



CITY OF CORCORAN

**Corcoran City Council Agenda  
March 24, 2022 - 7:00 pm**

**HYBRID MEETING OPTION AVAILABLE**

*The public is invited to attend the regular Council meetings at City Hall.*

**Meeting Via Telephone/Other Electronic Means**

**Call-in Instructions:**

+1 312 626 6799 US

**Enter Meeting ID: 828 9735 8460**

Press \*9 to speak during the Public Comment Sections in the meeting.

**Video Link and Instructions:**

<https://us02web.zoom.us/j/82897358460>

visit <http://www.zoom.us> and enter

**Meeting ID: 828 9735 8460**

Participants can utilize the Raise Hand function to be recognized to speak during the Public Comment sections in the meeting. Participant video feeds will be muted. **In-person comments will be received first, with the hybrid electronic means option following.**

For more information on options to provide public comment visit:

[www.corcoranmn.gov](http://www.corcoranmn.gov)

1. Call to Order / Roll Call
2. Pledge of Allegiance
3. Agenda Approval
4. Commission Representatives\*
5. Open Forum – **Public Comment Opportunity**
6. Presentations/Recognitions
7. Consent Agenda
  - a. Financial Claims\*
  - b. Order the EAW – Pioneer Trail\*
  - c. Donations – Stanchion\*
  - d. Award Bids – Cropland\*
  - e. Call Work Sessions for April 14, May 12, May 26, and June 23\*
  - f. Memorial Garden Policy\*
8. **Planning Business – Public Comment Opportunity**
  - a. WH Electric Administrative Permit, Site Plan, and Preliminary Plat\*
  - b. Cook Lake Highlands Final Plat and PUD\*
  - c. Zoning Ordinance Amendment Ground Mounted Solar\*
9. **Unfinished Business – Public Comment Opportunity**
10. **New Business – Public Comment Opportunity**
  - a. Combine, Close Out and Create Funds\*
11. Staff Reports
  - a. Active Corcoran Planning Applications\*
12. 2022 City Council Schedule\*
13. Adjournment

**\*Includes Materials** - Materials relating to these agenda items can be found in the Council Chambers Agenda Packet book located by the entrance. The complete Council Agenda Packet is available electronically on the City website at [www.corcoranmn.gov](http://www.corcoranmn.gov).

## STAFF REPORT

## Agenda Item 4.

<b>Council Meeting:</b> March 24, 2022	<b>Prepared By:</b> Michelle Friedrich
<b>Topic:</b> Commission Representatives	<b>Action Required:</b> None – Informational

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### Summary:

The advisory commission representatives for the February 24<sup>th</sup> Council meeting are as follows:

- Planning Commission: Dean Jacobs
- Parks and Trails Commission: Judy Strehler

### Financial/Budget:

N/A

### Council Action:

N/A

### Attachments:

N/A

**Agenda Item 7a.**  
**Council Meeting Date:** 3/24/2022  
**Prepared By:** Maggie Ung

**FINANCIAL CLAIMS**

**CHECK RANGE**

**FUND #500 ESCROW CLAIMS**

Paid to	Amount	Project name
SEE THE REGISTER FOR #500 CLAIMS		

<b>Total</b>	\$0.00	
<b>Total Fund #500 =</b>		\$ -
(See attached Payments Detail)		

**ALL OTHER FINANCIAL CLAIMS**

Check Register		\$419,902.31
(See attached Check Detail Registers)		
<b>Total Checks</b>	\$	<b>419,902.31</b>
<b>Total of Auto Deductions</b>	\$	<b>122,761.35</b>

<b>TOTAL EXPENDITURES FOR APPROVAL</b>	\$	<b>542,663.66</b>
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**Auto Deductions / Electronic Fund Transfer / Other Disbursements**

Date	Paid to	Amount	Description
3/3/2022	MN Dept of Revenue	\$ 183.26	Fuel Tax
3/4/2022	RevTrak	\$ 727.04	Credit Card Fee
3/4/2022	RevTrak	\$ 39.90	Chargeback
3/4/2022	Farmer's Bank	\$ 15.00	ACH Filing Fee
3/7/2022	Postalia	\$ 400.00	Postage
3/9/2022	MN Dept of Revenue	\$ 130.25	Fuel Tax
3/10/2022	ADP	\$ 91,103.02	Net Payroll and Taxes
3/14/2022	MN PERA	\$ 19,610.87	Pension Plan
3/14/2022	Optum Bank	\$ 3,878.34	Employee HSA
3/14/2022	State of MN - Empower	\$ 4,701.92	Employee Deferred Comp/Healthcare Savings
3/15/2022	Sun Life	\$ 1,490.72	Employee STD and LTD
3/9/2022	Zoom	\$ 14.99	Zoom For Council Worksession
3/9/2022	Zoom	\$ 64.99	Zoom For Council Meetings
3/11/2022	Fleetio	\$ 30.00	PD Software
3/14/2022	Deluxe	\$ 371.05	Envelopes
<b>Total</b>		\$ 122,761.35	

GL Number	Invoice Date	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	Check
Check 1							
100-43100-50220	03/01/22	ZIEGLER INC	PW CATERPILLAR REPAIR	IN000443074	03/24/22	357.10	1
100-43100-50220	03/03/22	ZIEGLER INC	PW - PARTS RETURN	CM000054406	03/24/22	(357.10)	1
			Total For Check 1			0.00	
Check 31889							
100-41900-50300	03/11/22	ADP, LLC	PAYROLL PERIOD #05	601459613	03/24/22	306.78	31889
			Total For Check 31889			306.78	
Check 31890							
100-42100-50207	03/10/22	ALLIED MEDICAL TRAINING	PD TRAINING - LAWSON	2562	03/24/22	80.00	31890
			Total For Check 31890			80.00	
Check 31891							
100-41900-50210	03/08/22	BEAUDRY OIL COMPANY	CITY HALL PROPANE	2009101	03/24/22	805.66	31891
100-41900-50210	03/03/22	BEAUDRY OIL COMPANY	CITY HALL PROPANE	2009100	03/24/22	421.74	31891
100-42100-50212	03/10/22	BEAUDRY OIL COMPANY	UNLEADED 87	2024324	03/24/22	2,994.18	31891
100-43100-50212	02/22/22	BEAUDRY OIL COMPANY	CLEAR 91 PREMIUM GAS	2002735	03/24/22	1,002.88	31891
100-43100-50212	03/10/22	BEAUDRY OIL COMPANY	ULS2 DYED KODIAK WINTER B5	2024323	03/24/22	2,448.03	31891
100-43100-50212	03/04/22	BEAUDRY OIL COMPANY	CLEAR 91 PREMIUM GASOLINE	2020879	03/24/22	185.47	31891
			Total For Check 31891			7,857.96	
Check 31892							
601-00000-22200	03/08/22	BELLWETHER COMMUNITY ASSOC	UB refund for account: 20010025-24	03/08/2022	03/24/22	53.70	31892
			Total For Check 31892			53.70	
Check 31893							
100-42100-50300	02/23/22	BENCHMARK SOLUTIONS, LLC	2022 ANNUAL MANAGEMENT SYSTEM SUBS	1009	03/24/22	3,848.00	31893
			Total For Check 31893			3,848.00	
Check 31894							
100-41400-50300	03/08/22	BERGAN KDV	ENGAGEMENT SERVICES	1154202	03/24/22	1,925.00	31894
			Total For Check 31894			1,925.00	
Check 31895							
100-42100-50403	03/07/22	BOYER TRUCKS	PD SQUAD REPAIR/MAINTENANCE	003P18429	03/24/22	77.52	31895
100-42100-50403	03/04/22	BOYER TRUCKS	PD SUPPLIES - ANTIFREEZE	003P18421	03/24/22	72.76	31895
100-43100-50220	03/04/22	BOYER TRUCKS	PW - TRUCK PARTS	003P18430	03/24/22	185.96	31895
			Total For Check 31895			336.24	
Check 31896							
422-49400-50530	02/15/22	BRAUN INTERTEC CORP	WATER SUPPLY CONVEYANCE AND TREATM	B284222	03/24/22	10,506.25	31896
			Total For Check 31896			10,506.25	
Check 31897							
100-45100-50210	03/07/22	BSN SPORTS, LLC	PARKS SUPPLIES BASEBALL GEAR	916293556	03/24/22	688.73	31897
			Total For Check 31897			688.73	
Check 31898							
100-00000-22205	03/02/22	CARSON, CLELLAND & SCHREDER	LEGAL SERVICES	1243	03/24/22	545.79	31898
100-00000-22205-056	03/02/22	CARSON, CLELLAND & SCHREDER	LEGAL SERVICES	1243	03/24/22	285.02	31898
100-00000-22205-071	03/02/22	CARSON, CLELLAND & SCHREDER	LEGAL SERVICES	1243	03/24/22	249.38	31898
100-00000-22205-087	03/02/22	CARSON, CLELLAND & SCHREDER	LEGAL SERVICES	1243	03/24/22	35.63	31898
100-00000-22205-117	03/02/22	CARSON, CLELLAND & SCHREDER	LEGAL SERVICES	1243	03/24/22	35.63	31898
100-00000-22205-128	03/02/22	CARSON, CLELLAND & SCHREDER	LEGAL SERVICES	1243	03/24/22	866.42	31898
100-41600-50304	03/02/22	CARSON, CLELLAND & SCHREDER	LEGAL SERVICES	1243	03/24/22	4,407.58	31898

GL Number	Invoice Date	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	Check
Check 31898							
100-42100-50304	03/02/22	CARSON, CLELLAND & SCHREDER	LEGAL SERVICES	1243	03/24/22	3,521.23	31898
			Total For Check 31898			<u>9,946.68</u>	
Check 31899							
100-41900-50380	03/08/22	CENTERPOINT ENERGY	GAS BILL	03-2022	03/24/22	16.80	31899
100-45200-50380	03/08/22	CENTERPOINT ENERGY	GAS BILL	03-2022	03/24/22	341.37	31899
			Total For Check 31899			<u>358.17</u>	
Check 31900							
100-43100-50381	03/02/22	CENTERPOINT ENERGY HOUSTON	PW - GAS BILL	03_2022	03/24/22	1,779.44	31900
			Total For Check 31900			<u>1,779.44</u>	
Check 31901							
100-43100-50321	02/28/22	CENTURY LINK	PUBLIC WORKS LAND LINE	03_2022	03/24/22	145.68	31901
			Total For Check 31901			<u>145.68</u>	
Check 31902							
100-41900-50400	03/09/22	CINTAS - 470	CITY HALL RUGS	4112903120	03/24/22	109.21	31902
100-42100-50400	03/02/22	CINTAS - 470	PD TOWELS	4112253175	03/24/22	13.19	31902
100-43100-50400	03/09/22	CINTAS - 470	PW TOWELS	4112903099	03/24/22	74.73	31902
100-43100-50400	03/02/22	CINTAS - 470	PW TOWELS	4112253164	03/24/22	15.10	31902
100-43100-50400	03/02/22	CINTAS - 470	PW TOWELS	4112253207	03/24/22	111.88	31902
100-43100-50417	03/09/22	CINTAS - 470	PW UNIFORMS	4112903217	03/24/22	187.15	31902
100-43100-50417	10/13/21	CINTAS - 470	PW UNIFORMS	4098567895A	03/24/22	153.93	31902
100-43100-50417	03/02/22	CINTAS - 470	PW UNIFORMS	4112253345	03/24/22	187.15	31902
			Total For Check 31902			<u>852.34</u>	
Check 31903							
100-41900-50382	03/15/22	CITY OF CORCORAN	CITY HALL WATER BILL	03_2022	03/24/22	25.46	31903
			Total For Check 31903			<u>25.46</u>	
Check 31904							
100-41900-50321	03/05/22	COMCAST- 902943336	LAND LINE 3/15/22-4/14/22	03_2022	03/24/22	96.14	31904
100-42100-50321	03/05/22	COMCAST- 902943336	LAND LINE 3/15/22-4/14/22	03_2022	03/24/22	96.11	31904
100-43100-50321	03/05/22	COMCAST- 902943336	LAND LINE 3/15/22-4/14/22	03_2022	03/24/22	96.10	31904
			Total For Check 31904			<u>288.35</u>	
Check 31905							
100-41900-50401	03/07/22	COMMERCIAL DOOR SYSTEMS	CITY HALL BUILDING DOOR REPAIR	0159549-IN	03/24/22	1,532.00	31905
			Total For Check 31905			<u>1,532.00</u>	
Check 31906							
100-41920-50300	03/15/22	COMPUTER INTEGRATION TECH	AGREEMENT MANAGED SERVICES	324713	03/24/22	4,400.25	31906
100-41920-50300	03/15/22	COMPUTER INTEGRATION TECH	AGREEMENT MANAGED BACKUP	324422	03/24/22	885.00	31906
100-41920-50300	03/15/22	COMPUTER INTEGRATION TECH	AGREEMENT OFFICE 365	324112	03/24/22	1,262.00	31906
100-41920-50300	02/28/22	COMPUTER INTEGRATION TECH	CITY HALL SUPPORT SERVICES	323559	03/24/22	3,040.00	31906
			Total For Check 31906			<u>9,587.25</u>	
Check 31907							
100-41900-50210	03/08/22	CORPORATE CONNECTION	EMPLOYEE JACKETS	59594	03/24/22	170.57	31907
			Total For Check 31907			<u>170.57</u>	
Check 31908							
100-41910-50433	03/11/22	CORPORATE PAYMENT SYSTEMS	PLANNING - 2022 ANNUAL MEMBERSHIP	03112022	03/24/22	164.00	31908
100-42100-50350	02/25/22	CORPORATE PAYMENT SYSTEMS	QR CODE GENERATOR	02252022	03/24/22	170.85	31908

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PAID  
CHECK REGISTER - COUNCIL

GL Number	Invoice Date	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	Check
Check 31908							
100-43100-50207	03/01/22	CORPORATE PAYMENT SYSTEMS	PW TRAINING - PARKING	5238	03/24/22	7.00	31908
100-43100-50207	03/03/22	CORPORATE PAYMENT SYSTEMS	PW TRAINING - PARKING	5315	03/24/22	3.00	31908
100-43100-50207	03/02/22	CORPORATE PAYMENT SYSTEMS	PW TRAINING - MEALS	220302-06-10	03/24/22	142.69	31908
100-43100-50207	03/01/22	CORPORATE PAYMENT SYSTEMS	PW TRAINING - MEALS	220301-06-8	03/24/22	103.17	31908
100-43100-50207	03/03/22	CORPORATE PAYMENT SYSTEMS	PW TRAINING - PARKING	5301	03/24/22	3.00	31908
100-43100-50207	03/03/22	CORPORATE PAYMENT SYSTEMS	PW TRAINING - MEALS	4780	03/24/22	121.93	31908
100-43100-50207	03/02/22	CORPORATE PAYMENT SYSTEMS	PW TRAINING - PARKING	5191	03/24/22	5.00	31908
100-43100-50207	03/01/22	CORPORATE PAYMENT SYSTEMS	PW TRAINING - PARKING	5198	03/24/22	7.00	31908
100-43100-50207	03/02/22	CORPORATE PAYMENT SYSTEMS	PW TRAINING - PARKING	5295	03/24/22	5.00	31908
Total For Check 31908						732.64	
Check 31909							
100-42100-50430	03/02/22	DVS	LICENSE TAX FOR TRAILER - FORFEIT	03_2022PD	03/24/22	1,376.44	31909
100-42100-50433	03/03/22	MN POST BOARD	PD PEACE OFFICER LICENSE	03_2022	03/24/22	270.00	31909
100-42100-50433	02/25/22	PLEAA	PLEAA MEMBERSHIPS FADDEN/STEELMAN	02.25.2022	03/24/22	72.10	31909
Total For Check 31909						1,718.54	
Check 31910							
100-43100-50210	12/14/21	CROW RIVER FARM EQUIPMENT	PW SUPPLIES	202357	03/24/22	18.75	31910
Total For Check 31910						18.75	
Check 31911							
100-41900-50210	01/31/22	CULLIGAN BOTTLED WATER	CITY HALL WATER	114X84387204	03/24/22	4.38	31911
100-41900-50210	02/28/22	CULLIGAN BOTTLED WATER	CITY HALL OFFICE WATER	114X84785704	03/24/22	32.76	31911
Total For Check 31911						37.14	
Check 31913							
100-41900-50350	03/10/22	ECM PUBLISHERS INC	RENTAL OF CROPLAND PARCELS BID NOT	881205	03/24/22	75.20	31913
100-43100-50350	03/10/22	ECM PUBLISHERS INC	ASPHALT/ROAD MAINTENANCE BIDS	881206	03/24/22	59.37	31913
100-43100-50350	03/10/22	ECM PUBLISHERS INC	SEAL COAT/FOG SEAL PROJECT	881207	03/24/22	59.37	31913
100-43100-50350	03/10/22	ECM PUBLISHERS INC	DUST CONTROL BIDS	881208	03/24/22	63.32	31913
Total For Check 31913						257.26	
Check 31914							
202-42100-50438	03/04/22	ELITE K-9	PD K-9 SYNTHETIC BITE SLEEVE	253913A	03/24/22	109.95	31914
Total For Check 31914						109.95	
Check 31915							
100-43100-50220	03/07/22	FELLING TRAILERS INC	PW SUPPLIES	243252	03/24/22	365.70	31915
Total For Check 31915						365.70	
Check 31916							
100-41900-50401	07/28/21	FOSTER MECHANICAL	CITY HALL HVAC SYSTEM REPAIR	16157	03/24/22	355.50	31916
Total For Check 31916						355.50	
Check 31917							
100-41900-50322	03/04/22	FP MAILING SOLUTIONS	QTRLY MAIL METER	TI105245591	03/24/22	128.85	31917
Total For Check 31917						128.85	
Check 31918							
601-49400-50380	02/28/22	GOPHER STATE ONE CALL	SUPPORT SERVICES	2020310	03/24/22	64.80	31918
602-49450-50380	02/28/22	GOPHER STATE ONE CALL	SUPPORT SERVICES	2020310	03/24/22	64.80	31918
Total For Check 31918						129.60	
Check 31919							

GL Number	Invoice Date	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	Check
Check 31919							
100-43125-50300	03/02/22	HENNEPIN COUNTY ACCOUNTS REC	VIEW RECORDED DOCUMENTS	1000183104	03/24/22	12.50	31919
			Total For Check 31919			12.50	
Check 31920							
100-42100-50323	03/02/22	HENNEPIN COUNTY INFO TECH	PD RADIO LEASE	1000183197	03/24/22	1,464.26	31920
			Total For Check 31920			1,464.26	
Check 31921							
209-42100-50520	03/15/22	INTEGRATED PROTECTION SYSTEM	OUTDOOR WARNING SIREN	77191.1	03/24/22	3,718.89	31921
			Total For Check 31921			3,718.89	
Check 31922							
100-00000-22205	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	4,423.50	31922
100-00000-22205-009	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32657	03/24/22	67.50	31922
100-00000-22205-013	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	126.50	31922
100-00000-22205-015	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	182.50	31922
100-00000-22205-017	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	2,826.50	31922
100-00000-22205-024	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	73.00	31922
100-00000-22205-030	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	36.50	31922
100-00000-22205-044	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	635.00	31922
100-00000-22205-056	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32659	03/24/22	323.00	31922
100-00000-22205-056	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	1,022.50	31922
100-00000-22205-071	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	73.00	31922
100-00000-22205-075	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	182.50	31922
100-00000-22205-080	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	1,588.00	31922
100-00000-22205-087	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	2,077.50	31922
100-00000-22205-087	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32659	03/24/22	132.00	31922
100-00000-22205-087	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32658	03/24/22	112.50	31922
100-00000-22205-087	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	1,318.00	31922
100-00000-22205-098	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	793.00	31922
100-00000-22205-098	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32659	03/24/22	59.00	31922
100-00000-22205-111	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	424.50	31922
100-00000-22205-117	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	671.50	31922
100-00000-22205-127	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	809.50	31922
100-00000-22205-128	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	2,718.50	31922
100-00000-22205-129	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	54.00	31922
100-41910-50300	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	7,347.50	31922
100-41910-50300	03/07/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32660	03/24/22	2,651.50	31922
100-42401-50300	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	1,580.00	31922
601-49400-50300	03/08/22	LANDFORM PROFESSIONAL SERVIC	PLANNING SERVICES 02/2022	32663	03/24/22	362.50	31922
			Total For Check 31922			32,671.50	
Check 31923							
100-41110-50365	03/04/22	LEAGUE OF MN CITIES INSUR.TR	WORKER'S COMPENSATION COVERAGE PRE 2022		03/24/22	103.00	31923
100-41400-50365	03/01/22	LEAGUE OF MN CITIES INSUR.TR	CLAIM #00469096	18722	03/24/22	430.21	31923
100-41900-50360	03/04/22	LEAGUE OF MN CITIES INSUR.TR	WORKER'S COMPENSATION COVERAGE PRE 2022		03/24/22	9,098.00	31923
100-42100-50365	03/04/22	LEAGUE OF MN CITIES INSUR.TR	WORKER'S COMPENSATION COVERAGE PRE 2022		03/24/22	134,518.00	31923
100-43100-50365	03/04/22	LEAGUE OF MN CITIES INSUR.TR	WORKER'S COMPENSATION COVERAGE PRE 2022		03/24/22	33,716.00	31923
100-45200-50365	03/04/22	LEAGUE OF MN CITIES INSUR.TR	WORKER'S COMPENSATION COVERAGE PRE 2022		03/24/22	13,949.00	31923
601-49400-50360	03/04/22	LEAGUE OF MN CITIES INSUR.TR	WORKER'S COMPENSATION COVERAGE PRE 2022		03/24/22	631.00	31923
602-49450-50360	03/04/22	LEAGUE OF MN CITIES INSUR.TR	WORKER'S COMPENSATION COVERAGE PRE 2022		03/24/22	479.00	31923
			Total For Check 31923			192,924.21	
Check 31924							

JOURNALIZED  
 PAID  
 CHECK REGISTER - COUNCIL

GL Number	Invoice Date	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	Check
Check 31924							
601-00000-22200	03/08/22	LENNAR	UB refund for account: 20006729-14	03/08/2022	03/24/22	62.92	31924
						<u>62.92</u>	
						Total For Check 31924	
Check 31925							
601-00000-22200	03/08/22	LENNAR HOMES	UB refund for account: 20006472-66	03/08/2022	03/24/22	64.05	31925
601-00000-22200	03/08/22	LENNAR HOMES	UB refund for account: 20006526-16	03/08/2022	03/24/22	136.39	31925
601-00000-22200	03/08/22	LENNAR HOMES	UB refund for account: 20006662-15	03/08/2022	03/24/22	62.96	31925
601-00000-22200	03/08/22	LENNAR HOMES	UB refund for account: 20006726-14	03/08/2022	03/24/22	61.92	31925
						<u>325.32</u>	
						Total For Check 31925	
Check 31926							
601-00000-22200	03/08/22	LENNAR HOMES	UB refund for account: 20006702-14	03/08/2022	03/24/22	30.74	31926
						<u>30.74</u>	
						Total For Check 31926	
Check 31927							
100-43100-50220	03/09/22	LITTLE FALLS MACHINE	PW SUPPLIES	364104	03/24/22	441.04	31927
						<u>441.04</u>	
						Total For Check 31927	
Check 31928							
601-00000-22200	03/08/22	M/I HOMES MPLS/ST PAUL LLC	UB refund for account: 20007212-23	03/08/2022	03/24/22	1.52	31928
						<u>1.52</u>	
						Total For Check 31928	
Check 31929							
100-00000-21708	03/15/22	MATT GOTTSCHALK	DEPENDENT CARE FSA 1/22-2/22	031522	03/24/22	1,150.00	31929
						<u>1,150.00</u>	
						Total For Check 31929	
Check 31931							
100-42400-50300	03/04/22	METRO WEST INSPECTION SERVIC	PERMIT INSPECTIONS FEBRUARY 2022	3198	03/24/22	49,570.82	31931
						<u>49,570.82</u>	
						Total For Check 31931	
Check 31932							
602-00000-20800	03/01/22	METROPOLITAN COUNCIL	FEBRUARY 2022 SAC CHARGES	022822	03/24/22	59,640.00	31932
602-00000-36200	03/01/22	METROPOLITAN COUNCIL	FEBRUARY 2022 SAC CHARGES	022822	03/24/22	(596.40)	31932
						<u>59,043.60</u>	
						Total For Check 31932	
Check 31933							
602-49450-50312	03/02/22	METROPOLITAN COUNCIL ENVIRO	WASTE WATER SERVICES	0001136554	03/24/22	11,642.72	31933
						<u>11,642.72</u>	
						Total For Check 31933	
Check 31934							
100-42100-50207	03/11/22	MN CHIEFS OF POLICE ASSOC	LEADERSHIP ACADEMY - C. ANDRESS	13134	03/24/22	700.00	31934
						<u>700.00</u>	
						Total For Check 31934	
Check 31935							
100-42100-50207	02/28/22	NORTH MEMORIAL	PD TRAINING - EMS	02282022	03/24/22	80.00	31935
						<u>80.00</u>	
						Total For Check 31935	
Check 31936							
100-43100-50220	03/05/22	NUSS TRUCK & EQUIPMENT	PW VEHICLE REPAIR	4033144	03/24/22	348.31	31936
						<u>348.31</u>	
						Total For Check 31936	
Check 31937							
100-42100-50207	02/07/22	OSSEO GUN CLUB	SIMULATOR RENTAL	233153	03/24/22	1,500.00	31937
						<u>1,500.00</u>	
						Total For Check 31937	



GL Number	Invoice Date	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	Check
Check 31938							
601-00000-22200	03/08/22	PULTE HOMES	UB refund for account: 20010201-36	03/08/2022	03/24/22	211.01	31938
601-00000-22200	03/08/22	PULTE HOMES	UB refund for account: 20019357-10	03/08/2022	03/24/22	29.06	31938
Total For Check 31938						<u>240.07</u>	
Check 31939							
601-00000-22200	03/08/22	PULTE HOMES OF MINNESOTA LLC	UB refund for account: 20019351-10	03/08/2022	03/24/22	31.38	31939
Total For Check 31939						<u>31.38</u>	
Check 31940							
601-00000-22200	03/08/22	PULTE HOMES OF MN, LLC	UB refund for account: 20010250-24	03/08/2022	03/24/22	12.18	31940
601-00000-22200	03/08/22	PULTE HOMES OF MN, LLC	UB refund for account: 20019307-10	03/08/2022	03/24/22	18.46	31940
Total For Check 31940						<u>30.64</u>	
Check 31941							
601-00000-22200	03/08/22	RAVINIA NEIGHBORHOOD ASSOCIA	UB refund for account: 20019418-77	03/08/2022	03/24/22	12.44	31941
Total For Check 31941						<u>12.44</u>	
Check 31942							
100-41900-50210	02/23/22	RITEWAY BUSINESS FORMS	LASER AP CHECKS	22-30471	03/24/22	218.20	31942
Total For Check 31942						<u>218.20</u>	
Check 31943							
100-00000-21709	03/01/22	STANDARD INSURANCE COMPANY	MARCH 2022 LIFE INSURANCE	03012022	03/24/22	1,541.40	31943
Total For Check 31943						<u>1,541.40</u>	
Check 31944							
100-42100-50210	03/02/22	STREICHER'S POLICE EQUIPMENT	PD SUPPLIES - IRRITANT	I1554779	03/24/22	77.94	31944
100-42100-50417	02/24/22	STREICHER'S POLICE EQUIPMENT	PD UNIFORM	I1553917	03/24/22	135.98	31944
Total For Check 31944						<u>213.92</u>	
Check 31945							
601-00000-22200	03/08/22	SUNRAM CONSTRUCTION, INC.	UB refund for account: 20020010-75	03/08/2022	03/24/22	1.85	31945
Total For Check 31945						<u>1.85</u>	
Check 31946							
100-00000-21707	02/28/22	TEAMSTER LOCAL 320	PD UNION DUES/TLDF	03_2022	03/24/22	400.68	31946
Total For Check 31946						<u>400.68</u>	
Check 31947							
422-49400-50530	02/07/22	THE UPS STORE #1533	USPS SHIPPING	02-2022	03/24/22	30.22	31947
Total For Check 31947						<u>30.22</u>	
Check 31948							
100-41900-50321	02/26/22	VERIZON WIRELESS	PD/CH CELL PHONE	9900457092	03/24/22	247.46	31948
100-42100-50321	02/26/22	VERIZON WIRELESS	PD/CH CELL PHONE	9900457092	03/24/22	1,249.49	31948
Total For Check 31948						<u>1,496.95</u>	
Check 31949							
100-43100-50210	03/04/22	WESTSIDE WHOLESALE TIRE	PW SUPPLIES-TOOLS	901181	03/24/22	175.00	31949
Total For Check 31949						<u>175.00</u>	
Check 31950							
100-00000-22205-007	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	260.35	31950
100-00000-22205-056	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	138.22	31950
100-00000-22205-065	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	1,063.45	31950

JOURNALIZED  
 PAID  
 CHECK REGISTER - COUNCIL

GL Number	Invoice Date	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	Check
Check 31950							
100-00000-22205-087	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	212.89	31950
100-00000-22205-098	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	216.43	31950
100-41900-50381	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	2,605.83	31950
100-42100-50381	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	60.82	31950
100-43100-50381	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	218.98	31950
100-45200-50381	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	259.65	31950
601-49400-50380	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	94.60	31950
602-49450-50380	03/10/22	WRIGHT-HENNEPIN COOP ELECT	STREET LIGHTS	03-2022	03/24/22	281.52	31950
Total For Check 31950						5,412.74	
Check 31951							
100-43100-50381	03/03/22	XCEL ENERGY	STREET LIGHTS	770014829	03/24/22	156.41	31951
Total For Check 31951						156.41	
Check 31952							
100-43100-50381	03/03/22	XCEL ENERGY	STREET LIGHTS	770102444	03/24/22	27.92	31952
Total For Check 31952						27.92	
Check 31953							
100-43100-50381	03/08/22	XCEL ENERGY	STREET LIGHTS	770673379	03/24/22	31.58	31953
Total For Check 31953						31.58	
Check 31954							
100-42100-50223	03/01/22	MENARDS MAPLE GROVE	SQUEEGEE & GLASS CLEANER	03012022	03/24/22	35.43	31954
100-42100-50403	03/02/22	DVS	PD LICENSE TABS CHIEF	03022022-1	03/24/22	14.60	31954
Total For Check 31954						50.03	

GL Number	Invoice Date	Vendor	Invoice Desc.	Invoice	Chk Date	Amount	Check
Fund Totals:							
			Fund 100 GENERAL FUND			332,081.88	
			Fund 202 POLICE DONATION FUND			109.95	
			Fund 209 OUTDOOR WARNING POINT			3,718.89	
			Fund 422 DOWNTOWN IMPROVEMENT			10,536.47	
			Fund 601 WATER			1,943.48	
			Fund 602 SEWER			71,511.64	
			Total For All Funds:			<u>419,902.31</u>	



**TO:** Corcoran City Council

**FROM:** Nicholas Ouellette through Kendra Lindahl, Landform

**DATE:** March 17, 2022 for the March 24, 2022 City Council Meeting

**RE:** Environmental Assessment Worksheet (EAW) for Cushman & Wakefield for 56.54 acres at 6210 Pioneer Trail (PID 32-119-23-34-0013, 32-119-23-34-0007, 32-119-23-43-0005 and 32-119-23-43-0006) (city file no. 21-047)

**REVIEW DEADLINE:** N/A

## 1. Description of Request

Cushman & Wakefield has submitted a request to initiate a mandatory EAW for “Pioneer Trail Industrial Park” to develop a five-lot industrial/business park with 10 buildings and a new public road located on 56.54 acres. The Minnesota Environmental Review Program rules require a mandatory EAW for new warehousing or light industrial facilities greater than 300,000 gross square feet in Corcoran.

## 2. Background

Under Minnesota Environmental Review Program rules, the City is the governmental unit responsible for preparing the EAW and determining whether the project has the potential for significant environmental effects.

The purpose of the environmental review process is to provide useable information to the project proposer, government decision-makers and the public concerning the primary environmental effects of a proposed project. The EAW should identify measures to protect the environment that can later be imposed as conditions of approval in future development applications.

If the EAW identifies significant environmental effects that cannot be mitigated or minimized, the City Council would order the preparation of an EIS. An EIS does not necessarily disclose more information about potential impacts; but rather, its main purpose is to examine project alternatives and additional mitigative measures to lessen significant impacts identified in the EAW. Furthermore, an EIS is not a means to approve or deny a project, but is an additional source of information to guide decisions. Very few projects move to the EIS stage because, in most cases, the EAW does an adequate job of describing the potential impacts and identifying mitigative measures.

The statutory standard for requiring an EIS is whether the project has the potential for significant environmental effects – it is not whether the EAW has adequately disclosed information about potential impacts. Accordingly, if Council determines that the EAW does not disclose sufficient information about potential impacts, the Council would request additional information before making a decision on the need for an EIS.



### 3. Analysis

The item for Council to consider is approving the draft Environmental Assessment Worksheet (EAW) for distribution for the Pioneer Trail Industrial Park Plan. This draft EAW document is required under the Minnesota Environmental Review rules for industrial, commercial and institutional developments.

Because most of this work was prepared during the PUD Sketch Plan Review, there is a limited cost to the EAW, which will be paid out of the developer's escrow.

When the Council approves the EAW for distribution, the 30-day period for comments begins. Staff will finalize the draft EAW document and distribute for review and comment. Key dates under the tentative schedule developed by staff are:

<b>Pioneer Trail EAW Schedule</b>	<b>Corcoran Key Dates</b>
RGU approves for distribution	3/24/2022
Draft document distributed for comments	3/29/2022
Deadline for submission to EQB	3/29/2022
EQB Publication date	4/5/2022
Comment Deadline	5/5/2022
RGU prepares Final Document	5/19/2022
Notice of Decision - Council	5/26/2022

No project approvals can be granted until the EAW process is completed.

### 4. Action

Move to approve Pioneer Trail EAW for distribution and comment.

#### Attachments

1. Draft Pioneer Trail EAW dated March 17, 2022

# ENVIRONMENTAL ASSESSMENT WORKSHEET

This Environmental Assessment Worksheet (EAW) form and EAW Guidelines are available at the Environmental Quality Board's website at: <http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm>.

The EAW form provides information about a project that may have the potential for significant environmental effects. The EAW Guidelines provide additional detail and resources for completing the EAW form.

**Cumulative potential effects** can either be addressed under each applicable EAW Item, or can be addresses collectively under EAW Item 19.

**Note to reviewers:** Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

## 1. Project Title: Pioneer Trail Industrial Park

## 2. Proposer: Cushman & Wakefield

Contact person: Jon Rausch  
Title:  
Address: 3500 American Blvd W, Suite 200  
City, State, ZIP: Bloomington, MN 55431  
Phone: 612-685-8288  
Fax:  
Email: [Jon.Rausch@cushwake.com](mailto:Jon.Rausch@cushwake.com)

## 3. Responsible Governmental Unit: City of Corcoran

Contact person: Kendra Lindahl, AICP  
Title: City Planner  
Address: 8200 County Road 116  
City, State, ZIP: Corcoran, MN 55340  
Phone: 612-638-0225  
Fax:  
Email: [klindahl@landform.net](mailto:klindahl@landform.net)

## 4. Reason for EAW Preparation

<u>Required:</u>	<u>Discretionary:</u>
<input type="checkbox"/> EIS Scoping	<input type="checkbox"/> Citizen petition
<input checked="" type="checkbox"/> Mandatory EAW	<input type="checkbox"/> RGU discretion
	<input type="checkbox"/> Proposer initiated

If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):  
[EAW, Minnesota Rules 4410.4300, Subpart 14 Industrial, Commercial and Institutional Facilities](#)

**5. Project Location:**

**6210 Pioneer Trail**

County:	Hennepin
City/Township:	Corcoran
PLS Location (¼, ¼, Section, Township, Range):	SE ¼, SW ¼, Township 23, Range 19
Watershed (81 major watershed scale):	Mississippi River (20)
GPS Coordinates:	45.06668366654562, -93.61842390950972
Tax Parcel Numbers:	32-119-23-34-0013, 32-119-23-34-0007 32-119-23-43-0005, 32-119-23-43-0006

**At a minimum attach each of the following to the EAW:**

- County map showing the general location of the project;
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable); and
- Site plans showing all significant project and natural features. Pre-construction site plan and post-construction site plan.

***Attachments:***

Appendix A: Figures

- Figure 1: Concept Plan
- Figure 2: Soil Classifications
- Figure 3: Water Resources Map
- Figure 4: County Well Index
- Figure 5: Potential Wetland Impacts
- Figure 6: Hennepin County Location Map
- Figure 7: Cover Type Map
- Figure 8: USGS Topographic Map
- Figure 9: 2040 Comprehensive Plan Future Land Use Map

Appendix B: Wetland Delineation and WCA Notice of Decision

Appendix C: FEMA FIRMette

Appendix D: Phase I ESA Executive Summary

Appendix E: DNR NHIS Request for Concurrence Letter

Appendix F: Traffic Impact Study

Appendix G: Feasibility Study

Appendix H: SHPO Response Letter

**6. Project Description**

- a. *Provide the brief project summary to be published in the EQB Monitor, (approximately 50 words).*

The Pioneer Trail Business Park is a proposed five lot industrial/business park with 10 buildings and a new public road located on 56.54 acres at the northwest corner of Highway 55 and Pioneer Trail.

- b. *Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, 2) modifications to existing equipment or industrial processes, 3) significant demolition, removal or remodeling of existing structures, and 4) timing and duration of construction activities.*

Cushman & Wakefield propose a new industrial park named “Pioneer Trail Business Park”. The project will be located in the City of Corcoran on 56.65 acres, according to the proposer’s submitted documents. The project will create five lots and 10 buildings for gas/convenience, offices, retail, warehousing, light manufacturing, warehouse and mini storage/self storage uses. Six buildings are proposed for the mini storage/self storage use on one 27.3 acre lot, totaling 199,000 gross square feet of building area. Four buildings are proposed for light industrial, office and commercial uses totaling 187,600 gross square feet of building area. These four buildings are proposed on four lots ranging in size from 2.8 to 8.3 acres.

Existing Site Conditions

A parcel tabulation is provided below and parcels will be referred to as Parcel A, Parcel B, Parcel C and Parcel D. The project is located on four separate parcels in the city of Corcoran. Parcel B is vacant and the remaining parcels are used for agricultural purposes. Wetlands are present on the site and shown the Concept Plan does not show plans for wetland preservation.

*Table 1: Pioneer Trail Business Park Parcel Areas*

<b>Parcel</b>	<b>PID</b>	<b>Address</b>	<b>Total Parcel Acres</b>
Parcel A	32-119-23-34-0013	6210 Pioneer Trail	9.81
Parcel B	32-119-23-34-0007	22733 Wagon Wheel Lane	0.99
Parcel C	32-119-23-43-0005	52 Address Unassigned	26.03
Parcel D	32-119-23-43-0006	52 Address Unassigned	19.71
<b>TOTAL</b>			<b>56.54</b>

Concept Plan

Figure 1, Appendix A shows the Concept Plan for this project. The Concept Plan shows a preliminary concept for five lots, a new public street, stormwater ponds, buildings, drive aisles, loading docks, parking and septic pad locations. The proposer has applied to the City of Corcoran for a PUD Concept Plan Review and the City Council generally indicated support for the concept. The attached Concept Plan is consistent with the plan submitted to the City by the proposer.

The project will include multiple commercial and industrial businesses in addition to the mini storage/self storage facility. The mini storage/self storage facility will make up the majority of the development with six buildings totaling approximately 199,000 gross square feet of building area on a 27.3 acre parcel. Specific users have not been identified for the remaining four proposed buildings.



*Table 2: Lot Tabulation Description*

Proposed Lot	Lot Width	Description	Number of Buildings	Gross Building Area
1	545 ft.	Gas/Convenience	1	10,300 sq. ft.
2	335 ft.	Office/Retail	1	11,300 sq. ft.
3	785 ft.	Office Warehouse/Light Manufacturing/Distribution	1	66,000 sq. ft.
4	1,045 ft.	Office Warehouse/Light Manufacturing/Distribution	1	100,000 sq. ft.
5	1,890 ft.	Mini Storage/Self Storage	6	199,000 sq. ft.

Infrastructure and Site Improvements

A new public road is proposed with the development, providing access to the site from Pioneer Trail to the west. The public road is proposed in accordance with the City of Corcoran’s plans for the Southwest District. The Feasibility Study in Appendix A indicates a traffic signal control is required at the intersection of Pioneer Trail and Highway 55, in addition to dedicated turn lanes on southbound Pioneer Trail. Dedicated turn lane improvements are also required at the intersection of Pioneer Trail and the new public road.

The site is located within a future study area for a proposed trunk sanitary sewer system. Public water and sewer are not available to the site and are not likely to be available within two years. While development is typically restricted without access to these services, the Corcoran City Council indicated support for development in advance of these services being available to the site. The proposer plans to provide septic and well for the development until it can connect to municipal services when they are available in the future.

The Feasibility Study notes the site is in a future well exploration area as identified in the Comprehensive Plan. While the City has no plans to install a well in the near term, the Feasibility Study recommends that a lot within the site be platted and deeded to the City for future water well exploration.

The Concept Plan shows two large stormwater ponds for the development.

Construction and Timing of Site Development Activities

The site will be graded for the construction of streets, parking, buildings and stormwater ponds. Phases are anticipated to develop based on market conditions.

**c. Project magnitude**

*Table 3: Project Magnitude*

<b>Description</b>	<b>Number</b>
Total project acreage	56.54
Linear project length	Not applicable
Number and type of residential units	Not applicable
Residential building area (in square feet)	Not applicable
Commercial building area (in square feet)	21,600
Industrial building area (in square feet)	76,000
Institutional building area (in square feet)	Not applicable

<b>Description</b>	<b>Number</b>
Other uses – Self-Storage (in square feet)	199,000
Structure height(s)	Limited to 45 ft.

- d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The project will allow development of additional commercial and industrial businesses in Corcoran and bring a high quality business park to Corcoran.

- e. Are future stages of this development including development on any other property planned or likely to happen?  Yes  No  
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.
- f. Is this project a subsequent stage of an earlier project?  Yes  No  
If yes, briefly describe the past development, timeline and any past environmental review.

## 7. Cover Types

The before cover types in Table 4 correspond with the cover types shown in Figure 7 in Appendix A.

Table 4: Cover Types

<b>Cover Types</b>	<b>Before(acres)</b>	<b>After (acres)</b>
Wetlands (medium tall grass and short grasses)	12.94	2.55
Deep Water/Streams	N/A	0
Wooded/Forest	6.73	0
Brush/Grassland (grassland)(green short grasses)	5.25	0.5
Cropland (fallow)(hayfield)	31.52	0
Lawn/Landscaping	N/A	20.89
Impervious Surface (bldgs. Pavement)	0.03	29.3
Stormwater Pond	N/A	3.4
Other (describe)	N/A	N/A
<b>TOTAL</b>	<b>56.64 acres</b>	

## 8. Permits and Approvals

List all known local, state and federal permits, approvals, certifications and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.

Table 5: Permits and Approvals

Unit of Government	Type of Application	Status
<b>Federal</b>		
U.S. Army Corps of Engineers (USACE)	Section 404 Clean Waters Act – Wetland Permit	To be applied for, if required
<b>State</b>		
Minnesota Pollution Control Agency (MPCA)	Section 401 Water Quality Certification	To be applied for
	National Pollutant Discharge Elimination System (NPDES) Stormwater Construction Permit	To be applied for
	Demolition Notification Checklist	To be applied for
Minnesota Department of Health (MDH)	Abandonment of Water Wells	To be applied for
Minnesota Department of Natural Resources (MDNR)	Water Appropriation Permit	To be applied for, if needed
<b>Local</b>		
Hennepin County	Right-of-way Excavation Permit	To be applied for, if needed
City of Corcoran	EAW / EIS Need Decision	Draft prepared
	Planned Unit Development (PUD) Sketch Plan	Reviewed
	Wetland Conservation Act (Boundary Approval/Replacement Plan)	Wetland delineation approved, mitigation plan to be applied for
	Rezoning	To be applied for
	Preliminary PUD Development Plan	To be applied for
	Preliminary Plat	To be applied for
	Final PUD Development Plan	To be applied for
	Final Plat	To be applied for
	Erosion Control, Grading, and Stormwater Permit	To be applied for, if needed
Building Permits	To be applied for	
Elm Creek Watershed Management Commission	Stormwater Permit, Erosion Control, and Site Plan Approval	To be applied for

*Cumulative potential effects may be considered and addressed in response to individual EAW Item Nos. 9-18, or the RGU can address all cumulative potential effects in response to EAW Item No. 19. If addressing cumulative effect under individual items, make sure to include information requested in EAW Item No. 19*

**9. Land Use**

*a. Describe:*

- i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.*

The existing land use of the project site is agricultural. A small portion of the site consists of wetlands. Adjacent parcels north of the site have agricultural and farm homestead land uses. There are single family residential land uses to the northeast and northwest of the site, and to the west across Pioneer Trail. Properties adjacent to the east of the site have light-industrial land uses. Properties to the south are located across Highway 55 in the City of Medina and have vacant or residential land uses. Table 6 below provides an inventory of existing land uses adjacent to the project site.

*Table 6: Adjacent Area Land Uses*

<b>Adjacent Use</b>	<b>Location</b>
Agricultural	North of the Parcels C and D
Residential Homes	North of Parcel A and B Northeast of Parcel D
Light Industrial	East of Parcel D
Highway 55	South of the development

- ii. Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.*

The City of Corcoran’s 2040 Comprehensive Plan Future Land Use Map (Figure 9, Appendix A) designates the project parcels as Light Industrial. The Light Industrial category is intended to provide areas for manufacturing, warehousing, automotive, trucking, office and other related industrial uses. The project consists of commercial and light-industrial uses. Parcel A is proposed for a gas/convenience use which may require a Comprehensive Plan amendment to guide the parcel as Commercial.

The City’s Comprehensive Plan includes maps that identify wetlands and ecologically significant areas and a set of goals and policies that focus on preservation and protection of important and high-quality areas as development occurs. The Wetland Locations and Classifications map from the Introduction and Community Background chapter in the Comprehensive Plan the indicates that Parcels B and C contain wetlands but the site does not contain any ecologically significant natural areas. The Comprehensive Plan also shows the site within the Metropolitan Urban Service Area (MUSA) and is part of the Future Study Area for the sanitary sewer staging plan.

The City’s Comprehensive Plan also identifies a potential future well exploration area in the vicinity of the site. The Feasibility Study in Appendix G indicates that the City does not have near term plans to install a well in this area but may eventually install a municipal well in southwest Corcoran. The Feasibility Study requests an individual lot be platted and dedicated to the City for future water well exploration.

Stormwater ponds will be required to comply with State, watershed and local stormwater standards.

**iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.**

Parcels A, C and D are zoned Light Industrial (I-1) district and Parcel B is zoned Urban Reserve (UR) district.

The site is located within the City of Corcoran’s Southwest District that establishes a “gateway” to the City around the intersection of Highway 55 and County Road 19 west of this site. The Southwest District plan provides direction for site development, streets and public amenities in the area surrounding the intersection of Highway 55 and County Road 19 to the west of this site. The Southwest District plan guides that access for both business and industrial uses shall be from a new public road, which the proposer has provided in their Concept Plan.

There are four wetlands on the site which are regulated by the Wetland Overlay District. The Wetland Overlay District provides standards for wetland protection and buffering.

*Table 7: Project Parcel Zoning*

<b>Parcel</b>	<b>Zoning</b>
Parcel A	Light Industrial (I-1)
Parcel B	Urban Reserve (UR)
Parcel C	Light Industrial (I-1)
Parcel D	Light Industrial (I-1)

**b. Discuss the project’s compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.**

The project is consistent with the goals and policies stated in the 2040 Comprehensive Plan which guides the site for light industrial uses. The proposed project is consistent with the guiding for Parcels B, C and D. Proposed Lots 1 and 2 on Parcel A are planned for gas/convenience and office/retail uses which may not be compatible with the light industrial designation.

As shown on the Concept Plan, the project appears to preserve two wetlands but will impact the other two wetlands. Where wetlands are altered or destroyed, the mitigation must be provided to recreate the functions and values of the wetland.

The development is within Stage 3 (2030-2035) of the sanitary sewer staging plan and in the Future Study Area for sanitary sewer. Development in the MUSA is deemed premature until sanitary sewer and water are available. The City Council will need to grant either a variance or waiver through the PUD process to allow development in advance of these services.

The Zoning Ordinance regulates that off-street loading areas be screened from adjacent residentially zoned or guided property and will impact the loading areas on proposed Lots 3 and 4.

The Southwest District Design Guidelines indicate that future driveways and other direct access from new developments to Highway 55 shall not be permitted. Access to the business park is provided through the new public road that connects with Pioneer Trail. The Southwest District Guidelines show the public road extending through the site to a connection with Rolling Hills Road to the east.

- c. **Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.**

The project will not extend sanitary sewer and water which are not yet available to the site and development is considered premature without access to these services. Well and septic systems will be provided to proposed Lots 1, 2, 3 and 4 until the development is able to connect with municipal services.

Preserved wetlands on this site will be consistent with City ordinances pertaining to wetland protection and buffering.

The gas/convenience and office/retail uses may require a comprehensive plan amendment from Light Industrial to Commercial. The comprehensive plan amendment is required when a user is determined and the need for change is confirmed.

## 10. Geology, Soils and Topography/Land Forms

- a. **Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.**

The surficial and bedrock geology for Hennepin County has been mapped in the Minnesota Geological Survey's Geologic Atlas of Hennepin County<sup>1</sup>. Surficial deposits in the Project Area are comprised of loam to clay loam diamict with scattered pebbles, cobbles, and rare boulders. On average, the composition of this very coarse-grained sand fraction is 41 percent shale. The surrounding area is also comprised of patchy sections of organic detritus and organic clayey silt to sand. The bedrock geology of the western portion of the Project Area consists of St. Lawrence Formation, which is dolomitic, feldspathic siltstone with interbedded, very fine-grained sandstone and shale. The eastern portion of the Project Area consists of Jordan Sandstone, a medium- to coarse-grained, friable quartzose sandstone, and Mazomanie Formation, a fine- to medium-grained, cross-stratified, generally friable, quartzose sandstone. The estimated depth from the land surface to the bedrock surface is approximately 326 to 400 in the west portion of the Project Area and approximately 300 to 325 in the eastern portion of the Project Area.

According to the surrounding water well logs on the Minnesota Department of Health (MDH) Minnesota Well Index (MWI)<sup>2</sup>, no wellhead protection areas or drinking water supply management areas are within the Project Area. The Loretto Wellhead Protection Area (WHPA) and Drinking Water Supply Management Area (DWSMA) are located approximately 1.5 miles southwest of the Project Area and would not be affected by the Project. The drinking water supply management area vulnerability ranking is classified as low. No known karst or sinkhole features are present within the Project Area.

- b. **Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including**

<sup>1</sup> Steenberg, Julia R.; Bauer, Emily J; Chandler, V.W.; Retzler, Andrew J; Berthold, Angela J; Lively, Richard S. (2018). C-45, Geologic Atlas of Hennepin County, Minnesota. Minnesota Geological Survey. Retrieved from the University of Minnesota Digital Conservancy, <https://hdl.handle.net/11299/200919>.

<sup>2</sup> MDH. Minnesota Well Index. July 15, 2019. <https://mnwellindex.web.health.state.mn.us/mwi/>

**stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 11.b.ii.**

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey, the Project Area is comprised of six soil types. Soil within the Project Area is associated mainly with moraines, hillslopes, and lake plains. The soil types include Lerdal loam (moraines, somewhat poorly drained), Hamel/overwash-Hamel complex (ground moraines, somewhat poorly drained to poorly drained), Angus-Kilkenny complex (Hills on moraines, moderately well drained to well drained), and Lester-Kilkenny complex (Hillslopes, moraines, ground moraines, and lake plains; moderately well drained to well drained). Figure 2, Appendix A identifies soil classifications within and in the vicinity of the Project Area.

Table 8 lists hydrologic soil groups. The four hydrologic soil groups are:

- **Group B:** Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained, or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.
- **Group C:** Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
- **Group D:** Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high-water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

*Table 8: NRCS Soils within the Project Area*

Map Unit Symbol	Map Unit Name	Percent Slopes	Hydrologic Soil Group	Erosion Rating	Acres	Approx. Percent of Project Area
L40B	Angus-Kilkenny complex	2-6	B/C/D	Not Rated	21.6	38.3
L41C2	Lester-Kilkenny complex	6-10	C/D	Moderate	15.5	27.4
L36A	Hamel, overwash-Hamel complex	0-3	C/D	Not Rated	8.5	15.1
L41D2	Lester-Kilkenny complex	10-16	C	Moderate	6.7	11.8
L35A	Lerdal loam	1-3	C/D	Not Rated	4.2	7.4
L41E	Lester-Kilkenny complex	16-22	C	Not Rated	0.0	0.1

*Source: USDA Natural Resources Conservation Service (NRCS) Hennepin County Soil Survey*

Topography within the Project Area is generally flat with no slopes greater than 22 percent identified. The soil composition overall has a slower infiltration rate, resulting in a higher runoff potential. In areas with steep slopes, special consideration will be given to prevent erosion during construction, such as erosion control blankets, along with vegetation establishment to permanently stabilize side slopes and any areas impacted as a result of construction.

*NOTE: For silica sand projects, the EAW must include a hydrogeologic investigation assessing the potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water. Descriptions of water resources and potential effects from the project in EAW Item 11 must be consistent with the geology, soils and topography/land forms and potential effects described in EAW Item 10.*

## 11. Water Resources

a. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.

- i. **Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.**

### Surface Waters

A review of Minnesota Department of Natural Resources (DNR) geospatial data determined that no lakes, trout streams or trout lakes<sup>3</sup>, wildlife lakes<sup>4</sup>, migratory waterfowl feeding/resting lakes<sup>5</sup>, or outstanding resource value waters<sup>6</sup> are present within the Project Area. Based on a review of Hennepin County geospatial data, no county ditches are located within the project area. Peter Lake (North Bay) is located approximately 0.25 miles southeast of the Project Area, south of Highway 55, and Jubert Lake is located approximately 0.25 miles north of the Project Area. Figure 3, Appendix A identifies surface waters in the vicinity of the Project Area.

### DNR Public Waters

No DNR Public Waters and Watercourses are located within the Project Area (Figure 3, Appendix A). Table 9 lists DNR Public Waters and Public Watercourses within one mile of the Project Area<sup>7</sup>. The proposed project would not encroach into these DNR Public Waters and Watercourses.

*Table 9: DNR Public Waters within One Mile of the Project Area*

Name	Public Water ID	Type
Jubert	27016500	Public Water Basin
Morin	27042300	Public Water Basin
Peter (Main Basin)	27014701	Public Water Basin
Peter (North Bay)	27014702	Public Water Basin
Scott	27110200	Public Water Wetland
Unnamed Basin	27042200	Public Water Wetland
Unnamed Basin	27049400	Public Water Wetland
Unnamed Basin	27049500	Public Water Wetland
Unnamed Basin	27049700	Public Water Wetland

<sup>3</sup> DNR. State Designated Trout Streams, Minnesota. Date of content: May 14, 2020. <https://gisdata.mn.gov/dataset/env-trout-stream-designations>

<sup>4</sup> DNR. Designated Wildlife Lakes. Date of content: December 8, 2016. <https://gisdata.mn.gov/dataset/env-designated-wildlife-lakes>

<sup>5</sup> DNR Migratory Waterfowl Feeding and Resting Areas. Date of content: December 30, 2016. <https://gisdata.mn.gov/dataset/env-migratory-waterfowl-areas>

<sup>6</sup> DNR. Lakes of Biological Significance. Date of content: July 7, 2020. <https://gisdata.mn.gov/dataset/env-lakes-of-biological-signific>

<sup>7</sup> DNR. Public Waters Basin and Watercourse Delineations. Date of content: June 10, 2020. <https://gisdata.mn.gov/dataset/water-mn-public-waters>



Name	Public Water ID	Type
Unnamed Basin	27049800	Public Water Wetland
Unnamed Basin	27049900	Public Water Wetland
Rush Creek, South Fork	M-062-004-002	Public Watercourse
Unnamed Watercourse	M-062-004-002-004-001	Public Watercourse
Unnamed Watercourse	M-064-0046-002	Public Watercourse

### Wetland Resources

Based on a review of the National Wetland Inventory (NWI) data, time-lapsed aerial imagery, and a wetland delineation performed by Kjolhaug Environmental Services on November 14, 2019, four wetlands are present within the Project Area (Figure 3, Appendix A). Wetland 1 is located along the western boundary of the Project Area and consists of a shallow marsh and partially farmed seasonally flooded basin wetland. Wetland 1 is classified as a temporarily flooded, emergent palustrine wetland (PEM1A) in the NWI database. Wetland 2 is located along the northern border of the Project Area and consists of a farmed seasonally flooded basin wetland. Wetland 2 is identified in the NWI database as a temporarily/seasonally flooded, emergent, farmed palustrine wetland PEM1Af/PEM1C wetland. Wetland 3 is located near the center of the Project Area and consists of a shallow marsh and partially farmed seasonally flooded basin wetland. Wetland 3 is classified in the NWI database as a PEM1A wetland. Wetland 4 is located along the southern border of the Project Area near Highway 55 and consists of a shallow marsh and partially farmed seasonally flooded basin wetland. Wetland 4 was not identified within the NWI. Table 10 summarizes wetlands delineated in the project area. Figure 3, Appendix A identifies wetlands and other aquatic resources within or in the vicinity of the Project Area. Appendix B includes the wetland delineation report and WCA Notice of Decision.

*Table 10: Wetlands within the Project Area*

Wetland ID	Circular 39*	Cowardin	Eggers & Reed	Dominant Vegetation	Size (Acres Onsite)
1	1/3	PEM1Af/PEM1C	Seasonally Flooded Basin, Shallow Marsh	Reed canary grass, cattail, smartweed, scattered sedges	1.75
2	1	PEM1Af	Seasonally Flooded Basin	Sparse vegetation, field nutsedge	0.60
3	1/3	PEM1Af/PEM1C	Seasonally Flooded Basin, Shallow Marsh	Cattail, reed canary grass, smartweed	0.33
4	1/3	PEM1Af/PEM1C	Seasonally Flooded Basin, Shallow Marsh	Cattail, reed canary grass, sedges	0.47

*\*Type 1 wetland types include seasonally flooded basins or flats; Type 3 wetlands indicate inland shallow fresh marshes.*

### MPCA 303d Impaired Waters List

No 303d impaired waters designated by the MPCA<sup>8</sup> were identified within the Project Area based on the draft 2022 impaired waters list. One impaired water, Peter Lake (North Bay), Assessment Unit Identification (AUID) 27-0147-02, is located within one mile of the site, approximately 0.25 miles southeast of the Project Area (Figure 3, Appendix A). Peter Lake (North Bay) is impaired for nutrients.

### Floodway/Floodplain

A FIRMette was generated through the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) mapping tool, which indicates that the project area is located with Zone X, an area of minimal flood hazard. Appendix C includes the FEMA FIRMette for the Project Area.

- ii. ***Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.***

1) *Depth to groundwater*

Based on a review of domestic water wells located near the Project Area, the depth to static water level ranges from 78 feet and 140 feet.

2) *MDH Wellhead Protection Area*

The Project Area is not within a MDH Wellhead Protection Area (WHPA) or Drinking Water Supply Management Area (DWSMA)<sup>9</sup>. The Loretto DWSMA and WHPA are located approximately 0.75 miles southwest of the Project Area, south of Highway 55. The vulnerability ranking of this DWSMA is low. Figure 4 in Appendix A illustrates the location of the Loretto DWSMA and WHPA in relation to the Project Area.

3) *Onsite and/or nearby wells*

A search of the MDH MWI database indicates that there are no wells present within the Project Area<sup>10</sup>. Braunt Intertec Corporation completed site reconnaissance as a part of the Phase I Environmental Site Assessment (ESA) and no indications of wells were observed at the site at the time of the site visit. If any wells are found during construction, they will be sealed and abandoned in compliance with MDH regulations by a licensed contractor. Eight wells within a 500-foot radius of the Project area. Table 11 tabulates documented wells within 500 feet of the Project Area based on the MDH CWI database. Figure 4 in Appendix A identifies the locations of wells in the vicinity of the project.

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<sup>8</sup> MPCA. Impaired Waters Viewer (IWAV). Data is based on Draft 2022 Impaired Waters List. <https://www.pca.state.mn.us/water/impaired-waters-viewer-iwav>

<sup>9</sup> MDH. Source Water Protection Web Map Viewer. <https://mdh.maps.arcgis.com/apps/View/index.html?appid=8b0db73d3c95452fb45231900e977be4>

<sup>10</sup> MDH. Minnesota Well Index. July 15, 2019. <https://mnwellindex.web.health.state.mn.us/mwi/>

Table 11: CWI Wells within 500 feet of the Project Area

Well ID	Use Type	Status	Elevation (msl ft.)	Well Depth (ft.)	Static Water Level (ft.)
248501	Public supply/ non-community, non-transient	Active	1049	Unknown	Unknown
544660	Domestic	Active	1016	202	78
583329	Domestic	Active	1061	205	140
649309	Domestic	Active	1060	264	130
643977	Domestic	Active	1050	180	123
764194	Domestic	Active	1051	170	130
155069	Domestic	Active	1030	291	120
149424	Domestic	Active	1028	203	110

**b. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.**

**i. Wastewater - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.**

- 1) *If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.*

A feasibility study<sup>11</sup> was completed to evaluate the wastewater treatment options for the Project. Based on the findings of this study, it was determined that connecting the Project to the existing sanitary sewer and wastewater system would not be viable. The following paragraphs summarize the findings of the feasibility study.

The closest existing City of Corcoran sanitary sewer is located approximately three miles east of the Project Area. The distance alone would render connection to this system impractical and not cost effective. Furthermore, the sewer system at that location was not designed to include wastewater from this proposed development. In the City’s previous 2030 Comprehensive Plan, wastewater from this Project and the surrounding area of Southwest Corcoran was anticipated to be served via a connection into Medina, which borders Highway 55 to the south of the Project Area. However, during the time that the City prepared the 2040 Comprehensive Plan, it was determined that Medina had slowed their staging of sewer system development in areas towards southwest Corcoran, and that both Medina and the Metropolitan Council Environmental Services (MCES) no longer envisioned wastewater from southwest Corcoran being directed through Medina (and generally eastward along Highway 55). For this reason, the City of Corcoran’s 2040 Comprehensive Plan states that the method and timing of regional wastewater service to Southwest Corcoran would be determined through future study. The potential options for regional service would be longer-term (over ten years) and very high-cost options, resulting in the need for future study.

Another option that was considered was to connect to the City of Loretto’s wastewater system. The City of Loretto recently transitioned from operating their own permitted wastewater treatment facility to a regionalized connection, i.e., they connected into the Independence

<sup>11</sup> Stantec Consulting Services, Inc. DRAFT Highway 55 Infrastructure Feasibility Study. March 2022.

wastewater forcemain, which is part of a local regional system that ultimately discharges into the regional sewer system of the Twin Cities area (managed by MCES). Operation of the Independence forcemain and the local regional system is governed by a Quad-City Agreement amongst Loretto, Greenfield, Independence, and Medina. Connection of the proposed development into Loretto and the wider regional system was determined to not be viable for two reasons. First, the system was not designed to include significant future growth. Second, the infrastructure would need to reach the north edge of Loretto which would likely not be cost effective as it would require a lift station, approximately 1½ miles of forcemain, a directionally drilled/cased crossing of State Highway 55, as well as long-term operation and maintenance costs for the connecting infrastructure. Additionally, if the existing Loretto sewer system does not have enough available capacity to transfer this development-added flow to the south side of Loretto, additional force main length and a cased crossing of the railroad would also be required.

- 2) *If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.*

Given the limitations with connecting to the sewer system, it was determined that the most viable option for wastewater discharge generated by the Project would be to install an individual subsurface sewage treatment system (SSTS) for each parcel as currently proposed. Given the typically clayey soils in the area, these systems would utilize septic tank(s), with treated effluent being pumped to mound systems for further treatment/infiltration. The proposed gas station will have somewhat higher-strength wastewater discharge, which will likely require additional treatment unit(s) compared to the other lots. Hennepin County is the governing authority for permitting and tracking the installation, operation, maintenance, and enforcement of all SSTSs in the City of Corcoran.

At some point in the future, when the City of Corcoran's sewer and water systems are extended to the Project Area, the City will require all of the lots to connect to City water and sewer systems. Therefore, an 80-foot street right-of-way is required to accommodate a future watermain and gravity sewer to be installed along the proposed road.

- 3) *If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges.*

The project would not result in wastewater discharges to surface waters.

- ii. ***Stormwater - Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.***

#### Pre-Construction Stormwater Runoff

Under existing conditions, the Project Area consists of agricultural land. Surface water runoff drains towards existing wetlands areas and roadway ditches. No existing stormwater features are present within the existing Project Area. Pollutants typically associated with agricultural areas

include pesticides, sediment, nutrients (nitrogen, phosphorus, and potassium) from fertilizers, and metals.

#### Post-Construction Stormwater Runoff

The proposed project will increase impervious surfaces consisting of proposed buildings, parking areas, and roadways. The increased impervious surface areas will result in higher runoff rates, volumes, and pollutants compared to the existing conditions. Stormwater best management practices (BMPs) will be constructed to mitigate stormwater runoff rate, volumes, and pollutant loading. It is anticipated that the project will include wet sedimentation ponds with filtration benches to provide stormwater treatment. Preliminary locations for the proposed stormwater BMPs in the conceptual plan (Figure 1, Appendix A). The proposed drainage design will be confirmed as the project design is developed and will comply with all applicable local and state regulatory requirements.

The MPCA will require a National Pollutant Discharge Elimination System (NPDES) Construction Stormwater permit to be obtained for the project and all design since more than one acre of land will be disturbed by the proposed project. Project construction will adhere to NPDES permitting requirements. The project will also adhere to the City of Corcoran and Elm Creek Watershed Management Commission (ECWMC) stormwater requirements. A Construction Stormwater Pollution Prevention Plan (SWPPP) will be required in accordance with MPCA and City of Corcoran stormwater requirements. A SWPPP be prepared during final project design and submitted for approval prior to construction of the project. Erosion control will utilize temporary sediment basins with ditches and check dams (sized per permit guidance), temporary ground cover where construction has paused, and perimeter control to avoid erosion and sedimentation throughout the site. Stockpiles will be stabilized when not in use and have the stockpile perimeter controlled. All permanent slopes 4:1 or steeper will have erosion control blankets installed.

- iii. *Water Appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.***

#### Dewatering

It is not anticipated that project construction would require dewatering and groundwater appropriation. If temporary dewatering is required during construction, a DNR Water Appropriation Permit would be required if dewatering activities exceed 10,000 gallons per day or one million gallons per year. The extent and duration of any potential dewatering requirements will be confirmed as the project design develops and all required permits will be obtained prior to project construction.

#### Water Supply

The closest existing City of Corcoran potable watermain is located approximately three miles east of the Project Area. The distance renders connection to this system impractical and would not be cost effective. Neighboring homes and businesses utilize private wells, and likewise, private wells

are the most viable option for the proposed development. Review of well logs for these neighboring homes and businesses suggest that wells located in this development would be completed in the quaternary buried aquifer (usually artesian). These wells are typically four-inch diameter wells, completed in sand layers. The well depths of adjacent private wells indicate that wells located in the proposed development would be approximately 150 to 200 feet deep. Test pumping is commonly indicated at 20 to 30 gallons per minute (gpm). Wells completed in the underlying bedrock would also be an option, though at a higher cost.

The developer will need to install fire protection systems in accordance with public safety requirements, as determined by the fire marshal. This may require installation of water storage tank that would serve as a reservoir to supply a building's fire suppression system.

Corcoran's 2040 Comprehensive Plan identified a potential future well exploration area in the vicinity of this site. Although there are no plans to install a municipal well in the near term, the City may eventually install municipal well(s) in southwest Corcoran. As such, the City may consider siting a potential municipal well in the upland area slightly west of Building F of Lot 5, at the northern edge of the property. Given various well setback requirements and the need for the City to own the property within 50 feet of the well, the City would need an outlot designated for this purpose at the northern property edge (approximately 110 by 110-foot area), which would allow for the possibility of siting a future municipal well near the center of the outlot, along with a small wellhouse. An easement for a narrow access road would also be required between the street and the well site. At some point in the future, the City would install a test well to verify the suitability of this location for a municipal well (or conversely, to rule it out). If suitable, installation of the municipal well, wellhouse, and access road would occur at that time.

As noted in the wastewater section, the developer must provide an 80-foot street right-of-way, which will provide an adequate width such that future City watermain can be installed along the south side of the road.

**iv. Surface Waters**

***b) Wetlands – Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations.***

Four wetlands are located within the Project Area covering a combined 3.15 acres. Complete avoidance of these wetland will not be feasible with the proposed project. Based on the preliminary project design, it is anticipated that the project will avoid impacts to Wetland 1 and Wetland 2. The project is anticipated to encroach into portions of Wetland 3 and Wetland 4. Minimization of impacts to wetlands will be evaluated as the project design advances. Figure 5 in Appendix A illustrates the potential impacts to wetlands resulting from the proposed project. Table 12 identifies the potential wetland impacts resulting from the proposed project.

Table 12: Wetlands within the Project Area

Wetland ID	Circular	Cowardin	Size (Acres Onsite)	Potential Impact (acres)
1	1/3	PEM1Af/ PEM1C	1.75	0
2	1	PEM1Af	0.60	0
3	1/3	PEM1Af/ PEM1C	0.33	0.33
4	1/3	PEM1Af/ PEM1C	0.47	0.47
<b>Total Potential Impact</b>				<b>0.8</b>

Impacts to wetlands are regulated by the Minnesota Wetland Conservation Act (WCA) and the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. The City of Corcoran is the WCA local governmental unit (LGU). It is anticipated that impacts to regulated wetlands will be mitigated through wetland banking credits within the same Wetland Bank Service Area. The Project Area is located in Wetland Bank Service Area 7. Current regulations require wetland impacts within this area of the state are replaced at a minimum ratio of 2:1. Mitigation for unavoidable permanent wetland impacts will be provided in accordance with all regulations and requirements in place at the time of final design and permitting. Wetlands that are avoided will be required to comply with the City of Corcoran’s wetland buffer requirements.

- c) *Other surface waters - Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.*

No surface waters are present within the Project Area. Surface waters present in the vicinity of the Project area are separated by roads and existing development. The Project would not impact surface waters in the vicinity of the Project area.

## 12. Contamination/Hazardous Materials/Wastes

- a. *Pre-project site conditions - Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.*

A Phase I Environmental Site Assessment (Phase I ESA) was completed in September 2018 by Braun Intertec Corporation to assess the presence of potential contamination. It should be noted that the Phase I ESA only covers the eastern portion of the Project Area, and thus only discusses contamination potential within and around this portion. The Phase I ESA included a records review, interviews, aerial

photographs, site reconnaissance, and a summary of land use activities. Appendix D includes the executive summary from the Phase I ESA.

Based on the results of the Phase I ESA, the eastern portion of the Project Area was historically utilized as cultivated agricultural land from at least 1947 to present day. The surrounding area has historically been agricultural land and rural residences except for one property to the southeast. This property was a farmstead from 1937 to 1947, and then, through various removals and rebuilds noted from aerial photographs taken in 1956, 1960, 1967-1974, and 1978-1984 converted to a commercial use. Today, this property is owned by an electric and lighting service company.

The Phase I ESA did not identify any recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions. No additional site investigations were recommended based on the findings of the Phase I ESA.

A review of the MPCA's *What's in My Neighborhood* (WIMN) database<sup>12</sup> was conducted to identify documented potentially contaminated sites within or in the vicinity of the entire Project Area. No WIMN records are located within the Project Area and no records are located within approximately 1,000 feet of the Project Area. Two tank sites are located northwest of the Project Area along Pioneer Trail including one underground storage tank site approximately 1,500 feet away, and a second aboveground storage tank site approximately 1,800 feet away. Additionally, two sites are located approximately 2,000 feet west of the Project Area along Highway 55 including a very small quantity hazardous waste generator and an aboveground tank site. None of the aforementioned sites have a history of leaks or spills.

The Phase I ESA and the review of the MPCA's *What's in My Neighborhood* (WIMN) did not identify any known potentially contaminated or hazardous materials within or in the vicinity of the Project Area that would be exposed or exacerbated by the construction of the proposed project. In the event that potentially contaminated soils or other potentially hazardous materials are encountered during construction, plans will be developed to properly handle and treat contaminated soil and/or groundwater. Any contaminated soils or other potentially hazardous materials encountered during construction will be handled and disposed of in accordance with MPCA and any other applicable requirements.

- b. *Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.*

### **Construction Waste**

Construction wastes will be typical of office/light industrial developments. Construction wastes will be primarily non-hazardous and would be managed as municipal solid waste (MSW) or construction/demolition debris. Hazardous wastes in the form of used oils/lubricants, waste paints, or other materials may be generated during construction. The contractor will be required to manage and dispose of all construction-generated waste in accordance with MPCA requirements and all other applicable regulatory requirements. Construction wastes will either be recycled or stored in approved containers and disposed of in the proper facilities. Any excess soil material that is not suitable for use onsite would become the property of the contractor and would be disposed of properly. All solid waste will be managed according to MPCA and other regulatory requirements.

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<sup>12</sup> MPCA. *What's in My Neighborhood*. <https://www.pca.state.mn.us/data/whats-my-neighborhood>



The Project Area does not contain existing buildings or structures are present. No demolition of existing buildings or structures would be required during construction.

### **Operational Waste**

The project would generate solid waste during operation of the development, which is anticipated to include storage condominiums, office/showroom/retail, gas station/convenience store, and office warehouse/light manufacturing/distribution uses. Solid waste generated during operation of the development will be typical of waste generated by these office/light industrial uses and would be primarily managed as mixed municipal solid waste (MSW). CalRecycle provides a list of estimated solid waste generate rates for office, industrial, service, and other establishments for general planning purposes.<sup>13</sup> Based on estimated solid waste generate rates of 1.42 lbs. per 100 square feet per day for office/warehouse uses and 0.9 lbs. per 100 square feet per day for auto service station uses, it was estimated that the project may produces approximately 1,040 tons of MSW per year. The collection of MSW would be managed waste hauler licensed by the City of Corcoran. The project will adhere to all MPCA requirements and other regulations pertaining to the use, handling and disposal of solid waste. Recycling areas will be provided in compliance with the Minnesota State Building code.

- c. *Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.*

It is anticipated fuel storage tanks will be installed as part of the proposed gas station/convenience store facility. The number and size of the tanks will be identified as the project design develops. Based on fuel storage tank requirements for gas stations of a similar size in the area, it is anticipated that approximately seven to eight fuel storage tanks will be installed at the facility ranging from 8,000 to 20,000 gallons in storage capacity. The tank owner will be required to register with the MPCA and adhere to the design and operating regulations pursuant to Minnesota Rules Chapter 7150. The owner will be required to register the fuel storage tanks with the MPCA and comply with periodic inspection requirements and spill control and countermeasures.

- d. *Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.*

Construction equipment may require the limited use of potentially hazardous materials, such as gasoline or diesel fuels, motor oils, hydraulic fluids, and other lubricants. Vehicles responsible for the transportation of hazardous materials will be equipped with spill kits for rapid response to any spills and refueling procedures will be implemented to eliminate leakage. Additionally, all fuels, oils, and lubricants will be stored in containment apparatuses while not in use or when being stored. Construction staff will be trained to spot and appropriately respond to potential spills. In the event that a leak or spill incident occurs, the contractor will be required to respond in accordance with MPCA containment and remedial

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<sup>13</sup> California Department of Resources Recycling and Recovery (CalRecycle). Estimated Solid Waste Generation Rates. <https://www2.calrecycle.ca.gov/wastecharacterization/general/rates>

action procedures. A Spill Prevention, Control, and Countermeasures plan will be prepared by a Minnesota Professional Engineer pursuant to federal regulations.

Section 12.c describes the potential storage and use of hazardous materials during operation of the project.

### 13. Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)

#### a. *Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.*

The vegetative land cover within the Project Area primarily consists of active agricultural land with limited trees lining the northern and eastern borders. Due to the dominance of agricultural land throughout the Project Area, there is limited habitat available for use by wildlife. Although limited, the tree lines along the field edge could provide avian migration stopover habitat as well as suitable nesting habitat. Therefore, there is a slight potential for migratory birds to be present within the Project Area during the spring, summer, and fall as well as potential for avian species that winter in Central Minnesota. The limited vegetative land cover present within the Project Area and along the borders may provide habitat for urban wildlife species, such as mice, rabbits, raccoons, and squirrels, among others.

Four farmed wetlands (3.15 acres) were identified within the Project Area, but it is anticipated that the wetlands support a limited diversity of aquatic species due to their disturbed nature and their isolation from larger, less disturbed wetland communities.

#### b. *Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-\_\_\_\_) and/or correspondence number (ERDB \_\_\_\_\_) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.*

##### State-Listed Threatened and Endangered Species

Under Stantec's Limited License to Use Copyrighted Material (LA 1005) related to Rare Features Data, the Minnesota Department of Natural Resources (DNR) Natural Heritage Information System (NHIS) was searched in January 2022 to identify species within a one-mile radius of the Project Area. The NHIS search did not indicate any records within the proposed Project Area. Records of rare species were identified within in the one-mile review area including the trumpeter swan (*Cygnus buccinator*, *State special concern species*). A concurrence request was submitted to the DNR for review and is included in Appendix E.

##### *Trumpeter Swan (Cygnus buccinator)*

During the breeding season, trumpeter swans use small ponds and lakes or bays on larger water bodies that have approximately 100 meters of open water for take-off and have extensive beds of emergent vegetation such as cattails, bulrushes, and sedges. They will commonly use muskrat houses, beaver lodges, exposed hummocks, small islands, and floating platforms to construct their nests. Adult trumpeter swans are primarily herbivorous but will occasionally feed on small crustaceans, fish, and fish eggs. Due to over hunting, Trumpeter swans in Minnesota were declared extirpated in the state in the mid-1900s. Reintroduction efforts began in the 1960s and a survey conducted in 2015 estimated the breeding population to be more than 17,000 individuals. Currently, the leading threat to their population is lead poisoning from lead shot and fishing sinkers but degradation of wetland habitat, power line collisions, and

illegal hunting. Although repopulation efforts have continued to be successful, the trumpeter swam was included on Minnesota's List of Endangered and Threatened Species List with the status of special concern due to continued threats to their population.<sup>14</sup>

The Project Area consists of active agricultural land and does not contain suitable breeding or feeding habitat for the trumpeter swan. Based on a review of the NHIS data, occurrences of trumpeter swans were associated with Morin Lake which is approximately 0.85 miles northeast of the Project Area. Due to the lack of suitable habitat, the project is not anticipated to have an impact on the trumpeter swan.

### Federally-Listed Threatened and Endangered Species

Per a review of the U.S Fish and Wildlife Service's Information for Planning and Consultation (IPaC) website, one federally listed species is within the Project Area, the northern long-eared bat (*Myotis septentrionalis*, federal threatened species) County:

#### *Northern long-eared bat (Myotis septentrionalis)*

During winter, the northern long-eared bat (NLEB) uses large caves and mines that have large passages and entrances, constant temperatures, and high humidity with no air currents. In summer, the NLEB roosts underneath bark, in cavities, and in crevices of live and dead trees that either retain their bark or provide suitable cavities or crevices.<sup>15</sup>

In Minnesota, the DNR maintains records of maternity roost trees or a hibernaculum within its NHIS database. Upon review of the DNR NHIS database under Stantec's license agreement LA-1005, there are no records of NLEB maternity roost trees or a hibernaculum within the Project Area or its vicinity. Additionally, no tree clearing is anticipated to be required as part of this project and there are only a few trees along the perimeter of the Project Area; therefore, the Project will have no effect on NLEB.

### Migratory Birds

According to the USFWS IPaC, there are no migratory birds of concern with the potential to occur within the Project Area.

Construction activities and development within the Project Area have the potential to impact birds protected under the Migratory Bird Treaty Act (MBTA). The MBTA makes it illegal for anyone to take (i.e., to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations.

Under the MBTA, construction activities in grassland, roadsides, wetland, riparian (stream), shrubland, or woodland habitats that would otherwise result in the taking of migratory birds, eggs, young and/or active nests should be avoided. Although the provisions of the MBTA are applicable throughout the entire year, most migratory bird nesting activity in Minnesota occurs approximately from mid-March to August 15, per the DNR.

### Native Plant Communities and Biodiversity Sites

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<sup>14</sup> Stucker, S.P., DNR. Rare Species Guide. 2018.

<https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=ABNJB02030>

<sup>15</sup> USFWS. Northern Long-Eared Bat Fact Sheet. April 2015.

[https://www.fws.gov/sites/default/files/documents/508\\_NLEB%20fact%20sheet.pdf](https://www.fws.gov/sites/default/files/documents/508_NLEB%20fact%20sheet.pdf)

Native plant communities, biodiversity sites, and Central Region Regionally Significant Ecological Areas (RESA) were reviewed for the area within one mile of the proposed Project Area using the NHIS review through Stantec's license LA-1005. No native plant communities or biodiversity sites were noted within the Project Area however a few were noted within one mile of the Project Area.

A native plant community (forested rich peatland system) is located approximately 0.55 miles east of the Project Area. Three sites of biodiversity significance ranked as moderate and one ranked as below were identified within one mile of the Project Area. The three moderate ranked biodiversity sites are all located over 0.55 miles east and northeast of the Project Area and the one below ranked site is approximately 0.25 miles north of the Project Area. Four RESA sites extend into the one-mile review area. Of these, two are ranked as high and two ranked as moderate ecological areas. The closest moderate ranked RESA site is located on the south side of Highway 55 opposite of the Project Area but all work being performed is proposed on the north side. The other moderate ranked RESA site is located approximately 0.65 miles northeast of the Project Area. The two high ranked RESA sites are approximately 0.5 miles south and 0.32 miles southeast of the Project Area. All of these RESA sites are located outside of the Project Area and will not be encroached upon by the proposed project.

- c. ***Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.***

The project is not anticipated to have impacts or adverse effects on federally or state-listed threatened and endangered species in the Project Area due to the lack of suitable habitat for the trumpeter swan, northern-long eared bat, migratory birds, native plant communities, and biodiversity sites.

Although the Project Area is unlikely to provide suitable summer habitat for the NLEB, under the Final 4(d) Rule of the ESA, tree clearing, although not expected, is not prohibited as there are no records of NLEB maternity roost trees or a hibernaculum within the Project Area or a 0.25-mile buffer.

Urban wildlife may be impacted with the removal of agricultural land, impacts to the land surrounding the agricultural land, and impacts to public road right-of-way within the Project Area; however, these habitat generalist species are typically adaptive to development activities and would likely relocate to similar undeveloped areas in the vicinity or continue to live in the remaining undeveloped areas within the Project Area.

- d. ***Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.***

It is not anticipated that tree removal will be required during construction of the project. If required, removal of vegetation will avoid the NLEB bat pupping season from June 1 through August 15, when possible.

The project will avoid and minimize impacts to wetlands to the extent possible. Based on the preliminary design, it is anticipated that the project may avoid impacts to two wetlands and may permanently impact two other wetlands. During construction, erosion control and runoff prevention measures will be implemented.

Construction activities that involve soil disturbance can result in the introduction and spread of invasive species. Minnesota statutes (Chapter 18) and local ordinances regulate management of noxious weeds and

invasive species. Best management practices during construction activities and operation within the Project Area should be implemented to minimize the introduction or spread of noxious weeds and invasive species at the site.

#### 14. Historic Properties

***Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.***

Appendix H includes a letter from the Minnesota State Historical Preservation Office with their determination that no known historical structures, archeological sites, or cultural properties are on or near the project site.

#### 15. Visual

***Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.***

The Project Area currently consists primarily of agricultural land with wooded field edges. No designated scenic views or vistas are present in the vicinity of the Project. The landscape immediately surrounding the site consists of undeveloped agricultural land to the north, Highway 55 to the south, existing commercial and industrial facilities to the east, and residential uses to the northwest. The primary visual impact will be the transition of views from agricultural land to buildings, parking lots, and stormwater basins. The development is not expected to include industries that would emit vapor plumes. The Project Area is zoned by the City of Corcoran as light industrial. The project will be required to adhere to the City of Corcoran's ordinance requirements including building height and form, landscape screening, and lighting. The existing wooded tree line and vegetation along the northern boundary of the Project Area will continue to function as a visual buffer between Project and the residential lots to the northwest.

#### 16. Air

***a. Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used to assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.***

The project does not include heavy industrial uses that would have significant emissions. The project includes light industrial office warehouse, manufacturing, and distribution uses. These facilities may utilize natural gas and electric-powered equipment, which would emit low levels of greenhouse gas emissions (GHG) as well as hazardous air pollutants (HAPs) and criteria pollutants, such as Nitrogen Oxides (NO<sub>x</sub>), Carbon Monoxide (CO), Sulfur Dioxide (SO<sub>2</sub>), and particulate matter (PM). An inventory of potential electric and natural gas equipment to be installed at these facilities is not known at this time as prospective tenants have not been finalized. Generally, air emissions associated by these types of office and light industrial uses are relatively low and the facilities would not require an air permit. However,

future tenants would be responsible for determining air permit applicability or exemption determinations based on the equipment to be installed with the facility prior to starting construction.

The project includes a gas station/convenience store with fuel pumps and would require the installation of underground fuel storage tanks. Gasoline and diesel fuel storage tanks generate low quantities of working and evaporative losses of volatile organic compounds (VOCs) and HAPS, typical of all retail fuel stations. Emissions primarily occur during vehicle fueling. Gasoline dispensing facilities are required to install vapor recovery systems to minimize emissions during tanker unloading.

A detailed quantitative analysis of stationary source emissions is not possible at this time. However, general estimates of potential emissions arising from the gas station operations and natural gas heating for the planned square footage of the development can be estimated. Table 13 presents estimated maximum potential emissions from the Project.

*Table 13: Maximum Potential Emissions from Gas Station Fueling and Heating the Proposed Development (tons per year)*

<b>Pollutant</b>	<b>Gas Station (tons per year)</b>	<b>Facility Heating (tons per year)</b>	<b>Total (tons per year)</b>
PM	0.00	0.67	0.67
PM <sub>10</sub>	0.00	0.67	0.67
PM <sub>2.5</sub>	0.00	0.67	0.67
SO <sub>2</sub>	0.00	0.05	0.05
NO <sub>x</sub>	0.00	8.76	8.76
VOC	17.67	0.48	18.15
CO	0.00	7.36	7.36
Lead	0.00	0.00	0.00
Mercury	0.00	0.00	0.00
HAPS	unknown	0.17	0.17

- b. Vehicle emissions - Describe the effect of the project’s traffic generation on air emissions. Discuss the project’s vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.***

The Project Area is located in a CO maintenance area. The Project is expected to generate increased vehicular traffic, which will result in a relatively small increase in CO emissions and other vehicle related emissions. The Minnesota Department of Transportation (MnDOT) developed a CO hot spot screening method designed to identify intersections that may result in CO emissions that exceed air quality standards. MnDOT’s screening method assumes that intersections with a total daily traffic volume exceeding 82,300 vehicles per day may result in potential CO impacts that exceed air quality standards. A traffic impact study was completed for the Project, which is discussed in Section 18. Based on this study, intersections within the study area would not generate traffic exceeding 82,300 vehicles per day. Therefore, it is not anticipated that vehicle emissions generated by the project would have the potential to significantly impact CO air pollution.

- c. Dust and odors - Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors***

***and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.***

The Project may generate temporary dust and odors during construction. Potential odors would likely be associated with exhaust from diesel engines and fuel storage. Dust generated during construction will be minimized through standard dust control measures such as applying water to exposed soils and limiting the duration of exposed soils to the extent possible. Dust levels after construction is complete would be minimal as all surfaces will be paved or revegetated.

## **17. Noise**

***Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.***

### *1) Existing noise levels/sources in the area*

Existing noise sources include traffic along Highway 55 and connecting roadways and existing commercial and industrial uses adjacent to Highway 55.

### *2) Nearby sensitive receptors*

The noise receptors nearest to the Project Area are the residential homes to the northwest of the Project Area. The homes are located approximately 115 to 300 feet northwest of the Project Area.

### *3) Conformance to state noise standards*

The project is expected to minimize noise disturbances caused by construction and operation of the project development and will adhere to the noise regulations outlined in Minnesota State Statute 7030.0030 and Corcoran City Ordinances 1060.090 and 82.03 subpart 5. The regulations state that construction activities are prohibited between 10:00 p.m. and 7:00 a.m. on weekdays and 9:00 p.m. and 9:00 a.m. on weekends. Furthermore, if the project includes a car wash operation it will comply with Corcoran City Ordinance 1040.100 subpart 4, which states car wash operations shall be limited to between 7:00 a.m. and 10:00 p.m. daily.

### *4) Quality of life*

Operation and construction of the Project will generate noise consistent with industrial uses and is not anticipated to affect the quality of life for nearby properties. The Project will be required to adhere to State and city noise regulations.

## 18. Transportation

- a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.**

1) *Existing and proposed parking spaces*

The existing project site consists of an undeveloped, agricultural area. No existing parking is available at the site. The Project would provide approximately 505 parking spaces to accommodate the proposed development.

2) *Estimated total average daily traffic generated*

It is anticipated that the proposed development will generate approximately 8,986 trips per day. Table 14 summarizes daily and peak hour traffic.

*Table 14: Weekday Trip Generation for Proposed Project*

Land Use	Size	Weekday AM Peak Hour Trips	Weekday PM Peak Hour Trips	Weekday Daily Total Trips
Light Industrial (Lot 4)	100,000 SF	74	65	487
Light Industrial (Lot 3)	66,000 SF	49	43	321
Retail (Lot 2)	11,300 SF	27	74	615
Storage Facility (Lot 5)	379,000 SF	64	68	648
Gas Station/ Convenience Store (Lot 1)	20 VFP	632	538	6,915
<b>Total</b>		<b>846</b>	<b>788</b>	<b>8,986</b>

*Notes: SF denotes square feet, VFP indicates vehicle fueling positions.*

3) *Maximum peak hour traffic generated and time of occurrence*

The proposed development is expected to generate 846 trips during the a.m. peak hour (7:30-8:30 a.m.) and 788 during the p.m. peak hour. (5:00 – 6:00 p.m.) Table 9, above, summarizes peak hour traffic generation estimates resulting from the Project.

4) *Source of trip generation rates*

Trip Generation, Eleventh Edition, published by the Institute of Transportation Engineers.

5) *Availability of transit and/or other alternative transportation modes*

No transit routes or pedestrian facilities are present in the Project Area.

- b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic**



**impact study must be prepared as part of the EAW. Use the format and procedures described in the Minnesota Department of Transportation’s Access Management Manual, Chapter 5 (available at: <http://www.dot.state.mn.us/accessmanagement/resources.html>) or a similar local guidance.**

A traffic impact study was completed to evaluate opening year (year 2027) and future (year 2040) traffic volumes and determine the effects of the proposed project on traffic congestion in the area. For the purposes of this study, it was assumed that the full development would be completed by 2026. The traffic impact study was completed using Synchro software for the following intersections:

- Trunk Highway (TH) 55 and Pioneer Trail
- TH 55 and Rolling Hills Road
- County State Aid Highway (CSAH) 19 and Pioneer Trail
- Pioneer Trail and the proposed development access road

Traffic capacity results are present in terms of level of service (LOS) which is defined in terms of traffic delay at the intersection. Intersections are ranked from LOS A through LOS F. LOS results are based on the average delay per vehicle. LOS A indicates the best traffic operation and LOS F denotes an intersection where demand exceeds capacity. Typically, intersection LOS A through D is considered to be acceptable traffic flow conditions. Table 15 and Table 16 summarize the results of the intersection operations analysis for the year 2027 and 2040 conditions, respectively. Appendix F includes the traffic impact study which provides additional details.

*Table 15: Year 2027 No Build and Build Intersection Operations Analysis*

Intersection	Traffic Control	2027 No Build LOS		2027 Build LOS	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
TH 55/ Pioneer Trail	NB/SB stop	A/E	A/E	F/F	F/F
TH 55/ Rolling Hills Road	SB stop	A/D	A/D	A/E	A/E
CSAH 19/ Pioneer Trail	EB/WB stop	A/B	A/B	A/C	A/C
Pioneer Trail/ proposed development access	WB stop	N/A	N/A	A/B	A/B

*Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.*

Results of the traffic operations analysis indicate that under year 2027 No Build conditions, all intersections and movements operate at LOS E or better during the a.m. and p.m. peak hours, indicating acceptable traffic operations. During the 2027 Build conditions, the TH 55/Pioneer Trail intersection operates at an overall LOS F during the a.m. and p.m. peak hours, indicating poor traffic conditions.

Table 16: Year 2040 No Build and Build Intersection Operations Analysis

Intersection	Traffic Control	2040 No Build LOS		2040 Build LOS	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
TH 55/ Pioneer Trail	NB/SB stop	A/F	A/E	F/F	F/F
TH 55/ Rolling Hills Road	SB stop	A/D	A/D	A/F	A/F
CSAH 19/ Pioneer Trail	EB/WB stop	A/B	A/C	A/C	A/C
Pioneer Trail/ proposed development access	WB stop	N/A	N/A	A/B	A/B

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

During the 2040 No Build conditions, southbound movements at the TH 55/Pioneer Trail intersection operate at LOS F during the a.m. peak hour. The overall intersections operate at LOS A at all other intersections and all other movements operate at LOS E or better. Under 2040 Build conditions, the TH 55/Pioneer Trail intersection operate at an overall LOS F during the a.m. and p.m. peak hours. The southbound movements at TH 55/Rolling Hills Road operate at LOS F during the a.m. and p.m. peak hours. The TH 55/Rolling Hills Road intersections operates at an overall LOS A. All other movements and intersections operate at LOS C or better during the a.m. and p.m. peak hours.

**c. Identify measures that will be taken to minimize or mitigate project related transportation effects.**

TH 55/ Pioneer Trail Intersection Improvements

The southbound movements at the TH 55/Pioneer Trail intersection operates at a LOS F during the 2027 and 2040 Build conditions. In order to accommodate traffic generated by the proposed development, traffic signal control was considered at this intersection. A signal warrants analysis was completed for the 2027 Build condition based on criteria outlined in the Minnesota Manual of Uniform Traffic Control Devices. The results of the signal warrant analysis indicate that warrants are met at the TH 55/ Pioneer Trail intersection for the 2027 Build condition. Any changes to signal control must be reviewed and approved by MnDOT. An intersection operations analysis was completed a potential traffic signal at the TH 55/Pioneer Trail intersection. Table 17 summarizes the results of this analysis.

Table 17: TH 55/Pioneer Trail Intersection Operations Analysis with Traffic Signal Control

2027 Build LOS		2040 Build LOS	
AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
B/C	B/C	B/D	B/D

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

The TH 55/Pioneer Trail intersection operations analysis indicates that under traffic signal control, all movements would operate at an acceptable LOS D or better during the a.m. and p.m. peak hours under both year 2027 and 2020 Build conditions.

Recommended Mitigation

Table 14 summarizes recommended measures to mitigate potential traffic impacts resulting from the proposed development.

*Table 18: Recommended Traffic Mitigation Measures*

<b>Intersection</b>	<b>Short-Term Measures</b>	<b>Long-Term Measures</b>
TH 55/ Pioneer Trail	<ul style="list-style-type: none"> <li>• Widen southbound approach to accommodate dedicated left turn lane and a thru/right turn lane.</li> <li>• Install traffic signal.</li> </ul>	<ul style="list-style-type: none"> <li>• No additional improvements.</li> </ul>
TH 55/ Rolling Hills Road	<ul style="list-style-type: none"> <li>• No additional improvements.</li> </ul>	<ul style="list-style-type: none"> <li>• No additional improvements.</li> </ul>
CSAH 19/ Pioneer Trail	<ul style="list-style-type: none"> <li>• No additional improvements.</li> </ul>	<ul style="list-style-type: none"> <li>• No additional improvements.</li> </ul>
Pioneer Trail/ proposed development access	<ul style="list-style-type: none"> <li>• Construct westbound approach with dedicated left and right turn lanes.</li> <li>• Construct a northbound right turn lane.</li> </ul>	<ul style="list-style-type: none"> <li>• No additional improvements.</li> </ul>

**19. Cumulative Potential Effects**

*(Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)*

- a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.**

It is anticipated that individual lots will be constructed over the next few years and that the full build out will occur by 2026. Currently, it is anticipated that Lot 5 will be constructed first, which proposes a storage unit facility. The timeline of project construction will depend on market conditions and may vary from the current foreseeable construction timeline.

The project site is located in the City of Corcoran’s southwest Metropolitan Urban Services Area that has been planned for land uses and development as stated within the City’s 2040 Comprehensive Plan. Extension of services to the areas is planned to occur in 2030-2035 and, therefore, the City included estimated calculations within each section of the 2040 Comprehensive Plan that accounted for the increased demand for water, sanitary sewer and transportation improvements. The development is proposed in advance of these services being available to the site, however, septic and well will be provided to the development until a time they are able to connect with municipal services. This EAW considered potential cumulative impacts for future light industrial and commercial development as described in applicable items. Beyond the analysis conducted and provided, there are no known of project cumulative impacts as a result of the proposed project that were not reviewed and considered as part of this process.

- b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.**

As stated in previous items, the proposed project site was planned for development to connect to municipal water and wastewater services. Installation of the main trunk sanitary sewer line is not planned

with this development and is anticipated to be extended to this area in 2030-2035. The project will not require municipal services but is proposed at a density appropriate enough to be connected to municipal services when available. The construction of the public road is consistent with the Southwest District Plan. A light industrial self-storage facility is planned on a parcel immediately to the west of the site and is not expected to interact with the environmental effects of the proposed project.

Several residential and senior living development are currently under review by the City. These proposed developments are concentrated towards the eastern portion of the City of Corcoran along County Road 116. One other project is proposed in close proximity to the Project, the proposed Garages Too development located at 2240 Highway 55. An application for this project was submitted to the City of Corcoran in November 2021 requesting approval of a rezoning, site plan, conditional use permit, variance, and preliminary plat to allow for the development of four new buildings for a proposed mini storage/self storage facility adjacent to Highway 55. This proposed project is adjacent to the eastern boundary of the proposed Pioneer Trail Industrial Park. Proposed light industrial development within and immediately adjacent to the Project Area along Highway 55 is consistent with the City of Corcoran's 2040 Comprehensive Plan.

- c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.***

Potential impacts that were considered as part of the cumulative potential effects evaluation include waters resources, wetlands, public infrastructure, and loss of agricultural land, and transportation.

#### Water Resources

The project will convert undeveloped agricultural land into a proposed industrial park, which will increase impervious surfaces compared to existing conditions. As discussed in Section 11 of this EAW, the proposed additional impervious surface area is expected to result in higher runoff rates, volumes, and pollutants compared to the existing conditions. Other proposed developments in the area resulting in the conversion of agricultural and rural residential land to industrial and residential developments will similarly increase the area of impervious surfaces. These future developments will be required to implement stormwater BMPs to mitigate stormwater runoff impacts in accordance with all City, ECWMC, and MPCA approval and permitting requirements. Therefore, adverse cumulative impacts to water quality and quantity are not anticipated.

#### Public Infrastructure

As discussed in Section 11, currently the most viable option for water supply and wastewater, is to utilize private wells and a subsurface sewage treatment system. As future development occurs, sewer and water systems may be extended to the Project Area and the proposed development would be required to connect the City water and sewer systems. The Project will be required to accommodate an 80-foot right-of-way to accommodate future expansion to the watermain. The City of Corcoran regulates future development thought its land use policies and zoning requirements. The City's 2040 Comprehensive Plan identified the potential for future municipal well exploration areas and future studies to evaluate sewer and water extension to Southwest Corcoran. The Project would not preclude future extension of the sewer and water systems and will connect to these systems when available. Therefore, adverse cumulative impacts related to public infrastructure are not anticipated.

### Wetlands

It is anticipated that the Project will impact approximately 0.8 acres of wetlands. Potential wetland impacts will be confirmed during final design and permitting of the Project. Planned development in the vicinity of the Project may also impact wetlands in the surrounding area. Wetlands are protected by state and federal laws, Section 404 of the Clean Water Act and WCA, which require avoidance of wetland impacts when possible, and when avoidance is not possible, impacts must be minimized and mitigated. Adverse cumulative impacts to wetlands are not anticipated given the federal and state regulations that mandate avoidance, minimization, and mitigation requirements for wetland impacts.

### Agricultural Land

The Project will convert existing agricultural land to an industrial development. Planned development along the Highway 55 and the surrounding areas may also convert agricultural land to other land uses. The City of Corcoran guides development through the City's land use plan and zoning codes. The Project is consistent with the City's 2040 Comprehensive Plan, which identifies the Project Area and adjacent properties along Highway 55 for future light industrial development. The City of Corcoran through their land use policies and zoning requirements, regulates future development and can protect agricultural land from future development as appropriate. Therefore, adverse cumulative impacts to agricultural land are not anticipated.

### Transportation

A Traffic Impact Study for the Project was completed that incorporated future traffic growth and recommended mitigation measures to address traffic impacts. Appendix F includes the Traffic Impact Study. Future developments in the surrounding area that are anticipated to increase traffic congestion, would be required to complete a traffic impact study and identify mitigation measures to address these impacts. Therefore, adverse cumulative impacts related to traffic congestion are not anticipated.

## **20. Other Potential Environmental Effects**

*If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.*

No other additional environmental effects are anticipated as a result of the proposed project. Potential environmental effects have been addressed in Items 1 through 19.

**RGU CERTIFICATION.** *(The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.)*

**I hereby certify that:**

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature \_\_\_\_\_ Date \_\_\_\_\_

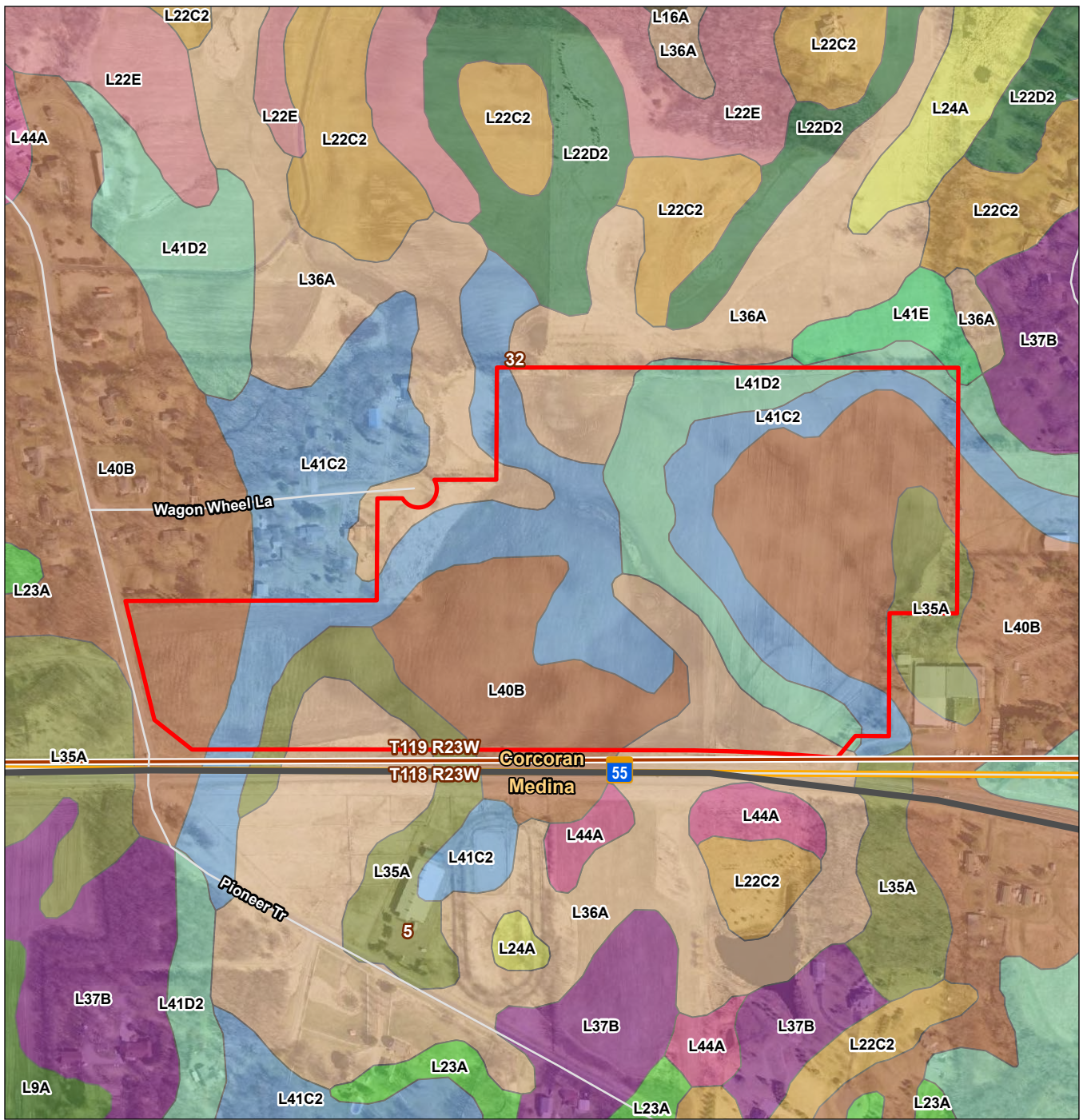
Title \_\_\_\_\_

# **Appendix A**

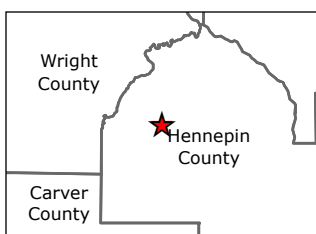
## **Figures**





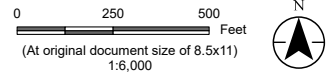


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**Notes**  
 1. Coordinate System: NAD 1983 HARN Adj MN Hennepin Feet  
 2. Data Sources: City of Corcoran, NRCS, MNDOT  
 3. Background: MnGeo 2020 7-county

- Legend**
- Project Area
  - NRCS Soils Classification**
  - L16A, Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes
  - L22C2, Lester loam, 6 to 10 percent slopes, moderately eroded
  - L22D2, Lester loam, 10 to 16 percent slopes, moderately eroded
  - L22E, Lester loam, 10 to 22 percent slopes
  - L23A, Cordova loam, 0 to 2 percent slopes
  - L24A, Glencoe clay loam, 0 to 1 percent slopes
  - L35A, Lerdal loam, 1 to 3 percent slopes
  - L36A, Hamel, overwash-Hamel complex, 0 to 3 percent slopes
  - L37B, Angus loam, 2 to 6 percent slopes
  - L40B, Angus-Kilkenny complex, 2 to 6 percent slopes
  - L41C2, Lester-Kilkenny complex, 6 to 10 percent slopes, moderately eroded
  - L41D2, Lester-Kilkenny complex, 10 to 16 percent slopes, moderately eroded
  - L41E, Lester-Kilkenny complex, 16 to 22 percent slopes
  - L44A, Nessel loam, 1 to 3 percent slopes
  - L9A, Minnetonka silty clay loam, 0 to 2 percent slopes



**Project Location**  
 T119N, R23W, S32  
 C. of Corcoran, Hennepin Co., MN

**Client/Project**  
 City of Corcoran, MN  
 EAW

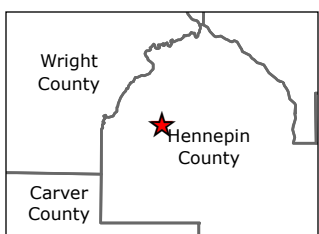
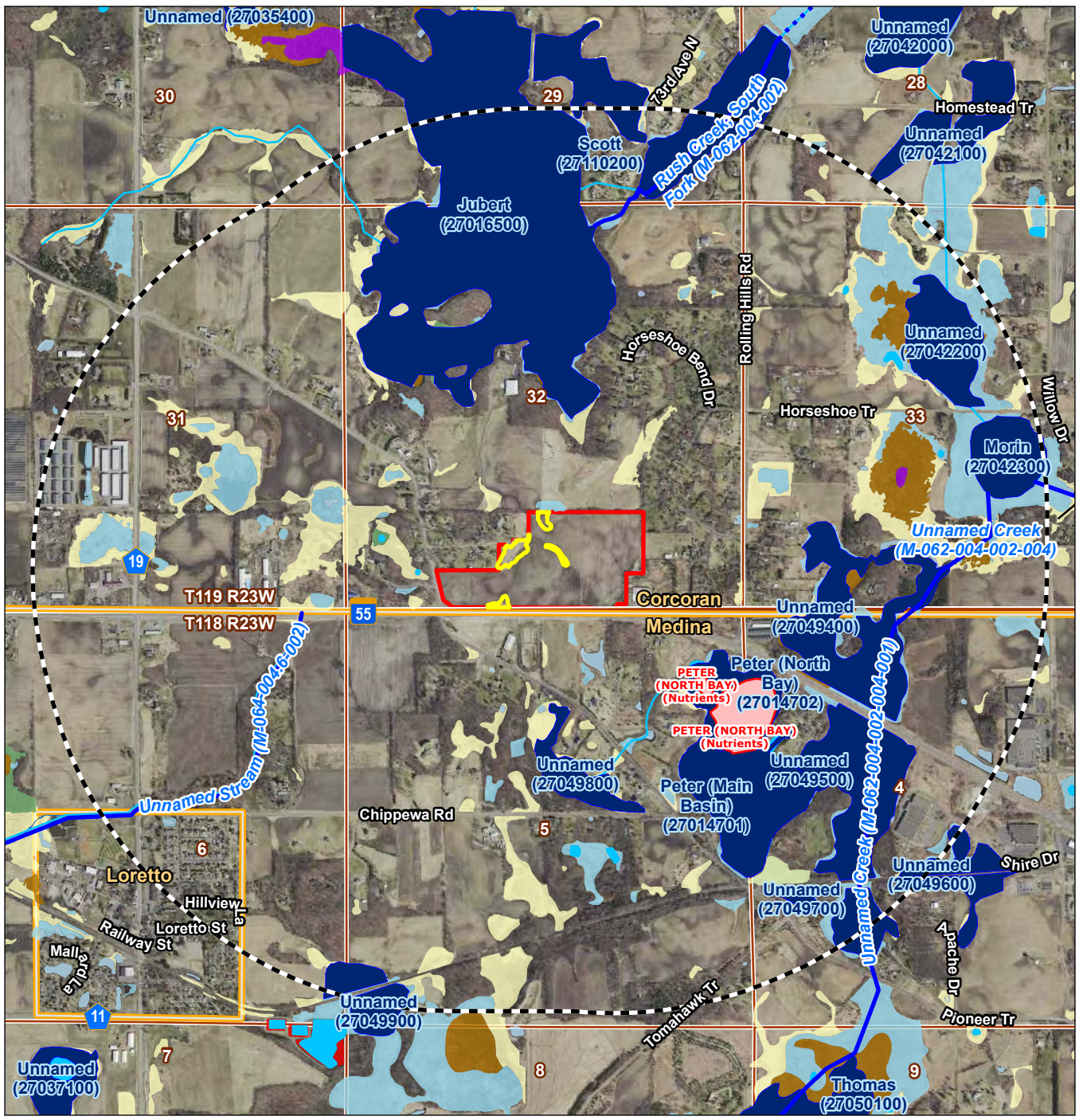
**Prepared by** KJM on 2022-01-24  
 TR by XXX on 2020-XX-XX  
 IR by XXX on 2020-XX-XX

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**Figure No.**  
 2

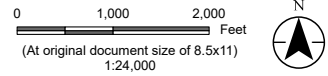
**Title**  
 Soil Classifications

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**Legend**

- 1 Mile Radius
- Project Area
- Field Delineated Wetland
- 2022 MPCA Impaired Lakes (Draft)
- Minnesota Public Waters Delineations
- Public Water Watercourse
- Public Ditch/Altered Natural Watercourse
- Public Waters Basins
- NHD - Flowline
- NHD - Waterbody
- NWI Circular 39 Class 1 - Seasonally Flooded Basin or Flat
- 2 - Wet Meadow
- 3 - Shallow Marsh
- 4 - Deep Marsh
- 5 - Shallow Open Water
- 6 - Shrub Swamp
- 7 - Wooded Swamp
- 8 - Bog
- Municipal and Industrial Activities
- Riverine Systems



Project Location: T119N, R23W, S32, C. of Corcoran, Hennepin Co., MN  
 Prepared by KJM on 2022-03-03  
 TR by XXX on 2020-XX-XX  
 IR by XXX on 2020-XX-XX

Client/Project: City of Corcoran, MN EAW  
 227704712

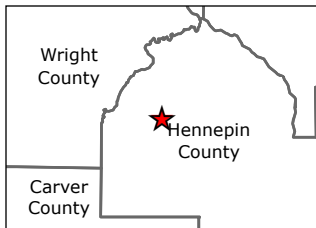
Figure No. **3**  
 Title **Water Resources Map**

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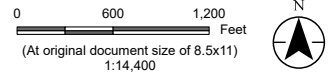


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**Notes**  
 1. Coordinate System: NAD 1983 HARN Adj MN Hennepin Feet  
 2. Data Sources: City of Corcoran, NRCS, MNDOT, MNDOH  
 3. Background: MnGeo 2020 7-county

- Legend**
- County Well Index
    - Unknown
    - Domestic
    - Irrigation
    - Public Supply
  - 500 ft Radius
  - 1/2 mi Radius
  - Project Area
  - Wellhead Protection Areas
  - Drinking Water Supply Management Area Vulnerability
    - Low



**Project Location**  
 T119N, R23W, S32  
 C. of Corcoran, Hennepin Co., MN

**Client/Project**  
 City of Corcoran, MN  
 EAW

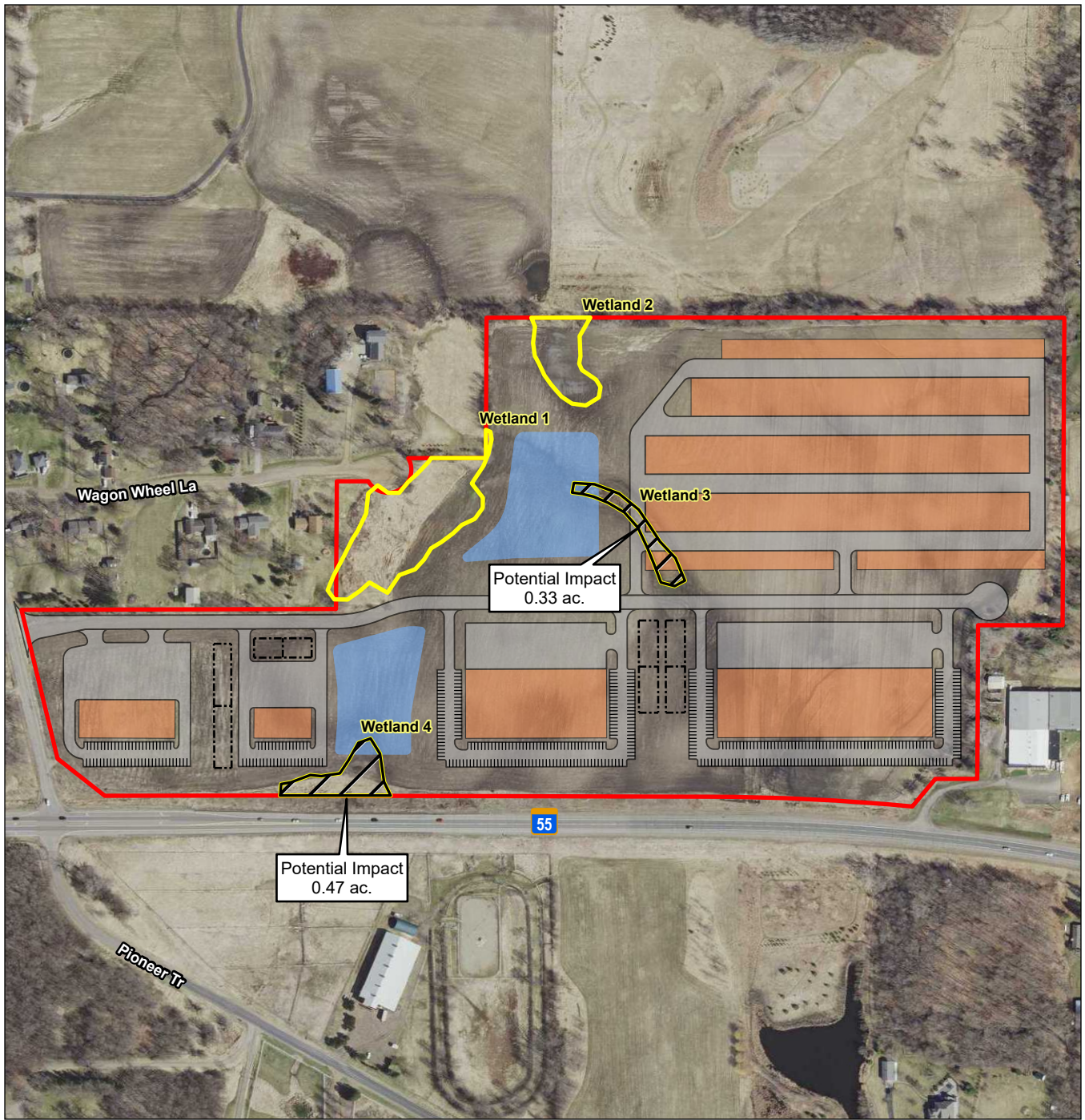
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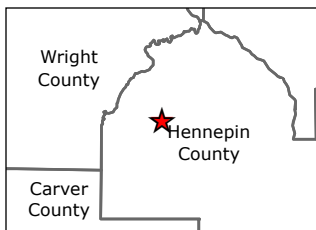
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**Title**  
 County Well Index

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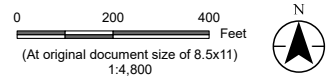


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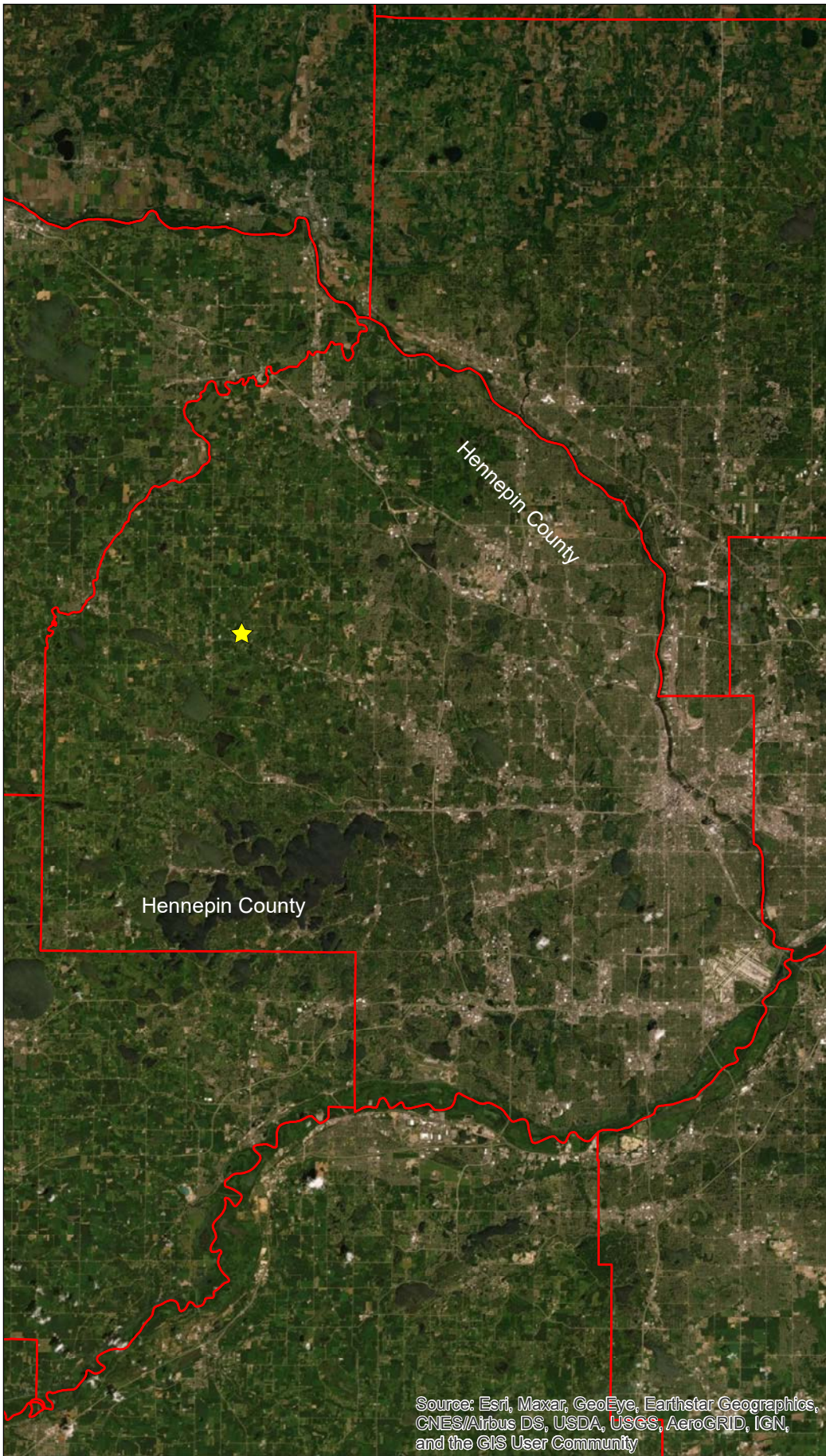
**Notes**  
 1. Coordinate System: NAD 1983 HARN Adj MN Hennepin Feet  
 2. Data Sources: City of Corcoran, Carlson McCain  
 3. Background: MnGeo 2020 7-county

- Legend**
- Project Area
  - Potential Wetland Impact
  - Field Delineated Wetland
  - Site Septic
  - Stormwater Pond
  - Building Footprint
  - Road/Parking



*Project Location* T119N, R23W, S32 C. of Corcoran, Hennepin Co., MN  
*Client/Project* City of Corcoran, MN EAW  
 Prepared by KJM on 2022-03-03  
 TR by XXX on 2020-XX-XX  
 IR by XXX on 2020-XX-XX  
 227704712

*Figure No.* 5  
*Title* Potential Wetland Impacts



## Legend

 County Boundary

 Project Location

0 2.5 5 7.5 Miles



NORTH

**Figure 6: Hennepin County Location Map**

Pioneer Trail EAW • Corcoran, MN

03.14.22





Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

### Legend

 Site Boundary


### Land Cover Type

 Impervious Surface

 Wooded/Forest

 Wetlands

 Cropland

 Brush/Grassland



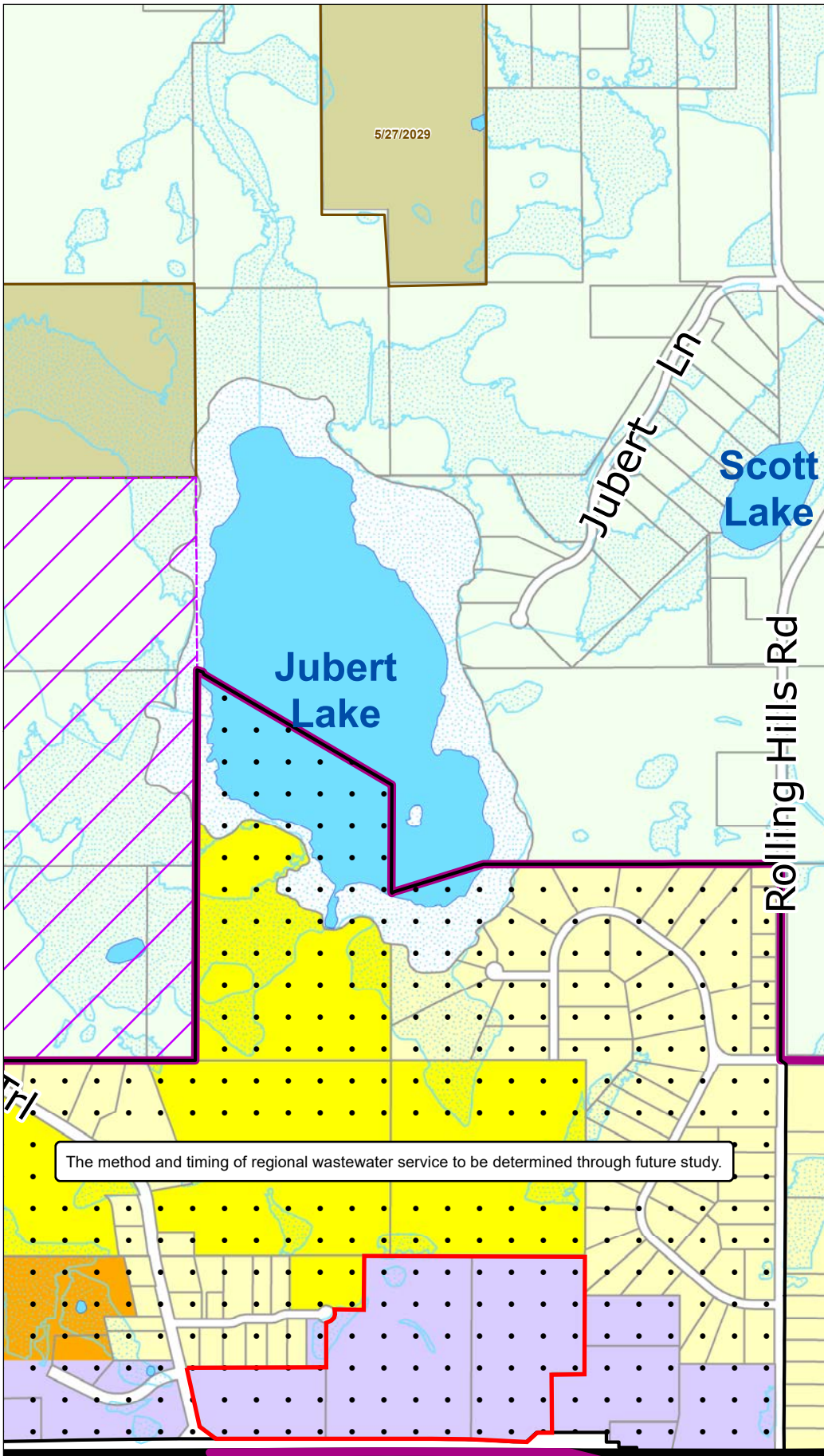
NORTH

## Figure 7: Cover Type Map

Pioneer Trail EAW • Corcoran, MN

03.14.22





### Legend

- Future Study
  - 2040 MUSA
  - Future MUSA Expansion
  - Agricultural Reserve (Date of Expiration)
  - Municipal Boundary
  - Streams
  - Lake/Open Water
  - Parcel Boundaries
  - Wetlands
- ### Future Land Use
- Rural/Ag Residential
  - Existing Residential
  - Low Density Residential
  - Medium Density Residential
  - Mixed Residential
  - High Density Residential
  - Rural Service/Commercial
  - Commercial
  - Mixed Use
  - Business Park
  - Light Industrial
  - Public/Semi-Public
  - Parks/Open Space
  - Agricultural Preserve (Date of Expiration)
  - Open Water

0 500 1,000 Feet



## Figure 9: 2040 Future Land Use

Pioneer Trail EAW • Corcoran, MN

03.15.22





**Appendix B**  
**Wetland Delineation and WCA Notice of Decision**

---

# **6210 Pioneer Trail Site**

**Corcoran, Hennepin County, Minnesota**

## **Wetland Delineation Report**

*Prepared for*

Landspec Fund 2 LLC

*by*

**Kjolhaug Environmental Services Company, Inc.**

(KES Project No. 2019-179)

January 6, 2020

---

# 6210 Pioneer Trail Site

*Corcoran, Hennepin County, Minnesota*

## Wetland Delineation Report

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<b>2. OVERVIEW .....</b>	<b>2</b>
<b>3. METHODS .....</b>	<b>2</b>
3.1 Wetland Delineation.....	2
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1. Site Location
2. Existing Conditions
3. National Wetlands Inventory
4. Soil Survey
5. DNR Public Waters Inventory
6. National Hydrography Dataset
7. Offsite Hydrology Assessment Areas

### APPENDICES

- A. Joint Application Form for Activities Affecting Water Resources in Minnesota
- B. Wetland Delineation Data Forms
- C. Precipitation Information
- D. Aerial Review for Offsite Hydrology Assessment

# 6210 Pioneer Trail Site

*Corcoran, Hennepin County, Minnesota*

## Wetland Delineation Report

### 1. WETLAND DELINEATION SUMMARY

- The 56.4-acre 6210 Pioneer Trail Site was inspected on November 14, 2019 for the presence and extent of wetland.
- The National Wetlands Inventory (NWI) map showed four wetlands mapped within the site boundaries.
- The soil survey showed Hamel (Partially Hydric) as the Hydric Soil Type mapped on the site.
- The DNR Public Waters Inventory did not show any DNR Public Waters, DNR Public Waterways or DNR Public Wetlands within 1000 feet of the site.
- The National Hydrography Dataset showed one Lake/Pond approximately 200 feet west of the site.
- Four wetlands delineated within the site boundaries are summarized in **Table 1** below.

**Table 1. Wetlands delineated on the 6210 Pioneer Trail Site**

Wetland ID	Wetland Type			Dominant Vegetation	Size (Acres Onsite)
	Circular 39	Cowardin	Eggers and Reed		
1	1/3	PEM1Af/PEM1C	Seasonally Flooded Basin, Shallow Marsh	Reed canary grass, cattail, smartweed, scattered sedges	1.75
2	1	PEM1Af	Seasonally Flooded Basin	Sparse vegetation, field nutsedge	0.60
3	1/3	PEM1Af/PEM1C	Seasonally Flooded Basin, Shallow Marsh	Cattail, reed canary grass, smartweed	0.33
4	1/3	PEM1Af/PEM1C	Seasonally Flooded Basin, Shallow Marsh	Cattail, reed canary grass, sedges	0.47

## 2. OVERVIEW

The 56.4-acre 6210 Pioneer Trail Site was inspected on November 14, 2019 for the presence and extent of wetland. The property was located in Section 32, Township 119 North, Range 23 West, Corcoran, Hennepin County, Minnesota. The site was situated north of Minnesota Highway 55, east of Pioneer Trail (**Figure 1**). The site boundaries corresponded to Hennepin County PID#'s: 3211923430006, 3211923430005, 3211923340007 and 3211923340013.

The 6210 Pioneer Trail Site consisted of a farm field that had been planted with corn on the western portion and soybeans on the eastern portion, with crops remaining to be harvested on the eastern portion of the site. The topography of the site sloped from an elevation of 1060 ft MSL on the eastern portion of the site down to a low of 1008 ft MSL on the northern portion. Surrounding land use consisted of single-family residential, farm land and rural residential.

Four wetlands were delineated within the site boundaries. The delineated wetland boundaries and existing conditions are shown on **Figure 2**.

**Appendix A** of this report includes a Joint Application Form for Activities Affecting Water Resources in Minnesota, which is submitted in request for: (1) a wetland boundary and type determination under the Minnesota Wetland Conservation Act (WCA), and (2) delineation concurrence under Section 404 of the Clean Water Act.

## 3. METHODS

### 3.1 Wetland Delineation

Wetlands were identified using the Routine Determination method described in the [Corps of Engineers Wetlands Delineation Manual](#) (Waterways Experiment Station, 1987) and the [Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region \(Version 2.0\)](#) as required under Section 404 of the Clean Water Act and the Minnesota Wetland Conservation Act.

Wetland boundaries were identified as the upper-most extent of wetland that met criteria for hydric soils, hydrophytic vegetation, and wetland hydrology. Wetland-upland boundaries were marked with pin flags that were located by land surveyors from Otto Associates.

Soils, vegetation, and hydrology were documented at a representative location along the wetland-upland boundary. Plant species dominance was estimated based on the percent aerial or basal coverage visually estimated within a 30-foot radius for trees and vines, a 15-foot radius for the shrub layer, and a 5-foot radius for the herbaceous layer within the community type sampled.

Soils were characterized to a minimum depth of 24 inches (unless otherwise noted) using a [Munsell Soil Color Book](#) and standard soil texturing methodology. Hydric soil indicators used are from [Field Indicators of Hydric Soils in the United States](#) (USDA Natural Resources

Conservation Service (NRCS) in cooperation with the National Technical Committee for Hydric Soils, Version 7, 2010).

Mapped soils are separated into five classes based on the composition of hydric components and the Hydric Rating by Map Unit color classes utilized on Web Soil Survey. The five classes include Hydric (100 percent hydric components), Predominantly Hydric (66 to 99 percent hydric components), Partially Hydric (33 to 65 percent hydric components), Predominantly Non-Hydric (1 to 32 percent hydric components), and Non-Hydric (less than one percent hydric components).

Plants were identified using standard regional plant keys. Taxonomy and indicator status of plant species was taken from the [2017 National Wetland Plant List](#) (U.S. Army Corps of Engineers 2017. National Wetland Plant List, version 3.3, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH).

### 3.2 Aerial Review for Offsite Hydrology Determinations

Areas in agricultural cropland that exhibited potential wetland signatures on aerial photography and with low or depressional topography were reviewed generally following methods described in [Using Aerial Imagery to Assess Wetland Hydrology](#) (Minnesota Board of Water and Soil Resources (BWSR) 2010) and [Guidance for Submittal of Delineation Reports to the St. Paul District Corps of Engineers and Wetland Conservation Act Local Governmental Units in Minnesota, Version 2.0](#) (USACE 2015). These methods use aerial photography and antecedent precipitation conditions to identify areas that have wetland hydrology signatures during periods of typical precipitation.

Available years of [Farm Service Agency](#) (FSA) aerial photography were reviewed for the site to determine long-term hydrology. In cases where additional aerial photography was relevant, available, and necessary to make hydrology determinations, we reviewed aerial photography from other sources such as the [Minnesota Geospatial Information Office](#) (MnGEO) and [Google Earth](#).

Signatures at locations of potential wetlands on aerial photographs were interpreted and classified using seven codes (**Table 2**). Wetland hydrology was assumed to be present within areas exhibiting wetland signatures in more than 50% of years with normal climatic conditions based on antecedent precipitation.

**Table 2. Aerial photograph interpretation codes**

Code	Classification
CS	Crop stress
DO	Drowned out
NC	Not cropped
SW	Standing water
WS	Wetland signature
AP	Altered pattern
NV	Normal vegetation

This analysis used only aerial photographs taken following periods of precipitation within the normal range as determined using the [Wetland Delineation Precipitation Data Retrieval](#) tool (Minnesota Climatology Office 2015). This tool classifies antecedent precipitation as Normal (N), Wet (W) or Dry (D) by comparing precipitation during the three months preceding the estimated date of aerial photography to the 30-year average from 1981-2010. July 1 was used as the estimated date of FSA aerial photography.

## 4. RESULTS

### 4.1 Review of NWI, Soils, Public Waters and NHD Information

The [National Wetlands Inventory \(NWI\)](#) (Minnesota Geospatial Commons 2009-2014 and [U.S. Fish and Wildlife Service](#)) showed four wetlands mapped within the site boundaries (**Figure 3**).

The [Soil Survey](#) (USDA NRCS 2015) showed Hamel (Partially Hydric) as the Hydric Soil type mapped on the site. Soil types mapped on the property are listed below in **Table 3** and a map showing soil types is included in **Figure 4**.

**Table 3. Soil types mapped on the 6210 Pioneer Trail Site**

Symbol	Soil Name	Acres	% of Area	% Hydric	Hydric Category
L40B	Angus-Kilkenny complex, 2 to 6 percent slopes	21.60	0.389	5	Predominantly Non-Hydric
L41C2	Lester-Kilkenny complex, 6 to 12 percent slopes, eroded	14.96	0.270	5	Predominantly Non-Hydric
L36A	Hamel, overwash-Hamel complex, 0 to 3 percent slopes	8.04	0.145	45	Partially Hydric
L41D2	Lester-Kilkenny complex, 12 to 18 percent slopes, eroded	6.68	0.120	5	Predominantly Non-Hydric
L35A	Lerdal loam, 1 to 3 percent slopes	4.20	0.076	15	Predominantly Non-Hydric
L41E	Lester-Kilkenny complex, 18 to 25 percent slopes	0.03	0.001	5	Predominantly Non-Hydric

The [Minnesota DNR Public Waters Inventory](#) (Minnesota Department of Natural Resources 2015) did not show any DNR Public Waters, DNR Public Waterways or DNR Public Wetlands within 1000 feet of the site (**Figure 5**).

The [National Hydrography Dataset](#) (U.S. Geological Survey 2015) showed one Lake/Pond approximately 200 feet west of the site (**Figure 6**).

### 4.2 Wetland Determinations and Delineations

Potential wetlands were evaluated during field observations on November 14, 2019. Four wetlands were identified and delineated on the property based on field observations and aerial photography (**Figure 2**). Corresponding data forms are included in **Appendix B**. The following descriptions of the wetlands and adjacent uplands reflects conditions observed at the time of the



field visit. Herbaceous vegetation was senesced at the time of the field visit. Precipitation conditions were wetter than typical based on the Precipitation Worksheet Using Gridded Database method, but were within the normal range based on the 30-day rolling total precipitation (**Appendix C**). The site experienced wetter than normal conditions for much of the 2019 growing season. Notably, between the preceding months of July, August, September and October the site received 25.16 inches of rainfall.

**Wetland 1** was a Type 1/3 (PEM1Af/PEM1C) shallow marsh and partially farmed seasonally flooded basin wetland. The wetland was dominated by cattail in the center, with a fringe dominated by reed canary grass, smartweed and scattered sedges. No saturation or inundation was observed within the wetland at the time of the November 14, 2019 field visit, however saturation and shallow inundation of 1-3” was observed during the November 25, 2019 TEP Meeting (0.67” precipitation between November 14 and November 25). The wetland covered 1.75 acres within the site boundaries.

Adjacent upland consisted of a farm field dominated by soybeans, which had been harvested by the time of the field visit. Primary and secondary hydrology indicators were not observed on the upland.

The delineated boundary followed a change in vegetation from a wetland plant community to farmed upland dominated by soybeans, as well as a distinct change in topography. Wetland 1 was shown as a PEM1A wetland on the NWI map, and was located within an area mapped as Hamel (Partially Hydric) on the soil survey. Wetland 1 extended offsite, sloping downhill to the north.

**Wetland 2** was a Type 1 (PEM1Af) farmed seasonally flooded basin wetland that was dominated by sparse cover of field nutsedge. No saturation or inundation was observed within the wetland at the time of the November 14, 2019 field visit, however saturation and shallow inundation of 1-3” was observed during the November 25, 2019 TEP Meeting (0.67” precipitation between November 14 and November 25). The wetland covered 0.60 acres within the site boundaries.

Adjacent upland consisted of a farm field dominated by soybeans, which had been harvested by the time of the field visit. Primary and secondary hydrology indicators were not observed on the upland.

The delineated boundary followed a change in vegetation from a wetland plant community to farmed upland dominated by soybeans, as well as a distinct change in topography. Wetland 2 was shown as a PEM1Af/PEM1C wetland on the NWI map, and was located within an area mapped as Hamel (Partially Hydric) on the soil survey. Wetland 2 extended offsite to the north.

**Wetland 3** was a Type 1/3 (PEM1Af/PEM1C) shallow marsh and partially farmed seasonally flooded basin wetland dominated by cattail, reed canary grass and smartweed. No saturation or inundation was observed within the wetland at the time of the November 14, 2019 field visit, however saturation and shallow inundation of 1-3” was observed during the November 25, 2019 TEP Meeting (0.67” precipitation between November 14 and November 25). The wetland covered 0.33 acres within the site boundaries.

Adjacent upland consisted of a farm field dominated by soybeans, which had been harvested by the time of the field visit. Primary and secondary hydrology indicators were not observed on the upland.

The delineated boundary followed a change in vegetation from a wetland plant community to farmed upland dominated by soybeans, as well as a distinct change in topography. Wetland 3 was shown as a PEM1A wetland on the NWI map, and was located within an area mapped as Lester-Kilkenny (Predominantly Non-Hydric) on the soil survey. Wetland 3 drained overland to the west towards Wetland 1.

**Wetland 4** was a Type 1/3 (PEM1Af/PEM1C) shallow marsh and partially farmed seasonally flooded basin wetland dominated by cattail, sedges and reed canary grass with a fringe of sparsely vegetated farmed wetland that contained field nutsedge. No saturation or inundation was observed within the wetland at the time of the November 14, 2019 field visit, however saturation and shallow inundation of 1-3” was observed during the November 25, 2019 TEP Meeting (0.67” precipitation between November 14 and November 25). The wetland covered 0.47 acres within the site boundaries.

Adjacent upland consisted of a farm field dominated by soybeans, which had been harvested by the time of the field visit. Primary and secondary hydrology indicators were not observed on the upland.

The delineated boundary followed a change in vegetation from a wetland plant community to farmed upland dominated by soybeans, as well as a distinct change in topography. Wetland 4 was not shown as a wetland on the NWI map, but was located within an area mapped as Hamel (Partially Hydric) on the soil survey. Wetland 4 drained to the south through a culvert beneath Minnesota State Highway 55.

### 4.3 Other Areas

Other areas were investigated because they were: (1) observed to support a hydrophytic plant community, (2) had visible wetland hydrology indicators, (3) were shown as wetland on the NWI map, or (4) were depressional and mapped as hydric soil. Field investigation led to the conclusion that these areas were not wetland.

A potential connection between Wetland 1 and Wetland 3 (**Area D, See Figure 2**) was evaluated based upon the presence of partially hydric soils (Hamel). This area was sloped, and showed washed out crops during some wetter than typical photo years, but did not show sufficient wetland hydrology signatures to be determined wetland. Wetland 1 and Wetland 3 were evaluated during the offsite hydrology review, and were determined not to extend far enough to form a connection. This area was also reviewed in the field and determined to be upland.

Area A, B and C are discussed in **Section 4.4** on the following page.

No other areas with hydrophytic vegetation or wetland hydrology were observed on the site. No other areas were shown as hydric soil on the soil survey or as wetland on the NWI map.

#### 4.4 Aerial Review for Offsite Hydrology Determinations

Aerial photography was reviewed for 12 years between 1997 and 2017 that were assessed for wet/normal/dry climatic conditions using the [Wetland Delineation Precipitation Data Retrieval](#) tool and an estimated photo date of July 1 for the FSA aerials. Five years (1997, 2006, 2010, 2012 and 2015) were determined have precipitation in the normal range during the three months preceding the estimated photo dates. Areas showing at least one wetland signature during a year with wetter than normal precipitation conditions were included in the aerial review. The results are summarized in **Table 5** below and review areas are shown on **Figure 7**. Aerial photographs showing review areas and interpretations are included in **Appendix D**.

Seven Areas (Wetlands 1 through 4 and Areas A, B and C) exhibited potential wetland signatures, were located in cropland, and were reviewed according to the [BWSR \(2010\) protocol](#). Areas exhibiting wetland signatures in more than 50% of the years with precipitation in the normal range are generally assumed to meet wetland hydrology criteria. Areas exhibiting wetland signatures in 30% to 50% of the years with precipitation in the normal range were reviewed in the field (**Table 5, Figures 2 and 7**). Field delineated wetlands were examined during the offsite hydrology assessment to confirm or adjust wetland boundaries to match the extent of consistent signatures on aerial imagery.

**Table 5. Offsite hydrology determinations summary**

Area	No. of Photo Years w/ Normal Precipitation	No. of Normal Precipitation Years w/ Wetland Signatures	% of Normal Precipitation Years w/ Wetland Signatures	Wetland Determination
WL 1	5	5	100	Yes
WL 2	5	4	80	Yes
WL 3	5	5	100	Yes
WL 4	5	5	100	Yes
Area A	5	1	20	No
Area B	5	2	40	No
Area C	5	2	40	No, Washout

**Wetland 1, 2, 3 and 4** showed sufficient wetland signatures on aerial imagery taken under normal precipitation conditions to meet offsite hydrology criteria. Boundaries for these wetlands were determined during fieldwork, and were confirmed based on the offsite hydrology review. Wetland descriptions have been provided in **Section 4.2** of the report.

**Area A (Sample Point A)** showed wetland signatures in 20% of years with normal precipitation conditions. This area was not shown as a wetland on the NWI map, and was located within an area shown as Lester-Kilkenny complex (Predominantly Non-Hydric) on the soil survey. This area was below the threshold for field verification, however a sample point was taken that

revealed a sloped area that did not meet wetland hydrology criteria. Therefore, this area was determined to be upland.

**Area B (Sample Point B)** showed wetland signatures in 40% of years with normal precipitation conditions. This area was not shown as a wetland on the NWI map, and was located within an area shown as Hamel Loam (Partially Hydric) on the soil survey. This area was reviewed in the field, and was dominated by healthy soybeans, that had partially been washed out along the hillslope. The adjacent hillslope contained erosional rills that drained through the subject area toward the road ditch offsite to the south. Notably, the road ditch to the south (offsite) contained shallow marsh wetland (See **Figure 2**), however the area between the road ditch wetland and SP-B contained a strip of upland plants including smooth brome and Canada thistle. The area surrounding SP-B contained deposited sediment from the adjacent hillslope, which is believed to be the reason that this area does not contain healthy crops during some photo years. This area was therefore determined to be upland.

**Areas C (Sample Point C)** showed wetland signatures in 40% of years with normal precipitation conditions. This area was not shown as a wetland on the NWI map, and was located within an area shown as Angus-Kilkenny (Predominantly Non-Hydric) on the soil survey. The area surrounding SP-C was reviewed in the field, and consisted of healthy crops. Given that the precipitation conditions were atypically wet during the 2019 growing season, this area was determined not to meet wetland hydrology criteria.

#### **4.5 Request for Wetland Boundary and Jurisdictional Determination**

**Appendix A** of this report includes a Joint Application Form for Activities Affecting Water Resources in Minnesota, which is submitted in request for: (1) a wetland boundary and type determination under the Minnesota Wetland Conservation Act (WCA), and (2) delineation concurrence under Section 404 of the Clean Water Act.

### 5. CERTIFICATION OF DELINEATION

The procedures utilized in the described delineation are based on the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual as required under Section 404 of the Clean Water Act and the Minnesota Wetland Conservation Act. This wetland delineation and report were prepared in compliance with the regulatory standards in place at the time the work was performed.

Site boundaries indicated on figures within this report are approximate and do not constitute an official survey product.

Delineation Completed by: Adam Cameron, Wetland Ecologist  
Minnesota Certified Wetland Delineator No. 1321

Kyle Uhler, GIS Specialist  
Minnesota Certified Wetland Delineator No. 1353

Report Prepared by: Adam Cameron, Wetland Ecologist  
Minnesota Certified Wetland Delineator No. 1321

Report reviewed by:  Date: January 6, 2020  
Mark Kjolhaug, Professional Wetland Scientist No. 000845

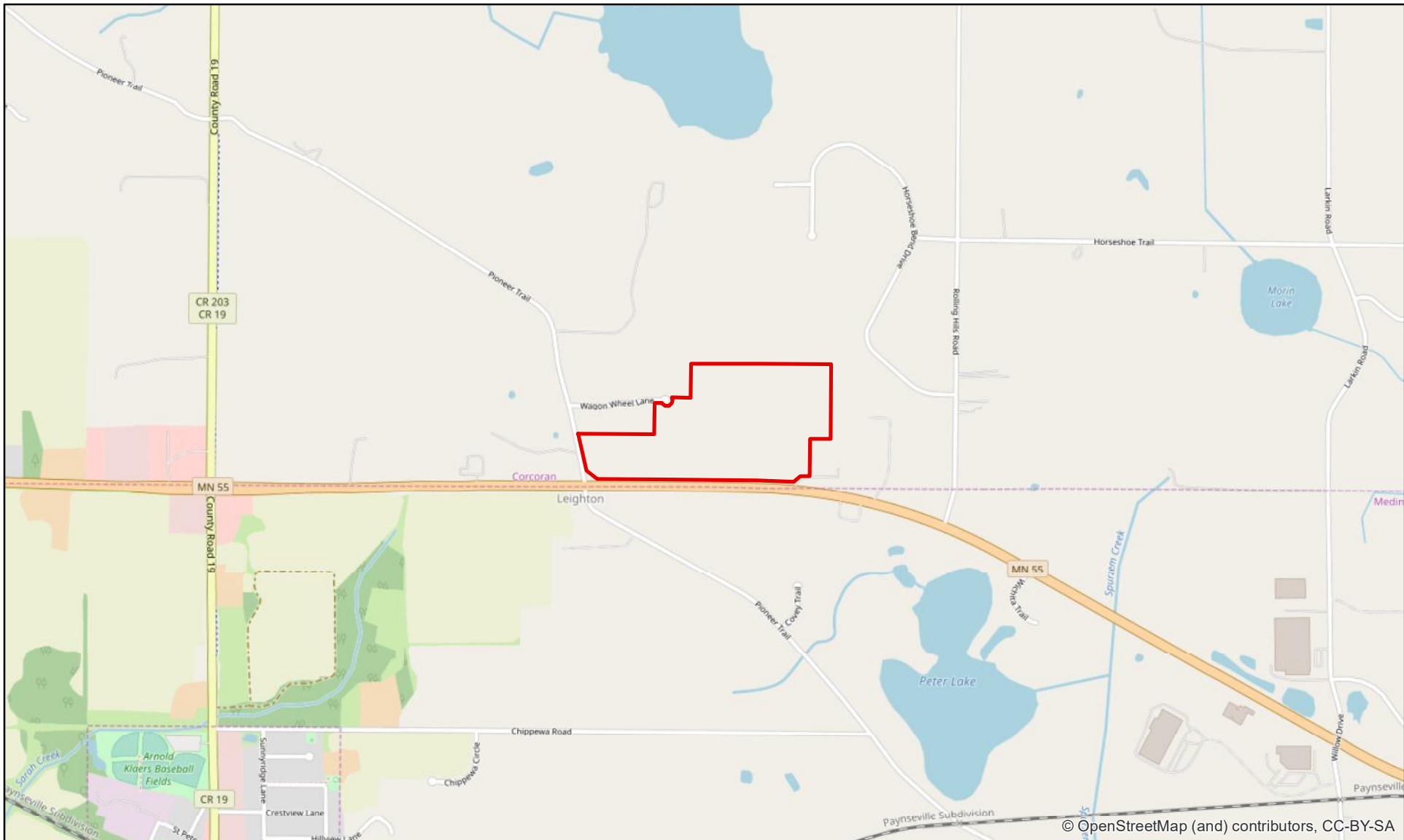
# **6210 Pioneer Trail Site**

## **Wetland Delineation Report**


### **FIGURES**

1. Site Location
2. Existing Conditions
3. National Wetlands Inventory
4. Soil Survey
5. DNR Protected Waters Inventory
6. National Hydrography Dataset
7. Offsite Hydrology Assessment Areas







**Figure 1 - Site Location**




N



0 1,500 Feet





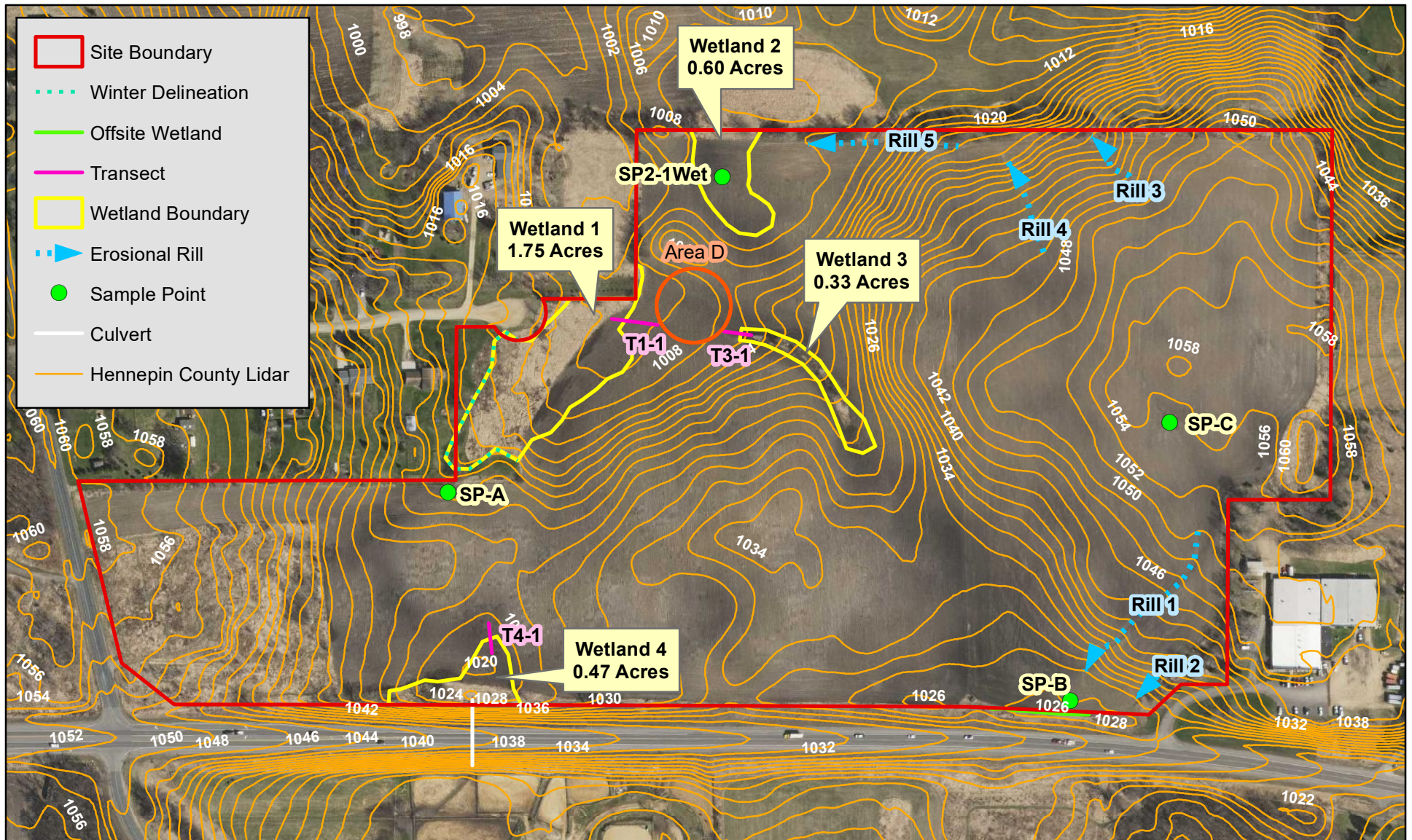
Site Boundary

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
 Source: ESRI Streets Basemap





**Figure 2 - Existing Conditions (2016 MNGEO Photo)**



N



0 300 Feet




**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.


Source: MNGEO Spatial Commons




**Figure 3 - National Wetlands Inventory**




N



0      400



Feet



Site Boundary

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



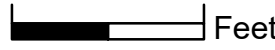




**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons, USFWS





**Figure 5 - DNR Public Waters Inventory**

 <p><b>KJOLHAUG</b> ENVIRONMENTAL SERVICES COMPANY Source: MNGEO Spatial Commons, MN DNR</p>	<p>N</p>  <p>0 1,000 Feet</p> 	 Site Boundary	<p><b>6210 Pioneer Trail Site (KES 2019-179)</b> <b>Corcoran, Minnesota</b></p> <p>Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.</p>
		 Public Ditch/Altered Natural Watercourse	
		 Public Watercourse	
		 Public Waters	



**Figure 6 - National Hydrography Dataset**



N



0      1,000



Feet

**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons, USGS

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



**Figure 7 - Offsite Hydrology Assessment Areas (2017 FSA Photo: Wet Year)**

	<p>N</p> <p>0 300 Feet</p>	Site Boundary	<p><b>6210 Pioneer Trail Site (KES 2019-179)</b>  <b>Corcoran, Minnesota</b></p>
<p><b>KJOLHAUG</b> ENVIRONMENTAL SERVICES COMPANY        Source: MNGEO Spatial Commons</p>			<p>Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.</p>



# **6210 Pioneer Trail Site**

## **Wetland Delineation Report**

### **APPENDIX A**

#### **Joint Application Form for Activities Affecting Water Resources in Minnesota**



## PART ONE: Applicant Information

If applicant is an entity (company, government entity, partnership, etc.), an authorized contact person must be identified. If the applicant is using an agent (consultant, lawyer, or other third party) and has authorized them to act on their behalf, the agent's contact information must also be provided.

**Applicant/Landowner Name:** Landspec Fund 2 LLC c/o Jon Rausch  
**Mailing Address:** 3500 American Blvd W Suite 200, Bloomington, MN 55431  
**Phone:** 952-893-8251  
**E-mail Address:** Jon.Rausch@cushwake.com

**Authorized Contact (do not complete if same as above):**

**Mailing Address:**  
**Phone:**  
**E-mail Address:**

**Agent Name:** Adam Cameron  
**Mailing Address:** 2500 Shadywood Road #130, Orono MN 55331  
**Phone:** 952-401-8757 Ext. #106  
**E-mail Address:** Adam@kjolhaugenv.com

## PART TWO: Site Location Information

**County:** Hennepin **City/Township:** Corcoran  
**Parcel ID and/or Address:** 3211923340013, 3211923430005, 3211923430006  
**Legal Description (Section, Township, Range):** S:32 T:119N R:23W  
**Lat/Long (decimal degrees):** -  
**Attach a map showing the location of the site in relation to local streets, roads, highways.**  
**Approximate size of site (acres) or if a linear project, length (feet):** 55.5

If you know that your proposal will require an individual Permit from the U.S. Army Corps of Engineers, you must provide the names and addresses of all property owners adjacent to the project site. This information may be provided by attaching a list to your application or by using block 25 of the Application for Department of the Army permit which can be obtained at:

[http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RegulatoryDocs/engform\\_4345\\_2012oct.pdf](http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RegulatoryDocs/engform_4345_2012oct.pdf)

## PART THREE: General Project/Site Information

If this application is related to a delineation approval, exemption determination, jurisdictional determination, or other correspondence submitted *prior to* this application then describe that here and provide the Corps of Engineers project number.

Describe the project that is being proposed, the project purpose and need, and schedule for implementation and completion. The project description must fully describe the nature and scope of the proposed activity including a description of all project elements that effect aquatic resources (wetland, lake, tributary, etc.) and must also include plans and cross section or profile drawings showing the location, character, and dimensions of all proposed activities and aquatic resource impacts.

## PART FOUR: Aquatic Resource Impact<sup>1</sup> Summary

If your proposed project involves a direct or indirect impact to an aquatic resource (wetland, lake, tributary, etc.) identify each impact in the table below. Include all anticipated impacts, including those expected to be temporary. Attach an overhead view map, aerial photo, and/or drawing showing all of the aquatic resources in the project area and the location(s) of the proposed impacts. Label each aquatic resource on the map with a reference number or letter and identify the impacts in the following table.

Aquatic Resource ID (as noted on overhead view)	Aquatic Resource Type (wetland, lake, tributary etc.)	Type of Impact (fill, excavate, drain, or remove vegetation)	Duration of Impact Permanent (P) or Temporary (T) <sup>1</sup>	Size of Impact <sup>2</sup>	Overall Size of Aquatic Resource <sup>3</sup>	Existing Plant Community Type(s) in Impact Area <sup>4</sup>	County, Major Watershed #, and Bank Service Area # of Impact Area <sup>5</sup>

<sup>1</sup>If impacts are temporary; enter the duration of the impacts in days next to the "T". For example, a project with a temporary access fill that would be removed after 220 days would be entered "T (220)".

<sup>2</sup>Impacts less than 0.01 acre should be reported in square feet. Impacts 0.01 acre or greater should be reported as acres and rounded to the nearest 0.01 acre. Tributary impacts must be reported in linear feet of impact and an area of impact by indicating first the linear feet of impact along the flowline of the stream followed by the area impact in parentheses). For example, a project that impacts 50 feet of a stream that is 6 feet wide would be reported as 50 ft (300 square feet).

<sup>3</sup>This is generally only applicable if you are applying for a de minimis exemption under MN Rules 8420.0420 Subp. 8, otherwise enter "N/A".

<sup>4</sup>Use *Wetland Plants and Plant Community Types of Minnesota and Wisconsin* 3<sup>rd</sup> Ed. as modified in MN Rules 8420.0405 Subp. 2.

<sup>5</sup>Refer to Major Watershed and Bank Service Area maps in MN Rules 8420.0522 Subp. 7.

If any of the above identified impacts have already occurred, identify which impacts they are and the circumstances associated with each:

## PART FIVE: Applicant Signature

Check here if you are requesting a pre-application consultation with the Corps and LGU based on the information you have provided. Regulatory entities will not initiate a formal application review if this box is checked.

By signature below, I attest that the information in this application is complete and accurate. I further attest that I possess the authority to undertake the work described herein.

Signature: Jon Rausch Date: 12/9/19

I hereby authorize Kjolhaug Environmental to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this application.

<sup>1</sup> The term "impact" as used in this joint application form is a generic term used for disclosure purposes to identify activities that may require approval from one or more regulatory agencies. For purposes of this form it is not meant to indicate whether or not those activities may require mitigation/replacement.

## Attachment A

# Request for Delineation Review, Wetland Type Determination, or Jurisdictional Determination

By submission of the enclosed wetland delineation report, I am requesting that the U.S. Army Corps of Engineers, St. Paul District (Corps) and/or the Wetland Conservation Act Local Government Unit (LGU) provide me with the following (check all that apply):

**Wetland Type Confirmation**

**Delineation Concurrence.** Concurrence with a delineation is a written notification from the Corps and a decision from the LGU concurring, not concurring, or commenting on the boundaries of the aquatic resources delineated on the property. Delineation concurrences are generally valid for five years unless site conditions change. Under this request alone, the Corps will not address the jurisdictional status of the aquatic resources on the property, only the boundaries of the resources within the review area (including wetlands, tributaries, lakes, etc.).

**Preliminary Jurisdictional Determination.** A preliminary jurisdictional determination (PJD) is a non-binding written indication from the Corps that waters, including wetlands, identified on a parcel may be waters of the United States. For purposes of computation of impacts and compensatory mitigation requirements, a permit decision made on the basis of a PJD will treat all waters and wetlands in the review area as if they are jurisdictional waters of the U.S. PJDs are advisory in nature and may not be appealed.

**Approved Jurisdictional Determination.** An approved jurisdictional determination (AJD) is an official Corps determination that jurisdictional waters of the United States are either present or absent on the property. AJDs can generally be relied upon by the affected party for five years. An AJD may be appealed through the Corps administrative appeal process.

In order for the Corps and LGU to process your request, the wetland delineation must be prepared in accordance with the 1987 Corps of Engineers Wetland Delineation Manual, any approved Regional Supplements to the 1987 Manual, and the *Guidelines for Submitting Wetland Delineations in Minnesota* (2013).

<http://www.mvp.usace.army.mil/Missions/Regulatory/DelineationJDGuidance.aspx>

# **6210 Pioneer Trail Site**

## **Wetland Delineation Report**

### **APPENDIX B**

#### **Wetland Delineation Data Forms**

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP1-1Up  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 0 - 2 Lat: - Long: - Datum: -  
 Soil Map Unit Name Hamel (Partially Hydric) NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? No  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? present? No

**SUMMARY OF FINDINGS** (If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	<u>N/A</u>	<b>Is the sampled area within a wetland?</b> <u>N</u> If yes, optional wetland site ID: _____
Hydric soil present?	<u>Y</u>	
Indicators of wetland hydrology present?	<u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample point was taken with a farmed area, therefore vegetation was disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>0</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3 _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
_____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
<u>0</u> = Total Cover				Column totals <u>0</u> (A) <u>0</u> (B)
				Prevalence Index = B/A = _____
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	____ Dominance test is >50%
3 _____	_____	_____	_____	____ Prevalence index is ≤3.0*
4 _____	_____	_____	_____	____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	____ Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>N/A</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample area consisted of a farm field that was planted with corn for the 2019 growing season. The crops had been harvested, and the soils at this location were tilled.

**SOIL**

Sampling Point: SP1-1Up

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-13	10YR 2/1	100					Clay Loam	
13-25	10YR 2/1	98	10YR 4/6	2	C	M	Clay Loam	
25-40	2.5Y 4/2	95	10YR 4/6	5	C	M	Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric soil present? Y

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

**Field Observations:**

Surface water present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water table present? Yes  No  Depth (inches): 34  
 Saturation present? Yes  No  Depth (inches): 32  
 (includes capillary fringe)

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP1-1Wet  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 - 2 Lat: - Long: - Datum: -  
 Soil Map Unit Name Hamel (Partially Hydric) NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? No  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? present? No

**SUMMARY OF FINDINGS** (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	<b>Is the sampled area within a wetland?</b> <u>Y</u> If yes, optional wetland site ID: <u>Wetland 1</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample Point was located within a farmed area, therefore vegetation was disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>1</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3 _____	_____	_____	_____	FACW species <u>5</u> x 2 = <u>10</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
6 _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
7 _____	_____	_____	_____	Column totals <u>5</u> (A) <u>10</u> (B)
8 _____	_____	_____	_____	Prevalence Index = B/A = <u>2.00</u>
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>5</u> = Total Cover				
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 <u>Cyperus esculentus</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
2 _____	_____	_____	_____	<input checked="" type="checkbox"/> Dominance test is >50%
3 _____	_____	_____	_____	<input checked="" type="checkbox"/> Prevalence index is ≤3.0*
4 _____	_____	_____	_____	Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>5</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>Y</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample point was located in an area that had been planted with corn for the 2019 growing season. The crops at this location had been drowned out, but sparse cover of field nutsedge was present.

**SOIL**

Sampling Point: SP1-1Wet

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-14	10YR 2/1	100					Clay Loam	
14-22	10YR 2/1	98	10YR 4/6	2	C	M	Clay Loam	
22-31	2.5Y 4/2	95	10YR 4/6	5	C	M	Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histisol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input checked="" type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p>
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\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

<p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric soil present?</b> <u>Y</u></p>
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Remarks:

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>		<p>Secondary Indicators (minimum of two required)</p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>		<p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</p>	
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<p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>30</u></p> <p>Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>28</u></p> <p>(includes capillary fringe)</p>	<p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p>
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Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
This area showed wetland signatures in 100% of normal photo years in the offsite hydrology review.



**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP2-1 Wet  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 - 2 Lat: - Long: - Datum: -  
 Soil Map Unit Name Hamel (Partially Hydric) NWI Classification: PEM1Af

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? No  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? present? No

**SUMMARY OF FINDINGS** (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	<b>Is the sampled area within a wetland?</b> <u>Y</u> If yes, optional wetland site ID: <u>Wetland 2</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample Point was located within a farmed area, therefore vegetation was disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>1</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3 _____	_____	_____	_____	FACW species <u>5</u> x 2 = <u>10</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
6 _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
7 _____	_____	_____	_____	Column totals <u>5</u> (A) <u>10</u> (B)
8 _____	_____	_____	_____	Prevalence Index = B/A = <u>2.00</u>
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 <u>Cyperus esculentus</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
2 _____	_____	_____	_____	<input checked="" type="checkbox"/> Dominance test is >50%
3 _____	_____	_____	_____	<input checked="" type="checkbox"/> Prevalence index is ≤3.0*
4 _____	_____	_____	_____	Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>5</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>Y</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample point was located in an area that had been planted with corn for the 2019 growing season. The crops at this location had been drowned out, but sparse cover of field nutsedge was present.

**SOIL**

Sampling Point: SP2-1 Wet

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-29	10YR 2/1	100					Clay Loam	
29-34	2.5Y 4/2	98	10YR 4/6	5	C	M	Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histisol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input checked="" type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p>
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\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

<p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric soil present?</b> <u>Y</u></p>
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Remarks:

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>		<p>Secondary Indicators (minimum of two required)</p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>		<p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</p>	
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<p><b>Field Observations:</b></p> <p>Surface water present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>Water table present? Yes <u>X</u> No _____ Depth (inches): <u>35</u></p> <p>Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>33</u></p> <p>(includes capillary fringe)</p>	<p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p>
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Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
This area showed wetland signatures in 80% of normal photo years in the offsite hydrology review.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP3-1Up  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 4 - 6 Lat: - Long: - Datum: -  
 Soil Map Unit Name Lester-Kilkenny Complex (Predominantly Non-Hydric) NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? No  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? present? No

**SUMMARY OF FINDINGS**

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	<u>N/A</u>	<b>Is the sampled area within a wetland?</b> <u>N</u> If yes, optional wetland site ID: _____
Hydric soil present?	<u>Y</u>	
Indicators of wetland hydrology present?	<u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample point was taken with a farmed area, therefore vegetation was disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>0</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3 _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
_____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
<u>0</u> = Total Cover				Column totals <u>0</u> (A) <u>0</u> (B)
				Prevalence Index = B/A = _____
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	_____ Dominance test is >50%
3 _____	_____	_____	_____	_____ Prevalence index is ≤3.0*
4 _____	_____	_____	_____	_____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	_____ Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>N/A</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample area consisted of a farm field that was planted with corn for the 2019 growing season. The crops had been harvested, and the soils at this location were tilled.

**SOIL**

Sampling Point: SP3-1Up

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-13	10YR 2/1	100					Clay Loam	
13-25	10YR 2/1	98	10YR 4/6	2	C	M	Clay Loam	
25-40	2.5Y 4/2	95	10YR 4/6	5	C	M	Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric soil present? Y

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)

Secondary Indicators (minimum of two required)

- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)
- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

**Field Observations:**

Surface water present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Water table present? Yes X No \_\_\_\_\_ Depth (inches): 34  
 Saturation present? Yes X No \_\_\_\_\_ Depth (inches): 32  
 (includes capillary fringe)

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP3-1Wet  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 - 2 Lat: - Long: - Datum: -  
 Soil Map Unit Name Lester-Kilkenny Complex (Predominantly Non-Hydric) NWI Classification: PEM1A

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes

**SUMMARY OF FINDINGS**

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	<b>Is the sampled area within a wetland?</b> <u>Y</u> If yes, optional wetland site ID: <u>Wetland 3</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample Point was located within a farmed area, therefore vegetation was disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>2</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>40</u> x 1 = <u>40</u>
3 _____	_____	_____	_____	FACW species <u>40</u> x 2 = <u>80</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
_____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
_____	_____	_____	_____	Column totals <u>80</u> (A) <u>120</u> (B)
<u>0</u> = Total Cover				Prevalence Index = B/A = <u>1.50</u>
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 <u>Typha angustifolia</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	
2 <u>Phalaris arundinacea</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	<input checked="" type="checkbox"/> Dominance test is >50%
3 _____	_____	_____	_____	<input checked="" type="checkbox"/> Prevalence index is ≤3.0*
4 _____	_____	_____	_____	Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>80</u> = Total Cover				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>Y</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample point was located within an avoided wetland in a farm field.

**SOIL**

Sampling Point: SP3-1Wet

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-14	10YR 2/1	100					Clay Loam	
14-22	10YR 2/1	98	10YR 4/6	2	C	M	Clay Loam	
22-31	2.5Y 4/2	95	10YR 4/6	5	C	M	Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric soil present? Y

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

**Field Observations:**

Surface water present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water table present? Yes  No  Depth (inches): 30  
 Saturation present? Yes  No  Depth (inches): 28  
 (includes capillary fringe)

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area showed wetland signatures in 100% of normal photo years in the offsite hydrology review.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP4-1Up  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 4 - 6 Lat: - Long: - Datum: -  
 Soil Map Unit Name Lerdal loam (Predominantly Hydric) NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? No  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? present? No

**SUMMARY OF FINDINGS** (If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	<u>N/A</u>	<b>Is the sampled area within a wetland?</b> <u>N</u> If yes, optional wetland site ID: _____
Hydric soil present?	<u>Y</u>	
Indicators of wetland hydrology present?	<u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample point was taken with a farmed area, therefore vegetation was disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>0</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3 _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
<u>0</u> = Total Cover				Column totals <u>0</u> (A) <u>0</u> (B)
				Prevalence Index = B/A = _____
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	_____ Dominance test is >50%
3 _____	_____	_____	_____	_____ Prevalence index is ≤3.0*
4 _____	_____	_____	_____	_____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	_____ Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>N/A</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample area consisted of a farm field that was planted with corn for the 2019 growing season. The crops had been harvested, and the soils at this location were tilled.

**SOIL**

Sampling Point: SP4-1Up

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-13	10YR 2/1	100					Clay Loam	
13-25	10YR 2/1	98	10YR 4/6	2	C	M	Clay Loam	
25-40	2.5Y 4/2	95	10YR 4/6	5	C	M	Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histisol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)		<b>Indicators for Problematic Hydric Soils:</b> <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (explain in remarks)	
*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic					

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric soil present?</b> <u>Y</u>
---	--------------------------------------

Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)	

<b>Field Observations:</b> Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes <u>X</u> No _____ Depth (inches): <u>34</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>32</u> (includes capillary fringe)	<b>Indicators of wetland hydrology present?</b> <u>N</u>
--	--

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP4-1Wet  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 - 2 Lat: - Long: - Datum: -  
 Soil Map Unit Name Lerdal loam (Predominantly Non-Hydric) NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? No  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? present? No

**SUMMARY OF FINDINGS** (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	<b>Is the sampled area within a wetland?</b> <u>Y</u> If yes, optional wetland site ID: <u>Wetland 4</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample Point was located within a farmed area, therefore vegetation was disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>1</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3 _____	_____	_____	_____	FACW species <u>5</u> x 2 = <u>10</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
6 _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
7 _____	_____	_____	_____	Column totals <u>5</u> (A) <u>10</u> (B)
8 _____	_____	_____	_____	Prevalence Index = B/A = <u>2.00</u>
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>5</u> = Total Cover				
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 <u>Cyperus esculentus</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	
2 _____	_____	_____	_____	<input checked="" type="checkbox"/> Dominance test is >50%
3 _____	_____	_____	_____	<input checked="" type="checkbox"/> Prevalence index is ≤3.0*
4 _____	_____	_____	_____	Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>5</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>Y</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample point was located in an area that had been planted with corn for the 2019 growing season. The crops at this location had been drowned out, but sparse cover of field nutsedge was present.

**SOIL**

Sampling Point: SP4-1Wet

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-14	10YR 2/1	100					Clay Loam	
14-22	10YR 2/1	98	10YR 4/6	2	C	M	Clay Loam	
22-31	2.5Y 4/2	95	10YR 4/6	5	C	M	Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histisol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)		<b>Indicators for Problematic Hydric Soils:</b> <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (explain in remarks)	
*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic					

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric soil present?</b> <u>Y</u>
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Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	

<b>Field Observations:</b> Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes <u>X</u> No _____ Depth (inches): <u>36</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>34</u> (includes capillary fringe)	<b>Indicators of wetland hydrology present?</b> <u>Y</u>
--	--

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 This area showed wetland signatures in 100% of normal photo years in the offsite hydrology review.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP-A  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 3 - 5 Lat: - Long: - Datum: -  
 Soil Map Unit Name Lester-Kilkeny Complex (Predominantly Non-Hydric) NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? No  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? present? No

**SUMMARY OF FINDINGS** (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>N</u>	<b>Is the sampled area within a wetland?</b> <u>N</u> If yes, optional wetland site ID: _____
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample point was taken with a farmed area, therefore vegetation was disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>2</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3 _____	_____	_____	_____	FACW species <u>5</u> x 2 = <u>10</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>20</u> x 4 = <u>80</u>
<u>0</u> = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>
				Column totals <u>25</u> (A) <u>90</u> (B)
				Prevalence Index = B/A = <u>3.60</u>
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 <u>Trifolium pratense</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
2 <u>Cyperus esculentus</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	____ Dominance test is >50%
3 _____	_____	_____	_____	____ Prevalence index is ≤3.0*
4 _____	_____	_____	_____	____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	____ Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>25</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>N</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample area consisted of a farm field dominated by corn stubble from the 2019 growing season.

**SOIL**

Sampling Point: SP-A

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-8	10YR 2/1	100					Clay Loam	
8-24	10YR 2/1	90	10YR 4/4	10	C	M	Clay Loam	
24-35	2.5Y 4/2	95	10YR 4/6	5	C	M	Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric soil present? Y

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

**Field Observations:**

Surface water present? Yes  No  Depth (inches): X  
 Water table present? Yes  No  Depth (inches): X  
 Saturation present? Yes  No  Depth (inches): X  
 (includes capillary fringe)

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area showed wetland signatures in 20% of normal photo years in the offsite hydrology review.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP-B  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 0 - 2 Lat: - Long: - Datum: -  
 Soil Map Unit Name Hamel (Partially Hydric) NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation X, soil X, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? No  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? present? No

**SUMMARY OF FINDINGS** (If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	<u>N/A</u>	<b>Is the sampled area within a wetland?</b> <u>N</u> If yes, optional wetland site ID: _____
Hydric soil present?	<u>Y</u>	
Indicators of wetland hydrology present?	<u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample point was taken with a farmed area. Vegetation and soils were disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>0</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3 _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
<u>0</u> = Total Cover				Column totals <u>0</u> (A) <u>0</u> (B)
				Prevalence Index = B/A = _____
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	____ Dominance test is >50%
3 _____	_____	_____	_____	____ Prevalence index is ≤3.0*
4 _____	_____	_____	_____	____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	____ Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>N/A</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample area consisted of a farm field dominated by soybeans. The crops were healthy, although some had been washed out along the hillslope.

**SOIL**

Sampling Point: SP-B

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10YR 3/2	100					Loam	Agricultural sediment
4-24	10YR 2/1	95	10YR 4/6	5	C	M	Sandy Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric soil present? Y

**Remarks:**

Assumed A12. Soils disturbed due to erosion from farming.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)

- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

**Field Observations:**

Surface water present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): X  
 Water table present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): X  
 Saturation present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): X  
 (includes capillary fringe)

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

This area showed wetland signatures in 40% of normal photo years in the offsite hydrology review.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site 6210 Pioneer Trail Site City/County: Corcoran/Hennepin Sampling Date: 11/14/2019  
 Applicant/Owner: See Joint Application Form State: MN Sampling Point: SP-C  
 Investigator(s): A.Cameron, K.Uhler Section, Township, Range: S:32 T:119N R:23W  
 Landform (hillslope, terrace, etc.): Flat Depression Local relief (concave, convex, none): None  
 Slope (%): 0 - 2 Lat: - Long: - Datum: -  
 Soil Map Unit Name: Angus-Kilkenny Complex (Predominantly Non-Hydric) NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? No  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? present? No

**SUMMARY OF FINDINGS** (If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	<u>N/A</u>	<b>Is the sampled area within a wetland?</b> <u>N</u> If yes, optional wetland site ID: _____
Hydric soil present?	<u>Y</u>	
Indicators of wetland hydrology present?	<u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)  
 Precipitation from Gridded Database Method wetter than typical. 30-day precipitation rolling average within normal range. Sample point was taken with a farmed area, therefore vegetation was disturbed and normal circumstances were not present.

**VEGETATION -- Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Dominance Test Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>0</u> (B)
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Prevalence Index Worksheet</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3 _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
<u>0</u> = Total Cover				Column totals <u>0</u> (A) <u>0</u> (B)
				Prevalence Index = B/A = _____
<u>Herb stratum</u> (Plot size: <u>5 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	____ Dominance test is >50%
3 _____	_____	_____	_____	____ Prevalence index is ≤3.0*
4 _____	_____	_____	_____	____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	____ Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u>30 ft Radius</u> )	Absolute % Cover	Dominant Species	Indicator Status	<b>Hydrophytic vegetation present?</b> <u>N/A</u>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)  
 Sample area consisted of a farm field dominated by a healthy crop of soybeans.

**SOIL**

Sampling Point: SP-C

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-6	10YR 2/1	100					Clay Loam	
6-13	10YR 2/1	95	10YR 4/6	5	C	M	Clay Loam	
13-25	10YR 2/1	100					Clay Loam	

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric soil present? Y

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

**Field Observations:**

Surface water present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Water table present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Saturation present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area showed wetland signatures in 40% of normal years in the offsite hydrology review.



# **6210 Pioneer Trail Site**

## **Wetland Delineation Report**

### **APPENDIX C**

#### **Precipitation Information**

## Corcoran, MN: Precipitation Summary

### Source: Minnesota Climatology Working Group

#### Monthly Totals: 2019

Target: T119 R23 S32 (latitude: 45.07299 longitude: 93.61477)

mon year	cc	tttN	rrW	ss	nnnn	oooooooo	pre (inches)
Jan 2019	86	119N	24W	29	NWS	ROCKFORD	.43
Feb 2019	86	119N	24W	29	NWS	ROCKFORD	2.47
Mar 2019	86	119N	24W	29	NWS	ROCKFORD	1.89
Apr 2019	27	119N	22W	31	BYRG		3.16
May 2019	27	119N	22W	31	BYRG		7.83
Jun 2019	27	119N	22W	31	BYRG		2.64
Jul 2019	27	119N	22W	31	BYRG		9.24
Aug 2019	27	119N	22W	31	BYRG		5.60
Sep 2019	27	119N	22W	31	BYRG		4.76
Oct 2019	86	119N	24W	29	NWS	ROCKFORD	5.56
Nov 2019	86	119N	24W	29	NWS	ROCKFORD	1.59

#### September/October/November Daily Records

Date	Preci p.	Date	Preci p.	Date	Preci p.
Sep 1, 2019	0	Oct 1, 2019	.81	Nov 1, 2019	0
Sep 2, 2019	.07	Oct 2, 2019	.65	Nov 2, 2019	.12
Sep 3, 2019	.85	Oct 3, 2019	.44	Nov 3, 2019	T
Sep 4, 2019	0	Oct 4, 2019	T	Nov 4, 2019	0
Sep 5, 2019	0	Oct 5, 2019	1.19	Nov 5, 2019	T
Sep 6, 2019	0	Oct 6, 2019	.13	Nov 6, 2019	0
Sep 7, 2019	0	Oct 7, 2019	0	Nov 7, 2019	0
Sep 8, 2019	.05	Oct 8, 2019	0	Nov 8, 2019	0
Sep 9, 2019	.13	Oct 9, 2019	0	Nov 9, 2019	0
Sep 10, 2019	.35	Oct 10, 2019	.09	Nov 10, 2019	.07
Sep 11, 2019	.55	Oct 11, 2019	.56	Nov 11, 2019	.01
Sep 12, 2019	.80	Oct 12, 2019	.02	Nov 12, 2019	0
Sep 13, 2019	.33	Oct 13, 2019	.03	Nov 13, 2019	0
Sep 14, 2019	.02	Oct 14, 2019	T	Nov 14, 2019	.02
Sep 15, 2019	0	Oct 15, 2019	.16	Nov 15, 2019	0
Sep 16, 2019	0	Oct 16, 2019	T	Nov 16, 2019	0
Sep 17, 2019	0	Oct 17, 2019	0	Nov 17, 2019	.07
Sep 18, 2019	.20	Oct 18, 2019	0	Nov 18, 2019	0
Sep 19, 2019	0	Oct 19, 2019	T	Nov 19, 2019	.13
Sep 20, 2019	0	Oct 20, 2019	0	Nov 20, 2019	0
Sep 21, 2019	.33	Oct 21, 2019	.16	Nov 21, 2019	.46
Sep 22, 2019	.04	Oct 22, 2019	1.28	Nov 22, 2019	.01
Sep 23, 2019	.04	Oct 23, 2019	.04	Nov 23, 2019	0
Sep 24, 2019	0	Oct 24, 2019	0	Nov 24, 2019	0
Sep 25, 2019	T	Oct 25, 2019	0	Nov 25, 2019	0
Sep 26, 2019	0	Oct 26, 2019	0	Nov 26, 2019	0
Sep 27, 2019	0	Oct 27, 2019	0	Nov 27, 2019	.56
Sep 28, 2019	0	Oct 28, 2019	T	Nov 28, 2019	T
Sep 29, 2019	0	Oct 29, 2019	0	Nov 29, 2019	0
Sep 30, 2019	1.00	Oct 30, 2019	0	Nov 30, 2019	.14
		Oct 31, 2019	0		

Site Visit

#### 1981-2010 Summary Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	WARM	ANN	WAT
30%	0.42	0.43	1.11	1.80	2.33	3.16	2.47	2.72	1.84	1.25	1.01	0.55	15.61	25.88	25.64
70%	0.78	0.89	1.85	3.01	4.06	4.96	4.32	4.86	4.52	3.15	1.89	1.43	20.64	32.11	32.55
mean	0.69	0.67	1.59	2.59	3.22	4.33	3.73	3.97	3.36	2.38	1.55	1.07	18.61	29.15	28.99

# Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

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## Precipitation Worksheet Using Gridded Database

### Precipitation data for target wetland location:

county: **Hennepin** township number: **119N**  
 township name: **Corcoran** range number: **23W**  
 nearest community: **Leighton** section number: **32**

### Aerial photograph or site visit date:

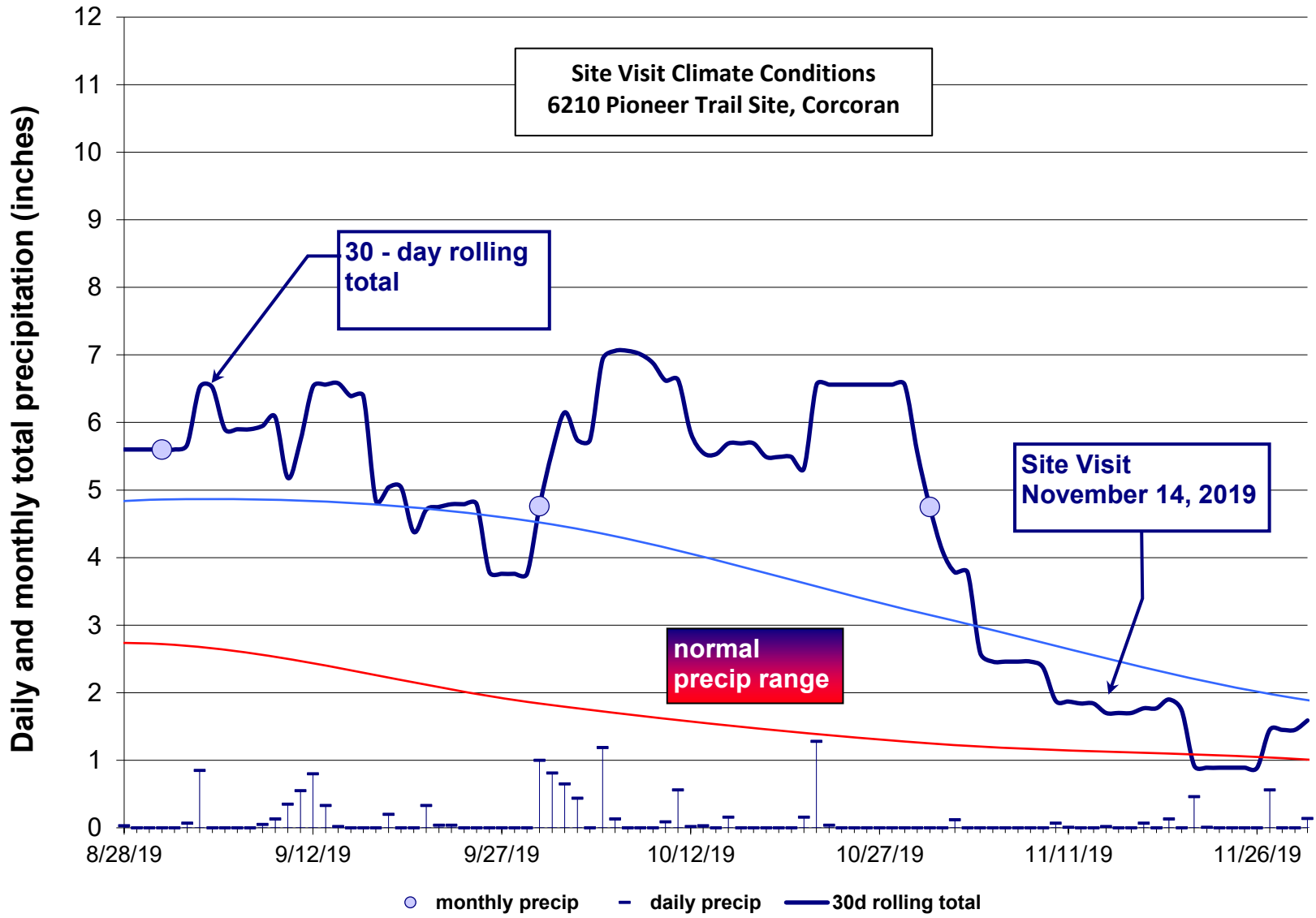
**Thursday, November 14, 2019**

### Score using 1981-2010 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: <b>October 2019</b>	second prior month: <b>September 2019</b>	third prior month: <b>August 2019</b>
<b>estimated precipitation total for this location:</b>	<b>5.32R</b>	<b>5.56R</b>	<b>4.99</b>
<b>there is a 30% chance this location will have less than:</b>	1.25	1.84	2.72
<b>there is a 30% chance this location will have more than:</b>	3.15	4.52	4.86
<b>type of month: dry normal wet</b>	<b>wet</b>	<b>wet</b>	<b>wet</b>
<b>monthly score</b>	<b>3 * 3 = 9</b>	<b>2 * 3 = 6</b>	<b>1 * 3 = 3</b>
<b>multi-month score:</b> 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	<b>18 (Wet)</b>		

### Other Resources:

- [retrieve daily precipitation data](#)
- [view radar-based precipitation estimates](#)
- [view weekly precipitation maps](#)
- [Evaluating Antecedent Precipitation Conditions](#) (BWSR)



# **6210 Pioneer Trail Site**

## **Wetland Delineation Report**

### **APPENDIX D**

#### **Aerial Review for Offsite Hydrology Assessment**



## Wetland Determination from Aerial Imagery – Recording Form

**Project Name:** 6210 Pioneer Trail Site      **Date:** 11/12/2019      **County:** Hennepin  
**Investigator:** A.Cameron      **Legal Description (S, T, R):** S:32 T:119N R:23W

Use the Decision Matrix below to complete Table 1.

Hydric Soils present <sup>1</sup>	Identified on NWI or other wetland map <sup>2</sup>	Percent with wet signatures from Exhibit 1	Field verification required <sup>3</sup>	Wetland?
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

<sup>1</sup> The presence of hydric soils can be determined from the “Hydric Rating by Map Unit Feature” under “Land Classifications” from the Web Soil Survey. “Not Hydric” is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

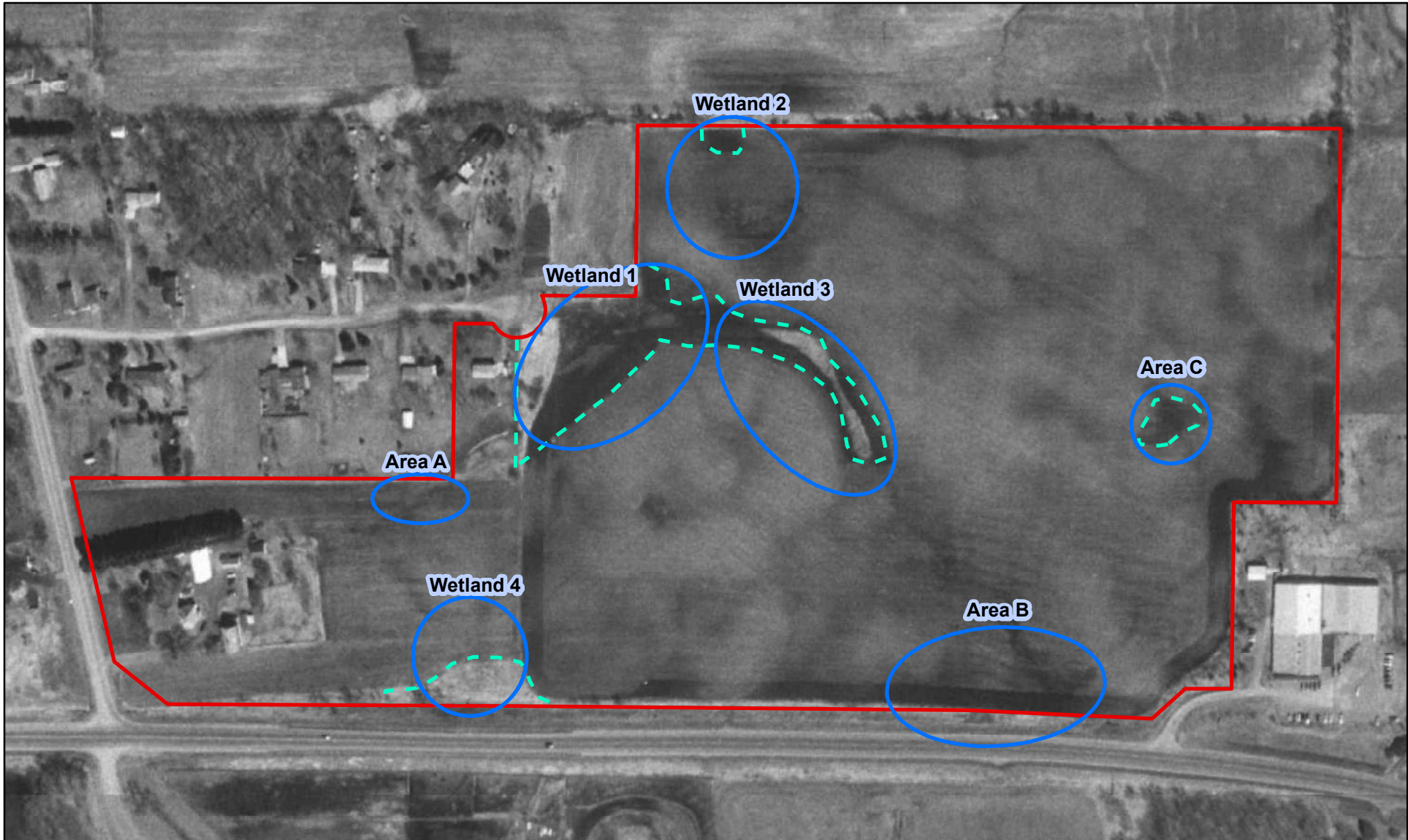
<sup>2</sup> At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

<sup>3</sup> Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

**Table 1.**

Area	Hydric Soils Present	Identified on NWI or other wetland map	Percent with wet signatures from Exhibit 1	Other hydrology indicators present <sup>1</sup>	Wetland?
Wetland 1	Yes	Yes	100	Yes	Yes
Wetland 2	Yes	Yes	80	Yes	Yes
Wetland 3	Yes	Yes	100	Yes	Yes
Wetland 4	Yes	No	100	Yes	Yes
Area A	Yes	No	20	No	No
Area B	Yes	No	40	No	No
Area C	Yes	No	40	No	No, Washout

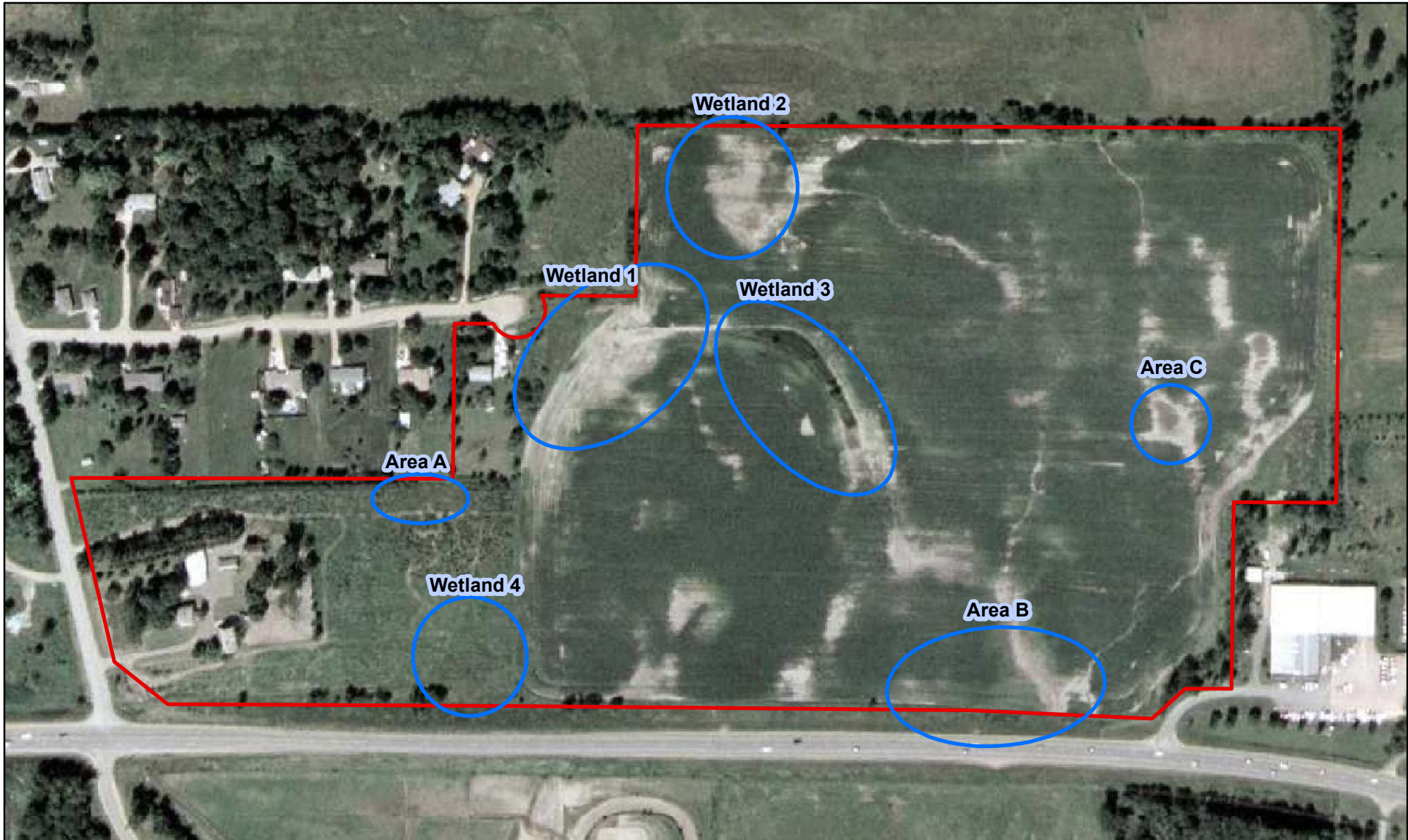
<sup>1</sup> Answer “N/A” if field verification is not required and was not conducted.




**Offsite Hydrology Assessment Year (1997 MNGEO Photo: Normal Year)**

	<p>N</p> <p>0 300 Feet</p>	<p> Site Boundary</p> <p> 1997 Wetland Signature</p>	<p><b>6210 Pioneer Trail Site (KES 2019-179)</b>  <b>Corcoran, Minnesota</b></p>
<p><b>KJOLHAUG</b> ENVIRONMENTAL SERVICES COMPANY          Source: MNGEO Spatial Commons</p>			<p>Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.</p>







**Offsite Hydrology Assessment Year (2003 FSA Photo: Wet Year)**




N



0 300 Feet

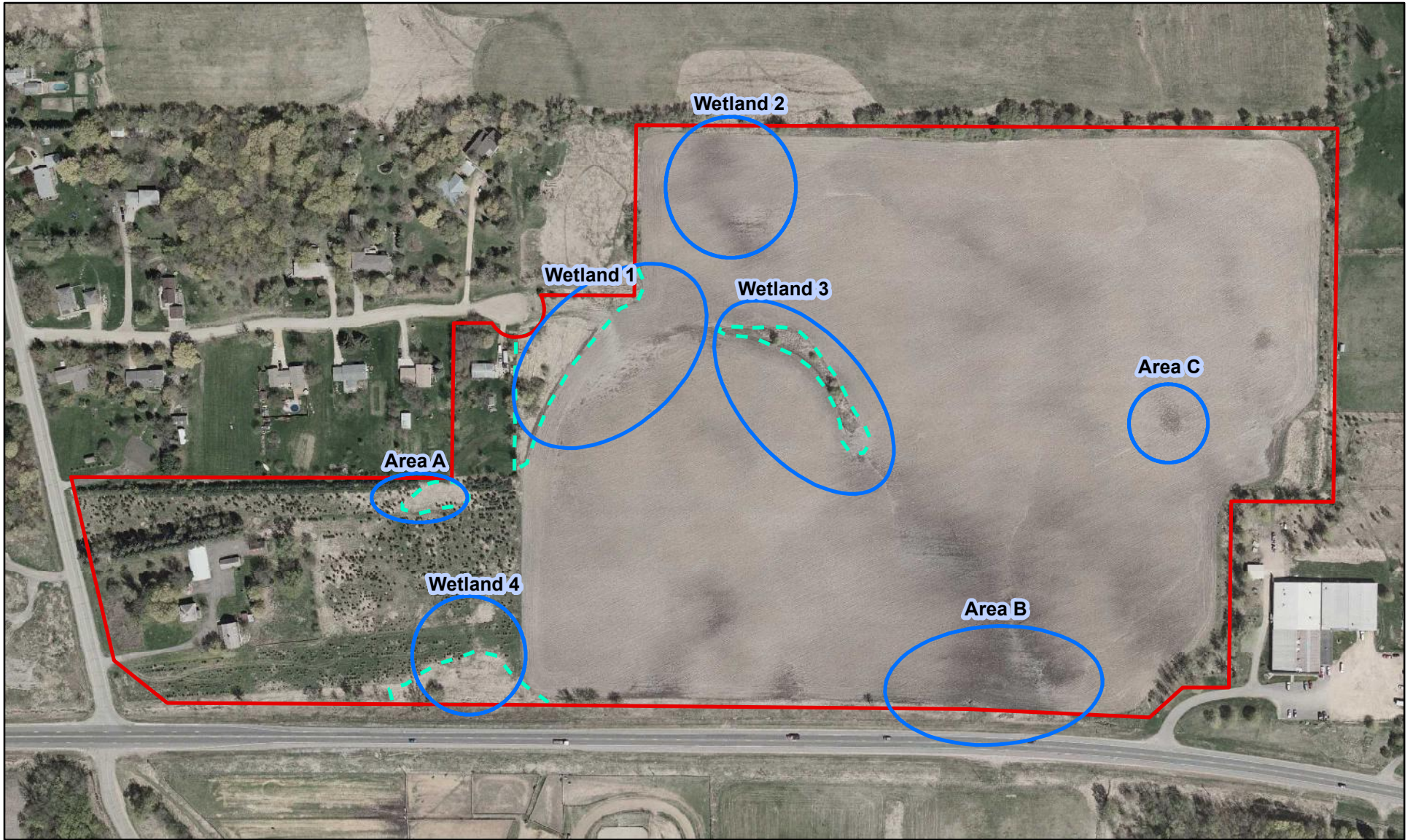


 Site Boundary


**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
 Source: MNGEO Spatial Commons



**Offsite Hydrology Assessment Year (2006 MNGEO Photo: Normal Year)**




**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons

N



0      300



Feet

Site Boundary





2006 Wetland Signature

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



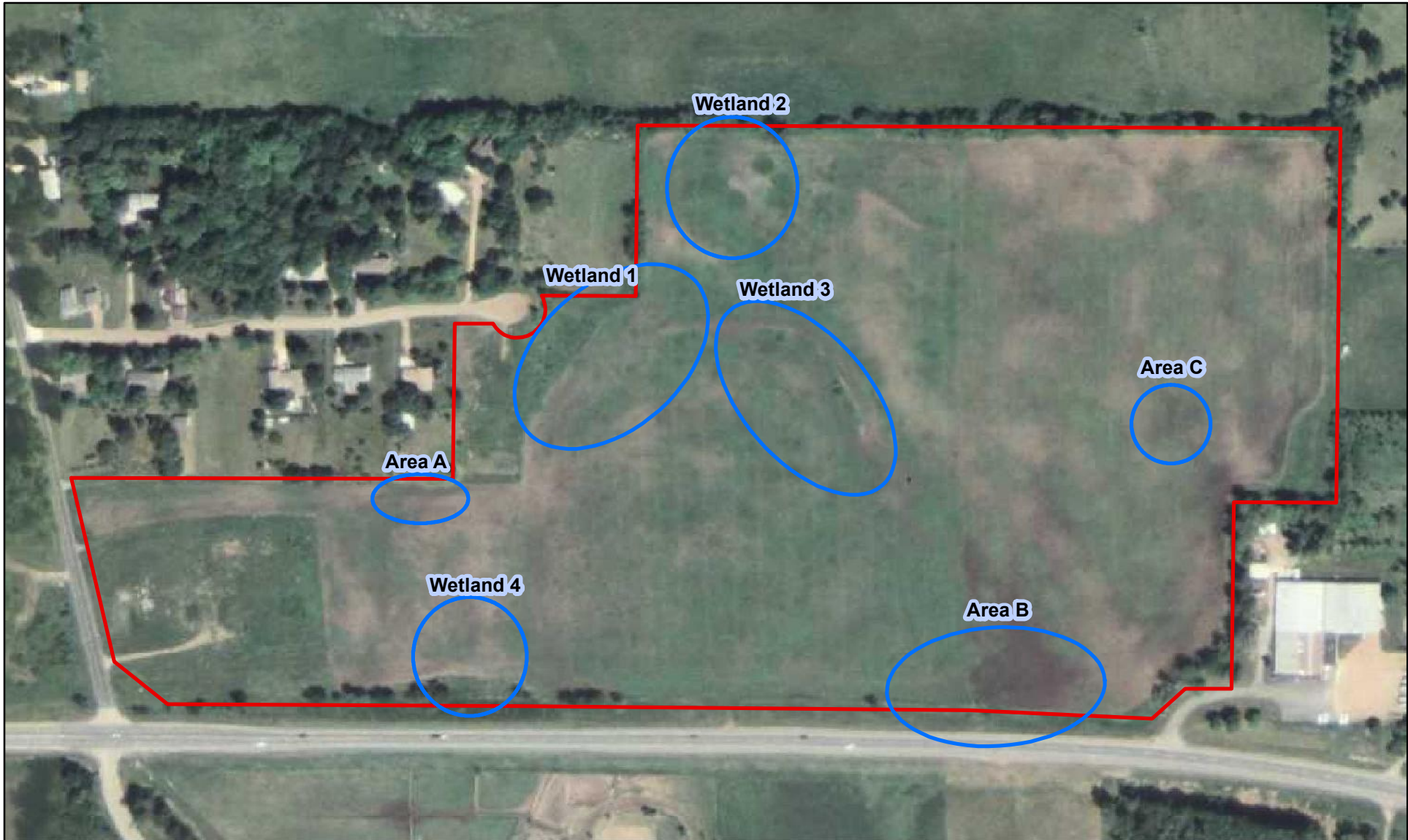
**Offsite Hydrology Assessment Year (2008 FSA Photo: Normal Year)**

    Site Boundary


**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.


**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
Source: MNGEO Spatial Commons




**Offsite Hydrology Assessment Year (2009 FSA Photo: Dry Year)**




N



0      300



Feet



Site Boundary

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
 Source: MNGEO Spatial Commons



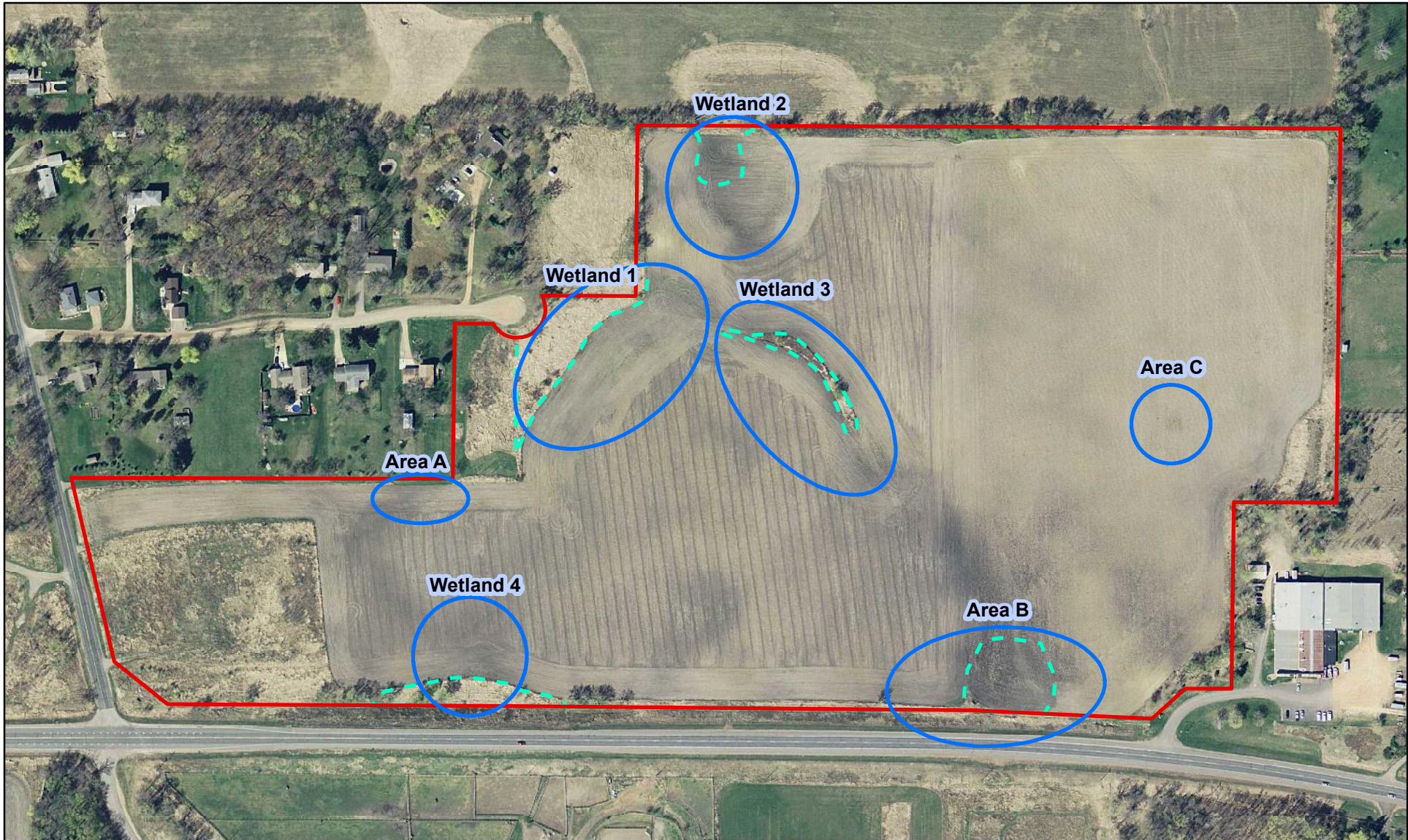
**Offsite Hydrology Assessment Year (2010 MNGEO Photo: Normal Year)**

	<p>N</p> <p>0 300 Feet</p>	<p> Site Boundary</p> <p> 2010 Wetland Signature</p>	<p><b>6210 Pioneer Trail Site (KES 2019-179)</b>  <b>Corcoran, Minnesota</b></p>
<p><b>KJOLHAUG</b> ENVIRONMENTAL SERVICES COMPANY          Source: MNGEO Spatial Commons</p>			<p>Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.</p>



**Offsite Hydrology Assessment Year (2010 FSA Photo: Wet Year)**

	<p>N</p> <p>0 300 Feet</p>	<p>Site Boundary</p>	<p><b>6210 Pioneer Trail Site (KES 2019-179)</b>  <b>Corcoran, Minnesota</b></p>
<p><b>KJOLHAUG</b> ENVIRONMENTAL SERVICES COMPANY          Source: MNGEO Spatial Commons</p>			<p>Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.</p>



**Offsite Hydrology Assessment Year (2012 MNGEO Photo: Normal Year)**



**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons

N



0      300



Feet

Site Boundary


2012 Wetland Signature

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.




**Offsite Hydrology Assessment Year (2013 FSA Photo: Wet Year)**




**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons


N



0      300



Feet

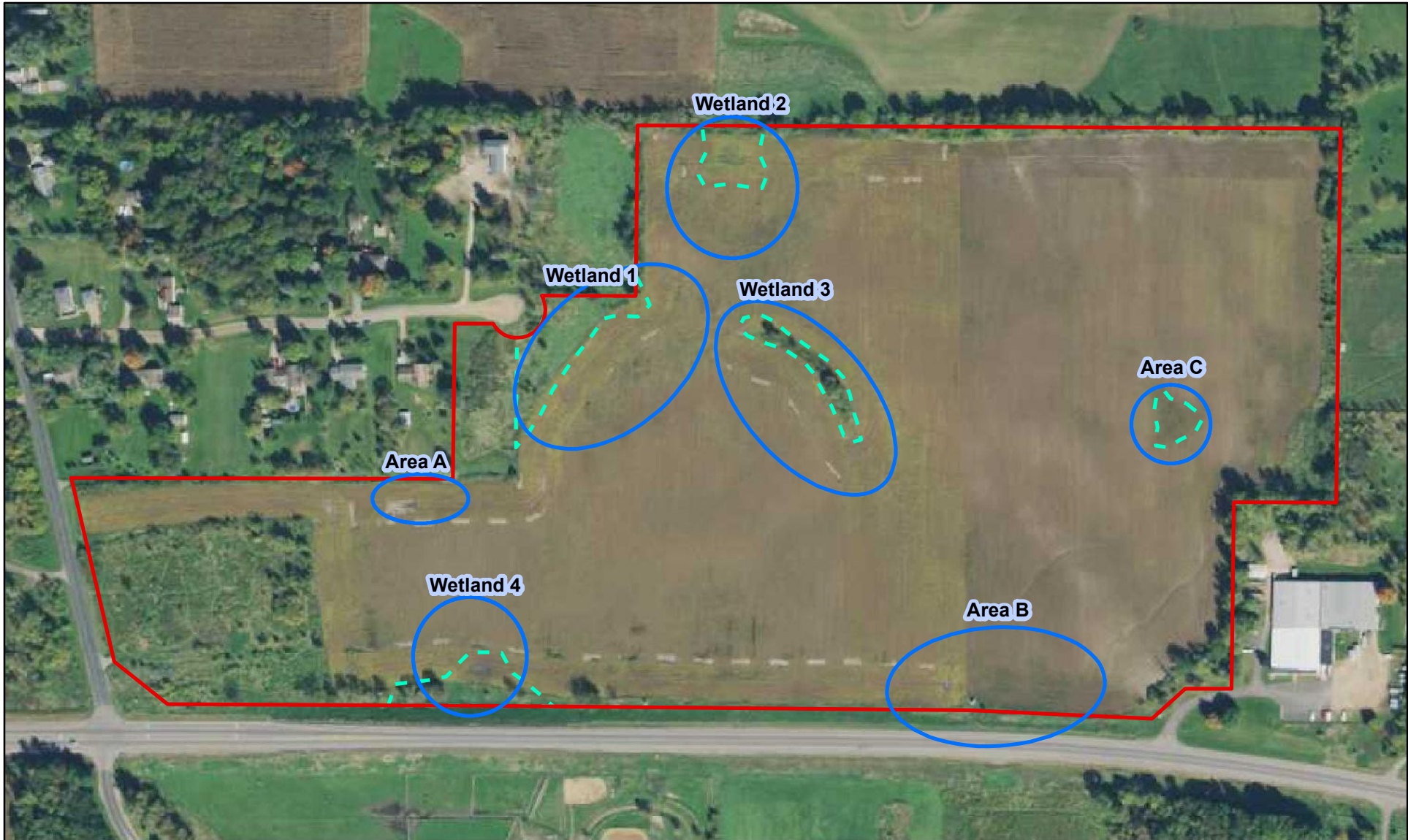


Site Boundary

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

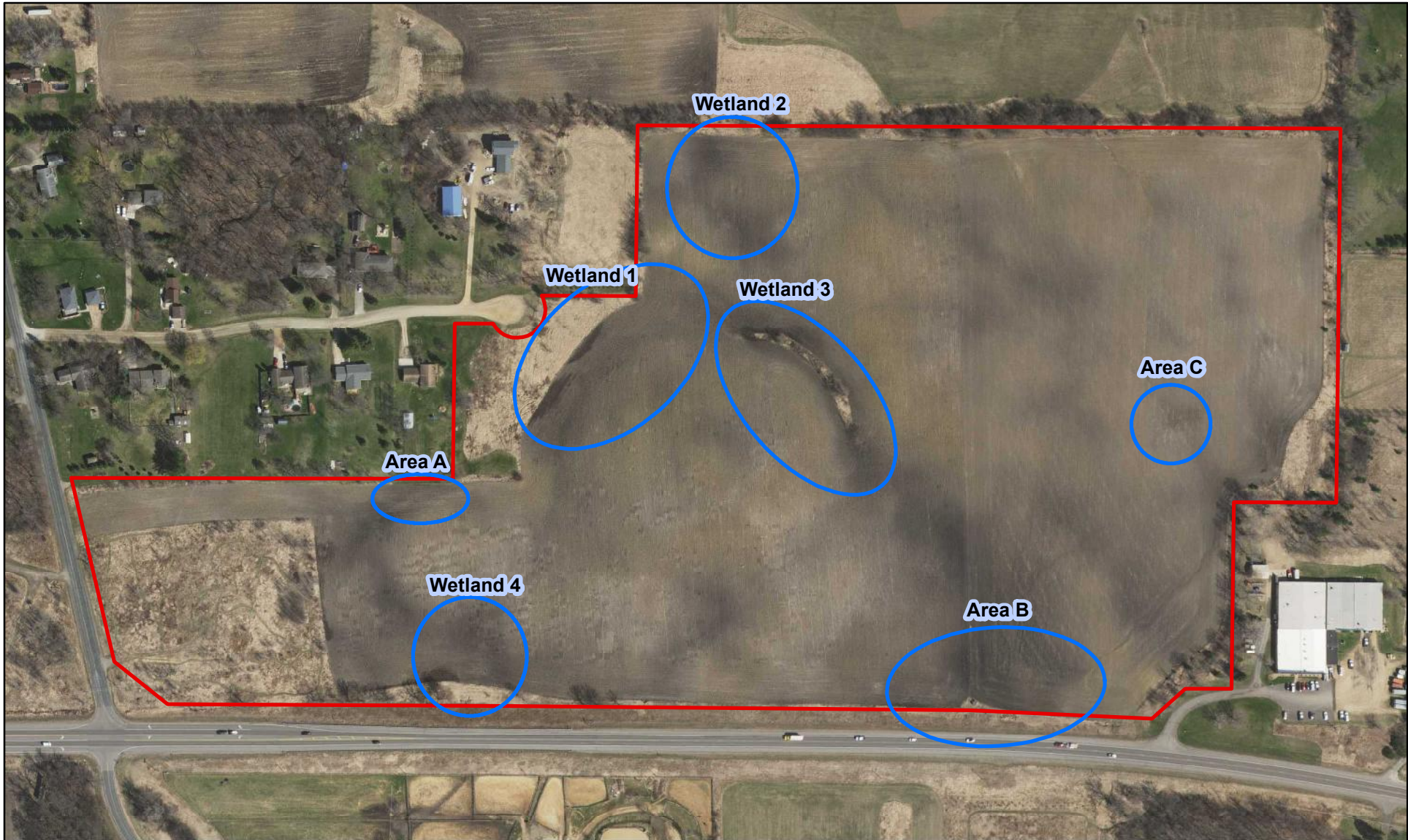
Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.






**Offsite Hydrology Assessment Year (2015 FSA Photo: Normal Year)**


	<p>N</p> <p>0 300 Feet</p>	<p> Site Boundary</p> <p> 2015 Wetland Signature</p>	<p><b>6210 Pioneer Trail Site (KES 2019-179)</b>  <b>Corcoran, Minnesota</b></p>
<p><b>KJOLHAUG</b> ENVIRONMENTAL SERVICES COMPANY          Source: MNGEO Spatial Commons</p>			<p>Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.</p>




**Offsite Hydrology Assessment Year (2016 MNGEO Photo: Dry Year)**




N



0      300



Feet

 Site Boundary

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**


Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY


Source: MNGEO Spatial Commons




**Offsite Hydrology Assessment Year (2017 FSA Photo: Wet Year)**




N



0 300 Feet





Site Boundary

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons

## Minnesota Wetland Conservation Act Notice of Decision

<b>Local Government Unit:</b> City of Corcoran	<b>County:</b> Hennepin
<b>Applicant Name:</b> Landspec Fund 2 LLC	<b>Applicant Representative:</b> Adam Cameron, Kjolhaug
<b>Project Name:</b> 6210 Pioneer Trail	<b>LGU Project No. (if any):</b>
<b>Date Complete Application Received by LGU:</b> 01/06/2020	
<b>Date of LGU Decision:</b> 1/17/2020	
<b>Date this Notice was Sent:</b> 1/17/2020	

**WCA Decision Type** - check all that apply

<input checked="" type="checkbox"/> Wetland Boundary/Type	<input type="checkbox"/> Sequencing	<input type="checkbox"/> Replacement Plan	<input type="checkbox"/> Bank Plan (not credit purchase)
<input type="checkbox"/> No-Loss (8420.0415)	<input type="checkbox"/> Exemption (8420.0420)		
Part: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> H	Subpart: <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9		

**Replacement Plan Impacts** (replacement plan decisions only)

Total WCA Wetland Impact Area: <a href="#">Click here to enter text.</a>
Wetland Replacement Type: <input type="checkbox"/> Project Specific Credits: <input type="checkbox"/> Bank Credits:
Bank Account Number(s):

**Technical Evaluation Panel Findings and Recommendations (attach if any)**

<input checked="" type="checkbox"/> Approve <input type="checkbox"/> Approve w/Conditions <input type="checkbox"/> Deny <input type="checkbox"/> No TEP Recommendation
--

**LGU Decision**

<input type="checkbox"/> Approved with Conditions (specify below) <sup>1</sup> List Conditions:	<input checked="" type="checkbox"/> Approved <sup>1</sup>	<input checked="" type="checkbox"/> Denied
<b>Decision-Maker for this Application:</b> <input checked="" type="checkbox"/> Staff <input type="checkbox"/> Governing Board/Council <input type="checkbox"/> Other:		
<b>Decision is valid for:</b> <input checked="" type="checkbox"/> 5 years (default) <input type="checkbox"/> Other (specify):		

<sup>1</sup> *Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.*

**LGU Findings** – Attach document(s) and/or insert narrative providing the basis for the LGU decision<sup>1</sup>.

<input checked="" type="checkbox"/> Attachment(s) (specify): Please see the Delineation Review Summary attached.
<input type="checkbox"/> Summary:

<sup>1</sup> *Findings must consider any TEP recommendations.*

**Attached Project Documents**

<input checked="" type="checkbox"/> Site Location Map <input type="checkbox"/> Project Plan(s)/Descriptions/Reports (specify): Figure 2-Existing Conditions
---

**Appeals of LGU Decisions**

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for \$500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator  
Minnesota Board of Water & Soils Resources  
520 Lafayette Road North  
St. Paul, MN 55155  
[travis.germundson@state.mn.us](mailto:travis.germundson@state.mn.us)

Does the LGU have a local appeal process applicable to this decision?

- Yes<sup>1</sup>       No

<sup>1</sup>If yes, all appeals must first be considered via the local appeals process.

**Local Appeals Submittal Requirements** (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

**Notice Distribution (include name)**

*Required on all notices:*

<input checked="" type="checkbox"/> SWCD TEP Member: Stacey Lijewski , Hennepin SWCD	<input checked="" type="checkbox"/> BWSR TEP Member: Ben Carlson
<input checked="" type="checkbox"/> LGU TEP Member (if different than LGU contact): Kevin Mattson	
<input checked="" type="checkbox"/> DNR Representative: Jason Spiegel	
<input checked="" type="checkbox"/> Watershed District or Watershed Mgmt. Org.: Elm Creek Watershed District	
<input checked="" type="checkbox"/> Applicant: Landspec Fund 2 LLC <input checked="" type="checkbox"/> Agent/Consultant: Adam Cameron, Kjolhaug	

*Optional or As Applicable:*

<input checked="" type="checkbox"/> Corps of Engineers: USACE_requests_mn@usace.army.mil	
<input type="checkbox"/> BWSR Wetland Mitigation Coordinator (required for bank plan applications only):	
<input type="checkbox"/> Members of the Public (notice only):	<input type="checkbox"/> Other:

<b>Signature:</b> 	<b>Date:</b> 1/17/2020
---	------------------------

**This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.**

# Site Meeting Record



Responsive partner.  
Exceptional outcomes.

Boundary and Type Review       Other \_\_\_\_\_

<b>Site Name:</b> 6210 Pioneer Trail		<b>Location:</b> Corcoran, MN
<b>LGU:</b> City of Corcoran	<b>Review Date/Time:</b> 11/25/2019 11:00 and 01/14/2020 2:00pm	

## Notes

**Attendees: Wes Boll (Wenck), Adam Cameron (Kjolhaug), Ben Carlson (BWSR)**

WCA TEP (Wes Boll, Corcoran & Ben Carlson, BWSR) met with the consultant (Adam Cameron, Kjolhaug) to review wetland boundaries submitted to the City of Corcoran on November 20, 2019. Four wetlands were identified on the site through off-site review and on-site investigation. An incomplete report consisting of the off-site aerial review summary and figures was submitted to allow for field review of the site prior to winter conditions. The TEP agreed to the field review and the Application will be noticed when a complete Delineation Report and Application Form is submitted.

The off-site review was conducted on seven potential wetland areas on the site. The analysis determined that four of the seven areas met wetland criteria. The three areas (A, B, and C) were determined to be non-wetland since hydrology indicator signatures were observed in less than 50% of the normal years. The TEP reviewed the off-site analysis and had questions on Area B, Area C, and the boundaries of Wetland 2, 4, and 1. The TEP also identified potential signatures in an area just north of Area B.

The investigated site was harvested or fallow agricultural ground at the time of the site visit. Conditions at the time of the delineation and site investigation were wetter than normal, with soil saturation and standing water present in many areas of the site.

The TEP reviewed the field delineation by walking the site and confirming the location of delineated boundaries. In general, the TEP agreed with the delineation of wetland boundaries, as the boundaries corresponded approximately to the extent of wetland signatures on off-site analysis and indicators of wetland hydrology and cropping patterns.

On January 6, 2020, Adam Cameron of Kjolhaug submitted a revised wetland delineation report with an additional parcel added to the Project Limits. The parcel added was located on the western edge of Wetland 1 as shown on Figure 2 – Existing Conditions. The additional area of Wetland 1 was delineated during the winter to help with the planning purposes of the client. The western edge of Wetland 1 is the approximate and conservative boundary as shown in Figure 2. If impacts to Wetland 1 are to occur during the construction phases of the project, the winter delineation

portion of Wetland 1 will need to be delineated and approved during the growing season.

**Recommended Revisions:**

The TEP recommended additional review and potentially revision of some of the wetland boundaries on site. The TEP agreed with the placement of the boundaries of Wetland 4 and the non-wetland determination in Areas A, B, and C on the site, based on the lack of off-site hydrology signatures during normal years, landscape position, and cropping patterns during 2019 under extremely wet conditions.

Wetland 2-The TEP recommended the south boundary of the wetland move to the south to encompass a depressional area that appeared to meet wetland hydrology criteria during the off-site analysis and site investigation.

Wetland 1 and Wetland 4 – It appeared during the field investigation that the delineated boundaries were accurate, but the TEP requested a summary of the off-site hydrology signatures in comparison to the field delineated boundary in order to confirm the boundary.

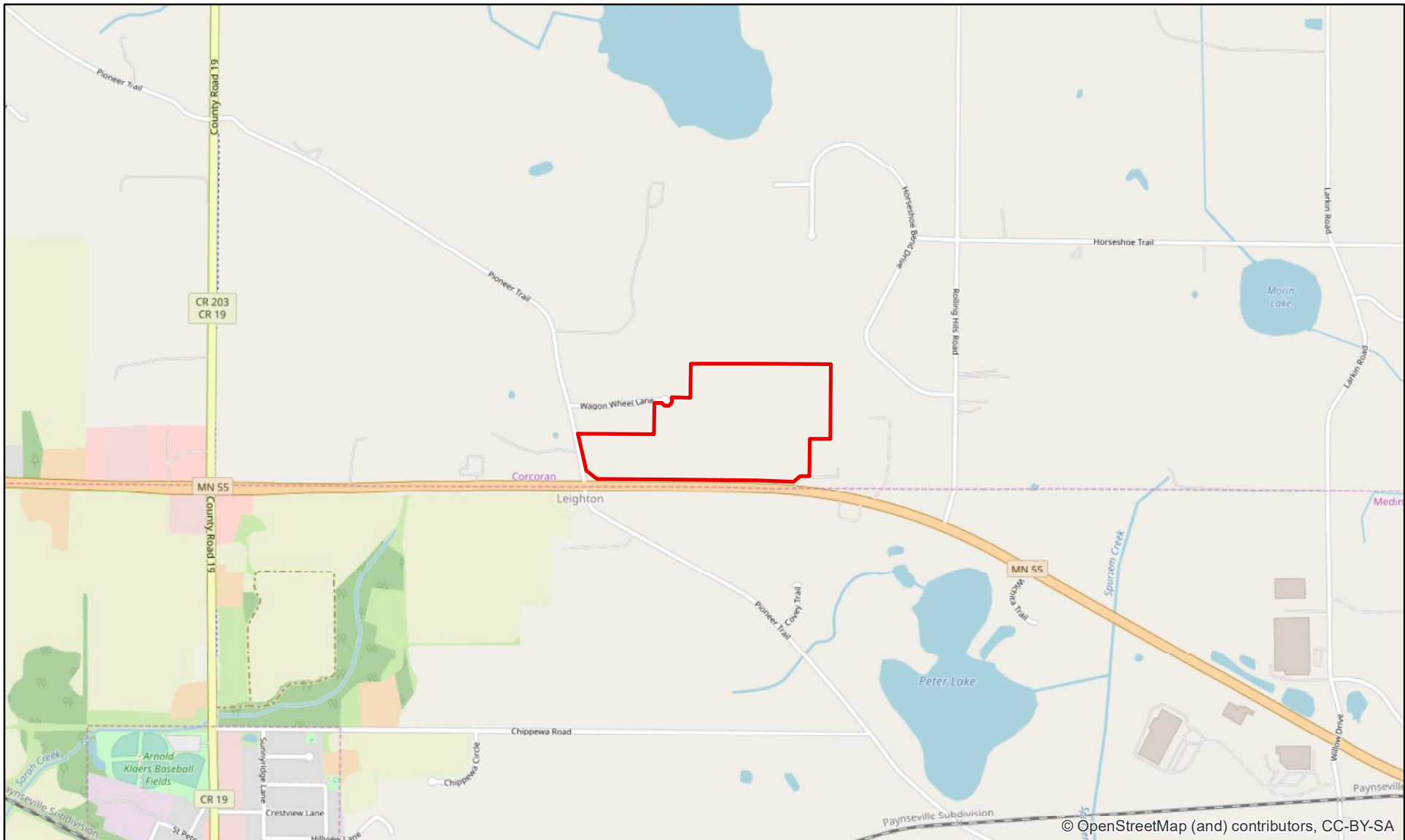
**Recommended Approval Status:** Conduct additional review, approve boundary and type as revised if necessary.

**Additional Potential Wetland Areas:**


There were no other potential wetland areas on the site that met wetland criteria based on the field visit. Other potential wetland areas (depressional areas and drainages with standing water) were determined to not meet wetland criteria during normal conditions.

**Action Items**

#	Party	Action Required	Date Completed
1	Kjolhaug	Review off-site and confirm boundaries (if necessary). Submit Delineation Report and Application Form	12-17-19  Revised Report sent 01-06-2020
2	City of Corcoran/Wenck	Review submitted information and facilitate approval	01-17-2020




**Figure 1 - Site Location**

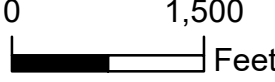



**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
Source: ESRI Streets Basemap

N



0 1,500  
Feet



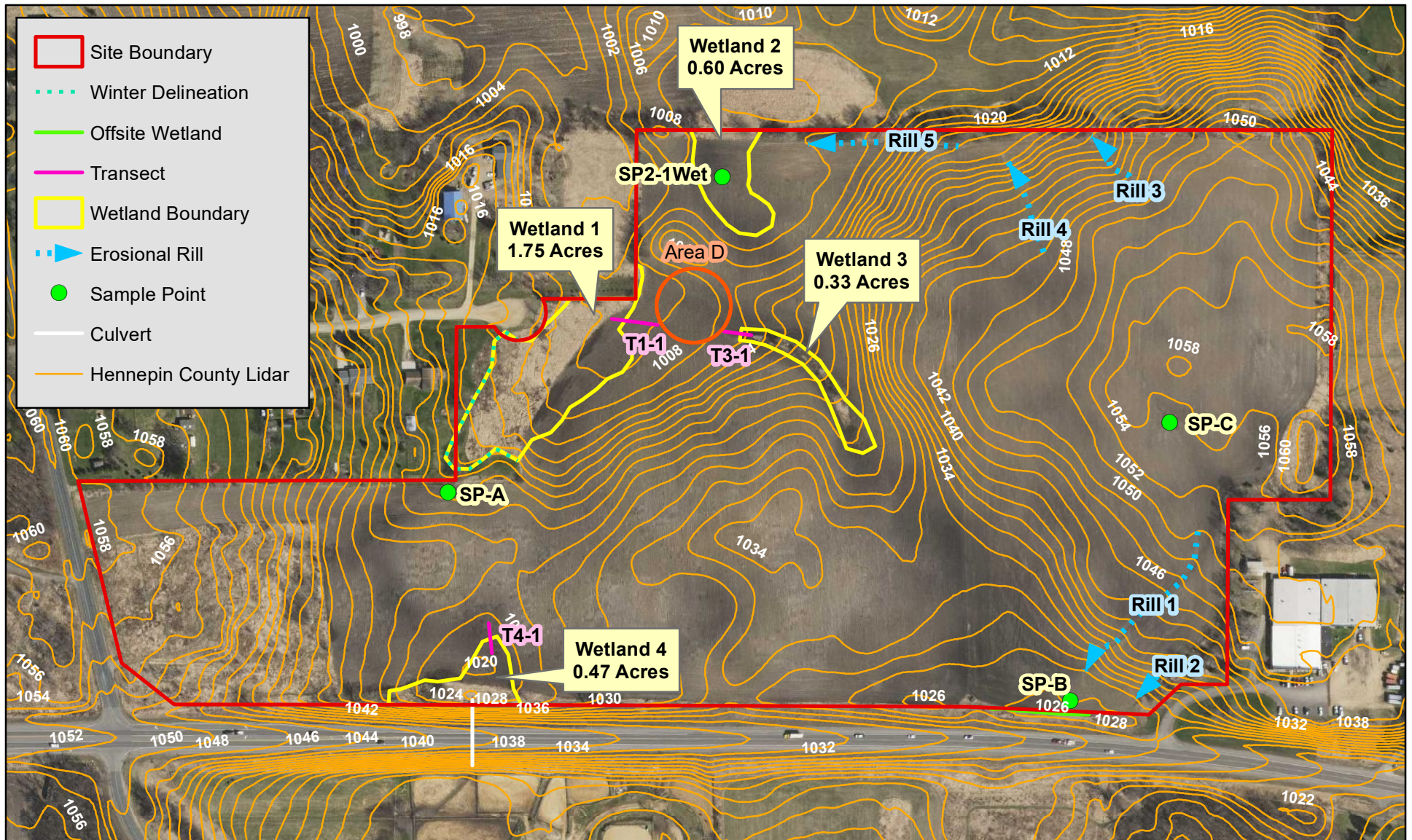


Site Boundary

**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.





**Figure 2 - Existing Conditions (2016 MNGEO Photo)**



**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
Source: MNGEO Spatial Commons

N



0 300 Feet



**6210 Pioneer Trail Site (KES 2019-179)**  
**Corcoran, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

# **Appendix C**

## **FEMA FIRMette**



# National Flood Hazard Layer FIRMMette



93°37'13"W 45°4'16"N



93°36'36"W 45°3'50"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **1/21/2022 at 5:13 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



# **Appendix D**

## **Phase I ESA Executive Summary**



# Phase I Environmental Site Assessment

20-Acre Agricultural Parcel  
Northeast of Highway 55 and Pioneer Trail  
Corcoran, Minnesota

*Prepared For*

**Landspec Fund 2 LLC**

**and**

**Landspec Management LLC**

**BRAUN**  
**INTERTEC**  
The Science You Build On.

Project B1808851  
September 12, 2018

Braun Intertec Corporation

September 12, 2018

Project B1808851

Mr. Jon Rausch  
Landspec Fund 2 LLC  
3500 American Boulevard West, Suite 200  
Bloomington, MN 55431

Re: Phase I Environmental Site Assessment  
20-Acre Agricultural Parcel  
Northeast of Highway 55 and Pioneer Trail  
Corcoran, Minnesota

Dear Mr. Rausch:

In accordance with your written authorization, Braun Intertec Corporation conducted a Phase I environmental site assessment (ESA) of the above-referenced site (Site). The objective of the Phase I ESA was to evaluate the Site for indications of recognized environmental conditions and to assist in satisfying All Appropriate Inquiries (AAI) standards and practices. The Phase I ESA was conducted in general conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Practice E1527-13 and 40 Code of Federal Regulations (CFR) Part 312.

The Phase I ESA was prepared on behalf of, and for use by Landspec Fund 2 LLC and Landspec Management LLC. No other party has a right to rely on the contents of the Phase I ESA without written authorization by Braun Intertec. The Phase I ESA was prepared in association with the purchase and redevelopment of the Site. Please refer to the attached report for the scope, methods and conclusions of our assessment.

We appreciate the opportunity to provide our professional services for you for this project. If you have any questions regarding this letter or the attached report, please contact Kevin Hoffman at 952.995.2458 or Mike Bratrud at 952.995.2430.

Sincerely,

BRAUN INTERTEC CORPORATION



Kevin J. Hoffman  
Senior Scientist



Michael L. Bratrud, PG  
Vice President

Attachment:  
Phase I Environmental Site Assessment Report

AA/EOE



## **Executive Summary**

Braun Intertec Corporation conducted a Phase I Environmental Site Assessment (ESA) of the 20-acre agricultural parcel located northeast of Highway 55 and Pioneer Trail in Corcoran, Minnesota (Site) in general conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Practice E1527-13 and 40 Code of Federal Regulations (CFR) Part 312.

At the time of this assessment, the Site consisted of a parcel totaling approximately 19.71 acres. The Site currently and has historically consisted of cultivated agricultural land. The adjoining properties have historically been used for agricultural or rural residential purposes except for the property to the southeast that was developed with a farmstead and building for commercial purposes.

This assessment identified no recognized environmental conditions in connection with the Site.

This assessment identified no controlled recognized environmental conditions in connection with the Site.

**Appendix E**  
**DNR NHIS Request for Concurrence Letter**

January 31, 2022  
File: 227704712

Attention: NHIS Review  
Division of Ecological and Water Resources  
Minnesota Department of Natural Resources  
500 Lafayette Road, Box 25  
Saint Paul, MN 55155

Good afternoon,

**Reference: Pioneer Trail Industrial Park EAW – NHIS Concurrence Request**

Landspec Fund 2, LLC is proposing to construct the Pioneer Trail Industrial Park (Project Site) located in Section 32, Township 119 North, Range 23 West in the City of Corcoran in Hennepin County, Minnesota. The proposed project involves the construction of five lots, two stormwater ponds, and a new road connecting all the lots to the existing Pioneer Trail, north of the intersection at Highway 55. An Environmental Assessment Worksheet (EAW) is required per Minnesota Rules 4410.4300, subpart 14.

The Project Site currently consists of agricultural field and public road right-of-way (ROW) that is bordered by Highway 55 to the south, Pioneer Trail and residential housing to the west, agricultural fields to the north, and an agricultural field and commercial business to the east. The attached figures illustrate the location of the proposed project site. Table 1 below describes the proposed land uses for the five lots:

**Table 1. Pioneer Trail Industrial Park Proposed Land Uses**

Proposed Lots	Land Use	Lot Size (Acres)	Number of Buildings	Building Size (Square Feet)
Lot 1	Gas/Convenience	4.1	1	10,300
Lot 2	Office/Showroom/Retail	2.8	1	11,300
Lot 3	Office Warehouse/Light Manufacturing/Distribution	7.5	1	66,000
Lot 4	Office Warehouse/Light Manufacturing/Distribution	8.3	1	100,000
Lot 5	Storage Condominiums	27.3	6	379,000

Under Stantec’s Limited License to Use Copyrighted Material (LA 917, 140076) related to Rare Features Data, the Minnesota Department of Natural Resources (DNR) Natural Heritage Information System (NHIS) was searched in January 2022 to identify species within a one-mile radius of the project site. The NHIS search did not indicate any records within the proposed project site. Records of rare species were identified within in the one-mile review area. The following species information was gathered from the MN DNR Rare Species Guide (<https://www.dnr.state.mn.us/rsg/index.html>).

### Trumpeter Swan (*Cygnus buccinator*)

During the breeding season, trumpeter swans use small ponds and lakes or bays on larger water bodies that have approximately 100 meters of open water for take-off and have extensive beds of emergent vegetation such as cattails, bulrushes, and sedges. They will commonly use muskrat houses, beaver lodges, exposed hummocks, small islands, and floating platforms to construct their nests. Adult trumpeter swans are primarily herbivorous but will occasionally feed on small crustaceans, fish, and fish eggs. Due to over hunting, Trumpeter swans in Minnesota were declared extirpated in the state in the mid-1900s. Reintroduction efforts began in the 1960s and a survey conducted in 2015 estimated the breeding population to be more than 17,000 individuals. Currently, the leading threat to their population is lead poisoning from lead shot and fishing sinkers but degradation of wetland habitat, power line collisions, and illegal hunting are also notable factors. Although repopulation efforts have continued to be successful, the trumpeter swan was included on Minnesota's List of Endangered and Threatened Species List with the status of special concern due to continued threats to their population.

The Project Site consists of active agricultural land and does not contain suitable breeding or feeding habitat for the trumpeter swan. Based on a review of the NHIS data, occurrences of trumpeter swans were associated with Morin Lake which is approximately 0.85 miles northeast of the Project Site. Due to the lack of suitable habitat, the project is not anticipated to have an impact on the trumpeter swan.

### Native Plant Communities and Biodiversity Sites

Native plant communities, biodiversity sites, and Central Region Regionally Significant Ecological Areas (RESA) were reviewed for the area within one mile of the proposed Project Site. A native plant community (forested rich peatland system) is located approximately 0.55 miles east of the Project Site. Three sites of biodiversity significance ranked as moderate, and one ranked as below were identified within one mile of the Project Site. The three moderate ranked biodiversity sites are all located over 0.55 miles east and northeast of the Project Site and the one below ranked site is approximately 0.25 miles north of the Project Site. Four RESA sites extend into the one-mile review area. Of these, two are ranked as high and two ranked as moderate ecological areas. The closest moderate ranked RESA site is located on the south side of Highway 55 opposite of the Project Site. All work associated with this Project is proposed on the north side of Highway 55 and would not disturb this RESA site. The other moderate ranked RESA site is located approximately 0.65 miles northeast of the Project Site. The two high ranked RESA sites are approximately 0.5 miles south and 0.32 miles southeast of the Project Site. All of these RESA sites are located outside of the proposed Project Site and will not be encroached upon by the proposed project.

### Conclusion

The proposed project site contains limited potential suitable habitat for rare plants, animals, native plant communities, and other rare features. The project would not result in removal of suitable habitat for rare species or native plant communities as the project will be constructed within an area previously disturbed by active agriculture and public road ROW. Therefore, it is not anticipated that significant impacts to state-listed species or habitat would result from the proposed Pioneer Trail Industrial Park project.


Per our license agreement and the requirements of the state environmental review, we are requesting the DNR's concurrence with our review and assessment of the potential impacts from the project on known species documented in the NHIS database. The specific NHIS data evaluated as part of this review will not be distributed, mapped, or used within the EAW document or publicly distributed. The EAW will provide general explanatory text similar to that contained in this letter to document the species occurrence and potential impacts.

January 31, 2022  
NHIS Review  
Page 3 of 3  
**Reference: Pioneer Trail Industrial Park**

Please do not hesitate to contact me at 763.252.6802 or [Erin.Sejkora@stantec.com](mailto:Erin.Sejkora@stantec.com) should you have any questions. Thank you for your time.

Regards,

**Stantec Consulting Services Inc.**



---

**Erin Sejkora**  
Project Manager, Senior Planner  
Phone: 763.252.6802  
[Erin.Sejkora@stantec.com](mailto:Erin.Sejkora@stantec.com)

Attachment: Project Location Figures

# **Appendix F**

## **Traffic Impact Study**

**DRAFT**

# Traffic Impact Study for Pioneer Trail Industrial Park in Corcoran, MN

*Prepared for:*  
**City of Corcoran, MN**

8200 CR 116  
Corcoran, MN 55340



*Prepared by:*

**Stantec Consulting  
Services Inc.**  
1800 Pioneer Creek Center  
Maple Plain, MN 55359  
Phone: 7963-479-4200  
Fax: 763-479-4242

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I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

\_\_\_\_\_  
Edward F. Terhaar  
License No. 24441

DATE: February 25, 2022



# 1.0 Executive Summary

---

The purpose of this Traffic Impact Study is to evaluate the impacts of a proposed industrial park development located in Corcoran, MN. This study is part of an Environmental Assessment Worksheet (EAW) for the proposed project. The project site is generally located on the north side of TH 55 east of Pioneer Trail.

Based on discussions with City, this study examined weekday a.m. and p.m. peak hour traffic impacts of the proposed development at the following intersections:

- TH 55/Pioneer Trail
- TH 55/Rolling Hills Road
- CSAH 19/Pioneer Trail
- Pioneer Trail/development access

The most intense development alternative consists of the following uses:

- 100,000 square feet of light industrial
- 66,000 square feet of light industrial
- 11,300 square feet of retail
- 379,000 square foot storage facility
- Gas station with convenience store and 20 vehicle fueling positions

All access will be provided at a new public street located approximately 500 feet north of TH 55 on Pioneer Trail. For purpose of this study, the development is expected to be completed in 2026.

The conclusions drawn from the information and analyses presented in this report are as follows:

- The proposed redevelopment is expected to generate 846 trips during the a.m. peak hour, 788 trips during the p.m. peak hour, and 8,986 trips daily.
- Traffic generated by the proposed development results in poor levels of service at the TH 55/Pioneer Trail intersection during the a.m. and p.m. peak hours.
- The results of a signal warrant analysis for the 2027 Build condition indicate that warrants are met at the TH 55/Pioneer Trail intersection. Based on this review, a full signal warrant analysis and Intersection Control Evaluation (ICE) per Minnesota Department of Transportation (MnDOT) standards should be completed to confirm future traffic control. Any changes to the intersection control must be reviewed and approved by MnDOT.
- The following mitigation measures are recommended at each intersection:
  - TH 55/Pioneer Trail
    - Short term – Widen southbound approach to accommodate a dedicated left turn lane and a through/right turn lane. Install traffic signal control.
    - Long term – No additional improvements needed.

- TH 55/Rolling Hills Road
  - Short term – No improvements needed.
  - Long term – No improvements needed.
- CSAH 19/Pioneer Trail
  - Short term – No improvements needed.
  - Long term – No improvements needed.
- Pioneer Trail/development access
  - Short term – Construct westbound approach with dedicated left and right turn lanes. Construct a northbound right turn lane.
  - Long term – No additional improvements needed.

## 2.0 Purpose and Background

---

The purpose of this Traffic Impact Study is to evaluate the impacts of a proposed industrial park development located in Corcoran, MN. This study is part of an Environmental Assessment Worksheet (EAW) for the proposed project. The project site is generally located on the north side of TH 55 east of Pioneer Trail. The project location is shown in **Figure 1**.

Based on discussions with City, this study examined weekday a.m. and p.m. peak hour traffic impacts of the proposed development at the following intersections:

- TH 55/Pioneer Trail
- TH 55/Rolling Hills Road
- CSAH 19/Pioneer Trail
- Pioneer Trail/development access

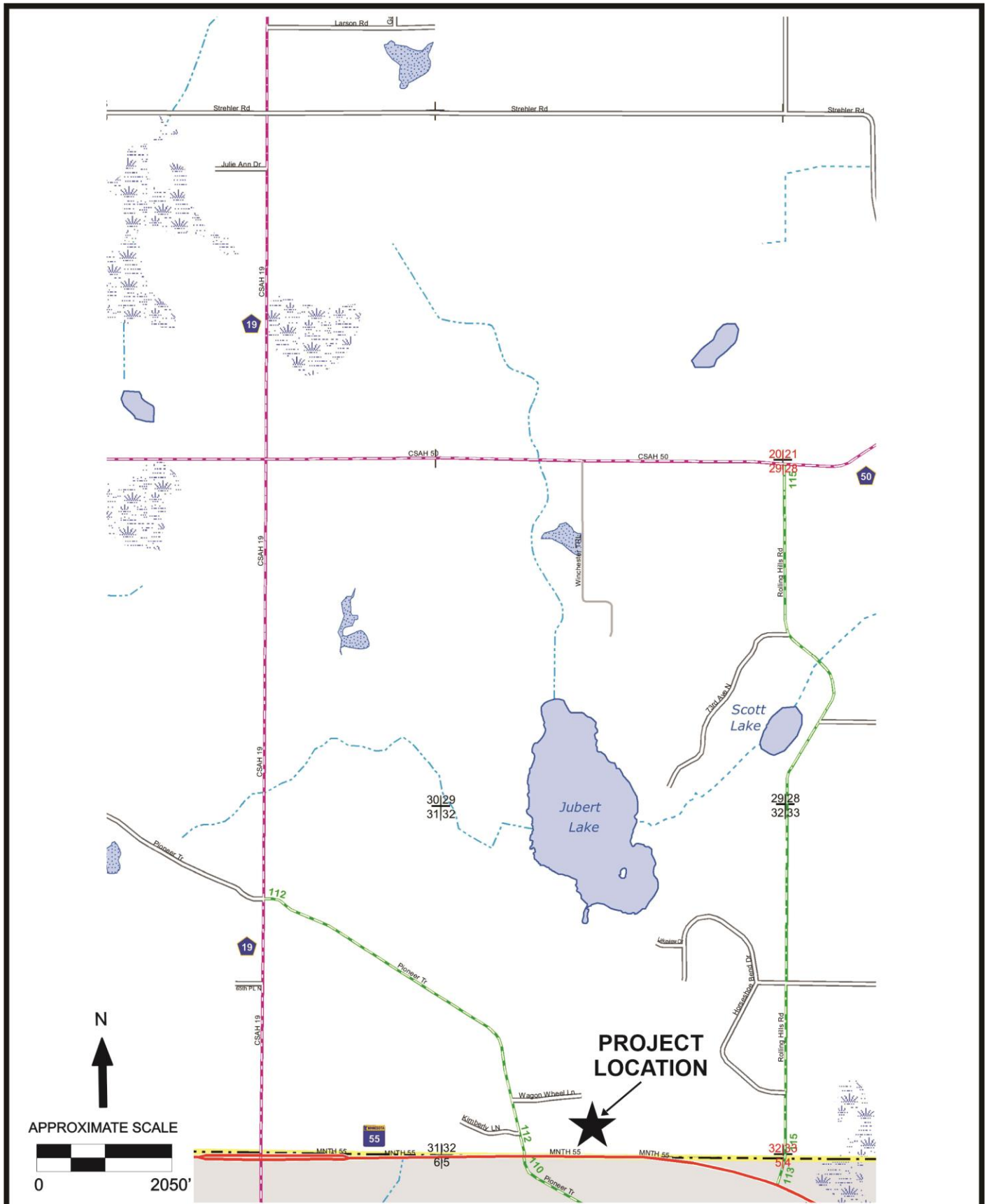
### Proposed Development Characteristics

The most intense development alternative consists of the following uses:

- 100,000 square feet of light industrial
- 66,000 square feet of light industrial
- 11,300 square feet of retail
- 379,000 square foot storage facility
- Gas station with convenience store and 20 vehicle fueling positions

All access will be provided at a new public street located approximately 500 feet north of TH 55 on Pioneer Trail.

For purpose of this study, the development is expected to be completed in 2026. The proposed development plan is shown in **Figure 2**.

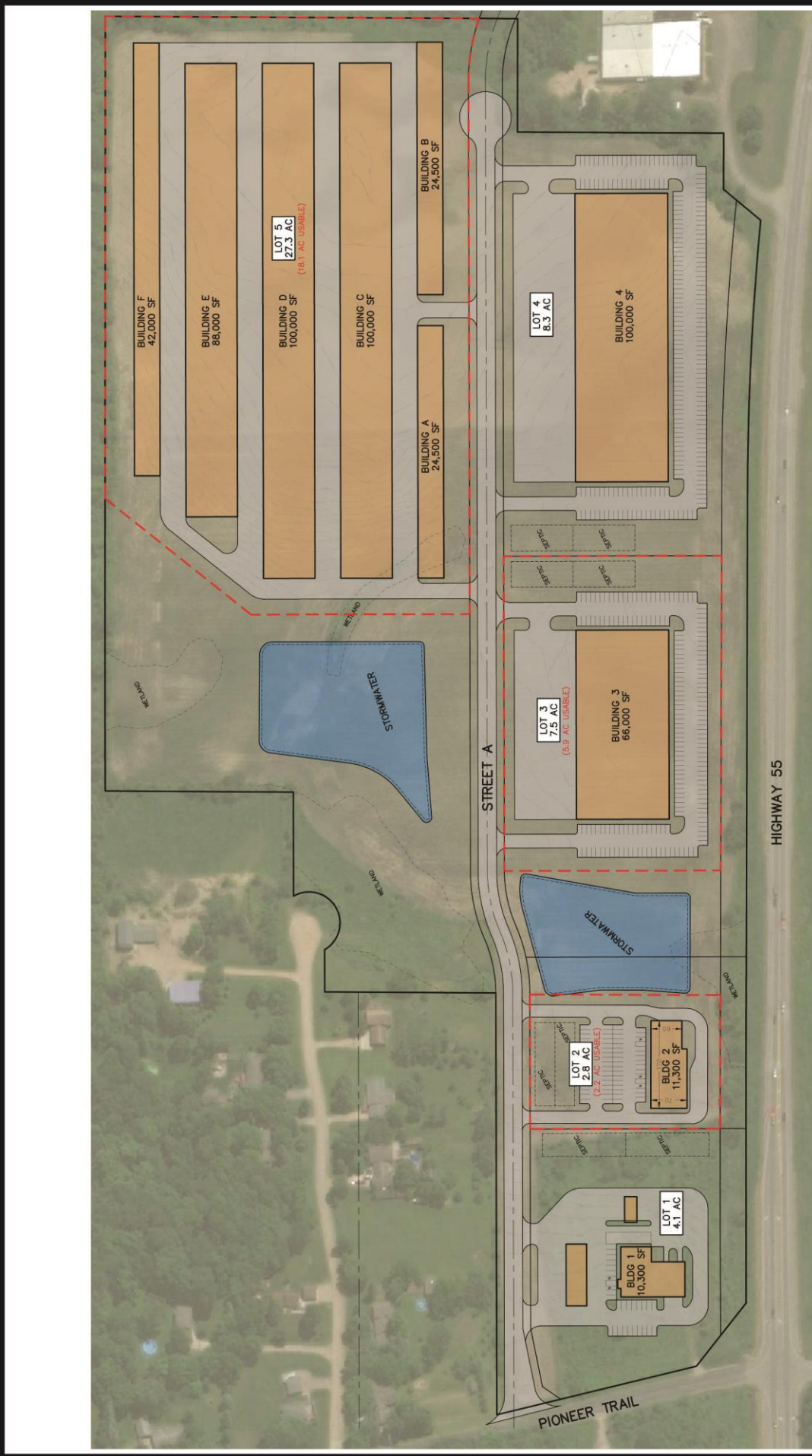


**PROJECT LOCATION**



**TRAFFIC IMPACT STUDY  
FOR PIONEER TRAIL  
INDUSTRIAL PARK  
IN CORCORAN, MN**

**FIGURE 1  
PROJECT LOCATION**



**FIGURE 2**  
**DEVELOPMENT PLAN**

TRAFFIC IMPACT STUDY  
FOR PIONEER TRAIL  
INDUSTRIAL PARK  
IN CORCORAN, MN



## 3.0 Existing Conditions

---

The proposed project site is currently used for agricultural purposes. The site is bounded by TH 55 on the south, Pioneer Trail on the west, existing residential and commercial uses on the east, and agricultural uses on the north.

Near the site location, TH 55 is a two lane undivided roadway with turn lanes and traffic signal control at major intersections. Pioneer Trail is a local two-lane roadway.

Existing conditions near the proposed project location are shown in **Figure 3** and described below.

### TH 55/Pioneer Trail

This four-way intersection is controlled with stop signs on the northbound and southbound approaches. The eastbound and westbound approaches provide one left turn lane, one through lane, and one right turn lane. The northbound and southbound approaches provide one shared lane for left turn, through, and right turn movements.

### TH 55/Rolling Hills Road

This three-way intersection is controlled with a stop sign on the southbound approach. The eastbound approach provides one left turn lane and one through lane. The westbound approach provides one through lane and one right turn lane. The southbound approach provides one shared lane for left turn and right turn movements.

### CSAH 19/Pioneer Trail

This four-way intersection is controlled with stop signs on the eastbound and westbound approaches. The northbound and southbound approaches provide one left turn lane, one through lane, and one right turn lane. The eastbound and westbound approaches provide one left turn/through lane and one right turn lane.

### Traffic Volume Data

Weekday traffic volume data was recorded at the existing intersections in January, 2022. Existing traffic volume data is presented later in this report.





**FIGURE 3**  
**EXISTING CONDITIONS**

TRAFFIC IMPACT STUDY  
FOR PIONEER TRAIL  
INDUSTRIAL PARK  
IN CORCORAN, MN







## 4.0 Traffic Forecasts

### Traffic Forecast Scenarios

To adequately address the impacts of the proposed project, forecasts and analyses were completed for the years 2027 and 2040. Specifically, weekday a.m. and p.m. peak hour traffic forecasts were completed for the following scenarios:

- *2022 Existing.* Existing volumes were determined through traffic counts at the subject intersections. The existing volume information includes trips generated by the uses near the project site.
- *2027 No-Build.* Existing volumes at the subject intersections were increased by 1.0 percent per year to determine 2027 No-Build volumes. The 1.0 percent per year growth rate was calculated based on historic traffic volume growth in the project area.
- *2027 Build.* Trips generated by the proposed development were added to the 2027 No-Build volumes to determine 2027 Build volumes.
- *2040 No-Build.* Existing volumes at the subject intersections were increased by 1.0 percent per year to determine 2040 No-Build volumes. The 1.0 percent per year growth rate was calculated based on historic traffic volume growth in the project area.
- *2040 Build.* Trips generated by the proposed development were added to the 2040 No-Build volumes to determine 2040 Build volumes.

### Trip Generation for Proposed Project

The expected new development trips were calculated based on data presented in Trip Generation, Eleventh Edition, published by the Institute of Transportation Engineers. These calculations represent total trips that will be generated by the proposed development. The resultant trip generation estimates are shown in **Table 4-1**.

**Table 4-1  
Weekday Trip Generation for Proposed Project**

Land Use	Size	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
		In	Out	Total	In	Out	Total	Total
Light Industrial	100,000 SF	65	9	74	9	56	65	487
Light Industrial	66,000 SF	43	6	49	6	37	43	321
Retail	11,300 SF	16	11	27	37	37	74	615
Storage facility	379,000 SF	49	15	64	19	49	68	648
Gas station with convenience store	20 VFP	316	316	632	269	269	538	6915
<b>Totals</b>		<b>489</b>	<b>357</b>	<b>846</b>	<b>340</b>	<b>448</b>	<b>788</b>	<b>8986</b>

Notes: SF=square feet and VFP=vehicle fueling positions.

The gas station trips can be categorized in the following trip types:

- *New Trips*. Trips solely to and from the proposed development.
- *Pass-By Trips*. Trips that are attracted from the traffic volume on roadways immediately adjacent to the site.

Based on information published in the *Trip Generation Handbook*, 3<sup>rd</sup> Edition, by the Institute of Transportation Engineers, the percentage of each trip type is as follows:

- Gas Station - 60% new, 40% pass by

#### Trip Distribution Percentages

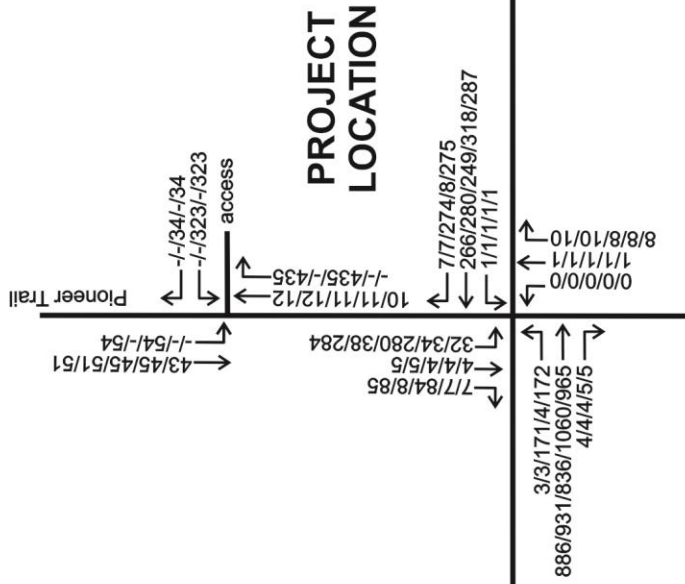
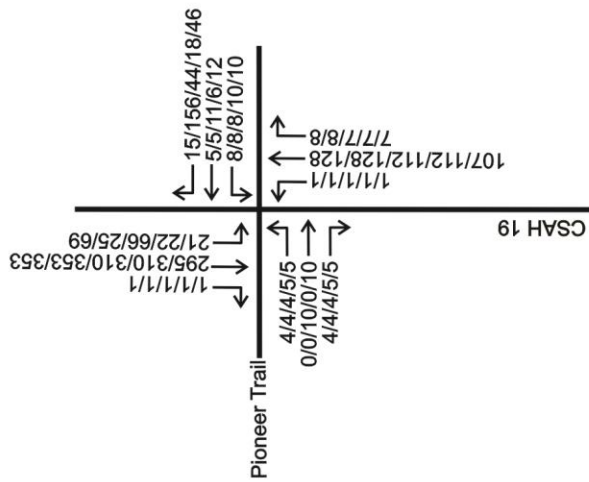
Trip distribution percentages for the subject development trips were established based on the nearby roadway network, existing and expected future traffic patterns, and location of the subject development in relation to major attractions and population concentrations.

The distribution percentages for trips generated by the proposed development are described below:

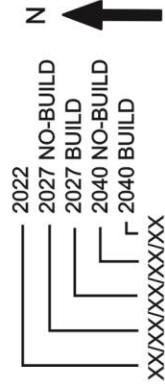
- 65 percent to/from the east on TH 55
- 20 percent to/from the west on TH 55
- 12 percent to/from the north on CSAH 19
- 3 percent to/from the west on Pioneer Trail

#### Traffic Volumes

Development trips from Table 4-1 were assigned to the surrounding roadway network using the preceding trip distribution percentages. Traffic volumes were established for all the forecasting scenarios described earlier during the weekday a.m. and p.m. peak hours. The resultant peak hour volumes are shown in **Figures 4 and 5**.



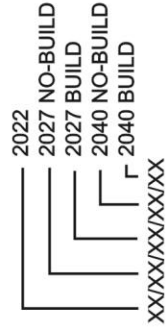
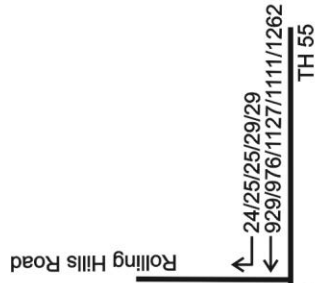
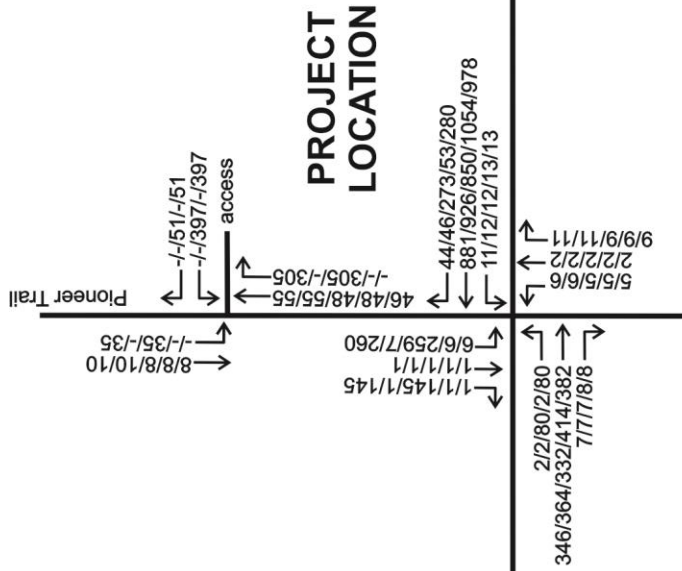
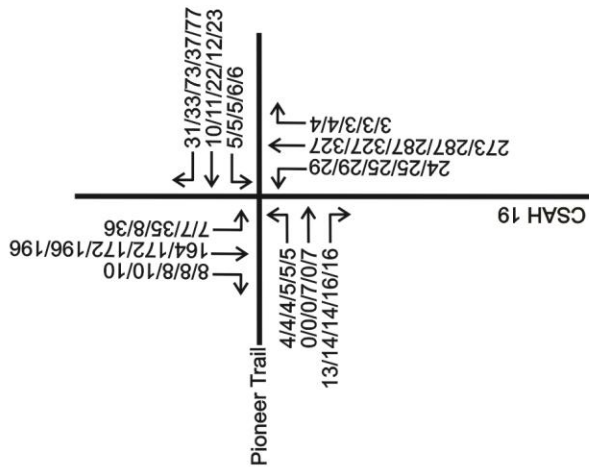
**PROJECT LOCATION**



**FIGURE 4**  
**WEEKDAY AM PEAK HOUR**  
**TRAFFIC VOLUMES**

TRAFFIC IMPACT STUDY  
FOR PIONEER TRAIL  
INDUSTRIAL PARK  
IN CORCORAN, MN





**PROJECT LOCATION**

**FIGURE 5**  
**WEEKDAY PM PEAK HOUR**  
**TRAFFIC VOLUMES**

TRAFFIC IMPACT STUDY  
FOR PIONEER TRAIL  
INDUSTRIAL PARK  
IN CORCORAN, MN



## 5.0 Traffic Analysis

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### Intersection Level of Service Analysis

Traffic analyses were completed for the subject intersections for all scenarios described earlier during the weekday a.m. and p.m. peak hours using Synchro software. Initial analysis was completed using existing geometrics and intersection control.

Capacity analysis results are presented in terms of level of service (LOS), which is defined in terms of traffic delay at the intersection. LOS ranges from A to F. LOS A represents the best intersection operation, with little delay for each vehicle using the intersection. LOS F represents the worst intersection operation with excessive delay. The following is a detailed description of the conditions described by each LOS designation:

- Level of service A corresponds to a free flow condition with motorists virtually unaffected by the intersection control mechanism. For a signalized or an unsignalized intersection, the average delay per vehicle would be approximately 10 seconds or less.
- Level of service B represents stable flow with a high degree of freedom, but with some influence from the intersection control device and the traffic volumes. For a signalized intersection, the average delay ranges from 10 to 20 seconds. An unsignalized intersection would have delays ranging from 10 to 15 seconds for this level.
- Level of service C depicts a restricted flow which remains stable, but with significant influence from the intersection control device and the traffic volumes. The general level of comfort and convenience changes noticeably at this level. The delay ranges from 20 to 35 seconds for a signalized intersection and from 15 to 25 seconds for an unsignalized intersection at this level.
- Level of service D corresponds to high-density flow in which speed and freedom are significantly restricted. Though traffic flow remains stable, reductions in comfort and convenience are experienced. The control delay for this level is 35 to 55 seconds for a signalized intersection and 25 to 35 seconds for an unsignalized intersection.
- Level of service E represents unstable flow of traffic at or near the capacity of the intersection with poor levels of comfort and convenience. The delay ranges from 55 to 80 seconds for a signalized intersection and from 35 to 50 seconds for an unsignalized intersection at this level.
- Level of service F represents forced flow in which the volume of traffic approaching the intersection exceeds the volume that can be served. Characteristics often experienced include long queues, stop-and-go waves, poor travel times, low comfort and convenience, and increased accident exposure. Delays over 80 seconds for a signalized intersection and over 50 seconds for an unsignalized intersection correspond to this level of service.

The LOS results are shown in **Figures 6 and 7** and described below. All LOS worksheets are included in the Appendix for further detail.

2022 Existing

**Weekday A.M. and P.M. Peak Hour LOS Results**

<b>Intersection</b>	<b>Traffic Control</b>	<b>AM Peak Hour LOS</b>	<b>PM Peak Hour LOS</b>
TH 55/Pioneer Trail	NB/SB stop	A/E	A/D
TH 55/Rolling Hills Road	SB stop	A/C	A/C
CSAH 19/Pioneer Trail	EB/WB stop	A/B	A/B

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

All intersections and movements operate at LOS E or better during the a.m. and p.m. peak hours.

2027 No-Build

**Weekday A.M. and P.M. Peak Hour LOS Results**

<b>Intersection</b>	<b>Traffic Control</b>	<b>AM Peak Hour LOS</b>	<b>PM Peak Hour LOS</b>
TH 55/Pioneer Trail	NB/SB stop	A/E	A/E
TH 55/Rolling Hills Road	SB stop	A/D	A/D
CSAH 19/Pioneer Trail	EB/WB stop	A/B	A/B

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

All intersections and movements operate at LOS E or better during the a.m. and p.m. peak hours.

2027 Build

**Weekday A.M. and P.M. Peak Hour LOS Results**

<b>Intersection</b>	<b>Traffic Control</b>	<b>AM Peak Hour LOS</b>	<b>PM Peak Hour LOS</b>
TH 55/Pioneer Trail	NB/SB stop	F/F	F/F
TH 55/Rolling Hills Road	SB stop	A/E	A/E
CSAH 19/Pioneer Trail	EB/WB stop	A/C	A/C
Pioneer Trail/development access	WB stop	A/B	A/B

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

The southbound movements at TH 55/Pioneer Trail operate at LOS F during the a.m. and p.m. peak hours. The northbound movements operate at LOS F during the p.m. peak hour. The overall intersection operates at LOS F during both the a.m. and p.m. peak hours. All other movements and intersections operate at LOS E or better during the a.m. and p.m. peak hours.

## 2040 No-Build

### Weekday A.M. and P.M. Peak Hour LOS Results

Intersection	Traffic Control	AM Peak Hour LOS	PM Peak Hour LOS
TH 55/Pioneer Trail	NB/SB stop	A/F	A/E
TH 55/Rolling Hills Road	SB stop	A/D	A/D
CSAH 19/Pioneer Trail	EB/WB stop	A/B	A/C

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

The southbound movements at TH 55/Pioneer Trail operate at LOS F during the a.m. peak hour. The overall intersection operates at LOS A during all scenarios. All other movements operate at LOS E or better during the a.m. and p.m. peak hours.

## 2040 Build

### Weekday A.M. and P.M. Peak Hour LOS Results

Intersection	Traffic Control	AM Peak Hour LOS	PM Peak Hour LOS
TH 55/Pioneer Trail	NB/SB stop	F/F	F/F
TH 55/Rolling Hills Road	SB stop	A/F	A/F
CSAH 19/Pioneer Trail	EB/WB stop	A/C	A/C
Pioneer Trail/development access	WB stop	A/B	A/B

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

The southbound movements at TH 55/Pioneer Trail operate at LOS F during the a.m. and p.m. peak hours. The northbound movements operate at LOS F during the p.m. peak hour. The overall intersection operates at LOS F during both the a.m. and p.m. peak hours. The southbound movements at TH 55/Rolling Hills Road operate at LOS F during the a.m. and p.m. peak hours. The overall intersection operates at LOS A. All other movements and intersections operate at LOS C or better during the a.m. and p.m. peak hours.

### Traffic Signal Warrants at TH 55/Pioneer Trail

As shown above, the southbound movements and the overall intersection operate at LOS F during the 2027 Build and 2040 Build scenarios at the TH 55/Pioneer Trail intersection. In order to accommodate traffic generated by the proposed development, traffic signal control was considered at this location.

The traffic forecasts for the 2027 Build scenario were used to analyze the peak hour and four-hour traffic signal warrants. These volumes include trips from the proposed project as well as other background traffic.

The traffic volume forecasts were used to determine if specific warrants are satisfied based on published criteria outlined in the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD). Warrant 2 (Four-Hour Vehicular Volume) and Warrant 3 (Peak Hour Volume) were assessed. Since the posted speed limits on TH 55 is 55 mph, the analyses presented consider reductions for speeds greater than 40 mph.

The results of the signal warrant analysis for the 2027 Build condition indicate the warrants are met at the intersection. Based on this review, a full signal warrant analysis and Intersection Control Evaluation (ICE) per Minnesota Department of Transportation (MnDOT)



standards should be completed to confirm future traffic control. Any changes to the intersection control must be reviewed and approved by MnDOT.

Intersection Operations at TH 55/Pioneer Trail with Traffic Signal Control

A potential mitigation measure for the operational issues shown at the TH 55/Pioneer Trail intersection is traffic signal control. The updated intersection operation results assuming traffic signal control are shown below.

**Weekday A.M. and P.M. Peak Hour LOS Results at TH 55/Pioneer Trail with Traffic Signal Control**

Scenario	AM Peak Hour LOS	PM Peak Hour LOS
2027 Build	B/C	B/C
2040 Build	B/D	B/D

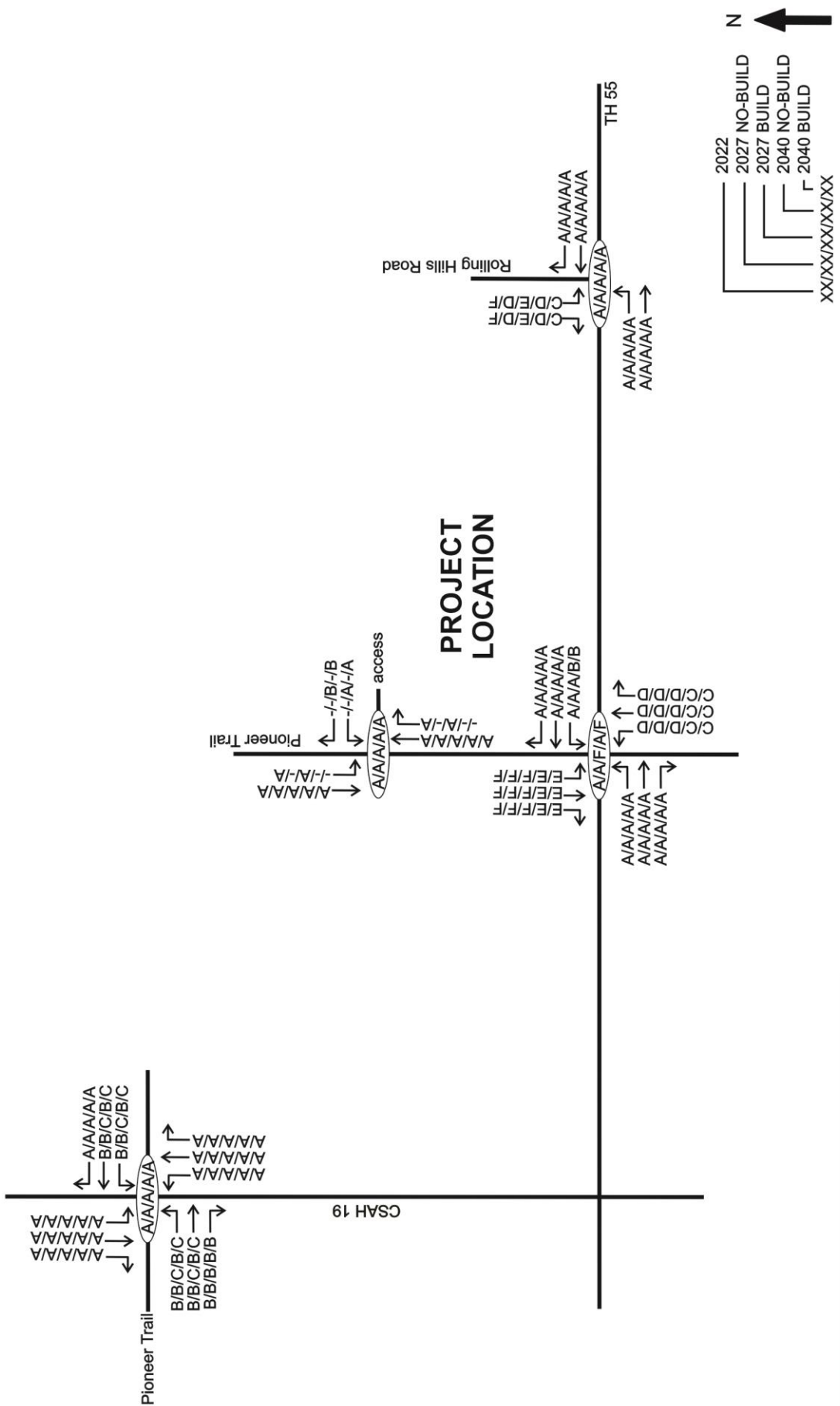
Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

All movements and the overall intersection operate at LOS D or better during the a.m. and p.m. peak hours under both scenarios.

Recommended Mitigation

The following mitigation measures are recommended at each intersection:

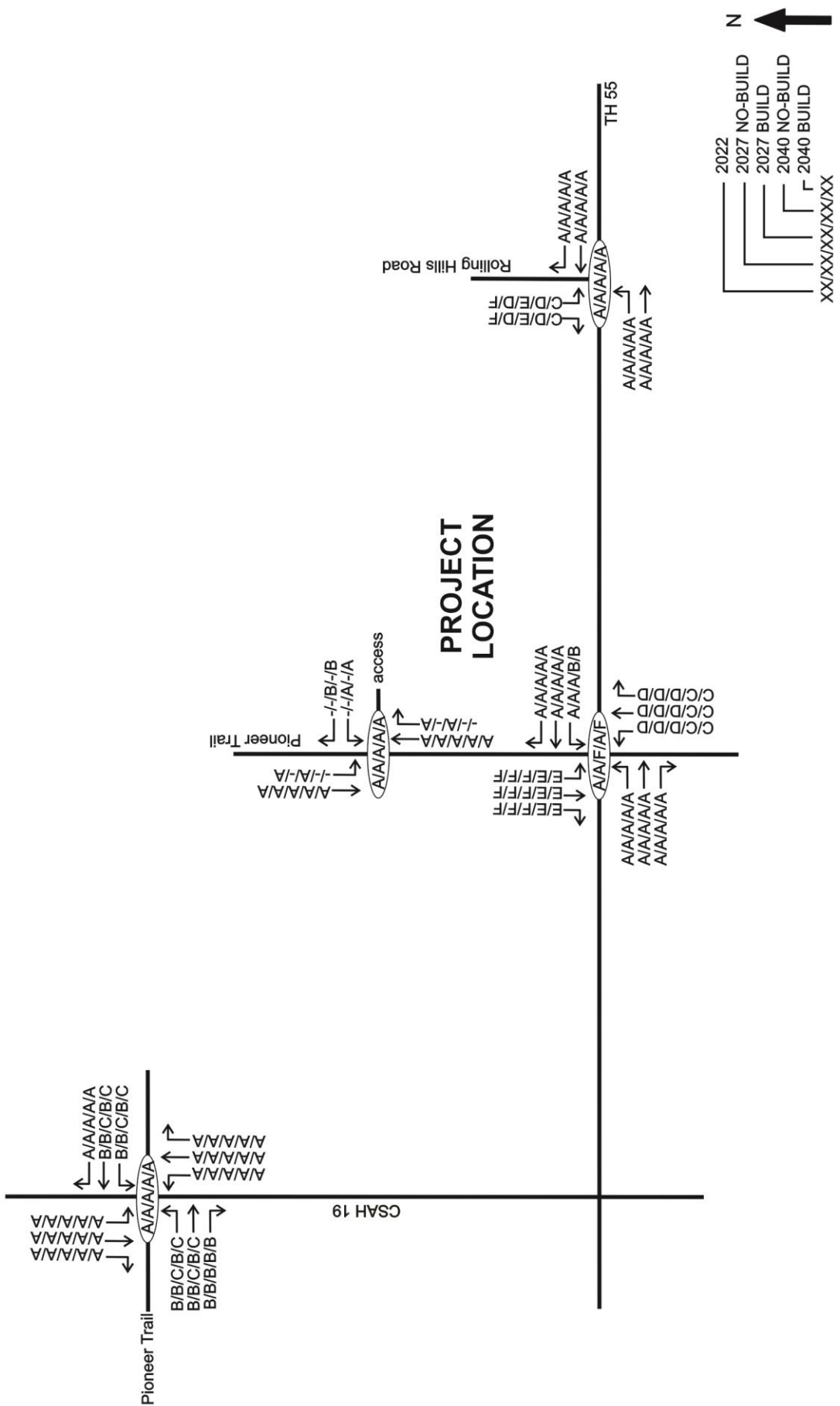
- TH 55/Pioneer Trail
  - Short term – Widen southbound approach to accommodate a dedicated left turn lane and a through/right turn lane. Install traffic signal control.
  - Long term – No additional improvements needed.
- TH 55/Rolling Hills Road
  - Short term – No improvements needed.
  - Long term – No improvements needed.
- CSAH 19/Pioneer Trail
  - Short term – No improvements needed.
  - Long term – No improvements needed.
- Pioneer Trail/development access
  - Short term – Construct westbound approach with dedicated left and right turn lanes. Construct a northbound right turn lane.
  - Long term – No additional improvements needed.



**FIGURE 6**  
**WEEKDAY AM PEAK HOUR**  
**LOS RESULTS**

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 FOR PIONEER TRAIL  
 INDUSTRIAL PARK  
 IN CORCORAN, MN





**FIGURE 7**  
**WEEKDAY PM PEAK HOUR**  
**LOS RESULTS**

TRAFFIC IMPACT STUDY  
 FOR PIONEER TRAIL  
 INDUSTRIAL PARK  
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## 6.0 Conclusions and Recommendations

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The conclusions drawn from the information and analyses presented in this report are as follows:

- The proposed redevelopment is expected to generate 846 trips during the a.m. peak hour, 788 trips during the p.m. peak hour, and 8,986 trips daily.
- Traffic generated by the proposed development results in poor levels of service at the TH 55/Pioneer Trail intersection during the a.m. and p.m. peak hours.
- The results of a signal warrant analysis for the 2027 Build condition indicate that warrants are met at the TH 55/Pioneer Trail intersection. Based on this review, a full signal warrant analysis and Intersection Control Evaluation (ICE) per Minnesota Department of Transportation (MnDOT) standards should be completed to confirm future traffic control. Any changes to the intersection control must be reviewed and approved by MnDOT.
- The following mitigation measures are recommended at each intersection:
  - TH 55/Pioneer Trail
    - Short term – Widen southbound approach to accommodate a dedicated left turn lane and a through/right turn lane. Install traffic signal control.
    - Long term – No additional improvements needed.
  - TH 55/Rolling Hills Road
    - Short term – No improvements needed.
    - Long term – No improvements needed.
  - CSAH 19/Pioneer Trail
    - Short term – No improvements needed.
    - Long term – No improvements needed.
  - Pioneer Trail/development access
    - Short term – Construct westbound approach with dedicated left and right turn lanes. Construct a northbound right turn lane.
    - Long term – No additional improvements needed.

## 7.0 Appendix

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- Level of Service Worksheets

# **Appendix G**

## **Feasibility Study**



**PIONEER TRAIL INDUSTRIAL PARK  
INFRASTRUCTURE FEASIBILITY STUDY**

**Draft**

March 2022

Prepared for:

**City of Corcoran, MN**  
8200 County Road 116  
Corcoran, MN 55340

Prepared by:

**Stantec Consulting Services Inc.**  
1800 Pioneer Creek Center  
Maple Plain, MN 55359

Project Number: 227704712



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**CITY OF CORCORAN, MN**

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## **1.0 Introduction**

Landspec USA is a development group proposing to construct an industrial / warehouse development of over 500,000 square feet located on Pioneer trail and Pioneer Trail Industrial Park in Southwest Corcoran. The area was previously planned for a similar development in 2004/2005 so the change in landuse is under review for infrastructure impacts and needs related to mostly traffic drainage and stormwater with a review of sewer and water supply for future service.

This Draft Feasibility Study is the basis for cost estimating on public infrastructure needs for the site and outcomes are incorporated into the Environmental Assessment Worksheet and that public process. Figure 1 shows the site layout.



## 2.0 Transportation

### 2.1 Background

This study examined weekday a.m. and p.m. peak hour traffic impacts of the proposed development at the following intersections:

- TH 55/Pioneer Trail
- TH 55/Rolling Hills Road
- CSAH 19/Pioneer Trail
- Pioneer Trail/development access

### 2.2 Proposed Development Characteristics

For purpose of the traffic impact analysis, the proposed development is assumed to consist of the following uses:

- 100,000 square feet of light industrial
- 66,000 square feet of light industrial
- 11,300 square feet of retail
- 379,000 square foot storage facility
- Gas station with convenience store and 20 vehicle fueling positions

### 2.3 Existing Conditions

The proposed project site is currently used for agricultural purposes. The site is bounded by TH 55 on the south, Pioneer Trail on the west, existing residential and commercial uses on the east, and agricultural uses on the north.

Near the site location, TH 55 is a two lane undivided roadway with turn lanes and traffic signal control at major intersections. Pioneer Trail is a local two-lane roadway.

*TH 55/Pioneer Trail* - This four-way intersection is controlled with stop signs on the northbound and southbound approaches. The eastbound and westbound approaches provide one left turn lane, one through lane, and one right turn lane. The northbound and southbound approaches provide one shared lane for left turn, through, and right turn movements.

*TH 55/Rolling Hills Road* - This three-way intersection is controlled with a stop sign on the southbound approach. The eastbound approach provides one left turn lane and one through lane. The westbound approach provides one through lane and one right turn lane. The southbound approach provides one shared lane for left turn and right turn movements.

*CSAH 19/Pioneer Trail* - This four-way intersection is controlled with stop signs on the eastbound and westbound approaches. The northbound and southbound approaches provide one left turn lane, one through lane, and one right turn lane. The eastbound and westbound approaches provide one left turn/through lane and one right turn lane.



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Turn movement data was recorded at the existing intersections during the a.m. (6:00 – 9:00 a.m.) and p.m. (3:00 – 6:00 p.m.) peak periods in January, 2022. These volumes were used in the development of traffic forecasts for the project.

## 2.4 Traffic Forecasts

To adequately address the impacts of the proposed project, forecasts and analyses were completed for the years 2027 and 2040. Specifically, weekday a.m. and p.m. peak hour traffic forecasts were completed for the following scenarios:

- *2022 Existing.* Existing volumes were determined through traffic counts at the subject intersections. The existing volume information includes trips generated by the uses near the project site.
- *2027 No-Build.* Existing volumes at the subject intersections were increased by 1.0 percent per year to determine 2027 No-Build volumes. The 1.0 percent per year growth rate was calculated based on historic traffic volume growth in the project area.
- *2027 Build.* Trips generated by the proposed development were added to the 2027 No-Build volumes to determine 2027 Build volumes.
- *2040 No-Build.* Existing volumes at the subject intersections were increased by 1.0 percent per year to determine 2040 No-Build volumes. The 1.0 percent per year growth rate was calculated based on historic traffic volume growth in the project area.
- *2040 Build.* Trips generated by the proposed development were added to the 2040 No-Build volumes to determine 2040 Build volumes.

The expected new development trips were calculated based on data presented in Trip Generation, Eleventh Edition, published by the Institute of Transportation Engineers. These calculations represent total trips that will be generated by the proposed development. The resultant trip generation estimates are shown in Table 1.

**Table 1**  
**Weekday Trip Generation for Proposed Project**

Land Use	Size	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
		In	Out	Total	In	Out	Total	Total
Light Industrial	100,000 SF	65	9	74	9	56	65	487
Light Industrial	66,000 SF	43	6	49	6	37	43	321
Retail	11,300 SF	16	11	27	37	37	74	615
Storage facility	379,000 SF	49	15	64	19	49	68	648
Gas station with convenience store	20 VFP	316	316	632	269	269	538	6915
<b>Totals</b>		<b>489</b>	<b>357</b>	<b>846</b>	<b>340</b>	<b>448</b>	<b>788</b>	<b>8986</b>

Notes: SF=square feet and VFP=vehicle fueling positions.

The gas station trips can be categorized in the following trip types:

- *New Trips.* Trips solely to and from the proposed development.
- *Pass-By Trips.* Trips that are attracted from the traffic volume on roadways immediately adjacent to the site.



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Based on information published in the *Trip Generation Handbook*, 3<sup>rd</sup> Edition, by the Institute of Transportation Engineers, the percentage of each trip type is as follows:

- Gas Station - 60% new, 40% pass by

Trip distribution percentages for the subject development trips were established based on the nearby roadway network, existing and expected future traffic patterns, and location of the subject development in relation to major attractions and population concentrations.

The distribution percentages for trips generated by the proposed development are described below:

- 65 percent to/from the east on TH 55
- 20 percent to/from the west on TH 55
- 12 percent to/from the north on CSAH 19
- 3 percent to/from the west on Pioneer Trail

Development trips from Table 4-1 were assigned to the surrounding roadway network using the preceding trip distribution percentages. Traffic volumes were established for all the forecasting scenarios described earlier during the weekday a.m. and p.m. peak hours. The resultant peak hour volumes are shown in Tables 2 and 3.

**Table 2  
Weekday A.M. Peak Hour Traffic Volumes**

<b>TH 55/Pioneer Trail</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2022 Existing	3	886	4	1	266	7	0	1	8	32	4	7
2027 No-Build	3	931	4	1	280	7	0	1	8	34	4	7
2027 Build	171	836	4	1	249	274	0	1	8	280	4	84
2040 No-Build	4	1060	5	1	318	8	0	1	10	38	5	8
2040 Build	172	965	5	1	287	275	0	1	10	284	5	85
<b>TH 55/Rolling Hills Rd</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2022 Existing	7	919	-	-	278	4	-	-	-	16	-	7
2027 No-Build	7	966	-	-	292	4	-	-	-	17	-	7
2027 Build	7	1117	-	-	528	4	-	-	-	17	-	7
2040 No-Build	8	1099	-	-	333	5	-	-	-	19	-	8
2040 Build	8	1250	-	-	569	5	-	-	-	19	-	8
<b>CSAH 19/Pioneer Trail</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2022 Existing	4	0	10	8	5	15	7	107	1	21	295	1
2027 No-Build	4	0	11	8	5	16	7	112	1	22	310	1
2027 Build	4	10	11	8	11	44	7	112	1	66	310	1
2040 No-Build	5	0	12	10	6	18	8	128	1	25	353	1
2040 Build	5	10	12	10	12	46	8	128	1	69	353	1
<b>Pioneer Trail/access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2022 Existing	-	-	-	-	-	-	-	10	-	-	43	-
2027 No-Build	-	-	-	-	-	-	-	11	-	-	45	-
2027 Build	-	-	-	323	-	34	-	11	435	54	45	-
2040 No-Build	-	-	-	-	-	-	-	12	-	-	51	-
2040 Build	-	-	-	323	-	34	-	12	435	54	51	-



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**Table 3  
Weekday P.M. Peak Hour Traffic Volumes**

<b>TH 55/Pioneer Trail</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2022 Existing	2	346	7	11	881	44	5	2	9	6	1	1
2027 No-Build	2	364	7	12	926	46	5	2	9	6	1	1
2027 Build	80	332	7	12	850	273	5	2	9	259	1	145
2040 No-Build	2	414	8	13	1054	53	6	2	11	7	1	1
2040 Build	80	382	8	13	978	280	6	2	11	260	1	145
<b>TH 55/Rolling Hills Rd</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2022 Existing	4	357	-	-	929	24	-	-	-	9	-	7
2027 No-Build	4	375	-	-	976	25	-	-	-	9	-	7
2027 Build	4	596	-	-	1127	25	-	-	-	9	-	7
2040 No-Build	5	427	-	-	1111	29	-	-	-	11	-	8
2040 Build	5	648	-	-	1262	29	-	-	-	11	-	8
<b>CSAH 19/Pioneer Trail</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2022 Existing	4	0	13	5	10	31	24	273	3	7	164	8
2027 No-Build	4	0	14	5	11	33	25	287	3	7	172	8
2027 Build	4	7	14	5	22	73	25	287	3	35	172	8
2040 No-Build	5	0	16	6	12	37	29	327	4	8	196	10
2040 Build	5	7	16	6	23	77	29	327	4	36	196	10
<b>Pioneer Trail/access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>
2022 Existing	-	-	-	-	-	-	-	46	-	-	8	-
2027 No-Build	-	-	-	-	-	-	-	48	-	-	8	-
2027 Build	-	-	-	397	-	51	-	48	305	35	8	-
2040 No-Build	-	-	-	-	-	-	-	55	-	-	10	-
2040 Build	-	-	-	397	-	51	-	55	305	35	10	-

## 2.5 Traffic Analysis

Traffic analyses were completed for the subject intersections for all scenarios described earlier during the weekday a.m. and p.m. peak hours using Synchro software. Initial analysis was completed using existing geometrics and intersection control.

Capacity analysis results are presented in terms of level of service (LOS), which is defined in terms of traffic delay at the intersection. LOS ranges from A to F. LOS A represents the best intersection operation, with little delay for each vehicle using the intersection. LOS F represents the worst intersection operation with excessive delay. The following is a detailed description of the conditions described by each LOS designation:

- Level of service A corresponds to a free flow condition with motorists virtually unaffected by the intersection control mechanism. For a signalized or an unsignalized intersection, the average delay per vehicle would be approximately 10 seconds or less.
- Level of service B represents stable flow with a high degree of freedom, but with some influence from the intersection control device and the traffic volumes. For a signalized intersection, the average delay ranges from 10 to 20 seconds. An unsignalized intersection would have delays ranging from 10 to 15 seconds for this level.



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- Level of service C depicts a restricted flow which remains stable, but with significant influence from the intersection control device and the traffic volumes. The general level of comfort and convenience changes noticeably at this level. The delay ranges from 20 to 35 seconds for a signalized intersection and from 15 to 25 seconds for an unsignalized intersection at this level.
- Level of service D corresponds to high-density flow in which speed and freedom are significantly restricted. Though traffic flow remains stable, reductions in comfort and convenience are experienced. The control delay for this level is 35 to 55 seconds for a signalized intersection and 25 to 35 seconds for an unsignalized intersection.
- Level of service E represents unstable flow of traffic at or near the capacity of the intersection with poor levels of comfort and convenience. The delay ranges from 55 to 80 seconds for a signalized intersection and from 35 to 50 seconds for an unsignalized intersection at this level.
- Level of service F represents forced flow in which the volume of traffic approaching the intersection exceeds the volume that can be served. Characteristics often experienced include long queues, stop-and-go waves, poor travel times, low comfort and convenience, and increased accident exposure. Delays over 80 seconds for a signalized intersection and over 50 seconds for an unsignalized intersection correspond to this level of service.

The LOS results for the study intersections are presented in Tables 4 and 5.

**Table 4  
Weekday A.M. Peak Hour Level of Service Results**

<b>TH 55/ Pioneer Tr</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	<b>Intersection</b>
2022 Existing	A	A	A	A	A	A	C	C	C	E	E	E	A
2027 No-Build	A	A	A	A	A	A	C	C	C	E	E	E	A
2027 Build	A	A	A	A	A	A	D	D	D	F	F	F	F
2040 No-Build	A	A	A	B	A	A	D	D	D	F	F	F	A
2040 Build	A	A	A	B	A	A	D	D	D	F	F	F	F
<b>TH 55/Rolling Hills Rd</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2022 Existing	A	A	-	-	A	A	-	-	-	C	-	C	A
2027 No-Build	A	A	-	-	A	A	-	-	-	D	-	D	A
2027 Build	A	A	-	-	A	A	-	-	-	E	-	E	A
2040 No-Build	A	A	-	-	A	A	-	-	-	D	-	D	A
2040 Build	A	A	-	-	A	A	-	-	-	F	-	F	A
<b>CSAH 19/ Pioneer Tr</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2022 Existing	B	B	B	B	B	A	A	A	A	A	A	A	A
2027 No-Build	B	B	B	B	B	A	A	A	A	A	A	A	A
2027 Build	C	C	B	C	C	A	A	A	A	A	A	A	A
2040 No-Build	B	B	B	B	B	A	A	A	A	A	A	A	A
2040 Build	C	C	B	C	C	A	A	A	A	A	A	A	A
<b>Pioneer Tr/access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2022 Existing	-	-	-	-	-	-	-	A	-	-	A	-	A
2027 No-Build	-	-	-	-	-	-	-	A	-	-	A	-	A
2027 Build	-	-	-	B	-	A	-	A	A	A	A	-	A



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2040 No-Build	-	-	-	-	-	-	-	A	-	-	A	-	A
2040 Build	-	-	-	B	-	A	-	A	A	A	A	-	A

**Table 5**  
**Weekday P.M. Peak Hour Level of Service Results**

<b>TH 55/ Pioneer Tr</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	<b>Intersection</b>
2022 Existing	B	A	A	A	A	A	C	C	C	D	D	D	A
2027 No-Build	B	A	A	A	A	A	C	C	C	E	E	E	A
2027 Build	B	A	A	A	A	A	F	F	F	F	F	F	F
2040 No-Build	B	A	A	A	A	A	D	D	D	E	E	E	A
2040 Build	B	A	A	A	A	A	F	F	F	F	F	F	F
<b>TH 55/Rolling Hills Rd</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2022 Existing	B	A	-	-	A	A	-	-	-	C	-	C	A
2027 No-Build	B	A	-	-	A	A	-	-	-	D	-	D	A
2027 Build	B	A	-	-	A	A	-	-	-	E	-	E	A
2040 No-Build	B	A	-	-	A	A	-	-	-	D	-	D	A
2040 Build	B	A	-	-	A	A	-	-	-	F	-	F	A
<b>CSAH 19/ Pioneer Tr</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2022 Existing	B	B	A	B	B	B	A	A	A	A	A	A	A
2027 No-Build	B	B	A	B	B	B	A	A	A	A	A	A	A
2027 Build	C	C	A	C	C	B	A	A	A	A	A	A	A
2040 No-Build	C	C	A	C	C	B	A	A	A	A	A	A	A
2040 Build	C	C	A	C	C	B	A	A	A	A	A	A	A
<b>Pioneer Tr/access</b>	<b>EBL</b>	<b>EBT</b>	<b>EBR</b>	<b>WBL</b>	<b>WBT</b>	<b>WBR</b>	<b>NBL</b>	<b>NBT</b>	<b>NBR</b>	<b>SBL</b>	<b>SBT</b>	<b>SBR</b>	
2022 Existing	-	-	-	-	-	-	-	A	-	-	A	-	A
2027 No-Build	-	-	-	-	-	-	-	A	-	-	A	-	A
2027 Build	-	-	-	B	-	A	-	A	A	A	A	-	A
2040 No-Build	-	-	-	-	-	-	-	A	-	-	A	-	A
2040 Build	-	-	-	B	-	A	-	A	A	A	A	-	A

Traffic Signal Warrants at TH 55/Pioneer Trail

As shown above, the southbound movements and the overall intersection operate at LOS F during the 2027 Build and 2040 Build scenarios at the TH 55/Pioneer Trail intersection. In order to accommodate traffic generated by the proposed development, traffic signal control was considered at this location.

The traffic forecasts for the 2027 Build scenario were used to analyze the peak hour and four-hour traffic signal warrants. These volumes include trips from the proposed project as well as other background traffic.

The traffic volume forecasts were used to determine if specific warrants are satisfied based on published criteria outlined in the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD). Warrant 2 (Four-Hour Vehicular Volume) and Warrant 3 (Peak Hour Volume) were assessed. Since the posted speed limits on TH 55 is 55 mph, the analyses presented consider reductions for speeds greater than 40 mph.





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The results of the signal warrant analysis for the 2027 Build condition indicate the warrants are met at the intersection. Based on this review, a full signal warrant analysis and Intersection Control Evaluation (ICE) per Minnesota Department of Transportation (MnDOT) standards should be completed to confirm future traffic control. Any changes to the intersection control must be reviewed and approved by MnDOT.

Intersection Operations at TH 55/Pioneer Trail with Traffic Signal Control

A potential mitigation measure for the operational issues shown at the TH 55/Pioneer Trail intersection is traffic signal control. The updated intersection operation results assuming traffic signal control are shown below.

**Weekday A.M. and P.M. Peak Hour LOS Results at TH 55/Pioneer Trail with Traffic Signal Control**

Scenario	AM Peak Hour LOS	PM Peak Hour LOS
2027 Build	B/C	B/C
2040 Build	B/D	B/D

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

All movements and the overall intersection operate at LOS D or better during the a.m. and p.m. peak hours under both scenarios.

## 2.6 Findings

The following mitigation measures are recommended at each intersection:

- TH 55/Pioneer Trail
  - Short term – Widen southbound approach to accommodate a dedicated left turn lane and a through/right turn lane. Install traffic signal control.
  - Long term – No additional improvements needed.
- TH 55/Rolling Hills Road
  - Short term – No improvements needed.
  - Long term – No improvements needed.
- CSAH 19/Pioneer Trail
  - Short term – No improvements needed.
  - Long term – No improvements needed.
- Pioneer Trail/development access
  - Short term – Construct westbound approach with dedicated left and right turn lanes. Construct a northbound right turn lane. Construct south bound left into development.
  - Long term – No additional improvements needed.



## 3.0 Sewer and Water

### 3.1 Wastewater

As mentioned previously, the prior development (AUAR, 2004) was exploring sewer shared with Medina. Sewer from MCES is not currently available, therefore the development is proceeding under rural development (well/septic) infrastructure. This is discussed further below.

- The closest existing City of Corcoran sanitary sewer is located approximately 3 miles east of this proposed development and eventually discharges to L80 near the Maple Grove border. The distance alone would render connection to this system impractical and not cost effective. Furthermore, the sewer system at that location was not designed to include wastewater from this proposed development.

In the City's previous 2030 Comprehensive Plan, wastewater from this development and the surrounding area of Southwest Corcoran was anticipated to be served via a connection into Medina, which borders Pioneer Trail Industrial Park to the south of this development. However, when the City was working with the Metropolitan Council in preparing the 2040 Comprehensive Plan, it was realized that Medina had slowed their staging of sewer system development in areas towards SW Corcoran, and that both Medina and the Metropolitan Council Environmental Services (MCES) no longer envisioned wastewater from SW Corcoran being directed through Medina (and generally eastward along Pioneer Trail Industrial Park). For this reason, Corcoran's 2040 Comprehensive Plan states that the method and timing of regional wastewater service to Southwest Corcoran would be determined through future study. The potential options for regional service would be longer-term (over 10 years) and very high-cost options, resulting in the need for future study.

- Another option that was suggested to Corcoran was to connect to the Loretto wastewater system. Loretto recently transitioned from operating their own permitted wastewater treatment facility (pond system) to a regionalized connection, i.e., they connected into the Tri-City wastewater forcemain, which is part of a local regional system that ultimately discharges wastewater from Independence, Greenfield and Medina into the regional sewer system located in Maple Plain. Operation of the Tri-City forcemain and the local regional system was modified to a Quad-City Agreement amongst Loretto, Greenfield, Independence, and Medina. Connection of the proposed Corcoran development into Loretto and the wider regional system is not viable for two reasons. First, the Quad City system was not designed to include significant future growth. Second, the infrastructure needed to reach the north edge of Loretto would likely not be cost effective, as it would require a lift station, approximately 1½ miles of forcemain, a directionally drilled/cased crossing of State Pioneer Trail Industrial Park, as well as long term operation and maintenance costs for the connecting infrastructure (plus a share of the local regional system costs). If the existing Loretto sewer system did not have enough available capacity to transfer this development-added flow to the south side of Loretto, additional force main length and a cased crossing of the railroad would also be required.
- Given the above background, the most viable option is what is currently envisioned by the developer: installation of an individual subsurface sewage treatment system (SSTS) for each parcel. Given the typically clayey soils in the area, these systems would utilize septic tank(s), with treated effluent being pumped to mound systems for further treatment/infiltration. We understand that the developer has stated that they may install only a wastewater holding tank for Lot 5 (storage units), given minimal employee occupancy. Hennepin County is the governing authority for permitting and tracking the installation, operation, maintenance, and enforcement of all SSTSs in Corcoran. The County may or may not allow the holding tank, and may require an SSTS to be



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installed, which would be minimal in size. Lastly, it is noted that the gas station will have a somewhat higher-strength wastewater, which will likely require additional treatment unit(s) compared to the other lots. Again, this will be governed by the County.

- The other potential option would be to install a community wastewater system, which would utilize one larger area for the infiltration area (mounds), rather than the smaller individual mound systems located at each lot, as currently shown. The developer would need to ensure that a suitable area that is large enough in size as determined by soil testing is included in the development design. This would also require working out a cost sharing agreement amongst the various lots for system installation and for long-term operation and maintenance, which could be somewhat more complicated by the fact that the gas station has an increased level of treatment needed. The community system approach is only noted as a potential option and is not necessarily recommended. The County would govern this approach and if system is large enough the MPCA would be involved.
- At some point in the future, when Corcoran sewer and water systems are extended into this area, the City will require all of the lots to connect to City water and sewer systems. With this in mind, the developer must provide an 80-foot street ROW such that watermain can be installed along the south side of the road and gravity sewer can be installed along the north side of the road. This will prevent having to tear up the entire length of road for the future utility installation. Since wastewater would likely be routed by gravity to the very northern edge for routing into/through the parcels to the north, a permanent easement to install this future north-south gravity sewer should be installed from the north side of the road to the northern property edge (western corner thereof).

## 3.2 Water

- The closest existing City of Corcoran potable watermain is located approximately 3 miles east of this proposed development. The distance renders connection to this system impractical, and would not be cost effective. Neighboring homes and businesses utilize private wells, and likewise, private wells are the most viable option for the proposed lots. Review of well logs for these neighboring homes and businesses suggest that wells located in this development would be completed in the quaternary buried aquifer (usually artesian). These wells are typically 4-inch diameter wells, completed in sand layers that are located at depths that suggest the well depths in the proposed development would be on the order of 150 to 200 feet. Test pumping is commonly indicated at 20 to 30 gallons per minute (gpm). Wells completed in the underlying bedrock would also be an option, though at a higher cost.
- The developer will need to install fire protection systems in accordance with public safety requirements, as determined by the City's designated fire marshal. This may require installation of water storage tank that would serve as a reservoir to supply a building's fire suppression system.
- Corcoran's 2040 Comprehensive Plan identified a potential future well exploration area in the vicinity of this site. Although there are no plans to install a municipal well in the near term, the City may eventually install municipal well(s) in SW Corcoran. As such, the City requests dedication for siting a municipal well in the upland area just west of Building F of Lot 5, at the northern edge of the property. Given various well setback requirements and the need for the City to own the property within 50 feet of the well, the City would need an outlot designated for this purpose at the northern property edge (approximately 110 by 110-foot area), which would allow for the possibility of siting a future municipal well near the center of the outlot (along with a small wellhouse). An easement for a narrow access road would also be required between the street and the well site. At some point in the future, the City would install a test well to verify the suitability of this location



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for a municipal well (or conversely, to rule it out). If suitable, installation of the municipal well, wellhouse, and access road could occur at that time.

- Lastly, as noted in the wastewater section, the developer must provide an 80-foot street ROW, which will provide an adequate width such that future City watermain can be installed along the south side of the road.

### 3.3 Findings

The sewer and water review shows the following significant findings.

- Future connections to sewer and water requires corridors and necessary easements that shall be coordinated with construction plans and platting.
- 80 foot ROW along Street A would allow for future utility corridor.
- An individual lot shall be platted and dedicated to the City for future water well exploration.

## 4.0 Water Resources

### 4.1 Regulatory Overview

Stormwater management regulations in the proposed project area would be guided or directed by Corcoran's Local Surface Water Management Plan (Local Plan) the City's Guidelines, Stormwater Pollution Prevention Plan (SWPPP) and MS4 requirements. Each of these documents has a larger regulatory context:

- The Local Plan reflects the goals, policies and rules of the Elm Creek Watershed Management Commission's Third Generation Watershed Management Plan (Commission's WMP).
- The SWPPP is a requirement of the City's stormwater permit, also known as the Municipal Separate Storm Sewer System (MS4) permit. The MS4 permit is issued by the Minnesota Pollution Control Agency (MPCA) which was reissued in October of 2021.
- Among other goals, both documents include plans to meet pollutant load reductions calculated in the Elm Creek Watershed Total Maximum Daily Load (TMDL) study. TMDL studies are required for surface waters that are designated as impaired – in other words, those that do not meet one or more state water quality standards.
- City guidelines lay out the required modeling parameters, preferred BMPs and some construction materials. City approval is required prior to application for the WMO approval process. Further City review occurs with construction plan approval process.



## **4.2 Watershed Setting and Land Use**

The majority of the proposed development is situated in the South Fork of Rush Creek watershed, and drains northward to Jubert Lake. Other parts of the development drain to the south under HWY 55 and northeast towards Horseshoe Bend Trail.

Existing land use in the proposed development is agricultural and topography varies significantly. The MUSA districts have ongoing changes from agricultural to non-agricultural land use that presents both challenges and also opportunities to better manage stormwater runoff. This is true of the proposed development site, where land use will change from row crops to commercial/industrial. Stormwater Best Management Practices (BMPs) installed during construction will maintain or improve water quality towards Jubert Lake and manage runoff rates to equal or less than existing conditions.

## **4.3 Stormwater Management**

The development on the parcel previously proposed by United Properties (2004) converts the agricultural to large scale industrial/commercial. Agricultural use of the land would cease, replaced by both pervious open space and impervious surfaces that will impact stormwater runoff.

Although elimination of agriculture can benefit water quality by reducing export of nutrients and sediments through onsite ponding and filtration (Best Management Practices or BMPs), construction of additional impervious surfaces, such as the roads, driveways, rooftops, and sidewalks increase the volume to nearby surface waters. Turn lane improvements to HWY 55 and Pioneer Trail would also increase impervious surface area and, like neighborhood roads and driveways, would require practices to mitigate the impacts.

Mitigation is accomplished by aligning development plans with City requirements and WMO/MS4 stormwater regulations. Corcoran's Local Plan, in agreement with the Commission's WMP, requires that development plans over 1 acre disturbed area be submitted to the City and the Commission for review. The purpose of the review is to ensure that the developer's plans for stormwater management during and after construction meet the Commission's rules regarding the rate, volume and pollutant load of stormwater runoff, along with other rules regarding wetland alteration, erosion and sediment control and other aspects of surface water protection. The City focuses on rates of discharge, downstream impacts and long term construction sustainability.

This adherence to Commission rules on water quality (BMPs) is one of the strategies Corcoran has chosen to also meet its TMDL obligations to reduce nutrients. The implementation plan calls on Corcoran to apply these standards when land use changes, a strategy that is predicted to have the net result of improving, or not further degrading, the water quality of stormwater runoff. Stormwater modeling guidelines are in Appendix B and may be updated prior to development's final construction plan approval.

Complementing the Local Plan, Corcoran's SWPPP requires plan review, construction site erosion and sediment control, and post-construction stormwater management. Construction site inspections by the City's consultant will begin with land-disturbing activity and end with final stabilization of



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exposed soils and City acceptance of the development. After construction, the City would enter an agreement with tany developer's common area association or similar group to ensure that stormwater Best Management Practices continue to function and are maintained as intended.

## 4.4 Findings

### Onsite

- Stormwater improvements are necessary within the development to meet City guidelines and in accordance with regulations of the WMO.
- To move towards meeting load reduction goals, the City's Local Surface Water Plan identifies that improvements to water resources will occur with development. Offsite

Offsite conveyance impacts for the development will be further explored as follows:

- Conveyance path to the north towards Jubert Lake for sustained flows from a majority of impervious land use,
- Potential diversion away from Horseshoe Bend Trail (an older roadside system), and
- Drainage paths under HWY 55, MnDOT approval and into Medina.

Costs may be incurred offsite by the development for drainage/water resource needs and the City is exploring a stormwater fee that may be incorporated in 2022.



## **5.0 Financing**

### **5.1 Summary**

Financing options of the development necessary for infrastructure and to mitigate impacts typically follow the approach of:

- On-site infrastructure is managed by the developer
- Although not currently available, all trunk sewer, water fees (TLAC), will be due at time services are made available to the site.
- Stormwater fee may be implemented by City prior to final platting.
- Off-site projects are typically managed by the by City (engineering, bidding and construction management) through an escrow provided by developer.

The financial package will be further detailed and negotiated as the project moves forward and culminates in the overall Developer Agreement with the overall preliminary plat approval which is updated for each phase of the development.



## 6.0 Conclusions and Recommendations

The following infrastructure improvements are feasible and necessary to manage the development. These improvements are consistent with similar requirements for other developments in Corcoran, and have shown to be necessary for managing the additional population:

### Transportation

- TH 55/Pioneer Trail
  - Short term – Widen southbound approach to accommodate a dedicated left turn lane and a through/right turn lane. Install traffic signal control.
  - Long term – No additional improvements needed.
- TH 55/Rolling Hills Road
  - Short term – No improvements needed.
  - Long term – No improvements needed.
- CSAH 19/Pioneer Trail
  - Short term – No improvements needed.
  - Long term – No improvements needed.
- Pioneer Trail/development access
  - Short term – Construct westbound approach with dedicated left and right turn lanes. Construct a northbound right turn lane. Construct south bound left into development.
  - Long term – No additional improvements needed.
- Additional improvements may be necessary based on MnDOT review.

### Sewer and Water

- Future connections to sewer and water requires corridors and necessary easements that shall be coordinated with construction plans and platting.
- 80 foot ROW along Street A would allow for future utility corridor.
- An individual lot shall be platted and dedicated to the City for future water well exploration.

### Water Resources

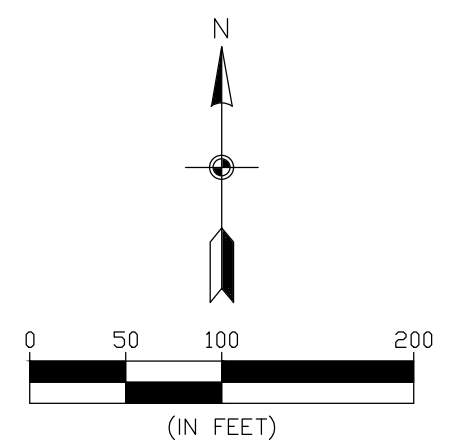
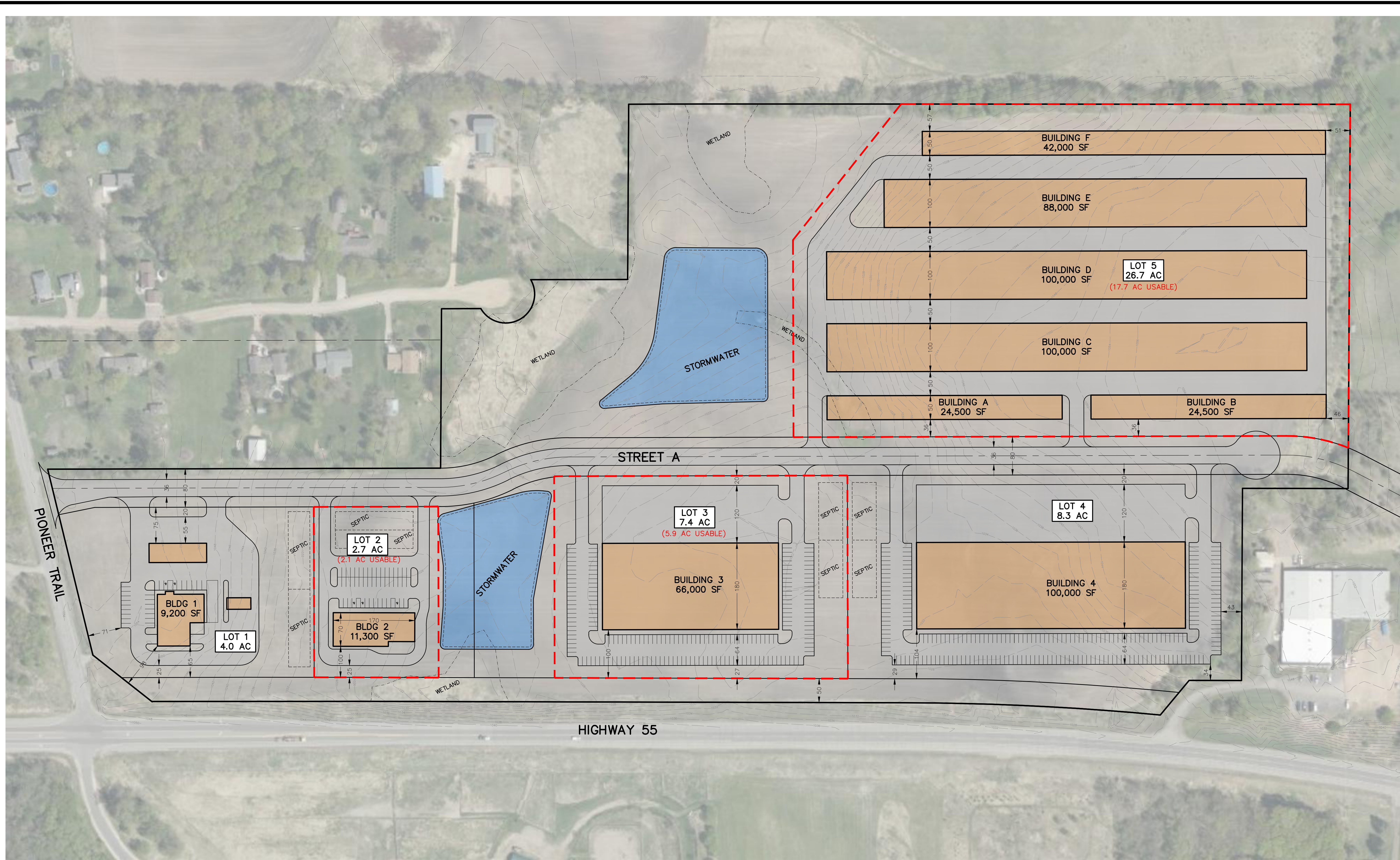
- Offsite property and / or improvements may be necessary to manage the additional drainage and allow the City to implement compliance as identified in the City's TMDL.
- Stormwater fees may be in place prior to final platting and would be applied to the development.
- Discharge to the Highway 55 ROW will be required to receive MnDOT approval.





# **FIGURE**

**Site Plan**



REVISIONS

1.	02/11/22	80' RIGHT OF WAY

DRAWN BY: JTR  
 DESIGNED BY: JTR  
 ISSUE DATE: 10/05/21

Site: D:\02\11\22\1\1\001a\0021 - 3990\0824 - landspec - corcoran\carlsonmccain\concept\_n\_corcoran - concept.n\_220111.dwg



# **APPENDIX A**

## **Sewer and Water Comprehensive Plan Systems**



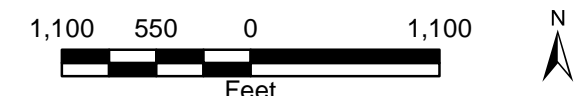
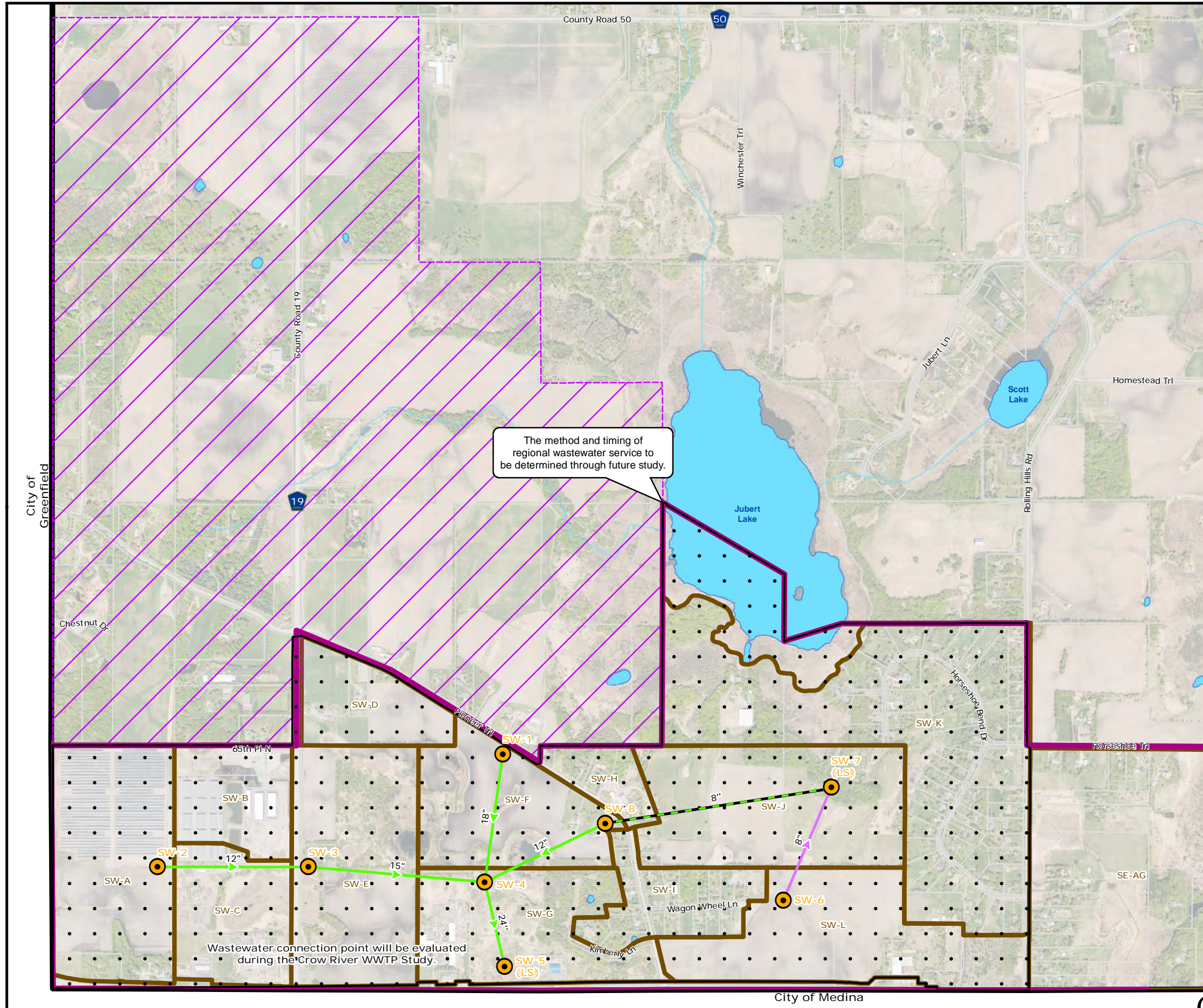


# CITY OF CORCORAN

## 2040 COMPREHENSIVE PLAN

Map 7-4  
Proposed Trunk Sanitary  
Sewer System - SW District

- Proposed Gravity
- Proposed Gravity (Lateral)
- Proposed Forcemain
- Sewer Nodes (LS) = Lift Station
- Sewer Subdistricts
- Municipal Boundary
- 2040 MUSA
- Future MUSA Expansion Area
- Future Study Area
- Parcel Boundaries
- Streams
- Lake/Open Water



Path: L:\2294100\2040CompPlan\SW Proposed Trunk Sanitary Sewer.mxd  
Date: 8/7/2019 Time: 8:15:33 AM User: ShuJC0243



# CITY OF CORCORAN

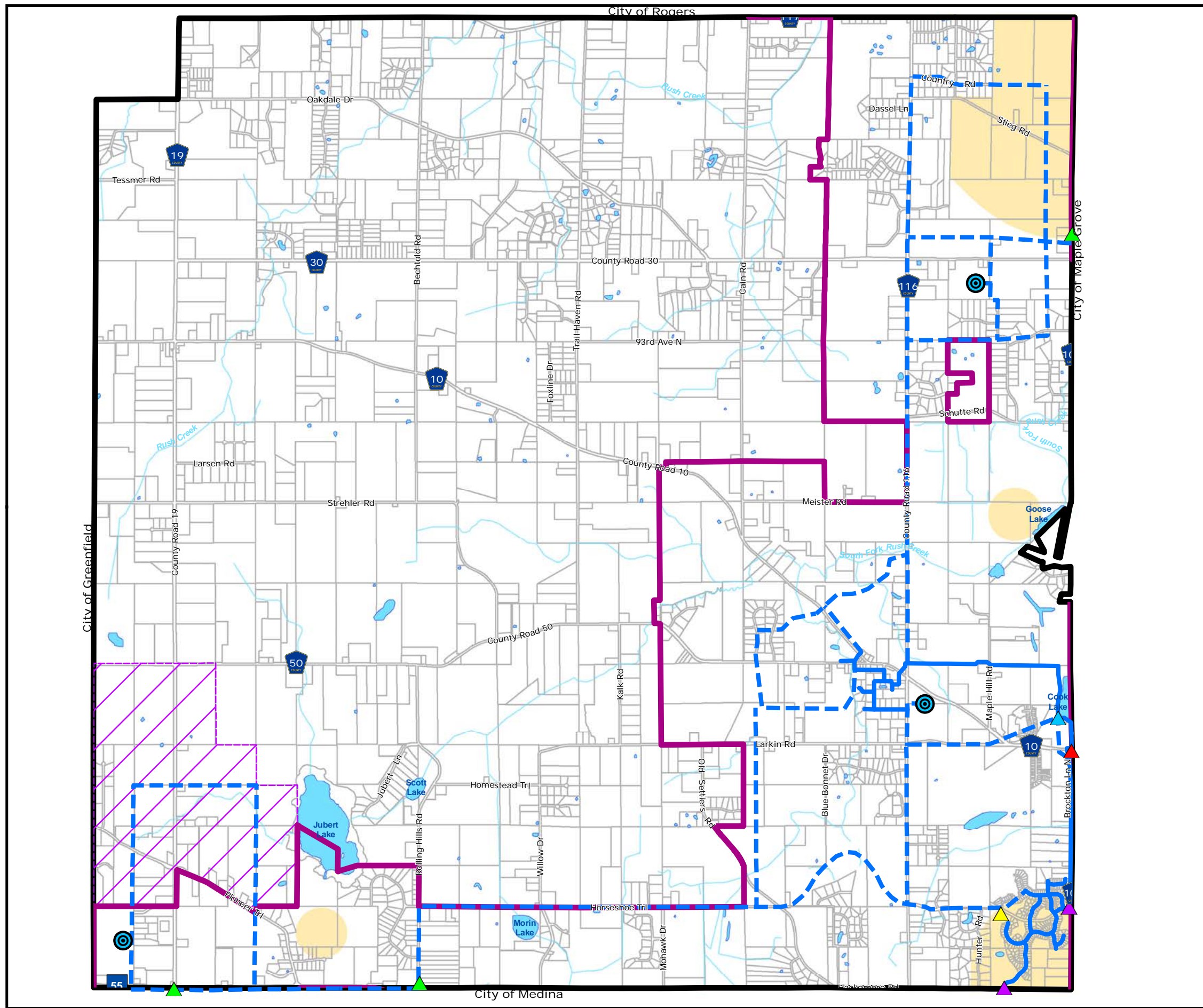
## 2040 COMPREHENSIVE PLAN

### Map 9-2 Trunk Water System

- Existing Watermain
- Proposed Watermain
- Potential Water Tower Locations
- Existing Supply Connection with Neighboring Communities
- Proposed Supply Connection with Neighboring Communities
- Emergency Connection with Neighboring Communities (Normally Closed)
- Potential Water Storage
- Potential Booster Station
- Potential Future Well Exploration Areas
- Municipal Boundary
- 2040 MUSA
- Future MUSA Expansion Area
- Parcel Boundaries
- Streams
- Lake/Open Water



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# **APPENDIX B**

## **Stormwater Modeling Guidelines**



## Stormwater Guidelines for Development March 2019

### Issue

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Cities changing from rural to urban development are challenged by the additional stormwater generated due to construction of impervious surfaces, along with the offsite infrastructure, or lack thereof, to manage effectively. To standardize the modeling and review process, the guidelines below were created for efficiency.

Note: A watershed approval is required per Elm Creek WMO rules, which also reviews flow rates, water quality and volume management.

### Modeling

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#### Watershed Information

- Provide an aerial photo of the development that includes the overall watershed and subwatershed boundaries
- Provide a summary of the acreage to each discharge point leaving the site. Any increase (or decrease) shall be identified.
- Show any floodplain adjacent to project or within the project
- Show downstream water bodies and flow paths
  - Downstream flow paths and water bodies typically need to have elevations, inverts, and condition identified.

#### Subwatersheds

A HydroCAD model (typically used) has inputs that can vary by user. To minimize resubmittals, review time and effort, the following data shall be utilized.

- Electronic model shall be submitted
- Hydrologic Soil Group (HSG) shall be lowered one category due to the mass grading and compaction of the soils. For example, an existing B soil, shall be modeled as a proposed C soil (unless it remains undisturbed)
- Wetlands, filtration basins, and ponds shall be modeled at CN of 98
- Identify peak rates for storm events and proposed shall be equal or less than existing rates.
  - Note: There are certain conditions where at City's discretion the off-site conditions require a reduction in flow rate from existing rates.
- SWMM (i.e. EPA-, XP-, or PC-) models can be submitted for review, however these increase review time.

#### Model Setup for Outlet Control Structures, NWLs and Infiltration

- The model's flow control structures (OCS, culverts, etc.) shall match the construction plan information. During the plan and model review both may be modified and revised
- Individual detail plates are required for each OCS, and individual plates shall have inverts identified
- A pond or wetland NWL (and model starting elevation) shall be set at the constructed outlet control elevation.
  - No live storage shall be utilized below the controlling OCS elevation.
  - No live storage shall be used for filtration shelves on ponds below controlling OCS elevation
- If a pond or wetland has an NWL (wet surface), infiltration shall not be used in flood routing.
- If a pond has filtration BMP causing drawdown below the NWL, this drawdown elevation shall not be used as the NWL for flood routing. (Filtration has a slower release time and during wet periods is not available as live storage).

### Construction Plans

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#### Catch Basins

- Street drainage shall be sufficient to manage the 10-year event

- Typical a CB inlet capacity is 2 to 2.5 CFS, and CBs shall be spaced accordingly
- Three inches (0.25 feet) of head on a CB will inundate a street centerline (2% slope).
- Spacing is 200 to 250 feet using longitudinal street dimensions of 40 feet from road centerline to half the house footprint (assumes rear half of house drains to rear yard). Dimensions equal 10,000 SF.
- CBs may be required on both sides of ped ramps to capture flows

### **Natural Drainage Features**

- Waterbodies receiving urban drainage (wetlands, ditches, gullies) may need to have OCS installed, erosion protection, or reduced flow rates to allow the feature to function over the long term due to more consistent flows from increased impervious via development
- Offsite work may be necessary and City will assist with coordination, easements, etc.

### **HWLs and EOFs**

- The freeboard requirements are:
  - Low Opening is a minimum of two feet above the HWL
  - Low Opening is a minimum of two feet above the EOF
- EOFs shall be accurately shown and as built are required. The highest point shall be the EOF (for example top of curb) since this is the controlling elevation
  - In certain instances, channel calculations of the swale may be required to show the EOF has capacity to manage estimated flow
- Overland EOFs are preferred, however if a second pipe serves as an EOF then modeling will include a 100-year event using the second pipe (EOF) as the only outlet (primary outlet plugged).

### **Rear Yards**

- Rear yards or swales less than 2% shall have draintile. Typically, every two to three lots will require rear yard CBs.

### **Sump Connections**

- Houses adjoining a wetland or pond do not need individual sump connection
- Others will have access to rear yard stormsewer.

## **Offsite Impacts**

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### **Adjacent Parcels**

- City will review adjacent parcels (downstream and upstream) for impacts from volume, point discharge, etc. and may require off site improvements. City will assist in coordination of any off site work.
- Off site water quality improvement projects may be determined by the City for assistance with compliance with City's TMDL approach of implementing improvements upon development.
- FEMA modifications may be necessary due to development and implemented by City.



# **Appendix H**

## **SHPO Response Letter**

February 22, 2022

Kendra Lindahl  
City Planner  
City of Corcoran  
8200 County Road 116  
Corcoran, MN 55357

RE: Pioneer Trail Industrial Park  
6210 Pioneer Trail, Corcoran, Hennepin County  
SHPO Number: 2022-0773

Dear Kendra Lindahl:

Thank you for the opportunity to comment on the above referenced project. Information received on January 26, 2022, has been reviewed pursuant to the responsibilities given the State Historic Preservation Office by the Minnesota Historic Sites Act (M.S. 138.666).

Based on information that is available to us at this time, we have determined that there are **no properties** listed in the National or State Registers of Historic Places and no known or suspected archaeological properties located in the area that will be affected by this project.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36 CFR § 800. If this project is considered for federal financial assistance, or requires a federal permit or license, then review and consultation with our office will need to be initiated by the lead federal agency. Be advised that comments and recommendations provided by our office for this state-level review may differ from findings and determinations made by the federal agency as part of review and consultation under Section 106.

If you have any questions regarding our review of this project, please contact Kelly Gragg-Johnson, Environmental Review Program Specialist, at [kelly.graggjohnson@state.mn.us](mailto:kelly.graggjohnson@state.mn.us).

Sincerely,



Sarah J. Beimers  
Environmental Review Program Manager

**RESOLUTION NO. 2022-27**

**Motion By:**  
**Seconded By:**

**A RESOLUTION ACCEPTING DONATION**

**WHEREAS**, the City Council of the City of Corcoran, Minnesota, is authorized to accept donations of real or personal property pursuant to Minnesota Statutes Section 456.03 for the benefit of citizens, and is specifically authorized to accept gifts; and

**WHEREAS**, the City received a monetary donation in the amount of \$150.00 from The Stanchion, is allocated to the police department; and

**WHEREAS**, the City Council finds that it is appropriate to accept the donation as offered for the benefit of the City of Corcoran, and residents;

**NOW THEREFORE BE IT RESOLVED**, the City Council of the City of Corcoran acknowledges the generosity The Stanchion and graciously accepts the donation.

**VOTING AYE**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

**VOTING NAY**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

Whereupon, said Resolution is hereby declared adopted on this 24<sup>th</sup> day of March, 2022.

\_\_\_\_\_  
Tom McKee – Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*

## STAFF REPORT

## Agenda Item 7d.

<b>Council Meeting:</b> March 24, 2022	<b>Prepared By:</b> Jessica Beise
<b>Topic:</b> Approving Cropland Bids	<b>Action Required:</b> Approval

---

### Summary:

The City owns property near City Hall. In the past the City has requested bids for the rental of the land for farming purposes. Staff sent bidding information to ten previous bidders and advertised for bids in the Crow River News and with the League of Minnesota Cities. Staff will open all received bids on March 24, 2022, at 1:00 pm for the rental of 49 tillable acres. Bid results and information will be provided to Council at the March 24 Council meeting. Council should review the bids and award the contracts to the highest bidder.

### Financial/Budget:

For 2020 and 2021 the land was rented for \$141.00 per acres for the 27 acre parcel and for the 22 acre parcel. The land rented for \$180.00 and \$160.00 per acre in 2018 and 2019. The 2022 performance reports and 2023 budget will be updated to reflect the increase or decrease in revenue dependent upon final bid results on March 24, 2022.

### Council Action:

Approve Resolution 2022-28 Awarding Cropland Rental Contracts with highest bid results.

### Attachments:

1. Resolution 2022-28 Awarding Cropland Rental Contracts with highest bid results.
2. Bids List – Crop Land (Will be submitted to Council after bid opening)

**RESOLUTION NO. 2022-28**

**Motion By:**  
**Seconded By:**

**A RESOLUTION AWARDDING CROPLAND RENTAL CONTRACTS**

**WHEREAS**, pursuant to advertisements for bids for the rental of crop land owned by the City of Corcoran, bids received, opened, and tabulated according to law, and the attached bids were received complying with the advertisement; and

**WHEREAS**, **TBD** provided the highest bid for the 27 acre parcel located ½ mile north of City hall on County Road 116 (PID 13-119-23-32-0001) in the amount of **\$TBD/acre**; and

**WHEREAS**, **TBD** provided the highest bid for the 22 acre parcel located at City Park (PID 23-119-23-34-0001) in the amount of **\$TBD/acre**;

**NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF CORCORAN, MN:**

- The Interim City Administrator is hereby authorized to enter into a two-year (2022 – 2023) contract with **TBD** in the name of the City of Corcoran for the rental of the 27 tillable acre parcel of crop land located ½ mile north of City Hall on County Road 116 (SE corner of Schutte Road and County Road 116) in the amount of **\$TBD/acre**; and
- The Interim City Administrator is hereby authorized to enter into a one-year (2022) contract with **TBD** in the name of the City of Corcoran for the rental of the 22 tillable acre parcel of cropland at City Park in the amount of **\$TBD/acre**.

**VOTING AYE**

- McKee, Tom**
- Bottema, Jon**
- Nichols, Jeremy**
- Schultz, Alan**
- Vehrenkamp, Dean**

**VOTING NAY**

- McKee, Tom**
- Bottema, Jon**
- Nichols, Jeremy**
- Schultz, Alan**
- Vehrenkamp, Dean**

Whereupon, said Resolution is hereby declared adopted on this 24<sup>th</sup> day of March, 2022.

\_\_\_\_\_  
**Tom McKee - Mayor**

**ATTEST:**

\_\_\_\_\_  
**Jessica Beise– Interim City Administrator**

**City Seal**



# City of Corcoran 2022 Cropland Bids

3/24/2022

Last Name	First	Parcel 1 27	Parcel 2 22	
		\$TBD	\$TBD	Per Acre
		\$ TBD	\$TBD.00	Total Bid
		\$	\$	Per Acre
				Total Bid
		\$	\$	Per Acre
				Total Bid

Apparent High Bidder Highlighted in Green - Results are unofficial until approved by the City Council. The City Council meeting date for review and approval is March 24, 2022.

## STAFF REPORT

## Agenda Item 7e.

<b>Council Meeting:</b> March 24, 2022	<b>Prepared By:</b> Jessica Beise
<b>Topic:</b> City Council Work Sessions	<b>Action Required:</b> Schedule Work Sessions

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### Summary:

The City Council has directed staff to schedule work sessions due to the increase in complex development reviews and policy considerations. Council and staff discussions resulted in scheduling work session meetings as follows:

- April 14<sup>th</sup> 5:30 pm – 6:30 pm
- May 12<sup>th</sup> 5:30 pm – 6:30 pm
- May 26<sup>th</sup> 5:30 pm – 6:30 pm
- June 23<sup>rd</sup> 5:30 pm – 6:30 pm

The meetings are open to the public. Once scheduled, staff will draft agendas to include topic items of discussion including code enforcement review, water tower and treatment facility planning and updates, and policy and ordinance review.

### Financial/Budget:

Minor costs associated with snacks and beverages will be incorporated into the existing budget.

### Alignment with Values:

This item relates to the following adopted values:

#### **Efficient and Effective Service Delivery**

We believe providing services to residents and businesses in an efficient and effective manner makes government easier to work with and creates a business friendly environment.

#### **Responsible Decision Making**

We believe it is the responsibility of the City to address difficult issues now in order to avoid larger more difficult issues in the future.

#### **Transparency**

We believe that open and honest communication is essential for an informed and involved citizenry. Processes and decision making should include opportunities to educate citizens and receive feedback.

### Council Action:

Schedule City Council one-hour work sessions at 5:30 pm on April 14, May 12, May 26, and June 23, 2022.

### Attachments:

None.

## STAFF REPORT

## Agenda Item 7f.

<b>Council Meeting:</b> March 24, 2022	<b>Prepared By:</b> Maggie Ung
<b>Topic:</b> Memorial Garden Policy	<b>Action Required:</b> Approval

---

### Summary:

In 2008, the City Council received a proposal from the Parks and Trails Commission for the development of a small garden, walkway, and gazebo to be located to the rear of City Hall. In 2010, the Memorial Garden was created. The purpose of the garden, titled Memorial Garden, was to honor long time dedicated employees and volunteers to the city; and to provide a park amenity to the residents and citizens of Corcoran.

In reviewing current procedures, staff is recommending the attached policy to guide the use of the remaining and incoming funds for the Memorial Garden. For purchases under \$5,000, Parks and Trails Commission approval is needed prior to purchase. Purchases will then be brought to the City Council for approval as part of the claims register. For purchase equal to or exceeding \$5,000, both the Parks and Trails Commission and the City Council must approve prior to the purchase.

### Financial/Budget:

There is no impact to the budget or financials. The City will need approval for the expenditures related to the funds prior to the money being spent.

### Options:

1. Adopted Resolution 2022-29 Adopting the Memorial Garden Policy.
2. Direct staff to amend the policy.
3. Decline the policy.

### Council Action:

Approve the Memorial Garden Policy and adopted Resolution 2022-29 Adopting the Memorial Garden Policy.

### Attachments:

1. Memorial Garden Policy
2. Resolution 2022-29 Adopting the Memorial Garden Policy

# MEMORIAL GARDEN POLICY

## **Purpose**

The purpose of this policy is to establish specific guidelines the City of Corcoran will follow with the funds related to the Memorial Garden.

## **Background**

The Park Capital fund is a Capital Project fund and is restricted per MN State Statute 85.53. The Memorial Garden was segregated in the Park Capital fund back in 2010, when the park was developed.

## **Responsibility**

The City Administrator is the responsible authority overseeing all city expenditures and the chief purchasing agent for the City. It is the responsibility of staff to review this policy periodically and bring forth amendments to City Council when needed. Staff will follow this guideline when making purchasing decisions regarding the Memorial Garden.

## **Financial Requirements**

The Memorial Garden is tracked as a part of the Park Capital fund, which is a special revenue fund. The Memorial Garden's cash is kept separately from the remainder of the City in its own savings account at the City's main bank. The funds are committed to expenditures for the purpose of the Memorial Garden. If the park for any reason no longer exists, the funds will be lumped into the remaining Park Capital fund.

## **Funding**

Funding may come from grants or donations. All funds received are presented to Parks and Trails Commission and the City Council.

## **Making Purchases:**

For purchases under \$5,000:

All purchases under \$5,000 will be brought forth to the Parks and Trails Commission for approval. If approved by the commission, purchases will subsequently be brought to the City Council for approval as part of the claims register.

For purchases equal to or exceeding \$5,000:

If purchases are equal to or exceed \$5,000, approval must be received from both the Parks and Trails Commission and City Council prior to purchase.

Examples of past purchases includes the following:

- Plants to beautify and maintain the Memorial Garden.
- Memorial items such as engraved bricks/boulders and benches.

**RESOLUTION NO. 2022-29**

**Motion By:**  
**Seconded By:**

**A RESOLUTION ADOPTING THE MEMORIAL GARDEN POLICY**

**WHEREAS**, polices guide in the preparation and management of the City's overall budget and major objectives to be accomplished and;

**WHEREAS**, Government Finance Officers Association (GFOA) best practices recommends government formally adopt financial policies and;

**WHEREAS**, the Memorial Garden was developed in 2010 to provide a park amenity to the residents and citizens of Corcoran and to honor long time dedicated employees and volunteers to the City;

**WHEREAS**, the policy will serve as a guideline for use of funds related to the Memorial Garden;

**NOW, THEREFORE, BE IT RESOLVED** that the City Council of the City of Corcoran, Minnesota authorizes the adoption of the Memorial Garden Policy.

**VOTING AYE**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

**VOTING NAY**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

Whereupon, said Resolution is hereby declared adopted on this 24<sup>th</sup> day of March, 2022.

\_\_\_\_\_  
Tom McKee - Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*



**TO:** Corcoran City Council

**FROM:** Nicholas Ouellette through Kendra Lindahl, Landform

**DATE:** March 16, 2022 for the March 24, 2022 City Council Meeting

**RE:** Preliminary Plat, Site Plan and Administrative Permit for “Corcoran II Substation” at Larkin Road and County Road 116 (PID 25-119-23-23-0001) (City file no. 22-004)

**120-DAY REVIEW DEADLINE:** May 31, 2022

### 1. Description of Request

The applicant is requesting approval preliminary plat to create one lot and two outlots from a 36.92-acre parcel for a new electric substation in addition to a site plan approval for this essential service. Typically, this application would be administratively approved but since there is a plat, the site plan and administrative permit will be processed concurrently.

### 2. Parks and Trails Commission Review

The Parks and Trails Commission reviewed the item on February 17, 2022 and recommended acceptance of Outlot A (1.5 gross acres) for park land dedication. Credit will be given for the net land area accepted for park dedication. The applicant will be responsible for providing gross and net acreage for this park dedication.

### 3. Planning Commission Review

The Planning Commission held a public hearing on March 3, 2022. In addition to the applicant, there were four people present to speak at the public hearing and six emails that were provided with the packet and entered into the record.

Commissioner Lanterman gave his opinion that the applicant did not have the right to submit an application and that the City should not have accepted the application. Staff stated that the City Attorney opined that due to the eminent domain process that Wright Hennepin Electric is using to acquire the property, the City could process the application but any approvals would be contingent upon acquisition of title from the Hennepin County Court. The applicant elected to proceed with the application, understanding this requirement. Commissioner Lanterman thereafter expressed concerns about the status of the eminent domain proceedings and noted disagreement among those offering testimony before the Planning Commission as to the existence and status of a stipulated order approving the eminent domain petition.

The Planning Commission did not make a recommendation on the application. The Planning Commission voted 5-0 to recommend denial because they did not believe that the applicant had the legal right to submit an application.



Following the meeting, the Interim City Administrator and consulting planner met with the City Attorney. Staff believes that it is permissible for Wright Hennepin Electric to apply during the eminent domain process. The City Code does not specifically describe the process for submitting a development application when the property is being acquired through eminent domain, but the City Attorney has stated that the intent is to ensure that approval is collected from all required persons or entities and the process followed here ensures that no application is approved unless and until this occurs.

The applicant has provided a copy of the signed Order Approving Petition and Transferring Title and Possession. The order gives Wright Hennepin Electric the title to and possession of the property on April 26, 2022, upon the posting of required funds. Upon such posting, Wright Hennepin Electric will own the property on April 26, 2022 and the draft resolution includes a condition stating that the approval shall not take effect until this occurs and is verified by the City. Further, the resolution also states that the City Council will not approve the final plat until after this occurs.

The applicant has submitted revised plans which have addressed issues regarding off-site grading, landscaping conflicts, fence slats, future site access, and seeding and maintenance plans.

#### **4. Background**

In 2021, the applicant requested approval for a new electric substation on the south side of 19835 Larkin Road adjacent to the transmission lines. The application was withdrawn so the applicant could determine a more suitable location for the new substation.

#### **5. Context**

##### *Zoning and Land Use*

The site is zoned Mixed Residential (RMF-2) district and the Comprehensive Plan designates the property as Mixed Residential. The site is located within the Metropolitan Urban Service Area (MUSA) and Southeast District.

##### *Surrounding Properties*

The surrounding properties are all located within the MUSA and Southeast District. The property to the north is zoned Downtown Mixed Use (DMU) district and guided Mixed Use in the Comprehensive Plan. Properties to the east are zoned RMF-2 district and guided Mixed Residential. Properties to the south are zoned Urban Reserve (UR) district and guided Mixed Residential. Properties to the east are zoned Light Industrial (I-1) district and C-1 Community Commercial and are guided Light Industrial and Commercial respectively.



### *Natural Characteristics of the Site*

The Natural Resources Inventory (NRI) map identifies emergent, shrub and wet prairie wetlands on the site. The wetland delineation provided by the applicant identifies five wetlands throughout the site. One wetland is identified within the project area being acquired by the applicant.

## **6. Analysis**

Staff has reviewed the application for consistency with the Comprehensive Plan Zoning Ordinance, Subdivision Ordinance and City Code requirements, as well as City policies. The City Engineer's comments are incorporated into this staff report, the detailed comments are included in the attached engineering memo and the approval conditions require compliance with the memo.

### **A. Level of City Discretion in Decision-Making**

The City's discretion in approving a site plan is limited to whether or not the plan meets the standards outlined in the Zoning Ordinance. If it meets these standards, the City must approve the site plan.

The City's discretion in approving or denying a preliminary plat is limited to whether or not the proposed plat meets the standards outlined in the City's subdivision and zoning ordinance. If it meets these standards, the City must approve the preliminary plat.

The City's discretion in approving an administrative permit is limited to whether the proposed plan meets the standards outlined in the City's zoning ordinance. If it meets these standards, the City must approve the permit.

### **B. Consistency with Ordinance Standards**

#### Preliminary Plat

The applicant is proposing to subdivide the existing 38.91-acre site into one lot and two outlots. The existing landowner will retain 32.29 acres in Outlot B while the applicant is acquiring 5.30 acres. They will create a 2.87 acre Lot 1, Block 1, a 1.5-acre Outlot A and dedicate 0.93 acres of right-of-way for County Road 116 and Larkin Road. 1.32 acres of right-of-way will also be dedicated for Larkin Road from Outlot B.

In 2020, the City and the present owners of the subject property agreed to a deferred assessment of the subject property in the base amount of \$21,800, and subject to 2% annual interest, which is to be come due in full upon the platting of the subject property. Payment of this fee is a condition of final plat approval.





### *Easements*

The applicant has provided drainage and utility easements over the wetland buffer and stormwater pond. Drainage and utility easements must remain free of all encroachments unless specifically permitted by the City with an encroachment agreement.

The City requires drainage and utility easements over all outlots. However, a drainage and utility easement is not required over Outlot A because it will be the City park. A drainage and utility easement shall be provided over Outlot B.

The City has an existing watermain easement on the property which will remain in place after the final plat.

### *Wetlands*

A wetland is located on the site and is subject to the standards in Section 1050.010 "Wetland Overlay District." The wetland located on Lot 1 extends east into Outlot B. Plans show the wetland area on the east side of Lot 1 will be filled but a portion of the wetland will remain on Outlot B. A buffer from the remaining wetland area is required on this site. The wetland buffer shown on plans is 25 ft. in width as required for medium quality wetlands. MnDOT seed mix 34-261 is proposed for the wetland buffer and the applicant has provided a wetland buffer maintenance plan.

The City Engineer has requested the provide slope intercept or grading exhibits to ensure grading will not occur in the wetlands or adjust the wetland application to account for this impact.

### *Park Dedication*

Park dedication is due for the acreage being acquired by the applicant for the electrical substation. Park dedication will be due for Outlot B when it develops in the future.

The Parks and Trails Plan in the Comprehensive Plan and the Southeast District Plan and Design Guidelines show a future neighborhood park situated in what is proposed as Outlot B.

The Southeast District Plan and Design Guidelines shows a linear park running north to south along the east side of County Road 116. The linear park will continue north and south through the Southeast District on the east side of County Road 116. The linear park will provide trail connections to new civic and community spaces in addition to providing safe and convenient pedestrian crossings throughout the Southeast District.

Under the current ordinance, park dedication of land is required at 28% of the net pre-development area for Mixed Residential land or equivalent market value in cash. The ordinance would require approximately 1.5 acres of park dedication for the if the gross acreage acquired by the applicant is 5.3 acres; however, staff has included a condition that the applicant provide the pre-development gross acreage exhibit. The applicant is proposing to dedicate Outlot A for the linear park as envisioned by the Southeast District Plan. Outlot A is approximately 1.5 net acres. The proposed park dedication appears



to meet dedication requirements. Outlot A is 135 feet in width and matches the width of the linear park adjacent to the Saint Therese development. The linear park will form a contiguous connection along County Road 116 from Larkin Road to City Hall and will include an off-road trail with landscaping.

*Trails and Sidewalks*

The Parks and Trails Plan map from the Comprehensive Plan identifies an existing on road trail on County Road 116 and a proposed off-road trail through proposed Outlot A (the linear park) and Outlot B. The proposed off-road trail is not located within the project site. The trail on Outlot B will be deeded and constructed when Outlot B develops. The City will develop the trail in the linear park when all acreage is available for a connected trail.

Site Plan

Site plan approval is required for all developments except for agricultural uses in the Agricultural (A) and Rural Residential (RR) districts, single family detached dwellings and two family attached dwellings.

*Lot Standards and Setbacks*

The minimum lot standards and setback requirements in the RMF-1 are based on dwelling type. Section 1030.090 of the Zoning Ordinance requires that essential services in residential zoning districts shall be located on land at least one acre in size. This project will be subject to the setback standards for an apartment/condominium in the RMF-2 district as they are the most restrictive standards. The proposed lots comply with the minimum lot standards for the RMF-2 district and for Essential Services. Lot standards and setbacks applicable to this project are:

	<b>RSF-1 District</b>	<b>Lot 1 (Substation Site)</b>	<b>Outlot A</b>
<b>Minimum Lot Size*</b>	1 acre	2.26 acres	1.5 acres
<b>Minimum Lot Width</b>	100 ft.	271 ft.	136 ft.
<b>Minimum Principal Structure Setbacks</b>			
<b>Front, from major roadways</b>	100 ft.	NA	NA
<b>Front, from all other streets</b>	25 ft.	301 ft.	NA
<b>Side</b>	30 ft.	111 ft.	NA
<b>Rear</b>	25 ft.	141 ft.	NA
<b>Maximum Principal Building Height</b>	35 ft. or three stories	11 ft.	NA

*\*As regulated by Section 1030.060, the minimum lot size for essential services in residential district is one acre. The minimum lot size required for an apartment/condominium in the RMF-2 district is one acre.*



### *Access and Streets*

The electrical substation will have access from Larkin Road. The access from Larkin Road shall have a concrete apron. Future access to the site will come from the future street in Outlot B as and the access from Larkin Road will be eliminated.

The City has performed a feasibility study on the Larkin Road and County Road 116 intersection to determine if the developer is responsible for necessary off-site roadway improvements. The feasibility study determined additional Larkin Road right-of-way was not required from the proposed site at this time. The feasibility study notes the existing Larkin Road is a gravel roadway with a 4-ton limit. During construction, the applicant shall either obtain a secondary permit from Hennepin County to access property directly from County Road 116 or the applicant should be responsible for improving Larkin Road to the proposed access to accommodate construction vehicles. The level of improvement is dependent on the needs of Wright Hennepin for vehicle access to the site. If Larkin Road improvements are necessary, access shall only come from County Road 116 along the improved stretch of Larkin Road.

Access to the site would only be permitted from County Road 116 through the improved stretch of Larkin Road.

### *Parking*

While there are no employees and only occasional service calls, the plans dimension two parking stalls for service trucks. The parking area complies with the minimum dimensional requirements for parking stalls and drive aisles. A curb has been provided around the perimeter of the parking area and entrance drive as required by Section 1060.060 of the Zoning Ordinance. The area within the fence is crushed aggregate.

Section 1050.010 of the Zoning Ordinance regulates that a five foot setback from the wetland buffer edge is required for roads and parking lots. Plans must show compliance with this standard where the drive aisle is adjacent to the wetland buffer.

### *Landscaping*

The site complies with the minimum landscape standards in Section 1060.070 the Zoning Ordinance. The Zoning Ordinance requires one overstory tree per 50 linear feet of site perimeter and one understory shrub per 30 linear feet of site perimeter. Plans show plantings at sizes and percentages that comply with ordinance requirements. 56 overstory trees and 62 shrubs have been provided on plans where 30 overstory trees and 49 understory shrubs are required. However, plans show trees located in the drainage and utility easement. Staff has included a condition the applicant must work with City staff to finalize the location of drainage and utility easements and locate landscaping outside of the easements.



A native wet and dry-tolerant seed mix will be planted around the stormwater pond. The City requires a stormwater maintenance agreement for the stormwater pond. The City park areas will be seeded with low maintenance commercial turf mix MnDOT 25-131.

The applicant has also provided slats in the chain link fence to provide additional screening of the substation.

The applicant has provided a swale along the west side of the substation to direct stormwater from the south and west of the site to the stormwater pond in the north of the site. The applicant has also provided drain-tile in the swale.

### *Public Safety*

The Public Safety Committee reviewed the plans and noted no concerns.

### *Buildings*

The substation facility is primarily electrical equipment but it does have a small utility building located to the rear of the site. The plans show steel roofing (4:12 pitch) and textured block building finish. The applicant has provided material and color samples for review and approval by staff. The proposed finishes and colors are typical for other City built utility buildings in residential areas.

### Administrative Permit

The electric substation is considered an “essential service” by the Zoning Ordinance. Essential Services are defined as *“the erection, construction, alteration or maintenance by private or public utilities, or municipal departments of underground or overhead telephone, gas, electrical, steam, hot water, waste, or water transmission, distribution, collection, supply or disposal systems, including poles, wires, mains, drains, sewers, pipes, conduits, cables, fire alarm boxes, police call boxes, traffic signals, hydrants and other similar equipment and accessories in connection therewith for the furnishing of adequate service by such private or public utilities or municipal departments. Essential services shall not include waste facilities”* and are allowed by administrative permit in the RMF-2 zoning district.

Essential services are allowed in all districts by administrative approval subject to the standards in Section 1030.090 of the Zoning Ordinance. They are allowed by right or administrative permit in all districts because they are essential utilities that the City needs to function and the Council developed an ordinance with performance standards to ensure transition to adjacent uses. These types of services are likely to be located near development because development drives need.

Typically, these uses would be approved administratively by staff, however, because the plat is being sent to the Planning Commission and Council, staff chose to share the site plan and administrative permit for action.

Section 1030.090 of the Zoning Ordinance, Subd. 4 established performance standards for essential services.



*Subd. 4. Performance Standards.*

- A. Except for electrical lines, phone lines, cable television lines, gas lines and similar lineal facilities, all essential public services in the Agricultural and Residential zoning districts shall be located on land at least one acre in size. In all other zoning districts, parcels of land for essential services shall be large enough so that all structures and facilities comply with the required setbacks for zoning district.*

The site complies with the one acre minimum lot size for essential services. This is consistent with the minimum lot size for the RMF-2 district. The site includes a small utility building which complies with the setback standards for principal structures in the RMF-2 district.

- B. Utility substations and communications antennas permitted by the Corcoran City Code and this Ordinance shall be encouraged to be located on the same parcel; however, the parcel shall be large enough so that all structures and facilities comply with the required setbacks for the zoning district.*

Complies.

- C. The site shall be landscaped and maintained in accordance with Section 1060.070 (Landscaping) of this Ordinance. All above grade lift stations, pump stations, substations and similar structures not located in a building shall be screened.*

The site complies with the minimum landscape standards in Section 1060.070.

This essential service is different from a typical residential or commercial/industrial standard and does not neatly fall into either category. However, staff reviewed the application against the higher non-residential standard, which requires a minimum of:

- One overstory tree per 1,000 square feet of gross building floor area or one tree per 50 lineal feet of site perimeter, whichever is greater, and
- One understory shrub for each 300 square feet of building or one tree per 30 linear feet of site perimeter whichever is greater.

The site perimeter is 1,466 linear feet for Lot 1 Block 1 which requires 30 overstory trees and 49 understory shrubs. The applicant has provided the minimum number of trees and shrubs required.

A stormwater pond is located between the substation and rear property line. A native wet and dry-tolerant seed mix will be planted in this area. The City requires a stormwater maintenance agreement for the stormwater pond.



Plans show required trees and shrubs in the drainage and utility easement along the rear property line. Trees and shrubs are also in the wetland buffer where they are not permitted. The location of some trees and shrubs may also be within the side utility and drainage easements. Staff has included a condition the applicant must revise the landscape plan to show the drainage and utility easements and relocate trees and shrubs outside of the wetland buffer and drainage and utility easement.

The electrical substation equipment is enclosed with a seven foot high chain link fence with barb wire at the top for security and complies with all structure setbacks. The chain link fence includes slats to provide additional screening of the substation. Fence details have been provided for review and approval by staff.

- D. Buildings and structures shall be constructed to be compatible with the size, color, appearance and character of other structures in the zoning district.*

The substation facility is primarily electrical equipment but it does have a small utility building. The plans show steel roofing (4:12 pitch) and textured block building finish. The applicant has provided material and color samples for review and approval by staff. The proposed finishes and colors are typical for other City built utility buildings in residential areas.

- E. Facilities and equipment shall be removed within 6 months of becoming unnecessary or obsolete.*

Staff has included this as a condition of approval in the draft resolution.

*Subd. 5. Special Districts. Essential public services located in a special overlay district shall comply with the requirements and development guidelines in that district.*

As noted above, wetlands are present on the site. The applicant must comply with the standards regulating wetland and wetland buffer areas in Section 1050.010 "Wetland Overlay District."

*Subd. 4. All electrical, cable television, phone lines and similar facilities serving new development within the urban service area shall be located underground.*

Not applicable. This cannot apply to a substation that requires a connection with an adjacent above-ground transmission line.



## Summary

Essential services are permitted in all zoning districts as an administrative approval, due to the essential nature of the utility services. Many of these services are provided by the City but other services are provided by private utility companies. It is common to locate these services in residential districts they serve.

Staff finds that the ordinance standards have been met and recommends approval of the request.

## **7. Recommendation**

Move to adopt Resolution 2022-24 approving the preliminary plat, site plan and administrative permit for the electric substation.

## **Attachments**

1. Resolution 2022-24 Conditionally Approving Preliminary Plat, Site Plan and Administrative Permit
2. Site Location Map
3. City Engineer's Memo dated February 24, 2022
4. Feasibility Study dated February 24, 2022
5. Order Approving Petition and Transferring Title and Possession
6. Applicant's Narrative dated January 18, 2022
7. Preliminary Plans dated March 14, 2022
8. Building Elevation dated January 18, 2022
9. Letter from WH President and CEO dated February 23, 2022
10. Letter from WH President and CEO dated March 14, 2022
11. Letter from Pemberton Law dated March 14, 2022
12. Facts about Wright Hennepin Cooperative Electric Association dated February 23, 2022
13. Corcoran Substation Information dated February 23, 2022
14. Wright Hennepin Electric Presentation dated March 14, 2022
15. Public Comments

**RESOLUTION NO. 2022-24**

**Motion By:  
Seconded By:**

**A RESOLUTION CONDITIONALLY APPROVING A PRELIMINARY PLAT, SITE PLAN AND ADMINISTRATIVE PERMIT FOR "CORCORAN SUBSTATION II" AT LARKIN ROAD AND COUNTY ROAD 116 (PID 25-119-23-23-0001) (CITY FILE NO. 22-004)**

**WHEREAS**, the Wright Hennepin Cooperative Electric Association has requested approval of a preliminary plat, site plan and administrative permit for the property legal described as:

*See Attachment A*

**WHEREAS**, the Planning Commission reviewed the submitted preliminary plat, site plan and administrative permit at a duly called Public Hearing; and,

**NOW, THEREFORE, BE IT RESOLVED** that the Corcoran City Council approves the request for a preliminary plat, site plan and administrative permit subject to the following findings and conditions:

1. The approvals in this resolution shall not take effect until the applicant has provided the City with proof it has secured title to the property.
2. Upon satisfaction of the above condition, a preliminary plat is approved, in accordance with the plans received by the City on January 18, 2022 and March 11, 2022, except as amended by this resolution.
3. The applicant shall comply with all requirements of the City Engineer's memo dated February 24, 2022.
4. Upon satisfaction of condition 1 above, a Site Plan and Administrative Permit is approved for the electrical substation, subject to the conditions in this Resolution.
5. Prior to approval of final plat:
  - a. The applicant must take title to the property and provide proof of the same to the City.
  - b. The plans must show a curb around the perimeter of the parking area and entrance drive in accordance with City standards.
  - c. The applicant shall provide the net and gross acreage of the land they area acquiring as the pre-development acreage, as well as the net and gross acreage calculations for the lot and outlot areas.



**RESOLUTION NO. 2022-24**

- d. The plans must be revised to wetland buffer setbacks in compliance with Section 1050.010 of the Zoning Ordinance.
  - e. The color and style of the fence slats must be approved by City staff.
  - f. Outlot A shall be deeded to the City by warranty deed. The applicant must provide a copy for City approval.
  - g. The applicant shall finalize the location of drainage and utility easements with City staff.
  - h. The applicant shall work with City staff to locate landscaping outside of the drainage and utility easements.
6. The developer must enter into a stormwater maintenance agreement with the City. The agreement shall be recorded with the final plat.
7. The applicant shall enter into a Site Improvement Performance Agreement to provide a financial guarantee to protect the work prior to release of the final plat for recording.
8. The 2020 watermain deferred assessment shall be due prior to release of final plat and the applicant will pay the deferred assessment.
  - a. Upon determination of damages owed as a result of the applicant's condemnation of the property subject to this application, either by court-appointed commissioners or by direct negotiation, the applicant shall pay to the City the full amount of this assessment, inclusive of any interest accrued at that time, within 30 days of such determination.
  - b. Nothing in this condition shall be construed to prevent the applicant from seeking a corresponding reduction in any damage payment made to present owners.
9. Approval of the preliminary plat shall expire within one year of the date of this resolution unless the applicant has filed a complete application for approval of final plat.
10. Facilities and equipment shall be removed within six months of becoming unnecessary or obsolete.

**RESOLUTION NO. 2022-24**

**VOTING AYE**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

**VOTING NAY**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

Whereupon, said Resolution is hereby declared adopted on this 24<sup>th</sup> day of March 2022.

\_\_\_\_\_  
Tom McKee - Mayor

ATTEST:

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*

**RESOLUTION NO. 2022-24**

**ATTACHMENT A**

The Southwest Quarter of the Northwest Quarter except that part lying southerly of the southerly right-of-way line of the Town Road now opened and laid out and generally running East and West, approximately located between the Southwest Quarter of the Northwest Quarter and the Northwest Quarter of the Southwest Quarter, all in Section 25, Township 119, Range 23, except that parcel which lies westerly of a line parallel and distant 40 feet East of the West line of Section 25, Township 119, Range 23.



# Hennepin County Property Map

Date: 2/9/2022



PARCEL ID: 2511923230001

OWNER NAME: George H Deziel Rev Trust

PARCEL ADDRESS: 7400 Co Rd No 116, Corcoran MN 55340

PARCEL AREA: 36.92 acres, 1,608,377 sq ft

A-T-B: Abstract

SALE PRICE:

SALE DATA:

SALE CODE:

ASSESSED 2020, PAYABLE 2021

PROPERTY TYPE: Farm

HOMESTEAD: Non-Homestead

MARKET VALUE: \$1,008,700

TAX TOTAL: \$10,922.34

ASSESSED 2021, PAYABLE 2022

PROPERTY TYPE: Farm

HOMESTEAD: Non-Homestead

MARKET VALUE: \$973,500

## Comments:

This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

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To:	Kevin Mattson, City of Corcoran	From:	Kent Torve, City Engineer Steve Hegland, PE
Project:	Corcoran II Substation (Wright-Hennepin)	Date:	February 24 <sup>th</sup> , 2022

---

**Exhibits:**

This Memorandum is based on a review of the following documents:

1. Preliminary Plans for the Corcoran II Substation, Prepared by Civil Methods, Inc. Dated January 28<sup>th</sup>, 2022.
2. Corcoran II Substation Stormwater Management Plan, Prepared by Civil Methods, Inc. Dated January 17<sup>th</sup>, 2022

**Comments:**General:

1. Consistent with the review process, a comment response letter shall be provided in response to the following comments provided in this Memorandum in which the applicant provides a written response to each item.
2. In addition to engineering related comments per these plans, the proposed plans are subject to addition planning, zoning, land-use, and other applicable codes of the City of Corcoran.
3. Final approval by the Elm Creek Watershed Management Commission (ECWMC) must be attained before any site grading or activity may commence. Approval from City is required before submitting to ECWMC.
4. For any site activity (demo, grading, utilities, etc.) no closures or restrictions of any kind shall be imposed upon the public use of Larkin Road without the City's permission. Should any lane restrictions be necessary, the Contractor shall notify the City at least 48 hours in advance and provide a Traffic Control Plan.
5. Larkin Road is a 4-ton roadway so contractor shall be responsible for ensuring they have adequate access for construction without exceeding roadway limits.
6. An encroachment agreement shall be required for all site improvements or items placed within the City ROW, easements, or adjacent private property.
7. Ownership and maintenance agreement on storm sewer and any BMPs to be verified with City and are typically requirement of the WMO.
8. City is performing a feasibility study on Larkin Road and County Road 116 intersection. Developer may be responsible for roadway improvements to Larkin Road as outlined in feasibility study.

Plat:

1. The applicant shall have all drainage and utility easements provided and shown and all platting requirements met per the City Code. Drainage and utility easements (5' – 10') shall be provided along property lines, as standard per City requirements.

2. Provide Drainage and utility easement over Outlot B.
3. Grading as proposed will extend past the proposed property line/wetland mitigation boundary. Please provide slope intercept or grading extents to ensure that grading will not occur in wetlands or adjust wetland application to account for this impact.

#### Erosion Control/SWPPP

1. Preparation of and compliance with a SWPPP per MPCA requirements shall be required for construction.
  - a. Revise the SWPPP to reference City of Corcoran permanent stormwater management requirements, not the City of North Branch.
2. City of Corcoran is an MS4 city and site visits to be conducted weekly during construction.
3. Silt fence to be added to pond perimeter prior to construction.
4. Turf Reinforcement Mat (TRM) for EOFs of any ponds/bmp/wetlands, per the Corcoran Standard Plates, shall be Slopetame3 or MnDOT Spec. 2020 - Rolled Erosion Prevention Product - Category 76, or MnDOT Spec. 2018 Turf Reinforcement Mat – Category 4. (Slopetame2 is no longer an available product.)
5. Currently, specifying Category 20 erosion control blanket (Rolled Erosion Prevention Product – MnDOT 2020 specs.) for most areas. Ditch bottoms shall require Category 25 when grades are corrected to 2%.
6. Provide Rolled Erosion Prevention Product (REPP) for all ditch bottoms on south end of project and any slopes 4:1 or greater.
7. Provide erosion control from EOF of Pond to north wetland.
8. Provide redundant silt fence for wetland located on eastern property edge.
9. Concentrated flow cannot be directed at silt fence. The use of silt fences as a sediment barrier is not permitted in areas of concentrated flow, such as ditches or outfalls. In these cases, soil berms, silt dikes, straw wattles, excelsior logs, rock check dams, or other BMPs suitable for concentrated flow should be used. Please provide for silt fence relief for pond outlet and detail on plans.

#### Transportation

1. Road to be privately owned and maintained
2. Site entrance at Larkin Road to have concrete apron.
3. All parking areas shall have concrete curbing and a paved surface.
  - a. Provide concrete curb on entrance road and parking area
4. Public safety to review site and determine if emergency vehicle turnaround is required.
5. Future access to site will come off Future Street in Outlot B and access off Larkin Road will be eliminated. Provide proposed location of future access.

#### Site Plans

1. Provide additional wetland buffer monuments at buffer angle points.
2. Revise tree locations on landscaping plan to be out of drainage swales.

#### Grading /Stormwater

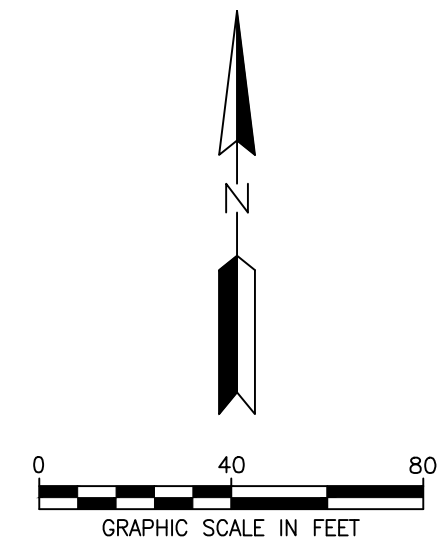
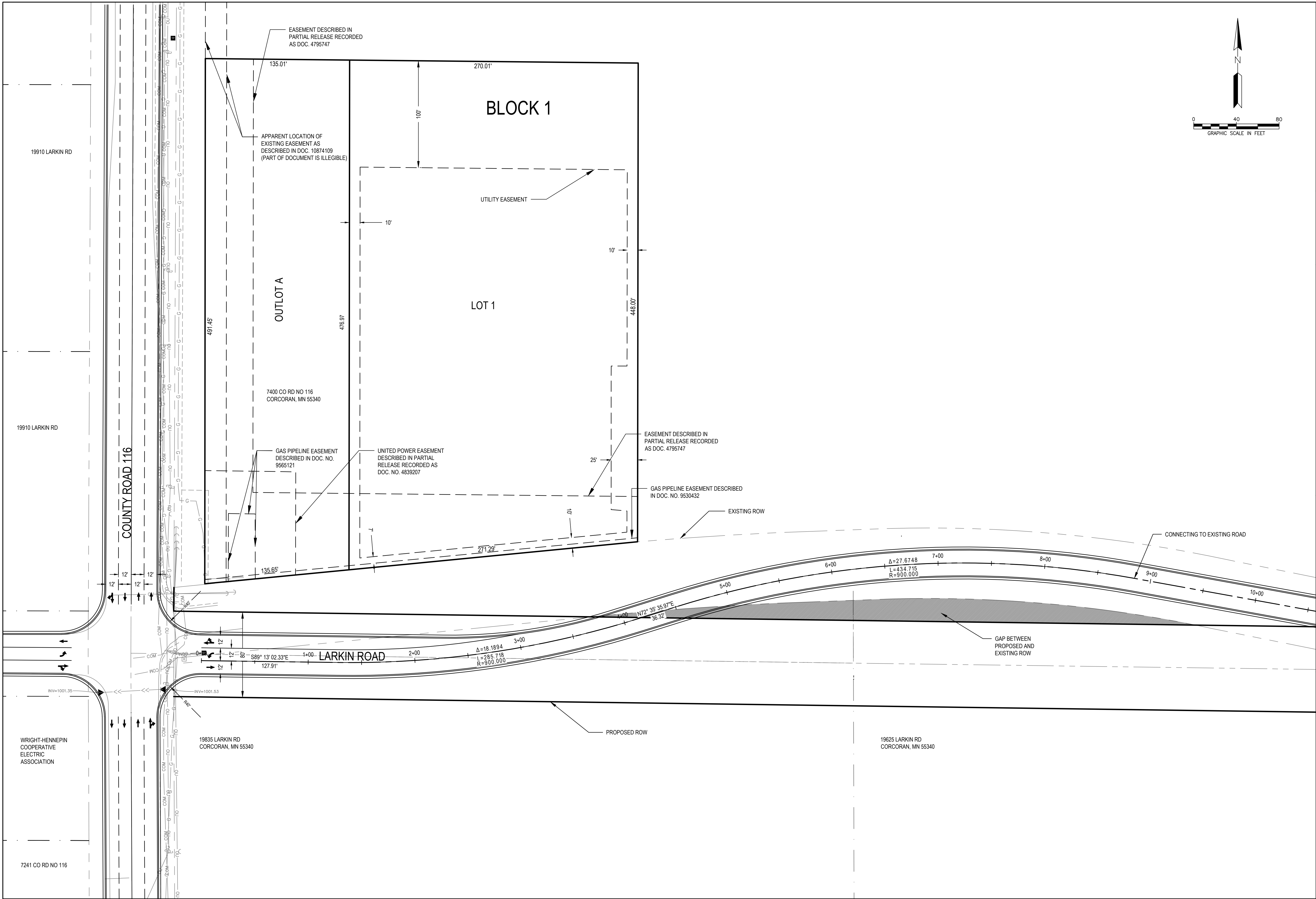
1. Reference the City of Corcoran Stormwater Guidelines for Development Review for standards for stormwater systems and modeling.

2. Provide MIDS inputs or model to verify water quality modeling was completed correctly. Only results are currently provided.
3. The western berm is centered on the property line with grading occurring within the city park. The grading and berm shall all be located within the applicants lot.
4. All drainage swales shall maintain a minimum of 2% slope and all slopes should be 4:1 or flatter unless approved by the city engineer.
  - o Per city standards drainage slopes less than 2% require draitile
  - o Provide 2% minimum grade in swale east of bituminous driveway.
  - o Provide 2% minimum grade in south and west swales.
  - o Minimum 2% drainage required on all bituminous/gravel surfaces.
  - o Revise swale/berm grading to be no greater than 4:1 slopes.
5. Provide flared end section inverts.
6. Modify Subcatchment 1 in the proposed HydroCAD so that Tc values represent proposed site conditions, or justify the use of cultivated surface.
7. Justify the use of 0.03 cfs filtration rate for the filtration bench and what the assumed filtration rate (in/hr) is. Filtration rate will be required to be verified post-construction to confirm actual rate is at least the design rate.
8. Identify the draitile elevations both on the plan as well as the invert into the structure to ensure that the tile drains properly and has adequate cover.
9. The city park area should be seeded with a low maintenance commercial turf mix MnDOT 25-131.
10. Detail shows top of filter bench at 902.0. We assume this was meant to be 992.0. Please clarify if this is not the case.

**End of Comments**







1800 PIONEER CREEK CENTER  
 MAPLE PLAIN, MN 55359  
 PHONE: 763-479-4200  
 FAX: 763-479-4242  
 WWW.STANTEC.COM

CLIENT:



CITY OF  
 CORCORAN

**LARKIN ROAD  
 INTERSECTION LAYOUT**  
 CORCORAN, MN

PROJECT TITLE

ISSUE NO.:

0

0

DESCRIPTION:

ISSUED FOR REVIEW

ISSUED FOR REVIEW

DATE:

2/1/2022

2/2/2022

CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

LICENSURE NO.:

DATE:

PROJECT NO.:

227701081-145

DWN BY:

CRJ

CHKD BY:

NPW

APPD BY:

SKH

ISSUE DATE:

2/1/2022

ISSUE NO.:

0

SHEET TITLE:

LARKIN ROAD INTERSECTION LAYOUT

SHEET NO.:

FIG-01

**STATE OF MINNESOTA  
COUNTY OF HENNEPIN****DISTRICT COURT  
FOURTH JUDICIAL DISTRICT  
CASE TYPE: CONDEMNATION**

Court File No. 27-CV-22-484

---

Wright-Hennepin Cooperative Electric  
Association, a Minnesota cooperative  
Petitioner,

v.

Susan Sween, as Trustee of the George H.  
Deziel Revocable Trust dated February 6,  
2001; United Power Association, n/k/a Great  
River Energy, a Minnesota cooperative;  
Shamrock Golf, Inc., a Minnesota corporation;  
CenterPoint Energy Resources Corp. a  
Delaware corporation; City of Corcoran, a  
Minnesota municipal corporation; also  
unknown persons claiming any right, title,  
estate, interest or lien in the real estate  
described in the Petition herein, and any  
unknown heirs or devisees, if any, of any party  
that may be deceased, and including unknown  
spouses, if any, and all others,

Respondents.

---

**ORDER APPROVING PETITION  
AND TRANSFERRING TITLE AND  
POSSESSION**

The condemnation Petition in the above matter came on for hearing on Petitioner's Petition and its Motion for an Order Transferring Title and Possession before the Honorable Jamie L. Anderson, Judge of District Court, on February 16, 2022, at 1:15 P.M., in the District Court of Hennepin County, via Zoom.

Marc W. Sugden, of the law firm of Pemberton Law, P.L.L.P., appeared on behalf of the Petitioner Wright-Hennepin Cooperative Electric Association. David L. Sienko of the law firm of LeVander Gillen & Miller, P.A., appeared on behalf of Respondent Susan Sween, as Trustee of the George H. Deziel Revocable Trust dated February 6, 2001 ("Owner"). Thomas Atmore, of the law firm of Martin & Squires, P.A., appeared on behalf of Respondent Shamrock Golf, Inc.

Respondents United Power Association, n/k/a Great River Energy, CenterPoint Energy Resources Corp., and City of Corcoran did not make an appearance. The parties who appeared at the hearing submitted this stipulated order to the Court.

The notice of the objects of the Petition and the time and place of hearing thereof were served upon the parties named in the Petition at least twenty (20) days before said Petition was presented to the District Court. The names of all persons appearing of record or known to the Petitioner to have any right, title, or interest in and to the real estate described in the Petition were named therein, together with the nature of the ownership of each, as ascertained by Petitioner. That proof of service of the Petition for Condemnation and Motion for Transfer of Title and Possession under Minnesota Statutes Section 117.042 and Notice of Intent to Take Possession upon the parties is on file with the Court.

Based on all files and in this proceeding, the parties' stipulation, and being fully advised in the premises, the Court finds that the allegations of the Petition are true; that the procedures used are in accord with the statutes governing the acquisition of property by condemnation by the Petitioner; and that the taking herein is for a public purpose. The Court further finds that the Petition is in due form as required by the applicable Minnesota Statutes. The Court further concludes that, pursuant to Minnesota Statutes Section 117.042, Petitioner possesses the right to utilize and has demonstrated the need to acquire title to and possession of the subject real property located in Hennepin County, prior to the time the Court appointed condemnation commissioners can reasonably be expected to have filed their awards.

THEREFORE, IT IS HEREBY ORDERED:

1. The Petition herein is hereby granted.
2. The Petitioner shall provide its funds payable to Hennepin County District Court in the amount of \$489,230.77 for deposit with the Hennepin County Court Administrator's Office, or pay directly to the Owner.
3. Title to and possession of Owner's real property rights described in the Petition and attached as Exhibit A shall vest in Petitioner on April 26, 2022, or the date on which Petitioner deposits with the Hennepin County District Court Administrator or pays to the Owner the amount of \$489,230.77, whichever date is later.
4. A separate Order shall be issued appointing three commissioners and two alternative commissioners to ascertain and report the amount of damages, if any, that will be sustained by the named parties. If the parties cannot agree upon three commissioners and two alternatives by March 2, 2022, the parties will submit their recommendations to the Court, who shall appoint three commissioners and two alternates.

Dated: March 2, 2022

BY THE COURT:



---

Jamie L. Anderson  
Judge of District Court

**EXHIBIT A**

That part of the south 555.56 feet of the west 470.00 feet of the Southwest Quarter of the Northwest Quarter of Section 25, Township 119, Range 23, Hennepin County, Minnesota, lying northerly of the southerly right-of-way line of Larkin Road. Except the west 40.00 feet thereof.

## Corcoran II Substation Summary

Wright-Hennepin Cooperative Electric Association (WH) is applying for Administrative Approvals from the City of Corcoran to build an electric substation called "Corcoran II Substation" located at address 7400 Co Rd No 116, which constitutes an Essential Services as described in Section 1020 and shown in Section 1030.090. Great River Energy (GRE), WH's wholesale electric transmission supplier, owns the existing 69-kV transmission line along County Road 116 and will provide the 69-kV power source. As part of the overall design GRE will install new structures along the existing transmission line and on the southwest corner of the property to feed the substation. The substation design will have provisions to "double-end" in the future which will allow WH to double its load capacity and network distribution feeder capabilities if future residential and commercial load continues to grow in the area.

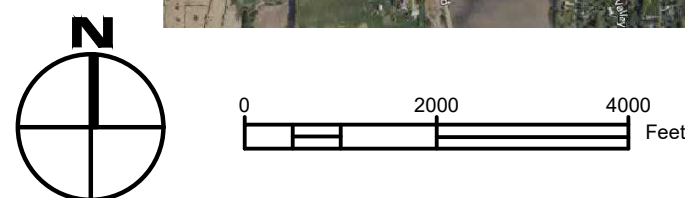
Included in our application we have applied for a preliminary plat for the entire existing parcel split accordingly and wetland waiver request for the remaining parcel not affected by the Corcoran II Substation. WH's Corcoran II Substation will consist of approximately four and a half (4 1/2) acres. The contemplated substation and preliminary plat in relation thereto will allow WH to better serve its members in the area and will accommodate anticipated residential and commercial in this area for years to come. Additional information on the variance request is per 1070.040 Subd. 2(B)

Site Breakdown will consist of:

- WH's substation design requires approximately 2.6 acres for the substation (including .40 acres for driveway and parking, .23 acres for stormwater management, and .75 acres fenced in area) + 1.7 acre for City of Corcoran property setbacks + .3 acres for the ROW dedication + .4 acres for the county setbacks resulting in the need for approximately a 5-acre site. This design adheres to the standards set forth in the National Electrical Safety Code, which governs electric utility designs.
- Electrical substations are needed based on current and future electrical demands. This site is required due to the demand of electrical growth forecasted in the Corcoran area and to continue to serve reliable electricity during normal and inclement weather. Furthermore, this site is optimal for WH due to the proximity to the GRE transmission lines. The placement of the GRE transmission lines in this area were outside of WH's control, and WH now desires to construct the substation in this location so that it has a minimal impact on future commercial and residential development.
- Electrical substations are designed and constructed in commercial, urban, and rural settings, and they consist of small footprints in the overall area the substation serves. Given WH's willingness to comply with the City's screening requirements, the presence of the substation will not alter the essential character of the locality, whether existing now or in the future.

- Like water & sewer, electricity is considered an essential service. To strike the best balance of cost to ratepayers and meet standards in public safety, local reliability, and service quality, we desire to have the substation located in the general vicinity of the benefitting consumers that will use the power the substation produces in their homes and businesses at the size as shown on the attached designs and profiles. Additionally, as previously indicated, the substation will be located adjacent to the existing GRE transmission lines.
- WH has incorporated Corcoran's comprehensive plan with forecasted electrical demand when selecting the location and size of the site.

PRELIMINARY PLANS FOR THE  
**CORCORAN II SUBSTATION**  
 JANUARY 2022



VICINITY MAP

PROJECT TITLE

CONTACTS

INDEX

NOTES

**OWNER:**  
 Wright-Hennepin Cooperative Electric Association  
 6800 Electric Drive  
 Rockford, MN 55373  
 Attn: Curtis Cordt  
 Ph: 763.477.3000

**CITY / LGU:**  
 City of Corcoran  
 8200 County Rd 116  
 Corcoran, MN 55340  
 Attn:  
 Ph: 763.420.2288

**SURVEY:**  
 Meyer-Rohlin Land Services  
 708 1st Avenue NE, #1  
 Buffalo, MN 55313  
 Attn: Abram Niemela, PLS  
 Ph: 763.682.1781

**WATERSHED DISTRICT:**  
 Elm Creek Watershed Management Commission (ECWMC)  
 3235 Fernbrook Lane  
 Plymouth, MN 55447  
 Attn:  
 Ph: 763.553.1144

**CIVIL & ENVIRONMENTAL:**  
 Civil Methods, Inc.  
 1551 Livingston Avenue, Ste. 104  
 West St. Paul, MN 55118  
 Attn: Dave Poggi, PE  
 Ph: 763.210.5713

SHEET NO.	DESCRIPTION
C01	COVER SHEET
S01	CERTIFICATE OF SURVEY AND PRELIMINARY PLAT
C10	SITE LAYOUT
C20	GRADING & DRAINAGE PLAN
C30	EROSION & SEDIMENT CONTROL PLAN
C31	SWPPP
C40	DETAILS
C41	DETAILS
C42	DETAILS
L01	LANDSCAPING PLAN
L02	LANDSCAPING PLAN - NOTES
L03	LANDSCAPING PLAN - RENDERED PLAN VIEW

THE EXISTING UTILITY INFORMATION SHOWN IN THIS PLAN HAS BEEN SURVEYED BY OTHERS; THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY 811 OR GOPHER STATE ONE CALL (1.800.252.1166).  
 THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

- PLAN REFERENCES:**
- MINNESOTA DEPT. OF TRANSPORTATION – STANDARD SPECIFICATIONS FOR CONSTRUCTION, LATEST EDITION.
  - CITY ENGINEERS ASSOCIATION OF MINNESOTA STANDARD SPECIFICATIONS, LATEST EDITION.
  - UNREINFORCED CONCRETE PER ACI 330R-08 AND ACI 330.1-03.

LEGEND:

PROPERTY LINE	CURB & GUTTER	STORMWATER WET POND
SETBACK	STORM SEWER / CULVERT	ROCK RIPRAP, RANDOM CRUSHED
EASEMENT	DRAINTILE	EROSION CONTROL BLANKET
WETLAND	SANITARY SEWER	TURF REINFORCEMENT MAT
CONTOUR	WATERMAIN	GEOGRID OR ARTICULATED CONCRETE
SPOT ELEVATION	CLEANOUT	STABILIZED CONST. ENTRANCE
DRAINAGE DIRECTION	SANITARY MANHOLE	SILT FENCE
BITUMINOUS SURFACE	WETLAND BUFFER	SEDIMENT CONTROL LOG
BITUMINOUS SURFACE, HEAVY	BIORETENTION / INFILTRATION BASIN	INLET PROTECTION
CONCRETE SURFACE	TREE LINE	FENCE
AGGREGATE SURFACE		RETAINING WALL



Print Date: 3/10/2022 10:00 PM  
 File Loc: C:\CIVIL\Methods, Inc\CDM - Documents\17\_Corcoran Substation\202108\_DRAWINGS AND SPECIFICATIONS\C01\Sheet\C01\_COVER.dwg

**CIVIL METHODS, INC.**  
 P.O. Box 28038  
 St. Paul, MN 55128  
 o:763.210.5713 | www.civilmethods.com

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
  
 DAVID M. POGGI  
 DATE: 01-18-2022  
 LIC. NO.: 44573

DESIGNED: DMP  
 DRAWN: DMP  
 CHECKED: KEB  
 DATE / REVISION:  
 01-18-2022 Preliminary Plat Review Set. NOT FOR CONSTRUCTION  
 01-28-2022 Preliminary Plat Review Set. NOT FOR CONSTRUCTION  
 03-14-2022 Revised per City review.

**CORCORAN II SUBSTATION**  
 WRIGHT-HENNEPIN COOP. ELECTRIC ASSOCIATION  
 CORCORAN, MN

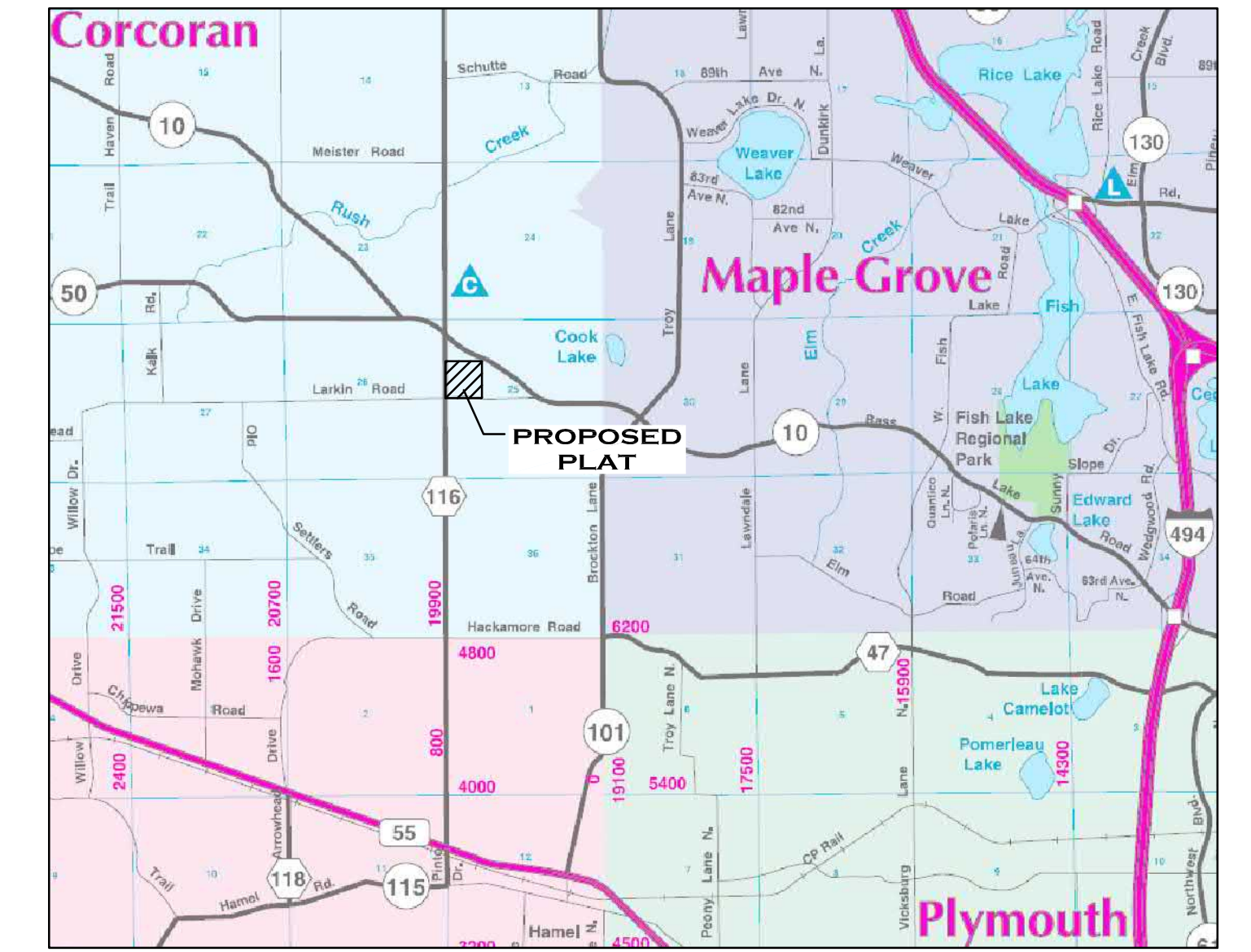
**COVER SHEET**

SHEET NO:  
**C01**

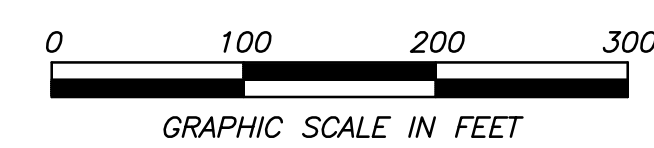


# CERTIFICATE OF SURVEY AND PRELIMINARY PLAT OF CORCORAN II SUBSTATION

## VICINITY MAP NO SCALE



SOURCE: 2013 Hennepin County Highway Map



- DENOTES IRON MONUMENT SET
- DENOTES IRON MONUMENT FOUND
- ⊙ DENOTES CAST-IRON MONUMENT FOUND

**APPLICANT / DEVELOPER:**  
Wright Hennepin Cooperative Electric Association  
P.O. BOX 330  
ROCKFORD MN 55373

**PROPERTY DESCRIPTION**  
The Southwest Quarter of the Northwest Quarter except that part lying southerly of the southerly right-of-way line of the Town Road now opened and laid out and generally running East and West, approximately located between the Southwest Quarter of the Northwest Quarter and the Northwest Quarter of the Southwest Quarter, all in Section 25, Township 119, Range 23, except that parcel which lies westerly of a line parallel and distant 40 feet East of the West line of Section 25, Township 119, Range 23.

**EXISTING PID:** 25-119-23-23-0001  
**PROPERTY ADDRESS:** 7400 Co. Rd. No. 116, Corcoran, MN 55340

**TOTAL PARCEL AREA:** 38.91 Acres

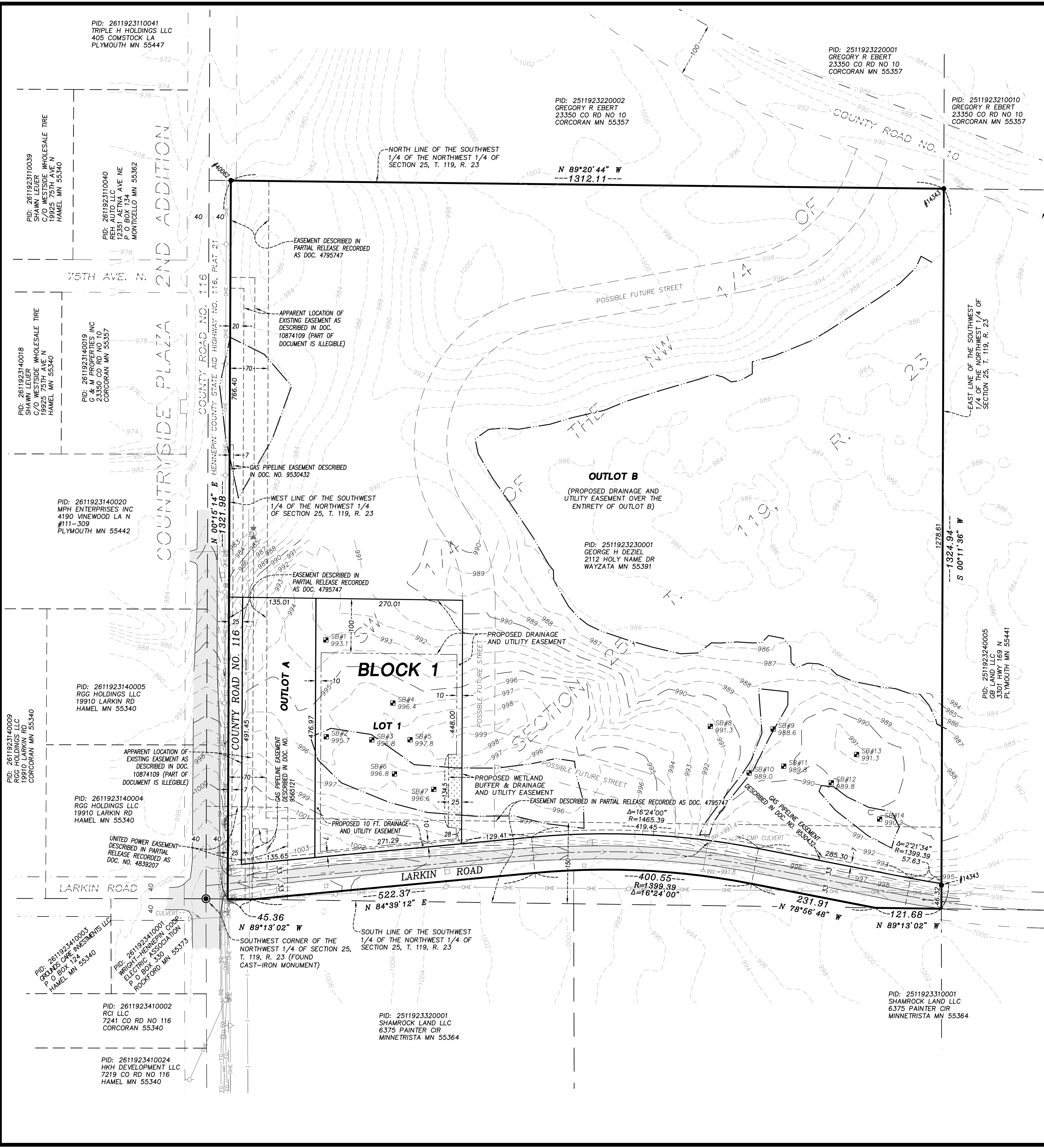
**PROPOSED AREAS:**  
Lot 1: 2.87 Acres  
Outlot A: 1.50 Acres  
Outlot B: 32.29 Acres

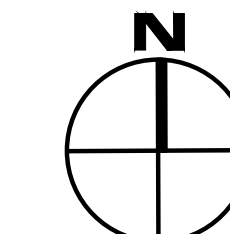
- SURVEYOR'S NOTES:**
- Matters of record are shown according to Commitment for Title Insurance issued by First American Title Insurance Company, Issuing agent Land Title, Inc., Dated December 1, 2021, Commitment Number 652078.
  - Underground utilities are shown according to visible evidence, along with ground markings provided pursuant to Gopher State One Call Ticket No. 213080365 (non-excavation locate request). Utilities may exist which are not shown hereon. Contact Gopher State One Call prior to excavation.
  - Centerline alignment and right-of-way for Larkin Road are shown according to a historical half-section map provided by the Hennepin County Surveyor's office.
  - Document No. 9174843 is an easement granted to Shamrock Golf, Inc. for "surface drainage, drain tile, and repair and maintenance of drain tile". The easement appears to be a blanket easement over the entire subject parcel.
  - Benchmark: MN/DOT Geodetic Monument "2722 AC". Elevation=992.04 (NAVD 88 Datum)

- REVISED 01/27/2022: Changed Lot 2 to Outlot B, added wetland buffer
- REVISED 01/31/2022: Added drainage and utility easement to wetland buffer area
- REVISED 03/09/2022: Added drainage and utility easement over entirety of Outlot B

I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a Licensed Land Surveyor under the laws of the State of Minnesota.  
Date 01/17/2022 *Abram A. Niemela*  
Abram A. Niemela  
License No. 46664

<b>Meyer-Rohlin</b> LAND SERVICES		708 1st Avenue NE, #1 Buffalo, MN 55313 PH. 763.682.1781 WWW.MEYERROHLIN.COM	
DRAWN BY AAN		BOOK 396 PAGE 55	
SHEET 1 OF 1 SHEETS		DATE 01/17/2022	
FILE NO. 21450		REVISIONS 03/09/2022	





BENCHMARK  
Mn/DOT Monument 2722 AC  
Elev.=992.04 (NAVD88)



LEGEND:

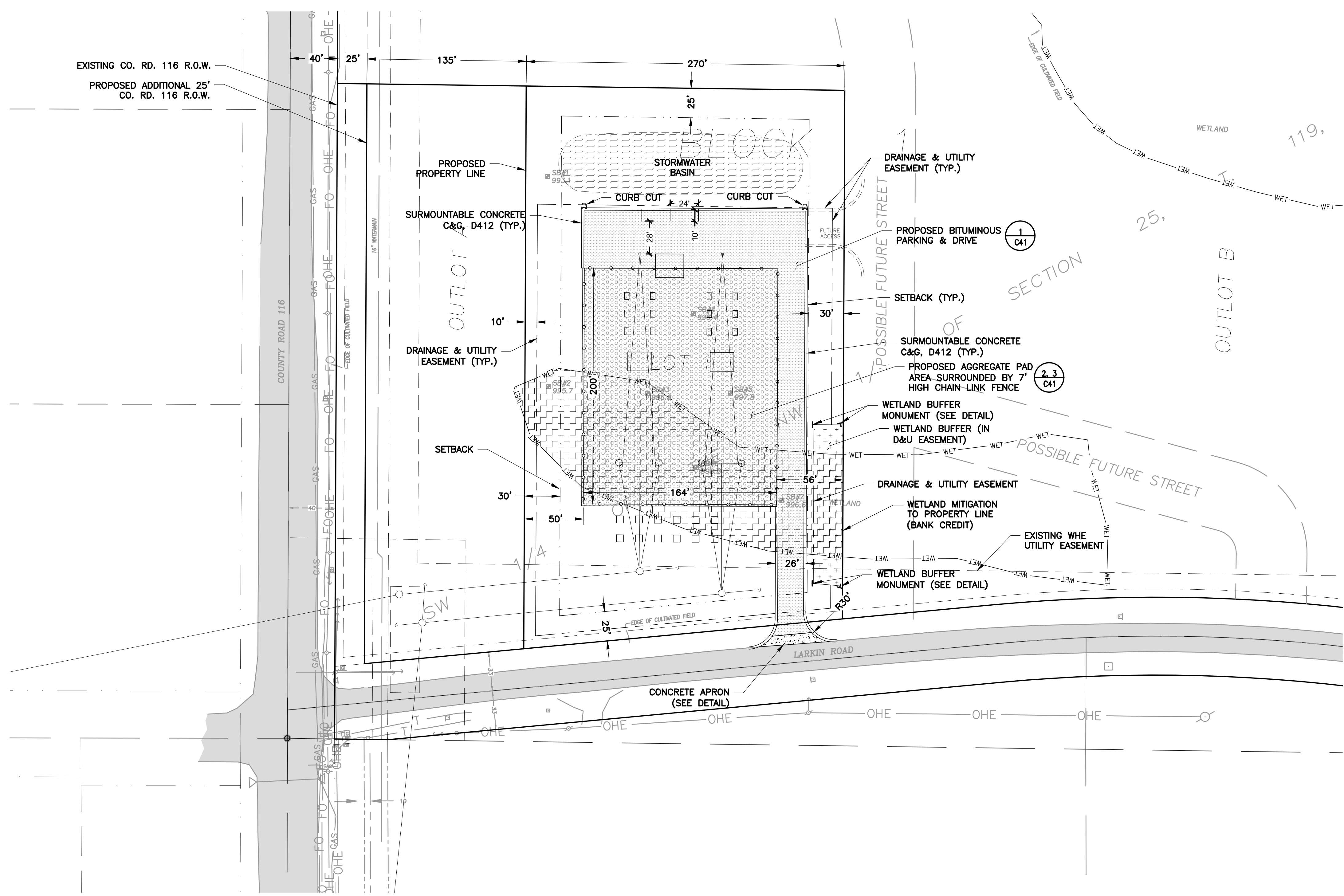
PROPERTY LINE	———
SETBACK	———
EASEMENT	———
WETLAND	WET
BITUMINOUS ASPHALT	▒
AGGREGATE, CLASS 5	▒
AGGREGATE, CLEAR	▒
STORMWATER POND	▒
WETLAND IMPACT / MITIGATION	▒
FENCE	—●—
MONUMENT / SIGN	⊥
FUTURE DRIVEWAY ACCESS	———
CONCRETE CURB & GUTTER	———

SITE DATA:

ZONING: RMF-2  
 LOT 1 AREA: ±124,871 FT<sup>2</sup> (2.87 AC)  
 EXISTING HARD SURFACE: 0 FT<sup>2</sup>  
 PROPOSED HARD SURFACE: ±51,356 FT<sup>2</sup> (1.18 AC)  
 OUTLOT A AREA: ±65,368 FT<sup>2</sup> (1.50 AC)  
 CO RD 116 ROW DEDICATION: ±12,317 FT<sup>2</sup> (0.28 AC)

SETBACKS:  
 FRONT: 25 FT  
 REAR: 25 FT  
 SIDE: 30 FT

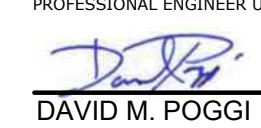
WETLANDS:  
 LOT 1 AREA: 24,569 FT<sup>2</sup>  
 MITIGATION AREA: 24,569 FT<sup>2</sup> (BANK CREDIT)



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 DAVID M. POGGI  
 DATE: 01-18-2022  
 LIC. NO.: 44573

DESIGNED: DMP  
 DRAWN: DMP  
 CHECKED: KEB

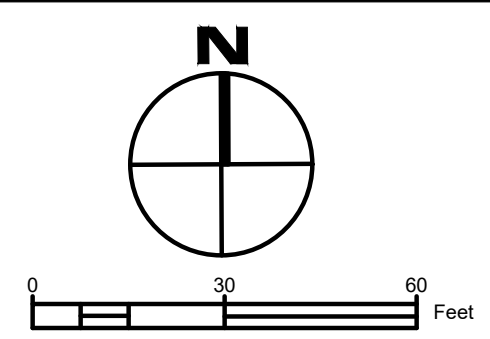
DATE / REVISION:  
 01-18-2022 Preliminary Plat Review Set. NOT FOR CONSTRUCTION  
 01-28-2022 Preliminary Plat Review Set. NOT FOR CONSTRUCTION  
 03-14-2022 Revised per City review.

**CORCORAN II SUBSTATION**  
 WRIGHT-HENNEPIN COOP. ELECTRIC ASSOCIATION  
 CORCORAN, MN

**SITE LAYOUT**

SHEET NO:  
**C10**

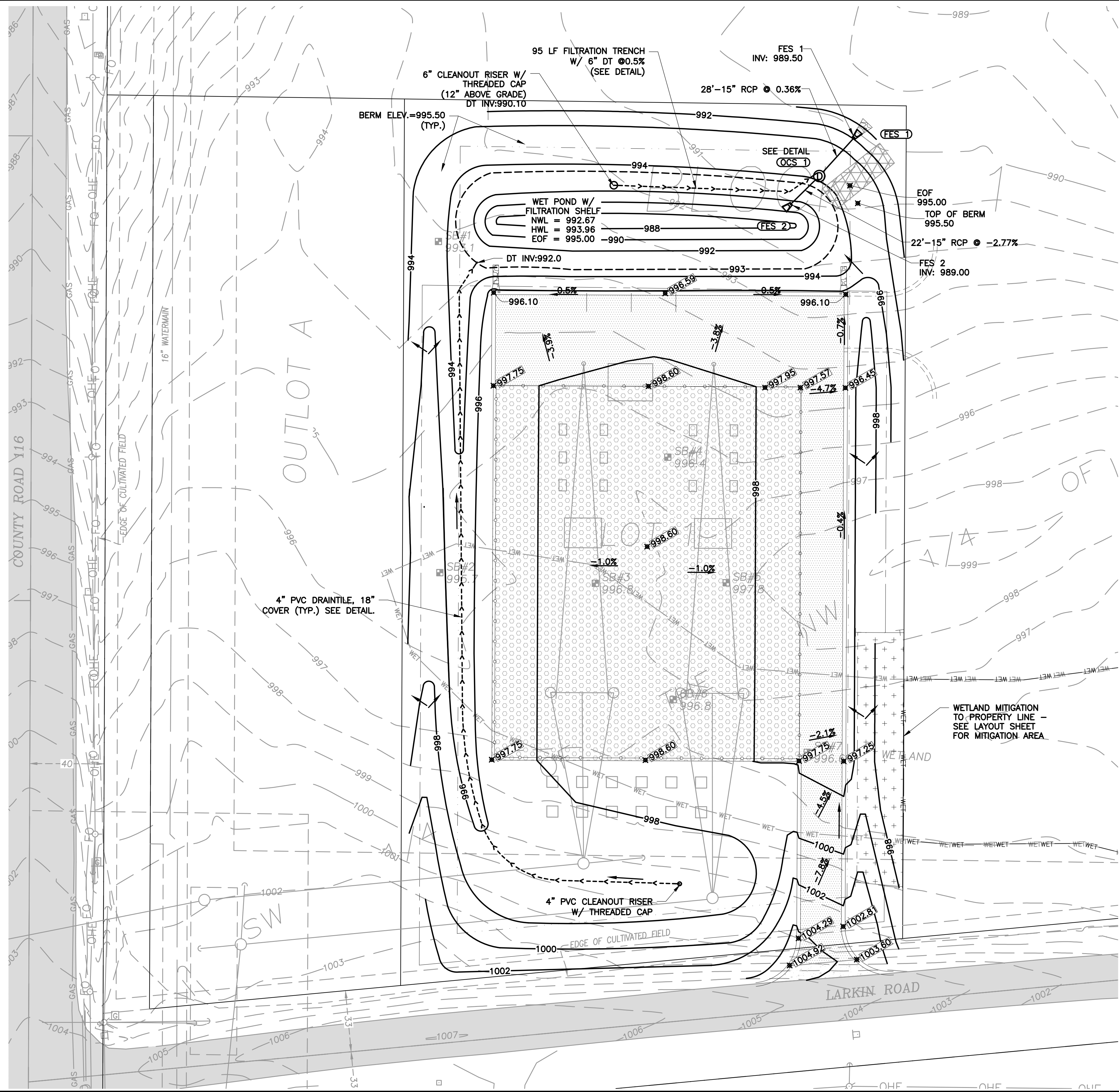
BENCHMARK  
Mn/DOT Monument 2722 AC  
Elev.=992.04 (NAVD88)



**LEGEND:**

PROPERTY LINE	———
SETBACK	- - - - -
EASEMENT	— · — · —
WETLAND	WET
CONTOUR	———
SPOT ELEVATION (CL. 5)	▲
DRAINAGE DIRECTION	→
STORM SEWER / CULVERT	— >> —
BITUMINOUS SURFACE	[Pattern]
CLEAR DRAINAGE ROCK OVER CL. 5	[Pattern]
RIPRAP	[Pattern]
WETLAND BUFFER	[Pattern]

- SITE GRADING NOTES:**
- See erosion control plan and SWPPP for requirements prior to site disturbance.
  - All proposed grades shown are finished grades, unless noted otherwise. Fenced pad area grades are top of Class 5.
  - Spot elevations shown at flow line, unless noted otherwise.
  - At locations where new work connects to existing work, field verify existing elevations and grades prior to beginning the new work. Match existing grades at construction limits.
  - Topsoil from grading areas shall be stripped, salvaged and stockpiled; subcut below final grade in fill areas.
  - Basin shall include 10' wide bench at slope of 10:1 below the NWL. Maximum side slopes to be 4:1 (H:V) above NWL, 3:1 below.
  - Install filtration shelf per detail. Once installed, protect shelf from construction sediment. Any accumulated construction sediment on shelf shall be removed by Contractor at end of project, and media replaced to final design grade.
  - Maximum slopes shall be 4:1 (H:V) in graded areas.



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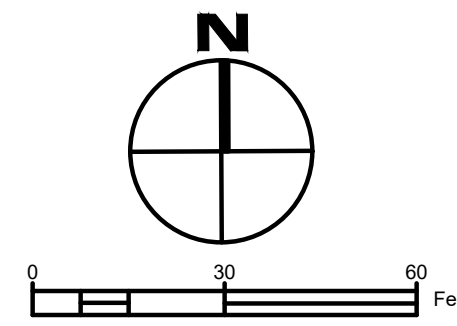
*David M. Poggi*  
 DAVID M. POGGI  
 DATE: 01-18-2022  
 LIC. NO.: 44573

DESIGNED: DMP  
 DRAWN: DMP  
 CHECKED: KEB

DATE / REVISION:  
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**CORCORAN II SUBSTATION**  
 WRIGHT-HENNEPIN COOP. ELECTRIC ASSOCIATION  
 CORCORAN, MN

**GRADING & DRAINAGE PLAN**  
 SHEET NO. **C20**



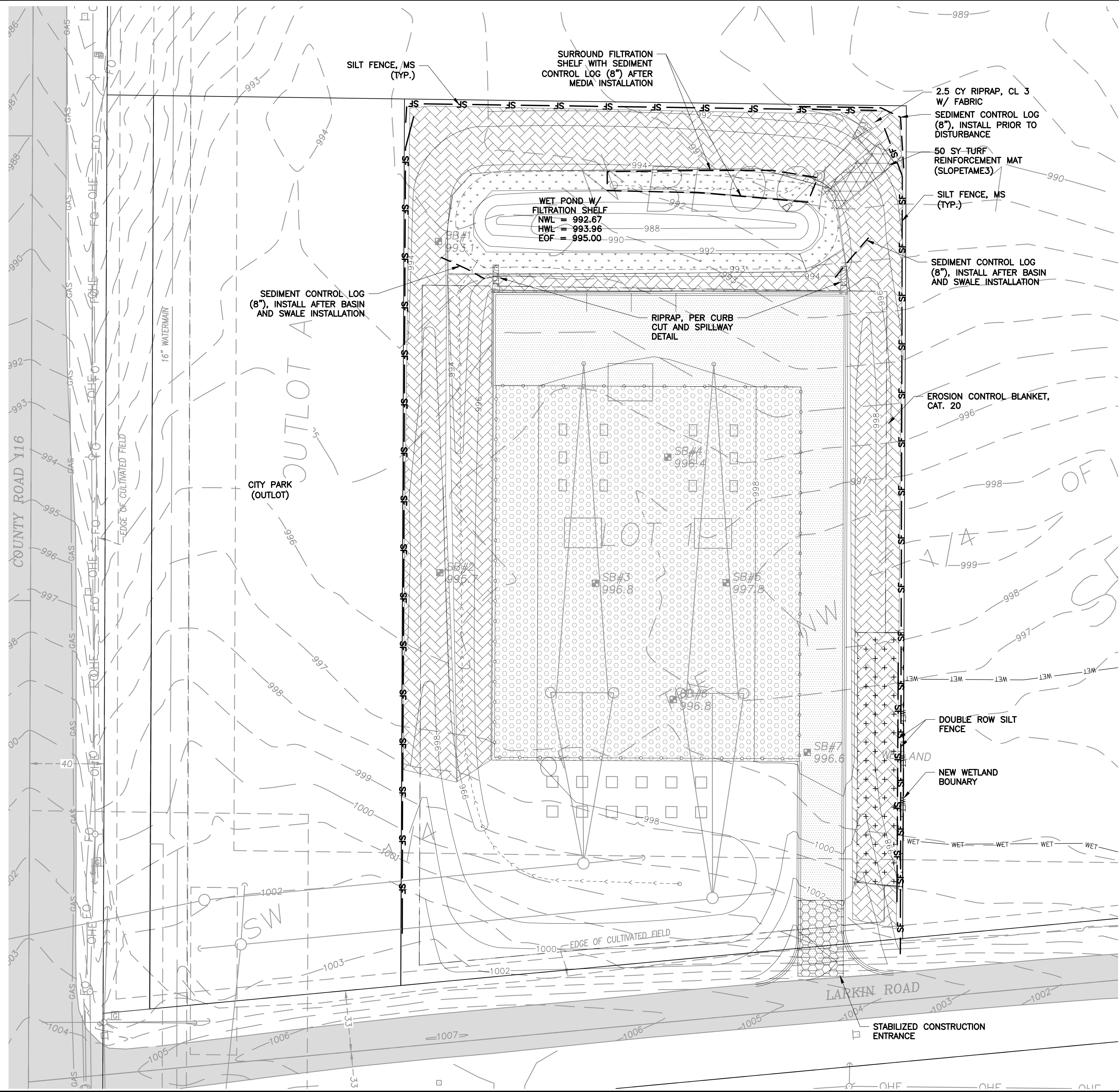
**BENCHMARK**  
Mn/DOT Monument 2722 AC  
Elev.=992.04 (NAVD88)

**LEGEND:**

PROPERTY LINE	---
SETBACK	---
EASEMENT	---
WETLAND	WET
CONTOUR	---
ROCK RIPRAP, RANDOM CRUSHED	[Pattern]
POND EDGE SEED MIX	[Pattern]
WETLAND BUFFER	[Pattern]
EROSION CONTROL BLANKET	[Pattern]
TURF REINFORCEMENT MAT	[Pattern]
STABILIZED CONST. ENTRANCE	[Pattern]
SILT FENCE	SF
SEDIMENT CONTROL LOG	[Symbol]
INLET PROTECTION	[Symbol]

**SEDIMENT CONTROL & TURF RESTORATION NOTES:**

1. See SWPPP and Landscaping Plan sheets for additional information.
2. Contractor is responsible for ensuring MPCA NPDES construction Stormwater Permit is obtained and followed during construction.
3. Topsoil, vegetation, and erosion control items installed and maintained per Mn/DOT 2571-2575.
4. Perimeter sediment controls shall be installed as indicated prior to site disturbance, and shall be installed to allow for high-flow bypass or overflow to prevent failure during significant rainfall.
5. Silt fence shall be of type indicated on the plan (Mn/DOT 3886).
6. Contractor is responsible for keeping sediment from leaving the property, including vehicle tracking. Should sediment be tracked offsite onto adjacent street, Contractor shall sweep within 24 hours.
7. Install silt fence or sediment control log around any soil stockpiles that will be present for more than 7 days (if no perimeter controls in place to prevent sediment transport).
8. Install sediment control logs as indicated immediately after installation of area to be protected.
9. Devices shall be inspected weekly and after all rainfall events exceeding 1", and maintained as necessary to keep the intended functional condition.
10. Accumulated sediment shall be removed from sediment control devices when 1/3 of device height has been reached.
11. After rough grading is completed, and topsoil spread, areas shall be seeded and blanketed within 7 days. Areas not being actively worked must be covered with temporary seed within 14 days.
12. Random crushed riprap per Mn/DOT 3601 shall be of class and quantity as indicated, and shall include geotextile fabric (3733).
13. Permanent Turf Reinforcement Mat, SlopeTame2 and anchors shall be installed per manufacturer recommendation at basin overflow and other areas as indicated.
14. Seed in mowed areas shall be Mn/DOT Mix 25-131 (3876), low maintenance turf or approved equal. Unmaintained areas to be seeded with Mix 35-241 (native prairie). Seed Outlot A with low maintenance turf Mix 25-131.
15. Seed pond edge with native wet & dry-tolerant seed, Mn/DOT Mix 33-261 or 33-262. Seed wetland buffer area with Mix 34-261.
16. Ditch bottoms and slopes >4:1 shall include erosion control blanket, Cat. 20 (3885).
17. All other seeded areas, shall include hydraulic mulch matrix (3884.B2) or blanket.
18. Turf shall be installed by a qualified professional and/or per the Mn/DOT Seeding Manual (latest edition), at rates indicated in the manual.
19. Perimeter sediment controls shall remain in place until vegetation is growing / established in all disturbed areas.
20. Erosion during construction shall be repaired by the Contractor within 24 hours of discovery.



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*David M. Poggi*  
 DAVID M. POGGI  
 DATE: 01-18-2022  
 LIC. NO.: 44573

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 DRAWN: DMP  
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**CORCORAN II SUBSTATION**  
 WRIGHT-HENNEPIN COOP. ELECTRIC ASSOCIATION  
 CORCORAN, MN

**EROSION CONTROL PLAN**  
 SHEET NO. **C30**

ALL CONSTRUCTION ACTIVITIES MUST MEET THE REQUIREMENTS OF THE MPCA'S **GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES/SDS PROGRAM (MNR100001)**. All sheets of this plan set, as well as the related Project SWMP, are hereby referenced as part of this SWPPP; any related pages shall be revised as appropriate for differing site conditions. Specific reference permit sections included in parentheses throughout.

**SITE AND CONSTRUCTION DESCRIPTION:**

This project includes site grading for a new electrical substation at the northwest corner of Co. Rd. 116 & Larkin Rd. in Corcoran, Hennepin County, MN (PID: 2511923230001. Lat: 45.088675, Long: -93.541034).

The site work will include disturbance of 3.1 acres for the construction of the electrical pad, gravel drive, storm sewer and associated site grading. Approximately 12,000 CY of material will be moved on-site, and all areas will be stabilized and restored as indicated in the plans. Riprap will be installed at all storm sewer and culvert pipe outlets.

The existing site is a natural area and no groundwater or soil contamination is anticipated (16.15).

The Contractor shall sign the MPCA NPDES Construction Stormwater Permit application as "Operator" and be solely responsible for meeting the erosion and sediment control requirements of the permit.

Disturbed Area: 3.1 acres  
 Pre-Construction Impervious Area: 0.00 acres  
 Post-Construction Impervious Area: 1.17 acres  
 Newly Created Impervious Area: 1.17 acres  
 Permanent Stormwater Treatment Required (if >1.0 acre): YES

**PERMANENT STORMWATER MANAGEMENT:**

Permanent stormwater management is required by the City of Corcoran, the Elm Creek Watershed Management Commission (ECWMC) and the MPCA, and is described in detail in the project Stormwater Management Plan (SWMP) document. In summary, the site has been designed to treat a WQV of 1.1" from the site impervious area.

Soils at the site are primarily silt and clay loams with limited infiltration capacity. These soils fall generally into Hydrologic Soil Group C and D, making infiltration practices infeasible. The WQV will be pretreated in a wet-pool basin and filtered through a vegetated filtration trench, as per City preference.

A geotechnical investigation has been completed at the site and determined the seasonal high water elevation to be 18-22 ft below the surface, depending. This elevation is not a factor for the stormwater design.

The site drains to the east and west, with all runoff ultimately reaching the wetland ditch on the east side of the property. A small amount of runoff will enter the side from the adjacent property to the northwest. This runoff will be collected and treated, and has been factored into the calculations as appropriate.

The project site drains to an unnamed wetland and ultimately to Rush Creek (not on the State's Impaired Waters list). The site does not discharge to an Impaired Water or Special Water within 1 mile. (see figure below).

**EROSION & SEDIMENT CONTROL**

- The contractor shall use phased construction whenever practical to minimize disturbed area at any one time.
- A 50' natural buffer shall be preserved within surface waters adjacent to construction. If not feasible, redundant (double) perimeter sediment controls separated by 5.0' are required. Special Waters require 100' buffer.
- All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
- The following shall be installed within 24 hours of connection to surface water or property edge:
  - Energy dissipation (riprap) at all outlet aprons
  - Stabilization of temporary or permanent drainage swales within 200' of property boundary or connection to surface water (e.g., storm sewer inlet, drainage swale, etc.)
  - A vehicle tracking BMP must be installed at the site entrance where haul vehicles are entering and exiting the site, including: rock pad, slash mulch, wash rack, etc. Streets must be swept within 24 hours of discovery of offsite tracking.
- Temporary stockpiles must have silt fence or other applicable sediment control device around the base of the pile.
- The Contractor shall be responsible to control sediment-laden surface water from leaving site. All mobilized sediment that has left the construction zone shall be collected by the contractor and properly disposed of at no additional cost to the owner.
- Any fines levied due to inadequate erosion or sediment control practices, sediment discharging from the site, etc., shall be the responsibility of the Contractor.
- Inlets shall be protected from sediment at all times, if applicable, with appropriate protection installed for each phase of development.
- If retention pond area is used for temporary sediment collection during construction, basin bottom shall be returned to design grades once site is stabilized (to be verified by Contractor).
- Adjacent roads must be inspected and kept clear of sediment; roads to be swept within 24 hours of tracked sediment discovery.
- Additional temporary BMPs may be required to reduce the potential for sediment transport during construction. If deemed necessary by onsite personnel, Engineer or Owner shall be contacted immediately for approval or guidance, if available. Otherwise best judgment shall be used to provide rapid stabilization or sediment controls as necessary to minimize potential pollutant discharge.

**CONSTRUCTION IMPLEMENTATION SCHEDULE & PHASING**

- Install perimeter silt fence and construction entrance as shown prior to site disturbance.
- Complete soil stripping and rough grading of site.
- Install storm sewer and pond outlet. Install outlet protection immediately.
- Install filtration shelf media and surround with sediment control log.
- Install Class 5 aggregate over drive and pad areas.
- Complete any final grading, replace topsoil and establish vegetative cover.
- Complete site restoration and final stabilization measures (remove temporary controls after construction activity has ceased and vegetation is established).
- Submit Notice of Termination (NOT) to MPCA within 30 days.

**DEWATERING & BASIN DRAINING**

- Dewatering water, if necessary, must be discharged to a temporary or permanent sediment basin when feasible; if not feasible, appropriate BMPs must be used to prevent sediment-laden water from discharging downstream.
- Use appropriate energy dissipation measures on all discharges to prevent erosion at discharge outlet. Discharge must not cause nuisance or erosive conditions to downstream properties or receiving channels. Excessive inundation of downstream wetlands is not permitted (if applicable).
- If filters with backwash water are used, all backwash water must be hauled offsite for disposal, returned to the beginning of the treatment process, or incorporated into the site in a manner not causing erosion.

**INSPECTIONS & MAINTENANCE**

- The contractor must routinely inspect the construction site once every 7 days during construction, and within 24 hrs of receiving more than ½" of rain in 24 hrs. Rainfall amounts must be measured by a properly installed rain gage onsite, or from a weather station within 1 mile of the project, or from a weather reporting system with site specific radar rainfall summaries (11.11).
- All inspections and rainfalls > ½" must be recorded and retained onsite with the SWPPP. Inspections shall include: date/time, name of individual, date & amount of rainfall, findings, corrective actions, observed discharge/location/description, any proposed SWPPP amendments.
- Inspections may be suspended when work is stopped due to frozen conditions. The Contractor's inspector must resume inspections within 24 hours after runoff occurs at the site or prior to resuming construction, whichever comes first.
- Silt fence (or related perimeter control device) must be maintained when accumulated sediment reaches ½ the height of the device, or if device becomes ineffective (by the end of the next business day following discovery).
- Permanent and temporary sediment basins, if applicable, shall be drained and cleaned when sediment depth reaches ½ of original storage volume; complete within 72 hrs of discovery. Must be cleaned prior to project completion.
- Non-functional BMPs must be repaired or replaced by the end of the next business day following discovery.
- Inspect downstream ditch / drainage system for signs of erosion or sediment buildup during each inspection; stabilize within 7 days.
- Inspect vehicle exit locations and adjacent streets; remove sediment from surfaces within 1 day.

**POLLUTION PREVENTION**

- All solid waste generated at the site must be disposed of in accordance with all applicable federal and state regulations.
- All hazardous materials must be properly stored/contained to prevent spills or leaks; materials must be properly disposed of per applicable regulations, including Minn. Rule Ch. 7045. Restricted access storage areas must be provided to prevent vandalism.
- Vehicle or equipment washing must be confined to a defined area (minimum of 100' from pond or drainage ditch); runoff containing any hazardous materials must be collected and properly disposed of. Defined area must be delineated with heavy-duty silt fence (incidental); no engine degreasing is allowed on-site.
- Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscape materials must be under cover to prevent pollutant discharge, or protected by similar means to minimize potential contact with stormwater.
- Concrete and other washout waste must be effectively contained - solid and liquid washout waste must not contact ground and must be disposed of properly in compliance with MPCA rules. A sign must be installed at washout area requiring personnel to utilize the proper facilities for disposal of concrete and other wastes.
- The contractor is solely responsible for monitoring air pollution and ensuring that it does not exceed levels set by any agency or LGU. This includes dust created by work performed at the site; air pollution and dust control measures are incidental to the contract. The engineer may require additional dust control measures to be implemented, as necessary.
- Adequate temporary restroom facilities shall be present onsite in a stable and secure location during construction operations, and shall be maintained in an adequate functioning condition.

**FINAL STABILIZATION**

- The Contractor must ensure final site stabilization meets the Permit requirements, and submit the NOT within 30 days.
- Final stabilization includes uniform perennial vegetative cover of at least 70% of the expected final growth density over the entire pervious surface area, or other equivalent cover to prevent soil erosion.
- All temporary synthetic and structural BMPs must be removed as part of final stabilization.

**RECORD RETENTION**

- The SWPPP, all revisions to it, and inspection & maintenance records are the responsibility of the Contractor and must remain at the site during construction hours. The materials may be kept in a field office, onsite vehicle, or "SWPPP Mailbox".
- Training documentation shall be provided by Contractor as outlined below and required.
- The SWPPP, project permits, inspection/maintenance logs, stormwater maintenance agreements, and stormwater management design calculations must be retained for 3 years after submittal of permit NOT. Contractor shall provide Owner or Engineer copies of inspection and maintenance logs prior to final payment.

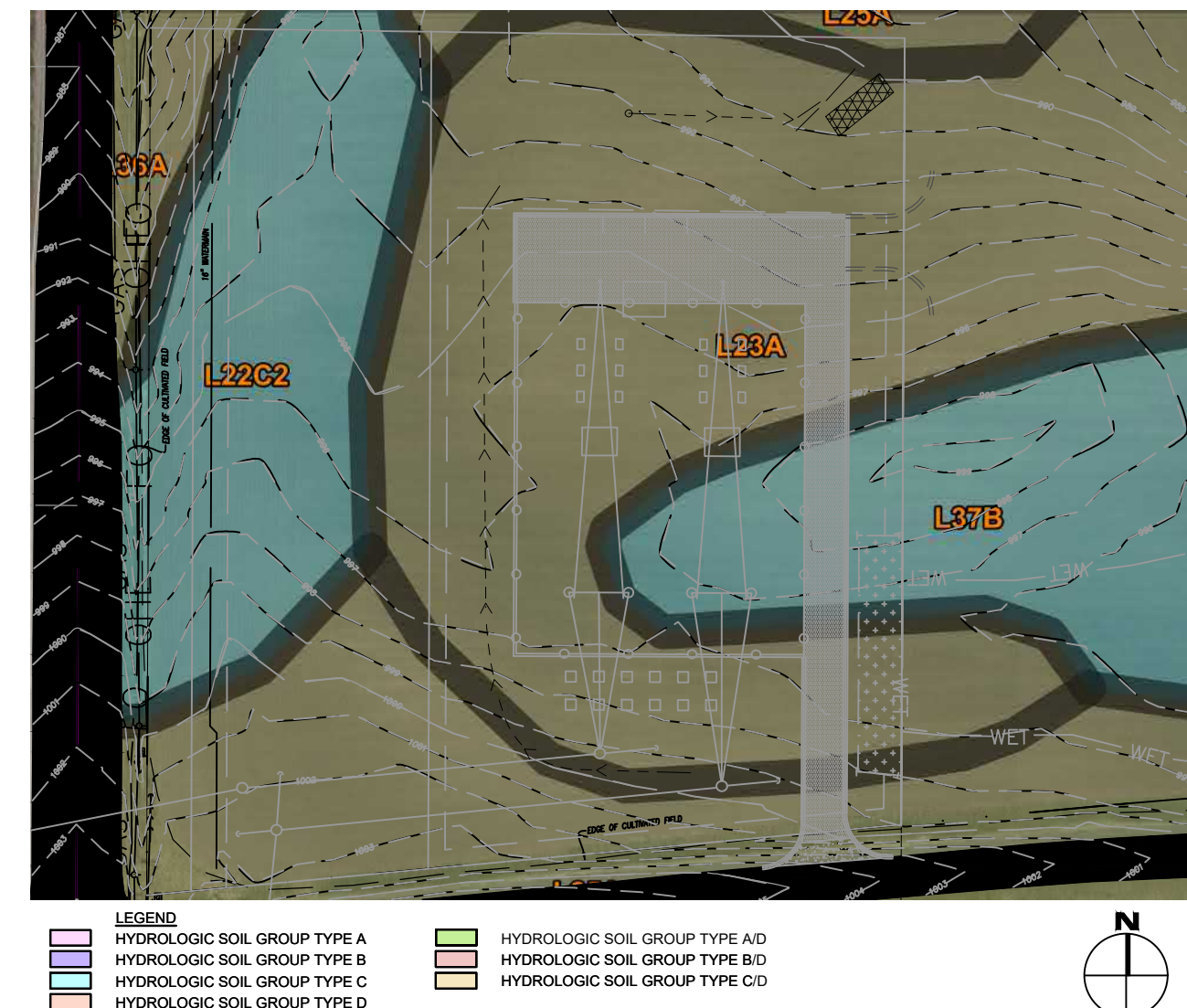
**TRAINING REQUIREMENTS**

- The permittees must comply with the training requirements as outlined in Section 21 of the Permit. The Contractor shall have a trained individual performing BMP installations and inspections, as required.
- Training table (below) to be completed prior to construction, as appropriate.

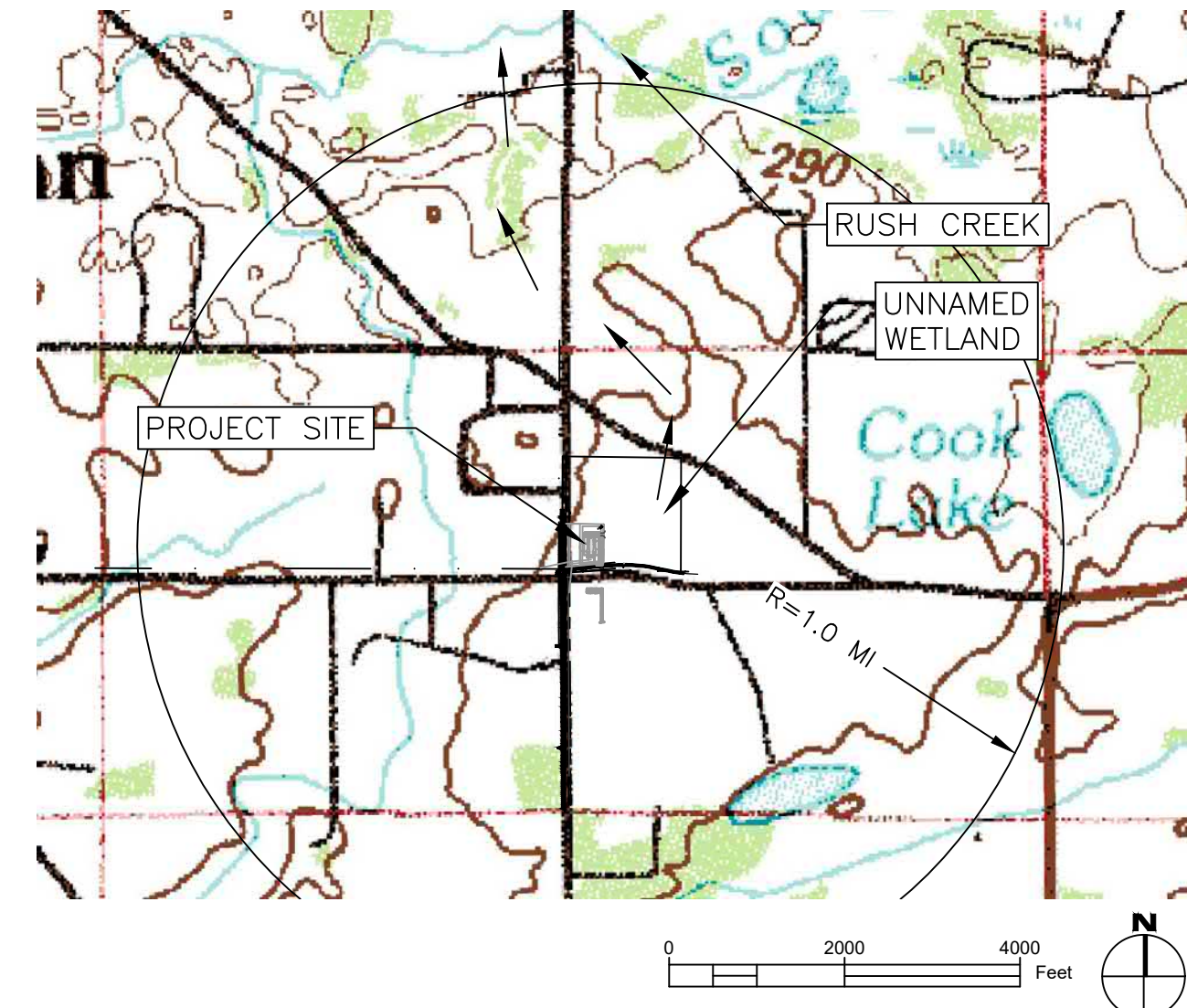
**RESPONSIBLE PARTIES & TRAINING SUMMARY**

	COMPANY	CONTACT	PHONE	TRAINING DATE	COURSE / ENTITY	CONTENT
OWNER:				NA	NA	NA
SWPPP PREPARER:	CIVIL METHODS, INC.	DAVE POGGI, PE	763.210.5713	9/2/2021	CMI EDU SERIES	SWPPP PREP FOR 2018 NPDES PERMIT
GENERAL CONTRACTOR / INSPECTOR:						
EROSION & SEDIMENT CONTROL INSTALLER:						
PERMANENT BMP OPERATOR / MAINTAINER:				NA	NA	NA

**SOILS MAP**



**DOWNSTREAM SURFACE WATERS AND WETLANDS**



**EROSION & SEDIMENT CONTROL QUANTITIES**

RIPRAP, CL. III	2.5	CU YD
ROCK CONSTRUCTION ENTRANCE	1	EACH
SILT FENCE, MS OR HI (3886)	860	LIN FT
SEDIMENT CONTROL LOG, 8" WOOD OR STRAW (3897)	280	LIN FT
EROSION CONTROL BLANKET, CAT. 20 (3885)	3500	SQ YD
EROSION BLANKET, CAT. 10 (3885) OR HYDROMULCH	850	SQ YD
TURF REINFORCEMENT MAT (SLOPETAME2)	50	SQ YD

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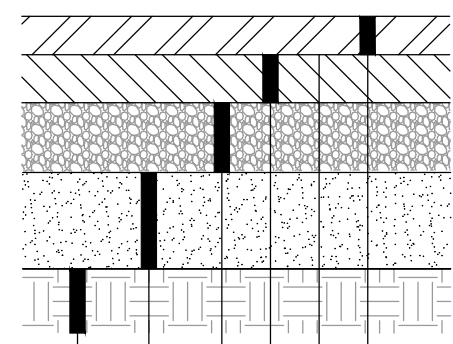
**CORCORAN II SUBSTATION**  
 WRIGHT-HENNEPIN COOP. ELECTRIC ASSOCIATION  
 CORCORAN, MN

**SWPPP**

SHEET NO:

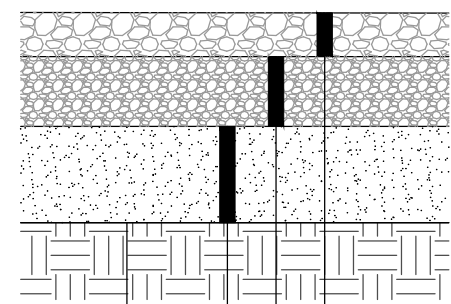
**C31**





- 1.5" HMA TYPE SPWEA340B (2360)
- BITUMINOUS TACK COAT (2357)
- 2.0" HMA TYPE SPNWB230B (2360)
- 8" AGGREGATE BASE, CLASS V (2211)
- 24" GRANULAR BORROW PER GEOTECH REPORT
- SUBGRADE PREPARATION / SUITABLE BORROW (2112)

**1 ASPHALT PAVEMENT SECTION**

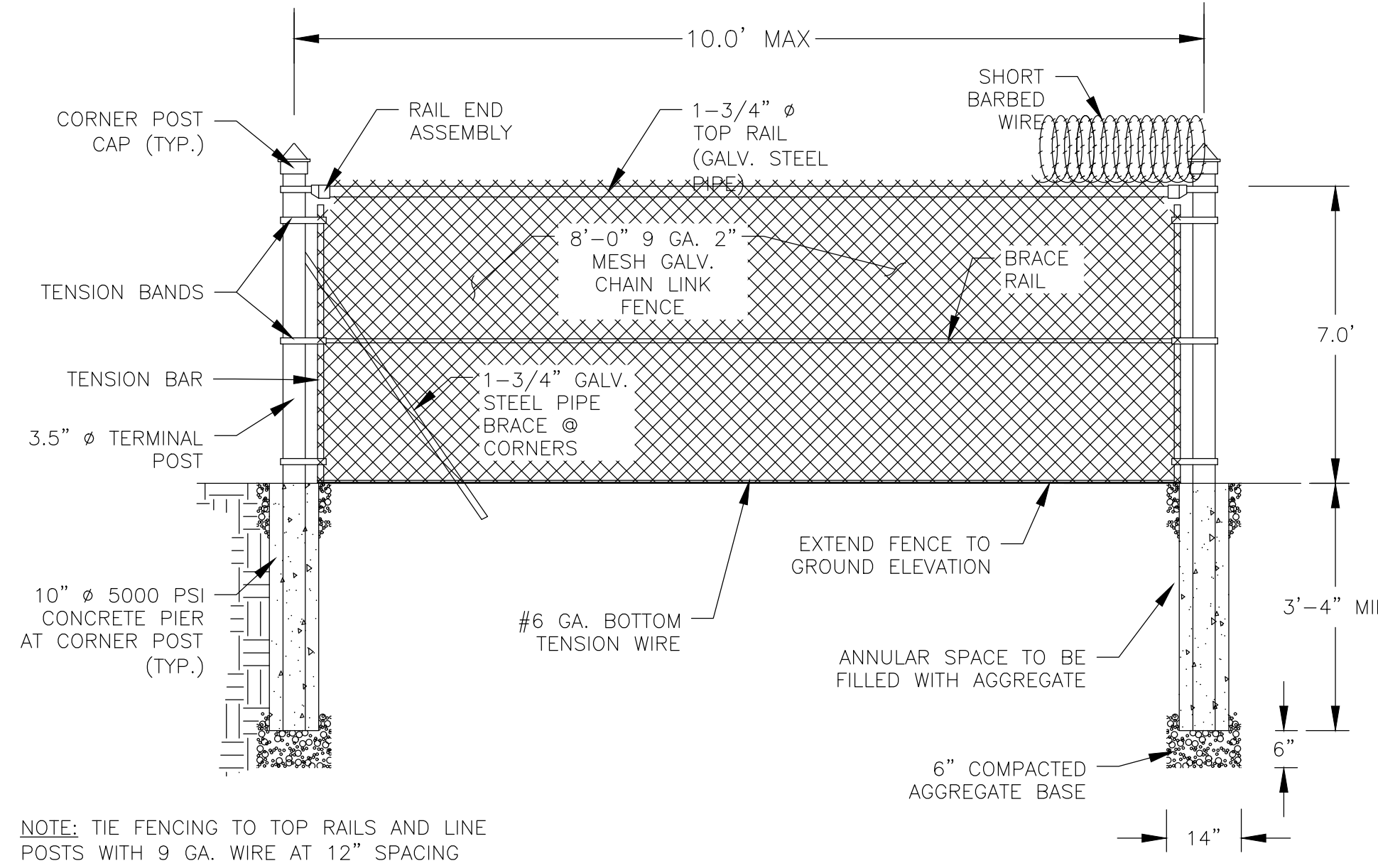


NOTE: TOP OF CLASS 5 AGGREGATE REFLECTED IN GRADING CONTOURS. 3/4" CLEAR, CRUSHED DRAINAGE AGGREGATE (ASTM #67 OR SIMILAR), PLACED ON CLASS 5 SURFACE AT LATER DATE, AS DIRECTED

- 3-6" CRUSHED, WASHED DRAINAGE AGGREGATE, ASTM #67
- 8" AGGREGATE, CLASS 1 OR 5 (2211)
- 24" GRANULAR BORROW PER GEOTECH REPORT
- SUBGRADE PREPARATION AS NECESSARY (2112) (INCIDENTAL)

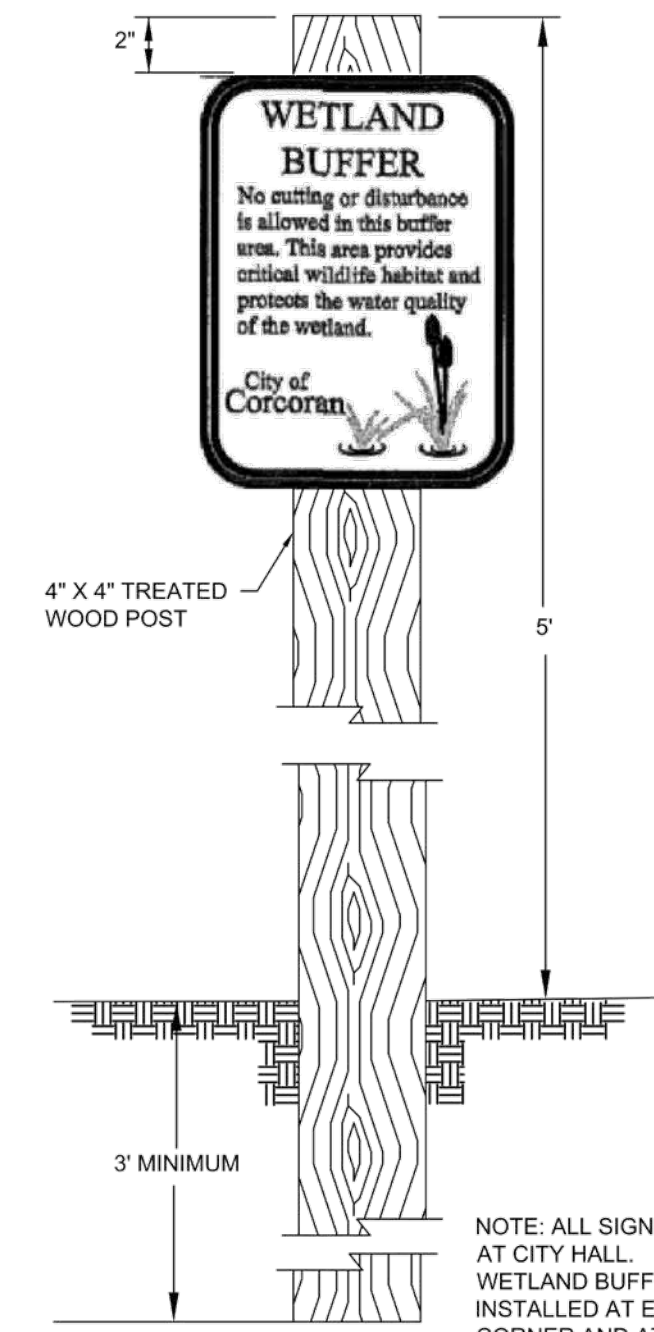
**2 AGGREGATE SUBSTATION PAD**

- FENCE NOTES:**
- 1) TIE FENCING TO TOP RAILS AND LINE POSTS WITH 9 GA. WIRE AT 12" SPACING.
  - 2) MESH SHALL BE UNDER TENSION WITH NO SLACK SECTIONS.
  - 3) MESH SHALL BE INSTALLED FACING OUTWARD.
  - 4) PRIVACY SLATS (TYPE PER OWNER) TO BE INSTALLED THROUGH FENCE MESH, FULL HEIGHT.
  - 5) FENCE AND GATE SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW.



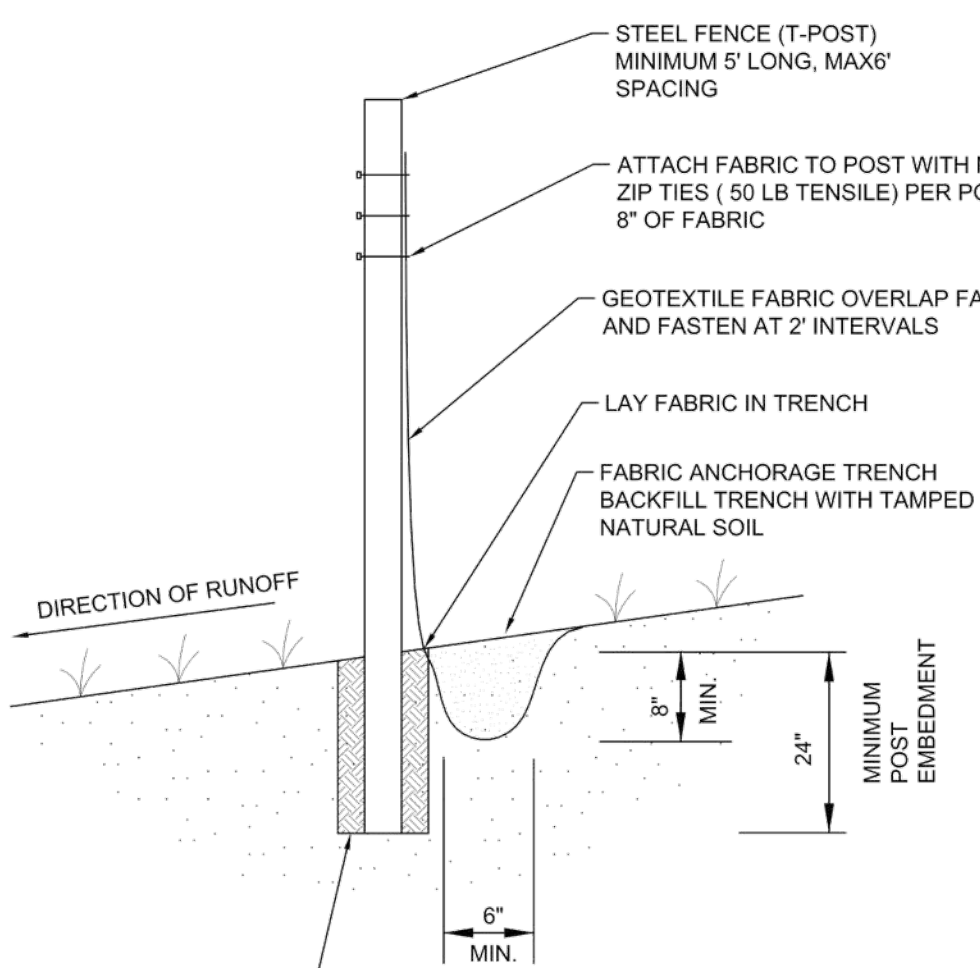
NOTE: TIE FENCING TO TOP RAILS AND LINE POSTS WITH 9 GA. WIRE AT 12" SPACING

**3 CHAINLINK FENCE DETAIL**

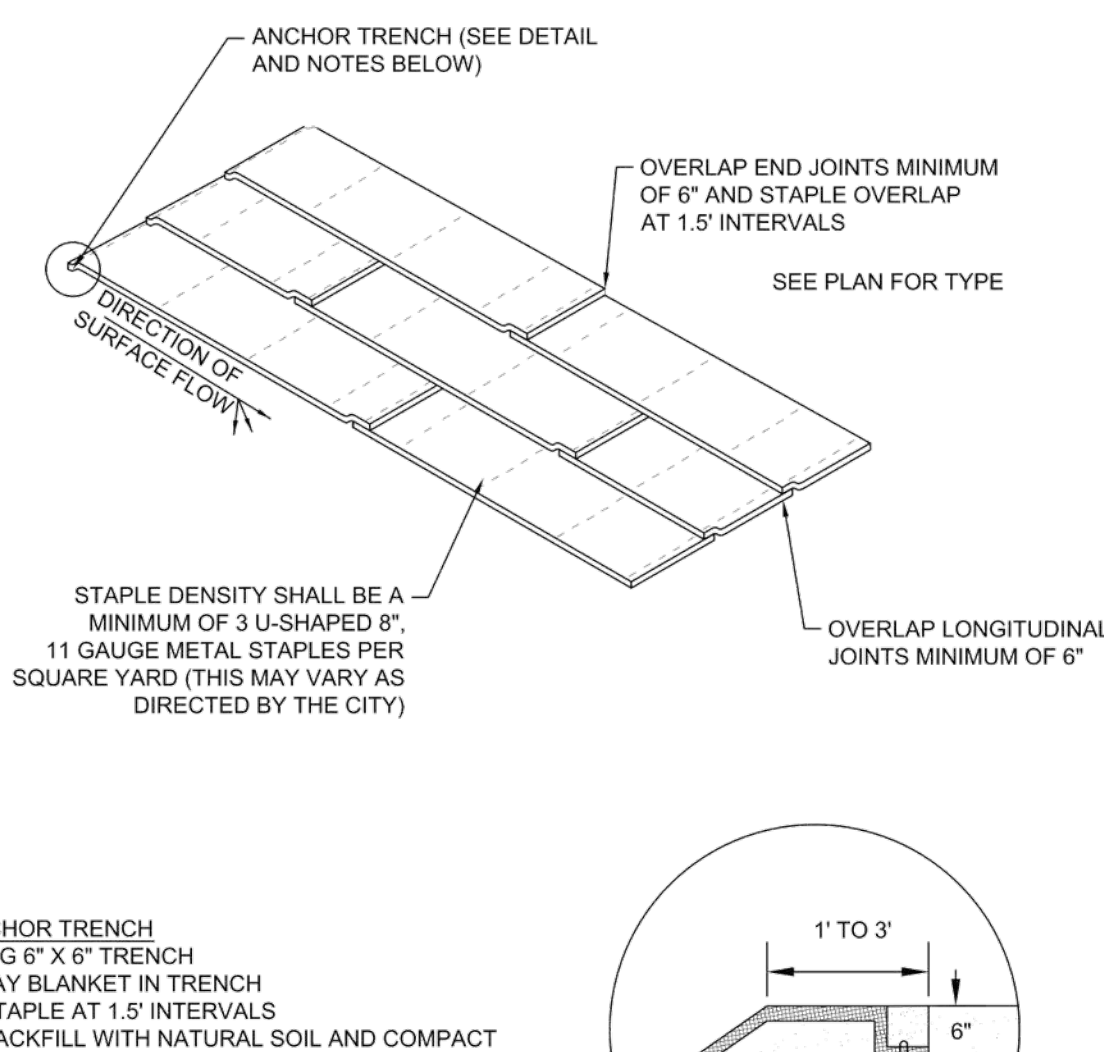


NOTE: ALL SIGNS SHALL BE OBTAINED AT CITY HALL. WETLAND BUFFER POSTS TO BE INSTALLED AT EVERY PROPERTY CORNER AND AT ANGLE POINTS OF WETLAND BUFFER

		CLIENT: CITY OF CORCORAN 	PROJECT: STANDARD PLATES SHEET TITLE: WETLAND BUFFER SIGN
PROJECT NO.: 2294-00 SHEET NO.: GEN - 8 REV. NO.:	WETLAND BUFFER SIGN		

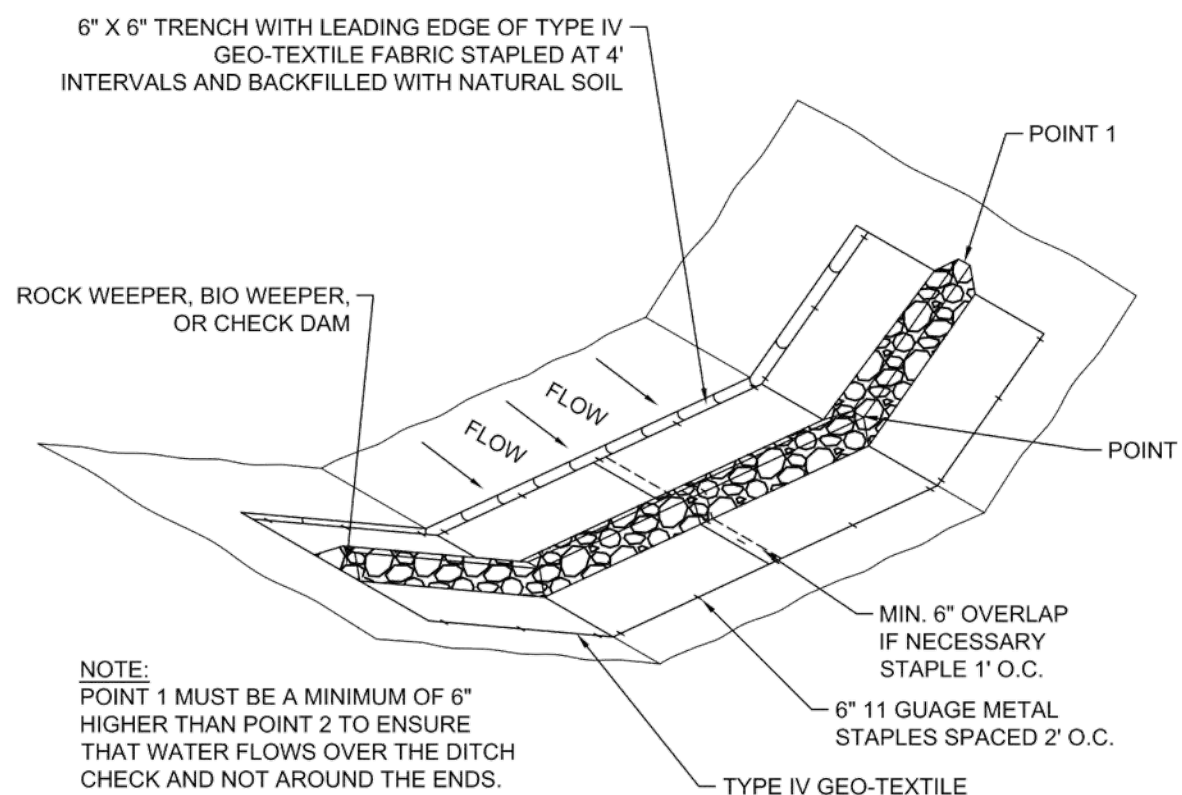


		CLIENT: CITY OF CORCORAN 	PROJECT: STANDARD PLATES SHEET TITLE: SILT FENCE MACHINE SLICED
PROJECT NO.: 2294-00 SHEET NO.: ERO-1A REV. NO.:	SILT FENCE MACHINE SLICED		



- ANCHOR TRENCH**
1. DIG 6" X 6" TRENCH
  2. LAY BLANKET IN TRENCH
  3. STAPLE AT 1.5' INTERVALS
  4. BACKFILL WITH NATURAL SOIL AND COMPACT

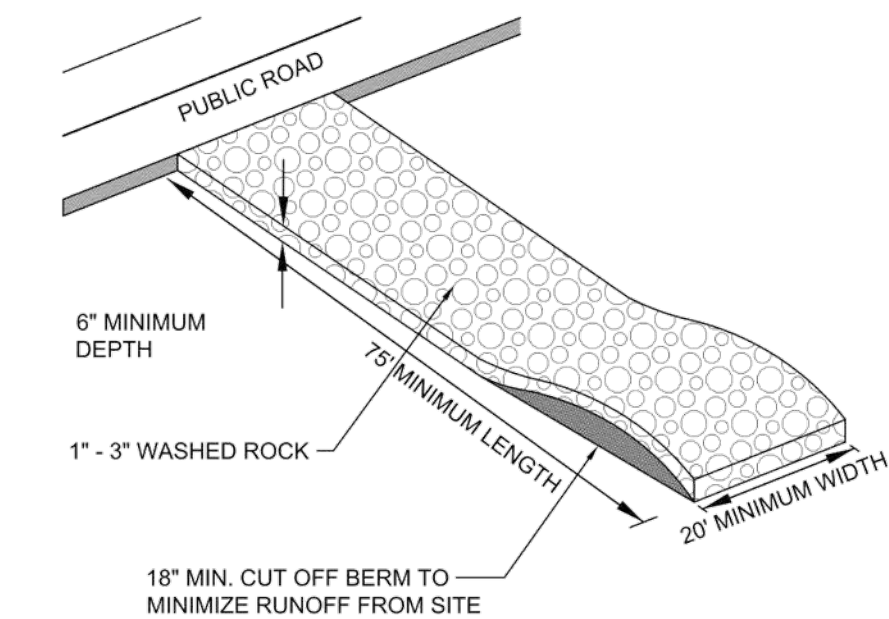
		CLIENT: CITY OF CORCORAN 	PROJECT: STANDARD PLATES SHEET TITLE: EROSION CONTROL BLANKET INSTALLATION
PROJECT NO.: 2294-00 SHEET NO.: ERO-2 REV. NO.:	EROSION CONTROL BLANKET INSTALLATION		



DITCH CHECK SPACING (USE FOR 5B AND 5C)

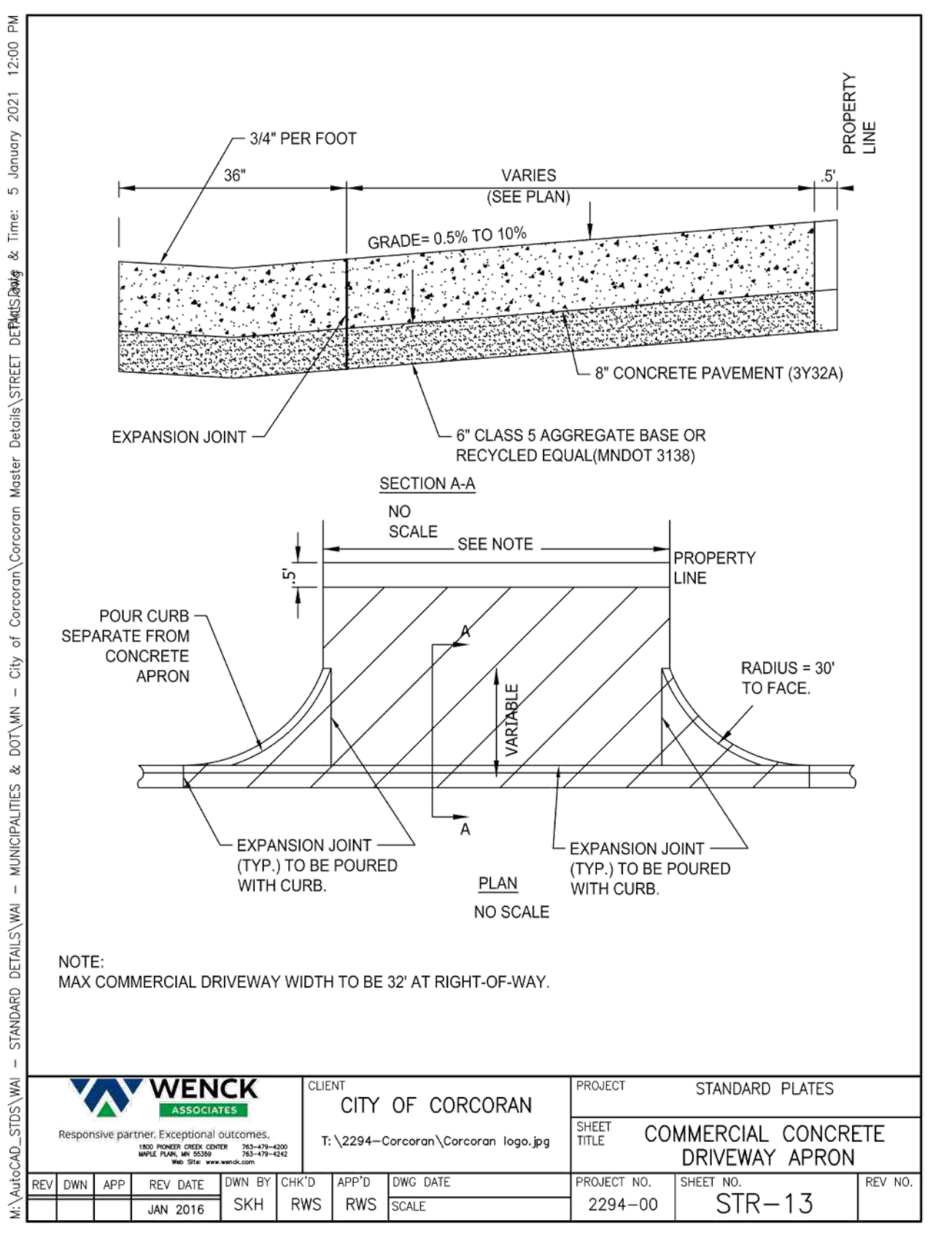
DITCH GRADE (%)	INTERVAL (FT)
2	100
4	75
6	50
8	40
10	25
10+	25

		CLIENT: CITY OF CORCORAN 	PROJECT: STANDARD PLATES SHEET TITLE: DITCH CHECK: 3D VIEW FOR 5B, 5C, AND SPACING
PROJECT NO.: 2294-00 SHEET NO.: ERO-5A REV. NO.:	DITCH CHECK: 3D VIEW FOR 5B, 5C, AND SPACING		

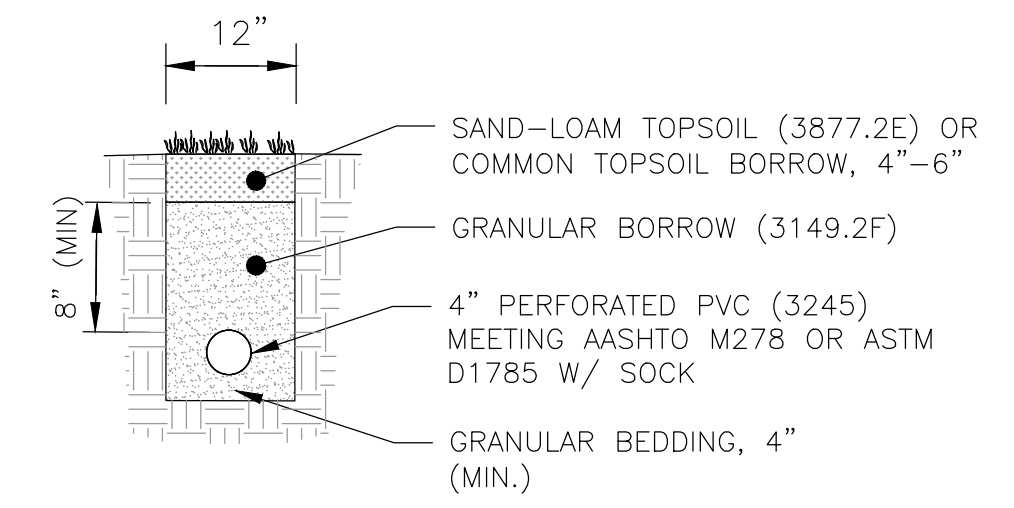


NOTE: FILTER FABRIC SHALL BE PLACED UNDER ROCK TO STOP MUD MIGRATION THROUGH ROCK. ENTRANCE MUST BE MAINTAINED TO PREVENT SEDIMENTATION ON PUBLIC ROADWAYS. FUGITIVE ROCKS WILL BE REMOVED FROM ADJACENT ROADWAYS DAILY OR MORE FREQUENTLY AS NECESSARY.

		CLIENT: CITY OF CORCORAN 	PROJECT: STANDARD PLATES SHEET TITLE: CONSTRUCTION ENTRANCE (ROCK)
PROJECT NO.: 2294-00 SHEET NO.: ERO-6 REV. NO.:	CONSTRUCTION ENTRANCE (ROCK)		

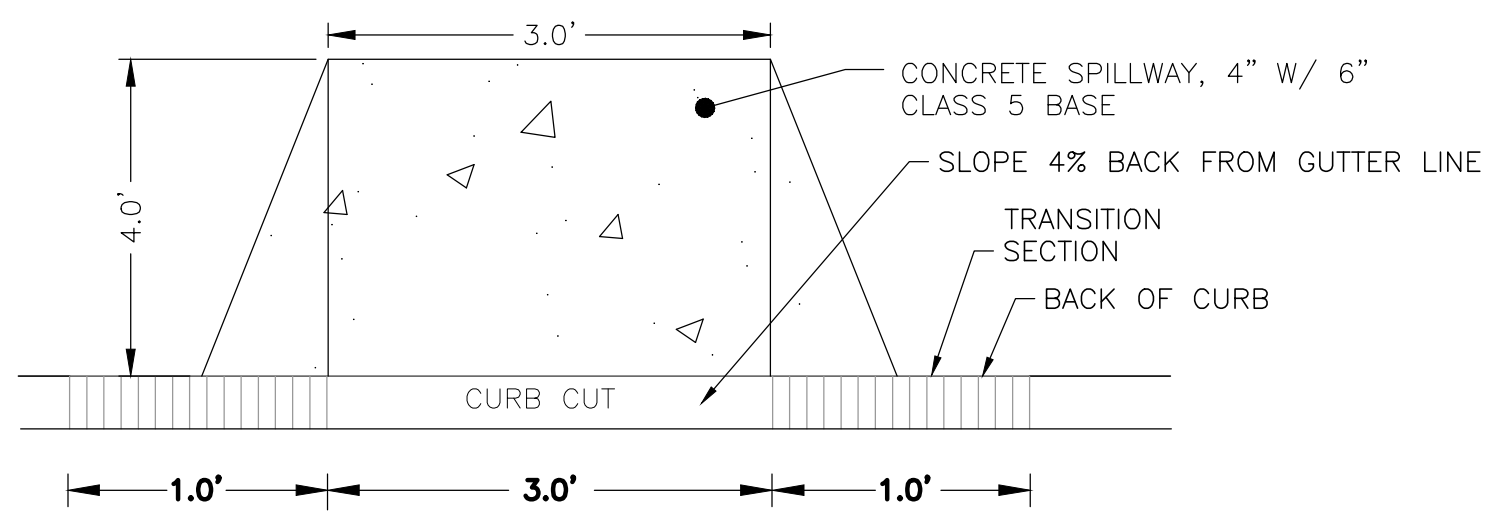


<b>WENCK ASSOCIATES</b> Responsive partner. Exceptional outcomes. 360 Maple Ave. Suite 2000 St. Paul, MN 55102				CLIENT CITY OF CORCORAN T:\2294-Corcoran\Corcoran_logo.jpg	PROJECT STANDARD PLATES					
REV	DWN	APP	REV DATE	DWN BY	CHK'D	APP'D	DWG DATE	PROJECT NO.	SHEET NO.	REV NO.
			JAN 2016	SKH	RWS	RWS	SCALE	2294-00	STR-13	

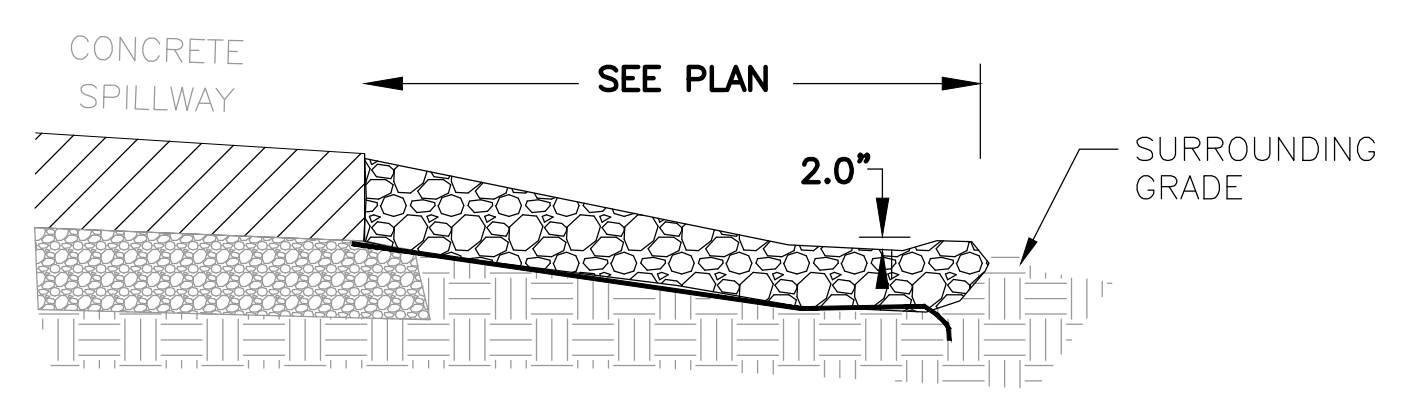
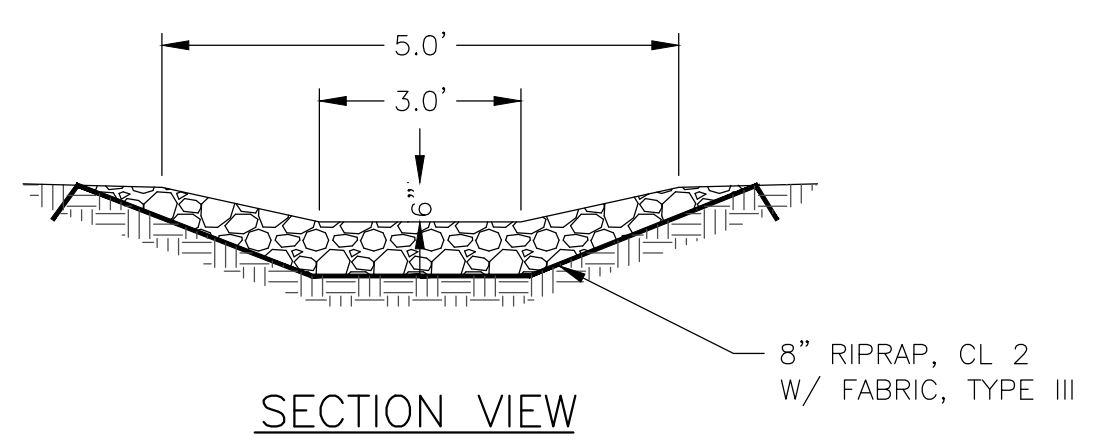


1 DRAINTILE TRENCH

- NOTES:
- CURB TO BE SAW-CUT TO DEPTH TO PROVIDE CLEAN CUT (INCIDENTAL).
  - SILICONE-BASED JOINT SEALER TO BE APPLIED TO ALL JOINTS.



2 CURB CUT - SURMOUNTABLE



3 REINFORCED PARKING LOT SPILLWAY

Print Date: 3/11/2022 11:58 AM  
File Loc: C:\CIVIL\Methods, Inc\CM - Documents\77\_Corcoran Substation 202108\_DRAWINGS AND SPECIFICATIONS\CSD\Sheets\05\_Details.dwg

**CIVIL METHODS, INC.**  
P.O. Box 28038  
St. Paul, MN 55128  
o: 763.210.5713 | www.civilmethods.com

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
  
DATE: 01-18-2022  
LIC. NO.: 44573

DESIGNED: DMP  
DRAWN: DMP  
CHECKED: KEB  
DATE / REVISION:  
01-18-2022 Preliminary Plat Review Set. NOT FOR CONSTRUCTION  
01-28-2022 Preliminary Plat Review Set. NOT FOR CONSTRUCTION  
03-14-2022 Revised per City review.

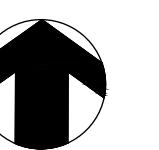
**CORCORAN II SUBSTATION**  
WRIGHT-HENNEPIN COOP. ELECTRIC ASSOCIATION  
CORCORAN, MN

**DETAILS**

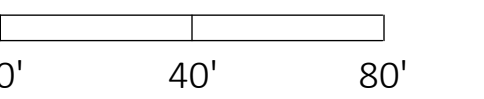
SHEET NO:  
**C42**



Corcoran II Substation  
 CORCORAN, MN

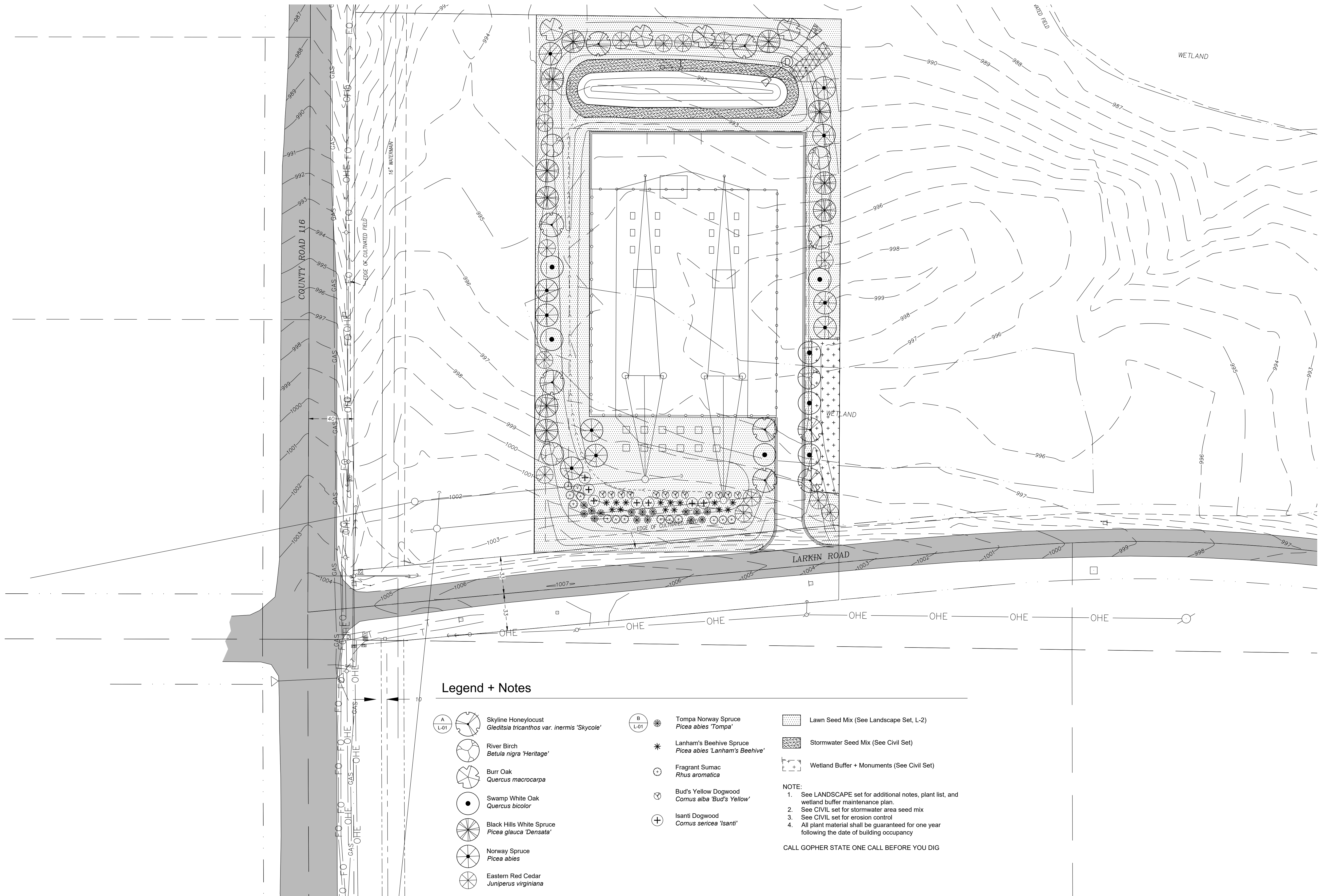


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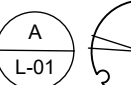






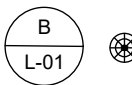

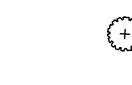




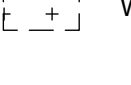


Drawn by: sks  
 Checked by: sks  
 Date | Draft:  
 1-18-2022 Preliminary Plat Review Set  
 3-14-2022 Revised Per City Review

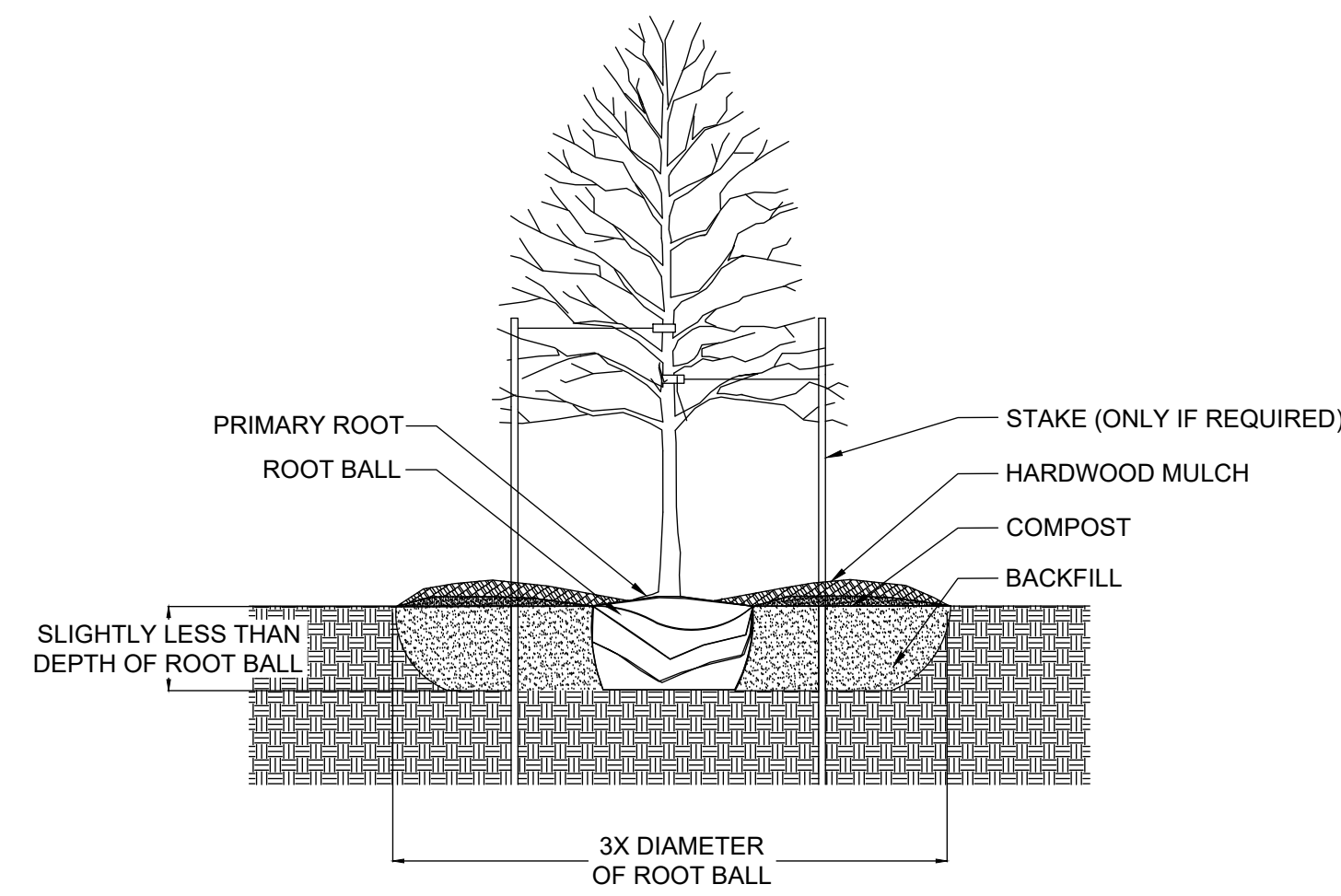
LANDSCAPE PLAN



Legend + Notes

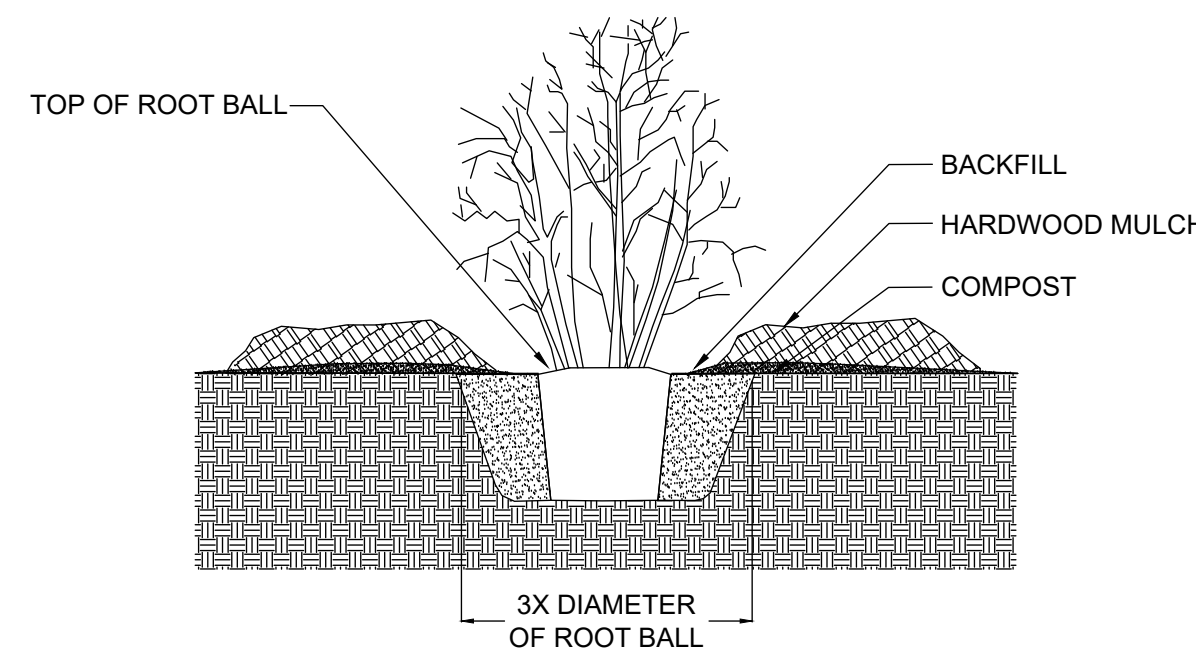
- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li> Skyline Honeylocust<br/><i>Gleditsia tricanthos var. inermis 'Skycole'</i></li> <li> River Birch<br/><i>Betula nigra 'Heritage'</i></li> <li> Burr Oak<br/><i>Quercus macrocarpa</i></li> <li> Swamp White Oak<br/><i>Quercus bicolor</i></li> <li> Black Hills White Spruce<br/><i>Picea glauca 'Densata'</i></li> <li> Norway Spruce<br/><i>Picea abies</i></li> <li> Eastern Red Cedar<br/><i>Juniperus virginiana</i></li> </ul> | <ul style="list-style-type: none"> <li> Tampa Norway Spruce<br/><i>Picea abies 'Tampa'</i></li> <li> Lanham's Beehive Spruce<br/><i>Picea abies 'Lanham's Beehive'</i></li> <li> Fragrant Sumac<br/><i>Rhus aromatica</i></li> <li> Bud's Yellow Dogwood<br/><i>Cornus alba 'Bud's Yellow'</i></li> <li> Isanti Dogwood<br/><i>Cornus sericea 'Isanti'</i></li> </ul> | <ul style="list-style-type: none"> <li> Lawn Seed Mix (See Landscape Set, L-2)</li> <li> Stormwater Seed Mix (See Civil Set)</li> <li> Wetland Buffer + Monuments (See Civil Set)</li> </ul> |
|--|--|---|
- NOTE:  
 1. See LANDSCAPE set for additional notes, plant list, and wetland buffer maintenance plan.  
 2. See CIVIL set for stormwater area seed mix  
 3. See CIVIL set for erosion control  
 4. All plant material shall be guaranteed for one year following the date of building occupancy
- CALL GOPHER STATE ONE CALL BEFORE YOU DIG

### Planting Details



A TREE PLANTING - SECTION (TYP.)

Not to Scale



B SHRUB PLANTING - SECTION (TYP.)

Not to Scale

### Planting Notes

**GENERAL NOTES**

1. See CIVIL set for all project general notes
2. See CIVIL set for erosion control
3. See CIVIL for stormwater area seed mix

**TREE AND SHRUB PLANTING**

1. Tree and shrub stock shall conform to all state requirements for nursery stock.
2. If the tree or shrub is container grown, score or prune the outside of the root ball to redirect circling fibrous roots. Carefully remove soil from the top of the root ball until the primary root is located.
3. If the tree or shrub is balled and burlapped, carefully remove soil from the top of the root ball until the primary root is located. Prune or remove any winding or girdling roots.
4. Cut any wires, wire baskets, and/or containers and carefully remove from the tree root ball before placing in the planting hole. Dispose of properly.
5. Carefully remove all twine, cords, and/or wraps and remove from the root ball before placing in the hole. Dispose of properly.
6. Scarify the sides and bottom of the planting hole.
7. Make certain the planting depth is correct by locating the primary root. This is the top of the root ball. The top of the root ball shall be elevated above the finished grade at the time of planting. The elevated distance shall be equivalent to the caliper size. For example, the top of a tree root ball for a 2" caliper tree shall be 2" above the finished grade.
8. Carefully place the tree in the hole.
9. Loosen backfill before filling planting hole. Fill planting hole half way with excavated planting soil. Water to eliminate air pockets. Do not tamp.
10. Finish filling planting hole, tamp soil gently, and water immediately. Do not place backfill on top of the root ball, as determined by the primary root.
11. Apply a 2" layer of double shredded, non-dyed, hardwood mulch above the compost. Maintain a 4" distance from the trunk flare.
12. Do not fertilize.
13. Stake trees, only if necessary, to stay in plumb position.
14. Prune tree to remove structural defects or to improve tree structure at the time of planting.

### Plant Requirements and Plant Schedule

**PLANT REQUIREMENTS**

<b>Linear feet of site perimeter</b>	<b>1,466 LF</b>
<b>Required Trees</b>	<b>Provided Trees</b>
One tree per 50 feet of site perimeter	One tree per 26.2 feet of site perimeter
30 Trees	56 Trees
<b>Required Shrubs</b>	<b>Provided Shrubs</b>
One shrub per 30 feet of site perimeter	One tree per 23.6 feet of site perimeter
49 Shrubs	62 Shrubs

**PLANT SCHEDULE**

<b>Lawn Seed Mix</b>	<b>Rate:</b>
All areas within the property lines shall be seeded with the following lawn seed mix:	
95% Tall Fescue	4 pounds per 1,000 square feet
5% Kentucky Blue Grass	
<b>Stormwater Seed Mix</b>	
See CIVIL set	

**CANOPY TREES**

QTY	Common Name	Scientific Name	Height	Width	Size
4 EA	River Birch	<i>Betula nigra</i> 'Heritage'	40-60'	30-40'	2.5" Cal.
7 EA	Skyline Honeylocust	<i>Gleditsia tricanthos</i> var. <i>inermis</i> 'Skycole'	50'	30-35'	2.5" Cal.
4 EA	Burr Oak	<i>Quercus macrocarpa</i>	60'80'	60'-60'	2.5" Cal.
7 EA	Swamp White Oak	<i>Quercus bicolor</i>	50-60'	40-50'	2.5" Cal.

**EVERGREEN TREES**

QTY	Common Name	Scientific Name	Height	Width	Color
10 EA	Norway Spruce	<i>Picea abies</i>	30-80'	25-30'	4-6' High
10 EA	White Spruce	<i>Picea glauca</i> 'Densata'	20-40'	15-20'	4-6' High
14 EA	Eastern Red Cedar	<i>Juniperus virginiana</i>	30'	15'	4-6' High

**SHRUBS**

QTY	Common Name	Scientific Name	Height	Width	Color
12 EA	Bud's Yellow Dogwood	<i>Cornus alba</i> 'Bud's Yellow'	6-8'	5-6'	3-4' High
7 EA	Isanti Dogwood	<i>Cornus sericea</i> 'Isanti'	5-6'	8-10'	3-4' High
14 EA	Lanham's Beehive Spruce	<i>Picea abies</i> 'Lanham's Beehive'	6'	6'	3-4' High
14 EA	Fragrant Sumac	<i>Rhus aromatica</i>	5-6'	6-8'	3-4' High
15 EA	Tompa Norway Spruce	<i>Picea Abies</i> 'Tompa'	8'	4'	3-4' High

### Wetland Buffer Maintenance Plan

**YEAR 1**

- Establishment SPRING SEEDING:
- Site Preparation: Late April - May.
  - Seed Installation: May 1 - June 1.

Maintenance (same growing season):

- Weed Control: Mow to a height of 6-8 inches once per month until September 30.
- Weed Control: Spot spray invasive species while on-site for mowing maintenance.

Establishment FALL SEEDING:

- Site Preparation: Late August through early September.
- Seed Installation: Late September to freeze-up.

Maintenance (following growing season-spring following dormant fall seeding):

- Weed Control: Mow to a height of 6-8 inches once per month until September 30.
- Weed Control: Spot spray invasive species while on-site for mowing maintenance.

**YEAR 2**

- Maintenance:
- Weed Control: Mow to a height of 6-8 inches one time between June 1 and August 15 - before weeds set seed.
  - Weed Control: Spot spray invasive species while on-site for mowing maintenance.

**YEAR 3**

- Maintenance:
- Weed Control: Mow as necessary to a height of 6-8 inches to control persistent annual and perennial invasive species.
  - Weed Control: Spot spray invasive species while on-site for mowing maintenance.

**LONG TERM**

- Maintenance:
- Weed Control Options:
    - Spot Spray: Spot spray invasive species as needed.
    - Burn: Burn in a 3-5 year rotation, alternate spring and fall, if possible.
    - Hay: Hay in a 3-5 year rotation, late summer or early fall. Alternate with burning, if possible. Haying can be used as a substitute for burning.
    - Consecutive Burn: Burn consecutively for two years to clean up rough-looking sites.

**NOTE**

Herbicide spray must be approved for use in/adjacent to water/wetland.

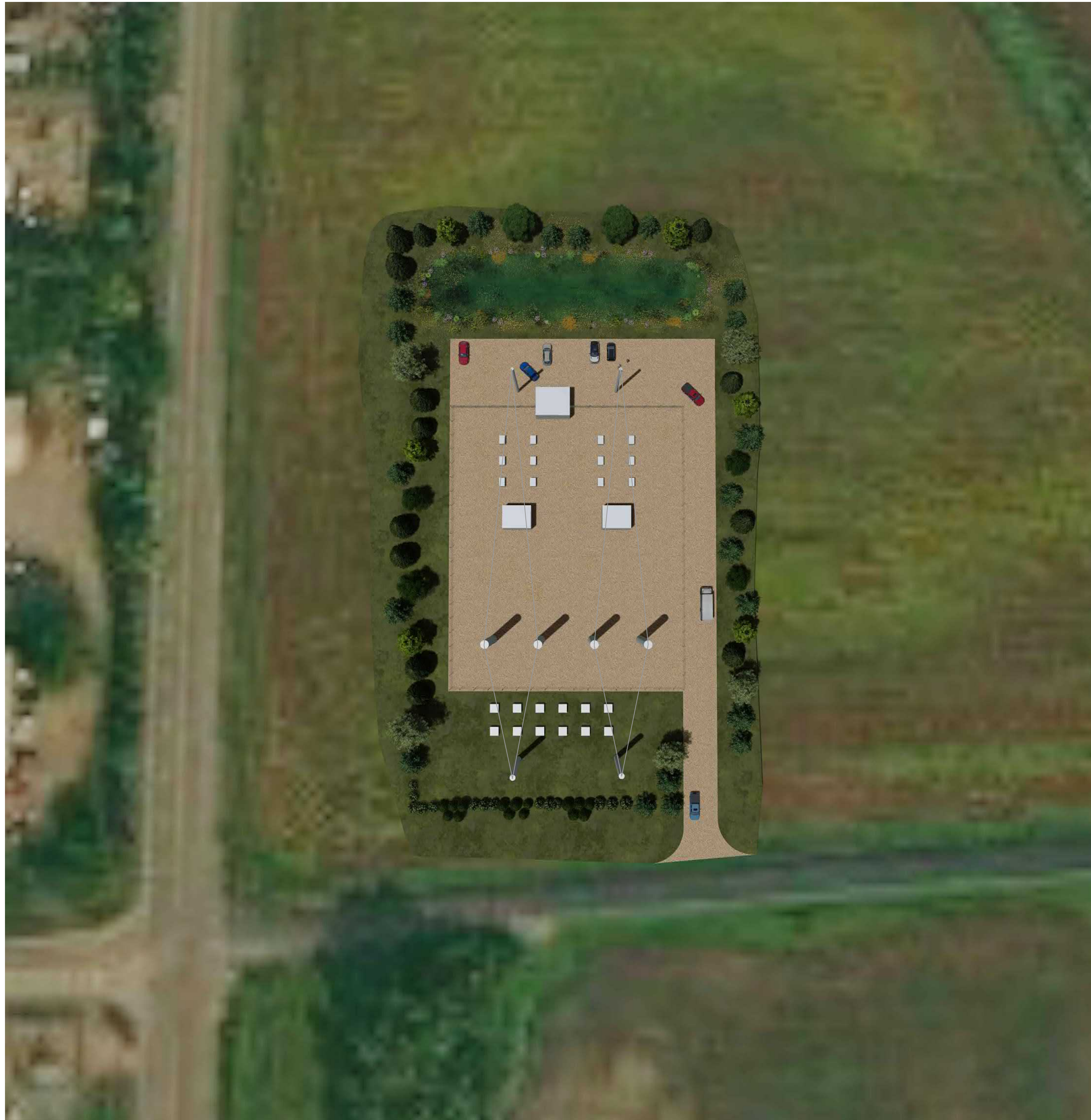
Owner:  
 Wright-Hennepin Electric  
 Rockford, MN

Corcoran II Substation  
 CORCORAN, MN

Drawn by: sks  
 Checked by: sks  
 Date | Draft:  
 1-18-2022 Preliminary Plat Review Set  
 3-14-2022 Revised Per City Review

LANDSCAPE PLAN

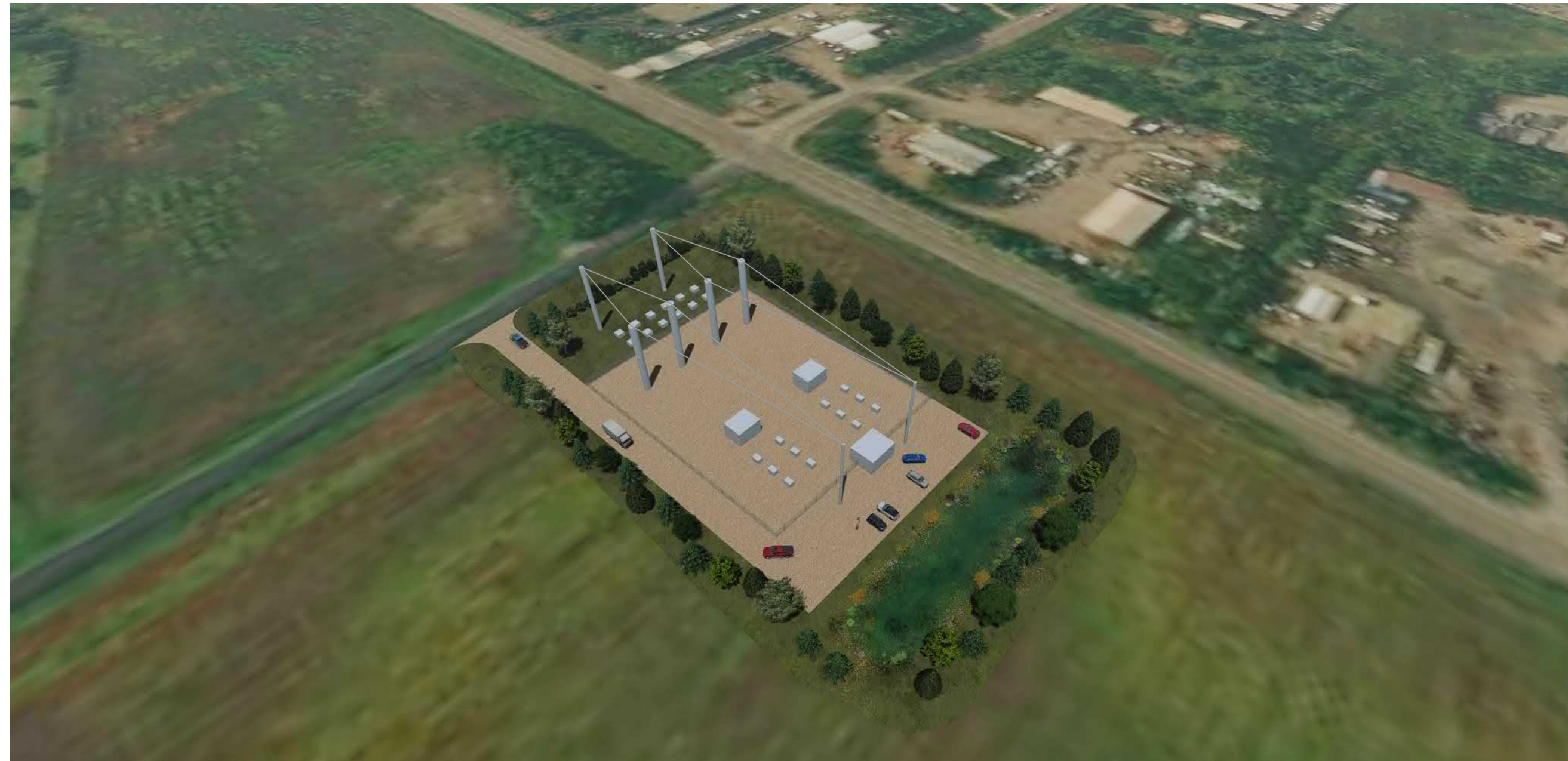
Plan View



Birds Eye View - Southwest Corner



Birds Eye View - Northeast Corner



Western Property Line



Northern Property Line



Eastern Property Line



Southern Property Line



Owner:  
Wright-Hennepin Electric  
Rockford, MN

Corcoran II Substation  
CORCORAN, MN

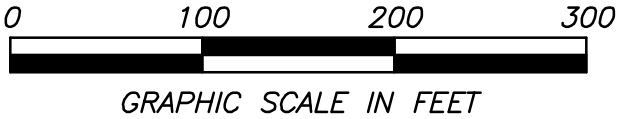
Drawn by: sks  
Checked by: sks  
Date | Draft:  
1-18-2022 Preliminary Plat Review Set  
3-14-2022 Revised Per City Review

LANDSCAPE PLAN-  
RENDERED SECTIONS

# AREA EXHIBIT FOR WRIGHT - HENNEPIN COOPERATIVE ELECTRIC ASSOCIATION

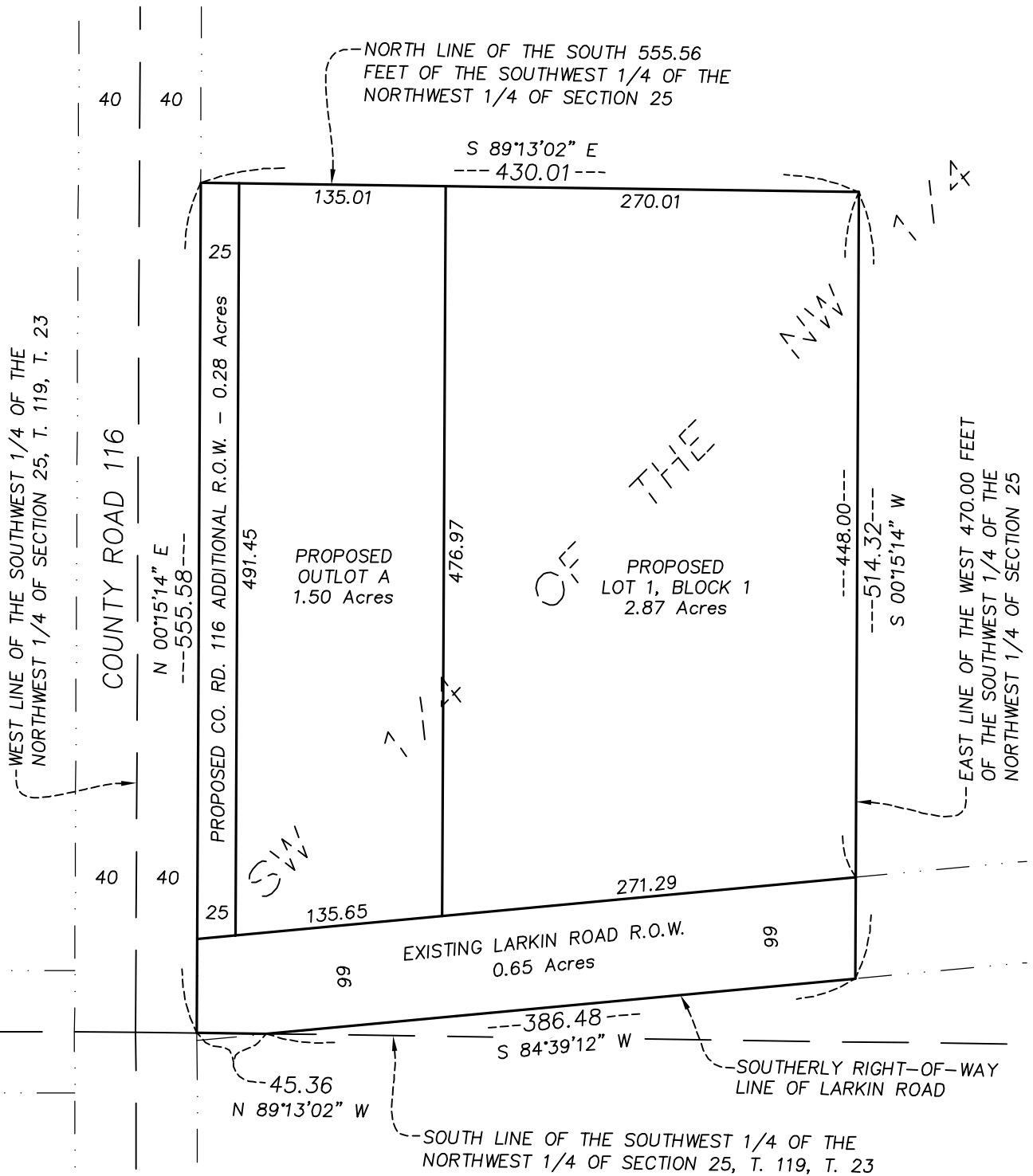
TOTAL AREA OF OUTLOT A + LOT 1, BLOCK 1:	4.37 Acres
EXISTING STREET RIGHT-OF-WAY (LARKIN RD.):	0.65 Acres
PROPOSED STREET R.O.W. (CO. RD. 116):	0.28 Acres
<b>GROSS PARCEL AREA (PURCHASE AREA):</b>	<b>5.30 Acres</b>


**NOTE:**  
The purpose of this drawing is to provide an area breakdown of the parcel shown on Property Description Exhibit by Meyer-Rohlin Land Services, File No. 21450, dated 12/28/2021, as it relates to the proposed lots, outlots, and right-of-ways to be created by the proposed plat of CORCORAN II SUBSTATION in the city of Corcoran, Hennepin County, Minnesota.



I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a Licensed Land Surveyor under the laws of the State of Minnesota.

Date 03/10/2022   
Abram A. Niemela  
License No. 48664



 <b>Meyer-Rohlin</b> <b>LAND SERVICES</b> 708 1st AVENUE NE, #1 BUFFALO, MN 55313 PH. 763.682.1781 WWW.MEYERROHLIN.COM	REVISIONS		
	DATE <u>03/10/2022</u>		
DRAWN BY <u>AAN</u>	BOOK <u>396</u> PAGE <u>55</u>	SHEET <u>1</u> OF <u>1</u> SHEETS	FILE NO. <u>21450</u>

# Corcoran II Substation Outbuilding Material Board

## Wall Materials:

The walls of the outbuilding will be constructed of a splitface or textured concrete block. There are several pigments available for these blocks. We plan on using the 'Natural Gray' color but are open to alternatives.



Outside face of textured block



Pigments available for splitface concrete block. We plan on using 'Natural Gray' for our outbuilding.

## Roofing Materials:

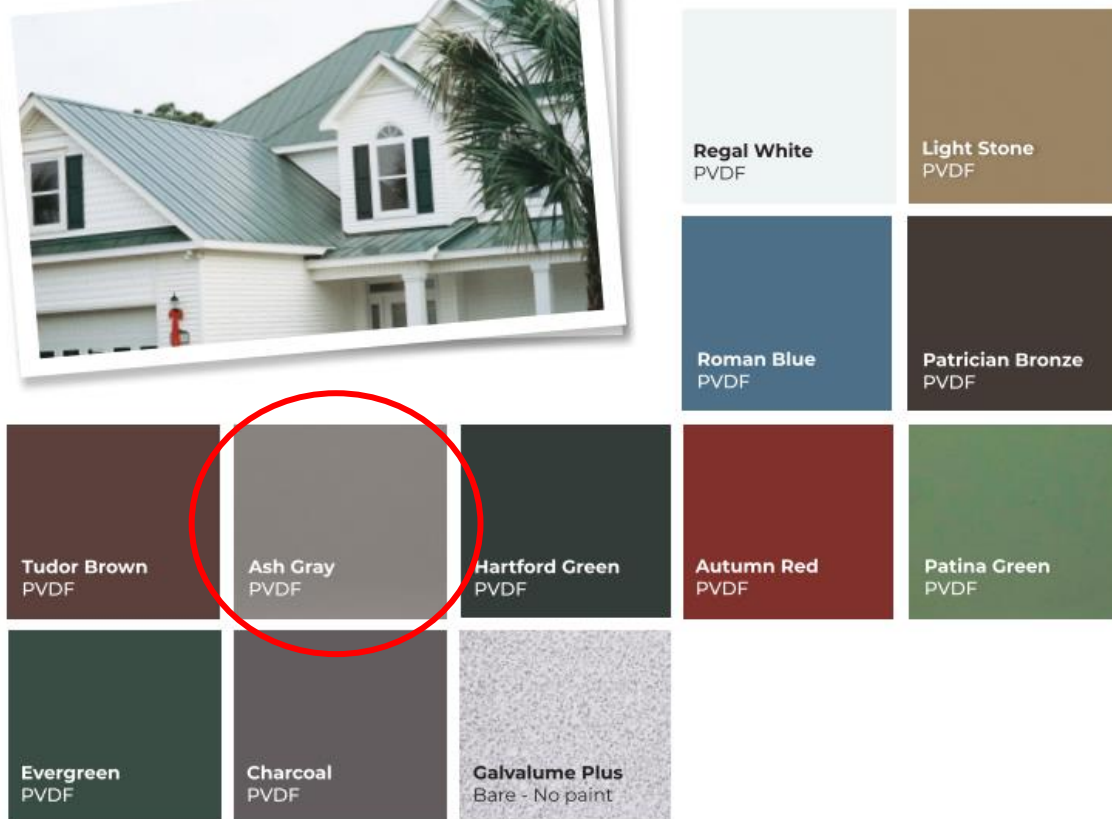
The roof of the outbuilding will be sheathed with painted steel roofing. We will be using roofing that is like what is shown below. We plan on using 'Ash Gray' roofing panels but are open to alternatives.



Ribbed metal roofing of a similar type will be used in construction.



### AVAILABLE COLORS



Ribbed metal roofing comes in a variety of colors which can be changed to suit the design requirements. We plan on using 'Ash Gray' roofing.

## Chain Link Fence Slatting:

If required, Wright-Hennepin will install chain link fence slatting to help block the view of the interior of the substation. The project will require approximately 710 feet of slatting. We would install beige slatting but would be open to other colors if beige is unacceptable. A sample of the slatting is shown below.



Cross-section of slatting



## Parking Lot Illumination:

For lighting the parking lot, we will be placing two pole-mounted “cobra head” style lights. These lights will have either brown or gray exterior paint and be 162 watts. They will be mounted on wood or fiberglass poles. The poles will be 30 feet long and be buried at 10% of their length + 2 feet. The fixture heights will be at 27 feet.



Detail of cobra head light.



Cobra head light mounted on wooden pole.

## Security Illumination:

For security lighting, we will use two twin LED lights with a motion sensor mounted above the doors of the outbuilding. One will be pointed towards the parking lot and the other will be pointing towards the interior of the substation. The lights are 26.6 watts. The sensors are adjustable for time, sensitivity and distance and can detect occupancy up to 72' away. We plan on installing dark bronze fixtures. Lights will have a shutoff on the inside of the outbuilding in the event that an issue arises.



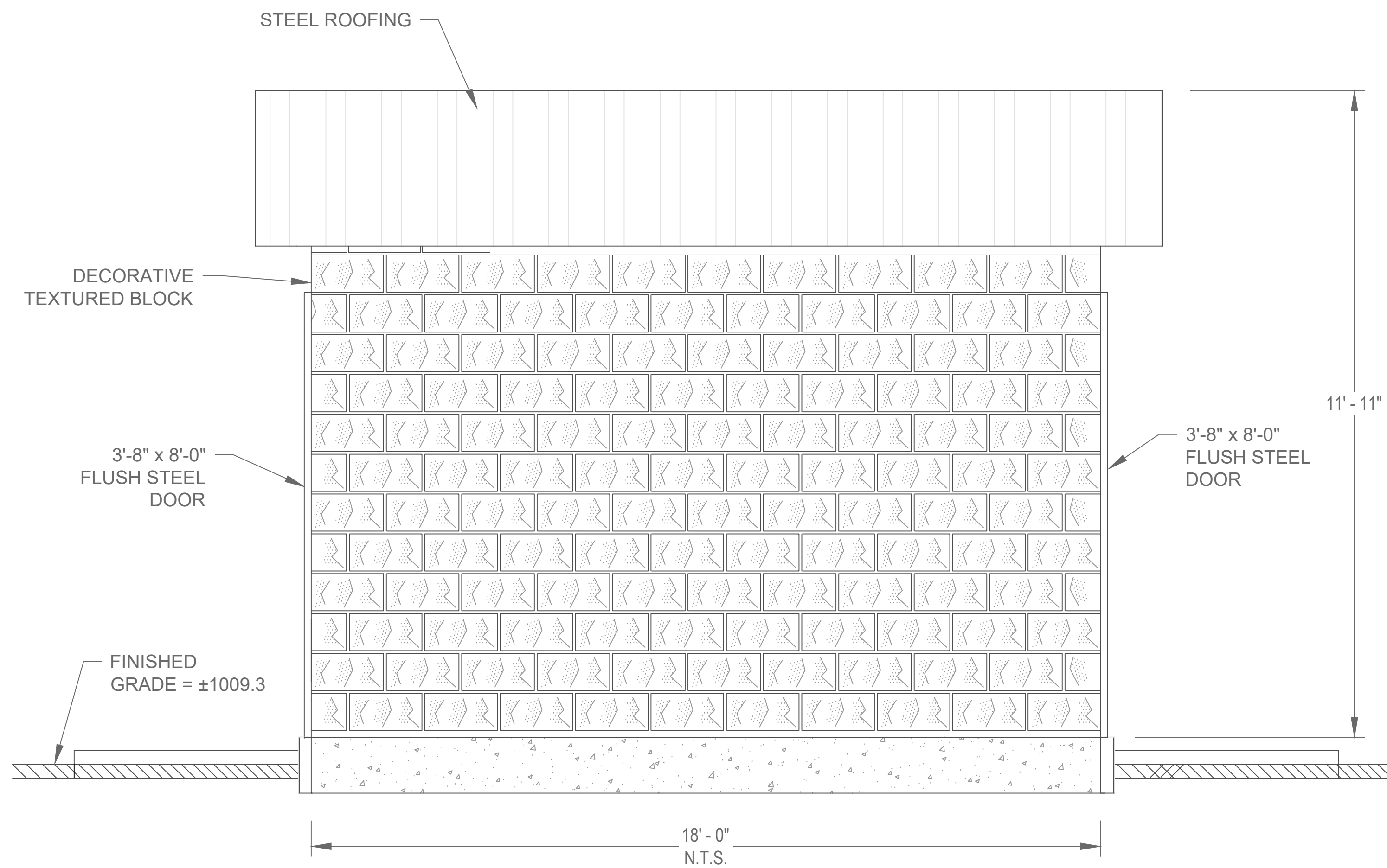
This twin LED light is the style we plan on installing.



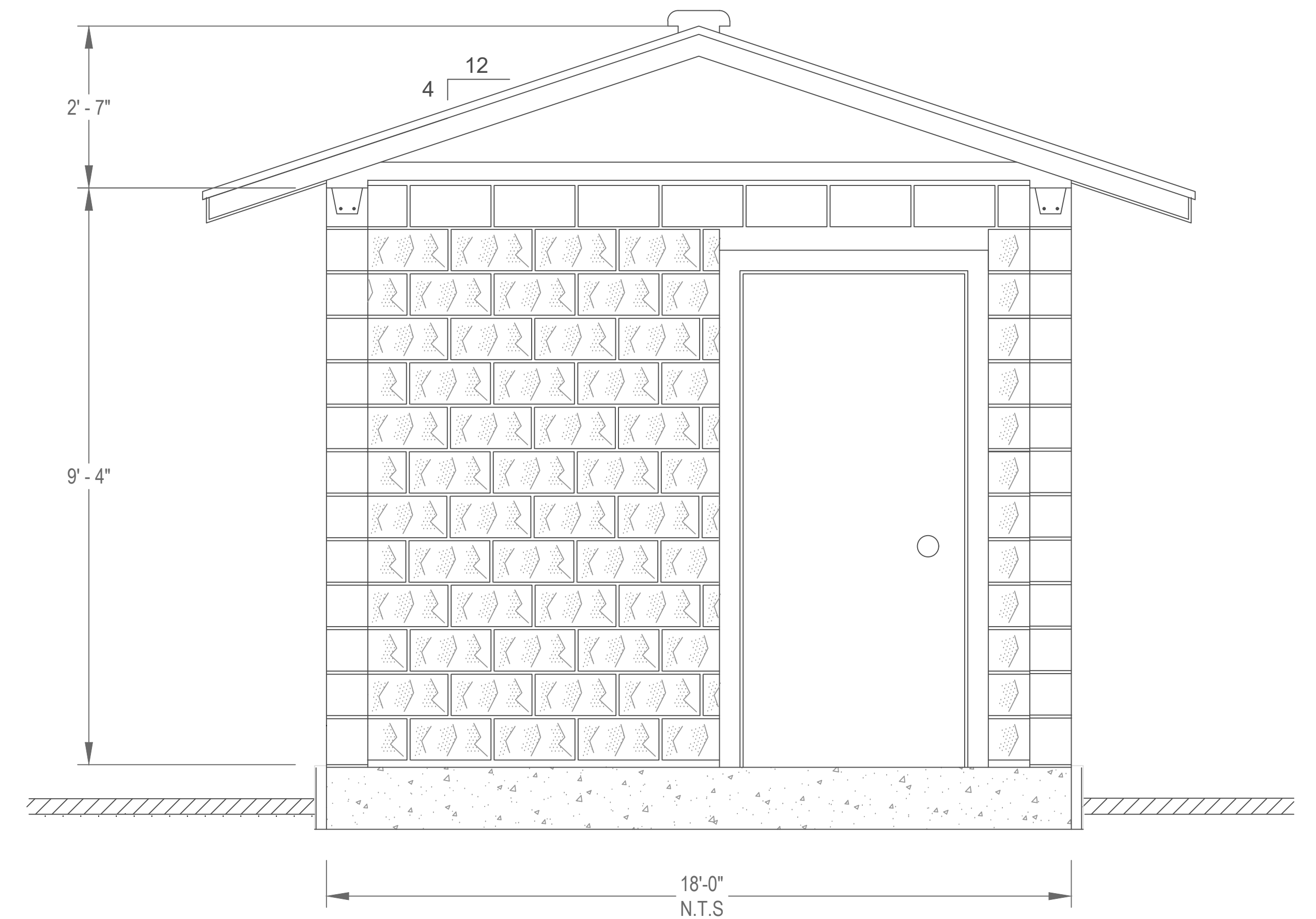
Sensor detail



Sensor control detail



**SOUTH ELEVATION**



**WEST ELEVATION**



**SAMPLE IMAGE**



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February 23, 2022

To: Corcoran Planning Commission

Dean Jacobs, Chair  
Corrine Brummond  
Jim Shoulak  
Mark Lanterman  
Jay Van Den Einde

Corcoran City Council

Tom McKee, Mayor  
Jonathan Bottema  
Jeremy Nichols  
Alan Schultz  
Dean Vehrenkamp

Dear Corcoran Planning Commission and City Council:

Wright-Hennepin Cooperative Electric Association (WH) is seeking to site a substation within the City of Corcoran and has been working with City staff on this effort. The proposed project is set to be introduced at the March 3, 2022 Corcoran Planning Commission Meeting.

To assist in your preparation, we have developed an information packet that provides an overview of WH and the project. We would welcome the opportunity to answer any questions or address any concerns prior to that meeting. Please feel free to contact Bob Sandberg, Vice President of Power Supply at (612) 719-1240 or at [bsandberg@whe.org](mailto:bsandberg@whe.org)

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Sullivan', is written over a light blue horizontal line.

Tim Sullivan  
President and CEO

CC:

- Jessica Beise, Interim City Administrator
- Kendra Lindahl, City Planner - Landform



---

March 14, 2022

City of Corcoran  
Interim City Administrator Jessica Beise  
8200 County Road 116  
Corcoran, MN 55340

Dear City Council Member Beise,

In anticipation of the upcoming Corcoran City Council meeting on Thursday, March 24, please allow me to share the facts about Wright-Hennepin Cooperative Electric Association's (WH) Corcoran Substation, why it needs to be built and why the location was chosen.

**Obligation to Provide Electric Service.** WH is proud to provide safe, reliable and affordable electric service for rural Wright County and western Hennepin County. As a member-owned, not-for-profit electric utility, our guiding cooperative values are centered on operating in the best interests of our members and the communities we serve. Reliable electric service is a necessity, and WH has a legal obligation to provide electric service in the areas we serve.

**Corcoran Growth.** With the recent population growth and projected growth in Corcoran, demand for electricity – an essential service to power homes, businesses, schools and overall quality of life – has increased and will continue to grow. In fact, WH electric services in Corcoran have grown by more than 30% since 2018. We must construct a new substation within the year to keep up with the growth in electric demand.

**Extensive Evaluations.** In planning for the new Corcoran Substation, we evaluated nearly a dozen properties and selected a site at County Road 116 and Larkin Road. This site is located along an existing transmission line with enough capacity to accommodate future growth. Tapping into this existing infrastructure will provide long-term, major cost-savings for the co-op, our member-owners and the city.

**Optimal Location.** This parcel is currently undeveloped and zoned RMF-2 for mixed residential use, which allows for the siting of essential services with no variance required. The City of Corcoran requested WH choose a location away from an established neighborhood. Our plans also meet the city's extensive landscaping and site requirements.

While it may be attractive to think there are better locations for the substation, our thorough review shows there simply are not, and we are running out of time. We must move forward with the proposed substation plans to continue providing reliable electric service to the rapidly growing City of Corcoran.

**Planning Commission Recommendation.** WH is disappointed the Corcoran Planning Commission did not recommend approval of our plat application at its March 3 meeting. Pursuant to the Corcoran City Code, the application is to be considered based on its merits, and in this case, subject to minor conditions recommended by the City Planner, to which WH has no objection, WH's application and proposed project meet ALL Code requirements. Further, the assertion that WH lacked standing to submit its application is also without merit.

---


 (763) 477-3000  (800) 943-2667  [info@whe.org](mailto:info@whe.org)  (763) 477-3054

 [whe.org](http://whe.org)  6800 Electric Drive, P.O. Box 330, Rockford, MN 55373-0330

This Cooperative is an equal opportunity provider and employer.



**Wright-Hennepin**  
Cooperative Electric Association


A Touchstone Energy® Cooperative 

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First, prior to submitting its application, WH specifically asked City staff whether it would be permissible to move forward with the application pending WH's petition for condemnation. The City, following analysis and guidance from the City Attorney, informed WH that it could proceed with its application so long as the condemnation action is commenced. Second, at the time of the Planning Commission meeting, the parties to the condemnation action, INCLUDING THE DEZIEL TRUST, had stipulated (i.e., agreed) that WH could move forward with the condemnation of the proposed substation site, but we were simply awaiting the Order signed by the judge reflecting the same. That Order has since been filed (in fact, it had already been signed by the judge prior to the meeting). Accordingly, the basis on which the Planning Commission recommended denial of the application is now moot.

Like our members, we're also residents of the communities we serve and put local needs at the forefront of all our decision-making. I invite any council member to call me personally if they have any questions or concerns ahead of the meeting.

Sincerely,



Tim Sullivan  
President and CEO



March 14, 2022

City of Corcoran  
Attn: City Council & Planning Commission  
8200 County Road 116  
Corcoran, MN 55340

IN RE: Wright-Hennepin Cooperative Electric Association // Corcoran Substation

Dear Councilors/Commissioners:

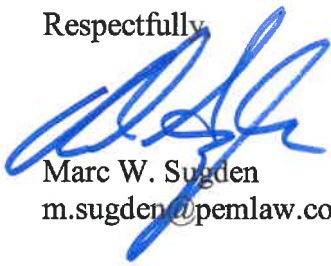
I write in regard to Wright-Hennepin Cooperative Electric Association's ("WH") plat application, which relates to WH's plans to construct an electrical substation on a parcel located at the northeast quadrant of the County Road 116/Larkin Road intersection. At the Planning Commission meeting on Thursday, March 3, 2022, following the public hearing, a presentation from WH, and comments from the Commissioners, the Planning Commission voted 5-0 to recommend denial of the application based on the assertion that WH lacked standing to submit said application. Particularly, the Planning Commission took the position that since the Hennepin County District Court had not yet signed an Order authorizing WH's proposed condemnation of the real property in question (the "**Property**"), WH was unable to proceed with its plat application.

However, as indicated during the March 3 Planning Commission meeting, WH filed its Petition for Condemnation on January 12, 2022 with the Hennepin County District Court. On February 16, 2022, the initial hearing was held in relation to said Petition. Legal counsel for each of WH, the Deziel Trust, and Shamrock Golf, Inc. attended the hearing, and no objections were raised as to WH's proposed condemnation of the Property. Shortly thereafter, a stipulated proposed Order authorizing the condemnation was submitted for filing by legal counsel for said parties, and on March 2, 2022, the Honorable Jamie L. Anderson executed and filed said Order (enclosed herewith), which authorizes WH to proceed with the condemnation of the Property.

Consequently, pursuant to the Order, WH has the clear authority of the Hennepin County District Court to proceed with the condemnation of the Property, and the concerns raised by the Planning Commission in relation to WH's standing to proceed with its plat application are moot. Accordingly, the Council should review WH's plat application on its merits.

Please contact me with questions, and thank you for your consideration.

Respectfully



Marc W. Sugden  
m.sugden@peplaw.com

Enclosure



# Facts about Wright-Hennepin Cooperative Electric Association (WH):

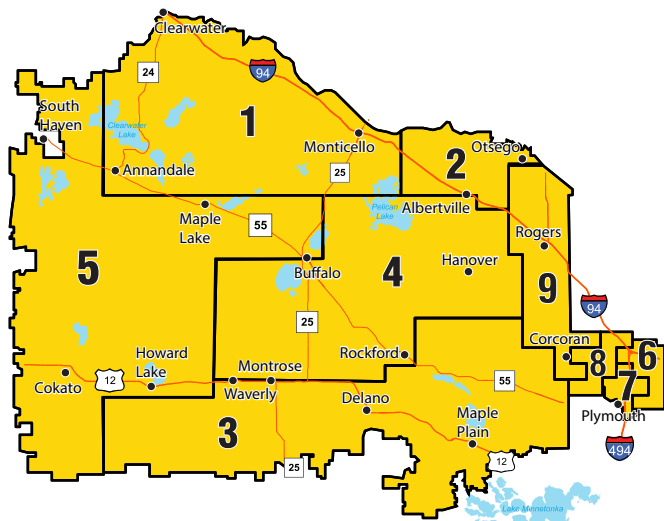
- Member-owned, not-for-profit electric utility that provides power to rural Wright and Western Hennepin Counties
- Serves more than 57,000 member-consumers (approximately 64% Residential and 36% Commercial & Industrial based on kWh)
- More than 2,000 live in Corcoran
- Established in 1937 and headquartered in Rockford, Minnesota
- Democratically-elected nine-member board
- Employs approximately 150 full-time employees
- Electric rates are very competitive with other area power suppliers
- WH has returned more than \$82 million in capital credit refunds to its members since 1957

## WH'S MISSION

We deliver the power, products and competitive pricing essential for improving the quality of life of the members and communities we serve.

## WH'S VISION

To benefit our members, WH and its diversified businesses will outperform our competitors and sustain top 10 percent results in satisfaction, financial management, safety and reliability through 2022.



## Values That Guide Us

The needs of members always come first. To make sure of that, we follow the guidance of the seven cooperative principles adopted by the International Co-operative Alliance.

### THE SEVEN COOPERATIVE PRINCIPLES

1. Voluntary and Open Membership
2. Democratic Member Control
3. Member's Economic Participation
4. Autonomy and Independence
5. Education, Training and Information
6. Cooperation Among Cooperatives
7. Concern for Community



## Corcoran Substation Information:

- **Why is Wright-Hennepin Cooperative Electric Association (WH) building a substation?**
  - There is an urgent need for additional infrastructure to facilitate the scale and scope of new development (a new development or developments) in the Corcoran area and to ensure reliability for current residents.
  - Based on residential and commercial growth trends, the load on the existing substation located at Larkin Road and County Road 116 is expected to increase by 50% over the next five years.
  - The existing substation location will not accommodate expansion due to its limited parcel size and capacity.
  - The location of the proposed substation is consistent with the City of Corcoran's 2040 Comprehensive Plan.
  - **Unless WH builds now, we cannot assure adequate reliability for City residents after this year.**
  - The new substation will ensure WH will continue to provide reliable electricity to members in the Corcoran area for decades to come.
- **What will the project look like?**
  - The property size is 5.30 acres.
  - The substation size within a fenced area is .75 acres.
  - WH will dedicate 1.78 acres (33.5% of the land acquired) to the City of Corcoran to construct a linear park and walking paths.
  - The map on the left shows the location. The map on the right is a mockup of the site after completion.
  - The site will be professionally landscaped, including the maximum number of trees and shrubs given the space available.
  - WH will meet and exceed all City requirements.
  - Comply with all MN local noise standards and ordinances.
  - Adhere to all building and zoning requirements.



Eastern Property Line



- **Why did WH choose this location?**

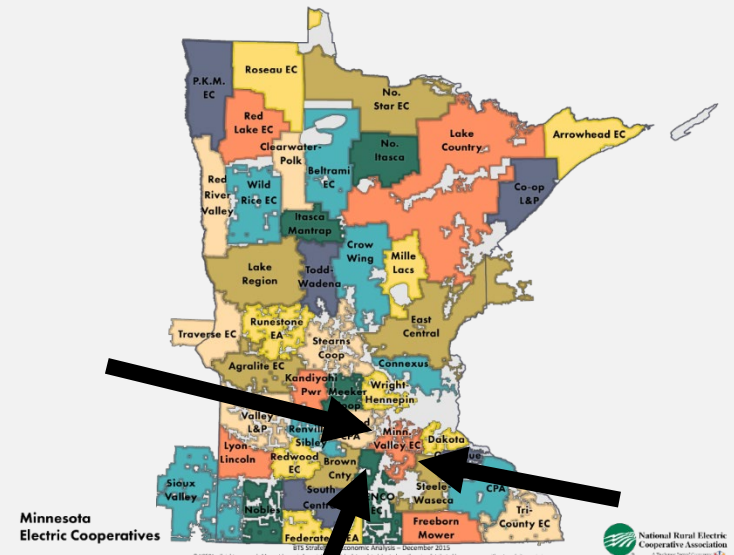
- A robust due-diligence process was completed to identify a site that met all of the specifications for a new substation along with applicable zoning requirements.
- More than 10 locations were considered, and at least 10 landowners were contacted by WH's legal counsel.
- This location was selected because it is:
  - Located along an existing transmission line that has enough capacity to accommodate future residential and commercial developments. The existing transmission line borders two of the four sides of the parcel.
  - Accessible to WH vehicles. Once constructed, there will be little traffic to and from the site.
  - Accessible to existing distribution lines in the public Right-of-Way.
  - Optimal location in the WH distribution grid for serving the immediate growth and development needs of the City and for delivering high reliability to current members.
  - Large enough to accommodate flexible landscaping options.
  - Located on an undeveloped parcel of land.
- After extensive research, we can find no evidence that property values are impacted by a substation near the location.
- This location will avoid the need for building new high voltage transmission lines.
- WH's application has been submitted and deemed complete by the City.
- The City's Parks and Trails Commission voted unanimously (5-0) on February 17, 2022 to recommend the project.
- The substation allows the City to execute its plan for growth by providing adequate power and helps avoid the need to construct additional transmission lines through the city.
- WH is a not-for-profit and all costs to provide reliable electricity are shared by the members through their electric rates. Affordable electricity is one of our top priorities, and costs of each project are carefully considered.

# Wright-Hennepin - City of Corcoran Proposed Substation

March 3, 2022

# About Wright-Hennepin

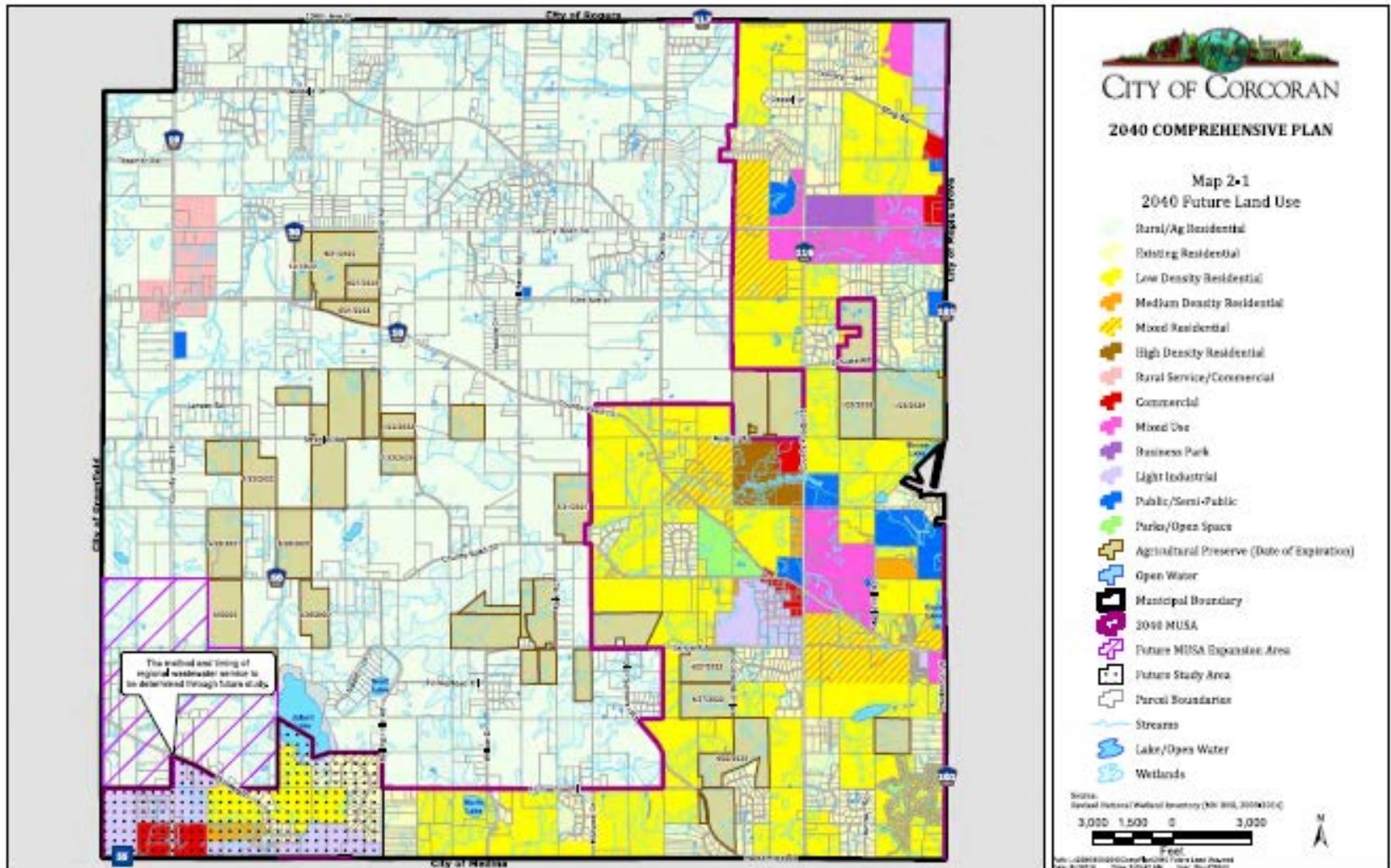
- Fourth largest cooperative in Minnesota
- Owned by the members we serve, including 2,246 in Corcoran
- Provide service to 57,000 consumers in northwestern Hennepin and Wright Counties
  - 52% Hennepin County
  - 47% Wright County
- We are local, headquartered in Rockford, MN. Our 150 employees live and work in the area's communities, including Corcoran
- In business since 1937
- Approximately 69,000 meters



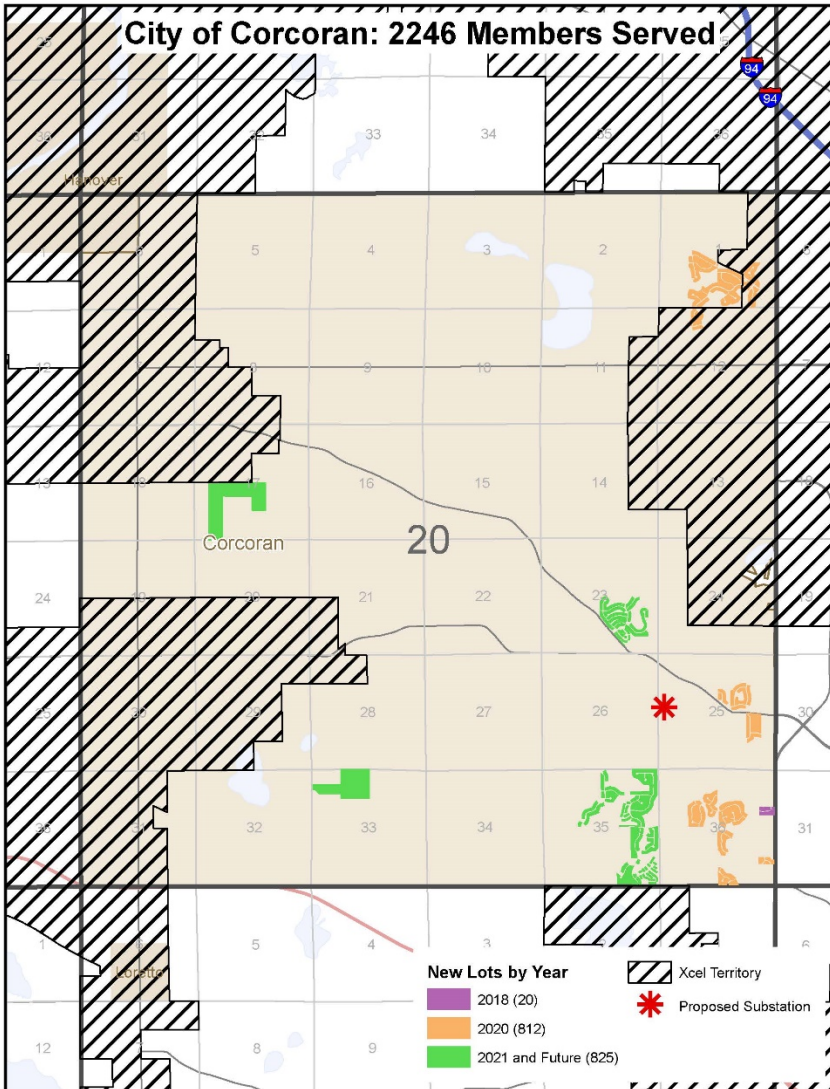
# Why are we here?

- To accommodate existing development and future growth, the City of Corcoran requires the addition of significant new electric service capability
- The current electric distribution infrastructure is inadequate to serve this growth
- Consequently, the area requires a new substation to ensure safe, reliable and affordable power for area homes and businesses

# City of Corcoran 2040 Comprehensive Plan



# Corcoran Members

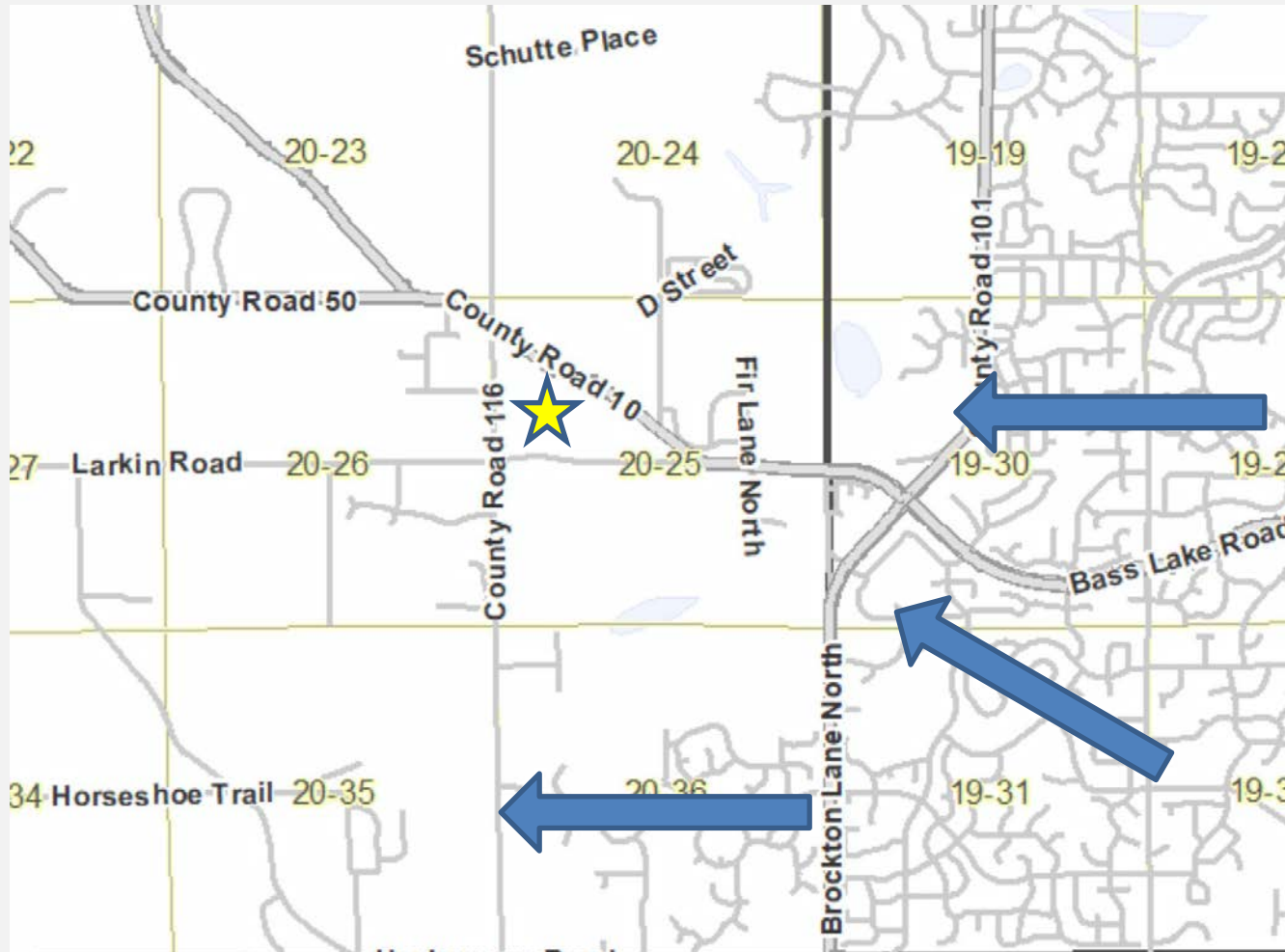


WH currently services 2,246 members

- New Services by Year:
  - 2018: 97 services
  - 2019: 86 services
  - 2020: 150 services
  - 2021: 210 services
  - In 2021 future 825 lots were added
- **30.9% growth in new services since 2018!**



# Corcoran Development Movement



# Wright-Hennepin's Response

- In response to the City's power needs, WH launched a comprehensive evaluation and due diligence process to identify sites for a new substation
- This process evaluates sites using a range of criteria including:
  - Power reliability needs
  - Power quality needs
  - Access and proximity of electric infrastructure (distribution and transmission lines)
  - Access and proximity of Right-of-Way
  - Land availability
  - Community impacts
  - Zoning requirements
  - City needs
  - Costs
  - Other requirements
- Consequently, the number of feasible sites was limited

# Current Substation

- Existing Corcoran Substation
  - Located on southeastern corner of Larkin and County Road 116
  - Constructed in 1952
  - Load forecasted to exceed baseline capability by 2023
  - Can not accommodate additional distribution feeders
  - Current small footprint does not meet new setback requirements nor allow for expansion
- This is not a feasible site for expansion or redevelopment and an alternative is required



# Initial Site Pursued in 2020-21

- Site:
  - 2.26 acres on southern end of Shamrock property
  - Location allowed WH to meet current load growth
  - Located adjacent to an existing transmission line
  - Undeveloped land
  - Consistent with the City of Corcoran's 2040 Comprehensive Plan
- City Feedback
  - Location was near existing neighborhoods
  - Wanted WH to look further north away from adjacent residential properties
  - Site variance from city required to construct on this property



# Extensive Evaluation of Other Sites

- WH evaluated more than 10 sites, including:
  - Undeveloped commercial lots in business park
  - Lots west on Larkin
  - Sites south and north on County Road 116
- Contacted 10 property owners soliciting interest
- Other sites proved infeasible for a variety of reasons:
  - No willing seller
  - Insufficient Right-of-Way
  - Inadequate transmission
  - Insufficient size
  - Inadequate access
  - Significant landowner disruption

# Example: Sufficient Feeder Space

**Plan Includes**

Installation along Co Rd 116



**Plan Avoids**

Installation along Larkin Road



# Current Development Site

- Intersection of Larkin and County Road 116
  - Immediately across from current substation
  - Undeveloped land with no existing residences adjacent to site
  - Zoned Mixed Residential (RMF-2), allows for siting of essential services including substations with no variance required
  - Large enough to accommodate flexible landscaping options
  - Unencumbered future Right-of-Way for distribution feeders
  - Sufficient access
  - Ensures reliable electricity to Corcoran residents for decades to come



\* The City's Parks and Trails Commission voted unanimously (5-0) on February 17, 2022 to recommend the project.

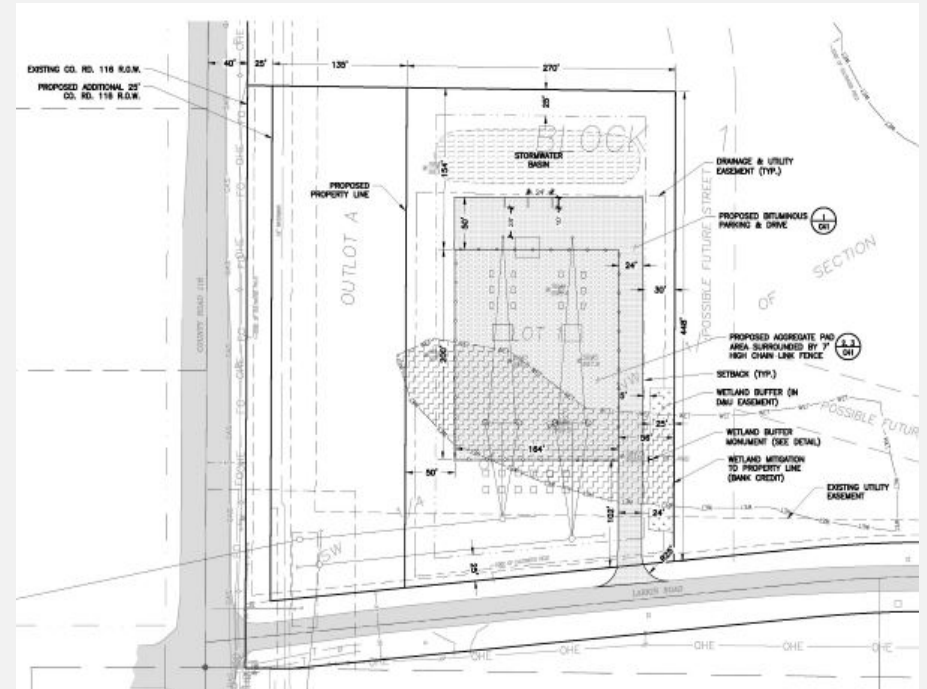
# Zoned Mixed Residential (RMF-2)

- City Code Section 1040.065, Subd. 6(A) permits Essential Services in RMF-2 Districts via Administrative Permit
- Essential Services are permitted in any zoning district pursuant Section 1030.090, Subd. 2.
- Essential Services and Essential Services Structures, which include substations, are defined in Section 1020.020.



# Site Overview

- Site Details
  - 5.30 acres
  - 1.78 acres of linear walking trail and park dedicated to support comprehensive city plan
  - Set back: 65' feet from County Road 116 Right-of-Way
  - Other city setbacks and berms from fence and driveway
- Landscaping
  - Design completed by landscape architect
  - Vegetation: maximum planting given spacing available
    - 6 varieties of trees
      - Canopy and evergreen
    - 3 types of shrubs/bushes
    - Multi-grasses used



# Linear Trial and Park

- WH will dedicate:
  - 1.78 acres of linear walking trial and park dedicated to support comprehensive city plan
  - Value: \$164,308 for the park site



# Landscape Plan is Extensive

View from County Road 116

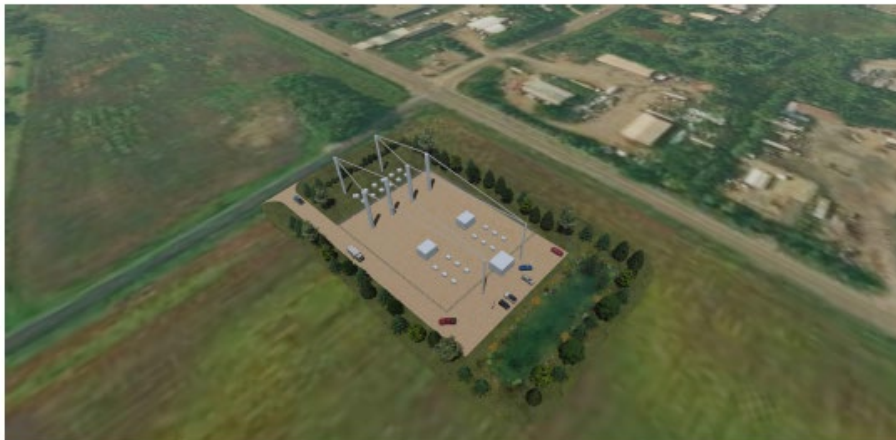


View from Larkin Road



- Substantial screening on all sides (maximum trees and shrubs given space available)

Birds Eye View - Northeast Corner



# Conclusion

- In response to City growth needs, WH must build a new substation.
- WH identified the site at the intersection of County Road 116 and Larkin Rd. after a comprehensive evaluation of all relevant needs and impacts.
- The proposed site provides low operational risks, minimal community impact, and allows WH to maintain system reliability going forward.
- Capacity on existing substation will be exhausted as early as 2023.
- **Unless WH builds now, we cannot assure adequate reliability for City residents after this year.**
- WH is securing this site for the benefit of Corcoran residents for years to come.

# Questions?

## Kendra Lindahl, AICP

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**Subject:** FW: Please pass this along  
**Attachments:** markup\_1746.png

---

**From:** haley sween <[haley.sween@gmail.com](mailto:haley.sween@gmail.com)>  
**Sent:** Wednesday, February 16, 2022 11:37 AM  
**To:** Jessica Beise <[jbeise@corcoranmn.gov](mailto:jbeise@corcoranmn.gov)>  
**Subject:** Please pass this along

To: Corcoran Planning Commission Members

I am reaching out to you to voice my **opposition** to the Wright-Hennepin Electric Cooperative request to build a new electric substation at East Larkin Road and 7400 co rd 116. This location is currently zoned mixed residential and I feel it would not be a good fit. It is my understanding there is a property available that is near the industrial park and is already zoned for Commercial and light Industrial.

A residential area is not the appropriate location for building an electric substation and I would please ask you to consider the other alternatives more suitable.

The Wright-Hennepin development will have a significant and long term impact on the future of the City.

Yes, Corcoran does need an upgrade in the transmission of electricity but this should not be done at the expense of the neighboring properties and the overall aesthetics of our gateway to the city.

It will be **detrimental** in many ways.

Does the City of Corcoran really want a large substation as a focal point on the main gateway to the City?

The proposed new substation will dwarf the currant substation...which is a historic eyesore.

The substation is considered "essential" but what is also essential is the character of our beautiful city.

The City of Corcoran's own Vision Statement says:

"The City of Corcoran will become a vibrant, connected community while preserving its natural character and agricultural roots."

Currently, there is significant change happening in the Corcoran area. Our City Council and Planning Commission has a monumental responsibility to methodically and thoughtfully guide future development so as the residents and City, as a whole, can be proud.

Please **deny** the Permit Application by Wright-Hennepin Electric and re-direct this project from East Larkin Rd and 116 residential area to an already designated Industrial/Commercial zone, where it belongs.

Please pass this along to those noted in the attached images.

Thank you,  
-Haley

**From:** [dsdeziel@aol.com](mailto:dsdeziel@aol.com) <[dsdeziel@aol.com](mailto:dsdeziel@aol.com)>

**Sent:** Tuesday, February 22, 2022 11:30 AM

**To:** Jessica Beise <[jbeise@corcoranmn.gov](mailto:jbeise@corcoranmn.gov)>

**Cc:** [dunebuggysuz@gmail.com](mailto:dunebuggysuz@gmail.com)

**Subject:** Say No! Please use the 40 acres that was donated to the city.South of Shamrock Golf

---

To: Corcoran Planning Commission Members

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Owner of Shamrock Golf

Dave Deziel

Thank you,

**From:** [Jessica Beise](#)  
**To:** [Kendra Lindahl, AICP](#); [Dwight Klingbeil](#)  
**Subject:** FW: opposition to WH Coop Electric substation( co rd 116 and Larkin)  
**Date:** Tuesday, February 22, 2022 9:17:52 AM

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**From:** Gerard Weber <mtwebers@yahoo.com>  
**Sent:** Monday, February 21, 2022 7:07 PM  
**To:** Jessica Beise <jbeise@corcoranmn.gov>  
**Subject:** opposition to WH Coop Electric substation( co rd 116 and Larkin)

Would you please forward this to the City of Corcoran Planning Commission? Thank you

We are members of the George Deziel (dec) family. Our late mother and George are sister and brother. Our cousins own the Shamrock golf course on county road 116.

We want to express opposition to the proposed request for an electric substation at 7000 co. rd.116 by the Wright-Hennepin Electric Cooperative. Our understanding is that our Uncle's estate is zoned for mixed residential. We also understand that there is an Industrial/Commercial property nearby. It seems to us that a substation would better fit near businesses and factories, for example, rather than near residential housing. I'm sure that you are aware of some of the environmental and health risks. These concerns could be amplified when the "double end" feature of this substation goes on line for future demand. In summary, land use is better served by staying with the original zoning and denying the permit.

Sincerely yours, Gerard R. Weber James H. Weber Mary Ann Mathison Nancy Ann Cesaro



**From:** John Elsen <[elсенj1@yahoo.com](mailto:elсенj1@yahoo.com)>  
**Sent:** Tuesday, February 22, 2022 10:14 AM  
**To:** Jessica Beise <[jbeise@corcoranmn.gov](mailto:jbeise@corcoranmn.gov)>  
**Subject:** Please deny the Permit Application by Wright-Hennepin Electric

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To: Corcoran Planning Commission Members

I am reaching out to you to voice my opposition to the Wright-Hennepin Electric Cooperative request to build a new electric substation at East Larkin Road and 7400 co rd 116. This location is currently zoned mixed residential and I feel it would not be a good fit. It is my understanding there is a property available that is near the industrial park and is already zoned for Commercial and light Industrial.

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Please deny the Permit Application by Wright-Hennepin Electric and re-direct this project from East Larkin Rd and 116 residential area to an already designated Industrial/Commercial zone, where it belongs.

*John F. Elsen*

**From:** Laurie Daniels <[danielslaurie827@gmail.com](mailto:danielslaurie827@gmail.com)>

**Sent:** Tuesday, February 22, 2022 2:24:40 PM

**To:** Jessica Beise <[jbeise@corcoranmn.gov](mailto:jbeise@corcoranmn.gov)>

**Subject:** Opposition to new substation.

---

To: Corcoran Planning Commission Members

I am reaching out to you to voice my **opposition** to the Wright-Hennepin Electric Cooperative request to build a new electric substation at East Larkin Road and 7400 co rd 116. This location is currently zoned mixed residential and I feel it would not be a good fit. It is my understanding there is a property available that is near the industrial park and is already zoned for Commercial and light Industrial.

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Please **deny** the Permit Application by Wright-Hennepin Electric and re-direct this project from East Larkin Rd and 116 residential area to an already designated Industrial/Commercial zone, where it belongs.

Sent from my iPhone

**From:** [raskobhtc@gmail.com](mailto:raskobhtc@gmail.com)  
**To:** [Kendra Lindahl, AICP](#)  
**Cc:** [Suzie Sween](#)  
**Subject:** Interim City Administrator Jessica Beise  
**Date:** Tuesday, February 22, 2022 8:13:08 AM

---

Would you please forward this to the  
City of Corcoran Planning Commission.  
Thank you, Matt Raskob

To the Chairman, Dean Jacobs, Corrine Brummond, Jim Shoulak, Mark Lanterman  
and Jay Van Den Einde,

This letter is to voice my opposition regarding the location of the proposed Wright-  
Hennepin Electric Coop Substation on 7400 county road 116 and Larkin Road.

- This will be a permanent eyesore to a major gateway of Corcoran. This large substation will dwarf the current substations in Corcoran and will have greater visibility in the proposed location.
- the location of the substation should be in the commercial/industrial district and not on a residential/mixed residential property.
- it will negatively impact the surrounding residential properties and their marketability, a large noisy substation is inconsistent with the current zoning and future uses.
- the loud humming noise pollution, (The proposed Linear park and nearby residents may hear it from as far as 1,000 feet when background noise is minimal, such as at night)
- presence of High voltage EMF's (electromagnetic fields in proximity to the substation. (Cancer and health issues are said to be some risks).

Do you want this to be the new Monument when entering Corcoran?

Wright Hennepin has been trying to expedite this process...is it to slip it by the residents so push back will be minimal?

I have read Wright Hennepins Corcoran II Substation Summary which was submitted to City staff with their application.

It contains Wright Hennepin "talking points" such as:

- "it's very common to have these located in residential districts"  
(my counterpoint: when a public utility has the governmental hammer of eminent

domain, could this skew the incidence of higher residential numbers?

Just because it is "common" it does NOT make it the right thing).

-It's a "small footprint"

(counterpoint: a 2.6 acre footprint is **not** small and what about the footprint it makes in the sky?)

-There will be "screening"

(counterpoint: will the chain link fence be 57' tall to cover the poles? Will the 12' building and 23' electrical apparatus be covered by seedling trees and a berm?)

-it is an "essential service"

(counterpoint: "Essential Service is not a valid argument for location).

The Wright Hennepin talking points are misleading and they are trying to minimize the substation's impact on the City and its people.

Some real Facts regarding the Substation:

### **According to the Corcoran II Substation Specifications submitted by Wright Hennepin;**

The design provides for **two** 115 Kv substation transformers. Each transformer holds an approximate range of **2,000 gallons of oil each. This means there would be 4,000 gallons of oil along with additional oil circuit breakers and other equipment which could contain additional hundreds of gallons of oil.**

With designated wetlands located about 250 feet from the proposed substation and the soil is sandy/silt, the dangers of leakage, or even a possible high voltage explosion, would seem a distinct possibility.

Although the substation design provides for berms and a catch-pond, possible high voltage events are very difficult to predict along with the possible containment of oil especially during an explosive event.

If a leak or explosion occurred, it could cause oil to access the wetlands and the environmental impact would be significant.

There are Earth currents in proximity of electrical substations. Basic electrical engineering indicates that all electrical currents that leave the electric supply substation must return to the source substation. The return currents flow both through the neutral conductors on the power poles and through the earth called "earth currents."

Homes and businesses close to the substation will receive significantly higher earth currents than other homes and businesses further away from the substation since the "target" of all the earth currents from all directions will be the substation.

The earth currents can result in stray voltages at all locations that are grounded to the earth (which includes all homes and businesses that are required to be grounded to the earth per the National Electrical Code (NEC). These stray voltages will occur on all conduction paths within the homes and business, including all wiring and plumbing within.

These are only a few important facts that you won't be given by Wright-Hennepin.

Don't be fooled.

As important advisors to the council I sincerely hope you are able to make your recommendations on a wide variety of information and input by residents. Not only on a narrow batch of information given to you by the electrical company itself.

It's understood, Elected officials cannot be experts in every field they vote upon. Many times we as citizens along with our representatives, rely on our governmental "experts" and the information they give us...which isn't always proven true.

Please, in your consideration of this project, keep in mind the best way forward isn't always the easiest.

Don't be rushed.

Advise against consent of the Permit request by Wright-Hennepin. Consider a moratorium until alternatives can be independently researched and residents can be fully informed.

Encourage Wright Hennepin to run an open house to discuss the project, answer questions and inform the public. This could put residents at ease.

Consider the Howard Lake Substation that Wright-Hennepin successfully razed and rebuilt on the same site.

<https://www.youtube.com/watch?v=Fqwd7xu1toE>

Truly consider alternative sites and ideas.

Most often than not, the best alternative is not the easiest or the cheapest.

The City of Corcoran should demand better and the residents and businesses **deserve better.**

Sincerely, Matt Raskob

**From:** Mike Elsen <[elsen07@yahoo.com](mailto:elsen07@yahoo.com)>

**Sent:** Tuesday, February 22, 2022 5:34:17 PM

**To:** Jessica Beise <[jbeise@corcoranmn.gov](mailto:jbeise@corcoranmn.gov)>

**Subject:** Please deny the Permit Application by Wright-Hennepin Electric - electric substation at East Larkin Road and 7400 co rd 116

---

To: Corcoran Planning Commission Members

I am reaching out to you to voice my **opposition** to the Wright-Hennepin Electric Cooperative request to build a new electric substation at East Larkin Road and 7400 co rd 116. This location is currently zoned mixed residential and I feel it would not be a good fit. It is my understanding there is a property available that is near the industrial park and is already zoned for Commercial and light Industrial.

A residential area is not the appropriate location for building an electric substation and I would please ask you to consider the other alternatives more suitable.

The Wright-Hennepin development will have a significant and long term impact on the future of the City.

Yes, Corcoran does need an upgrade in the transmission of electricity but this should not be done at the expense of the neighboring properties and the overall aesthetics of our gateway to the city.

It will be **detrimental** in many ways.

Does the City of Corcoran really want a large substation as a focal point on the main gateway to the City?

The proposed new substation will dwarf the current substation...which is a historic eyesore.

The substation is considered "essential" but what is also essential is the character of our beautiful city.

The City of Corcoran's own Vision Statement says:

"The City of Corcoran will become a vibrant, connected community while preserving its natural character and agricultural roots."

Currently, there is significant change happening in the Corcoran area. Our City Council and Planning Commission has a monumental responsibility to methodically and thoughtfully guide future development so as the residents and City, as a whole, can be proud.

Please **deny** the Permit Application by Wright-Hennepin Electric and re-direct this project from East Larkin Rd and 116 residential area to an already designated Industrial/Commercial zone, where it belongs.

Thank you.

**From:** Steve Daniels <[bulgeinboxers@gmail.com](mailto:bulgeinboxers@gmail.com)>  
**Sent:** Tuesday, February 22, 2022 2:28:32 PM  
**To:** Jessica Beise <[jbeise@corcoranmn.gov](mailto:jbeise@corcoranmn.gov)>  
**Subject:** Opposition to new substation.

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To: Corcoran Planning Commission Members

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Sent from my iPhone



**From:** Susan Woll <[sue@knodeinsurance.com](mailto:sue@knodeinsurance.com)>

**Sent:** Tuesday, February 22, 2022 10:39 AM

**To:** Jessica Beise <[jbeise@corcoranmn.gov](mailto:jbeise@corcoranmn.gov)>

**Subject:** Please deny the Permit Application by Wright-Hennepin Electric - electric substation at East Larkin Road and 7400 co rd 116

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To: Corcoran Planning Commission Members

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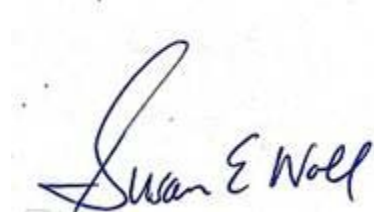
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Best regards,

A handwritten signature in black ink that reads "Susan E. Woll". The signature is written in a cursive style with a large, looping initial "S".

Susan E. Woll  
Knode & Associates, LLC  
331 Main Street  
Po Box 40  
Palisade, Colorado 81526  
(970) 464-5661 (O)  
(970) 464-5951 (F)  
Email: [Sue@knodeinsurance.com](mailto:Sue@knodeinsurance.com)

**From:** [Jessica Beise](#)  
**To:** [Kendra Lindahl, AICP](#); [Dwight Klingbeil](#)  
**Subject:** FW: Regarding: Opposition to permit request for Wright Hennepin Coop Electric substation 116 and Larkin  
**Date:** Tuesday, February 22, 2022 8:04:50 AM  
**Attachments:** [image.png](#)

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**From:** Suzie Sween <dunebuggysuz@gmail.com>  
**Sent:** Monday, February 21, 2022 4:33 PM  
**To:** Jessica Beise <jbeise@corcoranmn.gov>  
**Cc:** Natalie Davis <ndavis@corcoranmn.gov>  
**Subject:** Regarding: Opposition to permit request for Wright Hennepin Coop Electric substation 116 and Larkin

To Interim City Administrator Jessica Beise.  
Would you please forward this to the  
City of Corcoran Planning Commission.  
Thank you

To the Chairman, Dean Jacobs, Corrine Brummond, Jim Shoulak, Mark Lanterman and Jay Van Den Einde,

This letter is to voice my opposition regarding the location of the proposed Wright-Hennepin Electric Coop Substation on 7400 county road 116 and Larkin Road.

-This will be a permanent eyesore to a major gateway of Corcoran. This large substation will dwarf the current substations in Corcoran and will have greater visibility in the proposed location.

-the location of the substation should be in the commercial/industrial district and not on a residential/mixed

residential property.

-it will negatively impact the surrounding residential properties and their marketability, a large noisy substation is inconsistent with the current zoning and future uses.

-the loud humming noise pollution, (The proposed Linear park and nearby residents may hear it from as far as 1,000 feet when background noise is minimal, such as at night)

-presence of High voltage EMF's (electromagnetic fields in proximity to the substation. (Cancer and health issues are said to be some risks).

Do you want this to be the new Monument when entering Corcoran?

Wright Hennepin has been trying to expedite this process...is it to slip it by the residents so push back will be minimal?

I have read Wright Hennepins Corcoran II Substation Summary which was submitted to City staff with their application.

It contains Wright Hennepin "talking points" such as:

-"it's very common to have these located in residential districts"

(my counterpoint: when a public utility has the governmental hammer of eminent domain, could this skew the incidence of higher residential numbers?

Just because it is "common" it does NOT make it the right thing).

-It's a "small footprint"

(counterpoint: a 2.6 acre footprint is **not** small and what about the footprint it makes in the sky?)

-There will be "screening"

(counterpoint: will the chain link fence be 57' tall to cover the poles? Will the 12' building and 23' electrical apparatus be covered by seedling trees and a berm?)

-it is an "essential service"

(counterpoint: "Essential Service is not a valid argument for location).

The Wright Hennepin talking points are misleading and they are trying to minimize the substation's impact on the City and its people.

Some real Facts regarding the Substation:

**According to the Corcoran II Substation Specifications submitted by Wright Hennepin;**

The design provides for **two** 115 Kv substation transformers. Each transformer holds an approximate range of **2,000 gallons of oil each. This means there would be 4,000 gallons of oil along with additional oil circuit breakers and other equipment which could contain additional hundreds of gallons of oil.**

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The City of Corcoran should demand better and the residents and businesses **deserve better.**

Sincerely,

Suzie Sween

Trustee of the George Deziel Property

Corcoran, MN



**From:** [Jessica Beise](#)  
**To:** [Kendra Lindahl, AICP](#); [Dwight Klingbeil](#)  
**Subject:** Fwd: Pleas don't give them the permit  
**Date:** Tuesday, February 22, 2022 7:00:07 AM

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**From:** Tony & Sharon Raskob <tsraskob@gmail.com>  
**Sent:** Tuesday, February 22, 2022 6:09:40 AM  
**To:** Suzie Sween <dunebuggysuz@gmail.com>; Jessica Beise <jbeise@corcoranmn.gov>; Natalie Davis <ndavis@corcoranmn.gov>  
**Subject:** Pleas don't give them the permit

To: Corcoran Planning Commission Members

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105 South Fifth Avenue  
 Suite 513  
 Minneapolis, MN 55401

Tel: 612-252-9070  
 Fax: 612-252-9077  
 www.landform.net

**TO:** Corcoran City Council

**FROM:** Kevin Shay through Kendra Lindahl, Landform

**DATE:** March 16, 2022 for the March 24, 2022 City Council Meeting

**RE:** Final Plat and Final PUD Development Plan for “Cook Lake Highlands” at 19220 County Road 10 (PID 25-119-23-14-0003) (City File 21-057)

**60-DAY REVIEW DEADLINE:** April 11, 2021

**1. Description of Request**

The applicant, Trek Real Estate and Development, Inc., is requesting approval of the final plat and final PUD (planned unit development) development plan for “Cook Lake Highlands.” The final plat is only reviewed by City Council.

**2. Background**

The developer submitted a similar plan that was denied by the City Council on April 22, 2021.

The developer then met with residents and Council members, revised the plans and submitted a new application. The City Council voted 3-1 to approve the rezoning to PUD, preliminary PUD development plan and preliminary plat on May 27, 2021.

**3. Planning Commission Review**

The Planning Commission reviewed the application on March 3, 2022. There was one resident who spoke about the application regarding the lighting and a possible trail connection between Applewood Pointe, the single family cul-de-sac and the Bass Lake Crossing trail. This trail was only present in the first Parks Commission meeting on February 18, 2021, and was eliminated following that meeting. The plans approved by the Council on May 27, 2021 did not include a trail connection between the villas and Applewood Pointe and it was not included as a condition of approval.

The Planning Commission voted 3-0-2 (Brummond and Van Den Einde abstained) to recommend denial of the final PUD request and did not provide a recommendation on the applicant’s PUD amendment request for additional signage.

**4. Analysis of Request**

**A. Level of Discretion in Decision Making**

The City’s discretion in approving a final PUD is limited to whether the proposed plan is in substantial conformance with the preliminary PUD development plan. If it meets these standards, the City must approve the final PUD development plan.





The City's discretion in approving a final plat is limited to whether the proposed plat meets the standards outlined in the City's subdivision and zoning ordinance. If it meets these standards, the City must approve the final plat.

#### B. Consistency with Ordinance Standards

Staff has reviewed the application for consistency with Comprehensive Plan, Zoning Ordinance, Subdivision Ordinance and City Code requirements, as well as City policies. The City Engineer's comments are incorporated into this staff report, the detailed comments are included in the attached engineering memo and the approval conditions require compliance with the memo.

#### Final PUD Development Plan

Staff finds the final PUD development plan is consistent with the approved preliminary plans. However, there are a number of conditions that must be addressed prior to release of the final plat and authorization to begin construction.

The entire project will be built in a single phase which includes:

- 19 single family homes (reduced from 20 as required by the preliminary approvals)
- 100 senior co-op units (102 were approved in the preliminary plans and the applicant reduced the units)
- Daycare
- Assisted living and memory care facility with 27 units. (32 were approved in the preliminary plans and the applicant reduced the units)

The overall post-development net density is estimated to be 9.0 which falls within the 8-10 units per acre expected in the mixed-use land use area. A final calculation will be made after plans have met all conditions of approval.

#### *Building Design Standards*

The applicant has provided building renderings and elevations for the proposed structures. The City has adopted design standards as part of the Zoning Ordinance and guidelines as part of the *Southeast District Plan and Design Guidelines*. This section will evaluate the buildings and their compliance with the Zoning Ordinance building design standards and if they meet the goals of the Southeast District. The Southeast District guidelines identify that the buildings should fit with the agrarian contemporary, farmhouse and arts and crafts prairie styles.

#### 1. Single Family Villas

The single-family villa renderings are sample products from M/I Homes and vary from 1,734 – 1,935 square feet and all include 2-car garages. All the single-family villas are subject to the following standards listed in Section 1040.040, Subd 8:



**A. Front Elevation:**

**1. Definition:**

*i. For the purpose of this Section, front elevation shall be the elevation facing the front lot line on the street of the mailing address for the property when the property has more than one front lot line.*

**2. Materials used:**

*i. The front elevation shall have material consisting of brick, stone, stucco, fiber cement board, redwood, cedar or other similar materials. A minimum of two different materials is required, except that brick may be used on the entire elevation.*

*ii. Vinyl siding is permitted when combined with the materials listed in Subd. 8.A.2.i of this Section. A minimum of 3 different variations in color, style and/or material is required. For example, if vinyl siding is used, the home shall have combination of each lap, shake or board and batten plus brick or stone. The percentage of each used material/style of materials used shall be shown on the plans.*

*iii. Except for brick, stucco and/or natural or artificial stone, the front elevation shall have no more than 75% of one type of exterior finish. The percentage of materials used shall be shown on the plans.*

**3. Architectural Elements:**

*i. The front elevation façade shall consist of doors, windows and variations of the wall face with the use of pilasters or columns, wainscots, canopies or other architectural elements.*

**4. Design:**

*i. Front elevations shall be varied with a minimum of five different styles provided in the development.*

*ii. Homes in proximity to each other shall not look alike in terms of the combination of color of siding, accent and roofing materials. The home under consideration will be compared to the two homes on each side and to the three homes directly facing it.*

**B. Garages:**

*1. The garage shall not comprise more than 55 percent of the viewable ground floor street-facing linear building frontage. This standard is based on the measurement of the entire garage structure and not on a measurement of the garage door or doors only. Corner lots are exempt from this requirement on one street elevation.*

*2. Garage doors shall be architecturally styled (this includes details such as raised panels, accent color, windows, etc.) to match the exterior design of the home.*

**C. Roof:**

*1. Roofing materials including asphalt shingles, wood shingles (including shake), concrete, clay, ceramic tile roofs or residential steel roofing material (with hidden fasteners) are required on all roofs.*

*2. Overhangs must be a minimum of 12 inches.*

**D. Other Elevations:**

*1. Equal architectural treatment on all sides of the building (materials, articulation, etc.) shall be used for all new residential construction when located on or visible from a street or public park. Each elevation facing a street or public park should use a minimum of 2 different materials and/or styles compatible with the front elevation as*



*described in this Section. All other elevations shall make a good faith effort to demonstrate that elements of the front elevation have been considered for incorporation on these elevations.*

*2. Each side elevation shall have at least one window or door opening. 3. A maximum of 18 inches of the foundation wall may be exposed on any elevation.*

The applicant provided seven M/I Home elevations with material square footages indicated in the elevations. Staff has determined that the majority of the elevations comply with the design standards in the ordinance, however some of the 3-car garage models shown exceed the maximum allowed garage face. These do not meet ordinance requirements and will not be permitted. Staff has worked with M/I Homes on previous projects and is confident that the elevations can be revised to comply with the ordinance. If the home elevations can't meet the Zoning Ordinance standards a PUD amendment would be required.

## 2. Applewood Pointe Apartment

The Applewood Pointe senior co-op building is 4-stories and has a building footprint of 49,846 square feet and is subject to the standards for apartments listed in Section 1040.070, Subd. 8 as follows:

*A. Unit Size: Floor Area: Five hundred (500) square foot minimum floor area for efficiency apartment units. Minimum eight hundred (800) square feet for a one-bedroom unit plus one hundred (100) square feet for each additional bedroom. Seven hundred (700) square foot minimum floor area for one-bedroom apartment dwelling units in retirement housing developments, plus one hundred (100) square feet for each additional bedroom. Garages, breezeways and porch floor spaces shall not be credited in determining the required floor area of units*

*B. Parking: The design and maintenance of off street parking areas and the required number of parking spaces shall be in accordance with Section 1060.060 of this title. Private driveways for garages in townhouse developments shall be a minimum of twenty feet (20') in length to allow vehicle parking on the driveway.*

*C. Trash Handling and Recycling: All trash, recyclable materials, and trash and recyclable materials handling equipment shall be stored within the principal structure, totally screened from public view by the principal building, or stored within an accessory structure constructed of building materials compatible with the principal structure, enclosed by a roof, and readily served through swinging doors.*

*D. On Site Screening: All mechanical equipment, utility meters, storage and service areas and similar features shall be completely screened from the eye level view from adjacent properties and public streets, or designed to be compatible with the architectural treatment of the principal structure.*

*E. Building Design and Materials-Multi-family (stacked): All buildings shall be designed to accomplish the goals and policies of the comprehensive plan. Building materials shall be attractive in appearance, durable, and of a quality which is both compatible with adjacent*



*structures and consistent with the City's standards for the district in which it is located. All buildings shall be of good aesthetic and architectural quality, as demonstrated by the inclusion of elements such as accent materials, entrance and window treatments, contrasting colors, irregular building shapes and rooflines, or other architectural features in the overall architectural concept.*

*a. Major exterior surfaces on all walls facing a public street, park or open space shall include a minimum of fifty percent (50%) of the combined area of all building facades of a structure shall contain following permitted major exterior materials: face brick (glazed or unglazed), clay faced tile, stone masonry (granite, limestone, marble, slate, sandstone, or quartzite).*

*2. Accent materials may include: finished texture stucco (cement or synthetic), natural or cultured stone, exterior finished wood siding (painted, stained, or weather sealed), exterior finished metal siding (factory finished), exterior finished vinyl siding or fiber cement siding in lap or panel design (color impregnated or painted). Panel seam lines shall be architecturally integrated into the building design so that they are not visible. Seam lines can either be filled, covered with accent material or some other method to make seam lines invisible. Accenting materials and design shall be included on all facades.*

*3. All building and roofing materials shall meet current accepted industry standards, and tolerances, and shall be subject to review and approval by the City for quality, durability, and aesthetic appeal. The applicant shall submit to the City product samples, color building elevations, and associated drawings which illustrate the construction techniques to be used in the installation of such materials.*

*4. If complementary building styles, materials, and color schemes are proposed for a development, the developer shall submit to the City a plan showing the distribution of the styles, materials, and colors throughout the development.*

*5. All townhome designs shall comply with the standards in Section 1040, Subd. 9 (RMF-1 Design Requirements).*

*F. Parking Lot Screening:*

*1. The light from automobile headlights and other sources shall be screened whenever it may be directed onto residential windows.*

*2. When required parking areas abut any residential district, the edge nearest the lot line shall be completely screened to a height of at least three and one-half feet (31/2') above the parking grade. Such screening shall either be constructed of durable building materials designed in harmony with the principal structure or accomplished through use of earth mounds and/or landscape materials as approved.*



*3. When the design of the site is such that parking occurs in the front yard, a minimum of ten feet (10') landscaped area shall be provided between parking and building, in addition to the required setbacks.*

*G. Recreational Facilities: On site recreational facilities, such as swimming pools, tennis courts, play equipment, walking trails, gardens, and basketball courts, that are suitable for the projected population of the development shall be provided when the nearest public park is more than one-half (1/2) mile or across a thoroughfare or arterial roadway from the development.*

*H. Common Areas. The following minimum requirements shall be observed in the RMF-3 district governing common areas:*

*1. Ownership: All common areas within an RMF-3 development not dedicated to the public including, but not limited to, open space, driveways, private drives, parking areas, play areas, etc., shall be owned in one of the following manners:*

*a. Condominium ownership pursuant to Minnesota statutes 515A.1-106.*

*b. Twinhome or townhome subdivision common areas shall be owned by the owners of each unit lot, with each owner of a unit having an equal and undivided interest in the common area.*

*2. Homeowners' Association: A homeowners' association shall be established for all townhome developments within the RMF district, subject to review and approval of the City attorney, and shall be responsible for all exterior building maintenance, approval of any exterior architectural modifications, landscaping, snow clearing and regular maintenance of private driveways and other areas owned in common when there is more than one individual property owner having interest within the development.*

The applicant provided a building rendering and elevation with a material table for the Applewood Pointe senior co-op which includes materials consistent with the ordinance standards. The building uses rock face block, brick veneer, manufactured stone and various sidings to create visual breaks in the building.

### 3. New Horizon Academy Daycare

The applicant has worked with staff since the preliminary approvals to bring the building into compliance with the architectural standards in the ordinance. The applicant provided colored building elevations for the daycare which show a combination of stone veneer, fiber cement shake siding and fiber cement horizontal siding in earth tone colors. The daycare building incorporates a prairie style architecture identified in the Southeast design guidelines with a low pitch roof with wide eave overhangs, the geometric windows and the horizontal patterns of the wall materials.



#### 4. Rivers of Life Memory Care

The applicant provided colored building elevation for the memory care which uses cultured stone veneer, LP lap siding and LP shake siding as building materials with earth tone and blue colors. The building design incorporates elements of prairie style architecture consistent with the goals of the Southeast Design Guidelines. The architecture elements included are the low pitch roof with wide eave overhangs, the geometric windows and the horizontal patterns of the wall materials. This building and the daycare are similar in architectural style to form a cohesive image along the streets.

##### *Retaining Walls*

There are a number of retaining walls to achieve the desired grading on the site with the largest at a height of roughly 14 feet. Engineering is reviewing certified designs for all the walls that exceed four feet in height.

##### *Utilities*

The City Engineer's memo provides detailed utility comments. This project will extend municipal sewer and water through the site.

The City ordinance requires developers to stub sanitary sewer, water and streets to the property line, which means development of this infrastructure makes development possible for adjacent properties.

The developer is dedicating a 0.30-acre parcel, shown as Lot 3, Block 2 on the eastern boundary of the plat, to allow for construction of a City owned, operated and maintained booster station. The booster station is needed for continued and expanding water service to the residents of the City.

The developer is continuing to work with the cities of Corcoran and Maple Grove and the Metropolitan Council to finalize easements and agreements for the utilities, particularly for the area on the east side of the project behind Applewood Pointe. No construction will be permitted until all agreements are finalized and recorded.

##### *Transportation*

The plan shows a 60-foot right-of-way with a 30-foot street section for 74<sup>th</sup> Avenue and the new cul-de-sac street. A 26-foot-wide driveway is proposed to serve the senior co-op. Improvements are proposed to the intersection of 74<sup>th</sup> Avenue and County Road 10 including a dedicated eastbound left turn lane and westbound right turn lane on County Road 10.

Additionally, a 20-foot fire lane is proposed which wraps around the north and east sides of the senior co-op building. The eastern portion of the fire lane is located within an existing Metropolitan Council access easement. The applicant has been working with the Metropolitan Council to revise the existing easement to include new language allowing joint access through the area.





The access provided for the daycare and memory care uses is proposed to be a shared access on the daycare lot. A shared access and maintenance easement agreement has been submitted and is being reviewed with the City Attorney.

The City Engineer's memo provides more detailed transportation comments. The draft resolutions require compliance with the engineer's memo.

### *Stormwater*

The plans show a number of stormwater ponds on site to comply with City, Watershed and State requirements. The City's engineer's memo addresses the changes needed to comply with the requirements.

### *Wetlands*

Section 1050.010 of the Zoning Ordinance establishes standards for the wetland overlay district. This includes establishment of wetland buffer strips with an average buffer width of 25 feet plus a 15-foot structure setback from the buffer. Wetland buffer signs are required to be installed at each lot line where it crosses a wetland buffer, and where needed to indicate the contour of the buffer, with a maximum spacing of 200 feet of wetland edge. The plans comply with these standards. A wetland buffer planting and maintenance plan has been submitted for review and approval by the City.

### *Landscaping*

The applicant is required to provide one overstory tree for each dwelling unit for the single-family villas and senior co-op. For the non-residential uses including the daycare and memory care the applicant is required to provide one overstory tree per 1,000 square feet of gross building floor area or one tree per 50 lineal feet of site perimeter, whichever is greater and One understory shrub for each 300 square feet of building or one tree per 30 lineal feet of site perimeter, whichever is greater. The overstory trees may be substituted with understory or ornamental trees at a ratio of 3 to 1. The table below indicates the landscaping required for each site and the landscaping provided.

Use	Trees Required	Trees Provided	Shrubs Required	Shrubs Provided
Single Family Villas	38	88	0	0
Senior Co-op	100	86	0	486
Daycare	22	22	43	128
Memory Care	24	31	69	70
Total	184	240	112	709

The applicant must revise the landscape plan to include the correct number of overstory or evergreen trees on the Applewood site.

A setback reduction from 100 feet to 50 feet was approved as allowed by Section 1060 of the Zoning Ordinance along the south lot line of the daycare and memory care, which allows the reduction by right if additional landscaping is provided. The ordinance requires 1 overstory deciduous tree, 1



overstory coniferous tree, 2 ornamental trees, and 10 understory shrubs per 100 ft. of the project site where the reduction is requested. This is in addition to the site landscaping required as shown above. This requires an additional 3 overstory deciduous trees, 3 overstory coniferous trees, 6 ornamental trees and 30 shrubs each for the daycare site and the memory care site. These plantings are indicated on the landscape plan. The plans meet the ordinance requirements.

### *Lighting*

The applicant provided a photometric lighting plan which shows the proposed streetlight locations and illumination levels for the site. Street lighting will be provided by Wright Hennepin Electric. Cut sheets for the proposed street lighting have been provided to the City which comply with City standards. Streetlights are generally located on the sidewalk side of the street.

### *PUD Amendment - Signage*

Chapter 84 of the City Code regulates signage. The PUD approvals did not grant any flexibility from the sign standards. The applicant is now requesting that the PUD preliminary approvals be modified to allow additional signage.

The applicant is requesting freestanding signage in the following locations:

- One monument sign on the east side of the shared access for the daycare
- Two monument signs for the memory care, one on the west side of the shared access and one sign on the south west side of the lot.
- One monument sign on the east side of the private drive for the senior co-op

Section 84.05 of the City Code allows two 32-square-foot signs at the primary entrance of a subdivision or medium and high-density apartments and one 16 square-foot sign at a secondary entrance. The Applewood Pointe monument sign complies with the size and height requirements in the City Code.

Non-residential uses (daycare and memory care) are allowed one 32-square-foot sign each with a maximum height of six feet. The proposed daycare monument sign complies with the Sign Ordinance requirements.

The applicant has provided sign designs indicating that the memory care is proposing a 36-square foot and a 40-square foot monument sign which are nine feet eight inches and 13 feet eight inches in height, respectively. The size, height and number of monument signs requires flexibility as part of the PUD. The applicant has submitted a narrative which addresses the requested flexibility and provides reasoning for the request which stipulates that the building design does not leave room for a wall sign and instead they are requesting a second monument sign. Staff is supportive of the request for a second monument sign with the absence of the wall sign. However, the applicant must provide additional details about the landscaping around the base of the signs as required by ordinance.



- The City Council should discuss the requested PUD flexibility and could modify Condition 14 of the PUD resolution if they do not support the request.

The ordinance requires signs to be set back 10 feet from the property line and outside the sight visibility triangle. The plans appear to comply, but the site plan must be updated to confirm compliance.

The applicant is showing wall signage for the following structures:

- Applewood – no signage proposed on the building
- New Horizons Daycare – the building is proposed with a total of three wall signs. Two containing a logo with lettering on the east and south elevation and a third wall sign consisting of only a logo is shown on the west elevation.
- Rivers of Life Memory Care – no signage proposed on the building

Section 84.05 of the City Code allows one wall sign at the primary entrance, not to exceed 10% of the primary building face. For the New Horizon's building this would allow a single 224 square foot wall sign on the west elevation where the entrance is located. The applicant's proposed signage is 33 square feet for each of the wall signs containing lettering and 24.5 square feet for the wall sign with only the logo. This is a total of 90.5 square feet or roughly 40% of the allowable signage area. However, the applicant is exceeding the number of allowed wall signs by two. Staff is supportive of adding a second wall sign for the increased visibility along County Road 10 but does not support a third wall sign being added. The draft resolution includes a condition to reduce the number of wall signs to two.

- The City Council should discuss whether the signs should be allowed (either two as recommended by staff or the three requested by the applicant) and the elevations where they support the additional signage.
- The City Council could recommend modifications to Condition 14 of the staff report regarding wall signage if they support the applicant's request for three wall signs.

### *Trails and Sidewalks*

The 2040 Parks and Trails Plan map shows an off-road trail that runs along the western property line abutting the Bass Lake Crossing development and an on-road trail that runs along County Road 10.

The on-road trail will be constructed when the improvements to County Road 10 are completed by Hennepin County.

The off-road trail was constructed with the Bass Lake Crossing development and an easement was put in place for a portion of the trail on the Cook Lake property. The Cook Lake Highlands site plan preserves the trail in its existing location and will have it run through the backyard of the single-family villa lots. The easement and trail are already in place for the "Bass Lake Crossing" portion of the trail.



A trail is shown running along the eastern border of Corcoran and Maple Grove. There was discussion of locating this trail within the Metropolitan Council's access drive. The City of Maple Grove has decided to locate the trail in Maple Grove directly east of the access drive. This development will provide a trail connection to the Maple Grove trails.

Trails will be maintained by the City according to City trail policy and sidewalks will be maintained by building management or homeowners.

A sidewalk is shown on both sides of 74<sup>th</sup> Avenue for the entire length from the western boundary to County Road 10.

#### *Park Dedication Calculation*

The applicant was approved as part of the preliminary approvals to dedicate Outlot C to the City in exchange for no park dedication fees on the single family villa homes. No improvements are planned for Outlot C. With the dedication of Outlot C and waiving of the single family villa fees, the remaining park dedication fees are as follows:

100 senior living x \$3,141 = \$314,100  
(27 memory care units / 146) x 21.41 x \$4,498 = \$17,809  
1 daycare facility x \$4,498 = \$4,498  
**TOTAL = \$336,407**

The final park dedication calculation will be based on the fee schedule in place at the time of release of the final plat.

#### Final Plat

The final plat is for 24 lots and 5 outlots. The final plat is consistent with the preliminary plat.

#### Conclusion

Staff finds that the proposed plan is consistent with the Comprehensive Plan, Zoning Ordinance, Subdivision Ordinance and preliminary PUD approvals. The staff report noted the outstanding issues that must be addressed and staff has included conditions in the attached resolution to address these issues.

### **5. Recommendation**

Move to approve:

- a) Resolution 2022-22 approving final PUD plan
- b) Resolution 2022-23 approving the final plat and development contract



### **Attachments**

1. Resolution 2022-22 approving final PUD development plan
2. Resolution 2022-23 approving the final plat and development contract
3. Draft Development contract
4. Site Location Map
5. Engineer's Memo dated February 23, 2022
6. Applicant's Narrative dated February 22, 2022
7. Plan drawings dated February 10, 2022
8. Building and Elevation Drawings
9. Resident Comments

**RESOLUTION NO. 2022-22**

**Motion By:**  
**Seconded By:**

**APPROVING FINAL PUD DEVELOPMENT PLAN FOR “COOK LAKE HIGHLANDS” AT  
19220 COUNTY ROAD 10 (PID 25-119-23-14-0003) (CITY FILE 21-057)**

WHEREAS, Beth Hustad of Trek Real Estate and Development, Inc. (“the applicant”) has requested approval of “Cook Lake Highlands” a mixed-use subdivision on property legally described as follows:

*See Attachment A*

WHEREAS, the Planning Commission has reviewed the plan, and;

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA, that the Corcoran City Council approves the request, subject to the following conditions:

1. A final PUD development plan is approved to create 24 lots and 5 outlots for “Cook Lake Highlands”, in accordance with the plans and application received by the City on December 3, 2021 and additional materials received on January 11, 2022, February 10, 2022 and February 22, 2022, except as amended by this resolution.
2. Approval is contingent upon City Council approval of the final plat.
3. Approval is subject to the preliminary approvals (Resolutions 2021-84 and 2021-85).
4. The applicant shall comply with all requirements of the City Engineer’s memo, dated February 22, 2022.
5. The plans must be updated to show all easements on the preliminary plat.
6. Drainage and utility easements must be shown on the perimeter of each lot and over all outlots.

**RESOLUTION NO. 2022-22**

7. PUD flexibility is granted to establish the following lot standards for this development:

	RMF-2 District Standards		Shoreland Overlay Standards	Proposed PUD Standards			
	Single Family	Apartment		All uses	Single Family Villas	Senior Co-op	Daycare
<b>Minimum Lot Area</b>	6,000 sq. ft.	1 acre	20,000 sq. ft.	6,750 sq. ft.	4.47 acres	1.88 acres	2.14 acres
<b>Minimum lot width</b>	60 feet	100 feet	125 feet	50 feet	<125 feet	<125 feet	<125 feet
<b>Front, From Major Roadways*</b>	100 feet	100 feet	N/A	N/A	N/A	100 feet (60 feet with landscaping)	100 feet (60 feet with landscaping)
<b>Front, From all other streets</b>	25 feet	25 feet	N/A	25 feet	25 feet	25 feet	25 feet
<b>Side</b>	10 feet	30 feet	N/A	5 feet	30 feet	30 feet	30 feet
<b>Rear</b>	25 feet	25 feet	N/A	30 feet	25 feet	25 feet	25 feet
<b>Maximum Principal Building Height</b>	35 feet	35 feet	25 feet	35 feet	49 feet	22 feet	~23 feet

\*Major Roadways are Principal Arterial, A Minor Reliever, A Minor Expander and A Minor Connector Roadways as shown on the 2030 Roadway Functional Classification map in the 2030 Comprehensive Plan.

\*\*Internal: 20 feet between attached or multi-family principal structures separated by common area.

- 8. All garages must have a minimum 22-foot wide parking area between the garage and right-of-way that does not overlap into sidewalks, drives or streets.
- 9. Driveways may not encroach in the drainage and utility easements on the side yards.

**Landscaping and Lighting**

- 10. The applicant shall revise plans to include the required 100 overstory trees (or equivalent) on the senior co-op lot (Lot 1, Block 2).
- 11. Lawn sprinklers/irrigation systems (if provided) shall all have rain sensors to limit unnecessary watering.
- 12. The developer must create a master HOA that shall be responsible for maintenance of the following:
  - a. Landscaping and any irrigation in the common areas.
  - b. Wetland and pond buffer areas.
  - c. Sidewalks
  - d. All common areas, including signage, lighting and landscaping in those areas.
  - e. The master document can assign responsibility to individual lots provided each benefiting property has clear roles and responsibilities.
- 13. Any request to for the City to inspect the required landscaping in order to reduce financial guarantees must be accompanied by recertification/verification of field inspection by the project Landscape Architect. A letter signed by the project Landscape Architect verifying plantings (including wetland and pond buffers) have been correctly installed in compliance with the plans and specifications will suffice.

## RESOLUTION NO. 2022-22

### Signage and Fencing

14. A PUD amendment is approved to allow signage in the following locations:
  - a. A 32 square foot project sign on the east side of the shared access entrance for the apartment/co-op.
  - b. A 32 square foot project sign on east side of the shared access entrance for the daycare.
  - c. A 36-foot and a 40-foot monument sign on the north and south sides of the lot according to the submitted site plan.
  - d. Two wall signs for the day care on the east elevation and the south elevation. One wall sign must be removed from the daycare to include a total of two wall signs.
15. Three temporary construction signs are approved. One per lot for the apartment, daycare and memory care.
16. Sign permits are required prior to installation of any permanent or temporary signs.

### Wetlands

17. A wetland buffer planting plan and maintenance plan must be submitted for review and approval by the City.
18. All permanent wetland buffer monument signs must be erected along the wetland buffer line as required by Section 1050.010, Subd. 7 of the Zoning Ordinance.
  - a. Wetland signs shall be purchased from the City.
  - b. The final locations must be inspected and approved by City staff.
  - c. Monuments and signs shall be installed prior to approval of the building permit.

### Streets, Parking and Utilities

19. The development shall comply with the City's requirements regarding fire access, fire protection and fire flow calculations, the location of fire hydrants, fire department connections and fire lane signage.
20. A letter or easement document for approval of the fire lane location within the existing Metropolitan Council easement must be provided to the City.
21. Proof of easement vacation shall be provided to the City for the portion of the existing Metropolitan Council easement crossing the property.
22. The shared access for Lot 1 and 2, Block 1 requires a shared access easement and maintenance agreement to be approved by the City Attorney and recorded with the final plat
23. No parking is allowed on the private drive. The street shall be signed for no parking.

### Park Dedication



**RESOLUTION NO. 2022-22**

24. Park Dedication will be satisfied cash-in-lieu of land, subject to the following conditions:

- a. Park dedication shall be subject to park dedication fees in place when the final plat is released for recording.
- b. Park dedication is due for 100 senior living units, 27 memory care units and one commercial daycare facility.
- c. Outlot C shall be dedicated to the City. The preliminary approvals granted waiving of the park dedication fees for the 19 single family villa homes in exchange for Outlot C.

**Miscellaneous**

25. The developer shall deed Lot 3, Block 2 to the City of Corcoran by warranty deed.

26. The following documents must be submitted for review and approval by the City Attorney and recorded at Hennepin County:

- a. An executed Joint Powers Agreement for the County Road 10 entrance street construction and the stormwater ponds located in the City of Maple Grove. The agreement shall be with the cities of Corcoran and Maple Grove and the Metropolitan Council for these improvements.
- b. Stormwater Maintenance Agreements (multiple agreements will be required for the three different ponding areas).
- c. Shared access and maintenance agreement for Lots 1 and 2, Block 1 (daycare and memory care buildings).
- d. Maintenance and Encroachment agreements for landscaping in the public right-of-way.
- e. Association documents.
- f. Access and maintenance easement between the developer and the Metropolitan Council for access to the lift station on PID 2511923140004.
- g. Access and maintenance easement between the developer and the City of Corcoran for access to the booster station on Lot 3, Block 2.

**VOTING AYE**

- McKee, Tom**
- Bottema, Jon**
- Nichols, Jeremy**
- Schultz, Alan**
- Vehrenkamp, Dean**

**VOTING NAY**

- McKee, Tom**
- Bottema, Jon**
- Nichols, Jeremy**
- Schultz, Alan**
- Vehrenkamp, Dean**

Whereupon, said Resolution is hereby declared adopted on this 24<sup>th</sup> day of March 2022.

\_\_\_\_\_  
**Tom McKee - Mayor**

**ATTEST:**

**RESOLUTION NO. 2022-22**

*City Seal*

**Jessica Beise – Administrative Services Director**

**ATTACHMENT A**

All that part of Section 25, Township 199, Range 23, Hennepin County, Minnesota, described as follow:

All that part of the East  $\frac{1}{2}$  of the Northeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  lying North of County Road No. 10; the East  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  and commencing at the Northwest corner of the East  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of said Section; thence parallel with the East line of said Section 1085 feet; thence at right angles West 557.7 feet; thence Northeasterly in a straight line to place of beginning.

EXCEPT that part of the East Half of the Southeast Quarter of the Northeast Quarter, Section 25, Township 119, Range 23 Hennepin County, Minnesota, described as follows:

Commencing at the Southeast corner of said East Half of the Southeast Quarter of the Northeast Quarter; thence on an assumed bearing of North 01 degrees 09 minutes 16 seconds West, along the East line of said East Half of Southeast Quarter of the Northeast Quarter, a distance of 50.58 feet; thence South 88 degrees 50 minutes 44 seconds West 168.59 feet to the West line of the East 168.59 feet of said East Half of Southeast Quarter of the Northeast Quarter and the point of beginning; thence continuing South 88 degrees 50 minutes 44 seconds West 305.00 feet; thence South 01 degrees 09 minutes 16 seconds East 175.00 feet; thence North 88 degrees 50 minutes 41 seconds East 305.00 feet to said West line of the East 168.59 feet; thence North 01 degrees 09 minutes 16 seconds West, along last said line, a distance of 175.00 feet to the point of beginning.

**RESOLUTION NO. 2022-23**

**Motion By:**  
**Seconded By:**

**APPROVING FINAL PLAT FOR “COOK LAKE HIGHLANDS” AT 19220 COUNTY ROAD 10  
(PID 25-119-23-14-0003) (CITY FILE 21-057)**

WHEREAS, Beth Hustad of Trek Development Inc. (“the applicant”) has requested approval of “Cook Lake Highlands” a mixed-use subdivision on property legally described as follows:

*See Attachment A*

**FURTHER**, that the development contract for said plat shall be completed by city staff and the Mayor and that the City Administrator be authorized to execute the development contract on behalf of the City; and

**NOW, THEREFORE, BE IT RESOLVED** that it should and hereby does approve the request for a final plat for Cook Lake Highlands, subject to the following conditions:

1. A final plat is approved to create 24 lots and 5 outlots for “Cook Lake Highlands”, in accordance with the plans and application received by the City on December 3, 2021 and additional materials received on January 11, 2022, February 10, 2022 and February 22, 2022, except as amended by this resolution.
2. Approval is contingent upon City Council approval of the final PUD development plan for Cook Lake Highlands.
3. The development contract must be executed by the developer and the City and must be filed with the final plat.
4. Development is subject to all conditions of the “Cook Lake Highlands” preliminary plat and preliminary PUD approvals (Resolutions 2021-84 and 2021-85).
5. Park dedication shall be cash-in-lieu of land as described in Resolution 2021-85.
6. The applicant shall comply with all requirements of the City Engineer’s memo dated February 23, 2022.
7. Drainage and utility easements must be provided over all wetlands, wetland buffers and ponds. Final easement location shall be determined by City staff.
8. The applicant must provide proof of vacation of existing Metropolitan Council easements for access to the lift station and execution of new access easements.
9. The applicant shall provide the Metropolitan Council SAC determination prior to finalizing the development agreement.

**RESOLUTION NO. 2022-23**

FURTHER, that the following conditions be met prior to issuance of building permits:

10. All permanent wetland buffer monument signs must be erected along the wetland buffer line as required by Section 1050.010, Subd. 7 of the Zoning Ordinance.
  - a. Wetland signs shall be purchased from the City.
  - b. The final locations must be inspected and approved by City staff.
  - c. Monuments and signs shall be installed prior to approval of the building permit.
11. The applicant must file the final plat at Hennepin County within 2 years of the date of approval or the approval shall expire.
12. Record the approving resolutions and associated documents at Hennepin County and provide proof of recording to the City.
13. The applicant shall provide proof of recording the final plat and related documents at Hennepin County.

FURTHER, that the following conditions be met prior to release of remaining escrow:

14. Lot corner monuments shall be installed as required by the Subdivision Ordinance. A financial guarantee shall be required to ensure installation per city requirements.
15. Park dedication is due as required by the preliminary PUD development plan approval, prior to release of the final plat for recording.
16. The applicant must file the final plat at Hennepin County within 2 years of the date of approval or the approval shall expire.

**VOTING AYE**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

**VOTING NAY**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

**RESOLUTION NO. 2022-23**

Whereupon, said Resolution is hereby declared adopted on this 24<sup>th</sup> day of March 2022.

\_\_\_\_\_  
Tom McKee - Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*

**RESOLUTION NO. 2022-23**

**ATTACHMENT A**

All that part of Section 25, Township 199, Range 23, Hennepin County, Minnesota, described as follow:

All that part of the East  $\frac{1}{2}$  of the Northeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  lying North of County Road No. 10; the East  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  and commencing at the Northwest corner of the East  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of said Section; thence parallel with the East line of said Section 1085 feet; thence at right angles West 557.7 feet; thence Northeasterly in a straight line to place of beginning.

EXCEPT that part of the East Half of the Southeast Quarter of the Northeast Quarter, Section 25, Township 119, Range 23 Hennepin County, Minnesota, described as follows:

Commencing at the Southeast corner of said East Half of the Southeast Quarter of the Northeast Quarter; thence on an assumed bearing of North 01 degrees 09 minutes 16 seconds West, along the East line of said East Half of Southeast Quarter of the Northeast Quarter, a distance of 50.58 feet; thence South 88 degrees 50 minutes 44 seconds West 168.59 feet to the West line of the East 168.59 feet of said East Half of Southeast Quarter of the Northeast Quarter and the point of beginning; thence continuing South 88 degrees 50 minutes 44 seconds West 305.00 feet; thence South 01 degrees 09 minutes 16 seconds East 175.00 feet; thence North 88 degrees 50 minutes 41 seconds East 305.00 feet to said West line of the East 168.59 feet; thence North 01 degrees 09 minutes 16 seconds West, along last said line, a distance of 175.00 feet to the point of beginning.

(reserved for recording information)

## **DEVELOPMENT CONTRACT**

(Developer Installed Improvements)

### ***COOK LAKE HIGHLANDS***

This **DEVELOPMENT CONTRACT** (this “Contract”) dated \_\_\_\_\_, 2022, is entered into by and between the **CITY OF CORCORAN**, a Minnesota municipal corporation (the “City”), and **Trek Real Estate and Development, Inc.** (the “Developer”) and shall be effective upon full execution by the City and the Developer. The City and the Developer are sometimes collectively referred to herein as the “parties” or each a “party”.

1. **REQUEST FOR PLAT APPROVAL.** The Developer has asked the City to approve a plat for Cook Lake Highlands (referred to in this Contract as the "plat"). The land is situated in the County of Hennepin, State of Minnesota, and is legally described in the attached Exhibit A (the “Subject Property”).
2. **CONDITIONS OF PLAT APPROVAL.** The Developer shall enter into this Contract, furnish the security required by it, and record the plat upon City approval with the County Recorder or Registrar of Titles.
3. **RIGHT TO PROCEED.** Unless separate written approval has been given by the City, within the plat or land to be platted, the Developer may not grade or otherwise disturb the earth, remove trees, construct sewer lines, water lines, streets, utilities, public or private improvements, or any buildings until all the following conditions have been satisfied: 1) this agreement has been fully executed by both parties and filed with the City Administrative Services Director, 2) the necessary security has been received by the City, 3) the plat, development contract and other associated documents have been recorded with the Hennepin County Recorder's Office and proof of recording has been provided to the City, and 4) the City has authorized the Developer to proceed, in writing. However, the Developer may be allowed to begin grading the site when items 1, 2 and 4 of the previous sentence have been satisfied.
4. **PHASED DEVELOPMENT.** If the plat is a phase of a multi-phased preliminary plat, the City may refuse to approve final plats of subsequent phases if the Developer has failed to fulfill all obligations in this Contract and the failure has not been remedied. Development of subsequent phases may not proceed until Development Contracts for such phases are approved by the City. Park charges and area charges for sewer and water referred to in this Contract are not being imposed on outlots, if any, in the plat that are designated in an approved preliminary plat for future subdivision into lots and blocks. Such charges will be calculated and imposed when the outlots are final platted into lots and blocks.

5. **PRELIMINARY PLAT STATUS.** If the plat is a phase of a multi-phased preliminary plat, the preliminary plat approval for all phases not final platted shall lapse and be void unless the initial phase is final platted into lots and blocks, not outlots, within two (2) years after preliminary plat approval.
6. **CHANGES IN OFFICIAL CONTROLS.** For two (2) years from the date of this Contract, no amendments to the City's Comprehensive Plan or official controls shall apply to or affect the use, development density, lot size, lot layout or dedications of the approved final plat unless required by state or federal law or agreed to in writing by the City and the Developer. Thereafter, notwithstanding anything in this Contract to the contrary, to the full extent permitted by state law, the City may require compliance with any amendments to the City's Comprehensive Plan, official controls, platting or dedication requirements enacted after the date of this Contract. Notwithstanding the provisions of this paragraph, in the event that changes to federal or state law prohibit or limit the City's authority to collect the costs of off-site improvements for this project as contemplated in Section 9 herein and the parties do not mutually agree to remain bound to the terms contemplated in said Section 9, the City shall have the right to substitute off-site improvement cost collection provisions which are: 1) in compliance with applicable law; and 2) which result in reasonably comparable cost contribution from the Developer.
7. **DEVELOPMENT PLANS.** The plat shall be developed in accordance with the following plans. The plans shall not be attached to this Contract. If the plans vary from the written terms of this Contract, the written terms herein shall control. The plans are:
- Exhibit A – Legal Description  
 Plan A – Final Plat, dated \_\_\_\_\_  
 Plan B – Final Grading, Drainage, and Erosion Control Plan, dated \_\_\_\_\_  
 Plan C – Final Sanitary Sewer, Watermain and Storm Sewer Plan, dated \_\_\_\_\_  
 Plan D – Final Tree Preservation and Reforestation Plan, dated \_\_\_\_\_  
 Plan E– Final Landscape Plan, dated \_\_\_\_\_  
 Plan F – Permanent Traffic Control Plan, dated \_\_\_\_\_  
 Plan F– Revised Preliminary Plat, dated \_\_\_\_\_
8. **IMPROVEMENTS.** The Developer shall install and pay for, without limitation, all of the following improvements:
- Streets
  - Sanitary Sewer
  - Watermain
  - Surface Water Facilities (pipe, ponds, rain gardens, etc.)
  - Grading and Erosion Control
  - Sidewalks/Trails
  - Street Lighting
  - Underground Utilities
  - Street Signs and Traffic Control Signs
  - Landscaping
  - Tree Preservation
  - Wetland Mitigation and Buffers
  - Monuments Required by Minnesota Statutes
  - Miscellaneous Facilities



In addition to the above-listed improvements, Developer shall be responsible for all other costs necessary to construct the improvements pursuant to the City-approved plans.

The Developer shall submit plans which have been prepared by a competent registered professional engineer to the City for approval by the City Engineer or designee. The Developer may instruct its engineer to provide full-time field inspection personnel in order for the Developer's engineer to be able to certify that the construction work meets the approved City standards as a condition of City acceptance. In addition, the City may, at the City's discretion and at the Developer's expense, have one or more City inspectors and a soil engineer inspect the work on a full or part-time basis. The Developer, its contractors and subcontractors, shall follow all instructions received from the City's inspectors. The Developer and/or the Developer's engineer shall provide for on-site project management. The Developer's engineer is responsible for design changes and contract administration between the Developer and the Developer's contractor. The Developer or his or her engineer shall schedule a pre-construction meeting at a mutually agreeable time at City Hall with all parties concerned, including the City staff, to review the program for the construction work.

All labor and work shall be performed and completed in the best and most workmanlike manner and in strict conformance with the approved plans and City Engineering Design Standards. No deviations from the approved plans and Standards will be permitted unless authorized by the City Engineer or designee. The Developer agrees to furnish to the City a list of contractors being considered for retention by the Developer for the performance of the work required by the contract. The Developer shall not do any work or furnish any materials not covered by the plans and special conditions of this contract, for which reimbursement is expected from the City, unless such work is first approved in writing by the City Engineer or designee.

The Developer shall be responsible for construction of all improvements in conformance with the approved plans, City Engineering Design Standards and Standard Details.

**9. OFF-SITE PUBLIC IMPROVEMENTS.** The City intends to make improvements to County Road 10 at the intersection of the future 74<sup>th</sup> Avenue providing access to the site. The public improvements are more fully detailed in the Feasibility Study dated May 29, 2020, prepared by Wenck Associates, Inc. The developer agrees to fund off-site improvements as noted in this Contract.

a. The following improvements are required with Cook Lake Highlands. The City shall design, bid and manage the projects and the developer shall pay for the following improvement, which shall be paid at the time the final plat is released for recording:

- The developer shall provide a financial guarantee to the City for the cost of the County Road 10 improvements (estimated at \$850,000) including the construction of the turn lane into the development and access road through the intersection of 73<sup>rd</sup> Ave. The road corridor will be graded to the subgrade elevation with the development grading and the city project will include the construction of the roadways and storm sewer systems. The utility relocations will be completed by the developer as part of the site improvements. The development contract will include \$775,000 in the letter of credit and \$75,000 cash escrow for design. When the City bids the project, the City will reduce the letter of credit by \$775,000 and require the developer to provide cash escrow based on the final bid amount. If Hennepin County, the City of Maple Grove or the Metropolitan Council financially participates in the project, the financial guarantee from the developer would be offset by these other funds.

- b. The developer agrees to pay the City the cost of these improvements as outlined above. The City will notify the developer of required reimbursement under this paragraph for design and construction of such improvements. The costs to be reimbursed include the actual cost to the City for construction of the improvements plus the allocation of the engineering, legal, administrative and other similar costs of the project based on the relative construction costs of the improvements. The developer reserves the right to be refunded for any unused portion of the estimated cost versus the actual cost of each improvement.
- c. The developer agrees to pay the City the cost to manage runoff from the City of Corcoran through a Joint Powers Agreement with the City of Maple Grove.
- 10. CONTRACTORS/SUBCONTRACTORS.** City Council members, City employees, and City Planning Commission members, and corporations, partnerships, and other entities in which such individuals have greater than a 25% ownership interest or in which they are an officer or director may not act as contractors or subcontractors for the public improvements identified in Paragraph 8 above.
- 11. PERMITS.** The Developer shall obtain or require its contractors and subcontractors to obtain all necessary permits, including but not limited to:
- *Hennepin County for County Road Access and Work in County Rights-of-Way*
  - *Minnesota Department of Health for Watermains/Wells*
  - *NPDES Permits*
  - *MPCA for Sanitary Sewer and Hazardous Material Removal and Disposal*
  - *DNR for Dewatering and Work in Protected Waters*
  - *City of Corcoran for Building Permits and Building Demolition*
  - *MCES for Sanitary Sewer Connections*
  - *Watershed Permits*
- 12. TIME OF PERFORMANCE.** The Developer shall install all required public improvements in this phase by **October 31, 2023**, with the exception of the final wear course of asphalt on streets. The City will not accept new public streets in Cook Lake Highlands until 80% of the homes in Cook Lake Highlands have received a certificate of occupancy and the streets have weathered a full winter season. Final wear course placement outside of this time frame must have the written approval of the City Engineer. The Developer may, however, request an extension of time from the City. If an extension is granted, it shall be conditioned upon updating the security posted by the Developer to reflect cost increases and the extended completion date.
- 13. LICENSE.** The Developer hereby grants the City, its agents, employees, officers and contractors a license to enter the plat to perform all work and inspections deemed appropriate by the City in conjunction with plat development.
- 14. CONSTRUCTION ACCESS.** Haul routes for vehicles used in transport of materials shall be designated by the City Engineer. The City Engineer has discretion to change the designated haul routes at any time in event of unforeseen circumstances. This Agreement may be terminated and all work on the Subject Property may be halted by the City for Developer's failure to use the designated haul routes or for any other violation of this Agreement.

15. **GRADING PLAN.** The plat shall be graded in accordance with the approved grading drainage and erosion control plan, Plan "B". The plan shall conform to City of Corcoran Engineering Design Standards.
16. **EROSION CONTROL.** Prior to initiating site grading, the erosion control plan, Plan B, shall be implemented by the Developer and inspected and approved by the City. Erosion control practices must comply with the Minnesota Pollution Control Agency's Best Management Practices. The City may impose additional erosion control requirements which the City determines would be beneficial. The City is an MS4 City and all erosion control shall comply with the Corcoran City Code and the Corcoran Engineering Design Standards. No development, utility or street construction will be allowed and no building permits will be issued unless the plat is in full compliance with the approved erosion control plan. Further, the City shall have the authority to stop work on the Subject Property and/or withhold additional building permits or certificates of occupancy in the event that the Developer fails to comply with the approved erosion control plan.
17. **STREET MAINTENANCE DURING CONSTRUCTION.** The Developer shall be responsible for all street maintenance until the streets affected by the project are accepted by the City. Warning signs shall be placed when hazards develop in streets to prevent the public from traveling on the same and to direct attention to detours. If and when streets become impassable, such streets shall be barricaded and closed. In the event residences are occupied prior to completing streets, the Developer shall maintain a smooth surface and provide proper surface drainage to ensure that the streets are passable to traffic and emergency vehicles. The Developer shall be responsible for keeping streets within and without the subdivision swept clean of dirt and debris that may spill, track, or wash onto the street from Developer's operation.
18. **OWNERSHIP OF IMPROVEMENTS.** Upon completion of the work and construction required by this Contract and acceptance of the work by the City, the public improvements lying within public easements or right-of-way shall become City property. This provision shall not apply to private improvements (e.g. private retaining walls) which encroach upon public easement or right-of-way, and such encroachments shall be subject to any applicable and separate encroachment agreement. Prior to acceptance of the improvements by the City, the Developer must furnish the following affidavits:
  - Record Drawings
  - Certification from the Registered Land Surveyor that land corner monuments and wetland buffer signs have been installed according to the approved plans.
  - The warranty/performance financial guarantee
19. **PARK DEDICATION.** The Developer shall dedicate to the City the park as shown on the preliminary plat. The Developer shall also dedicate to the City the trail easements identified on the preliminary plat, except as modified by the approving resolutions and construct all trails as shown on the plans. The developer shall construct the bituminous trails in the subdivision and shall work with the city on the final location within the public park. No credit shall be given for trail construction. Credit shall be given for the net area of the park land and trail easement area. The remainder of the required park dedication shall be satisfied with cash-in-lieu of land. Park dedication shall be obtained based on the phase being platted.

Cook Lake Highlands will have a combination of park land dedication and cash-in-lieu of land. Prior to release of the final plat, the Developer shall satisfy the park dedication requirements for this

phase by a cash contribution of **\$336,407.00**. The charge was calculated in accordance with Section 955 of the City's Subdivision Ordinance as follows: 100 multifamily units x \$3,141.00 (\$314,100.00) plus (27 memory care units / 146) x \$4,498 (\$17,809.00) plus 1 daycare facility x \$4,498 (\$4,498.00) = \$336,407.00. **WATERMAIN / STORAGE TRUNK LINE AREA CHARGE (TLAC)**. This plat is subject to a watermain/storage trunk line area charge (TLAC). The charge is calculated as follows: 21.56 net acres (based on pre-developable area) \$7,475.00 per acre = **\$161,161.00**. Future phases shall be cash with the final plat for each future phase subject to the then-current rates.

20. **WATER CONNECTION CHARGE**. This plat is subject to a water connection charge calculated as follows: 19 single family units x \$1,219.00 per unit (\$23,161.00) plus 100 multifamily units x \$975.00 (\$97,500.00) plus 27 memory care units x \$975.00 (\$26,325.00) plus 1 daycare x \$1,219 (\$1,219.00) = **\$148,205.00**. The fees shall be paid at the time of building permit. Future development shall be cash at the time of issuance of each building permit at the then-current rates.

The developer will be responsible for payment of the then-current water connection charge set by the City of Maple Grove.

21. **SANITARY SEWER TRUNK LINE AREA CHARGE (TLAC)**. This plat is subject to a sanitary sewer trunk line area charge (TLAC). The charge is calculated as follows: The charge is calculated as follows: 21.56 net acres (based on pre-developable area) x \$7,189.00 per acre = **\$154,994.84**. Future phases shall be cash with the final plat for each future phase subject to the then-current rates.

The developer will also be responsible for payment of the then-current SAC fee set by the Metropolitan Council. The applicant must provide a SAC determination from the Metropolitan Council and fees will be based on that determination.

22. **SANITARY SEWER CONNECTION CHARGE**. This plat is subject to a sanitary sewer connection charge calculated as follows: 19 single family units x \$1,219.00 per unit (\$23,161.00) plus 100 multifamily units x \$975.00 per unit (\$97,500.00) plus 27 memory care units x \$975.00 (\$26,325.00) plus 1 daycare x \$1,219 (\$1,219.00) = **\$148,205.00**. The fees shall be paid at the time of building permit. Future development shall be cash at the time of issuance of each building permit at the then-current rates.

23. **BUILDING PERMITS/CERTIFICATES OF OCCUPANCY.**

- A. Prior to issuance of building permits other than the model home; utilities, curbing and one lift of bituminous shall be installed on public streets.
- B. Utilities shall be installed and reasonable access to the lot from a public street shall be provided prior to issuance of a model home permit. Once model home will be allowed per product type (single family, twin home, townhome, etc.) per development and shall be on lots acceptable to the City.
- C. No sewer and water connection permits may be issued until the utilities are tested and approved by the City Engineer.
- D. The Developer shall comply with the City of Corcoran Engineering Design Standards.

- E. Prior to issuance of building permits, wetland buffer monuments shall be placed in accordance with the City's zoning ordinance. Monument signs shall be purchased from the City. The land surveyor must certify that the wetland buffer signs have been installed in accordance with the approved plans.
- F. Failure to fulfill any of the terms of this Contract by the Developer, including nonpayment of billings from the City, shall be grounds for denial of building permits, including lots sold to third parties, the halting of all work in the plat, and/or the denial of certificates of occupancy.
- G. If building permits are issued prior to the acceptance of public improvements, the Developer assumes all liability and costs resulting in delays in completion of public improvements and damage to public improvements caused by the City, Developer, their contractors, subcontractors, materialmen, employees, agents, or third parties. No sewer and water connection permits may be issued until the streets needed for access have been paved with a bituminous surface and the utilities are tested and approved by the City Engineer.

**24. STREET REGULATORY SIGNS/TRAFFIC CONTROL SIGNS.** Street name signs shall be installed by the Developer in accordance with the City of Corcoran Engineering Design Standards.

The Developer shall install traffic control signs in accordance with the plan approved by the City Engineer and Minnesota Manual on Uniform Traffic Control Devices. All signs must be installed prior to final building inspection approval or earlier if necessary as determined by the City Engineer.

**25. STREET LIGHT INSTALLATION AND OPERATION COSTS.** The developer shall pay for and install all street lights. The street light shall be of a design approved by the City. The developer shall be responsible for street light operation and maintenance costs until such time as the City accepts the public street where the streetlights are located. After the acceptance the City shall be responsible for all costs, subject to the street lighting policy. The costs of operation are dependent upon the operation costs for Wright Hennepin Electric under contract franchise with the City of Corcoran.

**26. RESPONSIBILITY FOR COSTS.**

- A. Except as otherwise specified herein, the Developer shall pay all costs incurred by it or the City in conjunction with the development of the plat, including but not limited to legal (including, without limitation, attorneys' fees), planning, engineering and inspection expenses incurred in connection with approval and acceptance of the plat, the preparation of this Contract, review of construction plans and documents, and all costs and expenses incurred by the City in monitoring and inspecting development of the plat. The City may require Developer to post funds in an escrow account, at its discretion. In the event the cash escrow amount is insufficient, Developer shall post additional escrow funds as determined by the City Planner within ten (10) days of written demand. Failure to make payment of the additional escrow amount shall permit the City to supplement those amounts from any other sureties posted by Developer.
- B. The Developer shall hold the City and its officers, employees, and agents harmless from claims made by itself and third parties for damages sustained or costs incurred resulting from plat approval and development. The Developer shall indemnify the City and its officers, employees, and agents for all costs, damages, or expenses which the City may pay or incur in consequence of such claims, including attorneys' fees.

- C. The Developer shall reimburse the City for costs incurred in the enforcement of this Contract, including engineering and attorneys' fees.
- D. The Developer shall pay, or cause to be paid when due, and in any event before any penalty is attached, all special assessments referred to in this contract. This is a personal obligation of the Developer and shall continue in full force and effect even if the Developer sells one or more lots, the entire plat, or any part of it.
- E. The Developer shall pay in full all bills submitted to it by the City for obligations incurred under this Contract within thirty (30) days after receipt. Bills not paid within thirty (30) days shall accrue interest at the rate of eight percent (8%) per year. Further, the City shall have the right to access Developer's posted security to obtain reimbursement for unpaid invoiced amounts. Should Developer's security be insufficient to cover any amounts owed to the City and unpaid after invoicing, the City may assess such amounts against the Subject Property. Developer, on behalf of itself and its successors and assigns, hereby waives any assessment notice requirements and any right to appeal such assessment pursuant to Minnesota Statute 429.
- F. In addition to the charges and special assessments referred to herein, other charges and special assessments may be imposed such as but not limited to sewer availability charges ("SAC"), City water connection charges, City sewer connection charges, and building permit fees.

**27. SPECIAL PROVISIONS.** The following special provisions shall apply to plat development:

- A. Compliance with the conditions of the original approvals, including the Preliminary PUD plan (Resolution 2021-84), the Preliminary Plat (Resolution 2021-85), PUD Final Development Plan (Resolution 2022-22) and Final Plat approval (Resolution 2022-23) is required.
- B. Before the City signs the final plat, the Developer shall convey the Park to the City by warranty deed, free and clear of any and all encumbrances. Before the City signs the final plat, the developer shall convey the required trail easements to the City in a form satisfactory to the City.
- C. The Developer shall post a **\$2,400.00** security for the final placement of interior subdivision iron monuments at property corners. The security was calculated as follows: **24** lots at \$100.00 per lot. The security will be held by the City until the Developer's land surveyor certifies that all irons have been set following site grading and utility and street construction. In addition, the certificate of survey must also include a certification that all irons for a specific lot have either been found or set prior to the issuance of a building permit for that lot.
- D. The Developer must obtain a sign permit from the City Building Official prior to installation of any subdivision identification signs.
- E. The Developer shall include the "City of Corcoran's Standard Detail" (all applicable sections) in the contract documents of their improvement project.

**28. MISCELLANEOUS.**

- A. The Developer may not assign this Contract without the written permission of the City Council. The Developer's obligation hereunder shall continue in full force and effect even if the

Developer sells one or more lots, the entire plat, or any part of it. Notwithstanding anything herein to the contrary, in conjunction with a sale of the entire land, the Developer may, without the consent of the City, assign this Contract to a limited liability company or other entity in which the Developer or an affiliate thereof has a controlling membership or other controlling ownership interest, provided that such assignee assumes in writing the obligations of Developer under this Contract and all posted security correspondingly secures the performance of the assignee.

- B. Certain retaining walls will require a Building Permit. Retaining walls that require a building permit shall be constructed in accordance with plans and specifications prepared by a structural or geotechnical engineer licensed by the State of Minnesota. Following construction, a certification signed by the design engineer shall be filed with the Building Official evidencing that the retaining wall was constructed in accordance with the approved plans and specifications. All retaining walls identified on the development plans or by special conditions referred to in this Contract shall be constructed before any other building permit is issued for a lot on which a retaining wall is required to be built.
- C. Appropriate legal documents including, but not limited to, those regarding Homeowner Association documents, conservation easements, covenants and restrictions, as approved by the City Attorney, shall be filed with the Final Plat.
- D. Third parties shall have no recourse against the City under this Contract.
- E. If any portion, section, subsection, sentence, clause, paragraph, or phrase of this Contract is for any reason held invalid, such decision shall not affect the validity of the remaining portion of this Contract.
- F. The action or inaction of the City shall not constitute a waiver or amendment to the provisions of this Contract. To be binding, amendments or waivers shall be in writing, signed by the parties and approved by written resolution of the City Council. The City's failure to promptly take legal action to enforce this Contract shall not be a waiver or release.
- G. This Contract shall run with the land and may be recorded against the title to the property. The Developer covenants with the City, its successors and assigns, that the Developer has fee title to the property being final platted and/or has obtained consents to this Contract, in the form attached hereto, from all parties who have an interest in the property; that there are no unrecorded interests in the property being final platted; and that the Developer will indemnify and hold the City harmless for failure to fulfill any of the foregoing covenants.
- H. Each right, power or remedy herein conferred upon the City is cumulative and in addition to every other right, power or remedy, express or implied, now or hereafter arising, available to City, at law or in equity, or under any other agreement, and each and every right, power and remedy herein set forth or otherwise so existing may be exercised from time to time as often and in such order as may be deemed expedient by the City and shall not be a waiver of the right to exercise at any time thereafter any other right, power or remedy.
- I. The Developer represents to the City that the plat complies with all city, county, metropolitan, state, and federal laws and regulations, including but not limited to: subdivision ordinances,

zoning ordinances, and environmental regulations. If the City determines that the plat does not comply, the City may, at its option, refuse to allow construction or development work in the plat until the Developer does comply. Upon the City's demand, the Developer shall cease work until there is compliance.

- J. The Contract may be executed in any number of counterparts, each of which shall be deemed to be an original.
- K. The laws of the State of Minnesota shall govern all issues relating to this Contract and any action brought to enforce rights or obligations herein shall be brought in Hennepin County, Minnesota.
- L. All exhibits, plan documents, City approval documents, and City planning or engineering memos referenced herein are hereby incorporated into and shall become a part of this Contract as if attached hereto.
- M. Upon completion of construction, the Developer shall provide the City with as-built records of all soil corrections and utility infrastructure installations made by the Developer on the Subject Property or within any affected public right-of-way.
- N. Upon completion of installation of the same (as applicable), any sanitary sewer installed on the Subject Property shall be televised at the Developer's expense and the Developer shall submit a recording of the same to the City for the City's records.
- O. The Developer shall install railings adjacent to slopes on the Subject Property in compliance with the building code, as determined by the Building Official.

**29. DEVELOPER'S DEFAULT.** In the event of default by the Developer as to any of the work to be performed by it hereunder, the City may, at its option, perform the work and the Developer shall promptly reimburse the City for any expense incurred by the City, provided the Developer, except in an emergency as determined by the City, is first given notice of the work in default, not less than 48 hours in advance. This Contract is a license for the City to act, and it shall not be necessary for the City to seek a court order for permission to enter the Subject Property. When the City does any such work, the City may, in addition to its other remedies, assess the cost in whole or in part to the Subject Property and the Developer, on behalf of itself and its successors and assigns, hereby waives any right to appeal said assessment.

**30. WARRANTY/PERFORMANCE GUARANTEE.** The Developer warrants all improvements required to be constructed by it pursuant to this Contract against poor material and faulty workmanship. The Developer shall submit either 1) a warranty/maintenance bond for 100% of the cost of the improvement, or 2) a letter of credit or performance bond for twenty-five percent (25%) of the amount of the original cost of the improvements.

- A. The required warranty period for materials and workmanship for the utility contractor installing public sewer and water mains shall be two (2) years from the date of final written City acceptance of the work.
- B. The required warranty period for all work relating to street construction, including concrete curb and gutter, sidewalks and trails, materials and equipment shall be subject to one (1) year from the date of final written acceptance, unless the wearing course is placed during the same construction season as the bituminous base course. In those instances, the Developer shall guarantee all work, including street construction, concrete curb and gutter, sidewalks and trails,



material and equipment for a period of two (2) years from the date of final written City acceptance of the work.

- C. The required warranty period for sod, trees, and landscaping is one full growing season following installation. Following construction, a certification signed by the design landscape architect shall be filed with the City evidencing that the sod, trees, and landscaping was installed in accordance with the approved plans and specifications.

**31. SUMMARY OF SECURITY REQUIREMENTS.** To guarantee compliance with the terms of this contract, payment of special assessments, payment of the costs of all public improvements, and construction of all public improvements, the Developer shall furnish the City with a letter of credit, in a form acceptable to the City, from a bank, cash escrow or a combination cash escrow and Letter of Credit ("security") for **\$5,418,963.28**, which represents 100 percent of the estimated cost of the Improvements. The letter of credit shall include an automatic renewal clause.

The letter of credit shall guarantee to the City the construction and satisfactory completion of all items to be completed by the developer; that the letter of credit shall be reduced from time to time as work is performed and accepted in a satisfactory manner; that the City Engineer may reduce the letter of credit to the amount reasonably estimated by the City Engineer to be necessary to cover the remaining construction obligations; however, the letter of credit shall not be reduced below the amount estimated by the City to cover all obligations of development including payment of costs and expenses incurred by the City for legal, engineering, planning and any other costs until a maintenance bond for period of one year, satisfactory to the City Attorney and the City Engineer has been provided by the Developer or its subcontractor.

The amount of the security was calculated as follows:

<b>ESTIMATED COSTS</b>			
<b>ITEM</b>	<b>City Project (1)</b>	<b>Developer Installed (2)</b>	<b>Total</b>
Sanitary Sewer System		\$412,365.00	\$412,365.00
Watermain System		\$481,350.00	\$481,350.00
Stormwater System		\$410,700.00	\$410,700.00
Street Construction	\$775,000.00	\$1,145,542.00	\$1,920,542.00
Street Lighting		\$72,500.00	\$72,500.00
Grading/Erosion Control		\$1,490,823.00	\$1,490,823.00
Landscaping/Tree Preservation		\$277,636.00	\$277,636.00
Setting Iron Monuments		\$5,900.00	\$5,900.00
Installing Wetland Buffer Monuments*		\$3,150.00	\$3,150.00
<b>SUB-TOTAL:</b>	\$775,000.00	\$4,299,966.00	\$5,074,966.00
City Design, Inspection and Administration (8%)		\$343,997.28	\$343,997.28
<b>Total:</b>	\$775,000.00	\$4,643,963.28	\$5,418,963.28
<b>Total Project Cost</b>	<b>\$5,418,963.28</b>		

- (1) Public Improvement/City Project. City to own and maintain after development complete.
- (2) Developer Installed Public Improvements. City to own and maintain after development complete.

This breakdown is for historical reference; it is not a restriction on the use of the security. If a letter of credit is used to post any portion of the security, the bank shall be subject to the approval of the City Administrator. The City may draw down the security, without notice, for any violation of the terms of this Contract or upon receipt of notice that the security will be cancelled or otherwise lapse prior to the end of the required term and no City-approved replacement security has been provided. If the required public improvements are not completed at least 30 days prior to the expiration of the security, the City may also draw it down. If the security is drawn down, the proceeds shall be used to cure the default. Upon receipt of proof satisfactory to the City Engineer or designee that work has been completed and financial obligations to the City have been satisfied, with City Engineer or designee approval the security may be reduced from time to time by 75% of the financial obligations that have been satisfied. Twenty-five percent (25%) of the public improvement and landscaping amounts certified by the Developer's engineer shall be retained as security until: (1) all improvements have been completed; (2) iron monuments for lot corners have been installed; (3) all financial obligations to the City, both actual and anticipated, have been satisfied; (4) the required "record" plans have been received by the City; (5) a warranty security is provided; and (6) the public improvements are accepted by the City.

**32. INSURANCE REQUIREMENTS.** Developer shall take out and maintain or cause to be taken out and maintained until six months after the City's acceptance of the public improvements:

- A. Commercial general liability insurance (including operations, contingent liability, operations of subcontractors, completed operations and contractual liability insurance) together with an Owner's Contractor's Policy with limits against bodily injury, including death, and property

damage (to include, but not be limited to damages caused by erosion or flooding) which may arise out of Developer's work or the work of any of its subcontractors.

- B. Limits for bodily injury or death shall not be less than \$750,000.00 for one person and \$1,500,000.00 for each occurrence; limits for property damage shall not be less than \$2,000,000.00 for each occurrence.
- C. Worker's compensation insurance, with statutory coverage, if applicable.
- D. Developer shall file a Certificate of Insurance with the City Administrator prior to commencing site grading. The City and the City Engineer shall be named as Additional Insureds on a primary and non-contributory basis on the Certificate. The Certificate shall be modified to bear the following language:

"Should any of the above policies be canceled, materially changed, or not renewed before the expiration date thereof, the issuing company shall give thirty (30) days written notice of the same to the Certificate Holder. In the event of cancellation due to non-payment, ten (10) day's written notice shall be given to the Certificate Holder."

Developer shall be responsible for providing the above language to its insurer. The City does not warrant that these amounts will be sufficient to cover all Developer liability related to the work on the Subject Property and Developer shall be responsible for conducting its own analysis of the appropriate levels of coverage.

**33. SUMMARY OF CASH REQUIREMENTS.** The following is a summary of the cash requirements under this Contract which must be furnished to the City at the time of final plat approval:

Water Supply Trunk line area charge (TLAC)	\$ 161,161.00
Sanitary Sewer Trunk line area charge (TLAC)	154,994.84
Park Dedication	336,407.00
Engineering Design Escrow	75,000.00
Engineering Escrow	<u>75,000.00</u>

**TOTAL CASH REQUIREMENTS LEVIED: \$ 727,562.84**

**34. NOTICES.** Required notices to the Developer shall be in writing, and shall be either hand delivered to the Developer, its employees or agents, or mailed to the Developer by certified mail at the following address:

\_\_\_\_\_  
135 Crabapple Lane  
Excelsior, MN 55331

Notices to the City shall be in writing and shall be either hand delivered to the City Administrator, or mailed to the City by certified mail in care of the City Administrator at the following address: Corcoran City Hall, 8200 County Road 116, Corcoran, MN 55340.

The Developer shall notify the City within five (5) days of change of address.

[Signatures on pages to follow]

**CITY OF CORCORAN:**

BY: \_\_\_\_\_  
Tom McKee, Mayor

(SEAL)

AND \_\_\_\_\_  
Jessica Beise, Interim City Administrator

STATE OF MINNESOTA )  
( ss.  
COUNTY OF HENNEPIN )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by Tom McKee and by Jessica Beise, the Mayor and Interim City Administrator of the City of Corcoran, a Minnesota municipal corporation, on behalf of the corporation and pursuant to the authority granted by its City Council.

\_\_\_\_\_  
NOTARY PUBLIC



**EXHIBIT A**  
(the "Subject Property")

All that part of Section 25, Township 199, Range 23, Hennepin County, Minnesota, described as follow:

All that part of the East  $\frac{1}{2}$  of the Northeast  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  lying North of County Road No. 10; the East  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  and commencing at the Northwest corner of the East  $\frac{1}{2}$  of the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of said Section; thence parallel with the East line of said Section 1085 feet; thence at right angles West 557.7 feet; thence Northeasterly in a straight line to place of beginning.

EXCEPT that part of the East Half of the Southeast Quarter of the Northeast Quarter, Section 25, Township 119, Range 23 Hennepin County, Minnesota, described as follows:

Commencing at the Southeast corner of said East Half of the Southeast Quarter of the Northeast Quarter; thence on an assumed bearing of North 01 degrees 09 minutes 16 seconds West, along the East line of said East Half of Southeast Quarter of the Northeast Quarter, a distance of 50.58 feet; thence South 88 degrees 50 minutes 44 seconds West 168.59 feet to the West line of the East 168.59 feet of said East Half of Southeast Quarter of the Northeast Quarter and the point of beginning; thence continuing South 88 degrees 50 minutes 44 seconds West 305.00 feet; thence South 01 degrees 09 minutes 16 seconds East 175.00 feet; thence North 88 degrees 50 minutes 41 seconds East 305.00 feet to said West line of the East 168.59 feet; thence North 01 degrees 09 minutes 16 seconds West, along last said line, a distance of 175.00 feet to the point of beginning.

**FEE OWNER CONSENT  
TO  
DEVELOPMENT CONTRACT**

\_\_\_\_\_, fee owners of all or part of the Subject Property, the development of which is governed by the foregoing Development Contract, affirm and consent to the provisions thereof and agree to be bound by the provisions as the same may apply to that portion of the Subject Property owned by them. Fee Owners further consent to the recording of the Agreement against the Subject Property.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_.

\_\_\_\_\_  
\_\_\_\_\_

STATE OF MINNESOTA    )  
                                  (ss.  
COUNTY OF HENNEPIN   )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_, by  
\_\_\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

DRAFTED BY: CITY OF CORCORAN  
8200 County Road 116  
Corcoran, MN 55340



**MORTGAGEE CONSENT  
TO  
DEVELOPMENT CONTRACT**

\_\_\_\_\_, which holds a mortgage on the Subject Property, the development of which is governed by the foregoing Development Contract, agrees that the Development Contract shall remain in full force and effect even if it forecloses on its mortgage.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_.

\_\_\_\_\_  
\_\_\_\_\_

STATE OF MINNESOTA    )  
  (ss.  
COUNTY OF HENNEPIN    )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_,  
by \_\_\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

DRAFTED BY: CITY OF CORCORAN  
8200 County Road 116  
Corcoran, MN 55340

**CONTRACT PURCHASER CONSENT  
TO  
DEVELOPMENT CONTRACT**

\_\_\_\_\_, which/who has a contract purchaser's interest in all or part of the subject property, the development of which is governed by the foregoing Development Contract, hereby affirms and consents to the provisions thereof and agrees to be bound by the provisions as the same may apply to that portion of the Subject Property in which there is a contract purchaser's interest.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_.

\_\_\_\_\_  
\_\_\_\_\_

STATE OF MINNESOTA    )  
  (ss.  
COUNTY OF HENNEPIN    )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_,  
by \_\_\_\_\_.

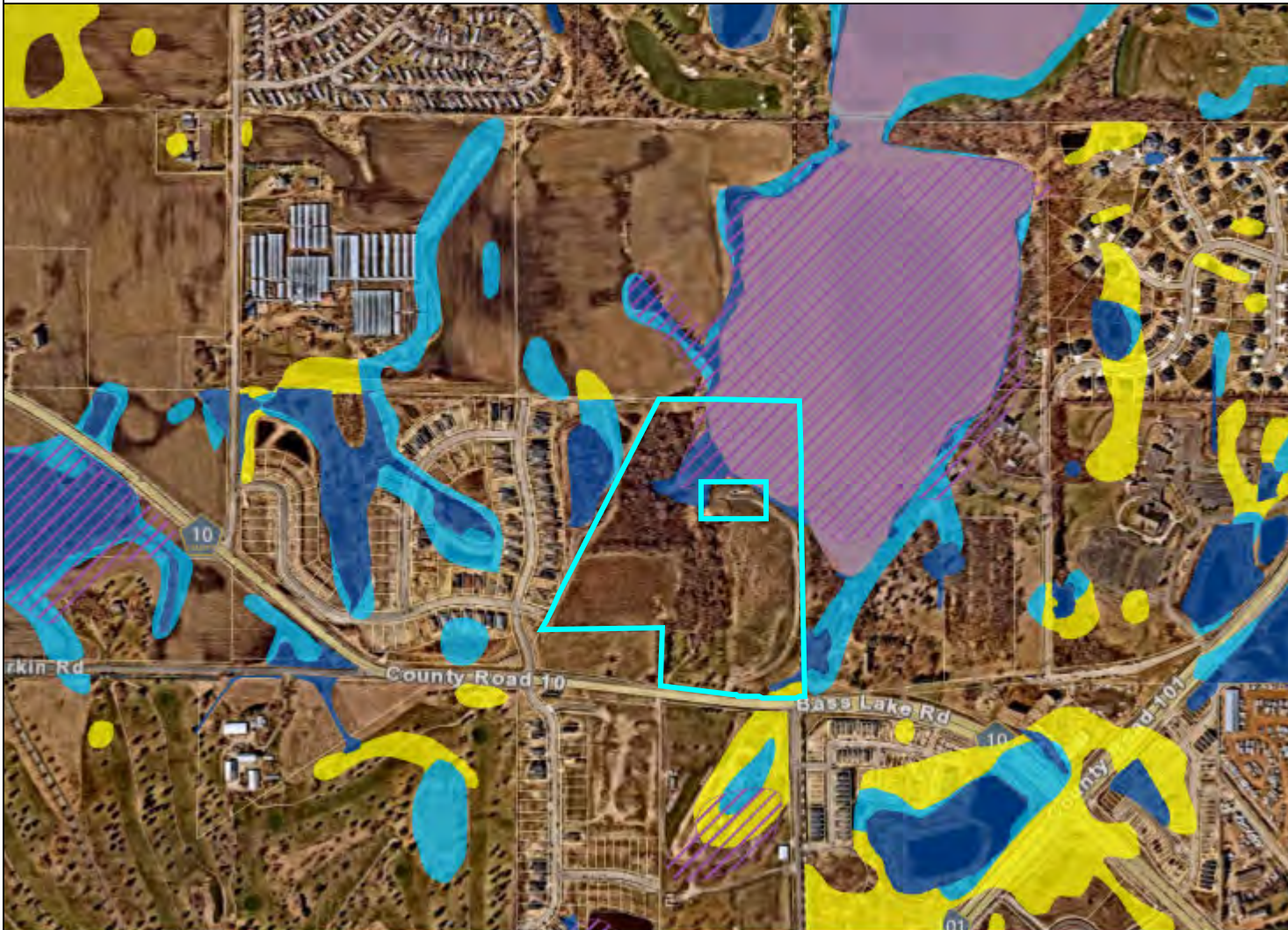
\_\_\_\_\_  
NOTARY PUBLIC

DRAFTED BY: CITY OF CORCORAN  
8200 County Road 116  
Corcoran, MN 55340



# Hennepin County Natural Resources Map

Date: 8/27/2020



## Legend

### FEMA Floodplains - 100 Year

- A
- AE FLOODPLAIN
- AH
- AO
- AE FLOODWAY

### DNR Buffer Protection - Public Waters

- Undefined
- General Development
- Natural Environment
- Natural Sensitive
- Recreational Development
- Special Protection

### Wetlands

- Potential Wetland - HCWI
- Probable Wetland - HCWI
- Probable Wetland - NWI

PID: 2511923140003  
 Address: 19220 CO RD NO 10,  
 CORCORAN  
 Owner Name: ALBERT SCHOMMER ESTATE  
 Acres: 27.31

Comments:

1 inch = 800 feet



This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

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To:	Kevin Mattson, City of Corcoran	From:	Kent Torve, City Engineer Steve Hegland, PE
Project:	Cook Lake Highlands Final Plat/PUD Plan Review	Date:	February 23 <sup>rd</sup> , 2022

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**Exhibits:**

This Memorandum is based on a review of the following documents:

1. Cook Lake Highlands, ALTA/NSPS Land Title Survey, Prepared by Sunde Land Surveying, dated March 2<sup>nd</sup>, 2020.
2. Cook Lake Highlands Plans, Prepared by Civil Site Group, dated January 11<sup>th</sup>, 2022.
3. Cook Lake Highlands Plat, Prepared by Civil Site group, no date provided.
4. Cook Lake Highlands SWPPP, Prepared by Civil Site Group, dated November 29<sup>th</sup>, 2021.
5. Comment Response Letter, Prepared by Civil Site Group, dated January 11<sup>th</sup>, 2022.

**Comments:**General:

1. Consistent with the review process, a comment response letter shall be provided in response to the following comments provided in this Memorandum in which the applicant provides a written response to each item.
2. In addition to engineering related comments per these plans, the proposed plans are subject to addition planning, zoning, land-use, and other applicable codes of the City of Corcoran.
3. Final approval by the Elm Creek Watershed Management Commission must be attained before any site grading or activity may commence.
4. For any site activity (demo, grading, utilities, etc.) no closures or restrictions of any kind shall be imposed upon the public use of County Road 10 without the County's permission. Should any lane restrictions be necessary, the Contractor shall notify the County at least 48 hours in advance and provide a Traffic Control Plan.
5. An encroachment agreement shall be required for all site improvements or items placed within the City ROW or easements.
6. A portion of the runoff is routed to the SE of the site through the City of Maple Grove and treated within stormwater ponds within the City of Maple Grove. The city has begun preliminary conversations with the City of Maple Grove on the implementation of this approach. The City will need to negotiate a stormwater agreement with the City of Maple Grove. Both upfront and maintenance costs in the agreement shall be the responsibility of the developer.
7. The applicant will be relocating a met council access road to the lift station and associated easements. The applicant shall be responsible for meeting all Met Council requirements for the relocation of the access road and the agreements and easement vacations and new easement agreements shall be the responsibility of the applicant.

8. The turn lane and a portion of the site access shall be constructed as part of a City led project. A portion of the project may be paid for by the City of Maple Grove and Met Council. The applicant shall be responsible for all project costs which are not incurred by other agencies.
9. A shared access agreement will be required for the eastern access between the City of Corcoran, MCES, the developer and potentially the City of Maple Grove.

#### Plat:

1. The applicant shall have all drainage and utility easements provided and shown and all platting requirements met per the City Code. Drainage and utility easements (5' – 10') shall be provided along property lines, as standard per City requirements.
2. Wetland buffer to be contained within D&U easement. Revise easement:
  - a. Lot 12 Block 3
3. Verify with public safety if an access easement is necessary over the fire access lane. If required, entire access should be covered by an access easement.
  - a. Emergency access road alignment, dimension, and construction materials shall be reviewed by met council

#### Erosion Control/SWPPP

1. A SWPPP is provided in the applicants plan set. The NPDES construction stormwater permit shall be obtained prior to any site disturbance activities.
2. The city of Corcoran is an MS4 community. The city will perform periodic stormwater inspections onsite to periodically inspect that the responsible parties are following the site SWPPP requirements.

#### Transportation

1. All 28' roads shall be signed no parking on one side of the roadway with no parking signs required within all cul-de-sacs. Public safety to review final sign locations and comments will be provided.
  - a. Add "no parking this side of street" signs to non-sidewalk side New St.
  - b. No parking signs should be installed on both sides of 74<sup>th</sup> Ave.
2. Sidewalk on east side of New St to be 1' off ROW.
3. Revise bituminous curb along emergency access to be concrete curb and gutter
4. Include pedestrian ramp crossing 74<sup>th</sup> Ave on west side of access to senior housing
5. Revise emergency access off 73<sup>rd</sup> st to allow fire truck to access without driving over radii. This may require adjusting access locations or may be accomplished with new truck turning movements.
6. Shift the emergency access road to the east where adjacent to the booster station.

#### Site Plans

1. The existing and proposed drainage and utility easements shown shall be clearly labeled on all plan drawings. The wetland buffer zones shall also be clearly identified and labeled.
  - a. Show D&U Easements on the grading plan sheets
2. Street lighting locations shall be reviewed by public safety additional comments to be provided. At a minimum street lighting should be added along
3. the south side of 74<sup>th</sup> Ave.

4. Show pond maintenance bench/access routes. Grading shall reflect these locations.

#### Grading /Stormwater

1. Reference the City of Corcoran Stormwater Guidelines for Development Review for standards for stormwater systems and modeling.
2. Applicant shall ensure WCA permits are obtained before grading activities are allowed.
3. Provide P8 or a similar calculation to demonstrate that the site meets the total phosphorous and total suspended solids reduction standards for all treatment practices.
4. The wetland buffer zones and wetland buffer signage shall also be clearly identified and labeled.
5. All pedestrian ramps shall be ADA compliant and detailed designs shall be provided for all landings showing elevations in compliance with those requirements.
  - o Provide intersection details
6. Label clearly on plans EOF's for all areas where water will be collected including all low areas in roadways and greenspaces.
7. All drainage swales shall maintain a minimum of 2% slope and all slope should be 4:1 or flatter unless approved by the city engineer.
  - o Public safety should review slopes along emergency access to confirm they are manageable with the emergency equipment.
  - o Extend retaining wall along north side of emergency access on north property line. Grades exceed 3:1 at tie in point.
  - o Revise grading around pond filtration basin 1C to be no greater than 4:1
  - o Revise grading in rear yards of lots 11, 12, 13 block 3. Slopes are shown as flat at 2.5:1
  - o Extend retaining wall to the south along west side of emergency access or revise grading to be no greater than 4:1
  - o Slopes along the south and east side of pond 1C are shown at 3:1. These are assumed to be a low maintenance seeding.
8. Revise common drainage swales or easements as noted below (to be verified when easements are shown, appear to be out of easement)
  - o Revise drainage swales in rear yards of lots along the west property line to be within the D&U easement or provide additional easement
  - o Revise drainage swale in rear yard of lot 17 block 3 to be within D&U easement or provide additional easement.
  - o Revise drainage swale in rear yard of lots 10 and 11 block 3 to be located further north as to not drain to the northwest corner of the home on lot 11.
    - Provide additional easement for drainage swale on lot 11
  - o Revise drainage swale between lots 12 and 13 to be within the D&U easement or provide additional easement
9. All walls higher than 4' shall be designed by a certified engineer and the design and certification of those walls shall be provided to the city.
  - o An encroachment agreement shall be required for all site improvements or items placed within the City ROW or easements.
10. Install storm sewer in rear yard of lots 1-10 for sump connections and underneath bituminous trail to drain to offsite wetland.
11. Install draitile per City Detail STR-4

12. Sumps will be required in all storm structures with drops in of 18" or greater as well as the last accessible structures prior to stormwater basins.
  - o CBMH-104
  - o CB-12
  - o CB-22
  - o CBMH-33, flatten grade to MH-32 (Install tiered drop, add additional manhole to flatten grades. Extend rip rap to normal water level for energy dissipation
13. No profiles shown for private storm sewer. Show profiles for all storm sewer
14. North of the single-family homes there is a significantly eroded slope (gully) which could be a risk to downstream water quality. This area should be restored as part of the development. Coordinate with City a construction plan for the eroded gully. Debris shall be removed from gully and area restored to protect slopes from further erosion.
15. Bituminous trail along 74<sup>th</sup> Ave adjacent to Filtration Basin 1c shall have area graded on back side large enough for small utility installation and as a safety buffer. Area shall be a maximum of 10:1 slopes.
16. Elevate berm of Filtration Basin 1C to 968.95 or higher to maintain a 1' deep EOF.
17. TRM proposed for pond EOFs is no longer specified with "Category 4". Please reference updated MnDOT categories for TRM.
18. Drintile should have a minimum grade of 0.5% to prevent clogging.
19. Provide cleanout at all drintile/underdrain bends and upstream of connections.
20. Make HWL label legible for FILT Basin 1C.
21. Revise model or plans to correspond.
  - a) The OS detail 2 shows outlet at invert of 957.42. Current model shows invert at 956.0. If model is revised, submit updated model for further review.
  - b) Set incoming drain tile to allow 0.5 feet between the bottom of the structure and the outlet invert.
22. Provide routing of filtration to the drintile prior to discharge to structure in HydroCAD.
23. Provide reach summaries for each individual collective drainage DA-1 through DA-4 area in the Hydrocad model.

#### Watermain/Sanitary Sewer

1. MCES utilities will be impacted by the proposal. Applicant shall get written approval form MCES that all work and relocation activities are approved by them.
2. Gas, electric, and other private and public utilities are located adjacent and/or on the property. Preservation of existing easements and coordination with all public and private utilities must be conducted prior to commencing any grading or construction.
3. Generally valves shall be located at all intersection as one less valve than the number of legs. Valves should typically be located out from the end radius points unless specific circumstances don't allow.
  - a. Intersection of 74<sup>th</sup> Ave and New St. relocate to end rad on New St
  - b. Intersection of 74<sup>th</sup> Ave and senior center access relocate to north side of street, valve to remain within ROW.
  - c. Intersection of 74<sup>th</sup> Ave and 73<sup>rd</sup> Ave.
  - d. 74<sup>th</sup> Ave STA 21+31 relocate valve to be on opposite side of street.

4. Show removal of existing temporary hydrant at connection to watermain on west end of 74<sup>th</sup> Avenue
5. Place additional hydrant at high point near intersection of 74<sup>th</sup> Ave and New St.
  - a. Check spacing to see if we can eliminate west hydrant
6. Hydrant spacing to be reviewed by public safety and additional comments will be provided.
7. Relocate hydrant and gate valve at the entrance to be on the backside of the proposed sidewalk.
8. Revise location of hydrant at memory care to be within the 74<sup>th</sup> ROW.
9. Provide 18" minimum vertical separation between watermain and storm sewer pipe/structures. Revise watermain or storm sewer accordingly
  - a. 74<sup>th</sup> Ave (Approximate stationing)
    - i. Verify separation at storm structure STA 10+90
    - ii. STA 15+40
    - iii. STA 17+40
    - iv. STA 20+20
    - v. STA 21+70
    - vi. STA 23+00
    - vii. Verify separation at storm crossing STA 23+70
  - b. New St.
    - i. STA 10+60
    - ii. Verify separation at storm structure STA 12+60
    - iii. STA 13+65
10. Provide stationing on sanitary/water plan view sheet C4.4 to verify any potential conflicts.
11. Provide velocities for the following sanitary sewer runs (additional drops may be required if velocities are above maximum per ten states standards)
  - a. Sanitary MH 1 to Sanitary MH 2
  - b. Sanitary MH 2 to Sanitary MH 21
  - c. Sanitary MH 3 to Sanitary MH 4
12. Show storm sewer crossing in profile between Sanitary MH-2 to MH-3
13. Revise west invert in Sanitary MH 2 to be 0.10' higher than downstream invert or install drop. This may be impacted by maximum velocity requirements commented on previously.
14. Revise west invert in Sanitary MH 3 to be 0.10' higher than downstream invert or install drop. This may be impacted by maximum velocity requirements commented on previously.
15. All utilities within shared corridor with Met Council and City of Maple Grove will require additional review, coordination and approval with those entities.

**End of Comments**



**Cook Lake Highlands  
Project Narrative  
6.8.2021**

**Amended 1.1.21**

**Final Plat and PUD**

The following changes have been made to the PUD and Preliminary Plat for the PUD and Final Plat Application.

1. The unit count has been reduced by seven units. 154 units to 147 units
  - Applewood Senior Co-op 102 reduced to 100 units.
  - Memory Care 32 units reduced to 27 units.
  - Single Family, per the City Council reduced from 20 units to 19 unit
2. Title revealed a gap parcel along the property line which will be added to our Final Plat adding 6,624 square feet of land.
3. Trek Development and The Metropolitan Council have drafted an Easement Agreement for the shared use and maintenance of the Fire-lane and L-80 Lift Station access. The Metropolitan Council is currently reviewing the Agreement.
4. NHA has revised their sign plan and would like to propose two building/wall signs, a monument sign on the north side of the property, and a Sun Logo on the front (west) wall of the building.
  - New Horizon Academy is requesting two building (wall) signs, one on the south and one on the east wall of the building, one sun logo sign on the west side of the building, and one freestanding monument sign on the north side of the property to help create a more established presence in the growing Corcoran community. The signage requested would not only enhance the school's professional appearance in the community, but also build confidence for potential families who are looking for a high-quality education for their young children. With each building sign being approximately 30 square feet and a proposed sun logo sign being much less than that, the total signage area is well under allotted signage area requirements.

The proposed signage would increase the required awareness and visibility from all access points that is needed by New Horizon, making the school much easier to locate no matter what direction a family is originating from. If families do not know we exist, or they cannot find us easily, they will certainly enroll elsewhere. Even if they are not interested in enrolling right now, the proposed signs would increase the chance they will remember us for when they or someone they know may require our services in the future. It is no surprise that this also directly affects enrollment and

therefore business dollars. In fact, the *Out of Home Advertising Association of America, Inc.* proves with research that signage increases business by 15%. As we enter the Corcoran community with this signage, we can ensure that our families will be able to locate us more easily, feel comfortable stopping in to learn more about us, and ultimately trusting their children with us.

5. New Horizon has revised the building elevations to more closely reflect the styles depicted in the design guidelines, more particular to the Prairie Style, focusing on extended overhangs, lower hipped roofs, horizontal banding and pilasters.
6. The Rivers of Life Memory Care has revised their sign request to include a 40 square foot monument sign located on the South side of the building site/lot, and a 36 square foot entrance monument sign at the entrance of the site on 74<sup>th</sup> street. The memory care Prairie Style roofline is designed with a very deep soffit. This Prairie Style design feature does not leave room on the building for a sign band. In exchange for building signage the Memory Care is asking for two site monument signs at the entrance of the building and on the Northeast corner of the lot.

We are requesting PUD flexibility for Cook Lake Highlands Signage Plan for reasons we believe are consistent with CHAPTER 84 of the Corcoran City Code related to Temporary Sign and Sign Permit Provisions.

We are requesting PUD flexibility for the following:

- Three Temporary Construction/"Coming Soon" signs ( Memory Care, Child Care and Applewood)
- Memory Care - One additional Monument Sign, one 40 square foot sign to be located on the northeast corner of the Memory Care lot within the setback, and one sign to be located at the entrance of the Memory Care on 74<sup>th</sup>.
- New Horizon Academy is requesting two wall signs with one on the south wall and one on the east wall, and a Sun Logo over the entrance on the west wall. The area of the front (west) wall of the building is  $132' \times 17' = 2,244$  square feet. Total signage proposed with "Sun" is 91 square feet or 4% of front wall area.

Chapter 84 of the City Sign Code states that the intent of the ordinance is to establish a comprehensive system of sign control that achieves balance ...

Our request for PUD flexibility is consistent with

- Encouraging the effective use of signs as a means of communication for businesses, organizations, and individuals in the City of Corcoran - The permanent signs placed on the south side of the Memory Care lot, adjacent to CSAH 10 will most effectively (currently 6100 traffic count trips) and safely communicate its presence.
- Our request for signage visible from CSAH 10 will help provide for adequate way-finding in the community, thus reducing traffic congestion and confusion, increasing traffic safety.

- Helps provide adequate means for business and housing identification, advertising and communication.
- The Memory Care monument sign and the Childcare wall signage along and visible from CSAH 10 is consistent with each building design and architecture which has been designed to align with the City's design and architectural standards. preventing any concern of unsightly and chaotic signage which may have a blighting influence on the city. The proposed signs are not excessive in size and number, eliminating the probability that they obscure one another to the detriment of the economic and social well-being of the city. We are requesting one permanent monument sign along CSAH 10 and not proposing to install an entrance monument sign at the entrance/ intersection.
- The sign plan considers the safety and welfare of the residents living, and traveling to and from the neighborhood, minimizing hazards to vehicles and pedestrians.
- Directly across the CSAH 10 the property is guided Mixed Use and is currently being used as a public park with banner signage - this adjacent /neighboring use may eliminate possible concerns of any adverse effects our signage may have on nearby public and/or private property.
- Our PUD plan is consistent with the Comprehensive Plan.

Thank you for your time and consideration. Please contact me to discuss any questions or concerns you may have.

Sincerely,

Elisabeth (Beth) Hustad

Trek Real Estate and Development



**COOK LAKE HIGHLANDS**  
Corcoran, Minnesota  
**TRAK REAL ESTATE & DEVELOPMENT**  
135 Crabbapple Lane, Excelsior, MN 55331

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*David J. Knoble*  
David J. Knoble  
DATE: 11/29/21 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
12/10/20	CITY SUBMITTAL
2/5/21	CITY RESUBMITTAL
3/15/21	CITY RESUBMITTAL
9/7/21	CITY RESUBMITTAL
11/29/21	CITY RESUBMITTAL

REVISION SUMMARY

DATE	DESCRIPTION
6/18/21	CITY RESUBMITTAL

DRAWN BY: KIT, DK REVIEWED BY: DK, MP  
PROJECT NUMBER: 20011

REVISION SUMMARY

DATE	DESCRIPTION
6/18/21	CITY RESUBMITTAL

**SITE PLAN OVERALL**

**C2.0**

**SITE AREA TABLE:**

OVERALL SITE AREA CALCULATIONS	EXISTING		PROPOSED	
	AREA (SF)	%	AREA (SF)	%
BUILDING COVERAGE	3,865 SF	0.3%	144,869 SF	12.2%
ALL PAVEMENTS	14,348 SF	1.2%	224,274 SF	18.8%
ALL NON-PAVEMENTS	1,172,849 SF	98.5%	821,918 SF	69.0%
<b>TOTAL SITE AREA</b>	<b>1,191,062 SF</b>	<b>100.0%</b>	<b>1,191,062 SF</b>	<b>100.0%</b>

OVERALL IMPERVIOUS SURFACE	EXISTING CONDITION	PROPOSED CONDITION	DIFFERENCE (EX. VS PROP.)
	18,213 SF	369,143 SF	350,930 SF
	1.5%	31.0%	29.5%

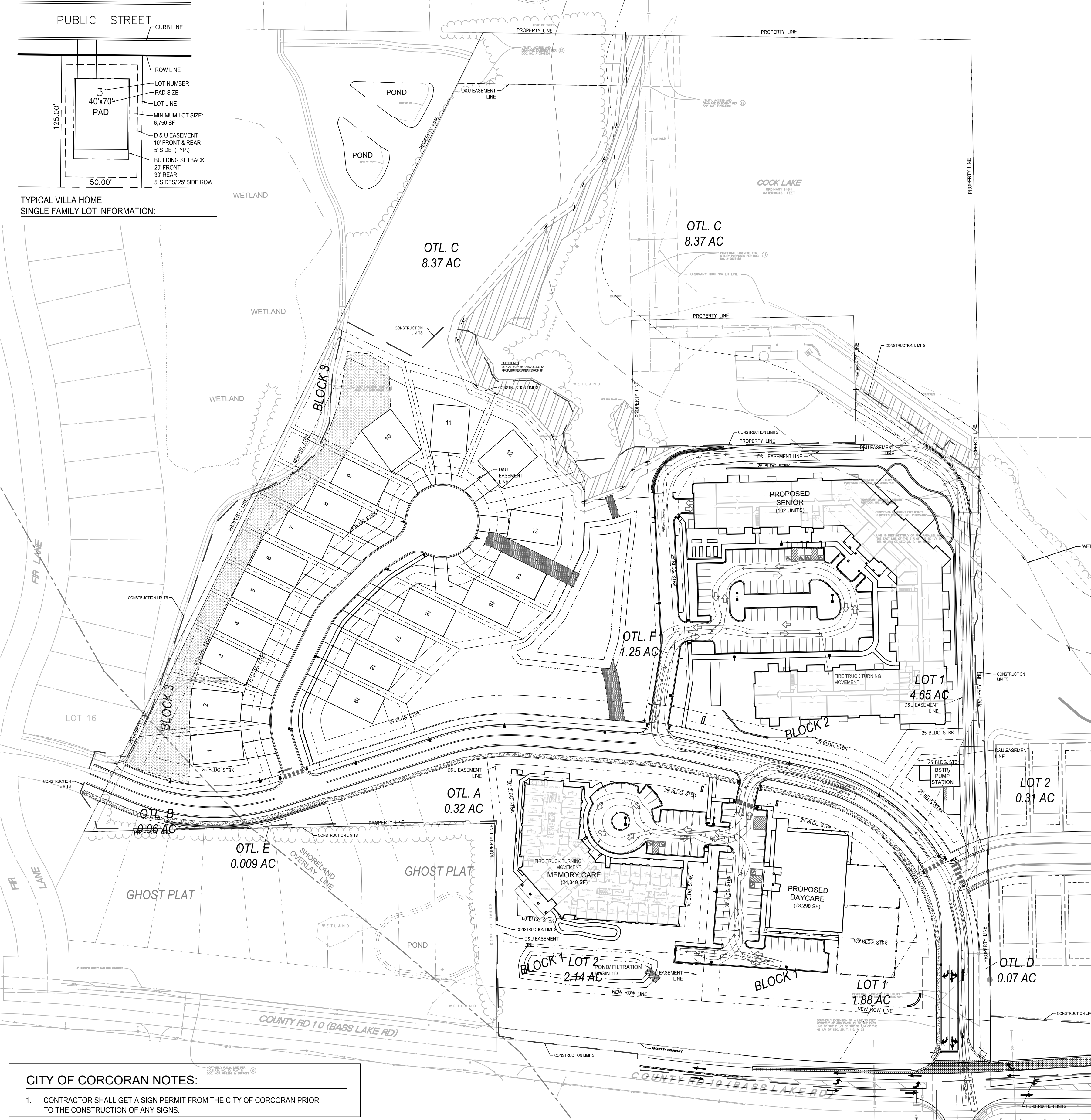
Zoning:  
Existing Zoning: RMF-2 (Mixed Residential District, 8-10 u/a)  
2040 Land Use Guide: Mixed Residential  
Proposed Zoning/ Land Use: PUD  
Overall Net Density: Max=198 units/lots (10 u/a) - Met Council  
Min=158 units/lots (8 u/a) - Met Council  
Max=166 units/lots (10 u/a) - City of Corcoran  
Min=133 units/lots (8 u/a) - City of Corcoran  
Block 1, Lot 1, Kid Day Care: 0 units  
Block 1, Lot 2, Memory Care: 32 units  
Block 2, Lot 1, Senior Living: 102 units  
Block 3, Villa SF lots 50' x 125' min.: 20 lots  
TOTAL: 154 units/lots

LOT NO.	LOT AREA (SF)	LOT AREA (AC)	EXISTING WET AREA OMIT (SF)	PROP. WET AREA OMIT (SF)	BUFFER AREA (SF)	POND AREA OMIT (SF)	BLDG HC (SF)	LOT PVMT HC (SF)	SF PATIO HC (SF)	TOTAL LOT HC	% LOT HC	
BLOCK 1	1	82077	1.88	691	0	13298	22785	0	0	36082	44.33%	
	2	93390	2.14	0	0	6183	24349	20001	0	44350	47.49%	
BLOCK 2	1	202417	4.65	4997	4997	5664	50917	67139	0	118056	59.80%	
	2	13300	0.31	0	0	0	1506	3625	0	5131	38.58%	
BLOCK 3	1	12939	0.30	0	0	0	2800	610	150	3560	27.52%	
	2	10612	0.24	0	0	0	2800	555	150	3505	33.02%	
	3	8105	0.19	0	0	0	2800	558	150	3508	43.28%	
	4	6639	0.15	0	0	0	2800	550	150	3500	52.72%	
	5	6634	0.15	0	0	0	2800	550	150	3500	52.76%	
	6	7075	0.16	0	0	0	2800	632	150	3582	50.62%	
	7	7931	0.18	0	0	0	2800	668	150	3618	45.62%	
	8	9076	0.21	0	0	0	2800	757	150	3707	40.84%	
	9	9300	0.21	0	0	0	2800	578	150	3528	37.94%	
	10	24488	0.56	0	0	0	3500	756	150	4406	17.99%	
	11	11541	0.26	0	0	113	3250	658	150	4058	35.16%	
	12	14714	0.34	0	68	1759	3250	571	150	3971	26.99%	
	13	11781	0.27	0	0	222	2800	573	150	3523	29.90%	
	14	7199	0.17	0	0	0	2800	706	150	3656	50.78%	
	15	8922	0.20	0	0	0	2800	1211	150	4161	46.64%	
	16	8550	0.20	0	0	0	2800	882	150	3832	44.82%	
	17	7153	0.16	0	0	0	2800	797	150	3747	52.38%	
	18	6606	0.15	0	0	0	2800	550	150	3500	52.98%	
	19	12760	0.29	0	0	0	2800	550	150	3500	27.43%	
OTL A		13909	0.32	0	0	0	0	0	0	0	0.00%	
OTL B		2718	0.06	0	0	0	0	0	0	0	0.00%	
OTL C		364543	8.37	236120	236120	25761	0	0	0	0	0.00%	
OTL D		2884	0.07	1681	0	0	0	0	0	0	0.00%	
OTL E		383	0.01	0	0	0	0	0	0	0	0.00%	
OTL F		54436	1.25	0	0	0	20346	0	0	0	0.00%	
ROW (STREETS)		124775	2.86	4913	0	0	0	92028	0	92028	76.78%	
ROW (CSAH 10)		44204	1.01	3519	0	0	0	3135	0	3135	7.71%	
OVERALL TOTAL		1191062	27.34	251921	241185	33519	26529	144869	221424	2850	369143	39.31%

	AREA SF	AREA AC	MAX. UNITS	MIN. UNITS	# OF UNITS	UNITS/AC
PRE DEVELOPMENT DENS.	939141	21.56	215.60	172.48	147	6.8
POST DEV. DENS.	618187	14.19	141.92	113.53	147	10.4
MET COUNC. DENS.	787166	18.07	180.71	144.57	147	8.1

**SITE LAYOUT NOTES:**

- CONTRACTOR SHALL VERIFY LOCATIONS AND LAYOUT OF ALL SITE ELEMENTS PRIOR TO BEGINNING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, LOCATIONS OF EXISTING AND PROPOSED PROPERTY LINES, EASEMENTS, SETBACKS, UTILITIES, BUILDINGS AND PAVEMENTS. CONTRACTOR IS RESPONSIBLE FOR FINAL LOCATIONS OF ALL ELEMENTS FOR THE SITE. ANY REVISIONS REQUIRED AFTER COMMENCEMENT OF CONSTRUCTION, DUE TO LOCAL ADJUSTMENTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO OWNER. ADJUSTMENTS TO THE LAYOUT SHALL BE APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF MATERIALS. STAKE LAYOUT FOR APPROVAL.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, INCLUDING A RIGHT-OF-WAY AND STREET OPENING PERMIT.
- THE CONTRACTOR SHALL VERIFY RECOMMENDATIONS NOTED IN THE GEO TECHNICAL REPORT PRIOR TO INSTALLATION OF SITE IMPROVEMENT MATERIALS.
- CONTRACTOR SHALL FIELD VERIFY COORDINATES AND LOCATION DIMENSIONS OF THE BUILDING AND STAKE FOR REVIEW AND APPROVAL BY THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION OF FOOTING MATERIALS.
- LOCATIONS OF STRUCTURES, ROADWAY PAVEMENTS, CURBS AND GUTTERS, BOLLARDS, AND WALKS ARE APPROXIMATE AND SHALL BE STAKED IN THE FIELD, PRIOR TO INSTALLATION, FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT.
- CURB DIMENSIONS SHOWN ARE TO FACE OF CURB. BUILDING DIMENSIONS ARE TO FACE OF CONCRETE FOUNDATION. LOCATION OF BUILDING IS TO BUILDING FOUNDATION AND SHALL BE AS SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR SAMPLES AS SPECIFIED FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO FABRICATION FOR ALL PREFABRICATED SITE IMPROVEMENT MATERIALS SUCH AS, BUT NOT LIMITED TO THE FOLLOWING, FURNISHINGS, PAVEMENTS, WALLS, RAILINGS, BENCHES, FLAGPOLES, LANDING PADS FOR CURB RAMPS, AND LIGHT AND POLES. THE OWNER RESERVES THE RIGHT TO REJECT INSTALLED MATERIALS NOT PREVIOUSLY APPROVED.
- PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOME LANDING AREAS IN ACCORDANCE WITH A.D.A. REQUIREMENTS-SEE DETAIL.
- CROSSWALK STRIPING SHALL BE 24" WIDE WHITE PAINTED LINE. SPACED 48" ON CENTER PERPENDICULAR TO THE FLOW OF TRAFFIC. WIDTH OF CROSSWALK SHALL BE 5' WIDE. ALL OTHER PAVEMENT MARKINGS SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED OR REQUIRED BY ADA OR LOCAL GOVERNING BODIES.
- SEE SITE PLAN FOR CURB AND GUTTER TYPE. TAPER BETWEEN CURB TYPES-SEE DETAIL.
- ALL CURB RADII ARE MINIMUM 3' UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL REFER TO FINAL PLAT FOR LOT BOUNDARIES, NUMBERS, AREAS AND DIMENSIONS PRIOR TO SITE IMPROVEMENTS.
- FIELD VERIFY ALL EXISTING SITE CONDITIONS, DIMENSIONS.
- PARKING IS TO BE SET PARALLEL OR PERPENDICULAR TO EXISTING BUILDING UNLESS NOTED OTHERWISE.
- ALL PARKING LOT PAINT STRIPING TO BE WHITE, 4" WIDE TYP.
- BITUMINOUS PAVING TO BE "LIGHT DUTY" UNLESS OTHERWISE NOTED. SEE DETAIL SHEETS FOR PAVEMENT SECTIONS.
- ALL TREES THAT ARE TO REMAIN ARE TO BE PROTECTED FROM DAMAGE WITH A CONSTRUCTION FENCE AT THE DRIP LINE. SEE LANDSCAPE DOCUMENTS.
- ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.



**CITY OF CORCORAN NOTES:**

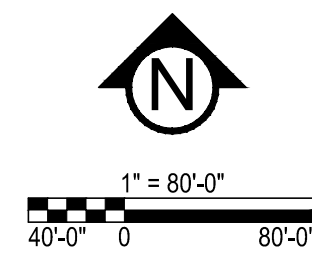
- CONTRACTOR SHALL GET A SIGN PERMIT FROM THE CITY OF CORCORAN PRIOR TO THE CONSTRUCTION OF ANY SIGNS.

**SITE PLAN LEGEND:**

- BITUMINOUS PAVEMENT. SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH. SEE DETAIL.
- PRIVATE CONCRETE PAVEMENT AS SPECIFIED (PAD OR WALK) SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & CONCRETE DEPTHS. SEE DETAIL.
- CITY CONCRETE SIDEWALK PAVEMENT. SEE DETAIL.
- PROPOSED WETLAND BUFFER AREA
- PROPERTY LINE
- SHORELAND OVERLAY LINE
- CONSTRUCTION LIMITS
- CURB AND GUTTER-SEE NOTES (T.O.) TIP OUT GUTTER WHERE APPLICABLE-SEE PLAN
- TRAFFIC DIRECTIONAL ARROW PAVEMENT MARKINGS
- SIGN AND POST ASSEMBLY. SHOP DRAWINGS REQUIRED.  
HC = ACCESSIBLE SIGN  
NP = NO PARKING FIRE LANE  
ST = STOP  
CP = COMPACT CAR PARKING ONLY

**OPERATIONAL NOTES:**

- BLOCK 1, LOT 1:**  
SNOW REMOVAL: ALL SNOW SHALL BE MOVED TO LANDSCAPED AREA OR HAULED OFFSITE  
TRASH REMOVAL: TRASH REMOVAL SHALL OCCUR: IN TRASH ENCLOSURE.  
DELIVERIES: DELIVERIES SHALL OCCUR FRONT DOOR.
- BLOCK 2, LOT 1:**  
SNOW REMOVAL: ALL SNOW SHALL BE MOVED TO LANDSCAPED AREA OR HAULED OFFSITE  
TRASH REMOVAL: TRASH REMOVAL SHALL OCCUR: IN BUILDING.  
DELIVERIES: DELIVERIES SHALL OCCUR FRONT DOOR.
- BLOCK 1, LOT 2:**  
SNOW REMOVAL: ALL SNOW SHALL BE MOVED TO LANDSCAPED AREA OR HAULED OFFSITE  
TRASH REMOVAL: TRASH REMOVAL SHALL OCCUR: IN TRASH ENCLOSURE.  
DELIVERIES: DELIVERIES SHALL OCCUR FRONT DOOR.
- BLOCK 2, LOT 2:**  
SNOW REMOVAL: ALL SNOW SHALL BE MOVED TO LANDSCAPED AREA OR HAULED OFFSITE  
TRASH REMOVAL: TRASH REMOVAL SHALL OCCUR: IN BUILDING.  
DELIVERIES: DELIVERIES SHALL OCCUR FRONT DOOR.



Know what's below.  
Call before you dig.

1" = 80'-0"  
40'-0" 80'-0"



**COOK LAKE HIGHLANDS**  
Corcoran, Minnesota  
**TRAK REAL ESTATE & DEVELOPMENT**  
135 Crabbapple Lane, Excelsior, MN 55331

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*David J. Knaeble*  
David J. Knaeble  
DATE 11/29/21 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

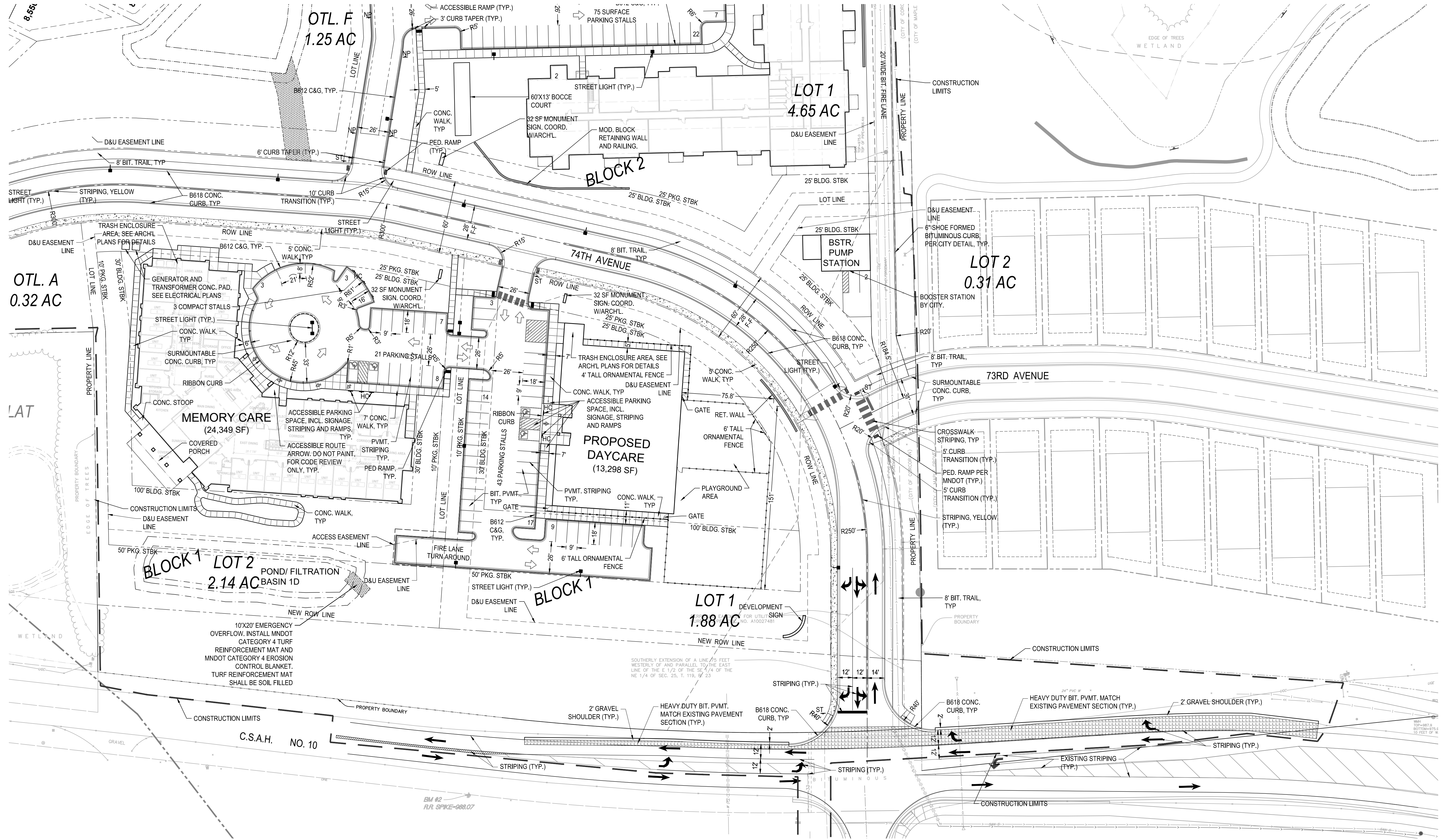
DATE	DESCRIPTION
12/15/20	CITY SUBMITTAL
2/20/21	CITY SUBMITTAL
3/15/21	CITY SUBMITTAL
6/7/21	CITY SUBMITTAL
11/29/21	CITY SUBMITTAL

DRAWN BY: KIT, DK REVIEWED BY: DK, MP  
PROJECT NUMBER: 20011

DATE	DESCRIPTION

REVISION SUMMARY

DATE	DESCRIPTION



**SITE PLAN LEGEND:**

- BITUMINOUS PAVEMENT. SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH, SEE DETAIL.
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**811**  
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20'-0" 0 40'-0"





# COOK LAKE HIGHLANDS

Corcoran, Minnesota  
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*David J. Knaeble*  
David J. Knaeble  
DATE 11/29/21 LICENSE No. 48776

ISSUE/SUBMITTAL SUMMARY

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12/15/20	CITY SUBMITTAL
2/24/21	CITY SUBMITTAL
3/15/21	CITY SUBMITTAL
6/7/21	CITY SUBMITTAL
11/29/21	CITY SUBMITTAL

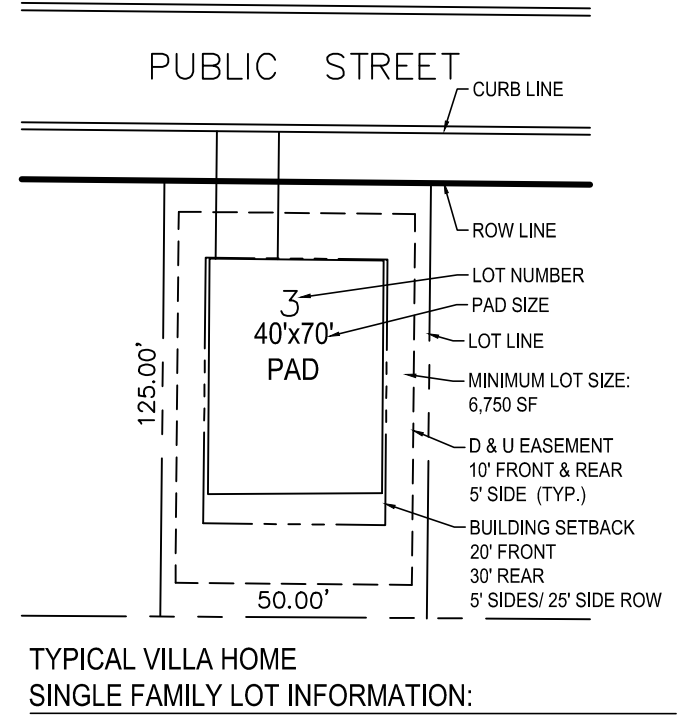
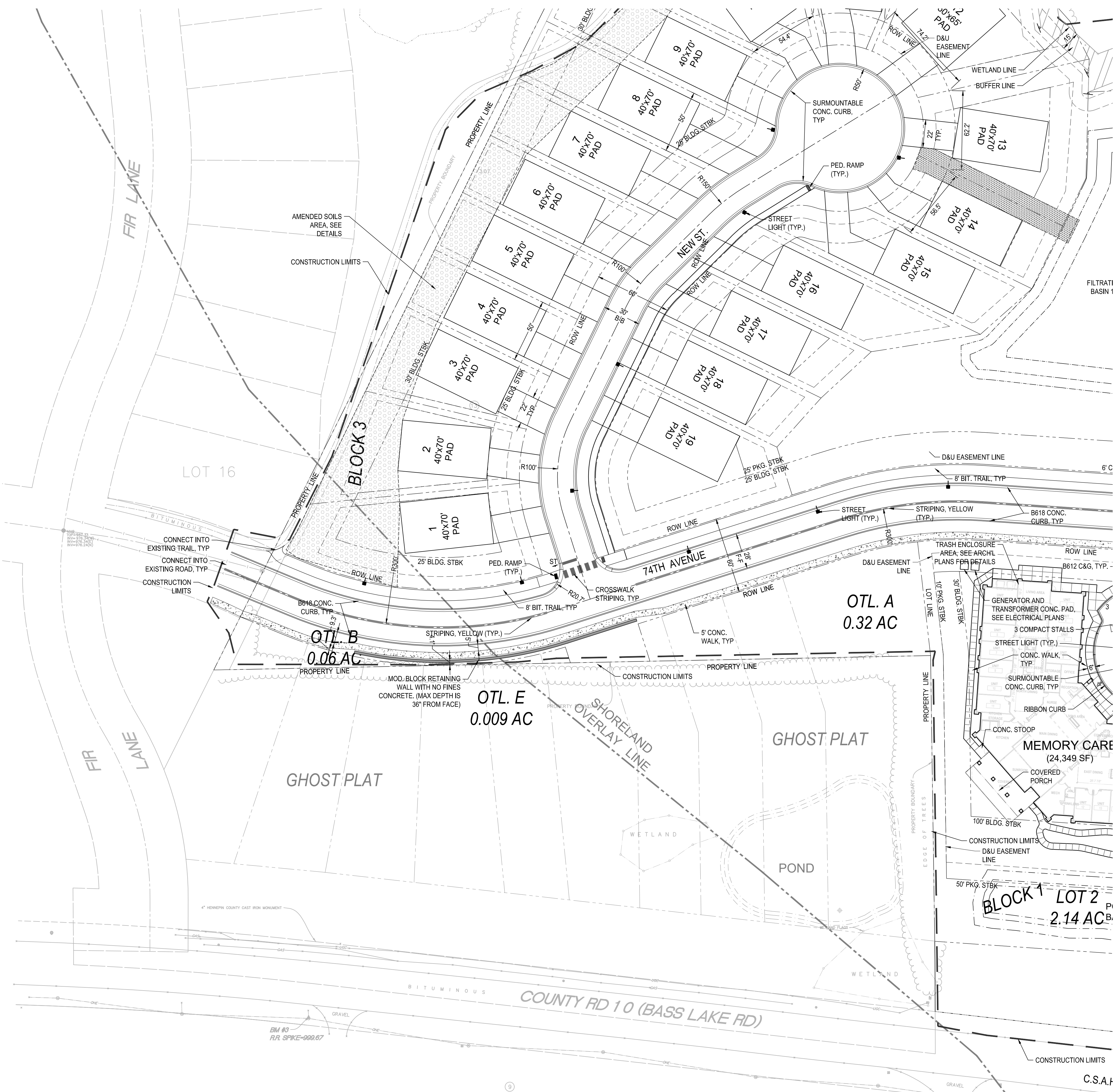
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PROJECT NUMBER: 20011

REVISION SUMMARY

DATE	DESCRIPTION

SITE PLAN W

**C2.3**

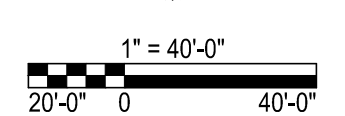


**SITE PLAN LEGEND:**

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11/29/2021	CITY SUBMITTAL

DRAWN BY: KIT, DK REVIEWED BY: DK, MP  
PROJECT NUMBER: 20011

REVISION SUMMARY

DATE	DESCRIPTION

WETLAND IMPACT PLAN

**C2.5**



WETLAND IMPACT PLAN LEGEND:

- IMPACTED WETLAND
- PROPERTY LINE
- WETLAND BOUNDARY

WETLAND IMPACT		
WETLAND	TOTAL WETLAND AREA(ACRE)	IMPACTED WETLAND AREA(ACRE)
A-1	5.94	.01
A-2	5.94	.14
B	NO LONGER A WETLAND	--
D	0.22	0.22
TOTAL	0.22	0.37

SEE THE COOK LAKE MAPLE GROVE PLANS FOR WETLAND IMPACTS WITHIN MAPLE GROVE



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40'-0" 0 80'-0"



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*Kevin Teppen*  
KEVIN TEPPEN  
DATE 11/29/21 LICENSE NO. 26980

ISSUE/SUBMITTAL SUMMARY	
DATE	DESCRIPTION
12/15/20	CITY SUBMITTAL
2/5/21	CITY RESUBMITTAL
3/15/21	CITY RESUBMITTAL
6/7/21	CITY RESUBMITTAL
11/29/2021	CITY RESUBMITTAL

DATE	DESCRIPTION
6/18/21	CITY RESUBMITTAL

DRAWN BY: KIT, DK REVIEWED BY: DK, MP  
PROJECT NUMBER: 20011

REVISION SUMMARY	
DATE	DESCRIPTION
6/18/21	CITY RESUBMITTAL

DATE	DESCRIPTION
6/18/21	CITY RESUBMITTAL

LANDSCAPE PLAN OVERALL

**L1.0**

SHRUB & PERENNIALS WILL BE DETAILED AT TIME OF EACH LOTS CITY SUBMITTAL AND ENTITLEMENT APPROVALS

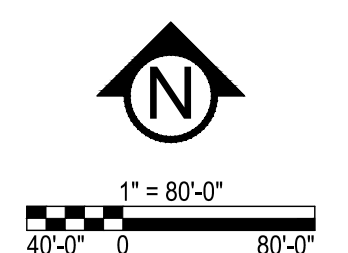
**LANDSCAPE NOTES:**

- WHERE SHOWN, SHRUB & PERENNIAL BEDS SHALL BE MULCHED WITH 4" DEPTH (MINIMUM AFTER INSTALLATION AND/OR TOP DRESSING OPERATIONS) OF SHREDDED CYPRESS MULCH.
- ALL TREES SHALL BE MULCHED WITH SHREDDED CYPRESS MULCH TO OUTER EDGE OF SAUCER OR TO EDGE OF PLANTING BED, IF APPLICABLE. ALL MULCH SHALL BE KEPT WITHIN A MINIMUM OF 2" FROM TREE TRUNK.
- IF SHOWN ON PLAN, RANDOM SIZED LIMESTONE BOULDERS COLOR AND SIZE TO COMPLIMENT NEW LANDSCAPING. OWNER TO APPROVE BOULDER SAMPLES PRIOR TO INSTALLATION.
- PLANT MATERIALS SHALL CONFORM WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND SHALL BE OF HARDY STOCK, FREE FROM DISEASE, DAMAGE AND DISFIGURATION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PLUMPNESS OF PLANT MATERIAL FOR DURATION OF ACCEPTANCE PERIOD.
- UPON DISCOVERY OF A DISCREPANCY BETWEEN THE QUANTITY OF PLANTS SHOWN ON THE SCHEDULE AND THE QUANTITY SHOWN ON THE PLAN, THE PLAN SHALL GOVERN.
- CONDITION OF VEGETATION SHALL BE MONITORED BY THE LANDSCAPE ARCHITECT THROUGHOUT THE DURATION OF THE CONTRACT. LANDSCAPE MATERIALS PART OF THE CONTRACT SHALL BE WARRANTED FOR ONE (1) FULL GROWING SEASONS FROM SUBSTANTIAL COMPLETION DATE.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL RECEIVE 4" LAYER TOPSOIL AND SOD AS SPECIFIED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- COORDINATE LOCATION OF VEGETATION WITH UNDERGROUND AND OVERHEAD UTILITIES, LIGHTING FIXTURES, DOORS AND WINDOWS. CONTRACTOR SHALL STAKE IN THE FIELD FINAL LOCATION OF TREES AND SHRUBS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- ALL PLANT MATERIALS SHALL BE WATERED AND MAINTAINED UNTIL ACCEPTANCE.
- REPAIR AT NO COST TO OWNER ALL DAMAGE RESULTING FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
- SWEEP AND MAINTAIN ALL PAVED SURFACES FREE OF DEBRIS GENERATED FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
- REPAIR AT NO COST TO THE OWNER IRRIGATION SYSTEM DAMAGED FROM LANDSCAPE CONSTRUCTION ACTIVITIES.
- PROVIDE SITE WIDE IRRIGATION SYSTEM DESIGN AND INSTALLATION. SYSTEM SHALL BE FULLY PROGRAMMABLE AND CAPABLE OF ALTERNATE DATE WATERING. THE SYSTEM SHALL PROVIDE HEAD TO HEAD OR DRIP COVERAGE AND BE CAPABLE OF DELIVERING ONE INCH OF PRECIPITATION PER WEEK. SYSTEM SHALL EXTEND INTO THE PUBLIC RIGHT-OF-WAY TO THE EDGE OF PAVEMENT/BACK OF CURB.
- CONTRACTOR SHALL SECURE APPROVAL OF PROPOSED IRRIGATION SYSTEM INCLUDING PRICING FROM OWNER, PRIOR TO INSTALLATION.



**LEGEND**

- PROPOSED CANOPY TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED EVERGREEN TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED ORNAMENTAL TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED DECIDUOUS AND EVERGREEN SHRUB SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED PERENNIAL PLANT SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- EDGING





**COOK LAKE HIGHLANDS**  
Corcoran, Minnesota  
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*Kevin Teppen*  
KEVIN TEPPEN  
DATE 11/29/21 LICENSE NO. 26980

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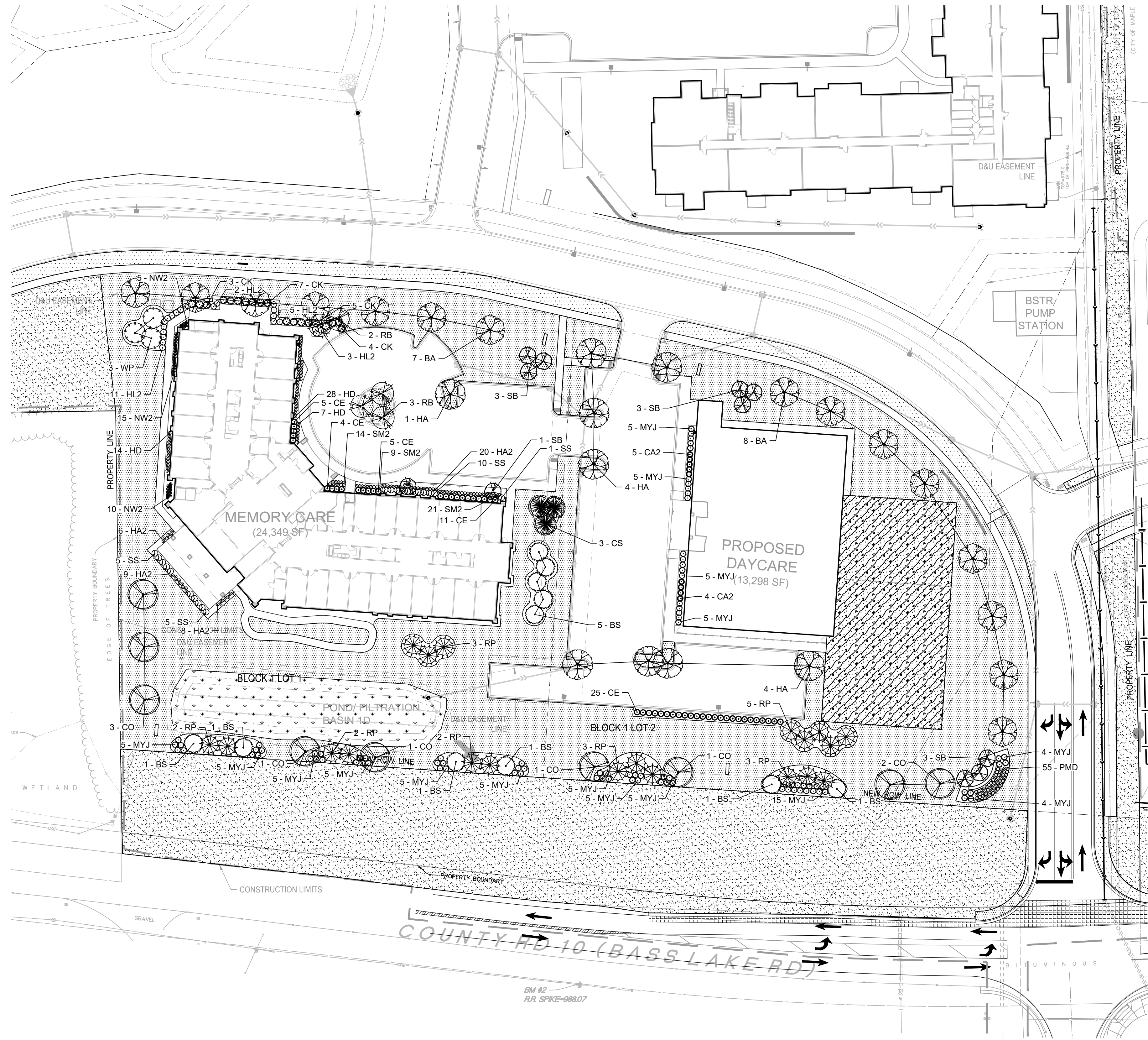
DRAWN BY: KIT, DK REVIEWED BY: DK, MP  
PROJECT NUMBER: 20011

REVISION SUMMARY

DATE	DESCRIPTION

LANDSCAPE PLAN SE

**L1.1**



**PLANT SCHEDULE : BLOCK 1 LOT 1**

TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS	POLLII
CO	5	True North Kentucky Coffeetree / Gymnocladus dioica 'UMNSynergy'™	2.5" Cal. B&B		
BA	7	Boulevard Linden / Tilia americana 'Boulevard'	2.5" Cal. B&B		

EVERGREEN TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS	POLLII
BS	9	Black Hills Spruce / Picea glauca 'Densata'	2.5" Cal. B&B	Y	
CS	3	Colorado Spruce / Picea pungens	6" B&B	B&B	
RP	9	Red Pine / Pinus resinosa	6" B&B		
WP	3	White Pine / Pinus strobus	6" B&B	B&B	

ORNAMENTAL TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS	POLLII
SB	5	Autumn Brilliance Serviceberry / Amelanchier x grandiflora 'Autumn Brilliance'	#20 CLUMP	Clump	
RB	5	River Birch / Betula nigra	2.5" Cal. B&B		

SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS	POLLII
CK	19	King's Gold False Cypress / Chamaecyparis pisifera 'King's Gold'	#5 CONT		
CE	25	Baton Rouge Dogwood / Cornus alba 'Minbat'™	5 GAL		
HA	1	Annabelle Hydrangea / Hydrangea arborescens 'Annabelle'	#5 CONT	Pot	
HL2	21	Little Quick Fire Hydrangea / Hydrangea paniculata 'Little Quick Fire'	#5 CONT	Pot	
MYJ	30	Maney Juniper / Juniperus chinensis 'Maney'	#5 CONT		
SS	21	Sem Ash Leaf Spirea / Sorbaria sorbifolia 'Sem'	#5 CONT	Pot	
SM2	41	Miss Kim Lilac / Syringa patula 'Miss Kim'	#5 CONT	Y	Y

GRASSES	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS	POLLII
HA2	53	All Gold Japanese Forest Grass / Hakonechloa macra 'All Gold'	#1 CONT		

PERENNIALS	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS	POLLII
HD	56	Delta Dawn Coral Bells / Heuchera x 'Delta dawn'	#1 CONT		
NW2	30	Walkers Low Catmint / Nepeta x faassenii 'Walkers Low'	#1 CONT		

**PLANT SCHEDULE : BLOCK 1 LOT 2**

TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS
CO	4	True North Kentucky Coffeetree / Gymnocladus dioica 'UMNSynergy'™	2.5" Cal. B&B	
BA	8	Boulevard Linden / Tilia americana 'Boulevard'	2.5" Cal. B&B	

EVERGREEN TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS
BS	2	Black Hills Spruce / Picea glauca 'Densata'	2.5" Cal. B&B	Y
RP	11	Red Pine / Pinus resinosa	6" B&B	

ORNAMENTAL TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS
SB	6	Autumn Brilliance Serviceberry / Amelanchier x grandiflora 'Autumn Brilliance'	#20 CLUMP	Clump

SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS
CE	25	Baton Rouge Dogwood / Cornus alba 'Minbat'™	5 GAL	
CA2	9	Arctic Fire Dogwood / Cornus sericea 'Arctic Fire'	#5 CONT	
HA	8	Annabelle Hydrangea / Hydrangea arborescens 'Annabelle'	#5 CONT	Pot
MYJ	58	Maney Juniper / Juniperus chinensis 'Maney'	#5 CONT	

PERENNIALS	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS
PMD	55	Pardon Me Daylily / Hemerocallis x 'Pardon Me'	#1 CONT	

GROUND COVERS	COMMON / BOTANICAL NAME	SIZE
	Lower Basin Native Seed Mix MNDOT 34-262 WET PRAIRIE, PER MNDOT SEEDING MANUAL SPECIFICATIONS (2014)	Seed Mix
	Shooting Star No Mow Fine Fescue Mix / No MowSeed Mix	Seed Mix
	Dog Park Mulch / Playground Surfacing Organic mulch specifically produced for use in playgrounds. Shall knit together to form matted, accessible surface, shall be treated with anti-microbial agent.	#10 CONT
	Blue Grass Based / Sod Commercial grade, locally grown, "Big Roll" preferred	Sod

**LEGEND**

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- PROPOSED EVERGREEN TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED ORNAMENTAL TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
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**COOK LAKE HIGHLANDS**

Corcoran, Minnesota

**TRAK REAL ESTATE & DEVELOPMENT**

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*Kevin Teppen*  
KEVIN TEPPEN  
DATE: 11/29/21 LICENSE NO. 26980

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11/29/21	CITY SUBMITTAL

REVISION SUMMARY	
DATE	DESCRIPTION

DRAWN BY: KIT\_DK REVIEWED BY: DK\_MP  
PROJECT NUMBER: 20011

REVISION SUMMARY	
DATE	DESCRIPTION

LANDSCAPE PLAN NE

**L1.2**

**PLANT SCHEDULE : BLOCK 2 LOT 1**

TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS	POLLII
RM	15	Northwood Red Maple / Acer rubrum 'Northwood'	2.5" Cal. B&B	B&B	
SO	6	Swamp White Oak / Quercus bicolor	2.5" Cal. B&B	B&B	
RO	11	Red Oak / Quercus rubra	2.5" Cal. B&B		
BA	7	Boulevard Linden / Tilia americana 'Boulevard'	2.5" Cal. B&B		

EVERGREEN TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS	POLLII
BS	23	Black Hills Spruce / Picea glauca 'Densata'	2.5" Cal. B&B	Y	
CS	2	Colorado Spruce / Picea pungens	6" B&B	B&B	
RP	7	Red Pine / Pinus resinosa	6" B&B		
WP	13	White Pine / Pinus strobus	6" B&B	B&B	

ORNAMENTAL TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS	POLLII
SB	8	Autumn Brilliance Serviceberry / Amelanchier x grandiflora 'Autumn Brilliance'	#20 CLUMP	Clump	

SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS	POLLII
CK	16	King's Gold False Cypress / Chamaecyparis pisifera 'King's Gold'	#5 CONT		
CE	44	Baton Rouge Dogwood / Cornus alba 'Minbat' TM	5 GAL.		
CA2	111	Arctic Fire Dogwood / Cornus sericea 'Arctic Fire'	#5 CONT		
HJ	11	Little Lime Hydrangea / Hydrangea paniculata 'Jane' TM	#5 CONT	Pot	
HL2	53	Little Quick Fire Hydrangea / Hydrangea paniculata 'Little Quick Fire'	#5 CONT	Pot	
MD	56	Russian Cypress / Microbiota decussata	#5 CONT		
PN	25	Bird's Nest Spruce / Picea abies 'Nidiformis'	#5 CONT	Pot	
PM	37	Nana Black Spruce / Picea mariana 'Nana'	#5 CONT	Pot	
SS	100	Sem Ash Leaf Spirea / Sorbaria sorbifolia 'Sem'	#5 CONT	Pot	
SM	7	Dwarf Korean Lilac / Syringa meyeri 'Palibin'	#7 CONT		
SM2	26	Miss Kim Lilac / Syringa patula 'Miss Kim'	#5 CONT	Y	Y

GRASSES	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS	POLLII
HA2	70	All Gold Japanese Forest Grass / Hakonechloa macra 'All Gold'	#1 CONT		

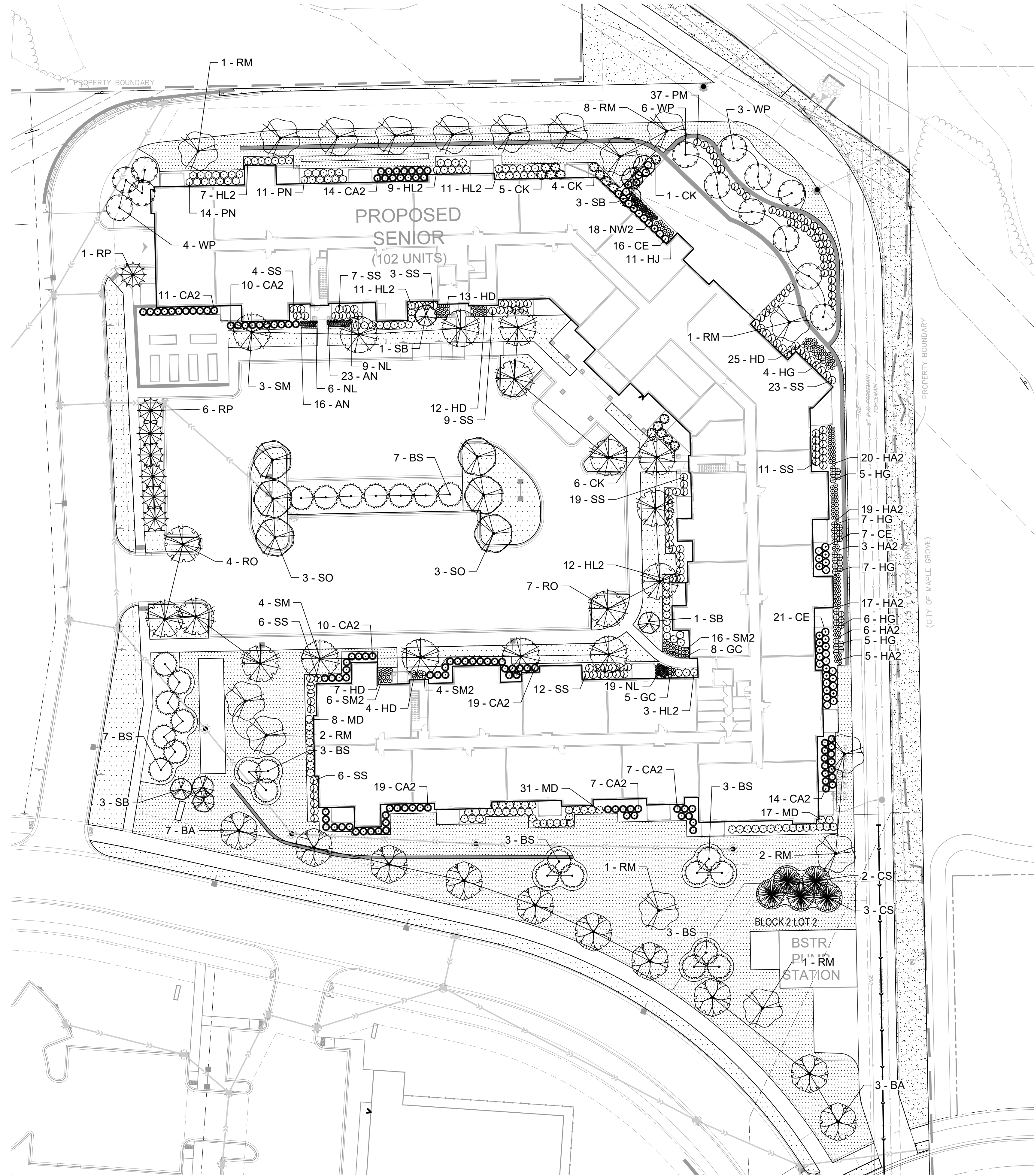
PERENNIALS	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS	POLLII
AN	39	Silver Mound Artemisia / Artemisia schmidtiana 'Nana'	2.5" Cal. B&B	B&B	
GC	13	Blokovo Cranesbill / Geranium x cantabrigiense 'Blokovo'	#1 CONT		
HD	61	Delta Dawn Coral Bells / Heuchera x 'Delta dawn'	#1 CONT		
HG	34	Guacamole Plantain Lily / Hosta x 'Guacamole'	#1 CONT		
NL	34	Little Trudy Catmint / Nepeta x 'Pafike' TM	#1 CONT		
NW2	18	Walkers Low Catmint / Nepeta x faassenii 'Walkers Low'	#1 CONT		

**PLANT SCHEDULE : BLOCK 2 LOT 2**

TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS
RM	1	Northwood Red Maple / Acer rubrum 'Northwood'	2.5" Cal. B&B	B&B
BA	3	Boulevard Linden / Tilia americana 'Boulevard'	2.5" Cal. B&B	

EVERGREEN TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS
BS	3	Black Hills Spruce / Picea glauca 'Densata'	2.5" Cal. B&B	Y
CS	3	Colorado Spruce / Picea pungens	6" B&B	B&B

GROUND COVERS	COMMON / BOTANICAL NAME	SIZE
	Shooting Star No Mow Fine Fescue Mix / No MowSeed Mix	Seed Mix
	Blue Grass Based / Sod Commercial grade, locally grown, "Big Roll" preferred	Sod



**LEGEND**

- PROPOSED CANOPY TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED EVERGREEN TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED ORNAMENTAL TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED DECIDUOUS AND EVERGREEN SHRUB SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- PROPOSED PERENNIAL PLANT SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES
- EDGING



Know what's below.  
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1" = 30'-0"  
15'-0" 0 30'-0"



**COOK LAKE HIGHLANDS**  
Corcoran, Minnesota  
**TRAK REAL ESTATE & DEVELOPMENT**  
135 Crabbapple Lane, Excelsior, MN 55331

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Kevin Teppen*  
KEVIN TEPPEN  
DATE 11/29/21 LICENSE NO. 26980

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
12/15/20	CITY SUBMITTAL
2/5/21	CITY SUBMITTAL
3/15/21	CITY SUBMITTAL
6/7/21	CITY SUBMITTAL
11/29/21	CITY SUBMITTAL

DRAWN BY: KIT\_DK REVIEWED BY: DK\_MP  
PROJECT NUMBER: 20011

REVISION SUMMARY

DATE	DESCRIPTION
6/18/21	CITY RESUBMITTAL

LANDSCAPE PLAN W

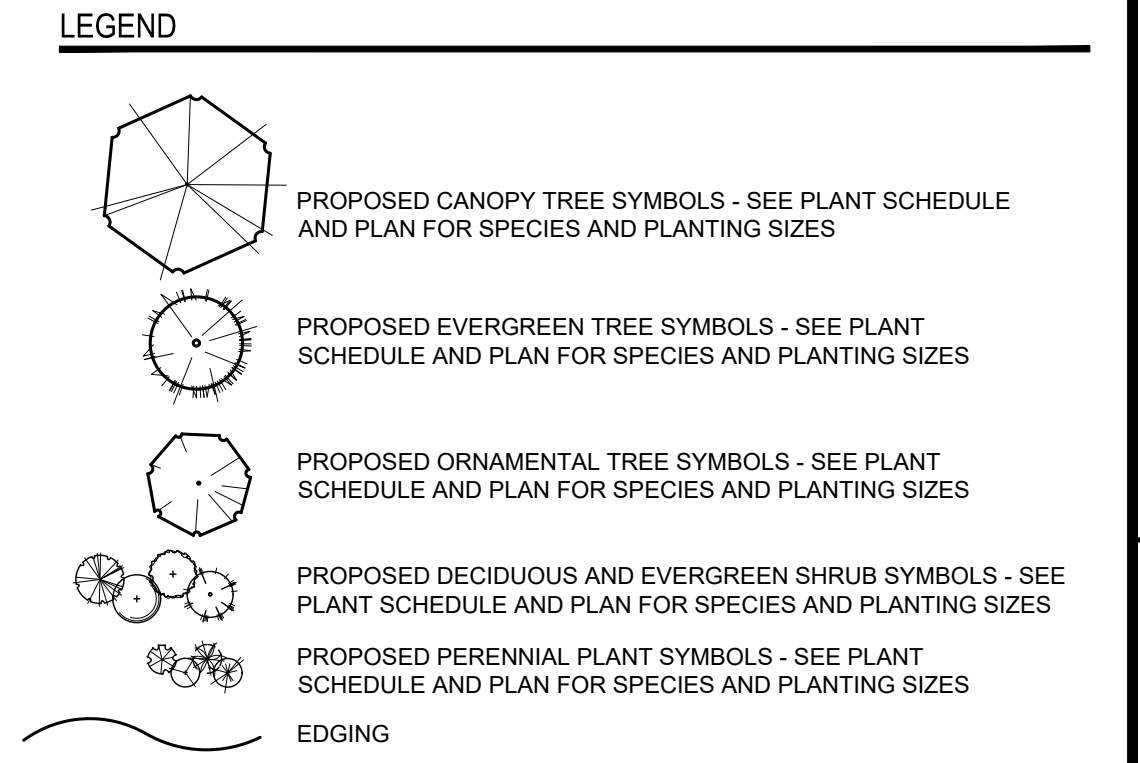
**L1.3**

**PLANT SCHEDULE : BLOCK 3**

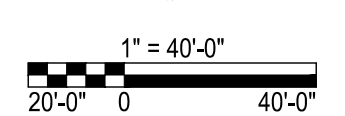
TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS
RM	2	Northwood Red Maple / <i>Acer rubrum</i> 'Northwood'	2.5" Cal. B&B	B&B
SM	9	Autumn Splendor Sugar Maple / <i>Acer saccharum</i> 'Autumn Splendor'	2.5" Cal. B&B	
RB	12	River Birch / <i>Betula nigra</i>	2.5" Cal. B&B	
BS	16	Shiloh Splash Birch / <i>Betula nigra</i> 'Shiloh Splash'	2.5" Cal. B&B	Y
HA	6	Prairie Pride Common Hackberry / <i>Celtis occidentalis</i> 'Prairie Pride'	2.5" Cal. B&B	
SO	14	Swamp White Oak / <i>Quercus bicolor</i>	2.5" Cal. B&B	B&B
RO	11	Red Oak / <i>Quercus rubra</i>	2.5" Cal. B&B	
BA	16	Boulevard Linden / <i>Tilia americana</i> 'Boulevard'	2.5" Cal. B&B	

EVERGREEN TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS
RP	8	Red Pine / <i>Pinus resinosa</i>	6" B&B	

GROUND COVERS	COMMON / BOTANICAL NAME	SIZE
	Shooting Star Dry Short Prairie Mix / Dry Short Prairie Seed Mix Shooting Star Native Seed: Dry Short Prairie Seed Mix.	Seed Mix
	Lower Basin Native Seed Mix MNDOT 34-262 WET PRAIRIE, PER MNDOT SEEDING MANUAL SPECIFICATIONS (2014)	Seed Mix
	Shooting Star No Mow Fine Fescue Mix / No Mow Seed Mix	Seed Mix
	Blue Grass Based / Sod Commercial grade, locally grown, "Big Roll" preferred	Sod



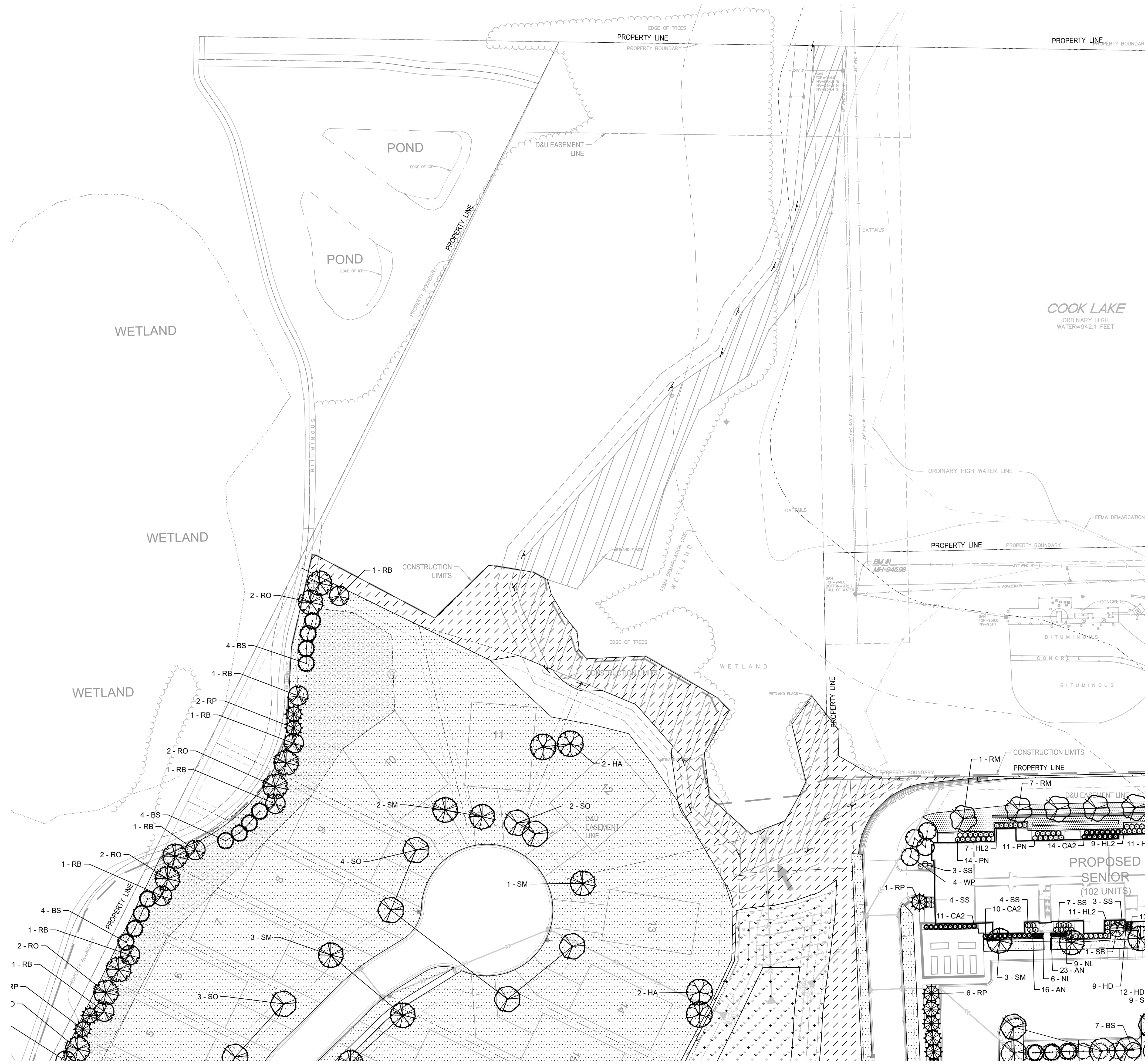
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SHRUB AND PERENNIAL PLANTING SPECIES WILL BE IDENTIFIED AT TIME OF INDIVIDUAL LOT APPROVALS.

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6/7/21	CITY SUBMITTAL
11/29/21	CITY SUBMITTAL

DRAWN BY: KIT, DK REVIEWED BY: DK, MP  
PROJECT NUMBER: 20011

REVISION SUMMARY

DATE	DESCRIPTION
6/18/21	CITY RESUBMITTAL

LEGEND  
SEE SHEET L1.0 FOR LEGEND AND PLANT SCHEDULE

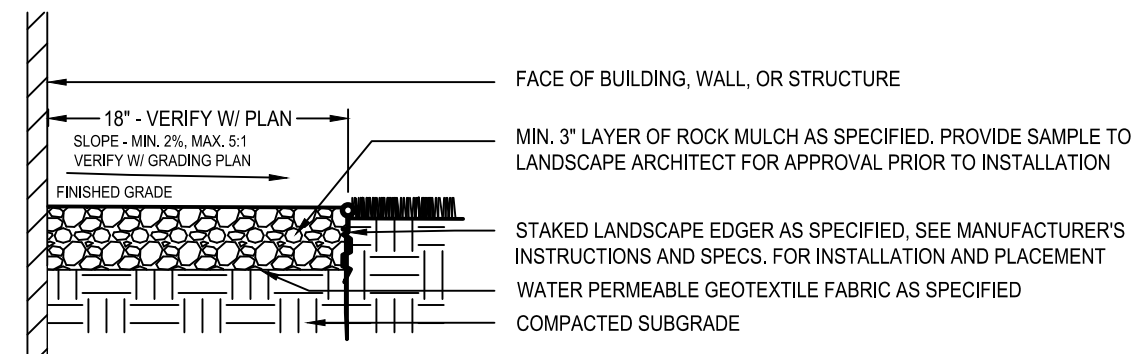


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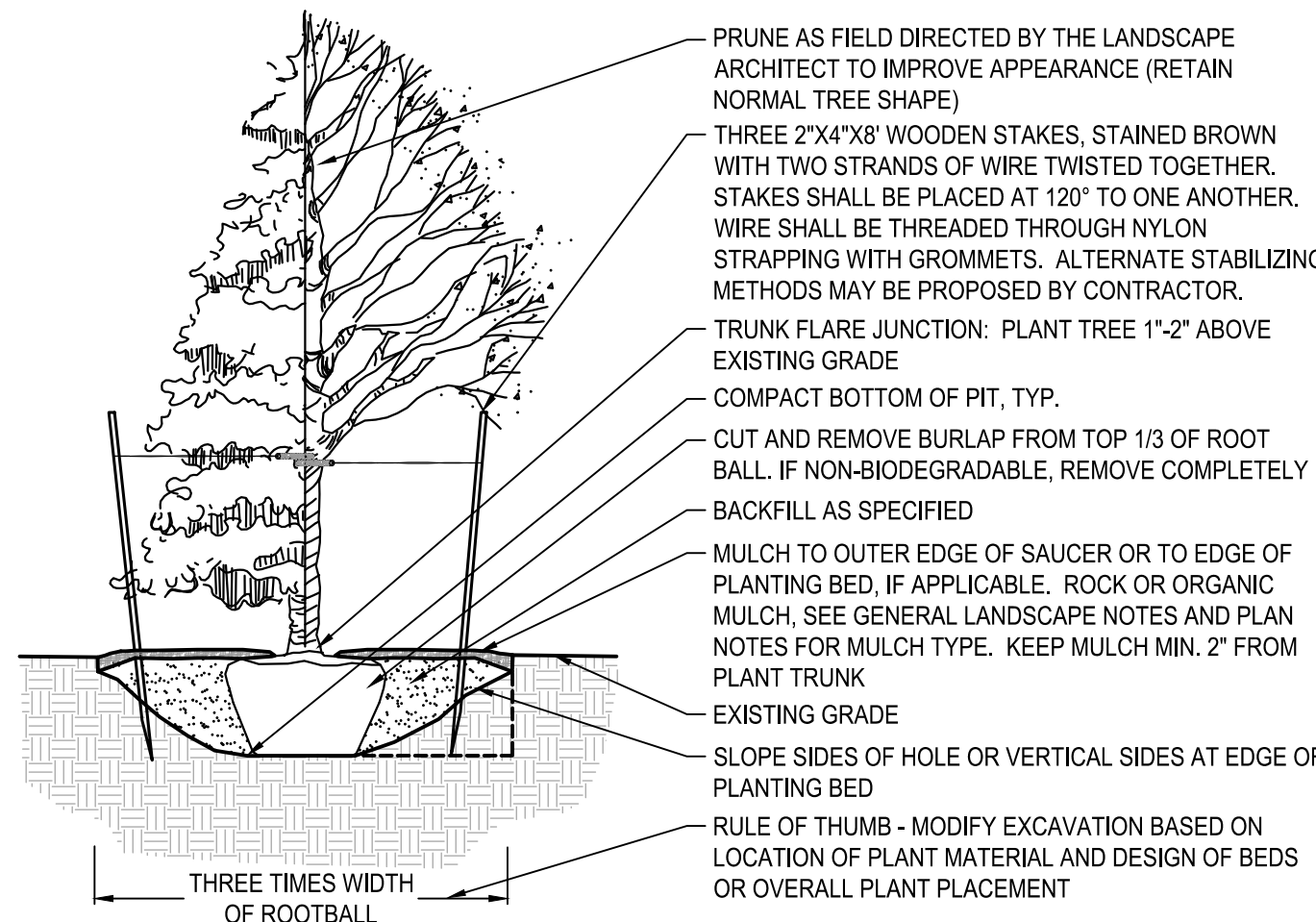


1" = 40'-0"  
20'-0" 0 40'-0"

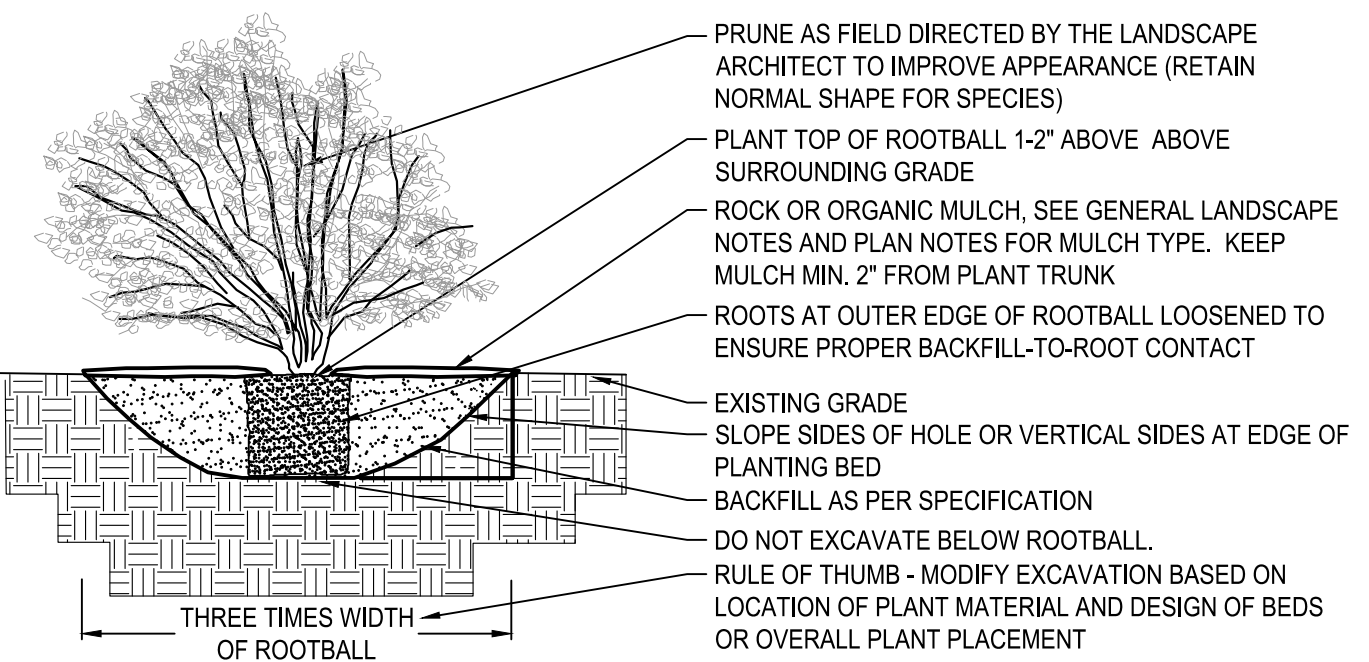
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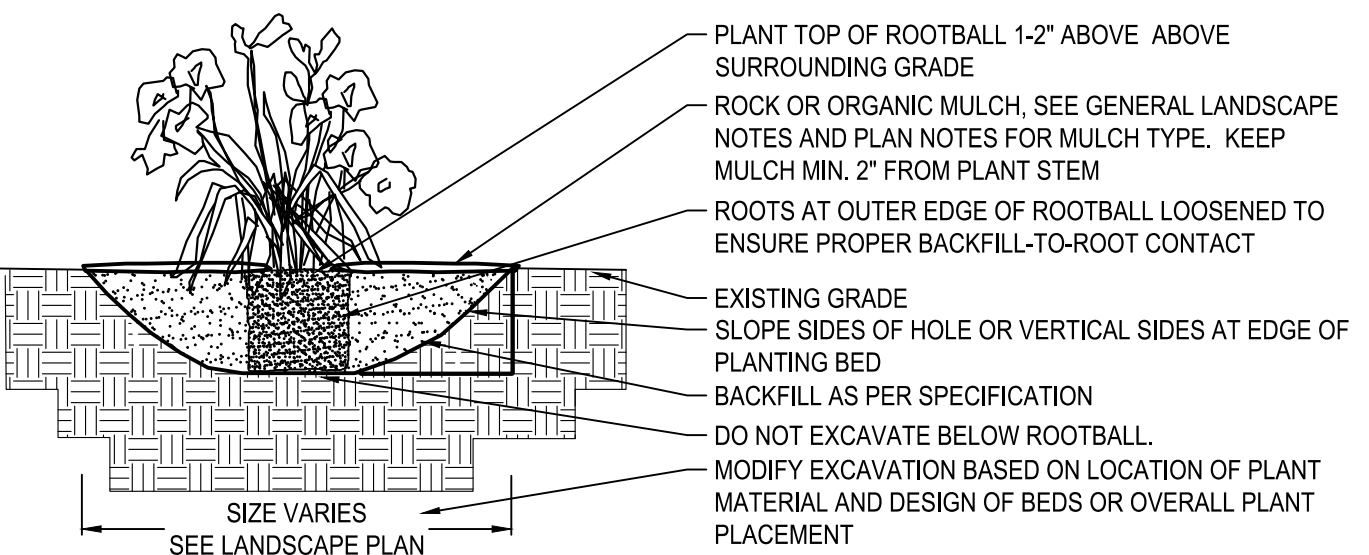
**1 AGGREGATE MAINTANENCE STRIP**  
NTS



**2 DECIDUOUS & CONIFEROUS TREE PLANTING**  
NTS



**3 DECIDUOUS & CONIFEROUS SHRUB PLANTING**  
NTS



**4 PERENNIAL BED PLANTING**  
NTS

**IRRIGATION NOTES:**

- ENTIRE SITE SHALL BE FULLY IRRIGATED. THE CONTRACTOR SHALL SUBMIT IRRIGATION SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- SEE MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS FOR IRRIGATION WATER, METER, AND POWER CONNECTIONS.
- CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND/ABOVE GROUND FACILITIES PRIOR TO ANY EXCAVATION/INSTALLATION. ANY DAMAGE TO UNDERGROUND/ABOVE GROUND FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND COSTS ASSOCIATED WITH CORRECTING DAMAGES SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
- SERVICE EQUIPMENT AND INSTALLATION SHALL BE PER LOCAL UTILITY COMPANY STANDARDS AND SHALL BE PER NATIONAL AND LOCAL CODES. EXACT LOCATION OF SERVICE EQUIPMENT SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT OR EQUIVALENT AT THE JOB SITE.
- CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR THE PROPOSED ELECTRICAL SERVICE AND METERING FACILITIES.
- IRRIGATION WATER LINE CONNECTION SIZE IS 1-1/2" AT BUILDING. VERIFY WITH MECHANICAL PLANS. COVERAGE.
- ALL MAIN LINES SHALL BE 18" BELOW FINISHED GRADE.
- ALL LATERAL LINES SHALL BE 12" BELOW FINISHED GRADE.
- ALL EXPOSED PVC RISERS, IF ANY, SHALL BE GRAY IN COLOR.
- CONTRACTOR SHALL LAY ALL SLEEVES AND CONDUIT AT 2'-0" BELOW THE FINISHED GRADE OF THE TOP OF PAVEMENT. EXTEND SLEEVES TO 2'-0" BEYOND PAVEMENT.
- CONTRACTOR SHALL MARK THE LOCATION OF ALL SLEEVES AND CONDUIT WITH THE SLEEVING MATERIAL "ELLED" TO 2'-0" ABOVE FINISHED GRADE AND CAPPED.
- FABRICATE ALL PIPE TO MANUFACTURE'S SPECIFICATIONS WITH CLEAN AND SQUARE CUT JOINTS. USE QUALITY GRADE PRIMER AND SOLVENT CEMENT FORMULATED FOR INTENDED TYPE OF CONNECTION.
- BACKFILL ALL TRENCHES WITH SOIL FREE OF SHARP OBJECTS AND DEBRIS.
- ALL VALVE BOXES AND COVERS SHALL BE BLACK IN COLOR.
- GROUP VALVE BOXES TOGETHER FOR EASE WHEN SERVICE IS REQUIRED. LOCATE IN PLANT BED AREAS WHENEVER POSSIBLE.
- IRRIGATION CONTROLLER LOCATION SHALL BE VERIFIED ON-SITE WITH OWNER'S REPRESENTATIVE.
- CONTROL WIRES: 14 GAUGE DIRECT BURIAL, SOLID COPPER IRRIGATION WIRE. RUN UNDER MAIN LINE. USE MOISTURE-PROOF SPLICES AND SPLICE ONLY AT VALVES OR PULL BOXES. RUN SEPARATE HOT AND COMMON WIRE TO EACH VALVE AND ONE (1) SPARE WIRE AND GROUND TO FURTHEST VALVE FROM CONTROLLER. LABEL OR COLOR CODE ALL WIRES.
- AVOID OVER SPRAY ON BUILDINGS, PAVEMENT, WALLS AND ROADWAYS BY INDIVIDUALLY ADJUSTING RADIUS OR ARC ON SPRINKLER HEADS AND FLOW CONTROL ON AUTOMATIC VALVE.
- ADJUST PRESSURE REGULATING VALVES FOR OPTIMUM PRESSURE ON SITE.
- USE SCREENS ON ALL HEADS.
- A SET OF AS-BUILT DRAWINGS SHALL BE MAINTAINED ON-SITE AT ALL TIMES IN AN UPDATED CONDITION.
- ALL PIPE 3" AND OVER SHALL HAVE THRUST BLOCKING AT EACH TURN.
- ALL AUTOMATIC REMOTE CONTROL VALVES WILL HAVE 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL UNDERNEATH VALVE AND VALVE BOX. GRAVEL SHALL EXTEND 3' BEYOND PERIMETER OF VALVE BOX.
- THERE SHALL BE 3" MINIMUM SPACE BETWEEN BOTTOM OF VALVE BOX COVER AND TOP OF VALVE STRUCTURE.



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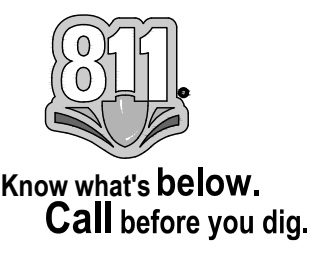
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2/5/21	CITY SUBMITTAL
3/15/21	CITY SUBMITTAL
6/7/21	CITY SUBMITTAL
11/29/2021	CITY SUBMITTAL

DRAWN BY: KIT, DK REVIEWED BY: DK, MP  
PROJECT NUMBER: 20011

REVISION SUMMARY	
DATE	DESCRIPTION

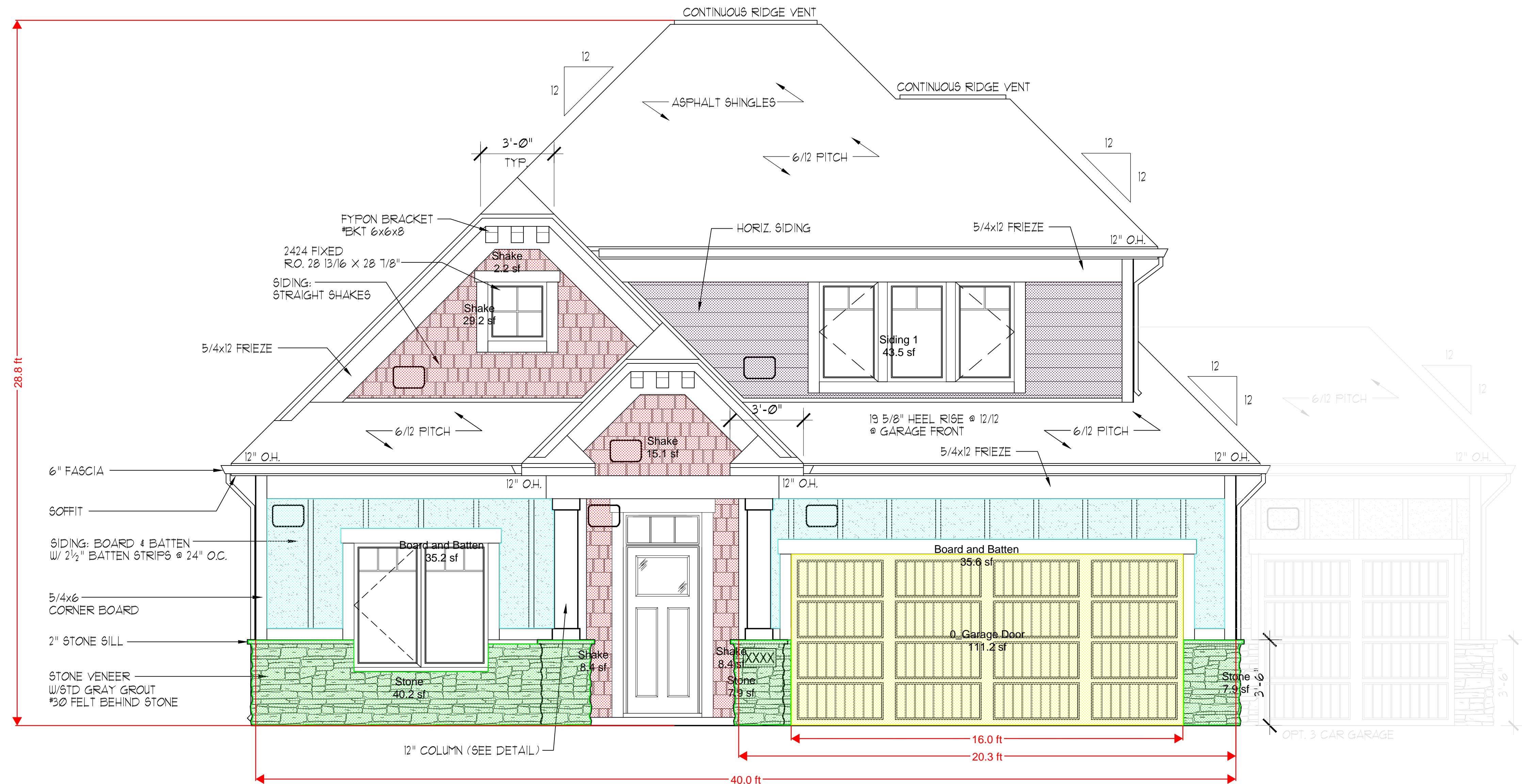
LANDSCAPE PLAN  
NOTES & DETAILS

**L1.5**



ENERGY CODE NOTES	GENERAL NOTES	SAFETY GLAZING NOTES	STAIR REQUIREMENTS	NOTE TO HOMEOWNER & LANDSCAPER
<p>A BUILDING CERTIFICATE SHALL BE POSTED ON THE ELECTRICAL PANEL WITH THE FOLLOWING INFO: DATE CERTIFICATE IS INSTALLED ADDRESS OF HOUSE CONTRACTORS NAME AND LICENSE NO. TYPES OF INSULATION USED AND THEIR R VALUES WINDOW U VALUES AND SOLAR HEAT GAIN COEFFICIENT RESULTS OF BLOWER DOOR TEST.</p> <p>BUILDING SHALL PASS A BLOWER DOOR TEST PERFORMED BY A THIRD PARTY AND MEET OR EXCEED R402.4) REQUIREMENTS (MRC).</p> <p>MECHANICAL DUCTS WILL NOT BE LOCATED IN AN EXTERIOR WALL OR OUTSIDE THE BUILDING ENVELOPE</p>	<p>THESE DRAWINGS ARE THE PROPERTY OF M/I HOMES AND MAY BE REPRODUCED ONLY WITH THE WRITTEN PERMISSION OF M/I HOMES. THESE DRAWINGS ARE FULLY PROTECTED BY FEDERAL AND STATE COPYRIGHT LAWS.</p> <p>ALL CONSTRUCTION SHALL CONFORM TO THE 2015 MINNESOTA RESIDENTIAL CODE AND IN ACCORDANCE WITH ALL APPLICABLE CODES, LAWS AND COVENANTS.</p> <p>DRAWING NOTES: DO NOT SCALE DRAWINGS, USE NOTED DIMENSIONS. DIMENSIONS ON DRAWINGS ARE TO CENTER OR FACE OF FRAMING.</p>	<p>SAFETY GLAZING REQUIRED:</p> <ol style="list-style-type: none"> <li>ALL GLAZING IN DOORS OR ENCLOSURES IN BATHROOMS.</li> <li>WINDOW GLAZING WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" ABOVE THE FINISHED SHOWER OR TUB FLOOR.</li> <li>WINDOWS LESS THAN 60" MEASURED HORIZONTALLY FROM WATER'S EDGE OF TUB OR SHOWER.</li> <li>GLAZING THAT IS LESS THAN 36" ABOVE STAIR LANDINGS.</li> <li>WINDOWS LESS THAN 18" ABOVE THE FLOOR.</li> </ol>	<p>MAX. RISE: 1 3/4" MIN. RUN: 10" MIN. TREAD: 11" MAX. NOSING: 1" MIN. HEADROOM: 6'-8" RAIL @ LANDING: 36" AFF. RAIL @ STAIR: 36" AFF.</p>	<p>TO PREVENT MOISTURE PROBLEMS, FINAL GRADE SHOULD BE HELD 6" BELOW TOP OF FOUNDATION. FINAL GRADE SHOULD NOT BE HIGHER THAN 2" ABOVE BOTTOM OF BRICK.</p> <p>M/I HOMES REQUIRES A TAPERED DRIVEWAY AT 3RD CAR STALL. DRIVE SHOULD BE 20' WIDE AT CURB.</p> <p>SEE SELECTION SHEETS FOR EXTERIOR FINISHES &amp; COLORS <b>A</b></p>

Quantities		
Label	Quantity	Unit
0_Garage Door	111.2	sf
Board and Batten	70.8	sf
Shake	63.4	sf
Siding 1	43.5	sf
Stone	56.0	sf



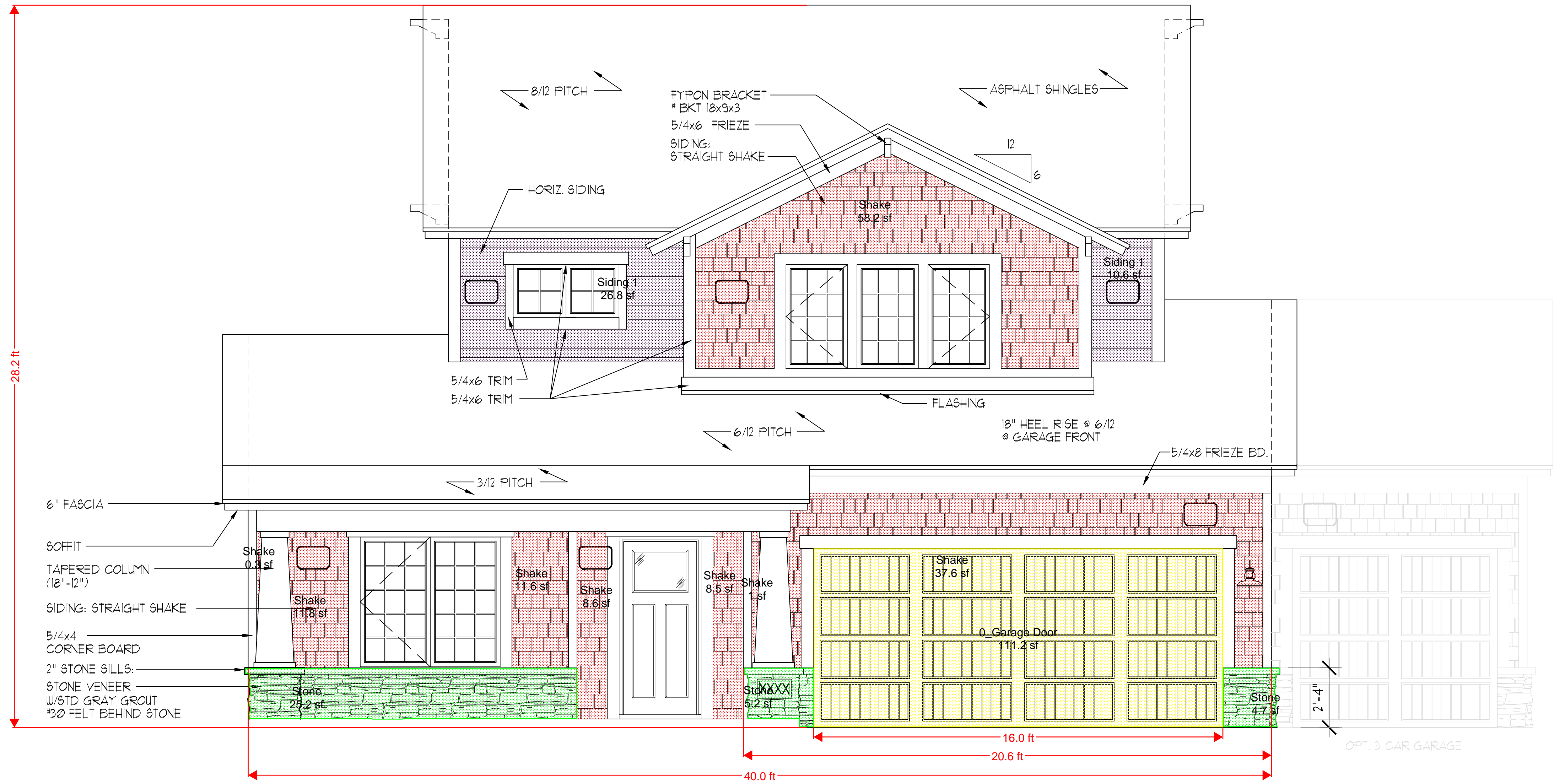
**1 FRONT ELEVATION A - STONE**  
3/8"=1'-0"

By	Date	No.	Revision	Final Approval	Date
				<p>5354 Parkdale Dr. #100 St. Louis Park, MN 55416 786.586.7200 minneapolispermits@M/IHOMES.com</p>	
Community:	STREET ADDRESS:	Block:	Lot:	Client:	
AS	CITY, MN			CUSTOMER	
<p><b>FRONT ELEVATION</b></p>				<p>Model: <b>ASPEN</b></p>	
<p>Drawn By: BP</p>				<p>Date: 02/08/2018</p>	
<p>Job #</p>				<p>Drawing No. <b>AS1</b></p>	



ENERGY CODE NOTES	GENERAL NOTES	SAFETY GLAZING NOTES	STAIR REQUIREMENTS	NOTE TO HOMEOWNER & LANDSCAPER
<p>A BUILDING CERTIFICATE SHALL BE POSTED ON THE ELECTRICAL PANEL WITH THE FOLLOWING INFO: DATE CERTIFICATE IS INSTALLED ADDRESS OF HOUSE CONTRACTORS NAME AND LICENSE NO. TYPES OF INSULATION USED AND THEIR R VALUES WINDOW U VALUES AND SOLAR HEAT GAIN COEFFICIENT RESULTS OF BLOWER DOOR TEST.</p> <p>BUILDING SHALL PASS A BLOWER DOOR TEST PERFORMED BY A THIRD PARTY AND MEET OR EXCEED R402.4) REQUIREMENTS (MRC).</p> <p>MECHANICAL DUCTS WILL NOT BE LOCATED IN AN EXTERIOR WALL OR OUTSIDE THE BUILDING ENVELOPE</p>	<p>THESE DRAWINGS ARE THE PROPERTY OF M/I HOMES AND MAY BE REPRODUCED ONLY WITH THE WRITTEN PERMISSION OF M/I HOMES. THESE DRAWINGS ARE FULLY PROTECTED BY FEDERAL AND STATE COPYRIGHT LAWS.</p> <p>ALL CONSTRUCTION SHALL CONFORM TO THE 2015 MINNESOTA RESIDENTIAL CODE AND IN ACCORDANCE WITH ALL APPLICABLE CODES, LAWS AND COVENANTS.</p> <p>DRAWING NOTES: DO NOT SCALE DRAWINGS, USE NOTED DIMENSIONS. DIMENSIONS ON DRAWINGS ARE TO CENTER OR FACE OF FRAMING.</p>	<p>SAFETY GLAZING REQUIRED:</p> <ol style="list-style-type: none"> <li>ALL GLAZING IN DOORS OR ENCLOSURES IN BATHROOMS.</li> <li>WINDOW GLAZING WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" ABOVE THE FINISHED SHOWER OR TUB FLOOR.</li> <li>WINDOWS LESS THAN 60" MEASURED HORIZONTALLY FROM WATER'S EDGE OF TUB OR SHOWER.</li> <li>GLAZING THAT IS LESS THAN 36" ABOVE STAIR LANDINGS.</li> <li>WINDOWS LESS THAN 18" ABOVE THE FLOOR.</li> </ol>	<p>MAX. RISE: 1 3/4"</p> <p>MIN. RUN: 10"</p> <p>MIN. TREAD: 11"</p> <p>MAX. NOSING: 1"</p> <p>MIN. HEADROOM: 6'-8"</p> <p>RAIL @ LANDING: 36" AFF.</p> <p>RAIL @ STAIR: 36" AFF.</p>	<p>TO PREVENT MOISTURE PROBLEMS, FINAL GRADE SHOULD BE HELD 6" BELOW TOP OF FOUNDATION. FINAL GRADE SHOULD NOT BE HIGHER THAN 2" ABOVE BOTTOM OF BRICK.</p> <p>M/I HOMES REQUIRES A TAPERED DRIVEWAY AT 3RD CAR STALL. DRIVE SHOULD BE 20' WIDE AT CURB.</p> <p>SEE SELECTION SHEETS FOR EXTERIOR FINISHES &amp; COLORS <b>A</b></p>

Quantities		
Label	Quantity	Unit
0_Garage Door	111.2	sf
Shake	137.7	sf
Siding 1	37.4	sf
Stone	35.1	sf

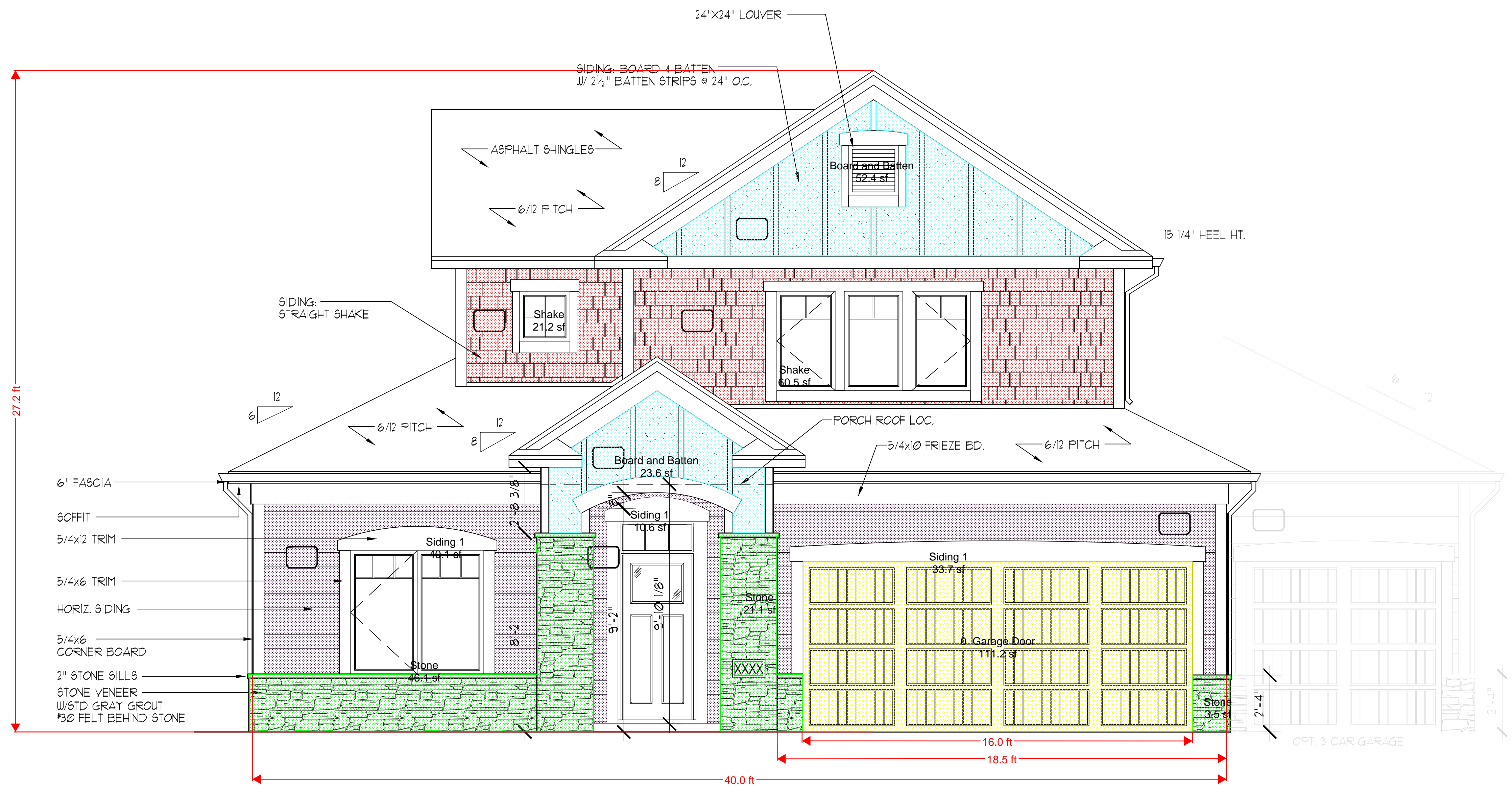


**1 FRONT ELEVATION B - STONE**  
3/8"=1'-0"

By	Date	No.	Revision	Date	Final Approval	X	X
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		<p>5354 Parkdale Dr. #100 St. Louis Park, MN 55416 786.586.7200 minneapolispermits@M/IHOMES.com</p>					
Community:	COMMUNITY	Address:	STREET ADDRESS	City:	CITY, MN	Elevation:	BS
Client:	CUSTOMER	Block:		Lot:			
Model:	ASPEN	Drawn By:	BP	Date:	02/08/2018	Job #	
Sheet Title:	FRONT ELEVATION	Drawing No.	BS1				

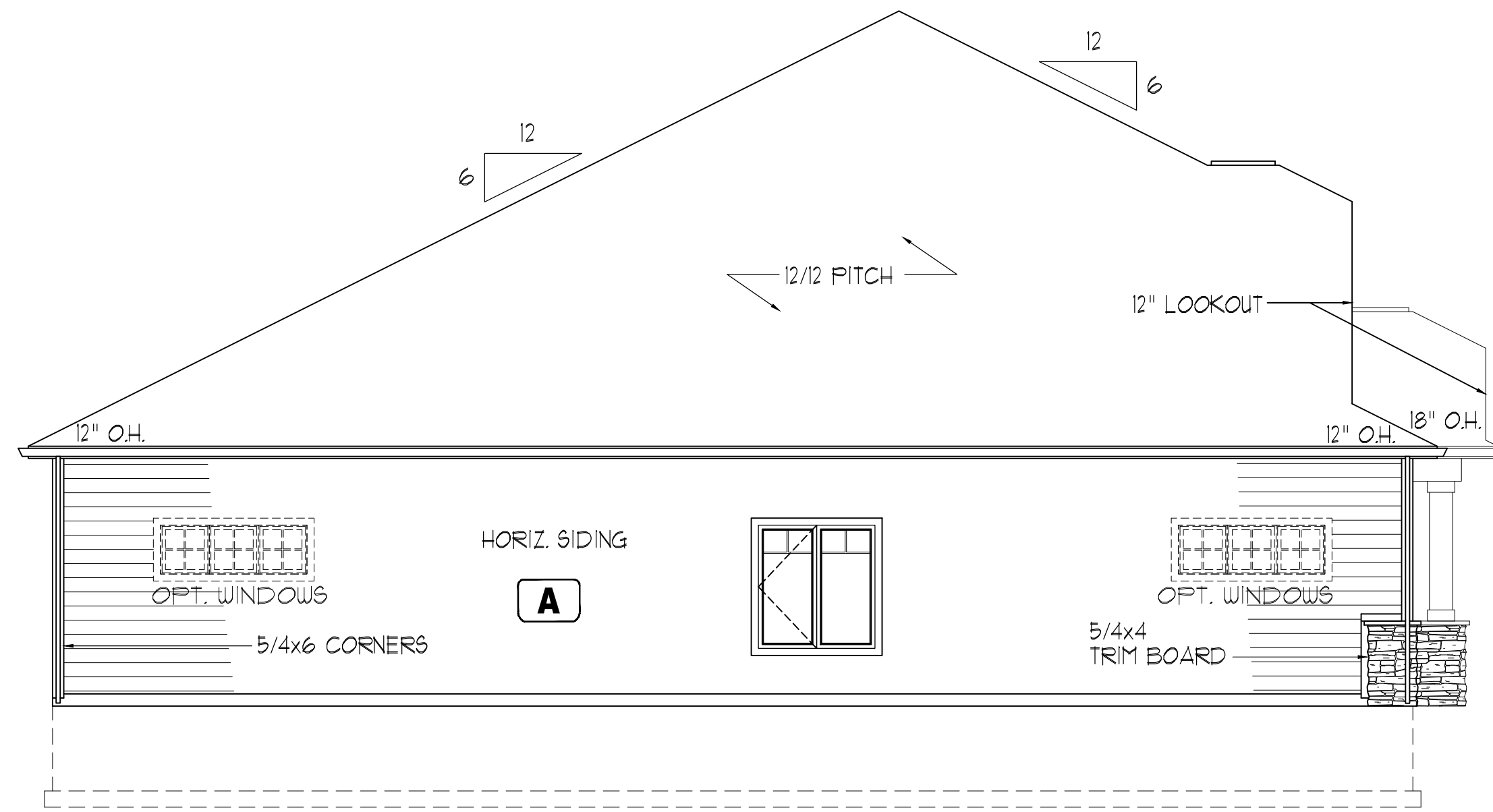
ENERGY CODE NOTES	GENERAL NOTES	SAFETY GLAZING NOTES	STAIR REQUIREMENTS	NOTE TO HOMEOWNER & LANDSCAPER
<p>A BUILDING CERTIFICATE SHALL BE POSTED ON THE ELECTRICAL PANEL WITH THE FOLLOWING INFO: DATE CERTIFICATE IS INSTALLED ADDRESS OF HOUSE CONTRACTORS NAME AND LICENSE NO. TYPES OF INSULATION USED AND THEIR R VALUES WINDOW U VALUES AND SOLAR HEAT GAIN COEFFICIENT RESULTS OF BLOWER DOOR TEST.</p> <p>BUILDING SHALL PASS A BLOWER DOOR TEST PERFORMED BY A THIRD PARTY AND MEET OR EXCEED R402.4J REQUIREMENTS (MRC).</p> <p>MECHANICAL DUCTS WILL NOT BE LOCATED IN AN EXTERIOR WALL OR OUTSIDE THE BUILDING ENVELOPE</p>	<p>THESE DRAWINGS ARE THE PROPERTY OF M/I HOMES AND MAY BE REPRODUCED ONLY WITH THE WRITTEN PERMISSION OF M/I HOMES. THESE DRAWINGS ARE FULLY PROTECTED BY FEDERAL AND STATE COPYRIGHT LAWS.</p> <p>ALL CONSTRUCTION SHALL CONFORM TO THE 2015 MINNESOTA RESIDENTIAL CODE AND IN ACCORDANCE WITH ALL APPLICABLE CODES, LAWS AND COVENANTS.</p> <p>DRAWING NOTES: DO NOT SCALE DRAWINGS, USE NOTED DIMENSIONS. DIMENSIONS ON DRAWINGS ARE TO CENTER OR FACE OF FRAMING.</p>	<p>SAFETY GLAZING REQUIRED:</p> <ol style="list-style-type: none"> <li>ALL GLAZING IN DOORS OR ENCLOSURES IN BATHROOMS.</li> <li>WINDOW GLAZING WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" ABOVE THE FINISHED SHOWER OR TUB FLOOR.</li> <li>WINDOWS LESS THAN 60" MEASURED HORIZONTALLY FROM WATER'S EDGE OF TUB OR SHOWER.</li> <li>GLAZING THAT IS LESS THAN 36" ABOVE STAIR LANDINGS.</li> <li>WINDOWS LESS THAN 18" ABOVE THE FLOOR.</li> </ol>	<p>MAX. RISE: 1 3/4" MIN. RUN: 10" MIN. TREAD: 11" MAX. NOSING: 1" MIN. HEADROOM: 6'-8" RAIL @ LANDING: 36" AFF. RAIL @ STAIR: 36" AFF.</p>	<p>TO PREVENT MOISTURE PROBLEMS, FINAL GRADE SHOULD BE HELD 6" BELOW TOP OF FOUNDATION. FINAL GRADE SHOULD NOT BE HIGHER THAN 2" ABOVE BOTTOM OF BRICK.</p> <p>M/I HOMES REQUIRES A TAPERED DRIVEWAY AT 3RD CAR STALL. DRIVE SHOULD BE 20' WIDE AT CURB.</p>
		<p>WINDOW FALL PROTECTION</p> <p>WINDOW FALL PROTECTION SHALL MEET MINNESOTA RESIDENTIAL CODE REQUIREMENTS (R312.2)</p>		<p>SEE SELECTION SHEETS FOR EXTERIOR FINISHES &amp; COLORS <b>A</b></p>

Quantities		
Label	Quantity	Unit
0_Garage Door	111.2	sf
Board and Batten	76.0	sf
Shake	81.8	sf
Siding 1	84.4	sf
Stone	70.6	sf

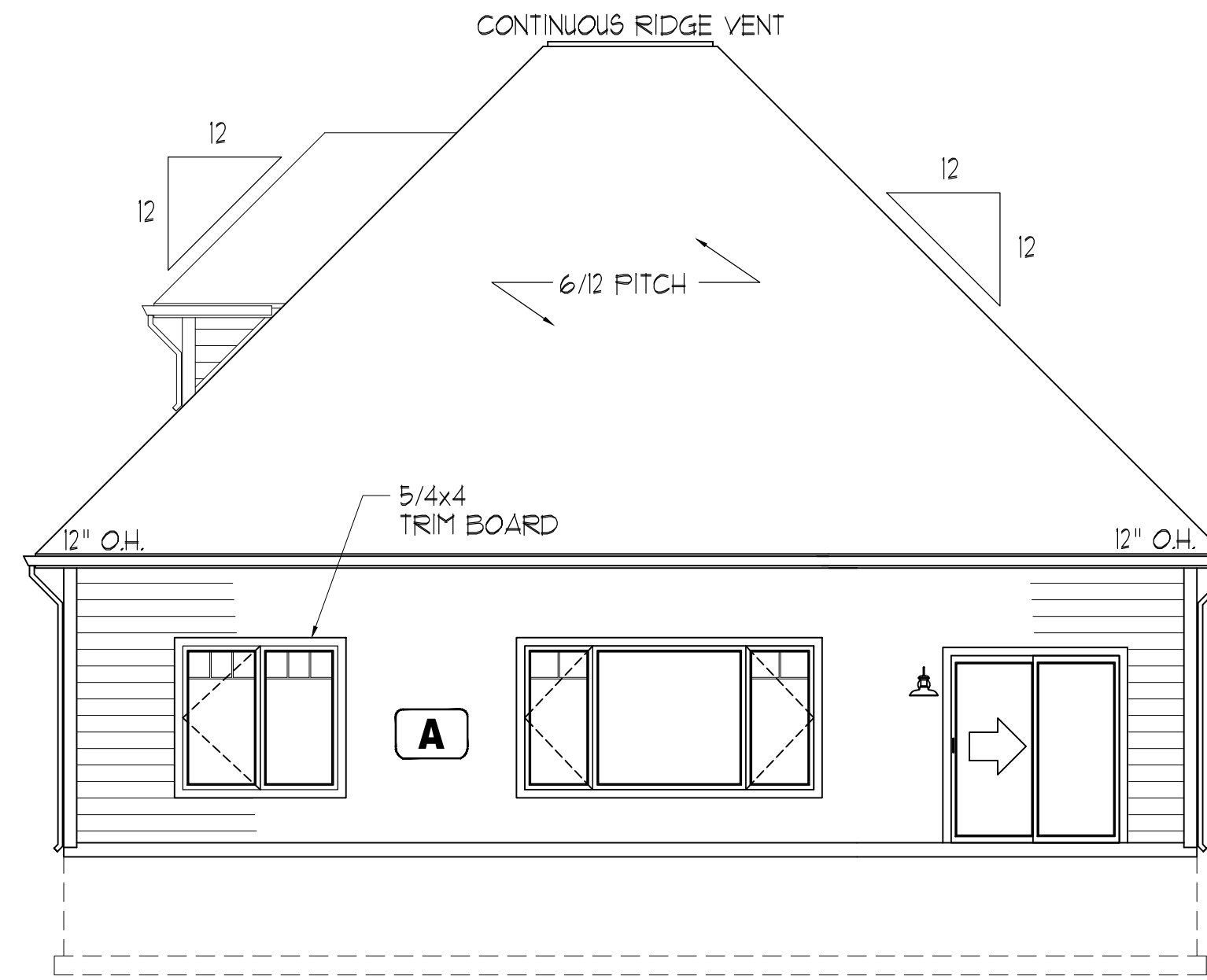


**1 FRONT ELEVATION C - STONE**  
3/8"=1'-0"

By	Date	No.	Revision	Date	Final Approval	X	X
				<p>5354 Parkdale Dr. #100 St. Louis Park, MN 55416 786.586.7200 minneapolispermits@MIHOMES.com</p>			
Community:	COMMUNITY	Address:	STREET ADDRESS	City:	CITY, MN	Block:	"
Elevation:	CS	Client:	CUSTOMER				
Model:	ASPEN	Drawn By:	BP	Date:	02/08/2018	Job #	
Sheet Title:	FRONT ELEVATION	Drawing No.	CS1				



**1** SIDE ELEVATION  
3/16"=1'-0"

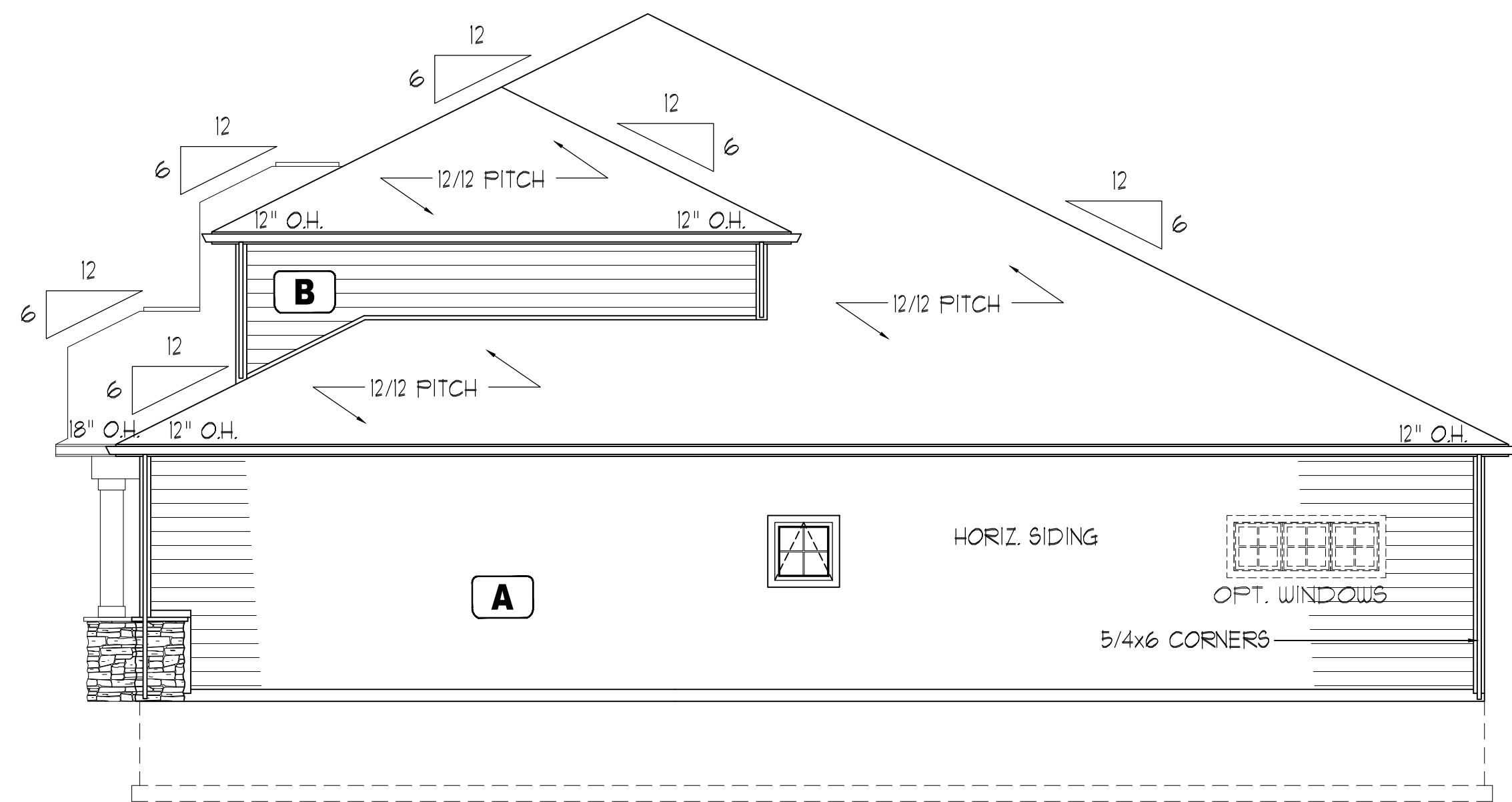


**2** REAR ELEVATION  
3/16"=1'-0"

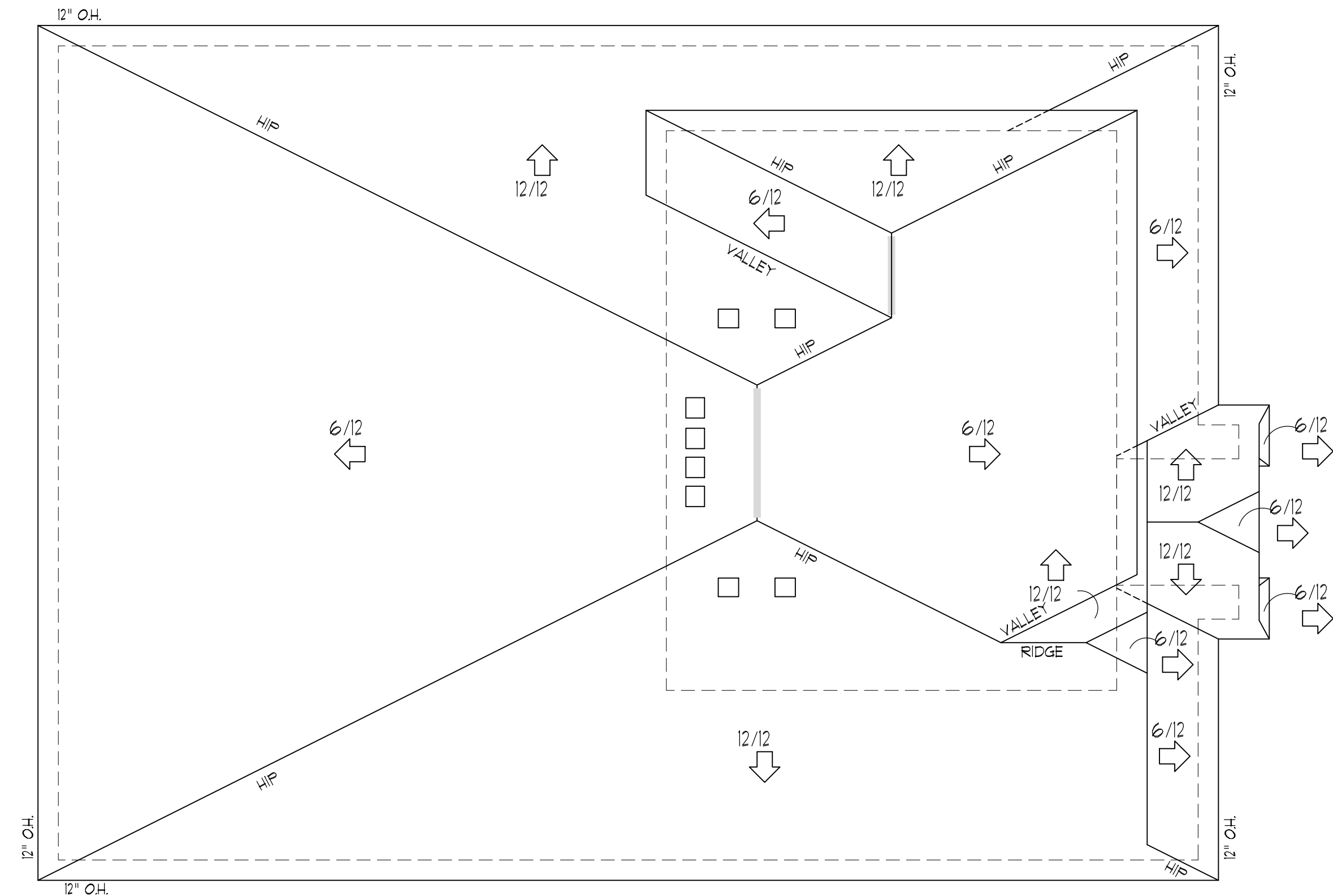
**ROOF PLAN NOTES**

ROOF CONSTRUCTION  
ASPHALT SHINGLES, 15/32" OSB SHEATHING WITH  
"H" CLIPS, ICE & WATER SHIELD, APPROVED  
WOOD TRUSSES (24" O.C. MAX. (2"x6") FASCIA,  
VENTED SOFFIT, ATTIC VENTILATION (R-49).

□ DENOTES ROOF VENT. PROVIDE 1 SF.  
VENTILATION AREA PER 150 SF. OF ATTIC SPACE.



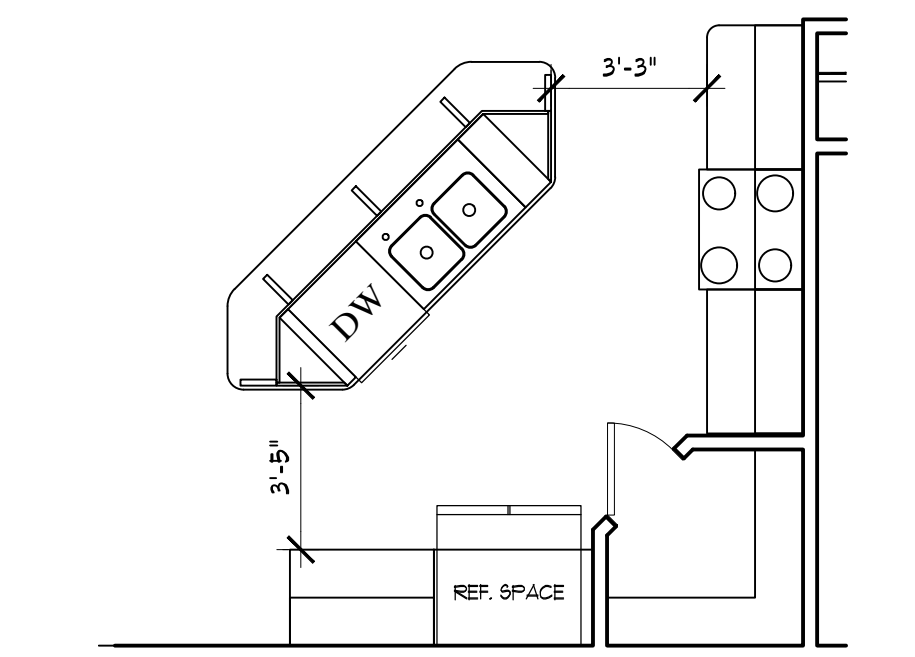
**3** SIDE ELEVATION  
3/16"=1'-0"



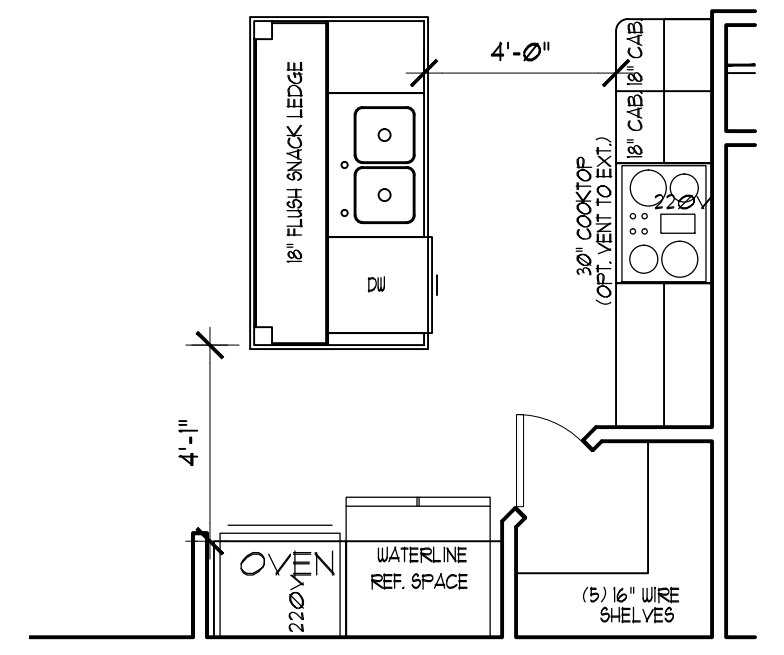
**4** ROOF PLAN  
3/16"=1'-0"

		5354 Parkdale Dr. #100 St. Louis Park, MN 55416 786.586.7200 minneapolispermits@M/IHOMES.com	
<b>COMMUNITY</b> Address: _____ City: _____		<b>STREET ADDRESS</b> Lot: _____ Block: _____	
<b>AS</b>		<b>CUSTOMER</b>	
<b>EXTERIOR ELEVATIONS</b> <b>ROOF PLAN</b>		<b>ASPEN</b>	
Model: _____ Drawn By: BP Date: 02/08/2018 Job #: _____		Final Approval: _____ Date: _____	
Drawing No. <b>AS2</b>		No. 1 Revision: _____ Date: _____	

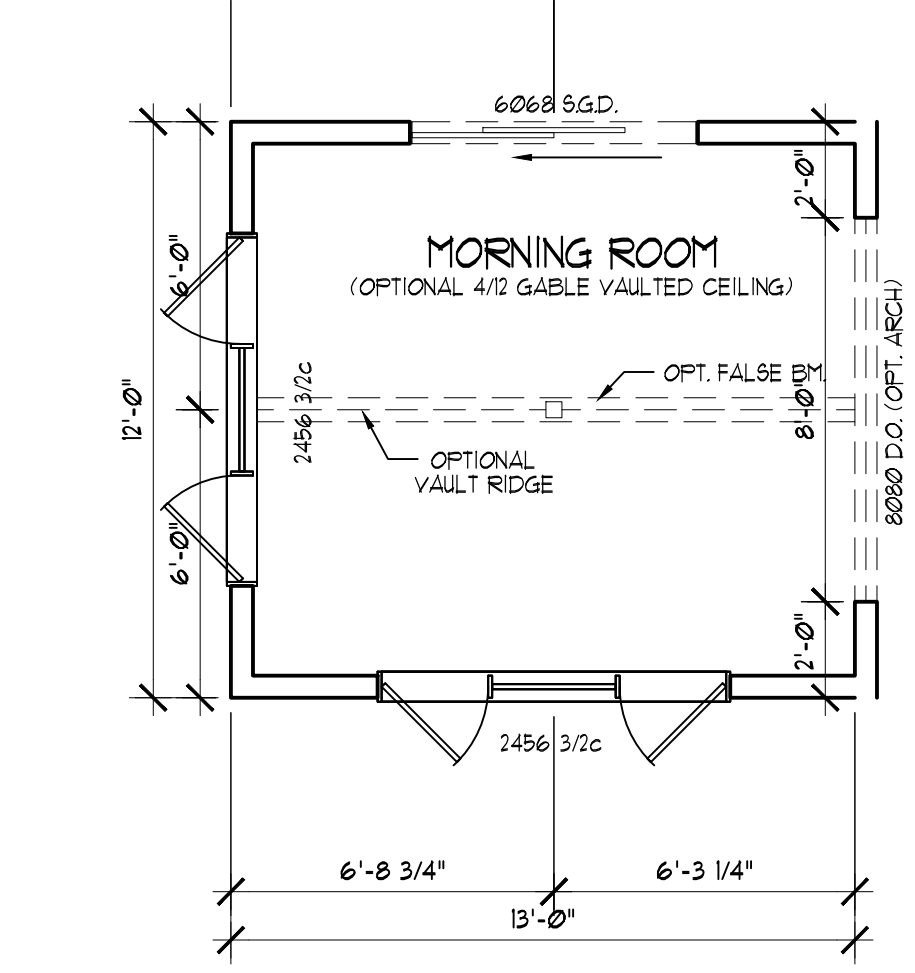
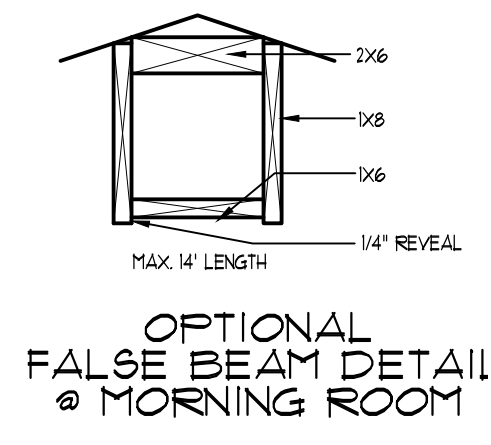
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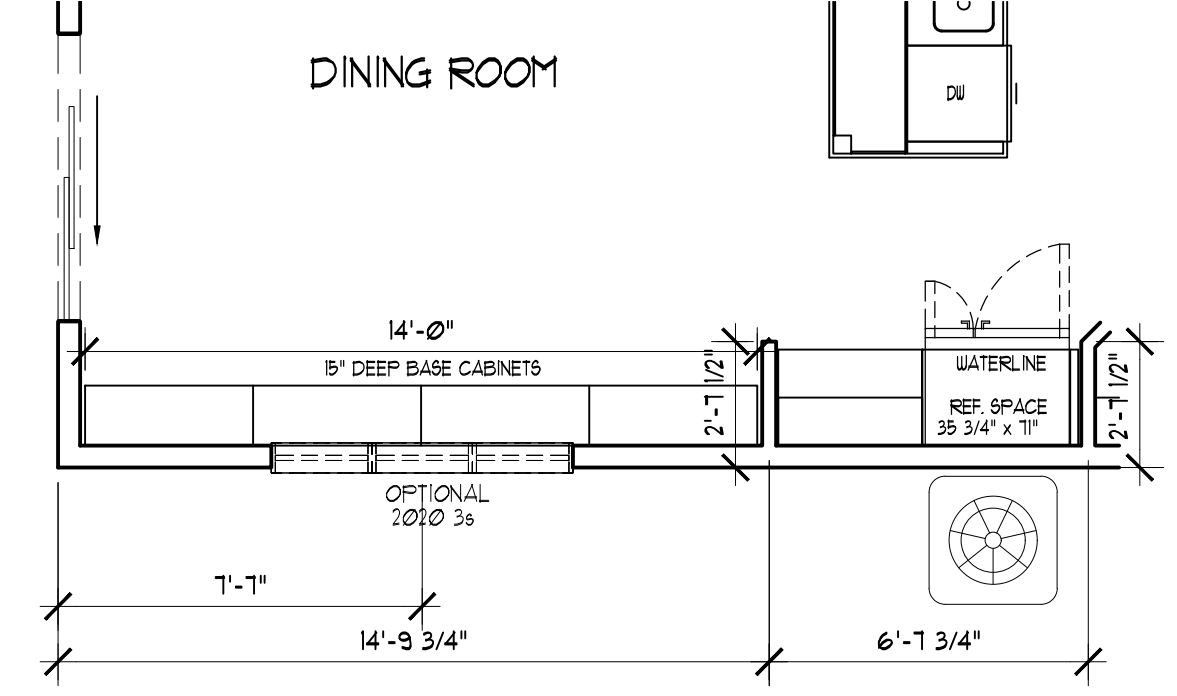
**2 OPT. ANGLED ISLAND**  
1/4"=1'-0"



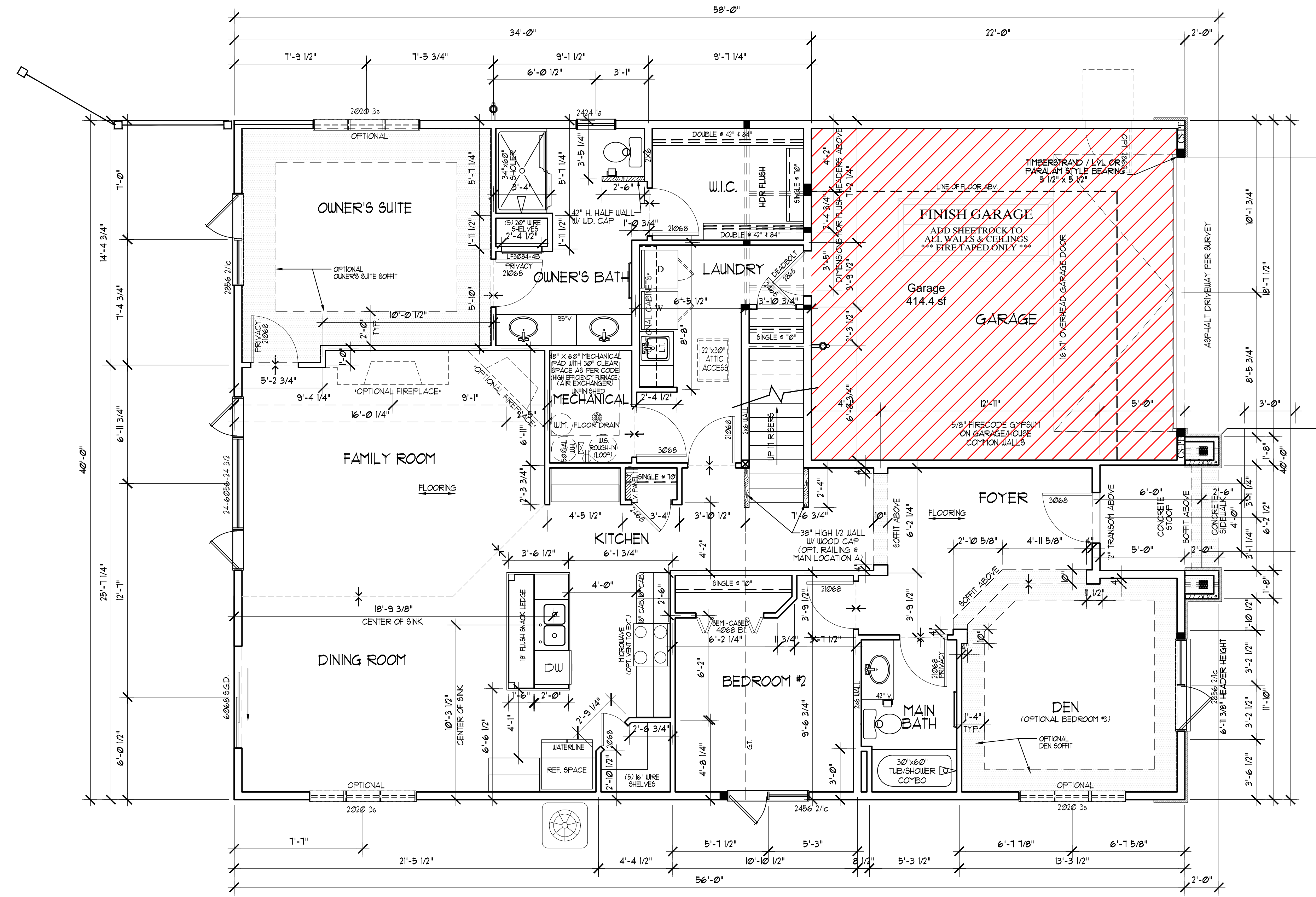
**3 OPT. LIFESTYLE KITCHEN**  
1/4"=1'-0"



**4 OPTIONAL MORNING ROOM**  
1/4"=1'-0"



**5 OPTIONAL DINING ROOM CABINETS**  
1/4"=1'-0"

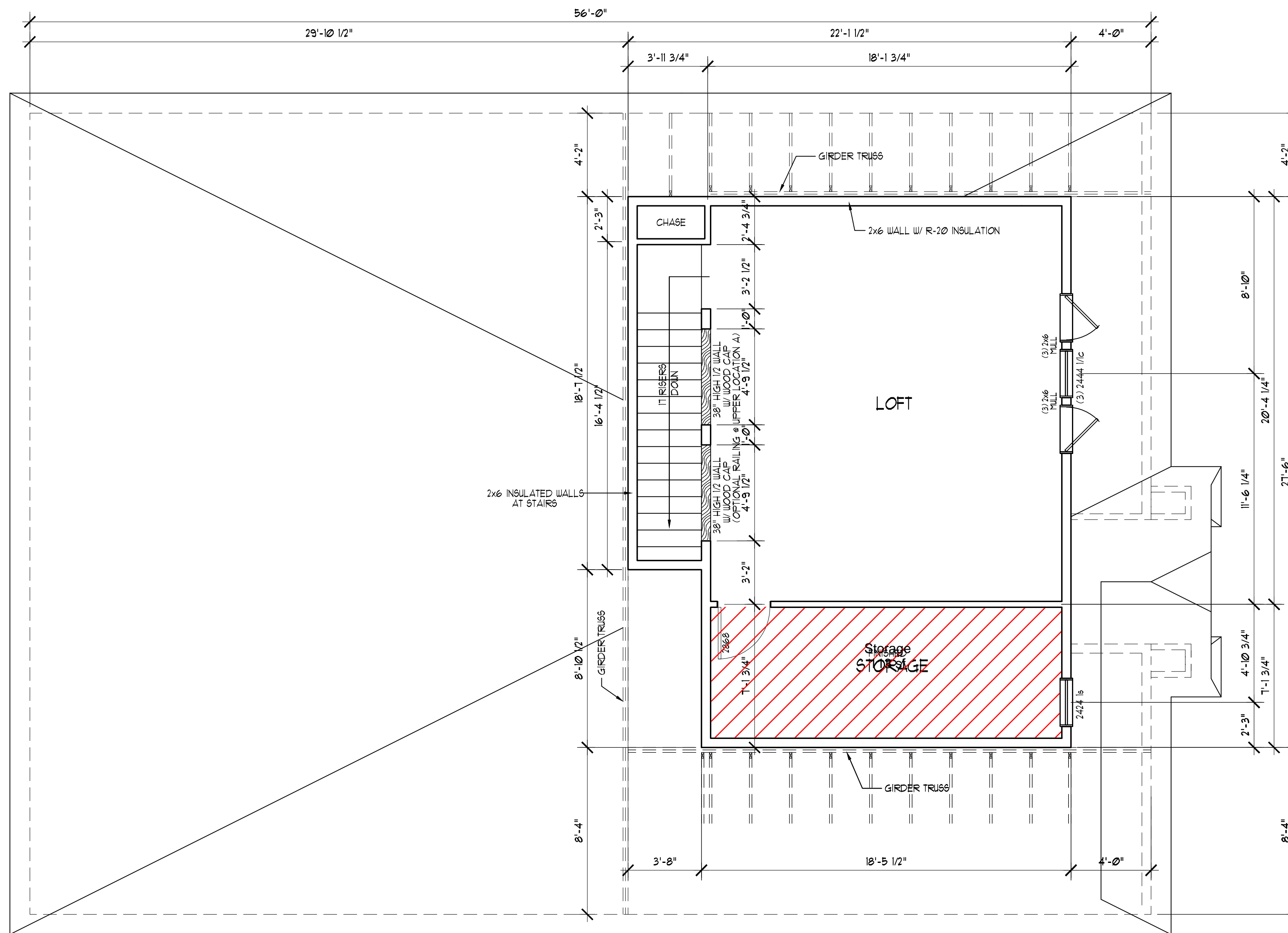


PANTRY SHELVING HEIGHTS  
(5) SHELVES @ 20" 30" 56" 10" 24"  
ABOVE FINISHED FLOOR

**1 MAIN LEVEL FLOOR PLAN**  
1/4"=1'-0"

FLOOR PLAN NOTES	LEGEND	FLOOR AREAS (S.F.)
SEE ENGINEERING DRAWINGS FOR HEADERS, FOOTINGS AND BRACE WALLS IF NOT SHOWN ON PLAN.	2x4 OR 2x6 STUD WALL	FOUNDATION: 1768
WINDOW HEADER HEIGHTS - UNO.	EXTERIOR WALL W/ BRICK OR STONE VENEER	FOUNDATION W/ MORNING ROOM: 1924
LOWER LEVEL: 6'-11 3/8"	NON STANDARD PLATE HEIGHT. SEE PLAN OR DETAIL FOR ACTUAL HEIGHT.	MAIN LEVEL: 1768
MAIN LEVEL: 7'-1 3/8"	2x4 OR 2x6 KNEE WALL - SEE PLAN FOR HEIGHT	MAIN LEVEL W/ MORNING ROOM: 1924
UPPER LEVEL: 6'-11 3/8"	DRYWALL FRAMED OPENING - SOFFIT @ 8'-0" UNO.	UPPER LEVEL: 576
VERIFY WINDOW ROUGH OPENINGS W/ WINDOW SUPPLIER.	FUTURE WALL	TOTAL: 2344
CEILING HEIGHTS	SEE SELECTION SHEET FOR FLOOR FINISHES & RAILING OPTIONS.	TOTAL W/ MORNING ROOM: 2500
LOWER LEVEL: SEE SECTION		
MAIN LEVEL: 9'-1 1/8"		
UPPER LEVEL: 8'-1 1/8"		

	5354 Parkdale Dr. #100 St. Louis Park, MN 55416 786.586.7200 minneapolispermits@M/IHOMES.com	Date: _____ Final Approval: _____
	Community: <b>COMMUNITY</b> Address: <b>STREET ADDRESS</b> City: <b>CITY, MN</b> Block: _____ Lot: _____	Client: <b>CUSTOMER</b> AS
No. 1 Revision: _____	Date: _____ Final Approval: _____	Date: _____ Final Approval: _____



**1** UPPER LEVEL FLOOR PLAN  
1/4"=1'-0"

FLOOR PLAN NOTES	LEGEND	FLOOR AREAS (S.F.)
SEE ENGINEERING DRAWINGS FOR HEADERS, FOOTINGS AND BRACE WALLS IF NOT SHOWN ON PLAN.	2X4 OR 2X6 STUD WALL EXTERIOR WALL W/ BRICK OR STONE VENEER NON STANDARD PLATE HEIGHT. SEE PLAN OR DETAIL FOR ACTUAL HEIGHT 2X4 OR 2X6 KNEE WALL - SEE PLAN FOR HEIGHT DRYWALL FRAMED OPENING - SOFFIT • 8'-0" UNO. FUTURE WALL	FOUNDATION: 1768 FOUNDATION W/ MORNING ROOM: 1924 MAIN LEVEL: 1768 MAIN LEVEL W/ MORNING ROOM: 1924 UPPER LEVEL: 576 TOTAL: 2344 TOTAL W/ MORNING ROOM: 2500
<b>WINDOW HEADER HEIGHTS - UNO.</b> LOWER LEVEL: 6'-11 3/8" MAIN LEVEL: 7'-1 3/8" UPPER LEVEL: 6'-11 3/8"  VERIFY WINDOW ROUGH OPENINGS W/ WINDOW SUPPLIER	SEE SELECTION SHEET FOR FLOOR FINISHES & RAILING OPTIONS.	
<b>CEILING HEIGHTS</b> LOWER LEVEL: SEE SECTION MAIN LEVEL: 9'-1 1/8" UPPER LEVEL: 8'-1 1/8"		

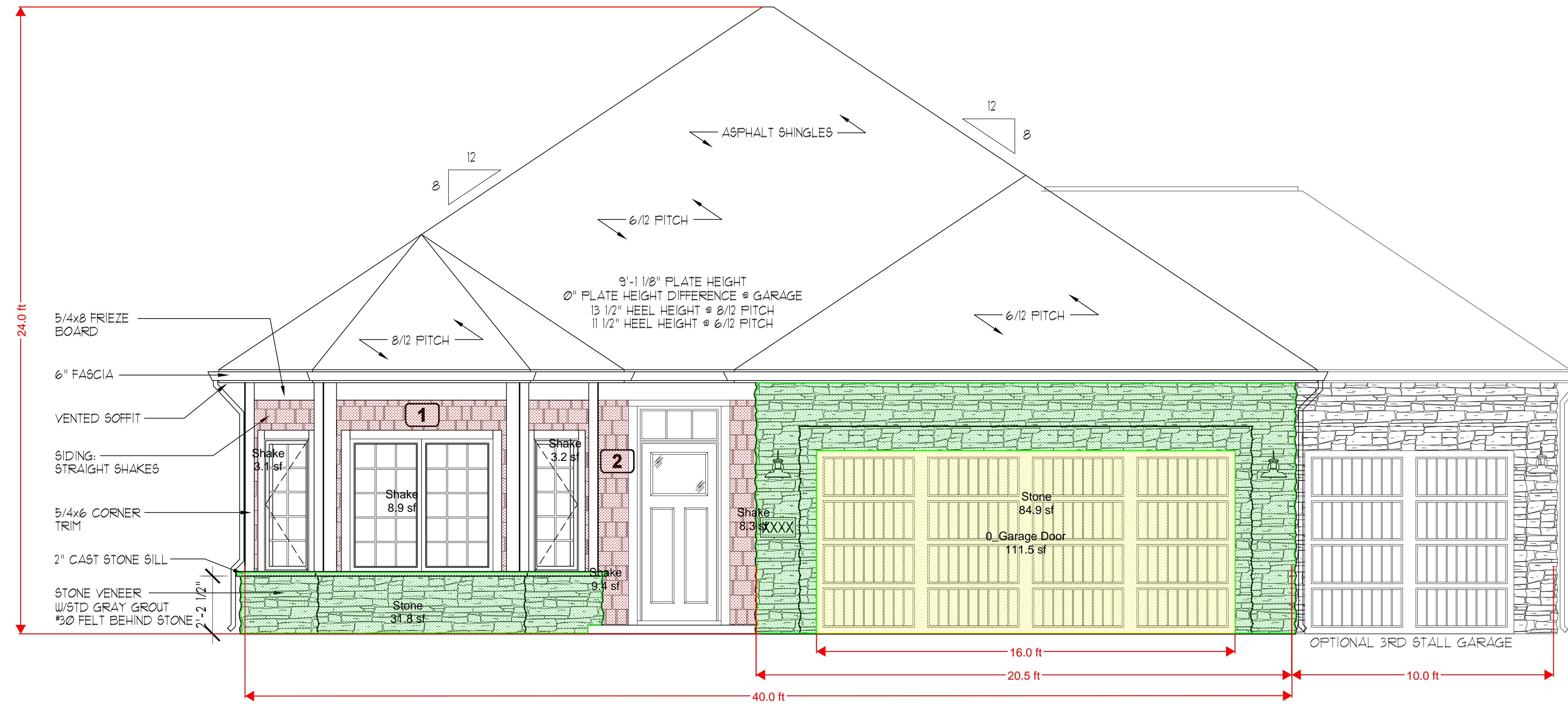
<b>UPPER LEVEL FLOOR PLAN</b> Model: <b>ASPEN</b> Drawn By: BP Date: 02/08/2018 Job # _____ Drawing No. <b>AS5</b>	Community: <b>COMMUNITY</b> Address: <b>STREET ADDRESS</b> City: <b>CITY, MN</b> Elevation: <b>AS</b>	Client: <b>CUSTOMER</b>	No. 1 Revision _____ Final Approval X Date _____	M/I HOMES 5354 Parkdale Dr. #100 St. Louis Park, MN 55416 786.586.7200 minneapolispermits@MIHOMES.com	These plans are exclusive property of M/I Homes. All drawings are prepared by M/I Homes, Inc. and must be returned upon request. These plans are for construction purposes only. These plans may vary from model homes and marketing materials. These plans are exclusive property of M/I Homes.
	Sheet Title: <b>UPPER LEVEL FLOOR PLAN</b>	Community: <b>COMMUNITY</b> Address: <b>STREET ADDRESS</b> City: <b>CITY, MN</b> Elevation: <b>AS</b>	Client: <b>CUSTOMER</b>	No. 1 Revision _____ Final Approval X Date _____	M/I HOMES 5354 Parkdale Dr. #100 St. Louis Park, MN 55416 786.586.7200 minneapolispermits@MIHOMES.com

ENERGY CODE NOTES	GENERAL NOTES	SAFETY GLAZING NOTES	STAIR REQUIREMENTS	NOTE TO HOMEOWNER & LANDSCAPER
<p>A BUILDING CERTIFICATE SHALL BE POSTED ON THE ELECTRICAL PANEL WITH THE FOLLOWING INFO: DATE CERTIFICATE IS INSTALLED ADDRESS OF HOUSE CONTRACTOR'S NAME AND LICENSE NO. TYPES OF INSULATION USED AND THEIR R VALUES WINDOW U VALUES AND SOLAR HEAT GAIN COEFFICIENT RESULTS OF BLOWER DOOR TEST.</p> <p>BUILDING SHALL PASS A BLOWER DOOR TEST PERFORMED BY A THIRD PARTY AND MEET OR EXCEED R402.41 REQUIREMENTS (MRC).</p> <p>MECHANICAL DUCTS WILL NOT BE LOCATED IN AN EXTERIOR WALL OR OUTSIDE THE BUILDING ENVELOPE</p>	<p>THESE DRAWINGS ARE THE PROPERTY OF M/I HOMES AND MAY BE REPRODUCED ONLY WITH THE WRITTEN PERMISSION OF M/I HOMES. THESE DRAWINGS ARE FULLY PROTECTED BY FEDERAL AND STATE COPYRIGHT LAWS.</p> <p>ALL CONSTRUCTION SHALL CONFORM TO THE 2015 MINNESOTA RESIDENTIAL CODE AND IN ACCORDANCE WITH ALL APPLICABLE CODES, LAWS AND COVENANTS.</p> <p>DRAWING NOTES: DO NOT SCALE DRAWINGS, USE NOTED DIMENSIONS. DIMENSIONS ON DRAWINGS ARE TO CENTER OR FACE OF FRAMING.</p>	<p>SAFETY GLAZING REQUIRED:</p> <ol style="list-style-type: none"> <li>ALL GLAZING IN DOORS OR ENCLOSURES IN BATHROOMS.</li> <li>WINDOW GLAZING WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" ABOVE THE FINISHED SHOWER OR TUB FLOOR.</li> <li>WINDOWS LESS THAN 60" MEASURED HORIZONTALLY FROM WATER'S EDGE OF TUB OR SHOWER.</li> <li>GLAZING THAT IS LESS THAN 36" ABOVE STAIR LANDINGS.</li> <li>WINDOWS LESS THAN 18" ABOVE THE FLOOR.</li> </ol>	<p>MAX. RISE: 1 3/4" MIN. RUN: 10" MIN. TREAD: 11" MAX. NOSING: 1" MIN. HEADROOM: 6'-8" RAIL @ LANDING: 36" AFF. RAIL @ STAIR: 36" AFF.</p>	<p>TO PREVENT MOISTURE PROBLEMS, FINAL GRADE SHOULD BE HELD 6" BELOW TOP OF FOUNDATION. FINAL GRADE SHOULD NOT BE HIGHER THAN 2" ABOVE BOTTOM OF BRICK.</p> <p>M/I HOMES REQUIRES A TAPERED DRIVEWAY AT 3RD CAR STALL. DRIVE SHOULD BE 20' WIDE AT CURB.</p>
		<p>WINDOW FALL PROTECTION</p> <p>WINDOW FALL PROTECTION SHALL MEET MINNESOTA RESIDENTIAL CODE REQUIREMENTS (R312.2)</p>		<p>SEE SELECTION SHEETS FOR EXTERIOR FINISHES &amp; COLORS <b>A</b></p>

Quantities		
Label	Quantity	Unit
0_Garage Door	111.5	sf
Shake	32.8	sf
Stone	116.7	sf

**2-Car Garage**  
Street-Facing Linear Building Frontage: 40'  
Garage Linear Building Frontage: 20.5'  
% Garage Frontage: 51.3%

**3-Car Garage**  
Street-Facing Linear Building Frontage: 50'  
Garage Linear Building Frontage: 30.5'  
% Garage Frontage: 61.0%



**1** FRONT ELEVATION B - STONE  
3/8"=1'-0"

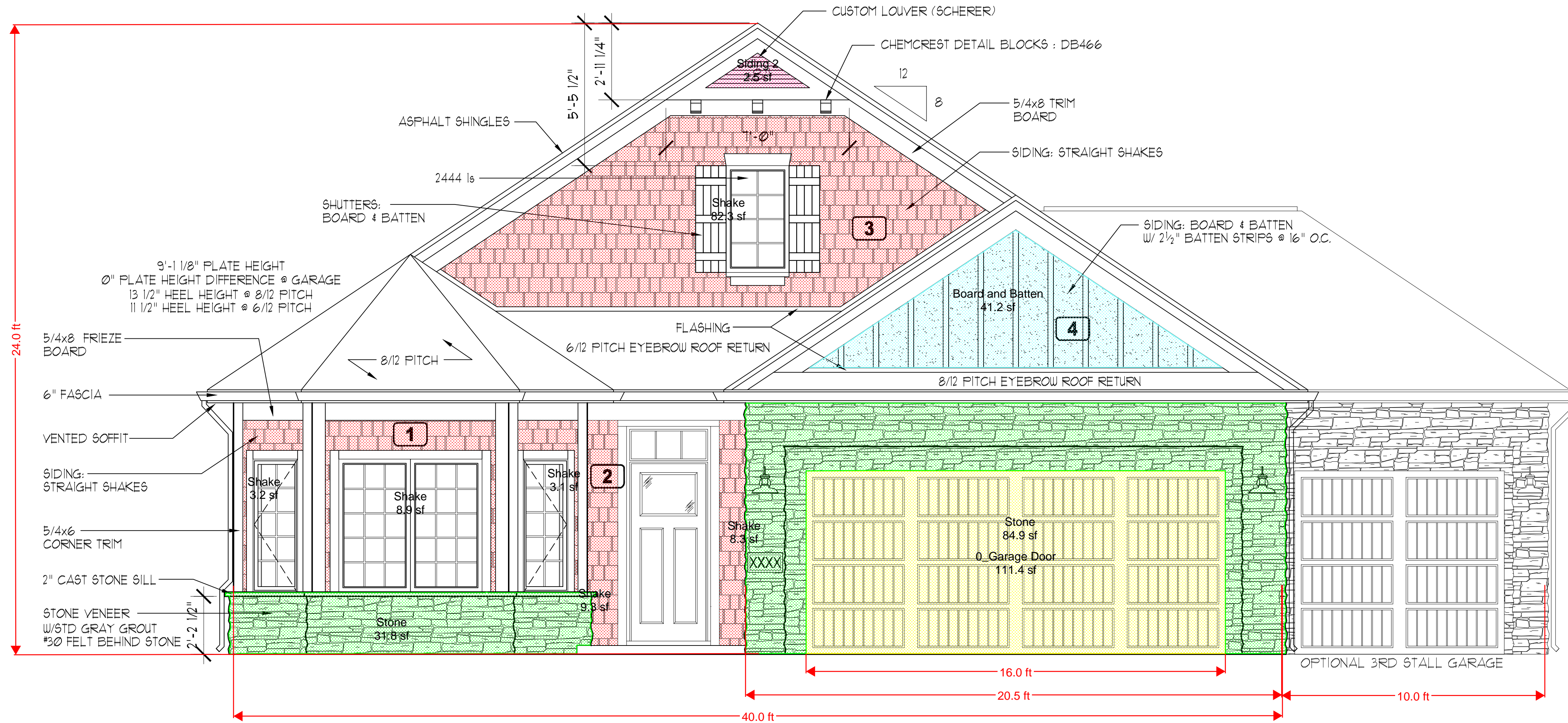
Revisions / Custom Options	By	Date
Final Approval	By	Date
	X	X
<p>These plans are exclusive property of M/I Homes. All service supplied by M/I Homes, Inc. and must be returned upon request. These plans are for construction purposes only. These plans may vary from model homes and marketing materials. These plans are exclusive property of M/I Homes.</p>		
<p><b>M/I HOMES</b> 5354 Parkdale Dr. #100 St. Louis Park, MN 55416 763.586.7200 minneapolispermits@M/IHOMES.com</p>		
Community: <b>COMMUNITY</b>	Address: <b>STREET ADDRESS</b>	Block: "
	City: <b>CITY, MN</b>	Lot: "
Elevation: <b>B</b>	Client: <b>CUSTOMER</b>	
Model: <b>CEDARWOOD</b>	Drawn By: <b>BP</b>	Date: <b>02/13/2018</b>
Job #		
Drawing No. <b>BS1</b>		

ENERGY CODE NOTES	GENERAL NOTES	SAFETY GLAZING NOTES	STAIR REQUIREMENTS	NOTE TO HOMEOWNER & LANDSCAPER
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Quantities		
Label	Quantity	Unit
0_Garage Door	111.4	sf
Board and Batten	41.2	sf
Shake	115.1	sf
Siding 2	2.5	sf
Stone	116.7	sf

**2-Car Garage**  
Street-Facing Linear Building Frontage: 40'  
Garage Linear Building Frontage: 20.5'  
% Garage Frontage: 51.3%

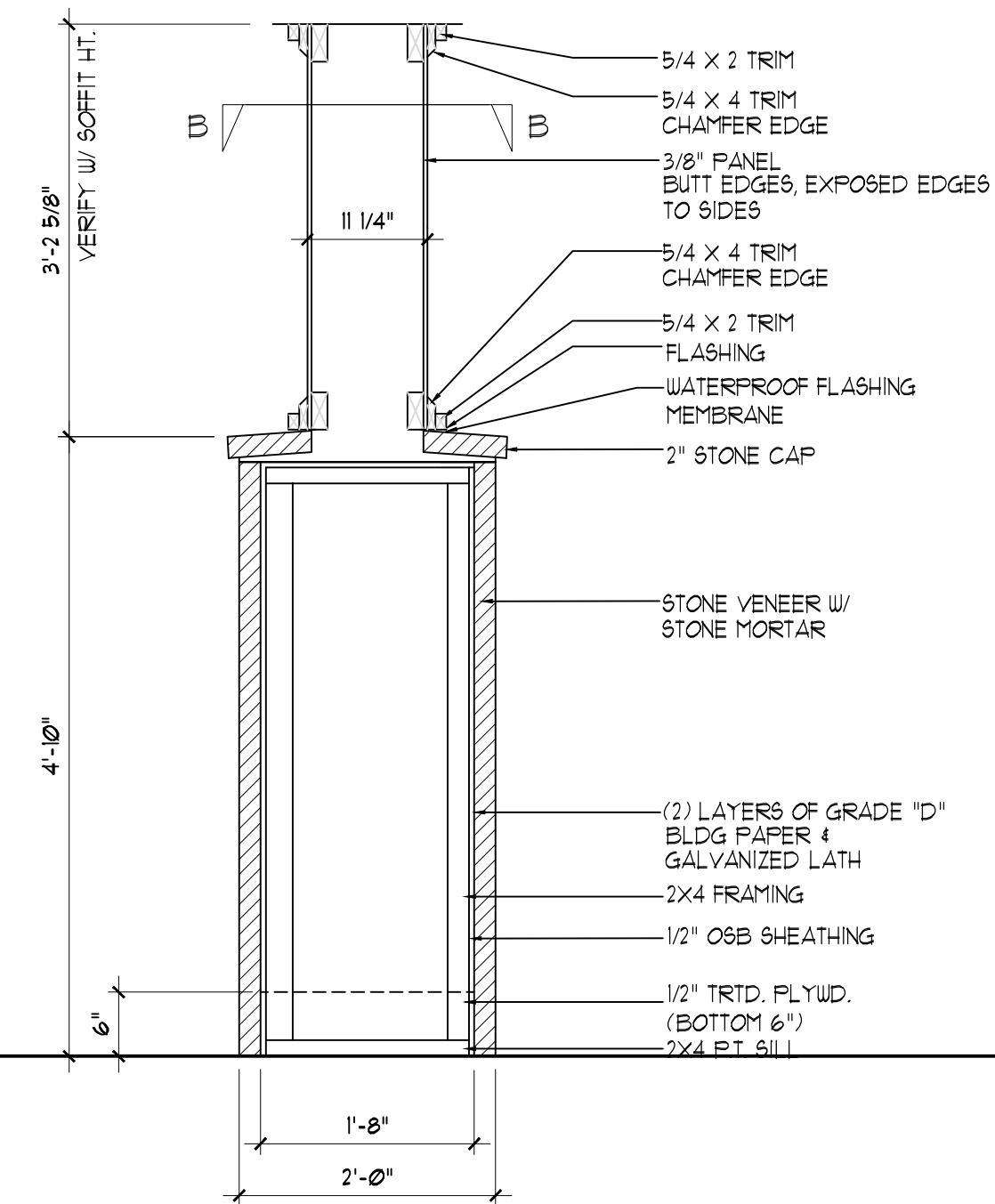
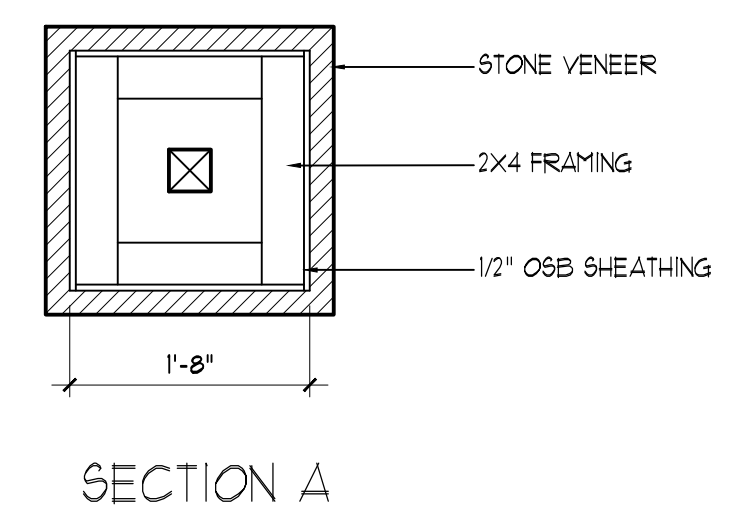
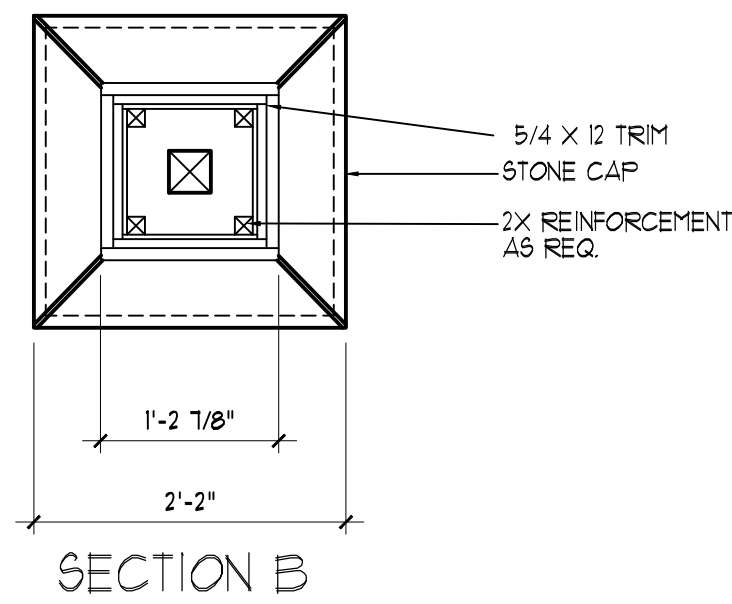
**3-Car Garage**  
Street-Facing Linear Building Frontage: 50'  
Garage Linear Building Frontage: 30.5'  
% Garage Frontage: 61.0%



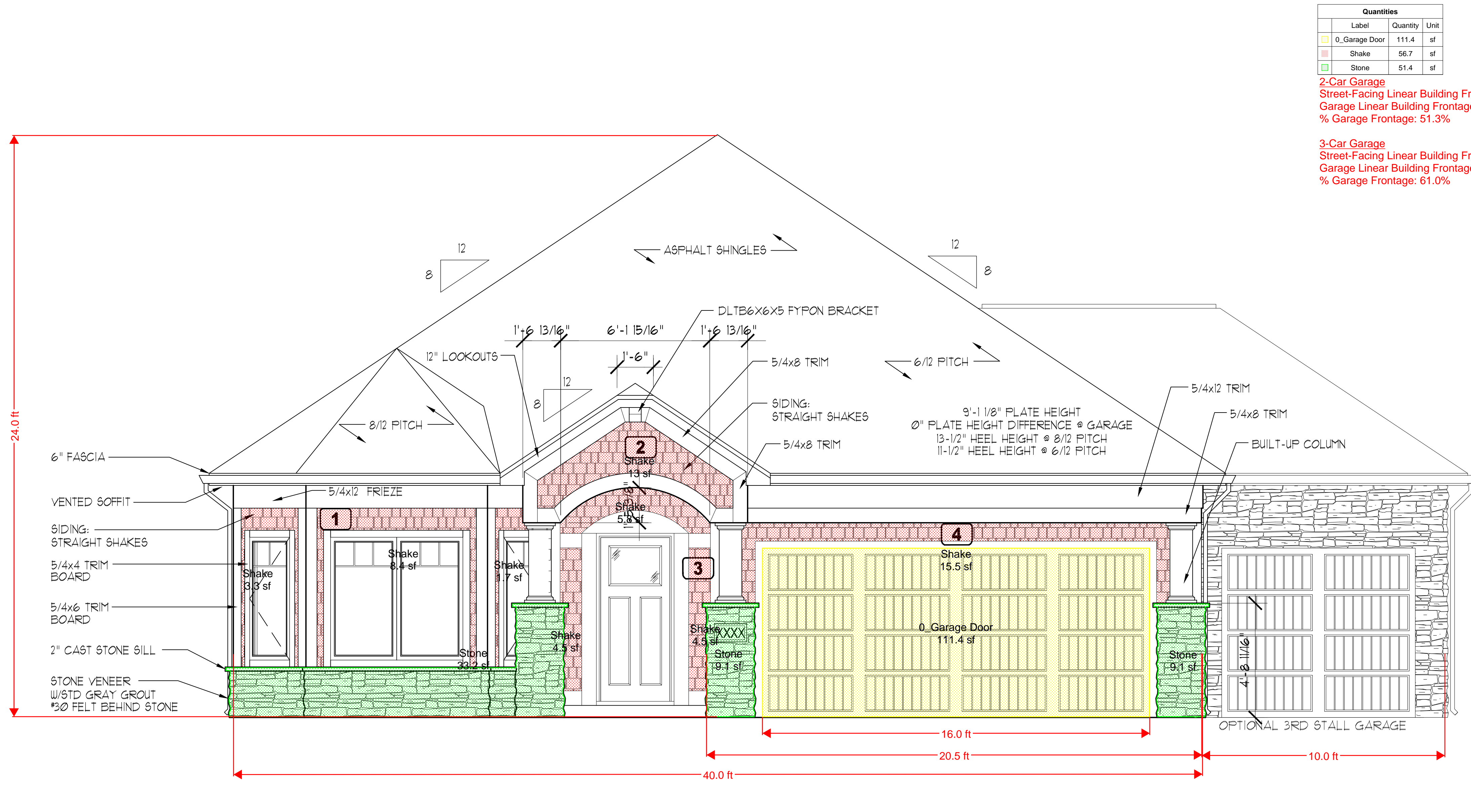
**1 FRONT ELEVATION C - STONE**  
3/8"=1'-0"

Revisions / Custom Options	By	Date
Final Approval	Date	
M/I HOMES	5354 Parkdale Dr. #100 St. Louis Park, MN 55416 763.586.7200 minneapolispermits@M/IHOMES.com	
Community: <b>COMMUNITY</b>	Address: <b>STREET ADDRESS</b>	Block: " "
City: <b>CITY, MN</b>	Client: <b>CUSTOMER</b>	
Elevation: <b>C</b>		
Model: <b>CEDARWOOD</b>		
Drawn By: <b>BP</b>		
Date: <b>02/13/2018</b>		
Job #		
Drawing No. <b>CS1</b>		

ENERGY CODE NOTES	GENERAL NOTES	SAFETY GLAZING NOTES	STAIR REQUIREMENTS	NOTE TO HOMEOWNER & LANDSCAPER
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**2** COLUMN DETAILS  
3/8"=1'-0"



**1** FRONT ELEVATION D - STONE  
3/8"=1'-0"

Quantities		
Label	Quantity	Unit
0_Garage Door	111.4	sf
Shake	56.7	sf
Stone	51.4	sf

**2-Car Garage**  
Street-Facing Linear Building Frontage: 40'  
Garage Linear Building Frontage: 20.5'  
% Garage Frontage: 51.3%

**3-Car Garage**  
Street-Facing Linear Building Frontage: 50'  
Garage Linear Building Frontage: 30.5'  
% Garage Frontage: 61.0%

Revisions / Custom Options	By	Date
Final Approval	Date	
M/I HOMES	5354 Parkdale Dr. #100	
	St. Louis Park, MN 55416	
COMMUNITY	STREET ADDRESS	
	CITY, MN	
CUSTOMER	Client:	
	Elevation:	
FRONT ELEVATION	Model:	CEDARWOOD
	Drawn By:	BP
DS1	Date:	02/13/2018
	Job #	
Sheet Title:	Drawing No.	

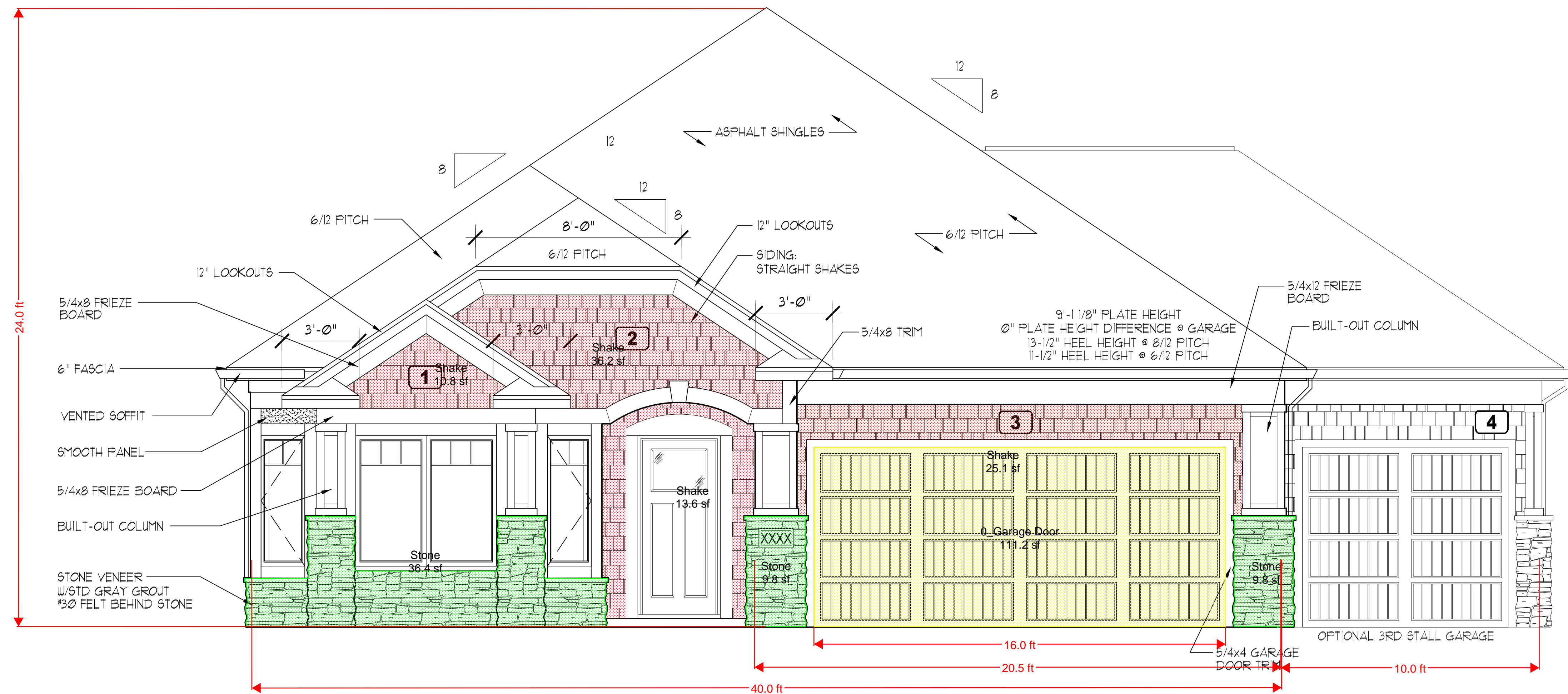


ENERGY CODE NOTES	GENERAL NOTES	SAFETY GLAZING NOTES	STAIR REQUIREMENTS	NOTE TO HOMEOWNER & LANDSCAPER
<p>A BUILDING CERTIFICATE SHALL BE POSTED ON THE ELECTRICAL PANEL WITH THE FOLLOWING INFO: DATE CERTIFICATE IS INSTALLED ADDRESS OF HOUSE CONTRACTOR'S NAME AND LICENSE NO. TYPES OF INSULATION USED AND THEIR R VALUES WINDOW U VALUES AND SOLAR HEAT GAIN COEFFICIENT RESULTS OF BLOWER DOOR TEST.</p> <p>BUILDING SHALL PASS A BLOWER DOOR TEST PERFORMED BY A THIRD PARTY AND MEET OR EXCEED R402.41 REQUIREMENTS (MRC).</p> <p>MECHANICAL DUCTS WILL NOT BE LOCATED IN AN EXTERIOR WALL OR OUTSIDE THE BUILDING ENVELOPE</p>	<p>THESE DRAWINGS ARE THE PROPERTY OF M/I HOMES AND MAY BE REPRODUCED ONLY WITH THE WRITTEN PERMISSION OF M/I HOMES. THESE DRAWINGS ARE FULLY PROTECTED BY FEDERAL AND STATE COPYRIGHT LAWS.</p> <p>ALL CONSTRUCTION SHALL CONFORM TO THE 2015 MINNESOTA RESIDENTIAL CODE AND IN ACCORDANCE WITH ALL APPLICABLE CODES, LAWS AND COVENANTS.</p> <p>DRAWING NOTES: DO NOT SCALE DRAWINGS, USE NOTED DIMENSIONS. DIMENSIONS ON DRAWINGS ARE TO CENTER OR FACE OF FRAMING.</p>	<p>SAFETY GLAZING REQUIRED:</p> <ol style="list-style-type: none"> <li>ALL GLAZING IN DOORS OR ENCLOSURES IN BATHROOMS.</li> <li>WINDOW GLAZING WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" ABOVE THE FINISHED SHOWER OR TUB FLOOR.</li> <li>WINDOWS LESS THAN 60" MEASURED HORIZONTALLY FROM WATER'S EDGE OF TUB OR SHOWER.</li> <li>GLAZING THAT IS LESS THAN 36" ABOVE STAIR LANDINGS.</li> <li>WINDOWS LESS THAN 18" ABOVE THE FLOOR.</li> </ol>	<p>MAX. RISE: 1 3/4"</p> <p>MIN. RUN: 10"</p> <p>MIN. TREAD: 11"</p> <p>MAX. NOSING: 1"</p> <p>MIN. HEADROOM: 6'-8"</p> <p>RAIL @ LANDING: 36" AFF.</p> <p>RAIL @ STAIR: 36" AFF.</p>	<p>TO PREVENT MOISTURE PROBLEMS, FINAL GRADE SHOULD BE HELD 6" BELOW TOP OF FOUNDATION. FINAL GRADE SHOULD NOT BE HIGHER THAN 2" ABOVE BOTTOM OF BRICK.</p> <p>M/I HOMES REQUIRES A TAPERED DRIVEWAY AT 3RD CAR STALL. DRIVE SHOULD BE 20' WIDE AT CURB.</p>
		<p>WINDOW FALL PROTECTION</p> <p>WINDOW FALL PROTECTION SHALL MEET MINNESOTA RESIDENTIAL CODE REQUIREMENTS (R312.2)</p>		<p>SEE SELECTION SHEETS FOR EXTERIOR FINISHES &amp; COLORS <b>A</b></p>

Quantities		
Label	Quantity	Unit
0_Garage Door	111.2	sf
Shake	85.8	sf
Stone	56.0	sf

**2-Car Garage**  
 Street-Facing Linear Building Frontage: 40'  
 Garage Linear Building Frontage: 20.5'  
 % Garage Frontage: 51.3%

**3-Car Garage**  
 Street-Facing Linear Building Frontage: 50'  
 Garage Linear Building Frontage: 30.5'  
 % Garage Frontage: 61.0%



**1** FRONT ELEVATION E - STONE  
 3/8"=1'-0"

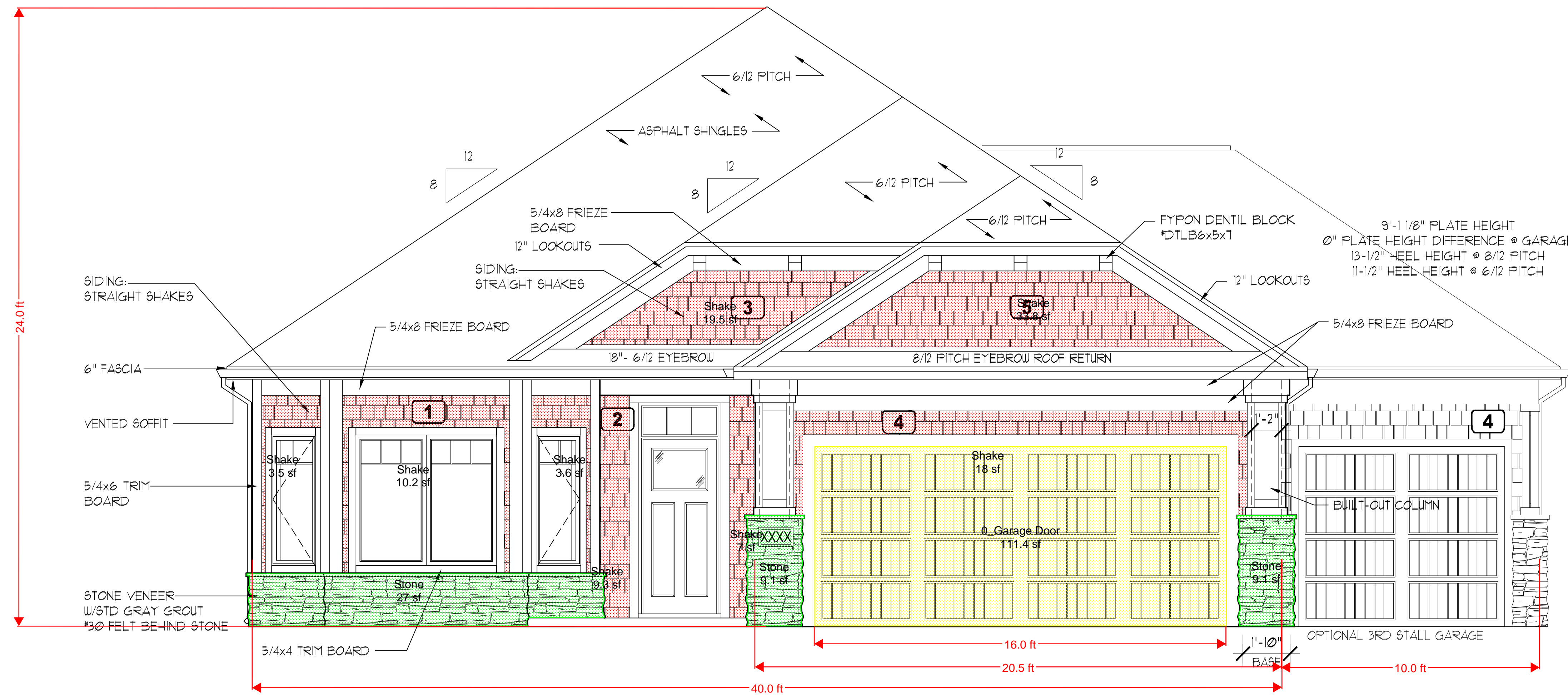
Revisions / Custom Options	By	Date
Final Approval	Date	
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<p><b>M/I HOMES</b>        5354 Parkdale Dr. #100        St. Louis Park, MN 55416        763.586.7200        minneapolispermits@M/IHOMES.com</p>		
Community: <b>COMMUNITY</b>	Address: <b>STREET ADDRESS</b>	Block: "
City: <b>CITY, MN</b>	City: <b>CITY, MN</b>	Lot: "
Elevation: <b>E</b>	Client: <b>CUSTOMER</b>	
Model: <b>CEDARWOOD</b>	Drawn By: <b>BP</b>	Date: <b>02/13/2018</b>
Job #		
Drawing No. <b>ES1</b>		

ENERGY CODE NOTES	GENERAL NOTES	SAFETY GLAZING NOTES	STAIR REQUIREMENTS	NOTE TO HOMEOWNER & LANDSCAPER
<p>A BUILDING CERTIFICATE SHALL BE POSTED ON THE ELECTRICAL PANEL WITH THE FOLLOWING INFO: DATE CERTIFICATE IS INSTALLED ADDRESS OF HOUSE CONTRACTOR'S NAME AND LICENSE NO. TYPES OF INSULATION USED AND THEIR R VALUES WINDOW U VALUES AND SOLAR HEAT GAIN COEFFICIENT RESULTS OF BLOWER DOOR TEST.</p> <p>BUILDING SHALL PASS A BLOWER DOOR TEST PERFORMED BY A THIRD PARTY AND MEET OR EXCEED R402.41 REQUIREMENTS (MRC).</p> <p>MECHANICAL DUCTS WILL NOT BE LOCATED IN AN EXTERIOR WALL OR OUTSIDE THE BUILDING ENVELOPE</p>	<p>THESE DRAWINGS ARE THE PROPERTY OF M/I HOMES AND MAY BE REPRODUCED ONLY WITH THE WRITTEN PERMISSION OF M/I HOMES. THESE DRAWINGS ARE FULLY PROTECTED BY FEDERAL AND STATE COPYRIGHT LAWS.</p> <p>ALL CONSTRUCTION SHALL CONFORM TO THE 2015 MINNESOTA RESIDENTIAL CODE AND IN ACCORDANCE WITH ALL APPLICABLE CODES, LAWS AND COVENANTS.</p> <p>DRAWING NOTES: DO NOT SCALE DRAWINGS, USE NOTED DIMENSIONS. DIMENSIONS ON DRAWINGS ARE TO CENTER OR FACE OF FRAMING.</p>	<p>SAFETY GLAZING REQUIRED:</p> <ol style="list-style-type: none"> <li>ALL GLAZING IN DOORS OR ENCLOSURES IN BATHROOMS.</li> <li>WINDOW GLAZING WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" ABOVE THE FINISHED SHOWER OR TUB FLOOR.</li> <li>WINDOWS LESS THAN 60" MEASURED HORIZONTALLY FROM WATER'S EDGE OF TUB OR SHOWER.</li> <li>GLAZING THAT IS LESS THAN 36" ABOVE STAIR LANDINGS.</li> <li>WINDOWS LESS THAN 18" ABOVE THE FLOOR.</li> </ol>	<p>MAX. RISE: 1 3/4" MIN. RUN: 10" MIN. TREAD: 11" MAX. NOSING: 1" MIN. HEADROOM: 6'-8" RAIL @ LANDING: 36" AFF. RAIL @ STAIR: 36" AFF.</p>	<p>TO PREVENT MOISTURE PROBLEMS, FINAL GRADE SHOULD BE HELD 6" BELOW TOP OF FOUNDATION. FINAL GRADE SHOULD NOT BE HIGHER THAN 2" ABOVE BOTTOM OF BRICK.</p> <p>M/I HOMES REQUIRES A TAPERED DRIVEWAY AT 3RD CAR STALL. DRIVE SHOULD BE 20' WIDE AT CURB.</p>
		<p>WINDOW FALL PROTECTION</p> <p>WINDOW FALL PROTECTION SHALL MEET MINNESOTA RESIDENTIAL CODE REQUIREMENTS (R312.2)</p>		<p>SEE SELECTION SHEETS FOR EXTERIOR FINISHES &amp; COLORS <b>A</b></p>

Quantities		
Label	Quantity	Unit
0_Garage Door	111.4	sf
Shake	105.0	sf
Stone	45.1	sf

**2-Car Garage**  
Street-Facing Linear Building Frontage: 40'  
Garage Linear Building Frontage: 20.5'  
% Garage Frontage: 51.3%

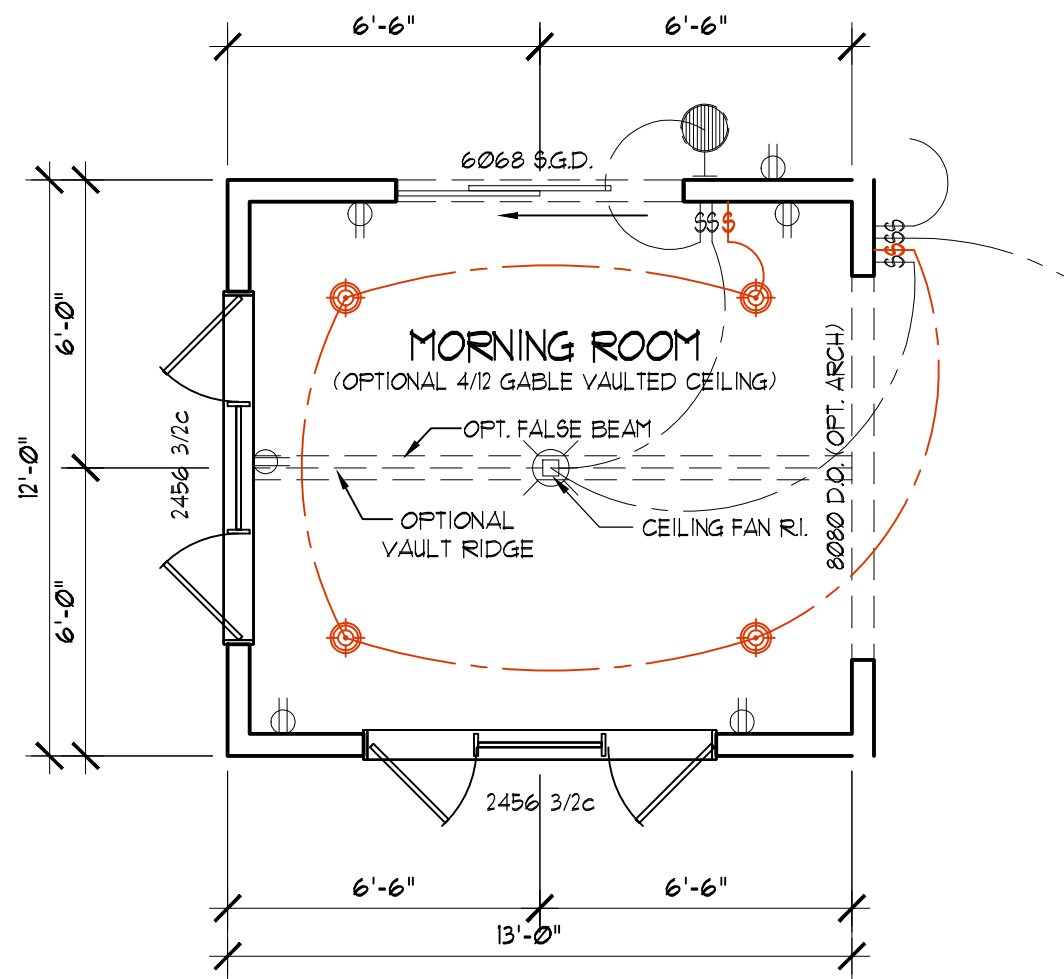
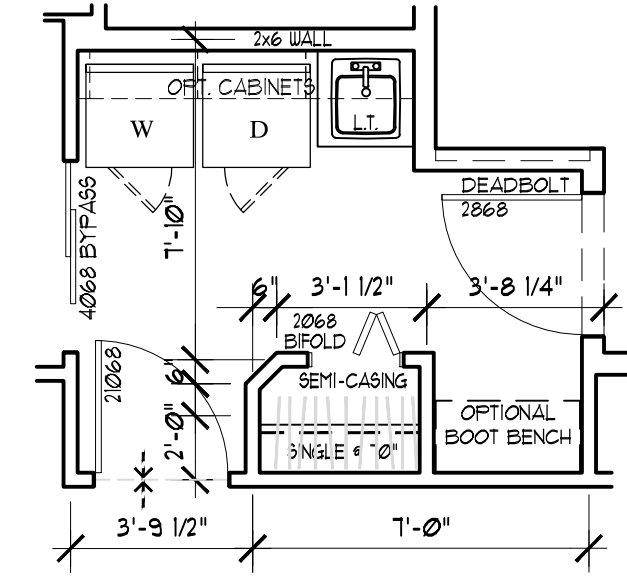
**3-Car Garage**  
Street-Facing Linear Building Frontage: 50'  
Garage Linear Building Frontage: 30.5'  
% Garage Frontage: 61.0%



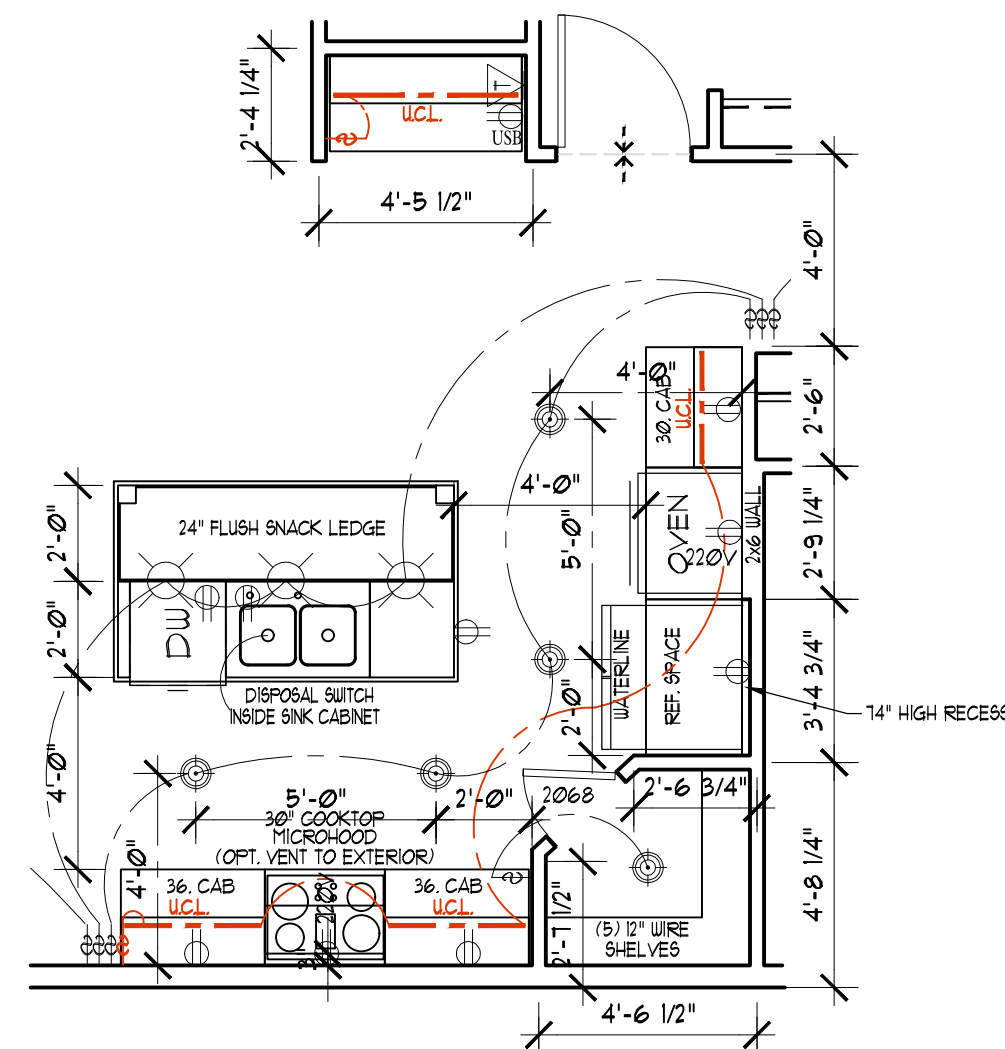
**1** FRONT ELEVATION G - STONE  
3/8"=1'-0"

Revisions / Custom Options	By	Date
Final Approval	Date	
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<p>5354 Parkdale Dr. #100 St. Louis Park, MN 55416 763.586.7200 minneapolispermits@M/IHOMES.com</p>		
Community:	STREET ADDRESS	Block:
CITY, MN		
Elevation:	Client:	
<b>G</b>	<b>CUSTOMER</b>	
Model:	Drawn By:	
<b>CEDARWOOD</b>	BP	
	Date:	02/13/2018
	Job #	
	Drawing No.	<b>GS1</b>

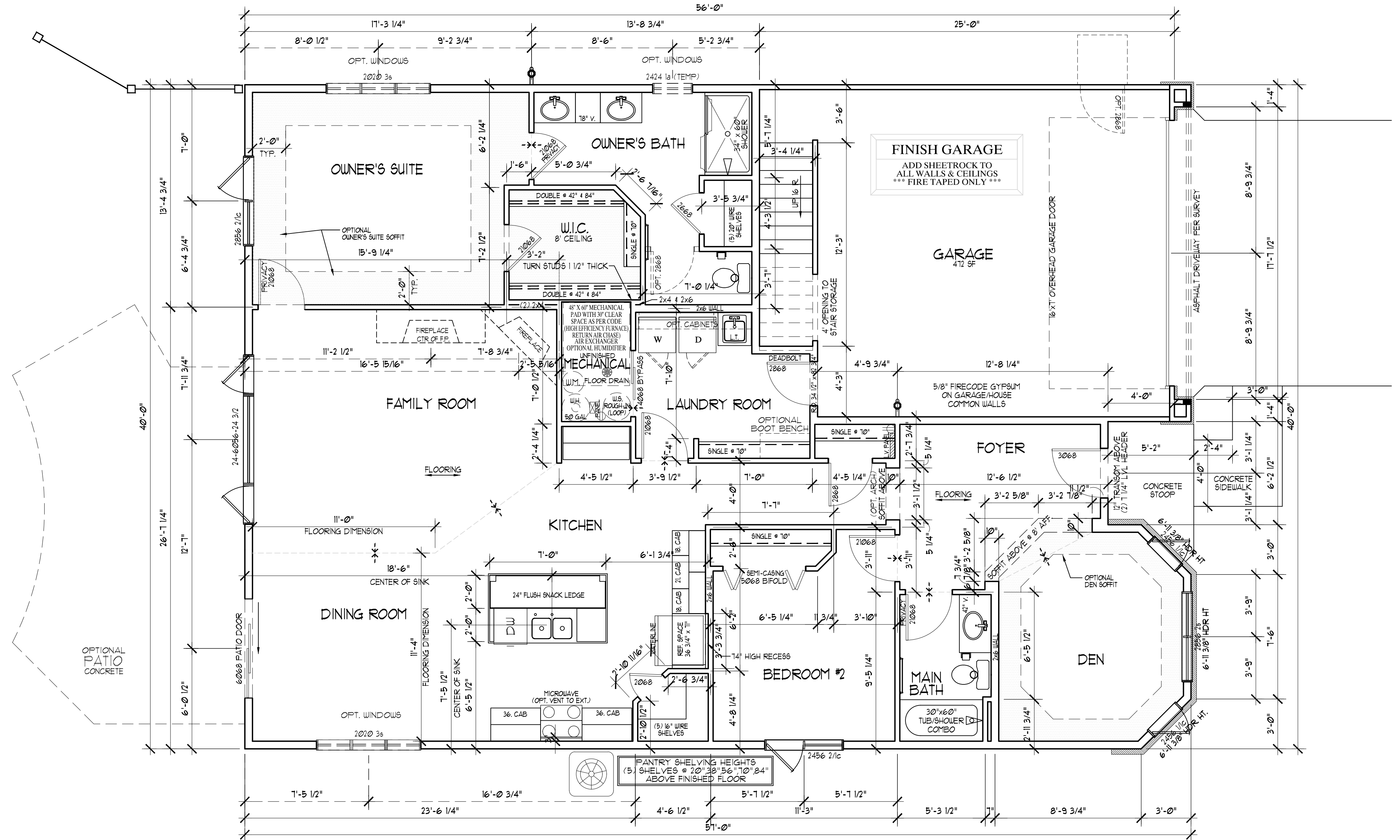
**5 OPT. LAUNDRY ROOM CLOSET**  
1/4"=1'-0"



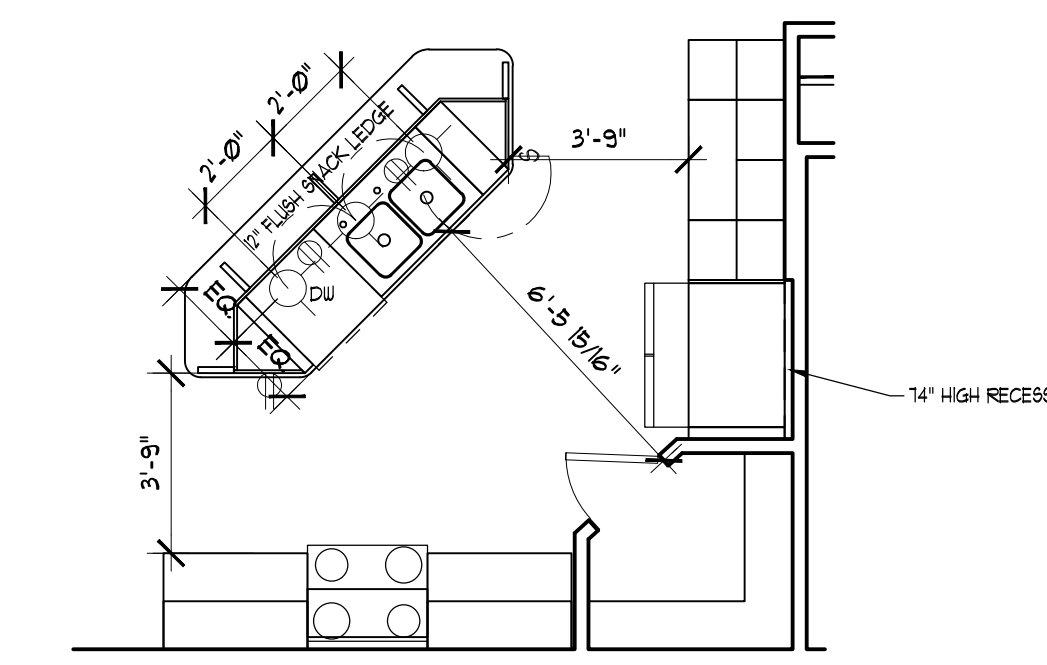
**4 OPT. MORNING ROOM**  
1/4"=1'-0"



**2 OPT. LIFESTYLE KITCHEN**  
1/4"=1'-0"



**1 MAIN LEVEL FLOOR PLAN**  
1/4"=1'-0"



**3 OPT. ANGLED ISLAND**  
1/4"=1'-0"

FLOOR PLAN NOTES		LEGEND	FLOOR AREAS (S.F.)
SEE ENGINEERING DRAWINGS FOR HEADERS, FOOTINGS AND BRACE WALLS IF NOT SHOWN ON PLAN.		2X4 OR 2X6 STUD WALL	FOUNDATION: 1734
WINDOW HEADER HEIGHTS - UNO.		EXTERIOR WALL W/ BRICK OR STONE VENEER	FOUNDATION W/ MORNING ROOM: 2376
LOWER LEVEL: 6'-11 3/8"		NON STANDARD PLATE HEIGHT. SEE PLAN OR DETAIL FOR ACTUAL HEIGHT.	MAIN LEVEL: 1734
MAIN LEVEL: 1'-1 3/8"		2X4 OR 2X6 KNEE WALL - SEE PLAN FOR HEIGHT	MAIN LEVEL W/ MORNING ROOM: 1890
UPPER LEVEL: 6'-11 3/8"		DRYWALL FRAMED OPENING - SOFFIT - 8'-0" UNO.	UPPER LEVEL: (OPT. FINISHED) 1936
VERIFY WINDOW ROUGH OPENINGS W/ WINDOW SUPPLIER		FUTURE WALL	TOTAL: (W/ OPT. FINISHED UPPER) 1930
CEILING HEIGHTS		SEE SELECTION SHEET FOR FLOOR FINISHES & RAILING OPTIONS.	TOTAL W/ MORNING ROOM: (W/ OPT. FINISHED UPPER) 2026
LOWER LEVEL: 9'-1 1/8"			
MAIN LEVEL: 8'-1 1/8"			
UPPER LEVEL: 8'-1 1/8"			

Community: **COMMUNITY**  
 Address: **STREET ADDRESS**  
 City: **CITY, MN**  
 Lot: **Lot**  
 Block: **Block**  
 Addition: **Addition**

Client: **B CUSTOMER**

Model: **CEDARWOOD**

Drawn By: **BP**  
 Date: **02/13/2018**  
 Job #: **-----**

Sheet Title: **MAIN LEVEL FLOOR PLAN**

Revisions / Custom Options

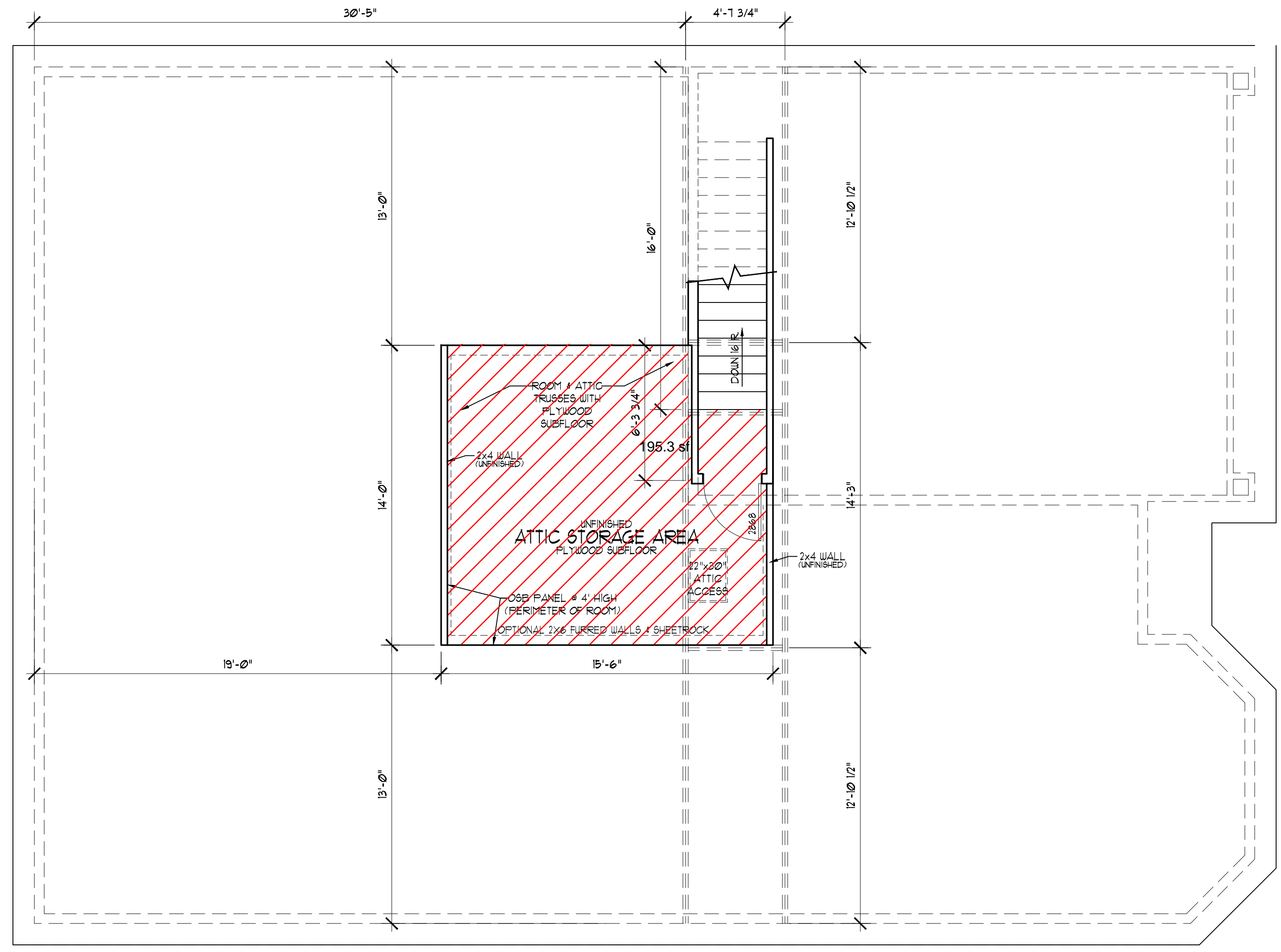
By	Date

Final Approval: **X** Date: **-----**

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M/I HOMES  
 5354 Parkdale Dr. #100  
 St. Louis Park, MN 55416  
 763.586.7200  
 minneapolispermits@MIHOMES.com

Quantities		
Label	Quantity	Unit
Garage Storage	195.3	sf



**1** UPPER LEVEL FLOOR PLAN  
1/4"=1'-0"

FLOOR PLAN NOTES	LEGEND	FLOOR AREAS (S.F.)
SEE ENGINEERING DRAWINGS FOR HEADERS, FOOTINGS AND BRACE WALLS IF NOT SHOWN ON PLAN.	2x4 OR 2x6 STUD WALL	FOUNDATION: 1734
WINDOW HEADER HEIGHTS - U.N.O.	EXTERIOR WALL W/ BRICK OR STONE VENEER	FOUNDATION W/ MORNING ROOM: 2376
LOWER LEVEL: 6'-11 3/8"	NON STANDARD PLATE HEIGHT. SEE PLAN OR DETAIL FOR ACTUAL HEIGHT	MAIN LEVEL: 1734
MAIN LEVEL: 1'-1 3/8"	2x4 OR 2x6 KNEE WALL - SEE PLAN FOR HEIGHT	MAIN LEVEL W/ MORNING ROOM: 1890
UPPER LEVEL: 6'-11 3/8"	DRYWALL FRAMED OPENING - SOFFIT - 8'-0" U.N.O.	UPPER LEVEL: (OPT. FINISHED) 1936
VERIFY WINDOW ROUGH OPENINGS W/ WINDOW SUPPLIER	FUTURE WALL	TOTAL: (W/ OPT. FINISHED UPPER) 1930
CEILING HEIGHTS	SEE SECTION	TOTAL W/ MORNING ROOM: (W/ OPT. FINISHED UPPER) 2026
LOWER LEVEL: 9'-1 1/8"		
MAIN LEVEL: 8'-1 1/8"		
UPPER LEVEL: 8'-1 1/8"		
SEE SELECTION SHEET FOR FLOOR FINISHES & RAILING OPTIONS.		

UPPER LEVEL FLOOR PLAN	Community: <b>COMMUNITY</b>	M/I HOMES 5354 Parkdale Dr. #100 St. Louis Park, MN 55416 763.586.7200 minneapolispermits@M/IHOMES.com	Date
	Address: <b>STREET ADDRESS</b>		
CEDARWOOD	City: <b>CITY, MN</b>	Client: <b>CUSTOMER</b>	Final Approval
	Elevation: <b>B</b>		
BS5	Lot: " "	Date	By
	Block: " "		
Model: <b>BS5</b>		These plans are exclusive property of M/I Homes. All service shall be provided by M/I Homes, Inc. and must be returned upon request. These plans are for construction purposes only. These plans may vary from model homes and marketing materials. These plans are exclusive property of M/I Homes.	
Drawn By: <b>BP</b>		Date: _____	
Date: <b>02/13/2018</b>		Job # _____	
Drawing No. <b>BS5</b>		Date: _____	



**MONUMENT SIGN**

1/8" = 1'-0"

**EXTERIOR FINISH SCHEDULE**

CMU	COLORED ROCK FACE BLOCK
MB	MASONRY BRICK VENEER
MS	MANUFACTURED STONE
S1	HORIZONTAL COMPOSITE SIDING & TRIM
S2	VERTICAL COMPOSITE SIDING & TRIM
S3	PANEL COMPOSITE SIDING & TRIM
S4	VINYL SHAKE SIDING
S5	WOOD LOOK COMPOSITE SIDING
AS	ARCHITECTURAL ASPHALT SHINGLES
SS	STANDING SEAM METAL PANELS

**EXTERIOR MATERIALS**

COLORED ROCK FACE BLOCK	7%
MASONRY BRICK VENEER	9%
MANUFACTURED STONE	9%
TOTAL SIDING & TRIM	51%
OPENINGS - WINDOWS, DOORS, LOUVERS	24%

**EXTERIOR MATERIALS  
COURTYARD - MAIN ENTRY**

COLORED ROCK FACE BLOCK	0%
MASONRY BRICK VENEER	29%
MANUFACTURED STONE	13%
TOTAL SIDING & TRIM	32%
OPENINGS - WINDOWS, DOORS, LOUVERS	26%



**COURTYARD ELEVATION - MAIN ENTRY**

3/32" = 1'-0"

**EXTERIOR MATERIALS  
COURTYARD - EAST ELEVATION**

COLORED ROCK FACE BLOCK	0%
MASONRY BRICK VENEER	11%
MANUFACTURED STONE	17%
TOTAL SIDING & TRIM	46%
OPENINGS - WINDOWS, DOORS, LOUVERS	26%



**COURTYARD ELEVATION - EAST WING**

3/32" = 1'-0"

**CONCEPT ELEVATION & RENDER**

D2 | 20005

**Applewood Pointe of Corcoran**

EXTERIOR MATERIALS COURTYARD - SOUTH ELEVATION	
COLORED ROCK FACE BLOCK	2%
MASONRY BRICK VENEER	11%
MANUFACTURED STONE	7%
TOTAL SIDING & TRIM	57%
OPENINGS - WINDOWS, DOORS, LOUVERS	23%



**1 COURTYARD ELEVATION - SOUTH**  
SCALE 3/32" = 1'-0"

EXTERIOR MATERIALS WEST ELEVATION - SOUTH LEG	
COLORED ROCK FACE BLOCK	2%
MASONRY BRICK VENEER	0%
MANUFACTURED STONE	18%
TOTAL SIDING & TRIM	56%
OPENINGS - WINDOWS, DOORS, LOUVERS	24%



**2 WEST ELEVATION - SOUTH LEG**  
SCALE 3/32" = 1'-0"

EXTERIOR MATERIALS SOUTH ELEVATION	
COLORED ROCK FACE BLOCK	3%
MASONRY BRICK VENEER	12%
MANUFACTURED STONE	5%
TOTAL SIDING & TRIM	56%
OPENINGS - WINDOWS, DOORS, LOUVERS	24%



**3 SOUTH ELEVATION**  
SCALE 3/32" = 1'-0"

EXTERIOR MATERIALS EAST ELEVATION	
COLORED ROCK FACE BLOCK	13%
MASONRY BRICK VENEER	6%
MANUFACTURED STONE	5%
TOTAL SIDING & TRIM	55%
OPENINGS - WINDOWS, DOORS, LOUVERS	21%



**1 EAST ELEVATION**  
SCALE 3/32" = 1'-0"

EXTERIOR MATERIALS NORTHEAST ELEVATION	
COLORED ROCK FACE BLOCK	3%
MASONRY BRICK VENEER	6%
MANUFACTURED STONE	12%
TOTAL SIDING & TRIM	52%
OPENINGS - WINDOWS, DOORS, LOUVERS	27%



**2 NORTHEAST ELEVATION**  
SCALE 3/32" = 1'-0"

EXTERIOR MATERIALS NORTH ELEVATION	
COLORED ROCK FACE BLOCK	17%
MASONRY BRICK VENEER	3%
MANUFACTURED STONE	9%
TOTAL SIDING & TRIM	48%
OPENINGS - WINDOWS, DOORS, LOUVERS	23%



**1 NORTH ELEVATION**  
SCALE 3/32" = 1'-0"

EXTERIOR MATERIALS WEST ELEVATION - NORTH LEG	
COLORED ROCK FACE BLOCK	14%
MASONRY BRICK VENEER	14%
MANUFACTURED STONE	0%
TOTAL SIDING & TRIM	50%
OPENINGS - WINDOWS, DOORS, LOUVERS	22%



**2 WEST ELEVATION - NORTH LEG**  
SCALE 3/32" = 1'-0"

EXTERIOR MATERIALS COURTYARD - NORTH ELEVATION	
COLORED ROCK FACE BLOCK	8%
MASONRY BRICK VENEER	9%
MANUFACTURED STONE	13%
TOTAL SIDING & TRIM	48%
OPENINGS - WINDOWS, DOORS, LOUVERS	22%



**3 NORTH COURTYARD ELEVATION**  
SCALE 3/32" = 1'-0"







4 WEST EXTERIOR ELEVATION  
1/8" = 1'-0"



3 SOUTH EXTERIOR ELEVATION  
1/8" = 1'-0"



2 NORTH EXTERIOR ELEVATION  
1/8" = 1'-0"



1 EAST EXTERIOR ELEVATION  
1/8" = 1'-0"

- ASPHALT SHINGLES - BLACK
- CEMENTITIOUS SHAKES - LIGHT GREY
- CEMENTITIOUS LAP SIDING - DARK GREY
- CEMENTITIOUS TRIM, FASCIA & SOFFITS - IVORY

STOREFRONT - CLEAR ANNOXIDIZED

SIMULATED STONE VENEER - ABSAROKA TUSCAN LEDGESTONE

PRELIMINARY DEVELOPMENT  
12/28/21

RIVERS OF LIFE  
- CORCORAN  
CORCORAN, MN  
21-111.00

EXTERIOR ELEVATIONS

A2.1



**Intellectual Gray SW 7045 w/  
Duranodic Bronze**  
**Existing**



**Intellectual Gray SW 7045 w/  
Duranodic Bronze**  
**4' Increase height to base of sign  
Cobalt Blue vinyl inlay to  
"A MEMORY CARE COMMUNITY"  
Proposed**

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DRAWN BY:  
KRIS H  
DATE:  
**7/31/2020**  
ATTENTION:

PROJECT:

CUSTOMER:

ADDRESS:

CITY:

STATE:

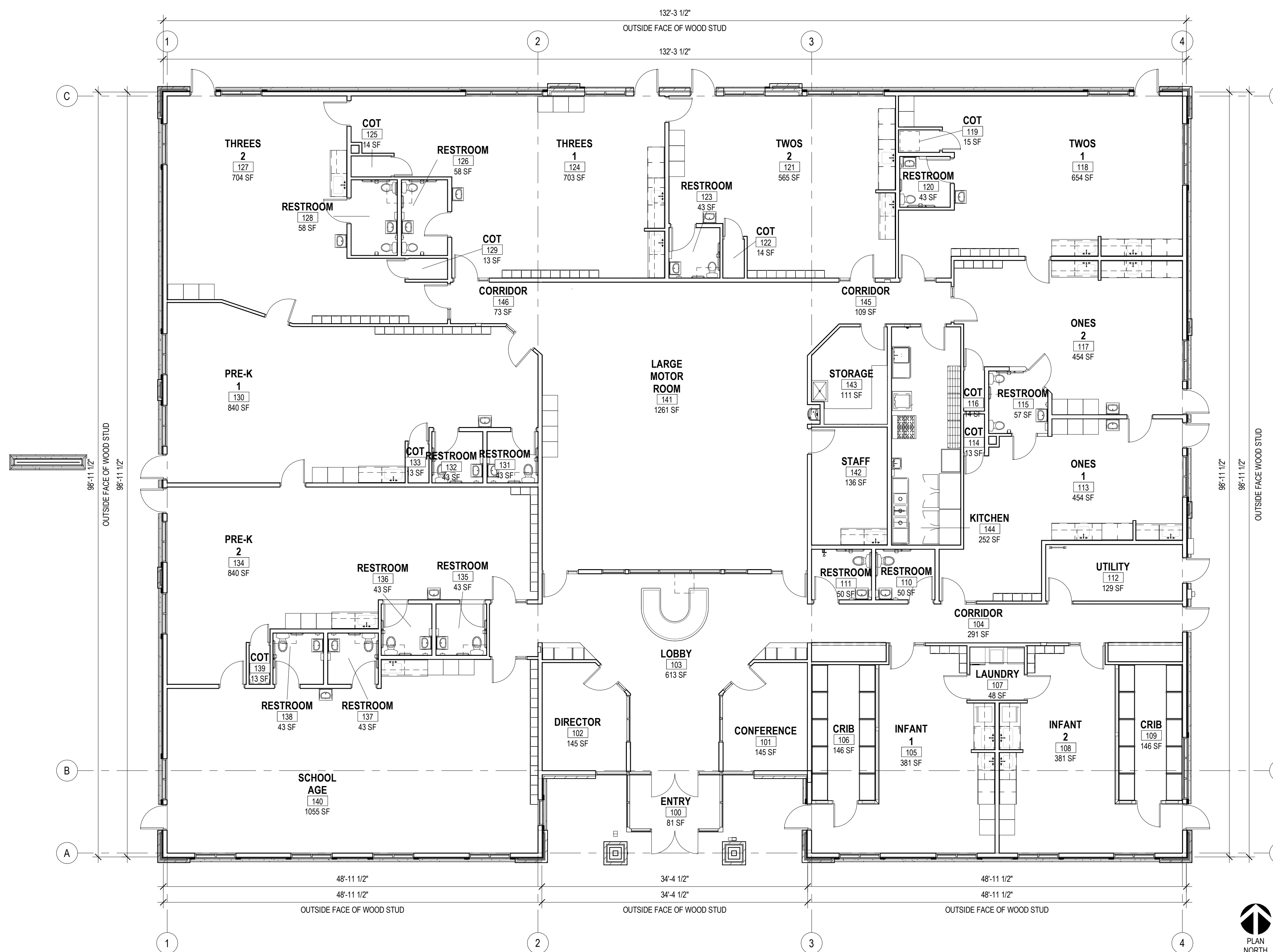
SCALE:

FILE NAME:

CUSTOMER APPROVAL:

DATE: \_\_\_\_\_

FONTS USED: IMPORTED IMAGE



**1 BUILDING LAYOUT PLAN**  
 1/8" = 1'-0"

**NEW HORIZON ACADEMY**  
 CORCORAN, MN

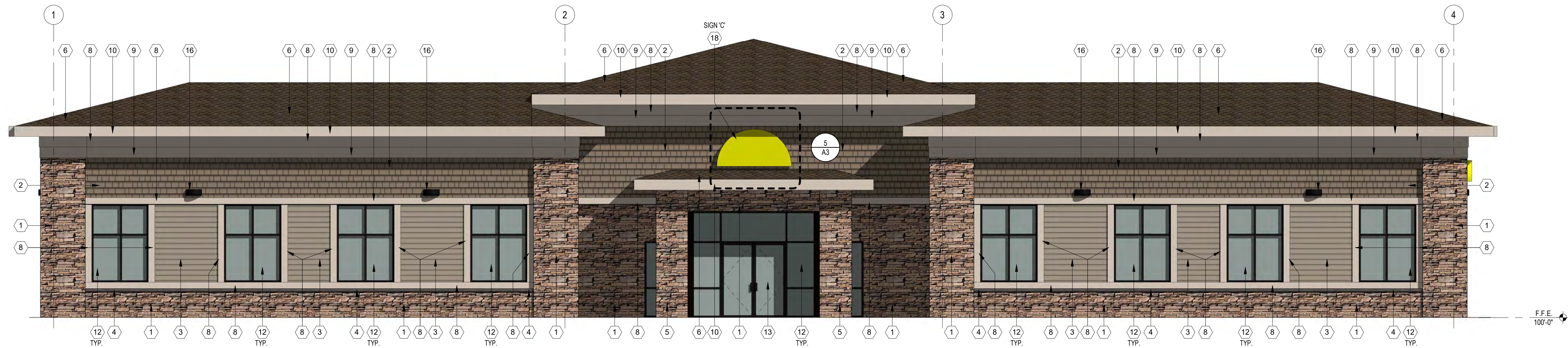
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SEH Project 165720  
 Checked By SB  
 Drawn By DKM

Project Status Issue Date  
 Concept Design Set 02.22.2022

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

BUILDING LAYOUT PLAN



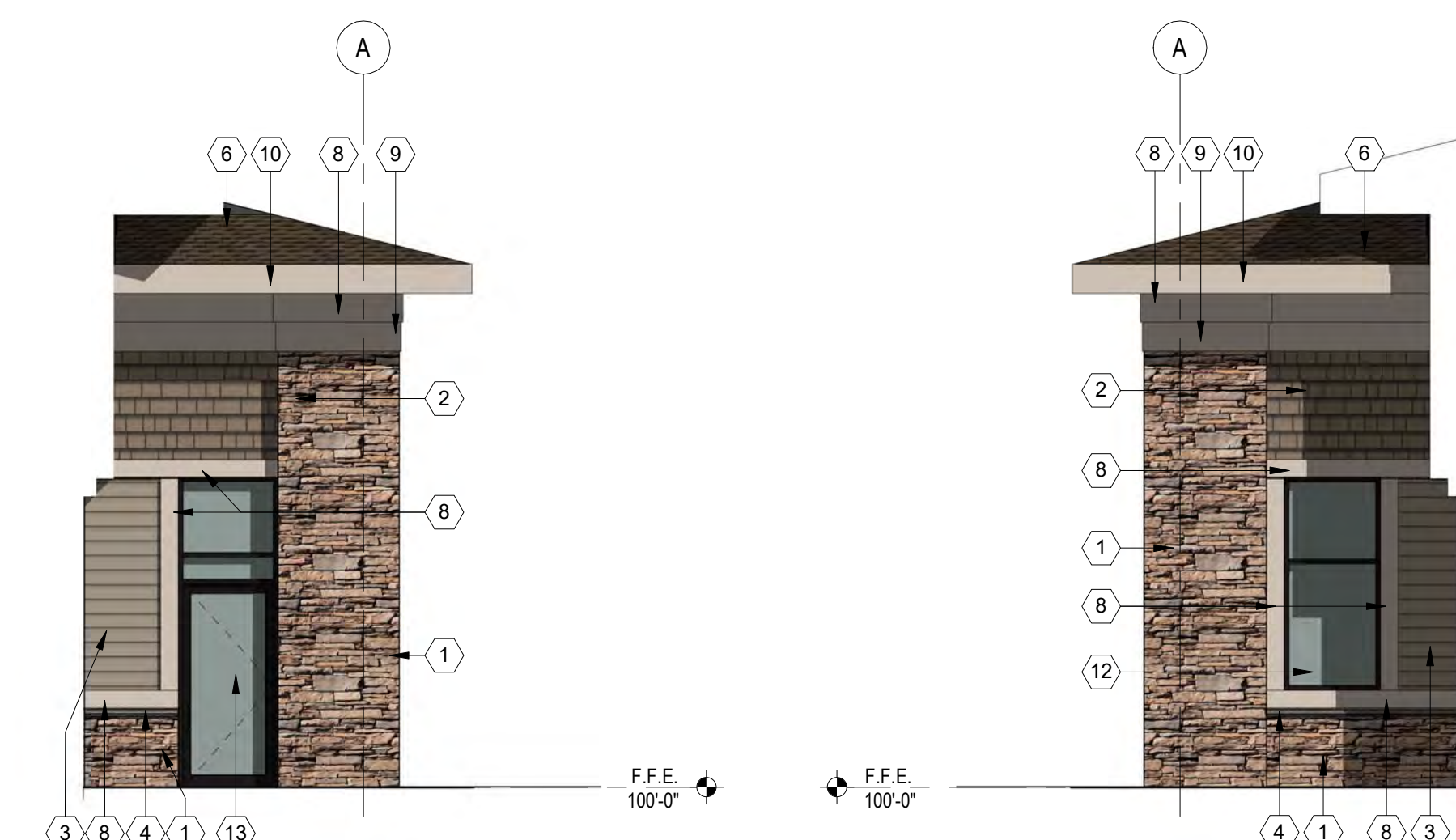
**1 WEST ELEVATION**

3/16" = 1'-0"  
**WEST ELEVATION - EXTERIOR BUILDING MATERIALS:**  
 STONE: 29%  
 GLAZING: 20%  
 SHAKE SIDING: 22%  
 HORIZONTAL SIDING: 9%  
 TRIM: 20%



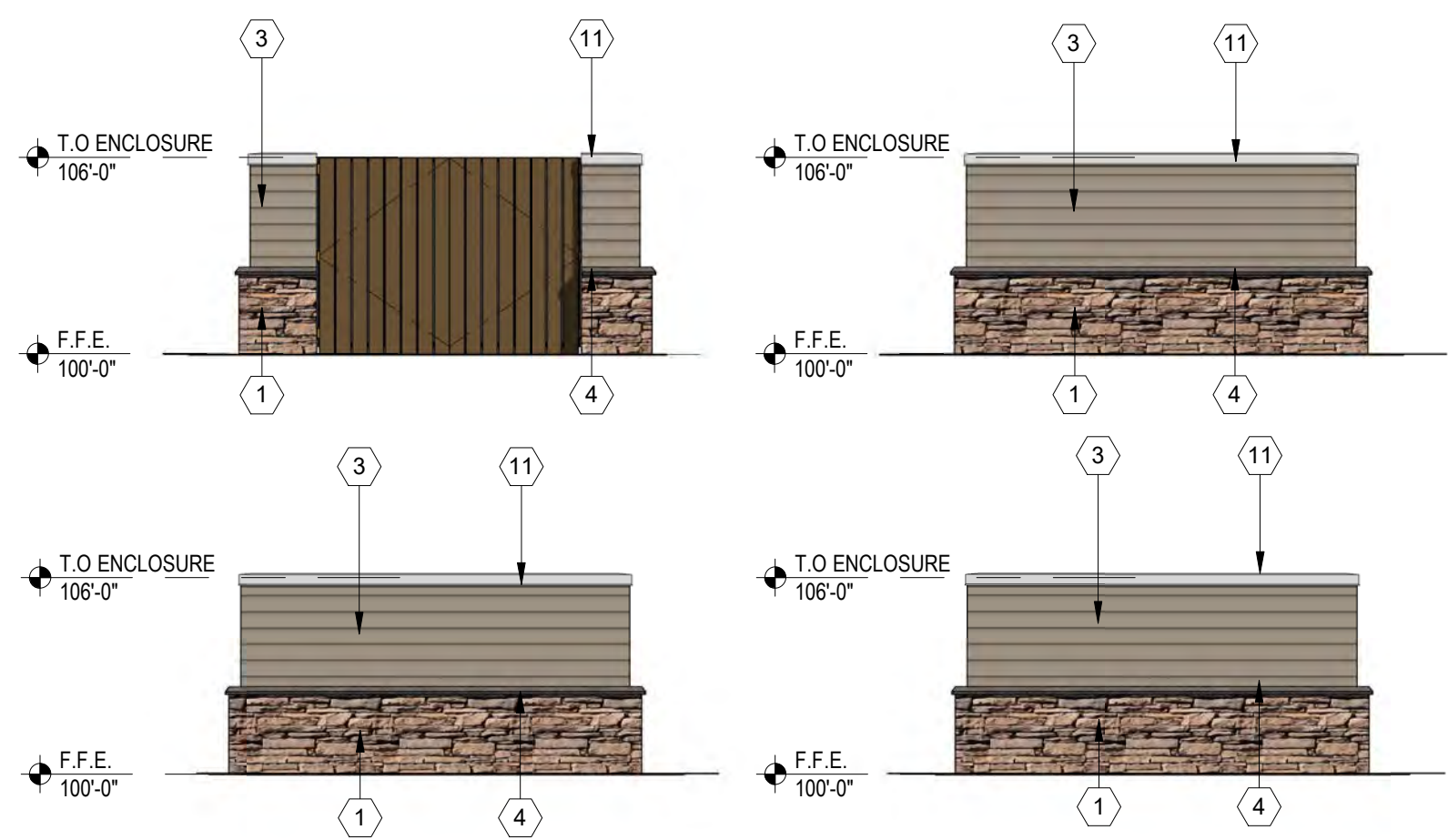
**2 NORTH ELEVATION**

3/16" = 1'-0"  
**NORTH ELEVATION - EXTERIOR BUILDING MATERIALS:**  
 STONE: 24%  
 GLAZING: 20%  
 SHAKE SIDING: 21%  
 HORIZONTAL SIDING: 15%  
 TRIM: 20%



**3 NORTH ENTRY ELEVATION**

**4 SOUTH ENTRY ELEVATION**



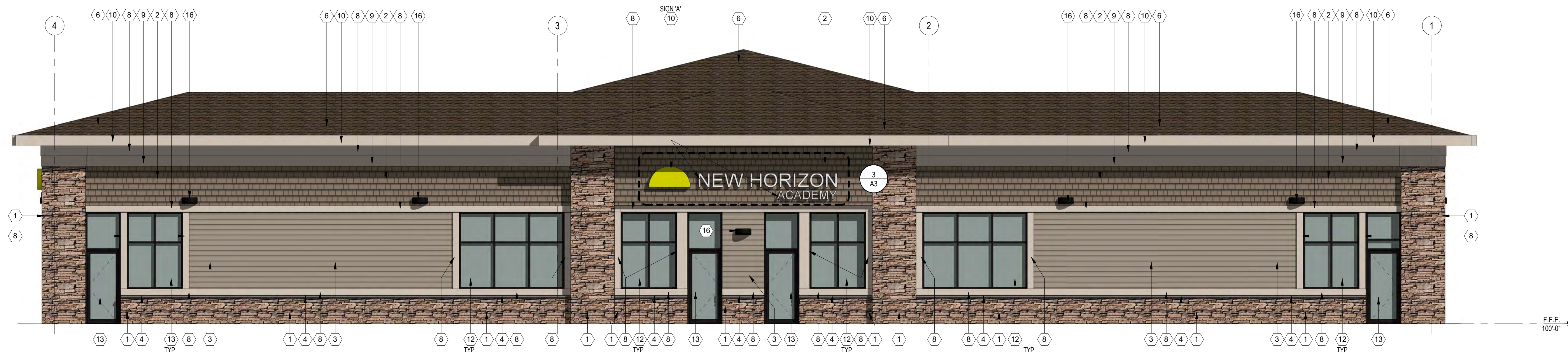
**5 TRASH ENCLOSURE**

**ELEVATION KEY NOTES (#)**

1. STONE VENEER - SOUTHERN LEDGESTONE 'CHARDONNAY' BY CULTURED STONE
2. FIBER CEMENT SHAKE SIDING - HARDIESHINGLE - STRAIGHT EDGE PANEL 'NAVAJO BEIGE' BY JAMES HARDIE
3. FIBER CEMENT HORIZONTAL SIDING - HARDIEPLANK - SMOOTH - 'COBBLESTONE' BY JAMES HARDIE
4. ARCHITECTURAL PRECAST CONCRETE SILL
5. 3'-0" x 3'-0" STONE VENEER COLUMN. SEE STRUCTURAL FOR FURTHER INFORMATION
6. ASPHALT SHINGLE ROOF ASSEMBLY
7. ELECTRICAL METER - PAINT TO MATCH ADJACENT FINISH
8. 2x FIBER CEMENT TRIM - PAINTED TO MATCH 'SW6147' PANDA WHITE
9. 1x FIBER CEMENT TRIM - PAINTED TO MATCH 'SW6147' PANDA WHITE
10. 1x FIBER CEMENT FASCIA TRIM - PAINTED TO MATCH 'SW6147' PANDA WHITE
11. PREFINISHED METAL COPING - PAINTED TO MATCH 'SW6147' PANDA WHITE
12. ALUMINIUM STOREFRONT FRAMING / GLAZING ASSEMBLY - TINTED INSULATED LOW-E GLASS WITH 'DARK BRONZE' ANODIZED ALUMINUM FRAMES
13. ALUMINIUM DOOR / TRANSOM / GLAZING ASSEMBLY - TINTED INSULATED LOW-E GLASS WITH 'DARK BRONZE' ANODIZED ALUMINUM FRAMES
14. HOLLOW METAL DOOR AND FRAME - PAINT TO MATCH ADJACENT FINISH
15. 14'-3" x 3'-7" EXTERIOR LED 'NEW HORIZON ACADEMY' AND 'SUN' SIGNAGE. SEE ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
16. LED LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR FURTHER INFORMATION
17. WALL MOUNTED CT CABINET - PAINT TO MATCH ADJACENT FINISH
18. 7'-0" x 3'-6" EXTERIOR LED 'SUN' SIGNAGE

SEE ALTERNATE #1: PROVIDE FIXED FIBERGLASS INSULATED WINDOW UNITS IN LIEU OF ALUMINIUM STOREFRONT FRAMING.

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE
1		



**1 EAST ELEVATION**  
 3/16" = 1'-0"

**EAST ELEVATION - EXTERIOR BUILDING MATERIALS:**  
 STONE: 25%  
 GLAZING: 19%  
 SHAKE SIDING: 21%  
 HORIZONTAL SIDING: 17%  
 TRIM: 18%

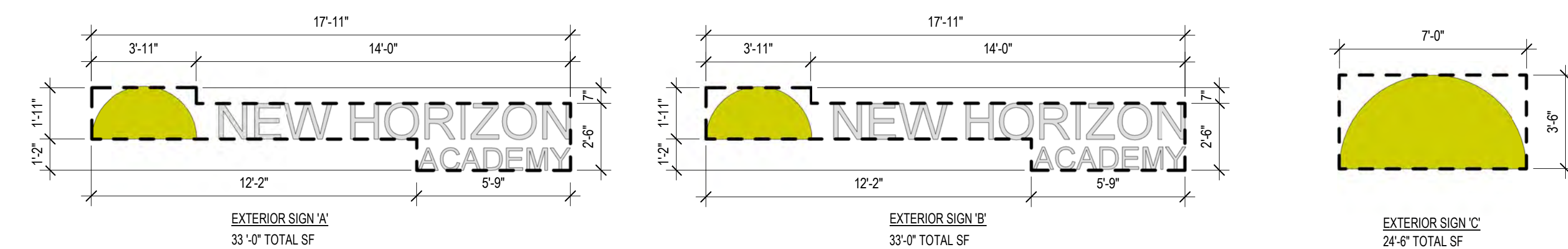


**2 SOUTH ELEVATION**  
 3/16" = 1'-0"

**SOUTH ELEVATION - EXTERIOR BUILDING MATERIALS:**  
 STONE: 21%  
 GLAZING: 23%  
 SHAKE SIDING: 21%  
 HORIZONTAL SIDING: 16%  
 TRIM: 18%  
 HOLLOW METAL: 1%

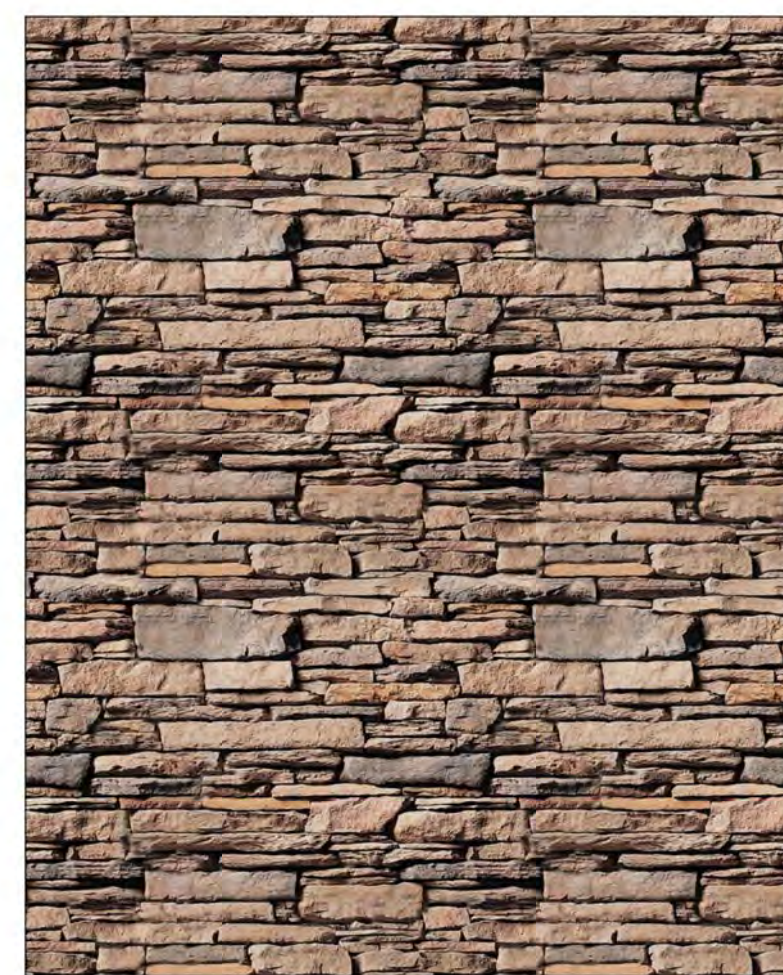
**ELEVATION KEY NOTES (#)**

1. STONE VENEER - SOUTHERN LEDGESTONE 'CHARDONNAY' BY CULTURED STONE
  2. FIBER CEMENT SHAKE SIDING - HARDIESHINGLE - STRAIGHT EDGE PANEL 'NAVAJO BEIGE' BY JAMES HARDIE
  3. FIBER CEMENT HORIZONTAL SIDING - HARDIEPLANK - SMOOTH - 'COBBLESTONE' BY JAMES HARDIE
  4. ARCHITECTURAL PRECAST CONCRETE SILL
  5. 3'-0" x 3'-0" STONE VENEER COLUMN. SEE STRUCTURAL FOR FURTHER INFORMATION
  6. ASPHALT SHINGLE ROOF ASSEMBLY
  7. ELECTRICAL METER - PAINT TO MATCH ADJACENT FINISH
  8. 2x FIBER CEMENT TRIM - PAINTED TO MATCH 'SW6147' PANDA WHITE
  9. 1x FIBER CEMENT TRIM - PAINTED TO MATCH 'SW6147' PANDA WHITE
  10. 1x FIBER CEMENT FASCIA TRIM - PAINTED TO MATCH 'SW6147' PANDA WHITE
  11. PREFINISHED METAL COPING - PAINTED TO MATCH 'SW6147' PANDA WHITE
  12. ALUMINIUM STOREFRONT FRAMING / GLAZING ASSEMBLY - TINTED INSULATED LOW-E GLASS WITH 'DARK BRONZE' ANODIZED ALUMINUM FRAMES
  13. ALUMINIUM DOOR / TRANSOM / GLAZING ASSEMBLY - TINTED INSULATED LOW-E GLASS WITH 'DARK BRONZE' ANODIZED ALUMINUM FRAMES
  14. HOLLOW METAL DOOR AND FRAME - PAINT TO MATCH ADJACENT FINISH
  15. 14'-3" x 3'-7" EXTERIOR LED 'NEW HORIZON ACADEMY' AND 'SUN' SIGNAGE. SEE ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
  16. LED LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR FURTHER INFORMATION
  17. WALL MOUNTED CT CABINET - PAINT TO MATCH ADJACENT FINISH
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- SEE ALTERNATE #1: PROVIDE FIXED FIBERGLASS INSULATED WINDOW UNITS IN LIEU OF ALUMINUM STOREFRONT FRAMING.

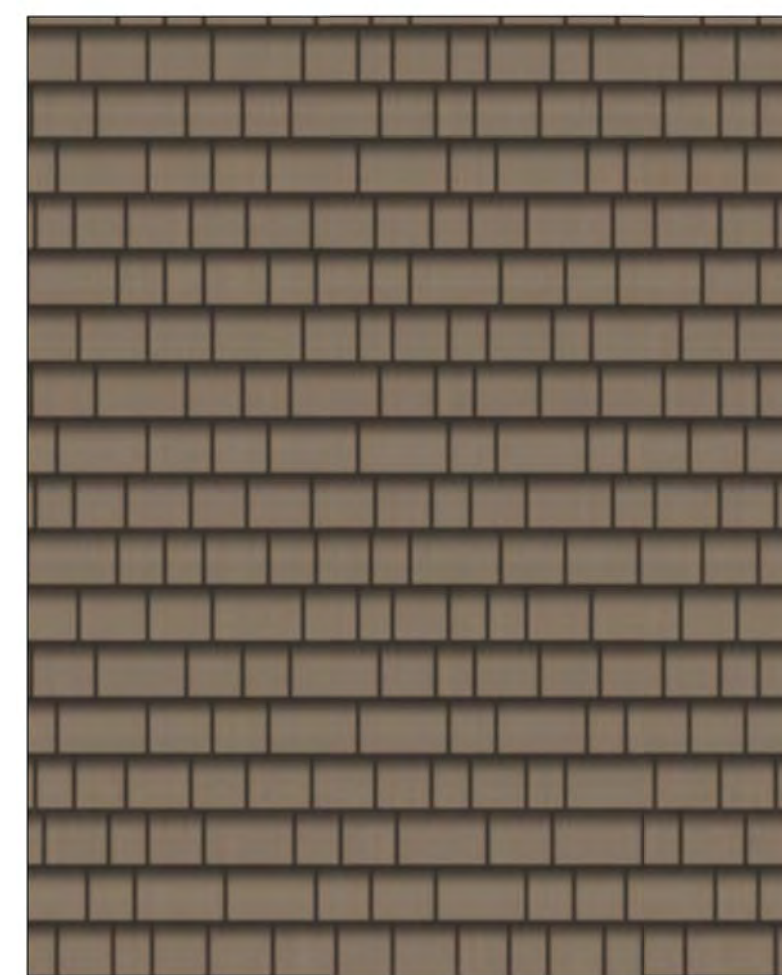


**3 EXTERIOR SIGN SCHEDULE**  
 1/4" = 1'-0"

REV. #	DESCRIPTION	DATE
1		



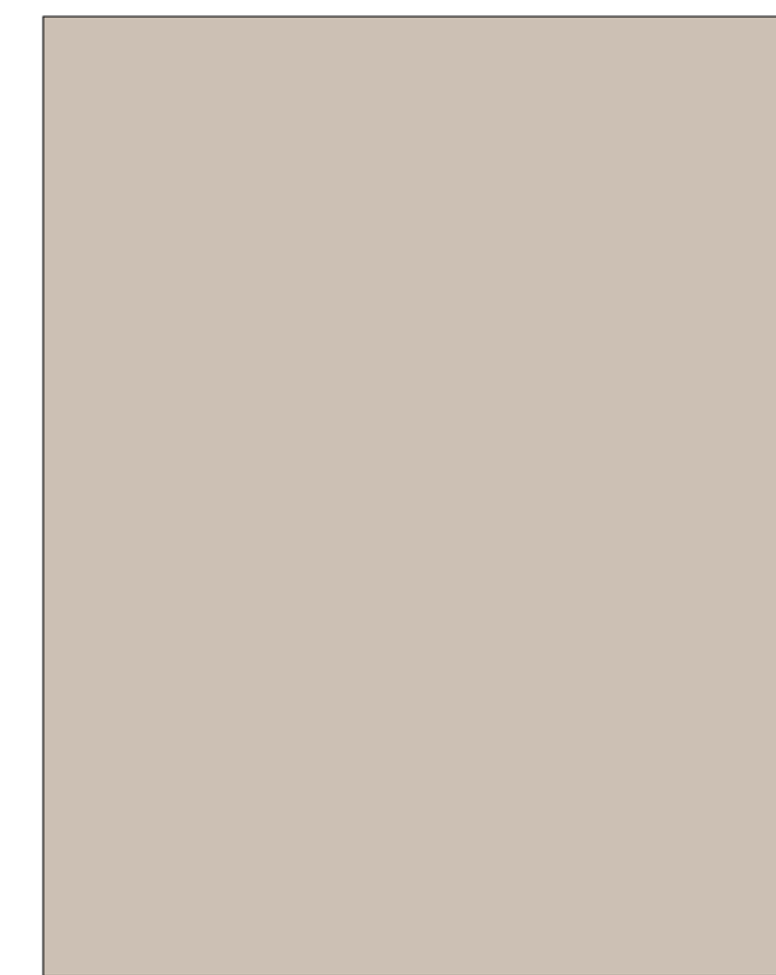
STONE VENEER - SOUTHERN  
LEDGESTONE 'CHARDONNAY'  
BY CULTURED STONE



FIBER CEMENT SHAKE SIDING -  
HARDIESHINGLE - STRAIGHT  
EDGE PANEL 'NAVAJO BEIGE' BY  
JAMES HARDIE



FIBER CEMENT HORIZONTAL SIDING -  
HARDIEPLANK - SMOOTH - 'COBBLESTONE'  
BY JAMES HARDIE



FIBER CEMENT TRIM - PAINTED  
TO MATCH 'SW6147' PANDA  
WHITE



ASPHALT SHINGLES -  
TIMBERLINE HDZ - 'BARKWOOD'  
BY GAF



ALUMINUM STOREFRONT  
FRAMING - 'DARK BRONZE'  
ANODIZED

## City Council meeting 3-24-2022, Cook Lake final plat approval

To the Corcoran City Council,

I spoke at the planning commission meeting on March 3, 2022 concerning Cook Lake final plat approval. I asked why the maps for Cook Lake Development didn't show a trail from the north end of BLC offroad trail to the fire road on the north side of Applewood Pointe. Kevin Shay from Landform stated that there is no trail planned. This was a complete shock to me. Even a member of the planning commission had heard about the planned trail. This trail was to help compensate for the loss of trees along the BLC off road trail. This trail was promised to the BLC homeowners at multiple meetings with Beth. This trail is not meant to be maintained by the city of Corcoran. It could have a class 5 base or crushed concrete base and not have to be a 20' easement. Kevin Mattson could determine the best base to use for the trail. This trail could run adjacent to the buffer zone. It could be classified as an interpretive trail that would view Cook Lake, wildlife, birds and various plants and trees. The Wetland Overlay District, Code section 1050.010, subd.5 (c), states that trails that serve as an interpretive function may be exempted from buffer and setback requirements. An easement will need to be recorded to document where the trail from outlot C crosses over to the fire road.

The city received 8.37 acres of land, which is outlot C, in lieu of park fees in the amount of \$87,932. The city paid \$87,932 for this land that has no access to it and won't be utilized by anyone. This not a good use of taxpayer dollars.

This trail would be used by the 100 units in Applewood Pointe, BLC North and South and the 19 villas in Cook Lake Highlands. There will be approximately 500 people that will have access to the trail. It could also be used by the New Horizon children for field trips to teach them about plants, birds and wildlife in Corcoran. This trail would also **allow everyone** in the neighborhood to enjoy the same views of the lake and golf course that Applewood Pointe units will enjoy. The city has a tremendous natural resource in Cook Lake. It is one of only 5 named lakes in Corcoran. The views from Applewood Pointe are million dollar views of the lake and Rush Creek Golf course and should be shared with everyone in the neighborhood. When the 80 acres to the north of Bass Lake Crossing are developed, those families will also be able to enjoy the trail.

I am requesting that the Developer be held to their promise and develop a trail from the offroad trail on the north end of Bass Lake Crossing to the fire road behind Applewood Pointe. The developer has been granted **many** exemptions to the Corcoran zoning ordinances for this PUD and should be obligated to follow through with their commitment to provide a **quality** interpretive trail. I ask that the council not approve the final PUD until the developer agrees to stand by their promise made to the BLC homeowners.

Bass Lake Crossing North and South homeowners have many dogs. What a great trail to walk their dogs.

Thank you,

Lynn and Mary Alberts

7490 Fir Lane



City Council meeting 3-24-2022, Cook Lake final plat approval

To the Corcoran City Council,

It has been brought to my attention that the Cook Lake Development does not include or show a trail from the north end of the BLC offroad trail to the fire road on the north side of Applewood Pointe.

During the walkaround with Beth last fall, I asked her if a trail would be put in the place mentioned above. I was told that there could not be an asphalt path due to environmental reasons, but she would consider putting in a wood-chip trail.

The new Applewood units (100) and the MI home development (19 units) will bring in many more residents who would benefit from access to this trail. As it stands today, this property purchased by the City of Corcoran has no access which means nobody can use it because it is not accessible.

This new trail would allow everyone in the neighborhood to enjoy the views of Cook Lake and the Rush Creek golf course and make it easier to access other trails in the area.

I am requesting that the developer be held to putting in a trail from the offroad trail on the north end of Bass Lake Crossing to the fire road behind Applewood Pointe.

Sincerely,

Matt & Becky Sumers

7485 Fir Lane

Corcoran

To: Corcoran City Council

RE: Cook Lake Highlands final plat approval

To the City Council,

As residents of Corcoran living in Bass Lake Crossing, we have been following the discussion regarding the Cook Lake Development to the east of BLC. I recall that Beth Hustad of Trek Real Estate telling the council during 2 of the meetings that she would be willing to add in a walking trail connecting to the existing walking path between BLC and the proposed Applewood Pointe as compensation for the loss of trees and existing vegetation from the proposed development. The current trail is used by local residents and would also be available to be used by future residents of Applewood Pointe. We are asking the Council to require that Beth Hustad live up to her word add in this path before any final approval is granted.

Thank you,

Lauri and Tom Bolin

19336 74<sup>th</sup> Ave

**From:** [Kendra Lindahl, AICP](#)  
**To:** [Kevin Shay](#)  
**Subject:** FW: Cook Lake Plat - Trail needs to be included in Plan  
**Date:** Wednesday, March 16, 2022 12:17:02 PM

---

Please add to the file/packet

Kendra Lindahl, AICP  
LANDFORM, Principal Planner  
Direct: 612-638-0225

---

**From:** Natalie Davis <[ndavis@corcoranmn.gov](mailto:ndavis@corcoranmn.gov)>  
**Sent:** Wednesday, March 16, 2022 11:16 AM  
**To:** Kendra Lindahl, AICP <[KLindahl@landform.net](mailto:KLindahl@landform.net)>  
**Cc:** Dwight Klingbeil <[DKlingbeil@corcoranmn.gov](mailto:DKlingbeil@corcoranmn.gov)>  
**Subject:** FW: Cook Lake Plat - Trail needs to be included in Plan

Another public comment email for the packet/file.

Thanks,

*Natalie Davis McKeown*  
Planner  
Direct: 763-258-4272



---

**From:** judy baluty <[judy.2340@hotmail.com](mailto:judy.2340@hotmail.com)>  
**Sent:** Wednesday, March 16, 2022 11:15 AM  
**To:** Natalie Davis <[ndavis@corcoranmn.gov](mailto:ndavis@corcoranmn.gov)>  
**Subject:** Cook Lake Plat - Trail needs to be included in Plan

Natalie,

We are residents of Bass Lake Crossing and love the area! Contacting you today as we are very concerned and upset about where the trail is on the Cook Lake Development plans?

How can there be no trail planned when it was discussed many times, how did it just get dropped? Very disappointing!!

It is key for this development and was discussed many times with Beth in the meetings we attended online.

The trail could be used by all to and see the same wonderful nature and views of Cook Lake. The area is beautiful for many to enjoy!

We love the trail for exercise, socializing with neighbors, changes of color with the seasons, seeing Sandhil Cranes, deer, turkey and pheasants!

We are asking for the developer of this to hold to promise and develop the trail from off-road trail on the north end of Bass Lake Crossing to fire road behind Applewood Pointe.

The planner should adhere to follow through with commitment on this trail as promised. Simply put, the plans should NOT be approved until she agrees to put trail in.

Please stand by your promise to this Bass Lake Crossing neighborhood by including a quality trail for all to enjoy.

Please let me know you have received this and will include it in 3/24/22 Council package!

Thank you so much Natalie!

Sincerely,

Judy & Paul Grannes

7498 Fir Lane

Sent from [Mail](#) for Windows

**From:** [Kendra Lindahl, AICP](#)  
**To:** [Kevin Shay](#)  
**Subject:** FW: Cook Lake Highlands trail  
**Date:** Thursday, March 17, 2022 1:13:08 PM

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Kendra Lindahl, AICP | Principal Planner

Tel: 612-638-0225  
Mob: 612-290-8102  
Email: [KLindahl@landform.net](mailto:KLindahl@landform.net)

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-----Original Message-----

From: Natalie Davis <[ndavis@corcoranmn.gov](mailto:ndavis@corcoranmn.gov)>  
Sent: Thursday, March 17, 2022 12:40 PM  
To: Kendra Lindahl, AICP <[KLindahl@landform.net](mailto:KLindahl@landform.net)>  
Cc: Dwight Klingbeil <[DKlingbeil@corcoranmn.gov](mailto:DKlingbeil@corcoranmn.gov)>  
Subject: FW: Cook Lake Highlands trail

Another public comment email.

Natalie Davis McKeown  
Planner  
Direct: 763-258-4272

-----Original Message-----

From: Steve <[stevem1000@comcast.net](mailto:stevem1000@comcast.net)>  
Sent: Thursday, March 17, 2022 12:29 PM  
To: Natalie Davis <[ndavis@corcoranmn.gov](mailto:ndavis@corcoranmn.gov)>  
Subject: Cook Lake Highlands trail

Good morning Natalie. Will you please insert this in the March 24 council meeting packet.

Council members,

It was some of the neighbors understanding that Beth Hustad would build a trail from Bass Lake Crossing near the Lake extending around Applewood to the fire road. This was made as a concession with some other things to mitigate the neighbors objection to all the PUD variances.

She was firm that it would not be asphalt. However, we are hoping that it is a class 5 or something similar so that it will last. When you think about this trail, between both sides of Bass Lake Crossing, Applewood condos and the Cook Lake villa homes, that would be 270 homes with access to the [https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fpath.so&c=E,1.B4DMv2P-w0Lx1E2ncJiHKgAm8Om1izjnppiKtBBKOaXkf-D1ueaKzv4J0B\\_sNVDCP7fZWR5XLhOPGoZhraDcgI1cYuCwNaAeK5yVyGpGq7PJm8H2xhCaHN7wDWe4&typo=1](https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fpath.so&c=E,1.B4DMv2P-w0Lx1E2ncJiHKgAm8Om1izjnppiKtBBKOaXkf-D1ueaKzv4J0B_sNVDCP7fZWR5XLhOPGoZhraDcgI1cYuCwNaAeK5yVyGpGq7PJm8H2xhCaHN7wDWe4&typo=1) it will be heavily used.

Thank You  
Steve Mueller  
Bass Lake Crossing

Sent from my iPad

**From:** [Kendra Lindahl, AICP](#)  
**To:** [Kevin Shay](#)  
**Subject:** FW: Cook Lake Highlands - March 24, 2022 City Council Meeting  
**Date:** Wednesday, March 16, 2022 8:20:25 AM

---

For the file.

Kendra Lindahl, AICP  
LANDFORM, Principal Planner  
Direct: 612-638-0225

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**From:** Jessica Beise <jbeise@corcoranmn.gov>  
**Sent:** Wednesday, March 16, 2022 7:09 AM  
**To:** Kendra Lindahl, AICP <KLindahl@landform.net>; Dwight Klingbeil <DKlingbeil@corcoranmn.gov>; Natalie Davis <ndavis@corcoranmn.gov>  
**Subject:** Fwd: Cook Lake Highlands - March 24, 2022 City Council Meeting

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**From:** [icy7rain@aol.com](mailto:icy7rain@aol.com) <[icy7rain@aol.com](mailto:icy7rain@aol.com)>  
**Sent:** Tuesday, March 15, 2022 8:54:58 PM  
**To:** Jessica Beise <[jbeise@corcoranmn.gov](mailto:jbeise@corcoranmn.gov)>  
**Subject:** Cook Lake Highlands - March 24, 2022 City Council Meeting

Jessica,  
Please include this email in the City Council's Agenda Packet for March 24, 2022. Also, if you would, please respond that you received our email.  
Thank you.

Dear Corcoran City Council,

Looking at the maps of the Cook Lake Highlands development, we are concerned that we do not see the trail included from the north end of the Bass Lake Crossing off road trail to the fire road on the north end of Applewood Pointe. Beth Hustad had mentioned to the Bass Lake Crossing homeowners that she would establish a trail between these points.

The City of Corcoran received 8.37 acres of land, in lieu of park fees. The city paid the developer \$87,935 for this land that has no access to it and won't be utilized by anyone.

We are desperately in need of trails and having this empty land, makes no sense at all. The current Bass Lake Crossing trail is used extensively by the residents of both the North and South Bass Lake Crossing neighborhoods, not to mention the addition of all the new residents that will be moving

into Applewood Pointe, the planned 19 Villas and the children of the New Horizon's daycare facility in the Cook Lake Highland development.

The developer has been given practically everything she wanted for the PUD, can't we at least have her put in a much-needed trail.

Thank you.

Dennis & Ruby Schmid  
7442 Fir Lane





**TO:** Corcoran City Council

**FROM:** Kevin Shay through Kendra Lindahl, Landform

**DATE:** March 16, 2022, for the March 24, 2022 City Council Meeting

**RE:** Request Cedar Creek Energy on behalf of Linda Lohn for a Zoning Amendment for Ground Mounted Solar (city file no. 22-005)

**120-DAY REVIEW DEADLINE:** May 18, 2022

### 1. Description of Request

The applicant, Cedar Creek Energy, has requested an amendment to the Zoning Ordinance to manage the size of ground mounted solar energy systems based on the AC kilowatt size rather than as part of the allowed detached accessory structure square footage limitations.

### 2. Background

In 2016, the City adopted an ordinance allowing community solar gardens and accessory solar structures in all districts.

In 2017, the amended the ordinance to prohibit Community Solar Gardens, but continue to allow property owners to install small-scale ground-mounted or roof-mounted SESs as accessory uses.

The applicant is submitting a zoning amendment request after submitting a permit (city file 21-053) for ground mounted solar equipment greater in size than allowed in the current ordinance.

### 3. Planning Commission Review

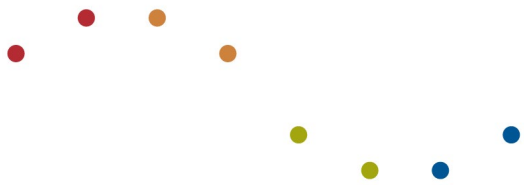
The Planning Commission held a public hearing on March 3, 2022. The applicant was the only person present to speak on the item. The Planning Commission voted 4-1 (Lanterman nay) to recommend approval of staff's recommendation to allow ground solar independent of accessory structures.

### 4. Analysis

Staff has reviewed the application for consistency with Comprehensive Plan, Zoning Ordinance, Subdivision Ordinance and City Code requirements, as well as City policies.

#### A. Level of City Discretion in Decision-Making

The City has a relatively high level of discretion in approving or denying an ordinance amendment. The proposed zoning amendment must be consistent with the City's Comprehensive Plan. The Zoning



Ordinance is one of the enforcement tools used to implement the goals and standards set in the Comprehensive Plan.

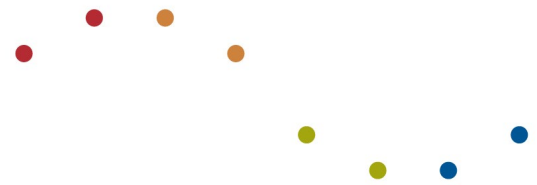
**B. Consistency with Ordinance Standards**

The request from the applicant is to amend the solar energy standards within the performance standards of the Zoning Ordinance to limit the size of ground mounted solar systems by the AC kilowatt size of the system. The applicant indicated that the AC size limitation is similar to the guidelines of the Minnesota Public Utilities Commission (PUC). The Minnesota PUC allows up to 40 AC kilowatt systems in a residential area. With the current solar technology this equates to approximately 3,400 square feet of ground mounted solar energy systems. The size of the solar energy system would not be tied to the size of the lot. As technology improves the maximum size of the panels would decrease. The applicant stated that in the last 3 years they have seen the size needed for a 40 KW system decrease by 900 square feet.

The Zoning Ordinance currently limits ground mounted solar energy systems by considering them accessory structures. This limits the size of the solar system based on the size of the property and other accessory structures present on a given property. The table showing the total accumulated footprint of accessory structures (including ground mounted solar) allowed based on the property size is shown below.

Acres	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
<1	1,250 or 25 percent of the area of the rear yard, whichever is less.									
1	1,250	1,275	1,300	1,325	1,350	1,375	1,400	1,425	1,450	1,475
2	1,500	1,531	1,563	1,594	1,625	1,656	1,688	1,719	1,750	1,781
3	1,813	1,844	1,875	1,906	1,938	1,969	2,000	2,031	2,063	2,094
4	2,125	2,156	2,188	2,219	2,250	2,281	2,313	2,344	2,375	2,406
5	2,438	2,469	2,500	2,531	2,563	2,594	2,625	2,656	2,688	2,719
6	2,750	2,781	2,813	2,844	2,875	2,906	2,938	2,969	3,000	3,031
7	3,063	3,094	3,125	3,156	3,188	3,219	3,250	3,281	3,313	3,344
8	3,375	3,406	3,438	3,469	3,500	3,531	3,563	3,594	3,625	3,656
9	3,688	3,719	3,750	3,781	3,813	3,844	3,875	3,906	3,938	3,969
10+	3,969	CUP	CUP	CUP	CUP	CUP	CUP	CUP	CUP	CUP

Staff has concerns with limiting solar energy systems based on AC kilowatt size. This method will result in a changing size standard as the systems and technology of solar panels progresses. It would also be difficult to answer resident questions and determine the size of the ground mounted solar system without knowing the exact model they would install. Therefore, staff is not recommending proceeding with the applicant’s proposal.



Staff researched how other communities handle ground mounted solar energy systems in residential districts. The communities handle solar energy systems in the following manner.

- Maple Grove – allows ground mounted solar systems in only the rear yard with no size limitation. Not permitted in front or side yards. Solar arrays are subject to the setback standards for the zoning district.
- Hugo – allows ground mounted solar systems and considers them as accessory structures. The size allowed is based on the size of the property and is taken out of the total accessory structures allowed. The ground mounted solar are subject to the accessory structure setback for the district. This is the similar to the current Corcoran solar standards with a difference in the size allowed.
- Rogers – allows ground mounted solar systems in all residential districts up to 5% of the lot area independent of the allowable accessory structure size limitations. The ground mounted solar are subject to the accessory structure setback for the district. The size limitation for Rogers allows a much larger amount of solar than Corcoran’s current solar standards.

Staff recommends amending the ordinance to allow solar energy systems independent from other accessory structures. This would allow ground solar according to the accessory building size table above without counting other accessory structures. Meaning the amount shown in the table would be a properties allowance for accessory structures and they could have an equal area of ground solar energy systems. The change to the ordinance is shown in the table below:

<b>Type</b>	<b>District</b>	<b>Application Required</b>	<b>Special standards</b>
Building Integrated SES	All Districts	Building Permit	Building-integrated Solar Energy Systems are subject to all required setback, land use, and performance standards for the district in which the building is located.
Building or Roof Mounted SES	All Districts	Certificate of Compliance	Non-residential rooftop systems may be pitched at an angle greater than 5% and shall be screened from the adjacent public right-of-way and adjacent residential structures.

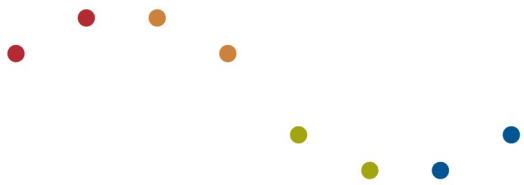
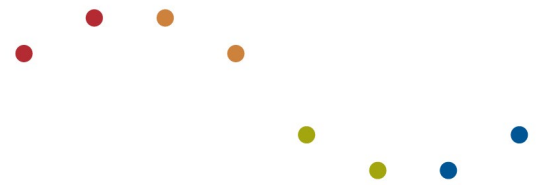


Table 1 – Types of Solar Energy Systems			
Type	District	Application Required	Special standards
Accessory Ground Mounted Solar Energy Systems	UR, RR	Certificate of Compliance for Residential Uses;  Site Plan required for non-residential uses;  CUP as required by Section 1030.020, Subd. 4, E	Panel coverage shall conform to the accessory building size requirements of Section 1030.020, Subd. 4, E., except:  <u>1. Solar energy system size shall be considered independent from other accessory structures.</u>  <del>1.2.</del> The total footprint shall be calculated as the area of the solar collector surface.  <del>2.3.</del> The maximum solar panel coverage allowed for parcels over 10 acres is 3,969 feet.

Approval of this draft ordinance amendment would affect all properties in the UR and RR zoning districts. For reference, the Lohn’s property is 2.54 acres and would be allowed 1,656 square feet rather than the 3,085 square feet they requested as part of their initial application.

The City Council has three options for approval.

1. Move forward with staff and Planning Commission recommendation to allow solar energy independent from other accessory structures.
2. Move forward with applicant recommendation to regulate based on AC kilowatt size.
3. No change to the current ordinance.



## 5. Recommendation

Move to approve the following, as recommended by the Planning Commission:

- a. Ordinance 2022-454 amending Section 1060.110 (Solar Energy Systems) of the Zoning Ordinance and
- b. Resolution 2022-25 approving findings of fact for the amendment
- c. Summary Ordinance 2022-455

Approval of the ordinance amendment and resolution approving findings fact requires a 3/5 vote by the City Council. Approval of the summary publication ordinance requires a 4/5 vote by the City Council.

### Attachments

1. Ordinance 2022-454 Amending Ground Solar Standards
2. Resolution 2022-25 Findings of Fact for Amendment
3. Summary Ordinance 2022-455
4. Applicant Narrative dated January 18, 2022
5. Solar Site Plan dated January 18, 2022
6. Lohn Comment Letter dated January 2, 2022
7. Maple Grove Solar Ordinance
8. Hugo Solar Ordinance
9. Rogers Solar Ordinance

**ORDINANCE NO. 2022-454**

**Motion By:**  
**Seconded By:**

**AN ORDINANCE AMENDING THE TEXT OF TITLE X (ZONING ORDINANCE) OF THE CORCORAN CITY CODE RELATED TO GROUND SOLAR STANDARDS (CITY FILE 22-005)**

**THE CITY OF CORCORAN ORDAINS:**

**SECTION 1.** Amendment of the City Code. The text of Chapter 1060.110 of the Zoning Ordinance of the Corcoran City Code is hereby amended by deleting the ~~stricken~~ material and adding the underlined material as follows:

**Subd. 2. Development of Solar Energy Systems.**

A. Solar Energy Systems shall be permitted in the City of Corcoran according to Table 1 of this section.

<b>Table 1 – Types of Solar Energy Systems</b>			
<b>Type</b>	<b>District</b>	<b>Application Required</b>	<b>Special standards</b>
Building Integrated SES	All Districts	Building Permit	Building-integrated Solar Energy Systems are subject to all required setback, land use, and performance standards for the district in which the building is located.
Building or Roof Mounted SES	All Districts	Certificate of Compliance	Non-residential rooftop systems may be pitched at an angle greater than 5% and shall be screened from the adjacent public right-of-way and adjacent residential structures.
Accessory Ground Mounted Solar Energy Systems	UR, RR	Certificate of Compliance for Residential Uses;  Site Plan required for non-residential uses;	Panel coverage shall conform to the accessory building size requirements of Section 1030.020, Subd. 4, E., except:  <u>1. Solar energy system size shall be considered independent from other accessory structures.</u>  <del>1.2.</del> The total footprint shall be calculated as the area of the solar collector surface.

**ORDINANCE NO. 2022-454**

<b>Table 1 - Types of Solar Energy Systems</b>			
<b>Type</b>	<b>District</b>	<b>Application Required</b>	<b>Special standards</b>
		CUP as required by Section 1030.020, Subd. 4, E	<del>2.3.</del> The maximum solar panel coverage allowed for parcels over 10 acres is 3,969 feet.

**Section 2. Effective Date**

This Ordinance shall be in full force and effect upon its adoption.

**ADOPTED** by the City Council on the 24<sup>th</sup> day of March 2022.

**VOTING AYE**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

**VOTING NAY**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

\_\_\_\_\_  
Tom McKee - Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*

**RESOLUTION NO. 2022-25**

**Motion By:**  
**Seconded By:**

**A RESOLUTION APPROVING FINDINGS OF FACT FOR AN ORDINANCE AMENDING THE TEXT OF SECTION 1060.110 OF CORCORAN ZONING ORDINANCE (CITY FILE 22-005)**

WHEREAS, Cedar Creek Energy (“the applicant”) has requested an amendment to the ground mounted solar energy standards; and

WHEREAS, staff has analyzed the request and recommended allowing more area for ground mounted solar energy systems, but using a different method than the applicant proposed; and

WHEREAS, the Planning Commission has reviewed the request at a duly called Public Hearing and recommends approval, and;

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORCORAN, MINNESOTA, that it does approve an amendment to Title X (Zoning Ordinance) of the City Code to amend the ground mounted solar energy system standards, based on the following findings:

1. The proposed amendment would be consistent with State law and the City’s Comprehensive Plan.
2. The proposed amendment would allow for consistent ground mounted solar energy system size independent of accessory structures.
3. The proposed amendment is easy to understand and implement consistently.
4. The proposed amendment continues to scale the allowable ground mounted solar energy system with the size of the property.

**VOTING AYE**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

**VOTING NAY**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

Whereupon, said Resolution is hereby declared adopted on this 24<sup>th</sup> day of March 2022.

\_\_\_\_\_  
Tom McKee - Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*



**ORDINANCE NO. 2022-455**

**Motion By:**  
**Seconded By:**

**CITY OF CORCORAN**

**SUMMARY OF ORDINANCE NO. 2022-454**

**AN ORDINANCE AMENDING THE TEXT OF TITLE X (ZONING ORDINANCE) OF THE CORCORAN CITY CODE RELATED TO GROUND SOLAR STANDARDS (CITY FILE 22-005)**

Title X of the City Code of the City of Corcoran, Minnesota, is hereby amended to revise the standards for ground mounted solar energy systems of the Zoning Ordinance of the Corcoran City Code.

A printed copy of the entire amendment is available for inspection by any person at City Hall during the City Clerk's regular office hours.

**VOTING AYE**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

**VOTING NAY**

- McKee, Tom
- Bottema, Jon
- Nichols, Jeremy
- Schultz, Alan
- Vehrenkamp, Dean

Whereupon, said Resolution is hereby declared adopted on this 24<sup>th</sup> day of March 2022.

\_\_\_\_\_  
Tom McKee - Mayor

**ATTEST:**

\_\_\_\_\_  
Jessica Beise – Administrative Services Director

*City Seal*



**Existing Zoning and proposed:**

We request that the accessory use ordinance (1030.020, Subd. 4, E), as it pertains to solar energy systems (1060.110), be amended to limit ground mounted systems based not on their square footage but on their AC kilowatt (KW) size. Instituting an AC size limitation will fall more in line with the guidelines of the Minnesota Public Utilities Commission (PUC), which allows up to 40 kilowatt (AC) systems for residential use. With the currently available technology this would limit the size of a ground mounted solar array at 3,400 square feet.

**The nature and reason for request:**

With the advancement in solar technology, the wattage of the panels that make up a solar array have increased dramatically over time. As panel wattages continues to increase there will be a concurrent decrease in the total square footage needed for a solar array. In the past 3 years we have seen the square footage required for a 40 kW (AC) system decrease by roughly 900 sq ft. This is due to the increased wattage of the solar panels while maintaining the same or similar dimension per panel. We have no reason to believe these efficiencies will change, as panel wattages typically increase by 5 – 15 watts each year. per

**Intended use of Property:**

The increase in panel wattage and efficiency is crucial to the adoption of solar. As more households have adopted all electric appliances, water heaters and furnaces, along with the increase in utility rates, this will only drive up demand for electricity. Also, with the advancements made in battery technology and affordability there will be additional demand for solar arrays, as the two are often installed together. With the incorporation of batteries into solar systems this provides homeowners the ability to store the excess power produced. This stored energy can then be saved for power outage events or when the solar array is not producing power (e.g. nighttime). The Swanson's are forward thinking individuals that have updated their home to be fully electric. As part of that, they also wish to insulate themselves from the possibility of being displaced by a power outage which would disrupt the heating, cooling, water, and waste systems at the house, as well as their medical devices.

**Nature of uses of adjacent properties/Impacts on adjoining properties and mitigating measures to minimize/impact on traffic:**

Understandably most ground mounted solar arrays of this size will be in large lot residential areas presumably with neighbors. Modern solar panels are designed with more uniform appearances, slimmer frames and incorporate anti-glare properties. Placing solar in the rear of the property is the simplest way to prevent them from being seen. Also incorporating native vegetation to screen the array has been an effective way to hide or obstruct such arrays from public view, including road traffic. As stated in section

1060.110, Subd. 3, 8, B the ordinance calls for specific vegetation as ground cover as well as screening. We implement these techniques when necessary, however the type of ground mount system that will be installed on this project is a low impact system that leaves the ground cover intact with a max height of 9' 2". With the very hardy tree line that runs the boarder of the property and the structures in the front of the property the current site conditions are perfect to screen this array not only from neighboring properties but traffic.

**Potential environmental impact, and measures to avoid, minimizer those potential impacts:**

Compared to other sources of power production, solar has a vastly more positive impact on the environment. While the manufacturing of solar materials does incur some impact on the environment, the benefits that those materials serve are net positive when considering things such as carbon emissions. Solar arrays typically have little to no impact to their surrounding areas. This cannot be said for other power sources.

# LINDA LOHN - 56.000kW DC, 39.200kW AC



CEDAR CREEK ENERGY  
10361 JAMESTOWN ST NE, BLAINE MN, 55449.  
**CONTRACTOR INFORMATION:**  
ALEX GAST  
ALEX.GAST@CEDARCREEKENERGY.COM  
PH:763-450-9765  
MN ELECTRICAL LICENSE:EA006457  
GENERAL LICENSE:BC638279

**SYSTEM INFORMATION**

DC SYSTEM SIZE: 56.000KW  
AC SYSTEM SIZE: 39.200KW  
**MODULES:**  
(140) JINKO SOLAR JKM400M-72HL-V  
**INVERTER:**  
(1) SOLAREEDGE TECHNOLOGIES SE5000H-US(240V,1PH)  
(3) SOLAREEDGE TECHNOLOGIES SE11400H-US(240V,1PH)(240V,1PH)  
**OPTIMIZER:**  
(140) SOLAREEDGE P401 OPTIMIZER

**ENGINEER OF RECORD**

SOLAR PV SYSTEM FOR LINDA LOHN  
9735 TAMAMI TRAIL, CORCORAN, MN 55340.  
45° 7'55.78"N 93°35'38.10"W  
APN:091-192-313-0002

DESCRIPTION PERMIT PLAN  
REV A  
DATE 10/1/21

AHJ: MN-CITY OF CORCORAN  
UTILITY: WH ELECTRIC COOPERATIVE  
PROJECT NUMBER: CCEN-003479

DESIGNER/CHECKED BY: SP/LS

SITE PLAN-1

SCALE: AS NOTED

PAPER SIZE: 36"x24" PV-1.0

DATE: 10/1/21 REV: A

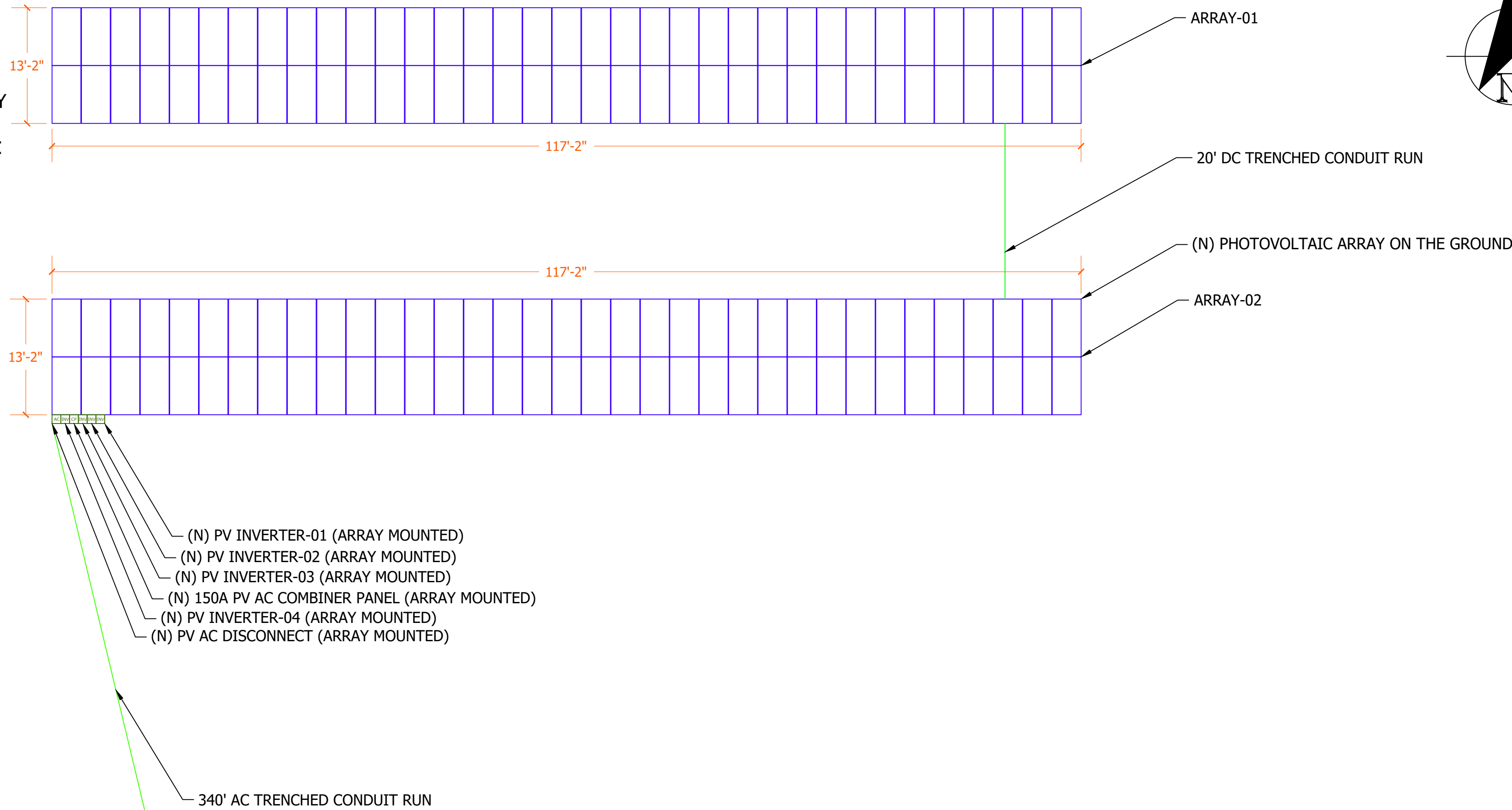
**NOTE:**

- NO CLEARANCE ISSUES WITH EXITING OVERHEAD LINES
- PV UTILITY DISCONNECT IS LOCATED WITHIN 10' OF MAIN SERVICE/BILLING METER
- VISIBLE, LOCKABLE, READILY ACCESSIBLE AND 24/7 ACCESS
- DESIGN COMPLY WITH NEC AND NEC690
- LABELS SHALL BE WEATHERPROOF, DURABLE, AND PERMANENTLY MOUNTED
- 24/7 UNSCORTED KEYLESS ACCESS TO METERS AND UTILITY AC DISCONNECTS.
- SECONDARY INTERCONNECTION.
- INVERTERS ARE UL1741 RATED.
- MODULES ARE UL1703 RATED.

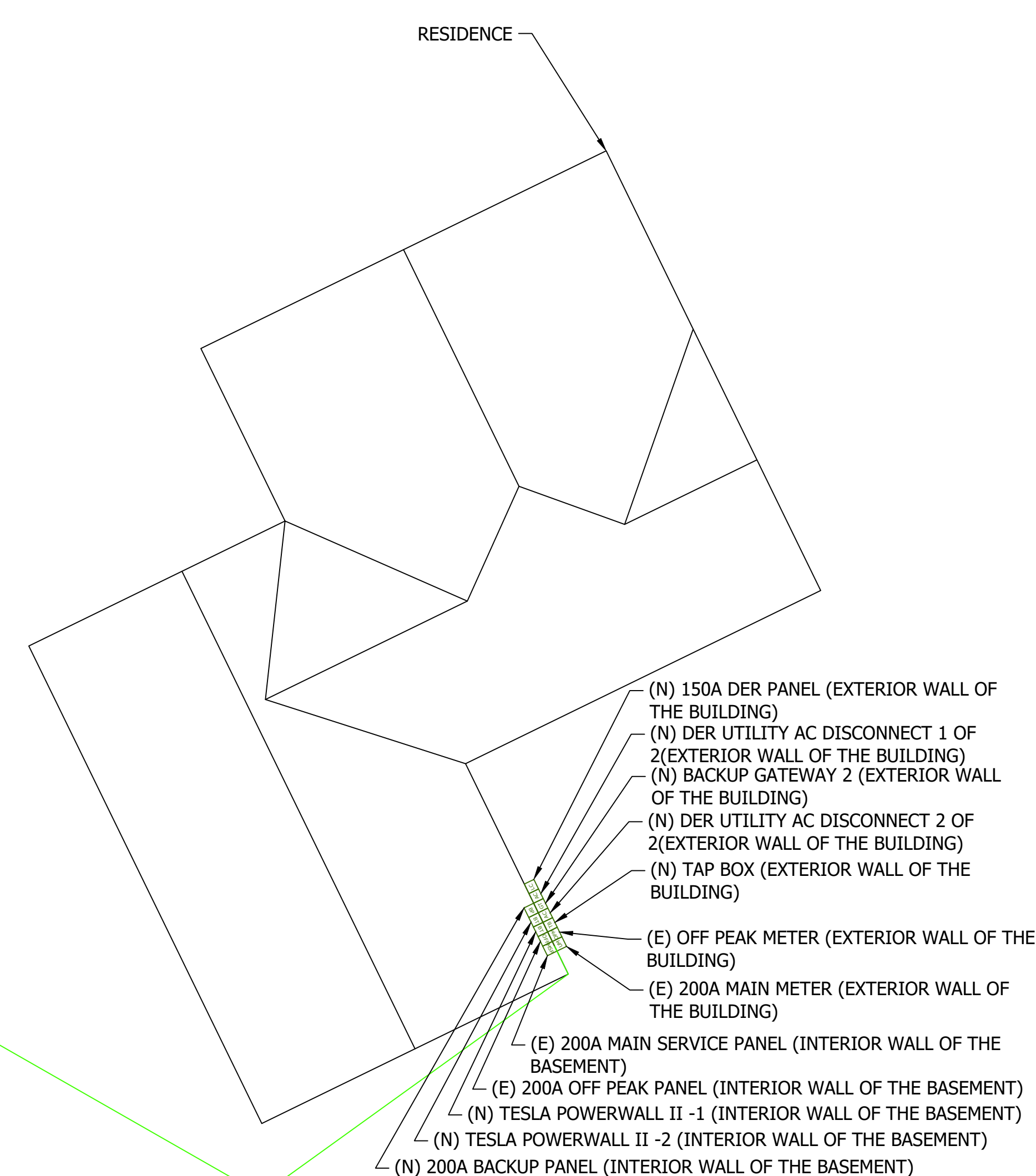
DISTANCE BETWEEN EQUIPMENT		
FROM	TO	DISTANCE (FT)
ARRAY 1	PV INVERTER-01,02	20
ARRAY 2	PV INVERTER-03,04	1
PV INVERTER-01,02,03	PV AC COMBINER PANEL	3
PV INVERTER-04	PV AC DISCONNECT	1
PV AC DISCONNECT	150A DER PANEL	340
150A DER PANEL	TESLA POWERWALL II -1	5
150A DER PANEL	TESLA POWERWALL II -2	5
150A DER PANEL	DER UTILITY AC DISCONNECT 1 OF 2	
DER UTILITY AC DISCONNECT 1 OF 2	BACKUP GATEWAY 2	1
BACKUP GATEWAY 2	BACKUP PANEL	1
PV AC COMBINER PANEL	DER UTILITY AC DISCONNECT 2 OF 2	340
DER UTILITY AC DISCONNECT 2 OF 2	TAP BOX	1
TAP BOX	MAIN METER	1
MAIN METER	OFF PEAK METER	1
OFF PEAK METER	OFF PEAK PANEL	1
MAIN METER	MAIN SERVICE PANEL	1

ACCOUNT #	120-1253-2400
METER #	336993993

**Previous Permit Plans not in Compliance with City Code**

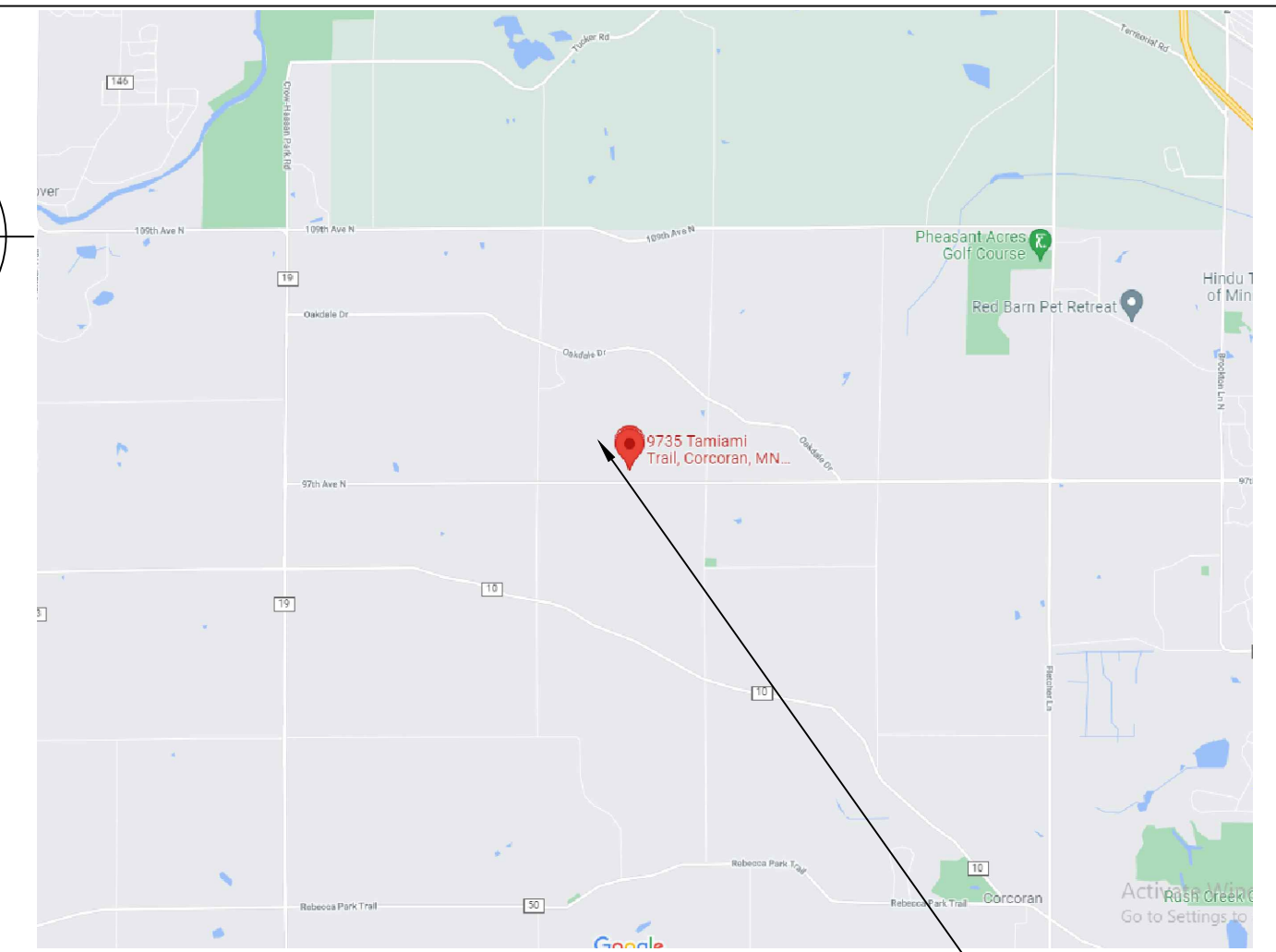


- (N) PV INVERTER-01 (ARRAY MOUNTED)
- (N) PV INVERTER-02 (ARRAY MOUNTED)
- (N) PV INVERTER-03 (ARRAY MOUNTED)
- (N) 150A PV AC COMBINER PANEL (ARRAY MOUNTED)
- (N) PV INVERTER-04 (ARRAY MOUNTED)
- (N) PV AC DISCONNECT (ARRAY MOUNTED)



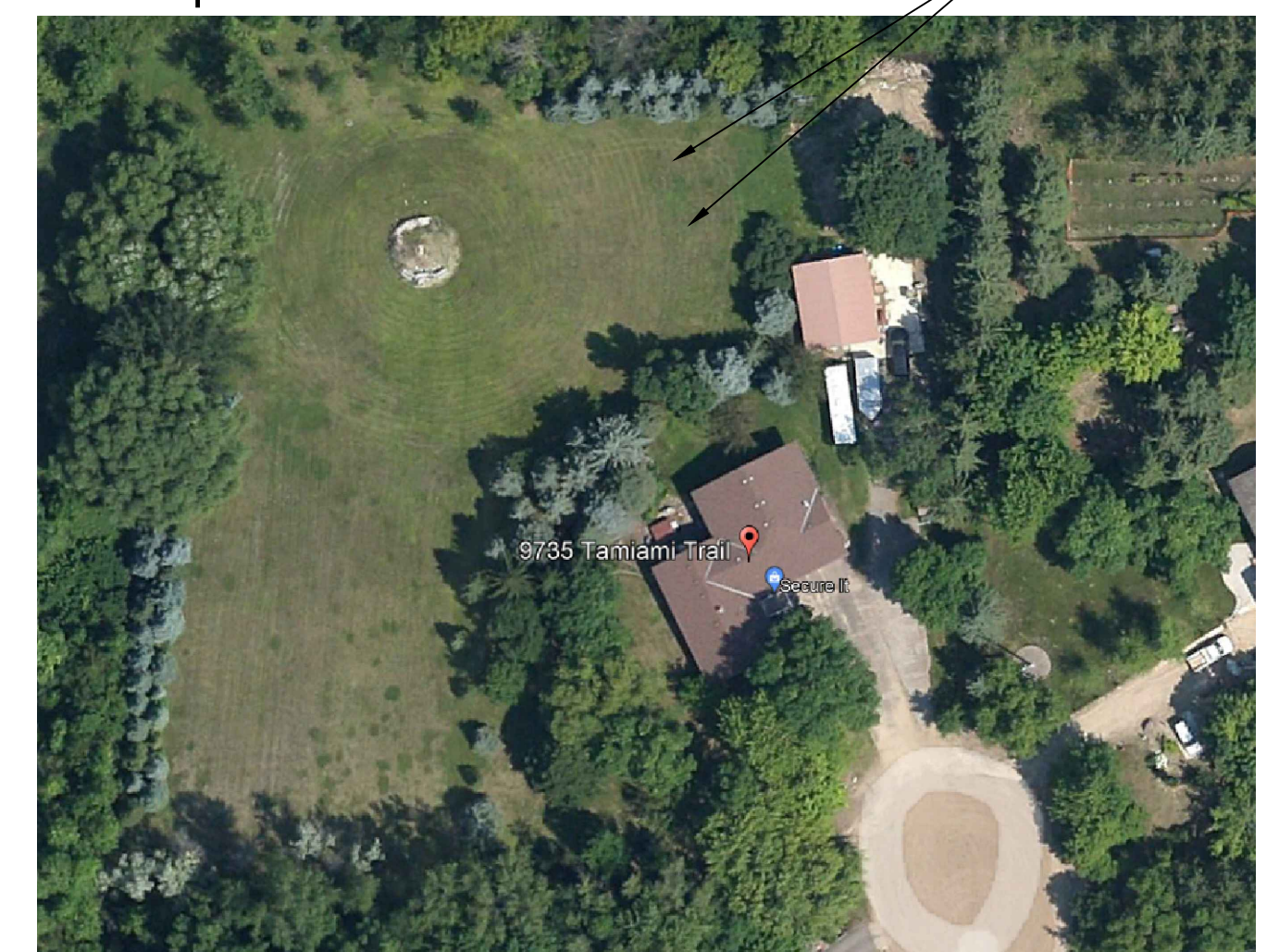
**3 SITE PLAN-1**

PV-1.0 SCALE: 1"=10'-0"



**1 VICINITY MAP**

PV-1.0 SCALE: NTS



**2 AREIAL VIEW**

PV-1.0 SCALE: NTS

**APPLICABLE CODES**

- 2020 NATIONAL ELECTRICAL CODE
- 2018 INTERNATIONAL FIRE CODE
- 2020 MINNESOTA BUILDING CODE
- ADDITIONALLY, CONFORM TO ALL LOCAL ORDINANCES AND REQUIREMENTS

**DESIGN CRITERIA**

- WIND SPEED: 115MPH
- SNOW LOAD: 40PSF
- HIGH DESIGN TEMPERATURE = 32°C
- LOW DESIGN TEMPERATURE = -26 °C

INDEX	
INDEX NO.	DESCRIPTION
PV-1.0	SITE PLAN-1
PV-1.1	SITE PLAN-2
PV-2.0	GENERAL NOTES
PV-3.0	ENLARGED SITE PLAN
PV-4.0	MOUNTING DETAILS
PV-4.1	STRUCTURAL DETAILS
PV-5.0	STRING WIRING DIAGRAM
PV-6.0	SINGLE LINE DIAGRAM
PV-6.1	ELECTRICAL CALCULATION
PV-6.2	PLACARD
PV-7.0	SPEC SHEET(S)-1
PV-7.1	SPEC SHEET(S)-2



1-2-2022

Linda & Barry Swanson

9735 Tamiami Trail

Corcoran, MN 55340

To Whom It May Concern,

My name is Barry Swanson, my wife is Linda Lohn-Swanson. Linda has lived at 9735 Tamiami Trail since 1978, 43 years ago. She raised her sons here and offered her time to the city of Corcoran as a Police Reservist for over 5 years. Linda and I were married in 2000 and have continued to reside here today. As we tell our friends, we plan to be here until they carry us out feet first.

As a result of that we have had to consider the possibilities of what types of problems we might incur. Our home is total electric, we rely on electric for all our needs from heat to cooling, medical devices and food preparation and storage. Over the years we have faced power outages, but now as we are into our 70's we need to be prepared for our remaining years in our home.

We have seen over the years where our electric needs have increased as the years have passed. When Linda moved in, she was thrilled with the home as it had more than one outlet in each room. Then, over the last 43 years, found a continual need to upgrade the electric needs to keep up with the demands of maintaining a functioning home. Linda and I recently had to have major work done to improve our electrical system, this included going to a 400-amp panel. This after we had a fire in the meter box on the house and the wiring behind it. We nearly lost our home to fire because of these increased electrical needs.

It is our hope to never have that type of problem again. We also want to know that in the event of a power outage we will not have to be displaced or lose our property to heat or cold or lose the use of our electrically powered medical devices. We have considered many ways of providing for our health and wellbeing in our "Golden Years". Which as I am sure you know are not always Golden.

The addition of a solar system that guarantees us the resources we need to remain in our home, is one area that, with your help, we can accomplish.

As a matter of impact on the community, the panels would be placed in our backyard and only visible from our house or if you were on our property. They will not impact water flow or any other acts of nature in or near our property.

Thank you for your consideration,

Barry & Linda Swanson

And so;

Good by

Good Luck

And may the Good Lord take a liken to you.

## Sec. 36-833. - Geothermal, solar, and wind energy conversion systems.

(a) *Geothermal system. ....*

- (1) Permitted accessory use in all zoning districts on the condition it meets the requirements of this section and other provisions of the Code. ....
- (2) Coils and piping may not cross lot lines without recorded easement from the effected property. ....
- (3) Upon determination by the city that encroachment of coils and piping into drainage and utility easements does not interfere with the city's use of the easement, coils and piping may cross into drainage and utility easements with the city's written permission subject to conditions determined by the city. ....
- (4) Systems that are proposed under wetland types 1 and 2 shall require approval from the city engineering department in addition to any other permits required for by any other governmental entity. System shall not be allowed under wetland types 3 through 7, or in any Minnesota Department of Natural Resources protected waters. ....
- (5) Systems shall meet Minnesota Department of Health Standards (Minnesota Rules chapter 47-25, part 18.31 and part 70.50 (2009) and any amendments thereto). ....

(b) *Photovoltaic system and solar thermal system. ....*(1) *Nonresidential zoning districts. ....*

- a. Permitted accessory use if on a building or in rear yard. Must be screened from adjacent lots pursuant to subsection 36-817(b). ....
- b. Conditional use if in front or side yard. ....

(2) *Residential zoning districts. ....*

- a. Permitted accessory use if on a building (both principal and accessory buildings) or in a rear yard. Must be screened from adjacent lots pursuant to subsection 36-817(b). Panels on buildings shall not hang over edge of roof. ....
- b. Not permitted in front or side yards. ....
- c. For lots subject the shoreland district: ....
  - i. Not allowed within the 75-foot shoreland setback if not on a building; ....
  - ii. Panels on boat lifts under two square feet in size shall be a permitted use; ....
  - iii. Panels on boat lifts greater than two square feet in size shall be a conditional use and, in addition to the reviews and approvals required, shall be subject to the review and recommendation of the city lake quality commission. ....

(3) *Requirements for all zoning districts. ....*

- a. Solar thermal piping shall match roof or solar collector color. ....



## Sec. 90-278. - Solar energy systems.

- (a) **Unlawful unless conditions met.** It is unlawful for any person to construct, erect, install, or maintain a solar energy system in the city, except in conformance with this section.
- (b) **Purpose and intent.** The purpose of this section is to allow for the generation of renewable energy within the City of Hugo. Promoting the safe, effective, and efficient use of solar energy, may reduce the onsite consumption of fossil fuels and utility-supplied electric energy while avoiding adverse impacts on the community at large.
- (c) **General standards for all solar energy systems.** Solar energy systems must conform to all of the following standards:
  - (1) A building permit shall be required for the erection of solar energy system. Prior to the issuance of a building permit, the operator must provide evidence of an agreement with the local utility. Off-grid systems shall be exempt from providing evidence of an agreement with the local utility.
  - (2) It shall be the responsibility of the property owner to secure any solar energy easements, if applicable, to protect solar access for the system (as per MN Statute Section 500.30).
  - (3) Solar energy system components shall be labeled with the manufacturers name and address, model number, and serial number.
  - (4) All exterior electrical or other service lines shall be buried underground. The collection system may be placed overhead near substations or points of interconnection to the electrical grid. Exceptions may be granted in instances where shallow bedrock, water courses, or other elements of the natural landscape interfere with the ability to bury lines.
  - (5) All solar energy systems shall be in compliance with the adopted city and state building code, electrical code, and plumbing code, as amended and receive any necessary permits or approvals from any regulatory agency having jurisdiction.
- (d) **Solar farms.**
  - (1) **Solar farm interim use permits.** An interim use permit application must be submitted for approval by the planning commission and city council before a permit is issued for a solar farm. The information required and the procedure to be followed for all solar farm interim use permit applications shall be the same as that required for a conditional use permit set forth in subsections 90-37(a) and (b). In addition, the applicant shall submit supplementary information pertaining to the nature of the solar farm including:
    - a. Total square footage of the solar energy system.
    - b. Total energy production for the site.
    - c. To scale horizontal and vertical (elevation) drawings.
    - d. Drawings must show the location of the system on the property including the property lines and proposed fencing or vegetative buffer.
    - e. Decommissioning plan.
  - (2) **Performance standards for solar farms.** Solar farms shall be erected and maintained to meet the following standards.
    - a. Solar farms shall be located on a minimum lot size of ten acres within the Long Term Agricultural (LA), Agricultural (AG), Rural Residential (RR), and Future Urban Service (FUS) zoning districts. Solar farms may also be located in any other zoning district only in the floodplain, as long as all other conditions are met.
    - b. Solar farms shall be 50 feet from all property lines and public road rights-of-way.
    - c. Ground mounted solar energy systems shall not exceed 15 feet in height at any point when oriented at

maximum tilt.

- d. Solar farms shall be enclosed by approved perimeter fencing or adequate vegetative buffer for screening. Exception may be granted if the natural landscape provides screening from all public right of ways and neighboring properties.
  - e. The owner/ operator of the solar farm shall provide the city with evidence that the solar energy system is functioning properly. This shall be provided at any time deemed necessary by the city.
  - f. The owner/operator shall submit a decommissioning plan for the solar farm to ensure that the owner/operator properly removes the equipment and facilities upon the end of the project life, abandonment, expiration, or termination of the interim use permit. If the solar energy system remains nonfunctional or inoperative for a continuous period of 12 months, the system shall be deemed abandoned and shall constitute a public nuisance. The owner shall remove the abandoned system at their expense after a demolition permit has been obtained within 90 days after notice has been given. Removal includes the entire structure including transmission equipment, structures and foundations, and the restoration of soil and vegetation. The owner/operator shall provide a current-day decommissioning cost estimate, and shall post financial security in a form acceptable by the city. This estimate must include an inflationary escalator, in an amount determined by the city, which will allow the city to remove the solar farm from the property after the 90-day period has elapsed.
- (3) **Criteria of approval of a solar farm.** An application for a solar farm interim use permit may be granted only upon finding that all of the following criteria have been met:
- a. The applicant owns the property or has secured a proper lease agreement on the property, unless the city council determines that unique conditions or circumstances warrant special arrangement.
  - b. The proposed solar farm is allowed as a principle use in the respective zoning district and conforms to this chapter.
  - c. The proposed solar farm is keeping with the spirit and intent of this chapter.
  - d. The construction of a solar farm shall not impede the city's ability to implement its comprehensive plan.
  - e. The proposed solar farm is compatible with the present character of the surrounding area.
  - f. The proposed solar farm shall have a set date in which the permit shall be reviewed or terminated.
  - g. The proposed solar farm shall be subject to any conditions that the city council deems appropriate for the permission of the use.
- (4) **Conditions of approval.** In permitting a new solar farm interim use permit or amending an existing solar farm interim use permit, the planning commission may recommend and the city council may impose additional conditions and requirements to protect the health, safety, and welfare of the surrounding area and the community at large, mitigate unfavorable consequences of activities resulting from the solar farm, enforce laws and regulations, and ensure compliance with the conditions of the permit. These conditions may include, but are not limited to, the following:
- a. Limitations on period of use and operation.
  - b. Buffering and screening measures.
  - c. Approval periods between one to twenty-five years.
- (5) **Renewal of a solar farm interim use permit.** Because of its temporary nature, an interim use permit for a solar farm shall not be renewed. Continuation of a solar farm beyond the date of expiration of its interim use permit requires approval of a new interim use permit.

- (6) **Interim use permit nontransferable.** Solar farm interim use permits do not run with the land. The permit is not transferred from person-to-person, and shall expire if there is a change in ownership of the property, unless the following conditions are met:
- The new permit holder must own the property or have a written lease agreement with the property owner stating the land will continue to be used for the production of energy via a solar farm.
  - The new permit holder shall abide by all requirements of the original permit, including, but not limited to, posting financial security to the city for decommissioning, as outlined in subsection (2)f.
  - The transfer of the permit must be approved by the city and filed accordingly.
- (7) **Basis for denial.** In order to recommend denial of an interim use permit, the planning commission must find that the proposed use will not meet one or more of the conditions found in subsection (d)(3) of this section.
- (8) **Suspension and revocation.**
- The city council may suspend or revoke an interim use permit upon failure of the interim use, or the interim use permit holder, owner, operator, tenant, or user, to comply with city codes, the laws of the State of Minnesota, the approved plans, or the conditions of approval, or by which that activities allowed under the permit adversely affect the public health, safety, or welfare.
  - A suspension or revocation of an interim use permit shall be preceded by written notice to the permit holder and a hearing before the city council. The notice shall provide at least ten days' notice of the time and place of the hearing and shall state the nature of the violations. The notice shall be mailed to the permit holder at the most recent address listed on the application.
- (9) **Expiration and termination.** An interim use permit shall expire and the interim use permit shall terminate at the earlier of:
- The expiration date established by the city council at the time of approval, but in no case more than 25 years from the date of approval.
  - Occurrence of any event identified in the interim use permit for the termination of the use.
  - Upon an amendment to the City Code that no longer allows the interim use.
- (10) **Issuance of permit.** The community development director or designee shall, within ten days of city council approval of any interim use permit, provide one copy of the completed permit to the applicant, the city clerk, and for permits issued in the floodplain district or shoreland district, to the Commissioner of the Department of Natural Resources.
- (e) **Accessory solar energy systems.**
- Accessory solar energy systems building permit.** A building permit application must be submitted and approved by the building official before an accessory solar energy system is installed. The information required and the procedure to be followed for all accessory solar energy system applications shall be the same as that required for a building permit. In addition, the applicant shall submit supplementary information pertaining to the nature of the accessory solar energy system including:
    - Total square footage of the solar energy system.
    - Total energy production for the site.
    - To scale horizontal and vertical (elevation) drawings.
    - Drawings must show the location of the system on the building or on the property including the property lines and proposed screening, if required.
  - Accessory commercial or industrial solar energy systems building permit.** All commercial or industrial solar

energy systems will require submittal for approval by the community development director or designee before a permit is issued for any accessory solar energy system. This submittal process will require the same application and supplementary information required in (e) (1). Denial of a building permit request may be appealed to the planning commission by following the procedures outlined in section 90-37.1.

(3) **Performance standards for accessory solar energy systems.** Accessory solar energy systems shall be erected and maintained to meet the following standards.

a. Setbacks for accessory solar energy systems are as follows:

1. Ground or pole mounted solar energy system panels shall conform to all setback requirements for accessory uses in the district in which they are located.
2. Roof mounted solar energy systems shall abide by all manufacturer specifications and requirements.

b. Coverage requirements for accessory solar energy systems are as follows:

1. Ground mounted solar energy systems are considered accessory structures. The size of the system (sq. ft.) will be calculated as part of the maximum combined number and size of accessory structures allowed by lot size. The number and size of accessory structures permitted are as follows:

Lot size	Maximum Number of Accessory Structures Allowed	Maximum Combined Size of Accessory Structures (Square Feet)
Under 1.5 acre	1	260
1.5 to 2.99 acres	2	1,500
3 to 4.99 acres	2	2,000
5 to 9.99 acres	2	3,500
10 or more acres	3	5,000

2. Roof mounted systems are not accessory structures and are excluded from size and number calculations for accessory structures.
3. A variance application may be submitted if the ground mounted solar energy system exceeds the limits for maximum combined size of accessory structures, but does not meet the definition of a solar farm.

c. Height requirements for accessory solar energy systems are as follows:

1. Ground or pole mounted solar energy systems shall not exceed 15 feet in height when oriented at maximum tilt.
2. Roof mounted solar energy systems shall not project vertically more than the height requirements of the district in which they are located.

d. Screening requirements for accessory solar energy systems are as follows:

1. Residential roof mounted solar energy systems are not required to be screened by this section.
  2. Commercial or industrial roof mounted solar energy systems shall be installed such that it is compatible with the building architecture. Architectural standards as found in the commercial and industrial guidelines, a PUD, or other architectural conditions shall apply.
- e. Except in the agricultural and long-term agricultural zoning districts, no ground or pole mounted solar energy system shall be located or protrude in front of the principle building on the site, in relation to any public street.
  - f. Roof mounted solar energy systems shall not extend beyond the perimeter of the building on which the system is mounted or built. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building.
  - g. If the solar energy system remains nonfunctional or inoperative for a continuous period of 12 months, the system shall be deemed abandoned and shall constitute a public nuisance. The owner shall remove the abandoned system at their expense within 90 days. Removal includes the entire structure including transmission equipment, structures and foundations, and the restoration of soil and vegetation.
- (4) **Criteria for approval of an accessory commercial or industrial solar energy system.** An application for an accessory commercial or industrial solar energy system permit may be granted only upon a finding that all the following criteria have been met:
- a. The applicant owns the property or has a leasing contract with the owner of the property.
  - b. The proposed solar energy system conforms to this chapter.
  - d. The proposed solar energy system shall be subject to, by agreement with the property owner or lease holder, any conditions that the city deems appropriate for permission of the use.

(Ord. No. 2016-475, 12-21-2015)

## **Sec 125-93 - Alternative Energy Systems Performance Standards**

### **(a) Solar**

(1) In general. Solar energy systems shall be permitted in all zoning districts, subject to the standards of this Article. Solar collector surfaces and all mounting devices shall comply with the minimum yard requirements of the district in which they are located. Screening of solar collector surfaces shall not be required.

#### **(2) Building-Mounted Solar Energy Systems**

- a. Notwithstanding the height limitations of the zoning district, building mounted solar energy systems shall not extend higher than three feet above the ridge level of a roof on a structure with a gable, hip, or gambrel roof and shall not extend higher than 10 feet above the surface of the roof when installed on flat or shed roof.
- b. The solar collector surface and mounting devices for building-mounted solar energy systems shall be set back not less than one foot from the exterior perimeter of a roof for every one foot that the system extends above the parapet wall or roof surface, if no parapet wall exists, on which the system is mounted. Solar energy systems that extend less than three feet above the roof surface shall be exempt from this provision.
- c. All solar energy systems using a reflector to enhance solar production shall minimize glare from the reflector that affects adjacent or nearby properties. Measures to minimize nuisance glare include selective placement of the system, screening on the north side of the solar array, modifying the orientation of the system, reducing use of the reflector system, or other remedies that limit glare.

#### **(3) Freestanding Solar Energy Systems**

- a. Freestanding solar energy systems, measured to the highest point of the system, shall not exceed the height of the principal structure or 20 feet, whichever is less. Freestanding solar energy systems up to 16 feet in height shall be subject to the minimum yard requirements of an accessory structure. Freestanding solar energy systems greater than 16 feet in height shall be subject to the minimum yard requirements of a principal structure. The required yard shall be measured from the property line to the closest part of the structure at minimum design tilt.
- b. In all the districts except A, the area of the solar collector surface of freestanding solar energy systems shall not exceed five of the lot area. Notwithstanding any other provision to the contrary, the maximum area of solar energy systems shall be calculated independently of the floor area of all other accessory structures on the zoning lot.
- c. The supporting framework for freestanding solar energy systems shall not include unfinished lumber.
- d. All abandoned or unused freestanding solar energy systems shall be removed within 12 months of the cessation of operations.
- e. All solar energy systems using a reflector to enhance solar production shall minimize glare from the reflector that affects adjacent or nearby properties. Measures to minimize nuisance glare include selective placement of the system, screening on the north side of the solar array, modifying the orientation of the system, reducing use of the reflector system, or other remedies that limit glare.

#### (4) Administrative Review Process

- a. In General. The Zoning Administrator shall have up to 15 working days following the submittal of a complete application to approve or deny such application. The Zoning Administrator may impose such conditions and require such guarantees deemed reasonable and necessary to protect the public interest and to ensure compliance with the standards and purposes of this zoning ordinance and policies of the comprehensive plan in addition to building permit review.
- b. Submittal Requirements. An application for a solar energy system shall be filed on a form approved by the Zoning Administrator. In addition, the applicant shall submit the following:
  - (1) Written evidence that the electric utility service provider that serves the proposed site has been informed of the applicant's intent to install a solar energy system,

## STAFF REPORT

## Agenda Item 10a.

<b>Council Meeting:</b> March 24, 2022	<b>Prepared By:</b> Maggie Ung
<b>Topic:</b> Combine, Close Out and Create Funds	<b>Action Required:</b> Approval

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### Summary:

On January 31, 2022 the City of Corcoran completed transition to BS&A general ledger module. With the transition to the new software, staff was able to review the general ledger and is proposing the combining and closing out a few funds and to create one additional fund.

There are currently funds in the Banyon software that has never been used: Economic Development Authority Fund (203) and Rolling Hills Rd Project Fund (801). Comp Plan Update Fund (800) was last used in 2008 and the funds have been transferred out to the General Fund.

The Escrow Fund (500) was established in 2005 to track escrow payments given to the City and the Investment Control Fund (999) was created in 2009 to separate invested cash. Following GFOA best practices, having separate funds is unnecessary as these are reported in the Annual Financial Report under the General Fund. Additionally, investment is already separately tracked in its own asset account and is reported as restricted cash. Escrows are reported as liability accounts and will be tracked with the BS&A building development module. Staff recommends combining these funds in the general ledger with the General Fund (100) to align with the Annual Financial Report.

The following capital project funds are recommended to be consolidated into a new fund called the Pavement Management Fund (408). These will be tracked in separate departments in order to reorganize and simplify the general ledger: Asphalt Maintenance Fund (305), Rolling Hills/Larkin Overlay Fund (426), Gleason/66th Parkway Extension Fund (427), Appaloosa Woods Street Improvement Fund (428), Corcoran Trail East/West Fund (429), City Center Drive Fund (431) and CSAH 101/105 Ave Fund (432). The consolidation helps simplify the overall general ledger and for reporting and tracking purposes.

### Financial/Budget:

There is no financial or budget impact.

### Options:

1. Approve Resolution 2022-26 Combine, Close Out and Create Funds.
2. Decline Resolution 2022-26 Combine, Close Out and Create Funds.

### Recommendation:

Approve Resolution 2022-26 Combine, Close Out and Create Funds.



**Council Action:**

Consider a motion to approve Resolution 2022-26 Combine, Close Out and Create Funds.

**Attachments:**

1. Resolution 2022-26 Combine, Close Out and Create Funds

**RESOLUTION NO. 2022-26**

**Motion By:**  
**Seconded By:**

**A RESOLUTION TO COMBINE, CLOSE OUT AND CREATE FUNDS**

**WHEREAS**, the following funds have never been used: Economic Development Authority Fund (203) and Rolling Hills Rd Project Fund (801);

**WHEREAS**, Comp Plan Update Fund (800) was last used in 2008 and the funds have been transferred out to the General Fund;

**WHEREAS**, the Escrow Fund (500) was established in 2005 to track escrow payments given to the City and the Investment Control Fund (999) was created in 2009 to separate invested cash; following GFOA best practices, this is unnecessary as escrows can be tracked in separate liability accounts and investment can be tracked in a separate asset account, therefore, these funds shall be combined with the General Fund (100);

**WHEREAS**, the following funds will be consolidated into a Pavement Management Fund (408) and tracked in separate departments in order to reorganize and simplify the general ledger: Asphalt Maintenance Fund (305), Rolling Hills/Larkin Overlay Fund (426), Gleason/66th Parkway Extension Fund (427), Appaloosa Woods Street Improvement Fund (428), Corcoran Trail East/West Fund (429), City Center Drive Fund (431) and CSAH 101/105 Ave Fund (432);

**NOW THEREFORE BE IT BE RESOLVED**, that the Council of the City of Corcoran, County of Hennepin, State of Minnesota, hereby closes out funds 203, 800 and 801, combine funds 500 and 999 into the General Fund, and combine funds 305, 426, 427, 428, 429, 431 and 432 into a newly created Pavement Management Fund.

**VOTING AYE**

- McKee, Tom**
- Bottema, Jon**
- Nichols, Jeremy**
- Schultz, Alan**
- Vehrenkamp, Dean**

**VOTING NAY**

- McKee, Tom**
- Bottema, Jon**
- Nichols, Jeremy**
- Schultz, Alan**
- Vehrenkamp, Dean**

**RESOLUTION NO. 2022-26**

**Whereupon, said Resolution is hereby declared adopted on this 24<sup>th</sup> day of March, 2022.**

\_\_\_\_\_  
**Tom McKee – Mayor**

**ATTEST:**

\_\_\_\_\_  
**Jessica Beise – Administrative Services Director**

***City Seal***



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# MEMORANDUM

**DATE** March 17, 2022  
**TO** Jessica Beise, Natalie Davis McKeown  
**CC** City Council, Planning Commission, Parks & Trails Commission  
**FROM** Kendra Lindahl, City Planner  
**RE** Active Corcoran Planning Applications

*Projects/Comments in blue italics are new*

The following is a summary of project status for current, active projects:

1. **Pioneer Trail Industrial Park (formerly Highway 55 Business Park) (PID 32-119-23-34-0013, 32-119-23-34-0007, 32-119-23-43-0005 and 32-119-23-43-0006) (city file no. 21-047).** The City Council reviewed a concept plan on November 22, 2021 and generally indicated support. Staff has been preparing an EAW for the site. As the developer has refined the plans, they are requesting a second Council review as they are now requesting PUD approval for reduced setbacks. *The City Council reviewed and provided comment on February 24<sup>th</sup>. The City Council is expected to order distribution of the draft EAW for review and comment at the March 24<sup>th</sup> Council meeting.*
2. **NE District Plan and Design Guidelines (City file 21-050).** The City received a planning grant from Hennepin County. *Staff held a second open house on March 15<sup>th</sup> for public information. The draft is scheduled for review by the Planning Commission at their April 7<sup>th</sup> meeting. The public hearing is scheduled for May 5<sup>th</sup> at the Planning Commission for City Council action on May 26<sup>th</sup>. The moratorium is set to expire on June 10, 2022.*
3. **Final Plat and Final PUD Development Plan for “Cook Lake Highlands” at 19220 CR 10 (PID 25-119-23-14-0002) (City file 21-057).** Trek Real Estate has submitted the application. *The item was reviewed at the March 3<sup>rd</sup> Planning Commission and the City Council action is expected at the March 24<sup>th</sup> meeting.*
4. **Wright Hennepin Electric Preliminary Plat, Site Plan and Administrative Permit at 7400 CR 116 (PID 25-119-23-23-0001) (city file 22-004).** *The applicant has submitted an application for a new electric substation. The application is scheduled for the February 17<sup>th</sup> Parks and Trails Commission, a public hearing at the March 3<sup>rd</sup> Planning Commission and March 24<sup>th</sup> City Council action.*
5. **City wide Zoning Ordinance Amendment for Ground Mounted Solar (City file 22-005).** On behalf of Barry Swanson and Linda Lohn-Swanson, Cedar Creek Energy has submitted a request for an amendment to allow larger footprint ground mounted solar on residential parcels. *This item was reviewed at the March 3<sup>rd</sup> Planning Commission and action is expected at the March 24<sup>th</sup> City Council meeting.*
6. **PUD Sketch Plan for “Corcoran Farms Business Park” at 20130 Larkin Road (PID 26-119-23-13-0006) (city file no. 22-006).** The applicant has submitted as sketch plan for five industrial buildings totally 726,396 sq. ft. They are requesting a PUD to allow reduced setbacks. *The City Council reviewed and provided comment on February 24<sup>th</sup>. Staff is drafting the EAW and the City Council is expected to order distribution of the draft EAW for review and comment at the May 26<sup>th</sup> Council meeting.*

7. **Final Plat and PUD Final Plan for “Bellwether 8<sup>th</sup> Addition” (PID 12-119-23-21-0001) (city file no. 22-007).** Pulte has requested approval of 95 lots in the southwest corner of the project. This phase will also include dedication of public park. *The item is scheduled for Planning Commission review on April 7<sup>th</sup> and City Council action on April 28<sup>th</sup>.*
8. **Final Plat and PUD Final Plan for “Amberly 2<sup>nd</sup> Addition” (PID 01-119-23-34-0002) (city file no. 22-008).** Pulte has requested approval of 51 lots in the northwest corner to complete the Amberly subdivision. *The item is scheduled for Planning Commission review on April 7<sup>th</sup> and City Council action on April 28<sup>th</sup>.*
9. **Site Plan, Interim Use Permit and Variance for “Westside Wholesale Tire” at 19950 75th Ave (PID 26-119-23-14-0018) (city file no. 22-011).** Westside Tire has submitted the application for development of the lot to resolve a code compliance issue. *The item is scheduled for a public hearing at the Planning Commission on April 7<sup>th</sup> and City Council action on April 28<sup>th</sup>.*
10. **PUD Final Plan and Final Plat for Rush Creek Reserve 2<sup>nd</sup> Addition (city file no. 22-012).** The applicant has submitted the application for the 2<sup>nd</sup> Addition and staff is reviewing for completeness. This phase includes 106 units (29 single family detached homes, 16 twin homes, 24 villa homes and 27 townhomes). *The item is scheduled for Planning Commission review on April 7<sup>th</sup> and City Council action on April 28<sup>th</sup>.*
11. **Preliminary Plat and Variance for “Kariniemi Meadows” at 23185 CR 10 (PID 18-119-23-11-0002) (city file no. 22-013).** The applicant has submitted an application for approval of a 10 lot residential subdivision. Staff is reviewing the item for completeness. *The item is tentatively scheduled for review at the March 17<sup>th</sup> Parks and Trails Commission, a public hearing at the May 5<sup>th</sup> Planning Commission and May 26<sup>th</sup> City Council action.*
12. **Rezoning, Preliminary Plat and Preliminary Planned Unit Development for Pulte for “Walcott Glenn” (PIDs 36-119-23-44-0013, 36-119-23-44-0009, 36-119-23-44-0008, 36-119-23-44-0010, 36-119-23-44-0014, 36-119-23-44-0031, 36-119-23-44-0024, 36-119-23-44-0033 and 36-119-23-44-0030) (City file no. 22-015).** The plans include 44 single family homes, 85 townhomes and a public park. *The item is tentatively scheduled for Parks and Trails Commission review on April 21<sup>st</sup>, a public hearing at the May 5<sup>th</sup> Planning Commission and action at the May 26<sup>th</sup> City Council meeting.*
13. **Final Plat for “Garages Too” (PID’s 35-119-23-44-0004 and 35-119-23-41-0002) (city file no. 22-016).** The final plat for the mini-storage/self-storage facility is currently incomplete, but will be scheduled for City Council review when the missing items are received.
14. **Final Plat and PUD Final Plan for “Bellwether 9<sup>th</sup> Addition” (PID 01-119-23-34-0002) (city file no. 22-017).** The final plat is for 37 lots. *The item is scheduled for Planning Commission review on April 7<sup>th</sup> and City Council action on April 28<sup>th</sup>.*
15. **Conditional Use Permit (CUP) for Ditzer Garage at 9320 Cherry Lane (PID 12-119-23-43-0013) (city file 22-020).** The application is currently being reviewed for completeness, but is tentatively scheduled for a public hearing at the May 5<sup>th</sup> Planning Commission and May 26<sup>th</sup> City Council action.
16. **Wawra Ag Preserve at 21401 Larkin Road (city file 22-021).** The application is currently being reviewed and will be scheduled for City Council action in April or May.
17. **PUD ordinance amendment (city file 22-022).** This is a city-initiated ordinance to amend the final PUD development plan process. This is scheduled for a public hearing at the April 7<sup>th</sup> Planning Commission meeting and April 28<sup>th</sup> City Council.

The following projects were recently acted upon and will be closed out:

1. **Municipal Separate Storm Sewer System (MS4) Ordinance Amendments (city-initiated) (city file 21-051).** Planning and Engineering staff have been working on ordinance updates required to comply with State MS4 standards. The ordinance amendments were reviewed at a public hearing at the Planning Commission on January 6<sup>th</sup> and the Commission continued the item to the February 3<sup>rd</sup> meeting and recommended approval. *City Council approved the item on February 24<sup>th</sup>.*

2. **Final Plat and PUD Final Plan for “Bellwether 7<sup>th</sup> Addition” (PID 01-119-23-43-0009) (city file no. 21-060).** Pulte has submitted an application for 17 lots on the former Schober Homestead property. *The item was reviewed at the February 3<sup>rd</sup> Planning Commission and approved at the February 24<sup>th</sup> City Council meeting.*
3. **ATC-TMO T-Mobile Site Plan Amendment at 7201 CR 101 (PID 25-119-23-44-005) (city file no. 22-014).** The applicant submitted an application to add ground equipment at an existing telecommunications tower and staff is reviewing for completeness. *This application was administratively approved.*

**City of Corcoran  
2022 City Council Schedule**

**Agenda Item: 12.**

**March 25<sup>th</sup> – Special Council Meeting**

- City Administrator Interviews -- Lunch at 12 PM/Interviews at 2:30 PM

**April 14, 2022 Work Session (Tentative)**

Code Enforcement Review and Priorities for 2022

**April 14, 2022**

- Fire Department Annual Reports
- Years of Service Recongition – Jesse Olson
- Years of Service Recongition – Duane Hochstetler
- Memorial Bench Program
- Rush Creek Reserve Turn Lanes – Award Bids
- Award Bids – Road Materials
- Policy for Tabling Planning Items
- Solicitors, Peddlers, Transient Merchant Ordinance
- RFP for Logo
- Weater Supply Planning – Financial Analysis

**April 28, 2022 (Mayor McKee Not in Attendance)**

- Active Corcoran Planning Applications
- Financial Performance Report
- Bellwether 8<sup>th</sup> Addition FP and FPUD (city file 22-007) – tentative
- Amberly 2<sup>nd</sup> Addition FP and FPUD (city file 22-008) –
- Karineimi Meadows PP (city file 22-013) – tentative
- NE district plan update (city file 21-050)
- Rush Creek Reserve 2<sup>nd</sup> FPUD and FP/DA (city file 22-012) – tentative
- Pulte Walcott Glen – Rezoning, PUD plan and Preliminary Plat (city file 22-015) - tentative

**May 12, 2022 Work Session (Tentative)**

- Natural Resources

**May 12, 2022**

- NE District Plan and Design Guidelines update standards (Moratorium expires 6-10-2022)
- Watershed Commissioner Guenthner – Presentation
- Boardwalk at Bellwether RFP
- Memorial Bench Program
- Gateway Sign Discussion

- Westside Tire Variance, SP and IUP (city file 22-011)

### **May 26, 2022 Work Session (Tentative)**

- 

### **May 26, 2022**

- Active Corcoran Planning Applications
- NE District Plan and Design Guidelines update standards (Moratorium expires 6-10-2022)
- EAW Decision – Hwy 55 Business Park
- Three Rivers Park District – Diamond Lake Regional Trail Presentation

### **June 9, 2022**

- 2021 Audit

### **June 23, 2022**

- 2023 Budget Priorities
- Active Corcoran Planning Applications

### **July 14, 2022**

### **July 28, 2022**

- Financial Management Plan Update
- Active Corcoran Planning Applications
- Financial Performance Report

### **August 11, 2022**

### **August 25, 2022**

- Active Corcoran Planning Applications

### **September 8, 2022**

- 2023 Preliminary Levy
- Levy Insert Document

### **September 22, 2022**

- Active Corcoran Planning Applications

### **October 13, 2022**



**October 27, 2022**

- Active Corcoran Planning Applications
- Financial Performance Report

**November 10, 2022**

- Construction Hours Review – Annual After Change in 2021
- Park Signs Plan

**November 24, 2022**

- Active Corcoran Planning Applications

**December 8, 2022**

- Public Hearing – 2023 Proposed Budget and Property Tax Levy
- 2023 Full-time, Part-time, and Seasonal Wage Schedule
- 2023 General Fund Budget and Property Tax Levy
- 2023 Fee Schedule
- 2023 Water and Sanitary Sewer Budget
- 2023 Goal Setting Date

**December 22, 2022**

- Active Corcoran Planning Applications