RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

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Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-016

Considered at Board of Managers Meeting: May 4, 2022

Project Procedural History: Permit application conditionally approved September 5, 2018. Permit modifications were approved on March 4, 2020 and June 3, 2020. The conditional approval was extended by the administrator in August 2019 to September 5, 2020. The June 3, 2020 conditional approval included further extension of the permit timeline to September 5, 2021. Conditions of approval were fulfilled and the permit was issued in July 2021, with an extension to July 12, 2022. The applicant is seeking further extension of the permit to July 1, 2023.

Modification Request Received complete: April 25, 2022

Applicant:	Level 7 Development LLC, Bahram Akradi
Consultant:	Landform Professional Services, Steve Sabraski
Project:	Avienda – the applicant proposes construction of Phase 1 and 2 of the development which will encompass mass grading, installation of public utilities, construction of public streets, trails, sidewalks, Avienda Townhomes, and stormwater management systems. The stormwater management system includes filtration basins, rainwater harvest and reuse, vegetated swales, and detention ponds to provide runoff volume abstraction, water quality treatment, and rate control.
Location:	SW corner of Powers and Lyman Boulevard Chanhassen, Minnesota
Reviewer:	Scott Sobiech, PE, Barr Engineering

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the May 4, 2022 meeting of the managers. Resolved that the permit is extended to July 1, 2023 and the modification to the application for Permit 2018-016 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2018-016 as modified to the applicant on behalf of RPBCWD.

Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Rule Conformance Summary

Rule	Issue		Conforms to RBPCWD Rules?	Comments
B	**Floodplain Management and Drainage Alterations**		No	Variance for compensatory storage not being provided within the floodplain of the same waterbody approved September 5, 2018. Modification request has no bearing on approved variance
C	**Erosion Control Plan**		Yes	
D	**Wetland and Creek Buffer**		Yes	
J	**Stormwater Management**	Rate	Yes	
		Volume	Yes	
		Water Quality	Yes	
		Low Floor Elev.	Yes	
		Chloride Management	See Comment	See Stipulation 4
		Wetland Protection	Yes	
		Maintenance	See Comment	See Rule Specific Permit Condition J1 related to recordation of a revised maintenance declaration.
K	**Variances and Exceptions**		See Comment	Variance request was approved June 3, 2020. Modification request has no impact on approved variance
L	**Permit Fee**		See Comment	$4,500 was received on 3/22/18. Review fees associated with modification request and replenish a $3,000 fee deposit. As of April 28, 2022 the amount due is $5,133.65.
M	**Financial Assurance**		See Comment	The financial assurance has been calculated at $1,847,846.

Project Background

Because the infiltration testing results indicate the infiltration capacity of the soils on the site are between 0.0-0.02 inches per hour (in/hr) which is significantly lower than used in the design, the

applicant has submitted this permit modification request for the site to be considered restrict and replace the infiltration stormwater facilities with a rainwater harvest and reuse system. The applicant is also seeking the modification request to expand the authorized work under this permit to include Phase 2 (Avienda Townhomes), a 39-lot townhome development on the western portion of the site.

The site comprises approximately 116 acres of non-contiguous land located at the southwest and southeast corners of Lyman Boulevard (County Road 18) and Powers Boulevard (County Road 17) immediately north of U.S. Highway 212 in the City of Chanhassen, Minnesota. The majority of the site consists of farm fields with the southwest corner containing a wooded area. The fields, some of which have been idle for a couple years, are mostly separated by tree lines. There are 10 wetlands on site and two off but adjacent to the site; all are protected by the Wetland Conservation Act. A watercourse connects two of the wetlands; it is not a Department of Natural Resources-regulated (Public Waters) watercourse. There are no public water wetlands on or adjacent to the site. Runoff from the northeast and eastern portion of the site drains east, eventually draining to Lake Susan, while the rest of the site drains west and south, ultimately reaching Bluff Creek.

The Board of Manager approved the applicant's floodplain variance request and conditionally approved the permit application at the September 5, 2018, meeting for the construction of Phase 1 of the Avienda development which entails mass grading roughly 96 acres of the site, installation of utilities, stormwater management systems, and construction of streets, trails and sidewalks within Bluff Creek Boulevard, Avienda Parkway, and Sunset Trail. (The utilities, streets and stormwater systems within the area, as well as the trails and sidewalks, ultimately will be dedicated to the city.) Much of the graded area will be vegetated (made pervious) in anticipation of future site development. RPBCWD conditionally approved permit modification requests at the March 4, 2020 and June 3, 2020 meetings to allow changes in the proposed Phase 1 site configuration and stormwater facilities. The approved stormwater management systems included filtration basins, infiltration basins, vegetated swales, and detention ponds that will provide runoff volume abstraction, water quality treatment, and rate control. The June 3, 2020 conditional approval also included extension of the permit timeline to September 5, 2021.

The conditions of September 2018, March 2020, and June 2020 approvals were fulfilled in July 2021 and the permit was issued and extended by staff to an expiration date of July 12, 2022. The applicant conducted land-disturbing activities by mass-grading and performed eight double ring infiltration test as required by permit stipulation 4. Because the infiltration testing results indicate the infiltration capacity of the soils on the site are between 0.0-0.02 inches per hour (in/hr) which is significantly lower than used in the design, the applicant has submitted this permit modification request. The applicant is also seeking the modification request to expand the authorized work under this permit to include Phase 2 (Avienda Townhomes), a 39-lot townhome development on the western portion of the site.

The applicant previously provided big-picture proof of concept information for the full build-out condition of the Avienda development to gauge whether the final project would be able to achieve compliance with the RPBCWD regulatory program. The full build-out of the site is anticipated to take

several years and involves construction of public roads and utilities (now) and residential, commercial, hotel, and office components with associated private improvements (later). *No work beyond Phases 1 and 2, as described above, will be authorized by this permit, if issued.* As individual future subdivided parcels within the Avienda site are developed, the property owner/developer must submit a separate application with necessary supporting materials showing compliance of the proposed work with applicable RPBCWD regulatory requirements in effect at the time of the application. Further, the common scheme of development framework in subsection 2.5 of Rule J will apply to build-out of the properties. RPBCWD's approval, if granted, of this permit 2018-016 modification does not represent a determination of compliance of the ultimate build-out condition of the Avienda development with RPBCWD regulatory requirements. The data for the ultimate Avienda development in this report are provided for information only.

The project site information is summarized below:

	2018 Conditional Approval Phase 1	2020 Modification Conditional Approval Phase 1	May 2022 Modification Request Phases 1 & 2	Planned Ultimate Build-Out
Total Site Area (acres)	119.11	119.11	119.11	119.11
Existing Site Impervious (acres)	0.52	0.52	0.52	0.52
Post Construction Site Impervious (acres)	8.25	7.38	12.22	63.75
New (Increase) in Site Impervious Area (acres)	7.73	6.86	11.7	63.23
Disturbed impervious surface (acres)	0.52	0.52	0.52	0.52
Exempt Impervious Trail and sidewalk (acres)[1]	2.28	1.54	1.6	1.54
Total Disturbed Area (acres)	96.63	96.99	96.99	96.99

[1]Because the proposed trails and sidewalks do not exceed 10 feet in width and will be boarded downgradient by a pervious area at least half the trail width, the 1.54 acres of trail and sidewalk are exempt from the stormwater requirements (Rule J, Subsection 2.2d)

The following materials were reviewed in support of the permit modification request:

1. Stormwater management plan – Phases 1 & 2 – public rights of way & Avienda Townhomes dated March 22, 2022 (revised April 25, 2022)
2. Phase 1 Project Plan Set (82 sheets) dated March 22, 2022 (revised April 25, 2022)
3. Phase 2 Project Plan Set (39 sheets) dated February 22, 2022 (revised April 25, 2022)
4. Double Ring Infiltrometer testing results dated August 16, 2017 (Braun Intertec)
5. Double Ring Infiltrometer testing results dated October 25, 2021 (Braun Intertec)

6. Existing, Phase 1, Phase 2, and Ultimate conditions HydroCAD Models received March 22, 2022(revised April 25, 2022)
7. MIDS models for existing and proposed conditions received March 22, 2022 (revised April 25, 2022)
8. Avienda MnRAM received April 25, 2018
9. Minnesota Wetland Conservation Act Notice of Decision dated December 22, 2017
10. Variance request received May 27, 2018
11. Engineer's Opinion of Probable Cost received revised March 22, 2022
12. Applicant's response to RPBCWD March 7, 2022 comments received March 22, 2022
13. Request for permit extension to July 1, 2023 received April 27, 2022

Rule Specific Permit Conditions

Rule B: Floodplain Management and Drainage Alterations

Because Phase 1 of the proposed development project involves the placement of a total of 5,284 cubic yards of fill below the 100-year flood elevation of wetland 1 (el. 907.61), wetland 2 (el. 909.9), and wetland 7 & 8 (el. 901.66), the project activities must conform to the RPBCWD's Floodplain Management and Drainage Alterations rule (Rule B). In addition, there are two other wetlands (WL5 and WL9) that will be filled (and eliminated) and WL 6 will be partially disturbed. Because these three wetlands are on slopes they do not exhibit natural banks required meet the watercourse definition or an enclosed natural depression with definable banks required to be a waterbody and they do not provide flood storage, Rule B does not apply to WL5, WL6, and WL9.

Because no structures are proposed with the Phase 1 work, subsection 3.1 does not impose requirements on Phase 1. Because Phase 2 of the project proposes new structures, the project must conform with low floor elevation requirements set forth by Rule B, Subsection 3.1 which references the low floor criteria in Rule J, subsection 3.6. All new buildings must be constructed such that the lowest floor is at least two feet above the 100-year high-water elevation or one foot above the natural overflow of a waterbody according to Rule J, Subsection 3.6a. In addition, a stormwater-management facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with this requirement according to Rule J, Subsection 3.6b. Low floor requirements were evaluated for 18 proposed structures adjacent to the 100-year floodplain extents. The results demonstrate the provided freeboard is greater than the minimum required. (As individual lots or future subdivided parcels within the Avienda site are developed, the developer must submit a separate application with necessary supporting materials for the proposed work to show compliance with the freeboard requirement, among others.)

Structure (Block – Lot)	Low Floor Elevation of Building (ft)	Waterbody	100-year Event Flood Elevation of Waterbody (ft)	Freeboard to 100-year Event (ft)
1 – 5	931.2	31P	925.53	5.67
2 – 1	930.8	31P	925.53	5.27

Structure (Block – Lot)	Low Floor Elevation of Building (ft)	Waterbody	100-year Event Flood Elevation of Waterbody (ft)	Freeboard to 100-year Event (ft)
2 – 2	928.8	Wetland 3	921.95	6.85
2 – 3	926.5	Wetland 3	921.95	4.55
3 – 7	921.8	Wetland 6	885.6	36.2
4 – 1	919.3	Wetland 6	885.6	33.7
4 – 2	918.8	NW Basin	895.86	22.94
4 – 3	916.7	NW Basin	895.86	20.84
4 – 4	915.1	NW Basin	895.86	19.24
4 – 5	914.0	NW Basin	895.86	18.14
5 – 1	922.8	West North Basin	919.63	3.17
5 – 2	925.1	West North Basin	919.63	5.47
5 – 3	926.5	West North Basin	919.63	6.87
5 – 4	927.3	West North Basin	919.63	7.67
5 – 5	929.7	West North Basin	919.63	10.07
5 –6	928.3	West North Basin	919.63	8.67
5 – 7	928.4	West North Basin	919.63	8.77
5 – 8	928.4	West North Basin	919.63	8.77

Placement of fill below the 100-year flood elevation is prohibited unless fully compensatory flood storage is provided within the same floodplain and at or below the same elevation for fill in the floodplain of a water basin (Rule B, Subsection 3.2). The supporting materials demonstrate, and the RPBCWD Engineer concurs, that in Phase 1 an aggregate total of 5,284 cubic yards of fill will be placed and 5,885 cubic yards of compensatory storage will be created below the 100-year flood elevation of 909.9 (set relative to the existing level elevation of the highest water resource being filled), thus providing a net increase in the floodplain storage. The information also demonstrates that Phase 2 will not place fill below the 100-year flood elevations. Because the compensatory storage will not be provided within the floodplain of the same waterbody, the Board of managers considered and approved the applicant's variance request on September 5, 2018 and a change to the variance on June 3, 2020.

Because filling of wetlands onsite to facilitate site development and providing alternative storages areas will alter the timing and duration of flows leaving the site, the applicant must demonstrate that the alterations will not have an adverse offsite impact and will not adversely affect flood risk, basin or channel stability, groundwater hydrology, stream baseflow, water quality, or aquatic or riparian habitat (Rule B subsection 3.3). The RPBCWD engineer concurs with the applicant's use of Board of Water and Soil Resources' Recommended Wetland Management Standards: Minnesota Routine Assessment Method for Evaluating Wetland Functions, Version 3.0 to demonstrate the change in hydrology will not adversely impact the onsite and adjacent downstream wetlands. These are the same criteria listed in Table J1 of the stormwater rule for wetland protection. The analysis presented under the Wetland Protection section of Rule J shows the project aligns with BWSR's recommended wetland management standard and RPBCWD wetland protection criteria, thus the applicant has demonstrated the project will not adversely impact the wetlands that will remain onsite and those immediately adjacent to the site.

The applicant also provided pre- and post-project water quality modeling to demonstrate no adverse impact to water quality. The modeling results show the total suspended solids and total phosphorus load leaving the site after the development will be less than the existing load leaving the site. In addition, the applicant's modeling indicates the peak discharge rates leaving the site are less under proposed conditions than for existing conditions. These also supports the engineer's determination that the project will not reasonably likely to adversely affect flood risk, basin or channel stability, or stream baseflow, thus meeting the requirements of Rule B, subsection 3.3.

There is one natural watercourse conveying runoff between wetland 4 and a MnDOT wetland (M09) that is located to the southeast of the project site. Rule B, Subsection 3.4 does not allow placing, constructing or reconstructing structures or paved surfaces within 100 feet of the centerline of any watercourse. Phase 1 & 2 construction activities will not place any structures or paved surfaces within 100 feet of this watercourse, those complying with Rule B, subsection 3.4. A note on the stormwater pollution prevention plan sheet requires the construction to be conducted to minimize the potential transfer of aquatic invasive species conforming to Rule B, Subsection 3.5.

The proposed project conforms to the floodplain management and drainage alteration requirements of Rule B with the exception of subsection 3.2, from which a variance was previously approved by the Board of Managers.

Rule C: Erosion and Sediment Control

Because the project will alter 96.63 acres of land-surface area the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by Landform Professional Services includes installation of silt fence, inlet protection for storm sewer catch basins, daily inspection, placement of a minimum of 6 inches of topsoil, and retention of native topsoil onsite. Ron Fricke (Cell: 763-424-1500, email: rfricke@rachelcontracting.com) is the stormwater pollution prevention plan (SWPPP) operator responsible for erosion prevention and sediment control for the site. The proposed project conforms to the Rule C criteria.

Rule D: Wetland and Creek Buffers

This requested permit modification does not impact the previously approved wetland buffers on the site. The analysis presented below is repeated from prior reviews to present a complete analysis of the modification request.

Because the proposed work triggers a permit under RPBCWD Rule B and Rule J and 10 onsite wetlands and two off site wetland protected by the state Wetland Conservation Act are downgradient from the proposed construction activities, Rule D, Subsections 2.1a and 3.1 require buffer on the edges of the wetlands that are downgradient from the land-disturbing activities. The City of Chanhassen is the LGU administering WCA requirements and in that capacity approved elimination of six wetlands (wetlands WL1, WL2, WL5, WL7, WL8, and WL9) on the project site, as well as the partial filling wetland WL6 as

part of the proposed Phase 1 construction activities. Because the applicant proposes to disturb a portion of wetland WL6, wetland buffer must be provided around the entire (remaining) wetland on the parcel (a buffer map is provided below for reference). Buffer is not required around wetland WL10 is not required because the wetland is upgradient from the land-disturbing activities.

A Minnesota Wetland Conservation Act Notice of Decision, dated December 22, 2017, was included with the submittal. The MnRAM analysis submitted indicates that the wetlands to remain onsite and the offsite wetland downgradient from disturbance are medium value (Appendix D1). Rule D, Subsection 3.1.a.iii requires a wetland buffer with an average of 40 feet from the delineated edge of the wetland, minimum 20 feet. The buffer widths are summarized in the table below.

Wetland ID	RPBCWD Wetland Value	Required Minimum Width[1] (ft)	Required Average Width[1] (ft)	Provided Minimum Width (ft)	Provided Average Width (ft)
Wetland WL3	Medium	20	40	28.4	40.7
Wetland WL4	Medium	20	40	40	40
Wetland WL6	Medium	20	40	24	40.2
Wetland M09[2]	Medium	20	40	20	43.6

[1] Average and minimum required buffer width under Rule D, Subsection 3.1.a.

2 Wetland M09 is located off but adjacent to the project site.

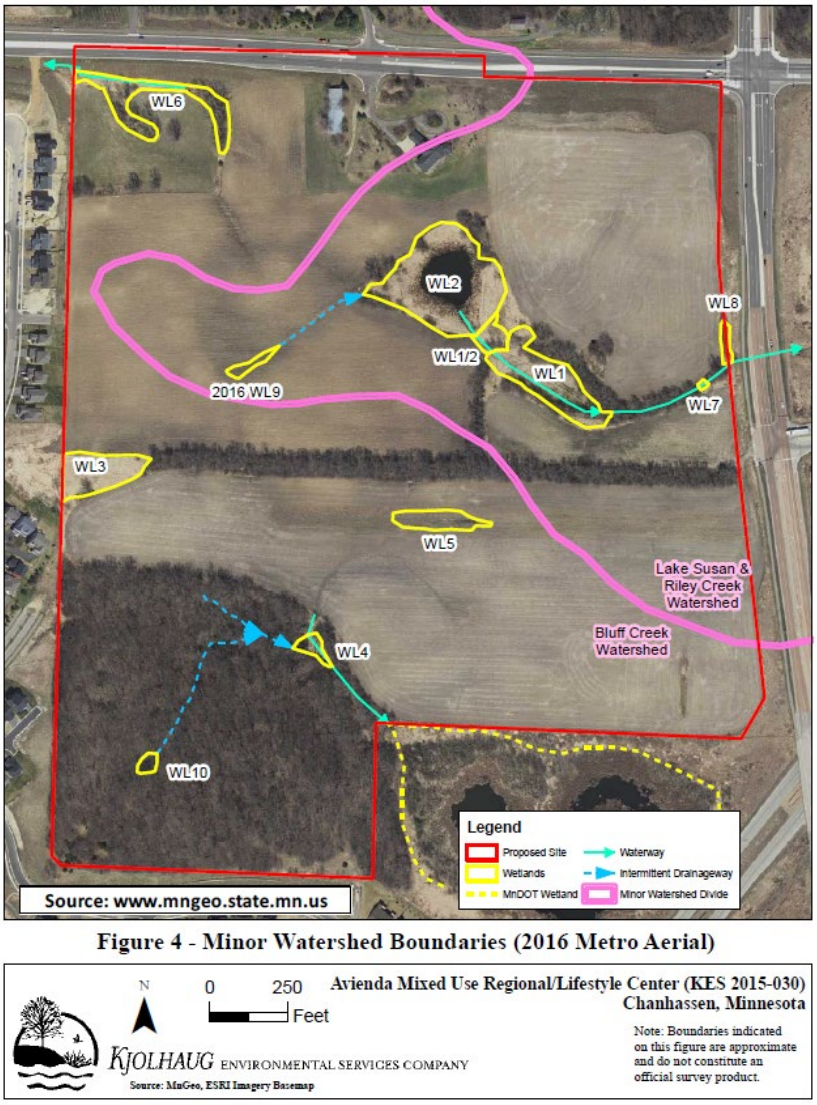


Figure 4 - Minor Watershed Boundaries (2016 Metro Aerial)

The Applicant is proposing revegetating disturbed areas within the proposed buffer with native vegetation in conformance with Rule D, Subsection 3.2. A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible conforming to Rule D, Subsection 3.5.

Prior to issuance of Permit 2018-016, a RPBCWD approved declaration was recorded as required by the prior approval. Because the proposed modification does not impact the recorded wetland buffers on the site, the project remains in conformance with Rule D, Subsection 3.4 and the project conforms to the Rule D criteria.

Rule J: Stormwater Management

Because the project will alter 96.63 acres of land-surface area and will increase the imperviousness of the entire site by more than 50%, the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.3) for all the impervious surface on the site.

The modified project includes installation of four detention ponds, six filtration basins, and rainwater harvest and reuse with pretreatment to provide runoff volume abstraction, water quality treatment, and rate control. Pretreatment of runoff prior to entering filtration areas is provided by grass strips or sump manholes.

Rate Control

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below. Phase 1 and 2 of the proposed project are in conformance with RPBCWD Rule J, Subsection 3.1.a.

Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
Powers South	0.6	0.0	1.5	0.0	3.8	0.0	0.1	0.0
East Culvert	18.4	11.7	55.1	23.1	128.9	70.5	7.2	6.2
Powers North	0.1	0.0	0.7	0.0	2.7	0.0	0.1	0.0
Lyman NE	0.3	0.0	2.5	0.0	9.7	0.0	0.4	0.0
Lyman North	0.4	0.0	2.1	0.0	7.0	0.0	0.3	0.0
Wetland 6	16.6	2.4	36.9	4.6	81.6	12.9	3.1	1.8
Wetland 3	9.0	1.1	18.6	2.2	40.4	4.0	1.5	0.8
West Woods	0.7	0.2	3.0	1.5	11.0	7.2	0.6	0.5
Southwest	0.2	0.2	1.9	1.9	8.9	8.9	0.7	0.7
East Woods	0.2	0.2	1.7	1.7	8.3	8.3	0.6	0.6
Wetland 4 Channel	19.3	7.9	45.3	23.2	111.6	56.0	6.0	6.0
South	9.1	1.1	19.1	2.2	40.1	4.5	1.1	0.1
Southeast	9.0	1.6	18.9	3.5	40.2	7.2	1.4	1.3

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the impervious surface of the parcel. An abstraction volume of 39,026 cubic feet is required from the 425,736 square feet of regulated impervious area. Because the proposed trails and sidewalks do not exceed 10 feet in width and will be boarded downgradient by a pervious area at least half the trail width, the 1.6 acres of trail and sidewalk are exempt from the stormwater requirements (Rule J, Subsection 2.2d). The project includes infiltration basins with pretreatment to provide runoff volume abstraction, water quality

treatment, and rate control. Pretreatment of runoff prior to entering the filtration areas is provided by grass strips or sump manholes (Rule J, Subsection 3.1b.1).

Soil borings performed by Braun Intertec show that soils in the project area are typically clay soils with a couple of areas being underlain by silty sand soils. As part of the design for Phase 1, Braun Intertec also performed ten onsite infiltration tests in the subsurface soils and the results indicated unadjusted infiltration rates of 0.1 to 2.4 inches per hour prior to site grading. Because mass-grading the site for Phase 1 would disturb most of the areas where the infiltration tests were conducted, the applicant elected to use an infiltration rate of 0.06 inches per hour in their design based on the MN Stormwater Manual guidance for clay soils. After the site was graded, Braun Intertec performed eight additional onsite infiltration tests in the subsurface soils at the proposed infiltration basins and the results indicate significantly lower infiltration rates of 0.0-0.02 in/hr. Because the engineer concurs that the soil boring information, infiltration testing support that the abstraction standard in subsection 3.1b of Rule J cannot practicably be met for all regulated impervious surface, the site is considered a restricted site and stormwater runoff volume must be managed in accordance with subsection 3.3 of Rule J.

For restricted sites, subsection 3.3 of Rule J requires rate control in accordance with subsection 3.1.a and that abstraction and water-quality protection be provided in accordance with the following sequence: (a) Abstraction of 0.55 inches of runoff from sites regulated impervious surface determined in accordance with paragraph 3.2, and treatment of all runoff to the standard in paragraph 3.1c; or (b) Abstraction of runoff onsite to the maximum extent practicable and treatment of all runoff to the standard in paragraph 3.1c; or (c) Off-site abstraction and treatment in the watershed to the standards in paragraph 3.1b and 3.1c. Because of the low infiltration capacity of the soils, the applicant is proposing to replace the infiltration facilities with rainwater harvest and reuse to achieve the abstraction standard in Subsection 3.3a of Rule J.

The table below summarizes the volume abstraction required and the volume abstraction achieved by the proposed stormwater management facilities on site. The proposed project is in conformance with Rule J, Subsection 3.3.a.

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
0.55	19,513	0.58	20,706

Because the proposed stormwater reuse system requires consistent use at a specified rate to meet District requirements, performance monitoring for the site will be required to ensure that the project provides the proposed volume abstraction.

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant to provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total

suspended solids (TSS), as well as no net increase in pollutant loading from existing conditions. A MIDS water quality models were developed to estimate the TP and TSS loading from the watersheds and the removal capacity of the proposed BMPs. The results of this modeling are summarized in the following tables. The results show the proposed project will remove sufficient TSS and TP to achieve an overall pollutant reduction in accordance with the required annual removals (Rule J, Subsection 3.2c).

Annual TSS and TP removal summary

Resource	Pollutant of Interest	Regulated Site Loading (lbs/yr)	Required Load Removal (lbs/yr)[1]	Provided Load Reduction (lbs/yr)
Lake Susan	Total Suspended Solids (TSS)	2,866	2,580 (90%)	2,580 (90.0%)
	Total Phosphorus (TP)	15.8	9.5 (60%)	11.6 (73.2%)
Bluff Creek	Total Suspended Solids (TSS)	6,961	6,265 (90%)	6,294 (90.4%)
	Total Phosphorus (TP)	38.3	23.0 (60%)	29.1 (75.9%)

Summary of net change in TSS and TP leaving the site

Resource	Pollutant of Interest	Existing Site Loading (lbs/yr)	Proposed Site Load after Treatment (lbs/yr)[1]	Change (lbs/yr)
Lake Susan	Total Suspended Solids (TSS)	3,707	287	-3,420
	Total Phosphorus (TP)	20.4	4.2	-16.2
Bluff Creek	Total Suspended Solids (TSS)	4,368	668	-3,700
	Total Phosphorus (TP)	24.0	9.2	-14.8

Low floor Elevation

All new buildings must be constructed such that the lowest floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a stormwater-management facility according to Rule J, Subsection 3.6a. In addition, a stormwater-management facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with this requirement according to Rule J, Subsection 3.6b. The low floor elevation analysis presented above in the Rule B, Floodplain Management analysis section of this report demonstrates the proposed project is in conformance with Rule J, Subsection 3.6a.

The low floor elevation of the adjacent structures and the modified stormwater management features is summarized below. The RPBCWD Engineer concurs that the proposed project is in conformance with Rule J, Subsection 3.6b.

Adjacent Lowest Structure Locations	Low Floor Elevation of Building (feet)	Adjacent Facility	100-year Event Flood Elevation of Adjacent Stormwater Facility (feet)	Freeboard (feet)
Preserve at Bluff Creek 1st	925.5	33P	921.95	3.55
Preserve at Bluff Creek 5th	897.1	WL6	885.60	11.5
Preserve at Bluff Creek 1st	912.3	34P	908.84	3.46

Maintenance

Subsection 3.7 of Rule J requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

J1. The applicant provided proof of recordation of the maintenance declaration as required by the June 2020 conditional approval. Because the proposed stormwater management facilities associated with the modification request and Phase 2 activities are different than those in the recorded declaration, a draft modification of the declaration must be submitted that incorporates new/additional requirements. Permit applicant must provide a revised draft maintenance and inspection plan to RPBCWD for review and approval. The plan must be incorporated into a draft declaration that must include a stormwater reuse monitoring and reporting plan that includes delineation and protection of the greenspace to be irrigated and metering of the volume of reuse. Once approved by RPBCWD, the declaration must be recorded on the deed in a form acceptable to the District.

Chloride Management

Subsection 3.8 of Rule J requires the submission of chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan. To close out the permit and secure the release of the applicable $5,000 financial assurance, the applicant must provide a chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site.

Wetland Protection

Because the proposed activities discharge to wetlands on the site and alter the discharge the wetlands receive from the site, the proposed activities must conform to RPBCWD wetland protection criteria (Rule J, subsection 3.10). The applicant provided and the Engineer concurs with the below analysis of potential wetland impacts based on Table J1 of RPBCWD Rule J.

The wetlands remaining on site under the proposed conditions have been assessed as medium value (wetlands WL3, WL4, and WL6). Wetland M09 and MNDOT M10, also medium value wetlands, are located off but adjacent to the project site and receives direct runoff from the development. The following table summarizes the allowable change in bounce and inundation duration from Table J1 of

RPBCWD Rule J. The information summarized in the following table also summarizes the applicant's analysis for wetland protection and the potential impacts on the wetlands. The project meets the Bounce and Inundation criterion and is in conformance with Rule J, subsection 3.10a.

Wetland	RPBCWD Wetland Value	Change in Bounce for, 10-Year Event (feet)	1-year change in Inundation Period (days)	2-year change in Inundation Period (days)	10-year change in Inundation Period (days)	Runout Control Elevation1
Rule J, Table J1 Criteria	Medium	Existing +/- 1.0 feet	Existing+2 days	Existing+2 days	Existing +14 days	0 to 1.0 ft above existing runout
Wetland WL3	Medium	0.39	0.2	0.3	0.5	No change
Wetland WL4	Medium	-0.35	0.4	0.4	0.5	No change
Wetland WL6	Medium	-0.47	1.6	1.6	1.7	No change
Wetland M09	Medium	-0.03	0	0	0	No change
MNDOT M10	Medium	0.05	0	0	0	No change

Rule J, Subsection 3.10b requires that any discharge to a medium-value wetland be treated to the water quality treatment criteria in Rule J, subsection 3.1c. The applicant provided MIDs modeling as summarized in the table below demonstrating the runoff from the disturbed areas tributary to wetlands will be treated in conformance with Rule J, Subsection 3.10b.

Wetland	Wetland Value	TSS Removal	TP Removal
Required		90.0%	60.0%
Wetland WL3	Medium	98.7%	82.7%
Wetland WL4	Medium	95.6%	64.2%
Wetland WL6	Medium	91.2%	79.7%
Wetland M09	Medium	90.8%	74.4%
MNDOT M10	Medium	90.0%	73.2%

Rule K: Variances and Exceptions

The local governmental unit (LGU) administering the Wetland Conservation Act (WCA), City of Chanhassen, approved the filling six wetlands and partial filling another on the project site. Rule B subsection 3.2 requires compensatory storage within the floodplain of the same waterbody. The Applicant requested a variance from this provision of RPBCWD's Rule B – Floodplain Management and Drainage Alterations. *Because the RPBCWD board of managers approved the variance request at the September 5, 2018 regular meeting, apporved the modified variance request at the June 3, 2020 meeting, and this permit modification request has no impact on the approved variance; the variance analysis was excluded from the permit report.*

Rule L: Permit Fee:

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to submit a permit-fee deposit of $3,000 to be held in escrow and applied to reimburse RPBCWD for the permit-application processing fee and permit review and inspection-related costs. When the permit application is approved, the deposit must be replenished to the applicable deposit amount by the applicant before the permit will be issued to cover actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. Subsequently, if the costs of review, administration, inspections and closeout-related or other regulatory activities exceed the fee deposit amount, the applicant will be required to replenish the deposit to the original amount or such lesser amount as the RPBCWD administrator deems sufficient within 30 days of receiving notice that such deposit is due. The administrator will close out the relevant application or permit and revoke prior approvals, if any, if the permit-fee deposit is not timely replenished.

L1. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. The amount needed to replenish the permit fee deposit is $5,291.50 as of April 28, 2022.

Rule M: Financial Assurance:

The applicant provided a financial assurance totaling $1,356,314 for the work authorized by the June 2020 conditional approval prior to the permit issuance. Because the applicant proposed modification to the stormwater facilities, the financial assurance for the project was recomputed, as presented below. Because the recomputed financial assurance is larger than what has been provided for this project, the applicant can provide a new financial assurance for the entire amount at which point RPBCWD would return the prior financial assurance. Alternatively, the applicant can provide the difference between the prior financial assurance and the new financial assurance ($491,532).

	Unit	Unit Cost	# of Units	Total
Rules C: Silt fence:	LF	$2.50	18,000	$45,000
Inlet protection	EA	$100	134	$13,400
Rock Entrance	EA	$250	2	$500
Restoration	Ac	$2,500	97	$242,500
Rules D: Wetland Buffers	EA	$5,000	1	$5,000
Rules J: Stormwater Management: Stormwater Management Facilities: 125% of engineer's opinion of cost ($1,094,768)	EA	125% OPC	1	$1,368,460
Chloride Management Plan	EA	$5,000	1	$5,000
Contingency (10%)		10%		$167,986
Total Financial Assurance				**$1,847,846**

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.

2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.
3. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed on the permit. The grant of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
4. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority.
5. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
6. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
7. RPBCWD's determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
8. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The Board of Manager approved the applicant's variance request from compliance with the Rule B criteria related to providing compensatory storage within the same floodplain on September 5, 2018 and a requested modification to the variance on June 3, 2020.
3. Except for the shortfall from compliance with Rule B criteria that are associated with the approved variance request, the proposed project conforms to Rules B, C, and D.
4. The project will conform to Rule J if the Rule Specific Permit Conditions listed above are met.

Recommendation:

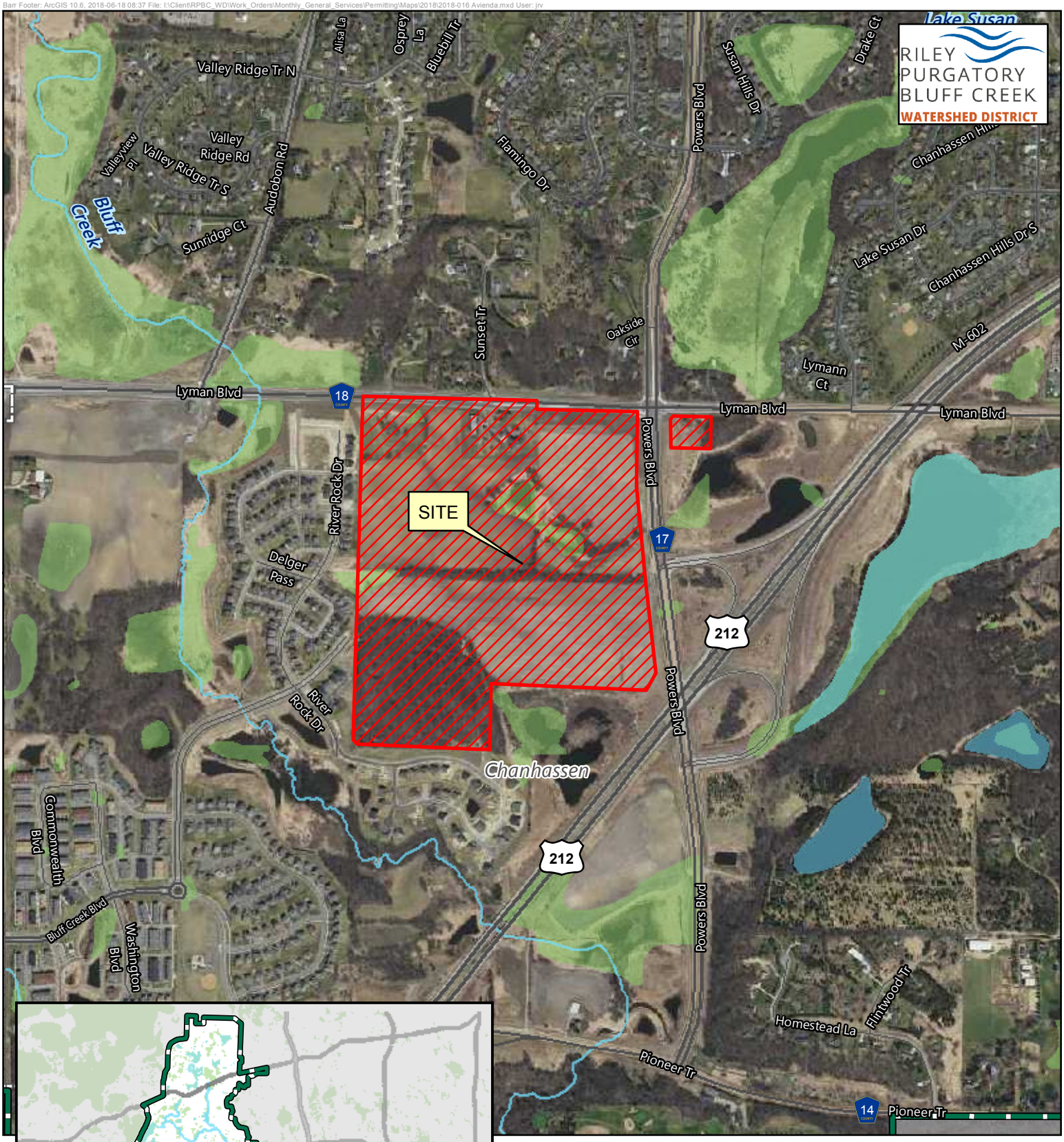
1. Extension of the permit timeline to July 1, 2023.
2. Approval of the permit modification contingent upon:

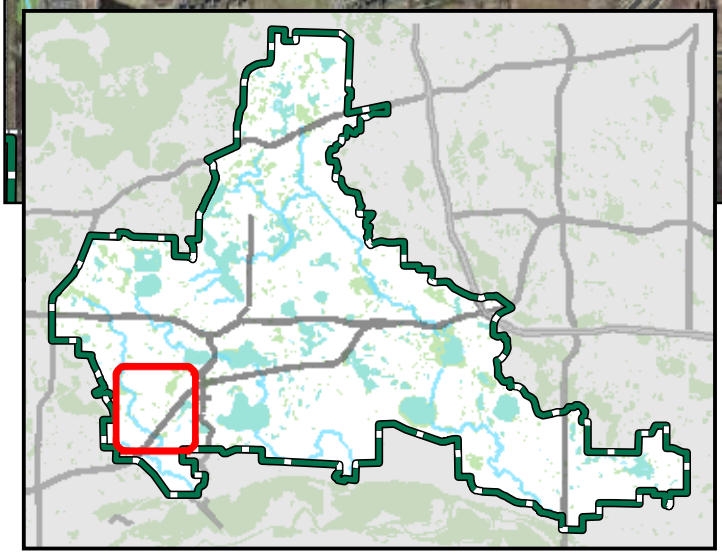
a. Receipt of a total financial assurance in the amount of $1,847,846. The applicant can provide a new financial assurance for the entire amount at which point RPBCWD would return the prior financial assurance. Alternatively, the applicant can provide the difference between the prior financial assurance and the new financial assurance ($491,532).
b. Receipt in recordation a modified maintenance declaration for the revised operation and maintenance of the buffer and stormwater management facilities. The declaration must also include a stormwater reuse monitoring and reporting plan that includes delineation and protection of the greenspace to be irrigated and metering of the volume of reuse, as well as maintenance specifics provided by the manufacturer(s) or installer(s) for the proprietary systems. A draft must be submitted for review and approval by the District prior to recordation.
c. Submission and replenishment of the fee deposit to $3,000 before the permit will be issued to cover actual costs incurred to review this permit modification request and monitor compliance with permit conditions and the RPBCWD Rules. The amount needed to replenish the permit fee deposit is $5,291.50 as of April 28, 2022.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Continued compliance with General Requirements.
2. Per Rule J Subsection 5.6, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, the pretreatment manholes and subsurface stormwater facility conform to design specifications and function as intended and approved by the District. As-built/record drawings must be signed by a professional engineer licensed in Minnesota and include, but not limited to:
    a) the surveyed bottom elevations, water levels, and general topography of all facilities;
    b) the size, type, and surveyed invert elevations of all stormwater facility inlets and outlets;
    c) the surveyed elevations of all emergency overflows including stormwater facility, street, and other;
    d) other important features to show that the project was constructed as approved by the Managers and protects the public health, welfare, and safety.
3. Providing the following additional close-out materials:
    a) Documentation that constructed infiltration and filtration facilities perform as designed. This may include infiltration testing, flood testing, or other with prior approval from RPBCWD
    b) Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C.2c criteria
4. To close out the permit and secure the release of the $5,000 chloride-management financial assurance, the permit applicant must provide a chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site.
5. Replenish the permit fee deposit to the original amount or such lesser amount as the RPBCWD administrator determines sufficient within 45 days of receiving notice that such deposit is due in

order to cover continued actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules.





N

Feet

0 1,000

Permit Location Map

AVIENDA

Permit 2018-016

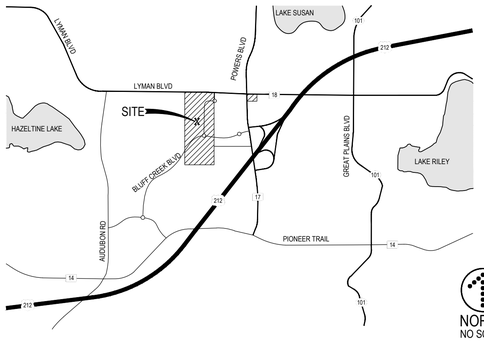
Riley Purgatory Bluff Creek Watershed District

AVIENDA TOWNHOMES

CHANHASSEN, MINNESOTA

AREA LOCATION MAP

CHANHASSEN, MN



ABBREVIATIONS

D	Angle
&	And
@	At
100 YR.	100 Year Flood Elevation
A.B.	Anchor Bolt
A.D.	Area Drain
A/C	Air Conditioning Unit
ADD.	Addendum
ADDL.	Additional
ADJ.	Adjacent / Adjust
AHU	Air Handling Unit
ALT.	Alternate
ALUM.	Aluminum
ANOD.	Anodized
APPROX.	Approximate
ARCH	Architect / Architectural
AUTO.	Automatic
AVG.	Average
B.C.	Back of Curb
B/W	Bottom of Wall
BFE	Basement Floor Elevation
BIT	Bituminous (Asphaltic)
BLDG	Building
BM	Benchmark
BSMT.	Basement
C.F.	Cubic Feet
C.F.S.	Cubic Feet Per Second
C.G.	Corner Guard
C.J.	Control Joint
C.L.	Centerline
C.M.U.	Concrete Masonry Unit
C.O.	Cleanout
C.O.E.	U.S. Army Corps Of Engineers
C.Y.	Cubic Yards
CB	Catch Basin
CBMH	Catch Basin Manhole
CEM.	Cement
CIP	Cast Iron Pipe
CMP	Corrugated Metal Pipe
CONC.	Concrete (Portland)
CONN.	Connection
CONST.	Construction
CONT.	Continuous
CONTR.	Contractor
COP.	Copper
CU.	Cubic
D.S.	Down Spout
DEG.	Degree
DEMO.	Demolition / Demolish
DEPT.	Department
DET.	Detail
DIA.	Diameter
DIAG.	Diagonal
DIM.	Dimension
DIP	Ductile Iron Pipe
DN	Down
DWG.	Drawing
E.	East
E.J.	Expansion Joint
E.O.	Emergency Overflow
E.O.S.	Emergency Overflow Swale
E.W.	Each Way
EA.	Each EL. Elevation
ELEC.	Electrical
ELEV.	Elevation
EMER.	Emergency
ENGR.	Engineer
ENTR.	Entrance
EQ.	Equal
EQUIP.	Equipment
EQUIV.	Equivalent
EXIST.	Existing
EXP.	Expansion
F & I	Furnish and Install
F.B.O.	Furnished by Others
F.C.	Face of Curb
F.D.	Floor Drain
F.D.C.	Fire Department Connection
F.V.	Field Verify
FB	Full Basement
FBWO	Full Basement Walk Out
FBLO	Full Basement Look Out
FDN.	Foundation
FES	Flared End Section
FFE	Finished Floor Elevation
FLR.	Floor
FT. OR (')	Foot
FUT.	Future
G.B.	Grade Break
G.C.	General Contractor
GAL.	Gallon
GALV.	Galvanized
GFE	Garage Floor Elevation
GL.	Glass
GR.	Grade
H.	Height
H.P.	High Point
HDPEP	High Density Polyethylene Pipe
HGT.	Height
HORIZ.	Horizontal
HVAC	Heating, Ventilation, Air Conditioning
HYD	Hydrant
I.D.	Inside Dimension OR Identification
I.E. or IE	Invert Elevation
IN. OR (")	Inches
INFO.	Information
INL.	Inlet Elevation
INSUL.	Insulation
INV.	Invert Elevation
JT.	Joint
L.F.	Linear Feet
L.P.	Low Point / Liquid Petroleum
LB.	Pound
LGU	Local Government Unit
LB.	Pound
LB.	Longitudinal
LT.	Light / Lighting
MAINT.	Maintenance
MAS.	Masonry
MATL.	Material
MAX.	Maximum
MECH	Mechanical
MED.	Medium
MFR.	Manufacturer
MH	Manhole
MIN.	Minimum / Minute
MISC.	Miscellaneous
MNDOT	Minnesota Department Of Transportation
MOD.	Module / Modular
MUL.	Mullion
N.	North
N.I.C.	Not In Contract
NO. OR #	Number
NOM	Nominal
NTS	Not to Scale
NWE.	Normal Water Elevation
NWL	Normal Water Level
O.F.	On Center
O.G.	Outside Dimension
O.H.	Overhead Electric
OH.	Overhead
OHWL	Ordinary High Water Level
OPNG.	Opening
ORIG.	Original
P.C.	Point of Curvature
P.I.	Point of Intersection
PIV	Post Indicator Valve
P.L. OR P/L	Property Line
P.O.B.	Point of Beginning
P.S.F.	Pounds Per Square Foot
P.S.I.	Pounds Per Square Inch
P.T.	Point of Tangency
P.V.C.	Point of Vertical Curvature
P.V.I.	Point of Vertical Intersection
P.V.T.	Point of Vertical Tangency
PE	Polyethylene
PED.	Pedestal / Pedestrian
PERF.	Perforated
PREP.	Preparation
PROJ.	Project
PROP.	Proposed
PVC	Poly-Vinyl-Chloride (Piping)
PVMT.	Pavement
QTR.	Quarter
QTY.	Quantity
R	Radius
RAD.	Radius
RE	Rim Elevation (Casting)
R.D.	Roof Drain
R.E.	Remove Existing
R.O.	Rough Opening
R.P.	Radius Point
RC	Reinforced Concrete Pipe
R.S.	Rough Slab
RSD	Roof Storm Drain
RE.	Regarding
REINF.	Reinforced
REQ'D	Required
REV.	Revision / Revised
RGU	Regulatory Government Unit
ROW OR R/W	Right of Way
S.	South
S.F.	Square Feet
SAN.	Sanitary Sewer
SECT.	Section
SE	Split Entry /Side Exit
SEWO	Split Entry Walk Out /Side Exit Walk Out
SHT.	Sheet
SIM.	Similar
SLNT.	Sealant
SPEC.	Specification
SQ.	Square
SSD	Subsurface drain
STMH	Storm Sewer Manhole
STD.	Standard
STRUCT.	Structural
SYM.	Symmetrical
T	Thickness
T/R	Top of Rim
T/W	Top of Wall
TEMP.	Temporary
THK.	Thick / Thickness
T.J.	Tooled Joint
TNH	Top Nut Hydrant
TYP.	Typical
U.N.O.	Unless Noted Otherwise
V.B.	Vapor Barrier
V.C.	Vertical Curve
V.I.F.	Verify In Field
VER.	Verify
VER.	Vertical
VEST.	Vestibule
W	Width
W.P.T.	Working Point
W.W.F.	Welded Wire Fabric
W/	With
W/O	Without
WO	Walk Out
VER.	Wetland
WP	Waterproof
WETL.	Weight
YD.	Yard
YR.	Year

SYMBOLS

EXISTING	DESCRIPTION	NEW	DESCRIPTION
120	MAJOR CONTOUR	120	MAJOR CONTOUR
123	MINOR CONTOUR	123	MINOR CONTOUR
234.5	SPOT ELEVATION	123.45	SPOT ELEVATION
	BUILDING		BUILDING
	CANOPY / OVERHANG		CANOPY/OVERHANG
	CONCRETE		UNDERGROUND STRUCTURE
	BITUMINOUS		CONCRETE
	LANDSCAPING		CONCRETE CURB
	GRAVEL	BIT. EDGE HEIGHT, TYPE	EDGE OF PAVEMENT
	PAVING BLOCK		FENCING
	PAVING BLOCK		GUARD RAIL
			CONCRETE RETAINING WALL
12"STS >>	STORM SEWER LINE		MODULAR RETAINING WALL
8"SAN >	SANITARY SEWER LINE		FIELDSTONE RETAINING WALL
6"WTR	WATER MAIN		EXIT LOCATION
OE	OVERHEAD ELECTRIC		LIGHT STANDARD
UT	UNDERGROUND TELEPHONE	Ø	POWER POLE
FO	UNDERGROUND FIBER OPTIC	1.00 %	SLOPE DIRECTION
UE	UNDERGROUND ELECTRIC		CATCH BASIN
G	GAS LINE		MANHOLE
	CONCRETE CURB		BOLLARD
X HEIGHT, TYPE X	FENCING	FES STS >> RIPRAP	STORM SEWER
	RETAINING WALL	SAN >	SANITARY SEWER-WASTE
	SET 1/2" X 14" IRON PIPE	FM >	FORCE MAIN
	IRON MONUMENT FOUND	RD >>	ROOF DRAIN SYSTEM
	SURVEY DISK (BENCHMARK)	GATE VALVE WTR HYD	WATERMAIN
	POWERPOLE	FIRE	FIRE LINE (IF SEPARATE)
	GUY WIRE	BLDG.	FIRE DEPT. CONNECTION
	GUARD POST	C.O. X"SSD	SOIL SUBDRAIN
GM	GAS METER	GAS	GAS LINE-UNDERGROUND
T	TRANSFORMER	ELEC	ELECTRIC-UNDERGROUND
	WATER SHUT-OFF VALVE	TELE	TELEPHONE-UNDERGROUND
	TRAFFIC SIGN	CATV	UNDERGROUND CABLE/TV
	FLAG POLE	LSS	LAWN SPRINKLER SLEEVE
LT	LIGHT POLE		
	TREES		
	TREE LINE		
	MANHOLE		
	CATCH BASIN		
	FIRE HYDRANT		
	WATER VALVE		
	FLARED END SECTION		
MB	MAILBOX		
1	NOTE NUMBER		
(M)	MEASURED DISTANCE		
(P)	DISTANCE PER RECORDED PLAT		
B-X	SOIL BORING		

EROSION CONTROL SYMBOLS

SYMBOL	DESCRIPTION
	SILT FENCE
	COMPOST/BIO LOG
	INLET PROTECTION
	EROSION CONTROL BLANKET

DRAWING SYMBOLS

SYMBOL	DESCRIPTION
3	NOTE REFERENCE
12	PARKING STALL COUNT
C7.3 / 1	LARGE SHEET DETAIL
C21	COORDINATE POINT
2	REVISION - ADDENDUM, BULLETIN, ETC.
	REVISED AREA (THIS ISSUE)

LEGAL DESCRIPTION

Outlot A and C, Avienda, Carver County, Minnesota.

BENCHMARK

SITE BENCHMARK:

BM-1 : TOP NUT OF HYDRANT
LOCATION: SOUTHEAST QUADRANT OF POWERS BLVD. & LYMAN BLVD.
ELEVATION = 921.32)

BM-2 : TOP NUT OF HYDRANT
LOCATION: WESTERLY SIDE OF POWERS BLVD, 1,960 FT ± SOUTH OF LYMAN BLVD.
ELEVATION = 913.82)

SITE / UTILITY CONTACTS

GAS
CENTERPOINT ENERGY
700 LINDEN AVE W.
MINNEAPOLIS, MN 55403
NewConstructionServices@CenterPointEnergy.com
TEL: 800-342-4166
FAX:

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XCEL ENERGY
404 NICOLLET MALL
MINNEAPOLIS, MN 55401
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TEL: 952-227-1180
FAX: 952-227-1190

CITY INSPECTOR
KIMLEY-HORN
767 EUSTIS STREET, SUITE 100
ST. PAUL, MN 55114
BOB SCHMIDT
bob.schmidt@kimley-horn.com
TEL: 651-643-0413
FAX:

Know what's **Below.** **Call** before you dig.

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331
TEL 612-812-7020
CONTACT: MARK NORDLAND
EMAIL: mnordland@nordlandpartners.com

PROJECT CONTACTS

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105 SOUTH FIFTH AVENUE, SUITE 513
MINNEAPOLIS, MN 55401
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CONTACT: STEVE SABRASKI

SURVEYOR
LANDFORM
105 SOUTH FIFTH AVENUE, SUITE 513
MINNEAPOLIS, MN 55401
TEL 612-252-9070
CONTACT: LARRY HUHN

LANDSCAPE ARCHITECT
LANDFORM
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MINNEAPOLIS, MN 55401
TEL 612-252-9070
CONTACT: JOSH POPEHN

CIVIL / LANDSCAPE SHEET INDEX & REVISION MATRIX

SHEET NO.	DESCRIPTION	08.31.21	09.08.21	09.21.21	02.22.22	03.22.22	04.25.22
	SHEETS ISSUED BY DATE						
C0.1	CIVIL & LANDSCAPE TITLE SHEET	X	X	X	X	X	X
C0.2	PRELIMINARY PLAT		X	X	X	X	X
C1.1	EXISTING CONDITIONS	X	X	X	X	X	X
C2.1	SITE PLAN OVERALL	X	X	X	X	X	X
C2.1A	SITE PLAN NORTH		X	X	X	X	X
C2.1B	SITE PLAN SOUTH		X	X	X	X	X
C2.2	TYPICAL STREET SECTIONS				X	X	X
C3.1	GRADING, DRAINAGE, & EROSION CONTROL OVERALL		X	X	X	X	X
C3.1A	GRADING, DRAINAGE, & EROSION CONTROL NORTH		X	X	X	X	X
C3.1B	GRADING, DRAINAGE, & EROSION CONTROL SOUTH	X	X	X	X	X	X
C3.1C	GRADING, DRAINAGE, & EROSION CONTROL ENLARGED				X	X	X
C3.2	SWPPP				X	X	X
C3.3A	BASIN CROSS SECTIONS				X	X	X
C3.3B	BASIN CROSS SECTIONS				X	X	X
C3.3C	BASIN CROSS SECTIONS				X	X	X
C4.1	UTILITIES - OVERALL				X	X	X
C5.1A	PRIVATE DRIVE NW STREET & STORM				X	X	X
C5.1B	PRIVATE DRIVE NW STREET & STORM				X	X	X
C5.1C	BLOCK 1 REAR YARDS STORM				X	X	X
C5.1D	BLOCK 1 REAR YARDS STORM				X	X	X
C5.2A	MILLS DRIVE STREET				X	X	X
C5.2B	MILLS DRIVE STREET & STORM				X	X	X
C5.2C	BLOCK 2 REAR YARDS STORM				X	X	X
C5.3A	PRIVATE DRIVE SOUTH STREET				X	X	X
C5.3B	PRIVATE DRIVE SOUTH STREET				X	X	X
C5.3C	PRIVATE DRIVE SOUTH STORM				X	X	X
C6.1	PRIVATE DRIVE NW SANITARY & WATER				X	X	X
C6.2A	MILLS DRIVE SANITARY & WATER				X	X	X
C6.2B	MILLS DRIVE SANITARY & WATER				X	X	X
C6.3A	PRIVATE DRIVE SOUTH SANITARY & WATER				X	X	X
C6.3B	PRIVATE DRIVE SOUTH SANITARY & WATER				X	X	X
C7.1	CIVIL CONSTRUCTION DETAILS				X	X	X
C7.2	CIVIL CONSTRUCTION DETAILS				X	X	X
C7.3	CIVIL CONSTRUCTION DETAILS				X	X	X
C7.4	CIVIL CONSTRUCTION DETAILS				X	X	X
L2.1	LANDSCAPE PLAN - OVERALL	X	X	X	X	X	X
L2.2	ENLARGED LANDSCAPE PLAN - NORTH 'A'	X	X	X	X	X	X
L2.3	ENLARGED LANDSCAPE PLAN - NORTH 'B'	X	X	X	X	X	X
L2.4	ENLARGED LANDSCAPE PLAN - SOUTH	X	X	X	X	X	X
L4.1	PHOTOMETRICS PLAN					X	
L7.1	LANDSCAPE DETAILS	X	X	X	X	X	X

CERTIFICATIONS

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.

STEVE SABRASKI, P.E.

LICENSE NUMBER: 47165 DATE: 04/25/2022

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.

JOSHUA K. POPEHN, RLA

LICENSE NUMBER: 44803 DATE: 03/22/2022

DEVELOPER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CHANHASSEN

PROJECT

AVIENDA TOWNHOMES
CHANHASSEN, MN

ISSUE / REVISION HISTORY

CONTACT ENGINEER FOR ANY PRIOR HISTORY

DATE	ISSUE / REVISION	REVIEW
31 AUG 2021	PROGRESS SET	SES
08 SEP 2021	CITY SUBMITTAL	SES
21 SEP 2021	PROGRESS SET	SES
22 FEB 2022	WATERSHED SUBMITTAL	SES
22 MAR 2022	WATERSHED SUBMITTAL	SES
25 MAR 2022	WATERSHED SUBMITTAL	SES

CERTIFICATION

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WATERSHED SUBMITTAL
APRIL 25, 2022

LANDFORM
From Site to Finish

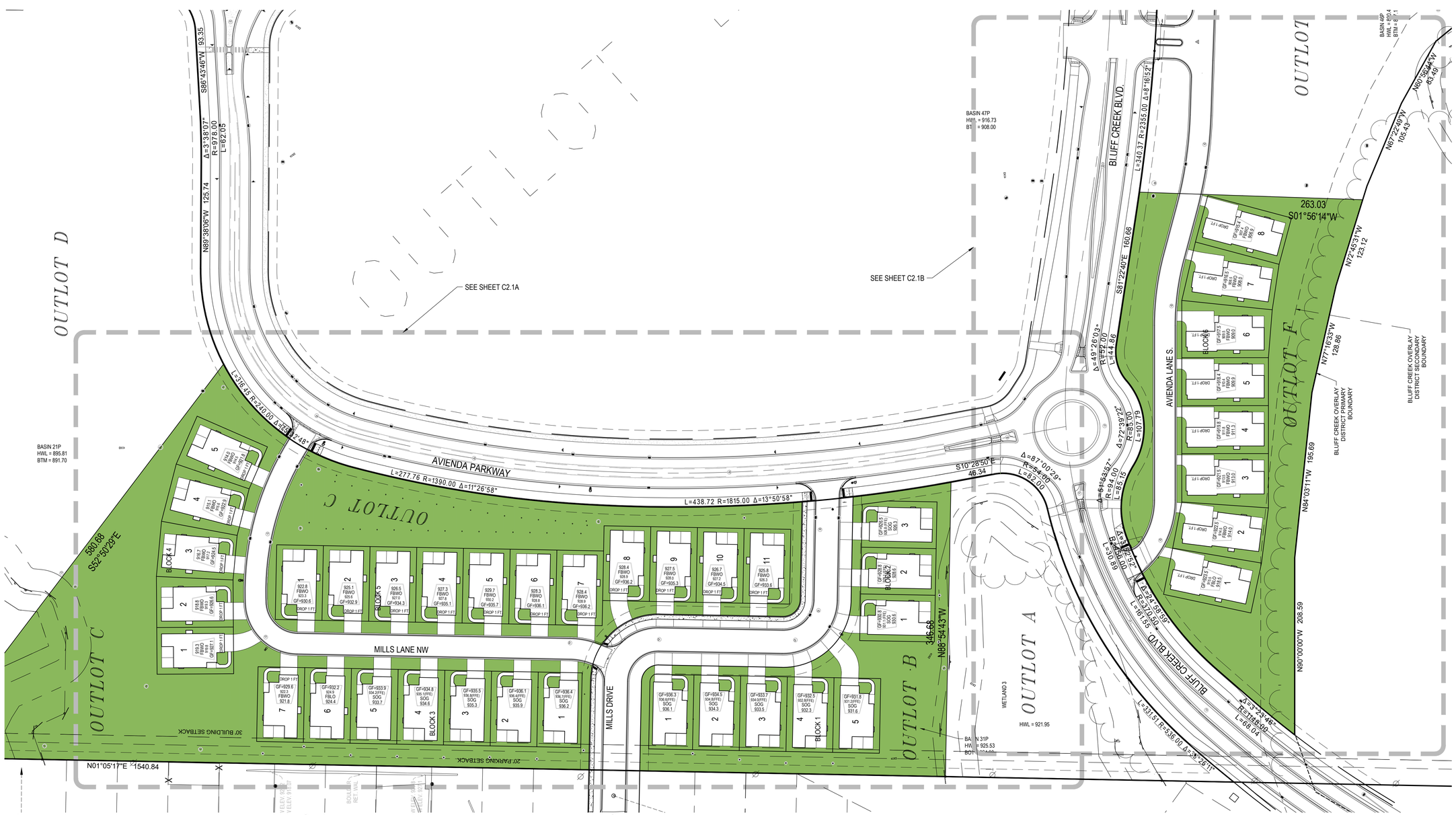
105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME C001SCD001.DWG

PROJECT NO. SCD14001.CUD

CIVIL & LANDSCAPE TITLE SHEET
C0.1



GENERAL NOTES

1. FOR CONSTRUCTION STAKING AND SURVEYING SERVICES CONTACT LANDFORM PROFESSIONAL SERVICES AT 612.252.9070.

SITE PLAN NOTES

2. OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WITHIN, OR USE OF, PUBLIC RIGHT-OF-WAY.
3. THE DIGITAL FILE, WHICH CAN BE OBTAINED FROM THE ENGINEER, SHALL BE USED FOR STAKING. DISCREPANCIES BETWEEN THE DRAWINGS AND THE DIGITAL FILE SHALL BE REPORTED TO THE ENGINEER.
4. DIMENSIONS SHOWN ARE TO FACE OF CURB AND EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.

AREA SUMMARY

EXISTING (WEST LOT):

PERVIOUS	337,142	S.F.	100.0%
IMPERVIOUS	0	S.F.	0.0%
TOTAL (7.74 Ac)	337,142	S.F.	100.0%

PROPOSED (WEST LOT):

PERVIOUS	212,184	S.F.	62.9%
IMPERVIOUS	124,958	S.F.	37.1%
TOTAL (7.74 Ac)	337,142	S.F.	100.0%

EXISTING (SOUTH LOT):

PERVIOUS	119,239	S.F.	100.0%
IMPERVIOUS	0	S.F.	0.0%
TOTAL (2.74 Ac)	119,239	S.F.	100.0%

PROPOSED (SOUTH LOT):

PERVIOUS	73,857	S.F.	61.9%
IMPERVIOUS	45,382	S.F.	38.1%
TOTAL (2.74 Ac)	119,239	S.F.	100.0%

ZONING AND SETBACK SUMMARY

THE PROPERTY IS ZONED PUD - REGIONAL LIFESTYLE

BUILDING SETBACK INFORMATION IS AS FOLLOWS:
FRONT YARD = 5 FT.
REAR = 5 FT.
RESIDENTIAL = 30 FT.
PUD EXTERIOR = 30 FT.
BLUFF CREEK = 40 FT.

PARKING SETBACK INFORMATION IS AS FOLLOWS:
FRONT YARD = 10 FT.
REAR = 10 FT.
SIDE = 10 FT.
RESIDENTIAL = 20 FT.

LEGEND

GREEN SPACE (LANDSCAPE AREA)

Know what's Below. Call before you dig.

NORTH

0 60 120

DEVELOPER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CITY OF CHANHASSEN

PROJECT

AVIENDA TOWNHOMES
CHANHASSEN, MN

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25 MAR 2022	WATERSHED SUBMITTAL	SES

CERTIFICATION

I hereby certify that this plan 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.

Steven E. Sabraski

License No. 47165 Date: 04/25/2022

Signature shown is a digital reproduction of original. Wet signed copy of this plan on file at Landform Professional Services, LLC office and is available upon request.

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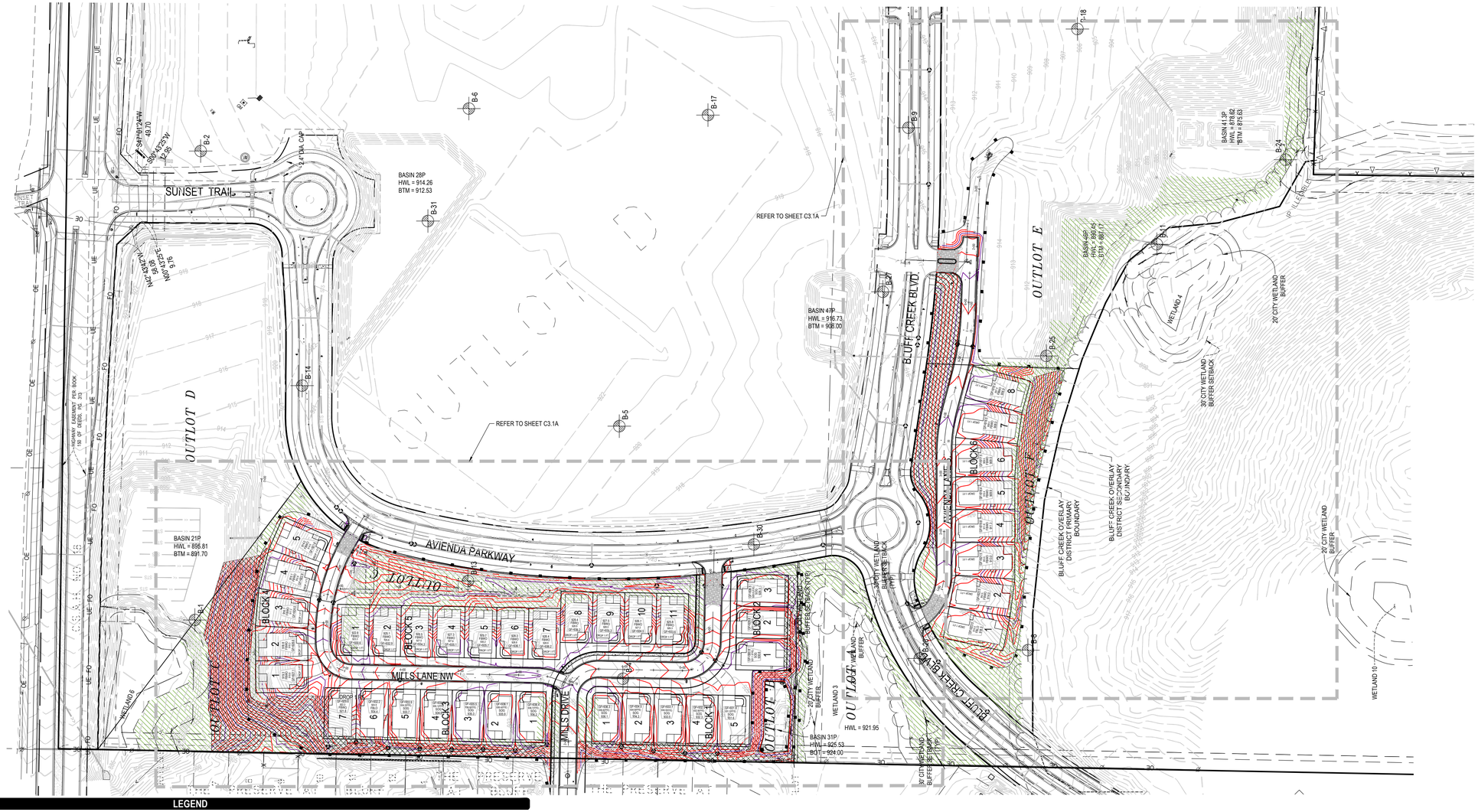
Fax: 612-252-9077
Web: landform.net

FILE NAME C201SCD001.DWG

PROJECT NO. SCD14001.CUD

SITE PLAN OVERALL

C2.1



LEGEND

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
	:Inlet Protection (See C7.1/1)	38 ea.
	:Silt Fence	4,902 lf.
	:Vehicle Tracking Pad	4 ea.

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
	:Erosion Control Blanket	71,845 S.F.
	:Construction Limits	
T/W XXX.XX B/W XXX.XX	:Top of Wall :Bottom of Wall	

:DECOMPACTION AREAS

GENERAL NOTES

1. For construction staking and surveying services contact Landform at 612.252.9070.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

2. Install perimeter sediment controls prior to beginning work and maintain for duration of construction. Remove controls after areas contributing runoff are permanently stabilized and dispose of off site.
3. Install inlet protection: Wimco RD or CG models as appropriate, or approved equal. Maintain protection until project is stabilized.
4. Limit soil disturbance to the grading limits shown. Schedule operations to minimize length of exposure of disturbed areas.
5. Management practices shown are the minimum requirement. Install and maintain additional controls as work proceeds to prevent erosion and control sediment carried by wind or water.
6. Refer to SWPPP Notes on Sheet C3.2 for additional requirements.
7. Excavate ponds early in the construction sequence. Remove sediment from ponds periodically and after areas contributing runoff are permanently stabilized.
8. Contractor shall prevent sediment laden water from entering the filtration / infiltration system until the site is completely stabilized.
9. All exposed soils areas shall be stabilized immediately to limit soil erosion in that portion of the site where construction has temporarily or permanently ceased.
10. Seed, Sod, Mulch, Erosion Control Blanket, and Fertilizer shall meet the following Specifications, as modified.

Item	Specification Number
Sod	MNDOT 3878
Seed	MNDOT 3876
MN Type 21-111 @ 100 lb./ac. - Temporary Erosion Control - Temporary Erosion Control, May 1 - Jul 31 MN Type 21-112 @ 100 lb./ac. - Temporary Erosion Control - Temporary Erosion Control, Aug 1 - Oct 31 MN Type 25-151 @ 120 lb./ac. - Permanent Turf	
Mulch	MNDOT 3882
(MNDOT Type 1 @ 2 ton/ac., Disc Anchored)	
Erosion Control Blanket	MNDOT 3885
(MNDOT Type 3N)	
Fertilizer	MNDOT 3881
General Placement	MNDOT 2575

11. See Landscape Sheets L2.1 - L2.4 for permanent turf and landscape establishment.
12. Avoid daily tracking on public streets. Scrape and sweep streets weekly.

GRADING NOTES

13. Contact utility service providers for field location of services 72 hours prior to beginning grading.
14. Refer to the Geotechnical Report prepared by Braun Intertec, Dated 04/12/2017, for additional information on backfill material and groundwater conditions.
15. Remove topsoil from grading areas and stockpile sufficient quantity for reuse. Maintain stockpiles with maximum 1v:2h slopes.
16. Remove surface and ground water from excavations. Provide initial lifts of stable foundation material if exposed soils are wet and unstable.
17. Refer to Structural Specifications for earthwork requirements for building pads.
18. An Independent Testing Firm shall verify the removal of organic and unsuitable soils, soil correction, and compaction and provide periodic reports to the Owner.
19. Place and compact fill using lift thicknesses matched to soil type and compaction equipment to obtain specified compaction throughout the lift.
20. Compact cohesive soils in paved areas to 95% of maximum dry density, Standard Proctor (ASTM D698) except the top 3 feet which shall be compacted to 100%. Compact to 98% density where fill depth exceeds 10 feet. The soils shall be within 3% of optimum moisture content. In granular soils all portions of the embankment shall be compacted to not less than 95% of Modified Proctor Density (ASTM D1557).
21. Reserved.

RPBCWD STANDARD EROSION CONTROL NOTES

22. Natural topography and soil conditions must be protected, including retention onsite of native topsoil to the greatest extent possible.
23. Additional measures, such as hydraulic mulching and other practices as specified by the district must be used on slopes of 3:1 (h:v) or steeper to provide adequate stabilization.
24. Final site stabilization measures must specify that at least six inches of topsoil or organic matter be spread and incorporated into the underlying soil during final site treatment wherever topsoil has been removed.
25. Construction site waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste must be properly managed.
26. All temporary erosion and sediment control bmps must be maintained until completion of construction and vegetation is established sufficiently to ensure stability of the site, as determined by the district.

RPBCWD STANDARD EROSION CONTROL NOTES

27. All temporary erosion and sediment control bmps must be removed upon final stabilization.
28. All disturbed areas must be stabilized within 7 calendar days after land-disturbing work has temporarily or permanently ceased on a property that drains to an impaired water.
29. Soil surfaces compacted during construction and remaining pervious upon completion of construction must be decompacted to achieve:
    a) a soil compaction testing pressure of less than 1,400 kilopascals or 200 pounds per square inch in the upper 12 inches of soil or
    b) a bulk density of less than 1.4 grams per cubic centimeter or 87 pounds per cubic foot in the upper 12 inches of soil
    In addition, utilities, tree roots and other existing vegetation must be protected until final revegetation or other stabilization of the site. refer to sheet C3.1 for decompaction areas.
30. The permittee must inspect all erosion prevention and sediment control facilities and soil stabilization measures to ensure integrity and effectiveness. the permittee must repair, replace, or supplement all nonfunctional BMPs with functional BMPs within 48 hours of discovery and prior to the next precipitation event unless adverse conditions preclude access to the relevant area of the site, in which case the repair must be completed as soon as conditions allow. when active land-disturbing activities are not underway, the permittee must perform these responsibilities at least weekly until vegetative cover is established. the permittee will maintain a log of activities under this section for inspection by the district on request.
31. Activities must be conducted so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, eurasian watermilfoil, etc.) to the maximum extent possible.
32. Contractor to stake off and mark proposed infiltration facilities to prevent soil compaction by heavy equipment, stockpiling of materials, and traffic. if infiltration facilities are in place during construction activities, best practices must be deployed to prevent sediment and other material from entering the practice(s). infiltration facilities must not be excavated to within 3 feet of final grade until the contributing drainage area has been constructed and fully stabilized. any accumulated sediment in an infiltration facility must be removed in manner that prevents compaction of the facility bottom. to provide a well-aerated, highly porous surface, the soils below an infiltration practice must be loosened to a minimum depth of 18 inches prior to installation or planting.

PAVING NOTES

33. Spot elevations at curblines indicate flowlines unless otherwise noted. Refer to sheets C5.1A - C5.3C for rim elevations of catch basins.
34. Grades between proposed spot elevations shall be continuous and non variable. Spot elevations shall govern over contour lines.
35. Meet and match existing curb. Provide 10 foot transition.

PAVING NOTES

36. Paving Sections:
    a. Bituminous Paving (Mills Drive)
    Refer to Sheet C2.2 for Typical Cross Section.
    b. Bituminous Paving (Private Drives)
    Refer to Sheet C2.2 for Typical Cross Section.
    c. Concrete Walkways
    Refer to Detail C7.2/4
    d. Concrete Drives, Aprons, and Exterior Slabs
    Refer to Detail C7.2/3
37. Transition from B618 Curb and Gutter to Ribbon Curb.
38. Transition from Surmountable Curb and Gutter to Ribbon Curb.

Know what's **Below.** **Call** before you dig.

NORTH

0 100 200

DEVELOPER

LEVEL 7 DEVELOPMENT, LLC
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MINNETRISTA, MN 55331

MUNICIPALITY

CHANHASSEN

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License No. 47165 Date: 04/25/2022

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Minneapolis, MN 55401 Web: landform.net

FILE NAME C301SCD001.DWG
PROJECT NO. SCD14001.CUD

GRADING, DRAINAGE, & EROSION CONTROL - OVERALL

C3.1

NPDES PERMIT AND SWPPP COMPONENTS

1. *The current Minnesota Construction Stormwater Permit C00053019 dated May 29, 2019 is referenced in this document as the Permit.*

   The SWPPP includes the following components:
   - Avienda Townhomes (Phase 2) Construction Documents prepared by Landform
   - Stormwater Management Narrative and calculations
   - Maintenance Plan for permanent stormwater BMPs
   - Preliminary geotechnical report prepared by Braun Intertec, dated 4-12-2017
   - Piezometer report by Braun Intertec, dated 10-16-2017
   - Double-ring infiltrometer test results by Braun Intertec, dated 8-16-2017

   All components must be kept onsite by the Operator. The Operator shall contact Civil Engineer if they do not have all of the above documents.

SITE INFORMATION

Site location: Latitude: 44.867527, Longitude: -93.557648

Overall Development disturbed area = 93.0 ac.

Avienda Townhomes disturbed area = 10.2 ac.
Pre-construction impervious area within disturbed area = 0.4 ac.
Post-construction impervious area within disturbed area = 4.0 ac.
Net change in impervious area within disturbed area = 3.6 ac.

Type of stormwater management:
- Filtration
- Infiltration

Erosion prevention and sediment control quantities are on sheets C3.1 - C3.1B.

SITE EVALUATION / ASSESSMENT / PLANNING

1. The Operator shall have primary responsibility and significant authority for the development, implementation, maintenance, inspection and amendments to the approved SWPPP. Duties include but are not limited to:
   - Ensuring full compliance with the SWPPP and the Permit
   - Implementing all elements of the SWPPP, including but not limited to:
     - Implementing prompt and effective erosion and sediment control measures
     - Implementing all non-storm water management, and good housekeeping BMPs ensuring that no materials other than Storm water are discharged in quantities, which will have an adverse effect on receiving waters or storm drain systems, etc.
   - Conducting routine inspections and maintenance
   - Ensuring elimination of all unauthorized discharges
   - Coordinating to ensure all of the necessary corrections / repairs are made immediately, and that the project complies with the SWPPP, the Permit, and approved plans at all times.

STORMWATER POLLUTION PREVENTION MANAGEMENT MEASURES

1. *Operator must develop pollution prevention management measures, implement good housekeeping BMPs, must follow all applicable federal, state, and local building codes, Occupational Safety and Health Act (OSHA), and the general conditions and general requirements of the construction contract.*
2. The Operator shall minimize the exposure to stormwater of any of the products, material, or wastes stored on site that may wash downstream or contaminate stormwater.
3. Building products that have the potential to leach pollutants must be under cover.
4. Chemicals and landscape materials shall be under cover to prevent the discharge of pollutants.
5. Operator to track progress of the following items on site maps: portable toilets, material storage areas, vehicle and equipment fueling and maintenance areas, concrete washouts, paint and stucco washouts, dumpsters or other trash and debris containers, spill kits, stockpiles, any other non-structural non-storm water management BMPs, any temporarily removed structural BMPs, any changes to the structural BMPs.
6. Solid waste: collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
7. Hazardous waste: oil, gasoline, paint and any hazardous substances must be properly stored in sealed containers to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste or materials must be in compliance with Minn. R. Ch. 7045 including secondary containment as applicable.
8. Portable toilets must be positioned so that they are secure and will not be tipped or knocked over.
9. Concrete and other washout waste: operator must provide effective containment for all liquid and solid wastes generated by washout operations. The liquid and solid wastes must not contact the ground, and the containment must be designed so that it does not result in runoff from the washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA rules. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.
10. External vehicle washing: external washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.
11. Operator shall take reasonable steps to prevent the discharge of spilled or leaked chemicals, including fuel, from any area where they will be loaded or unloaded as detailed in the Permit.

SWPPP CONTACT AND TRAINING INFORMATION

1. Owner:
   Bahram Akradi
   c/o/ Lifetime Fitness
   attn: Mark Nordland
   2902 Corporate Place
   Chanhassen, MN 55317
   952-229-7090
   mnordland@lt.life

2. Operator:
   Rachel Contracting, Inc.
   attn: Ron Fricke
   4125 Napier Ct. NE
   St. Michael, MN 55376
   763-424-1500
   rfricke@rachelcontracting.com
   Certification: U of MN, Design of Construction SWPPP, exp. May 31, 2021

3. Long Term Maintenance and Operation:
   Level 7 Development, Inc.
   c/o Life Time
   attn: Mark Nordland
   2902 Corporate Place
   Chanhassen, MN 55317
   952-229-7090
   mnordland@lt.life

4. SWPPP Designer:
   Steve Sabraski, P.E.
   Landform
   105 South Fifth Avenue, Suite 513
   Minneapolis, MN 55401
   612-252-9070
   ssabraski@landform.net
   Certification: u of MN, Design of Construction SWPPP, exp. May 31, 2022

5. SWPPP Inspector / Manager:
   Landform
   105 South Fifth Avenue
   Suite 513
   Minneapolis, MN 55401
   attn: Fred Volz
   612-363-3684
   Certification: Construction Site Management, exp. May 31, 2021

6. BMP Installation and Repair:
   To be determined. Contact Operator until BMP Installer and Maintainer is selected.
   Certification: , exp.

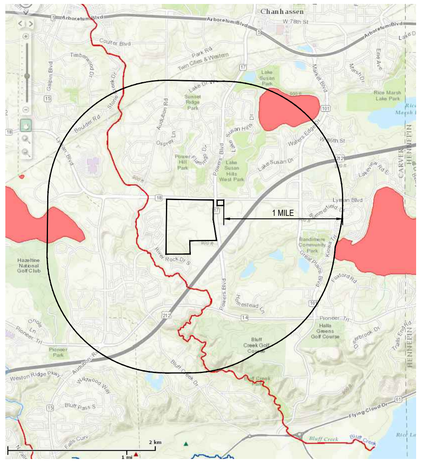
DESCRIPTION OF CONSTRUCTION ACTIVITY

1. Construction activity includes erosion and sediment control BMPs installation, clearing and grubbing, site grading, utility installation, paving, and landscaping.
2. Future construction activity will include erosion and sediment control BMPs installation, utility installation, paving, building construction, and landscaping on individual parcels.

SCHEDULE OF BMP INSTALLATION AND CONSTRUCTION ACTIVITY

1. Install perimeter sediment control BMPs prior to start of other site work. Refer to Grading, Drainage, Paving and Erosion Control sheets for initial locations of BMPs.
2. Perform work in phases to minimize disturbed area at any one time.
3. Strip topsoil from areas to be disturbed and stockpile with perimeter sediment control BMPs. Provide immediate stabilization.
4. Fine grade site. Grading areas open at one time should be limited to minimize potential for sediment transport.
5. Install public utilities including stormwater basins.
6. Final grade roadway areas and compact subgrade.
7. Place pavement aggregate and compact.
8. Install curb and gutter. Backfill and stabilize exposed soil.
9. Install private (small) utilities (gas, electric, communications).
10. Pave roadways, trails and walks.
11. Provide final stabilization for any remaining disturbed areas.
12. Remove temporary BMPs once up gradient areas are stabilized.
13. Connect infiltration practices to storm sewer inlets.
14. Turn over lots to homebuilder.

WATERS WITHIN ONE MILE OF SITE



ENVIRONMENTAL, ENDANGERED SPECIES, & ARCHEOLOGICAL REVIEWS

1. There are no requirements for storm water due to environmental, endangered species, or archeological review within the Chanhassen AUAR Update of May 2017.

MINNESOTA IMPAIRED WATERS

1. Hazeltine Lake (AUID: 10-0014-00) is impaired based on the current USEPA 303(d) Clean Water Act list; is within 1 mile of this site; and stormwater does not discharge to it.
2. Lake Riley (AUID: 10-0002-00) is impaired based on the current USEPA 303(d) Clean Water Act list; is within 1 mile of this site; and stormwater does discharge to it.
   A. TMDLs have been established for this impaired water for Fishes Bioassessment.
   B. TMDLS have been established for this impaired water for Mercury in Fish Tissue.
   C. TMDLS have been established for this impaired water for Nutrient / eutrophication biological indicators.
3. Lake Susan (AUID: 10-0013-00) is impaired based on the current USEPA 303(d) Clean Water Act list; is within 1 mile of this site; and stormwater does discharge to it.
   A. TMDLs have been established for this impaired water for Mercury in fish tissue. There are no special construction requirements for this impairment.
   B. TMDLs have not been established for this impaired water for Nutrient / eutrophication biological indicators. There are no special construction requirements for this impairment.
4. Bluff Creek (AUID: 07020012-710) is impaired based on the current USEPA 303(d) Clean Water Act list; is within 1 mile of this site; and stormwater does discharge to it.
   A. TMDLs have been established for this impaired water for Fishes bioassessments. There are no special construction requirements for this impairment.
   B. TMDLs have been established for this impaired water for Turbidity. There are no special construction requirements for this impairment.
5. This site will meet these TMDLs using the following methods: Follow Permit requirements.
6. Stream Unassessed (AUID: 07020012-999), tributary to Lake Susan is not impaired, is within one mile of the site, and stormwater from the site does not discharge to it.
7. The following waters are within one mile of the site, receive stormwater discharge from the site, but do not appear on the MPCA Impaired Waters Viewer:
   A. MNDOT Wetland M09
   B. MNDOT Wetland M10
   C. Onsite Wetland #3
   D. Onsite Wetland #4
   E. Onsite Wetland #6
   F. MNDOT Stormwater "Englewood" Pond

EROSION PREVENTION AND SEDIMENT CONTROL

1. See Grading, Drainage, and Erosion Control sheets for the location and type of temporary erosion prevention and sediment control BMPs. See Grading, Drainage, Erosion Control, and Landscape sheets for the location and type of permanent erosion prevention and sediment control BMPs.
2. Minimize Disturbed Areas and Protect Natural Features and Soil

   Appropriate construction practices (e.g. construction phasing, vegetative buffer strips, horizontal slope grading) shall be used to minimize erosion.

   Areas not to be disturbed (buffers, bluff creek overlay districts, etc.) shall be protected with construction or silt fence before work begins.

   Operator shall develop methods to minimize soil compaction outside of building pads, pavement areas and utility trenches and shall use tracked equipment wherever practicable.

   Topsoil shall be salvaged and reused to the extent practicable.
3. Phase Construction Activity

   Operator must not disturb more land than can be effectively inspected and maintained.

   Sediment control practices shall be established on all down gradient perimeters before any upgradient land disturbing activities begin. These practices shall remain in place until final stabilization has been established in accordance with the Permit.

   The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as clearing or grubbing, or passage of vehicles. Any short-term activity must be completed as quickly as possible and the sediment control practices shall be installed immediately after the activity is completed. However, sediment control practices shall be installed before the next precipitation event even if the activity is not complete.
4. Control Stormwater Flowing onto and Through the Project

   The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, shall be stabilized within 200 lineal feet from the property edge, or from the point of discharge into any surface water.

   Stabilization of the last 200 lineal feet shall be completed within 24 hours after connecting to a surface water.

   Stabilization of the remaining portions of any temporary or permanent ditches or swales shall be complete within 14 days after connecting to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.

   Temporary or permanent ditches or swales that are being used as a sediment containment system (with properly designed rock ditch checks, bio rolls, silt dikes etc.) do not need to be stabilized. These areas shall be stabilized within 24 hours after no longer being used as a sediment containment system.
5. Stabilize Soils

   All exposed soil areas, including stockpiles, must be stabilized. The site has discharge points within one mile of, and flows to impaired waters. Therefore, stabilization of all exposed soil areas shall be initiated immediately to limit soil erosion in that portion of the site where construction has temporarily or permanently ceased. Stabilization must be completed with in seven (7) calendar days of cessation of construction activity.

   Temporary soil stockpiles shall have silt fence or other effective sediment controls, and cannot be placed in surface waters, including storm water conveyances such as curb and gutter systems, or conduits and ditches unless there is a bypass in place for the storm water.

   Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) and the constructed base components of roads, parking lots and similar surfaces are exempt from this requirement.
6. Protect Slopes

   Operator shall avoid work on slopes with a grade of 3h:1v or greater when practicable. Grading on slopes with a grade of 3h:1v or steeper will require techniques such as phasing and stabilization practices designed for steep slopes (e.g., slope draining and terracing).
7. Protect Storm Drain Inlets

   All storm drain inlets shall be protected by appropriate BMPs during construction until all sources with potential for discharging to the inlet have been stabilized. Inlet protection may be temporarily removed if a specific safety concern has been identified.
8. Provide Energy Dissipation at all Pipe Outlets Within 24 Hours

   After connection to a surface water or permanent stormwater treatment system.
9. Establish Perimeter Controls and Sediment Barriers

   Prior to disturbing soils on a project site, establish sediment control BMPs on all downgradient perimeters and where site discharges to public waters.
10. Retain Sediment On-site and Control Dewatering Practices

    Dewatering or basin draining of turbid or sediment laden water related to construction activities shall be discharged to a temporary or permanent sedimentation basin or treated with the appropriate BMP prior to entering the surface water.

    Discharge shall not cause nuisance conditions, erosion in receiving channels, adversely affect receiving water or impact wetlands, or downstream properties. Discharge points shall be adequately protected from erosion and scour by accepted energy dissipation measures.

    Discharge water containing oil or grease shall be treated to remove oil or grease prior to discharge to surface waters.

    Refer to Permit requirements for temporary or permanent sediment basins.
11. Establish Stabilized Construction Exits

    Vehicle tracking pads shall be established as shown on the grading, drainage, paving and erosion control sheet to minimize tracking of sediment from the construction site onto adjacent streets.
12. Infiltration Basin Protection

    Operator must not excavate infiltration systems to final grade or within three (3) feet of final grade until the contributing drainage area has been constructed and fully stabilized unless rigorous erosion prevention and sediment controls have been installed.

    When excavating an infiltration system to within three (3) feet of final grade, operator shall mark off and protect the area from heavy construction equipment to prevent compaction of soils.
13. Dewatering and Basin Draining

    Permittees must discharge turbid or sediment-laden waters related to dewatering or basin draining to a temporary or permanent sediment basin. Discharges must not cause erosion or scour near the discharge points.
14. Remove Sediment from Surface Waters

    All sediment deposits and deltas must be removed from surface waters (including drainage ways, catch basins, and other drainage systems) and the removal areas restabilized within seven (7) days.

SURFACE WATER BUFFERS

1. 50 foot buffers from surface waters are not possible everywhere on this site due to site grading requirements. We have provided smaller buffers in combination with double silt fence where grading is adjacent to surface waters. For Wetland 3, the buffer ranges from 28' to 50'. Wetland 4 has a buffer of 50'. For Wetland 6, the buffer ranges from 20' to 80'. MNDOT Wetland M09 has a buffer ranging from 38' to 80'.

   The above buffers are impacted only for storm sewer inlet and outlet construction.

TEMPORARY SEDIMENTATION BASIN(S)

1. This project does not have more than 5 acres draining to a common location and the site drains to Impaired Waters, therefore temporary sediment basins are not required. Temporary sediment basins are provided on the overall Avienda Development plan set and are to be utilized for this project until completion of permanent stormwater BMPs.
2. Temporary sediment basins shall provide treatment to runoff before it leaves the construction site or enters surface waters. The contractor shall comply with the following requirements:
   A. Sedimentation basins must provide live storage of runoff resulting from the 2-yr 24-hr rainfall event from each acre drained to the basin with a minimum of 1,800 cf/acre live storage volume. (Where no calculation has been performed, each basin shall provide at least 3,600 cf/acre of live storage.) Sedimentation basins must include a stabilized emergency overflow to prevent basin integrity failure.
   B. Discharge from temporary sedimentation basins will be withdrawn from the surface in order to minimize the discharge of pollutants.
3. Discharge from basin draining shall not adversely affect the receiving water or downstream properties. Contractor will visually check to ensure adequate treatment has been obtained and that nuisance conditions will not result from the discharge.
4. Any discharge observed to be occurring during the inspection shall be recorded, described, and photographed.
5. If any proposed temporary BMPs are not working as planned refer to the "Stormwater Compliance Assistance Toolkit for Small Construction Operators", MPCA, 2017 for additional information. Operator shall contact the SWPPP Designer for additional requirements and information.

POST CONSTRUCTION / PERMANENT BMPS

1. See Grading, Drainage, Erosion Control, and Landscape sheets for post construction and permanent stormwater BMPs.

INSPECTIONS AND MAINTENANCE

1. Permittees must ensure that a trained person will inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5-inches in 24 hours.
2. Inspections shall include stabilized areas, erosion prevention and sediment control BMPs, and infiltration areas.
3. Surface waters on or adjacent to the site must be inspected for evidence of erosion or sediment deposition.
4. Permittees must record all inspection and maintenance activities within 24 hours of being conducted as detailed in the Permit.
5. Inspection Records content shall include:
   A. Date and time of inspections;
   B. Name of persons conduction inspections;
   C. Findings of inspections, including specific locations where corrective actions are needed;
   D. Corrective actions taken including dates, times, and the party taking the corrective action;
   E. Dates of all rainfall events greater than 1/2 inch in 24 hours (refer to Permit for measurement requirements);
   F. Any discovered discharge must be recorded, including photographs, descriptions of discharge (color, odor, settled or suspended solids, oil sheen, or other obvious indicators of pollution), and specific location of discharge location;
   G. Any amendments to the Permit as a result of inspections must be documented within seven calendar days as described in the Permit.
6. BMP Maintenance:
   A. Nonfunctional BMPs must be repaired or replaced by the end of the next business day after discovery unless a different time frame is indicated.
   B. Follow the designer's or manufacturer's recommended maintenance procedures for all BMPs.
   C. Remove sediment from BMPs when the depth of sediment has reached 1/2 the height of the BMP and properly dispose of sediment into controlled areas to prevent soil from returning to the BMP during subsequent rain events.
   D. Remove sediment from paved roadways within one calendar day of discovery.
   E. Remove sediment from around BMPs protecting storm drain inlets.
   F. Surface waters with evidence of sediment deposition must be stabilized and sediment removed within seven calendar days of discovery, or as stated by the Permit.
   G. Ensure that construction support activities, including borrow areas, waste areas, contractor work areas, and material storage areas and dedicated concrete and asphalt batch plants are cleaned and maintained.
   H. Replace damaged BMPs that no longer operate effectively.
7. Add BMPs as needed during construction to minimize erosion and prevent sediment from leaving the site.

RECORD KEEPING / RECORD RETENTION

1. The SWPPP (original or copies) including, all changes to it, and inspections and maintenance records shall be kept at the site during construction by the Owner / Operator who has operational control of that portion of the site. The SWPPP can be kept in either the field office or in an on site vehicle during normal working hours.
2. All Owner(s) must keep the SWPPP, along with the following additional records, on file for three (3) years after submittal of the Notice of Termination (NOT). This does not include any records after submittal of the NOT.
3. The following is a list of records that shall be kept at the project site available for inspectors to review:
   - copy of the SWPPP, with any modifications
   - inspection and maintenance records
   - permanent operation and maintenance agreements
   - calculations for the design of temporary and permanent storm water management systems
   - any other permits required for the project
   - records of all inspection and maintenance conducted during construction
   - all permanent operation and maintenance agreements that have been implemented, including all right of way, contracts, covenants and other binding requirements regarding perpetual maintenance; and
   - all required calculations for design of the temporary and permanent storm water management systems.

LOG OF CHANGES TO THE SWPPP / AMENDMENTS

1. *The Owner / Operator(s) must amend the SWPPP as necessary to include additional requirements, such as additional or modified BMPs, designed to correct problems identified or address situations as detailed in the Permit.*

FINAL STABILIZATION

1. *The Owner / Operator(s) must ensure final stabilization of the site. Final stabilization includes:*
   A. Ensuring all areas have permanent cover.
   B. Vegetative areas must have perennial cover with a density of 70% of expected final growth.

TERMINATION OF COVERAGE

1. *Owner / Operator(s) wishing to terminate coverage under the Permit must submit a Notice of Termination (NOT) to the MPCA. Compliance with the permit is required until a NOT is submitted. Refer to the Permit for details. Conditions for submitting a NOT include:*
   A. Site must have achieved final stabilization (refer to section above).
   B. The permanent stormwater treatment and conveyance systems must be clean and all accumulated sediment removed.
   C. All temporary synthetic erosion prevention and sediment control BMPs must be removed from the site and disposed of properly.
   D. Single Family Residential only - Permit termination on individual lots occurs once building construction is complete, temporary erosion prevention and downgradient perimeter control is complete, the residence sells to the homeowner, and the permittee distributes the MPCA's "Homeowner Fact Sheet" to the homeowner.

DEVELOPER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CITY OF CHANHASSEN

PROJECT

AVIENDA TOWNHOMES

CHANHASSEN, MN

ISSUE / REVISION HISTORY

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22 MAR 2022	WATERSHED SUBMITTAL	SES
25 MAR 2022	WATERSHED SUBMITTAL	SES

CERTIFICATION

I hereby certify that this plan 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.

Steven E. Sabraski

License No. 47165 Date: 04/25/2022

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WATERSHED SUBMITTAL
APRIL 25, 2022

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Fax: 612-252-9077
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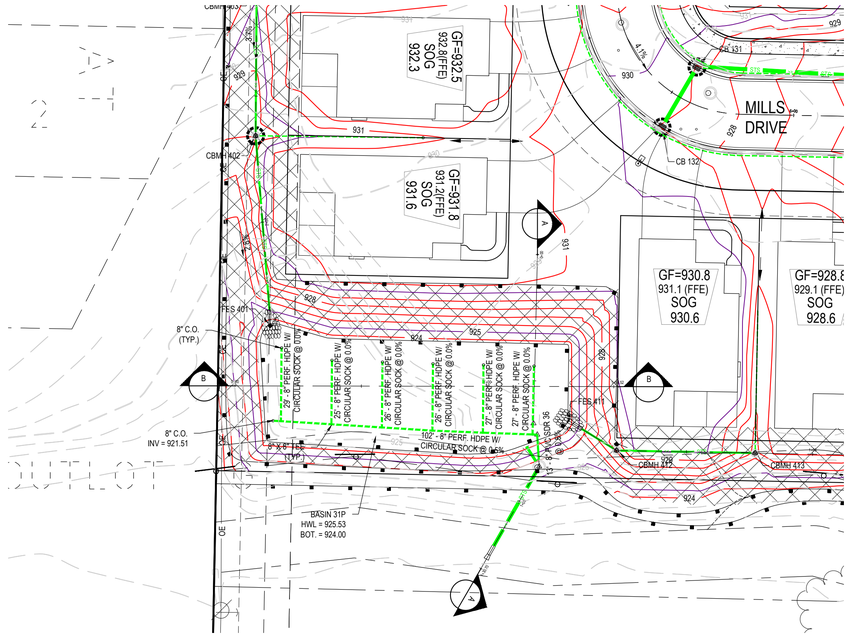
FILE NAME C302SCD001.DWG

PROJECT NO. SCD14001.CUD

SWPPP NOTES

C3.2

WEST-CENTRAL BASIN



Basin 31P - Section A-A
HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=3'

Basin 31P - Section B-B
HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=3'

NORTH
0 30 60

DEVELOPER

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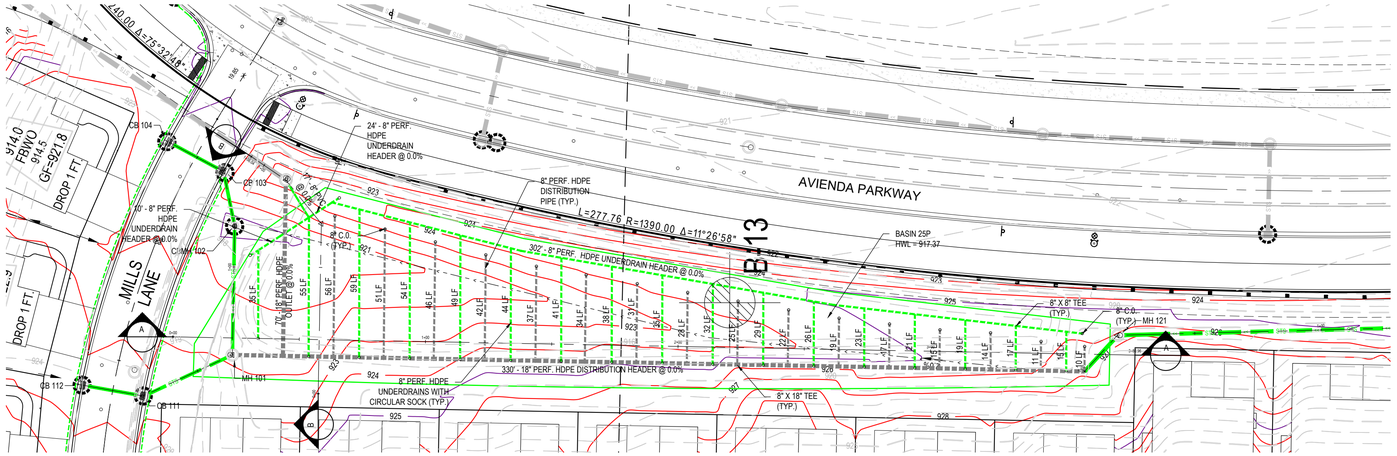
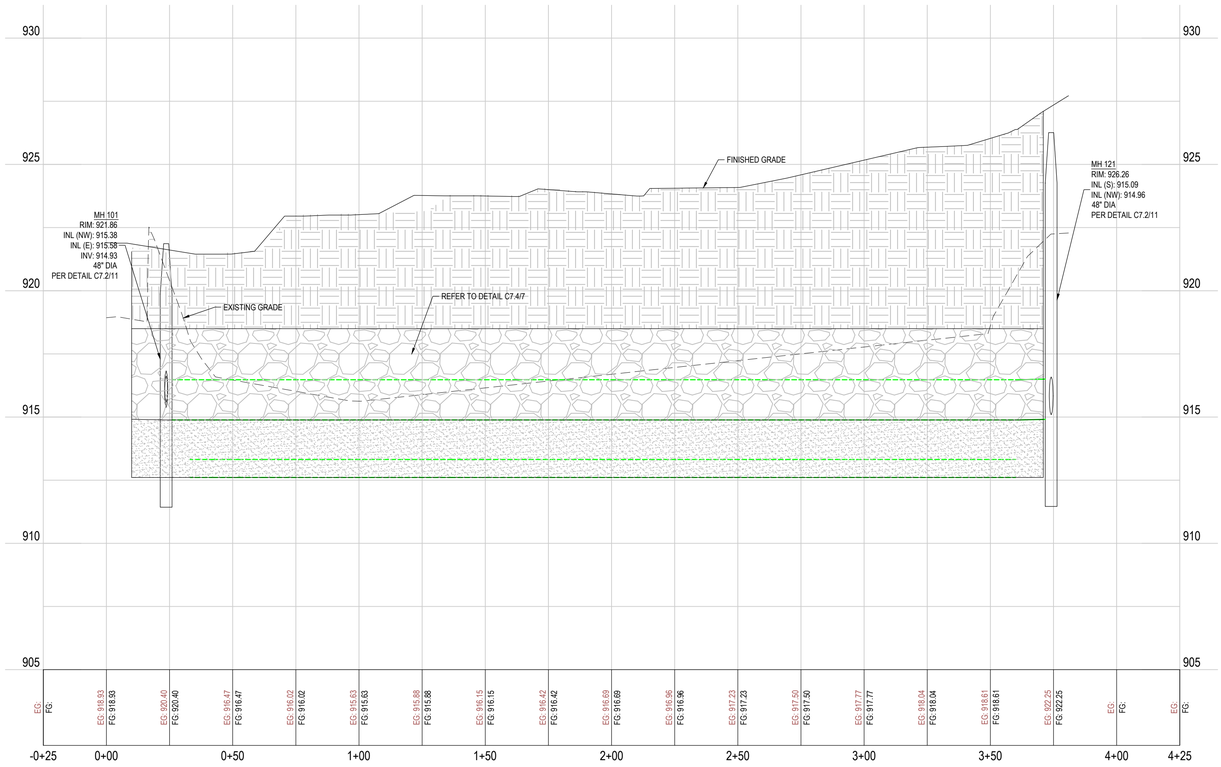
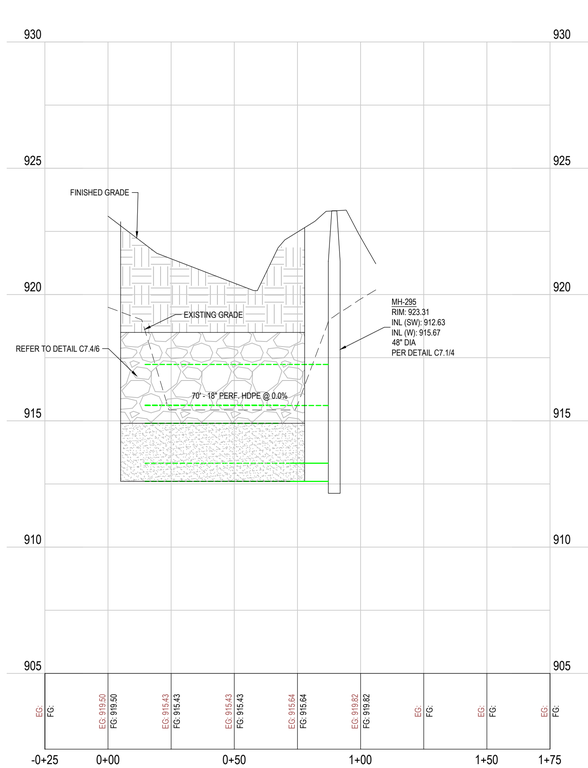
BASIN CROSS-SECTIONS
C3.3A





Basin 25P - Section A-A
HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=3'



Basin 25P - Section B-B
HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=3'

DEVELOPER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

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CITY OF CHANHASSEN

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Know what's **Below.** **Call** before you dig.

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0 30 60

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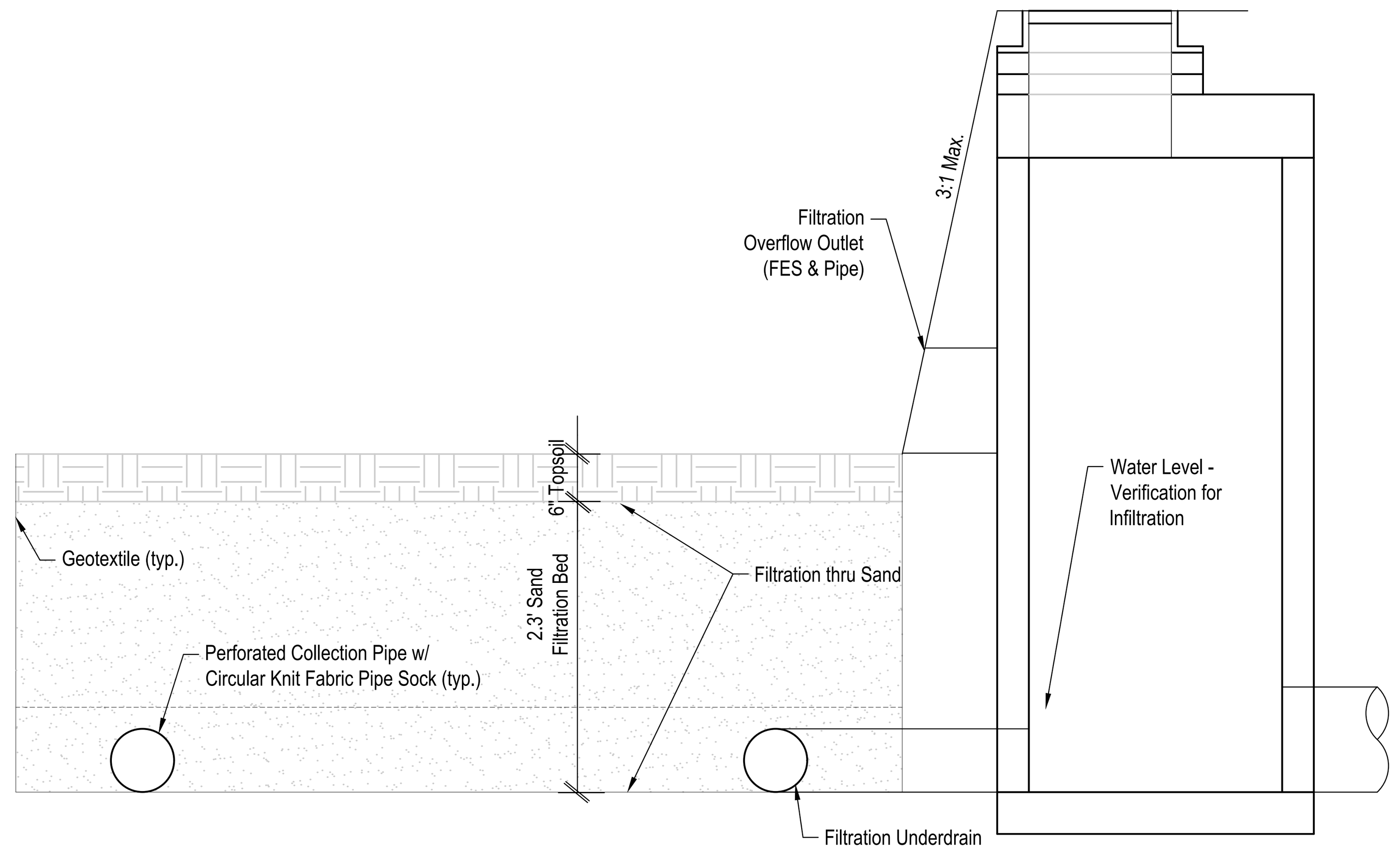
PROJECT NO. SCD14001.CUD

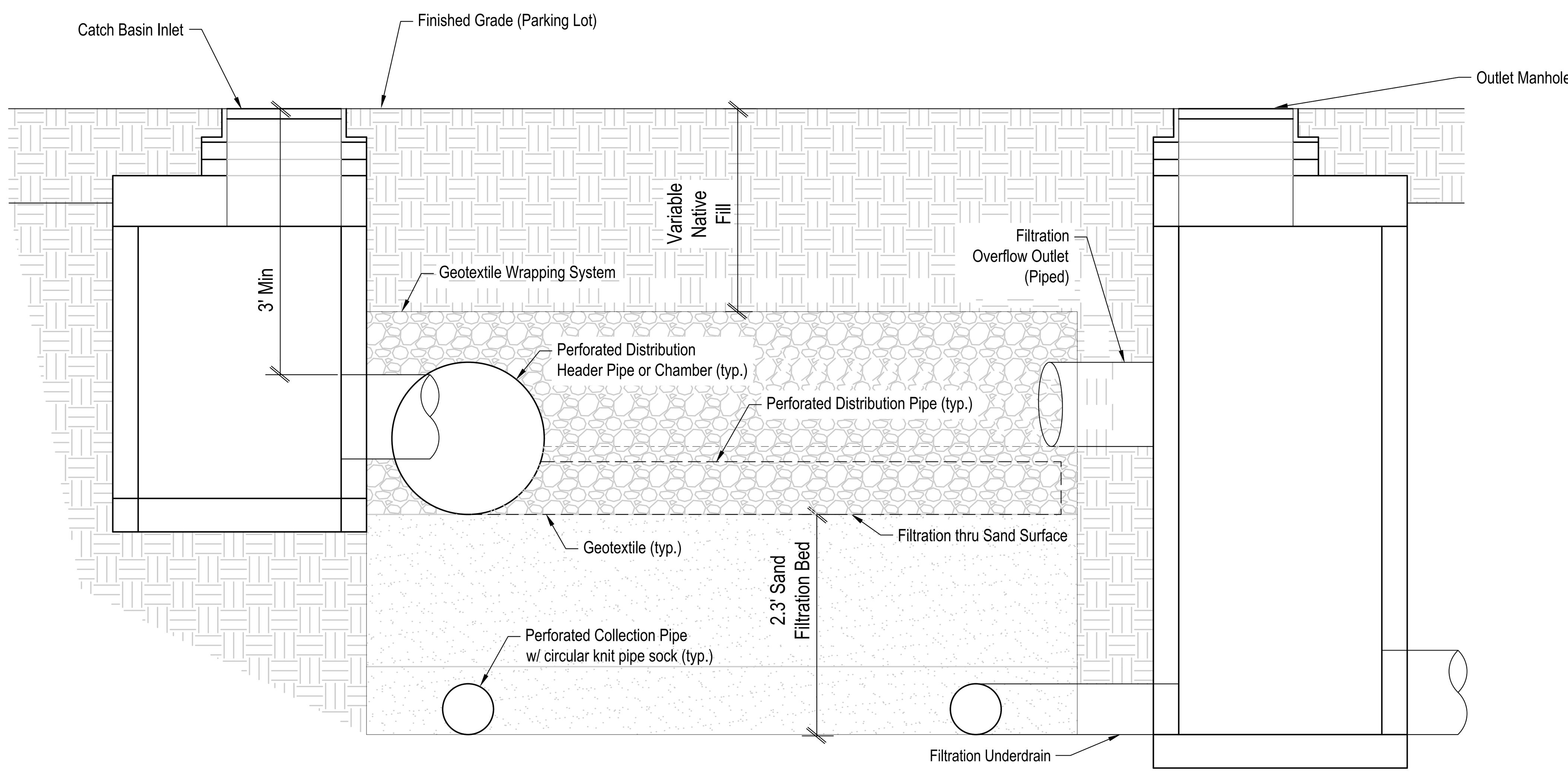
BASIN CROSS-SECTIONS
C3.3B



3:1 Max
Filtration Overflow Outlet (FES & Pipe)
Water Level - Verification for Infiltration
6" Topsoil
Geotextile (typ.)
Filtration thru Sand
2.3' Sand Filtration Bed
Perforated Collection Pipe w/ Circular Knit Fabric Pipe Sock (typ.)
Filtration Underdrain

6 ABOVE-GROUND FILTRATION BASIN AND OUTLET MANHOLES

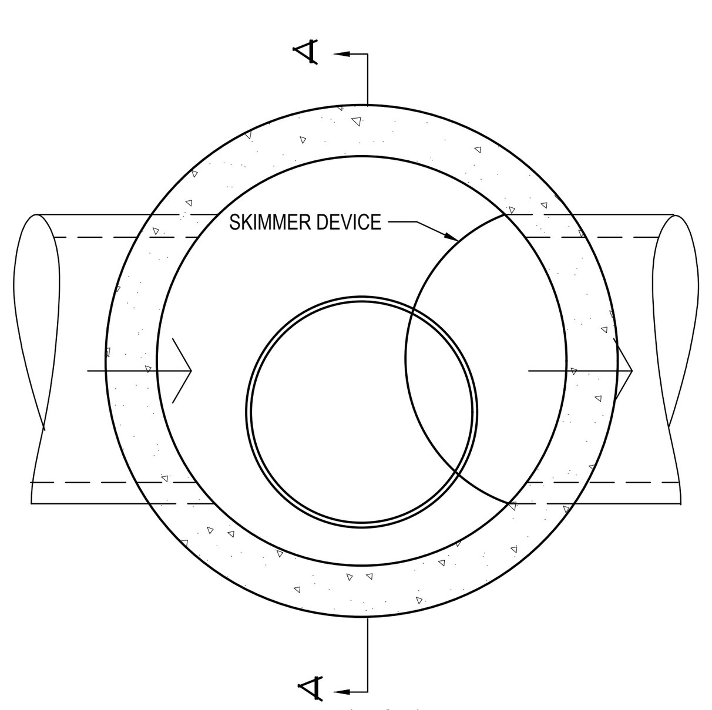
NO SCALE

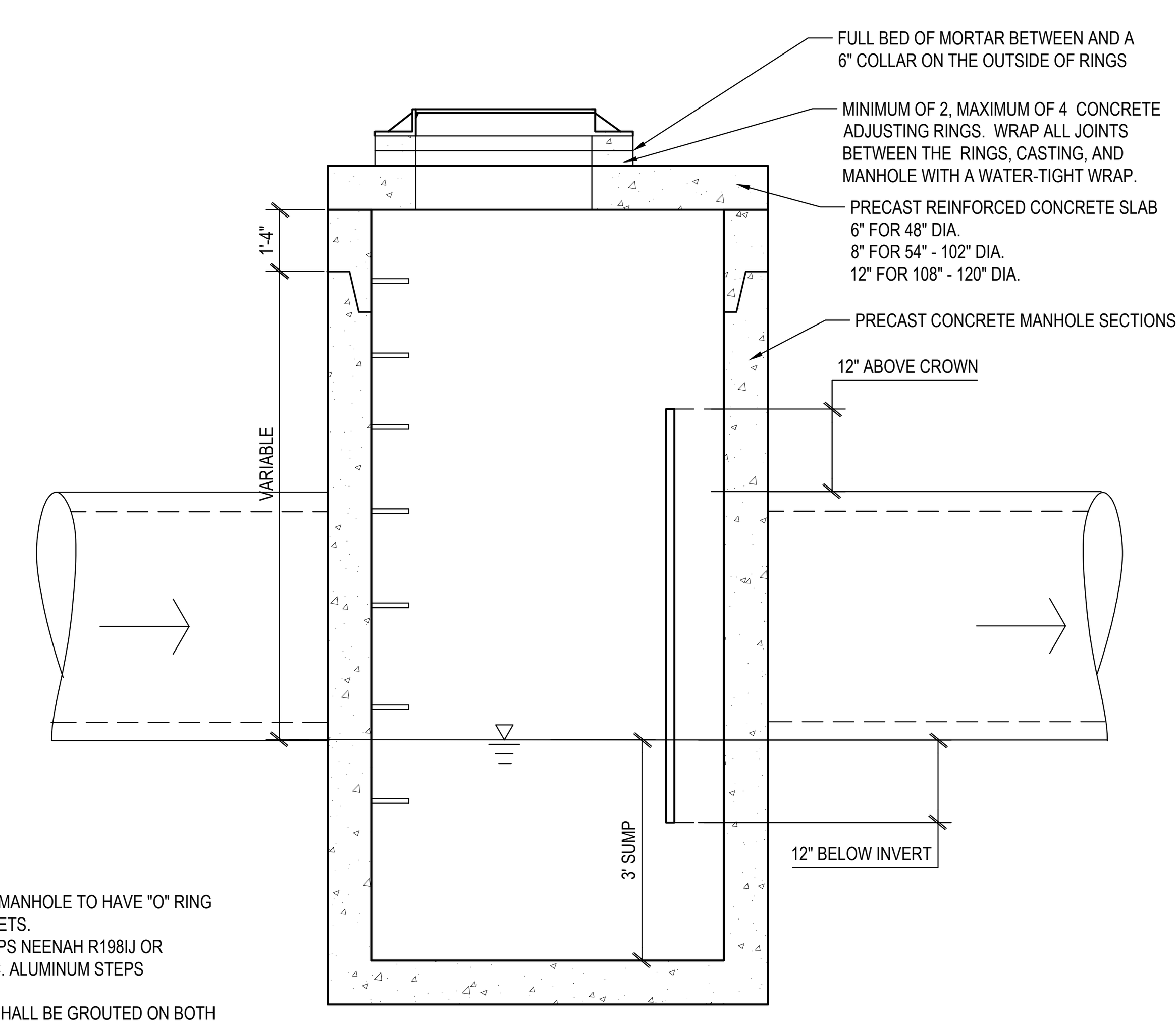


Catch Basin Inlet
Finished Grade (Parking Lot)
Outlet Manhole
Variable Native Fill
3' Min
Geotextile Wrapping System
Filtration Overflow Outlet (Piped)
Perforated Distribution Header Pipe or Chamber (typ.)
Perforated Distribution Pipe (typ.)
Filtration thru Sand Surface
Geotextile (typ.)
2.3' Sand Filtration Bed
Perforated Collection Pipe w/ circular knit pipe sock (typ.)
Filtration Underdrain

7 UNDERGROUND FILTRATION SYSTEM

NO SCALE





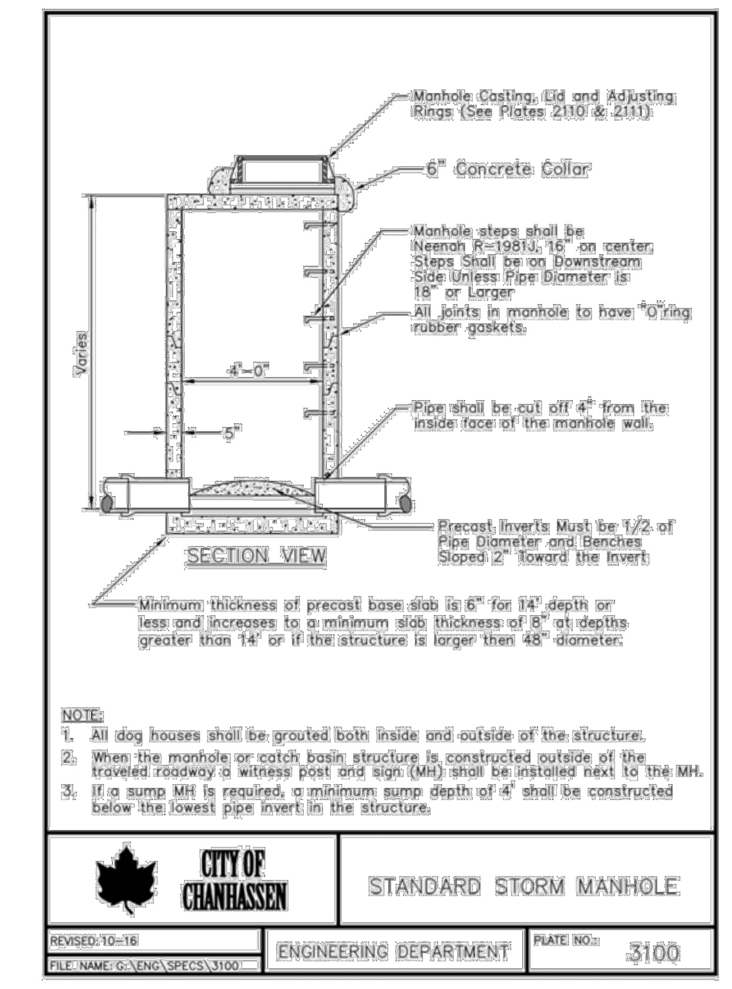
FULL BED OF MORTAR BETWEEN AND A 6" COLLAR ON THE OUTSIDE OF RINGS
MINIMUM OF 2, MAXIMUM OF 4 CONCRETE ADJUSTING RINGS. WRAP ALL JOINTS BETWEEN THE RINGS, CASTING, AND MANHOLE WITH A WATER-TIGHT WRAP.
PRECAST REINFORCED CONCRETE SLAB 6" FOR 48" DIA. 8" FOR 54" - 102" DIA. 12" FOR 108" - 120" DIA.
PRECAST CONCRETE MANHOLE SECTIONS
12" ABOVE CROWN
1'-4"
VARIABLE
3' SUMP
12" BELOW INVERT
SECTION A-A

NOTES:

1. ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS.
2. MANHOLE STEPS NEENAH R1980J OR EQUAL, 16" O.C. ALUMINUM STEPS APPROVED.
3. DOGHOUSES SHALL BE GROUTED ON BOTH THE OUTSIDE AND INSIDE.

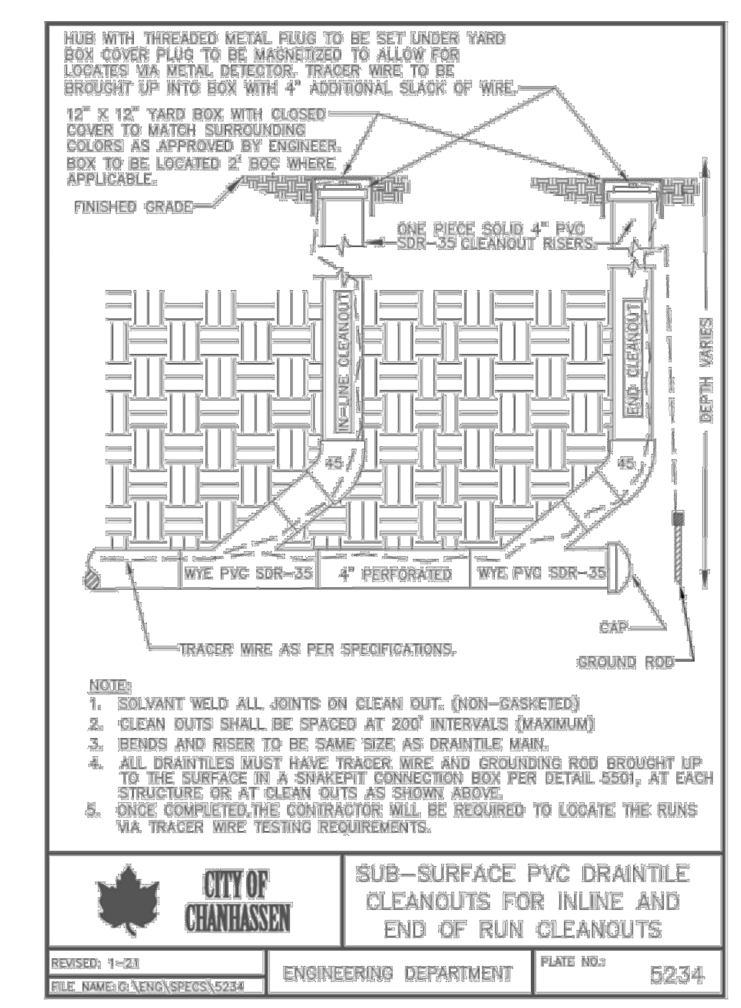
8 SUMP STORM SEWER MANHOLE WITH SKIMMER

NO SCALE



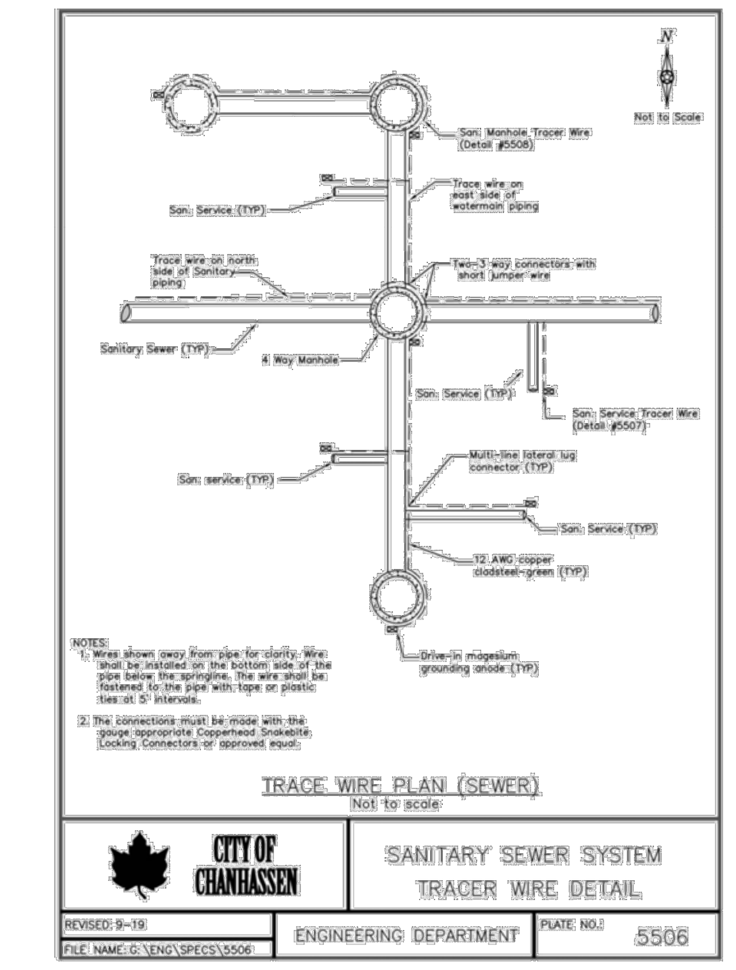
4 STANDARD STORM MANHOLE

NO SCALE



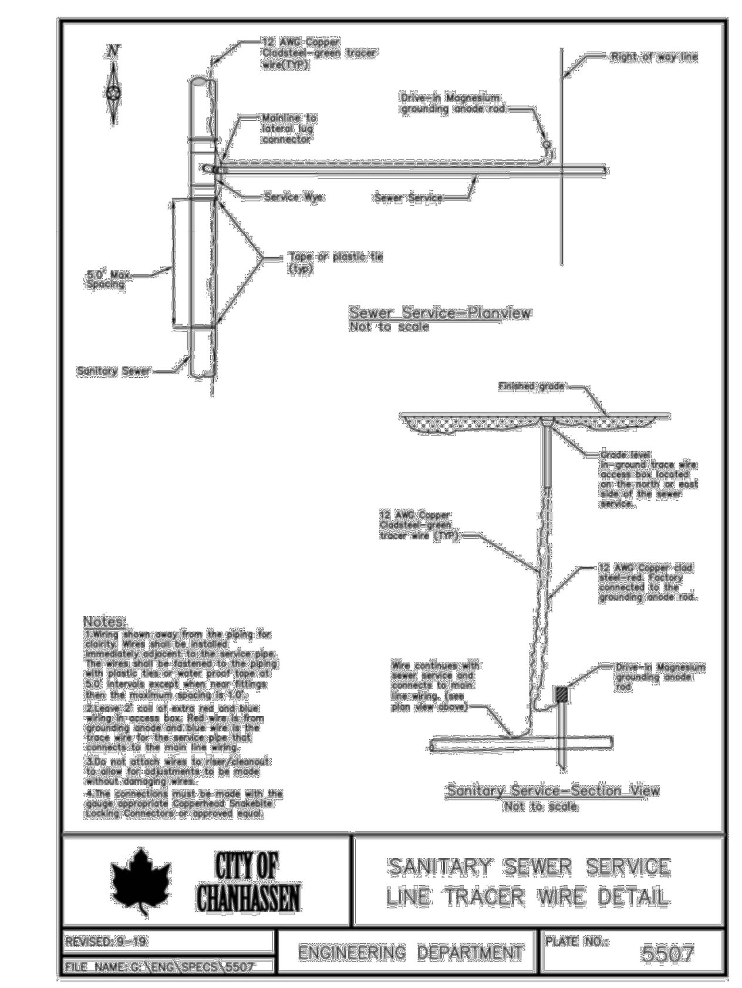
5 DRAINTILE CLEAN OUTS

NO SCALE



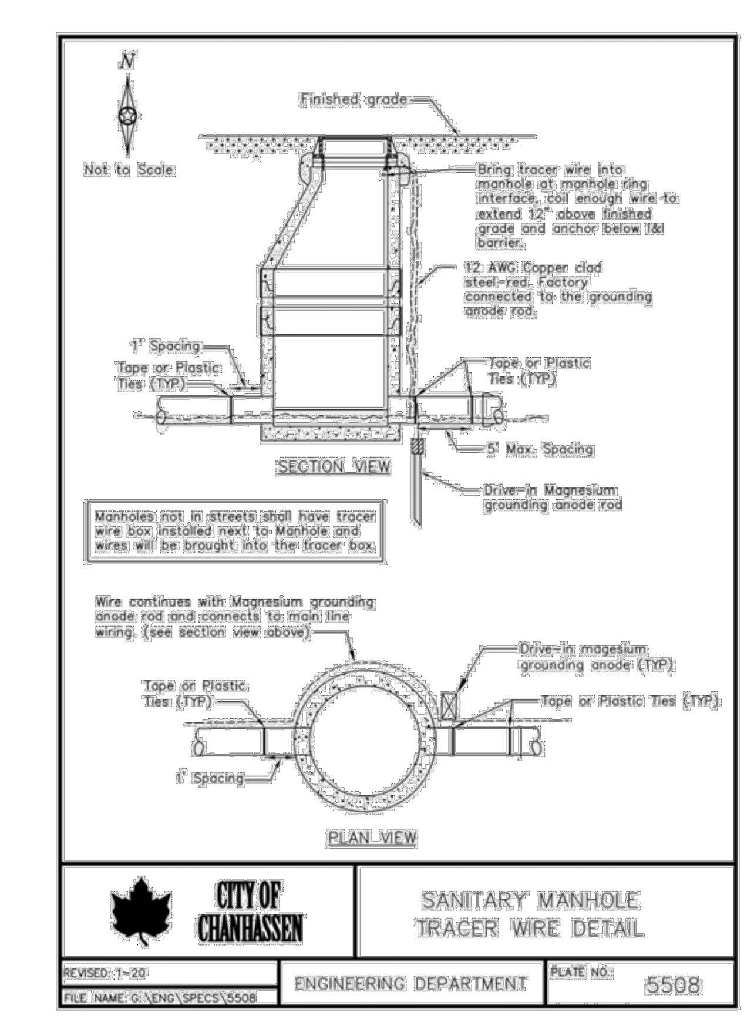
1 SANITARY SEWER SYSTEM TRACER WIRE DETAIL

NO SCALE



2 SANITARY SEWER SERVICE LINE TRACER WIRE DETAIL

NO SCALE



3 SANITARY MANHOLE TRACER WIRE DETAIL

NO SCALE

DEVELOPER

LEVEL 7 DEVELOPMENT, LLC
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MINNETRISTA, MN 55331

MUNICIPALITY

CITY OF CHANHASSEN

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APRIL 25, 2022

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FILE NAME C701SCD001.DWG

PROJECT NO. SCD14001.CUD

CIVIL CONSTRUCTION DETAILS

C7.4

PLANT SCHEDULE - OVERALL

DECIDUOUS TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	MATURE SIZE	PLANTING SIZE	ROOT COND.
	ACGM	2	Acer saccharum `Green Mountain` TM	Green Mountain Sugar Maple	60`H x 40`W	2.5"Cal	B & B
	AFJ3	12	Acer x freemanii `Jeffersred`	Autumn Blaze Maple	50`H x 40`W	2.5"Cal	B & B
	BENI	8	Betula nigra	River Birch	60`H x 50`W	2.5"Cal	B & B
	GYDI	3	Gymnocladus dioica	Kentucky Coffee Tree	70`H x 45`W	2.5"Cal	B & B
	TILG	13	Tilia cordata `Greenspire`	Greenspire Littleleaf Linden	60`H x 40`W	2.5"Cal	B & B
	ULMO	5	Ulmus x `Morton Accolade` TM	American Elm `Accolade`	60`H x 40`W	2.5" Cal.	B & B

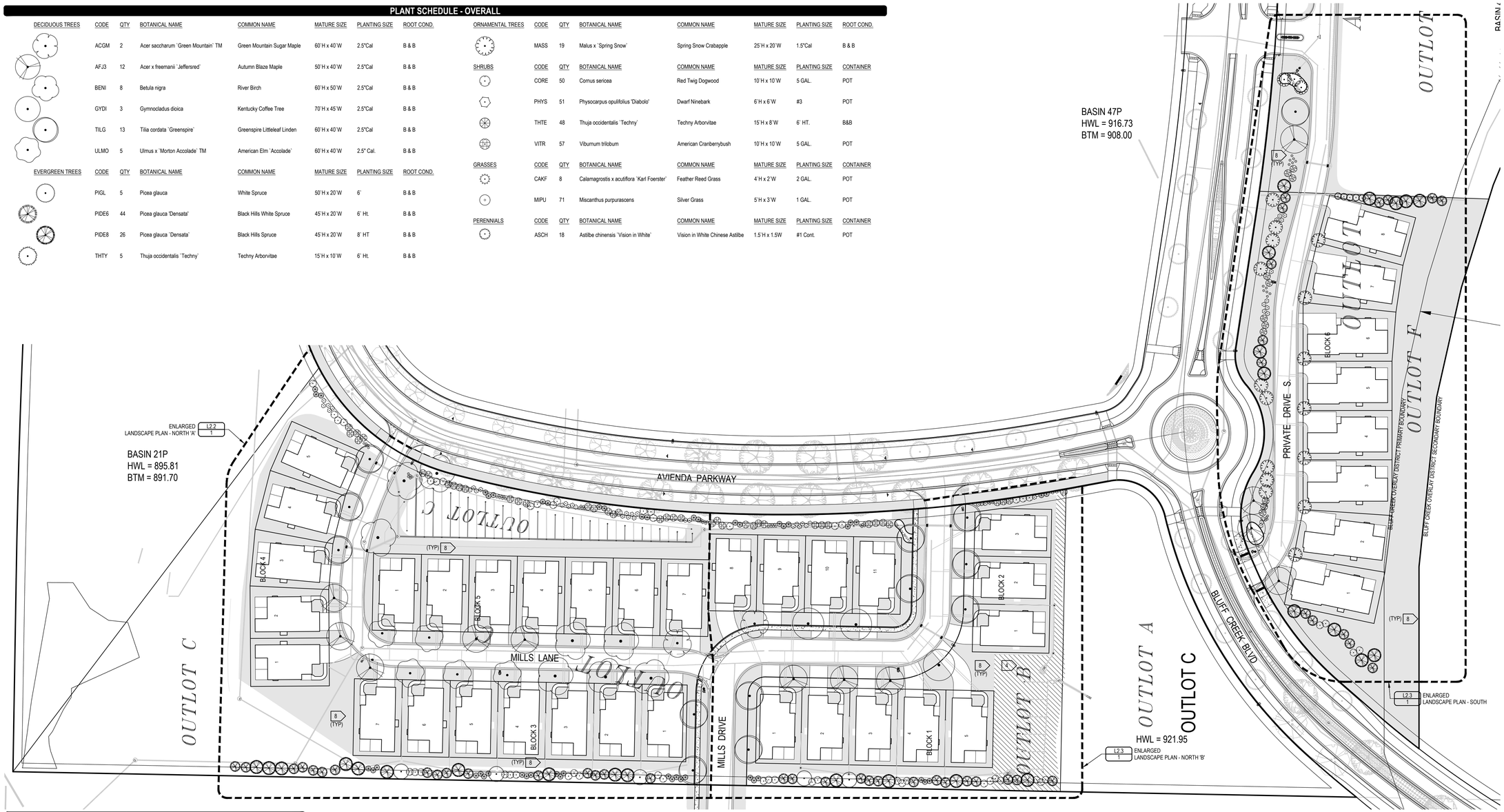
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	MATURE SIZE	PLANTING SIZE	ROOT COND.
	PIGL	5	Picea glauca	White Spruce	50`H x 20`W	6`	B & B
	PIDE6	44	Picea glauca 'Densata'	Black Hills White Spruce	45`H x 20`W	6` Ht.	B & B
	PIDE8	26	Picea glauca `Densata`	Black Hills Spruce	45`H x 20`W	8` HT	B & B
	THTY	5	Thuja occidentalis `Techny`	Techny Arborvitae	15`H x 10`W	6` Ht.	B & B

ORNAMENTAL TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	MATURE SIZE	PLANTING SIZE	ROOT COND.
	MASS	19	Malus x `Spring Snow`	Spring Snow Crabapple	25`H x 20`W	1.5"Cal	B & B

SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	MATURE SIZE	PLANTING SIZE	CONTAINER
	CORE	50	Cornus sericea	Red Twig Dogwood	10`H x 10`W	5 GAL.	POT
	PHYS	51	Physocarpus opulifolius 'Diabolo'	Dwarf Ninebark	6`H x 6`W	#3	POT
	THTE	48	Thuja occidentalis `Techny`	Techny Arborvitae	15`H x 8`W	6` HT.	B&B
	VITR	57	Viburnum trilobum	American Cranberrybush	10`H x 10`W	5 GAL.	POT

GRASSES	CODE	QTY	BOTANICAL NAME	COMMON NAME	MATURE SIZE	PLANTING SIZE	CONTAINER
	CAKF	8	Calamagrostis x acutiflora `Karl Foerster`	Feather Reed Grass	4`H x 2`W	2 GAL.	POT
	MIPU	71	Miscanthus purpurascens	Silver Grass	5`H x 3`W	1 GAL.	POT

PERENNIALS	CODE	QTY	BOTANICAL NAME	COMMON NAME	MATURE SIZE	PLANTING SIZE	CONTAINER
	ASCH	18	Astilbe chinensis `Vision in White`	Vision in White Chinese Astilbe	1.5`H x 1.5W	#1 Cont.	POT



GENERAL NOTES

1. For construction Staking and Surveying services contact Landform at 612.252.9070.

LANDSCAPE NOTES

2. Contact Utility Service providers for field location of services 72 hours prior to beginning.
3. Coordinate installation with Contractors performing related work.
4. Seed mixture (BWSR Dry to Mesic South/West) as defined in current BWSR online resources. Native Seeds shall be of Minnesota origin and certified by the Minnesota Crop Improvement Association (MCIA). Provide verifying documentation to the Owner 30 days minimum prior to installation.
5. Plant material shall conform to the American Association of Nurserymen Standards and be of hardy stock, free from disease, infestation, damage, and disfiguration.
6. All existing deciduous/coniferous trees are to be trimmed of dead wood and pruned to a natural uniform shape.
7. Planting soil shall consist of 4 parts topsoil to 1 part peat humus, with 3 pounds of commercial fertilizer added per cubic yard.
8. Spread a minimum of 6 inches of topsoil and sod all turf areas disturbed by Construction. Coordinate with grading contractor to ensure final grades are met.
9. Follow MNDOT Seeding Manual for planting instructions for establishment of native seed and provide coordination for required erosion prevention and sediment control.
10. Edge planting beds with 6-inch Black Vinyl Edging (Black Diamond or approved equal) except where adjacent to curbing, walks or buildings.
11. Place plants according to layout with proper nominal spacing. For discrepancy between the number of plants on the Schedule and the number shown on the Drawing, the Drawing shall govern. Quantities shown on this sheet are total quantities for design.
12. See Details for depth of planting soil.
13. Install 4 inch depth of triple-shredded hardwood mulch in Shrub Bed Areas.
14. Install 2 to 3 inch depth of triple-shredded hardwood mulch in Perennial Bed Areas.
15. Install a 4-foot diameter triple-shredded hardwood mulch dish around trees not placed within a Shrub or Perennial Planting Bed. Edging is not required, unless noted otherwise.
16. Irrigation shall be designed by irrigation contractor. Contractor shall submit design plan and all shop drawings and system components to Landscape Architect for review, prior to purchase and installation. Contractor shall follow all applicable codes and obtain all necessary permits from local jurisdiction.
17. All plant material shall have a 2-year warranty. The warranty shall begin after the last plant has been installed and the Landscape Architect has approved the installation. Landscape contractor is responsible for replacing any and all plant material that dies during the warranty period. Landscape contractor shall assume all costs to any replacements. All replacements shall be same species and sizes and equal or better vigor as original installation.

CITY REQUIREMENTS

Minimum of one (1) deciduous or coniferous tree placed in front yard of each lot.
City Approved Tree List (Sec. 18-61)

Buffers required when plat is contiguous with a collector and/or arterial street. Buffers shall be a mix of trees and shrubs.

LEGEND

Sodded turf. See Note #8

Seed mix: BWSR Dry to Mesic Buffer South and West
Seed at rate of 46.18 lb/acre

NORTH
0 60 120

DEVELOPER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CHANHASSEN

PROJECT

AVIENDA
TOWNHOMES
CHANHASSEN, MN

ISSUE / REVISION HISTORY

CONTACT ENGINEER FOR ANY PRIOR HISTORY

DATE	ISSUE / REVISION	REVIEW
31 AUG 2021	PROGRESS SET	SES
08 SEP 2021	CITY SUBMITTAL	SES
21 SEP 2021	PROGRESS SET	SES
22 FEB 2022	WATERSHED SUBMITTAL	SES
23 MAR 2022	WATERSHED SUBMITTAL	SES
25 MAR 2022	WATERSHED SUBMITTAL	SES

CERTIFICATION

I hereby certify that this plan 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.

Joshua K. Popehn
License No: 44803 Date: 03/22/2022

Signature shown is a digital reproduction of original. Wet signed copy of this plan on file at Landform Professional Services, LLC office and is available upon request.

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

WATERSHED SUBMITTAL
APRIL 25, 2022

LANDFORM
From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

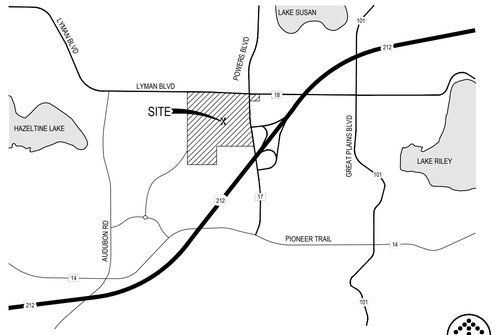
Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME L201SCD001.DWG
PROJECT NO. SCD14001.CUD

LANDSCAPE PLAN - OVERALL
L2.1

AREA LOCATION MAP

CHANHASSEN, MN



OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CHANHASSEN

PROJECT

AVIENDA

ABBREVIATIONS

D	Angle	L.F.	Lineal Feet
&	And	L.P.	Low Point / Liquid Petroleum
@	At	LB.	Pound
100 YR.	100 Year Flood Elevation	LGU	Local Government Unit
A.B.	Anchor Bolt	LONG.	Longitudinal
A.D.	Area Drain	LT.	Light / Lighting
A/C	Air Conditioning Unit	MAINT.	Maintenance
ADD.	Addendum	MAS.	Masonry
ADDL.	Additional	MATL.	Material
ADJ.	Adjacent / Adjust	MAX.	Maximum
AHU	Air Handling Unit	MECH	Mechanical
ALT.	Alternate	MED.	Medium
ALUM.	Aluminum	MFR.	Manufacturer
ANOD.	Anodized	MH	Manhole
APPROX.	Approximate	MIN.	Minimum / Minute
ARCH	Architect / Architectural	MISC.	Miscellaneous
AUTO.	Automatic	MNDOT	Minnesota Department Of Transportation
AVG.	Average	MOD.	Module / Modular
B.C.	Back of Curb	MUL.	Mullion
B/W	Bottom of Wall	N.	North
BFE	Basement Floor Elevation	N.I.C.	Not In Contract
BIT	Bituminous (Asphaltic)	NO. OR #	Number
BLDG	Building	NOM	Nominal
BSMT.	Basement	NTS	Not to Scale
C.F.	Cubic Feet	NWE	Normal Water Elevation
C.F.S.	Cubic Feet Per Second	NWL	Normal Water Level
C.G.	Corner Guard	O.C.	On Center
C.J.	Control Joint	O.D.	Outside Dimension
C.L.	Centerline	O.E.	Overhead Electric
C.M.U.	Concrete Masonry Unit	OH.	Overhead
C.O.	Cleanout	OHWL	Ordinary High Water Level
C.O.E.	U.S. Army Corps Of Engineers	OPNG.	Opening
C.Y.	Cubic Yards	ORIG.	Original
CB	Catch Basin	P.C.	Point of Curvature
CBMH	Catch Basin Manhole	P.I.	Point of Intersection
CEM.	Cement	PIV	Post Indicator Valve
CIP	Cast Iron Pipe	P.L. OR P/L	Property Line
CMP	Corrugated Metal Pipe	P.O.B.	Point of Beginning
CONC.	Concrete (Portland)	P.S.F.	Pounds Per Square Foot
CONN.	Connection	P.S.I.	Pounds Per Square Inch
CONST.	Construction	P.T.	Point of Tangency
CONT.	Continuous	P.V.C.	Point of Vertical Curvature
CONTR.	Contractor	P.V.I.	Point of Vertical Intersection
COP.	Copper	P.V.T.	Point of Vertical Tangency
CU.	Cubic	PE.	Polyethylene
D.S.	Down Spout	PED.	Pedestal / Pedestrian
DEG.	Degree	PERF.	Perforated
DEMO.	Demolition / Demolish	PREP.	Preparation
DEPT.	Department	PROJ.	Project
DET.	Detail	PROP.	Proposed
DIA.	Diameter	PVC	Poly-Vinyl-Chloride (Piping)
DIAG.	Diagonal	PVMT.	Pavement
DIM.	Dimension	QTR.	Quarter
DIP	Ductile Iron Pipe	QTY.	Quantity
DN.	Down	R	Radius
DWG.	Drawing	RAD.	Radius
E.	East	RE.	Rim Elevation (Casting)
E.J.	Expansion Joint	R.D.	Roof Drain
E.O.	Emergency Overflow	R.E.	Remove Existing
E.O.S.	Emergency Overflow Swale	R.O.	Rough Opening
E.W.	Each Way	R.P.	Radius Point
EA.	Each	RCP	Reinforced Concrete Pipe
EL.	Elevation	R.S.	Rough Slab
ELEC.	Electrical	RSD	Roof Storm Drain
ELEV.	Elevation	RE.	Regarding
EMER.	Emergency	REINF.	Reinforced
ENGR.	Engineer	REQ'D	Required
ENTR.	Entrance	REV.	Revision / Revised
EQ.	Equal	RGU	Regulatory Government Unit
EQUIP.	Equipment	ROW OR R/W	Right of Way
EQUIV.	Equivalent	S.	South
EXIST.	Existing	S.F.	Square Feet
EXP.	Expansion	SAN.	Sanitary Sewer
F & I	Furnish and Install	SECT.	Section
F.B.O.	Furnished by Others	SE	Side Exit
F.C.	Face of Curb	SEWO	Side Exit Walk Out
F.D.	Floor Drain	SHT.	Sheet
F.D.C.	Fire Department Connection	SIM.	Similar
F.V.	Field Verify	SLNT.	Sealant
FB	Full Basement	SPEC.	Specification
FBWO	Full Basement Walk Out	SQ.	Square
FBLO	Full Basement Look Out	SSD	Subsurface drain
FDN.	Foundation	STMH	Storm Sewer Manhole
FES	Flared End Section	STD.	Standard
FFE	Finished Floor Elevation	STRUCT.	Structural
FLR.	Floor	SYM.	Symmetrical
FT. OR (')	Foot	T.	Thickness
FUT.	Future	T/R	Top of Rim
G.B.	Grade Break	T/W	Top of Wall
G.C.	General Contractor	TEMP.	Temporary
GAL.	Gallon	THK.	Thick / Thickness
GALV.	Galvanized	T.J.	Tooled Joint
GFE	Garage Floor Elevation	TNH	Top Nut Hydrant
GL.	Glass	TYP.	Typical
GR.	Grade	U.N.O.	Unless Noted Otherwise
G.V.	Gate Valve	V.V.B.	Vertical Vapor Barrier
H.	Height	V.C.	Vertical Curve
H.P.	High Horizontal Point	V.I.F.	Verify In Field
HDPEP	High Density Polyethylene Pipe	VER.	Verify
HGT.	Height	VERT.	Vertical
HORIZ.	Horizontal	VEST.	Vestibule
HVAC	Heating, Ventilation, Air Conditioning	W	Width
HYD	Hydrant	W.PT.	Working Point
I.D.	Inside Dimension	W.W.F.	Welded Wire Fabric
I.E. or IE	Invert Elevation	W/	With
IN. OR (")	Inches	W/O	Without
INFO.	Information	WO	Walk Out
INL.	Inlet Elevation	WETL.	Wetland
INSUL.	Insulation	WP	Waterproof
INV.	Invert Elevation	WT.	Weight
JT.	Joint	YD.	Yard
		YR.	Year

SYMBOLS

EXISTING	DESCRIPTION	NEW	DESCRIPTION
120	MAJOR CONTOUR	120	MAJOR CONTOUR
123	MINOR CONTOUR	123	MINOR CONTOUR
234.5	SPOT ELEVATION	123.45	SPOT ELEVATION
	BUILDING		BUILDING
	CANOPY / OVERHANG		CANOPY/OVERHANG
	CONCRETE		UNDERGROUND STRUCTURE
	BITUMINOUS		CONCRETE
	LANDSCAPING		CONCRETE CURB
	GRAVEL	BIT. EDGE	EDGE OF PAVEMENT
	PAVING BLOCK	HEIGHT, TYPE	FENCING
	PAVING BLOCK		GUARD RAIL
			CONCRETE RETAINING WALL
12"STS >>	STORM SEWER LINE		MODULAR RETAINING WALL
8"SAN >	SANITARY SEWER LINE		FIELDSTONE RETAINING WALL
6"WTR	WATER MAIN		EXIT LOCATION
OE	OVERHEAD ELECTRIC		LIGHT STANDARD
UT	UNDERGROUND TELEPHONE		POWER POLE
UE	UNDERGROUND ELECTRIC	1.00%	SLOPE DIRECTION
G	GAS LINE		CATCH BASIN
	CONCRETE CURB		MANHOLE
X HEIGHT, TYPE X	FENCING		BOLLARD
		STM >> FES RIPRAP	STORM SEWER
	RETAINING WALL	SAN >	SANITARY SEWER-WASTE
	SET 1/2" X 14" IRON PIPE	FM >	FORCE MAIN
	IRON MONUMENT FOUND	RD >>	ROOF DRAIN SYSTEM
	SURVEY DISK (BENCHMARK)	GATE VALVE WTR HYD	WATERMAIN
	POWERPOLE	FIRE	FIRE LINE (IF SEPARATE)
	GUY WIRE	BLDG.	FIRE DEPT. CONNECTION
	GUARD POST	C.O. X"SSD	SOIL SUBDRAIN
GM	GAS METER	GAS	GAS LINE-UNDERGROUND
	TRANSFORMER	ELEC	ELECTRIC-UNDERGROUND
	WATER SHUT-OFF VALVE	TELE	TELEPHONE-UNDERGROUND
	TRAFFIC SIGN	CATV	UNDERGROUND CABLE/TV
LT	FLAG POLE	LSS	LAWN SPRINKLER SLEEVE
	LIGHT POLE		
	TREES		
	TREE LINE		
	MANHOLE		
	CATCH BASIN		
	FIRE HYDRANT		
	WATER VALVE		
	FLARED END SECTION		
MB	MAILBOX		
1	NOTE NUMBER		
(M)	MEASURED DISTANCE		
(P)	DISTANCE PER RECORDED PLAT		
B-X	SOIL BORING		

EROSION CONTROL SYMBOLS

SYMBOL	DESCRIPTION
	SEDIMENT CONTROL FENCE
	INLET PROTECTION
	EROSION CONTROL BLANKET

DRAWING SYMBOLS

SYMBOL	DESCRIPTION
3	NOTE REFERENCE
12	PARKING STALL COUNT
C7.3 / 1	LARGE SHEET DETAIL
C21	COORDINATE POINT
2	REVISION - ADDENDUM, BULLETIN, ETC.
	REVISED AREA (THIS ISSUE)

LEGAL DESCRIPTION

THE SOUTH HALF OF THE SOUTHWEST QUARTER (S 1/2 OF SW 1/4), SECTION 23, TOWNSHIP 116, RANGE 23, CARVER COUNTY, MINNESOTA, EXCEPT THE FOLLOWING 2 DESCRIBED TRACTS:

LINE 1 COMMENCING AT THE SOUTHWEST CORNER OF SECTION 23, TOWNSHIP 116, RANGE 23; THENCE RUNNING NORTH ON SECTION LINE 30 FEET; THENCE IN A STRAIGHT LINE TO A POINT ON THE SOUTH SECTION LINE OF SAID SECTION, 30 FEET EAST OF THE SOUTHWEST CORNER OF SAID SECTION; THENCE WEST 30 FEET TO SAID SOUTHWEST CORNER OF SAID SECTION AND PLACE OF BEGINNING, BEING A THREE CORNERED PIECE IN SOUTHWEST CORNER OF SAID SECTION 23, TOWNSHIP 116 RANGE 23, AND 2. THAT PART OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE EAST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, BOTH IN SECTION 23, TOWNSHIP 116 NORTH, RANGE 23 WEST, CARVER COUNTY, MINNESOTA WHICH LIES EASTERLY OF LINE 2 DESCRIBED BELOW:

LINE 2 BEGINNING AT THE SOUTH QUARTER CORNER OF SAID SECTION 23; THENCE RUN WEST ON AN AZIMUTH OF 271 DEGREES 56 MINUTES 13 SECONDS ALONG THE SOUTH LINE OF SAID SECTION 23 FOR 1634.23 FEET TO A POINT; THENCE ON AN AZIMUTH OF 00 DEGREES 43 MINUTES 24 SECONDS FOR 500.11 FEET TO A POINT; THENCE ON AN AZIMUTH OF 91 DEGREES 56 MINUTES 13 SECONDS FOR 1173.46 FEET TO A POINT; THENCE ON AN AZIMUTH OF 29 DEGREES 19 MINUTES 18 SECONDS FOR 152.11 FEET TO A POINT; THENCE ON AN AZIMUTH OF 352 DEGREES 57 MINUTES 23 SECONDS FOR 709.36 FEET TO A POINT ON THE NORTH LINE OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE ON AN AZIMUTH OF 91 DEGREES 23 MINUTES 02 SECONDS ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER FOR 475.37 FEET TO THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THERE TERMINATING.
ABSTRACT.

TOGETHER WITH
PARCEL 1
THE NORTH 420.00 FEET OF THE EAST 414.86 FEET OF THE NW 1/4 OF THE SW 1/4 OF SECTION 23, TOWNSHIP 116, RANGE 23, CARVER COUNTY, MINNESOTA.

PARCEL 2
THE NW 1/4 OF THE SW 1/4 OF SECTION 23, TOWNSHIP 116, RANGE 23, CARVER COUNTY, MINNESOTA EXCEPT FOR THE SOUTH 658.24 FEET THEREOF, AND ALSO EXCEPT THE NORTH 420.00 FEET OF THE EAST 414.86 FEET THEREOF.

PARCEL 3
THE SOUTH 658.24 FEET OF THE NW 1/4 OF THE SW 1/4 OF SECTION 23, TOWNSHIP 116, RANGE 23, CARVER COUNTY, MINNESOTA.

TOGETHER WITH
THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER (NE 1/4 OF SW 1/4) OF SECTION TWENTY-THREE (23), TOWNSHIP ONE HUNDRED SIXTEEN (116) NORTH OF RANGE TWENTY-THREE (23) WEST, CARVER COUNTY, MINNESOTA, EXCEPT THAT PART OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER (NE 1/4 OF SW 1/4) OF SECTION TWENTY-THREE (23), TOWNSHIP ONE HUNDRED SIXTEEN (116) NORTH, RANGE TWENTY-THREE (23) WEST, SHOWN AS PARCEL 64 ON MINNESOTA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY PLAT NO. 10-19, FILED 10-19-2004 AS DOCUMENT NO. 39930

BENCHMARK

SITE BENCHMARK:

BM-1 : TOP NUT OF HYDRANT
LOCATION: SOUTHEAST QUADRANT OF POWERS BLVD. & LYMAN BLVD.
ELEVATION = 921.32)

BM-2 : TOP NUT OF HYDRANT
LOCATION: WESTERLY SIDE OF POWERS BLVD, 1,960 FT ± SOUTH OF LYMAN BLVD.
ELEVATION = 913.82)

SITE / UTILITY CONTACTS

CITY PLANNER
CITY OF CHANHASSEN
7700 MARKET BLVD.
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MINNEAPOLIS, MN 55401

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FAX:

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CENTURYLINK
200 S 5TH ST.
MINNEAPOLIS, MN 55402

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ST. PAUL, MN 55114

BOB SCHMIDT

bob.schmidt@kimley-horn.com
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OWNER

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SURVEYOR
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ARCHITECT
RSP ARCHITECTS
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MINNEAPOLIS, MN 55413
TEL 612.677.7100
CONTACT: JEFF HYSJULIEN

CIVIL / LANDSCAPE SHEET INDEX & REVISION MATRIX

SHEETS ISSUED BY DATE (FOR EARLIER DATES CONTACT LANDFORM)

SHEET	DESCRIPTION	04.22.20	05.01.20	05.27.20	06.18.21	06.25.21	08.27.21	09.14.21	10.29.21	11.09.21	02.24.22	03.22.22	04.25.22
C0.1	CIVIL & LANDSCAPE TITLE SHEET	X	X	X	X	X	X	X		X	X	X	X
C0.2	PRELIMINARY PLAT		X	X	X								
C1.1	EXISTING CONDITIONS	X	X	X	X					X	X	X	
C1.2	DEMOLITION				X					X	X	X	
C1.3	TREE PRESERVATION	X	X	X	X					X	X	X	
C1.4	TREE INVENTORY	X	X	X	X					X	X	X	
C2.0	ULTIMATE SITE PLAN	X	X	X	X					X	X	X	
C2.1	PHASE 1 OVERALL SITE PLAN		X	X	X					X	X	X	
C2.2	TYPICAL STREET SECTIONS	X	X	X	X					X	X	X	
C2.3	STRIPING AND SIGNAGE PLAN - OVERALL				X					X	X	X	
C2.3A	AVIENDA PARKWAY STRIPING AND SIGNAGE PLAN				X					X	X	X	
C2.3B	AVIENDA PARKWAY STRIPING AND SIGNAGE PLAN				X					X	X	X	
C2.3C	SUNSET TRAIL STRIPING AND SIGNAGE PLAN				X					X	X	X	
C2.4	ROUNDABOUT GRADING				X					X	X	X	
C3.0	ULTIMATE GRADING, DRAINAGE, & PAVING	X	X	X	X					X	X	X	
C3.1	CONSTRUCTION GRADING, DRAINAGE & EROSION	X	X	X	X					X	X	X	
C3.1A	NW CONSTRUCTION GRADING, DRAINAGE & EROSION	X	X	X	X					X	X	X	
C3.1B	NE CONSTRUCTION GRADING, DRAINAGE & EROSION	X	X	X	X					X	X	X	
C3.1C	SE CONSTRUCTION GRADING, DRAINAGE & EROSION	X	X	X	X					X	X	X	
C3.1D	SW CONSTRUCTION GRADING, DRAINAGE & EROSION	X	X	X	X					X	X	X	
C3.2	PHASE 1 OVERALL GRADING, DRAINAGE, & EROSION	X	X	X	X					X	X	X	
C3.2A	NW PHASE 1 GRADING, DRAINAGE, & EROSION	X	X	X	X					X	X	X	
C3.2B	NE PHASE 1 GRADING, DRAINAGE, & EROSION	X	X	X	X					X	X	X	
C3.2C	SE PHASE 1 GRADING, DRAINAGE, & EROSION	X	X	X	X					X	X	X	
C3.2D	SW PHASE 1 GRADING, DRAINAGE, & EROSION	X	X	X	X					X	X	X	
C3.3A	BASIN CROSS SECTIONS	X	X	X	X					X	X	X	
C3.3B	BASIN CROSS SECTIONS	X	X	X	X					X	X	X	
C3.3C	BASIN CROSS SECTIONS	X	X	X	X					X	X	X	
C3.3D	BASIN CROSS SECTIONS	X	X	X	X					X	X	X	
C3.4	PHASE 1 SEEDING & SODDING	X	X	X	X					X	X	X	
C3.5	PHASE 1 SWPPP NOTES	X	X	X	X					X	X	X	
C3.6	PHASE 1 SOIL LOOSENING AREAS			X	X					X	X	X	
C4.0	ULTIMATE UTILITIES	X	X	X	X	X	X			X	X	X	
C4.1	PHASE 1 OVERALL UTILITIES	X	X	X	X	X	X			X	X	X	
C5.1	WEST AVIENDA PARKWAY STREET & STORM	X	X	X	X	X	X			X	X	X	
C5.2	WEST AVIENDA PARKWAY STREET & STORM	X	X	X	X	X	X			X	X	X	
C5.3	NORTH AVIENDA PARKWAY STREET & STORM	X	X	X	X	X	X			X	X	X	
C5.4	NORTHWEST OUTLET STREET & STORM	X	X	X	X	X	X			X	X	X	
C5.5	SUNSET TRAIL STREET PROFILE	X	X	X	X	X	X			X	X	X	
C5.6	EAST TEMP BASIN STORM	X	X	X	X	X	X			X	X	X	
C5.7	SOUTH INTER BASINS STORM	X	X	X	X	X	X			X	X	X	
C5.9	WEST AVIENDA PARKWAY WATER & SANITARY	X	X	X	X	X	X	X		X	X	X	
C5.10	WEST AVIENDA PARKWAY WATER & SANITARY	X	X	X	X	X	X			X	X	X	
C5.11	NORTH AVIENDA PARKWAY WATER & SANITARY	X	X	X	X	X	X			X	X	X	
C5.12	SUNSET TRAIL WATER & SANITARY	X	X	X	X	X	X			X	X	X	
C5.13	NORTHWEST OUTLET WATER & SANITARY	X	X	X	X	X	X	X	X	X	X	X	
C5.14	NORTHWEST OUTLET WATER & SANITARY	X	X	X	X	X	X	X	X	X	X	X	
C6.1	BLUFF CREEK BOULEVARD STORM SEWER				X	X	X			X	X	X	
C6.2	BLUFF CREEK BOULEVARD STORM SEWER					X	X			X	X	X	
C6.3	BLUFF CREEK BOULEVARD STORM SEWER					X	X			X	X	X	
C6.4	BLUFF CREEK BOULEVARD STORM SEWER					X	X			X	X	X	
C6.5	BLUFF CREEK BOULEVARD SE BASIN					X	X			X	X	X	
C6.6	BLUFF CREEK BOULEVARD SE BASIN					X	X			X	X	X	
C6.7	BLUFF CREEK BOULEVARD STORM CROSS SECTIONS					X	X			X	X	X	
C6.8	BLUFF CREEK BOULEVARD STORM CROSS SECTIONS					X	X			X	X	X	
C6.9	BLUFF CREEK BOULEVARD SW OUTLET					X	X			X	X	X	
C6.10	BLUFF CREEK BOULEVARD STORM CROSS SECTIONS					X	X			X	X	X	
C6.11	BLUFF CREEK BOULEVARD SANITARY & WATER					X	X			X	X	X	
C6.12	BLUFF CREEK BOULEVARD SANITARY & WATER					X	X	X	X	X	X	X	
C6.13	BLUFF CREEK BOULEVARD SANITARY & WATER					X	X			X	X	X	
C6.14	BLUFF CREEK BOULEVARD SANITARY & WATER					X	X			X	X	X	
C6.15	BLUFF CREEK BOULEVARD SANITARY & WATER X-SECTIONS					X	X			X	X	X	
C7.1	CIVIL CONSTRUCTION DETAILS	X	X	X	X	X	X			X	X	X	
C7.2	CIVIL CONSTRUCTION DETAILS	X	X	X	X	X	X			X	X	X	
C7.3	CIVIL CONSTRUCTION DETAILS	X	X	X	X	X	X			X	X	X	
C7.4	CIVIL CONSTRUCTION DETAILS	X	X	X	X	X	X			X	X	X	
C7.5	CIVIL CONSTRUCTION DETAILS	X	X	X	X	X	X			X	X	X	
L2.1	OVERALL LANDSCAPE PLAN	X	X	X	X					X	X	X	
L2.1A	NORTH PHASE 1 PLANTING PLAN	X	X	X	X					X	X	X	
L2.1B	SE PHASE 1 PLANTING PLAN	X	X	X	X					X	X	X	
L2.1C	SW PHASE 1 PLANTING PLAN	X	X	X	X					X	X	X	
L2.2B	SW PHASE 1 PLANTING ENLARGED PLAN	X	X	X	X					X	X	X	
L4.1	PHOTOMETRICS PLAN									X	X	X	
L7.1	LANDSCAPE NOTES & DETAILS	X	X	X	X					X	X	X	

ISSUE / REVISION HISTORY

CONTACT ENGINEER FOR ANY PRIOR HISTORY

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PROJECT MANAGER REVIEW

BY SES DATE 04.25.2022

CERTIFICATION

I hereby certify that this plan 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.

Steven E. Sabraski
License No. 47165 Date: 04/25/2022

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WATERSHED SUBMITTAL
APRIL 25, 2022

LANDFORM
From Site to Finish

105 South Fifth Avenue Tel: 612-252-9070
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

FILE NAME C001SCD001.DWG

PROJECT NO. SCD14001.LEV

CIVIL & LANDSCAPE TITLE SHEET
C0.1

EXISTING CONDITIONS

1. BACKGROUND INFORMATION SHOWN IS FROM SURVEY BY LANDFORM, MINNEAPOLIS, MN, ON MAY, 05, 2016, EXPRESSLY FOR THIS PROJECT; CITY OF CHANHASSEN, MN RECORD DRAWINGS; AND UTILITY SERVICE PROVIDERS. LANDFORM OFFERS NO WARRANTY, EXPRESSED OR WRITTEN, FOR INFORMATION PROVIDED BY OTHERS. EXISTING PROJECT CONDITIONS SHALL BE VERIFIED PRIOR TO BEGINNING CONSTRUCTION. ERRORS, INCONSISTENCIES, OR OMISSIONS DISCOVERED SHALL BE REPORTED TO THE ENGINEER.
2. GEOTECHNICAL BORING LOCATIONS ARE APPROXIMATE AND ARE BASED ON INFORMATION PROVIDED IN THE GEOTECHNICAL REPORT PREPARED BY BRAUN INTERTEC, MINNEAPOLIS, MN, ON APRIL 12, 2017.
3. WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES.
4. THE BUILDINGS AND PAVEMENT SOUTH OF THE INTERSECTION OF SUNSET TRAIL AND LYMAN BOULEVARD HAVE BEEN REMOVED SINCE THE SURVEY WAS COMPLETED.

LEGEND

:STEEP SLOPES (>3H:1V)

:DRAINAGE DIVIDE

:GENERAL DRAINAGE DIRECTION

:POINTS OF MAJOR DRAINAGE FROM SITE

:SOIL BOUNDARY

:HYDRIC SOILS

GL :SOIL LABEL

SOIL TYPE TABLE

Carver County, Minnesota (MN019)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CS	Canisteo clay loam, depressional, 0 to 1 percent slopes	0.3	0.3%
GL	Glencoe clay loam, 0 to 1 percent slopes	7.5	6.3%
HM	Hamel loam, 0 to 2 percent slopes	14.1	11.7%
KB	Kilkenny-Lester loams, 2 to 6 percent slopes	20.4	17.0%
KB2	Lester-Kilkenny loams, 2 to 6 percent slopes, eroded	1.8	1.5%
KC	Lester-Kilkenny loams, 6 to 12 percent slopes	7.8	6.5%
KC2	Lester-Kilkenny loams, 6 to 12 percent slopes, eroded	38.2	31.8%
KD2	Lester-Kilkenny loams, 12 to 18 percent slopes, eroded	8.6	7.2%
KE2	Lester-Kilkenny loams, 18 to 25 percent slopes, eroded	4.2	3.5%
KF	Lester-Kilkenny loams, 25 to 40 percent slopes	3.1	2.6%
ND3	Lester-Kilkenny clay loams, 12 to 18 percent slopes, severely eroded	6.2	5.2%
NE3	Lester-Kilkenny clay loams, 18 to 25 percent slopes, severely eroded	5.1	4.3%
PM	Klossner muck, 0 to 1 percent slopes	1.0	0.8%
TB	Terril loam, 2 to 6 percent slopes	1.6	1.3%
Totals for Area of Interest		**120.1**	**100.0%**

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CHANHASSEN

PROJECT

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PROJECT MANAGER REVIEW

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Minneapolis, MN 55401 Web: landform.net

FILE NAME C101SCD001.DWG
PROJECT NO. SCD14001.LEV

EXISTING CONDITIONS
C1.1

Know what's Below. Call before you dig.

NORTH
0 150 300

GENERAL NOTES

1. FOR CONSTRUCTION STAKING AND SURVEYING SERVICES CONTACT LANDFORM PROFESSIONAL SERVICES AT 612.252.9070.

SITE PLAN NOTES

2. OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WITHIN, OR USE OF, PUBLIC RIGHT-OF-WAY.
3. THE DIGITAL FILE, WHICH CAN BE OBTAINED FROM THE ENGINEER, SHALL BE USED FOR STAKING. DISCREPANCIES BETWEEN THE DRAWINGS AND THE DIGITAL FILE SHALL BE REPORTED TO THE ENGINEER.
4. DIMENSIONS SHOWN ARE TO FACE OF CURB AND EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.
5. DEVELOPMENT IDENTIFICATION SIGNS
6. ALL AREAS OUTSIDE PROPOSED RIGHT-OF-WAY ARE SCHEMATIC AND SUBJECT TO CHANGE.
7. BUFFER MARKERS TO BE INSTALLED IN ACCORDANCE WITH RPBCWD RULES

AREA SUMMARY

EXISTING:

PERVIOUS	5,165,802	S.F.	99.6%
IMPERVIOUS	22,700	S.F.	0.4%
TOTAL (119.11 Ac)	5,188,502	S.F.	100.0%

PHASE 1 PROPOSED (R.O.W.):

PERVIOUS	116,519	S.F.	28.0%
IMPERVIOUS	300,033	S.F.	72.0%
TOTAL (9.56 Ac)	416,552	S.F.	100.0%

PHASE 1 PROPOSED (TOTAL):

PERVIOUS	4,866,934	S.F.	93.8%
IMPERVIOUS	321,568	S.F.	6.2%
TOTAL (119.11 Ac)	5,188,502	S.F.	100.0%

ULTIMATE PROPOSED (R.O.W.):

PERVIOUS	116,519	S.F.	28.0%
IMPERVIOUS	300,033	S.F.	72.0%
TOTAL (9.56 Ac)	416,552	S.F.	100.0%

ULTIMATE PROPOSED (TOTAL):

PERVIOUS	2,411,370	S.F.	46.5%
IMPERVIOUS	2,777,132	S.F.	53.5%
TOTAL (119.11 Ac)	5,188,502	S.F.	100.0%

ZONING AND SETBACK SUMMARY

THE PROPERTY IS ZONED PUD - REGIONAL LIFESTYLE

BUILDING SETBACK INFORMATION IS AS FOLLOWS:
FRONT YARD = 5 FT.
REAR = 5 FT.
RESIDENTIAL = 30 FT.
PUD EXTERIOR = 30 FT.
BLUFF CREEK = 40 FT.

PARKING SETBACK INFORMATION IS AS FOLLOWS:
FRONT YARD = 10 FT.
REAR = 10 FT.
SIDE = 10 FT.
RESIDENTIAL = 20 FT.

LOT COVERAGE INFORMATION IS AS FOLLOWS:
LOT AREA MINIMUM = 10,000 S.F = 0.23 ACRE
LOT WIDTH MINIMUM = 100 FT.
TOTAL SITE AREA = 5,221,537 S.F. = 119.87 ACRES

LEGEND

- GREEN SPACE (LANDSCAPE AREA)
- GREEN SPACE (WATERSHED WETLAND BUFFER AREA)
- GREEN SPACE (WETLAND AREA)

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CITY OF CHANHASSEN

PROJECT

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Minneapolis, MN 55401

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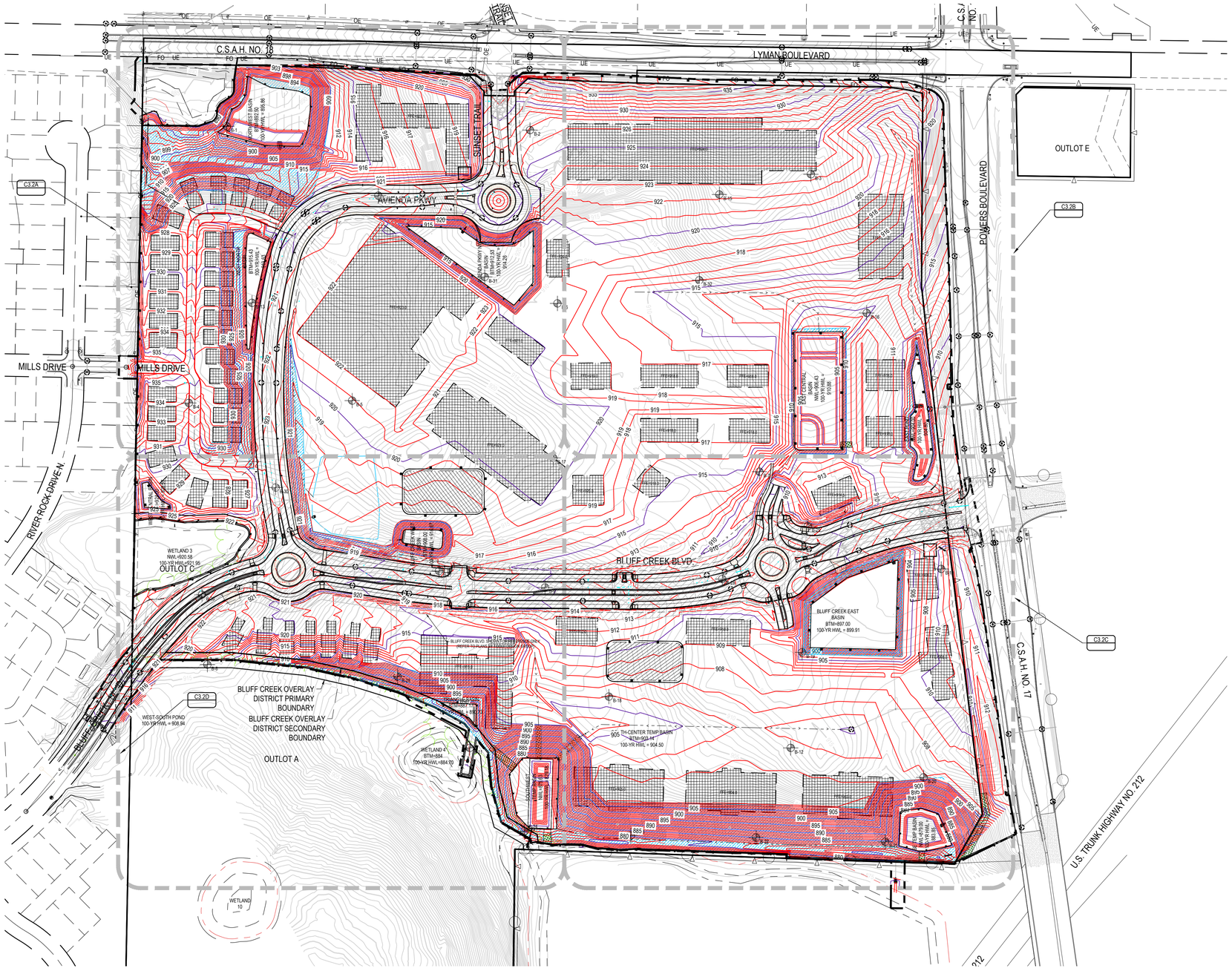
FILE NAME C201SCD001.DWG
PROJECT NO. SCD14001.LEV

PHASE 1 OVERALL SITE PLAN
C2.1

811 Know what's Below. Call before you dig.

NORTH
0 150 300



GENERAL NOTES

1. FOR CONSTRUCTION STAKING AND SURVEYING SERVICES CONTACT LANDFORM AT 612.252.9070.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

2. INSTALL PERIMETER SEDIMENT CONTROLS PRIOR TO BEGINNING WORK AND MAINTAIN FOR DURATION OF CONSTRUCTION. INSTALL POND / BASIN PROTECTION SEDIMENT CONTROLS WITHIN 7 DAYS OF COMPLETION OF BASIN GRADING. REMOVE PERIMETER CONTROLS AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED AND DISPOSE OF OFF SITE.

3. LIMIT SOIL DISTURBANCE TO THE GRADING LIMITS SHOWN. SCHEDULE OPERATIONS TO MINIMIZE LENGTH OF EXPOSURE OF DISTURBED AREAS.

4. MANAGEMENT PRACTICES SHOWN ARE THE MINIMUM REQUIREMENT. INSTALL AND MAINTAIN ADDITIONAL CONTROLS AS WORK PROCEEDS TO PREVENT EROSION AND CONTROL SEDIMENT CARRIED BY WIND OR WATER.

5. REFER TO SWPPP NOTES ON SHEET C3.5 FOR ADDITIONAL REQUIREMENTS.

6. EXCAVATE PONDS AND TEMPORARY SEDIMENTATION BASINS EARLY IN THE CONSTRUCTION SEQUENCE. REMOVE SEDIMENT FROM PONDS AND BASINS PERIODICALLY AND AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED.

7. CONTRACTOR SHALL PREVENT SEDIMENT LADEN WATER FROM ENTERING INFILTRATION SYSTEMS UNTIL THE SITE IS COMPLETELY STABILIZED.

8. ALL EXPOSED SOILS AREAS SHALL BE STABILIZED IMMEDIATELY TO LIMIT SOIL EROSION IN THAT PORTION OF THE SITE WHERE CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED.

9. TEMPORARY SEED, SOD, MULCH AND FERTILIZER SHALL MEET THE FOLLOWING SPECIFICATIONS, AS MODIFIED.

ITEM	SPECIFICATION NUMBER
SOD	MNDOT 3878
SEED	MNDOT 3876
MN TYPE 22-111 @ 30.5 LB/AC - TEMPORARY EROSION CONTROL	
MN TYPE 25-151 @ 120 LB/AC - PERMANENT TURF	
MN TYPE 33-261 @ 35 LB/AC - PERMANENT WETLAND BUFFER	
MULCH	MNDOT 3882
(MNDOT TYPE 1 @ 2 TON/AC, DISC ANCHORED)	
FERTILIZER (FOR PERMANENT TURF ONLY)	MNDOT 3881
GENERAL PLACEMENT	MNDOT 2575

10. SEE PHASE 1 SEEDING AND SODDING SHEET FOR PERMANENT TURF AND LANDSCAPE ESTABLISHMENT.

11. SCRAPE ADJACENT STREETS CLEAN DAILY AND SWEEP CLEAN WEEKLY.

GRADING NOTES

12. CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING GRADING.

13. REFER TO THE GEOTECHNICAL REPORT PREPARED BY BRAUN INTERTEC, DATED APRIL 12, 2017, FOR ADDITIONAL INFORMATION ON BACKFILL MATERIAL AND GROUNDWATER CONDITIONS.

14. REMOVE TOPSOIL FROM GRADING AREAS AND STOCKPILE SUFFICIENT QUANTITY FOR REUSE. MAINTAIN STOCKPILES WITH MAXIMUM 1V:2H SLOPES.

15. REMOVE SURFACE AND GROUND WATER FROM EXCAVATIONS. PROVIDE INITIAL LIFTS OF STABLE FOUNDATION MATERIAL IF EXPOSED SOILS ARE WET AND UNSTABLE.

16. AN INDEPENDENT TESTING FIRM SHALL VERIFY THE REMOVAL OF ORGANIC AND UNSUITABLE SOILS, SOIL CORRECTION, AND COMPACTION AND PROVIDE PERIODIC REPORTS TO THE OWNER.

17. PLACE AND COMPACT FILL USING LIFT THICKNESSES MATCHED TO SOIL TYPE AND COMPACTION EQUIPMENT TO OBTAIN SPECIFIED COMPACTION THROUGHOUT THE LIFT.

18. COMPACT COHESIVE SOILS IN PAVED AREAS TO 95% OF MAXIMUM DRY DENSITY, STANDARD PROCTOR (ASTM D698) EXCEPT THE TOP 3 FEET WHICH SHALL BE COMPACTED TO 100%. COMPACT TO 98% DENSITY WHERE FILL DEPTH EXCEEDS 10 FEET. THE SOILS SHALL BE WITHIN 3% OF OPTIMUM MOISTURE CONTENT. IN GRANULAR SOILS ALL PORTIONS OF THE EMBANKMENT SHALL BE COMPACTED TO NOT LESS THAN 95% OF MODIFIED PROCTOR DENSITY (ASTM D1557).

19. AVOID SOIL COMPACTION OF INFILTRATION PRACTICES. ANY EQUIPMENT USED IN INFILTRATION AREAS SHOULD BE SMALL SCALED AND TRACKED.

20. ALL DISTURBED SOIL SURFACE AREAS, EXCEPT FOR THE AREAS UNDER THE PROPOSED STREET PAVEMENT AND THE TRAIL AND SIDEWALKS, SHALL BE DECOMPACTED TO A DEPTH OF 18-INCHES AND COVERED WITH SIX INCHES OF TOPOSOIL. REFER TO RPBCWD STANDARD EROSION CONTROL NOTES FOR ADDITIONAL REQUIREMENTS.

21. REFER TO SHEET C3.3 FOR PHASE 1 BASIN CROSS-SECTIONS.

22. SLOPE CALLOUTS ARE VERTICAL:HORIZONTAL (V:H)

RPBCWD STANDARD EROSION CONTROL NOTES

21. NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.

22. ADDITIONAL MEASURES, SUCH AS HYDRAULIC MULCHING AND OTHER PRACTICES AS SPECIFIED BY THE DISTRICT MUST BE USED ON SLOPES OF 3:1 (H:V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.

23. FINAL SITE STABILIZATION MEASURES MUST SPECIFY THAT AT LEAST SIX INCHES OF TOPSOIL OR ORGANIC MATTER BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED.

24. CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.

25. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE, AS DETERMINED BY THE DISTRICT.

26. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE REMOVED UPON FINAL STABILIZATION.

27. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS TO AN IMPAIRED WATER.

28. SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PERVIOUS UPON COMPLETION OF CONSTRUCTION MUST BE DECOMPACTED TO ACHIEVE:
    A) A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF SOIL OR
    B) A BULK DENSITY OF LESS THAN 1.4 GRAMS PER CUBIC CENTIMETER OR 87 POUNDS PER CUBIC FOOT IN THE UPPER 12 INCHES OF SOIL
    IN ADDITION, UTILITIES, TREE ROOTS AND OTHER EXISTING VEGETATION MUST BE PROTECTED UNTIL FINAL REVEGETATION OR OTHER STABILIZATION OF THE SITE. REFER TO SHEET C3.6 FOR DECOMPACTION AREAS.

29. THE PERMITTEE MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. THE PERMITTEE MUST REPAIR, REPLACE, OR SUPPLEMENT ALL NONFUNCTIONAL BMP'S WITH FUNCTIONAL BMP'S WITHIN 48 HOURS OF DISCOVERY AND PRIOR TO THE NEXT PRECIPITATION EVENT UNLESS ADVERSE CONDITIONS PRECLUDE ACCESS TO THE RELEVANT AREA OF THE SITE, IN WHICH CASE THE REPAIR MUST BE COMPLETED AS SOON AS CONDITIONS ALLOW. WHEN ACTIVE LAND-DISTURBING ACTIVITIES ARE NOT UNDERWAY, THE PERMITTEE MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. THE PERMITTEE WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.

30. ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G., ZEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE.

31. STAKING OFF AND MARKING OF PROPOSED INFILTRATION FACILITIES TO PREVENT SOIL COMPACTION BY HEAVY EQUIPMENT, STOCKPILING OF MATERIALS, AND TRAFFIC. IF INFILTRATION FACILITIES ARE IN PLACE DURING CONSTRUCTION ACTIVITIES, BEST PRACTICES MUST BE DEPLOYED TO PREVENT SEDIMENT AND OTHER MATERIAL FROM ENTERING THE PRACTICE(S). INFILTRATION FACILITIES MUST NOT BE EXCAVATED TO WITHIN 3 FEET OF FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED, ANY ACCUMULATED SEDIMENT IN AN INFILTRATION FACILITY MUST BE REMOVED IN MANNER THAT PREVENTS COMPACTION OF THE FACILITY BOTTOM. TO PROVIDE A WELL-AERATED, HIGHLY POROUS SURFACE, THE SOILS BELOW AN INFILTRATION PRACTICE MUST BE LOOSENED TO A MINIMUM DEPTH OF 18 INCHES PRIOR TO INSTALLATION OR PLANTING.

LEGEND

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
	:INLET PROTECTION	134 EACH
	:SILT FENCE	18,000 FEET
	:VEHICLE TRACKING PAD	2 EACH
	:EROSION CONTROL BLANKET	445,140 S.F.
	:ENKAMAT	9,000 S.F.
	:BUILDING PAD	

Know what's Below. Call before you dig.

NORTH

0 150 300

LEGEND

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
WA	:CONCRETE WASHOUT	
	:DRAINAGE SWALE	
	:CONSTRUCTION LIMITS	

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

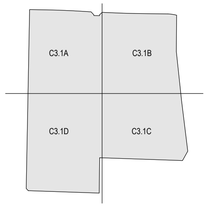
MUNICIPALITY

CHANHASSEN

PROJECT

AVIENDA

KEY MAP



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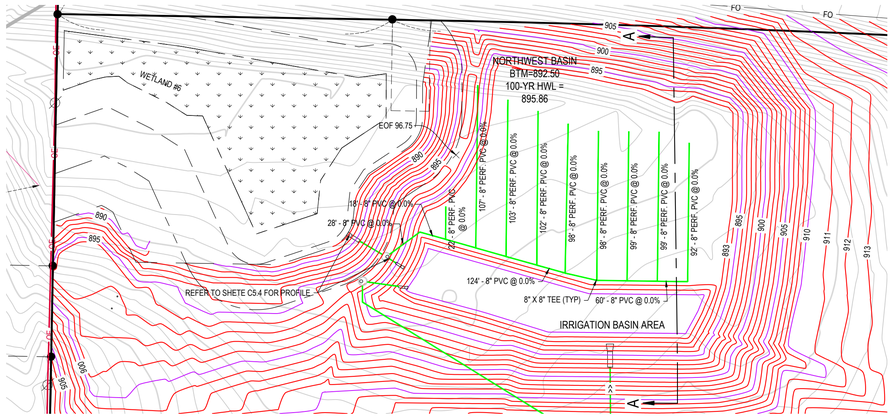
FILE NAME C302SCD001.DWG

PROJECT NO. SCD14001.LEV

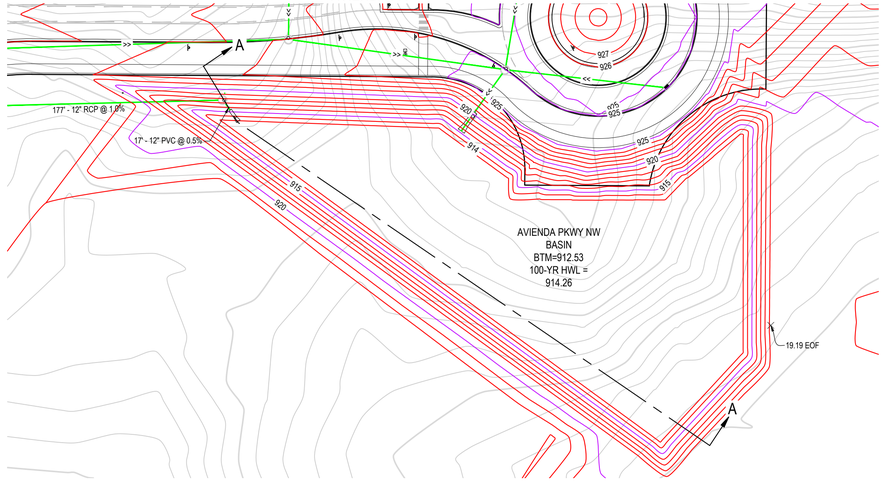
PHASE 1 GRADING, DRAINAGE, & EROSION CONTROL

C3.2

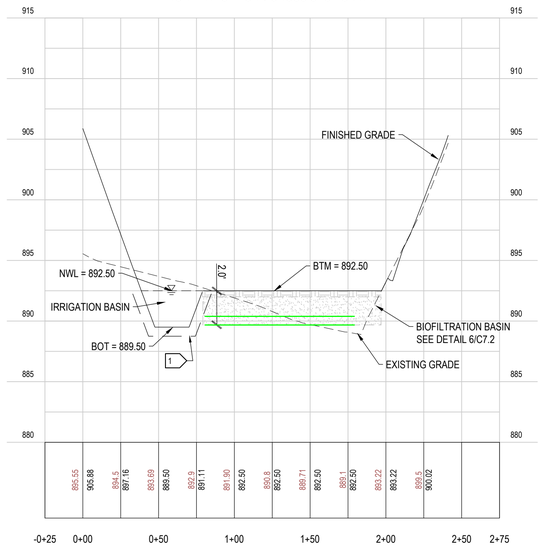
NORTHWEST POND - PLAN



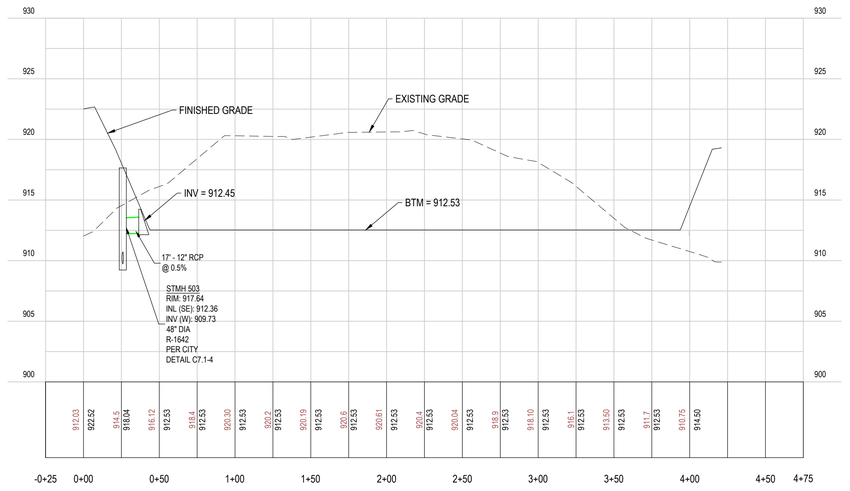
AVIENDA PARKWAY NW BASIN - PLAN



NORTHWEST POND CROSS SECTION A-A



AVIENDA PARKWAY NW BASIN CROSS SECTION A-A



NOTES

1. Acceptable liner options include:

   a) 24 inches of clay soil

   i. 50% fines (200 sieve) or more
   ii. In-place hydraulic conductivity of 1 x 10^-7 cm/sec or less
   iii. Average liquid limit of 25 or greater, with no value less than 20
   iv. Average PI of 12 of more, with no values less than 10

   b) 60 mil HDPE (min)

   c) 30 mil PVC (min)

Know what's Below. Call before you dig.

NORTH

0 50 100

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OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CHASKA

PROJECT

AVIENDA

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PROJECT MANAGER REVIEW

BY SES DATE 04.25.2022

CERTIFICATION

I hereby certify that this plan 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.

Steven E. Sabraski

License No. 47165 Date: 04/25/2022

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WATERSHED SUBMITTAL
APRIL 25, 2022

LANDFORM
From Site to Finish

105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

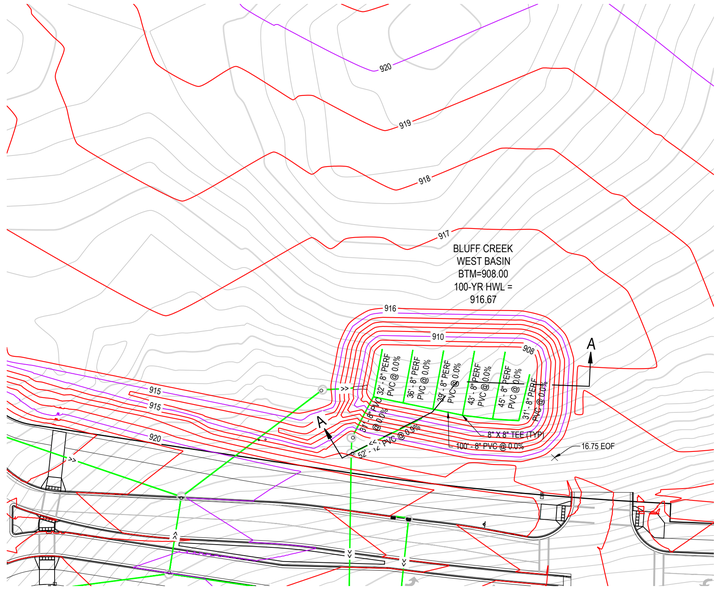
FILE NAME C303SCD001.DWG

PROJECT NO. SCD14001.LEV

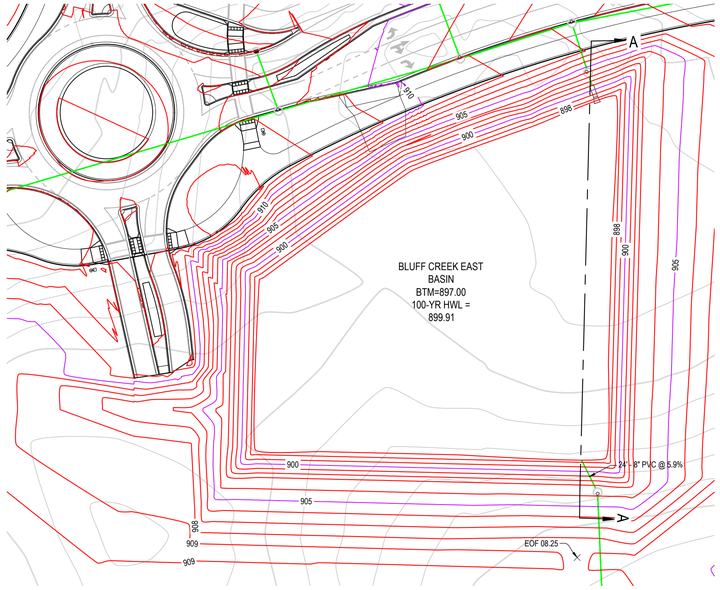
BASIN CROSS SECTIONS

C3.3A

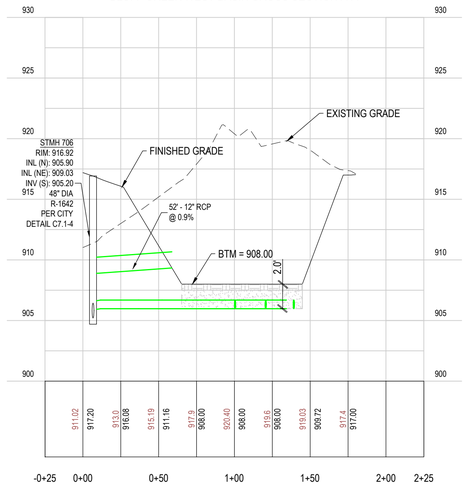
BLUFF CREEK WEST BASIN - PLAN



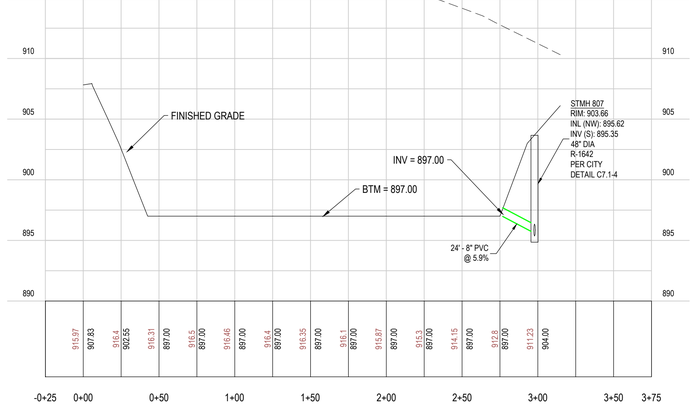
BLUFF CREEK EAST BASIN - PLAN



BLUFF CREEK WEST BASIN CROSS SECTION A-A



BLUFF CREEK EAST BASIN CROSS SECTION A-A



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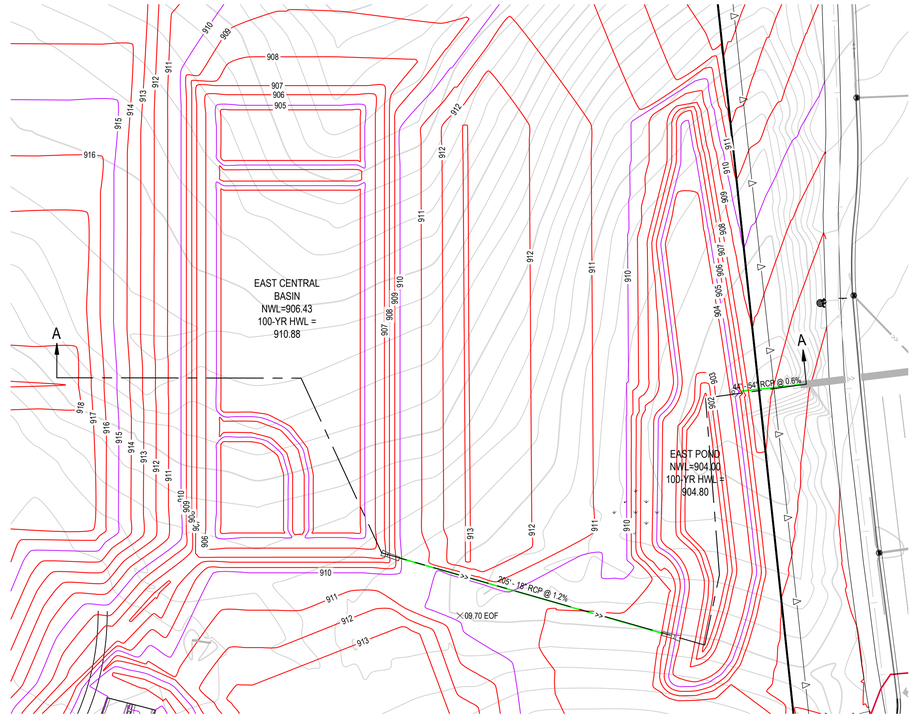
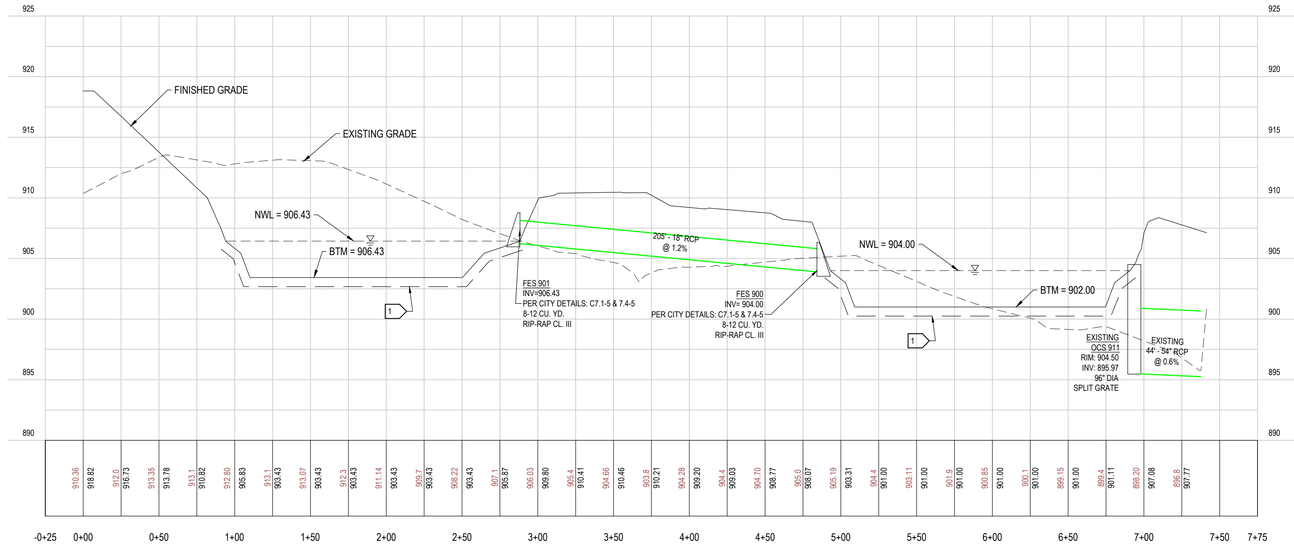
BASIN CROSS SECTIONS

C3.3B

EAST CENTRAL INTERIM BASIN & EAST POND - PLAN



EAST CENTRAL INTERIM BASIN & EAST POND CROSS SECTION A-A



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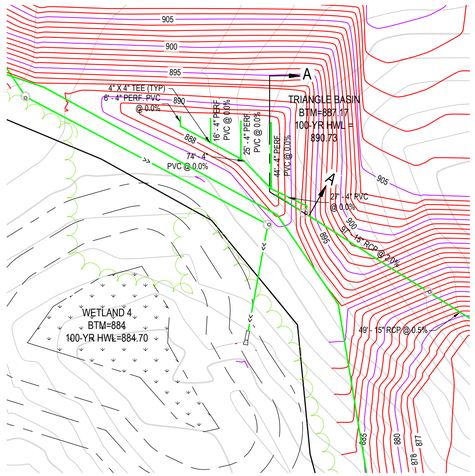
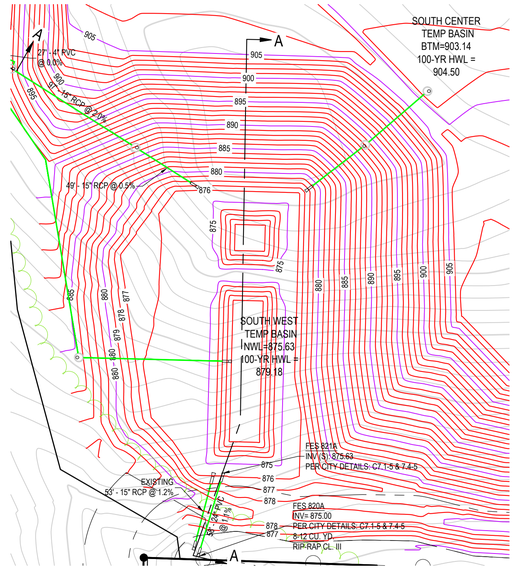
BASIN CROSS SECTIONS

C3.3C

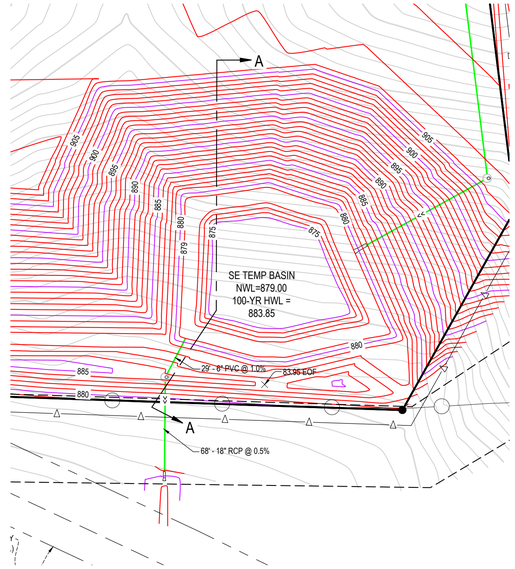
TRIANGLE BASIN - PLAN



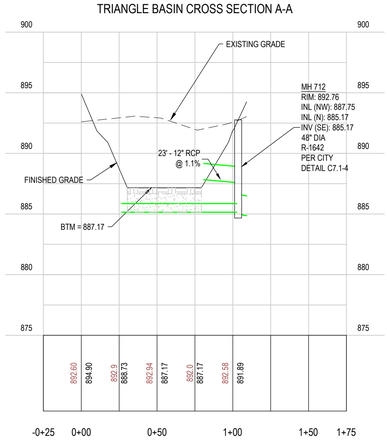
SOUTH CENTER INTERIM BASIN - PLAN



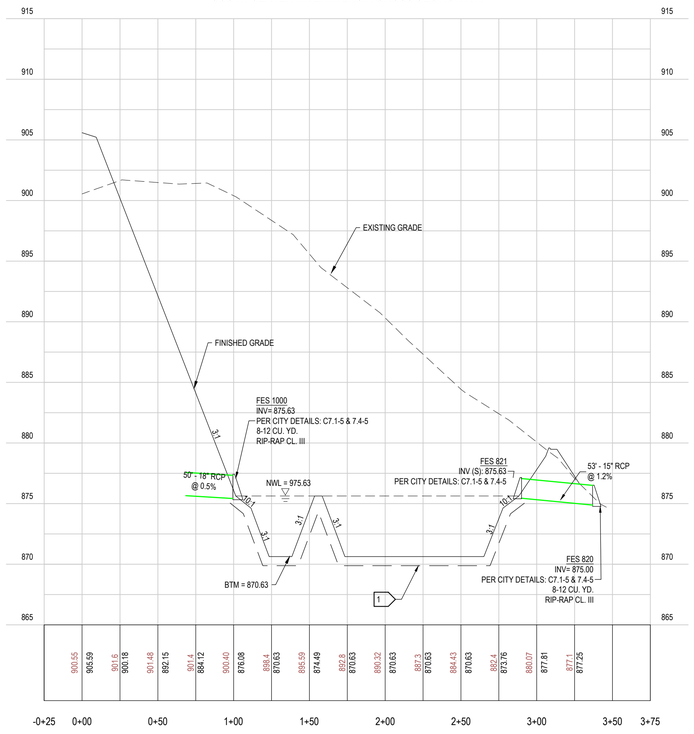
SOUTH EAST INTERIM BASIN - PLAN



TRIANGLE BASIN CROSS SECTION A-A



SOUTH CENTER INTERIM BASIN CROSS SECTION A-A



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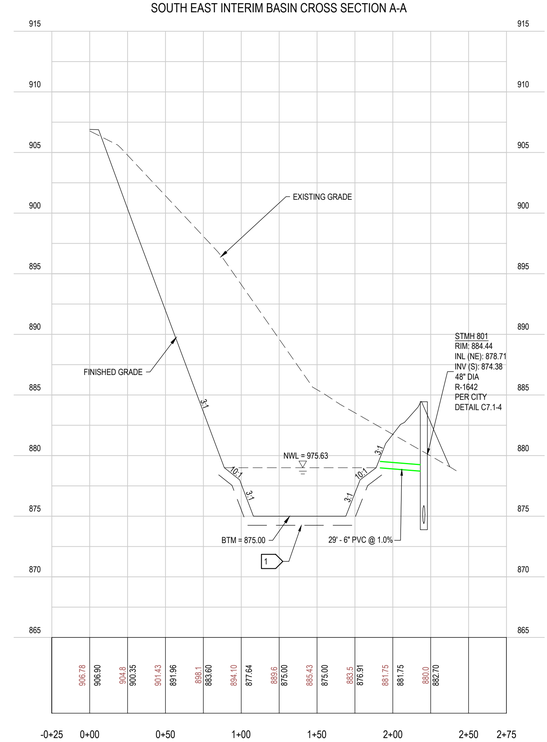

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Steven E. Sabraski

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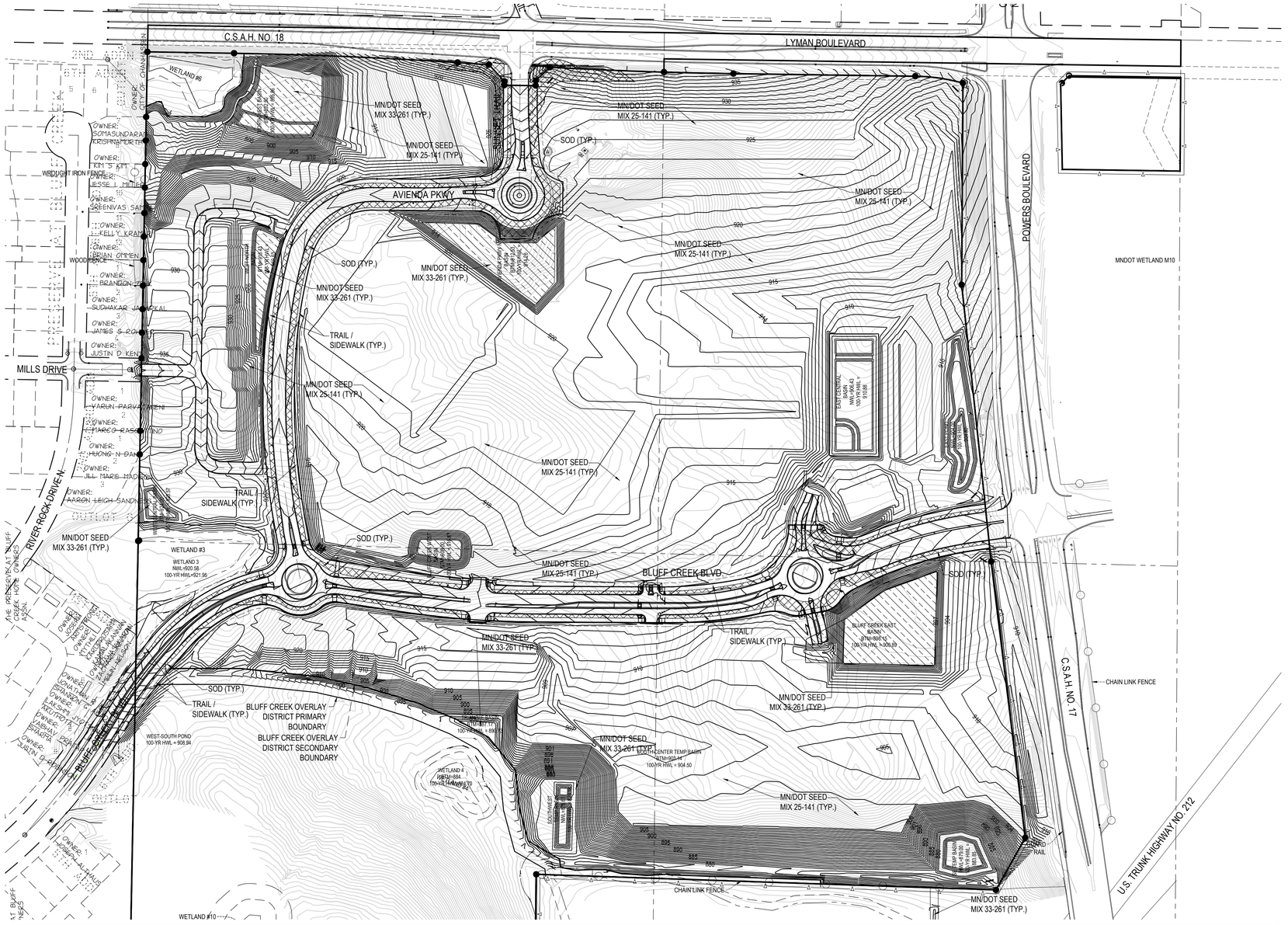
FILE NAME C303SCD001.DWG

PROJECT NO. SCD14001.LEV

BASIN CROSS SECTIONS

C3.3D



SEED / SOD SCHEDULE

GROUNDCOVER	CODE	
	SOD	HYLAND SOD, SALT TOLERANT
	TURF SEED	MN/DOT MIX 25-141
	BUFFER/ WET SEED	MN/DOT MIX 33-261

SEE EROSION CONTROL PLAN & SWPPP FOR ADDITIONAL INFORMATION AND TEMP. SEEDING CONDITIONS

SEEDING / SODDING NOTES

GENERAL:

1. ALL PLANT MATERIAL INSTALLATION, INCLUDING SEED AND SOD, SHALL BE COMPLETED PRIOR TO SUBSTANTIAL COMPLETION.
2. CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES 72 HOURS BEFORE DIGGING. CONTRACTOR SHALL CONTACT EITHER COMMON GROUND ALLIANCE AT 811 OR CALL811.COM OR GOPHER STATE ONE CALL AT 651-681-7326 (TWIN CITIES METRO AREA) OR 800-252-1166 (GREATER MINNESOTA) OR WEB AT www.gopherstateonecall.org. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
4. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION. ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
5. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
6. NO PLANT MATERIAL SHALL BE SUBSTITUTED WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT. ALL SUBSTITUTIONS MUST BE APPROVED PRIOR TO SUBMISSION OF ANY BID AND/OR QUOTE BY THE LANDSCAPE CONTRACTOR. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
7. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
8. CONTRACTOR SHALL PROVIDE GUARANTEE OF ALL PLANT MATERIALS FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1) YEAR . THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
9. CONTRACTOR SHALL PROVIDE NECESSARY WATERING OF PLANT MATERIALS UNTIL THE PLANT IS FULLY ESTABLISHED OR IRRIGATION SYSTEM IS OPERATIONAL. OWNER WILL NOT PROVIDE WATER FOR CONTRACTOR.
10. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
11. REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.

SOIL PREPARATION:

12. TOPSOIL SHALL BE LOCAL FERTILE AGRICULTURAL SOIL FREE OF SUBSOILS, ROCKS, CLAYS, PLANTS, WEEDS, ROOTS AND OTHER IMPURITIES. PH VALUE SHALL BE BETWEEN 5.4 AND 7.0.
13. REMOVE DEBRIS AND WEEDS FROM SUBSOIL.
14. THE NEED FOR SOIL AMENDMENTS SHALL BE DETERMINED UPON SITE SOIL CONDITIONS PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL PERFORM A SOIL TEST PRIOR TO INSTALLATION AND NOTIFY LANDSCAPE ARCHITECT FOR THE NEED OF ANY SOIL AMENDMENTS.
15. SPREAD TOPSOIL TO A MINIMUM DEPTH OF 6". TOPSOIL PLACEMENT SHALL TAKE PLACE DURING DRY WEATHER. PREPARE TOPSOIL SO THAT IT IS FREE OF DEBRIS AND GRADED TO DRAIN AS INDICATED ON GRADING PLANS.
16. LIGHTLY COMPACT TOPSOIL AFTER PLACEMENT AND PROHIBIT CONSTRUCTION TRAFFIC FROM AREAS WITH TOPSOIL.

SEEDING/ SODDING:

17. HIGHLAND SOD SHALL BE NURSERY GROWN GRADE; CULTIVATED GRASS SOD WITH STRONG FIBROUS ROOT SYSTEM FREE OF STONES, BURNED OR BARE SPOTS CONTAINING NO MORE THAN 5 WEEDS PER 1000 SF. SOD SHALL BE GROWN IN MINERAL SOILS. SOD GROWN IN PEAT SOILS WILL BE REJECTED.
18. SOD MIXTURE SHALL BE 40% KENTUCKY BLUEGRASS, 30% PERENNIAL RYEGRASS, 30% FINE FESCUES.
19. FERTILIZER FOR SODDED AREAS SHALL BE NITROGEN 10%, PHOSPHORIC ACID 10%, SOLUBLE POTASH 10%.
20. APPLY FERTILIZER AT APPLICATION RATE OF 1LB/1000 SF TO TOPSOIL PRIOR TO PLACING SOD.
21. ALL TOPSOIL AREAS TO BE RAKED TO REMOVE DEBRIS AND ENSURE PROPER SOIL CONTACT. MOISTEN PREPARED SOIL IMMEDIATELY PRIOR TO LAYING SOD. LAY SOD IMMEDIATELY UPON DELIVERY TO THE SITE, LEAVING NO OPEN JOINTS OR OVERLAPPING JOINTS. DO NOT STRETCH SOD. DO NOT LAY SOD IF TEMPERATURE IS BELOW FREEZING.
22. ROLL SOD WITH 1/3 FULL ROLLER AFTER SOD AND SOIL HAVE DRIED. ROLL BEFORE THE FIRST WATERING.
23. SEED AS SPECIFIED ON PLANS AND PER MN/DOT 2014 SEEDING MANUAL SPECIFICATIONS.
24. REPAIR, REPLACE, OR PROVIDE SOD/SEED AS REQUIRED FOR ANY ROADWAY BOULEVARD AREAS ADJACENT TO THE SITE DISTURBED DURING CONSTRUCTION.

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0 150 300

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Kevin Teppen
License No: 26980 DATE: 05/24/2018

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FILE NAME C304SCD001.DWG
PROJECT NO. SCD14001.LEV

PHASE 1
SEEDING & SODDING
C3.4

NPDES PERMIT AND SWPPP COMPONENTS

1. *The current Minnesota Construction Stormwater Permit C00053019 dated May 29, 2019 is referenced in this document as the Permit.*

   The SWPPP includes the following components:
   - Construction Documents prepared by Landform
   - Stormwater Management Narrative and calculations
   - Maintenance Plan for permanent stormwater BMPs
   - Preliminary geotechnical report prepared by Braun Intertec, dated 4-12-2017
   - Piezometer report by Braun Intertec, dated 10-16-2017
   - Double-ring infiltrometer test results by Braun Intertec, dated 8-16-2017

   All components must be kept onsite by the Operator. The Operator shall contact Civil Engineer if they do not have all of the above documents.

SITE INFORMATION

Site location: Latitude: 44.867527, Longitude: -93.557648

Disturbed area = 93.0 ac.
Pre-construction impervious area within disturbed area = 0.4 ac.
Post-construction impervious area within disturbed area = 0.0 ac.
Net change in impervious area within disturbed area = -0.4 ac.

Type of stormwater management:
- Filtration
- Wet Sedimentation

Erosion prevention and sediment control quantities are on sheets C3.0 - C3.0D.

SITE EVALUATION / ASSESSMENT / PLANNING

1. The Operator shall have primary responsibility and significant authority for the development, implementation, maintenance, inspection and amendments to the approved SWPPP. Duties include but are not limited to:
   - Ensuring full compliance with the SWPPP and the Permit
   - Implementing all elements of the SWPPP, including but not limited to:
     - Implementing prompt and effective erosion and sediment control measures
     - Implementing all non-storm water management, and good housekeeping BMPs ensuring that no materials other than Storm water are discharged in quantities, which will have an adverse effect on receiving waters or storm drain systems, etc.
   - Conducting routine inspections and maintenance
   - Ensuring elimination of all unauthorized discharges
   - Coordinating to ensure all of the necessary corrections / repairs are made immediately, and that the project complies with the SWPPP, the Permit, and approved plans at all times.

STORMWATER POLLUTION PREVENTION MANAGEMENT MEASURES

1. *Operator must develop pollution prevention management measures, implement good housekeeping BMPs, must follow all applicable federal, state, and local building codes, Occupational Safety and Health Act (OSHA), and the general conditions and general requirements of the construction contract.*
2. The Operator shall minimize the exposure to stormwater of any of the products, material, or wastes stored on site that may wash downstream or contaminate stormwater.
3. Building products that have the potential to leach pollutants must be under cover.
4. Chemicals and landscape materials shall be under cover to prevent the discharge of pollutants.
5. Operator to track progress of the following items on site maps: portable toilets, material storage areas, vehicle and equipment fueling and maintenance areas, concrete washouts, paint and stucco washouts, dumpsters or other trash and debris containers, spill kits, stockpiles, any other non-structural non-storm water management BMPs, any temporarily removed structural BMPs, any changes to the structural BMPs.
6. Solid waste: collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
7. Hazardous waste: oil, gasoline, paint and any hazardous substances must be properly stored in sealed containers to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste or materials must be in compliance with Minn. R. Ch. 7045 including secondary containment as applicable.
8. Portable toilets must be positioned so that they are secure and will not be tipped or knocked over.
9. Concrete and other washout waste: operator must provide effective containment for all liquid and solid wastes generated by washout operations. The liquid and solid wastes must not contact the ground, and the containment must be designed so that it does not result in runoff from the washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA rules. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.
10. External vehicle washing: external washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.
11. Operator shall take reasonable steps to prevent the discharge of spilled or leaked chemicals, including fuel, from any area where they will be loaded or unloaded as detailed in the Permit.

SWPPP CONTACT AND TRAINING INFORMATION

1. Owner:
   Bahram Akradi
   c/o/ Lifetime Fitness
   attn: Mark Nordland
   2902 Corporate Place
   Chanhassen, MN 55317
   952-229-7090
   mnordland@lt.life

2. Operator:
   Rachel Contracting, Inc.
   attn: Ron Fricke
   4125 Napier Ct. NE
   St. Michael, MN 55376
   763-424-1500
   rfricke@rachelcontracting.com
   Certification: U of MN, Design of Construction SWPPP, exp. May 31, 2021

3. Long Term Maintenance and Operation:
   Level 7 Development, Inc.
   c/o Life Time
   attn: Mark Nordland
   2902 Corporate Place
   Chanhassen, MN 55317
   952-229-7090
   mnordland@lt.life

4. SWPPP Designer:
   Steve Sabraski, P.E.
   Landform
   105 South Fifth Avenue, Suite 513
   Minneapolis, MN 55401
   612-252-9070
   ssabraski@landform.net
   Certification: u of MN, Design of Construction SWPPP, exp. May 31, 2022

5. SWPPP Inspector / Manager:
   Landform
   105 South Fifth Avenue
   Suite 513
   Minneapolis, MN 55401
   attn: Fred Volz
   612-363-3684
   Certification: Construction Site Management, exp. May 31, 2021

6. BMP Installation and Repair:
   To be determined. Contact Operator until BMP Installer and Maintainer is selected.
   Certification: , exp.

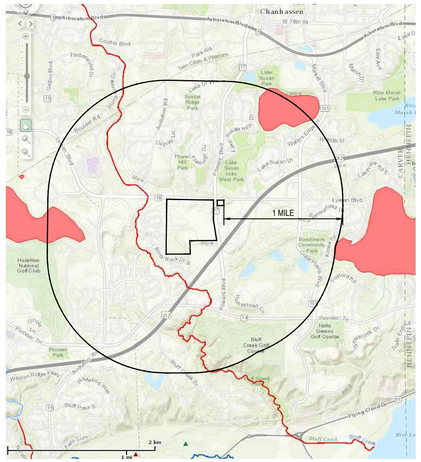
DESCRIPTION OF CONSTRUCTION ACTIVITY

1. Construction activity includes erosion and sediment control BMPs installation, clearing and grubbing, site grading, utility installation, paving, and landscaping.
2. Future construction activity will include erosion and sediment control BMPs installation, utility installation, paving, building construction, and landscaping on individual parcels.

SCHEDULE OF BMP INSTALLATION AND CONSTRUCTION ACTIVITY

1. Install perimeter sediment control BMPs prior to start of other site work. Refer to Grading, Drainage, Paving and Erosion Control sheets for initial locations of BMPs.
2. Construct temporary / permanent sedimentation basins prior to upland disturbance. Install perimeter sediment control BMPs at toe of slopes and apply erosion control blankets to basin sides within 7 days of completion of grading individual basins.
3. Protect in filtration areas with construction fencing at toe of slopes within 48 hours of completion of basin construction.
4. Stabilize outlets from temporary / permanent sedimentation basins within 24 hours of outlet construction.
5. Stabilize storm sewer outfalls within 24 hours of outlet construction (install rip rap).
6. Perform work in phases to minimize disturbed area at any one time.
7. Strip topsoil from areas to be disturbed and stockpile with perimeter sediment control BMPs. Provide immediate stabilization.
8. Rough grade site. Grading areas open at one time should be limited to minimize potential for sediment transport.
9. Install public utilities.
10. Final grade roadway areas and compact subgrade.
11. Place pavement aggregate and compact.
12. Install curb and gutter. Backfill and stabilize exposed soil.
13. Install private (small) utilities (gas, electric, communications).
14. Pave roadways, trails and walks.
15. Provide final stabilization for any remaining disturbed areas.
16. Remove temporary BMPs once up gradient areas are stabilized.
17. Connect infiltration practices to storm sewer inlets.
18. Future work (individual construction) shall follow a similar sequence but include building construction.
19. The SWPPP will need to be revised for each successive construction phase to include site specific items.

WATERS WITHIN ONE MILE OF SITE



ENVIRONMENTAL, ENDANGERED SPECIES, & ARCHEOLOGICAL REVIEWS

1. There are no requirements for storm water due to environmental, endangered species or archeological review with in the Chanhassen AUAR Update of May 2017.

MINNESOTA IMPAIRED WATERS

1. Hazeltine Lake (AUID: 10-0014-00) is impaired based on the current USEPA 303(d) Clean Water Act list; is within 1 mile of this site; and stormwater does not discharge to it.
2. Lake Riley (AUID: 10-0002-00) is impaired based on the current USEPA 303(d) Clean Water Act list; is within 1 mile of this site; and stormwater does discharge to it.
   A. TMDLs have been established for this impaired water for Fishes Bicassessment.
   B. TMDLS have been established for this impaired water for Mercury in Fish Tissue.
   C. TMDLS have been established for this impaired water for Nutrient / eutrophication biological indicators.
3. Lake Susan (AUID: 10-0013-00) is impaired based on the current USEPA 303(d) Clean Water Act list; is within 1 mile of this site; and stormwater does discharge to it.
   A. TMDLs have been established for this impaired water for Mercury in fish tissue. There are no special construction requirements for this impairment.
   B. TMDLs have not been established for this impaired water for Nutrient / eutrophication biological indicators. There are no special construction requirements for this impairment.
4. Bluff Creek (AUID: 07020012-710) is impaired based on the current USEPA 303(d) Clean Water Act list; is within 1 mile of this site; and stormwater does discharge to it.
   A. TMDLs have been established for this impaired water for Fishes bioassessments. There are no special construction requirements for this impairment.
   B. TMDLs have been established for this impaired water for Turbidity. There are no special construction requirements for this impairment.
5. This site will meet these TMDLs using the following methods: Follow Permit requirements.
6. Stream Unassessed (AUID: 07020012-999), tributary to Lake Susan is not impaired, is within one mile of the site, and stormwater from the site does not discharge to it.
7. The following waters are within one mile of the site, receive stormwater discharge from the site, but do not appear on the MPCA Impaired Waters Viewer:
   A. MNDOT Wetland M09
   B. MNDOT Wetland M10
   C. Onsite Wetland #3
   D. Onsite Wetland #4
   E. Onsite Wetland #6
   F. MNDOT Stormwater "Englewood" Pond

EROSION PREVENTION AND SEDIMENT CONTROL

1. See Grading, Drainage, and Erosion Control sheets for the location and type of temporary erosion prevention and sediment control BMPs. See Grading, Drainage, and Erosion Control sheets for the location and type of permanent erosion prevention and sediment control BMPs.
2. Minimize Disturbed Areas and Protect Natural Features and Soil

   Appropriate construction practices (e.g. construction phasing, vegetative buffer strips, horizontal slope grading) shall be used to minimize erosion.

   Areas not to be disturbed (buffers, bluff creek overlay districts, etc.) shall be protected with construction or silt fence before work begins.

   Operator shall develop methods to minimize soil compaction outside of building pads, pavement areas and utility trenches and shall use tracked equipment wherever practicable.

   Topsoil shall be salvaged and reused to the extent practicable.
3. Phase Construction Activity

   Operator must not disturb more land than can be effectively inspected and maintained.

   Sediment control practices shall be established on all down gradient perimeters before any upgradient land disturbing activities begin. These practices shall remain in place until final stabilization has been established in accordance with the Permit.

   The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as clearing or grubbing, or passage of vehicles. Any short-term activity must be completed as quickly as possible and the sediment control practices shall be installed immediately after the activity is completed. However, sediment control practices shall be installed before the next precipitation event even if the activity is not complete.
4. Control Stormwater Flowing onto and Through the Project

   The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, shall be stabilized within 200 lineal feet from the property edge, or from the point of discharge into any surface water.

   Stabilization of the last 200 lineal feet shall be completed within 24 hours after connecting to a surface water.

   Stabilization of the remaining portions of any temporary or permanent ditches or swales shall be complete within 14 days after connecting to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.

   Temporary or permanent ditches or swales that are being used as a sediment containment system (with properly designed rock ditch checks, bio rolls, silt dikes etc.) do not need to be stabilized. These areas shall be stabilized within 24 hours after no longer being used as a sediment containment system.
5. Stabilize Soils

   All exposed soil areas, including stockpiles, must be stabilized. The site has discharge points within one mile of, and flows to impaired waters. Therefore, stabilization of all exposed soil areas shall be initiated immediately to limit soil erosion in that portion of the site where construction has temporarily or permanently ceased. Stabilization must be completed with in seven (7) calendar days of cessation of construction activity.

   Temporary soil stockpiles shall have silt fence or other effective sediment controls, and cannot be placed in surface waters, including storm water conveyances such as curb and gutter systems, or conduits and ditches unless there is a bypass in place for the storm water.

   Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) and the constructed base components of roads, parking lots and similar surfaces are exempt from this requirement.
6. Protect Slopes

   Operator shall avoid work on slopes with a grade of 3h:1v or greater when practicable. Grading on slopes with a grade of 3h:1v or steeper will require techniques such as phasing and stabilization practices designed for steep slopes (e.g., slope draining and terracing).
7. Protect Storm Drain Inlets

   All storm drain inlets shall be protected by appropriate BMPs during construction until all sources with potential for discharging to the inlet have been stabilized. Inlet protection may be temporarily removed if a specific safety concern has been identified.
8. Provide Energy Dissipation at all Pipe Outlets Within 24 Hours

   After connection to a surface water or permanent stormwater treatment system.
9. Establish Perimeter Controls and Sediment Barriers

   Prior to disturbing soils on a project site, establish sediment control BMPs on all downgradient perimeters and where site discharges to public waters.
10. Retain Sediment On-site and Control Dewatering Practices

    Dewatering or basin draining of turbid or sediment laden water related to construction activities shall be discharged to a temporary or permanent sedimentation basin or treated with the appropriate BMP prior to entering the surface water.

    Discharge shall not cause nuisance conditions, erosion in receiving channels, adversely affect receiving water or impact wetlands, or downstream properties. Discharge points shall be adequately protected from erosion and scour by accepted energy dissipation measures.

    Discharge water containing oil or grease shall be treated to remove oil or grease prior to discharge to surface waters.

    Refer to Permit requirements for temporary or permanent sediment basins.
11. Establish Stabilized Construction Exits

    Vehicle tracking pads shall be established as shown on the grading, drainage, paving and erosion control sheet to minimize tracking of sediment from the construction site onto adjacent streets.
12. Infiltration Basin Protection

    Operator must not excavate infiltration systems to final grade or within three (3) feet of final grade until the contributing drainage area has been constructed and fully stabilized unless rigorous erosion prevention and sediment controls have been installed.

    When excavating an infiltration system to within three (3) feet of final grade, operator shall mark off and protect the area from heavy construction equipment to prevent compaction of soils.
13. Dewatering and Basin Draining

    Permittees must discharge turbid or sediment-laden waters related to dewatering or basin draining to a temporary or permanent sediment basin. Discharges must not cause erosion or scour near the discharge points.
14. Remove Sediment from Surface Waters

    All sediment deposits and deltas must be removed from surface waters (including drainage ways, catch basins, and other drainage systems) and the removal areas restabilized within seven (7) days.

SURFACE WATER BUFFERS

1. 50 foot buffers from surface waters are not possible everywhere on this site due to site grading requirements. We have provided smaller buffers in combination with double silt fence where grading is adjacent to surface waters. For Wetland 3, the buffer ranges from 28' to 50'. Wetland 4 has a buffer of 50'. For Wetland 6, the buffer ranges from 20' to 80'. MNDOT Wetland M09 has a buffer ranging from 38' to 80'.

   The above buffers are impacted only for storm sewer inlet and outlet construction.

TEMPORARY SEDIMENTATION BASIN(S)

1. This project does have more than 5 acres draining to a common location and the site drains to Impaired Waters, therefore temporary sediment basins are required. Refer to sheets C3.0 - C3.0D for further information.
2. Temporary sediment basins shall provide treatment to runoff before it leaves the construction site or enters surface waters. The contractor shall comply with the following requirements:
   A. Sedimentation basins must provide live storage of runoff resulting from the 2-yr 24-hr rainfall event from each acre drained to the basin with a minimum of 1,800 cf/acre live storage volume. (where no calculation has been performed, each basin shall provide at least 3,600 cf/acre of live storage.) sedimentation basins must include a stabilized emergency overflow to prevent basin integrity failure.
   B. Discharge from temporary sedimentation basins will be withdrawn from the surface in order to minimize the discharge of pollutants.
3. Discharge from basin draining shall not adversely affect the receiving water or downstream properties. Contractor will visually check to ensure adequate treatment has been obtained and that nuisance conditions will not result from the discharge.
4. Any discharge observed to be occurring during the inspection shall be recorded, described, and photographed.
5. If any proposed temporary BMPs are not working as planned refer to the "Stormwater Compliance Assistance Toolkit for Small Construction Operators", MPCA, 2017 for additional information. Operator shall contact the SWPPP Designer for additional requirements and information.

POST CONSTRUCTION / PERMANENT BMPS

1. See Grading, Drainage, and Erosion Control sheets for post construction and permanent stormwater BMPs.

INSPECTIONS AND MAINTENANCE

1. Permittees must ensure that a trained person will inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5-inches in 24 hours.
2. Inspections shall include stabilized areas, erosion prevention and sediment control BMPs, and infiltration areas.
3. Surface waters on or adjacent to the site must be inspected for evidence of erosion or sediment deposition.
4. Permittees must record all inspection and maintenance activities within 24 hours of being conducted as detailed in the Permit.
5. Inspection Records content shall include:
   A. Date and time of inspections;
   B. Name of persons conduction inspections;
   C. Findings of inspections, including specific locations where corrective actions are needed;
   D. Corrective actions taken including dates, times, and the party taking the corrective action;
   E. Dates of all rainfall events greater than 1/2 inch in 24 hours (refer to Permit for measurement requirements);
   F. Any discovered discharge must be recorded, including photographs, descriptions of discharge (color, odor, settled or suspended solids, oil sheen, or other obvious indicators of pollution), and specific location of discharge location;
   G. Any amendments to the Permit as a result of inspections must be documented within seven calendar days as described in the Permit.
6. BMP Maintenance:
   A. Nonfunctional BMPs must be repaired or replaced by the end of the next business day after discovery unless a different time frame is indicated.
   B. Follow the designer's or manufacturer's recommended maintenance procedures for all BMPs.
   C. Remove sediment from BMPs when the depth of sediment has reached 1/2 the height of the BMP and properly dispose of sediment into controlled areas to prevent soil from returning to the BMP during subsequent rain events.
   D. Remove sediment from paved roadways within one calendar day of discovery.
   E. Remove sediment from around BMPs protecting storm drain inlets.
   F. Surface waters with evidence of sediment deposition must be stabilized and sediment removed within seven calendar days of discovery, or as stated by the Permit.
   G. Ensure that construction support activities, including borrow areas, waste areas, contractor work areas, and material storage areas and dedicated concrete and asphalt batch plants are cleaned and maintained.
   H. Replace damaged BMPs that no longer operate effectively.
7. Add BMPs as needed during construction to minimize erosion and prevent sediment from leaving the site.

RECORD KEEPING / RECORD RETENTION

1. The SWPPP (original or copies) including, all changes to it, and inspections and maintenance records shall be kept at the site during construction by the Owner / Operator who has operational control of that portion of the site. The SWPPP can be kept in either the field office or in an on site vehicle during normal working hours.
2. All Owner(s) must keep the SWPPP, along with the following additional records, on file for three (3) years after submittal of the Notice of Termination (NOT). This does not include any records after submittal of the NOT.
3. The following is a list of records that shall be kept at the project site available for inspectors to review:
   - copy of the SWPPP, with any modifications
   - inspection and maintenance records
   - permanent operation and maintenance agreements
   - calculations for the design of temporary and permanent storm water management systems
   - any other permits required for the project
   - records of all inspection and maintenance conducted during construction
   - all permanent operation and maintenance agreements that have been implemented, including all right of way, contracts, covenants and other binding requirements regarding perpetual maintenance; and
   - all required calculations for design of the temporary and permanent storm water management systems.

LOG OF CHANGES TO THE SWPPP / AMENDMENTS

1. *The Owner / Operator(s) must amend the SWPPP as necessary to include additional requirements, such as additional or modified BMPs, designed to correct problems identified or address situations as detailed in the Permit.*

FINAL STABILIZATION

1. *The Owner / Operator(s) must ensure final stabilization of the site. Final stabilization includes:*
   A. Ensuring all areas have permanent cover.
   B. Vegetative areas must have perennial cover with a density of 70% of expected final growth.

TERMINATION OF COVERAGE

1. *Owner / Operator(s) wishing to terminate coverage under the Permit must submit a Notice of Termination (NOT) to the MPCA. Compliance with the permit is required until a NOT is submitted. Refer to the Permit for details. Conditions for submitting a NOT include:*
   A. Site must have achieved final stabilization (refer to section above).
   B. The permanent stormwater treatment and conveyance systems must be clean and all accumulated sediment removed.
   C. All temporary synthetic erosion prevention and sediment control BMPs must be removed from the site and disposed of properly.
   D. Single Family Residential only - Permit termination on individual lots occurs once building construction is complete, temporary erosion prevention and downgradient perimeter control is complete, the residence sells to the homeowner, and the permittee distributes the MPCA's "Homeowner Fact Sheet" to the homeowner.

Know what's Below. Call before you dig.

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CHANHASSEN

PROJECT

AVIENDA

ISSUE / REVISION HISTORY

CONTACT ENGINEER FOR ANY PRIOR HISTORY

DATE	ISSUE / REVISION	REVIEW
22 APR 2020	WATERSHED SUBMITTAL	SES
01 MAY 2020	CITY SUBMITTAL	SES
27 MAY 2020	WATERSHED SUBMITTAL	SES
18 JUN 2021	FINAL PLAT SUBMITTAL	SES
06 AUG 2021	UTILITY PLAN SUBMITTAL	SES
27 AUG 2021	UTILITY PLAN SUBMITTAL	SES
14 SEP 2021	UTILITY PLAN SUBMITTAL	SES
29 OCT 2021	UTILITY PLAN SUBMITTAL - REVISION 1	SES
09 NOV 2021	UTILITY PLAN SUBMITTAL - REVISION 2	SES
22 FEB 2022	WATERSHED SUBMITTAL	SES
24 FEB 2022	CITY SUBMITTAL - REVISION 3	SES
22 MAR 2022	WATERSHED SUBMITTAL	SES
25 APR 2022	WATERSHED SUBMITTAL	SES

PROJECT MANAGER REVIEW

BY SES DATE 04.25.2022

CERTIFICATION

I hereby certify that this plan 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.

Steven E. Sabraski

License No. 47165 Date: 04/25/2022

Signature shown is a digital reproduction of original. Wet signed copy of this plan on file at Landform Professional Services, LLC office and is available upon request.

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

WATERSHED SUBMITTAL
APRIL 25, 2022

LANDFORM
From Site to Finish

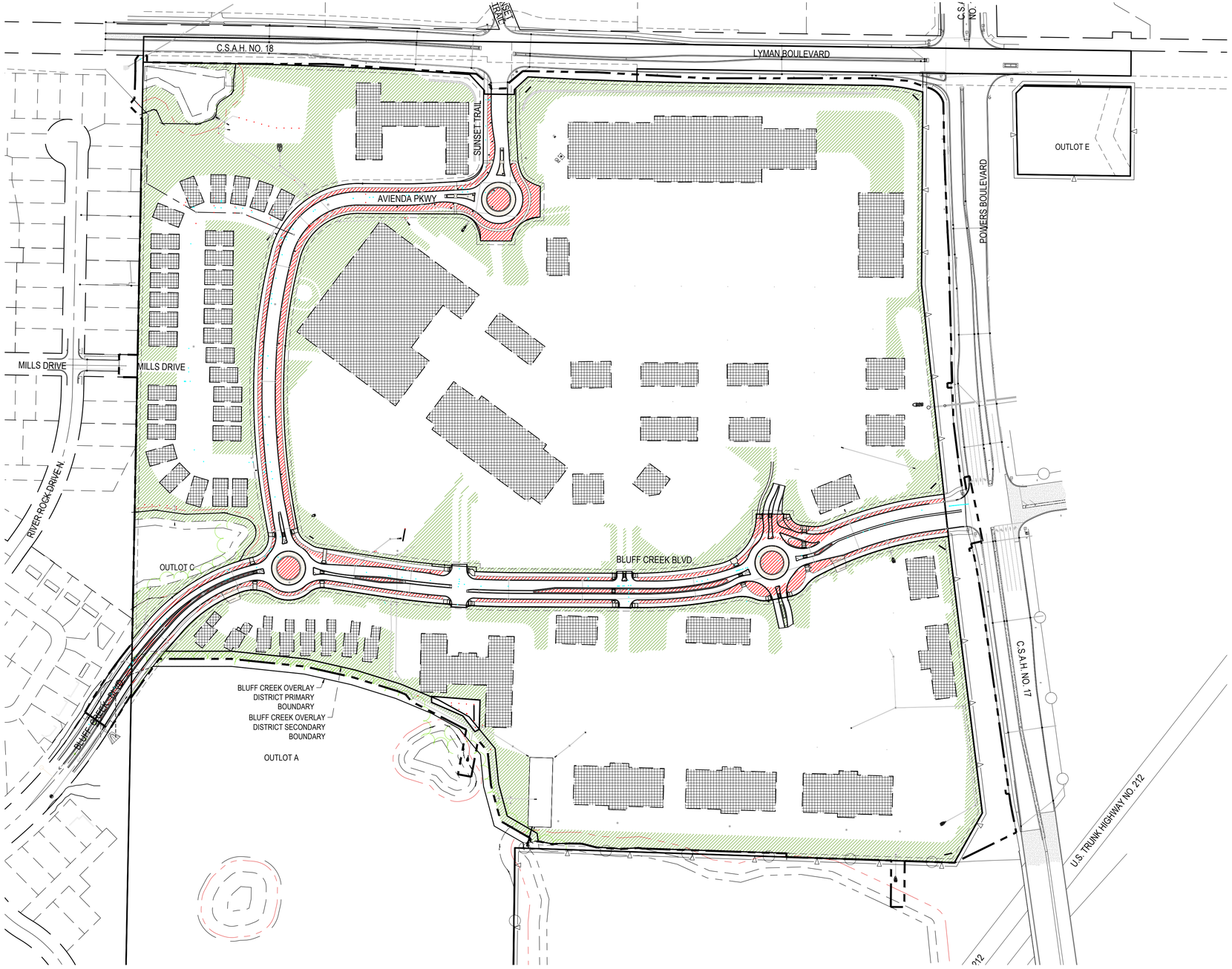
105 South Fifth Avenue Tel: 612-252-9070
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

FILE NAME C305SCD001.DWG

PROJECT NO. SCD14001.LEV

SWPPP NOTES

C3.5



LEGEND

:PHASE 1 DECOMPACTION AREAS

:ANTICIPATED FUTURE DECOMPACTION AREAS (FOR REFERENCE)

LEGEND

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
WA	:CONCRETE WASHOUT	
	:DRAINAGE SWALE	
	:CONSTRUCTION LIMITS	

Know what's Below. Call before you dig.

NORTH

0 150 300

GENERAL NOTES

1. FOR CONSTRUCTION STAKING AND SURVEYING SERVICES CONTACT LANDFORM AT 612.252.9070.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

2. INSTALL PERIMETER SEDIMENT CONTROLS PRIOR TO BEGINNING WORK AND MAINTAIN FOR DURATION OF CONSTRUCTION. INSTALL POND / BASIN PROTECTION SEDIMENT CONTROLS WITHIN 7 DAYS OF COMPLETION OF BASIN GRADING. REMOVE PERIMETER CONTROLS AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED AND DISPOSE OF OFF SITE.
3. LIMIT SOIL DISTURBANCE TO THE GRADING LIMITS SHOWN. SCHEDULE OPERATIONS TO MINIMIZE LENGTH OF EXPOSURE OF DISTURBED AREAS.
4. MANAGEMENT PRACTICES SHOWN ARE THE MINIMUM REQUIREMENT. INSTALL AND MAINTAIN ADDITIONAL CONTROLS AS WORK PROCEEDS TO PREVENT EROSION AND CONTROL SEDIMENT CARRIED BY WIND OR WATER.
5. REFER TO SWPPP NOTES ON SHEET C3.5 FOR ADDITIONAL REQUIREMENTS.
6. EXCAVATE PONDS AND TEMPORARY SEDIMENTATION BASINS EARLY IN THE CONSTRUCTION SEQUENCE. REMOVE SEDIMENT FROM PONDS AND BASINS PERIODICALLY AND AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED.
7. CONTRACTOR SHALL PREVENT SEDIMENT LADEN WATER FROM ENTERING INFILTRATION SYSTEMS UNTIL THE SITE IS COMPLETELY STABILIZED.
8. ALL EXPOSED SOILS AREAS SHALL BE STABILIZED IMMEDIATELY TO LIMIT SOIL EROSION IN THAT PORTION OF THE SITE WHERE CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED.
9. TEMPORARY SEED, SOD, MULCH AND FERTILIZER SHALL MEET THE FOLLOWING SPECIFICATIONS, AS MODIFIED.

ITEM	SPECIFICATION NUMBER
SOD	MNDOT 3878
SEED	MNDOT 3876
MN TYPE 22-111 @ 30.5 LB/AC - TEMPORARY EROSION CONTROL	
MN TYPE 25-151 @ 120 LB/AC - PERMANENT TURF	
MN TYPE 33-261 @ 35 LB/AC - PERMANENT WETLAND BUFFER	
MULCH (MNDOT TYPE 1 @ 2 TON/AC, DISC ANCHORED)	MNDOT 3882
FERTILIZER (FOR PERMANENT TURF ONLY)	MNDOT 3881
GENERAL PLACEMENT	MNDOT 2575

10. SEE PHASE 1 SEEDING AND SODDING SHEET FOR PERMANENT TURF AND LANDSCAPE ESTABLISHMENT.
11. SCRAPE ADJACENT STREETS CLEAN DAILY AND SWEEP CLEAN WEEKLY.

GRADING NOTES

12. CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING GRADING.
13. REFER TO THE GEOTECHNICAL REPORT PREPARED BY BRAUN INTERTEC, DATED APRIL 12, 2017, FOR ADDITIONAL INFORMATION ON BACKFILL MATERIAL AND GROUNDWATER CONDITIONS.
14. REMOVE TOPSOIL FROM GRADING AREAS AND STOCKPILE SUFFICIENT QUANTITY FOR REUSE. MAINTAIN STOCKPILES WITH MAXIMUM 1V:2H SLOPES.
15. REMOVE SURFACE AND GROUND WATER FROM EXCAVATIONS. PROVIDE INITIAL LIFTS OF STABLE FOUNDATION MATERIAL IF EXPOSED SOILS ARE WET AND UNSTABLE.
16. AN INDEPENDENT TESTING FIRM SHALL VERIFY THE REMOVAL OF ORGANIC AND UNSUITABLE SOILS, SOIL CORRECTION, AND COMPACTION AND PROVIDE PERIODIC REPORTS TO THE OWNER.
17. PLACE AND COMPACT FILL USING LIFT THICKNESSES MATCHED TO SOIL TYPE AND COMPACTION EQUIPMENT TO OBTAIN SPECIFIED COMPACTION THROUGHOUT THE LIFT.
18. COMPACT COHESIVE SOILS IN PAVED AREAS TO 95% OF MAXIMUM DRY DENSITY, STANDARD PROCTOR (ASTM D698) EXCEPT THE TOP 3 FEET WHICH SHALL BE COMPACTED TO 100%. COMPACT TO 98% DENSITY WHERE FILL DEPTH EXCEEDS 10 FEET. THE SOILS SHALL BE WITHIN 3% OF OPTIMUM MOISTURE CONTENT. IN GRANULAR SOILS ALL PORTIONS OF THE EMBANKMENT SHALL BE COMPACTED TO NOT LESS THAN 95% OF MODIFIED PROCTOR DENSITY (ASTM D1557).
19. AVOID SOIL COMPACTION OF INFILTRATION PRACTICES. ANY EQUIPMENT USED IN INFILTRATION AREAS SHOULD BE SMALL SCALED AND TRACKED.
20. ALL DISTURBED SOIL SURFACE AREAS, EXCEPT FOR THE AREAS UNDER THE PROPOSED STREET PAVEMENT AND THE TRAIL AND SIDEWALKS, SHALL BE DECOMPACTED TO A DEPTH OF 18-INCHES AND COVERED WITH SIX INCHES OF TOPOSOIL. REFER TO RPBCWD STANDARD EROSION CONTROL NOTES FOR ADDITIONAL REQUIREMENTS.
21. REFER TO SHEET C3.3 FOR PHASE 1 BASIN CROSS-SECTIONS.
22. SLOPE CALLOUTS ARE VERTICAL:HORIZONTAL (V:H)

RPBCWD STANDARD EROSION CONTROL NOTES

21. NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.
22. ADDITIONAL MEASURES, SUCH AS HYDRAULIC MULCHING AND OTHER PRACTICES AS SPECIFIED BY THE DISTRICT MUST BE USED ON SLOPES OF 3:1 (H:V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.
23. FINAL SITE STABILIZATION MEASURES MUST SPECIFY THAT AT LEAST SIX INCHES OF TOPSOIL OR ORGANIC MATTER BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED.
24. CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.
25. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE, AS DETERMINED BY THE DISTRICT.
26. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE REMOVED UPON FINAL STABILIZATION.
27. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS TO AN IMPAIRED WATER.
28. SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PERVIOUS UPON COMPLETION OF CONSTRUCTION MUST BE DECOMPACTED TO ACHIEVE:
    A) A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF SOIL OR
    B) A BULK DENSITY OF LESS THAN 1.4 GRAMS PER CUBIC CENTIMETER OR 87 POUNDS PER CUBIC FOOT IN THE UPPER 12 INCHES OF SOIL

    IN ADDITION, UTILITIES, TREE ROOTS AND OTHER EXISTING VEGETATION MUST BE PROTECTED UNTIL FINAL REVEGETATION OR OTHER STABILIZATION OF THE SITE. REFER TO SHEET C3.6 FOR DECOMPACTION AREAS.
29. THE PERMITTEE MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. THE PERMITTEE MUST REPAIR, REPLACE, OR SUPPLEMENT ALL NONFUNCTIONAL BMP'S WITH FUNCTIONAL BMP'S WITHIN 48 HOURS OF DISCOVERY AND PRIOR TO THE NEXT PRECIPITATION EVENT UNLESS ADVERSE CONDITIONS PRECLUDE ACCESS TO THE RELEVANT AREA OF THE SITE, IN WHICH CASE THE REPAIR MUST BE COMPLETED AS SOON AS CONDITIONS ALLOW. WHEN ACTIVE LAND-DISTURBING ACTIVITIES ARE NOT UNDERWAY, THE PERMITTEE MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. THE PERMITTEE WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.
30. ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G., ZEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE.
31. STAKING OFF AND MARKING OF PROPOSED INFILTRATION FACILITIES TO PREVENT SOIL COMPACTION BY HEAVY EQUIPMENT, STOCKPILING OF MATERIALS, AND TRAFFIC. IF INFILTRATION FACILITIES ARE IN PLACE DURING CONSTRUCTION ACTIVITIES, BEST PRACTICES MUST BE DEPLOYED TO PREVENT SEDIMENT AND OTHER MATERIAL FROM ENTERING THE PRACTICE(S). INFILTRATION FACILITIES MUST NOT BE EXCAVATED TO WITHIN 3 FEET OF FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED. ANY ACCUMULATED SEDIMENT IN AN INFILTRATION FACILITY MUST BE REMOVED IN MANNER THAT PREVENTS COMPACTION OF THE FACILITY BOTTOM. TO PROVIDE A WELL-AERATED, HIGHLY POROUS SURFACE, THE SOILS BELOW AN INFILTRATION PRACTICE MUST BE LOOSENED TO A MINIMUM DEPTH OF 18 INCHES PRIOR TO INSTALLATION OR PLANTING.

LEGEND

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
	:INLET PROTECTION	134 EACH
	:SILT FENCE	18,000 FEET
	:VEHICLE TRACKING PAD	2 EACH
	:EROSION CONTROL BLANKET	445,140 S.F.
	:ENKAMAT	9,000 S.F.
	:BUILDING PAD	

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

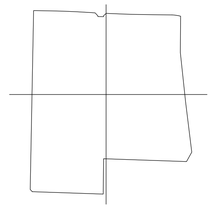
MUNICIPALITY

CHANHASSEN

PROJECT

AVIENDA

KEY MAP



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PROJECT MANAGER REVIEW

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CERTIFICATION

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Steven E. Sabraski

License No. 47165 Date: 04/25/2022

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WATERSHED SUBMITTAL
APRIL 25, 2022

LANDFORM
From Site to Finish

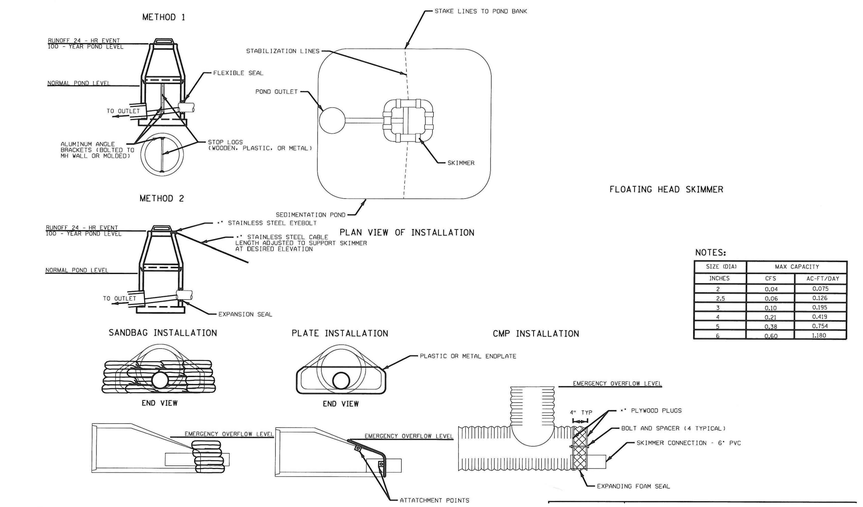
105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME C306SCD001.DWG

PROJECT NO. SCD14001.LEV

PHASE 1
SOIL LOOSENING AREAS
C3.6



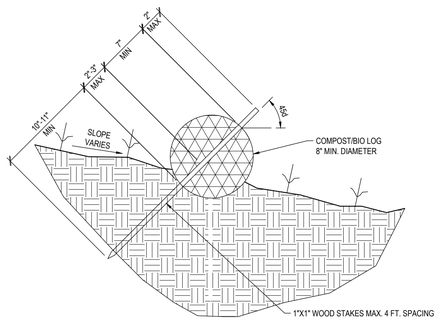
FLOATING HEAD SKIMMER

NOTES:

SIZE (DIA)	MAX CAPACITY	
INCHES	CFS	AC-FT/DAY
2	0.04	0.075
2.5	0.06	0.126
3	0.10	0.195
4	0.21	0.419
5	0.38	0.754
6	0.60	1.180

7 FLOATING HEAD SKIMMER

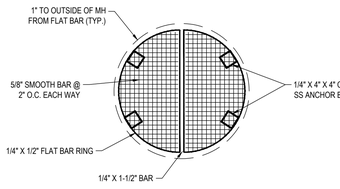
NO SCALE

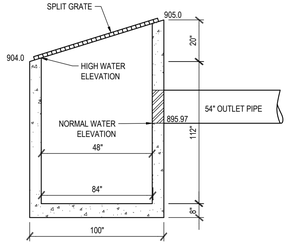


MAINTAIN BY REMOVING SEDIMENT AND REPLACING DAMAGED LOGS UNTIL TURF IS ESTABLISHED. REMOVE AFTER PERMANENT STABILIZATION IS COMPLETE.

9 TEMPORARY COMPOST/BIO LOG

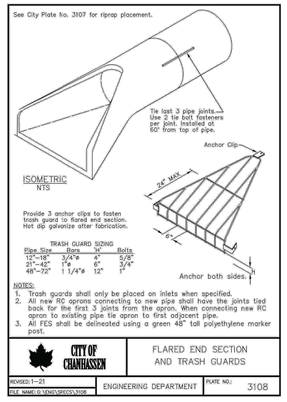
NO SCALE





10 OUTLET CONTROL STRUCTURE # 911

NO SCALE



8 FLARED END SECTION DETAIL

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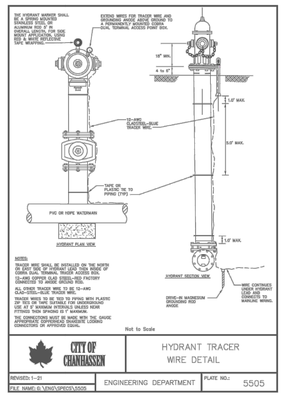
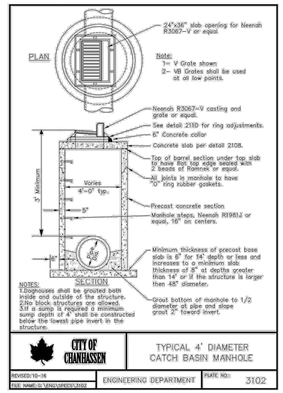


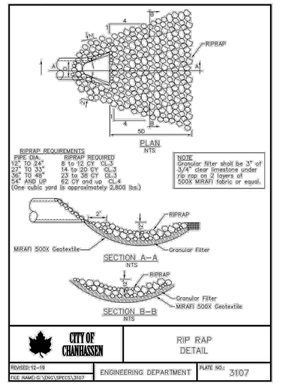
9 HYDRANT TRACER WIRE DETAIL

NO SCALE



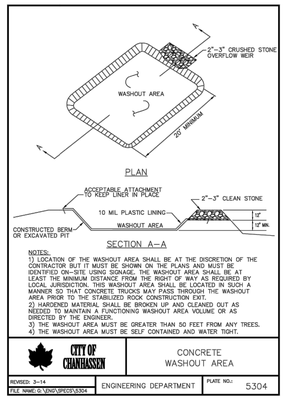
4 TYPICAL 4' DIAMETER CATCH BASIN MANHOLE

NO SCALE



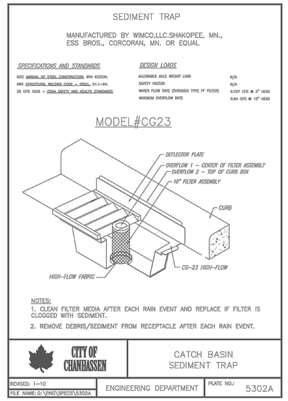
5 RIP RAP DETAIL

NO SCALE



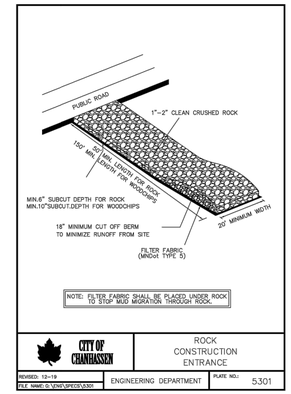
6 CONCRETE WASHOUT AREA

NO SCALE



1 CATCH BASIN SEDIMENT TRAP

NO SCALE



2 ROCK CONSTRUCTION ENTRANCE

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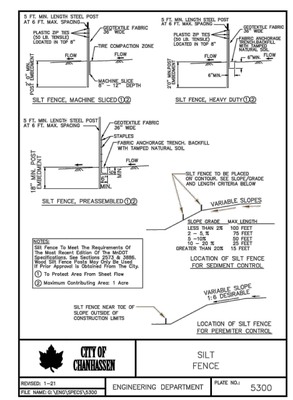

3 SILT FENCE

NO SCALE

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

PROJECT

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PROJECT MANAGER REVIEW

BY SES DATE 04.25.2022

CERTIFICATION

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APRIL 25, 2022

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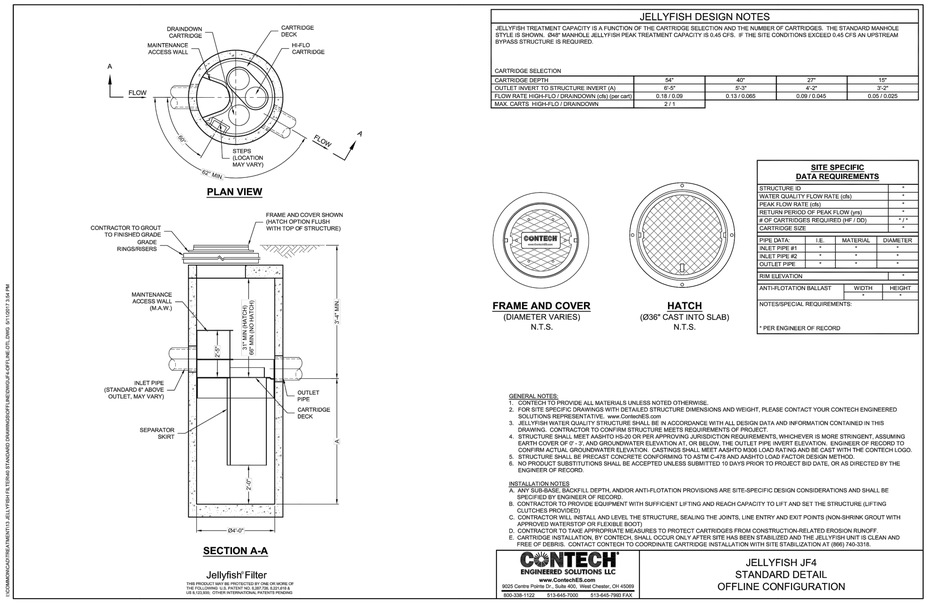
Suite 513 Fax: 612-252-9077
Minneapolis, MN 55401 Web: landform.net

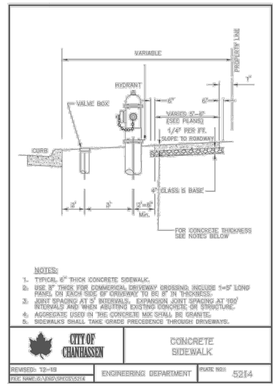
FILE NAME C701SCD001.DWG
PROJECT NO. SCD14001.LEV

CIVIL CONSTRUCTION DETAILS
C7.1



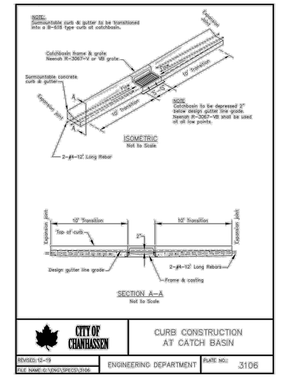
7 **JELLYFISH JF4 FILTER**

NO SCALE



4 **CONCRETE SIDEWALK**

NO SCALE

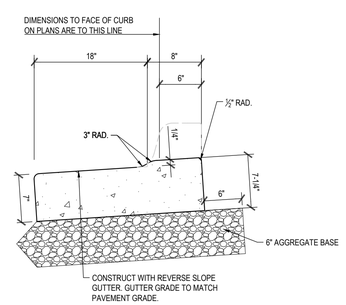


1 **CURB CONSTRUCTION AT CATCH BASIN**

NO SCALE

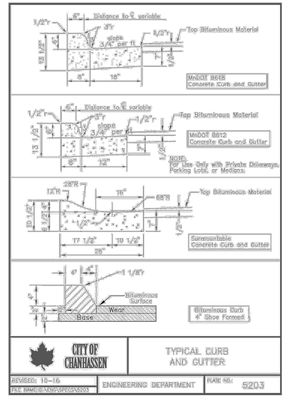
5 **WEEPER DITCH CHECK**

NO SCALE



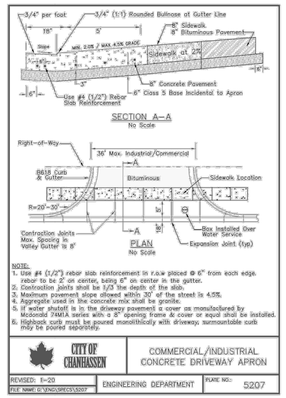
6 **18" CONCRETE RIBBON CURB**

NO SCALE



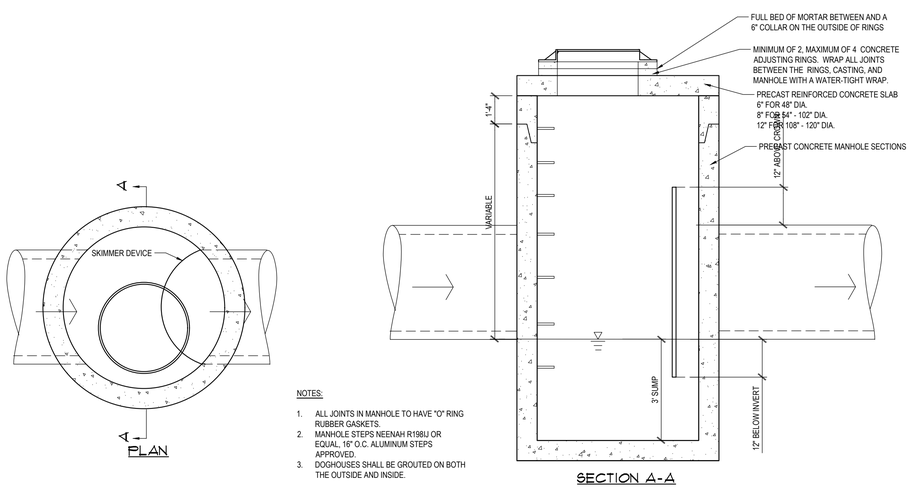
2 **TYPICAL CURB AND GUTTER**

NO SCALE



3 **COMMERCIAL/INDUSTRIAL CONCRETE DRIVEWAY APRON**

NO SCALE



8 **SUMP STORM SEWER MANHOLE WITH SKIMMER**

NO SCALE

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

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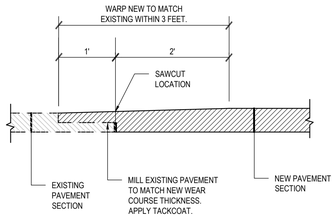
Minneapolis, MN 55401 Web: landform.net

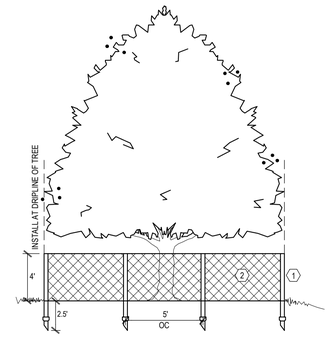
FILE NAME C702SCD001.DWG
PROJECT NO. SCD14001.LEV

CIVIL CONSTRUCTION DETAILS
C7.2



4 ASPHALT PAVEMENT TRANSITION

NO SCALE



INSTALL TREE PROTECTION DEVICES PRIOR TO START OF LAND DISTURBANCE. MAINTAIN UNTIL FINAL LANDSCAPE IS INSTALLED.

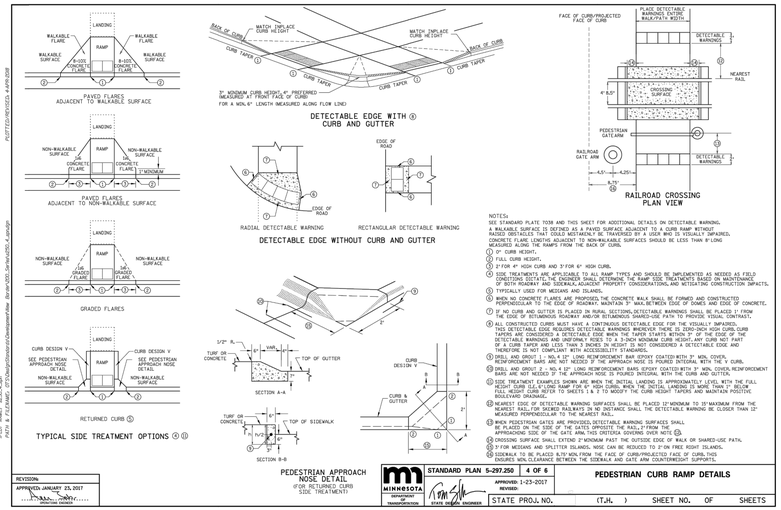
1. 6.5' STEEL T-POST, 1.25 lb/LF, POSITION AT DRIPLINE.
2. ORANGE, POLYETHYLENE SAFETY NETTING. THREE TIES PER POST.

1 TREE PROTECTION

NO SCALE

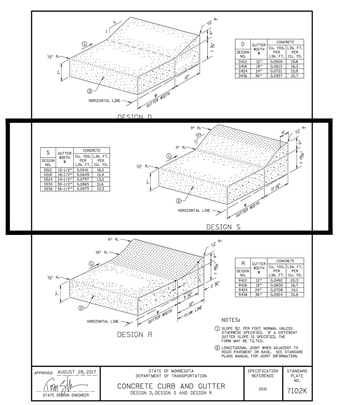
7 RESERVED

NO SCALE



8 NOSE DETAIL

NO SCALE

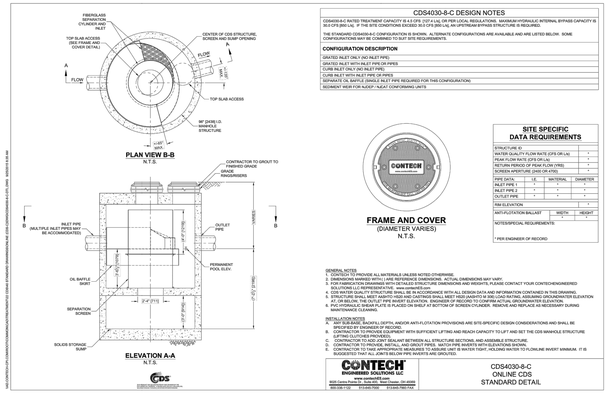


9 S DESIGN CONCRETE CURB & GUTTER

NO SCALE

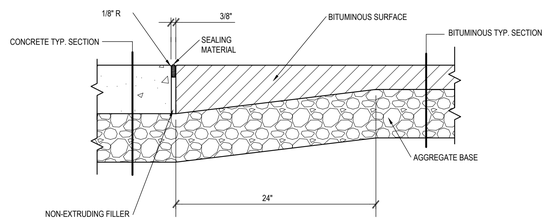
5 WATERSHED MONUMENT SIGN

NO SCALE



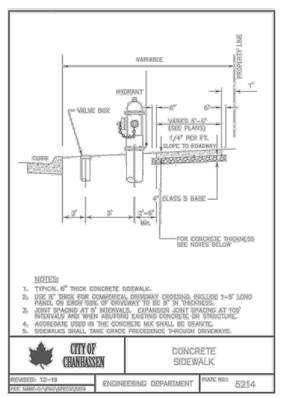
6 CONTINUOUS DEFLECTIVE SEPARATOR

NO SCALE



2 THICKENED BITUMINOUS EDGE AND CONCRETE SURFACE

NO SCALE



3 CONCRETE SIDEWALK

NO SCALE

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

PROJECT

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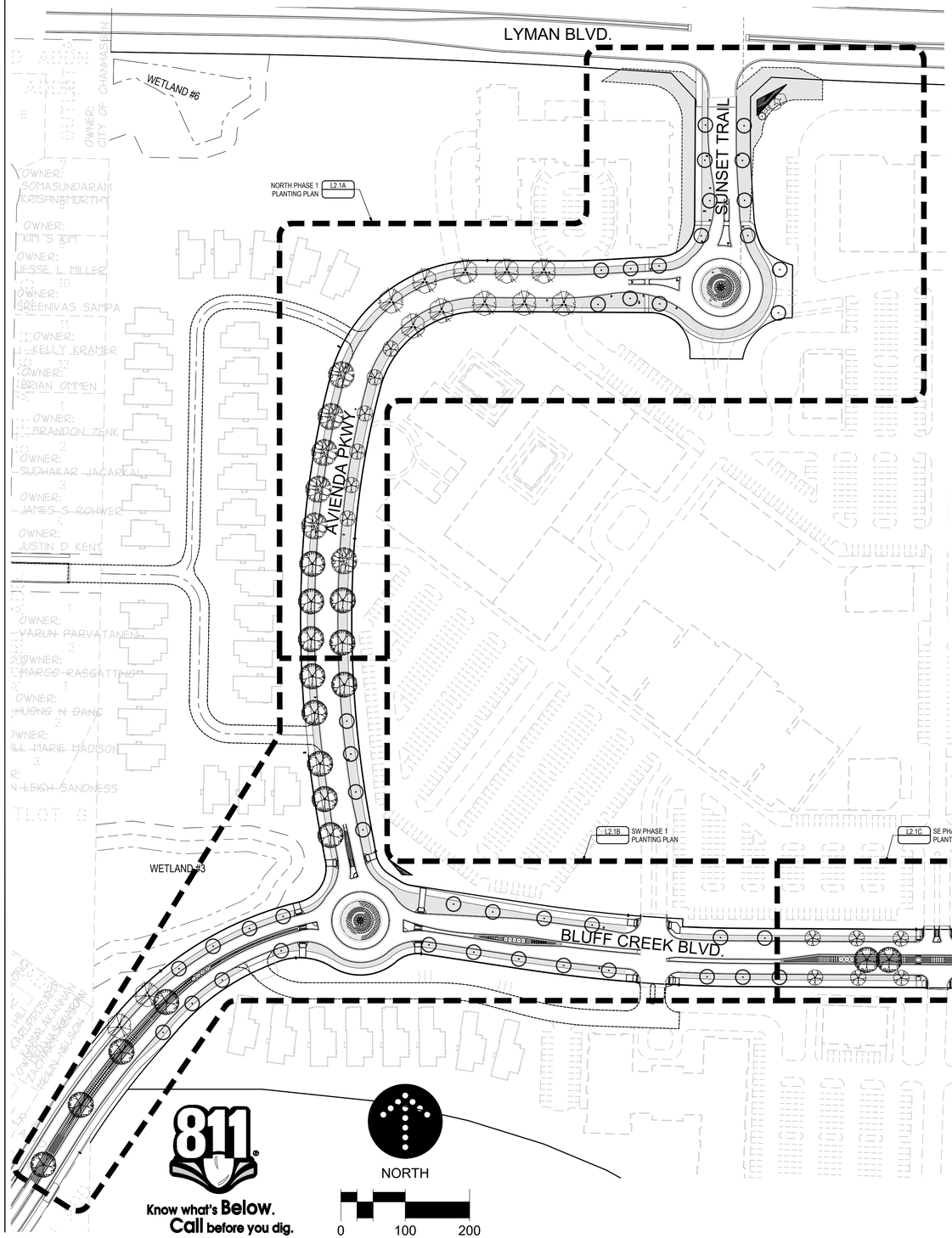
FILE NAME C705SCD001.DWG
PROJECT NO. SCD14001.LEV

CIVIL CONSTRUCTION DETAILS
C7.5

DECOMPACTION NOTES

1. ALL DISTURBED SOIL SURFACE AREAS, EXCEPT FOR THE AREAS UNDER THE PROPOSED STREET PAVEMENT AND THE TRAIL AND SIDEWALKS, SHALL BE DECOMPACTED TO A DEPTH OF EIGHTEEN (18"I NCHES AND COVERED WITH SIX (6") INCHES OF TOPOSOIL. REFER TO RPBCWD STANDARD EROSION CONTROL NOTES ON GRADING SHEETS FOR ADDITIONAL REQUIREMENTS.



Know what's Below. Call before you dig.

PLANT SCHEDULE

DECIDUOUS TREES	CODE	QTY	BOTANICAL / COMMON NAME	MATURE SIZE	PLANTING SIZE	ROOT COND.
	BENI	17	Betula nigra / River Birch	70`H x 50`W	2.5"Cal	B & B
	QUAL	8	Quercus alba / White Oak	70`H x 60`W	2.5"Cal	B & B
	QUBI	20	Quercus bicolor / Swamp White Oak Salt Tolerant	50`H x 50`W	2.5"Cal	B & B
	TIMO	55	Tilia mongolica `Harvest Gold` / Harvest Gold Linden	40`H x 30`W	2.5"Cal	B & B
	ULDA	14	Ulmus davidiana japonica `Discovery` / Discovery Elm	40`H x 30`W	2.5"Cal	B & B
EVERGREEN TREES	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**MATURE SIZE**	**PLANTING SIZE**	**ROOT COND.**
	PIGL	2	Picea glauca / White Spruce	50`H x 20`W	8`-10` HT.	B & B
	PIDE	3	Picea glauca densata / Black Hills Spruce	40`H x 15`W	8`-10` HT.	B & B
ORNAMENTAL TREES	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**MATURE SIZE**	**PLANTING SIZE**	**ROOT COND.**
	AMEG	6	Amelanchier x grandiflora `Autumn Brilliance` / Autumn Brilliance Apple Serviceberry	20`H x 20`W	8` Ht.	B & B
	MALU	15	Malus x `Lanzam` TM / Lancelot Dwarf Crabapple	10`H x 10`W	1"Cal	POT
SHRUBS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**MATURE SIZE**	**PLANTING SIZE**	**CONTAINER**
	CORC	29	Cornus sanguinea `Cato` / Arctic Sun Dogwood	4`H x 4`W	#5	POT
	CORS	8	Cornus sericea `Cardinal` / Cardinal Red Twig Dogwood	10`H x 10`W	#5	POT
	COFA	105	Cornus sericea `Farrow` / Arctic Fire Red Twig Dogwood	4`H x 4`W	3` HEIGHT	POT
	PHYS	5	Physocarpus opulifolius `Donna May` TM / Little Devil Ninebark	4`H x 4`W	#5	POT
GRASSES	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**MATURE SIZE**	**PLANTING SIZE**	**CONTAINER**
	CAKA	254	Calamagrostis x acutiflora `Karl Foerster` / Feather Reed Grass	4`H x 2.5`W	#1 Cont.	POT
	MISP	186	Miscanthus purpurascens / Silver Grass	5`H x 3`W	#3 Cont.	POT
	PANI	137	Panicum virgatum `Praire Fire` / Red Switch Grass	5`H x 2`W	#3 Cont.	POT
PERENNIALS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**MATURE SIZE**	**PLANTING SIZE**	**CONTAINER**
	PERS	19	Perovskia atriplicifolia / Russian Sage	4`H x 4`W	#3	POT
	PERO	367	Perovskia atriplicifolia `Little Spire` / Russian Sage	2`H x 2`W	#2 Cont.	POT
	RUDB	110	Rudbeckia fulgida sullivantii `Goldsturm` / Black-eyed Susan	3`H x 2`W	#1	POT
PERENNIALS/SHRUB AREAS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**FIELD3**	**SPACING**
	LSFW	690	Liatris spicata `Floristan White` / Floristan White Spike Gayfeather	3`H x 1`W	1 GAL.	POT	24" o.c.
	SEDU	676	Sedum x `Autumn Joy` / Autumn Joy Sedum	2`H x 2`W	#1 CONT.	POT	24" o.c.
SHRUBS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**FIELD3**	**SPACING**
	RHGR	277	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac	2`H x 7`W	2 GAL.	POT	48" o.c.
GROUND COVERS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**MATURE SIZE**	**PLANTING SIZE**	**CONTAINER**	**SPACING**
	CAPE	924	Carex pensylvanica / Pennsylvania Sedge	1`H x 1`W	1 GAL.	POT	18" o.c.
			SODDED TURF				

LANDSCAPE NOTES

GENERAL:

1. ALL PLANT MATERIAL INSTALLATION, INCLUDING SEED AND SOD, SHALL BE COMPLETED PRIOR TO SUBSTANTIAL COMPLETION.
2. CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES 72 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
4. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION. ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
5. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
6. NO PLANT MATERIAL SHALL BE SUBSTITUTED WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT. ALL SUBSTITUTIONS MUST BE APPROVED PRIOR TO SUBMISSION OF ANY BID AND/OR QUOTE BY THE LANDSCAPE CONTRACTOR. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
7. PLANT SCHEDULE SHOWS TOTAL QUANTITIES FOR DESIGN. THE PLAN TAKES PRECEDENCE OVER THE PLANT SCHEDULE IF DISCREPANCIES EXIST.
8. CONTRACTOR SHALL PROVIDE GUARANTEE OF ALL PLANT MATERIALS FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1). THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECTS OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
9. CONTRACTOR SHALL PROVIDE NECESSARY WATERING OF PLANT MATERIALS UNTIL THE PLANT IS FULLY ESTABLISHED OR IRRIGATION SYSTEM IS OPERATIONAL. OWNER WILL NOT PROVIDE WATER FOR CONTRACTOR.
10. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
11. REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.

SOIL PREPARATION:

12. TOPSOIL SHALL BE LOCAL FERTILE AGRICULTURAL SOIL FREE OF SUBSOILS, ROCKS, CLAYS, PLANTS, WEEDS, ROOTS AND OTHER IMPURITIES. PH VALUE SHALL BE BETWEEN 5.4 AND 7.0.
13. REMOVE DEBRIS AND WEEDS FROM SUBSOIL.
14. THE NEED FOR SOIL AMENDMENTS SHALL BE DETERMINED UPON SITE SOIL CONDITIONS PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL PERFORM A SOIL TEST PRIOR TO INSTALLATION AND NOTIFY LANDSCAPE ARCHITECT FOR THE NEED OF ANY SOIL AMENDMENTS.
15. SPREAD TOPSOIL TO A MINIMUM DEPTH OF SIX (6") INCHES. TOPSOIL PLACEMENT SHALL TAKE PLACE DURING DRY WEATHER. PREPARE TOPSOIL SO THAT IT IS FREE OF DEBRIS AND GRADED TO DRAIN AS INDICATED ON GRADING PLANS. COORDINATE FINAL GRADES WITH GRADING CONTRACTOR.
16. LIGHTLY COMPACT TOPSOIL AFTER PLACEMENT AND PROHIBIT CONSTRUCTION TRAFFIC FROM AREAS WITH TOPSOIL.

PLANTING:

17. ALL PLANTS TO BE SPECIMEN GRADE, MINNESOTA-GROWN AND/OR HARDY. SPECIMEN GRADE SHALL ADHERE TO, BUT IS NOT LIMITED BY, THE FOLLOWING STANDARDS:
    - ALL PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, SCARS, ETC.
    - ALL PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES.
    - ALL PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES.
    - ALL PLANTS SHALL HAVE HEAVY, HEALTHY BRANCHING AND LEAFING.
    - CONIFEROUS TREES SHALL HAVE AN ESTABLISHED MAIN LEADER AND A HEIGHT TO WIDTH RATIO OF NO LESS THAN 5:3.
18. PLANTS TO BE INSTALLED AS PER MNLA & ANSI STANDARD PLANTING PRACTICES.
19. PLANTS SHALL BE IMMEDIATELY PLANTED UPON ARRIVAL AT SITE. PROPERLY HEEL-IN MATERIALS IF NECESSARY; TEMPORARY ONLY.
20. PRIOR TO PLANTING, FIELD VERIFY THAT THE ROOT COLLAR/ROOT FLAIR IS LOCATED AT THE TOP OF THE BALLED & BURLAP TREE. IF THIS IS NOT THE CASE, SOIL SHALL BE REMOVED DOWN TO THE ROOT COLLAR/ROOT FLAIR. WHEN THE BALLED & BURLAP TREE IS PLANTED, THE ROOT COLLAR/ROOT FLAIR SHALL BE EVEN OR SLIGHTLY ABOVE FINISHED GRADE.
21. OPEN TOP OF BURLAP ON B&B MATERIALS; REMOVE POT ON POTTED PLANTS; SPLIT AND BREAK APART PEAT POTS. VERTICALLY SCORE ROOT BALLS PRIOR TO INSTALLATION.
22. PRUNE PLANTS AS NECESSARY - PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
23. WRAP ALL SMOOTH-BARKED TREES - FASTEN TOP AND BOTTOM. REMOVE BY APRIL 1ST.
24. BACKFILL SOIL AND TOPSOIL TO ADHERE TO MN/DOT STANDARD SPECIFICATION 3877 (SELECT TOPSOIL BORROW) AND TO BE EXISTING TOP SOIL FROM SITE FREE OF ROOTS, ROCKS LARGER THAN ONE INCH, SUBSOIL DEBRIS, AND LARGE WEEDS UNLESS SPECIFIED OTHERWISE. MINIMUM 6" DEPTH TOPSOIL FOR ALL LAWN GRASS AREAS AND 18" DEPTH TOPSOIL FOR TREE, SHRUBS, AND PERENNIALS.
25. WOOD MULCH SHALL BE AT ALL TREE, SHRUB, PERENNIAL, AND MAINTENANCE AREAS, COLOR SHALL BE DARK BROWN. TREE AND SHRUB PLANTING BEDS SHALL HAVE 3" DEPTH OF SHREDDED HARDWOOD MULCH. SHREDDED HARDWOOD MULCH TO BE USED AROUND ALL PLANTS WITHIN TURF AREAS. PERENNIAL AND ORNAMENTAL GRASS BEDS SHALL HAVE 3" DEPTH SHREDDED HARDWOOD MULCH. MULCH TO BE FREE OF DELETERIOUS MATERIAL. DO NOT USE WEED BARRIER FABRIC. INDIVIDUAL TREES SHALL EACH HAVE A 4' DIAMETER MULCH RING.
26. EDGING TO BE COMMERCIAL GRADE VALLEY-VIEW BLACK DIAMOND (OR EQUAL) POLY EDGING OR SPADED EDGE, AS INDICATED. POLY EDGING SHALL BE PLACED WITH SMOOTH CURVES AND STAKED WITH METAL SPIKES NO GREATER THAN 4 FOOT ON CENTER WITH BASE OF TOP BEAD AT GRADE. UTILIZE CURBS AND SIDEWALKS FOR EDGING WHERE POSSIBLE. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. INDIVIDUAL TREE, SHRUB, OR RAIN-GARDEN BEDS TO BE SPADED EDGE, UNLESS NOTED OTHERWISE.

SEEDING/ SODDING:

27. HIGHLAND SOD SHALL BE NURSERY GROWN GRADE; CULTIVATED GRASS SOD WITH STRONG FIBROUS ROOT SYSTEM FREE OF STONES, BURNED OR BARE SPOTS CONTAINING NO MORE THAN 5 WEEDS PER 1000 SF. SOD SHALL BE GROWN IN MINERAL SOILS. SOD GROWN IN PEAT SOILS WILL BE REJECTED.
28. SOD MIXTURE SHALL BE 40% KENTUCKY BLUEGRASS, 30% PERENNIAL RYEGRASS, 30% FINE FESCUES.
29. FERTILIZER FOR SODDED AREAS SHALL BE NITROGEN 10%, PHOSPHORIC ACID 10%, SOLUBLE POTASH 10%.
30. APPLY FERTILIZER AT APPLICATION RATE OF 1LB/1000 SF TO TOPSOIL PRIOR TO PLACING SOD.
31. ALL TOPSOIL AREAS TO BE RAKED TO REMOVE DEBRIS AND ENSURE PROPER SOIL CONTACT. MOISTEN PREPARED SOIL IMMEDIATELY PRIOR TO LAYING SOD. LAY SOD IMMEDIATELY UPON DELIVERY TO THE SITE, LEAVING NO OPEN JOINTS OR OVERLAPPING JOINTS. DO NOT STRETCH SOD. DO NOT LAY SOD IF TEMPERATURE IS BELOW FREEZING.
32. ROLL SOD WITH 1/3 FULL ROLLER AFTER SOD AND SOIL HAVE DRIED. ROLL BEFORE THE FIRST WATERING.
33. SEED AS SPECIFIED ON PLANS AND PER MN/DOT 2014 SEEDING MANUAL SPECIFICATIONS.
34. REPAIR, REPLACE, OR PROVIDE SOD/SEED AS REQUIRED FOR ANY ROADWAY BOULEVARD AREAS ADJACENT TO THE SITE DISTURBED DURING CONSTRUCTION.

IRRIGATION:

35. PROVIDE IRRIGATION TO ALL PLANTED AREAS ON SITE. IRRIGATION SYSTEM TO BE DESIGN/BUILD BY LANDSCAPE CONTRACTOR. LANDSCAPE CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. CONTRACTOR TO PROVIDE OPERATION MANUALS, AS-BUILT PLANS, AND NORMAL PROGRAMMING. SYSTEM SHALL BE WINTERIZED AND HAVE SPRING STARTUP DURING FIRST YEAR OF OPERATION. SYSTEM SHALL HAVE ONE-YEAR WARRANTY ON ALL PARTS AND LABOR. ALL INFORMATION ABOUT INSTALLATION AND SCHEDULING CAN BE OBTAINED FROM THE GENERAL CONTRACTOR.

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CITY OF CHANHASSEN

PROJECT

AVIENDA

ISSUE / REVISION HISTORY

CONTACT ENGINEER FOR ANY PRIOR HISTORY

DATE	ISSUE / REVISION	REVIEW
22 APR 2020	WATERSHED SUBMITTAL	SES
01 MAY 2020	CITY SUBMITTAL	SES
27 MAY 2020	WATERSHED SUBMITTAL	SES
18 JUN 2021	FINAL PLAT SUBMITTAL	SES
06 AUG 2021	UTILITY PLAN SUBMITTAL	SES
27 AUG 2021	UTILITY PLAN SUBMITTAL	SES
14 SEP 2021	UTILITY PLAN SUBMITTAL	SES
29 OCT 2021	UTILITY PLAN SUBMITTAL - REVISION 1	SES
09 NOV 2021	UTILITY PLAN SUBMITTAL - REVISION 2	SES
22 FEB 2022	WATERSHED SUBMITTAL	SES
24 FEB 2022	CITY SUBMITTAL - REVISION 3	SES
22 MAR 2022	WATERSHED SUBMITTAL	SES
25 APR 2022	WATERSHED SUBMITTAL	SES

PROJECT MANAGER REVIEW

BY SES DATE 04.25.2022

CERTIFICATION

I hereby certify that this plan 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.

Joshua K. Popelka
License No: 44803 Date: 04/25/2022

Signature shown is a digital reproduction of original, Wet signed copy of this plan on file at Landform Professional Services, LLC office and is available upon request.

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

WATERSHED SUBMITTAL
APRIL 25, 2022

LANDFORM
From Site to Finish
105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401
Tel: 612-252-9070
Fax: 612-252-9077
Web: landform.net

FILE NAME L201SCD001.DWG
PROJECT NO. SCD14001.LEV

OVERALL LANDSCAPE PLAN
L2.1

IRRIGATION LEGEND

4 INCH MAINLINE (8,492 L.F.)

LATERAL LINE (18,335 L.F.)

IRRIGATION NOTES

1. THIS PLAN IS CONCEPTUAL AND SHALL NOT BE USED FOR CONSTRUCTION OR CONSTRUCTION BIDDING PURPOSES.
2. IRRIGATION SLEEVING NOT SHOWN ON PLAN.
3. IRRIGATION WATERING ZONES NOT DEFINED.
4. ASSUME 2-4" CONNECTIONS TO CITY WATER SUPPLY.
5. ASSUME IRRIGATION SPRAY HEADS ESTIMATED FIFTEEN (15') FEET ON CENTER ALONG EACH LATERAL LINE. HEADS NOT SHOWN ON PLAN.

Know what's Below. Call before you dig.

NORTH

0 100 200

OWNER

LEVEL 7 DEVELOPMENT, LLC
4600 KINGS POINT RD
MINNETRISTA, MN 55331

MUNICIPALITY

CITY OF CHANHASSEN

PROJECT

AVIENDA

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27 AUG 2021	UTILITY PLAN SUBMITTAL	SES
14 SEP 2021	UTILITY PLAN SUBMITTAL	SES
29 OCT 2021	UTILITY PLAN SUBMITTAL - REVISION 1	SES
09 NOV 2021	UTILITY PLAN SUBMITTAL - REVISION 2	SES
22 FEB 2022	WATERSHED SUBMITTAL	SES
24 FEB 2022	CITY SUBMITTAL - REVISION 3	SES
22 MAR 2022	WATERSHED SUBMITTAL	SES
25 APR 2022	WATERSHED SUBMITTAL	SES

PROJECT MANAGER REVIEW

BY SES DATE 04.25.2022

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WATERSHED SUBMITTAL
APRIL 25, 2022

LANDFORM
From Site to Finish

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Minneapolis, MN 55401

Tel: 612-252-9070
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FILE NAME L301SCD001.DWG

PROJECT NO. SCD14001.LEV

IRRIGATION PLAN

L3.1