



City of Grand Island

Tuesday, December 6, 2016

Study Session

Item -1

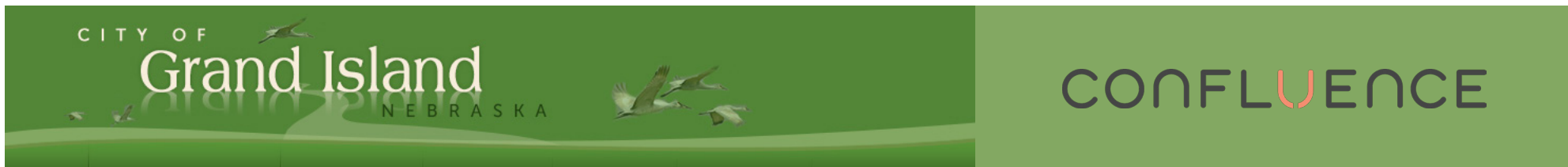
Presentation and Discussion concerning the Grand Island Cemetery

Staff Contact: Todd McCoy

Cemetery Site Selection Analysis (Recap)

City of Grand Island
Parks and Recreation Department

November 2016

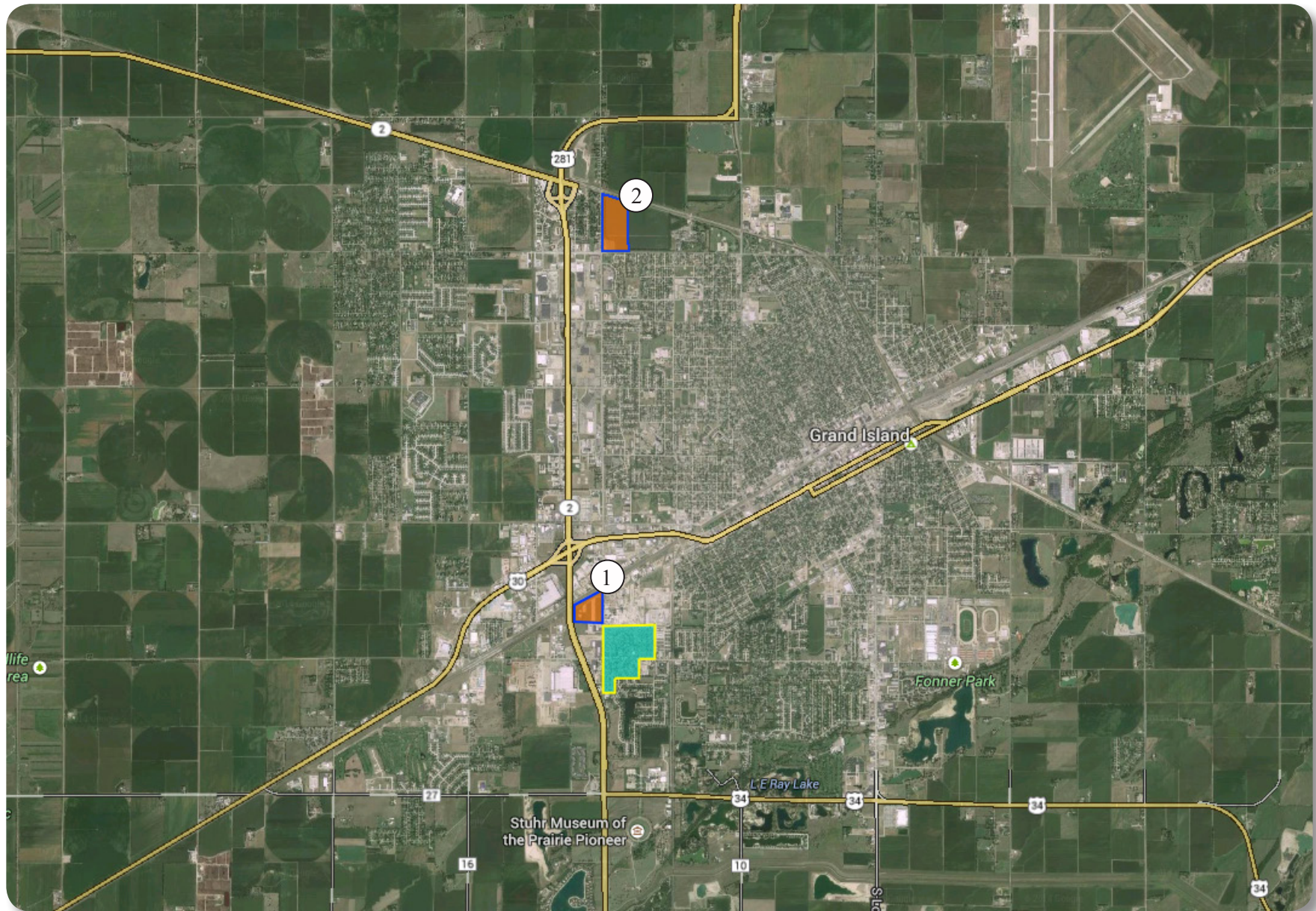


Summary of Scope

- With Grand Island Cemetery nearing its capacity, a new cemetery location must be determined.
- Perform site inventory and cost analysis on several sites deemed appropriate for future cemetery expansion.
- Select a new cemetery site to focus design efforts on a master plan design efforts that will strive to create the same pristine landscape character found at Grand Island Cemetery today.
- Produce a master plan that is intended to serve as a 50 year development guide to future expansion of the cemetery.

Through this site selection and analysis process, Confluence examined multiple sites as expansion possibilities for the Grand Island Cemetery. After examining a variety of sites and considering feedback from City Council and staff, we have determined that there are two suitable options. Each site has their benefits and challenges, all of which are explored in the following pages. Listed below are the two sites chosen as potential expansion properties.

- ① Expansion site #1 - Webb Road Site
- ② Expansion site #2 - Capital Avenue Site



- Grand Island Cemetery
- Cemetery Expansion Sites

Grand Island - Context Map

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Existing Grand Island Cemetery

Benefits

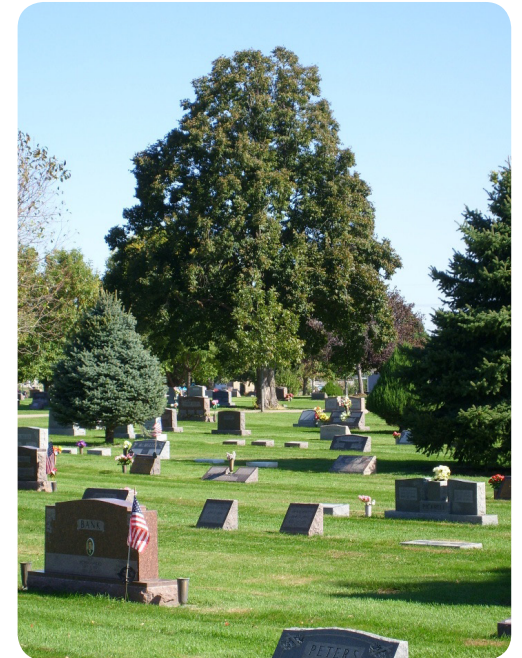
- 90 acres of lush lawn and mature trees provide / tranquil oasis from the urban context.
- Size! Cemetery is nearly as big as Stolley Park, Ryder Park, and Pier Park combined.
- A variety of evergreen and deciduous trees cover the grounds
- Well maintained grounds and burial markers.
- On-site maintenance facilities and equipment.
- Historical presence in Grand Island
- Recreation opportunities / Interior walking paths
- Irrigation system throughout grounds

Challenges

- Intensive grounds and headstone maintenance
- Irrigation repairs
- Removal and replacement of aging trees
- Dust from adjacent concrete manufacturing plant.
- W. Stolley Park Road bisects the cemetery and may see an increase in traffic and development continues west.

Constraints

- Limited capacity - averaging about 175 burials per year, the cemetery would have no vacancies in 5-7 years.
- Land-locked - With all the land around the historic cemetery now being developed, there is not room for the cemetery to expand and continue to be a contiguous destination.



Webb Road Cemetery Expansion Site

Benefits

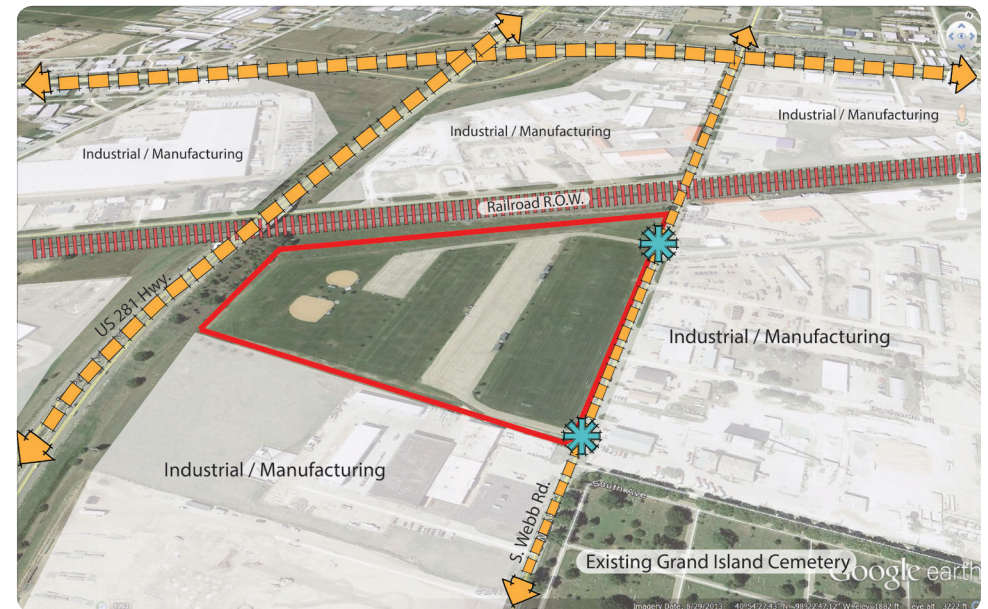
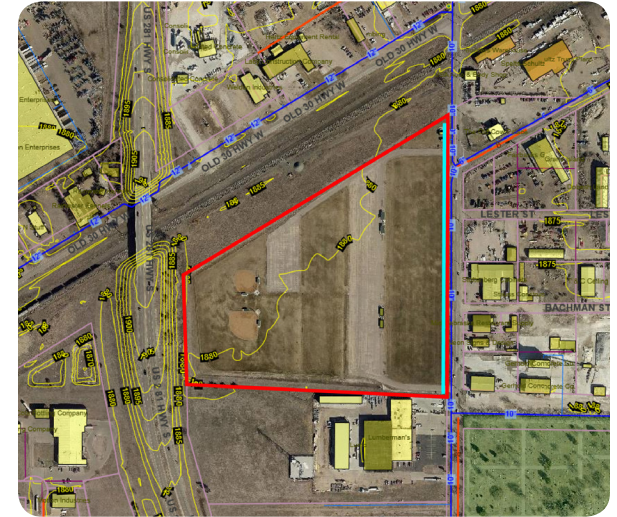
- Location is closest to existing cemetery, able to continue using existing maintenance facilities.
- Property currently held by the City of Grand Island, No acquisition costs
- Irrigation system in place, but would need adjustment for cemetery uses.

Challenges

- Existing sports fields are heavily used and well maintained.
- Relocation of these sports facilities may not be a cost-effective solution.
- Large portions are developed into parking lots. To remove and remediate compaction will impact development costs.
- Tree plantings must begin immediately to begin to build the desired cemetery character.
- Noise from adjacent highway and railroad tracks needs to be addressed to create a tranquil cemetery setting.

Constraints

- Land-locked with US 281 Hwy embankment to West and RR ROW to the North, and varied industrial development on all other sides, future expansion for this site will be limited.
- Access points are only available off of S. Webb Road. Another access would be preferred if Webb Road would need to be closed for any reason.



Capital Avenue Cemetery Site

Benefits

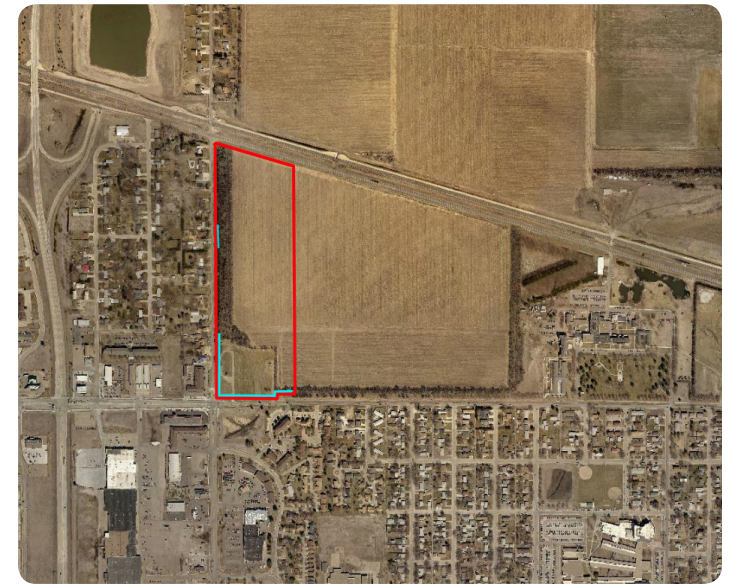
- Land has been donated by the State, no acquisition costs.
- An existing cemetery is on-site, so shared maintenance facilities and equipment may be possible.
- Site has a good street presence and will provide good views.
- Multiple access points along both frontage roads, access through tree line along Webb Road also possible.
- Plenty of available contextual land for long-term expansion needs.

Challenges





- Traffic along the roads could cause unwanted noise.
- Tree plantings must begin immediately to begin to build the desired cemetery character.
- Noise from adjacent highway and railroad tracks must be addressed to create a tranquil cemetery setting, buffers should be consideration in master planning.

Constraints

- The Veterans Cemetery to be incorporated into the future cemetery design.
- A historic drainage way existing through the site.
- Drainage has been diverted to the perimeter currently.
- High-water table issues would need to be mitigated for cemetery use, especially in the Northern portions of the site.



Legend

- | | | | |
|---|-------------------------|---|---------------|
|  | Expansion Site Boundary |  | Residential |
|  | Roads |  | Access Points |

Grand Island Cemetery Expansion Study

Site Selection Matrix

	Webb Rd. Site	Veterans Cemetery Site
Land Acquisition	This land has been dedicated to the City of Grand Island for use of future cemetery expansion.	Located on the north side of town at the intersection of Webb Road and Capital Ave. The land was recently given back to the City of Grand Island by the State. There was no acquisition cost.
Site Improvements	The existing sports fields will need to be relocated and trees will need to be planted to help establish a character similar to the existing cemetery.	Although this site has a small existing veterans cemetery, upgrades to the fence will likely be needed. The majority of the new site is currently in agricultural production, so establishing trees will be essential to matching the character of the Grand Island Cemetery.
Irrigation	The site has irrigation mains existing on site, but would need to be modified to accommodate the cemetery's needs.	The existing cemetery has some irrigation in place, but expansion will be required. The new roadway project to the South includes all utilities so access to a larger water line is near by.
Maintenance Facility	This site is close enough to the existing Cemetery that new maintenance building is not required and equipment can be shared.	As the cemetery develops there will be a need for additional sheds or maintenance areas. These costs could be budgeted in over time to minimize up front costs.
Maintenance Equipment	The equipment will be provided from the existing Grand Island Cemetery maintenance facility.	Cemetery equipment will need to be purchased as this property is too far from the existing cemetery.
Additional Considerations	Land has been set aside for the relocation of the sports fields. The fields would likely need to be relocated prior to cemetery construction.	This property is well positioned in the North Central portion of the community and respectfully expanding the existing veterans' cemetery is a logical move.

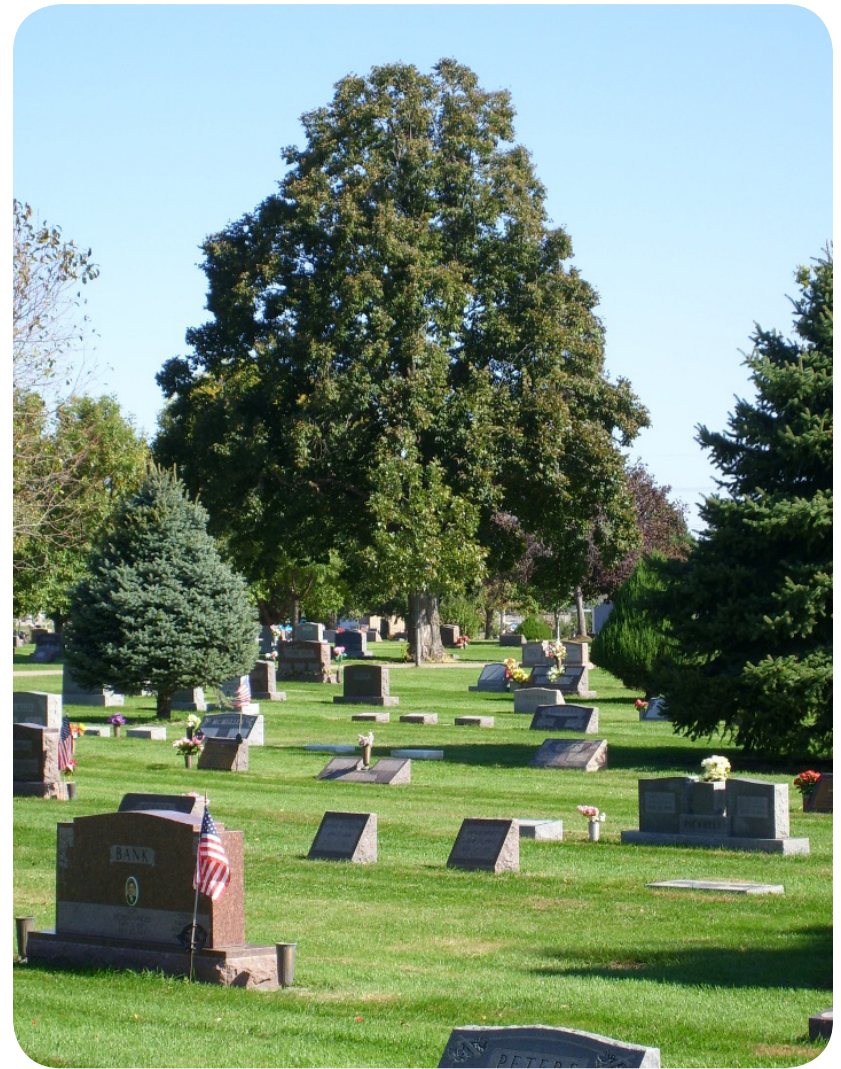
Burial & Cemetery Trends

City of Grand Island
Parks and Recreation Department

November 2016

The word *cemetery*, originally meaning 'Sleeping Place' in Greek.

There are a variety of design archetypes, themes, and elements that are considered during the planning process.



Current Burial Statistics

US Average:

- 45.4% Traditional
- 48.5% Cremation
- 6.1% Other

2015 first year cremations surpasses burial

Nebraska:

- 58% Traditional
- 42% Cremation

Grand Island:

- 69% Traditional
- 31% Cremation



	2005	2010	2015	2017	2020	2030
	<i>final</i>	<i>final</i>	<i>projected</i>	<i>projected</i>	<i>projected</i>	<i>projected</i>
Cremation (%)	32.3	40.4	48.5	51.6	56.0	71.1
Burial (%)	61.4	53.3	45.4	42.3	38.0	23.2

<http://www.nfda.org/news/media-center/nfda-news-releases/id/1310>

Last 10 years cremations in Nebraska have risen 15%

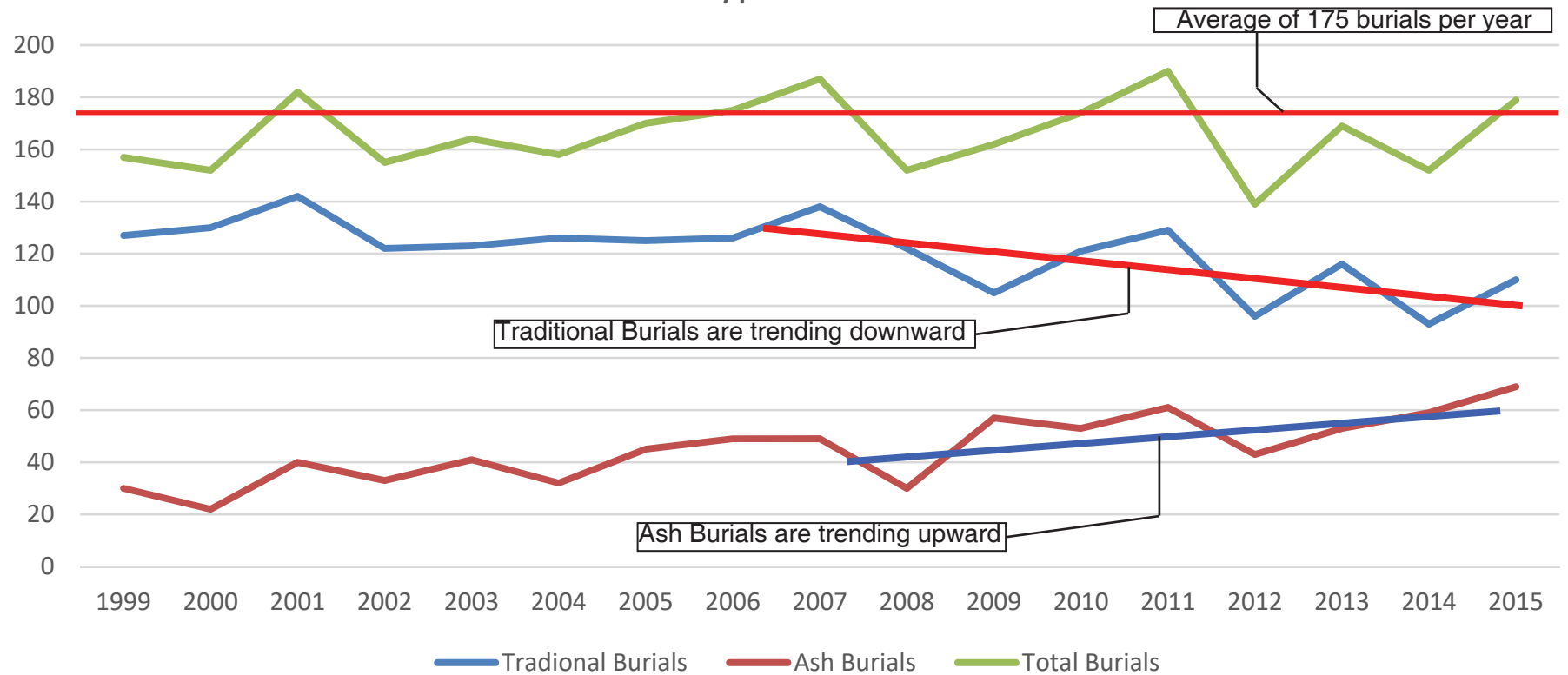
(Nebraska is the 24th highest rate)



Burial Trends Analysis

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Burial Types and Trends



Trends Forecast

- Cremations are rising, which require less land, but may mean less revenue from fewer traditional burial services.
- As Baby boomers generation continue to age, deaths rate are expected to increase; leading to increase need for burial services.
- Westlawn Cemetery reported that they average about 200 burials per year. As their facility reaches capacity, GI Cemetery could see an increase in burial services.
- As cremations and green burials increase in popularity, the demand for large traditional burial plots may decrease.



Burial Types

There are 3 main types of burials that are predominant in current cemetery trends:

- 'Traditional'
- Cremation & Columbariums
- 'Green' or Eco-burials



Typical Burial Types

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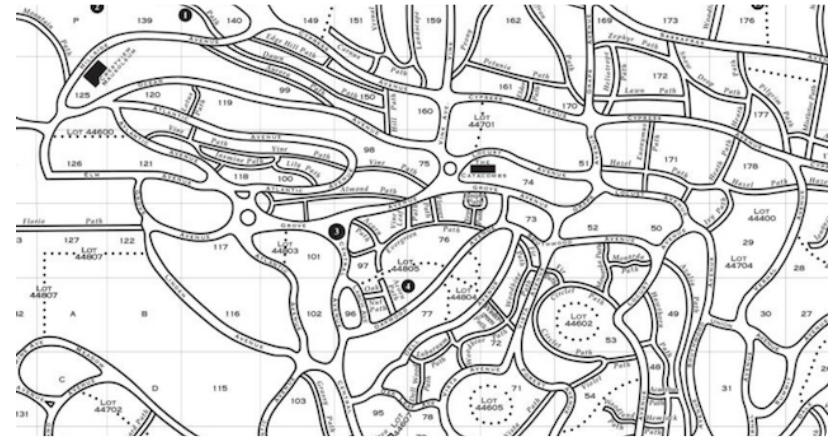
Cemetery Road Layout Configurations

Linear

- Formal
- Symmetrical
- Longer distance view corridors

Curvilinear

- Organic
- Sense of discover
- Changing views & 'moments'



Curvilinear example



These organizing elements also apply to the pedestrian paths



Grand Island Cemetery Layout, formal symmetry

Traditional Cemetery Layouts

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Cemetery Gate Types



Brick Wall



Boxwood Hedge - Living Buffer



Fence Types



Brick Wall



Steel Fence



Boxwood Hedge - Living Buffer

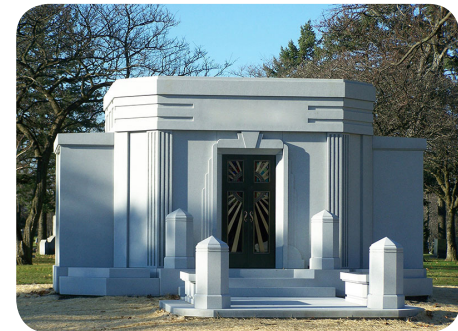
Monuments & Mausoleums



Brick Gateway



Monument



Mausoleum

Typical Cemetery Elements

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Columbarium Types

- Free-standing Walls & Rooms
- Fountains | Seating Area
- Monuments | Sculptures
- Retaining Walls
- Ground-level Plaques



Water Feature



Free-standing Wall



Monument / Sculptural



Upright & Ground-level Plaques



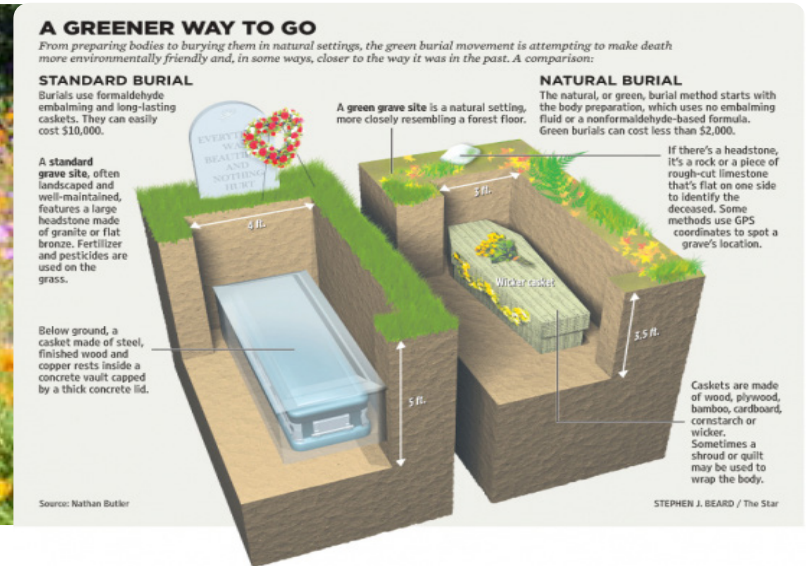
Wall along Path



Retaining wall 'room'

Typical Columbarium Types

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Potential Benefits of Green Burials in Grand Island

- These offer a unique opportunity to increase tree numbers and species while offsetting the development cost through this new revenue source.
- Benefit to customers/City may be a reduced cost for a casket/head stone or an urn/columbarium.
- Allow for more lots to be sold, that may have otherwise just been space taken up without revenue.
- Should extend the capacity of the cemetery expansion as more space can be dedicated to alternative burials.
- Diversify its revenue sources by offering green burials as an alternate to cremation or traditional burials.
- Reduce maintenance costs due to consolidation of cremation urns into a columbarium. (Cremation urns can be placed on a traditional plot with a marker, but there may need to increase in plot charges to offset maintenance costs that are not required for columbarium interments.)
- Possibly help boost sales at local tree nurseries.
- Benefit to customers/City may be a reduced cost for a casket/head stone or an urn/columbarium.

Green Burial Benefits

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Webb Road Cemetery Master Plan Study

City of Grand Island
Parks and Recreation Department

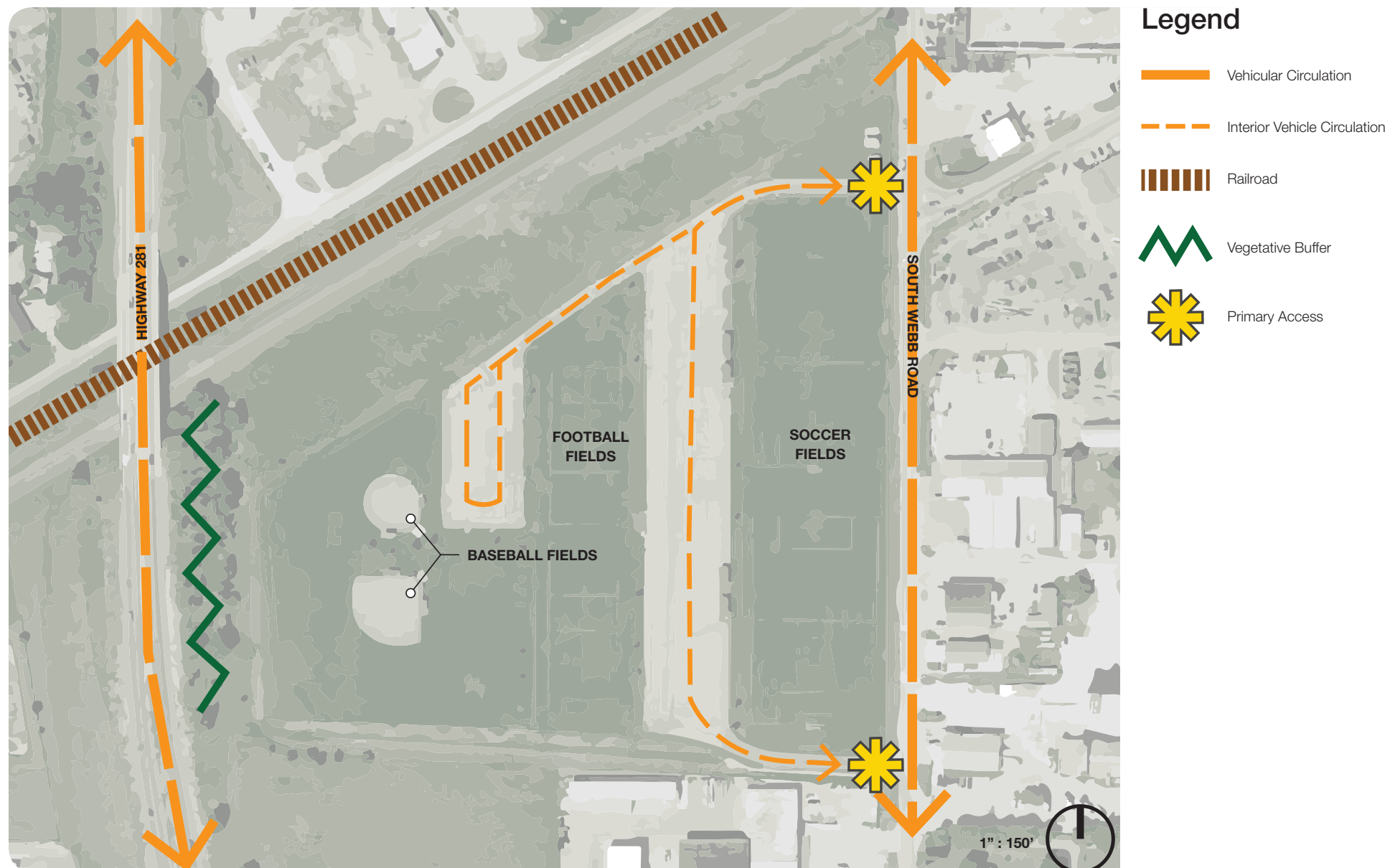
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Webb Road Cemetery Master Plan Study

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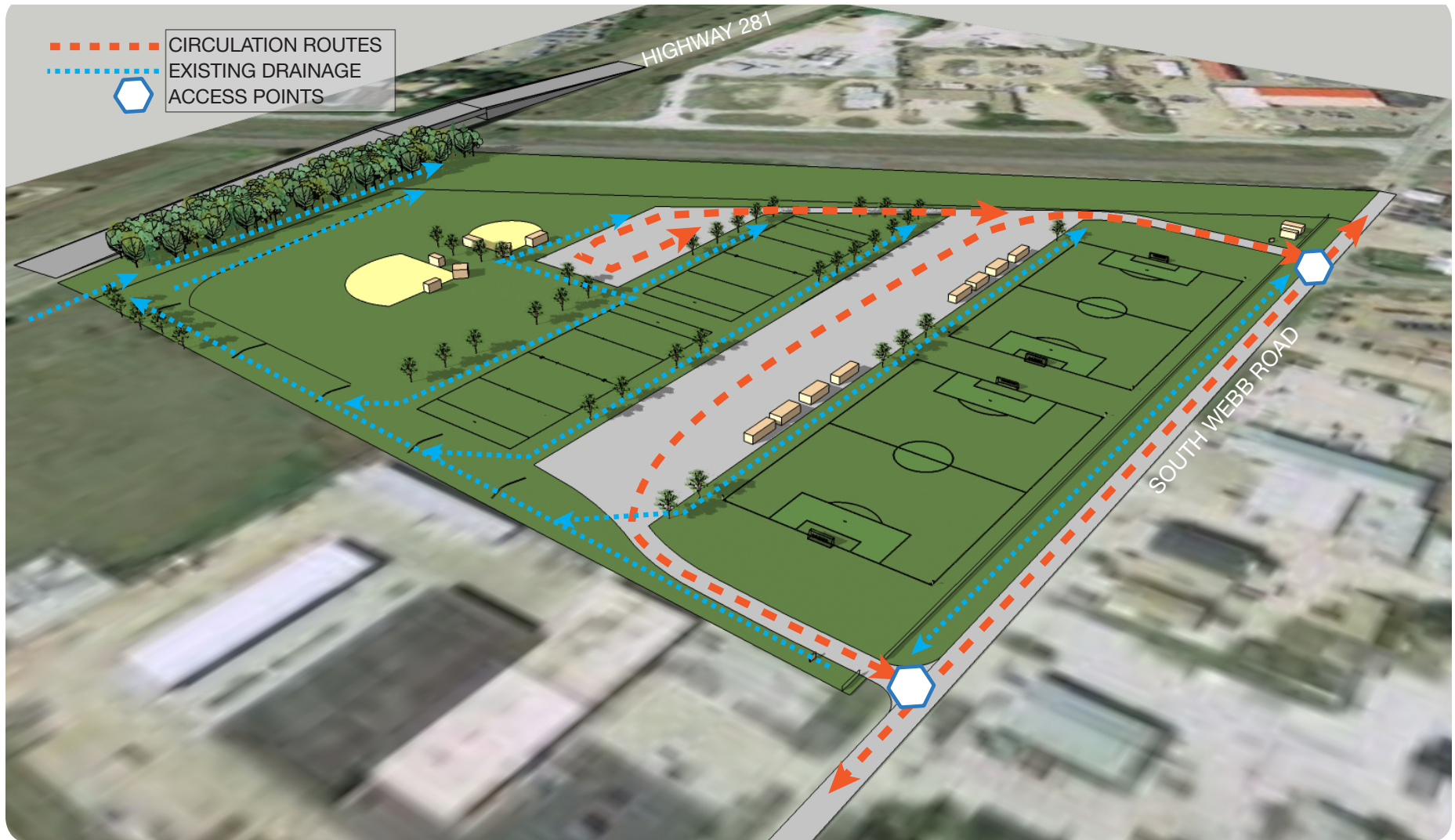
Webb Road - Existing Site Analysis



Webb Road Site Analysis

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Webb Road Site - Existing Site Circulation & Drainage



Webb Road Site Analysis

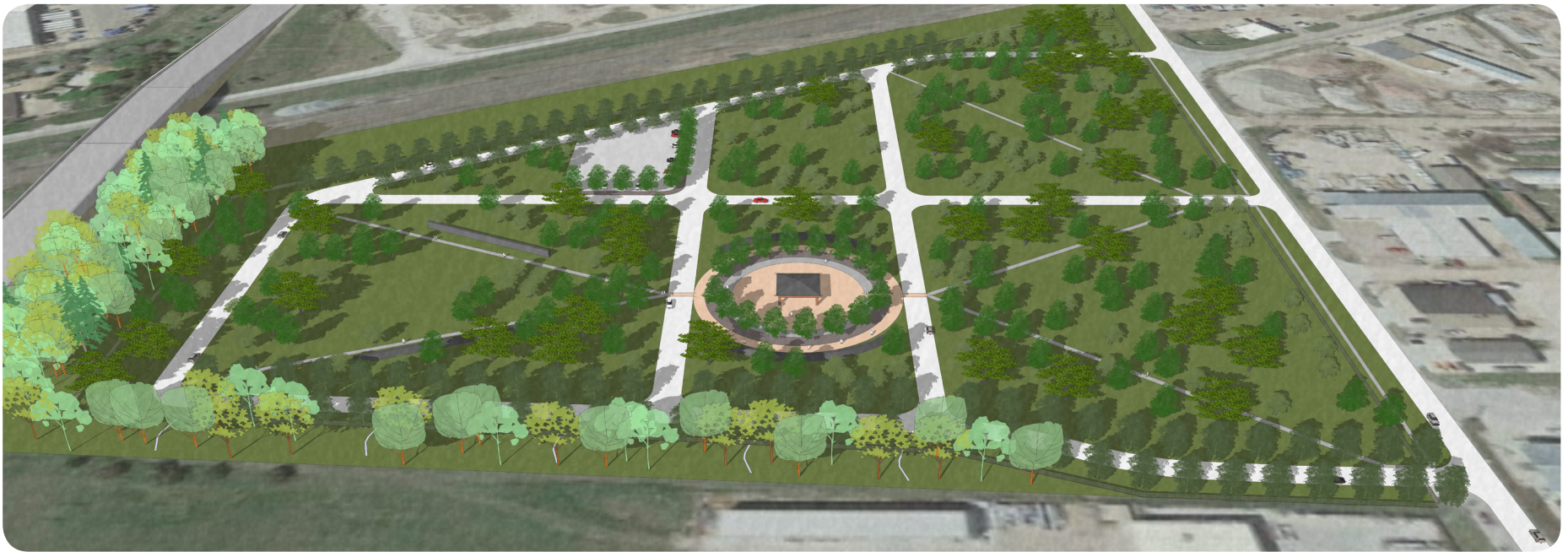
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Webb Road Site - Master Plan



Webb Road - Master Plan Design

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View from South



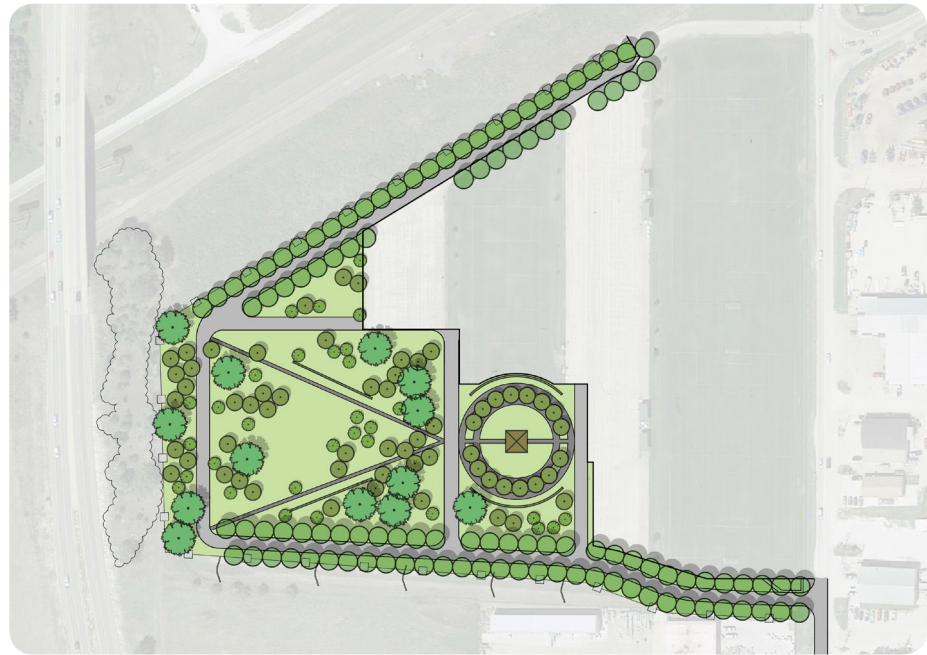
View from East

Webb Road - Master Plan Design

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Master Plan - Phase 1

- Remove Baseball Fields
- Maintain Parking Areas
- Soccer Fields Remain
- Install Buffer Trees
- Columbarium
- Commitment Pavilion
- Irrigation Conversion for Cemetery Purposes



Grand Island Cemtery Expansion Study
Webb Road Cemetery - PHASE 1

7/5/2016

Demolition & Site Preparation

Item	Qty	Unit	Unit cost	Item Total	Remarks
Mobilization	1	LS	\$ 2,500.00	\$ 2,500.00	
Removal of Ball Diamonds	2	EA	\$ 45,000.00	\$ 90,000.00	Includes infield skin, backstop, fencing and footings (if necessary)

Concrete Pavements & Hardscape elements

Item	Qty	Unit	Unit cost	Item Total	Remarks
HMA Asphalt Surface Driveways	53,280	SF	\$ 7.00	\$ 372,960.00	3" HMA lift on 6" compacted aggregate base
Predestrian walkways	24,750	SF	\$ 7.00	\$ 173,250.00	3" HMA lift on 6" compacted aggregate base
Drive and Parking Lighting	1	LS	\$ 55,000.00	\$ 55,000.00	Allowance

Commitment Pavilion & Columbarium

Item	Qty	Unit	Unit cost	Item Total	Remarks
Commitment Pavilion	1	LS	\$ 120,000.00	\$ 120,000.00	2500 sf Covered Shelter (approx. 50'x50')
Electrical	1	LS	\$ 15,000.00	\$ 15,000.00	Electrical Service and fixtures
Columbarium	1	LS	\$ 250,000.00	\$ 250,000.00	Covers full build-out

Landscaping

Item	Qty	Unit	Unit cost	Item Total	Remarks
Medium Evergreen Trees	15	EA	\$ 450.00	\$ 6,750.00	5' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Overstory Trees	250	EA	\$ 400.00	\$ 100,000.00	2" Caliper - Speciman Quality - Includes soil amendment and harwood mulch
Understory Trees	15	EA	\$ 300.00	\$ 4,500.00	4' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Replace any plant material or turf disturbed by construction activities	1	EA	\$ 12,000.00	\$ 12,000.00	Allowance
Irrigation system upgrades	1	EA	\$ 50,000.00	\$ 50,000.00	Allowance

Subtotal				\$ 1,251,960.00	
Project Contingency (10%)				\$ 125,196.00	
TOTAL				\$ 1,377,156.00	

Webb Rd - Master Plan - Phase 1

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Master Plan - Phase 2

- Enhance Main & Northern Entrance
- Install Portion of Decorative Fencing along Webb Road.
- Remove Southern Soccer Field
- Maintain Northern Soccer Fields and Parking.



Grand Island Cemetery Expansion Study

Webb Road Cemetery - PHASE 2

7/5/2016

Demolition & Site Preparation

Item	Qty	Unit	Unit cost	Item Total	Remarks
Mobilization	1	LS	\$ 5,000.00	\$ 5,000.00	
Removal of existing asphalt/gravel parking area	60,000	SF	\$ 4.00	\$ 240,000.00	Materials to be reused for proposed roadways
Removal of Soccer fields	2	EA	\$ 5,000.00	\$ 10,000.00	

Concrete Pavements & Hardscape elements

Item	Qty	Unit	Unit cost	Item Total	Remarks
HMA Asphalt Surface Driveways	18,750	SF	\$ 7.00	\$ 131,250.00	3" HMA lift on 6" compacted aggregate base
Predestrian walkways	9,750	SF	\$ 7.00	\$ 68,250.00	3" HMA lift on 6" compacted aggregate base
Drive and Parking Lighting	1	LS	\$ 55,000.00	\$ 55,000.00	Allowance
Decorative Fence along Webb Rd.	1,250	LF	\$ 100.00	\$ 125,000.00	Allowance, incorporates special gate feature at main entrance

Landscaping

Item	Qty	Unit	Unit cost	Item Total	Remarks
Medium Evergreen Trees	15	EA	\$ 450.00	\$ 6,750.00	5' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Overstory Trees	125	EA	\$ 400.00	\$ 50,000.00	2" Caliper - Speciman Quality - Includes soil amendment and harwood mulch
Understory Trees	25	EA	\$ 300.00	\$ 7,500.00	4' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Replace any plant material or turf disturbed by construction activities	1	EA	\$ 12,000.00	\$ 12,000.00	Allowance
Irrigation system upgrades	1	EA	\$ 50,000.00	\$ 50,000.00	Allowance

Subtotal				\$ 760,750.00	
Project Contingency (10%)				\$ 76,075.00	
TOTAL				\$ 836,825.00	

Webb Rd - Master Plan - Phase 2



Master Plan - Phase 3

- Remove Remaining Soccer Fields and Parking
- Develop Remaining Parcel Dependent on Future Burial Trends
- Final Irrigation Expansion



Grand Island Cemetery Expansion Study

Webb Road Cemetery - PHASE 3

7/5/2016

Demolition & Site Preparation

Item	Qty	Unit	Unit cost	Item Total	Remarks
Mobilization	1	LS	\$ 5,000.00	\$ 5,000.00	
Removal of existing asphalt/gravel parking area	50,000	SF	\$ 4.00	\$ 200,000.00	Materials to be reused for proposed roadways
Removal of Soccer fields	2	EA	\$ 5,000.00	\$ 10,000.00	

Concrete Pavements & Hardscape elements

Item	Qty	Unit	Unit cost	Item Total	Remarks
HMA Asphalt Surface Driveways	9,600	SF	\$ 7.00	\$ 67,200.00	3" HMA lift on 6" compacted aggregate base
Predestrian walkways 6' wide	8,040	SF	\$ 7.00	\$ 56,280.00	3" HMA lift on 6" compacted aggregate base
Drive and Parking Lighting	1	LS	\$ 15,000.00	\$ 15,000.00	Allowance

Landscaping

Item	Qty	Unit	Unit cost	Item Total	Remarks
Medium Evergreen Trees	15	EA	\$ 450.00	\$ 6,750.00	5' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Overstory Trees	75	EA	\$ 400.00	\$ 30,000.00	2" Caliper - Speciman Quality - Includes soil amendment and harwood mulch
Understory Trees	25	EA	\$ 300.00	\$ 7,500.00	4' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Replace any plant material or turf disturbed by construction activities	1	EA	\$ 12,000.00	\$ 12,000.00	Allowance
Irrigation system upgrades	1	EA	\$ 50,000.00	\$ 50,000.00	Allowance

Subtotal				\$ 459,730.00	
Project Contingency (10%)				\$ 45,973.00	
TOTAL				\$ 505,703.00	

Webb Rd - Master Plan - Phase 3

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Capital Avenue Cemetery Master Plan Study

City of Grand Island
Parks and Recreation Department

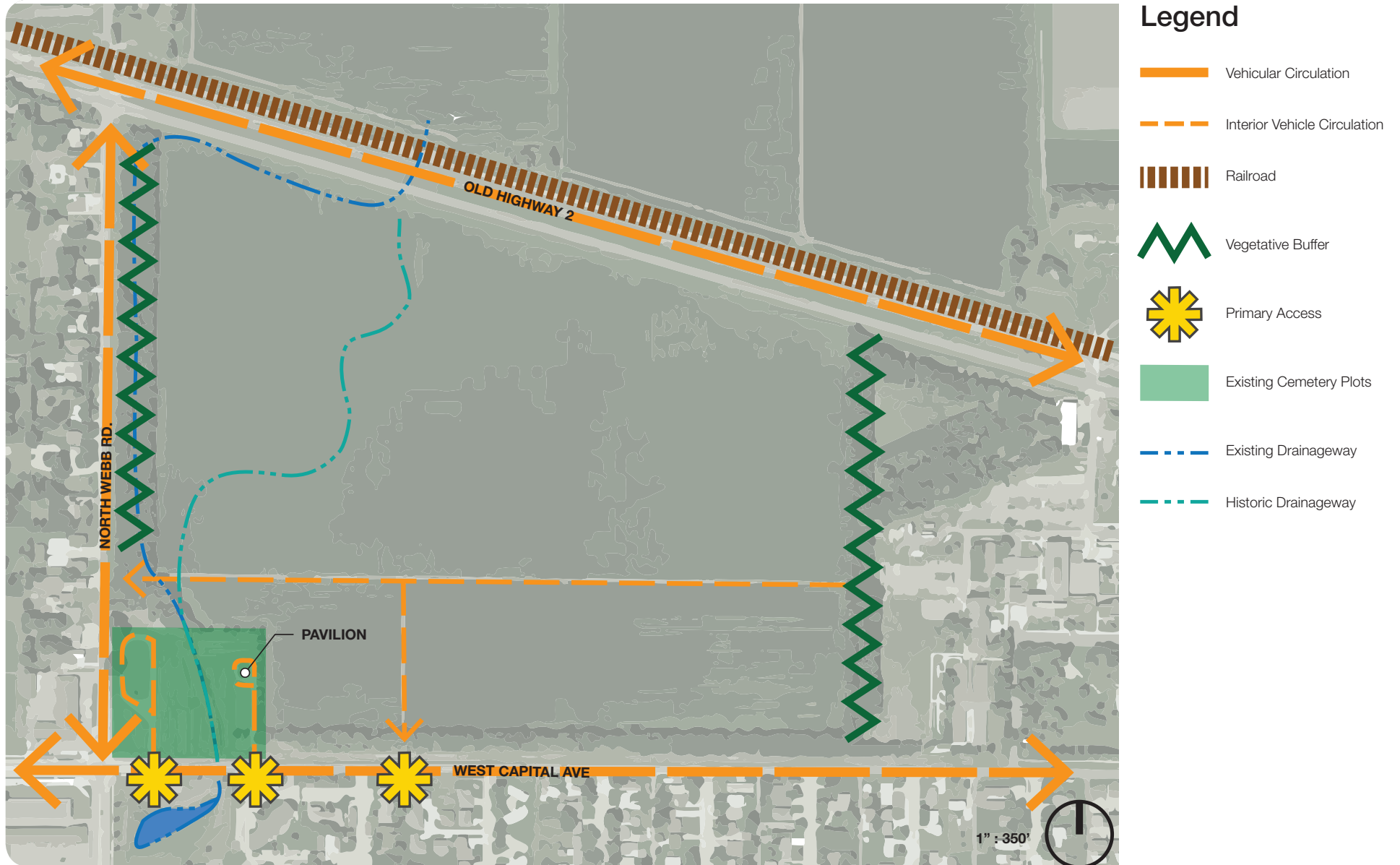
November 2016



Capital Avenue Cemetery Master Plan Study

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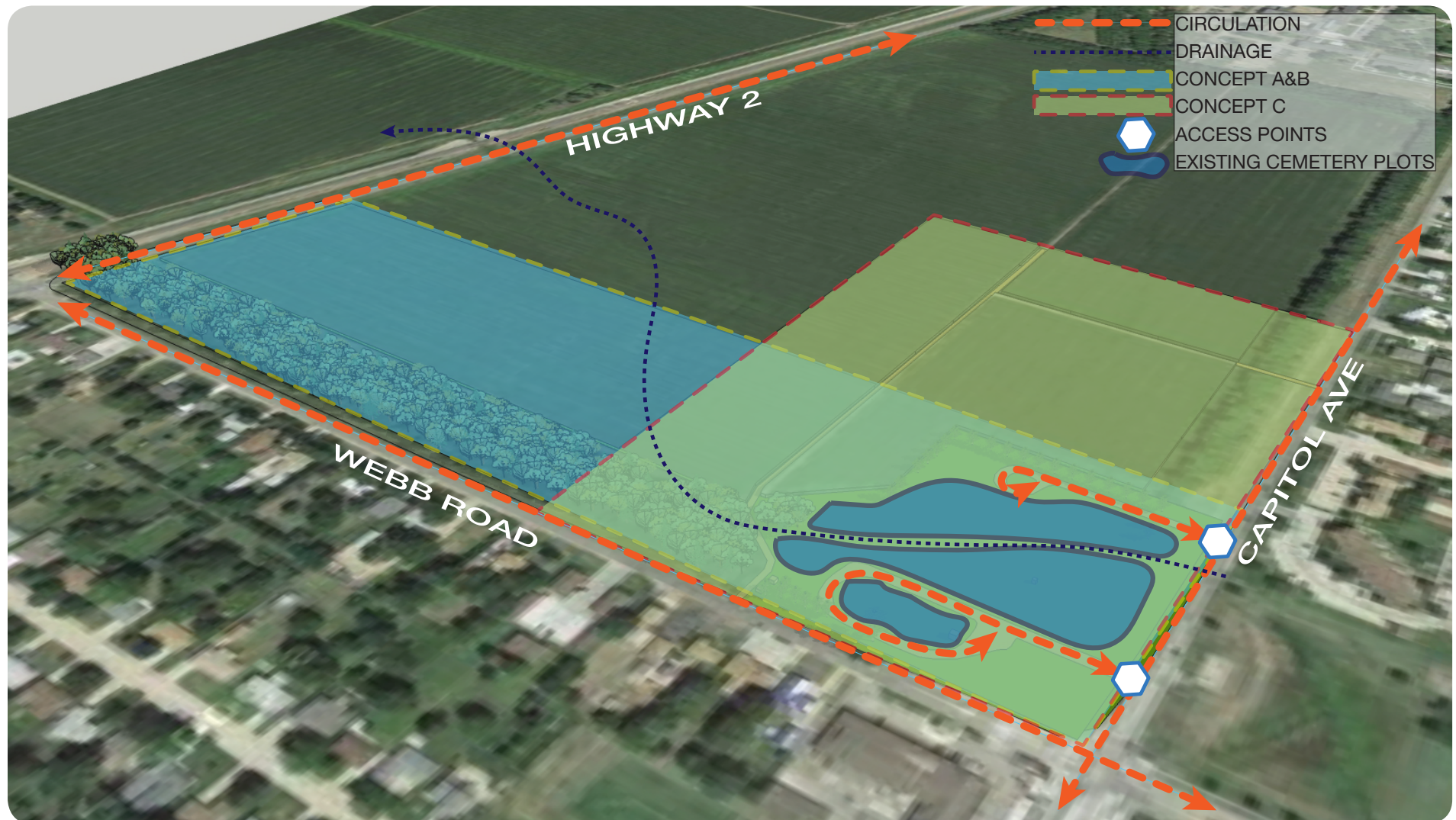
Capital Avenue - Existing Site Analysis



Capital Avenue Site Analysis

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Concept Adaption Options

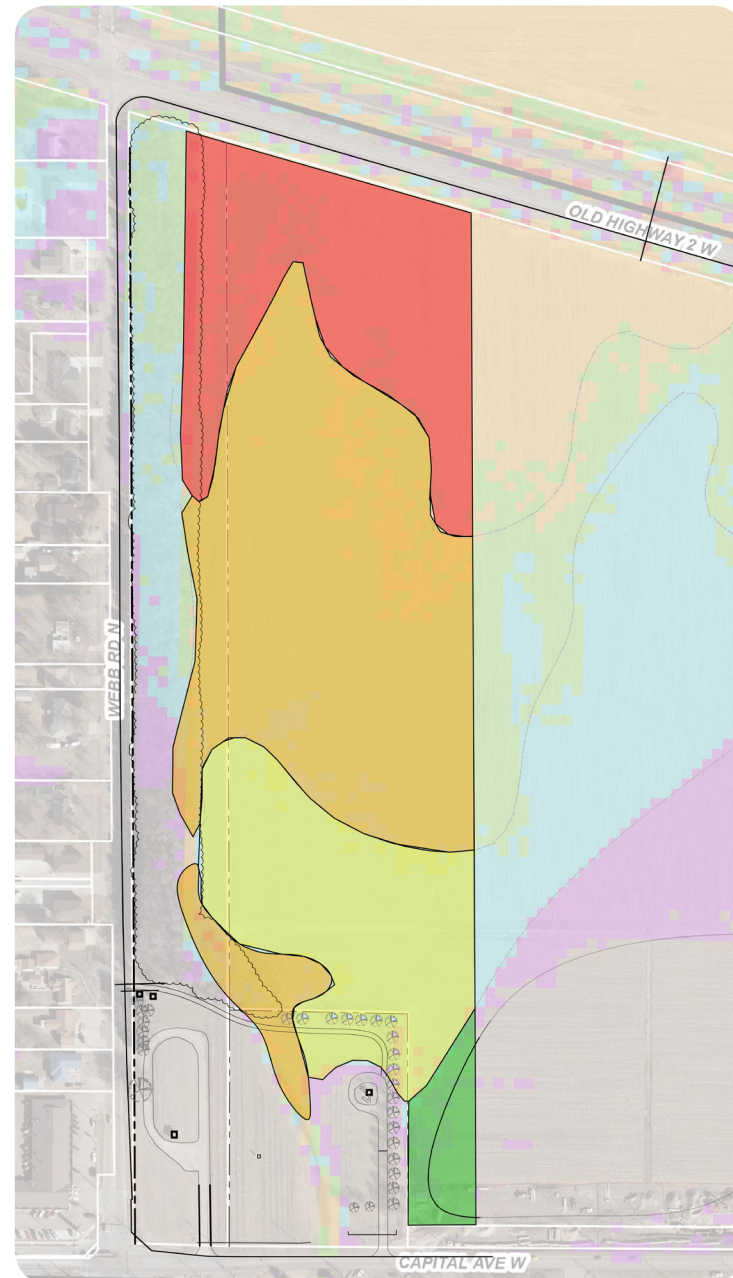


Capital Avenue Site Analysis

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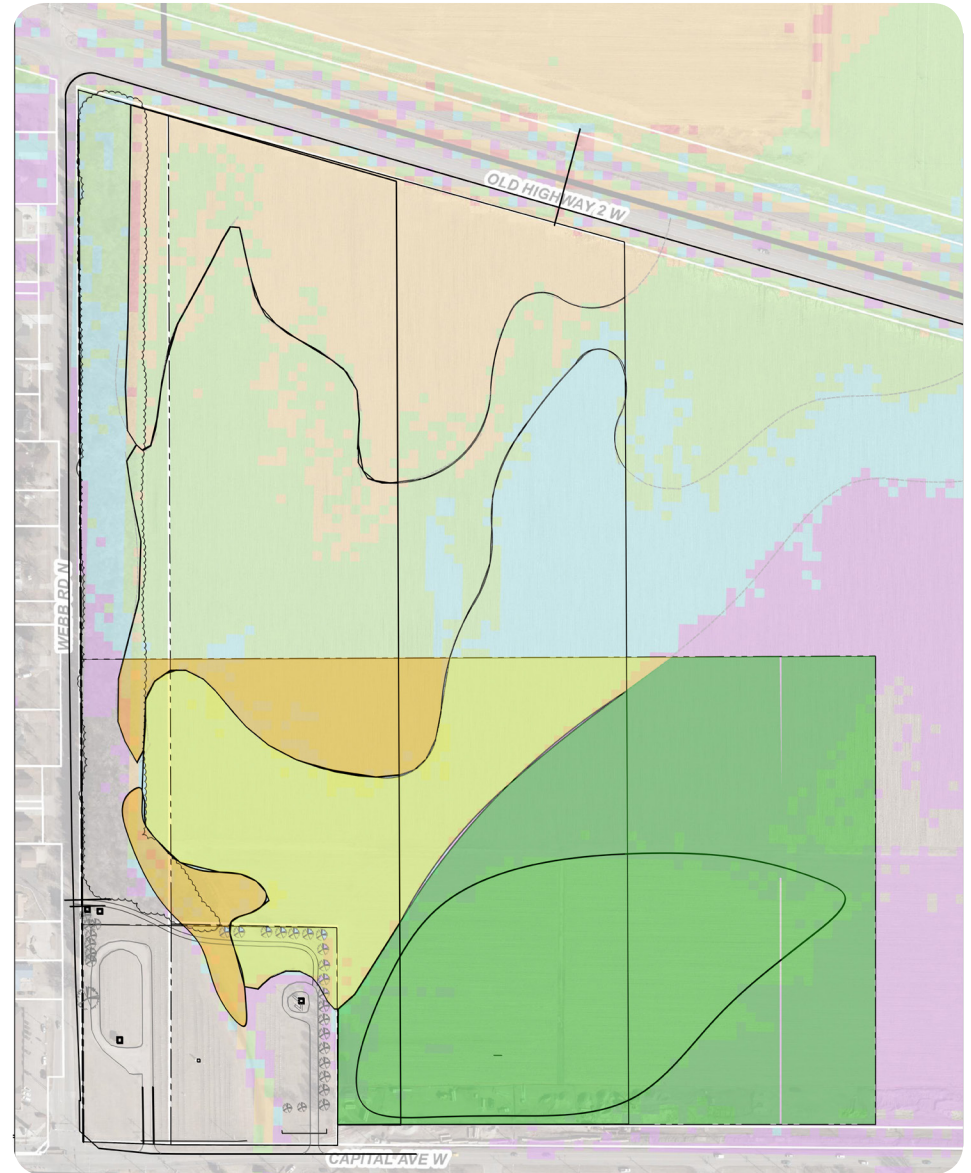
Original Study Site Boundary

- High-water table on the northern portion of the site (red and orange)
- 2/3 of the site would be problematic for traditional ground burials.
- Leaves little room for cemetery expansion without major earthwork



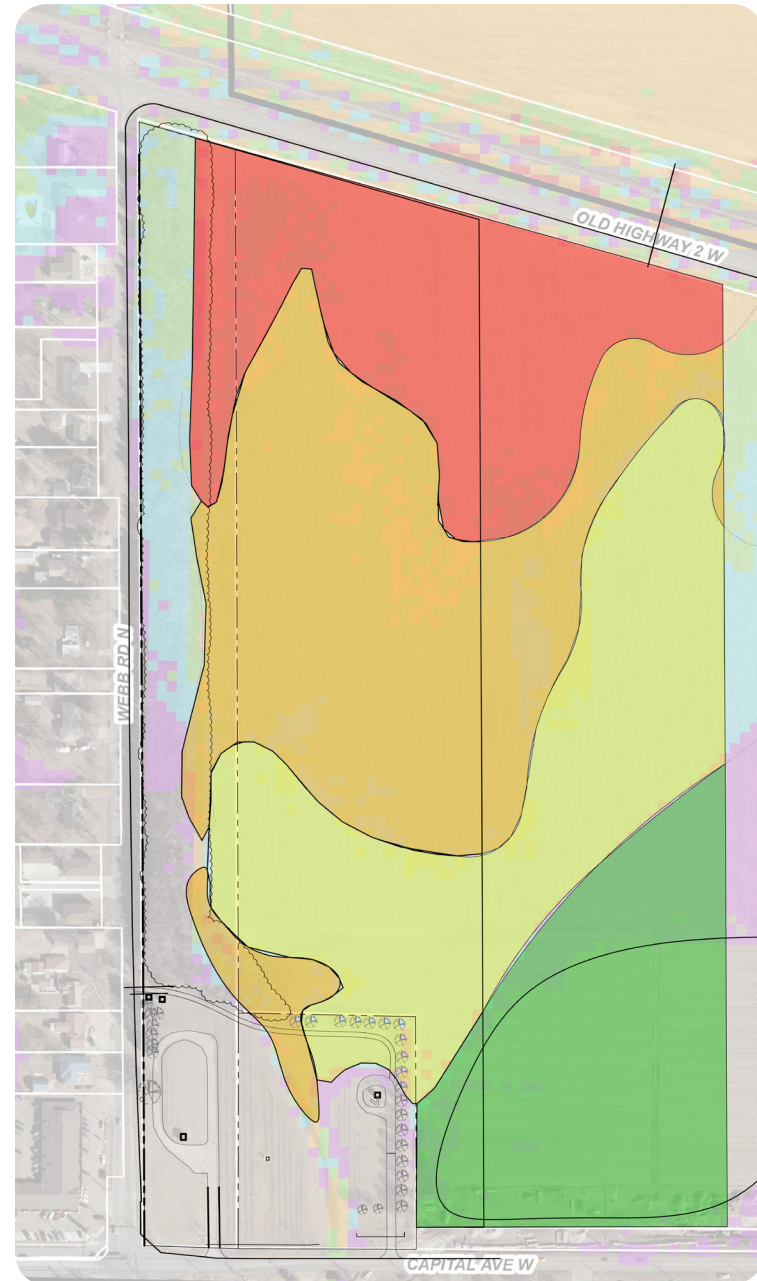
Revised Site Boundary

- The design team explored a different site boundary with a greater presence along Capital Avenue.
- Nearly all of this site would be suitable for cemetery use (green and yellow).
- Uses more land along Capital Avenue that could be developed for other land-uses.



Final Study Site Boundary

- With an expanded presence along Capital Avenue, this boundary provide adequate space for immediate expansion of traditional burials.
- Without encroaching on other potential developments along Capital Ave., this boundary includes the land to the north with a high water table, since this and is unlikely to be developed by a different land use.
- In the area of high water table, the design intent is to mitigate through earthwork and creation of retention pond.



Final Master Plan Design



Capital Avenue - Master Plan Design

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Master Plan Perspective - View from SE



Capital Avenue - Master Plan Design

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Master Plan Perspective - View from South



Capital Avenue - Master Plan Design

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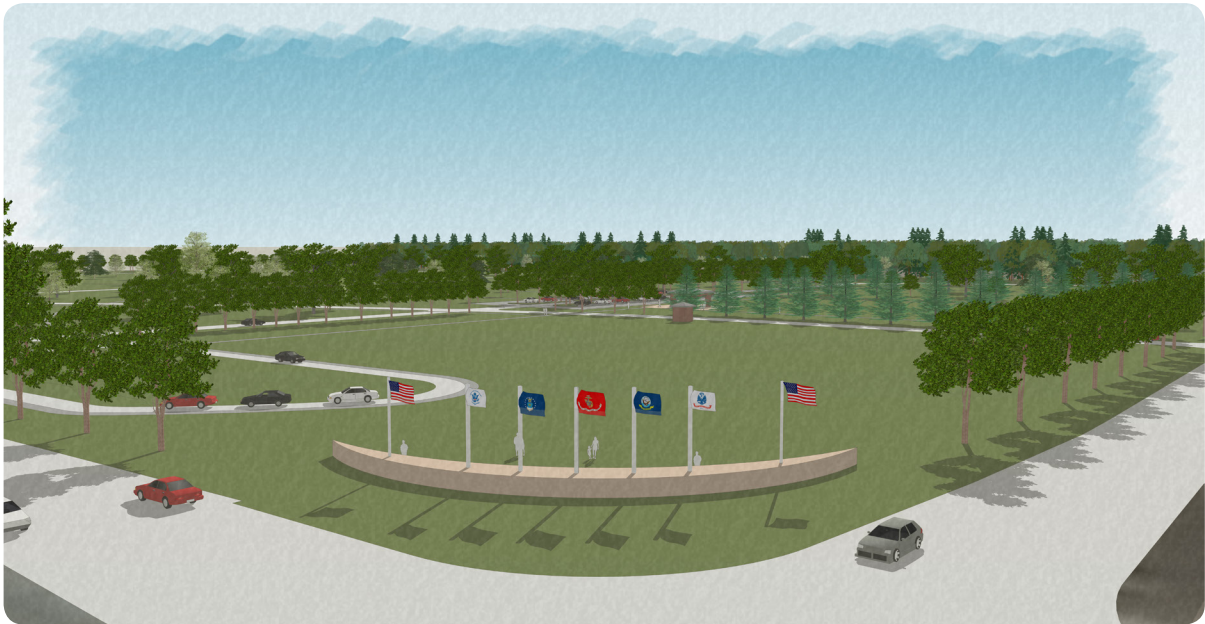
Master Plan Perspective - View from North



Capital Avenue - Master Plan Design

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Master Plan Perspectives



Capital Avenue - Master Plan Design



Master Plan - Phase 1

- Expand Veterans Memorial Cemetery
- Develop East Entrance on Capital
- Install Buffer Trees
- Columbarium & Commitment Pavilion
- Install Irrigation System
- Additional Parking



Demolition & Site Preparation

Item	Qty	Unit	Unit cost	Item Total	Remarks
Cemetery Trust Refund	1	LS	\$ 440,000.00	\$ 440,000.00	
Mobilization	1	LS	\$ 10,000.00	\$ 10,000.00	
Aggregate drive demo	1	LS	\$ 5,000.00	\$ 5,000.00	Remove access drive on Capital Ave. closest to Webb Rd.

Concrete Pavements & Hardscape elements

Item	Qty	Unit	Unit cost	Item Total	Remarks
HMA Asphalt Surface Driveways	83,335	SF	\$ 7.00	\$ 583,345.00	3" HMA lift on 6" compacted aggregate base
Predestrian walkways	27,000	SF	\$ 7.00	\$ 189,000.00	3" HMA lift on 6" compacted aggregate base
Drive and Parking Lighting	1	LS	\$ 45,000.00	\$ 45,000.00	Allowance

Maintenance Facility

Item	Qty	Unit	Unit cost	Item Total	Remarks
New Maintenance Facility	1	LS	\$ 100,000.00	\$ 100,000.00	5000 sf Pole Barn-type (50'x100')
Plumbing	1	LS	\$ 30,000.00	\$ 30,000.00	Water and Sanitary sewer service and fixtures
Electrical	1	LS	\$ 20,000.00	\$ 20,000.00	Electrical Service and fixtures, including exterior light for security
Associated Maintenance Equipment	1	LS	\$ 325,000.00	\$ 325,000.00	Covers any equipment that cannot be readily transported from GI Cemetery

Commitment Pavilion & Columbarium

Item	Qty	Unit	Unit cost	Item Total	Remarks
Commitment Pavilion	1	LS	\$ 60,000.00	\$ 60,000.00	625 sf Covered Shelter (approx. 25'x25')
Electrical	1	LS	\$ 10,000.00	\$ 10,000.00	Electrical Service and fixtures
Decorative Fence along Capital Ave.	1,050	LF	\$ 95.00	\$ 99,750.00	Allowance, Must incorporate existing gates
Columbarium	1	LS	\$ 125,000.00	\$ 125,000.00	Covers Phase 1 needs, but allows for future expansion

Landscaping

Item	Qty	Unit	Unit cost	Item Total	Remarks
Medium Evergreen Trees	12	EA	\$ 450.00	\$ 5,400.00	5' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Overstory Trees	125	EA	\$ 400.00	\$ 50,000.00	2" Caliper - Speciman Quality - Includes soil amendment and harwood mulch
Understory Trees	12	EA	\$ 300.00	\$ 3,600.00	4' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Replace any plant material or turf disturbed by construction activities	1	EA	\$ 5,000.00	\$ 5,000.00	Allowance
Irrigation system upgrades	1	EA	\$ 60,000.00	\$ 60,000.00	Allowance

Subtotal				\$ 2,166,095.00	
Project Contingency (10%)				\$ 216,609.50	
TOTAL				\$ 2,382,704.50	

Capital Avenue - Master Plan - Phase 1

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Master Plan - Phase 2

- Install Access on Webb Rd.
- Begin Curvilinear Roads
- Install Buffer Trees
- Central Columbarium
- Expand Irrigation System
- Children Burial Garden



Demolition & Site Preparation

Item	Qty	Unit	Unit cost	Item Total	Remarks
Mobilization	1	LS	\$ 10,000.00	\$ 10,000.00	
Demo & restoration of a portion of western woodland buffer	1	LS	\$ 20,000.00	\$ 20,000.00	Include removal and replacment trees
Earthwork and erosion contol	1	LS	\$ 20,000.00	\$ 20,000.00	Remove access drive on Capital Ave. closest to Webb Rd.

Concrete Pavements & Hardscape elements

Item	Qty	Unit	Unit cost	Item Total	Remarks
HMA Asphalt Surface Driveways	65,550	SF	\$ 7.00	\$ 458,850.00	3" HMA lift on 6" compacted aggregate base
Predestrian walkways	21,390	SF	\$ 7.00	\$ 149,730.00	3" HMA lift on 6" compacted aggregate base
Drive and Parking Lighting	1	LS	\$ 65,000.00	\$ 65,000.00	Allowance

Columbarium & Plaza

Item	Qty	Unit	Unit cost	Item Total	Remarks
Columbarium	1	LS	\$ 200,000.00	\$ 200,000.00	Includes full build-out of columbariums
Decorative paving at pedestrian plaza at Large Columbarium	1	LS	\$ 600,000.00	\$ 600,000.00	Allowance / Iconic Feature at Corner of Webb Rd. and Capital Ave.
Decorative at Hwy 2 Entrance	1	LS	\$ 25,000.00	\$ 25,000.00	Allowance
Electrical	1	LS	\$ 10,000.00	\$ 10,000.00	Electrical Service and fixtures

Landscaping

Item	Qty	Unit	Unit cost	Item Total	Remarks
Medium Evergreen Trees	12	EA	\$ 450.00	\$ 5,400.00	5' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Overstory Trees	95	EA	\$ 400.00	\$ 38,000.00	2" Caliper - Speciman Quality - Includes soil amendment and harwood mulch
Understory Trees	21	EA	\$ 300.00	\$ 6,300.00	4' tall B+B - Speciman Quality - Includes soil amendment and harwood mulch
Replace any plant material or turf disturbed by construction activities	1	EA	\$ 2,000.00	\$ 2,000.00	Allowance
Irrigation system upgrades	1	EA	\$ 100,000.00	\$ 100,000.00	Allowance
Subtotal				\$ 1,710,280.00	
Project Contingency (10%)				\$ 171,028.00	
TOTAL				\$ 1,881,308.00	

Capital Avenue - Master Plan - Phase 2



Master Plan - Phase 3

- Develop Pond (earthwork) to Mitigate High Water Table
- Install Access on Hwy 2
- Expand Curvilinear Roads
- Install Buffer Trees
- Expand Irrigation System
- Pet Burial Garden



Demolition & Site Preparation

Item	Qty	Unit	Unit cost	Item Total	Remarks
Mobilization	1	LS	\$ 10,000.00	\$ 10,000.00	
Demo & restoration of a portion of western woodland buffer	1	LS	\$ 20,000.00	\$ 20,000.00	
Earthwork and erosion control, including pond development	1	LS	\$ 100,000.00	\$ 100,000.00	Remove access drive on Capital Ave. closest to Webb Rd.

Concrete Pavements & Hardscape elements

Item	Qty	Unit	Unit cost	Item Total	Remarks
HMA Asphalt Surface Driveways	59,850	SF	\$ 7.00	\$ 418,950.00	3" HMA lift on 6" compacted aggregate base
Pedestrian walking paths - 6" wide	32,400	SF	\$ 7.00	\$ 226,800.00	3" HMA lift on 6" compacted aggregate base
Drive and Parking Lighting	1	LS	\$ 50,000.00	\$ 50,000.00	Allowance

Sculptures and Other Monuments

Item	Qty	Unit	Unit cost	Item Total	Remarks
Optional monuments or features	1	LS	\$ 60,000.00	\$ 60,000.00	
Decorative gate at Hwy 2 Entrance	1	LS	\$ 25,000.00	\$ 25,000.00	Allowance
Accent Lighting	1	LS	\$ 10,000.00	\$ 10,000.00	Electrical Service and fixtures

Landscaping

Item	Qty	Unit	Unit cost	Item Total	Remarks
Medium Evergreen Trees	24	EA	\$ 450.00	\$ 10,800.00	5' tall B+B - Speciman Quality - Includes soil amendment and hardwood mulch
Overstory Trees	125	EA	\$ 400.00	\$ 50,000.00	2" Caliper - Speciman Quality - Includes soil amendment and hardwood mulch
Understory Trees	18	EA	\$ 300.00	\$ 5,400.00	4' tall B+B - Speciman Quality - Includes soil amendment and hardwood mulch
Replace any plant material or turf disturbed by construction activities	1	EA	\$ 2,000.00	\$ 2,000.00	Allowance
Irrigation system upgrades	1	EA	\$ 45,000.00	\$ 45,000.00	Allowance

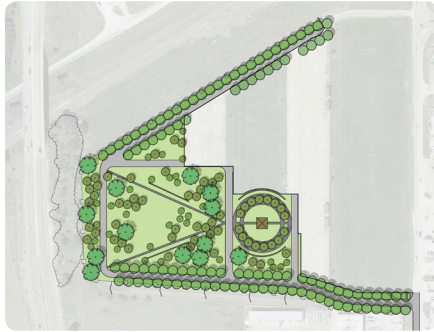
Subtotal				\$ 1,033,950.00	
Project Contingency (10%)				\$ 103,395.00	
TOTAL				\$ 1,137,345.00	

Capital Avenue - Master Plan - Phase 3

CITY OF
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NEBRASKA

Development Costs for Webb Road Site:

- Phase 1\$1,377,156



- Phase 2\$836,825



- Phase 3\$505,703



Total.....\$2,719,686
Full Build-out: 21 Acres
Development Cost per Acre: \$129,508

Development Costs for Capital Avenue Site:

- Phase 1\$2,382,704



- Phase 2\$1,881,308



- Phase 3\$1,137,345



Total.....\$5,401,357
Full Build-out: 67 Acres
Development Cost per Acre: \$80,617

Factors in Costs per Acre:

At Webb Road Site:

Removal and replacement of ball fields

- Estimated cost = \$90,000

Removal of parking lots

- 110,000 sf (Ph 2 & 3)
- Estimated cost = \$440,000
- Capital Avenue site relatively undeveloped = low removal costs

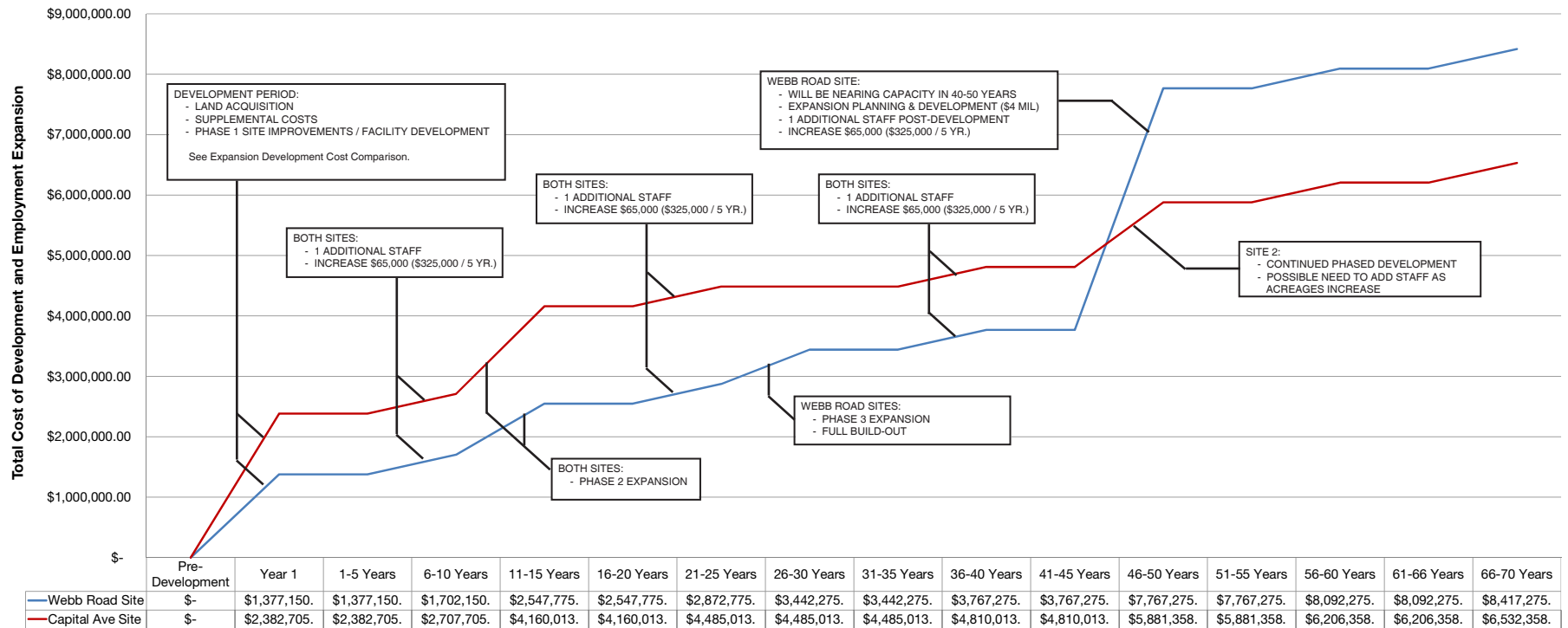
Cemetery Drives

- Webb Rd - 80,630 sf / 21 Acres
- - Density of Roads = 8.8%
- Capital Ave - 208,735 sf / 67 Acres
- - Density of Roads = 7.1%
- Ultimately it comes down to providing the same access, parking, and similar sized columbarium features to handle the cemetery's needs, but one site is more than twice the size of the other.

Master Plans by Phases - Cost Comparison

CITY OF
Grand Island
NEBRASKA

Grand Island Cemetery Expansion: Long-term Development & Personnel Analysis



** Graph only accounts for development and additional staffing needs over time. It does not include current annual operating costs of \$540,000 (\$2,700,000 / 5 year period).

Factors in Development Costs:

- Because the Webb Road site is much smaller, future development efforts may mean another significant investment in 50-60 years, as indicated in the analysis graph above.
- The Capital Avenue site will require initial investment in a maintenance facility and equipment, but those cost may be able to be shared with the Veteran's Memorial Cemetery efforts, since the plan accounts for their expansion, as well.

Additional Factors to Consider:

- It must be accepted that the current 90 acres of pristine landscape at the current Grand Island Cemetery will soon be at capacity. At that time, maintenance will still continue, but there will be ZERO revenue from this parcel. This is what the 'permanent maintenance fund' has been created for, so that a level of maintenance can continue once it's revenue generating capacity is exhausted.

Possible Revenue Generating Opportunities:

- Increase Burial Service Charges
- Increase Charge for Burial Plots
- Increase Charge for Permanent Maintenance Fund
- Additional Plots available for Green Burials that otherwise would be unsold and occupied by tree plantings.
- Increase in Burial Service and Plot demand due to the aging of the Baby-Boomer Generation.
- Increase in demand if Westlawn is to reach capacity or retire it's burial service business.

Possible Opportunities to Reduce Operating Costs:

- Reduce maintenance expectations and staffing needs at the existing 90 Acre Grand Island Cemetery.
- Maintenance Cost Sharing Agreements - Between Sports Field Organizations at Webb Road and between the Veterans' Memorial Cemetery staff.
- Approach community organizations or clubs to explore volunteer opportunities to offset some maintenance costs. Examples may be a Master Gardeners Club or Kiwanis-type of organization.

Questions?

Commissioned by
City of Grand Island - Parks and Recreation Department
Director: Todd McCoy

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