CITY OF WEST DES MOINES
STAFF REPORT COMMUNICATION

Meeting Date: January 2, 2024

ITEM: Microsoft DSM 42, 11100 Booneville Road – Approve Major Modification to Site Plan to allow construction of a data center building – Microsoft Corporation – MaM-006237-2023

Resolution: Approval of Major Modification to Site Plan

Background: Ryan Hardisty with Civil Design Advantage, on behalf of the applicant and property owner, Microsoft Corporation, requests approval of the Major Modification to Site Plan for the approximately 153-acre property located at 11100 Booneville Road. The applicant proposes to construct an approximately 245,000 square foot data center building with associated parking lot.

Staff Review & Comment:

- *Financial Impact:* As a part of a development agreement approved by City Council on April 19, 2021, for this site. The City will undertake the following proposed public use improvements:
  - Reconstruction of Booneville Road from S. 100th Street to S. 115th Street; and
  - Construction of S. Grand Prairie Parkway from Mills Civic Parkway to Raccoon River Drive; and
  - Extension of Grand Avenue from S. 88th Street to S. 115th; and
  - Extension of approximately one mile of Grand Avenue Trail from S. Grand Prairie Pkwy to the west boundary of the Urban Renewal Area.

  The proposed street improvements will include the installation of the associated utilities, streetlights and sidewalks.

- *Key Development Aspects:*
  1. *Parking Lot Landscaping*: The applicant is proposing to only plant shrubs within the landscape islands in the parking lot instead of the required trees and reduce the number of landscape islands due to security concerns. Also, the applicant is proposing to install gravel in areas around the parking lot and buildings where access to utility structures for maintenance purposes is necessary instead of planting grass. Grass will be planted between the main north/south access road and the parking lot. This was discussed with the Development & Planning Subcommittee as part of the requested approval of DSM 41 and was a compromise between the operational concerns and the code required landscaping (see Development & Planning Subcommittee bullet below). The City Council supported this approach as part of the site plan approval of DSM 41, which is the building directly north of this proposed data center building. The applicant has placed the required parking lot trees in the buffer areas surrounding the site. The areas of gravel in lieu of vegetation around the building's utility structures are screened from public view by the landscape buffer around the site. Staff believes these changes proposed to the landscaping on the site plan meet the intent of the code and are a reasonable accommodation for the specific operational requirements of this project. Recommended conditions of approval that these alternative methods be approved by the City Council have been added.

- *Traffic Impact Study Findings:* No traffic study was required of this Major Modification to Site Plan since a traffic study was already completed for this entire site, including the proposed building. Any modifications to surrounding streets required of the traffic study have been completed.

- *Development & Planning Subcommittee:* On December 19, 2022, the Development & Planning City Council Subcommittee discussed the use of gravel in and around the proposed parking lot and the omission of trees within the landscape islands in the parking lot for this site. The Subcommittee members were supportive of allowing shrubs to replace trees in the parking area in light of security concerns as presented by Microsoft's representative, waiving required landscape islands in the parking areas, and allowing partial use of gravel or paving near utilities for maintenance purposes while requiring the incorporation of vegetation to comply with code for the bulk of the landscaped areas adjacent to parking lots and any area visible from the perimeter of the site.

- *Vesting of Entitlement:* Per City Code, entitlement (approval to construct or implement) shall remain in effect so long as substantial site work has progressed beyond grading and completion of structural foundations and twenty-five percent (25%) of the total building area has occurred above grade within twenty-four (24) months of the effective date of the approval, unless a greater time period is authorized at time of the original entitlement, or by approval of an extension of the original entitlement. It is the responsibility of the developer to be aware of this deadline and request an extension of the approval prior to the expiration date.

Outstanding Issues: There are no outstanding issues.

Planning and Zoning Commission Action:

Date:	December 27, 2023
Vote:	6-0 for approval, with Commissioner Conlin absent
Recommendation:	Approval of Major Modification to Site Plan

Recommendation: Approve the Major Modification to Site Plan request, subject to the applicant meeting all City Code requirements, and the following conditions of approval:

1. The City Council agreeing to not require landscape islands in the parking lot as required by City Code due to security concerns with trees in the parking lot. Required parking lot trees shall be added to the buffer plantings.

2. The City Council allowing shrubs in lieu of trees to be planted within parking lot islands due to security concerns with trees in the parking lot. Required parking lot trees shall be added to the buffer plantings.

3. The City Council allowing gravel to be implemented around industrial buildings on the site to allow access to utility structures for maintenance purposes.

Lead Staff Member: Brian Portz

Approval Meeting Dates:

Planning and Zoning Commission	December 27, 2023
City Council	January 2, 2024

Staff Report Reviews:

Planning & Zoning Commission	☒ Development Coordinator (or) ☒ Director	☒ Legal Department
City Council	☒ Director ☐ Appropriations/Finance	☐ Legal Department ☒ Agenda Acceptance

Publications (if applicable)

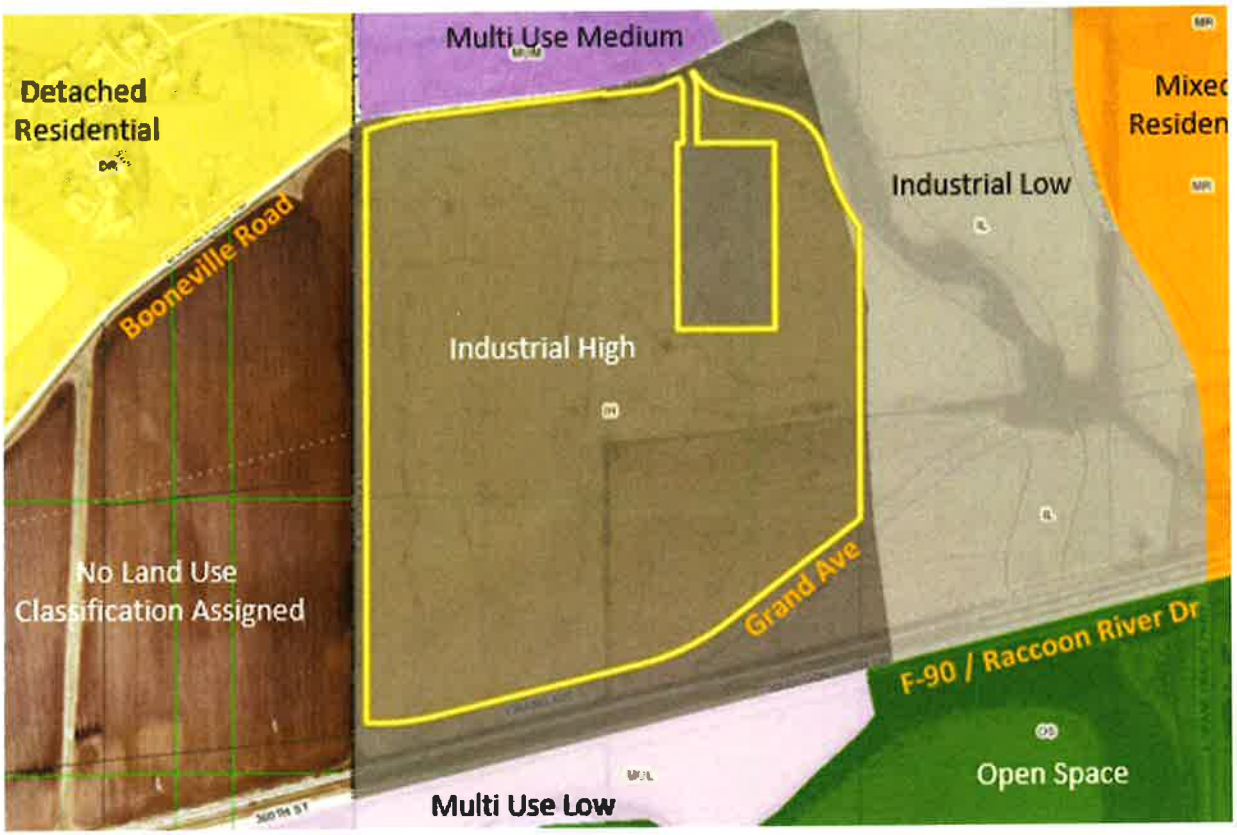
Published In:	Des Moines Register Community Section
Date(s) Published	n/a
Date(s) of Mailed Notices	n/a

Council Subcommittee Review (if applicable)

Subcommittee	Development & Planning
Date Reviewed	December 19, 2022 & November 20, 2023
Recommendation	☒ Yes ☐ No ☐ Split

Location Map

Vicinity Map – Land Uses



A RESOLUTION OF THE PLANNING AND ZONING COMMISSION

NO. PZC-23-065

WHEREAS, pursuant to the provisions of Title 9, Zoning of the West Des Moines Municipal Code, the applicant and property owner, Microsoft Corporation, request approval of the Major Modification to Site Plan for the approximately 153-acre property located at 11100 Booneville Road as depicted on the location map included in the staff report. The applicant requests approval to construct a 245,000 square foot data center building, and associated site improvements; and

WHEREAS, the Major Modification to Site Plan request complies with the findings stated in the applicable provisions of Title 9, the Comprehensive Plan and City Code.

NOW THEREFORE, the Planning and Zoning Commission of the City of West Des Moines recommends the City Council approve the Microsoft DSM 42 Major Modification to Site Plan (MaM-006237-2023), subject to compliance with all the conditions of approval as stated in the staff report, including conditions added at the meeting, and attached hereto as Exhibit "A", if applicable.

PASSED AND ADOPTED on December 27, 2023.

Tina Shaw, Vice Chair
Planning and Zoning Commission

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Planning and Zoning Commission of the City of West Des Moines, Iowa, at a regular meeting on December 27, 2023, by the following vote:

AYES: Costa, Crowley, Davis, Hatfield, McCoy, Shaw

NAYS:

ABSTENTIONS:

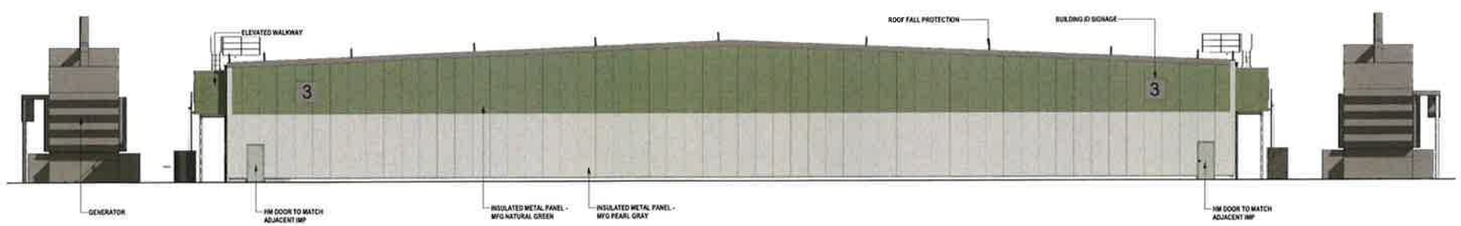
ABSENT: Conlin

ATTEST:

Recording Secretary

PLANS INCLUDED ARE FOR ILLUSTRATIVE PURPOSES ONLY – APPROVED PLANS ON FILE WITH THE CITY

1 **ARCHITECTURAL EXTERIOR ELEVATION - EAST**
1" = 10'-0"



2 **ARCHITECTURAL EXTERIOR ELEVATION - WEST**
1" = 10'-0"

9400 Ward Parkway
Kansas City, MO 64114
www.burtsmcd.com

Microsoft

DSM42
DATA CENTER

11100 BOONEVILLE ROAD
WEST DES MOINES, IA

Design: BK
Drawn: SP SHE
Checked: Checker
Date:
BMcD Project No: 10 500
MS Project No: 20000

MICROSOFT

Design Manager: JON AYONE
Lead Manager:
Civil, Site Survey, Landscaping Technical Lead: SCHENKHAP DAMIR
Architectural & Structural Technical Lead: LISA GALLANT / DAVID SVANSON
Mech, Plumbing & Fire Protection Technical Lead: STEVE TOUPIN
Building Automation Systems (BAS) Technical Lead: BILL GEMBICKI
Electrical Technical Lead: ANANDA KRISHNAN
Electrical Power Management Systems (EPMS) Technical Lead: SERGIO FRANCO
Telecommunications / Network Technical Lead: MATT BENSON
Security, Design Manager: DANIEL PUTMAN

DESIGN TEAM

Civil Engineering Lead: RYAN HARDISTY / CIVIL DESIGN ADVANTAGE
Structural Engineering Lead: BINYAM JEMAL / BMcD
Architectural Lead: NEAL CLEMENTS / BMcD
Mechanical Engineering Lead: JEFFREY WILSON / BMcD
Plumbing Engineering Lead: DANIEL GARCIA / BMcD
Fire Protection Engineering Lead: WILL CLAY / BMcD
BAS Engineering Lead: JEFFREY WILSON / BMcD
Electrical Engineering Lead: BODIN MITCHELL / BMcD
Telecommunications / Network Engineering Lead: MARK ANDERSON / BMcD
Security Systems Engineering Lead: ANDREA BARSAT / INTROBA

Revisions

No.	Date	Description

Registration

LICENSED PROFESSIONAL ARCHITECT
NEAL A. CLEMENTS
6761
IOWA

11-10-2023

Sector Key Plan

Bar Code

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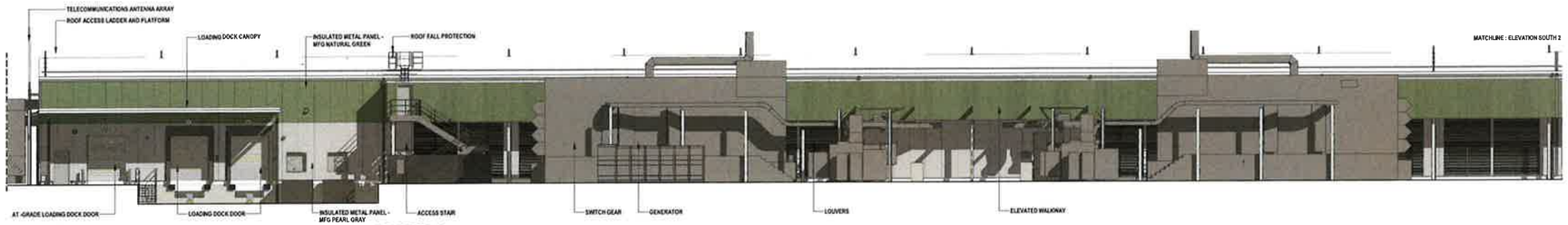
Package
FULL BUILDOUT

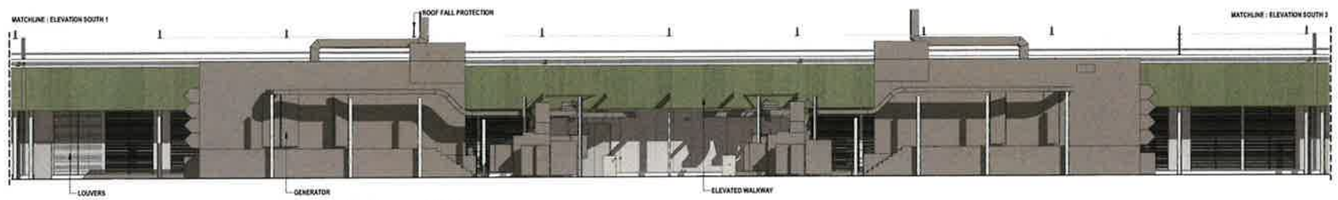
Sheet Title/Number
ARCHITECTURAL RENDERED EXTERIOR ELEVATIONS

DSM42-1

[PROPRIETARY AND CONFIDENTIAL – TRADES SECRET AND COMMERCIAL INFORMATION – EXEMPT FROM RELEASE UNDER FOIA (5 U.S.C. § 552 (b)(4)) AND STATE PUBLIC DISCLOSURE LAW]



1 ARCHITECTURAL EXTERIOR ELEVATIONS - SOUTH 1
1" = 10'-0"



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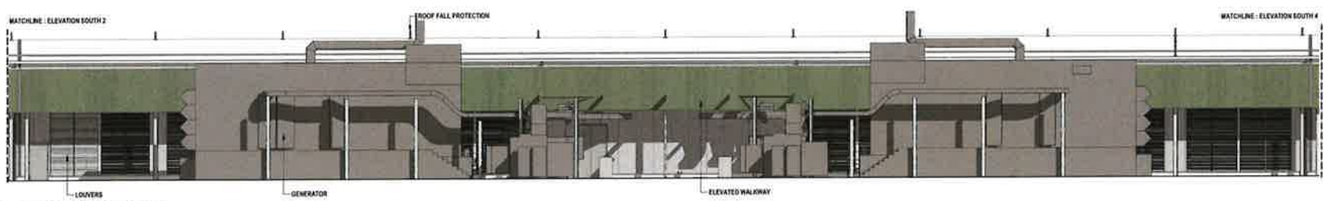

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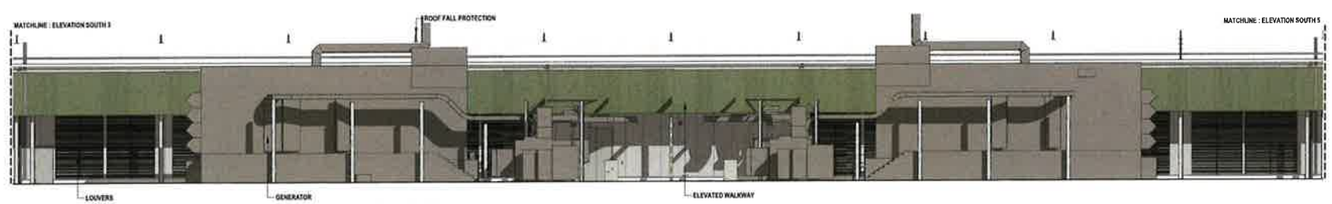

4 ARCHITECTURAL EXTERIOR ELEVATION - SOUTH 4
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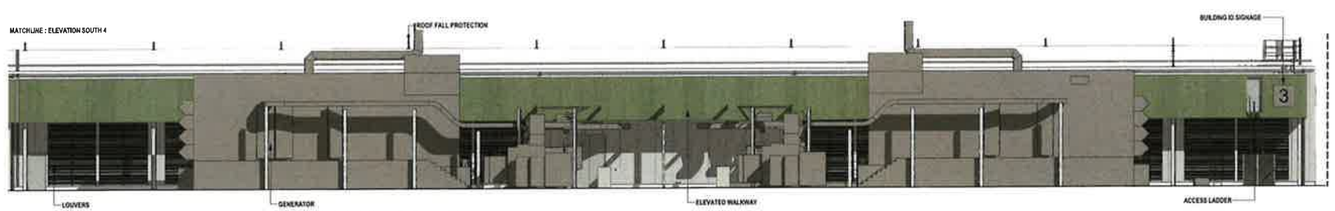

5 ARCHITECTURAL EXTERIOR ELEVATION - SOUTH 5
1" = 10'-0"

BURNS McDONNELL
9400 Ward Parkway
Kansas City, MO 64114
www.burnsmcd.com

Microsoft

DSM42
DATA CENTER
11100 BOONEVILLE ROAD
WEST DES MOINES, IA

Design: SH
Drawn: SP/SHE
Checked: Checker
Date:
BMcD Project No. 15 1003
MS Project No. P 26540

MICROSOFT
Design Manager: JON RYCHE
Layout Manager:
Civil Site Survey Landscaping Technical Lead: SOMEWHIP DHAR
Architectural & Structural Technical Lead: LISA GALLANT / DAVID SWANSON
Mech. Plumbing & Fire Protection Technical Lead: STEVE TOUPIN
Building Automation Systems (BAS) Technical Lead: BILL GEMBENER
Electrical Technical Lead: ANAGA KRISHNAN
Electrical Power Management Systems (EPMS) Technical Lead: (EPMS) FINANCE
Telecommunications / Network Technical Lead: MATT BENSON
Security Design Manager: DANIEL PUTMAN

DESIGN TEAM
Civil Engineering Lead: RYAN HARGRIS PE / CIVIL DESIGN ADVANTAGE
Structural Engineering Lead: BINYAM JEMAL / BMcD
Architecture Lead: NEAL CLEMENTS / BMcD
Mechanical Engineering Lead: JEFFREY WILSON / BMcD
Plumbing Engineering Lead: DANIEL GARCIA / BMcD
Fire Protection Engineering Lead: NEAL CLAY / BMcD
BAS Engineering Lead: JEFFREY WILSON / BMcD
Electrical Engineering Lead: JASON MITCHELL / BMcD
Telecommunications / Network Engineering Lead: MARK ANDERSON / BMcD
Security Systems Engineering Lead: MIRCEA BARBAT / INTIMIDA

Revisions

No.	Date	Description

Registration

11-10-2023

Sector Key Plan

Bar Code

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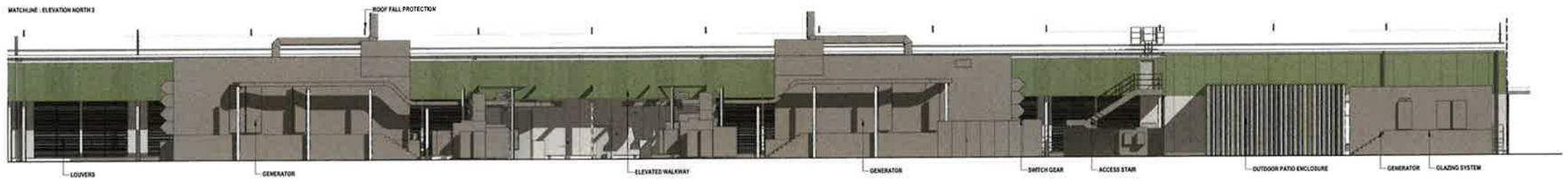
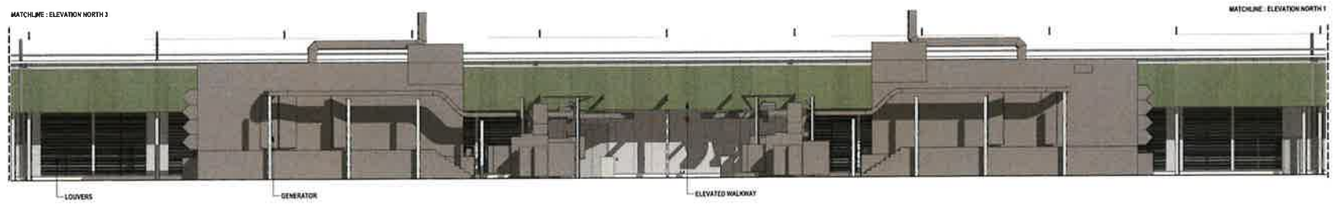


1 ARCHITECTURAL EXTERIOR ELEVATIONS - NORTH 1

1" = 10'-0"



2 ARCHITECTURAL EXTERIOR ELEVATIONS - NORTH 2

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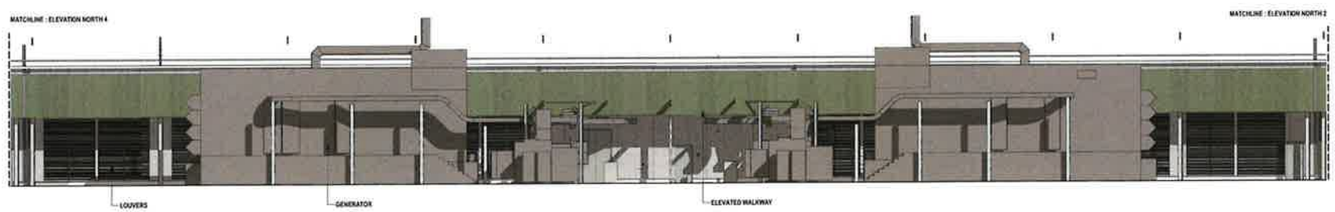

3 ARCHITECTURAL EXTERIOR ELEVATIONS - NORTH 3

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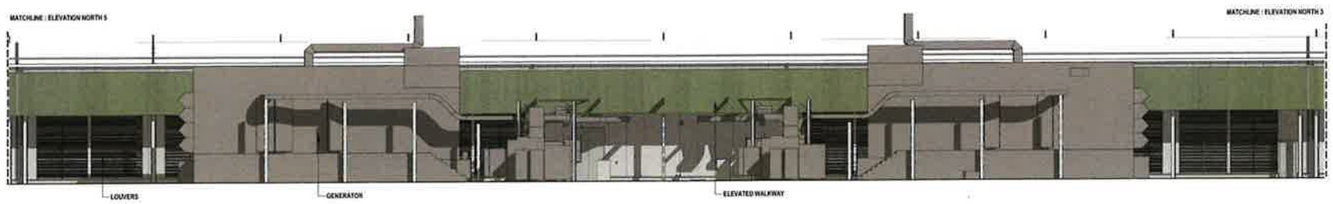

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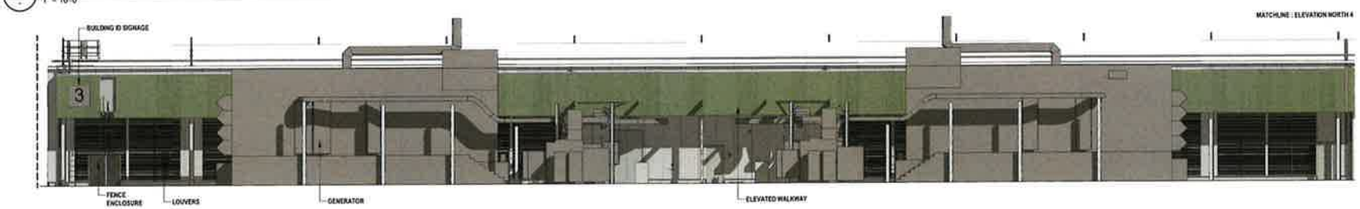

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Microsoft

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DATA CENTER

11100 BOONEVILLE ROAD
WEST DES MOINES, IA

Design: BA
Draft: BF/BS
Checked: Checker
Date:
BMcD Project No: P-16163
M S Project No: P-20630

MICROSOFT

Design Manager: JON NYONE
Layout Manager:
Civil, Site Survey, Landscaping Technical Lead: SOHEWHIP DHAR
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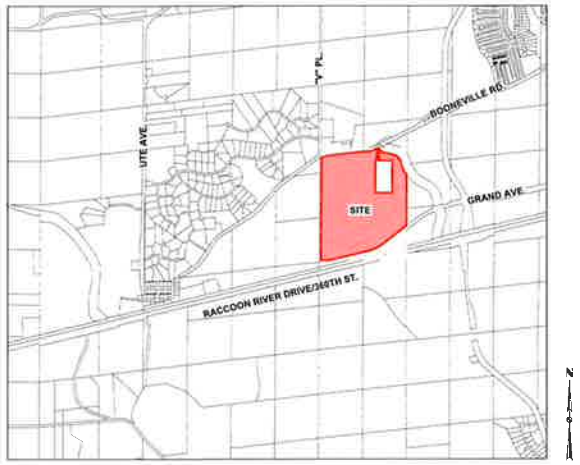
VICINITY MAP
NOT TO SCALE



Microsoft

DSM42 DATA CENTER SITE PLAN

OWNER/APPLICANT
MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052

CONSULTANTS
CIVIL:

CIVIL DESIGN ADVANTAGE, LLC
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PH: (515) 369-4400
CONTACT: RYAN HARDISTY

NAVIX ENGINEERING, INC.
11234 SE 6TH STREET, SUITE 150
BELLEVUE, WA 98004
PH: (425) 458-7900
CONTACT: PAUL MANZER

GEOTECHNICAL:

TERRACON CONSULTANTS INC.
1523 S. BELL AVENUE, SUITE 104
AMES, IOWA 50010
PH: (515) 232-0950
CONTACT: CASH STURGEON

GOVERNING AGENCIES
REVIEW AGENCY:

CITY OF WEST DES MOINES (WDM)
4200 MILLS CIVIC PARKWAY, SUITE 2D
WEST DES MOINES, IA 50265
PH: (515) 222-3620
CONTACT: LYNNE TWEDT

FIRE DISTRICT:

CITY OF WEST DES MOINES (WDM)
3421 ASHWORTH ROAD
WEST DES MOINES, IA 50265
PH: (515) 222-3420
CONTACT: MIKE WHITSELL

UTILITIES
WATER:

WEST DES MOINES WATER WORKS (WDMWW)
1505 RAILROAD AVENUE
WEST DES MOINES, IA 50265
PH: (515) 222-3510
CONTACT: WILLIAM MABUCE, P.E.

SANITARY SEWER:

CITY OF WEST DES MOINES (WDM)
560 SOUTH 16TH STREET
WEST DES MOINES, IA 50265
PH: (515) 222-3480
CONTACT: CLINT CARPENTER

BENCHMARKS
WDM BM 084
CITY OF WDM STANDARD BENCHMARK LOCATED ALONG 9100 BLOCK OF RACCOON RIVER DRIVE, INTERSECTION OF RACCOON RIVER DRIVE AND WINDSOR COURT, 3 FEET NORTH OF SOUTH FENCE, 25 FEET WEST OF FENCE CORNER, STA 1124 ± STAMPED IN PCC PAVEMENT ON THE SOUTH SIDE.
ELEVATION = 841.07 (DATUM: NAVD 88, FEET)

WDM BM 130
CITY OF WDM STANDARD BENCHMARK LOCATED AT SOUTHWEST CORNER OF BOONEVILLE ROAD AND "V" PLACE. 3 FEET NORTH OF SOUTH RIGHT OF WAY FENCE ON BOONEVILLE ROAD AND IN LINE WITH EAST EDGE OF "V" PLACE. WEST SIDE OF FIELD ENTRANCE.
ELEVATION = 873.86 (DATUM: NAVD 88, FEET)

LEGAL DESCRIPTION
LOT 1, GINGER WEST PLAT 1, AN OFFICIAL PLAT IN THE CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA, AND CONTAINING 153.06 ACRES (6,667,355 S.F.)

NOTES
1. SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE PROJECT SPECIFICATIONS AND THE CURRENT CITY OF WEST DES MOINES STANDARD SPECIFICATIONS FOR SUBDIVISIONS AND ADDENDUMS.
2. THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THIS PLAN DOES NOT REPRESENT A DETAILED FIELD SURVEY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO BIDDING THE PROPOSED SITEWORK IMPROVEMENTS. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITEWORK WHICH WOULD BE AFFECTED. IF CONTRACTOR DOES NOT ACCEPT EXISTING SURVEY, INCLUDING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS/HER OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
3. CAUTION – NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
4. ALL CONSTRUCTION WITHIN PUBLIC ROW/EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS SHALL COMPLY WITH THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS, DSM METRO DESIGN STANDARDS, AND WDM ADDENDUMS.
5. AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC ROW/EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE WDM ENGINEERING SERVICES 515-222-3475 TO SCHEDULE ANY REQUIRED INSPECTIONS. IT IS IMPORTANT TO NOTE CITY APPROVAL OF THIS PLAN IS SUBJECT TO THE APPLICANT OBTAINING ALL NECESSARY EASEMENTS/AGREEMENTS AND APPLICABLE PERMITS.
6. ALL SECURITY GATES SHALL HAVE THEIR LOCKS AND SEQUENCE OF EVENTS TO OPEN THEM APPROVED BY THE FIRE MARSHAL PRIOR TO INSTALLATION.

CITY OF WEST DES MOINES DATUM CONVERSION
PLAN DATUM CONVERSION FROM THE CITY OF WEST DES MOINES DATUM TO NAVD88= PLAN ELEVATION + 774.01 FEET

SITE DATA
COMPREHENSIVE PLAN		LIGHT INDUSTRIAL
ZONING		LIGHT INDUSTRIAL
SURROUNDING LAND USES:		
NORTH:	EXISTING LAND USE	RESIDENTIAL AND AGRICULTURE
	EXISTING ZONING	UNZONED
	COMPREHENSIVE PLAN DESIGNATION	OFFICE/BUSINESS PARK
EAST:	EXISTING LAND USE	AGRICULTURE
	EXISTING ZONING	UNZONED
	COMPREHENSIVE PLAN DESIGNATION	BUSINESS PARK
SOUTH:	EXISTING LAND USE	AGRICULTURE
	EXISTING ZONING	UNZONED
	COMPREHENSIVE PLAN DESIGNATION	MED. DENSITY RESIDENTIAL/OPEN SPACE
WEST:	EXISTING LAND USE	AGRICULTURE
	EXISTING ZONING	UNZONED
	COMPREHENSIVE PLAN DESIGNATION	SINGLE FAMILY RESIDENTIAL

PARKING SUMMARY
MICROSOFT REQUIRED PARKING = 1.2 STALLS PER MW PLUS 1 SECURITY VEHICLE STALL
48 MW BUILDING X 1.2 STALL/MW + 1 SECURITY STALL = 59 STALLS

DSM42:
TOTAL REQUIRED = 59 SPACES
TOTAL PROVIDED = 59 SPACES

LEED CREDIT REDUCED PARKING FOOTPRINT:

ITE TRIP GENERATION MANUAL DATA CENTER REQUIRED PARKING = 0.99 STALLS PER 1000 SF
245,000 SF BUILDING X 0.99 STALLS/1000 SF = 243 STALLS REQUIRED

PARKING REDUCTION = 75.7%

SITE AREA DATA
LOT 1:

EXISTING:	IMPERVIOUS	50.15 ACRES (2,184,534 SF) (32.76%)
	PERVIOUS	102.91 ACRES (4,482,821 SF) (67.24%)
PROPOSED	IMPERVIOUS	63.22 ACRES (2,753,837 SF) (41.30%)
	PERVIOUS	89.84 ACRES (3,913,518 SF) (58.70%)
TOTAL LAND AREA		153.06 ACRES (6,667,355 SF)
OPEN SPACE AREA:	REQUIRED	30.61 ACRES (1,333,459 SF) (20.00%)
	PROVIDED	89.84 ACRES (3,913,518 SF) (58.70%)

UTILITY WARNING
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

SHEET INDEX
SHEET NUMBER	SHEET TITLE
DSM42-C-A-01	CIVIL COVER SHEET
DSM42-C-B-01	CIVIL BASE CONDITIONS MAP
DSM42-C-B-D01	CIVIL DEMOLITION PLAN
DSM42-C-B-D02	CIVIL DEMOLITION PLAN
DSM42-C-B-D03	CIVIL DEMOLITION PLAN
DSM42-C-B1-01	CIVIL EROSION & SEDIMENT CONTROL PLAN OVERALL
DSM42-C-B1-C01	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-C03	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-D01	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-D02	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-D03	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-D04	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-E03	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-E04	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-F01	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-F02	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-F03	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-F04	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-B1-G03	CIVIL EROSION & SEDIMENT CONTROL PLAN
DSM42-C-C1-01	CIVIL SITE IMPROVEMENTS PLAN OVERALL
DSM42-C-C1-D01	CIVIL SITE IMPROVEMENTS PLAN
DSM42-C-C1-D02	CIVIL SITE IMPROVEMENTS PLAN
DSM42-C-C1-D03	CIVIL SITE IMPROVEMENTS PLAN
DSM42-C-C1-05	CIVIL SITE DIRECTIONAL SIGNAGE PLAN & DETAILS
DSM42-C-C2-01	CIVIL HORIZONTAL CONTROL PLAN OVERALL
DSM42-C-C2-D01	CIVIL HORIZONTAL CONTROL PLAN
DSM42-C-C2-D02	CIVIL HORIZONTAL CONTROL PLAN
DSM42-C-C2-D03	CIVIL HORIZONTAL CONTROL PLAN
DSM42-C-D1-01	CIVIL UTILITY PLAN OVERALL
DSM42-C-D2-01	CIVIL SITE GRADING & DRAINAGE PLAN OVERALL
DSM42-C-D2-D01	CIVIL SITE GRADING & DRAINAGE PLAN
DSM42-C-D2-D02	CIVIL SITE GRADING & DRAINAGE PLAN
DSM42-C-D2-D03	CIVIL SITE GRADING & DRAINAGE PLAN
DSM42-C-D3-01	CIVIL SITE FINISHED GRADING PLAN OVERALL
DSM42-C-D3-D01	CIVIL SITE FINISHED GRADING PLAN
DSM42-C-D3-D02	CIVIL SITE FINISHED GRADING PLAN
DSM42-C-D3-D03	CIVIL SITE FINISHED GRADING PLAN
DSM42-C-E1-01	CIVIL WATER PLAN OVERALL
DSM42-C-E1-D01	CIVIL WATER PLAN
DSM42-C-E1-D02	CIVIL WATER PLAN
DSM42-C-E1-D03	CIVIL WATER PLAN
DSM42-C-E2-01	CIVIL WATER PLAN & PROFILE
DSM42-C-E2-02	CIVIL WATER PLAN & PROFILE
DSM42-C-E2-03	CIVIL WATER PLAN & PROFILE
DSM42-C-E2-04	CIVIL WATER PLAN & PROFILE
DSM42-C-E2-05	CIVIL WATER PLAN & PROFILE
DSM42-C-E2-06	CIVIL WATER PLAN & PROFILE
DSM42-C-E2-07	CIVIL WATER PLAN & PROFILE
DSM42-C-E3-01	CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN OVERALL
DSM42-C-E3-D01	CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN
DSM42-C-E3-D02	CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN
DSM42-C-E3-D03	CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN
DSM42-C-E3-E03	CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN
DSM42-C-E3-F03	CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN
DSM42-C-E3-G03	CIVIL CLEAR WATER DISCHARGE & SANITARY SEWER PLAN
DSM42-C-F-01	CIVIL SITE DETAILS
DSM42-C-F-02	CIVIL SITE DETAILS
DSM42-C-F-03	CIVIL SITE DETAILS
DSM42-C-F-04	CIVIL SEWER DETAILS
DSM42-C-F-05	CIVIL SEWER DETAILS
DSM42-C-F-06	CIVIL SEWER DETAILS
DSM42-C-F-07	CIVIL WATER DETAILS
DSM42-C-F-08	CIVIL WATER DETAILS
DSM42-L-A1-01	LANDSCAPE PLAN OVERALL
DSM42-L-A1-D01	LANDSCAPE PLAN
DSM42-L-A1-D05	LANDSCAPE PLAN

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com

RYAN A. HARDISTY
20811
IOWA

PRELIMINARY

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

RYAN A. HARDISTY, P.E. DATE
LICENSE NUMBER 20811
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023
PAGES OR SHEETS COVERED BY THIS SEAL:
ALL C & L SERIES SHEETS

Civil Design Advantage
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www.burnsmcd.com

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MICROSOFT
Design Manager: JON NYONE
Layout Manager:
Civil Site Survey Landscaping Technical Lead: SONDWIP DHAR
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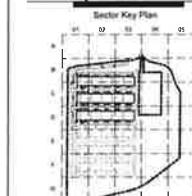
Revisions

No.	Date	Description
0	21 SEP 2023	50% IFR PACKAGE
1	20 OCT 2023	100% IFR PACKAGE
2	10 NOV 2023	IFP PACKAGE

Registration

PRELIMINARY

Sector Key Plan



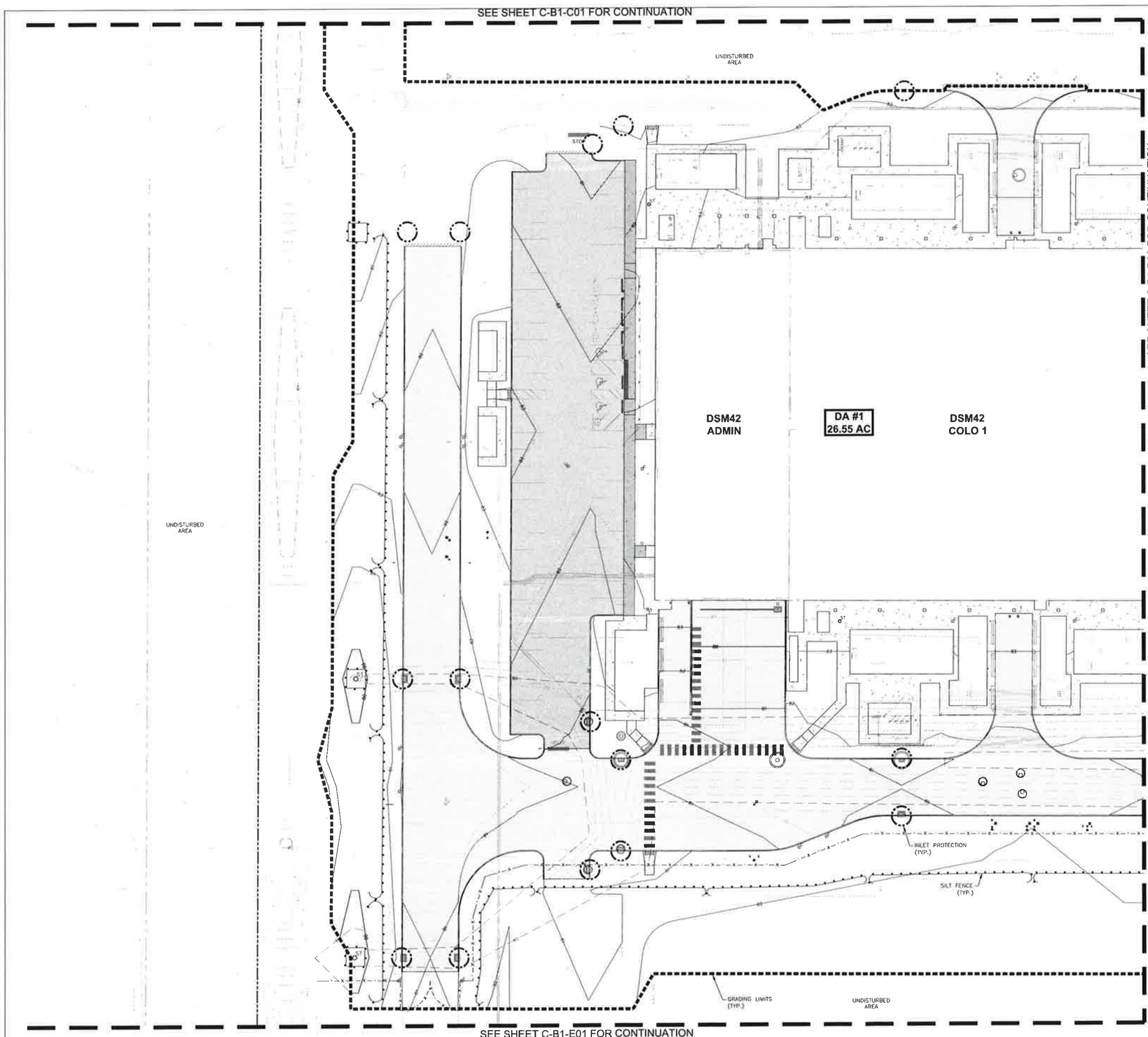
Bar Code

Package
FULL BUILDOUT

Sheet Title/Number
CIVIL COVER SHEET

DSM42-C-A-01

[PROPRIETARY AND CONFIDENTIAL – TRADES SECRET AND COMMERCIAL INFORMATION – EXEMPT FROM RELEASE UNDER FOIA (5 U.S.C. § 552 (b)(4)) AND STATE PUBLIC DISCLOSURE LAW]



LEGEND

- DRAINAGE ARROW
- GRADING LIMITS
- FILTER SOCK (8 C-F-02)
- SILT FENCE (6 C-F-02)
- INLET PROTECTION
- PORTABLE RESTROOM
- TEMPORARY STANDPIPE
- CONCRETE WASHOUT PIT
- PERMANENT SEEDING
- TEMPORARY SEEDING
- UNDISTURBED AREA
- RIP-RAP
- POTENTIAL TOPSOIL STOCKPILE LOCATION
- CRUSHED STONE SURFACING (5 C-F-01)
- STAGING AREA
- P.C.C. PAVEMENT, 8", HEAVY DUTY
- P.C.C. PAVEMENT, 6", MEDIUM DUTY
- P.C.C. SIDEWALK, 4"
- P.C.C. SIDEWALK, 6"
- TSB # — TEMPORARY SEDIMENT BASIN

STABILIZATION QUANTITIES

ITEM NO	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	7,970
2	SEEDING, FERTILIZING, AND MULCHING	AC	30.5
3	INLET PROTECTION DEVICES	EA	36
4	CONCRETE WASHOUT PIT	LS	1

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO LITTLE CROW CREEK 4870 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	26.55 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	95,580 CU FT
VOLUME IN SILT FENCE (7,970 LF @ 4.5 CU FT/LF OF FENCE)	35,865 CU FT
VOLUME IN EXISTING TSB #1	1,205,723 CU FT
TOTAL VOLUME PROVIDED	1,241,588 CU FT

NOTES:

1. CONTRACTOR SHALL ENSURE STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE IOWA DEPARTMENT OF NATURAL RESOURCES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT NO. 2.
2. WATER TAKEN FROM ANY DEWATERING ACTIVITIES SHALL BE DISCHARGED INTO A TEMPORARY SEDIMENT BASIN OR SHALL RUN THROUGH A DEWATERING SILT SACK PRIOR TO LEAVING THE SITE. MEASURES ARE ALSO TO BE TAKEN TO PREVENT SCOUR EROSION AT DEWATERING DISCHARGE POINT.
3. DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED PRIOR TO THE SITE SHUTTING DOWN FOR WINTER CONDITIONS.
4. STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
5. STABILIZATION QUANTITIES ARE FOR REFERENCE ONLY AND ARE NOT FOR CONSTRUCTION TAKE-OFF.
6. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN SERVE AS THE INTENDED BASIS FOR STORMWATER POLLUTION PREVENTION PLANNING. AS GRADING AND SITE WORK PROGRESS IS MADE AND WEATHER CONDITIONS CHANGE, THE CONTRACTOR IS EXPECTED TO MODIFY THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP). MATERIAL QUANTITIES TO ADDRESS CHANGES IN THE EROSION AND SEDIMENT CONTROL PLAN NEEDS SHALL BE CONSIDERED IN THE CONTRACTOR BID.

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NAVIX

Microsoft

DSM 42
DATA CENTER
11100 Booneville Road
West Des Moines, Iowa

Design: MEM - ZE
Drawn: MEM / ZE
Checked: Exec
Date: 11/13/2023
BMcD Project No: P 141603
MS Project No: P 75649

MICROSOFT
Design Manager: JON KYONE
Layout Manager:
Civil Site Survey, Landscaping Technical Lead: SONDMAP DMR
Architectural & Structural Technical Lead: LISA GALLANT / DAVID SWANSON
Mech, Plumbing & Fire Protection Technical Lead: STEVE TOUPIN
Building Automation Systems (BAS) Technical Lead: BILL GENSBURG
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Revisions

No	Date	Description
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Registration

PRELIMINARY

Sector Key Plan

Bar Code

Package
FULL BUILDOUT

Sheet Title/Number
CIVIL
EROSION AND
SEDIMENT
CONTROL PLAN
DSM42-C-B1-D01

DSM42-C-B1-D01

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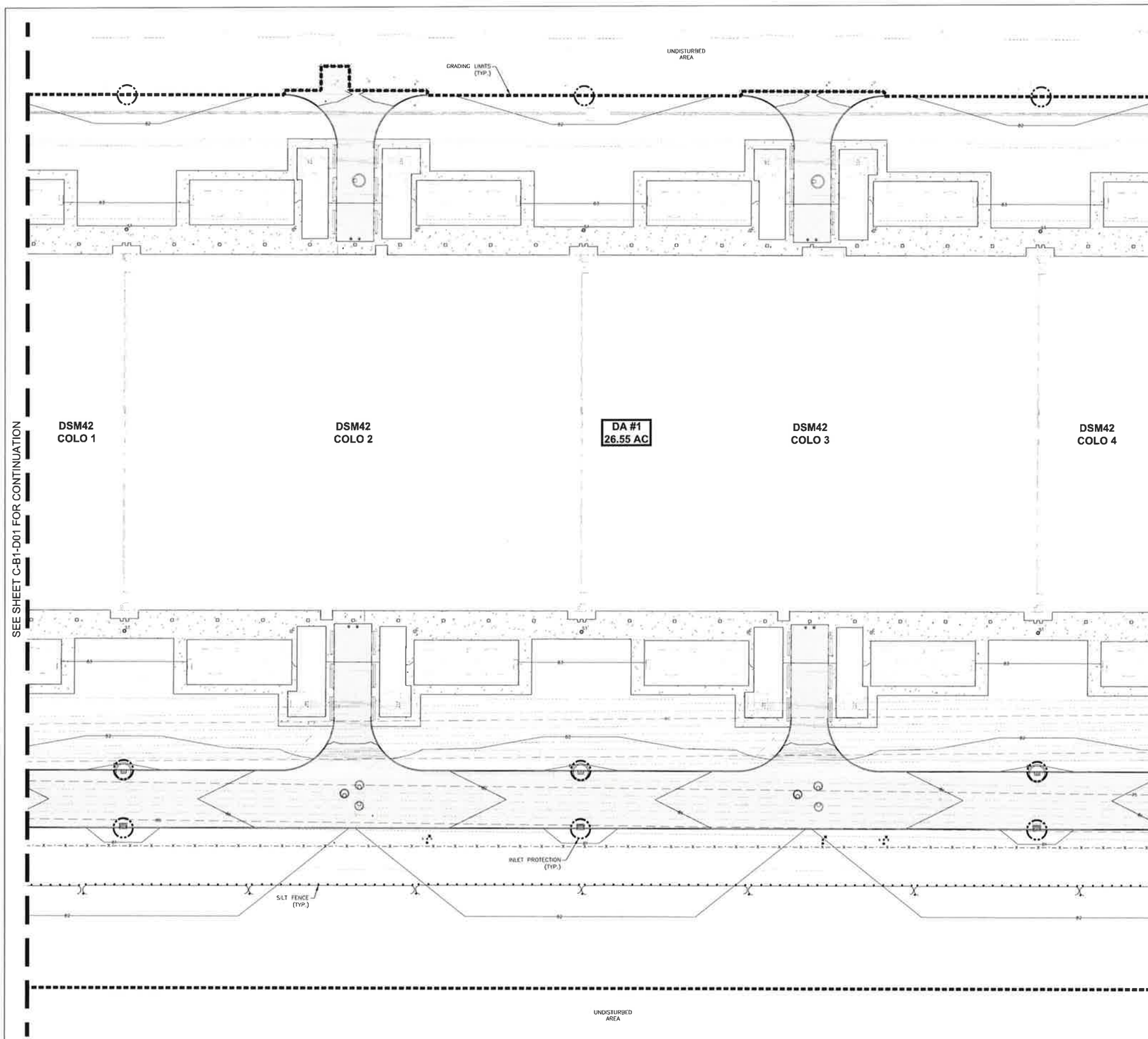

LEGEND

- DRAINAGE ARROW
- GRADING LIMITS
- FILTER SOCK (8 C-F-02)
- SILT FENCE (6 C-F-02)
- INLET PROTECTION
- PORTABLE RESTROOM
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- CONCRETE WASHOUT PIT
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STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	7,970
2	SEEDING, FERTILIZING, AND MULCHING	AC	30.5
3	INLET PROTECTION DEVICES	EA	36
4	CONCRETE WASHOUT PIT	LS	1

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO LITTLE CROW CREEK ±870 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	26.55 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	95,580 CU FT
VOLUME IN SILT FENCE (7,970 LF @ 4.5 CU FT/LF OF FENCE)	35,865 CU FT
VOLUME IN EXISTING TSB #1	1,205,723 CU FT
TOTAL VOLUME PROVIDED	1,241,588 CU FT

NOTES:

1. CONTRACTOR SHALL ENSURE STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE IOWA DEPARTMENT OF NATURAL RESOURCES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT NO. 2.
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4. STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
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N

SCALE 0' 10' 20' 40'

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NAVIX SITE CIVIL

Microsoft

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DATA CENTER

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West Des Moines, Iowa

Design: MSM / ZE
Drawn: MSM / ZE
Checked: RWH
Date: 01-16-2023
BMcD Project No: # 76-1003
M.S. Project No: # 39605

MICROSOFT

Design Manager: JON NYGNE
Lead Manager:
Civil Site Survey Landscaping Technical Lead: SONDWIP DHAR
Architectural & Structural Engineering Lead: LISA GALLANT / DAVID SWANSON
Mech. Plumbing & Fire Protection Technical Lead: STEVE TOUPS
Building Automation Systems (BAS) Technical Lead: BILL DEMBINSKI
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Telecommunications / Network Engineering Lead: MARK ANDERSON / BMcD
Security Systems Engineering Lead: MIRCEA BARBAT / INTROBA

Revisions

No.	Date	Description
0	21 SEP 2022	60% IFR PACKAGE
1	20 OCT 2022	100% IFR PACKAGE
2	18 NOV 2022	IFP PACKAGE

Registration

RYAN HARDISTY IOWA PRELIMINARY

Sector Key Plan

Bar Code

Package
FULL BUILDOUT

Sheet Title/Number

CIVIL EROSION AND SEDIMENT CONTROL PLAN

DSM42-C-B1-D02

DSM42-C-B1-D02

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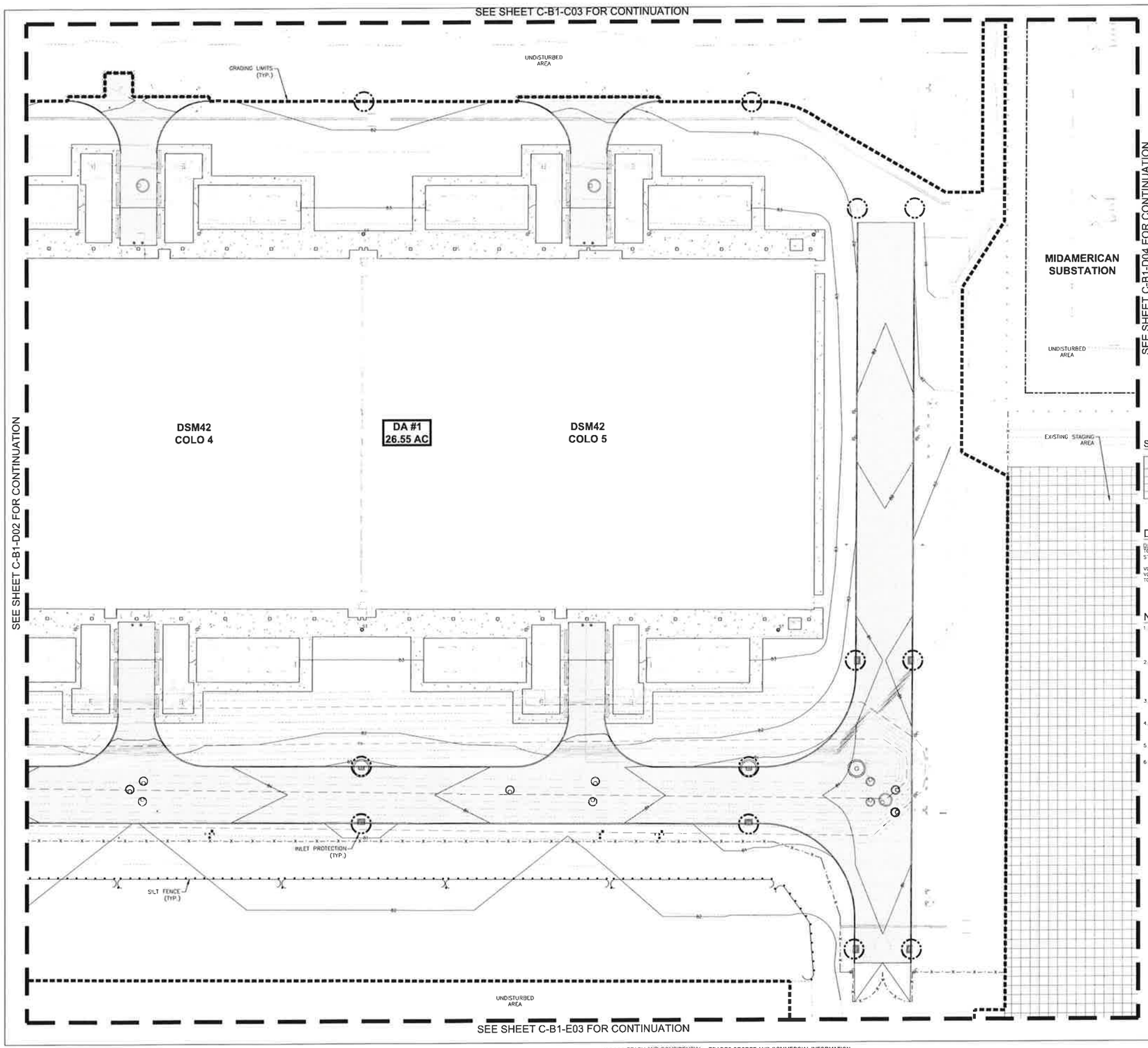

LEGEND

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- GRADING LIMITS
- FILTER SOCK (C-F-02)
- SILT FENCE (C-F-02)
- INLET PROTECTION
- PORTABLE RESTROOM
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STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	7,970
2	SEEDING, FERTILIZING, AND MULCHING	AC	30.5
3	INLET PROTECTION DEVICES	EA.	26
4	CONCRETE WASHOUT PIT	LS	1

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO LITTLE CROW CREEK 1870 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	26.55 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	95,580 CU FT
VOLUME IN SILT FENCE (7,970 LF @ 4.5 CU FT/LF OF FENCE)	35,865 CU FT
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NAVIX

Microsoft

DSM 42
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Design: NEW - BI
Draw: NEW - BI
Checked: Alex
Date: 11-10-2023
BMcD Project No: # 147600
MS Project No: P-7600

MICROSOFT

Design Manager: JON NYONE
Layout Manager:
Civil Site Survey, Hydrology and Hydraulics: SOHOMIP DHAR
Architectural & Structural Technical Lead: LISA GALLANT / DAVID SWANSON
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Revisions

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2	10 NOV 2023	IFP PACKAGE

Registration

RYAN HARGISTY — PRELIMINARY — IOWA

Sector Key Plan

Bar Code

Package
FULL BUILDOUT

Sheet Title/Number
CIVIL
EROSION AND
SEDIMENT
CONTROL PLAN
DSM42-C-B1-D03

DSM42-C-B1-D03

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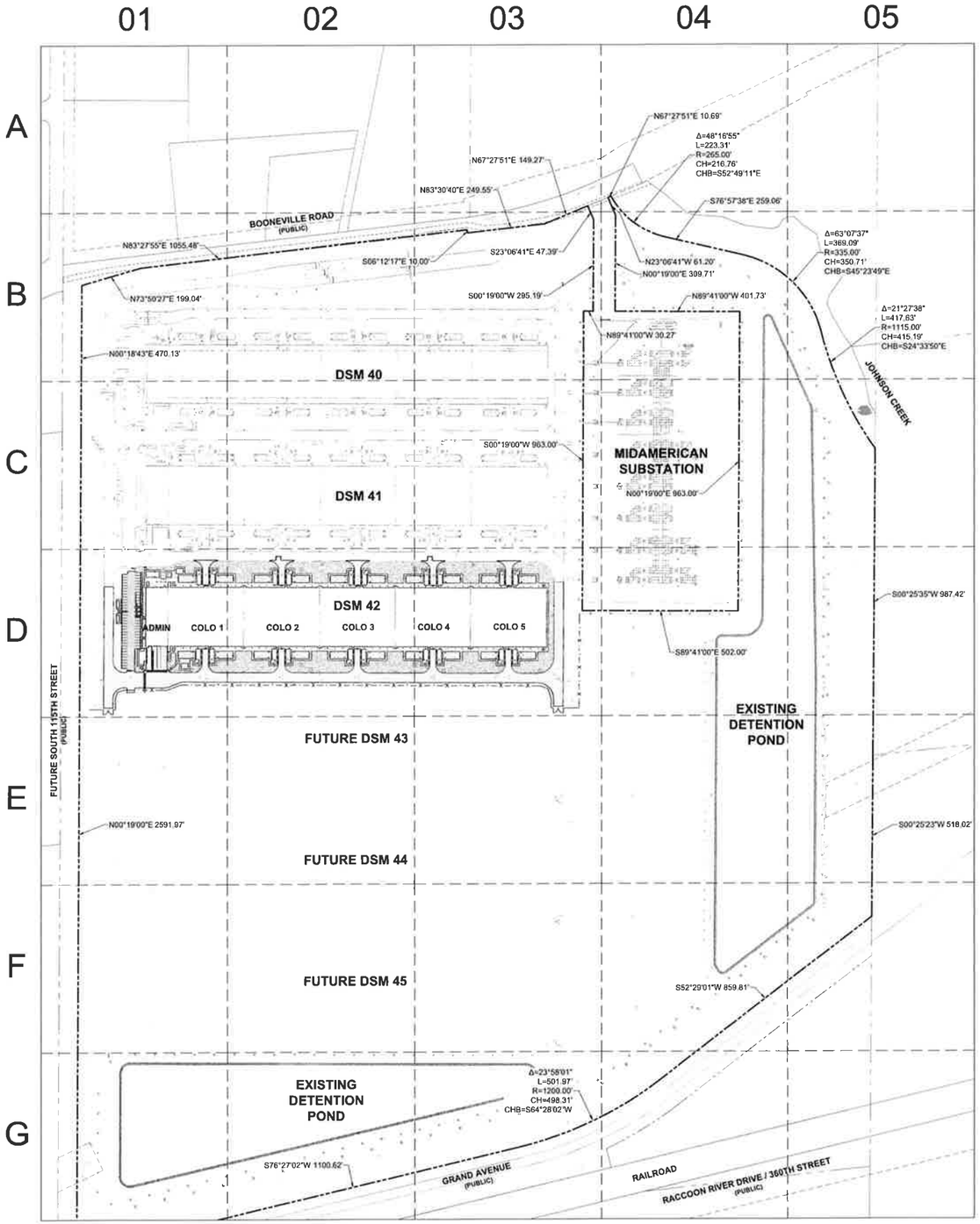

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE MOST RECENT ADDITION OF THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).
2. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
3. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNERS PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
4. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC SEWERS CONTRACTOR SHALL NOTIFY THE CITY'S CONSTRUCTION DIVISION.
5. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY'S STANDARDS.
6. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
7. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
8. REMOVE ALL DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY.
9. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
10. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
11. THE CONTRACTOR SHALL NOT DISTURB GRASS AREAS AND TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
12. 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.
13. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OF RECORD OR THE CITY.
14. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
15. CONCRETE REMOVAL FOR DRIVEWAY APPROACHES SHALL BE REMOVED TO THE NEAREST TRANSVERSE JOINT. CONTRACTOR SHALL VERIFY REMOVAL LIMITS WITH CITY'S CONSTRUCTION INSPECTOR PRIOR TO ANY CONCRETE REMOVAL.
16. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACTOR BID.
17. COORDINATE FINAL KNOX BOX LOCATIONS WITH MICROSOFT SECURITY AND CITY OF WEST DES MOINES FIRE DEPARTMENT.

CITY OF WEST DES MOINES NOTES

1. ALL WATER WORK, PUBLIC OR PRIVATE, SHALL BE DONE IN ACCORDANCE WITH WEST DES MOINES WATER WORKS STANDARD SPECIFICATIONS.
2. CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS AT LEAST ONE WEEK PRIOR TO BUILDING CONSTRUCTION.
3. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK OF ALL SUBCONTRACTORS INVOLVED IN THE PROJECT.
4. CONTACT BUILDING INSPECTION (515-222-3630) A MINIMUM OF 24 HOURS IN ADVANCE FOR PRIVATE UTILITY INSTALLATION INSPECTIONS.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE WEST DES MOINES WATER WORKS AND THE CITY'S CROSS CONNECTION CONTROL/CONTAINMENT PROVISION.
6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF APPROVED BACKFLOW PREVENTION ASSEMBLIES FOR CONTAINMENT IN ALL NEW CONSTRUCTION. BACKFLOW PREVENTION SHALL BE INSTALLED PER CITY ORDINANCE 1297.54-1999. THE CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS, RALPH RENTERIA, ENGINEERING TECHNICIAN (515) 222-3455 A MINIMUM OF 24 HOURS AFTER INSTALLATION AND TESTING OF ALL BACKFLOW DEVICES TO SCHEDULE FINAL INSPECTION.
7. ALL CONNECTIONS TO PUBLIC SEWERS SHALL BE CORE DRILLED TO MANHOLES.
8. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS, AND/OR CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS.
9. AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS, AND/OR CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE WDM CONSTRUCTION DIVISION 'CLINT CARPENTER' (515-222-3480) TO OBTAIN APPLICABLE CITY PERMITS THAT MAY BE NECESSARY.

Civil Design Advantage
4121 NW Urbandale Drive
Urbandale, IA 50322

BURNS McDONNELL
9400 Ward Parkway
Kansas City, MO 64114
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NAVIX
SITE | CIVIL

Microsoft

DSM 42
DATA CENTER

11100 Booneville Road
West Des Moines, Iowa

Design	MSF / ZS
Drawn	MSF / ZS
Checked	RAH
Date	11-10-2023
BMD Project No.	P 19.MID
M.S. Project No.	P 70960

MICROSOFT

Design Manager	JON NYGINE
Lead Manager	
Civil Site Works, Landscaping Technical Lead	SIDNDHAR DHAR
Architectural & Structural Technical Lead	LISA GAELANT / DAVID SWANSON
Mech. Plumbing & Fire Protection Technical Lead	STEVE STOUFFER
Building Automation Systems (BAS) Technical Lead	BILL GENSBURG
Electrical Technical Lead	ANDIA KREHMAN
Electrical Power Management Systems (EPMS) Technical Lead	SERGIO FRANCO
Telecommunications / Network Technical Lead	MATT BENSON
Security Design Manager	DANIEL PUTMAN

DESIGN TEAM

Civil Engineering Lead	RYAN HARDISTY / CDVA DESIGN ADVANTAGE
Structural Engineering Lead	BINYAM JEMAL / BMcD
Architectural Lead	NEAL CLEMENTS / BMcD
Mechanical Engineering Lead	JEFFREY WILSON / BMcD
Plumbing Engineering Lead	DANIEL GARCIA / BMcD
Fire Protection Engineering Lead	WILL CLAY / BMcD
MEP Engineering Lead	JEFFREY WILSON / BMcD
Electrical Engineering Lead	JASON MITCHELL / BMcD
Telecommunications / Network Engineering Lead	MARK ANDERSON / BMcD
Security Systems Engineering Lead	MIRCEA BARBAT / INTRODA

Revisions

No.	Date	Description
0	21 SEP 2023	50% IFR PACKAGE
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Registration

PRELIMINARY

Sector Key Plan

Bar Code

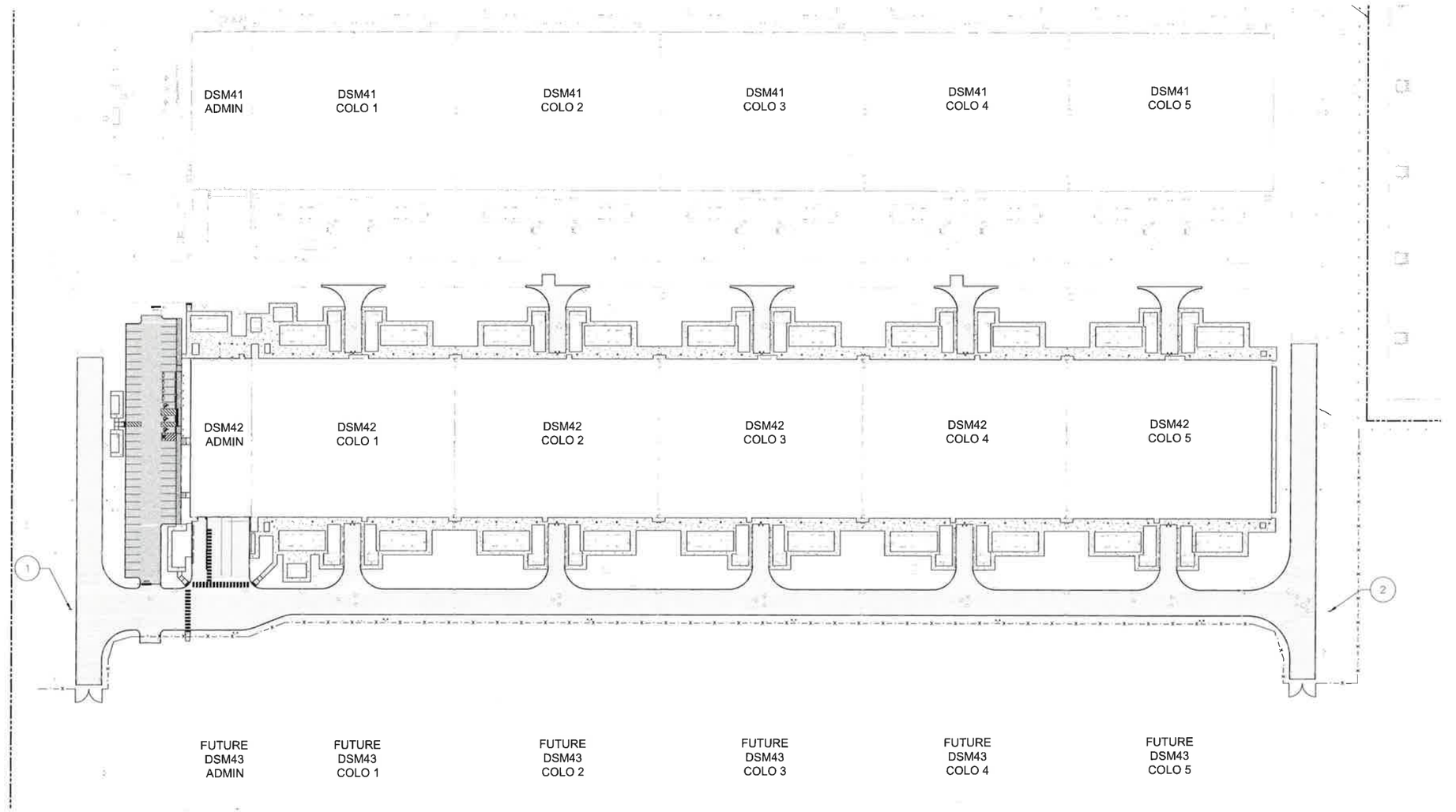
Package
FULL BUILDOUT

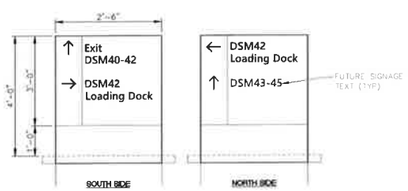
Sheet Title/Number
CIVIL SITE IMPROVEMENTS PLAN OVERALL

DSM42-C-C1-01

DSM42-C-C1-01

[PROPRIETARY AND CONFIDENTIAL – TRADES SECRET AND COMMERCIAL INFORMATION – EXEMPT FROM RELEASE UNDER FOIA (5 U.S.C. § 552 (b)(4)) AND STATE PUBLIC DISCLOSURE LAW]





SIMPLIFIED VEHICULAR DIRECTIONAL 1
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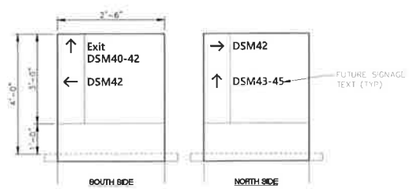

SIMPLIFIED VEHICULAR DIRECTIONAL 2
N.T.S.

N

SCALE
0 5' 10' 15'

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Drawn: MCM / ZE
Checked: Alan
Date: 11.10.2023
BMcD Project No: 118.0003
M.S. Project No: P-70600

MICROSOFT

Design Manager: JON NYGNE
Layout Manager:
Civil Site Survey, Landscaping Technical Lead: SOMDAP DHAR
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FULL BUILDOUT

Sheet Title/Number
CIVIL SITE DIRECTIONAL SIGNAGE PLAN & DETAILS

DSM42-C-C1-05

DSM42-C-C1-05

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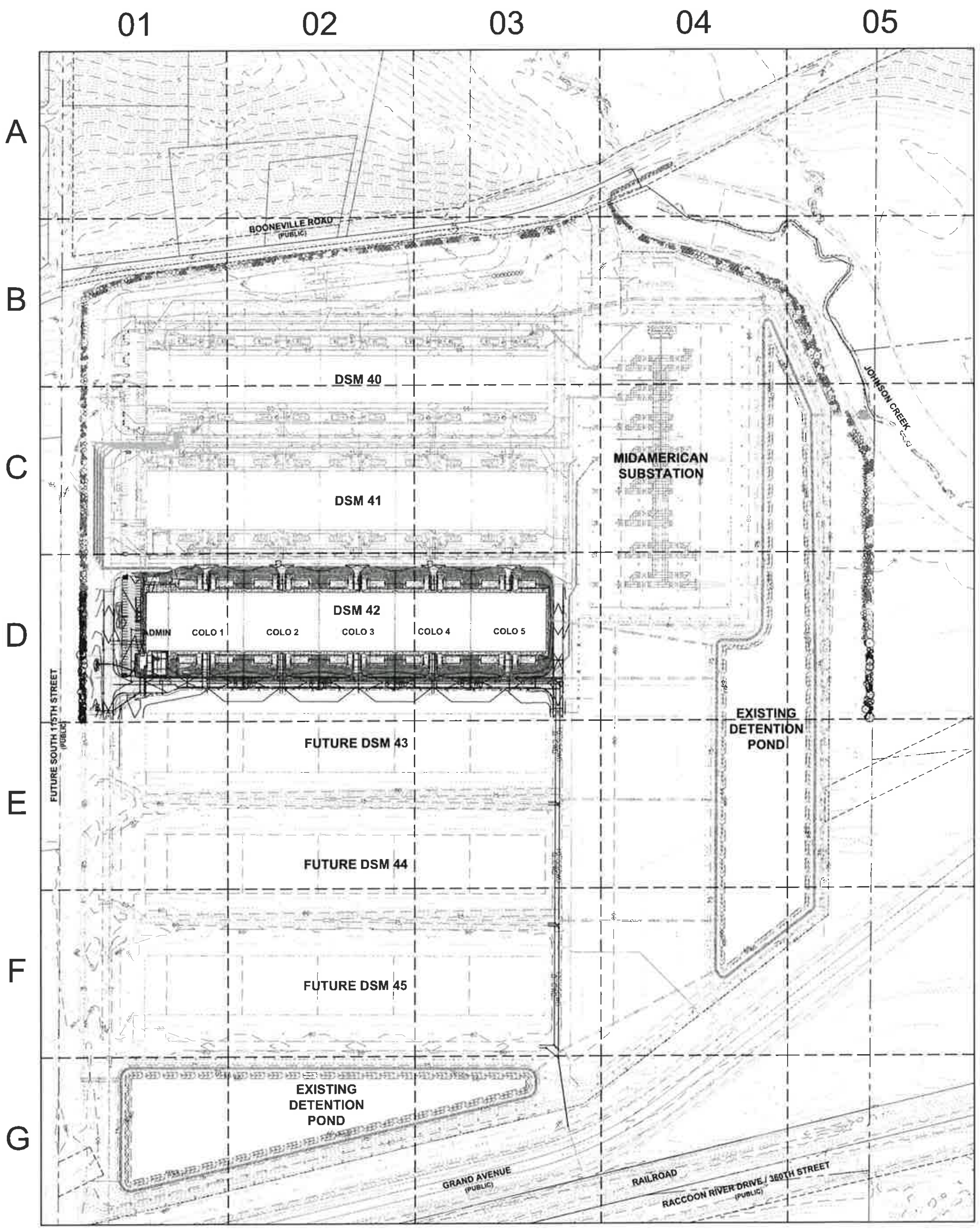


LANDSCAPE TOTALS

TOTAL SITE AREA: =925,094 S.F. (21.23 AC.)

OPEN SPACE REQUIRED: =185,019 S.F. (4.24 AC. 20%)

DSM 42 BUFFER REQUIREMENTS

30' BUFFER REQ. PER WDM LANDSCAPE PROVISIONS 9-19-8-E-3-B
1 OVERSTORY/EVERGREEN TREE/ 35 L.F., 2 UNDERSTORY TREES/ 35 L.F., 6 SHRUBS/ 35 L.F.

415 L.F. of 30' BUFFER

12 OVERSTORY TREES REQUIRED
24 UNDERSTORY TREES REQUIRED
72 SHRUBS REQUIRED

60' BUFFER REQ. PER WDM LANDSCAPE PROVISIONS 9-19-8-E-3-A
1 OVERSTORY/EVERGREEN TREE/ 35 L.F., 3 SHRUBS/ 35 L.F.

258 L.F. of 60' BUFFER

8 OVERSTORY TREES REQUIRED
22 SHRUBS REQUIRED

TOTAL BUFFER PROVIDED -

56 OVERSTORY/EVERGREEN TREES PROVIDED - 36 SURPLUS
29 UNDERSTORY TREES PROVIDED - 5 SURPLUS
241 SHRUBS PROVIDED - 135 SURPLUS

OPEN SPACE REQUIREMENTS

PER WDM LANDSCAPE PROVISIONS 9-18-8-I:
2 TREE & 3 SHRUBS/ 3000 S.F. WITH 50% AS OVERSTORY/EVERGREEN

123 TREES
185 SHRUBS REQUIRED

THE CALCULATIONS ABOVE REPRESENT A COMBINED TOTAL OF OPEN SPACE AND BUFFER PLANTING CONTAINED WITHIN THE 30' AND 60' BUFFERS ON THIS SITE.

PARKING LOT LANDSCAPE REQUIREMENTS

PER WDM LANDSCAPE PROVISIONS 9-18-8-H:
MINIMUM OF ONE LANDSCAPED 9'x17' ISLAND PER 18 STALLS OF SINGLE ROW PARKING
ONE TREE PER 9'x17' ISLAND

33 STALLS (1 ISLAND) AND 26 STALLS (1 ISLAND) OF SINGLE ROW PARKING AND TERMINAL ISLANDS (4 ISLANDS)
6 TREES REQUIRED

TOTAL TREES PROVIDED* -

6 OVERSTORY/EVERGREEN TREES PROVIDED

*REQUIRED TREES ARE PROVIDED IN LANDSCAPE BUFFER AND ARE LABELED ON SHEET L-A1-D01

TOTAL COMBINED LANDSCAPE CALCULATIONS

TOTAL PLANT MATERIAL REQUIRED
TREES: 187
SHRUBS: 301

TOTAL PLANT MATERIAL PROVIDED*
OVERSTORY/EVERGREEN TREES: 62
UNDERSTORY TREES: 29
SHRUBS: 241
*DEFICIENCIES WILL BE ACCOMODATED IN THE DSM 43-45 LANDSCAPE.

PLANT SCHEDULE 115TH ST BUFFER

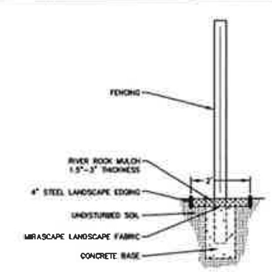
EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE	CAL	SIZE
PB	21	Black Hills Spruce	Picea glauca densata	B&B, 6' HEIGHT, 50-100' MAT. HEIGHT		15' DIA
PL	3	Limber Pine	Pinus flexilis	B&B, 6' HEIGHT		
PS	6	White Pine	Pinus strobus	B&B, 6' HEIGHT, 50-80' MAT. HEIGHT		12' DIA
ORNAMENTAL TREES	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**CONDITION AND SIZE**	**CAL**	**SIZE**
AS	7	Serviceberry	Amelanchier alnifolia	B&B, 15-35' MAT. HEIGHT	1.5"	12' DIA
CC	12	Eastern Redbud	Cercis canadensis	B&B, 20-30' MAT. HEIGHT	1.5"	12' DIA
MS	8	Spring Snow Crabapple	Malus x 'Spring Snow'	B&B	1.5" CAL, 8-10' HEIGHT	12' DIA
OVERSTORY TREES	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**CONDITION AND SIZE**	**CAL**	**SIZE**
AE	2	Endowment Maple	Acer saccharum 'Endowment'	B&B, 50' MAT. HEIGHT	2"	20' DIA
AM	6	Crescendo Maple	Acer saccharum 'Morton'	B&B	2" CAL, 12-14' HEIGHT	20' DIA
BM	3	Black Maple	Acer nigrum	B&B, 60-75' MAT. HEIGHT	2"	25' DIA
QR	1	Red Oak	Quercus rubra	B&B, 80-90' MAT. HEIGHT	2"	30' DIA
SHRUBS	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**CONDITION AND SIZE**		
CG	28	Gray Dogwood	Cornus racemosa	5 GAL		
CH	38	Ivory Halo Dogwood	Cornus alba 'Bailhalo' TM	5 GAL		
CH2	10	Ivory Halo Dogwood	Cornus alba 'Bailhalo' TM	5 GAL		
PJ	34	Jackmon's Potentilla	Potentilla fruticosa 'Jackmanii'	5 GAL		
SE	38	Elderberry	Sambucus canadensis	5 GAL		
VB	51	Blackhaw Viburnum	Viburnum prunifolium	5 GAL		

PLANT SCHEDULE EAST BUFFER

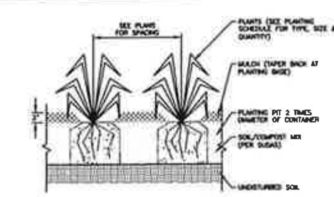
EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE	CAL	SIZE
PB	2	Black Hills Spruce	Picea glauca densata	B&B, 6' HEIGHT, 50-100' MAT. HEIGHT		15' DIA
PL	2	Limber Pine	Pinus flexilis	B&B, 6' HEIGHT		
PS	5	White Pine	Pinus strobus	B&B, 6' HEIGHT, 50-80' MAT. HEIGHT		12' DIA
ORNAMENTAL TREES	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**CONDITION AND SIZE**	**CAL**	**SIZE**
MS	2	Spring Snow Crabapple	Malus x 'Spring Snow'	B&B	1.5" CAL, 8-10' HEIGHT	12' DIA
OVERSTORY TREES	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**CONDITION AND SIZE**	**CAL**	**SIZE**
AE	4	Endowment Maple	Acer saccharum 'Endowment'	B&B, 50' MAT. HEIGHT	2"	20' DIA
AM	1	Crescendo Maple	Acer saccharum 'Morton'	B&B	2" CAL, 12-14' HEIGHT	20' DIA
BM	4	Black Maple	Acer nigrum	B&B, 60-75' MAT. HEIGHT	2"	25' DIA
QR	2	Red Oak	Quercus rubra	B&B, 80-90' MAT. HEIGHT	2"	30' DIA
SHRUBS	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**CONDITION AND SIZE**		
CG	14	Gray Dogwood	Cornus racemosa	5 GAL		
SE	15	Elderberry	Sambucus canadensis	5 GAL		
VB	15	Blackhaw Viburnum	Viburnum prunifolium	5 GAL		

LANDSCAPE NOTES

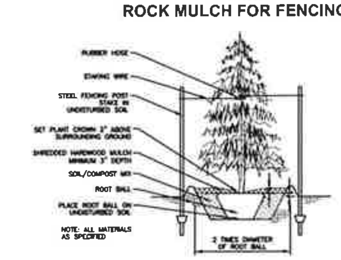
1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. ALL LANDSCAPE CONSTRUCTION SHALL CONFORM TO THE MOST RECENT EDITION OF THE WEST DES MOINES STANDARDS SPECIFICATIONS FOR SUBDIVISIONS.
3. BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
4. WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
5. PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY. THE DRAWING SHALL GOVERN IF ANY CONFLICTS ARISE.
6. ALL DEBRIS SPILLED IN ANY PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
7. NO OVERSTORY TREES SHALL BE PLANTED IN ANY CITY OF WEST DES MOINES PUBLIC UTILITY EASEMENT.
8. ROCK MULCH SHALL BE RIVER ROCK, MINIMUM DEPTH OF 3" OVER MIRASCAPE LANDSCAPE FABRIC OR APPROVED EQUAL. EDGING BETWEEN ROCK MULCH AND GRASS SHALL BE 4" STEEL LANDSCAPE EDGING.
9. MAINTAIN 10' CLEARANCE OF ANY PLANTINGS ON EACH SIDE OF THE PERIMETER FENCE.
10. SEED ALL DISTURBED AREAS (LESS PLANTING BEDS) WITH SEED TYPE #1 PERMANENT LAWN MIXTURE. REFER TO THE SPECIFICATIONS.



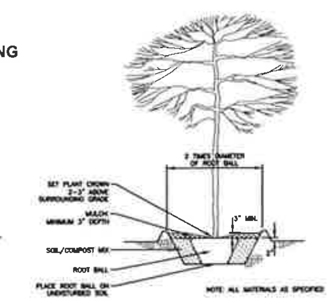
ROCK MULCH FOR FENCING



SHRUB PLANTING



CONIFEROUS TREE PLANTING



DECIDUOUS TREE PLANTING

Civil Design Advantage
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Checked: RAH

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Revisions

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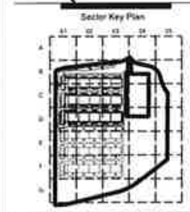
4	30 NOV 2023	CITY OF WDM SUBMITTAL #3

Registration

LICENSED PROFESSIONAL ENGINEER RYAN HARDISTY 16611 IOWA — PRELIMINARY

Sector Key Plan



Bar Code

Package
FULL BUILDOUT

Sheet Title/Number
LANDSCAPE PLAN OVERALL

DSM42-L-A1-01

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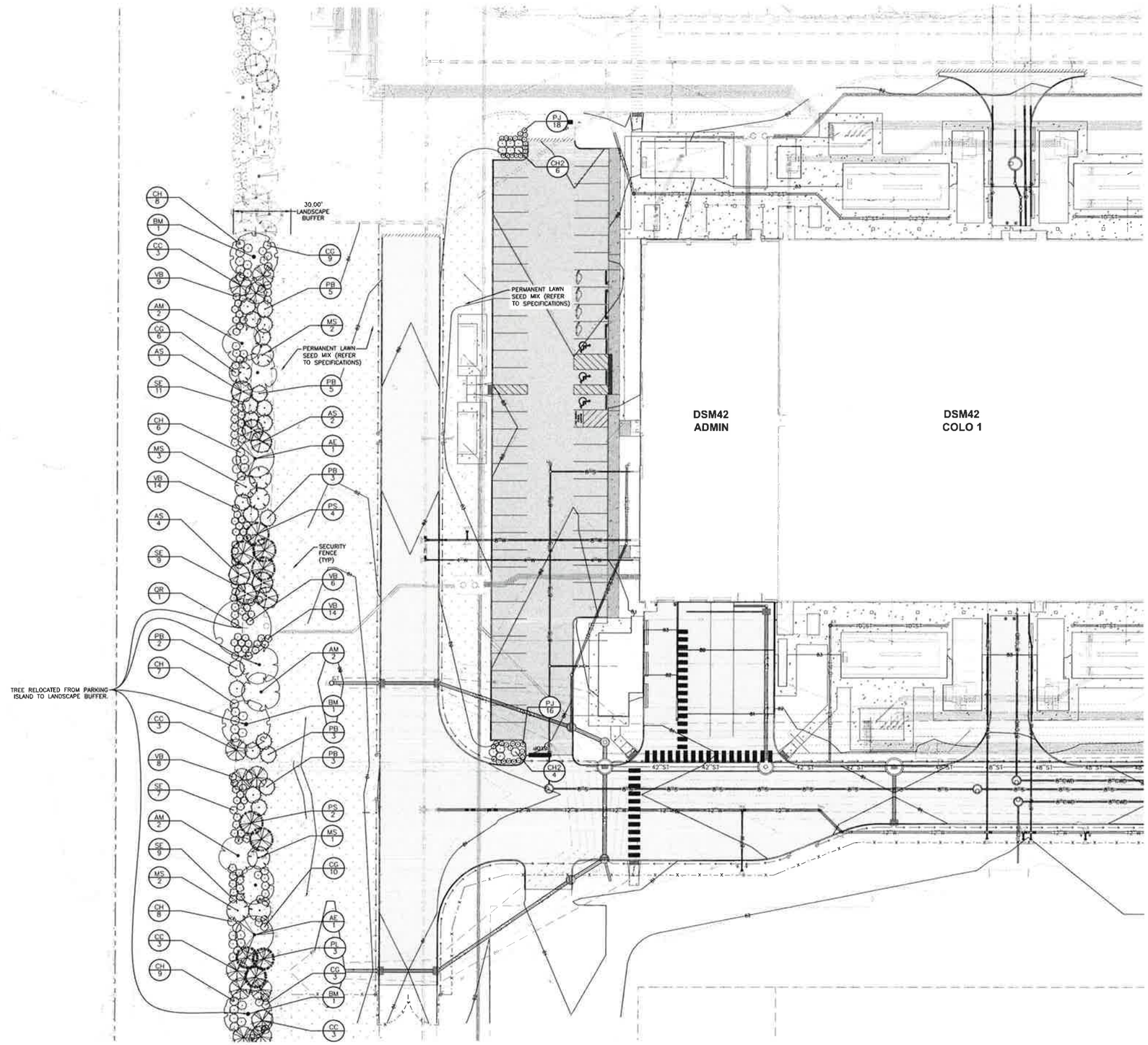

LANDSCAPE KEY

- PB BLACK HILLS SPRUCE
- PS WHITE PINE
- AS SERVICEBERRY
- CC EASTERN REDBUD
- MS SPRING SNOW CRABAPPLE
- AE ENDOWMENT MAPLE
- AM CRESCENDO MAPLE
- BM BLACK MAPLE
- QR RED OAK
- CH IVORY HALO DOGWOOD
- SE ELDERBERRY
- VB BLACKHAW VIBURNUM

FULL PLANT MATERIAL SCHEDULE ON SHEET L-A1-01

LANDSCAPING LEGEND

- DRYLAND SEED MIX TYPE 1 (SEE SPECS FOR MORE INFORMATION)
- COBBLE MULCH (SEE SPECS FOR MORE INFORMATION)

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NAVIX SITE CIVIL

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Design	NEW / 20
Drawn	NEW / 20
Checked	BAR
Date	11-10-2023
BMcD Project No	P. 121433
M & R Project No	P. 21620

MICROSOFT

Design Manager	JON NYGINE
Lead Manager	
Civil Site Survey Landscaping Technical Lead	SONDWIP DHAR
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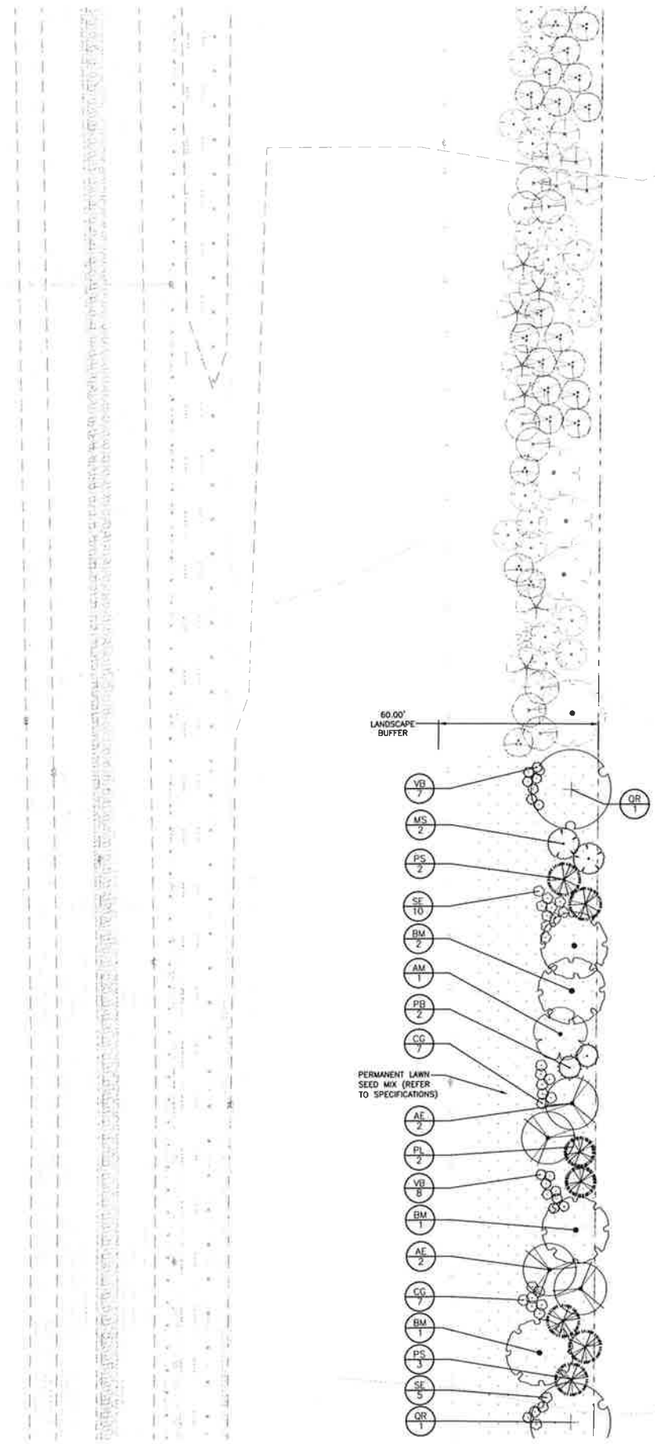
DSM42-L-A1-D01

DSM42-L-A1-D01

[PROPRIETARY AND CONFIDENTIAL – TRADES SECRET AND COMMERCIAL INFORMATION – EXEMPT FROM RELEASE UNDER FOIA (5 U.S.C. § 552 (b)(4)) AND STATE PUBLIC DISCLOSURE LAW]



LANDSCAPE KEY

- PB BLACK HILLS SPRUCE
- PS WHITE PINE
- AS SERVICEBERRY
- CC EASTERN REDBUD
- MS SPRING SNOW CRABAPPLE
- AE ENDOWMENT MAPLE
- AM CRESCENDO MAPLE
- BM BLACK MAPLE
- OR RED OAK
- CH IVORY HALO DOGWOOD
- SE ELDERBERRY
- VB BLACKHAW VIBURNUM

FULL PLANT MATERIAL SCHEDULE ON SHEET L-A1-01

LANDSCAPING LEGEND

- DRYLAND SEED MIX TYPE 1 (SEE SPECS FOR MORE INFORMATION)
- COBBLE MULCH (SEE SPECS FOR MORE INFORMATION)

N

SCALE
0' 10' 20' 40'

Civil Design Advantage
4121 NW Urbandale Drive
Urbandale, IA 50322

BURNS McDONNELL
9400 Ward Parkway
Kansas City, MO 64114
www.burnsmcd.com

NAVIX
SITE | SPACE

Microsoft

DSM 42
DATA CENTER

11100 Booneville Road
West Des Moines, Iowa

Design: NEM / ZE
Drawn: NEM / ZE
Checked: RAH
Date: 11/13/2023
BMcD Project No: P 131103
M S Project No: P 28800

MICROSOFT

Design Manager: JON AYDINE
Project Manager:
Civil Site Survey Landscaping Technical Lead: SOROOSH SAAR
Architectural & Structural Technical Lead: LISA GALLANT / DAVID SWANSON
Mech Plumbing & Fire Protection Technical Lead: STEVE TOUTIN
Building Automation Systems (BAS) Technical Lead: BILL GEMBINSKI
Electrical Technical Lead: ANAGA KRISHNAN
Electrical Power Management Systems (EPMS) Technical Lead: SERGIO FRANCO
Telecommunications Technical Lead: MATT BENSON
Security Design Manager: DANIEL PUTMAN

DESIGN TEAM

Civil Engineering Lead: RYAN HARDISTY / CIVIL DESIGN ADVANTAGE
Structural Engineering Lead: BINYAM JEMAL / BMcD
Architectural Lead: NEAL CLEMENTS / BMcD
Mechanical Engineering Lead: JEFFREY WILSON / BMcD
Plumbing Engineering Lead: DANIEL GRACIA / BMcD
Fire Protection Engineering Lead: BILL CLAY / BMcD
BAS Engineering Lead: JEFFREY WILSON / BMcD
Electrical Engineering Lead: JASON MITCHELL / BMcD
Telecommunications Network Engineering Lead: MARK ANDERSON / BMcD
Security Systems Engineering Lead: MIRCEA BARBAT / INTRISIA

Revisions

No.	Date	Description
0	21 SEP 2023	50% IFS PACKAGE
1	20 OCT 2023	100% IFS PACKAGE
2	13 NOV 2023	IFP PACKAGE
3	15 NOV 2023	CITY OF WDM SUBMITTAL #2
4	20 NOV 2023	CITY OF WDM SUBMITTAL #3

Registration

LICENSED PROFESSIONAL ENGINEER
RYAN A. HARDISTY
IOWA
PRELIMINARY

Sector Key Plan

Bar Code

Package
FULL BUILDOUT

Sheet Title/Number
LANDSCAPE PLAN

DSM42-L-A1-D05

DSM42-L-A1-D05

[PROPRIETARY AND CONFIDENTIAL – TRADES SECRET AND COMMERCIAL INFORMATION – EXEMPT FROM RELEASE UNDER FOIA (5 U.S.C. § 552 (b)(4)) AND STATE PUBLIC DISCLOSURE LAW]

Prepared by: Brian Portz, City of West Des Moines Development Services Dept., PO Box 65320, West Des Moines, Iowa 50265-0320 515-222-3620
When Recorded, Return to: City Clerk, City of West Des Moines, PO Box 65320, West Des Moines, IA 50265-0320

RESOLUTION

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WEST DES MOINES, APPROVING A MAJOR MODIFICATION TO SITE PLAN TO ALLOW CONSTRUCTION OF A DATA CENTER BUILDING

WHEREAS, pursuant to the provisions of Title 9, Zoning, of the West Des Moines Municipal Code, the applicant and property owner, Microsoft Corporation, requests approval of Microsoft DSM 42 Major Modification to Site Plan for that property located at 11100 Booneville Road and legally described in attached Exhibit "B" for the purpose of constructing a 245,000 square foot data center building with associated parking lot; and

WHEREAS, studies and investigations were made, and staff reports, and recommendations were submitted which is made a part of this record and herein incorporated by reference; and

WHEREAS, the Major Modification to Site Plan complies with findings stated in the applicable provisions of Title 9, Chapter 1, Subsection 8, the Comprehensive Plan and City Code; and

WHEREAS, on December 27, 2023, the Planning and Zoning Commission recommended to the City Council, by a 6-0 vote, for approval of the Major Modification to Site Plan; and

WHEREAS, on this day the City Council held a duly noticed meeting to consider the application for the Major Modification to Site Plan.

NOW, THEREFORE, The City Council does approve the Microsoft DSM 42 Major Modification to Site Plan (MaM-006237-2023), subject to compliance with all of the conditions of approval, including any conditions added at the meeting, attached hereto as Exhibit "A". Violation of any such conditions shall be grounds for revocation of the permit, as well as any other remedy which is available to the City.

PASSED AND ADOPTED on January 2, 2024.

_____
Greg Hudson, Presiding Officer

ATTEST:

_____
Ryan Jacobson, City Clerk

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the City Council of the City of West Des Moines, Iowa, at a regular meeting held on January 2, 2024, by the following vote.

Exhibit A: Conditions of Approval

1. The City Council agreeing to not require landscape islands in the parking lot as required by City Code due to security concerns with trees in the parking lot. Required parking lot trees shall be added to the buffer plantings.
2. The City Council allowing shrubs in lieu of trees to be planted within parking lot islands due to security concerns with trees in the parking lot. Required parking lot trees shall be added to the buffer plantings.
3. The City Council allowing gravel to be implemented around industrial buildings on the site to allow access to utility structures for maintenance purposes.

Exhibit B: Legal Description

LOT 1, GINGER WEST PLAT 1, AN OFFICIAL PLAT IN THE CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA.