

**Due to the COVID-19 concerns and social distancing recommendations, a virtual meeting is being offered. Participants wishing to speak on a topic should message the meeting moderator. All participants are asked to mute their individual computers at times when they are not speaking to minimize background noise. Join: <https://us02web.zoom.us/j/89006537974>*

**NOTICE OF A REGULAR MEETING
BONDURANT PLANNING AND ZONING COMMISSION
SEPTEMBER 23, 2021**

NOTICE IS HEREBY GIVEN that a Regular Meeting of the City Council will be held at 6:00 PM on September 23, 2021, in the Bondurant City Center, 200 Second Street, Northeast, Bondurant, Polk County, Iowa. Said meeting is open and the public is encouraged to attend.

AGENDA

1. Call to Order
2. Roll Call
3. Perfecting and Approval of the Agenda
4. Approval of Minutes
 - a. September 9, 2021
5. Guests requesting to address the Planning and Zoning Commission
6. Action Items
 - a. PZ-210923-22: Considering recommended approval of the JAS Concrete site plan at 701 23rd Street SW
7. Discussion Items -
8. Reports / Comments and appropriate action thereon:
 - a. Commission Members
 - b. Commission Chair
 - c. Planning & Community Development Director
 - d. City Administrator
 - e. City Council Liaison
9. Adjournment

Bondurant Planning and Zoning Commission
Minutes
September 9, 2021

1. Call to Order
Commission Chair Cuellar called the meeting to order at 6:06 p.m. and declared a quorum.
2. Roll Call

Present:	Commission Member Brian Clayton, Commission Member Andy Mains, Commission Member Torey Cuellar, Commission Member Karen Keeran, Commission Member Wes Hoyer, Commission Member Kristin Brostrom, Commission Member Lisa Cameron
Absent:	None
City Officials Present:	City Administrator Marketa Oliver, Planning & Community Development Director Maggie Murray
3. Perfecting and Approval of the Agenda
Motion by Commission member Hoyer, seconded by Commission Member Mains, to approve the agenda as is. Vote on Motion 7-0. Motion carried.
4. Approval of Minutes
Motion by Commission Member Clayton, seconded by Commission Member Mains, to approve the August 26, 2021 Planning & Zoning Commsision meeting minutes. Vote on Motion 7-0. Motion carried.
 - a. August 26, 2021
5. Guests requesting to address the Planning and Zoning Commission
None
6. Action Items
 - a.
 1. PZ-210909-21: Considering recommended approval of the David Ross Plat of Survey (Parcel 2021-117)

Murray summarized the agenda statement as presented in the agenda packet.

Motion by Commission Member Clayton, seconded by Commission

Member Mains, for recommended approval of PZ-210909-21, regarding recommended approval of the David Ross Plat of Survey (Parcel 2021-117) subject to the conditions as noted in the P&Z agenda statement which include:

1. The plat of survey must be updated to show 45'-wide street easement areas adjacent to this site instead of 33'-wide street areas.
2. That approval of the plat of survey is subject to City Council's approval of the amended Chapter 165 of the City Code.
3. That a stream buffer easement must be recorded prior to the City releasing the plat of survey resolution for recording.
4. Acknowledgement that the 100-year floodplain is located on this site, and if development occurs it shall meet all requirements of Chapter 165 of the City Code, titled Floodplain Management.
5. That if the owner adjacent to the north at 7908 NE 88th Street purchases this Parcel 2021-117, a lot tie agreement will be required prior to building permit approval of an accessory structure on this new parcel. Accessory structures are subject to the requirements of Section 177.04 of the Zoning Code.
6. That if this site connects to the area sanitary sewer main, payment to the City's Urban Service Area Connection Fee District is required prior to building permit issuance.

Roll Call: Ayes: Commission Member Clayton, Commission Member Mains, Commission Member Cuellar, Commission Member Keeran, Commission Member Brostrom, Commission Member Hoyer, Commission Member Cameron. Nays: None. Absent: None. Motion carried 7-0.

7. Discussion Items -

Murray noted The Birds Nest called and would like to place a shed on their property in the side yard area just south of their building. Murray noted the Zoning Code does not allow for placement of side yard sheds. Murray sought guidance from the Commission on whether The Birds Nest should pursue a variance or if the Commission would entertain a text amendment to allow for commercial sheds within the side yard area. The Commission provided feedback that The Birds Nest should pursue a variance if wanting to place a shed in the side yard. The Commission noted that The Birds Nest should try to tuck the shed back behind the existing dumpster enclosure area north of their building.

8. Reports / Comments and appropriate action thereon:

**Due to the COVID-19 concerns and social distancing recommendations, a virtual meeting was offered.*

a. Commission Members

Commission Member Brostrom - none

Commission Member Hoyer - none

Commission Member Clayton - noted grading concerns in the Highpoint Estates development area. Murray noted she will reach out to the City Engineer.

Commission Member Mains - none

Commission Member Cameron - none

Commission Member Keeran - none

b. Commission Chair

Commission Chair Cuellar - none

c. Planning & Community Development Director

Murray provided an update on the Top Farms rezoning/future land use map update public hearing and first ordinance reading at the City Council level. Murray also noted the City has been awarded a grant by the Iowa DNR to plant up to 90 trees.

d. City Administrator

Oliver - none

e. City Council Liaison

Peffer - absent

9. Adjournment

Motion by Commission Member Clayton, seconded by Mains, to adjourn the meeting at 6:23 p.m. Vote on Motion 7-0. Motion carried.



**BUSINESS OF THE PLANNING AND ZONING COMMISSION
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.a.
For Meeting of 9/23/2021
Resolution

TITLE: PZ-210923-22: Considering recommended approval of the JAS Concrete site plan at 701 23rd Street SW

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: Brief History:

The City is in receipt of a site plan for review by the Planning & Zoning Commission and City Council for the proposed JAS Concrete site at 701 23rd Street SW. This development site is comprised of 10 acres and is located within the Shiloh Rose Business Park Plat 2 Final Plat area. This development site is highlighted on the map below.



JAS Concrete is proposing construction of a 20,000 SF structure at this location. This property is zoned as being within the City's Limited Industrial (M-1) District. The JAS Concrete use is considered a permitted use per Section 178.13.1.M of the Zoning Code, which allows for the

following type of use: contractor's office and storage buildings.

In July 2021 JAS Concrete obtained a conditional use permit from the City's Board of Adjustment to allow for the proposed outdoor storage yard area as shown on the attached site plan. The conditions of the Board of Adjustment approval included the following:

1. That the outdoor storage yard areas shall be used for outdoor storage space only and shall not be used for employee/customer parking as the Zoning Code requires pavement for such parking areas (Section 177.10.2).
2. That the outdoor storage yard areas shall be used for outdoor storage space only and shall not be used for outdoor manufacturing, assembling, compounding, processing, packaging, or other comparable treatment, as such outdoor uses must be conducted within an enclosed building (Section 178.13.1)
3. That the fencing as proposed during the Board of Adjustment meeting is considered acceptable and required (8'-tall chain link).
4. That the outdoor storage yard area be screened from the 23rd Street SW right-of-way but that such screening is not required from the east, west, and south.
5. That the proposed outdoor storage yard area shown in orange on the site layout shall not be situated further north than the south wall of the building.
6. That the area labeled as being Future Lot shall not be used as an outdoor storage yard area.

When the Planning & Zoning Commission and City Council reviews site plans, they review for consistency with the following documents: Comprehensive Plan; Zoning Code; and Comments from City Officials.

Analysis:

Consistency with the City's Comprehensive Plan

Since the JAS Concrete is a permitted use of the M-1 District, no rezoning is proposed. This industrial use is consistent with the City's amended Future Land Use Map which guides for industrial use within the Shiloh Rose Business Park area.

Consistency with the City's Zoning Code

Below are notes detailing how the Zoning Code is met for this request or what additional information is needed to ensure the Code will be met for this development.

• General Commercial Use & Bulk

- The JAS Concrete use is considered a permitted use per Section 178.13.1.M of the Zoning Code, which allows for contractor's offices and storage buildings.
- JAS Concrete obtained a conditional use permit through the Board of Adjustment to allow for the outdoor storage yard area as proposed on the attached site plan, as the M-1 District requires such conditional use permit.

- The site plan shows the following minimum M-2 yard setback requirements as being met for this development: 50' front, 20' side, and 50' rear.
- The architectural plans note the building will be 26'-tall, which stays under the maximum M-1 District height requirement of 80'.
- **Parking/Drive Areas**
 - The site plan shows the parking/drive area will be paved as required by Section 177.10.2 of the Zoning Code. This excludes the gravel outdoor storage yard area.
 - The site plan notes JAS Concrete will employ 30 people. 32 parking spaces are proposed, which meets the Zoning Code requirement of at least 1 parking space on the lot per each employee.
 - The site plan shows 21 off-street loading spaces proposed. This meets minimum count requirements of the Zoning Code.
 - The site plan shows two driveway access points out to the the new east/west 23rd Street SW. City Engineering has reviewed the two access points and has provided the following feedback: as part of the site plan approval process, it will be necessary for the developer to provide additional shared access easement. The additional easement will be needed on the westerly side of the shared access. Based on the configuration of the driveway it also appears the shared access easement will need to extend far enough south to allow a driveway to Lot 2 south of the right turn taper.
 - The site plan shows parking spaces will be provided with raised curbing or equivalent, as is required by Section 177.10.8.
- **Stormwater, Utilities, & Natural Features**
 - A stormwater management report was submitted and has been reviewed by City Engineering. The following note has been relayed to the site plan engineer: the discharge from the south stormwater detention basin flows overland to the southeast into undeveloped crop land. The stormwater management report will need to be updated to document the discharge from the south detention basin will not adversely impact the downstream property owner.
 - The south detention basin will require written consent of MidAmerican Energy for the overhead transmission lines.
 - Pages C4.1 and C.42 contain the required utility plan. Notes on this:
 - These pages show an extension of an 8" water main south to a hydrant located near the northwest corner of the building. The site plan must be updated to show the required hydrant coverage circles.
 - The site plan shows both a 4" fire protection and a 2" domestic water service.
 - A 6" sanitary sewer service is extended south from the new sewer along the south side of 23rd Street to the building. The sanitary sewer service includes a sand/oil separator. The applicant will need to show documentation its sand/oil separator is in conformance with any requirements of the WRA relative to industrial facilities.

- This property is situated within the Highway 65 water and sanitary sewer connection fee district areas. Payment for these connection fee districts is required prior to building permit issuance.
- This site is not situated within FEMA's 100-year floodplain area.
- This site is not situated within the City's Stream Buffer Ordinance area.

- **Landscaping Plan**

- Page C5.1 contains the required landscaping plan. Notes on this:
 - The landscaping plan will need to be updated so that it complies with the following condition of the conditional use permit: that the outdoor storage yard area shall be screened from the 23rd Street SW right-of-way.
 - The landscaping plan will need to be updated so that it provides the calculation of minimum general trees required; at least 1 per 50' of street frontage or at least 1 per each 6 parking spaces, whichever is greater.
 - The landscaping plan will need to be updated to show that the general trees will be planted within the required 50' front yard area at the following rate: at least 1 per each 50' of street frontage.
 - Site plan to be updated to show/note that all trees will be planted at least 4' away from the front property line, as is required by Section 182.05.E.
 - This site shows 34 parking spaces proposed. $34/18 =$ at least 2 interior trees required. The landscaping plan shows 2 interior trees proposed.
 - The landscaping plan notes that deciduous trees are proposed for the general and interior trees. This meets the type requirements as regulated by Section 182.05.D.1.
 - The landscaping plan will need to be updated to note that the deciduous trees will be a minimum of 1 3/4" caliper in size at the time of planting, as is required by Section 182.04 of the Zoning Code.
 - The site plan will need to be updated to note the total SF and percentage of pervious and impervious area proposed on site. Impervious to take into account the gravel outdoor storage yard area.
 - The site plan will need to be updated to show/note that 5% of the parking/drive area visible from the right-of-way will be considered interior greenspace, as is required by Section 177.10.7.A.

- **Architectural Elevations**

- Attached are the draft elevations that have been received. Notes on these elevations:
 - General requirements as regulated by Section 179.01.2.I.1 -
 - Section 179.01.2.I.2.a - buildings shall be designed such that there is adequate treatment or screening of negative aspects (loading areas, loading docks, HVAC mechanical units, non-residential overhead doors, etc.) from the public right-of-way and adjoining properties. *Site plan to be updated to show some*

*additional landscaping between the overhead doors facing north
fahd the 23rd Street SW right-of-way so this requirement is met.*

- Section 179.01.2.I.1.a - buildings shall be designed to not expose loading docks or loading areas to the public unless screening is proposed. *Site plan to be updated to show some additional landscaping between the overhead doors facing north fahd the 23rd Street SW right-of-way so this requirement is met.*
- Section 179.01.2.I.1.b requires that roof mounted mechanical units shall be screened from view of public right-of-way. *The elevations do not show any roof mechanicals proposed.*
- This site is located more than 500' away from the Highway 65 right-of-way corridor, meaning the building design is not subject to the Overlay District requirements and is instead subject to the following general industrial district building design/material requirements:
 - The exterior building material of the front elevation shall be comprised of at least 50% glass, brick, concrete panels, textured concrete block, stone panels, or other similar material when after review by the Planning & Zoning Commission and City Council, the material when used as a primary element does not distract from the physical appearance of the building. *Feedback has been relayed by staff to the developer that the elevations will need to be updated to show this item as being met. Staff noted that for recent projects, architectural metal panels with concealed fasteners has been considered acceptable.*
 - Buildings proposed in industrial areas that are adjacent to less intense uses should be designed with an articulated roofline to help divide the mass of the large building into smaller, identifiable parts. *N/A, as industrial zoning surrounds this property on all sides.*
 - Industrial buildings shall incorporate facade modulation in all building elevations visible to the public right-of-way or other less intense uses. *The elevations show a variety of building materials on the front elevation to meet this requirement. The remaining elevations are not required to meet this, as they are not adjacent to a less intense use.*

- **Other Site Plan Features**

- If any detached monument signage is proposed, site plan to show its location.
- The site plan shows that 8'-tall fencing will be installed surrounding the parking and outdoor storage yard area.
- If an exterior dumpster is proposed, site plan to be updated to show its location.

- The attached P&Z resolution notes the following relative to public sidewalks: that as noted under Note 2 of the recorded Shiloh Rose Business Park Plat 2, in the event the City designates a frontage sidewalk to be wider than 5', at the time of site development the property owner shall deposit with the City the equivalent cost of a 5'-wide sidewalk.

Comments from City Officials:

The following City departments were notified of the submitted site plan:

1. Public Works - no comments have been received. This has been factored in as part of the attached P&Z recommendation resolution.
2. Engineering - Bob Veenstra, City Engineer, has reviewed and has provided feedback to the developer. This has been factored in as part of the attached P&Z recommendation resolution.
3. Fire Department - no comments have been received. This has been factored in as part of the attached P&Z recommendation resolution.

FUNDING SOURCE: N/A

STAFF RECOMMENDATION: The following options exist for the Planning & Zoning Commission:

1. Recommended approval of the JAS Concrete site plan at 701 23rd Street SW.
2. Recommended approval of the JAS Concrete site plan at 701 23rd Street SW, subject to Zoning Code clarification items being met.
3. Recommended denial of the JAS Concrete site plan at 701 23rd Street SW.
4. Table pending additional information.

Staff recommends approval of the attached P&Z resolution regarding recommended approval of the JAS Concrete site plan at 701 23rd Street SW. The attached resolution notes the following Zoning Code clarification items:

1. Utility connection fee district fees must be paid prior to building permit issuance.
2. Documentation of MidAmerican's consent must be submitted prior to beginning any grading work within their easement area.
3. If any exterior dumpster is proposed on site, site plan to be updated to show its location and note how it will be screened.
4. That as noted under Note 2 of the recorded Shiloh Rose Business Park Plat 2, in the event the City designates a frontage sidewalk to be wider than 5', at the time of site development the property owner shall deposit with the City the equivalent cost of a 5'-wide sidewalk.
5. Landscaping plan to be updated to address staff's comments listed in this agenda statement.
6. Comments from City Engineering, Public Works, and the Fire Department must be addressed, including but not limited to:
 1. SUDAS reference to be corrected.
 2. Shared access comments in this agenda statement to be addressed.
 3. Hydrant coverage to be shown.
 4. Acknowledgement that the sand/oil separator will need WRA approval prior to install.

5. General permit number 2 is required prior to grading.
6. Clarification requested on the discharge from the south detention basin to show that it will not adversely impact the south undetained area.
7. Table 2.1 of the stormwater management report to be updated to clarify flow components of the basin.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. 2021 09 09 - JAS Concrete Site Plan Set
2. Elevations - Received 09232021
3. RESOLUTION NO. PZ-210923-22 - JAS Concrete, 701 23rd Street SW

PLANS OF PROPOSED IMPROVEMENTS FOR

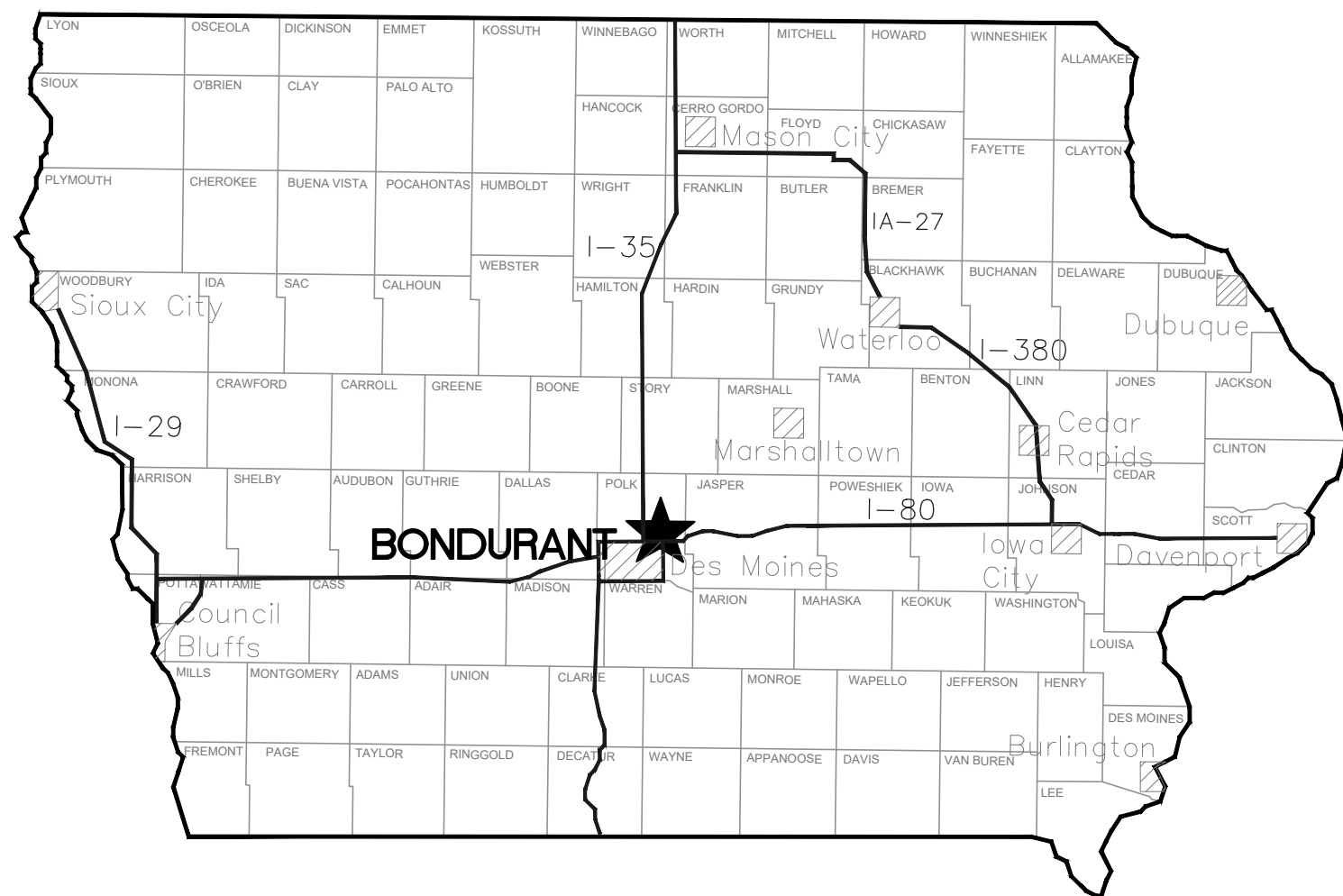
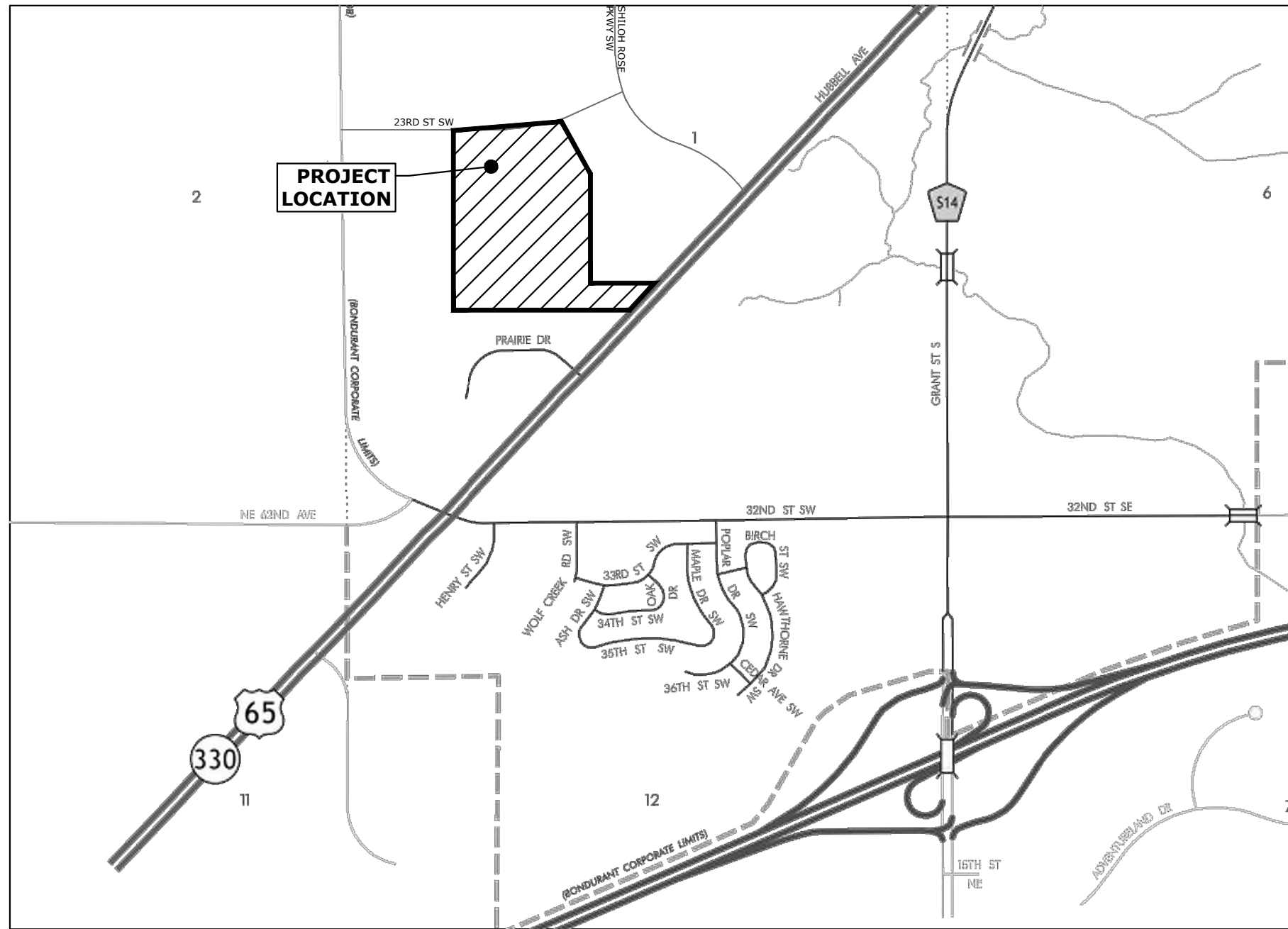
JAS CONCRETE

SITE PLAN BONDURANT, IOWA

2021

LOCATION MAP

NOT TO SCALE



GENERAL NOTE: ALL UTILITIES ARE ONLY GENERALLY LOCATED. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING ALL UTILITIES THAT MAY INTERFERE WITH CONSTRUCTION BEFORE CONSTRUCTION BEGINS.

INDEX OF SHEETS

No.	Description
G1.1	COVER SHEET
G2.1	GENERAL NOTES / LEGEND
G3.1 - G3.6	TYPICAL DETAILS
C1.1	EXISTING CONDITIONS & REMOVALS
C2.1	SITE LAYOUT & DIMENSIONING PLAN (NORTH)
C2.2	SITE LAYOUT & DIMENSIONING PLAN (SOUTH)
C3.1	GRADING PLAN
C3.2	GRADING PLAN (NORTH)
C3.3	GRADING PLAN (SOUTH)
C4.1	UTILITY PLAN (NORTH)
C4.2	UTILITY PLAN (SOUTH)
C5.1	LANDSCAPE PLAN
C6.1 - C6.2	STORM WATER POLLUTION PREVENTION PLAN

SITE PLAN DATA

DEVELOPMENT NAME:	JAS Concrete
SITE ADDRESS:	701 23rd St SW
LEGAL DESCRIPTION:	Lot 3, Shiloh Rose Business Park Plat 2, Polk County, Iowa
APPLICANT & OWNER:	JAS Concrete Att: Joe Free 208 3rd Ave. SW Altoona, IA 50009 Phone: 515-238-1973 Email: joe@jasconcrete.com
SITE PLAN PREPARED BY:	John Gade, P.E. FOX Engineering Associates 414 S. 17th Street Suite 107 Ames, Iowa 50010 Phone: 515-233-0000 Email: jmg@foxeng.com
ZONING:	M-1 - Limited Industrial
BUILDING SETBACKS:	Front 50 FT Street Side Yard 20 FT Interior Side Yard 20 FT Rear 50 FT
BUILDING USE:	Headquarters for JAS Concrete. Office, storage and equipment maintenance.
CONDITIONAL USE PERMIT:	Bondurant Board of Adjustment approved RESOLUTION NO BOA-210713-03 allowing outdoor storage.
SURVEY DATUM:	All elevations are to NAV 88 unless otherwise noted
FLOOD INFORMATION:	This site is not in a regulated floodplain
SITE AREA	10.00 AC PROVIDED
NEW BUILDING AREA:	20,000 SF 4.6%
NEW PAVEMENT AREA:	88,799 SF 20.4%
NEW GRANULAR AREA:	171,004 SF 39.3%
TOTAL OPEN SPACE:	155,797 SF 35.8%
REQUIRED OPEN SPACE:	15%
PARKING	
PARKING REQUIRED:	1 stall/employee
MAX EMPLOYEES:	30 employees/shift
TOTAL SPACES REQUIRED:	30 Spaces
TOTAL SPACES PROVIDED:	32 Spaces (INCLUDES ADA STALLS)
HANDICAP SPACES REQ'D:	2 Spaces
HANDICAP SPACES PROV'D:	2 Spaces (INCLUDES 1 ADA VAN STALL)
WATER SUPPLY:	There is an existing 12" water main along the north side of 23rd Street SW. An 8-inch water stub has been provided to Lot 3.
SANITARY SEWER:	There is no sanitary sewer service stub to this property. The Developer will connect onto the existing 12-inch sanitary sewer and extend a 6-inch private sewer line to the site and terminate. Building will have a sand oil separator for the warehouse & wash bay. The office area will have a 6-inch sanitary sewer service.
STORM SEWER:	Storm water detention will be required per City Code. The front equivalent area of the property that currently drains to the north will be allowed to discharge into the 23rd St SW storm sewer. The south portion of the lot will drain to the south into a proposed dry detention pond under the electrical easement. The detention pond will be sized to release storm water at the 5-year predeveloped condition.
CONSTRUCTION SCHEDULE:	Start Construction in September of 2021. Complete Construction by November of 2022.

ENGINEER:

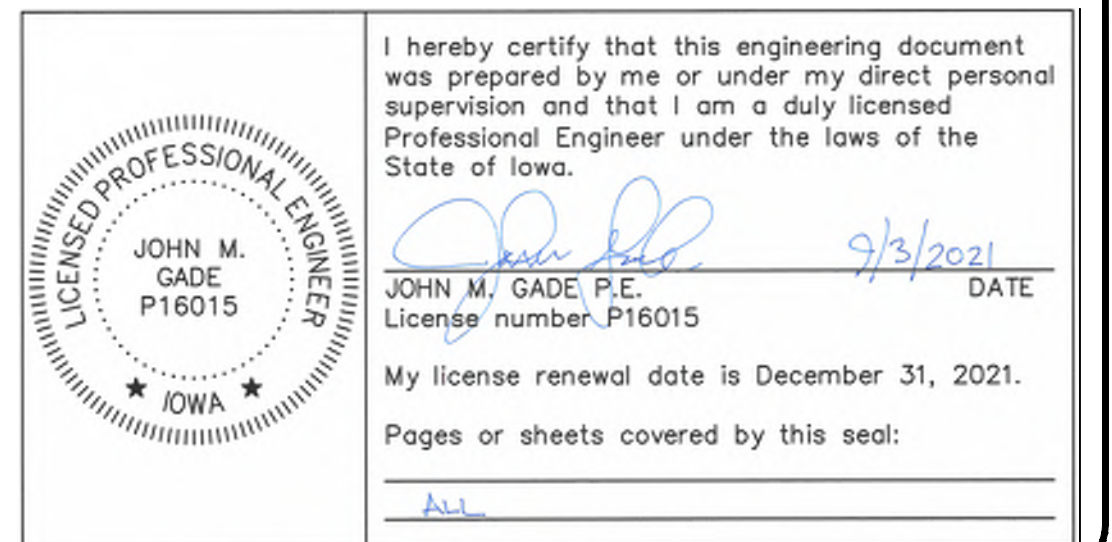
FOX ENGINEERING

414 SOUTH 17TH STREET, SUITE 107
AMES, IOWA 50010
PHONE: (515) 233-0000
FAX: (515) 233-0103



THIS PROJECT IS COVERED BY THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2. THE CONTRACTOR SHALL CARRY OUT THE TERMS AND CONDITIONING OF GENERAL PERMIT NO. 2 AND STORM WATER POLLUTION PREVENTION PLAN WHICH IS PART OF THESE CONTRACT DOCUMENTS. REFER TO SECTION 2602 OF THE DOT STANDARD SPECIFICATION FOR ADDITIONAL INFORMATION.

THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2021, PLUS GENERAL SUPPLEMENTAL SPECIFICATIONS, AND APPLICABLE SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, AND SPECIAL PROVISIONS, SHALL APPLY TO CONSTRUCTION ON THIS PROJECT.



DATE	BY	DESIGNED	DRAWN	CHECKED	LAST UPDATE
08/21	JMG		SRS		09/02/21

DATE	REVISION

FOX Engineering Associates, Inc.
414 South 17th Street, Suite 107
Ames, Iowa 50010
Phone: (515) 233-0000
FAX: (515) 233-0103



COVER SHEET
JAS CONCRETE
BONDURANT, IOWA
2021

PROJECT NO.
5519-21A
SHEET
G1.1

JAS CONCRETE

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COORDINATION REQUIREMENTS:

1. Any conflicts between Contractors, subcontractors, private utilities, or others may be reconciled by the Owner.
2. Work by private utilities shall be coordinated by the Contractor. This shall include, but not be limited to, the relocation of telephone lines, fiber optic lines, cable, etc.

CONNECTIONS TO EXISTING FACILITIES:

1. All Work shall be done to the lines, grades, and elevations indicated on the Drawings. Rough Grading Staking (100-ft grid), Fine Grading (50-ft grid), Pavement (Hubs every 25-ft), and Utilities (per SUDAS). Survey, layout, and staking is by FOX. Contact Seth Polich at 515-233-0000 for construction staking. Give 48-hours notice for all staking requests. The Contractor shall verify all match points during the phasing of the work and maintain drainage paths during the work to prevent ponding of water. Any restaking will be paid to FOX by the Contractor.

CONNECTIONS TO EXISTING FACILITIES:

1. Unless otherwise specified or indicated, Contractor shall make all necessary connections to existing facilities, including structures, drain lines, and utilities such as water, sanitary sewer, gas, telecommunications, storm sewer and electric. In each case, Contractor shall receive permission from Owner or the owning utility prior to undertaking connections. Contractor shall protect facilities against deleterious substances and damage.

UNFAVORABLE CONSTRUCTION CONDITIONS:

1. During unfavorable weather, wet ground, or other unsuitable construction conditions, the Contractor shall confine his operations to work, which will not be affected adversely by such conditions. No portion of the Work shall be constructed under conditions, which would affect adversely the quality or efficiency thereof, unless special means or precautions are taken by the Contractor to perform the work in a proper and satisfactory manner.

CLEAN UP:

1. Contractor shall keep the premises occupied by the Contractor free from accumulations of waste materials and rubbish at all times. Contractor shall provide separate recycling and trash receptacles about the work site, promptly empty containers when filled, and properly dispose of waste materials at his expense. Wastes shall not be buried or burned on the site or disposed of in trenches, storm drains, sewer, streams, or waterways.

paint, co

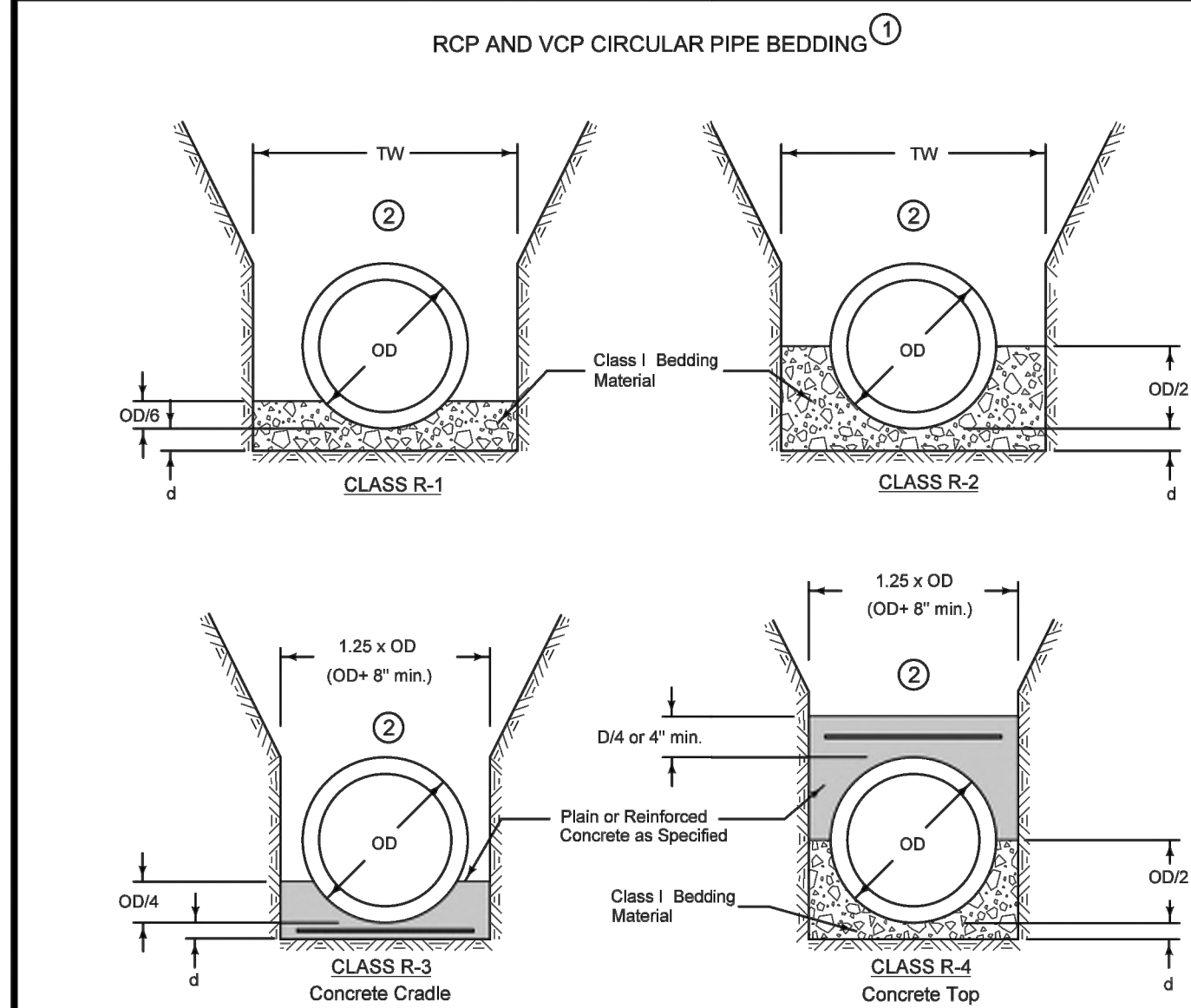
2. Construction materials such as forms shall be neatly stacked by Contractor when not in use. Contractor shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids, and cleaning solutions from surfaces to prevent marring or other damage.

[illegible]

- [illegible]

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Refer to sheet 2 for bury depth restrictions.

- ① Use Bedding Class R-1 or R-2 unless specified otherwise.
- ② Place remainder of bedding and backfill materials as specified in the contract documents.

Key

OD = Outside diameter of pipe
OS = Outside span of pipe
TW = Trench width at top of pipe:
Min. = OD+18 inches
Max. = 1.25xOD+12 inches OR
54 inches (whichever is greater)
d = Depth of bedding material below pipe:
OD/8 or OS/8, OR 4 inches
(whichever is greater)

REINFORCED CONCRETE ARCH AND ELLIPTICAL PIPE BEDDING

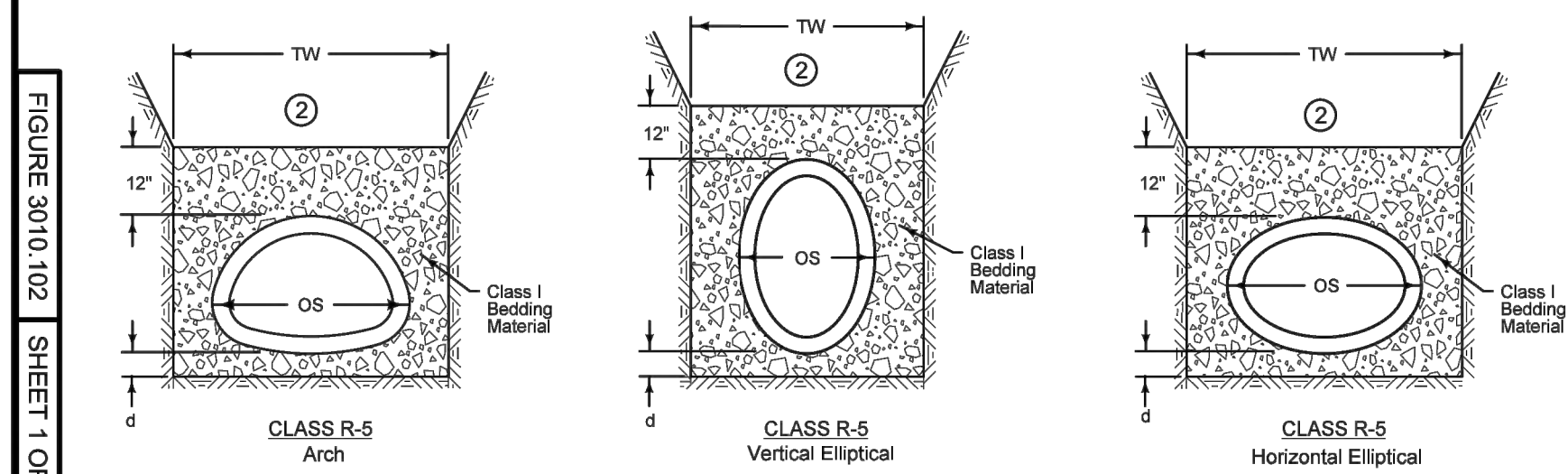


FIGURE 3010.102 SHEET 1 OF 2

SUDAS	IOWA DOT	REVISION 3 04-16-19
FIGURE 3010.102	STANDARD ROAD PLAN	SW-102
REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.		
Paul D. Wigand DESIGN METHODS ENGINEER		
RIGID GRAVITY PIPE TRENCH BEDDING		

FIGURE 3010.102 SHEET 2 OF 2

ALLOWABLE BURY DEPTH

CLASS III RCP

CLASS IV RCP

CLASS V RCP

Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	7'	10'	15'	19'	27'
15	8'	10'	16'	19'	27'
18	8'	11'	16'	20'	40'
21	8'	11'	18'	26'	40'
24	8'	12'	23'	36'	40'
27	10'	15'	30'	40'	40'
30	11'	15'	29'	40'	40'
33	11'	15'	28'	40'	40'
36	11'	15'	27'	40'	40'
42	11'	15'	26'	38'	40'
48	11'	15'	26'	36'	40'
54	11'	15'	25'	34'	40'
60	11'	15'	25'	33'	40'
66	11'	15'	24'	32'	40'
72	11'	15'	24'	32'	40'

As = Area of Steel Reinforcing

Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	12'	15'	23'	28'	40'
15	12'	16'	23'	30'	40'
18	13'	16'	29'	40'	40'
21	13'	18'	40'	40'	40'
24	16'	23'	40'	40'	40'
27	19'	30'	40'	40'	40'
30	19'	29'	40'	40'	40'
33	19'	28'	40'	40'	40'
36	19'	28'	40'	40'	40'
42	18'	27'	40'	40'	40'
48	18'	26'	40'	40'	40'
54	18'	25'	40'	40'	40'
60	18'	25'	40'	40'	40'
66	18'	25'	40'	40'	40'
72	18'	24'	40'	40'	40'

As = Area of Steel Reinforcing

Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	18'	23'	35'	40'	40'
15	19'	24'	40'	40'	40'
18	19'	30'	40'	40'	40'
21	25'	40'	40'	40'	40'
24	34'	40'	40'	40'	40'
27	40'	40'	40'	40'	40'
30	40'	40'	40'	40'	40'
33	40'	40'	40'	40'	40'
36	40'	40'	40'	40'	40'
42	37'	40'	40'	40'	40'
48	35'	40'	40'	40'	40'
54	33'	40'	40'	40'	40'
60	32'	40'	40'	40'	40'
66	31'	40'	40'	40'	40'
72	31'	40'	40'	40'	40'

As = Area of Steel Reinforcing

EXTRA STRENGTH VCP

CONCRETE ARCH PIPE

HORIZONTAL ELLIPTICAL RCP

VERTICAL ELLIPTICAL RCP

Pipe Dia. (in)	Bedding Class				
	R-1	R-2	R-3 & R-4		
			No Steel	As=0.4%	As=1.0%
6	25'	30'	30'	30'	30'
8	20'	26'	30'	30'	30'
10	18'	23'	30'	30'	30'
12	16'	20'	30'	30'	30'
15	15'	19'	28'	30'	30'
18	14'	18'	30'	30'	30'
21	15'	22'	30'	30'	30'
24	18'	26'	30'	30'	30'
27	20'	30'	30'	30'	30'
30	19'	29'	30'	30'	30'
33	20'	30'	30'	30'	30'
36	20'	30'	30'	30'	30'
39	19'	29'	30'	30'	30'
42	18'	26'	30'	30'	30'

As = Area of Steel Reinforcing

Pipe Size (in x in)	Equiv. Dia. (in)	Pipe Class	
		A-III	A-IV
18 x 11	15	6'	11'
22 x 13	18	6'	11'
26 x 15	21	6'	13'
29 x 18	24	7'	15'
36 x 22	30	8'	15'
44 x 27	36	8'	14'
51 x 31	42	8'	15'
58 x 36	48	8'	15'
65 x 40	54	8'	15'
73 x 45	60	8'	14'
88 x 54	72	9'	14'

Based on Class R-5 bedding

Pipe Size (in x in)	Equiv. Dia. (in)	Pipe Class	
		HE-III	HE-IV
14 x 23	18	12'	22'
19 x 30	24	15'	29'
22 x 34	27	15'	28'
24 x 38	30	15'	27'
27 x 42	33	15'	27'
29 x 45	36	15'	26'
32 x 49	39	15'	26'
34 x 54	42	15'	25'
38 x 60	48	15'	25'
43 x 68	54	15'	24'
48 x 76	60	15'	24'
53 x 83	66	15'	24'
58 x 91	72	15'	24'
63 x 98	78	15'	23'
68 x 106	84	15'	23'

Based on Class R-5 bedding

Pipe Size (in x in)	Equiv. Dia. (in)	Pipe Class			
		VE-III	VE-IV	VE-V	VE-VI
23 x 14	18	10'	15'	22'	33'
30 x 19	24	10'	16'	34'	40'
34 x 22	27	11'	20'	40'	40'
38 x 24	30	12'	23'	40'	40'
42 x 27	33	15'	30'	40'	40'
45 x 29	36	15'	29'	40'	40'
49 x 32	39	15'	29'	40'	40'
54 x 34	42	15'	28'	40'	40'
60 x 38	48	15'	27'	40'	40'
66 x 43	54	15'	27'	40'	40'
76 x 48	60	15'	26'	40'	40'
83 x 53	66	15'	25'	40'	40'
91 x 58	72	15'	25'	40'	40'
98 x 63	78	15'	25'	40'	40'
106 x 68	84	15'	24'	40'	40'

Based on Class R-5 bedding

FIGURE 3010.102

STANDARD ROAD PLAN

REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

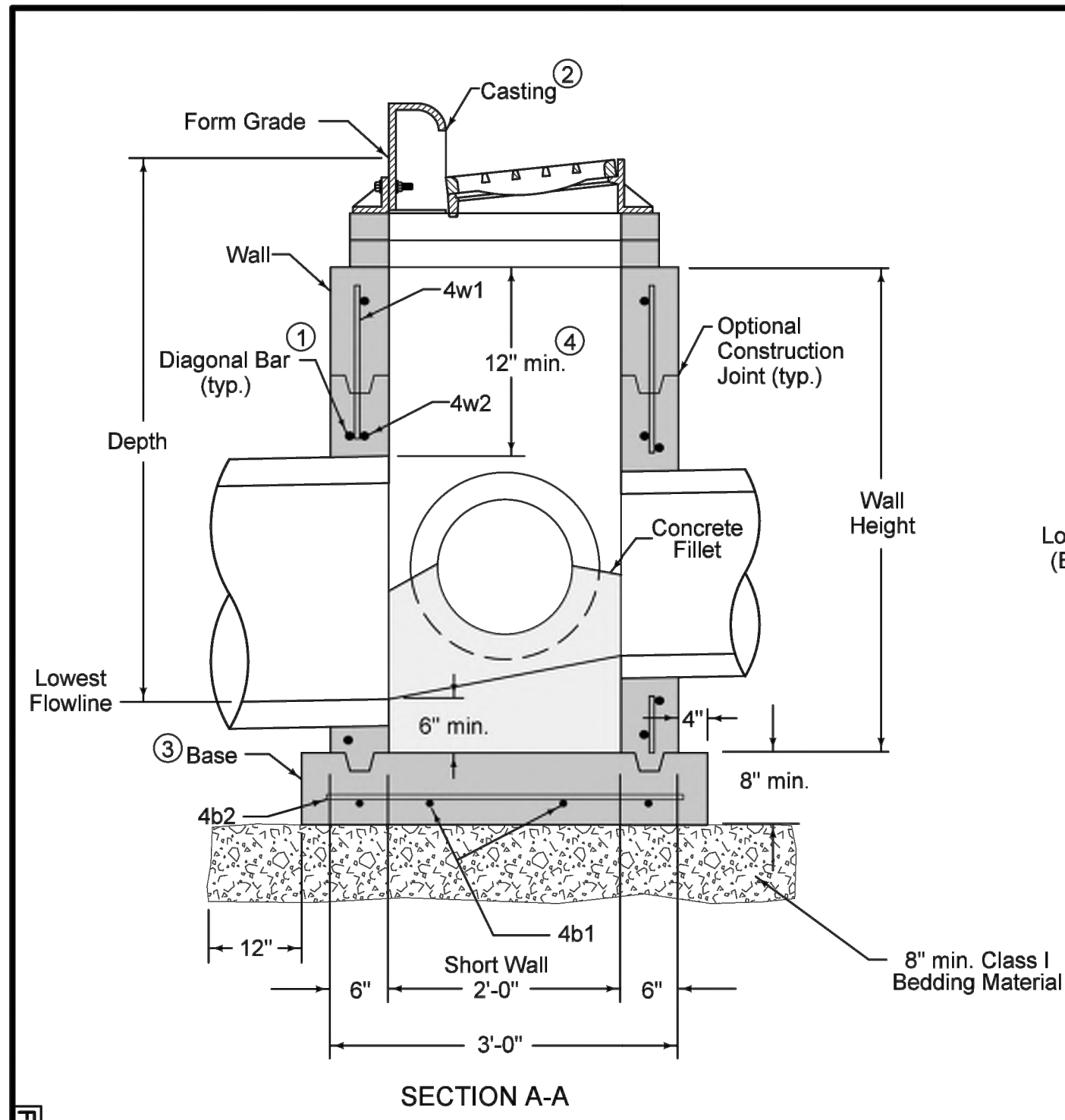
REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

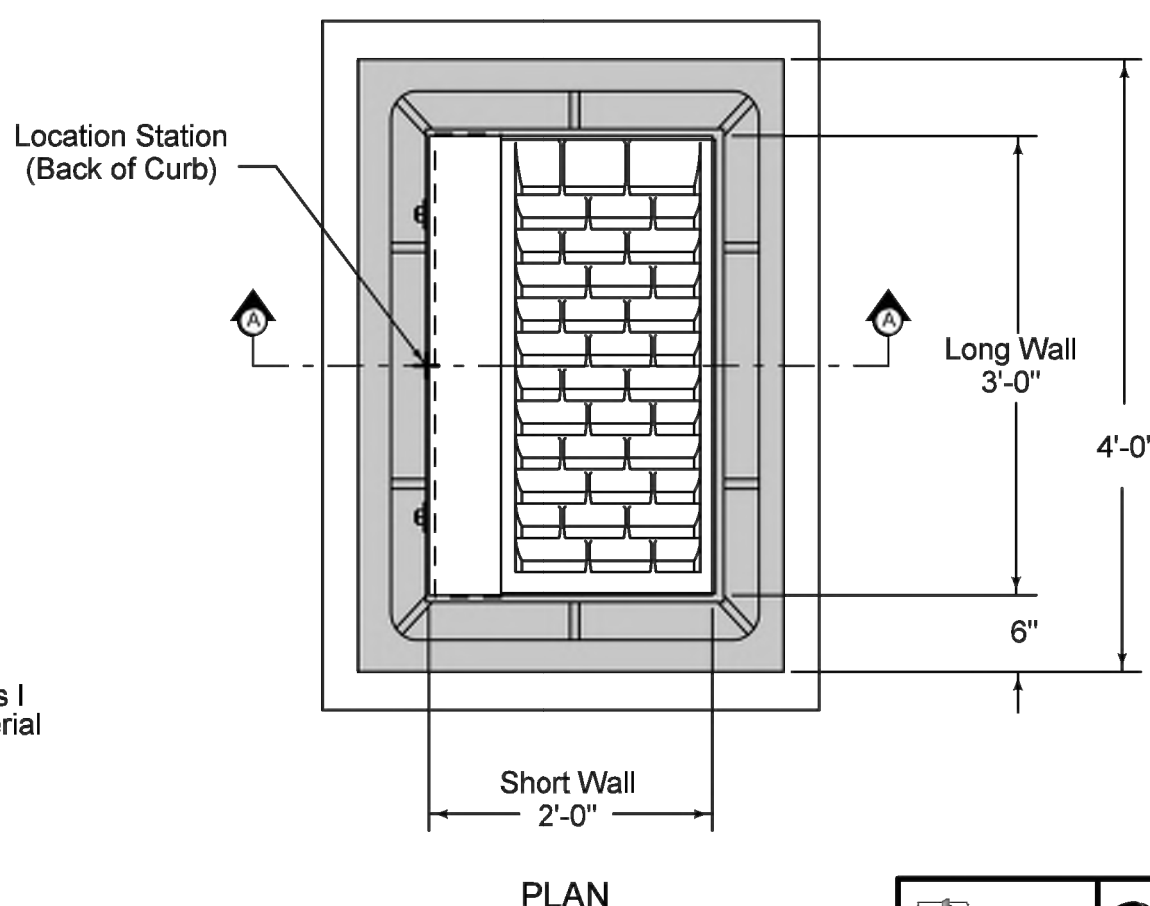
REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.

RIGID GRAVITY PIPE
TRENCH BEDDING



Refer to SW-514 for boxout details.

- ① Install four #4 diagonal bars at all pipe openings.
- ② SW-603 Type R unless Type Q is specified in the contract documents.
- ③ Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.
- ④ 12 inch minimum wall height above all pipes.



REINFORCING BAR LIST						
Mark	Size	Location	Shape	Length	Count	Spacing
4w1	4	Walls		Wall Height minus 4"	14	12"
4w2	4	Long Walls		3'-8"	Varies	12"
4w3	4	Short Walls		2'-8"	Varies	12"
4b1	4	Base		4'-2"	4	10"
4b2	4	Base		3'-2"	5	10"

MAXIMUM PIPE DIAMETERS		
Pipe Location	Precast Structure	Cast-in-place Structure
Short Wall	15"	18"
Long Wall	24"	30"

SUDAS	IOWA DOT	REVISION 3 04-21-20
FIGURE 6010.501	STANDARD ROAD PLAN	SW-501
REVISIONS: Added Class I Bedding Materials.		
Paul D. Wigand DESIGN METHODS ENGINEER		
SINGLE GRATE INTAKE		

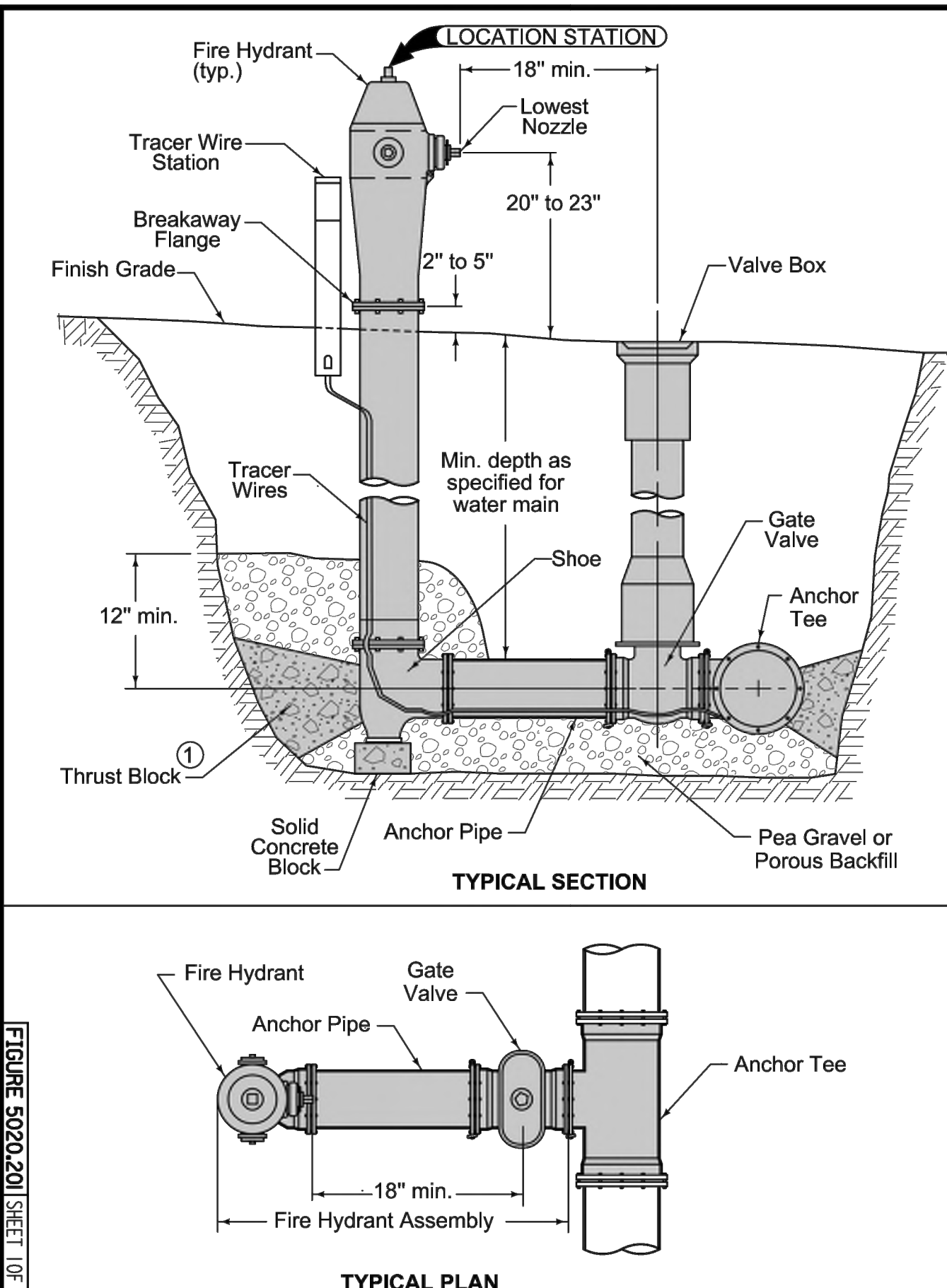
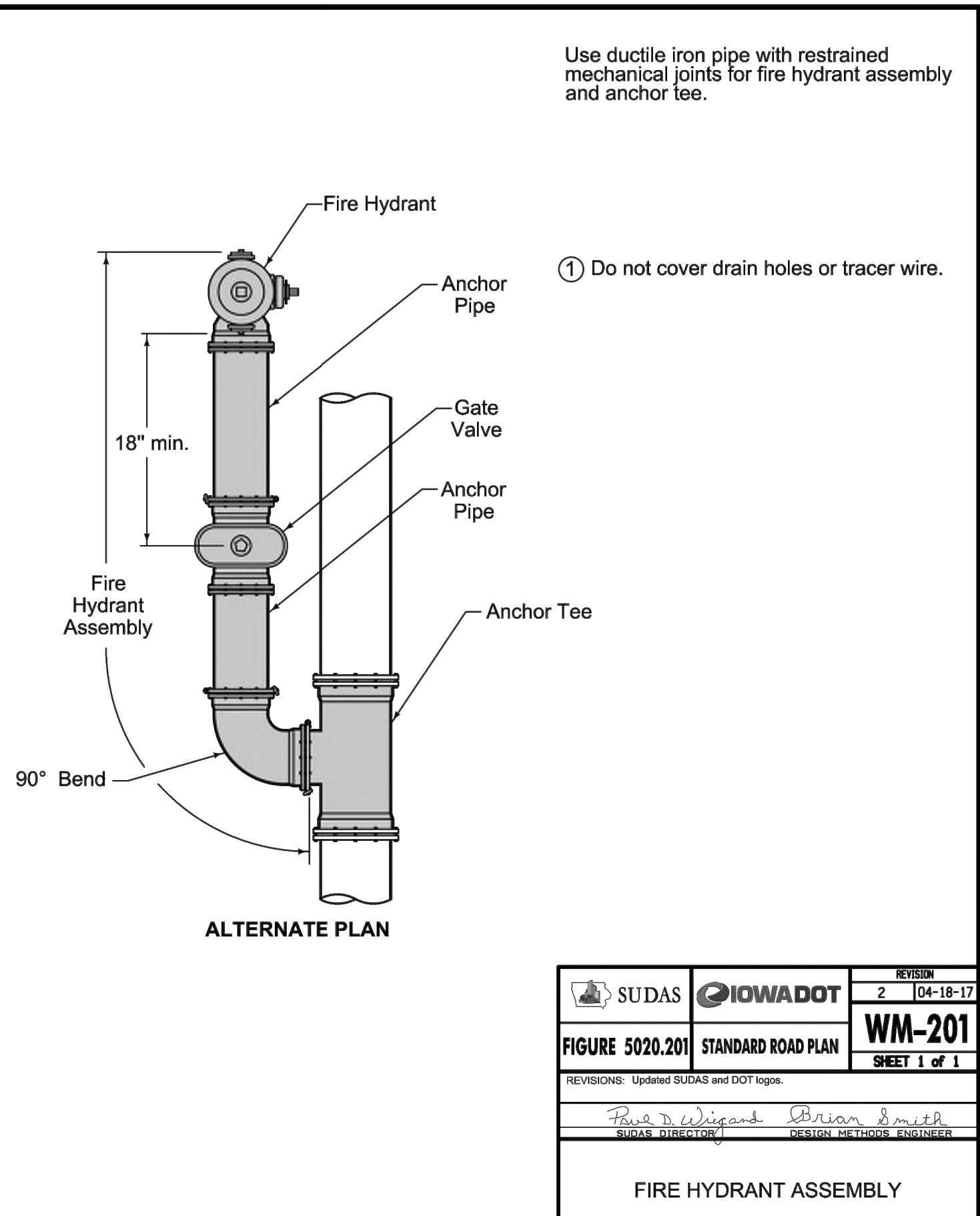


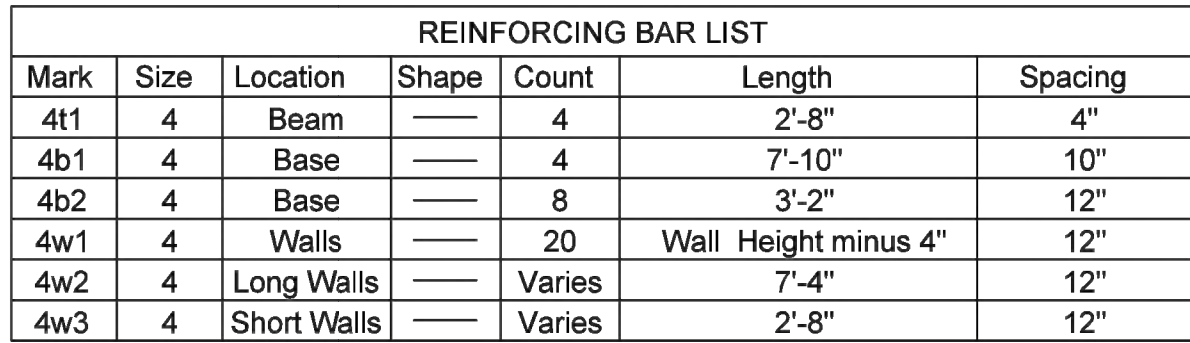
FIGURE 5020.201 SHEET 1 OF 1



SUDAS	IOWA DOT	REVISION 2 04-18-17
FIGURE 5020.201	STANDARD ROAD PLAN	WM-201
REVISIONS: Updated SUDAS and DOT logos.		
Paul D. Wigand DESIGN METHODS ENGINEER		
FIRE HYDRANT ASSEMBLY		



FIGURE 6010.505 SHEET 2 OF 2

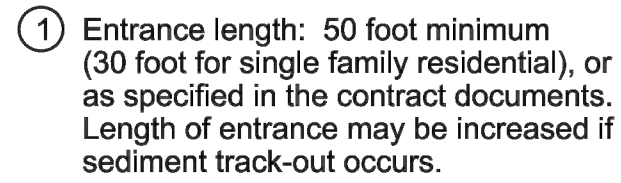


 SUDAS	 IOWA DOT	REVISION 3 04-21-11	
		SW-505	
		SHEET 2 of 2	
FIGURE 6010.505		STANDARD ROAD PLAN	
REVISIONS: Added Class I Bedding Material.			
<i>Paul D. Weigand</i> SUDAS DIRECTOR		<i>Shawn Nelson</i> DESIGN METHODS ENGINEER	
DOUBLE GRATE INTAKE			

- | DATE | REVISION | BY | DATE |
|-----------------------|----------|---------------|-------|
| | | DESIGNED: JMG | 08/21 |
| | | | |
| | | DRAWN: SRS | 08/21 |
| | | CHECKED: | |
| LAST UPDATE: 08/30/21 | | | |



FIGURE 9040.120 SHEET 1 OF 1



	SUDAS		REVISION 2 10-21-1	
			9040.120	
			SHEET 1 of 1	

SUDAS Standard Specifications

STABILIZED CONSTRUCTION ENTRANCE

FOX
41
engineering

TYPICAL DETAILS
JAS CONCRETE

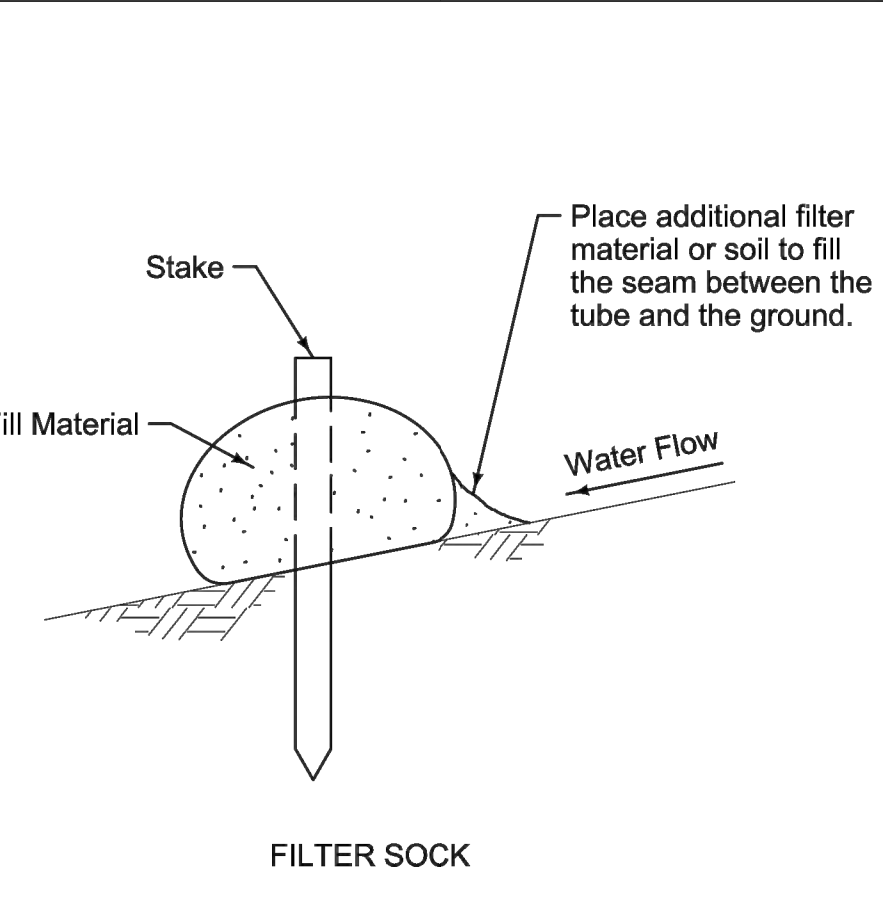
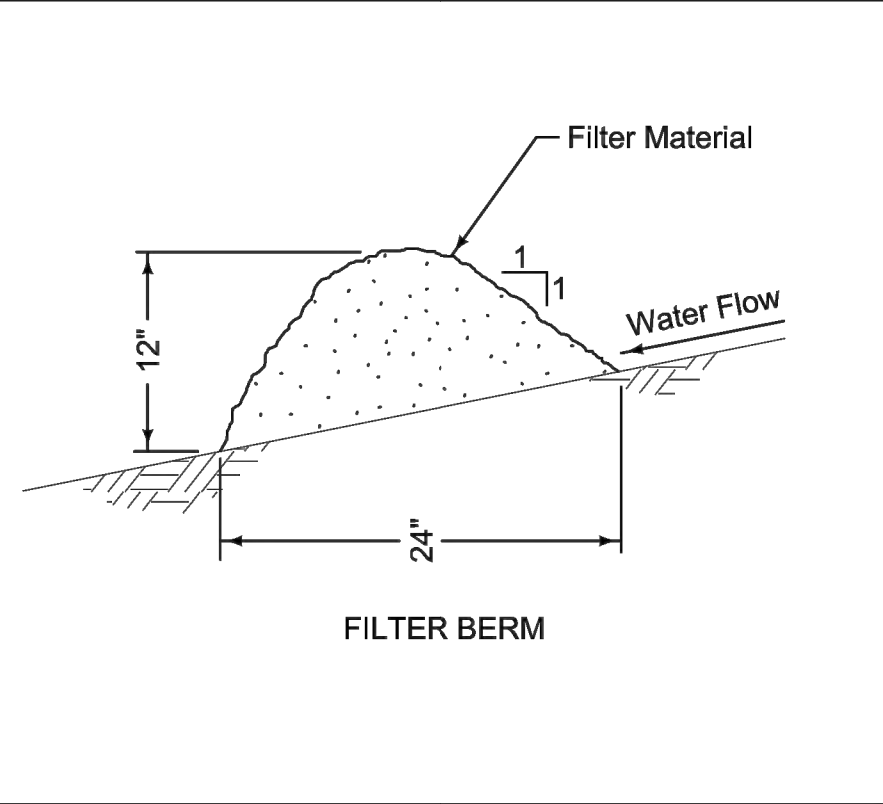
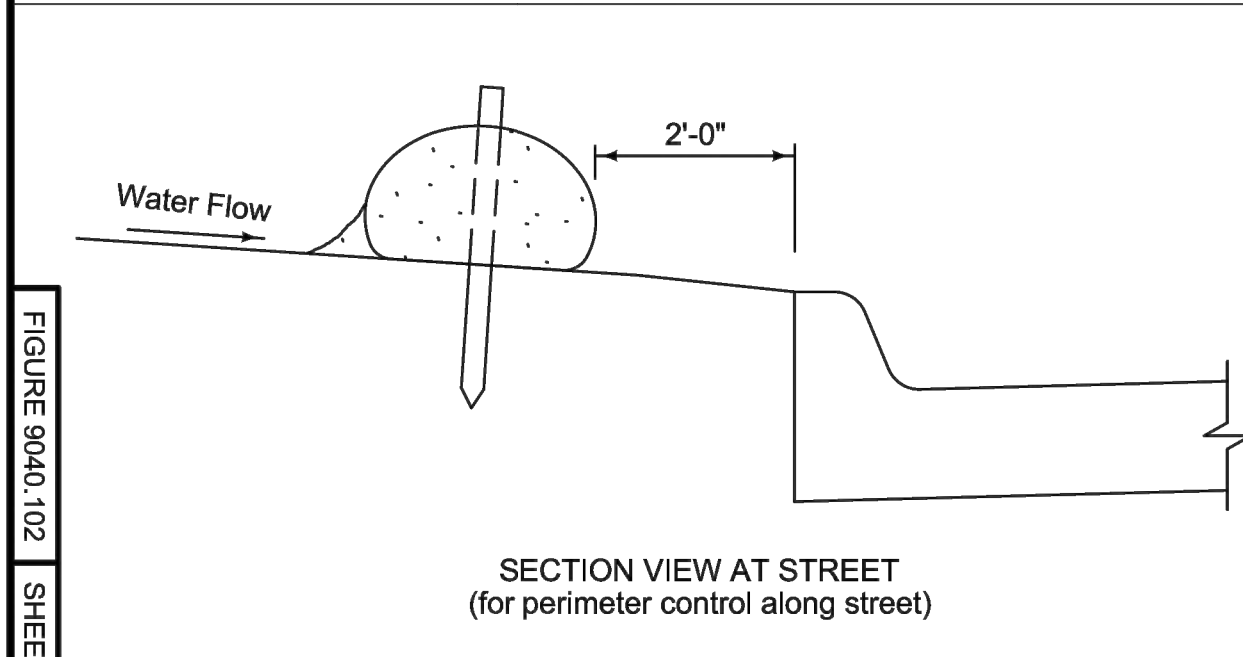
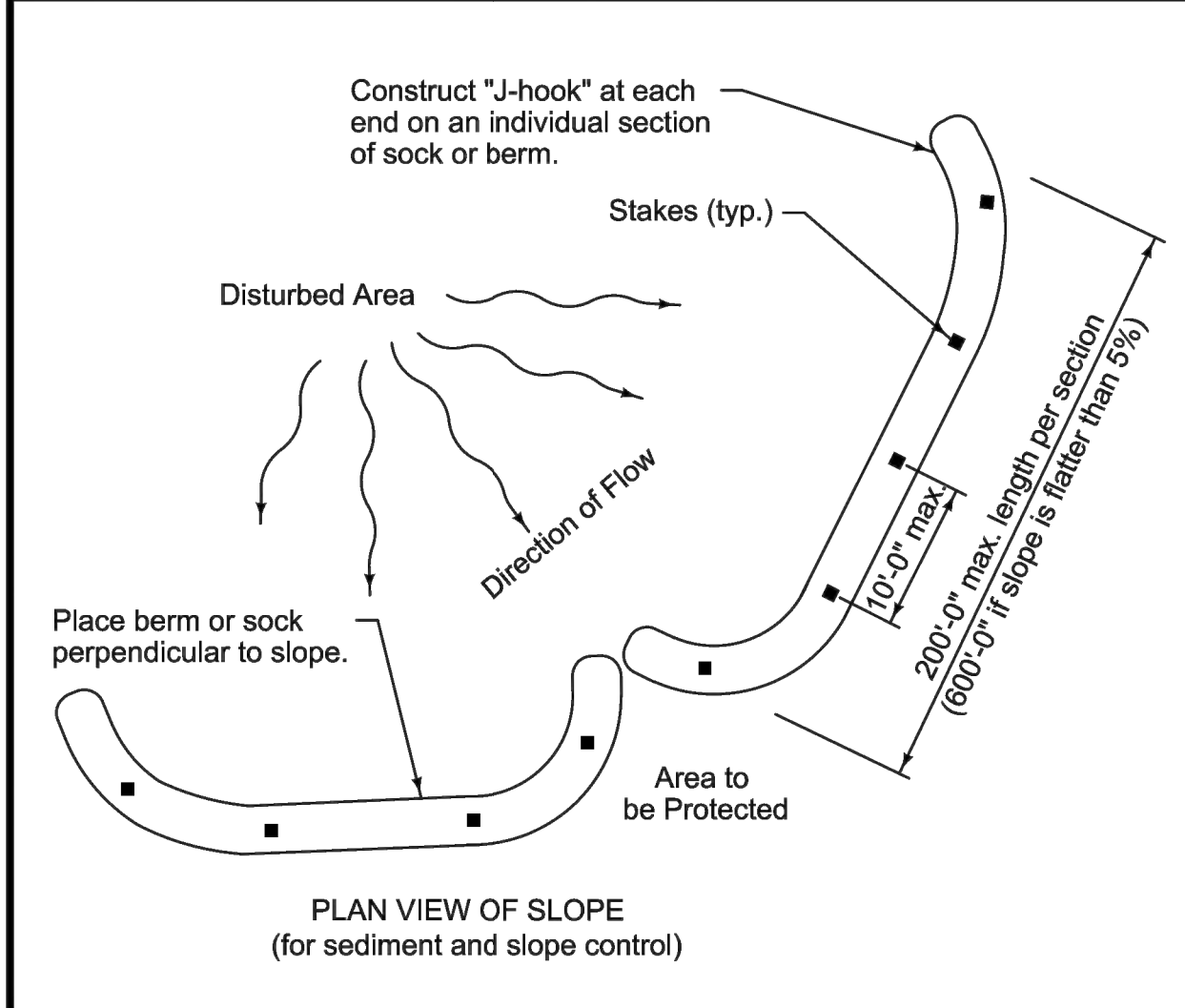
BONDURANT, IOWA
2021

PROJECT NO.
5519-21A

SHEET

G3.2

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PLOT STYLE TABLE
LAYER MGR NAME
G3.3
PLOT STYLE TABLE
FoxGrayScale.ctb



Berm shown is typical for slopes flatter than 3:1. For steeper slopes, increase berm size as directed by the Engineer.

Place berm in uncompacted windrow perpendicular to the slope at locations specified in the contract documents.

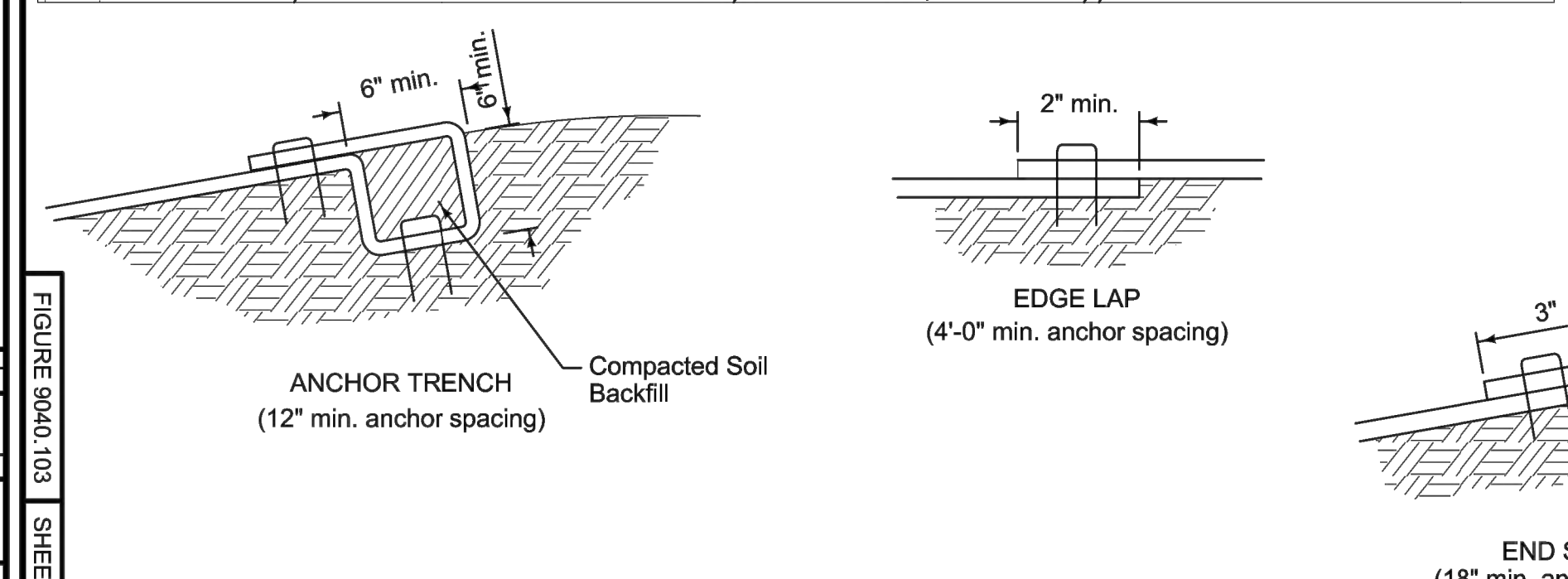
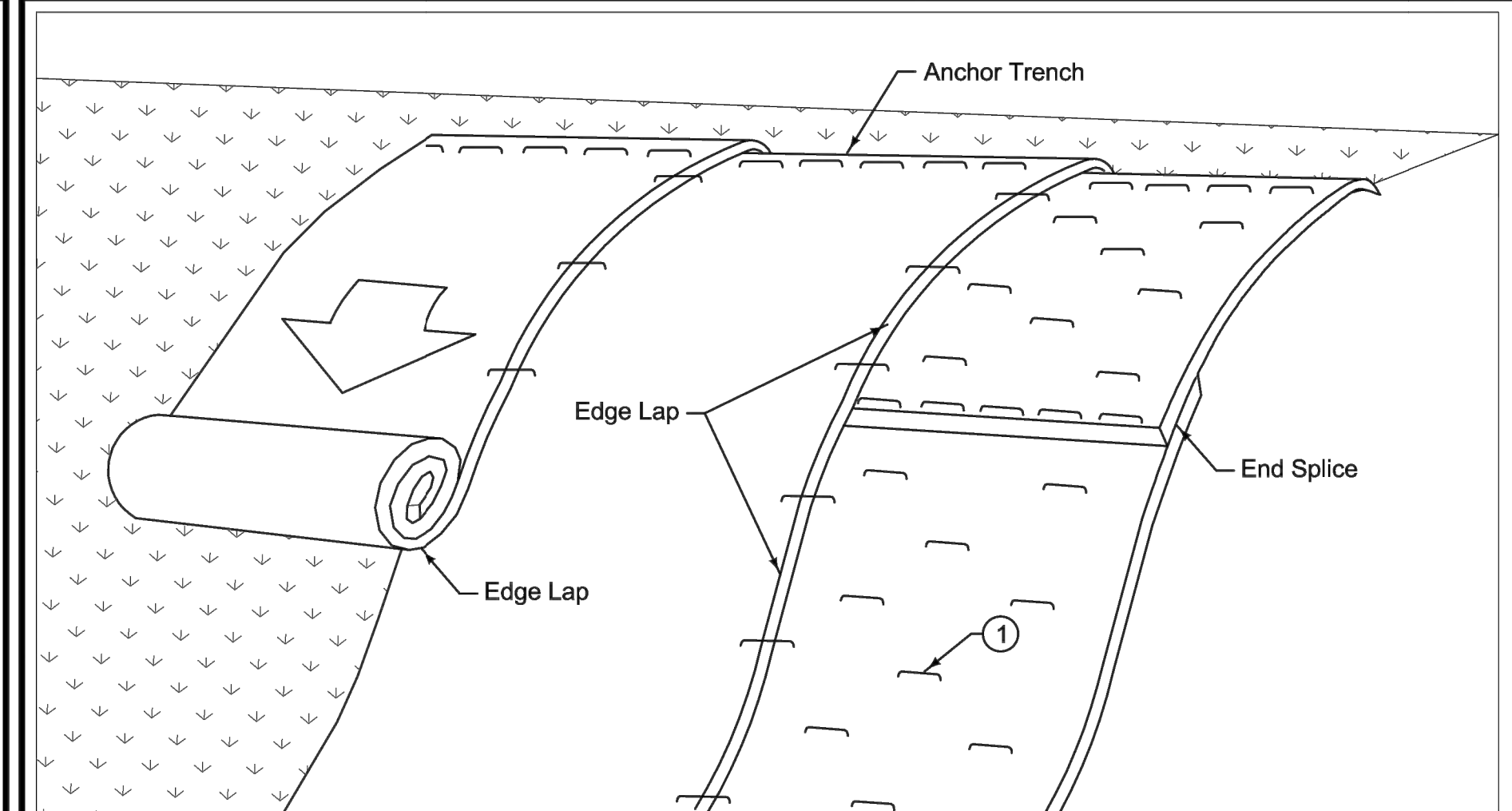
Filter sock diameter as specified in the contract documents.

**SUDAS**

REVISION	3	10-18-16
9040.102		
SHEET 1 of 1		

SUDAS Standard Specifications

FILTER BERM AND FILTER SOCK



① Secure blanket to ground according to manufacturer's recommended anchoring pattern and minimum shown in Table 1.

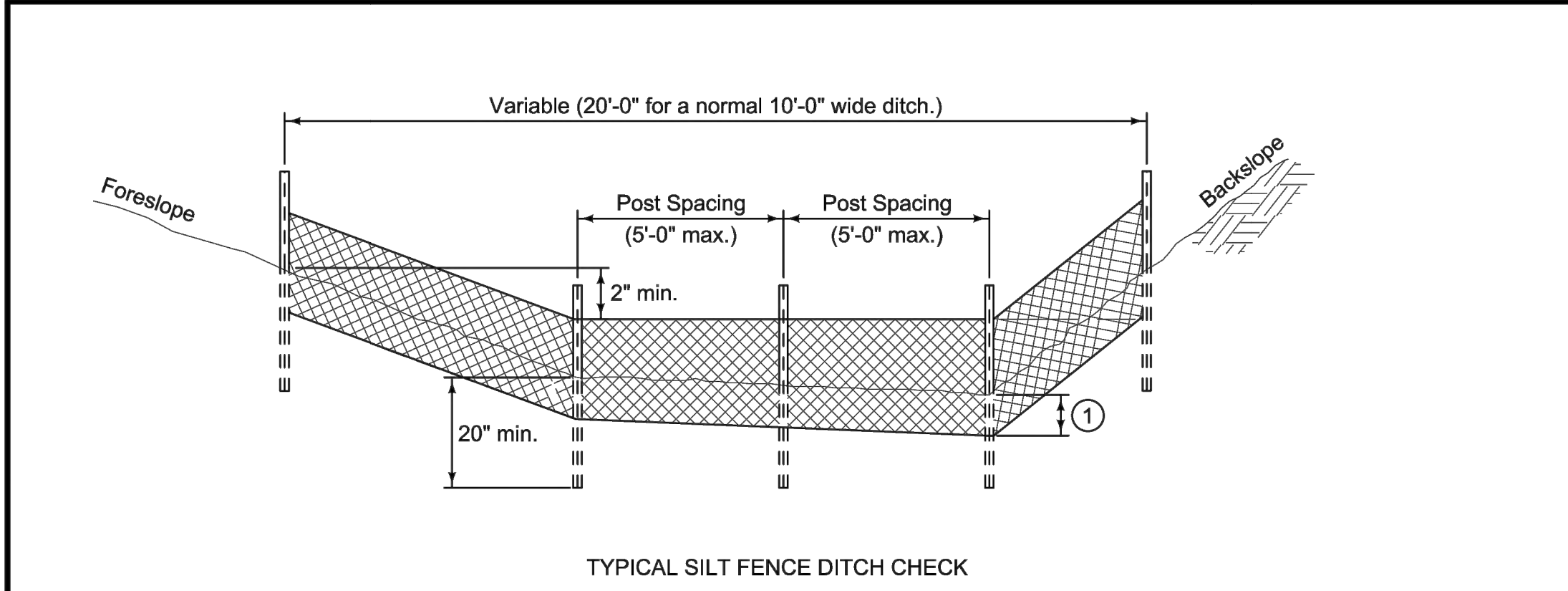
**SUDAS**

REVISION	2	10-21-14
9040.103		
SHEET 1 of 1		

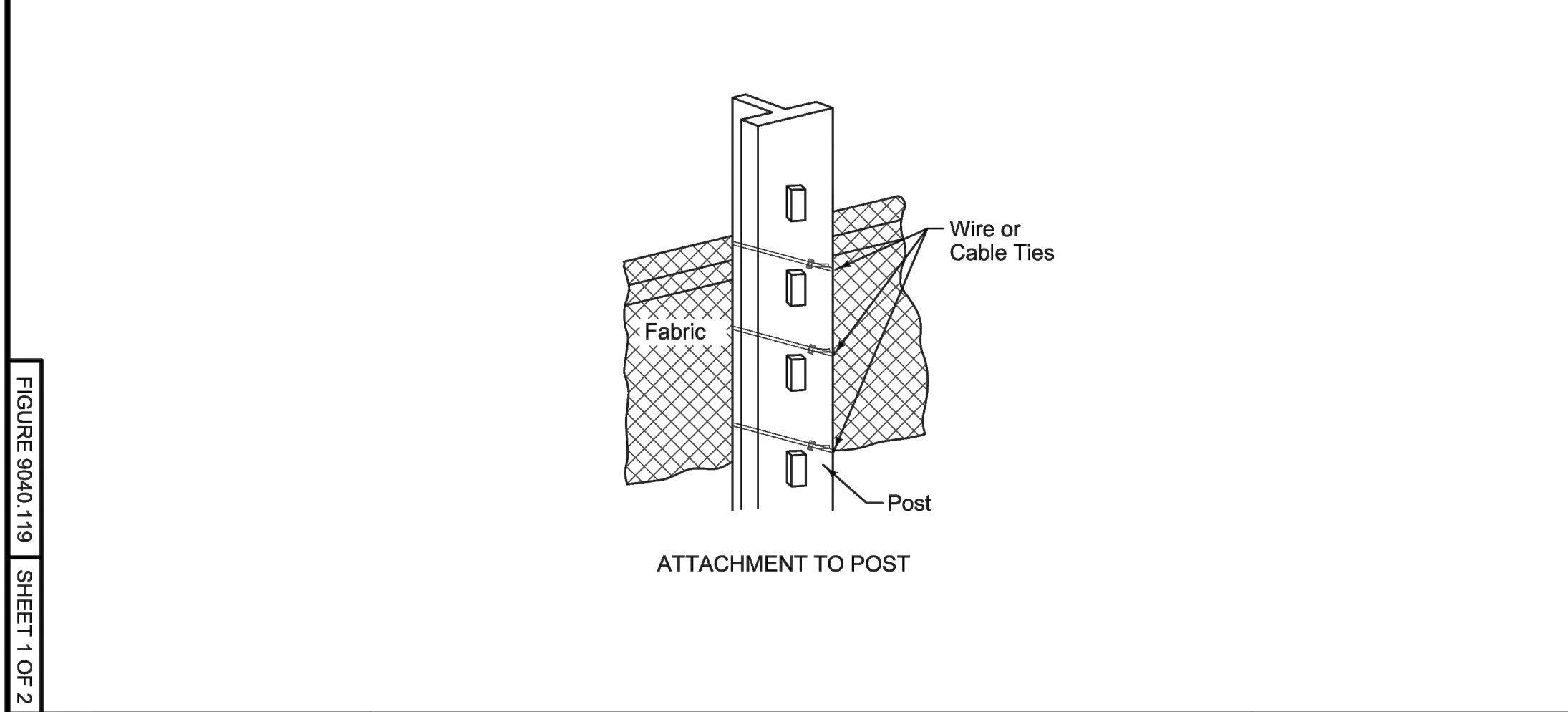
SUDAS Standard Specifications

ROLLED EROSION CONTROL PRODUCT (RECP) INSTALLATION ON SLOPES

TABLE 1	
Max. slope	Min. anchors
≤ 3:1	1.5/yd ²
2:1	2/yd ²
1:1	2.5/yd ²



① Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line).

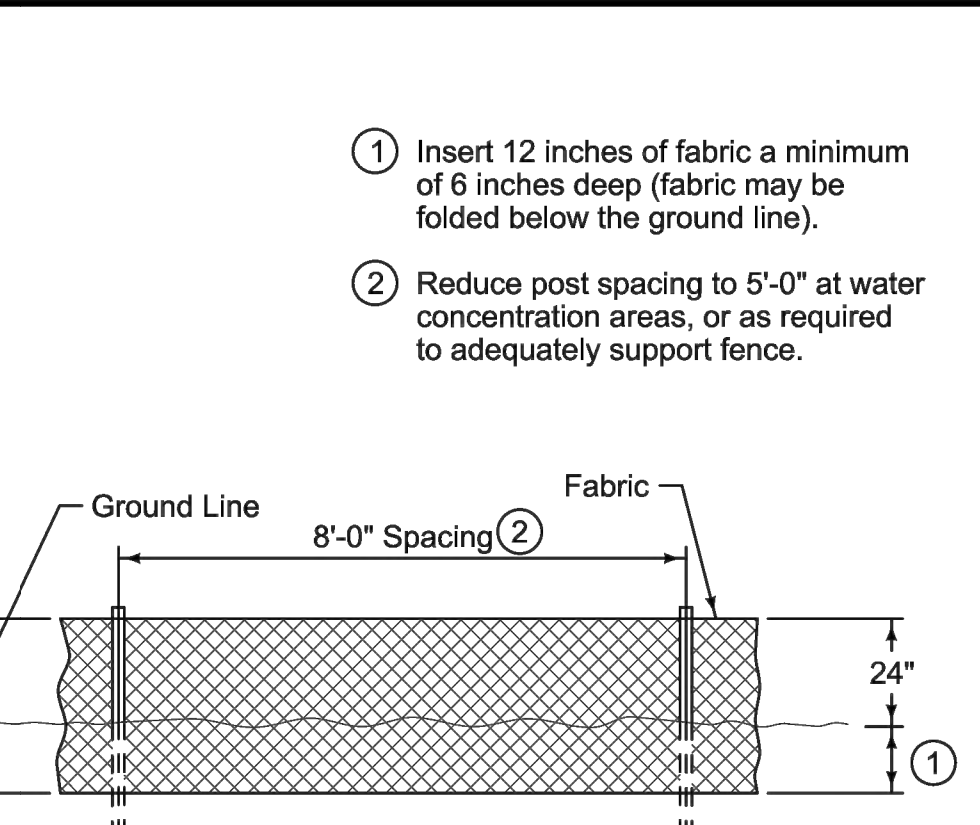
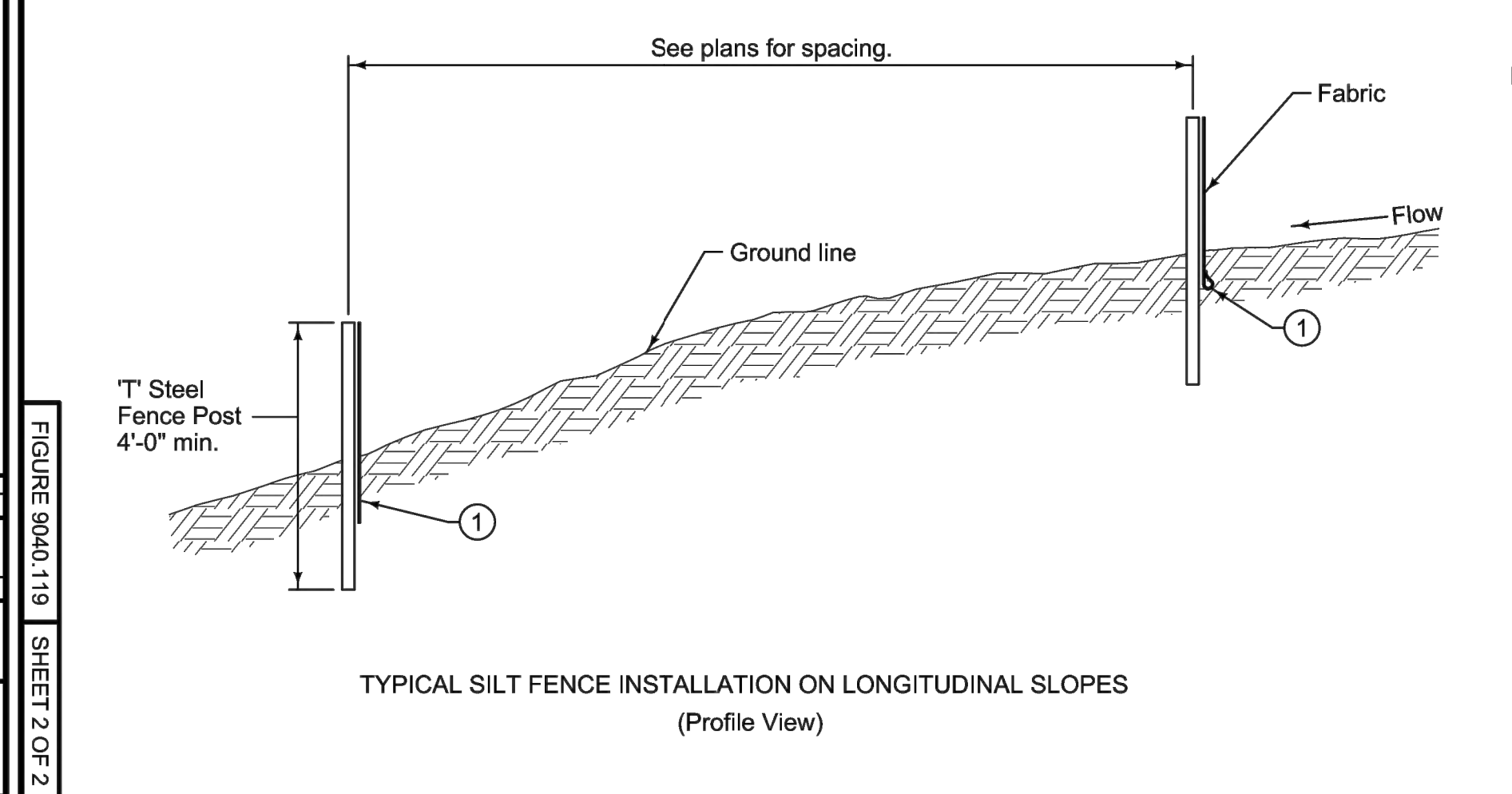
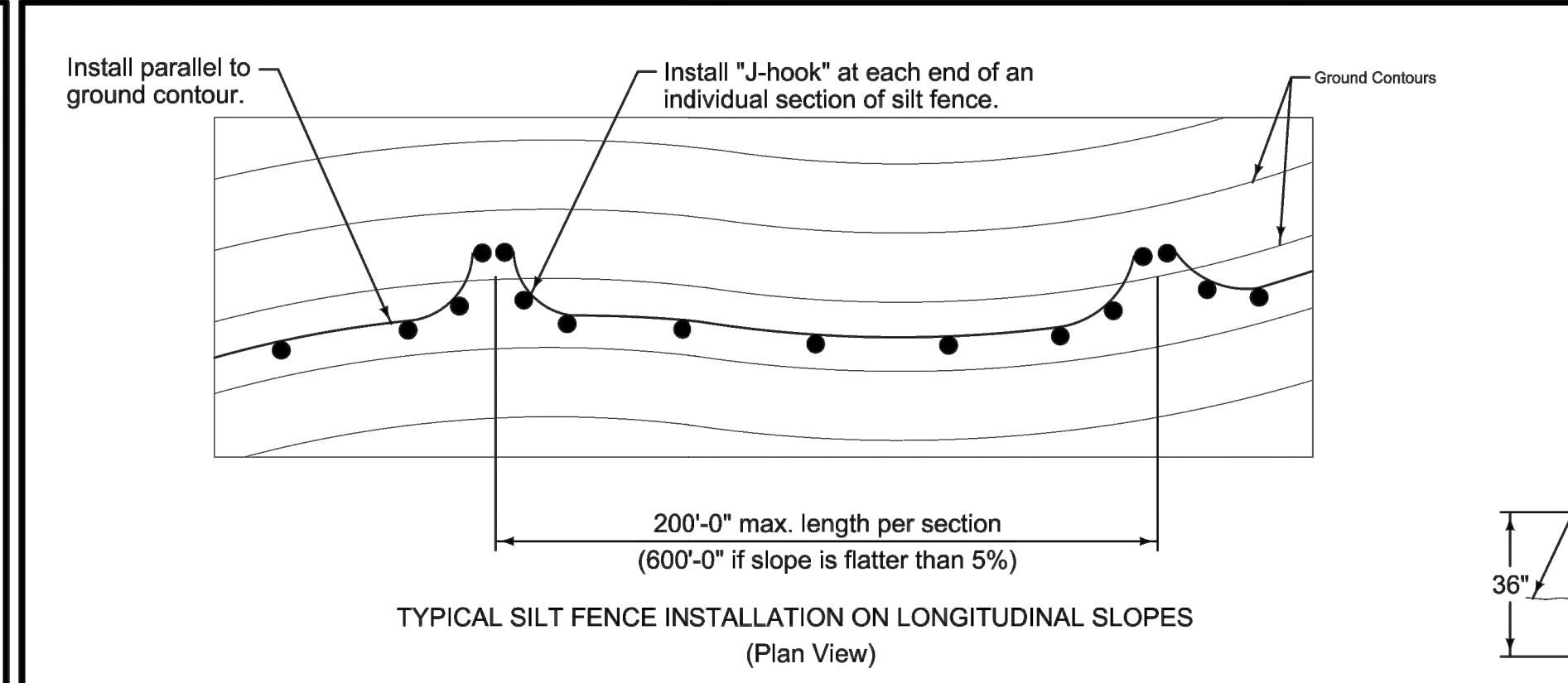


**SUDAS**

REVISION	2	10-21-14
9040.119		
SHEET 1 of 2		

SUDAS Standard Specifications

SILT FENCE



① Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line).

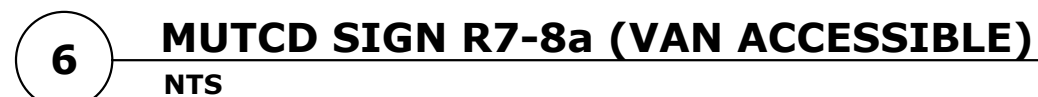
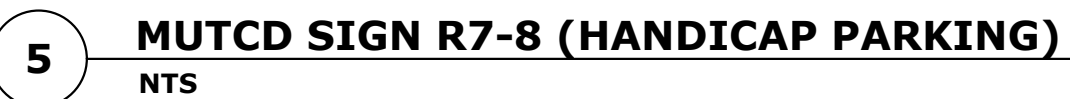
② Reduce post spacing to 5'-0" at water concentration areas, or as required to adequately support fence.

**SUDAS**

REVISION	2	10-21-14
9040.119		
SHEET 2 of 2		

SUDAS Standard Specifications

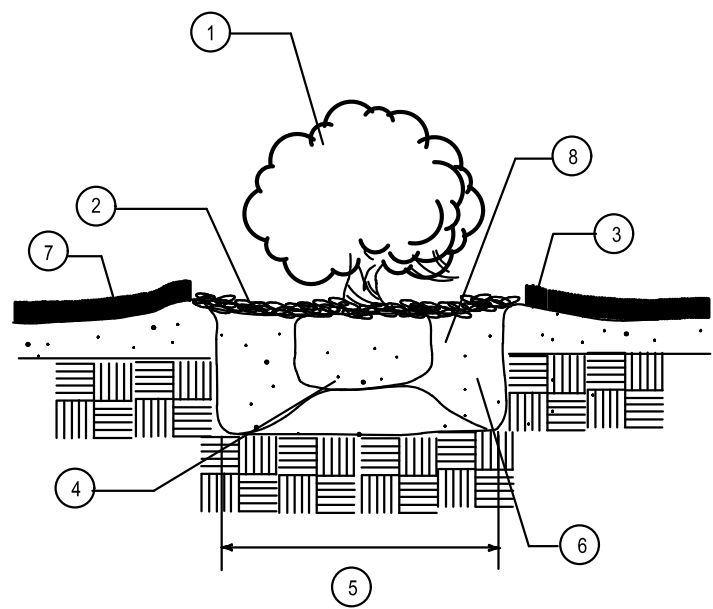
SILT FENCE



PROJECT NO.
5519-21A

SHEET
G3.4

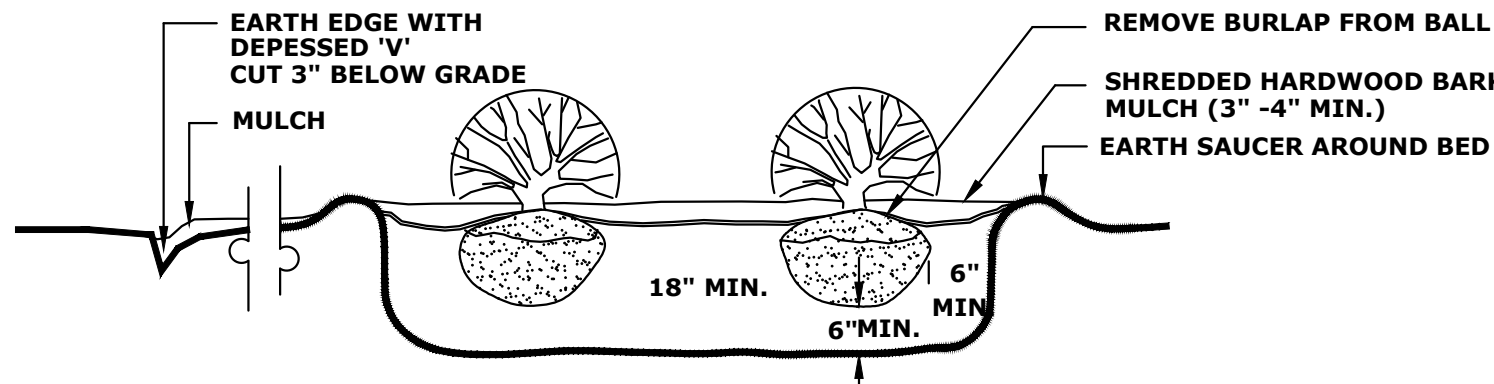
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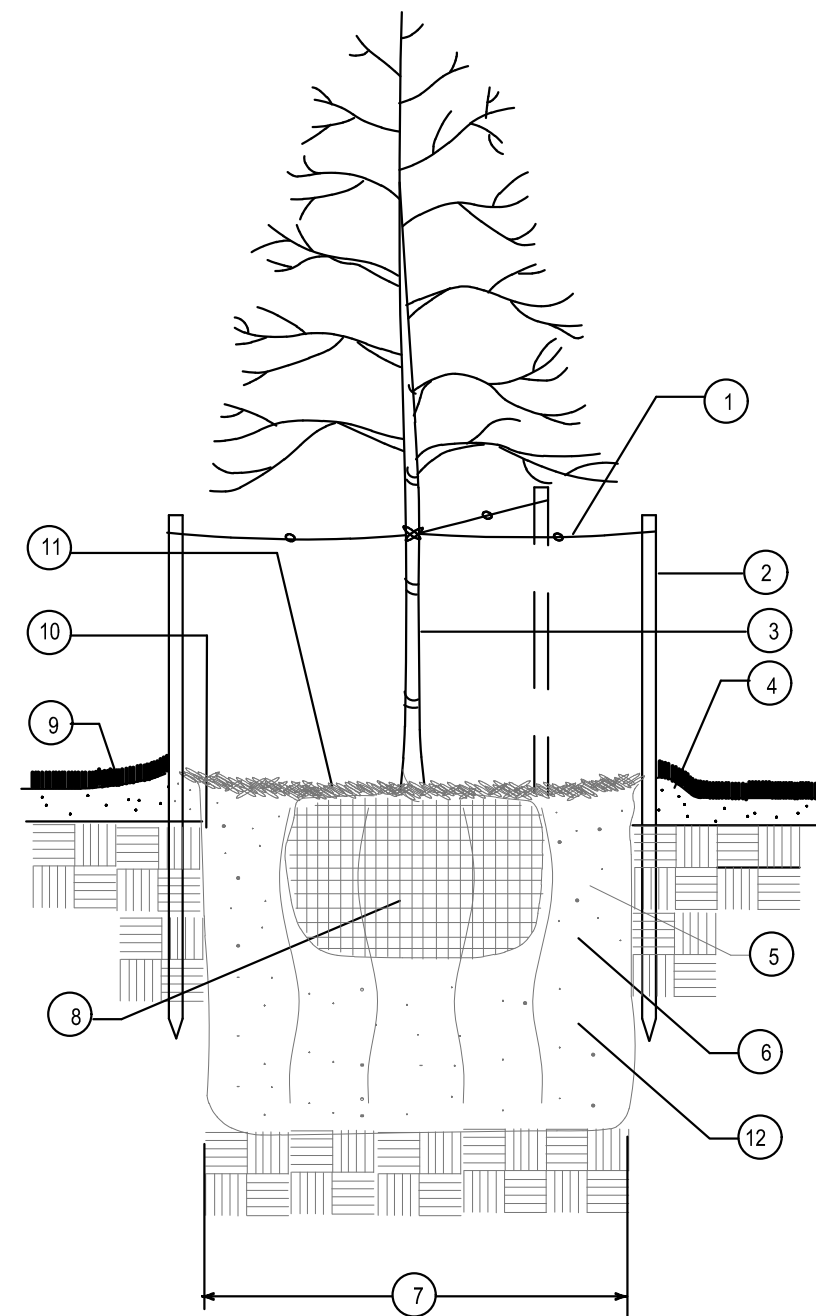
- 1 SHRUB
- 2 3'-4" SHREDDED BARK MULCH
- 3 5" WATERING BASIN
- 4 ROOTBALL
- 5 TWICE ROOTBALL DIAMETER
- 6 FERTILIZER TABLET (1) - 3" DEEP
- 7 FINISH GRADE
- 8 PLANTING BACKFILL - SEE SPECIFICATION

NOTES:
1. THE PLANTING HOLE SHOULD BE SHALLOW AND WIDE TO ALLOW FOR RAPID GROWTH AFTER PLANTING.
2. DO NOT THIN CROWN. PRUNE DAMAGED OR BROKEN BRANCHES AS NEEDED.
3. SET TREE 2-3 INCHES ABOVE FINISHED GRADE.
4. APPLY WATER TO HOLE WHILE BACKFILLING TO ASSURE AIR POCKETS DO NOT FORM.

2 SHRUB PLANTING DETAIL NOT TO SCALE



3 SHRUB PLANTING BED DETAIL NOT TO SCALE

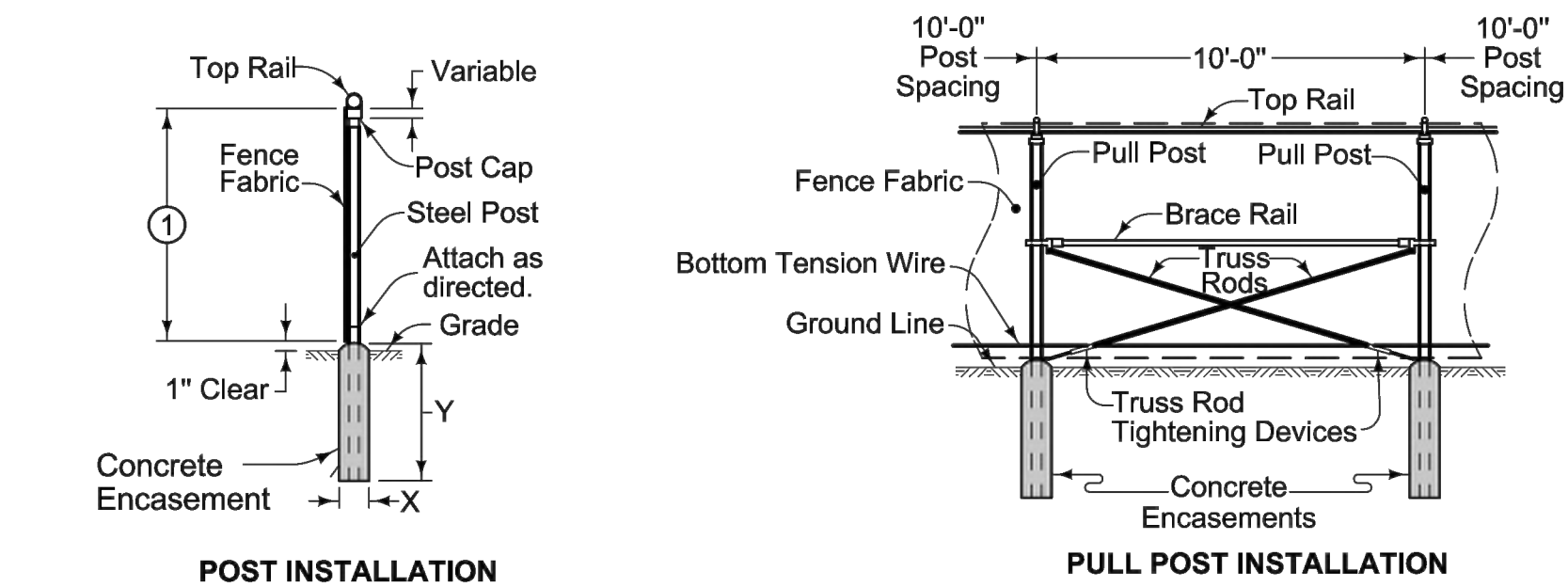


- 1 TREE TIE - FASTEN TO TREE TRUNK W/ RUBBER HOSE BELOW SCAFFOLD BRANCHES
- 2 WOOD STAKE OR WOOD DEADMEN (8-10" EXPOSED) STAKE ON THREE SIDES SPACED 120 DEGREES APART
- 3 TREE TRUNK W/ WRAP
- 4 5" WATERING BASIN
- 5 FERTILIZER TABLETS (3" DEEP)
- 6 PLANTING BACKFILL
- 7 THREE TIMES ROOTBALL DIAMETER (MINIMUM)
- 8 ROOTBALL (REMOVE BURLAP)
- 9 FINISH GRADE
- 10 PLANT PIT W/ ROUGHENED SIDES
- 11 3'-4" SHREDDED BARK/HARDWOOD MULCH
- 12 LOOSEN SOIL BY AUGER MIN. 2' BELOW ROOTBALL

NOTES:
1. THE PLANTING HOLE SHOULD BE SHALLOW AND WIDE TO ALLOW FOR RAPID GROWTH AFTER PLANTING.
2. DO NOT THIN CROWN. PRUNE DAMAGED OR BROKEN BRANCHES AS NEEDED.
3. SET TREE 2-3 INCHES ABOVE FINISHED GRADE.
4. APPLY WATER TO HOLE WHILE BACKFILLING TO ASSURE AIR POCKETS DO NOT FORM.

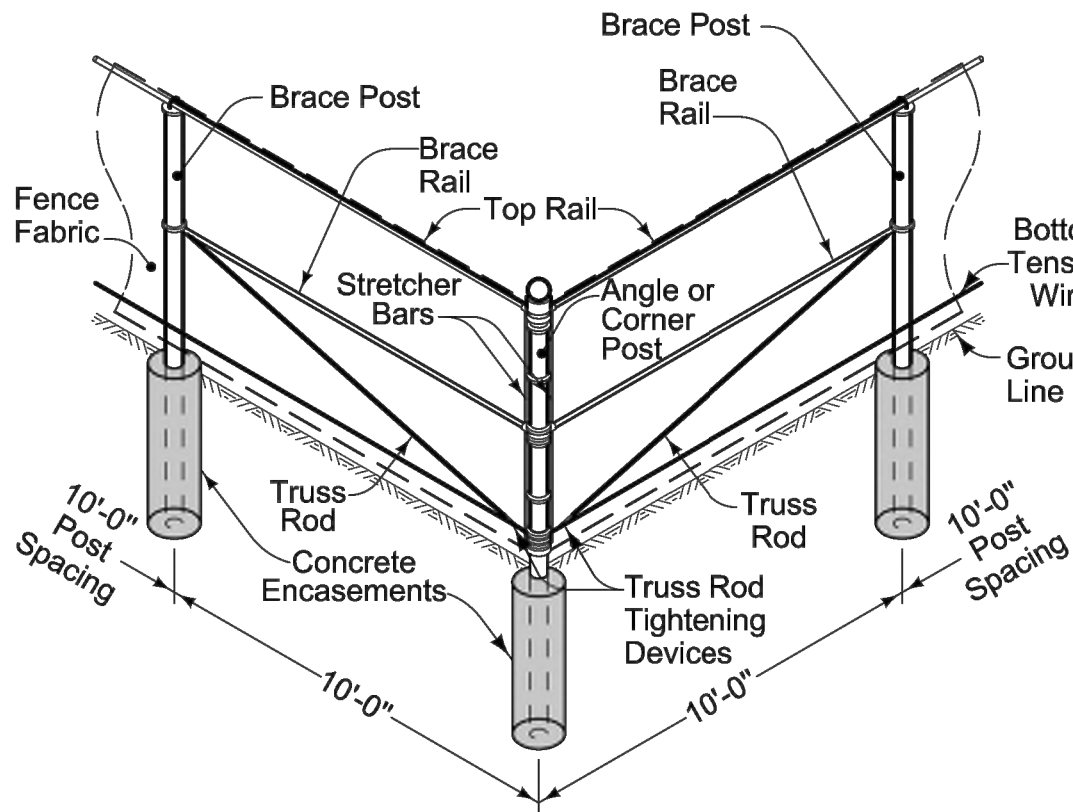
5 TREE PLANTING DETAIL NOT TO SCALE

FIGURE 9060.101
SHEET 1 OF 2



Place fence fabric on roadway side of post. For certain curves, stream crossings, or other locations, the Contractor has the option to place fabric on the side of the post away from the roadway.

- 1 Fabric width as specified in the contract documents.
- 2 For fence heights greater than 8 feet, the depth of the fence post footing is 3 feet plus 3 inches for each 1 foot in height over 8 feet.
- 3 Install the fence on the roadway side of the right-of-way when specified in the contract documents.

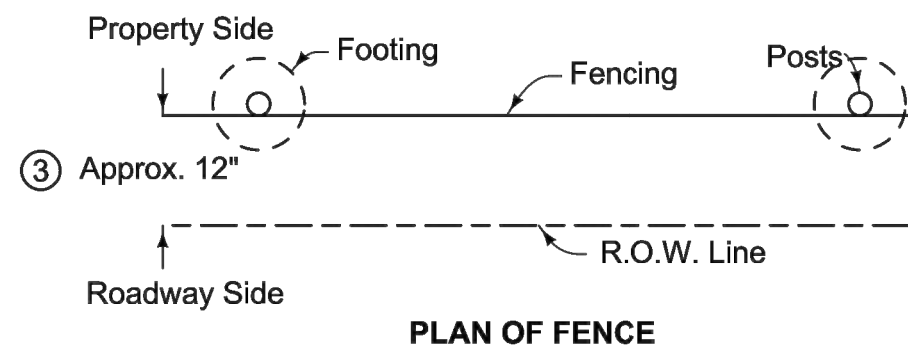


ANGLE OR CORNER POST INSTALLATION

FENCE POST FOOTING DEPTH AND DIAMETER

USE IN FENCE	FENCE HEIGHT					
	4'-0" and less		Over 4'-0" to 8'-0"		Over 8'-0"	
	X	Y	X	Y	X	Y
Line and Brace Posts	0'-8"	3'-0"	0'-10"	3'-0"	1'-0"	2
Terminal Post*	0'-10"	3'-0"	1'-0"	3'-0"	1'-4"	2

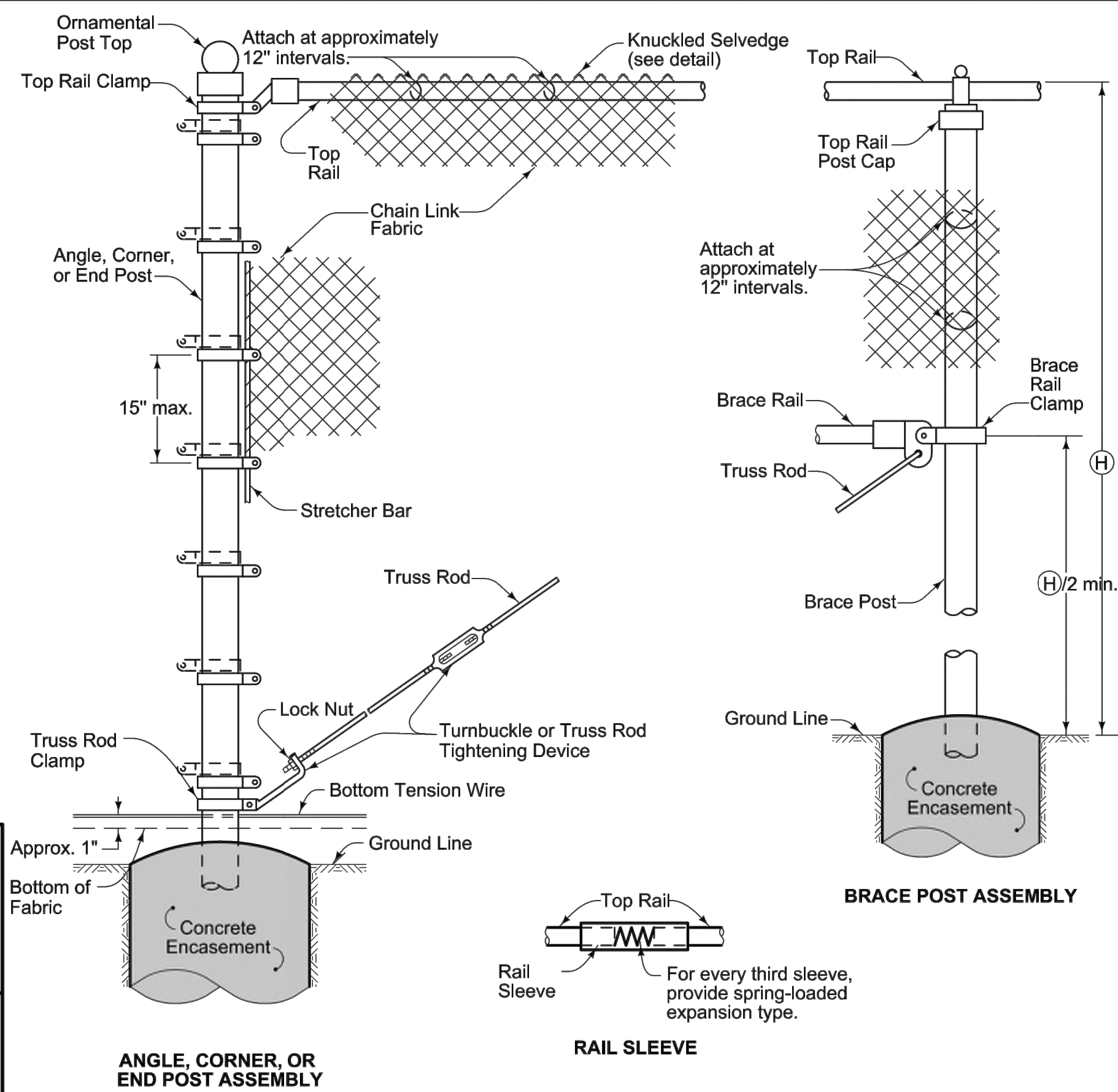
*Includes corner, angle, end, and pull posts.



PLAN OF FENCE

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		9060.101	
		SHEET 1 of 2	
SUDAS Standard Specifications			
CHAIN LINK FENCE			

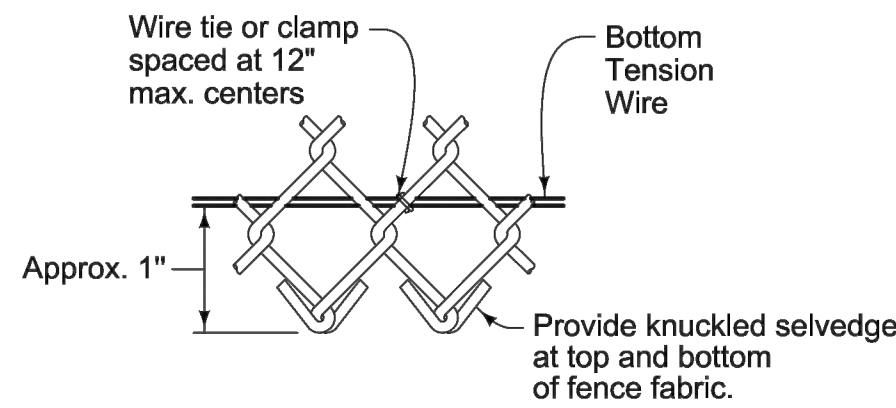
FIGURE 9060.101
SHEET 2 OF 2



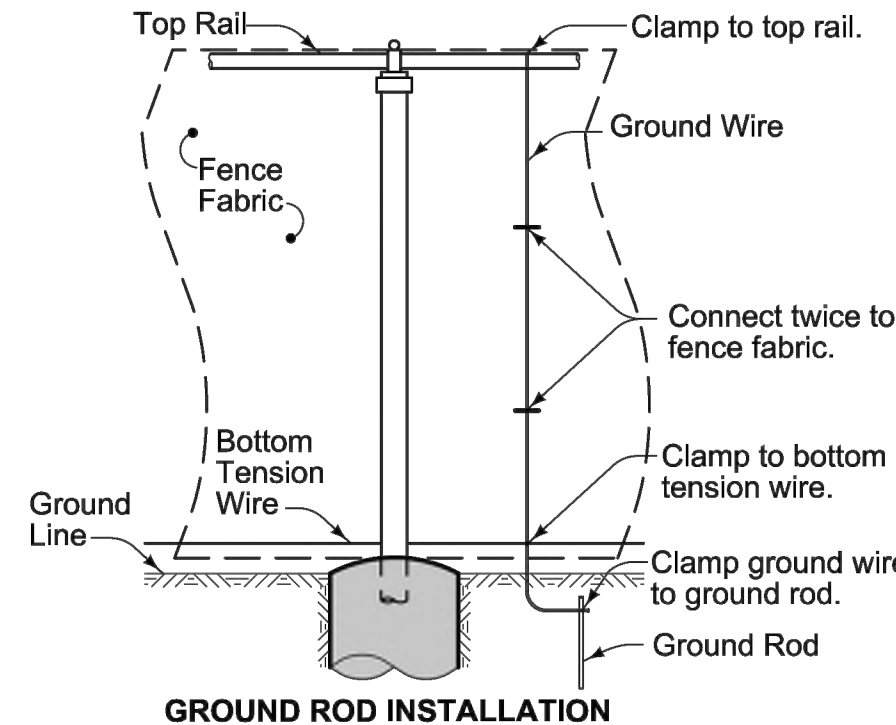
ANGLE, CORNER, OR END POST ASSEMBLY

RAIL SLEEVE

BRACE POST ASSEMBLY



BOTTOM TENSION WIRE AND KNUCKLED SELDGE



GROUND ROD INSTALLATION

	SUDAS	REVISION	
		New	10-18-11
		9060.101	
		SHEET 2 of 2	
SUDAS Standard Specifications			
CHAIN LINK FENCE			

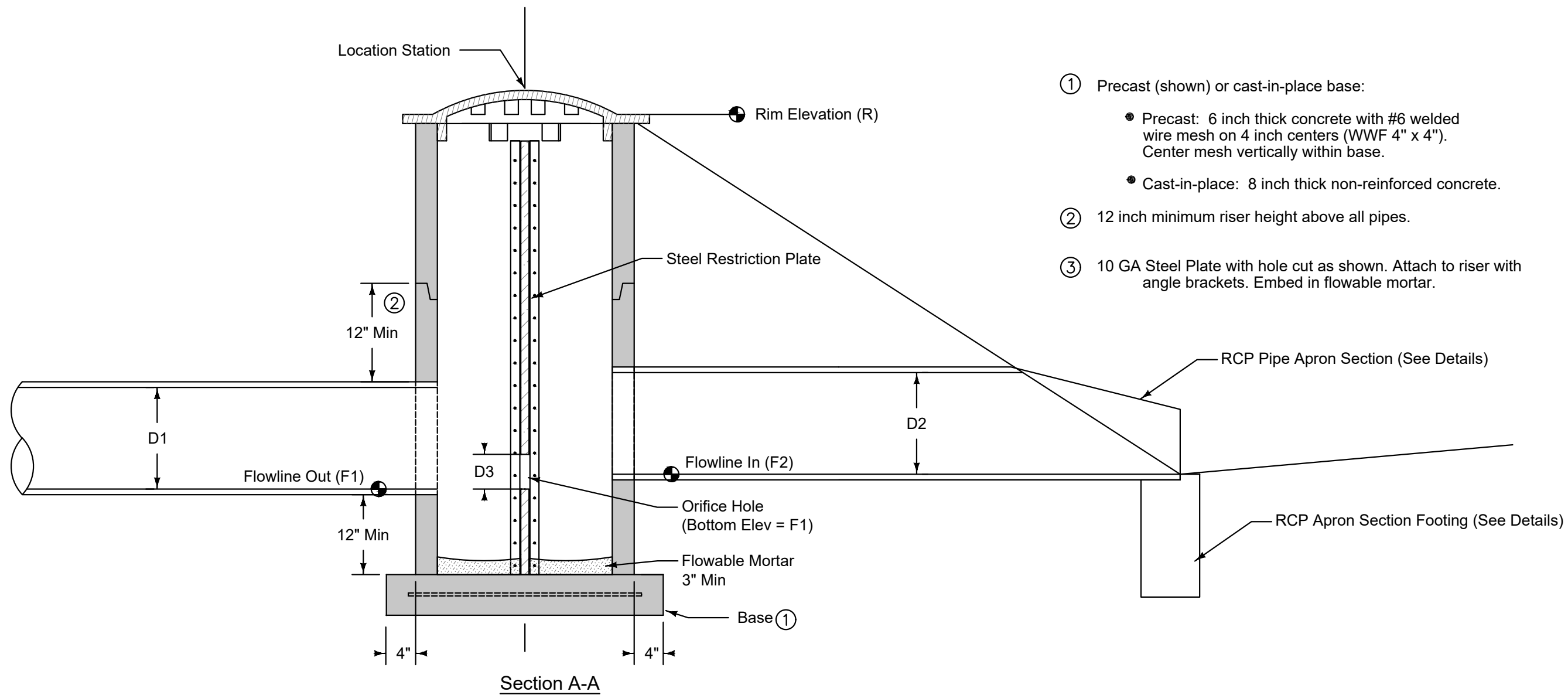
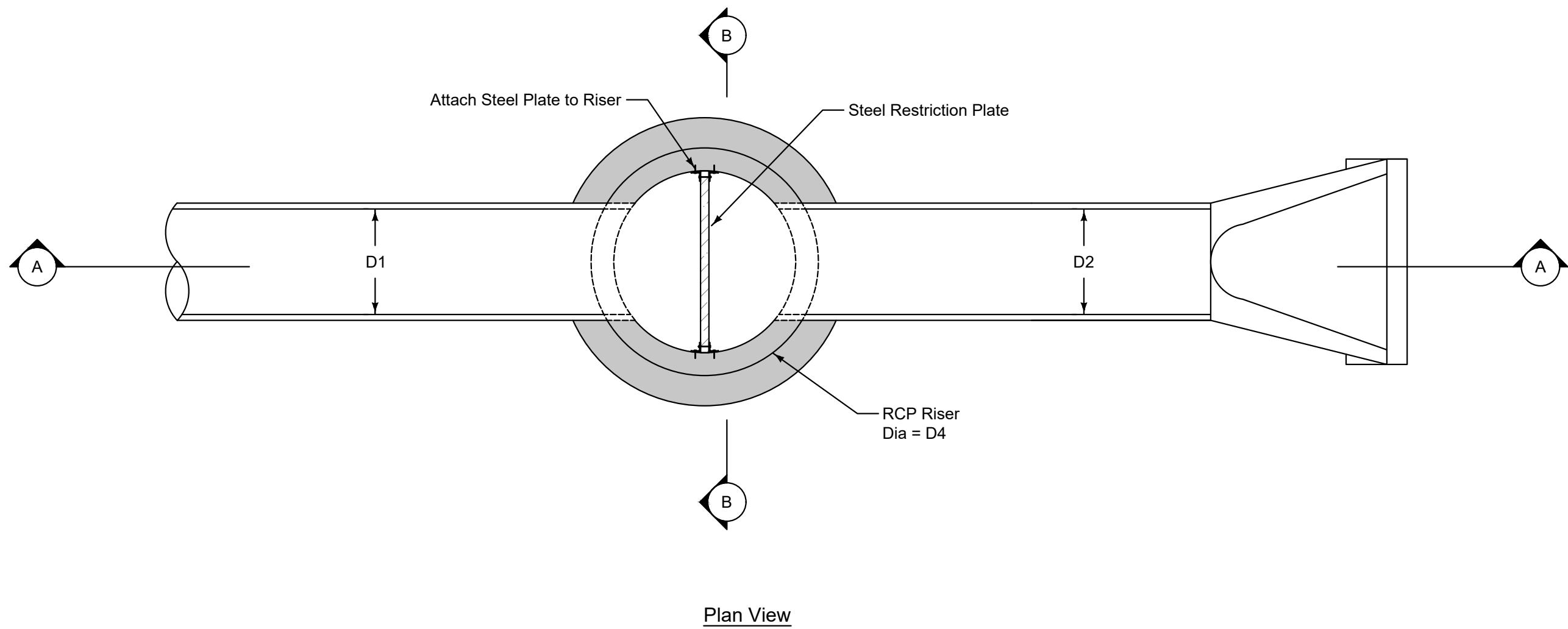
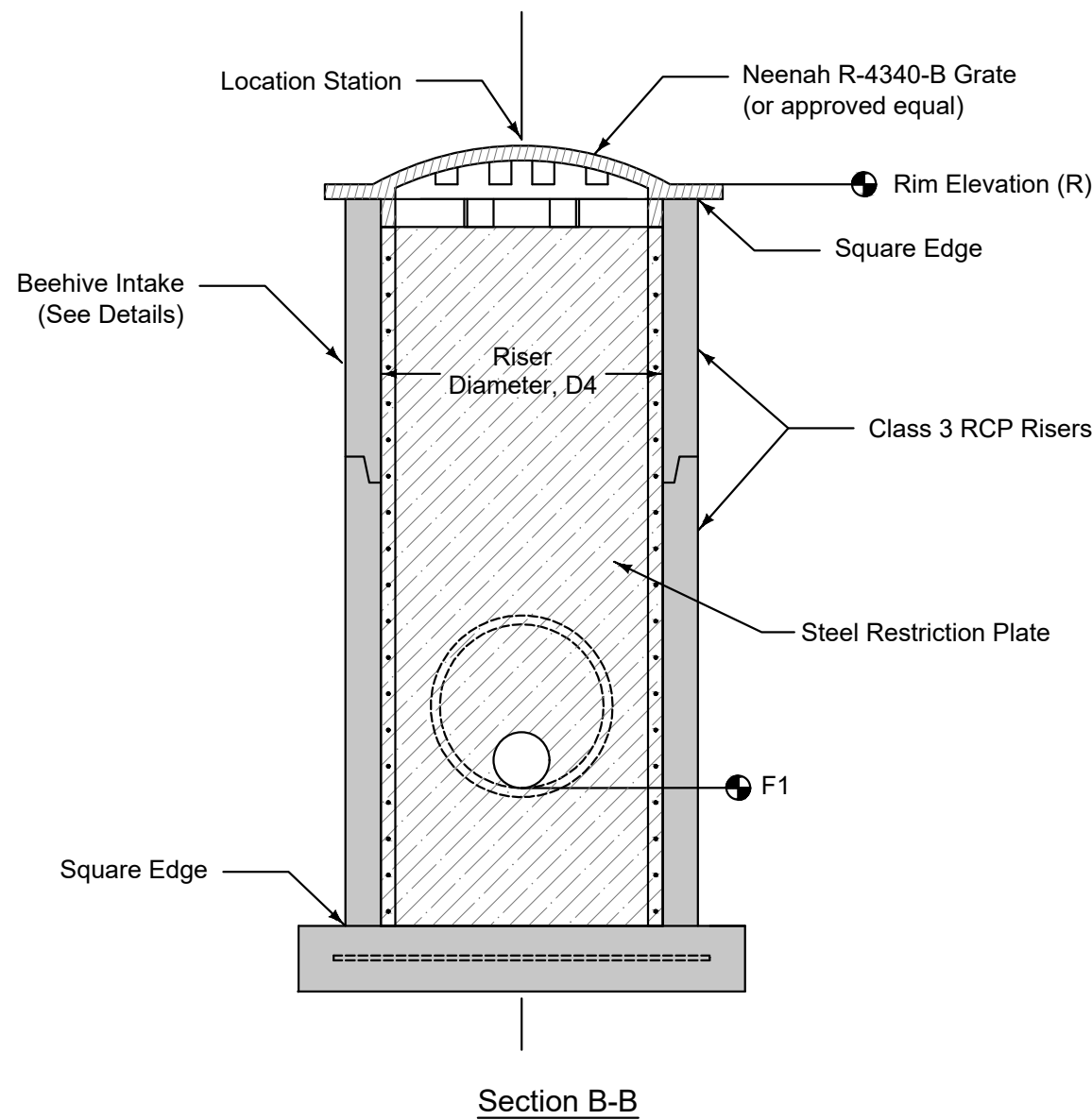
FOX Engineering Associates, Inc.
414 South 17th Street, Suite 107
Ames, Iowa 50010
Phone: (515) 233-0000
FAX: (515) 233-0103



TYPICAL DETAILS
JAS CONCRETE
BONDURANT, IOWA
2021

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G3.6
FoxGrayScale.ctb



- ① Precast (shown) or cast-in-place base:
 - Precast: 6 inch thick concrete with #6 welded wire mesh on 4 inch centers (WWF 4" x 4"). Center mesh vertically within base.
 - Cast-in-place: 8 inch thick non-reinforced concrete.
- ② 12 inch minimum riser height above all pipes.
- ③ 10 GA Steel Plate with hole cut as shown. Attach to riser with angle brackets. Embed in flowable mortar.

Outlet Control Structure Information							
Structure ID	R	D1	D2	D3	D4	F1	F2
ST-13	973.25	15"	15"	8"	24"	969.86	969.76
ST-22	969.00	12"	12"	6"	24"	967.44	967.44

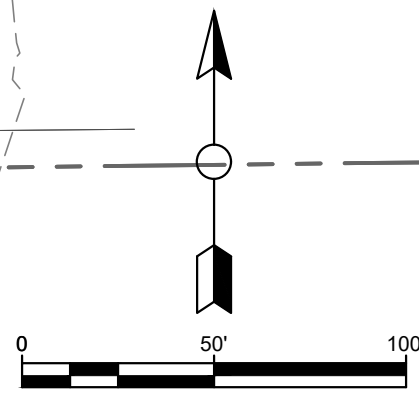
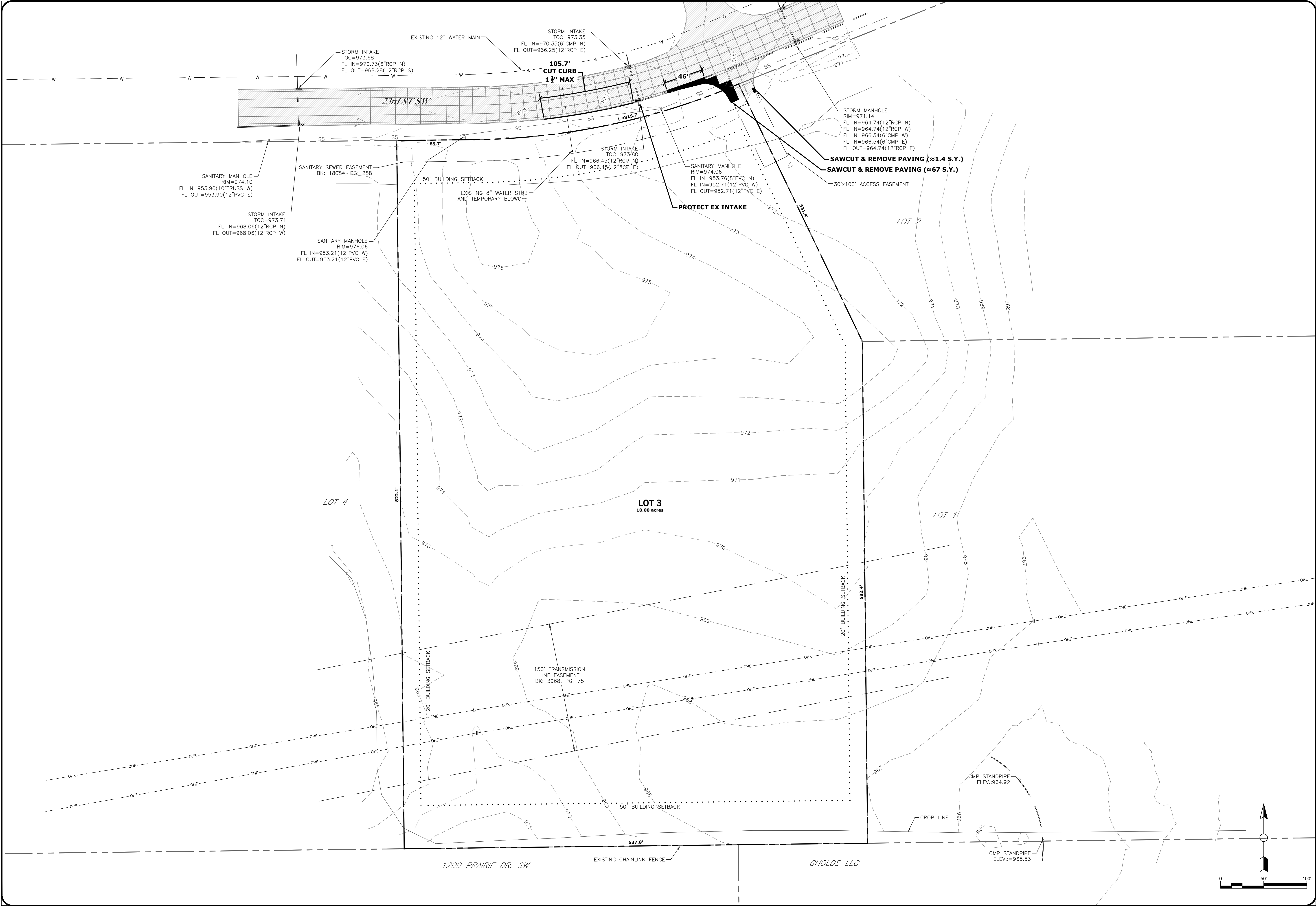
REVISION		DATE	BY	DATE
	DESIGNED:		JMG	08/21
	DRAWN:		SRS	08/21
	CHECKED:			
	LAST UPDATE: 09/02/23			

FOX Engineering Associates, Inc.
414 South 17th Street, Suite 107
Ames, Iowa 50010
Phone: (515) 233-0000
FAX: (515) 233-0103

TYPICAL DETAILS
JAS CONCRETE
BONDURANT, IOWA
2021

PROJECT NO.
5519-21A
SHEET
G3.6

DRAWING FILENAME			
K:\proj\5000\5519-21A - JAS Concrete Development\Drawings\Civil\5519-21A_Site Plan.dwg			
PLOT STYLE TABLE		LAYER MGR NAME	
FoxGrayScale.ctb		CL.1	



REVISION		DATE	BY	DATE
	DESIGNED:		JMG	09/21
	DRAWN:		SRS	09/21
	CHECKED:			
	LAST UPDATE: 09/02/23			

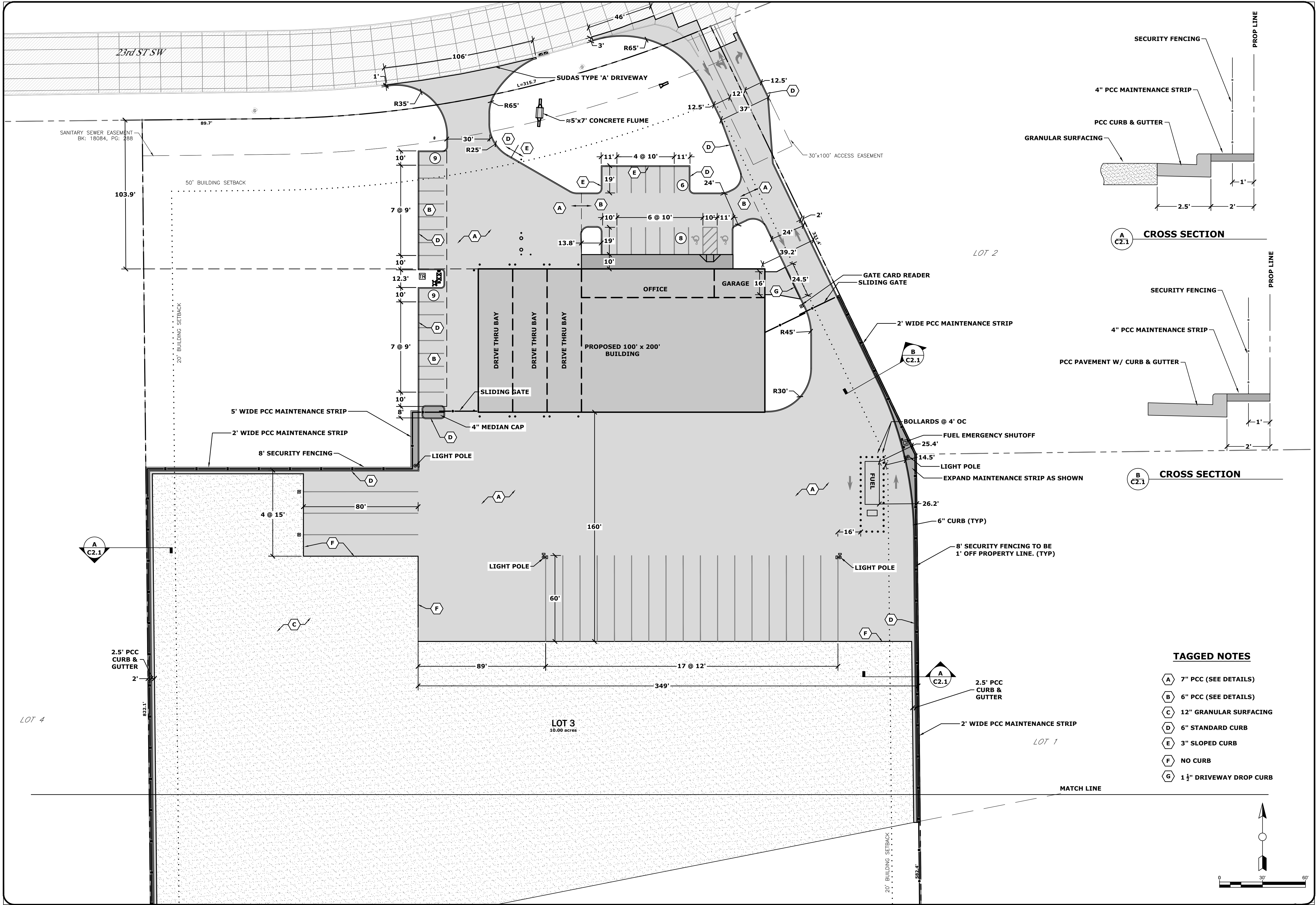
EXISTING CONDITIONS & REMOVALS
SITE DEVELOPMENT PLAN
JAS CONCRETE
LOT 3 SHILOH ROSE BUSINESS PARK PLAT 2
BONDURANT, IOWA

FOX Engineering Associates, Inc.
414 South 17th Street, Suite 107
Ames, Iowa 50010
Phone: (515) 233-0000
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PROJECT NO.
5519-21A

SHEET
C1.1

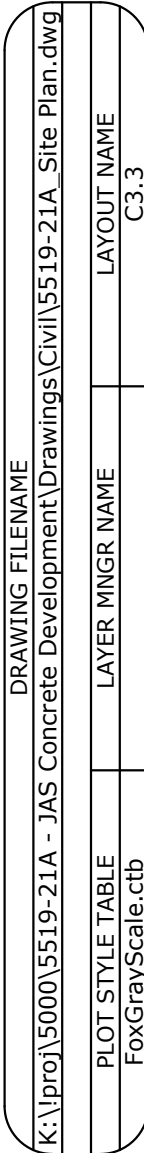
Page 20 of 34



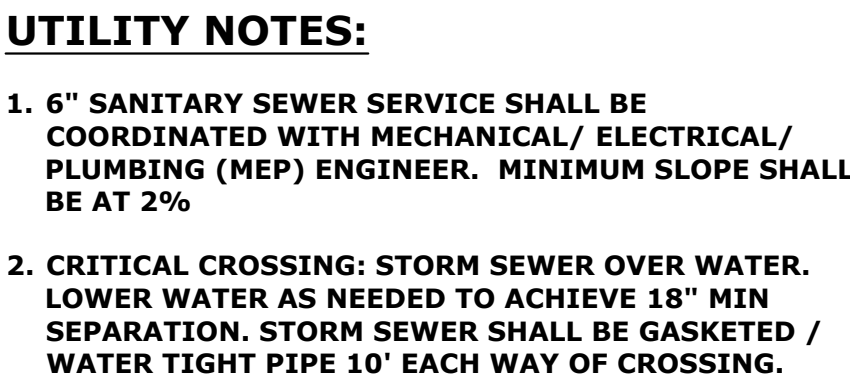
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K:\proj\5000\5519-21A - JAS Concrete Development\Drawings\Civil\5519-21A - Site Plan.dwg		C3.1	
PLOT STYLE TABLE		LAYER MGR NAME	
FoxGrayScale.ctb			



PROJECT NO. 5519-21A		SHEET C3.1	
GRADING PLAN SITE DEVELOPMENT PLAN JAS CONCRETE LOT 3 SHILOH ROSE BUSINESS PARK PLAT 2 BONDURANT, IOWA			
FOX Engineering Associates, Inc. 414 South 17th Street, Suite 107 Ames, Iowa 50010 Phone: (515) 233-0000 FAX: (515) 233-0103			
DATE	BY	DESIGNED	DATE
	JMG		09/21
	SRS	DRAWN	09/21
		CHECKED	
LAST UPDATE: 09/02/23			



GRADING PLAN (SOUTH) SITE DEVELOPMENT PLAN JAS CONCRETE LOT 3 SHILOH ROSE BUSINESS PARK PLAT 2 BONDURANT, IOWA	PROJECT NO. 5519-21A	SHEET C3.3
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PROJECT NO.
5519-21A
SHEET
C4.1

DRAWING FILENAME

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PLOT STYLE TABLE

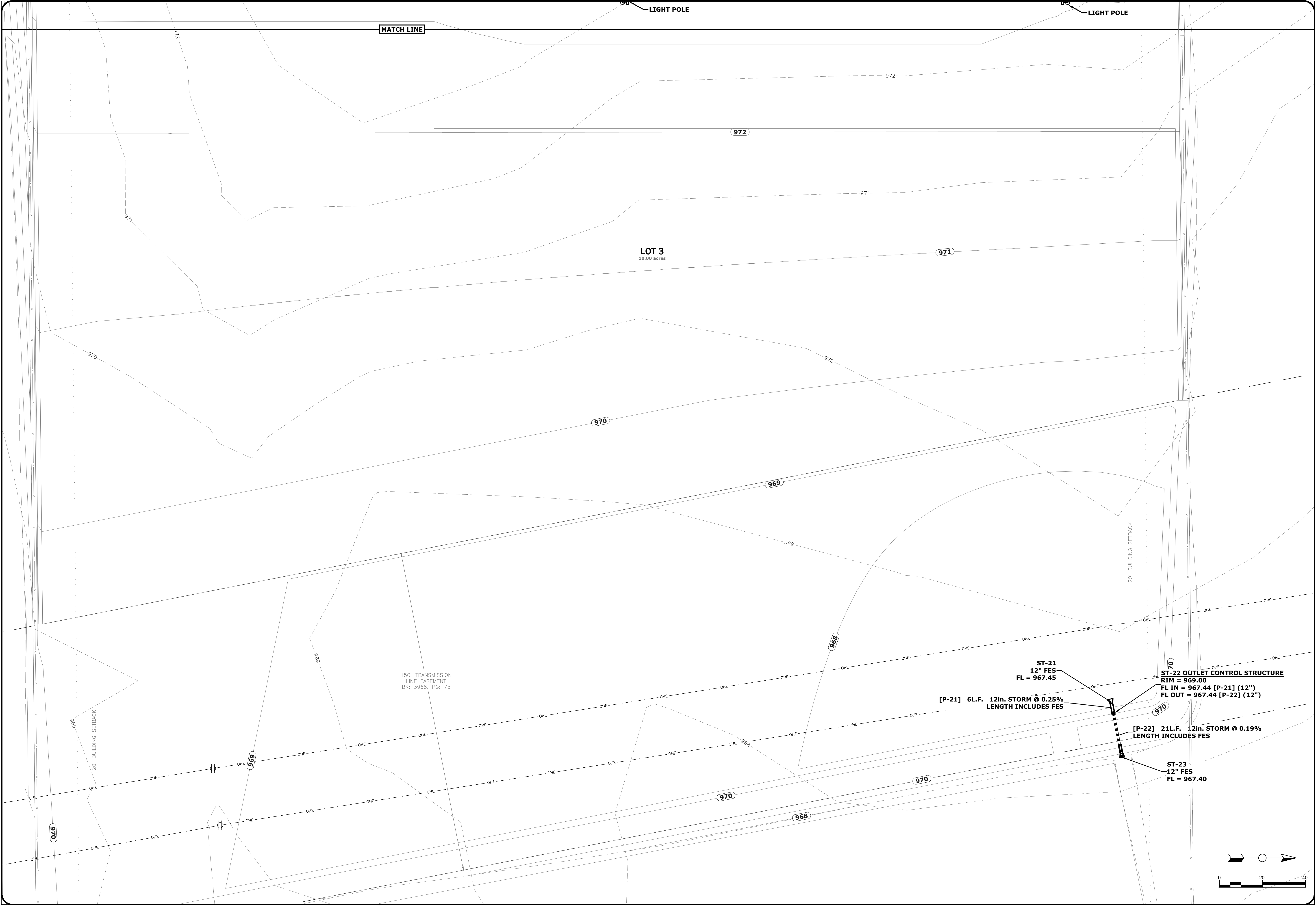
FoxGrayScale.ctb

LAYER MNGR NAME

C4.2

LAYOUT NAME

C4.2



PROJECT NO.

5519-21A

SHEET

C4.2

UTILITY PLAN (SOUTH)

SITE DEVELOPMENT PLAN

JAS CONCRETE

LOT 3 SHILOH ROSE BUSINESS PARK PLAT 2

BONDURANT, IOWA

FOX engineering

FOX Engineering Associates, Inc.

414 South 17th Street, Suite 107

Ames, Iowa 50010

Phone: (515) 233-0000

FAX: (515) 233-0103

DATE

09/21

BY

JMG

DESIGNED

SRS

DRAWN

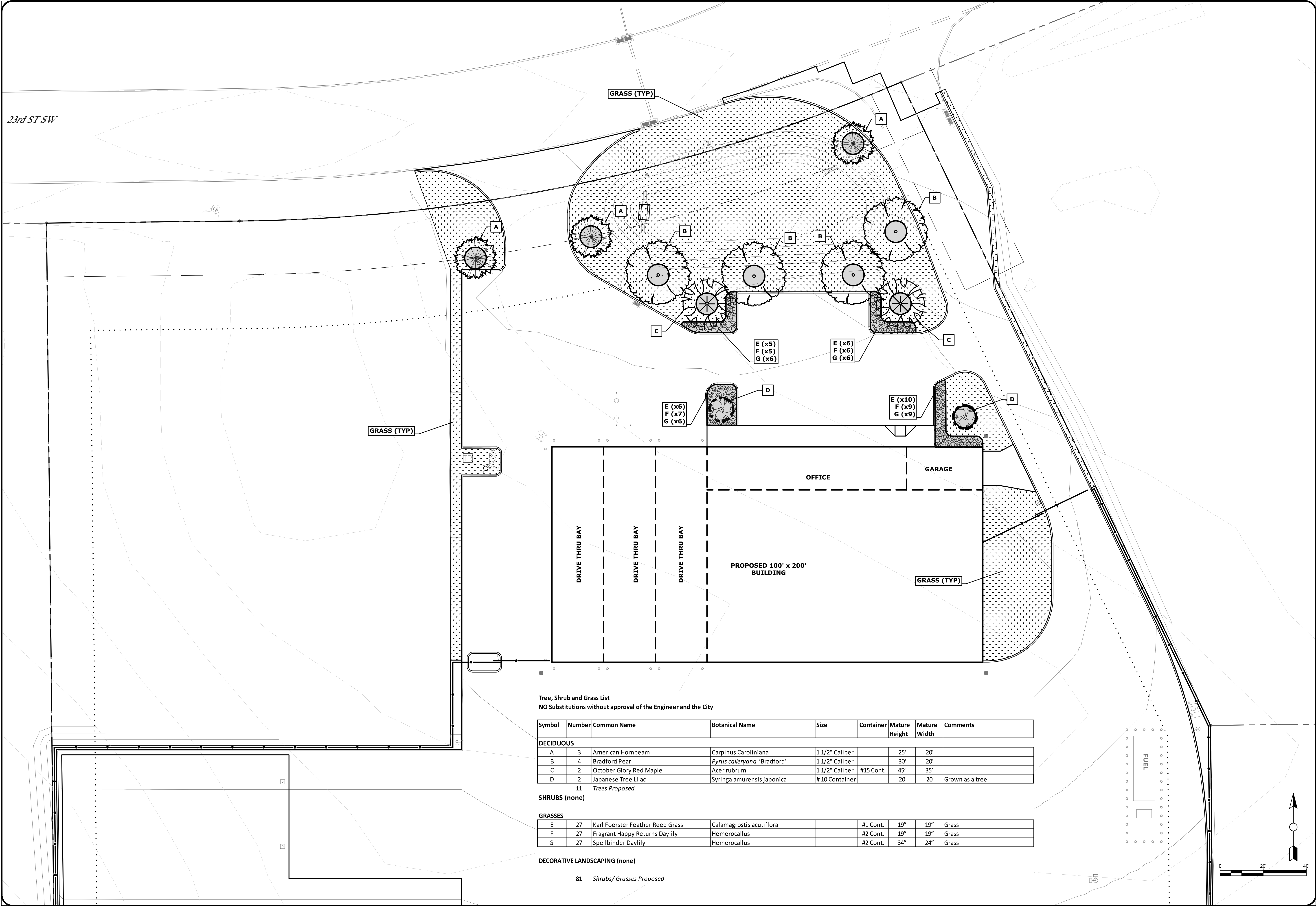
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CHECKED

SRS

LAST UPDATE

09/02/23



Tree, Shrub and Grass List
NO Substitutions without approval of the Engineer and the City

Symbol	Number	Common Name	Botanical Name	Size	Container	Mature Height	Mature Width	Comments
DECIDUOUS								
A	3	American Hornbeam	Carpinus Caroliniana	1 1/2" Caliper		25'	20'	
B	4	Bradford Pear	Pyrus calleryana "Bradford"	1 1/2" Caliper		30'	20'	
C	2	October Glory Red Maple	Acer rubrum	1 1/2" Caliper	#15 Cont.	45'	35'	
D	2	Japanese Tree Lilac	Syringa amurensis japonica	#10 Container		20	20	Grown as a tree.
11 Trees Proposed								
SHRUBS (none)								
GRASSES								
E	27	Karl Foerster Feather Reed Grass	Calamagrostis acutiflora		#1 Cont.	19"	19"	Grass
F	27	Fragrant Happy Returns Daylily	Hemerocallus		#2 Cont.	19"	19"	Grass
G	27	Spellbinder Daylily	Hemerocallus		#2 Cont.	34"	24"	Grass

DECORATIVE LANDSCAPING (none)

81 Shrubs/ Grasses Proposed

All contractors/subcontractors shall conduct their operations in a manner that minimizes erosion and prevents sediments from leaving the roadway right-of-way and prevents chemical contamination of soil and water. The Prime Contractor shall be responsible for compliance and implementation of the Pollution Prevention Plan (PPP) for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP. All work necessary to be in compliance with the PPP shall be considered incidental to the project. Therefore, it is in the best interest of the Contractor to disturb as little land as possible.

1. SITE DESCRIPTION
This Pollution Prevention Plan (PPP) is for JAS Concrete, Lot 3, Bondurant, Iowa 50035. This PPP covers approximately 10 acres with 6.5 of the acres being disturbed.

The PPP is located in an area of three (3) soil types: Nicollet (L55), Canisteo (L507), and Clarion (L138B). The estimated average NRCS runoff curve number for this PPP after completion will be 76.

Refer to the drawings for locations of typical slopes, ditch grades, and major structural and non-structural controls. A copy of this plan will be on file at the Project Engineer's office. All drainage will flow into tributaries of Mud Creek.

Potential Sources of Pollution
Site sources of pollution generated as a result of this work relate to silts and sediment that may be transported as a result of a storm event. However, this PPP provides conveyance for other (non-project related) operations. These other operations have storm water runoff, the regulation of which is beyond the control of this PPP. Potentially this runoff can contain various pollutants related to site-specific land uses. Examples are:

a. Rural Agricultural Activities:
Runoff from agricultural land use can potentially contain chemicals including herbicides, pesticides, fungicides and fertilizers.

b. Commercial and Industrial Activities:
Runoff from commercial and, industrial land use may contain constituents associated with the specific operation. Such operations are subject to potential leaks and spills that could be commingled with run-off from the facility. Pollutants associated with commercial and industrial activities are not readily available since they are typically proprietary.

2. CONTROLS
At locations where runoff can move offsite, silt fence shall be placed along the perimeter of the areas to be disturbed prior to beginning grading, excavation or clearing and grubbing operations. Vegetation in areas not needed for construction shall be preserved. As areas reach their final grade, additional silt fences, silt basins, intercepting ditches, sod flumes, letdowns, rip-rap, bridge end drains, and earth dikes shall be installed as specified in the plans and/or as required by the Project Engineer. This will include using silt fence as ditch checks and to protect intakes. Temporary stabilizing seeding shall be completed as the disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area for at least 14 days, on any portion of the site, the area shall be stabilized by temporary seeding or mulching on the last day, day zero, of land disturbing activities. Other stabilizing methods shall be used outside the seeding time period.

As the work progresses, additional erosion control items may be required as determined by the Contractor after field investigation. These may include items such as silt fence, erosion control mats, check dams and other appropriate measures installed by the Contractor as directed by the Engineer. The Contractor will complete the construction with the establishment of permanent perennial vegetation of all disturbed areas.

3. OTHER CONTROLS
Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.

Tracked-out material carried from this work site onto adjacent roads shall be cleaned up at the end of the workday or immediately when directed to do so by the Engineer.

Approved State or Local Plans:
During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

4. MAINTENANCE
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. Cleaning of silt control devices shall begin when the features have lost 50% of their capacity.

5. INSPECTIONS
Inspections shall be made by the Owner every seven calendar days. The Contractor shall immediately begin corrective action on all deficiencies found. The findings of this inspection shall be recorded in the project diary. Based on the results of the inspection, pollution prevention measures identified in the plan shall be revised at the construction site as appropriate as soon as practicable after the inspection and to the plan as soon as practicable after the inspection but in no case more than 7 calendar days following the inspection. If the permittee determines that making these changes at the construction site or to the plan less than 72 hours after the inspection is impracticable, the permittee shall document in the plan why it is impracticable and indicate an estimated date by which the changes will be made. The Contractor shall implement all revisions.

6. NON-STORM DISCHARGES
This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of patio blocks, Class A stone or erosion stone.

Storm Water Pollution Prevention Plan - Supplemental Items

Phase 1 - Site Evaluation and Design Development

Existing soil information: See the Polk County Soil Survey, Section 01 of T79N, R23W.

Existing runoff quality: Existing data on runoff water quality is not available.

Location of surface water on site: Runoff surface drains from the site.

Name of receiving stream: Surface drains to Mud Creek.

Construction activity description: General soil disturbing activities associated with grading include: stockpiling, grading, paving, and seeding

Site map: The plans show slopes after grading, disturbed areas, drainage patterns, and discharge points.

Phase 2 - Control Selection/Plan Design

(A) Select Erosion and Sediment Controls

The Contractor shall submit specifications for temporary and permanent measures to be used for controlling erosion and sediment. Clearing and grading should not be started until a firm construction schedule is known and can be effectively coordinated with the grading and clearing activity.

The following Stabilization measures will be utilized:

Temporary seeding - Exposed areas subject to erosion should be covered as quickly as possible. Under Iowa's General Permit No. 2., disturbed areas of the construction site that will not be re-disturbed for 14 days or more, on any portion of the site, the area shall be stabilized by day zero, the last day of land disturbing activities.

Permanent seeding and planting - Permanent seeding shall be done in accordance with the Seeding Plan. The seeding schedule shall follow the Iowa Department of Transportation specifications. Temporary seeding shall be utilized for erosion control until permanent seeding can be established.

Mulching - Temporary vegetation will be used as mulch when permanent seeding is completed.

Preservation of Natural Vegetation - Natural Vegetation shall be preserved where possible within the construction limits. Natural vegetation shall not be disturbed outside of the construction limits. Vegetation may be mowed or harvested for hay crop.

Vegetative Strips - Vegetative strips may be utilized to slow runoff velocities and deposit sediments from disturbed areas.

Soil Retaining Measures - Soil to be reused will be stockpiled onsite as indicated on the plans. Silt fence will be utilized to maintain soils onsite.

Minimization of land exposure - Exposure of disturbed land shall be minimized in terms of area and time.

Roadways - Roadways will be surfaced or otherwise stabilized as soon as feasible.

Topsoil - shall be preserved, onsite, unless infeasible and de-compacted prior to final stabilization. Re-spread minimum depth of eight-inches (8") of topsoil with at least 3% organic matter, per SUDAS. De-compact (6" minimum) prior to stabilizing with vegetation.

The following structural practices will be utilized:

Earthen Berm or Dike - Earthen dikes may be used to divert water around disturbed areas and around intakes as directed by the Engineer.

Silt fence - Silt fence shall be placed on the perimeter of the disturbed area as shown on the drawings. Additional silt fence shall be provided at the discretion of the Engineer.

Gravel Construction Entrance - A gravel or rock construction entrance will be used to reduce or eliminate offsite tracking of soil or debris.

(B) Select other controls

Disposal of construction site waste materials - The Contractor will be responsible for making sure that all construction wastes are properly disposed of at facilities permitted to accept these types of wastes.

Treatment or disposal of sanitary wastes generated onsite - The Contractor will be responsible for providing sanitary facilities for workers in accordance with local and state requirements.

Prevent offsite tracking of sediments and generation of dust - The Contractor shall prevent the tracking of sediments offsite. A construction entrance shall be installed as shown on the plans. The Contractor will be responsible for immediate cleanup of any tracked mud or debris.

The Contractor will also be responsible for preventing dust generation from construction activities. The Contractor shall take reasonable measures to prevent unnecessary dust. Earth surfaces subject to dusting shall be kept moist with water or by application of a chemical dust suppressant. Dust prone materials in piles or in transit shall be covered when practical to prevent blowing. Buildings and operating facilities which are affected adversely by dust shall be adequately protected from dust. Existing and new equipment which may be adversely affected by dust shall be adequately protected.

The Contractor will be responsible for preventing chemical contamination of soil and water.

PCC waste - The Contractor shall provide and maintain a containment facility for waste paving product (i.e. PCC wash out station). Perform maintenance when washout station is at 75% capacity.

Stored materials - The Contractor shall be responsible for storing materials so that rain water doesn't carry chemical contamination into soil or water.

Equipment servicing - Contractor shall prevent spilling of petroleum products. Spill shall be cleaned up immediately. Used petroleum containers are to be disposed of correctly and not buried on-site.

Building construction product - Contractor shall prevent cleaning of equipment in a manner that contaminates soil or water and waste products from becoming airborne and leaving the site.

(C) Inspection and maintenance plan

The contractor will be responsible for installation and all associated costs of erosion and stormwater management controls during the contract period. Details of control measures are shown on the plans.

The Owner's representative will be responsible for filling out an inspection report for the site. The inspection reports can be used to record scheduled maintenance. Any changes that may be required to correct deficiencies in the Storm Water Pollution Prevention Plan noted during an inspection should be made as soon as practical after an inspection but in no case later than 7 days after the inspection.

(D) Control Description

Description of controls can be found in section (A). The Contractor will be responsible for submitting specifications of the selected controls. The location of determined controls can be found on the plans. Additional controls may be required at the discretion of the Engineer.

(E) Schedule of major activities

Prior to initiating construction, the Contractor shall submit a schedule of major activities including:

- Land clearing and grading in relation to the corresponding schedule for all excavation work. If at all possible, the clearing should immediately precede the construction activity.
- Installation and anticipated completion date of each control measure.

(A) Prohibited Discharges

- Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials
- Fuel Oils or other pollutants used in vehicle and equipment operation/maintenance.
- Soaps or solvents used in vehicle and equipment washing.

Phase 3 - Plan Implementation

Contractor Certification

All Contractors and subcontractors, including short-term contractors and subcontractors coming on-site, must sign the Contractor certification statement before conducting any professional service at the site identified in the plan. The certification must be signed by an authorized representative (i.e., principal executive officer, president, secretary, treasurer or vice president, general partner, proprietor, ranking elected official). Upon signing the certification, the Contractor or subcontractor becomes a co-permittee with the Owner and other co-permittee Contractors. In signing the plan, the authorized representative certifies that the information is true and assumes liability for the plan. Note that Section 309 of the Clean Water Act provides for significant penalties where information is false or the permittee violates, either knowingly or negligently, permit requirements.

The General Contractor will be responsible for collecting and maintaining signatures. The Contractor shall provide copies of signed certifications to the Owner and Engineer upon request and at the termination of the contract.

(A) Notice of Intent (NoI)

The Owner or an agent of the Owner will fulfill the public notice requirement and submit the Notice of Intent for coverage under General Permit No. 2. The project required the obtaining of a NPDES General Permit for storm water discharge associated with construction activities. The Owner and the Contractor have a copy of this permit. The Contractor and all subcontractors shall be responsible for compliance and fulfilling all requirements of the NPDES General permit including the Storm Water Pollution Prevention Plan.

Phase 4 - Plan Implementation

The Contractor shall follow the schedule as submitted under Phase 2 (E). The Contractor shall keep the Engineer informed of any deviation of the schedule or plan.

(A) Inspection and Maintenance Reports

A copy of the inspection log shall be maintained at the site.

(B) Records of Construction Activities

In addition to the installation and maintenance of erosion control implementation, the Contractor should keep records of the construction activity on the site. In particular, the Contractor should keep a record of the following information:

-The dates when major grading activities occur in a particular area.

-The dates when construction activities cease in an area, temporarily or permanently.

-The dates when an area is stabilized, temporarily or permanently.

-These records can be used to make sure that areas where there is no construction activity will be stabilized within the required time frame. Records shall be retained for a period of at least three years from the date that the site is finally stabilized.

(C) Plan Updates

The pollution prevention plan shall be updated:

-When it does not accurately reflect the site features and operations.

-When the Contractor, Owner, or Engineer observes that it is not effective in minimizing pollutant discharge from the site.

-To include Contractors identified after the submittal of the Notice of Intent. These Contractors shall certify the plan and be identified as co-permittees and

-To identify any change in ownership or transference of the permit and permit responsibilities.

If, at any time during the effective period of the permit, the IDNR finds that the plan does not meet one or more of the minimum standards established in the general permit, the IDNR will notify the permittee of required changes necessary to bring the plan up to standard. Permittees shall have 3 days after notification to make the necessary changes and shall submit to the Department a written certification that the changes have been made.

(E) Report of Hazardous Conditions

Because construction activities may include handling of certain hazardous substances over the course of the project, spills of these substances may create a hazardous condition and are required to be reported. Iowa law requires that as soon as possible but not more than six hours after the onset of a hazardous condition the IDNR (515) 725 - 8694 and local sheriff's office (515) 382 - 7458 or the office of the sheriff of the affected county be notified. The Owner and Engineer should also be informed of the hazardous condition in a timely manner. Contractor is responsible for spill clean-up, remediation and reporting.

The Contractor shall submit a report to the Engineer within 14 calendar days of a hazardous condition. The report shall describe the release and the circumstances leading to the release. Steps to prevent the reoccurrence of such releases are to be identified in the plan and implemented.

(F) Plan location and access

Plan location - A copy of the Pollution Prevention Plan must be kept at the construction site from the time construction begins until the site has reached final stabilization.

Retention of records - Retention of records requires that copies of the Storm Water Pollution Prevention Plan and all other reports required by the permit, as well as all of the data used to complete the Notice of Intent, be retained for 3 years after the completion of final site stabilization.

Access - Although plans and associated records are not necessarily required to be submitted to the IDNR, these documents must be made available upon request to the Department of Natural Resources. If storm water runoff is discharged to a municipal separate storm sewer system, the plans must be made available upon request to the municipal operator of the system.

Phase 5 - Final Stabilization and NoD

(A) Final Stabilization

Final stabilization is defined in the general permit as meaning that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70%, sufficient to preclude erosion, for the entire disturbed area of the permitted project has been established or equivalent stabilization measures have been employed or which has been returned to agricultural production.

The Contractor shall notify the permit holder and Engineer of final stabilization in accordance with the contract documents. The Owner and Engineer will review the site before finalizing the contract and taking control of the site. The Contractor will be required to provide a copy of all inspection and maintenance logs, schedule of construction activities, and Contractor Certifications to the Owner at this time.

(B) Notice of Discontinuation (NoD)

The permit holder (Owner) will be required to submit the Notice of Discontinuation once control of the site has been obtained from the Contractor.

LEGEND

CE

CONSTRUCTION ENTRANCE

SF-#

SILT FENCE

IP-#

INLET PROTECTION

OP-#

INLET PROTECTION

CONCRETE, PAINT, AND GROUT WASHOUT AREA

DESIGNATED STAGING AREA FOR PORTABLE RESTROOMS, TEMPORARY FUEL TANKS, WASTE CONTAINERS, AND OTHER CHEMICALS.

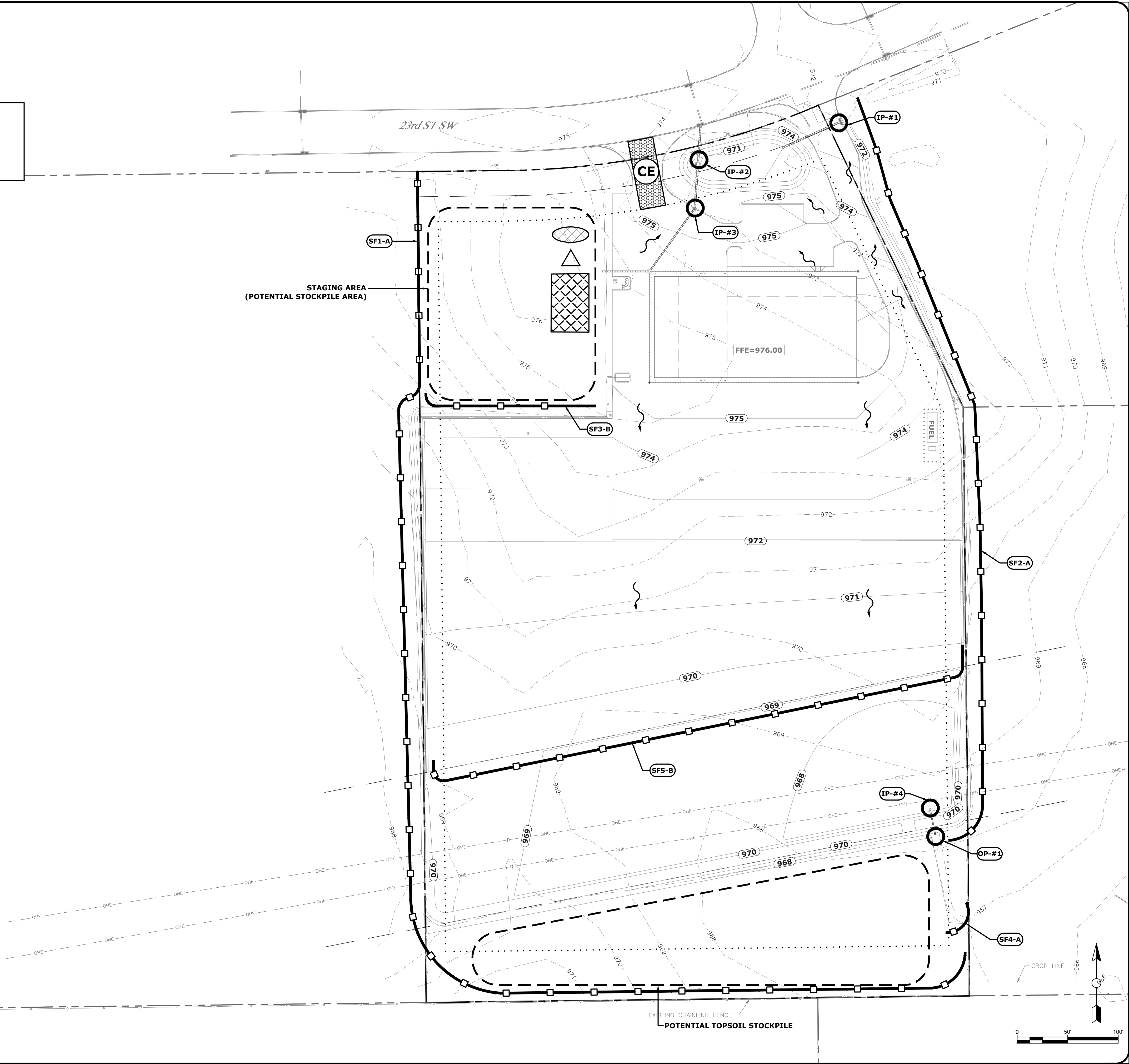
SPILL KIT

- NOTES:
- 1) DO NOT REMOVE PERIMETER CONTROLS UNTIL UPSTREAM AREAS ARE STABILIZED

2) INSTALL "SF_-A" CONTROLS PRIOR TO START OF CONSTRUCTION

3) INSTALL "SF_-B" CONTROLS IMMEDIATELY AFTER INSTALLATION OF PIPE / STRUCTURE

SILT FENCE		
ID	LENGTH (FT)	AS-BUILT
SF-1A	1351	
SF-2A	775	
SF-3B	176	
SF-4A	44	
SF-5B	578	
TOTAL:	2924	



REVISION		DATE	BY	DATE
	DESIGNED:	JMG	09/21	
	DRAWN:	SRS	09/21	
	CHECKED:			
	LAST UPDATE: 09/02/23			

FOX Engineering Associates, Inc.
414 South 17th Street, Suite 107
Ames, Iowa 50010
Phone: (515) 233-0000
FAX: (515) 233-0103

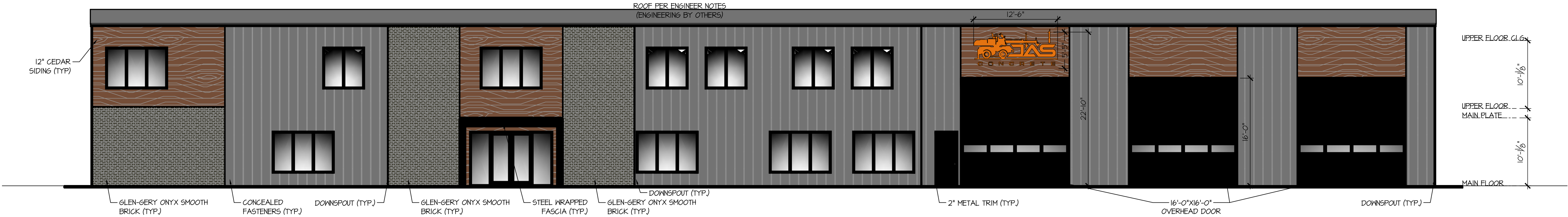
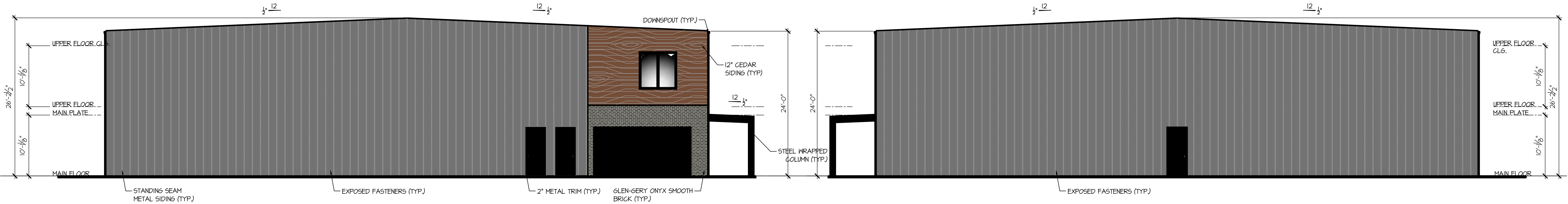


STORM WATER POLLUTION PREVENTION PLAN
SITE DEVELOPMENT PLAN
JAS CONCRETE
LOT 3 SHILOH ROSE BUSINESS PARK PLAT 2
BONDURANT, IOWA

PROJECT NO.
5519-21A
SHEET
C6.2

Material Classifications:

Material	Overlay Class	West (Front)	North (Left)	East (Rear)	South (Right)
Metal Panel Concealed Fasteners	Primary	36%	0%	0%	0%
Metal Panel Exposed Fasteners	Secondary	0%	77%	71%	97%
Metal Coping	Limited	5%	1%	3%	2%
Cedar Plank Siding	Primary	15%	8%	0%	0%
Brick	Primary	15%	4%	0%	0%
Glass	Primary	14%	1%	1%	0%
Doors	Primary	15%	7%	24%	1%



JAS CONCRETE OFFICE & WAREHOUSE COMPLEX
LOT 3 SHILOH ROSE BUSINESS PARK PLAT 2
BONDURANT, IOWA



The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, unit plan / floor plan changes, etc.)

September 21, 2021

WWW.LONGCREEKDESIGN.COM

PLANNING AND ZONING COMMISSION
RESOLUTION NO. PZ-210923-22

RESOLUTION REGARDING RECOMMENDED APPROVAL OF THE JAS CONCRETE
SITE PLAN AT 701 23rd STREET SW

WHEREAS, Fox Engineering submitted the JAS Concrete site plan for property at 701 23rd Street SW; AND

WHEREAS, the zoning for the property is Limited Industrial (M-1) and the use proposed is considered the following permitted use: contractor's office and storage buildings; AND

WHEREAS, JAS Concrete obtained a conditional use permit from the Board of Adjustment in July 2021 to allow for the outdoor storage yard proposed as conditioned by the Board.

NOW, THEREFORE, BE IT RESOLVED, that the Planning & Zoning Commission recommends approval of the submitted JAS Concrete site plan, subject to the following City Code/Policy clarification recommendation items:

1. Utility connection fee district fees must be paid prior to building permit issuance.
2. Documentation of MidAmerican's consent must be submitted prior to beginning any grading work within their easement area.
3. If any exterior dumpster is proposed on site, site plan to be updated to show its location and note how it will be screened.
4. that as noted under Note 2 of the recorded Shiloh Rose Business Park Plat 2, in the event the City designates a frontage sidewalk to be wider than 5', at the time of site development the property owner shall deposit with the City the equivalent cost of a 5'-wide sidewalk.
5. Landscaping plan to be updated to address staff's comments listed in this agenda statement.
6. Comments from City Engineering, Public Works, and the Fire Department must be addressed, including but not limited to:
 - a. SUDAS reference to be corrected.
 - b. Shared access comments in this agenda statement to be addressed.
 - c. Hydrant coverage to be shown.
 - d. Acknowledgement that the sand/oil separator will need WRA approval prior to install.
 - e. General permit number 2 is required prior to grading.
 - f. Clarification requested on the discharge from the south detention basin to show that it will not adversely impact the south undetained area.
 - g. Table 2.1 of the stormwater management report to be updated to clarify flow components of the basin.

Moved by _____, Seconded by _____ to adopt.

ATTEST: I, Maggie Murray, Planning & Community Development Director, City of Bondurant, hereby certify that at a meeting of the Planning and Zoning Commission held on September 23, 2021; among other proceedings the above was recommended.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Maggie Murray, Planning & Community Development Director

Action	Yay	Nay	Abstain	Absent
Cameron				
Clayton				
Mains				
Keeran				
Cuellar				
Hoyer				
Brostrom				

Torey Cuellar, Commission Chair



**BUSINESS OF THE PLANNING AND ZONING COMMISSION
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 8.e.
For Meeting of 9/23/2021
Reports and Comments

TITLE: City Council Liaison

CONTACT PERSON:

BRIEF HISTORY & ANALYSIS:

FUNDING SOURCE:

STAFF RECOMMENDATION:

APPROVED FOR SUBMITTAL:

ATTACHMENTS: None