CONSTRUCTION PLANS

WEST F AVE INDUSTRIAL PARK ADDITION

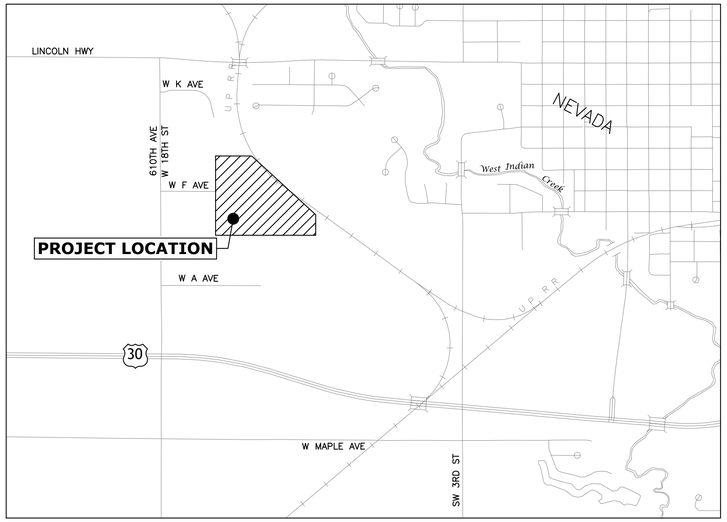
NEVADA, IOWA

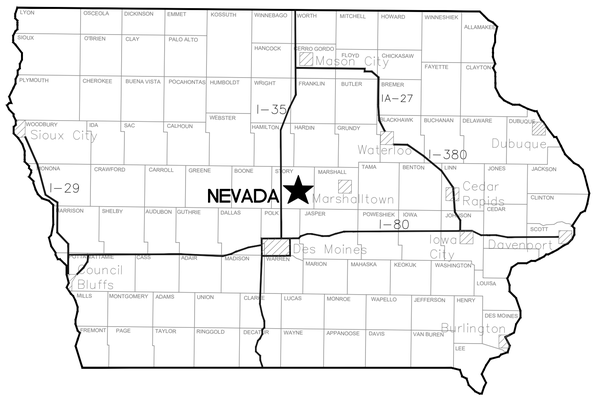
WEST F AVE INDUSTRIAL PARK ADDITION

LOCATION MAP

NORTH

1" = ¼ MILE





INDEX OF SHEETS

Subdivision Title	West F Ave Industrial Park Addition
Applicant:	On Track Construction Att: Matt Runge 1316 6th Street Suite 109 Nevada, IA 50201
Property Owner	Same as Applicant
Prepared by:	John Gade, P.E. FOX Engineering Associates 414 S. 17th Street, Suite 107 Ames, Iowa 50010
Site Location:	Airport Industrial Park, 7th Addition
Legal Description:	Outlot A, Airport Road Industrial Park, Seventh Addition to the City of Nevada, Story County, Iowa, containing 23.98 acres
Site Area:	23.98 acres
Parcel Identification No:	10-12-140-001
Zoning:	Limited Industrial District (LI)
LI Bulk Requirements:	7,000 sf Lot Area (Min) 25 ft Front Setback 25 ft Street Side Yard 10 ft Interior Side Yard 25 ft Rear Setback 60 ft Lot Width 75 ft Max Structure Height 70% Max Building Coverage 90% Max Impervious Coverage 1.0 Floor Area Ratio No Limit Max Total Parking Located in Street Yard Landscaping & screening are subject to Code Section 165.18
Survey Datum:	All elevations are to NAV 88 unless otherwise noted
Flood Information:	None
Existing Use:	Agricultural
Proposed Use:	Industrial Subdivision
Proposed Lots:	5 total lots
Lots per Acre (Density):	0.21 lots per acre
Electrical Service	Alliant Energy
Gas Service	Flint Hills Resources, LC
Phone Service	Colo Telephone Company
Fiber Service	Mediacom, Windstream
Water Supply:	Lots 1-5 will have water service from the existing 12" water main. Lot 1, Lot 2, & Lot 5 will have a 6-inch water service. Note that Lot 3 & Lot 4 will be responsible for installation of their 6-inch water service when they development.
Sanitary Sewer:	Lots 1-5 will discharge into the existing gravity 15" sanitary sewer system. Assuming 5,000 gallons per day (gpd) per acre, the peak discharge into the collection system will be 120,000 gpd. All lots will connect to existing 8-inch sanitary sewer. Each lot will have a 6-inch sanitary sewer service.
Storm Sewer:	The public roadways (West F Ave & West 13th Street) storm sewer & intakes were designed for a minimum 10-yr storm event. Lots 1-5 shall be limited to a minimum green space of 15% per site. Each site is encouraged to do soil quality restoration, and shall not have a site CN value greater than 92. Lot 2 & 3 will have a shared storm water retention basin.
911 Addresses:	City of Nevada shall assign address prior to Final Plat approval.
Protective Covenants:	None
Deed Restrictions:	None
Finance Improvement:	Developer to pay for all proposed subdivision improvements. The development is within an existing TIF District. Developer request TIF for all public infrastructure.
Construction Schedule:	Start grading in Spring of 2020 Start utilities in Summer of 2020 Finish paving by June 1, 2021
NPDES Permit:	IA-37404-37045 4/22/2020 Discharge Authorization Date 4/22/2023 Coverage Provided Through Date

IOWA ONE CALL SM
1-800-292-8989 | 811
www.iowaonecall.com
Know what's below. Call before you dig.

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.

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 STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS 2020) AND CITY OF NEVADA SUPPLEMENTAL SPECIFICATIONS; AND APPLICABLE SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, AND SPECIAL PROVISIONS, AND ALL APPROPRIATE ADDENDUMS AND REVISIONS SHALL APPLY TO THE CONSTRUCTION WORK ON THIS PROJECT UNLESS NOTED ON THE PLANS OR IN THE CONTRACT.

FOX engineering

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.

JOHN M. GADE P16015 — LICENSED PROFESSIONAL ENGINEER — IOWA

JOHN M. GADE PE — 7.22.2020 DATE

License number P16015

My license renewal date is December 31, 2021.

Pages or sheets covered by this seal:

ALL

DRAWING FILENAME: K:\Iproj\5000\5491-20A West F Ave\Drawings\General\5491-20A CD G Sheets.dwg
PLOT STYLE TABLE: FoxEngrStable.ctb
LAYER MNGR NAME:
LAYOUT NAME: G1.1

REVISION	DATE	BY

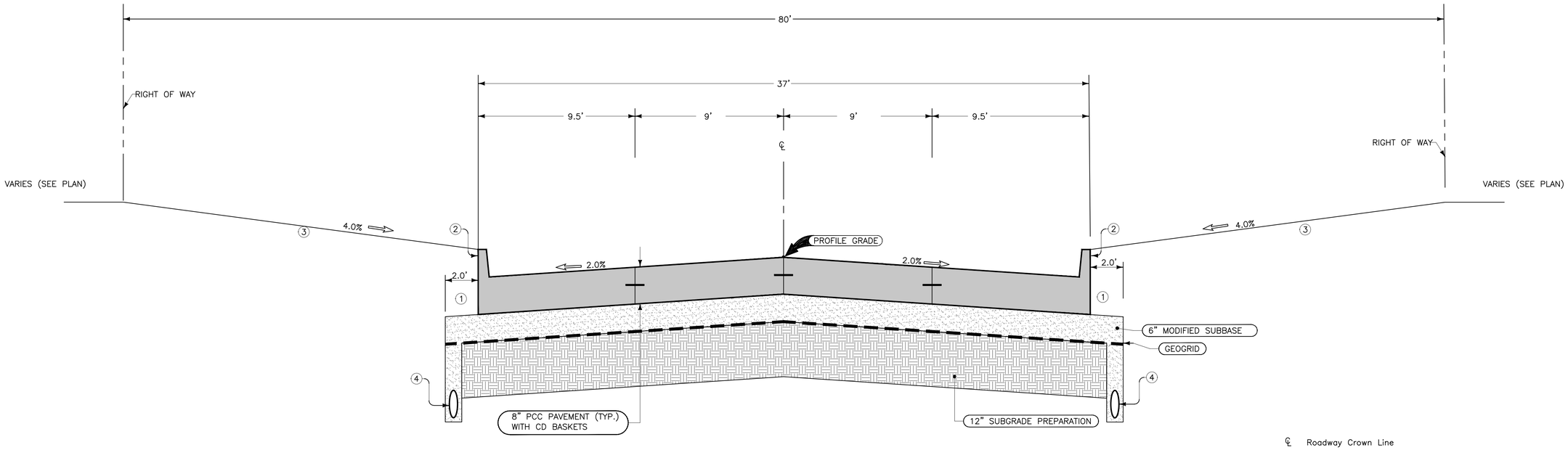
DESIGNED: JMG
DRAWN: SPB
CHECKED:
LAST UPDATE: 07/02/20

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

COVER SHEET
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO. 5491-20A

SHEET G1.1



TYPICAL CROSS SECTION
PCC PAVING

℄ Roadway Crown Line

(1) Excavate and backfill 2.0', 6" min. Topsoil Placement

(2) Standard 6" PCC Curb

(3) 6" min. Topsoil Placement

(4) 6" Subdrain. Refer to SUDAS Figure 4040.231, Case B, Type 1 Subdrain shall be installed prior to Modified Subbase

CIVIL LEGEND

LINEWORK

EXISTING	PROPOSED	
		BUILDING
		CONCRETE PAVING
		ASPHALT PAVING
		SIDEWALK
		PROPERTY LINE
		EASEMENT
		BUILDING SETBACK LINE
x x x	x x x	FENCE –BARBED WIRE
o	o	FENCE –CHAIN LINK
□	□	FENCE –VINYL
▫	▫	FENCE –WOOD
		FENCE –SILT
W	W	WATER MAIN
		STORM SEWER / CULVERT
		STORM SEWER SUBDRAIN
SAN	SAN	SANITARY SEWER
FM	FM	FORCE MAIN
OHE	OHE	ELECTRIC –OVERHEAD
UGE	UGE	ELECTRIC –UNDERGROUND
OT		TELEPHONE –OVERHEAD
T		TELEPHONE –UNDERGROUND
FO		FIBER OPTIC
G	G	NATURAL GAS
		TREE LINE
		CROP LINE
		RAIL ROAD TRACK
881 880	880 881	GROUND SURFACE CONTOURS
		LIMITS OF CONSTRUCTION

SYMBOLS

EXISTING	PROPOSED		EXISTING	PROPOSED	
o	•	BOLLARD			STORM SEWER INTAKE, SW–501/ 502
		BUSH			
T		CABLE TV PEDESTAL			STORM SEWER INTAKE, SW–503/ 504
		CONTROL/ TRAVERSE POINT			
S	S	CURB STOP			STORM SEWER INTAKE, SW–505
E		ELECTRICAL PEDESTAL			
E		ELECTRICAL MANHOLE			STORM SEWER INTAKE, SW–506
TR		ELECTRICAL TRANSFORMER			
FO		FIBER OPTIC PEDEDSTAL			STORM SEWER INTAKE, SW–507/ 508
G		GAS METER			STORM SEWER INTAKE, SW–509/ 510
GV		GAS VALVE			
		FIRE HYDRANT			STORM SEWER INTAKE, SW–511
JB		JUNCTION BOX			STORM SEWER INTAKE, SW–512/ BEEHIVE
		LIGHT POLE			STORM SEWER INTAKE, SW–513
		MAIL BOX			
MH		MANHOLE (UNKNOWN)			STORM SEWER, FLARED END SECTION
		PROPERTY CORNER –FOUND			
		POWER POLE	D	D	STORM SEWER MANHOLE
		RIGHT OF WAY RAIL	•	•	STORM SEWER SUBDRAIN CLEANOUT
•	•	SANITARY CLEANOUT	T		TELEPHONE MANHOLE
S	S	SANITARY MANHOLE	T		TELEPHONE PEDESTAL
		SECTION CORNER –FOUND			TRAFFIC POLE
		SIGN	W		WATER MANHOLE
		STUMP	W		WATER METER
		TREE –DECIDUOUS	WV	WV	WATER VALVE
					WITNESS POST
		TREE –EVERGREEN			YARD HYDRANT

ABBREVIATIONS

FG	– FORM GRADE (GUTTER)	FL	– FLOWLINE	BOP	– BEGINNING OF PROJECT
TOC	– TOP OF CURB	INV	– INVERT	EOP	– END OF PROJECT
TOW	– TOP OF WALK	PL	– PROPERTY LINE	PC	– POINT OF CURVATURE
FFE	– FINISH FLOOR ELEVATION	ROW	– RIGHT OF WAY	PT	– POINT OF TANGENCY
TOB	– TOP OF BANK	PUE	– PUBLIC UTILITY EASEMENT	PI	– POINT OF INTERSECTION
TOE	– TOE OF SLOPE	CL	– CENTER LINE		

DRAWING FILENAME
K:\proj\5000\5491-20A West F Ave\Drawings\General\5491-20A CD G Sheets.dwg

PLOT STYLE TABLE	LAYER MNGR NAME	LAYOUT NAME
FoxGray5Color.ctb		G2.1

REVISION	DATE	BY
		DESIGNED: JMG
		DRAWN: SPB
		CHECKED:
		LAST UPDATE: 07/02/20

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

FOX engineering

LEGEND & TYPICAL SECTION
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
G2.1

GENERAL CONSTRUCTION NOTES

1. Confirm location and depth of all existing utilities prior to construction to eliminate conflicts. Locations of underground utilities are provided by utility companies. Owner and Engineer do not guarantee correctness of alignments shown. Call 1-800-292-8989 for utility locations 48 hours prior to digging. It shall be the duty of the Contractor to ascertain whether any additional facilities other than those shown on the plans may be present. The Contractor shall immediately notify the Engineer of any potential conflicts. Utilities damaged or broken by the Contractor's operations shall be repaired at no additional cost to the Owner.

2. 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 Surveyor further does not warrant that the utilities shown are in the exact location indicated. Verify location of all utilities before construction.

3. Any coordination with utility companies for the location and access for relocation of their lines shall be the responsibility of the Contractor.

4. Any and all discrepancies shall be reported to the Engineer immediately. All quantities are for Contractor convenience. Where conflicts occur, drawings shall prevail.

5. All elevations are to NAVD 88 datum and are to be provided by FOX Engineering.

6. Removal of existing features shall be considered incidental to other items of work on the project if not outlined specifically as a bid item. Contractor shall legally and properly dispose of all materials removed as part of this project.

7. The contractor shall take care not to remove or damage public or private property not marked for removal on the plan. Items not scheduled for removal shall be replaced at no cost to the Owner if removed or damaged.

8. The cost incurred when a section of removal is skipped or where paving is done in sections in order to maintain access to adjacent properties shall be incidental to the project. Contractor shall maintain access to residences at all times, unless noted otherwise on the plans.

9. The contractor is cautioned not to obstruct or remove unnecessary pavement or to disturb the existing traffic pattern more than necessary for the proper execution of work.

10. The means of the work and the safety of the Contractor's employees are solely the responsibility of the Contractor. The Contractor has a contractual obligation to comply with all applicable laws and regulations including those of OSHA. At no time will either the Owner or the Owner's representative take responsibility for either the means of the work or the safety of the contractor's employees.

11. The contractor shall be responsible for protection of existing valves, fire hydrants, manholes, trees, poles, guys, and existing facilities.

12. Contractor will not be compensated for any quantity over-runs unless prior approval is obtained from the engineer.

13. Any work required to complete the scope of the project as specified or shown on the plans, but not set forth as a specific bid item shall be considered incidental to the project

14. Construction fence is required around all unattended open excavations. Fence shall be constructed and maintained in an upright position at all times. Contractor shall use extreme caution while installing fence not to damage underground utilities. Temporary fencing is incidental to the work and is not a paid bid item.

15. All construction and tree protection fence shall be installed by the contractor and approved by owner prior to start of construction activities. Temporary fencing is incidental to the work and is not a paid bid item.

16. Care shall be taken when working around trees to prevent damage. The contractor shall minimize the operation of heavy equipment under the drip line of the trees not designated for removal.

17. All landscaping including trees, shrubs, bushes, and grass or turf not called out to be removed on the drawings shall be replaced if damaged during construction. Where trees, bushes, and shrubs are not protected, or are otherwise destroyed or damaged by contractor, the trees, bushes, and shrubs shall be replaced with new plants of the same variety and size as the plant damaged or destroyed. Where grass or turf is destroyed or damaged during construction, surface shall be restored to the condition that existed prior to construction.

18. Contractor shall be responsible for a licensed surveyor resetting any monuments, property corners, et. disturbed by construction. The Contractor is responsible for preservation and/or replacement of property pins damaged or removed by construction.

19. All disturbed areas shall be restored in accordance with the specifications.

20. Construction activities are to be limited to the existing right-of-way. If additional areas are needed for staging, storage, etc. it is the contractors' responsibility to obtain written permission from the property owner(s). Copies of the agreements shall be submitted to the owner's representative prior to use of the property.

21. All roadways and drives shall be kept open as much as possible. The contractor must perform the work in a manner that will maintain uninterrupted vehicular and pedestrian traffic when at all possible.

22. Where a section of pavement, curb, and gutter or sidewalk is cut or otherwise damaged by contractor, the entire section shall be removed and replaced. Pavement, curbs, gutters, and sidewalks shall be removed to the nearest joint (A minimum of two feet beyond the edge of the trench cut). Contractor and owner's representative are to document (or Photograph) all cracked PCC pavement or damaged ACC pavement prior to construction. If new cracks in PCC pavement develop or ACC pavement is damaged due to construction traffic (extends beyond construction limits). Contractor shall replace damaged area at no additional cost to the owner.

23. Site cleanup shall be performed on a daily basis. Public roadways shall be kept clean at all times.

GENERAL UTILITY NOTES

Coordinate all utility connections. Wherever possible, sewer mains shall be laid at least 10 feet, horizontally, from any existing or new waterline main. Should local conditions prevent a lateral separation of 10 feet, the sewer line may be laid as close as 6 feet provided that the line is in a separate trench and the top of the sewer line is installed at least 18 inches below the bottom of the waterline.

Underground utilities shall be installed in trenches with bedding as per SUDAS specifications, and as indicated on the plans and details.

All utility work shall be visually observed by the City prior to backfilling trenches, with all deficiencies corrected by the Contractor. The Contractor shall be responsible for notification of appropriate officials prior to commencement of work.

Final acceptance shall not be made until all work shown on approved utility plans is completed included grading, and all required adjustments and shall be subject to approval by the City.

Utility Contacts:

(ANW) ALLIANT ENERGY
ALLIANT ENERGY FIELD ENGINEER
(800)-255-4268
locate_IPL@alliantenergy.com

(COT) COLO TELEPHONE COMPANY
LARRY SPRINGER
(641)-377-2202
colotv@netins.net

(ISU) IOWA STATE UNIVERSITY
RANDOLPH K LARABEE
(515)-294-2716
rlarabee@iastate.edu

(K01) FLINT HILLS RESOURCES, LC
MICHELLE SHUMAKER
(316)-8288-591
onecallict@kochind.com

(NEV) NEVADA, CITY OF
KERIN WRIGHT
(515)-382-5466
kwright@cityofnevadaiowa.org

(T12) MEDIACOM
TIM ADREON
(515)-233-2318
tadreon@mediacomcc.com

(WINIA) WINDSTREAM COMMUNICATIONS
LOCATE DESK
(800)-289-1901
locate.desk@windstream.com

UTILITY NOTES

1. It shall be the contractor's responsibility to contact each utility's operating authority and schedule joint meet locates. The contractor shall verify with each utility's operating authority that locates have been performed. Iowa one call system: 1-800-292-8989. The contractor shall protect all existing utilities. The contractor shall work to explore and verify the location or elevation of all utilities at least 100 feet in advance of the excavation work. In the event that a utility is discovered that was not shown on the drawings or a substantial deviation in location or elevation of a known utility exists, the contractor shall report it to the owner's representative as soon as discovered. It is the contractor's responsibility to repair all damaged utilities that have been located properly.

2. Notify utility companies whose facilities are shown on the plans or known to be within construction limits of the schedule prior to each stage of construction.

3. Shoring is incidental to utility installation. Shoring for utility installation may not be shown on the plans. It is the contractor's responsibility to ascertain if shoring is needed in addition to what is shown on the drawings based on the owner's requirements for vegetation, structure, and paving protection. It is the contractor's responsibility to plan all shoring, submit design of shoring prepared by and sealed by a licensed engineer to the owner and FOX Engineering for review prior to installation. No additional compensation will be provided from the owner for shoring or shoring design.

4. All pipes must be temporarily capped overnight with water tight fittings.

5. The contractor is responsible to furnish and install all utilities unless specifically indicated to be installed by others.

TESTING INFORMATION

1. All testing will be the responsibility of the Contractor. The Contractor shall coordinate all testing with an independent testing firm approved by the Owner.

SITE RESTORATION & GRADING NOTES

1. All disturbed areas shall be final graded in preparation for seeding.

2. Seed all disturbed areas. See plans for seeding limits. Permanent seeding will be allowed to be planted between August 10 and September 30. Contractor must maintain erosion control until final restoration is complete and seeding is established. Seed, fertilize, and mulch all disturbed areas.

3. Site to be graded to match existing unless otherwise stated in the plans. Grading shall be done in a manner which maintains positive site drainage at all times. Fulfillment of the grading requirements will be at the owner's discretion.

4. Adjust all new and existing valves, hydrants, castings, pull boxes, etc to match the finished elevations indicated on the plans. All rim elevations within paved surfaces shall be adjusted to match finished paving.

WORK TO BE COMPLETED PRIOR TO CONSTRUCTION:

Joint utility locate meeting. Contractor shall set up a One-Call meeting.

Preconstruction meeting with the Contractor, the Engineer, City, utilities and other parties that may have interest in the construction. Contractor shall complete exploratory digging and/or potholing at all potential utility conflict locations prior to beginning construction.

COORDINATION REQUIREMENTS

Any conflicts between Contractors, subcontractors, City, utilities or others may be reconciled by the Engineer.

WORK BY PUBLIC UTILITIES

Work by public 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.

LAND FOR CONSTRUCTION PURPOSES

Contractor will be permitted to use available land belonging to or leased by the Owner, on or near the site of the Work, for construction purposes and for the storage of materials and equipment. The location and extent of the areas available to the Contractor shall be the existing right-of-way. Any additional right-of-way desired by the Contractor shall be acquired at his expense, and the Contractor shall hold harmless the Owner, and Engineer from claims for damages made by the owners of such additional right-of-way. Disturbed areas shall be restored upon final project completion.

SITE ACCESS

All construction access shall be from available public access. No construction traffic shall be allowed through private property.

NOTICES

Contractor shall notify Engineer one week prior to any work impacting adjacent properties and utilities. Engineer shall provide notification to property owners of restricted access and/or potential impacts.

LINES AND GRADES

All Work shall be done to the lines, grades, and elevations indicated on the Drawings. 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.

CONNECTIONS TO EXISTING FACILITIES

Unless otherwise specified or indicated, Contractor shall make all necessary connections to existing facilities, including structures, drainlines, 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.

Connections to existing facilities, which are in service, shall be thoroughly planned in advance, and all required equipment, materials, and labor shall be on hand at the time of undertaking the connections. Work shall proceed continuously if necessary to complete connections in the minimum time. Operations of valves, hydrants, or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the owning utility.

UNFAVORABLE CONSTRUCTION CONDITIONS

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

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.

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.

DETERMINATION OF QUANTITIES

See bid item descriptions. The Contractor may request a digital copy of the plans by calling Steve Stacy at FOX Engineering at 515-233-0000. The Engineer does not assume any liability for providing the digital drawing to the Contractor. The Contractor shall provide his quantities and a schedule of values at the preconstruction meeting for the project.

SITE EROSION NOTES

Erosion control should be constructed as shown on the plan. Additional measures shall be installed if field conditions dictate, or as directed by the Owner or Engineer.

Outside the normal fall seeding window, temporary erosion control measures shall be placed and maintained until seeding can begin.
Erosion control items to be maintained weekly. Dispose of accumulated sediment and silt. See plans for additional information.

DRAWING FILENAME: K:\Iproj\5000\5491-20A West F Ave\Drawings\General\5491-20A CD_G Sheets.dwg
PLOT STYLE TABLE: FoxEngrStable.ctb
LAYER MNGR NAME:
LAYOUT NAME: G3.1

DATE	BY	REVISION	DATE

DESIGNED: JMG 07/20
DRAWN: SPB 07/20
CHECKED:
LAST UPDATE: 07/02/20

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

FOX engineering

GENERAL NOTES
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
G3.1

ITEM NO.	BID ITEMS AND QUANTITIES	UNIT	QUANTITY	RECORD
	DIVISION 1 - GENERAL PROVISIONS AND COVENANTS (NOT USED)			
	DIVISION 2 - EARTHWORK			
2.01	TOPSOIL STRIP & STOCKPILE	CY	32,483	
2.02	TOPSOIL RESPREAD	CY	12,412	
2.03	EXCAVATION, CLASS 10	CY	43,900	
2.04	FINE GRADING & SUBGRADE PREPARATION, 12-INCH	SY	4,200	
2.05	BACKFILL OF CURB	CY	465	
2.06	MODIFIED SUBBASE, 6-INCH	SY	4,200	
2.07	GRANULAR TURNAROUND, 6-INCH	TONS	135	
2.08	SUBGRADE TREATMENT, GEOGRID (TYPE 1)	SY	4,200	
	DIVISION 3 - TRENCH EXCAVATION AND BACKFILL			
3.01	TRENCH FOUNDATION	TONS	100	
3.02	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL	TONS	100	
3.03	COMPACTION TESTING	LS	1	
	DIVISION 4 - SEWERS AND DRAINS			
4.01	STORM SEWER, RCP, 18-INCH	LF	407	
4.02	STORM SEWER, RCP, 24-INCH	LF	204	
4.03	STORM SEWER, RCP, 36-INCH	LF	54	
4.04	SUBDRAIN, TRENCHED, 6-INCH	LF	1,448	
4.05	PIPE APRON, RCP, 18-INCH	EA	4	
4.06	PIPE APRON, RCP, 24-INCH	EA	4	
4.07	PIPE APRON, RCP, 36-INCH	EA	1	
4.08	CONNECTION TO EXISTING 15-INCH SANITARY, 6-INCH SERVICE	EA	5	
4.09	SANITARY SERVICE STUB, PVC, 6-INCH	LF	274	
4.10	MAJOR ADJUSTMENT, SANITARY MANHOLE	EA	4	
	DIVISION 5 - WATER MAIN AND APPURTENANCES			
5.01	TAPPING VALVE & SLEEVE, 12-INCH X 6-INCH	EA	3	
5.02	RESILIENT WEDGE GATE VALVE, 6-INCH	EA	4	
5.03	FIRE HYDRANT ASSEMBLY	EA	4	
5.04	WATER MAIN, 6-INCH	LF	236	
	DIVISION 6 - STRUCTURES FOR SANITARY AND STORM SEWERS			
6.01	CLEANOUT, SUBDRAIN	EA	6	
6.02	STORM MANHOLE, SW-401, 48-INCH	EA	2	
6.03	STORM INTAKE, SW-501	EA	3	
6.04	STORM INTAKE, SW-503	EA	1	
6.05	BEEHIVE INTAKE, 24-INCH	EA	1	
	DIVISION 7 - STREETS AND RELATED WORK			
7.01	PCC PAVEMENT, 8-INCH, CD BASKETS	SY	3,805	
7.02	PCC PAVEMENT SAMPLE & TESTING	LS	1	
	DIVISION 8 - TRAFFIC CONTROL (NOT USED)			
	DIVISION 9 - SITE WORK AND LANDSCAPING			
9.01	SEED, FERTILIZE, & MULCH - SUBDIVISION MIX	AC	24	
9.02	SILT FENCE, INSTALL, MAINTAIN, REMOVE	LF	1,000	
9.03	FILTER SOCKS	LF	500	
9.04	RIP-RAP	TON	80	
9.05	CONSTRUCTION ENTRANCE	TON	100	
	DIVISION 10 - DEMOLITION (NOT USED)			
	DIVISION 11 - MISCELLANEOUS			
11.01	MOBILIZATION (EARTHWORK)	LS	1	
11.02	MOBILIZATION (UTILITY)	LS	1	
11.03	MOBILIZATION (PAVING)	LS	1	
11.04	END OF STREET SIGNS	LS	1	

DIVISION 1 - EARTHWORK & UTILITIES

ITEM NO.	BID ITEMS AND QUANTITIES	UNIT	QUANTITY	RECORD
	DIVISION 1 - GENERAL PROVISIONS AND COVENANTS (NOT USED)			
	DIVISION 2 - EARTHWORK			
2.01	TOPSOIL STRIP & STOCKPILE	CY	32,483	
2.02	TOPSOIL RESPREAD	CY	12,412	
2.03	EXCAVATION, CLASS 10	CY	43,900	
2.07	GRANULAR TURNAROUND, 6-INCH	TONS	135	
	DIVISION 3 - TRENCH EXCAVATION AND BACKFILL			
3.01	TRENCH FOUNDATION	TONS	100	
3.02	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL	TONS	100	
3.03	COMPACTION TESTING	LS	1	
	DIVISION 4 - SEWERS AND DRAINS			
4.01	STORM SEWER, RCP, 18-INCH	LF	407	
4.02	STORM SEWER, RCP, 24-INCH	LF	204	
4.03	STORM SEWER, RCP, 36-INCH	LF	54	
4.04	SUBDRAIN, TRENCHED, 6-INCH	LF	1,448	
4.05	PIPE APRON, RCP, 18-INCH	EA	4	
4.06	PIPE APRON, RCP, 24-INCH	EA	4	
4.07	PIPE APRON, RCP, 36-INCH	EA	1	
4.08	CONNECTION TO EXISTING 15-INCH SANITARY, 6-INCH SERVICE	EA	5	
4.09	SANITARY SERVICE STUB, PVC, 6-INCH	LF	274	
4.10	MAJOR ADJUSTMENT, SANITARY MANHOLE	EA	4	
	DIVISION 5 - WATER MAIN AND APPURTENANCES			
5.01	TAPPING VALVE & SLEEVE, 12-INCH X 6-INCH	EA	3	
5.02	RESILIENT WEDGE GATE VALVE, 6-INCH	EA	4	
5.03	FIRE HYDRANT ASSEMBLY	EA	4	
5.04	WATER MAIN, 6-INCH	LF	236	
	DIVISION 6 - STRUCTURES FOR SANITARY AND STORM SEWERS			
6.01	CLEANOUT, SUBDRAIN	EA	6	
6.02	STORM MANHOLE, SW-401, 48-INCH	EA	2	
6.03	STORM INTAKE, SW-501	EA	3	
6.04	STORM INTAKE, SW-503	EA	1	
6.05	BEEHIVE INTAKE, 24-INCH	EA	1	
	DIVISION 7 - STREETS AND RELATED WORK			
	DIVISION 8 - TRAFFIC CONTROL (NOT USED)			
	DIVISION 9 - SITE WORK AND LANDSCAPING			
9.01	SEED, FERTILIZE, & MULCH - SUBDIVISION MIX	AC	24	
9.02	SILT FENCE, INSTALL, MAINTAIN, REMOVE	LF	1,000	
9.03	FILTER SOCKS	LF	500	
9.04	RIP-RAP	TON	80	
9.05	CONSTRUCTION ENTRANCE	TON	100	
	DIVISION 10 - DEMOLITION (NOT USED)			
	DIVISION 11 - MISCELLANEOUS			
11.01	MOBILIZATION (EARTHWORK)	LS	1	
11.02	MOBILIZATION (UTILITY)	LS	1	

DIVISION 2 - PAVING

ITEM NO.	BID ITEMS AND QUANTITIES	UNIT	QUANTITY	RECORD
	DIVISION 1 - GENERAL PROVISIONS AND COVENANTS (NOT USED)			
	DIVISION 2 - EARTHWORK			
2.04	FINE GRADING & SUBGRADE PREPARATION, 12-INCH	SY	4,200	
2.05	BACKFILL OF CURB	CY	465	
2.06	MODIFIED SUBBASE, 6-INCH	SY	4,200	
2.08	SUBGRADE TREATMENT, GEOGRID (TYPE 1)	SY	4,200	
	DIVISION 7 - STREETS AND RELATED WORK			
7.01	PCC PAVEMENT, 8-INCH, CD BASKETS	SY	3,805	
7.02	PCC PAVEMENT SAMPLE & TESTING	LS	1	
	DIVISION 8 - TRAFFIC CONTROL (NOT USED)			
	DIVISION 10 - DEMOLITION (NOT USED)			
	DIVISION 11 - MISCELLANEOUS			
11.03	MOBILIZATION (PAVING)	LS	1	
11.04	END OF STREET SIGNS	LS	1	

DRAWING FILENAME
K:\proj\5000\5491-20A West F Ave\Drawings\General\5491-20A CD G Sheets.dwg
PLOT STYLE TABLE: FoxGray5Calc.ctb
LAYER MNGR NAME
LAYOUT NAME: G4.1

DATE	BY	REVISION	DESIGNED:	DRAWN:	CHECKED:	DATE
07/20	JMG					
07/20	SPB					

LAST UPDATE: 07/02/20

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

QUANTITIES & BID ITEM DESCRIPTIONS
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
G4.1

ALL WORK SHALL BE IN ACCORDANCE WITH THE 2020 IOWA STATEWIDE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS PLUS ANY SPECIAL PROVISIONS, OR MODIFICATIONS PREPARED AS MODIFIED BY THESE PLANS AND SPECIFICATIONS BY FOX ENGINEERING. ANY REFERENCE TO IDOT SPECIFICATIONS SHALL BE THE IOWA DEPARTMENT OF TRANSPORTATION ENGLISH STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015 AND ALL APPROPRIATE SUPPLEMENTAL SPECIFICATIONS.

ITEM NO. — BID ITEMS AND DESCRIPTIONS — UNIT

DIVISION 1 - GENERAL PROVISIONS AND COVENANTS (NOT USED)

DIVISION 2 - EARTHWORK

2.01 **TOPSOIL STRIP & STOCKPILE** — CY

Per SUDAS 2010. This item includes strip and stockpile of topsoil within the grading limits. The Engineer has provided the Contractor an estimated quantity based on an estimated 12-inches of strip (if available) within the work limits of the project.

2.02 **TOPSOIL RESPREAD** — CY

Per SUDAS 2010. Respread a minimum of 8-inches over the disturbed area.

2.03 **EXCAVATION, CLASS 10** — CY

Per SUDAS 2010. This item includes all labor, materials, and work associated with onsite excavation and embankment as indicated on the plans. The Contractor is responsible for determining their own quantities. A digital version of the plan may be obtained from FOX Engineering. Payment is plan quantity, meaning that the contractor will be paid for the Engineer's estimated amount. The Contractor will not be paid for any excavation, over excavation, or embankment required for the project in excess of the Engineer's estimated amount. The Contractor shall be responsible for sourcing the material from off-site as necessary if suitable on-site material cannot be located. No fill shall be placed on material that cannot meet density requirements or otherwise cannot stand up to placement of fill and pavement necessary for the work. For cohesive soils in critical backfill areas (under or near pavement) compaction shall be 95% standard proctor. For cohesionless soils in critical backfill areas (under or near pavement) compaction shall be 98% standard proctor. Densities shall be achieved with a moisture content of 0-4% above optimum moisture.

2.04 **FINE GRADING & SUBGRADE PREPARATION, 12-INCH** — SY

Per SUDAS 2010. Work includes excavation necessary to fine grade the subgrade prior to subgrade preparation. The Earthwork Contractor has left the subgrade high (plus 1-inch). This work includes fine grading the subgrade to grade. Excess earthwork shall be stockpiled on-site at a location determined by the Owner. Subgrade preparation shall be completed for all paved and granular surface areas. The depth of scarification is a minimum of 12-inches and shall be completed in 2 lifts. The prepared subgrade shall be compaction tested to 95% of maximum standard proctor density with a moisture content of 0-4% above optimum moisture. A proof roll is required prior to paving.

2.05 **BACKFILL OF CURB** — CY

Per SUDAS 2010. Work includes backfilling of the disturbed area behind the curb once the pavement has been placed with topsoil. Utilize the topsoil from the on-site stockpile. Backfill of curb area assumed to be 6-ft wide and the depth to top of modified subbase. Payment shall be plan quantity based on this assumption.

2.06 **MODIFIED SUBBASE, 6-INCH** — SY

Per SUDAS 2010. Work includes furnishing, placing, compacting, and trimming to the proper grade modified subbase under all mainline and side street paving plus 2-feet on each side. Material shall comply with Iowa DOT Specifications Section 4123 except crushed PCC is not an approved material. The Engineer may authorize a change in gradation, subject to materials available locally at time of construction.

2.07 **GRANULAR TURNAROUND, 6-INCH** — TONS

Work includes placement of Class A Roadstone or Special Backfill (or approved equal) as directed by the Engineer for proposed granular turnaround. Granular material shall be placed and compacted at a nominal thickness of 6-inches. The Engineer has provided the Contractor an estimated quantity in order to establish a unit price. Payment is per ton of granular surfacing placed as directed by the Engineer and as measured in the field and evidenced by truck tickets (less any stone delivered and stockpiled but not used).

2.08 **SUBGRADE TREATMENT, GEOGRID (TYPE 1)** — SY

Per SUDAS 2010. Work under this item includes furnishing and placing the subgrade treatment material (Geogrid Type 1) under all street pavements.

DIVISION 3 - TRENCH EXCAVATION AND BACKFILL

3.01 **TRENCH FOUNDATION** — TONS

Per SUDAS 3010. A sufficient thickness of foundation material shall be placed to provide stable bedding for the pipe. Trench foundation required to correct unauthorized over-excavation will not be measured. The Engineer has provided the Contractor an estimated quantity in order to establish a unit price and shall be paid as determined during construction and approved by the Engineer. Payment shall be per ton furnished and placed as evidenced by weight tickets (less any rock delivered and stockpiled but not used) and as approved by the Engineer.

3.02 **REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL** — TONS

Per SUDAS Section 3010. This item shall include all equipment, labor and materials necessary for furnishing, hauling, and placing fill, and granular backfill material required to replace unsuitable backfill encountered during trench excavation. If suitable backfill is used, the material shall extend the full trench width, from the elevation necessary to replace the unsuitable excavated material to the top of the secondary backfill. Included under this item is the replacement of any and all unsuitable rock excavation material (as defined by SUDAS). Contractor shall provide an estimated density for volume to weight calculation to use during construction. The Engineer has provided the Contractor an estimated quantity in order to establish a unit price. Payment for suitable backfill shall be based on the actual cubic yards of material placed in the trench as evidenced by delivery tickets and as measured by the Engineer less any material delivered and stockpiled but not used.

3.03 **COMPACTION TESTING** — LS

Per SUDAS 3010. The Contractor is responsible for compaction testing performed by an independent testing laboratory. Contractor shall complete compaction testing periodically during the construction process prior to completion of backfill operations. The Contractor will be responsible for payments associated with all retesting resulting from failure of initial tests. Engineer shall be notified immediately when conditions exist that prohibit proper trench compaction. It will be necessary for the Contractor to rework, recompact and retest as necessary until specified compaction and moisture content is achieved in all areas of the trench. The Engineer may require retesting as deemed necessary.

DIVISION 4 - SEWERS AND DRAINS

4.01 **STORM SEWER, RCP, 18-INCH** — LF

Per SUDAS 4020. RCP has be Class III. Length of pipe shown on plans includes an assumed 6-ft apron. The payment for this item shall include the total pipe installed excluding any apron lengths. All joints shall be fabric wrapped unless otherwise indicated on the plans.

4.02 **STORM SEWER, RCP, 24-INCH** — LF

Same as item 4.01

4.03 **STORM SEWER, RCP, 36-INCH** — LF

Same as item 4.01

4.04 **SUBDRAIN, TRENCHED, 6-INCH** — LF

Per SUDAS 4020. Allowable pipe materials shall be PVC SDR 35, Corrugated PVC (A-2000), or HDPE Pipe.

4.05 **PIPE APRON, RCP, 18-INCH** — EA

Per SUDAS 4030. This item includes apron guards and concrete footing wall. Item does not include revetment (another item of construction) at the end of the apron.

4.06 **PIPE APRON, RCP, 24-INCH** — EA

Same as item 4.05

4.07 **PIPE APRON, RCP, 36-INCH** — EA

Same as item 4.05

4.08 **CONNECTION TO EXISTING 15-INCH SANITARY, 6-INCH SERVICE** — EA

Per SUDAS 4010. Per local plumbing code.

4.09 **SANITARY SERVICE STUB, PVC, 6-INCH** — LF

Per SUDAS 4010. Per local plumbing code, pipe shall be SDR 23.5.

4.10 **MAJOR ADJUSTMENT, SANITARY MANHOLE** — EA

Per SUDAS.

DIVISION 5 - WATER MAIN AND APPURTENANCES

5.01 **TAPPING VALVE & SLEEVE, 12-INCH X 6-INCH** — EA

Per SUDAS 5020. This item shall include a live tap with 12-inch tapping valve and sleeve and any necessary additional fittings (bends and reducer) in order to connect the existing water main to the proposed 6-inch water main.

5.02 **RESILIENT WEDGE GATE VALVE, 6-INCH** — EA

Per SUDAS 5020. This item shall include, but it not limited to, all appurtenances attached to the valve or required for its complete installation, including underground or above ground operator, square valve operation nut (2-inch), valve box alignment device, valve box and cover, stem extensions, and fittings. Water main valves shall be open counterclockwise (CCW). All gate valves shall be Waterous or equal. Epoxy coated resilient wedge type with O-ring seals and (SS) stainless steel bolts. (If valves are deeper than a six-foot bury, they shall have (SS pin) pinned extension operators). Over five foot of depth a three piece variable valve box will be required. Both valve box types shall have a drop in lid marked WATER. Valves in pavement shall have slide type shaft extensions. Tops of valve boxes shall be placed 1/2-inch below the pavement surface. Tops of valve boxes shall match existing grade and provide enough adjustment to reach proposed grade if proposed grade is not yet constructed.

5.03 **FIRE HYDRANT ASSEMBLY** — EA

Per SUDAS 5020 and City of Nevada Specifications. Allowable hydrants shall be Clow Model 2500, Mueller Model Centruion, Waterous Model WB-67-250. All hydrants shall be equiped with Storz quick-connect couplings.

5.04 **WATER MAIN, 6-INCH** — LF

Per SUDAS 5010.

DIVISION 6 - STRUCTURES FOR SANITARY AND STORM SEWERS

6.01 **CLEANOUT, SUBDRAIN** — EA

Cleanouts shall be SUDAS Type A-1.

6.02 **STORM MANHOLE, SW-401, 48-INCH** — EA

Per SUDAS 6010. Steps are not required.

6.03 **STORM INTAKE, SW-501** — EA

Per SUDAS 6010.

6.04 **STORM INTAKE, SW-503** — EA

Per SUDAS 6010.

6.05 **BEEHIVE INTAKE, 24-INCH** — EA

Per SUDAS 6010 and revised detail.

DIVISION 7 - STREETS AND RELATED WORK

7.01 **PCC PAVEMENT, 8-INCH, CD BASKETS** — SY

Per SUDAS 7010. This item is for placement of PCC mainline paving and adjacent side streets as indicated on the drawings. Joints shall be as indicated on the plans and as per SUDAS. Mainline paving shall be completed with a slipform paver or laser screed. Handwork is allowed for areas approved by the Engineer prior to the bid. Surface curing and temperature protection covering are incidental to this bid item. Sawcutting shall be completed by a wet saw or early saw method unless approved by Engineer. The slurry shall be removed from the pavement prior to drying. The slurry cannot be discharged into the sanitary or storm sewer and shall be the contractors disposal responsibility.

Incentive for Smoothness will NOT be awarded for this project. However, in lieu of the 10-ft straightedge test, a profilograph (calibrated accordingly) shall be used to detect bumps and dips. Contractor shall retain independent testing lab for purpose of profilograph bump and dip detection. Areas showing high spots of more than 1/4 of an inch in 10 feet will be marked. Complete surface corrections according to the procedures in Iowa DOT Section 2316 to an elevation where the area or spot will not show surface deviations in excess of 1/8 inch when tested with a 10 foot straightedge. Surface corrections will be completed at the direction of the Engineer with no additional cost to the owner.

Thickness cores shall be taken as per SUDAS (PCC samples & testing item).

Contractor shall provide on-grade lab (air, slump, beams and cylinders). Note the target air content shall be 8.0%, with a tolerance of plus or minus 2.0% when measured on the grade just prior to consolidation. Air targets shall be as per current Iowa DOT Specifications. Target air content may be adjusted by the Engineer based on random tests of the consolidated concrete behind the paving machine.

Work includes stamping of curb (top & face) with letter irons to mark location of sanitary service, water service, and sump service (to be done during paving). City will supply stamps.

7.02 **PCC PAVEMENT SAMPLE & TESTING** — LS

Per SUDAS 7010. All samples and testing shall be provided by the Contractor.

DIVISION 8 - TRAFFIC CONTROL (NOT USED)

DIVISION 9 - SITE WORK AND LANDSCAPING

9.01 **SEED, FERTILIZE, & MULCH - SUBDIVISION MIX** — AC

Per SUDAS 9010. All disturbed areas shall be seeded with an United Seeds Subdivision Mix and/or approved equal.PRIOR to seeding, the Engineer shall observe that all disturbed areas were left in a prepared seedbed condition. The seed shall be placed conventionally on the finished seedbed. Full coverage of the soil surface is required. The Contractor shall water all seeded areas for a minimum of 21 days. After 21 days, the responsibility of watering belongs to the property owner. Mowing is by Developer. Work includes removal of rock and other debris from the area, repairing rills and washes, preparing the seedbed, furnishing and placing seed, including any treatment required including furnishing and placing fertilizer and mulch. Seed bed shall be prepared so that all rocks larger than 1/2-inch and all lumps larger than one inch are removed. Complete the work in accordance with the plans and these technical specifications and any special provisions included in the Contract Documents. Areas outside of construction limits or easement limits will not be measured for payment unless prior approval is provided by the Engineer.

9.02 **SILT FENCE, INSTALL, MAINTAIN, REMOVE** — LF

Per SUDAS 9040. The Contractor shall maintain the silt fence until the City has accepted all work and the site has been seeded and fully stabilized. Cleaning and removal of silt fence shall be considered incidental and shall be completed as required by the SWPPP and as directed by the Engineer. Any silt fence damaged during construction shall be replaced by the contractor at no additional cost to the owner.

9.03 **FILTER SOCKS** — LF

Per SUDAS 9040.

9.04 **RIP-RAP** — TON

Per SUDAS 9040. This item shall include all equipment, labor, and materials necessary for placement of rip rap as shown on the plans and details. Furnishing and placement of underlying Engineering fabric shall be included with this item. Final placement of rip rap shall be approved by the Engineer and will be paid per ton placed as evidence by truck tickets, less any stockpiled and not used.

9.05 **CONSTRUCTION ENTRANCE** — TON

Per SUDAS 9040. Work under this item shall include the installation of a stabilized construction entrance. Complete the work in accordance with the plans and specifications. Payment shall be per square yard installed as measured in the field.

DIVISION 10 - DEMOLITION (NOT USED)

DIVISION 11 - MISCELLANEOUS

11.01 **MOBILIZATION (EARTHWORK)** — LS

Per SUDAS 11020. Shall include mobilization and demobilization costs, all work required for phasing of construction that is not called out for measurement (incidentals) and payment under other items of work. Exploratory digging is incidental.

11.02 **MOBILIZATION (UTILITY)** — LS

Same as 11.01

11.03 **MOBILIZATION (PAVING)** — LS

Same as 11.01

11.04 **END OF STREET SIGNS** — LS

This item shall include all equipment, labor, and materials necessary to furnish and apply signage as indicated on the plans. Payment shall be Lump Sum

DRAWING FILENAME: K:\pro\5000\5491-20A West F Ave\Drawings\General\5491-20A CD G Sheets.dwg
LAYOUT NAME: G4.2
LAYER MNGR NAME:
PLOT STYLE TABLE: FoxGrayScale.ctb

DATE	BY	REVISION
07/20	JMG	DESIGNED:
07/20	SPB	DRAWN:
		CHECKED:

LAST UPDATE: 07/02/20

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

QUANTITIES & BID ITEM DESCRIPTIONS
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO. 5491-20A

SHEET G4.2

LEGEND

- CE — CONSTRUCTION ENTRANCE
- SF-# — SILT FENCE
- IP-# — 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) OWNER DOES NOT EXPECT TO STOCKPILE SOIL ON-SITE FOR ANY EXTENDED PERIOD OF TIME
2) IF INFILTRATION METHODS ARE USED, INSTALL THEM AFTER UPSTREAM IS STABILIZED
3) DO NOT REMOVE PERIMETER CONTROLS UNTIL UPSTREAM AREAS ARE STABILIZED
4) INSTALL "_-A" CONTROLS PRIOR TO START OF CONSTRUCTION
5) INSTALL "_-B" CONTROLS IMMEDIATELY AFTER INSTALLATION OF PIPE / STRUCTURE
6) TOPSOIL STRIPPED FOR ROADWAY GRADING SHALL BE WIND ROWED TO THE EDGE OF THE GRADING AREA AND RESPREAD AT THE COMPLETION OF GRADING AND UTILITY INSTALLATION.
7) INSTALL / MODIFY INTAKE PROTECTION AS STRUCTURE IS INITIALLY THEN FINALLY CONSTRUCTED

SILT FENCE		
ID	**LENGTH (FT)**	**AS-BUILT**
SF-1A	738	
SF-2A	1000	
SF-3B	47	
SF-4B	668	
SF-5B	328	
SF-6B	72	
SF-7B	61	
SF-8B	61	
SF-9B	50	
SF-10B	104	
SF-11B	169	
SF-12B	68	
SF-13B	402	
SF-14A	1050	
TOTAL:	4818	

OVERALL SITE
23.98 AC

TOPSOIL STOCKPILE AREA

30'X50' GRANULAR CONSTRUCTION ENTRANCE

GRADING AND SILT FENCE ARE OUTSIDE THE PROPERTY BOUNDARY. OWNER SHALL OBTAIN PERMISSION FROM THE ADJACENT PROPERTY OWNER PRIOR TO GRADING/ SILT FENCE PLACEMENT

LOT 1 — 433842 sq.ft. — 10.01 acres
LOT 2 — 139370 sq.ft. — 3.20 acres
LOT A — 67591 sq.ft. — 1.55 acres
LOT 3 — 113144 sq.ft. — 2.60 acres
LOT 4 — 121347 sq.ft. — 2.79 acres
LOT 5 — 97345 sq.ft. — 2.23 acres
OUTLOT A — AIRPORT ROAD INDUSTRIAL PARK 7TH ADDITION — 104439.39 S.F. — 23.98 ACRES
OUTLOT 3A — 69752 sq.ft. — 1.60 acres

WEST F AVENUE

996.25 OVERFLOW

997.25 TOP OF BERM

995.22

994.17

995.37

997.96

996.66 [M]

1.80%

0.60%

0.50%

0.63%

0 80' 160'

DRAWING FILENAME: K:\Proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg
PLOT STYLE TABLE: FoxGray25alw.ctb
LAYER MNGR NAME:
LAYOUT NAME: G5.1

REVISION	DATE	BY

DESIGNED: DATE 07/20 BY JMG
DRAWN: DATE 07/20 BY SPB
CHECKED:
LAST UPDATE: 07/02/20

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

STORM WATER POLLUTION PREVENTION PLAN
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO. 5491-20A

SHEET G5.1

STORM WATER POLLUTION PREVENTION PLAN

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.

Phase 1 - Site Evaluation and Design Development

Existing soil information: See the Story County Soil Survey, NW Quarter of Section 12 of T83N, 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: unnamed tributary to West Indian Creek to South Skunk River.

Construction activity description: General soil disturbing activities associated with grading and utility installation include: stockpiling, trenching, backfilling, grading, paving and seeding.

This Pollution Prevention Plan (PPP) is for the West F Avenue Industrial Park Addition, F Avenue east of W 18th Street, Nevada, Iowa. This PPP covers approximately 24.0 acres with 24.0 of the acres being disturbed.

The PPP is located in an area of five (5) soil types: Nicollet loam (L55), Harps clay loam (L95), Webster clay loam (L107), Clarion loam Bemis moraine (L138B), and Canisteo clay loam (L507). The estimated average NRCS runoff curve number for this PPP after completion will be 85.

Refer to the drawings, "West F Avenue Industrial Park Addition" 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 an unnamed tributary West Indian Creek to South Skunk River.

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

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.

Municipal Utilities: Site is located in the City of Nevada corporate limits.

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, sod and planting - Permanent seeding or sod 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. See City of Nevada requirements for topsoil replacement.

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.

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, and other locations, as shown on the drawings. Additional silt fence shall be provided at the discretion of the Engineer.

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

Sediment Trap - To be placed at location(s) indicated on the plans.

Check Dam - Rock check dam shall be placed in drainage channel as indicated on the plans.

Blanket and Matting (RECP - Type 2.C) - Erosion control matting on slopes as indicated on the plans.

Inlet and Outlet Protection - To be placed at location(s) indicated on the plans.

(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. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.

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. Facilities shall be secured from overturning. The Contractor will be responsible for disposing of sanitary waste in accordance with local and state requirements.

Prevent off-site 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. Contractor will need to provide appropriate labor and equipment to keep roadway clean during hauling operations.

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 washout station). Perform maintenance when washout station is at 75% full-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. If spill is hazardous, utilize appropriate notification and clean-up measures. Used petroleum containers are to be disposed of correctly and not buried on-site.

Building Trade Waste - The general contractor and trade contractors will be responsible for preventing contamination of soil and water. Trades (including brick / block layers, drywall / sheetrock, painters, pipe fitters, caulking, etc.) are required to clean or perform maintenance to equipment or dispose of excess material in a manner that protects water quality (no illicit discharges). This may require measures similar to a PCC washout station.

(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.

Inspections shall be made by the Owner, or owner's representative 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.

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. Cleaning of PCC washout station shall take place when control is at, or before, 75% of full capacity.

(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:

1. 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.
2. Installation and anticipated completion date of each control measure.

(F) Non-Storm Discharges

1. Water from water line flushing.
2. Uncontaminated ground water from dewatering.
3. Pavement wash waters where spill or leak of hazardous material has not occurred.
4. Building wash waters not containing hazardous chemicals.

(G) Prohibited Discharges

1. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials.
2. Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance.
3. Soaps or solvents used in vehicle and equipment washing.

(H) Materials Management

1. Hazardous materials shall be stored in areas where the contamination of storm water is minimized in the event of a spill.
2. Contractor shall be responsible for using, storing and disposing of materials in accordance with state and local law.
3. See SWPPP narrative for additional material management requirements.

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 requires the obtaining of a NPDES General Permit for storm water discharge associated with industrial activity for 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 date(s) when major grading activity occurs in a particular area.

-The date(s) when construction activity ceases in an area, temporarily or permanently.

-The date(s) 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 expeditiously:

-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.

(D) 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 Code, 455B.386, requires that as soon as possible, but not more than six hours after the onset of a hazardous condition, the IDNR and local Sheriff's Office 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.

IDNR (515) 725 - 8694, Story County Sheriff's Office (515) 382 - 7458

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.

(E) Plan location and access

Plan location - A copy of the Pollution Prevention Plan must be kept at the construction site, or at a readily available alternative site approved by the Department, from the time construction begins until the site has reached final stabilization.

Retention of records - G. P. #2 (3.01.2018) 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 Iowa Department of Natural Resources (IDNR), these documents must be made available upon request, within 3 hours, to the IDNR. 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 Notice of Discontinuation (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. All temporary control (i.e. silt fence) shall be removed by contractor prior to filing the NoD.

DRAWING FILENAME
K:\proj\5000\5491-20A West F Ave\Drawings\General\5491-20A CD G Sheets.dwg

PLOT STYLE TABLE	LAYER MNGR NAME	LAYOUT NAME
FoxGrnScale.ctb		G5.2

DATE	REVISION	BY	DATE
		DESIGNED: JMG	07/20
		DRAWN: SPB	07/20
		CHECKED:	
		LAST UPDATE:	07/02/20

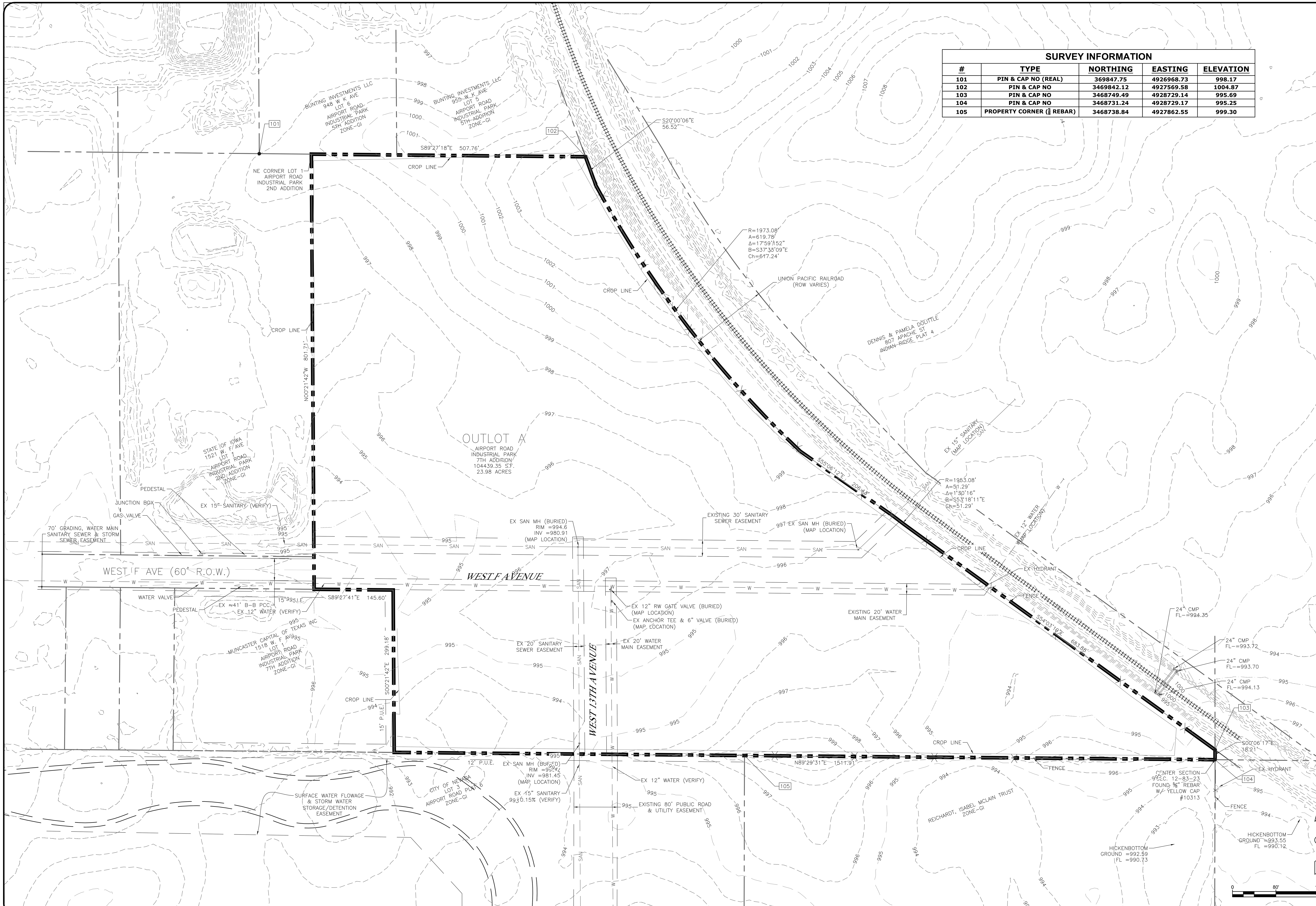
FOX Engineering Associates, Inc.
414 South 17th Street, Suite 107
Ames, Iowa 50010
Phone: (515) 233-0000
FAX: (515) 233-0103

FOX engineering

STORM WATER POLLUTION PREVENTION PLAN
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
G5.2



SURVEY INFORMATION

#	TYPE	NORTHING	EASTING	ELEVATION
101	PIN & CAP NO (REAL)	369847.75	4926968.73	998.17
102	PIN & CAP NO	3469842.12	4927569.58	1004.87
103	PIN & CAP NO	3468749.49	4928729.14	995.69
104	PIN & CAP NO	3468731.24	4928729.17	995.25
105	PROPERTY CORNER (5/8 REBAR)	3468738.84	4927862.55	999.30

DRAWING FILENAME
K:\lproj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg

PLOT STYLE TABLE	LAYER MNGR NAME	LAYOUT NAME
FoxGrayScale.ctb		C1.1

DATE	REVISION

	BY	DATE
DESIGNED:	JMG	07/20
DRAWN:	SPB	07/20
CHECKED:		

LAST UPDATE: 07/02/20

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

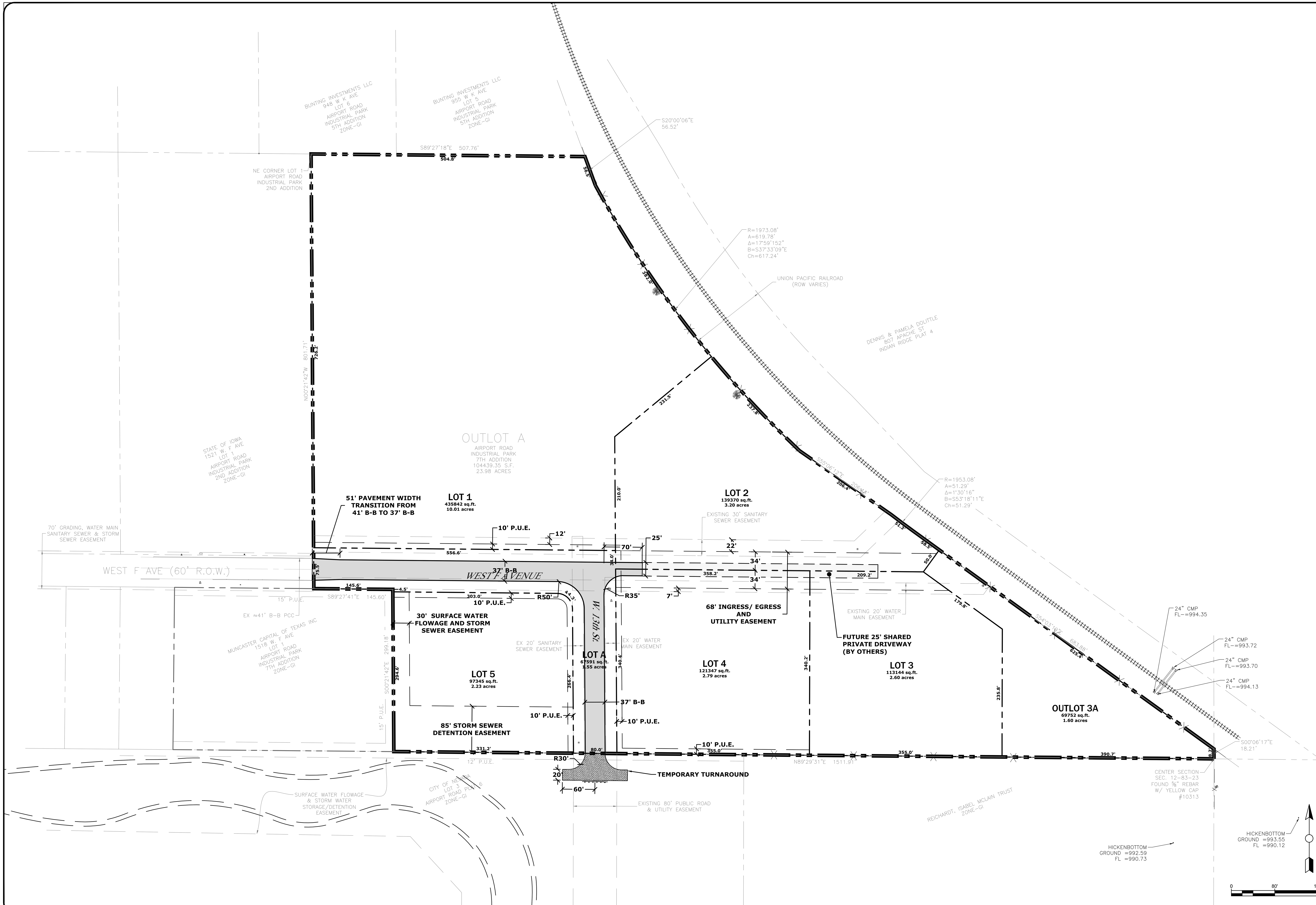
FOX engineering

EXISTING CONDTIONS

WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
C1.1


OUTLOT A
AIRPORT ROAD INDUSTRIAL PARK 7TH ADDITION 104439.35 S.F. 23.98 ACRES
LOT 1
435842 sq.ft. 10.01 acres
LOT 2
139370 sq.ft. 3.20 acres
LOT 3
113144 sq.ft. 2.60 acres
LOT 4
121347 sq.ft. 2.79 acres
LOT 5
97345 sq.ft. 2.23 acres
LOT A
67591 sq.ft. 1.55 acres
OUTLOT 3A
69752 sq.ft. 1.60 acres
51' PAVEMENT WIDTH TRANSITION FROM 41' B-B TO 37' B-B
WEST F AVE (60' R.O.W.)
WEST F AVENUE
W. 13th St.
37' B-B
10' P.U.E.
30' SURFACE WATER FLOWAGE AND STORM SEWER EASEMENT
85' STORM SEWER DETENTION EASEMENT
68' INGRESS/ EGRESS AND UTILITY EASEMENT
FUTURE 25' SHARED PRIVATE DRIVEWAY (BY OTHERS)
TEMPORARY TURNAROUND
UNION PACIFIC RAILROAD (ROW VARIES)
70' GRADING, WATER MAIN SANITARY SEWER & STORM SEWER EASEMENT
EXISTING 30' SANITARY SEWER EASEMENT
EXISTING 20' WATER MAIN EASEMENT
EXISTING 80' PUBLIC ROAD & UTILITY EASEMENT
SURFACE WATER FLOWAGE & STORM WATER STORAGE/DETENTION EASEMENT
BUNTING INVESTMENTS LLC 948 W K AVE LOT 6 AIRPORT ROAD INDUSTRIAL PARK 5TH ADDITION ZONE-GI
BUNTING INVESTMENTS LLC 955 W K AVE LOT 5 AIRPORT ROAD INDUSTRIAL PARK 5TH ADDITION ZONE-GI
STATE OF IOWA 1521 W F AVE LOT 1 AIRPORT ROAD INDUSTRIAL PARK 2ND ADDITION ZONE-GI
MUNCASTER CAPITAL OF TEXAS INC 1518 W. F AVE LOT 1 AIRPORT ROAD INDUSTRIAL PARK 7TH ADDITION ZONE-GI
DENNIS & PAMELA DOLITTLE 807 APACHE ST INDIAN RIDGE PLAT 4
REICHARDT, ISABEL MCLAIN TRUST ZONE-GI
CENTER SECTION SEC. 12-83-23 FOUND ⅝" REBAR W/ YELLOW CAP #10313
HICKENBOTTOM GROUND =992.59 FL =990.73
HICKENBOTTOM GROUND =993.55 FL =990.12
24" CMP FL=994.35
24" CMP FL=993.72
24" CMP FL=993.70
24" CMP FL=994.13
NE CORNER LOT 1 AIRPORT ROAD INDUSTRIAL PARK 2ND ADDITION
S89°27'18"E 507.76'
N00°21'42"W 801.71'
S89°27'41"E 145.60'
N89°29'31"E 1511.91'
S00°06'17"E 18.21'
S20°00'06"E 56.52'
R=1973.08' A=619.78' Δ=17°59'152" B=S37°33'09"E Ch=617.24'
R=1953.08' A=51.29' Δ=1°30'16" B=S53°18'11"E Ch=51.29'
0 80' 160'

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

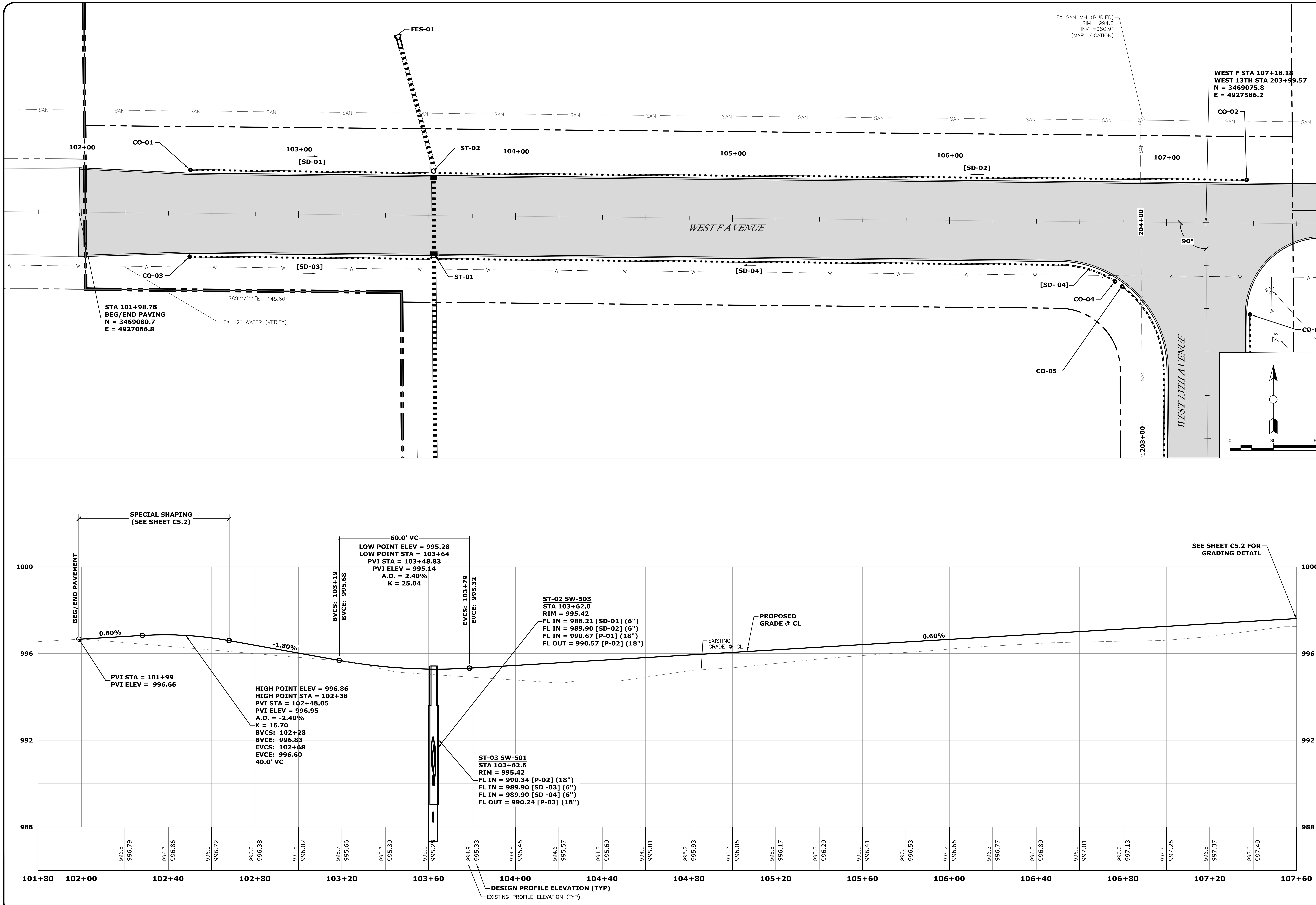
DATE	REVISION	BY	DATE
		DESIGNED: JMG	07/20
		DRAWN: SPB	07/20
		CHECKED:	
		LAST UPDATE: 07/02/20	

PROPOSED LOT LAYOUT
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO. 5491-20A

SHEET C2.1

DRAWING FILENAME	
K:\proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg	
LAYER MNGR NAME	LAYOUT NAME C2.1
PLOT STYLE TABLE FoxGrayScale.ctb	



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

FOX engineering

DATE	BY	REVISION	DATE
07/20	JMG	DESIGNED:	
07/20	SPB	DRAWN:	
		CHECKED:	

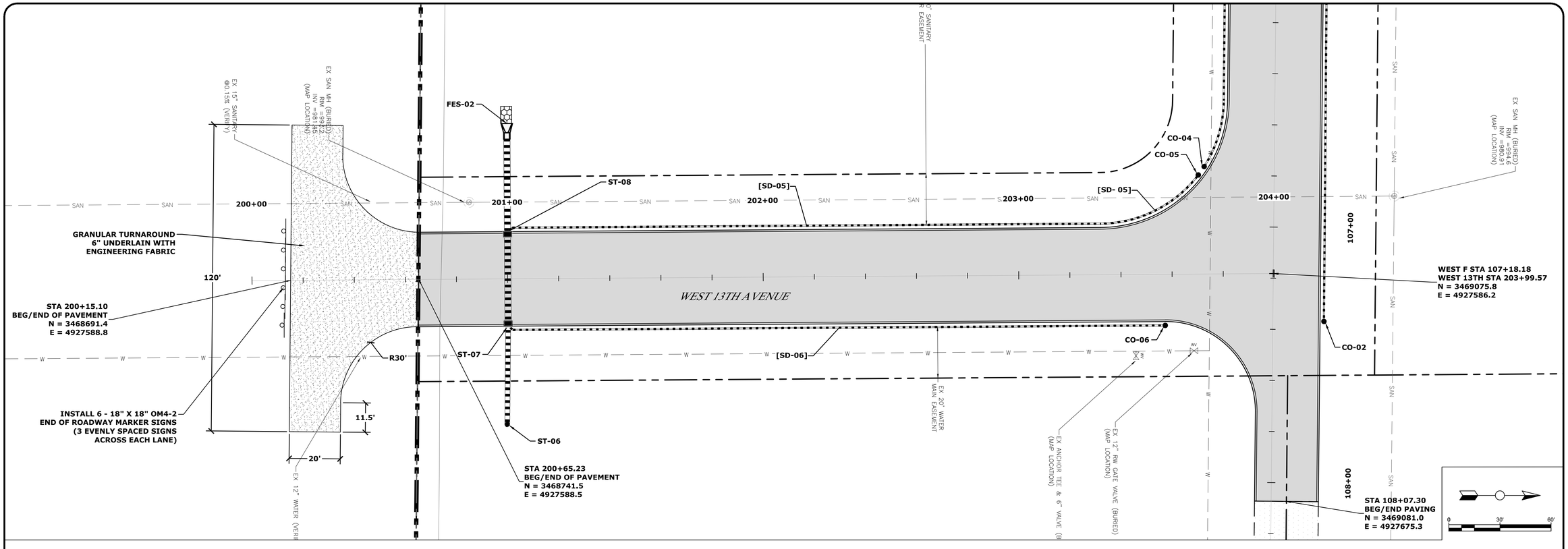
LAST UPDATE: 07/02/20

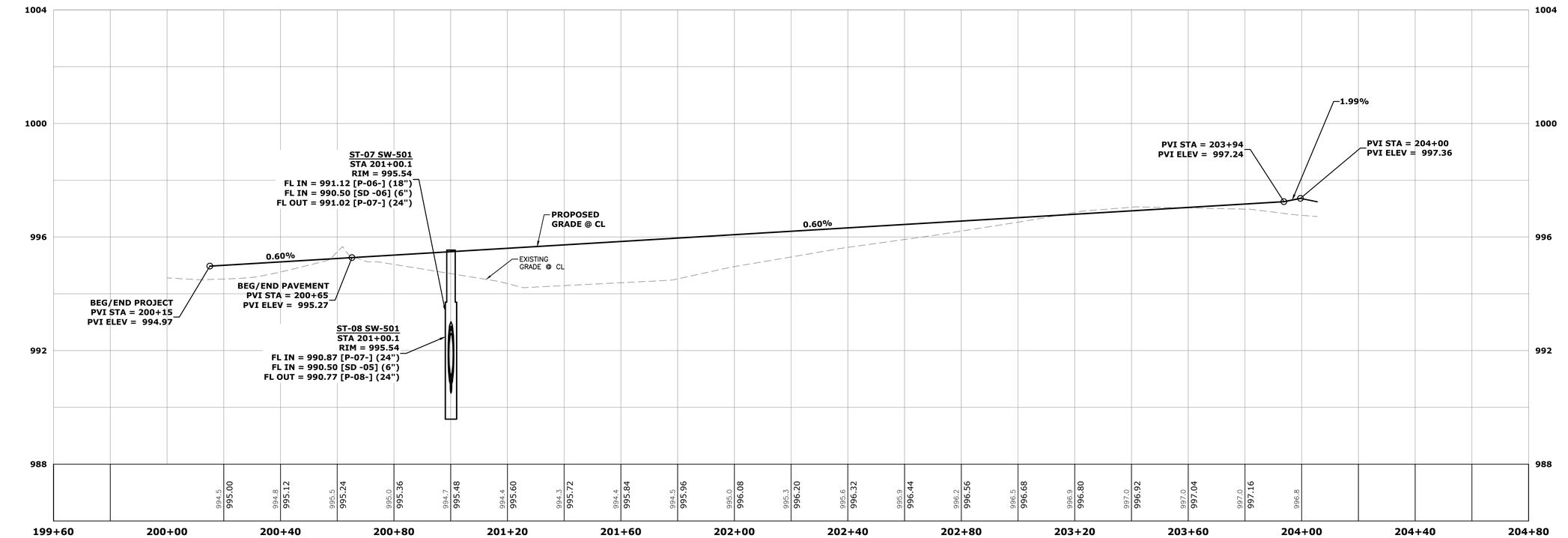
ROADWAY PLAN & PROFILE
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
C3.1

DRAWING FILENAME
K:\proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg
LAYOUT NAME
C3.1
LAYER MNGR NAME
PLOT STYLE TABLE
FoxGrayScale.ctb





DRAWING FILENAME
K:\1proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg
PLOT STYLE TABLE: foxGrayScale.ctb
LAYER MNGR NAME
LAYOUT NAME: C3.2

DATE	REVISION	BY	DATE
	DESIGNED:	JMG	07/20
	DRAWN:	SPB	07/20
	CHECKED:		
		LAST UPDATE:	07/02/20

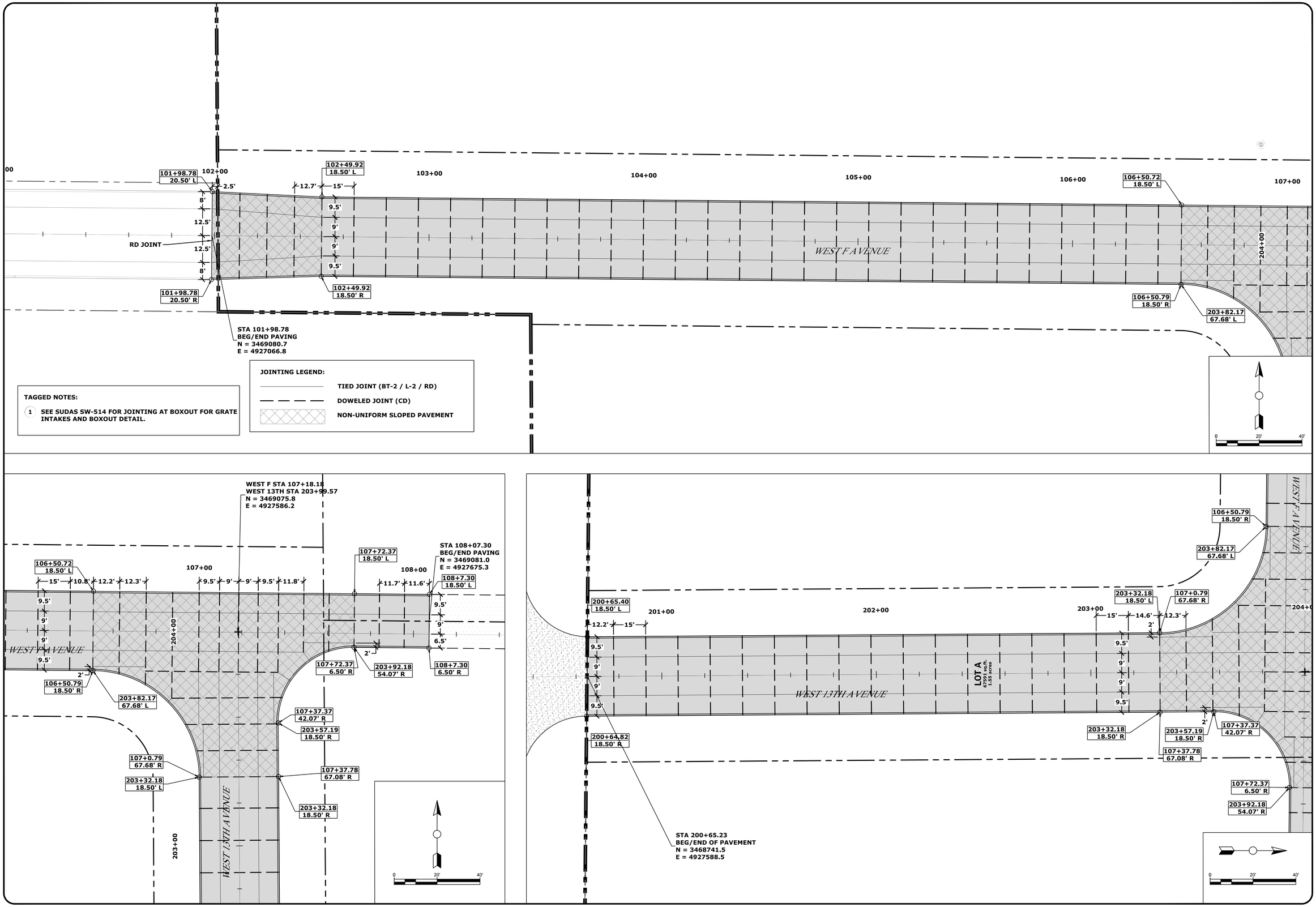
FOX Engineering Associates, Inc.
414 South 17th Street, Suite 107
Ames, Iowa 50010
Phone: (515) 233-0000
FAX: (515) 233-0103

FOX engineering

ROADWAY PLAN & PROFILE
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
C3.2



DRAWING FILENAME
K:\Proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg
PLOT STYLE TABLE
FoxGreyScale.ctb
LAYER MNGR NAME
LAYOUT NAME
C4.1

REVISION	DATE	BY
		DESIGNED: JMG
		DRAWN: SPB
		CHECKED:
		LAST UPDATE: 07/02/20

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

JOINTING PLAN
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
C4.1

CROP LINE
4:1
2:1
PEDESTAL
JUNCTION BOX
GAS VALVE
996.66 [M]
1.80%
0.60%
997.36
997.96
WEST F AVENUE
1
C3.2
2
C3.2
LOT 1
435842 sq.ft.
10.01 acres
LOT 2
139890 sq.ft.
3.20 acres
LOT 3
113144 sq.ft.
2.60 acres
LOT 4
121347 sq.ft.
2.79 acres
LOT 5
97345 sq.ft.
2.23 acres
LOT A
69391 sq.ft.
1.59 acres
OUTLOT 3A
69752 sq.ft.
1.60 acres
1001.00
995.22
994.17
995.37
80' x 200'
WORKING LIMITS
0.50%
0.63%
10%
996.25
OVERFLOW
997.25
TOP OF BERM
24" CMP
FL=994.35
24" CMP
FL=993.72
24" CMP
FL=993.70
24" CMP
FL=994.13
FENCE
SAN
W
15' P.U.E.
12' P.U.E.
HICKENBOTTOM
GROUND =992.59
FL =990.73
HICKENBOTTOM
GROUND =993.55
FL =990.12
0
80'
160'

DRAWING FILENAME
K:\Proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A CD.dwg
PLOT STYLE TABLE
foxdefaultScale.ctb
LAYER MNGR NAME
LAYOUT NAME
C5.1

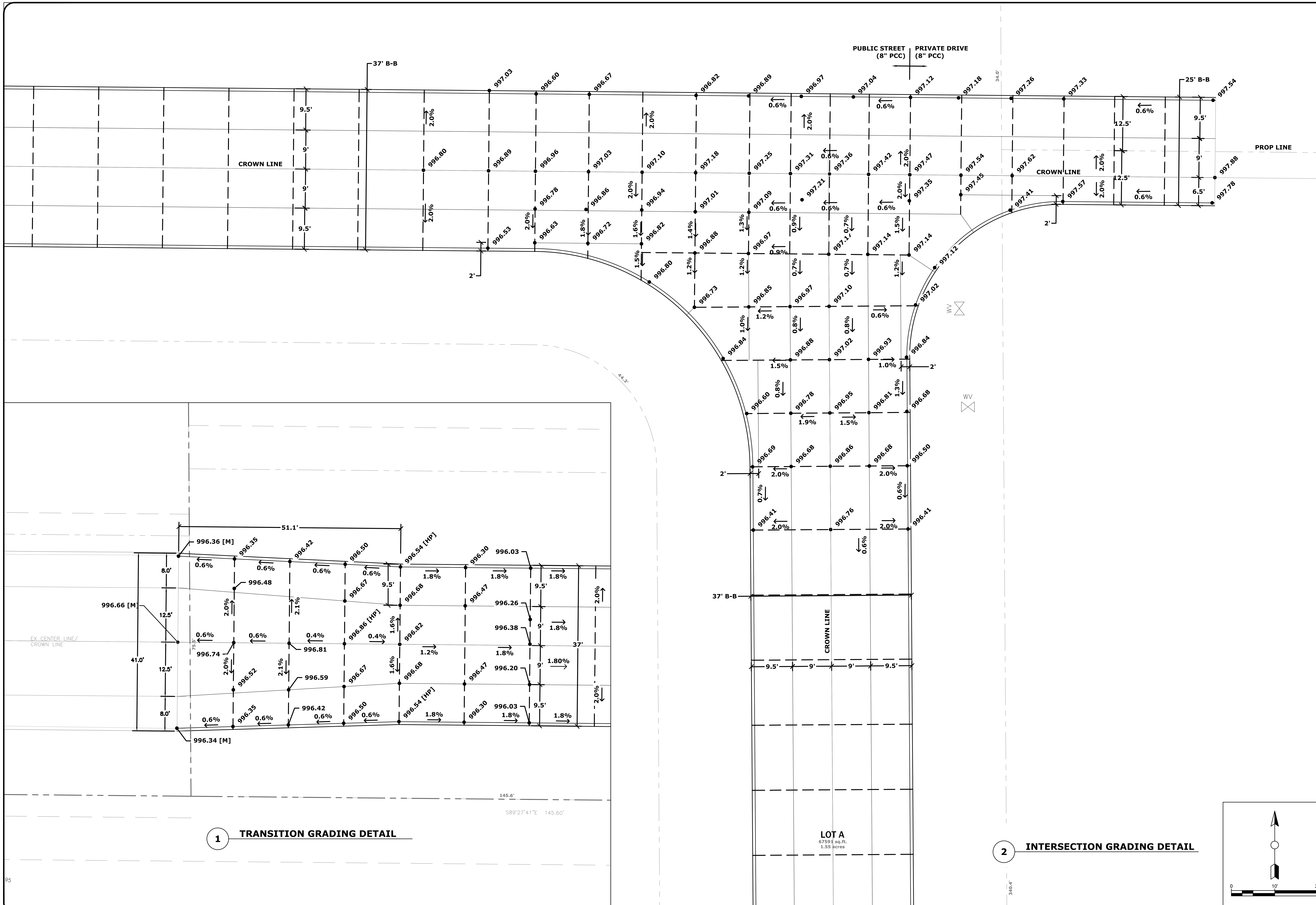
DATE	REVISION	BY	DATE
		DESIGNED:	JMG 07/20
		DRAWN:	SPB 07/20
		CHECKED:	
		LAST UPDATE:	07/02/20

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

PROPOSED GRADING PLAN
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
C5.1



1 TRANSITION GRADING DETAIL

2 INTERSECTION GRADING DETAIL

BY	DATE
DESIGNED: JMG	07/20
DRAWN: SPB	07/20
CHECKED:	

LAST UPDATE: 07/02/20

REVISION

DATE

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

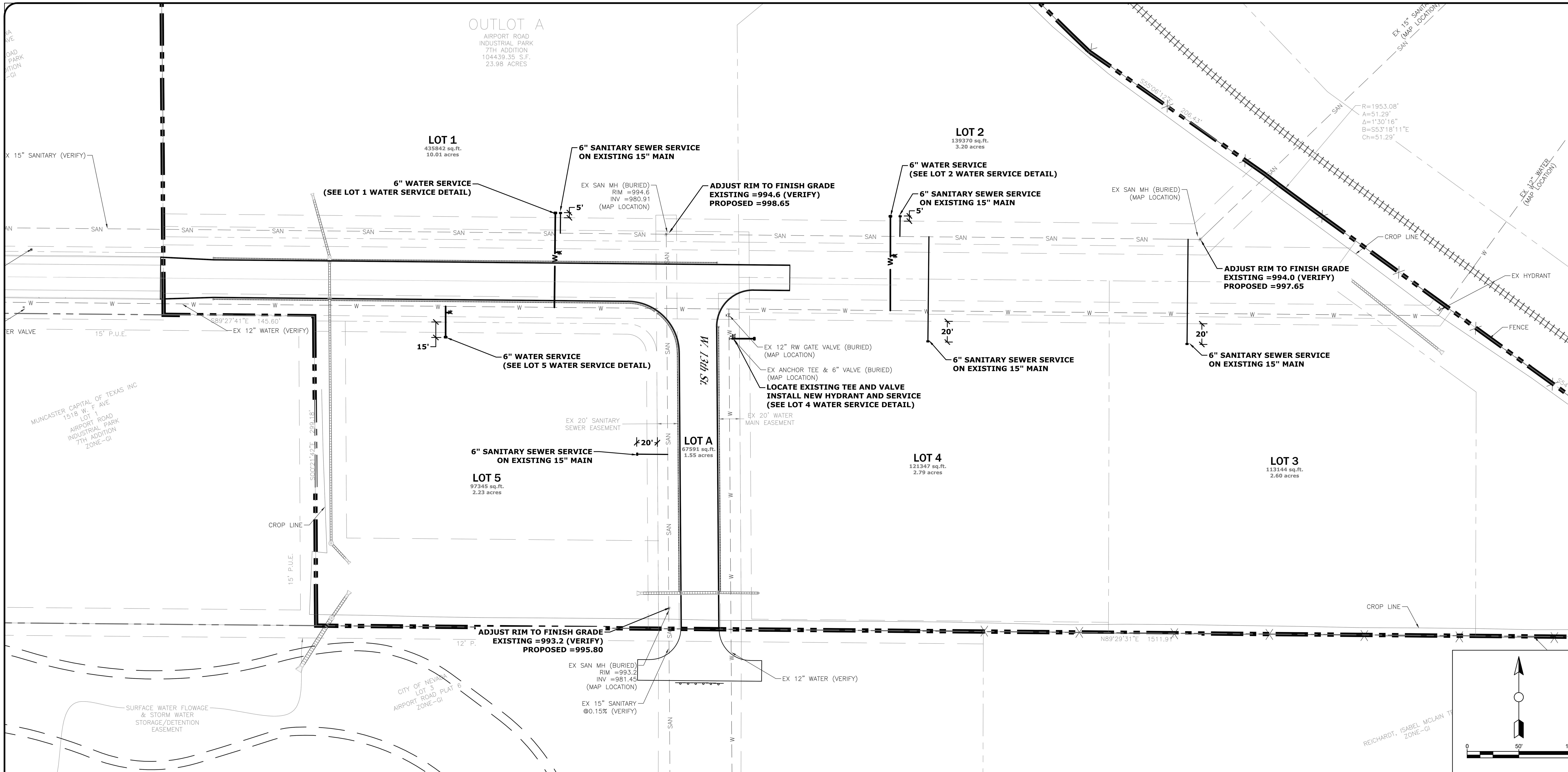
FOX engineering

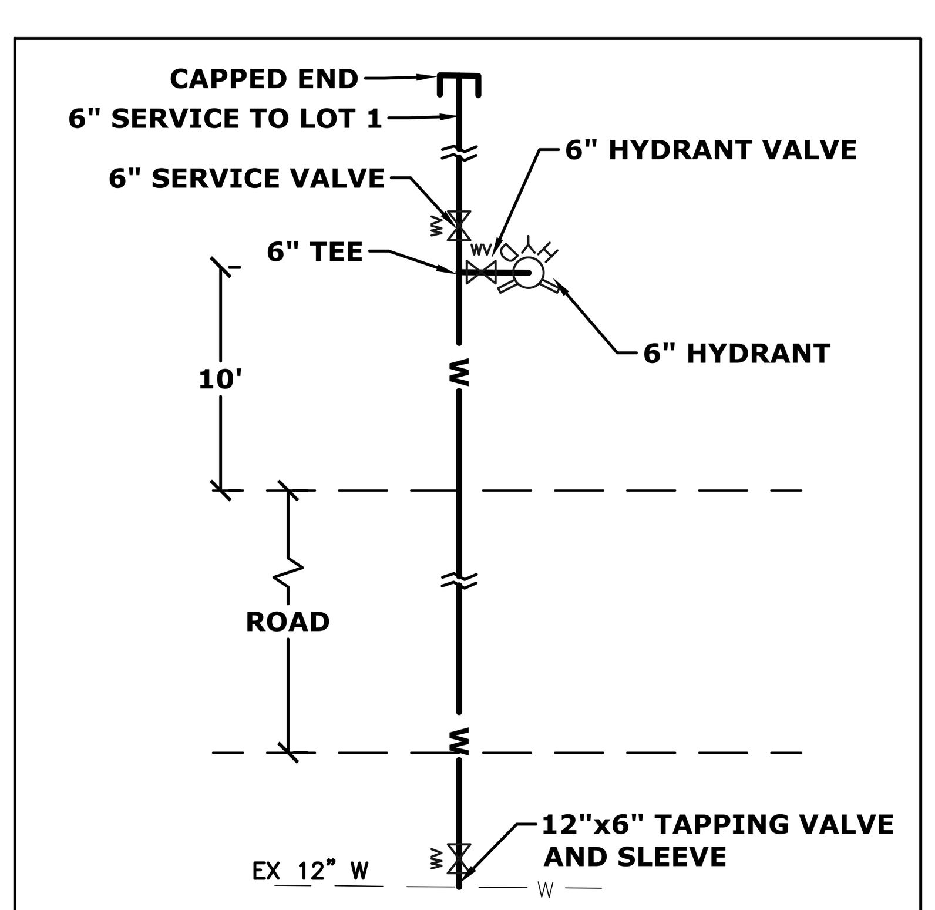
GRADING DETAIL VIEWS
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

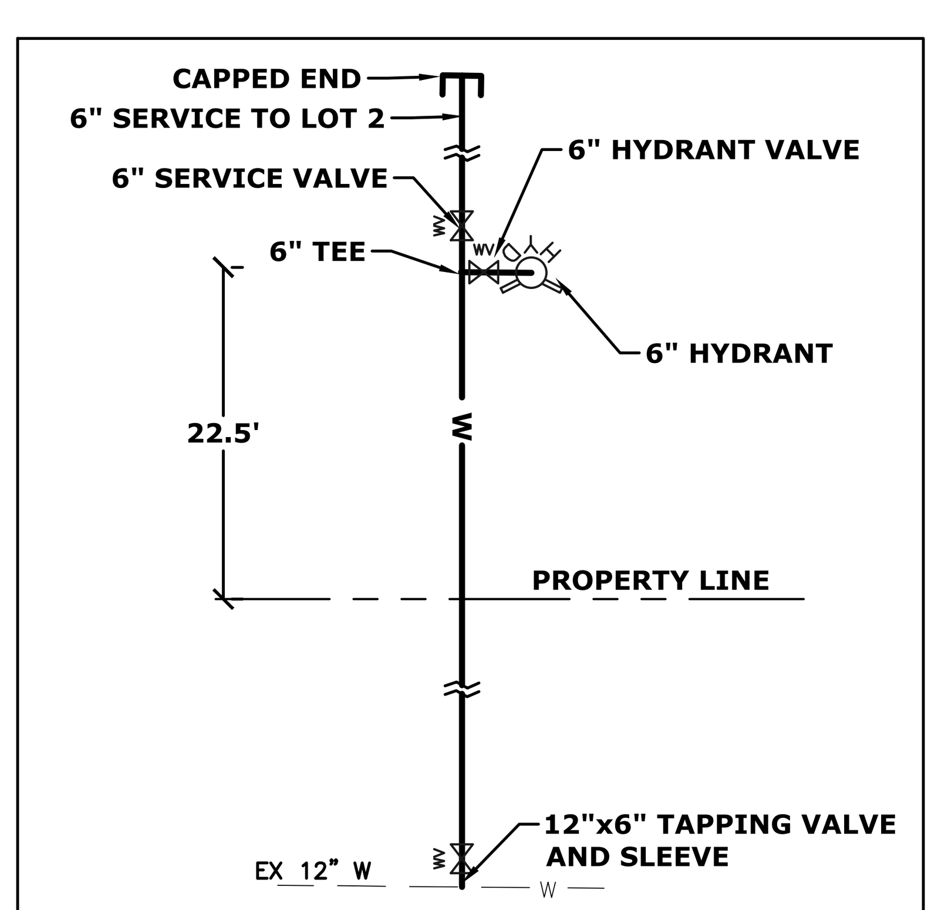
SHEET
C5.2

DRAWING FILENAME: K:\(proj)\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg
LAYOUT NAME: C5.2
LAYER MNGR NAME:
PLOT STYLE TABLE: FoxGrayScale.ctb

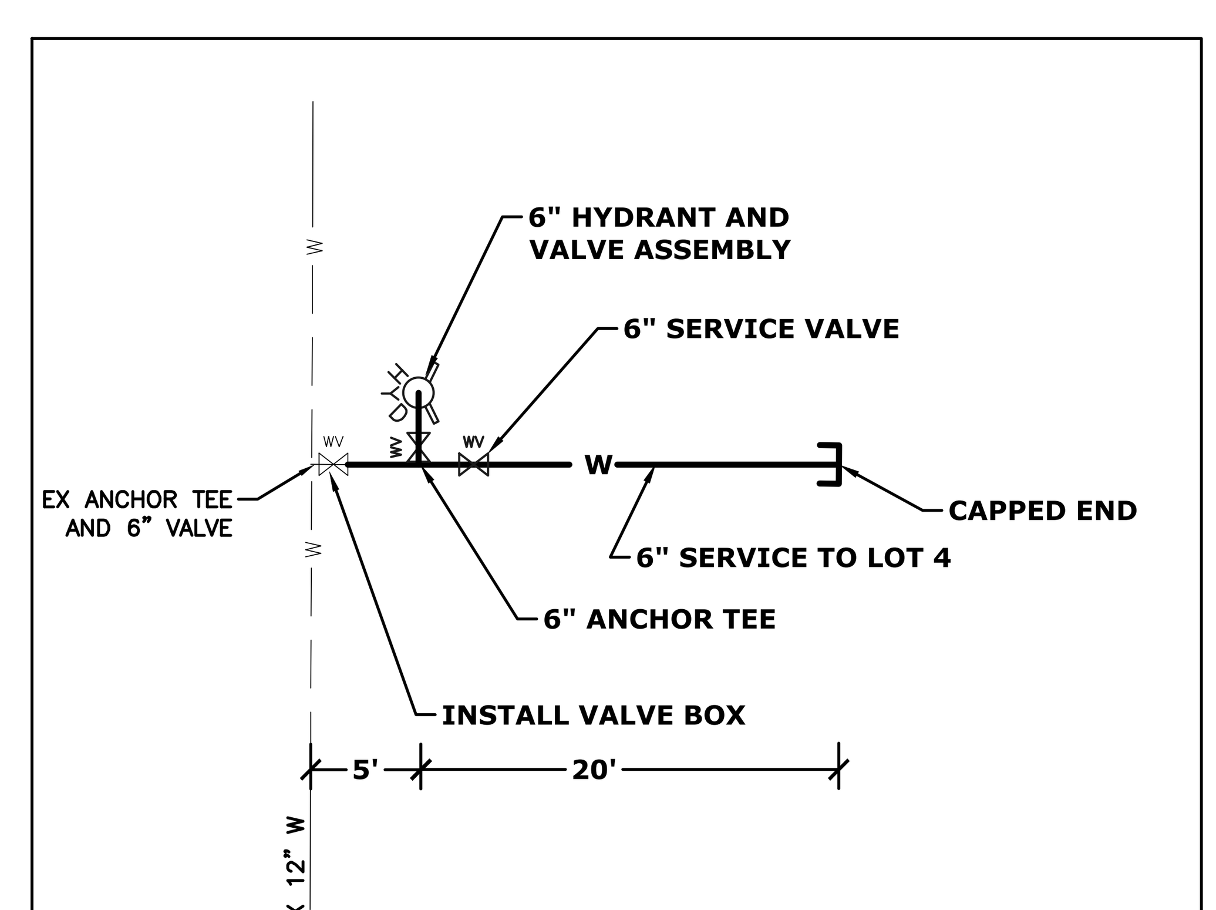




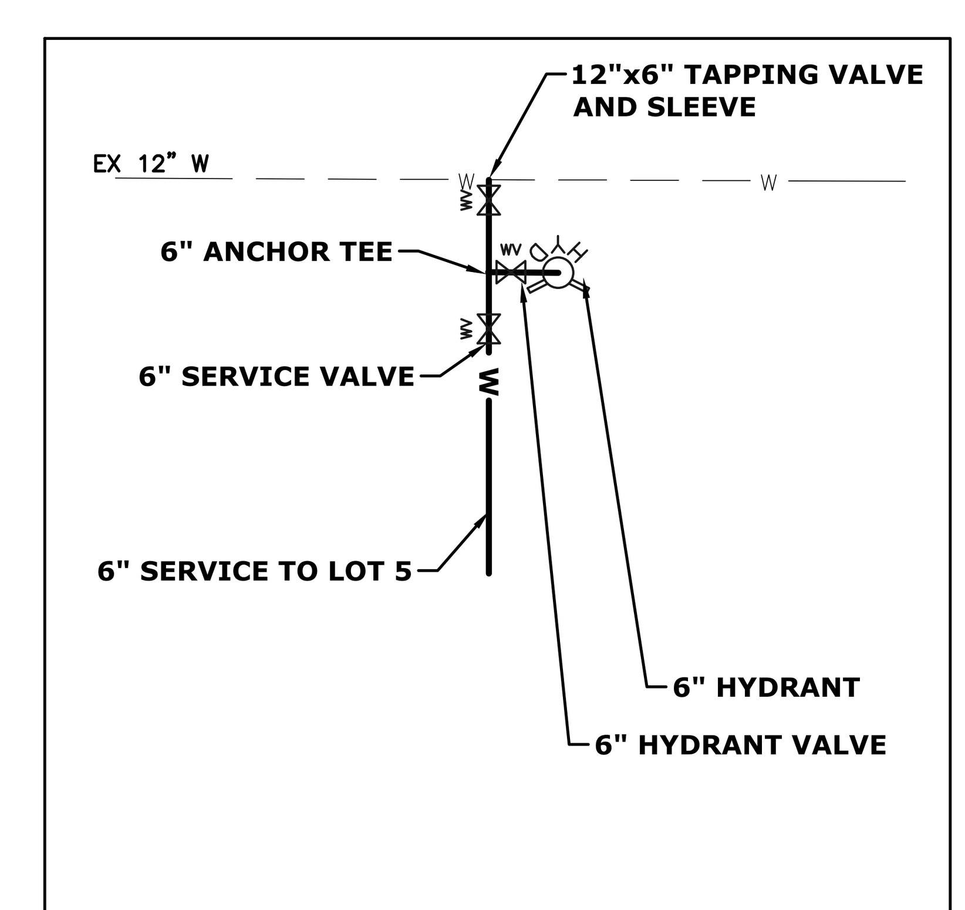
1 LOT 1 WATER SERVICE DETAIL
NOT TO SCALE



2 LOT 2 WATER SERVICE DETAIL
NOT TO SCALE



3 LOT 4 WATER SERVICE DETAIL
NOT TO SCALE



4 LOT 5 WATER SERVICE DETAIL
NOT TO SCALE

NOTES:
1) LOT 3 WATER SERVICE SHALL BE FROM THE EXISTING 12" WATER MAIN.
2) ALL FIRE HYDRANTS SHALL HAVE STORZ QUICK-CONNECT COUPLINGS PER CITY OF NEVADA STANDARDS

DATE	BY	REVISION

DESIGNED:	JMG	07/20
DRAWN:	SPB	07/20
CHECKED:		

LAST UPDATE: 07/02/20

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

PROPOSED SANITARY SEWER & WATER PLAN
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO. 5491-20A

SHEET C6.1

DRAWING FILENAME	
K:\!proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg	
PLOT STYLE TABLE	FoxGrayScale.ctb
LAYER MNGR NAME	
LAYOUT NAME	C6.1

LOT 1
435842 sq.ft.
10.01 acres

LOT 5
97345 sq.ft.
2.23 acres

LOT A
67591 sq.ft.
1.55 acres

LOT 4
121347 sq.ft.
2.79 acres

OUTLOT 3A
69752 sq.ft.
1.60 acres

WEST F AVENUE

6" SUBDRAIN
[P-01]
FES-01
[SD-01]
CO-01
ST-02
[P-02]
CO-02
[SD-02]
CO-03
[SD-03]
[SD-04]
[SD- 041]
CO-04
[SD- 05]
CO-06
ST-03
[P-03]
[SD-05]
[SD-06]
ST-04
[P-04]
25 TONS RIP RAP
FES-05
FES-04
[P-10]
ST-11
[P-11]
15 TONS RIP RAP
FES-03
ST-08
[P-06-]
ST-06
5 TONS RIP RAP
FES-02
[P-08-]
ST-07
FES-06
[P-13]
FES-07
5 TONS RIP RAP
996.25
OVERFLOW
24" CMP
FL=993.72
24" CMP
FL=994.35
24" CMP
FL=993.70
24" CMP
FL=994.13
30 TONS RIP RAP
FES-09
[P-15]
FES-08
997.25
TOP OF BERM
HICKENBOTTOM
GROUND =992.59
FL =990.73

0 50' 100'

DRAWING FILENAME
K:\Iproj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg

PLOT STYLE TABLE	LAYER MNGR NAME	LAYOUT NAME
FoxGreyScale.ctb		C7.1

DATE	REVISION	DESIGNED:	BY	DATE
		DRAWN:	JMG	07/20
		CHECKED:	SPB	07/20
		LAST UPDATE: 07/02/20		

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

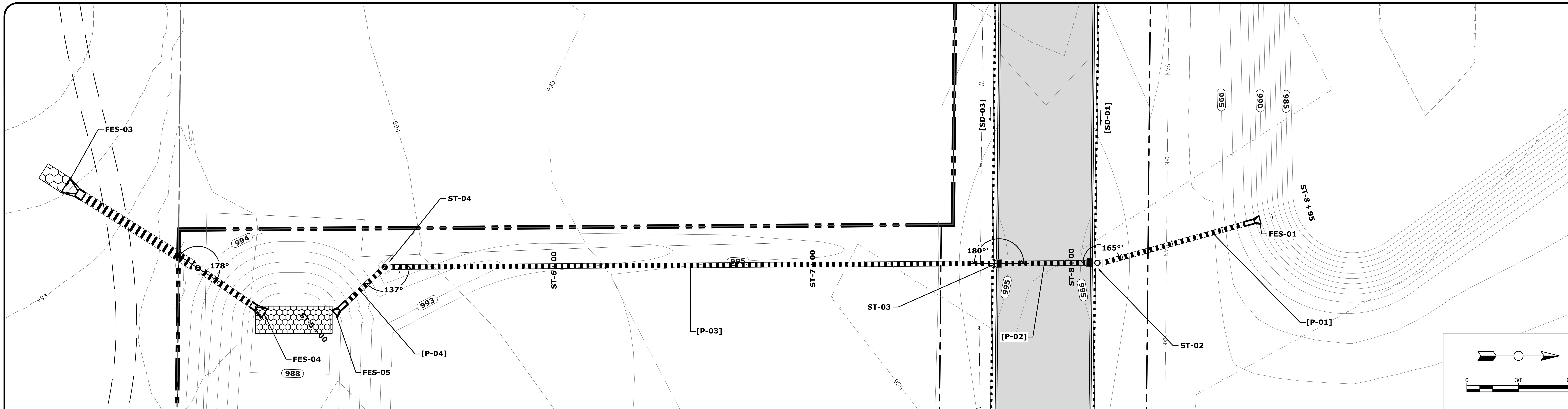
FOX engineering

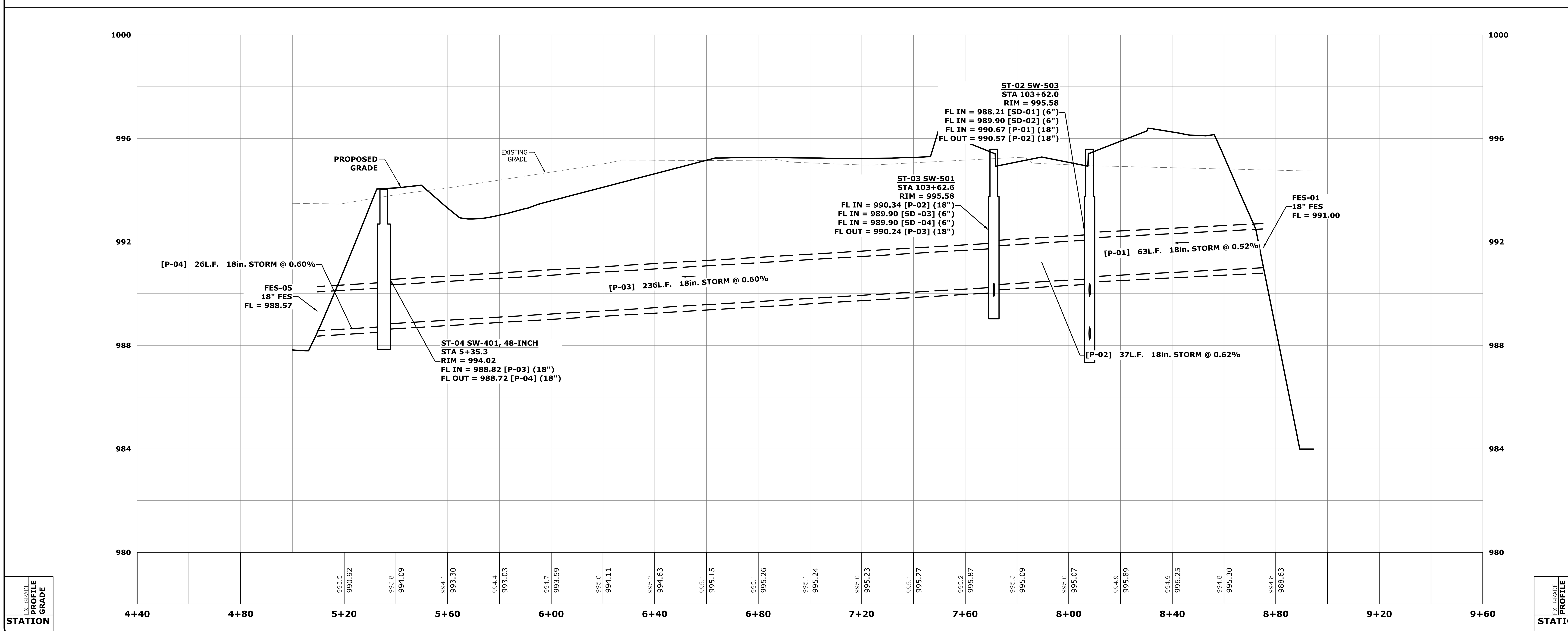
PROPOSED STORM SEWER PLAN

WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
C7.1





DRAWING FILENAME: K:\!proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg
LAYOUT NAME: C7.2
LAYER MNGR NAME:
PLOT STYLE TABLE: FoxGrayScale.ctb

REVISION	DATE

	BY	DATE
DESIGNED:	JMG	07/20
DRAWN:	SPB	07/20
CHECKED:		

LAST UPDATE: 07/02/20

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

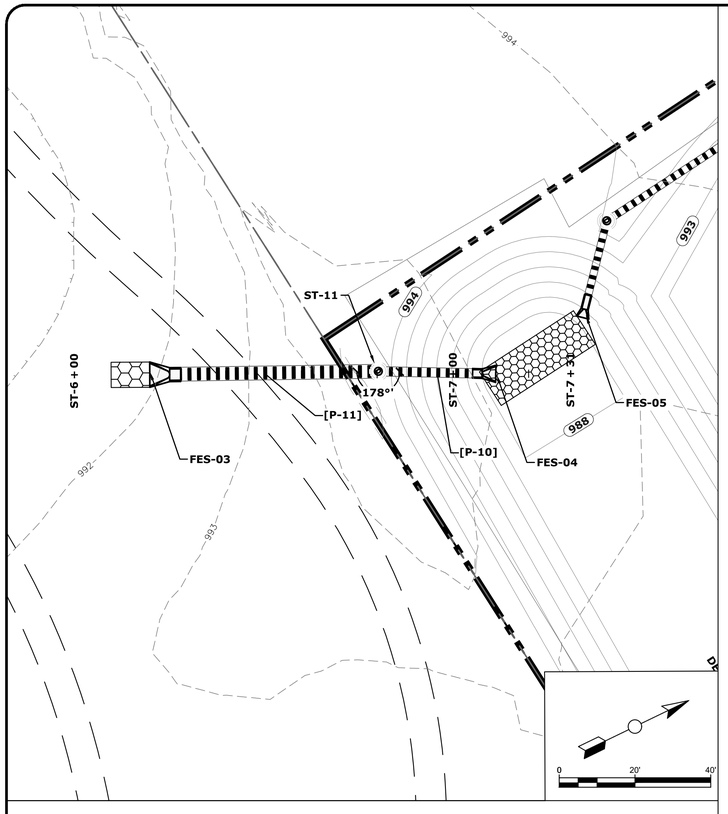
FOX engineering

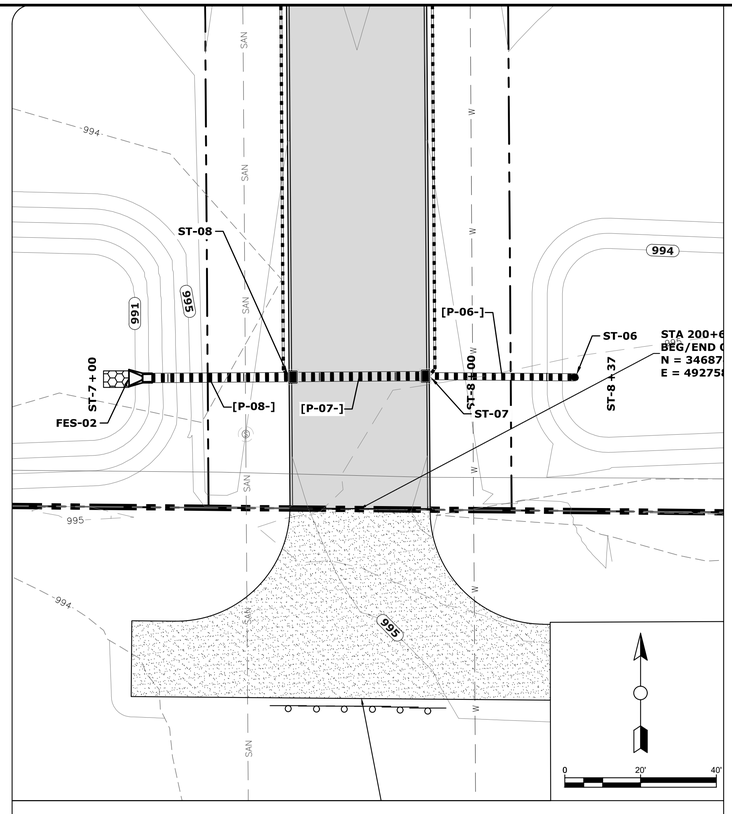
STORM SEWER PLAN & PROFILES
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS

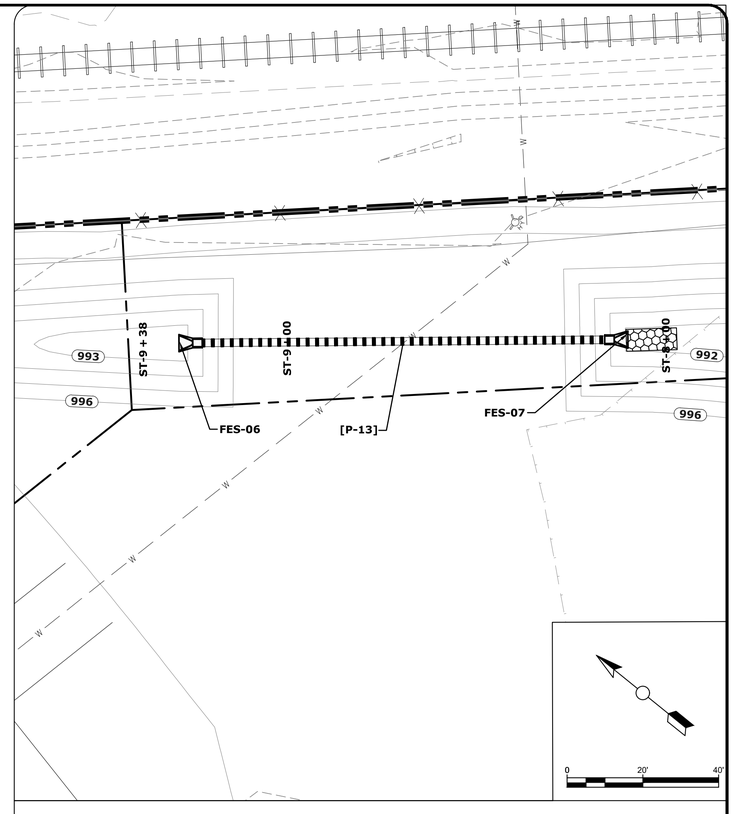
NEVADA, IOWA

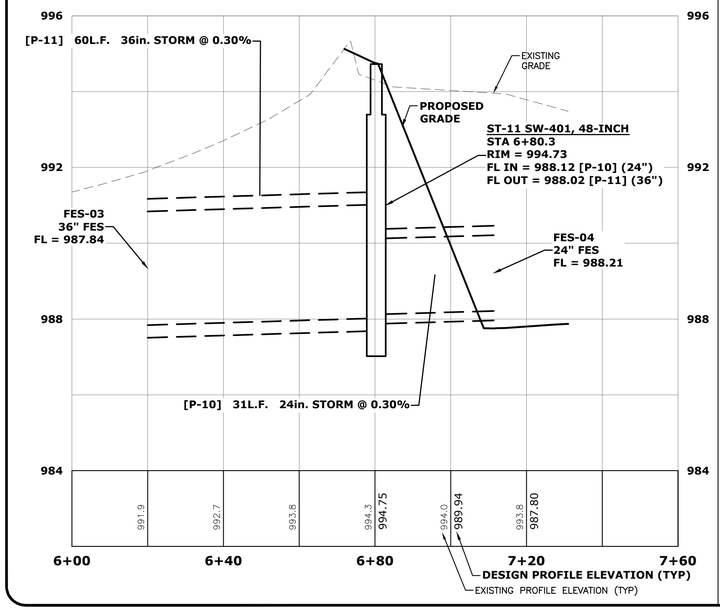
PROJECT NO. 5491-20A

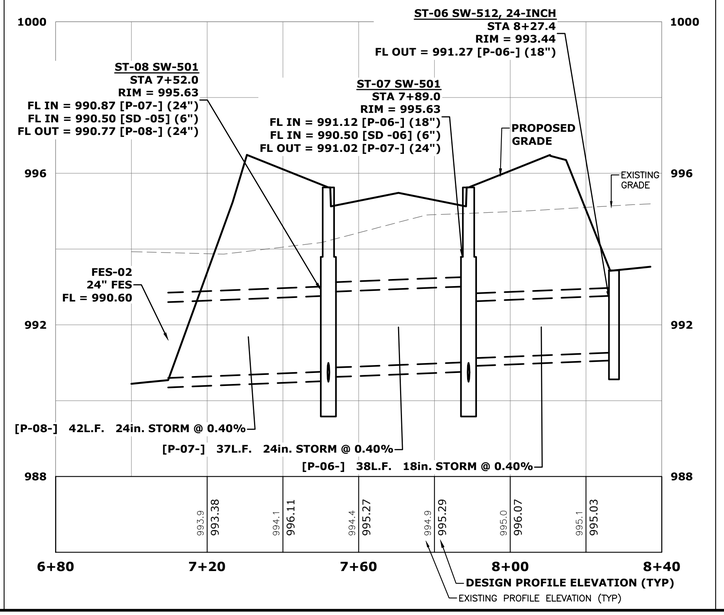
SHEET C7.2

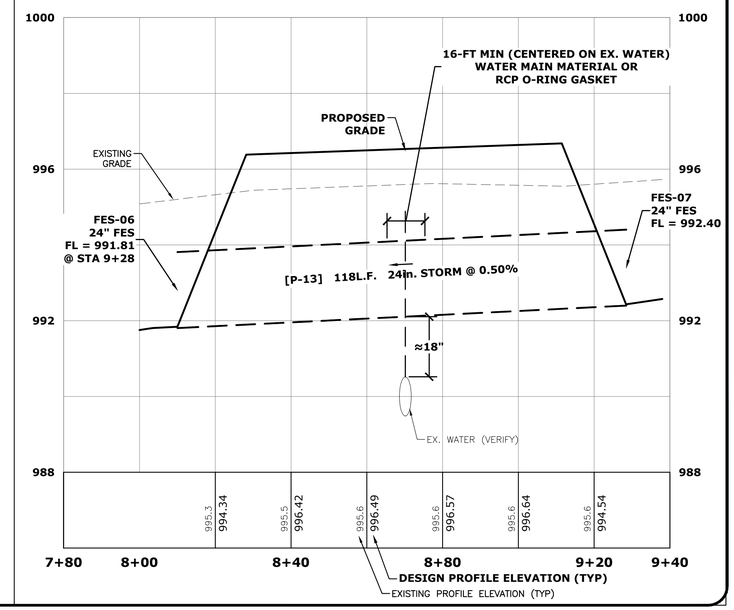












DRAWING FILENAME
K:\1proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg
PLOT STYLE TABLE
foxdrySolid.ctb
LAYER MNGR NAME
LAYOUT NAME
C7.3

DATE	BY	REVISION

DESIGNED: JMG
DRAWN: SPB
CHECKED:
LAST UPDATE: 07/02/20

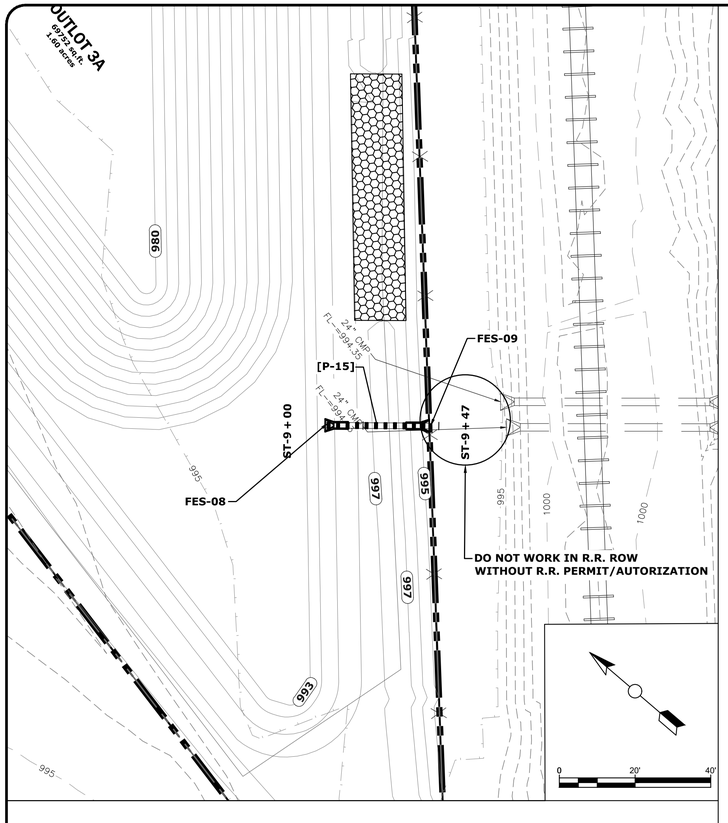
FOX Engineering Associates, Inc.
414 South 17th Street, Suite 107
Ames, Iowa 50010
Phone: (515) 233-0000
FAX: (515) 233-0103

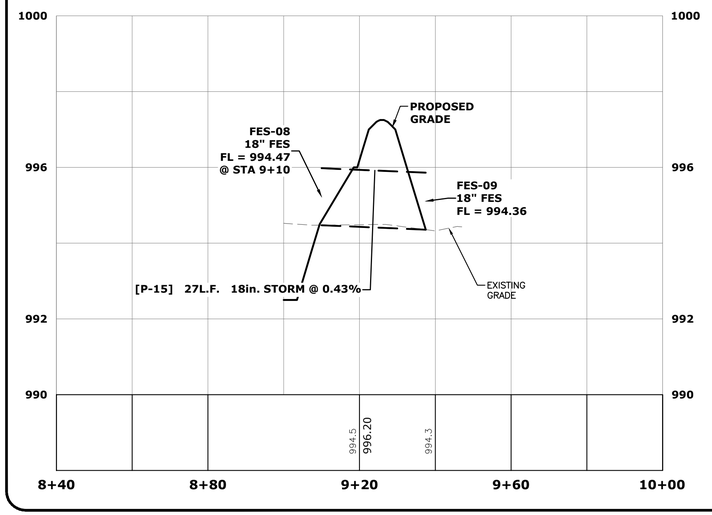
FOX engineering

STORM SEWER PLAN & PROFILES
WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
C7.3





DRAWING FILENAME
K:\Proj\5000\5491-20A West F Ave\Drawings\Civil\5491-20A_CD.dwg

PLOT STYLE TABLE	LAYER MNGR NAME	LAYOUT NAME
foxdrySolid.ctb		C7.4

DATE	REVISION	BY	DATE
		DESIGNED:	JMG 07/20
		DRAWN:	SPB 07/20
		CHECKED:	
		LAST UPDATE:	07/02/20

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

FOX engineering

STORM SEWER PLAN & PROFILES

WEST F AVE INDUSTRIAL PARK ADDITION
CONSTRUCTION PLANS
NEVADA, IOWA

PROJECT NO.
5491-20A

SHEET
C7.4