

Sheet C100

LEGEND

FEATURES	EXISTING
Spot Elevation	980.00
Contour Elevation	980
Fence (Barbed, Field, Hog)	///
Fence (Chain Link)	///
Fence (Wood)	—○—
Fence (Silt)	—○—
Tree Line	~~~~~
Tree Stump	○
Deciduous Tree \ Shrub	
Coniferous Tree \ Shrub	
Communication	--- CO(B) ---
Overhead Communication	--- CO(B) ---
Fiber Optic	--- FO(B) ---
Underground Electric	--- UE(B) ---
Overhead Electric	--- OE(B) ---
Gas Main with Size	--- G(B) ---
High Pressure Gas Main with Size	--- G(B) ---
Water Main with Size	--- W(B) ---
Sanitary Sewer with Size	--- S(B) ---
Duct Bank	--- UE(B) ---
Test Hole Location for SUE w/ID	--- CO(B) ---

(*) Denotes the survey quality service level for utilities

Sanitary Manhole	
Storm Sewer with Size	--- ST1(B) ---
Storm Manhole	
Single Storm Sewer Intake	
Double Storm Sewer Intake	
Fire Hydrant	
Fire Hydrant on Building	
Water Main Valve	
Water Service Valve	
Well	
Utility Pole	
Guy Anchor	
Utility Pole with Light	
Utility Pole with Transformer	
Street Light	
Yard Light	
Electric Box	
Electric Transformer	
Traffic Sign	
Communication Pedestal	
Communication Manhole	
Communication Handhole	
Fiber Optic Manhole	
Fiber Optic Handhole	
Gas Valve	
Gas Manhole	
Gas Apparatus	
Fence Post or Guard Post	
Underground Storage Tank	
Above Ground Storage Tank	
Sign	
Satellite Dish	
Mailbox	
Sprinkler Head	
Irrigation Control Valve	

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESES WITH THE UTILITY TYPE AND WHEN APPLICABLE, SIZE. THE QUALITY LEVELS ARE BASED ON THE CI / ASCE 38-02 STANDARD.

QUALITY LEVEL (D) INFORMATION IS DERIVED FROM EXISTING UTILITY RECORDS OR ORAL RECOLLECTIONS.

QUALITY LEVEL (C) INFORMATION IS OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION WITH QUALITY D INFORMATION.

QUALITY LEVEL (B) INFORMATION IS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES.

QUALITY LEVEL (A) IS HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES OBTAINED BY ACTUAL EXPOSURE OR VERIFICATION OF PREVIOUSLY EXPOSED SUBSURFACE UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

GENERAL NOTES

- A. NOTIFY UTILITY PROVIDERS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES AND COORDINATE WITH UTILITY PROVIDERS AS NECESSARY DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION, AND DEPTH OF ALL UTILITIES. PROTECT ALL UTILITY LINES AND STRUCTURES NOT SHOWN FOR REMOVAL OR MODIFICATION. ANY DAMAGES TO UTILITY ITEMS NOT SHOWN FOR REMOVAL OR MODIFICATION SHALL BE REPAIRED TO THE UTILITY OWNER'S SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
- B. CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO THE 2019 SUDAS STANDARD SPECIFICATIONS AND THE CITY OF ANKENY SUPPLEMENTAL SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- C. LENGTH OF UTILITIES SHOWN ON PLANS ARE DIMENSIONED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.
- D. ALL TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). WHEN CONSTRUCTION ACTIVITIES OBSTRUCT PORTIONS OF THE ROADWAY, FLAGGERS SHALL BE PROVIDED. FLAGGERS SHALL CONFORM TO THE MUTCD IN APPEARANCE, EQUIPMENT AND ACTIONS.
- E. NOTIFY OWNER, ENGINEER, AND CITY OF ANKENY AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
- F. CONSTRUCT MANHOLES AND APPURTENANCES AS WORK PROGRESSES. BACKFILL WITH SUITABLE MATERIAL AND COMPACT TO 95% MAXIMUM DENSITY.
- G. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.
- H. ALL FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED AND NOTED ACCORDINGLY ON THE AS-BUILT DOCUMENTS.
- I. DIMENSIONS, BUILDING LOCATION, UTILITIES AND GRADING OF THIS SITE ARE BASED ON AVAILABLE INFORMATION AT THE TIME OF DESIGN. DEVIATIONS MAY BE NECESSARY IN THE FIELD. ANY SUCH CHANGES OR CONFLICTS BETWEEN THIS PLAN AND FIELD CONDITIONS ARE TO BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT VERIFICATION OF ALL SITE IMPROVEMENTS PRIOR TO CONSTRUCTION.
- J. CONTRACTOR TO LOAD AND TRANSPORT ALL MATERIALS CONSIDERED TO BE UNDESIRABLE TO BE INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-SITE WASTE SITE.
- K. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL FROM ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 6" DEPTH TO FINISH GRADES.
- L. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AND/OR TOP OF PAVING SLAB (GUTTER), UNLESS OTHERWISE NOTED.
- M. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM NEIGHBORING STREETS, DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES IN A TIMELY MANNER.
- N. THE ADJUSTMENT OF ANY EXISTING UTILITY APPURTENANCES TO FINAL GRADE IS CONSIDERED INCIDENTAL TO THE SITE WORK.
- O. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING EROSION CONTROL MEASURES AS NECESSARY. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING ANY EXISTING EROSION CONTROL MEASURES ON SITE AT THE TIME OF CONSTRUCTION. GRADING AND SOIL EROSION CONTROL CODE REQUIREMENTS SHALL BE MET BY CONTRACTOR. A GRADING PERMIT IS REQUIRED FOR THIS PROJECT.
- P. CONTRACTOR TO COORDINATE NATURAL GAS, ELECTRICAL, TELEPHONE AND ANY OTHER FRANCHISE UTILITY SERVICES WITH UTILITY SERVICE PROVIDER, CITY OF ANKENY, AND THE OWNER PRIOR TO CONSTRUCTION.
- Q. CONTRACTOR TO VERIFY ALL UTILITY CROSSINGS AND MAINTAIN MINIMUM 18" VERTICAL AND HORIZONTAL CLEARANCE BETWEEN UTILITIES. CONTRACTOR TO COORDINATE UTILITY ROUTING TO BUILDING AND VERIFY CONNECTION LOCATIONS AND INVERTS PRIOR TO CONSTRUCTION.
- R. ALL ROOF TOP UNITS SHALL BE SCREENED FROM PUBLIC VIEW.

UTILITY CONTACT INFORMATION

W1-WATER MAIN	CITY OF ANKENY - WATER Shawn Buckner (515) 963-3524 sbuckner@ankenyiowa.gov
ST-STORM SEWER	CITY OF ANKENY STORMWATER Jared Bright (515) 963-3534 jbright@ankenyiowa.gov
S-SANITARY SEWER	CITY OF ANKENY - SANITARY SEWER Roger McFarland (515) 965-6483 rmcfarland@ankenyiowa.gov
FO1-FIBER OPTIC	CITY OF ANKENY TRAFFIC Leslie Hart 515-963-3548 lhart@ankenyiowa.gov
G2-GAS MAIN	BLACK HILLS ENERGY GRIMES Joe McAreavy 515-343-2030 joe.mcareavy@blackhillscorp.com
FO2-FIBER OPTIC	CENTURYLINK Dustin Withers (515) 293-7202 dustin.withers@centurylink.com
FO3-FIBER OPTIC	IOWA COMMUNICATIONS NETWORK Mike Broderick (515) 725-4610 mike.broderick@iowa.gov
FO4-FIBER OPTIC	MEDIACOM COMMUNICATIONS CORP Paul May 515-246-2252 pmay@mediacomcc.com
G1-GAS MAIN OE1-OVERHEAD ELECTRIC UE1-UNDERGROUND ELECTRIC	MIDAMERICAN ENERGY Theresa McGuire (515) 281-2280 tmcguire@midamerican.com

PROPERTY DESCRIPTION

LOT 2 OF HIDDEN CREEK PLAT 2 AND LOT 1 OF HIDDEN CREEK PLAT 4, AN OFFICIAL PLAT NOW INCLUDED IN AND FORMING A PART OF THE CITY OF ANKENY, POLK COUNTY IOWA AND CONTAINING 2.30 ACRES (100,048 SF).

PROPERTY SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

PROPERTY ADDRESS

1606 NW IRVINEDALE DRIVE
ANKENY, IOWA 50023

ZONING

C-2: GENERAL RETAIL AND HIGHWAY ORIENTED COMMERCIAL BUSINESS DISTRICT

BULK REGULATIONS

FRONT YARD SETBACK = 35'
REAR YARD SETBACK = 40'
SIDE YARD SETBACK = NONE; EXCEPT
WHEN ADJACENT RESIDENTIAL OR ROW = 25'
MAXIMUM HEIGHT = 45'
MAXIMUM STORIES = 3

PARKING REQUIREMENTS

COFFEE SHOP
1 STALLS PER 100 SF
1,890 / 100 = 19 STALLS

DAYCARE
1 STALLS PER 300 SF
11,243 / 300 = 38 STALLS

TOTAL REQUIRED = 57
TOTAL PROVIDED = 90

ERU CALCULATIONS

58,338 SF OF HARD SURFACE / 4,000
= 15 EQUIVALENT RESIDENTIAL UNITS

BUILDING DESCRIPTION

HEIGHT = 20'
AREA = 13,133 SF SINGLE STORY

HIDDEN CREEK COMMERCIAL 2019

PROJECT INFORMATION

ANKENY, IOWA

SNYDER & ASSOCIATES, INC. |



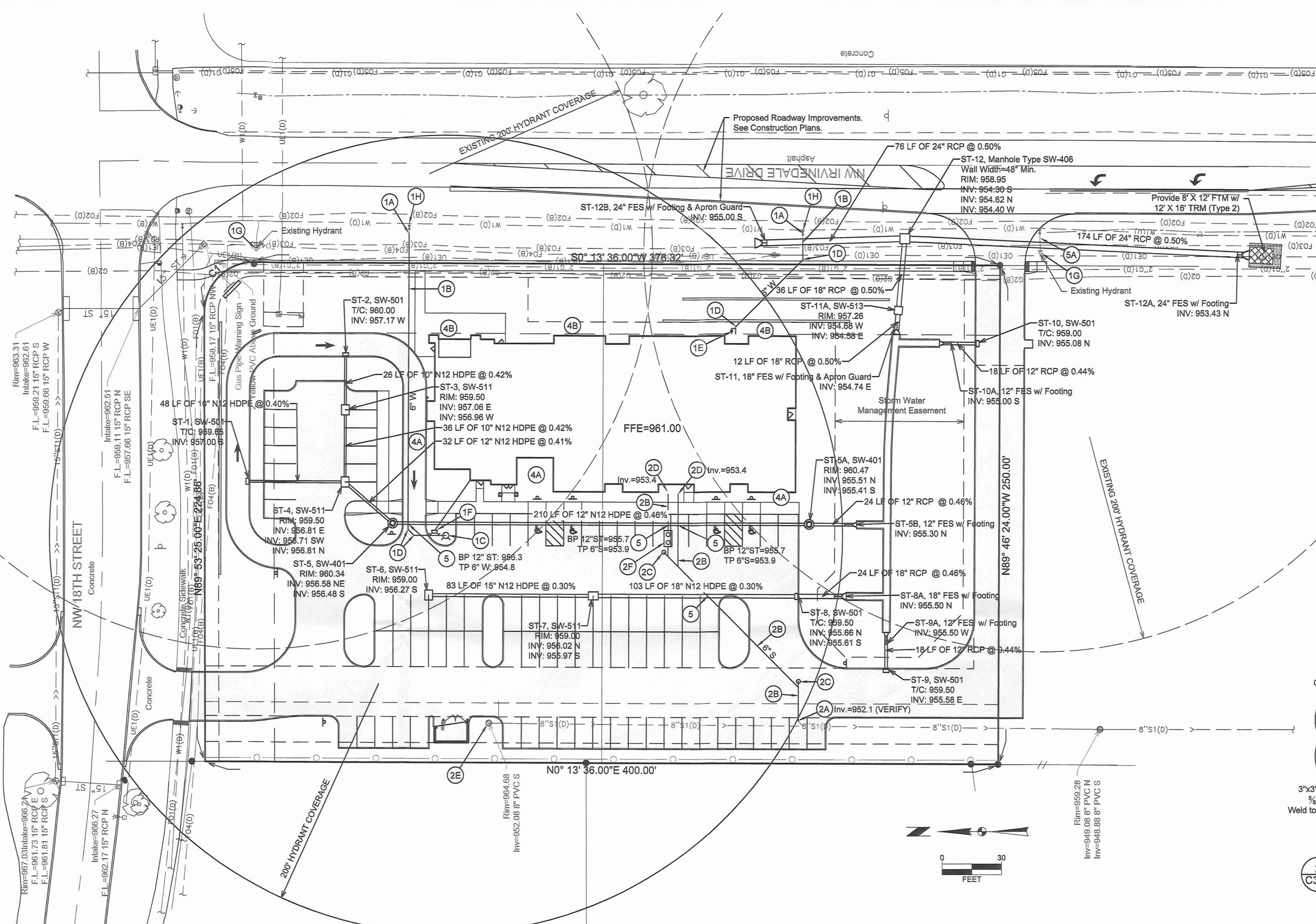
Project No: 119.0705

Sheet C101

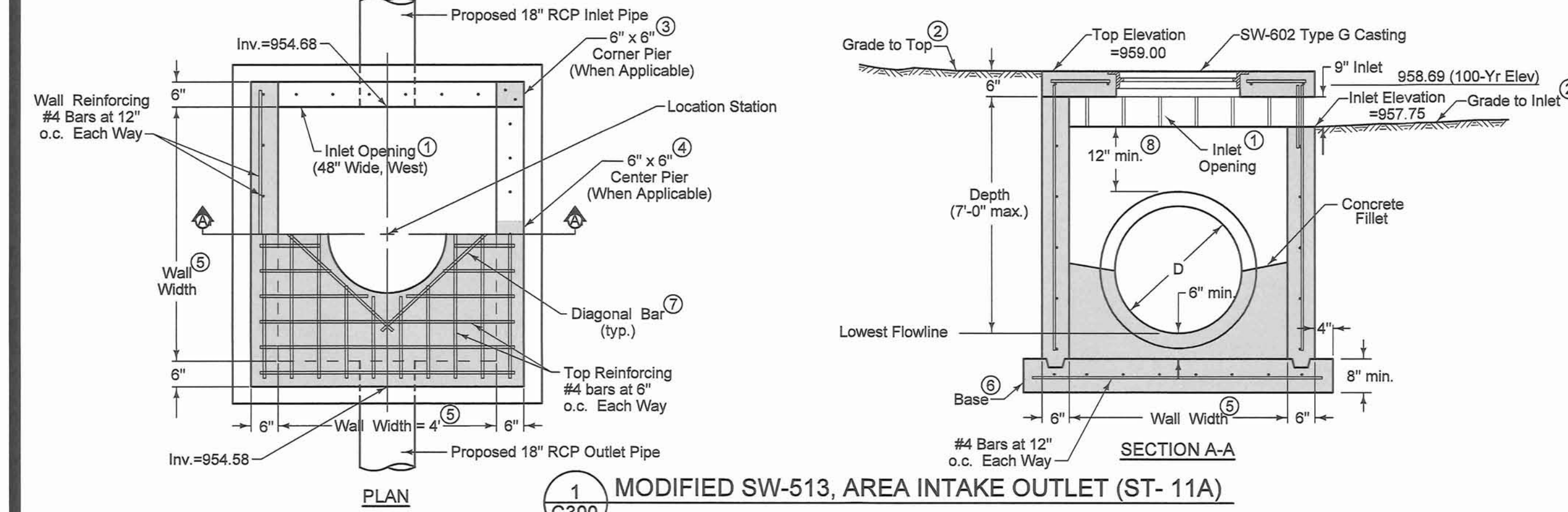
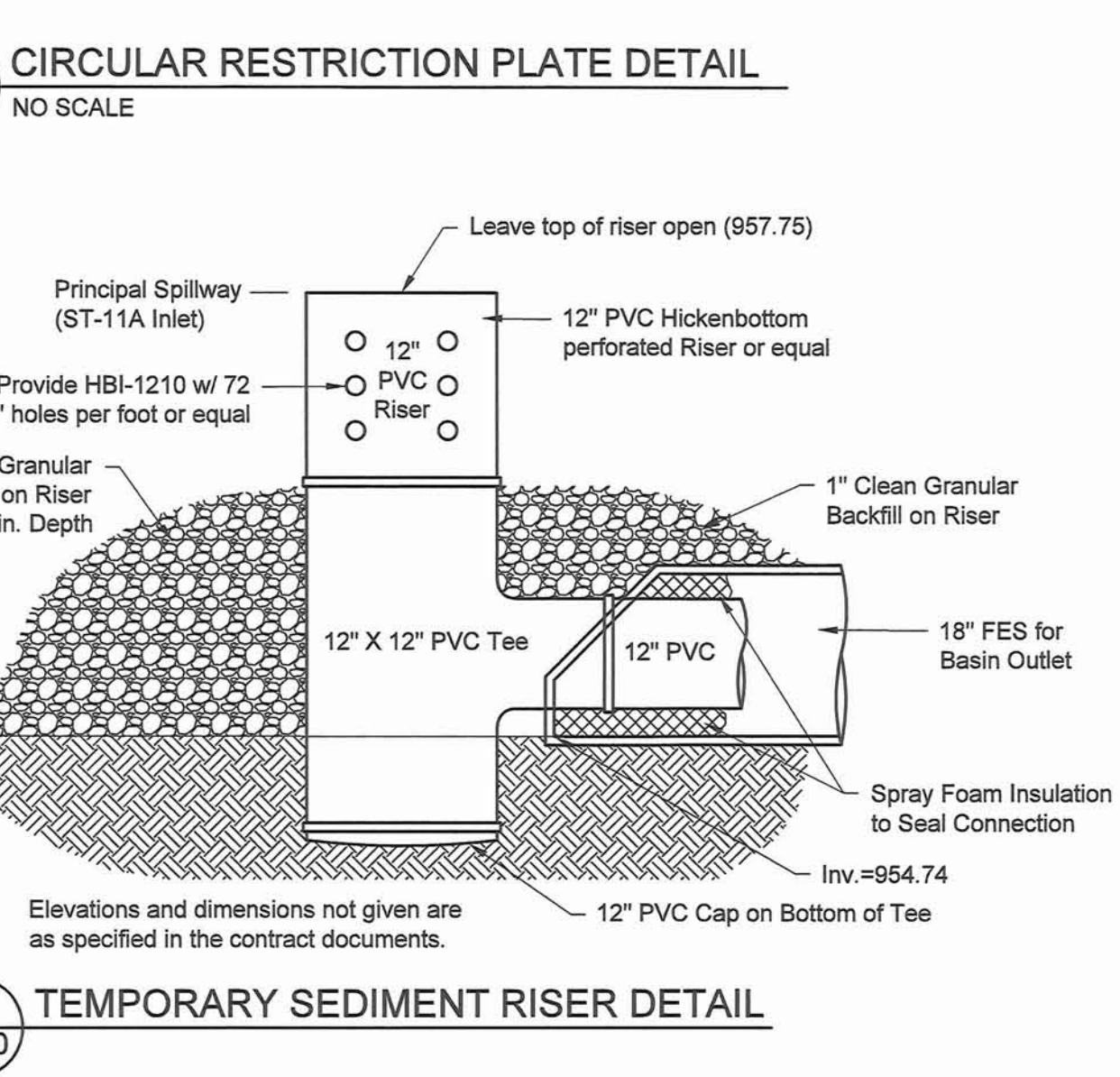
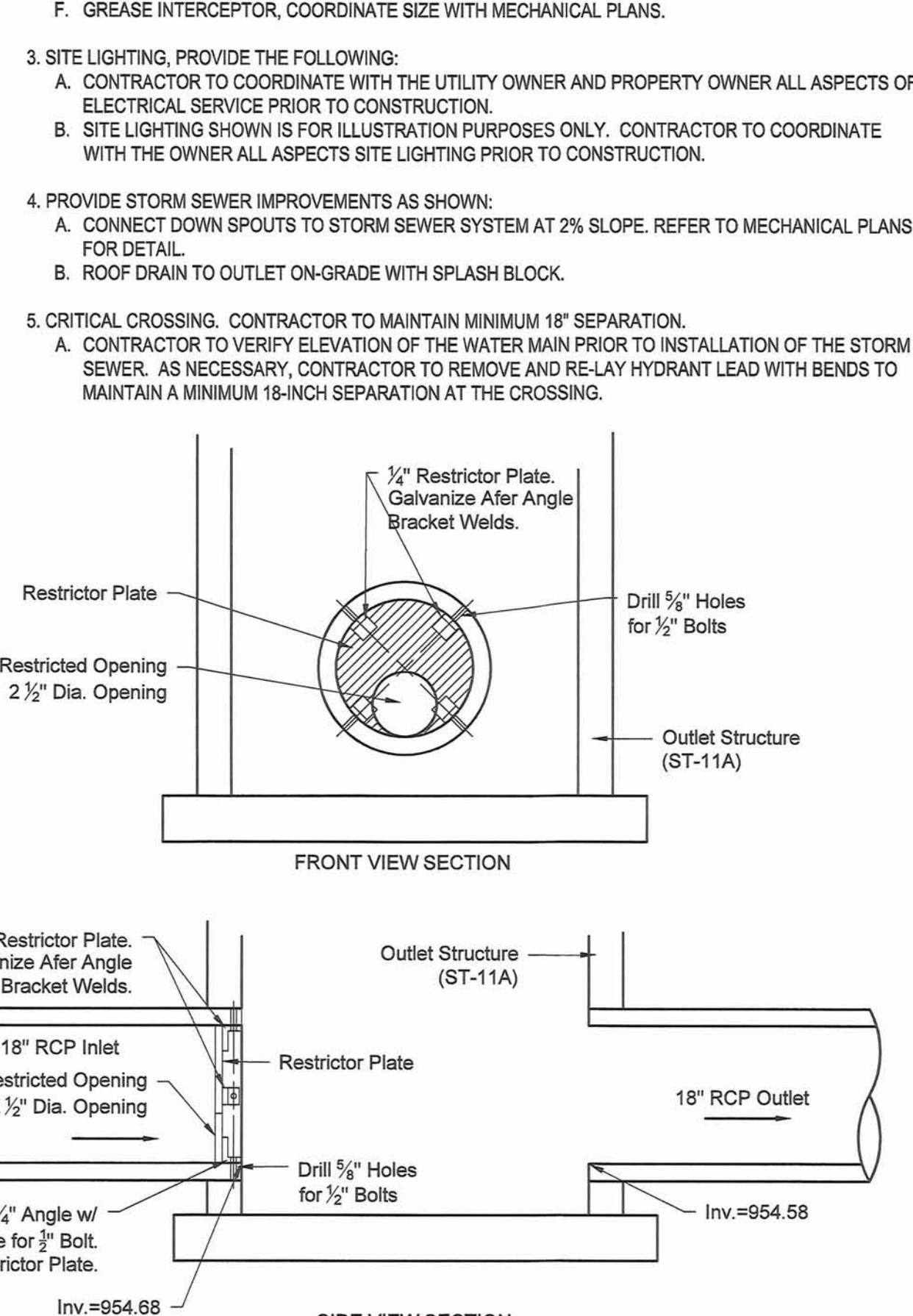


1-800-292-8989
www.iowaonecall.com





- DIMENSION PLAN CONSTRUCTION NOTES**
- WATER SERVICES, PROVIDE THE FOLLOWING:
 - CONNECT TO EXISTING 6" WATER SERVICE. VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. COORDINATE CONNECTION WITH THE CITY OF ANKENY WATER DEPARTMENT. PROVIDE A TAPPING SLEEVE AND VALVE IF NECESSARY.
 - 6" WATER SERVICE. CONFIRM WITH MECHANICAL PLANS FOR SIZE, LOCATION AND ELEVATION.
 - HYDRANT ASSEMBLY.
 - 45° BEND.
 - 2-INCH DOMESTIC WATER SERVICE W/ CURB STOP SPLIT EXTERIOR TO BUILDING. CONFIRM WITH MECHANICAL PLANS FOR SIZE, LOCATION AND ELEVATION.
 - REMOTE 4" FIRE DEPARTMENT CONNECTION. FIRE PROTECTION CONTRACTOR TO VERIFY SIZE WITH THEIR HYDRAULIC CALCULATIONS FOR THE BUILDING. SEE MECHANICAL PLANS.
 - ADJUST HYDRANT TO PROPOSED GRADE.
 - ADJUST VALVE ASSEMBLY TO PROPOSED GRADE.
 - SANITARY SEWER SERVICES; PROVIDE THE FOLLOWING:
 - CONNECT TO EXISTING 6" SANITARY SERVICE STUB. VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.
 - 6" SANITARY SEWER SERVICE LINE AT 1.0% MIN. SLOPE (1/8" PER FOOT). PROVIDE 1:1 RISER AS NECESSARY.
 - SANITARY CLEANOUT. PROVIDE SERVICE AT ELEVATION TO SERVICE ENTIRE BUILDING.
 - CONNECT TO PROPOSED BUILDING SERVICE. CONFIRM WITH MECHANICAL PLANS FOR SIZE, LOCATION AND ELEVATION.
 - ADJUST EXISTING MANHOLE CASTING TO PROPOSED GRADE BY REMOVING AND REPLACING MANHOLE BARREL SECTION TO ADJUST RIM. PROPOSED ELEVATION=962.2.
 - GREASE INTERCEPTOR, COORDINATE SIZE WITH MECHANICAL PLANS.
 - SITE LIGHTING, PROVIDE THE FOLLOWING:
 - CONTRACTOR TO COORDINATE WITH THE UTILITY OWNER AND PROPERTY OWNER ALL ASPECTS OF ELECTRICAL SERVICE PRIOR TO CONSTRUCTION.
 - SITE LIGHTING SHOWN IS FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR TO COORDINATE WITH THE OWNER ALL ASPECTS SITE LIGHTING PRIOR TO CONSTRUCTION.
 - PROVIDE STORM SEWER IMPROVEMENTS AS SHOWN:
 - CONNECT DOWN SPOUTS TO STORM SEWER SYSTEM AT 2% SLOPE. REFER TO MECHANICAL PLANS FOR DETAIL.
 - ROOF DRAIN TO OUTLET ON-GRADE WITH SPLASH BLOCK.
 - CRITICAL CROSSING. CONTRACTOR TO MAINTAIN MINIMUM 18" SEPARATION.
 - CONTRACTOR TO VERIFY ELEVATION OF THE WATER MAIN PRIOR TO INSTALLATION OF THE STORM SEWER. AS NECESSARY, CONTRACTOR TO REMOVE AND RE-LAY HYDRANT LEAD WITH BENDS TO MAINTAIN A MINIMUM 18-INCH SEPARATION AT THE CROSSING.



- Structure may be built with openings on any or all sides. Provide openings and orientation as specified in the contract documents.
- Adjacent walls may have different widths based upon pipe configuration, but structure must be rectangular.
- Construct inlet openings with 15-inch #4 epoxy-coated bars at 8 inches on center. Embed bars a minimum of 3 inches into walls and top at all openings.
 - Grade to inlet elevation on open sides. Grade to top elevation on closed sides.
 - Corner pier required between openings of two adjacent walls. Extend wall reinforcing vertically through pier. Install one additional 15-inch #4 bar in pier.
 - Center pier required at center of any inlet opening with length of 5 feet or greater. Extend wall reinforcing vertically through pier. Install one additional 15-inch #4 bar in pier.
 - Wall widths vary with pipe diameter. Provide 6 inches of wall width (minimum) each side of pipe opening. Minimum wall width is 36 inches. Maximum wall width is 72 inches.
 - Cast-in-place base shown. If base is precast integral with walls, the footprint of base is not required to extend beyond the outer edge of the walls.
 - Install four #4 diagonal bars at all pipe openings.
 - 12" minimum wall height above all pipes.

3

REVISED BUILDING LAYOUT

11-26-19/AWS

2

REVISED PER CITY COMMENTS

11-22-19/AWS

1

REVISED PER CITY COMMENTS

9-08-19/AWS

MARK

Engineer: CDD

Checked By: BKC

Date: 08-16-2019

REVISION

Scale: 1" = 30'

T-R-S: 80N-24W-16

DATE

BY

ANKENY, IOWA

UTILITY PLAN

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

SNYDER & ASSOCIATES

Project No: 119.0705

Sheet C300

HIDDEN CREEK COMMERCIAL 2019

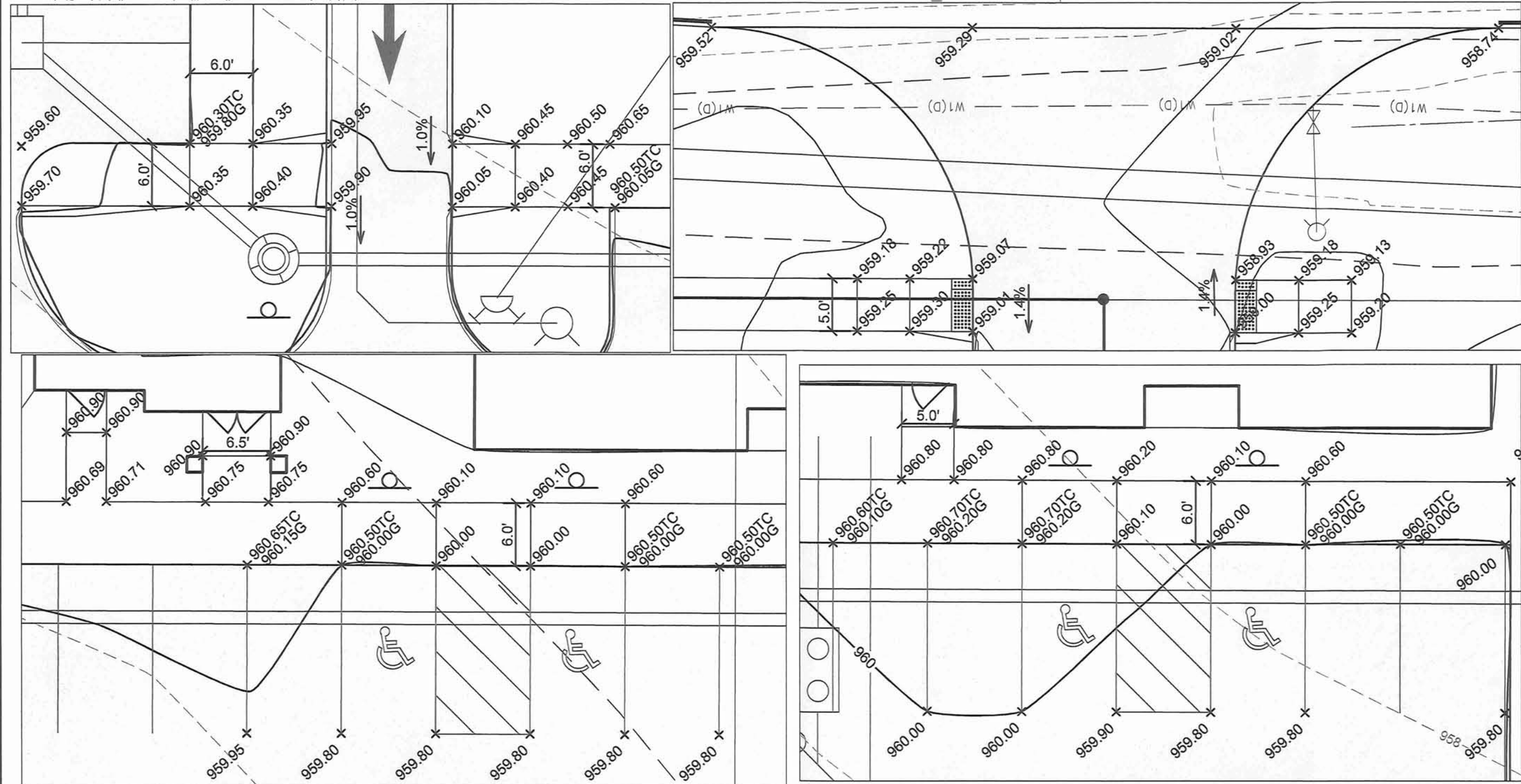
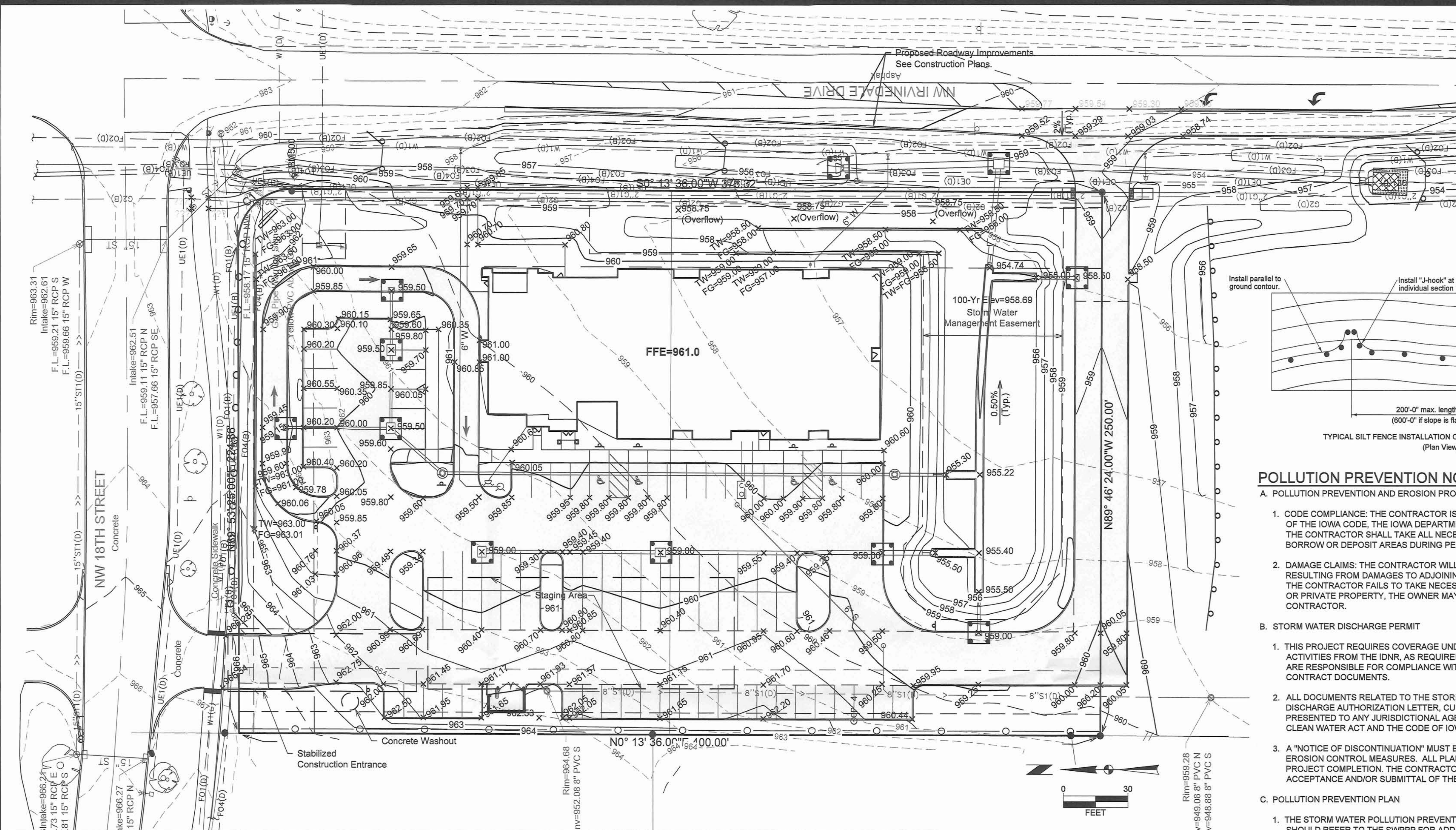
UTILITY PLAN

SNYDER & ASSOCIATES, INC. I

Sheet C300

Project No: 119.0705

Sheet C300



GRADING NOTES

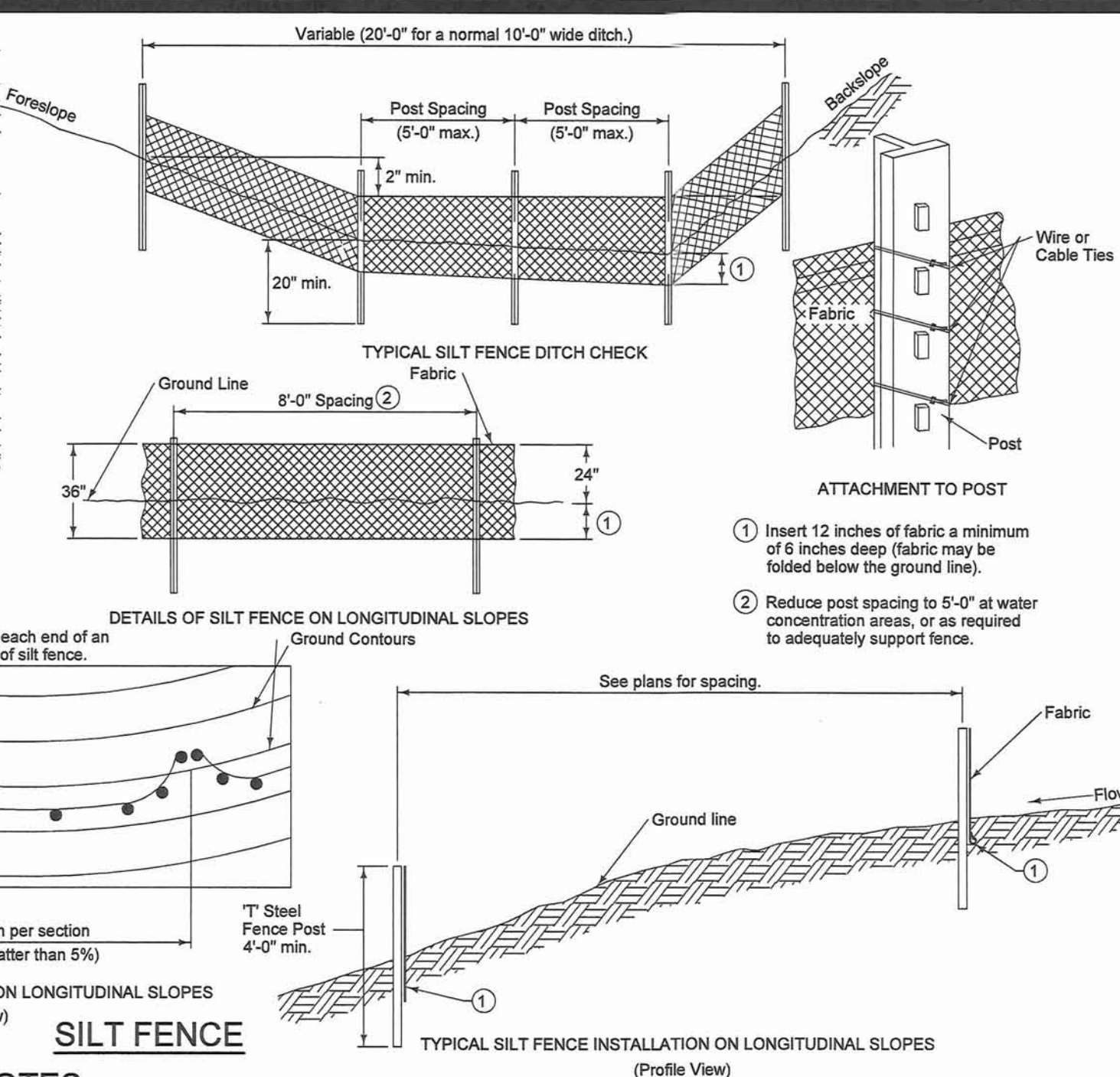
- CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL ON ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 6" DEPTH TO FINISH GRADES.
- ANY EXCESS CUT TO BE SPREAD ON SITE AS DIRECTED BY ENGINEER DURING CONSTRUCTION. PLACE TOPSOIL OVER ALL AREAS DISTURBED.
- ALL DRAINAGE SWALES AND SLOPES 5 TO 1 OR GREATER TO BE SEEDED USING COMMERCIALLY AVAILABLE EROSION CONTROL SEED. MIXTURE APPLIED AT RATE RECOMMENDED BY SUPPLIER.
- EROSION CONTROL: SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED. PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW.
- PROVIDE BELOW GRADE INLET PROTECTION IN PAVED AREAS FOLLOWING PAVING OPERATIONS.
- THE VOLUME OF THE DETENTION BASIN WILL NEED TO BE VERIFIED AND PROVIDED TO THE CITY BEFORE A FINAL C.O. IS ISSUED.

BENCHMARKS

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)
IARTN DERIVED - US SURVEY FEET
BM500 ELEV=961.70
BURY BOLT ON HYDRANT, SOUTHWEST QUADRANT OF
INTERSECTION OF NW 18TH STREET AND NW IRVINE DRIVE, +/-30'
NORTHEAST OF TRANSFORMERS, +/-40' SOUTH OF SIDEWALK.

QUANTITIES

SEEDING AND MULCHING	2.8 AC.
SILT FENCE	500 LF.
BELOW GRADE INLET PROTECTION	9 EA.



POLLUTION PREVENTION NOTES

A. POLLUTION PREVENTION AND EROSION PROTECTION

- CODE COMPLIANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL POTENTIAL POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) NPDES PERMIT, THE U.S. CLEAN WATER ACT AND ANY LOCAL ORDINANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE AND ALL OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.
- DAMAGE CLAIMS: THE CONTRACTOR WILL HOLD THE OWNER AND ARCHITECT / ENGINEER HARMLESS FROM ANY AND ALL CLAIMS OF ANY TYPE WHATSOEVER RESULTING FROM DAMAGES TO ADJOINING PUBLIC OR PRIVATE PROPERTY, INCLUDING REASONABLE ATTORNEY FEES INCURRED TO OWNER. FURTHER, IF THE CONTRACTOR FAILS TO TAKE NECESSARY STEPS TO PROMPTLY REMOVE EARTH SEDIMENTATION OR DEBRIS WHICH COMES ONTO ADJOINING PUBLIC OR PRIVATE PROPERTY, THE OWNER MAY, BUT NEED NOT, REMOVE SUCH ITEMS AND DEDUCT THE COST THEREOF FROM AMOUNTS DUE TO THE CONTRACTOR.

B. STORM WATER DISCHARGE PERMIT

- THIS PROJECT REQUIRES COVERAGE UNDER THE NPDES GENERAL PERMIT NO. 2 FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDNR, AS REQUIRED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR COMPLIANCE WITH AND FULFILLMENT OF ALL REQUIREMENTS OF THE NPDES GENERAL PERMIT NO. 2 AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT, INCLUDING, BUT NOT LIMITED TO, THE NOTICE OF INTENT, PROOF OF PUBLICATIONS, DISCHARGE AUTHORIZATION LETTER, CURRENT SWPPP, SITE INSPECTION LOG, AND OTHER ITEMS, SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENTED TO ANY JURISDICTIONAL AGENCIES UPON REQUEST. FAILURE TO COMPLY WITH THE NPDES PERMIT REQUIREMENTS IS A VIOLATION OF THE CLEAN WATER ACT AND THE CODE OF IOWA.
- A "NOTICE OF DISCONTINUATION" MUST BE FILED WITH THE IDNR UPON FINAL STABILIZATION OF THE DISTURBED SITE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES. ALL PLANS, INSPECTION REPORTS, AND OTHER DOCUMENTS MUST BE RETAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION. THE CONTRACTOR SHALL RETAIN A RECORD COPY AND PROVIDE THE ORIGINAL DOCUMENTS TO THE OWNER UPON PROJECT ACCEPTANCE AND/OR SUBMITTAL OF THE NOTICE OF DISCONTINUATION.

C. POLLUTION PREVENTION PLAN

- THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS A SEPARATE DOCUMENT IN ADDITION TO THESE PLAN DRAWINGS. THE CONTRACTOR SHOULD REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE POLLUTION PREVENTION PLAN MADE DURING CONSTRUCTION.
- THE SWPPP ILLUSTRATES GENERAL MEASURES AND BEST MANAGEMENT PRACTICES (BMP) FOR COMPLIANCE WITH THE PROJECT'S NPDES PERMIT COVERAGE. ALL BMP'S AND EROSION CONTROL MEASURES REQUIRED AS A RESULT OF CONSTRUCTION ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, NOTE AND IMPLEMENT. ADDITIONAL BMP'S FROM THOSE SHOWN ON THE PLAN MAY BE REQUIRED.
- THE SWPPP AND SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL PERMIT AND SWPPP, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING BMP'S UNLESS INFEASIBLE OR NOT APPLICABLE:
 - UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE WHEN DISCHARGING FROM BASINS, PROVIDE AND MAINTAIN NATURAL BUFFERS AROUND SURFACE WATERS, DIRECT STORM WATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORM WATER INFILTRATION, AND MINIMIZE SOIL COMPACTION.
 - INSTALL PERIMETER AND FINAL SEDIMENT CONTROL MEASURES SUCH AS SILT BARRIERS, DITCH CHECKS, DIVERSION BERMS, OR SEDIMENTATION BASINS DOWNSTREAM OF SOIL DISTURBING ACTIVITIES PRIOR TO SITE CLEARING AND GRADING OPERATIONS.
 - PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.
 - MAINTAIN ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING ORDER, INCLUDING CLEANING, REPAIRING, REPLACEMENT, AND SEDIMENT REMOVAL THROUGHOUT THE PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN THE MEASURES HAVE LOST 50% OF THEIR ORIGINAL CAPACITY.
 - INSPECT THE PROJECT AREA AND CONTROL DEVICES (BY QUALIFIED PERSONNEL ASSIGNED BY THE CONTRACTOR) EVERY SEVEN CALENDAR DAYS. RECORD THE FINDINGS OF THESE INSPECTIONS AND ANY RESULTING ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE OWNER OR ENGINEER DURING CONSTRUCTION. REVISE THE SWPPP AND IMPLEMENT ANY RECOMMENDED MEASURES WITHIN 7 DAYS.
 - PREVENT ACCUMULATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON ADJOINING PUBLIC OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, DRAINAGEWAYS, OR UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.
 - INSTALL NECESSARY CONTROL MEASURES SUCH AS SILT BARRIERS, EROSION CONTROL MATS, MULCH, DITCH CHECKS OR RIPRAP AS SOON AS AREAS REACH THEIR FINAL GRADES AND AS CONSTRUCTION OPERATIONS PROGRESS TO ENSURE CONTINUOUS RUNOFF CONTROL. PROVIDE INLET AND OUTLET CONTROL MEASURES AS SOON AS STORM SEWERS ARE INSTALLED.
 - RESPREAD A MINIMUM OF 6 INCHES OF TOPSOIL (INCLUDING TOPSOIL FOUND IN SOD) ON ALL DISTURBED AREAS, EXCEPT WHERE PAVEMENT, BUILDINGS OR OTHER IMPROVEMENTS ARE LOCATED.
 - STABILIZE UNDEVELOPED, DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX, SOD, OR PAVEMENT IMMEDIATELY AS SOON AS POSSIBLE UPON COMPLETION OR DELAY OF GRADING OPERATIONS. INITIATE STABILIZATION MEASURES IMMEDIATELY AFTER CONSTRUCTION ACTIVITY IS FINALLY COMPLETED OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WHICH WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
 - COORDINATE LOCATIONS OF STAGING AREAS WITH THE OWNER AND RECORD IN THE SWPPP. UNLESS NOTED OTHERWISE, STAGING AREAS SHOULD CONTAIN THE FOLLOWING: JOB TRAILERS, FUELING / VEHICLE MAINTENANCE AREA, TEMPORARY SANITARY FACILITIES, MATERIALS STORAGE, AND CONCRETE WASHOUT FACILITY. CONTROL RUNOFF FROM STAGING AREAS WITH DIVERSION BERMS AND/OR SILT BARRIERS AND DIRECT TO A SEDIMENT BASIN OR OTHER CONTROL DEVICE WHERE POSSIBLE. CONCRETE WASHOUT MUST BE CONTAINED ONSITE.
 - REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

REVISION	DATE	BY	REVISION	DATE	BY
3	11-28-19	AWS	1	08-16-2019	BKC
2	11-22-19	AWS			
1	09-06-19	AWS			

Engineer: CDD
Checked By: BKC
Scale: 1" = 30'
Technician: AWS
Date: 08-16-2019
T-R-S: 80N-24W-16

Project No: 119.0705
Sheet C400

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

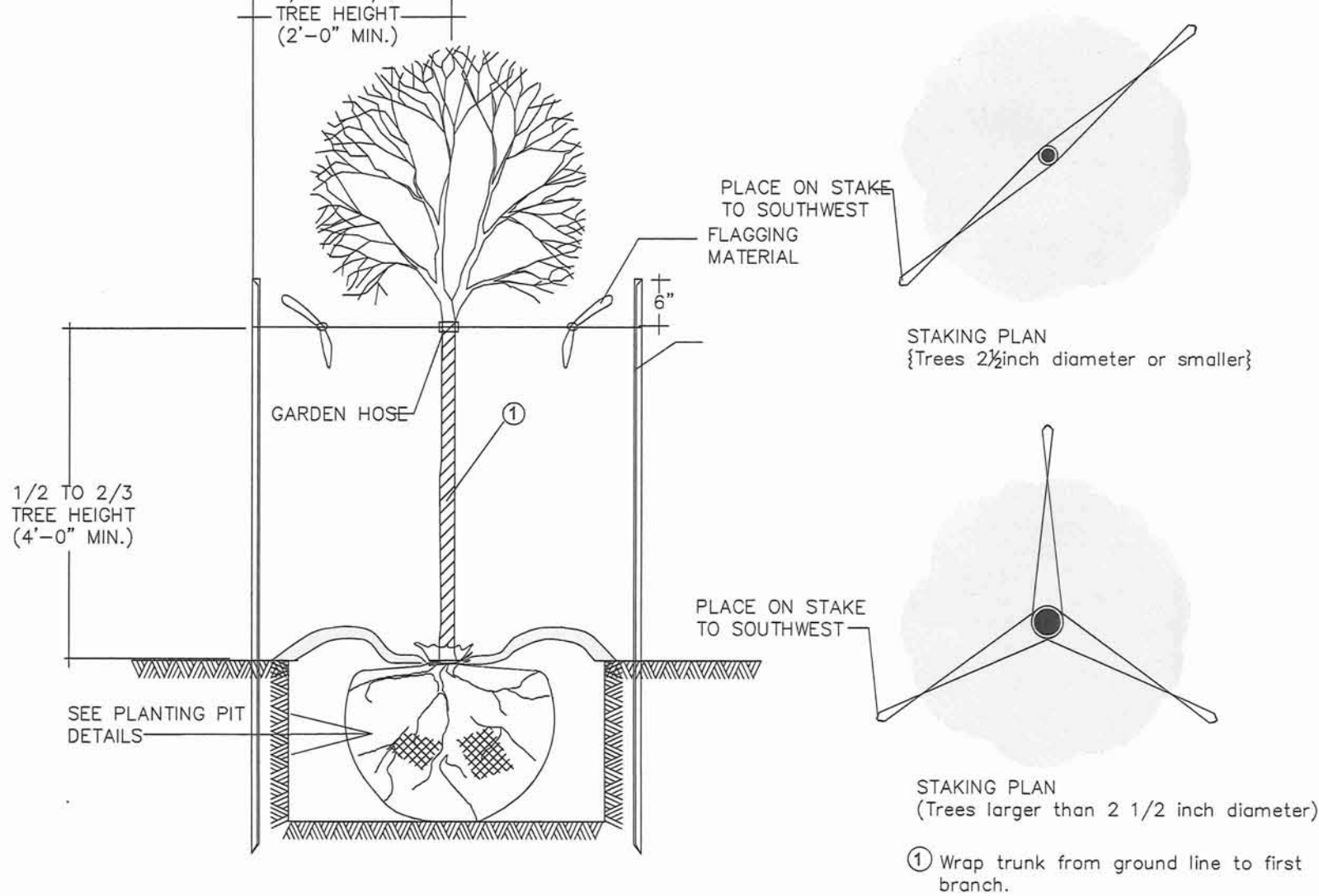
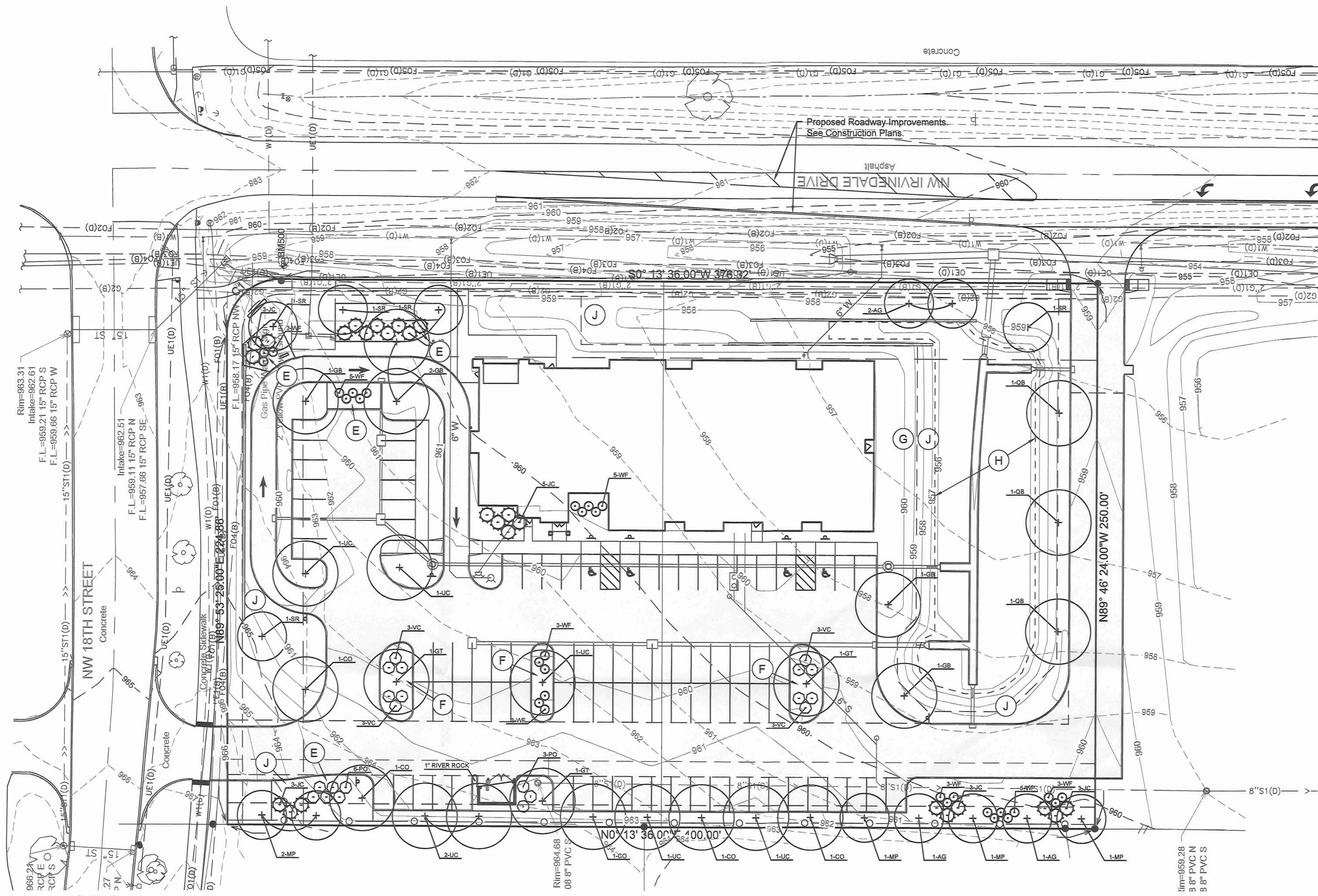
ANKENY, IOWA
GRADING AND EROSION CONTROL PLAN

HIDDEN CREEK COMMERCIAL 2019

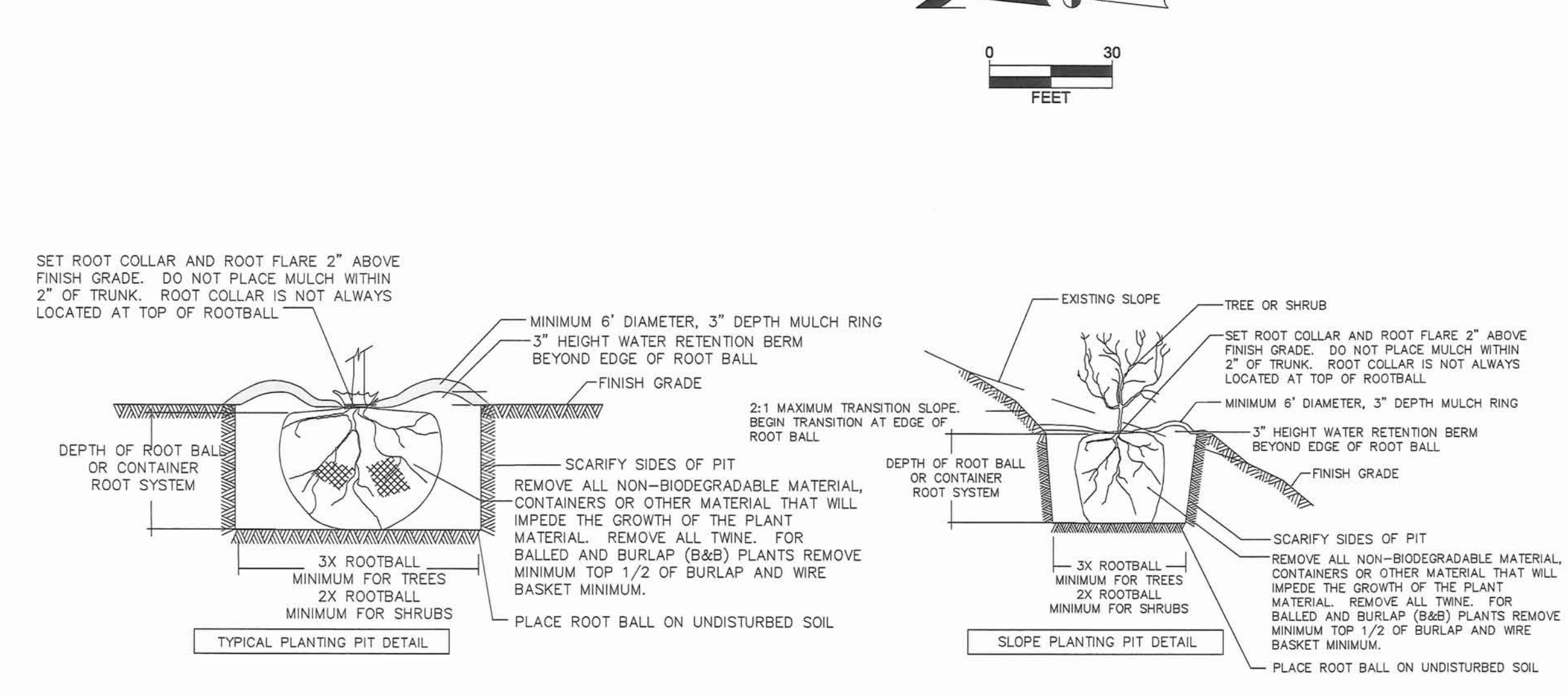
SNYDER & ASSOCIATES, INC.

SNYDER & ASSOCIATES

Project No: 119.0705
Sheet C400



1 DECIDUOUS TREE STAKING DETAIL
C500 NO SCALE



2 PLANTING PIT DETAILS
C500 NO SCALE

PLANTING PLAN GENERAL NOTES

- A. UTILITY WARNING:
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
- B. NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.
- C. ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-LATEST EDITION).
- D. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
- E. PROVIDE 3-INCH DEPTH SHREDDED HARDWOOD MULCH IN PLANT BED AREAS AS INDICATED ON PLAN AND PROVIDE A MIN 3-FOOT PERIMETER RING AROUND ALL TREES. PROVIDE VERTICAL CUT NATURAL EDGE TO A DEPTH OF 4-INCHES.
- F. PROVIDE 2-INCH RIVER GRAVEL PLACED TO A DEPTH OF 4-INCHES WITH WEED BARRIER FABRIC UNDERLAYMENT IN PLANT BED AREAS SHOWN ON PLAN.
- G. SEED ALL AREAS DISTURBED BY CONSTRUCTION WITH TYPE 1 SUDAS PERMANENT LAWN SEED MIX, UNLESS NOTED OTHERWISE.
- H. PROVIDE DETENTION BASIN SEED MIX AS PROVIDED BY PRAIRIE MOON NURSERY. WWW.PRAIRIEMOON.COM, 32115 PRAIRIE LANE, WINONA, MN 55987, OR APPROVED EQUAL. SEEDING RATE: 11.48 LBS/ACRE. INSTALL AS PER SUDAS SPECIFICATIONS 9010 SEEDING.
- I. PROVIDE REGREEN, *Triticum aestivum*, SHORT-LIVED STERILE PERENNIAL WHEAT/WHEAT GRASS HYBRID OR APPROVED EQUAL. APPLY AT 30 LBS/ACRE.
- J. PROVIDE MECHANICALLY BONDED FIBER MATRIX(MBFM) IMMEDIATELY FOLLOWING SEED APPLICATION ON ALL AREAS SEEDED WITH A SLOPE OF 6:1 OR GREATER. ACCEPTABLE PRODUCTS AND MANUFACTURERS:
- PROFILE PRODUCTS LLC., 750 LAKE COOK ROAD - SUITE 400
BUFFALO GROVE, IL 60089
TEL:A:A:1-800-366-1180
WWW.PROFILEPRODUCTS.COM OR APPROVED EQUAL.

PLANT SCHEDULE

	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
OVERSTORY TREES	GT	<i>Gleditsia triacanthos</i> f. <i>inermis</i> 'Shademaster'	SHADEMASTER HONEYLOCUST	1 1/2\" CAL.	B&B
	GB	<i>Ginkgo biloba</i> 'Princeton Sentry'	PRINCETON SENTRY GINKGO	1 1/2\" CAL.	B&B (MALE ONLY)
	CO	<i>Celtis occidentalis</i> 'Prairie Pride'	PRAIRIE PRIDE HACKBERRY	1 1/2\" CAL.	B&B
	QB	<i>Quercus bicolor</i>	SWAMP WHITE OAK	1 1/2\" CAL.	B&B
	UC	<i>Ulmus carpinifolia</i> x <i>parvifolia</i> 'Frontier'	FRONTIER ELM	1 1/2\" CAL.	B&B
ORNAMENTAL TREES	AG	<i>Amelanchier x grandiflora</i> 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	8' HT.	B&B, MULTI-STEM
	MP	<i>Malus 'Prairiefire'</i>	PRAIRIEFIRE CRABAPPLE	8' HT.	B&B
	SR	<i>Syringa reticulata</i> 'Ivory Silk'	IVORY SILK JAPANESE TREE LILAC	8' HT.	B&B, MULTI-STEM
SHRUBS	JC	<i>Juniperus chinensis</i> 'Sea Green'	SEA GREEN JUNIPER	36\" HT.	CONT. (6' O.C.)
	PO	<i>Physocarpus opulifolius</i> 'Jefam'	AMBER JUBILEE NINEBARK	36\" HT.	CONT. (6' O.C.)
	VC	<i>Viburnum carlesii</i>	KOREAN SPICE VIBURNUM	36\" HT.	CONT. (6' O.C.)
	WF	<i>Weigela florida</i> 'Verweil-4'	SONIC BLOOM RED WEIGELA	24\" HT.	CONT. (6' O.C.)

NOTE: QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR TO VERIFY PLANT MATERIAL PRIOR TO BIDDING. IN THE CASE OF A DISCREPANCY, THE PLAN QUANTITY SHALL GOVERN.

PLANTING PLAN REQUIREMENTS

LANDSCAPE REQUIREMENTS AND CALCULATIONS:
(AS PER CITY OF ANKENY SITE PLAN OPEN SPACE AND LANDSCAPING REQUIREMENTS)

OPEN SPACE REQUIREMENTS:
100,049 SF (2.30 AC.) OVERALL PROPERTY X 20% MIN. OPEN SPACE = 20,010 SF OPEN SPACE REQ'D
TOTAL HARDSURFACE (DRIVES, PARKING AND BUILDINGS)= 54,059 SF
(45,990 SF) = 45.97% TOTAL OPEN SPACE PROVIDED

OPEN SPACE LANDSCAPE REQUIREMENTS:
20,010 SF/ 3000SF = 6.67 PLANT UNITS REQ'D.
6.67PU X 2 TREES = 13.34 TREES REQ'D, (14 PROVIDED)
6.67 PU X 6 SHRUBS = 40.02 REQ'D, (41 PROVIDED)

PAVEMENT SHADING REQUIREMENTS:
40,925 SF OF PAVEMENT X 20% = 8,185 SF
8,185/ 706 SF = 11.59 OVERSTORY TREES REQ'D (12 PROVIDED)

--(8) PAVEMENT OVERSTORY TREES PROVIDED WITHIN 15' OF PAVED AREA ON ONE SIDE (COUNTED AT 50%)
--(8) PAVEMENT OVERSTORY TREES PROVIDED WITHIN 15' OF PAVED AREA ON 2 OR MORE SIDES (COUNTED AT 100%)
--8,472 SF PAVEMENT SHADING PROVIDED

TYPE C SCREENING PROVIDED TO WEST OF PROPERTY (TYPE R-1 AND AND R-2)

HIDDEN CREEK COMMERCIAL 2019

PLANTING PLAN

ANKENY, IOWA

SNYDER & ASSOCIATES, INC. |



Project No: 119.0705
Sheet C500

11-26-19 AWS	REVISOR	11-22-19 AWS	DATE	11-22-19 AWS	BY
2	REVISED PER CITY COMMENTS	9-06-19	DATE	9-06-19	BY
1	REVISED PER CITY COMMENTS	9-06-19	DATE	9-06-19	BY
MARK	REVISION	Checked By: BKC	Scale: 1" = 30'	11-22-19 AWS	BY
Engineer: CDD	Date: 08-16-2019	T-R-S: 80N-24W-16	Project No: 119.0705	Sheet C500	