



PLANNING AND ZONING COMMISSION MEETING

October 8, 2024

6:00 PM

City Council Chambers

Agenda

- 1. Call to Order**
- 2. Roll Call**
- 3. Agenda Approval**
 - A. Approval of the October 8, 2024 agenda.
- 4. Minutes Approval**
 - A. Approval of the September 24, 2024 meeting minutes.
- 5. Public Comment**
- 6. Old Business**
- 7. New Business**
 - A. Approval of a rezoning for a commercial property located at 215 N Buxton St.
 - B. Approval of preliminary plat for Kentucky Ridge Townhomes.
 - C. Approval of a site plan for Kentucky Ridge Townhomes.
 - D. Approval of a plat of survey for Mid-American Energy (Parcel ID 13000200220).
 - E. Approval of a final plat for Ashton Park Plat 8.
 - F. Approval of a site plan for 203 West 2nd Avenue.
 - G. Approval of a site plan for Kwik Star (2103 North Jefferson Way).
- 8. Comments**
 - A. Building Permit Report
 - B. Current Projects
- 9. Adjourn**



PLANNING AND ZONING COMMISSION MEETING

September 24, 2024

6:00 PM

City Council Chambers

Minutes

1. Call to Order

The meeting was called to order at 6:01 PM.

2. Roll Call

Commission members present: Sarah Ritchie, Al Farris, Misty Darling, Jake Vice, Justin Noethe, Rich Piper.

Staff members present: Bill Mettee, Tara Bosteder.

3. Agenda Approval

A. Approval of the September 24, 2024 agenda.

Darling made a motion to approve the agenda.

Farris seconded the motion.

Motion was passed.

4. Minutes Approval

A. Approval of the July 23, 2024 meeting minutes.

Noethe made a motion to approve the meeting minutes.

Piper seconded the motion.

Motion was passed.

5. Public Comment

No public comments.

6. Old Business

No old business.

7. New Business

A. Approval of a Preliminary Plat for Wesley Life Village

Associate Planner Mettee presented the request and related staff report.

Commission Member Farris asked the developer if they had been talking with the neighbors regarding the proposed plans. David Bentz with Bishop Engineering responded and explained that they've had multiple conversations with neighbors beginning approximately a year ago when an initial more intensive plan was proposed and denied.

Commission Member Farris asked Mr. Bentz to tell him more about the water flow into the retention basin where the water is ultimately going to go. Mr. Bentz explained that it will flow the same way it does today. The south end that flows off undetained today has been

decreased, so there's less that flows off undetained. He said the large detention basin will over retain so it will release less and flow out the way it currently does.

Commission Member Farris asked if the pond was a dry pond. Mr. Bentz clarified that there was one dry and one wet pond in the main water flow and further clarified the North pond was a dry pond.

Commission Member Farris noted that the height of the buildings had currently been a concern for the neighbors to the North and asked how tall the buildings were going to be. Troy Porter with Wesley Life answered and explained that the duplexes are all going to be single story.

Piper made a motion to approve the preliminary plat as submitted.

Vice seconded the motion.

Motion was passed by a unanimous vote.

B. Approval of a Site Plan for Wesley Life Village (1203 North E Street)

Commission Member Farris asked if the location of the trees and shrubs marked on the plan were accurate. Mr. Bentz explained that extra trees and shrubs are planned in the northern part of the plan per the neighbors' requests. Mr Bentz further clarified that while the locations might not end up being exact, they will check their locations as part of a punch list to make sure they are as accurate as possible. Associate Planner Mettee also added that there will be a landscape inspection as part of the process to obtain a CO, and they will make sure the trees and shrubs are in place at that time. Mr. Bentz continued to add that there was another area where neighbors had requested extra screening so they've added more there as well.

Commission Member Farris inquired about a list of acceptable trees. Mr. Bentz indicated that there is a list of the species of trees on the plans. Commission member Farris asked for confirmation that all the trees weren't the same species, so they would die all at the same time. Mr Bentz said there was a mix of evergreen, overstory, and understory typically.

Farris made a motion to approve the site plan as submitted.

Darling seconded the motion.

Motion was passed by a unanimous vote.

8. Comments

A. Building Permit Report

Staff member Bosteder had included the building reports from July and August 2024. There were no questions regarding these reports.

B. Current Projects

Associate Planner Mettee shared that he's still working through comments on the Emerald Bay and Kentucky Ridge projects. The first site plan has been submitted for the Emerald Bay project. Mettee said the comments on the first review were pretty minimal so he's hoping to bring that before the commission at the first October meeting and that they are looking to move forward on the project pretty quickly. Meetings have been held regarding both the site plan and the preliminary plat. Mettee shared that there are a few various other projects as well that he is working on catching up on since recently taking on his new position.

9. Adjourn

Ritchie made a motion to adjourn.

Farris seconded the motion.

The meeting was adjourned at 6:18 PM.



MEMORANDUM

To: Planning and Zoning Commission

From:

Date: October 8, 2024

Subject: Approval of a rezoning for a commercial property located at 215 N Buxton St.

Recommendation:

Attachments:

1. Staff Report_Integra Electric RZ_100424
2. Rezoning Application - 215 N Buxton



PLANNING AND ZONING COMMISSION STAFF REPORT

PROJECT: Integra Electric – Rezoning

PREPARED BY: Bill Mettee – Associate Planner

REPORT DATE: October 4, 2024

MEETING DATE: October 8, 2024

GENERAL INFORMATION

Applicant / Owner:

Integra Investments, LLC

Owner's Representative:

Ben Carpenter, Owner, Integra Electric

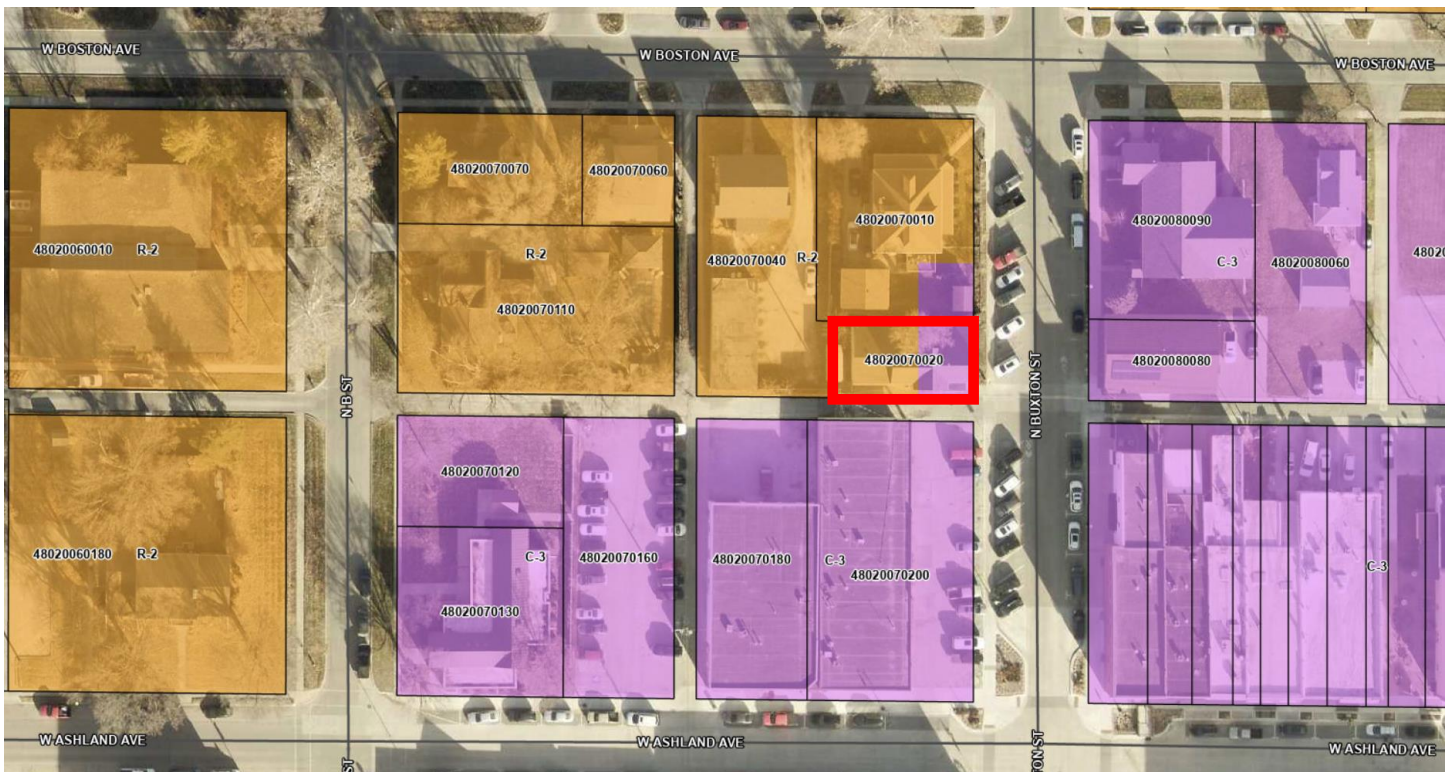
Request:

The applicant is requesting approval of a rezoning for a commercial property.

Location and Size:

Property is located south of West Boston Avenue and west of North Buxton Street, containing approximately 3,400-square feet.

AREA MAP



ABOVE: Aerial of subject property (outlined in **RED**) in relation to the surrounding area.

LAND USES AND ZONING

Location	Existing Land Use	Comprehensive Plan	Current Zoning
Property in Question	Vacant – Undeveloped	Downtown Mixed-Use	R-2 (Single-Family Residential Attached District) / C-3 (Downtown Mixed-Use District)
North	Residential	Downtown Mixed-Use	R-2 (Single-Family Residential Attached District) / C-3 (Downtown Mixed-Use District)
South	Downtown Commercial	Downtown Mixed-Use	C-3 (Downtown Mixed-Use District)
East	Downtown Commercial	Downtown Mixed-Use	C-3 (Downtown Mixed-Use District)
West	Residential	Downtown Mixed-Use	R-2 (Single-Family Residential Attached District)

BACKGROUND

At their June 11, 2024 Planning & Zoning Commission meeting, the Commission recommended approval of a code amendment from Ben Carpenter to permit construction sales and services, contractor offices, offices for plumbers, electricians, HVAC services or similar uses in the C-3 zoning district. The applicant currently does not store or warehouse any materials at their current site and do not propose to at the new location.

PROJECT DESCRIPTION

The subject property is located south of West Boston Avenue and west of North Buxton Street. The property is 0.08-acres in area, or 3,400 square feet and is 40' x 85' in area. The property owner has submitted the rezoning request from R-2 (Single-Family Residential Attached) and C-3 (Downtown Mixed-Use) to C-3 (Downtown Mixed-Use) in order to utilize the property to operate a commercial business and utilize the space for contractor offices.

Notification to adjacent property owners was mailed on September 19, 2024. The rezoning sign was placed on the property by the October 1, 2024 deadline. Staff has not received any correspondence for or against the request.

STAFF RECOMMENDATION

The proposed zoning district is consistent with the land uses identified in the Comprehensive Plan and with the existing surrounding land uses. Staff recommends approval of the rezoning for Integra Electric at 215 North Buxton Street.

LAND USE CHANGE APPLICATION

Community Development

110 North 1st Street, Indianola, Iowa 50125-0299
(515) 961-9430 • comdev@indianolaiowa.gov



PROPERTY OWNER

(Last Name) CARPENTER Integer Investments LLC
(First Name) BEN
(Address) 208 N. B ST
(City) Indianola (State) IA (Zip) 50125
(Phone) 515-777-4441 (Email) ben@integerinvestments.com

APPLICANT (if not Property Owner)

(Last Name) _____
(First Name) _____
(Address) _____
(City) _____ (State) _____ (Zip) _____

☐ COMPREHENSIVE PLAN AMENDMENT

Submittal Requirements:

All submittal requirements must be completed. Incomplete applications will not be considered

- ☐ Completed Application
- ☐ Property Address: _____
- ☐ Filing Fee: \$300
- ☐ Current Designation: _____ Proposed Designation: _____
- ☐ A plat showing the locations, dimensions and use of the property and all property within two hundred (200) feet thereof, including streets and other physical features
- ☐ Written justification for proposed amendment
- ☐ Other Information as required by Director

☒ REZONING

Submittal Requirements:

All submittal requirements must be completed. Incomplete applications will not be considered

- ☒ Completed Application
- ☒ Property Address: 215 N. Buxton
- ☐ Filing Fee: \$300
- ☒ Current Zoning: C3/R2 Proposed Zoning: C3
- ☐ Legal description (electronic in word format)
- ☐ All items as required by Section 165.39 of the Code of Ordinances of Indianola, Iowa
- ☐ Other Information as required by Director

I certify that the information and exhibits submitted are true and correct to the best of my knowledge and that in filing this application I am acting with the knowledge, consent and authority of the owner(s) of the property. Pursuant to said authority, I hereby permit City officials to enter upon the property for the purpose of inspection related to this application.

Signature _____

Name (printed) Ben Carpenter

Date 8/13/24

FOR OFFICE USE ONLY: Code to 45989 (Rezoning)
45681 (Comp Plan)

Date Received: 8/13/24

Receipt No: _____

Receipt Amount: \$300 invoiced



MEMORANDUM

To: Planning and Zoning Commission
From:
Date: October 8, 2024
Subject: Approval of preliminary plat for Kentucky Ridge Townhomes.

Recommendation:

Attachments: None



MEMORANDUM

To: Planning and Zoning Commission
From:
Date: October 8, 2024
Subject: Approval of a site plan for Kentucky Ridge Townhomes.

Recommendation:

Attachments:

1. Staff Report_Kentucky Ridge THs_PP_SP_100424
2. SP_1230685 9-25-24
3. Kentucky Ridge THs Elevations

LAND USES AND ZONING

Location	Existing Land Use	Comprehensive Plan	Current Zoning
Property in Question	Vacant / Undeveloped	Community Mixed Use	PUD (Planned Unit Development)
North	Wal-Mart	Community Mixed Use	C-2 (Highway Commercial District)
South	Peoples Savings Bank / Daycare	Community Mixed Use	C-2 (Highway Commercial District)
East	Townhome Residential	Neighborhood Mixed Use	PUD (Planned Unit Development)
West	Scooters / Vacant and Undeveloped	Community Mixed Use	PUD (Planned Unit Development) / C-2 (Highway Commercial)

PROJECT DESCRIPTION

This parcel was recently rezoned from R-2 Single Family Attached Residential to PUD Planned Unit Development to allow for a townhome residential development. The PUD allows for building separation of 15-feet and a maximum density of 14-units/acre.

The site plan identifies the creation of 51 townhome units across eight buildings. Three buildings will have 7-units, and five buildings will have 6-units. Each unit will be 28' x 28' with 16' wide, two-car driveways.

The applicant is proposing to install a pickleball court at the northwest corner of the site.

Table I below summarizes the bulk regulations that are applicable to the proposed development. The site plan demonstrates compliance with the bulk regulations.

Table I: Bulk Regulations for the Wesley Life PUD District

Category	R-2 / PUD (minimum)
Front Yard Setback	30 feet
Rear Yard Setback	30 feet
Side Yard Setback	8 feet
Maximum Height Stories	35 feet for townhomes

ACCESS AND PARKING

Access into the site will be provided off of East Kentucky Avenue and each unit will be accessed off of one of the internal streets to the development.

A total of 102 parking spaces are required (2 spaces per unit) for the townhomes and the applicant is providing 204 spaces in the form of driveway spaces. Each unit will also have a two-car garage. The developer is also providing 14 visitor parking spaces. The proposed site plan meets the parking requirements.

SIDEWALKS/TRAILS

A 5-foot-wide sidewalk will be constructed on the south side of East Kentucky Avenue, adjacent to the development. A series of 5' pedestrian walkways are shown throughout the site to facilitate access between all areas of the site. A pedestrian sidewalk is also shown into the site from the public sidewalk along East Kentucky Avenue.

UTILITIES

The site will be serviced with all public utilities, which are installed in the immediate vicinity of East Kentucky Avenue and North Jefferson Way. Utilities will be extended as required to service the townhomes. Stormwater detention will be provided with an underground detention basin.

LANDSCAPING & OPEN SPACE

A minimum of 25% of the project area is required to be open space. The total amount of open space proposed is 45.4%. A landscape buffer is shown along the south property line. Per the PUD, a landscape buffer is not required along the west boundary. The plantings shown on the landscape plan meet the minimum requirements of the Landscape & Open Space Ordinance.

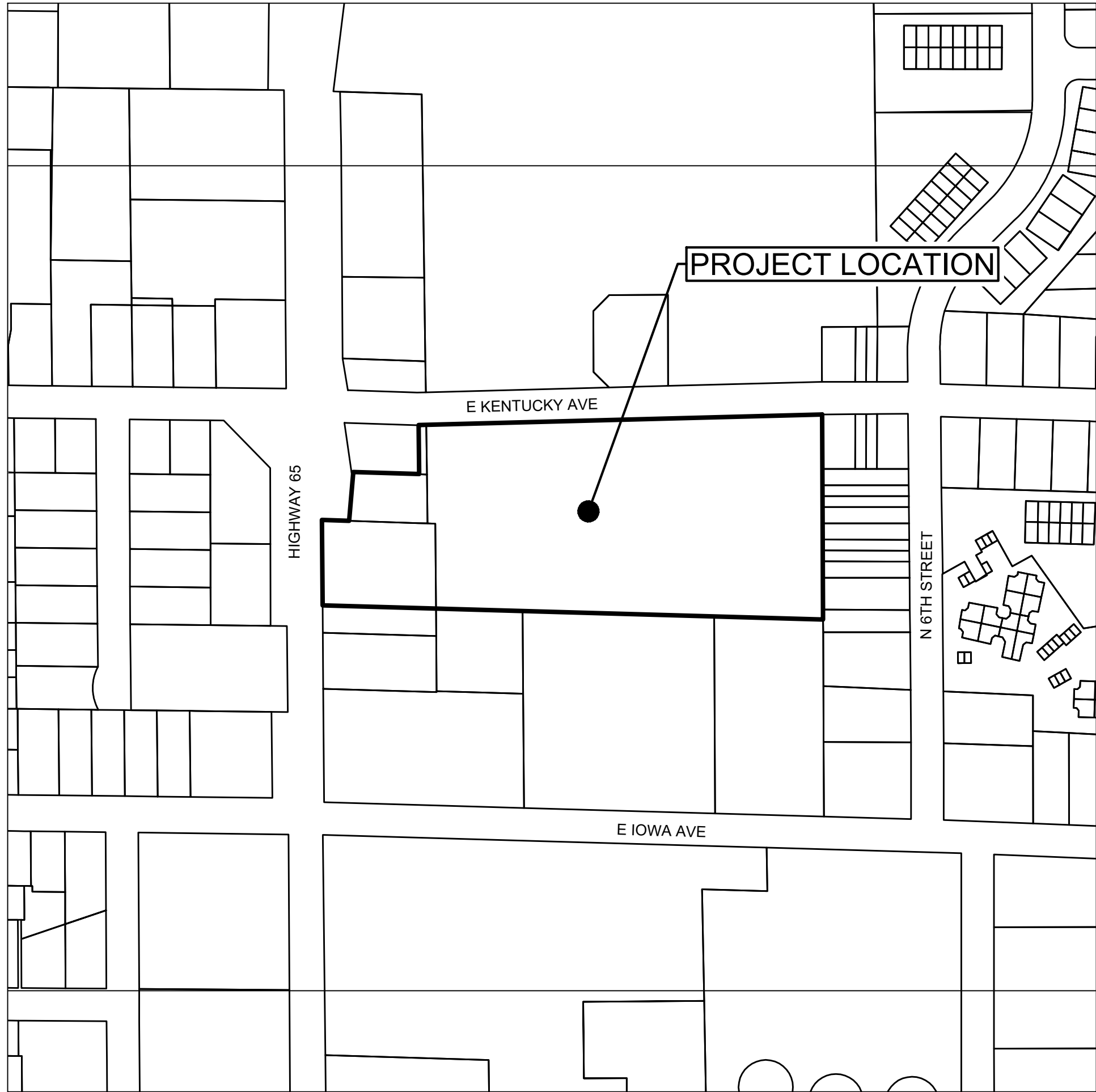
ELEVATIONS

Colored building elevations are included for review. The buildings are proposed to be constructed predominantly of fiber cement lap siding, fiber cement panels, fiber cement accent panels, stone veneer, asphalt shingles and fenestration.

STAFF RECOMMENDATION

The site plan is in general conformance with the Zoning Ordinance, Site Plan Ordinance, and Comprehensive Plan. Staff recommends approval of the preliminary plat and site plan for Kentucky Ridge Townhomes subject to remaining staff comments.

SITE PLAN AND PRELIMINARY PLAT
FOR
KENTUCKY RIDGE TOWNHOMES
CITY OF INDIANOLA, WARREN COUNTY, IOWA



VICINITY MAP

OWNER/APPLICANT
INCEPTION GROUP LLC
209 E SALEM AVE
INDIANOLA, IA, 50125
CONTACT: CODY SINCLAIR
PHONE: (515-238-2877)
CJS.NEWERAHOMES@HOTMAIL.COM

ENGINEER
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BOULEVARD
ANKENY, IOWA 50023
CONTACT: ERIC CANNON, PE
PHONE: (515)964-2020
ECANNON@SNYDER-ASSOCIATES.COM

INDEX OF SHEETS

Sheet Number	Sheet Title
C100	TITLE SHEET
C101	PROJECT INFORMATION
C102	EXISTING SITE SURVEY AND DEMOLITION PLAN
C200	PRELIMINARY PLAT AND OVERALL SITE LAYOUT
C201	HYDRANT COVERAGE PLAN
C300	DIMENSION PLAN
C400	UTILITY PLAN
C401	UTILITY PLAN
C402	STORMTECH DETAILS
C403	STORMTECH DETAILS
C500	GRADING AND EROSION CONTROL PLAN
C501	GRADING PLAN WEST
C502	GRADING PLAN EAST
C503	DETAILED GRADING
C600	PLANTING PLAN
C601	PLANTING DETAILS AND CALCULATIONS
C700	TRAFFIC SIGNAGE PLAN



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.

Eric D. Cannon, P.E. _____ Date _____

License Number P18954

My License Renewal Date is December 31, 2025

Pages or sheets covered by this seal:

C100-C504

KENTUCKY RIDGE TOWNHOMES

TITLE SHEET

INDIANOLA, IA

SNYDER & ASSOCIATES, INC. |

2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com



Project No: 123.0685.01

Sheet C100

3

REVISED AS PER CITY COMMENTS

9-25-24

JWM

2

REVISED AS PER OWNER

8-13-24

JWM

1

REVISED AS PER CITY COMMENTS

8-6-24

JWM

MARK

REVISION

DATE

BY

Engineer: EDC

Checked By: JAL

Scale: 1" = 200'

Technician: JWM

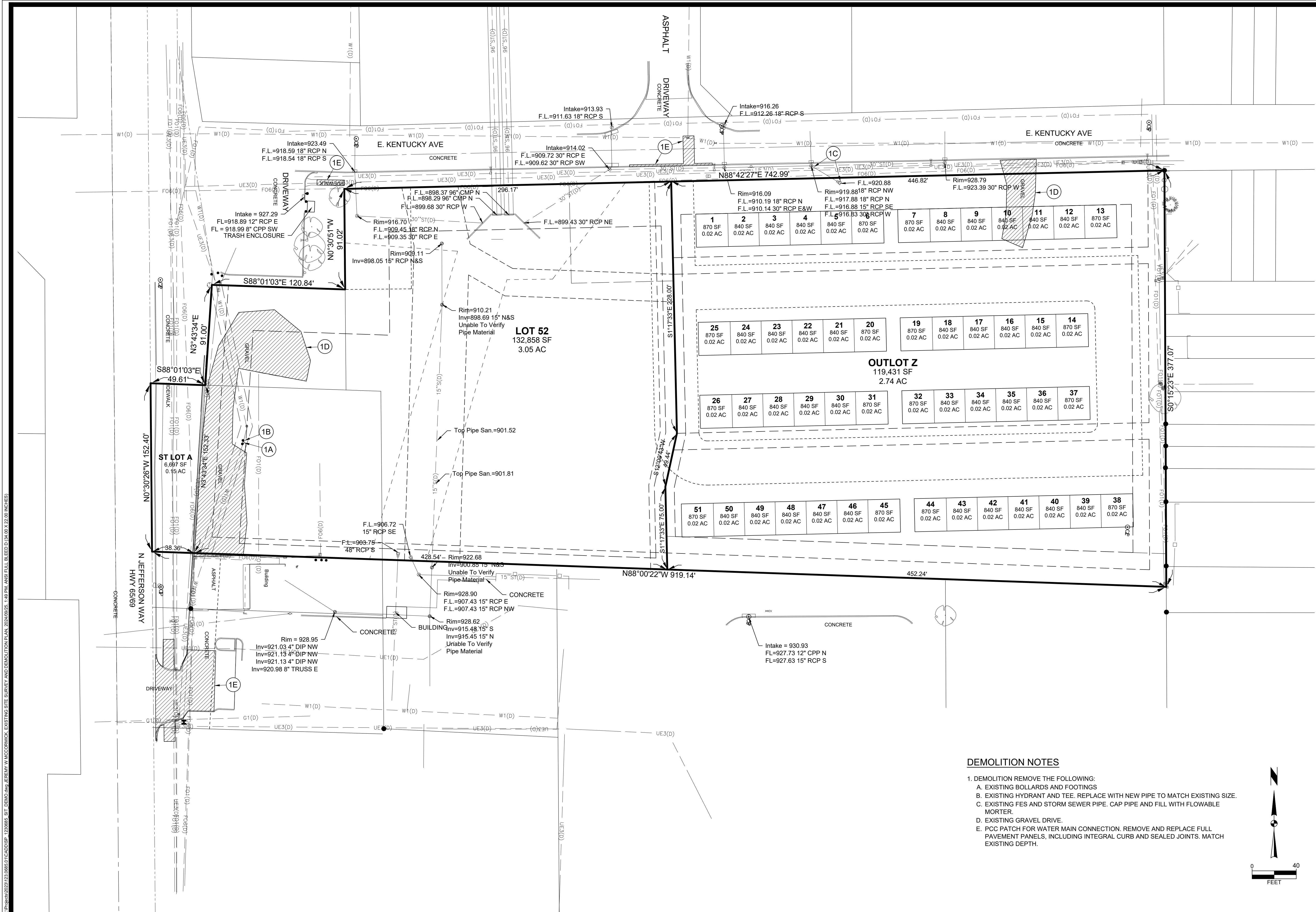
Date: 7-18-24

T-R-S: TTN-RRW-SS

Project No: 123.0685.01

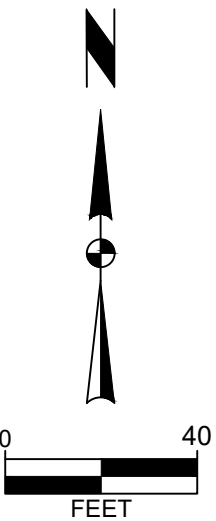
Sheet C100

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DEMOLITION NOTES

- DEMOLITION REMOVE THE FOLLOWING:
 - EXISTING BOLLARDS AND FOOTINGS
 - EXISTING HYDRANT AND TEE. REPLACE WITH NEW PIPE TO MATCH EXISTING SIZE.
 - EXISTING FES AND STORM SEWER PIPE. CAP PIPE AND FILL WITH FLOWABLE MORTAR.
 - EXISTING GRAVEL DRIVE.
 - PCC PATCH FOR WATER MAIN CONNECTION. REMOVE AND REPLACE FULL PAVEMENT PANELS, INCLUDING INTEGRAL CURB AND SEALED JOINTS. MATCH EXISTING DEPTH.



KENTUCKY RIDGE TOWNHOMES

EXISTING SITE SURVEY AND DEMOLITION PLAN

INDIANOLA, IA

SNYDER & ASSOCIATES, INC. |



Project No: 123.0685.01

Sheet C102

2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-364-2020 | www.snyder-associates.com

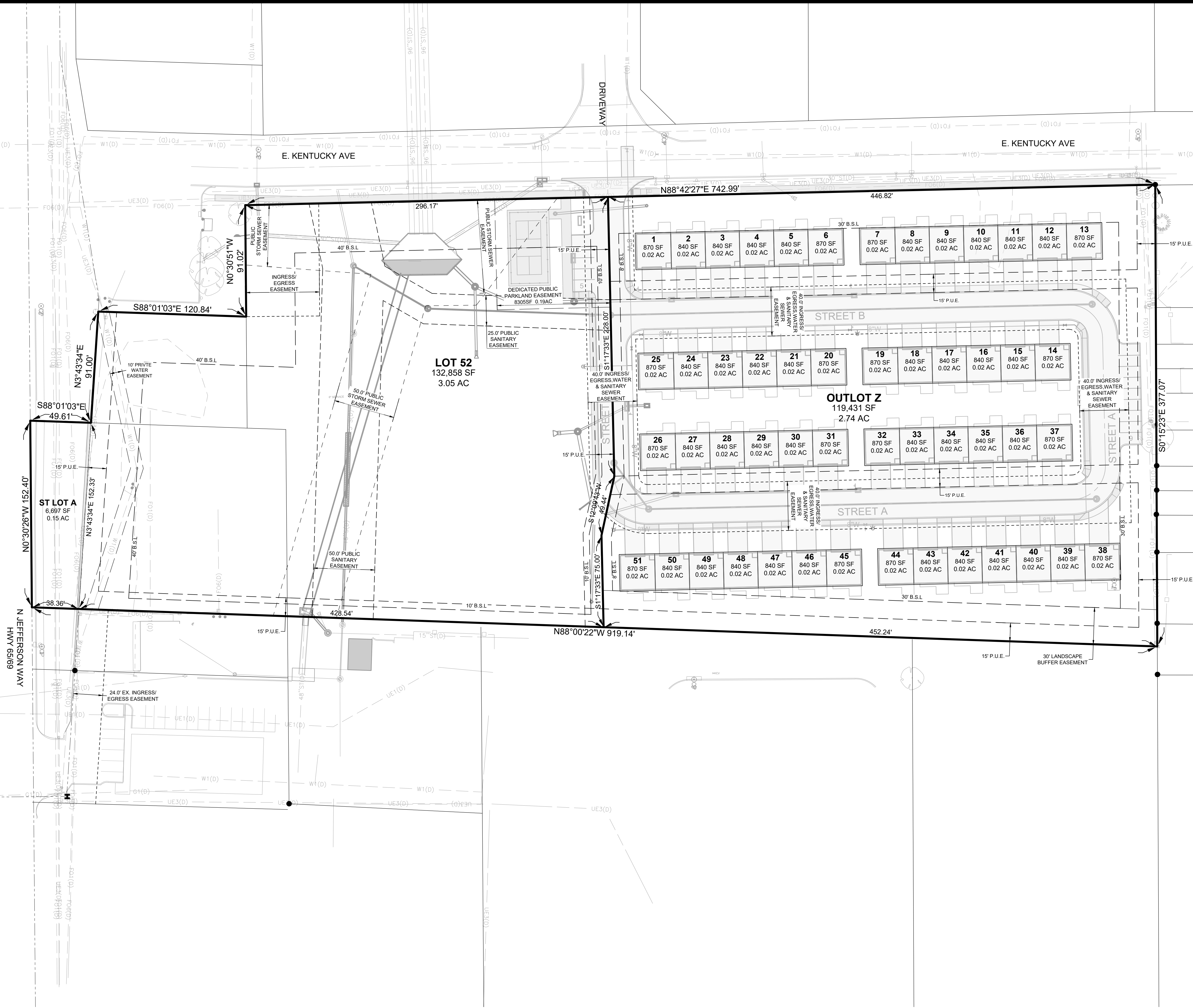
REVISION	DATE	BY	REVISION	DATE	BY
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2	8-13-24	JWM	REVISED AS PER OWNER		
1	8-6-24	JWM	REVISED AS PER CITY COMMENTS		

Engineer: EDC
Checked By: JAL
Technician: JWM
Date: 7-18-24
Scale: 1" = 40'
T-R-S: TTN-RRW-SS

Project No: 123.0685.01

Sheet C102

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KENTUCKY RIDGE TOWNHOMES

PRELIMINARY PLAT AND OVERALL SITE LAYOUT

SNYDER & ASSOCIATES, INC. |



Project No: 123.0685.01

Sheet C200

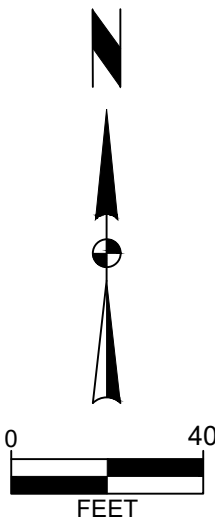
INDIANOLA, IA

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MARK	REVISION	DATE	BY
3	REVISED AS PER CITY COMMENTS	9-25-24	JWM
2	REVISED AS PER OWNER	8-13-24	JWM
1	REVISED AS PER CITY COMMENTS	8-6-24	JWM
Engineer:	EDC	Checked By: JAL	Scale: 1" = 40'
Technician:	JWM	Date: 7-18-24	T-TN-RRW-SS

Project No: 123.0685.01

Sheet C200

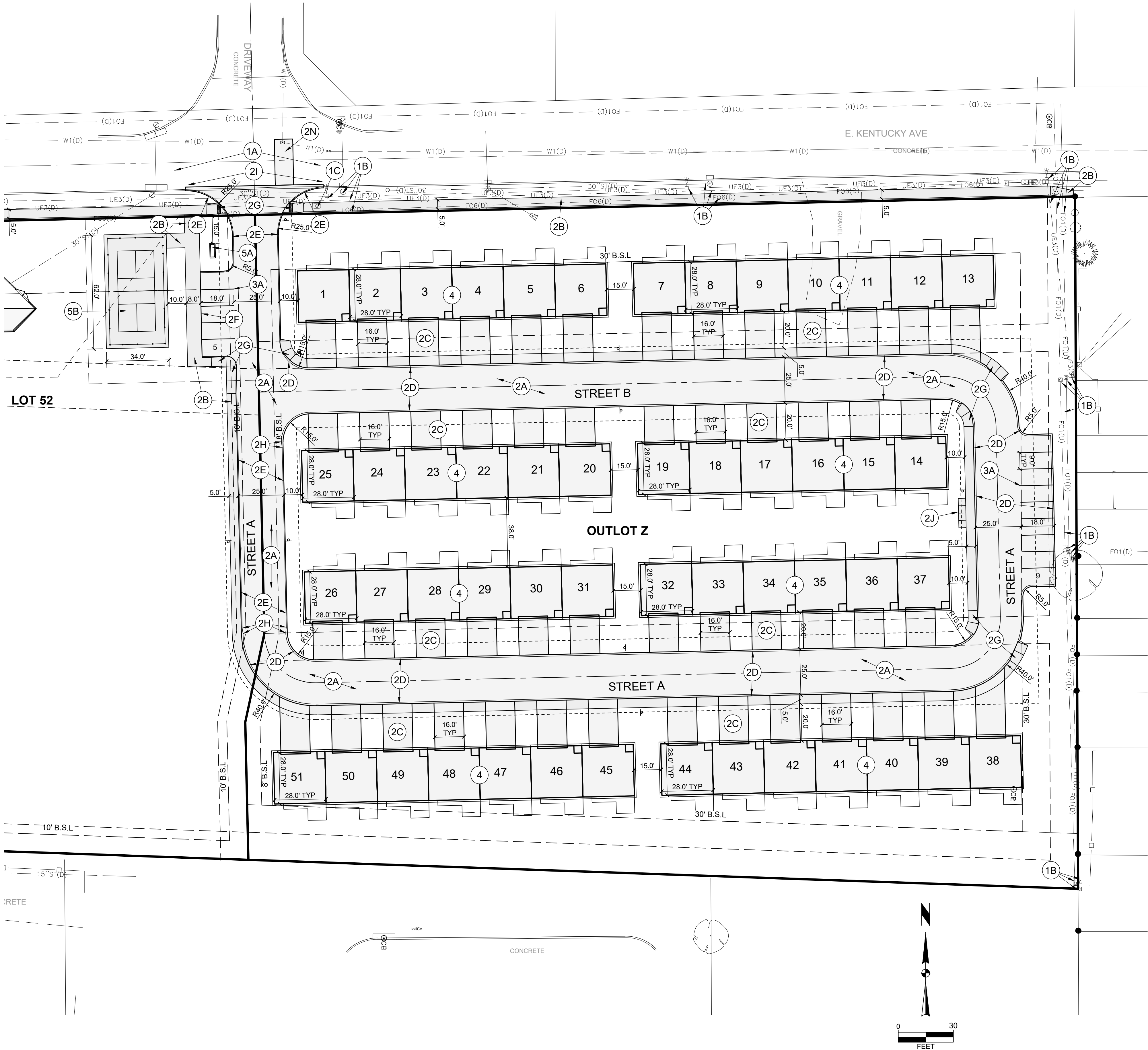


SNYDER & ASSOCIATES, INC.

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515-964-2020 | www.snyder-associates.com

Sheet C201

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GENERAL NOTES

- A. UTILITY WARNING:
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
- B. NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.
- C. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND FEATURES WHICH ARE TO REMAIN. DAMAGE TO EXISTING UTILITIES OR SITE IMPROVEMENTS SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNER'S SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
- D. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT VERIFICATION OF ALL SITE IMPROVEMENTS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONSTRUCT ALL SITE IMPROVEMENTS AND UTILITIES IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 'MUTCD'. ALL PROPOSED SIGNS SHALL CONFORM TO THE 'MUTCD' MANUAL. COORDINATE TRAFFIC CONTROL REQUIREMENTS WITH CITY OF INDIANOLA PUBLIC WORKS DEPARTMENT.
- F. THE CONTRACTOR SHALL LOAD AND TRANSPORT ALL MATERIALS NOT DESIRABLE TO BE INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-SITE WASTE SITE.
- G. SAW-CUT AT TERMINATION TO FULL DEPTH ALL PAVEMENTS TO BE REMOVED TO NEAREST JOINT LINE, INCLUDING INTEGRAL CURB AND SEAL JOINTS.

DIMENSION PLAN CONSTRUCTION NOTES

1. EXISTING FEATURES, PROTECT THE FOLLOWING:
A. PAVEMENTS TO REMAIN.
B. PROTECT EXISTING UTILITIES. ANY DAMAGES TO EXISTING UTILITIES THAT ARE NOT SCHEDULED FOR MODIFICATION OR DEMOLITION SHALL BE REMEDIATED AT THE CONTRACTOR'S EXPENSE WITH THE WORK BEING PERFORMED TO THE UTILITY OWNER'S SPECIFICATIONS.
C. RELOCATE EXISTING UTILITY BOXES. COORDINATE WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION.
D. PROTECT EXISTING RETAINING WALL.
2. PAVEMENTS, PROVIDE THE FOLLOWING:
A. 7" DEPTH PCC PAVEMENT ON 12" SUBGRADE PREPARATION COMPACTED TO 95% STANDARD PROCTOR.
B. 5" DEPTH PCC SIDEWALK ON 6" SUBGRADE PREPARATION COMPACTED TO 95% STANDARD PROCTOR DENSITY.
C. 5" DEPTH PCC DRIVEWAY.
D. 3" PCC ROLL CURB.
E. 6" PCC STANDARD CURB.
F. INTEGRAL CURB AND SIDEWALK.
G. PEDESTRIAN RAMP WITH MAXIMUM SLOPE OF 8.33% WITH TRUNCATED DOMES WHERE SHOWN.
H. TAPER FROM 3" ROLL CURB TO 6" STANDARD CURB.
I. CONNECT TO EXISTING PAVEMENT WITH A SUDAS TYPE "A" CONNECTION (7030.101). MATCH EXISTING ELEVATION.
J. 8" PCC, 4'X16" CLUSTER MAIL BOX PAD. SEE DETAIL ON SHEET C101.
K. TAPER TO NO CURB AND MATCH EXISTING PAVEMENT.
L. PCC TRANSFORMER PAD. COORDINATE WITH UTILITY PROVIDER FOR SIZE AND LOCATION.
M. 4" PCC MEDIAN CAP.
N. PCC PATCH FOR WATER MAIN CONNECTION. REMOVE AND REPLACE FULL PAVEMENT PANELS, INCLUDING INTEGRAL CURB AND SEALED JOINTS. MATCH EXISTING DEPTH.
3. PAVEMENT MARKINGS, PROVIDE THE FOLLOWING:
A. PAINTED PARKING STALL LINE.
B. PAINTED 45° STRIPING AT 3' O.C.
C. PAINTED STATE OF IOWA APPROVED HANDICAP SYMBOL.
4. REFER TO ARCHITECTURAL / BUILDING PLANS FOR DETAILED INFORMATION REGARDING BUILDING AND STRUCTURAL CONSTRUCTION.
5. SITE AMENITIES, PROVIDE THE FOLLOWING:
A. MONUMENT SIGN. REFER TO ARCHITECTURAL PLANS FOR DETAILS. EXACT LOCATION OF THE SIGN IS SUBJECT TO THE CITY OF INDIANOLA'S SIGN CODE REGULATION. SEPARATE PERMIT WILL BE REQUIRED PER CITY OF INDIANOLA.
B. PICKLE BALL COURT.
C. BICYCLE PARKING RACK. SEE DETAIL.
6. SIGNAGE, PROVIDE THE FOLLOWING PER ADAAG REQUIREMENTS:
A. BLUE SIGN WITH VAN ACCESSIBLE HANDICAP SYMBOL. SECURE SIGNS TO 2" SQUARE STEEL CHANNEL POST. SIGN WILL INCLUDE SIGNAGE FOR IMPROPER PARKING FEE.

KENTUCKY RIDGE TOWNHOMES

DIMENSION PLAN

INDIANOLA, IA

SNYDER & ASSOCIATES, INC. |



Project No: 123.0685.01

Sheet C300

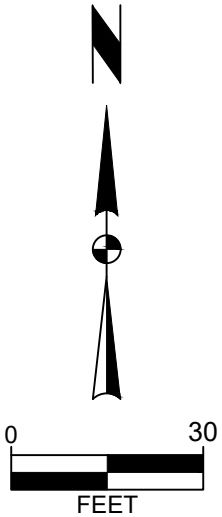
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Project No: 123.0685.01

Sheet C300

MARK	REVISION	DATE	BY
3	REVISED AS PER CITY COMMENTS	9-25-24	JWM
2	REVISED AS PER OWNER	8-13-24	JWM
1	REVISED AS PER CITY COMMENTS	8-6-24	JWM

Engineer: EDC	Checked By: JAL	Scale: 1" = 30'
Technician: JWM	Date: 7-18-24	T-R-S: TTN-RRW-SS



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

B. NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.

C. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND FEATURES WHICH ARE TO REMAIN. DAMAGE TO EXISTING UTILITIES OR SITE IMPROVEMENTS SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNER'S SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

D. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT VERIFICATION OF ALL SITE IMPROVEMENTS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONSTRUCT ALL SITE IMPROVEMENTS AND UTILITIES IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.

E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 'MUTCD'. ALL PROPOSED SIGNS SHALL CONFORM TO THE 'MUTCD' MANUAL. COORDINATE TRAFFIC CONTROL REQUIREMENTS WITH CITY OF INDIANOLA PUBLIC WORKS DEPARTMENT.

F. THE CONTRACTOR SHALL LOAD AND TRANSPORT ALL MATERIALS NOT DESIRABLE TO BE INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-SITE WASTE SITE.

G. SAW-CUT AT TERMINATION TO FULL DEPTH ALL PAVEMENTS TO BE REMOVED.

1. EXISTING FEATURES, PROTECT THE FOLLOWING:
 - A. PROTECT EXISTING UTILITIES. ANY DAMAGES TO EXISTING UTILITIES THAT ARE NOT SCHEDULED FOR MODIFICATION OR DEMOLITION SHALL BE REMEDIATED AT THE CONTRACTOR'S EXPENSE WITH THE WORK BEING PERFORMED TO THE UTILITY OWNER'S SPECIFICATIONS.
 - B. RELOCATE EXISTING UTILITY BOXES. COORDINATE WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION.
2. COORDINATE ELECTRICAL SERVICES WITH PROVIDER PRIOR TO CONSTRUCTION.
3. COORDINATE GAS, TELEPHONE AND CABLE SERVICES WITH PROVIDERS PRIOR TO CONSTRUCTION.
4. GAS SERVICE AND METER. COORDINATE LOCATION AND INSTALLATION WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION. COORDINATE WITH ARCHITECTURAL PLANS.
5. WATER SERVICES, PROVIDE THE FOLLOWING:
 - A. HYDRANT ASSEMBLY.
 - B. 8" PUBLIC WATER MAIN. SEE PUBLIC IMPROVEMENT PLANS FOR DETAILS.
 - C. 8" WATER SERVICE. PROVIDE TRACER WIRE IF PLASTIC WATER SERVICE IS INSTALLED.
 - D. 1" PRIVATE WATER SERVICE LINE WITH CURB STOP.
 - E. CONNECT TO EXISTING WATER MAIN WITH TAPPING VALVE AND SLEEVE.
6. SANITARY SEWER SERVICES. PROVIDE THE FOLLOWING:
 - A. CONNECT TO EXISTING 8" SANITARY SEWER WYE CONNECTION. VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. USE 45° BENDS AS NEEDED TO ACHIEVE DESIGN FLOWLINE ELEVATION AT BUILDING.
 - B. 6" SANITARY SEWER SERVICE LINE AT 1.0% MINIMUM SLOPE ($\frac{1}{8}$ " PER FOOT). PROVIDE 1:1 RISER AS NECESSARY TO ACHIEVE DESIGN ELEVATION.
 - C. SANITARY CLEANOUT (SUDAS TYPE SW-203).
 - D. 4" PRIVATE SANITARY SEWER SERVICE LINE.

3	REVISED AS PER CITY COMMENTS	9-25-24	JWM
2	REVISED AS PER OWNER	8-13-24	JWM
	REVISED AS PER CITY COMMENTS	8-4-24	JWM
MARK	REVISION	DATE	BY
Engineer:	EDC	Checked By: JAL	Scale: 1" = 30'
Technician:	JWM	Date: 7-18-24	T-R-S: TTN-RRW-SS
Project No: 123.0685.01			Sheet C400

INDIANOLA, IA

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ANKENY, IOWA 50023
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KENTUCKY RIDGE TOWNHOMES

UTILITY PLAN

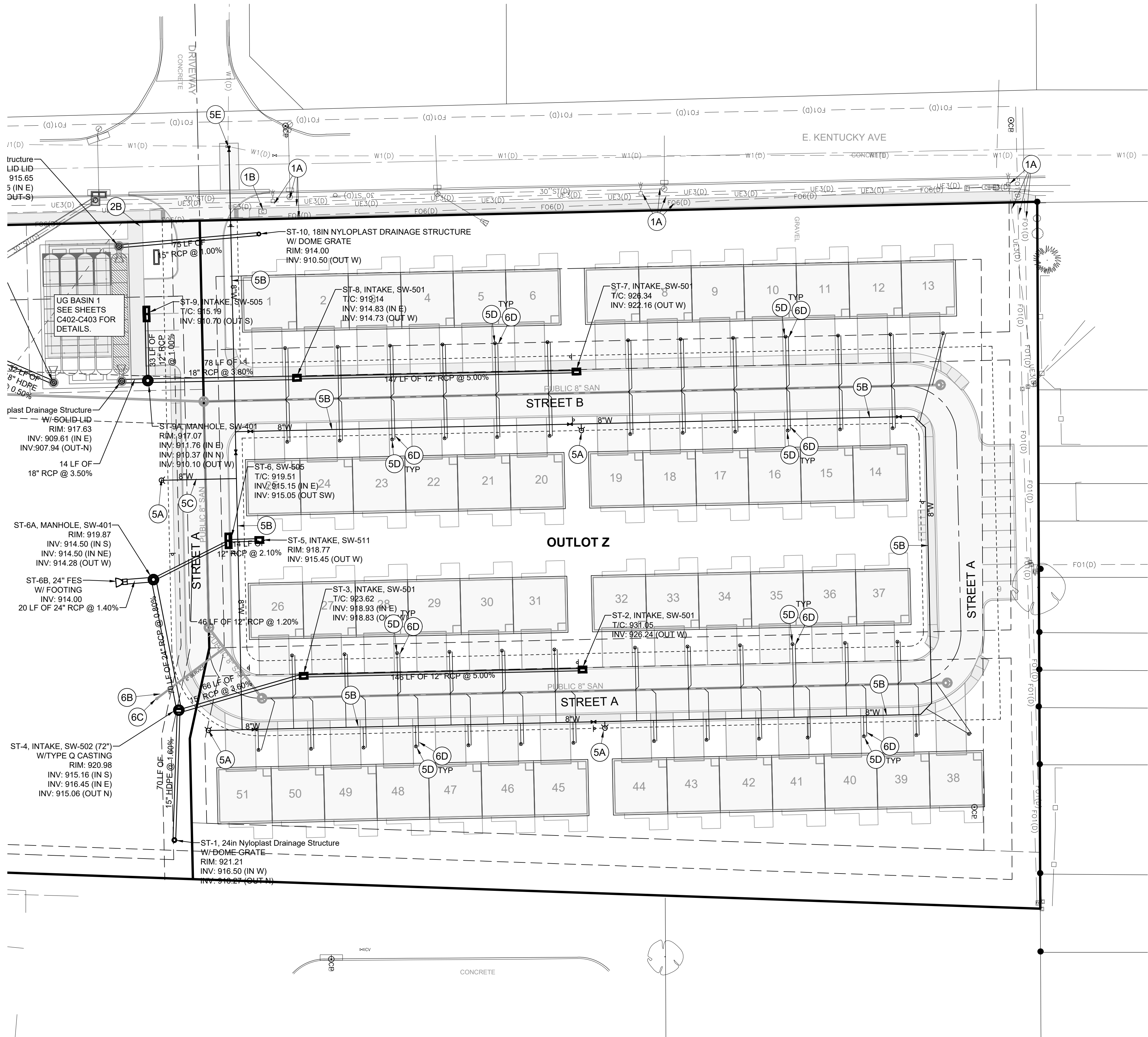
SNYDER & ASSOCIATES, INC.



Project No: 123.0685.01

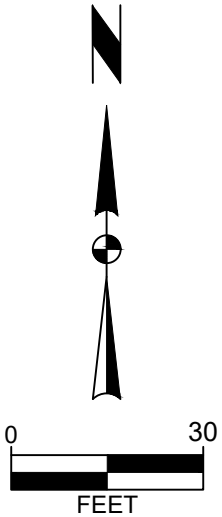
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V:\Projects\2023\123.0685.01\CD\DISP - 1230685_UPL.dwg JEREMY W MCCORMACK UTILITY PLAN 2024/09/25 1:29 PM ANSI FULL BLEED D (34.00 X 22.00 INCHES)



- GENERAL NOTES**
- A. UTILITY WARNING:
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
- B. NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.
- C. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND FEATURES WHICH ARE TO REMAIN. DAMAGE TO EXISTING UTILITIES OR SITE IMPROVEMENTS SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNER'S SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
- D. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT VERIFICATION OF ALL SITE IMPROVEMENTS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONSTRUCT ALL SITE IMPROVEMENTS AND UTILITIES IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 'MUTCD'. ALL PROPOSED SIGNS SHALL CONFORM TO THE 'MUTCD' MANUAL. COORDINATE TRAFFIC CONTROL REQUIREMENTS WITH CITY OF INDIANOLA PUBLIC WORKS DEPARTMENT.
- F. THE CONTRACTOR SHALL LOAD AND TRANSPORT ALL MATERIALS NOT DESIRABLE TO BE INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-SITE WASTE SITE.
- G. SAW-CUT AT TERMINATION TO FULL DEPTH ALL PAVEMENTS TO BE REMOVED.

- UTILITY PLAN CONSTRUCTION NOTES**
1. EXISTING FEATURES, PROTECT THE FOLLOWING:
A. PROTECT EXISTING UTILITIES ANY DAMAGES TO EXISTING UTILITIES THAT ARE NOT SCHEDULED FOR MODIFICATION OR DEMOLITION SHALL BE REMEDIATED AT THE CONTRACTOR'S EXPENSE WITH THE WORK BEING PERFORMED TO THE UTILITY OWNER'S SPECIFICATIONS.
B. RELOCATE EXISTING UTILITY BOXES. COORDINATE WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION.
2. COORDINATE ELECTRICAL SERVICES WITH PROVIDER PRIOR TO CONSTRUCTION.
3. COORDINATE GAS, TELEPHONE AND CABLE SERVICES WITH PROVIDERS PRIOR TO CONSTRUCTION.
4. GAS SERVICE AND METER. COORDINATE LOCATION AND INSTALLATION WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION. COORDINATE WITH ARCHITECTURAL PLANS.
5. WATER SERVICES, PROVIDE THE FOLLOWING:
A. HYDRANT ASSEMBLY.
B. 8" PUBLIC WATER MAIN. SEE PUBLIC IMPROVEMENT PLANS FOR DETAILS.
C. 8" WATER SERVICE. PROVIDE TRACER WIRE IF PLASTIC WATER SERVICE IS INSTALLED.
D. 1" PRIVATE WATER SERVICE LINE WITH CURB STOP.
E. CONNECT TO EXISTING WATER MAIN WITH TAPPING VALVE AND SLEEVE.
6. SANITARY SEWER SERVICES, PROVIDE THE FOLLOWING:
A. CONNECT TO EXISTING 8" SANITARY SEWER WYE CONNECTION. VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. USE 45° BENDS AS NEEDED TO ACHIEVE DESIGN FLOWLINE ELEVATION AT BUILDING.
B. 6" SANITARY SEWER SERVICE LINE AT 1.0% MINIMUM SLOPE (1/8" PER FOOT). PROVIDE 1:1 RISER AS NECESSARY TO ACHIEVE DESIGN ELEVATION.
C. SANITARY CLEANOUT (SUDAS TYPE SW-203).
D. 4" PRIVATE SANITARY SEWER SERVICE LINE.



KENTUCKY RIDGE TOWNHOMES

UTILITY PLAN



Project No: 123.0685.01

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REVISION	DATE	BY	REVISION
3	9-25-24	JWM	REVISED AS PER CITY COMMENTS
2	8-13-24	JWM	REVISED AS PER OWNER
1	8-6-24	JWM	REVISED AS PER CITY COMMENTS
MARK	DATE	BY	REVISION
Engineer: EDC	Checked By: JAL	Scale: 1" = 30'	
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UTILITY PLAN



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PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	



Advanced Drainage Systems, Inc.



SiteAssistSM

FOR STORMTECH
INSTALLATION INSTRUCTIONS
VISIT OUR APP



KENTUCKY RIDGE TH

INDIANOLA, IA, USA

MC-7200 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-7200.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2414, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2387, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WEIGHT OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STRUCKING LIPS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 1".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, (a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LB/FT³, THE ASD IS DEFINED IN SECTION 6.2.5 OF ASTM F2418, AND (b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2387 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREDIBILITY AS SPECIFIED IN ASTM F418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
- MANHOLE SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANHOLE SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANHOLE COMPONENTS IN THE FIELD.
- ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-7200 CHAMBER SYSTEM

- STORMTECH MC-7200 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-7200 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-7200 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR EXCAVATOR SITUATED OVER THE CHAMBERS.
 - STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - STONESHOOTER AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANHOLE MOUNDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE; AASHTO M33, 357, 4, 467, 5, 56, OR S7.
- STONE SHALL BE BROUGHT UP EVENLY AROUND CHAMBERS SO AS NOT TO DISTORT THE CHAMBER SHAPE. STONE DEPTHS SHOULD NEVER DIFFER BY MORE THAN 12" (300 mm) BETWEEN ADJACENT CHAMBER ROWS.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIAL BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH MC-7200 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-7200 CONSTRUCTION GUIDE".
- THE USE OF EQUIPMENT OVER MC-7200 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BASE CHAMBERS
 - NO RUBBER Tired LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3000-7200 CONSTRUCTION GUIDE"
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-7200 CONSTRUCTION GUIDE".
- FULL 30" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-800-821-6710 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

8/2024 ADS, INC.

PROPOSED LAYOUT		PROPOSED ELEVATIONS:		PART TYPE		ITEM ON LAYOUT		DESCRIPTION		*INVERT ABOVE BASE OF CHAMBER	
										INVERT	MAX FLOW
45	STORMTECH MC-7200 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED):	916.75		A	18" BOTTOM PARTIAL CUT END CAP, PART# MC7200EP18B / TYP OF ALL 18" BOTTOM CONNECTIONS				1.97'	
10	STORMTECH MC-7200 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	917.25		B	24" BOTTOM PARTIAL CUT END CAP, PART# MC7200EPP24B / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS				2.26'	
12	STONE ADO (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	917.75		C	INSTALL FLAMP ON 24" ACCESS PIPE / PART# MCLFLAMP (TYP 2 PLACES)					
17	STONE ADO (in)	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	918.75		D	18" x 18" BOTTOM MANIFOLD, ADS N-12					
40	STONE ADO		919.75		E	18" x 18" BOTTOM MANIFOLD, ADS N-12					
14419	RETAILED SYSTEM VOLUME (CFS) (PERMETER STONE INCLUDED) (COVER STONE INCLUDED)	TOP OF MC-7200 CHAMBER	909.94		F	18" BOTTOM CONNECTION					
		ISOLATOR ROW PLUS INVERT:	904.94		G	2x25 DESIGN BY ENGINEER / PROVIDED BY OTHERS					
3493	SYSTEM AREA (SF)	18" x 18" BOTTOM MANIFOLD INVERT:	904.91		H	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)					
2424	SYSTEM PERIMETER (ft)	18" x 18" BOTTOM CONNECTION INVERT:	904.91		I	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)					
		TOP OF MC-7200 CHAMBER:	904.78		J	R" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN					
		UNDERDRAIN INVERT:	904.00								
		BOTTOM OF STONE:	904.00								

LEGEND:

- [Hatched Pattern] ISOLATOR ROW PLUS (SEE DETAILS)
- [Cross-hatched Pattern] PLACE MINIMUM 17.5% OF ADSPLUS125 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS
- [Blue Line] BED LIMITS

NOTES:

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- NOT FOR CONSTRUCTION. THIS LAYOUT IS FOR PRELIMINARY PURPOSES ONLY. TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

KENTUCKY / RIDE TH

INDIANA, IA, USA

DATE: 09/24/2024

DRAWN: JVA

CHECKED: JVA

DESIGNED: JVA

PROJECT: STORMTECH CHAMBER SYSTEM

SCALE: 1" = 10'-0"

SHEET: 2 OF 2

ACCEPTABLE FILL MATERIALS: STORMTECH MC-7200 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBASEMENT STONE (B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOLID AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER	AASHTO M145 ¹ A-1, A-2.4, A-3 OR AASHTO M43 ² 3, 357, 4, 467, 5, 56, 57, 61, 67, 68, 7, 78, 8, 89, 9, 10
B	EMBASEMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A' LAYER) TO THE 'C' LAYER ABOVE	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE ³	AASHTO M43 ² 3, 357, 4, 467, 5, 56, 57
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE ³	AASHTO M43 ² 3, 357, 4, 467, 5, 56, 57

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADUATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 8" (200 mm) MAX LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY PLACEMENT, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITH COMPACTOR EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOLI/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOLS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
- WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".

PAVEMENT LAYER (DESIGNED BY SITE DESIGN ENGINEER)

AD5 GEOSYNTHETICS 6011 NO-NAIL-OWN GEOTEXTILE ALL AROUND CLEAN, CRUSHED, ANGULAR STONE IN A & B LAYERS

PERMETER STONE (SEE NOTE 4)

EXCAVATION WALL (CAN BE SLOPED OR VERTICAL)

MC-7200 END CAP

SUBGRADE SOILS (SEE NOTE 3)

TO BOTTOM OF FLEXIBLE PAVEMENT, FOR LAMPARD, INITIALLY 12" (300 mm) MIN. MAY VARY, INCREASE COVER TO 30" (760 mm)

12" (300 mm) MIN

24" (600 mm) MIN

7" (21 mm) MAX

60" (1525 mm)

9" (230 mm) MIN (SEE NOTE 3)

12" (300 mm) MIN

100" (2540 mm)

9" (230 mm) MIN

12" (300 mm) MIN

***THIS CROSS SECTION DETAIL REPRESENTS MINIMUM REQUIREMENTS FOR INSTALLATION. PLEASE SEE THE LAYOUT SHEET(S) FOR PROJECT SPECIFIC REQUIREMENTS.

NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-7200 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F278 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
- PERMETER STONE MUST BE INSTALLED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING SHADING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 1".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 (LB/FT²). THE ASD IS DEFINED IN SECTION 4.2.8 OF ASTM F2418, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

COVER PIPE CONNECTION TO END CAP WITH ADS GEOSYNTHETICS 6011 NON-WOVEN GEOTEXTILE

STORMTECH HIGHLY RECOMMENDS FLEXSTORM INSERTS IN ANY UPSTREAM STRUCTURES WITH OPEN GRATES

INSTALL FLANGE ON 24" (600 mm) ACCESS PIPE PART #: MCFLAMP

MC-7200 CHAMBER

OPTIONAL INSPECTION PORT

MC-7200 END CAP

24" (600 mm) MIN. ACCESS PIPE REQUIRED USE FACTORY PARTIAL CUT END CAP PART #: MC7200EPH24B OR MC7200EPH24BW

ONE LAYER OF ADSPLUS125 WOVEN GEOTEXTILE BETWEEN FOUNDATION STONE AND CHAMBERS 10.3' (3.1 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS

SUMP DEPTH TBD BY SITE DESIGN ENGINEER (24" (600 mm) MIN. RECOMMENDED)

MC-7200 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT

- INSPECTION PORTS (IF PRESENT)
 - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- ALL ISOLATOR PLUS ROWS
 - REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - MIRRORS OR POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS

- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLOW WATER IS CLEAN
- VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION, ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

KENTUCKY RIDGE TH INDIANOLA, IA, USA DATE: 09/26/2024 PROJECT #: DRAWN: LW CHECKED: JWA		DESCRIPTION: PROJECT #: DATE: 09/26/2024 DRAWN: LW CHECKED: JWA	
4640 TRUMAN BLVD HILLIARD, OH 43026 (614) 891-7571 ADS		StormTech® Channel System Website: www.stormtech.com Project #: Date: 09/26/2024 Drawn: LW Checked: JWA	
SHEET 4 OF 2		PROJECT DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO DATE. IT IS THE USER'S RESPONSIBILITY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.	

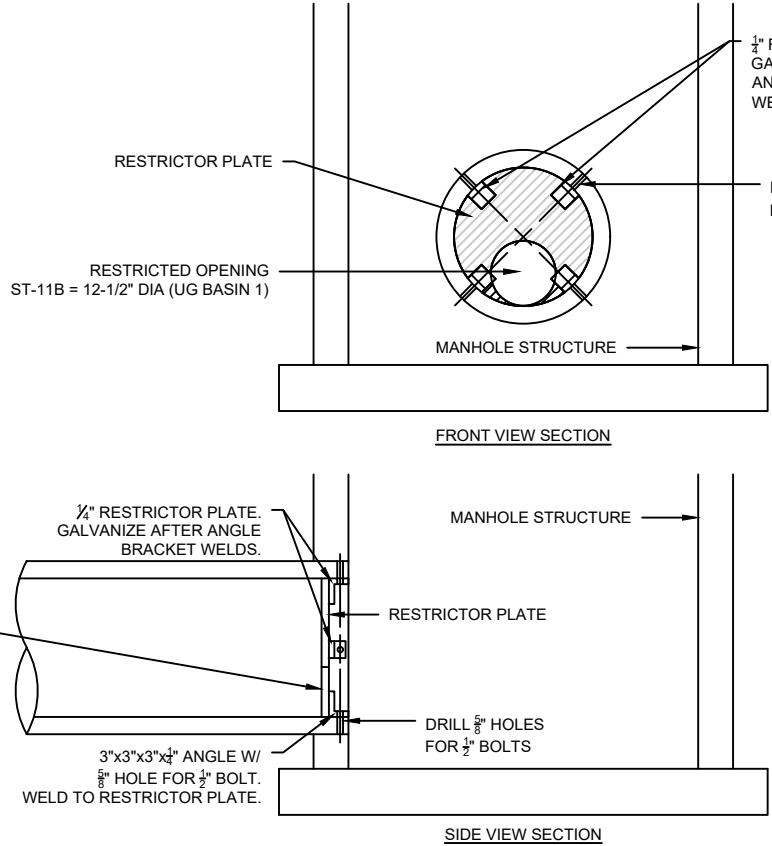
V:\Projects\2023\123.0685.01\CADD\SP - 123.0685.01.dwg, JEREMY W MCCORMACK, STORMTECH DETAILS, 2024/09/25, 1:50 PM, ANS ELLI, BLEED D (34.00 X 22.0) INCHES.

1

C403

CIRCULAR RESTRICTION PLATE DETAIL (ST-11B)

NO SCALE

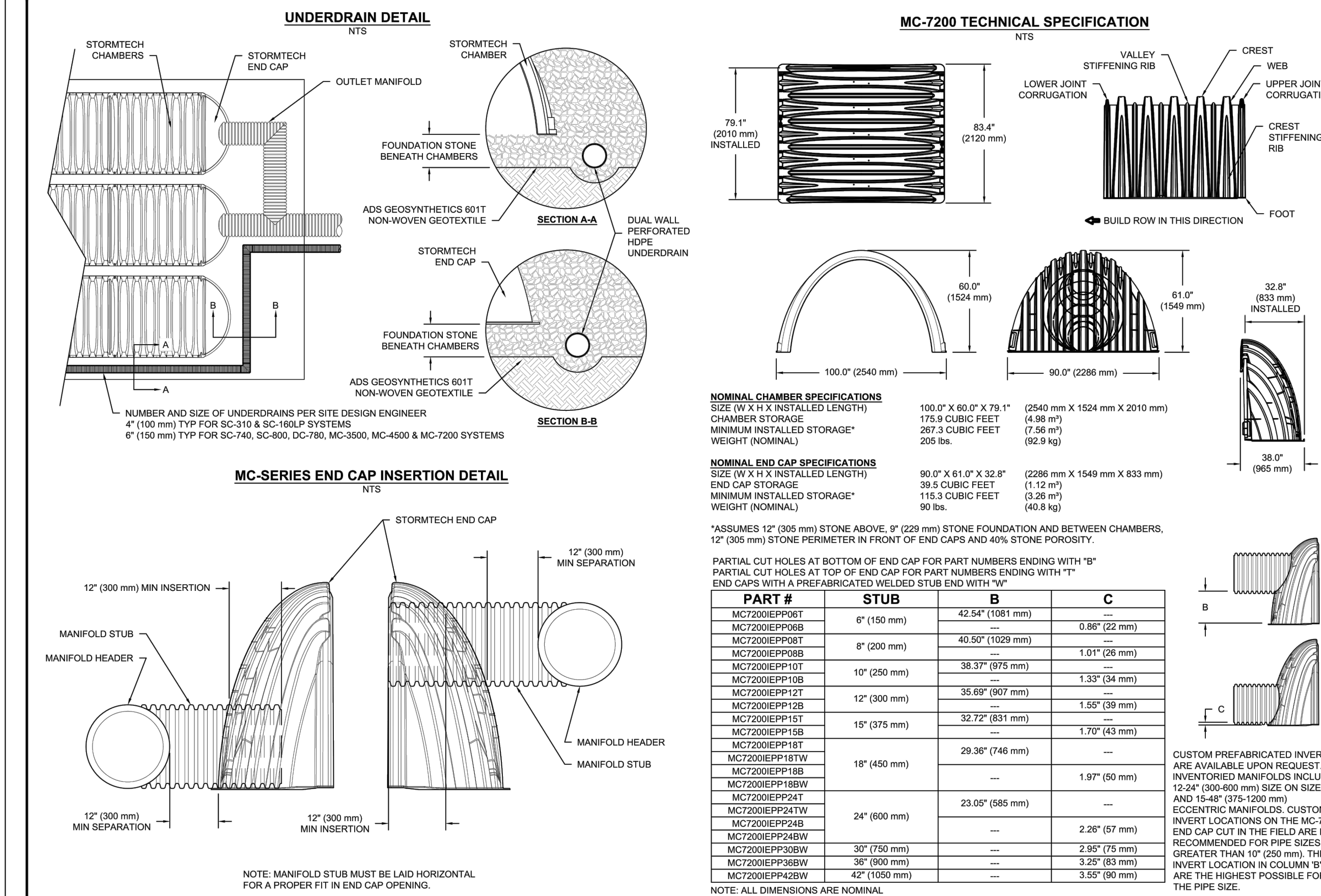
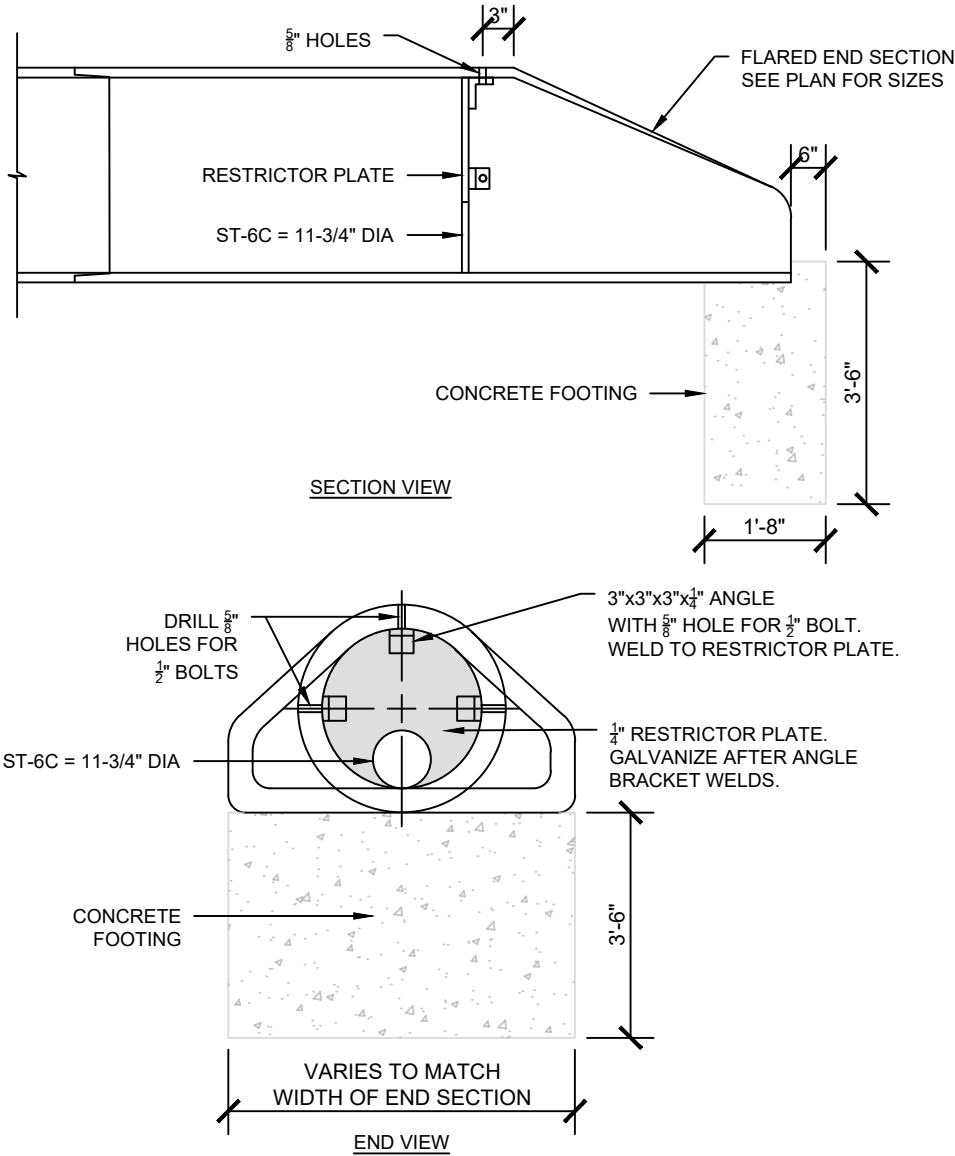


2

C403

FLARED END SECTION CIRCULAR RESTRICTOR PLATE (ST-6C)

NO SCALE



MC-7200 TECHNICAL SPECIFICATION

NTS

NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)
CHAMBER STORAGE
MINIMUM INSTALLED STORAGE*
WEIGHT (NOMINAL)

100.0\" X 80.0\" X 79.1\"
175.9 CUBIC FEET
39.5 CUBIC FEET
205 LBS.

(2540 mm X 1524 mm X 2010 mm)
(4.98 m³)
(7.56 m³)
(92.9 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)
END CAP STORAGE
MINIMUM INSTALLED STORAGE*
WEIGHT (NOMINAL)

90.0\" X 61.0\" X 32.8\"
39.5 CUBIC FEET
115.3 CUBIC FEET
90 LBS.

(2286 mm X 1549 mm X 833 mm)
(1.12 m³)
(3.26 m³)
(40.8 kg)

*ASSUMES 12\" (305 mm) STONE ABOVE, 9\" (229 mm) STONE FOUNDATION AND CHAMBER, 12\" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

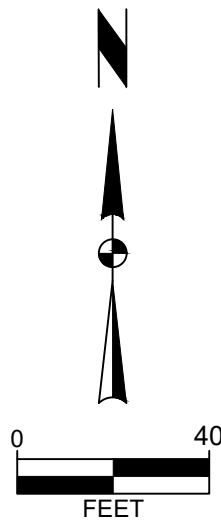
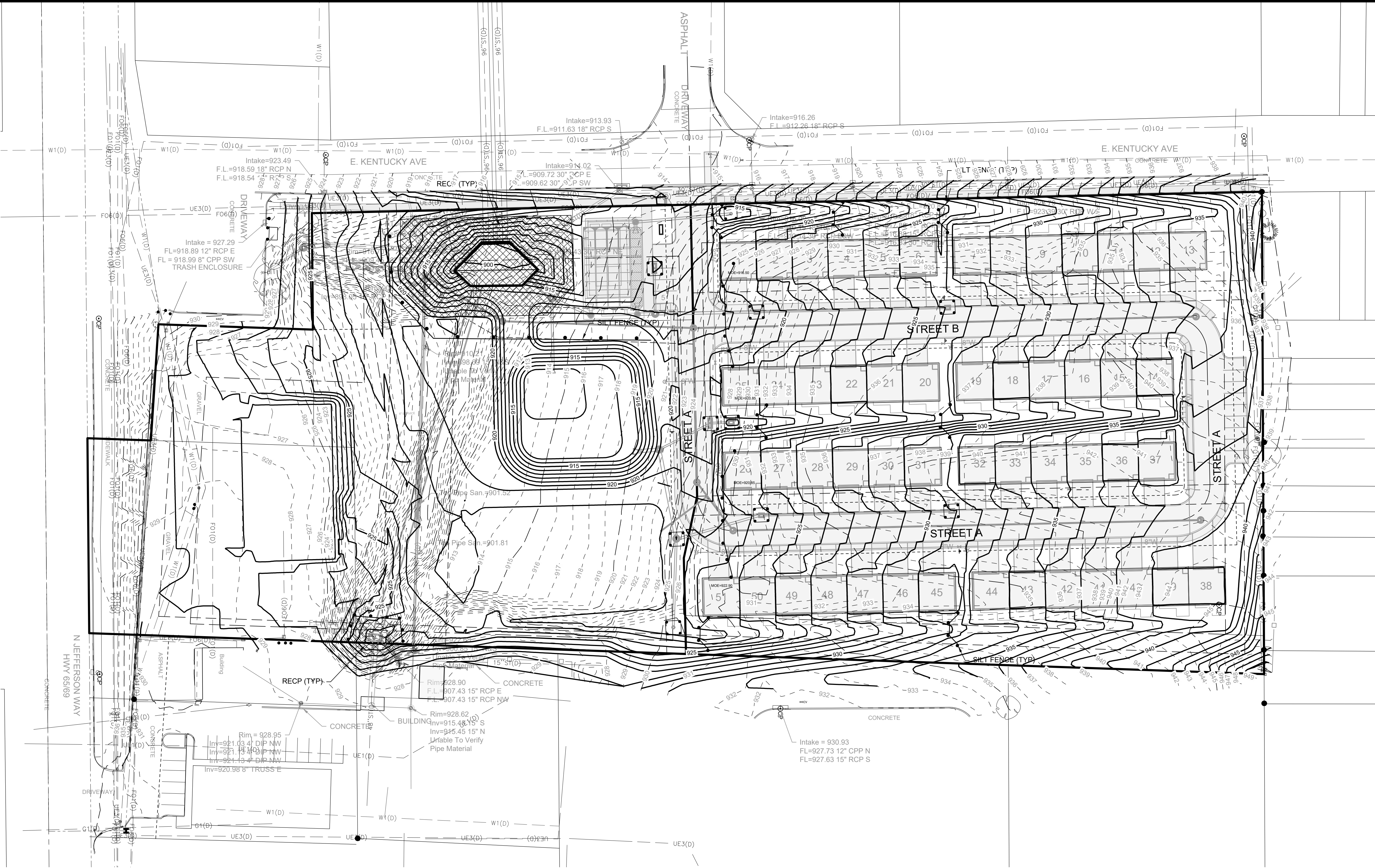
PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH \"B\"
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH \"T\"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH \"W\"

PART #	STUB	B	C
MC7200EP08T	6\" (150 mm)	42.54\" (1081 mm)	—
MC7200EP08WB	—	—	0.86\" (22 mm)
MC7200EP08BT	8\" (200 mm)	40.50\" (1029 mm)	1.01\" (26 mm)
MC7200EP08WB	—	—	—
MC7200EP10T	10\" (250 mm)	38.37\" (975 mm)	1.33\" (34 mm)
MC7200EP12T	12\" (300 mm)	35.69\" (907 mm)	1.33\" (34 mm)
MC7200EP10WB	—	—	1.55\" (39 mm)
MC7200EP15T	15\" (375 mm)	32.72\" (831 mm)	—
MC7200EP15WB	—	—	1.70\" (43 mm)
MC7200EP15T	—	—	—
MC7200EP18TW	18\" (450 mm)	29.30\" (746 mm)	—
MC7200EP18WB	—	—	1.97\" (50 mm)
MC7200EP18WB	—	—	—
MC7200EP24TW	24\" (600 mm)	23.05\" (585 mm)	—
MC7200EP24WB	—	—	2.26\" (57 mm)
MC7200EP24WB	—	—	—
MC7200EP30WB	30\" (750 mm)	—	2.95\" (75 mm)
MC7200EP36WB	36\" (900 mm)	—	3.55\" (90 mm)
MC7200EP42WB	42\" (1050 mm)	—	3.55\" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL.

CUSTOM PREFABRICATED INVERTS ARE AVAILABLE UPON REQUEST. INVERTED MANIFOLDS LOCATED 12-24\" (300-600 mm) SIZE ON TOP OF MC-7200 CHAMBER. INVERTS ARE AVAILABLE FOR ECCENTRIC MANIFOLDS. CUSTOMER INVERT LOCATIONS ON THE MC-7200 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 12\" (305 mm). INVERT LOCATION IN COLUMN \"B\" ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

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Project No: 123.0685.01

Sheet C500

KENTUCKY RIDGE TOWNHOMES

GRADING AND EROSION CONTROL PLAN

SNYDER & ASSOCIATES, INC. |

INDIANOLA, IA

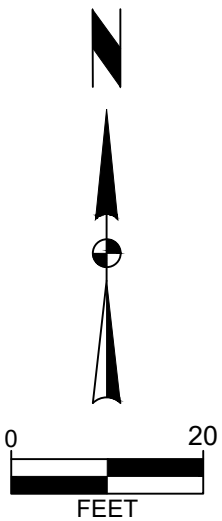
2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-364-2020 | www.snyder-associates.com

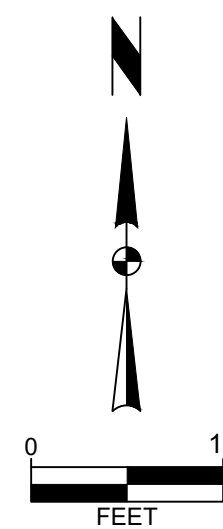
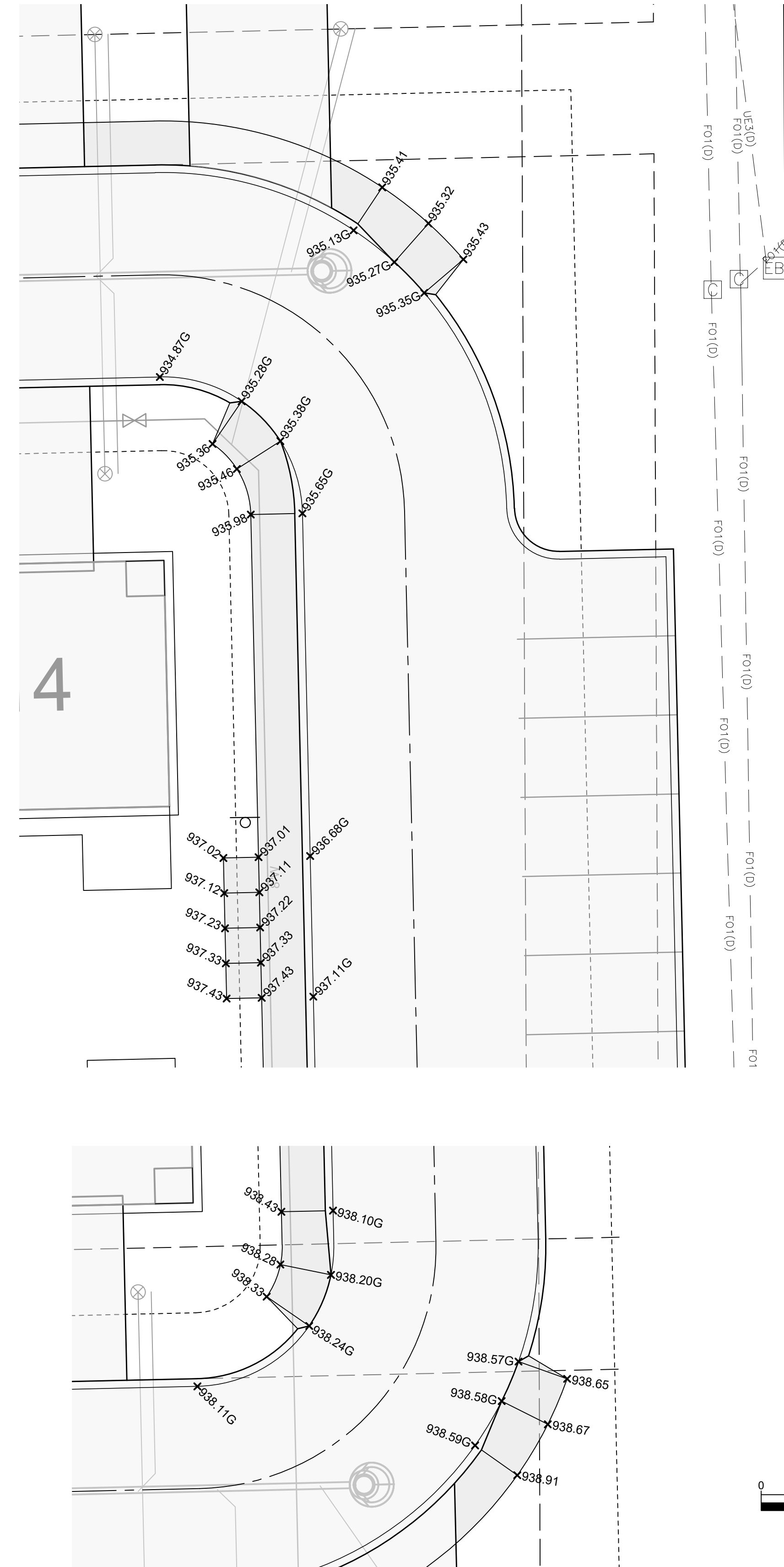
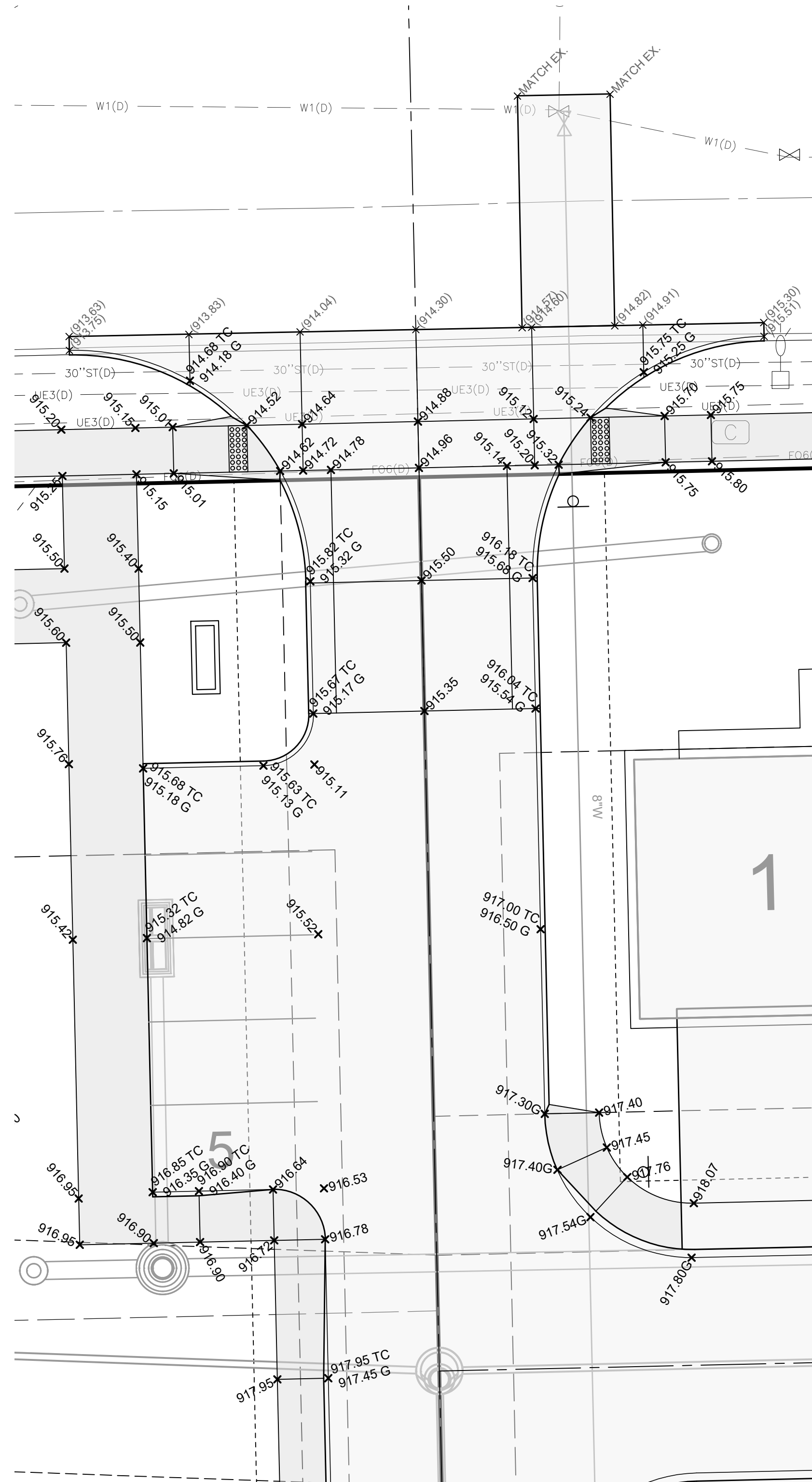
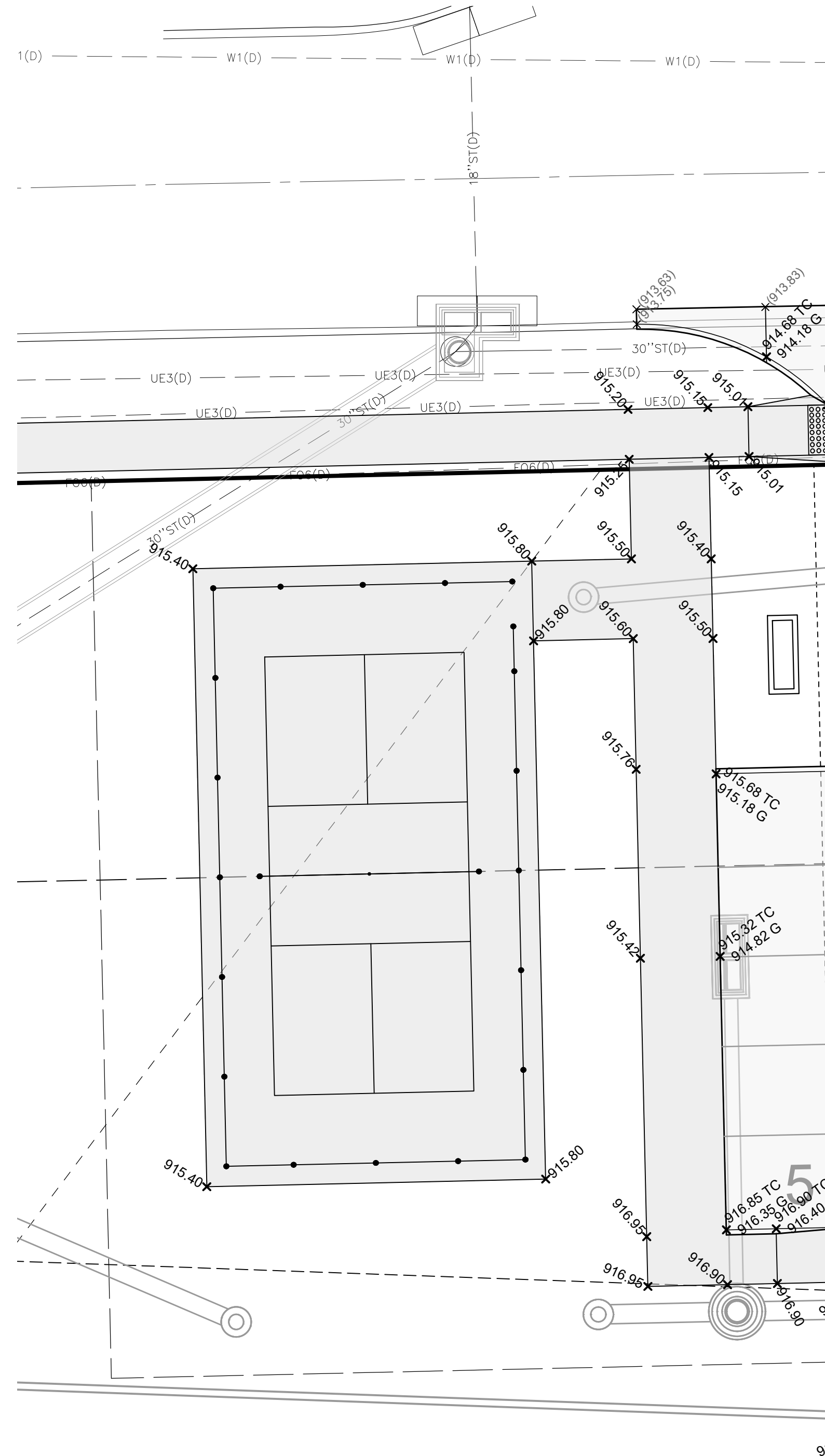
MARK	REVISION	DATE	BY
3	REVISED AS PER CITY COMMENTS	9-25-24	JWM
2	REVISED AS PER OWNER	8-13-24	JWM
1	REVISED AS PER CITY COMMENTS	8-6-24	JWM

Engineer: EDC
Checked By: JAL
Technician: JWM
Date: 7-18-24
Scale: 1" = 40'
T-R-S: TTN-RRW-SS

Project No: 123.0685.01

Sheet C500



[illegible]

KENTUCKY RIDGE TOWNHOMES

DETAILED GRADING

INDIANOLA, IA

2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com



Project No: 123.0685.01

Sheet C503

LANDSCAPE PLAN CALCULATIONS

PER CITY OF INDIANOLA

OUTLOT Z OPEN SPACE LANDSCAPING:

REQUIREMENT: 25% MIN. OPEN SPACE: 1 DECIDUOUS SHADE TREE, 2 DECIDUOUS ORNAMENTAL TREES, AND 2 SHRUBS

PER 2,000 SF OF REQUIRED OPEN SPACE

--TOTAL LOT AREA: 162,748 SF.

--OPEN SPACE: 162,748 X 25% = 40,687 SF.

--TOTAL BUILT AREA: 90,680 SF.

--TOTAL OPEN PROVIDED SPACE: 162,748 - 88,924 = 73,824 SF.

--PROVIDED OPEN SPACE RATIO TO OVERALL LOT: 45.4%.

--PLANT UNIT MULTIPLIER: 40,687 / 2,000 = 20.34.

--TOTAL REQUIRED DECIDUOUS SHADE TREES (OVERSTORY): 1 X 20.34 = 20.34. 17 PROVIDED.

--TOTAL REQUIRED DECIDUOUS ORNAMENTAL (UNDERSTORY): 2 X 20.34 = 40.68. 33 PROVIDED.

--TOTAL REQUIRED SHRUBS: 2 X 20.34 = 40.68. 33 PROVIDED.

OUTLOT Z PARKING LOT PAVEMENT SHADING:

REQUIREMENT: FOR ANY PARKING LOT OR LOADING AREA EXCEEDING 2,500 SF OR 10 STALLS, NO PARKING STALL SHALL BE GREATER

THAN 100-FEET FROM A DECIDUOUS SHADE TREE. ALL ISLANDS SHALL BE LANDSCAPED WITH A COMBINATION OF TURF GRASS,

PRAIRIE GRASS PLANTINGS, AND TREES.

--TOTAL PARKING LOT ISLANDS: 2; 2 OVERSTORY TREES PROVIDED.

--ALL ISLANDS CONTAIN LAWN GROUNDCOVER. NO ADDITIONAL SHRUBS PROVIDED.

--NO PARKING STALL IS GREATER THAN 100-FEET FROM AN "ISLAND" TREE.

LOT 51 PARKING LOT PAVEMENT SHADING:

REQUIREMENT: FOR ANY PARKING LOT OR LOADING AREA EXCEEDING 2,500 SF OR 10 STALLS, NO PARKING STALL SHALL BE GREATER

THAN 100-FEET FROM A DECIDUOUS SHADE TREE. ALL ISLANDS SHALL BE LANDSCAPED WITH A COMBINATION OF TURF GRASS,

PRAIRIE GRASS PLANTINGS, AND TREES.

--TOTAL PARKING LOT ISLANDS: 2; 2 OVERSTORY TREES PROVIDED.

--ALL ISLANDS CONTAIN LAWN GROUNDCOVER. NO ADDITIONAL SHRUBS PROVIDED.

--NO PARKING STALL IS GREATER THAN 100-FEET FROM AN "ISLAND" TREE.

OUTLOT Z BUFFER BETWEEN PROPOSED R DISTRICT AND EXISTING C DISTRICT:

REQUIREMENT: USING "30-FOOT WIDE BUFFER" MODEL. MINIMUM WIDTH: 30- FEET. 1 OVERSTORY TREE, 2 EVERGREENS, AND 6

SHRUBS FOR EVERY 25 LINEAR FEET. ALSO, INCLUDE A 3-FOOT HIGH EARTHEN BERM. EXISTING C DISTRICT TO THE SOUTH ALREADY

INCLUDES AN EARTHEN BERM, THEREFORE ONLY PROVIDING THE MINIMUM REQUIRED PLANTS.

--LENGTH OF BUFFER: 452'.

--PLANT UNIT MULTIPLIER: 452 / 25 = 18.1.

--TOTAL REQUIRED OVERSTORY TREES: 1 X 18.1 = 18.1. 19 OVERSTORY TREES PROVIDED.

--TOTAL REQUIRED EVERGREEN TREES: 2 X 18.1 = 36.2. 19 EVERGREEN TREES PROVIDED. 18 REMAINING TREES REQUIRED

THEREFORE, SUBBING 10 ADDITIONAL SHRUBS FOR ONE OUTSTANDING EVERGREEN TREE. 180 ADDITIONAL SHRUBS PROVIDED.

--TOTAL REQUIRED SHRUBS: 6 X 18.1 = 108.6. 109 SHRUBS PROVIDED.

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	UNIT	MIN. HT.	SPACING	TRUNK STYLE	MATURE HT.	NATIVE / NON-NATIVE
CONIFERS										
AC	4	ABIES CONCOLOR	WHITE FIR	10-FT. HT.	CONTAINER	8-FT.	12-FT. O.C.	SINGLE	100-FT.	YES
PD	6	PICEA GLAUCA 'DENSATA'	BLACK HILLS WHITE SPRUCE	10-FT. HT.	CONTAINER	10-FT.	12-FT. O.C.	SINGLE	30-FT.	YES
PS	6	PINUS STROBUS	WHITE PINE	10-FT. HT.	CONTAINER	10-FT.	12-FT. O.C.	SINGLE	70-FT.	YES
PS2	3	PINUS SYLVESTRIS	SCOTCH PINE	10-FT. HT.	CONTAINER	10-FT.	12-FT. O.C.	SINGLE	70-FT.	NO
OVERSTORY TREES										
AR	7	ACER RUBRUM	RED MAPLE	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	80-FT.	YES
AS	5	ACER SACCHARUM	SUGAR MAPLE	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	100-FT.	YES
CO	4	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	90-FT.	YES
GA	4	GINKGO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD MAIDENHAIR TREE	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	40-FT.	NO
GD	2	GYMNOCLADUS DIOICA 'ESPRESSO'	KENTUCKY COFFEETREE	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	90-FT.	YES
NS	2	NYSSA SYLVATICA	TUPELO	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	60-FT.	YES
PM	8	PLATANUS X ACERIFOLIA 'MORTON CIRCLE'	EXCLAMATION!™ LONDON PLANE TREE	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	60-FT.	NO
QB	3	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	70-FT.	YES
QR	4	QUERCUS RUBRA	RED OAK	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	70-FT.	YES
UR	5	ULMUS X 'REGAL'	REGAL ELM	2.5-IN. CAL.	CONTAINER	10-FT.	N/A	SINGLE	60-FT.	NO
UNDERSTORY TREES										
AG	6	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE APPLE SERVICEBERRY	10-FT. HT.	CONTAINER	10-FT.	15-FT. O.C.	MULTI	25-FT.	YES
CC	3	CERCIS CANADENSIS	EASTERN REDBUD	10-FT. HT.	CONTAINER	10-FT.	15-FT. O.C.	MULTI	25-FT.	YES
CA2	8	CORNUS ALTERNIFOLIA	PAGODA DOGWOOD	1.5-IN. CAL.	CONTAINER	10-FT.	20-FT. O.C.	SINGLE	20-FT.	YES
MR	12	MALUS X 'JFS-KWS'	ROYAL RAINDROPS® CRABAPPLE	2.0-IN. CAL.	CONTAINER	8-FT.	15-FT. O.C.	SINGLE	20-FT.	NO
PT	12	POPULUS TREMULOIDES	QUAKING ASPEN	2.5-IN. CAL.	CONTAINER	10-FT.	15-FT. O.C.	SINGLE	40-FT.	YES
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	UNIT	MIN. HT.	SPACING	MATURE HT.		
SHRUBS										
CF	68	CORNUS SERICEA 'FARROW'	ARCTIC FIRE® RED TWIG DOGWOOD	#7	CONTAINER	36-IN.	4-FT. O.C.	4-FT.		YES
CF2	43	CORNUS SERICEA 'FLAVIRAMEA'	YELLOW TWIG DOGWOOD	#7	CONTAINER	36-IN.	5-FT. O.C.	5-FT.		YES
FG2	72	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	#7	CONTAINER	36-IN.	4-FT. O.C.	4-FT.		YES
PP	43	PINUS MUGO 'PUMILIO'	DWARF MUGO PINE	#7	CONTAINER	36-IN.	5-FT. O.C.	5-FT.		NO
SB	63	SYRINGA X 'BLOOMERANG'	BLOOMERANG SERIES LILAC	#7	CONTAINER	36-IN.	4-FT. O.C.	4-FT.		NO
VC	42	VIBURNUM CARLESII	KOREANSPICE VIBURNUM	#7	CONTAINER	36-IN.	4-FT. O.C.	5-FT.		YES

NOTE: CONTRACTOR TO VERIFY FINAL PLANT QUANTITIES PRIOR TO BIDDING. SHOULD THERE BE ANY DISCREPANCIES, PLAN QUANTITIES SHALL OVERRULE SCHEDULE QUANTITIES.

CONSTRUCTION NOTES:

1. PROTECT TRUNK FROM GROUND LINE TO FIRST BRANCH WHEN SPECIFIED IN THE CONTRACT DOCUMENTS.

PLACE ONE STAKE TO SOUTHWEST

NORTH

STAKING PLAN
(TREES < 2 1/2" DIAMETER)

STEEL POST

FLAGGING MATERIAL

TRUNK SUPPORT STRAPPING

1

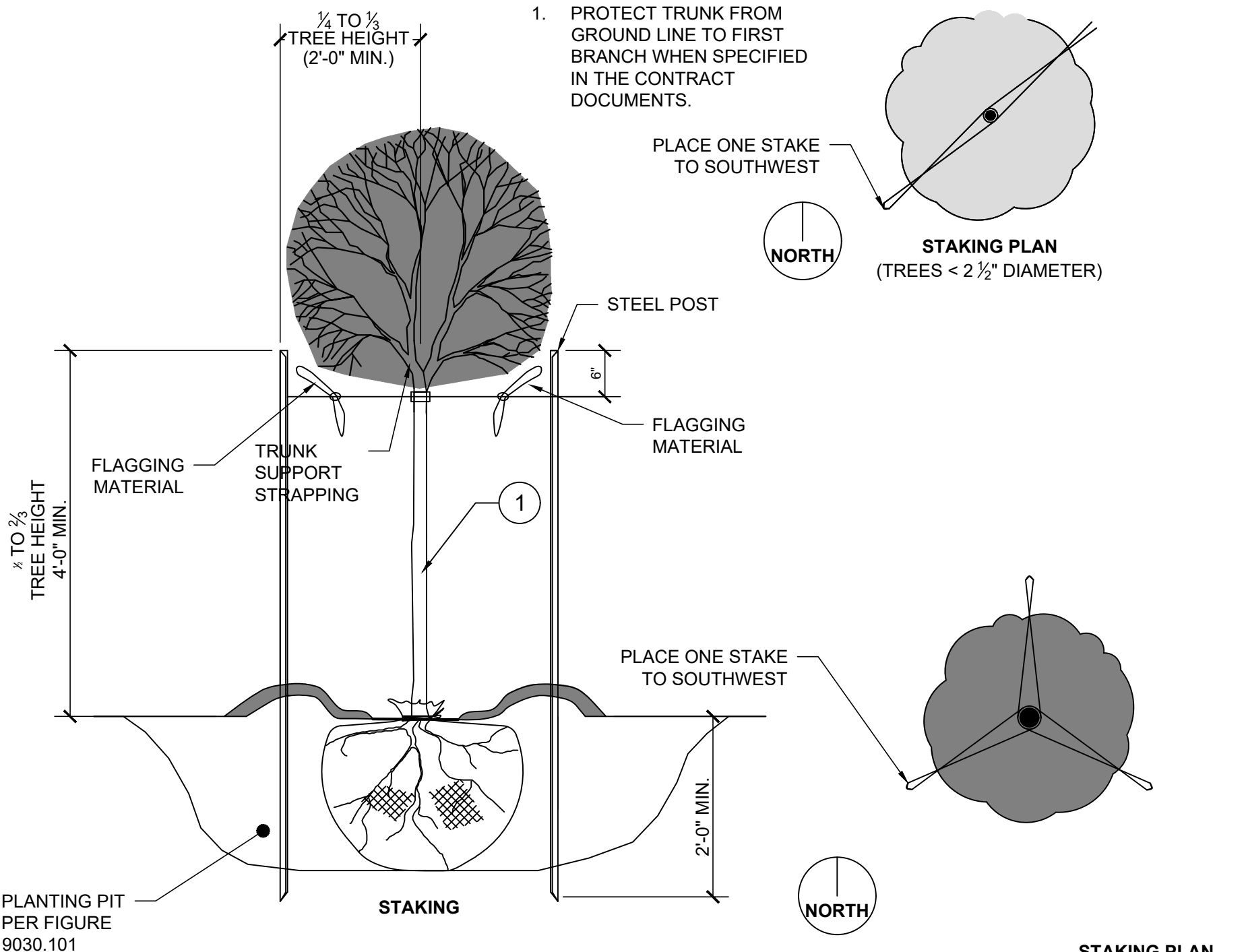
2'-0" MIN.

PLACE ONE STAKE TO SOUTHWEST

NORTH

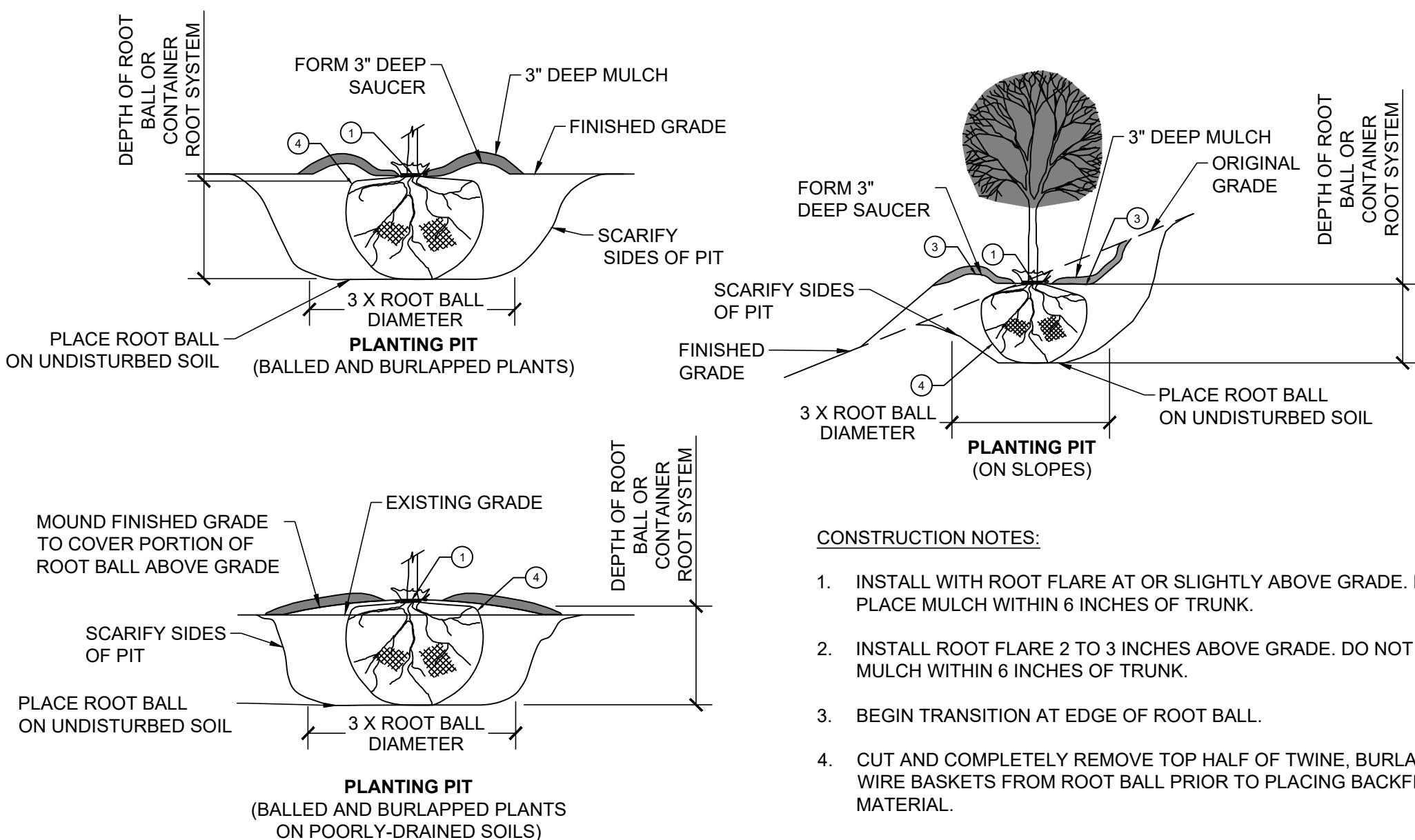
STAKING

STAKING PLAN
(TREES > 2 1/2" DIAMETER)



1 TREE STAKING, GUYING, AND WRAPPING

C601 NO SCALE

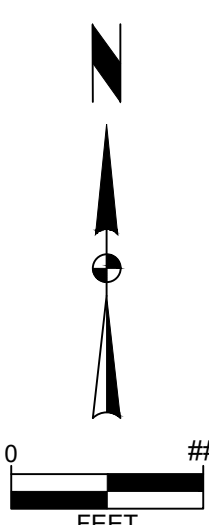


CONSTRUCTION NOTES:

1. INSTALL WITH ROOT FLARE AT OR SLIGHTLY ABOVE GRADE. DO NOT PLACE MULCH WITHIN 6 INCHES OF TRUNK.
2. INSTALL ROOT FLARE 2 TO 3 INCHES ABOVE GRADE. DO NOT PLACE MULCH WITHIN 6 INCHES OF TRUNK.
3. BEGIN TRANSITION AT EDGE OF ROOT BALL.
4. CUT AND COMPLETELY REMOVE TOP HALF OF TWINE, BURLAP, AND WIRE BASKETS FROM ROOT BALL PRIOR TO PLACING BACKFILL MATERIAL.

2 PLANTING PIT

C601 NO SCALE



KENTUCKY RIDGE TOWNHOMES

PLANTING DETAILS AND CALCULATIONS

SNYDER & ASSOCIATES, INC. |



Project No: 123.0685.01

Sheet C601

INDIANOLA, IA

2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-364-2020 | www.snyder-associates.com

Sheet C601

Project No: 123.0685.01

Engineer: EDC
Checked By: JAL
Date: 7-18-24
Scale: 1" = ##'
T-R-S: TTN+RRW-SS

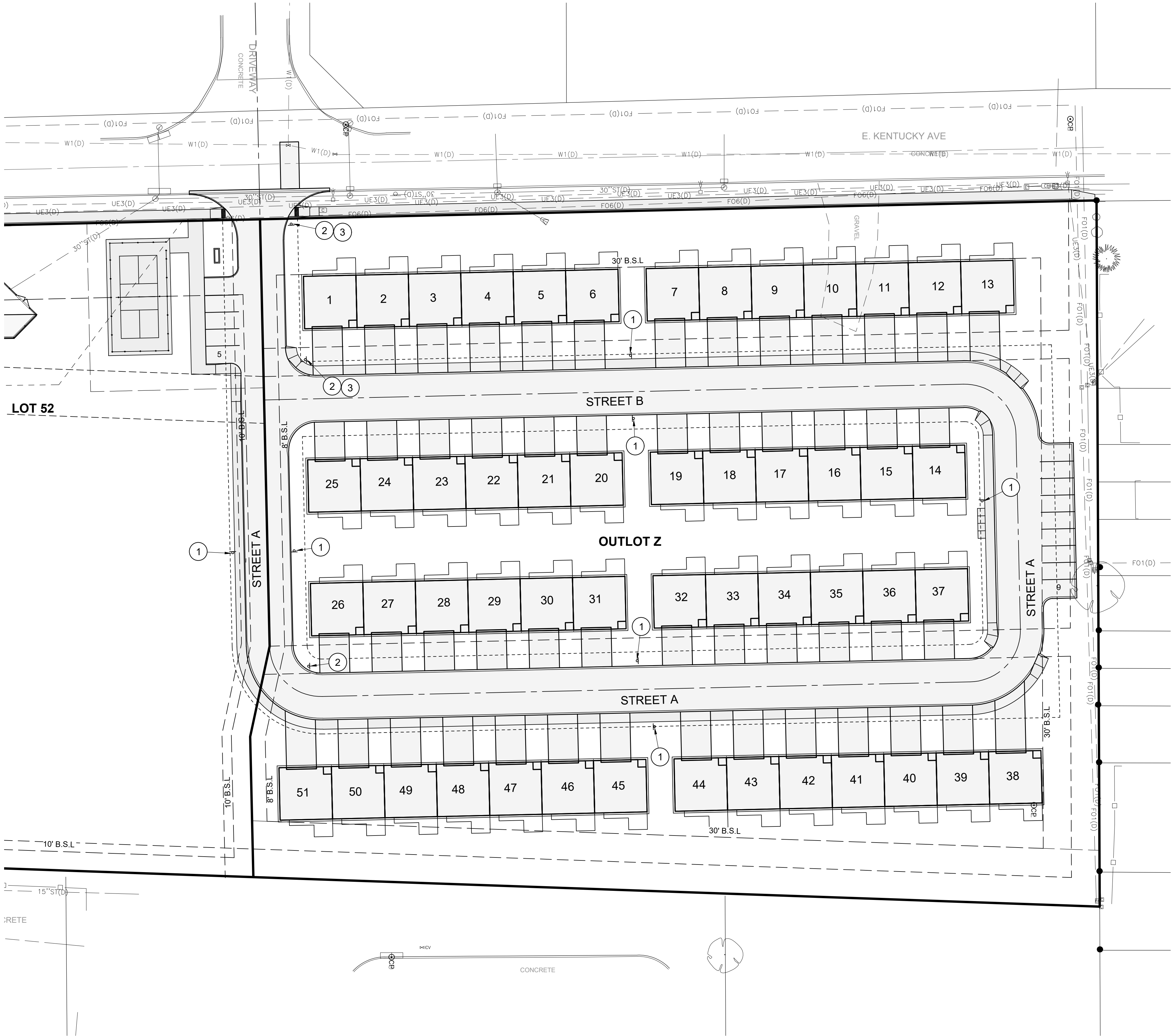
MARK
REVISION
DATE
BY

REVISED AS PER CITY COMMENTS
8-6-24 JWM

REVISED AS PER OWNER
8-13-24 JWM

REVISED AS PER CITY COMMENTS
9-25-24 JWM

V:\Projects\2023\123.0685.01\CAD\ISP - 1230685 TRC.dwg JEREMY W. MCCORMICK, TRAFFIC SIGNAGE PLAN, 2024/09/25, 1:52 PM, ANS FULL BLEED D(14.00 X 22.00 INCHES)

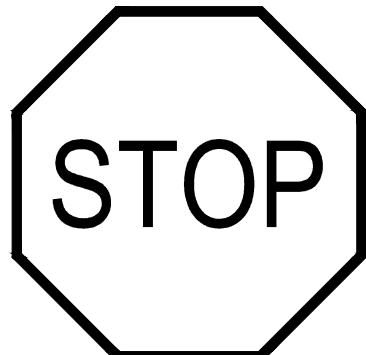


R8-3

1



2



R1-1

3

NO.	SIGN TYPE	QUANTITY
1	NO PARKING	7
2	STREET NAME	6
3	STOP	2

*SIGNS FURNISHED AND INSTALLED BY DEVELOPER

NOTES

- ALL TRAFFIC SIGNAGE AND STREET LIGHTS ARE SHOWN FOR REFERENCE ONLY UNLESS OTHERWISE INDICATED. THE DEVELOPER SHALL FURNISH AND INSTALL ALL TRAFFIC SIGNAGE AND MID-AMERICAN ENERGY SHALL FURNISH AND INSTALL ALL STREET LIGHTS ONCE PROJECT IS NEAR COMPLETION. ONE NO PARKING SIGN TO BE INSTALLED ON EACH STREET LIGHT BY CONTRACTOR.
- ALL SIGNAGE SHALL BE INSTALLED IN ACCORDANCE WITH THE MUTCD AND THE CITY OF INDIANOLA DESIGN STANDARDS.

KENTUCKY RIDGE TOWNHOMES

TRAFFIC SIGNAGE PLAN

INDIANOLA, IA

2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-364-2020 | www.snyder-associates.com

SNYDER & ASSOCIATES, INC. |



Project No: 123.0685.01

Sheet C700

Sheet C700

MARK	REVISION	DATE	BY
3	REVISED AS PER CITY COMMENTS	9-25-24	JWM
2	REVISED AS PER OWNER	8-13-24	JWM
1	REVISED AS PER CITY COMMENTS	8-6-24	JWM

Engineer: EDC	Checked By: JAL	Scale: 1" = 30'
Technician: JWM	Date: 7-18-24	T-R-S: TTN-RRW-SS

Project No: 123.0685.01

INCEPTION GROUP, LLC

A DEVELOPMENT OF TOWNHOMES - UNIT TYPE 'A'
EAST KENTUCKY AVENUE
INDIANOLA, IOWA 50125

DRAWING INDEX =

CS.100 -	COVER SHEET
A.100 -	FOUNDATION PLAN LEVEL 1 PLAN
A.101 -	LEVEL 2 PLAN LEVEL 3 PLAN
A.102 -	ENLARGED PLANS - LEVELS 1 2 3
A.200 -	FRONT ELEVATION REAR ELEVATION LEFT SIDE ELEVATION RIGHT SIDE ELEVATION
A.900 -	RENDERINGS

GRAYSCALE ARCHITECTURE, LLC
13762 MCGREGOR STREET
INDIANOLA, IA 50125-8118
515.423.8439

GENERAL CONTRACTOR

PROJECT NAME
TOWNHOMES
BY:

INCEPTION
GROUP, LLC

EAST KENTUCKY AVE.
INDIANOLA, IOWA
50125

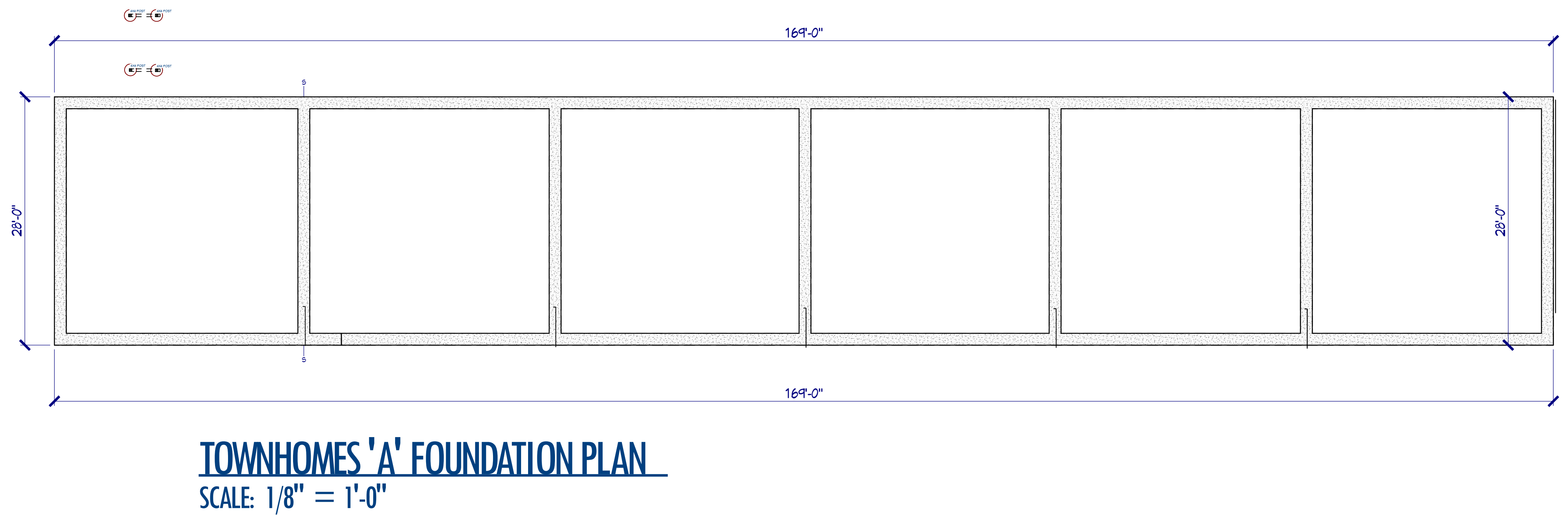
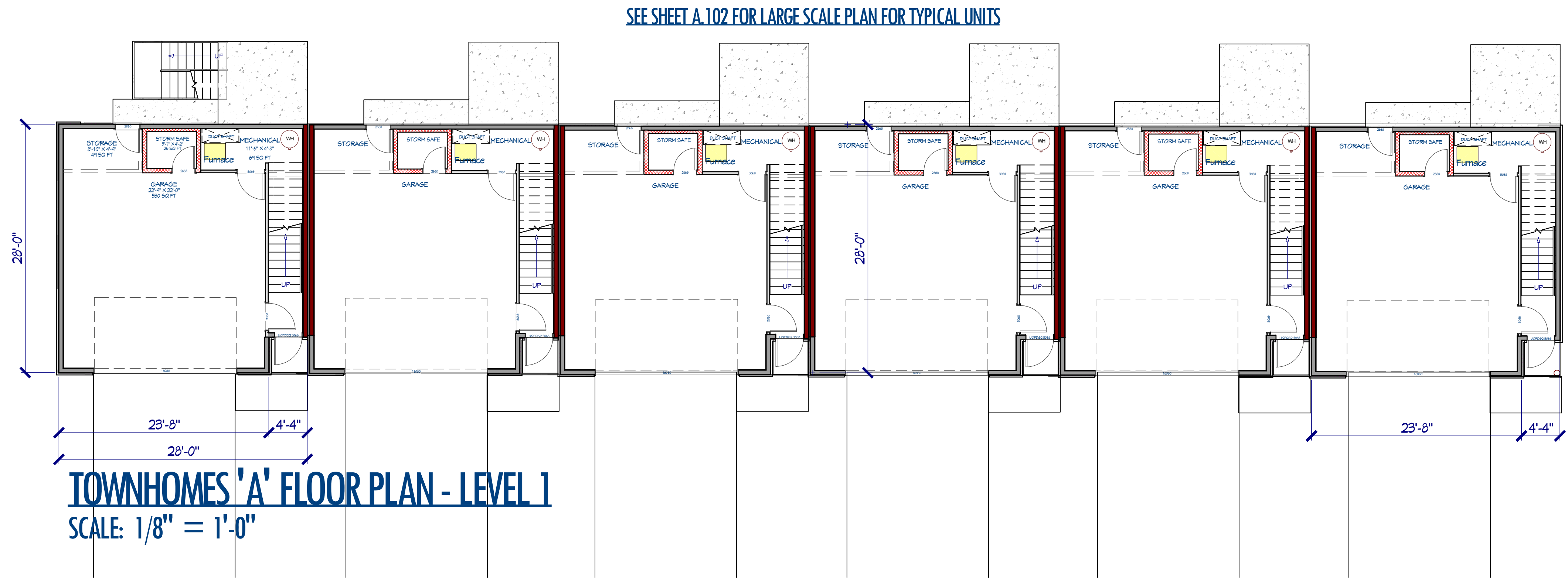
DRAWING
INFORMATION
ISSUED FOR:
REVIEW
BIDDING
CONSTRUCTION

ISSUE DATE:
04 | 19 | 2023

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PERMISSION IS PROHIBITED.

PROJECT INFORMATION
PROJECT No.:
23003
SHEET TITLE:
COVER SHEET

SHEET No.:
CS.100



GRAYSCALE ARCHITECTURE, LLC

13762 MCGREGOR STREET
INDIANOLA, IA 50125-8118
515.423.8439

GENERAL CONTRACTOR

PROJECT NAME
TOWNHOMES
BY:

INCEPTION
GROUP, LLC

EAST KENTUCKY AVE.
INDIANOLA, IOWA
50125

DRAWING
INFORMATION

ISSUED FOR:
REVIEW
BIDDING
CONSTRUCTION

ISSUE DATE:
04 | 19 | 2023

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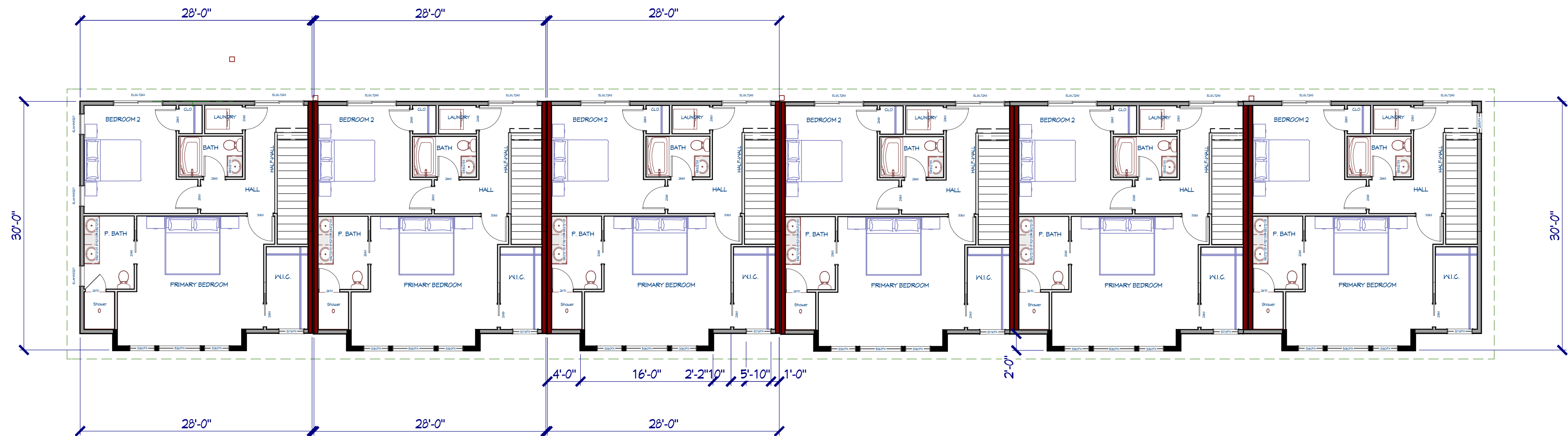
PROJECT INFORMATION

PROJECT No.:
23003
SHEET TITLE:
FOUNDATION PLAN
LEVEL 1 - PLAN

SHEET No.:

A.100

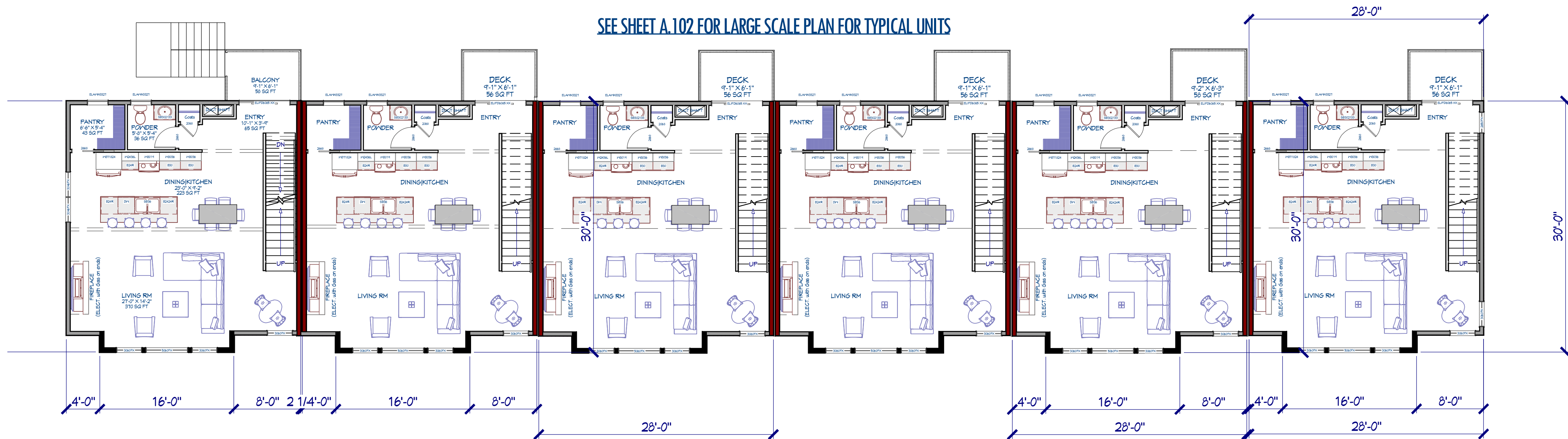
SEE SHEET A.102 FOR LARGE SCALE PLAN FOR TYPICAL UNITS



TOWNHOMES 'A' FLOOR PLAN - LEVEL 3

SCALE: 1/8" = 1'-0"

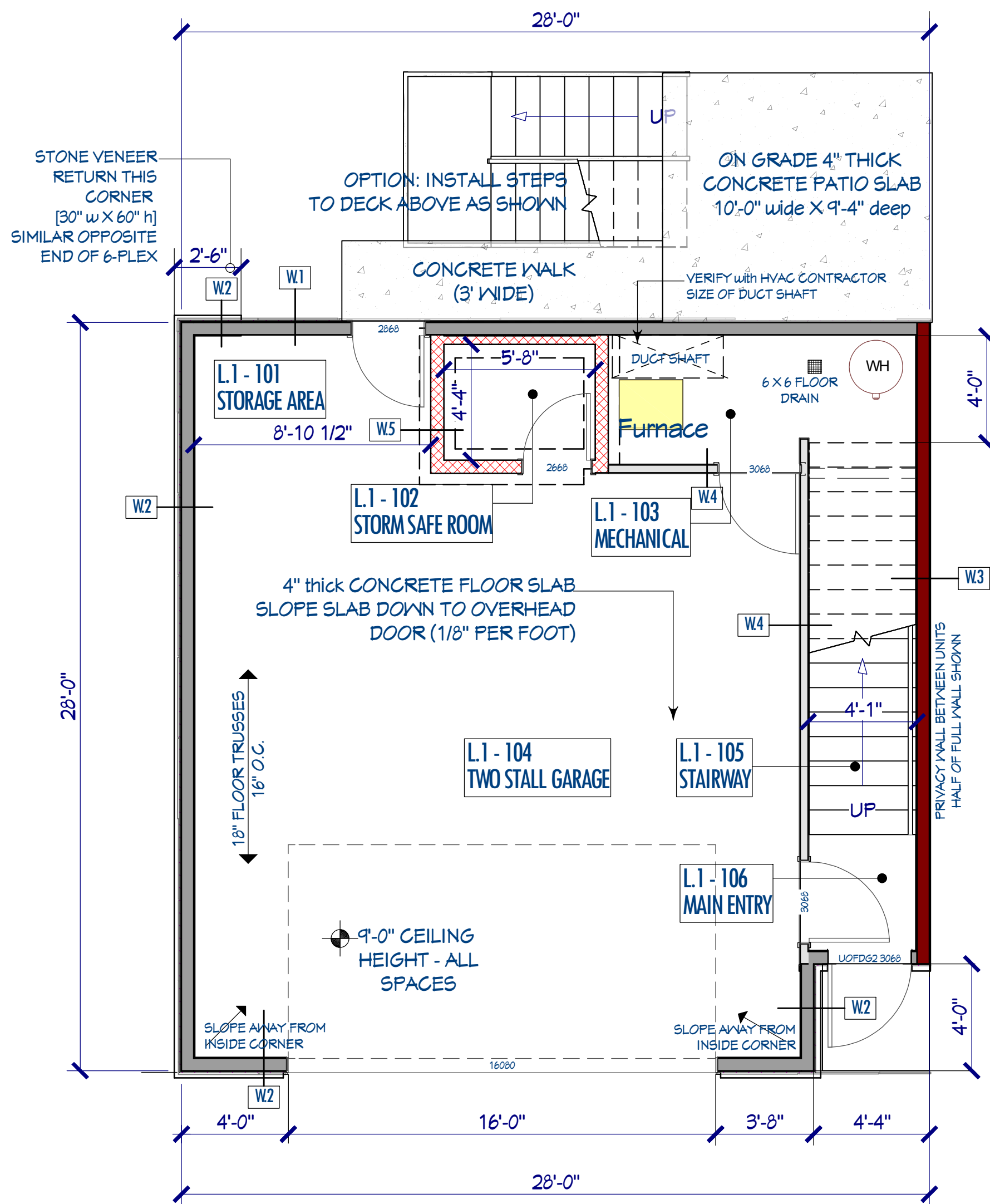
SEE SHEET A.102 FOR LARGE SCALE PLAN FOR TYPICAL UNITS



TOWNHOMES 'A' FLOOR PLAN - LEVEL 2

SCALE: 1/8" = 1'-0"





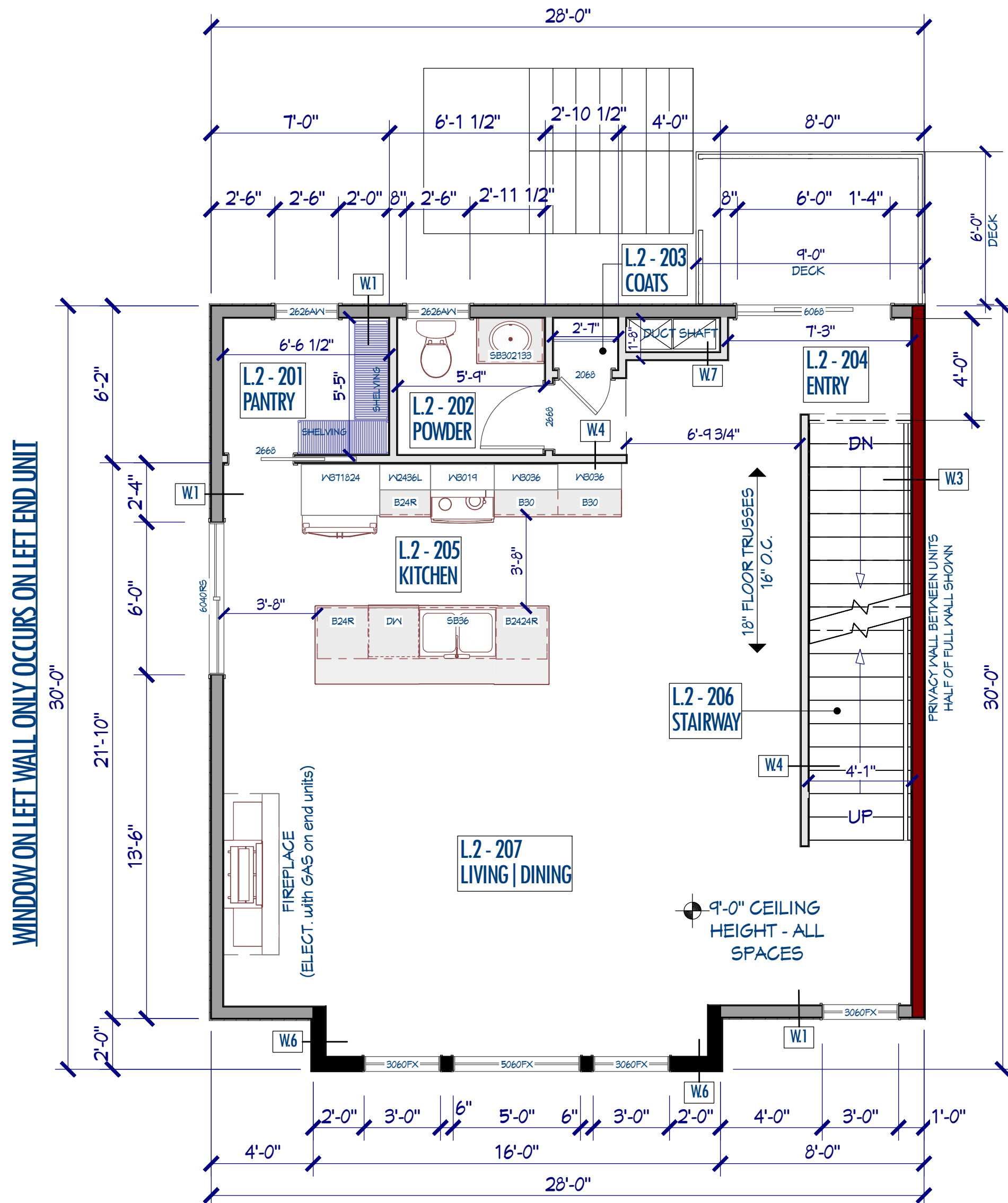
TOWNHOME 'A' FLOOR PLAN - LEVEL 1
SCALE: 1/4" = 1'-0"

WALL TYPES:

W1= FIBER CEMENT LAP SIDING 1/2" | MOISTURE & AIR BARRIER | OSB 7/16" | 5 1/2" WOOD STUDS at 16" O.C. | FILL STUD CAVITY with R-19 BATT INSUL. | VAPOR BARRIER | 1/2" GYP. BOARD
W2= STONE VENEER 60" A.F.F. TO TOP | FIBER CEMENT LAP SIDING 1/2" | MOISTURE & AIR BARRIER | OSB 7/16" | 5 1/2" WOOD STUDS at 16" O.C. | FILL STUD CAVITY with R-19 BATT INSUL. | VAPOR BARRIER | 1/2" GYP. BOARD
W3= **PRIVACY WALL** | 5/8" TYPE X GYP. BOARD | 5 1/2" WOOD STUDS at 16" O.C. | FILL STUD CAVITY with SOUND BATT INSUL. | 1/2 GYP. BOARD | 1" **AIR SPACE** | 1/2" GYP. BOARD | 5 1/2" WOOD STUDS at 16" O.C. |
W4= 1/2" GYP. BOARD | 3 1/2" WOOD STUDS at 16" O.C. | 1/2" GYP. BOARD
W5= PAINTED 6" CMU (CONC. BLOCK) | FILL CORES with GROUT - NOTE! CEILING OF SPACE COVERED with 5" THICK POURED CONCRETE | INFILL ON TOP with WOOD JOISTS TO MATCH LEVEL OF FLOOR ABOVE
W6= FIBER CEMENT PANEL SIDING 1/2" with METAL REVEAL JOINTS | MOISTURE & AIR BARRIER | OSB 7/16" | 5 1/2" WOOD STUDS at 16" O.C. | FILL STUD CAVITY with R-19 BATT INSUL. | VAPOR BARRIER | 1/2" GYP. BOARD
W7= DUCT SHAFT | OUTSIDE - 1/2" GYP. BOARD | 3 1/2" WOOD STUDS at 16" O.C. | INTERIOR OF SHAFT - NO GYP. BOARD REQUIRED

STAIR NOTES:

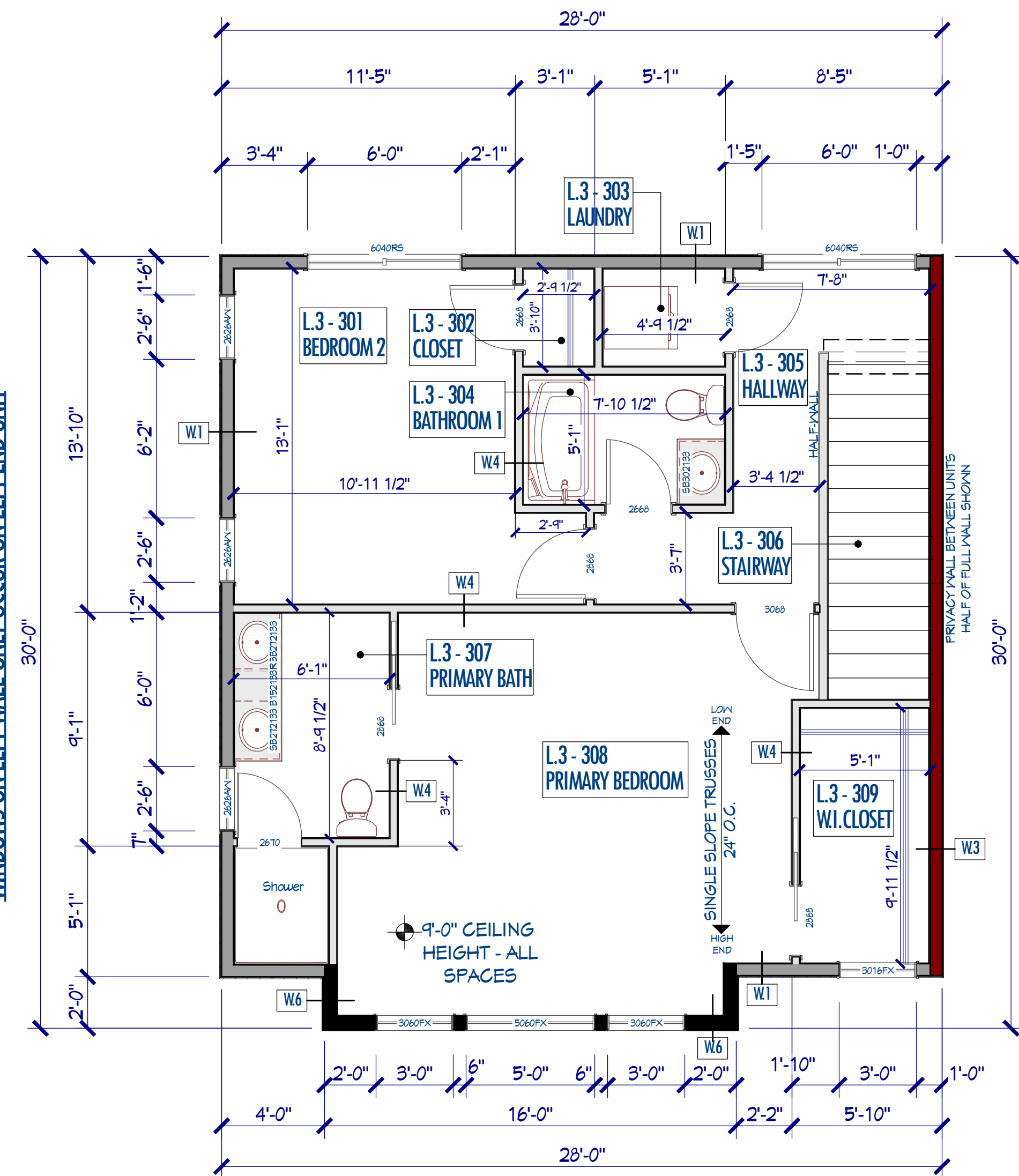
STAIR RISER HEIGHT: +/- 7 1/2" | STAIR TREAD: MIN. DEPTH: 11" | RISERS and TREADS UNIFORM EACH SET OF STAIRS | HEADROOM MUST BE MINIMUM 6'-8" CLEAR
HANDRAILS 34" - 38" ABOVE TREAD NOSING | HANDRAIL ONE SIDE FULL LENGTH OF STAIR WITH RETURNS TO WALL | SHAPE TO BE APPROVED GRASPABLE HANDRAIL
ENCLOSED ACCESSIBLE SPACE UNDER STAIRS MUST HAVE 5/8" TYPE X GYP. BOARD ON ENCLOSED SIDE



TOWNHOME 'A' FLOOR PLAN - LEVEL 2
SCALE: 1/4" = 1'-0"

FLOOR-TO-FLOOR HEIGHTS: [NOMINAL]

LEVEL 1 FINISHED FLOOR = +0'-0"
LEVEL 1 CEILING = +9'-0"
LEVEL 2 FINISHED FLOOR = +10'-8"
LEVEL 2 CEILING = +19'-8"
LEVEL 3 FINISHED FLOOR = +21'-4"
LEVEL 3 CEILING = +30'-4"



TOWNHOME 'A' FLOOR PLAN - LEVEL 3
SCALE: 1/4" = 1'-0"

GRAYSCALE ARCHITECTURE, LLC

13762 MCGREGOR STREET
INDIANOLA, IA 50125-8118
515.423.8439

GENERAL CONTRACTOR

PROJECT NAME

TOWNHOMES
BY:

**INCEPTION
GROUP, LLC**

EAST KENTUCKY AVE.
INDIANOLA, IOWA
50125

DRAWING
INFORMATION

ISSUED FOR:

**REVIEW
BIDDING
CONSTRUCTION**

ISSUE DATE:

04 | 19 | 2023

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PROJECT INFORMATION

PROJECT No.:

23003

SHEET TITLE:

**LEVEL 1 - PLAN
LEVEL 2 - PLAN
LEVEL 3 - PLAN**

SHEET No.:

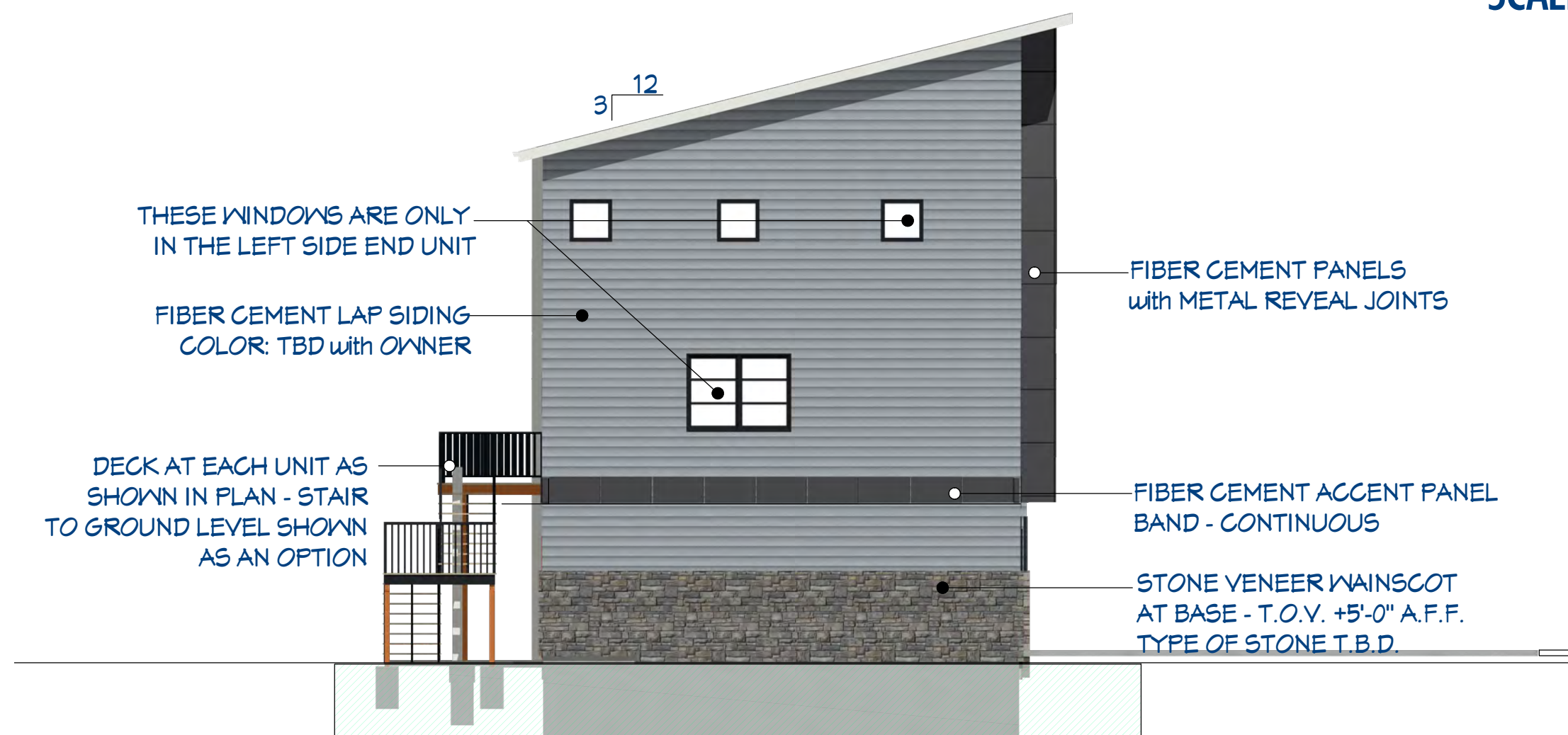
A.102



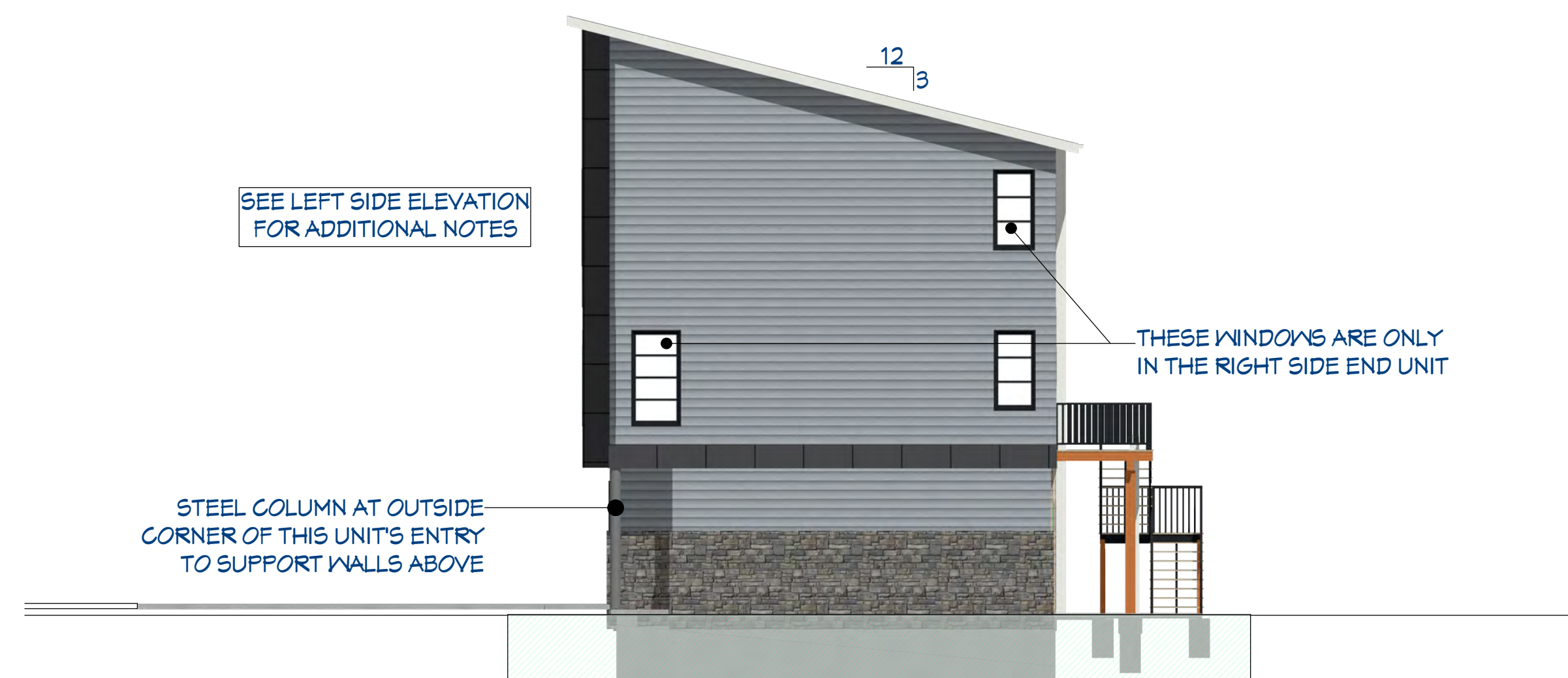
TOWNHOMES 'A' - FRONT ELEVATION
SCALE: 1/8" = 1'-0"



TOWNHOMES 'A' - REAR ELEVATION
SCALE: 1/8" = 1'-0"



TOWNHOMES 'A' - LEFT ELEVATION
SCALE: 1/8" = 1'-0"



TOWNHOMES 'A' - RIGHT ELEVATION

GRAYSCALE ARCHITECTURE, LLC

13762 MCGREGOR STREET
INDIANOLA, IA 50125-8118
515.423.8439

GENERAL CONTRACTOR

PROJECT NAME
TOWNHOMES
BY:

**INCEPTION
GROUP, LLC**

EAST KENTUCKY AVE.
INDIANOLA, IOWA
50125

DRAWING
INFORMATION

ISSUED FOR:
**REVIEW
BIDDING
CONSTRUCTION**

ISSUE DATE:
04 | 19 | 2023

THIS DRAWING IS THE PROPERTY
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PROJECT INFORMATION

PROJECT No.:
23003

SHEET TITLE:
FRONT ELEVATION
REAR ELEVATION
LEFT | RIGHT SIDE
ELEVATIONS

SHEET No.:
A.200



GRAYSCALE ARCHITECTURE, LLC

13762 MCGREGOR STREET
INDIANOLA, IA 50125-8118
515.423.8439

GENERAL CONTRACTOR

PROJECT NAME
TOWNHOMES
BY:

INCEPTION
GROUP, LLC

EAST KENTUCKY AVE.
INDIANOLA, IOWA
50125

DRAWING
INFORMATION

ISSUED FOR:
REVIEW
BIDDING
CONSTRUCTION

ISSUE DATE:
04 | 19 | 2023

THIS DRAWING IS THE PROPERTY
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ANY USE WITHOUT WRITTEN
PERMISSION IS PROHIBITED.

PROJECT INFORMATION

PROJECT No.:
23003

SHEET TITLE:
RENDERINGS

SHEET No.:
A.900





MEMORANDUM

To: Planning and Zoning Commission

From:

Date: October 8, 2024

Subject: Approval of a plat of survey for Mid-American Energy (Parcel ID 13000200220).

Recommendation:

Attachments:

1. Staff Report_MidAm_POS_092024
2. E9126 Land Division Application 2024-09-05
3. E9126 POS 2024-09-05 Prelim



PLANNING AND ZONING COMMISSION STAFF REPORT

PROJECT: Mid-American Energy – Plat of Survey

PREPARED BY: Bill Mettee – Associate Planner

REPORT DATE: September 20, 2024

MEETING DATE: September 24, 2024

GENERAL INFORMATION

Applicant / Owner:

Steven and Jeri Henry (Owners) / Mid-American Energy (Applicant)

Owner's Representative:

Patrick Shepard, PLS, Civil Engineering Consultants

Request:

The applicant is requesting approval of a plat of survey within a priority growth area with the 2-mile buffer of city limits.

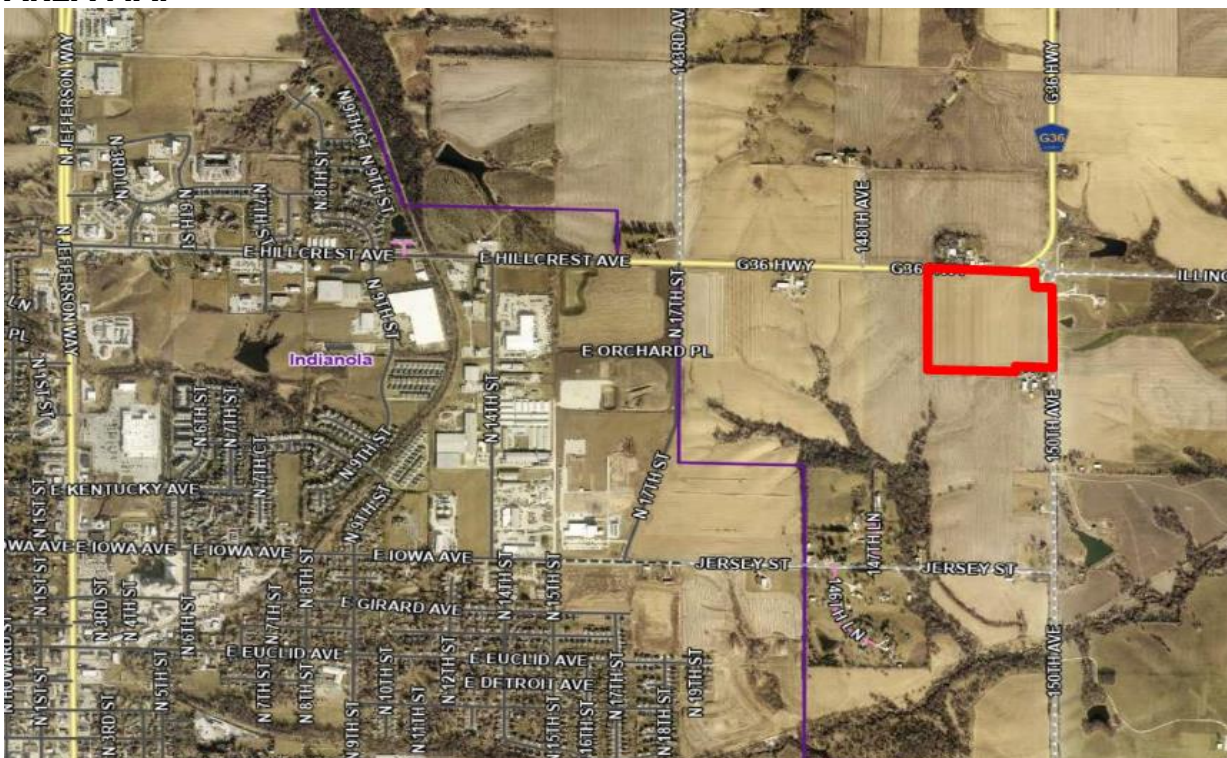
Location and Size:

Property is located south of G-36 and east of North Jefferson Way, containing approximately 12.77-acres.

Property Address:

Parcel ID 13000200220

AREA MAP



ABOVE: Aerial of subject property (outlined in **RED**) in relation to the surrounding area.

LAND USES AND ZONING

Location	Existing Land Use	Comprehensive Plan	Current Zoning
Property in Question	Row Crop Production	Industrial	Warren County
North	Electrical Substation	Community Mixed Use	Warren County
South	Single-Family Residential / Row Crop Production	Industrial	Warren County
East	Single-Family Residential / Row Crop Production	N/A	Warren County
West	Row Crop Production	Industrial	Warren County

PROJECT DESCRIPTION

The plat of survey identifies the creation of one lot that has a gross area of 12.77-acres and a net area of 11.22-acres. A ROW easement occupies 1.55-acres. The applicant, Mid-American Energy, currently owns and operates the electrical substation at the northeast corner of the property. They now have the option to purchase the land that directly abuts the substation.

The subject property is outside the Indianola city limits, but within the 2-mile jurisdictional boundary for subdivision review. Furthermore, the subject property is within a High Priority area on the Priority Annexation Areas & Future Land Use Map. The future classification for this parcel is Industrial.

Due to the parcel's location with the Priority Growth Area, review by Planning & Zoning Commission and City Council is required.

STAFF RECOMMENDATION

The plat of survey is in general conformance with the Subdivision Ordinance, Comprehensive Plan and Future Land Use Map. Staff recommends approval of the plat of survey for Mid-American Energy.

LAND DIVISION APPLICATION

Community Development

110 North 1st Street, Indianola, Iowa 50125-0299
(515) 961-9430 • comdev@indianolaiowa.gov



PROPERTY OWNER

(Last Name) Henry
(First Name) Steven M. & Jeri Le
(Address) 9393 143rd Ave.
(City) Indianola (State) IA (Zip) 50125
(Phone) 515-491-0163 (Email) smhafm@aol.com

APPLICANT (if not Property Owner)

(Last Name) MidAmerican Energy Company
(First Name) Attn: Craig Kimble
(Address) PO Box 657
(City) Des Moines (State) IA (Zip) 50
(Phone) 515-281-2604 (Email) craig.kimble@midamerican.com

☒ PLAT OF SURVEY

Submittal Requirements:

*All submittal requirements must be completed.
Incomplete applications will not be considered*

- ☒ Completed Application
- ☐ Filing Fee: \$125 per request
- ☐ Proposed plat of survey (hard copy)
- ☒ Proposed plat of survey (electronic copy)
- ☐ Legal description (electronic in word format)
- ☐ Other Information as required by Director

☐ PRELIMINARY PLAT

Submittal Requirements:

*All submittal requirements must be completed.
Incomplete applications will not be considered*

- ☐ Completed Application
- ☐ Filing Fee: \$350, plus \$10.00 for each lot in excess of 10 lots, land plus Outside Engineering
- ☒ ~~Cost~~ Proposed preliminary plat (hard copy)
- ☐ Proposed preliminary plat (electronic copy)
- ☐ Legal description (electronic in word format)
- ☐ All items as required by Section 170.09 of the Code of Ordinances of Indianola, Iowa
- ☐ Other Information as required by Director

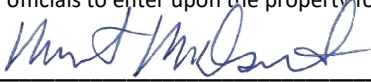
☐ FINAL PLAT

Submittal Requirements:

*All submittal requirements must be completed.
Incomplete applications will not be considered*

- ☐ Completed Application
- ☐ Filing Fee: \$200, plus \$10.00 for each lot in excess of 10 lots, land plus Outside Engineering
- ☒ ~~Cost~~ Proposed plat of survey (hard copy)
- ☐ Proposed plat of survey (electronic copy)
- ☐ Legal description (electronic in word format)
- ☐ All items as required by Section 170.10 of the Code of Ordinances of Indianola, Iowa
- ☐ Other Information as required by Director

I certify that the information and exhibits submitted are true and correct to the best of my knowledge and that in filing this application I am acting with the knowledge, consent and authority of the owner(s) of the property. Pursuant to said authority, I hereby permit City officials to enter upon the property for the purpose of inspection related to this application.

Signature 

Name (printed) Martin M. Dostalick

Date 09-06-2024

FOR OFFICE USE ONLY: Code to 45685 (prelim & final)
Code to 45686 (plat of survey)

Date Received: _____

Receipt No: _____

Receipt Amount: _____

c:\E-FILES\E-9000\E9126_pos.dwg, 9/5/2024 10:21:02 AM, mdostalik, 1:1

PLAT OF SURVEY
PARCEL "D"
NE1/4 NE1/4,
SECTION 20-76-23
150TH AVENUE, WARREN COUNTY, IOWA

PROPERTY OWNER:
STEVEN M HENRY
JERI LE HENRY

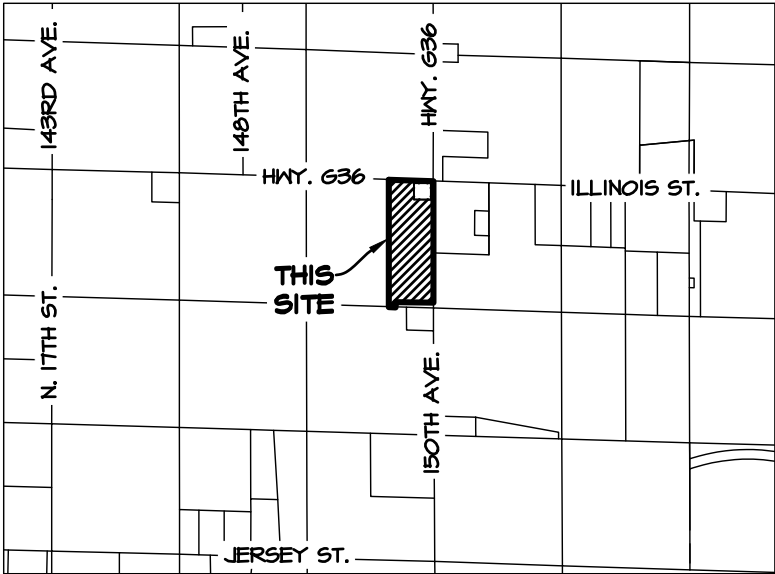
PROPERTY ADDRESS:
150TH AVE, WARREN COUNTY

PREPARED FOR:
MIDAMERICAN ENERGY
P.O. BOX 657
DES MOINES, IA 50306-0657

PROFESSIONAL
LAND SURVEYOR:
CIVIL ENGINEERING CONSULTANTS, INC.
ATTN: PATRICK J SHEPARD, PLS
2400 86TH STREET, UNIT 12
URBANDALE, IA 50322
PHONE: (515) 276-4884
EMAIL: SHEPARD@CECLAC.COM

INDEX LEGEND					
COUNTY: WARREN					
GEOPARCEL: 13000200220					
	SECTION	TOWNSHIP	RANGE	1/4	1/4
ALIQUOT PART:	20	76	23	NE	NE
ASSOCIATED DOCUMENTS:	(W.D. INST.#2017-3014), ROAD PLANS SN-2886				
PROPRIETOR (S):	STEVEN M HENRY JERI LE HENRY				
REQUESTED BY:	MIDAMERICAN ENERGY COMPANY				
COMPANY LAND SURVEYOR & RETURN TO:	CIVIL ENGINEERING CONSULTANTS, INC ATTN: PATRICK J SHEPARD 2400 86TH STREET, UNIT 12, URBANDALE, IA 50322 PHONE: 515-276-4884				

LEGEND	
●	FOUND CORNERS
⊙	SET PROPERTY CORNER (5/8" I.R. W/ORANGE CAP #12265 UNLESS OTHERWISE NOTED)
▲	FOUND SECTION CORNER
△	SET SECTION CORNER (5/8" I.R. W/ORANGE CAP #12265 UNLESS OTHERWISE NOTED)
— — — — —	PROPERTY BOUNDARY LINES
— — — — —	PARCEL LINES
— — — — —	EXISTING LOT OR TAX PARCEL LINES
— — — — —	EASEMENT LINES
-X-X-X-X-	FENCE LINES
D.	DEEDED BEARING & DISTANCE
P.	PREVIOUSLY RECORDED BEARING & DISTANCE
M.	MEASURED BEARING & DISTANCE
I.R.	IRON ROD
I.P.	IRON PIPE
BK. XXX, PG. XXX	COUNTY RECORDER'S INDEXING BOOK
P.U.E.	PUBLIC UTILITY EASEMENT
R.O.W.	RIGHT-OF-WAY
P.O.B.	POINT OF BEGINNING
930	ADDRESS



VICINITY SKETCH

DRAWING INDEX

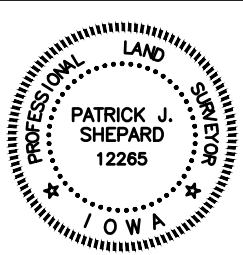
PAGE #	SHEET TITLE
1	COVER
2	PLAT OF SURVEY
3	DETAIL

PURPOSE FOR RETRACEMENT SURVEY:
THIS SURVEY IS BEING PREPARED TO CREATE A
PARCEL FOR TRANSFER.

AREA TABLE

ALIQUOT PART	GROSS (ACRES)	PUBLIC R.O.W. EASEMENT (ACRES)	NET (ACRES)
NE 1/4 NE 1/4	12.77	1.55	11.22

CERTIFICATION



I HEREBY CERTIFY THAT THIS LAND SURVEYING
DOCUMENT WAS PREPARED AND THE RELATED SURVEY
WORK WAS PERFORMED BY ME OR UNDER MY DIRECT
PERSONAL SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE
LAWS OF THE STATE OF IOWA.

PATRICK J. SHEPARD, IOWA LICENSE NO. 12265 DATE
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2025
PAGES OR SHEETS COVERED BY THIS SEAL:

1 & 3

LEGAL DESCRIPTION PARCEL "D":

A PARCEL OF LAND IN THE NE 1/4, NE 1/4 OF SECTION 20, TOWNSHIP 76 NORTH, RANGE 23 WEST OF THE 5TH P.M., WARREN COUNTY, IOWA THAT IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE NE CORNER OF SAID SECTION 20; THENCE 500°02'19"E, 1271.43 FEET ALONG THE EAST LINE OF SAID NE 1/4, NE 1/4 TO A POINT ON THE NORTH LINE OF THE SOUTH 55.00 FEET OF SAID NE 1/4, NE 1/4; THENCE N88°15'21"W, 396.19 FEET ALONG SAID NORTH LINE TO A POINT ON THE WEST LINE OF THE EAST 396.00 FEET OF SAID NE 1/4, NE 1/4; THENCE 500°02'19"E, 55.03 FEET ALONG SAID WEST LINE TO A POINT ON THE SOUTH LINE OF SAID NE 1/4, NE 1/4; THENCE N88°15'21"W, 70.03 FEET ALONG SAID SOUTH LINE OF THE NE 1/4, NE 1/4 TO A POINT ON THE WEST LINE OF THE EAST 466.00 FEET OF SAID NE 1/4, NE 1/4; THENCE N00°02'19"W, 1326.22 FEET ALONG SAID WEST LINE OF THE EAST 466.00 FEET TO A POINT ON THE NORTH LINE OF SAID NE 1/4, NE 1/4; THENCE S88°17'04"E, 466.22 FEET ALONG SAID NORTH LINE TO THE POINT OF BEGINNING, EXCEPT COMMENCING AS A POINT OF REFERENCE AT THE NE CORNER OF SAID SECTION 20; THENCE 500°02'19"E, 233.02 FEET ALONG THE EAST LINE OF SAID NE 1/4, NE 1/4 TO A POINT; THENCE N88°17'04"W, 33.02 FEET TO THE POINT OF BEGINNING ON THE WEST RIGHT-OF-WAY LINE OF 150TH AVENUE AS IT IS PRESENTLY ESTABLISHED; THENCE N88°17'04"W, 200.00 FEET TO A POINT; THENCE N00°02'19"W, 200.00 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF HIGHWAY 636 AS IT IS PRESENTLY ESTABLISHED; THENCE S88°17'04"E, 200.00 FEET ALONG SAID SOUTH RIGHT-OF-WAY LINE TO A POINT ON SAID WEST RIGHT-OF-WAY LINE OF 150TH AVENUE; THENCE 500°02'19"E, 200.00 FEET ALONG SAID WEST RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING. SAID PARCEL CONTAINS 12.77 ACRES, MORE OR LESS, INCLUDING 1.55 ACRES, MORE OR LESS, FOR PUBLIC HIGHWAY EASEMENT.

NOTES:

- THE PLAT OF SURVEY BEARINGS ARE BASED ON THE NAD 1983 IOWA STATE PLANE SOUTH ZONE GRID NORTH CALCULATED FROM THE IOWA DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK.
- NO RECORDED DOCUMENTATION COULD BE FOUND OF THE 40-FOOT PUBLIC HIGHWAY EASEMENT ALONG THE EAST SIDE OF THE PROPERTY. A SIGNED DOCUMENT FROM THE OWNERS CONTAINED IN THE COUNTY ROAD PLANS P-311-64 AGREES TO GIVE THE GROUND.
- NO RECORDED DOCUMENTATION COULD BE FOUND OF IOWA POWER AND LIGHT GIVING ADDITIONAL PUBLIC HIGHWAY EASEMENT TO THE COUNTY BEYOND THE ORIGINAL 33 FEET.
- FOUND STEEL PIN 6.0' SOUTH OF CENTERLINE. STEEL PIN MATCHES CALLS ON CORNER CERTIFICATE. FOUND MAGNAIL 6.0' NORTH AT P.I. OF HIGHWAY 636.
- A 32-FOOT WATER MAIN EASEMENT RECORDED IN BOOK T3, PAGE 274 DESCRIBES THE APPROXIMATE EASEMENT CENTERLINE, BUT CONTINUES TO STATE THAT THE CENTERLINE IS BASED ON THE LOCATION OF THE WATER MAIN.

Civil Engineering Consultants, Inc.
2400 86th Street, Unit 12, Des Moines, Iowa 50322
515.276.4884 Fax: 515.276.7084 mail@ceclac.com

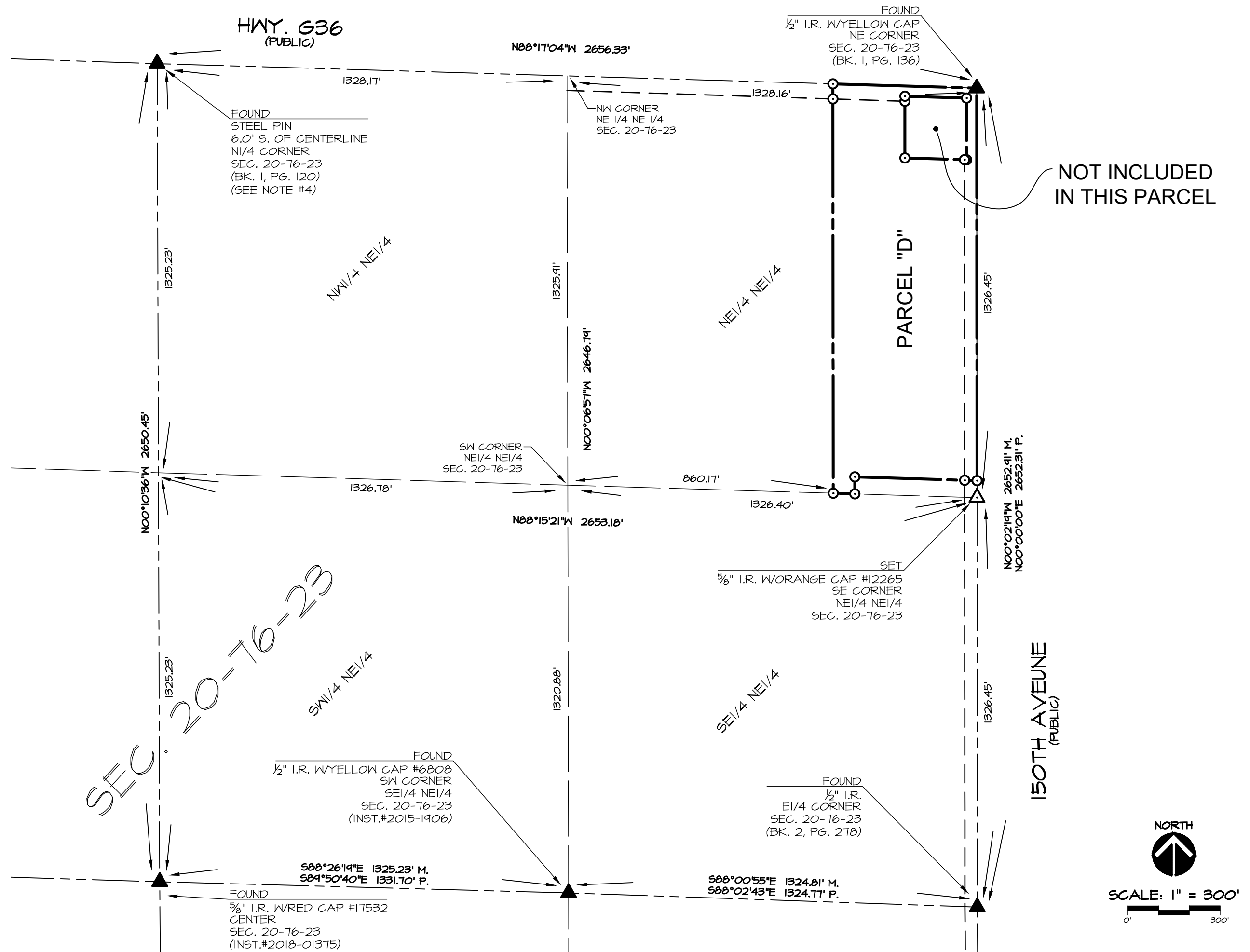


DATE	01-05-2024
DATE OF SURVEY	1-05-2024
DESIGNED BY	PJS
DRAWN BY	LH

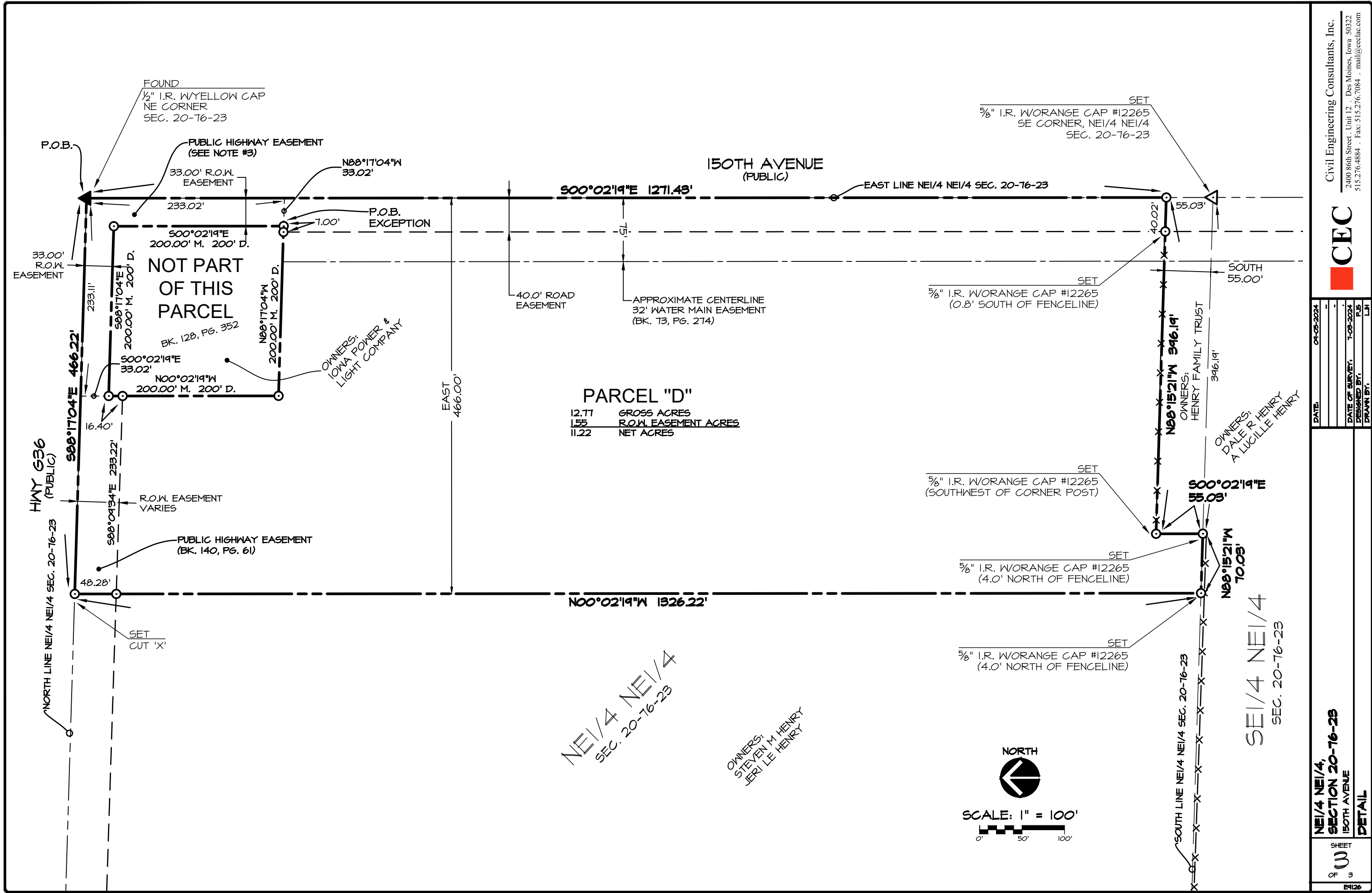
NE1/4 NE1/4
SECTION 20-76-23
WARREN COUNTY, IOWA
COVER

SHEET
OF 3

DATE,	04-05-2024
DATE OF SURVEY,	7-03-2024
DESIGNED BY,	PJS
DRAWN BY,	LJH



q:\E-FILES\E-9000\E9126_c3d drawings\POS\E9126 POS-sheet 3.dwg, 9/5/2024 10:21:11 AM, mdozialik, 1:1



Civil Engineering Consultants, Inc.

2400 86th Street, Unit 12, Des Moines, Iowa 50322
515.276.4884, Fax: 515.276.7084, mail@cecinc.com

CEC

DATE	01-05-2024
DESIGNED BY	PJB
DRAWN BY	LH
DATE OF SURVEY	7-08-2024

NE1/4 NE1/4,
SECTION 20-T6-23
150TH AVENUE
DETAIL

SHEET	3
OF	3

E9126



MEMORANDUM

To: Planning and Zoning Commission

From:

Date: October 8, 2024

Subject: Approval of a final plat for Ashton Park Plat 8.

Recommendation:

- Attachments:**
- 1. Staff Report_Ashton Park Plat 8_FP_100424
 - 2. E-8609 FP - 1st Submit 2024-06-07



PLANNING AND ZONING COMMISSION STAFF REPORT

PROJECT: Ashton Park Plat 8 – Final Plat

PREPARED BY: Bill Mettee – Associate Planner

REPORT DATE: October 4, 2024

MEETING DATE: October 8, 2024

GENERAL INFORMATION

Applicant / Owner:

Jerry's Homes, Inc.

Owner's Representative:

Melissa Hills, Civil Engineering Consultants

Request:

The applicant is requesting approval of a final plat for a residential subdivision.

Location and Size:

Property is located south of East Iowa Avenue and east of North 15th Avenue, containing approximately 30.71-acres.

AREA MAP



ABOVE: Aerial of subject property (outlined in **RED**) in relation to the surrounding area.

LAND USES AND ZONING

Location	Existing Land Use	Comprehensive Plan	Current Zoning
Property in Question	Vacant – Undeveloped	Community Commercial	R-2 (Single-Family Residential Attached District)
North	Vacant / Undeveloped	Community Commercial	R-2 (Single-Family Residential Attached District)
South	Single-Family Residential	Mixed Use	R-2 (Single-Family Residential Attached District)
East	Warren County	Community Commercial	Warren County
West	Single-Family Residential	Community Commercial	R-2 (Single-Family Residential Attached District)

PROJECT DESCRIPTION

The final plat identifies a total of 58 lots for single-family residential development. All lots are zoned R-2 and range in size from 8,125 square feet to 17,313 square feet. All lots meet or exceed the minimum requirements of the r-2 zoning district.

Table I below summarizes the bulk regulations that are applicable to the proposed development. The site plan demonstrates compliance with the bulk regulations.

Table I: Bulk Regulations for the M-I District

Category	M-I (minimum)
Front Yard Setback	30 feet
Rear Yard Setback	35 feet
Side Yard Setback	8 feet minimum one side; 18 feet total
Maximum Height Stories	35 feet
Lot Area	7,200 square feet
Lot Width	60 feet

STREETS / TRAILS

The plat includes an extension of East Euclid Avenue and North 19th Street, as well as the creation of several new streets to service the development. A 5-foot-wide sidewalk will be constructed on both sides of East Euclid Avenue, as well as along all public streets.

UTILITIES

The site will be serviced with all public utilities, which are installed in the immediate vicinity of East Euclid Avenue and North 19th Street. Stormwater detention will be provided with a basin located adjacent to Lots 18-30 along the east side of the plat. All easements have been shown on the final plat.

STAFF RECOMMENDATION

The final plat is in general conformance with the Zoning Ordinance, Subdivision Ordinance, and Comprehensive Plan. Staff recommends approval of the final plat for Ashton Park Plat 8 subject to remaining staff comments and review of the legal documents.

FINAL PLAT

ASHTON PARK PLAT 8

INDIANOLA, IOWA

JERRY'S HOMES INC., 3900 WESTOWN PARKWAY, SUITE 100, WEST DES MOINES, IOWA 50266

INDEX LEGEND					
COUNTY: WARREN	SECTION	TOWNSHIP	RANGE	¼	¼ ¼
ALLOT PART:	29	76	23	NW	NE
	20	76	23	SW	SE
CITY: INDIANOLA					
PROPRIETOR (S): JERRY'S HOMES, INC.					
REQUESTED BY: JERRY'S HOMES, INC.					
PROFESSIONAL LAND SURVEYOR: JEFFREY A. GADDIS, PLS #18381					
COMPANY: CIVIL ENGINEERING CONSULTANTS, INC. RETURN TO: ATTN: JEFFREY A. GADDIS 2400 86TH STREET, URBANDALE, IA 50322					

PROPERTY OWNER/APPLICANT:

JERRY'S HOMES, INC.
3900 WESTOWN PARKWAY, SUITE 100
WEST DES MOINES, IOWA 50266
ATTN: ADAM GRUBB 515-441-8184

PROFESSIONAL LAND SURVEYOR:

JEFFREY A. GADDIS, PLS #18381
CIVIL ENGINEERING CONSULTANTS
2400 86TH STREET, #12
URBANDALE, IOWA 50322
PHONE: 515-276-4884, EXT. 221
FAX: 515-276-1084
EMAIL: GADDIS@CECLAC.COM

LEGAL DESCRIPTION:

OUTLOT 'Y', ASHTON PARK PLAT 7, AN OFFICIAL PLAT RECORDED AS INSTRUMENT #2021-12046 AT THE WARREN COUNTY RECORDER'S OFFICE, CITY OF INDIANOLA, WARREN COUNTY, IOWA

AND,

A PARCEL OF LAND IN THE NE1/4 NW1/4 OF SECTION 29 AND THE SE1/4 SW1/4 OF SECTION 20, ALL IN TOWNSHIP 76 NORTH, RANGE 23 WEST OF THE 5TH P.M., CITY OF INDIANOLA, WARREN COUNTY, IOWA THAT IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NE CORNER OF ASHTON PARK PLAT 7, AN OFFICIAL PLAT; THENCE S88°25'04"E, 982.14 FEET TO A POINT ON THE EAST LINE OF SECTION 20, TOWNSHIP 76, RANGE 23; THENCE S00°04'28"W, 155.05 FEET ALONG SAID EAST LINE TO THE NW CORNER OF SAID SECTION 29, SAID CORNER ALSO BEING THE SW CORNER OF SECTION 20, TOWNSHIP 76 NORTH, RANGE 23 WEST; THENCE S00°02'36"W, 749.76 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF THE CHICAGO, BURLINGTON AND QUINCY RAILROAD, AS IT IS PRESENTLY ESTABLISHED; THENCE S64°23'28"W, 401.97 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO A POINT ON THE EAST LINE OF SAID OUTLOT 'Y', ASHTON PARK PLAT 7; THENCE N20°36'32"W, 143.06 FEET ALONG SAID EAST LINE TO A POINT; THENCE N15°45'46"W, 60.00 FEET ALONG SAID EAST LINE TO A POINT ON A NON-TANGENT CURVE; THENCE SOUTHWESTERLY ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 1970.00 FEET AND A CHORD BEARING S74°31'05"W, AN ARC LENGTH OF 14.32 FEET ALONG SAID EAST LINE TO A POINT; THENCE N15°12'03"W, 125.00 FEET ALONG SAID EAST LINE TO A POINT; THENCE N72°50'39"E, 80.28 FEET ALONG SAID EAST LINE TO A POINT; THENCE N16°11'45"W, 190.42 FEET ALONG SAID EAST LINE TO A POINT ON A NON-TANGENT CURVE; THENCE SOUTHWESTERLY ALONG A NON-TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 780.00 FEET AND A CHORD BEARING S74°16'56"W, AN ARC LENGTH OF 13.02 FEET ALONG SAID EAST LINE TO A POINT; THENCE N15°14'22"W, 130.22 FEET ALONG SAID EAST LINE THE NE CORNER OF SAID OUTLOT 'Y', SAID CORNER ALSO BEING THE SE CORNER OF LOT 12 OF SAID ASHTON PARK PLAT 7; THENCE N00°08'16"E, 303.62 FEET ALONG THE EAST LINE OF SAID PLAT TO A POINT; THENCE N01°34'56"E, 185.00 FEET ALONG SAID EAST LINE TO A POINT; THENCE N88°25'04"W, 4.83 FEET ALONG SAID EAST LINE TO A POINT; THENCE N01°34'56"E, 125.00 FEET ALONG THE EAST LINE OF SAID PLAT TO THE POINT OF BEGINNING. ALL TOGETHER CONTAINING 30.71 ACRES MORE OR LESS.

LAND AREA

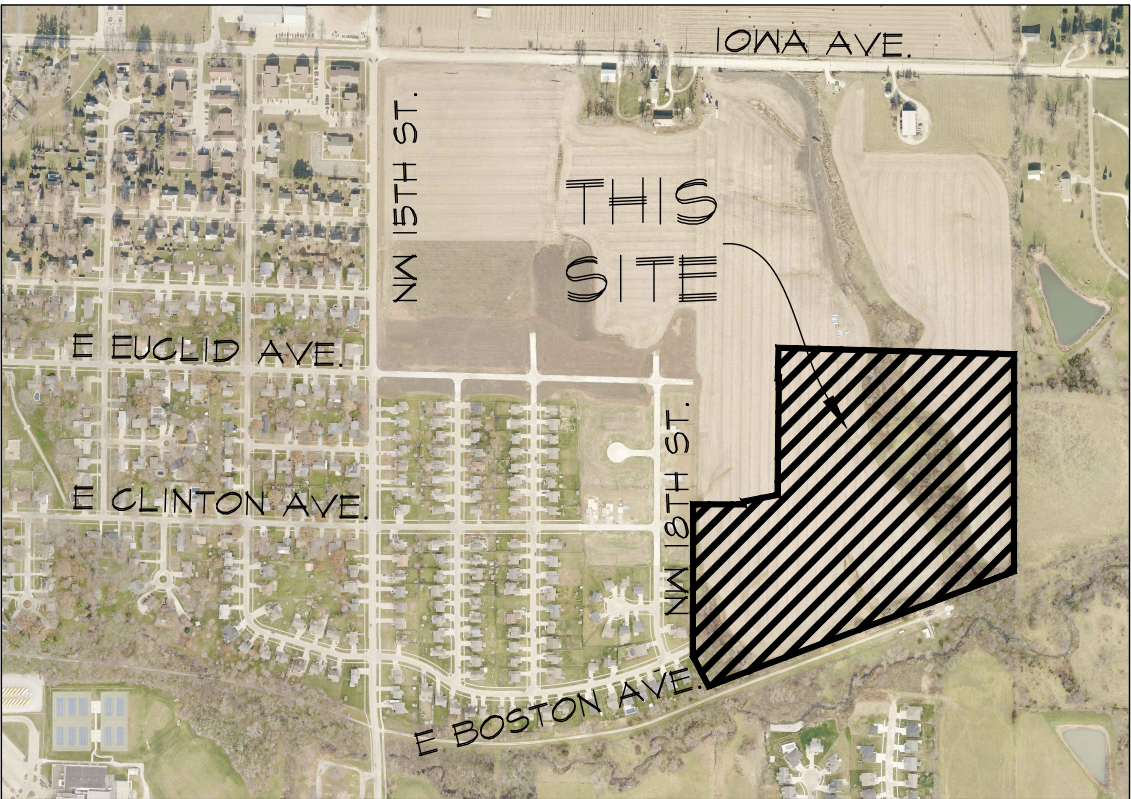
27.21 AC. NE1/4 NW1/4 SECTION 29-76-23
3.50 AC. SE1/4 SW1/4 SECTION 20-76-23
30.71 AC. TOTAL AREA

BASIS OF BEARINGS

THE FINAL PLAT BEARINGS ARE BASED ON THE NORTH LINE OF THE NE¼ NW¼ OF SECTION 29-76-23 AS MEASURED UTILIZING THE IOWA REAL TIME NETWORK CONVERTED TO IOWA STATE PLANE SOUTH ZONE GRID NORTH.

LEGEND

▲	FOUND SECTION CORNERS
●	FOUND CORNERS (¾" I.R. ¼" BLUE CAP #18381 UNLESS OTHERWISE NOTED)
○	SET PROPERTY CORNER (¾" I.R. ¼" BLUE CAP #18381 UNLESS OTHERWISE NOTED)
---	PLAT BOUNDARY
---	EXISTING PROPERTY LINES
---	PROPOSED LOTS
---	EASEMENT LINES
---	BUILDING SETBACK LINES (B.S.L.)
---	CENTERLINE STREET
D.	DEEDED BEARING & DISTANCE
P.	PREVIOUSLY RECORDED BEARING & DISTANCE
M.	MEASURED BEARING & DISTANCE
P.O.B.	POINT OF BEGINNING
P.O.R.	POINT OF REFERENCE
I.R.	IRON ROD
I.P.	IRON PIPE
BK. XXX, PG. XXX	COUNTY RECORDER'S INDEXING BOOK
R.O.W.	RIGHT-OF-WAY
P.U.E.	PUBLIC UTILITY EASEMENT
100 YEAR FLOOD	
500 YEAR FLOOD	



VICINITY SKETCH

NORTH
SCALE: 1"=800'



SHEET LIST TABLE

SHEET #	SHEET TITLE
1	COVER
2	GEOMETRIC-OVERALL
3	GEOMETRIC SOUTH
4	GEOMETRIC NORTH
5	GEOMETRIC CURVE DATA
6	EASEMENT DETAILS

ZONING

R-2 SINGLE FAMILY RESIDENTIAL ATTACHED ZONING DISTRICT

BULK REGULATIONS

	SINGLE FAMILY LOTS 7,200 SF	TWO FAMILY LOTS 8,400 SF
MIN. LOT SIZE:	7,200 SF	8,400 SF
MIN. LOT WIDTH:	60'	70'
MIN. LOT STREET FRONTAGE:	20'	20'
SETBACKS:		
FRONT YARD:	30'	25'
SIDE YARD:	8' MINIMUM ONE SIDE, 18' FT TOTAL	10'
REAR YARD:	35'	30'

FLOOD ZONE

ZONE 'X'
FEMA FIRM FLOOD INSURANCE RATE MAP NUMBER 19181C0285F, REVISED 11/16/18.

UTILITIES:

SANITARY: CITY OF INDIANOLA
WATER: INDIANOLA MUNICIPAL SERVICES

NOTES

- THE ALLOWABLE ERROR OF CLOSURE FOR THE BOUNDARY IS 1:10,000 AND THE ALLOWABLE ERROR OF CLOSURE FOR EACH LOT IS 1:5,000.
- THE EASEMENTS SHOWN ON ADJOINING OWNER'S PROPERTY ARE NOT PART OF THIS PLAT AND ARE SHOWN FOR REFERENCE ONLY. THESE EASEMENTS SHALL BE ACQUIRED THROUGH A SEPARATE RECORDED DOCUMENT.
- THIS PARCEL MAY BE SUBJECT TO EASEMENTS OF RECORD. NO TITLE WORK WAS PERFORMED BY THIS SURVEYOR.
- MONUMENTS TO BE SET WITHIN ONE YEAR THE FINAL PLAT'S RECORDING DATE.
- LOTS 'A', 'B', 'C', AND 'D' ARE TO BE DEDICATED TO THE CITY OF INDIANOLA FOR PUBLIC STREET RIGHT-OF-WAY.
- OUTLOTS 'Y' AND 'Z' WILL BE USED AS STORM WATER DETENTION, STORM SEWER & OVERLAND FLOWAGE EASEMENTS. ALL OUTLOTS WILL BE OWNED AND MAINTAINED BY THE DEVELOPER UNTIL OUTLOT 'X' IS DEVELOPED. PERMANENT EASEMENTS FOR STORMWATER DETENTION & FLOWAGE WILL BE OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION UPON FULL BUILDOUT.
- PUBLIC UTILITY EASEMENTS SHALL CONVEY TO THE CITY, ITS SUCCESSORS AND ASSIGNS, THE PERPETUAL RIGHT WITHIN THE AREAS SHOWN ON THE PLAT AND DESCRIBED IN THE EASEMENT, TO CONSTRUCT, RECONSTRUCT, OPERATE AND MAINTAIN ELECTRIC LINES CONSISTING OF POLES, WIRES, CABLES, CONDUITS, FIXTURES, ANCHORS AND OTHER SIMILAR EQUIPMENT, INCLUDING THE RIGHT TO TRIM OR REMOVE TREES WITHIN SUCH AREAS WHERE NECESSARY TO SECURE A CLEARANCE OF 4 FEET FROM THE WIRES OR POLES, TOGETHER WITH THE RIGHT TO EXTEND TO ANY TELEPHONE, TELEGRAPH, ELECTRIC OR POWER COMPANY, THE RIGHT TO USE SEPARATELY OR JOINTLY WITH THE CITY, THE AREAS INCLUDED IN THE EASEMENT FOR THE PURPOSES ABOVE ENUMERATED.

BOUNDARY CLOSURE TABLE

NORTH: 497489.5410' EAST: 1631205.0056'

SEGMENT #1 : LINE
COURSE: S88°25'04"E
NORTH: 497462.4226' LENGTH: 982.14'
EAST: 1632186.7712'

SEGMENT #2 : LINE
COURSE: S00°04'28"W
NORTH: 447307.3121' LENGTH: 155.05'
EAST: 1632186.5697'

SEGMENT #3 : LINE
COURSE: S00°02'36"W
NORTH: 446557.6130' LENGTH: 749.76'
EAST: 1632186.0027'

SEGMENT #4 : LINE
COURSE: S64°23'28"W
NORTH: 446078.9812' LENGTH: 1359.80'
EAST: 1630913.2231'

SEGMENT #5 : LINE
COURSE: N27°18'20"W
NORTH: 446837.0809' LENGTH: 142.77'
EAST: 1630847.7294'

SEGMENT #6 : LINE
COURSE: N00°08'16"E
NORTH: 446837.0809' LENGTH: 631.24'
EAST: 1630849.2474'

SEGMENT #7 : LINE
COURSE: S84°51'44"E
NORTH: 446836.5760' LENGTH: 210.00'
EAST: 1631054.2468'

SEGMENT #8 : LINE
COURSE: N00°08'16"E
NORTH: 446848.6254' LENGTH: 12.05'
EAST: 1631054.2757'

SEGMENT #9 : LINE
COURSE: N74°04'22"E
NORTH: 446875.8482' LENGTH: 143.87'
EAST: 1631200.5312'

SEGMENT #10 : LINE
COURSE: N00°08'16"E
NORTH: 447174.5173' LENGTH: 303.62'
EAST: 1631201.2673'

SEGMENT #11 : LINE
COURSE: N01°34'56"E
NORTH: 447364.4468' LENGTH: 185.00'
EAST: 1631206.3754'

SEGMENT #12 : LINE
COURSE: N88°25'04"W
NORTH: 447364.5801' LENGTH: 4.83'
EAST: 1631201.5473'

SEGMENT #13 : LINE
COURSE: N01°34'56"E
NORTH: 447489.5325' LENGTH: 125.00'
EAST: 1631204.9987'

PERIMETER: 5005.15' AREA: 1337164.94 SQ. FT.
ERROR CLOSURE: 0.0104 COURSE: S34°16'01"W
ERROR NORTH: -0.00847 EAST: -0.00642

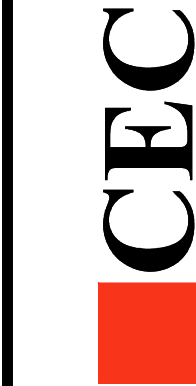
PRECISION 1: 459186.24

CERTIFICATION

I HEREBY CERTIFY THAT THIS LAND SURVEYING DOCUMENT WAS PREPARED AND THE RELATED SURVEY WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.	DATE MY LICENSE RENEWAL DATE IS DECEMBER 31, 2024
JEFFREY A. GADDIS, IOWA LICENSE NO. 18381	
SHEETS 1 - 6	

DATE:	Jun. 7, 2024
1ST SUBMIT - 2024-06-07	
DATE OF SURVEY:	01-24-2020
DESIGNED BY:	MMH
DRAWN BY:	CM

Civil Engineering Consultants, Inc.
2400 86th Street, Unit 12, Des Moines, Iowa 50322
515.276.4884 · mail@ceclac.com

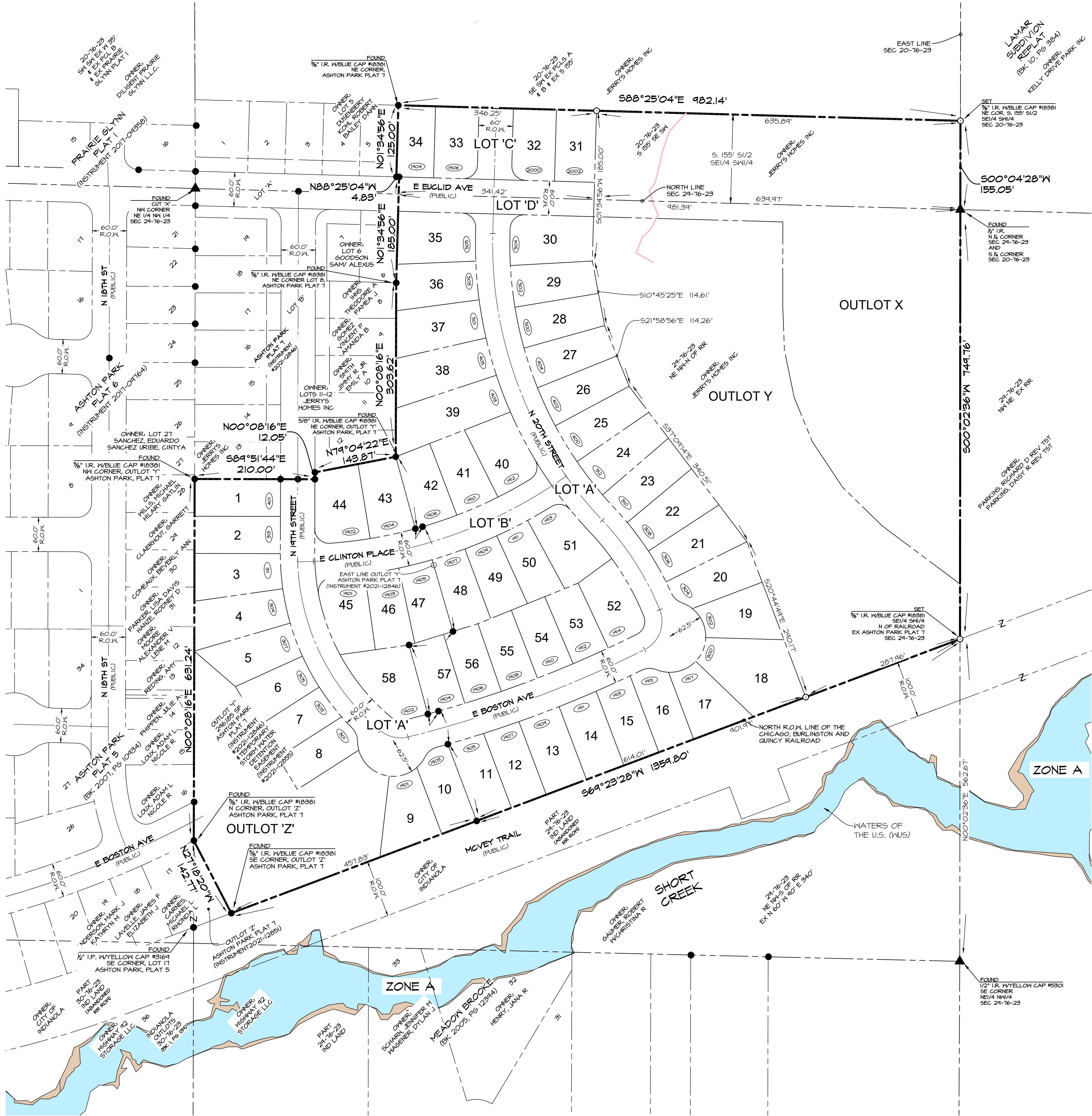


ASHTON PARK PLAT 8
INDIANOLA, IOWA

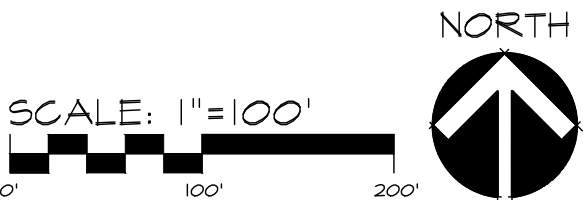
SHEET
OF 6

E-8604

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LOT CURVE DATA						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD	CH. BEARING
C1	0°57'22"	780.00'	13.02'	6.51'	13.02'	S74°16'56"W
C2	0°33'43"	1970.00'	19.32'	9.66'	19.32'	S74°31'05"W



DATE:	1ST SUBMIT - 2024-06-07
DATE OF SURVEY:	01-24-2020
DESIGNED BY:	MMH
DRAWN BY:	CM

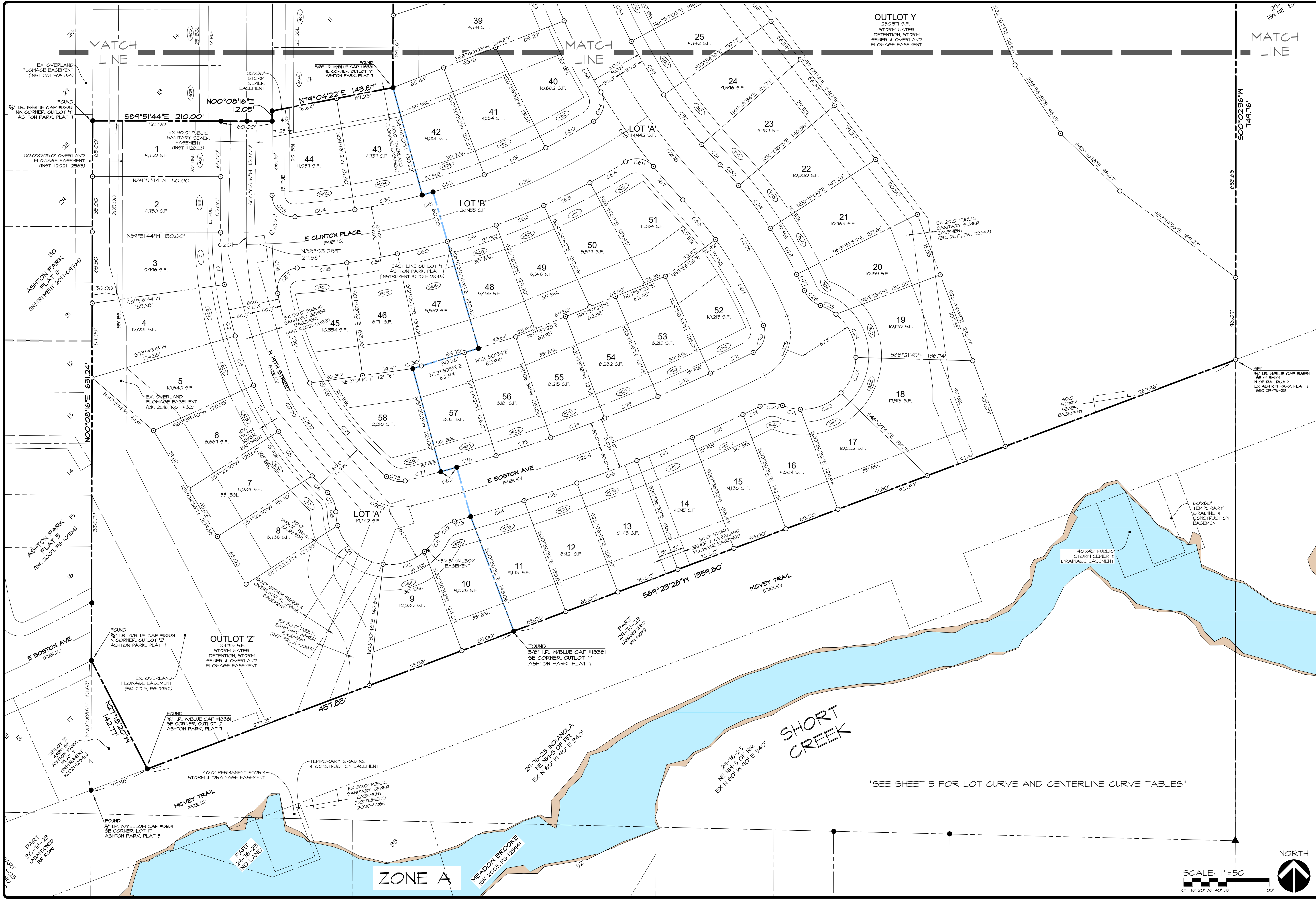
Civil Engineering Consultants, Inc.
2400 86th Street, Unit 12, Des Moines, Iowa 50322
515.276.4884 · mail@cecinc.com



ASHTON PARK PLAT 8
INDIANOLA, IOWA
GEOMETRIC-OVERALL

SHEET
2
of
6
E-8604

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DATE: 01-24-2020
DATE OF SURVEY: 01-24-2020
DESIGNED BY: MHH
DRAWN BY: CM

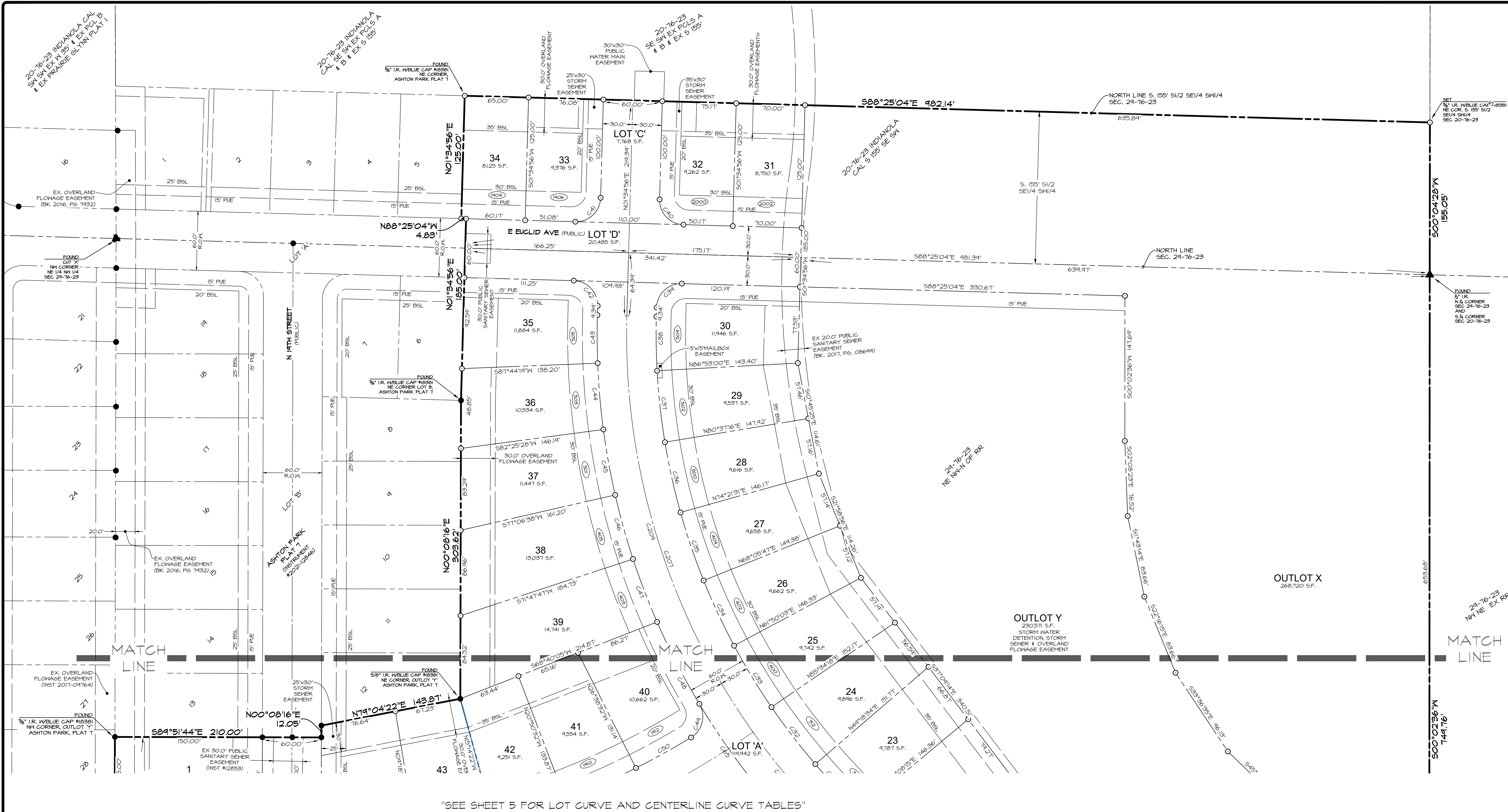
ASHTON PARK PLAT 8
INDIANOLA, IOWA
GEOMETRIC SOUTH

SHEET 6
E-8609

Civil Engineering Consultants, Inc.
2400 86th Street, Unit 12 • Des Moines, Iowa 50322
515.276.4884 • mail@cecinc.com

**CEC**

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Civil Engineering Consultants, Inc.	
2400 86th Street, Unit 12, Des Moines, Iowa 50322 515.276.4884 · mail@cecinc.com	
CEC	
DATE:	DATE OF SURVEY: 01-24-2020 DESIGNED BY: MMH DRAWN BY: CM
ASHTON PARK PLAT 8 INDIANOLA, IOWA	
GEOMETRIC NORTH	
SHEET 4 OF 6	E-8604

SHEET 4 LOT CURVE

LOT CURVE DATA						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD	CH. BEARING
C1	8°11'32"	430.00'	61.48'	30.79'	61.43'	N03°51'30"W
C2	8°11'32"	430.00'	61.48'	30.79'	61.43'	N12°09'01"W
C3	8°11'33"	430.00'	61.48'	30.79'	61.43'	N20°20'34"W
C4	8°11'30"	430.00'	61.48'	30.79'	61.43'	N28°32'05"W
C5	8°41'40"	430.00'	65.25'	32.69'	65.19'	N36°58'40"W
C6	3°32'29"	430.00'	26.58'	13.29'	26.57'	N43°05'44"W
C7	44°15'46"	32.50'	25.11'	13.22'	24.49'	N22°43'57"W
C8	14°54'30"	62.50'	16.26'	8.18'	16.22'	N08°03'26"W
C9	67°56'31"	62.50'	74.11'	42.11'	69.85'	N49°28'57"W
C10	47°41'44"	62.50'	52.03'	27.63'	50.54'	S12°41'56"W
C11	21°54'49"	62.50'	23.90'	12.10'	23.76'	S37°53'40"W
C12	47°51'33"	32.50'	27.15'	14.42'	26.36'	S50°52'02"W
C13	0°33'34"	2030.00'	19.82'	9.91'	19.82'	S74°31'01"W
C14	1°50'20"	2030.00'	65.16'	32.58'	65.15'	S73°19'04"W
C15	1°50'09"	2030.00'	65.05'	32.53'	65.04'	S71°28'49"W
C16	2°07'01"	2030.00'	75.00'	37.51'	75.00'	S69°30'14"W
C17	1°58'37"	2030.00'	70.04'	35.03'	70.04'	S67°27'25"W
C18	1°50'20"	2030.00'	65.15'	32.58'	65.15'	S65°32'56"W
C19	0°37'40"	2030.00'	22.24'	11.12'	22.24'	S64°18'57"W
C20	47°51'33"	32.50'	27.15'	14.42'	26.36'	S87°55'53"W
C21	19°32'31"	62.50'	21.32'	10.76'	21.21'	NT7°54'36"W
C22	48°28'52"	62.50'	52.88'	28.14'	51.32'	S68°04'42"W
C23	42°12'01"	62.50'	46.03'	24.12'	45.00'	S22°44'16"W
C24	52°50'20"	62.50'	57.64'	31.05'	55.62'	S24°46'55"E
C25	19°11'31"	62.50'	20.94'	10.57'	20.84'	S60°47'51"E
C26	46°15'04"	32.50'	26.24'	13.88'	25.53'	S47°16'04"E
C27	2°17'31"	530.00'	21.20'	10.60'	21.20'	S25°17'17"E
C28	6°42'51"	530.00'	62.11'	31.09'	62.07'	S29°47'28"E
C29	6°42'51"	530.00'	62.11'	31.09'	62.07'	S36°30'19"E
C30	3°32'57"	530.00'	32.83'	16.42'	32.82'	S41°38'13"E
C31	2°43'15"	670.00'	31.82'	15.91'	31.81'	S42°03'04"E
C32	6°15'44"	670.00'	73.23'	36.65'	73.19'	S37°33'34"E
C33	6°15'44"	670.00'	73.23'	36.65'	73.19'	S31°17'50"E
C38	7°25'56"	730.00'	93.84'	47.41'	93.77'	S27°16'14"E
C41	89°37'56"	25.00'	39.11'	24.84'	35.24'	N13°51'47"E
C50	4°42'33"	780.00'	64.11'	32.07'	64.09'	N61°02'02"E
C51	5°46'10"	780.00'	78.54'	39.30'	78.51'	N66°16'23"E
C52	5°36'09"	780.00'	76.27'	38.17'	76.24'	NT1°57'33"E
C53	5°56'10"	780.00'	80.81'	40.44'	80.78'	NT7°43'43"E
C54	5°10'45"	780.00'	70.51'	35.28'	70.48'	N83°17'11"E
C55	44°15'43"	25.00'	41.13'	26.93'	36.65'	S46°59'35"E
C56	11°07'16"	370.00'	71.82'	36.02'	71.70'	N05°25'22"W
C57	96°58'22"	25.00'	42.31'	28.24'	37.44'	N37°30'08"E
C58	3°58'08"	840.00'	58.19'	29.11'	58.18'	N84°00'14"E
C59	4°06'27"	840.00'	60.22'	30.12'	60.21'	NT9°57'56"E
C60	4°06'28"	840.00'	60.22'	30.12'	60.21'	NT5°51'29"E
C61	4°06'27"	840.00'	60.22'	30.12'	60.21'	NT1°45'02"E
C62	4°06'27"	840.00'	60.22'	30.12'	60.21'	N67°38'34"E
C63	4°06'27"	840.00'	60.22'	30.12'	60.21'	N63°32'07"E
C64	3°17'17"	840.00'	48.21'	24.11'	48.20'	N59°50'14"E
C65	8°22'17"	730.00'	106.66'	53.42'	106.56'	S35°08'19"E
C66	82°29'01"	25.00'	35.99'	21.92'	32.96'	S80°33'58"E
C67	4°05'14"	730.00'	52.07'	26.05'	52.06'	S41°22'05"E
C68	7°21'07"	470.00'	60.31'	30.20'	60.27'	S39°44'08"E
C69	14°01'57"	470.00'	115.11'	57.84'	114.82'	S29°02'36"W
C70	85°26'18"	25.00'	37.28'	23.08'	33.92'	S20°41'32"W
C71	1°36'45"	1970.00'	55.45'	27.72'	55.44'	S64°13'03"W
C72	1°57'18"	1970.00'	67.22'	33.61'	67.22'	S66°00'05"W
C73	1°57'18"	1970.00'	67.22'	33.61'	67.22'	S67°57'23"W
C74	1°57'18"	1970.00'	67.22'	33.61'	67.22'	S69°54'42"W
C75	1°57'18"	1970.00'	67.22'	33.61'	67.22'	S71°52'00"W
C76	1°57'18"	1970.00'	67.22'	33.61'	67.22'	S73°49'18"W
C77	1°15'07"	1970.00'	43.04'	21.52'	43.04'	S75°25'31"W
C78	53°35'54"	25.00'	23.39'	12.63'	22.54'	NT7°08'59"W
C79	22°03'44"	370.00'	142.47'	72.13'	141.59'	N39°19'10"W
C80	17°30'58"	370.00'	111.75'	57.00'	111.33'	N19°38'09"W
C81	0°57'22"	780.00'	13.02'	6.51'	13.02'	NT4°16'56"E
C82	0°33'43"	1970.00'	19.32'	9.66'	19.32'	NT4°31'05"E

SHEET 4 CENTERLINE CURVE

CENTERLINE CURVE DATA						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD	CH. BEARING
C200	50°29'18"	400.00'	352.47'	188.60'	341.18'	S25°06'23"E
C201	2°02'48"	400.00'	14.29'	7.15'	14.29'	S00°53'08"E
C202	48°26'30"	400.00'	338.19'	179.94'	328.20'	S26°07'47"E
C203	53°35'54"	55.00'	51.45'	27.78'	49.60'	S77°08'59"E
C204	12°38'23"	2000.00'	441.21'	221.51'	440.32'	N69°43'52"E
C205	85°26'18"	55.00'	82.01'	50.79'	74.62'	N20°41'32"E
C206	21°23'04"	500.00'	186.62'	94.41'	185.53'	N32°43'09"W
C208	8°08'41"	700.00'	99.51'	49.84'	99.42'	N39°20'21"W
C210	33°25'18"	810.00'	472.49'	243.18'	465.82'	NT1°22'48"E

SHEET 5 LOT CURVES

LOT CURVE DATA						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD	CH. BEARING
C34	6°15'44"	670.00'	73.23'	36.65'	73.19'	S25°02'05"E
C35	6°15'44"	670.00'	73.23'	36.65'	73.19'	S18°46'21"E
C36	6°15'44"	670.00'	73.23'	36.65'	73.19'	S12°30'37"E
C37	6°15'44"	670.00'	73.23'	36.65'	73.19'	S06°14'52"E
C38	4°41'56"	670.00'	54.95'	27.49'	54.93'	S00°46'02"E
C39	90°06'09"	25.00'	39.31'	25.04'	35.39'	S46°31'52"W
C40	90°00'00"	25.00'	39.27'	25.00'	35.36'	N43°25'04"W
C41	90°00'00"	25.00'	39.27'	25.00'	35.36'	S46°34'56"W
C42	89°59'59"	25.00'	39.27'	25.00'	35.36'	S43°25'04"E
C43	3°50'37"	730.00'	48.97'	24.50'	48.96'	S00°20'22"E
C44	5°18'51"	730.00'	67.71'	33.88'	67.68'	S04°55'06"E
C45	5°18'51"	730.00'	67.71'	33.88'	67.68'	S10°13'57"E
C46	5°18'51"	730.00'	67.71'	33.88'	67.68'	S15°32'48"E
C47	5°23'04"	730.00'	68.60'	34.33'	68.58'	S20°53'45"E

SHEET 5 CENTERLINE CURVE

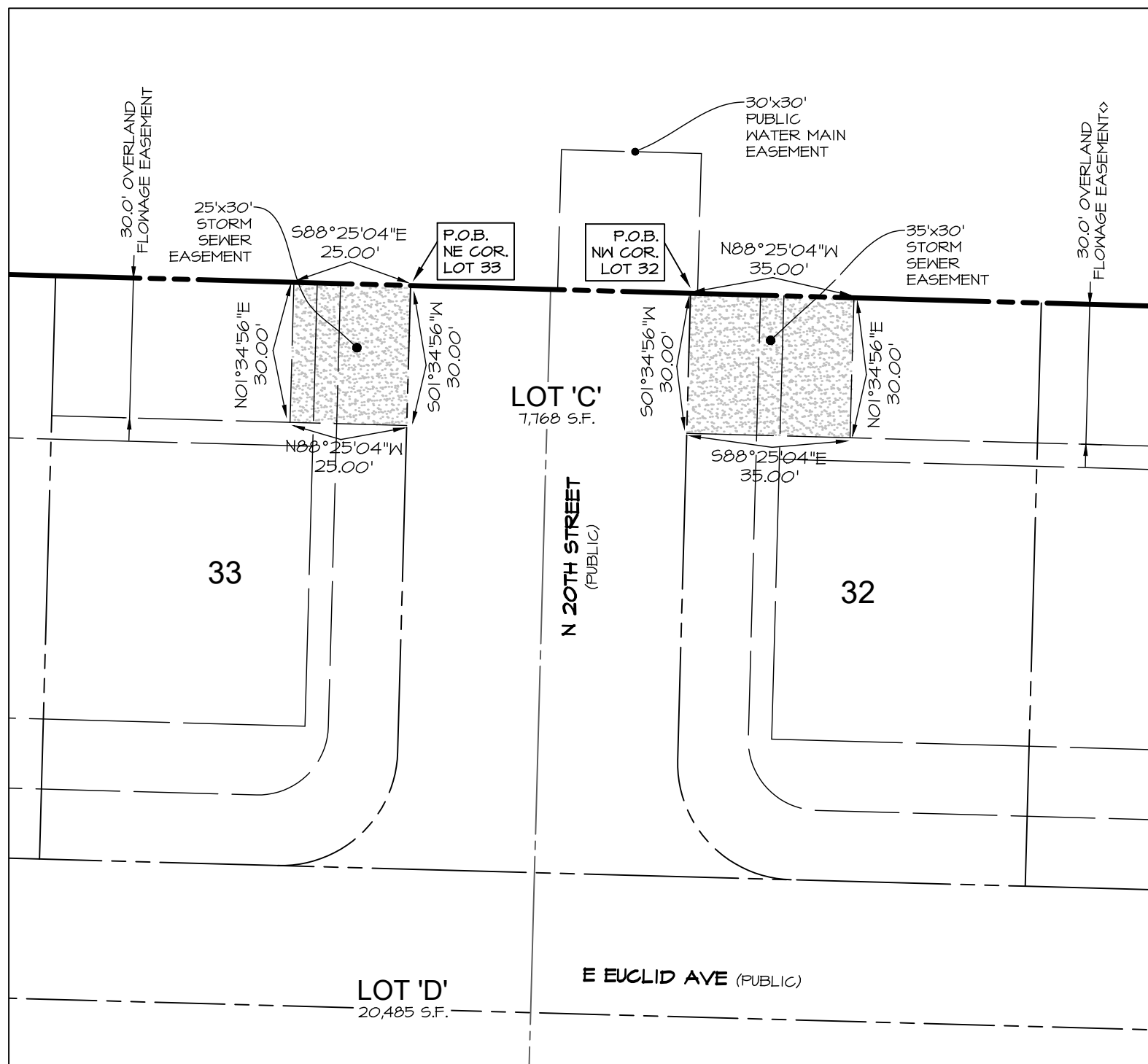
CENTERLINE CURVE DATA						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD	CH. BEARING
C207	44°59'38"	700.00'	549.70'	289.91'	535.69'	N20°54'53"W
C209	36°50'56"	700.00'	450.20'	233.19'	442.48'	N16°50'32"W

DATE:

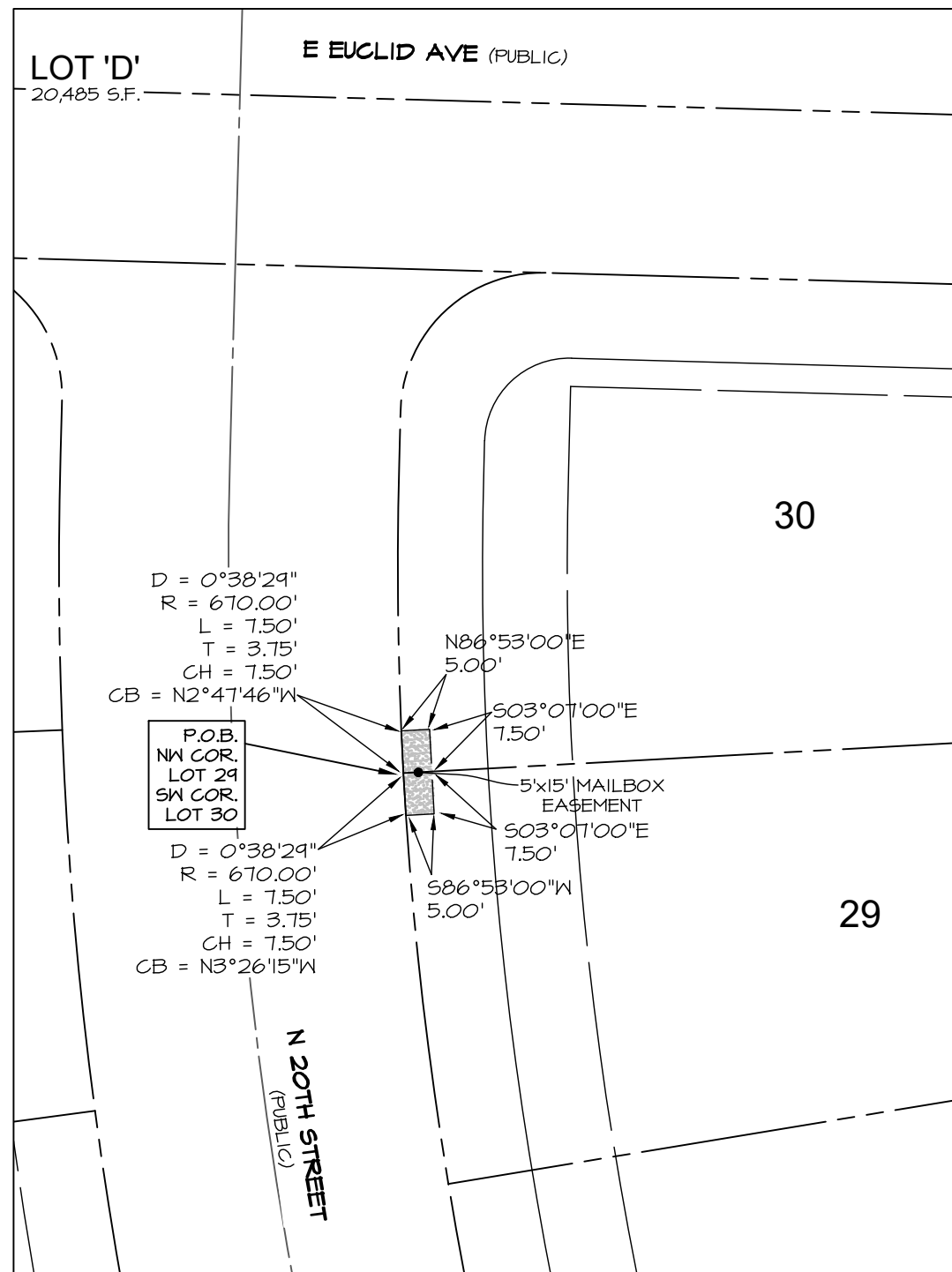
DATE OF SURVEY:
DESIGNED BY:
DRAWN BY:

1ST SUBMIT - 2024-06-07
01-24-2020
MMH
CM

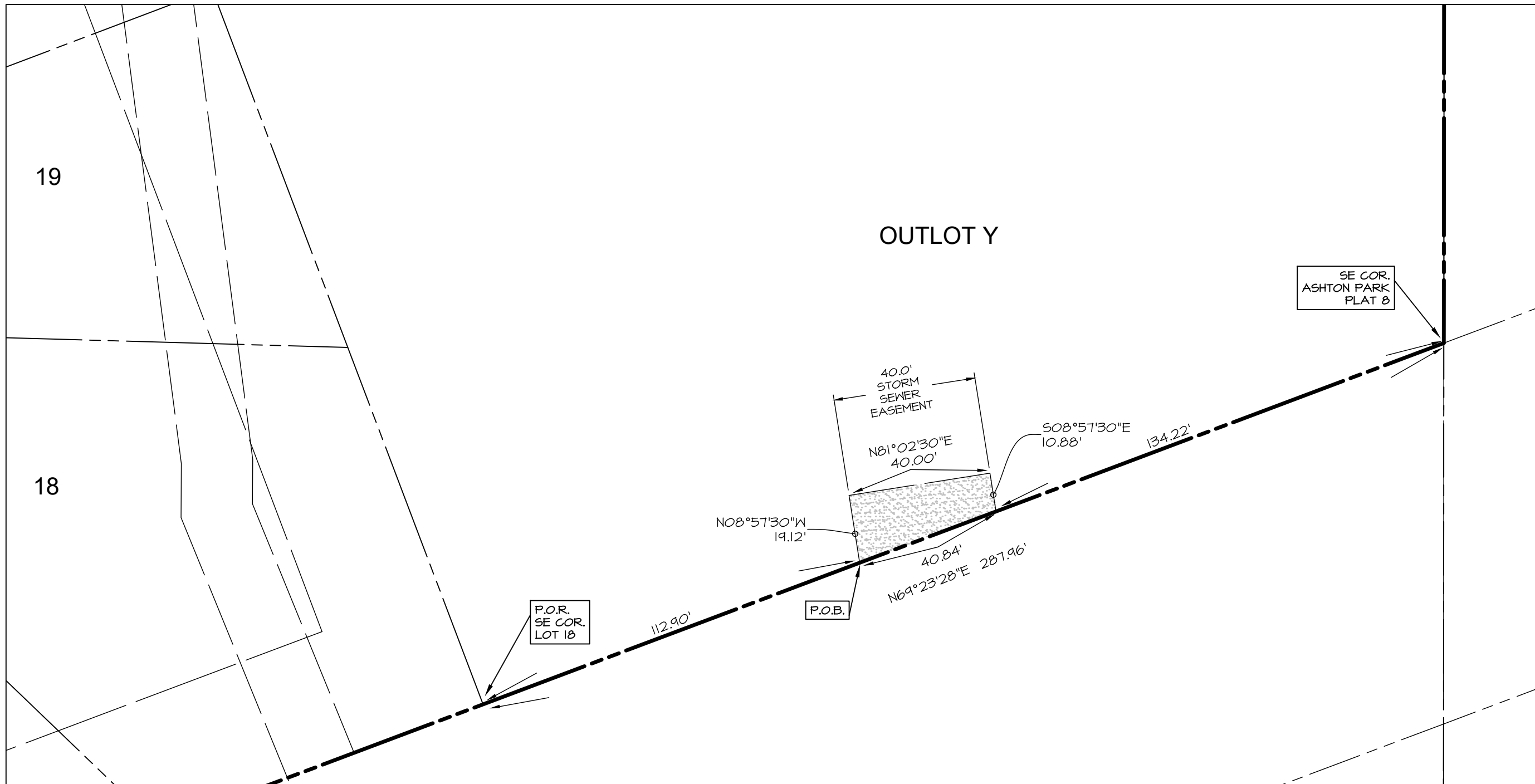
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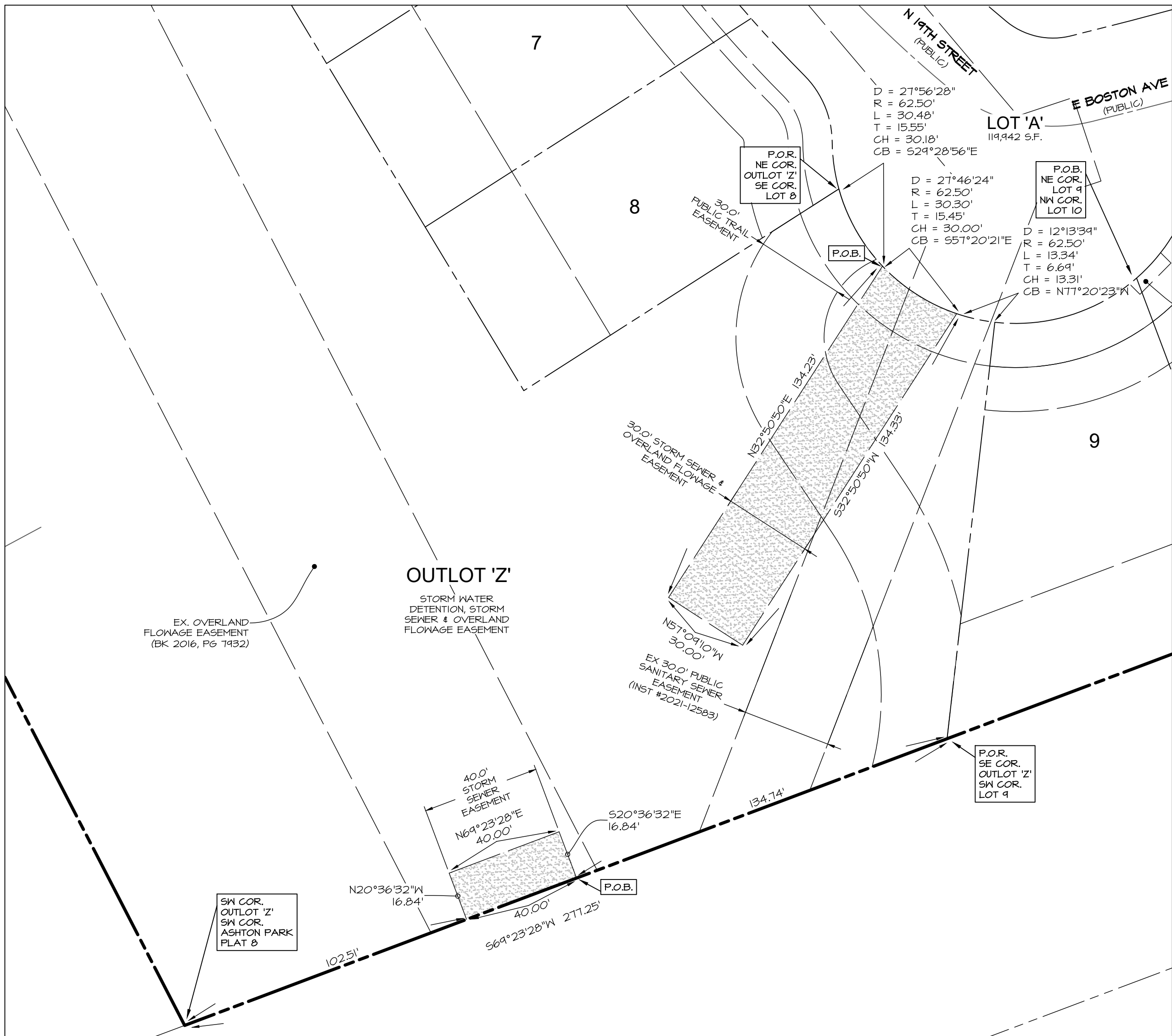
STORM SEWER EASEMENT DETAIL SCALE: 1"=30'



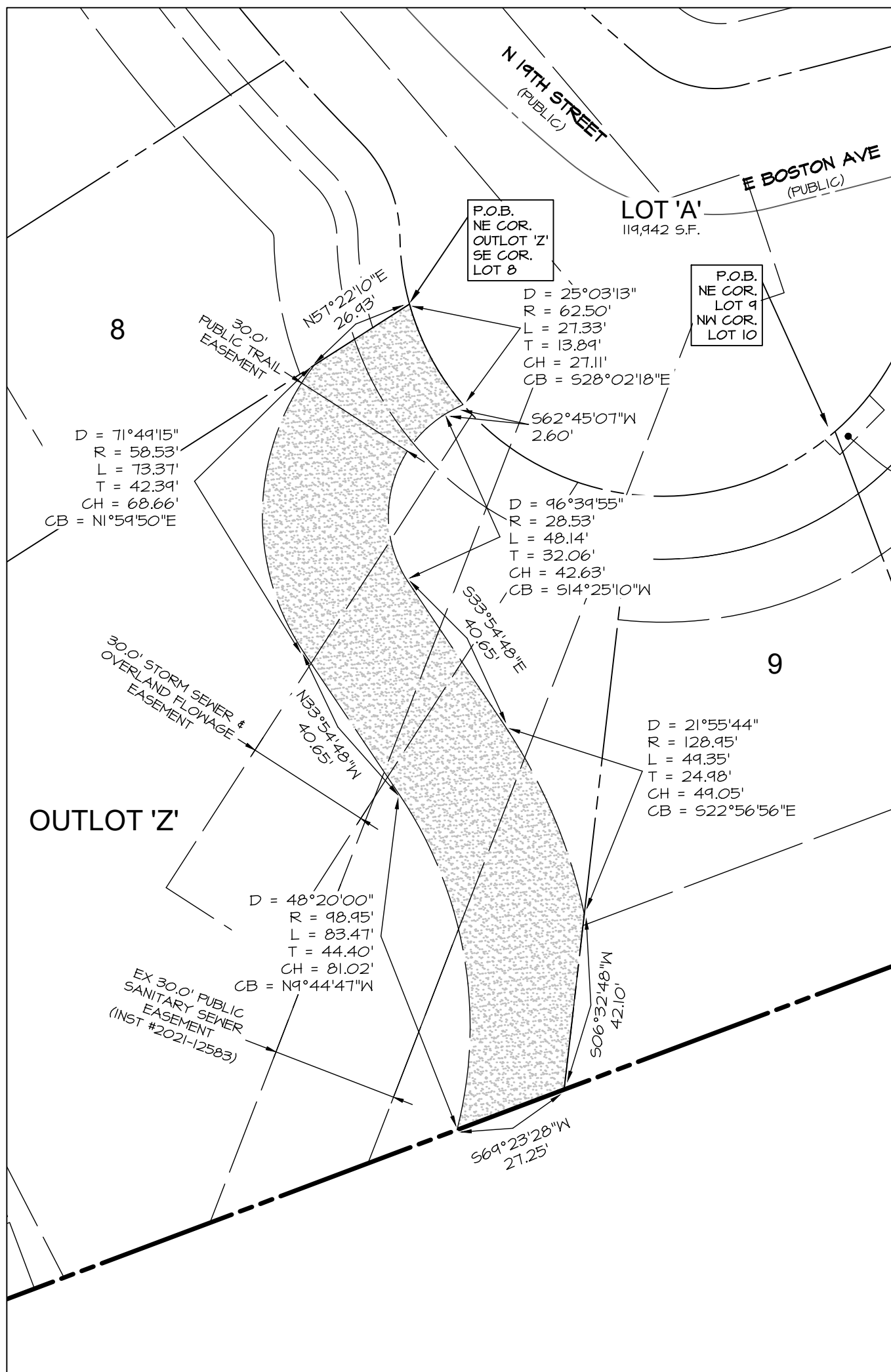
MAILBOX EASEMENT DETAIL SCALE: 1"=30'



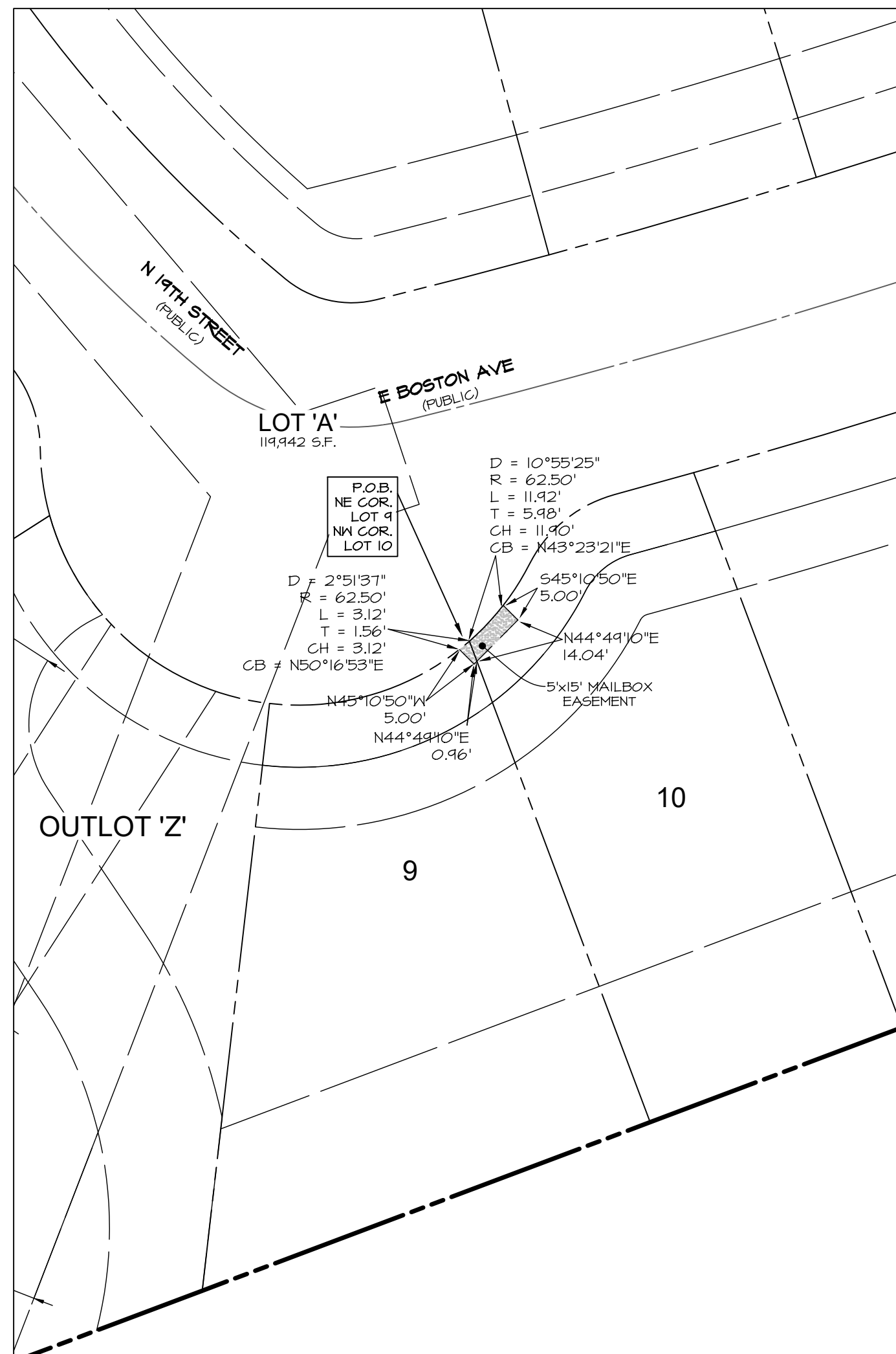
STORM SEWER EASEMENT DETAIL SCALE: 1"=30'



STORM SEWER & OVERLAND FLOWAGE EASEMENT DETAIL SCALE: 1"=30'



PUBLIC TRAIL EASEMENT DETAIL SCALE: 1"=30'



MAILBOX EASEMENT DETAIL SCALE: 1"=30'



Civil Engineering Consultants, Inc. 2400 86th Street, Unit 12, Des Moines, Iowa 50322 515.276.4884 • mail@cecinc.com	CEC	DATE:	DATE OF SURVEY:	DESIGNED BY:	DRAWN BY:
		IST SUBMIT - 2024-06-07	01-24-2020	MMH	CM
		ASHTON PARK PLAT 8 INDIANOLA, IOWA			
		EASEMENT DETAILS			
SHEET 6 OF 6		E-8604			



MEMORANDUM

To: Planning and Zoning Commission
From:
Date: October 8, 2024
Subject: Approval of a site plan for 203 West 2nd Avenue.

Recommendation:

Attachments:

1. Staff Report_203 West 2nd Ave_SP_100424
2. 203 W 2nd Avenue Combined



PLANNING AND ZONING COMMISSION STAFF REPORT

PROJECT: 203 West 2nd Avenue – Site Plan

PREPARED BY: Bill Mettee – Associate Planner

REPORT DATE: October 4, 2024

MEETING DATE: October 8, 2024

GENERAL INFORMATION

Applicant / Owner:

Jay and Brenda Clark

Owner's Representative:

Matthew Palan, Creative Concepts Architecture

Request:

The applicant is requesting approval of a site plan for a commercial building.

Location and Size:

Property is located south of West 2nd Avenue and west of South Buxton Street, containing approximately 0.39-acres.

Property Address:

203 West 2nd Avenue

AREA MAP



ABOVE: Aerial of subject property (outlined in **RED**) in relation to the surrounding area.

LAND USES AND ZONING

Location	Existing Land Use	Comprehensive Plan	Current Zoning
Property in Question	Vacant / Undeveloped	Community Mixed Use	C-2 (Highway Commercial District)
North	Warren County Extension Outreach Building	Downtown Mixed Use	C-2 (Highway Commercial District)
South	Single-Family Residential	Low-Density Residential	C-2 (Highway Commercial District)
East	Foust Body Shop	Community Mixed Use	PUD (Planned Unit Development)
West	Single-Family Residential	Low-Density Residential	R-2 (Single-Family Residential Attached District)

BACKGROUND

At their August 7, 2024, meeting, the Indianola Board of Adjustment heard a variance request from Jay and Brenda Clark related to the subject property. Due to the flag shaped lot, the applicant proposed front yard setback and rear yard setback deviations. The applicant proposed a 15-foot front yard setback, which had a deviation of 25-feet and a rear yard setback of 30-feet, a deviation of 10-feet. The standard front and rear yard setback requirements in the C-2 district are both 40-feet. The Board of Adjustment approved both variance requests.

PROJECT DESCRIPTION

The applicant has submitted a site plan for the construction of a 2,000 square foot building to be used as a commercial therapy location. The building will be 40' x 50' and approximately 13-feet at the tallest point. The proposed site plan is in conformance with the approved variance request.

Table I below summarizes the bulk regulations that are applicable to the proposed development. The site plan demonstrates compliance with the bulk regulations.

Table I: Bulk Regulations for the Wesley Life PUD District

Category	C-2 / Variance Approved (minimum)
Front Yard Setback	40 feet / 15 feet
Rear Yard Setback	40 feet / 30 feet
Side Yard Setback	10 feet
Maximum Height Stories	50 feet

ACCESS AND PARKING

Access into the site will be provided from South Buxton Street. IDOT reserves the right to limit access from IA-92 and exercised that right due to minimum driveway spacing requirements.

A total of eight parking spaces are required (1 space per 250 sf) and the applicant is providing eight spaces including one accessible space. The proposed site plan meets the parking requirements.

SIDEWALKS/TRAILS

Five-foot sidewalks already exist along West 2nd Avenue and South Buxton Street. A pedestrian sidewalk is shown into the site from the public sidewalk along West 2nd Avenue.

UTILITIES

The site will be serviced with all public utilities, which are installed in the immediate vicinity. Stormwater detention will be provided with a small basin at the southwest corner of the site.

LANDSCAPING & OPEN SPACE

A minimum of 20% of the project area is required to be open space. The total amount of open space proposed is 40%. A landscape buffer is shown along the west property line. The plantings shown on the landscape plan meet the minimum requirements of the Landscape & Open Space Ordinance.

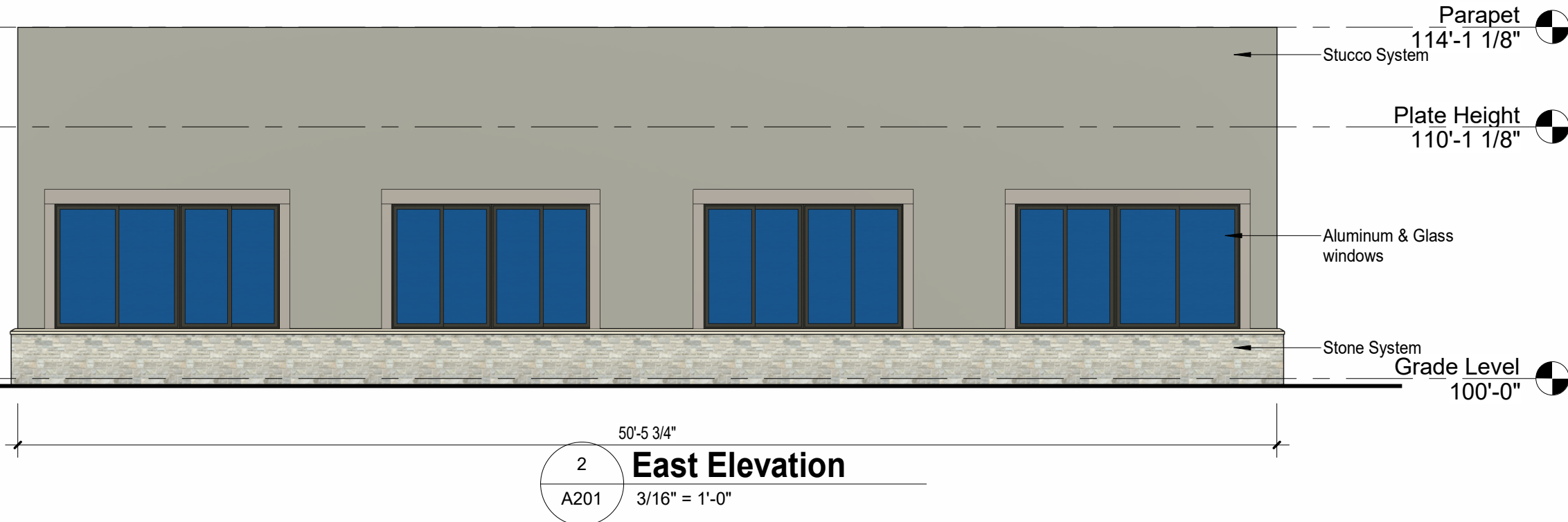
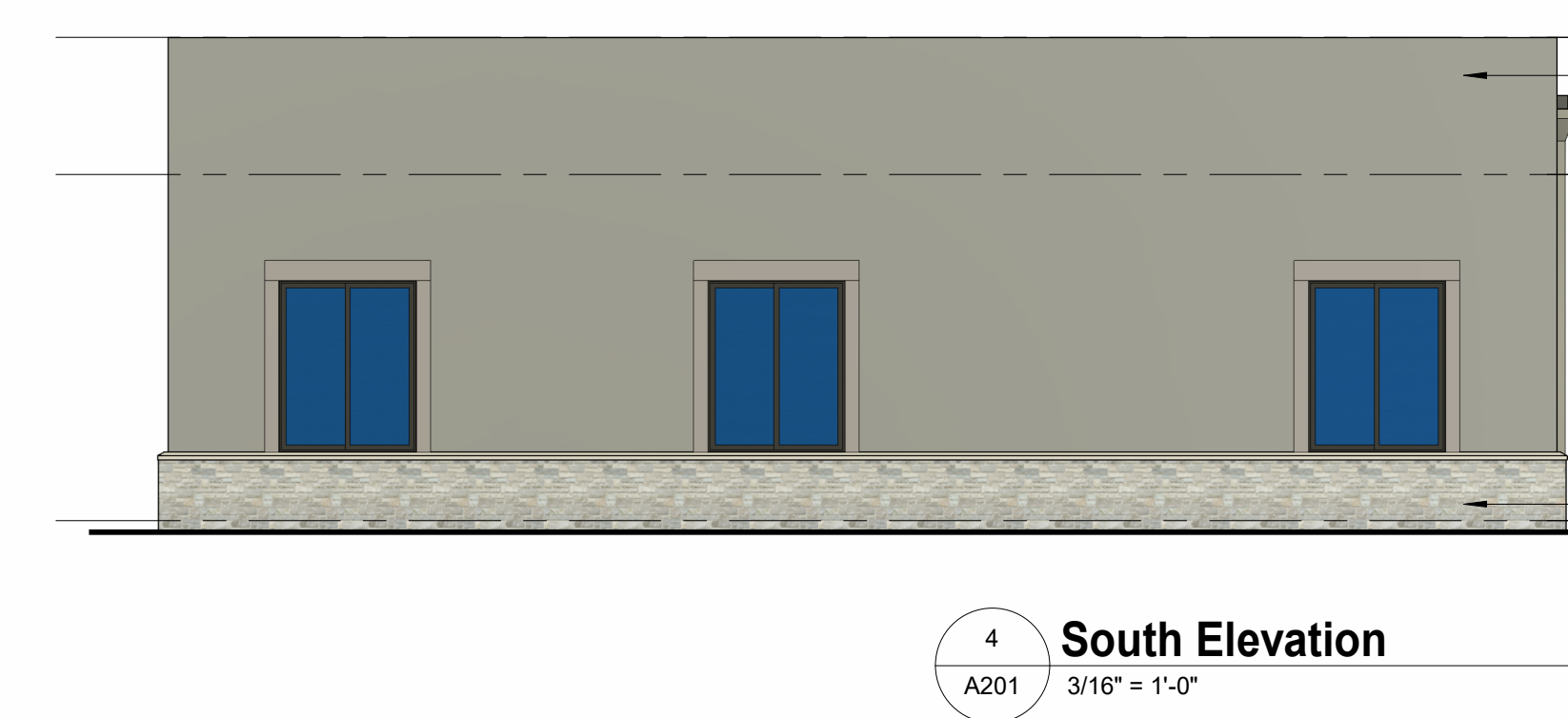
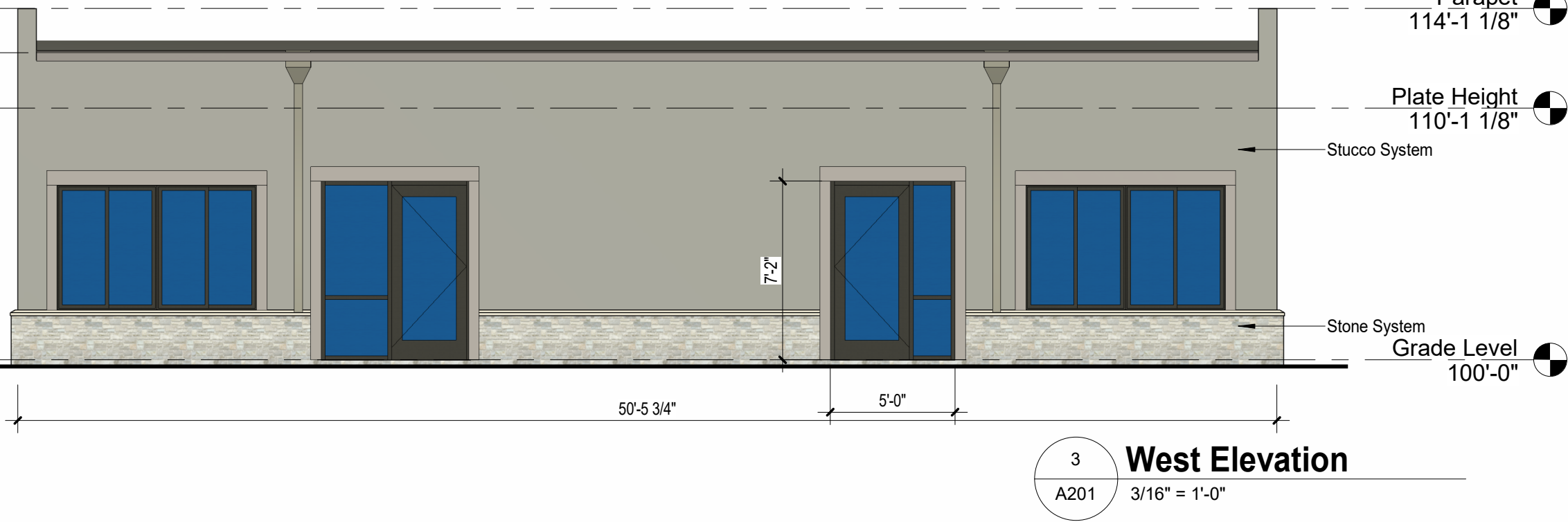
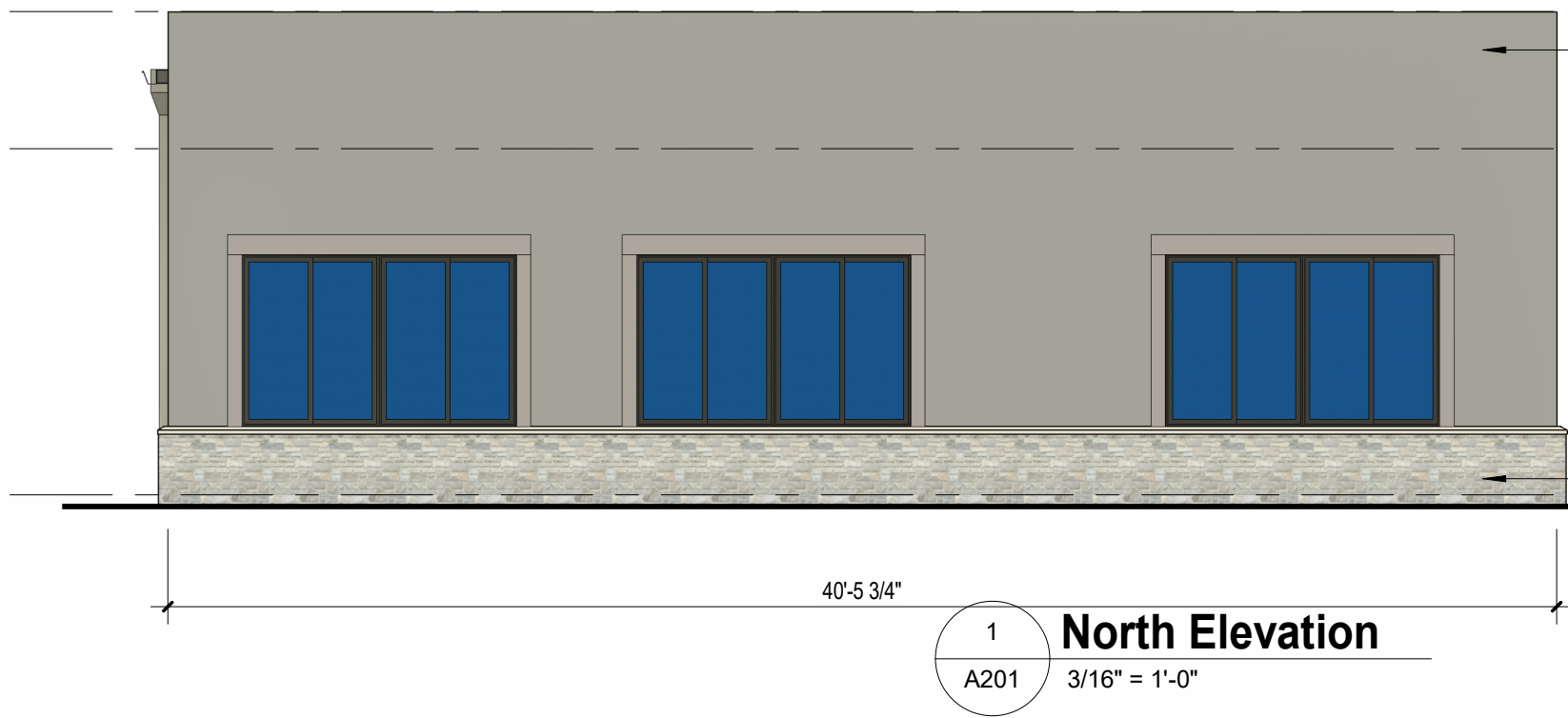
ELEVATIONS

Colored building elevations are included for review. The building is proposed to be constructed predominantly of stucco, stone veneer and fenestration.

STAFF RECOMMENDATION

The site plan is in general conformance with the Zoning Ordinance, Site Plan Ordinance, and Comprehensive Plan. Staff recommends approval of the site plan for 203 West 2nd Avenue subject to remaining staff comments.

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Wall Material - Overall			
Material	Area	Percent	Type

Stucco	126 SF	4.078%	Class 1
East			
Glass	170 SF	5.510%	Class 1
Stucco	554 SF	17.945%	Class 1
Stone Veneer Synthetic	124 SF	4.031%	Class 2

North			
Glass	60 SF	1.945%	Class 1
Stucco	467 SF	15.129%	Class 1
Stone Veneer Synthetic	99 SF	3.219%	Class 2

South			
Glass	120 SF	3.889%	Class 1
Stucco	537 SF	17.421%	Class 1
Stone Veneer Synthetic	99 SF	3.198%	Class 2

West			
Glass	152 SF	4.916%	Class 1
Stucco	473 SF	15.340%	Class 1
Stone Veneer Synthetic	104 SF	3.378%	Class 2
Grand total: 17	3085 SF		

Roof: Class 1 Standing Seam Metal / Black
Siding: Stucco System
Stone Veneer Synthetic Wainscot

For class 1 classification, this must be a traditional Portland cement-based stucco applied in 3 coats over a solid surface. EIFS will not be allowed for the first 10 feet of the building elevation from the bottom of the elevation, upward. EIFS is also considered a Class 3 material.

Wall Material - South			
Material	Area	Percent	Type
Glass	120 SF	15.870%	Class 1
Stucco	537 SF	71.082%	Class 1
Class 1: 2	657 SF	86.951%	
Stone Veneer Synthetic	99 SF	13.049%	Class 2
Class 2: 1	99 SF	13.049%	
Grand total: 3	756 SF	100.000%	

Primary Wall Material - North			
Material	Area	Percent	Type
Glass	60 SF	9.583%	Class 1
Stucco	467 SF	74.552%	Class 1
Class 1: 2	527 SF	84.135%	
Stone Veneer Synthetic	99 SF	15.865%	Class 2
Class 2: 1	99 SF	15.865%	
Grand total: 3	626 SF	100.000%	

Primary Wall Material - West			
Material	Area	Percent	Type
Glass	152 SF	20.800%	Class 1
Stucco	473 SF	64.907%	Class 1
Class 1: 2	625 SF	85.707%	
Stone Veneer Synthetic	104 SF	14.293%	Class 2
Class 2: 1	104 SF	14.293%	
Grand total: 3	729 SF	100.000%	

Primary Wall Material - East			
Material	Area	Percent	Type
Glass	170 SF	20.047%	Class 1
Stucco	554 SF	65.287%	Class 1
Class 1: 2	724 SF	85.334%	
Stone Veneer Synthetic	124 SF	14.666%	Class 2
Class 2: 1	124 SF	14.666%	
Grand total: 3	848 SF	100.000%	

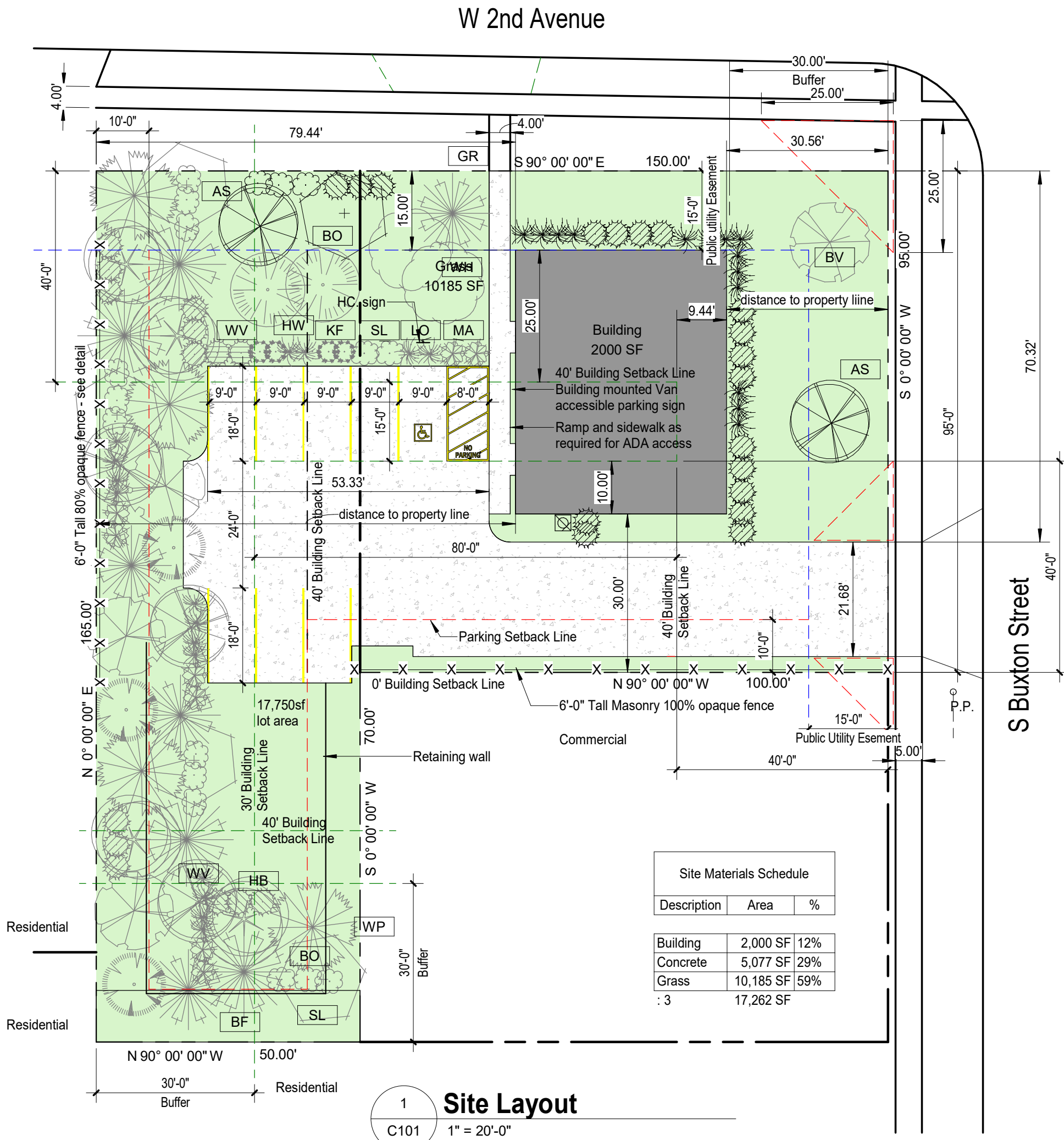
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4	09/14/24	Revision 3
3	08/09/24	Revision 2
2	06/27/24	Revision 1
1	05/16/24	for Permit
9/14/2024 2:05:57 PM		
PROJECT NUMBER: 2311E		
TITLE: Exterior Elevations		
SHEET:		

Planting Notes

- Tree or shrub shall stand plumb
- Plants shall be true to species, size and variety specified
- Do not allow air pockets to form when backfilling – Soil should never be placed over the root ball.
- Contractor shall guarantee all plant material for one year from date of project Completion.
- Contractor to provide a 4" depth clean vertical cut edge to define mulch planting bed limits.
- All trees to be planted a minimum distance of 5 feet from fire hydrants and pavements.
- The contractor is responsible for plants awaiting installation and shall protect them from injury.
- Trees should have their North side marked at the nursery and be planted at the site with the same orientation.
- All plant material shall be handled by the balled and bur lapped (b&b) root ball, container or root mass.
- Remove all twine, rope, and wire from the root ball. Remove wire basket completely, cut the bottom third prior to planting. Set the plant or tree in pit an backfill to stabilize root ball.
- All plant material shall at least meet minimum requirements shown in the "American Standards for Nursery Stock" (ANSI Z60,1-latest edition).
- Plant material shall be specimen quality, healthy, free of disease and insects and shall have healthy, well-developed root systems; plants shall also be free from physical damage or other conditions that would prevent vigorous growth.
- Pruning of trees and shrubs at time of planting should be kept at a minimal; the contractor shall prune to remove broken, damaged or diseased branches, no pruning paint or sealer is allowed. All other pruning shall be approved by the landscape architect.
- Provide 3-inch depth shredded hardwood mulch around all plantings to a min. 3-foot perimeter, provide continuous mulch beds in areas indicated on the plan do not place mulch within 2-inches of root collar or trunk.
- Contractor to seed all areas disturbed by construction with type 1, lawn seed mixture, unless noted otherwise .
- All plant material to be approved by owner before planting, substitutions of plant materials will not be permitted unless authorized in writing by the owner.
- All wire, twine and burlap shall be removed from the rootball of street trees prior to planting.
- No staking of trees is allowed.
- Tree Caliper to be measured 6" above grade.

Site Notes

- All work in the city right-of-way shall be done in accordance with SUDAS and the City General Supplemental Specifications to SUDAS effective at the time of plan approval.
- All work in the city right-of-way requires a right-of-way permit.
- This site shall be maintained in compliance with all city code applicable on the date of site plan approval.
- Any new rooftop mechanical equipment must be screened from street level view. screening details will be provided. All exterior mounted roof top building equipment, including hvac, mechanical equipment, vents, piping roof access ladder, and utility meters shall be located out of view or screened from all adjacent streets and residentially developed zoned properties.
- Transformers, junction boxes, air conditioners over 3 feet in height, or other such items may not be located in the required setback areas.
- Any amendments or changes to the project site that do not meet what is shown on the site plan need to be approved with the Community Development Department prior to installation/construction.
- Lighting must be low glare cut-off type fixtures to reduce the glare of light pollution on surrounding properties.
- The required landscaping, both existing and proposed, shall be maintained for the life of the Certificate of Occupancy.
- All disturbed areas should be restored by seeding or sodding.
- No parking or storage on unpaved surfaces is allowed.
- Sidewalk / Drive Approach Permit is Required.
- Limited Access Gates and Locks: All developments, communities, structures, facilities, or property similar in nature that has controlled access points requiring a key, key card, coded key pad, or similar device to limit access shall have a lock box with keys, key cards, codes, or similar device to gain access or shall have a lock box key activated opening device. All lock boxes or lock box key activated devices shall be operable with the existing lock box key used by the City of Indianola Fire Department. Contact the Fire Prevention Bureau for more information. (Exception: Controlled access points that have security present 24 hours a day).
- Rooftop equipment to be screened. Mechanical equipment screen: Counter weighted - by Roof Screen mfg. Inc. or LINEA by Modwerks.
- Any new parking lot lighting shall be pedestrian in scale, with light poles no taller than 20 feet in height (including base).
- All new exterior signs are reviewed separately and must be approved with Zoning Enforcement before sign permits can be issued. This note is for your information only and requires no formal addressing on the future submittal. All new ground and building signage are reviewed separately. A Sign Permit must be acquired through the Community Development Department prior to the erection of new signage.
- All new ground and building signage are reviewed separately. A sign permit must be acquired through the Community Development Department prior to erection of new signage.
- An enclosure upgrade may be required at the discretion of the zoning administrator for unscreened dilapidated overflowing or inappropriately sited waste containers
- Trash enclosure will be required prior to certificate of occupancy to enclose proposed waste containers. - Trash will be kept inside the building and placed out for pickup on collection day.
- driveway on Buxton Avenue must be approved by the Iowa Department of Transportation DOT.
- As discussed in meeting with the City of Indianola on August 02, 2024 Berms are not required for this site.
- "Owner shall conduct an as-built survey after topsoil placement and submit CAD output files verifying that the completed basins match or exceed design volumes. Any spillway shall also be surveyed to verify a match to design elevations".
- The proposed driveways on West 2nd Avenue and S Buxton Street must be approved by the Iowa Department of Transportation (IDOT). Please provide a note accordingly to the site plan under site notes.



	I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly-licensed architect under the laws of the State of Iowa.	Matthew J. Palan September 14, 2024
	Signature Sheets covered by this seal: C101, C102	Date Issued:
	Registration Expires: June 30, 2023	

Proposed Planting Schedule					
Mark	Size	Common Name	Description	Native	Count
GR	72" Tall	Black Hills Spruce	Picea glauca	X	4
BF	60" Tall	Concolor Fir	Abies concolor		4
WP	60" Tall	Eastern White Pine	Pinus Strobus	X	4
DLP	60" Tall	Norway Spruce	Picea abies	X	3
Evergreen: 15					
BO	2"	Bur Oak	Quercus macrocarpa	X	5
HB	2"	Hackberry	Celtis Occidentalis	X	4
AS	2"	London Planetree	Platanus x acerifolia	X	5
Overstory: 14					
LO	3 Gal	Daylilly Orange			16
HB2	3 Gal	Hibiscus Bush			3
MA	3 Gal	Manzanita			8
SL	3 Gal	Miss Kim Lilac			17
KF	1 Gallon	Red Vein Enkianthus	Enkianthus campanulatus		4
WV	3 Gal	Variegated Dwarf Weigela	Weigela florida 'Variegata Nana'		17
Shrub: 65					
BV	2"	American Hornbeam	Ostrya Virginiana		1
WH	2"	Autumn Brilliance	Amelanchier x grandiflora		2
HW	2"	Hawthorne, Winter King	Crataegus viridis		2
Understory: 5					
Grand total: 99					

Parking Requirement:

1 Space per 250sf - Retail
2,000 sf / 250 sf = 8 Spaces required

8 spaces + 1 HC Space provided

Open Space:

17,261 sf Site area
7,077 sf Impervious surface
40% Total Openspace
20% Open Space = 3,452 sf Minimum
Open Space Required
10,184 open space provided

Planting Calculation:

3,452 sf Open Space Required
3,452 sf / 2,000 sf = 1,726 sf
1 Unit required
2 Deciduous shade trees Provided & required
4 Ornamentals Provided & required
4 Shrubs Provided & required

Buffer Planting Calculation:

165,00'+50,00'+70,32'=285.32' of 30' buffer
285' / 25' = 11.41 units

11.41* 2 Overstory = 23
11.41* 2 Evergreen = 23
11.41* 6 Shrubs = 68

Offstreet Parking Landscape Calculation:

53.33' of parking = 1 unit of plantings
1 shade tree required
2 ornamental trees required

Equivalent Residential Unit (ERU):

3,400 sf Impervious surface = 1 ERU
7,077sf - 3,400sf = 3,677sf / 340sf = 10.80
.1 * 10.80 = 1.8 ERU + 1 ERU = 2.8 Total

Property Owner:

Brenda and Jay Clark
2829 Buena Vista Drive
Clive, Iowa 50325

Property Address:

203 W 2nd Ave
Indianola, IA 50125

Legal Description:

25-76-24 South Indianola Lot 3 & Alley
on South Lot 3 Block 4, now include in
and forming part of the city of Indianola

Zoning:

C-2, Highway Commercial Zoning
District

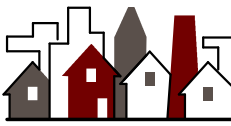
Bulk Regulations:

40' Front setback
40' Rear setback
30' Side Yard
50' Max Building Height
20' Building separation
150' Lot width
40' Street Frontage
20% Min. Open Space

Parking setbacks
15' Front Yard
10' Rear Yard
10' Side Yard

North

1" = 20'-0" Scale in Feet



Creative Concepts
Architecture, PLC
3013 NE 158th Avenue | Cambridge, Iowa 50046
515 250 1558
matl@creativeconceptsarcht.com

New Facility

203 W 2nd Ave. | Indianola, IA 50125

#	Date	Description
4	09/14/24	Revision 3
3	08/09/24	Revision 2
2	06/27/24	Revision 1
1	05/16/24	for Permit

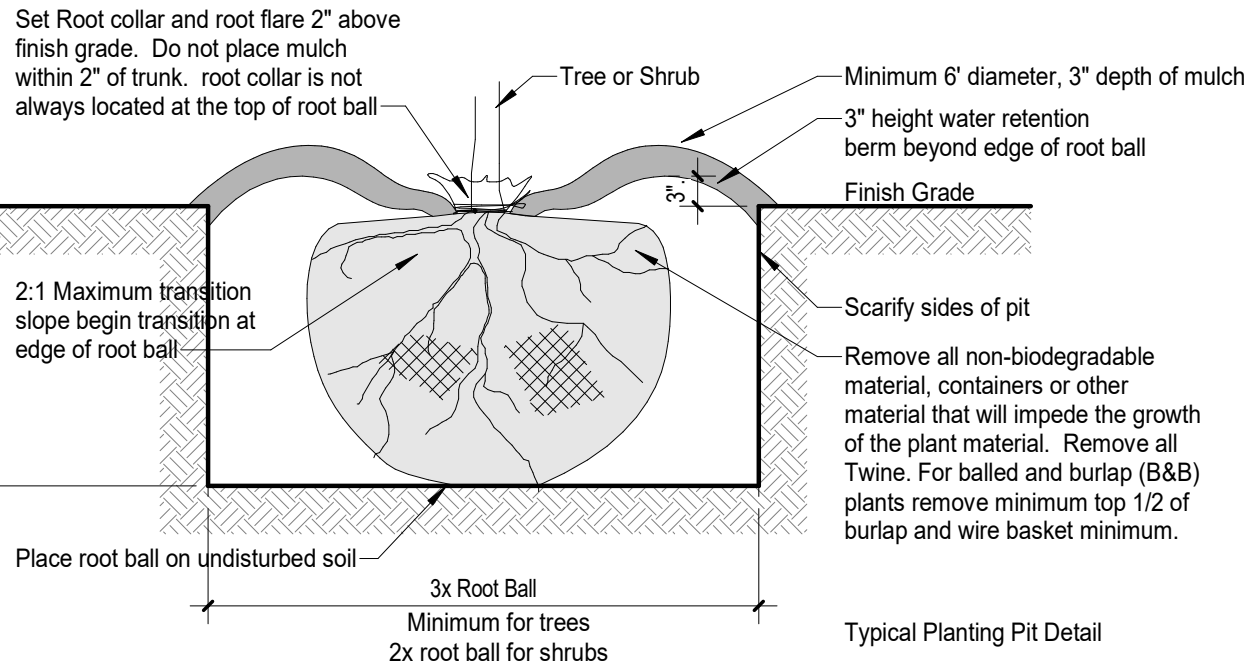
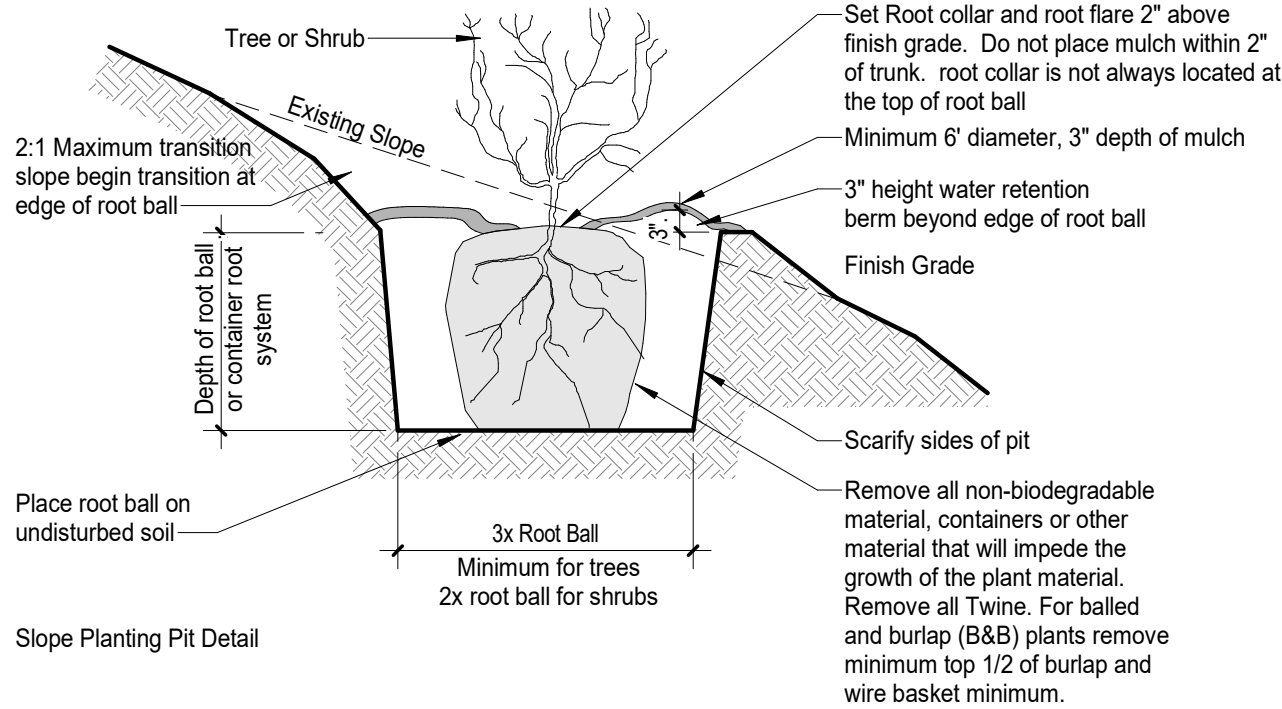
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PROJECT NUMBER:
2311E

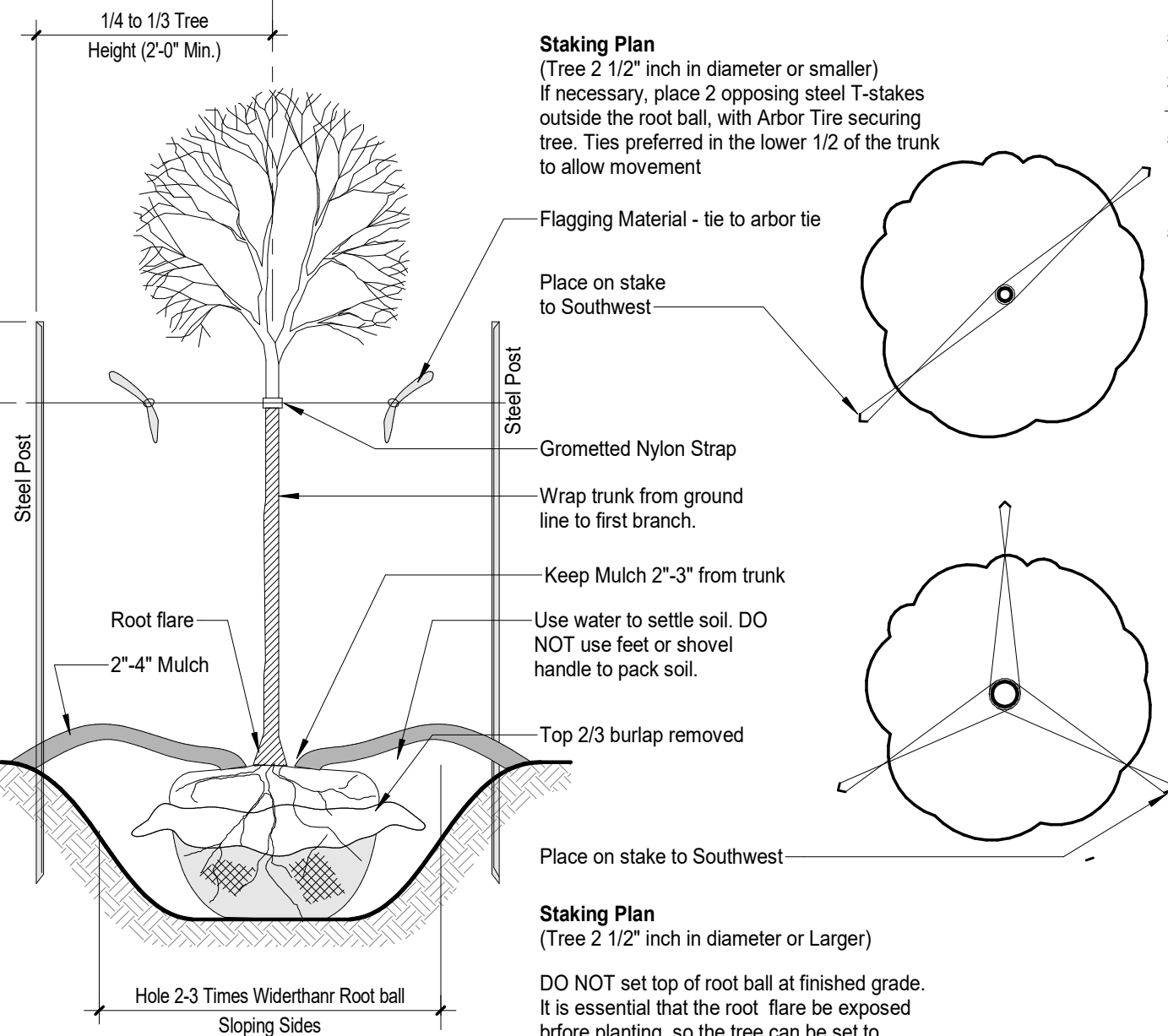
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site plan

SHEET:
C101

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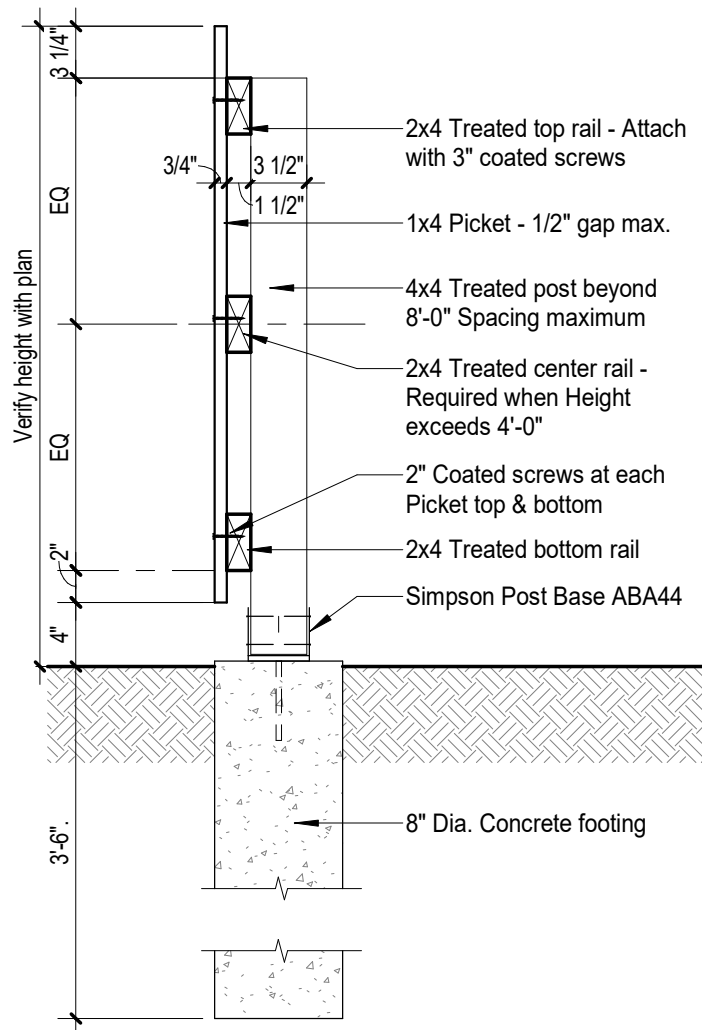


8 Shrub Planting

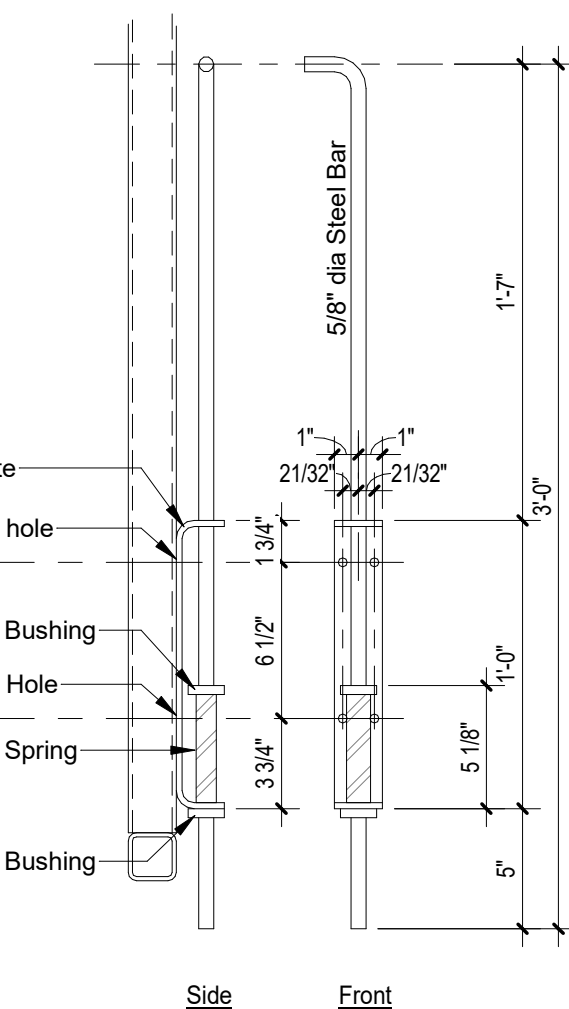


9 Tree Planting Detail

C102 1" = 1'-0"



7 Fence Detail



10 Cane Bolt

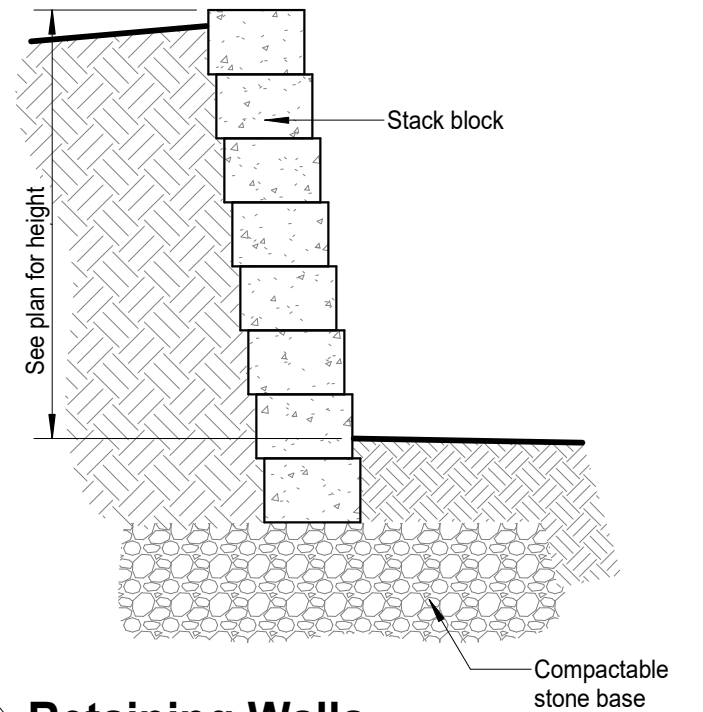
Step 1 - peel back rope/burlap/cage and remove sufficient soil to expose root flare.
Step 2 - measure from root flare to bottom of root ball.
Step 3 - dig hole to depth where topmost roots are buried 1-2 inches and the root flare sits slightly above ground level. Dig a hole 2-3 times wider than the diameter of the root ball with sloping sides to allow for proper root growth.
Step 4 - remove lower third of wire cage.
Step 5 - set tree in hole. Support with some soil. Ensure that it's straight, then remove entire wire cage and top Two-thirds of burlap.
Step 6 - backfill with two-thirds of loose native soil (unless it's all clay) and use water to settle. Do not tamp Or step on soil.
Step 7 - backfill balance and water again. Excess soil may be used to create a berm/saucer outside of root ball.
Step 8 - add 2-4 inches of wood mulch, leaving a 1- to 2-inch clearance between the mulch and the trunk.
Step 9 - water a final time.
Step 10 - if necessary, place two opposing steel t-stakes outside the root ball with arbor tie securing tree. Ties preferred on lower half of trunk to allow movement.

Dero HQ
(888) 337-6729
5522 Lakeland Ave. N.
Minneapolis, Minnesota 55429
www.dero.com

Install per manufacturers recommended specification

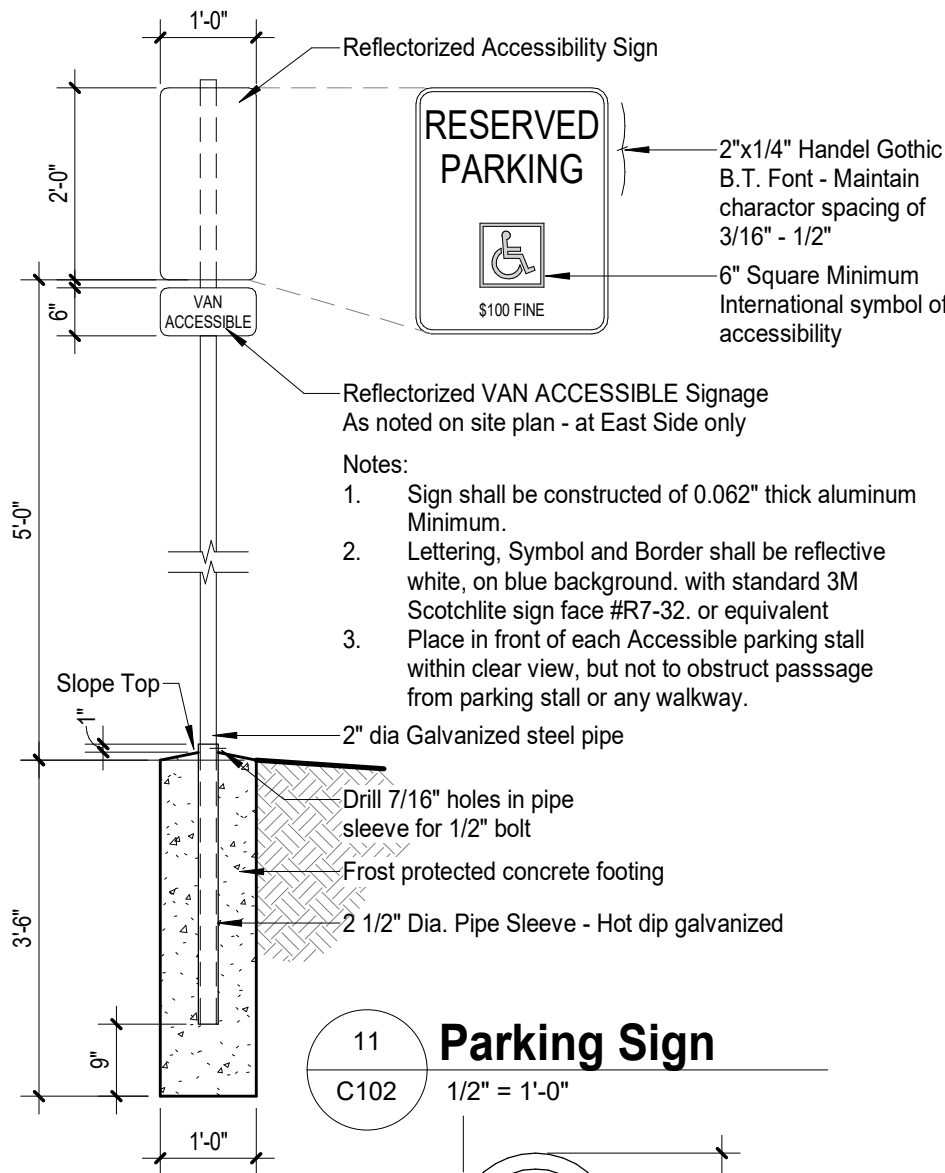
5 Bike Rack

C102 1/2" = 1'-0"

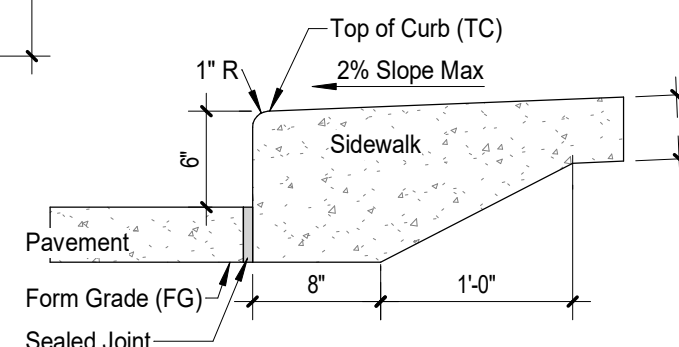
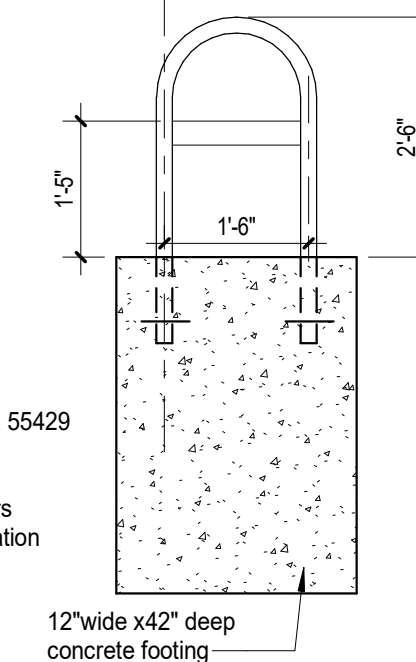


3 Retaining Wall

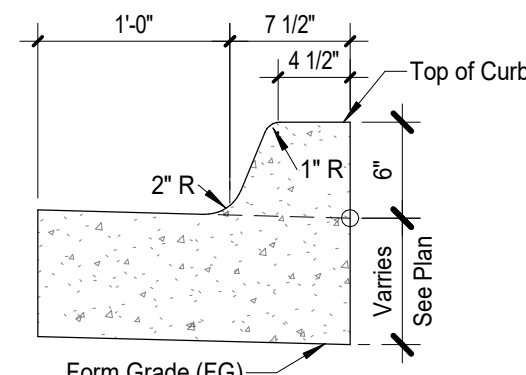
C102 1/2" = 1'-0"



11 Parking Sign



Sidewalk Curb



Parking Curb

6 Curb Detail

C102 1" = 1'-0"

#	Date	Description
4	09/14/24	Revision 3
3	08/09/24	Revision 2
2	06/27/24	Revision 1
1	05/16/24	for Permit

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PROJECT NUMBER:

2311E

TITLE:

Site Details

SHEET:

C102

Clark Retail Space - 203 West 2nd Avenue

- GENERAL NOTES
- A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT O.S.H.A. CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE APPROPRIATE SAFETY REGULATIONS.
- B. ALL CONSTRUCTION PROCEDURES AND MATERIALS TO MEET OR EXCEED MINIMUM REQUIREMENTS AS PER 2024 SUDAS AND 2022 INDIANOLA SUPPLEMENTAL SPECIFICATIONS AND THE URBAN DESIGN STANDARDS FOR PUBLIC IMPROVEMENTS SHALL APPLY TO GRADING, EROSION CONTROL AND WORK FOR THE PROJECT.
- C. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL REQUIRED PERMITS FOR PERFORMING THE WORK.
- D. THE OWNER/DEVELOPER IS RESPONSIBLE FOR MEETING ALL STATE OF IOWA REQUIREMENTS FOR NATURAL RESOURCES, APPLICABLE COUNTY, URBAN DESIGN STANDARDS FOR PUBLIC IMPROVEMENTS, OR ANY OTHER CODES, REGULATIONS, OR RESTRICTIONS SET FORTH BY ANY AND ALL GOVERNING AGENCIES.
- E. NOTIFY OWNER, ENGINEER, AND CITY AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
- F. ALL PROPOSED CONTOURS AND SPOT ELEVATION SHOWN ARE FINISHED GRADES AND/OR TOP OF PAVING SLAB, UNLESS OTHERWISE NOTED.
- G. THE CONTRACTOR SHALL FURNISH AND PLACE ALL NECESSARY SIGNS AND BARRICADES DURING CONSTRUCTION IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
- H. POST DEVELOPMENT RUNOFF SHAFTS NOT ADVERSELY AFFECT DOWNSTREAM DRAINAGE FACILITIES OR PROPERTY OWNERS.
- I. ANY DAMAGE DONE TO THE EXISTING FENCES, YARDS OR OTHER STRUCTURES OUTSIDE THE CONSTRUCTION LIMITS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- J. GRADING
1. OWNER/DEVELOPER IS RESPONSIBLE FOR ALL COMPACTION, DENSITY OR ANY OTHER TEST.
2. ALL DEBRIS SPILLED ON THE STREETS OR ADJACENT PROPERTY SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
3. ALL PROPOSED CONTOURS AND SPOT ELEVATION SHOWN ARE FINISHED GRADES AND/OR TOP OF PAVING SLAB, UNLESS OTHERWISE NOTED.
- K. PRIOR TO COMMENCEMENT OF ANY BUILDING CONSTRUCTION ACTIVITY THE SITE PLAN MUST BE APPROVED BY COUNCIL AND IN FINAL FORM. ADDITIONALLY, A BUILDING PERMIT SHALL HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF ANY BUILDING ACTIVITY.
- L. RETAINING WALLS AS SHOWN WILL NEED TO BE FIELD ADJUSTED FOR HEIGHT AND LENGTH AT TIME OF CONSTRUCTION. RETAINING WALLS OVER 4 FEET NEED TO BE DESIGNED BY A STRUCTURAL ENGINEER.

- DEMOLITION NOTES
- A. CONTRACTOR SHALL CALL IOWA ONE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
- C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.
- D. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.
- E. INSTALL ALL INTAKE PROTECTION AND PERIMETER SILT FENCE PRIOR TO DEMOLITION.

- SITE UTILITIES
- A. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES ON SITE. CONTRACTOR TO VERIFY PIPE LOCATIONS, SIZES, AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTORS RESPONSIBILITY.
- B. ALL PROPOSED SANITARY PIPING SHALL BE IN ACCORDANCE WITH SDR 35.
- C. CLEANOUTS SHALL BE PROVIDED FOR THE SANITARY SERVICE AT LOCATIONS INDICATED ON THE UTILITY PLAN. THE CLEANOUT SHALL
- CONSIST OF A COMBINATION WYE FACING STRAIGHT UP. THE CLEANOUT SHALL CONSIST OF A 6" VERTICAL PVC PIPE WITH A WATER TIGHT REMOVABLE CLEANOUT PLUG. AN 8" PVC FROST SLEEVE SHALL BE PROVIDED. THE BOTTOM OF THE FROST SLEEVE SHALL TERMINATE 12" ABOVE THE TOP OF THE SANITARY LATERAL OR AT LEAST 6" BELOW THE PREDICTED FROST DEPTH, WHICHEVER IS SHALLOWER. THE CLEANOUT SHALL EXTEND JUST ABOVE THE SURFACE GRADE IN LAWN OR LANDSCAPE AREAS WITH THE FROST SLEEVE TERMINATING AT THE GRADE SURFACE. THE CLEANOUT SHALL EXTEND TO 4 INCHES BELOW SURFACE GRADE IN PAVED SURFACES WITH A ZURN (Z-1474-N) HEAVY DUTY CLEANOUT HOUSING PLACED OVER THE TOP OF THE CLEANOUT FLUSH WITH THE SURFACE GRADE. IN PAVED SURFACES, THE FROST SLEEVE SHALL TERMINATE IN CONCRETE PAD AT LEAST 6" THICK AND EXTEND TO 4 INCHES BELOW THE SLEEVE ON ALL SIDES, SLOPING AWAY FROM THE SLEEVE. THE CLEANOUT HOUSING SHALL BE CONSTRUCTED PER MANUFACTURERS REQUIREMENTS.
- D. ALL PROPOSED WATER SERVICES 2-INCHES OR LESS SHALL BE COPPER AND ALL WATER SERVICES GREATER THAN 2-INCHES SHALL BE PVC. 6 FOOT MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE NOTED.
- E. ALL PROPOSED HOPE STORM PIPE SHALL BE IN ACCORDANCE WITH ASTM F405 AND F687. ALL CONCRETE STORM PIPING SHALL BE IN ACCORDANCE WITH ASTM C76. SEE UTILITY PLANS FOR ALL STORM PIPE MATERIAL TYPES TO BE USED.
- F. SANITARY, STORM, AND WATER UTILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10 OF DESIGN INVERT ELEVATIONS ASSUMING PIPE SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
- G. SITE UTILITY CONTRACTOR SHALL RUN SANITARY SERVICE TO A POINT WHICH IS A MINIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN WATER SERVICE TO A POINT WITHIN THE FOUNDATION SPECIFIED BY THE PLUMBING PLANS. CONTRACTOR TO CUT AND CAP WATER SERVICE 12" ABOVE FINISHED FLOOR ELEVATION.
- H. ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE 100 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE IF ATTACHED. THE TRACER WIRE SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET.
- I. THE CITY SHALL BE NOTIFIED 24 HOURS PRIOR TO CONNECTING TO PUBLIC UTILITIES.
- J. VALVE OPERATION SHALL BE COORDINATED WITH PUBLIC WORKS.
- K. SITE UTILITIES THAT STATES WATER MAIN SHALL MAINTAIN 18 INCHES OF VERTICAL SEPARATION FROM ALL STORM SEWER PIPES. STORM SEWER LOCATED ABOVE THE WATER MAIN AND STORM SEWER 6-18 INCHES BELOW THE WATER MAIN SHALL BE GASKETED.
- L. ALL PROPOSED STORM SEWER SHALL BE PRIVATE.

STORMWATER DETENTION AND SQR AREAS MAINTENANCE INFORMATION

1. MOW ON A REGULAR BASIS TO MAINTAIN THE VEGETATION AT THE HEIGHT DESIGNATED ON THE ORIGINAL DESIGN TO PREVENT EROSION. NATIVE VEGETATION SHOULD NOT BE MOWED MORE THAN TWICE PER YEAR.
2. REMOVE ALL TRASH, LITTER, DEBRIS, OR OBSTRUCTIONS IN THE BASIN IN THE EASEMENT AREA AND ANY INLETS OR OUTLETS LOCATED WITHIN THE EASEMENT AREA.
3. PLANT, MAINTAIN, AND REPLANT AS NECESSARY PERMITTED VEGETATION.
4. INSPECT FOR ANY DEFECTS, OBSTRUCTIONS, OR ANY CHANGES IN THE ORIGINAL DESIGN, INCLUDING EROSION SUCH AS SLOUGHING AND RILLS, AND REPAIR AS NEEDED.
5. MAINTAIN THE DAM PER IOWA CODE.
6. INSPECT AND DETERMINE THE DEPTH OF THE POND OR BASIN ON AN ANNUAL BASIS.
7. REMOVE ANY ACCUMULATED SEDIMENT FROM THE OUTLET STRUCTURES INTO THE POND AND REMOVE ANY SEDIMENT WHICH MAY ACCUMULATE GREATER THAN 12 INCHES IN PONDS OR BASINS. UNDERGROUND DETENTION BASINS NEED TO BE CLEANED OUT WHENEVER SEDIMENT EXCEEDS 10% OF THE STORAGE VOLUME. FOREBAYS NEED TO BE CLEANED OUT WHENEVER SEDIMENT EXCEEDS 25% OF THE STORAGE VOLUME.
8. ALL REPAIRS SHALL CONFORM TO THE ORIGINAL DESIGN.
9. MAINTAIN THE STORMWATER AND RETENTION POND OR BASIN TO ASSURE THE EFFECTIVENESS FOR STORMWATER RUNOFF FOR THE SUBDIVISION/SITE.
10. INSPECT STORM INLETS, OUTLETS FOR DEBRIS.
11. LOOK FOR SIGNS OF SEDIMENT ACCUMULATION, FLOW CHANNELIZATION, EROSION DAMAGE, LOCAL STREAMBANK INSTABILITY.
12. CHECK THE OUTFALL PIPE FOR SIGNS OF SURFACE EROSION, SEEPAGE OR TUNNELING ALONG OUTFALL PIPE.
13. PREFORM ANNUAL INSPECTION PER THE CITY REQUIREMENTS.
14. CHECK SOIL QUALITY RESTORATION AREAS FOR COMPACTION AND AERATE AS NEEDED.

POST CONSTRUCTION SURVEY

OWNER SHALL CONDUCT AN AS-BUILT SURVEY AFTER TOPSOIL PLACEMENT AND SUBMIT CAD OUTPUT FILES VERIFYING THAT THE COMPLETED BASINS MATCH OR EXCEED DESIGN VOLUMES. ANY SPILLWAY SHALL ALSO BE SURVEYED TO VERIFY A MATCH TO DESIGN ELEVATIONS.

UTILITY WARNING
ANY 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.

- INSPECTION AND MAINTENANCE PROCEDURES
- THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL TEMPORARY EROSION CONTROL MEASURES IN PROPER WORKING ORDER, INCLUDING CLEANING, REPAIRING, OR REPLACING THEM THROUGHOUT THE CONTRACT PERIOD. THE FOLLOWING INSPECTION AND MAINTENANCE PRACTICES WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS AND STABILIZATION MEASURES.
- A. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST EVERY SEVEN (7) CALENDAR DAYS.
- B. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF THE REPORT AND COMPLETED WITHIN 7 DAYS OF THE EVENT.
- C. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION AND RECORDED IN THE PROJECT DIARY. THE REPORT MUST BE SIGNED BY THE INSPECTOR IN CONCORDANCE WITH GENERAL PERMIT #2. THE REPORT SHALL INCLUDE THE INSPECTOR'S FINDINGS RELATED TO THE CONDITION OF ANY EXISTING EROSION CONTROL DEVICES OR NEWLY SEEDED AREAS, THE CONDITION OF THE CONSTRUCTION EXIT AND REVIEW OF ANY OFFSITE TRACKING, AND THE INSPECTION OF ANY EQUIPMENT STORAGE AND MAINTENANCE AREAS FOR ANY FUEL, OIL OR OTHER POLLUTANT LEAKS. THE INSPECTOR IS REQUIRED TO ENSURE THERE IS NO EVIDENCE OF POLLUTANTS LEAVING THE SITE.
- D. THE CONTRACTOR/OWNER WILL BE RESPONSIBLE FOR SELECTING A QUALIFIED INSPECTOR TO CONDUCT THE INSPECTIONS. QUALIFIED IS DEFINED AS A PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROLS WHO POSSESSES THE SKILLS TO ASSESS CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT STORM WATER QUALITY AND TO ASSESS THE EFFECTIVENESS OF ANY SEDIMENT AND EROSION CONTROL MEASURES SELECTED TO CONTROL THE QUALITY OF STORM WATER DISCHARGES FROM THE CONSTRUCTION ACTIVITY. THE INSPECTOR SHALL ALSO POSSESS KNOWLEDGE IN THE APPROPRIATE GOVERNMENTAL AGENCY'S STORM WATER POLLUTION PREVENTION AND/OR ENVIRONMENTAL ORDINANCES AND BE ABLE TO PROVIDE THE AGENCY WITH ANY INFORMATION OR DATA REQUESTED WITHIN THE TIME FRAME REQUIRED BY THAT AGENCY. SWPPP INSPECTORS SHALL ALSO HAVE A BASIC KNOWLEDGE OF HYDROLOGY, SOIL MECHANICS AND COMPREHENSION OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS. A GENERAL UNDERSTANDING OF THE EQUIPMENT AND MATERIALS USED IN MANAGING EROSION AND SEDIMENT ON A PROJECT SITE WILL ALSO BE REQUIRED.
- E. THE CONTRACTOR/OWNER WILL BE RESPONSIBLE FOR MAINTAINING RECORDS FOR 3 YEARS FROM THE DATE THE SITE IS FINALLY STABILIZED.
- F. CORRECTIONS NOT MADE IN FIRST 72 HRS AFTER BEING DOCUMENTED IN THE WEEKLY INSPECTION REPORT WILL BE DOCUMENTED IN THE PLAN WHY IT IS NOT POSSIBLE AND AN ESTIMATED TIME FOR COMPLETION.
- INTENDED SEQUENCE OF CONTROLS
- A. INSTALL PERIMETER SILT FENCE AND INLET PROTECTIONS AS REQUIRED.
- B. CONSTRUCT TEMPORARY CONSTRUCTION EXITS/ENTRANCES AND DESIGNATE STAGING/MATERIALS STORAGE AREA.
- C. DESIGNATE AREAS FOR TEMPORARY SANITARY FACILITIES, EMPLOYEE PARKING AND DUMPSTER LOCATION.
- D. BEGIN CLEARING AND GRADING OPERATIONS. THESE OPERATIONS SHOULD TAKE PLACE IN THOSE AREAS WHERE EARTHWORK IS EXPECTED TO TAKE PLACE WITHIN 14 DAYS AFTER COMPLETION.
- E. BEGIN TOPSOIL STRIPPING AND DESIGNATE AREA FOR STOCKPILE. TOPSOIL SHALL BE PRESERVED ON SITE.
- F. SITE GRADING SHALL BE RESPONSIBLY STABILIZED PRIOR TO ANY CONSTRUCTION ACTIVITY THAT WILL NOT BE DISTURBED FOR AT LEAST 0 DAYS NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY.
- G. SITE CONSTRUCTION ESTIMATE 180 DAYS.
- H. MONITOR SWPPP
- I. REMOVE ALL SILT FENCE AND OTHER TEMPORARY EROSION CONTROLS
- J. DO NOT REMOVE CONTROL MEASURES UNTIL ALL EROSION AND SEDIMENT ARE STABILIZED.
- K. SOD ENTIRE SITE
- L. FILE NOTICE OF DISCONTINUATION (IF APPLICABLE)

PERIMETER SILT FENCE
SILT FENCE WILL BE INSTALLED AROUND THE PERIMETER BEFORE CONSTRUCTION BEGINS. SILT FENCE WILL BE INSTALLED AROUND THE STOCKPILE ONCE IT IS ESTABLISHED. OTHER AREAS WILL REQUIRE SILT FENCE DURING CONSTRUCTION AND POST CONSTRUCTION. BREAK SILT FENCE INTO 200 FOOT SEGMENTS WITH J-HOOKS ON THE ENDS.

TEMPORARY VEGETATIVE COVER
CONTRACTOR WILL BE RESPONSIBLE FOR TEMPORARILY STABILIZING ANY AREA THAT WILL NOT BE DISTURBED FOR AT LEAST 0 DAYS NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY.

ANY AREA THAT WILL NOT BE DISTURBED FOR AT LEAST 0 DAYS NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY WILL NEED TO HAVE TEMPORARY SEEDING. TEMPORARY SEEDING IS TYPICALLY DONE FOR AREAS THAT WILL BE UNDISTURBED FOR LESS THAN ONE YEAR AND SHOULD ONLY BE DONE CERTAIN TIMES OF THE YEAR. INSTALLATION, SEED SPECIFICATIONS AND FERTILIZER SPECIFICATIONS WILL BE ACCORDING TO SECTION 9010 OF SUDAS. THE TYPICAL SEEDING SEASON IS FROM MARCH 1ST TO MAY 31ST AND FROM AUGUST 10TH TO SEPTEMBER 30TH. ANY AREA REQUIRING SEEDING OUTSIDE OF THESE DATES MAY NEED TO BE MULCHED UNTIL SUCH TIME SEEDING MAY TAKE PLACE. THE SEEDED AREA REQUIRING SEEDING SHALL BE TILLED TO A MINIMUM OF 5 INCHES IN DEPTH WITH A DISK, HARROW OR FIELD CULTIVATOR. APPROPRIATE SEEDING EQUIPMENT SHALL BE USED TO APPLY THE AREA WITH SEED. THE SEED SHALL THEN BE COVERED BY LIGHTLY TILLING THE SEEDED AREAS WITH A DISK, RIGID HARROW, SPRING TOOTH HARROW OR FIELD CULTIVATOR. MULCH WITH SEED. THE SEEDED AREA SHALL BE COVERED WITH STRAW, WOOD EXCELOR OR PRAIRIE HAY THE SAME DAY THE SEED IS SOWN. CARE SHOULD BE TAKEN TO MINIMIZE THE DISPLACEMENT OF THE SOIL. CONVENTIONAL OR HYDROMULCHING SHALL BE UTILIZED IN AREAS THAT CANNOT BE STABILIZED BY SEEDING DUE TO SEASON OR GROUND CONDITIONS. INSTALLATION AND MATERIALS WILL BE ACCORDING TO SECTION 9010 OF SUDAS. CONVENTIONAL MULCHING SHALL BE APPLIED UNIFORMLY AT A RATE OF 2 TONS/ACRE FOR DRY CEREAL STRAW OR 2.5 TONS/ACRE FOR PRAIRIE HAY. THE MULCH NEEDS TO BE WORKED INTO THE SOIL WITH A DISK, RIGID HARROW, SPRING TOOTH HARROW OR FIELD CULTIVATOR. HYDROMULCHING SHALL BE APPLIED IN MULTIPLE LAYERS FROM OPPOSING DIRECTIONS WHERE POSSIBLE. A HOMOGENEOUS SLURRY NEEDS TO BE MIXED PER MANUFACTURER S RECOMMENDATIONS. IF THE SOIL IS DRY, THE CONTRACTOR SHALL DAMPEN THE SOIL PRIOR TO APPLICATION TO AVOID CLUMPING OF THE MATERIAL. THE SLURRY SHALL BE APPLIED EVENLY OVER THE AREA AT THE FOLLOWING RATES: WOOD CELLULOSE MULCH AT 2600 LB/ACRE DRY WEIGHT AND TACKIFIER AT 50 LB/ACRE; BONDED FIBER MATRIX AT 3600 LB/ACRE DRY WEIGHT; AND MECHANICALLY BONDED FIBER MATRIX AT 3600 LB/ACRE DRY WEIGHT.

CONSTRUCTION ENTRANCE
TEMPORARY STABILIZED EXITS WILL BE INSTALLED AT ANY AREAS LEAVING THE SITE THAT HAVE POTENTIAL OF CONSTRUCTION TRAFFIC TRACKING SEDIMENT ON TO EXISTING PAVED AREAS. THE EXIT AREA WILL BE INSTALLED AT A MINIMUM OF 150 FEET IN LENGTH AND CONSIST OF A 3" CRUSHED ROCK AT A MINIMUM DEPTH OF 6 INCHES. A LAYER OF GEOTEXTILE FILTER FABRIC MAY NEED TO BE INSTALLED PRIOR TO THE ROCK IN ORDER TO REDUCE THE DISPLACEMENT OF SOIL UNDERNEATH THE CRUSHED ROCK. THE EXIT SHALL BE FLARED AT THE END CLOSEST TO THE PAVED AREAS TO PROVIDE GREATER PROTECTION. THE EXIT SHOULD BE GRADED TO PREVENT RUNOFF FROM FLOWING ONTO THE EXISTING PAVED AREAS. THE CONSTRUCTION EXIT WILL BE INSTALLED ACCORDING TO SECTION 9 OF SUDAS AND AT LOCATIONS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.

DUST CONTROL
DUST CONTROL SHALL BE USED IN AREAS THAT ARE SUSCEPTIBLE TO WIND EROSION. INSTALLATION WILL BE ACCORDING TO SECTION 9 OF SUDAS AND SHALL BE USED AS NEEDED BASED ON WEATHER AND SITE CONDITIONS. THE MOST COMMON DUST CONTROL AGENT IS WATER. IT SHOULD BE APPLIED FREQUENTLY TO ALL EXPOSED SURFACES THAT MAY BE DUSTY. DUST CONTROL SHOULD BE BECOMING AIRBORNE WHICH COULD RESULT IN LOW VISIBILITY, HEALTH HAZARDS OR OFFSITE DAMAGE TO SURROUNDING PROPERTIES. CHEMICAL AGENTS SUCH AS CALCIUM CHLORIDE, LIGNOSULFONATE OR SOAPSTOCK CAN ALSO BE USED.

TRASH AND CONSTRUCTION DEBRIS DISPOSAL
ALL TRASH MATERIALS WILL BE COLLECTED AND DISPOSED OF INTO DESIGNATED TRASH RECEPTACLES OR DUMPSTERS LOCATED IN THE STAGING AREA. ALL TRASH CONTAINERS WILL HAVE A SEPARATE WASH DOWN WATER CONVEYANCE AND DRAINS, AND MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. NO CONSTRUCTION DEBRIS WILL BE ALLOWED TO BE BURIED ONSITE. TRASH PLACED IN THE RECEPTACLES WILL ONLY BE TRASH RELATED TO CONSTRUCTION ON THE CONSTRUCTION SITE. THE SITE SUPERINTENDANT IS RESPONSIBLE FOR TRAINING ALL PERSONNEL ON THE CORRECT PROCEDURE FOR THE DISPOSAL OF TRASH AND CONSTRUCTION DEBRIS.

DUMPSTERS AND/OR TRASH RECEPTACLES WILL BE INSTALLED ONCE THE STAGING AREA IS CONSTRUCTED.

CONCRETE WASHOUT AREA
CONCRETE TRUCKS WILL BE ALLOWED TO WASHOUT OR DISCHARGE EXCESS CONCRETE IN SPECIFICALLY DESIGNATED AREAS. THE WASHOUT WILL BE INSTALLED AS SHOWN ON THE DETAIL PROVIDED IN SECTION 4 OF THE SWPPP. THE WASHOUT AREA SHOULD BE CONSTRUCTED AT A MINIMUM LENGTH AND WIDTH OF 10 FEET AND WILL BE LINED WITH A 10 MIL THICK PLASTIC LINING. FILTER SOCK WILL BE INSTALLED SURROUNDING THE WASHOUT AREA TO PREVENT THE SPILLAGE OF CONCRETE. THE SITE SUPERINTENDANT IS RESPONSIBLE FOR POSTING SIGNS AT THE WASHOUT LOCATIONS TO ENSURE CONCRETE OPERATORS USE THE PROPER FACILITY.

NON-STORM WATER DISCHARGES
THE FOLLOWING IS A LIST OF NON-STORM WATER DISCHARGES ALLOWED BY THE ENVIRONMENTAL PROTECTION AGENCY AND THE IOWA DEPARTMENT OF NATURAL RESOURCES AND MAY OCCUR AT THE JOB SITE UNDER THE CONDITION THAT NO POLLUTANTS WILL BE ALLOWED TO COME INTO CONTACT WITH THE WATER PRIOR TO OR AFTER ITS DISCHARGE FROM THE SITE:

1. WATER FROM FIRE FIGHTING ACTIVITIES AND FIRE HYDRANT FLUSHING EXCLUDING THE PRESENCE OF DRY RESIDUAL CHLORINE
2. WATER USED TO WASH VEHICLES WHEN DETERGENTS ARE NOT USED
3. POTABLE WATER SOURCES INCLUDING WATER LINE FLUSHING, IRRIGATION DRAINAGE AND ROUTINE BUILDING WASH DOWNS EXCLUDING DETERGENTS.
4. UNCONTAMINATED AIR CONDITIONING CONDENSATE
5. UNCONTAMINATED SPRINGS OR GROUND WATER
6. FOUNDATION OR FOOTING DRAINS WHERE FLOWS HAVE NOT BEEN EXPOSED TO SOLVENTS
7. PAVEMENT WASH MATERIALS WHERE SPILLS OR LEAKS OF HAZARDOUS MATERIAL HAS NOT OCCURRED AND NO DETERGENTS ARE PRESENT
8. WATER USED FOR CONCRETE CURING
9. UNCONTAMINATED EXCAVATION Dewatering
10. WATER FROM WASHOUT OF CONCRETE, AND FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS.
11. FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE.
12. SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING.
13. TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.
14. THE FOLLOWING SHALL NOT BE DISCHARGED DIRECTLY TO THE STORM DRAIN OR TO SURFACE WATER
- A. SAW CUTTING AND GRINDING
- B. VEHICLE WASH
- C. DISCHARGES OF RUNOFF FROM MATERIAL STORAGE AREAS CONTAINING CHEMICALS, FUELS, GREASE, OIL OR HAZARDOUS MATERIALS;

LABEL	SIZE	LENGTH	SLOPE	IE(IN)	IE(OUT)	Q100	Qcap
	inches	feet	%	feet	feet	cfs	cfs
(P-1)	12 HDPE	5.00	2.00%	945.35	945.25	0.58	5.04
(P-2)	12 HDPE	5.00	2.00%	946.00	945.90	3.57	5.04
(P-3)	12 HDPE	30.61	2.00%	946.71	946.10	1.69	5.04
(P-4)	8" HDPE	96.16	2.00%	948.64	946.71	0.54	1.21
(P-5)	12 HDPE	62.50	2.00%	947.96	946.71	1.15	5.04
(P-6)	12 HDPE	106.41	2.00%	650.09	647.96	0.6	5.04

LABEL	DESCRIPTION	RIM	IE(IN)	IE(OUT)	SUMP
(I-1)	24" NYLOPLAST BASIN	949	945.5	945.35	943.35
(I-2)	SW-501	952.04	946.1	946	
(I-3)	15" INLINE DRAINAGE BASIN	950.25	647.96	947.96	
(I-4)	15" INLINE DRAINAGE BASIN	952		650.09	

- MONUMENT FOUND AS NOTED
- SET 5/8" RE-ROD W/CAP 8228
- ▲ SECTION CORNER FOUND AS NOTED
- ✕ CORNER SET AS NOTED
- SANITARY MANHOLE AS NOTED
- STORM MANHOLE AS NOTED
- TRAFFIC MANHOLE AS NOTED
- UTILITY MANHOLE AS NOTED
- PHONE MANHOLE AS NOTED
- ELECTRIC MANHOLE AS NOTED
- GAS METER AS NOTED
- GAS VALVE AS NOTED
- UTILITY POLE AS NOTED
- WELL AS NOTED
- 1" 1/2" 2" 3" 4" 6" 8" 10" 12" 14" 16" 18" 20" 22" 24" 26" 28" 30" 32" 34" 36" 38" 40" 42" 44" 46" 48" 50" 52" 54" 56" 58" 60" 62" 64" 66" 68" 70" 72" 74" 76" 78" 80" 82" 84" 86" 88" 90" 92" 94" 96" 98" 100"
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- CURB INTAKE AS NOTED
- AREA INTAKE AS NOTED
- OVER-HEAD ELECTRIC & UTILITIES
- GAS MAIN AS NOTED
- WATER MAIN AS NOTED
- UTILITY BOX AS NOTED
- PEAK
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- MEASURED DISTANCE OR BEARING
- RECORDED DISTANCE OF BEARING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED LINE
- BURIED TELEVISION AS NOTED
- BURIED CABLE/UTILITIES AS NOTED

ENGINEERING CERTIFICATION

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

SIGNER: NICHOLAUS COFFELT PE# 16973 DATE: 09-23-24

PROJECT: CLARK RETAIL SPACE - 203 WEST 2ND AVENUE

FILED: 09-23-24



DATE PRINTED: Wed Sep 18, 2024

AEC # : 213200

SWMP-1



[illegible]

West 2nd Avenue

South Buxton Street

PROPOSED BUILDING (2000 SF) F.F. = 954.50'

TRASH ENCLOSURE

5 TONS, EROSION STONE
 L=6'11"10'12'-4"
 DEPTH=1.50'

(I-1) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-1) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-2) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-2) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-3) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-3) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-4) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-4) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-5) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-5) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-6) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-6) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-7) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-7) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-8) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-8) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-9) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-9) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-10) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-10) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-11) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-11) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-12) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-12) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-13) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-13) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-14) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-14) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-15) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-15) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-16) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-16) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-17) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-17) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-18) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-18) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-19) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-19) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-20) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-20) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-21) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-21) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-22) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-22) 15" HDPE 82.0% 5.0'
 G100=0.63 cfs, Gcap=9.14' cfs

(I-23) 24" NYLOPLAST BASIN
 ORIFICE=1"
 IE = 945.50'
 DIA.=5.0 INCHES
 I.E. (S)=946.35'
 SUMP=943.35'
 SUMP TO BE FILLED WITH 3" OF CONCRETE

(P-23) 15" HDPE 82.0% 5.0'





MEMORANDUM

To: Planning and Zoning Commission

From:

Date: October 8, 2024

Subject: Approval of a site plan for Kwik Star (2103 North Jefferson Way).

Recommendation:

Attachments:

1. Staff Report_Kwik-Star_SP_100424
2. 1742 Civil resubmital
3. 1742 Exterior Elevation



PLANNING AND ZONING COMMISSION STAFF REPORT

PROJECT: Kwik-Star – Site Plan

PREPARED BY: Bill Mettee – Associate Planner

REPORT DATE: October 4, 2024

MEETING DATE: October 8, 2024

GENERAL INFORMATION

Applicant / Owner:

Kwik-Trip, Inc.

Owner's Representative:

Nate Byom, Development Manager, Kwik-Trip, Inc.

Request:

The applicant is requesting approval of a site plan for a Kwik-Star gasoline station and convenience store.

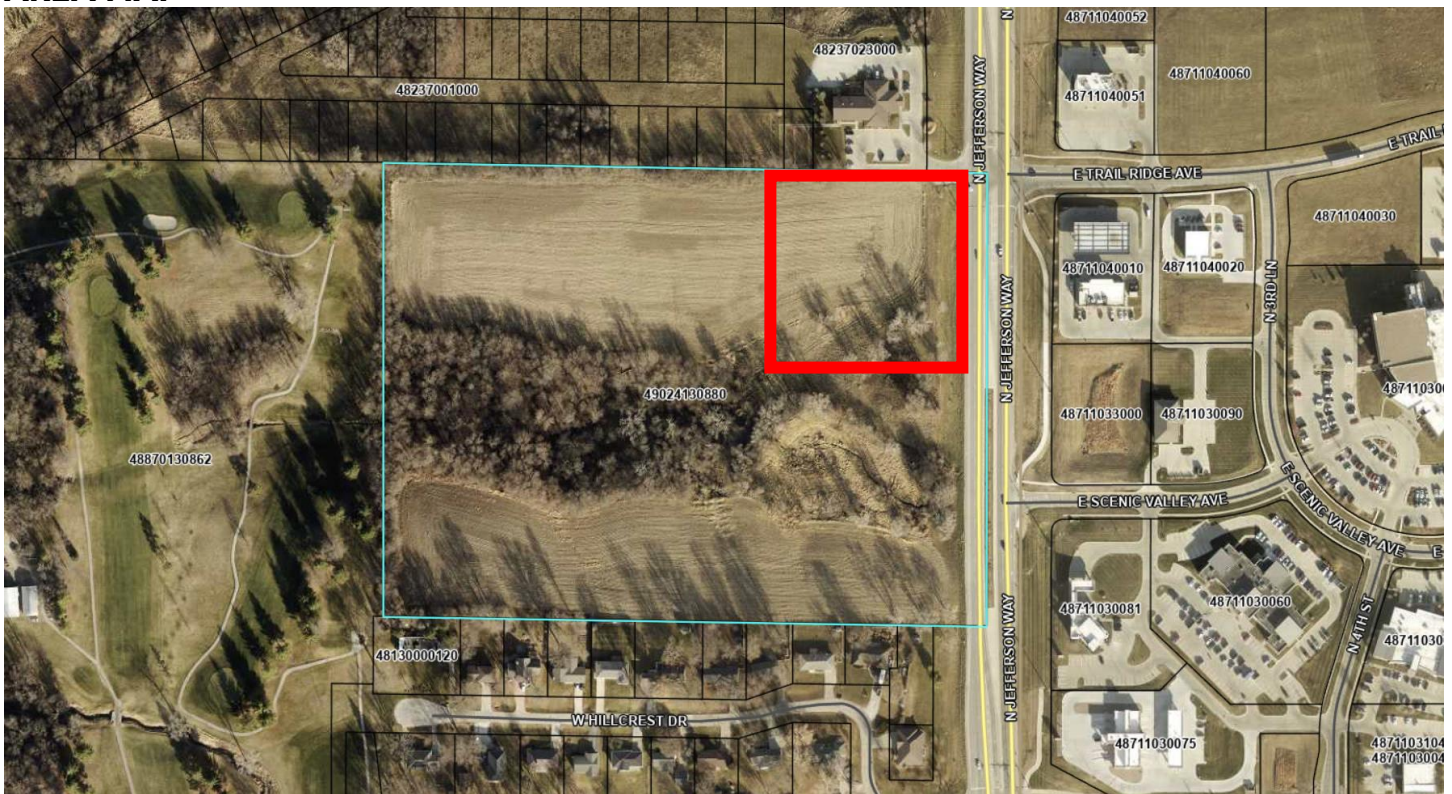
Location and Size:

Property is located south of East Trail Ridge Avenue and west of North Jefferson Way, containing approximately 4.06-acres.

Property Address:

2103 North Jefferson Way

AREA MAP



ABOVE: Aerial of subject property (outlined in **RED**) in relation to the surrounding area.

LAND USES AND ZONING

Location	Existing Land Use	Comprehensive Plan	Current Zoning
Property in Question	Vacant / Undeveloped (Emerald Bay)	Planned Unit Development	PUD (Planned Unit Development)
North	Indianola Vet Clinic	Community Mixed Use	C-2 (Highway Commercial District)
South	Vacant / Undeveloped (Emerald Bay)	Community Mixed Use	PUD (Planned Unit Development)
East	Casey's General Store	Regional Mixed Use	C-2 (Highway Commercial District)
West	Vacant / Undeveloped (Emerald Bay)	Community Mixed Use	PUD (Planned Unit Development)

PROJECT DESCRIPTION

This parcel and Emerald Bay as a whole was recently rezoned from R-2 Single Family Attached Residential and C-2 Highway Commercial to PUD Planned Unit Development to allow for a mixed-use development to include commercial and residential uses.

This site plan identifies the construction of a Kwik-Star gasoline service station with associated gas and diesel canopies, carwash and convenience store. The gasoline canopy will be 40' x 120' and include 10 double sided pumps (20 total) and the diesel canopy will be 24' x 50' and will include four pumps. The carwash is located on the south side of the site. The convenience store and carwash building will be approximately 11,000 square feet. The underground storage tanks will be located near the northwest corner of the site.

Table I below summarizes the bulk regulations that are applicable to the proposed development. The site plan demonstrates compliance with the bulk regulations.

Table I: Bulk Regulations for the C-2 (PUD) District

Category	R-2 / PUD (minimum)
Front Yard Setback	40 feet
Rear Yard Setback	10 feet
Side Yard Setback	10 feet
Maximum Height Stories	50 feet

ACCESS AND PARKING

Access into the site will be provided off of East Trail Ridge Avenue. Three driveways are proposed – two for standard vehicular traffic and one solely for semi-trucks to enter the site.

A total of 50 parking spaces are required (1 space per 250 sf of GFA plus 1 per employee at max shift) and the applicant is providing 77 spaces that are not adjacent to fuel pumps including three accessible spaces. An additional 24 spaces are provided by fuel pumps.

SIDEWALKS/TRAILS

A 5-foot-wide sidewalk will be constructed on the west side of North Jefferson Way, adjacent to the development. A 10-foot trail will be constructed with plat improvements along the north side of the

development. A 5' pedestrian walkway is shown into the site from the public sidewalk along North Jefferson Way.

UTILITIES

The site will be serviced with all public utilities, which are installed in the immediate vicinity of North Jefferson Way. Utilities will be extended and installed as required to service the Kwik-Star. Stormwater detention will be provided with a pond near the center of the overall Emerald Bay development.

LANDSCAPING & OPEN SPACE

A minimum of 20% of the project area is required to be open space. The total amount of open space proposed is 45.4%. A landscape buffer is shown along the west property line to screen from the future residential development. The plantings shown on the landscape plan meet the minimum requirements of the Landscape & Open Space Ordinance.

ELEVATIONS

Colored building elevations are included for review. The buildings are proposed to be constructed predominantly of fiber cement lap siding, fiber cement panels, fiber cement accent panels, stone veneer, asphalt shingles and fenestration.

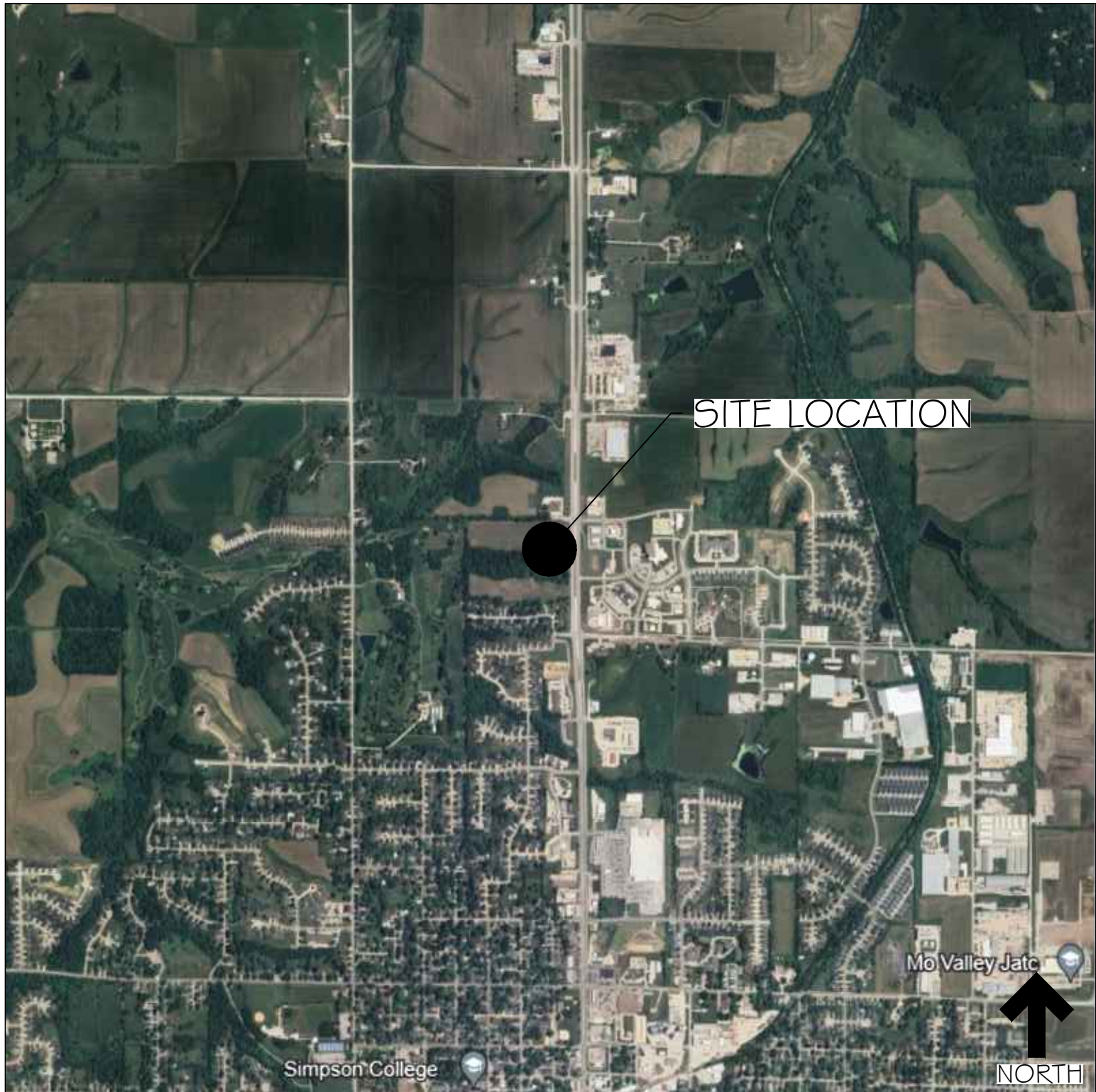
STAFF RECOMMENDATION

The site plan is in general conformance with the Zoning Ordinance, Site Plan Ordinance, and Comprehensive Plan. Staff recommends approval of the site plan for Kwik-Star subject to remaining staff comments.

SITE IMPROVEMENT PLANS FOR:

KWIK STAR #1742
INDIANOLA, IA

SITE LOCATION MAP:



SITE AERIAL MAP:



DRAWING INDEX	
C001	TITLE SHEET
C010	ALTA SURVEY
C020	DEMO PLAN
C100	SITE KEYNOTE PLAN
C180	SITE CIRCULATION PLAN
C181	SITE DIMENSION PLAN
C200	GRADE PLAN
C201	GRADE PLAN ENLARGED
C300	STORM SEWER PLAN
C301	STORM SEWER NOTES & DETAILS
C400	UTILITY PLAN
C401	UTILITY NOTES & DETAILS
C500	SITE PLAN DETAILS
C501	SITE PLAN DETAILS
C502	SUDAS SITE PLAN DETAILS
C600	EROSION CONTROL PLAN
C601	EROSION CONTROL NOTES
C602	EROSION CONTROL DETAILS
C603	EROSION CONTROL DETAILS
C700	LANDSCAPE PLAN
C701	LANDSCAPE PLAN DETAIL
C800	PHOTOMETRIC SITE PLAN

SITE ADDRESS:
2103 N JEFFERSON WAY
INDIANOLA, IA 50125

	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. <i>Mike Kettler</i> Mike Kettler, Reg. No. 18845 My license renewal date is December 31, 2025 Pages or sheets covered by this seal: C300, C301, C400, C401		I hereby certify that this 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. <i>Robert Mueller</i> Robert Mueller, Reg. No. 00377 My license renewal date is June 30, 2025 Pages or sheets covered by this seal: C100, C180, C181, C200, C500, C501, C502, C600, C601, C602, C603, C700
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OWNER:
NATE BYOM
KWIK TRIP INC.
1626 OAK STREET
LA CROSSE, WI 54602
608-791-7448

SITE PLANNER:
INSITES SITE PLANNING
3131 FERNBROOK LN N, SUITE 260
PLYMOUTH, MN 55447
BOB MUELLER
763-383-8400
Bob@insitesinc.net

CIVIL ENGINEER:
SUNDE ENGINEERING
10830 NESBITT AVE SOUTH
BLOOMINGTON, MN 55437
952-881-3344

ARCHITECT:
VANTAGE ARCHITECTS
750 3RD ST N, SUITE F
LA CROSSE, WI 54601
608-784-2729

SURVEYOR:
CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DR
URBANDALE, IA 50322
515-369-4400

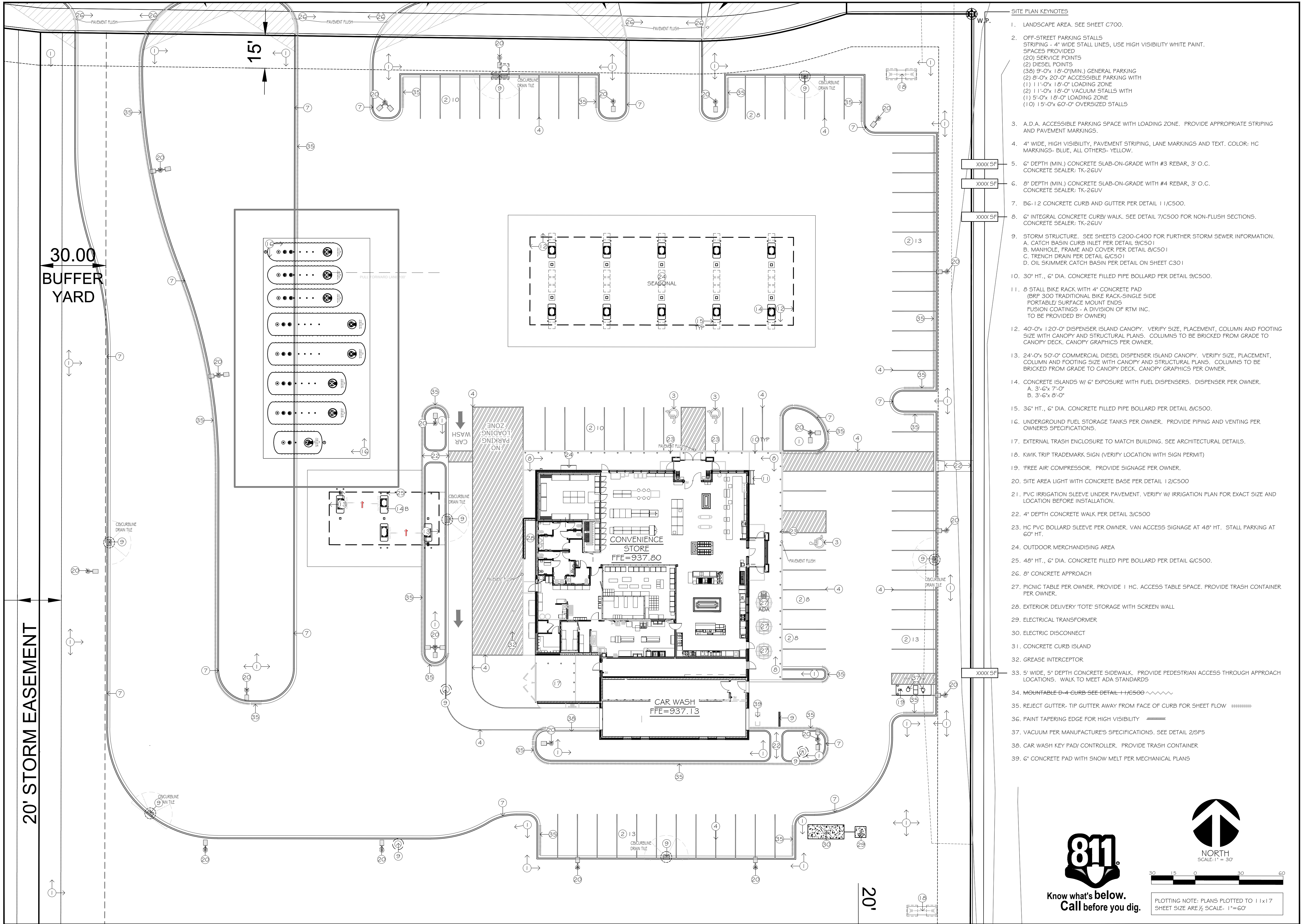
**Kwik
TRIP**

**Kwik
Star**

KWIK TRIP, Inc.
P.O. BOX 2107
1626 OAK STREET
LACROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960

TITLE SHEET
CONVENIENCE STORE 1742
INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
1	28JUN24	SUBMITTAL
2	08JUL24	REVIEW COMMENTS
3	16JUL24	TANK UPDATE
4	02AUG24	ACCESS SHIFT
5	24SEP24	CITY RESUBMITTAL
DRAWN BY		
SCALE		GRAPHIC
PROJ. NO.		24-1742
DATE		28JUN2024
SHEET		C001

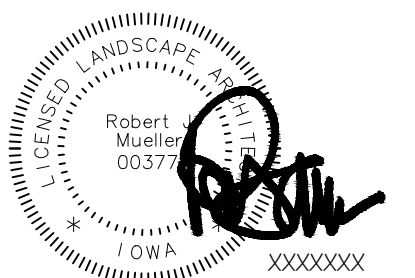


Kwik Trip

Kwik Star

KWIK TRIP, Inc.
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1626 OAK STREET
LACROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960

INSITES
SITE PLANNING LANDSCAPE
3131 Fairview Lane N
Plymouth, Minnesota 55447
763.383.8400
1-800-763-3833

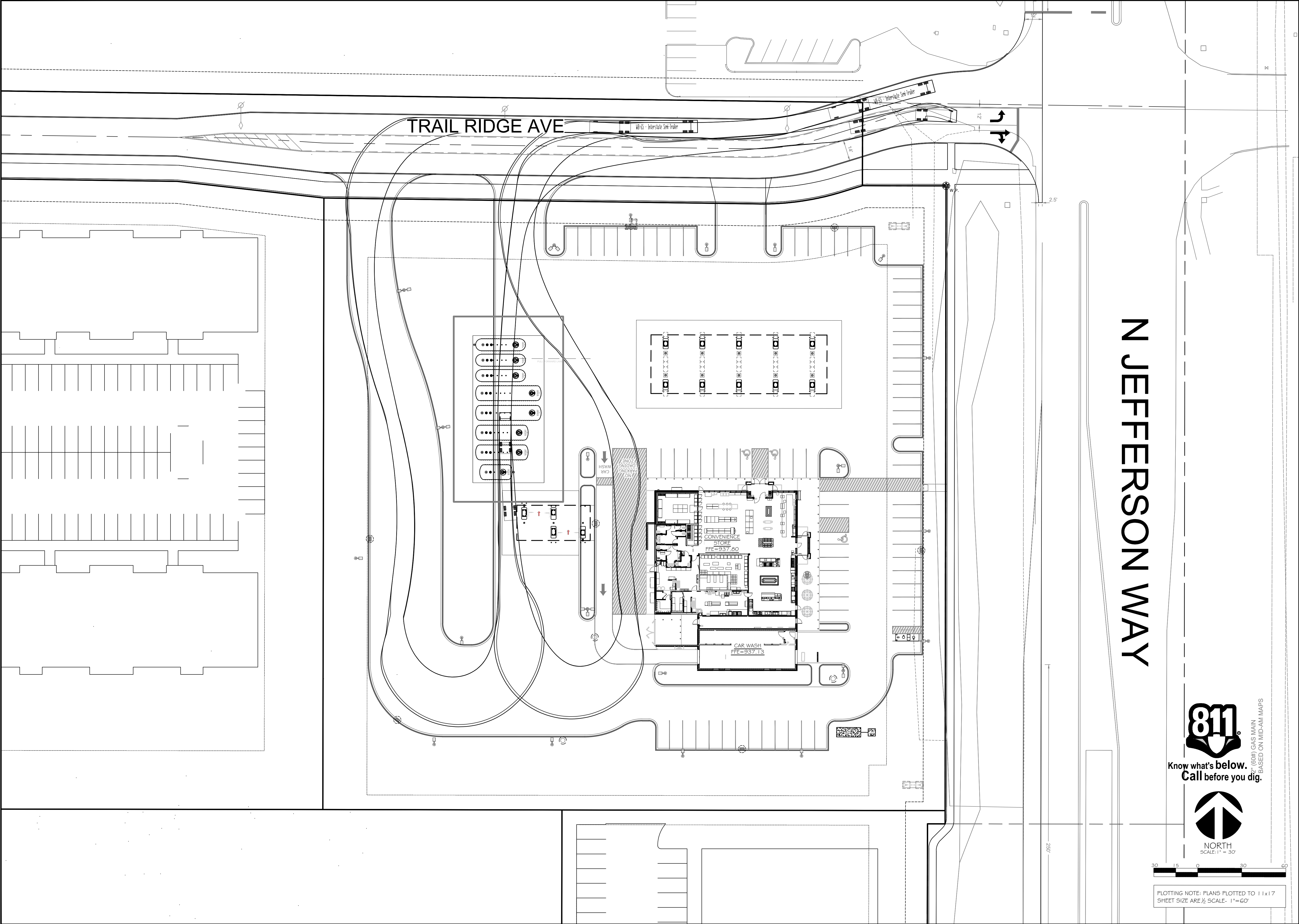


SITE KEYNOTE PLAN

CONVENIENCE STORE 1742

INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
1	28JUN24	SUBMITTAL
2	08JUL24	REVIEW COMMENTS
3	16JUL24	TANK UPDATE
4	02AUG24	ACCESS SHIFT
5	24SEP24	CITY RESUBMITTAL
DRAWN BY		
SCALE		GRAPHIC
PROJ. NO.		24-1742
DATE		28JUN2024
SHEET		C100

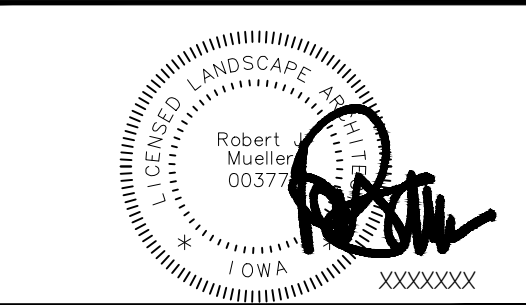


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PH. (608) 781-8988
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INSITES
SITE PLANNING LANDSCAPE
3131 FEARHOLM LANE N
Plymouth, Minnesota 55447
763.383.8400
Fax 763.383.8440

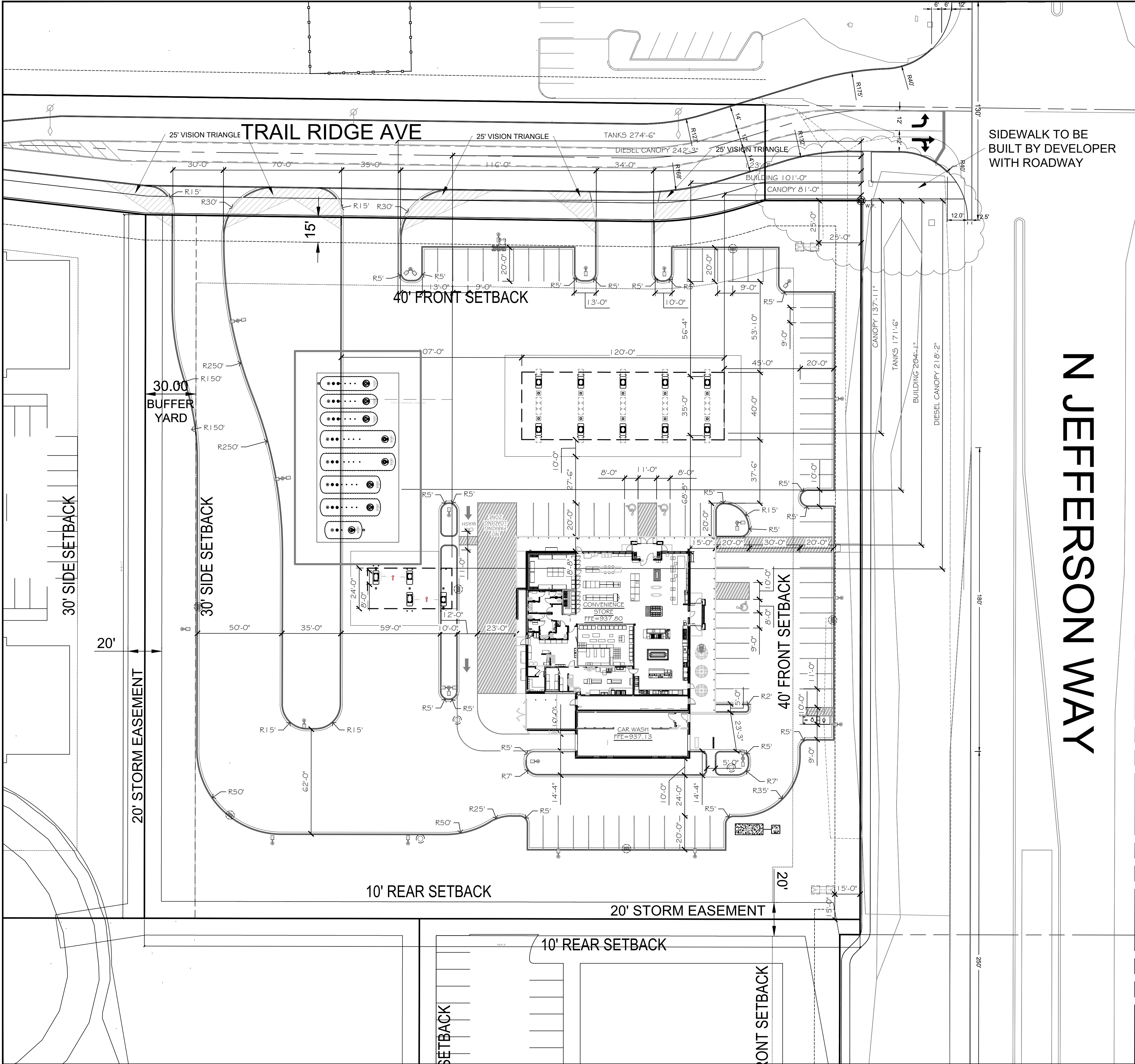


SITE CIRCULATION PLAN

CONVENIENCE STORE 1742

INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
1	28JUN24	SUBMITTAL
2	08JUL24	REVIEW COMMENTS
3	16JUL24	TANK UPDATE
4	02AUG24	ACCESS SHIFT
5	24SEP24	CITY RESUBMITTAL
DRAWN BY		
SCALE		GRAPHIC
PROJ. NO.		24-1742
DATE		28JUN2024
SHEET		C180



- CONSTRUCTION NOTE:
- CONSTRUCTION FENCING TO BE INSTALLED AROUND ENTIRE CONSTRUCTION SITE. COORDINATE WITH OWNER FOR FENCING AND GATE LOCATIONS AND APPROPRIATE SIGNAGE INSTALLATION.
- LAYOUT NOTES:
1. PLAN PREPARED FROM AN ALTA/C&M LAND TITLE SURVEY BY: PELDS DESIGN SERVICES, 2323 DIXON ST, DES MOINES, IA 50316, 515.265.8196
 2. CURBS ARE DIMENSIONED TO FACE OF CURB.
 3. CONVENIENCE STORE AND ISLAND COMPLEXES ARE LOCATED FROM THE NORTHWEST PROPERTY CORNER AND ALIGNED PARALLEL PERPENDICULAR TO THE WEST PROPERTY LINE UNLESS OTHERWISE INDICATED ON THIS PLAN.
 4. UNLESS SHOWN OTHERWISE ON THIS DRAWING, CONTRACTOR SHALL PROVIDE CONTROL JOINTS, CONSTRUCTION JOINTS, AND EXPANSION JOINTS IN SLAB ON GRADE, SIDEWALKS AND DRIVES. CONTROL JOINT MAXIMUM DISTANCE: WALKS- 8' O.C., ALL OTHERS- 10' O.C. SAW CUT CONTROL JOINTS MINIMUM ONE-QUARTER CONCRETE THICKNESS. EXPANSION JOINT MAXIMUM DISTANCE: WALKS- 24' O.C., ALL OTHERS- 40' O.C. DOWEL ALL EXPANSION JOINTS- MAXIMUM 24" O.C.
 5. CONCRETE IN ISLAND COMPLEX SHALL BE SMOOTH BROOM FINISHED.
 6. EXTERIOR CONCRETE SURFACES TO BE SEALED. CONCRETE SEALER: APR 15- OCT 31 USE: TK-26UV, NOV 1- DEC 31 USE: TK-290
 7. EXPANSION JOINTS SHALL BE DECK-O-FOAMED AND CAULKED WITH SLI

SITE DATA:

ZONING DISTRICT:	PUD
TOTAL SITE AREA:	176,892 SF
EX. IMPERVIOUS:	0
EX. PERVIOUS:	100
PARKING REQUIREMENTS	1/- = --
PARKING REQUIRED	--STALLS + -- VACUUM
PARKING PROVIDED	20 SRV. PNTS + DIESEL
BUILDING HEIGHTS	24.5'
CONVENIENCE STORE	20.0'
CANOPY	
BUILDING SETBACKS	
FRONT	40'
REAR	10'
SIDE	10'
PROPOSED GREEN AREA:	58,354 SF
PROPOSED HARD COVER:	118,538 SF
PAVED AREA:	107,505 SF
BUILDING AREA:	11,033 SF

2" (60ft) GAS MAIN
BASED ON MID-AM MAPS

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

NORTH
SCALE: 1" = 30'

30 15 0 30 60

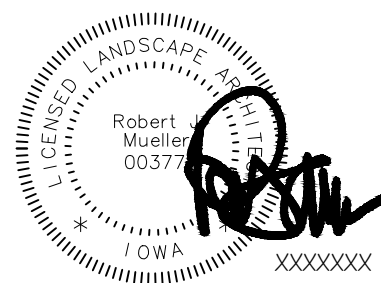
PLOTTING NOTE: PLANS PLOTTED TO 11x17
SHEET SIZE ARE 1/2 SCALE- 1"=60'

**Kwik
TRIP**

**Kwik
Star**

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P.O. BOX 2107
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LACROSSE, WI 54602-2107
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FAX (608) 781-8960

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SITE PLANNING LANDSCAPE
3131 Fairview Lane N
Plymouth, Minnesota 55447
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fax 763.383.8440

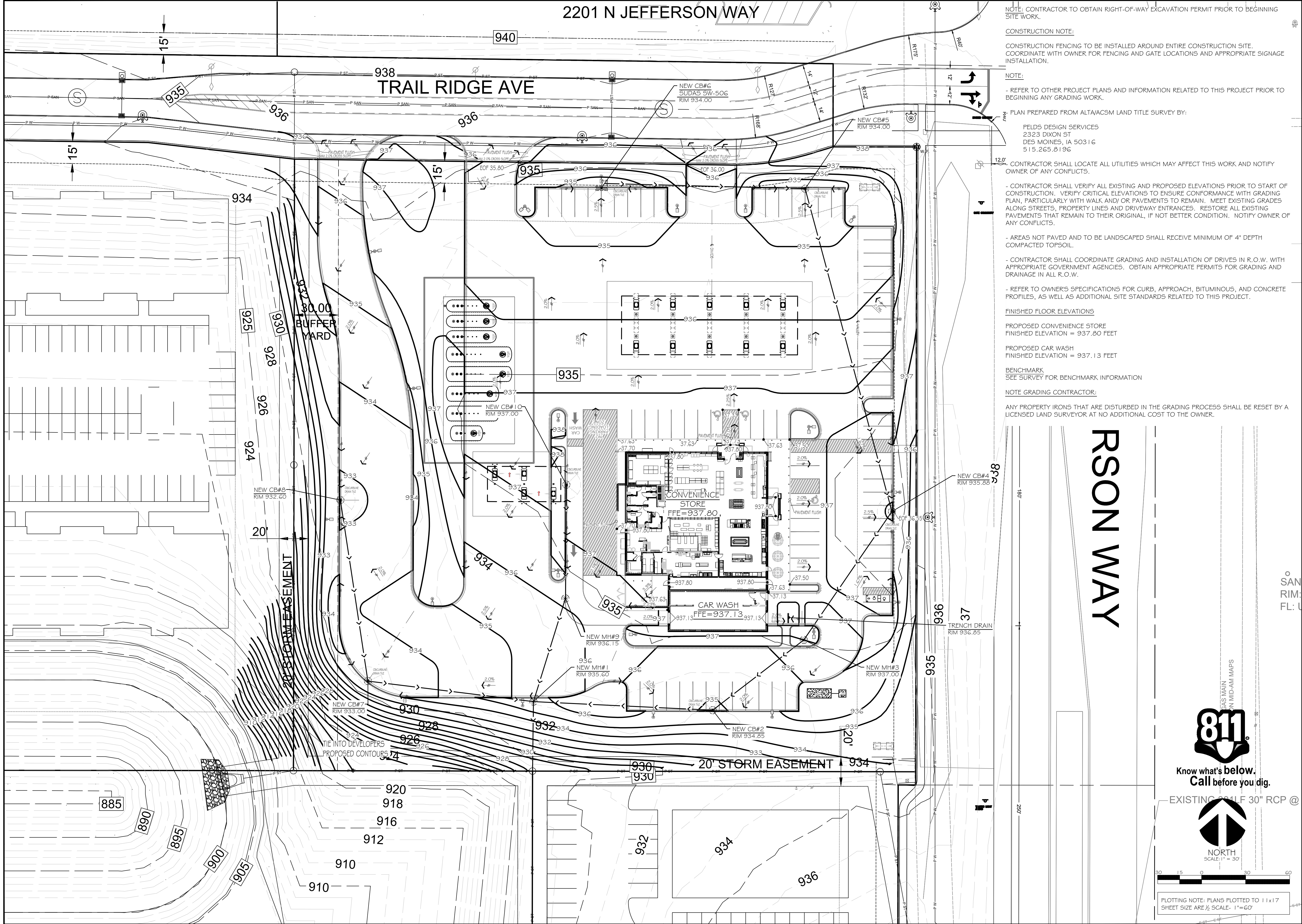


SITE DIMENSION PLAN

CONVENIENCE STORE 1742

INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
1	28JUN24	SUBMITTAL
2	08JUL24	REVIEW COMMENTS
3	16JUL24	TANK UPDATE
4	02AUG24	ACCESS SHIFT
5	24SEP24	CITY RESUBMITTAL
DRAWN BY		
SCALE		GRAPHIC
PROJ. NO.		24-1742
DATE		28JUN2024
SHEET		C181



NOTE: CONTRACTOR TO OBTAIN RIGHT-OF-WAY EXCAVATION PERMIT PRIOR TO BEGINNING SITE WORK.

CONSTRUCTION NOTE:

CONSTRUCTION FENCING TO BE INSTALLED AROUND ENTIRE CONSTRUCTION SITE. COORDINATE WITH OWNER FOR FENCING AND GATE LOCATIONS AND APPROPRIATE SIGNAGE INSTALLATION.

NOTE:

- REFER TO OTHER PROJECT PLANS AND INFORMATION RELATED TO THIS PROJECT PRIOR TO BEGINNING ANY GRADING WORK.

PLAN PREPARED FROM ALTA/ACSM LAND TITLE SURVEY BY:

PELDS DESIGN SERVICES
2323 DIXON ST
DES MOINES, IA 50316
515.265.8196

CONTRACTOR SHALL LOCATE ALL UTILITIES WHICH MAY AFFECT THIS WORK AND NOTIFY OWNER OF ANY CONFLICTS.

- CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED ELEVATIONS PRIOR TO START OF CONSTRUCTION. VERIFY CRITICAL ELEVATIONS TO ENSURE CONFORMANCE WITH GRADING PLAN, PARTICULARLY WITH WALK AND/OR PAVEMENTS TO REMAIN. MEET EXISTING GRADES ALONG STREETS, PROPERTY LINES AND DRIVEWAY ENTRANCES. RESTORE ALL EXISTING PAVEMENTS THAT REMAIN TO THEIR ORIGINAL, IF NOT BETTER CONDITION. NOTIFY OWNER OF ANY CONFLICTS.

- AREAS NOT PAVED AND TO BE LANDSCAPED SHALL RECEIVE MINIMUM OF 4" DEPTH COMPACTED TOPSOIL.

- CONTRACTOR SHALL COORDINATE GRADING AND INSTALLATION OF DRIVES IN R.O.W. WITH APPROPRIATE GOVERNMENT AGENCIES. OBTAIN APPROPRIATE PERMITS FOR GRADING AND DRAINAGE IN ALL R.O.W.

- REFER TO OWNER'S SPECIFICATIONS FOR CURB, APPROACH, BITUMINOUS, AND CONCRETE PROFILES, AS WELL AS ADDITIONAL SITE STANDARDS RELATED TO THIS PROJECT.

FINISHED FLOOR ELEVATIONS

PROPOSED CONVENIENCE STORE
FINISHED ELEVATION = 937.80 FEET

PROPOSED CAR WASH
FINISHED ELEVATION = 937.13 FEET

BENCHMARK
SEE SURVEY FOR BENCHMARK INFORMATION

NOTE GRADING CONTRACTOR:

ANY PROPERTY IRONS THAT ARE DISTURBED IN THE GRADING PROCESS SHALL BE RESET BY A LICENSED LAND SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.

RSO N WAY

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

EXISTING 30" RCP @

NORTH
SCALE: 1" = 30'

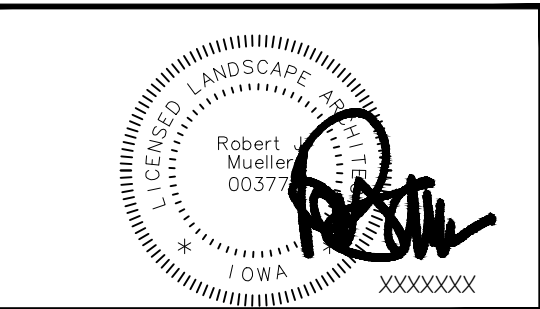
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PLOTTING NOTE: PLANS PLOTTED TO 11x17 SHEET SIZE ARE 1/2 SCALE- 1"=60'

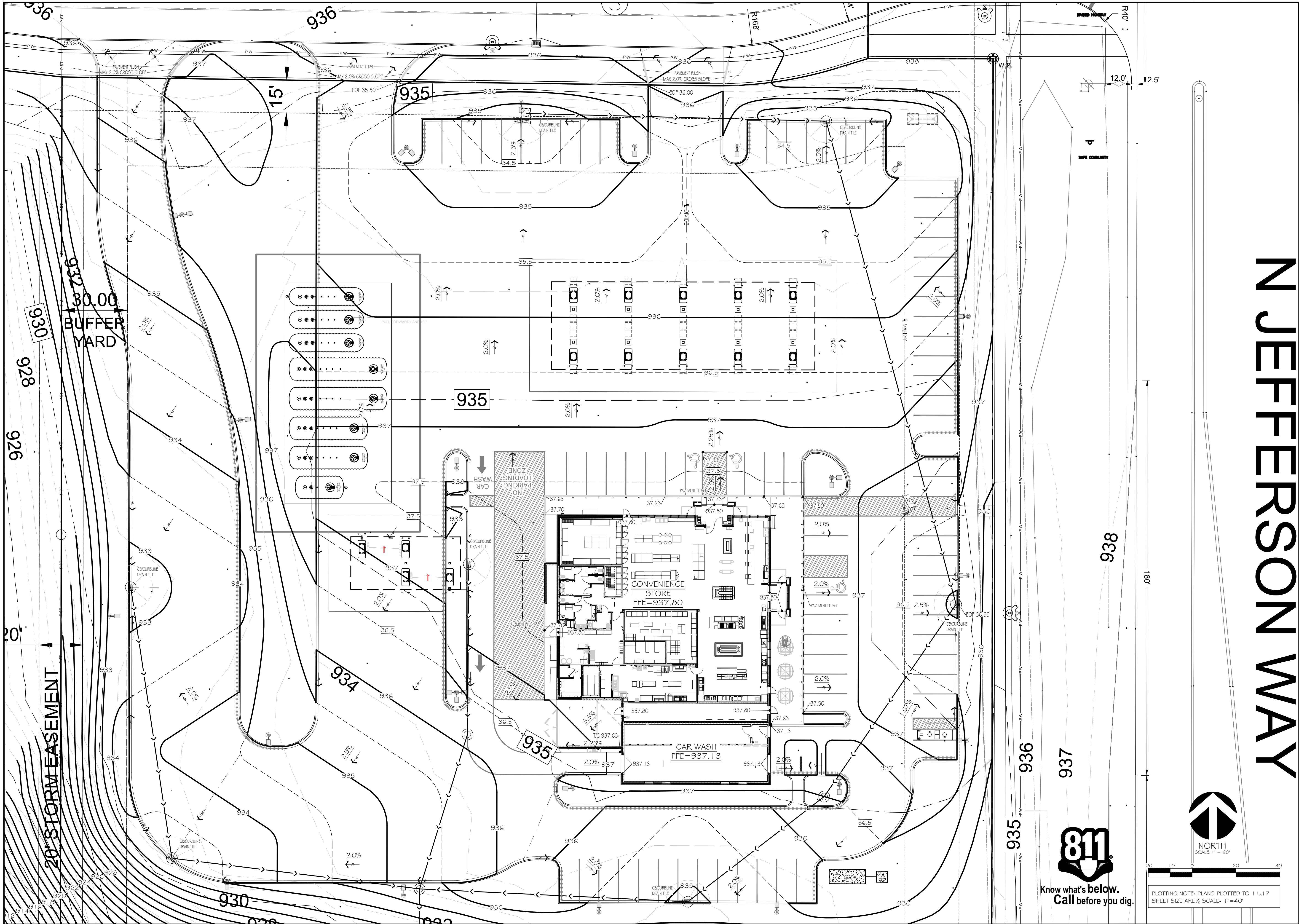


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LACROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960

INSITES
SITE PLANNING LANDSCAPE
3131 FAIRBANKS LANE N
Plymouth, Minnesota 55447
763.383.8400
fax 763.383.8440



GRADE PLAN		
CONVENIENCE STORE 1742		
INDIANOLA, IOWA		
NO.	DATE	DESCRIPTION
-	28JUN24	SUBMITTAL
08JUL24		REVIEW COMMENTS
16JUL24		TANK UPDATE
02AUG24		ACCESS SHIFT
24SEP24		CITY RESUBMITTAL
DRAWN BY		GRAPHIC
SCALE		24-1742
PROJ. NO.		28JUN2024
DATE		C200
SHEET		

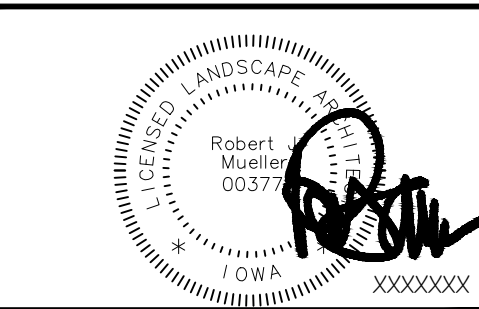


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TRIP**

**Kwik
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INSITES
SITE PLANNING LANDSCAPE
3131 Fairview Lane N
Plymouth, Minnesota 55447
763.383.8400
fax 763.383.8440



GRADE PLAN ENLARGED

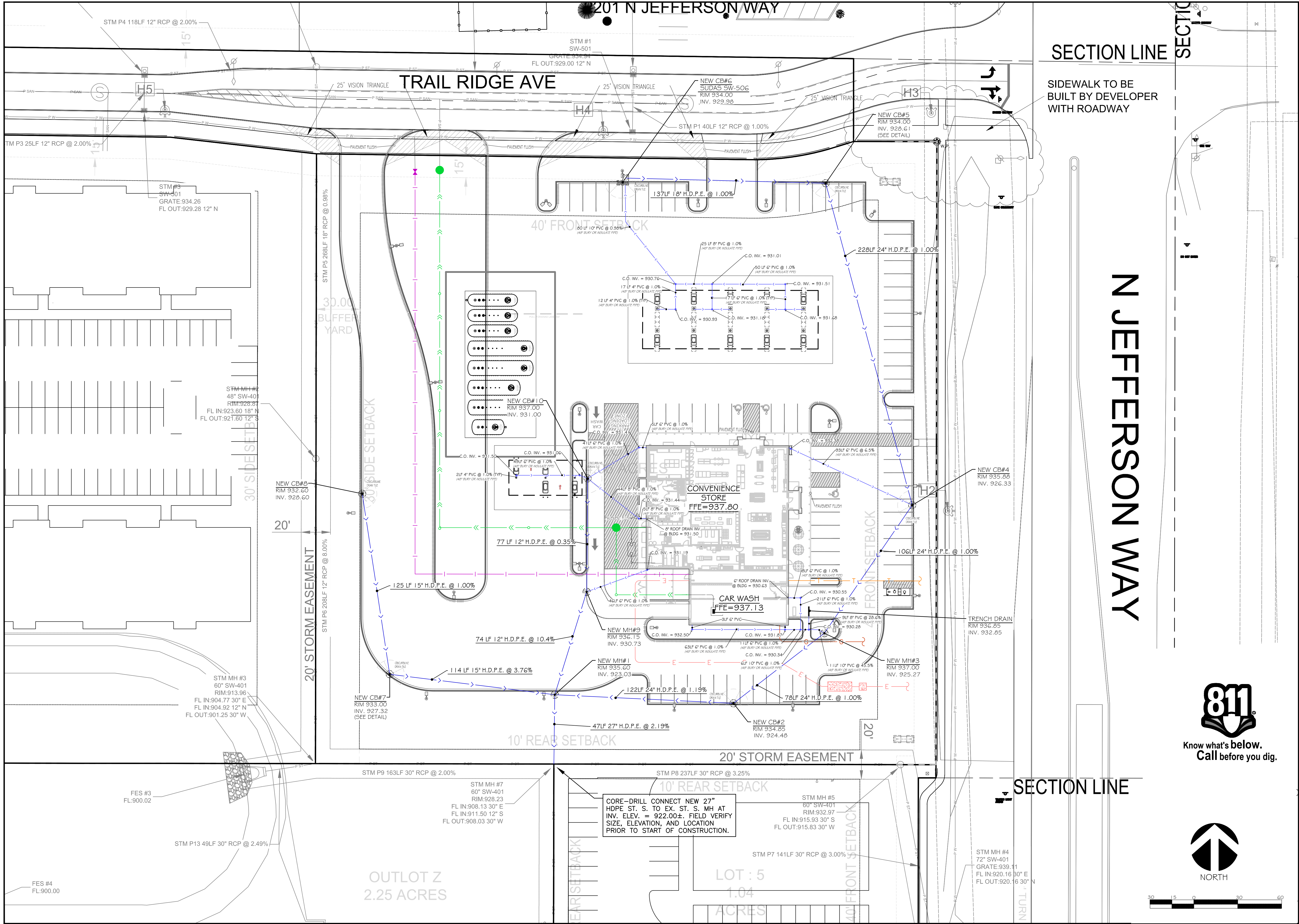
CONVENIENCE STORE 1742

INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
1	28JUN24	SUBMITTAL
2	08JUL24	REVIEW COMMENTS
3	16JUL24	TANK UPDATE
4	02AUG24	ACCESS SHIFT
5	24SEP24	CITY RESUBMITTAL

DRAWN BY	GRAPHIC
SCALE	24-1742
PROJ. NO.	28JUN2024
DATE	
SHEET	

C201



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Mike Kettler
Professional Engineer
No. 18845
State of Wisconsin

STORM SEWER PLAN

CONVENIENCE STORE 1742

INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
-	06/28/24	SUBMITTAL
-	07/09/24	REVIEW COMMENTS
-	07/16/24	TANK UPDATE
-	08/02/24	ACCESS SHIFT
-	09/24/24	CITY RESUBMITTAL

DRAWN BY: MW

SCALE: GRAPHIC

PROJ. NO.: 24-1742

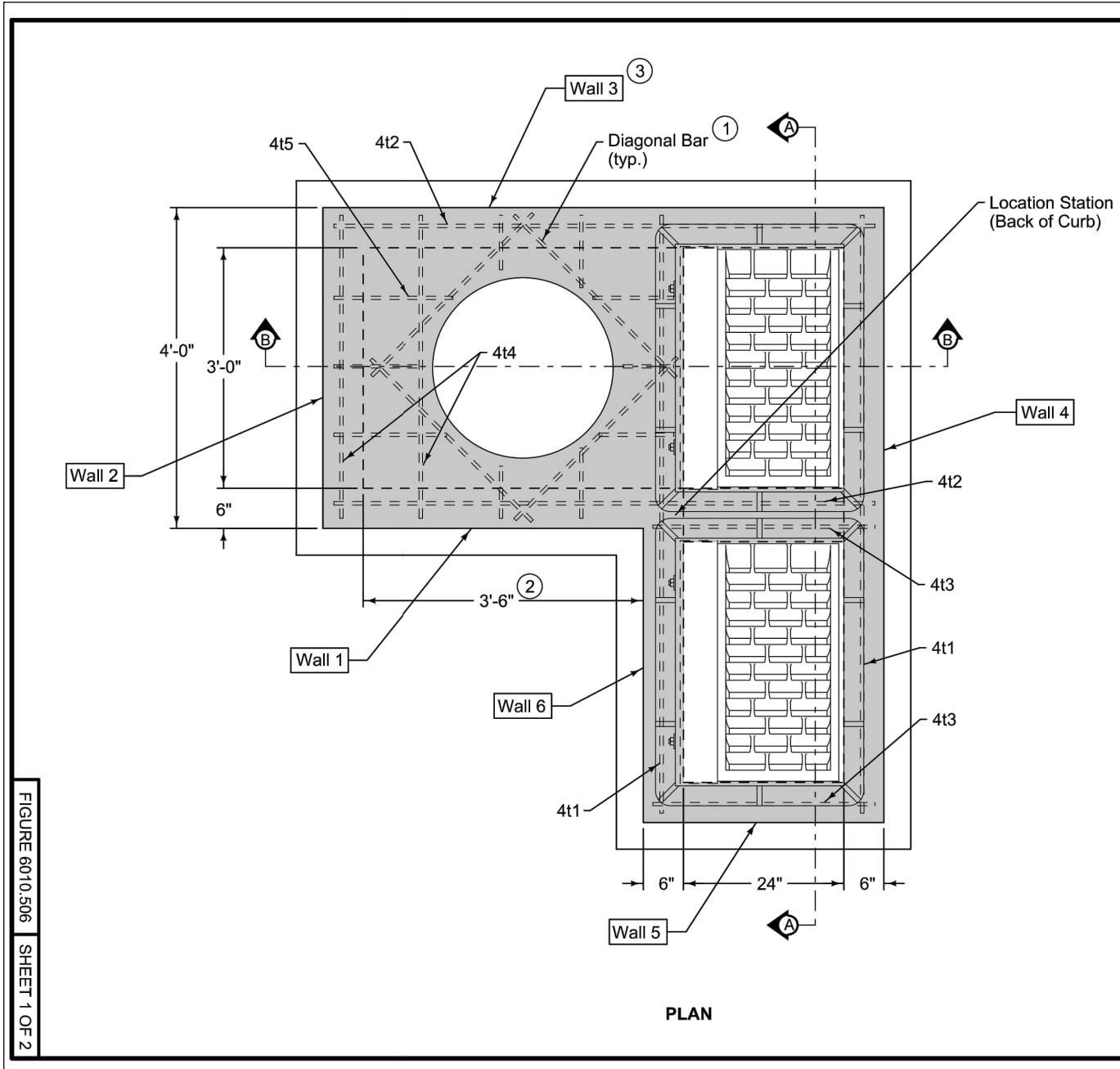
DATE: JUNE 28, 2024

SHEET: **C300**

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STORM DRAINAGE:

- Unless otherwise indicated, use reinforced, precast, concrete maintenance holes and catchbasins conforming to ASTM C478, furnished with water stop rubber gaskets and precast bases. Joints for all precast maintenance hole sections shall have confined, rubber "O"-ring gaskets in accordance with ASTM C443. These joints are normally used in sewers to hold infiltration and exfiltration to a practical minimum and are adequate for hydrostatic heads up to 30". The inside barrel diameter shall not be less than 48 inches. See SUDAS Std. SW-401 for circular storm sewer manholes and SUDAS Std. SW-502 for circular single grate intake catchbasins.
- Install catchbasin castings with specified top elevation at the front rim.
- All joints and connections in the storm sewer system shall be gastight or watertight. Joints between concrete structures and piping shall be made with mechanical joints. Use approved resilient rubber seals or watertop gaskets in order to make watertight connections to manholes, catchbasins, and other structures in conformance with ASTM C923 or as otherwise permitted by the local authority. Cement mortar joints are permitted only for repairs or connections to existing lines having such joints, or unless otherwise permitted by the administrative authority.
- The building sewer starts 2 feet outside of the building. See Uniform Plumbing Code (UPC) part 715.1. Material installed within 2 feet of the building must be of materials approved for use inside of or within the building.
- PVC Pipe (Outside of the Building):** Use solid-core, SDR-35, ASTM D3034 Polyvinyl Chloride (PVC) Pipe for designated PVC storm sewer services 4 to 15-inches in diameter outside of the building. Use solid-core, SDR-35, ASTM F679 Polyvinyl Chloride (PVC) pipe for designated PVC storm sewer services 18 to 27-inches in diameter outside of the building. Joints for all storm sewers shall have push-on joints with elastomeric gaskets. Use of solvent cement joints is allowed for building services. Solvent cement joints in PVC pipe must include use of a primer which is of contrasting color to the pipe and cement in accordance with Uniform Plumbing Code (UPC), part 605.2.2. Pipe with solvent cement joints shall be joined with PVC cement conforming to ASTM D2564. Lay all PVC pipe on a continuous granular bed. Installation must comply with ASTM D2321.
- Cleanouts:** Install cleanouts on all roof drains. Cleanouts shall be installed at every wye, sweep, and bend. Install cleanouts on all storm sewer services in accordance with UPC part 719.0 and 1101.13. The distance between cleanouts in horizontal piping shall not exceed 100 feet and under in size. Cleanouts shall be of the same nominal size as the pipes they serve. Install a meter box frame and solid lid (Neanoh R-1914-A, or approved equal) over all cleanouts. Provide cleanouts at the base of the roof leader connections at the gas island pump stations.
- RCP:** Reinforced concrete pipe (RCP) and fittings shall conform to ASTM C76, Design C, with circular reinforcing for the class of pipe specified. Use Class IV RCP for pipes 21" and larger. Use Class V RCP for pipes 18" and smaller. Joints shall be made up of concrete surfaces with a groove on the spigot for an O-ring rubber gasket (also referred to as a confined O-ring type joint) in accordance with ASTM C361. These joints are normally used in gravity sewers where exceptional tightness is required. This type of joint provides excellent inherent water tightness in both the straight and deflected position and meets all the joint requirements of ASTM C443.
- RC Aprons:** Install a reinforced concrete apron on the free end of all daylighted RCP storm sewer pipes. Tie the last three sections (including apron) of all daylighted RCP storm sewer with a minimum of two tie bolt fasteners per joint. This requirement applies to both upstream and downstream pipe inlets and outlets. For concrete culverts, tie all joints. Ties to be used only to hold the pipe sections together, not for pulling the sections tight. Nuts and washers are not required on inside of 675 mm (27 inch) or less diameter pipes.
- Grates on horizontal pipes:** Install safety-trash grates on all horizontal inlets/outlets greater than 6 inches in diameter. The grates shall be placed so that the rods or bars are not more than 3 inches downstream of the inlet/outlet. Rods or bars shall be spaced so that the openings do not permit the passage of a 6-inch sphere.
- Testing:** Test all portions of storm sewer that are within 10 feet of buildings, within 10 feet of buried water, lines, within 50 feet of water wells, or that pass through soil or water identified as being contaminated in accordance with UPC part 1107.0. Test all flexible storm sewer lines for deflection after the sewer line has been installed and backfill has been in place for at least 30 days. No pipe shall exceed a deflection of 5%. If the test fails, make necessary repairs and retest.
- Drainage:** Perforated under-drains shall be slotted single wall corrugated HDPE. Install drainline with high permittivity circular knit polymeric filament filter sock per ASTM D6707-01.
- Use SUDAS Std. SW-603 Type R casting with curb inlet grate, or approved equal, on CB#4, CB#5, CB#6, CB#7, CB#8, and CB#10. Casting shall include the "DUMP NO WASTE, DRAINS TO FRESH WATER." environmental notice.
- Use SUDAS Std. SW-602 casting with self-sealing, solid, Type E lid, or approved equal, on all storm sewer maintenance holes. Covers shall bear the "Storm Sewer" label.
- Trace Wire:** Install locating wires on all conductive and non-conductive storm sewer, sanitary sewer, and water lines in accordance with the MRWA Trace Wire Specification Guide and details (www.mrwa.com/PDF/TracerWireSpecGuideFinalweb9.pdf). Use #12 HDPE-insulated copper-clad steel wire rated for underground service. The color of the insulating jacket shall be as follows: ground-red, storm sewer-green, sanitary sewer-green, and water lines-blue. Install the wire on the bottom side of the pipe below the spring line. Fasten the wire to the pipe with tape or plastic ties at 5' intervals. Do not use the trace wire around the corresponding utility. Do not connect the trace wire to existing conductive utilities. Use Copperhead Dryconn 3-Way or Locking Snake Bite connectors rated for underground direct bury applications or approved equal at all crossings or service connections. Twist on connectors are not allowed. Trace wire must be properly grounded at all dead ends and services. Install grade-level/in-ground trace wire access boxes and drive-in magnesium grounding anodes at all dead ends, services, and fire hydrants. Trace wire access boxes shall be color coded as follows: storm sewer-green, sanitary sewer-green, and water lines-blue.
- Detectable Warning Tape:** Install detectable underground warning tape directly above all underground utilities at a depth of 457 mm (18 inches) below finished grade, unless otherwise indicated. Underground warning tape shall be 3-inches wide with a minimum 5.0 mil overall thickness. Tape shall be manufactured using a 0.8 mil clear virgin polypropylene film, reverse printed and laminated to a 0.35 mil solid aluminum foil core, and then laminated to a 3.75 mil clear virgin polyethylene film. The aluminum backing makes underground assets easy to find using a non-ferrous locator. Tape shall be printed using a diagonally striped design for maximum visibility and meet the APWA Color-Code standard for identification of buried utilities. Use Pro-Line Safety Products (www.prolinesafety.com) detectable marking tape or approved equal.
- The minimum depth of cover for building and canopy roof drain leaders without insulation is 5 feet. Insulate roof drain leaders at locations where the depth of cover is less than 5 feet. Provide a minimum insulation thickness of 2 inches. The insulation must be at least 4 feet wide and centered on the pipe. Install the insulation boards 6 inches above the tops of the pipes on mechanically compacted and leveled pipe bedding material. Use high density, closed cell, rigid board material equivalent to DOW Styrofoam HI-40 plastic foam insulation.
- Install all pipe with the ASTM identification numbers on the top for inspection. Commence pipe laying at the lowest point in the proposed sewer line. Field verify that there is positive drainage at the outfall location. Lay the pipe with the bell end or receiving groove end of the pipe pointing upgrade. When connecting to an existing pipe, uncover the existing pipe in order to allow any adjustments in the proposed line and grade before laying any pipe. Do not lay pipes in water or when the trench conditions are unsuitable for such work.
- Clean sediment and debris from sewers, sumps and stormwater basins prior to final owner acceptance.
- Televise all existing lines prior to connection.
- Provide a final storm water management report that will serve to verify that the intent of the approved storm water management design has been met. The report shall include record drawings, measurements, and photographic evidence of the as-built storm water management system. The report shall substantiate that all aspects of the original design have been adequately provided for by the construction of the project.
- Fittings:** Provide directional fittings for the storm piping serving the gas island pump stations. All changes in direction of flow in drain piping shall be made by the appropriate use of 45 degree wyes, long or short sweep quarter bends, sixth, eighth, or sixteenth bends, or by a combination of these or other equivalent fittings.
- Install finger drains at each and every proposed catchbasin (see detail). Finger drains around catch basin inlets shall not be installed below the crown of the storm drain piping.

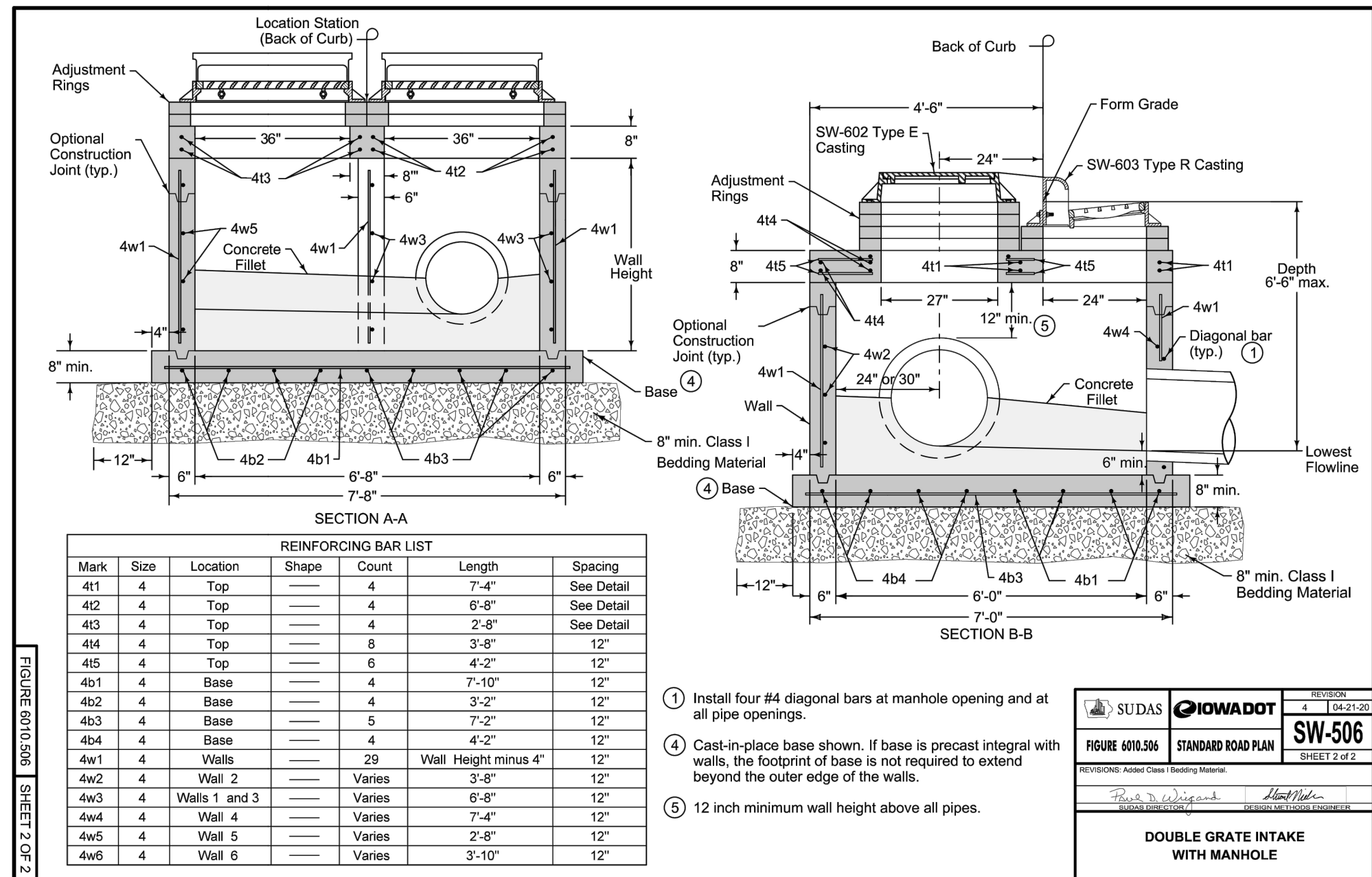
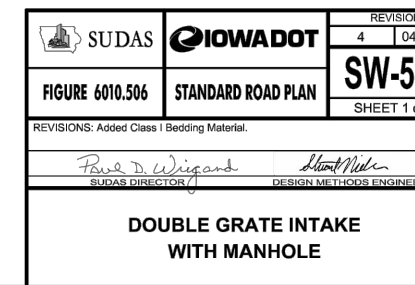


Maximum pipe diameters are set based on maximum structure depth of 6 feet-6 inches and the objective of placement of the centerline of the pipe on the centerline of the manhole opening for maintenance purposes.

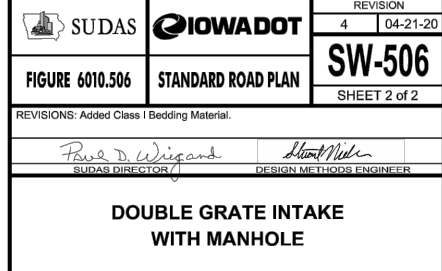
Refer to SW-514 for boxout details.

- Install four #4 diagonal bars at manhole opening and at all pipe openings.
- If Wall 1 is widened to 4 feet, the maximum pipe diameter can be increased to 36 inches.
- If Wall 1 is widened to 4 feet, the maximum pipe diameter in Wall 3 can be increased to 42 inches.

MAXIMUM PIPE DIAMETERS	
Wall	Max. Dia
1	36" (2)
2	24"
3	36" (3)
4	42"

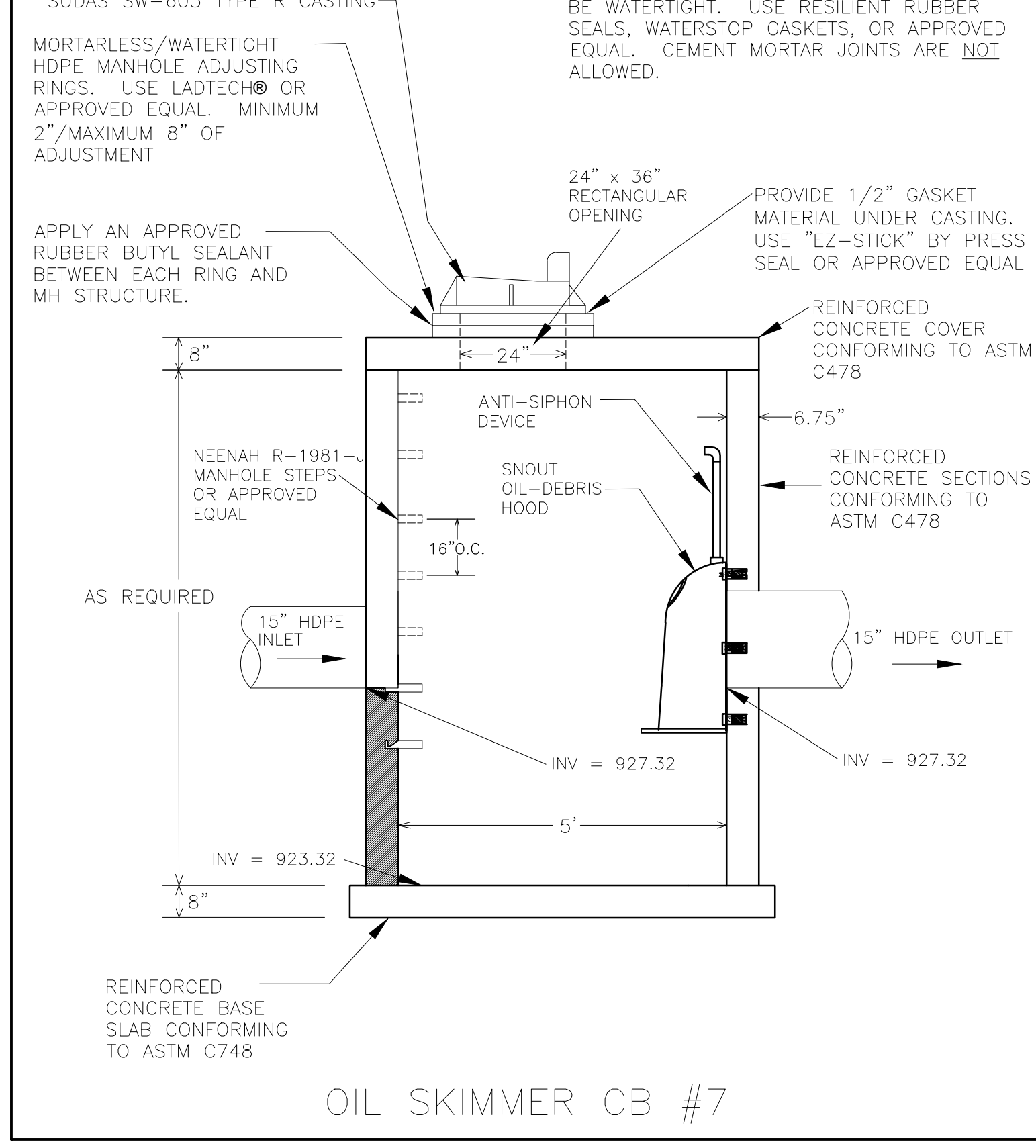
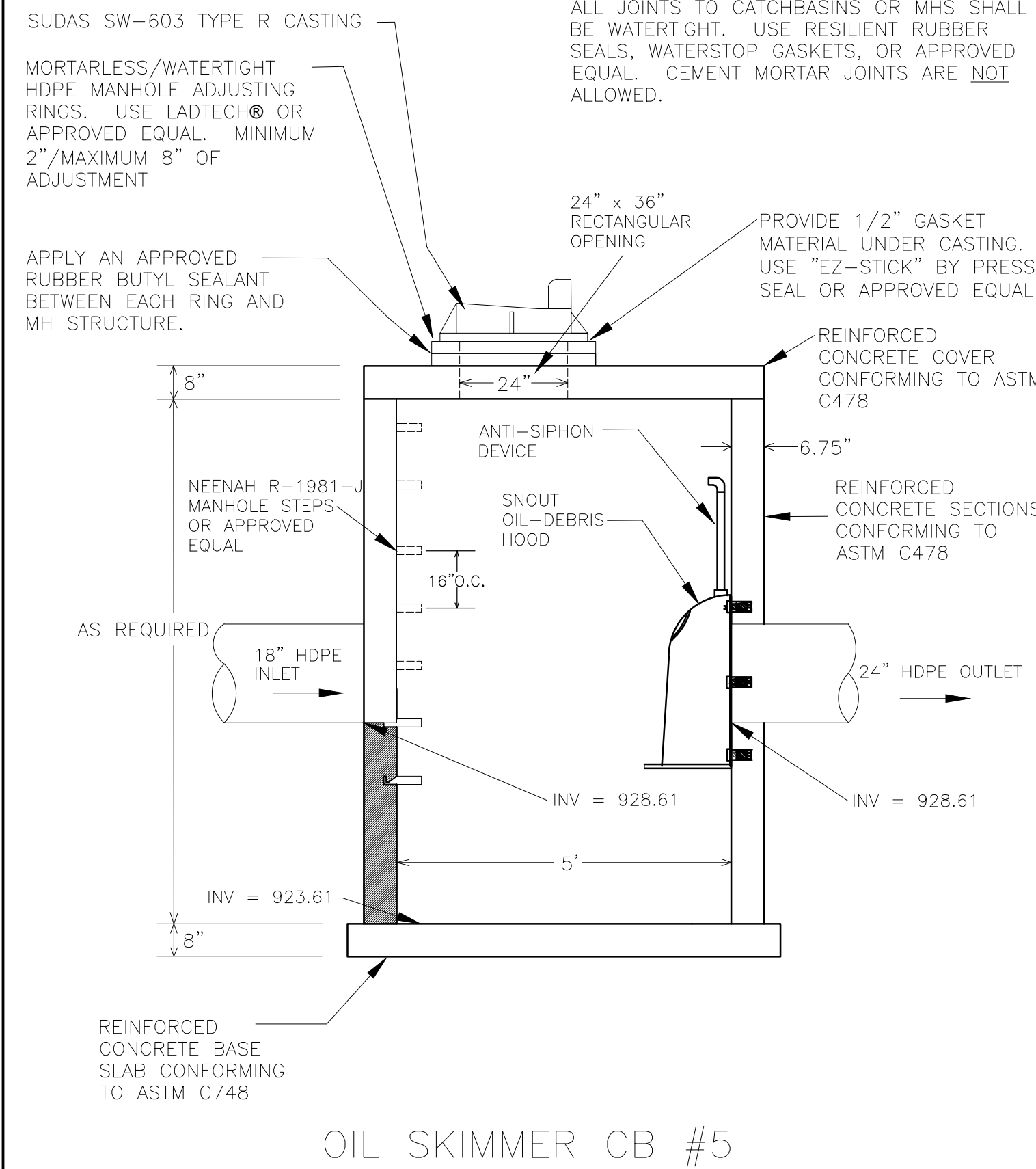


- Install four #4 diagonal bars at manhole opening and at all pipe openings.
- Cast-in-place base shown. If base is precast integral with walls, the footprint of base is not required to extend beyond the outer edge of the walls.
- 12 inch minimum wall height above all pipes.



HDPE REQUIREMENTS:

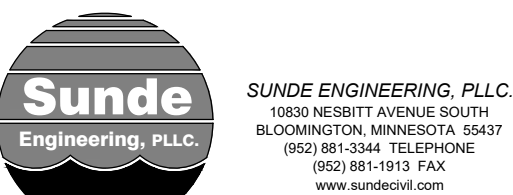
- Install dual-wall, smooth interior, corrugated high-density polyethylene (HDPE) manhole adjusting rings. Use LADTECH® or approved equal. Minimum 2"/maximum 8" of adjustment.
- Dual-wall, smooth interior, corrugated high-density polyethylene (HDPE) pipe shall conform to the requirements of AASHTO M252 for pipe sizes 4-inch to 10-inch diameter. Dual-wall, smooth interior, corrugated high-density polyethylene (HDPE) pipe shall conform to the requirements of ASTM F2306 (virgin PE material) for pipe sizes 12-inch to 60-inch diameter.
- All fittings must comply with ASTM Standard D3212.
- HDPE pipes must be listed and labeled.
- HDPE pipes must be installed with a minimum 10-foot separation from water piping and may not cross above water service lines (see UPC Section 720.1).
- HDPE pipes must not be installed within 10 feet of building. The connection between HDPE and a different pipe material must be made by means of an approved transition coupling for the specific application.
- HDPE pipe connections into all concrete structures must be made with water tight materials utilizing Nyoplast "Manhole Adaptors" along with Press-Seal or Kor-N-Seal "Watertight Connector", Cast-A-Seal "Precast Watertight Connector", or approved equals. Where the alignment precludes the use of the above approved watertight methods, Conseal 231 WaterStop sealant, or approved equal will only be allowed as approved by the Administrative Authority.
- HDPE pipe installation must be open-trench on a continuous granular bed per ASTM D2321 and manufacturer's installation instructions. All sections of the corrugated HDPE pipe shall be coupled in order to provide water tight joints.
- Perform deflection tests on all HDPE pipe after the sewer lines have been installed and backfill has been in place for at least 30 days. No pipe shall exceed a deflection of 5%. If the test fails, make necessary repairs and perform the test again until acceptable. Supply the mandrel for deflection testing. If the deflection test is to be run using a rigid ball or mandrel, it shall have a diameter equal to 95% of the inside diameter of the pipe. The ball or mandrel shall be clearly stamped with the diameter. Perform the tests without mechanical pulling devices.



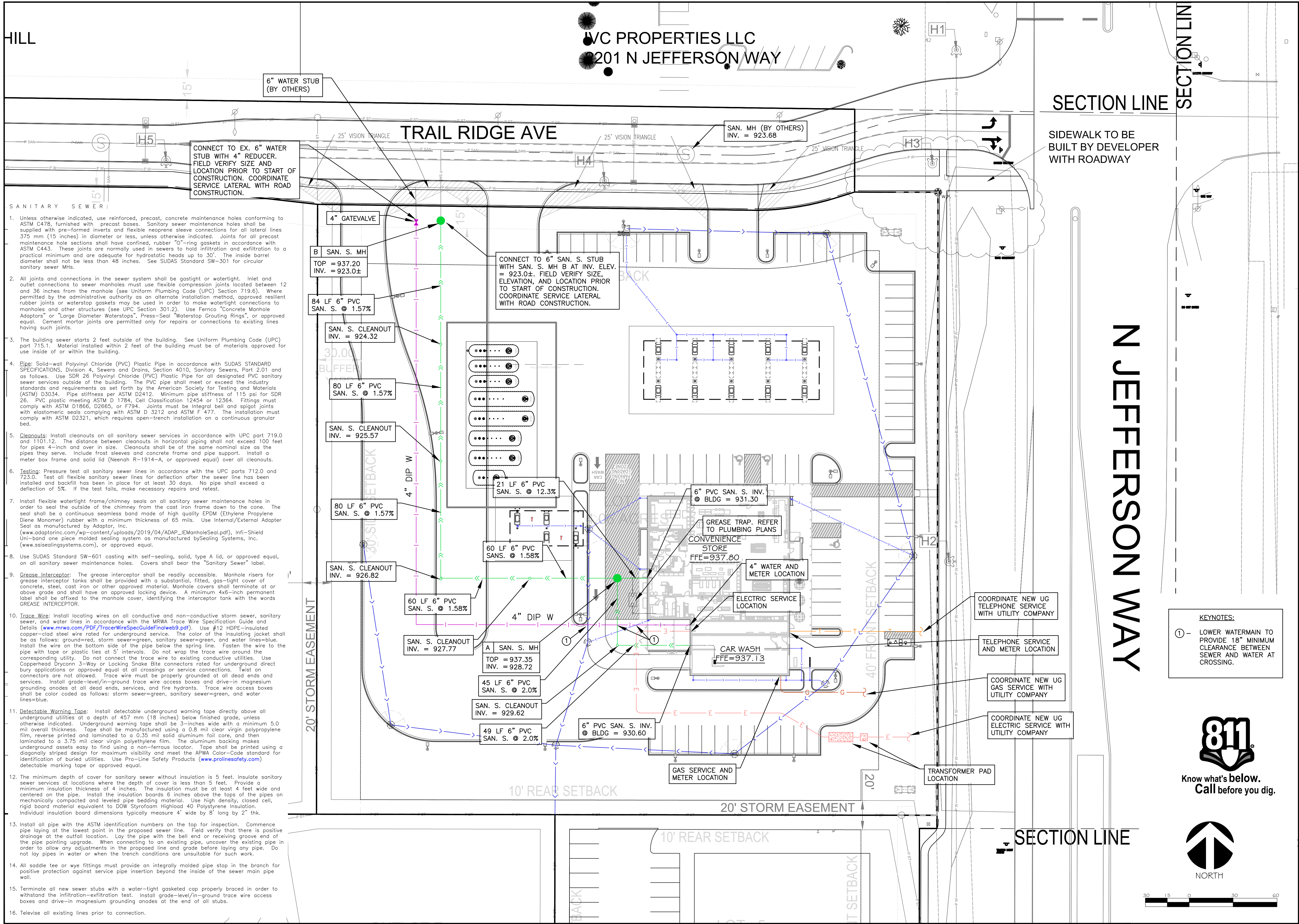
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STORM SEWER NOTES & DETAILS		
CONVENIENCE STORE 1742		
INDIANOLA, IOWA		
NO.	DATE	DESCRIPTION
-	06/28/24	SUBMITTAL
-	07/08/24	REVIEW COMMENTS
-	07/16/24	TANK UPDATE
-	08/02/24	ACCESS SHIFT
-	09/24/24	CITY RESUBMITTAL
DRAWN BY: MW		
SCALE: GRAPHIC		
PROJ. NO. 24-1742		
DATE: JUNE 28, 2024		
SHEET		
C301		



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PROFESSIONAL ENGINEER
MIKE HETTLER
18845
M.H. 10/1/2014

UTILITY PLAN

CONVENIENCE STORE 1742

INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
-	06/28/24	SUBMITTAL
-	07/09/24	REVIEW COMMENTS
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-	08/02/24	ACCESS SHIFT
-	09/24/24	CITY RESUBMITTAL

DRAWN BY: MW
SCALE: GRAPHIC
PROJ. NO. 24-1742
DATE: JUNE 28, 2024
SHEET: C400

KWIK TRIP PM N.E.

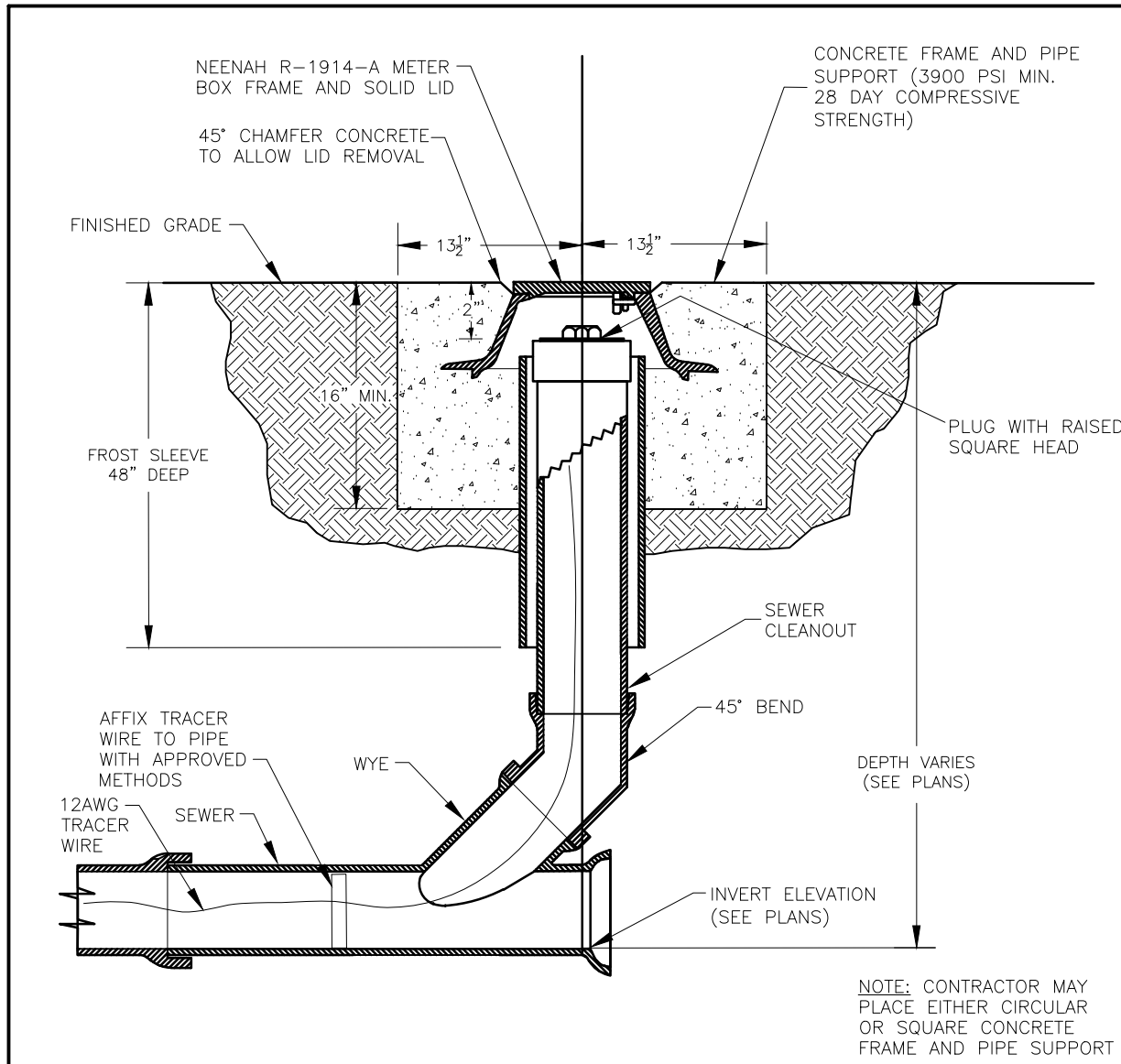
GENERAL :

- Existing boundary, location, topographic, and utility information shown on this plan is from a field survey/proposed plans by PELDS DESIGN SERVICES. The Engineer is not responsible for inaccuracies related to the survey information.
- Perform all construction work in accordance with State and Local requirements.
- Comply with all applicable local, state, and federal safety regulations. Comply with the work safety practices specified by the Occupational Safety and Health Administration (OSHA). OSHA prohibits entry into "confined spaces," such as manholes and inlets (see 29 CFR Section 1910.146), without undertaking certain specific practices and procedures. Perform excavations in accordance with the requirements of O.S.H.A. 29 CFR, Part 1926, Subpart P, Excavations. Trenching standards require protective systems on trenches deeper than 5 feet. Bench or slope side walls in order to provide safe working conditions and stability for the placement of engineered fill. Do not expose workers to the dangers of being struck by material and equipment. Keep soil and other materials at least 2 feet from the edge of any trenches. Trenches must be inspected by a competent individual, be free of standing water and atmospheric hazards, and have a safe means of entering and exiting before allowing a worker to enter. The Contractor is responsible for naming the "Competent Individual" in accordance with CFR 1926.6. Sloping or benching for excavations greater than 20 feet deep must be approved by a registered professional engineer (www.osha.gov).
- Safety is solely the responsibility of the Contractor, who is also solely responsible for the construction means, methods, techniques, sequences or procedures, and for safety precautions and programs in connection with the Work.
- The Engineer shall not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work. The Engineer's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures.
- Examine all local conditions at the site, and assume responsibility as to the grades, contours, and the character of the earth, existing conditions, and other items that may be encountered during excavation work above or below the existing grades. Review the drawings, specifications, and geotechnical report covering this work and become familiar with the anticipated site conditions.
- Refer to the architectural plans for building and stop dimensions, site layout and dimensions, pavement sections and details, striping, and other site features.
- A licensed surveyor shall perform construction staking. The Contractor shall provide and be responsible for the staking. Verify all plan and detail dimensions prior to construction staking. Stake the limits of walkways and curbing prior to valvebox, maintenance hole, and catchbasin installation. Adjust valvebox and maintenance hole locations in order to avoid conflicts with curb and gutter. Adjust catchbasin locations in order to align properly with curb and gutter.
- Provide temporary fences, barricades, coverings, and other protections in order to preserve existing items to remain, and to prevent injury or damage to person or property.
- Provide all traffic control required in order to construct the proposed improvements. Traffic control design and associated government approvals are the responsibility of the Contractor. Comply with local authorities, the latest version of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), and the Iowa Department of Transportation Office of Design Manual. Temporary traffic control zone affects the movement of pedestrians, provide adequate pedestrian access and walkways. If the temporary traffic control zone affects on accessible and detectable pedestrian facility, maintain accessibility and detectability along the alternate pedestrian route in accordance with the provisions for pedestrian and worker safety contained in Part 6 of the MUTCD.
- Connect to existing sanitary sewer MH's by coredrilling. Connect to existing storm sewer MH's by either sawcutting or coredrilling. Use saws or drills that provide water to the City standards and specifications for the connection. Reconstruct inverts after installation. Use water stop gaskets in order to provide watertight seals when penetrating a structure wall with a pipe. Take measurements before beginning construction to ensure that service connections do not cut into maintenance access structure joints or pipe barrel joints.
- Completely remove existing concrete and masonry structures that are located within the proposed building and future building expansion areas. All other existing sewer and watermain pipes that are to be abandoned shall either be removed, or completely filled with sand or controlled low strength material (CLSM) also known as flowable concrete fill. Bulkhead ends of the pipe segment to be decommissioned with concrete. All other existing sanitary sewer and storm sewer structures that are to be abandoned in place shall be abandoned as follows: (1) remove castings, rings, and top sections, (2) bulkhead any pipe openings, (3) break two 4-inch diameter holes in the barrel at the bottom of the structures for drainage and cover the holes with geotextile filter fabric, and (4) fill the structures with sand or CLSM.
- Testing and Inspections:** Coordinate testing and inspection with the State Health Department and the City Public Works Department. No drainage or plumbing work may be covered prior to completing the required tests and inspections.
- Coordinate building utility connection locations at 2 ft. out from the proposed building with the interior Plumbing Contractor prior to construction. Verify water and sewer service locations, sizes, and elevations with the Mechanical Engineer prior to construction. Coordinate construction and connections with the Mechanical Contractor.
- The subsurface utility information shown on this plan is Utility Quality Level D. This quality level was determined according to the guidelines of C/ASCE 38-02, entitled "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" by the FEA.
- The locations of existing utilities shown on this plan are from record information. The Engineer does not guarantee that all existing utilities are shown or, if shown, exist in the locations indicated on the plan. It is the Contractor's responsibility to ascertain the final vertical and horizontal location of all existing utilities (including water and sewer lines and appurtenances). Notify the Engineer of any discrepancies.
- The Contractor is solely responsible for all utility locates. Contact utility companies for locations of all public and private utilities within the work area prior to beginning construction. Contact Iowa One Call at 1-800-292-8989 for exact locations of existing utilities at least 72 hours (not including weekends and holidays) before beginning any construction. Obtain ticket number and meet with representatives of the various utilities at the site. Provide the Owner with the ticket number information. One Call is a free service that locates municipal and utility company lines, but does not locate private utility lines. Use an independent locator service or other means in order to obtain locations of private utility lines including, but not limited to, underground electric cables, telephone, TV, and lawn sprinkler lines.
- Pothole to verify the positions of existing underground facilities at a sufficient number of locations in order to assure that no conflict with the proposed work exists and that sufficient clearance is available.
- Where existing gas, electric, cable, or telephone utilities conflict with the Work, coordinate the abandonment, relocation, offset, or support of the existing utilities with the appropriate local utility companies. Coordinate new gas meter and gas line installation, electric meter and electric service installation, cable service, and telephone service installation with the local utility companies.
- When working near existing telephone or electric poles, brace the poles for support. When working around existing underground utilities that become exposed, provide sufficient support in order to prevent excessive stress on the existing piping. The location and preservation of existing underground utilities is solely the responsibility of the Contractor.
- Temporary support systems are the responsibility of the Contractor, who is also solely responsible for the construction means, methods, techniques, sequences or procedures, and for safety precautions and programs in connection with the temporary support systems. Temporary support systems include, but are not limited to, shoring, sheeting, bracing, anchorages, excavation support walls, directional boring, auger jacking, soil stabilization, and other methods of protecting existing improvements.
- Arrange for and secure suitable disposal areas off-site. Dispose of all excess soil, waste material, debris, and all materials not designated for salvage. Waste material and debris includes trees, stumps, pipe, concrete, asphaltic concrete, cans, or other waste material from the construction operations. Obtain the rights to any waste area for disposal of unsuitable or surplus material either shown or not shown on the plans. All work in disposing of such material shall be considered incidental to the work. All disposal must conform to applicable solid waste disposal permit regulations. Obtain all necessary permits at no cost to the Owner.
- Store and protect existing site features that need to be removed and replaced in connection with the Work. Replace damaged or stolen site features at no additional cost to the Owner.
- Straight line saw-cut existing bituminous or concrete surfacing at the perimeter of pavement removal areas. Use saws that provide water to the blade. Do not allow the slurry produced by this process to be tracked outside of the immediate work area or discharged into the sewer system. Tack and match all connections to existing bituminous pavement.
- Relocate overhead power, telephone, and cable lines as required. Seal and report any existing unused on-site wells and septic systems.
- All materials required for this work shall be new material conforming to the requirements for class, kind, grade, size, quality, and other details specified herein or as shown on the Plans. Do not use recycled or salvaged aggregate, asphaltic pavement, crushed concrete, or scrap shingles. Unless otherwise indicated, the Contractor shall furnish all required materials and labor in order to perform the construction in accordance with the construction documents, specifications, and regulatory agencies.
- Reconstruct driveways and patch street to match existing pavement section and grade. Sad right-of-way. Restore the public right-of-way at temporary construction entrance locations. Replace any concrete curb and gutter, bituminous pavement, sidewalk, or vegetative cover damaged by the construction activity. Restore damaged turf with sod within the public right-of-way. The work area shown is general and may need to be adjusted in the field.
- Cut turf edges in order to allow for a uniform straight edge at locations where new sod meets existing turf. No joggles or spacers are allowed. Remove topsoil as required at joints between existing and new turf in order to allow the surface of the new sod to be flush with the existing.

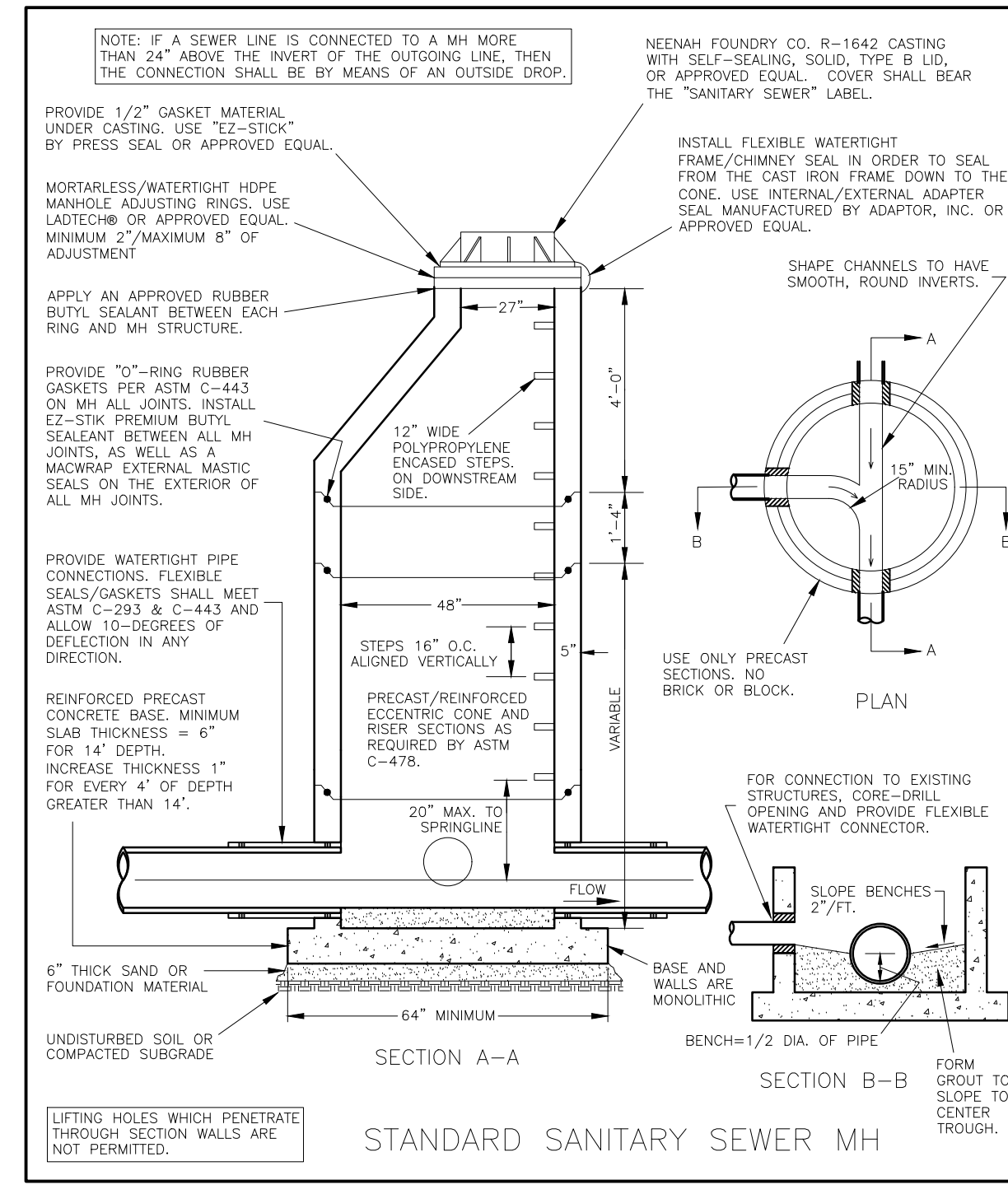
- Document existing conditions (photographs, video, field survey, etc.) in order to enable restoration to match existing conditions and in order to ensure that restored areas have positive drainage similar to existing conditions.
- Provide positive drainage away from buildings at all times. Provide and maintain temporary drainage throughout construction until the permanent drainage system and structures are in place and operational. Install temporary ditches, piping, pumps, or other means as necessary in order to insure proper drainage at all times. Provide low points at building pads or roadways with positive outfalls. Do not block drainage from or direct excess drainage to adjacent property.
- Protect all structures and landscaping not labeled for demolition from damage during construction. Provide protective coverings and enclosures as necessary to prevent damage to existing work that is to remain. Existing work to remain may include items such as trees, shrubs, lawns, sidewalks, drives, curbs, utilities, buildings and/or other structures on or adjacent to the site. Provide temporary fences and barricades as required for the safe and proper execution of the work and the protection of persons and property. Provide building surveys and seismic monitoring in locations where demolition, excavation, underpinning, pile driving, compacting, or similar work is to be performed adjacent to or in the vicinity of existing structures. Return any on-site or off-site areas disturbed directly or indirectly due to construction to a condition equal to or better than the existing condition.
- Protect sub grades from damage by surface water runoff.
- Full design strength is not available in bituminous pavement areas until the final lift of asphalt is compacted into place. Protect pavement areas from overloading by delivery trucks, construction equipment, and other vehicles.
- When sawing or drilling concrete or masonry, use saws that provide water to the blade. Do not allow the slurry produced by this process to be tracked outside of the immediate work area or discharged into the sewer system.
- Adjust all public and private structures including curb stops, valve boxes, maintenance hole castings, catchbasin castings, cleanout covers, and similar items to finished grade. Comply with the requirements of each structure's owner. Structures being reset in paved areas must meet the owner's requirements for traffic loading.
- Grading for all sidewalks and accessible routes, including driveway crossings, shall conform to current State and Federal Americans with Disabilities Act (ADA) requirements. In accordance with ADA Section 403.3, slopes shall not exceed 2% cross slope or 5% in the direction of travel. Sidewalk access to external building doors shall be ADA compliant. Accessible parking stalls shall not exceed 2% slope in any direction.
- Curb ramps on accessible routes shall comply with sections 405 and 406 of the Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- Accessible parking spaces shall include the International Symbol of Accessibility complying with ADA Section 703.7.2.1 painted in the center of the parking space, 4-ft. high. Hatch handicapped access aisles with white 4-inch wide pointed stripes 18-inches on center and at 45 degree angles to the stalls.
- Install all pipe with the ASTM identification numbers on the top for inspection. Commence pipe laying at the lowest point in the proposed sewer line. Field verify that there is positive drainage at the outfall location. Lay the pipe with the bell end or receiving groove end of the pipe pointing up grade. When connecting to an existing pipe, uncover the existing pipe in order to allow any adjustments in the proposed line and grade before laying any pipe. Do not lay pipes in water or when the trench conditions are unsuitable for such work.
- Obtain and pay for all permits, tests, inspections, etc. required by agencies that have jurisdiction over the project including the NPDES permit from the State. The Contractor is responsible for all bonds, letters of credit, or cash sureties related to the work. Execute and inspect work in accordance with all local and state codes, rules, ordinances, or regulations pertaining to the particular type of work involved.
- Measure pipe lengths from center-of-structure to center-of-structure, or to the end of aprons.
- Obtain permits from the City for work in the public right-of-way.
- Refer to the geotechnical report by the Soils Engineer for dewatering requirements.
- Test boring data shown on the plans were accumulated for designing and estimating purposes. Their appearance on the plan does not constitute a guarantee that conditions other than those indicated will not be encountered.
- The minimum depth of cover for building and canopy roof drain leaders without insulation is 5 feet. Insulate roof drain leaders at locations where the depth of cover is less than 5 feet. Provide a minimum insulation thickness of 2 inches. The insulation must be at least 4 feet wide and centered on the pipe. Install the insulation boards 6 inches above the tops of the pipes on mechanically compacted and leveled pipe bedding material. Use high density, closed cell, rigid board material equivalent to DOW Styrofoam HI-40 plastic foam insulation.
- Insulate utility lines at locations indicated on the plans. Provide a minimum insulation thickness of 4 inches. The insulation must be at least 4 feet wide and centered on the pipe. Install the insulation boards 6 inches above the tops of the pipes on mechanically compacted and leveled pipe bedding material. Use high density, closed cell, rigid board material equivalent to DOW Styrofoam Highload 40 Polystyrene Insulation. Individual insulation board dimensions typically measure 4' wide by 8' long by 2" thick.
- Construct sanitary sewer, watermain, and storm sewer utilities in accordance with State and City requirements.
- These plans, prepared by Sunde Engineering, PLLC., do not extend to or include systems pertaining to the safety of the construction contractor or its employees, agents, or representatives in the performance of the work. The seal of Sunde Engineering's registered professional engineer hereon does not extend to any such safety systems that may be required by the local health department or other regulatory agency. The construction contractor shall prepare or obtain the appropriate safety systems which may be required by U.S. Occupational Safety and Health Administration (OSHA) and/or local regulations.
- Existing utilities shown on this plan are located as accurately as possible. However, the Engineer does not guarantee that all utilities are shown, or if shown are in the exact locations indicated on the plan. It is the Contractor's responsibility to ascertain the final vertical and horizontal location of all existing utilities (including municipal water and sewer lines and appurtenances) and to notify the owners of the utilities a minimum of 48 working hours before starting construction in a given area, requesting location in the field, as exact as possible, of all utilities which may be affected by the construction.
- Trace Wire:** Install locating wires on all conductive and non-conductive storm sewer, sanitary sewer, and water lines in accordance with the MRWA Trace Wire Specification Guide and Details (www.mrwacolor.com/PDF/TracerWireSpecGuideFinalweb9.pdf). Use #12 HDPE-insulated copper-clad steel wire rated for underground service. The color of the insulating jacket shall be as follows: ground=red, storm sewer=green, sanitary sewer=green, and water lines=blue. Install the wire on the bottom side of the pipe below the spring line. Fasten the wire to the pipe with tape or plastic ties at 5' intervals. Do not wrap the trace wire around the corresponding utility. Do not connect the trace wire to existing conductive utilities. Use Copperhead Dryconn 3-Way or Locking Snake Bite connectors rated for underground direct bury applications or approved equal at all crossings or service connections. Twist on connectors are not allowed. Trace wire must be properly grounded at all dead ends and services. Install grade-level/in-ground trace wire access boxes and drive-in magnesium grounding anodes at all dead ends, services, and fire hydrants. Trace wire access boxes shall be color coded as follows: storm sewer=green, sanitary sewer=green, and water lines=blue.
- Detectable Warning Tape:** Install detectable underground warning tape directly above all underground utilities at a depth of 457 mm (18 inches) below finished grade, unless otherwise indicated. Underground warning tape shall be 3-inches wide with a minimum 5.0 mil overall thickness. Tape shall be manufactured using a 0.8 mil clear virgin polypropylene film, reverse printed and laminated to a 0.35 mil solid aluminum foil core, and then laminated to a 3.75 mil clear virgin polyethylene film. The aluminum backing makes underground assets easy to find using a non-ferrous locator. Tape shall be printed using a diagonally striped design for maximum visibility and meet the APWA Color-Code standard for identification of buried utilities. Use Pro-Line Safety Products (www.prolinesafety.com) detectable marking tape or approved equal.
- See architectural plan for building waterproofing and foundation drainage.
- Place #3 rebar at 3' on center in all 6" thick concrete pavement locations. Place #4 rebar at 4' on center in all 8" thick concrete pavement locations.
- Place #4 x 2'-0" tie bar at 3' on center in all concrete curb and gutter.
- Provide as-built in accordance with City and Watershed District requirements. Record as-built information as construction progresses or at appropriate construction intervals. Secure and deliver to the Owner as-built information showing locations, top, and invert elevations of maintenance holes, catchbasins, cleanouts, inlet and outlet pipes, valves, hydrants, and related structures. Location ties shall be to permanent landmarks or buildings.
- In order to document and verify acceptance for adequate storm water treatment, provide a post-construction City and Watershed District required report for all storm water infrastructure. This as-built survey shall include, but is not limited to, locations, top, and invert elevations of maintenance holes, catchbasins, cleanouts; all basin/slope grades; pipe inlets, outlet pipes and structures; emergency overflows, orifices, weirs; pipe sizes; drainline elevations and sizes; ponds, tanks, infiltration or filtration basins; and any associated storm water infrastructure.
- Test reports required for project close-out include, but are not limited to: density test reports, bacteriological tests on the water system, pressure tests on the water system, leak tests on the sewer system, deflection tests on all HDPE pipe.
- Install a concrete square (MH Boxout) around MHS per the SUDAS detail PV-103 OR PV-201.
- All imported fill material must meet or exceed the infiltration rates of the existing on-site soils and have soil characteristics that meet Hydrologic Soil Group B. Coordinate inspection and approval of all imported fill materials with the Geotechnical Engineer. Use only uncontaminated fill material.

WATER DISTRIBUTION SYSTEM :

- Bring all site utilities to 2' outside of the building line with the exception of the water service. Extend water service into the building and up to the flange for the water meter.
- Separation of Water and Sewer:** Construct sewer and water services in accordance with Uniform Plumbing Code (UPC) parts 720.0 and 721.0. Provide a minimum horizontal separation of 10 feet between all water and sewer lines, including manholes, catch basins, storm sewer, sanitary sewer, drainline, or other potential sources for contamination in accordance with Uniform Plumbing Code (UPC) part 609.6. Measure the separation distance from the outer edge of the pipe to the outer edge of the contamination source (outer edge of structures, piping, etc.).
- Water and Sewer Crossings:** per SUDAS 5010, 3.06, "C", (page 10) the sewer must cross at least 18 inches below the water main. If the sewer must be above the water main, then maintain 18 inches of vertical clearance and construct the sewer of watermain materials (or RCP with O-ring gaskets for storm sewer) to a distance of 10 feet on each side of the sewer. If the sewer must cross below the water main, but at less than 18 inches clearance, then construct the sewer of water main materials (or RCP with O-ring gaskets for storm sewer) to a distance of 10 feet on each side of the crossing and place it no closer than 6 inches below the water main.
- Watermain Depth:** Maintain 6-feet of cover over the top of the water lines to the finished grade. Verify elevation of proposed and existing water lines at all utility crossings. Install the water lines at greater depths in order to clear storm sewers, sanitary sewers, or other utilities as required. Include costs to lower water lines in the base bid.
- Disinfection:** Disinfect all completed watermains in accordance with AWWA Standard C651. If the tablet or continuous feed methods are used, disinfect the completed watermain with water that contains at least 50 ppm of available chlorine in accordance with UPC part 609.9. Do not use the tablet method on solvent-welded plastic pipe or on galvanized steel pipe because of the danger of fire or explosion from the reaction of the joint compounds with the calcium hypochlorite. Retain the treated water in the pipeline for at least 24 hours. Measure the chlorine residual at the end of the 24 hour period. The free chlorine residual at the end of the 24 hour period shall be at least 10 mg/l measured at any point in the line. Measurement of the chlorine concentration at regular intervals shall be in accordance with Standard Methods, AWWA M-12, or using appropriate chlorine test kits.
- Testing:** Pressure test and perform bacteriological tests on all water lines under the supervision of the City Public Works Department. Notify the City at least 24 working hours prior to any testing. Pressure test the water system in accordance with the UPC part 603.4. Pressure test the waterline to a water pressure of 103.4-psi (150-psf) gauge pressure (measured at the point of lowest elevation) by means of a pump connected to the pipe in a satisfactory manner. Do not add water to the watermain in order to maintain the required pressure during the water main pressure testing. The test section of pipe shall withstand the test without leaking for a period of not less than 15 minutes.
- All water supply piping connected to municipal water main must have a 150 psi minimum pressure rating.
- Copper water services must meet ASTM B88 and be type K soft temper or type L soft temper (see UPC part 604.0.) with compression fit connections.
- Ductile iron pipe (DIP) water services must comply with AWWA C151/ANSI A21.51 or AWWA C115/ANSI A21.15 (See UPC part 604.0.). Use **Thickness Class 52** DIP with push-on joints. Use petroleum resistant gaskets, Nitrite (NBR), or approved equal. Use only ANSI 316 stainless steel bolts and nuts on all watermain fittings, valves, and hydrants.
- Polyethylene Sheet Or Tubes For Corrosion Protection Of Buried Ductile Iron:** Polyethylene encasement is required on all buried ductile iron pipe, fittings, valves, and other appurtenances. Polyethylene encasement must comply with AWWA C105/ANSI A21.5. Use V-Bio Enhanced Polyethylene Encasement (www.mcwoneductile.com) or approved equal.
- Use mechanical joint restraint devices for joint restraint on all watermain bends having a vertical or horizontal deflection of 22-1/2 degrees or greater, all valves, stubs, extensions, tees, crosses, plugs, all hydrant valves, and all hydrants in accordance with City requirements. Use "Series 1100 Megalug" manufactured by EBAA Iron Inc., Eastland, Texas, or approved equal, installed in accordance with manufacturer's recommendations for restraint on Ductile Iron Pipe. Restraining devices are to have epoxy coating or approved equivalent. Restraining device hardware shall be ANSI 316 stainless steel, or approved equivalent.
- Watermain Valves:** At all valve locations which require a 12" or smaller valve, install gate valves which are of the compression resilient seated (CRS) type. Use American Flow Control's Series 2500 Ductile Iron Resilient Wedge Gate Valve, or approved equal. Gate valves shall conform to AWWA C509. Install cast iron valve boxes conforming to ASTM A48 at each valve location. Valve boxes shall be the three-piece type with 5-1/4" shafts. Use Tyler 6860-G with No. 6 base, or equivalent. Valve boxes shall have at least 6" of adjustment above and below finished grade. Drop covers on valve boxes shall be round and bear the word "WATER" cast on the top. Use Tyler 6860-G "Stayput" covers with extended skirt, or equivalent. All valve hardware shall be ANSI 316 stainless steel, or approved equivalent.
- Curb Valves and Boxes:** Use Mueller H-10334 extension type curb box with Minneapolis pattern base, or approved equal, at all 3" through 24" curb stop locations. Stationary curb is required on all curb stops. Use Mueller Company Mark II Oriseal No. H-15154N curb stop, or approved equal, and stainless steel stem rod.
- Trace Wire:** Install locating wires on all conductive and non-conductive storm sewer, sanitary sewer, and water lines in accordance with the MRWA Trace Wire Specification Guide and Details (www.mrwacolor.com/PDF/TracerWireSpecGuideFinalweb9.pdf). Use #12 HDPE-insulated copper-clad steel wire rated for underground service. The color of the insulating jacket shall be as follows: ground=red, storm sewer=green, sanitary sewer=green, and water lines=blue. Install the wire on the bottom side of the pipe below the spring line. Fasten the wire to the pipe with tape or plastic ties at 5' intervals. Do not wrap the trace wire to existing conductive utilities. Use Copperhead Dryconn 3-Way or Locking Snake Bite connectors rated for underground direct bury applications or approved equal at all crossings or service connections. Twist on connectors are not allowed. Trace wire must be properly grounded at all dead ends and services. Install grade-level/in-ground trace wire access boxes and drive-in magnesium grounding anodes at all dead ends, services, and fire hydrants. Trace wire access boxes shall be color coded as follows: storm sewer=green, sanitary sewer=green, and water lines=blue.
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- Threaded hose connections including hose bibbs and hydrants must include a back flow prevention device in accordance with UPC part 603.0.
- All newly installed or replacement pipes, pipe fittings, plumbing fittings and fixtures, including backflow preventers, that are installed on potable water systems or systems that are designed to distribute water for potable use, are required to meet the Reduction of Lead in Drinking Water Act, which establishes a maximum lead content of 0.25 percent by weighted average of the wetted surfaces.
- Do not exceed the manufacturer's specifications for curvature of pipe and deflection at pipe joints. Securely close all open ends of pipe and fittings with watertight plugs when work is not in progress. Keep the interior of all pipes clean and remove any dirt or debris from joint surfaces after the pipes have been lowered into the trench. Install all valves plumbed and located according to the plans.
- Insulate the watermain at locations indicated on the plans. Provide a minimum insulation thickness of 4 inches. The insulation must be at least 4 feet wide and centered on the pipe. Install the insulation boards 6 inches above the tops of the pipes on mechanically compacted and leveled pipe bedding material. Use high density, closed cell, rigid board material equivalent to DOW Styrofoam Highload 40 Polystyrene Insulation. Individual insulation board dimensions typically measure 4' wide by 8' long by 2" thick.
- FINAL HYDRANT FLUSHING:** Perform all final flushing in accordance with SUDAS Standard Specifications, Division 5, Section 5030, Part 3.04.
A.Flush pipe using potable water until chlorine residual equals that of the existing potable water system.
B.Dispose of chlorinated water to prevent damage to the environment. Dechlorinate highly chlorinated water from testing before releasing into the ground or sewers.
B.1.Check with the local sewer department for the conditions of disposal to the sanitary sewer.
B.2.Chlorine residual of water being disposed will be neutralized by treating with one of the chemicals listed in Table 5030.02 in accordance with SUDAS, Division 5, Section 5030, Part 3.04.



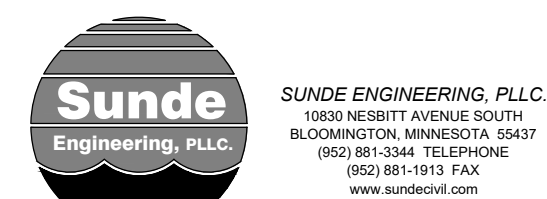
SEWER CLEANOUT



Kwik Trip

Kwik Star

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1626 OAK STREET
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PH. (608) 781-8988
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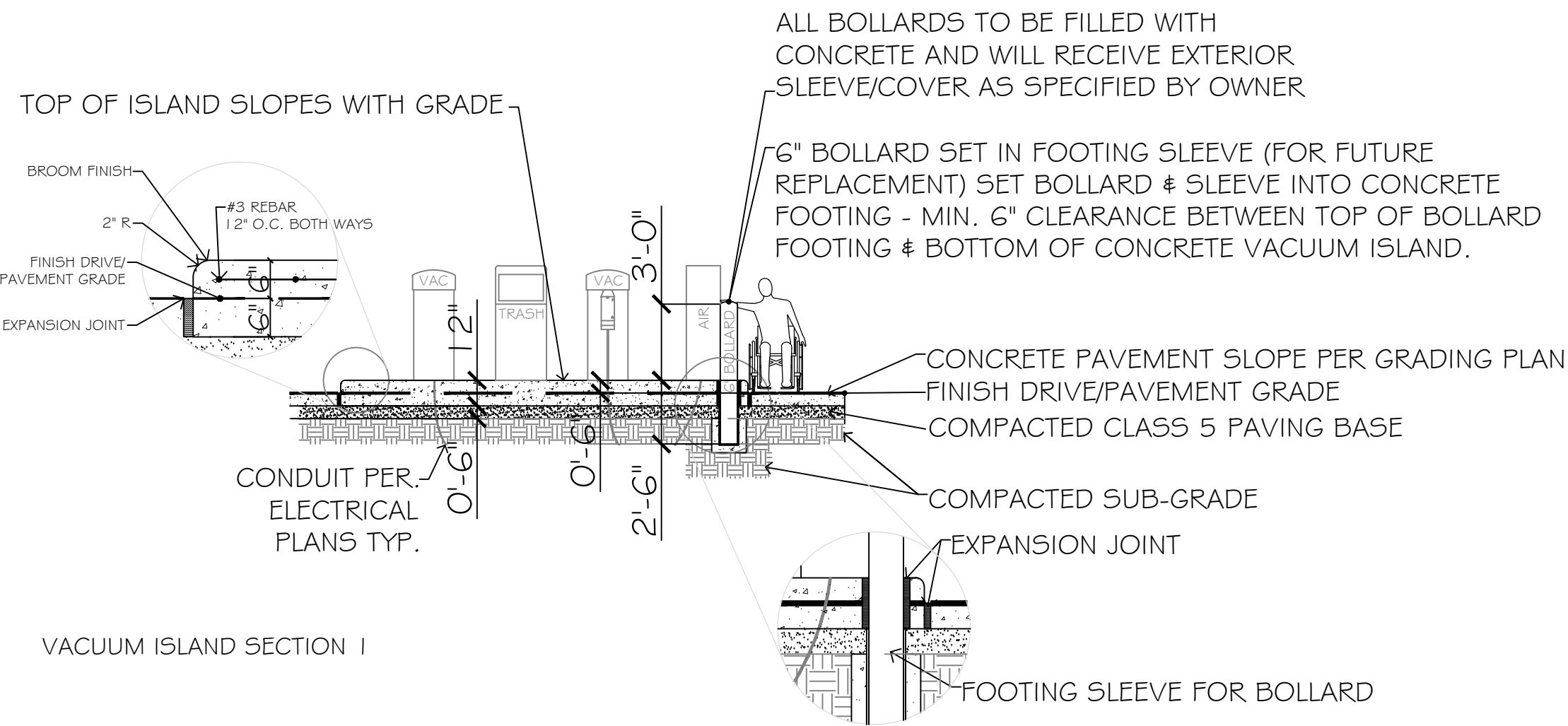
UTILITY NOTES

CONVENIENCE STORE 1742

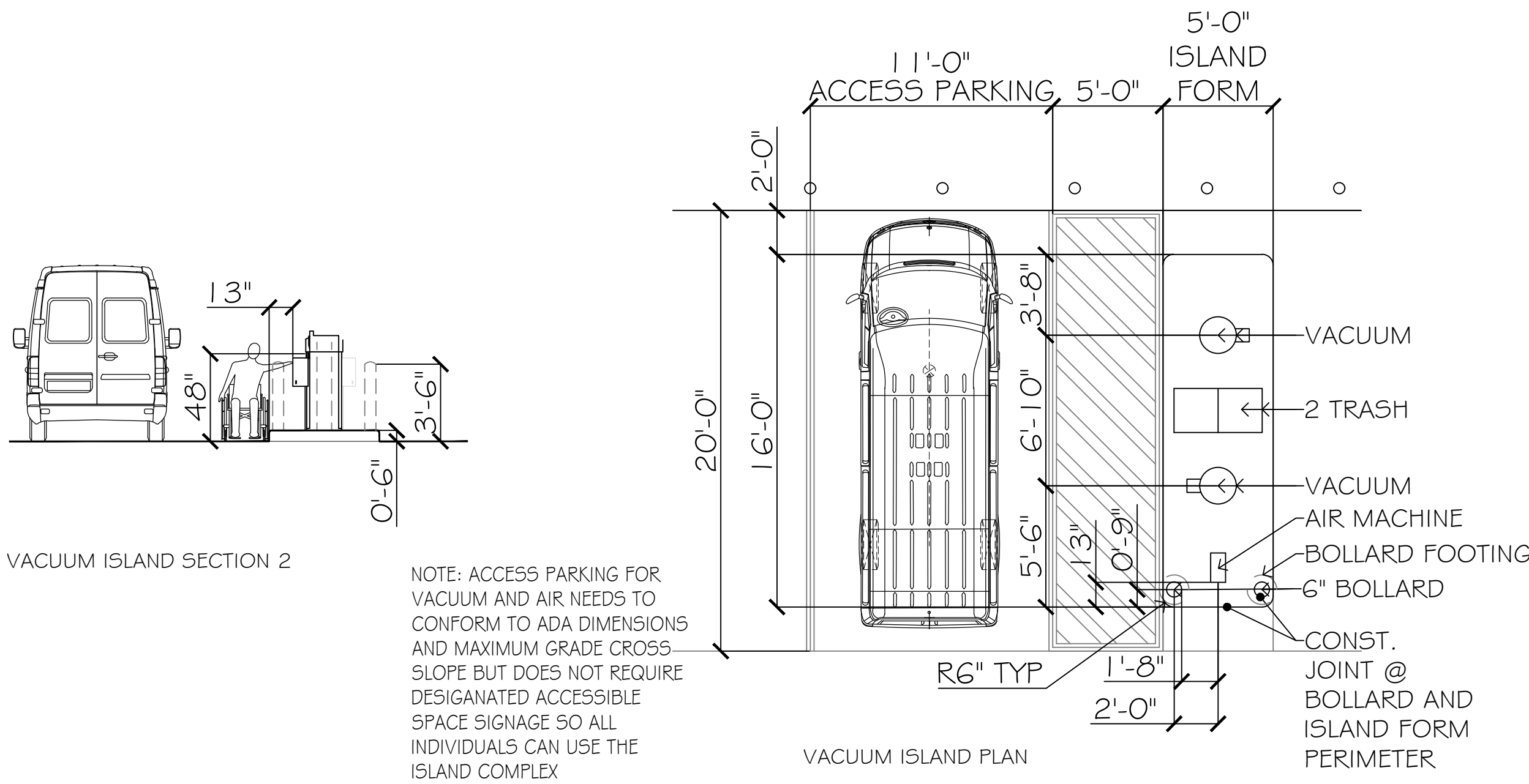
INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
	06/28/24	SUBMITTAL
	07/08/24	REVIEW COMMENTS
	07/16/24	TANK UPDATE
	08/02/24	ACCESS SHIFT
	09/24/24	CITY RESUBMITTAL

DRAWN BY	MW
SCALE	GRAPHIC
PROJ. NO.	24-1742
DATE	JUNE 28, 2024
SHEET	C401



VACUUM ISLAND SECTION 1

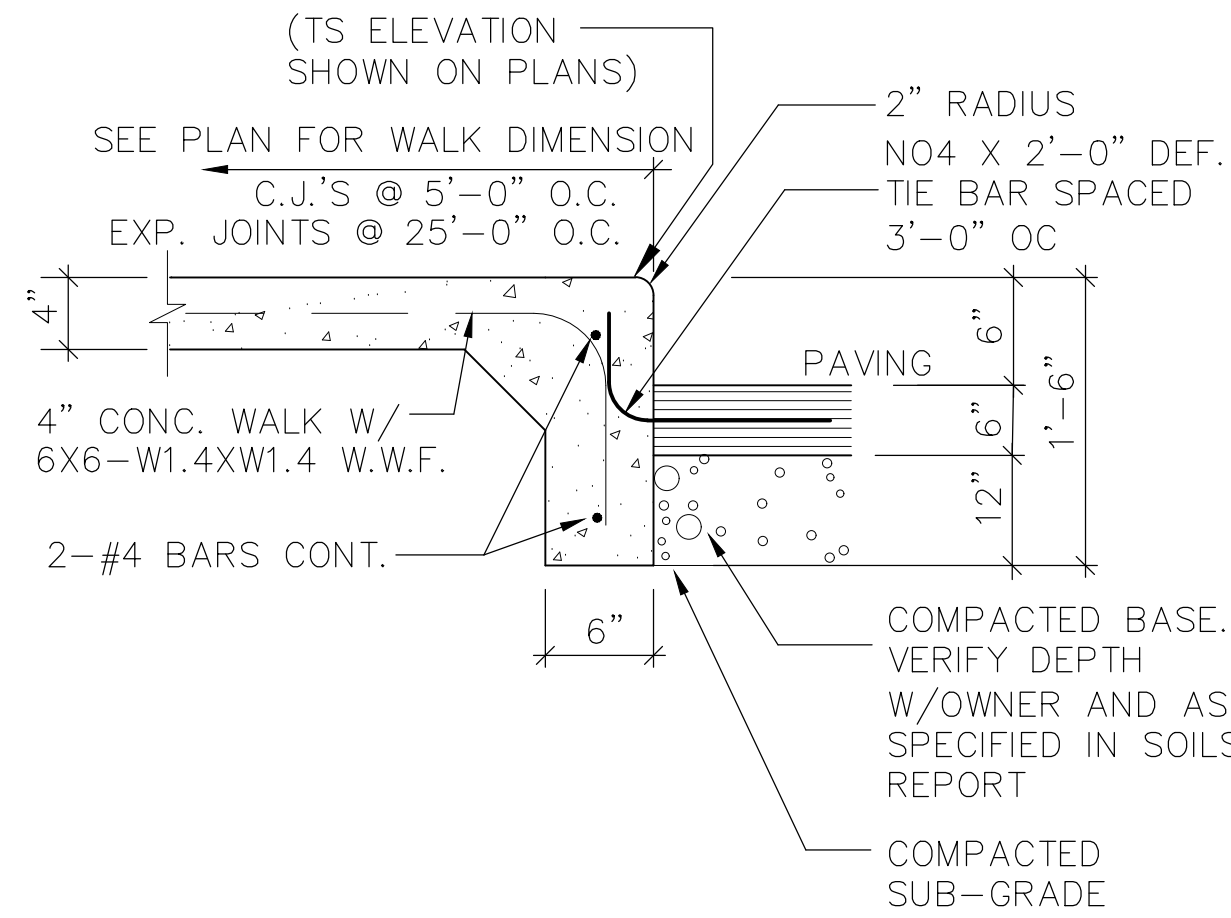


VACUUM ISLAND SECTION 2

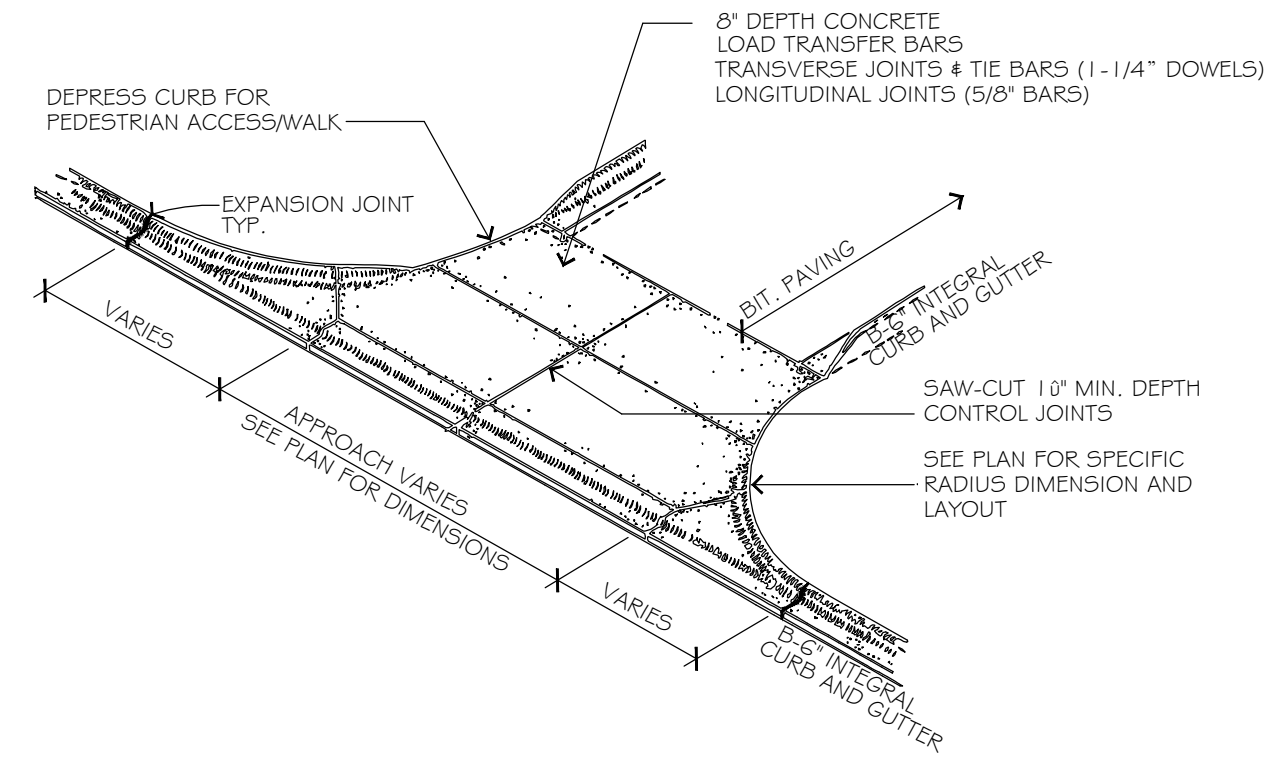
NOTE: ACCESS PARKING FOR VACUUM AND AIR NEEDS TO CONFORM TO ADA DIMENSIONS AND MAXIMUM GRADE CROSS SLOPE BUT DOES NOT REQUIRE DESIGNATED ACCESSIBLE SPACE SIGNAGE SO ALL INDIVIDUALS CAN USE THE ISLAND COMPLEX

VACUUM ISLAND PLAN

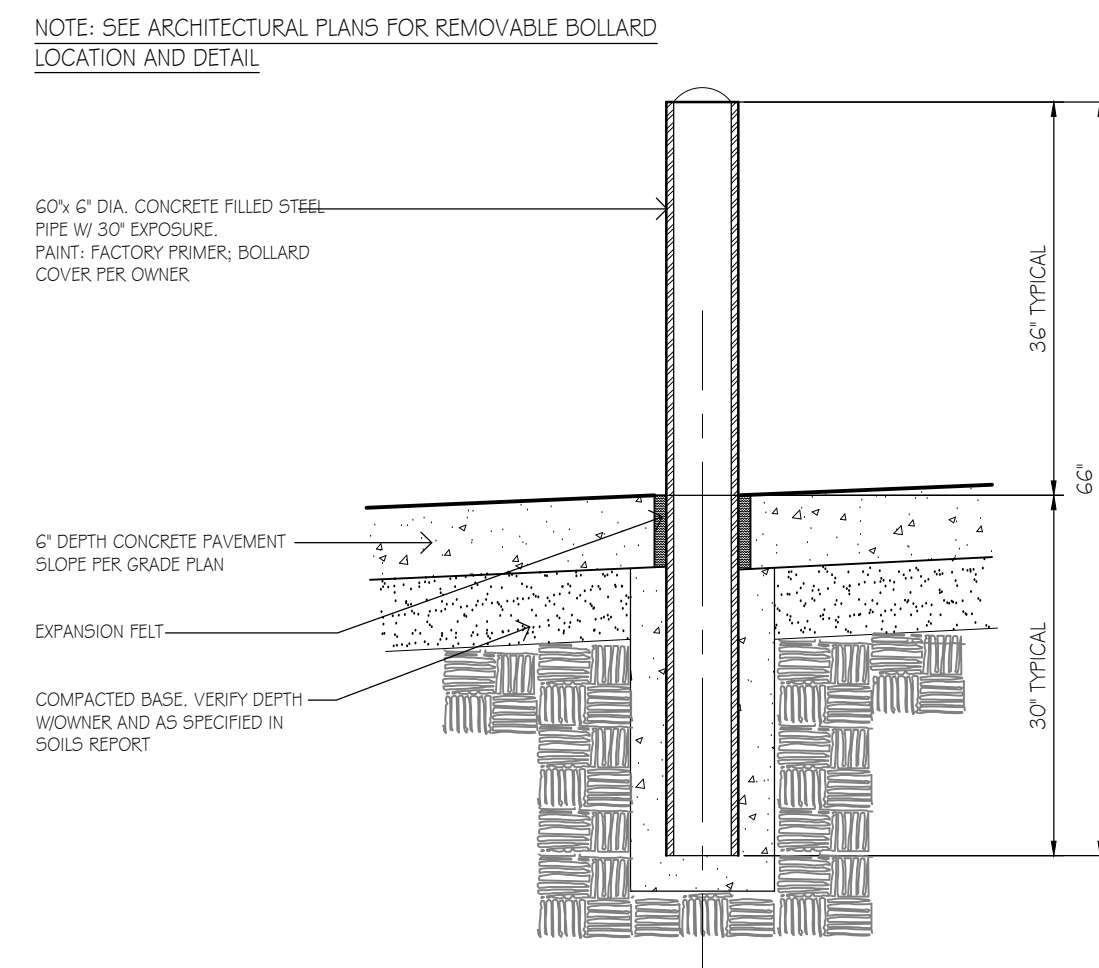
VACUUM ISLAND DETAILS
NOT TO SCALE



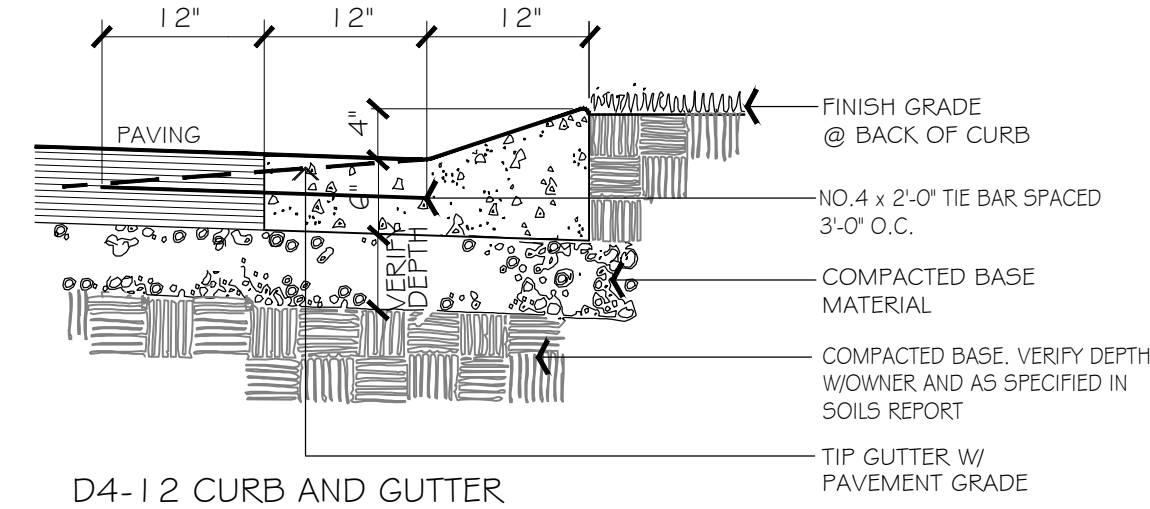
7 | SIDEWALK/ CURB DETAIL
C500 | NOT TO SCALE



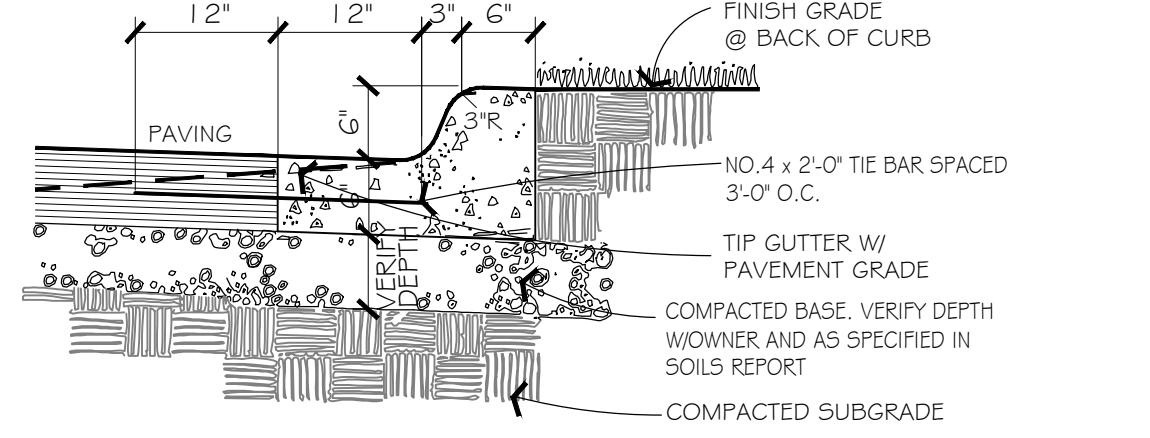
10 | CONCRETE APPROACH DETAIL
C500 | NOT TO SCALE



8 | 36" HEIGHT PIPE BOLLARD
C500 | SCALE - 3/8" = 1'-0"

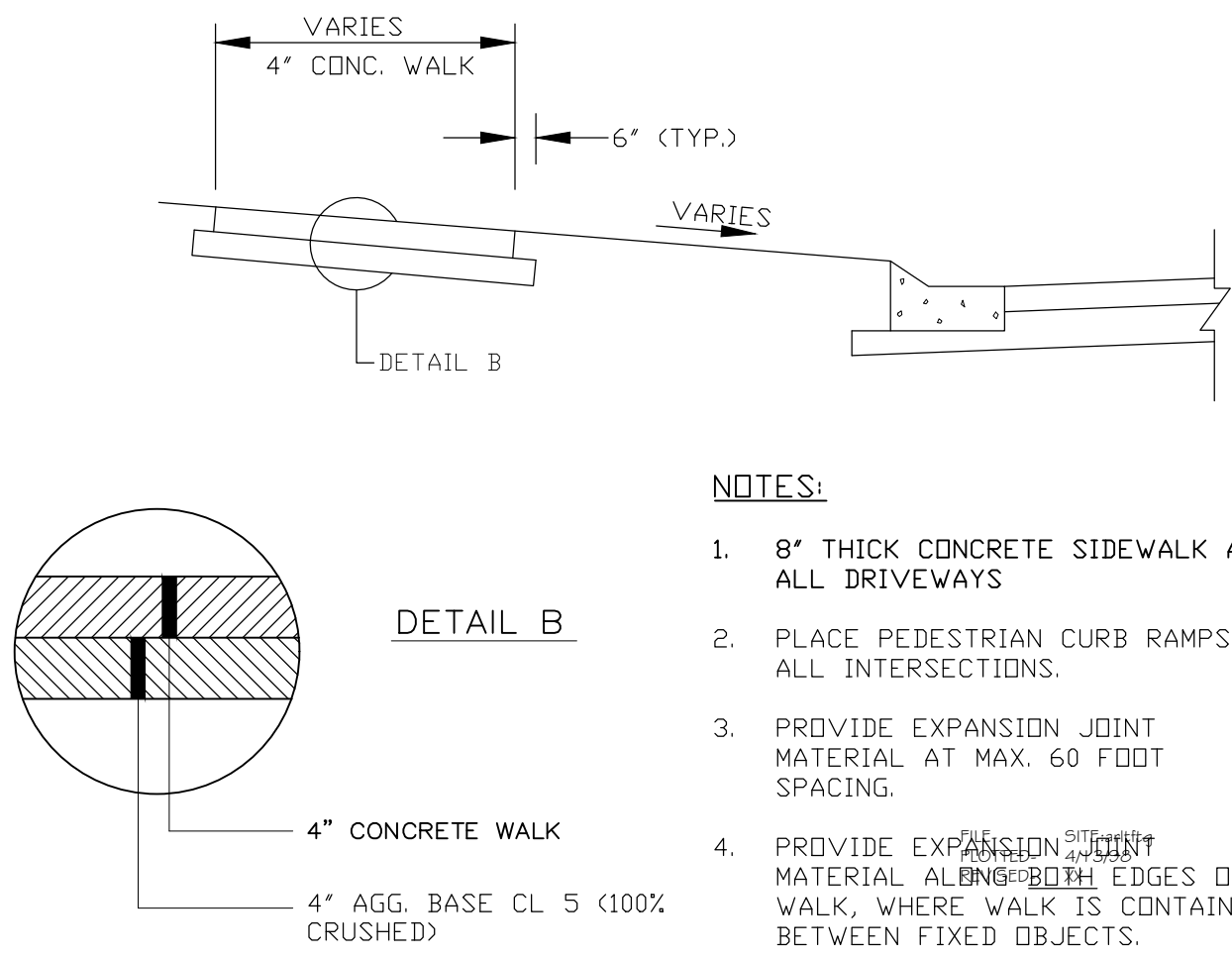


D4-12 CURB AND GUTTER

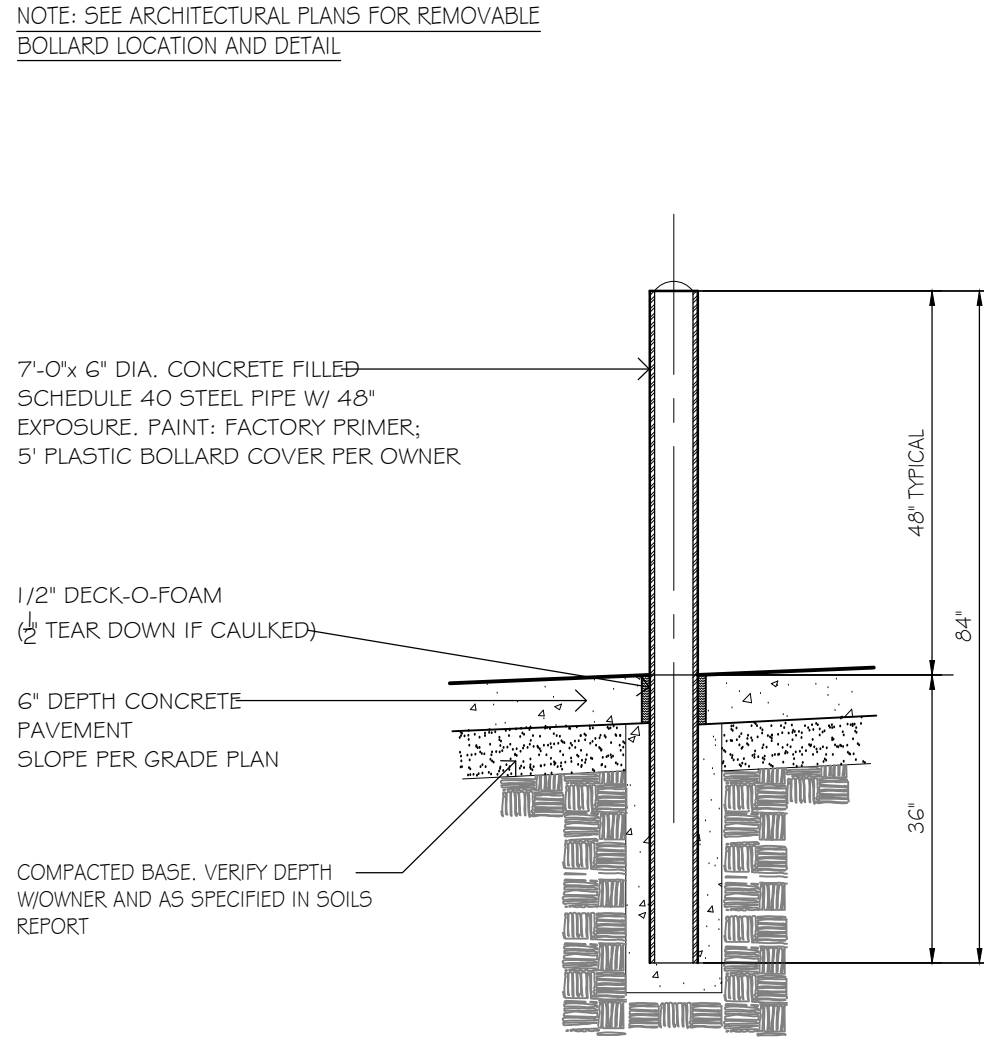


B6-12 CURB AND GUTTER

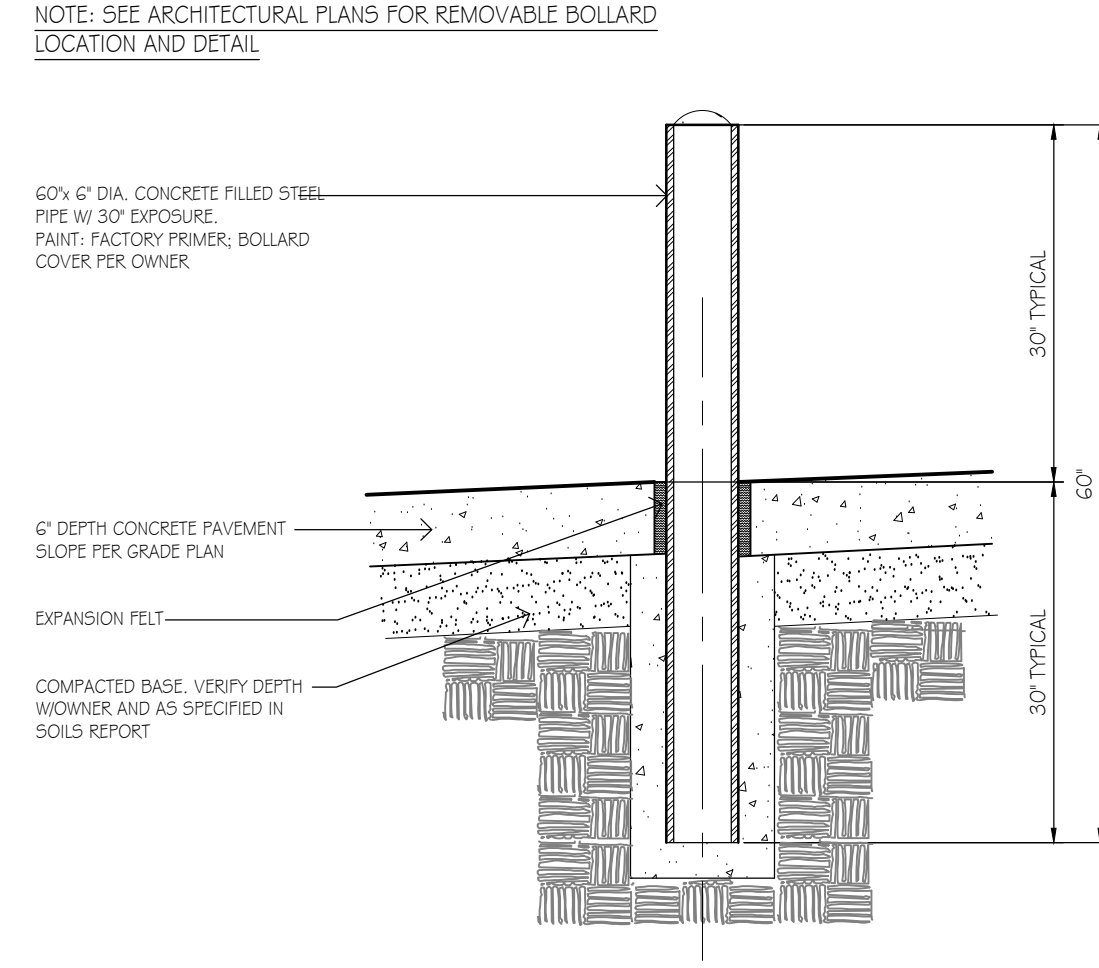
11 | CONCRETE CURB DETAIL
C500 | SCALE - 3/4" = 1'-0"



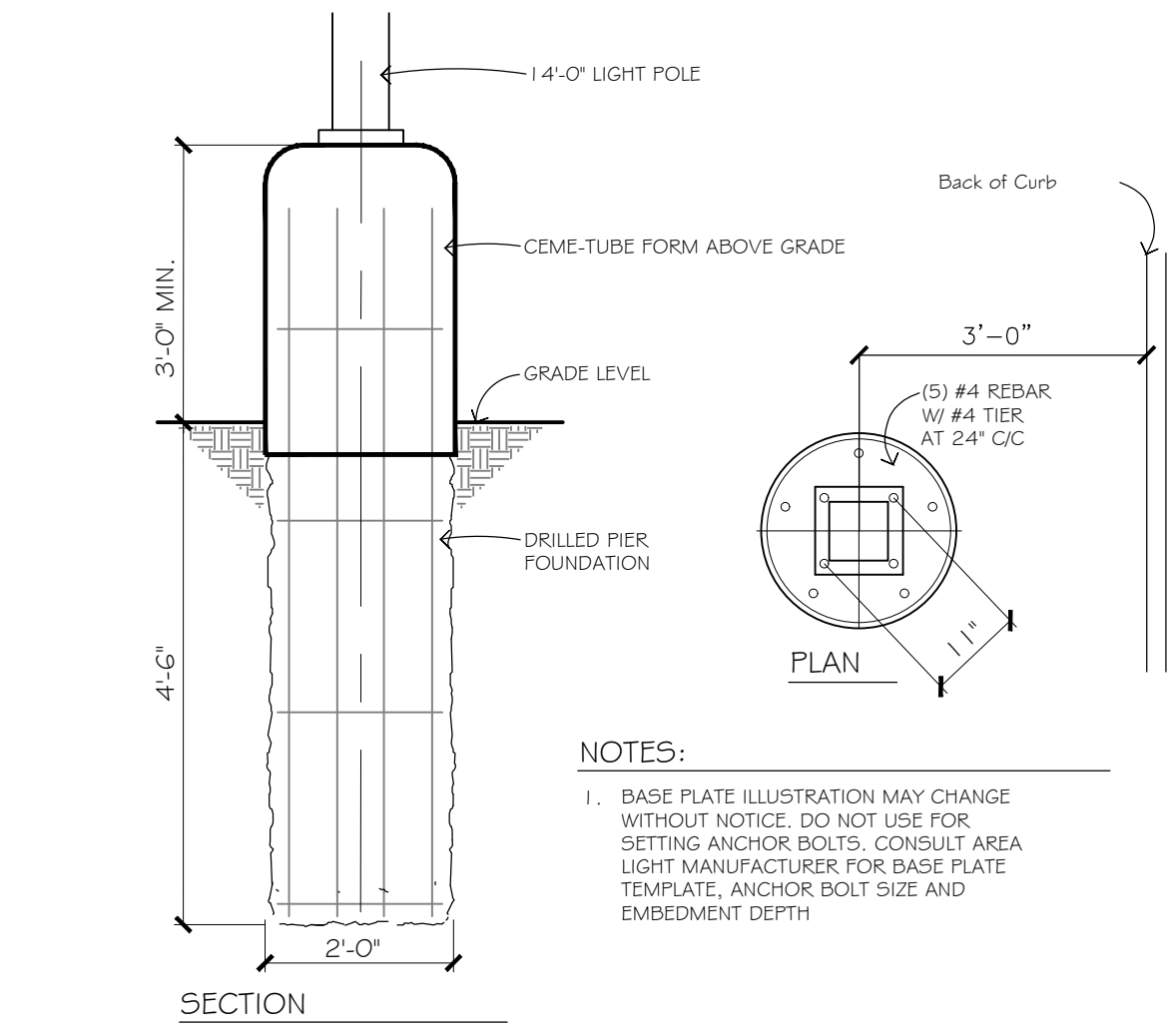
3 | CONCRETE WALK/ PAD DETAIL
C500 | NOT TO SCALE



6 | 48" HEIGHT PIPE BOLLARD
C500 | SCALE - 1/2" = 1'-0"



9 | 30" HEIGHT PIPE BOLLARD
C500 | SCALE - 3/8" = 1'-0"



12 | ROUND AREALIGHT FOUNDATION
C500 | SCALE - 1/2" = 1'-0"

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TRIP**

**Kwik
Star**

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3131 FEARHART CUREN Lane N
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763.383.8400
Fax 763.383.8440

LANDSCAPE ARCHITECT
Robert Mueller
00377
XXXXXX

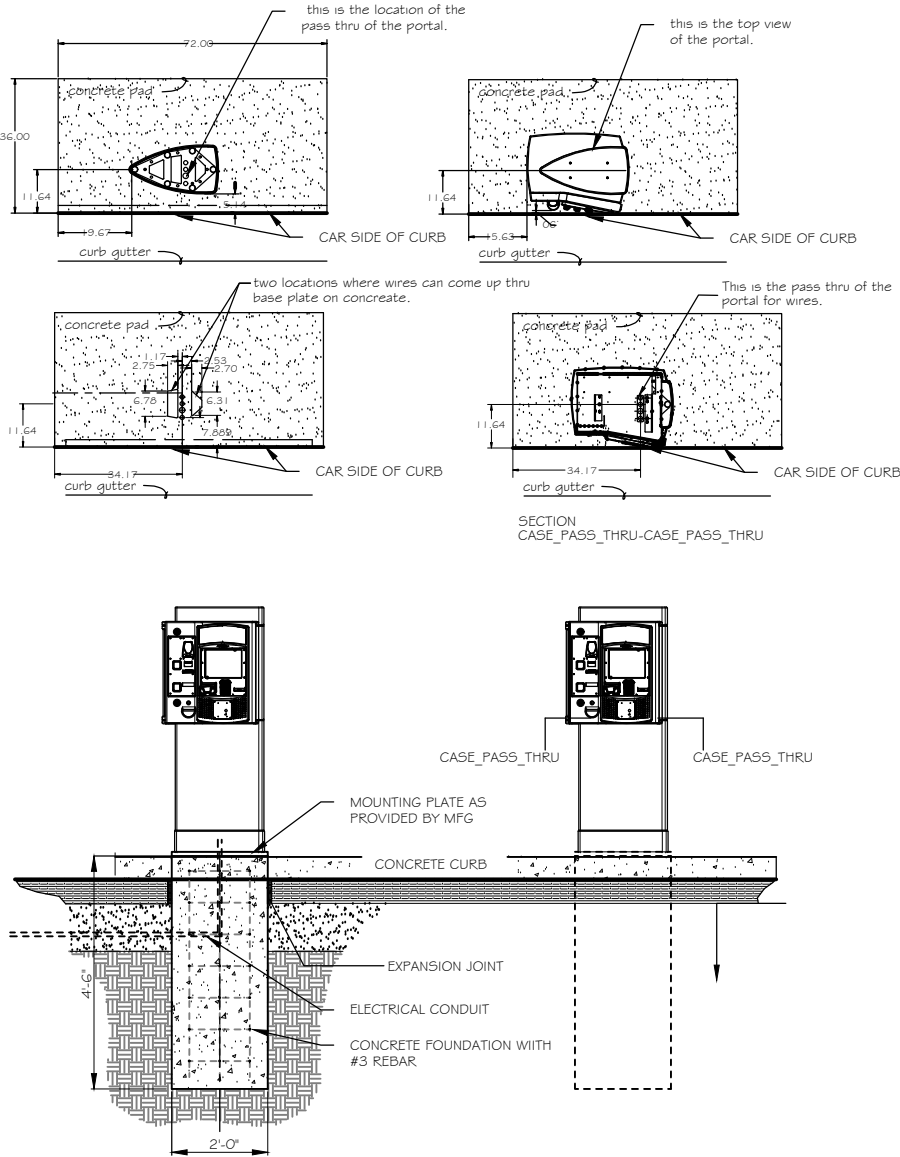
SITE PLAN DETAILS

CONVENIENCE STORE 1742

INDIANOLA, IOWA

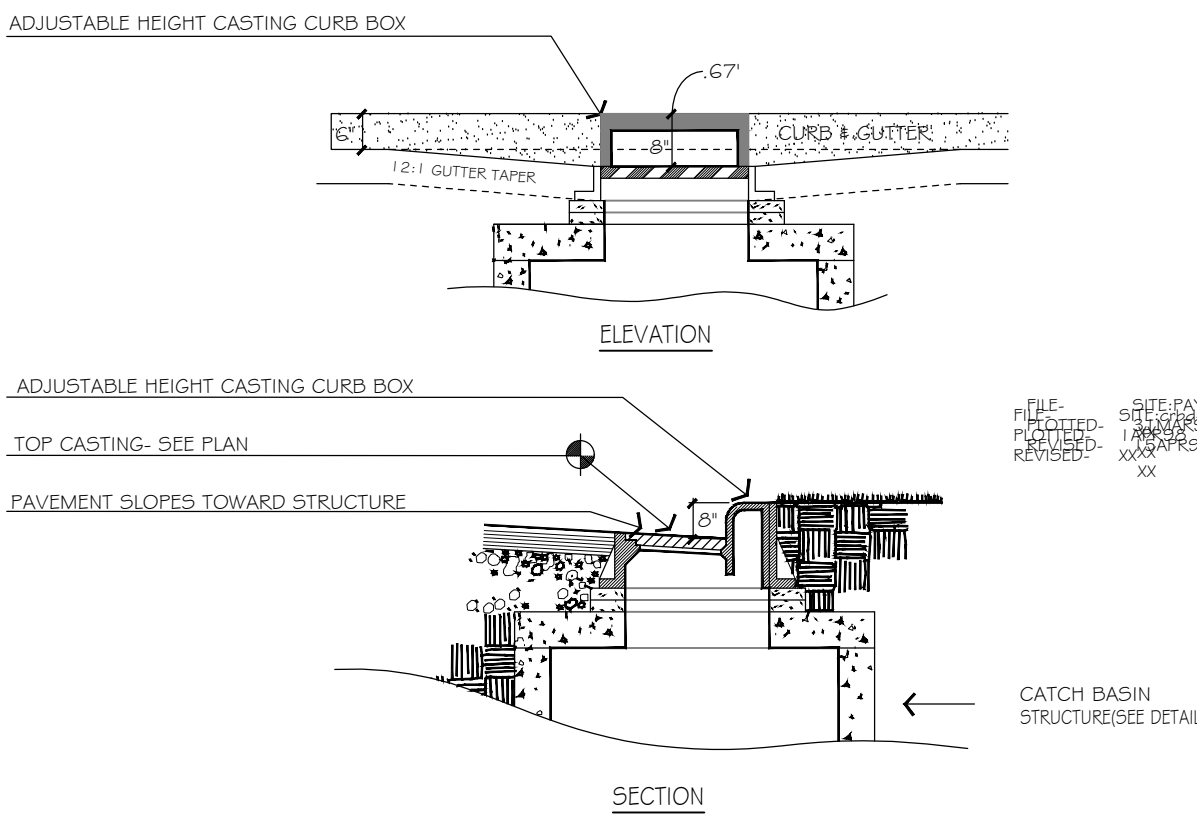
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-	08JUL24	REVIEW COMMENTS
-	16JUL24	TANK UPDATE
-	02AUG24	ACCESS SHIFT
-	24SEP24	CITY RESUBMITTAL
DRAWN BY		
SCALE		GRAPHIC
PROJ. NO.		24-1742
DATE		28JUN2024
SHEET		C500

INSITES 24-002 PM N.E.

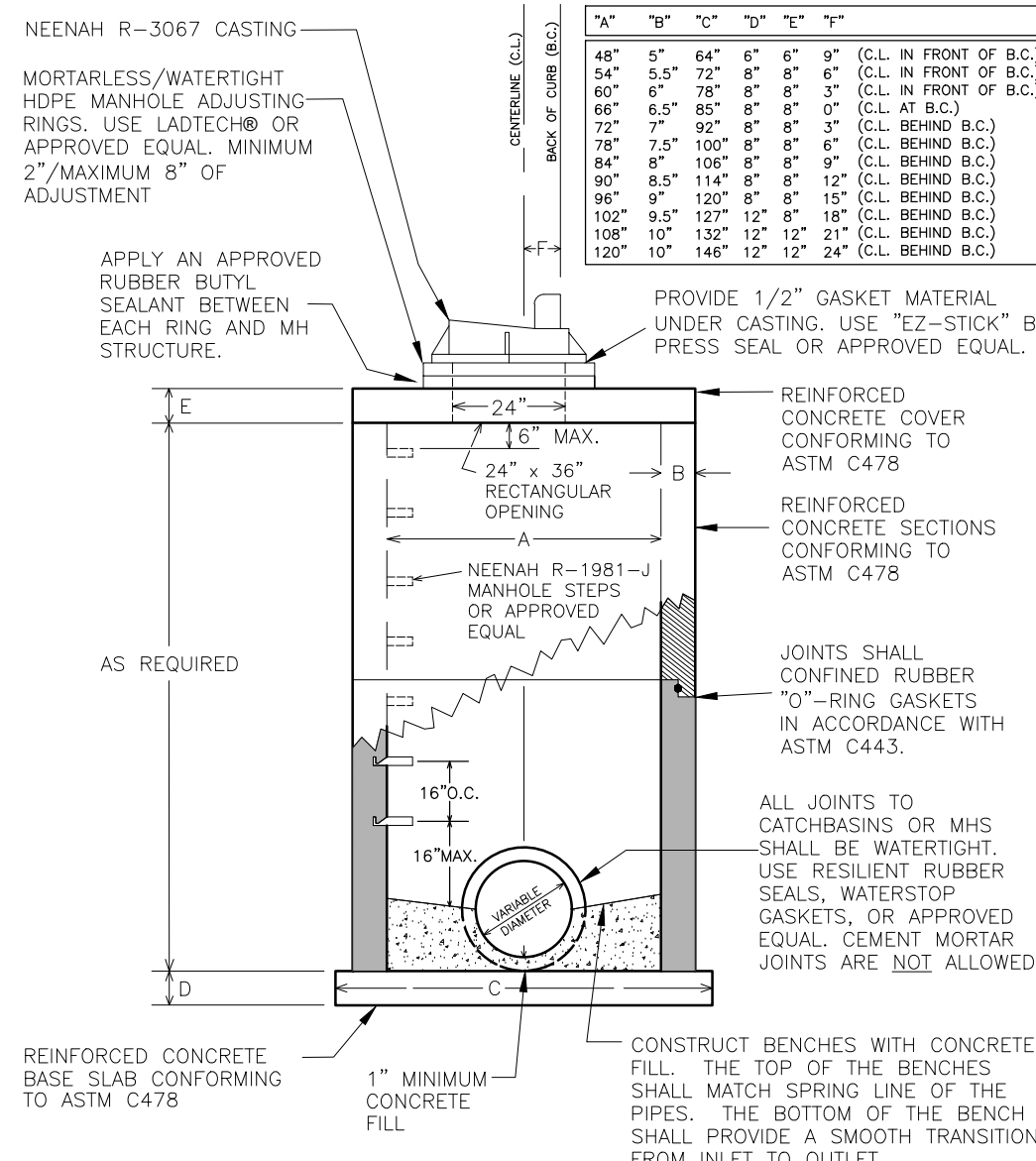


1 CARWASH PAY CONTROLLER
C501 NOT TO SCALE

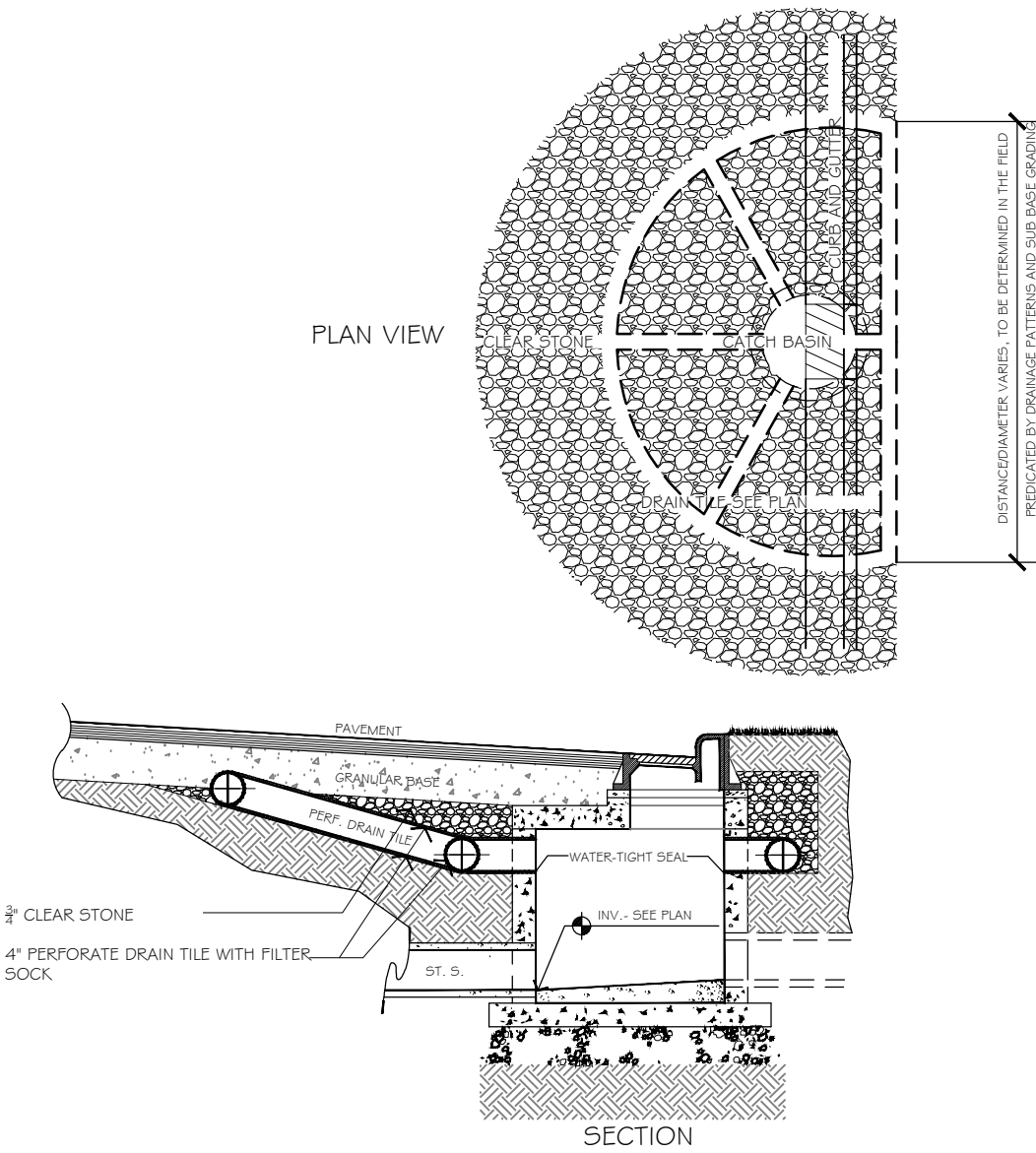
NOTE: THIS CURB CONSTRUCTION DETAIL IS TO BE USED AT LOW POINTS WHEN INDICATED ON PLAN. SEE GRADE PLAN FOR SPECIFIC CURB ELEVATIONS THAT REFLECT 8" DIFFERENCE FROM TOP OF CURB TO CASTING (SEE ACTUAL CB DETAILS FOR STRUCTURE INFO.)



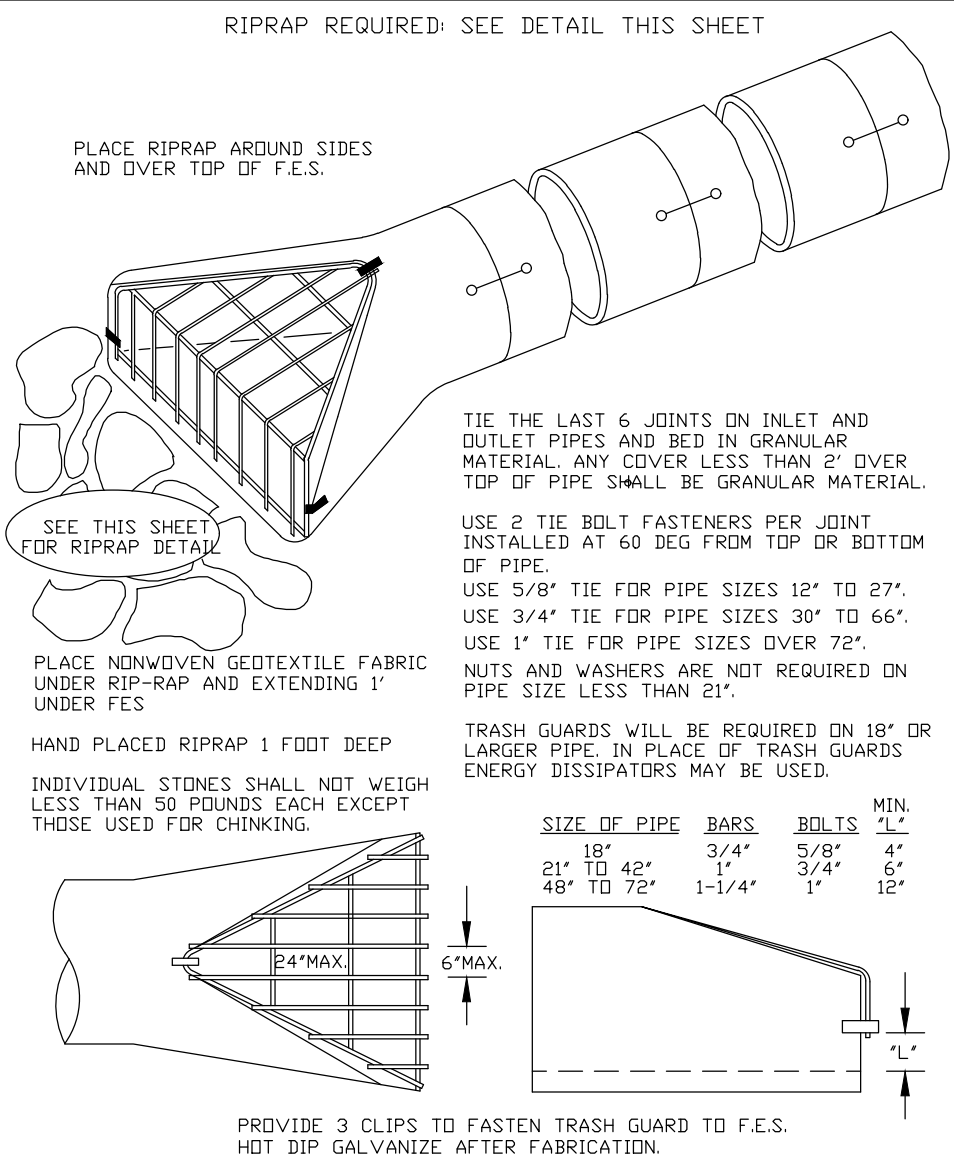
4 CURBLELINE DETAIL AT CATCHBASIN CURB/PAVEMENT LOW POINTS (SPECIFIC LOCATIONS)
C501 NOT TO SCALE



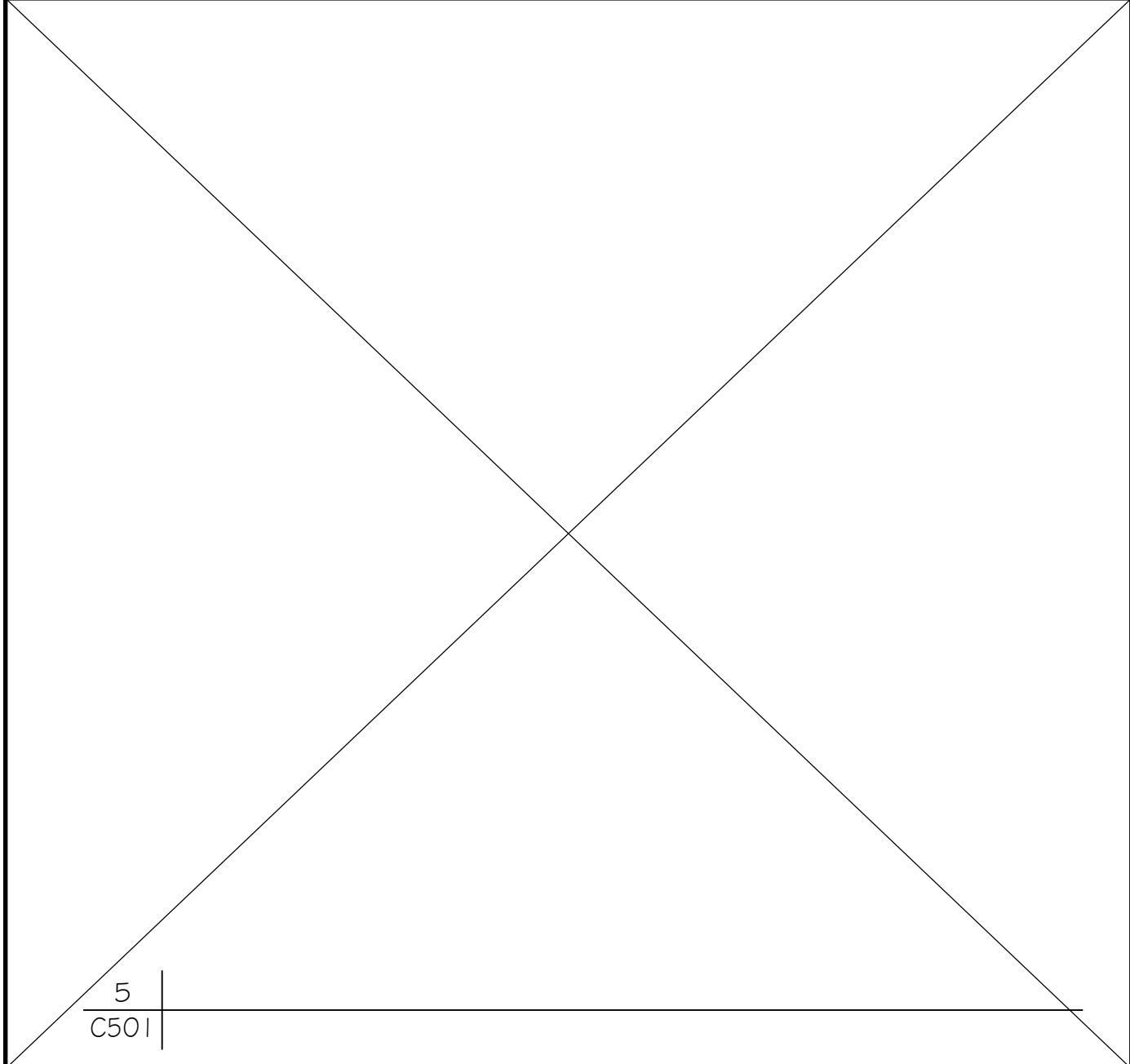
7 STANDARD STORM SEWER CATCHBASIN
C501 NOT TO SCALE



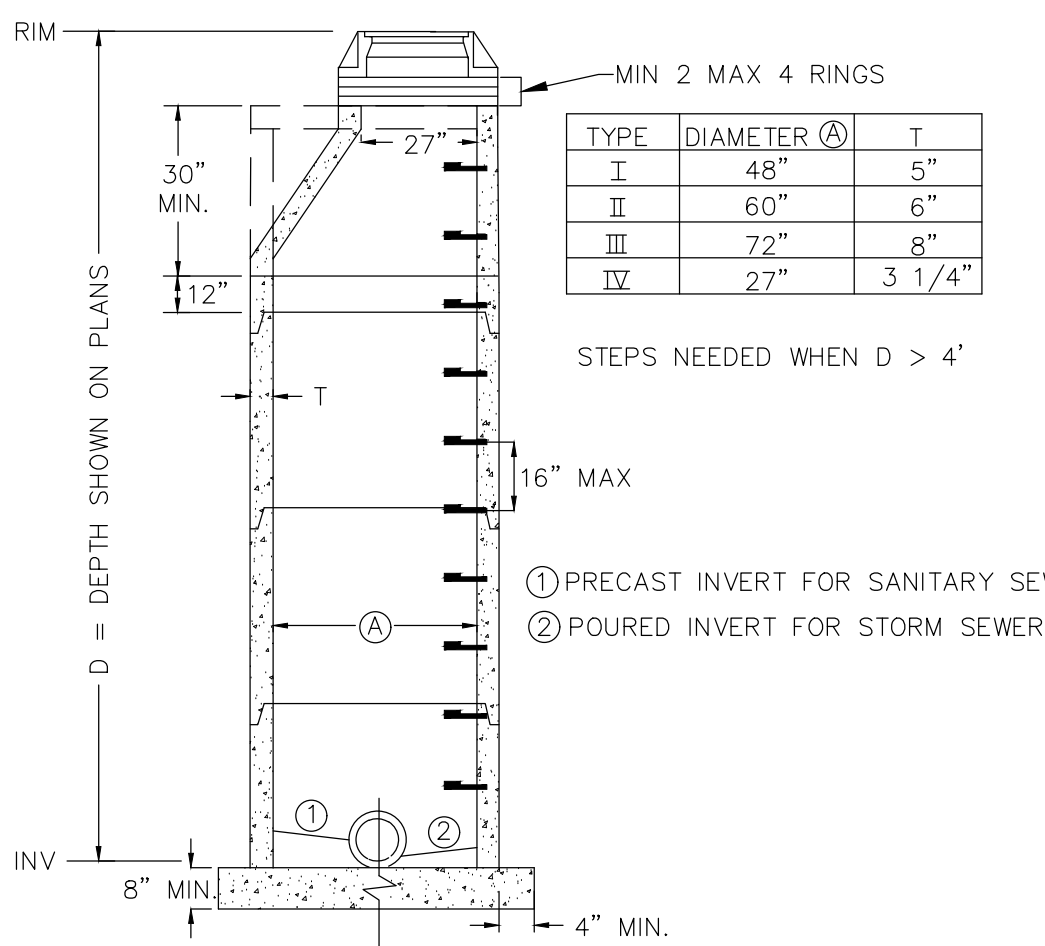
10 CATCH BASIN/CURB LINE DRAINTILE FOR "HEAVY SOIL" SITES
C501 NOT TO SCALE



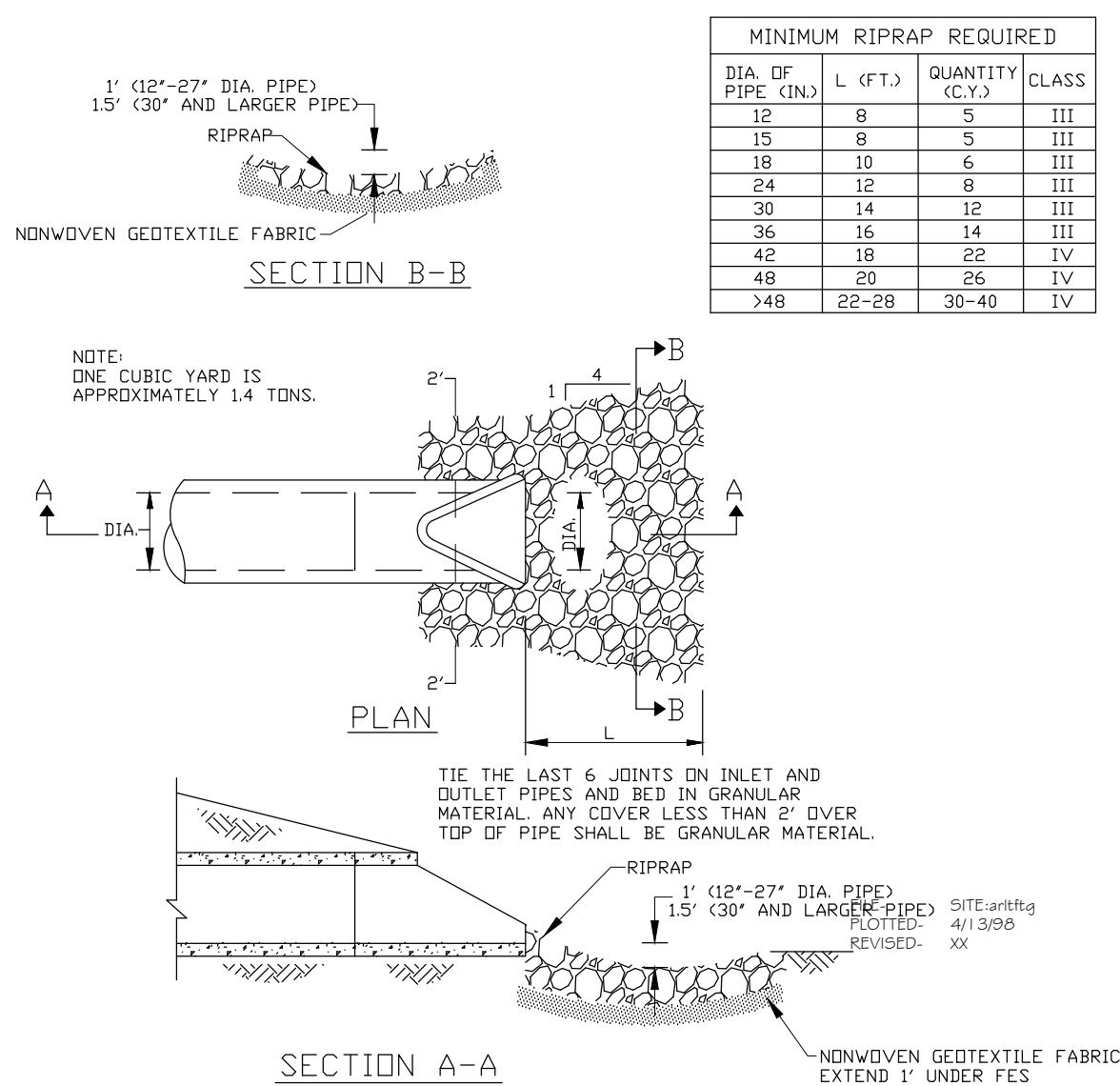
2 FLARED END SECTION WITH TRASH GUARD
C501 NOT TO SCALE



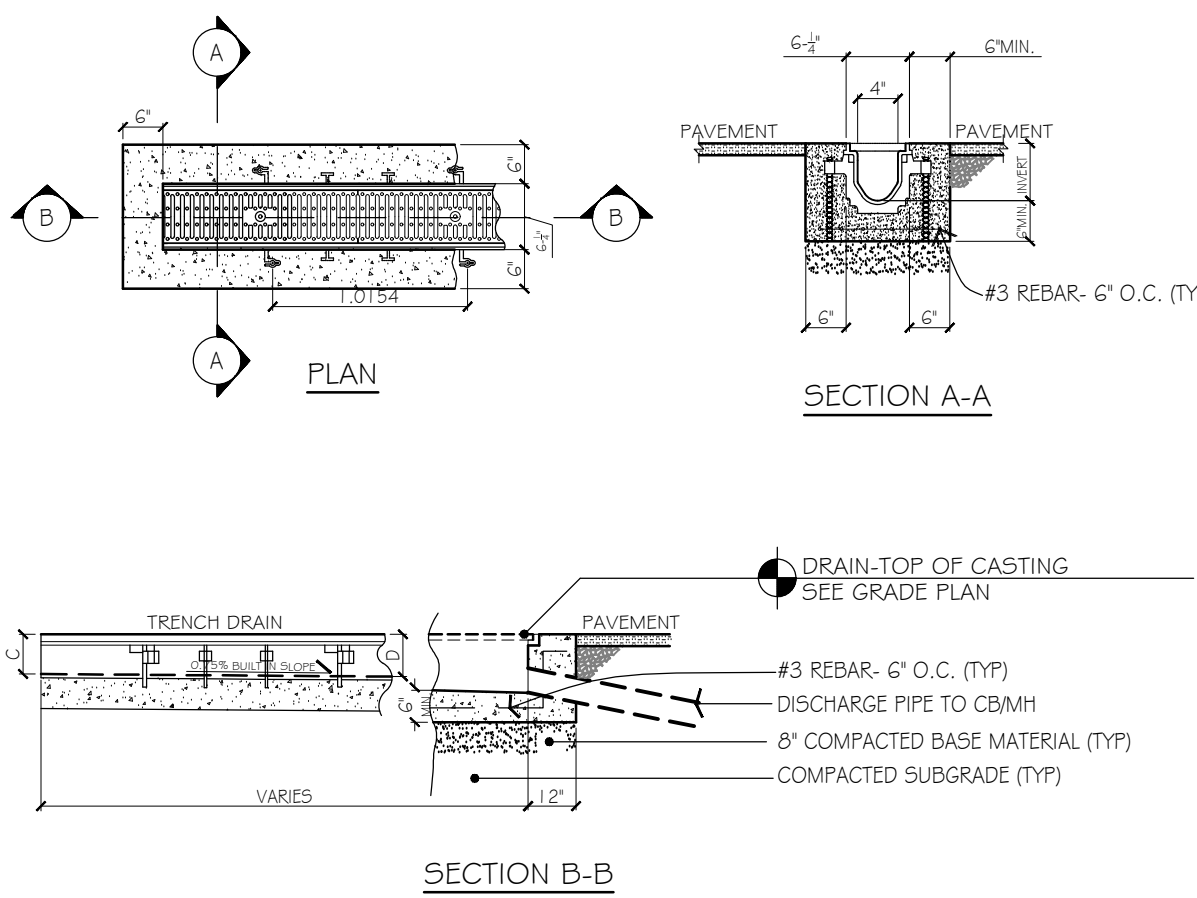
5
C501



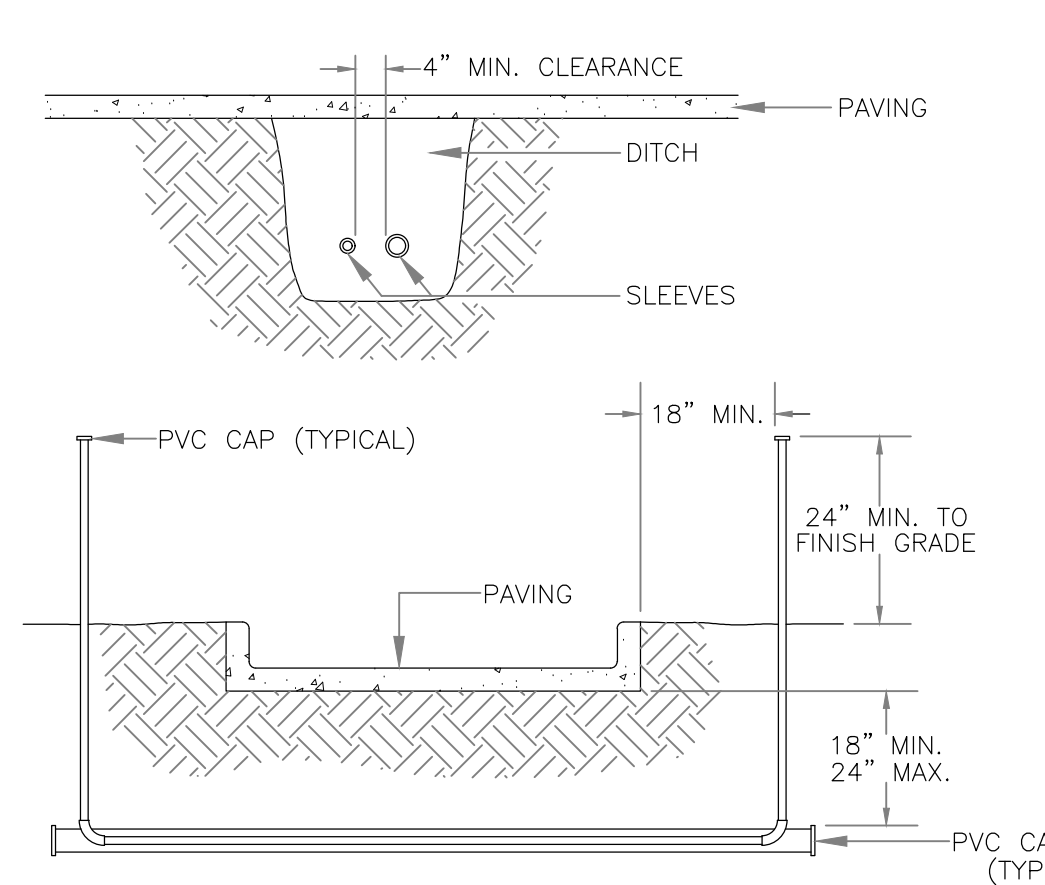
8 PRECAST REINFORCE CONC. MANHOLE
C501 NOT TO SCALE



3 RIP RAP DETAIL FOR FLARED END SECTIONS
C501 NOT TO SCALE



6 Z 886 TRENCH DRAIN DETAIL
C501 SCALE - 1/4\"/>



- NOTES:
1. ALL PVC IRRIGATION SLEEVES TO BE SCH 40 PVC PIPE.
 2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
 3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE.
 4. MECHANICALLY TAMP TO 95% PROCTOR.

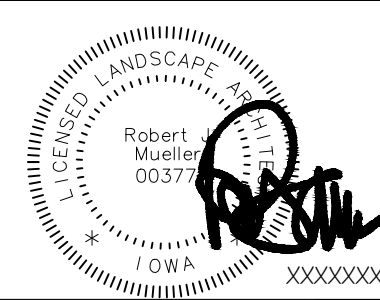
9 TYPICAL SLEEVING
C501 NOT TO SCALE

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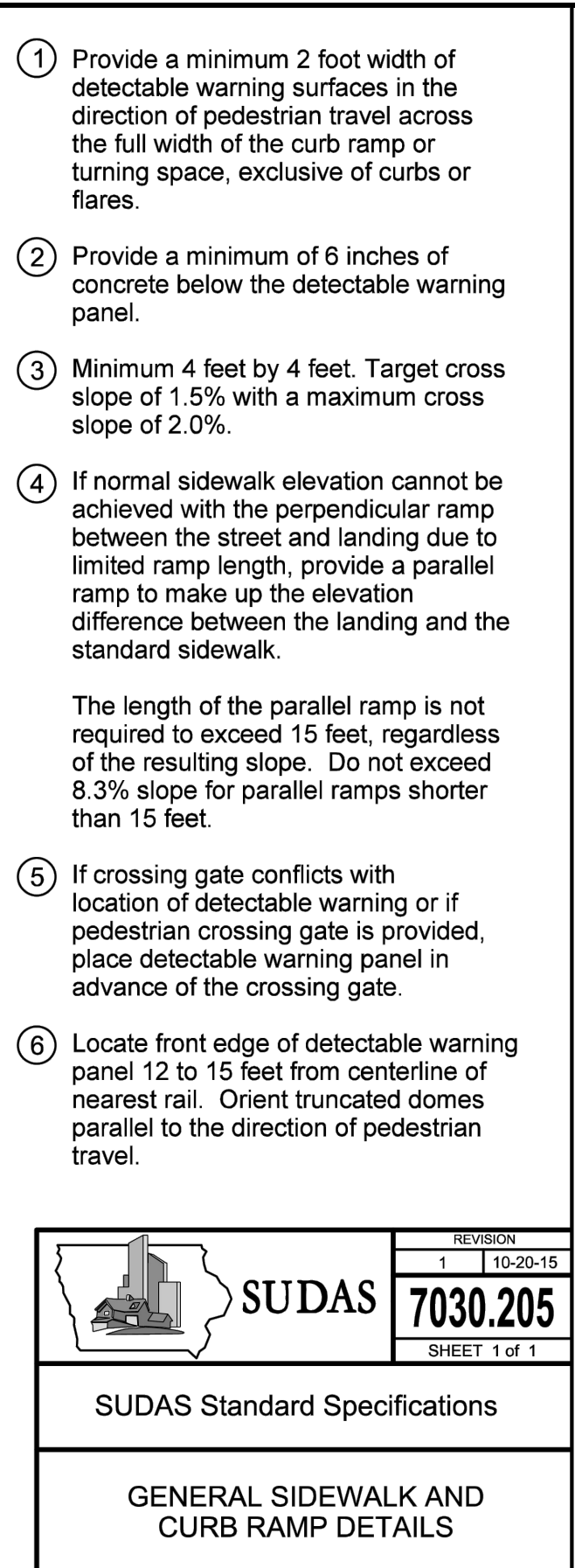
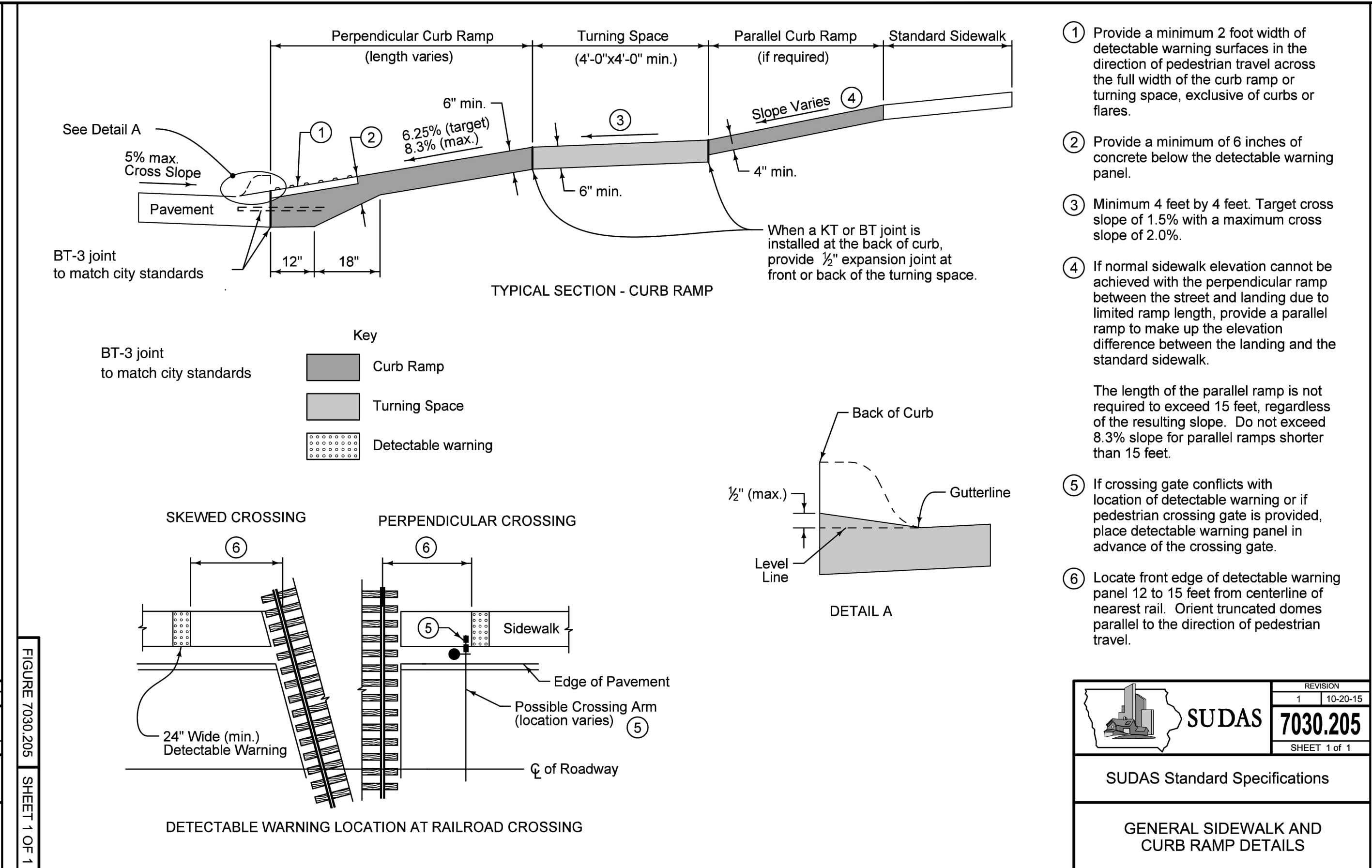
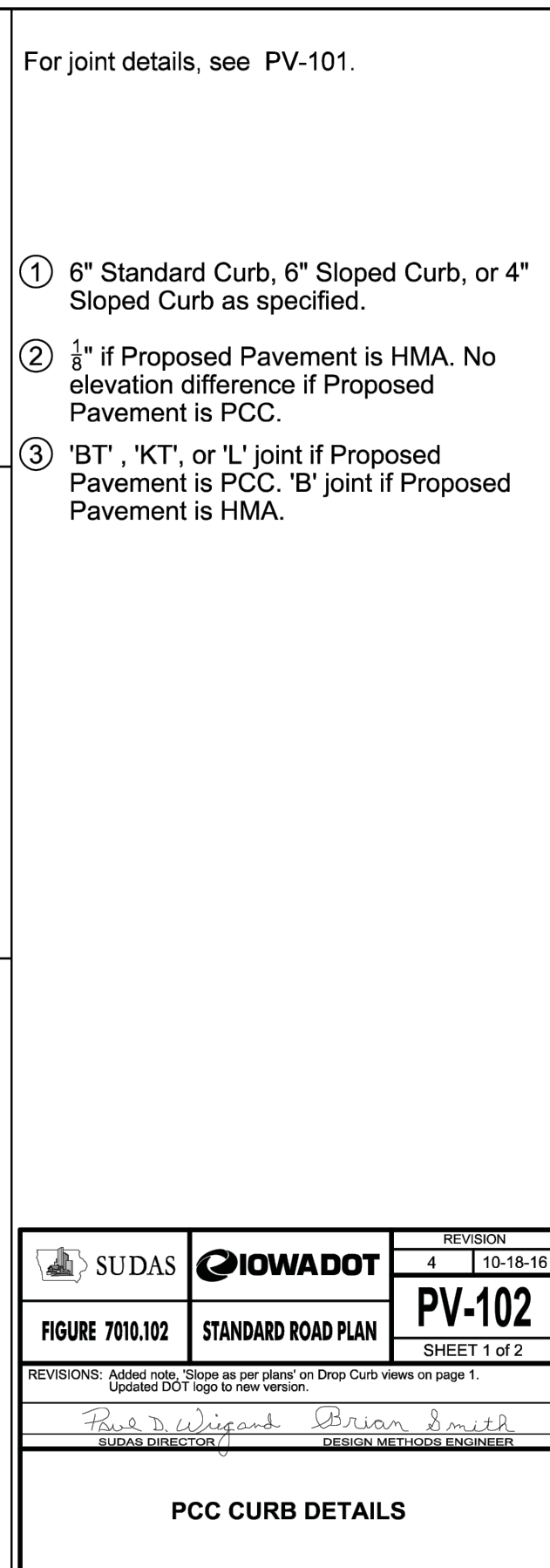
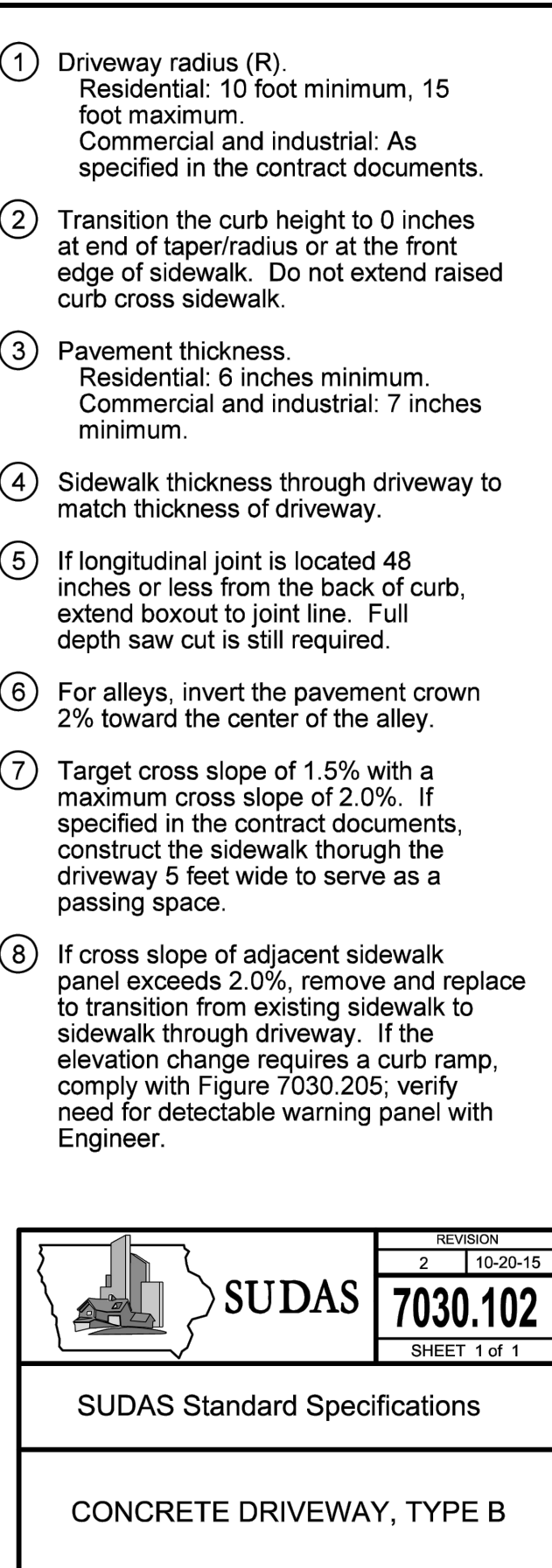
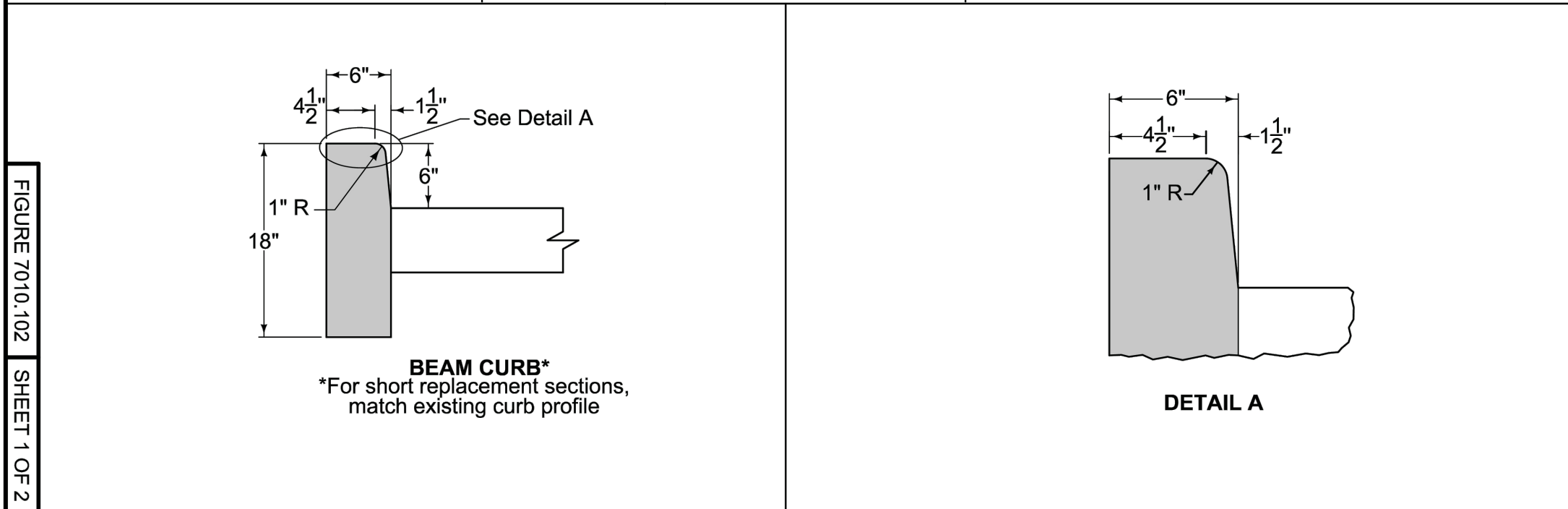
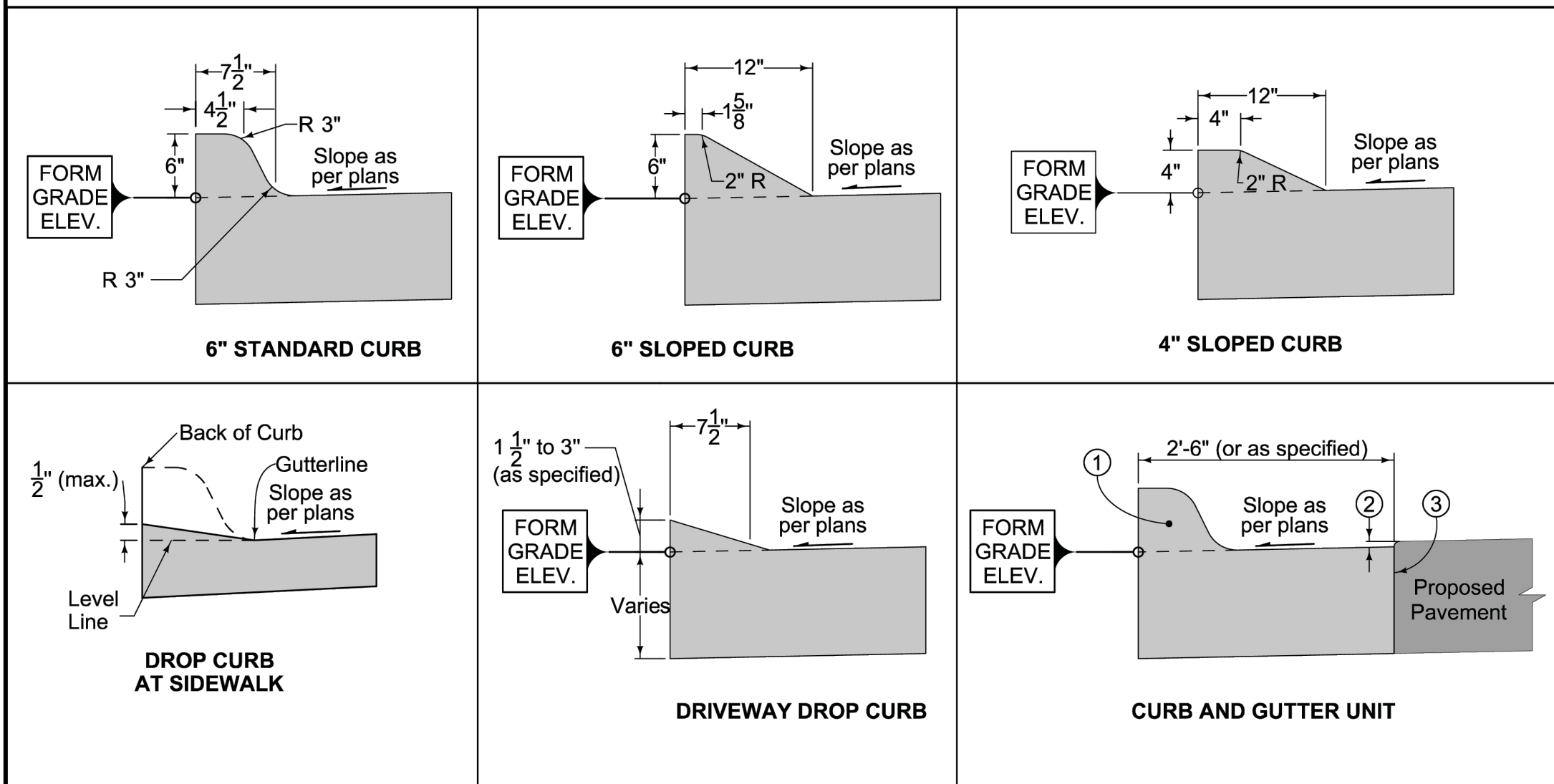
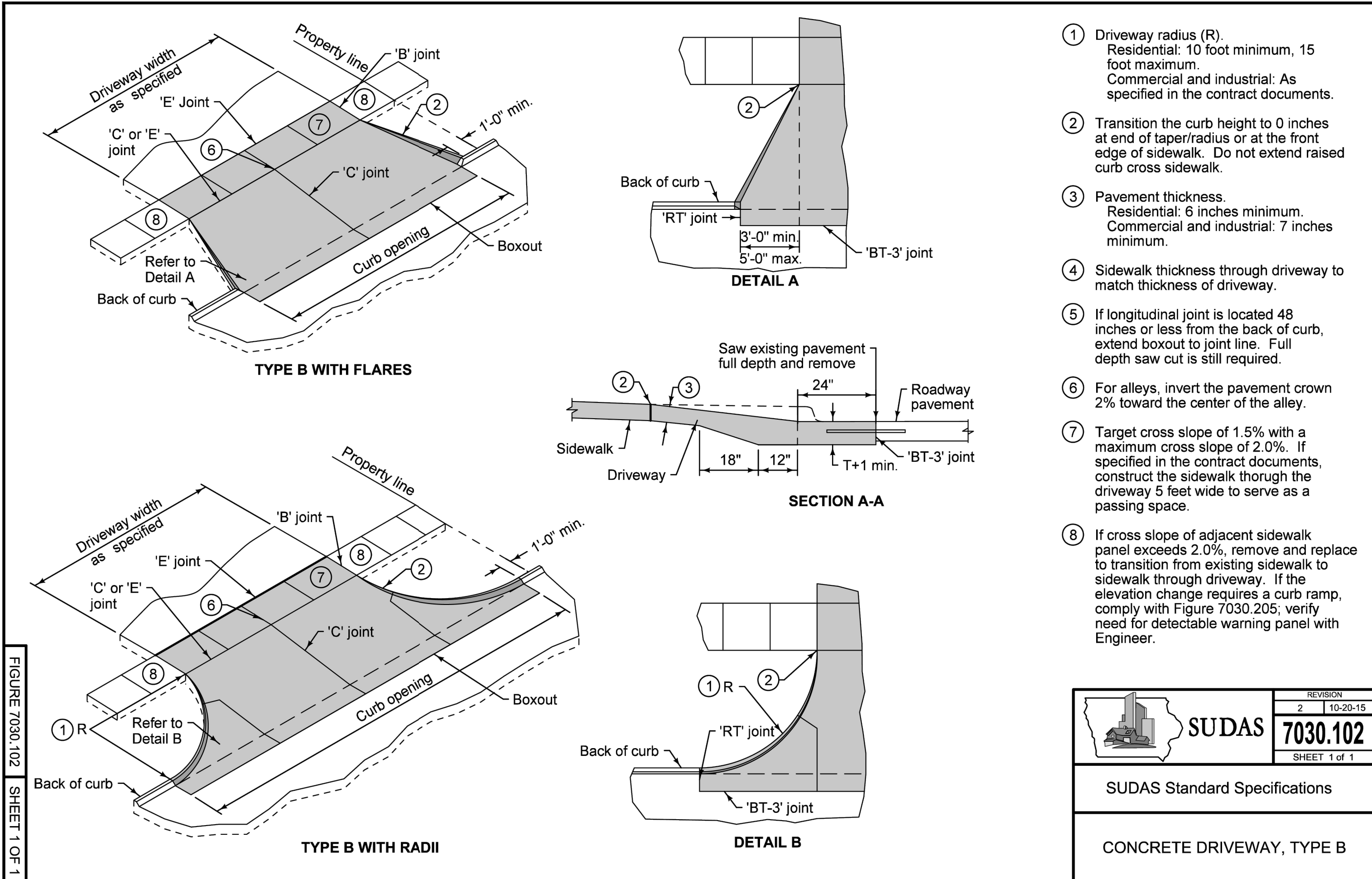
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Plymouth, MN 55447
763.383.8400
Fax: 763.383.8440



SITE PLAN DETAILS
CONVENIENCE STORE 1742
INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
-	28JUN24	SUBMITTAL
-	08JUL24	REVIEW COMMENTS
-	16JUL24	TANK UPDATE
-	02AUG24	ACCESS SHIFT
-	24SEP24	CITY RESUBMITTAL

DRAWN BY	SCALE	GRAPHIC
PROJ. NO.	24-1742	
DATE	28JUN2024	
SHEET	C501	



Kwik Trip

Kwik Star

KWIK TRIP, Inc.
P.O. BOX 2107
1626 OAK STREET
LACROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960

INSITES
SITE PLANNING LANDSCAPE ARCHITECTURE
3131 Fernbrook Lane N
Plymouth, MN 55447
763.383.8400
Fax 763.383.8440

UNDESIGNED LANDSCAPE ARCHITECT
Robert Mueller
00377
01/08

SUDAS SITE PLAN DETAILS

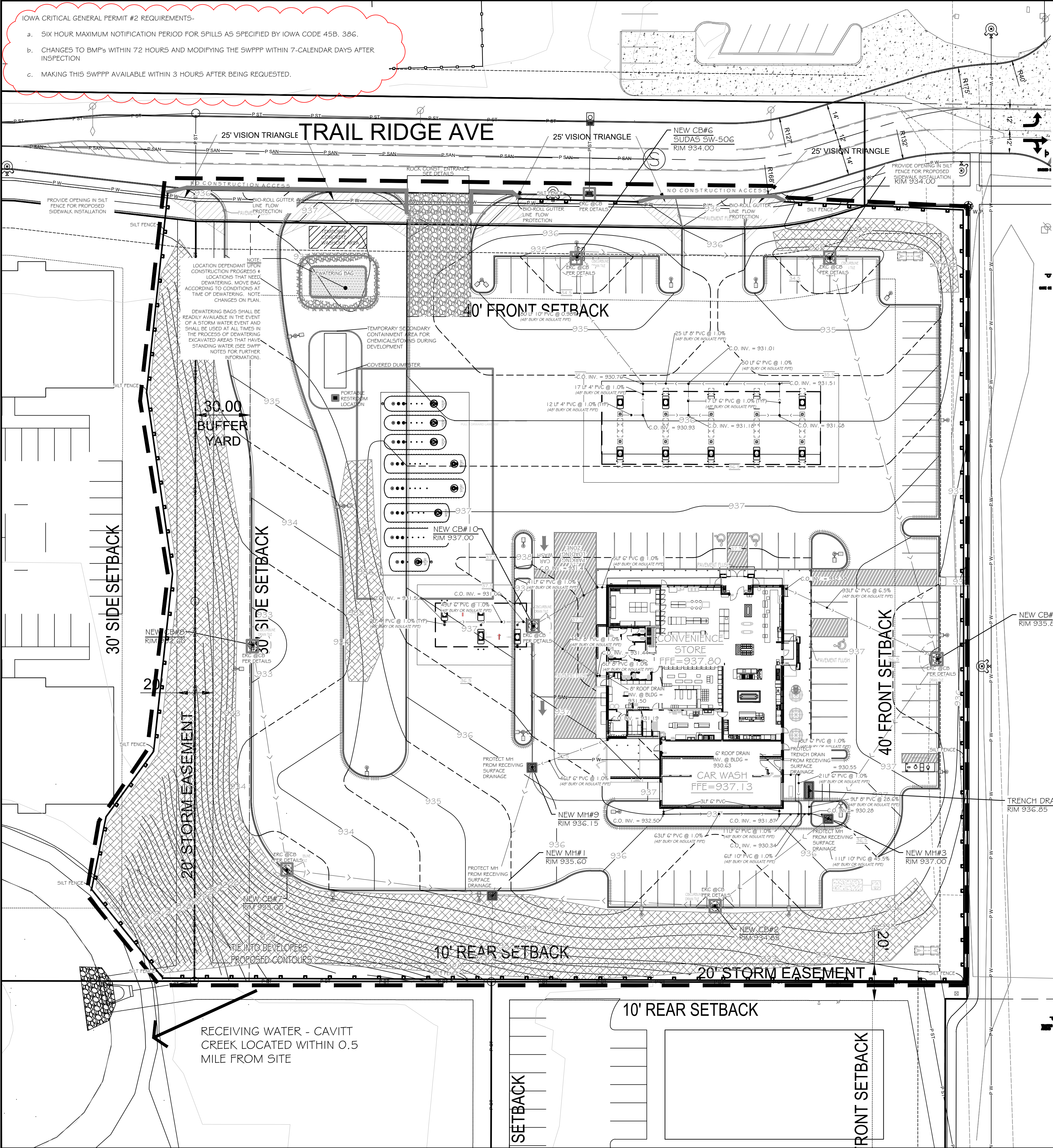
CONVENIENCE STORE 1742

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DRAWN BY: SCALE: PROJ. NO.: 24-1742 DATE: 28JUN2024 SHEET: **C502**

INSITES 24-002 PW N.D.



Estimated Preliminary Erosion Control Quantities		
(actual quantities subject to change)		
Item	Quantity	
Rock Construction Entrance	255	SQ. YD.
Silt Sack	11	TOTAL STRUCTURES
Erosion Control Blanket (basin)	3,948	SQ. YD.
Rip Rap	XXX	CU. YD.
Silt Fence	1,483	L. FT.
Rock Filtration Dikes	XXX	L. FT.
Bio Roll/Erosion Log	270	L. FT.

Note: for maintenance purposes contractor shall all sufficient quantities for repair and replacement of erosion control devices throughout all phases of the projects construction.

CONSTRUCTION SEQUENCE

- *INSTALL EROSION/SEDIMENT CONTROL MEASURES
- *INSTALL STORMWATER MANAGEMENT AND/OR FONDSEDIMENT BASINS
- *INSTALL STORM SEWER
- *INSTALL STRUCTURES
- *INSTALL PAVEMENTS
- *INSTALL SMALL UTILITIES (GAS, ELECTRIC, PHONE, CABLE, ETC.)
- *INSTALL LAWN LANDSCAPE
- *FLUSH STORM SEWER
- *REMOVE EROSION CONTROL MEASURES ONLY AFTER ALL PAVEMENTS HAVE BEEN INSTALLED AND ALL SOILS HAVE BEEN STABILIZED

CONTACT DATE BYOM
KWIK TRIP INC
1626 OAK STREET
LACROSSE, WI 54602
608-791-7448

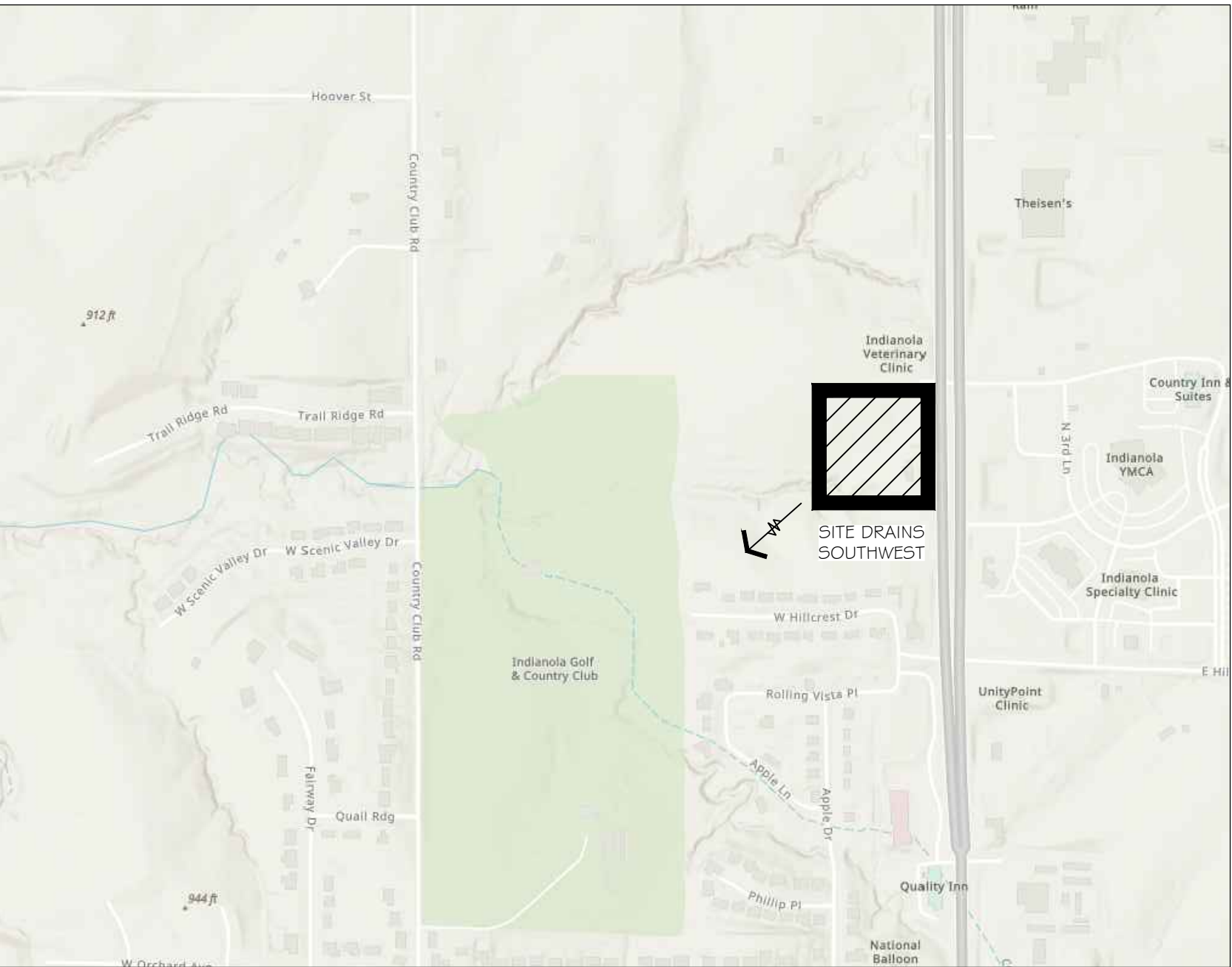
ALL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND CONSTRUCTED IN ACCORDANCE TO STATE AND DNR TECHNICAL STANDARDS

ALL SILT FENCE MUST BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE CITY PRIOR TO ANY SITE WORK.

-SITE EROSION CONTROL MEASURES MUST BE IN PLACE AT ALL TIMES. SHOULD DEVICES BE REMOVED FOR WORK ACCESS, THEY SHALL BE REINSTALLED AT THE END OF EACH WORK DAY UNTIL PAVEMENTS HAVE BEEN INSTALLED AND ALL LANDSCAPE AREAS HAVE BEEN MULCHED AND SODDED. SEEDED AREAS MUST EXHIBIT MINIMUM OF 70% SOIL COVERAGE.

-REFER TO THE SWPPP PLAN NOTES AND DETAIL SHEETS C601-603 FOR MORE INFORMATION.

PROJECT DATA	
PROJECT START DATE	MARCH 2025
PROJECT COMPLETION DATE	OCTOBER 2025
SITE AREA DATA	
TOTAL SITE AREA	176,692 SF
PRE-CONSTRUCTION IMPERVIOUS AREA	0 SF
POST-CONSTRUCTION IMPERVIOUS AREA	118,839 SF
APPROX. AREA OF LAND DISTURBANCE	100%
SITE RUNOFF COEFFICIENT (CN)	
PRE-CONSTRUCTION	74
POST-CONSTRUCTION	90
SOIL DATA	
SURFACE SOIL	SHELBY ADAIR CLAY LOAM
SUB-SURFACE SOIL	SHARPSBURG SILTY CLAY LOAM
DEPTH OF GROUND WATER	--FT
DOWN-STREAM TRIBUTARY	CAVITT CREEK WATERSHED



CONTRACTOR/SUBCONTRACTOR CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE AS PART OF THIS CERTIFICATION. FURTHER, BY MY SIGNATURE, I UNDERSTAND THAT I AM BECOMING A CO-PERMITTEE, ALONG WITH THE OWNERS) AND OTHER CONTRACTORS AND SUBCONTRACTORS SIGNING SUCH CERTIFICATIONS, TO THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2 FOR STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY FOR CONSTRUCTION ACTIVITIES AT THE IDENTIFIED SITE. AS A CO-PERMITTEE, I UNDERSTAND THAT I, AND MY COMPANY, ARE LEGALLY REQUIRED UNDER THE CLEAN WATER ACT AND THE CODE OF IOWA, TO ENSURE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN DEVELOPED UNDER THIS NPDES PERMIT AND THE TERMS OF THE NPDES PERMIT.

NAME (PRINTED OR TYPED): _____

TITLE: _____

SIGNATURE: _____

DATE: _____

NAME OF CONTRACTING FIRM: _____

ADDRESS: _____

CITY, STATE, ZIP CODE: _____

TELEPHONE NUMBER: _____

ADDRESS OF THE SITE: _____

SWPPP DESIGN CERTIFICATION STATEMENT

THESE PLANS MEET ALL CURRENT MINIMUM MANDATORY REQUIREMENTS OF THE DNR FOR SWPPPS IN CONNECTION WITH THE ISSUANCE OF A NPDES GENERAL PERMIT NO. 2, AS STATED IN THE SUMMARY GUIDANCE FOR THE PERMIT.

THIS PLAN COMPLIES WITH THE MINIMUM MANDATORY REQUIREMENTS OF THE JOINT APPLICATION FORM, PROTECTING IOWA WATERS, IOWA DEPARTMENT OF NATURAL RESOURCES AND THE U.S. ARMY CORPS OF ENGINEERS.

I HEREBY CERTIFY THAT THIS PLAN COMPLIES WITH ALL OTHER APPLICABLE STATE OR FEDERAL PERMIT REQUIREMENTS IN EXISTENCE AT THE TIME OF THE APPLICATION AND ALL REQUIREMENTS OF THE CITY CODE FOR CONSTRUCTION.

NAME: ROBERT J. MUELLER
TITLE: LICENSED LANDSCAPE ARCHITECT

EROSION CONTROL BLANKET ON SIDE SLOPES OF 3:1 OR GREATER DOUBLE NETTED LIGHT DUTY

CONTRACTOR/SUBCONTRACTOR CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

NAME (PRINTED OR TYPED): _____

TITLE: _____

SIGNATURE: _____

DATE: _____

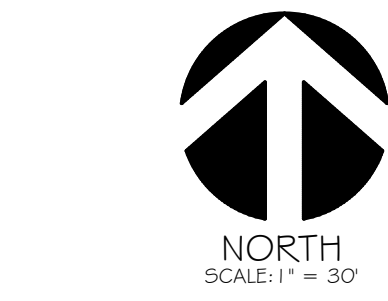
NAME OF COMPANY, IF APPLICABLE: _____

ADDRESS: _____

CITY, STATE, ZIP CODE: _____

TELEPHONE NUMBER: _____

ADDRESS OF THE SITE: _____



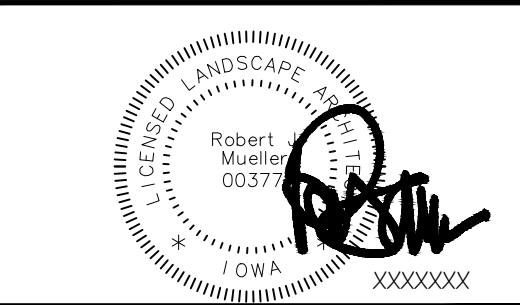
PLOTTING NOTE: PLANS PLOTTED TO 11x17 SHEET SIZE ARE 1/2" SCALE- 1"=60'

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INSITES
SITE PLANNING LANDSCAPE ARCHITECTURE
3131 Fairview Lane N
Plymouth, Minnesota 55447
763.383.8400
fax 763.383.8440



EROSION CONTROL PLAN
CONVENIENCE STORE 1742
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GENERAL STORMWATER POLLUTION PREVENTION:

Apply for and obtain all necessary permits.

Stormwater Pollution Prevention Plan (SWPPP): The SWPPP includes the narrative, Plan Sheets CG00-G03, and the Stormwater Management Calculations. Keep a copy of the SWPPP, all changes to it, and inspections and maintenance records at the site during the construction. During the construction process the SWPPP will have to be amended to reflect the changes performed by the contractor. The owner shall be aware of the amendments prior to changes made in the SWPPP. All notes, photographs, recorded dates, sketches, references, and diagrams will have to be recorded and made available as part of the SWPPP permit.

Individual(s) preparing the SWPPP for the project, overseeing implementation of the SWPPP, revising and amending the SWPPP, and at least one individual on the project performing installation, inspection, maintenance, and repairs of BMPs must be trained. The training must be done by a local, state, federal agency, professional organization, or other entities with expertise in erosion prevention, sediment control, or permanent Stormwater management. Training information and those certified must be noted in the SWPPP. Documentation of this information must be included in the SWPPP or made available within 72 hours. All trained individuals must be identified, including DESIGNER, INSTALLER and INSPECTOR.

Responsible Parties: The contractor must designate a person knowledgeable and experienced in the application of erosion prevention and sediment control BMPs who will oversee the implementation of the SWPPP, and the installation, inspection, and maintenance of the erosion prevention and sediment control BMPs before and during construction.

CONTACT NATE BYOM

KWIK TRIP INC
1626 OAK STREET
LACROSSE, WI 54602
608-791-7448

The owner is responsible for identifying who will have responsibility for the long term operation and maintenance of the permanent stormwater management systems.

SITE INVESTIGATION, INSTALLATION, IMPLEMENTATION:

1. Prior to any work, contractor shall visit the site, document existing conditions as necessary (photos, notes, etc) and note existing drainage patterns on and off site that are related to the project. These notes shall be part of the SWPPP.
2. Install all temporary erosion and sediment control measures including silt fence, rock construction entrance(s), erosion control berms, rock filters, silt sacks, rock /earth berms, and sedimentation basins. Protect all receiving waters, catch basins, ditches, inlets etc. in and around the site. All protective and preventative measures must be in place and inspected prior to beginning site cleanup, grading, or other land-disturbing activity.
3. Prior to beginning site cleanup and grading, protect all storm sewer inlets that receive runoff from disturbed areas. In order to prevent sediment from leaving the site and entering the downstream storm sewer system, seal all storm sewer inlets that are not needed for site drainage during construction. Protect all other storm sewer inlets by installing sediment control devices, such as silt sacks, or rocked filtration log/waters. Straw bales or fabric under the grates are not acceptable forms of inlet protection. Protect new storm sewer inlets as they are completed. Maintain storm sewer inlet protection in place until all sources with potential for discharging to the inlets are stabilized.
4. Before beginning construction, install a TEMPORARY ROCK CONSTRUCTION ENTRANCE at each point where vehicles exit the construction site. When at all possible contractor shall designate only one access point for vehicles entering and exiting the site. The rock on the entrance will have to be inspected daily and replaced or rock supplemented by the contractor when over 50% of the voids in the rock are filled. A cleaning station should be made available to drivers and visibly signed to see. Provide shovels, brooms and/or hose with a wash out area so soils can be removed from vehicles on site.
5. Avoid entire removal of trees and surface vegetation all at once whenever possible as this limits the amount of site susceptible to erosion. Schedule construction zones and note this on the SWPPP in order to expose the smallest practical area of soil at any given time. Utilize vegetation removed by on site grinding and mulching and using this material to protect the soil from erosion.
6. Areas That Discharge to Special or Impaired Waters: Following initial soil disturbance or redistribution, complete permanent or temporary stabilization against erosion due to rain, wind, and running water within 7 calendar days on all disturbed or graded areas. This requirement does not apply to those areas that are currently being used for material storage on a daily basis or for those areas on which grading, site building, or other construction activities are actively underway. Provide temporary cover on all stacked topsoil piles, and other areas of stockpiled excavated material in order to prevent soil erosion and rapid runoff during the construction period. Stockpiles can be mulched, covered with poly or fabric, and/or seeded during prolonged exposure. Prolonged periods of open, bare earth without grass cover will not be permitted. Stabilize all disturbed greenspace areas (not paved) with a minimum of 4" topsoil immediately after final subgrade completion. Seed and mulch, or sod and protect these areas within 48 hours after completion of final grading work (weather permitting). Stabilize all disturbed areas to be paved using early application of gravel base. Stabilize the normal wetted perimeter of any temporary or permanent drainage ditch that conveys water from the construction site, or diverts water around the construction site, within 200 local feet from the property edge, or within 200 feet from the point of discharge to any surface water. Stabilize temporary or permanent drainage ditches within 24 hours of connecting to a surface water. Protect outfalls minimum of 200feet down stream and to the side of the discharge point. Additional settling "pots" achieved by filter logs or filtered stick bales staked in the channel will dissipate the water energy. Provide pipe outlets with temporary or permanent energy dissipation within 24 hours of connection to a surface water.
7. Receiving Waters - It is the contractors responsibility to inspect the site discharge point as well as downstream to the receiving body of water (pond, lake, stream, etc.) on a regular basis including after each storm event and document if any differences or changes in normal in discharge and if material is leaving the construction site. If so it shall be documented and removed immediately.

NOTE: ALL EROSION AND SEDIMENT CONTROL DEVICES WILL BE CHECKED BY THE CONTRACTOR AFTER EACH STORM EVENT AND BE MAINTAINED, OR IMPROVED UPON AFTER EVERY STORM EVENT TO ENSURE ADEQUATE PERFORMANCE.

POLLUTION CONTROL:

1. Designate a Concrete Wash-out and truck wash area: Make it visible in the field to vehicle operators and note this on the SWPPP.
 - a. When washouts occur on the site, concrete washout water must be contained in a leak-proof containment facility or impermeable liner. Liquid and solid wastes may not touch the ground and there must not be runoff from the concrete washout operations or areas.
 - b. Limit external washing of trucks and other construction vehicles to a defined area preferably before the construction access/exit point. Wash vehicles only on an area stabilized with stone that drains into an approved sediment trapping device. Contain runoff and properly dispose of waste. Engine degreasing is prohibited.
2. Solid Waste: All materials hauled off-site shall be secured to prevent littering. Dumpsters shall be covered to prevent storm water contamination. Properly dispose of collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris, and other wastes in compliance with State of Iowa requirements.
3. Hazardous Materials: Properly dispose of all waste and unused building materials (including garbage debris, cleaning wastes, oil, gasoline, paint, wastewater, toxic materials, and hazardous materials) off-site. Do not allow waste and unused building materials to be carried by runoff into a receiving channel or storm sewer system. Properly store oil, gasoline, paint, and other hazardous materials in order to prevent spills, leaks, or other discharge. Include secondary containment. Restrict access to storage areas in order to prevent vandalism. Storage and disposal of hazardous materials must be in compliance with PCA regulations.
4. Machinery: and mechanized equipment that leaks waste shall have a protective barrier or containment under the device adequate to contain the waste. Properly dispose of the waste.
5. Emergency spill station: Contractor shall locate and sign an emergency spill station that has necessary containment or cleanup devices for all workers to access.
6. Sanitary wastes: Sanitary wastes generated on site shall be treated and disposed in accordance with state and local requirements.

EROSION CONTROL:

Apply necessary moisture to the construction area and haul roads to prevent the spread of dust.

Contractor shall utilize coarsely ground wood and tree mulches to cover exposed soils. Mulches shall be stored on site to supplement and use in problem areas during all phases of the construction project.

Contractor shall use star tack or other organic substances in situations to prevent soil from eroding away by wind or rain.

Whenever possible contractor shall grade areas of soil to limit potential of erosion, to include tracking perpendicular to fall line of grades as well as diverting water flows from problematic areas on the site.

Seeding, fiber blankets, poly/tarps or cover mulches, disked mulches and compost can be used to cover temporarily exposed areas from wind and rain. Other methods by the contractor shall be documented in the SWPPP.

SEDIMENT CONTROL:

Inlet Sediment Control Protection Devices:

The following area approved Inlet Sediment Control Devices:

a. Road Drain Top Slab Model RD 23 (fits rough opening for 2'x3' inlet), Road Drain Top Slab Model RD 27 (fits rough opening for 27" inlet), or Road Drain Top Slab Model CG 3067 (fits Neenah Casting with 35-1/4"x17-3/4" dimensions) manufactured by: WIMCO 799 Thies Drive Shakopee, MN, 55379 Phone (952) 233-3055 or approved equal

b. Silt Sack manufactured by: ACF ENVIRONMENTAL 2831 Cardwell Road Richmond, VA, 23234 Phone (800) 448-3636 or approved equal

c. InfaSafe Sediment Control Barrier. Install geotextile sock on the outside of the barrier in order to trap additional fines. Standard frames are available to fit 24" to 30" diameter and 2'x3' openings. Distributed by: ROYAL ENTERPRISES AMERICA 30622 Forest Boulevard Stacy, MN, 55079 Phone (651) 462-2130 or approved equal

d. Ridge Bag Rock Log. Use rock logs only for curb inlets after pavement is in place. Manufactured by RED BARN RIDGE, 3135 County Road 136, Saint Cloud, MN, 55301 Phone (320) 253-3744 or approved equal

e. Inflatable drain plugs by Interstate Products www.interstateproducts.com or approved equal

Signage:

Place stones of at least 5 lbs or greater that conform to Iowa DOT section 4130 on 225 mm (9 inch) thick layer of #1 Stone gradation number 34 at locations indicated on the plan in accordance with Iowa DOT Articles 4130.01 and 4130.05. Install two layers of non-woven filter fabric beneath the granular filter material conforming to Iowa DOT Section 4131. At pipe outfalls the discharge location may be into a receiving stream or an existing storm sewer system (open channel or closed conduit). Refer to Section 4A-4 for the Concept Plan. Consult with a drainage engineer before planning to discharge to an undefined swale, ditch, or stream.

Silt Fence:

Install silt fence along the contour (on a level horizontal plane) with the ends turned up (J-hooks) in order to help pond water behind the fence. Install the silt fence on the uphill side of the support posts. Provide a post spacing of 1.2 m (4 feet) or less. Drive posts at least 0.6 m (2 feet) into the ground. Anchor the silt fence fabric in a trench at least 152 mm (6 inches) deep and 152 mm (6 inches) wide dug on the upslope side of the support posts. Lay the fabric in the trench and then backfill and compact with a vibratory plate compactor. Make any splices in the fabric at a fence post. At splices, overlap the fabric at least 152 mm (6 inches), fold it over, and securely fasten it to the fence post. Silt fence supporting posts shall be 51 mm (2 inch) square or larger hardwood, pine, or standard T- or U-section steel posts. T- or U-section steel posts shall weigh not less than 1.8602 kg per meter (1.25 lb per lineal foot). Posts shall have a minimum length of 1524 mm (5 feet). Posts shall have projections to facilitate fastening the fabric and prevent slippage. Geotextile fabric shall meet the requirements of Iowa DOT Specification for pre-assembled silt fence, furnished in a continuous roll in order to avoid splices. Geotextile fabric shall be uniform in texture and appearance and have no defects, flaws, or tears. The fabric shall contain sufficient ultraviolet (UV) ray inhibitor and stabilizers to provide a minimum two-year service life outdoors. Fabric color shall be international orange. In high traffic areas contractor shall reinforce silt fence with wire fencing and metal posts, extreme circumstances will require temporary concrete median sections to support material backing of stock piled soil or filled earth.

Stockpiles:

Install silt fence, or other effective sediment controls, around all temporary soil stockpiles for soil and materials preserved on site. Locate soil or dirt stockpiles containing more than 10 cubic yards of material such that the downslope drainage length is no less than 8 m (25 feet) from the toe of the pile to a roadway or drainage channel. If remaining for more than seven days, stabilize the stockpiles by mulching, vegetative cover, tarps, or other means. Control erosion from all stockpiles by placing silt fence barriers around the piles. During street repair, cover construction soil or dirt stockpiles located closer than 8 m (25 feet) to a roadway or drainage channel with tarps, and protect storm sewer inlets with silt sacks or staked silt fence. Do not stock pile soil or material near catch basins or drainage ways.

Temporary Rock Construction Entrance:

Use 25 mm (1 inch) to 50 mm (2 inch) diameter rock, Use Iowa DOT 4122, Gradation 13, Macadam crushed stone in a layer at least 152 mm (6 inches) thick across the entire width of the entrance. Extend the rock entrance at least 15 m (50 feet) into the construction zone. Maintain the entrance in a condition that will prevent tracking or flowing of sediment onto paved roadways. Provide periodic top dressing with additional stone as required. Close entrances not protected by temporary rock construction entrances to all construction traffic.

Temporary Sediment Basins:

In the construction process or if noted on the plan the contractor shall construct temporary sediment basin(s). As per general rule the sediment basin shall be sized appropriately to a capacity related to the drainage area on a ratio of 3,600 cubic feet per acre of drainage zone entering the basin. Basins shall be inspected after every rainfall event, material removed and stabilized. If changes to the basin are made, document and amend the SWPPP.

Dewatering:

If dewatering is required and sump pumps are used, all pumped water must be discharged through an erosion control facility (temporary sedimentation basin, grit chamber, sand filter, upflow cyclone, swirl concentrator, dewatering bag or other appropriate facility) prior to leaving the construction site. Proper energy dissipation must be provided at the outlet of the pump system. Discharge clear water only. To achieve better separation of the material suspended in the water a biodegradable not toxic flocculant agent may be required.

If the contractor determines that dewatering will be necessary, a dewatering plan may have to be submitted to the watershed and/or DNR by the contractor for approval. A trench permit may also have to be submitted and will be the responsibility of the contractor. Water pumped from the site shall be pumped and treated for water quality per watershed and/or DNR.

For more information and materials on dewatering go to by Interstate Products www.interstateproducts.com

INSPECTIONS-MAINTENANCE-DAILY RECORD-AMEND THE SWPP PLAN

1. Inspect all erosion and sediment control devices, stabilized areas, and infiltration areas on a daily basis until land-disturbing activity has ceased. Thereafter, inspect at least on a weekly basis until vegetative cover is established. Remove accumulated sediment deposits from behind erosion and sediment control devices as needed. Do not allow sediment to accumulate to a depth of more than one-third of the height of the erosion and sediment control devices. Immediately replace deteriorated, damaged, rotted, or missing erosion control devices. Document inspections and dates of rainfall events. Maintain a written log of all inspection, maintenance, and repair activities related to erosion and sediment control facilities. All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery, or as soon as field conditions allow access.
2. All inspections and maintenance activities must be recorded in writing DAILY in a detailed record (notes, photographs, sketches, etc., and kept with the SWPPP.
3. Remove all soils and sediments tracked or otherwise deposited onto adjacent property, pavement areas, sidewalks, streets, and alleys. Removal shall be on a daily basis throughout the duration of the construction. Clean paved roadways by shoveling or wet-sweeping. Do not dry sweep. If necessary, scrape paved surfaces in order to loosen compacted sediment material prior to sweeping. Haul sediment material to a suitable disposal area. Street washing is allowed only after sediment has been removed by shoveling or sweeping.
4. All soil hauled from the site shall be accounted for and documented in the SWPPP. Its final destination and how the soil has been stored and stabilized.
5. Maintain all temporary erosion and sediment control devices in place until the contributing drainage area has been stabilized (hard-surfaced areas paved and vegetation established in greenspace). Repair any riling, gully formation, or washouts. After final establishment of permanent stabilization, remove all temporary synthetic, structural, and nonbiodegradable erosion and sediment control devices and any accumulated sediments. Dispose-of off site. Restore permanent sedimentation basins to their design condition immediately following stabilization of the site.
6. Clean sedimentation basins, storm sewer catch basins, ditches, and other drainage facilities as required in order to maintain their effectiveness. Temporary and permanent sedimentation basins must be drained, and the sediment removed when the depth of sediment collected in the basin reaches 1/2 of the storage volume. Drainage and removal must be completed within 72 hours, or as soon as field conditions allow access.
7. Inspect infiltration areas to ensure that no sediment from ongoing construction activities is accumulating. Remove sediment immediately ensuring subsols are not compacted by machinery.
8. Every vehicle shall not track material off-site. Clean the wheels of construction vehicles in order to remove soils before the vehicles leave the construction site. Wash vehicles only on an area stabilized with stone that drains into an approved sediment trapping device.
9. Reinforce erosion control facilities in areas where concentrated flows occur (such as swales, ditches, and areas in front of culverts and catch basins) by backing them with snow fence, wire mesh, or stiff plastic mesh reinforcement until paving and turf establishment operations have been completed. Posts for the reinforcing fence shall be 100 mm (4-inch) diameter wood posts, or standard steel fence posts weighing not less than 0.59 kg (1.3 lbs) per lineal foot, with a minimum length of 762 mm (30 inches) plus burial depth. Space posts for the reinforcing fence at intervals of 3 m (10 feet) or less. Drive posts for the reinforcing fence at least 0.6 m (2 feet) into the ground.

GENERAL SOIL STABILIZATION: (SEE LANDSCAPE PLAN FOR MORE INFORMATION)

Establishment of lawn, prairie/wildflower and/or plant bed areas will be noted on the landscape plan to ensure stabilization of soils, re-staking of sod where applicable, proper watering and mulch maintenance will be required. Inspect seeded or sodded areas on a timely day-to-day basis. In the event of a seeding failure, reseed and remove the areas where the original seed has failed to grow and perform additional watering as necessary at no additional cost to the Owner. Special maintenance provisions for wild and prairie grass seeded areas as noted in the landscape plan. Promptly replace all sod that dries out to the point where it is presumed dead and all sod that has been damaged, displaced, weakened, or heavily infested with weeds at no additional cost to the Owner.

Soil Stabilization:

Soils must be stabilized immediately when cleanup, grading or excavating processes have ceased permanently or if work will not resume for fourteen (14) days in accordance to the OI14 day rule outlined by the NPDES General Permit No.2 guidelines

Top Soil Preservation:

Minimize soil compaction where allowable and preserve all possible top soil in accordance to NPDES General Permit No.2 guidelines.

Seedbed Preparation, Temporary:

Till the soil to a minimum depth of 5 inches with a disk, harrow, or field cultivator.

Seed Preparation:

In areas to be temporarily seeded, use introduced seed mixtures, Iowa DOT Type 4 (Urban Temporary Erosion Control Mixture) or Type 5 (Rural Temporary Erosion Control Mixture). For temporary seeding prepare by tilling the soil to a minimum depth of 5 inches with a disk, harrow, or field cultivator.

a. Thoroughly mix all seed specified for the contractor prior to placing the seed in the seed hopper. Provide 48 hours notice prior to mixing the seed, and give the Engineer an opportunity to witness the seed mixing. The mixing of a certified blue tag seed mix at an approved (by Iowa Crop Improvement Association) seed conditioner's facility need not be witnessed.

b. Treat all legume seed with a commercial stocking agent to be applied prior to application of inoculant, or as a mixture when the stocking agent is compatible with other materials. A sticking agent is not required if a liquid formulation of inoculant is used. Use mechanical mixing equipment to apply sticking agent and inoculant on seed quantities over 50 pounds.

c. Inoculate all legumes with a standard product humus culture before being mixed with other seeds for sowing.

d. Inoculate all legumes with a standard culture at the rate specified by the manufacturer of the inoculant according to Iowa DOT Article 4169.04. Do not expose inoculated seed to direct sunlight for more than 30 minutes. Re-inoculate seed that is not sown within 8 hours after inoculation prior to use. Pre-inoculated seed with manufacturer's recommended protective coating may be used in lieu of seed with Contractor-applied inoculant.

e. When the gravity or cyclone seeder is used for application of seed, inoculate legume seed according to the manufacturer's recommended procedures, before mixing with other grass seeds for sowing. Fumigate and apply inoculant.

Seed Application, Temporary:

a. On areas accessible to field machinery, sow seed with an endgate cyclone seeder.

b. On areas inaccessible to field machinery, the use of hand-operated cyclone seeders will be allowed, but no other hand-operated seeding methods will be accepted.

c. Cover the seed and fertilizer by lightly tilling the seeded area with a disk, rigid harrow, spring tooth harrow, or field cultivator.

For additional reference see SUDAS Standard Specifications Division 9 - Site Work and Landscaping, Section 901.0.

In seeded areas with slopes steeper than 3:1 and lengths less than 15 meters (50 feet), install Wood Excelsior Mat per Specification Section 4169.10 uniformly over the soil surface by hand within 24 hours after seeding in accordance with manufacturers recommendations. The contractor may substitute coconut fiber mat for Ditch Control, Wood Excelsior Mat. Straw mat is not allowed as a substitution in ditches or swales. Materials I.M. 469.10, Appendix A provides a list of approved sources, the type of material and allowed use (slope protection and/or ditch control).

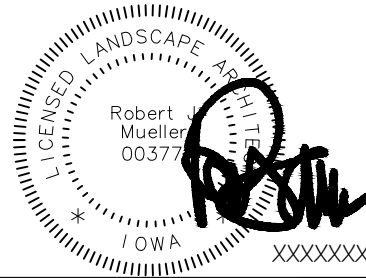
NOTE: THE PROJECTS LANDSCAPE PLAN IS PART OF THE SWPP FOR SOIL STABILIZATION. REFERENCES SHALL BE MADE TO THE APPROVED LANDSCAPE PLAN. AMENDMENTS TO THE LANDSCAPE PLAN SHALL BE APPROVED BY THE OWNER AND DOCUMENTED AS PART OF THE SWPP

Kwik Trip

Kwik Star

KWIK TRIP, Inc.
P.O. BOX 2107
1626 OAK STREET
LACROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960

INSITES
SITE PLANNING LANDSCAPE
3131 FEARNOTECURE Lane N
Plymouth Minnesota 55447
763.383.8400
Fax 763.383.8440



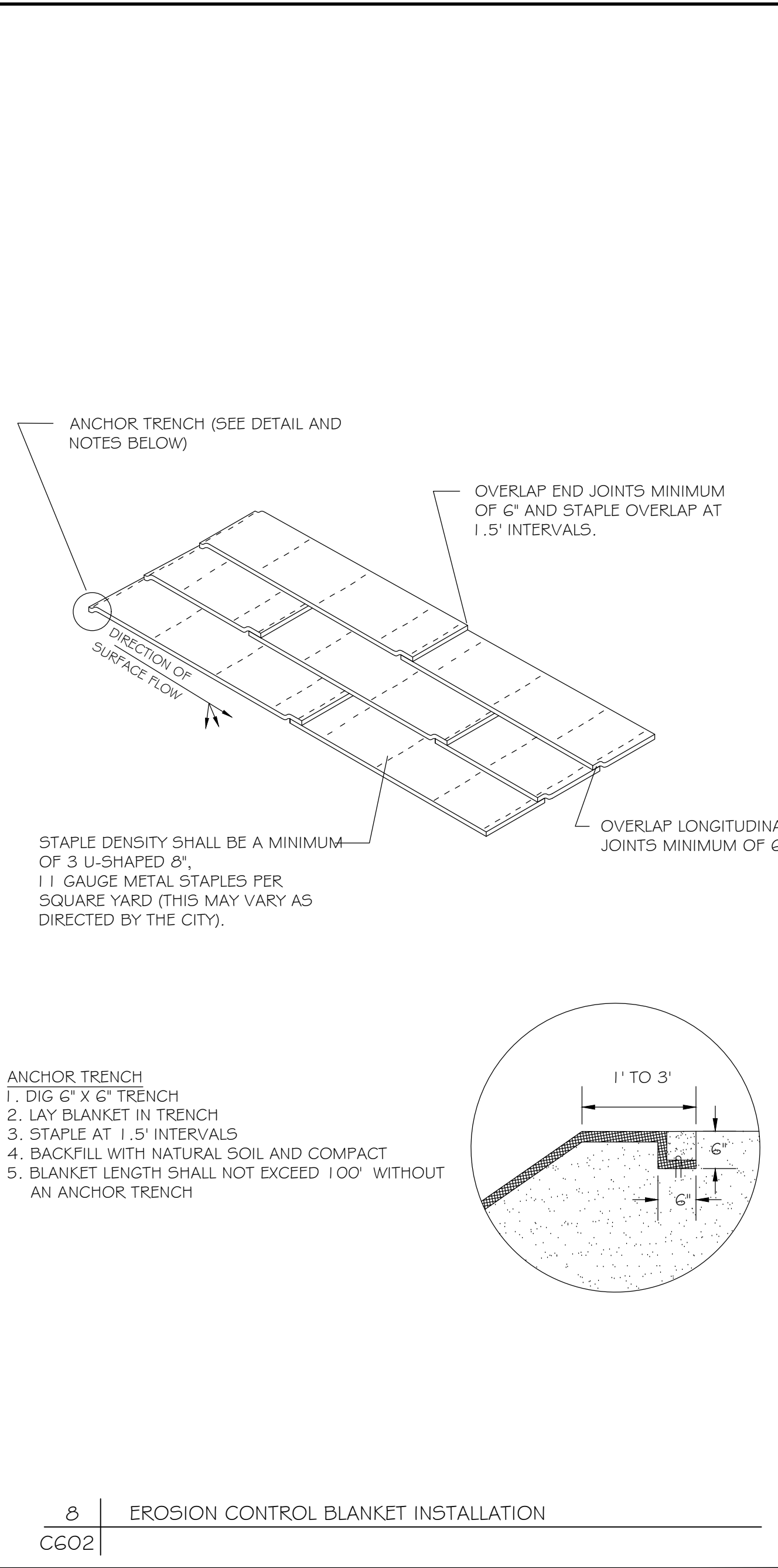
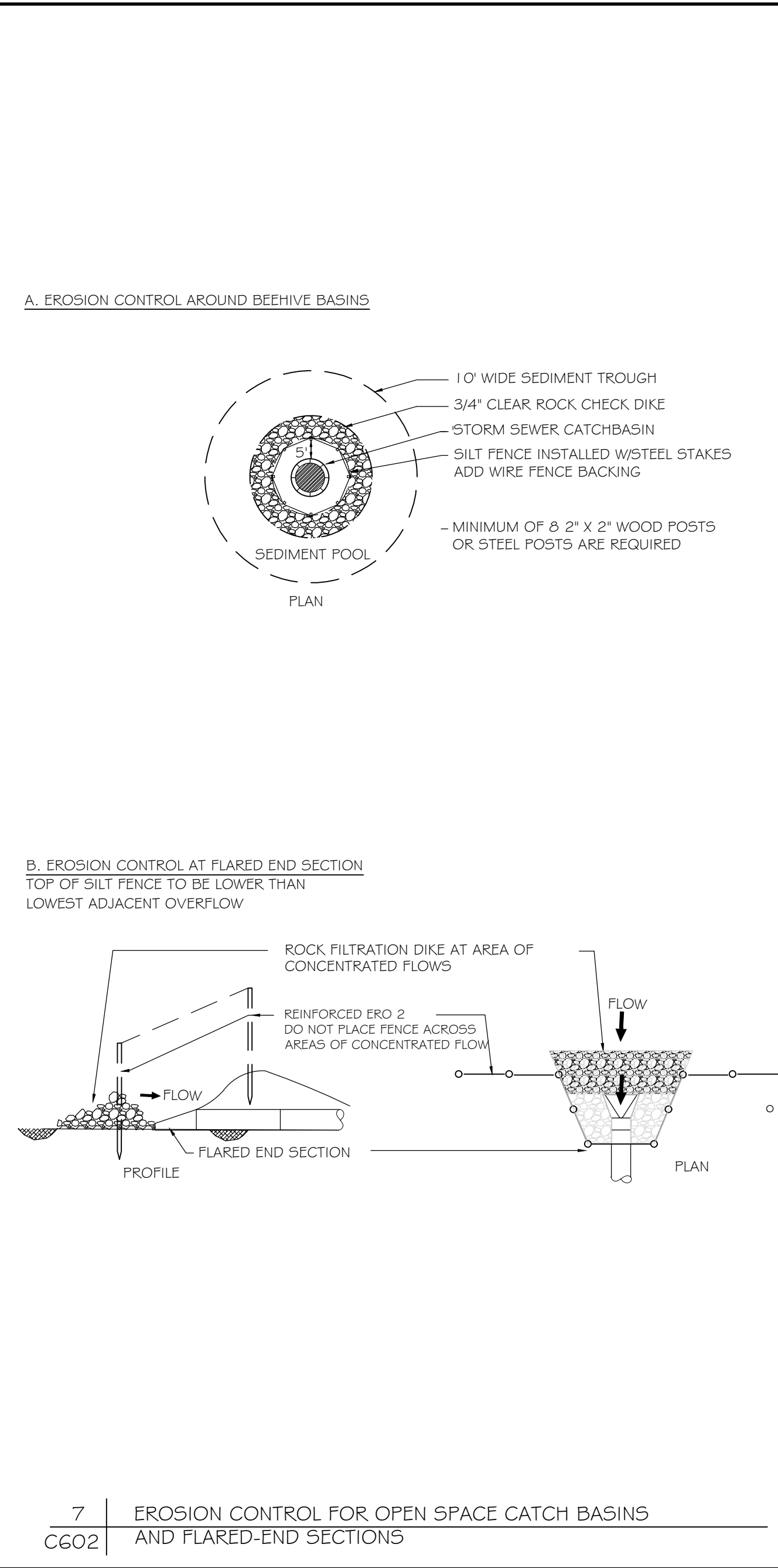
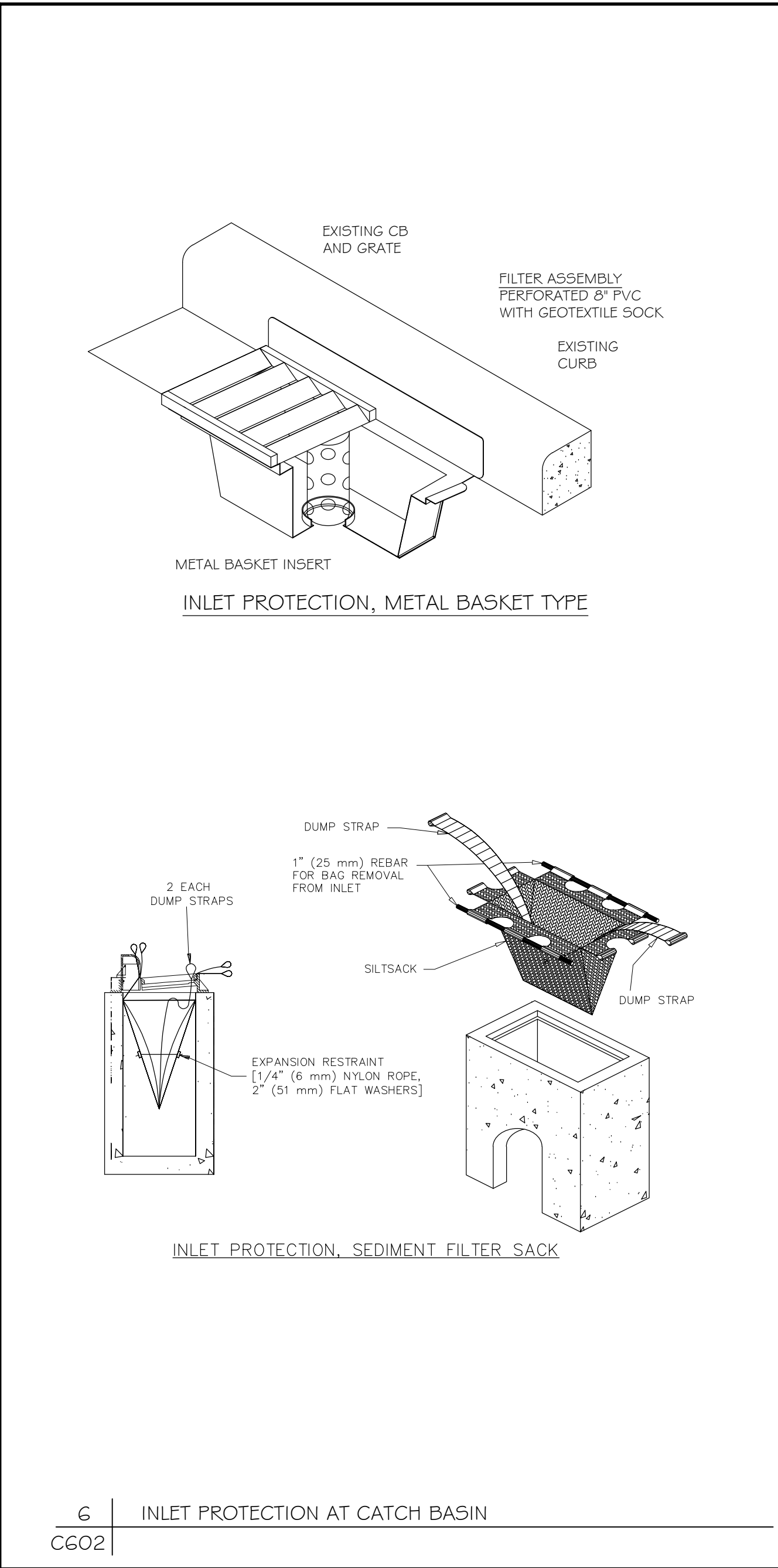
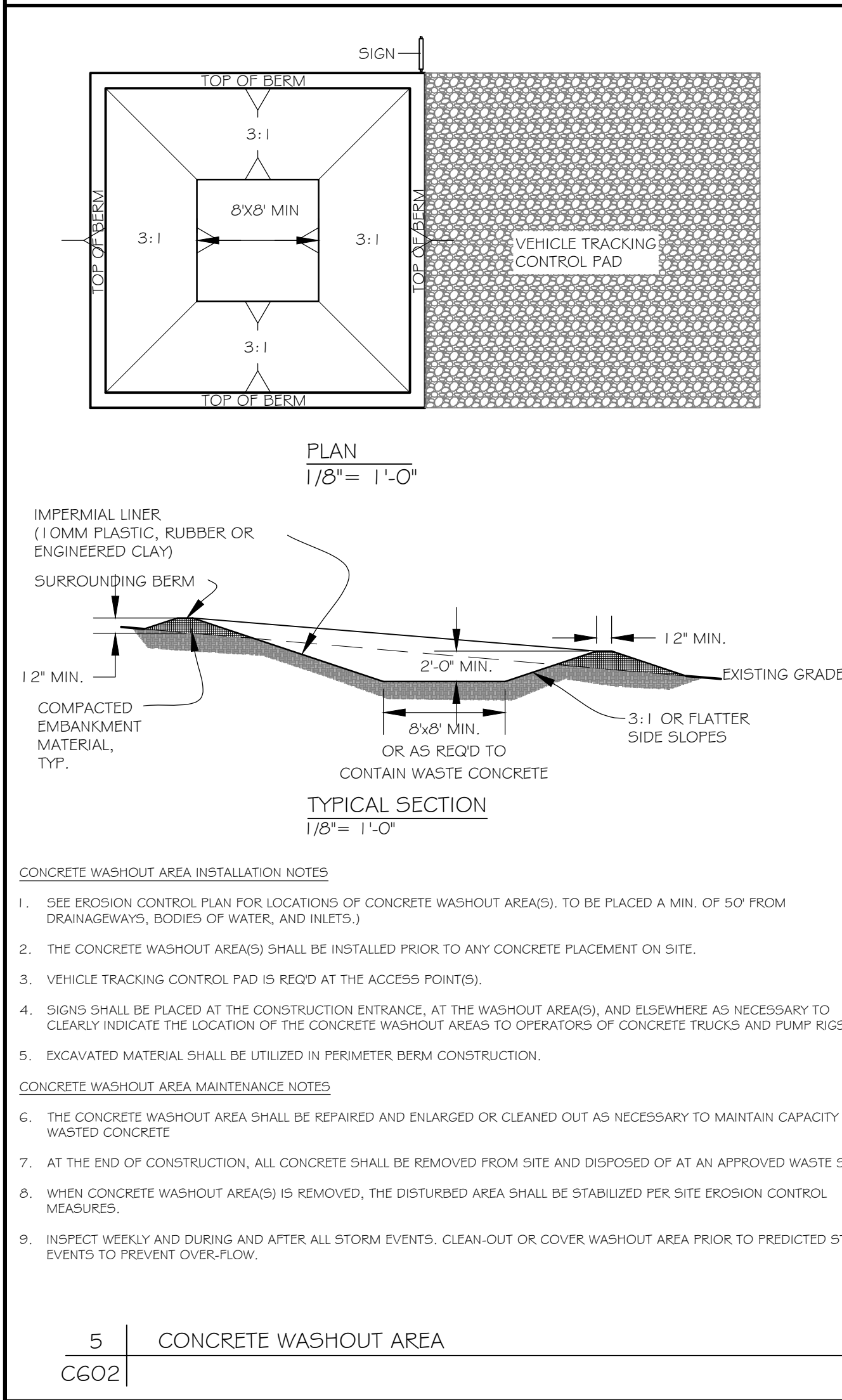
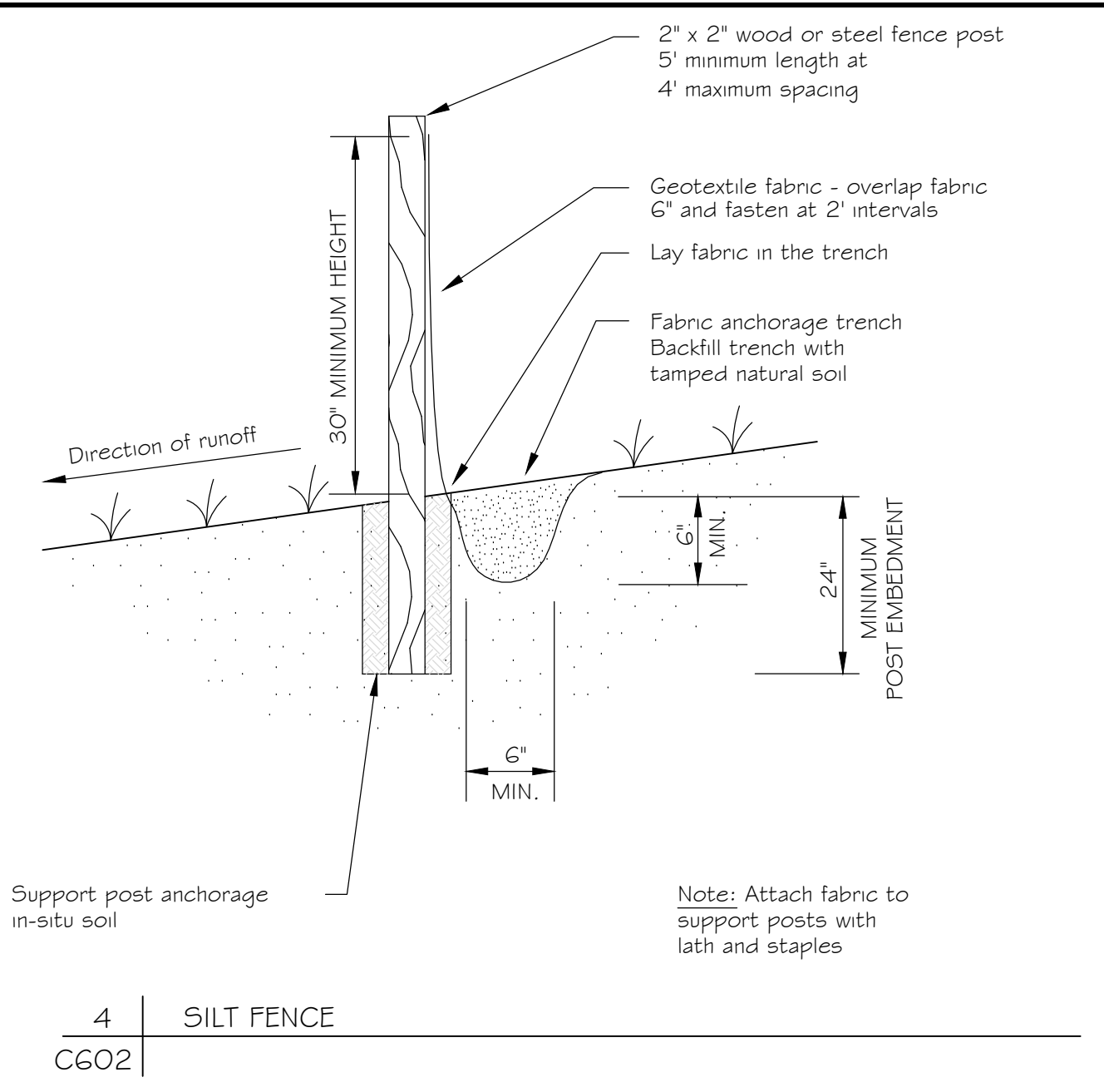
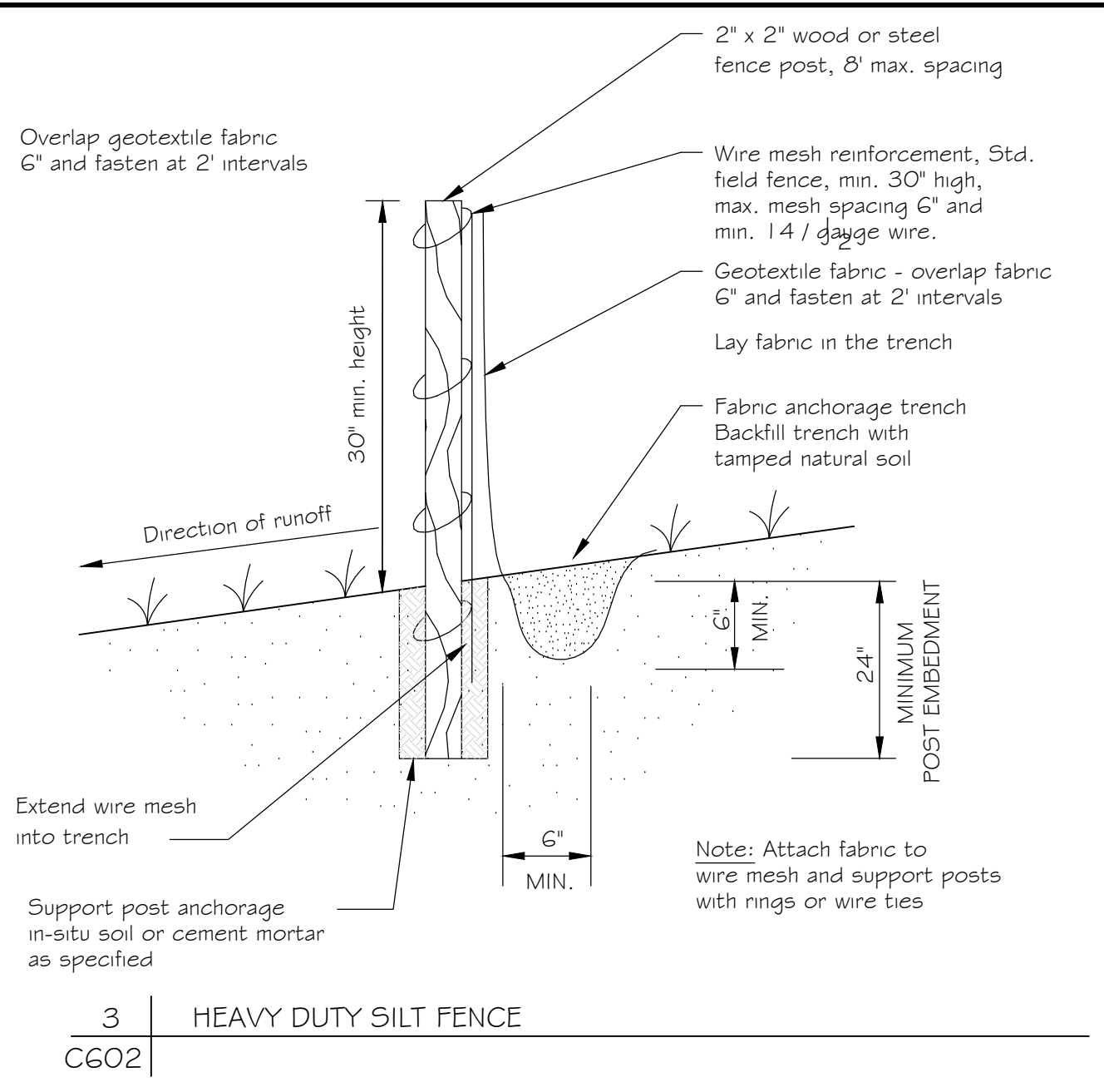
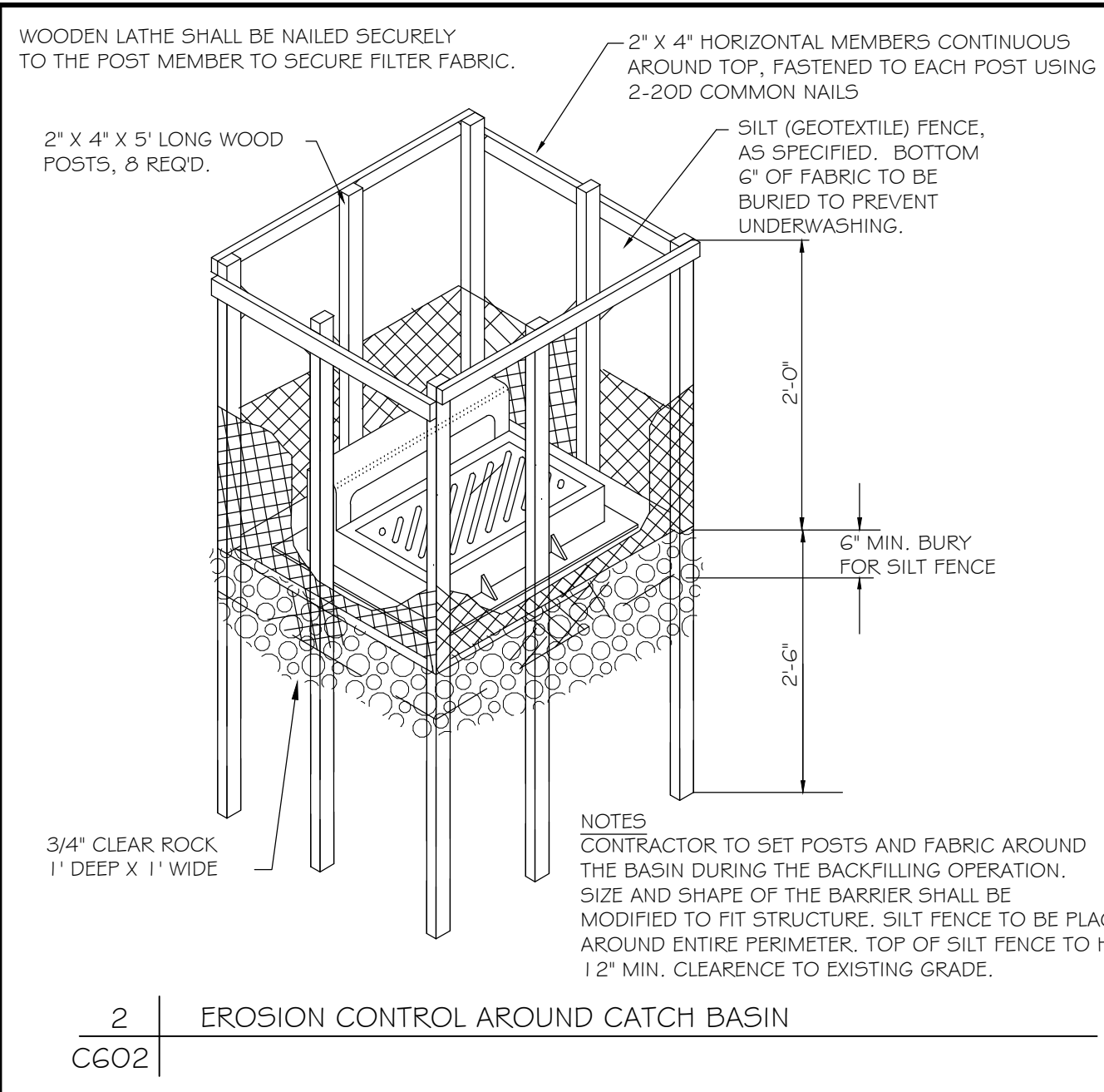
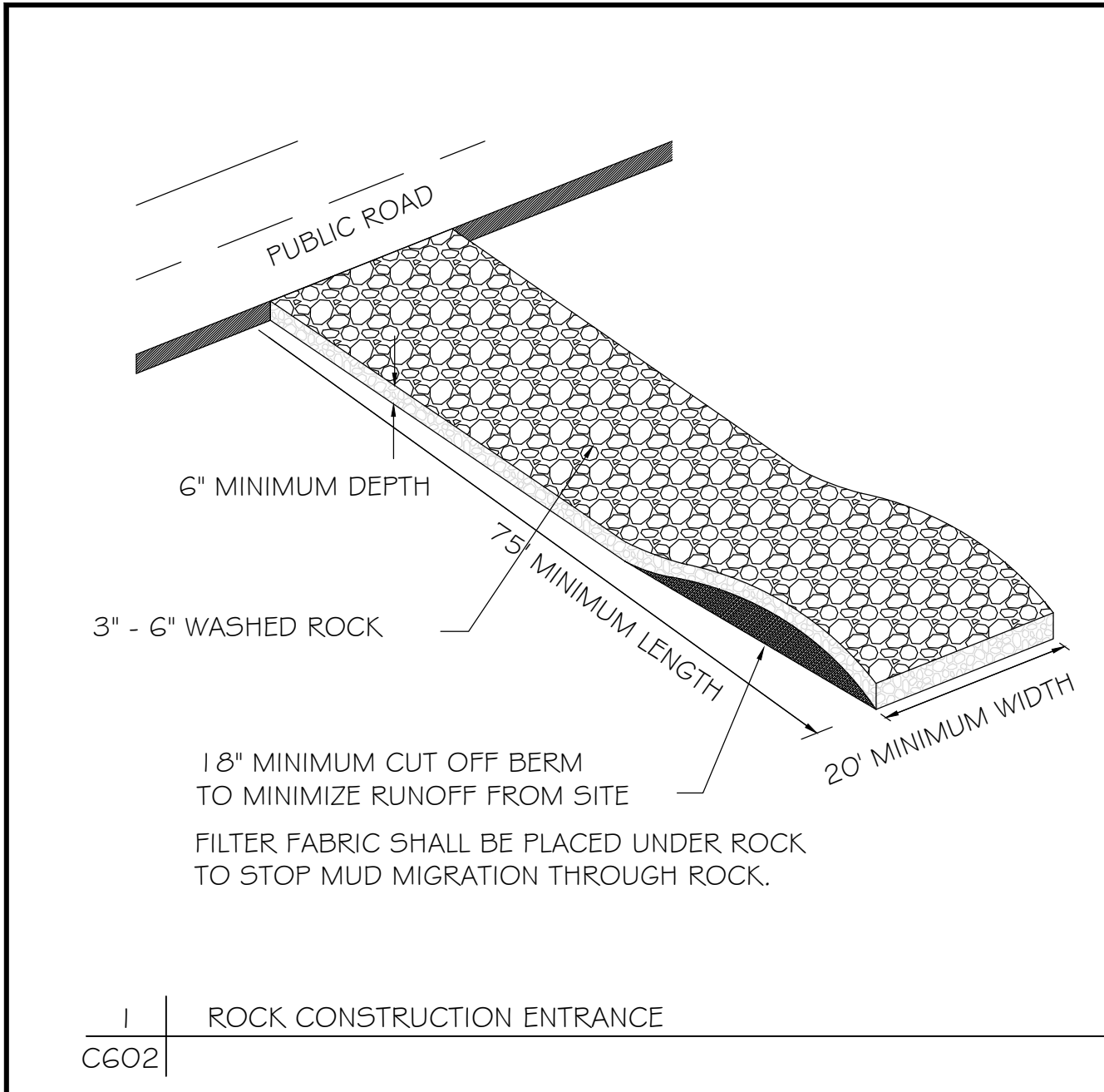
EROSION CONTROL NOTES

CONVENIENCE STORE 1742

INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
-	28JUN24	SUBMITTAL
___	08JUL24	REVIEW COMMENTS
___	16JUL24	TANK UPDATE
___	02AUG24	ACCESS SHIFT
___	24SEP24	CITY RESUBMITTAL

DRAWN BY	
SCALE	GRAPHIC
PROJ. NO.	24-1742
DATE	28JUN2024
SHEET	C601



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763.383.8400
Fax 763.383.8440

Robert Mueller
00377
XXXXXX

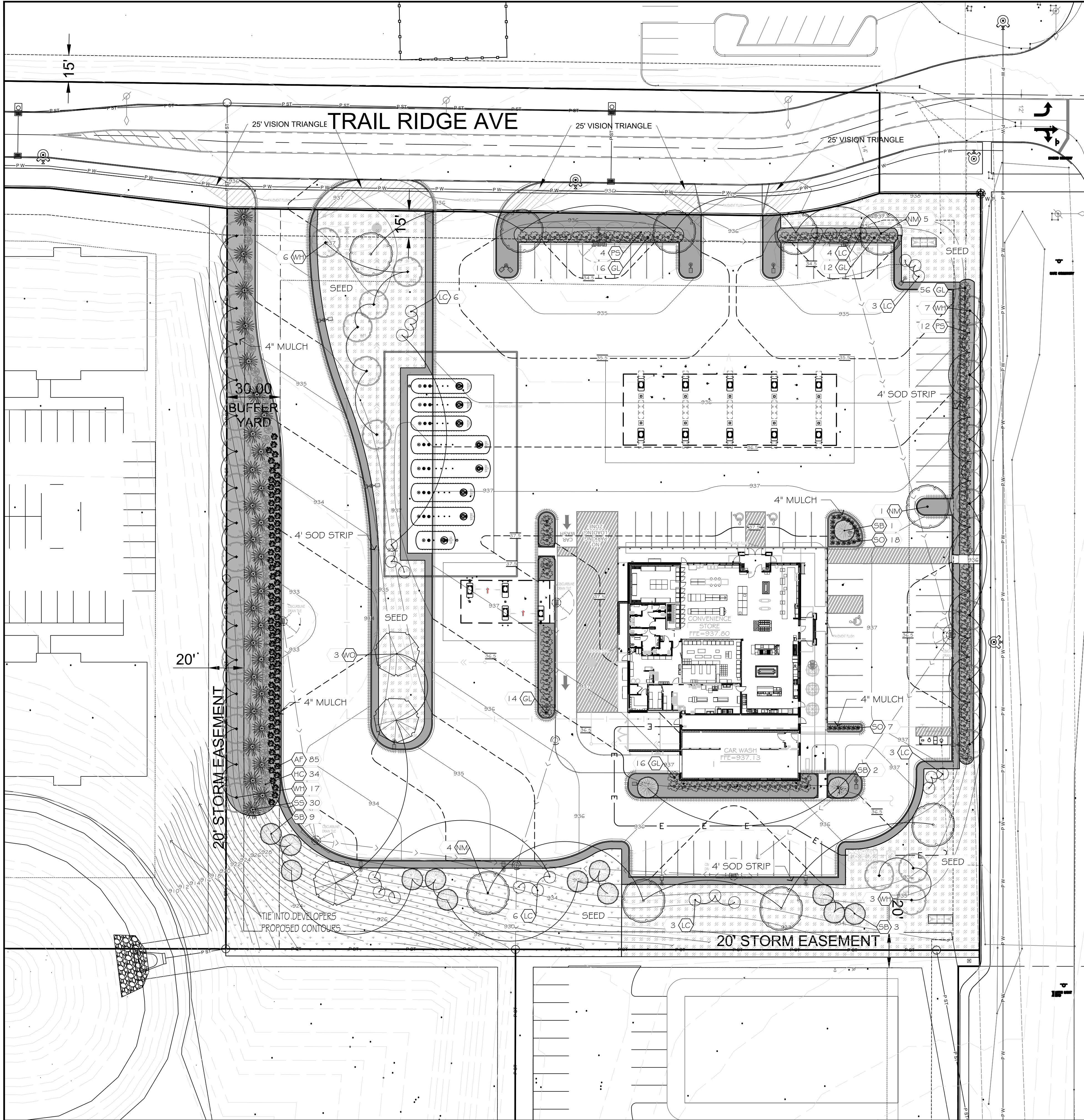
EROSION CONTROL DETAIL

CONVENIENCE STORE 1742

INDIANOLA, IOWA

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-	24SEP24	CITY RESUBMITTAL

DRAWN BY: _____
SCALE: _____ GRAPHIC
PROJ. NO.: 24-1742
DATE: 28JUN2024
SHEET: **C602**



- NOTES:
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR PLANTING IN ALL R.O.W.
 - LANDSCAPE CONTRACTOR SHALL VERIFY ALL UTILITIES WHICH MAY EFFECT HIS WORK.
 - LANDSCAPE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHERS AT SITE AND COMPLETE HIS WORK PER OWNERS CONSTRUCTION SCHEDULE.
 - ALL PLANT MATERIALS SHALL BE GUARANTEED ONE (1) FULL YEAR UPON TOTAL COMPLETION AND ACCEPTANCE BY OWNER, WITH ONE TIME REPLACEMENT AT APPROPRIATE TIME OR UPON REQUEST OF OWNER.
 - REPLACEMENT TOPSOIL SHALL BE CLEAN, FREE OF STONES, WEEDS, AND OTHER UNDESIRABLE DEBRIS.
 - PLANTING SOIL MIX (INCIDENTAL COST ITEM)
 - 1. MIX 1 LB. 5-20-20 COMMERCIAL FERTILIZER PER CU. YD. TOPSOIL
 - 2. THOROUGHLY MIX 1-PART SAND AND 1-PART PEAT MOSS WITH 5-PARTS FERTILIZER AND TOP SOIL.
 - USE PLANTING SOIL AT ALL LOCATIONS PER DETAILS THIS SHEET.
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 - SOD SHALL BE CULTURED WITH PREDOMINANTLY KENTUCKY BLUEGRASS SEED OF RECENT DISEASE RESISTANT INTRODUCTIONS. NO GUARANTEE ON SOD EXCEPT ANY SOD NOT SATISFACTORY AT TIME OF COMPLETION INSPECTION SHALL BE PROMPTLY REPLACED PRIOR TO COMPLETION OF JOB. STAKE SOD ON SLOPES 3:1 AND GREATER.
 - WHERE EXISTING CONCRETE/ ASPHALT AREAS ARE TO BE REPLACED WITH LANDSCAPING, PROVISIONS SHOULD BE TAKEN TO COORDINATE EXCAVATION OF SUBSOIL TO A DEPTH OF 2' WITH GRADING CONTRACTOR. REPLACE WITH COMPACTED TOPSOIL. ALL AREAS TO BE LANDSCAPED AND SODDED SHALL BE GRADED SMOOTH AND EVEN.
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 - LANDSCAPE CONTRACTOR TO INSTALL 'VALLEY VIEW', 'BLACK DIAMOND' EDGING AROUND ALL PLANTING BEDS AS SHOWN ON THIS PLAN.
 - ALL MULCH TO BE FINELY SHREDDED HARDWOOD ORGANIC BARK MULCH. NO DYED MULCHES. INSTALL 4" DEPTH. NO FILTER FABRIC BENEATH ORGANIC MULCHES. NO EDGING AROUND ALL TREES OUTSIDE SHRUB BEDS.
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 - GENERAL CONTRACTOR TO SWEEP PAVEMENT AREAS PRIOR TO TURN OVER TO OWNER.

PLANT MATERIAL						HEIGHT'	X	WIDTH'
QUANTITY	SIZE	ROOT TYPE	COMMON NAME		BOTANICAL NAME			
OVERSTORY TREES								
WO	3	2.5' CAL.	B4B	WHITE OAK	<i>Quercus alba</i>	50'	x	50'
WH	38	2.5' CAL.	B4B	WASHINGTON HAWTHORN	<i>Crataegus phaenopyrum</i>	30'	x	25'
NM	10	2.5' CAL.	B4B	NORTHWOOD MAPLE	<i>Acer rubrum 'Northwood'</i>	50'	x	35'
UNDERSTORY TREES								
SB	11	1.5' CAL.	B4B	AUTUMN BRILLIANCE SERVICEBERRY	<i>Amelanchier x grandiflora 'Autumn Brilliance'</i>	20'	x	15'
PS	16	2' CAL.	B4B	PINK SPIRES CRAB	<i>Malus 'Pink Spires'</i>	15'	x	12'
LC	4	2' CAL.	B4B	LANCELOT CRAB	<i>Malus 'Lanzant'</i>	10'	x	8'
EVERGREEN TREES								
SS	30	6' HT	pot	SWISS STONE ALGONQUIN PILLAR	<i>Pinus cembra 'Algonquin Pillar'</i>	25'	x	10'
SHRUBS								
GL	114	#3 CONT	pot	GRO-LOW FRAGRANT SUMAC	<i>Rhus aromatica 'Gro-Low'</i>	2'	x	7'
HC	34	#5 CONT	pot	HEDGE COTONEASTER	<i>Cotoneaster ludicus</i>	10'	x	6'
SW	71	#3 CONT	pot	SUMMER WINE NINEBARK	<i>Physocarpus opulifolius 'Seward'</i>	5'	x	5'
AF	85	#3 CONT	pot	ARCTIC FIRE DOGWOOD	<i>Cornus stolonifera 'Farrow'</i>	4'	x	4'
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SO	25	#1 CONT	pot	STELLA DE ORO DAYLILY	<i>Heemerocallis 'Stella de Oro'</i>	2'	x	3'
1,419 SY				PRAIRIE NURSERY, LAND RESTORATION MIX FOR MEDIUM SOILS (MIX #50047 OR APPROVED EQUAL). PROVIDE EROSION CONTROL BLANKET ON SIDE SLOPES.				
2,836 SY				BLUE GRASS MIX. SEE SPECS FOR MULCHING INFORMATION.				

LANDSCAPE REQUIREMENTS:

MIN OPEN SPACE = 20% OF LOT AREA
= 176,895sf X 0.2 = 35,379sf

PROPOSED 58,178sf OR 33%

1 DECIDUOUS SHADE TREE
2 DECIDUOUS ORNAMENTAL TREES
2 SHRUBS
PER EVERY 2,000 S/F OF REQUIRED OPEN SPACE

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REQUIRED = 18 SHADE, 36 ORNAMENTAL, 36 SHRUB
PROVIDED = 18 SHADE, 36 ORNAMENTAL, 55 SHRUB/PERENNIAL

30' BUFFER - 1 05 TREE + 2 EVERGREEN +
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DO NOT CUT MAIN LEADER
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AS NEEDED

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PAVING ONLY

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1" ABOVE EXISTING GRADE

4" DEPTH MULCH
(NO MULCH AGAINST TRUNK)

FINISH GRADE

REMOVE BURLAP
AND WIRE BASKET

COMPACT SOIL
UNDER ROOT BALL

COMPACTED SUBGRADE

REMOVE DEAD AND
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SET CROWN OF ROOT BALL
1" ABOVE EXISTING GRADE

4" DEPTH MULCH

FINISH GRADE

LOOSEN ROOT MASS

PLANTING SOIL
COMPACT UNDER ROOT BALL

COMPACTED SUBGRADE

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

NORTH
SCALE: 1" = 30'

30 15 0 30 60

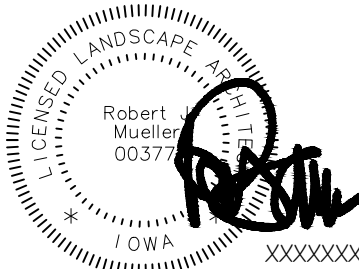
PLOTTING NOTE: PLANS PLOTTED TO 11x17
SHEET SIZE ARE 1/2 SCALE. 1"=60'

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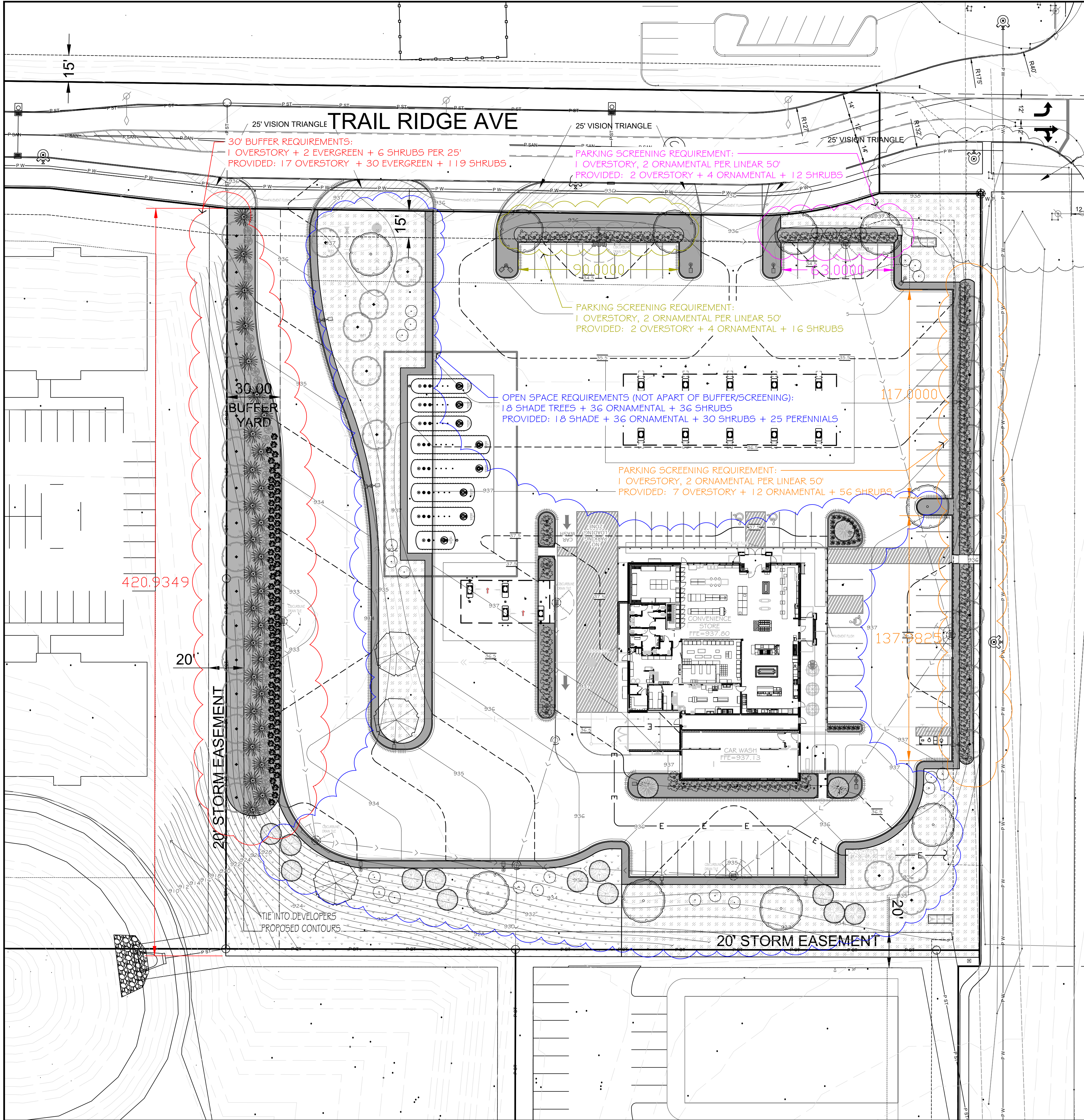
LANDSCAPE PLAN

CONVENIENCE STORE 1742

INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
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DRAWN BY	SCALE	GRAPHIC
PROJ. NO.	24-1742	
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SHEET	C700	



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	2,836 SY	BLUE GRASS MIX. SEE SPECS FOR MULCHING INFORMATION.				

EDGING - 1,136 LF
MULCH - 485 CY
SOD - 1,112 SY

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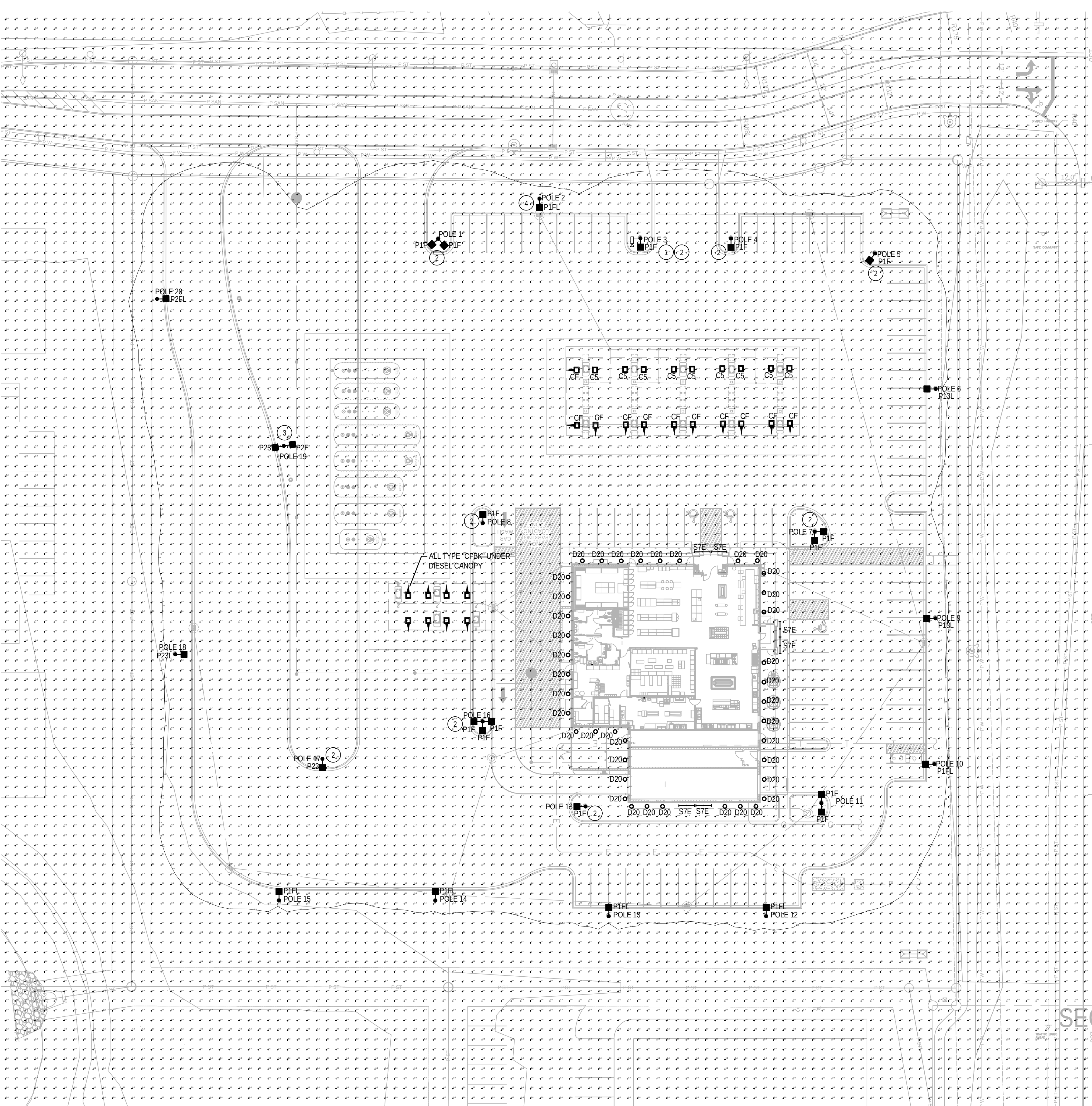
LANDSCAPE PLAN DETAIL

CONVENIENCE STORE 1742

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DRAWN BY _____
SCALE _____ GRAPHIC
PROJ. NO. 24-1742
DATE 28JUN2024
SHEET C701



CALCULATION STATISTICS

OVERALL SITE:
AVERAGE: 3.5
MAXIMUM: 78.5
MINIMUM: 0.0

FIXTURE QUANTITIES

D20 - 40
STE - 6
CF - 11
C5 - 9
CFBK - 8
P13L - 2
P1FL - 14
P1FL - 6
P23 - 2
P23L - 1
P2F - 1
P2FL - 1

PROVIDE (16) 16' POLES AND (4) 27' POLES.

FIXTURE SYMBOLS:

- LED LIGHT MOUNTED UNDER FUEL CANOPIES
- LED STRIP LIGHT MOUNTED IN GABLE
- RECESSED LED DOWNLIGHT
- POLE MOUNTED LED FIXTURE
- CAMERA

FIXTURE TYPES:

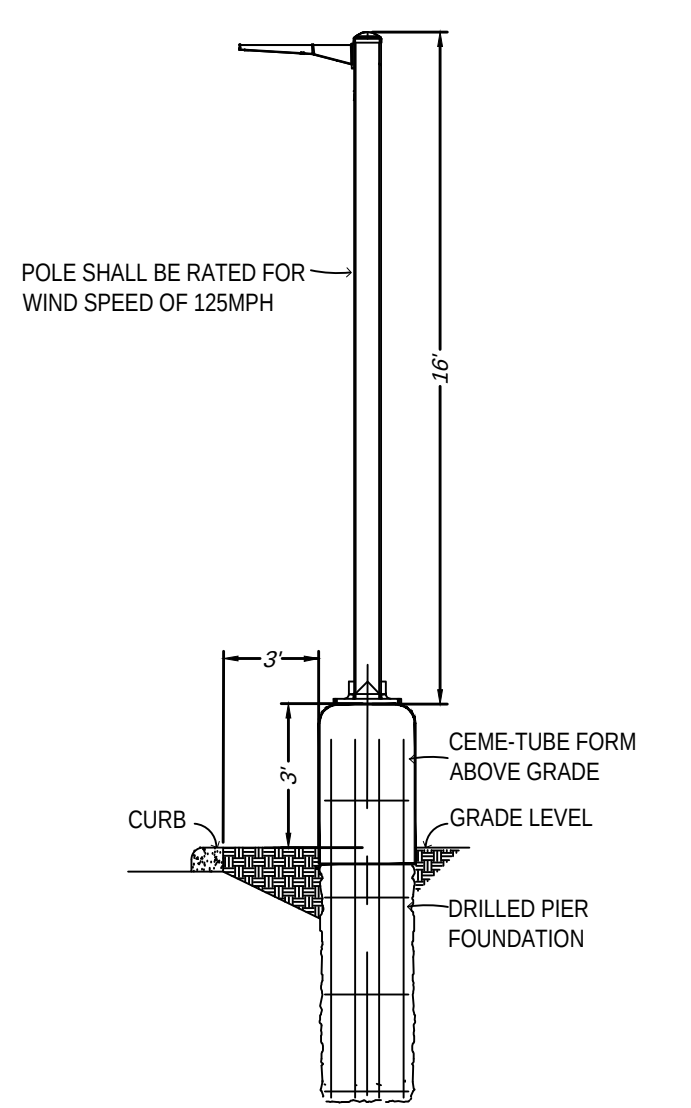
- D20 - RECESSED LED DOWNLIGHT
GOTHAM EVO-35/30-8AR-WD-120-TRW
- STE - LED STRIP LIGHT MOUNTED IN GABLE LITHONIA
TZLIN-L96-10000LM-FST-MVOLT
- CF - LSI LIGHTING: SCV-LED-23L-SCFT-UNV-DIM-50-WHT MOUNTED
UNDER GAS CANOPY MOUNT FIXTURES WITH FORWARD
THROW OPTIC AIMING IN DIRECTION OF ARROW.
- C5 - LSI LIGHTING: SCV-LED-15L-SC-UNV-DIM-50-WHT MOUNTED
UNDER GAS CANOPY
- CFBK - LSI LIGHTING: SCV-LED-23L-SCFT-UNV-DIM-50-BLK
MOUNTED UNDER DIESEL CANOPY MOUNT FIXTURES WITH
FORWARD THROW OPTIC AIMING IN DIRECTION OF ARROW.
- P13L - LSI LIGHTING: MRS-LED-18L-SIL-3-UNV-50-70CRI-WHT-IL
- P1FL - LSI LIGHTING: MRS-LED-18L-SIL-FT-UNV-50-70CRI-WHT-IL
- P1FL - LSI LIGHTING: MRS-LED-18L-SIL-FT-UNV-50-70CRI-WHT-IL
- P23 - LSI LIGHTING: MRS-LED-30L-SIL-3-UNV-50-70CRI-WHT
- P23L - LSI LIGHTING: MRS-LED-30L-SIL-3-UNV-50-70CRI-WHT-IL
- P2F - LSI LIGHTING: MRS-LED-30L-SIL-FT-UNV-50-70CRI-WHT
- P2FL - LSI LIGHTING: MRS-LED-30L-SIL-FT-UNV-50-70CRI-WHT-IL

GENERAL NOTES:

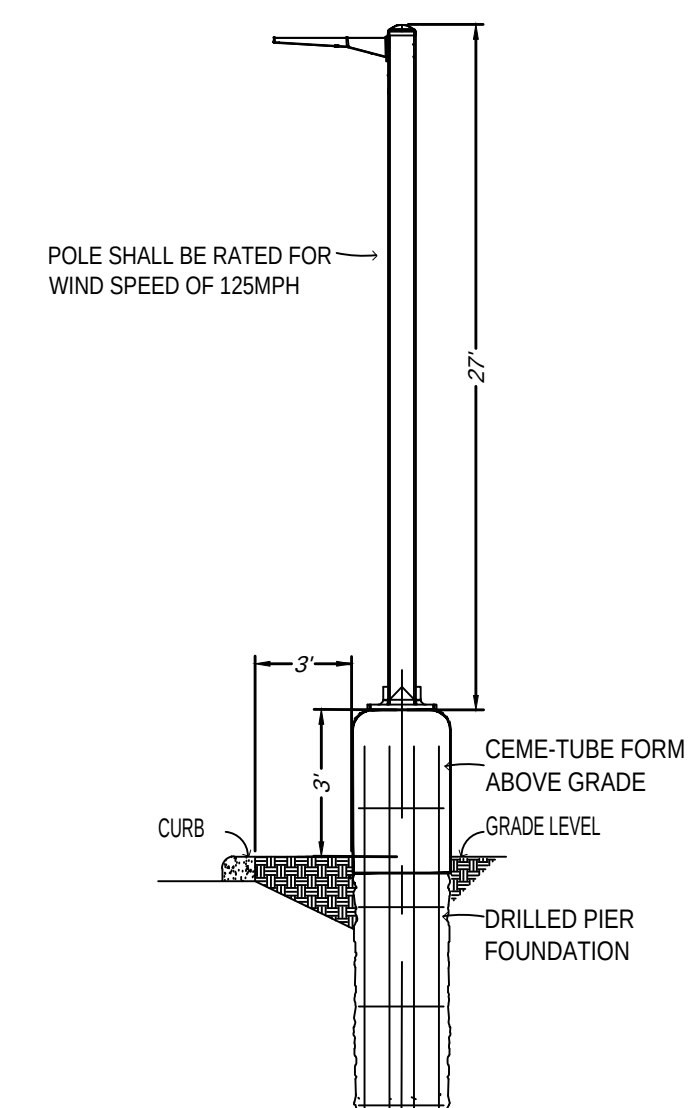
- FOOTCANDLE LEVELS SHOWN ON THIS PLAN ARE CALCULATED AT GRADE LEVEL.
- ALL POLES SHALL BE INSTALLED A MINIMUM OF 3'-0" FROM BACK OF CURB TO EDGE OF POLE BASE UNLESS NOTED.
- POLE THAT ARE LOCATED AT CORNER OF ISLAND SHALL BE A MINIMUM OF 6'-0" FROM BACK OF CURB TO EDGE OF POLE BASE. POLES THAT MUST BE INSTALLED LESS THAN 6'-0" FROM BACK OF CURB TO EDGE OF POLE BASE SHALL HAVE PROTECTIVE BOLLARDS INSTALLED AROUND THE POLE BASE. COORDINATE WITH KWIK TRIP PRIOR TO INSTALLATION.

KEYED NOTES:

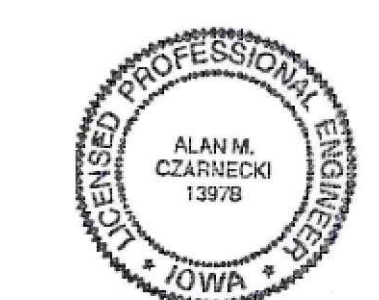
- COORDINATE LOCATION AND MOUNTING HEIGHT OF SECURITY CAMERA WITH OWNER.
- CONTRACTOR SHALL POLE MOUNT FIXTURE 6'-0" FROM BACK OF CURB TO EDGE OF POLE BASE.
- CONTRACTOR SHALL INSTALL POLE MOUNT FIXTURE 12'-0" FROM THE OVER DIG OF UNDERGROUND FUEL TANK TO EDGE OF POLE BASE.



LOT LIGHT ELEVATION DETAIL
NOT TO SCALE
DETAIL APPLIES TO POLES 1 THRU 16



LOT LIGHT ELEVATION DETAIL
NOT TO SCALE
DETAIL APPLIES TO POLES 17 THRU 28



2024-0195.20

GRAEF
275 West Wisconsin Avenue, Suite 300
Milwaukee, WI 53203
414 / 259 1500
414 / 259 0037 fax

Kwik Trip

Kwik Star

KWIK TRIP, Inc.
P.O. BOX 2107
1626 OAK STREET
LACROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960

INSITES
SITE PLANNING LANDSCAPE
3131 FEARHURST LANE N
Plymouth, Minnesota 55442
763.383.8400
fax 763.383.8440

PHOTOMETRIC SITE PLAN

CONVENIENCE STORE 1742

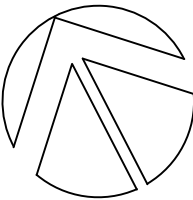
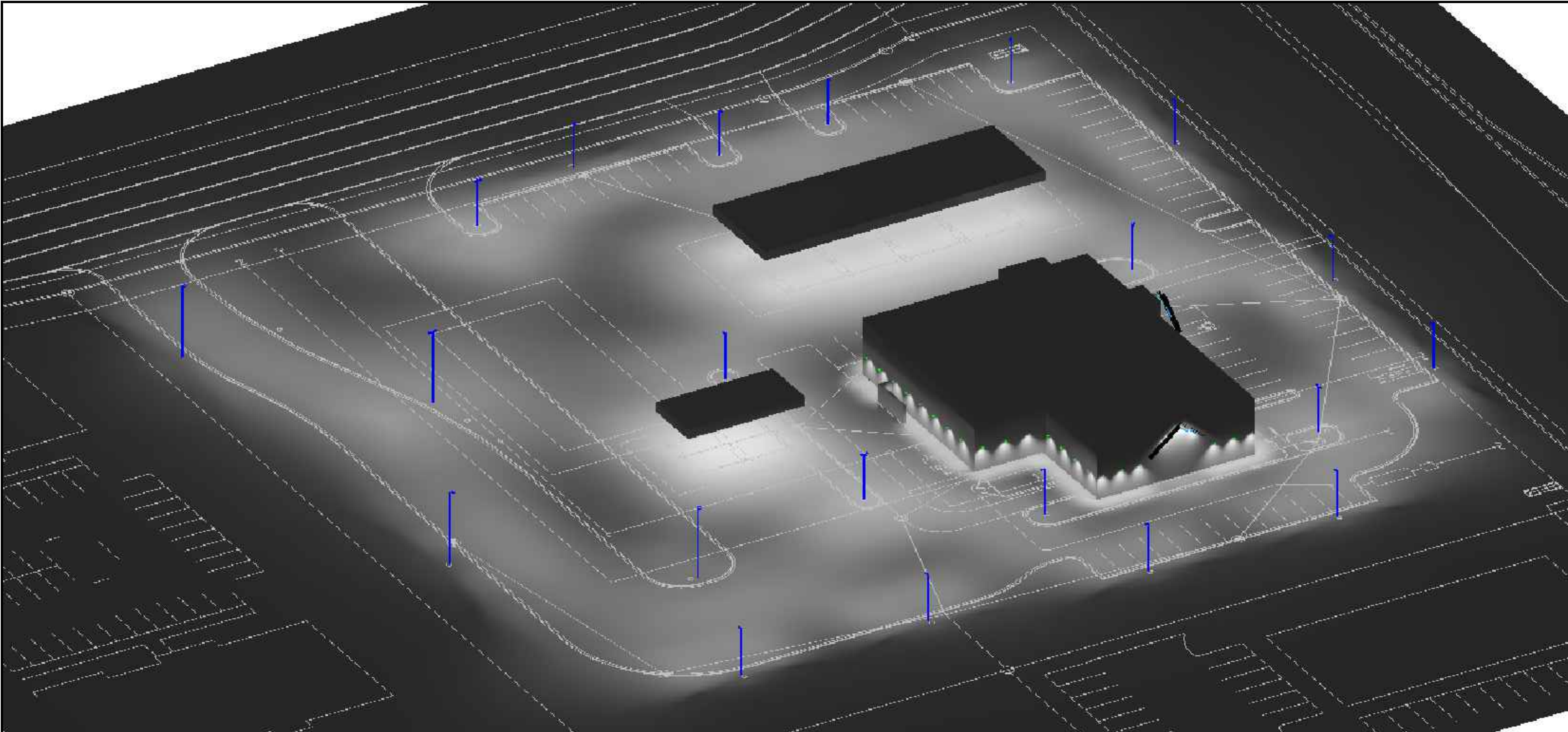
INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
-	28JUN24	SUBMITTAL
-	08JUL24	REVIEW COMMENTS
-	16JUL24	TANK UPDATE
-	02AUG24	ACCESS SHIFT
-	20AUG24	CITY COMMENTS
-	24AUG24	CITY SUBMITTAL
-		
-		
-		
-		
-		

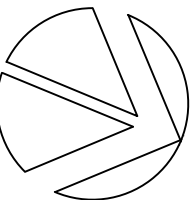
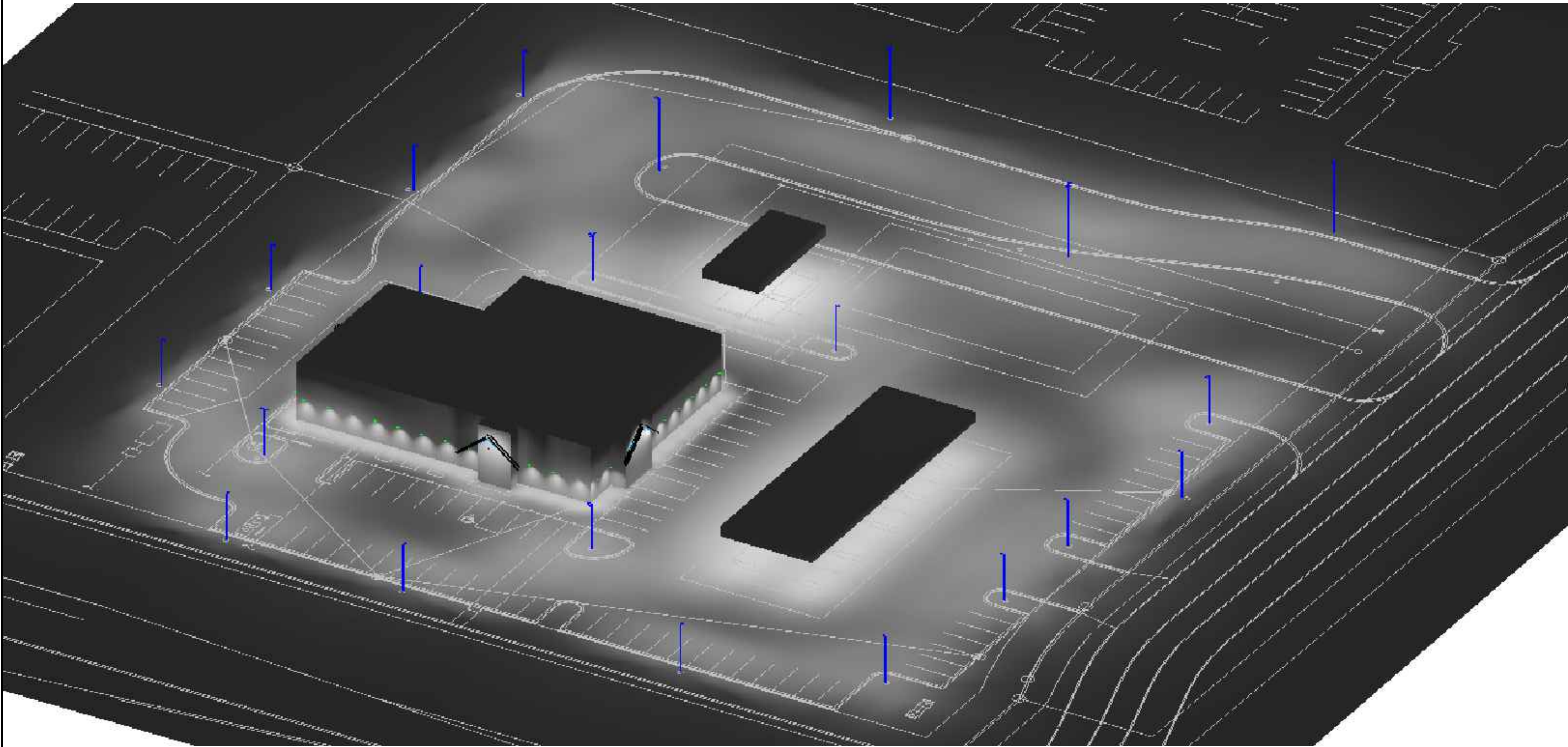
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SCALE	GRAPHIC
PROJ. NO.	24-1742
DATE	28JUN2024
SHEET	C800

INSITES 24-002 PM N.B.

PHOTOMETRIC SITE PLAN
SCALE: 1" = 30'-0"



PHOTOMETRIC RENDERING PLAN
NOT TO SCALE



PHOTOMETRIC RENDERING PLAN
NOT TO SCALE



9-20-24
[Signature]

2024-0195.20



275 West Wisconsin Avenue, Suite 300
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414 / 259 1500
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TRIP**

**KWIK
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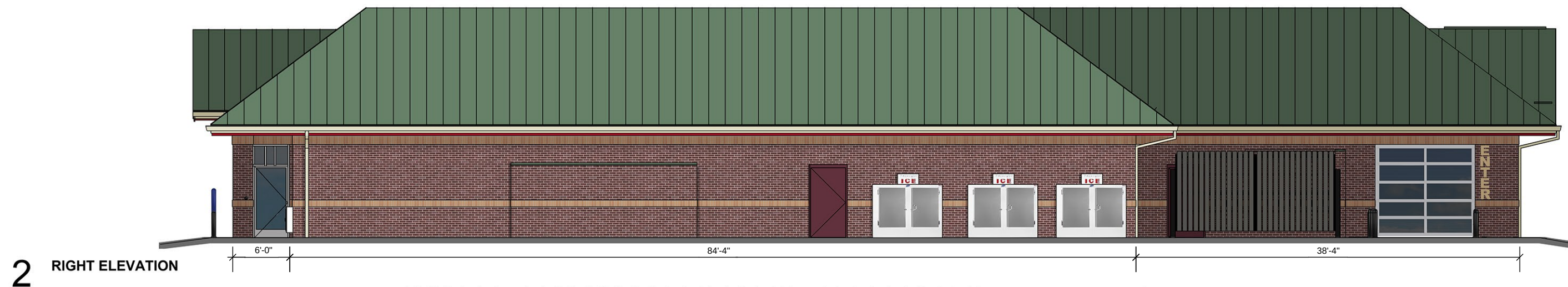
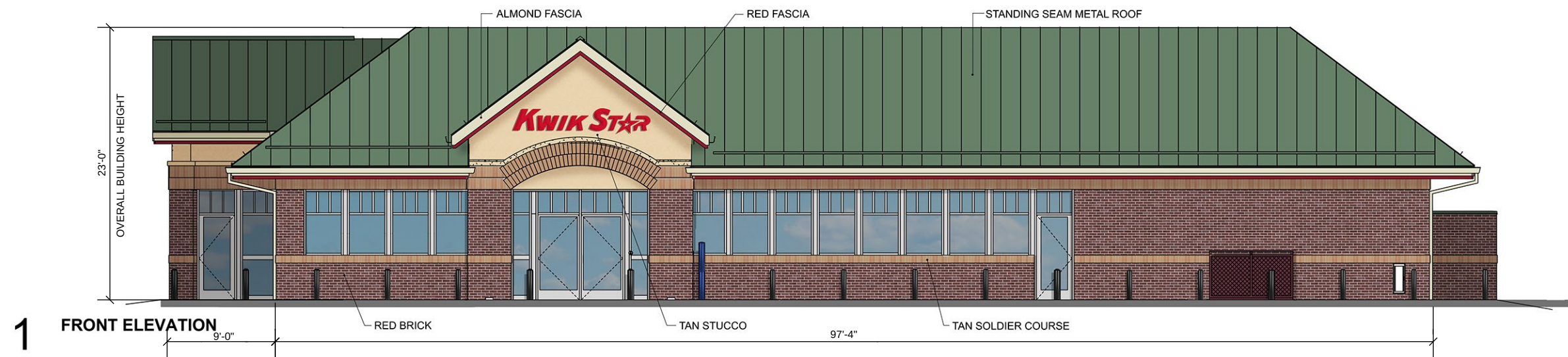
PHOTOMETRIC RENDERING
PLANS

CONVENIENCE STORE 1742

INDIANOLA, IOWA

NO.	DATE	DESCRIPTION
-	28JUN24	SUBMITTAL
-	08JUL24	REVIEW COMMENTS
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-	-	-
-	-	-
-	-	-
-	-	-

DRAWN BY	DLC
SCALE	GRAPHIC
PROJ. NO.	24-1742
DATE	28JUN2024
SHEET	C801



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Community Development

110 N. First St., Indianola, IA 50125-0299 • www.indianolaiowa.gov
515-961-9430 • comdev@indianolaiowa.gov

September 2024

<u>Code</u>	<u>Type</u>	<u>Permits Issued</u>	<u># of Units</u>	<u>Amount</u>	<u>Average</u>
101	Single Family Home	2	2	\$792,500.00	\$396,250.00
102	Single Family Attach	0		\$0.00	
103	Two Family	0		\$0.00	
104	Three or More Families	0		\$0.00	
	Mobile Homes	0		\$0.00	
322	Service Stations	0		\$0.00	
324	Office	0		\$0.00	
328	Non-resident buildings	0		\$0.00	
329	Pool	2		\$170,500.00	
434	Residential Add/Alt	9		\$162,598.04	
437	Non-residential add/alt	0		\$0.00	\$0.00
438	Res garage/carports	0		\$0.00	
645	Demo - residential	0		\$0.00	
649	Demo - commercial	0		\$0.00	
September Total		13		\$1,125,598.04	
Residential Value		Commercial Value			
84.9%		0.0%			

YEAR TO DATE TOTAL					
<u>Code</u>	<u>Type</u>	<u>Permits Issued</u>	<u># of Units</u>	<u>Amount</u>	<u>Average</u>
101	Single Family Home	32	32	\$10,577,170.00	\$330,536.56
102	Single Family Attach	2	4	\$750,000.00	
103	Two Family	0		\$0.00	
104	Three or More Families	0		\$0.00	
	Mobile Homes	0		\$0.00	
322	Service Stations	0		\$0.00	
324	Office	0		\$0.00	
328	Non-resident buildings	3		\$5,728,875.00	
329	Pool	7		\$277,741.00	
434	Residential add/alt	68		\$1,714,441.36	
437	Non-residential add/alt	13		\$68,510,350.00	
438	Res garage/carports	4		\$100,600.00	
645	Demo - sfd	1		\$0.00	
649	Demo - commercial	0		\$0.00	
YTD TOTAL		130	36	\$87,659,177.36	
Residential Value		Commercial Value			
13.4%		84.7%			0.0%