

elm creek

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
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www.elmcreekwatershed.org

TECHNICAL OFFICE
Hennepin County
Dept. of Environment and Energy
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REVISED AGENDA June 14, 2017

1. Call Regular Meeting to Order.
 - a. Approve Agenda.*
2. Consent Agenda.
 - a. Minutes last Meeting.*
 - b. Treasurer's Report and Claims.*
3. Open Forum.
 - a. Introduction Jason Swenson.
 - b. Recognition Ali and Rich.
4. Action Items.
 - a. Project Reviews.*
 - b. Fish Lake Internal Phosphorus Loading Control – Assurance Agreement.
 - 1) Revisions.*
 - 2) Final.*
5. Elm Creek Watershed-wide TMDL.
6. New Business.
7. Communications.
 - a. Hennepin County Memo Recommending Approval of Minor Plan Amendment.*
8. Education.
 - a. WaterLinks June 2017.*
9. Grant Opportunities and Updates.
 - a. Fish Lake Internal Phosphorus Loading Control.
 - 1) MPCA Acceptance Letter.*
 - b. Rush Creek Headwaters Subwatershed Assessment.
10. Project Reviews – *also see Staff Report.* *
11. Other Business.
12. Adjourn.

Z:\Elm Creek\Meetings\Meetings 2017\06 Agenda.docx

*in meeting packet
**available at meeting

Project Reviews. (See Staff Report.*)						
				a.	2013-046	Woods of Medina, Medina.
				b.	2014-015	Rogers Drive Extension, Rogers.
				c.	2015-004	Kinghorn Outlet A, Rogers.
			AR	d.	2015-006	Veit Building Expansion, Rogers.
				e.	2015-013	Wayzata High School, Plymouth.
			AR	f.	2015-020	Strehler Estates, Corcoran.
			AR	g.	2015-030	Kiddiegarten Child Care Center, Maple Grove.
				h.	2016-002	The Markets at Rush Creek, Maple Grove.
				i.	2016-004	Park Storage Place, Corcoran.
				J	2016-005W	Ravinia Wetland Bank Plan, Corcoran.
			AR	k.	2016-014	Balsam Apartments, Dayton.
			AR	l.	2016-018	Cambridge Park, Maple Grove.
			AR	m.	2016-019	Just for Kix, Medina.
			AR	n.	2016-021	Diamond View Estates, Dayton.
			AR	o.	2016-022	AutoZone, Maple Grove.
			AR	p.	2016-026	Faithbrook Church, Dayton.
			AR	q.	2016-038	AutoMotor Plex, Medina.
			AR	r.	2016-039	The Fields at Meadow Ridge, formerly Sands Parcel, Plymouth.
				s.	2016-040	Kinghorn 4th Addition, Rogers.
				t.	2016-047	Hy-Vee Maple Grove #1 (Hy-Vee Maple Grove North).
				u.	2016-052	The Woods at Rush Creek, Maple Grove.
				v.	2017-002	RDO Site Plan, Dayton.
				w.	2017-004W	Cartway Trail, Champlin.
				x.	2017-008	TH 169 Reconstruction, Champlin.
				y.	2017-010W	Nichols Property Wetland Delineation, Corcoran.
				z	2017-011	Crooked Creek Park, Plymouth.
A	E			aa.	2017-012	Minnesota Solar CSG19, Corcoran.
	E			ab.	2017-013W	20417 Larkin Road, Corcoran Wetland Violations, Corcoran.
A	E			ac.	2017-014	Laurel Creek, Rogers.
	E			ad.	2017-015	Raising Cane's Restaurant, Maple Grove. Staff administratively approved
	E			ae.	2017-016	Territorial Woods, Maple Grove.
A	E			af.	2017-017	Mary Queen of Peace Catholic Church, Rogers.
	E			ag.	2017-018	CR50 Solar Gardens, Corcoran.
				ah.	2017-019	Medina Senior Living Community, Medina.
A	E			ai.	2017-020	Northwest Greenway Trail Phase III, Plymouth.
A	E			aj.	2017-021	Hindu Society of MN Staff Housing, Maple Grove.
				ak.	2017-022	CSAH 81 and CSAH101 & 13 Intersection Improvements, Rogers
A	E			al.	2017-023	Midwest Steel Supply, Rogers.
				am.	2017-024	Lil Explorers Daycare, Rogers
					2017-025	
					2017-026	

A = Action item E = Enclosure provided I = Informational update will be provided at meeting RPFI - removed pending further information
R = Will be removed RP= Information will be provided in revised meeting packet..... D = Project is denied AR awaiting recordation

*in meeting packet
**available at meeting

Elm Creek Watershed Management Commission 2017 Treasurer's Report

		2017 Budget	April 2017	May 2017	June 2017	2017 Budget YTD
EXPENSES						
Administrative		90,000	10,178.43	6,951.77	6,565.33	38,914.05
Watershed-wide TMDL 2016				57.00		
Grant Writing		5,000				0.00
Website		6,000	178.75	98.75	143.10	709.35
Legal		2,000				0.00
Audit		5,000				0.00
Insurance		3,800				2,842.00
Miscellaneous/Contingency		2,000				0.00
Project Reviews	HCEE	98,000		24,524.02		24,524.02
Project Reviews	Consult	15,000	654.00	254.00		908.00
Project Reviews	Admin	11,000	544.23	800.80	1,594.85	5,097.81
WCA-Technical	HCEE	12,000		1,903.78		1,903.78
WCA	Legal	500	290.00			439.96
WCA	Admin	2,000	180.56	134.94	107.82	673.77
Stream Monitoring		24,177				0.00
Extensive Stream Monitoring		7,000				0.00
DO Longitudinal Survey		500				0.00
Source Assessment		2,000				0.00
TMDL Follow-up - TRPD, Admin		10,000				0.00
Rain Gauge		220	17.02	16.89	16.67	80.44
Rain Gauge Network		100				0.00
Lakes Monitoring - CAMP		1,200				0.00
Lakes Monitoring - TRPD						
Sentinel Lakes		2,470				0.00
Additional Lake		618				0.00
Aquatic Vegetation Surveys		1,029				0.00
Wetland Monitoring (WHEP)		4,000				0.00
Education		4,000	289.92	227.10	88.20	2,110.93
WMWA General Activities		4,000				3,750.00
WMWA Educators/Watershed Prep		4,500				4,500.00
WMWA Special Projects		1,500				1,500.00
Rain Garden Workshops		2,000				0.00
Education Grants		2,000				0.00
Macroinvertebrate Monitoring-River Watch		6,000				0.00
Projects ineligible for ad valorem		50,000				0.00
Studies / Project ID / SWA		35,000	84.61	306.65		1,784.28
Plan Amendments		5,000		730.49	154.43	884.92
Local Plan Review		2,000				0.00
Transfer to (from) Encumbered Funds (see below)						0.00
Transfer to (from) Capital Projects (see CIP Tracking)						21.18
Transfer to (from) Cash Sureties (see below)						0.00
Transfer to (from) Grants (see below)			84.86	114.15	1,266.53	1,616.47
To Fund Balance						0.00
TOTAL - Month			12,502.38	36,120.34	9,936.93	92,260.96
TOTAL Paid in 2017, incl 2016 Expenses		421,614.00	89,011.31	125,131.65	135,068.58	2017 Paid

Elm Creek Watershed Management Commission 2017 Treasurer's Report

		2017 Budget	April 2017	May 2017	June 2017	2017 Budget YTD
INCOME						
<i>From Fund Balance</i>						
Project Review Fee		100,000	11,887.50	13,393.50		35,446.00
Return Project Fee						0.00
Water Monitoring - TRPD Co-op Agmt		6,500				0.00
WCA Fees		8,000	300.00	300.00		4,400.00
Return WCA Fee						(2,550.00)
Reimbursement for WCA Expense						0.00
Member Dues		219,700				154,160.55
Interest/Dividends Earned		100	292.58	344.90		1,267.57
<i>Transfer to (from) Capital Projects (see CIP Tracking)</i>						0.00
<i>Transfer to (from) Grants (see below)</i>			-	125,140.00	-	
Misc Income						0.00
Total - Month			12,480.08	139,178.40	0.00	192,724.12
TOTAL Funds Rec'd in 2017, incl 2016 Income		334,300.00	180,281.31	319,459.71	319,459.71	2017 Received
CASH SUMMARY		Balance Fwd				
Checking						
4M Fund		570,930.25	692,200.25	795,258.31	785,321.38	
Cash on Hand			692,200.25	795,258.31	785,321.38	
CASH SURETIES HELD		Balance Fwd				Activity 2017
WCA Escrows Received		46,000.00				30,000.00
WCA Escrow Reduced		0.00				0.00
Total Cash Sureties Held		46,000.00	76,000.00	76,000.00	76,000.00	
RESTRICTED / ENCUMBERED FUNDS		Balance Fwd				
<i>Restricted for CIPs</i>		129,049				129,027.39
<i>Enc. Studies / Project Identification / SWA</i>		62,832				62,831.80
<i>Assigned Extensive Stream Monitoring</i>		1,000				1,000.00
Total Restricted / Encumbered Funds		191,880	191,859.19	191,859.19	191,859.19	
			April 2017	May 2017	June 2017	2017 Budget YTD
GRANTS						
Fish Lake CWLA		200,000				
Revenue				100,000.00		100,000.00
Expense			84.86	114.15	1,070.53	1,340.64
Balance			(84.86)	99,885.85	(1,070.53)	98,659.36
Rush Creek SWA		50,280				
Revenue				25,140.00		25,140.00
Expense					196.00	292.83
Balance			-	25,140.00	(196.00)	24,847.17
TOTAL GRANTS						
Revenue			-	125,140.00	-	125,140.00
Expense			84.86	114.15	1,266.53	1,633.47
Balance			(84.86)	125,025.85	(1,266.53)	123,506.53

Elm Creek Watershed Management Commission 2017 Treasurer's Report

Claims Presented		General Ledger Account No	April	May	June	TOTAL
Campbell Knutson - Legal		521000				783.00
Legal - Fish Lake Grant		584001			783.00	
Connexus - Rain Gauge		551100			16.67	16.67
Barr Engineering - Proj Rev Consultant		578050				0.00
Wenck						161.00
Grant - Rush Creek SWA		584002			161.00	
Third Gen Plan Technical		542500				
Plan Amendment Technical		541500				
JASS						8,976.26
Administration		511000			6,472.15	
TAC Support		511000				
Annual Report		511000				
Website		581000			143.10	
Project Reviews		578100			1,594.85	
WCA		579000			107.82	
Plan Amendment		541500			154.43	
Education		590000			88.20	
Elm Creek TMDL		580800				
CIPs General		563001				
CIPs Medina Tower Drive		563002				
CIPs Champlin Mill Pond Dam		563003				
CIPs Plymouth EC Restoration		563004				
CIPs Fish Lake Alum Trmt Ph 1		563009				
Grant Opportunities		511000			93.18	
Grant - Fish Lake CWLA		584001			287.53	
Grant - Rush Creek SWA		584002			35.00	
TOTAL CLAIMS						9,936.93

**Elm Creek Watershed Management Commission
2017 Treasurer's Report - Capital Improvement Project Tracking**

CIPs		Amount	%age	TOTAL 2014	TOTAL 2015	TOTAL 2016	JAN 2017	FEB 2017	MAR 2017	APR 2017	MAY 2017	JUN 2017	TOTAL 2017	TOTAL ALL YEARS
	Ad Valorem 2014 - Medina Tower Drive	68,750	52.380											
	Revenue			-	68,916.44	(37.13)							-	68,879.31
	Expense			1,989.80	-	-							-	1,989.80
	Balance			(1,989.80)	68,916.44	(37.13)							-	66,889.51
	Ad Valorem 2014 - Champlin Mill Pond Dam	62,500	47.620											
	Revenue			-	62,653.69	(33.75)							-	62,619.94
	Expense			1,631.81	-	-							-	1,631.81
	Balance			(1,631.81)	62,653.69	(33.75)							-	60,988.13
	Ad Valorem 2015 - Plymouth Elm Creek Restoration	250,000.00	100.000											
	Revenue				-	249,866.05							-	249,866.05
	Expense				2,606.17	280.99							-	2,887.16
	First Half Payment					122,112.84							-	122,112.84
	Second Half Partial Payment					123,163.52							-	123,163.52
	Balance				(2,606.17)	4,308.70							-	1,702.53
	Ad Valorem 2016 - Fox Creek Phase 2 Bank Stabili	80,312.00	16.296											
	Revenue				-	-							-	-
	Expense				-	106.32							-	106.32
	Balance				-	(106.32)	-	-	-	-	-	-	-	(106.32)
	Ad Valorem 2016 - Miss Rvr Shore Repair/Stabiliza	75,000.00	15.219											
	Revenue				-	-							-	-
	Expense				-	106.32							-	106.32
	Balance				-	(106.32)	-	-	-	-	-	-	-	(106.32)
	Ad Valorem 2016 - EC Dam at Mill Pond	187,500.00	38.047											
	Revenue				-	-							-	-
	Expense				-	106.32							-	106.32
	Balance				-	(106.32)	-	-	-	-	-	-	-	(106.32)
	Ad Valorem 2016 - Rush Creek Main Stem Restora	75,000.00	15.219											
	Revenue				-	-							-	-
	Expense				-	106.32							-	106.32
	Balance				-	(106.32)	-	-	-	-	-	-	-	(106.32)
	Ad Valorem 2016 - Fish Lake Alum Trmt Phase 1	75,000.00	15.219											
	Revenue				-	-							-	-
	Expense				-	106.32			21.18				21.18	127.50
	Balance				-	(106.32)	-	-	(21.18)	-	-	-	(21.18)	(127.50)
TOTAL CIP														
	Revenue			-	131,570.13	249,795.17	-	-	-	-	-	-	-	381,365.30
	Expense			3,621.61	2,606.17	812.59	-	-	21.18	-	-	-	21.18	7,061.55
	Payments					(245,276.36)							-	(245,276.36)
	Balance			(3,621.61)	128,963.96	3,706.22	-	-	(21.18)	-	-	-	(21.18)	129,027.39

CAMPBELL KNUTSON
Professional Association
Attorneys at Law
Federal Tax I.D. #41-1562130
Grand Oak Office Center I
860 Blue Gentian Road, Suite 290
Eagan, Minnesota 55121
(651) 452-5000

Elm Creek Watershed Management Commission
c/o Judie A. Anderson, Exec. Secty.
3235 Fernbrook Lane
Plymouth MN 55447

Page: 1
May 31, 2017
Account # 1448G

SUMMARY STATEMENT

PREVIOUS BALANCE	FEES	EXPENSES	CREDITS	PAYMENTS	BALANCE
1448-000 RE: GENERAL MATTERS					
SERVICES RENDERED TO DATE:					
362.50	783.00	0.00	0.00	-362.50	<u>\$783.00</u>

Amounts due over 30 days will be subject to a finance charge of
.5% per month (or an annual rate of 6%). Minimum charge - 50 cents.

CAMPBELL KNUTSON
Professional Association
Attorneys at Law
Federal Tax I.D. #41-1562130
Grand Oak Office Center I
860 Blue Gentian Road, Suite 290
Eagan, Minnesota 55121
(651) 452-5000

Elm Creek Watershed Management Commission
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3235 Fernbrook Lane
Plymouth MN 55447

Page: 1
May 31, 2017
Account # 1448-000G
201

RE: GENERAL MATTERS
SERVICES RENDERED TO DATE:

			HOURS	
05/09/2017	JJJ	Emails Judie, follow-ups with Rich re: assurance agreement with BWSR.	1.00	145.00
05/17/2017	JJJ	Emails and telephone call JASS, meeting at JASS, follow-ups.	1.50	217.50
05/18/2017	JJJ	Emails Rich re: correspondence with BWSR, voicemail to Kevin B.	1.00	145.00
05/19/2017	RNK	Review Grant Assurance Agreement.	0.40	58.00
	JJJ	Telephone call K. Bigalke, emails to Rich and Brian.	1.00	145.00
05/30/2017	JJJ	Emails and telephone call Rich re: BWSR requirement, follow-ups.	0.50	72.50
		AMOUNT DUE	5.40	783.00
		TOTAL CURRENT WORK		783.00
		PREVIOUS BALANCE		\$362.50
04/17/2017		Payment - thank you		-362.50
		TOTAL AMOUNT DUE		<u>\$783.00</u>

ALL
TO - 584001 FISH LAKE GRANT

Amounts due over 30 days will be subject to a finance charge of
.5% per month (or an annual rate of 6%). Minimum charge - 50 cents.

**Account Number:****481113-238425**

ELM CREEK WATERSHED MGMT ORG

Monthly Statement**Service Address**ELM CREEK RD
DAYTON MN**Billing Summary****Billing Date:** May 17, 2017

Previous Balance	\$16.89
Payments - Thank You!	\$16.89
Balance Forward	\$0.00
New Charges	\$16.67

Total Amount Due**\$16.67**

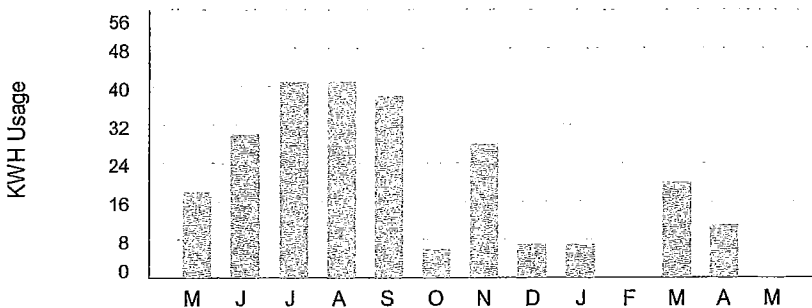
Payment must be received on or before June 13, 2017

Total Amount Due**\$16.67****Due Date****June 13, 2017****Message Center****Get your FREE Wi-Fi thermostat**

Enroll online in our PowerNap® air conditioning program, and get a free Honeywell Wi-Fi thermostat. With a Wi-Fi thermostat, you can control your thermostat from your mobile device. For more information on this program, go to connexusenergy.com.

Board of Directors' election results

In the annual Board of Directors' election, incumbents Michael Cady, Donald Holl, and Betsy Wergin were re-elected to the board. For more information on the 2017 annual meeting, visit us at connexusenergy.com.

Energy Comparison Previous Months' Usage Current Month's Usage**How to contact us**

Member Services / Moving - 763-323-2650
 Outages and Emergencies - 763-323-2660
 Hearing/Speech Impaired Call - 711 or 800-627-3529
 Email: info@connexusenergy.com
www.connexusenergy.com
 Gopher State One Call - 811
14601 Ramsey Boulevard, Ramsey, MN 55303

▼ Please detach at perforation and return this portion with a check or money order made payable to Connexus Energy ▼

TRA3-D-008636/001196 AGUN7G S1-ET-M1-C00002 1

**Account Number:****481113-238425****Total Amount Due****\$16.67****Payment Due By****June 13, 2017**

008636 1 AB 0.400 001019/008636/001196 034 01 AGUN7G
 ELM CREEK WATERSHED MGMT ORG
 3235 FERNBROOK LN N
 PLYMOUTH MN 55447-5325

**Connexus Energy**

PO Box 1808
 Minneapolis, MN 55480-1808

00001667 0004811130238425 000000 00000 000000000000 0000004

Invoice

June 7, 2017

Invoice No: 11703626

Judie Anderson
Elm Creek Watershed Management Comm.
3235 Fernbrook Lane
Plymouth, MN 55447



Responsive partner.
Exceptional outcomes.

Project Manager Diane Spector

Project B1507-0003 Rush Creek Headwaters SWA

Professional Services Through May 31, 2017

Phase 01 Modeling and Field Work

Modeling and Field Work

Professional Personnel

	Hours	Rate	Amount	
Strom, Jeffrey	.50	137.00	68.50	
Totals	.50		68.50	
Total Labor				68.50
			Phase Total	\$68.50

Phase 03 Meetings and Reporting

Meetings and Reporting

Professional Personnel

	Hours	Rate	Amount	
Spector, Diane	.50	185.00	92.50	
Totals	.50		92.50	
Total Labor				92.50
			Phase Total	\$92.50

Total Invoice Amount \$161.00

	Current	Prior	Total
Billing Summary	161.00	0.00	161.00



3235 Fernbrook Lane
Plymouth MN 55447

Elm Creek Watershed Management Commission
3235 Fernbrook Lane
Plymouth, MN 55447

9-Jun-17

Total by
Project Area

Administrative	14.10	55.00	775.50	
Administrative	61.23	60.00	3,673.80	
Admin - Offsite	3.52	65.00	228.80	
Office Support	5.00	200.00	1,000.00	
Storage Unit	1.00	192.23	192.23	
Data Processing/File Mgmt	0.83	55.00	45.65	
File Management	1.00	60.00	60.00	
Archiving	1.17	55.00	64.35	
Admin - Reimbursable Expense	431.82	1.00	431.82	6,472.150
Website	0.42	55.00	23.10	
Website	2.00	60.00	120.00	
Website - Reimbursable Expense		1.00	0.00	
Web Domain, hosting		1.00	0.00	143.100
Project Reviews - Secre	2.33	55.00	128.15	
Project Reviews - Admin	16.67	60.00	1,000.20	
Project Reviews - Admin - File Mgmt	2.75	55.00	151.25	
Project Reviews - Reimbursable Expense	315.25	1.00	315.25	1,594.850
WCA - Secre		55.00	0.00	
WCA - Admin	1.33	60.00	79.80	
WCA - Reimbursable Expense	28.02	1.00	28.02	107.820
Education - Secretarial		55.00	0.00	
Education - Admin	1.17	60.00	70.20	
Education - Admin Offsite		65.00	0.00	
Education - Reimbursable Expense	18.00	1.00	18.00	88.200
Grant opps - Secretarial	1.15	55.00	63.25	
Grant opps -Admin	0.17	60.00	10.20	
Grant opps - reimbursable	19.73	1.00	19.73	93.180
Rush Creek SWA - Admin		60.00	0.00	
Rush Creek SWA - reimbursable expense	35.00	1.00	35.00	35.000
Fish Lake CWLA - Admin		55.00	0.00	
Fish Lake CWLA - Admin	3.83	60.00	229.80	
Fish Lake CWLA - Reimbursables	57.73	1.00	57.73	287.530
Plan Amendment - Secre		55.00	0.00	
Plan Amendment - Admin	2.25	60.00	135.00	
Plan Amendment - Offsite		65.00	0.00	
Plan amendment - reimbursable	19.43	1.00	19.43	154.430

Invoice Total

8,976.260



Memorandum

To: James Kujawa, Elm Creek Watershed Management Commission

CC: Charlie Lehn, City of Champlin

From: Dustin Simonson, WSB & Associates, Inc.

Date: June 8, 2017

Re: Cartway Trail
City of Champlin
WSB Project No. 01934-230

The following information has been gathered to address the comments received May 17, 2017 from the Elm Creek Watershed Management Commission (ECWMC) about the Cartway Trail project within the City of Champlin.

- 1) Can you provide at least two alternative alignments of the trail that show why or why not they meet the bike design standards or the trees and wetland areas they will impact. Preferred vs alternatives.
 - a. A specific tree survey isn't necessary, but the diameter and type that would be impacted by the alternatives would be helpful.

The Cartway Road Trail Improvements extends an existing trail west, along Elm Creek to Cartway Road and then north adjacent to Cartway Road to an existing parking area/trail head. The City of Champlin purchased the land in which the trail is being extended to complete another segment of a greenway trail corridor along the south side of Elm Creek. The existing trail alignment extends from the local residential street of Elm Creek Road between residential property to Elm Creek and then easterly along the south side of Elm Creek to East Hayden Lake Road near the Gettysburg intersection. The City currently owns the land east of this terminus and will ultimately extend the trail along the south side of Elm Creek to T.H. 169. That trail alignment will then complete a greenway corridor from Cartway Road east to T.H. 169. The proposed trail width of 10-feet is the minimum width recommended by trail design standards for multi-purpose trails with two-way bicycle traffic. The width is also needed due to the shorter sight lines and distances that are a result of its curvilinear alignment and greenway appeal.

The City of Champlin is also working with a property owner west of Cartway Road, to extend the trail west along the north side of Elm Creek to an existing trail system located in Josephine Nunn Park. Upon completion of these three segments, the proposed, the easterly segment, and the westerly segment, the trail will extend from the Elm Creek Park Reserve owned by Three Rivers Park District, east to the City Park System located northeast of T.H. 169 and East Hayden Lake Road. The greenway trail will have several accesses that extend out to the adjacent neighborhoods.

Preferred alternative: The proposed trail alignment goes south along Cartway Road and then turns east to connect with the existing trail within the area. The proposed trail alignment was selected as it maintains a greenway feel to the trail, meets trail design standards for a continuous trail, and has balanced impact on the environment and on the adjacent neighborhood. The alignment has a proposed wetland impact of 2,172 square feet and has the least impact to trees (10 trees, 8 inches dbh or less, ash and boxelder) and grading disturbance.

Three alternative trail alignments were explored in addition to the proposed trail (see attached Cartway Road Trail Project figure).

Alternative 1: This alternative has the trail alignment shifted further south than the preferred trail alignment. This alignment would still have wetland impact due to grading on the north side of the trail to provide the necessary clear zones for the trail. The slopes adjacent to the wetland area are steeper and slightly higher along this alignment, which would result in longer slopes extended on the north side of the alignment into the wetland area. This would cause more tree removal than the preferred alternative (24 ash trees ranging from 8 – 14 inches in Diameter) and slope grading along with approximately 1000 square feet of wetland impacts. The amount of tree impact and grading along with the wetland impacts has made this alignment undesirable.

Alternative 2: This alternative follows alternative 1 alignment and then stays further south to meet up with the existing trail. This trail alignment does not create the continuous route as desired by the City, as this alignment ties into the existing trail at a 90-degree angle. This is not conducive to bikers using the path and creates a safety concern for the city as it limits sight lines of the approaching trail. This alignment would have greater tree impacts than the preferred alternative (14 trees 8-12 inches dbh, ash, box elder, and elm) and along with approximately 100 square feet wetland impacts due to the necessary slopes that are required for the trail and clear zones. Because the lack of continuity and poor sight lines create safety risks for bikers, the tree removal is greater, and wetland impacts are not avoidable, this trail alignment was deemed undesirable.

Alternative 3: A third alternative was explored to extend the trail along the north side of the local residential street of Elm Creek Road. Constructing the 10-foot trail within a 14-foot space that crosses five driveways is very undesirable. Due to mailboxes and street signs, trail easements would be required from the adjacent properties. The north- south trail extension adjacent to Cartway Road would also require trail easements, tree clearing and impacts on private property. A significant deterrent for this alignment is the trail would no longer be adjacent to Elm Creek and it would lose its greenway appeal.

Based on the above analysis it was determined that the proposed trail creates the desired greenway appeal the City desires for the trail.

If you have any additional questions regarding this submittal, please contact me at dsimonson@wsbeng.com or 763-270-3475.

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NO.	DATE	BY	CHK	REVISIONS

Design By:	BJP
Plan By:	BJP
Checked By:	TCH
Approved By:	TCH

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER THE DIRECT SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MINNESOTA.	
Timothy C. Hansen PE	19574



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Engineering • Planning • Environmental • Construction

Cartway Road Trail Project
For the City of Champlin

WSB Project 01934-230 City Project No. 21703

PROPOSED	SANITARY	
EXISTING	SANITARY	
PROPOSED	STORM	
EXISTING	STORM	
PROPOSED	CATCH BASIN	
EXISTING	CATCH BASIN	
PROPOSED	WATERMAIN	
EXISTING	WATERMAIN	
PROPOSED	HYDRANT	
EXISTING	HYDRANT	
PROPOSED	CONCRETE CURB	

Project Location

CHAMPLIN
1990 POP. 16,849

THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
"STANDARD SPECIFICATIONS FOR CONSTRUCTION", SPECIAL PROVISIONS,
AND ANY AMENDMENTS THERETO AND THE "STANDARD UTILITIES SPECIFICATION
FOR WATERMAIN SERVICE LINE INSTALLATION AND STORM SEWER INSTALLATION"
REFERENCED "CEAM" DATED 2013, OR AS MODIFIED IN THE PROJECT MANUAL.

INDEX

THIS PLAN CONTAINS 7 SHEETS.




City of Champlin

A CALL TO GOPHER STATE ONE (454-0002) IS
REQUIRED A MINIMUM OF 48 HOURS PRIOR TO
PERFORMING ANY EXCAVATION.

NO.	DATE	BY	CHK	REVISIONS

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Approved By:	TCH

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Timothy C. Hanson PE

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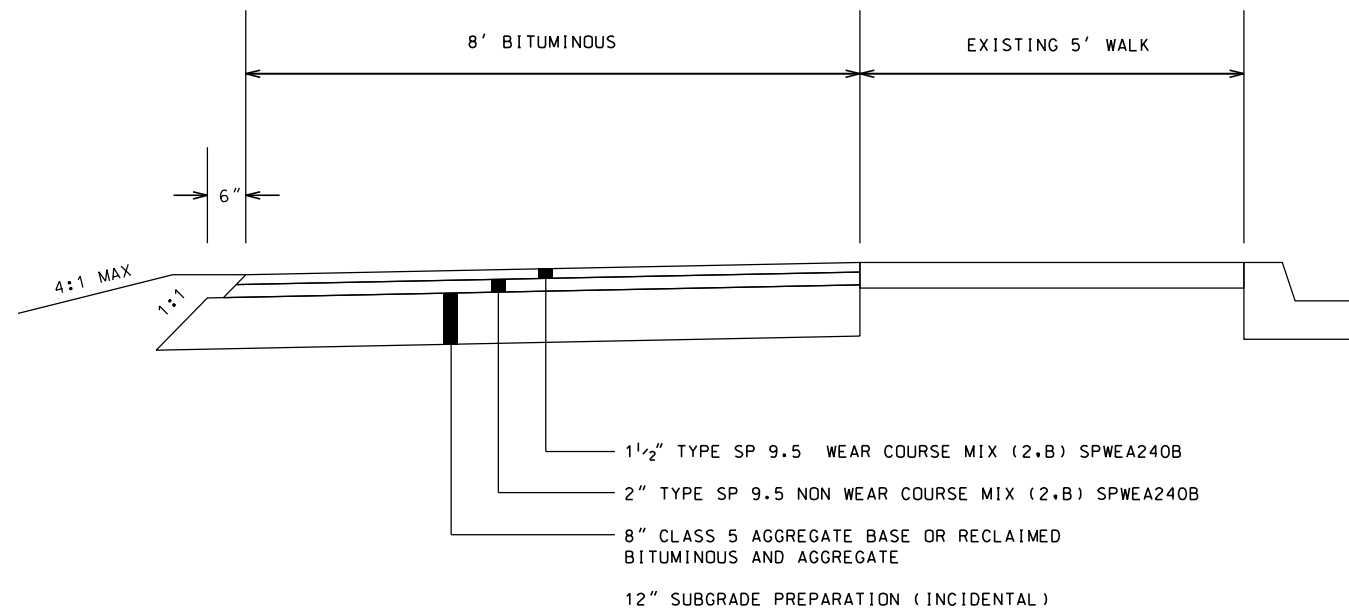
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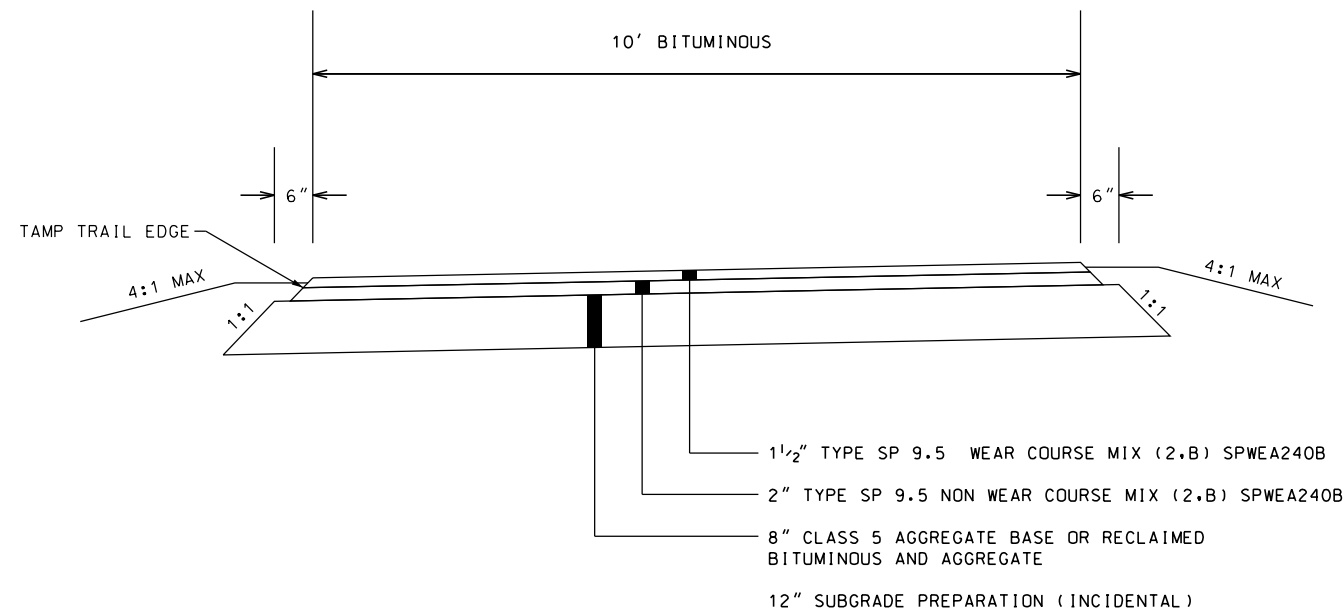
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Cartway Trail

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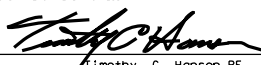
Cartway Trail

STA. 103+00 to 107+00

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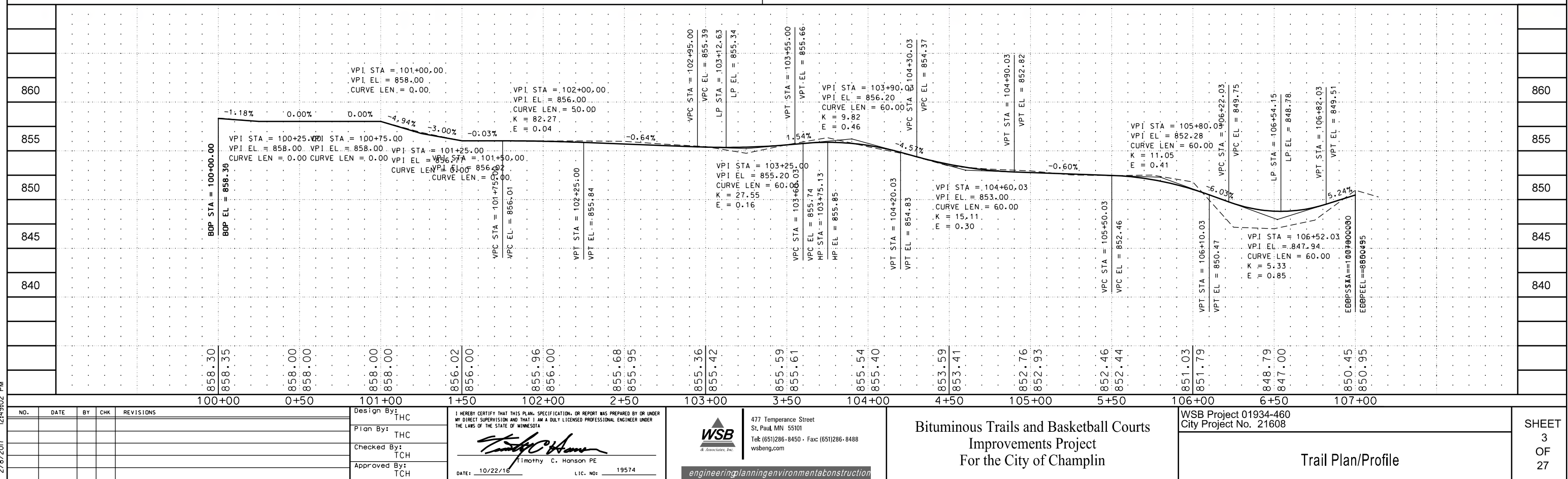
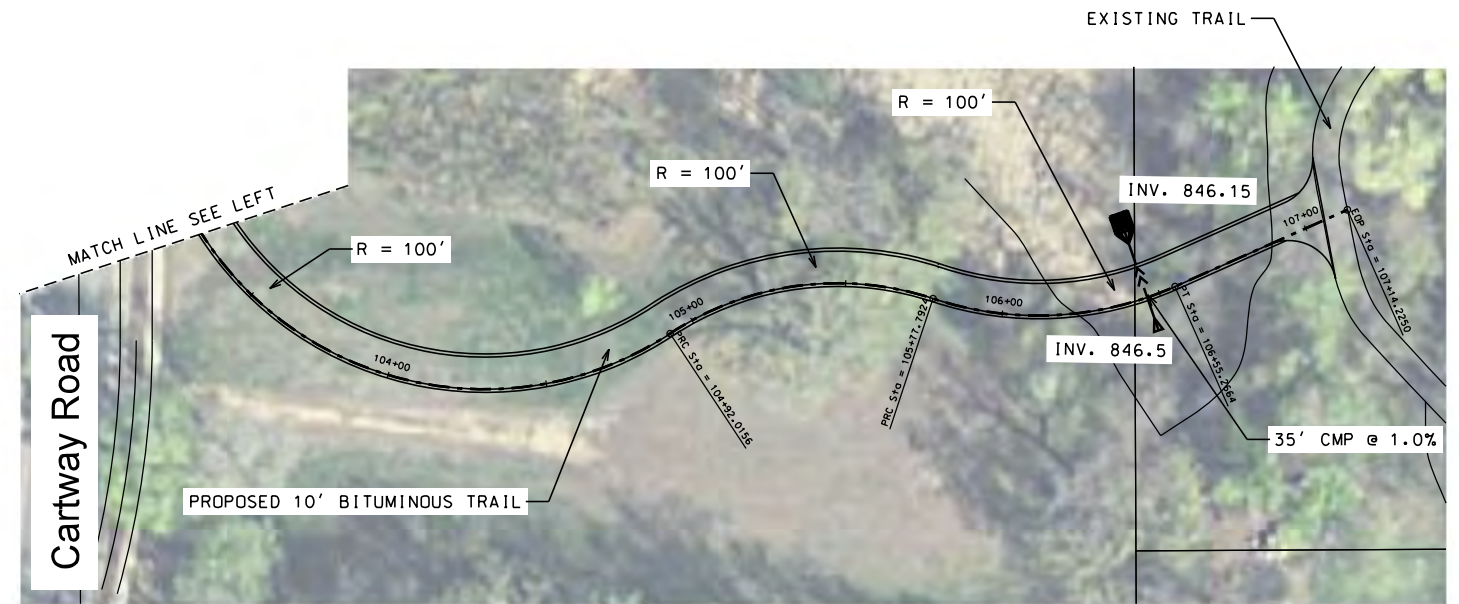
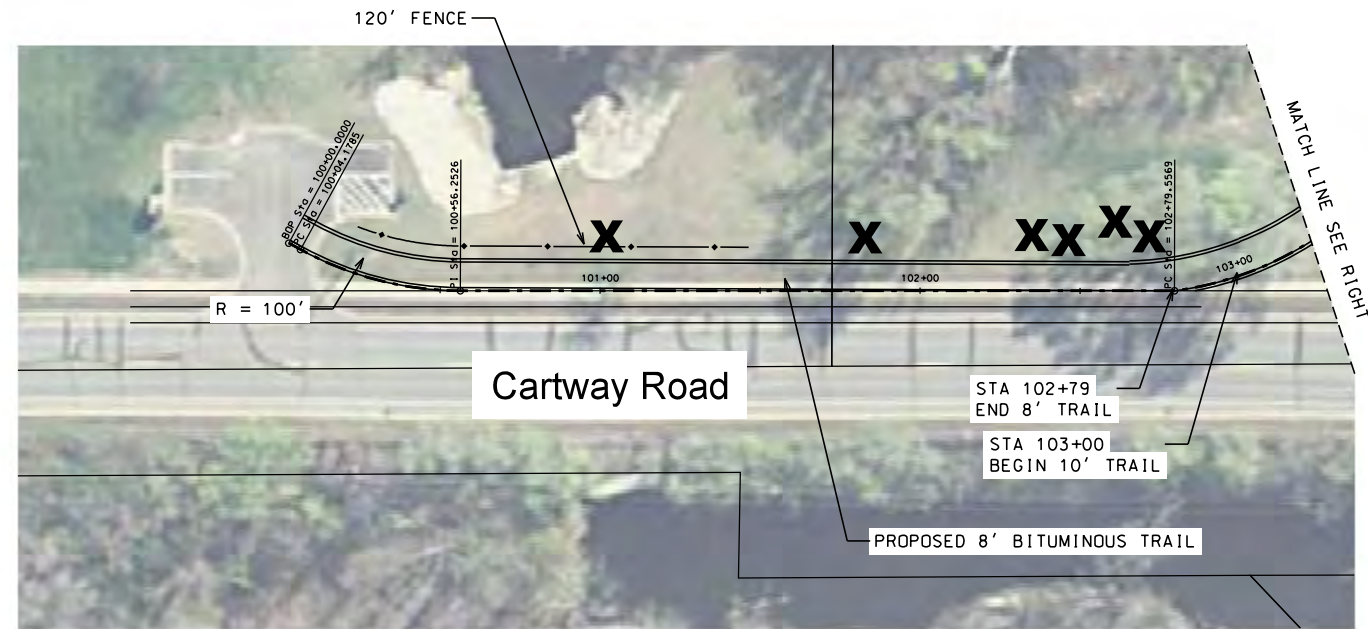
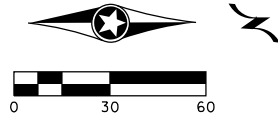
 WSB <small>Associates, Inc.</small>	477 Temperance Street St. Paul, MN 55101 Tel: (651)286-8450 - Fax: (651)286-8488 wsbeng.com
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Cartway Road Trail Project For the City of Champlin
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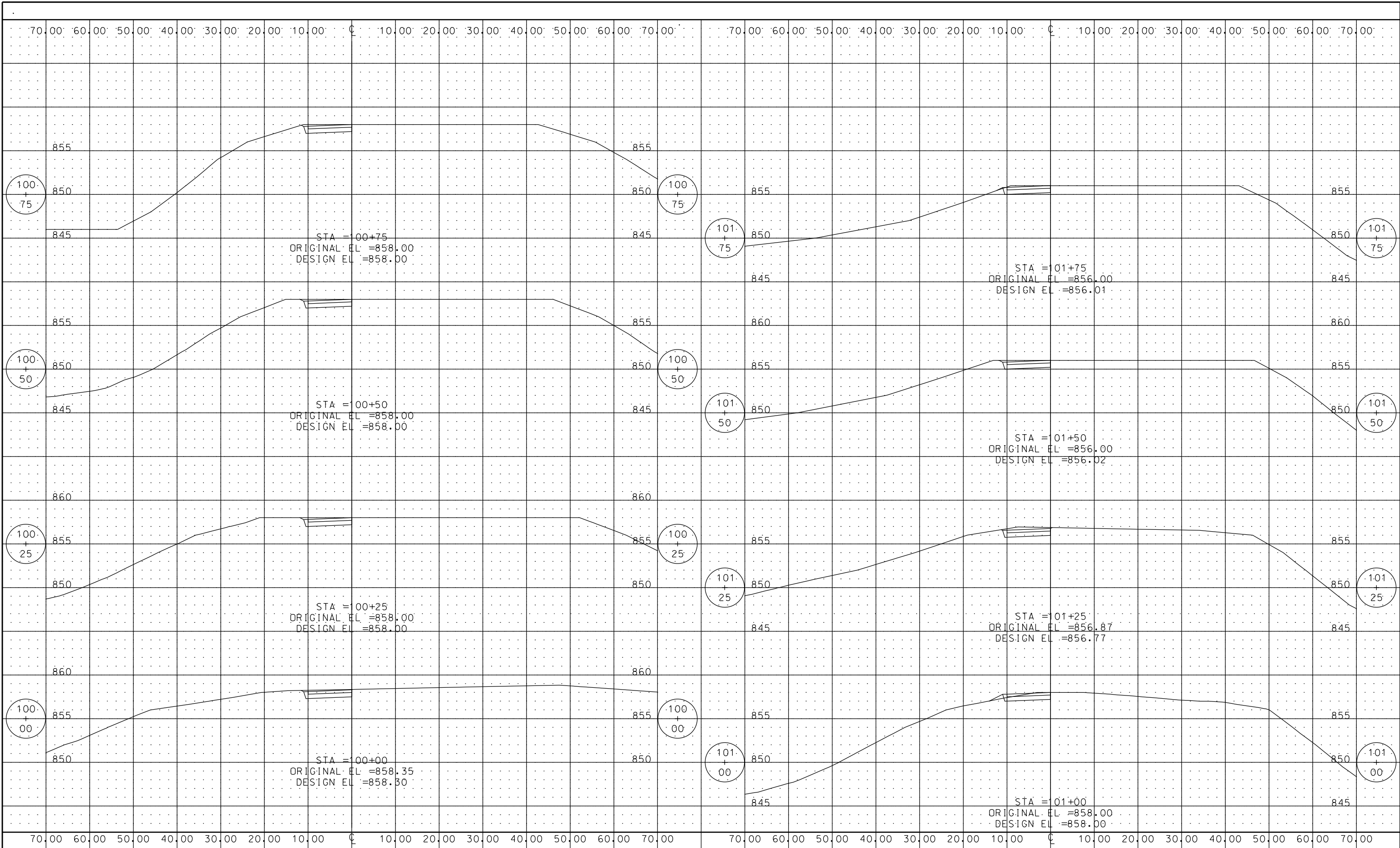
WSB Project 01934-230 City Project No. xxxxx	Typical Sections

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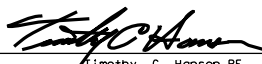


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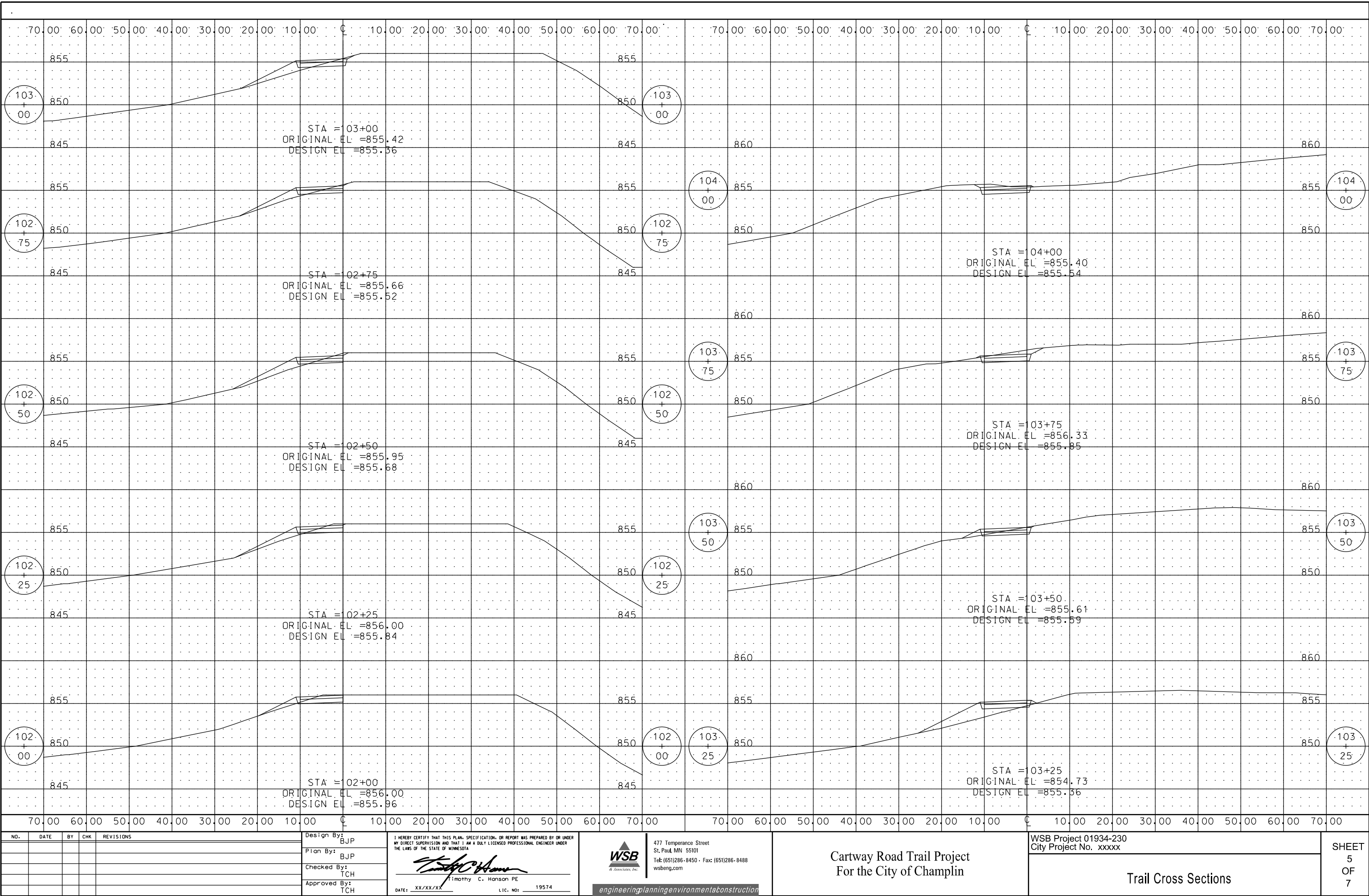

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Cartway Road Trail Project
For the City of Champlin

WSB Project 01934-230
City Project No. xxxxx
Trail Cross Sections

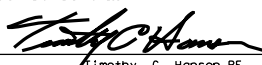
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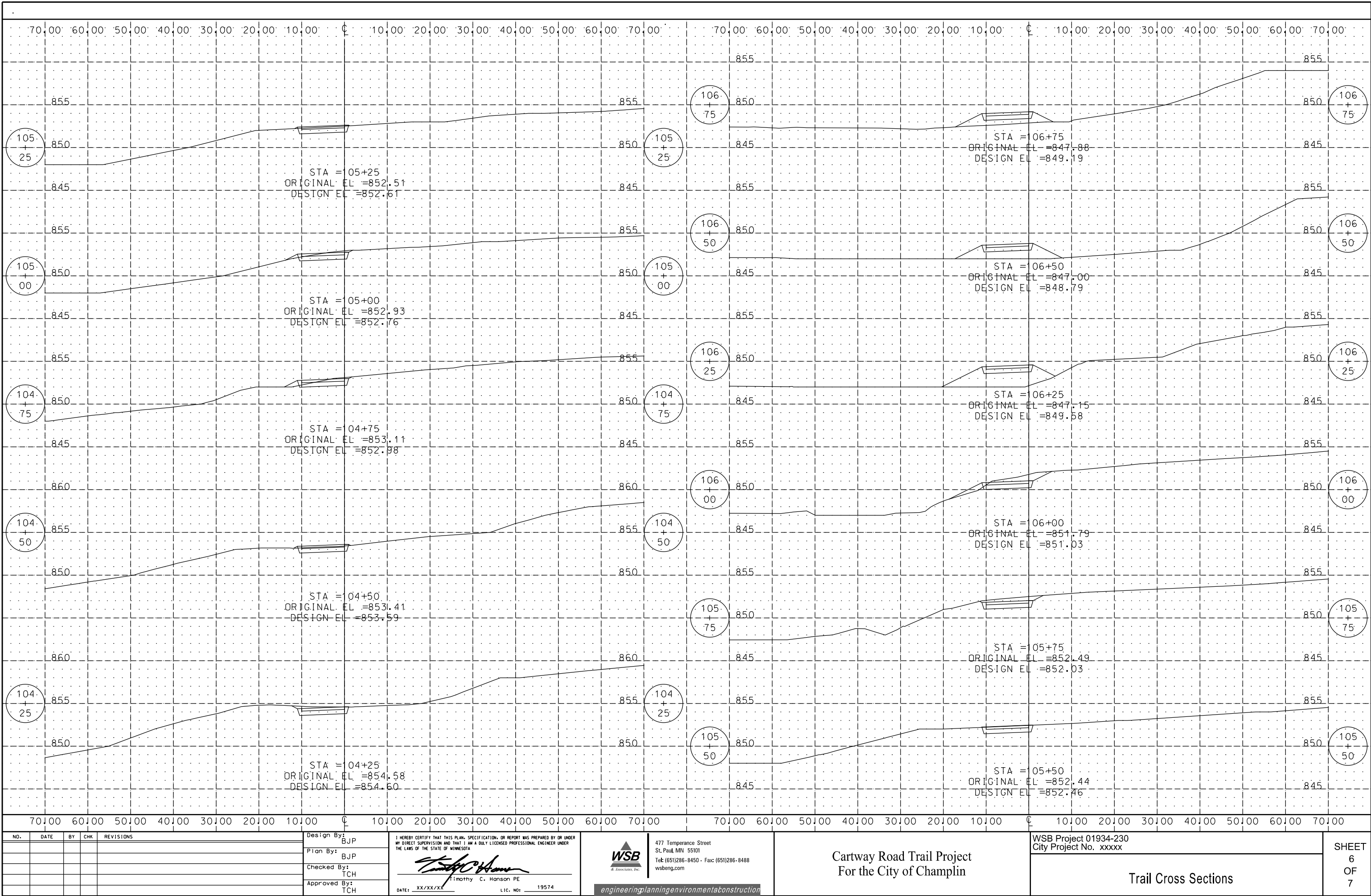
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Cartway Road Trail Project
For the City of Champlin

WSB Project 01934-230
City Project No. xxxxx
Trail Cross Sections

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Timothy C. Hanson
Timothy C. Hanson PE
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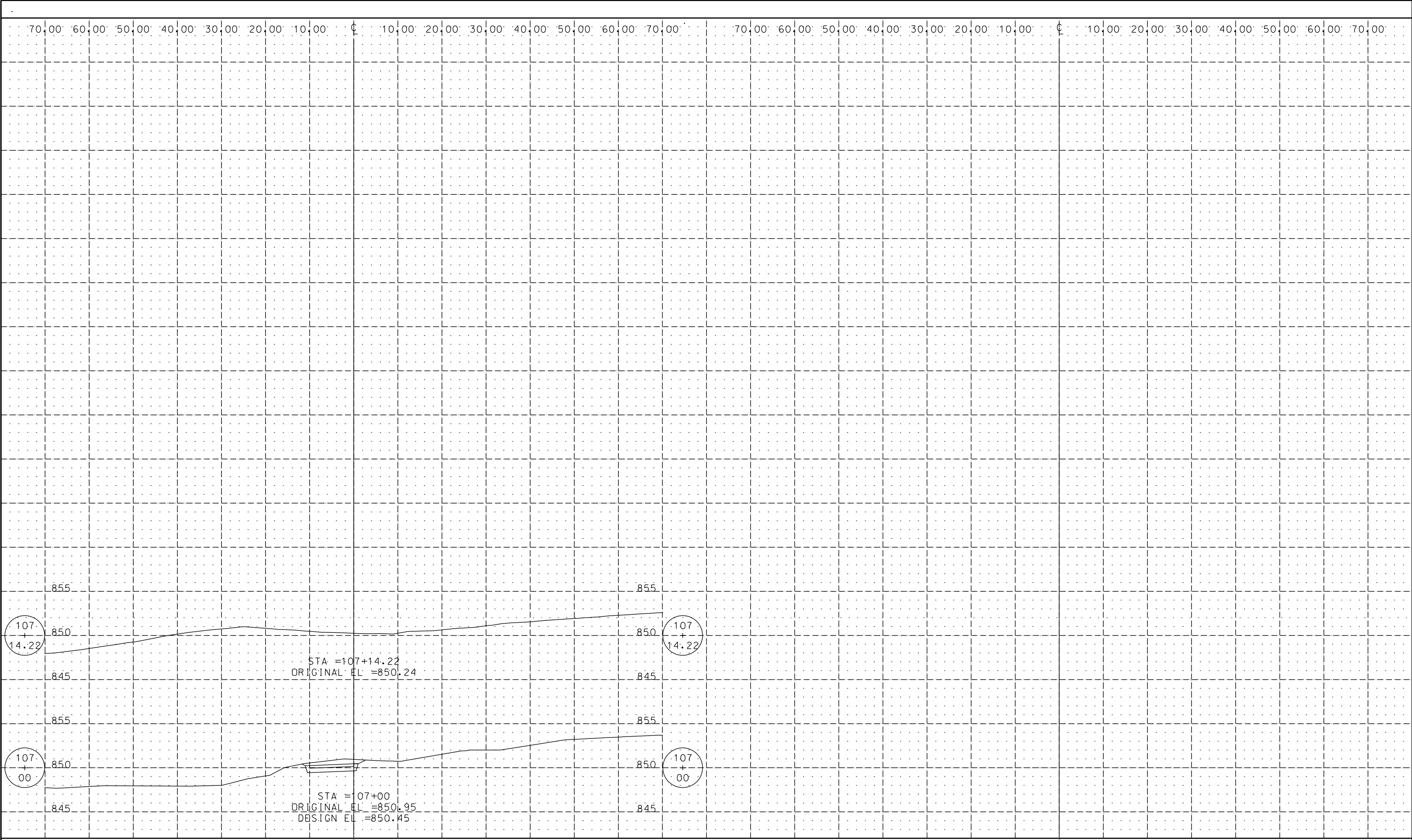
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Cartway Road Trail Project
For the City of Champlin

WSB Project 01934-230
City Project No. xxxxx

Trail Cross Sections

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NO.	DATE	BY	CHK	REVISIONS																																			

elm creek

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
E-mail: judie@jass.biz
www.elmcreekwatershed.org

TECHNICAL OFFICE
Hennepin County Public Works
Department of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415
PH: 612.596.1171
E-mail: ali.durgunoglu@hennepin.us

Laurel Creek Rogers, Project #2017-014

Project Overview: The proposed mixed-residential project will be developed on the 316-acre site located at the southeast corner of Rogers. When all the phases are completed, this fully developed PUD will have 476 residential units (single-homes, villas and townhomes) and one Homeowner's Association building, and will create 61.32 acres of new impervious area. North Fork Rush Creek (County Ditch #21) runs along the south part of the site. Floodplains and wetlands cover about one-third of the site, mostly on the south side. Remaining areas are mostly cropland with small areas of grass/meadow and woodlands. There are large sod farms on the adjoining west areas. Our review will be for compliance to the Commission's 3rd generation standards and rules for stormwater management, grading and erosion, wetland buffers and floodplain mitigation. The stormwater management plan will be reviewed for the entire site, for ultimate development conditions. However, the first phase will only grade and develop the single-residential homes, townhomes and the villas located in the central part of the site. Any future development can be reviewed for the grading and erosion control, if the density and the imperviousness remain the same.

Applicant: Lennar – c/o Paul Tabone & Joe Jablonski, 16305 36th Ave N, Suite 600, Plymouth, MN 55446. Phone: 952-249-3086. Email: paul.tabone@lennar.com and Joe.Jablonski@lennar.com.

Exhibits:

- 1) ECWMC Request for Plan Review and Approval received May 03, 2017.
- 2) Project review fee of \$5,700 on May 03, 2017. **(Total fee is \$6,550.)**
- 3) Preliminary Stormwater Management Plan (03-03-2017), prepared by Pioneer Engineering, P.A., signed by Brian N. Molinaro, P.E.
- 4) Laurel Creek SWPPP.
- 5) Staff Preliminary Comments (May 18, 2017)
- 6) Response to staff comments by Paul Tabone (May 31, 2017)
- 7) Map of buildable area (May 31, 2107)
- 8) Preliminary Grading Plan Set: - GRAD-SET 3-14-17; 10 sheets. (received May 4, 2017)
- 9) Preliminary Plat set (dated 12-1-16, unsigned)
 - 1 Cover Sheet
 - 2 Legend Sheet

- 3-8 Existing Conditions
- 9-14 Preliminary Plat
- 15-18 Preliminary Site Plan
- 19-22 Preliminary Grading Plan
- 23-26 Preliminary Erosion Control Plan
- 27-29 Grading/Erosion Control details
- 30-32 Preliminary Sanitary & Water Plan
- 33-36 Preliminary Storm Sewer Plan
- 37 Wetland Impact and Mitigation Plan
- 38-41 Wetland Buffer Plan
- 42 Flood Plain Impact & Mitigation Plan
- CR1 Future County Road project
- L1-3 Landscape Plan
- T1-3 Tree Preservation Plan

- 10) Wetland Replacement Plan Phase 1 – Laurel Creek, Rogers, MN (May 2017)
- 11) Wetland Replacement Plan Notice of Application (5/4/2017)
- 12) SWPPP

Findings:

- 13) Staff determined that the technical documents were complete on May 18, 2017. However, the applicant must submit an additional \$850 fee. The initial 60-day review period will start when the full fee is submitted. Regardless of the fee due, staff started the technical review.
- 14) Stormwater treatment will be provided by constructing nine (9) basins. See Rule D below.
- 15) To provide the requires stormwater treatment for rate, quality and volume the applicant is proposing to use NURP ponds, biofiltration, stormwater reuse, preservation of forested areas, providing wetland buffers in excess of the minimum requirements, and the disconnection of impervious surfaces.
- 16) Rule F. Floodplain Alteration. The project is proposing to have work within the designated floodplain of North Fork Rush Creek. The base flood elevation for North Fork Rush Creek is established at 912.28 ft. NGVD 1929, or 912.64 ft. NAVD 1988. This elevation remains the same between CSAH 101 and CSAH 116.
The following tables show the proposed floodplain impacts and the proposed mitigation, both as a total and broken down by elevation ranges:

FLOOD PLAIN IMPACT BY ELEVATION RANGE				
ELEV. RANGE	CUT VOL.	FILL VOL.	NET IMPACT	
907 908	452	233	219 C.Y. CUT	
908 909	10261	1033	9228 C.Y. CUT	
909 910	11351	2019	9332 C.Y. CUT	
910 911	9351	2876	6475 C.Y. CUT	
911 912	6956	4212	2744 C.Y. CUT	
912 912.7	3886	4819	933 C.Y. FILL	
TOTALS	42257	15192	27065 C.Y. CUT	

FLOOD PLAIN IMPACT SUMMARY	
TOTAL CUT BELOW BFE	42,257 C.Y.
TOTAL FILL BELOW BFE	15,192 C.Y.
NET	27,065 C.Y. CUT

Floodplain mitigation plan meets the Commission's standards.

- 17) Rule G. Wetland Alteration. City of Rogers is the Local Government Unit administering the Wetland Conservation Act of Minnesota. The fully developed conditions will impact 1.393 acres of wetlands. The replacement wetland credits (estimated using the proposed wetland creation and buffer areas) will be 8.560 acres.

Phase I will impact 0.493 acres of wetland, which requires 0.99 acres of replacement credits. This impact will be mitigated by purchasing wetland credits from Bank Account #1414. This bank is located in Hennepin County but not in the same major watershed as the project. Bank account #1414 has 0.8844 acres of credit currently. The balance of 0.11 acres would be provided by an ongoing mitigation project that Lennar is constructing at its Ravinia Community in Corcoran. Ravinia project was approved by the ECWMC as the LGU in Corcoran.

- 18) Rule I. Buffer requirements. The required average wetland buffer area is 12.758 acres. The proposed wetland buffer plan provides 13.046 acres of wetland buffers. This meets the Commission's standards.

- 19) Rule E. Erosion and Sediment Control will meet the Commission's requirements with minor revisions:

- a) Location of the temporary sediment basins must be shown on a separate sheet
- b) A final plan, dated and signed by a Professional Engineer licensed in Minnesota, must be submitted to the Commission and the City of Rogers.

- 20) Rule D. Stormwater treatment will be provided by constructing nine (9) basins. Two basins will be designed as a NURP pond (100P & 400P); four basins will have attached biofiltration areas (300P, 500P, 600P & 700P); and three basins will be designed for stormwater reuse basins (200P, 800P & 850P). Total irrigated area will be 22.856 acres. All the ponds are sized in excess of the minimum NURP pond size requirements.

- 21) Water Quality: The existing total phosphorus (TP) and total suspended sediment (TSS) loads from the site are 209.3 and 38,023 pounds per year, respectively. The post-development consolidated TP and TSS loads are 99.8 and 11,782 pounds/year, respectively. The TP post-development loads are estimated by using the PondNet output, 20% removal efficiency due to the filter benches and about 35% reduction due to water reuse. Post-development TSS loads are estimated about 60% TSS removal by the ponds (PondNet), 80% removal by the filtration systems and about 35% reduction due to water reuse. The water quality treatment plan meets the Commission's standards.

- 22) The abstraction requirement for 61.32 acres of new impervious cover is 5.62 acre-feet. The project is proposing to use stormwater reuse for irrigation, upland preservation, wetland buffer oversizing, soil amendment and impervious area disconnection to achieve the abstraction requirement. In addition to these measures, four of the basins will have biofiltration benches. Following table is a summary of the abstraction credits claimed by this project. Volume abstraction plan meets the Commission's standards.

Abstraction Credit Summary

BMP	BMP Description	Area (acre)	Abstraction Credit / Requirement (acre-feet)
200P	Stormwater Reuse Basin ¹	NA	1.135
300P	Biofiltration Basin ²	NA	0.350
500P	Biofiltration Basin ²	NA	0.831
600P	Biofiltration Basin ²	NA	0.365
700P	Biofiltration Basin ²	NA	1.152
800P & 850P	Stormwater Reuse Basin ¹	NA	2.862
Soil Amendments	Soil Amendments	4.376	0.182
Upland Preservation	Upland Preservation	1.481	0.062
Wetland Buffer Oversizing	Wetland Buffer Oversizing	19.000	0.792
Impervious Disconnection	Impervious Disconnection	6.697	0.614
Total Site BMP Credits			8.345
Total Site Abstraction Requirement	New Impervious Coverage	61.317	5.621

1) Using RWMWD Reuse Calculator

2) Credit is applied up to 1.1" impervious volume contributing to the pond or the filter capacity, whichever is less.

23) Stormwater rate control.

Stormwater flows in five directions. Post-development discharges in each direction will be significantly reduced by the project. The post-development stormwater runoff rates for the 2-, 10- and 100-year events meet the standards and are shown below:

Drainage Direction	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Drainage to North	0.44	0.22	0.98	0.53	2.09	1.20
Drainage to Northwest	35.82	8.66	69.40	18.04	134.14	40.20
Drainage to Northeast	24.25	12.64	37.92	21.72	50.91	36.10
Drainage to Rush Creek	124.13	42.09	220.42	78.08	482.23	179.34
Drainage to East	23.23	9.66	33.95	19.03	85.25	25.64

24) It should be specified on the plans that the soil amendment mix shall be mix of %25 compost and %75 sand and protection markers (or buffer markers) should be placed around the soil amendment areas in Outlot D and M.

25) Storm Water Management Plan Summary:

Water Quality (Nutrient and TSS) and Runoff Volume Summary				
Development Name: Laurel Creek, Rogers				
Total Parcel Area: 316 acres				
Total Lot Area: 106 acres				
Total Buildable Area: 172 acres				
Total Impervious Area: 61.32 Acres				
Review Month/Year: June 2107				
Nearest Downstream Surface Water: North Fork Rush Creek is within the site.				
Condition	TP Load (lbs./yr) ¹	TSS Load (lbs./yr) ¹	Abstraction Volume Credit (ac-ft) ²	Filtered Volume Credit (ac-ft) ²
Pre-development (baseline) Load	209.3	38,023	4.855	2.698
Post-development Without Mitigation	284.4	NA		
Post-development With Mitigation	99.8	11,782		
Net Change ("baseline" compared to "post-development with mitigation")	-109.5	-26,241		

¹ Average annual values

² See Abstraction Credit Summary Table.

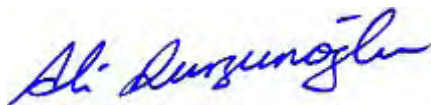
26) At the time of writing this report, it was not certain which party (City of Rogers or an HOA) would be responsible for the operation and maintenance of the stormwater management facilities. A responsible party must be established for the O&M Plan.

Recommendation:

Staff recommends the approval of the project with the following conditions:

- **Balance of the project fee must be paid to the administrative office (\$850)**
- **Provide revisions required under item #19a & #19b**
- **Provide revision required under item #24**
- **Resolve item #26.**

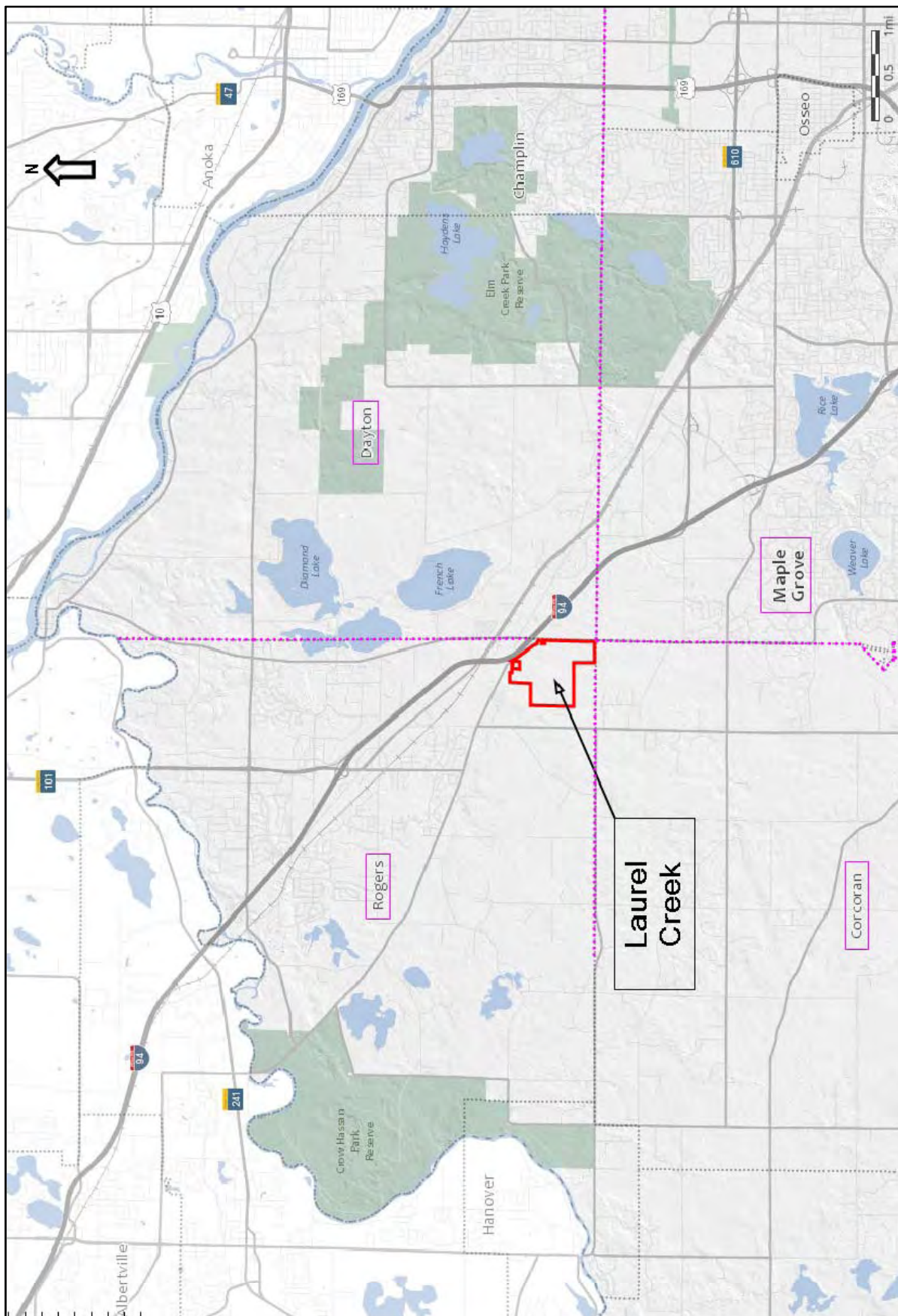
Hennepin County
Department of Environment and Energy



June 13, 2017

Ali Durgunoglu, P.E., Ph.D.
Technical Advisor to the Commission

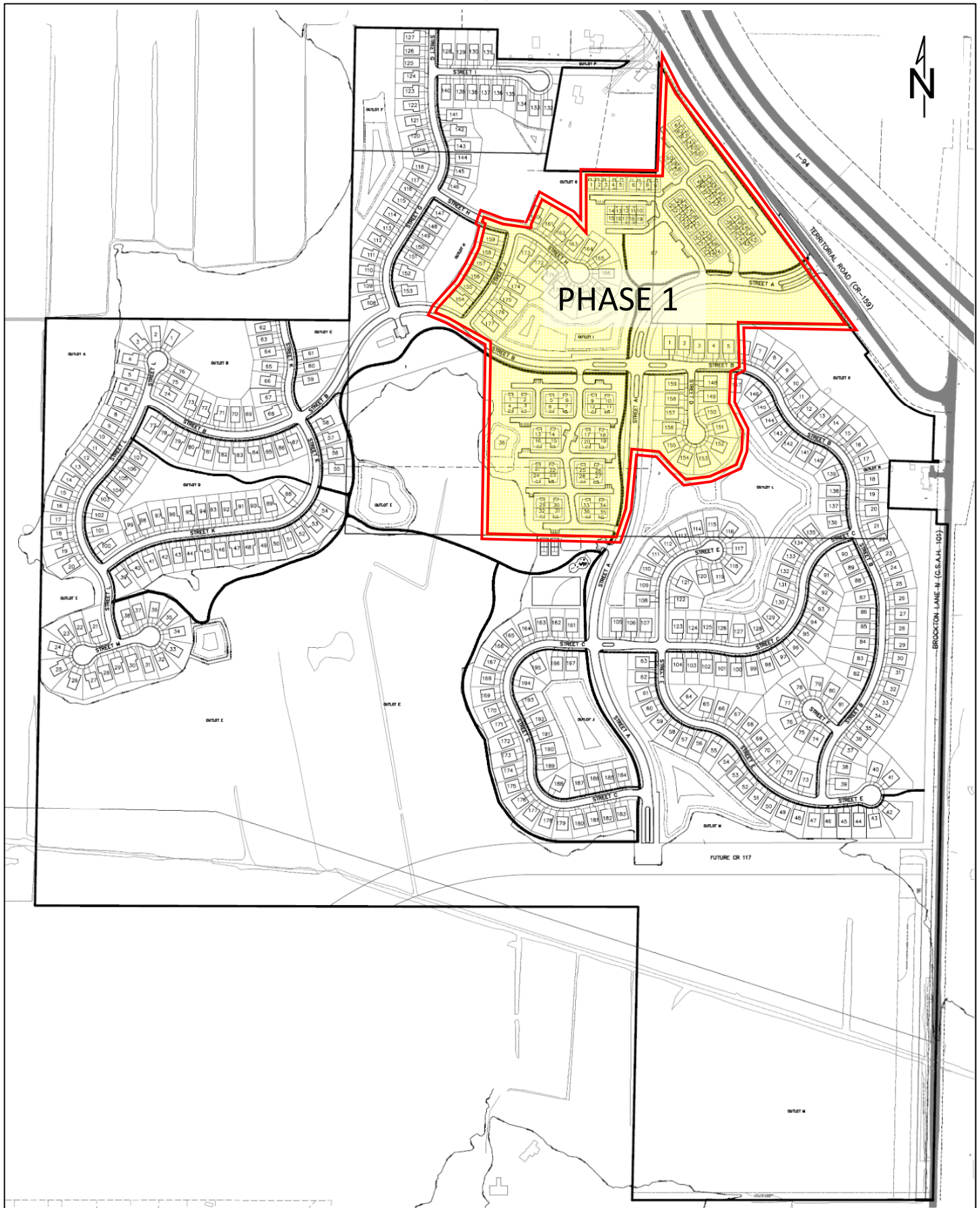
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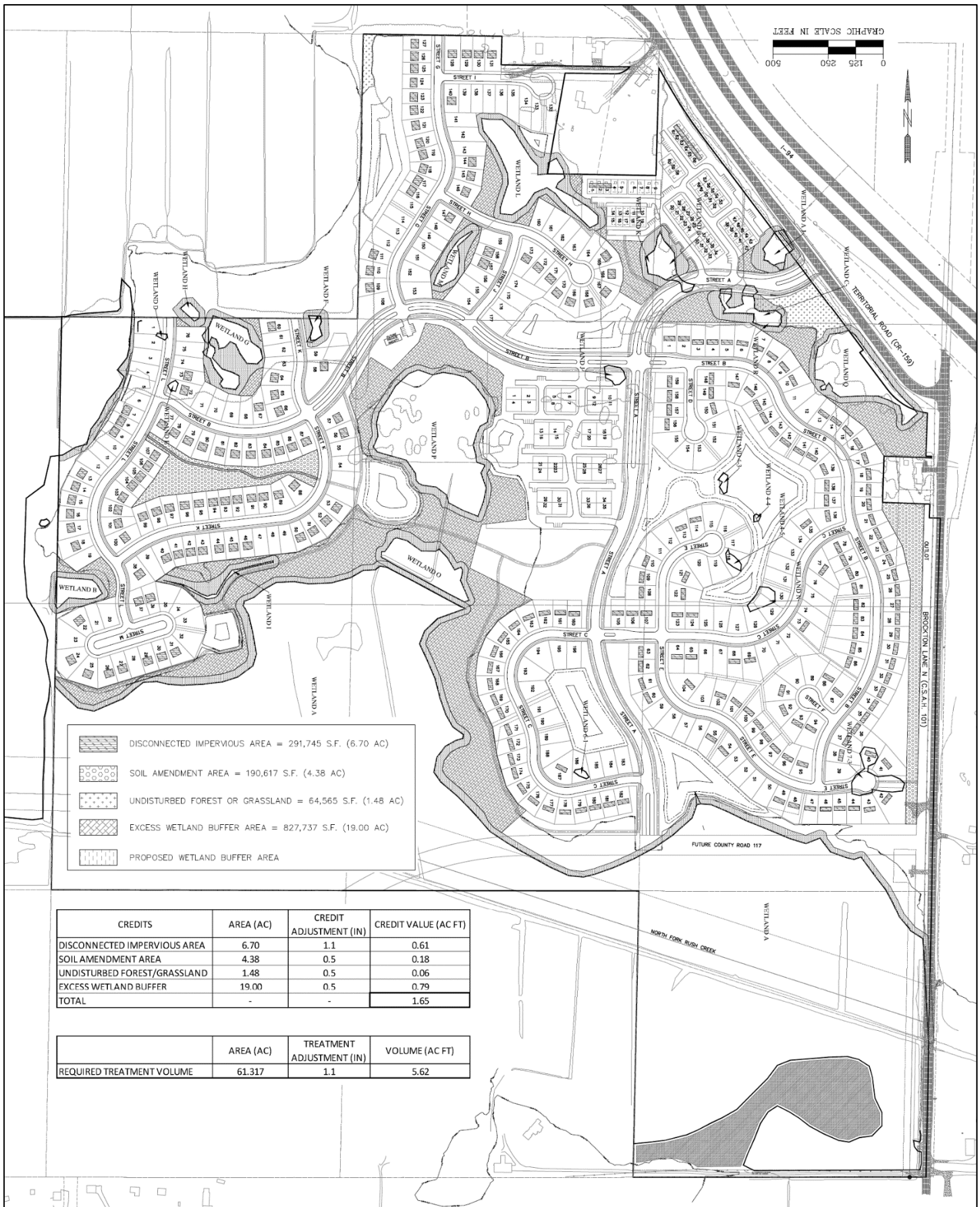
AERIAL PHOTO



PRELIMINARY PLAT



ABSTRACTION CREDIT AREAS



elm creek

Watershed Management Commission

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www.elmcreekwatershed.org

TECHNICAL OFFICE
Hennepin County Public Works
Department of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415
PH: 612.596.1171
E-mail: ali.durgunoglu@hennepin.us

Hindu Society-Staff Housing (revised plans) **Maple Grove, Project #2017-021**

Project Overview: This is an expansion project for adding 6 staff housing on the existing Hindu Temple property. The proposed addition will disturb 1.07 acres and add about 0.38 acres of new impervious cover. The size of the project barely exceeds the threshold level for plan review, however, there are wetlands and floodplains on the site. The floodplain elevation is 912.3 ft (NGVD 1929) as established by the ECWMC and FEMA. The plan will be reviewed for grading, wetland buffers and floodplain management.

Applicant: Hindu Society of Minnesota – c/o Balu Iyer, 10530 Troy Lane N, Maple Grove, MN 55311. Phone: 612-723-7784. Email: iyerx002@gmail.com.

Agent: Sambatek – c/o Kevin Clark, 12800 Whitewater Drive, Suite #300, Minnetonka, MN 55434. Phone: 763-476-6010. Email: kclark@sambatek.com.

Exhibits:

- 1) ECWMC Request for Plan Review and Approval received May 19, 2017.
- 2) Project review fee of \$103.50 on May 19, 2017. (Total due is \$200.00 per City of Maple Grove, please see the correct fee schedule.)
- 3) Preliminary Stormwater Management Plan (May 15, 2017), prepared by Sambatek (Jessica Andersen & Eric Luth, PE, unsigned); hardcopy only.
- 4) Preliminary site Development Plans for Staff Housing (received on May 19, 2017), signed by Eric Luth, PE, May 15, 2017; hardcopy only.
 - C1.01 Title Sheet
 - C2.01 Existing Conditions
 - C3.01 Site Plan
 - C4.01 Grading Plan
 - C7.01 Storm Water and Utility Plan
 - L1.01 Landscape Plan
 - L2.01 Planting Details
- 5) Revised plans, received on June 7, 2017. Plans are dated May 15, 2017 (no revision date) and not signed.
- 6) Draft Operation and Maintenance plan for the bio-filtration basin, received on June 13, 2017.
- 7) Memo from staff to the applicant regarding noncompliant issues (June 13, 2017)

Findings:

- 8) The fee submitted was insufficient. The correct fee is \$200. Additional fee of \$96.50 must be submitted to the administrative office. The correct fee is calculated based on Institutional Redevelopment (Hindu Temple), plus the floodplains. The initial 60-day review period will start when the full fee is submitted. Regardless of the fee due, staff started the technical review.
- 9) Rule F. Floodplain Alteration. The site is at the confluence of North Fork and South Fork Rush Creeks. The base flood elevation at this site is established at 912.30 feet (NGVD 1929 datum). The proposed revised grading shows no impact to the floodplain.
- 10) Rule G. Wetland Alteration. City of Maple Grove is the Local Government Unit administering the Wetland Conservation Act of Minnesota. No wetlands impacts are proposed.
- 11) Rule I. Buffer requirements. At the time of this report, wetland buffer widths were not in compliance with the Commission's rules. This was conveyed to the applicant's engineer on June 13. Staff was informed that the plans were being revised.
- 12) Rule E. Erosion and Sediment Control will meet the Commission's requirements.
- 13) Rule D. Stormwater Management will be provided by the proposed bio-filtration basin. Please provide more details about the bio-filtration basin (e.g. typical cross section, soil mix specification, clean-out locations, long-term operation and maintenance plans, etc.). Utility, drainage and access easements for the bio-filter must be shown.
- 14) Stormwater rate, volume and quality control. The site is too small to get a reliable estimate of the pre- and post-development quantities. Nevertheless, the applicant provided the following values for the treatment of the proposed 0.38 acres of impervious cover. These treatment levels would meet the Commission's standards.
 - a) Rate Control: The post-development stormwater runoff rates for the 2-, 10- and 100-year events meet the standards and are shown below:

Storm Event	Existing Discharge Rate (cfs)	Proposed Discharge Rate (cfs)
2-year	2.40	1.39
10-year	4.70	4.65
100-year	9.78	9.75

- b) Volume analysis: The volume abstraction requirement for 1.1" of runoff from 0.38 acres of new impervious surface is about 1,500 cubic feet. Soils are not conducive for infiltration. The proposed bio-filter will provide about 1,590 cubic feet of filtration.
 - c) Water quality and nutrient analysis: Existing total suspended sediment (TSS) and total Phosphorus (TP) loads are 236 and 1.07 pounds per year, respectively. The post-development TSS and TP loads are 78 and 0.64 pounds per year, respectively.
- 15) The applicant agrees to the operation and maintenance of the bio-filtration basin. A draft Operation and Maintenance Plan was submitted and was determined to be acceptable by

the staff. The O&M, which also has to be accepted by the city, must be recorded with the county within 90 days following the city approval. Please submit the plat map showing the drainage and utility (and access) easement to the bio-filtration basin.

Recommendation:

Staff recommends the approval of the project with the following conditions:

- **Fee difference of \$96.50 is submitted to the administrative office.**
- **The revisions for the following items must be submitted for review and approval:
Items under #11 #15.**

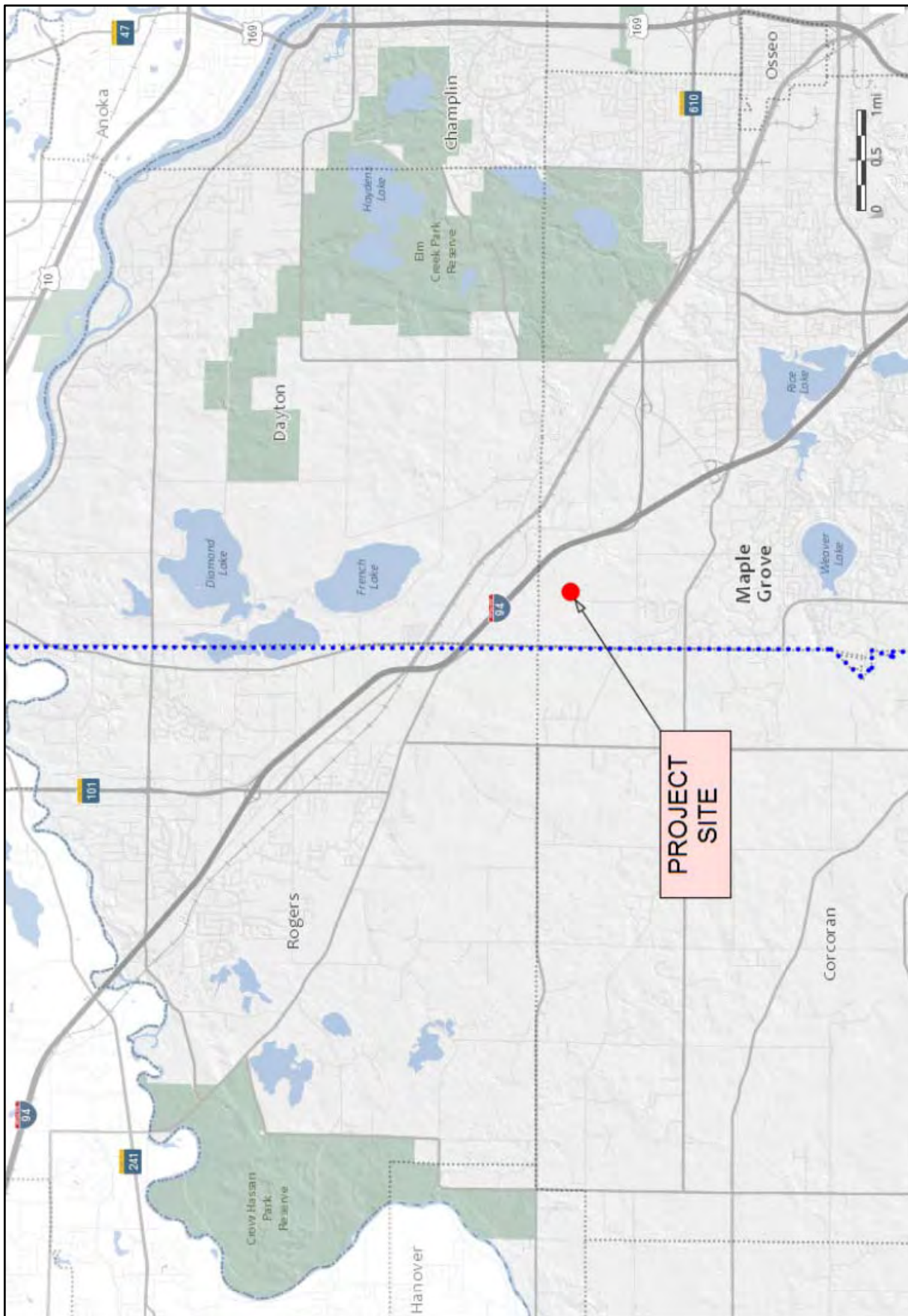
Hennepin County
Department of Environment and Energy



June 14, 2017

Ali Durgunoglu, P.E., Ph.D.
Technical Advisor to the Commission

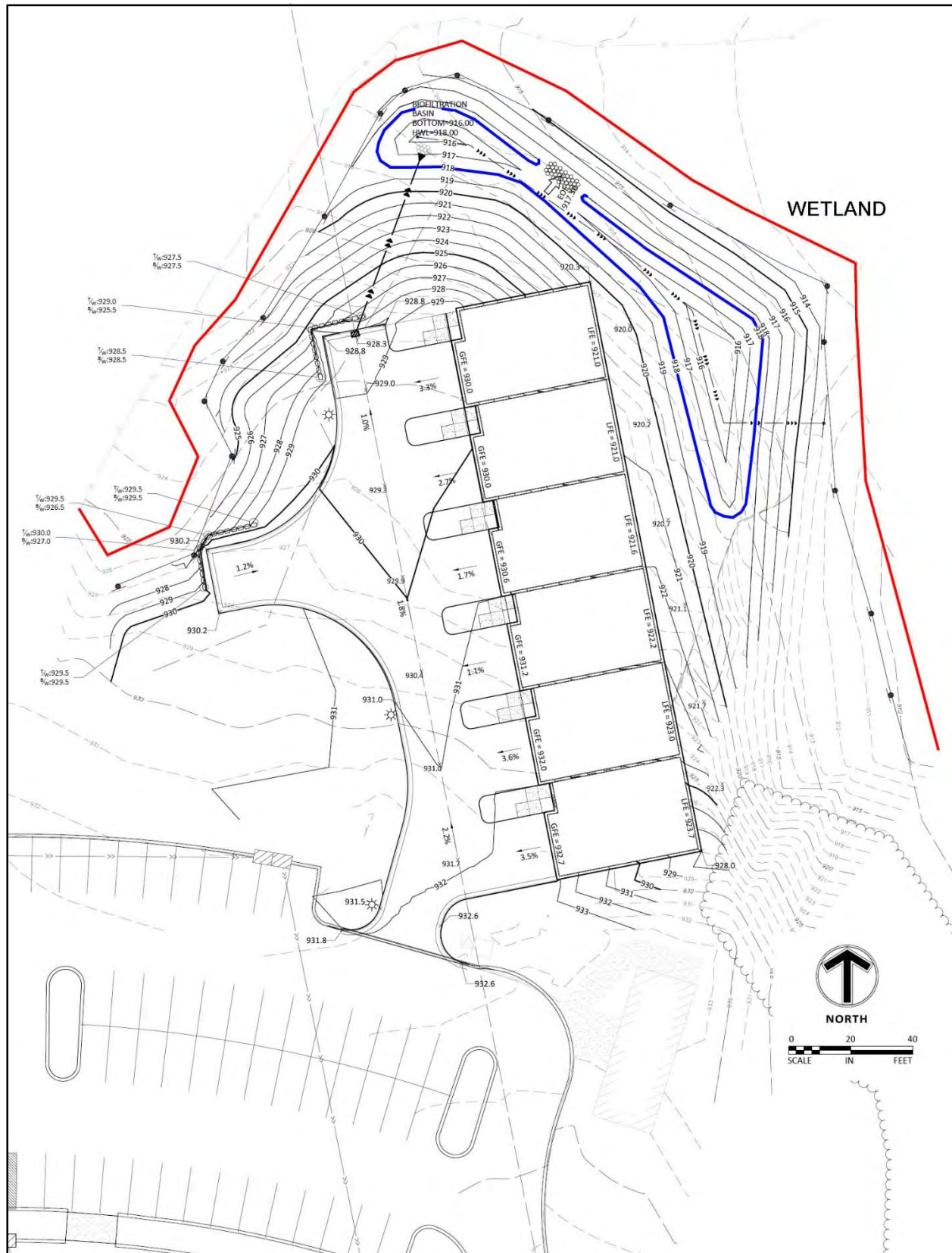
SITE LOCATION



AERIAL PHOTO



GRADING PLAN



elm creek

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
E-mail: judie@jass.biz

TECHNICAL OFFICE
Hennepin County Public Works
Department of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415
PH: 612.348.7338
E-mail: james.kujawa@hennepin.us

Midwest Steel Rogers, Project #2017-023

Project Overview: This is a proposal to combine two existing 3-acre lots platted with the North Rogers Industrial Park Addition Rogers, between Highway 101 and James Avenue just north of CSAH 144 (141st Ave). The applicant is proposing to combine these lots (Lots 3 & 4, Block 1) and construct a 53,000 sq. ft. warehouse and its associated parking. The Commission will review the project for compliance to its Rule D (Stormwater Management) and Rule E (Erosion and Sediment Control). There is a regional stormwater pond on these parcels that was constructed under the Hwy 101 Corridor Drainage (2004-042) project, to treat 69.5 acres of water from the surrounding industrial park.

Applicant: The Baine Group – Chuck Baine, 14700 28th Ave N, Suite 30, Plymouth, MN 55447. Phone: 763-231-8186, Mobile: 612-618-5713. Email: ChuckB@Baine.com.

Agent: Loucks – c/o Vicki VanDell, P.E., 55 East Fifth Street, Suite 910, Saint Paul, MN 55101. Phone: 763-496-6720, Mobile: 612-559-6761. Email: VVandell@Loucksinc.com.

Exhibits:

- 1) ECWMC Request for Plan Review and Approval received May 30, 2017.
- 2) Project review fee of \$1,500 on May 25, 2017. Total fee should be \$1,550. The balance due is \$50.
- 3) Existing Plat and survey (17108-HE-ALTA-04-11-17) dated April 11, 2017.
- 4) Hydrology report and project narrative (dated May 25, 2017 and signed by V. VanDell).
- 5) Preliminary Plans for: Vicinity Map, Site Grading Utilities and Landscape (received on May 25, 2017), dated April 5, 2017, unsigned.
- 6) Revised hydrocad model from project 2004-042.

Findings:

- 1) The existing pond was designed for 68% impervious areas with 69.5 acres of drainage area. The design infiltration rate was 5.76 inches per hour, which is conservative for Sandberg loamy coarse sand type of soil that exists on the pond site.
- 2) The proposed development will add 2.48 acres of new impervious cover (41% impervious). This is lower than the standard used for the design of the existing pond under the project #2004-042.

- 3) The existing pond has an 18-inch pipe outlet at 896' invert. At that elevation, the dead storage capacity is about 240,000 cubic feet (5.51 acre-feet).
- 4) Based on the updated pond information by using the most recent Lidar topography and using 5.76"/hour exfiltration rate, there would be no discharge from this pond during a 2 year event. The pond would peak at 894.81. Assuming 5.76"/hour exfiltration, drawdown will be in less than 28 hours. Even assuming 1/2 of 5.76"/hour exfiltration (2.4"/hour), the pond will peak at 895.64 and drain down in 40 hours.
- 5) The pond would provide sufficient infiltration into native soils, and therefore the stormwater plan meets the rate control, nutrient control and volume control standards of the commission.
- 6) The storm sewer outlets draining the parking lots (north and south lines, not the roof drains) require pre-treatment. Pretreatment basins or hydrodynamic separator sump manholes would be required for the north and south sewer lines. Please incorporate details for pre-treatment of these two storm sewer lines.
- 7) The inverts of the storm inlets into the infiltration pond must be at the bottom of the pond (890.0 – 892.0) with significant riprap protection. Due to the expected rapid infiltration, the pond is expected to be empty when a storm comes. The proposed FES inverts will have 5-7 feet of drop to the bottom of the pond, and likely will cause erosion. Please revise the pipe inlets.
- 8) City of Rogers considers the infiltration basin as a regional stormwater treatment facility and will assume the operation and maintenance responsibility.
- 9) Please submit a signed and dated final plan set.

Recommendation:

Recommend approval with the following conditions:

Provide revised plans and documents to address the issues outlined under items #6, #7 and #9.

Hennepin County
Department of Environment and Energy



James Kujawa
Advisor to the Commission

June 9, 2017
Date

AERIAL VIEW



GRADING PLAN

