SITE PLAN

FOR

WILLOW RUN PLAT 1

CITY OF ANKENY, POLK COUNTY, IOWA

DEVELOPER

PAR PARTNERS, LLC
317 S. ANKENY BLVD
ANKENY, IOWA 50023
TOM DAVIES
(515) 964-2814

OWNER/APPLICANT

A. DENNIS E. JORDAN
211 SE WANTA DR
ANKENY, IA 50021

B. JOSEPH & ELIZABETH ORIGER
7275 NE 14TH ST
ANKENY, IA 50023

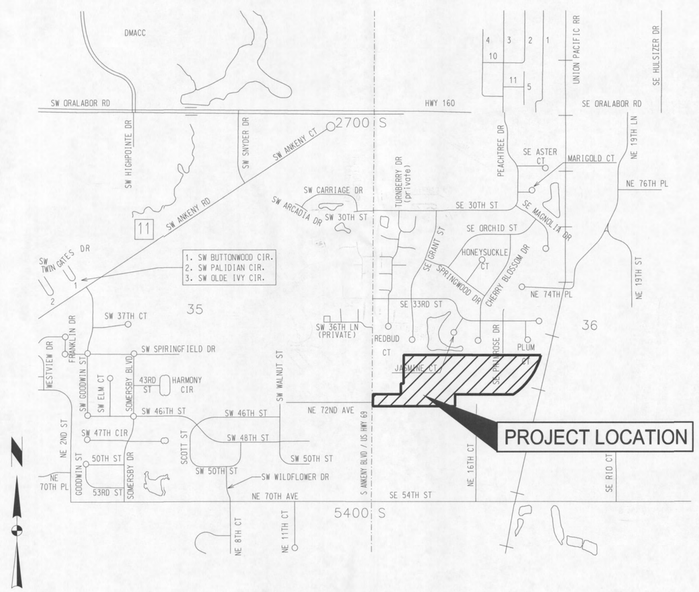
C. LEROY BROWN III
751 HIGH RD
NORWALK, IA 50211

D. NELLO MEDICI LIFE ESTATE (NORTH)
4315 NE 8TH ST
DES MOINES, IA 50313

E. NELLO MEDICI LIFE ESTATE (SOUTH)
4315 NE 8TH ST
DES MOINES, IA 50313

F. SANTE & NELLO MEDICI
7225 NE 14TH ST
ANKENY, IA 50023

G. JEROME & JOSEPHINE SCHMITT
7208 NE 16TH CT
ANKENY, IA 50021



SCALE: 1"=1000'

VICINITY MAP

city of Ankeny
bringing it all together

INDEX OF SHEETS

1. TITLE SHEET
2. PROJECT INFORMATION
3-5. DIMENSION AND UTILITY PLAN
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RECEIVED
SEP 8 2017
CITY OF ANKENY

MARK	REVISION	DATE	BY
1	REVISED PER CITY COMMENTS	09/08/17	AWS

Engineer: KMM | Checked By: BKC | Scale: 1"= 1000'
Technician: AWS | Date: 08/18/17 | Field Bk: | Pg:
Project No: 1160394 | Sheet 1 of 10

ANKENY, IOWA

WILLOW RUN PLAT 1

TITLE SHEET

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

SNYDER & ASSOCIATES

Project No: 1160394
Sheet 1 of 10

LEGEND

Features	Existing	Proposed
Spot Elevation	93.0	×93.0
Contour Elevation	93	93
Fence (Barbed, Field, Hog)	—x—x—	
Fence (Chain Link)	—//—//—	
Fence (Wood)	—•—	
Fence (Silt)		
Tree Line		
Tree Stump		
Deciduous Tree or Shrub		
Coniferous Tree or Shrub		
Communication	—C(x)—	—C—
Overhead Communication	—OC(x)—	—OC—
Fiber Optic	—FO(x)—	—FO—
Underground Electric	—E(x)—	—E—
Overhead Electric	—OE(x)—	—OE—
Gas Main with Size	—4" G(x)—	—4" G—
High Pressure Gas Main with Size	—4" HPG(x)—	—4" HPG—
Water Main with Size	—8" W(x)—	8" W
Sanitary Sewer with Size	—8" S(x)—	8" S
Duct Bank	—DUCT(x)—	
Test Hole Location for SUE w/ID	1	

(x) Denotes the survey quality service level for utilities

Sanitary Manhole		
Storm Sewer with Size	12" ST	12" ST
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	EB	
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	UST	
Above Ground Storage Tank	AST	
Sign		
Satellite Dish		
Mailbox		
Soil Boring		

IOWA ONE CALL
1-800-292-8989 | 811
www.iowaonecall.com

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.

UTILITY CONTACT INFORMATION

UTILITY CONTACT FOR MAPPING INFORMATION SHOWN AS RECEIVED FROM THE IOWA ONE CALL DESIGN REQUEST SYSTEM, TICKET NUMBER 551700355.

W2-WATER	CITY OF ANKENY Shawn Buckner (515) 963-3524 sbuckner@ankenyiowa.gov
F01-FIBER OPTIC C2-COMMUNICATION	CENTURYLINK Ray Montoya 515-263-7396 raymond.montoya@centurylink.com
W1-WATER	DES MOINES WATER WORKS Jana Hodges 515-283-8729 hodges@dmww.com
OE1-OVERHEAD ELECTRIC E1-ELECTRIC G1-GAS	MIDAMERICAN ENERGY Theresa McGuire 515-281-2260 tmmcquire@midamerican.com
C1-COMMUNICATION OC-OVERHEAD COMMUNICATION	MEDIACOM COMMUNICATIONS CORP Paul May 515-246-2252 pmay@mediacomcc.com

ZONING

PUD - WILLOW RUN PUD

BULK REGULATIONS

SINGLE FAMILY DETACHED (LOTS 1-12)
MINIMUM LOT AREA = 7,500 SF
MINIMUM LOT WIDTH = 65'
MINIMUM LOT DEPTH = 120'
FRONT YARD SETBACK = 25'
REAR YARD SETBACK = 20'
SIDE YARD SETBACK = 5'

SINGLE FAMILY ATTACHED OR DETACHED TOWNHOMES (LOTS 12-39)
FRONT YARD SETBACK = 25' FROM BACK OF CURB
BUILDING SEPARATION = 10' MINIMUM
REAR YARD SETBACKS = 20' MINIMUM AROUND PERIMETER OF DEVELOPMENT
DECKS NOT COVERED SHALL BE ABLE TO EXTEND MAXIMUM OF 12' INTO REAR YARD SETBACK
MINIMUM FINISH AREA = 1,000 SF FOR RANCH PLAN AND 1,200 SF FOR 2-STORY PER UNIT
TWO PARKING STALLS PROVIDED PER UNIT

ERU CALCULATION

TOTAL IMPERVIOUS AREA / 4000
134,687 SF / 4000 = 34 ERU'S

GENERAL NOTES

A. CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO THE 2017 EDITION OF THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS), THE CITY OF ANKENY SUDAS SUPPLEMENTAL SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE SOILS REPORT PREPARED BY ALLENDER BUTZKE ENGINEERS, INC.

B. LENGTH OF UTILITIES SHOWN ON PLANS ARE DIMENSIONED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.

C. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR THE STREETS AND HIGHWAYS, AS ADOPTED BY THE IOWA DEPARTMENT OF TRANSPORTATION PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130. WHEN CONSTRUCTION ACTIVITIES OBSTRUCT PORTIONS OF THE ROADWAY FLAGGERS SHALL BE PROVIDED. FLAGGERS SHALL CONFORM TO THE MUTCD IN APPEARANCE, EQUIPMENT AND ACTIONS.

D. NOTIFY OWNER, ENGINEER AND CITY OF ANKENY AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.

E. CONSTRUCT MANHOLES AND APPURTENANCES AS WORK PROGRESSES. BACKFILL WITH SUITABLE MATERIAL AND COMPACT TO 95% MAXIMUM DENSITY.

F. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.

G. ALL FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED AND NOTED ACCORDINGLY ON THE AS-BUILT DOCUMENTS.

H. THE ENTRANCE PERMIT AND UTILITY ACCOMMODATION PERMIT MUST BE APPROVED BY THE IOWA DOT PRIOR TO ANY WORK IN THE HIGHWAY 69 (SOUTH ANKENY BOULEVARD) RIGHT-OF-WAY.

I. WORK IN THE DELINEATED WETLAND AREAS TO BE COVERED UNDER THE NATIONWIDE PERMIT NO. 33. THIS SHALL INCLUDE TEMPORARY DISTURBANCE OF THE WETLANDS AS REQUIRED FOR UTILITY CONSTRUCTION AND ACCESS. CONTRACTOR TO REMOVE HYDRIC SOILS AND VEGETATION IN THE DISTURBED AREAS AND RESTORE TO THE PRE-DISTURBANCE CONDITION. CONTRACTOR TO FOLLOW THE REQUIREMENTS OF NWP 33.

J. CONTRACTOR TO COORDINATE WORK WITH DEVELOPER AND ADJACENT PROPERTY OWNERS TO MAINTAIN ACCESS AND MAIL SERVICE.

K. TREE REMOVALS MUST BE COORDINATED WITH DEVELOPER TO DETERMINE TREES THAT ARE TO REMAIN AS POSSIBLE.

BENCHMARKS

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)
ARTN DERIVED - US SURVEY FEET

BM1 ELEVATION=947.91
ARROW ON HYDRANT LOCATED WEST SIDE OF PRIMROSE DRIVE AT SOUTH END OF ROAD. AS SHOWN ON SURVEY.

BM2 ELEVATION=947.90
ARROW ON HYDRANT LOCATED NORTHWEST QUADRANT OF HIGHWAY 69 AND NE 72ND AVE. AS SHOWN ON SURVEY.

CONTROL POINTS

ARCS ZONE 8 COORDINATE SYSTEM
NAD83(2011)(EPOCH 2010.00) ARTN DERIVED - US SURVEY FEET

CP1 N=7,526,114.30 E=18,532,085.38
1/2" REBAR WITH RED SNYDER CONTROL CAP ±30' SOUTHWEST, WEST END BLACK CHAIN-LINK FENCE, NORTHWEST CORNER OF SITE. AS SHOWN ON SURVEY.

CP2 N=7,526,131.84 E=18,532,888.99
CUT "X" SOUTHEAST CORNER CONCRETE PAD WHERE BENCH IS LOCATED, SOUTHEAST CORNER OF LAKE. AS SHOWN ON SURVEY.

CP3 N=7,526,282.65 E=18,533,510.94
CUT "X" ON BACK OF CURB EAST SIDE PRIMROSE DR, WEST OF STREET LIGHT. AS SHOWN ON SURVEY.

CP4 N=7,526,097.36 E=18,533,703.19
1/2" REBAR WITH RED SNYDER CONTROL CAP ±30' SOUTH OF WOOD FENCE, NORTHEAST CORNER OF SITE. AS SHOWN ON SURVEY.

CP5 N=7,525,613.60 E=18,533,152.01
1/2" REBAR WITH RED SNYDER CONTROL CAP NORTHEAST CORNER OF ACREAGE AT NORTH END OF NE 16TH CT. AS SHOWN ON SURVEY.

CP6 N=7,525,438.37 E=18,532,213.84
1/2" REBAR WITH RED SNYDER CONTROL CAP ±2' NORTH OF SOUTHERN FENCE, ±500' EAST OF HIGHWAY 69. AS SHOWN ON SURVEY.

CP7 MAG NAIL ±2' WEST OF EAST EDGE OF HIGHWAY 69, IN LINE NORTH-SOUTH WITH ℄ NE 72ND AVE. AS SHOWN ON SURVEY.

CP8 1/2" REBAR WITH RED SNYDER CONTROL CAP AT APPROXIMATE CENTER OF SITE. AS SHOWN ON SURVEY.

MARK	REVISION	DATE	BY
1	REVISED PER CITY COMMENTS	09/08/17	AWS

Engineer: KMM | Checked By: BKC | Scale: 1"=
Technician: AWS | Date: 08/18/17 | Field Bk: | Pg:
Project No: 1160394 | Sheet 2 of 10

ANKENY, IOWA

WILLOW RUN PLAT 1

PROJECT INFORMATION

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Snyder
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ASMITH
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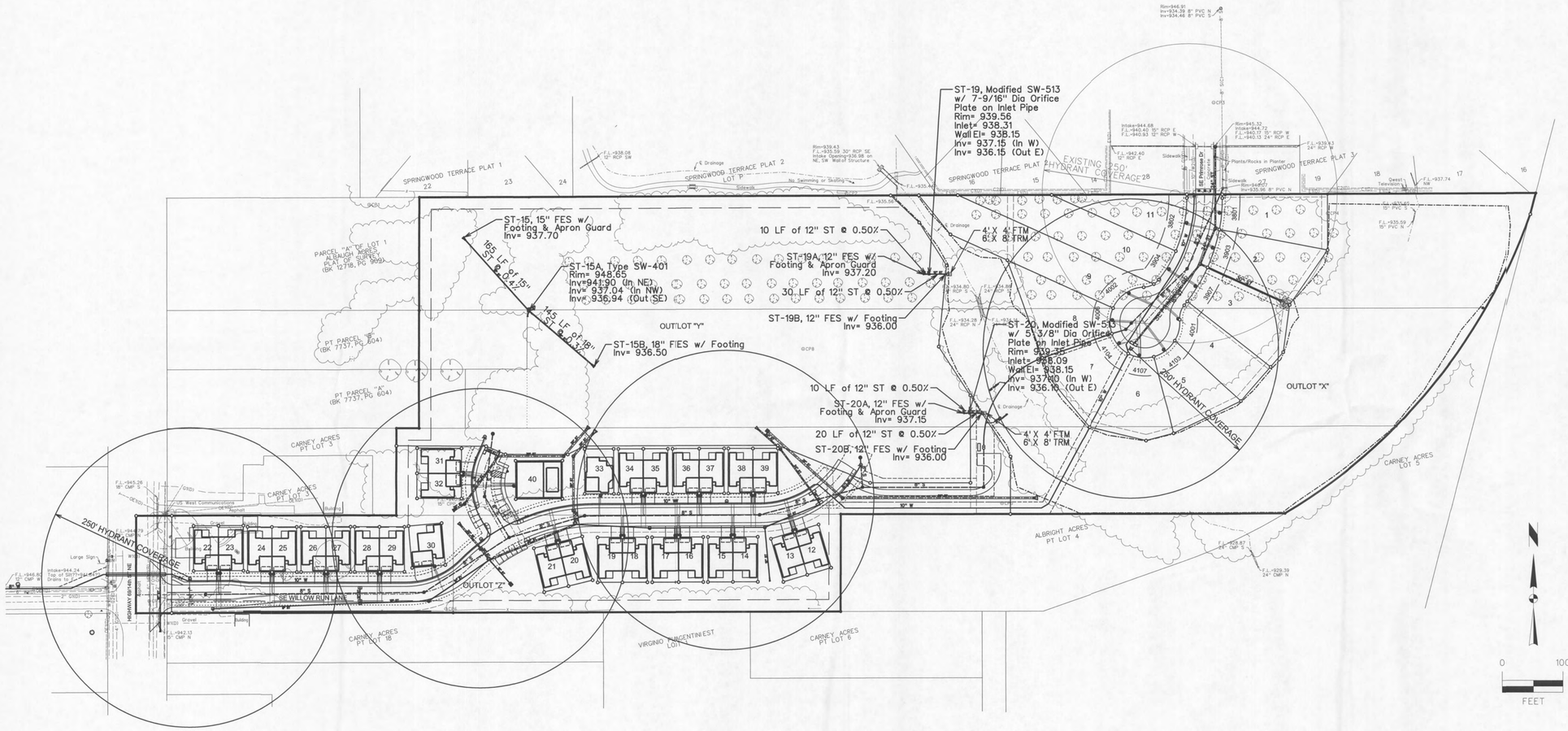

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Engineer: KMM | Checked By: BKC | Scale: 1"= 100'
Technician: AWS | Date: 08/18/17 | Field Bk: | Pg:
Project No: 1160394 | Sheet 3 of 10

ANKENY, IOWA

WILLOW RUN PLAT 1

DIMENSION AND UTILITY PLAN

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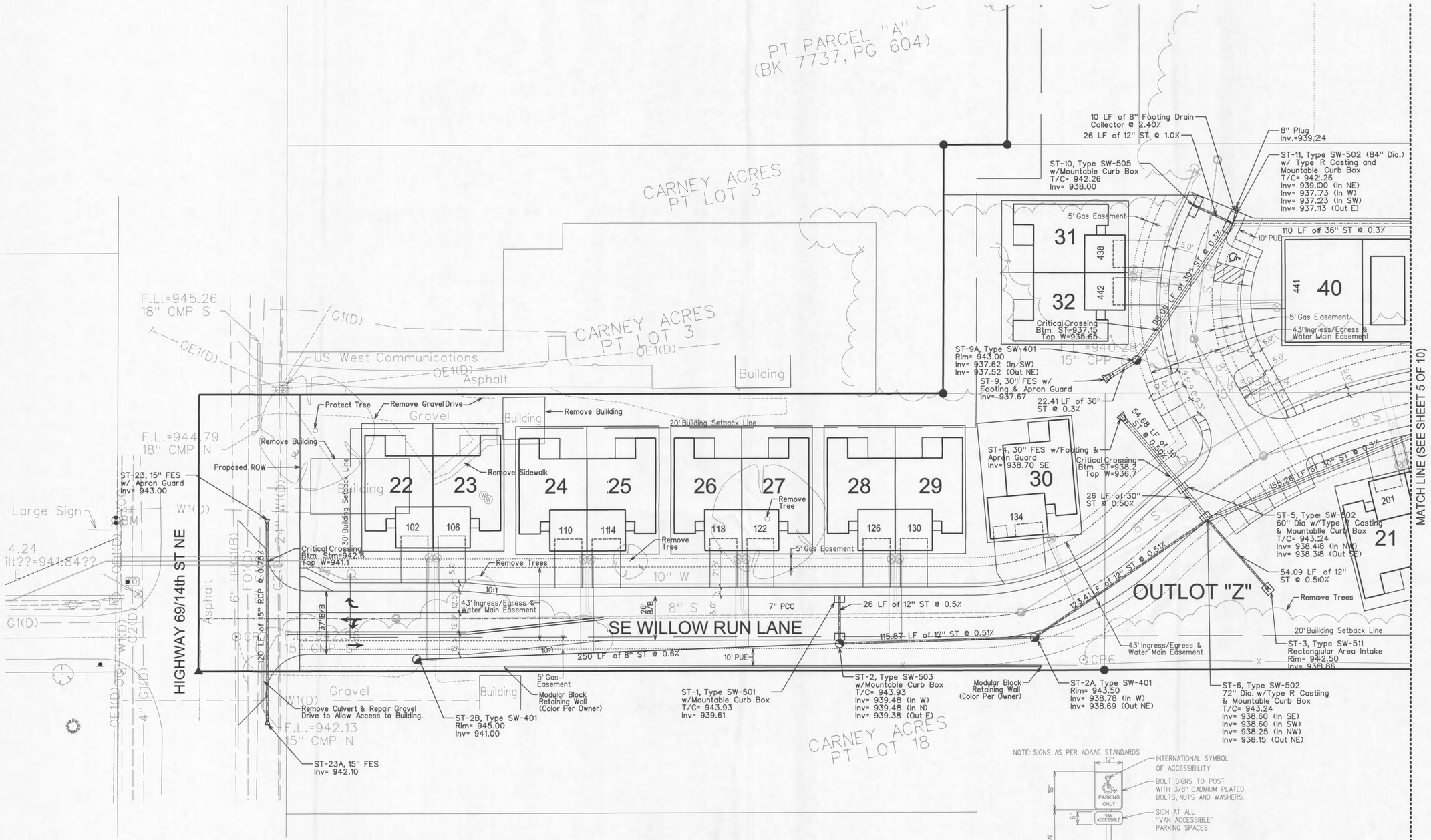
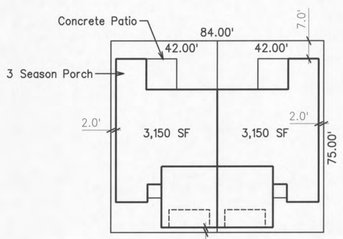
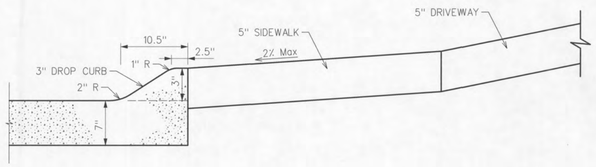




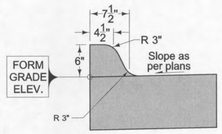
1/4 TYPICAL LOT CONFIGURATION

NO SCALE
SEE ARCHITECTURAL PLANS FOR
ADDITIONAL DETAIL ON THE BUILDING



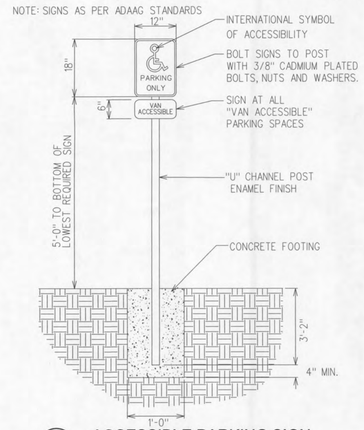
2/4 3" ROLLED CURB

NO SCALE



3/4 6-INCH STANDARD CURB

NO SCALE



4/4 ACCESSIBLE PARKING SIGN

NO SCALE

0 30
SCALE (FEET)

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ANKENY, IOWA

WILLOW RUN PLAT 1

DIMENSION AND UTILITY PLAN

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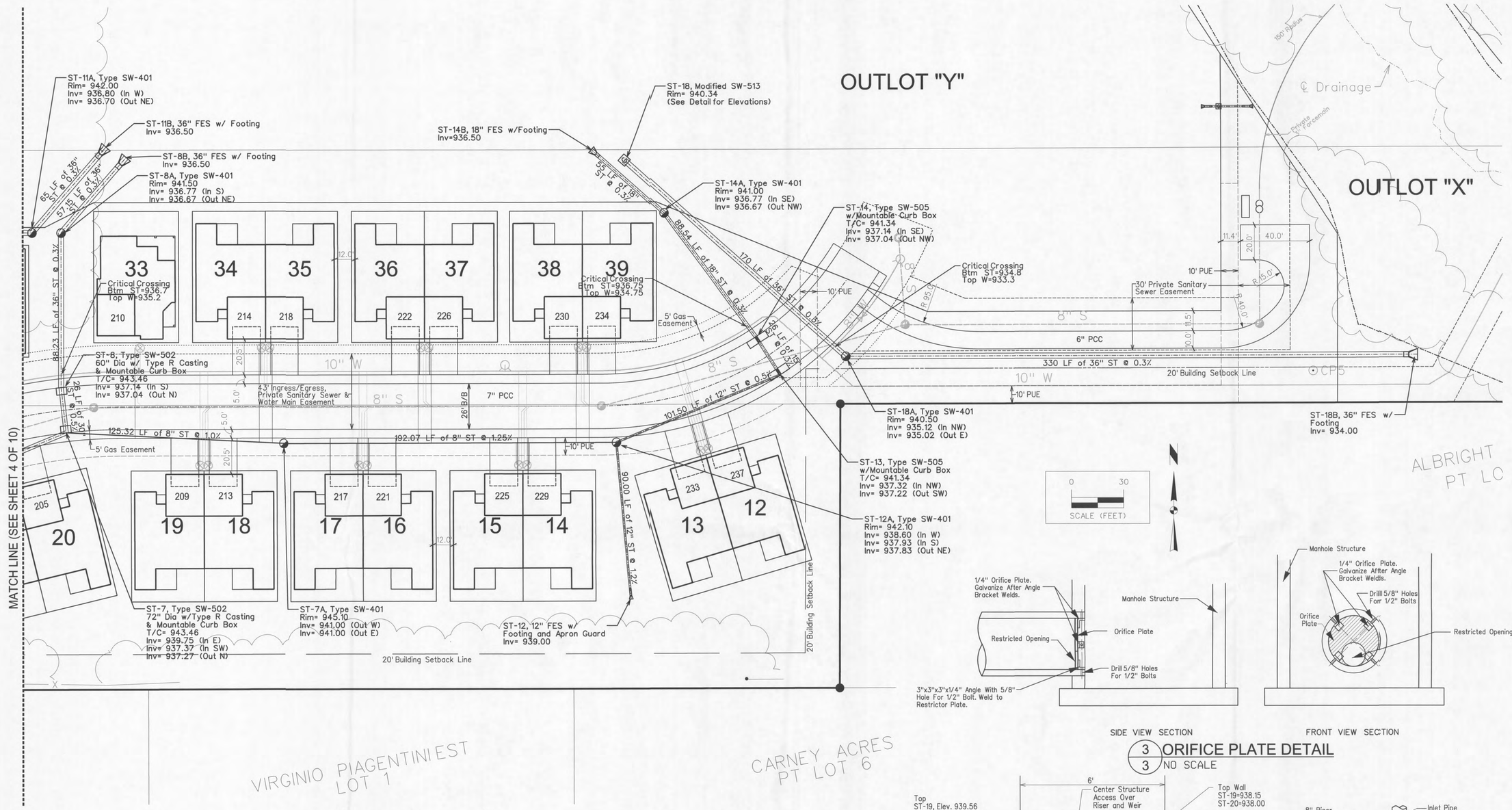
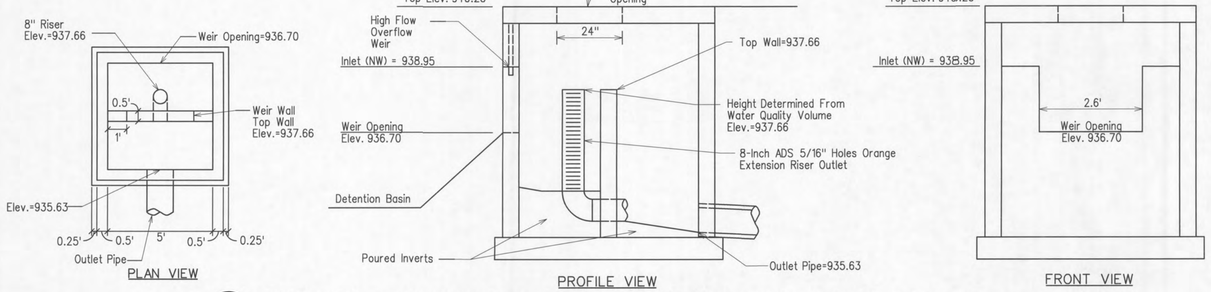
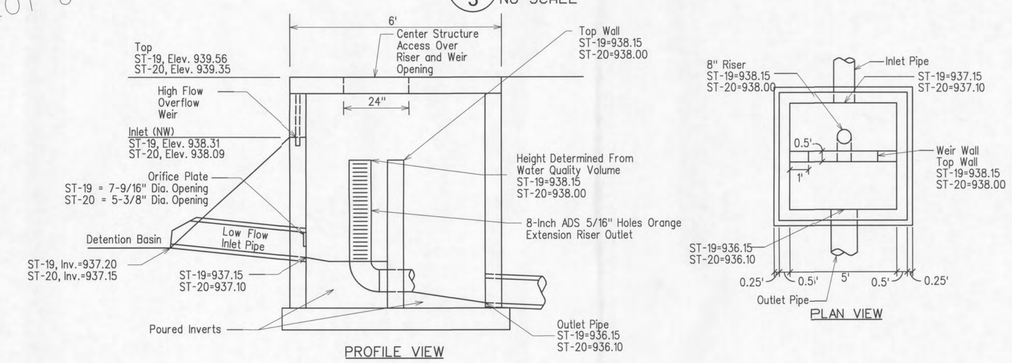




1/3 MODIFIED OPEN-SIDED AREA INTAKE OUTLET STRUCTURE (ST-18)
NO SCALE

3/3 ORIFICE PLATE DETAIL
NO SCALE



2/3 MODIFIED OPEN-SIDED AREA INTAKE OUTLET STRUCTURE (ST-19 & ST-20)
NO SCALE

MARK	REVISION	DATE	BY
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Project No: 1160394 | Sheet 5 of 10

ANKENY, IOWA

WILLOW RUN PLAT 1

DIMENSION AND UTILITY PLAN

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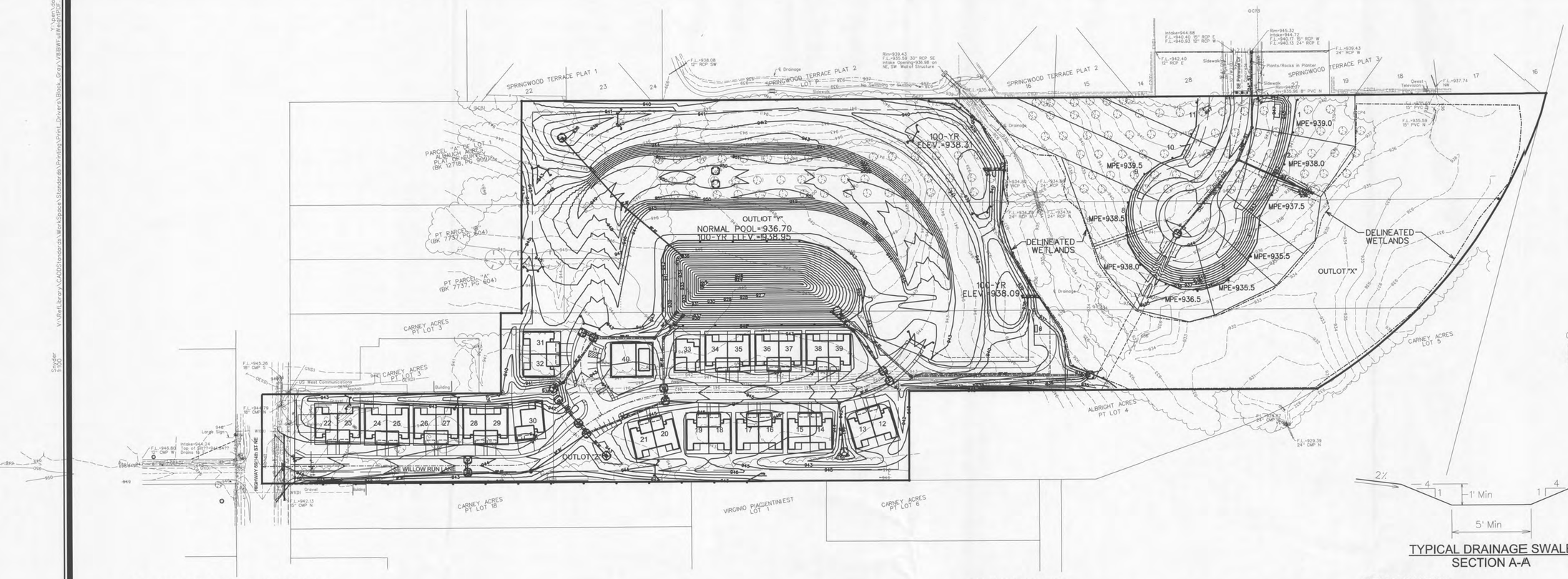
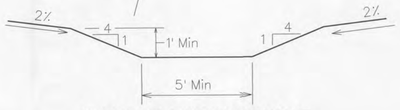




TYPICAL DRAINAGE SWALE
SECTION A-A

POLLUTION PREVENTION NOTES

A. POLLUTION PREVENTION AND EROSION PROTECTION

1. 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.

2. 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

1. 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 INCLUDING CREATING OR MAINTAINING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND POSSIBLY OBTAINING THE GENERAL PERMIT COVERAGE FROM THE IDNR.

2. 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.

3. 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:

1. 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.

2. 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.

3. THE SWPPP AND SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.

4. 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:

a. 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.

b. 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.

c. PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.

d. 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.

e. 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.

f. 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.

g. 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.

h. RESPREAD A MINIMUM OF 4 INCHES OF TOPSOIL (INCLUDING TOPSOIL FOUND IN SOD) ON ALL DISTURBED AREAS, EXCEPT WHERE PAVEMENT, BUILDINGS OR OTHER IMPROVEMENTS ARE LOCATED.

i. STABILIZE UNDEVELOPED, DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX, OR SOD AS SOON AS PRACTICAL UPON COMPLETION OR DELAY OF GRADING OPERATIONS. INITIATE STABILIZATION MEASURES NO LATER THAN 14 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY HAS FINISHED OR IS PLANNED TO BE DELAYED MORE THAN 21 CALENDAR DAYS.

j. 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.

k. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

GRADING NOTES

1. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL ON ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 4" DEPTH TO FINISH GRADES.

2. ANY EXCESS CUT TO BE SPREAD ON SITE AS DIRECTED BY ENGINEER DURING CONSTRUCTION. PLACE TOPSOIL OVER ALL AREAS DISTURBED.

3. 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.

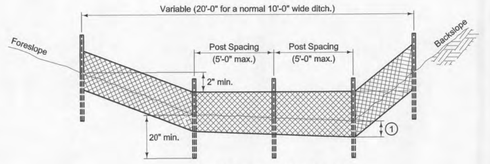
4. EROSION CONTROL: SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED. PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW.

BENCHMARKS

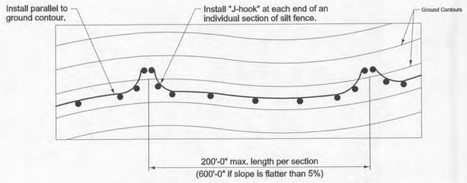
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)
IARTN DERIVED - US SURVEY FEET

BM1 ELEVATION=947.91
ARROW ON HYDRANT LOCATED WEST SIDE OF PRIMROSE DRIVE AT SOUTH END OF ROAD. AS SHOWN ON SURVEY.

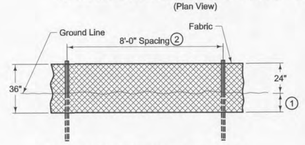
BM2 ELEVATION=947.90
ARROW ON HYDRANT LOCATED NORTHWEST QUADRANT OF HIGHWAY 69 AND NE 72ND AVE. AS SHOWN ON SURVEY.



TYPICAL SILT FENCE DITCH CHECK



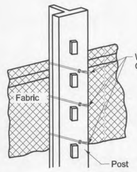
TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES
(Plan View)



DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES

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

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



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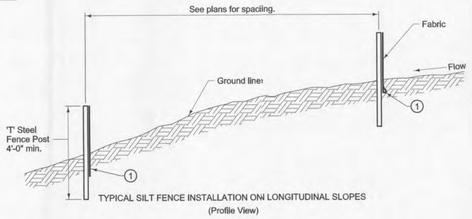

TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES
(Profile View)

SILT FENCE

MARK	REVISION	DATE	BY
1	REVISED PER CITY COMMENTS	09/06/17	AWS

Engineer: KMM | Checked by: BKC | Scale: 1"= 100'
Technician: AWS | Date: 08/18/17 | Field Bk: | Pg:
Project No: 1160394

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ANKENY, IOWA

WILLOW RUN PLAT 1

GRADING AND EROSION CONTROL PLAN

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

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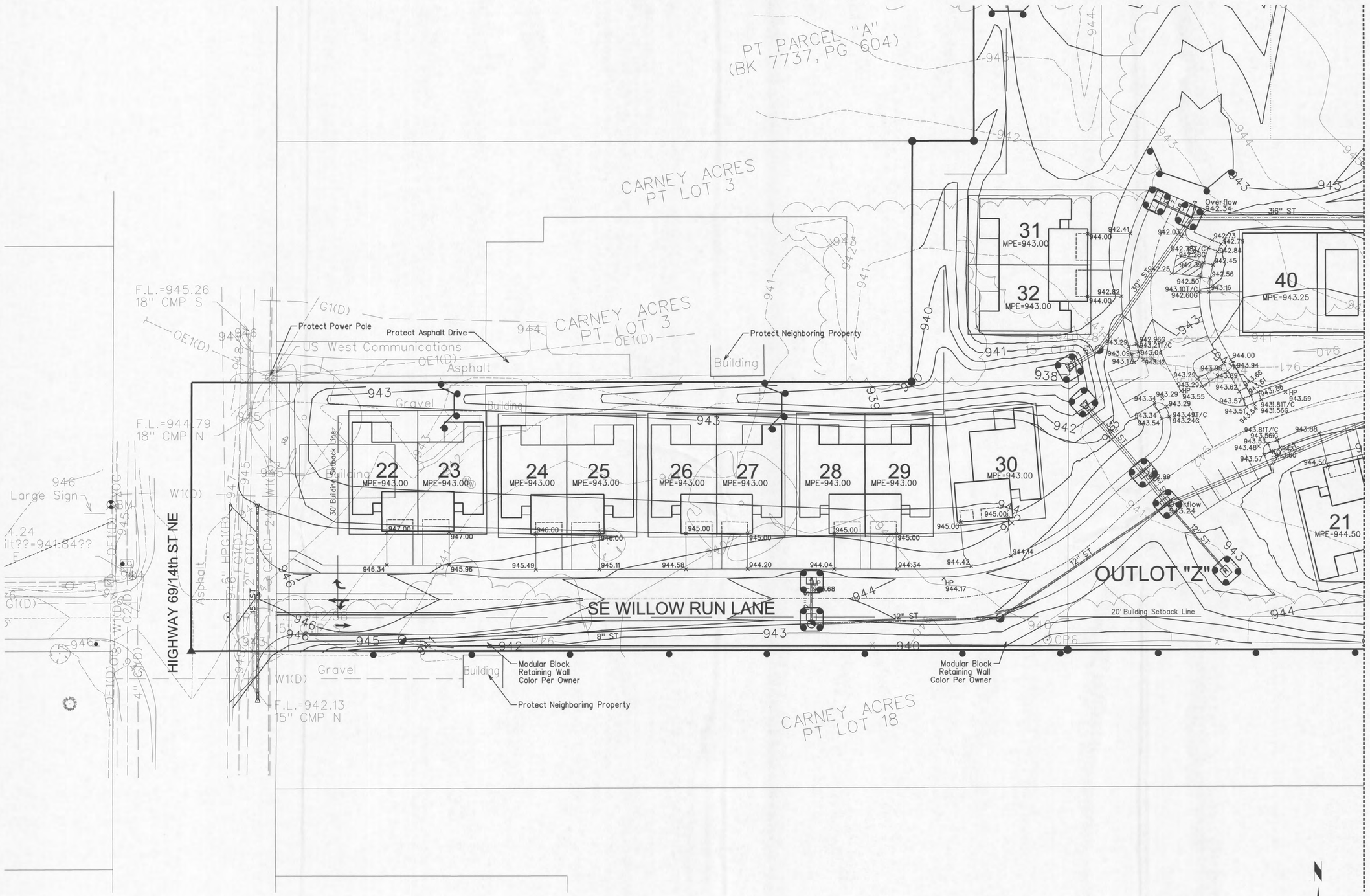
Project No: 1160394

Sheet 6 of 10



MARK	REVISION	DATE	BY
1	REVISED PER CITY COMMENTS	09/08/17	AWS

Engineer: KMM | Checked By: BKC | Scale: 1"= 30'

Technician: AWS | Date: 08/18/17 | Field Bk: | Pg:

Project No: 1160394

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ANKENY, IOWA

WILLOW RUN PLAT 1

GRADING AND EROSION CONTROL PLAN

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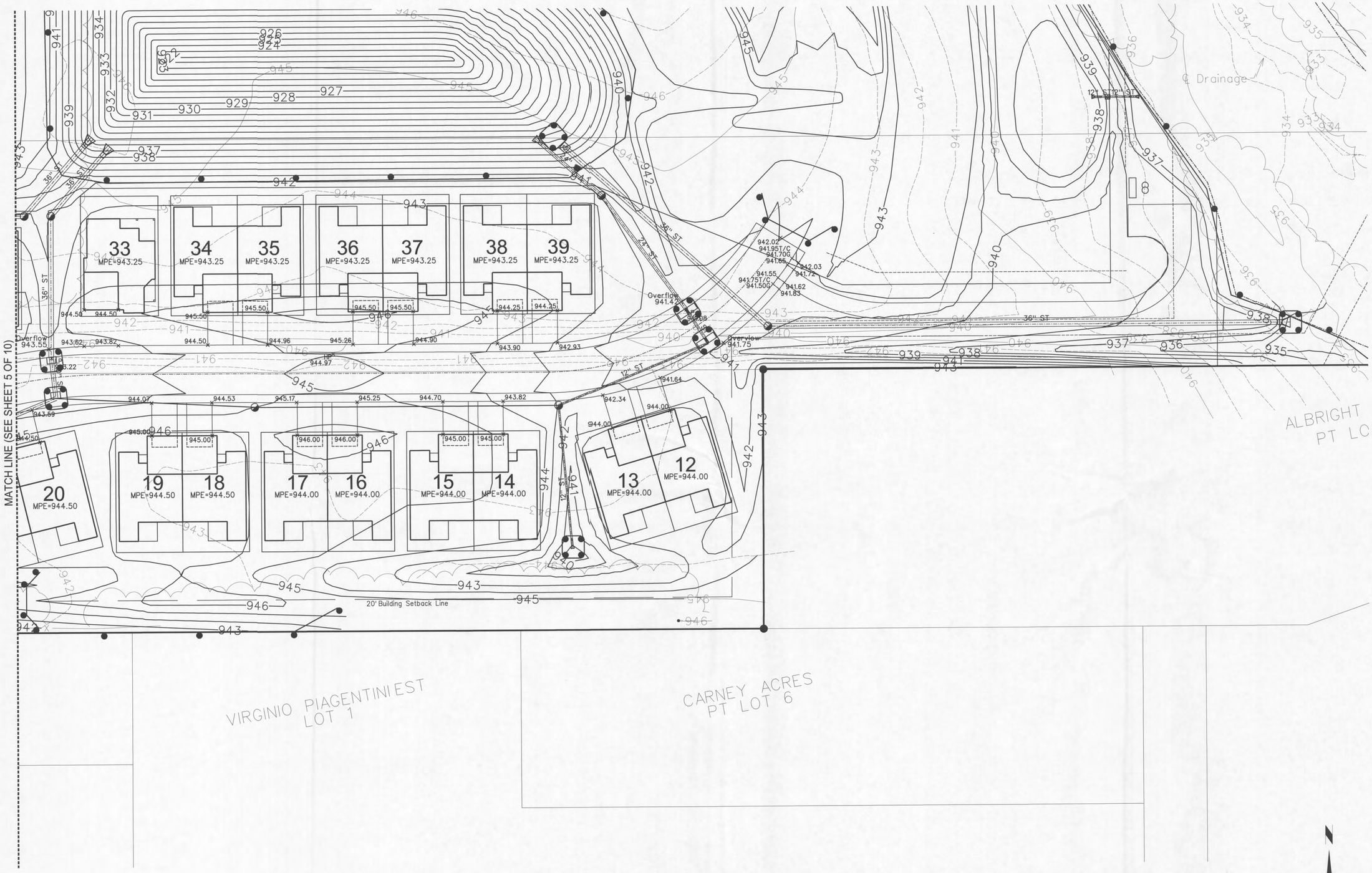

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1	REVISED PER CITY COMMENTS	09/08/17	AWS

Engineer: KMM | Checked By: BKC | Scale: 1"= 30'
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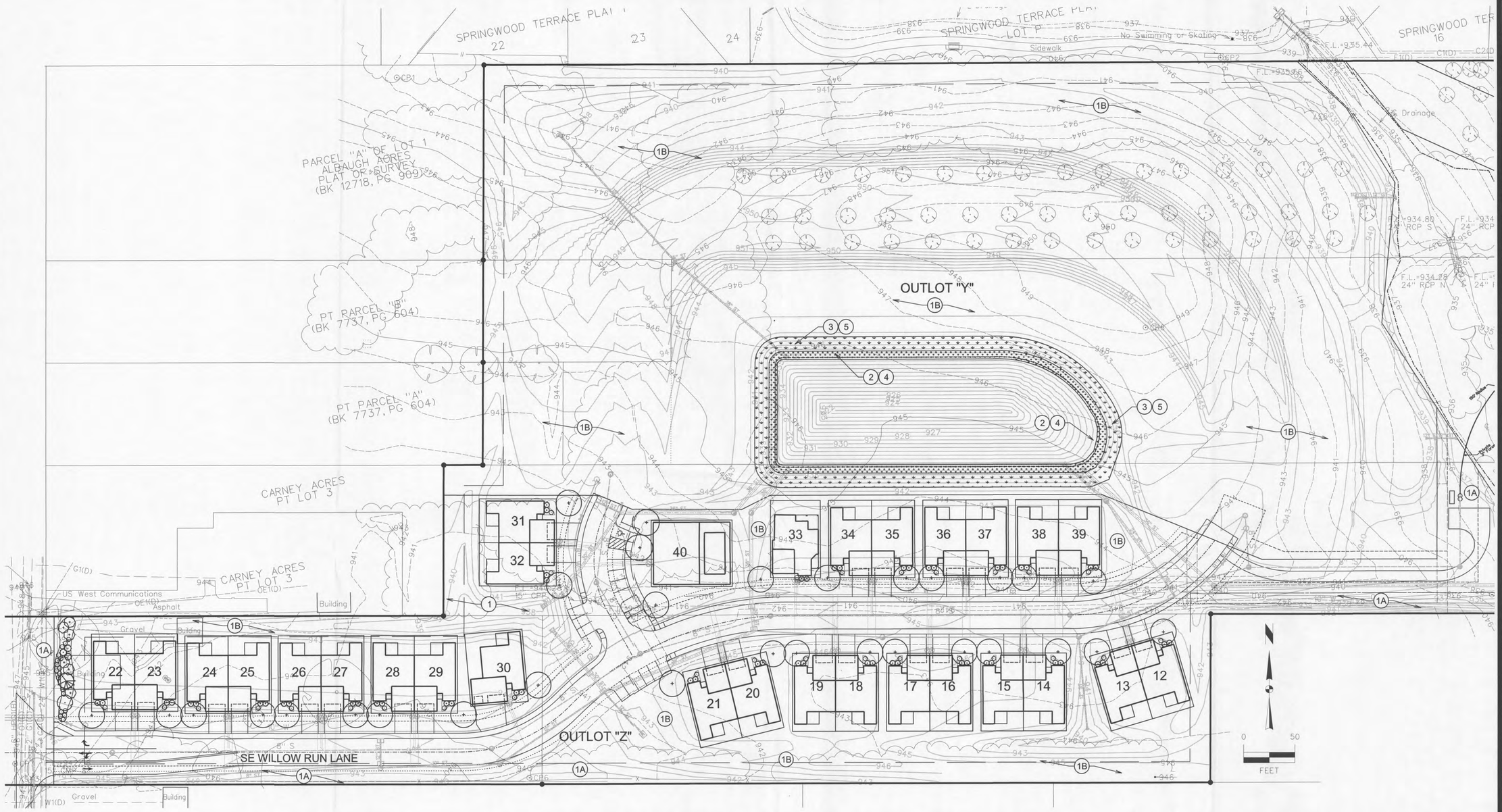

PLANTING PLAN GENERAL NOTES

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 BE SPECIMEN QUALITY, HEALTHY, FREE OF DISEASE AND INSECTS AND SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS. ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-LATEST EDITION). ALL PLANT MATERIAL SHALL BE GROWN IN ZONE CAPABLE OF WITHSTANDING LOCAL CLIMATE AND GROWING CONDITIONS. PLANTS SHALL BE TRUE TO SPECIES, SIZE AND VARIETY SPECIFIED. SUBSTITUTIONS OF PLANT MATERIALS IS NOT PERMITTED UNLESS AUTHORIZED IN WRITING BY THE ENIGEER.

D. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR THE DURATION OF THE ESTABLISHMENT AND WARRANTY PERIOD AS SPECIFIED. THE ESTABLISHMENT AND WARRANTY PERIOD IS ONE-YEAR FROM DATE OF PROJECT ACCEPTANCE. A PLANT INSPECTION SHALL BE MADE PRIOR TO THE END OF THE ESTABLISHMENT AND WARRANTY PERIOD. REPLACEMENTS OF PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.

E. CONTRACTOR SHALL MAINTAIN ALL EXISTING AND PROPOSIED LANDSCAPING ON SITE FOR THE DURATION OF THE PROJECT, ESTABLISHMENT AND WARRANTY PERIOD. ONCE THE WARRANTY PERIOD HAS EXPIRED THE OWNER SHALL MAINTAIN THE REQUIRED LANDSCAPING FOR THE LIFE OF THE CERTIFICATE OF OCCUPANCY.

F. PROVIDE CONTINUOUS MULCH BEDS AROUND ADJACENT SHRUB PLANTINGS AND ALL AREAS INDICATED ON THE PLAN. MULCH SHALL NOT BE PLACED AROUND THE COLLAR OF SHRUB OR TREE. PROVIDE A MINIMUM OF 2" BETWEEN MULCH AND COLLAR OF SHRUB OR TREE.

SEEDING PLAN CONSTRUCTION NOTES

1. SEED ALL AREAS DISTURBED BY CONSTRUCTION AS PER SUDAS SPECIFICATIONS SECTION 9010, UNLESS OTHERWISE NOTED. INSTALL AND MAINTAIN PER OWNER'S REQUIREMENTS.
   A. TYPE 1 - PERMANENT LAWN MIXTURE.
   B. TYPE 2 - PERMANENT COOL SEASON MIXTURE FOR SLOPES AND DITCHES.

2. PROVIDE NATIVE POND EDGE SEED MIX:
   MARSH EMERGENT SITE SEED MIX AS PROVIDED BY ION EXCHANGE. WWW.IONXCHANGE.COM 1878 OLD MISSION DRIVE, HARPERS FERRY, IOWA, 52146-7533, 800-291-2143, OR APPROVED EQUAL. ALLOWABLE SEED DATES APRIL 1 - JUNE 30. ALTERNATIVE SEED DATES REQUIRE APPROVAL BY OWNER. IF ALTERNATIVE SEED DATES ARE REQUESTED AND APPROVED BY OWNER, APPLICATION RATES SHALL BE MODIFIED AS RECOMMENDED BY THE SEED MANUFACTURER. SEEDING RATE - 15 LBS. OF PLS PER 1 ACRE.

3. PROVIDE ECO-FRIENDLY GOLF COURSE MIX:
   SEED MIX AS PROVIDED BY ION EXCHANGE. WWW.IONXCHANGE.COM 1878 OLD MISSION DRIVE, HARPERS FERRY, IOWA, 52146-7533, 800-291-2143, OR APPROVED EQUAL. ALLOWABLE SEED DATES APRIL 1 - JUNE 30. ALTERNATIVE SEED DATES REQUIRE APPROVAL BY OWNER. IF ALTERNATIVE SEED DATES ARE REQUESTED AND APPROVED BY OWNER, APPLICATION RATES SHALL BE MODIFIED AS RECOMMENDED BY THE SEED MANUFACTURER. SEEDING RATE - 15 LBS PLS PER ACRE

4. PROVIDE TURF REINFORCEMENT MATS (TRM) TYPE 2 IN AREAS NATIVE POND EDGE SEED MIX IS APPLIED.

5. 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:
   FLEXTERRA FGM
   APPLIED AT A RATE OF 3000 LBS/ACRE
   MANUFACTURED BY: PROFILE PRODUCTS LLC.
   750 LAKE COOK ROAD -SUITE 400
   BUFFALO GROVE, IL 60089
   800-366-1180
   WWW.PROFILEPRODUCTS.COM
   OR APPROVED EQUAL.

NATIVE POND EDGE SEED MIX

ECO FRIENDLY GOLF COURSE MIX

MARK	REVISION	DATE	BY
1	REVISED PER CITY COMMENTS	09/08/17	AWS

Engineer: KMM | Checked By: BKC | Scale: 1"= 50'
Technician: AWS | Date: 08/18/17 | Field Bk: | Pg:
Project No: 1160394

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ANKENY, IOWA

WILLOW RUN PLAT 1

PLANTING PLAN

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

SNYDER & ASSOCIATES

Project No: 1160394

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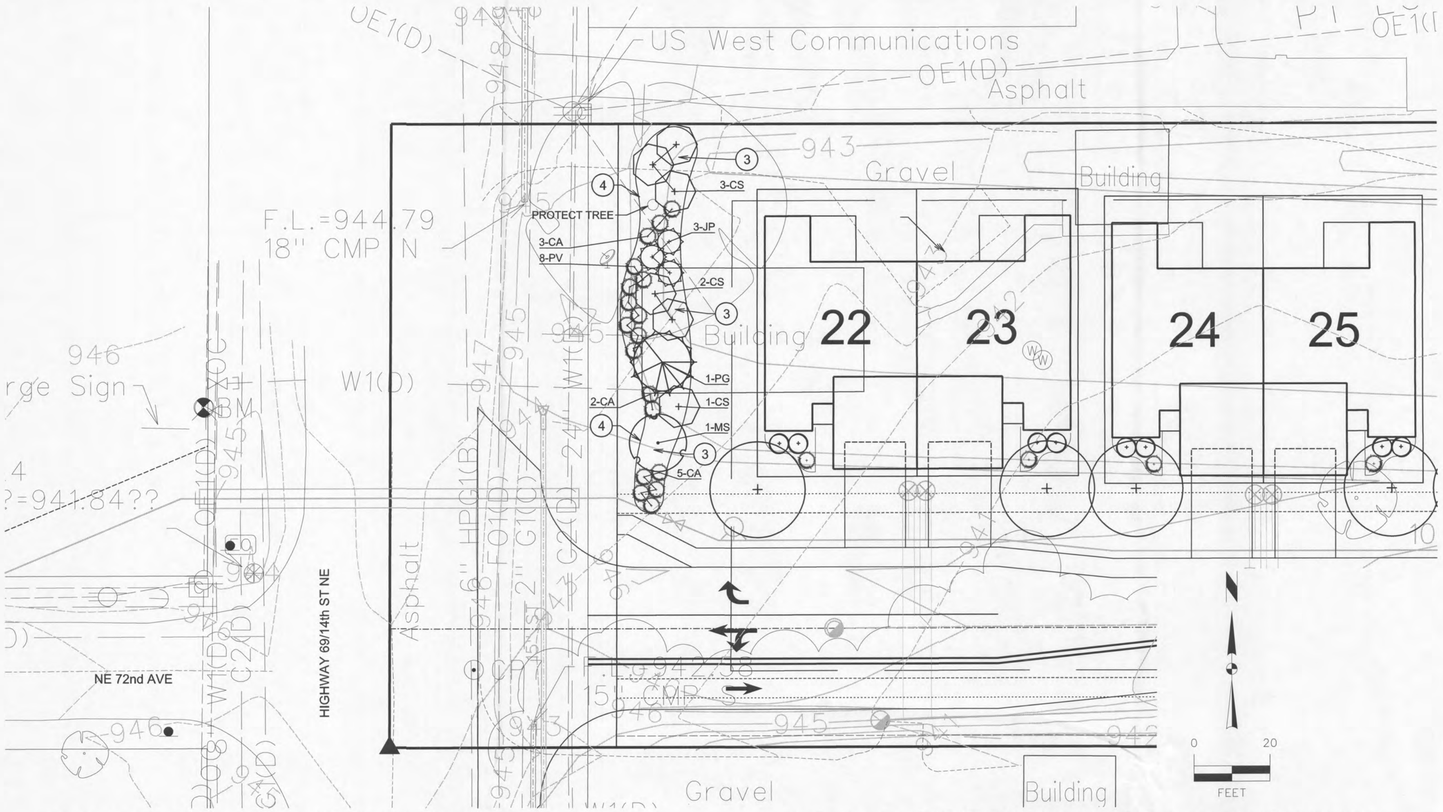
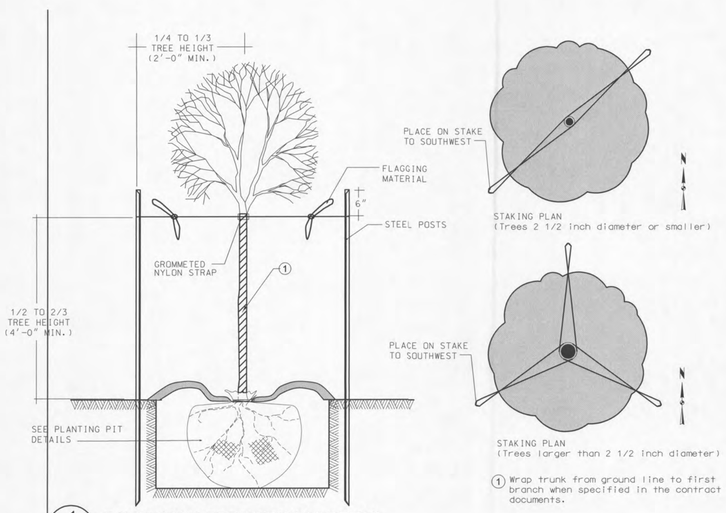


PLANT SCHEDULE - 14TH STREET BUFFER PLANTINGS

	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
TREES	CO	Celtis occidentalis	COMMON HACKBERRY	1-1/2" Cal.	Cont.
	MS	Malus 'Spring Snow'	SPRING SNOW CRABAPPLE	1-1/2" Cal.	Cont.
	PG	Picea glauca var. densata	BLACK HILLS SPRUCE	6' HT. Cal.	B&B
SHRUBS & GRASSES	CA	Calamagrostis x acutiflora 'KarlFoerster'	KARL FOERSTER GRASS	1 GAL.	Cont., 4' O.C.
	CS	Cornus sericea 'Cardinal'	RED TWIG DOGWOOD	30" HT.	Cont., 8'-0.C.
	JP	Juniperus pfitzeriana 'Sea Green'	SEA GREEN JUNIPER	30" HT.	Cont., 6'-0.C.
	PV	Panicum virgatum 'Shenandoah'	SHENANDOAH SWITCHGRASS	1 GAL.	Cont., 4'-0.C.

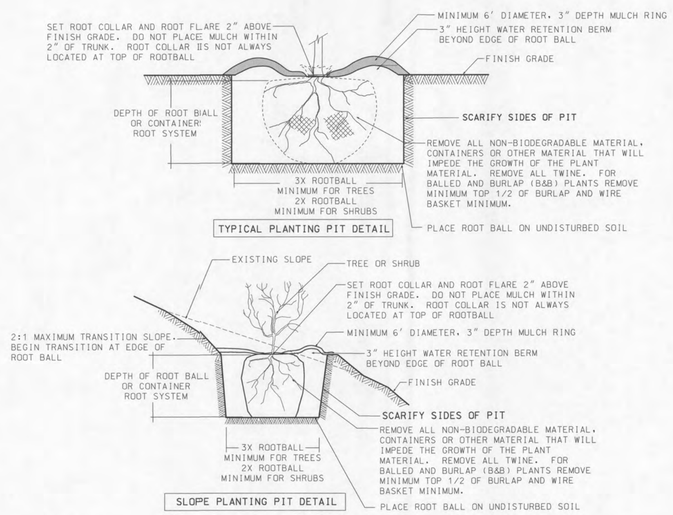
PLANTING PLAN CONSTRUCTION NOTES - 14TH STRET BUFFER PLANTINGS

1. PROVIDE 3" MIN. DEPTH SHREDDED HARDWOOD MULCH ON ALL INDIVIDUAL TREES WITH A 5' DIAMETER MINIMUM MULCH RING.
2. SEED AREAS AS INDICATED ON PLANS WITH TYPE 1 PERMANENT LAWN MIXTURE AS PER SUDAS SPECIFICATIONS SECTION 9010. INSTALL AND MAINTAIN PER OWNER'S REQUIREMENTS.
3. CONTRACTOR TO INSTALL SHREDDED HARDWOOD BARK MULCH, TO A DEPTH OF 3 INCHES. APPLY GRANULAR PRE-EMERGENT HERBICIDE SUCH AS PREEN OR APPROVED EQUAL AS PER MANUFACTURERES INSTRUCTIONS, DO NOT APPLY TO ANY AREAS INTENDED FOR SEED. PROVIDE SAMPLE OF BARK MULCH TO OWNER FOR APPROVAL PRIOR TO INSTALLATION.
4. PLANTING BEDS SHALL RECEIVE VERTICAL CUT NATURAL EDGE TO A DEPTH OF 4 INCHES IN ALL BED AREAS ADJACENT TO LAWN, UNLESS OTHERWISE DIRECTED BY OWNER.



1 Wrap trunk from ground line to first branch when specified in the contract documents.

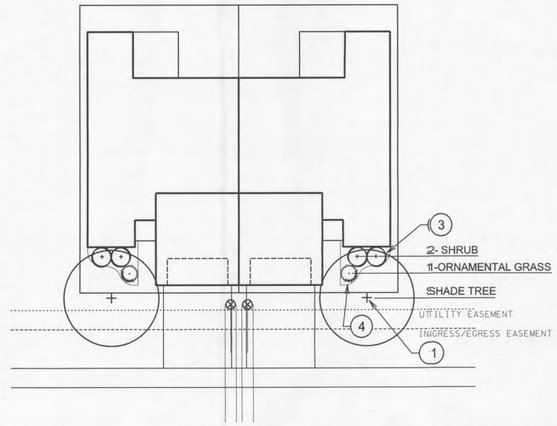
1/10 DECIDUOUS TREE STAKING DETAIL
NO SCALE



2/10 PLANTING PIT DETAILS
NO SCALE

PLANT SCHEDULE - TYPICAL UNIT PLANTINGS

	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	EXPOSURE
TREES		Acer saccharum subsp. nigurm 'Green Column'	BLACK MAPLE	1-1/2" Cal.		
		Betula platyphila 'Fargo'	DAKOTA PINNACLE BIRCH	1-1/2" Cal.		
		Ginkgo biloba 'Princeton Sentry'	PRINCETON SENTRY GINKGO	1-1/2" Cal.	MALE ONLY	
		Ostrya virginiana	EASTERN HOP HORNBEAM	1-1/2" Cal.		
		Quercus x bimundorum 'Midwest'	PRAIRIE STATURE OAK	1-1/2" Cal.		
		Tilia cordata 'Greenspire'	GREENSPIRE LITTLE LEAF LINDEN	1-1/2" Cal.		
SHRUBS		Hydrangea paniculata 'Jane'	LITTLE LIME HYDRANGEA	30" HT..	Cont., 5'-0.C.	NORTH/SOUTH
		Physocarpus opulifolius 'Donna May'	LITTLE DEVIL NINEBARK	30" HT..	Cont., 5'-0.C.	SOUTH
		Spiraea betulifolia 'Tor'	TOR BIRCHLEAF SPIREA	30" HT..	Cont., 5'-0.C.	SOUTH
		Taxus media 'Taunton'	TAUNTON YEW	24" HT..	Cont., 5'-0.C.	NORTH/SOUTH
ORNAMENTAL GRASSES		Calamagrostis x acutiflora 'Karl Foerster'	KARL FOERSTER GRASS	1 GAL..	Cont., 4' O.C.	
		Panicum virgatum 'Shenandoah'	SHENANDOAH SWITCHGRASS	1 GAL..	Cont., 4'-0.C.	
		Schizacyrium scoparium 'Minnblue A'	BLUE HEAVEN LITTLE BLUESTEM	1 GAL..	Cont., 4'-0.C.	
		Sporabolis heterolepis	PRAIRIE DROPSEED	1 GAL..	Cont., 4'-0.C.	



1. PROVIDE 3" MIN. DEPTH SHREDDED HARDWOOD MULCH ON ALL INDIVIDUAL TREES WITH A 5' DIAMETER MINIMUM MULCH RING.
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3. CONTRACTOR TO INSTALL 2 INCH WASHED RIVER ROCK MULCH , TO A DEPTH OF 3 INCHES WITH WEED BARRIER FABRIC UNDERLAYMENT IN ALL BEDS. PROVIDE SAMPLE OF ROCK MULCH TO OWNER FOR APPROVAL PRIOR TO INSTALLATION.
4. BEDS SHALL BE VERTICAL CUT NATURAL EDGE TO A DEPTH OF 4 INCHES IN ALL BED AREAS ADJACENT TO LAWN, UNLESS OTHERWISE DIRECTED BY OWNER.

3/10 TYPICAL UNIT PLANTINGS
NO SCALE

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MARK	REVISION	DATE	BY
1	REVISED PER CITY COMMENTS	09/08/17	AWS

Engineer: KMM | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 08/18/17 | Field Bk: | Pg:
Project No: 1160394 | Sheet 10 of 10

ANKENY, IOWA

WILLOW RUN PLAT 1

PLANTING PLAN

SNYDER & ASSOCIATES, INC.
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