

18681 Lake Drive East  
Chanhassen, MN 55317  
952-607-6512  
[www.rpb cwd.org](http://www.rpb cwd.org)

## Riley Purgatory Bluff Creek Watershed District Permit Application Review

**Permit No:** 2022-076

**Considered at Board of Managers Meeting:** February 1, 2023

**Received complete:** January 13, 2022

**Applicant:** Tricam Industries, Jeff Skubic

**Consultant:** Civil Site Group, David Knaeble

**Project:** Tricam Addition – The applicant proposes the expansion of an existing building, improvements to onsite sidewalks, additional parking areas, and the addition of a pickleball court on the site. Stormwater management includes a subsurface stormwater management facility to provide volume control, water quality, and rate control.

**Location:** 7677 Equitable Drive, Eden Prairie, Minnesota

**Reviewer:** Scott Sobiech P.E., and Annie Brunton, Barr Engineering

### Board Action

Manager \_\_\_\_\_ moved and Manager \_\_\_\_\_ seconded adoption of the following resolution based on the permit report that follows and the presentation of the matter at the February 1, 2023 meeting of the managers:

Resolved that the application for Permit 2022-076 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 2022-076 to the applicant on behalf of RPBCWD.

Upon roll call vote, the resolutions were adopted, \_\_\_\_\_.

## **Applicable Rule Conformance Summary**

Rule	Issue	Conforms to RBPCWD Rules?	Comments
C	Erosion Control Plan	See comment	See rule-specific permit condition C1 related to name of individual responsible for on-site erosion control.
J	Stormwater Management	Rate	Yes
		Volume	See comments See stipulation #5 related to verifying the infiltration capacity of the soils.
		Water Quality	Yes
		Low Floor Elev.	Yes
		Maintenance	See comment See rule-specific permit condition J1 related to recordation of stormwater facility maintenance declaration.
		Chloride Management	See comment See stipulation #6 related to providing an executed chloride management plan prior to permit close-out.
		Wetland Protection	Yes
L	Permit Fee Deposit	Yes	\$3,000 deposit fee received November 28, 2022. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of January 25, 2023 the amount due is \$2,910.
M	Financial Assurance	See Comment	The financial assurance is calculated at \$74,250.

## **Background**

The proposed redevelopment will include the expansion of an existing building, improvements to onsite sidewalks, additional parking areas, and the addition of a pickleball court on the site in Eden Prairie, Minnesota. The applicant proposes to use a subsurface stormwater infiltration/detention chamber facility, to provide water quality treatment, rate control, and volume abstraction.

The project site information is summarized in Table 1.

**Table 1. Project site information**

Site Information	Project Area
Total Site Area (acres)	3.25
Existing Site Impervious Area (acres)	1.83
Post Construction Site Impervious (acres)	2.00
New (increase) in Site Impervious Area (acres)	0.17
Percent increase in Impervious Surface	9%
Disturbed Site Impervious Area (acres)	0.19

Site Information	Project Area
Percent Disturbance of Existing Impervious Surface	10%
Total Disturbed Area (acres)	0.6

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

1. Permit Application received October 31, 2022 (Notified applicant on November 18, 2022 that submittal was incomplete; materials completing the application were received on January 13, 2023).
2. Stormwater Management Report dated October 28, 2022 (revised January 13, 2023)
3. Project Plan Set (12 sheets) dated October 28, 2022 (revised January 13, 2023)
4. Electronic HydroCAD models received on January 13, 2023
5. Geotechnical Evaluation Report by Haugo Geotechnical Services dated February 15, 2022
6. Geotechnical Evaluation Report by Chosen Valley Testing dated January 12, 2023
7. Engineer's Preliminary Estimate of Construction Costs dated January 13, 2023
8. Engineer's Response to Comments dated January 13, 2023

#### **Rule Specific Permit Conditions**

##### **Rule C: Erosion Prevention and Sediment Control**

Because the applicant proposes to alter 0.60 acres of land-surface area, the project must conform to the requirements in the RPBCWD Erosion Prevention and Sediment Control rule (Rule C, Subsection 2.1).

The erosion and sediment control plans prepared by Civil Site Group include installation of silt fence, rock construction entrance, erosion control blanket, placement of a minimum of 6 inches of topsoil, construction sequencing, decompaction of pervious areas compacted during construction, and retention of native topsoil onsite. To conform to RPBCWD Rule C requirements the following revisions are needed:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion control at the site. RPBCWD must be notified if the responsible individual changes during the permit term.

##### **Rule J: Stormwater Management**

Because the applicant proposes to disturb 0.6 acres of land-surface area, the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.1). The criteria listed in Subsection 3.1 will only apply to the disturbed areas and additional impervious surface on the project site because the proposed activity will not disturb more than 50 percent of the existing impervious surface and increases the impervious surface on the parcel by less than 50 percent (Rule J, Subsection 2.3).

The applicant is proposing construction of a subsurface stormwater infiltration/detention chamber facility to provide the rate control, volume abstraction and water quality management for the disturbed and replaced impervious area. Pretreatment for runoff entering the infiltration basin is being provided by a drawdown riser with a baffle.

#### ***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.

Modeled 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
Total site	6.7	6.7	11.6	11.2	22.0	19.9	0.6	0.6

The proposed stormwater management plan will provide rate control in compliance with the RPBCWD requirements for the 2-, 10-, and 100-year events. Thus, the proposed project meets the rate control requirements in Rule J, Subsection 3.1a.

#### ***Volume Abstraction***

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the new and disturbed impervious surface of the parcel. An abstraction volume of 1480 cubic feet is required from the 0.37 acres (16145 square feet) of regulated impervious area. Plans indicate pretreatment for runoff entering the infiltration basin is provided by a settling chamber with drawdown riser and baffle, thus the proposed project conforms with RPBCWD Rule J, Subsection 3.1b.1.

Soil borings performed by Chosen Valley Testing show that soils in the project area are typically silty sands over poorly graded sand with silt. Groundwater was observed at 20 feet at the soil borings (B-01 and B-02) under the subsurface stormwater infiltration/detention chamber facility. The subsurface investigation information summarized in the table below shows that groundwater is at least 3 feet below the bottom of the proposed infiltration basin (Rule J, Subsection 3.1.b.2.a).

Proposed BMP	Nearest Subsurface Investigation	Boring is within footprint?	Groundwater Elevation (feet)	BMP Bottom Elevation (feet)	Separation (feet)
Infiltration Basin	B-01	Yes	Groundwater observed at 20 ft (approx. el 851.5 ft)	858.04	6.54

The engineer concurs with the applicant's design infiltration rates of 0.45 inches per hour for sand and silty sand based on the guidelines provided in the Mn Stormwater Manual. Based on the design infiltration rate, the engineer concurs that the basins will draw down within 48 hours (Rule J, subsection 3.1b.3). Because an existing parking lot is at the location of proposed subsurface infiltration/detention, subsurface infiltration testing was not performed at the BMP location. Per Rule J, Subsection 3.1.b.2.c measured infiltration capacity of the soils at the bottom of the infiltration systems must be provided. The applicant must submit documentation verifying the infiltration capacity of the soils and that the volume control capacity is calculated using the measured infiltration rate. If infiltration capacity is less than needed to conform with the volume abstraction requirement in subsection 3.1b or there is inadequate separation to groundwater, design modifications to achieve compliance with RPBCWD requirements will need to be submitted (in the form of an application for a permit modification or new permit).

The table below summarizes the volume abstraction required and the volume abstraction achieved by the proposed stormwater management facilities on site. With the stipulation noted above regarding verification of amended soil infiltration rate, the engineer concurs with the submitted information and finds that the proposed project will conform with Rule J, Subsection 3.1.b.

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
1.1	1480	1.18	1592

### ***Water Quality Management***

Subsection 3.1.c of Rule J requires the Applicant 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) from site runoff, and no net increase in TSS or TP loading leaving the site from existing conditions.

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

removal efficiency for total suspended solids (TSS) from site runoff, and no net increase in TSS or TP loading leaving the site from existing conditions. Because the subsurface infiltration/detention system proposed by the applicant provides volume abstraction meeting the standard in 3.1b and the engineer concurs with the modeling, under paragraph 3.1c.i, the engineer finds that the proposed project provides the required stormwater-quality protection.

#### ***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 of the existing Tricam Industries building, the existing low floor of the adjacent property, and the 100-year flood elevation in the subsurface stormwater infiltration/detention chamber facility are summarized below. Because the low floor elevations are more than two feet above the proposed 100-year flood elevation, the proposed project is in conformance with Rule J, Subsection 3.6.

Location)	Building Low Floor Elevation (ft)	Stormwater Facility	100-year Event Flood Elevation of Stormwater Facility (ft)	Freeboard to 100-year Event (ft)
Tricam Building	873.82	subsurface stormwater infiltration/detention chamber facility	863.08	10.4
7667 Equitable Dr	871.53	subsurface stormwater infiltration/detention chamber facility	863.08	8.45

#### ***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. The stormwater management facilities include the subsurface stormwater infiltration/detention chamber facility and associated pretreatment chamber. To conform to the RPBCWD Rule J the following revisions are needed:

- J1. Permit applicant must provide a maintenance and inspection declaration as required by Rule J, Subsection 3.7. A draft declaration must be provided for District approval prior to recordation as a condition of issuance of the permit.

#### ***Wetland Protection***

Because runoff from this site is tributary to a downstream, off-site stormwater pond and is not tributary to any wetland, the proposed project does not trigger analysis under Rule J, subsection 3.10.

### ***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 release the \$5,000 in financial assurance held for the purpose of chloride management, 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.

### **Rule L: Permit Fee Deposit:**

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to deposit \$3,000 to be held in escrow and applied to cover the \$10 permit-processing fee and reimburse RPBCWD for permit review and inspection-related costs and when a 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. A permit fee deposit of \$3,000 was received on November 28, 2022. 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. As of January 25, 2023 the amount due is \$2,910.

### **Rule M: Financial Assurance:**

	Unit	Unit Cost	# of Units	Total
<b>Rule C: Erosion Control</b>				
Silt Fence	LF	\$2.50	1,450	\$3,625
Inlet Protection	EA	\$100	8	\$800
Rock Entrance	EA	\$250	1	\$250
Restoration	Ac	\$2,500	0.6	\$1,500
<b>Rule J: Chloride Management</b>	LS	\$5,000	1	\$5,000
<b>Rule J: Stormwater Management</b> infiltration basin and Rain Guardian: 125% of engineer's opinion of cost (\$54,000)	EA	125% OPC	1	\$67,500
Contingency (10%)		10%		\$7,868
<b>Total Financial Assurance</b>				<b>\$86,543</b>

**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 proposed project will conform to Rules C and J if the Rule Specific Permit Conditions listed above are met.

**Recommendation:**

Approval, contingent upon:

1. Financial Assurance in the amount of \$86,543.

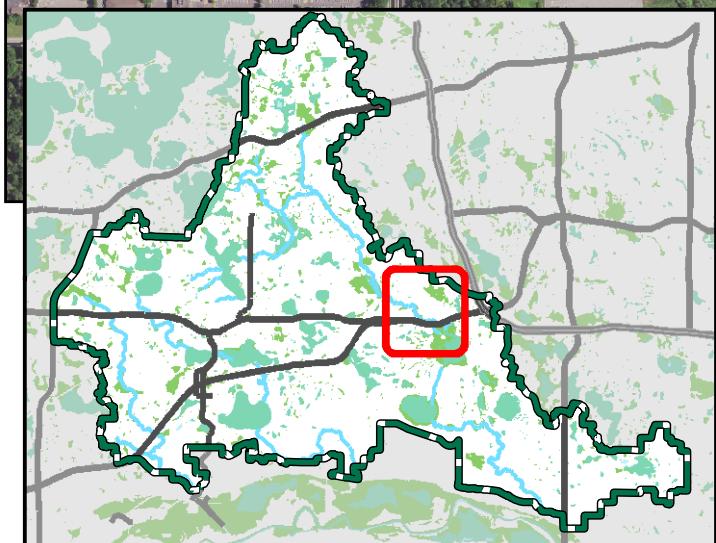
2. Applicant providing the name and contact information of the individual responsible for erosion and sediment control at the site.
3. Receipt in recordation a maintenance declaration for the operation and maintenance all stormwater management facilities. Drafts of all documents to be recorded must be approved by the District prior to recordation and proof of recordation must be provided to RPBCWD.
4. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of January 25, 2023 the amount due is \$2,910.

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

1. Continued compliance with General Requirements
2. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, all the stormwater facilities 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;
3. Providing the following additional close-out materials:
  - a. Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C.2c criteria
  - b. Documentation that constructed infiltration facilities perform as designed. This may include infiltration testing, flood testing, or other with prior approval from RPBCWD.
4. The work on the Tricam Industries development under the terms of permit 2022-076, if issued, must have an impervious surface area and configuration materially consistent with the approved plans. Design that differs materially from the approved plans (e.g., in terms of total impervious area) will need to be the subject of a request for a permit modification or new permit, which will be subject to review for compliance with all applicable regulatory requirements.
5. Per Rule J, Subsection 3.1.b.ii measured infiltration capacity of the soils at the bottom of the infiltration system must be provided. The applicant must submit documentation verifying the infiltration capacity of the soils and that the volume control capacity is calculated using the measured infiltration rate. In addition, subsurface soil investigation is needed to verify adequate separation to groundwater (Rule J subsection 3.1.b.2). If infiltration capacity is less than needed to conform with the volume abstraction requirement in subsection 3.1b or there is inadequate separation to groundwater, design modifications to achieve compliance with RPBCWD requirements will need to be submitted (in the form of an application for a permit modification or new permit).
6. To close out the permit and release the \$5,000 in financial assurance held for the purpose of the chloride management, 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.

7. 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.



Permit Location Map



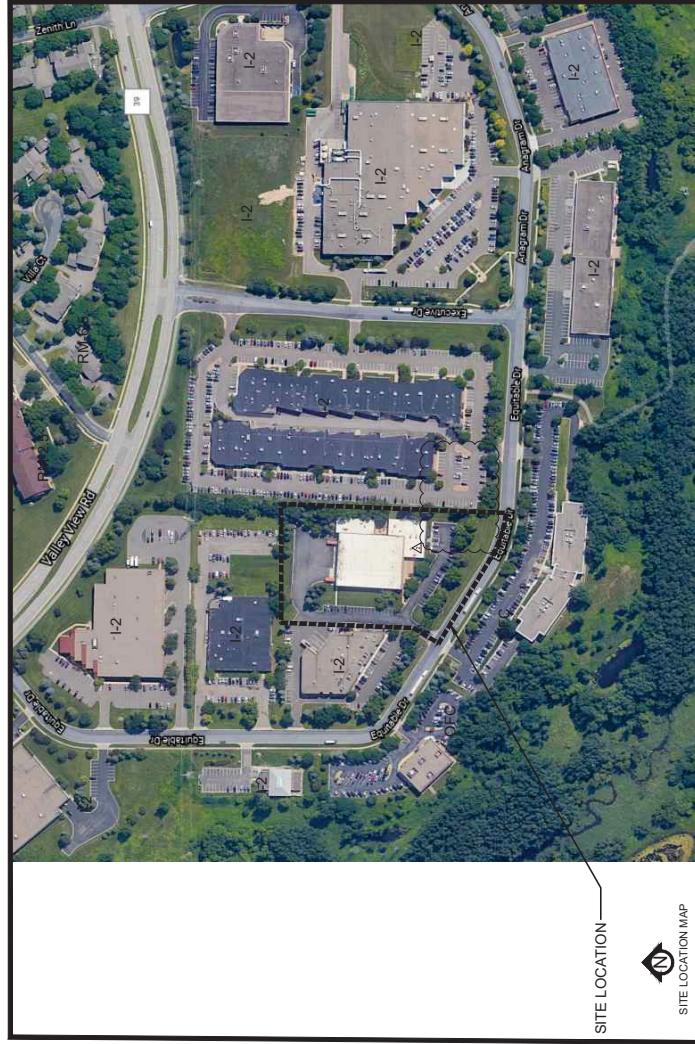
Feet

0 1,000

TRICAM ADDITION  
**Permit 2022-076**  
Riley Purgatory Bluff Creek  
Watershed District

# TRICAM BUILDING ADDITION

EDEN PRAIRIE, MINNESOTA  
ISSUED FOR: PERMIT SET



**CivilSite**

Civil Engineering Land Surveying Architecture  
DODGE CITY, KS 67701-2000  
CONTRACTOR: PLANFORCE INC.  
4611 W 30TH STREET, SUITE 200  
SUITE 200, CEDAR CITY, UT 84720  
614-875-0100  
www.planforce.com

**PLANFORCE**  
ARCHITECTURE • DESIGN  
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SUITE 200, CEDAR CITY, UT 84720  
614-875-0100  
www.planforce.com

## TRICAM BUILDING ADDITION

7677 EQUITABLE DRIVE EDEN PRAIRIE, MN 55344

TRICAM

7677 EQUITABLE DRIVE EDEN PRAIRIE, MN 55344

*Paul J. Kuhn*  
Project Manager  
Civil Site Location  
Contractor No. 20705

PROJECT NUMBER:	20705
DATE OF ISSUE:	07/10/2018
EXPIRATION DATE:	07/10/2019
APPROVAL DATE:	07/10/2018
APPROVAL SIGNATURE:	<i>[Signature]</i>
APPROVAL STAMP:	<i>[Stamp]</i>

TITLE SHEET	C0.0
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SHEET INDEX

SHEET NUMBER / SHEET TITLE	DESCRIPTION
C0.0 TITLE SHEET	REVISION NUMBER: 217W
V1.0 SITE SURVEY	ISSUE DATE: 07/10/2018
C1.0 SITES PLAN	EXPIRATION DATE: 07/10/2019
C2.0 SITE SURVEY	APPROVAL DATE: 07/10/2018
C3.0 LANDSCAPE PLAN	APPROVAL SIGNATURE: <i>[Signature]</i>
C4.0 UTILITY PLAN	APPROVAL STAMP: <i>[Stamp]</i>
C5.0 CIVIL DETAILS	
C5.1 COVE DETAILS	
C5.2 LANDSCAPE PLAN	
C5.3 UTILITY DETAILS	
C5.4 SWPPP: PROPOSED CONDITIONS	
C5.5 SWPPP: NARRATIVE	



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**ARCHITECT:**  
PLANFORCE GROUP  
4611 W 30TH STREET, SUITE 200  
SUITE 200, CEDAR CITY, UT 84720  
CONTACT: RYAN SCHROEDER  
902-7248

**DEVELOPER / PROPERTY OWNER:**  
TRICAM INC.  
7677 EQUITABLE DRIVE EDEN PRAIRIE, MN 55344  
CEO: PAUL J. KUHN  
J.SKULL@TRICAM.COM  
614-875-0100

**ENGINEER / LANDSCAPE ARCHITECT:**  
CIV. SITE GROUP  
GOLDEN VALLEY, MN 55442  
612-852-0200  
HAKO GEOTECHNICAL SERVICES, INC.  
8405 CLEARVIEW SOUTH  
8405 CLEARVIEW SOUTH, SUITE 100  
BLAINE, MN 55444  
CONTACT: PAUL J. KUHN  
612-250-0009

**SETOECNICAL ENGINEER:**  
HAKO GEOTECHNICAL SERVICES, INC.  
8405 CLEARVIEW SOUTH  
8405 CLEARVIEW SOUTH, SUITE 100  
BLAINE, MN 55444  
CONTACT: PAUL J. KUHN  
612-250-0009



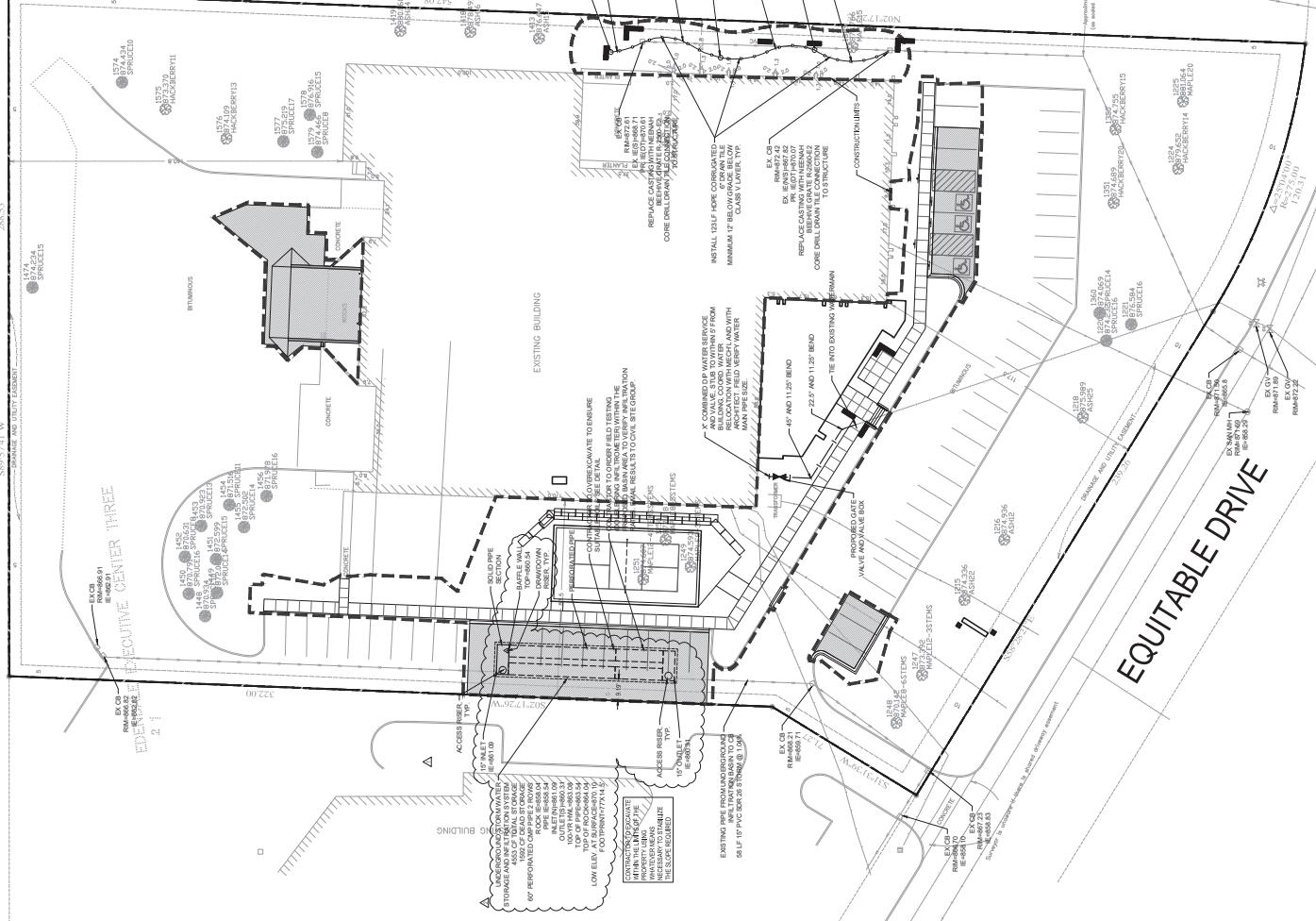






## GENERAL UTILITY NOTES

1. REBAR, RASING CEEFLIPS, TIE RODS AND EPOXY COATED LIFTS AND FEEDING LIFTS AND DRILLED TIES AND FEATURES PROVIDED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY LOSSES INCURRED BY THE OWNER DUE TO DELAYS OR DELAYED DELIVERY OF CONSTRUCTION MATERIALS AND EQUIPMENT.
3. ALL EXISTING UTILITY LOCATIONS SHALL BE APPROVED IN WRITING BY THE OWNER, CONSULTING ENGINEER, CONTRACTOR, AND OWNER'S ATTORNEY AND OTHERS THAT ARE INVOLVED IN THE PROJECT. NO CHANGES IN EXISTING UTILITY LOCATIONS WILL BE MADE WITHOUT THE CONSENT OF THE OWNER.
4. UTILITY INSULATION SHALL CONFORM TO THE CURRENT EDITION OF STANDARD SPECIFICATIONS FOR UTILITY INSULATION AND SERVICE LINE INSULATION AS PUBLISHED BY THE AMERICAN IRON AND STEEL INSTITUTE, INC. AS WELL AS THE AMERICAN STAINLESS STEEL ASSOCIATION AND THE AMERICAN STAINLESS STEEL ASSOCIATION. CONTRACTORS MUST PROVIDE A COPY OF THE STANDARD SPECIFICATIONS FOR UTILITY INSULATION AND SERVICE LINE INSULATION AS PUBLISHED BY THE AMERICAN IRON AND STEEL INSTITUTE, INC. AS WELL AS THE AMERICAN STAINLESS STEEL ASSOCIATION AND THE AMERICAN STAINLESS STEEL ASSOCIATION, INC. AS WELL AS THE AMERICAN STAINLESS STEEL ASSOCIATION AND THE AMERICAN STAINLESS STEEL ASSOCIATION.
5. CATCHBASINS SHALL BE ADVISED FROM STRUCTURAL RECORDS AND PLACED AND PLATED AT THE DIRECTION OF THE OWNER.
6. ALL WATER PIPE SHALL BE AS DOUBLE POLYPROPYLENE GLYCOLD (PPG) AS IS SPECIFIED IN ASCE 10-02 AND ASCE 10-02R FOR OTHERS NOTED.
7. ALL SWIMMING POOLS SHALL BE APPROVED BY THE STATE ENGINEERING BOARD OF PUBLIC WORKS (SEB) IN ACCORDANCE WITH ASCE 10-02 AND ASCE 10-02R.
8. ALL STORM DRAINS SHALL BE APPROVED BY THE STATE ENGINEERING BOARD OF PUBLIC WORKS (SEB) IN ACCORDANCE WITH ASCE 10-02 AND ASCE 10-02R.
9. PIPE LOCATIONS SHALL BE AGREED UPON PRIOR TO THE BEGINNING OF CONSTRUCTION, OR IN CASE OF CONSTRUCTION DELAY, PRIOR TO THE RECONSTRUCTION OF EXISTING UTILITIES.
10. UTILITIES ON THE PROPERTY SHOWN ON THE DRAWING ARE OWNED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PLACEMENT OF THESE UTILITIES AND THEY ARE NOT SUBJECT TO THE OWNERSHIP OR USE RESTRICTIONS.
11. CONTRACTOR SHALL FURNISH TO THE OWNER A COPY OF THE CONTRACTOR'S REQUIREMENTS FOR EXISTING UTILITIES ON THE PROPERTY.
12. CONTRACTOR SHALL NOT USE THE PROPERTY AS A WORKPLACE OR CONSTRUCTION SITE UNLESS EXPLICITLY APPROVED BY THE OWNER.
13. CONTRACTOR SHALL NOT OPERATE A CONSTRUCTION SITE ON THE PROPERTY UNLESS EXPLI-
14. CONTRACTOR'S FEET OF OWNERSHIP OF AN EXISTING UTILITY IN THIS CONTRACT SHALL BE AS PROVIDED IN THE CONTRACTOR'S AGREEMENT WITH THE OWNER.
15. APPROPRIATE FEET OF OWNERSHIP OF EXISTING UTILITY IN THIS CONTRACT SHALL BE AS PROVIDED IN THE CONTRACTOR'S AGREEMENT WITH THE OWNER.
16. CONTRACTOR'S FEET OF OWNERSHIP OF AN EXISTING UTILITY IN THIS CONTRACT SHALL BE AS PROVIDED IN THE CONTRACTOR'S AGREEMENT WITH THE OWNER.
17. CONNECTIONS TO EXISTING STOCHS SHALL BE COMPLETED BY THE MECHANICAL CONTRACTOR.
18. CONTRACTOR'S LOCATION AND SPEC OF SERVICE CONNECTIONS OF THE UTILITY CONTRACTORS AND STAFF.
19. CONTRACTOR'S UTILITY CONTRACTORS SHALL BE PREPARED TO MEET THE REQUIREMENTS OF THE CITY OF EDEN PRAIRIE FOR NEW CONSTRUCTION AND MAINTENANCE OF PUBLIC UTILITY SYSTEMS.
20. ALL STREET REPAIRS AND MAINTENANCE SHALL BE PERFORMED BY THE REQUIREMENTS OF THE CITY OF EDEN PRAIRIE. THE CONTRACTOR SHALL NOT BE HELD LIABLE FOR ANY DAMAGE CAUSED BY THE CONTRACTOR'S UTILITY CONTRACTORS.
21. CONTRACTOR'S PUBLIC UTILITY CONTRACTORS SHALL BE REQUIRED TO TEST PROPOSED GRADES WHERE REQUIRED. THE REQUIREMENT OF ALL CONTRACTORS BE COMPETENT, STRONG, AND IN GOOD STANDING.
22. CONTRACTOR'S PUBLIC UTILITY CONTRACTORS SHALL BE ASKED TO AVOID AREAS IDENTIFIED AS SEAGURANTS FOR TRAFFIC.
23. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF UTILITIES, COORDINATE THE INSTALLATION OF HITCHES, SURVEYS AS NECESSARY AND OWN BASIC INSULATION OF UTILITIES.
24. CONTRACTOR SHALL MAKE AS-FOUND SURVEYS PRIOR TO CONSTRUCTION AND SUMM THEIR PLANS TO ENHANCE UPON ACTUAL SURVEYS.
25. CONTRACTOR SHALL NOT USE THE PROPERTY AS A WORKPLACE OR CONSTRUCTION SITE UNLESS EXPLI-
26. PART OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF THE BUILDING'S WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH CANADA'S CH-147 AND IN THE STORM SEWER TEST REPORT.
27. CONTRACTOR SHALL FOLLOW THE REQUIREMENTS AS INDICATED IN THE STORM SEWER TEST REPORT AND PROVIDE A REPORT TO THE OWNER ONCE TESTS ARE COMPLETED.







## TRICAM BUILDING ADDITION

7677 EQUITABLE DRIVE PRAIRIE MINN 55344

TRICAM

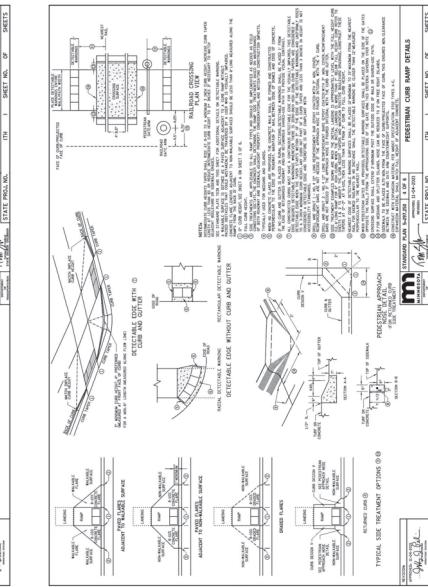
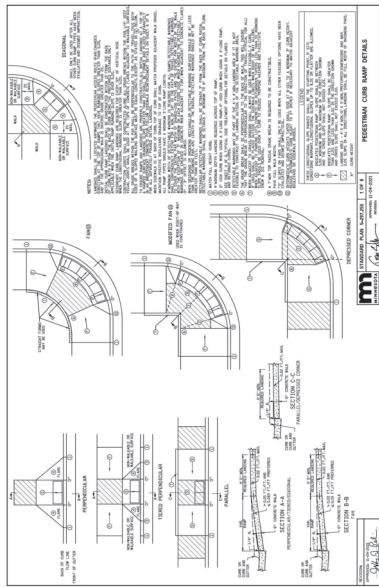
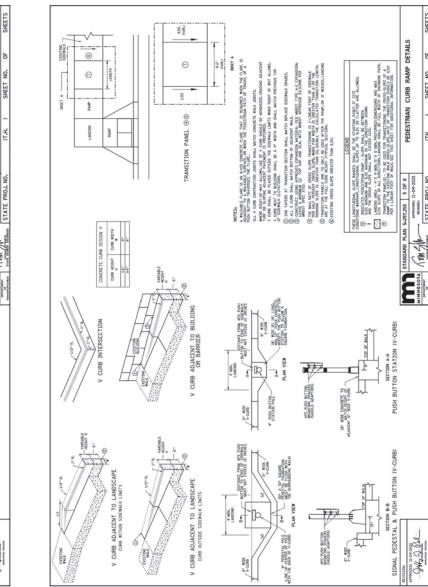
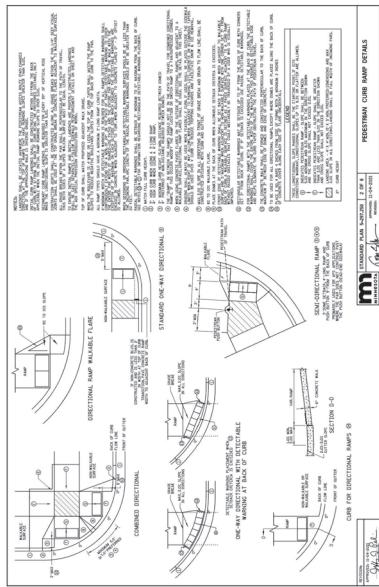
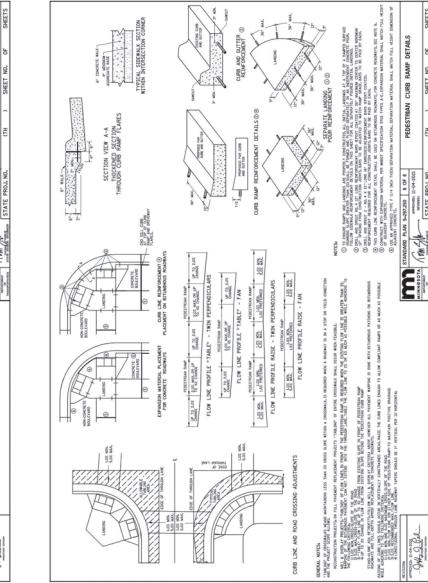
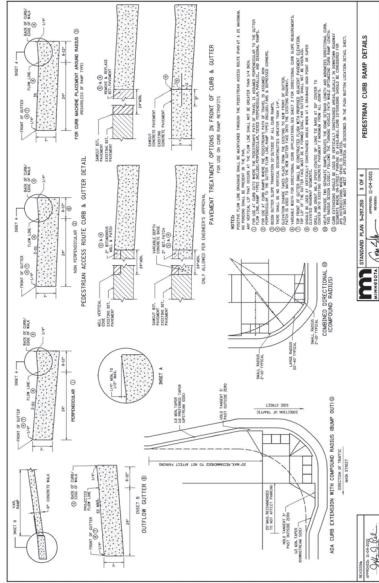
PROJECT CREDITS: THE PLAN  
PREPARED BY: PLANFORCE INC.  
DESIGNED BY: PLANFORCE INC.  
CONTRACTOR: CONSTRUCTION CONTRACTOR  
OWNER: OWNER NAMEISSUE DATE: 06/06/2018  
REVISION NUMBER: 217W  
DRAWING NUMBER: 00000000000000000000000000000000

REVISED BY: PLANFORCE INC.

DATE ISSUED: 06/06/2018

CIVIL DETAILS

C5.2



PLANT SCHEDULE - FULL SITE		
ITEM	COMMON BOTANICAL NAME	CONT.
TKC	Ericaceous Kalmia * Native Shrub	NATIVE PLANTS 4' < 6' BAB Native Cultivar Y
TCC	Common Boxwood / Green Boxwood	CONT. Native Plants Y
EVERGREEN TREES	Common Botanical Name	POLYANTHUS FRANCIVI
QTY	4	6 BAB Native Cultivar N
AR	Crabapple Red Pill /Asia Minor Crabapple	6 BAB Native Cultivar N
TO	5	Native Plants Y
ORNAMENTAL TREES	COMMON BOTANICAL NAME	CONT. Native Plants Y
AG	Autumn Balance Serviceberry / Amelanchier Canadensis "Autumn Brilliance"	17' CR BAB Native Cultivar Y
APB	1	Native Choke Berry / Prunus virginiana
LTV	Glossy Abelia	1'-6' CR BAB Native Cultivar Y
EVS-BLS	Glossy Abelia	CONT. Native Plants Y
EGS	Glossy Abelia	POLYANTHUS FRANCIVI
TG	Glossy Abelia	AC COAT Native Cultivar Y
FGS	Glossy Abelia	AC COAT Native Cultivar N
TN	Non-Invasive Non-Threatening Native	AC COAT Native Cultivar N
TT	Tayberry / Texas Native / Texas	AC COAT Native Cultivar N
SPECIES	COMMON BOTANICAL NAME	CONT. Native Plants Y
TS	Carex	Native Plants Y
EFS	Carex	Native Plants Y
SH	Elm Bar Native / Fraxinus Sp.	#1 CONT. Native Y
SPS	Elm Bar Native / Fraxinus Sp.	#1 CONT. Native N
PERENNIALS	COMMON BOTANICAL NAME	CONT. Native Plants Y
TC2	Carolina Twayblade X - Carex	#1 CONT. Native Y
TC4	Carolina Twayblade X - Native Twayblade	#1 CONT. Native Y
TC5	Moss Love Catcher X - Native Twayblade	#1 CONT. Native Y

**PLANT SCHEDULE - DOCK RAMP ONLY**

ITEM	COMMON BOTANICAL NAME	SIZE	CONT.
TG	Common Boxwood / Green Boxwood	CONT. Native Plants Y	POLYANTHUS FRANCIVI
TG	Non-Invasive Non-Threatening Native	#1 CONT. Native Y	POLYANTHUS FRANCIVI
TT	Tayberry / Texas Native / Texas	#1 CONT. Native N	POLYANTHUS FRANCIVI

**LANDSCAPE NOTES:**

1. WHERE SHREWS ARE PRESENT, BERS SHALL BE MULCHED DECORATIVE CRUSHED AGGREGATE SHOWN ON PLAN AS APPROVED. ALUMINUM SHEET IS TO BE KEPT OPEN-AIR AND 2' FROM THE PLANT BED.
2. APPLIED EARTH ALUMINUM SHEET IS TO BE KEPT OPEN-AIR AND 2' FROM THE PLANT BED.
3. IF SHREW OR RAT IS PRESENT, RECOMMENDED BARRIER COLOR AND SIZE TO COMPLY NEW LANDSCAPE OWNER TO APPROVE FREE FROM DEBRIS, DUST AND OTHER MATERIALS THAT CAN ATTRACT THESE ANIMALS.
4. PLANT MATERIALS SHALL CONFORM WITH THE AMERICAN ASSOCIATION OF HORTICULTURISTS STANDARDS OF HARMLESSNESS AND SMALL SIZE (HARDY STOCK, FREE FROM DISEASE, DISEASE AND PESTS).
5. LANDSCAPE ARCHITECT AND OWNER SHALL MONITOR THE QUANTITY OF PLATES SHOWN ON THE SHEET FOR THE QUANTITY SHOWN ON THE PLAN. THE PLATE SHALL BE REMOVED.
6. CONDITION OF NEIGHBORING PLATES SHALL BE INSPECTED THROUGHOUT THE DURATION OF CONTRACT, CONSTRUCTION, USE AND MAINTENANCE. THIS SYSTEM SHALL BE INSPECTED AND MAINTAINED AS DIRECTED BY THE OWNER IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED IN THE PLATE CONTRACT.
7. ALL AREAS REFERRED TO AS CONTRACTUAL SHALL BE USED AS LAYER ONE, AND SO SPECIFIED IN THE OTHERWISE NOTED ON THE DRAWINGS.
8. CONTRACTUAL LOCATIONS OF PLATE ARE SUBJECT TO HIGHLIGHTS AND OVERHEAD UTILITY LINES, APPROXIMATE DOORS AND MIRRORS, ARCHITECTURAL FEATURES AND WALLS. CONTRACTUAL PLATES ARE TO BE POSITIONED AS SHOWN ON THE DRAWING, OR AS DIRECTED BY THE ARCHITECT, PRIOR TO INSTALLATION.
9. ALL PLANT MATERIALS SHALL BE ARRIVED AND UNPACKED UNTIL ACCEPTED.
10. REPAIR AT NO COST TO OWNER FOR DAMAGE RELATED TO LANDSCAPE CONTRACTORS ACTIVITIES.
11. SWEEPS AND MAINTAIN PAVED SURFACES FREE OF DEBRIS GENERATED BY LANDSCAPE CONTRACTORS ACTIVITIES.
12. REPAIR AT NO COST TO OWNER FOR DAMAGE CAUSED BY LANDSCAPE CONTRACTORS ACTIVITIES.
13. ASK FOR THE PLATE CONTRACTOR TO PROVIDE CERTIFICATE OF INSPECTION AND SIGN OFF ON THE PLATE CONTRACT AND CONTRACT AGREEMENT. THIS CERTIFICATE SHALL BE PROVIDED BY THE PLATE CONTRACTOR AT THE TIME OF PAYMENT OF THE CONTRACTUAL AGREEMENT.
14. CONTRACTUAL AND SECURE APPROVAL OF PLATED UNIFORM SYSTEM INCLUDING PAYMENT FOR INSTALLATION.

**LANDSCAPE CALCULATIONS:**

- REQUIRED DEVELOPMENT OF TREES  
61.8 SF OF 17' TALL, 17" DBH
- SWEEP AND MAINTAIN PAVED SURFACES FREE OF DEBRIS GENERATED BY LANDSCAPE CONTRACTORS ACTIVITIES
- REQUIRED REPLACEMENT TREES
- HERITAGE TREE PRESERVED
- SIGNIFICANT TREES PRESERVED
- TOTAL TREES REQUIRED
- EXISTING TREES, OR RECALC IN PLANTED NEW TREES, 7' TALL, 8" DBH, 17' ANNUAL GROWTH
- TOTAL: 47.938 SQ FT, 14' DBH, 30" ANNUAL GROWTH
- DIFCCT
- FOR THE PURPOSE OF SATISFYING THE TOTAL CALPINE FINCH REQUIREMENT, THE CONTRACTOR SHALL PLANT ONE CALPINE FINCH IN EACH CAVITY IN A DAYTONA CAVITY

**RPCWD LANDSCAPE NOTES:**

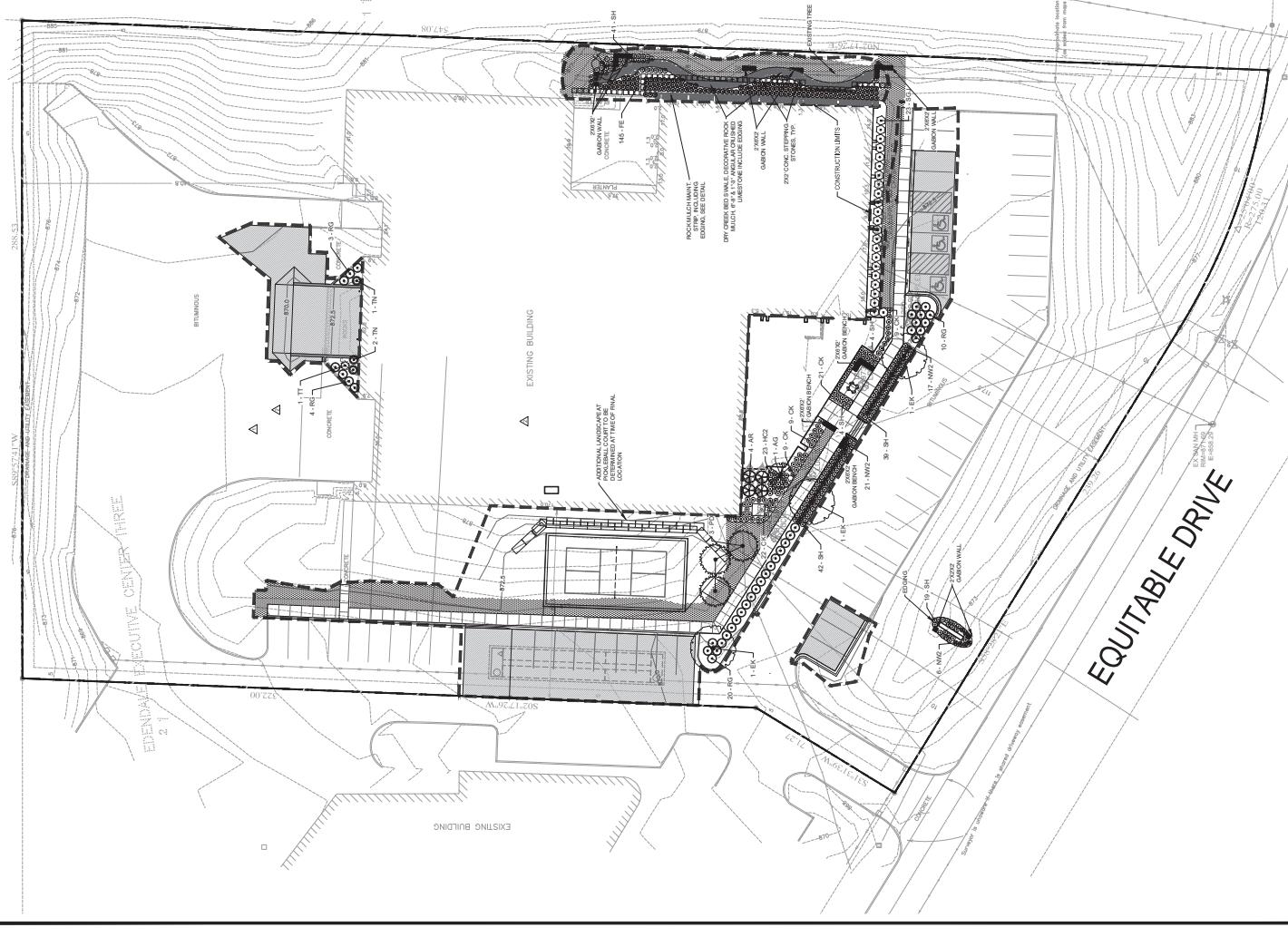
1. SURFACES FOR CONTRACTOR CONSTRUCTION AND BUILDING SURFACES FOR CONTRACTOR CONSTRUCTION MUST BE COMPACTED 100% DENSITY, NO FRICTION ALLOWED. A 200 POUNDS PER SQUARE FOOT LOAD TEST IS TO BE CONDUCTED ON THE CONTRACTOR'S CONCRETE SURFACES. THIS TEST IS TO BE CONDUCTED AS PART OF THE SITE RESTORATION. USE OF A DIAHOND OR SIMILAR CEMENTitious FIBER CONCRETE IS TO BE USED IN THE CONTRACTOR'S CONCRETE. THE CONTRACTOR'S CONCRETE MUST MEET THE REQUIREMENTS OF THE CALIFORNIA STATE CONCRETE CODE.
2. TOTAL TO BE RESTORED AS PART OF THE SITE RESTORATION MUST BE RESTORED AS PART OF THE SITE RESTORATION. USE OF A DIAHOND OR SIMILAR CEMENTitious FIBER CONCRETE IS TO BE USED IN THE CONTRACTOR'S CONCRETE. THE CONTRACTOR'S CONCRETE MUST MEET THE REQUIREMENTS OF THE CALIFORNIA STATE CONCRETE CODE.

AREA	MULCH TYPE	DEPTH	FABRIC	REMAINS
FENCE ROWS	LEAF MULCH, CEDAR	1" - 2"	BLUFFMULCH, L.L.	NO
BARRICADE	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.	NO
DRIVE BY BUILDING FOUNDATION	DETHATCH, 1" - 2" DEPTH	BLUFFMULCH, L.L.	NO	
SUBSTRATE	LEAF MULCH, 1" - 2" DEPTH	BLUFFMULCH, L.L.	NO	
CONCRETE	LEAF MULCH, 1" - 2" DEPTH	BLUFFMULCH, L.L.	NO	
CANON HILL	LEAF MULCH, 1" - 2" DEPTH	BLUFFMULCH, L.L.	NO	
STORY GROUNDS, ALL BALCONIES AND PATIOS	LEAF MULCH, 1" - 2" DEPTH	BLUFFMULCH, L.L.	NO	



MULCH SCHEDULE				
ITEM/SIZE	AREA	MULCH TYPE	DEPTH	FABRIC
TG	Existing Building	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.
TT	Drive By	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.
EGS	Substrate	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.
SH	Concrete	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.
EFS	Conc Units	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.
SPS	Canon Hill	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.
TC2	Story Grounds	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.
TC4	Balconies/Patios	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.
TC5	All Other Areas	LEAF MULCH	1" - 2"	BLUFFMULCH, L.L.

**L1.0**  
LANDSCAPE PLAN

 North arrow below.  
Call before digging.




## TRICAM BUILDING ADDITION

7677 EQUITABLE DRIVE EDEN PRAIRIE, MN 55344

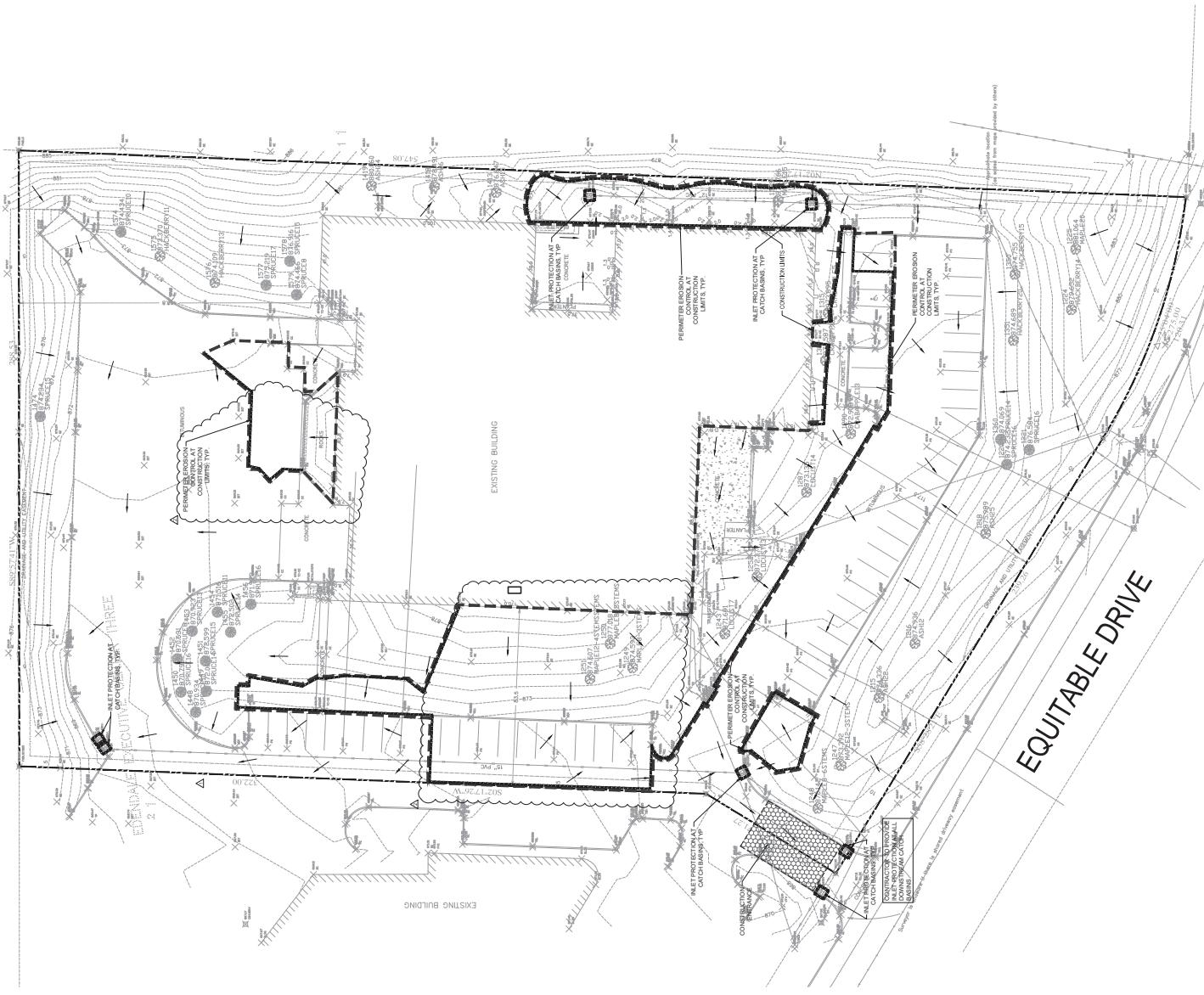
TRICAM

PROJECT NO. 00000000000000000000

CITY OF EDEN PRAIRIE EROSION CONTROL NOTES:  
1. REFERENCED CITY SPECIFIC EROSION CONTROL NOTES.

ALL SHEDDED EROSION AND SEDIMENT CONTROL PRACTICES AND REQUIREMENTS FOR THE PROJECT ARE TO BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORKERS PERFORM PRACTICES THAT ARE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS DOCUMENT. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORKERS ARE TRAINED IN THE USE OF EROSION AND SEDIMENT CONTROL PRACTICES.

SWPPP NOTES:  
 1. THE PROJECT IS LESS THAN ONE ACRE AND WILL NOT REQUIRE AN EROSION AND SEDIMENT CONTROL PLAN.  
 2. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORKERS ARE TRAINED IN THE USE OF EROSION AND SEDIMENT CONTROL PRACTICES.  
 3. SELF-GRAVITY INLET PROTECTION, TRADING AND EROSION CONTROL NOTES.  
 4. CONTRACTOR IS RESPONSIBLE FOR SUPPLY IMPLEMENTATION, INSPECTIONS AND COMPLIANCE WITH THIS PERMIT.



# EQUITABLE DRIVE

LEGEND:

EX. CONTOUR ELEVATION INTERNAL	1/2 CONTOUR ELEVATION INTERNAL
SL. SEWER, BIPOLLAR, GRIDS, MFT	SEWER, BIPOLLAR, GRIDS, MFT
INLET PROTECTION	INLET PROTECTION
SIMULATED CONTRACTOR ENTRANCE	SIMULATED CONTRACTOR ENTRANCE
EROSION CONTROL BLANKET	EROSION CONTROL BLANKET

SW1.0

Know what's below,  
Call before you dig.



