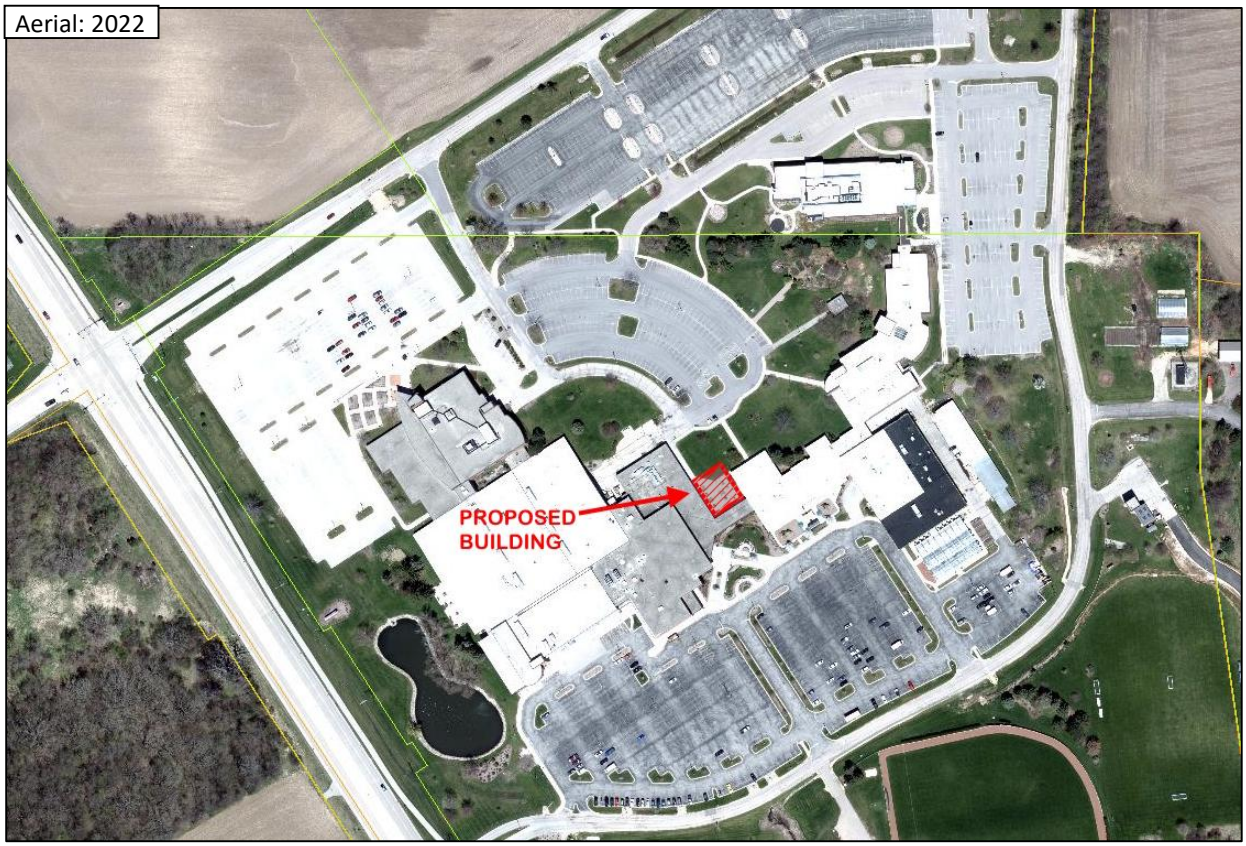
#2025-125
McHenry County College Engagement Hall – Final PUD Amendment
Project Review for Planning and Zoning Commission

Meeting Date:	August 6, 2025	
Request:	Final PUD Amendment for the construction of an Engagement Hall building	
Location:	McHenry County College, 8900 US Route 14	
Acreage:	Approximately 170 acres	
Existing Zoning:	W Watershed	
Surrounding Properties:	North:	O-PUD Office and W Watershed
	South:	RE Residential Estate
	East:	W Watershed and A-1 Agriculture (County)
	West:	A-1 Agriculture (County)
Staff Contact:	Darrell Moore (815) 356-3612	

Background:

- The property is the location of McHenry County College, which seeks to build an addition near the center of the building complex for meetings and events, referred to as the Engagement Hall.
- The Engagement Hall is approximately 9,000 square feet in area. The project also includes redesigning the outside paved surface areas on each side of the building. The net total increase in impervious surface will be approximately 3,000 square feet. The runoff from the proposed building will be routed to a proposed infiltration basin, separate from the existing detention basin. A stormwater report was prepared by HR Green.
- No additional parking is proposed. The petitioner has stated that, because the Engagement Hall will host events already occurring at the college, increased parking demand will be minimal and be able to be accommodated by the existing parking facilities.
- Previous Approvals:
    - 1985-15: MCC annexation
    - 2000-09: PUD Amendment for building and parking lot expansion
    - 2008-05: Variation to allow up to 50% impervious surface coverage
    - 2012-30: Master Plan Conceptual
    - 2013-12: Deferral from Watershed stormwater requirements for parking lot and temporary sign
    - 2015-65: Adoption of a Master Sign plan for the campus

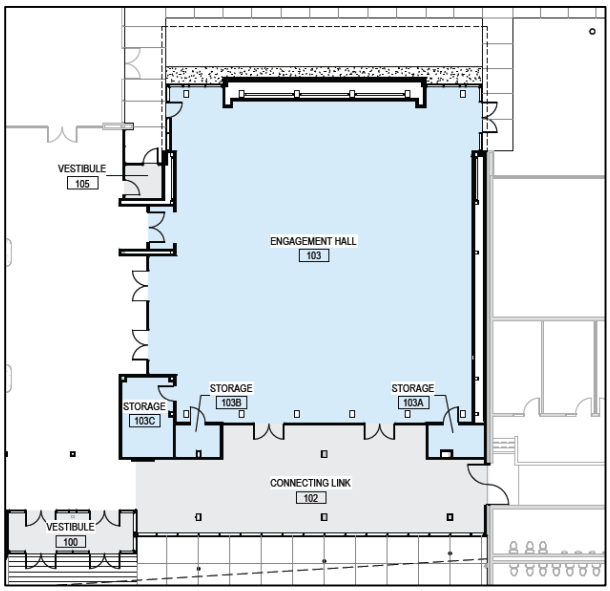
- 2016-57: Final PUD Amendment to construct the Science Center building and modification of the Master Sign Plan
- 2022-157: Final PUD Amendment to construct the CATI building



Development Analysis:

General

- Request: Final PUD Amendment for the construction of an Engagement Hall building.
- The request requires review by the PZC and approval from the City Council since the property is governed by a PUD and an approved site plan.
- Zoning: The site is zoned W Watershed
- Land Use: The land use map shows the area as Public & Semi-Public



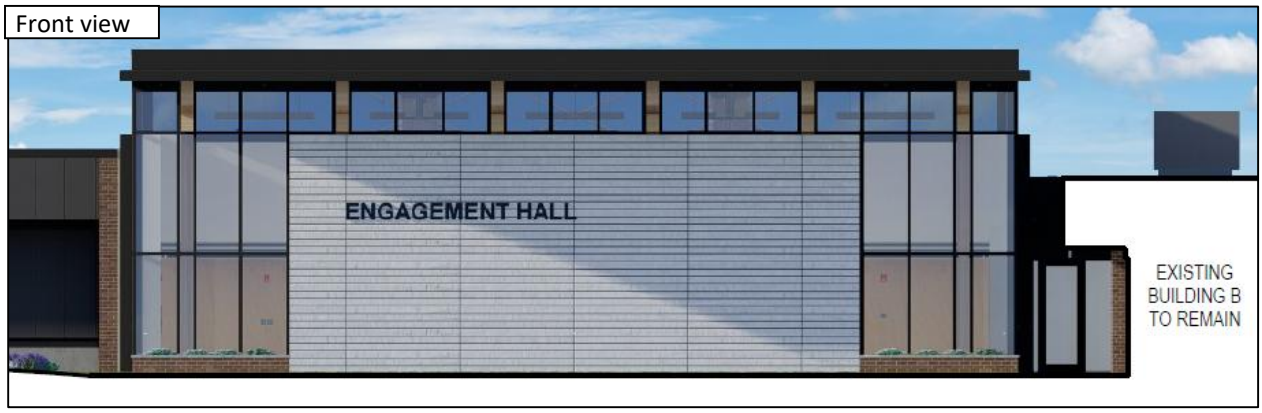
Site Layout

- The project includes a new building addition, new patios/flatwork in the front and rear, and an infiltration basin. The total project area is 50,348 square feet.

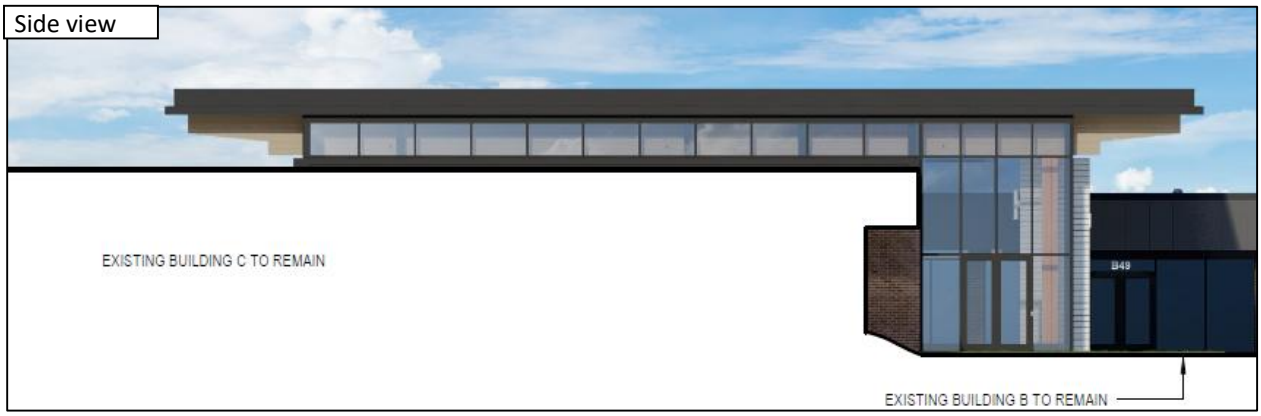
- Because the proposed building location is currently a courtyard patio, the net increase in impervious surface area is calculated to be 3,014 square feet.
- The proposed building, which is setback more than 700 feet from Tarton Drive, will integrate into the existing building complex through multiple interior connections.
- Runoff from the added impervious surface will be diverted to a newly created stormwater infiltration basin.

Building Elevations

- At 23 feet, the proposed building will be five to seven feet taller than the adjacent portions of the existing building to the east and west, providing a varying roofline profile encouraged in the UDO design standards. This height is compliant with the W Watershed zoning district, which does not have a specified height limitation, and remains lower than other buildings in the campus complex.
- Proposed materials include: aluminum curtain wall (glass), dark aluminum fascia and coping, heavy timber beams, and a glass fiber reinforced concrete panel system. The exterior of the existing building connector to the south is proposed to be remodeled to match the materials of the Engagement Hall, plus it will feature phenolic (high-pressure laminate) wood panel planks framing a wall of windows. The predominant use of glass complements other newer portions of the campus complex, including a rounded two-story glass entrance on Building E, just east of the proposed addition. The dark aluminum cornice is similar to the cornices in the older parts of the complex. The UDO design standards are met.







Landscaping

- The proposal included extensive landscaping improvements including the planting of deciduous trees, ornamental trees, deciduous shrubs, evergreen shrubs, grasses, perennials, and native seed/wildflower mix.

Parking

- No existing parking will be impacted by the proposed addition, and no new parking is proposed.
- According to the application, the Engagement Hall daytime events would include student orientations, job fairs, speaker presentations, and round-table discussions. Evening events would include galas, banquets, and fundraisers. All of these events are already held on campus in different locations, such as the cafeteria, gym, and large classrooms, that require extensive set-up and take-down efforts. By providing a dedicated space on campus to serve events that are already occurring there, the petitioner anticipates that any additional parking demand will be minimal.

Findings of Fact:

The purpose of Planned Unit Developments is to encourage and allow more creative and imaginative design of land developments than is possible under district zoning regulations. Planned Unit Developments are, therefore, intended to allow substantial flexibility in planning and designing a proposal. This flexibility is often in the form of relief from compliance with conventional zoning ordinance site and design requirements.

Ideally, this flexibility results in a development that is better planned, contains more amenities, and is ultimately more desirable than one that would have been produced through compliance with typical zoning ordinance and subdivision controls.

Therefore, more lenient site requirements may be granted where the Planned Unit Development contains features not normally required of traditional developments. If the evidence is not found to justify such conditions, that fact shall be reported to the City Council with a recommendation that the variation request be lessened or denied.

2030 Comprehensive Land Use Plan Summary

The Comprehensive Plan designates the subject property as Public / Semi-Public. MCC fits within this category. The following goals are applicable to this request:

> **Goal:** Provide area for high quality public and semi-public facilities, such as schools, libraries, municipal facilities and private service providers, throughout the City to support the diverse and evolving needs of the people in the City.
>
> **Supporting Action:** Carefully plan for a reasonable rate of growth that promotes a maximum use of existing facilities and minimizes the need for new facilities.
>
> **Success Indicator**: Public and Semi-public uses should look to expand within their existing facilities.

Recommended Conditions:

If a motion to recommend approval of the petitioner's request is made, it should include the following conditions:

1. Project plans shall be consistent with the information and testimony provided by the petitioner in the hearing and the following provided documents:
    A. Application (7/15/25)
    B. Site Plan / Architectural Plan / Landscape Plan (Demonica Kemper Architects, IMEG Corp., HR Green, 5/27/25)
    C. Exterior Elevations (Demonica Kemper Architects)
    D. Floor Plan (Demonica Kemper Architects)
    E. Stormwater Management Report (HR Green, 5/16/25)

2. That all review comments and requirements of the departments of Community Development, Public Works and Engineering, stormwater consultant, and Fire Rescue shall be sufficiently addressed.

PARCEL IN QUESTION

(Total Project Area includes proposed building, remodeled exteriors, stormwater basin, and landscaping)



City of Crystal Lake
Development Application

Office Use Only
File # _____

Project Title: _____

Action Requested

- ___ **Annexation**
- ___ **Comprehensive Plan Amendment**
- ___ **Conceptual PUD Review**
- ___ **Final PUD**
- X **Final PUD Amendment**
- ___ **Final Plat of Subdivision**
- ___ **Preliminary PUD**
- ___ **Preliminary Plat of Subdivision**
- ___ **Rezoning**
- ___ **Special Use Permit**
- ___ **Variation**
- ___ **Other**

Petitioner Information

Name: McHenry County College Dist 528
Address: 8900 Route 14
Crystal Lake IL 60012
Phone: 815-455-8585
Fax: _____
E-mail: btenuta@mchenry.edu

Owner Information (if different)

Name: McHenry County College Dist 528
Address: 8900 Route 14
Crystal Lake IL 60012
Phone: 815-455-8585
Fax: _____
E-mail: btenuta@mchenry.edu

Property Information

Project Description: Final PUD Amendment for the construction of a building addition.
SEE Exhibit "A"

Project Address/Location: 8900 Route 14, Crystal Lake IL 60012

PIN Number(s): 13-25-300-021, 13-25-176-001 & 13-25-300-015

Development Team

Please include address, phone, fax and e-mail

Developer: McHenry County College Dist 528, 8900 Route 14, Crystal Lake IL 60012, 815-455-8585
btenuta@mchenry.edu

Architect: Demonica Kemper, David Sikorski, 125 W Halsted, Ste 301, Chicaho IL 60661 - 312-941-9988
dsikorski@dkadesign.com

Attorney: Daniel F Curran, 8600 Route 14, Ste 210, Crystal Lake IL 60012 - 815-560-8008 -
dcurran@dancurranlaw.com

Engineer: HR Green Todd Richards - 1391 Corporate Dr, Ste 203, McHenry IL 60050 - 815-385-1778
trichards@hrgreen.com

Landscape Architect: _____

Planner: _____

Surveyor: _____

Other: _____

Signatures

_____ 7/15/2025

PETITIONER: Print and Sign name (*if different from owner*) **Date**

As owner of the property in question, I hereby authorize the seeking of the above requested action.

_____ 7/15/2025

OWNER: Print and Sign name **Date**

NOTE: If the property is held in trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.

EXHIBIT "A"

The anticipated events in the Engagement Hall would include daytime events (student orientations, job fairs, speaker presentations or round table discussions) and evening events (galas, banquets, fundraisers). Occasional weekend events would also be possible. The events noted all currently are held on campus in different locations that require more extensive set-up and take parts of campus offline during those times (cafeteria, gym, large classrooms) so this space would serve to house those events already occurring on campus in a dedicated space with minimal anticipated additional parking load.

City of Crystal Lake
Development Application
Ownership Sign-off Acknowledgement Form

The following information is related to a development application. As the owner of the property in question, I (we) acknowledge that the information provided in the submittal was reviewed and approved.

Owner Information

Name: McHenry County College District 528

Address: 8800 Route 14, Crystal Lake IL 60012

Phone: 815-455-8585

E-mail: btenuta@mchenry.edu

Project Name & Description: Final PUD Amendment for the construction of a building addition

Project Address/Location: 8900 Route 14, Crystal Lake IL 60012

Signature

ROBERT TENUTA 7/15/2025

Owner: Print and Sign name Date

NOTE: If the property is held in a trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.

Certificate of the Publisher

Northwest Herald

Description:MCHENRY CO COLLEGE 528
2260280
DAN CURRAN

DAN CURRAN LAW, P.C.
SUITE 210
8600 US HWY 14
CRYSTAL LAKE IL 60012

Shaw Media certifies that it is the publisher of the Northwest Herald. The Northwest Herald is a secular newspaper, has been continuously published daily for more than fifty (50) weeks prior to the first publication of the attached notice, is published in the City of Crystal Lake, County of McHenry, State of Illinois, is of general circulation throughout that county and surrounding area, and is a newspaper as defined by 715 ILCS 5/5.

A notice, a true copy of which is attached, was published 1 time(s) in the Northwest Herald, namely one time per week for one successive week(s). Publication of the notice was made in the newspaper, dated and published on
07/19/2025

This notice was also placed on a statewide public notice website as required by 715 ILCS 5/2.1.
In witness, Shaw Media has signed this certificate by John Rung, its Publisher, at Crystal Lake, Illinois, on
19th day of July, A.D. 2025

Shaw Media By:

John Rung, Publisher

Account Number 10210303

Amount $95.90

PUBLIC NOTICE

PUBLIC NOTICE BEFORE THE PLANNING AND ZONING COMMISSION OF THE CITY OF CRYSTAL LAKE, MCHENRY COUNTY, ILLINOIS

IN THE MATTER OF THE APPLICATION OF McHenry County College District 528

LEGAL NOTICE

Notice is hereby given in compliance with the Unified Development Ordinance (UDO) of the City of Crystal Lake, Illinois that a public hearing will be held before the Planning and Zoning Commission upon the application by Bob Tenuta, on behalf of the McHenry County College District 528, for a Final Planned Unit Development Amendment, relating to the property at 8900 U.S. Highway 14 in Crystal Lake, Illinois 60014. PINS: 13-25-300-021, 13-25-176-001, 13-25- 300-015.

This application is filed for the purpose of seeking an amendment to an approved Final Planned Unit Development to allow the construction of the Engagement Hall building addition, pursuant to UDO Article 4 and Article 9. Plans for this project can be viewed at the Crystal Lake Community Development Department at City Hall. A public hearing before the Planning and Zoning Commission for this request will be held at 7:00 p.m. on Wednesday August 6, 2025 at the Crystal Lake City Hall, 100 West Woodstock Street, at which time and place any person determining to be heard may be present.

Jeff Greenman, Chairperson
Planning and Zoning Commission City of Crystal Lake

(Published Northwest Herald Jul. 19, 2025) 2260280

MCHENRY COUNTY COLLEGE
ENGAGEMENT HALL
8900 US-14
CRYSTAL LAKE, ILLINOIS 60012

PARCEL # 13-25-300-021

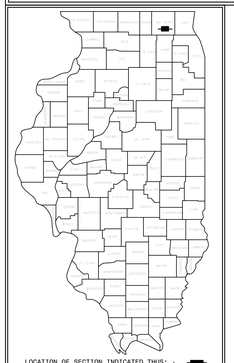
SHEET INDEX

Sheet Number	Sheet Title
C-00	COVER SHEET
C-01	GENERAL NOTES, SPECIFICATIONS & LEGEND
C-02	OVERALL SITE PLAN
C-03	SITE DEMOLITION PLAN
C-04	SITE PLAN
C-05	GRADING & EROSION CONTROL PLAN – NORTH
C-06	GRADING & EROSION CONTROL PLAN – SOUTH
C-07	UTILITY PLAN
C-08	EROSION CONTROL DETAILS
C-09	EROSION CONTROL DETAILS
C-10	STANDARD CONSTRUCTION DETAILS
C-11	STANDARD CONSTRUCTION DETAILS
C-12	STANDARD CONSTRUCTION DETAILS
L-100	OVERALL LANDSCAPE PLAN
L-101	LANDSCAPE NOTES & DETAILS
L-102	LANDSCAPE SPECIFICATIONS

OWNER:
MCHENRY COUNTY COLLEGE
8900 U.S. HIGHWAY 14
CRYSTAL LAKE, ILLINOIS 60012

ENGINEER:
HR GREEN INC.,
1391 CORPORATE DRIVE, SUITE 203
McHENRY, IL 60050
PHONE: (815) 385-1778

TODD RICHARDS, P.E. PROJECT ENGINEER
PHONE: (815) 759-8350



LOCATION OF SECTION INDICATED THUS: -

Dial 811 or 1-800-892-0123

811

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

CALL JULIE 1-800-892-0123

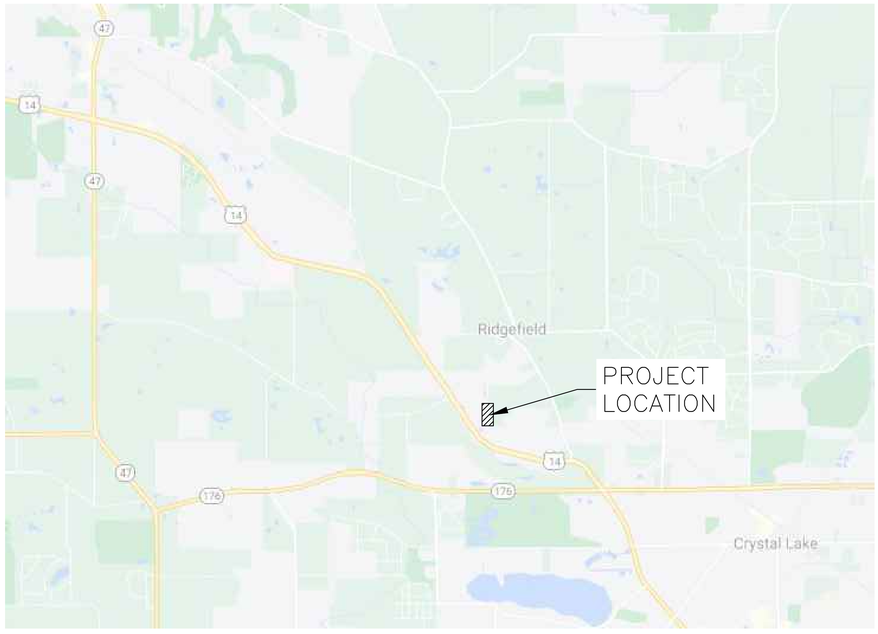
WITH THE FOLLOWING:
COUNTY McHenry
CITY-TOWNSHIP Crystal Lake - Dorr
SEC. & 1/4 SEC. NO.# SW 1/4 OF SEC-25-T-44N-7E

48 hours before you dig
(Excluding Sat., Sun. & Holidays)

NOTE:

- HR GREEN, INC. IS TO BE NOTIFIED 3 DAYS PRIOR TO CONSTRUCTION START.
- HR GREEN, INC. SHALL BE INCLUDED IN ALL PRE-CONSTRUCTION MEETINGS.
- ANY KNOWN DISCREPANCIES ON THIS PLAN SET MUST BE BROUGHT TO THE ATTENTION OF HR GREEN, INC. PRIOR TO THE START OF CONSTRUCTION.

LOCATION MAP



NORTH
(N.T.S.)

SITE BENCHMARK NOTES:

- SOURCE BENCHMARK: BENCHMARK #4" PER AS SHOWN ON THE PLANS FOR "MCHENRY COUNTY COLLEGE NEW SCIENCE CENTER " DATED AUGUST 11, 2017, BEING A CUT SQUARE ON NORTH FACE OF LIGHT POLE BASE LOCATED IN THE MIDDLE CURB ISLAND LOCATED EAST OF PARKING LOT D, NORTH OF THE RING ROAD AND SOUTH OF BUILDING D.
  - ELEV = 921.24 (NAVD 88)
- SITE BENCHMARK (BM#1): NORTHWEST ARROW BOLT ON THE FIRE HYDRANT LOCATED APPROXIMATELY 90 FEET WESTERLY OF THE ENTRANCE TO BUILDING E.
  - ELEV = 921.49 (NAVD 88)
- SITE BENCHMARK (BM#2): NORTHEAST ARROW BOLT ON THE FIRE HYDRANT LOCATED APPROXIMATELY 70 FEET NORTHEASTERLY OF THE ENTRANCE TO BUILDING B.
  - ELEV = 919.44 (NAVD 88)
- HR GREEN, INC. CONTROL DISCLAIMER: THE ATTACHED BENCHMARKS ARE FOR CONSTRUCTION PURPOSES ONLY. BY USING THE DATA PROVIDED HEREON, USERS ARE RESPONSIBLE FOR VERIFYING THE ACTUAL HORIZONTAL AND VERTICAL LOCATIONS OF PROPOSED IMPROVEMENTS BASED ON THE EXISTING EXTERIOR PROPERTY CORNERS AND SITE BENCHMARKS. HR GREEN, INC. ASSUMES NO RESPONSIBILITY FOR THE IMPROPER USE OF THE INFORMATION HEREIN PROVIDED.

HRGreen

1391 CORPORATE DRIVE, SUITE 203 | McHENRY, ILLINOIS 60050
Phone: 815.385.1778 | Toll Free: 800.728.7805 | Fax: 815.385.1781 | HRGreen.com

ISSUED FOR BID – NOT FOR CONSTRUCTION

5/13/2025 2:42:39 PM
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ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL, 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE 203 MCHENRY, IL, 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

LICENSED PROFESSIONAL ENGINEER
TODD M. RICHARDS
062-058779
STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/27/25

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
C-00

SPECIFICATIONS & GENERAL NOTES

All items of this project shall be governed by specifications included in the documents listed below:

A. *"Standard Specifications for Road and Bridge Construction" prepared by the Department of Transportation of the State of Illinois and adopted by said department (latest revision).*

B. *"Supplemental Specifications and Recurring Special Provisions" adopted by the Illinois Department of Transportation (latest revision date).*

C. *"Standards and Specifications for Soil Erosion and Sediment Control" (latest revision).*

D. *"Standard Specifications for Water and Sewer Main Construction in Illinois" (latest revision).*

In addition the following special provisions supplement the said specifications, and in case of conflict with any part or parts of said specifications, these special provisions shall take precedence and shall govern.

1. *SCOPE OF WORK. The proposed improvement consists of supplying all the necessary labor, material and equipment to satisfactorily construct and install all improvements according to the plans designated as "McHENRY COUNTY COLLEGE ENGAGEMENT HALL."*

2. *CONSTRUCTION OF UNDERGROUND UTILITIES*

   A. *Excavation: Where working conditions and right-of-way permit, pipe line trenches with sloping sides may be used.*

      The slopes shall not extend below the top of the pipe, and trench excavations below this point shall be made with vertical sides with widths not exceeding those specified herein for the various sizes of pipe.

      Open-cut trenches shall be sheeted and braced as required by the governing State and Federal laws and municipal ordinances, and as may be necessary to protect life, property, or the work.

      Where firm foundation is not encountered at the grade established due to unsuitable soil, all such unsuitable material shall be removed and replaced with approved compacted granular material.

   B. *Width of trench: See trench detail.*

   C. *Removal of water: Contractors shall, at all times during construction, provide and maintain ample means and devices with which to remove and properly dispose of all water entering the excavations. No sanitary sewer shall be used for disposal of trench water, unless specifically approved by the Engineer and then only if the trench water does not ultimately arrive at existing pumping or sewage treatment facilities.*

   D. *Bedding of pipe: All pipe shall be installed on a bed of approved, compacted granular material unless otherwise approved by the City Engineer. The bedding and backfilling of excavated materials shall be cleared with City first and be installed as per typical trench backfill detail.*

   E. *Special backfill: Whenever the excavation is in existing or proposed street, parking areas, driveways, or other paved areas, the trench shall be backfilled with approved selected granular material, compacted in place. The top 12" of the backfill shall be filled with road gravel or crushed stone and maintained as a temporary surface for the normal use of the area. Special backfill shall meet the requirements of the detail UG-03 found on Sheet C-11. Note: Excavated materials may be used if approved by the City Engineer.*

   F. *Restoration of drainage: As soon as possible after backfilling the trench, all ditching, grading and shaping necessary to restore the original drainage in the area of work shall be performed. Culverts removed during the course of the work shall be replaced as soon as practicable.*

      Adequate temporary drainage facilities shall be provided during construction.

   G. *Utilities: The Contractor shall notify all utilities prior to the installation of any pipe lines. Where conflict exists between underground utilities and the proposed underground piping requiring a revision to the plans, such construction shall not be undertaken until such changes are approved by the City Engineer in writing.*

3. *The subgrade shall be free of unsuitable material and shall be prepared in accordance with the recommendations noted in the geotechnical report prepared by Midland Standard dated April 23, 2013 for this project. Testing for compaction shall be the responsibility of the contractor. The City of Crystal Lake will require a proof-roll test if warranted by final soil compaction. This also applies to the parking lot and aisle subgrade and also upon gravel placement. All topsoil and any organic materials must be removed.*

4. *Easements for the existing utilities, both public and private, and utilities within public rights-of-way are shown on the plans according to available records. The Contractor shall be responsible for determining the exact location in the field of these utility lines and their protection from damage due to construction operations. If existing utility lines of any nature are encountered which conflict in location with new construction, the Contractor shall notify the Engineer so that the conflict may be resolved.*

5. *Contractor shall be responsible for securing all Permits including municipal permits.*

6. *INSPECTION. All improvements shall be subject to inspection by a duly authorized and qualified City inspector both during the course of construction and after construction is complete. The inspector shall have authority over materials of construction, methods of construction and workmanship to insure compliance with working drawings and specifications. The Contractor shall provide for reasonable tests and proof of quality of materials as requested by the inspector. Inspector shall have forty-eight (48) hours notice prior to construction.*

7. *Wherever a sewer crosses under a water main, the minimum vertical distance from the top of the sewer to the bottom of the water main shall be 18". Furthermore, a minimum horizontal distance of 10' between sanitary sewers and water mains shall be maintained. If either the vertical or horizontal distances described above cannot be maintained, or the sewer crosses above the water main, the sewer pipe shall be pipe of water main type quality and water main quality joints, or the water main shall be encased in a steel sleeve for a perpendicular distance of 10' on each side of the sewer.*

8. *SAN. MH TA, 48" DIA. Manholes shall be constructed of prefabricated concrete sections meeting the requirements of ASTM C-478. Sections shall be joined using either flexible rubber gaskets or preformed bituminous plastic gaskets. The manhole bottom shall be precast with the first riser section. Manholes shall have the pipe cast in place through the manhole or a water tight joint cast in the manhole wall to receive the pipe. Manhole frames and lids shall be of self-sealing type Neenah 1712 or equal with approval by the municipality, with Type B lid and concealed pickhole with the word "Sanitary" cast in the lid. (See City detail) Testing: Vacuum testing of sanitary manholes shall be completed by the contractor meeting the requirements of ASTM C-244.*

9. *All manholes to be concentric, lids to have utility name.*

10. *All manholes and valve vaults shall be equipped with steps.*

11. *STORM SEWER FRAMES AND LIDS. All frames not falling in the flow line of the curb and gutter shall be Neenah 1713 or as noted on the plans with a 1" pickhole and the word "Storm" cast in the lid. All curb inlets, and catch basins in gutter lines shall be Neenah R-3281 Frame and Grate, or as noted on plans, with ENVIRO logo where Type B-6.12 curb and gutter is specified. All storm sewer grates shall have the ENVIRO Logo on them. All bituminous joining compound for manholes and catch basins shall be RAM-NEK or E-Z STICK.*

12. *PROTECTION OF WATER MAIN AND WATER SERVICE LINES. Water mains and water service lines shall be protected from sanitary sewers, storm sewers, combined sewers, house sewer service connections and drains as follows;*

   A. *Water Service Lines*

      1. *Horizontal Separation*

         a. *Water mains shall be laid at least 10' horizontally from any existing or proposed drain, storm sewer, sanitary sewer, combined sewer or sewer service connection.*

         b. *Water mains may be laid closer than 10' to a sewer line when:*

            (1) *Local conditions present a lateral separation of 10';*

            (2) *The water main invert is at least 18" above the crown of the sewer; and*

            (3) *The water main is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer with a minimum vertical separation of 18".*

         c. *Both the water main and drain or sewer shall be constructed of slip-on or mechanical joint cast or ductile iron pipe, or PVC pipe meeting the requirements of Section 653.111 when it is impossible to meet (a) or (b) above. The drain or sewer shall be pressure tested to the maximum expected surcharge head before backfilling.*

      2. *Vertical Separation.*

         a. *A water main shall be laid so that its invert is 18" above the crown of the drain or sewer whenever water mains cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main located within 10' horizontally of any sewer or drain crossed. A length of water main pipe shall be centered over the sewer to be crossed with joints equidistant from the sewer or drain.*

         b. *Both the water main and sewer shall be constructed of slip-on or mechanical joint cast or ductile iron pipe, or PVC pipe meeting requirements of Section 653.111 when:*

            (1) *It is impossible to obtain the proper vertical separation as described in (a) above; and*

            (2) *The water main passes under a sewer or drain.*

         c. *A vertical separation of 18" between the invert of the sewer or drain and the crown of the water main shall be maintained where a water main crosses under a sewer. Support the sewer or drain lines to prevent settling and breaking the water main.*

         d. *Construction shall extend on each side of the crossing until the normal distance from the water main to the sewer or drain line is at least 10'.*

   B. *Special Conditions. Alternate solutions shall be presented to the Agency when extreme topographical, geological or existing structural conditions make strict compliance with (A) and (B) above technically and economically impractical. Alternate solutions will be approved provided water-tight construction structurally equivalent to approved water main material is proposed.*

17. *The Contractor may not remove any material from the site except as directed by the Owner or Engineer in the case of excess material.*

18. *TOPSOIL PLACEMENT.*

    See Hitchcock Design Group plans and specifications for topsoil depths and composition for landscaping (seeding, sod, etc.).

19. *The Engineer and City of Crystal Lake Engineering Department shall be notified if, during construction, any buried field tiles are exposed or disturbed. The Contractor shall reconnect said field tiles if deemed necessary.*

20. *Contractor shall provide insurance coverage as per Article 107.27 of the Standard Specifications. The "Department" shall be taken to mean HR Green, Inc. The policy of insurance shall include HR Green, Inc., the City of Crystal Lake and it's Agents as an additional insured or provide separate coverage with an Owner's Protective Policy, as per the amounts stated in the Standard Specifications. No work shall begin until the certificate of insurance is on file with the Engineer. All costs for insurance shall be considered incidental to the contract.*

21. *All handicapped parking signs must have a $250.00 fine sign attached.*

22. *Lighting shall be constructed as per the electrical plan, done under separate contract by Electrical Consultant. All conduit shall be placed outside of any municipal easements except for authorized 90° crossings.*

23. *The Contractor shall be responsible for the installation and maintenance of adequate signs, traffic control devices, and warning devices to inform and protect the public during all phases of construction. See City Standard Traffic Control detail for lane closures of public roads.*

24. *The Engineer shall be responsible for the following:*

    A. *To visit the construction site in order to better carry out the duties and responsibilities assigned by the Owner and undertaken by the Engineer; and*

    B. *The Engineer shall not, during such visits or as a result of such observations of the Contractor's work in progress, supervise, direct, have control over the Contractor's work, nor shall the Engineer have the authority over the responsibility for the means, methods, techniques, sequences, or procedures of construction selected by the Contractor, for safety precautions and programs incidental to the work of the Contractor, or for any failure of the Contractor to comply with laws, rules, regulations, ordinances, codes or orders applicable to the Contractor furnishing and performing his work. Accordingly, the Engineer can neither guarantee the performance of the construction contracts by the Contractor nor assume responsibility for the Contractor's failure to furnish and perform his work in accordance with the Contract Documents.*

27. *No construction plans shall be used for construction unless specifically marked "For Construction." Prior to commencement of construction, the Contractor shall verify all dimensions and conditions affecting their work with the actual conditions at the job site. In addition, the Contractor must verify the Engineer's line and grade stakes. If there are any discrepancies from what is shown on the construction plans, he must immediately report same to the Engineer before doing any work, otherwise the Contractor assumes full responsibility. In the event of disagreement between the construction plans, standard specifications and/or special details, the Contractor shall secure written instructions from the Engineer prior to proceeding with any part of the work affected by omissions or discrepancies. Failing to secure such instructions, the Contractor will be considered to have proceeded at his own risk and expense.*

    In the event of any doubt or question arising with respect to the true meaning of the construction plans or specifications, the decision of the Engineer shall be final and conclusive.

28. *The Contractor shall indemnify and hold harmless the City ,City's Engineers their agents and it's employees, HR Green, Inc. and McHenry County College, from and against all claims, damages, losses and expenses, including attorney's fees arising out of or resulting from the performance of the Contractor's work. In any and all claims against the City or its employees, by any employee of the Contractor, or anyone directly or indirectly employed by the Contractor, or anyone for whose acts the Contractor may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount of damages, waiver of subrogation compensation or benefits payable by or for the Contractor under Workmen's Compensation acts, disability benefit acts or other employee benefit acts.*

29. *Sawing of removal items as noted on the plans, specified in Section 440 of the Standard Specifications, or as required by the engineer, shall be considered incidental to the cost of the item being removed, and no extra compensation will be allowed, unless otherwise specified.*

30. *SIGN PANEL – TYPE 1, METAL POST – TYPE B. This work shall consist of furnishing and installing Type 1 sign panels on U-channel, and break away sign supports as indicated on the plans. Sign assemblies shall meet the requirements of Standard Specifications for Traffic Control Items.*

    Installation of sign assemblies shall be as specified on the plans, in accordance with the Illinois Manual on Uniform Traffic Control Devices and as directed by the Engineer.

    Furnishing, fabricating and installing sign assemblies will be paid for at the contract unit price per square foot for Sign Panel – Type 1 which price will be payment in full for all labor and material necessary to fabricate and install each sign assembly specified on the plans. The posts, including the break away assembly, shall be paid for at the unit price per foot for Metal Post – Type B.

31. *PROTECTIVE COAT. This work shall be in accordance with Section 420 of the Standard Specifications insofar as applicable with the following revision.*

    The protective coat shall be applied to all exposed surfaces of Combination Concrete Curb and Gutter, Concrete Median and Concrete Corrugated Median.

    This work will be paid for at the contract unit price per square yard for Protective Coat.

32. *COMBINATION CONCRETE CURB AND GUTTER. Concrete curb, concrete gutter and combination concrete curb and gutter shall be constructed, measured and paid for in accordance with Section 606 of the Standard Specifications except as follows:*

    Revise the last sentence of the second paragraph of Article 606.07 to read as follows: "The traverse joints shall be contraction joints spaced on 12-foot centers."

Any City requirements regarding expansion & contraction joints shall govern construction.

33. *A performance guarantee shall be required (letter of credit) for all public utilities. Also, a two year maintenance bond shall be established upon completion of work.*

34. *All pavement markings on main access drives, approaches and parking lot shall be painted with two (2) coats of WHITE SHERWIN WILLIAMS "PROMAR TRAFFIC MARKING."*

    Pavement Striping: All proposed pavement striping to be painted.

    All Handicap striping shall be yellow.

35. *All curb & gutter crossings over trench locations shall be reinforced with 2-#4 rebar extended 2' beyond each side of trench.*

36. *Where storm sewer is located above the water main, the reinforced concrete pipe shall have O-rings to provide a water tight seal and to create a water quality pipe.*

37. *CURB RAMPS*
    All sidewalks shall be installed to accommodate the handicapped. A Type "A" Ramp shall be installed in accordance with I.D.O.T. Standard Detail 424001-001, or the detail shown on the plan. Color of truncated domes shall be contrasting with the adjacent surface. Contractor to coordinate color with owner prior to ordering truncated dome panels.

38. *SIDEWALKS. Unless otherwise shown on the plans, the proposed sidewalks in front of the site shall be constructed when the site work is substantially complete.*

    ALL PUBLIC AND PRIVATE SIDEWALKS SHALL BE CONSTRUCTED WITH A MAXIMUM RUNNING SLOPE OF NO GREATER THAN 1:20 (1'/F'T) – 5% GRADIENT.

    All materials shall meet the requirements of the "Standard Specifications for Road and Bridge Construction" of the Illinois Department of Transportation. Concrete shall be at least a six (6) bag mix, 4% to 6% air entrained, and shall have a slump of no less than two (2") inches nor more than four (4") inches. Fiberglass reinforced additives shall be used on all sidewalks extending through driveways. Sidewalks shall be placed on a minimum of four (4") inches of CA-6 crushed stone or Grade 9 compactable crushed stone. Driveway crossings for sidewalks shall be 6" P.C.C. with (4") inches of CA-6 crushed stone or Grade 9 compactable crushed stone.

    Pre-molded bituminous expansion joints one-half (1/2") inch thick shall be placed every 50 feet minimum and one-half (1/2") inch thick between the sidewalk and all structures, which extend through the sidewalk. Control joints shall be on five (5') foot centers.

    The side edges of the sidewalk shall have rounded edges and the surface shall be "broom" finished.

    Protection and Curing: All exposed surfaces of concrete shall be protected against rain. The concrete shall be cured for a minimum period of three days after placing by one of the following methods:

    Wet burlap

    Impervious paper

    Membrane curing compound

    When the temperature of the air is expected to drop below 40 degrees F. within 24 hours placing the concrete shall be protected with nine inches of loose, dry straw and a layer of burlap other acceptable material, for a period of at least five days.

39. *The concrete sealer, in addition to conforming with the referenced Standard Specification section, shall be selected from the current IDOT approved product list for Plural Component Concrete Sealers, or equal. The concrete sealer must dry to a clear finish. All exterior concrete surfaces as well as the segmental block retaining wall shall be sealed. The contractor shall provide documentation from the sealant provider, segmental block wall supplier and concrete pavement supplier stating the sealer is compatible with all exterior concrete surfaces that it is to be applied to. Contractor to also provide cut sheets of the desired sealer to the engineer for approval prior to ordering.*

40. *All surplus soil that will need to be hauled and disposed of offsite will need to be certified that it is not contaminated as defined under 415 ILCS 5/3.160 and any fees, taxes, surcharges charged by or through the operator(s) of clean construction or demolition debris (CCDD) or uncontaminated soil fill operations for the acceptance of uncontaminated soil shall be paid for by the contractor and those fees included in their bid price.*

41. *It is the intent to recycle the bituminous grindings and existing parking lot aggregate base for re-use as structural fill and/or aggregate base course. Contractor to coordinate with on-site geo-technical engineer to verify usability of re-use material as aggregate base course.*

MCHENRY COUNTY COLLEGE - EVENT CENTER INFILTRATION BASIN		
NATIVE SEED MIX		
PLS OZ.	BOTANICAL NAME/ITEM	COMMON NAME
1	ASCLEPIAS SYRIACA	COMMON MILKWEED
0.9	ASTER LAEVIS	SMOOTH BLUE ASTER
0.7	ASTER OOLENTANGIENSIS	SKY-BLUE ASTER
0.8	BAPTISIA BRACTEATA	CREAM WILD INDIGO
0.9	BAPTISIA LACTEA	WHITE WILD INDIGO
45.3	BOUTELOUA CURTIPENDULA	SIDE-OATS GRAMA
4.2	CAREX BICKNELLII	COPPER-SHOULDERED OVAL SEDGE
7.5	CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
4.5	COREOPSIS LANCEOLATA	SAND COREOPSIS
2.2	DALEA CANDIDA	WHITE PRAIRIE CLOVER
2.8	DALEA PURPUREA	PURPLE PRAIRIE CLOVER
10	ECHINACEA PURPUREA	BROAD-LEAVED PURPLE CONEFLOWER
66.5	ELYMUS CANADENSIS	CANADA WILD RYE
3.5	ERYNGIUM YUCCIFOLIUM	RATTLESNAKE MASTER
1.4	LESPEDEZA CAPITATA	ROUND-HEADED BUSH CLOVER
0.9	LIATRIS ASPERA	ROUGH BLAZING STAR
1.3	LIATRIS PYCNOSTACHYA	PRAIRIE BLAZING STAR
0.7	MONARDA FISTULOSA	WILD BERGAMOT
1.3	PARTHENIUM INTEGRIFOLIUM	WILD QUININE
0.3	POTENTILLA ARGUTA	PRAIRIE CINQUEFOIL
1	PYCNANTHEMUM VIRGINIANUM	COMMON MOUNTAIN MINT
4.9	RATIBIDA PINNATA	YELLOW CONEFLOWER
1.3	RUDBECKIA HIRTA	BLACK-EYED SUSAN
64	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
1.4	SILPHIUM INTEGRIFOLIUM	ROSIN WEED
1.2	SOLIDAGO RIGIDA	STIFF GOLDENROD
0.5	SOLIDAGO SPECIOSA	SHOWY GOLDENROD
1.4	TRADESCANTIA OHIENSIS	COMMON SPIDERWORT
2	ZIZIA AUREA	GOLDEN ALEXANDERS
360	AVENA SATIVA	COMMON OAT
100	LOLIUM MULTIFLORUM	ANNUAL RYE

TAG EXPLANATION LEGEND:

EXAMPLE 1 (SANITARY & STORM MANHOLES):
SAN MAN TA 4' DIA TIF CL =
PROPOSED SANITARY MANHOLE, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID

EXAMPLE 2 (STORM SEWER, SANITARY SEWER, WATERMAIN):
120 LIN FT SAN SEWER MAIN 6" =
PROPOSED 120 LINEAL FEET SANITARY SEWER 6"
CB TA 4' DIA T11 F&G =

EXAMPLE 3 (STORM CATCH BASINS):
PROPOSED CATCH BASIN, TYPE A, 4' DIAMETER, TYPE 11 FRAME & GRATE
PRC CONC FES 15 =

EXAMPLE 4 (STORM FLARED END SECTIONS):
PROPOSED PRECAST CONCRETE FLARED END SECTION 15"

SYMBOL LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE	◎	✳
STORM MANHOLE	◍	✳
STORM CATCH BASIN/INLET	○	●
INLET	▭	▬
FLARED END SECTION	▷	▶
DRY WELL	◍	◉
VALVE VAULT	⊗	⧓
FIRE HYDRANT	▽	▼
LIGHT POLE	✳	✳▯
STREET SIGN	┼	
REGULATORY SIGN	⊸	⊸
UTILITY POLE	○	
UTILITY BOX	▯ ▯ ▯ ▯	
MAILBOX	▯	
WELL	◎	
STORM SEWER	——▷——	——▶——
SANITARY SEWER	——▷——	——▶——
CULVERT	═══▷═══	═══▶═══
WATER MAIN	——W——	
WATER MAIN ENCASEMENT		▨▨▨▨▨
SANITARY FORCE MAIN	——◩——	——◩——
STORM UNDERDRAIN	——◩——	——◩——
ELECTRIC LINE	——E——	
TELEPHONE LINE	——T——	
GAS LINE	——G——	
CABLE TV LINE	——C——	
TREE LINE		
TREE		
CONTOURS		
FENCE	——x——	
STONE RIP RAP		▨
EROSION CONTROL FENCE (QUANTITY SPECIFIED PER PLANS)		
DRAINAGE DIRECTION ARROW		
10-100 YEAR OVERFLOW DIRECTION ARROW		➡

THE SPECIFICATIONS ON THIS SHEET ARE IN CONJUNCTION WITH THE SPECIFICATIONS OUTLINED IN THE PROJECT MANUAL. THE INTENT IS FOR THE SPECIFICATIONS TO WORK TOGETHER AND IF AN DISCREPANCIES ARISE BETWEEN SPECIFICATION THE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE ENGINEER. FINAL DETERMINATION AS TO WHICH SPECIFICATION WILL PREVAIL WILL BE DETERMINED BY THE ENGINEER.

Topsoil-Compost Layer	
The surface layer shall be a minimum of an 8-inch thick layer that conforms with the following:	
Partical Size	98% passing 0.75 inch sieve
Physical Comtamants	No glass, metal or plastic
Mixture	50% Compost 40% Sand 10% Topsoil
pH	6-8
Moisture Content	No more than 40% by weight
Compost	Resistant to further degredation
Fecal Coliform	<1000 Most Probable number/gram of total solids
Metals	As<40ppm Cd<40ppm Pb<1000ppm Hg<100ppm Zn<2800ppm Fe<20,000-40,000ppm

FILTER FABRIC MATERIAL REQUIREMENTS		
Geotextile Property	Value	Test Method
Grab Tensile Strength, N	800 min.	ASTM D4632
Puncture Strength, N	300 min.	ASTM D4833
Apparent Breaking Elongation, Percent	30 min.	ASTM D4632
Apparent Opening Size, µm	300 max.	ASTM D4751
Permittivity, S-1	1.35 min.	ASTM D4491

MCHENRY COUNTY STORMWATER ORDINANCE APPENDIX NOTES

Appendix 2: Standard Soil Erosion and Sediment Control Notes 108

Appendix 2

§17.60.160 Standard Soil Erosion and Sediment Control Notes

1. Control measures shall meet the minimum standards and specifications of the *Illinois Urban Manual* unless stated otherwise.
2. Soil disturbance shall be conducted in such a manner as to minimize erosion. Areas of the development site that are not to be disturbed shall be protected from construction traffic or other disturbance until final stabilization is achieved.
3. Soil stabilization measures shall consider the time of year, development site conditions and the use of temporary or permanent measures.
4. Stabilization by seeding shall include topsoil placement and fertilization, as necessary.
5. Native seed mixtures shall include rapid-growing annual grasses or small grains to provide initial, temporary soil stabilization.
6. Offsite property shall be protected from erosion and sedimentation. Velocity dissipation devices shall be placed at concentrated discharge locations and along the length of any outfall channel, as necessary to prevent erosion.
7. Sediment control measures shall be installed prior to the disturbance of tributary areas.
8. Stabilization of disturbed areas shall be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the development site, or temporarily ceased on any portion of the development site and will not resume for a period exceeding 14 calendar days. Stabilization of disturbed areas shall be initiated within 1 working day of permanent or temporary cessation of earth disturbing activities and shall be completed as soon as possible, but not later than 14 calendar days from the initiation of stabilization work in an area. Exceptions to these time frames are specified below:
   a. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable; and
   b. In areas where construction activity has temporarily ceased and will resume after 14 days, a temporary stabilization method may be used.
9. Disturbance of steep slopes shall be minimized. Areas or embankments having slopes steeper than 3:1 shall be stabilized with staked in place sod, erosion control blanket in combination with seeding, or an equivalent control measure.
10. Perimeter control measures shall be provided downslope and perpendicular to the flow of runoff from disturbed areas, where the tributary area is greater than 5,000 square feet, and where runoff will flow in a sheet flow manner. Perimeter erosion control shall also be provided at the base of soil stockpiles.
11. The stormwater management system shall be protected from erosion and sedimentation downslope from disturbed areas. Inlet protection that reduces sediment loading, while allowing runoff to enter the inlet shall be required for all storm sewers. Check dams, or an equivalent control measure, shall be required for all channels. Filter fabric inlet protection and straw bale ditch checks are not acceptable control measures.
12. If dewatering services are used, discharges shall be routed through an effective sediment control measure (e.g., sediment trap or an equivalent control measure). The

Refer to Appendix 12 for the definition of underlined terms or to Appendix 13 for a list of acronyms.
Refer to Appendix 1 for permitting flowcharts.

Appendix 2: Standard Soil Erosion and Sediment Control Notes 109

Enforcement Officer shall be notified prior to the commencement of dewatering activities.

13. All temporary soil erosion and sediment control measures shall be removed within 30 days after final stabilization of the development site is achieved or after the temporary measures are no longer necessary. Trapped sediment shall be removed and disturbed areas shall be permanently stabilized.
14. Stockpiled soil and materials shall be removed from flood hazard areas at the end of each work day. Soil and materials stockpiled in IWMC or buffer areas shall be placed on timber mats, or an equivalent control measure.
15. Effective control measures shall be utilized to minimize the discharge of pollutants from the development site. At a minimum, control measures shall be implemented in order to:
   a. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash water; and
   b. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, vehicle fluids, sanitary waste, and other materials present on the development site to precipitation and to stormwater.
16. Adequate receptacles shall be provided for the depositing of all construction material debris generated during the development process. The applicant shall not cause or permit the dumping, depositing, dropping, throwing, discarding or leaving of construction material debris upon or into any development site, channel, or IWMC. The development site shall be maintained free of construction material debris.
17. The Enforcement Officer may require additional or alternate soil erosion and sediment control measures, based on development site specific considerations and the effectiveness of the installed control measures.

Refer to Appendix 12 for the definition of underlined terms or to Appendix 13 for a list of acronyms.
Refer to Appendix 1 for permitting flowcharts.

Appendix 3: Standard Drain Tile Notes 110

Appendix 3

§17.60.170 Standard Drain Tile Notes

1. Drain tiles disturbed during regulated development shall be reconnected by those responsible for their disturbance, unless the development plans specify abandonment of the drain tiles.
2. All abandoned drain tiles within disturbed areas shall be removed in their entirety.
3. Drain tiles within the disturbed area of a development site shall be replaced, bypassed around the development site or intercepted and connected to the stormwater management system for the development site. The size of the replaced or bypassed drain tile shall be equivalent to the existing drain tile.

Refer to Appendix 12 for the definition of underlined terms or to Appendix 13 for a list of acronyms.
Refer to Appendix 1 for permitting flowcharts.

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McHenry County College
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CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

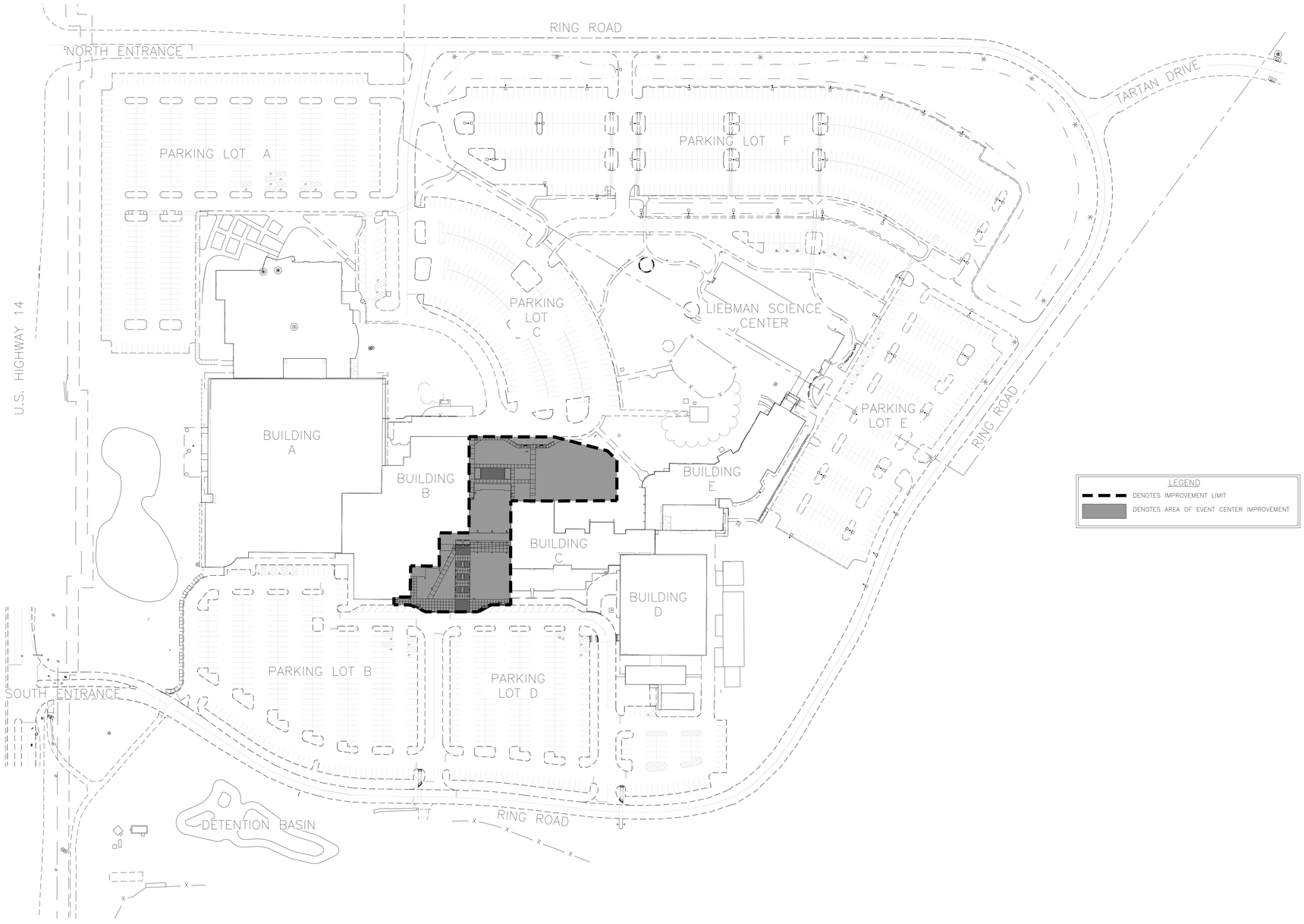
LICENSED PROFESSIONAL ENGINEER
TODD M. RICHARDS
062-058779
STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/27/25

SHEET TITLE:
GENERAL NOTES, SPECIFICATION, & LEGEND

SHEET NUMBER:
C-01



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1	ADDENDUM #1	05/27/25

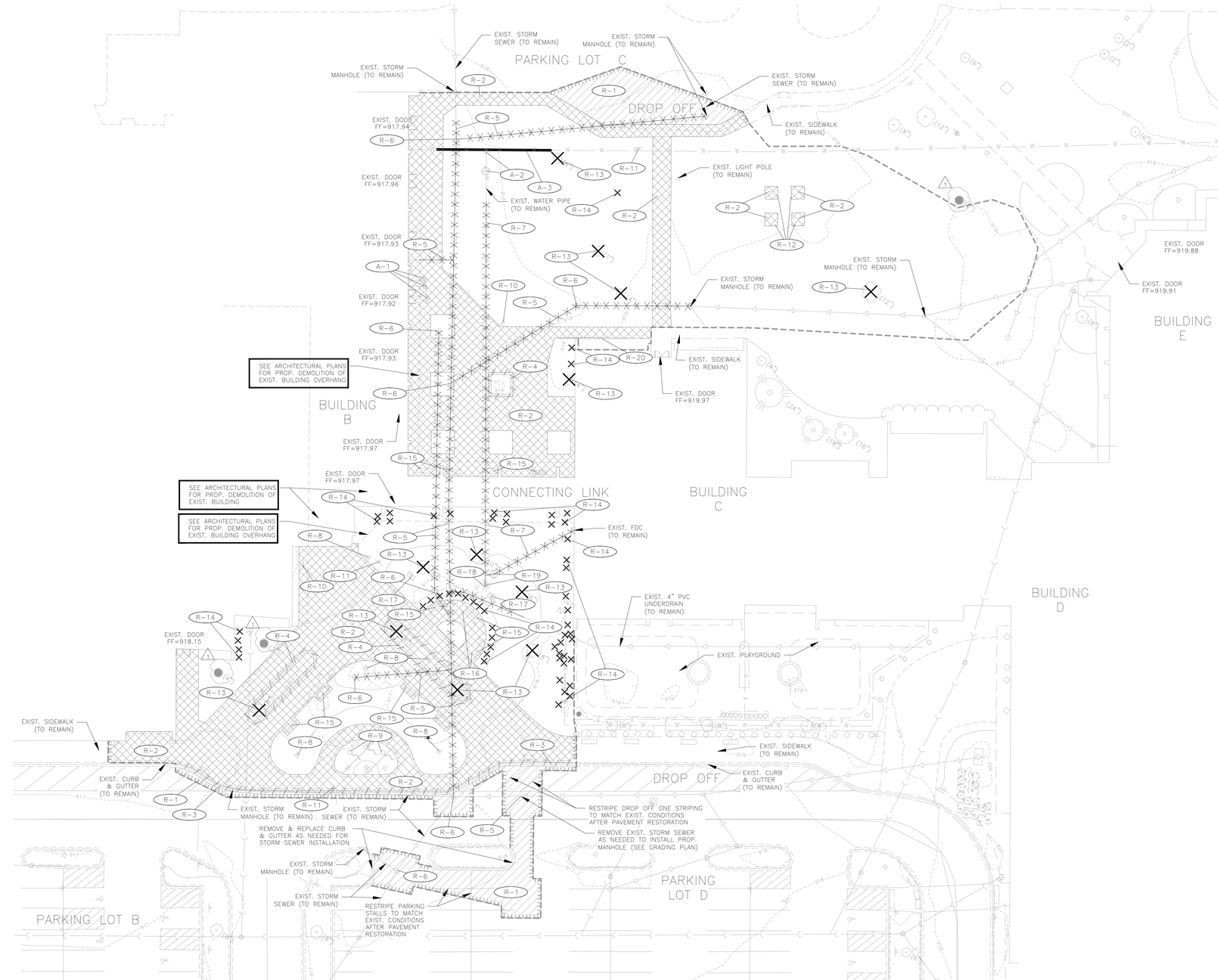
SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C-02

NORTH
0 80'
1" = 80'

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NOTES:

- MCHENRY COUNTY COLLEGE (MCC) SHALL BE NOTIFIED OF ALL NON IDENTIFIED UNDERGROUND UTILITIES OR CONDUITS DISCOVERED DURING CONSTRUCTION. IF ANY OF THE UTILITY OR CONDUITS NEED TO BE REPAIRED, PLUGGED, REROUTED AND OR ABANDONED IN PLACE, IT SHALL TAKE PLACE PER THE DIRECTION OF THE MCC.
- ALL AREAS NOT WITHIN THE PROPOSED GRASSED AREAS OR STORMWATER MANAGEMENT FACILITY SHALL BE RESTORED WITH 4" TOPSOIL AND IDOT CLASS 1A SEED.

REMOVAL NOTES:

* ALL REMOVALS IN NON-PAVED AREAS DENOTED TO REQUIRE CLEARING AND GRUBBING SHALL INCLUDE TOPSOIL STRIP AND STOCKPILE AS PART OF THE REMOVAL UNLESS OTHERWISE NOTED.

LEGEND

- INDICATES HMA PAVEMENT REMOVAL (FULL DEPTH) (SEE TAGS FOR INFORMATION)
- INDICATES CONCRETE REMOVAL (FULL DEPTH) (SEE TAGS FOR INFORMATION)
- INDICATES UTILITY REMOVAL
- R-# INDICATES MISC. REMOVAL ITEMS
- INDICATES EXIST. CONCRETE CURB & GUTTER OR WALL TO BE REMOVED
- INDICATES TREE AND BRUSH REMOVAL (SEE LANDSCAPE PLANS)
- INDICATES TREE AND BRUSH PROTECTION (SEE LANDSCAPE PLANS)
- INDICATES PAVEMENT SAWCUT
- 1 NOTE: REFER TO PLANS BY CM LOGISTICS PLAN FOR CONSTRUCTION FENCE AND BARRIER LAYOUT.

PROJECT NOTES:

* LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. IN ADDITION TO, NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED. (INCLUDING STORM WATER POLLUTION PREVENTION PLAN PER THE DEVELOPMENT CRITERIA.) SEE SHEET C-05 & C-06 FOR EROSION CONTROL MEASURES)
* ALL EXISTING UTILITIES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
* CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COSTS.
* ALL STRUCTURES & DEBRIS SHALL BE REMOVED PRIOR TO CONSTRUCTION & DISPOSED OF OFFSITE.
* ANY EXISTING FIELD DRAIN TILES ENCOUNTERED SHALL BE RECONNECTED OR CONNECTED TO THE NEAREST STORM SEWER.
* ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
* CONTRACTOR TO KEEP RING ROAD OPEN AT ALL TIMES.
* THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.

STAGING NOTE:

(STAGING SUBJECT TO CHANGES PER SITE CONTRACTORS SCHEDULE AND METHODS OF OPERATION)

1. EROSION CONTROL MEASURES
2. PLAN REMOVALS
3. PROPOSED UNDERGROUND
4. GRADING
5. BUILDING CONSTRUCTION
6. PAVING
7. TOPSOIL RESPREAD/SEED

REMOVAL TAGS:

NUMBER	DESCRIPTION	REMARKS
A-1	SANITARY SEWER STRUCTURE	ADJUST RIM TO FINISHED GRADE
A-2	WATER STRUCTURE	ADJUST RIM TO FINISHED GRADE
A-3	WATER MAIN	LOWER WATERMAIN (SEE UTILITY PLAN)
R-1	ASPHALT PAVEMENT	REMOVE (FULL DEPTH)
R-2	CONCRETE PAVEMENT/SIDEWALK	REMOVE (FULL DEPTH)
R-3	CONCRETE CURB & GUTTER	REMOVE
R-4	CONCRETE PLANTER WALL	REMOVE
R-5	STORM SEWER PIPE	REMOVE
R-6	STORM SEWER STRUCTURE	REMOVE
R-7	WATER PIPE	REMOVE
R-8	LIGHT POLE	REMOVE
R-9	FLAG POLE	REMOVE & RELOCATE (BY OWNER)
R-10	SIGN	REMOVE
R-11	SIGN	REMOVE & RELOCATE (SEE SITE PLAN)
R-12	SCULPTURE	REMOVE & RELOCATE (BY OWNER)
R-13	TREE	REMOVE
R-14	BUSH	REMOVE
R-15	BENCH	REMOVE
R-16	PERGOLA & FENCE POST	REMOVE
R-17	IRRIGATION HANDHOLE	REMOVE
R-18	FIRE HYDRANT	REMOVE
R-19	WATER VALVE OR B-BOX	REMOVE
R-20	RETAINING WALL	REMOVE

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McHenry County College
ENGAGEMENT HALL

8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

LICENSED PROFESSIONAL ENGINEER
TODD M. RICHARDS
062-058779
STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/27/25

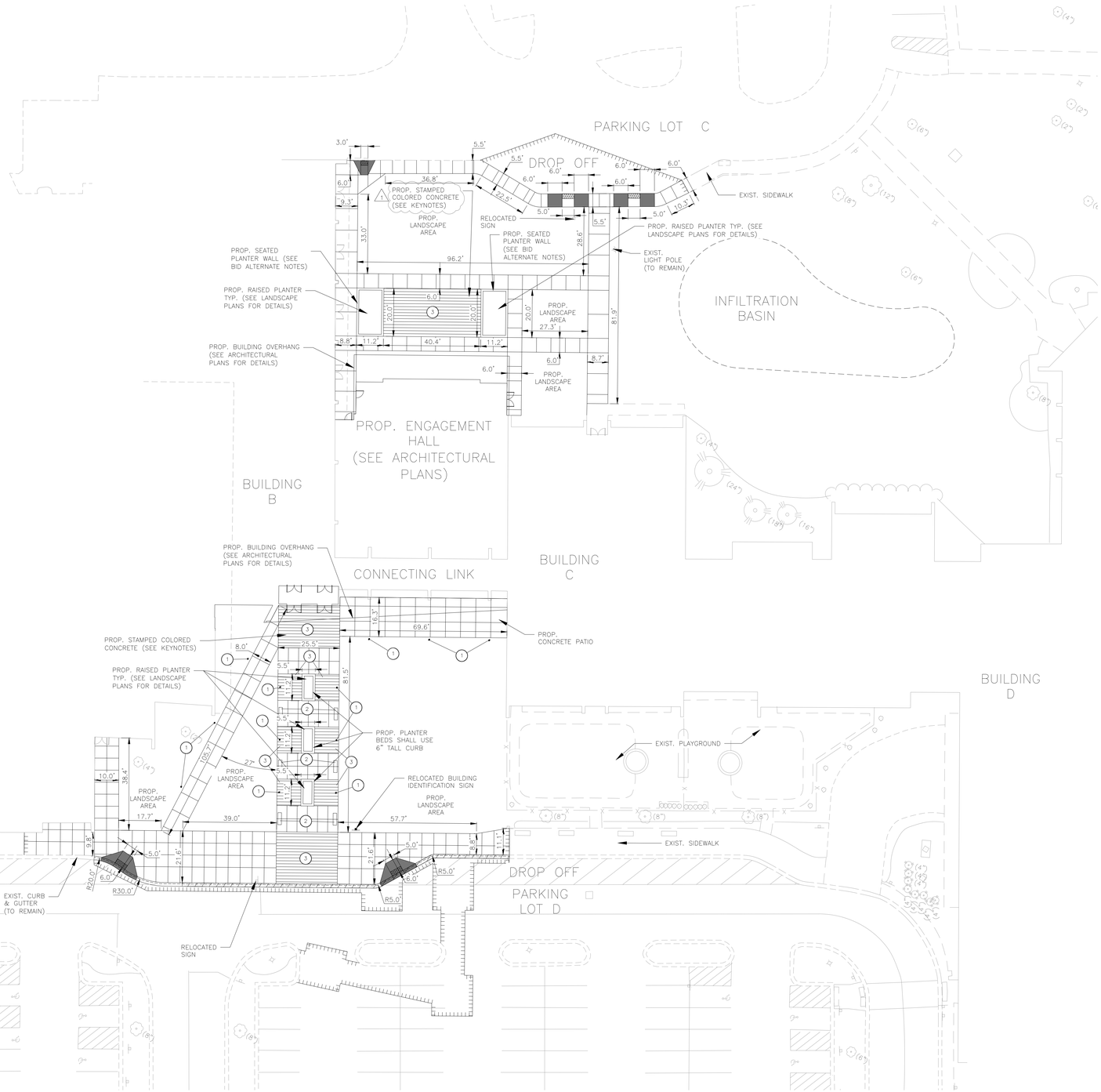
SHEET TITLE:
SITE DEMOLITION PLAN

SHEET NUMBER:
C-03

NORTH
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1" = 20'

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KEYNOTES:

1. LIGHTED BOLLARDS (SEE ELECTRICAL PLANS FOR LOCATION AND QUANTITY)
2. BENCHES (SEE ARCHITECTURAL PLANS)
3. STAMPED COLORED CONCRETE (SEE STAMPED COLORED CONCRETE NOTES, THIS SHEET)

HATCH LEGEND

- DENOTES PAVEMENT SAWCUT
- DENOTES REVERSE (SPILLING) CURB & GUTTER
- DENOTES CONCRETE CURB & GUTTER (CATCHING)
- DENOTES AREA OF DEPRESSED CURB AND GUTTER.
- DENOTES PROP. SIDEWALK
- DENOTES PROP. STAMPED COLORED CONCRETE
- DENOTES AREA OF DEPRESSED SIDEWALK
- DENOTES AREA TO UTILIZE TRUNCATED DOMES

PROJECT NOTES:

* CONTRACTOR TO COORDINATE W/ COLLEGE PRIOR TO CLOSING ANY PORTIONS OF THE EXISTING BUILDING OR PARKING LOT.
* ALL CONSTRUCTION FOR UTILITIES AND PAVEMENT SHOULD BE DONE IN ACCORDANCE WITH CITY OF CRYSTAL LAKE STANDARD SPECIFICATIONS.
* ALL PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
* ALL PAVEMENT RADII ARE 5.0' RADIUS MEASURED TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
* ALL CURB ADJOINING SIDEWALKS SHALL BE DOWELED INTO THE CURB.

CONTRACTOR NOTES:

* CONTRACTOR TO COORDINATE THE SHUT DOWN OF THE EXISTING WATER MAIN WITH McHENRY COUNTY COLLEGE, THE CITY OF CRYSTAL LAKE AND THE CRYSTAL LAKE FIRE PROTECTION DISTRICT.
* ONCE THE EXISTING WATER MAIN IS ISOLATED/SHUT DOWN THE EXISTING WATER MAIN REMOVALS CAN BE MADE AND CONTRACTOR SHALL INSTALL THE NEW WATER MAIN LINE WITH CARRIER PIPE PER PLAN. ONCE THE PROPOSED WATER MAIN IS COMPLETE CONTRACTOR SHALL CONNECT IT THE EXISTING WATER MAIN AND RE-ENERGIZE THE ISOLATED LINE.

SITE DATA:

* PIN: 13-25-300-021
* PROPOSED PROJECT AREA: 50,348± SQ. FT. (1.16 ACRES)
* EXISTING IMPERVIOUS WITHIN PROJECT AREA: 21,481± SQ. FT. (42.67%)
  ** PAVED SURFACE: 17,318± SQ. FT. (34.40%)
  ** BUILDING AREA: 4,163± SQ. FT. (8.27%)
* PROPOSED IMPERVIOUS WITHIN PROJECT AREA: 24,495± SQ. FT. (48.56%)
  ** PAVED SURFACE: 15,196± SQ. FT. (30.18%)
  ** BUILDING AREA: 9,299± SQ. FT. (18.47%)
* NET CHANGE IN IMPERVIOUS AREA: 3,014± SQ. FT. INCREASE
  ** PROPOSED EVENT CENTER ROOF AREA: 6,347± SQ. FT.
  ** IMPERVIOUS TO EXIST. BASIN REDUCTION: 3,333± SQ. FT., SEE NOTE BELOW.
* NOTE:
  ** BUILDING AREA REFERS TO BUILDING ROOF AREA. PAVED SURFACE REFERS TO IMPERVIOUS AREA AT GROUND LEVEL. THE PROPOSED DEVELOPMENT RESULTS IN AN OVERALL INCREASE IN IMPERVIOUS AREA. HOWEVER, THE STORMWATER RUNOFF FROM THE PROPOSED EVENT CENTER BUILDING WILL BE ROUTED TO A PROPOSED INFILTRATION BASIN SEPARATE FROM THE EXISTING DETENTION BASIN. BECAUSE THIS BUILDING AREA WILL NO LONGER TRIBUTARY TO THE EXISTING DETENTION BASIN IT HAS BEEN CONSIDERED AS A HARDSCAPE AREA REDUCTION FOR PURPOSES OF STORMWATER CALCULATIONS, SEE STORMWATER MANAGEMENT REPORT FOR FURTHER DETAILS.

BUILDING AREA:

* PROPOSED BUILDING TO BE CONSTRUCTED PER ARCHITECTURAL PLANS.

PARKING DATA:

* NO CHANGES PROPOSED TO EXISTING PARKING.

STAMPED COLORED CONCRETE NOTES:

1. CONCRETE SHALL UTILIZE RUNNING BOND PATTERN PERPENDICULAR TO THE LONG AXIS OF THE SIDEWALK.
2. CONCRETE SHALL HAVE DARK GREY COLOR. CONTRACTOR SHALL PROVIDE MANUFACTURER'S COLOR CHART TO OWNER FOR SELECTION.
3. CONTRACTOR TO PROVIDE MOCK-UP OF STAMPED COLORED CONCRETE FOR REVIEW AND APPROVAL BY OWNER.
4. CONCRETE SHALL HAVE MEDIUM BROOM FINISH.
5. CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION NUMBER 32 13 13 CONCRETE PAVING.

BID ALTERNATE NOTES:

* REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF RAISED PLANTER BEDS.
* BID ALTERNATE 3: PLANTER BEDS NORTH OF THE ENGAGEMENT HALL SHALL BE RAISED CONCRETE CURB.

NORTH

0 20'

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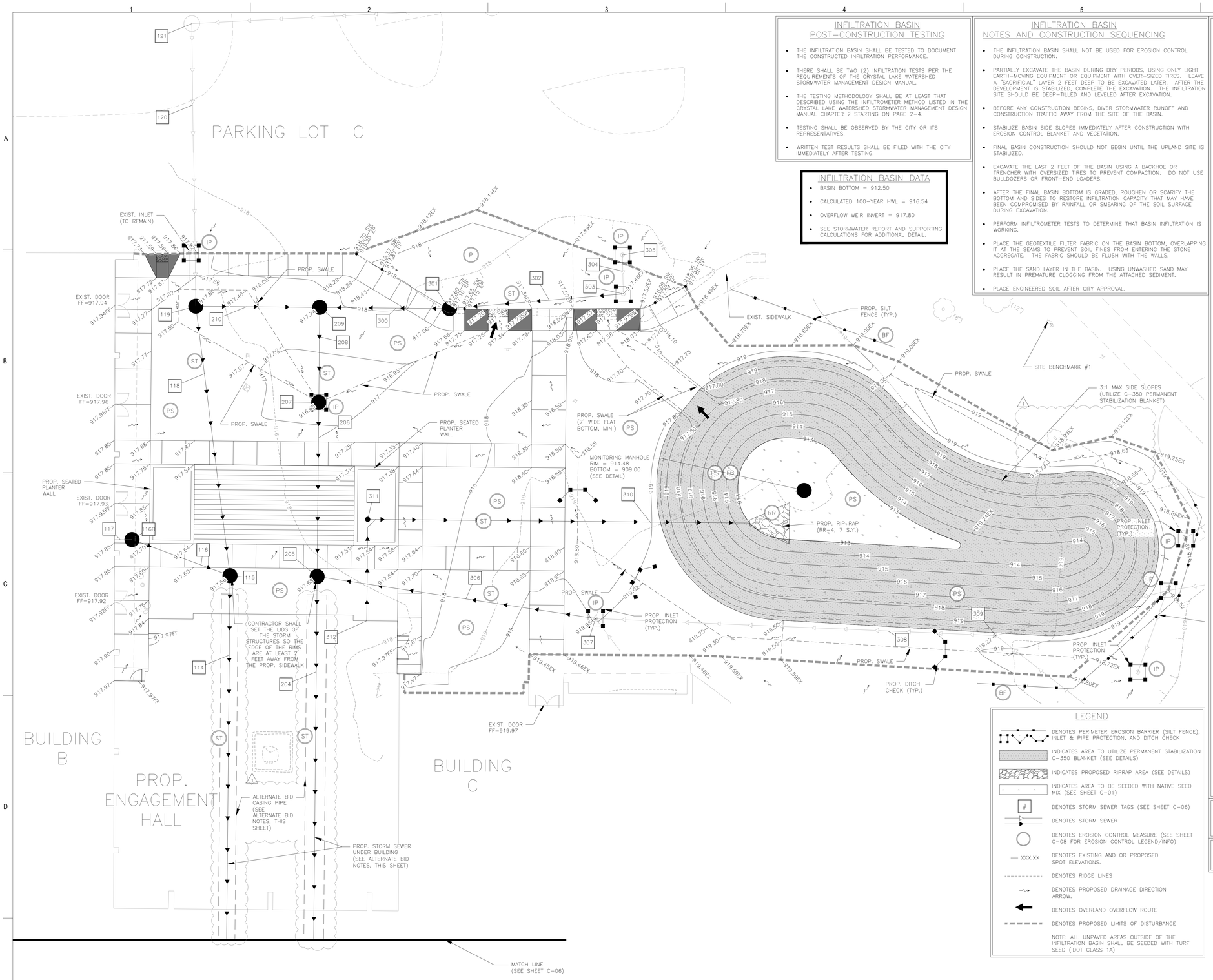
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SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C-04



INFILTRATION BASIN POST-CONSTRUCTION TESTING

- THE INFILTRATION BASIN SHALL BE TESTED TO DOCUMENT THE CONSTRUCTED INFILTRATION PERFORMANCE.
- THERE SHALL BE TWO (2) INFILTRATION TESTS PER THE REQUIREMENTS OF THE CRYSTAL LAKE WATERSHED STORMWATER MANAGEMENT DESIGN MANUAL.
- THE TESTING METHODOLOGY SHALL BE AT LEAST THAT DESCRIBED USING THE INFILTROMETER METHOD LISTED IN THE CRYSTAL LAKE WATERSHED STORMWATER MANAGEMENT DESIGN MANUAL CHAPTER 2 STARTING ON PAGE 2-4.
- TESTING SHALL BE OBSERVED BY THE CITY OR ITS REPRESENTATIVES.
- WRITTEN TEST RESULTS SHALL BE FILED WITH THE CITY IMMEDIATELY AFTER TESTING.

INFILTRATION BASIN DATA

- BASIN BOTTOM = 912.50
- CALCULATED 100-YEAR HWL = 916.54
- OVERFLOW WEIR INVERT = 917.80
- SEE STORMWATER REPORT AND SUPPORTING CALCULATIONS FOR ADDITIONAL DETAIL.

INFILTRATION BASIN NOTES AND CONSTRUCTION SEQUENCING

- THE INFILTRATION BASIN SHALL NOT BE USED FOR EROSION CONTROL DURING CONSTRUCTION.
- PARTIALLY EXCAVATE THE BASIN DURING DRY PERIODS, USING ONLY LIGHT EARTH-MOVING EQUIPMENT OR EQUIPMENT WITH OVER-SIZED TIRES. LEAVE A "SACRIFICIAL" LAYER 2 FEET DEEP TO BE EXCAVATED LATER. AFTER THE DEVELOPMENT IS STABILIZED, COMPLETE THE EXCAVATION. THE INFILTRATION SITE SHOULD BE DEEP-TILLED AND LEVELED AFTER EXCAVATION.
- BEFORE ANY CONSTRUCTION BEGINS, DIVER STORMWATER RUNOFF AND CONSTRUCTION TRAFFIC AWAY FROM THE SITE OF THE BASIN.
- STABILIZE BASIN SIDE SLOPES IMMEDIATELY AFTER CONSTRUCTION WITH EROSION CONTROL BLANKET AND VEGETATION.
- FINAL BASIN CONSTRUCTION SHOULD NOT BEGIN UNTIL THE UPLAND SITE IS STABILIZED.
- EXCAVATE THE LAST 2 FEET OF THE BASIN USING A BACKHOE OR TRENCHER WITH OVERSIZED TIRES TO PREVENT COMPACTION. DO NOT USE BULLDOZERS OR FRONT-END LOADERS.
- AFTER THE FINAL BASIN BOTTOM IS GRADED, ROUGHEN OR SCARIFY THE BOTTOM AND SIDES TO RESTORE INFILTRATION CAPACITY THAT MAY HAVE BEEN COMPROMISED BY RAINFALL OR SMEARING OF THE SOIL SURFACE DURING EXCAVATION.
- PERFORM INFILTROMETER TESTS TO DETERMINE THAT BASIN INFILTRATION IS WORKING.
- PLACE THE GEOTEXTILE FILTER FABRIC ON THE BASIN BOTTOM, OVERLAPPING IT AT THE SEAMS TO PREVENT SOIL FINES FROM ENTERING THE STONE AGGREGATE. THE FABRIC SHOULD BE FLUSH WITH THE WALLS.
- PLACE THE SAND LAYER IN THE BASIN. USING UNWASHED SAND MAY RESULT IN PREMATURE CLOGGING FROM THE ATTACHED SEDIMENT.
- PLACE ENGINEERED SOIL AFTER CITY APPROVAL.

GRADING & DRAINAGE NOTES

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
2. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT, ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT.
3. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
4. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE ALONG ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS.
7. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
8. ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST.
9. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
10. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
11. NO PART OF THE PROPOSED PROJECT IS LOCATED WITHIN A FLOOD HAZARD AREA.
12. SPOT ELEVATIONS SHOWN ARE @ EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON PLAN.
13. ALL STORM SEWER JOINTS SHALL HAVE O-RING GASKETS.
14. ALL STORM SEWER PIPE CONNECTIONS TO MANHOLES OR OTHER STRUCTURES SHALL BE CONNECTED THROUGH THE USE OF RUBBER BOOTS.
15. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
16. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS
17. ALL SIDEWALK CROSS SLOPES SHALL BE A MAXIMUM OF 2%. CROSS SLOPE
18. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING OF PAVEMENT.
19. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
20. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
21. ALL FIELD TILES ENCOUNTERED SHALL BE REPLACED AND/OR CONNECTED TO THE STORM SEWER SYSTEM AND LOCATED AND IDENTIFIED ON THE RECORD PLANS BY THE CONTRACTOR.
22. ALL STORM DRAINAGE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CRYSTAL LAKE.
23. ELEVATIONS AND CONTOURS ARE TO STATE PLANE COORDINATES PER NAVD DATUM 88.
24. 1 WEEK PRIOR TO CONSTRUCTION WITHIN CITY ROW OR ANY CONNECTION TO PUBLIC SEWERS, CONTRACTOR SHALL NOTIFY THE APPROPRIATE CITY ENGINEERING DIVISIONS.
25. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION UNITS. THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OR MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
26. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
27. ALL EXISTING UTILITY TRENCHES THAT ARE PROPOSED TO BE WITHIN PAVEMENT AREAS SHALL BE EXPOSED AND BACKFILLED WITH CA-6 CRUSHED AGGREGATE.
28. ALL SUBGRADE, SUBBASE AND BINDER COURSE SHALL BE PROOFROLLED PER THE CITY OF CRYSTAL LAKE DEVELOPMENT ORDINANCES ENGINEERING SPECIFICATIONS.

SITE DISTURBANCE NOTE

- THE PROPOSED DEVELOPMENT IS ANTICIPATED TO DISTURB APPROXIMATELY (1.15) ACRES.

SITE BENCHMARK NOTE

- SEE SHEET C-00 FOR SITE BENCHMARK INFORMATION.

LEGEND

- DENOTES PERIMETER EROSION BARRIER (SILT FENCE), INLET & PIPE PROTECTION, AND DITCH CHECK
- INDICATES AREA TO UTILIZE PERMANENT STABILIZATION C-350 BLANKET (SEE DETAILS)
- INDICATES PROPOSED RIPRAP AREA (SEE DETAILS)
- INDICATES AREA TO BE SEEDED WITH NATIVE SEED MIX (SEE SHEET C-01)
- DENOTES STORM SEWER TAGS (SEE SHEET C-06)
- DENOTES STORM SEWER
- DENOTES EROSION CONTROL MEASURE (SEE SHEET C-08 FOR EROSION CONTROL LEGEND/INFO)
- XXX.XX DENOTES EXISTING AND OR PROPOSED SPOT ELEVATIONS.
- DENOTES RIDGE LINES
- DENOTES PROPOSED DRAINAGE DIRECTION ARROW.
- DENOTES OVERLAND OVERFLOW ROUTE
- DENOTES PROPOSED LIMITS OF DISTURBANCE

NOTE: ALL UNPAVED AREAS OUTSIDE OF THE INFILTRATION BASIN SHALL BE SEEDED WITH TURF SEED (IDOT CLASS 1A)

ALTERNATE BID NOTES

- THE BASE BID FOR THE STORM SEWER PIPING PROPOSED TO BE ROUTED UNDERNEATH THE BUILDING SHALL BE RCP. SEE NOTES BELOW FOR ALTERNATE BID OPTIONS.
- PIPE MATERIALS NOTED BY THE BID ALTERNATES SHALL BE FOR THE ENTIRE LENGTH OF STORM SEWER TAGS 114 AND 204.
- ALTERNATE BID 1A: PIPE SHALL BE RCP WITH CURED-IN-PLACE SLIP LINER (FULL LENGTH OF PIPE).
- ALTERNATE BID 1B: PIPE SHALL ADS N-12 WT ENCASED IN CLSM CONCRETE. PIPE SHALL BE ANCHORED DURING BACKFILLING WITH CLSM (CLSM FROM NORTH FACE OF ENGAGEMENT HALL TO SOUTH FACE OF MAIN ENTRANCE).
- ALTERNATE BID 1C: PIPE SHALL BE ADS N-12 WT INSIDE OF HOBAS FIBERGLASS PIPE WITH CASING SPACERS. 48" AND 60" DIAMETER CASING PIPES SHALL BE UTILIZED. PIPE CASINGS SHALL BEGIN 5 FEET NORTH OF THE NORTHERN FACE OF THE ENGAGEMENT HALL AND END 20 FEET SOUTH OF THE SOUTHERN FACE OF THE MAIN ENTRANCE (116 LIN. FT. EACH).

NORTH

0 10'

1" = 10'

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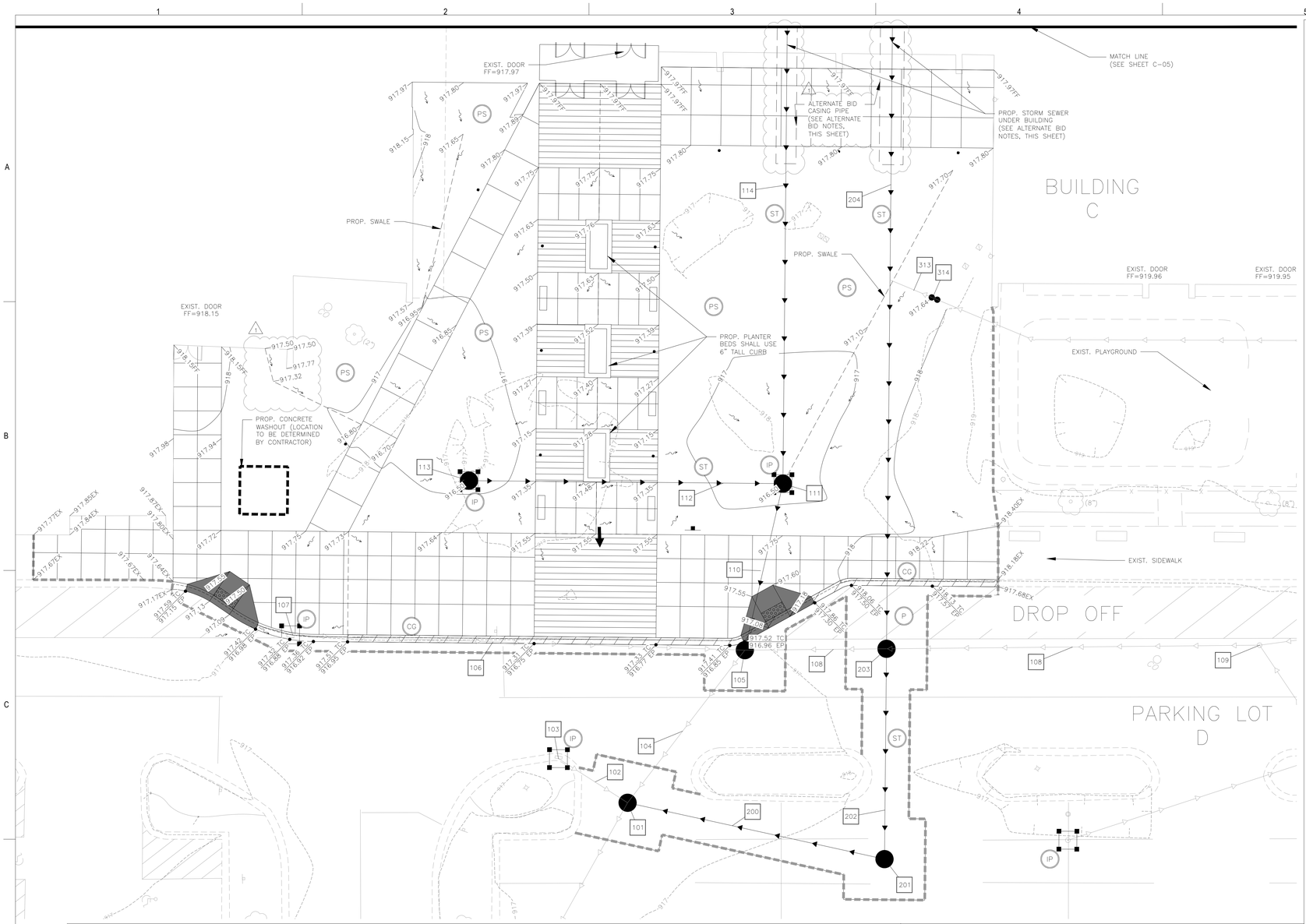
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1	ADDENDUM #1	05/27/25

SHEET TITLE:

GRADING & EROSION CONTROL PLAN - NORTH

SHEET NUMBER:

C-05


BUILDING C
DROP OFF
PARKING LOT D
EXIST. PLAYGROUND
EXIST. SIDEWALK
EXIST. DOOR FF=917.97
EXIST. DOOR FF=918.15
EXIST. DOOR FF=919.96
EXIST. DOOR FF=919.95
MATCH LINE (SEE SHEET C-05)
PROP. STORM SEWER UNDER BUILDING (SEE ALTERNATE BID NOTES, THIS SHEET)
ALTERNATE BID CASING PIPE (SEE ALTERNATE BID NOTES, THIS SHEET)
PROP. SWALE
PROP. PLANTER BEDS SHALL USE 6" TALL CURB
PROP. CONCRETE WASHOUT (LOCATION TO BE DETERMINED BY CONTRACTOR)
917.52 TC
916.96 EP
918.06 TC
917.50 EP
917.55 TC
917.05 EP
917.08 TC
916.58 EP
917.52 TC
916.96



ONSITE WATERLINE NOTES:

- THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS.
- ALL FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED AUXILIARY GATE VALVE.
- ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED BEFORE ACCEPTANCE. SEE SITE WORK SPECIFICATIONS.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- GENERAL CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
- CONTRACTOR SHALL COORDINATE WITH CITY PUBLIC WORKS TO SCHEDULE WATER SERVICE SHUTOFF FOR PROPOSED WATER MAIN WORK.

PROJECT LEGEND:

- DENOTES MAINTAIN 18" VERTICAL SEPARATION PER TO IEPA'S REQUIREMENTS
- (S-#) DENOTES SANITARY SEWER TAG
- (W-#) DENOTES WATER MAIN TAG
- (A) DENOTES CONFLICT TAG
- DENOTES WATER MAIN CASING PIPE
- DENOTES ESTIMATED LENGTH OF PIPE LOWERING
- DENOTES ESTIMATED LENGTH OF PIPE INSULATION

NOTE: THE REQUIRED LENGTHS OF PIPE LOWERING AND PIPE INSULATION ARE DEPENDENT UPON THE SIZE/LOCATION/DEPTH OF THE EXISTING UTILITIES. CONTRACTOR SHALL FIELD VERIFY EXIST. UTILITY INFORMATION AND NOTIFY ENGINEER PRIOR TO ORDERING MATERIALS.

(A) CONFLICT TAGS

A — STORM SEWER TAG ST-208
BOP = 911.15
EXIST. 8" WATER MAIN
TOP = 909.65
VERT SEP = 1.50' MIN.
CONTRACTOR TO FIELD VERIFY WATER MAIN SIZE AND DEPTH LOWERING REQ'D

B — STORM SEWER TAG ST-118
BOP = 912.14
EXIST. 8" WATER MAIN
TOP = 910.64
VERT SEP = 1.50' MIN.
CONTRACTOR TO FIELD VERIFY WATER MAIN SIZE AND DEPTH LOWERING REQ'D

C — STORM SEWER TAG ST-118
BOP = 912.02
WATER TAG 8
TOP = 910.52
VERT SEP = 1.50' MIN.
LOWERING REQ'D

D — STORM SEWER TAG ST-116
BOP = 912.34
WATER TAG 8
TOP = 910.84
VERT SEP = 1.50' MIN.
LOWERING REQ'D

E — STORM SEWER TAG ST-114
BOP = 911.64
WATER TAG 8
TOP = 910.14
VERT SEP = 1.50' MIN.
LOWERING REQ'D

F — OMITTED

G — STORM SEWER TAG ST-204
BOP = 910.68
WATER TAG 8
TOP = 909.18
VERT SEP = 1.50' MIN.
LOWERING REQ'D

H — STORM SEWER TAG ST-313
BOP = 915.52
WATER TAG 9
TOP = 911.89
VERT SEP = 3.63'

I — STORM SEWER TAG ST-313
BOP = 915.53
WATER TAG 9
TOP = 911.28
VERT SEP = 4.25'

J — OMITTED

K — OMITTED

L — STORM SEWER TAG ST-312
BOP = 913.71
STORM SEWER TAG ST-306
TOP = 912.98
VERT SEP = 0.73'

UTILITY NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
4. MAINTAIN A MINIMUM OF 6.0' COVER OVER ALL WATER MAINS & SERVICES.
5. MAINTAIN A MINIMUM OF 3.5' COVER OVER ALL SANITARY SERVICES.
6. ADJUST ALL MANHOLES AND FRAMES TO FINISHED GRADES.
7. ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE IEPA STANDARDS.
8. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY/STORM SEWER AND WATER MAIN. (PER IEPA STANDARDS)
9. MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND PUBLIC WATER MAINS. (PER IEPA STANDARDS)
10. WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY CALL JULIE AT 1-800-892-0123 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
11. LOCATION OF SITE UTILITIES SHALL BE VERIFIED WITH PROPER UTILITY COMPANY PROVIDING SERVICE.
12. MATERIAL PERMITTED FOR USE AS SANITARY SEWER PIPES IS PVC SDR 26 FOR 4" AND 6".
13. ALL SANITARY SEWER CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE CITY OF CRYSTAL LAKE.
14. ALL CONNECTIONS TO PUBLIC SANITARY MANHOLES SHALL BE CORE DRILLED.
15. ALL STORM DRAINAGE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CRYSTAL LAKE.
16. ALL FIELD TILES ENCOUNTERED SHALL BE REPLACED AND/OR CONNECTED TO THE STORM SEWER SYSTEM AND LOCATED AND IDENTIFIED ON THE RECORD PLANS BY THE CONTRACTOR.
17. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
18. PROVIDE UNDERDRAINS FROM SEEPS OR SPRINGS ENCOUNTERED. EXTEND TO STORM SEWER SYSTEM OR DAYLIGHT AT THE BOTTOM OF THE THE FILL SLOPE.
19. ALL PROPOSED PIPE CONNECTIONS TO EXISTING OR PROPOSED MANHOLES SHALL CONFORM TO ASTM-C923.
20. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
21. GENERAL CONTRACTOR SHALL HAVE APPROVAL FROM ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
22. ALL BUILDING UTILITY SERVICE LOCATIONS TO BE VERIFIED PRIOR TO CONSTRUCTION.
23. ALL EXISTING UTILITIES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
24. CONTRACTOR TO COORDINATE W/ COLLEGE PRIOR TO CLOSING ANY PORTIONS OF ANY ADJACENT ACCESS DRIVES OR PARKING LOT.
25. MATERIAL FOR WATER SERVICES SHALL BE PVC C-900.

(W-#) WATER TAGS

W-1 EXIST. 8" WATER MAIN
CONTRACTOR TO FIELD VERIFY PIPE LOCATION, DEPTH, AND MATERIAL AND NOTIFY ENGINEER

W-2 LOWER 8" WATER MAIN BELOW PROPOSED STORM SEWER AND PROVIDE PROTECTION PER IEPA STANDARDS

W-3 CONTRACTOR TO FIELD VERIFY LOCATION/DEPTH OF EXIST. WATER MAIN. INSULATE PIPE IF FINISHED GRADE ELEVATION WILL RESULT IN LESS THAN 6.0 FEET OF COVER OVER TOP OF PIPE

W-4 RECONNECT TAG W-5 TO LOWERED SECTION OF PIPE AT TEE (SEE TAG W-2)

W-5 EXIST. 8" WATER MAIN
CONTRACTOR TO FIELD VERIFY PIPE LOCATION, DEPTH, AND MATERIAL AND NOTIFY ENGINEER

W-6 EXIST. WATER VALVE (ADJUST RIM)
EX RIM = 917.78
PR RIM = 917.10

W-7 EXIST. B-BOX (ADJUST RIM)
EX RIM = 917.75
PR RIM = 917.12

W-8 199 LIN FT WATER MAIN, 8" PVC C-900 W/ 22.5° and 45° BENDS
CONNECT TO TAG W-5
PIPE SHALL BE ENCASED BY 15" PVC SDR-26 PIPE USING CCS-JR CASING SPACERS
109 LIN FT CASING PIPE

W-9 PROP. MUELLER CENTURION 250 FIRE HYDRANT & AUX. VALVE WITH 169 LIN FT PVC C-900 LEAD PIPE, CONNECT TO TAG W-8 WITH 8X6X8 RIM = 918.55

W-10 OMITTED

W-11 OMITTED

W-12 OMITTED

W-13 127 LIN FT IRRIGATION LINE
1.5" TYPE K COPPER WATER SERVICE
CONNECT TO EXIST. RPZ

W-14 1.5" B-BOX
RIM = 917.95

W-15 EXIST. IRRIGATION LINE (TO REMAIN)

W-16 EXIST. IRRIGATION BLOWOUT PORT (TO REMAIN)

(S-#) SANITARY SEWER TAGS

S-1 EXIST. GREASE TRAP (TO REMAIN)
RIM = 917.77
INV = 915.48 (TOP OF 4" PVC)

S-2 EXIST. CLEAN OUT (TO REMAIN)
RIM = 917.80

S-3 EXIST. CLEAN OUT (TO REMAIN)
RIM = 917.75

NORTH
0 20'
1" = 20'

ISSUED FOR BID – NOT FOR CONSTRUCTION

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dka

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL, 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE 203 MCHENRY, IL, 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College ENGAGEMENT HALL

8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

LICENSED PROFESSIONAL ENGINEER
TODD M. RICHARDS
062-058779
STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/27/25

SHEET TITLE:
UTILITY PLAN

SHEET NUMBER:
C-07

CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	KEY	CONTROL MEASURE CHARACTERISTICS	TEMP.	PERMNT
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	X	TS	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.	X	
	PERMANENT SEEDING	X	PS	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER, MAY BE PART OF FINAL LANDSCAPE PLAN.		X
	DORMANT SEEDING		DS	SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.		
	SODDING		SO	QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGEWAYS WHERE SEEDING MAY BE DIFFICULT.		
	GROUND COVER		GC	PROVIDES GROUND COVER, SHRUBS AND TREES IN ADDITION TO PERMANENT VEGETATION. MAY BE USED AS PART OF A FINAL LANDSCAPE PLAN ALONG WITH SHRUBS AND TREES.		
NON VEGETATIVE SOIL COVER	MULCHING		M	ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. CONTROLS UNWANTED VEGETATION AND PRESERVES MOISTURE. PROVIDES COVER WHERE VEGETATION CANNOT BE ESTABLISHED.		
	AGGREGATE COVER		AG	PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.		
	PAVING	X	P	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		X
	EROSION BLANKET	X	EB	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING TIME OF YEAR IS INAPPROPRIATE AND IN SLOPED AREAS.	X	
DIVERSIONS	RIDGE DIVERSION		RD	TYPICALLY USED ABOVE SLOPES. USED WHERE AN EXCESS OF SOIL IS AVAILABLE.		
	CHANNEL DIVERSION		CD	TYPICALLY USED AT TOP OR BASE OF SLOPES. USED WHEN EXCESS SOIL IS NOT AVAILABLE.		
	COMBINATION DIVERSION		DC	TYPICALLY USED ANYWHERE ON A SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.		
	CURB AND GUTTER	X	CG	SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		X
	BENCHES		B	SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.		
WATERWAYS	BARE CHANNEL		BC	PROVIDES MEANS OF CONVEYING RUNOFF TO DESIRED LOCATION. MAY BE USED TO DRAIN DEPRESSIONAL AREAS. ONLY APPLICABLE WHEN VELOCITY OF FLOW IS VERY LOW.		
	VEGETATIVE CHANNEL		VC	PROVIDED ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.		
	LINED CHANNEL		LC	USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.		
	ROCK CHECKS		RC	PROVIDES AN ENERGY DISSIPATER ALONG A LENGTHY CHANNEL TO REDUCE VELOCITY OF STORMWATER		
ENCLOSED DRAINAGE	STORM SEWER	X	ST	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		X
	UNDERDRAIN		UD	USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.		
SPILLWAYS	STRAIGHT PIPE SPILLWAY		SS	USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER		
	DROP INLET PIPE SPILLWAY		DIS	SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED		
	WEIR SPILLWAY		W	USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.		
	BOX INLET WEIR SPILLWAY		BS	SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.		
OUTLETS	LINED APRON		LA	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.		
	STONE RIP RAP	X	RR	USED AS AN ENERGY DISSIPATER AT OUTLET STRUCTURES TO REDUCE VELOCITIES		X
SEDIMENT BASINS	EMBANKMENT SEDIMENT BASIN		ES	USED WHERE TOPOGRAPHY LENDS ITSELF TO CONSTRUCTING A DAM AND EARTH FILL IS AVAILABLE.		
	EXCAVATED SEDIMENT BASIN		XS	USED WHERE EMBANKMENT COULD CAUSE A HAZARD DOWNSTREAM IN CASE OF FAILURE AND WHEN EXCESS EARTH FILL IS NOT AVAILABLE.		
	COMBINATION SEDIMENT BASIN		CS	USED WHEN TOPOGRAPHY IS SUITABLE BUT ADDITIONAL CAPACITY IS NEEDED.		
SEDIMENT FILTERS	BARRIER FILTER	X	BF	USED FOR SINGLE LOTS OR DRAINAGE AREAS LESS THAN 1/2 ACRE TO FILTER SEDIMENT FROM RUNOFF.	X	
	VEGETATIVE FILTER		VF	USED ALONG DRAINAGE WAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.		
	FILTER BASKET		FB	USED FOR FILTERING SEDIMENT WITHIN THE ROADWAY BEFORE ENTERING THE STORM SEWER		
	INLET PROTECTION	X	IP	USED FOR FILTERING SEDIMENT WITHIN GRASS AREAS BEFORE WATER ENTERS THE STORM SEWER	X	
MUD AND DUST CONTROL	STABILIZED CONST. ENTRANCE		SE	PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.		
	DUST AND TRAFFIC CONTROL	X	DT	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.	X	

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A,B,C, D			*	*					
SODDING			C**									
TEMPORARY SEEDING			E			X						

A (1) KENTUCKY BLUEGRASS 50 LBS/ACRE
MIXED WITH PERENNIAL RYEGRASS
30 LBS/ACRE AND CREEPING RED FESCUE
20 LBS/ACRE

B (1A) BLUE GRASS 30 LBS/ACRE
PERENNIAL RYEGRASS 10 LBS/ACRE
DAWSONS RED FESCUE 10 LBS ACRE
SCALDIS HARD FESCUE 10 LBS/ACRE
FULTS SALT GRASS 30 LBS/ACRE

C (4) ANDROPOGON GERNADI (BIG BLUE STEM) 4 LBS/ACRE
ANDROPOGON SCOPARIUS (LITTLE BLUE STEM) 5 LBS/ACRE
BOUTELOVA CURTIPENDULA (SIDE OATS GRAMA) 5 LBS/ACRE
ELYMUS CANADENSIS (WILD RYE) 1 LBS/ACRE
PANCIUM VIRGATUM (SWITCH GRASS) 1 LBS/ACRE
SORGHASTRUM NUTONS (INDIAN GRASS) 2 LBS/ACRE
ANNUAL RYE GRASS 25 LBS/ACRE
OATS, SPRING 25 LBS/ACRE
PERENNIAL RYE GRASS 15 LBS/ACRE

D (48) ANNUAL RYE GRASS 250 LBS/ACRE
OATS, SPRING 250 LBS/ACRE
WETLAND GRASSES 6 LBS/ACRE

E SPRING OATS 100 LBS/ACRE

F WHEAT OR CEREAL RYE
150 LBS/ACRE.

G SOD

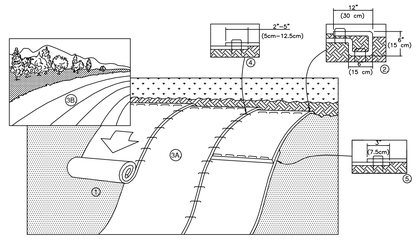
H ALFALFA/SOYBEANS 100-250 LBS/ACRE (VERIFY WITH TCR)

* IRRIGATION NEEDED DURING JUNE AND JULY

** IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.

( ) IDOT STANDARD

SLOPE INSTALLATION



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.
NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

EROSION CONTROL NOTES

- All sedimentation and erosion control regulations shall be adhered to per City of Crystal Lake requirements
- All erosion control measures shall be installed prior to the start of construction.
- No land disturbing activities shall not commence until approval to do so has been received by governing authorities, in addition to, no land clearing or grading shall begin until all perimeter erosion and sediment control measures have been installed. (including storm water pollution prevention plan per the development criteria.)
- If any additional soil erosion measures are deemed necessary by the City Engineer or his representative. These measures must be immediately implemented by the contractor.
- The general contractor shall strictly adhere to the storm water pollution prevention plan (swppp) during construction operations.
- All topsoil shall be stripped prior to filling
- All exposed areas shall be seeded as specified within 14 days of final grading.
- Should construction stop for longer than 14 days, the site shall be seeded as specified.
- Sediment and erosion control measures shall be inspected at least once every seven (7) days and within 24 hours of a rainfall exceeding 0.5 inches during a 24-hour period or more frequently if required by governing NPDES general permit. All maintenance required by inspection shall commence within 24 hours and be completed within 48 hours of report.
- This plan shall not be considered all inclusive as the general contractor shall take all necessary precautions to prevent soil sediment from leaving the site.
- General contractor shall comply with all state and local ordinances that apply.
- Additional erosion and sediment control measures will be installed if deemed necessary by on site inspection.
- If installation of storm drainage system should be interrupted by weather or nightfall, the pipe ends shall be covered with filter fabric.
- General contractor shall be responsible to take whatever means necessary to establish permanent soil stabilization.
- All erosion and sediment control practices shall be maintained and repaired as needed to ensure effective performance of the required erosion control measures.
- All erosion and sediment control work shall conform to the I.D.O.T. Manual for, standards and procedures for erosion control.
- All construction will adhere to the requirements set forth in the IEPA's new construction site activities national pollutant discharge elimination system (NPDES) storm water permit.
- All roadways and driveways shall be cleaned at the end of each construction day.
- All disturbed areas shall be stabilized within 7 days of active disturbance.
- All erosion control measures shall be disposed of within 30 days of final stabilization of the site.
- Ground cover for 5:1 slopes or greater shall be established as soon as possible.
- All disturbed areas to to restored w/ 6" topsoil respread & seeding/sodding unless otherwise noted on plans
- Filter Baskets or Silt filter fabric shall be placed between frame and grate until vegetation is established. (see detail)
- Utilize excelsior blanket on all slopes of 5:1 or greater.
*Seeding per I.D.O.T. Manual, section 251,standard specifications for road and bridge construction, (latest edition
*Class 3 type - slope mixture
*Mulch/hydroseed per I.D.O.T. Manual, section 251, standard specifications for road and bridge construction (latest edition
*Mulch/hydroseed method 2, procedure 3
- No dimensions shall be assumed by scaling.
- No known drain tiles are present on the proposed development, if tiles are encountered during construction please notify the engineer immediately.
- No part of the proposed project is located within a flood hazard 10-100yr area a flood hazard area

Excess material shall be placed at specified location unless otherwise specified by owner and approved by engineer for use of lot grading. Stockpiles shall be surrounded with filter fence and shall be seeded per I.D.O.T. Manual (latest addition) (temporary) if left more than 14 working days.

- General contractor shall notify all utility companies having underground utilities on site or in right-of-way prior to construction. Contractor shall contact utility locating company and locate all utilities prior to grading start.

PHASING NOTES:

SEQUENCE OF MAJOR ACTIVITIES

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows (refer to the Erosion and Sediment Control Plan Sheet contained in this SWPPP for details and refer to the Suggested Phasing Plan in the design drawings for construction sequencing):

A. A pre-construction meeting shall be held by the Site Project Manager and the Operator's Engineer prior to land disturbing activities.
B. Install perimeter silt fences and inlet protection in the locations shown on the Erosion Control plan sheets.
C. Implement erosion control measures around the existing storm sewer to prevent sedimentation from infiltrating into the storm sewer system as shown on the Erosion Control plan sheets.
D. Construct temporary construction exits at locations shown on the Erosion Control plan sheets.
E. Begin clearing and grubbing operations if applicable. Clearing and grubbing shall be done only in areas where earthwork will be performed and only in areas where building is planned to commence within 7 days after clearing and grubbing.
F. Disturbed areas of the site where Construction Activity has ceased for more than 7 days shall be temporarily seeded and watered.
G. Commence site grading.
H. Construct gutter inlets, area inlets, storm sewer manholes and proposed storm sewer.
I. Install inlet / outlet protection around the constructed storm sewer to prevent sedimentation from infiltrating into the storm sewer system as shown on the Erosion Control plan sheets.
J. Construct utilities
K. Finalize pavement subgrade preparation.
L. Construct all curb and gutter. Inlet protection may be removed temporarily for this construction.
M. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
N. Install base material as required for pavement.
O. Carry out final grading and seeding, sodding and planting, including rolled erosion control products where shown on the Erosion Control plan sheets.
P. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.
Q. Remove temporary construction exits

A schedule for implementation for the activities identified above is included as Form C-3 of the SWPPP.

SPECIFICATIONS & GENERAL NOTES

NOTES:

This plan has been prepared to comply with the provisions of the NPDES Permit Number issued by the Illinois Environmental Protection Agency for Stormwater Discharges from Construction Site Activities.

1. Site Description.

a. The following is a description of the construction activity which is the subject of this plan:
The proposed development consists of construction of MCC Event Center, sidewalks, storm sewer and infiltration basin. The construction activities for site improvements will include: site clearing, grubbing, mass grading, pavement construction, building construction, installation of utilities including storm sewers, soil erosion and sedimentation control measures, as a minimum.

b. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site such as grubbing, excavation, and grading:

The sequence of the construction activities may be as follows:
See Sequence of major activities on this sheet.

c. The total area of the construction site is estimated to be 1.16 ± acres.

The total area if the site that is estimated to be disturbed by excavation, grading, or other activities is 1.15 ± acres.

2. Controls.

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b above. For each measure discussed, the contractors will be responsible for its implementation as indicated. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan.

a. Erosion and Sediment Controls.

(i) STABILIZATION PRACTICES. Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Except as provided in 2.a. (i) (A) and 2.b. stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portions of the site where construction activity will not occur for a period of 21 or more calendar days.

(A) Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following interim and permanent stabilization practices, as a minimum will be implemented to stabilize the disturbed area of the site:

1 Temporary Seeding
2 Permanent seeding
3 Erosion Blanket
4 Stone Riprap
5 Barrier filter
6 Dust & Traffic Control

(ii) STRUCTURAL PRACTICES. Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. The installation of these devices may be subject to Section 404 of the Clean Water Act.

1. Infiltration basins
2. Storm sewer system
3. Vegetated drainage swales
4. Permanent seeding
5. Stone Riprap
6. Filter fabric

b. Erosion Control. It shall be the Contractor's responsibility to provide adequate erosion control on the job site. The following erosion control sequence shall be adhered to:

A. A pre-construction meeting shall be held by the Site Project Manager and the Operator's Engineer prior to land disturbing activities.
B. Install perimeter silt fences and inlet protection in the locations shown on the Erosion Control plan sheets.
C. Implement erosion control measures around the existing storm sewer to prevent sedimentation from infiltrating into the storm sewer system as shown on the Erosion Control plan sheets.
D. Construct temporary construction exits at locations shown on the Erosion Control plan sheets.
E. Begin clearing and grubbing operations if applicable. Clearing and grubbing shall be done only in areas where earthwork will be performed and only in areas where building is planned to commence within 7 days after clearing and grubbing.
F. Disturbed areas of the site where Construction Activity has ceased for more than 7 days shall be temporarily seeded and watered.
G. Commence site grading.
H. Construct gutter inlets, area inlets, storm sewer manholes and proposed storm sewer.
I. Install inlet / outlet protection around the constructed storm sewer to prevent sedimentation from infiltrating into the storm sewer system as shown on the Erosion Control plan sheets.
J. Construct utilities
K. Finalize pavement subgrade preparation.
L. Construct all curb and gutter. Inlet protection may be removed temporarily for this construction.
M. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
N. Install base material as required for pavement.
O. Carry out final grading and seeding, sodding and planting, including rolled erosion control products where shown on the Erosion Control plan sheets.
P. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.
Q. Remove temporary construction exits

Any siltation of conduits, structures, or ditches shall be cleaned and maintained by the Contractor, on a weekly basis, until the seeding has taken hold. All washouts, gullies, etc. will be regraded and reseeded by the Contractor, at the Contractor's expense.

The Contractor's responsibility for erosion control shall extend throughout the construction process. The Contractor shall be responsible for cleanup of paved surfaces within and adjacent to the project.

All erosion control practices shall be in compliance with the latest revision of the "Standard Specifications for Road and Bridge Construction," by the Illinois Department of Transportation and with "Standards and Specifications for Soil Erosion and Sedimentation Control" as published by the Illinois Environmental Protection Agency.

If a topsoil stockpile location is provided and approved by the City, Contractor shall establish erosion control measures for the stockpile if it is to remain in place for more than three days. In addition, barrier filter fence shall enclose topsoil stockpile location with exception of truck access during construction hours.

c. Stormwater Management.

(i) Provided below is a description of measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The practices selected for implantation were determined on the basis of the technical guidance contained in IEPA's Standard Specifications for Soil Erosion and Sedimentation Control, and other ordinances listed in the Specifications.

The stormwater pollutant control measures shall include:

1. Silt filter fence
2. Drainage swales
3. Storm sewers
4. Rip-rap outlet protection

(ii) Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Stormwater Management Control includes
1 Stone Riprap
2 Filter Fabric

3. Other Controls.

(i) Waste Disposal. The solid waste materials including trash, construction debris, excess construction materials, machinery, tools and other items will be collected and disposed off-site by the contractor. The contractor is responsible to acquire any permit required for such disposal. Burning on the site will not be permitted. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

(ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

The sanitary sewage will be discharged to the proposed sanitary sewer constructed per IEPA and local standards.

a. Approved State or Local Plans.

The management practices, controls and other provisions contained in this plan are at least as protective as the requirements contained in the latest amendment of the Illinois Environmental Protection Agency's Standards and Specifications for Soil and Erosion and Sediment Control dated October 1987, Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Plan, and the Municipal Subdivision Ordinance. Requirements specified in sediment and erosion control site plans or site permits or stormwater management or site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI to be authorized to discharge under this permit, incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

b. Maintenance.

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan and Standard Specifications.

Vegetative erosion control measures: The vegetative growth of temporary and permanent seeding, sodding, vegetative channels, vegetative filter, etc. shall be maintained periodically and supply adequate watering and fertilizer. The vegetative cover shall be removed and reseeded as necessary.

Silt filter fence: The damaged silt filter fence shall be restored to meet the standards or removed and replaced as needed.

Rip-rap outlet protection: It shall be inspected after high flows for any scour beneath the Rip-rap or for stones that have been dislodged. It shall be repaired immediately.
Inlet Protection: Shall be inspected and emptied of silt if filled as required.

Disturbed areas shall be stabilized with temporary or permanent measures within 7 calendar days following the end of active disturbance, or redisturbance, consistent with the following criteria:

(i) Appropriate temporary or permanent stabilization measures shall include seeding, mulching, sodding, and/or non-vegetative measures.
(ii) Areas having slopes greater than 12 percent shall be stabilized with sod, mat, or blanket in combination with seeding or equivalent.

Soil storage piles containing more than 10 cu. yds. of material shall not be located with a downslope drainage length less than 25 feet to a roadway or drainage channel. Filter barriers, including straw bales, filter fence, or equivalent, shall be installed immediately on the down slope of the piles.

4. Inspections.

The Owner, or Owner's representative shall provide qualified personnel to inspect disturbed areas of the construction site which have not been finally stabilized, structural control measures and location where vehicles enter or exit the site. Such inspections shall be conducted at least once every seven (7) calendar days within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.

b. Based on the results of the inspection, the description of potential pollutant sources identified in section 1 above and pollution prevention measures identified in section 2 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 7 calendar days following the inspection.

c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this stormwater pollution prevention plan and actions taken in accordance with section 4.b. shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI.G of the general permit.

d. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit. The report of noncompliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Permit Section
P.O. Box 19276
Springfield, Illinois 62794-9276

5. Non-Stormwater Discharges.
Except for flows from fire fighting activities, sources of non-stormwater that may be combined with stormwater discharges associated with the industrial activity addressed in this plan, are described below:

a. Water main flushing
b. Fire hydrant flushing
c. Watering for dust control
d. Irrigation drainage for vegetative growth for seeding, etc..

The pollution prevention measures, as described below, will be implemented for non-stormwater components of the discharge:

The fire hydrant and water main shall not be flushed directly on the exposed area of sub grade of the pavement. Hoses shall be used to direct the flow into the storm sewer system, if available.

The erosion due to irrigation of seeding shall be considered minor.

Contractor to provide the above non-stormwater discharged control to the standard specification required by the City or the approved equal.

6. Monitoring and Management Plan
A three-year maintenance and monitoring plan is required after installation of native landscaping.
See Project Specifications for details.

CONSTRUCTION SEQUENCE

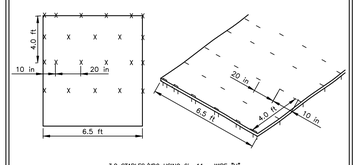
1. File stormwater NPDES permit with the IEPA at least 30 days prior to beginning work.
2. Install all permanent and temporary erosion control practices, i.e. diversions, vegetated swales, stabilized construction entrances, temporary silt basins, polymer systems, and silt fences.
3. City inspection and signoff.
4. Strip topsoil.
5. Stabilize stockpiles with vegetative cover and additional erosion control measures.
6. City inspection and signoff.
7. Begin mass grading.
8. Add additional soil erosion and sediment control as needed. In particular the CLSO requirement for stabilization within 14 days of temporary or permanent cessation of grading must be met and will be vigorously enforced by the City.
9. Disk disturbed pervious areas to restore infiltration prior to topsoil placement and vegetation.
10. Partially excavate infiltration basin and add fabric and sand cover.
11. City inspection of infiltration basin.
12. Permanent site stabilization.
13. City inspection.
14. Finish infiltration basin construction.
15. City inspection.

PERMANENT EXCELSIOR BLANKET INSTALLATION DETAIL

FOR USE WITH C-350 EXCELSIOR BLANKET

STAPLE PATTERN "E"

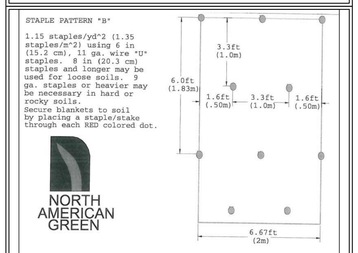
FOR USE WITH C-350 EXCELSIOR BLANKET



3.8 STAPLES/YD2 USING 6in 11ga WIRE "U" STAPLES. 8in STAPLES AND LONGER MAY BE USED FOR LOOSE SOILS. 9ga STAPLES OR HEAVIER MAY BE NECESSARY IN HARD OR ROCKY SOILS

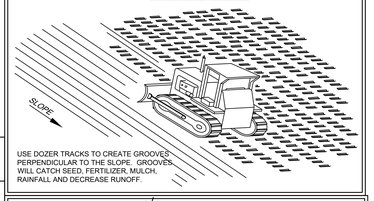
STAPLE PATTERN "B"

1.15 staples/yd^2 (1.35 staples/m^2) using 6 in (15.2 cm), 11 ga. wire "U" staples. 8 in (20.3 cm) staples and longer may be used for loose soils. 9 ga. staples or heavier may be necessary in hard or rocky soils. Secure blankets to soil by placing a staple/stake through each RED colored dot.



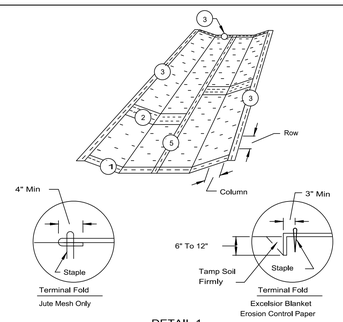
NORTH AMERICAN GREEN

TRACKING DETAIL

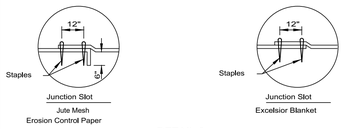


USE DOZER TRACKS TO CREATE GROOVES PERPENDICULAR TO THE SLOPE. GROOVES WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE RUNOFF.

EROSION BLANKET PLAN

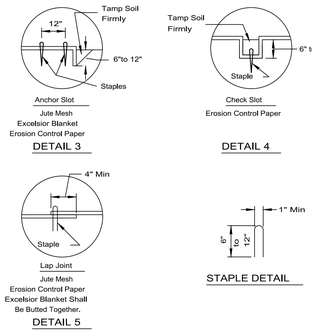


DETAIL 1



DETAIL 2

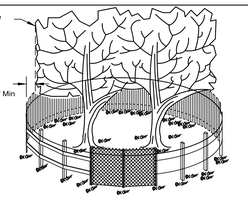
EROSION BLANKET PLAN



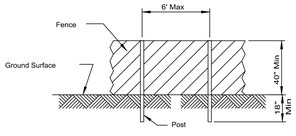
DETAIL 3 DETAIL 4 DETAIL 5 STAPLE DETAIL

NOTES:
1. On erosion control paper, check slots, in ditch channel shall be spaced so that one occurs within each 50' on slopes of more than 4% and less than 6%. On slopes of 6% or more, they shall be spaced so that one occurs within each 25'.
2. Staples are to be placed alternately, in columns approximately 2' apart and in rows approximately 3' apart. Approximately 175 staples are required per 4'x 225' roll of material and 125 staples are required per 4'x 150' roll of material.
3. Erosion control material shall be placed loosely over ground surface. Do not stretch.
4. All terminal ends and transverse laps shall be stapled at approximately 12" intervals.

TREE PROTECTION - FENCING

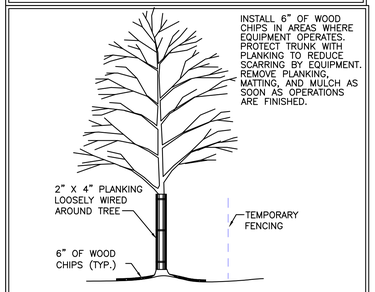


SIDE VIEW



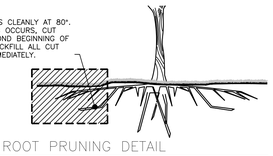
POST AND FENCE DETAIL

NOTES:
1. The fence shall be located a minimum of 1 foot outside the drip line of the tree to be saved and in no case closer than 5 feet to the trunk of any tree.
2. Fence posts shall be either standard steel posts or wood posts with a minimum cross sectional area of 3.0 sq. in.
3. The fence may be either 40" high snow fence, 40" plastic web fencing or any other material as approved by the engineer/inspector.



TYP. TREE TRUNK PROTECTION DETAIL

SCALE: NTS



TYP. ROOT PRUNING DETAIL

SCALE: NTS

REFERENCE			STANDARD DWG. NO.
Project			
Designed		Date	IL-530
Checked		Date	SHEET 1 OF 2
Approved		Date	DATE 5-24-94

NRCS Natural Resources Conservation Service

REFERENCE			STANDARD DWG. NO.
Project			
Designed		Date	IL-530
Checked		Date	SHEET 2 OF 2
Approved		Date	DATE 3-1-95

NRCS Natural Resources Conservation Service

REFERENCE			STANDARD DWG. NO.
Project			
Designed		Date	IL-690
Checked		Date	SHEET 1 OF 1
Approved		Date	DATE 4-7-94

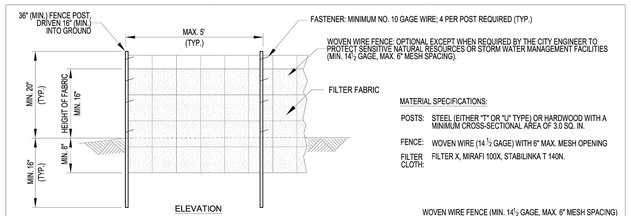
NRCS Natural Resources Conservation Service

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL, 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE
203 MCHENRY, IL, 60050
**P.

EC-01



MATERIAL SPECIFICATIONS:

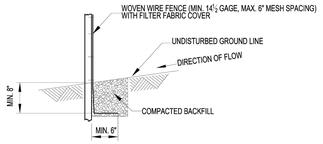
POSTS: STEEL (EITHER "T" OR "U" TYPE) OR HARDWOOD WITH A MINIMUM CROSS-SECTIONAL AREA OF 3.0 SQ. IN.

FENCE: WOVEN WIRE (14½ GAGE) WITH 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T 140N.

NOTES:

1. TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. THEY SHALL BE MAINTAINED, AS NEEDED, THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POST WITH TIES OR STAPLES
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID-SECTION
4. WHEN TWO (2) SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX (6) INCHES AND FOLDED
5. MATERIAL SHALL BE REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE
6. DOUBLE ROWS OF SILT FENCE SPACED FIVE (5) FEET APART SHALL BE PLACED AROUND EXISTING STORMWATER MANAGEMENT FACILITIES OR WETLANDS AS ADDITIONAL PROTECTION WHEN REQUIRED BY CITY ENGINEER

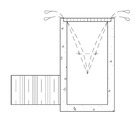


FABRIC ANCHOR DETAIL

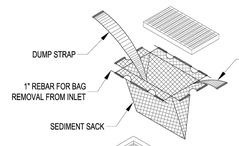
Revised:	Drawing Name	Drawing Number
1. 06/12/2015	(BF) SILT FENCE	EC-01
2.		Date: 12/4/2012
3.		Drawn DD / Checked AW
4.		

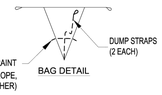
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EC-04

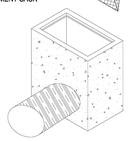


INSTALLATION DETAIL





BAG DETAIL



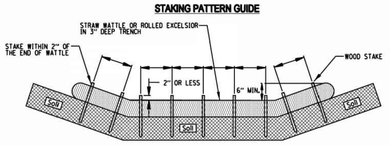
SEDIMENT CONTROL DEVICE

Revised:	Drawing Name	Drawing Number
1. 06/12/2015	(IP) INLET SEDIMENT CONTROL DEVICE	EC-04
2.		Date: 11/2/2007
3.		Drawn EM / Checked AW
4.		

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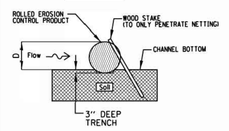
ROLLED EROSION CONTROL PRODUCTS

STAKING PATTERN GUIDE



NOTES:
1. OVERLAP MINIMUM IS THE DIAMETER OF THE ROLL.
2. 4' SPACING FOR WATTLES.
3. 2' SPACING FOR ROLLED EXCELSIOR.
4. OR SPACE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

STAKE DETAIL



STANDARD DITCH CHECK DETAIL

NOTES:
1. DRAWINGS ARE NOT TO SCALE.
2. ENDS OF WATTLES OR ROLLED EXCELSIOR SHALL BE TURNED AT LEAST 6" UPSLOPE.
3. RECOMMENDED STAKES ARE 1 1/8" WIDE x 1 1/8" THICK x 30" LONG.
4. STAKES SHALL NOT EXTEND ABOVE THE STRAW WATTLE MORE THAN 2".
5. SPACING: THE TOE OF THE UPSTREAM DITCH CHECK SHALL CREATE A HORIZONTAL LINE WITH THE TOP OF THE DOWNSTREAM DITCH CHECK.

REFERENCE		STANDARD DWG. NO.
Project		IUM-514
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 08-2-2019
Approved ____ Date ____		

GE-02a

GENERAL SITE-WORK:

1. Pre-Construction meeting shall be conducted with City Staff and all Contractors prior to commencing any grading or underground utility construction activities (schedule meeting with the Community Development Department at 815-356-3605).
2. 24-hour Emergency contact numbers shall be provided to City Staff at the Pre-Construction meeting.
3. Working hours shall be limited to the hours of 7:00 a.m. and 7:00 p.m. on weekdays only (except in cases of emergency). Non-emergency work on weekends or holidays is not permitted per City Code except under written permission from the City Engineer. The owner is responsible for the City Inspector cost of overtime inspection beyond the normal eight (8) hour day, including weekends and holidays.
4. Public/private streets shall be kept free of dirt and debris with regular cleaning, sweeping, and scraping conducted by the Contractor. Junk and debris shall not be allowed to accumulate, blow, or scatter onto streets or adjacent properties.
5. J.U.L.I.E. shall be contacted for utility locations on-site and in the adjacent rights-of-way.
6. Contractor shall provide and maintain fencing, barricades, traffic control signs, and other safeguarding measures during the course of all work to protect the public from the construction operations.
7. Maintain access to adjacent streets during construction. No closing of streets unless approval is first obtained from the agency with jurisdiction (City of Crystal Lake, McHenry County Department of Transportation, Illinois Department of Transportation, etc).
8. Any damage to public right-of-way, public utilities, streets, curb, etc. shall be repaired/replaced as soon as possible and as directed by the City Engineer.
9. The contractor shall give the City of Crystal Lake, Illinois Department of Transportation, and any other governmental agency having jurisdiction, at least two (2) working days notice excluding Saturday and Sunday prior to the initiation of any phase of construction. Contractor shall immediately notify if construction has ceased and renew the two (2) working day notification thereafter.
10. The Contractor shall be responsible for obtaining all required permits for construction prior to commencement along or across existing streets or highways. The Contractor shall make arrangements for the proper bracing, shoring and other protection of all roadways before construction begins.

GRADING:

1. The grading and construction of the site improvements shall not cause ponding of storm sewer water. All areas adjacent to these improvements shall be graded to allow positive drainage.
2. The proposed grading elevations shown on the plans are finished grade. A minimum of six (6) inches of topsoil is to be placed before finished grade elevations are achieved.
3. Embankment material within parkway and open space areas shall be compacted to a minimum of ninety percent (90%) of maximum density in accordance with ASTM Specification D-1557 (modified proctor method), or to such other density as may be determined appropriate by the soils engineer.
4. All subgrade material shall have a minimum CBR (California Bearing Ratio) of 3.0 as determined by the soils engineer, or base replacement and pavement design revisions shall be provided which are adequate to obtain equivalent pavement strength.
5. Proposed pavement areas, building pads, driveways and sidewalks and yard/open space areas shall be excavated or filled to plus or minus 0.1 foot of design subgrade elevations by the Contractor.
6. Any borrow pit locations shall be identified by the Contractor on a copy of the approved site plans and forwarded to the Engineering Division at least 24-hours prior to excavation. Provide backfill compaction reports from a geotechnical engineer and as-built plans to the Engineering Division for any borrow pit area.
7. Backfill shall be monitored by a geotechnical engineer on-site with compaction reports forwarded to the Engineering Division for review.
8. Water truck shall be on-site at all times during mass-grading operations and be available as needed for the purposes of dust control or at the request of City Staff.
9. Use of City fire hydrants is not allowed unless approved (separate from this permit) by the Public Works Department and a hydrant meter and RPZ is obtained from the City of Crystal Lake Water Division (815-356-3614). Only the City of Crystal Lake Water Division may operate valves and hydrants.

Revised:	Drawing Name	Drawing Number
1. 06/12/2015	STANDARD NOTES AND SPECIFICATIONS	GE-02a
2.		Date: 01/30/15
3.		Drawn DD / Checked AW
4.		

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GE-02b

TOPSOIL STOCKPILING:

1. Location of any on-site topsoil stockpiles shall be identified on the approved plans with silt fence installed around the perimeter of the stockpile.
2. Topsoil stockpiled for future use shall be relatively free from large roots, sticks, weeds, brush, stones larger than one (1) inch diameter, or other litter and waste products including other extraneous materials not conducive to plant growth.
3. Topsoil shall be stockpiled in sequence to eliminate any re-handling or double movements by the Contractor. Failure to properly sequence the stockpiling operations shall not constitute a claim for additional compensation. No material shall be stockpiled in front yards, in utility easements, or in the right-of-way lines.
4. If a stockpile is to remain in place for more than (14) calendar days, it is required that the stockpile meet the requirements as outlined in section 595 of the City Code.

UNDERGROUND UTILITY:

1. The Contractor shall coordinate water main, water service, sanitary and storm sewer inspections and testing with the Community Development at least 24 hours in advance.
2. All main line sanitary shall be cleaned and televised (provide DVD to the City's Engineering Division).
3. All manhole or valve covers shall be imprinted "City of Crystal Lake Sanitary", or "City of Crystal Lake Storm", or "City of Crystal Lake Water" as directed by the City.
4. Reference the latest edition of the Standard Specifications for Water and Sewer Main Construction in Illinois.
5. Existing manholes to be circular cored and booted.

EROSION CONTROL:

1. All specified erosion control measures shall be installed and maintained per the requirements of the Crystal Lake Stormwater Ordinance in accordance with the active NPDES permit.
2. All slopes 4:1 or steeper shall be sodded or blanketed immediately after mass earthwork.
3. All overland flow routes to be stabilized by sod or blanket.
4. Erosion control measures to be inspected and approved by City Engineering Division prior to additional work on site.
5. Continuous monitoring of erosion control measures is required. Maintain records of weekly reports per the City of Crystal Lake Stormwater Ordinance.
6. The Contractor shall implement any additional erosion control measures deemed necessary by the City per the standards of the City Of Crystal Lake Stormwater Ordinance.
7. All storm sewer catch basins, sumps and/or retention basins provided are to be cleaned at the end of construction of the project prior to final acceptance. Cleaning may also be required during the course of the construction of the project if it is determined that the silt and debris traps are not properly functioning and their performance is required.
8. Rip-rap material RR 2 (6") - RR4 (16") shall be in accordance with Article 281
9. Projects of 1 Acre or greater must obtain an NPDES permit prior to commencement of any construction activity.

Revised:	Drawing Name	Drawing Number
1. 06/12/2015	STANDARD NOTES AND SPECIFICATIONS	GE-02b
2. 02/25/2020		Date: 01/30/15
3.		Drawn DD / Checked AW
4.		

L:\ENGINEERING AND BUILDING\ENGINEERING DETAILS AND STANDARDS\

GE-02c

SANITARY SEWER:

1. Non-shear stainless steel couplings shall be used when connecting sewer pipes of dissimilar materials and pipes with no hub joints. When connecting to an existing sanitary sewer by means other than an existing wye or manhole, contractor shall use a Sewer-Tap and hub-wye or hub-tee saddle.
2. Unless an alternate method is approved, water stop gaskets shall be provided at all sanitary sewer manhole connections. Type and manufacturer to be approved by the City.
3. PVC plastic sewer pipe and fittings of sizes 4-inch through 15-inch shall conform to the latest revised specification requirements of ASTM D3034 for type PSM polyvinyl chloride (PVC) sewer pipe and fittings of minimum wall thickness SDR 26.
4. Joints shall be either the solvent weld type conforming to the latest revised specification requirements of ASTM D2564 and ASTM D2855, or elastomeric gasket type conforming to the latest revised specification requirements of ASTM D1869 and ASTM D3212.
5. A thicker walled pipe such as SDR 18 may be specified by the engineer depending on design and/or field conditions.
6. PVC plastic sewer pipe and fittings of sizes 18-inch through 36-inch shall conform to the latest revised specification requirements of ASTM F679 or polyvinyl chloride (PVC) large diameter ribbed gravity sewer pipe and fittings, with integral bell gasketed joints and elastomeric gaskets to form a watertight seal conforming to the latest revised specification requirements of ASTM F477 or ASTM D3212.
7. Pipe and fittings shall be the products of one approved manufacturer only, and there shall not be any mixing of pipe and fittings of different manufacturers between manholes.
8. The handling and installation of pipe, assembly or joints, and manhole connections shall be in accordance with the manufacturer's recommendations.
9. Gasket-type watertop collars consist of a neoprene collar and a stainless steel band or other approved manhole watertop shall be installed wherever the pipe passes through the manhole walls to provide a watertight joint to prohibit infiltration into the sewer system.
10. PVC pipe shall be installed in accordance with the latest revised specification requirements of ASTM D2321 using either compacted class I or class II granular embedment materials for bedding, haunching and initial backfill of 12 inches over the top of pipe to provide the necessary support for the pipe so that the maximum deflection does not exceed five percent of the pipe's original internal diameter.
11. The Contractor shall provide the necessary tools and equipment and perform the work necessary to test the deflection in the initial 1,200 feet of installed sewer and not less than ten percent (10%) of the remainder of the sewer project at random locations selected by the engineers no sooner than 30 days after backfilling has been completed. In the event that deflection exceeds the maximum limit of five percent (5%), the Contractor shall test all other new flexible pipe for deflection. Deflection shall be tested by use of either a mandrel or rigid ball having a diameter equal to ninety-five percent (95%) of the inside diameter of the pipe, and the test shall be performed without using mechanical pulling devices. Wherever the deflection limitation is exceeded, the contractor shall uncover the pipe, carefully replace compacted embedment and backfill material, and retest for deflection.
12. The Contractor shall subject all sanitary sewers, including service lines, to an air test. Air testing shall be performed in accordance with the latest Standard Specifications for Water and Sewer.
13. The Contractor shall subject all newly constructed sanitary manholes to the Negative Pressure (Vacuum) Test in accordance with ASTM C 1244 The Contractor shall also televise all public sanitary sewers. Televising of sanitary sewer, cost for televising, and testing shall be the responsibility of the Contractor.
14. Cast Iron Soil Pipe: service weight cast iron soil pipe and fittings conforming C.I.S.P.I. Specification HS-67 with compression type rubber gasket joints conforming to ASTM specification C564, or other suitable materials approved by the City Engineer.

Revised:	Drawing Name	Drawing Number
1. 06/12/2015	STANDARD NOTES AND SPECIFICATIONS	GE-02c
2. 01/25/2021 KL Vacuum Test Note 13		Date: 01/30/15
3.		Drawn DD / Checked AW
4.		

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GE-02d

WATER MAIN:

1. Water main shall be Ductile Iron.
   a) Ductile Iron water main shall be Class 52 conforming to ANSI/AWWA C151/A21.51-09.
   b) Ductile iron fittings shall conform to ANSI/AWWA C153/A21.53 with mechanical joint gaskets.
2. All bolted connections shall be torqued to the manufacturer's specification. The Contractor shall verify the manufacturer's specification with an approved torque wrench.
3. Thrust blocking or Mega-Lugs with Mega-Bond coating or pre-approved equal shall be installed on water mains at all bends, tees, elbows, etc. except as noted below.
4. Thrust blocks not permitted with 45 degree vertical bends in water main (these shall be restrained with Mega-Lug or pre-approved equal.
5. Ductile iron pipe shall be encased in polyethylene and shall conform with ANSI/AWWA C105/A21.10 - 10 and ASTM A674-10.
6. Minimum cover from finished grade to top of water main shall be six (6) feet; Maximum cover shall be eight (8) feet.
7. Water Main Taps: An Illinois licensed plumber is required for any water main tap.
8. All water mains shall be subjected to a 2 hour pressure and leakage test by the Contractor in accordance with City Detail UW-09A and UW-09B. Water mains shall be chlorinated in accordance with City Detail UW-09A.
9. The Underground Contractor shall consider incidental to the contract any chlorination and testing of existing water main where connections to and conclusion of such mains is indicated on the drawing.
10. For repairs to existing PVC watermains, see details UW-12 and UW-13

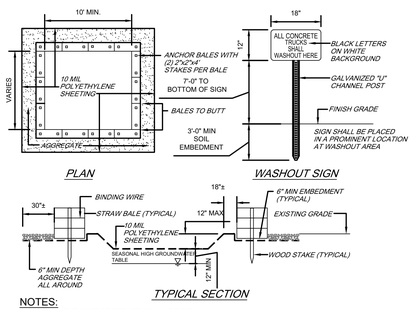
PAVING:

1. All subgrades and bases shall be proof-rolled and approved by the Engineering Division prior to base or binder installation.
2. Subgrade and proposed pavements shall be finished by the Excavation Contractor to within 0.1 foot plus or minus, of plan elevation.
3. The Paving Contractor shall ensure that the subgrade has been properly prepared and that the finished top of subgrade elevation has been graded within the tolerances allowed in these specifications. Unless the Paving Contractor advises the owner and engineer in writing prior to fine grading for base course construction, it is understood that the Contractor has approved and accepts responsibility for the subgrade.
4. For the purpose of providing handicap accessibility and complying with the American Disability Act and City Standards, curbs shall be depressed at locations where public walks or pedestrian paths intersect curb lines at street intersections and other locations as directed.
5. ¼ inch thick premolded fiber expansion joints with two (2) No. 4 plain round steel dowel bars shall be installed at designated intervals and at all P.C., P.T., curb returns and at the end of each pour. Alternate ends of the dowel bars shall be greased and fitted with metal expansion tubes.
6. ½ inch thick fiber expansion joints shall be used in every case where the sidewalk coincides with the curb and gutter. Contraction joints shall be saw cut at designated intervals in the curb. The cost of these joints shall be considered as incidental to the cost of the contract.
7. All poured in place concrete curb and gutter shall incorporate two (2) No. 4 reinforcing bars installed wherever the curb and gutter crosses utility service lines, the cost of which shall be considered incidental to the cost of concrete curb and gutter.
8. Sidewalks (where required) shall be of the thickness and dimensions as shown in the construction plans. All sidewalk concrete shall be a minimum of 6.1 bag mix (or IDOT class SI concrete) and shall develop a minimum of 3,500 psi compressive strength at fourteen (14) days. Contraction joints shall be set at five (5) foot centers, and one-half inch (½ inch) premolded fiber expansion joints at fifty (50) foot centers and where the sidewalk meets the curb or another sidewalk, or at the end of each pour. All sidewalks constructed over utility trenches and/or abutting driveway aprons shall be reinforced with three (3) No. 4 reinforcing bars (10 foot minimum length).

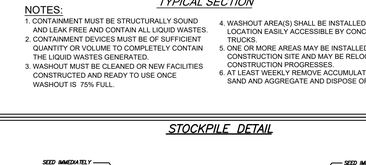
Revised:	Drawing Name	Drawing Number
1. 06/12/2015	STANDARD NOTES AND SPECIFICATIONS	GE-02d
2. KL 01/25/2021 Torque Specification		Date: 01/30/15
3. 02/06/2023 JRG - Update Water Main Note 8		Drawn DD / Checked AW
4. 07/14/2023 JRG - Update Water Main Notes 1, 5, 10		

L:\ENGINEERING AND BUILDING\ENGINEERING DETAILS AND STANDARDS\

CONCRETE WASHOUT AREA



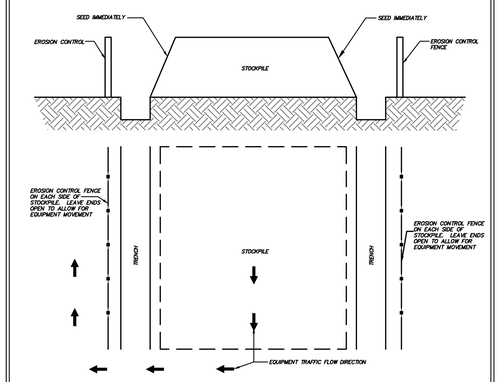
PLAN *WASHOUT SIGN*



TYPICAL SECTION

NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

STOCKPILE DETAIL



ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

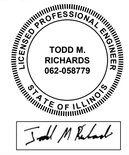
MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL, 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE
203 MCHENRY, IL, 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:



SHEET STATUS: 05/16/2025

ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/27/25

SHEET TITLE:

EROSION CONTROL DETAILS

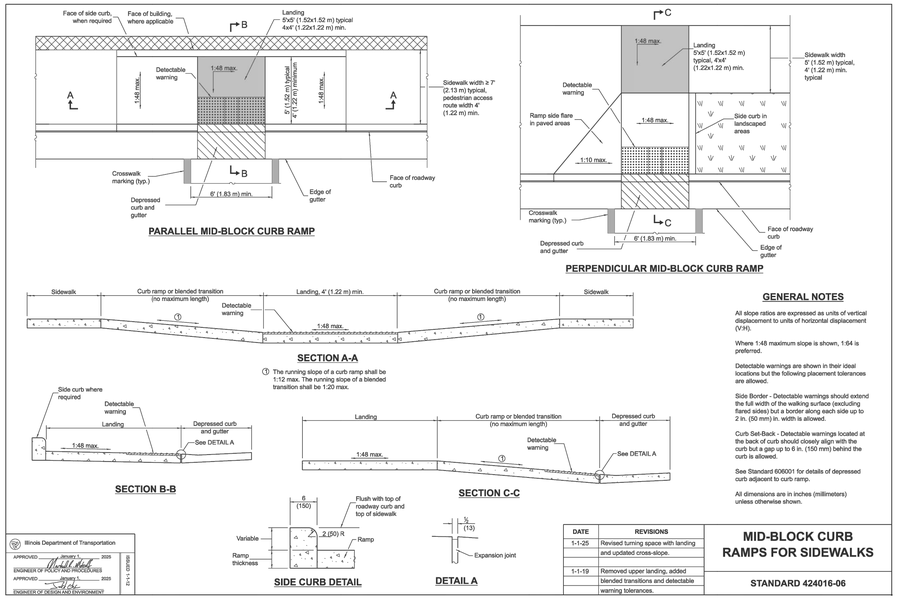
SHEET NUMBER:

C-09

ISSUED FOR BID – NOT FOR CONSTRUCTION

5/21/2025 10:08:35 AM
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Xrefs: TITLE BLOCK – DKA



Illinois Department of Transportation
APPROVED January 1, 2025
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2025
ENGINEER OF DESIGN AND ENVIRONMENT
07-01.1 07-01.3

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:48 maximum slope is shown, 1:64 is preferred.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in. width is allowed.

Curb Set-Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

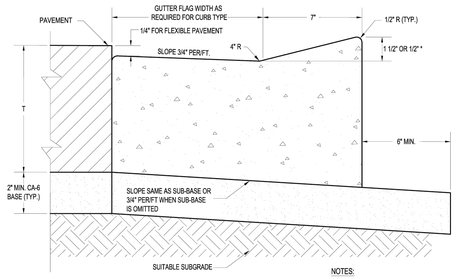
All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-25	Revised turning space with landing and updated cross-slope.
1-1-19	Removed upper landing, added blended transitions and detectable warning tolerances.

MID-BLOCK CURB RAMPS FOR SIDEWALKS

STANDARD 424016-06

RD-04b



* ADJACENT TO CURB RAMP ACCESSIBLE TO THE DISABLED

NOTES:

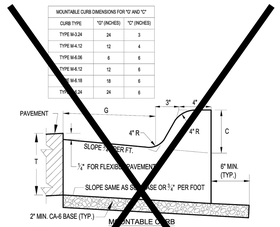
1. THE TOP OF CURB SHALL BE DEPRESSED WHERE THE CURB AND GUTTER IS CONSTRUCTED ACROSS ALLEYS AND FOR PRIVATE DRIVES OR WHERE DIRECTED BY THE ENGINEER.
2. THICKNESS OF PAVEMENT "T". WHEN CURB AND GUTTER IS CONSTRUCTED ADJACENT TO FLEXIBLE PAVEMENT, THE VERTICAL THICKNESS OF THE GUTTER FLAG SHALL BE 9 INCHES. FOR BAM PAVEMENT SECTIONS THE FLAG SHALL BE THE SAME THICKNESS AS THE PAVEMENT.

Revised:	Drawing Name	Drawing Number	
1. 06/12/2015	DEPRESSED CURB: DETAIL	RD-04b	City of Crystal Lake Illinois
2.		Date: 01/30/15	
3.		Drawn DD / Checked AW	
4.			

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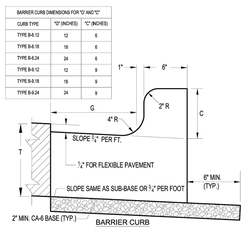
RD-05a

MOUNTABLE CURB DIMENSIONS FOR "G" AND "C"		
CURB TYPE	"G" (INCHES)	"C" (INCHES)
TYPE M-6.24	24	3
TYPE M-6.12	12	4
TYPE M-6.06	6	6
TYPE M-6.12	12	6
TYPE M-6.18	18	6
TYPE M-6.24	24	6



MOUNTABLE CURB

BARRIER CURB DIMENSIONS FOR "G" AND "C"		
CURB TYPE	"G" (INCHES)	"C" (INCHES)
TYPE B-6.12	12	6
TYPE B-6.18	18	6
TYPE B-6.24	24	6
TYPE B-9.12	12	9
TYPE B-9.18	18	9
TYPE B-9.24	24	9



BARRIER CURB

NOTES:

THICKNESS - T - THICKNESS OF PAVEMENT WHEN CURB AND GUTTER IS CONSTRUCTED ADJACENT TO FLEXIBLE OR RIGID PAVEMENT, THE VERTICAL THICKNESS OF THE GUTTER FLAG SHALL BE 9". ALSO, DOWELL BARS SHALL BE OMITTED.

DRAINAGE OPENINGS AT ALL LOCATIONS WHERE METAL CASTINGS ARE TO BE INCORPORATED INTO THE CURB AND GUTTER, A 1" THICK PRE-FORMED EXPANSION JOINT FILLER, CONFORMING TO THE CROSS SECTIONS OF THE CURBS AND GUTTER, SHALL BE INSTALLED IN THE CURB AND GUTTER A DISTANCE OF 3 FEET FROM EACH SIDE OF THE OPENING AND THE WIDTH OF THE OPENING PLUS TWICE THE WIDTH (NOT LESS THAN THE WIDTH OF THE CURB AND GUTTER) OF THE BARS OR CASTING LENGTH. IT SHALL BE INCORPORATED IN THE CONTINUOUS CONCRETE GUTTER IN FRONT OF THE CASTING.

TRANSITIONS - THE TRANSITION FROM FULL HEIGHT CURB TO DEPRESSED CURB SHALL BE MADE AT THE RATE OF 3" PER FOOT OF LENGTH OR FLATTER.

NO. NO. 4 STEEL REINFORCING BARS SHALL BE INCORPORATED OVER TRENCH CROSSINGS IF REQUIRED BY THE CITY ENGINEER.

JOINTS - IN ADDITION TO THE REQUIREMENTS OF ARTICLE 606.06 OF THE STANDARD SPECIFICATIONS, JOINTS SHALL BE CONSTRUCTED AS FOLLOWS:

CONTRACTION JOINTS AND EXPANSION JOINTS SHALL BE INSTALLED IN THE CURB OR CURB AND GUTTER IN PROLONGATION WITH JOINTS IN ADJACENT P.C.C. PAVEMENT OR BASE COURSE.

WHEN CURB AND GUTTER IS CONSTRUCTED ADJACENT TO FLEXIBLE PAVEMENT, A 1" THICK PRE FORMED EXPANSION JOINT FILLER, CONFORMING TO THE CROSS SECTION OF THE CURB AND GUTTER, SHALL BE INSTALLED AT POINTS OF CURVATURE FOR SHORT RADIUS CURVES AND AT CONSTRUCTION JOINTS. CONTRACTION JOINTS SHALL BE PLACED BETWEEN EXPANSION JOINTS AT DISTANCES NOT TO EXCEED 15 FEET.

ALL EXPANSION JOINTS SHALL BE PROVIDED WITH 1" DIA. X 14" COATED DOWELL BARS AND COUPLING BAR CONFORMING TO ARTICLE 1006.10 OF THE STANDARD SPECIFICATIONS. THE DOWEL BAR SHALL BE FITTED WITH A CAP HAVING A PINCHED STOP THAT WILL PROVIDE 1" OF EXPANSION.

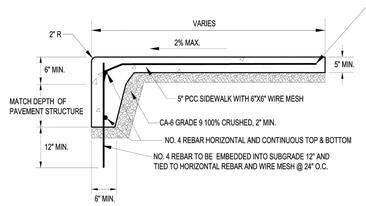
ALL CONSTRUCTION JOINTS SHALL BE PROVIDED WITH 1" DIA. DEFORMED STEEL TIE BARS 30" LONG CONFORMING TO AASHTO M-31 OR M-53. THE BARS SHALL BE PLACED ON 9'" CENTERS (MINIMUM 2 PER JOINT).

EXPANSION JOINTS SHALL BE PLACED AT INTERVALS NOT TO EXCEED 100 FEET.

Revised:	Drawing Name	Drawing Number	
1. 06/12/2015	CURB: CONCRETE CURB AND GUTTER	RD-05a	City of Crystal Lake Illinois
2. KL 1/25/2021 M-4.12 ADDED		Date: 06/11/2015	
3.		Drawn DD / Checked AW	
4.			

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RD-05c



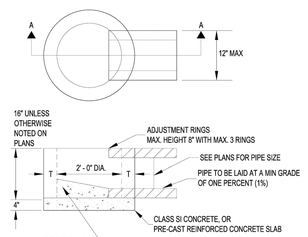
NOTES:

1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT (UNLESS OTHERWISE NOTED)
2. ALL REBAR AND WIRE MESH SHALL BE SURROUNDED BY 2" MINIMUM THICKNESS OF CONCRETE
3. REBAR AND WIRE MESH TO BE INSPECTED PRIOR TO CONCRETE POUR

Revised:	Drawing Name	Drawing Number	
1. 06/12/2015	CURB: SIDEWALK WITH INTEGRAL CURB	RD-05c	City of Crystal Lake Illinois
2. 8/18/2023 JRG 5" PCC THICKNESS		Date: 05/19/2015	
3.		Drawn JH / Checked AW	
4.			

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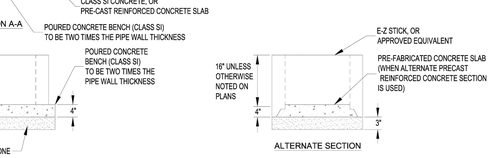
UD-01a



CASTING SCHEDULE		
LOCATION	EJIW	NEENAH
B or M-6.12 C&G	7235 M2	R-3502-A
DEPRESSED CURB	7210 M3	R-3281A*
PAVED	1920	R-1713
NON-PAVED	1020	R-2535

* WITHOUT CURB BOX

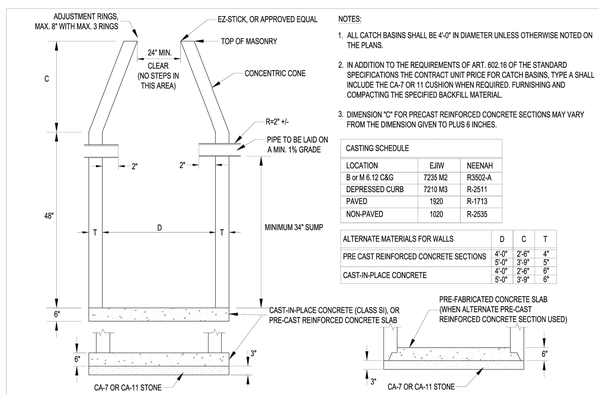
ALTERNATE MATERIALS FOR WALLS	T
PRE-CAST REINFORCED CONCRETE SECTIONS	3"



Revised:	Drawing Name	Drawing Number	
1. 06/12/2015	DRAINAGE STRUCTURES: INLET, TYPE A	UD-01a	City of Crystal Lake Illinois
2.		Date: 05/28/2015	
3.		Drawn JH / Checked AW	
4.			

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UD-01b



NOTES:

1. ALL CATCH BASINS SHALL BE 4'-0" IN DIAMETER UNLESS OTHERWISE NOTED ON THE PLANS.
2. IN ADDITION TO THE REQUIREMENTS OF ART. 802.16 OF THE STANDARD SPECIFICATIONS THE CONTRACT UNIT PRICE FOR CATCH BASINS, TYPE A SHALL INCLUDE THE CA-7 OR 11 CUSHION WHEN REQUIRED. FURNISHING AND COMPACTING THE SPECIFIED BACKFILL MATERIAL.
3. DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTIONS MAY VARY FROM THE DIMENSION GIVEN TO PLUS 6 INCHES.

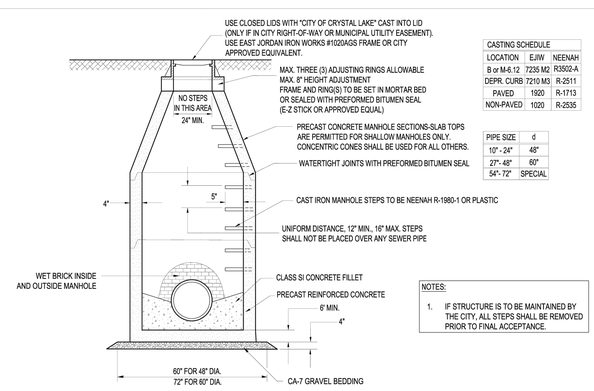
CASTING SCHEDULE		
LOCATION	EJIW	NEENAH
B or M-6.12 C&G	7235 M2	R3502-A
DEPRESSED CURB	7210 M3	R-2511
PAVED	1920	R-1713
NON-PAVED	1020	R-2535

ALTERNATE MATERIALS FOR WALLS	D	C	T
PRE CAST REINFORCED CONCRETE SECTIONS	4'-0"	2'-6"	4"
	5'-0"	3'-9"	5"
CAST-IN-PLACE CONCRETE	4'-0"	2'-6"	6"
	5'-0"	3'-9"	6"

Revised:	Drawing Name	Drawing Number	
1. 06/12/2015	CATCH BASIN TYPE A	UD-01b	City of Crystal Lake Illinois
2. 08/18/2023		Date: 09/18/2012	
3.		Drawn DD / Checked AW	
4.			

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UD-01d



CASTING SCHEDULE		
LOCATION	EJIW	NEENAH
B or M-6.12	7235 M2	R3502-A
DEPR. CURB	7210 M3	R-2511
PAVED	1920	R-1713
NON-PAVED	1020	R-2535

PIPE SIZE	d
10" - 24"	48"
27"- 48"	60"
54"- 72"	SPECIAL

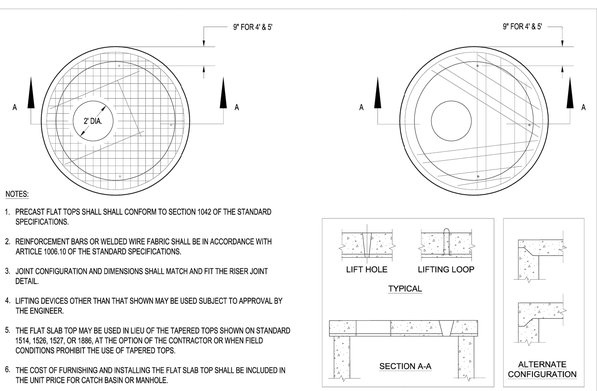
NOTES:

1. IF STRUCTURE IS TO BE MAINTAINED BY THE CITY, ALL STEPS SHALL BE REMOVED PRIOR TO FINAL ACCEPTANCE.

Revised:	Drawing Name	Drawing Number	
1. 06/12/2015	STORM MANHOLE TYPE A	UD-01d	City of Crystal Lake Illinois
2. 08/18/2023 JRG NOTE 1		Date: 05/19/2015	
3.		Drawn JH / Checked AW	
4.			

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UD-02b



NOTES:

1. PRECAST FLAT TOPS SHALL SHALL CONFORM TO SECTION 1042 OF THE STANDARD SPECIFICATIONS.
2. REINFORCEMENT BARS OR WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ARTICLE 1006.10 OF THE STANDARD SPECIFICATIONS.
3. JOINT CONFIGURATION AND DIMENSIONS SHALL MATCH AND FIT THE RISER JOINT DETAIL.
4. LIFTING DEVICES OTHER THAN THAT SHOWN MAY BE USED SUBJECT TO APPROVAL BY THE ENGINEER.
5. THE FLAT SLAB TOP MAY BE USED IN LIEU OF THE TAPERED TOPS SHOWN ON STANDARD 1514, 1526, 1527, OR 1886, AT THE OPTION OF THE CONTRACTOR OR WHEN FIELD CONDITIONS PROHIBIT THE USE OF TAPERED TOPS.
6. THE COST OF FURNISHING AND INSTALLING THE FLAT SLAB TOP SHALL BE INCLUDED IN THE UNIT PRICE FOR CATCH BASIN OR MANHOLE.

Revised:	Drawing Name	Drawing Number	
1. 06/12/2015	ECCENTRIC FLAT TOPS FOR CURB INLET STORM MANHOLES	UD-02b	City of Crystal Lake Illinois
2.		Date: 01/30/15	
3.		Drawn DD / Checked AW	
4.			

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ISSUED FOR BID – NOT FOR CONSTRUCTION

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Xrefs: TITLE BLOCK - DKA

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

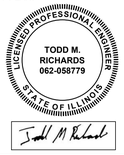
MEP-FP-T-ENGINEERS
IMEG CORP.
263 SHUMAN BLVD, SUITE 550
NAPERVILLE, IL, 60563
P: 630.527.2320

CIVIL-LANDSCAPE ENGINEER
HR GREEN
1391 CORPORATE DRIVE, SUITE
203 MCHENRY, IL, 60050
P. 815.385.1778

CONSTRUCTION MANAGER
PEPPER CONSTRUCTION
411 LAKE ZURICH RD.
BARRINGTON, IL 60010
P. 847.381.2760

McHenry County College
ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:



SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/27/25

SHEET TITLE:
STANDARD CONSTRUCTION DETAILS

SHEET NUMBER:
C-10

UD-02e

ROCK RIPRAP SPECIFICATIONS AND BEDDING

IDOT GRADATION	MAXIMUM ROCK SIZE (lb)*	EQUIVALENT DIAMETER (SPHERICAL)(in)*	MINIMUM BEDDING THICKNESS (in)	MINIMUM THICKNESS (in)
RR-3	50	10	-	8
RR-4	150	15	6	16
RR-5	400	21	8	22
RR-6	600	24	10	26
RR-7	1000	28	12	30

*ASSUMES A MINIMUM SPECIFIC GRAVITY OF 2.450 AND A MINIMUM UNIT WEIGHT OF 153 lb/cf

NOTES:

1. RIPRAP SHALL CONFORM TO SECT. 281 OF THE STANDARD SPECIFICATIONS.

2. INSTALL FILTER FABRIC UNDER ALL RIPRAP AND BEDDING. FILTER FABRIC SHALL CONFORM TO SECT. 282 OF THE STANDARD SPECIFICATIONS.

ROCK RIPRAP SIZE REQUIREMENTS AND THICKNESS

CULVERT DIAMETER (in)	MINIMUM TAILWATER				MAXIMUM TAILWATER			
	MAX CONDUIT VELOCITY = 5 fps		MAX CONDUIT VELOCITY = 10 fps		MAX CONDUIT VELOCITY = 5 fps		MAX CONDUIT VELOCITY = 10 fps	
	IDOT GRADATION	APRON LENGTH (ft)	IDOT GRADATION	APRON LENGTH (ft)	IDOT GRADATION	APRON LENGTH (ft)	IDOT GRADATION	APRON LENGTH (ft)
12	RR-3	10	RR-3	12	RR-3	12	RR-3	15
18	RR-3	14	RR-4	16	RR-3	12	RR-3	16
24	RR-3	16	RR-4	20	RR-3	14	RR-4	17
30	RR-3	18	RR-4	22	RR-3	16	RR-4	20
36	RR-4	20	RR-5	24	RR-3	16	RR-4	22
48	RR-4	24	RR-6	28	RR-4	20	RR-4	24
60	RR-5	32	RR-6	36	RR-4	22	RR-5	26
72	RR-6	40	RR-6	44	RR-5	24	RR-5	29
96	RR-7	50	RR-7	54	RR-5	26	RR-5	32

NOTES:

1. IF TAILWATER DEPTH FROM THE PIPE INVERT IS LESS THAN HALF THE DIAMETER OF THE PIPE, THEN MINIMUM TAILWATER CONDITIONS EXIST.

2. ADAPTED FROM THE ILLINOIS URBAN MANUAL

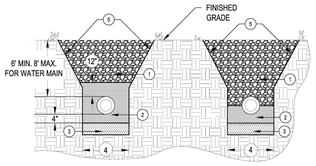
Revised:	Drawing Name	Drawing Number
1.	RIPRAP DETAILS	UD-02e
2.		Date: 08/27/2015
3.		Drawn DD / Checked AW
4.		City of Crystal Lake Illinois

L:\ENGINEERING AND BUILDING\ENGINEERING\DETAILS AND STANDARDS\

UG-03

LEGEND:

1. TRENCH BACKFILL TO SUBGRADE AND WITHIN 2 FEET OF PROPOSED PAVEMENT, DRIVEWAY, CURB AND GUTTER OR SIDEWALK. TRENCH BACKFILL MATERIALS SHALL BE IDOT APPROVED GRADATION CA-6, GRADE 7, 8, OR 9 COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY. IN NON-STRUCTURAL AREAS BACKFILL WITH APPROVED EXCAVATED MATERIALS.
2. PIPE BEDDING SHALL BE WASHED MATERIAL IDOT GRADATION CA-7 OR CA-11 FROM 4 INCHES BELOW BOTTOM OF PIPE TO HEIGHT SHOWN ON EACH SECTION
3. UNSUITABLE MATERIAL TO BE REMOVED WHERE DIRECTED BY THE ENGINEER AND REPLACED WITH COMPACTED SUITABLE MATERIAL.
4. TRENCH WIDTH:
   PIPE O.D. + 12 INCHES MINIMUM
   PIPE I.D. + 18 INCHES MAXIMUM
5. CONTRACTORS SHALL COMPLY WITH ALL CURRENT OSHA STANDARDS.



SECTION A:
WATER MAIN / FORCE MAIN (DIP)(PVC) (HDPE)**
SANITARY SEWER MAIN & SERVICES (DIP)(PVC)
STORM SEWER (PVC)

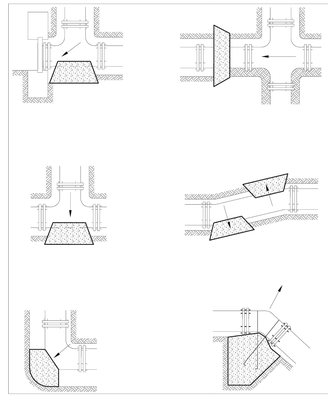
SECTION B:
STORM SEWER (RCP)

* NOTE: ALL DUCTILE IRON SHALL BE WRAPPED WITH APPROVED POLYETHYLENE PIPE WRAP
** NOTE: PVC WATERMAIN ONLY ALLOWED FOR REPAIRS TO EXISTING PVC WATERMAIN

Revised:	Drawing Name	Drawing Number
1. 06/12/2015	TYPICAL TRENCH CROSS SECTION	UG-03
2. 02/04/2021 KL CA-7 WASHED STONE		Date: 05/29/2015
3. 07/14/2023 JRG PVC ALLOWED ONLY AS STATED		Drawn JH / Checked AW
4. 03/14/2024 JRG UPDATED CROSS SECTIONS		City of Crystal Lake Illinois

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UW-03



BEARING AREA (SQ. FT.)

PIPE SIZE	TEE/PLUG	90°	45°	21 1/2°	11 1/4°
6	4	2	1	1	1
8	6	4	3	1	1
10	7	5	3	1	1
12	8	6	4	2	2
14	12	9	6	3	3
16	15	12	7	3	3
18	18	15	9	4	4
24	40	30	15	5	5

NOTES:

ALL BLOCKING SHALL BE POURED CLASS SI CONCRETE AGAINST UNDISTURBED EARTH.

ALL BENDS OR ELBOWS GREATER THAN OR EQUAL TO 11 1/4° SHALL HAVE THRUST BLOCKING. FORM AS TO NOT COVER BOLTS.

IN LIEU OF THRUST BLOCKING, "MEGA LUG" (EBAA) JOINT RESTRAINTS OR APPROVED EQUAL CAN BE USED AS APPROVED BY THE ENGINEER.

Revised:	Drawing Name	Drawing Number
1. 06/12/2015	THRUST BLOCK INSTALLATION	UW-03
2.		Date: 05/29/2015
3.		Drawn JH / Checked VR
4.		City of Crystal Lake Illinois

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UW-08

CITY OF CRYSTAL LAKE WATER MAIN CHLORINATION SPECIFICATIONS:

1. DISINFECTION OF WATER MAINS SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION, CURRENT EDITION
2. THE CITY ENGINEERING DIVISION AND WATER DIVISION SHALL BE NOTIFIED 48 HOURS IN ADVANCE FOR SCHEDULING OF ANY TESTING, CHLORINATING, FLUSHING, OR SAMPLING.
3. ONLY CITY WATER DIVISION PERSONNEL MAY OPERATE WATER VALVES ON LIVE MAINS.
4. A WATER VALVE JUMPER IS REQUIRED TO MAINTAIN PRESSURE ON THE CHLORINATED LINES DURING THE SAMPLING PROCEDURE. FOR PROPER INSTALLATION AND REQUIREMENTS SEE THE STANDARD WATER VALVE JUMPER DETAIL UW-05.
5. WATER MAINS SHALL BE FLUSHED WITH A MINIMUM VELOCITY OF 2.5 FPS.
6. THE INITIAL CHLORINE CONCENTRATION SHALL BE 50 mg/L WITH A MINIMUM 24 HOUR RESIDUAL OF 25 mg/L.
7. THE METHOD OF CHLORINE APPLICATION SHALL BE APPROVED BY THE CITY:
   a. LIQUID CHLORINE W/CHLORINATING DEVICE WITH BACKFLOW PREVENTER.
   b. CHLORINE BEARING COMPOUNDS IN WATER.
   c. TABLET DISINFECTION.
8. ALL NEW VALVES AND HYDRANTS SHALL BE OPERATED WHILE LINE IS BEING CHLORINATED.
9. THE CITY ENGINEERING DIVISION SHALL DETERMINE LOCATION AND QUANTITY OF CORPORATION STOPS FOR FLUSHING AND CHLORINATING. MAXIMUM SPACING BETWEEN SAMPLES SHALL BE 1,200 FEET. THE CHLORINE SOURCE AND ALL DEAD ENDS SHALL BE SAMPLED.
10. THE FINAL FLUSHING RESIDUAL IN THE NEW CHLORINATED LINES SHALL BE BETWEEN 0.2 AND 2.0 mg/L.
11. ALL WATER SAMPLES SHALL BE COLLECTED ON TWO (2) CONSECUTIVE DAYS AND PASS BACTERIOLOGICAL TEST RESULTS. IN THE EVENT THAT THE FIRST SET OF SAMPLES TAKEN TWO (2) CONSECUTIVE DAYS APART FAIL TO PASS, ANOTHER SET OF SAMPLES MAY BE TAKEN TWO (2) DAYS APART. (PER STATE SPECS). IF THE SECOND SET FAILS TO PASS TESTING, THEN THE PROCEDURE MUST BE REPEATED WITH THE MAIN BEING RECHLORINATED, REFLUSHED, AND RESAMPLED.
12. IF THE WATER MAIN FALLS BELOW 20 PSI AFTER CHLORINATION, THE LINE SHALL BE RESAMPLED ON TWO (2) CONSECUTIVE DAYS AND PASS BACTERIOLOGICAL TEST RESULTS.
13. STATE CERTIFIED LAB MUST BE USED FOR SAMPLES.

CHLORINE REQUIREMENTS TO PRODUCE 50 mg/L CONCENTRATION IN 100 FEET OF PIPE-BY DIAMETER

PIPE SIZE IN INCHES	100% CHLORINE, LB	5% CHLORINE SOLUTION, GALLONS
4	0.027	0.53
6	0.061	0.73
8	0.108	1.30
10	0.170	2.04
12	0.240	2.88

NUMBER OF 5-GRAIN HYPOCHLORITE TABLETS REQUIRED FOR A DOSAGE OF 50mg/L PER LENGTH OF PIPE SECTION

LENGTH OF PIPE SECTION IN FEET

PIPE SIZE IN INCHES	UP TO 13	18	20	30	40
2	1	1	1	1	1
4	1	1	2	2	2
6	2	2	3	3	4
8	2	3	5	5	6
10	3	5	7	7	9
12	5	6	10	10	14

Revised:	Drawing Name	Drawing Number
1. 06/12/2015	CHLORINATION SPECIFICATIONS	UW-08
2. 4/30/2021 KL 20 PSI RESAMPLE, SAMPLING FREQUENCY		Date: 09/20/2012
3.		Drawn DD / Checked VR
4.		City of Crystal Lake Illinois

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UW-09A

WATERMAIN TESTING AND CHLORINATION PROCEDURE

STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS (LATEST EDITION) AND AWWA STANDARD C600-17 SHALL APPLY ALONG WITH THE FOLLOWING:

2 HOUR PRESSURE AND LEAKAGE TEST

1. PRETEST: THE CONTRACTOR SHALL PROVIDE A MAP OF THE FACILITIES (WATER MAINS, HYDRANTS, VALVES, ETC.) TO BE INCLUDED DURING THE TEST TO THE ENGINEER. SEE UW-09B WORKSHEET. ALL FIRE HYDRANT AUXILIARY VALVES SHALL BE OPENED SO TESTING IS PERFORMED AGAINST FIRE HYDRANTS. THE ENGINEER WILL COORDINATE WITH THE WATER DEPARTMENT TO SCHEDULE OPENING OF CITY VALVES AND FILLING OF NEW WATER MAIN A MINIMUM OF 48 HOURS IN ADVANCE OF THE TEST. THE CONTRACTOR SHALL NOT OPERATE ANY VALVES ON EXISTING CITY WATER MAIN WITHOUT WRITTEN PERMISSION.
2. HYDROSTATIC PRESSURE TESTING: ALL TESTING EQUIPMENT AND LABOR NECESSARY TO SETUP AND RUN THE TEST SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL INCLUDE:
   A) PRESSURE GAUGE LOCATED AT HIGHEST POINT OF ELEVATION OF THE WATER MAIN
   B) PUMP
   C) TANK
   D) FITTINGS FOR TESTING EQUIPMENT TO BE CONNECTED TO WATER MAIN
   E) ACCURATE WATER VOLUME MEASURING DEVICE (CALIBRATED VOLUMETRIC METER OR 1 GALLON GRADUATED CYLINDER IN OUNCES)
3. AIR REMOVAL: AFTER FILLING THE WATERMAIN, AIR SHALL BE EXPELLED BY FLUSHING WATER OUT OF THE MAIN AT FIRE HYDRANTS OR CORPORATION STOPS LOCATED AT HIGH POINTS ALONG THE WATER MAIN.
4. PRESSURIZATION: AFTER ALL AIR HAS BEEN REMOVED, THE MAIN SHOULD BE PRESSURIZED TO MINIMUM 150 PSI BY PUMPING ADDITIONAL WATER INTO THE WATER MAIN.
5. TWO HOUR TEST: ONCE TESTING PRESSURE IS OBTAINED, THE PUMP SHOULD BE SHUT OFF AND TIMING STARTED. THE PRESSURE GAUGE SHOULD BE CHECKED INTERMITTENTLY AND THE PRESSURE READING RECORDED AFTER TWO HOURS. IF THE PRESSURE READING VARIES MORE THAN +/- 5 PSI FROM THE INITIAL PRESSURE, THE TEST FAILS. THE LEAK SHALL BE FOUND AND ADDRESSED PRIOR TO RETESTING.
6. MAKE UP VOLUME: IF THE PRESSURE IS MAINTAINED WITHIN +/- 5 PSI FOR THE TWO HOUR TEST, THE MAKE-UP VOLUME SHALL BE DETERMINED BY PUMPING WATER BACK INTO THE WATER MAIN TO REACH THE INITIAL TEST PRESSURE. THIS WILL NORMALLY BE DONE BY EXCEEDING THE TEST PRESSURE, AND USING THE BLEED OFF VALVE TO DROP THE PRESSURE TO THE INITIAL TEST PRESSURE. ONCE THE INITIAL TEST PRESSURE HAS BEEN REACHED, THE BLEED OFF VALVE SHALL BE OPENED AND WATER THAT LEAVES THE SYSTEM SHALL BE COLLECTED IN THE VOLUME MEASURING DEVICE. ONCE THE GAUGE REACHES THE FINAL TWO HOUR TEST PRESSURE, THE VOLUME OF WATER COLLECTED SHALL BE MEASURED.
7. ALLOWABLE MAKE-UP VOLUME: THE MEASURED VOLUME OF "MAKE UP" WATER SHALL BE COMPARED TO THE ALLOWABLE LEAKAGE. THE ALLOWABLE LEAKAGE SHALL BE CALCULATED BY THE ENGINEER USING THE FORMULA ABOVE. IF THE WATER COLLECTED IS LESS THAN THE ALLOWABLE MAKE UP VOLUME, THE TEST PASSES. IF THE WATER COLLECTED IS MORE THAN THE ALLOWABLE MAKE UP VOLUME, THE TEST FAILS. THE LEAK SHALL BE FOUND AND ADDRESSED PRIOR TO RETESTING.
8. FINAL VALVE CHECK: PRIOR TO BLEEDING OFF THE PRESSURE, ALL HYDRANTS ON THE TESTING MAP SHALL BE SLOWLY OPENED TO ENSURE THAT THEY HAD PRESSURE AGAINST THEM DURING TESTING. THE PRESSURE GAUGE SHOULD DROP AS THE HYDRANTS ARE OPENED ENSURING THAT ALL VALVES IN THE SYSTEM WERE PROPERLY OPENED/CLOSED DURING TESTING.
9. IF THE WATER MAIN HAS PASSED THE PRESSURE TEST, THE PRESSURE SHALL BE REDUCED TO THE CITY'S SYSTEM PRESSURE.

CHLORINATION

1. PRE-CHLORINATION: THE ENGINEER WILL COORDINATE WITH THE WATER DEPARTMENT TO SCHEDULE OPENING OF CITY VALVES FOR CHLORINATION. A MINIMUM OF 48 HOURS IN ADVANCE OF THE CHLORINATION. THE FOLLOWING METHODS OF CHLORINE APPLICATION ARE APPROVED BY THE CITY
   A) LIQUID CHLORINE WITH CHLORINATION DEVICE AND BACKFLOW PREVENTER
   B) CHLORINE BEARING COMPOUNDS IN WATER
   C) TABLET DISINFECTION
2. SAMPLING LOCATIONS: THE ENGINEER SHALL DETERMINE THE LOCATION AND QUANTITY OF SAMPLING LOCATIONS. MAXIMUM SPACING BETWEEN SAMPLES SHALL BE 1,200 FEET. THE CHLORINE SOURCE AND ALL DEAD ENDS SHALL BE SAMPLED. SEE UW-09B WORKSHEET.
3. CHLORINATION: THE INITIAL CHLORINE CONCENTRATION SHALL BE 50 mg/L WITH A MINIMUM 24 HOUR RESIDUAL OF 25 mg/L. ALL NEW VALVES AND HYDRANTS SHALL BE OPERATED WHILE THE LINE IS BEING CHLORINATED. THE FINAL FLUSHING RESIDUAL IN THE NEW CHLORINATED LINES SHALL BE BETWEEN 0.2-2.0 mg/L.
4. TESTING: ALL WATER SAMPLES SHALL BE COLLECTED ON TWO CONSECUTIVE DAYS AND PASS BACTERIOLOGICAL TEST RESULTS FROM A CERTIFIED LABORATORY. TEST RESULTS SHALL BE EMAILED TO THE CITY OF CRYSTAL LAKE SO THE IEPA PERMIT APPLICATION CAN BE SUBMITTED. IN THE EVENT THAT THE FIRST SET OF SAMPLES TAKEN TWO CONSECUTIVE DAYS APART FAIL TO PASS, ANOTHER SET OF SAMPLES MUST BE TAKEN TWO DAYS APART. IF THE SECONDS SET FAILS TO PASS TESTING, THE PROCEDURE MUST BE REPEATED WITH THE WATER MAIN BEING RECHLORINATED, REFLUSHED AND RESAMPLED.
5. MAINTAIN PRESSURE: IMMEDIATELY AFTER THE SECOND DAY SAMPLE HAS BEEN TAKEN, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A CERTIFIED WATER VALVE JUMPER (SEE UW-05) TO MAINTAIN PRESSURE ON THE NEW WATER MAIN UNTIL THE IEPA PERMIT IS RECEIVED. AFTER RECEIVING THE IEPA OPERATING PERMIT, THE CITY OF CRYSTAL LAKE SHALL OPEN THE VALVE BETWEEN THE NEW AND EXISTING WATERMAIN AND THE WATER VALVE JUMPER MAY BE REMOVED. WATER VALVE JUMPERS ARE AVAILABLE FOR RENT AT THE CITY OF CRYSTAL LAKE WATER DEPARTMENT. IF WATER IN EXCESS OF THE ALLOWABLE LEAKAGE ENTERS THE NEW WATER MAIN THROUGH THE WATER VALVE JUMPER ,THE CONTRACTOR SHALL LOCATE THE LEAK. IF THE NEW WATER MAIN MUST BE DEPRESSURIZED TO FIX A LEAK, THE SYSTEM SHALL BE RETESTED, RECHLORINATED, REFLUSHED, AND RESAMPLED.

Revised:	Drawing Name	Drawing Number
1. 06/12/2015	WATER MAIN PRESSURE TEST AND CHLORINATION PROCEDURE	UW-09A
2. 8/18/2023 - JRG Leakage formula, procedure, delete 24 hour test		Date: 09/20/2012
3.		Drawn DD / Checked VR
4.		City of Crystal Lake Illinois

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UW-09B

PROJECT NAME:
CONTRACTOR:
WITNESS:
LINE PRESSURIZED: DATE: TIME: am / pm
LINE TESTED: DATE: TIME: am / pm

$L = \frac{SD\sqrt{P}}{148,000}$

LEAKAGE FORMULA
L = Testing (leakage) allowance (makeup water), in gallons per hour = _____ GPH
S = Length of pipe tested in feet = _____ FEET
D = Nominal diameter of the pipe, in inches = _____ INCHES
P = Average test pressure during the hydrostatic test, in pounds per square inch (gauge)_____ PSI
*If multiple diameters of water main are being tested, separate leakage (L) calculation shall be added together.

NOTES AND CALCULATIONS

2-HOUR TEST

TOTAL ALLOWABLE LEAKAGE = L X 2 HOURS	_____ GALLONS	A
INITIAL TEST PRESSURE (MINIMUM 150 PSI)	_____ PSI	B
FINAL TEST PRESSURE	_____ PSI	C
PASS (B-C>5 PSI) OR FAIL (B-C<5 PSI)		
MAKE UP VOLUME	_____ GALLONS	D
PASS (A > D) OR FAIL (A < D)		E

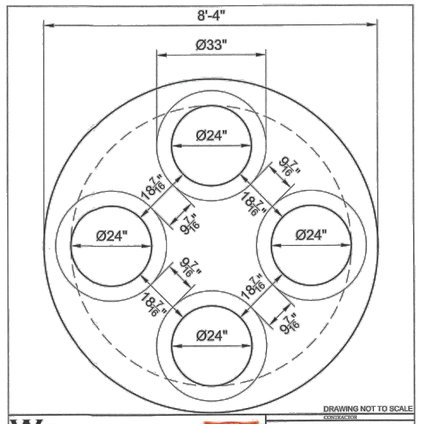
LOCATION DIAGRAM AND SAMPLING MAP

INDICATE NORTH

Revised:	Drawing Name	Drawing Number
1.	WATER MAIN PRESSURE TEST AND CHLORINATION WORKSHEET	UW-09B
2.		Date: 08/18/2023
3.		Drawn JRG / Checked PW
4.		City of Crystal Lake Illinois

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DETAIL FOR STORM TAG ST-207



DRAWING NOT TO SCALE

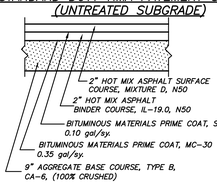
WELCH BROS., INC.
PRODUCERS OF QUALITY PRECAST CONCRETE PRODUCTS

NOTES:
CONCRETE STRENGTH SHALL MEET OR EXCEED 5000 PSI AFTER 28 DAYS

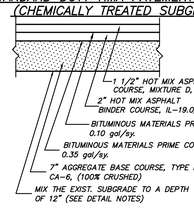
ELGIN MAIN OFFICE & CONSTRUCTION SUPPLY
BARTLETT FACILITIES

CONSTRUCTION:
JOB:
REVISIONS DATE:
7' DIA. FLAT TOP DETAIL
DATE: DRAWN BY: MAD
SCALE: DRAWING NO.:
KJ 7FTD

STANDARD DUTY HMA PAVEMENT SECTION (UNTREATED SUBGRADE)



STANDARD DUTY HMA PAVEMENT SECTION (CHEMICALLY TREATED SUBGRADE)

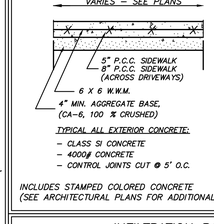


EXCERPT OF NOTES REGARDING SUBGRADE FROM GEOTECHNICAL REPORT (DATED APRIL 1, 2021) PREPARED BY MIDLAND ENGINEERING & TESTING, INC.:

Pavement Subgrade Discussion
The shallow depth soil just below the Topsoil in the borings is a stiff CLAY with a high moisture content. This material is expected to rut and become unstable with repeated construction traffic. Therefore, the pavement subgrades for this project should plan for treatment by drying during the site grading or by perform a subgrade stabilization.

Options for Subgrade Treatment
1. Subgrade Soil Drying – This treatment consists of discing and drying during the site grading phase of the project. To have success with this method, the subgrade must be deeply plowed with a motor grader or bull dozer once per day to a depth of eighteen inches, followed by discing and turning over to aerate several times on a good drying day.
2. Chemical Stabilization – This method consists of using a chemical stabilizer such as Quicklime, Lime Kiln Dust, or Cement to increase strength and stability of the subgrade soils. The process includes spreading the chemical stabilizer at a design application rate across the subgrade. A reclaimer is used to mix the subgrade to a depth of 12 inches. Additional water may be required during mixing to activate the stabilizer. The subgrade would then be compacted with a padfoot roller and graded with a motor grader. This method is effective and economical when a larger section of the subgrade requires treatment.

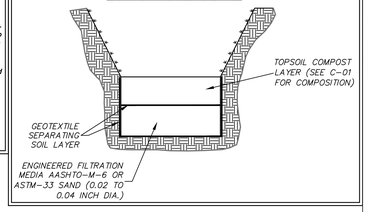
SIDEWALK/PATIO SECTION



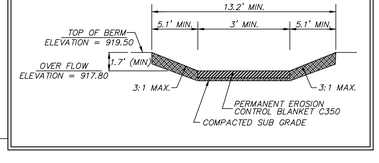
TYPICAL ALL EXTERIOR CONCRETE:
– CLASS SI CONCRETE
– 4000# CONCRETE
– CONTROL JOINTS CUT @ 5' O.C.

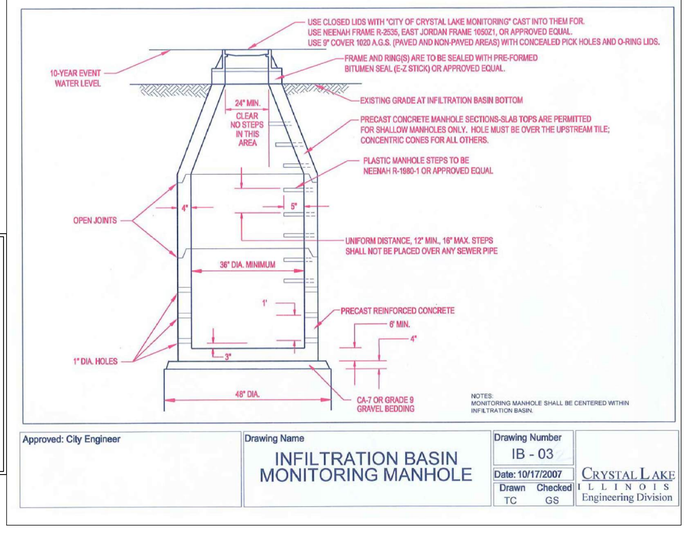
INCLUDES STAMPED COLORED CONCRETE (SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION)

INFILTRATION BASIN BOTTOM SOIL DETAIL



INFILTRATION BASIN OVERFLOW WEIR DETAIL





NOTES:
MONITORING MANHOLE SHALL BE CENTERED WITHIN INFILTRATION BASIN.

Approved: City Engineer	Drawing Name	Drawing Number
	INFILTRATION BASIN MONITORING MANHOLE	IB - 03
		Date: 10/17/2007
		Drawn TC / Checked GS
		Crystal Lake Illinois Engineering Division

ISSUED FOR BID – NOT FOR CONSTRUCTION

5/21/2025 10:08:35 AM
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Xrefs: TITLE BLOCK – DKA

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McHenry County College ENGAGEMENT HALL
8900 NORTHWEST HWY #14
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24 - 027

KEY PLAN:

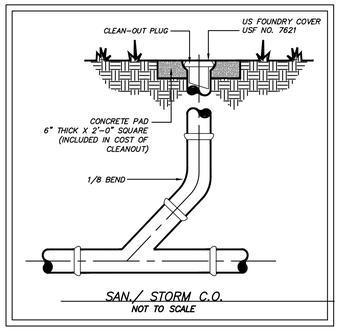
TODD M. RICHARDS 062-058779 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

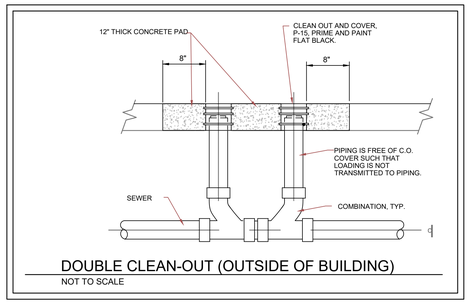
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1	ADDENDUM #1	05/27/25

SHEET TITLE:
STANDARD CONSTRUCTION DETAILS

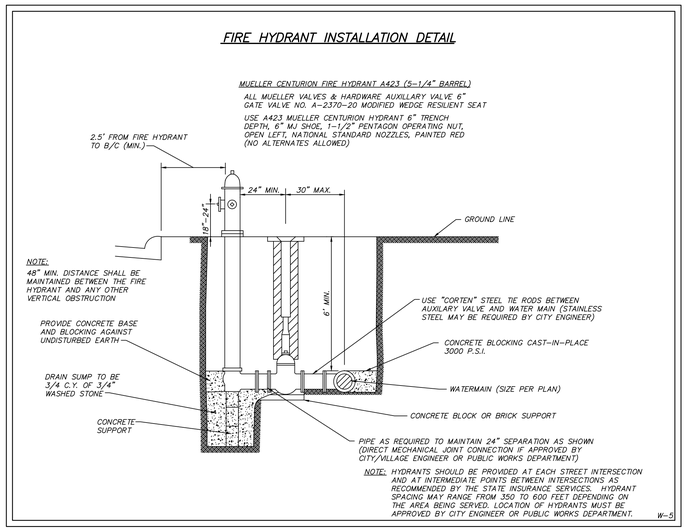
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C-11

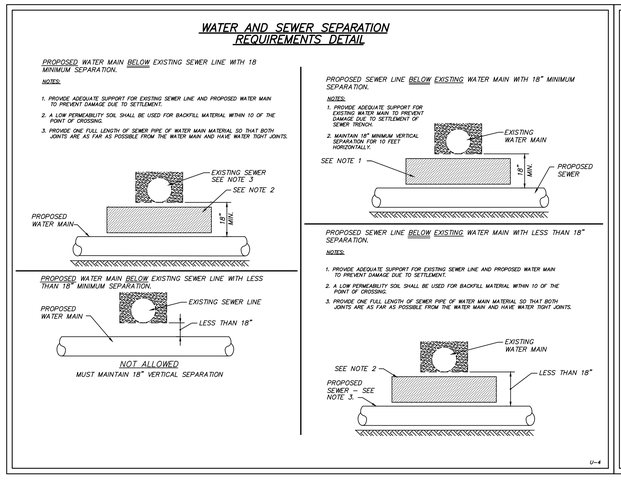


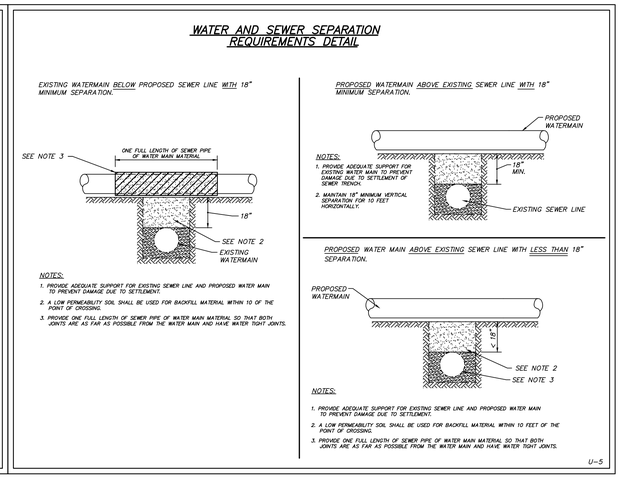
SAN. / STORM C.O.
NOT TO SCALE



DOUBLE CLEAN-OUT (OUTSIDE OF BUILDING)
NOT TO SCALE







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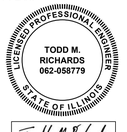
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DKA PROJECT NO: 24 - 027

KEY PLAN:



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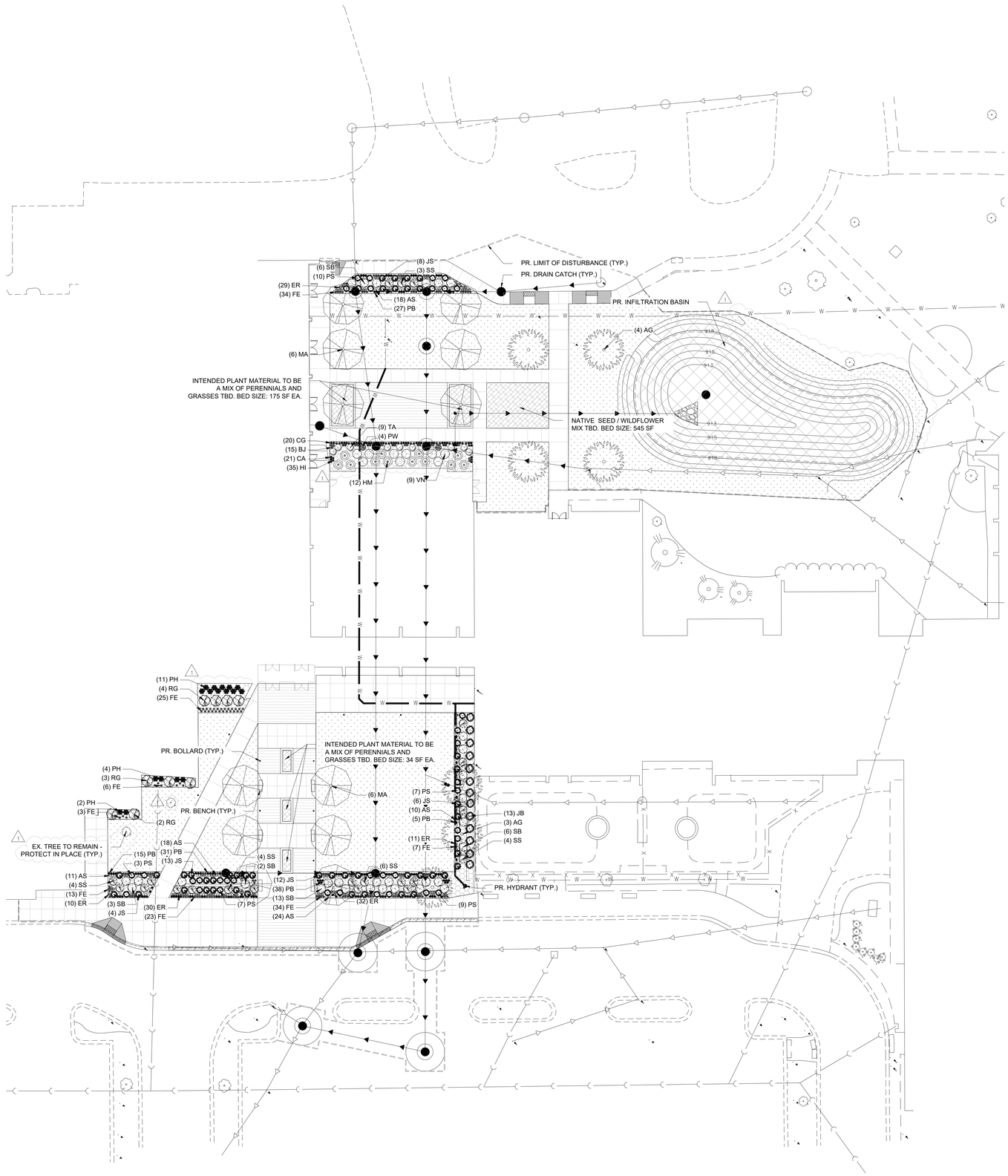
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STANDARD CONSTRUCTION DETAILS

SHEET NUMBER:
C-12

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Xrefs: TITLE BLOCK - DKA



PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	PLANTING SIZE
DECIDUOUS TREES				
	AG	7	ACER GINNALA AMUR MAPLE	2.5" CAL.
ORNAMENTAL TREES				
	MA	12	MALUS SIEBOLDII JAPANESE CRABAPPLE	2.5" CAL.
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS SHRUBS				
	HM	12	HYDRANGEA QUERCIFOLIA 'MUNCHKIN' MUNCHKIN OAKLEAF HYDRANGEA	5 GAL.
	RG	9	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	5 GAL.
	SS	21	SPIRAEA JAPONICA 'LITTLE PRINCESS' LITTLE PRINCESS JAPANESE SPIREA	5 GAL.
	SB	30	SYRINGA X 'BAILBELLE' TINKERBELLE® LILAC	5 GAL.
	VN	9	VIBURNUM OPULUS 'NANUM' DWARF EUROPEAN CRANBERRYBUSH	5 GAL.
EVERGREEN SHRUBS				
	JB	13	JUNIPERUS SCOPULORUM 'BLUE ARROW' BLUE ARROW JUNIPER	5 GAL.
	JS	43	JUNIPERUS SQUAMATA 'BLUE STAR' BLUE STAR JUNIPER	5 GAL.
	PS	36	PINUS MUGO 'SLOWMOUND' SLOWMOUND MUGO PINE	5 GAL.
	PW	4	PINUS STROBUS 'BLUE SHAG' BLUE SHAG WHITE PINE	5 GAL.
	TA	9	THUJA OCCIDENTALIS 'ANNA VAN VLOTEN' ANNA'S MAGIC BALL® ARBORVITAE	5 GAL.
GRASSES				
	CA	21	CAREX COMANS 'AMAZON MIST' AMAZON MIST COLORGRASS® HAIR SEDGE	1 GAL.
	CG	20	CAREX GLAUCA BLUE SEDGE	1 GAL.
	FE	145	FESTUCA GLAUCA 'ELIJAH BLUE' ELIJAH BLUE FESCUE	1 GAL.
	PH	17	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	1 GAL.
	PB	116	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY' LITTLE BUNNY FOUNTAIN GRASS	1 GAL.
PERENNIALS				
	AS	81	ARTEMISIA SCHMIDTIANA 'SILVER MOUND' SILVER MOUND ARTEMISIA	1 GAL.
	BJ	15	BRUNNERA MACROPHYLLA 'JACK FROST' JACK FROST SIBERIAN BUGLOSS	1 GAL.
	ER	112	ECHINACEA X 'BALEVOEEN' EVOLUTION™ COLORIFIC™ CONEFLOWER	1 GAL.
	HI	35	HELLEBORUS X GLANDORFENSIS 'COSEH 4200' ICE N' ROSES® ROSE HELLEBORE	1 GAL.

GROUND COVERS		
	3,701 SF	1-1/2" ROCK MULCH
	6,028 SF	DETENTION SEEDING
	15,573 SF	TURF SOD
	999 SF	WOOD MULCH

NORTH
0 20'
1" = 20'

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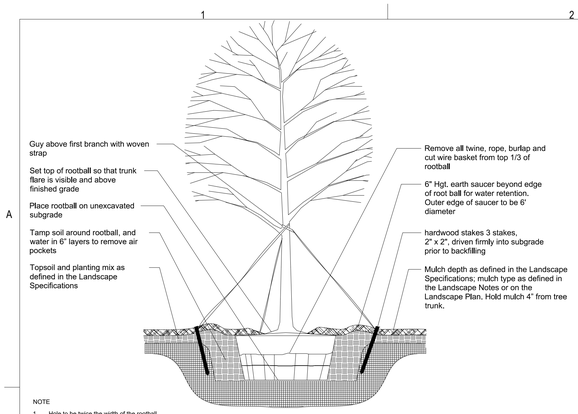
KEY PLAN:

SHEET STATUS: 05/16/2025
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/27/25

SHEET TITLE:
OVERALL LANDSCAPE PLAN

SHEET NUMBER:
L-100

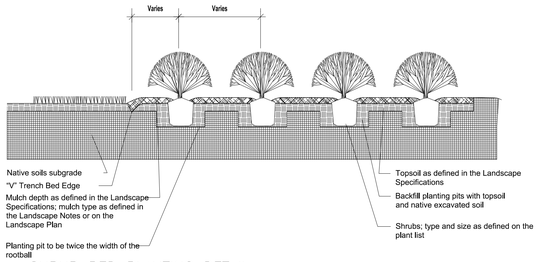


NOTE

1. Hole to be twice the width of the rootball.
2. Do not heavily prune tree at planting. Prune only crossover limbs, broken or dead branches; Do not remove the terminal buds of branches that extend to the edge of the crown.
3. Each tree must be planted such that the trunk flare is visible at the top of the rootball. Trees where the trunk flare is not visible shall be rejected. Do not cover the top of the rootball with soil. Mulch to be held back 4" away from trunk.
4. Remove Guy Wires and Staking when warranty period has expired (after one year).

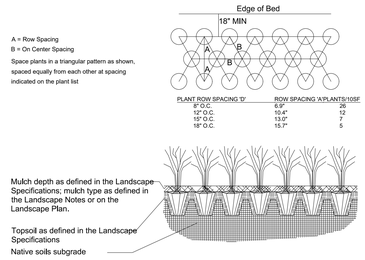
1 TREE PLANTING AND STAKING DETAIL

SCALE: NTS



2 SHRUB BED PLANTING DETAIL

SCALE: NTS



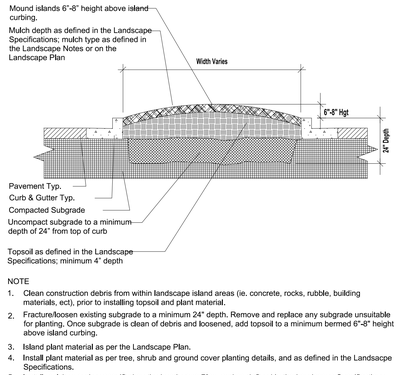
PLANT ROW SPACING 'D'	ROW SPACING W/PLANTS/100SF	
8" O.C.	6.9"	26
12" O.C.	10.4"	12
15" O.C.	13.0"	7
18" O.C.	15.7"	5

NOTE

1. Space groundcover plants in accordance with indicated spacing listed on the plant list, or as shown on the landscape plan.
2. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants.
3. Plant to within 24" of the trunks of trees and shrubs within planting bed and to within 18" of edge of bed.

3 GROUNDCOVER PLANTING DETAIL

SCALE: NTS

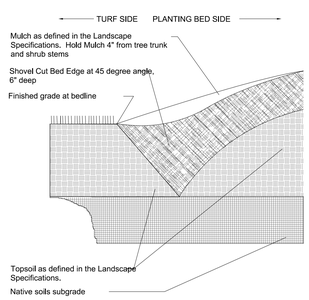


NOTE

1. Clean construction debris from within landscape island areas (ie. concrete, rocks, rubble, building materials, ect), prior to installing topsoil and plant material.
2. Fracture/loosen existing subgrade to a minimum 24" depth. Remove and replace any subgrade unsuitable for planting. Once subgrade is clean of debris and loosened, add topsoil to a minimum bermed 6"-8" height above island curbing.
3. Island plant material as per the Landscape Plan.
4. Install plant material as per tree, shrub and ground cover planting details, and as defined in the Landsacpe Specifications.
5. Install mulch or sod as specified on the Landscape Plan, and as defined in the Landscape Specifications.

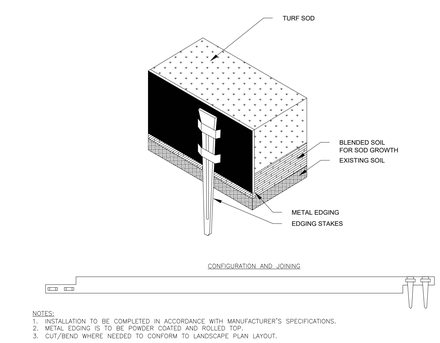
4 PARKING ISLAND BERMING DETAIL

SCALE: NTS



5 "V" TRENCH BED EDGING

SCALE: NTS



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. METAL EDGING IS TO BE POWDER COATED AND ROLLED TOP.
3. CUT/BEND WHERE NEEDED TO CONFORM TO LANDSCAPE PLAN LAYOUT.

6 TYP. METAL EDING DETAIL

SCALE: NTS

GENERAL NOTES

1. BASE MAP INFORMATION IS ACCURATE AS OF THE DATE PRINTED ON THIS PACKAGE.
2. THE LANDSCAPE PLANS CONTAINED HEREIN ILLUSTRATE APPROXIMATE LOCATIONS OF ALL SITE CONDITIONS. REFER TO SURVEY, ARCHITECTURAL, CIVIL ENGINEERING, STRUCTURAL, ELECTRICAL, IRRIGATION AND ALL OTHER DRAWINGS, IF AVAILABLE, FOR ADDITIONAL DETAILED INFORMATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING AWARE OF AND FIELD VERIFYING ALL RELATED EXISTING AND PROPOSED CONDITIONS, UTILITIES, PIPES AND STRUCTURES, ETC. PRIOR TO BIDDING AND CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONTACTING JULIE, THE COUNTY PUBLIC WORKS DEPARTMENT, THE MUNICIPALITY AND ANY OTHER PUBLIC OR PRIVATE AGENCIES NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF APPARENT CONFLICTS WITH CONSTRUCTION AND UTILITIES SO THAT ADJUSTMENTS CAN BE PLANNED PRIOR TO INSTALLATION. IF FIELD ADJUSTMENTS ARE NECESSARY DUE TO EXISTING UTILITY LOCATIONS THEY MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY AND ALL COSTS OR OTHER LIABILITIES INCURRED DUE TO DAMAGE OF SAID UTILITIES/STRUCTURES/ETC.
4. THE CONTRACTOR SHALL COMPLY WITH ALL CODES APPLICABLE TO THIS WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH SUBCONTRACTORS AND OTHER CONTRACTORS OF RELATED TRADES, AS REQUIRED, TO ACCOMPLISH THE PLANTING AND RELATED OPERATIONS.
6. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL PLANT MATERIAL WITH THE INSTALLATION OF OTHER IMPROVEMENTS SUCH AS HARDSCAPE ELEMENTS AND RELATED STRUCTURES. ANY DAMAGE TO EXISTING IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ALL AREAS OF THE SITE, OR ADJACENT AREAS, WHERE DISTURBED BY OPERATIONS OF OR RELATED TO THE CONTRACTOR'S WORK.
8. ALL SURFACE DRAINAGE SHALL BE DIVERTED AWAY FROM STRUCTURES AND NOTED SITE FEATURES IN ALL AREAS AT A MINIMUM OF 2% SLOPE OR AS SHOWN ON THE CIVIL ENGINEERING PLANS. ALL AREAS SHALL POSITIVELY DRAIN AND ALL ISLANDS SHALL BE CROWNED 1" IN HEIGHT PER 1' IN ISLAND WIDTH.
9. THE CONTRACTOR SHALL STAKE ALL TREE LOCATIONS AND THE PERIMETER OF SHRUB/PERENNIAL BEDS PRIOR TO INSTALLATION AND CONTACT THE OWNER'S REPRESENTATIVE FOR APPROVAL. FINAL LOCATION AND STAKING OF ALL PLANT MATERIALS SHALL BE ACCEPTED BY THE OWNER'S REPRESENTATIVE IN ADVANCE OF PLANTING.
10. IF CONFLICTS ARISE BETWEEN THE SIZE OF AREAS AND PLANS, THE CONTRACTOR IS REQUIRED TO CONTACT THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO INSTALLATION.
11. WHERE PROVIDED, AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES IN THE PLANT LIST ARE FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKE-OFFS FOR ALL PLANT MATERIALS AND SIZES SHOWN ON PLANS. IN CASE OF ANY DISCREPANCIES, PLANS TAKE PRECEDENCE OVER CALL-OUTS AND/OR THE PLANT LIST(S).
12. PLANTS ARE TO BE TYPICAL IN SHAPE AND SIZE FOR SPECIES. PLANTS PLANTED IN ROWS OR GROUPS SHALL BE MATCHED IN FORM. PLANTS SHALL NOT BE ROOT-BOUND OR LOOSE IN THEIR CONTAINERS. HANDLE ALL PLANTS WITH CARE IN TRANSPORTING, PLANTING AND MAINTENANCE UNTIL INSPECTION AND FINAL ACCEPTANCE. FIELD COLLECTED MATERIAL SHALL NOT BE USED UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
13. SHREDDED HARDWOOD MULCH, FERTILIZING, AS SPECIFIED, STAKING, WATERING AND ONE (1) YEAR PLANT WARRANTY FOR INSTALLED PLANT MATERIAL, SHALL BE CONSIDERED INCIDENTAL TO THE PLANT ITEMS.
14. MUSHROOM COMPOST SHALL BE FINELY SCREENED, HOMOGENOUS, DECOMPOSED ORGANIC MATERIAL SUITABLE FOR HORTICULTURAL USE. MIX THOROUGHLY IN PLANT BED BEFORE INSTALLING PLANTS.

LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR TO READ AND UNDERSTAND THE LANDSCAPE SPECIFICATIONS (SHEET L-102) PRIOR TO FINALIZING BIDS. THE LANDSCAPE SPECIFICATIONS SHALL BE ADHERED TO THROUGHOUT THE CONSTRUCTION PROCESS.
2. CONTRACTOR RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING TREES FROM DAMAGE DURING CONSTRUCTION.
4. ALL PLANTING AREAS SHALL BE CLEANED OF CONSTRUCTION DEBRIS (IE. CONCRETE, ROCK, RUBBLE, BUILDING MATERIALS, ETC.) PRIOR TO ADDING AND SPREADING OF THE TOPSOIL.
5. ALL SHRUBS BEDS (EXISTING AND NEW) TO BE MULCHED WITH A 3 INCH MINIMUM LAYER OF DOUBLE SHREDDED HARDWOOD MULCH.
6. ALL ANNUAL AND PERENNIAL BEDS TO BE TILLED TO A MINIMUM DEPTH OF 12 INCHES AND AMENDED WITH 4 INCHES OF ORGANIC MATERIAL. MULCH PLANTED ANNUAL AND PERENNIAL BEDS WITH 2 INCH DEPTH OF MINI NUGGETS.
7. PLANTING HOLES TO BE DUG A MINIMUM OF TWICE THE WIDTH OF THE SIZE OF THE ROOT BALL OF BOTH SHRUB AND TREE. BACK TO BE A MIX OF 4 PARTS TOPSOIL AND 1 PART ORGANIC SOIL CONDITIONER (IE. NATURE'S HELPER OR PRO MIX). BACKFILL AND TAMP BOTTOM OF HOLE PRIOR TO PLANTING SO TOP OF ROOT BALL DOES NOT SETTLE BELOW SURROUNDING GRADE.
8. EXISTING GRASS IN PROPOSED PLANTING AREAS TO BE KILLED AND REMOVED AND AREA TO BE HAND RAKED TO REMOVE ALL ROCKS AND DEBRIS LARGER THAN 1 INCH IN DIAMETER PRIOR TO PLANTING SHRUBS.
9. ANY EXISTING GRASS DISTURBED DURING CONSTRUCTION TO BE FULLY REMOVED, REGRADED AND REPLACED. ALL TIRE MARKS AND INDENTIONS TO BE REPAIRED.
10. SOIL TO BE TESTED TO DETERMINE FERTILIZER AND LIME REQUIREMENTS AND DISTRIBUTED PRIOR TO LAYING SOD.
11. SOD TO BE DELIVERED FRESH (CUT LESS THAN 24 HOURS PRIOR TO ARRIVING ON SITE), LAID IMMEDIATELY, ROLLED, AND WATERED THOROUGHLY IMMEDIATELY AFTER PLANTING. EDGE OF SOD IS TO BE "V" TRENCHED.
12. ALL CHANGES TO DESIGN OR PLANT SUBSTITUTIONS ARE TO BE AUTHORIZED BY THE LANDSCAPE ARCHITECT.
13. ALL LANDSCAPING SHALL BE INSTALLED IN CONFORMANCE WITH ANSI Z60.1 THE "AMERICAN STANDARD FOR NURSERY STOCK" AND THE ACCEPTED STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
14. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS INSTALLED FOR ONE FULL YEAR FROM DATE OF ACCEPTANCE BY THE OWNER. ALL PLANTS SHALL BE ALIVE AND AT A VIGOROUS RATE OF GROWTH AT THE END OF THE GUARANTEE PERIOD. THE LANDSCAPE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR ACTS OF GOD OR VANDALISM.
15. ANY PLANT THAT IS DETERMINED DEAD, IN AN UNHEALTHY OR UNSIGHTLY CONDITION, LOST ITS SHAPE DUE TO DEAD BRANCHES OR OTHER SYMPTOMS OF POOR, NON-VIGOROUS GROWTH SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR.
16. GENERAL CONTRACTOR IS RESPONSIBLE FOR ADDING A MIN OF 4" OF CLEAN FRIABLE TOPSOIL IN ALL PLANTING BEDS AND ALL GRASSED AREAS. GRADED AREAS TO BE HELD DOWN THE APPROPRIATE ELEVATION TO ACCOUNT FOR TOPSOIL. SEE SPECIFICATIONS FOR REQUIRED TOPSOIL CHARACTERISTICS.
17. IN ALL PARKING LOT ISLANDS, THE GENERAL CONTRACTOR IS RESPONSIBLE TO REMOVE ALL DEBRIS, FRACTURE/LOOSEN SUBGRADE TO A MIN. 24" DEPTH. ADD TOPSOIL TO A 6"-8" BERM HEIGHT ABOVE ISLAND CURBING; REFER TO LANDSCAPE SPECIFICATIONS AND LANDSCAPE ISLAND DETAIL.
18. PRIOR TO BEGINNING WORK, THE LANDSCAPE CONTRACTOR SHALL INSPECT THE SUBGRADE, GENERAL SITE CONDITIONS, VERIFY ELEVATIONS, UTILITY LOCATIONS, IRRIGATION, APPROVE TOPSOIL PROVIDED BY GENERAL CONTRACTOR AND OBSERVE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE DONE. NOTIFY GENERAL CONTRACTOR OF ANY UNSATISFACTORY CONDITIONS, AND WORK SHALL NOT PROCEED UNTIL SUCH CONDITIONS HAVE BEEN CORRECTED AND ARE ACCEPTABLE TO THE LANDSCAPE CONTRACTOR.
19. STAKE ALL EVERGREEN AND DECIDUOUS TREES AS SHOWN IN THE DETAILS THIS SHEET.
20. REMOVE ALL STAKES AND GUYING FROM ALL TREES AFTER ONE YEAR FROM PLANTING.
21. WATER THOROUGHLY TWICE IN FIRST 24 HOURS AND APPLY MULCH IMMEDIATELY.
22. SITE TO BE 100% IRRIGATED IN ALL PLANTING BEDS AND GRASS AREA BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. SEE IRRIGATION PLAN FOR DESIGN.
23. ALL TREE PROTECTION DEVICES TO BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE, AND MAINTAINED UNTIL FINAL LANDSCAPING.
24. ALL TREE PROTECTION AREAS TO BE PROTECTED FROM SEDIMENTATION.
25. ALL TREE PROTECTION FENCING TO BE INSPECTED DAILY, AND REPAIRED OR REPLACED AS NEEDED.
26. NO PARKING, STORAGE OR OTHER CONSTRUCTION ACTIVITIES ARE TO OCCUR WITHIN TREE PROTECTION AREAS.
27. CONTRACTOR SHALL USE CAUTION WHEN DIGGING TREE PITS IN THE VICINITY OF UNDERGROUND UTILITY LINES AND MAY NEED TO HAND DIG THE PITS IN MANY OF THESE INSTANCES.

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KEY PLAN:

SHEET STATUS: 05/16/2025

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NO:	DESCRIPTION:	DATE:
1	ADDENDUM #1	05/27/25

SHEET TITLE:

LANDSCAPE NOTES & DETAILS

SHEET NUMBER:

L-101

LANDSCAPE SPECIFICATIONS

PART 1 - GENERAL

DESCRIPTION
PROVIDE TREES, SHRUBS, GROUND COVERS, SOD, AND ANNUALS/PERENNIALS AS SHOWN AND SPECIFIED ON THE LANDSCAPE PLAN. THE WORK INCLUDES:
1. SOIL PREPARATION.
2. TREES, SHRUBS, GROUND COVERS, AND ANNUALS/PERENNIALS.
3. PLANTING MIXES.
4. TOP SOIL, MULCH AND PLANTING ACCESSORIES.
5. MAINTENANCE.
6. DECORATIVE STONE.
7. LANDSCAPE EDGING SHALL BE REQUIRED BETWEEN WHERE ALL GROUND COVER TYPES CHANGE TO A DIFFERENT GROUND COVER. SEE SPECIFICATIONS DETAIL.

RELATED WORK:
8. IRRIGATION SYSTEM; SEE IRRIGATION SPECIFICATIONS (NOT INCLUDED IN PACKAGE).

QUALITY ASSURANCE
PLANT NAMES INDICATED; COMPLY WITH "STANDARDIZED PLANT NAMES" AS ADOPTED BY THE LATEST EDITION OF THE AMERICAN JOINT COMMITTEE OF HORTICULTURAL NOMENCLATURE. NAMES OF VARIETIES NOT LISTED CONFORM GENERALLY WITH NAMES ACCEPTED BY THE NURSERY TRADE. PROVIDE STOCK TRUE TO BOTANICAL NAME AND LEGIBLY TAGGED.

COMPLY WITH SIZING AND GRADING STANDARDS OF THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK". A PLANT SHALL BE DIMENSIONED AS IT STANDS IN ITS NATURAL POSITION.

ALL PLANTS SHALL BE NURSERY GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR A MINIMUM OF 2 YEARS.

NURSERY STOCK FURNISHED SHALL BE AT LEAST THE MINIMUM SIZE INDICATED. LARGER STOCK IS ACCEPTABLE, AT NO ADDITIONAL COST, AND PROVIDING THAT THE LARGER PLANTS WILL NOT BE CUT BACK TO SIZE INDICATED. PROVIDE PLANTS INDICATED BY TWO MEASUREMENTS SO THAT ONLY A MAXIMUM OF 25% ARE OF THE MINIMUM SIZE INDICATED AND 75% ARE OF THE MAXIMUM SIZE INDICATED.

BEFORE SUBMITTING A BID, THE CONTRACTOR SHALL HAVE INVESTIGATED THE SOURCES OF SUPPLY AND BE SATISFIED THAT THEY CAN SUPPLY THE LISTED PLANTS IN THE SIZE, VARIETY AND QUALITY AS SPECIFIED. FAILURE TO TAKE THIS PRECAUTION WILL NOT RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITY FOR FURNISHING AND INSTALLING ALL PLANT MATERIALS IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS WITHOUT ADDITIONAL COST TO THE OWNER. THE LANDSCAPE ARCHITECT SHALL APPROVE ANY SUBSTITUTES OF PLANT MATERIAL, OR CHANGES IN PLANT MATERIAL SIZE, PRIOR TO THE LANDSCAPE CONTRACTOR SUBMITTING A BID.

DELIVER, STORAGE AND HANDLING
TAKE ALL PRECAUTIONS CUSTOMARY IN GOOD TRADE PRACTICE IN PREPARING PLANTS FOR MOVING. WORKMANSHIP THAT FAILS TO MEET THE HIGHEST STANDARDS WILL BE REJECTED. SPRAY DECIDUOUS PLANTS IN FOLIAGE WITH AN APPROVED "ANTI-DESICCANT" IMMEDIATELY AFTER DIGGING TO PREVENT DEHYDRATION. DIG, PACK, TRANSPORT, AND HANDLE PLANTS WITH CARE TO ENSURE PROTECTION AGAINST INJURY. INSPECTION CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY EACH SHIPMENT INVOICE OR ORDER TO STOCK. PROTECT ALL PLANTS FROM DRYING OUT. IF PLANTS CANNOT BE PLANTED IMMEDIATELY UPON DELIVERY, PROPERLY PROTECT THEM WITH SOIL, WET PEAT MOSS, OR IN A MANNER ACCEPTABLE TO THE LANDSCAPE ARCHITECT. WATER HEELED-IN PLANTINGS DAILY. NO PLANT SHALL BE BOUND WITH ROPE OR WIRE IN A MANNER THAT COULD DAMAGE OR BREAK THE BRANCHES. COVER PLANTS TRANSPORTED ON OPEN VEHICLES WITH A PROTECTIVE COVERING TO PREVENT WIND BURN.

PROJECT CONDITIONS
PROTECT EXISTING UTILITIES, PAVING, AND OTHER FACILITIES FROM DAMAGE CAUSED BY LANDSCAPE OPERATIONS.

A COMPLETE LIST OF PLANTS, INCLUDING A SCHEDULE OF SIZES, QUANTITIES, AND OTHER REQUIREMENTS ARE SHOWN ON THE DRAWINGS. IN THE EVENT THAT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANT MATERIALS LIST, THE PLANTING PLANS SHALL GOVERN.

THE IRRIGATION SYSTEM WILL BE INSTALLED PRIOR TO PLANTING. LOCATE, PROTECT AND MAINTAIN THE IRRIGATION SYSTEM DURING PLANTING OPERATIONS. REPAIR IRRIGATION SYSTEM COMPONENTS DAMAGED DURING PLANTING OPERATIONS; AT THE CONTRACTOR'S EXPENSE. REFER TO THE IRRIGATION SPECIFICATIONS, IRRIGATION PLAN AND IRRIGATION DETAILS.

DO NOT BEGIN LANDSCAPE ACCESSORY WORK BEFORE COMPLETION OF FINAL GRADING OR SURFACING.

WARRANTY
WARRANT PLANT MATERIAL TO REMAIN ALIVE, BE HEALTHY AND IN A VIGOROUS CONDITION FOR A PERIOD OF 1 YEAR AFTER COMPLETION AND FINAL ACCEPTANCE OF ENTIRE PROJECT.

REPLACE, IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, ALL PLANTS THAT ARE DEAD OR, ARE IN AN UNHEALTHY, OR UNSIGHTLY CONDITION, AND HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES, OR OTHER CAUSES DUE TO THE CONTRACTOR'S NEGLIGENCE. THE COST OF SUCH REPLACEMENT(S) IS AT THE CONTRACTOR'S EXPENSE. WARRANT ALL REPLACEMENT PLANTS FOR 1 YEAR AFTER INSTALLATION.

WARRANTY SHALL NOT INCLUDE DAMAGE, LOSS OF TREES, PLANTS, OR GROUND COVERS CAUSED BY FIRES, FLOODS, FREEZING RAINS, LIGHTNING STORMS, WINDS OVER 75 MILES PER HOUR, WINTER KILL CAUSED BY EXTREME COLD, SEVERE WINTER CONDITIONS NOT TYPICAL OF PLANTING AREA, AND/OR ACTS OF VANDALISM OR NEGLIGENCE ON A PART OF THE OWNER.

REMOVE AND IMMEDIATELY REPLACE ALL PLANTS, FOUND TO BE UNSATISFACTORY DURING THE INITIAL PLANTING INSTALLATION.
MAINTAIN AND PROTECT PLANT MATERIAL, LAWNS, AND IRRIGATION UNTIL FINAL ACCEPTANCE IS MADE.

ACCEPTANCE
INSPECTION OF PLANTED AREAS WILL BE MADE BY THE OWNER'S REPRESENTATIVE.
1. PLANTED AREAS WILL BE ACCEPTED PROVIDED ALL REQUIREMENTS, INCLUDING MAINTENANCE, HAVE BEEN COMPLIED WITH AND PLANT MATERIALS ARE ALIVE AND IN A HEALTHY, VIGOROUS CONDITION.

UPON ACCEPTANCE, THE CONTRACTOR SHALL COMMENCE THE SPECIFIED PLANT MAINTENANCE.

CODES, PERMITS AND FEES
OBTAIN ANY NECESSARY PERMITS FOR THIS SECTION OF WORK AND PAY ANY FEES REQUIRED FOR PERMITS.

THE ENTIRE INSTALLATION SHALL FULLY COMPLY WITH ALL LOCAL AND STATE LAWS AND ORDINANCES, AND WITH ALL ESTABLISHED CODES APPLICABLE THERETO; ALSO AS DEPICTED ON THE LANDSCAPE AND IRRIGATION CONSTRUCTION SET.

PART 2 - PRODUCTS

MATERIALS
PLANTS: PROVIDE TYPICAL OF THEIR SPECIES OR VARIETY; WITH NORMAL, DENSELY DEVELOPED BRANCHES AND VIGOROUS, FIBROUS ROOT SYSTEMS. PROVIDE ONLY SOUND, HEALTHY, VIGOROUS PLANTS FREE FROM DEFECTS, DISFIGURING KNOTS, SUN SCALD INJURIES, FROST CRACKS, ABRASIONS OF THE BARK, PLANT DISEASES, INSECT EGGS, BORERS, AND ALL FORMS OF INFESTATION. ALL PLANTS SHALL HAVE A FULLY DEVELOPED FORM WITHOUT VOIDS AND OPEN SPACES. PLANTS HELD ON STORAGE WILL BE REJECTED IF THEY SHOW SIGNS OF GROWTH DURING THE STORAGE PERIOD.

1. BALLED AND PLANTS WRAPPED WITH BURLAP, TO HAVE FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF THE PLANT. PROVIDE BALL SIZES COMPLYING WITH THE LATEST EDITION OF THE "AMERICAN STANDARD FOR NURSERY STOCK". CRACKED OR MUSHROOMED BALLS, OR SIGNS OF CIRCLING ROOTS ARE NOT ACCEPTABLE.
2. CONTAINER- GROWN STOCK: GROWN IN A CONTAINER FOR SUFFICIENT LENGTH OF TIME FOR THE ROOT SYSTEM TO HAVE DEVELOPED TO HOLD ITS SOIL TOGETHER, FIRM AND WHOLE.
   2.1. NO PLANTS SHALL BE LOOSE IN THE CONTAINER.
   2.2. CONTAINER STOCK SHALL NOT BE POT BOUND.
3. PLANTS PLANTED IN ROWS SHALL BE MATCHED IN FORM.
4. PLANTS LARGER THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED WHEN ACCEPTABLE TO THE LANDSCAPE ARCHITECT.
   4.1. IF THE USE OF LARGER PLANTS IS ACCEPTABLE, INCREASE THE SPREAD OF ROOTS OR ROOT BALL IN PROPORTION TO THE SIZE OF THE PLANT.
5. THE HEIGHT OF THE TREES, MEASURED FROM THE CROWN OF THE ROOTS TO THE TOP OF THE TOP BRANCH, SHALL NOT BE LESS THAN THE MINIMUM SIZE DESIGNATED IN THE PLANT LIST.
6. NO PRUNING WOUNDS SHALL BE PRESENT WITH A DIAMETER OF MORE THAN 1" AND SUCH WOUNDS MUST SHOW VIGOROUS BARK ON ALL EDGES.
7. EVERGREEN TREES SHALL BE BRANCHED TO THE GROUND OR AS SPECIFIED IN PLANT LIST.
8. SHRUBS AND SMALL PLANTS SHALL MEET THE REQUIREMENTS FOR SPREAD AND HEIGHT INDICATED IN THE PLANT LIST.
   8.1. THE MEASUREMENTS FOR HEIGHT SHALL BE TAKEN FROM THE GROUND LEVEL TO THE HEIGHT OF THE TOP OF THE PLANT AND NOT THE LONGEST BRANCH.
   8.2. SINGLE STEMMED OR THIN PLANTS WILL NOT BE ACCEPTED.
   8.3. SIDE BRANCHES SHALL BE GENEROUS, WELL-TWIGGED, AND THE PLANT AS A WHOLE WELL-BUSHED TO THE GROUND.
   8.4. PLANTS SHALL BE IN A MOIST, VIGOROUS CONDITION, FREE FROM DEAD WOOD, BRUISES, OR OTHER ROOT OR BRANCH INJURIES.

ACCESSORIES
TOPSOIL: SHALL BE FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMY CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL, OBTAINED FROM A WELL-DRAINED ARABLE SITE, REASONABLY FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, ROOTS, STICKS, AND OTHER FOREIGN MATERIALS, WITH ACIDITY RANGE OF BETWEEN PH 6.0 AND 6.8.

NOTE: ALL PLANTING AREAS SHALL BE CLEANED OF CONSTRUCTION DEBRIS (IE. CONCRETE, RUBBLE, STONES, BUILDING MATERIAL, ETC.) PRIOR TO ADDING AND SPREADING OF THE TOP SOIL.
1. SOD AREAS: SPREAD A MINIMUM 4" LAYER OF TOP SOIL AND RAKE SMOOTH.
2. PLANTING BED AREAS: SPREAD A MINIMUM 4" LAYER OF TOP SOIL AND RAKE SMOOTH.
3. LANDSCAPE ISLANDS/MEDIANS: FRACTURE/LOOSEN EXISTING SUBGRADE TO A MINIMUM 24" DEPTH. REMOVE AND REPLACE ANY SUBGRADE UNSUITABLE FOR PLANTING. ONCE SUBGRADE IS CLEAN OF DEBRIS AND LOOSENED, ADD TOPSOIL TO A MINIMUM BERM 6"-8" HEIGHT ABOVE ISLAND CURBING.
4. ANNUAL/PERENNIAL BED AREAS: ADD A MINIMUM OF 4" ORGANIC MATTER AND TILL TO A MINIMUM 12" DEPTH.

MULCH: TYPE SELECTED DEPENDENT ON REGION AND AVAILABILITY; SEE LANDSCAPE PLANS FOR TYPE OF MUCH TO BE USED. HOLD MULCH 4" FROM TREE TRUNKS AND SHRUB STEMS.
1. HARDWOOD: 6 MONTH OLD WELL ROTTED DOUBLE SHREDDED NATIVE HARDWOOD BARK MULCH NOT LARGER THAN 4" IN LENGTH AND ½" IN WIDTH, FREE OF WOOD CHIPS AND SAWDUST. INSTALL MINIMUM DEPTH OF 3".
2. PINE STRAW: PINE STRAW TO BE FRESH HARVEST, FREE OF DEBRIS, BRIGHT IN COLOR. BALES TO BE WIRED AND TIGHTLY BOUND. NEEDLES TO BE DRY. INSTALL MINIMUM DEPTH OF 3".
3. RIVER ROCK: (COLOR) LIGHT GRAY TO BUFF TO DARK BROWN, WASHED RIVER ROCK, 1" – 3" IN SIZE. INSTALL IN SHRUB BEDS TO AN EVEN DEPTH OF 3". WEED CONTROL BARRIER TO BE INSTALLED UNDER ALL ROCK MULCH AREAS. USE CAUTION DURING INSTALLATION NOT TO DAMAGE PLANT MATERIAL.
4. MINI NUGGETS: INSTALL TO A MINIMUM DEPTH OF 2"-3" AT ALL LOCATIONS OF ANNUAL AND PERENNIAL BEDS. LIFT THE STEMS AND LEAVES OF THE ANNUALS AND CAREFULLY SPREAD THE MULCH TO AVOID INJURING THE PLANTS. GENTLY BRUSH THE MULCH OFF THE PLANTS.

GUYING/STAKING:
1. ARBORTIE: GREEN (OR WHITE) STAKING AND GUYING MATERIAL TO BE FLAT, WOVEN, POLYPROPYLENE MATERIAL, ¾" WIDE 900 LB. BREAK STRENGTH. ARBORTIE SHALL BE FASTENED TO STAKES IN A MANNER WHICH PERMITS TREE MOVEMENT AND SUPPORTS THE TREE.
2. REMOVE GUYING/STAKING AFTER ONE YEAR FROM PLANTING.

TREE WRAP: TREE WRAPS SHOULD BE USED ON YOUNG, NEWLY PLANTED THIN-BARKED TREES (CHERRY, CRABAPPLE, HONEY LOCUST, LINDEN, MAPLE, MOUNTAIN ASH, PLUM) THAT ARE MOST SUSCEPTIBLE TO SUN SCALD/SUNBURN. STANDARD WATERPROOFED TREE WRAPPING PAPER, 2-1/2" WIDE, MADE OF 2 LAYERS OF CREPE DRAFT PAPER WEIGHING NOT LESS THAN 30 LBS. PER REAM, CEMENTED TOGETHER WITH ASPHALT. WRAP THE TREE IN THE FALL AND LEAVE THE WRAP IN PLACE THROUGHOUT THE WINTER AND EARLY SPRING. TREE WRAPS ARE TEMPORARY AND NO LONGER NEEDED ONCE TREES DEVELOP CORKY BARK.

PART 3 – EXECUTION

INSPECTION
PRIOR TO BEGINNING WORK, THE LANDSCAPE CONTRACTOR SHALL INSPECT THE SUBGRADE, GENERAL SITE CONDITIONS, VERIFY ELEVATIONS, UTILITY LOCATIONS, IRRIGATION. APPROVE TOP SOIL PROVIDED BY THE GENERAL CONTRACTOR AND OBSERVE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE DONE. NOTIFY THE GENERAL CONTRACTOR OF ANY UNSATISFACTORY CONDITIONS, AND WORK SHALL NOT PROCEED UNTIL SUCH CONDITIONS HAVE BEEN CORRECTED AND ARE ACCEPTABLE TO THE LANDSCAPE CONTRACTOR.

PREPARATION
PLANTING SHALL BE PERFORMED ONLY BY EXPERIENCED WORKMEN FAMILIAR WITH PLANTING PROCEDURES UNDER THE SUPERVISION OF A QUALIFIED SUPERVISOR.

LOCATE PLANTS AS INDICATED ON THE PLANS OR AS APPROVED IN THE FIELD AFTER STAKING BY THE LANDSCAPE CONTRACTOR. IF OBSTRUCTIONS ARE ENCOUNTERED THAT ARE NOT SHOWN ON THE DRAWINGS, DO NOT PROCEED WITH PLANTING OPERATIONS UNTIL ALTERNATE PLANT LOCATIONS HAVE BEEN SELECTED AND APPROVED BY THE LANDSCAPE ARCHITECT; SPACING OF PLANT MATERIAL SHALL BE AS SHOWN ON THE LANDSCAPE PLAN.

EXCAVATE CIRCULAR PLANT PITS WITH VERTICAL SIDES, EXCEPT FOR PLANTS SPECIFICALLY INDICATED TO BE PLANTED IN BEDS. PROVIDE SHRUB PITS AT LEAST 12" GREATER THAN THE DIAMETER OF THE ROOT SYSTEM AND 24" GREATER FOR TREES. DEPTH OF PIT SHALL ACCOMMODATE THE ROOT SYSTEM. PROVIDE UNDISTURBED SUB GRADE TO HOLD ROOT BALL AT NURSERY GRADE AS SHOWN ON THE DRAWINGS.

INSTALLATION
SET PLANT MATERIAL IN THE PLANTING PIT TO PROPER GRADE AND ALIGNMENT. SET PLANTS UPRIGHT, PLUMB, AND FACED TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO EACH OTHER OR ADJACENT STRUCTURE. SET PLANT MATERIAL 2" – 3" ABOVE THE FINISH GRADE. NO FILLING WILL BE PERMITTED AROUND TRUNKS OR STEMS. BACKFILL THE PIT WITH TOPSOIL MIX AND EXCAVATED MATERIAL. DO NOT USE FROZEN OR MUDDY MIXTURES FOR BACKFILLING. FORM A RING OF SOIL AROUND THE EDGE OF EACH PLANTING PIT TO RETAIN WATER.

AFTER BALLED AND WRAPPED IN BURLAP PLANTS ARE SET, MUDDLE PLANTING SOIL MIXTURE AROUND BASES OF BALLS AND FILL ALL VOIDS.
1. REMOVE ALL BURLAP, ROPES, AND WIRES FROM THE TOP 1/3 OF THE ROOT BALL

SPACE GROUND COVER PLANTS IN ACCORDANCE WITH INDICATED DIMENSIONS. ADJUST SPACING AS NECESSARY TO EVENLY FILL PLANTING BED WITH INDICATED QUANTITY OF PLANTS. PLANT TO WITHIN 24" OF THE TRUNKS OF TREES AND SHRUBS WITHIN PLANTING BED AND TO WITHIN 18" OF EDGE OF BED.

MULCHING:
1. MULCH TREE AND SHRUB PLANTING PITS AND SHRUB BEDS WITH REQUIRED MULCHING MATERIAL (SEE LANDSCAPE PLAN FOR MULCH TYPE); DEPTH OF MULCH AS NOTED ABOVE. HOLD MULCH BACK 4" AWAY FROM TREE TRUNKS AND SHRUB STEMS. THOROUGHLY WATER MULCHED AREAS. AFTER WATERING, RAKE MULCH TO PROVIDE A UNIFORM FINISHED SURFACE.

DECORATIVE STONE; (WHERE INDICATED ON LANDSCAPE PLAN)
1. INSTALL WEED CONTROL BARRIER OVER SUB-GRADE PRIOR TO INSTALLING STONE, LAP 6" ON ALL SIDES.
2. PLACE STONE WITHOUT DAMAGING WEED BARRIER.
3. ARRANGE STONES FOR BEST APPEARANCE AND TO COVER ALL WEED BARRIER FABRIC.

WRAPPING, GUYING, STAKING:
1. INSPECT TREES FOR INJURY TO TRUNKS, EVIDENCE OF INSECT INFESTATION, AND IMPROPER PRUNING BEFORE WRAPPING.
2. WRAPPING:
   2.1. WRAP TRUNKS OF ALL YOUNG NEWLY PLANTED TREES KNOWN TO HAVE THIN BARK. WRAP SPIRALLY FROM BOTTOM TO TOP WITH SPECIFIED TREE WRAP AND SECURE IN PLACE.
   2.2. OVERLAP ½ THE WIDTH OF THE TREE WRAP STRIP AND COVER THE TRUNK FROM THE GROUND TO THE HEIGHT OF THE SECOND BRANCH.
   2.3. SECURE TREE WRAP IN PLACE WITH TWINE WOUND SPIRALLY DOWNWARD IN THE OPPOSITE DIRECTION, TIED AROUND THE TREE IN AT LEAST 3 PLACES IN ADDITION TO THE TOP AND BOTTOM.
   2.4. WRAP THE TREES IN THE FALL AND LEAVE THE WRAP IN PLACE THROUGHOUT THE WINTER AND EARLY SPRING.
   2.5. TREE WRAPS ARE TEMPORARY AND NO LONGER NEEDED ONCE THE TREES DEVELOP CORKY BARK.
3. STAKING/GUYING:
   3.1. STAKE/GUY ALL TREES IMMEDIATELY AFTER LAWN SODDING OPERATIONS AND PRIOR TO ACCEPTANCE.
   3.2. STAKE DECIDUOUS TREES 2" CALIPER AND LESS. STAKE EVERGREEN TREES UNDER 7'-0" TALL.
      3.2.1. STAKES ARE PLACED IN LINE WITH PREVAILING WIND DIRECTION AND DRIVEN INTO UNDISTURBED SOIL.
      3.2.2. TIES ARE ATTACHED TO THE TREE, USUALLY AT THE LOWEST BRANCH.
   3.3. GUY DECIDUOUS TREES OVER 2" CALIPER. GUY EVERGREEN TREES 7'-0" TALL AND OVER.
      3.3.1. GUY WIRES TO BE ATTACHED TO THREE STAKES DRIVEN INTO UNDISTURBED SOIL, WITH ONE STAKE PLACED IN THE DIRECTION OF THE PREVAILING WIND.
      3.3.2. TIES ARE ATTACHED TO THE TREE AS HIGH AS PRACTICAL.
      3.3.3. THE AXIS OF THE STAKE SHOULD BE AT 90 DEGREE ANGLE TO THE AXIS ON THE PULL OF THE GUY WIRE.
4. **REMOVE ALL GUYING AND STAKING AFTER ONE YEAR FROM PLANTING.**

PRUNING:
1. PRUNE DECIDUOUS TREES AND EVERGREENS ONLY TO REMOVE BROKEN OR DAMAGED BRANCHES.

WORKMANSHIP
DURING LANDSCAPE/IRRIGATION INSTALLATION OPERATIONS, ALL AREAS SHALL BE KEPT NEAT AND CLEAN. PRECAUTIONS SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING STRUCTURES. ALL WORK SHALL BE PERFORMED IN A SAFE MANNER TO THE OPERATORS, THE OCCUPANTS AND ANY PEDESTRIANS.

UPON COMPLETION OF INSTALLATION OPERATIONS, ALL EXCESS MATERIALS, EQUIPMENT, DEBRIS AND WASTE MATERIAL SHALL BE CLEANED UP AND REMOVED FROM THE SITE; UNLESS PROVISIONS HAVE BEEN GRANTED BY THE OWNER TO USE ON-SITE TRASH RECEPTACLES. SWEEP PARKING AND WALKS CLEAN OF DIRT AND DEBRIS. REMOVE ALL PLANT TAGS AND OTHER DEBRIS FROM LAWNS AND PLANTING AREAS.

ANY DAMAGE TO THE LANDSCAPE, THE STRUCTURE, OR THE IRRIGATION SYSTEM CAUSED BY THE LANDSCAPE CONTRACTOR SHALL BE REPAIRED BY THE LANDSCAPE CONTRACTOR WITHOUT CHARGE TO THE OWNER.

MAINTENANCE
CONTRACTOR SHALL PROVIDE MAINTENANCE UNTIL WORK HAS BEEN ACCEPTED BY THE OWNER'S REPRESENTATIVE.

MAINTENANCE SHALL INCLUDE MOWING, FERTILIZING, MULCHING, PRUNING, CULTIVATION, WEEDING, WATERING, AND APPLICATION OF APPROPRIATE INSECTICIDES AND FUNGICIDES NECESSARY TO MAINTAIN PLANTS AND LAWNS FREE OF INSECTS AND DISEASE.
1. RE-SET SETTLED PLANTS TO PROPER GRADE AND POSITION. RESTORE PLANTING SAUCER AND ADJACENT MATERIAL AND REMOVE DEAD MATERIAL.
2. REPAIR GUY WIRES AND STAKES AS REQUIRED. REMOVE ALL STAKES AND GUY WIRES AFTER 1 YEAR.
3. CORRECT DEFECTIVE WORK AS SOON AS POSSIBLE AFTER DEFICIENCIES BECOME APPARENT AND WEATHER AND SEASON PERMIT.
4. WATER TREES, PLANTS AND GROUND COVER BEDS WITHIN THE FIRST 24 HOURS OF INITIAL PLANTING, AND NOT LESS THAN TWICE PER WEEK UNTIL FINAL ACCEPTANCE.

LANDSCAPE MAINTENANCE SPECIFICATIONS

THE CONTRACTOR SHALL PROVIDE AS A SEPARATE BID, MAINTENANCE FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF THE PROJECT LANDSCAPING. THE CONTRACTOR MUST BE ABLE TO PROVIDE CONTINUED MAINTENANCE IF REQUESTED BY THE OWNER OR PROVIDE THE NAME OF A REPUTABLE LANDSCAPE CONTRACTOR WHO CAN PROVIDE MAINTENANCE.

STANDARDS
ALL LANDSCAPE MAINTENANCE SERVICES SHALL BE PERFORMED BY TRAINED PERSONNEL USING CURRENT, ACCEPTABLE HORTICULTURAL PRACTICES.

ALL WORK SHALL BE PERFORMED IN A MANNER THAT MAINTAINS THE ORIGINAL INTENT OF THE LANDSCAPE DESIGN.

ALL CHEMICAL APPLICATIONS SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT COUNTY, STATE AND FEDERAL LAWS, USING EPA REGISTERED MATERIALS AND METHODS OF APPLICATION. THESE APPLICATIONS SHALL BE PERFORMED UNDER THE SUPERVISION OF A LICENSED CERTIFIED APPLICATOR.

APPROVALS
ANY WORK PERFORMED IN ADDITION TO THAT WHICH IS OUTLINED IN THE CONTRACT SHALL ONLY BE DONE UPON WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE (GENERAL MANAGER OF THE RESTAURANT).

ALL SEASONAL COLOR SELECTIONS SHALL BE APPROVED BY THE GENERAL MANAGER PRIOR TO ORDERING AND INSTALLATION.

SOIL TESTING
THE MAINTENANCE CONTRACTOR SHALL PERFORM SOIL TESTS AS NEEDED TO IDENTIFY IMBALANCES OR DEFICIENCIES CAUSING PLANT MATERIAL DECLINE. THE OWNER SHALL BE NOTIFIED OF THE RECOMMENDATION FOR APPROVAL, AND THE NECESSARY CORRECTIONS MADE AT AN ADDITIONAL COST TO THE OWNER.

ACCEPTABLE SOIL TEST RESULTS

	LANDSCAPE TREES AND SHRUBS	TURF
pH RANGE	5.0 - 7.0	6.0 - 7.0
ORGANIC MATTER	> 1.5%	> 2.5%
MAGNESIUM (Mg)	100+ LBS/ACRE	100+ LBS/ACRE
PHOSPHORUS (P205)	150+ LBS/ACRE	150+ LBS/ACRE
POTASSIUM (K2O)	120+ LBS/ACRE	120+ LBS/ACRE
SOLUBLE SALTS/ CONDUCTIVITY	NOT TO EXCEED 900PPM/1.9MMHOS/CM IN SOIL; NOT TO EXCEED 1400 PPM/2.5 MMHOS/CM IN HIGH ORGANIC MIX.	NOT TO EXCEED 900PPM/1.9MMHOS/CM IN SOIL; NOT TO EXCEED 1400 PPM/2.5 MMHOS/CM IN HIGH ORGANIC MIX.

WORKMANSHIP
DURING LANDSCAPE MAINTENANCE OPERATIONS, ALL AREAS SHALL BE KEPT NEAT AND CLEAN. PRECAUTIONS SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING STRUCTURES. ALL WORK SHALL BE PERFORMED IN A SAFE MANNER TO THE OPERATORS, THE OCCUPANTS AND ANY PEDESTRIANS.

UPON COMPLETION OF MAINTENANCE OPERATIONS, ALL DEBRIS AND WASTE MATERIAL SHALL BE CLEANED UP AND REMOVED FROM THE SITE, UNLESS PROVISIONS HAVE BEEN GRANTED BY THE OWNER TO USE ON-SITE TRASH RECEPTACLES.

ANY DAMAGE TO THE LANDSCAPE, THE STRUCTURE, OR THE IRRIGATION SYSTEM CAUSED BY THE MAINTENANCE CONTRACTOR, SHALL BE REPAIRED BY THE MAINTENANCE CONTRACTOR WITHOUT CHARGE TO THE OWNER.

TURF

GENERAL CLEAN UP
PRIOR TO MOWING, ALL TRASH, STICKS, AND OTHER UNWANTED DEBRIS SHALL BE REMOVED FROM LAWNS, PLANT BEDS, AND PAVED AREAS.

MOWING
WARM SEASON GRASSES (I.E. BERMUDA GRASS) SHALL BE MAINTAINED AT A HEIGHT OF 1" TO 2" DURING THE GROWING SEASON.

COOL SEASON GRASSES, INCLUDING BLUE GRASS, TALL FESCUE, PERENNIAL RYEGRASS, ETC., SHALL BE MAINTAINED AT A HEIGHT OF 2" TO 3" IN SPRING AND FALL. FROM JUNE THROUGH SEPTEMBER, MOWING HEIGHT SHALL BE MAINTAINED AT NO LESS THAN 3".

THE MOWING OPERATION INCLUDES TRIMMING AROUND ALL OBSTACLES, RAKING EXCESSIVE GRASS CLIPPINGS AND REMOVING DEBRIS FROM WALKS, CURBS, AND PARKING AREAS. CAUTION: WEED EATERS SHOULD NOT BE USED AROUND TREES BECAUSE OF POTENTIAL DAMAGE TO THE BARK.

EDGING
EDGING OF ALL SIDEWALKS, CURBS AND OTHER PAVED AREAS SHALL BE PERFORMED ONCE EVERY OTHER MOWING. DEBRIS FROM THE EDGING OPERATIONS SHALL BE REMOVED AND THE AREAS SWEPT CLEAN. CAUTION SHALL BE USED TO AVOID FLYING DEBRIS.

LIMING & FERTILIZING
A SOIL TEST SHALL BE TAKEN TO DETERMINE WHETHER AN APPLICATION OF LIMESTONE IN LATE FALL IS NECESSARY. IF LIMESTONE IS REQUIRED, THE LANDSCAPE CONTRACTOR SHALL SPECIFY THE RATE, OBTAIN APPROVAL FROM THE OWNER AND APPLY IT AT AN ADDITIONAL COST. A UNIT PRICE FOR LIMING OF TURF SHALL ACCOMPANY THE BID BASED ON A RATE OF 50 POUNDS PER 1000 SQUARE FEET.

FERTILIZER SHALL BE APPLIED IN AREAS BASED ON THE EXISTING TURF SPECIES.

LAWN WEED CONTROL: HERBICIDES
SELECTION AND PROCESS OF HERBICIDES SHALL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY. ALL CHEMICAL APPLICATIONS SHALL BE PERFORMED UNDER THE SUPERVISION OF A LICENSED CERTIFIED APPLICATOR. **READ THE LABEL PRIOR TO APPLYING ANY CHEMICAL.**

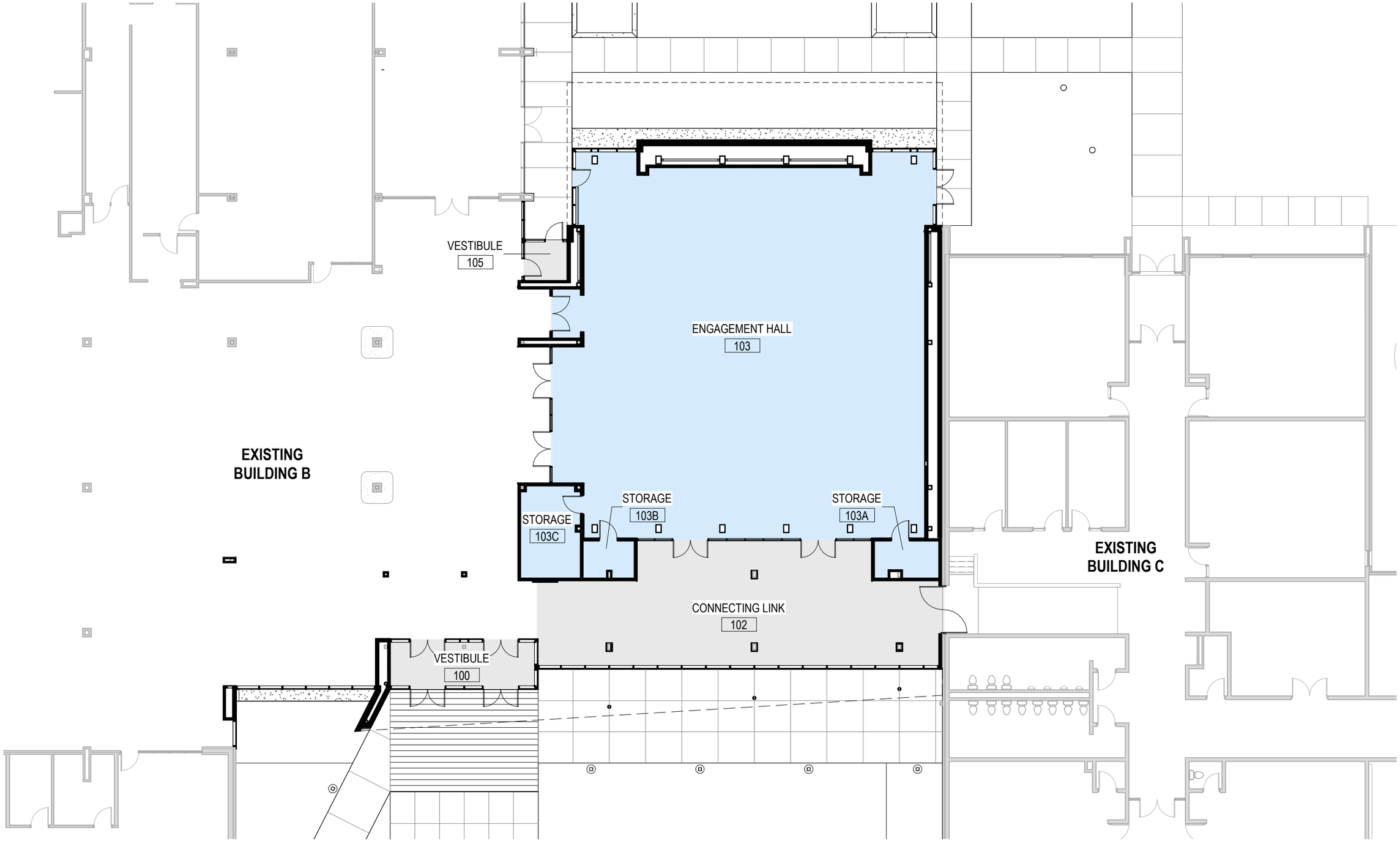
INSECT & DISEASE CONTROL FOR TURF
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING THE SITE CONDITIONS ON EACH VISIT TO DETERMINE IF ANY INSECT PEST OR DISEASE PROBLEMS EXIST. THE CONTRACTOR SHALL IDENTIFY THE INSECT PEST OR DISEASE, AS WELL AS THE HOST PLANT, AND THEN CONSULT THE MOST CURRENT EDITION OF THE COOPERATIVE EXTENSION SERVICE'S "COMMERCIAL INSECTICIDE RECOMMENDATION FOR TURF" FOR CONTROL. THE LICENSED APPLICATOR SHALL BE FAMILIAR WITH THE LABEL PROVIDED FOR THE SELECTED PRODUCT PRIOR TO APPLICATION.

INSPECTION AND TREATMENT TO CONTROL INSECT PESTS SHALL BE INCLUDED IN THE CONTRACT PRICE.

TREES, SHRUBS, & GROUND COVER

PRUNING
ALL ORNAMENTAL TREES, SHRUBS AND GROUND COVER SHALL BE PRUNED WHEN APPROPRIATE TO REMOVE DEAD OR DAMAGED BRANCHES, DEVELOP THE NATURAL SHAPES. **DO NOT SHEAR TREES OR SHRUBS,** IF PREVIOUS MAINTENANCE PRACTICE HAS BEEN TO SHEAR AND BALL, THEN A NATURAL SHAPE WILL BE RESTORED GRADUALLY.

PRUNING GUIDELINES:
1. PRUNE THOSE THAT FLOWER BEFORE THE END OF JUNE IMMEDIATELY AFTER FLOWERING. FLOWER BUDS DEVELOP DURING THE PREVIOUS GROWING SEASON. FALL, WINTER OR SPRING PRUNING WOULD REDUCE THE SPRING FLOWERING DISPLAY.
2. PRUNE THOSE THAT FLOWER IN SUMMER OR AUTUMN IN WINTER OR SPRING BEFORE NEW GROWTH BEGINS, SINCE THESE PLANTS DEVELOP FLOWERS ON NEW GROWTH.
3. DELAY PRUNING PLANTS GROWN FOR ORNAMENTAL FRUITS, SUCH AS COTONEASTERS, PYRACANTHAS AND VIBURNUMS.
4. HOLLIES AND OTHER EVERGREENS MAY BE PRUNED DURING WINTER IN ORDER TO USE THEIR BRANCHES FOR SEASONAL DECORATION. HOWEVER, SEVERE PRUNING OF EVERGREENS SHOULD BE DONE IN EARLY SPRING ONLY.
5. BROADLEAF EVERGREEN SHRUBS SHALL BE HAND-PRUNED TO MAINTAIN THEIR NATURAL APPEARANCE AFTER THE NEW GROWTH HARDENS OFF.
6. HEDGES OR SHRUBS THAT REQUIRE SHEARING TO MAINTAIN A FORMAL APPEARANCE SHALL BE PRUNED AS REQUIRED. DEAD WOOD SHALL BE REMOVED FROM SHEARED PLANTS BEFORE THE FIRST SHEARING OF THE SEASON.
7. CONIFERS SHALL BE PRUNED, IF REQUIRED, ACCORDING TO THEIR GENUS.
   7.1. YEWS, JUNIPERS, HEMLOCKS, ARBORVITAE, AND FALSE-CYPRESS MAY BE PRUNED AFTER NEW GROWTH HAS HARDENED OFF IN LATE SUMMER. IF SEVERE PRUNING IS N



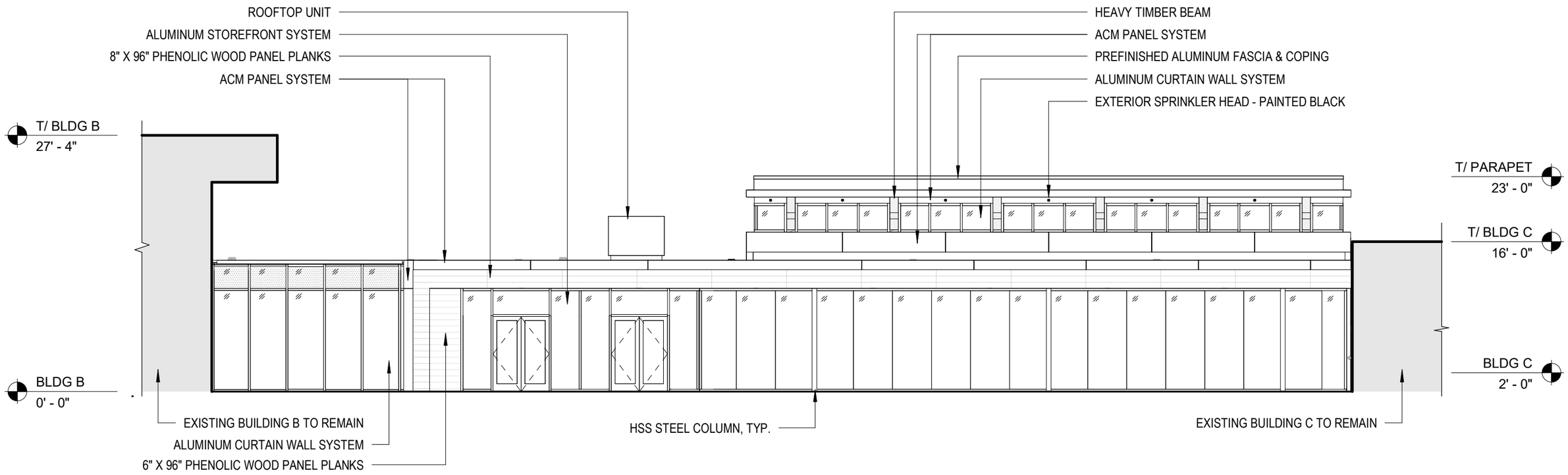
DEMONICA KEMPER ARCHITECTS

Overall Floor Plan

1/16" = 1'-0"

Engagement Hall

McHenry County College





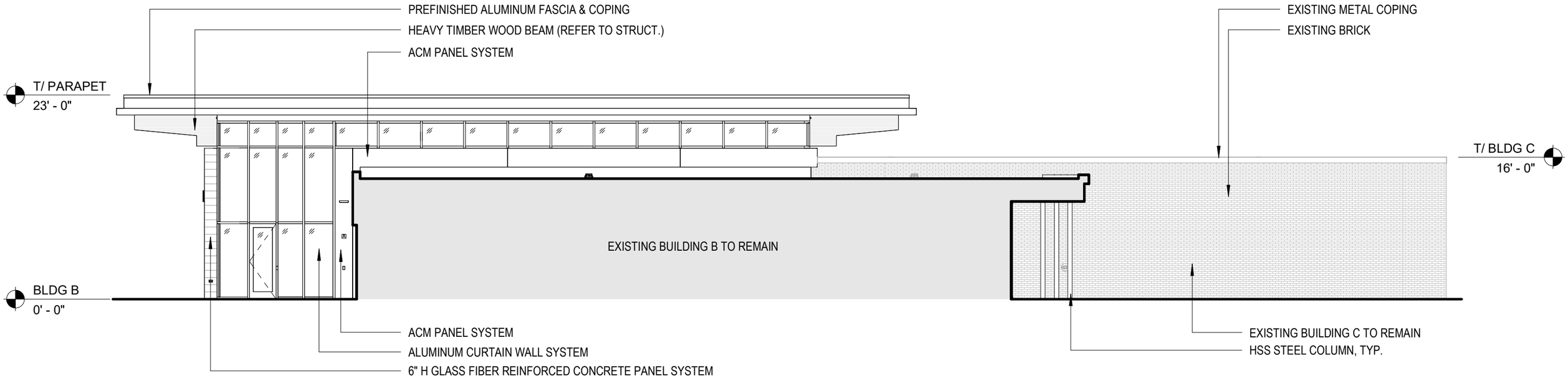
DEMONICA KEMPER ARCHITECTS

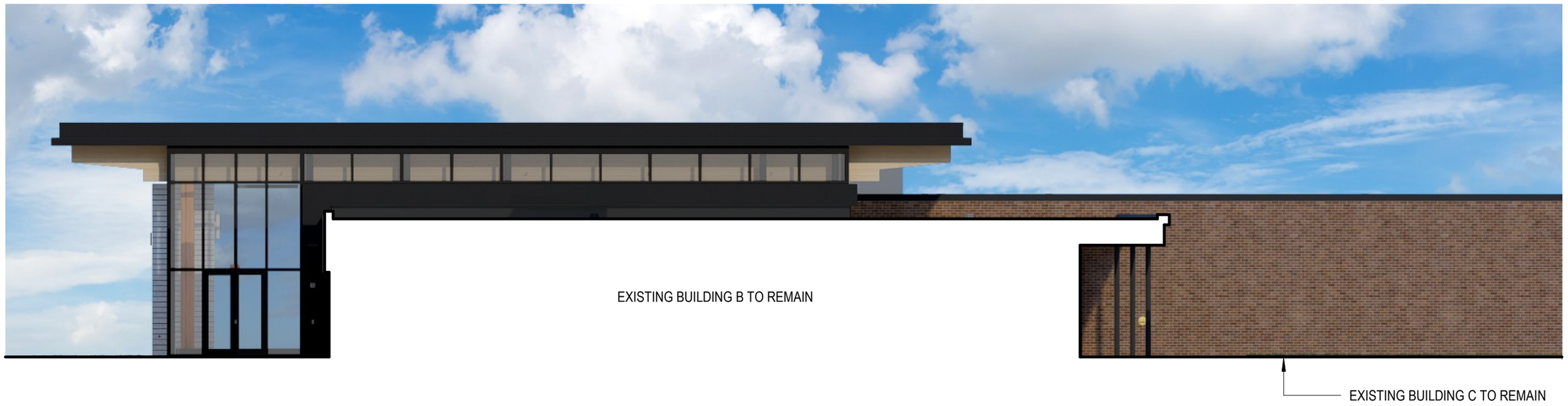
Exterior Elevation - South

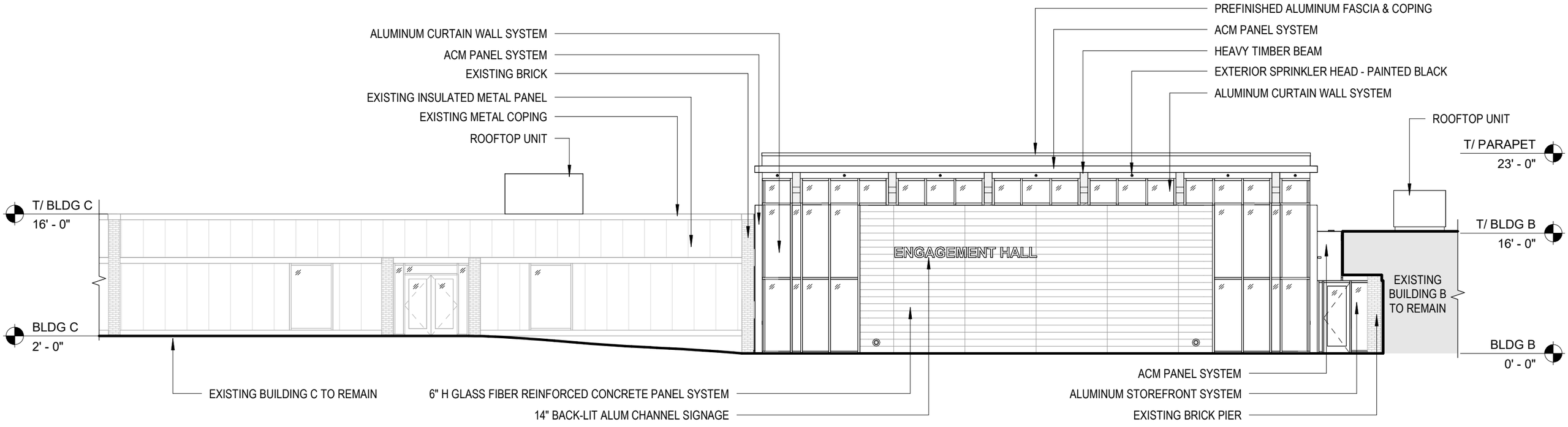
3/32" = 1'-0"

Engagement Hall

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PREFINISHED ALUMINUM FASCIA & COPING
HEAVY TIMBER WOOD BEAM (REFER TO STRUCT.)
ACM PANEL SYSTEM
T/ PARAPET
23' - 0"
EXISTING METAL COPING
EXISTING BRICK
T/ BLDG C
16' - 0"
EXISTING BUILDING B TO REMAIN
BLDG B
0' - 0"
ACM PANEL SYSTEM
ALUMINUM CURTAIN WALL SYSTEM
6" H GLASS FIBER REINFORCED CONCRETE PANEL SYSTEM
EXISTING BUILDING C TO REMAIN
HSS STEEL COLUMN, TYP.


EXISTING BUILDING B TO REMAIN
EXISTING BUILDING C TO REMAIN





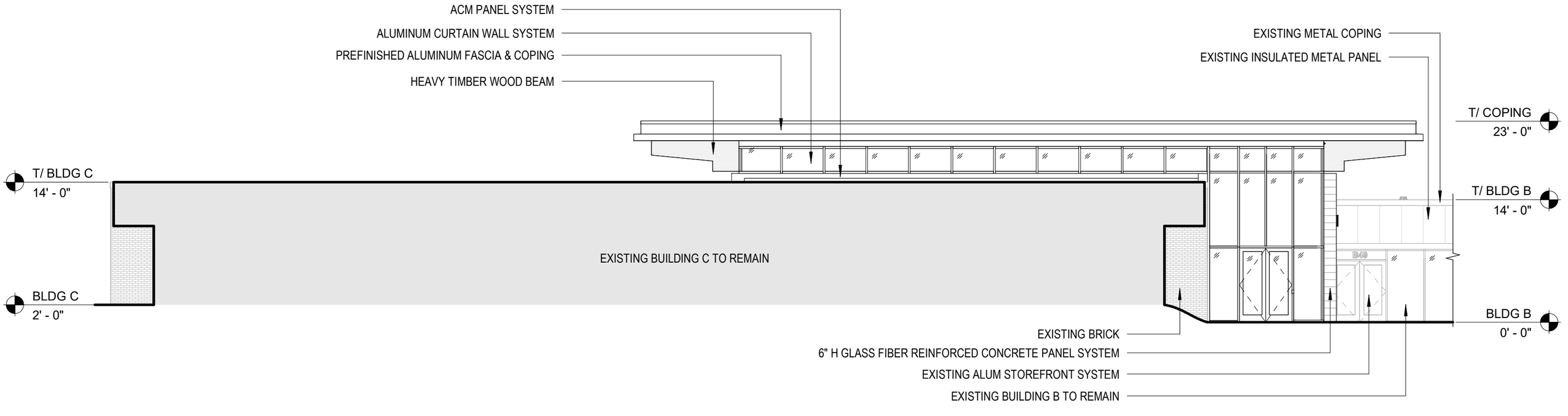
DEMONICA KEMPER ARCHITECTS

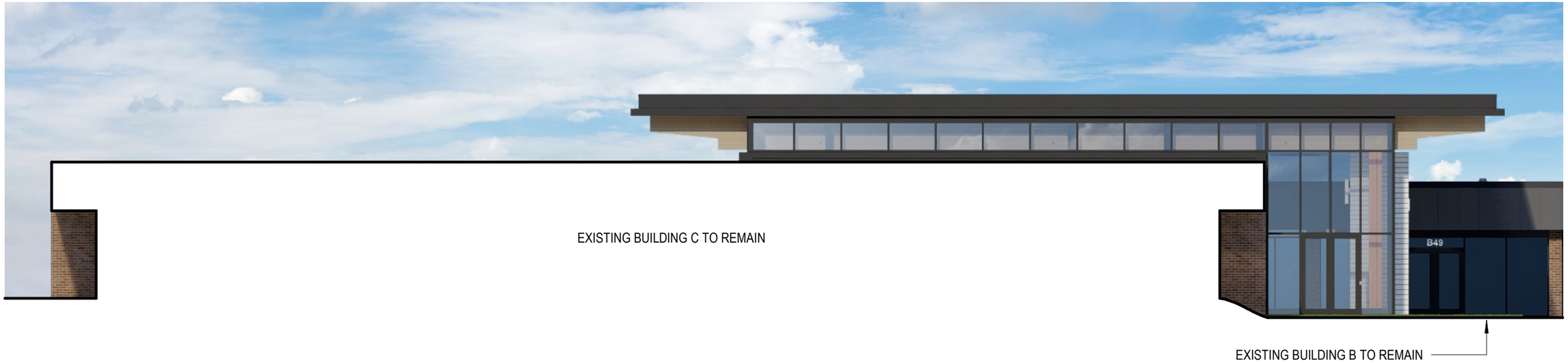
Exterior Elevation - North

3/32" = 1'-0"

Engagement Hall

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DEMONICA KEMPER ARCHITECTS

Exterior Elevation - East

3/32" = 1'-0"

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