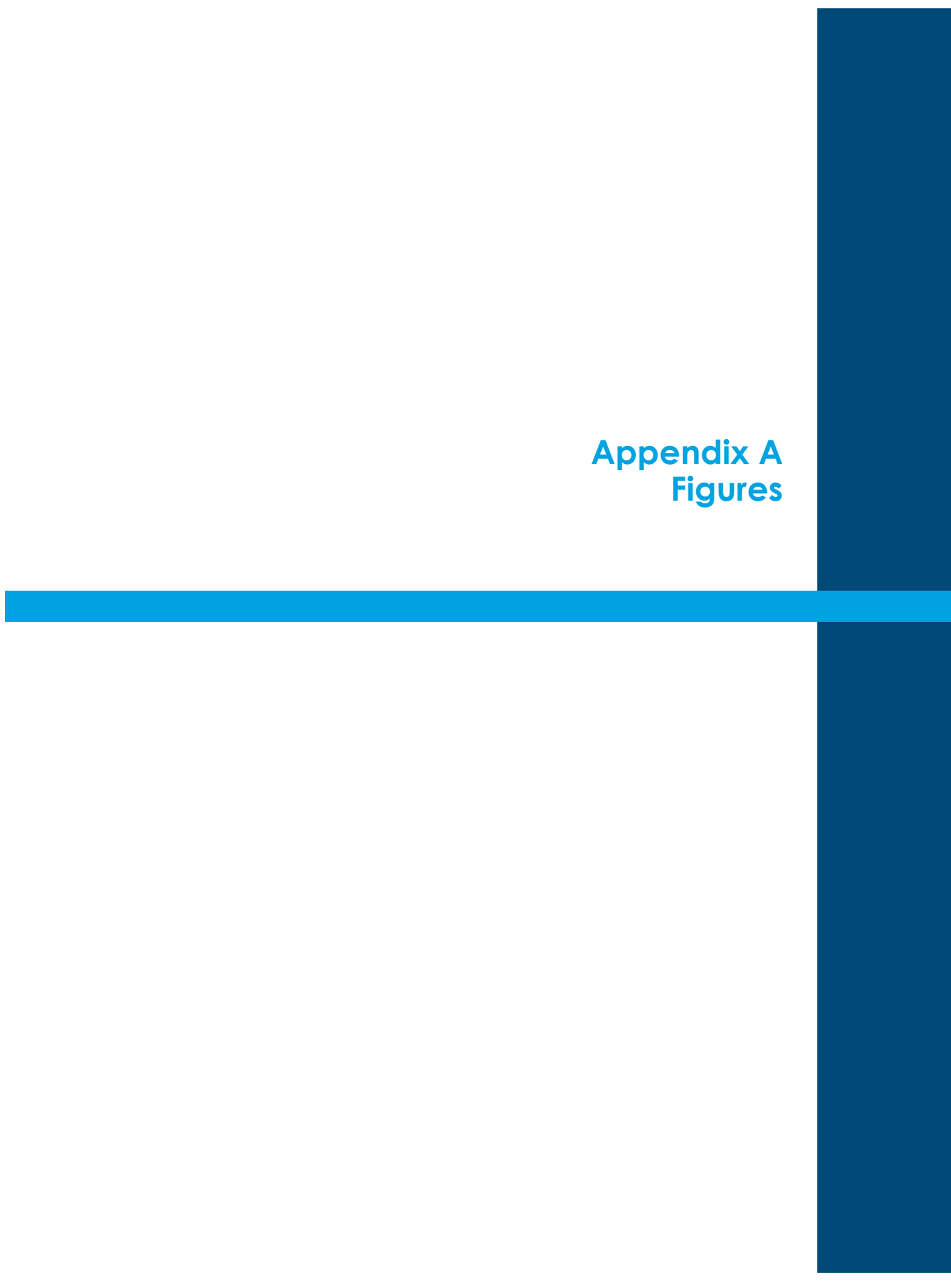
jeff.preble@wright-pierce.com



Kalle Maggio, PLA
Landscape Architect

kalle.maggio@wright-pierce.com

cc: Traci Pitt-Lavoie, Assistant Town Manager



Appendix A Figures

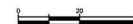


A horizontal number line with arrows at both ends. It is marked with the numbers 0 and 20. There are tick marks at intervals of 5 (0, 5, 10, 15, 20). The region between the tick marks for 10 and 15 is shaded in gray.

DRAWING	OQUOSSOC VILLAGE OQUOSSOC PARK RANGELEY, ME	 207.725.8721 www.wright-pierce.com 11 BOWEN HILL ROAD, SUITE 400, TOPSHAM, ME 05096	PROJECT NO: 10882 DRAWN BY: K.MAGGIO CHECKED BY: R.BUDAW CAD: K.MAGGIO DATE: 3-13-2023 APPROVED: J.PIERRE SCALE: 1/8" = 1'-0" REVISIONS: 000 REDRAW	NO REVISIONS	APPD DATE



PHASE 2



DRAWING	OQUOSSOC VILLAGE OQUOSSOC PARK RANGELEY, ME	 WRIGHT-PIERCE 207.725.8721 www.wright-pierce.com 11 BOWEN HILL ROAD, SUITE 400, TOPSHAM, ME 05096	PROJECT NO: 10882 DRAWN BY: K.MAGGISO CHECKED BY: K.MAGGISO DATE: 3-13-2023 APPROVED: J.PIERRE SCALE: AS SHOWN REVISIONS: 500-REWORK	NO REVISIONS	APPD DATE

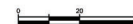


A horizontal number line with arrows at both ends. It is marked with the numbers 0 and 20. There are tick marks at intervals of 5 (0, 5, 10, 15, 20). The region between the tick marks for 10 and 15 is shaded in gray.

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PHASE 4



DRAWING	OQUOSSOC VILLAGE OQUOSSOC PARK RANGELEY, ME	 WRIGHT-PIERCE 207.725.8721 www.wright-pierce.com 11 BOWEN HILL ROAD, SUITE 400, TOPSHAM, ME 05096	PROJECT NO: 10882 DESIGNED: K. MAGGIO CHECKED: J. PERRE DATE: 3-13-2023 APPROVED: J. PERRE SCALE: AS SHOWN REVISIONS: 000 REVIEW	NO REVISIONS	APPD DATE
	CONCEPT PLAN				



A horizontal number line with arrows at both ends. It is marked with the numbers 0 and 20. A thick black line segment is drawn between the numbers 10 and 15, representing the interval $10 \leq x \leq 15$.

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Appendix B Site Amenities

Proposed Site Amenities



Pavilion by Rangeley



Rubber Tile Safety Surface by Burke ([BCI Burke Commercial Playground Equipment](#))



Balancing Beam by Burke ([BCI Burke Commercial Playground Equipment](#))



Stepping Pods or ABC Trail by Burke ([BCI Burke Commercial Playground Equipment](#))



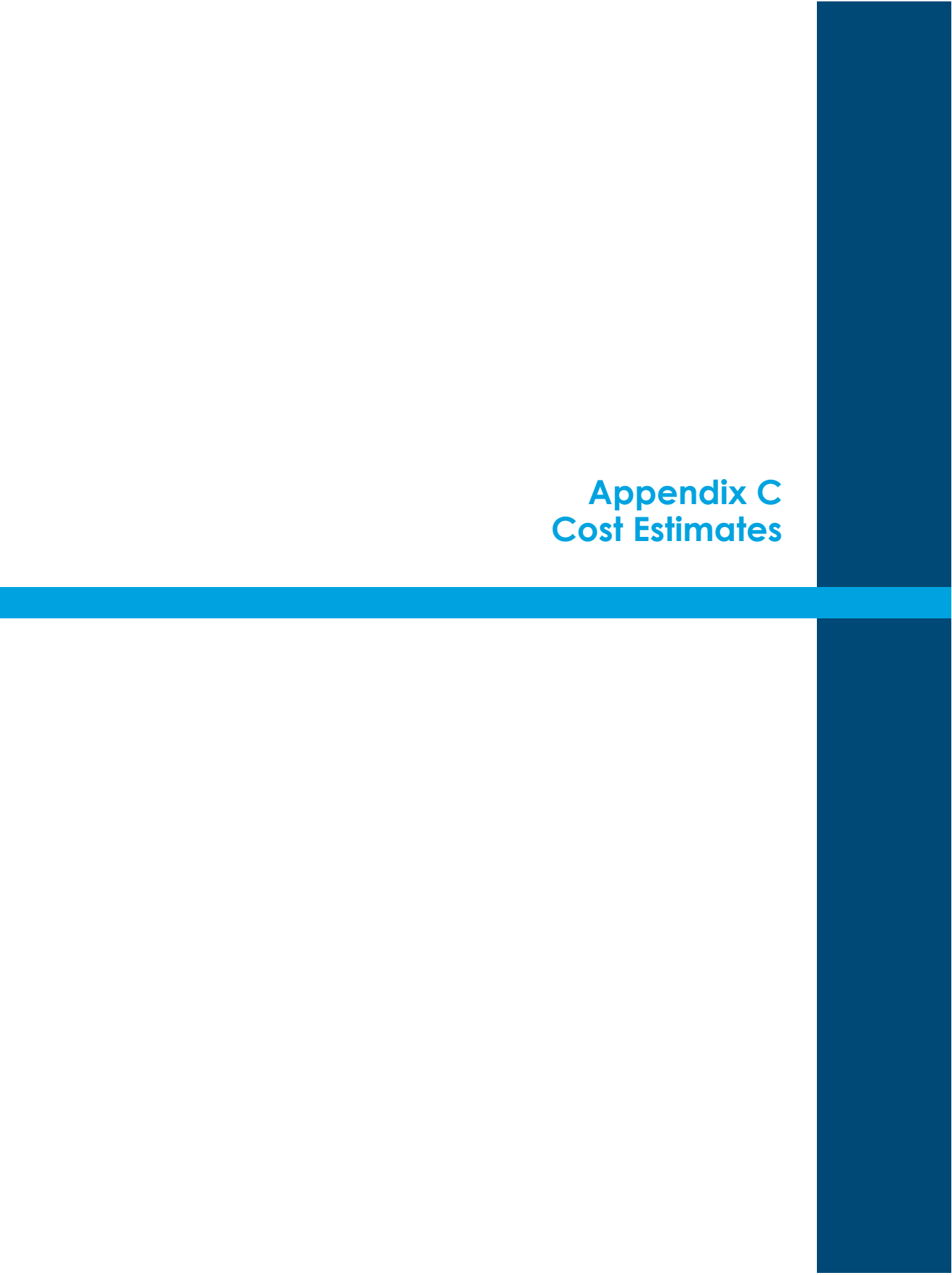
Toddler Spinner by Burke ([BCI Burke Commercial Playground Equipment](#))



Benches by Park Warehouse ([Park Warehouse: Benches, Picnic Tables, Bike Racks, Bleachers](#))



Trash Receptacle by Park Warehouse ([Park Warehouse: Benches, Picnic Tables, Bike Racks, Bleachers](#))



Appendix C Cost Estimates

TOWN OF RANGELEY OQUOSSOC PARK IMPROVEMENTS

ENGINEER'S CONCEPT ESTIMATE - PHASE 1

DATE: 03/06/23

ITEM #	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	AMOUNT
	CLEARING & GRUBBING	LS	\$2,000.00	1	\$2,000.00
	MOBILIZATION (4%)	LS	\$9,800.00	1	\$9,800.00
	UNCLASSIFIED EXCAVATION	CY	\$50.00	340	\$17,000.00
	SELECT FILL	CY	\$67.00	250	\$16,750.00
	SMOOTH INTERIOR CORRUGATED POLYETHYLENE DRAINAGE PIPE - 6" DIA.	LF	\$50.00	530	\$26,500.00
	COURT SURFACE	SY	\$68.00	1,450	\$98,600.00
	COURT PAVEMENT MARKINGS	LF	\$2.00	2,500	\$5,000.00
	TENNIS COURT EQUIPMENT	EA	\$5,000.00	1	\$5,000.00
	WORK ZONE TRAFFIC CONTROL (2%)	LS	\$4,900.00	1	\$4,900.00
	POLYOLEFIN COATED CHAIN LINK FENCING 8' HIGH (TENNIS COURT)	LF	\$160.00	371	\$59,360.00
	DRYBOUND BASE COURSE	CY	\$77.00	240	\$18,480.00
	TEST HOLES	EA	\$1,000.00	1	\$1,000.00
	SURVEY AND LAYOUT (1%)	SY	\$2,450.00	1	\$2,450.00
	SILT FENCE	LF	\$7.50	940	\$7,050.00
	SILT PROTECTION FOR SURFACE INLET DRAINAGE STRUCTURES	EA	\$285.00	1	\$285.00
	TOPSOIL AND SEED	SY	\$26.00	555	\$14,430.00
SUBTOTAL					\$288,605.00
30% CONTINGENCY					\$86,581.50
TOTAL:					\$375,186.50

ENGINEER'S COST ESTIMATE ROUNDED	\$376,000.00
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TOWN OF RANGELEY OQUOSSOC PARK IMPROVEMENTS

ENGINEER'S CONCEPT ESTIMATE - PHASE 2

DATE: 03/06/23

ITEM #	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	AMOUNT
	CLEARING & GRUBBING	LS	\$1,000.00	1	\$1,000.00
	MOBILIZATION (4%)	LS	\$1,800.00	1	\$1,800.00
	UNCLASSIFIED EXCAVATION	CY	\$50.00	60	\$3,000.00
	SMOOTH INTERIOR CORRUGATED POLYETHYLENE DRAINAGE PIPE - 12" DIA.	LF	\$100.00	70	\$7,000.00
	SMOOTH INTERIOR CORRUGATED POLYETHYLENE DRAINAGE PIPE - 6" DIA.	LF	\$50.00	180	\$9,000.00
	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	EA	\$750.00	1	\$750.00
	4-FT X 6-FT ROUND CATCH BASIN + GRATE	EA	\$4,500.00	1	\$4,500.00
	WORK ZONE TRAFFIC CONTROL (2%)	LS	\$900.00	1	\$900.00
	TEST HOLES	EA	\$1,000.00	1	\$1,000.00
	SURVEY AND LAYOUT (1%)	SY	\$450.00	1	\$450.00
	SILT FENCE	LF	\$7.50	400	\$3,000.00
	SILT PROTECTION FOR SURFACE INLET DRAINAGE STRUCTURES	EA	\$285.00	1	\$285.00
	PLANTING MAJOR EVERGREEN TREES	EA	\$1,200.00	10	\$12,000.00
	TOPSOIL AND SEED	SY	\$26.00	444	\$11,544.00
SUBTOTAL					\$56,229.00
30% CONTINGENCY					\$16,868.70
TOTAL:					\$73,097.70

ENGINEER'S COST ESTIMATE ROUNDED	\$74,000.00
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TOWN OF RANGELEY OQUOSSOC PARK IMPROVEMENTS

ENGINEER'S CONCEPT ESTIMATE - PHASE 3

DATE: 03/06/23

ITEM #	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	AMOUNT
	CLEARING & GRUBBING	LS	\$1,000.00	1	\$1,000.00
	MOBILIZATION (4%)	LS	\$1,800.00	1	\$1,800.00
	UNCLASSIFIED EXCAVATION	CY	\$50.00	90	\$4,500.00
	SMOOTH INTERIOR CORRUGATED POLYETHYLENE DRAINAGE PIPE - 12" DIA.	LF	\$100.00	70	\$7,000.00
	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	EA	\$750.00	1	\$750.00
	SCREENED GRAVEL, LOOSE MEASURE	CY	\$67.00	40	\$2,680.00
	ASPHALT CONCRETE TYPE 1A TOP & BINDER	TON	\$235.00	40	\$9,400.00
	4-FT X 6-FT ROUND CATCH BASIN + GRATE	EA	\$4,500.00	1	\$4,500.00
	WORK ZONE TRAFFIC CONTROL (2%)	LS	\$900.00	1	\$900.00
	DRYBOUND BASE COURSE	CY	\$77.00	50	\$3,850.00
	TEST HOLES	EA	\$1,000.00	1	\$1,000.00
	SURVEY AND LAYOUT (1%)	SY	\$450.00	1	\$450.00
	EROSION CONTROL JUTE MESH (VEGETATIVE SWALE)	SY	\$9.00	204	\$1,836.00
	SILT FENCE	LF	\$7.50	200	\$1,500.00
	SILT PROTECTION FOR SURFACE INLET DRAINAGE STRUCTURES	EA	\$285.00	2	\$570.00
	TOPSOIL AND SEED	SY	\$26.00	302	\$7,852.00
SUBTOTAL					\$49,588.00
30% CONTINGENCY					\$14,876.40
TOTAL:					\$64,464.40

ENGINEER'S COST ESTIMATE ROUNDED	\$65,000.00
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TOWN OF RANGELEY OQUOSSOC PARK IMPROVEMENTS

ENGINEER'S CONCEPT ESTIMATE - PHASE 4

DATE: 03/06/23

ITEM #	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	AMOUNT
	CLEARING & GRUBBING	LS	\$2,000.00	1	\$2,000.00
	MOBILIZATION (4%)	LS	\$7,550.00	1	\$7,550.00
	UNCLASSIFIED EXCAVATION	CY	\$50.00	130	\$6,500.00
	SCREENED GRAVEL, LOOSE MEASURE	CY	\$67.00	30	\$2,010.00
	WORK ZONE TRAFFIC CONTROL (2%)	LS	\$3,800.00	1	\$3,800.00
	POLYOLEFIN COATED CHAIN LINK FENCING 4' HIGH (PLAYGROUND ENCLOSURE)	LF	\$90.00	276	\$24,840.00
	POLYOLEFIN COATED CHAIN LINK SINGLE GATE (PLAYGROUND ENCLOSURE)	EA	\$2,890.00	2	\$5,780.00
	POLYOLEFIN COATED CHAIN LINK DOUBLE GATE (PLAYGROUND ENCLOSURE)	EA	\$5,780.00	1	\$5,780.00
	DRYBOUND BASE COURSE	CY	\$77.00	100	\$7,700.00
	TEST HOLES	EA	\$1,000.00	1	\$1,000.00
	SURVEY AND LAYOUT (1%)	SY	\$1,900.00	1	\$1,900.00
	SILT FENCE	LF	\$7.50	730	\$5,475.00
	SILT PROTECTION FOR SURFACE INLET DRAINAGE STRUCTURES	EA	\$285.00	2	\$570.00
	TOPSOIL AND SEED	SY	\$26.00	611	\$15,886.00
	SAFETY SURFACE - 4' FALL HEIGHT (PLAYGROUND)	SF	\$18.00	3,875	\$69,750.00
	SAFETY SURFACE - 8' FALL HEIGHT (PLAYGROUND)	SF	\$22.00	1,000	\$22,000.00
	BENCH (PLAYGROUND)	EA	\$2,400.00	3	\$7,200.00
	LITTER RECEPTACLE	EA	\$1,700.00	2	\$3,400.00
SUBTOTAL					\$193,141.00
30% CONTINGENCY					\$57,942.30
**ADDITIONAL PLAYGROUND EQUIPMENT CONTINGENCY					\$25,000.00
TOTAL:					\$276,083.30

ENGINEER'S COST ESTIMATE ROUNDED	\$277,000.00
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TOWN OF RANGELEY OQUOSSOC PARK IMPROVEMENTS

ENGINEER'S CONCEPT ESTIMATE - PHASE 5

DATE: 03/06/23

ITEM #	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	AMOUNT
	CLEARING & GRUBBING	LS	\$2,000.00	1	\$2,000.00
	MOBILIZATION (4%)	LS	\$2,700.00	1	\$2,700.00
	UNCLASSIFIED EXCAVATION	CY	\$50.00	140	\$7,000.00
	SCREENED GRAVEL, LOOSE MEASURE	CY	\$67.00	20	\$1,340.00
	WORK ZONE TRAFFIC CONTROL (2%)	LS	\$1,350.00	1	\$1,350.00
	TEST HOLES	EA	\$1,000.00	1	\$1,000.00
	SURVEY AND LAYOUT (1%)	SY	\$700.00	1	\$700.00
	SILT FENCE	LF	\$7.50	440	\$3,300.00
	SILT PROTECTION FOR SURFACE INLET DRAINAGE STRUCTURES	EA	\$285.00	1	\$285.00
	PLANTING MAJOR DECIDUOUS TREES	EA	\$1,000.00	2	\$2,000.00
	TOPSOIL AND SEED	SY	\$26.00	733	\$19,058.00
	PICNIC TABLES (PAVILION)	EA	\$3,600.00	1	\$3,600.00
	PICNIC TABLES - ACCESSIBLE (PAVILION)	EA	\$3,800.00	1	\$3,800.00
	LITTER RECEPTACLE	EA	\$1,700.00	2	\$3,400.00
	PAVILION	EA	\$10,000.00	2	\$20,000.00
SUBTOTAL					\$71,533.00
30% CONTINGENCY					\$21,459.90
TOTAL:					\$92,992.90

ENGINEER'S COST ESTIMATE ROUNDED	\$93,000.00
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