



Huron Hills Golf Course

- Team
- Background
- Goals and Objectives
- Layout
- Construction Timeline
- Funding
- Questions and Answers



Project Team

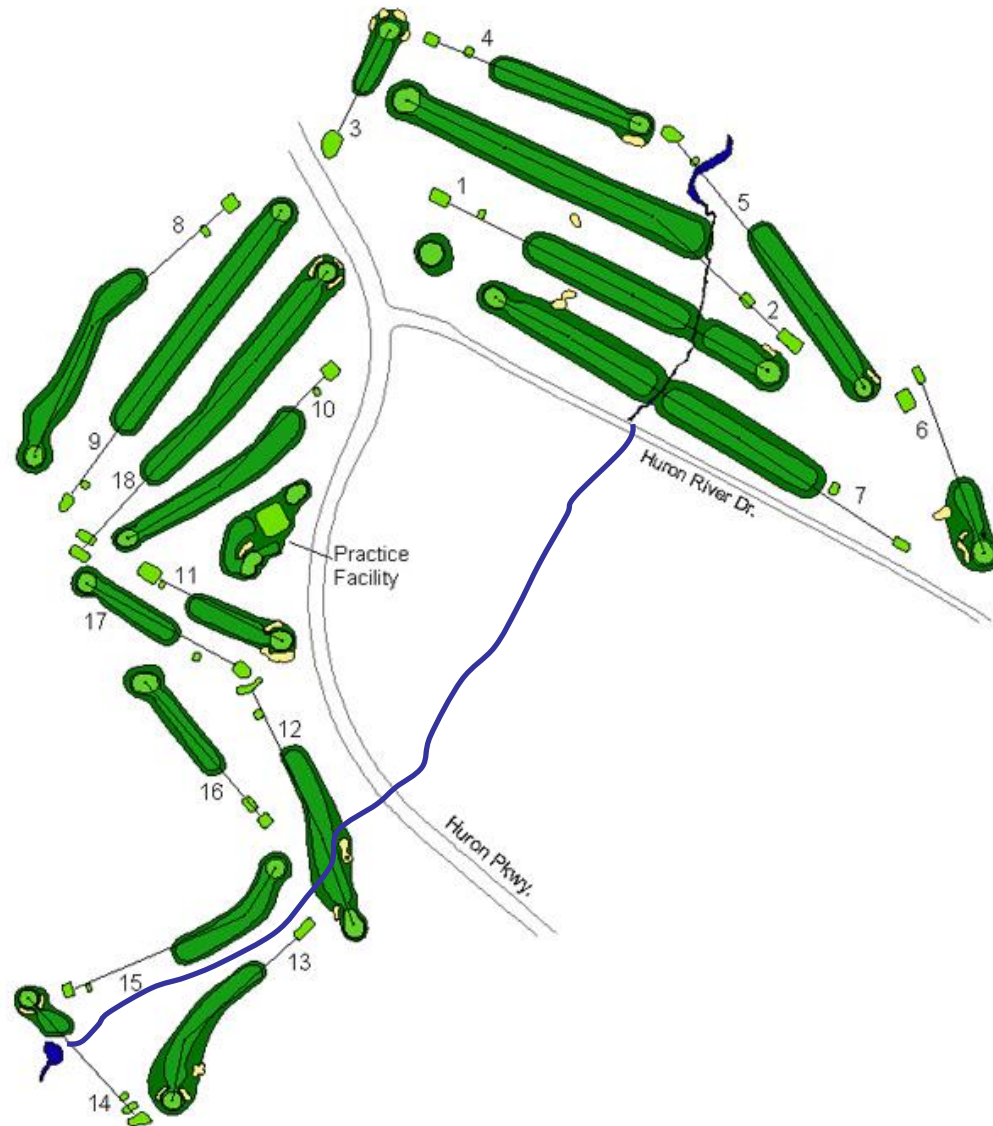
- Colin Smith – A2 Parks
- Scott Spooner – A2Parks
- Doug Kelly – A2Golf
- Andrew Walton – A2Golf
- Victor Morales-Rios – A2 Golf
- Jennifer Lawson – Systems Planning
- Dave Borneman – NAP
- Harry Sheehan – Washtenaw County
- Lynne Seymour – Hubbell, Roth & Clark
- Stephanie Petriello – Hubbell, Roth and Clark
- Shannan Gibb-Randall – InSite Design Studio
- Susan Knoblet – InSite Design Studio



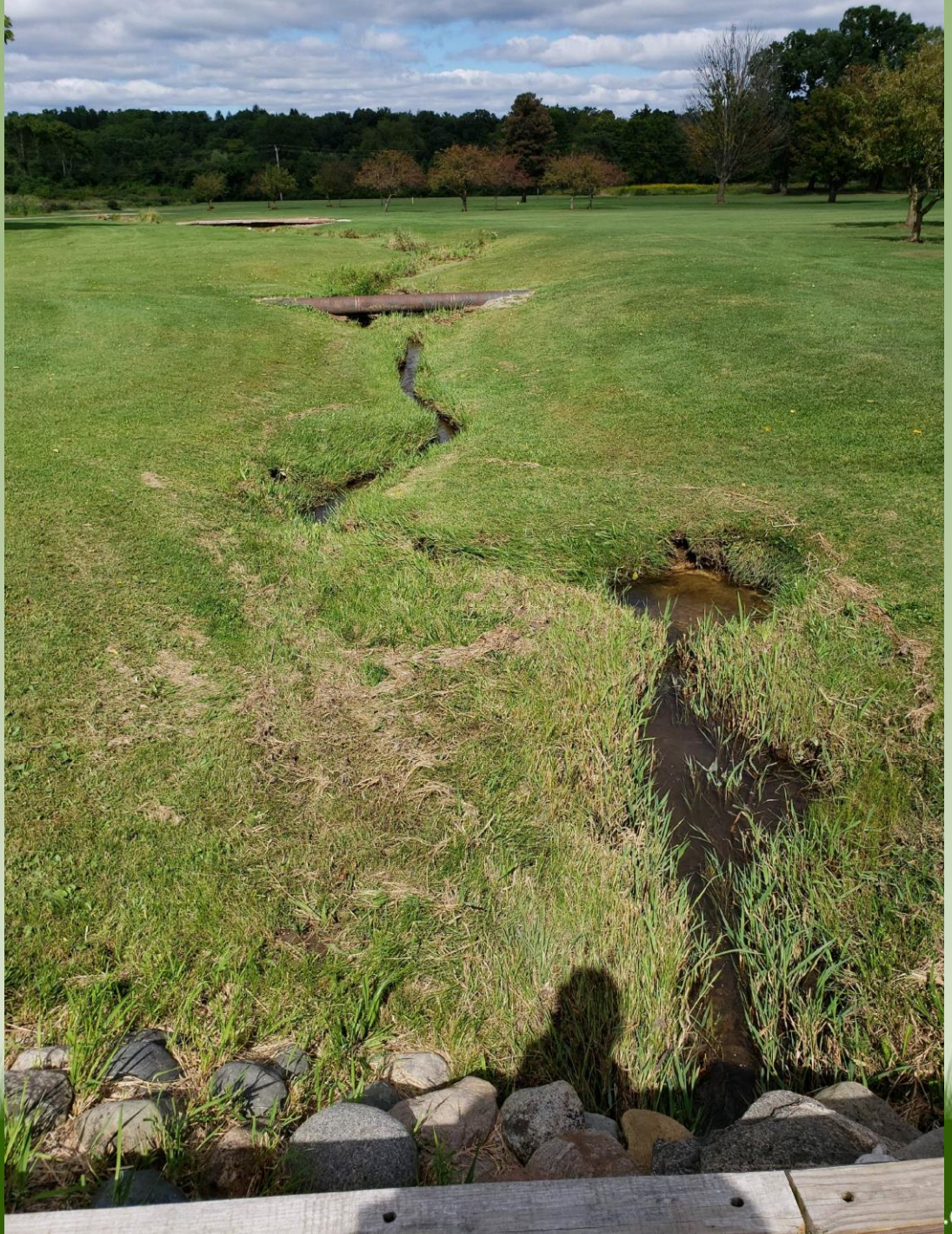
Regional Water Quality



Unnamed Creek Benz Creek



Existing Conditions





Existing Conditions





Existing Conditions





Background – Problem Statement

- ❑ The stream channel is eroding on the front 7
- ❑ Existing vegetated buffer is minimal; turfgrass
- ❑ Loss of channel/wetlands on the back 11
- ❑ Flooding and saturation are problematic
- ❑ Limited stormwater detention
- ❑ Limited water quality treatment



Project Goals

☐ Functional (Stormwater Quantity)

- ❖ Add detention and slow stuff down

☐ Ecological (Stormwater Quality)

- ❖ Sediment Removal
- ❖ Phosphorus Reduction
- ❖ Habitat Improvement

☐ Recreational

- ❖ Design/Facilities Improvements



Leslie Park Golf Course



FIGURE 15

Proposed Stormwater Improvements
Huron Hills Golf Course
2019 SRF Project Plan

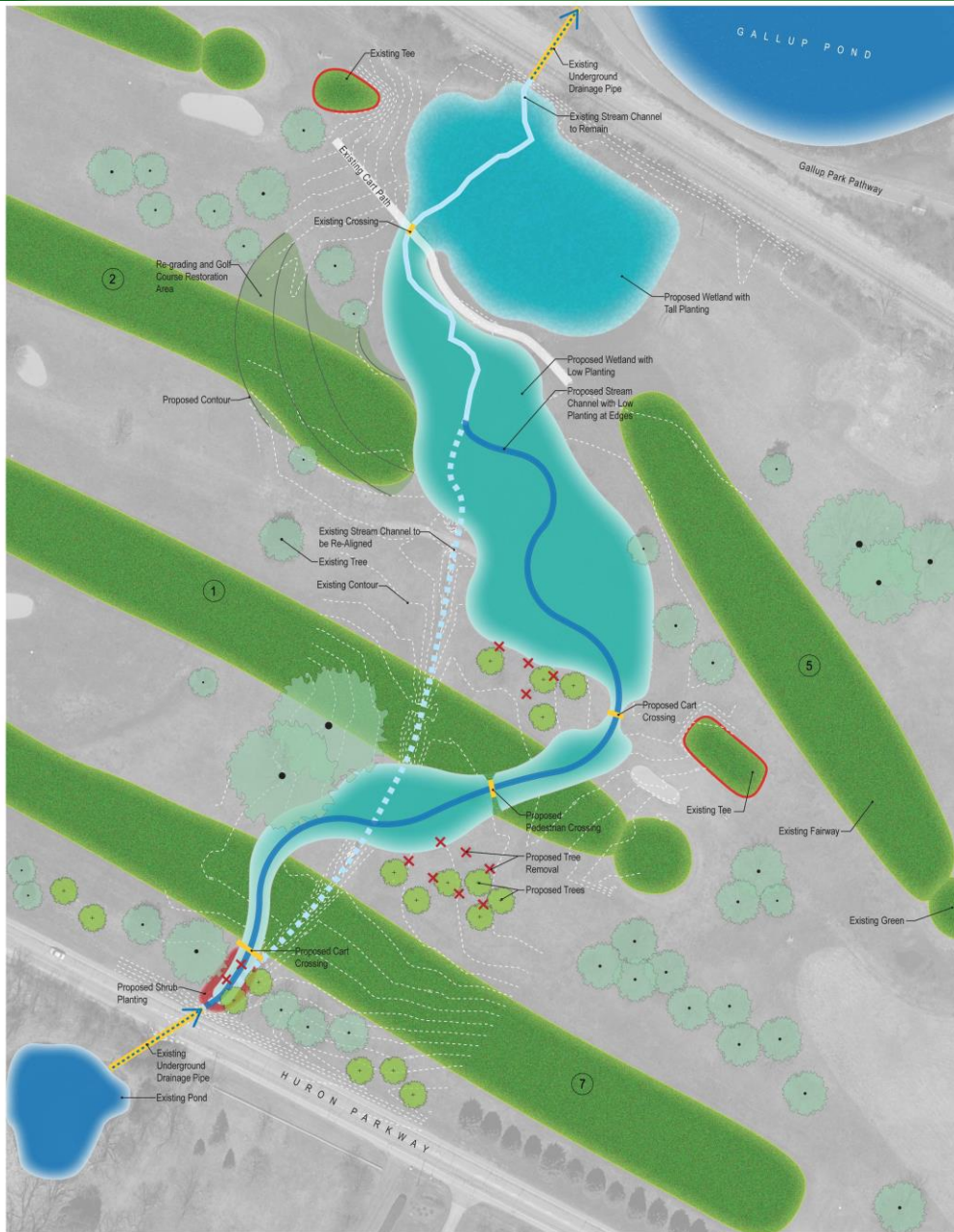
Restoration Activities

- Stream Channel to Remain
- Abandoned Channel
- New Stream Channel
- Crossings
- Wetlands



1 inch = 250 feet





WETLAND SEED MIX: TALL PLANTING

Big Blue-stem
Swamp Milkweed
New England Aster
Fringed Borneo
Belt's Oval Sedge
Porcupine Sedge
Prairie Star Sedge
Common Lake Sedge
Lance-Fruited Oval Sedge
Common Fox Sedge
Common Teasock Sedge
Fox Sedge
Blunt Spike-Rush
Creeping Spike-Rush
Rattlesnake Master
Boneset
Joe-Pye Weed
Soft-Stemmed Rush
Switch Grass
Obedient Plant
Yellow Coneflower
Wool-Grass
Prairie Dock
Cordgrass
Ironweed
Culver's root

WETLAND PLANTS: LOW

Sweet Flag
Canada Anemone
Calico Aster
Marsh marigold
Belt's Oval Sedge
Palm Sedge
Lance-Fruited Oval Sedge
Fox Sedge
Rattlesnake Master
Blue Flag Iris
Path Rush
Cardinal lobelia
Great blue lobelia
Sensitive Fern
Common Cinquefoil
Black-eyed Susan

WETLAND SEED MIX: LOW PLANTING

Sweet Flag
Calico Aster
Marsh marigold
Riverbank Sedge
Palm Sedge
Rattlesnake Master
Bottle Gentian
Virginia Waterleaf
Blue flag iris
Cardinal Lobelia
Great blue lobelia
Monkey flower
Obedient Plant
Pickard Weed
Rosa palustris
Black-eyed Susan
Riddle's goldenrod

STREAM EDGE PLANTS: LOW

Canada Anemone
Calico Aster
Marsh marigold
Belt's Oval Sedge
Palm Sedge
Lance-Fruited Oval Sedge
Fox Sedge
Rattlesnake Master
Blue Flag Iris
Path Rush
Cardinal lobelia
Great blue lobelia
Sensitive Fern
Common Cinquefoil
Black-eyed Susan

LEGEND

- Existing Contour
- Existing Fairway / Green
- Existing Tee
- Existing Tree
- Existing Pond
- Existing Stream Channel
- Existing Stream Channel to be Re-Aligned
- Proposed Contour
- Proposed Tree
- Proposed Tree Removal
- Underground Drainage Pipe
- Proposed Cart/ Pedestrian Crossing
- Proposed Stream Channel with Low Planting at Edges
- Proposed Wetland with Tall Planting
- Proposed Wetland with Low Planting
- Proposed Re-Grading and Golf Course Restoration Area
- Proposed Shrub Planting

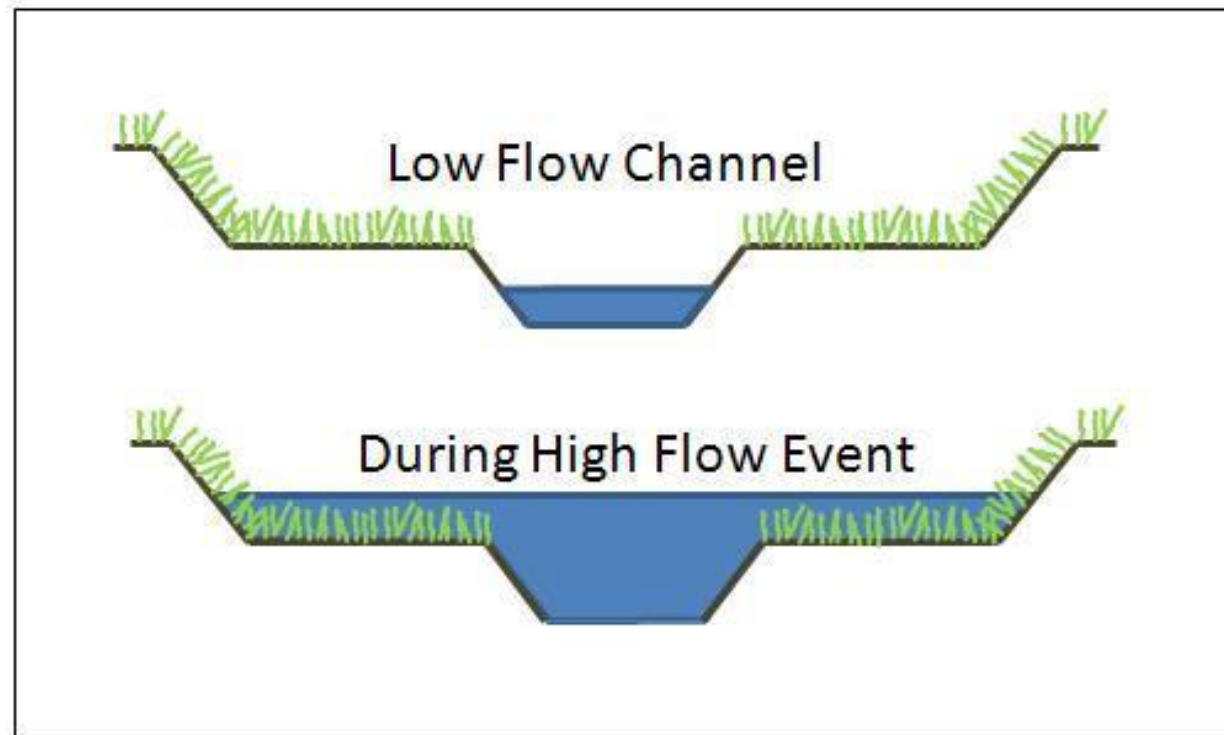
HURON HILLS GOLF COURSE STORMWATER IMPROVEMENTS

Front 7

INSITE
design studio, inc.
landscape architecture

Scale 1" = 50'





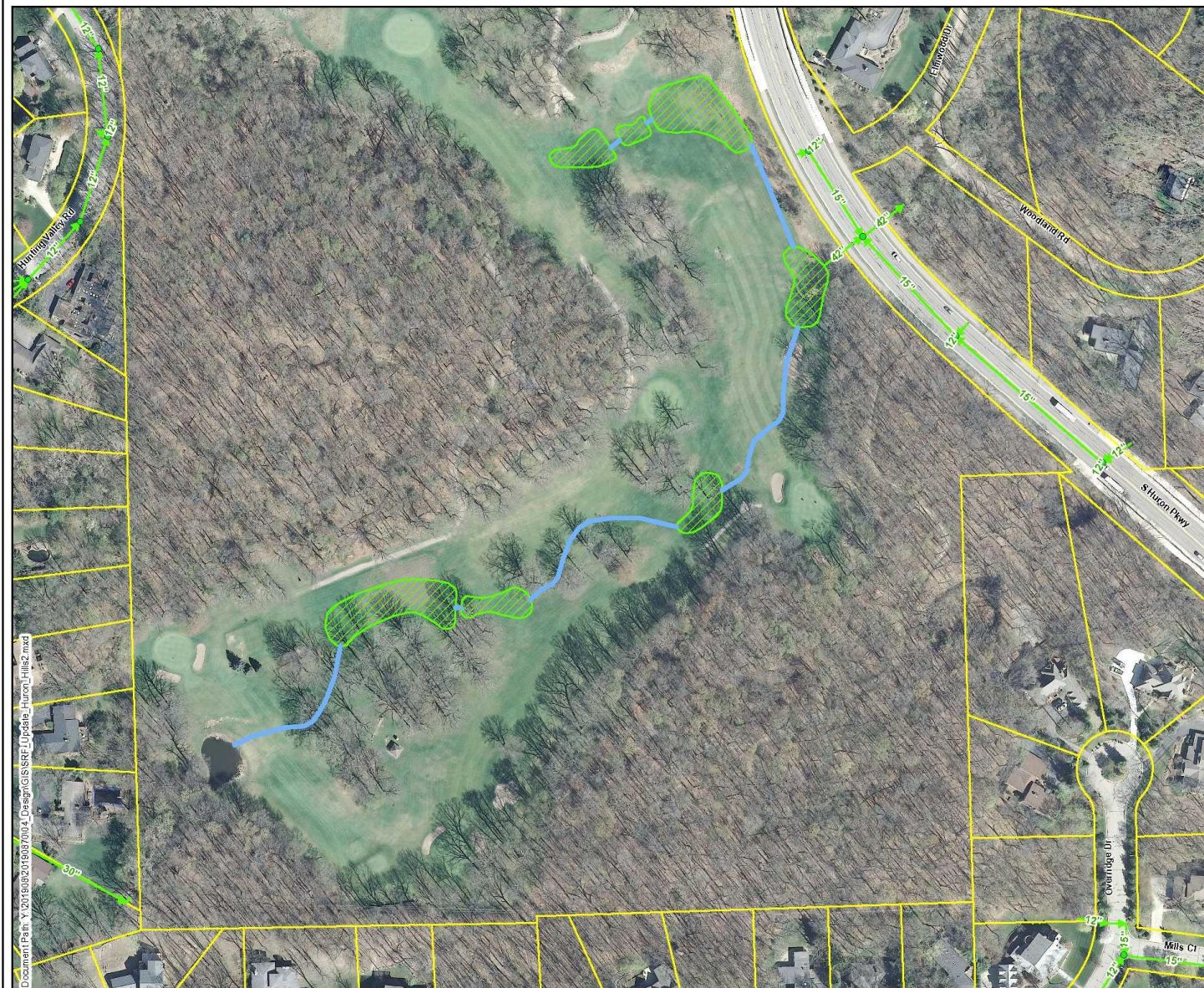


FIGURE 16

Proposed Stormwater Improvements

Huron Hills Golf Course

2019 SRF Project Plan

Restoration Activities

— Swale Improvements

 Treatment Wetlands

1 inch = 200 feet

RAINGARDEN SEED MIX: TALL PLANTING

Big Blue-stem
Swamp Milkweed
Calico Aster
New England Aster
Blue joint grass
Axi-fruited sedge
Fox sedge
Rattlesnake-Master
Boneset
Joe-Pye Weed
Sneezeweed
False Sunflower
Blue flag iris
Bee-balm
Switch grass
Foxglove beardstongue
Obedient Plant
Yellow-headed coneflower
Brown-eyed susan
Wool Grass
Riddell's goldenrod
Showy goldenrod
Indian Grass
Blue vervain
Ironweed
Culver's root

DRAINAGE SWALE PLANTS: LOW SHADE

Canada Anemone
Wild Ginger
Calico Aster
Fringed Brome
Palm Sedge
Wild Geranium
Path Rush
False Solomon's Seal
Ostrich Fern
Royal Fern
Zigzag Goldenrod

RAINGARDEN SEED MIX: LOW PLANTING

Calico Aster
Axi-fruited sedge
Fox sedge
Rattlesnake-Master
Blue flag iris
Brown-eyed susan
Riddell's goldenrod
Monkey Bower
Golden Alexanders

DRAINAGE SWALE PLANTS: LOW / SUN

Grass Grass
Sedge
Southern Blue Flag
Soft-Stemmed Rush
Torrey's Rush
Obedient Plant
Common Mountain Mint
Black-eyed Susan
Golden Alexanders

RAINGARDEN SEED MIX: SHADE

Canada Anemone
Zigzag Goldenrod
Purple Meadow Rue
Golden Alexanders
False Solomon's Seal
Great blue lobelia

RAINGARDEN SPILLWAY PLANTS AND SHRUBS

Black Chokeberry
Swamp Milkweed
Grass Grass
Butterbush
Canada Wild Rye
Rattlesnake-Master
Boneset
Joe-Pye Weed
False Sunflower
Michigan Holly
Soft-Stemmed Rush
Torrey's Rush
Wild Bergamot
Switch Grass
Meadowsweet

LEGEND

- Existing Contour
- Existing Fairway / Green
- Existing Tree
- Existing Pond
- Proposed Contour
- Proposed Tree
- Proposed Tree Removal
- Proposed Cart/ Pedestrian Crossing
- Underground Drainage Pipe
- Proposed Drainage Swale with Low Plantings
- Proposed Drainage Swale with Lawn Planting
- Proposed Raingarden with Low Planting
- Proposed Raingarden with Tall Planting
- Proposed Tall Prairie Planting
- Proposed Tree Removal
- Proposed Re-Grading and Golf Course Restoration Area



HURON HILLS GOLF COURSE STORMWATER IMPROVEMENTS

Back 11

Schedule

- October 1, 2019 – Public Kickoff Meeting
- October 11 – Award design
- January 2020 – Preliminary design
- April 2020 – Final Design
- May 2020 – Bid
- September 2020 – Begin Construction
- Spring 2021 – Complete Construction and Restoration



Funding

- State Revolving Fund
 - Bonded as a County Drain Project
 - 20 Year Loan
 - 2% Interest with loan forgiveness



Maintenance

- Years 1-5, EGLE Permit
 - County contract with stormwater utility.
- Years 6+
 - Collaborative City/County agreement



Questions

Huron Hills Creek

