



CITY OF NORTHFIELD

MEADOWS PARK MASTER PLAN

September 1, 2015



DESIGN TEAM



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BACKGROUND

HISTORY OF AREA

The Meadows Park study area consists of 41.7 acres of land in the southeast corner of the City of Northfield

The land designated for park development was previously preliminary platted as Fargaze Meadows Outlets C & D, single-family development. These two parcels of land were acquired by the City of Northfield through land forfeiture proceedings on July 1, 2013. The land consists of existing agricultural land surrounded by single-family homes, a stormwater pond and adjacent spoils pile and other agricultural land to the east and south.



VISION FOR PARK

The Park and Recreation Advisory Board (PRAB) was designated as the lead for the planning process. A Request For Proposal (RFP) for the park was developed and SRF Consultants w/ Paul Miller Design, Inc. were selected to complete the park master plan. This goal statement was included in the RFP:

"The City of Northfield seeks to prepare a park master plan for Fargaze Meadows Outlots C & D ("The Meadows") which provides an attractive, functional, multipurpose, multiseasonal community park which addresses long term stormwater management, transportation infrastructure, and other elements as appropriate through cooperative engagement with and input gathering from citizens, boards/commissions and other community groups."

SRF/PMDI stated in their proposal for the park master plan:

The Meadows Park Master Plan is an opportunity for a significant new park development that should reflect the strong planning efforts made previously to insure that the City of Northfield remains a great place to live. Our goal is to provide a park master plan that meets the *Community Values Statement* established in the Park System Master Plan, completed in 2008:

"Preserve the sense of place and livability of the community while accommodating growth and evolving recreational and social trends."

Critical Factors:

- Addressing neighborhood concerns with flooding and run off
- Incorporating stormwater management strategies including expanded pond and bio-retention components and buffer treatments that enhance the site's ability to reduce runoff through the surrounding residential area
- Taking advantage of partnership opportunities throughout the planning and development process
- Communicating how the plan reflects the input and established goals for stakeholder groups

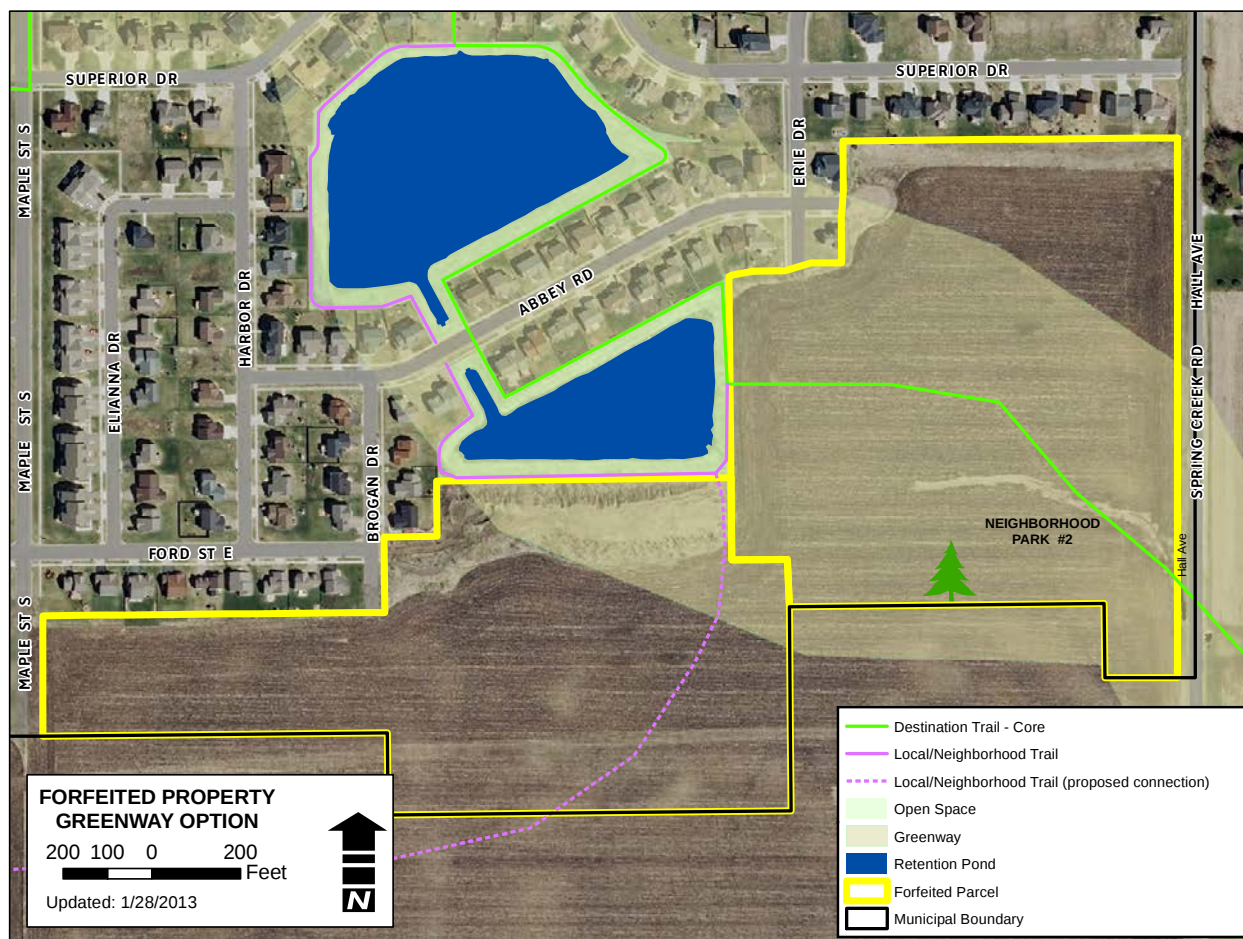
Comprehensive Goals

The design of Meadows Park should incorporate the community wide goals established in the comprehensive park plan that include:

- Developing a greenway corridor
- Developing a comprehensive trail system
- Maintaining a sound working relationship with St. Olaf and Carleton Colleges and their trail systems

SITE CONDITIONS

The existing site consists of a total of 41.7 acres of agricultural land on the south end of the City of Northfield. The watershed area that contributes to the existing stormwater pond through the park site is 522 acres. Soils are predominantly silty loam and silty clay loam. Slopes vary from 0 – 1% in the middle half of the site adjacent to the existing storm water pond to 4% - 10% slopes on the outer southern and eastern portions of the site. A large pile of spoils south of the existing pond features steep slopes of 3:1 or greater. The only trees on the site are volunteer trees that have naturalized on the existing spoils pile. The majority of the land is actively cultivated for agricultural use. (refer Existing Site Conditions Map, Appendix)



PROGRAM DEVELOPMENT

STAFF INPUT AND DIRECTION

Initial meetings with City of Northfield staff established the park planning process. During these meetings staff established the planning parameters to be researched by the consultant/staff work group as necessary to develop a park master plan that met the criteria established in existing City of Northfield planning documents as identified below.

PLANNING REVIEW

The following major planning documents were utilized to establish parameters for the park design:

2008 COMPREHENSIVE PLAN / 12 Land Development Principles
Greater NORTHFIELD AREA GREENWAY SYSTEM ACTION PLAN
Northfield PARKS, OPEN SPACE AND TRAIL SYSTEM PLAN
Comprehensive TRANSPORTATION PLAN UPDATE
Gateway Corridor Improvement Plan
Natural Resources Inventory
Surface Water Management Plan
SPRING CREEK WATERSHED UPDATE
2013 LAND DEVELOPMENT CODE



PUBLIC ENGAGEMENT

Input from Meadows Park neighbors and Northfield residents related to park programming and park layout were solicited at public meetings on November 19, 2014 and February 11, 2015.

During the public input process the following questions were asked and the responses collected for use in establishing the park program (refer appendix):

1. What other parks have you enjoyed visiting and what did you like about them?
2. What types of park programming and amenities would you like to see accommodated at Meadows Park?
3. Are there any park activities or amenities you feel would not be appropriate for Meadows Park?

BOARD/COMMISSION INPUT

The following groups were consulted throughout the planning process.

PARK AND RECREATION ADVISORY BOARD (PRAB), November 20, 2014, February 19, 2015
CITY COUNCIL, - October 28, 2014, January 27, 2015, July 14, 2015
HOUSING AND REDEVELOPMENT ASSOCIATION – April 13, 2015
ECONOMIC DEVELOPMENT AUTHORITY – April 16, 2015
PLANNING COMMISSION – April 23, 2015

PARK DESIGN PROCESS

A motion was passed by the PRAB on November 20, 2014 to develop Meadows Park as an ‘active community wide park to encompass a broad spectrum of age groups and year round activities.’

ROAD CONNECTIONS / ADJACENT LAND USE

Initially the park site was evaluated with respect to future road connections and park access. Alternative road layout plans were evaluated. The design parameters for locating proposed roads was to provide connectivity with existing roads, work within an established grid pattern as much as possible and not segment the park property with an access road through the park. Three alternative roadway plans were

presented to City Council on January 28, 2015. The City Council directed the consultant team to utilize roadway layout 3, which would connect Ford Street to Hall Avenue and keep the park free of any roads that would segment the property.

ALTERNATIVE LAYOUTS A, B, & C

Alternative park plans were developed to explore park uses and adjacent property development. The plans indicate the development of adjacent land uses, road, trail, buffer and stormwater connections. The plans will indicate trail locations, natural areas, buffer treatments, water features, picnic areas, parking, passive and active play areas, maintained play areas and landscape plantings.

All three alternatives include:

- Residential development on the north part of the site with the extension of Abbey Road
- The future extension of Ford Street through to Hall Avenue as established in the roadway layout planning
- Stormwater management as a key component of the park's development and layout form
- Native buffer plantings are indicated on the exterior of the park
- The major land feature of the existing spoils pile is featured as a dramatic overlook as a key opportunity in the development of the site.

Specifically the alternatives feature:

Alternative A, *Prairie Potholes*, features a series of small wetlands “potholes” throughout the park. Key features include three parking areas for multiple access points, active playground areas, maintained open space, community gardens/education area and native plantings on the periphery of the site.

Alternative B, *Meandering Streams*, features streams that reflect drainage patterns and meander from high points to lower ponding areas. It also features the development of Frisbee and foot golf courses as major recreational components of the 33.1 acre park. An amphitheater and expanded stormwater pond are additional site features. Parking is located off of Erie Drive and Ford Street. The existing spoils pile is developed with trails and a park building overlooking the pond and amphitheater. Active play areas exist near both entrance areas serve as easily accessible neighborhood play areas for children living near by.

Alternative C, *Winter Wonderland*, features a large new pond area surrounded by maintained open play and active play areas. The park is segmented in three areas that have parking and defined uses adjacent to the parking area. Each area stands alone as a park within a park but is connected to the larger park with trails, creek crossings and consistent landscape plantings and native area buffers to create a harmonious large-scale destination park. Alternative C highlights winter uses with potential ice-skating, sledding and cross-country skiing uses.

At the second public meeting on February 11, 2015, an overview of the project to date along with alternative plans A, B and C were presented for discussion and feedback provided by those in attendance regarding the park layouts, proposed recreational uses and thematic content.

A similar overview of the project to date and a presentation of alternative plans A, B and C was given to the Park and Recreation Advisory Board on February 18, 2015. PRAB members raised concerns about not using the entire parcel of land for park uses.

ALTERNATIVE LAYOUT D

Alternative D, Cascading Waters, was developed in response to neighbor's comments regarding the development of housing on the 4.7 areas in the northeast part of the study area. D is an expansion of Concept C that expands the park into the area shown for future residential development in alternatives A, B, and C. It also establishes wetlands associated with existing drainage through the site as stormwater storage and water quality enhancement. Similar to alternative C, alternative D works effectively as three separate parks within the larger park footprint. It features additional open green space in the northeast area. It also includes a 4th entrance and parking area at the northeast corner off of Hall Avenue with an associated picnic area and overlook on one of the high points of the park.

ALTERNATIVE LAYOUTS 1 & 2

At the direction of staff Alternatives C & D were further developed into Alternatives 1 and 2, that were presented to City Council in a work session on July 14, 2015 as the preferred options regarding programmatic features and design layout for park development.

Alternative 1 features the park program and larger footprint of Alternative D (includes park development on the north east 4.6 acres)

Alternative 2 (ALTERNATIVE C) features residential development on the northeast 4.6 acres of the site. Features in the park include the wetland pond system established in Alternative D, trails with bridge crossings over seasonally wet creek channels. Low maintenance turf and native plantings make up half of the site.

FINAL MASTER PLAN / ADJACENT LAND USE / 4.6 ACRE PARCEL TURNBACK

The Final Master Plan features future residential development on the northeast 4.6 acres of the site and along the re-defined southern boundary of the park. The final park property consists of 34.0 acres. The property lines should be adjusted during the phasing process to reflect the proposed park site boundaries and adjacent complementary future road and residential development.

The major access points at three locations (Ford Street, Erie Drive and Hall Avenue) help define three distinct park areas that would serve the surrounding neighborhoods. The main access points at Ford Street and Erie Drive would be complemented by small parking lots and park uses in an area of approximately 10 acres adjacent to the parking. Active play areas, picnic, maintained open space and trail connections effectively create a neighborhood park feel to these smaller activity areas within the larger park.

Central features off the master plan:

- The overlook on the re-shaped spoils pile with trail access and park building provide an elevated focal point for the park with dramatic off site and park area views.
- The construction of a new pond in the center of the park will be a central feature in the park and an opportunity to stage storm water runoff through buffer areas and wetlands for improved storm water storage retention and storm water runoff quality.
- The development of an amphitheater off the Hall Avenue entrance drive will provide a destination feature with access away from existing residential areas.
- Park buildings in two locations provide the opportunity to develop community gathering areas with the ability to host events that connect to new activities and existing events in Northfield like the Defeat of Jesse James Days and the Vintage Band Festival.

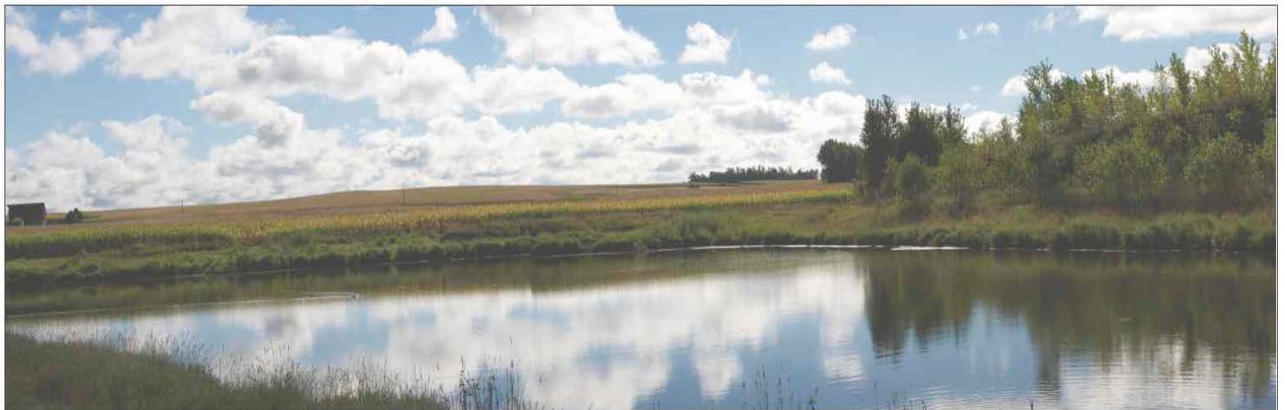
- The extensive trail system will allow for the development of alternative trail uses including recreational biking, walking, and mountain biking.
- Numerous bridge crossings within the trail system will offer active engagement with the water features throughout the park.
- 17 acres of low maintenance areas surround the active use maintained areas to define the active vs. passive areas of the park.
- The overall scale of the park allows for areas of large open space to accommodate active uses such as informal soccer, baseball and Frisbee.
- Within the park intimate spaces would be provided throughout for picnicking, enjoying views and smaller group gatherings.

All season appeal is anticipated with winter uses including sledding, skating and cross-country skiing opportunities. Paved and unpaved trails throughout the site will take advantage of existing and enhanced topography with hills, and will traverse maintained turf areas, prairie areas, water features and low maintenance turf areas. Park trails at entrance areas are intended to connect to regional trails that will link the park to the greater Northfield park and trail system.

DESCRIPTION OF PHASES

The Phasing Plan provides for the development of a passive recreational park with trails, parking and maintained open play area and community gardens (as Phase 1, with parts 1A, 1B, 1C and 1D that is based on a five-year implementation strategy.

The longer range phasing plan, phases 2, 3 and 4, incorporates active uses into the Meadows Park that make the park more of a regional park with buildings, amphitheater, paved and un-paved trails, bridges, active play areas and dramatic overlooks.



FUTURE STORMWATER PLANNING

A large factor in the development of the park is to provide stormwater retention and water quality treatment on the site. Half of the site's 34 acres will be low maintenance turf or native prairie planting areas. Stormwater from surrounding residential development will be directed through the park site and filtered through the native areas and wetlands / drainage system into the new and existing ponds.

PLAN IMPLEMENTATION

CONSTRUCTION COSTS

Construction cost estimates have been provided for construction of the final plan in its entirety and for the construction of the park in phases. Although there are some redundancies in costs for project start up and mobilization the savings generated by doing the project in its entirety are not so great as to prohibit a phased approach that fits with the short and long term capital improvements planning process for the City of Northfield.

Costs are provided for 7 phases of park development. Construction costs for phases 1A – 1D are modest, in the \$60,000 - \$155,000 range. Construction costs for phases 2 – 4 are in the \$750,000 – \$1.3 million range.

PHASING STRATEGIES

The phases proposed for Meadows Park are based on the programmatic goals for the park, adjacent development opportunities, existing available funds, and compatibility with other parks in Northfield.

Phase 1 consists of investing in a more passive park that would be developed into the full 34 acres with adjusted property lines at the completion of phases 1A, 1B, 1C, and 1D. The resulting 34 acre park would feature parking areas off of Ford Street and Erie Drive, mowed grass trails, a community garden space and 9.2 acres of maintained green space.

Implementation of Phases 2, 3 and 4 will result in more significant park features, paved parking and trails and full development of active play and park use areas. Each phase will complement the prior work done on the park to create a useable 34-acre park, at all times after phase 1, with enhanced park features and uses after each subsequent phase is completed. Adjacent residential development could be phased to complement the park development phases.

OPERATIONAL STRATEGIES & COST

The costs of operations have been projected for the various phases of development. In general terms the phase 1 operations costs are projected at approximately \$1,000 per acre per year. The final park, with additional features, would operate at a cost of approximately \$2,000 per acre per year depending on the final build out. Operations costs by phase are provided (see Appendix)

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APPENDIX

PUBLIC INPUT FOR USES, from November 18, 2014 meeting

Desired Uses

Boardwalks
Community gardens
Unpaved trails
Water connections/access
Bike Pump Park
Mountain biking
XC ski trails
Amphitheater
Picnic tables/Shade Shelters
Shelter / bathrooms / heating / changing rooms/grilling station (4 season)
Educational plantings / succession
Trails (natural surface)
Sledding
Ice Skating
Winter Wonderland
Destination Playground
Creative/natural play area
Dry river wash
Parking / unpaved parking
Camping
Expand pond
Loop trail system
Wedding/concert venue
Planting trees as part of donor program
Paved trail around pond for accessibility
Lighting for winter activities
2 smaller parking lots vs. one large lot
Maintain swale as informal play area
Naturalize area for school education use

Not Desirable

Houses
Formal athletic fields
Minimize road disturbance to park
Keep traffic circulation out of neighborhood

MATRIX OF PARK USES, for Park Master Plan Alternatives A, B, and C

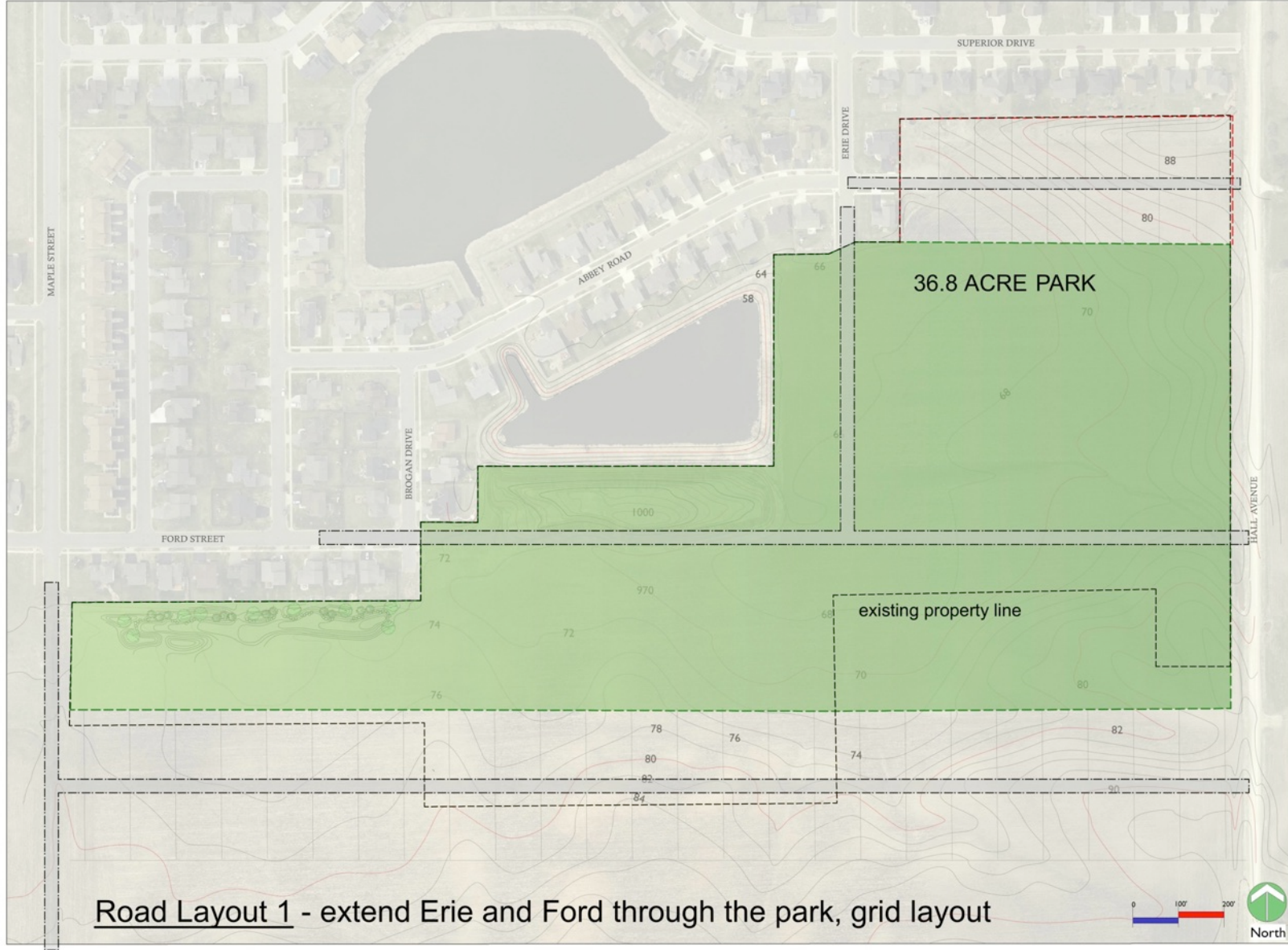
Uses	Concept A	Concept B	Concept C
Boardwalks	X	X	
Community gardens	X		
Unpaved trails	X	X	X
Water connections/access	X	X	X
Bike Pump Park		X	
Mountain biking	X	X	X
XC ski trails	X	X	X
Amphitheater		X	X
Picnic tables/Shade Shelters	X	X	X
Shelter	X	X	X
(bathrooms / heating / changing rooms/grilling station /4 season)			
Educational plantings / succession	X		
Trails (natural surface)	X	X	X
Sledding	X		X
Ice Skating	X	X	X
Winter Wonderland			X
Destination Playground	X	X	X
Creative/natural play area			X
Dry river wash	X	X	X
Parking	X	X	X
Unpaved parking			X
Camping			
Expand pond	X	X	X
Loop trail system	X	X	X
Wedding/concert venue	X	X	X
Planting trees as part of donor program	X	X	X
Paved trail around pond for accessibility	X	X	X
Lighting for winter activities			
2 smaller parking lots vs. one large lot			X
Maintain swale as informal play area	X	X	X
Naturalize area for school education use	X		
Soccer potential	X	X	X
Foot golf		X	
Frisbee golf		X	

PLANS

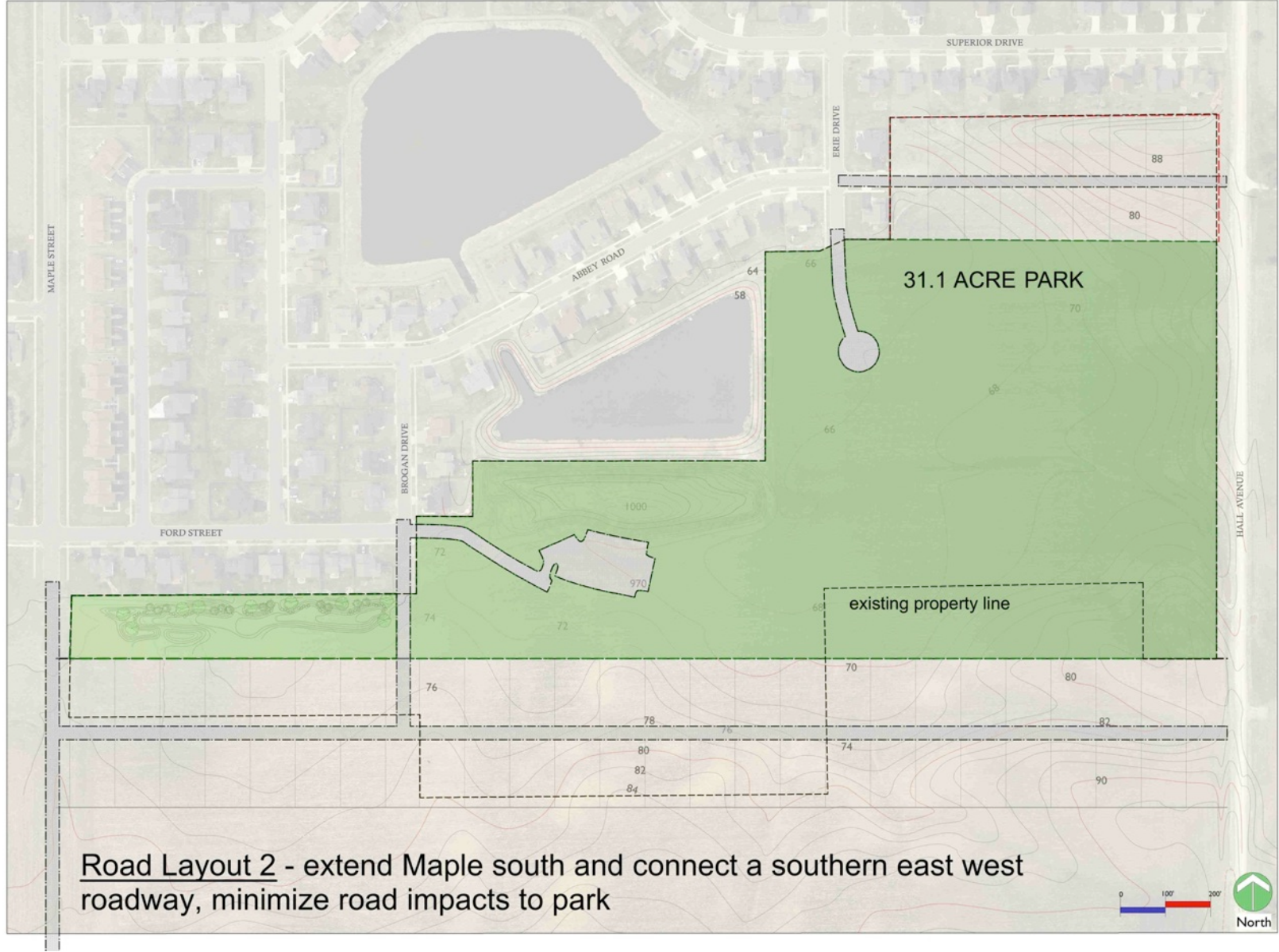


	PROJECT Meadows Park	SHEET DESCRIPTION EXISTING CONDITIONS PLAN			DATE: OCTOBER 28, 2014 SHEET 1 OF 5 SHEETS
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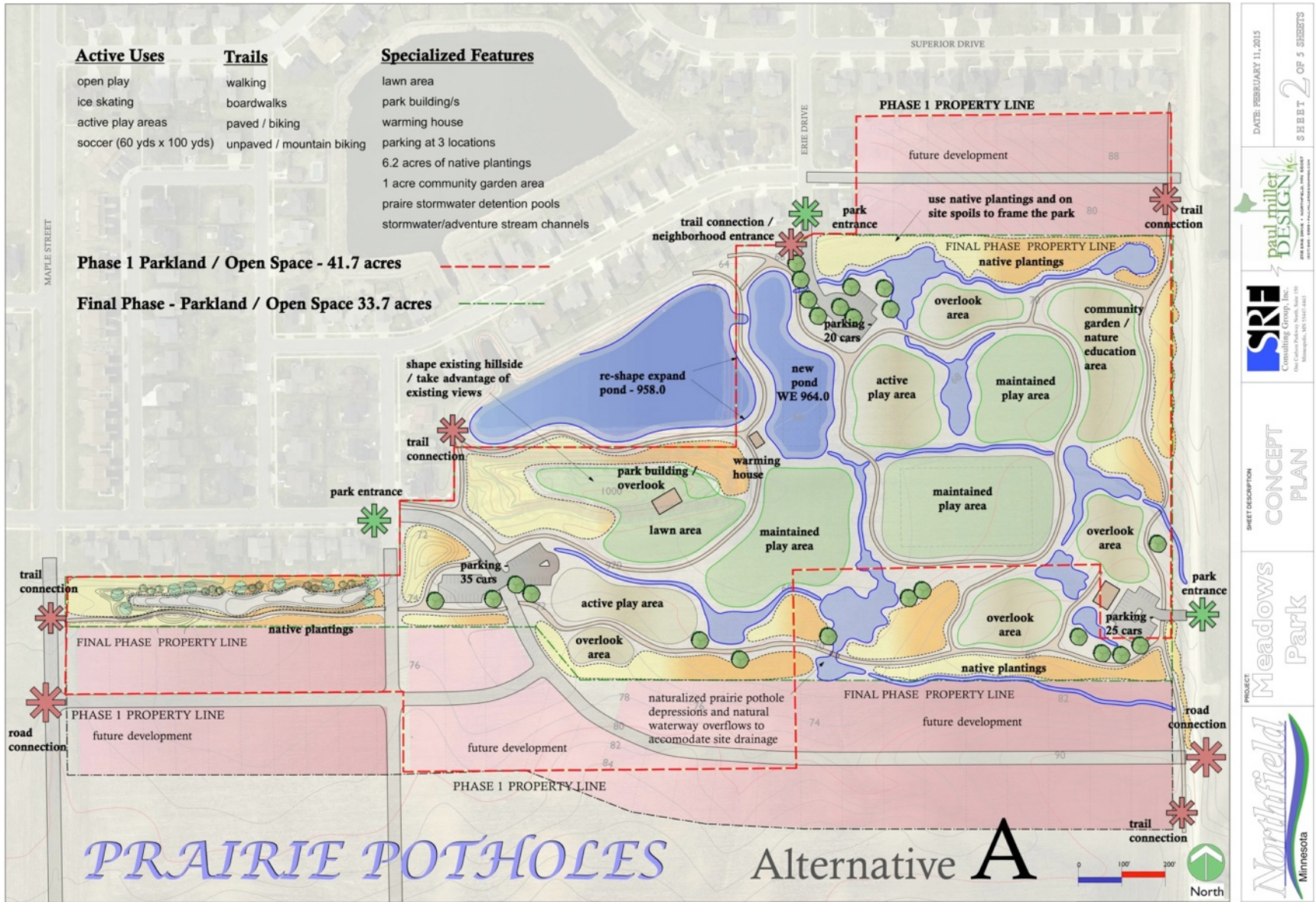
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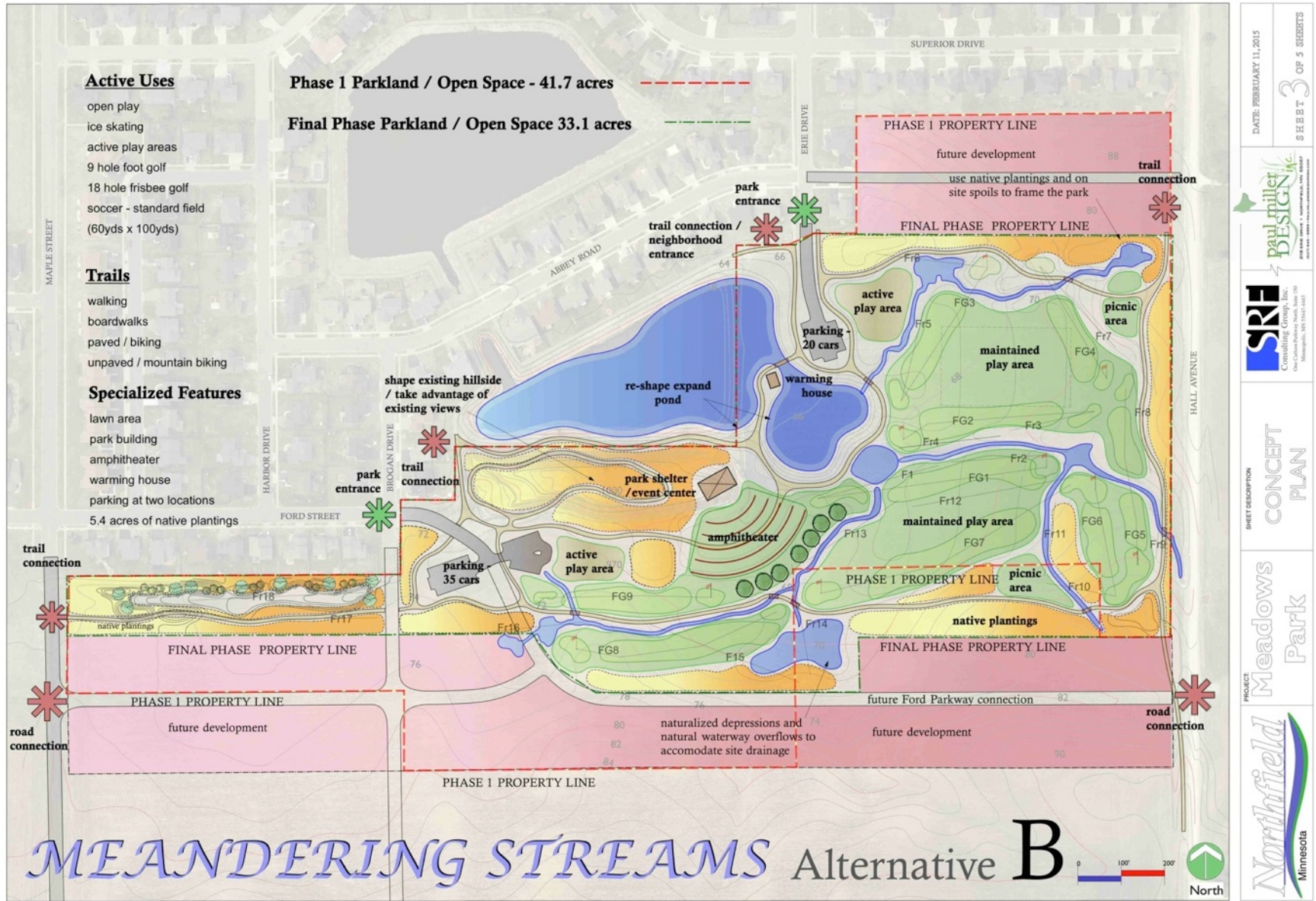


				DATE: JANUARY 22, 2015 SHEET 2 OF 4 SHEETS
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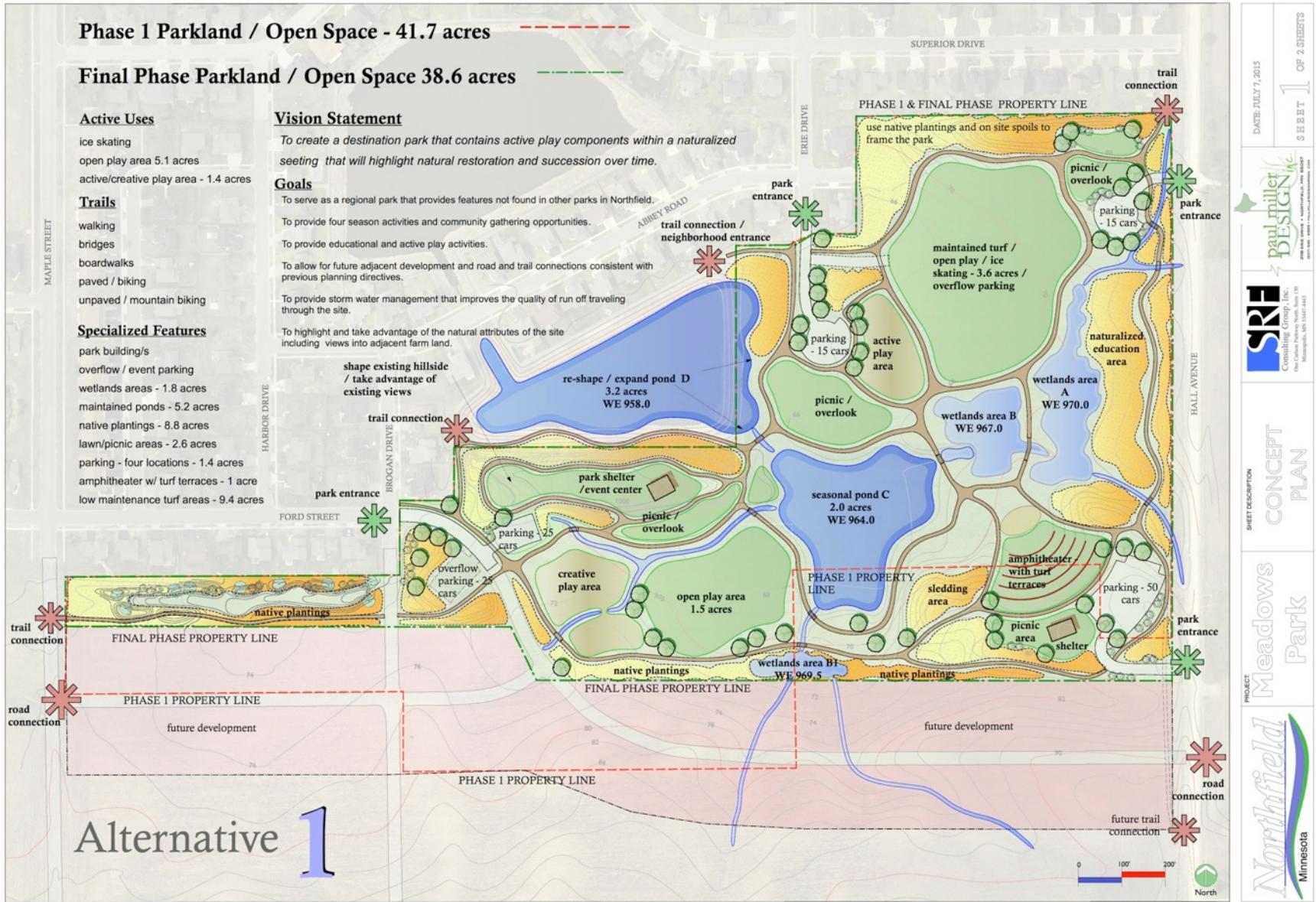


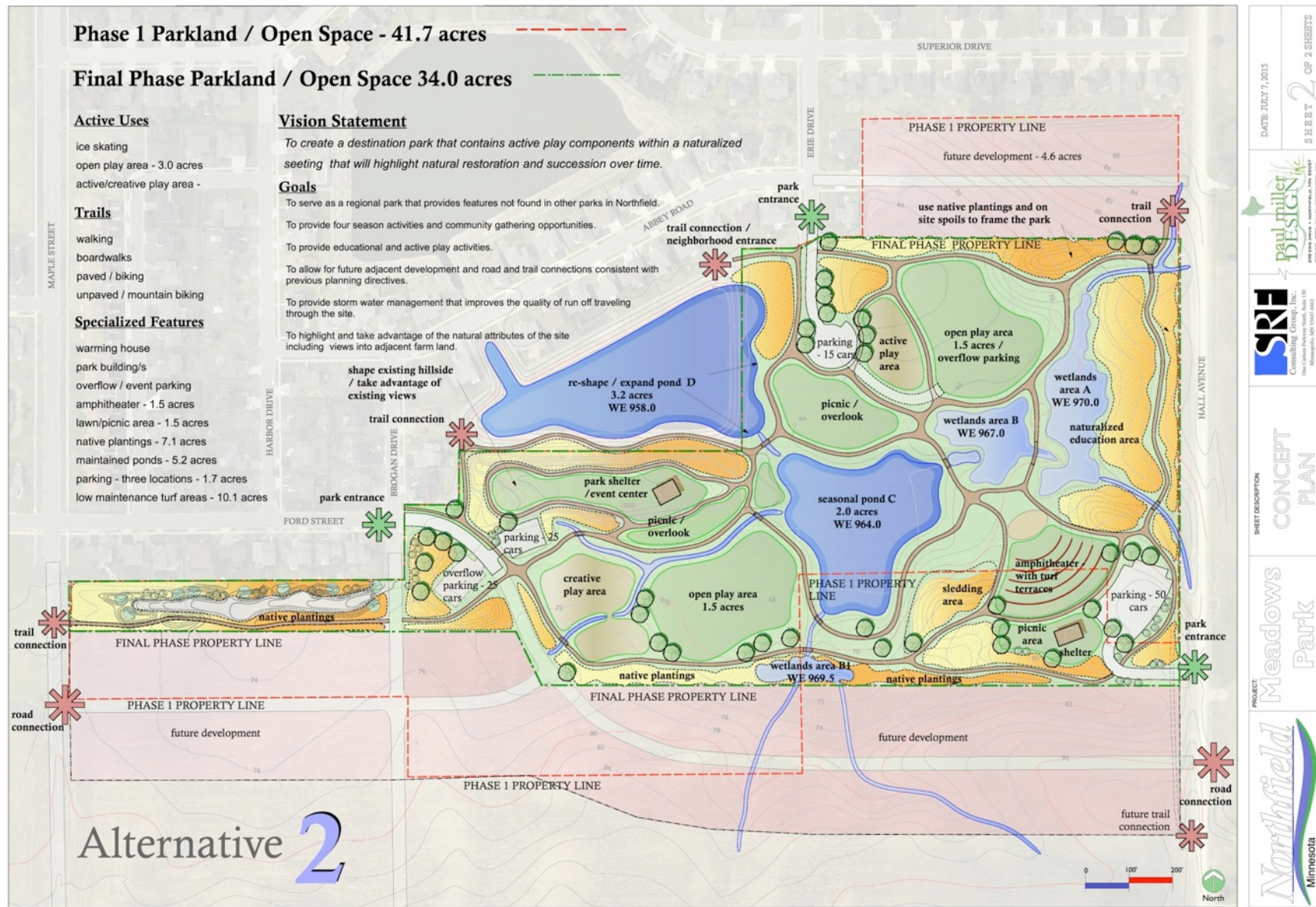
	PROJECT Meadows Park	SHEET DESCRIPTION LANDUSE CONCEPT PLAN			DATE: JANUARY 22, 2015 SHEET 3 OF 4 SHEETS



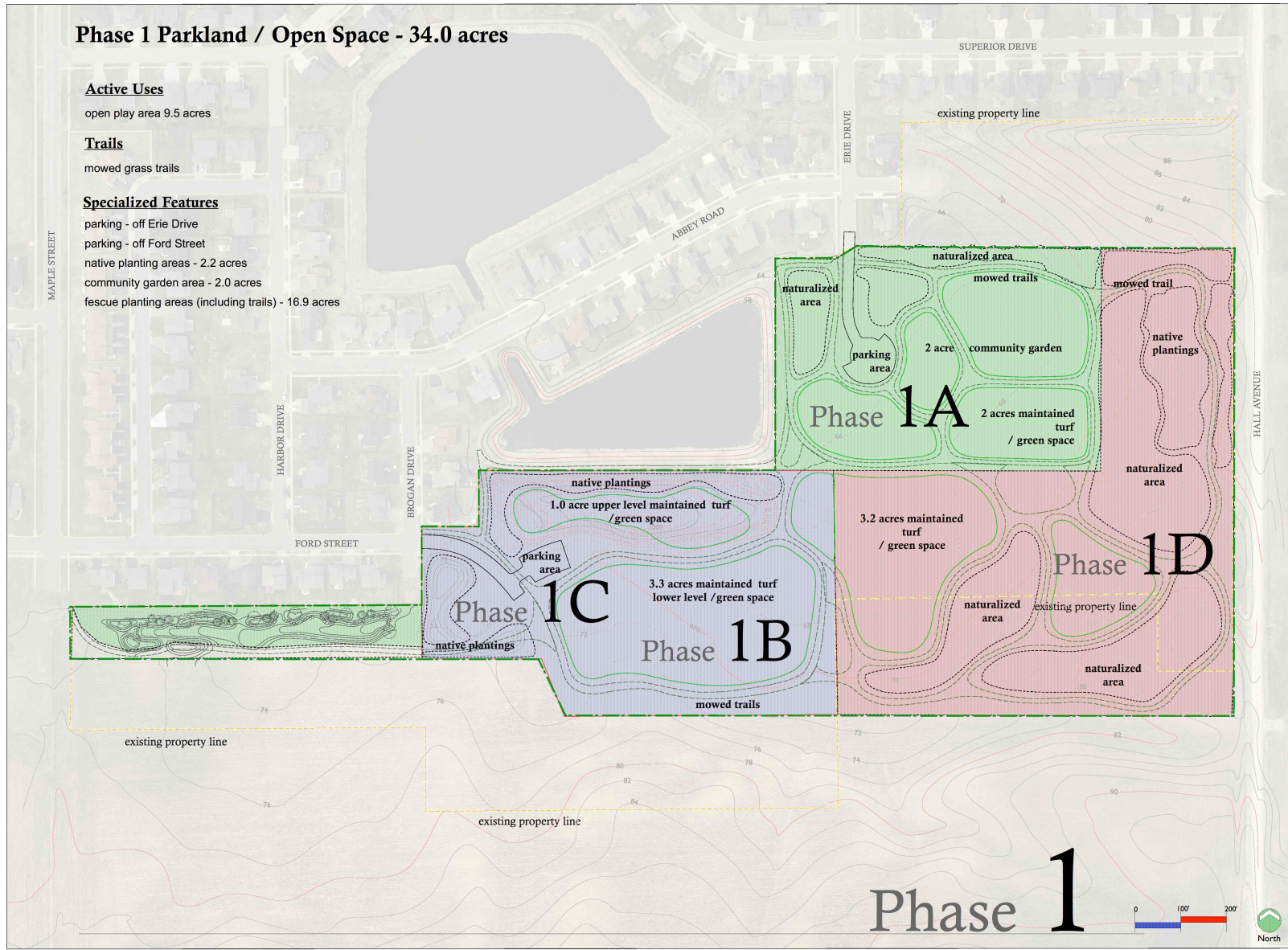


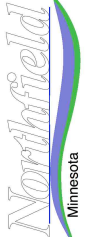


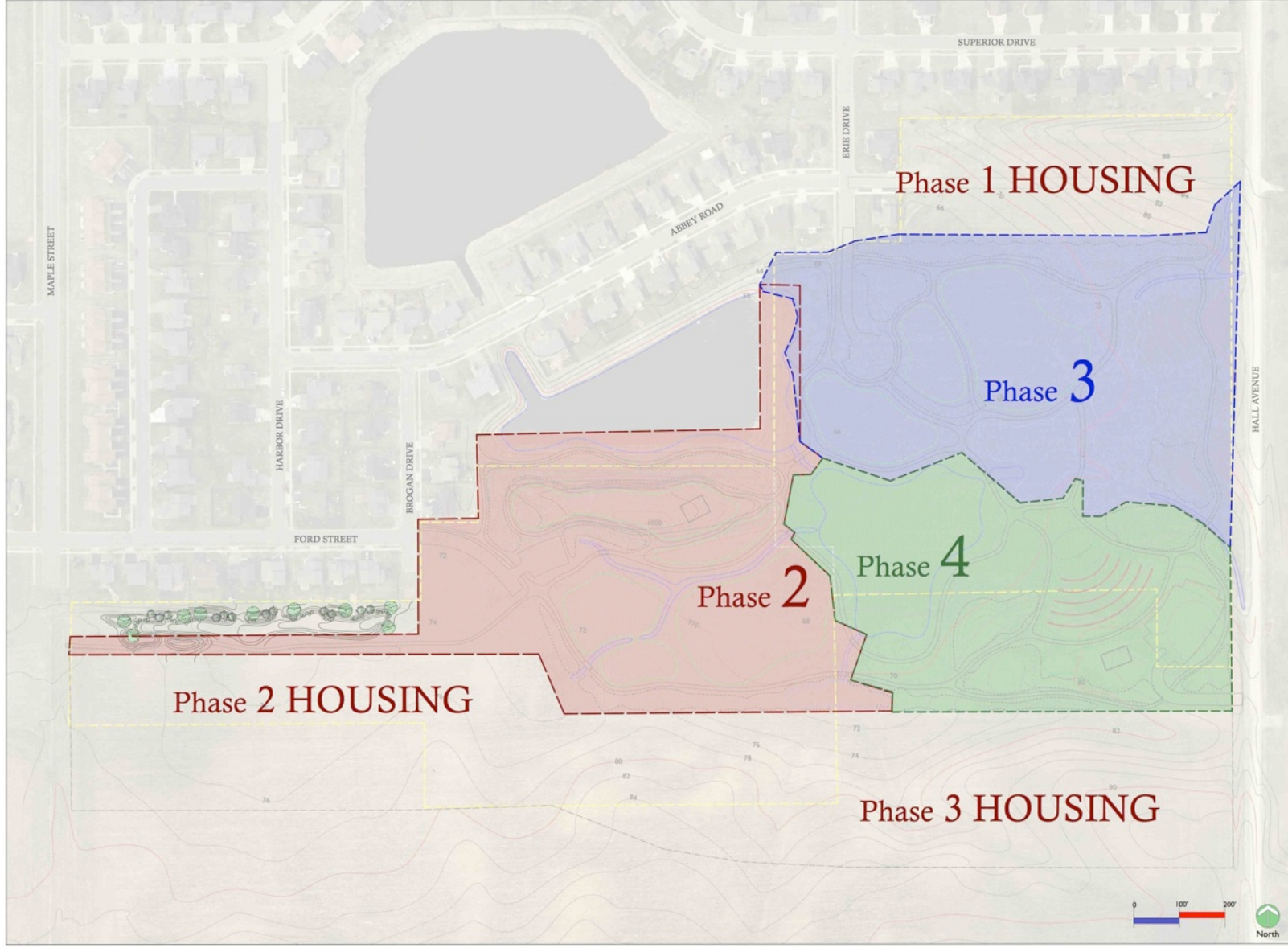








				DATE: AUGUST 18, 2015
				SHEET 1 OF 11 SHEETS \$ H B T



				DATE: AUGUST 18, 2015 SHEET: 7 OF 11 SHEETS
				SHEET DESCRIPTION: PHASES 2 & 4

COST ESTIMATESMeadows Park • City of Northfield • Concept Plans • August 18, 2015 • SRF PMDI
Cost Estimate -

Meadows Park - General Quantities		MASTER PLAN CONCEPT		
Item	Quantity	Unit	Unit price	Total cost
1.01 Site Prep, surveying and mobilization	1.0	LS	\$45,000.00	\$45,000.00
1.02 Clear and Grub	2.5	AC	\$5,000.00	\$12,500.00
Sub-total this part				\$57,500.00
2.01 Topsoil stripped & replaced	30,000.0	CY	\$4.50	\$135,000.00
2.02 Pond excavation	31,000.0	CY	\$3.50	\$108,500.00
2.03 Wetlands excavation	8,000.0	CY	\$3.50	\$28,000.00
2.04 Rough grading & shaping	40,000.0	CY	\$3.00	\$120,000.00
2.05 Pond lining	95,000.0	SF	\$1.00	\$95,000.00
2.06 creek channel articulation	2,175.0	LF	\$75.00	\$163,125.00
Sub-total this part				\$649,625.00
3.01 6" dual wall polyethylene pipe	1,950.0	LF	\$10.00	\$19,500.00
3.02 24" catch basin	12.0	EA	\$1,500.00	\$18,000.00
Sub-total this part				\$37,500.00
4.01 8' wide paved trail	75,000.0	SF	\$4.00	\$300,000.00
4.02 8' wide unpaved trail	40,000.0	SF	\$2.00	\$80,000.00
4.03 total trail area	115,000.0	SF		
4.04 8' wide foot bridges	10.0	EA	\$5,000.00	\$50,000.00
Sub-total this part				\$430,000.00
5.01 Signage	3.0	LS	\$2,500.00	\$7,500.00
5.02 Ford Street Entrance & Parking	15,000.0	SF	\$4.00	\$60,000.00
5.03 Erie Drive Entrance & Parking	15,000.0	SF	\$4.00	\$60,000.00
5.04 Hall Ave. South Entrance & Parking	27,500.0	SF	\$4.00	\$110,000.00
Sub-total this part				\$237,500.00
6.01 prep and seed bluegrass mixture	6.10	AC	\$2,500.00	\$15,250.00
6.01 prep and seed fescue mixture	12.90	AC	\$2,500.00	\$32,250.00
6.02 prep and seed native planting areas	7.90	AC	\$5,000.00	\$39,500.00
6.03 erosion control mat - allowance	10,000.0	SY	\$1.50	\$15,000.00
Sub-total this part				\$102,000.00
7.01 Deciduous trees	100.0	EA	\$500.00	\$50,000.00
7.02 Evergreen trees	75.0	EA	\$500.00	\$37,500.00
7.03 Ornamental trees	100.0	EA	\$350.00	\$35,000.00
7.04 Shrubs	300.0	EA	\$50.00	\$15,000.00
Sub-total this part				\$137,500.00
Total - Base Construction				\$1,651,625.00
Selected Features				
8.01 play equipment				\$250,000.00
8.02 buildings				\$650,000.00
8.03 amphitheater detailing				\$125,000.00
8.04 utilities				\$100,000.00
8.05 lighting				\$35,000.00
8.06 frisbee golf				\$5,000.00
8.07 benches				\$10,000.00
8.08 picnic tables				\$10,000.00
total				\$1,185,000.00
Total - Construction and Features				\$2,836,625.00
9.01 Design, Engineering, Permits at 10%				\$283,662.50
9.02 10% Contingency				\$283,662.50
TOTAL COST				\$3,403,950.00

Meadows Park • City of Northfield • Concept Plans • August 18, 2015 • SRF PMDI
Cost Estimate -

Meadows Park - General Quantities			PHASE ----- 1A		PHASE ----- 1B				
Item	Quantity	Unit	Unit price	Total cost	Quantity	Unit	Unit price	Total cost	
1.01 Site Prep, surveying and mobilization	1.0	LS	\$10,000.00	\$10,000.00	1.0	LS	\$15,000.00	\$15,000.00	
1.02 Clear and Grub		AC	\$5,000.00	\$0.00	2.5	AC	\$5,000.00	\$12,500.00	
Sub-total this part				\$10,000.00				\$27,500.00	
2.01 Topsoil stripped & replaced	500.0	CY	\$4.50	\$2,250.00	2,500.0	CY	\$4.50	\$11,250.00	
2.02 Pond excavation		CY	\$3.50	\$0.00		CY	\$3.50	\$0.00	
2.03 Wetlands excavation		CY	\$3.50	\$0.00		CY	\$3.50	\$0.00	
2.04 Rough grading & shaping spoils pile		CY	\$3.00	\$0.00	15,000.0	CY	\$3.00	\$45,000.00	
2.05 Pond lining		SF	\$1.00	\$0.00		SF	\$1.00	\$0.00	
2.06 creek channel articulation		LF	\$75.00	\$0.00		LF	\$75.00	\$0.00	
Sub-total this part				\$2,250.00				\$56,250.00	
3.01 6" dual wall polyethelyne pipe	250.0	LF	\$10.00	\$2,500.00	300.0	LF	\$10.00	\$3,000.00	
3.02 24" catch basin	1.0	EA	\$1,500.00	\$1,500.00	1.0	EA	\$1,500.00	\$1,500.00	
Sub-total this part				\$4,000.00				\$4,500.00	
4.01 8' wide paved trail		SF	\$4.00	\$0.00		SF	\$4.00	\$0.00	
4.02 8' wide unpaved trail		SF	\$2.00	\$0.00		SF	\$2.00	\$0.00	
4.03 total trail area		SF				SF			
4.04 8' wide foot bridges		EA	\$5,000.00	\$0.00		EA	\$5,000.00	\$0.00	
Sub-total this part				\$0.00				\$0.00	
5.01 Signage	1.0	LS	\$2,500.00	\$2,500.00		LS	\$2,500.00	\$0.00	
5.02 Ford Street Entrance & Parking		SF	\$4.00	\$0.00		SF	\$2.50	\$0.00	
5.03 Erie Drive Entrance & Parking	15,000.0	SF	\$2.50	\$37,500.00		SF	\$4.00	\$0.00	
5.04 Hall Ave. South Entrance & Parking		SF	\$4.00	\$0.00		SF	\$4.00	\$0.00	
Sub-total this part				\$40,000.00				\$0.00	
6.01 prep and seed bluegrass mixture	2.70	AC	\$2,500.00	\$6,750.00	4.40	AC	\$2,500.00	\$11,000.00	
6.01 prep and seed fescue mixture	4.00	AC	\$2,500.00	\$10,000.00	5.33	AC	\$2,500.00	\$13,325.00	
6.02 prep and seed native planting areas		AC	\$3,500.00	\$0.00	0.66	AC	\$3,500.00	\$2,310.00	
6.03 erosion control mat - allowance		SY	\$1.50	\$0.00	10,000.0	SY	\$1.50	\$15,000.00	
Sub-total this part				\$16,750.00				\$41,635.00	
7.01 Deciduous trees	10.0	EA	\$500.00	\$5,000.00		EA	\$500.00	\$0.00	
7.02 Evergreen trees	0.0	EA	\$500.00	\$0.00		EA	\$500.00	\$0.00	
7.03 Ornamental trees	0.0	EA	\$350.00	\$0.00	0.0	EA	\$350.00	\$0.00	
7.04 Shrubs	0.0	EA	\$50.00	\$0.00	0.0	EA	\$50.00	\$0.00	
Sub-total this part				\$5,000.00				\$0.00	
Total - Base Construction			phase 1A	\$78,000.00	phase 1B			\$129,885.00	
Selected Features									
8.01 play equipment									
8.02 buildings									
8.03 amphitheater detailing									
8.04 utilities									
8.05 lighting									
8.06 frisbee golf									
8.07 benches									
8.08 picnic tables									
total				\$0.00	\$0.00				
Total - Construction and Features				\$78,000.00	\$129,885.00				
9.01 Design, Engineering, Permits at 10%				\$7,800.00	\$12,988.50				
9.02 10% Contingency				\$7,800.00	\$12,988.50				
TOTAL COST				phase 1A	\$93,600.00	phase 1B			\$155,862.00

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Cost Estimate -

Meadows Park - General Quantities

Item	PHASE 1C				PHASE 1D			
	Quantity	Unit	Unit price	Total cost	Quantity	Unit	Unit price	Total cost
1.01 Site Prep, surveying and mob.	1.0	LS	\$10,000.00	\$10,000.00	1.0	LS	\$10,000.00	\$10,000.00
1.02 Clear and Grub		AC	\$5,000.00	\$0.00		AC	\$5,000.00	\$0.00
Sub-total this part				\$10,000.00				\$10,000.00
2.01 Topsoil stripped & replaced	500.0	CY	\$4.50	\$2,250.00		CY	\$4.50	\$0.00
2.02 Pond excavation		CY	\$3.50	\$0.00		CY	\$3.50	\$0.00
2.03 Wetlands excavation		CY	\$3.50	\$0.00		CY	\$3.50	\$0.00
2.04 Rough grading & shaping spoils pile		CY	\$3.00	\$0.00		CY	\$3.00	\$0.00
2.05 Pond lining		SF	\$1.00	\$0.00		SF	\$1.00	\$0.00
2.06 creek channel articulation		LF	\$75.00	\$0.00		LF	\$75.00	\$0.00
Sub-total this part				\$2,250.00				\$0.00
3.01 6" dual wall polyethylene pipe		LF	\$10.00	\$0.00		LF	\$10.00	\$0.00
3.02 24" catch basin		EA	\$1,500.00	\$0.00		EA	\$1,500.00	\$0.00
Sub-total this part				\$0.00				\$0.00
4.01 8' wide paved trail		SF	\$4.00	\$0.00		SF	\$4.00	\$0.00
4.02 8' wide unpaved trail		SF	\$2.00	\$0.00		SF	\$2.00	\$0.00
4.03 total trail area		SF				SF		
4.04 8' wide foot bridges		EA	\$5,000.00	\$0.00		EA	\$5,000.00	\$0.00
Sub-total this part				\$0.00				\$0.00
5.01 Signage	1.0	LS	\$2,500.00	\$2,500.00		LS	\$2,500.00	\$0.00
5.02 Ford Street Entrance & Parking	15,000.0	SF	\$2.50	\$37,500.00		SF	\$2.50	\$0.00
5.03 Erie Drive Entrance & Parking		SF	\$4.00	\$0.00		SF	\$4.00	\$0.00
5.04 Hall Ave. South Entrance & Parking		SF	\$4.00	\$0.00		SF	\$4.00	\$0.00
Sub-total this part				\$40,000.00				\$0.00
6.01 prep and seed bluegrass mixture		AC	\$2,500.00	\$0.00	3.10	AC	\$2,500.00	\$7,750.00
6.01 prep and seed fescue mixture	0.50	AC	\$2,500.00	\$1,250.00	5.50	AC	\$2,500.00	\$13,750.00
6.02 prep and seed native planting areas		AC	\$3,500.00	\$0.00	1.10	AC	\$2,500.00	\$2,750.00
6.03 erosion control mat - allowance	500.0	SY	\$1.50	\$750.00	500.0	SY	\$1.50	\$750.00
Sub-total this part				\$2,000.00				\$25,000.00
7.01 Deciduous trees	10.0	EA	\$500.00	\$5,000.00	10.0	EA	\$500.00	\$5,000.00
7.02 Evergreen trees	6.0	EA	\$500.00	\$3,000.00	3.0	EA	\$500.00	\$1,500.00
7.03 Ornamental trees	0.0	EA	\$350.00	\$0.00	0.0	EA	\$350.00	\$0.00
7.04 Shrubs	0.0	EA	\$50.00	\$0.00	0.0	EA	\$50.00	\$0.00
Sub-total this part				\$8,000.00				\$6,500.00
Total - Base Construction			phase 1C	\$62,250.00			phase 1D	\$41,500.00
Selected Features								
8.01 play equipment								
8.02 buildings								
8.03 amphitheater detailing								
8.04 utilities								
8.05 lighting								
8.06 frisbee golf								
8.07 benches				\$2,500.00				\$5,000.00
8.08 picnic tables				\$2,500.00				\$5,000.00
total				\$5,000.00				\$10,000.00
Total - Construction and Features				\$67,250.00				\$51,500.00
9.01 Design, Engineering, Permits at 10%				\$6,725.00				\$5,150.00
9.02 10% Contingency				\$6,725.00				\$5,150.00
TOTAL COST			phase 1C	\$80,700.00			phase 1D	\$61,800.00
TOTAL PHASE 1 (parts 1A, 1B, 1C, 1D)								\$391,962.00

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Cost Estimate -

Meadows Park - General Quantities					PHASE 2				PHASE 3			
Item	Quantity	Unit	Unit price	Total cost	Quantity	Unit	Unit price	Total cost	Quantity	Unit	Unit price	Total cost
Site Prep, surveying and mob.	1.0	LS	\$15,000.00	\$25,000.00	1.0	LS	\$15,000.00	\$25,000.00				
Clear and Grub	1.5	AC	\$5,000.00	\$7,500.00		AC	\$5,000.00	\$0.00				
Sub-total this part				\$32,500.00				\$25,000.00				
Topsoil stripped & replaced	7,000.0	CY	\$4.50	\$31,500.00	9,500.0	CY	\$4.50	\$42,750.00				
Pond excavation	4,500.0	CY	\$3.50	\$15,750.00		CY	\$3.50	\$0.00				
Wetlands excavation		CY	\$3.50	\$0.00	8,000.0	CY	\$3.50	\$28,000.00				
Rough grading & shaping	10,000.0	CY	\$3.00	\$30,000.00	10,000.0	CY	\$3.00	\$30,000.00				
Pond lining		SF	\$1.00	\$0.00		SF	\$1.00	\$0.00				
creek channel articulation	1,115.0	LF	\$75.00	\$83,625.00	1,065.0	LF	\$75.00	\$79,875.00				
Sub-total this part				\$160,875.00				\$180,625.00				
6" dual wall polyethylene pipe	200.0	LF	\$10.00	\$2,000.00	500.0	LF	\$10.00	\$5,000.00				
24" catch basin	2.0	EA	\$1,500.00	\$3,000.00	4.0	EA	\$1,500.00	\$6,000.00				
Sub-total this part				\$5,000.00				\$11,000.00				
8' wide paved trail	24,500.0	SF	\$4.00	\$98,000.00	31,000.0	SF	\$4.00	\$124,000.00				
8' wide unpaved trail	13,000.0	SF	\$2.00	\$26,000.00	16,500.0	SF	\$2.00	\$33,000.00				
total trail area	37,500.0	SF			47,500.0	SF						
8' wide foot bridges	5.0	EA	\$5,000.00	\$25,000.00	3.0	EA	\$5,000.00	\$15,000.00				
Sub-total this part				\$149,000.00				\$172,000.00				
Signage		LS	\$2,500.00	\$0.00		LS	\$2,500.00	\$0.00				
Ford Street Ent & Parking (pave)	15,000.0	SF	\$2.50	\$37,500.00	15,000.0	SF	\$2.50	\$37,500.00				
Erie Drive Entrance & Parking		SF	\$4.00	\$0.00		SF	\$4.00	\$0.00				
Hall Ave. South Entrance & Parking		SF	\$4.00	\$0.00		SF	\$4.00	\$0.00				
Sub-total this part				\$37,500.00				\$37,500.00				
Prep and seed bluegrass mixture	1.50	AC	\$2,500.00	\$3,750.00	2.70	AC	\$2,500.00	\$6,750.00				
Prep and seed fescue mixture	5.40	AC	\$2,500.00	\$13,500.00	4.00	AC	\$2,500.00	\$10,000.00				
Prep and seed native planting areas	2.00	AC	\$2,500.00	\$5,000.00	3.25	AC	\$2,500.00	\$8,125.00				
Erosion control mat - allowance	10,000.0	SY	\$1.50	\$15,000.00	5,000.0	SY	\$1.50	\$7,500.00				
Sub-total this part				\$37,250.00				\$32,375.00				
Deciduous trees	20.0	EA	\$500.00	\$10,000.00	20.0	EA	\$500.00	\$10,000.00				
Evergreen trees	22.0	EA	\$500.00	\$11,000.00	22.0	EA	\$500.00	\$11,000.00				
Ornamental trees	30.0	EA	\$350.00	\$10,500.00	30.0	EA	\$350.00	\$10,500.00				
Shrubs	100.0	EA	\$50.00	\$5,000.00	100.0	EA	\$50.00	\$5,000.00				
Sub-total this part				\$36,500.00				\$36,500.00				
Total - Base Construction			phase 2	\$458,625.00			phase 3	\$495,000.00				
Selected Features												
play equipment				\$125,000.00				\$125,000.00				
buildings				\$325,000.00								
amphitheater detailing												
utilities				\$45,000.00				\$10,000.00				
lighting				\$15,000.00				\$10,000.00				
frisbee golf												
benches								\$2,500.00				
picnic tables								\$2,500.00				
total				\$510,000.00				\$150,000.00				
Total - Construction and Features				\$968,625.00				\$645,000.00				
Design, Engineering, Permits at 10%				\$96,862.50				\$64,500.00				
10% Contingency				\$96,862.50				\$64,500.00				
TOTAL COST				\$1,162,350.00				\$774,000.00				

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Cost Estimate -

Meadows Park - General Quantities		PHASE ----- 4		
Item	Quantity	Unit	Unit price	Total cost
1.01 Site Prep, surveying and mob.	1.0	LS	\$15,000.00	\$25,000.00
1.02 Clear and Grub		AC	\$5,000.00	\$0.00
Sub-total this part				\$25,000.00
2.01 Topsoil stripped & replaced	10,000.0	CY	\$4.50	\$45,000.00
2.02 Pond excavation	26,500.0	CY	\$3.50	\$92,750.00
2.03 Wetlands excavation		CY	\$3.50	\$0.00
2.04 Rough grading & shaping	5,000.0	CY	\$3.00	\$15,000.00
2.05 Pond lining	95,000.0	SF	\$1.00	\$95,000.00
2.06 creek channel articulation		LF	\$75.00	\$0.00
Sub-total this part				\$247,750.00
3.01 6" dual wall polyethylene pipe	500.0	LF	\$10.00	\$5,000.00
3.02 24" catch basin	4.0	EA	\$1,500.00	\$6,000.00
Sub-total this part				\$11,000.00
4.01 8' wide paved trail	19,500.0	SF	\$4.00	\$78,000.00
4.02 8' wide unpaved trail	10,500.0	SF	\$2.00	\$21,000.00
4.03 total trail area	30,000.0	SF		
4.04 8' wide foot bridges	2.0	EA	\$5,000.00	\$10,000.00
Sub-total this part				\$109,000.00
5.01 Signage	1.0	LS	\$2,500.00	\$2,500.00
5.02 Ford Street Entrance & Parking		SF	\$2.50	\$0.00
5.03 Erie Drive Entrance & Parking		SF	\$2.50	\$0.00
5.04 Hall Ave. South Ent & Parking (paved)	27,500.0	SF	\$4.00	\$110,000.00
Sub-total this part				\$112,500.00
6.01 Prep and seed bluegrass mixture	1.40	AC	\$2,500.00	\$3,500.00
6.01 Prep and seed fescue mixture	3.50	AC	\$2,500.00	\$8,750.00
6.02 Prep and seed native planting areas	1.50	AC	\$2,500.00	\$3,750.00
6.03 Erosion control mat - allowance	5,000.0	SY	\$1.50	\$7,500.00
Sub-total this part				\$23,500.00
7.01 Deciduous trees	30.0	EA	\$500.00	\$15,000.00
7.02 Evergreen trees	22.0	EA	\$500.00	\$11,000.00
7.03 Ornamental trees	40.0	EA	\$350.00	\$14,000.00
7.04 Shrubs	100.0	EA	\$50.00	\$5,000.00
Sub-total this part				\$45,000.00
Total - Base Construction		phase 4		\$573,750.00
Selected Features				
8.01 play equipment				
8.02 buildings				\$325,000.00
8.03 amphitheater detailing				\$125,000.00
8.04 utilities				\$45,000.00
8.05 lighting				\$10,000.00
8.06 frisbee golf				\$5,000.00
8.07 benches				
8.08 picnic tables				
total				\$510,000.00
Total - Construction and Features				\$1,083,750.00
9.01 Design, Engineering, Permits at 10%				\$108,375.00
9.02 10% Contingency				\$108,375.00
TOTAL COST				\$1,300,500.00
TOTAL PART 1A, 1B, 1C, & !D				\$391,962.00
TOTAL PARTS 2, 3, & 4				\$3,236,850.00
TOTAL ALL PHASES				\$3,628,812.00

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ANNUAL OPERATIONS COST

Meadows Park	AFTER PHASE 1A				AFTER PHASE 1A & 1B				AFTER PHASE 1A, 1B & 1C				AFTER PHASE 1A, 1B, 1C & 1D			
Item	Area	Unit	Unit cost	Annual cost	Area	Unit	Unit cost	Annual cost	Area	Unit	Unit cost	Annual cost	Area	Unit	Unit cost	Annual cost
Total area	10.4	AC			20.4	AC		\$0.00	20.4	AC			35.0	AC		\$0.00
Maintained turf	3.6	AC	\$2,000.00	\$7,200.00	8.9	AC	\$2,000.00	\$17,800.00	8.9	AC	\$2,000.00	\$17,800.00	13.4	AC	\$2,000.00	\$26,800.00
Low maintenance turf	4.5	AC	\$500.00	\$2,250.00	8.0	AC	\$500.00	\$4,000.00	7.6	AC	\$500.00	\$3,800.00	16.6	AC	\$500.00	\$8,300.00
Community garden	2.0	AC	\$500.00	\$1,000.00	2.0	AC	\$500.00	\$1,000.00	2.0	AC	\$500.00	\$1,000.00	2.0	AC	\$500.00	\$1,000.00
Native area	0.0	AC	\$500.00	\$0.00	1.2	AC	\$500.00	\$600.00	1.2	AC	\$500.00	\$350.00	2.3	AC	\$500.00	\$1,150.00
Gravel parking area	0.3	AC	\$1,000.00	\$344.35	0.3	AC	\$1,000.00	\$300.00	0.7	AC	\$1,500.00	\$1,050.00	0.7	AC	\$1,500.00	\$1,050.00
Drain pipe	250.0	LF	\$0.50	\$125.00	550.0	LF	\$0.50	\$275.00	550.0	LF	\$0.50	\$275.00				
24" catch basin	1.0	EA	\$50.00	\$50.00	2.0	EA	\$50.00	\$100.00	2.0	EA	\$50.00	\$100.00				
Deciduous trees	10.0	EA	\$25.00	\$250.00	10.0	EA	\$25.00	\$250.00	20.0	EA	\$25.00	\$500.00	30.0	EA	\$25.00	\$750.00
Evergreen trees		EA	\$25.00	\$0.00		EA	\$25.00	\$0.00	3.0	EA	\$25.00	\$75.00	6.0	EA	\$25.00	\$150.00
Ornamental trees		EA	\$25.00	\$0.00		EA	\$25.00	\$0.00		EA	\$25.00	\$0.00		EA	\$25.00	\$0.00
Shrubs		EA	\$25.00	\$0.00		EA	\$25.00	\$0.00		EA	\$25.00	\$0.00		EA	\$25.00	\$0.00
Annual Operations Cost	AFTER PHASE 1A			\$11,219.35	AFTER PH 1A & 1B			\$24,325.00	AFTER PH 1A, 1B & 1C			\$24,950.00	AFTER 1A, 1B, 1C & 1D			\$39,200.00
Selected Features																
Play equipment																
Buildings																
Amphitheater																
Utilities																
Lighting																
Frisbee golf																
Benches																
Picnic tables																
Total																
				\$0.00				\$0.00				\$0.00				\$0.00

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ANNUAL OPERATIONS COST

Meadows Park Item	AFTER PHASE ----- 2				AFTER PHASE ----- 3				AFTER PHASE ----- 4			
	Area	Unit	Unit Cost	Annual cost	Area	Unit	Unit Cost	Annual cost	Area	Unit	Unit Cost	Total cost
Total area	34.0	AC	\$0.00	\$0.00	34.0	AC	\$0.00	\$0.00	34.0	AC	\$0.00	\$0.00
Maintained turf	12.5	AC	\$2,000.00	\$25,000.00	9.8	AC	\$2,000.00	\$19,600.00	6.2	AC	\$2,000.00	\$12,400.00
Low maintenance turf	15.7	AC	\$500.00	\$7,850.00	12.8	AC	\$500.00	\$6,400.00	9.8	AC	\$500.00	\$4,900.00
Community garden	0.0	AC	\$500.00	\$0.00	0.0	AC	\$500.00	\$0.00	0.0	AC	\$500.00	\$0.00
Native area	3.1	AC	\$500.00	\$1,550.00	4.8	AC	\$500.00	\$2,400.00	7.9	AC	\$500.00	\$3,950.00
Gravel parking area	0.30	AC	\$1,000.00	\$300.00	0.00	AC	\$1,000.00	\$0.00	0.00	AC	\$1,000.00	\$0.00
Paved parking area	0.30	AC	\$1,500.00	\$450.00	0.70	AC	\$1,500.00	\$1,050.00	1.30	AC	\$1,500.00	\$1,950.00
Wetlands	0.2	AC	\$500.00	\$100.00	1.5	AC	\$500.00	\$750.00	1.7	AC	\$500.00	\$850.00
Pond	3.1	AC	\$200.00	\$620.00	3.1	AC	\$200.00	\$620.00	5.2	AC	\$200.00	\$1,040.00
Creek channel	1,115.0	LF	\$0.25	\$278.75	2,180.0	LF	\$0.25	\$545.00	2,180.0	LF	\$0.25	\$545.00
								\$0.00				\$0.00
Drain pipe	950.0	LF	\$0.50	\$475.00	1,450.0	LF	\$0.50	\$725.00	1,950.0	LF	\$0.50	\$975.00
24" catch basin	4.0	EA	\$50.00	\$200.00	8.0	EA	\$50.00	\$400.00	12.0	EA	\$50.00	\$600.00
Sub-total this part				\$675.00				\$1,125.00				\$1,575.00
8' wide paved trail	24,500.0	SF	\$0.20	\$4,900.00	55,500.0	SF	\$0.20	\$11,100.00	75,000.0	SF	\$0.20	\$15,000.00
8' wide unpaved trail	13,000.0	SF	\$0.10	\$1,300.00	29,500.0	SF	\$0.10	\$2,950.00	40,000.0	SF	\$0.10	\$4,000.00
8' wide foot bridges	5.0	EA	\$100.00	\$500.00	8.0	EA	\$100.00	\$800.00	10.0	EA	\$100.00	\$1,000.00
Deciduous trees	50.0	EA	\$25.00	\$1,250.00	70.0	EA	\$25.00	\$1,750.00	100.0	EA	\$25.00	\$2,500.00
Evergreen trees	28.0	EA	\$25.00	\$700.00	50.0	EA	\$25.00	\$1,250.00	75.0	EA	\$25.00	\$1,875.00
Ornamental trees	30.0	EA	\$10.00	\$300.00	60.0	EA	\$10.00	\$600.00	100.0	EA	\$10.00	\$1,000.00
Shrubs	100.0	EA	\$10.00	\$1,000.00	200.0	EA	\$10.00	\$2,000.00	300.0	EA	\$10.00	\$3,000.00
Total - Maintenance cost			phase 2	\$47,448.75			phase 1B	\$54,065.00			phase 1C	\$57,160.00
Selected Features												
Play equipment	allow	1	\$500.00	\$500.00	allow	2	\$500.00	\$1,000.00	allow	2	\$500.00	\$1,000.00
Buildings	allow	1	\$1,500.00	\$1,500.00	allow	1	\$1,500.00	\$1,500.00	allow	2	\$1,500.00	\$3,000.00
Amphitheater	allow		\$0.00	\$0.00	allow		\$0.00	\$0.00	allow	1	\$500.00	\$500.00
Utilities	allow	1	\$500.00	\$500.00	allow	1	\$1,000.00	\$1,000.00	allow	1	\$1,500.00	\$1,500.00
Lighting	allow	1	\$250.00	\$250.00	allow	1	\$500.00	\$500.00	allow	1	\$1,000.00	\$1,000.00
Frisbee golf	allow		\$0.00	\$0.00	allow		\$0.00	\$0.00	allow	1	\$250.00	\$250.00
Benches	allow	1	\$250.00	\$250.00	allow	1	\$500.00	\$500.00	allow	1	\$750.00	\$750.00
Picnic tables	allow	1	\$250.00	\$250.00	allow	1	\$500.00	\$500.00	allow	1	\$750.00	\$750.00
Total				\$3,250.00				\$5,000.00				\$8,750.00
Total - Annual Operations cost				\$50,698.75				\$59,065.00				\$65,910.00