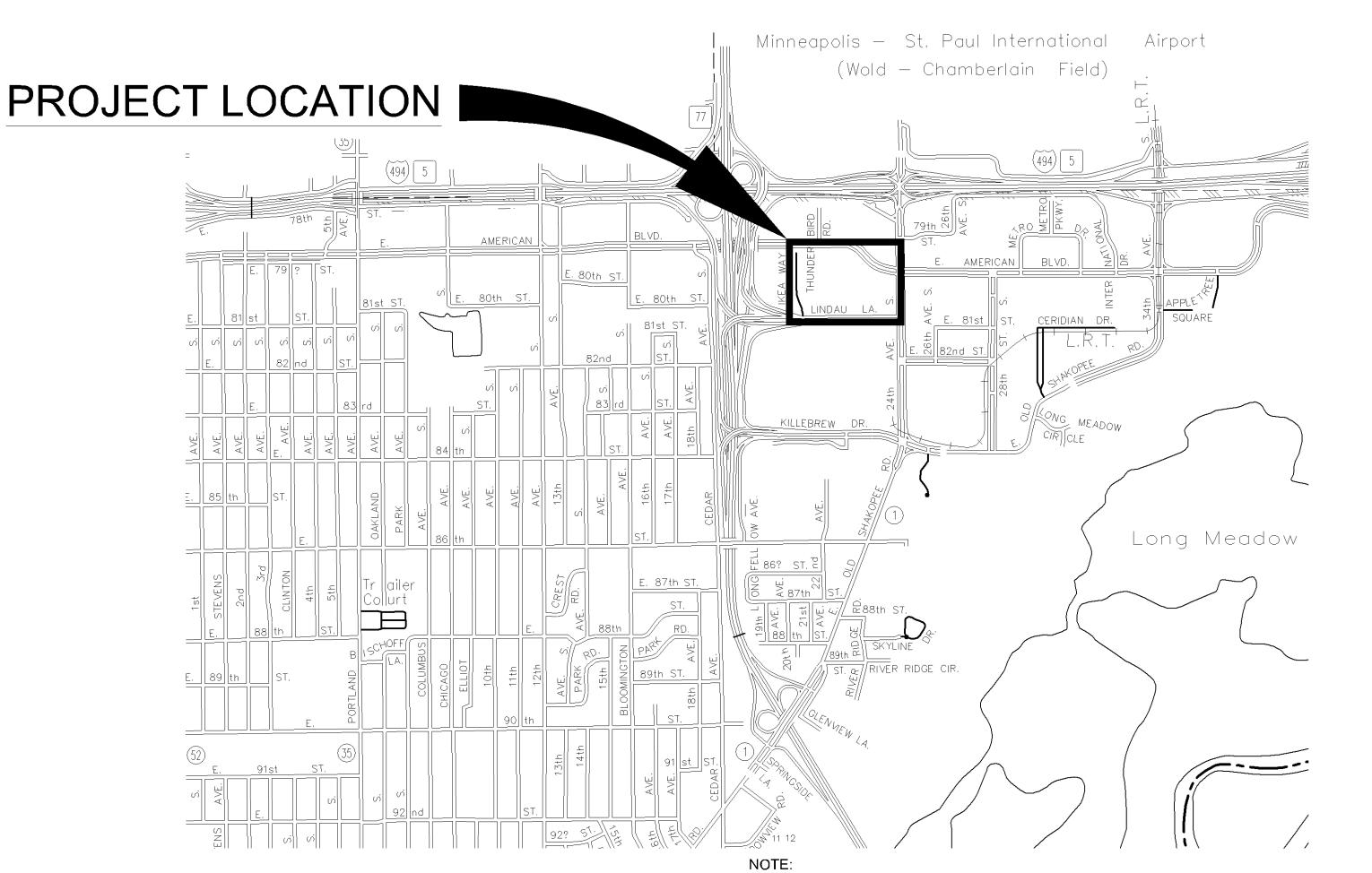


CITY OF BLOOMINGTON, MINNESOTA

CONSTRUCTION PLANS FOR

SANITARY SEWER, WATER MAIN, STORM SEWER, AGGREGATE BASE, CONCRETE CURB AND GUTTER, BITUMINOUS SURFACING, CONCRETE SIDEWALK, STREET LIGHTING

SOUTH LOOP WATERPARK & PARKING RAMP AT SOUTH LOOP



SUBMITTALS

7-17-2019 50% SUBMITTAL 9-9-2019 100% SD SUBMITTAL 9-20-2019 100% SD SUBMITTAL 10-2-2019 FDP SUBMITTAL

THE SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS 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."

THE CONTRACTOR SHALL CALL THE GOPHER STATE ONE CALL SYSTEM AT 811 BEFORE COMMENCING EXCAVATION.

Know what's below. Call before you dig.

N.T.S.

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF

MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

DESCRIPTION

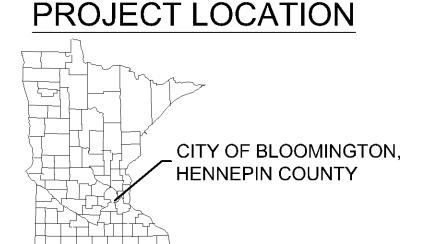
- TITLE SHEET
- **EXISTING CONDITIONS**
- NOTES AND STRUCTURE SCHEDULE

- ALIGNMENT AND GENERAL LAYOUT PLAN
- **EROSION CONTROL PLAN**
- REMOVAL PLAN
- TRAFFIC CONTROL PLAN
- HAUL AND DELIVERY ROUTE PLAN
- OVERALL SITE PLAN
- **OVERALL SITE UTILITY PLAN**
- SANITARY SEWER & WATER MAIN PLAN AND PROFILE - LINDAU LANE
- 25-27 SANITARY SEWER & WATER MAIN PLAN AND
- PROFILE RING ROAD 28 SANITARY SEWER & WATER MAIN PLAN AND
- PROFILE THUNDERBIRD ROAD
- SANITARY SEWER & WATER MAIN PLAN AND PROFILE - IKEA WAY
- 30-31 STREET & STORM SEWER PLAN AND PROFILE - LINDAU LANE
- 32-34 STREET & STORM SEWER PLAN
- AND PROFILE RING ROAD
- 35 STREET & STORM SEWER PLAN

- STREET & STORM SEWER PLAN
- AND PROFILE IKEA WAY
- 38-44 SIGNAL SYSTEMS
- 45 OVERALL SITE GRADING PLAN
- WATERPARK BACK OF HOUSE GRADING AND
- WATERPARK SIDEWALK GRADING PLAN
- 48 PARKING STRUCTURE GRADING PLAN
- 49-52 SIGNING & STRIPING PLANS & DETAILS
- 53-58 LIGHTING PLANS & DETAILS

- 71-72 CROSS SECTIONS IKEA WAY

THIS PLAN CONTAINS 72 SHEETS.



APPROVED:

CITY ENGINEER OF BLOOMINGTON

DATE

COUNTY ENGINEER

APPROVED:

DATE

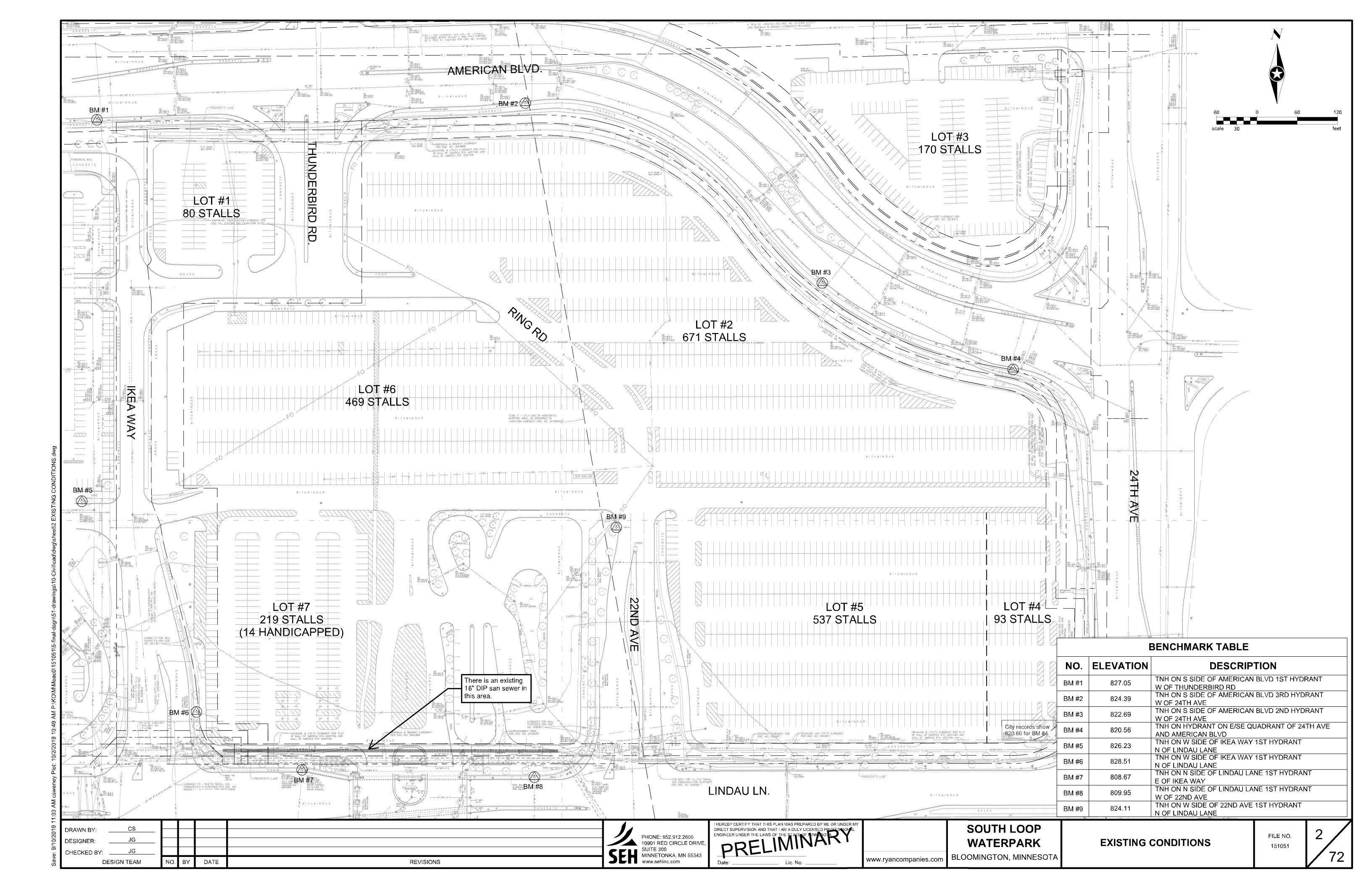
BLOOMINGTON, MINNESOTA



PHONE: 952.912.2600 10901 RED CIRCLE DRIVE, SEH SUITE 300
MINNETONKA, MN 55343
www.sehinc.com

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL

PRELIMINARY



					PROPOSED SA	ANITARY SEW	ER SCHEDULE						
STRUCTURE	ALIGNMENT	STATION	OFFSET	DRAINS TO	TOP OF CASTING ELEVATION	INLET INV. EL.	OUTLET INV. EL.	PIPE LENGTH	PIPE DIA.	GRADE %	STRUCTURE DIA.	STRUCTURE HEIGHT	STRUCTU
1	Ring Road	140+51.72	0.00		821.25	803.28 (E)					48 IN MH	17.97'	AREA WELL
2	Ring Road	144+51.72	0.00	1	825.15	804.40 (E) 810.94 (N) 804.40 (N)	804.40 (W)	400'	12"	0.28%	48 IN MH	20.75'	EX. MH 5
3	Ring Road	147+13.31	-4.48	2	823.27	805.13 (SE) 809.38 (NE) 811.60 (S) 805.13 (N) 805.13 (S)	805.13 (W)	262'	12"	0.28%	48 IN MH	18.14'	100
4	Ring Road	149+24.87	0.00	3	821.91	805.73 (SE) 808.04 (NE)	805.73 (NW)	212'	12"	0.28%	48 IN MH	16.18'	108
						805.73 (NE)							112
5	Ring Road	149+99.60	-3.85	4	821.32	805.94 (S) 807.53 (E) 805.94 (E)	805.94 (NW)	75'	12"	0.28%	48 IN MH	15.38'	116
6	Ring Road	151+19.75	0.00	5	820.58		806.27 (N)	119'	12"	0.28%	48 IN MH	14.31'	120
11	Ikea Way - Flagline	201+76.56	-28.48		822.82	802.88 (E)					48 IN MH	20.19'	120
12	Ikea Way - Flagline	201+62.07	29.57	11	824.44	803.62 (E) 804.29 (S)	803.62 (W)	60'	12"	1.23%	48 IN MH	20.44'	124
223	Ring Road	141+16.12	308.37	224	0.45	804.75 (E)	804.75 (N)	7'	4"	1.23%	NULL STRUCTURE	???'	
224	Ring Road	141+16.12	301.37	12	-4.58	804.66 (S)	804.66 (N)	30'	4"	1.23%	NULL STRUCTURE	???'	128
	DI COMINICTONI S	TANDADD	NOTES:		I	I	I						132
	BLOOMINGTON S IPORARY STREET			AND ADDRES	SSES SHALL BE PROVIDED	DURING CON	ISTRUCTION.						
					MIT APPLICATION FOR OBS KINS AT 952-563-4545 OR S							•	136
3. PUB	LIC WORKS PERM	/IIT APPLIC	ATION FO	OR UNDERG	ROUND WORK WITHIN THE	: RIGHT-OF-W	AY IS REQUIRE	PRIOR TO R	EMOVAL C	R INSTALL			140
	-	=		=	CONTACT UTILITIES AT 952 ITY STREET IMPROVEMEN				-	-	REMENTS.		142
5. ALL	TRAFFIC CONTRO	OL DEVICE	S SHALL	CONFORM	TO THE LATEST EDITION O					-		LAYOUTS.	144
6. ALL PUBLIC SIDEWALKS SHALL NOT BE OBSTRUCTED. 7. ALL PARKING STALLS TO BE PAINTED WITH WHITE STRIPING								146					
_					RKING SHALL BE ON SITE.				_	OWED.			148
9. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY. 10. INSTALL CROSSWALK PAVEMENT MARKINGS IN ACCORDANCE WITH MMUTCD.									152				
11. A MN LICENSED CIVIL ENGINEER MUST DESIGN AND SIGN ALL RETAINING WALLS 4-FOOT HIGH AND HIGHER. 12. CONTRACTOR TO CONTACT UTILITIES DIVISION @ 952-563-8777 REGARDING PERMIT FOR STORM SEWER CONSTRUCTION.								156					
13. CON	ITRACTOR SHALL	OBTAIN H	ENNEPIN	_	ERMIT FOR WORK WITHIN I					IIT ENGINE	ER AT 612-596-03	36 FOR PERMIT	
	LICATION AND FE			COUNCIL CO	NDITIONS WILL BE COMPL	ETED FOR TH	IS SUBMITTAL						160
15. STR	EET LIGHTING AN				UST BE EXPOSED FOR CIT			JRING CONCR	ETE OR BA	ACKFILLIN	G EXCAVATIONS I	N CITY	164
	HT-OF-WAY. SHEET 7 - DETAII	LS 2 FOR C	ASTING	DETAILS. CA	TCH BASINS WITHIN SIDE\	WALK TO REC	EIVE ADA FRAM	E AND GRATE	CASTING				168
OENEDA	I CONSTRUCTION	N NOTES.											172
	L CONSTRUCTION REFERENCE TO		R IN THE	SE PLANS S	HALL BE INTERPRETED TO	MEAN SOUTI	H LOOP WATER	PARK.					176
					ATE UTILITIES SHOWN ON VEY PROVIDED BY SUNDE								200
					ING CONDITIONS SHALL BE		•			.OOMINGT	ON, WIN. OTTIER O	TILIT AND LINDAU	204
		-			ESTRIAN AND VEHICULAR COORDINATE ALL TRAFFIC		-					· · ·	208
4. CON	ITRACTOR SHALL	SAWCUT I	PAVEME	NT, CURB, A	ND SIDEWALKS AS INDICAT	TED ON THE P	LANS ACCORDI	NG TO THE CO	ONSTRUC [*]	TION LIMIT	S SHOWN. CARE	SHALL BE TAKEN	212
	AS NOT TO DAMA AIRED AT THE CO				TE THAT ARE DESIGNATED	TO REMAIN.	ANY DAMAGE 1	O THE EXISTI	NG MATER	RIALS DUR	ING CONSTRUCTI	ON SHALL BE	300
	WATERMAIN SHA FALL INTERNAL CH				D IN 8 MIL POLYWRAP.								304
7. APP	ROPRIATE STOR	M SEWER I	NLET SIL	T PROTECT	ION AND EROSION CONTRO						CTOR IN ALL NEC	ESSARY	308
					S WORK MUST BE APPROV GE OF PAVEMENT OR FAC				STRUCTIO	N.			
9. CON	ITRACTOR SHALL	PROTECT	ALL INPL	ACE UTILIT	IES, PAVEMENT, AND STRU	ICTURES NOT	IDENTIFIED FO	R REMOVAL.					312
		•		•	MATERIAL/EQUIPMENT STO AND OCCUR FROM PRIVAT	•		NLOADING SHA	ALL BE CC	ORDINATE	ED WITH THE OWN	IER AND CITY'S	316
11. SOIL	BORING INFORM	MATION FO	R THE BO	RINGS SHO	WN ON THE PLAN CAN BE L AND PHASING PLANS TO	PROVIDED UP	PON REQUEST.	ER AND THE C	ITV DRIAR	TO THE S	TART OF CONSTR	PLICTION	400
13. CON	ITRACTOR SHALL	PROVIDE	AND MAI	NTAIN TEMP	ORARY RESTROOM FACIL	ITIES ON SITE	FOR ALL WORK	(ERS.	_				404
					IING AND PAYING FOR THE ILITIES DEPT. CONTRACTO	•							408
PRE	PARED BY ENGIN	EER. THE	CONTRA	CTOR SHAL	L ALSO BE RESPONSIBLE F								412
	QUIREMENTS OUT KING LOT STRIPI		_		E SAME CONFIGURATION A	.ND LAYOUT A	AS THE EXISTING	3 PARKING LO	T FOLLOV	/ING PAVI	NG WORK UNLESS	NOTED	501
OTH	IERWISE ON THE	PLAN. COI	NTRACTO	OR SHALL VI	SIT THE SITE PRIOR TO CO	NSTRUCTION	TO NOTE THE	CHARACTERIS	STICS OF T	HE EXISTI		=	502
		,			HALL BE ACRYLIC OR LATE LE CASTINGS OR VALVE B						. REPLACE ANY BF	ROKEN OR	503
	AGED CASTINGS	_		מי מד פטופכ	SHANCE OF OFDIFICATE		ICV						504
					SUANCE OF CERTIFICATE L EROSION CONTROL MAIN			THE SWPPP.					
20. MAII SAN	19. UTILITY PERMITS ARE REQUIRED FOR CONNECTIONS TO THE PUBLIC STORM, SANITARY, AND WATER SYSTEM. CONTACT UTILITIES (952-563-8777) FOR PERMIT INFORMATION. 20. MAINTAIN MINIMUM 10-FOOT HORIZONTAL SEPARATION AND 18-INCH VERTICAL SEPARATION BETWEEN WATERMAIN AND SEWERS. MAINTAIN MINIMUM 8' OF COVER ABOVE SANITARY SEWER AND WATER MAIN TO PREVENT FREEZING. IF COVER WILL BE LESS THAN 8', PROVIDE INSULATION ABOVE MAIN. 21. ALL UNUSED WATER SERVICES MUST BE PROPERLY ABANDONED AT THE MAIN. ALL UNUSED SANITARY SEWER SERVICES MUST BE PROPERLY ABANDONED AT THE												

EX. MH 500 Linda 100 Rin 104 Rin 108 Rin 112 Rin 116 Rin 120 Rin 124 Rin 132 Thunda 136 Thunda 140 Rin 142 Rin	dau Ln Curb Ring Road Ring Road Ring Road Ring Road Ring Road 1 Ring Road 1	202+21.89 31+95.87 152+32.49 151+12.41 150+19.33 149+41.98 147+32.34 145+23.26 143+65.09 142+07.44 162+00.00 162+00.00 152+19.02	40.82 -19.28 2.04 -18.00 -25.02 -19.93 -25.00 -25.00 -25.00 49.98 -34.96	100 104 108 112 116 120 124	823.00 824.11 819.43 820.20 820.68 821.39 822.67 824.10	818.95 (W) 819.87 (E) 806.73 (NE) 809.14 (NW) 814.39 (E) 809.46 (NE) 810.96 (E) 810.08 (N) 816.20 (W) 811.95 (W) 813.25 (W) 818.19 (SW) 813.25 (W) 819.60 (N) 819.60 (S) 815.95 (N) 815.95 (W) 817.08 (SE) 814.70 (S)	819.00 (SW) 809.46 (SW) 810.08 (SW) 810.63 (S) 811.95 (SE) 813.25 (E)	71' 121' 103' 91' 220' 219'	36" 36" 36" 36"	2.26% 0.60% 0.60% 0.60%	DESIGN H 120 -4020 MH 60 -4020 MH 84 -4020 MH 60 -4020 CB 60 -4020 CB 60 -4020 CB	4.00' 5.16' 12.70' 10.74' 10.60' 10.77' 10.72' 10.85'
100 Rin 104 Rin 108 Rin 112 Rin 116 Rin 120 Rin 124 Rin 128 Rin 132 Thunda 136 Thunda 140 Rin 142 Rin	Ring Road 1	152+32.49 151+12.41 150+19.33 149+41.98 147+32.34 145+23.26 143+65.09 142+07.44 162+00.00	2.04 -18.00 -25.02 -19.93 -25.00 -25.00 -25.00 49.98	104 108 112 116 120	819.43 820.20 820.68 821.39 822.67 824.10	819.87 (E) 806.73 (NE) 809.14 (NW) 814.39 (E) 809.46 (NE) 810.96 (E) 810.08 (N) 816.20 (W) 811.95 (W) 818.19 (SW) 813.25 (W) 819.60 (N) 819.60 (S) 815.95 (N) 815.95 (W) 817.08 (SE) 814.70 (S)	810.08 (SW) 810.63 (S) 811.95 (SE) 813.25 (E)	103' 91' 220' 219'	36" 36" 36"	0.60% 0.60% 0.60%	60 -4020 MH 84 -4020 MH 60 -4020 CB 60 -4020 CB 60 -4020 CB	12.70' 10.74' 10.60' 10.77' 10.72'
104 Rin 108 Rin 112 Rin 116 Rin 120 Rin 124 Rin 128 Rin 132 Thunda 136 Thunda 140 Rin 142 Rin	Ring Road 1	151+12.41 150+19.33 149+41.98 147+32.34 145+23.26 143+65.09 142+07.44 162+00.00	-18.00 -25.02 -19.93 -25.00 -25.00 -25.00 49.98	104 108 112 116 120	820.20 820.68 821.39 822.67 824.10	809.14 (NW) 814.39 (E) 809.46 (NE) 810.96 (E) 810.08 (N) 816.20 (W) 810.63 (NW) 811.95 (W) 813.25 (W) 819.60 (N) 819.60 (S) 815.95 (N) 815.95 (W) 817.08 (SE) 814.70 (S)	810.08 (SW) 810.63 (S) 811.95 (SE) 813.25 (E)	103' 91' 220' 219'	36" 36" 36"	0.60% 0.60% 0.60%	84 -4020 MH 60 -4020 CB 60 -4020 MH 60 -4020 CB	10.74' 10.60' 10.77' 10.72'
108 Rin 112 Rin 116 Rin 120 Rin 124 Rin 128 Rin 132 Thunda 136 Thunda 140 Rin 142 Rin	Ring Road 1	150+19.33 149+41.98 147+32.34 145+23.26 143+65.09 142+07.44 162+00.00	-25.02 -19.93 -25.00 -25.00 -25.00 49.98	104 108 112 116 120	820.68 821.39 822.67 824.10	810.96 (E) 810.08 (N) 816.20 (W) 810.63 (NW) 811.95 (W) 818.19 (SW) 813.25 (W) 819.60 (N) 819.60 (S) 815.95 (N) 815.95 (W) 817.08 (SE) 814.70 (S)	810.08 (SW) 810.63 (S) 811.95 (SE) 813.25 (E)	103' 91' 220' 219'	36" 36" 36"	0.60% 0.60% 0.60%	60 -4020 CB 60 -4020 MH 60 -4020 CB 60 -4020 CB	10.60' 10.77' 10.72' 10.85'
112 Rin 116 Rin 120 Rin 124 Rin 128 Rin 132 Thunda 136 Thunda 140 Rin 142 Rin	Ring Road 1.	149+41.98 147+32.34 145+23.26 143+65.09 142+07.44 162+00.00	-19.93 -25.00 -25.00 -25.00 -25.00 49.98	108 112 116 120	821.39 822.67 824.10 825.06	816.20 (W) 810.63 (NW) 811.95 (W) 818.19 (SW) 813.25 (W) 819.60 (N) 819.60 (S) 815.95 (N) 815.95 (W) 817.08 (SE) 814.70 (S)	810.63 (S) 811.95 (SE) 813.25 (E)	91' 220' 219'	36" 36" 36"	0.60% 0.60% 0.60%	60 -4020 MH 60 -4020 CB 60 -4020 CB	10.77' 10.72' 10.85'
116 Rin 120 Rin 124 Rin 128 Rin 132 Thunda 136 Thunda 140 Rin 142 Rin	Ring Road 1.	147+32.34 145+23.26 143+65.09 142+07.44 162+00.00	-25.00 -25.00 -25.00 -25.00 49.98	112 116 120	822.67 824.10 825.06	811.95 (W) 818.19 (SW) 813.25 (W) 819.60 (N) 819.60 (S) 815.95 (N) 815.95 (W) 817.08 (SE) 814.70 (S)	811.95 (SE) 813.25 (E)	220'	36" 36"	0.60%	60 -4020 CB 60 -4020 CB	10.72' 10.85'
124 Rin 128 Rin 132 Thunde 136 Thunde 140 Rin 142 Rin	Ring Road 1. Ring Road 1. Ring Road 1. Iderbird Road 1. Ring Road 1. Ring Road 1.	145+23.26 143+65.09 142+07.44 162+00.00	-25.00 -25.00 -25.00 49.98	116 120 124	824.10 825.06	818.19 (SW) 813.25 (W) 819.60 (N) 819.60 (S) 815.95 (N) 815.95 (W) 817.08 (SE) 814.70 (S)	813.25 (E)	219'	36"	0.60%	60 -4020 CB	10.85'
124 Rin 128 Rin 132 Thunde 136 Thunde 140 Rin 142 Rin	Ring Road 1 Ring Road 1 Iderbird Road 1 Ring Road 1 Ring Road 1	143+65.09 142+07.44 162+00.00	-25.00 -25.00 49.98	120	825.06	819.60 (N) 819.60 (S) 815.95 (N) 815.95 (W) 817.08 (SE) 814.70 (S)	, ,					
128 Rin 132 Thunde 136 Thunde 140 Rin 142 Rin	Ring Road 1 Iderbird Road 1 Iderbird Road 1 Ring Road 1 Ring Road 1	142+07.44 162+00.00 162+00.00	-25.00 49.98	124		815.95 (W) 817.08 (SE) 814.70 (S)	814.20 (E)	158'	36"	0.60%	96 -4020 MH	10.86'
132 Thunda 136 Thunda 140 Rin 142 Rin	iderbird Road 1 Iderbird Road 1 Ring Road 1 Ring Road 1	162+00.00 162+00.00	49.98		824.08	816.91 (W)						
136 Thundo 140 Rin 142 Rin	iderbird Road 1 Ring Road 1 Ring Road 1	162+00.00		124			816.91 (E)	158'	15"	0.61%	48 -4020 CB	7.17'
140 Rin	Ring Road 1		-34.96		823.58	819.29 (W) 819.29 (E)	819.04 (S)	119'	15"	2.60%	48 -4020 CB	4.54'
142 Rin	Ring Road 1	152+19.02		132	824.08	820.14 (W)	820.14 (E)	85'	12"	1.00%	48 -4020 CB	3.94'
	_		34.08	100	818.98	809.74 (S) 814.98 (NE)	809.49 (SE)	36'	15"	1.00%	48 -4020 CB	9.48'
144 Rin	Ring Road 1	153+06.16	64.92	140	814.75		810.79 (N)	105'	12"	1.00%	2' X 3' RECT STRUCTURE	3.96'
I .	· ·	152+32.56	-24.92	100	818.66		814.66 (W)	27'	12"	1.00%	2' X 3' RECT STRUCTURE	4.00'
146 Rir	Ring Road 1	152+03.65	30.36	140	819.60		815.60 (SW)	20'	12"	3.10%	2' X 3' RECT STRUCTURE	4.00'
148 Rir	Ring Road 1	150+19.33	25.00	108	820.70		816.70 (E)	50'	12"	1.00%	2' X 3' RECT STRUCTURE	4.00'
152 Rin	Ring Road 1	147+32.34	25.00	116	822.67		818.69 (NE)	50'	15"	1.00%	2' X 3' RECT STRUCTURE	3.98'
156 Rin	Ring Road 1	145+23.26	25.00	120	824.10		820.10 (N)	50'	12"	1.00%	2' X 3' RECT STRUCTURE	4.00'
160 Rin	Ring Road 1	144+15.76	51.91	124	822.00		818.00 (NW)	92'	12"	1.00%	DESIGN H	4.00'
164 Rin	Ring Road 1	141+12.30	-41.81	128	821.40		817.39 (E)	97'	15"	0.50%	2' X 3' RECT STRUCTURE	4.01'
168 Thunde	derbird Road 1	162+00.00	66.32	132	823.81		819.81 (W)	16'	12"	3.18%	2' X 3' RECT STRUCTURE	4.00'
172 Thundo	derbird Road 1	162+00.00	-50.87	136	824.30		820.30 (E)	16'	12"	1.00%	2' X 3' RECT STRUCTURE	4.00'
176 Thundo	derbird Road 1	160+97.79	208.16	120	824.33		820.33 (S)	16'	12"	4.47%	2' X 3' RECT STRUCTURE	4.00'
200 Linda	dau Ln Curb 4	43+80.99	-80.98		812.52	800.00 (SW)					60 -4020 MH	12.52'
204 Linda	dau Ln Curb 4	43+43.00	-43.47	200	810.95	800.30 (W)	800.30 (NE)	53'	48"	0.56%	60 -4020 CB	10.65'
208 Linda	dau Ln Curb	38+16.98	-44.79	204	818.27	803.14 (SW)	803.14 (E)	526'	48"	0.54%	60 -4020 MH	15.13'
212 Linda	dau Ln Curb	38+01.54	-35.01	208	817.41		803.26 (NE)	23'	48"	0.54%	60 -4020 MH	14.15'
300 Rar	amp Road 1	183+84.58	25.00	316	816.79	812.38 (N)	812.13 (W)	148'	18"	0.45%	48 -4020 CB	4.66'
304 Rar	amp Road 1	183+84.58	-25.00	300	816.79	812.88 (N) 812.88 (W)	812.63 (S)	50'	15"	0.50%	48 -4020 CB	4.16'
308 Rar	amp Road 1	183+84.58	-36.34	304	816.94		812.94 (S)	11'	12"	0.50%	2' X 3' RECT STRUCTURE	4.00'
312 Rar	amp Road 1	183+74.58	-25.00	304	816.80		812.98 (E)	10'	12"	1.00%	2' X 3' RECT STRUCTURE	3.82'
316 Rar	amp Road 1	182+36.79	25.00	104	818.66	811.46 (E)	811.46 (W)	110'	18"	0.45%	48 -4020 CB	7.20'
400 Ikea Wa	Way - Flagline 2	203+80.91	-9.55		820.43	816.25 (NE) 816.25 (E)					48 -4020 MH	4.18'
404 Ikea Wa	Way - Flagline 2	203+79.81	4.25	400	820.27	816.58 (S)	816.58 (W)	14'	12"	2.39%	48 -4020 CB	3.69'
408 Ikea Wa	Way - Flagline 2	204+66.01	35.74	400	821.16		817.66 (SW)	96'	12"	1.46%	2' X 3' RECT STRUCTURE	3.50'
412 Ikea Wa	Way - Flagline 2	203+26.29	1.50	404	820.62		817.12 (N)	54'	12"	1.00%	2' X 3' RECT STRUCTURE	3.50'
501 Linda	dau Ln Curb	32+11.24	-15.54	EX. MH 500	823.95		819.95 (W)	16'	12"	0.50%	DESIGN H	4.00'
		31+00.48	-23.04	EX. MH 500	824.82	819.43 (N)	819.43 (E)	95'	12"	0.50%	48 -4020 MH	5.39'
		30+85.24	-67.97	502	824.23	819.66 (N)	819.66 (S)	47'	12"	0.50%	DESIGN H	4.57'
		200+04.40	13.11	503	824.27		820.27 (S)	121'	12"	0.51%	DESIGN H	4.00'

PROPOSED STORM SEWER SCHEDULE

26. ALL COMPONENTS OF THE WATER SYSTEM, UP TO THE WATER METER OR FIRE SERVICE EQUIPMENT MUST UTILIZE PROTECTIVE INTERNAL COATINGS MEETING CURRENT ANSI/AWWA STANDARDS FOR CEMENT MORTAR LINING OR SPECIAL COATINGS. THE USE OF UNLINED OR UNCOATED PIPE IS NOT ALLOWED. DRAWN BY: PHONE: 952.912.2600 10901 RED CIRCLE DRIVE, SUITE 300 MINNETONKA, MN 55343 www.sehinc.com DESIGNER: CHECKED BY: _____JG

REVISIONS

24. UTILITY AND MECHANICAL CONTRACTORS MUST COORDINATE THE INSTALLATION OF ALL WATER AND SEWER SERVICE PIPES INTO THE BUILDING TO ACCOMMODATE CITY

21. ALL UNUSED WATER SERVICES MUST BE PROPERLY ABANDONED AT THE MAIN. ALL UNUSED SANITARY SEWER SERVICES MUST BE PROPERLY ABANDONED AT THE

23. TAPS OF LIVE WATER MAINS ARE TO BE COMPLETED BY CITY FORCES AND PAID FOR AND COORDINATED BY THE CONTRACTOR.

25. COMBINATION FIRE AND DOMESTIC SERVICES MUST TERMINATE WITH A THREAD ON FLANGE OR AN MJ TO FLANGE ADAPTER.

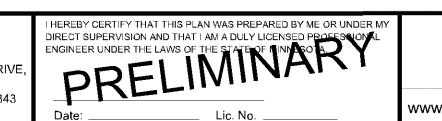
PROPERTY LINE.

DESIGN TEAM

INSPECTION AND TESTING.

22. INSTALL INTERNAL CHIMNEY SEALS ON ALL SANITARY SEWER MANHOLES.

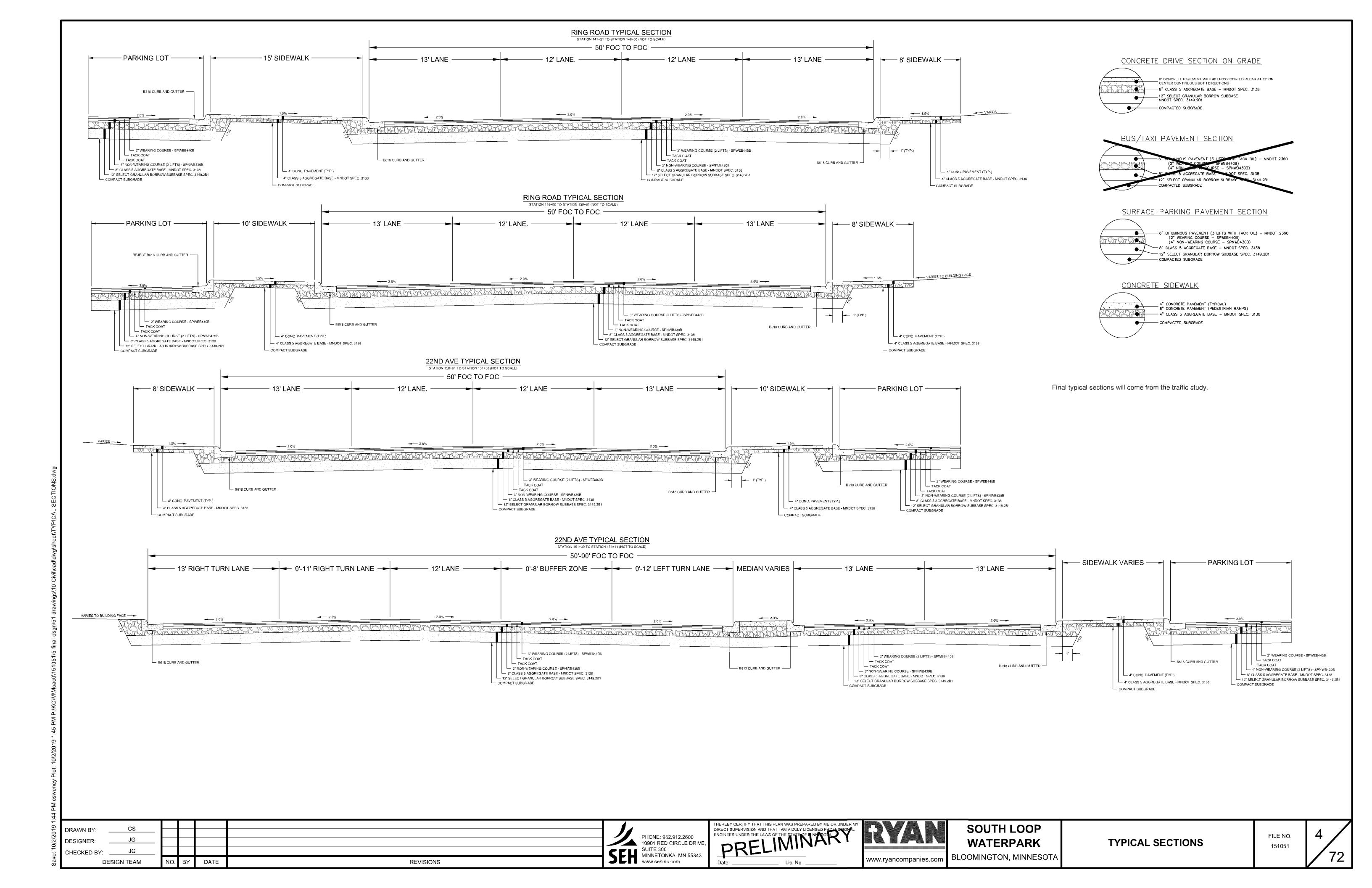
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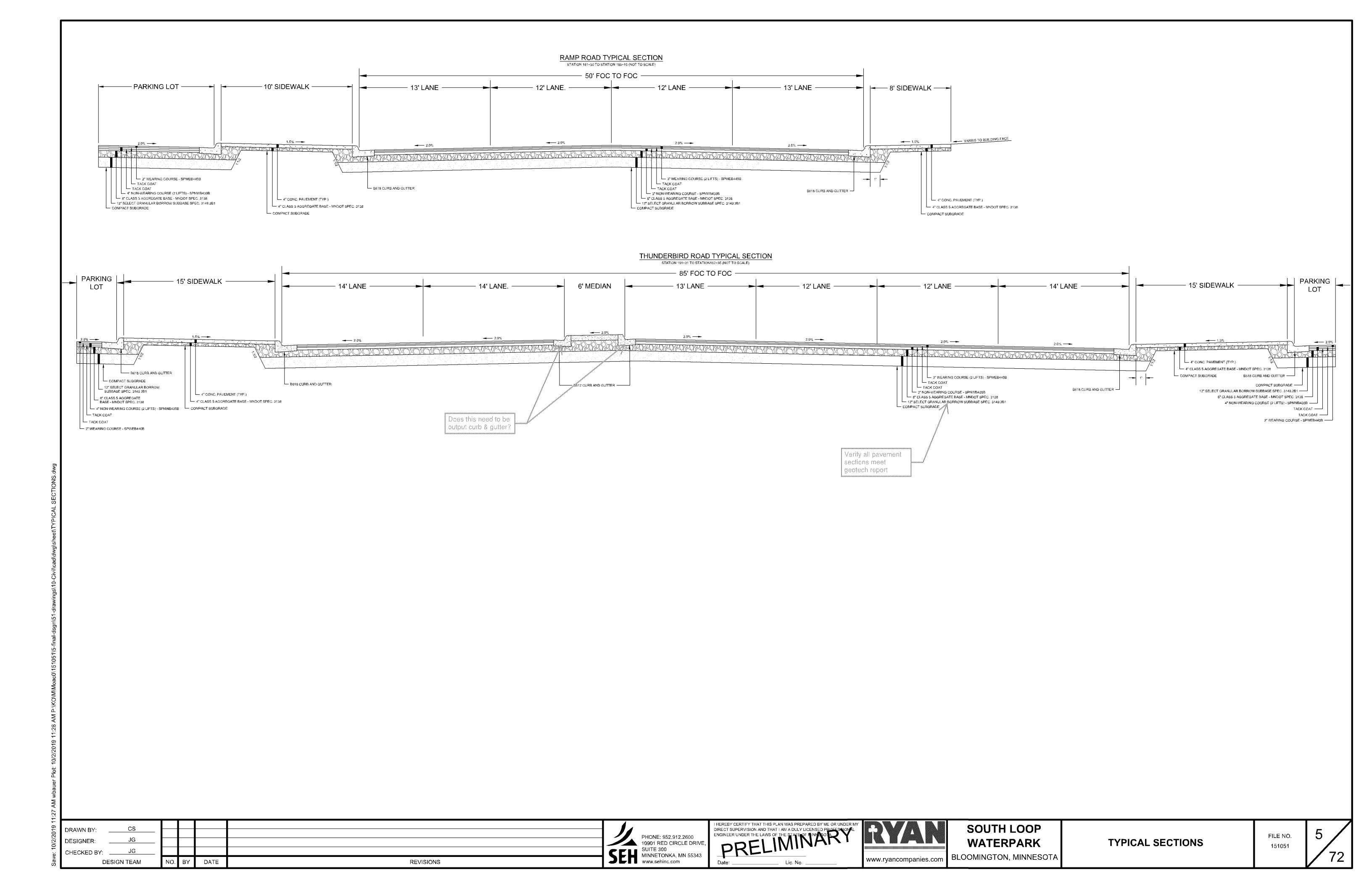


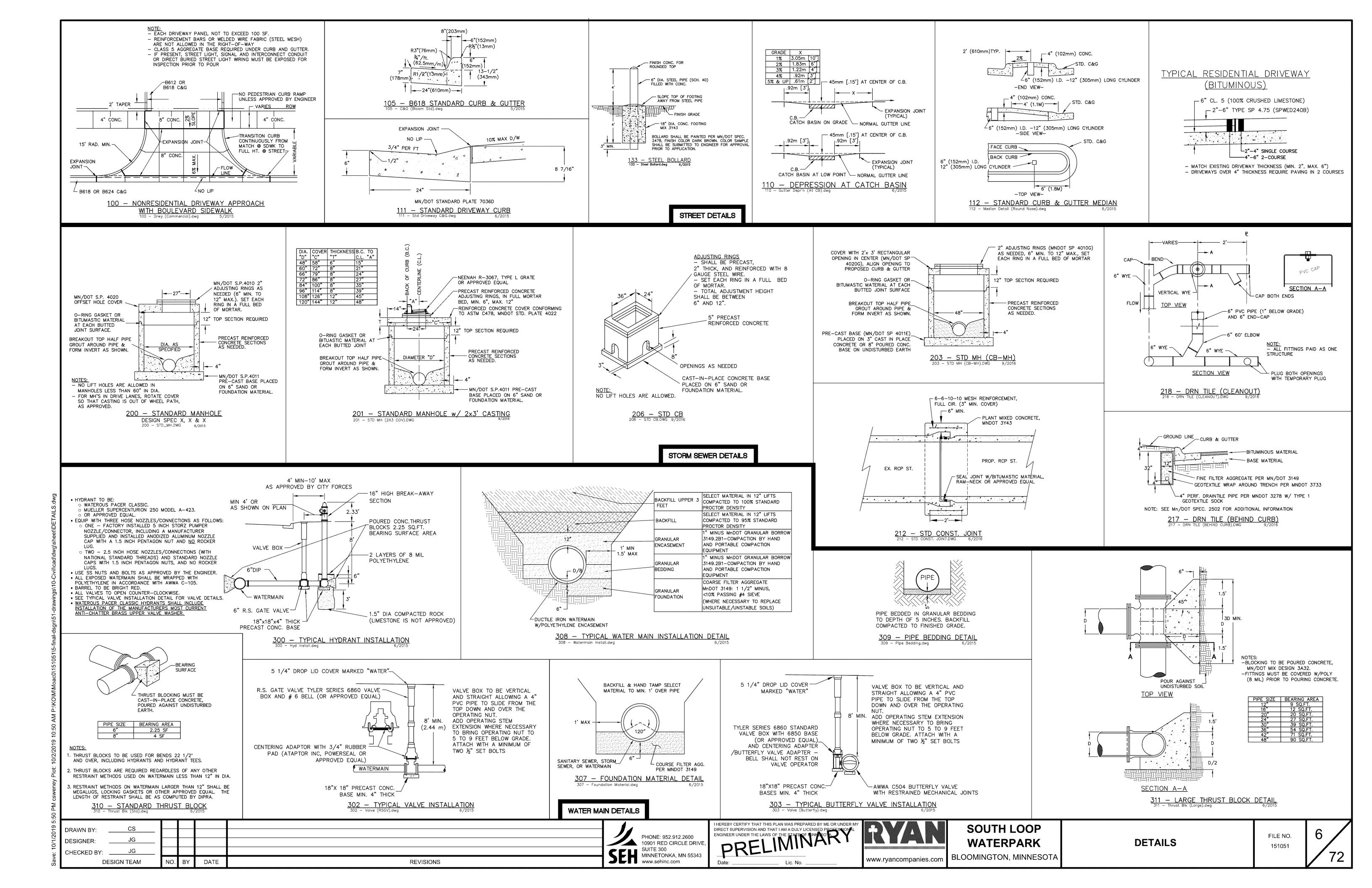
SOUTH LOOP WATERPARK www.ryancompanies.com BLOOMINGTON, MINNESOTA

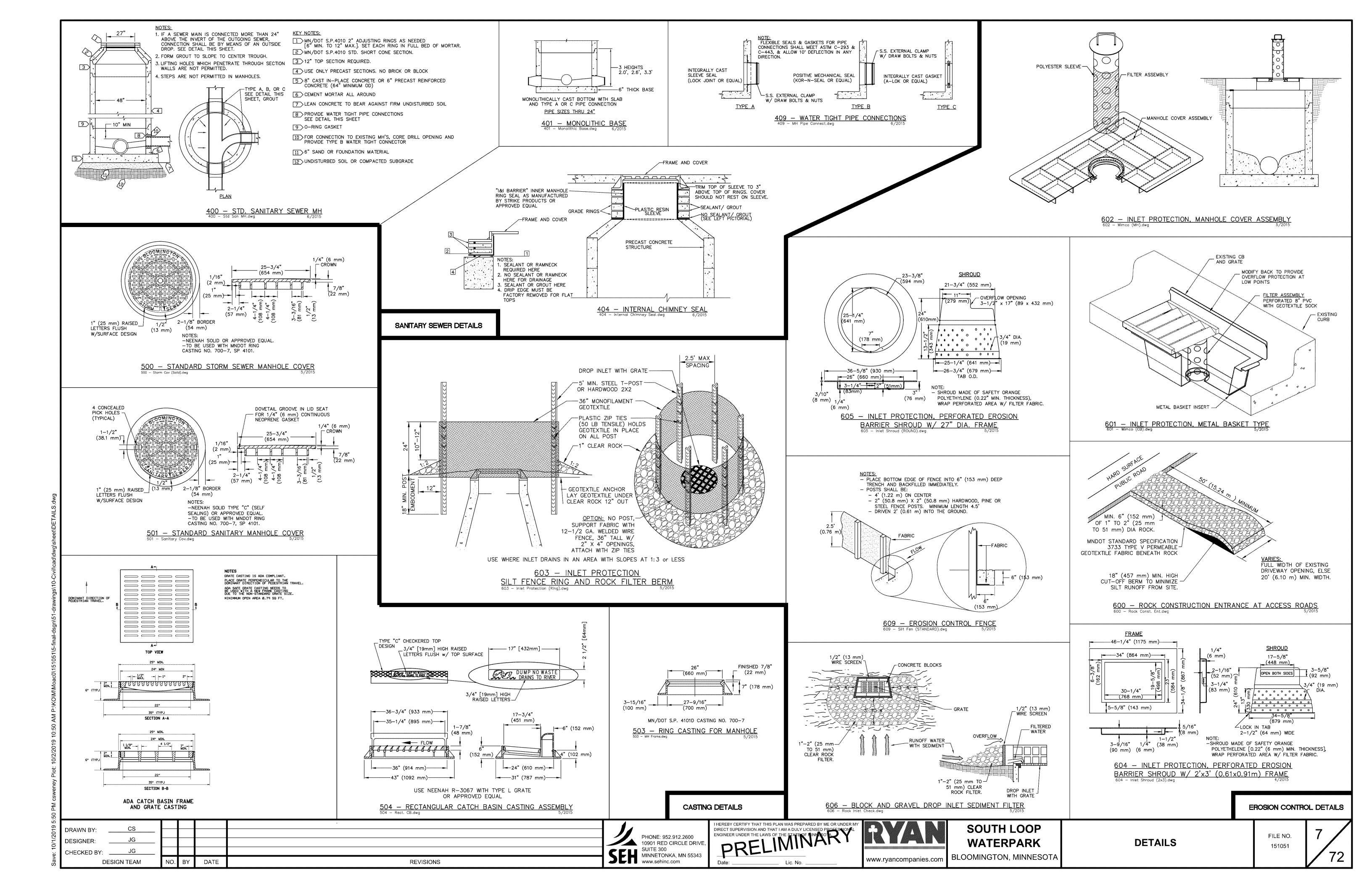
NOTES AND STRUCTURE SCHEDULE

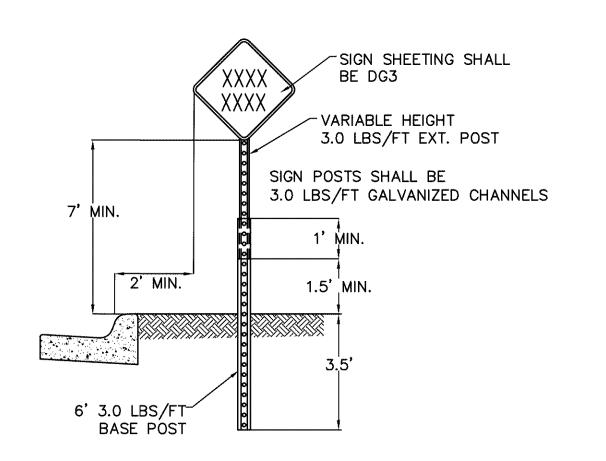
FILE NO. 151051









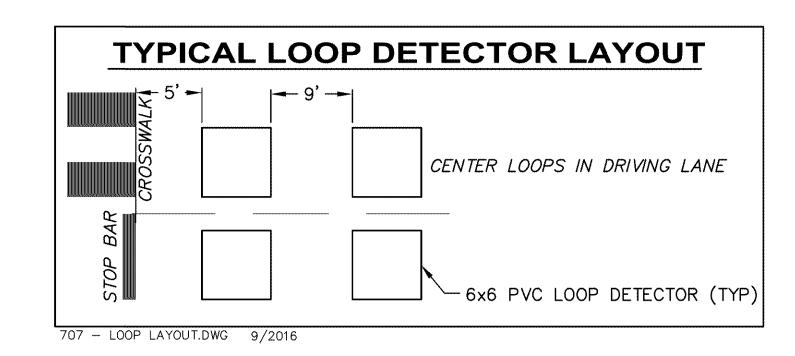


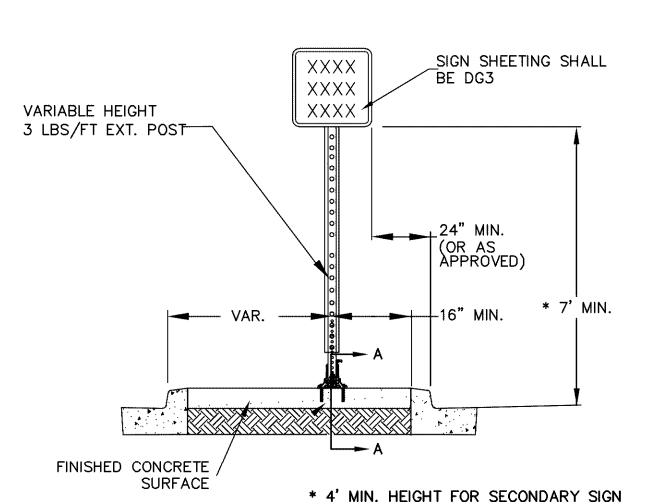
ALL TRAFFIC CONTROL DEVICES, INSTALLATION AND SIGNING SHALL CONFORM TO THE LATEST VERSION OF THE

DEVICES (MMUTCD).

701 - SIGN (GROUND MOUNTED) 701 - SIGN (GROUND MOUNTED).DWG

MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL





WALL THICKNESS GAUGE #12 (.105 in.) INSERTED AT TIME OF SIGN INSTALLATION. - \bigcirc _FINISHED CONCRETE SURFACE SECTION A-A

1 3/4" x 1 3/4" (O.D.) x 12"

GAVALANIZED TUBING WITH 7/16" DIA. HOLES 1" ON CENTER, ON ALL 4 SIDES

- 1. ALL TRAFFIC CONTROL DEVICES, INSTALLATION AND SIGNING SHALL CONFORM TO THE LATEST VERSION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD)
- 2. ALL PRODUCTS SHALL CONFORM WITH THE LATEST MnDOT
- APPROVED PRODUCTS LIST
- 3. NO SUBSTITUTIONS MAY BE MADE ITEMS SHOWN IN THIS DETAIL WITHOUT THE EXPRESS AUTHORIZATION OF THE PROJECT ENGINEER 1.2. UNITS SHALL BE INSTALLED PLUMB (SURFACE UNITS CAN BE SHIMMED

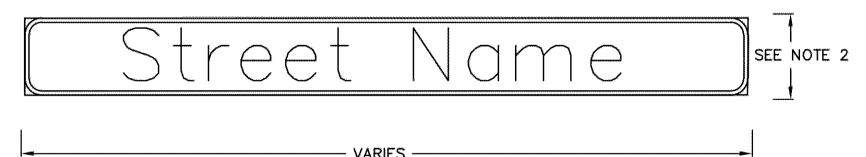
700 - SIGN (CONC. MOUNTED) 700 - SIGN (CONC. MOUNTED).DWG

BREAK AWAY MOUNTING UNIT NOTES:

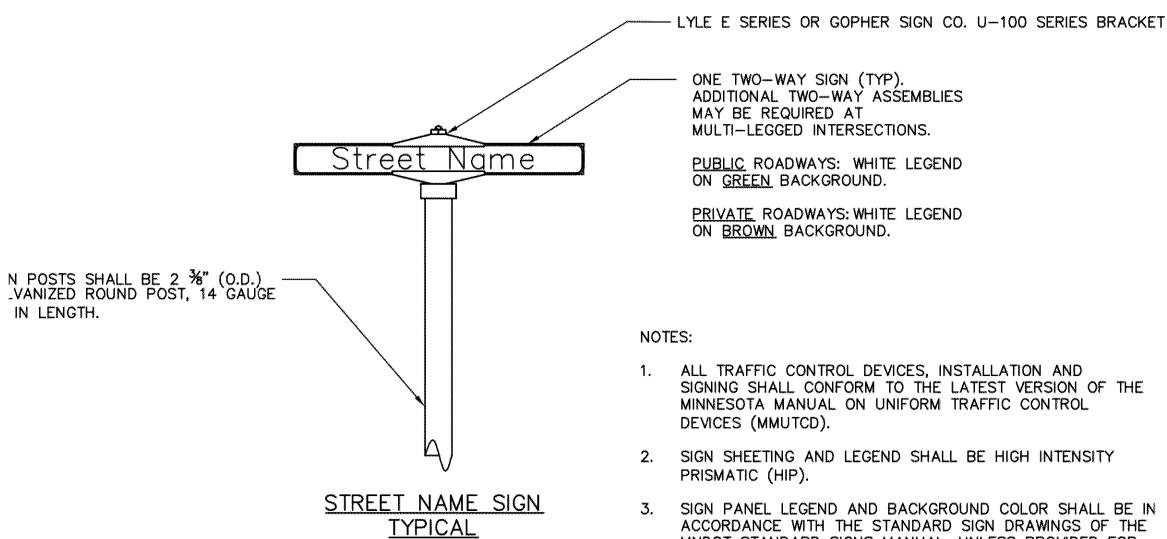
BREAK AWAY UNIT

- GENERAL REQUIREMENTS: 1.1. SURFACE MOUNTED UNIT SHALL BE ATTACHED WITH NO LESS THAN 3 TITAN HD ANCHORS WITH A MINIMUM DIAMETER OF ½" AND A MINIMUM
 - LENGTH OF 4". THE MINIMUM EMBEDDED DEPTH SHALL BE 3-5%". THE ALLOWABLE TENSION LOAD SHALL BE 2270lbs WHEN INSTALLED IN NORMAL WEIGHT, 3000psi CONCRETE.
- TO A MAXIMUM HEIGHT OF 1/2"). 1.3. UNIT SHALL ALLOW FOR 360° INDEXING TO ALLOW FOR PROPER SIGN
- ORIENTATION AFTER INSTALLATION.
- UNIT SHALL HAVE A STUB HEIGHT OF 4" MAXIMUM AFTER BREAK AWAY. UNIT SHALL UTILIZE A SHEAR BOLT AS ITS' MEANS OF BREAKING AWAY.
- 1.6. UNIT SHALL UTILIZE A LOCKING WEDGE OR SHIM TO ELIMINATE ALL TOLERANCE BETWEEN MOUNTING UNIT AND TELESPAR POST
- 1.7. UNIT SHALL CONFORM WITH THE MnDOT APPROVED PRODUCTS LIST 2. UNIT SHALL BE INSTALLED PER THE MANUFACTURERS SPECIFICATIONS

PAYMENT: FURNISH AND INSTALLATION OF BREAK AWAY UNIT IS CONSIDERED INCIDENTAL TO "INSTALL SIGN" OR "SIGN PANEL TYPE C"; NO DIRECT PAYMENT THEREOF WILL BE MADE.



- LETTERING SHALL BE UPPER AND LOWER CASE. 2. INITIAL UPPER-CASE LETTERING SHALL BE: 4" ON 6" BLANK (LOCAL 2-LANE STREETS 30 MPH OR LESS) 6" ON 9" BLANK (LOCAL 2-LANE STREETS >30 MPH & MULTI-LANE)
- REFER TO MMUTCD FOR POSTED SPEEDS ABOVE 40 MPH. LETTERING SHALL BE A 'C' FONT.
- CORNERS EXTENDING BEYOND THE BORDER
- SHALL NOT BE TRIMMED. 5. BORDER SHALL BE 0.5" WITH NO MARGIN



ONE TWO-WAY SIGN (TYP). ADDITIONAL TWO-WAY ASSEMBLIES MAY BE REQUIRED AT

PUBLIC ROADWAYS: WHITE LEGEND ON GREEN BACKGROUND.

PRIVATE ROADWAYS: WHITE LEGEND ON BROWN BACKGROUND.

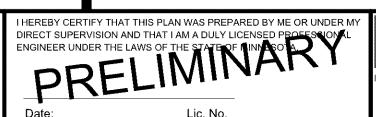
- 1. ALL TRAFFIC CONTROL DEVICES, INSTALLATION AND SIGNING SHALL CONFORM TO THE LATEST VERSION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL
- 2. SIGN SHEETING AND LEGEND SHALL BE HIGH INTENSITY PRISMATIC (HIP).
- 3. SIGN PANEL LEGEND AND BACKGROUND COLOR SHALL BE IN ACCORDANCE WITH THE STANDARD SIGN DRAWINGS OF THE MNDOT STANDARD SIGNS MANUAL, UNLESS PROVIDED FOR OTHERWISE IN THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL SIGNAL DEVICES.
- MOUNTING HEIGHT: MINIMUM 7' FROM FINISHED GROUND TO BOTTOM OF SIGN.

703 - SIGN GROUND MOUNT STREET NAME 703 - SIGN_GROUND_MOUNT_STREET NAME.DWG 9/2016

TRAFFIC DETAILS

CS DRAWN BY: JG DESIGNER: CHECKED BY: **DESIGN TEAM** DATE **REVISIONS**

PHONE: 952.912.2600 10901 RED CIRCLE DRIVE, SEH SUITE 300
MINNETONKA, MI
www.sehinc.com MINNETONKA, MN 55343

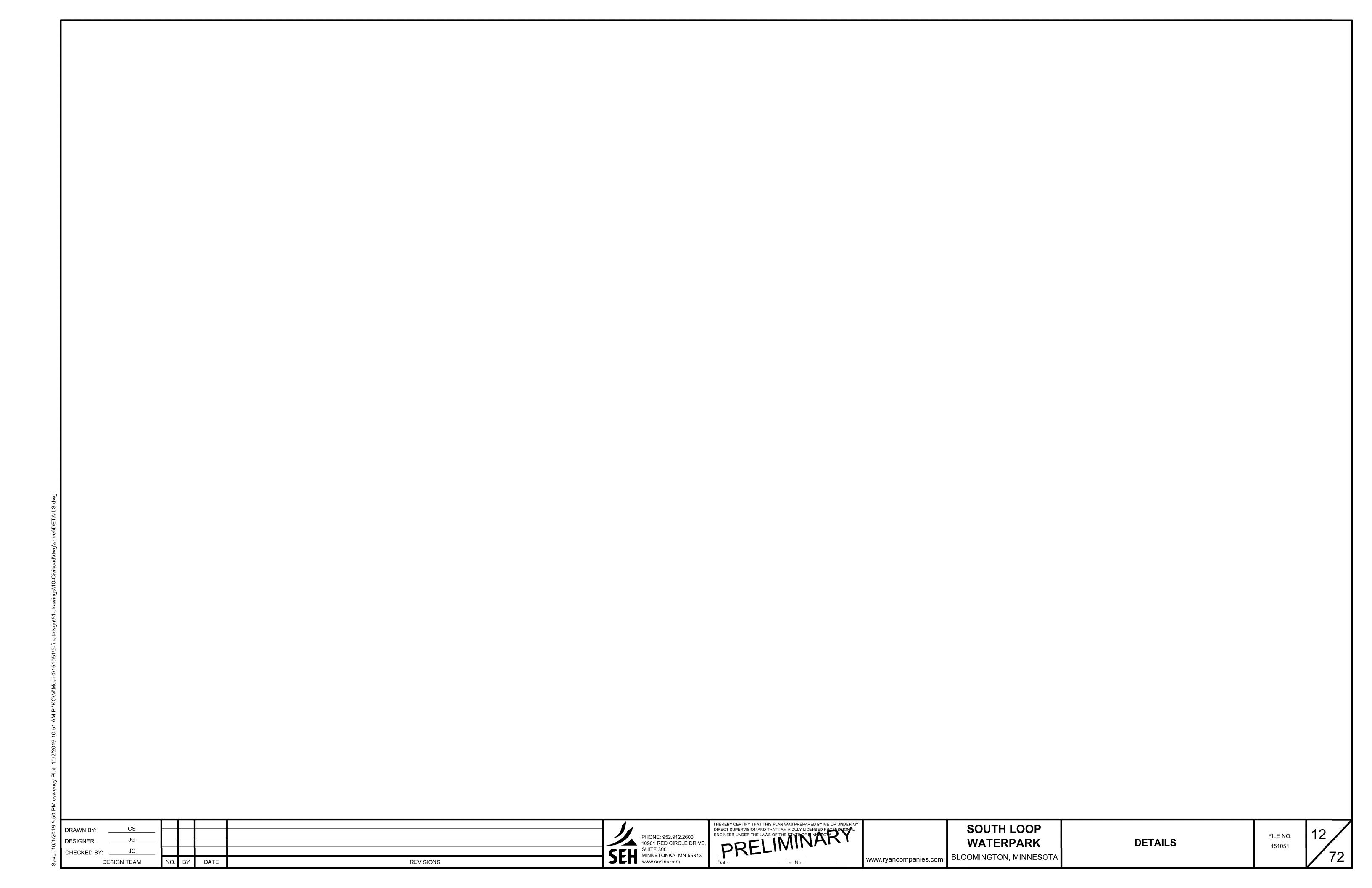


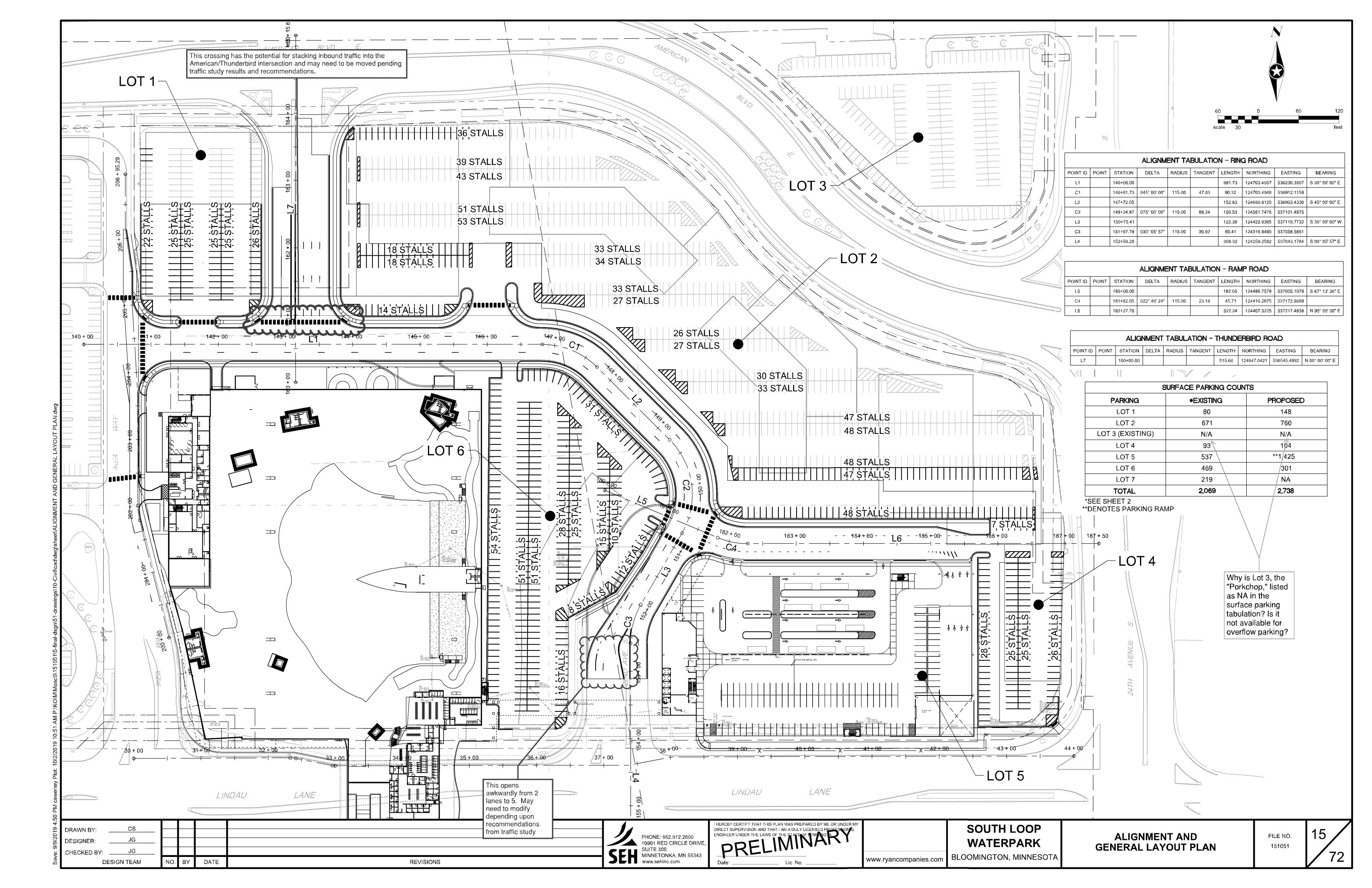
www.ryancompanies.com

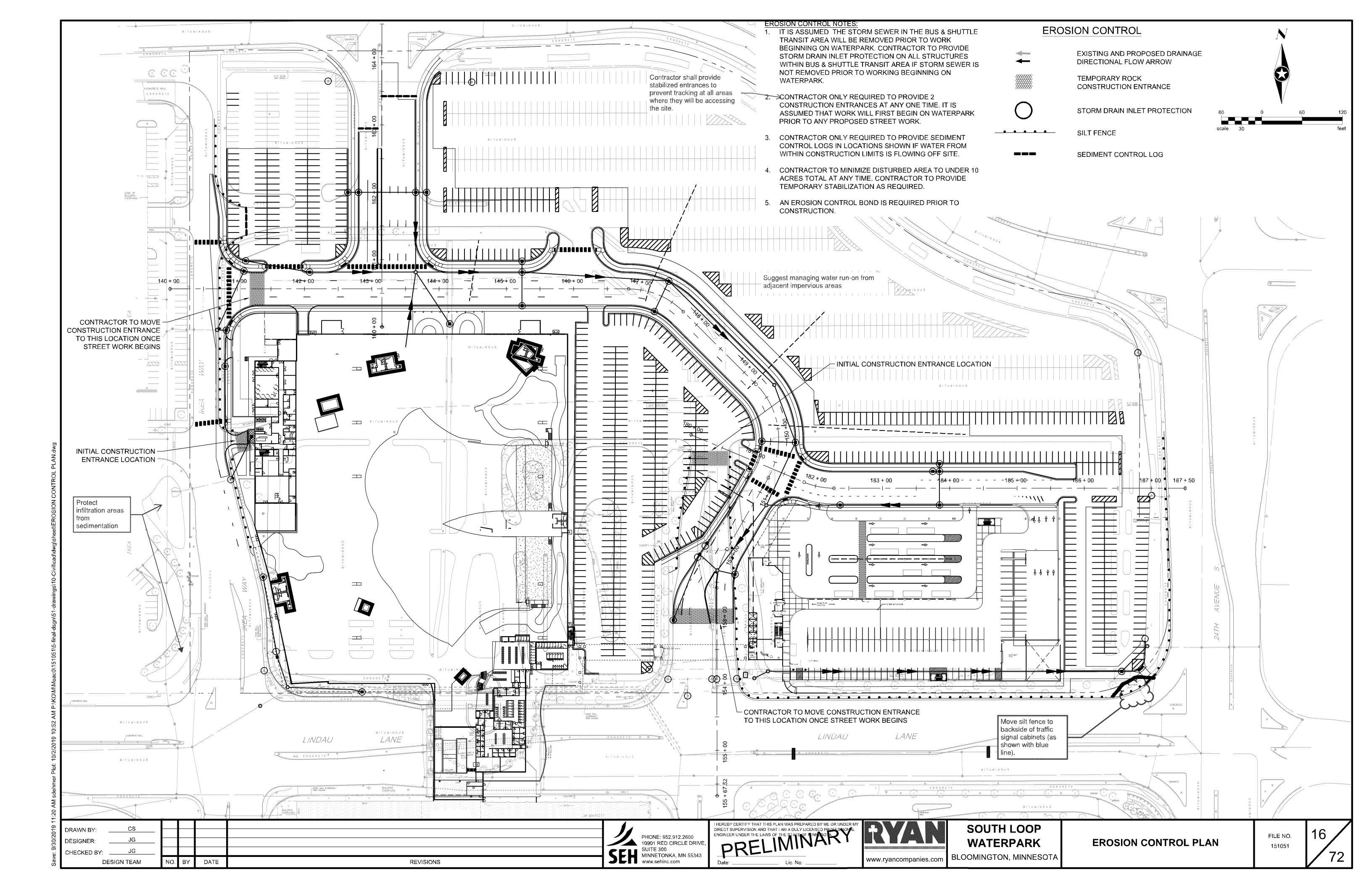
SOUTH LOOP WATERPARK BLOOMINGTON, MINNESOTA

DETAILS

FILE NO. 151051







SWPPP SUMMARY/OVERVIEW THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO ADDRESS THE REQUIREMENTS OF NPDES PERMIT MN R100001. THIS SWPPP INCLUDES A COMBINATION OF NARRATIVE AND PLAN SHEETS THAT DESCRIBE THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT PLAN FOR THE PROJECT.

PROJECT INFORMATION:

LOCATION:	CITY OF BLOOMINGTON, HENNEPIN COUNTY, MN
LATITUDE/LONGITUDE:	44.8577 / -93.2421
PROJECT DESCRIPTION:	WATERPARK
SOIL DISTURBING ACTIVITIES:	BITUMINOUS REMOVAL, PUBLIC AND PRIVATE UTILITIES, CONCRETE SIDEWALK AND C&G, LIGHTING

CONTACTS:

0011171010.	
OWNER:	X
CONTACT:	X
ADDRESS:	X
PHONE:	X
EMAIL:	X
ENGINEER:	SHORT ELLIOTT HENDRICKSON INC. (SEH)
CONTACT:	CRAIG SWENEY, PE
PHONE:	(651) 414-5189
EMAIL:	CSWENEY@SEHINC.COM

KNOWLEDGEABLE PERSON/CHAIN OF RESPONSIBILITY

THE CONTRACTOR SHALL IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS WHO WILL COORDINATE WITH ALL CONTRACTORS, SUBCONTRACTORS, AND OPERATORS ON-SITE TO OVERSEE THE IMPLEMENTATION OF THE SWPPP.

CONTRACTOR		
CONTACT		
PHONE		
EMAIL		

THE CONTRACTOR SHALL ESTABLISH A CHAIN OF RESPONSIBILITY FOR ALL CONTRACTORS AND SUB-CONTRACTORS ON SITE TO ENSURE THE SWPPP IS BEING PROPERLY IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE CHAIN OF RESPONSIBILITY TO THE OWNER AND ATTACH TO THE SWPPP PRIOR TO ANY CONSTRUCTION ACTIVITY.

GENERAL SWPPP RESPONSIBILITIES:

PROJECT NO.: | MOAC0 151051

THE CONTRACTOR SHALL KEEP THE SWPPP, INCLUDING ALL AMENDMENTS AND INSPECTION AND MAINTENANCE RECORDS ON SITE DURING CONSTRUCTION.

THE SWPPP WILL BE AMENDED AS NEEDED AND/OR AS REQUIRED BY PROVISIONS OF THE PERMIT. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER. AMENDMENTS WILL BE APPROVED BY BOTH THE OWNER AND CONTRACTOR AND WILL BE ATTACHED OR OTHERWISE INCLUDED WITH THE SWPPP DOCUMENTS. THE SWPPP AMENDMENTS SHALL BE INITIATED, FACILITATED, AND PROCESSED BY THE CONTRACTOR.

ALL SWPPP CHANGES MUST BE DONE BY AN INDIVIDUAL TRAINED IN ACCORDANCE WITH SECTION 21.4 OR 21.5. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.

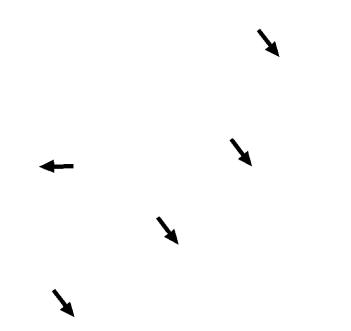
BOTH THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER TERMINATION AND/OR TRANSFER OF THE PERMIT.

A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION SITE PERMIT AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MUST BE PROVIDED PRIOR TO CONSTRUCTION.

LONG TERM OPERATION AND MAINTENANCE

THE OWNER WILL BE RESPONSIBLE OR WILL OTHERWISE IDENTIFY WHO WILL BE RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM(S).

THE OWNER WILL PREPARE AND IMPLEMENT A PERMANENT STORMWATER TREATMENT SYSTEM(S) MAINTENANCE PLAN.



TRAINING DOCUMENTATION:

PREPARER/DESIGNER OF SWPPP:	KATELYN HOLMBERG
EMPLOYER:	SHORT ELLIOTT HENDRICKSON INC. (SEH)
DATE OBTAINED / REFRESHED	MAY 2019
INSTRUCTOR(S)/ENTITY PROVIDING TRAINING:	UNIVERISTY OF MINNESOTA

CONTENT OF TRAINING AVAILABLE UPON REQUEST

THE CONTRACTOR (OPERATOR) SHALL ADD TO THE SWPPP TRAINING RECORDS FOR THE FOLLOWING PERSONNEL:

-INDIVIDUALS OVERSEEING THE IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP -INDIVIDUALS PERFORMING INSPECTIONS -INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR

TRAINING MUST RELATE TO THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES AND SHALL INCLUDE:

1) DATES OF TRAINING

- 2) NAME OF INSTRUCTORS
- 3) CONTENT AND ENTITY PROVIDING TRAINING

THE CONTRACTOR SHALL ENSURE THAT THE INDIVIDUALS ARE TRAINED BY LOCAL. STATE FEDERAL AGENCIES, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, PERMANENT STORMWATER MANAGEMENT AND THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT

PROJECT SUMMARY:

TOTAL DISTURBED AREA:	15.67 AC
PRE-CONSTRUCTION IMPERVIOUS AREA:	15.67 AC
POST-CONSTRUCTION IMPERVIOUS AREA:	15.67 AC
IMPERVIOUS AREA ADDED:	0 AC

RECEIVING WATER(S) WITHIN ONE MILE FROM PROJECT BOUNDARIES:

(http://pca-gis02.pca.state.mn.us/CSW/index.html)

ID	NAME	TYPE	SPECIAL WATER?	IMPAIRED WATER?	CONSTRUCTION RELATED IMPAIRMENT OR SPECIAL WATER CLASSIFICATION	TMDL	
07020012-505	MINNESOTA RIVER	RIVER	Υ	Y	Y	N/A	
27-0002-00	LONG MEADOW LAKE	LAKE	N	N	N	N/A	
ADDITIONAL BMPS AND/OR ACTIONS REQUIRED: NOT REQUIRED - MORE THAN 1 MILE FROM MINNESOTA RIVER							

SEE SECTION 23 OF THE PERMIT AND APPLICABLE TMDL WLA'S

WATERBODY	NO WORK DURING	SEE DNR PERMIT FOR MORE INFORMATION
LAKES	APRIL 1 - JUNE 30	INI ONWATION
NON-TROUT STREAMS	MARCH 15 - JUNE 15	
TROUT STREAMS	SEPTEMBER 1 - APRIL 1	

SITE SOIL INFORMATION: (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx) (SOIL INFORMATION PROVIDED IS FOR NPDES PERMIT INFORMATION ONLY. SOIL INFORMATION WAS OBTAINED FROM THE USGS WEBSITE. THE CONTRACTOR SHALL NOT RELY ON THIS SOIL INFORMATION FOR CONSTRUCTION PURPOSES.)

SOIL NAME:	HYDROLOGIC CLASSIFICATION:
URBAN LAND-UDIPSAMMENTS (CUT AND FILL LAND) COMPLEX, 0 TO 2 PERCENT SLOPES	N/A
ANTICIPATED RANGE OF PARTICLE SIZES	N/A

RELATED REVIEWS & PERMITS: ENVIRONMENTAL, WETLAND, ENDANGERED OR THREATENED SPECIES, ARCHEOLOGICAL, LOCAL, STATE, AND/OF FEDERAL REVIEWS/PERMITS:

AGENCY:	TYPE OF PERMIT:
MPCA	MS4 PERMIT
RICHFIELD-BLOOMINGTON WATERSHED MANAGEMENT ORGANIZATION	STORMWATER PERMIT

Update as needed as stormwater management plan is developed

IMPLEMENTATION SEQUENCE:

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING SEQUENCE. THE ENGINEER MAY APPROVE ADJUSTMENTS TO THE SEQUENCE AS NEEDED.

- INSTALL ROCK CONSTRUCTION ENTRANCE(S)
- INSTALL PERIMETER CONTROL AND STABILIZE DOWN GRADIENT BOUNDARIES
- 3. INSTALL INLET PROTECTION ON EXISTING CATCH BASINS
- COMPLETE SITE GRADING
- INSTALL UTILITIES, STORM SEWER, INLET PROTECTION, CURB & GUTTER, PAVING
- COMPLETE FINAL GRADING AND STABILIZE DISTURBED AREAS
- AFTER CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, REMOVE
- ACCUMULATED SEDIMENT. REMOVE BMPS. AND RE-STABILIZE ANY AREAS DISTURBED BY THEIR REMOVAL.

PROJECT SPECIFIC NOTES:

ANY STOCKPILES ON SITE MUST HAVE A BIOROLL PERIMETER. THE TOTAL DISTURBED AREA AT A SINGLE TIME CANNOT BE GREATER THAN 10 ACRES. IF THE TOTAL DISTURBED AREA EXCEEDS 10 ACRES A TEMPORARY SEDIMENTATION BASIN WILL BE REQUIRED.

IT SHOULD BE NOTED THAT AT THE CORNER OF 24TH AVE S AND EAST OLD SHAKOPEE ROAD IS AN UNIDENTIFIED TROUT STREAM MONITORED BY THE DNR. ADDIITONAL EFFORTS MAY BE REQUIRED IF REQUESTED BY THE DNR.

THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE SWPPP: PLAN AND PROFILE PLAN SHEETS **EROSION AND SEDIMENT CONTROL PLAN SHEETS:** TURF ESTABLISHMENT PLAN SHEETS: STORM SEWER PLAN & PROFILE PLAN SHEETS: GRADING PLAN SHEETS: **DETAIL PLAN SHEETS:** SWPPP NOTE AND DETAIL SHEETS: PROJECT SPECIFICATIONS: PROJECT BID FORM:

TEMPORARY BMP DESIGN FACTORS:

EROSION PREVENTION AND SEDIMENT CONTROL BMP'S MUST BE DESIGNED TO ACCOUNT FOR:

THE EXPECTED AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION

THE NATURE OF STORMWATER RUNOFF AND RON-ON AT THE SITE, INCLUDING FACTORS SUCH AS EXPECTED FLOW FROM IMPERVIOUS SURFACES, SLOPES, AND SITE DRAINAGE FEATURES

THE STORMWATER VOLUME, VELOCITY, AND PEAK FLOW RATES TO MINIMIZE DISCHARGE OF POLLUTANTS IN STORMWATER AND TO MINIMIZE CHANNEL AND STREAMBANK EROSION AND SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS

THE RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT.

TEMPORARY SEDIMENT BASINS:

THE CONTRACTOR SHALL INSTALL TEMPORARY SEDIMENT BASIN(S) INDICATED ON PLANS AND REQUIRED BY THE NPDES CONSTRUCTION PERMIT.

THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2)-YEAR, 24-HOUR STORM FROM EACH ACRE DRAINED TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINED, WHICHEVER IS GREATER

TEMPORARY SEDIMENT BASIN OUTLETS SHALL BE CONSTRUCTED TO PREVENT SHORT-CIRCUITING AND PREVENT THE DISCHARGE OF FLOATING DEBRIS.

OUTLET STRUCTURES MUST BE DESIGNED TO WITHDRAW WATER FROM THE SURFACE TO MINIMIZE THE DISCHARGE OF POLLUTANTS.

BASINS MUST INCLUDE A STABILIZED EMERGENCY OVERFLOW, WITHDRAW WATER FROM THE SURFACE, AND PROVIDE ENERGY DISSIPATION AT THE OUTLET.

TEMPORARY SEDIMENT BASINS SHALL BE PROVIDED WITH ENERGY DISSIPATION AT ANY BASIN **OUTLET TO PREVENT SOIL EROSION**

SEDIMENT BASINS MUST BE SITUATED OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONES, AND MUST BE DESIGNED TO AVOID THE DRAINING WATER FROM WETLANDS.

 \sim

PERMANENT STORMWATER MANAGEMENT SYSTEM

PERMANENT STORMWATER MANAGEMENT SYSTEM IS DESIGNED TO MEET THE REQUIREMENTS OF NPDES GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY.

·	REQUIRED WATER QUALITY VOLUME (WQV):		1.44 AF
e e	PERMANENT MANAGEMENT SYSTEM:	WQV INFILTRATED	WQV TREATED (NOT INFILTRATED)
	UNDERGROUND STORAGE TANKS, MS4, POND	0 AF	1.44 AF
	TOTAL WQV INFILTRATED/TREATED		1.44 AF
	REVIEW AND COMPLETE CONTAMINATION SCREEN FEASIBILITY OF INFILTRATION.	ENING CHECKLIST TO	D DETERMINE

CS DRAWN BY: JG DESIGNER: CHECKED BY: **REVISIONS DESIGN TEAM** DATE

PHONE: 952.912.2600 10901 RED CIRCLE DRIVE, CEU SUITE 300 MINNETONKA, MN 55343 www.sehinc.com

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER M

SOUTH LOOP **WATERPARK** BLOOMINGTON, MINNESOTA

www.ryancompanies.com

SWPPP

FILE NO.

151051