CITY OF WEST DES MOINES
PLAN AND ZONING COMMISSION COMMUNICATION

Meeting Date: May 21, 2018

Item: Covenant Cove, Southeast corner of Bishop Drive and 98th Street – Phased Site Plan Approval for Private Utilities – Covenant Cove LLC – SP-003850-2018

Requested Action: Approval of Phased Site Plan for Private Utilities

Case Advisor: Kara Tragesser, AICP

Applicant's Request: Covenant Cove LLC requests approval of a Phased Site Plan for approximately 28.94 acres located at the southeast corner of Bishop Drive and 98th Street to construct private utilities (see Attachment B – Location Map and Attachment C – Phased Site Plan for private utilities only) to prepare for a 208 dwelling unit townhomes development.

History: The property is undeveloped. In March 2018, the City Council approved an amendment to the 98th Street Planned Unit Development to change the zoning of the property from Manufactured Homes (MH) to Residential Medium Density (RM-8) to accommodate townhomes development. In May 2018 a grading plan was approved by the City Engineer to allow grading on the site.

City Council Subcommittee: This item was presented to the Development and Planning City Council Subcommittee on April 16, 2018; the Subcommittee was supportive of the development.

Staff Review and Comment: This request was distributed to other City departments and other agencies for their review and comment.

Comprehensive Plan Consistency: The project has been reviewed for consistency with the Comprehensive Plan. Based upon that review, a finding has been made that the proposed project is consistent with the Comprehensive Plan in that the project is consistent with all of the goals and policies of the Comprehensive Plan and the land use map of the Comprehensive Plan.

Findings: This proposed project was distributed to various city departments for review and comment. Based upon that review, the following findings have been made on the proposed project:

1. The proposed development and use is consistent with the West Des Moines Comprehensive Plan in that the project has been reviewed for consistency with the Comprehensive Plan. Based upon that review, a finding has been made that the proposed project is consistent with the Comprehensive Plan in that the project is consistent with all of the goals and policies of the Comprehensive Plan.

2. The proposed development and use does assure compatibility of property uses within the zone and general area in that this project was reviewed by various City Departments for compliance with the Zoning Ordinance.

3. All applicable standards and conditions have been imposed which protects the public health, safety and welfare in that this project was reviewed by various City Departments and public agencies for compliance with the various state and local regulations. Based upon that review a finding is made that the project has been adequately conditioned to protect the health, welfare and safety of the community.

4. There is adequate on-site and off-site public infrastructure to support the proposed development in that this project was reviewed by various public agencies and City Departments and public utilities to ensure that either the petitioner will construct or the project has been conditioned to construct adequate public infrastructure to serve the development.

5. The proposed development and use has met the requirements contained in the City Code in that this project was reviewed by various City Departments and the project has complied with or has been conditioned to comply with all City Code requirements.

6. The proposed development and use is in keeping with the scale and nature of the surrounding neighborhood in that the proposed project is consistent with the zoning designation and Comprehensive Plan which designates this site as suitable for development such as that proposed by this project.

Staff Recommendation And Conditions Of Approval: Based upon the preceding review and a finding of consistency with the goals and policies of the Comprehensive Plan, staff recommends the Plan and Zoning Commission adopt a resolution recommending the City Council approve a Phased Site Plan for Private Utilities for the site at the southeast corner of Bishop Drive and 98th Street, subject to the applicant meeting all City Code requirements and the following:

1. The applicant will contact the railroad prior to any grading on their property to obtain the necessary permits. Documentation will need to be provided to the City when it becomes available. If the railroad denies access for the grading the applicant will need to have an alternate plan to alleviate the drainage issue caused by this development.
2. Installation of private utilities is 'at risk' until the full site plan is approved.
3. No construction of public utilities is allowed without approved construction plans.

Owner
ME&E LLC
4903 Lonna Drive
Panora IA 50216
Attn: Karen Gerlich

Applicant:
Covenant Cove LLC
3100 White Pine Court
Waukee IA 50263
Attn: David J Albright

Applicant Rep:
Snyder & Associates
2727 SW Snyder Boulevard
Ankeny IA 50023
Attn: Brent Culp

ATTACHMENTS:

Attachment A	-	Plan and Zoning Commission Resolution
Attachment B	-	Location Map
Attachment C	-	Phase Site Plan for Private Utilities

ATTACHMENT A

RESOLUTION NO. PZC-18-037

A RESOLUTION OF THE PLAN AND ZONING COMMISSION OF THE CITY OF WEST DES MOINES, RECOMMENDING TO THE CITY COUNCIL THAT IT APPROVE A PHASED SITE PLAN FOR COVENANT COVE TO ALLOW THE CONSTRUCTION OF PRIVATE UTILITIES ON PROPERTY LOCATED AT THE SOUTHEAST CORNER OF BISHOP DRIVE AND 98TH STREET

WHEREAS, pursuant to the provisions of Title 10, Chapter 1 et seq, of the West Des Moines Municipal Code, the applicant, Covenant Cove LLC, has requested approval for a Phased Site Plan (SP-003850-2018) to construct private utilities on property located at the southeast corner of Bishop Drive and 98th Street;

WHEREAS, studies and investigations were made and staff reports and recommendations were submitted which are made a part of this record and herein incorporated by reference;

WHEREAS, on May 21, 2018, this Commission held a duly-noticed public meeting to consider the application for a Phased Site Plan for Private Utilities;

NOW, THEREFORE, THE PLAN AND ZONING COMMISSION OF THE CITY OF WEST DES MOINES DOES RESOLVE AS FOLLOWS:

SECTION 1. The findings, for approval, in the staff report or as amended orally at the Plan and Zoning Commission meeting are adopted.

SECTION 2. The Phased Site Plan to construct private utilities is recommended to the City Council for approval, subject to compliance with all the conditions in the staff report including conditions added at the meeting, and attached hereto as Exhibit "A." Violation of any such conditions shall be grounds for revocation of the permit, as well as any other remedy which is available to the City.

PASSED AND ADOPTED on May 21, 2018.

Craig Erickson, Chairperson
Plan and Zoning Commission

ATTEST:

Recording Secretary

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Plan and Zoning Commission of the City of West Des Moines, Iowa, at a regular meeting held on May 21, 2018, by the following vote:

AYES:
NAYS:
ABSTENTIONS:
ABSENT:

ATTEST:

Recording Secretary

Exhibit A
CONDITIONS OF APPROVAL

1. The applicant will contact the railroad prior to any grading on their property to obtain the necessary permits. Documentation will need to be provided to the City when it becomes available. If the railroad denies access for the grading the applicant will need to have an alternate plan to alleviate the drainage issue caused by this development.
2. Installation of private utilities is 'at risk' until the full site plan is approved.
3. No construction of public utilities is allowed without approved construction plans.

Covenant Cove
Bishop Drive and 98th Street

Legend

- Corporate Limits
- Parcels

752.3 0 376.17 752.3 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

© City of West Des Moines, Iowa

Disclaimer: The City of West Des Moines makes no warranties regarding the accuracy or completeness of the data provided herein.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

ATTACHMENT B

PRIVATE UTILITY SITE PLAN

FOR

COVENANT COVE

SINGLE FAMILY RESIDENTIAL DEVELOPMENT

CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA

OWNER

M E & E, LLC, MAY 23, 2001-03/15/2004
4903 LONNA DR
PANORA, IA 50216

GERLICH, KAREN A ETAL 50%
KAREN A & MARGARET L TRUST 50%
4903 LONNA DR
PANORA, IA 50216

APPLICANT

BJS CONSTRUCTION, LLC.
3100 WHITE PINE COURT
WAUKEE, IA 50263
CONTACT: DAVID ALBRIGHT
515-360-5063

ENGINEER

SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BLVD.
ANKENY, IOWA 50023
(515) 964-2020
CHAD DEVORE, P.E.

SCALE: 1"=1000'

VICINITY MAP

INDEX OF SHEETS

1. TITLE SHEET
2. PROJECT INFORMATION
3. SITE DETAILS
4-5. OVERALL MASTER PLAN
6-16. DIMENSION AND UTILITY PLAN
17-18. GRADING AND EROSION CONTROL PLAN
19. PLANTING NOTES AND DETAILS
20-30. DETAILED GRADING AND PLANTING PLAN

STATE OF IOWA — CLAY R. SCHNECKLOTH — LANDSCAPE ARCHITECT NO. 512 — LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
License Expires June 30, 2019

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Landscape Architect under the laws of the State of Iowa.

Clay R. Schneckloth, ASLA — Date
License Number 512
Pages or sheets covered by this seal:
Sheets 19-30

LICENSED PROFESSIONAL ENGINEER — CHAD D. DEVORE — 16007 — IOWA

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.

Chad D. DeVore, P.E. — Date
License Number 16007
My License Renewal Date is December 31, 2019
Pages or sheets covered by this seal:
Sheets 1-18, 20-30

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 98TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CJD | Checked By: BKC | Scale: 1"=1'
Technician: AWS | Date: 4/05/18 | Field Bk: | Pgs:
Project No: 1170697 | Sheet 1 of 30

COVENANT COVE

TITLE SHEET

WEST DES MOINES, IOWA

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

Project No:
Sheet

ATTACHMENT C

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

Features	Existing	Proposed
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	AGST	
Sign		
Satellite Dish		
Mailbox		
Soil Boring		

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

C1-COMMUNICATION	CENTURYLINK Tom Sturmer 7205788090 Thomas.sturmer@centurylink.com
W1-WATER	DES MOINES WATER WORKS Jona Hodges 5152838729 hodges@dmww.com
FO2-FIBER OPTIC	AUREON NETWORK SERVICES Jeff Klocko 5158300445 jeff@netins.com
E1-ELECTRIC OE-OVERHEAD ELECTRIC	MIDAMERICAN ENERGY James Keisler 5152526472 jokeisler@midamerican.com
C2-COMMUNICATION	WINDSTREAM COMMUNICATIONS LOCATE DESK 8002891901 LOCATE.DESK@WINDSTREAM.COM
C3-COMMUNICATION	MEDIACOM COMMUNICATIONS CORP Paul Moy 5152462252 pmoy@mediacomcc.com
W2-WATER	WEST DES MOINES WATER WORKS William Mobuce 5152223465 wmobuce@wdmww.com
S-SANITARY SEWER	WEST DES MOINES, CITY OF

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

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

C. 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.

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

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

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

G. 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.

H. CONTRACTOR TO LOAD AND TRANSPORT ALL MATERIALS CONSIDERED TO BE UNDESIRABLE TO BE INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-SITE WASTE SITE.

I. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL FROM ALL AREAS TO BE CUT OR FILLED, AS PER NPDES GENERAL PERMIT NO. 2, MAINTAIN ALL TOPSOIL ON-SITE, RESPREAD TO MINIMUM 4" DEPTH TO FINISH GRADES.

J. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AND/OR TOP OF CURB, UNLESS OTHERWISE NOTED.

K. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM NEIGHBORING STREETS, DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES IN A TIMELY MANNER.

L. THE ADJUSTMENT OF ANY EXISTING UTILITY APPURTENANCES TO FINAL GRADE IS CONSIDERED INCIDENTAL TO THE SITE WORK.

M. 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 IF GRADING BEGINS PRIOR TO APPROVAL OF THE PRELIMINARY PLAT/SITE PLAN.

N. CONTRACTOR TO COORDINATE NATURAL GAS, ELECTRICAL, TELEPHONE AND ANY OTHER FRANCHISE UTILITY SERVICES WITH UTILITY SERVICE PROVIDER, WEST DES MOINES, AND THE OWNER PRIOR TO CONSTRUCTION.

O. CONTRACTOR TO VERIFY ALL UTILITY CROSSINGS AND MAINTAIN MINIMUM 18" VERTICAL AND HORIZONTAL CLEARANCE BETWEEN UTILITIES. CONTRACTOR TO COORDINATE UTILITY ROUTING TO BUILDINGS AND VERIFY CONNECTION LOCATIONS AND INVERTS PRIOR TO CONSTRUCTION.

P. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS, AND/OR ANY CONNECTION TO THE PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS, DSM METRO DESIGN STANDARDS AND WDM ADDENDUMS.

Q. AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE ENGINEERING SERVICES 222-3475 TO OBTAIN APPLICABLE CITY PERMITS THAT MAY BE NECESSARY. CITY APPROVAL OF THIS PLAN IS SUBJECT TO THE APPLICANT OBTAINING ALL NECESSARY EASEMENTS/AGREEMENTS AND APPLICABLE PERMITS. AN EXCAVATION PERMIT IS REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY.

R. ALL WATER MAIN, SANITARY SEWER AND STORM SEWER ARE PRIVATE.

S. EXTERIOR LIGHTING TO BE SOFFIT LIGHTING.

T. ALL SIDEWALK RAMPS IN THE PUBLIC RIGHT-OF-WAY COMPLY WITH PROWAG REQUIREMENTS. ALL NEW PUBLIC PEDESTRIAN RAMPS SHALL BE AS-BUILT AND CERTIFIED BY AN IOWA LICENSED ENGINEER STATING THEY MEET PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).

U. THE PROJECT ENGINEER SHALL PROVIDE AS-BUILT DOCUMENTATION THAT THE STORM WATER DRAINAGE SYSTEM HAS BEEN CONSTRUCTED AS DESIGNED.

V. A REPORT CERTIFIED BY A THIRD-PARTY RECOGNIZED TESTING AGENCY, ACCEPTABLE TO THE CITY, SHALL BE SUBMITTED TO DOCUMENT THE THICKNESS AND STRENGTH OF THE PAVEMENT, THE SUB-GRADE COMPACTION, COMPLIANCE WITH THE METRO DESIGN STANDARDS FOR STREETS, AND THE STANDARDS LISTED IN THE WEST DES MOINES "OFF STREET PARKING ORDINANCE" FOR PRIVATE STREETS, PARKING LOTS, AND DRIVEWAYS.

W. ANY RETAINING WALLS NEEDED FOR THIS SITE ARE LESS THAN 2.5 FEET IN HEIGHT AND WILL NOT REQUIRE GUARDRAIL.

X. ALL UTILITIES ARE PRIVATE UNLESS OTHERWISE NOTED.

Y. LANE CLOSURE NOTICES MUST BE SUBMITTED TO WEST DES MOINES PUBLIC WORKS FOR APPROVAL A MINIMUM OF 48 HOURS IN ADVANCE OF CLOSURE.

Z. COORDINATE STAGING AND TRAFFIC CONTROL WITH WDM EMERGENCY SERVICES.

AA. CONTRACTOR TO COORDINATE WITH DES MOINES WATER WORKS (DMWW) ALL WORK WITHIN THE EXISTING WATER MAIN EASEMENT ALONG THE EAST SIDE OF 98TH STREET.

WEST DES MOINES STANDARD NOTES

1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
2. CONTACT BUILDING INSPECTION (515-222-3630) A MINIMUM OF 24 HOURS IN ADVANCE FOR PRIVATE UTILITY INSTALLATION INSPECTIONS.
3. DESIGNATED BUFFERS SHALL BE LABELED AS A "NO BUILD AREA".
4. ALL LIGHTS ARE TO BE DOWNCAST CUTOFF VARIETY. WALL PACKS ARE PROHIBITED. THE MAXIMUM ILLUMINATION ALLOWED AT THE PROPERTY LINE IS 1 FOOT-CANDLE.

WEST DES MOINES WATER WORKS STANDARD NOTES

1. ALL WATER WORK, PUBLIC OR PRIVATE, SHALL BE DONE IN ACCORDANCE WITH WEST DES MOINES WATER WORKS STANDARD SPECIFICATIONS.
2. CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS (515-222-3465) AT LEAST ONE WEEK PRIOR TO BUILDING CONSTRUCTION.
3. ANY WATER USE FROM A HYDRANT, PUBLIC OR PRIVATE, REQUIRES THE USE OF A WEST DES MOINES WATER WORKS HYDRANT METER. CALL 515-222-3465 TO RESERVE A METER.
4. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE WEST DES MOINES WATER WORKS AND THE CITY'S CROSS CONNECTION CONTROL/CONTAINMENT PROVISION.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF AN APPROVED BACKFLOW PREVENTION ASSEMBLY(IES) FOR CONTAINMENT IN ALL NEW CONSTRUCTION. BACKFLOW PREVENTION TO BE INSTALLED PER CITY ORDINANCE 1297, 54-1998. CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS, RALPH RENTERIA, ENGINEERING TECHNICIAN (515-222-3465) A MINIMUM OF 24 HOURS AFTER INSTALLATION AND TESTING OF ALL BACKFLOW DEVICES TO SCHEDULE FINAL INSPECTION.

LEGAL DESCRIPTION

QUIT CLAIM DEED BOOK 2018, PAGE 2455: PARCEL A, B, AND C OF LOT THREE (3) IN WEST PARK PLAT 1 (FINAL PLAT), BEING LOCATED IN PART OF GOVERNMENT LOTS 3, 4, AND 6 IN SECTION 3, TOWNSHIP 78 NORTH, RANGE 26 WEST OF THE 5TH P.M., CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA AND CONTAINING 28.93 ACRES (1,260,375 SF).

COMPREHENSIVE PLAN

EXISTING: MEDIUM DENSITY RESIDENTIAL (MD)

ZONING

EXISTING: 98TH STREET PUD - RESIDENTIAL MEDIUM DENSITY (RM-8)

LAND USE

EXISTING: VACANT
PROPOSED: MEDIUM DENSITY RESIDENTIAL

FIRM DESIGNATION

THIS SITE IS WITHIN ZONE 'X' (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS REFERENCED ON FLOOD INSURANCE RATE MAP (FIRM), MAP NO 19023100007C, MAP REVISED FEBRUARY 16, 2006

SITE AREAS

BUILDING	252,281 SF	20.0%
PAVING	188,068 SF	14.9%
DRIVEWAYS	122,490 SF	9.7%
SIDEWALK	45,177 SF	3.6%
OPEN SPACE	652,358 SF	51.8% (25% REQ)
TOTAL	1,260,374 SF	100%

IMPERVIOUS AREA

608,016 SF TOTAL IMPERVIOUS AREA (48.2% OF SITE)

PARKING REQUIREMENTS

REQUIRED
2 SPACES PER DWELLING
212 X 2 = 424 SPACES REQUIRED
1 SPACE FOR EVERY 15 DWELLING UNITS = 15 REQUIRED
TOTAL 439 SPACES REQUIRED

PROVIDED
2 DRIVEWAY SPACES PER UNIT
212 X 2 = 424 SPACES PROVIDED
2 GARAGE SPACES PER UNIT
212 X 2 = 424 SPACES PROVIDED
23 VISITOR PARKING STALLS PROVIDED
TOTAL 871 SPACES PROVIDED

CITY OF WEST DES MOINES CONTROL DATUM

CITY OF WEST DES MOINES DATUM (GEOID12A)NAVD88 - 774.01)

WEST DES MOINES BM=029
INTERSECTION OF 88TH STREET AND UNIVERSITY AVENUE, SOUTHEAST CORNER OF INTERSECTION, 31 FEET EAST OF THE CENTERLINE OF 88TH STREET, 2 FEET WEST OF THE 6 FOOT CHAINLINK FENCE.
ELEVATION=219.25

WEST DES MOINES BM=097
INTERSECTION OF UNIVERSITY AVENUE AND JORDAN CREEK PARKWAY, SOUTHEAST CORNER OF INTERSECTION, 59.5 FEET EAST OF THE CENTERLINE OF JORDAN CREEK PARKWAY, 200 FEET SOUTH OF THE CENTERLINE OF UNIVERSITY AVENUE.
ELEVATION=198.63

BENCHMARKS

WEST DES MOINES VERTICAL DATUM
IARTN DERIVED - US SURVEY FEET

BM1 ELEV=281.75
BURY BOLT ON WATROUS HYDRANT, NORTH OF ENTRANCE TO WATER TOWER, EAST SIDE OF 98TH STREET, SOUTH OF RAILROAD.

BM10 ELEV=274.07
SE BURY BOLT ON HYDRANT, NORTHEAST QUADRANT OF BISHOP DRIVE AND 98TH STREET.

BM11 ELEV=261.28
BURY BOLT ON HYDRANT, FIRST HYDRANT WEST OF WEST PARK SENIOR COMMUNITY, NORTH SIDE BISHOP DRIVE.

CONTROL POINTS

IOWA STATE PLANE SOUTH COORDINATE SYSTEM
NAD83(2011)(EPOCH 2010.00) IARTN DERIVED - US SURVEY FEET

CP1 N=581757.59 E=1546460.84
SET CUT "X" TOP OF CURB, WEST SIDE 98TH STREET, ±100' SOUTH OF RAILROAD TRACKS, ±50 FEET WEST OF BM1.

CP2 N=582721.58 E=1546512.72
SET CUT "X" TOP OF CURB, NORTHEAST QUADRANT OF BISHOP DRIVE AND 98TH STREET AT 1/2 RADIUS.

CP3 N=582700.96 E=1547707.91
SET CUT "X" TOP OF CURB, NORTH SIDE BISHOP DRIVE, ±75 FEET WEST OF ENTRANCE TO WEST PARK SENIOR COMMUNITY.

CP4 N=581297.73 E=1547651.12
SET 1/2" REBAR WITH RED CAP, SOUTHEAST CORNER SITE, TOP OF BERM, ±10 FEET SOUTHWEST OF TELEPHONE PEDISTAL, ±15 FEET SOUTHEAST OF ELECTRIC TRANSFORMER.

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
1	REVISED PER CITY COMMENTS	05/10/18	AWS
2	REVISED WATER MAIN CONNECTION AT 98TH	05/15/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"=
Technician: AWS | Date: 4/05/18 | Field Bk: | Pg:
Project No: 1170697 | Sheet 2 of 30

COVENANT COVE

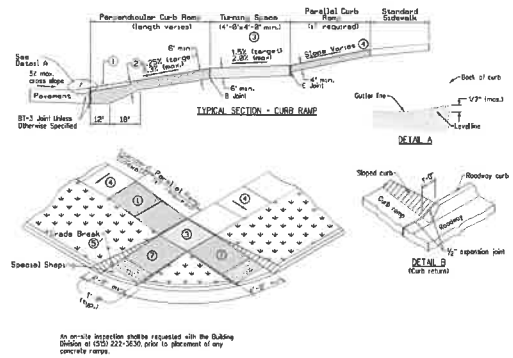
PROJECT INFORMATION

WEST DES MOINES, IOWA

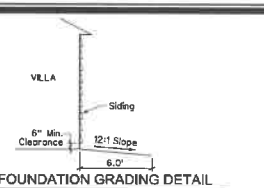
SNYDER & ASSOCIATES, INC.
2727 S.W. SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

SNYDER & ASSOCIATES

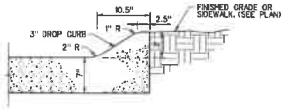
Project No: 1170697
Sheet 2 of 30



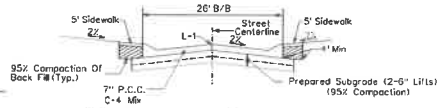
1 TYPICAL SIDEWALK RAMP DETAIL
3 NO SCALE



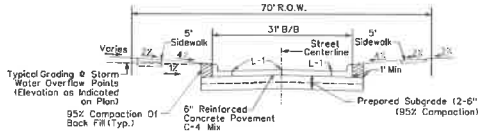
2 FOUNDATION GRADING DETAIL
3 NO SCALE



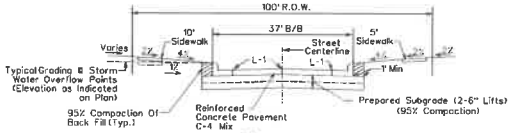
3-INCH ROLLED CURB



TYPICAL PRIVATE STREET CROSS SECTION
PRIVATE DRIVES

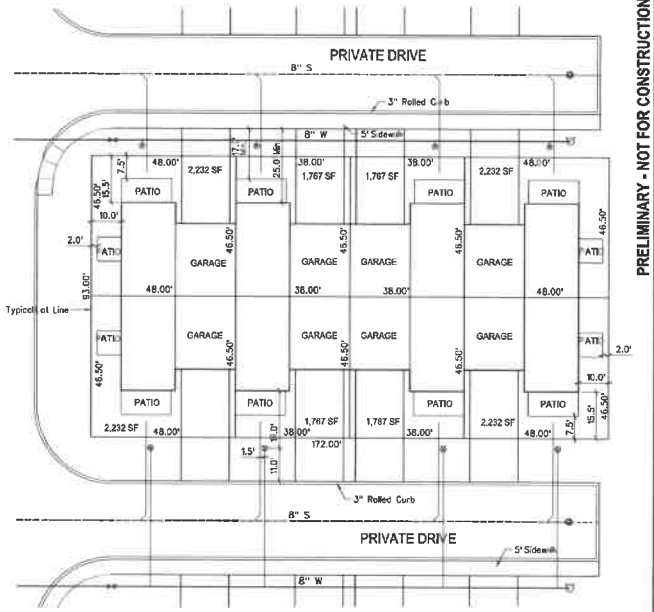


TYPICAL STREET CROSS SECTION
BISHOP DRIVE

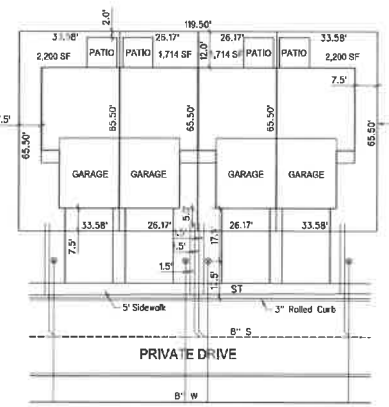


TYPICAL STREET CROSS SECTION
98TH STREET

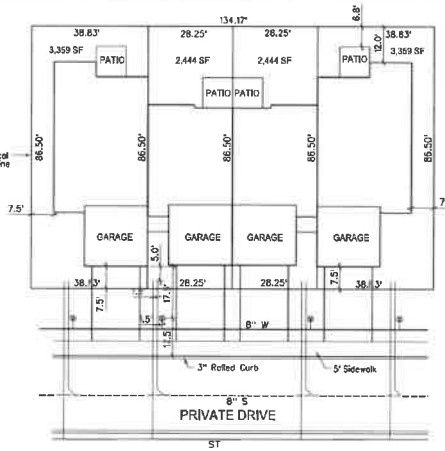
3 STREET CROSS SECTION DETAIL
3 NO SCALE



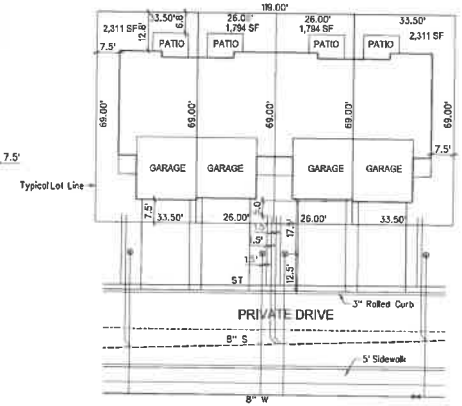
4 TYPICAL DWELLING UNIT
3 LEGACY II 2-STORY (6304 SF) SLAB ON GRADE
LOTS 73-80, 135-150, 169-176



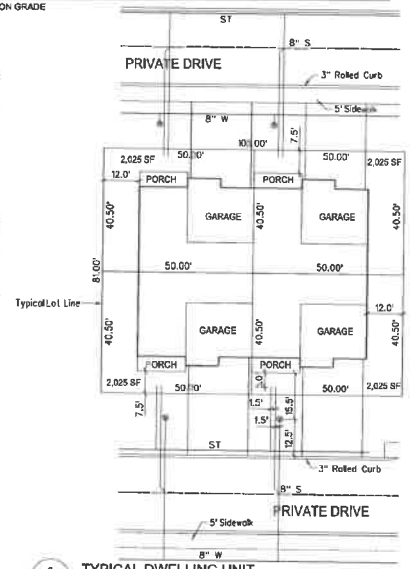
5 TYPICAL DWELLING UNIT
3 ORCHARD VIEW TOWNHOME 2-STORY (4348 SF) W/ BASEMENT
LOTS 21-44



6 TYPICAL DWELLING UNIT
3 HAPPE TOWNHOME 2-STORY (6378 SF) W/ BASEMENT
LOTS 61-72, 151-168, 177-180



7 TYPICAL DWELLING UNIT
3 EASTON II SPLIT FOYER (4587 SF)
LOTS 1-20, 45-60, 97-118, 181-212



8 TYPICAL DWELLING UNIT
3 CCS 2-STORY TOWNHOME (4388 SF) SLAB ON GRADE W/ BASEMENT OPTIONAL
LOTS 81-98, 119-134

PRELIMINARY - NOT FOR CONSTRUCTION

2	REVISED PER CITY COMMENTS FOR AI 3918	05/09/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS
MARK	REVISION	DATE	BY

Engineer: CDD Checked By: BKC Scale: 1"=20'
Technician: AWS Date: 4/05/18 Plotted By: Pgr
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COVENANT COVE

SITE DETAILS

WEST DES MOINES, IOWA

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

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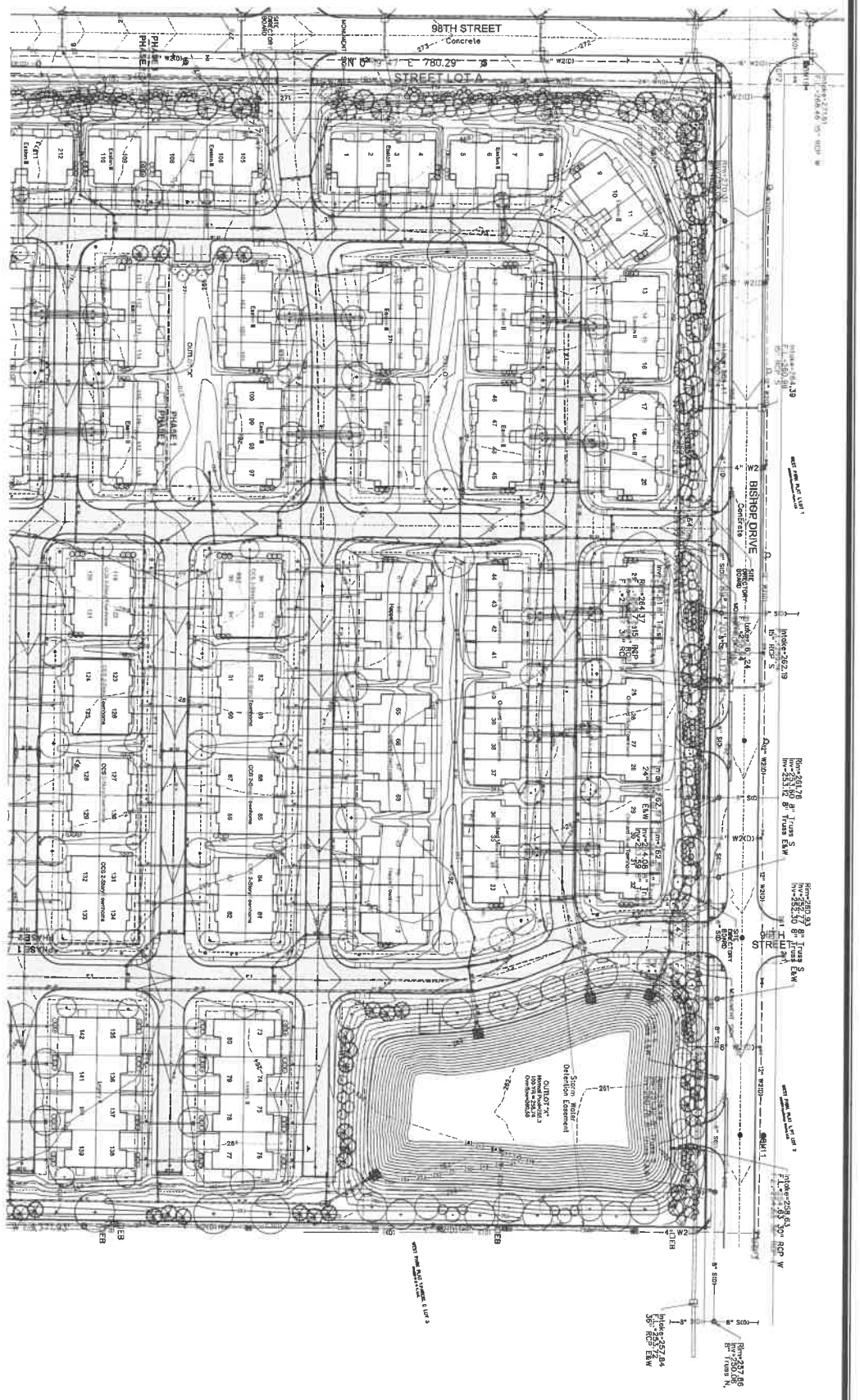

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 98TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 50'
Technician: AWS | Date: 4/05/18 | Field Bk: | Pg:

Project No: 1170697 | Sheet 4 of 30

SNYDER & ASSOCIATES

COVENANT COVE

OVERALL MASTER PLAN

WEST DES MOINES, IOWA

SNYDER & ASSOCIATES, INC.

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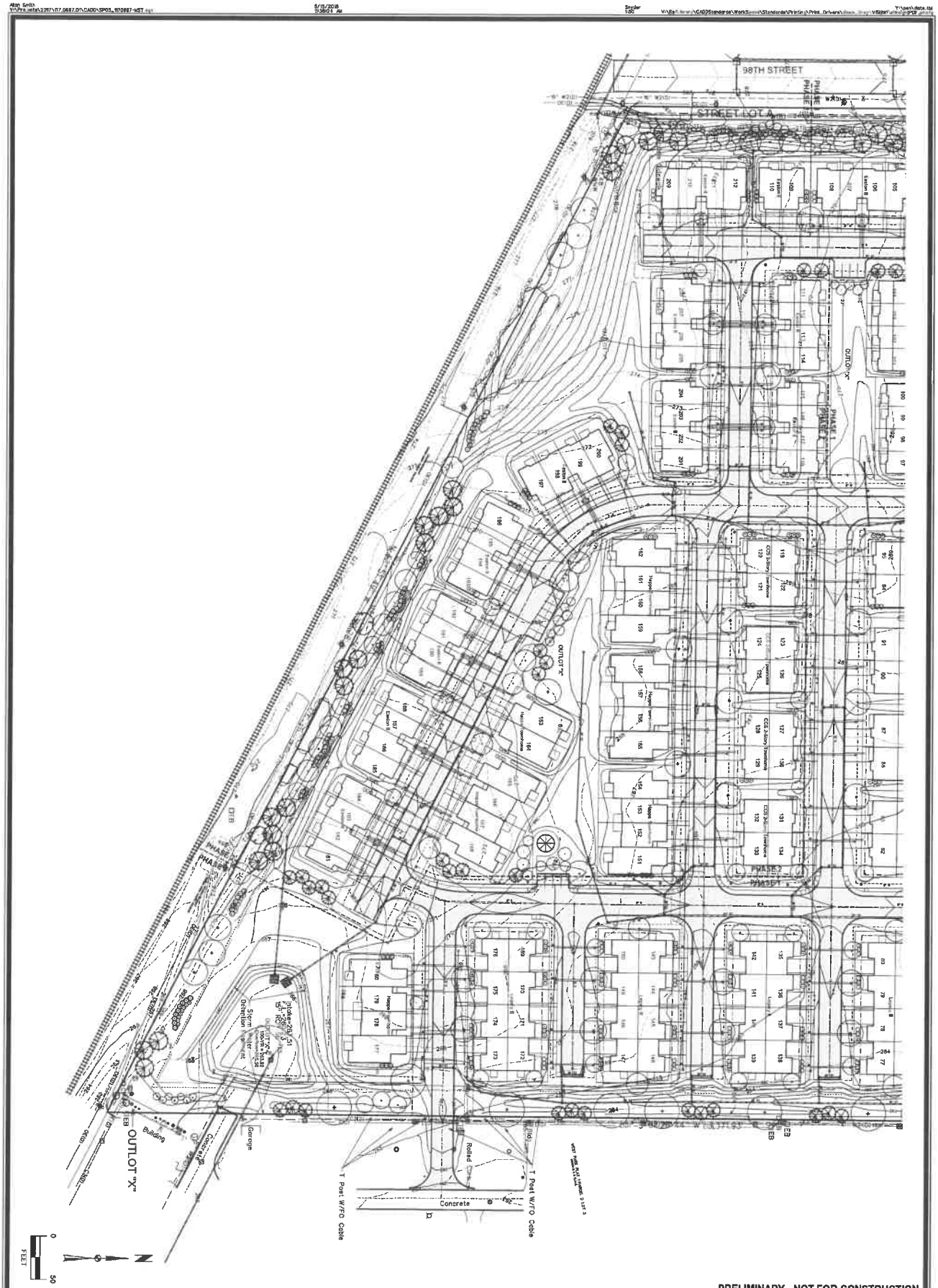

PRELIMINARY - NOT FOR CONSTRUCTION

COVENANT COVE

OVERALL MASTER PLAN

WEST DES MOINES, IOWA

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MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 96TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD	Checked By: BKC	Scale: 1"= 50'	
Technician: AWS	Date: 4/05/18	Field Bk:	Pg:
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SNYDER & ASSOCIATES

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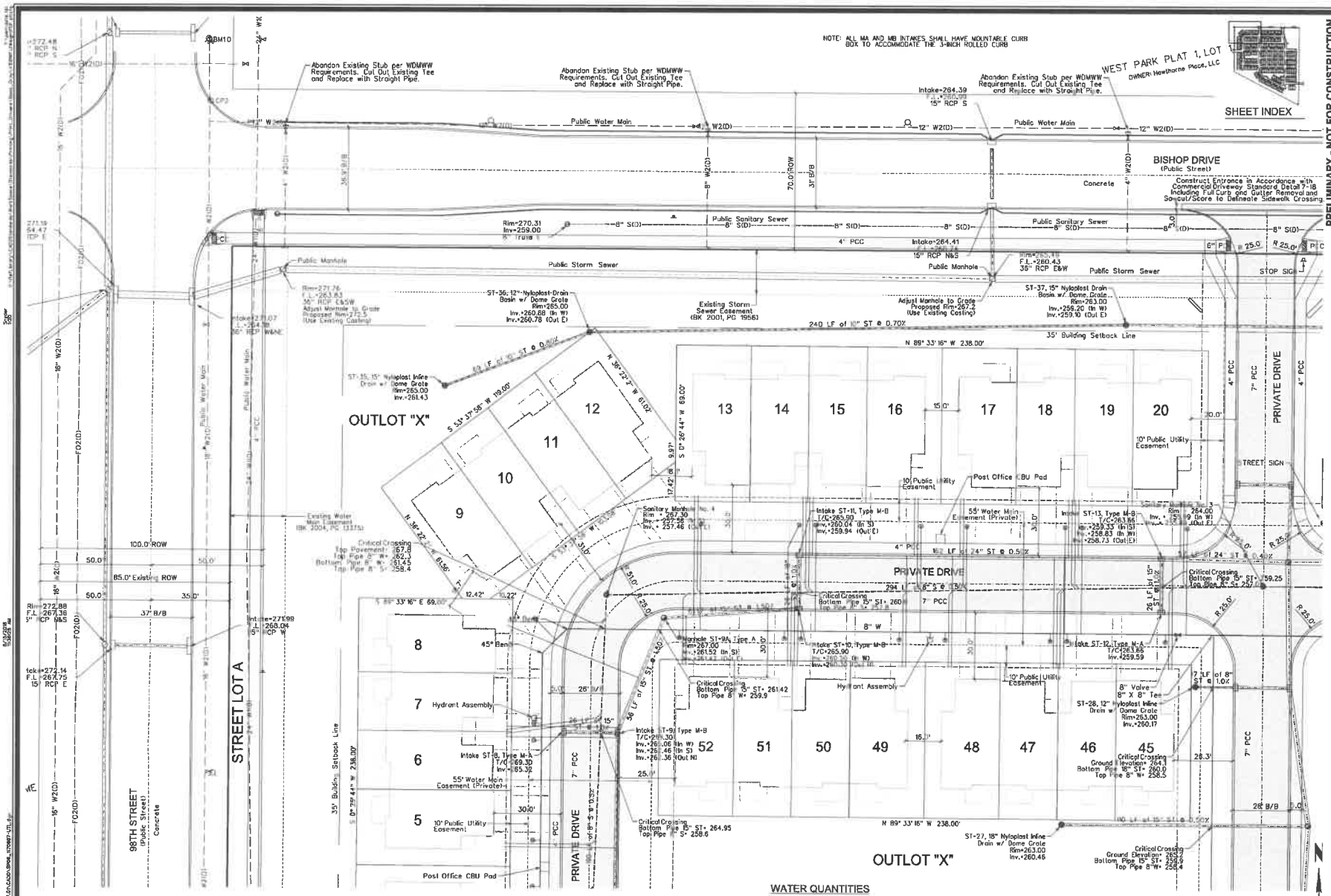

WATER QUANTITIES

8" PVC WATER MAIN	6860 LF.
16" X 8" TAPPING SLEEVE AND VALVE	1 EA.
CONNECT TO EXISTING 8" STUB	1 EA.
ABANDON EXISTING 8" STUB	5 EA.
8" VALVE	25 EA.
HYDRANT ASSEMBLY	28 EA.
1" SERVICE	212 EA.

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 96TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/01/18	AWS

Engineer: CDD Checked By: BKC Scale: 1"= 20'
Technician: AWS Date: 4/05/18 Field Bk: Pg:
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COVENANT COVE

DIMENSION AND UTILITY PLAN

WEST DES MOINES, IOWA

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SNYDER & ASSOCIATES

Project No: 1170697

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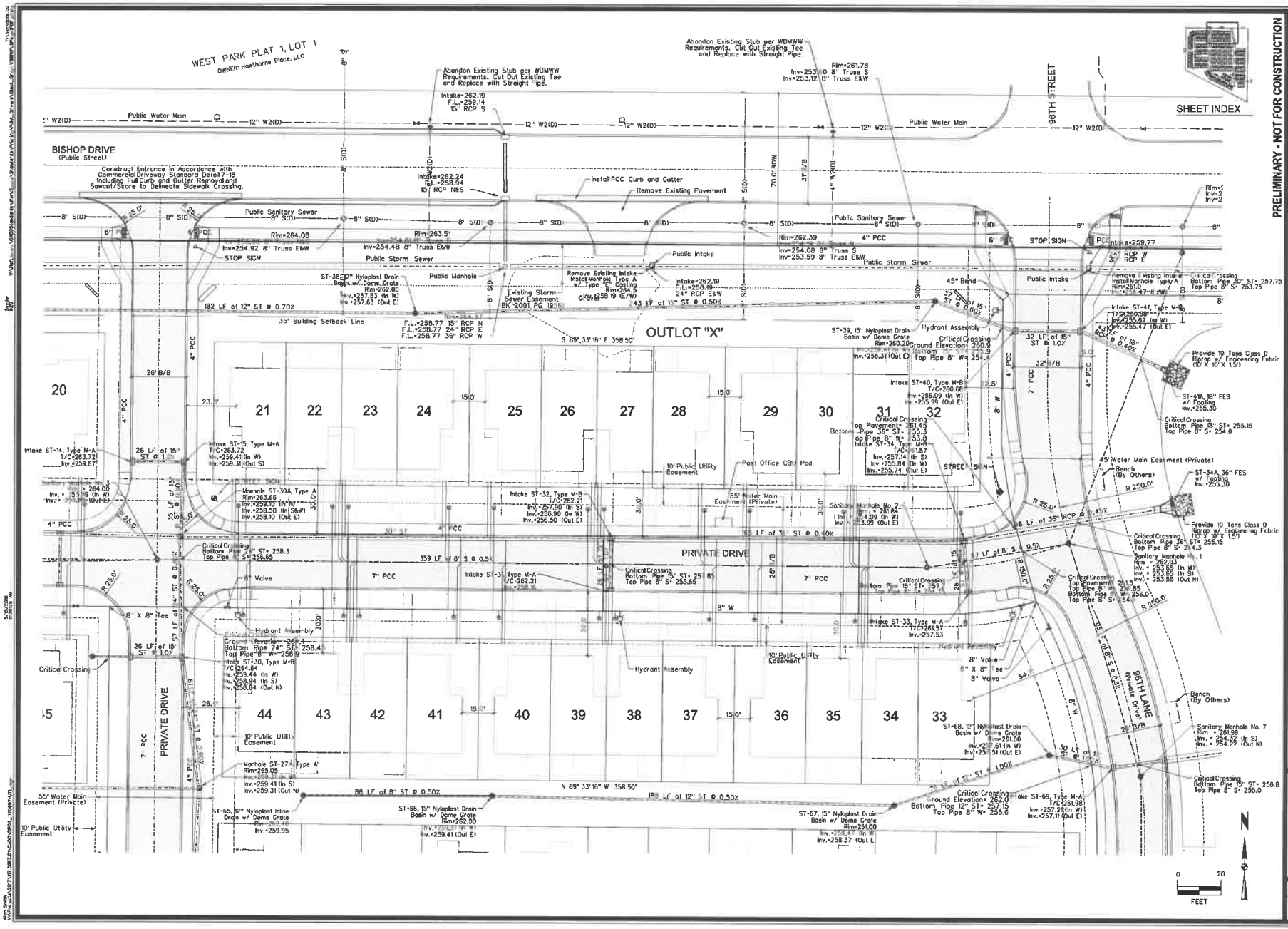

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PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 96TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:

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COVENANT COVE

DIMENSION AND UTILITY PLAN

WEST DES MOINES, IOWA

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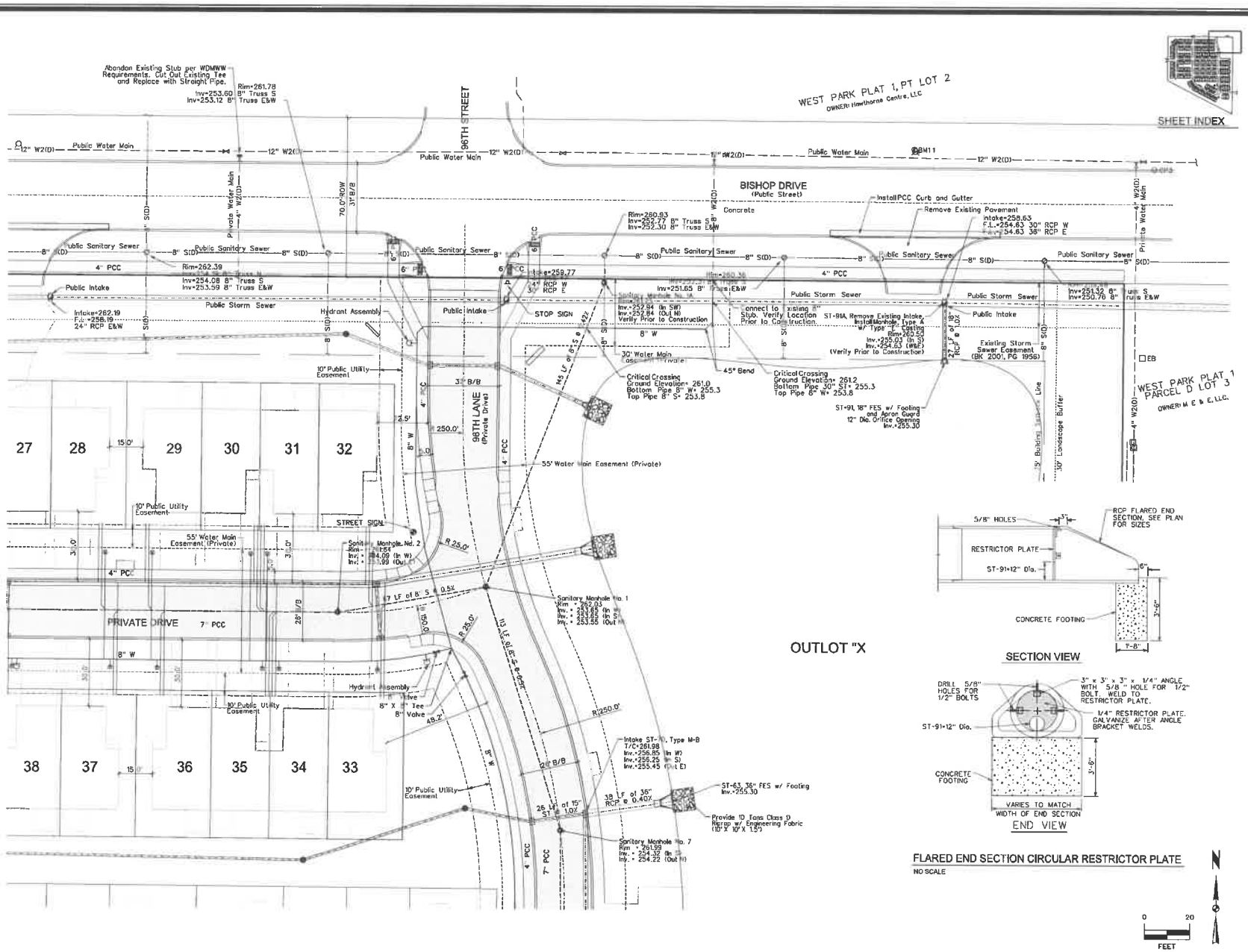

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CORRECTION AT 29th	05/30/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDO | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:
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COVENANT COVE

DIMENSION AND UTILITY PLAN

WEST DES MOINES, IOWA

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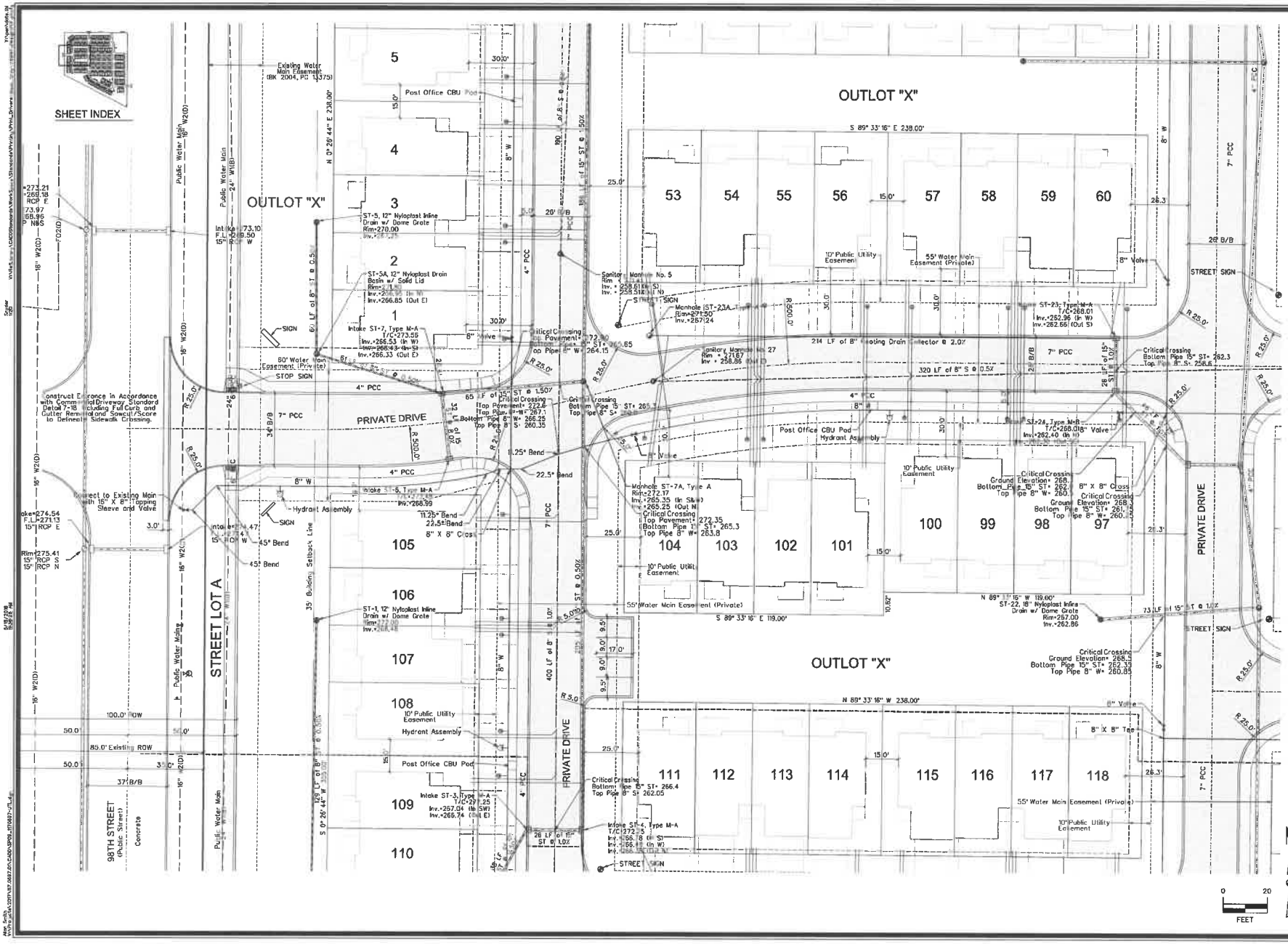

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 98TH	05/15/18	MWS
1	REVISED PER CITY COMMENTS	05/08/18	MWS

Engineer: CDD Checked By: BKC Scale: 1"=20'
Technician: AWS Date: 4/05/18 Field Bk: Pgs

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COVENANT COVE

DIMENSION AND UTILITY PLAN

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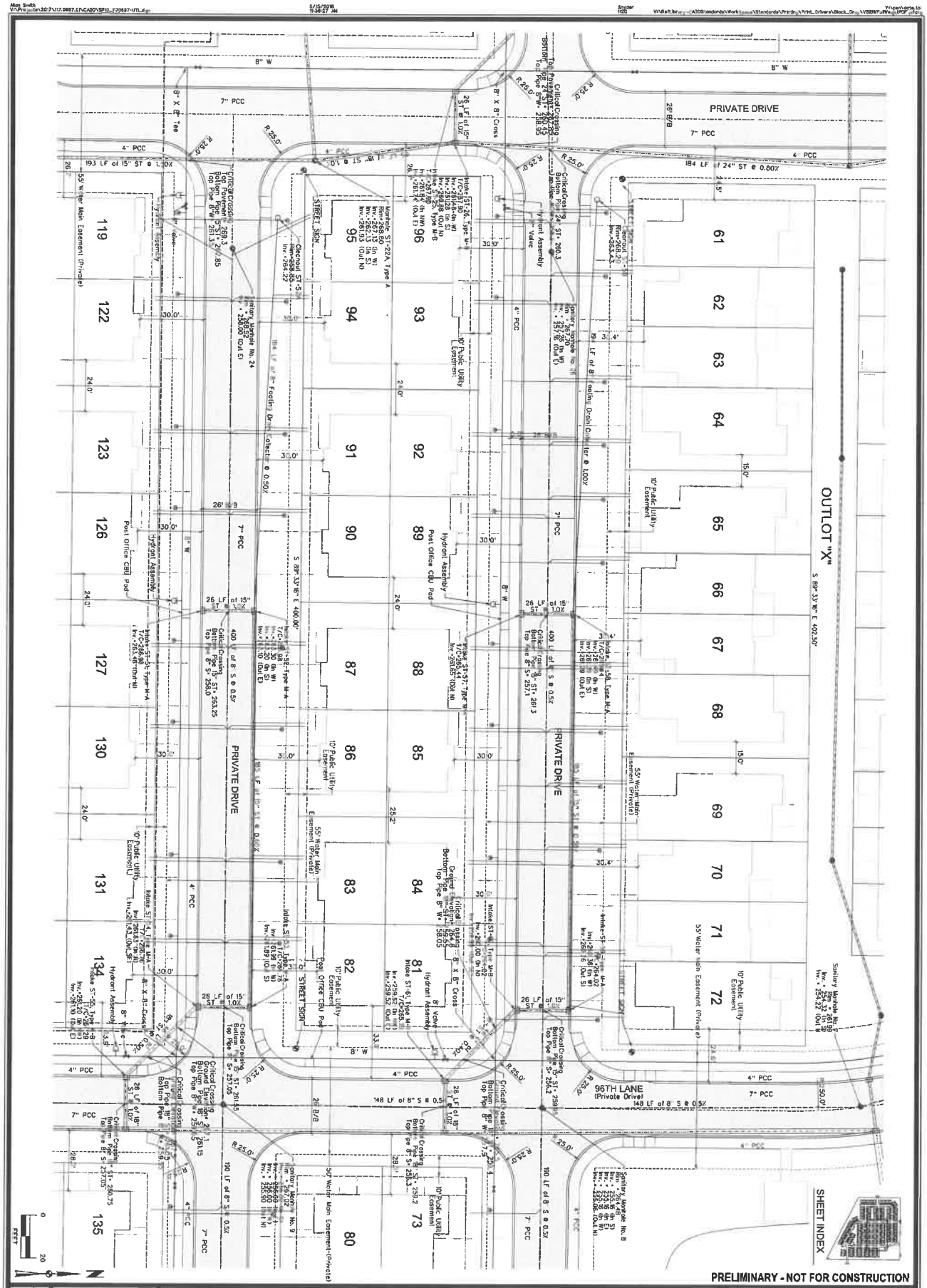

COVENANT COVE

DIMENSION AND UTILITY PLAN

WEST DES MOINES, IOWA

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MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 96TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:

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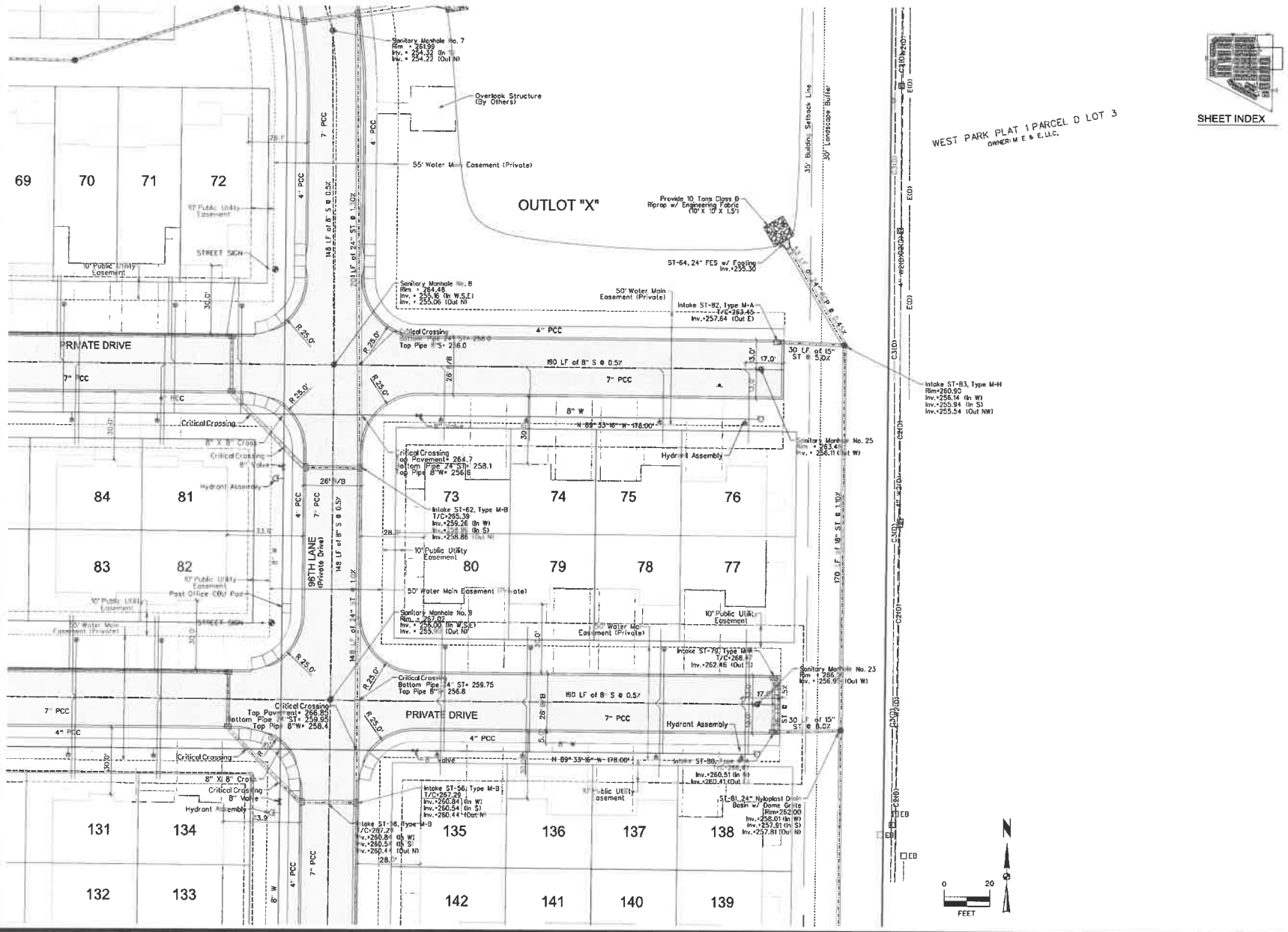

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MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 98TH	05/10/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:
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COVENANT COVE

DIMENSION AND UTILITY PLAN

WEST DES MOINES, IOWA

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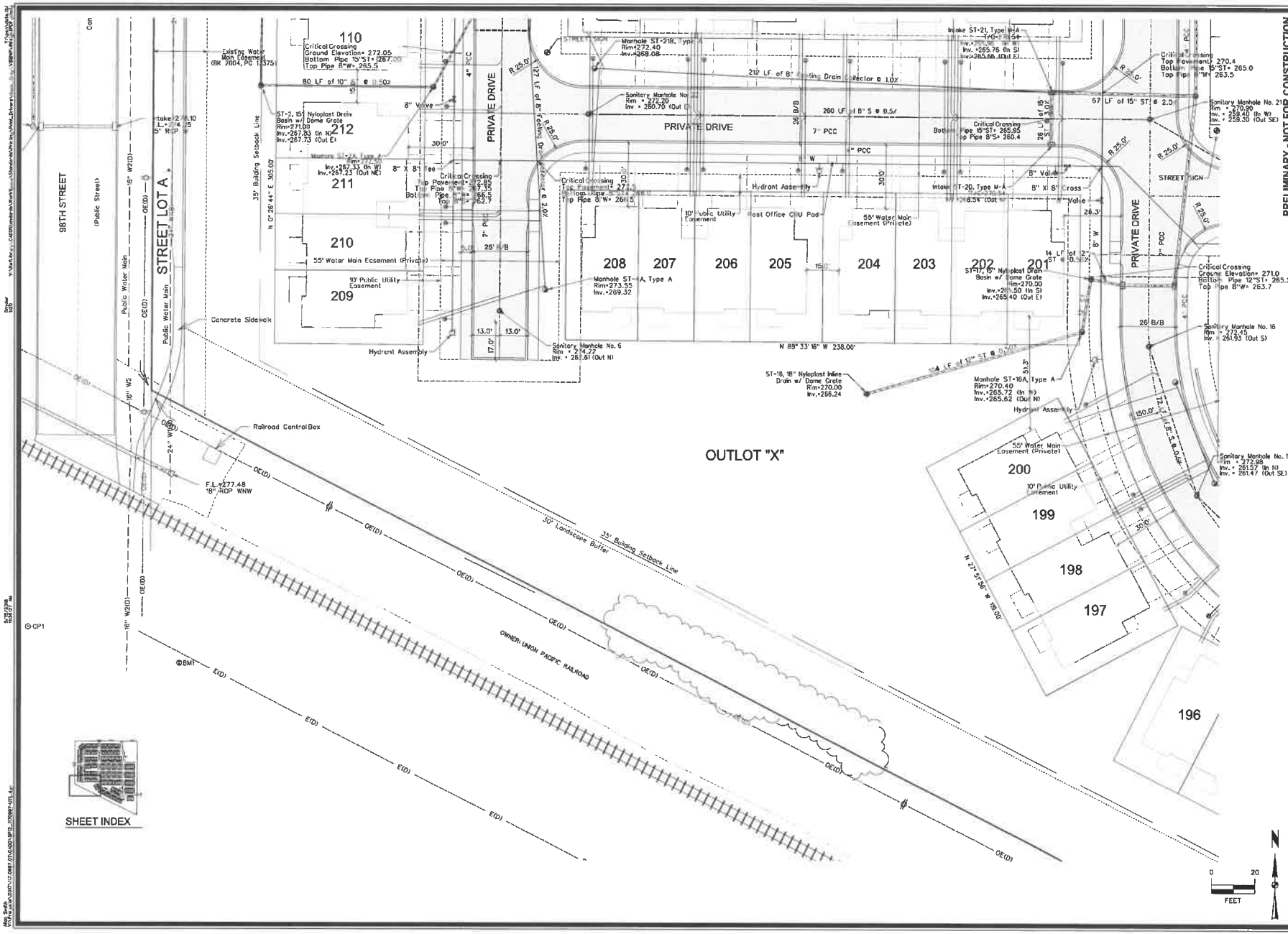

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 98TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/11/18	DT

Engineer: CDD | Checked By: BKC | Scale: 1"=20' | Technician: AWS | Date: 4/05/18 | Field Bk: Pg:

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DIMENSION AND UTILITY PLAN

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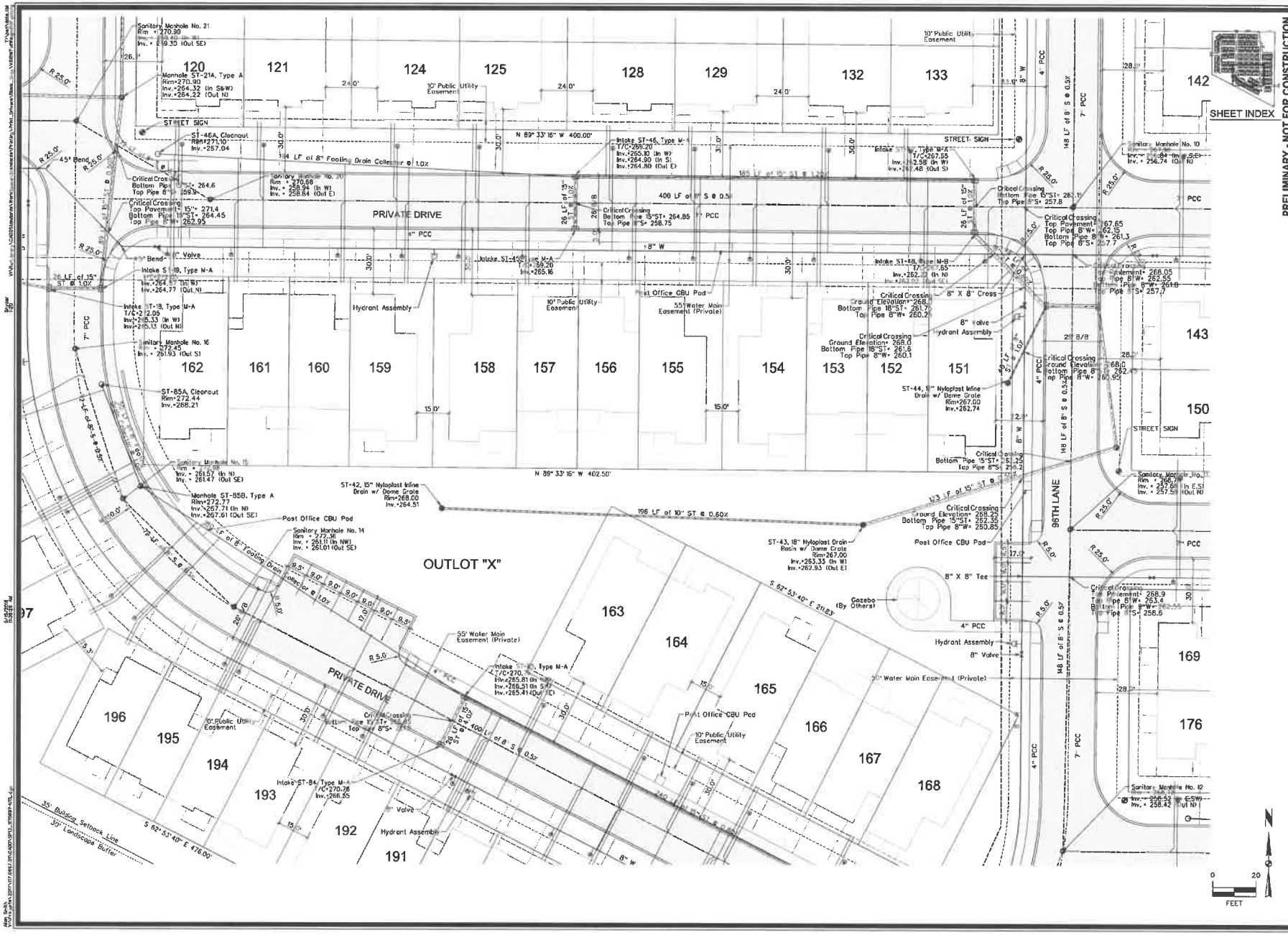

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
1	REVISED PER CITY COMMENTS	05/01/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"=20' | Field Bk: Pgs
Technician: AWS | Date: 4/05/18 | Project No: 1170697 | Sheet 13 of 30

COVENANT COVE

DIMENSION AND UTILITY PLAN

WEST DES MOINES, IOWA

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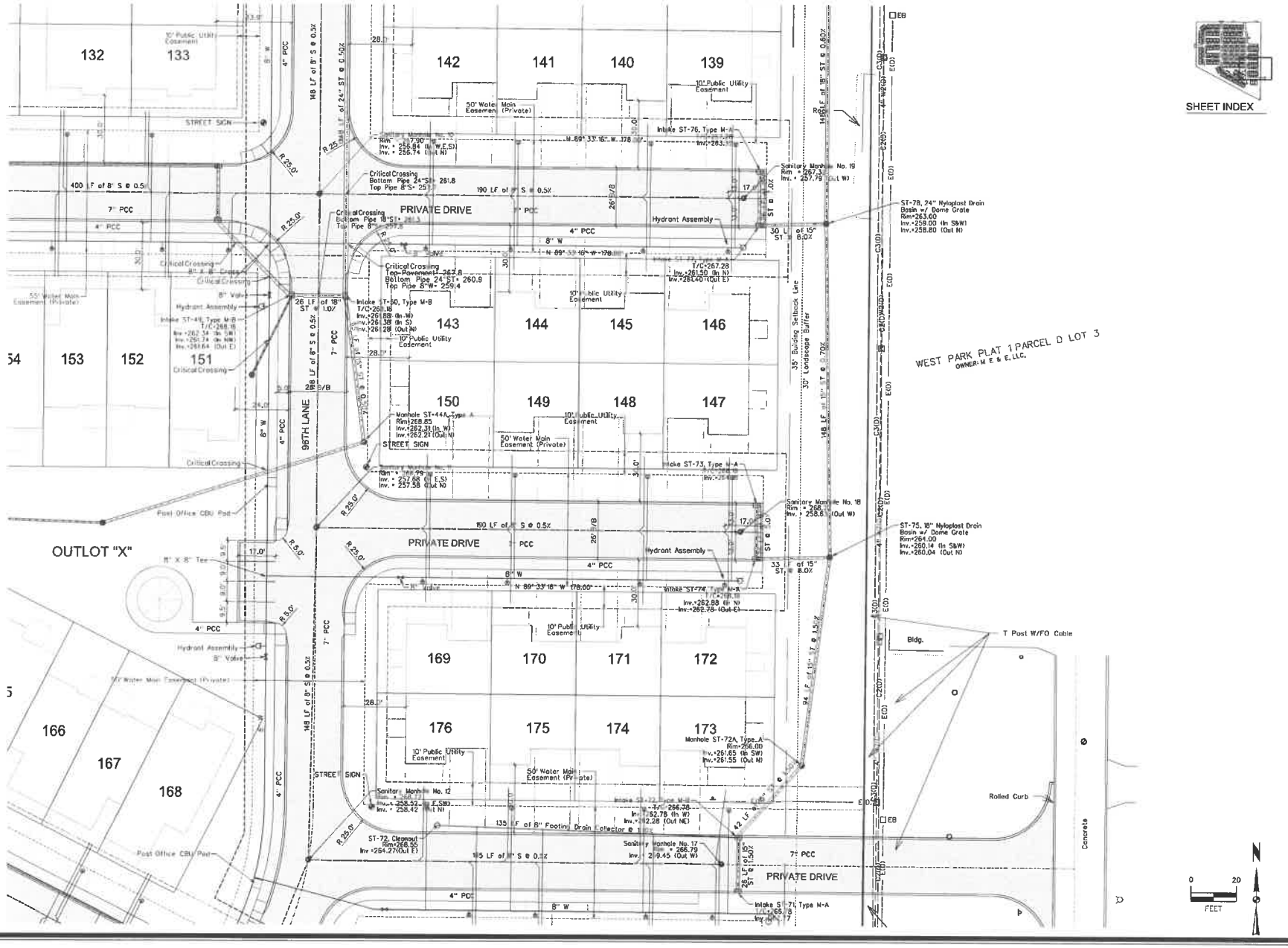

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 96TH	05/10/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:

Project No: 1170697 | Sheet 14 of 30

COVENANT COVE

DIMENSION AND UTILITY PLAN

WEST DES MOINES, IOWA

SNYDER & ASSOCIATES, INC.
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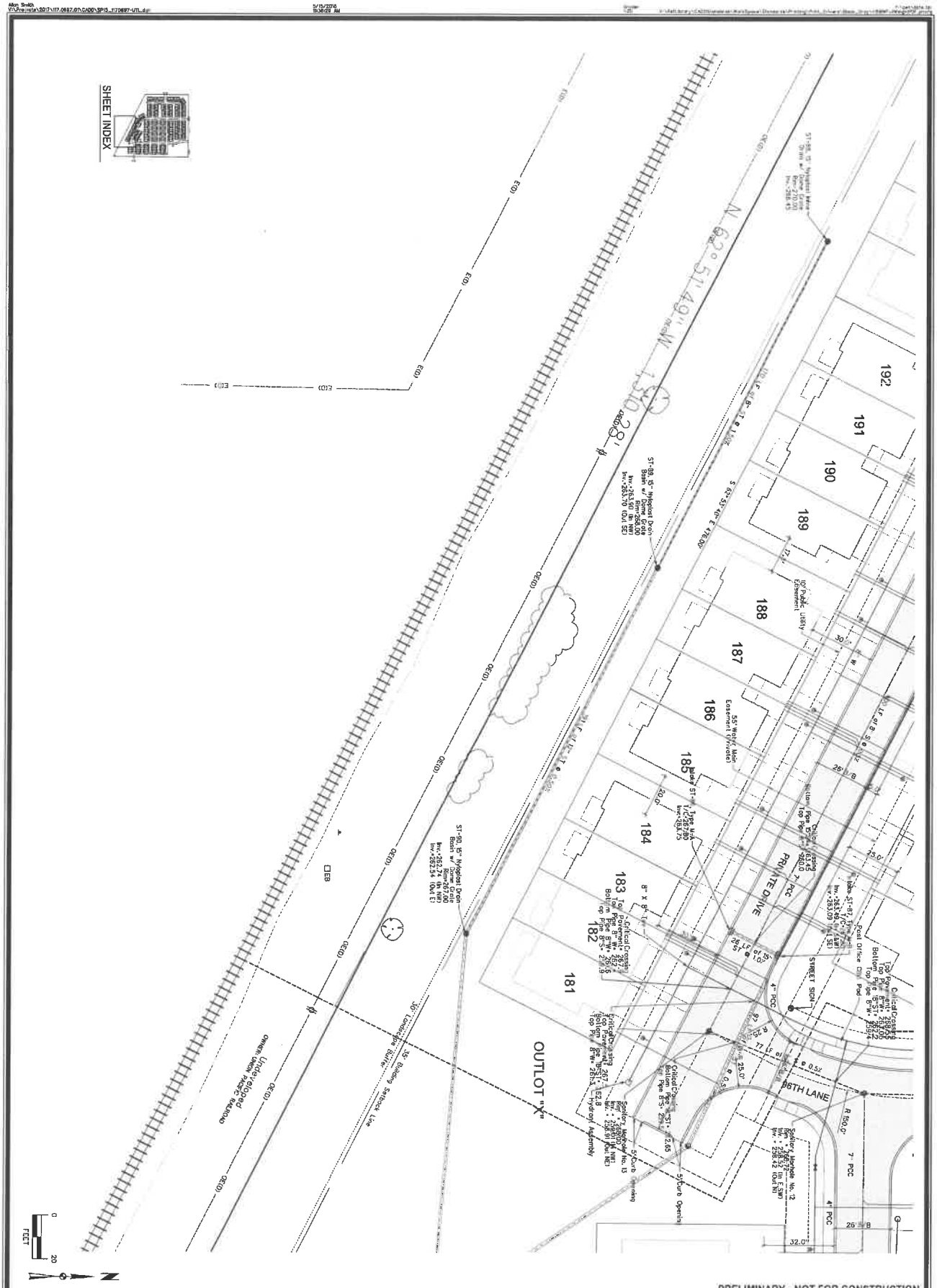

PRELIMINARY - NOT FOR CONSTRUCTION

COVENANT COVE

DIMENSION AND UTILITY PLAN

WEST DES MOINES, IOWA

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MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 96TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:

Project No: 1170697 | Sheet 15 of 30

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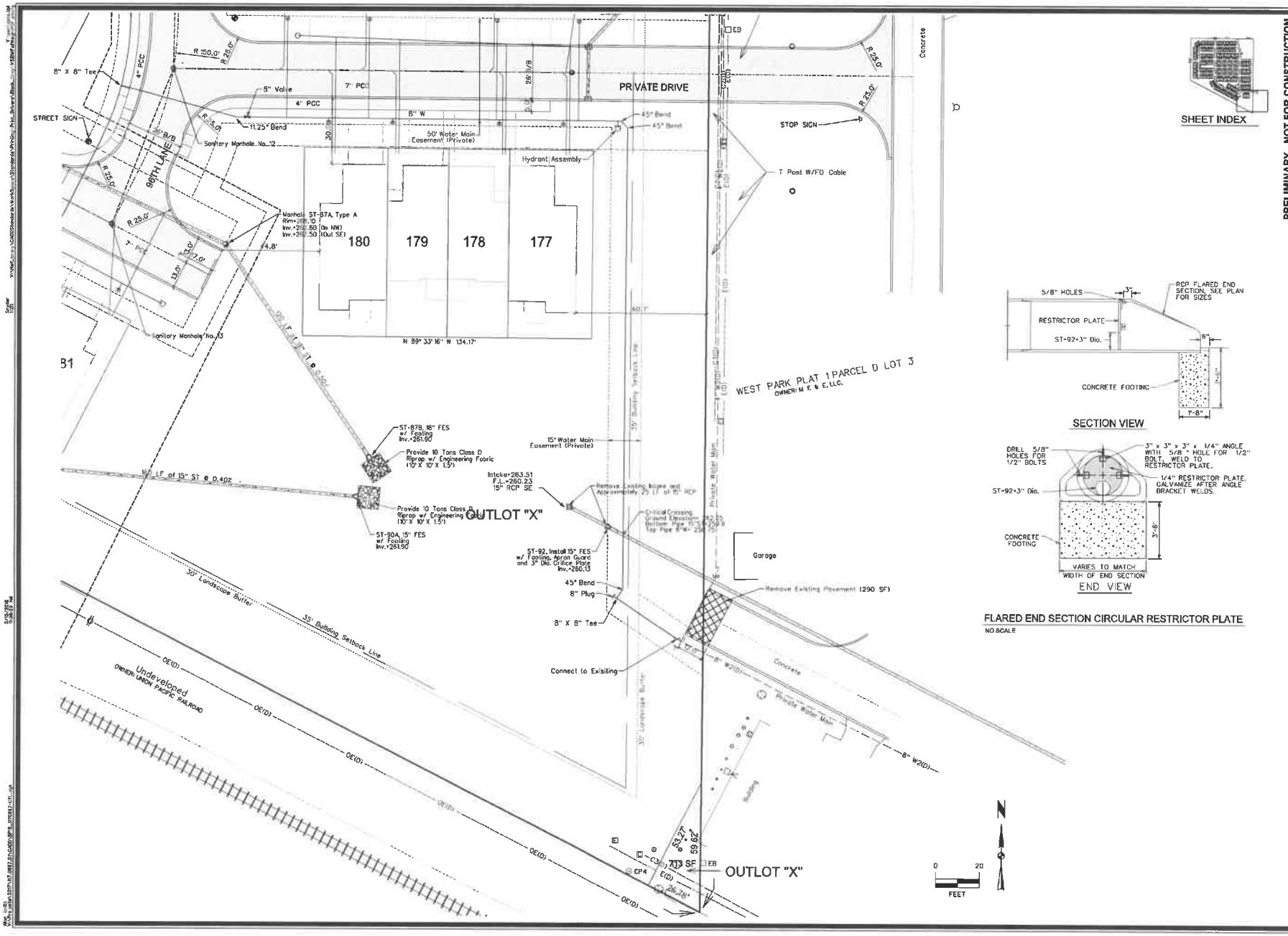

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SECTION VIEW

END VIEW

FLARED END SECTION CIRCULAR RESTRICTOR PLATE

NO SCALE

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 98TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"=20' | BY

Technician: AWS | Date: 4/05/18 | Field Bk: Pgs

Project No: 1170697 | Sheet 16 of 30

COVENANT COVE

DIMENSION AND UTILITY PLAN

WEST DES MOINES, IOWA

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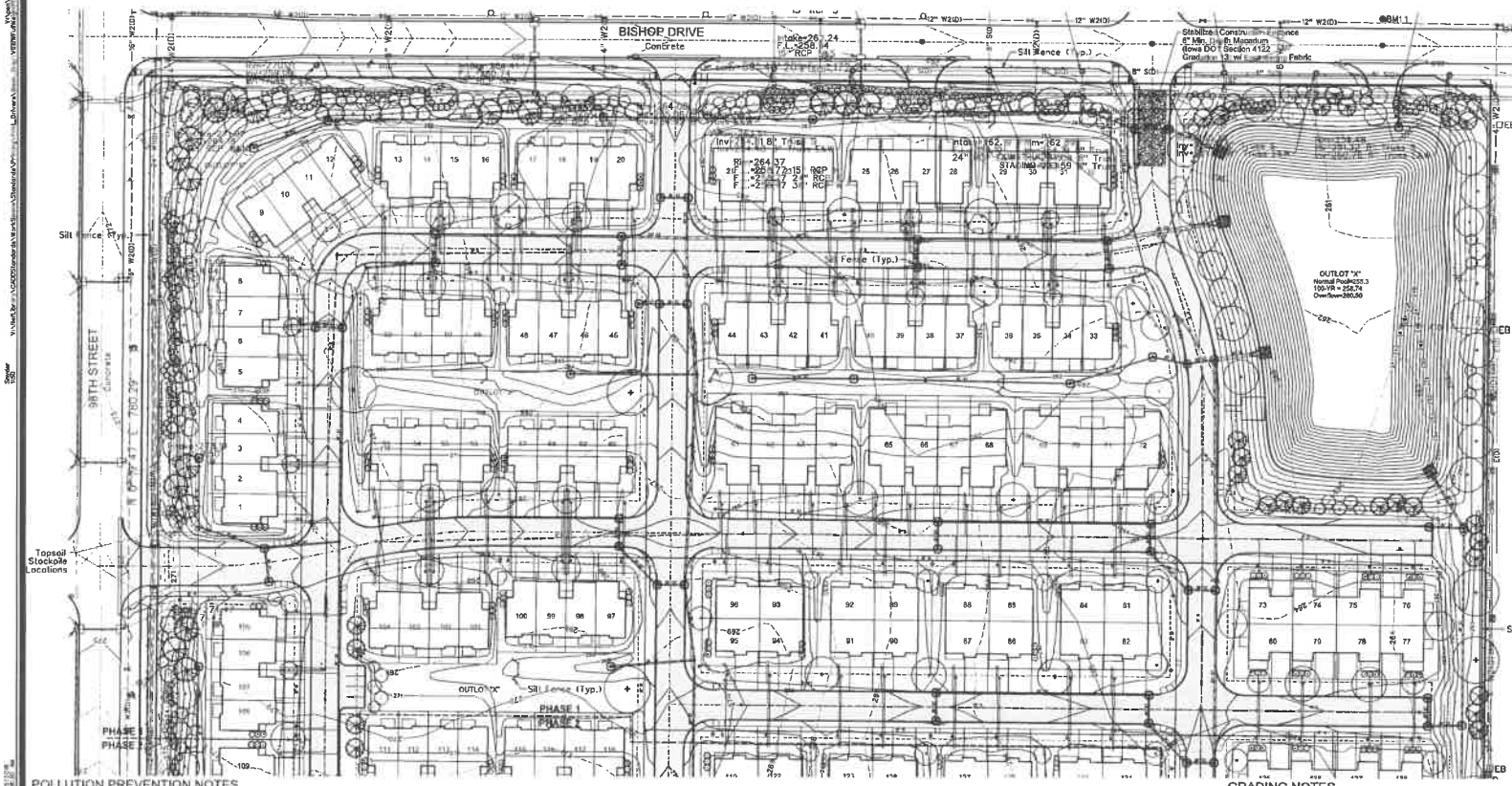


POLLUTION PREVENTION NOTES

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 (DNR) 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 AS SPECIFIED IN THE CONTRACT DOCUMENTS.

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:

c. 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. AS PER NPDES GENERAL PERMIT NO. 2, MAINTAIN ALL TOPSOIL ON SITE. 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, 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.

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.

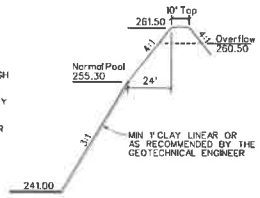
4. EROSION CONTROL: SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED. PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW.

5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM STREETS, DRIVEWAYS AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES.

6. CLEANUP AND GRADING ACTIVITIES CONTACT:
   ELDER CORPORATION
   ERIC ANDERSON
   515-249-2465

7. CONTACT FOR EROSION AND SEDIMENT CONTROL MEASURES
   CONTACT: 2M OUTDOOR SOLUTIONS
   MITCH MONROE
   515-249-2325

8. SCHEDULE OF EROSION CONTROL
   A. PERIMETER SILT FENCE PRIOR TO CONSTRUCTION.
   B. INTAKE SILT FENCE/SEDIMENT BASKET UPON INSTALLATION OF UTILITIES.
   C. FINAL STABILIZATION UPON COMPLETION OF CONSTRUCTION ACTIVITIES.



TYPICAL POND SECTION

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2.	REVISED WATER MAIN CONNECTION AT 98TH	03/15/18	AWS
1.	REVISED PER CITY COMMENTS	03/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 50' | Technician: AWS | Date: 4/05/18 | Plot By: Pgc

Project No: 1170697 | Sheet 17 of 30

COVENANT COVE

GRADING AND EROSION CONTROL PLAN

WEST DES MOINES, IOWA

SNYDER & ASSOCIATES, INC.
2727 S.W. SNYDER BLVD.
ANKENY, IOWA 50023
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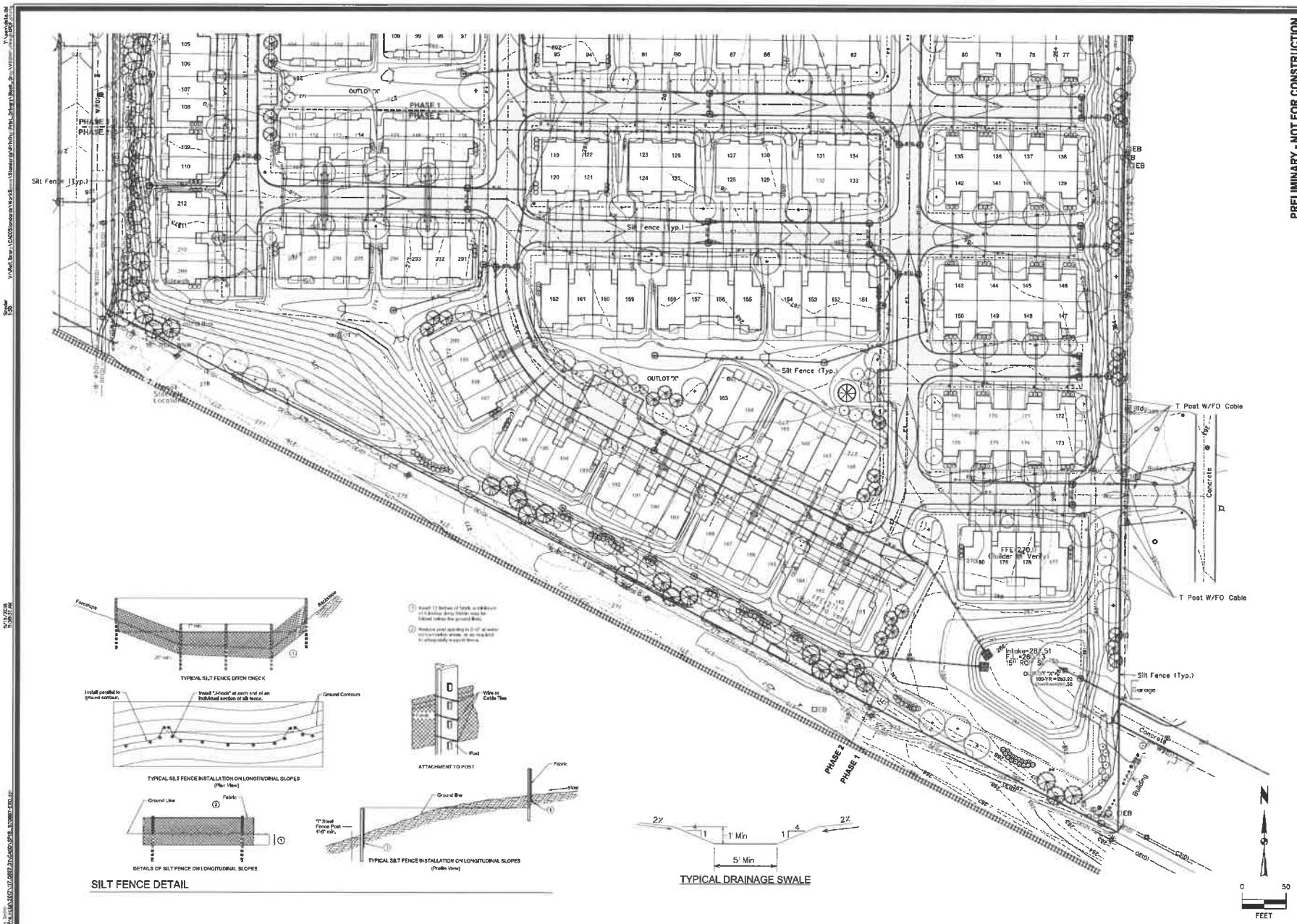

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
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1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 50'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:
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COVENANT COVE

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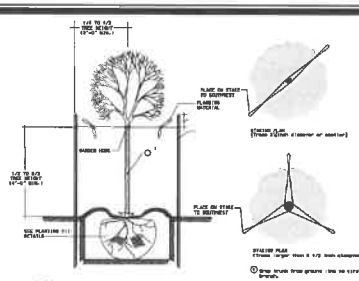
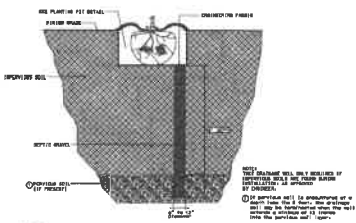
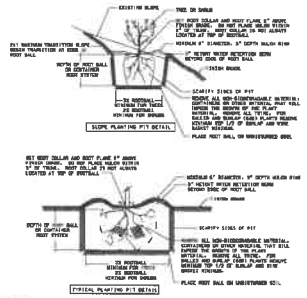


1 / 19 DECIDUOUS TREE STAKING DETAIL
NO SCALE



2 / 19 TREE DRAINAGE WELL DETAIL
NO SCALE



3 / 19 PLANTING PIT DETAILS
NO SCALE

PLANT SCHEDULE

	QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE AT PLANTING	COMMENTS
EVERGREEN	18	PT	Pinus flexilis 'Vanderwolf's Pyramid'	VANDERWOLF'S LIMBER PINE	8' HT.	B&B
	19	PC	Picea glauca 'Densata'	BLACK HILLS WHITE SPRUCE	8' HT.	B&B
	33	PP	Picea pungens f. glauca 'Fat Albert'	FAT ALBERT COLORADO SPRUCE	8' HT.	B&B
	22	PN	Pinus strobus	EASTERN WHITE PINE	8' HT.	B&B
OVERSTORY	14	AF	Acer x freemanii 'Marmo'	MARMO MAPLE	2"	B&B
	19	AK	Acer rubrum 'Karpick'	KARPICK RED MAPLE	2"	B&B
	5	AR	Acer rubrum 'Brandywine'	BRANDYWINE MAPLE	2"	B&B
	20	AS	Acer x freemanii 'Jeffersred'	AUTUMN BLAZE MAPLE	2"	B&B
	9	BN	Betula nigra	RIVER BIRCH	2"	B&B
	14	CO	Celtis occidentalis 'Prairie Pride'	PRAIRIE PRIDE HACKBERRY	2"	B&B
	15	GD	Gymnocladus dioicus 'Espresso'	ESPRESSO KENTUCKY COFFEE TREE	2"	B&B, SEEDLESS
	8	GI	Gleditsia triacanthos var. inermis 'Skyline'	SKYLINE HONEYLOCUST	2"	B&B
	11	QB	Quercus bicolor	SWAMP WHITE OAK	2"	B&B
	25	QP	Quercus macrocarpa 'UFS-KW3' PP22815	URBAN PINNACLE OAK	2"	B&B
	14	QW	Quercus x warei 'Long'	REGAL PRINCE OAK	2" CAL.	B&B, COLUMNAR
	3	TA	Tilia americana 'Redmond'	REDMOND AMERICAN LINDEN	2"	B&B
	5	UC	Ulmus carpinifolia x parvifolia 'Frontier'	FRONTIER ELM	2"	B&B
	29	MJ	Malus 'UFS-KW5' PP 14375	ROYAL RAINDROPS CRABAPPLE	6' HT.	B&B
	16	AG	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	6' HT.	B&B, MULTI-STEM
	6	CP	Cornus alternifolia	PAGODA DOGWOOD	6' HT.	B&B
UNDERSTORY	55	MA	Malus 'Adirondack'	ADIRONDACK CRABAPPLE	6' HT.	B&B
	18	ML	Malus 'Lollicrab'	LOLLIPOP CRABAPPLE	6' HT.	B&B
	19	MS	Malus 'Sargentii'	SARGENT CRABAPPLE	6' HT.	B&B
	9	SR	Syringa reticulata 'Ivory Silk'	IVORY SILK JAPANESE TREE LILAC	6' HT.	B&B
GRASSES	62	MG	Miscanthus sinensis 'Gracillimus'	MAIDEN GRASS	#3 CONTAINER	CONT. (5' O.C.)
	36	SS	Schizachyrium scoparium	LITTLE BLUESTEM	#3 CONTAINER	CONT. (4' O.C.)
	103	PS	Panicum virgatum 'Shenandoah'	SHENANDOAH SWITCHGRASS	#3 CONTAINER	CONT. (5' O.C.)
	24	PA	Pennisetum alopecuroides 'Hamelin'	DWARF FOUNTAIN GRASS	#3 CONTAINER	CONT. (4' O.C.)
	48	SH	Sporobolus heterolepis	PRAIRIE DROPSEED	#3 CONTAINER	CONT. (4' O.C.)
	105	SA	Sesleria autumnalis	AUTUMN MOOR GRASS	#3 CONTAINER	CONT. (4' O.C.)
	33	SN	Sorghastrum nutans	INDIAN GRASS	#3 CONTAINER	CONT. (4' O.C.)
	7	MD	Miscanthus sinensis 'Adagio'	DWARF MAIDEN GRASS	#3 CONTAINER	CONT. (4' O.C.)
	150	CA	Calamagrostis x acutiflora 'Karl Foerster'	KARL FOERSTER FEATHER REED GRASS	#3 CONTAINER	CONT. (4' O.C.)
	64	PV	Panicum virgatum 'Northwind'	NORTHWIND SWITCHGRASS	#3 CONTAINER	CONT. (4' O.C.)
	36	MM	Miscanthus sinensis 'Morning Light'	MORNING LIGHT MAIDEN GRASS	#3 CONTAINER	CONT. (4' O.C.)
	14	ER	Erianthus ravennae	HARDY PAMPAS GRASS	#3 CONTAINER	CONT. (5' O.C.)
	79	CF	Carex flacca 'Blue Zinger'	SEDGE	#3 CONTAINER	CONT. (5' O.C.)

NOTE: IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY SHOWN IN THE PLANT SCHEDULE AND THE QUANTITY SHOWN ON PLAN, THE QUANTITY SHOWN ON SCHEDULE SHALL GOVERN. LIST OF GRASSES PROVIDED BY OWNER.

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. PLANT MATERIAL SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE GUIDELINES SET FORTH BY THE CITY OF WEST DES MOINES.

D. ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-LATEST EDITION).

E. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF PROJECT ACCEPTANCE.

F. CONTRACTOR SHALL PROPERLY CARE FOR ALL PLANT MATERIAL DURING CONSTRUCTION AND FOR A PERIOD OF ONE YEAR FROM THE DATE OF PROJECT ACCEPTANCE.

G. HARDWOOD MULCH: PROVIDE 3-INCH DEPTH SHREDDED HARDWOOD MULCH AROUND ALL PLANTINGS TO A MIN. 3-FOOT PERIMETER. 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. CONTRACTOR TO PROVIDE A CLEAN VERTICAL CUT EDGE TO 4" DEPTH INTO EXISTING GRADE TO DEFINE THE PLANTING BED LIMITS, UNLESS OTHERWISE DIRECTED BY OWNER.

H. CONTRACTOR TO PROVIDE A SAMPLE OF EDGING AND MULCH FOR APPROVAL.

I. ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY, HEALTHY, FREE OF DISEASE AND INSECTS AND SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS. PLANTS SHALL ALSO BE FREE FROM PHYSICAL DAMAGE OR OTHER CONDITIONS THAT WOULD PREVENT VIGOROUS GROWTH.

J. ALL PLANT MATERIAL SHALL BE GROWN IN ZONE CAPABLE OF WITHSTANDING LOCAL CLIMATE AND GROWING CONDITIONS.

K. PLANTS SHALL BE TRUE TO SPECIES, SIZE AND VARIETY SPECIFIED. SUBSTITUTIONS OF PLANT MATERIALS IS NOT PERMITTED UNLESS AUTHORIZED IN WRITING BY THE LANDSCAPE ARCHITECT. OWNER HAS THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.

L. TREE OR SHRUB SHALL STAND PLUMB. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACK FILLING.

M. ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON PLANS. ALL TREES TO BE PLANTED A MINIMUM DISTANCE OF 5 FEET FROM PAVEMENTS AND 6 FEET FROM ALL HYDRANTS.

N. ANY WATER USE REQUIRES A WDMWW HYDRANT METER.

BUFFER YARD REQUIREMENTS

30' LANDSCAPE BUFFER WITH A MINIMUM 1 OVERSTORY/EVERGREEN TREE, 2 ORNAMENTAL TREES, 6 SHRUBS per 35 L.F.

NORTH BUFFERYARD (1157.22 LF TOTAL):

1157.22/35 = 33.06 PLANT UNITS

33.06 X 1= 33.06 OVERSTORY/EVERGREEN TREES REQUIRED, (34 PROVIDED: 50% EVERGREEN).

33.06 X 2= 66.12 UNDERSTORY TREES REQUIRED, (67 PROVIDED).

33.06 X 6= 198.4 SHRUBS REQUIRED, (199 PROVIDED).

WEST BUFFERYARD (787.9 LF TOTAL):

787.87/35 = 22.5 PLANT UNITS

22.5 X 1= 22.5 OVERSTORY/EVERGREEN TREES REQUIRED, (23 PROVIDED: 50% EVERGREEN).

22.5 X 2= 45 UNDERSTORY TREES REQUIRED, (45 PROVIDED).

22.51 X 6= 135 SHRUBS REQUIRED, (135 PROVIDED).

BUFFER YARD REQUIREMENTS

60' LANDSCAPE BUFFER WITH A MINIMUM 1 OVERSTORY/EVERGREEN TREE AND 3 SHRUBS per 35 L.F.

SOUTH BUFFERYARD (1293.47 LF TOTAL):

1293.47/35 = 36.96 PLANT UNITS

36.96 X 1= 36.96 OVERSTORY/EVERGREEN TREES REQUIRED, (37 PROVIDED).

36.96 X 3= 110.88 SHRUBS REQUIRED, (111 PROVIDED).

OPEN SPACE REQUIREMENTS

PROPERTY AREA= 1,260,374 SQ. FT.
PAVEMENT/BUILDING AREA= 608,016 SQ. FT.
OPEN SPACE= 652,358 SQ. FT.

25% OPEN SPACE REQUIRED, 1,260,374 X 25% = 315,093.5 REQUIRED (652,358 SQ. FT. PROVIDED)

315,093.5/3,000 = 105.03 PLANT UNITS

105.03 X 2= 210.06 OVERSTORY/EVERGREEN TREES REQUIRED, (211 PROVIDED: 50% EVERGREEN)

105.03 X 3= 315.09 SHRUBS REQUIRED, (316 PROVIDED).

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT WEST	05/30/19	AWS
1	REVISED PER CITY COMMENTS	05/10/19	AWS

Engineer: CJD | Checked By: BKC | Scale: 1"= N/A
Technician: AWS | Date: 4/05/18 | Plotted Blc: Pgc
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COVENANT COVE

PLANTING NOTES AND DETAILS

WEST DES MOINES, IOWA

SNYDER & ASSOCIATES, INC.
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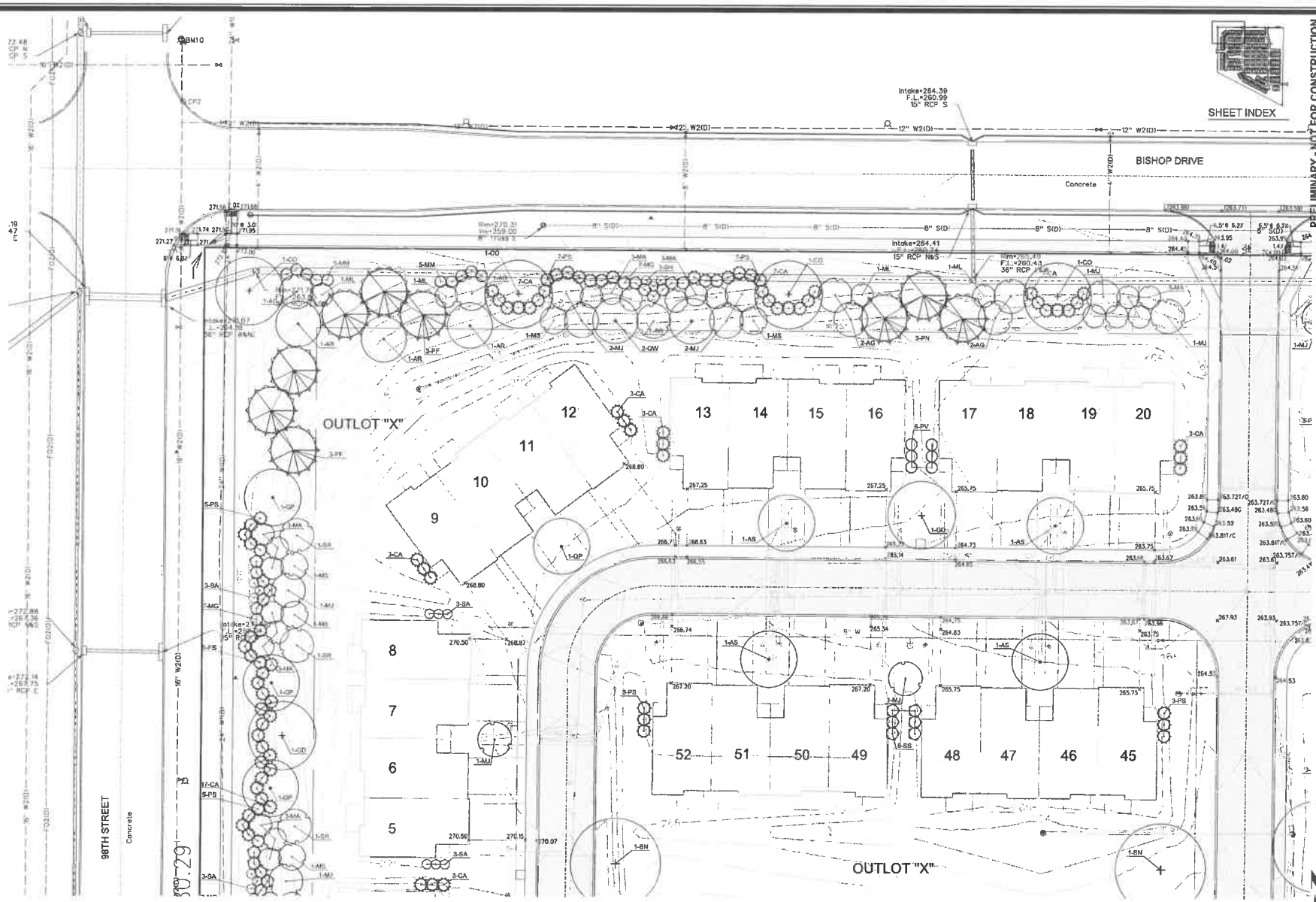

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 36TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/09/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20' | Field Bk: PSI
Technician: AWS | Date: 4/05/18 | Project No: 1170697 | Sheet 20 of 30

COVENANT COVE

DETAILED GRADING AND PLANTING PLAN

WEST DES MOINES, IOWA

SNYDER & ASSOCIATES, INC.
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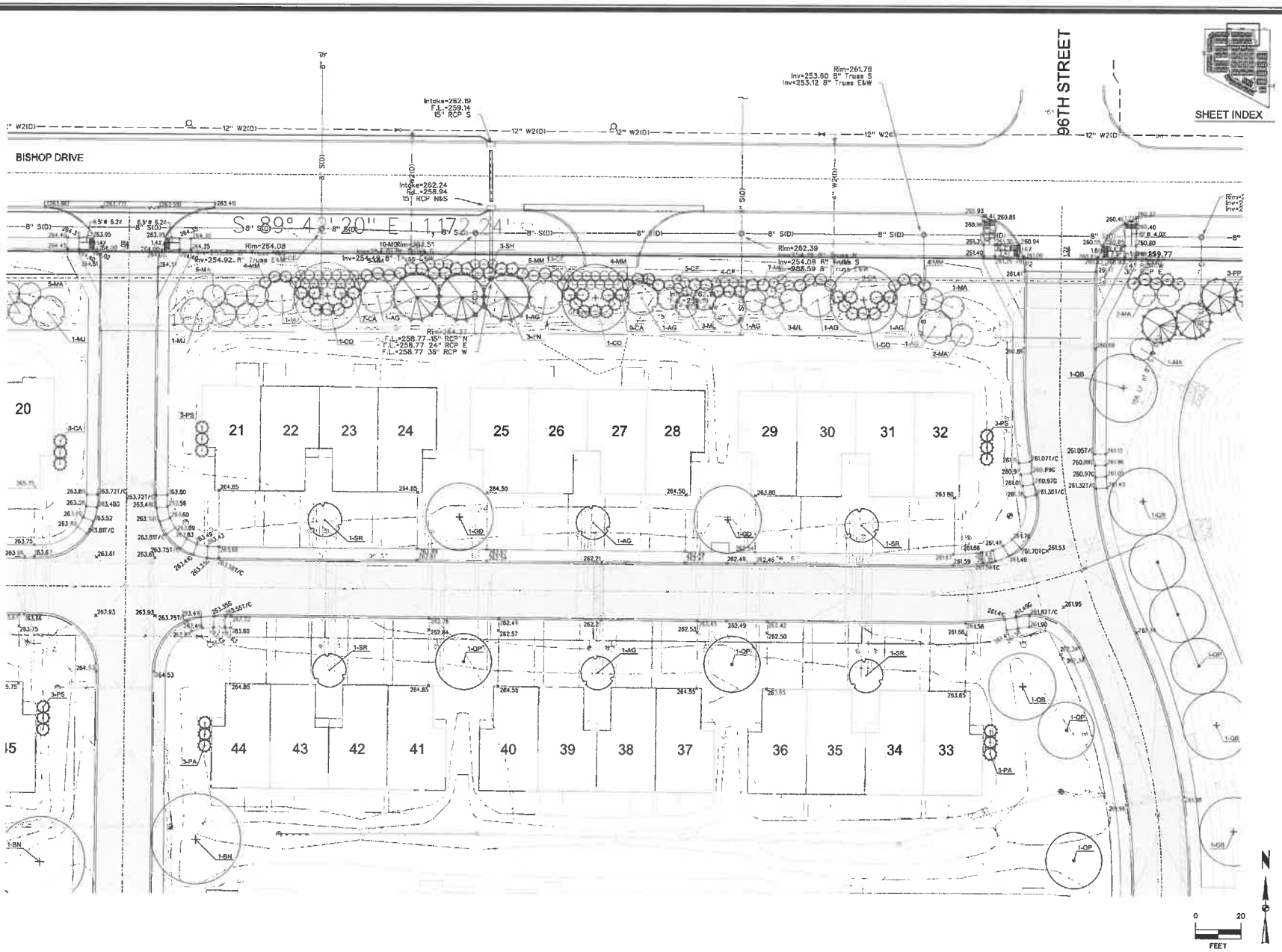

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
1	REVISED FOR CITY COMMENTS	05/16/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:
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COVENANT COVE

DETAILED GRADING AND PLANTING PLAN

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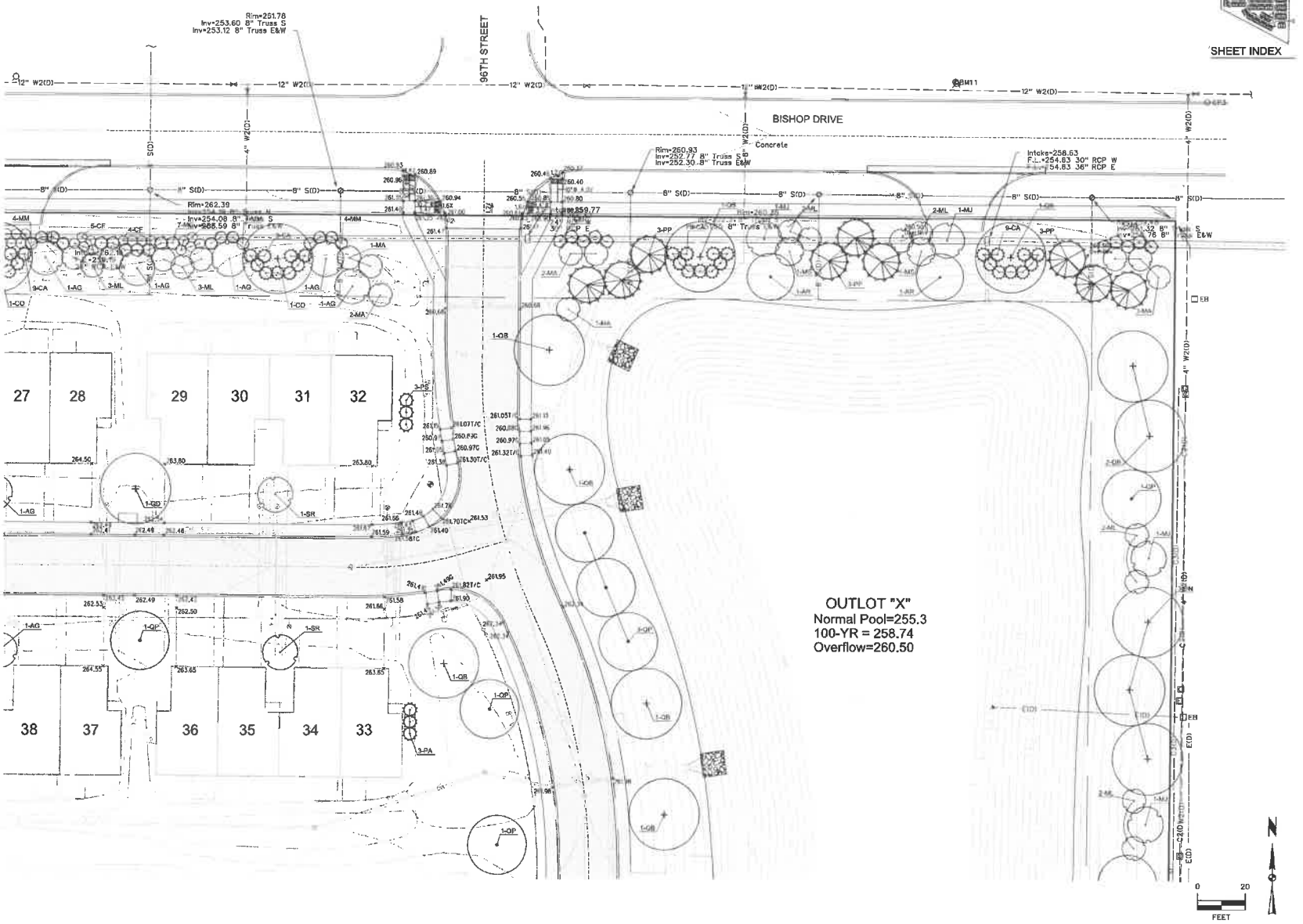

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 96TH	05/10/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: | Pg:

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COVENANT COVE

DETAILED GRADING AND PLANTING PLAN

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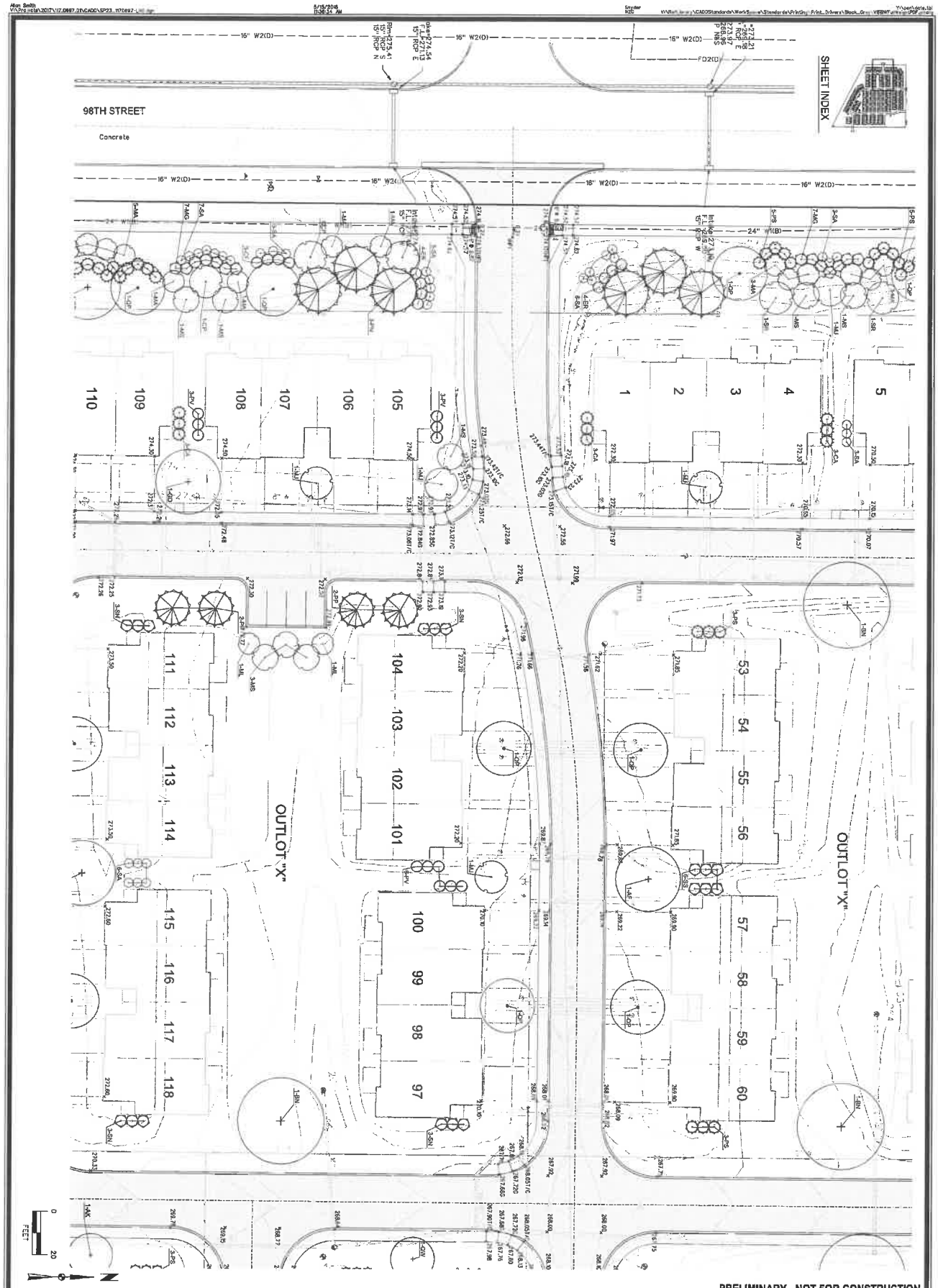

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COVENANT COVE

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MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 98TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:

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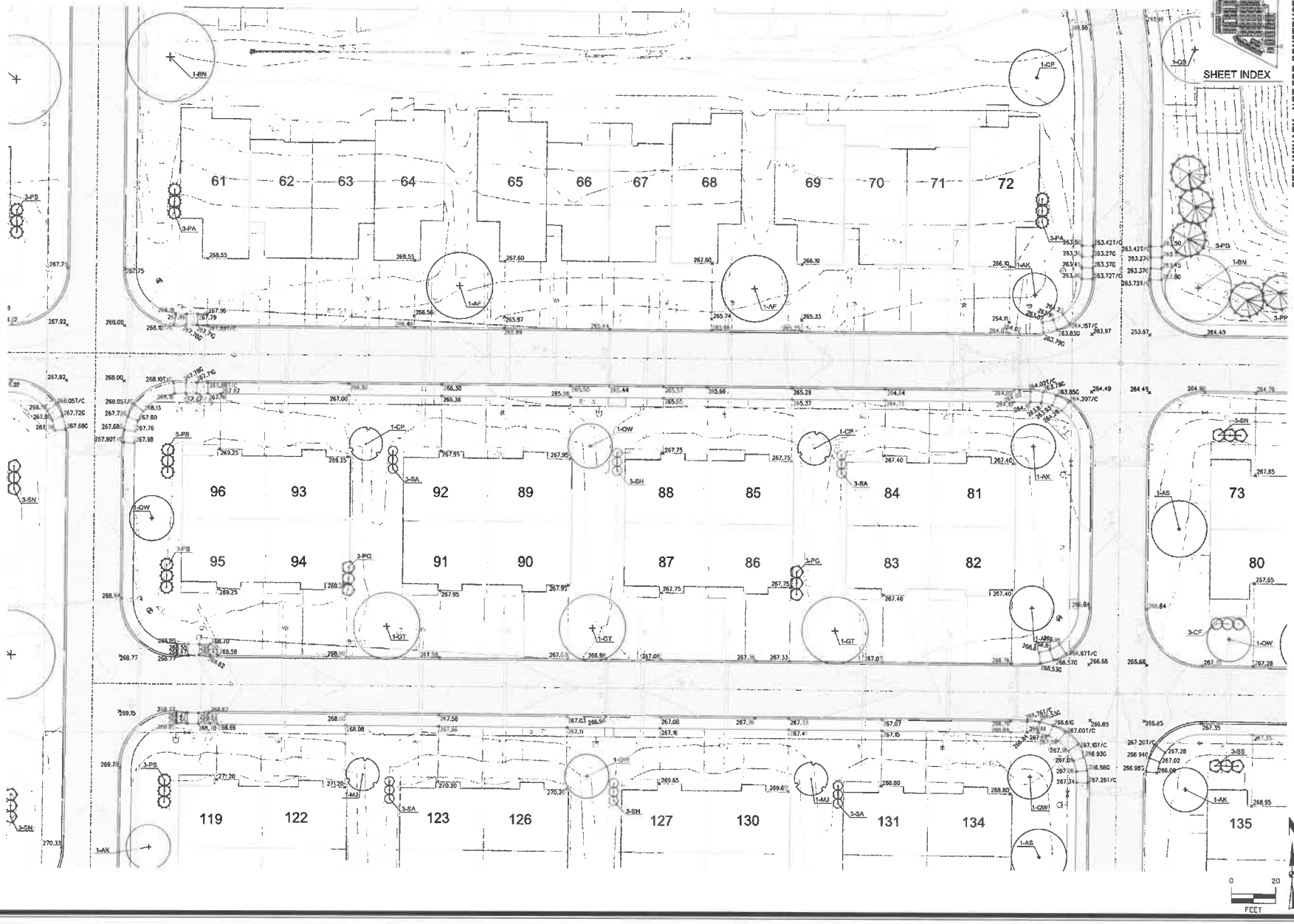

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1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD Checked By: BKC Scale: 1"= 20'
Technician: AWS Date: 4/05/18 Field Bk: Pgs:

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COVENANT COVE

DETAILED GRADING AND PLANTING PLAN

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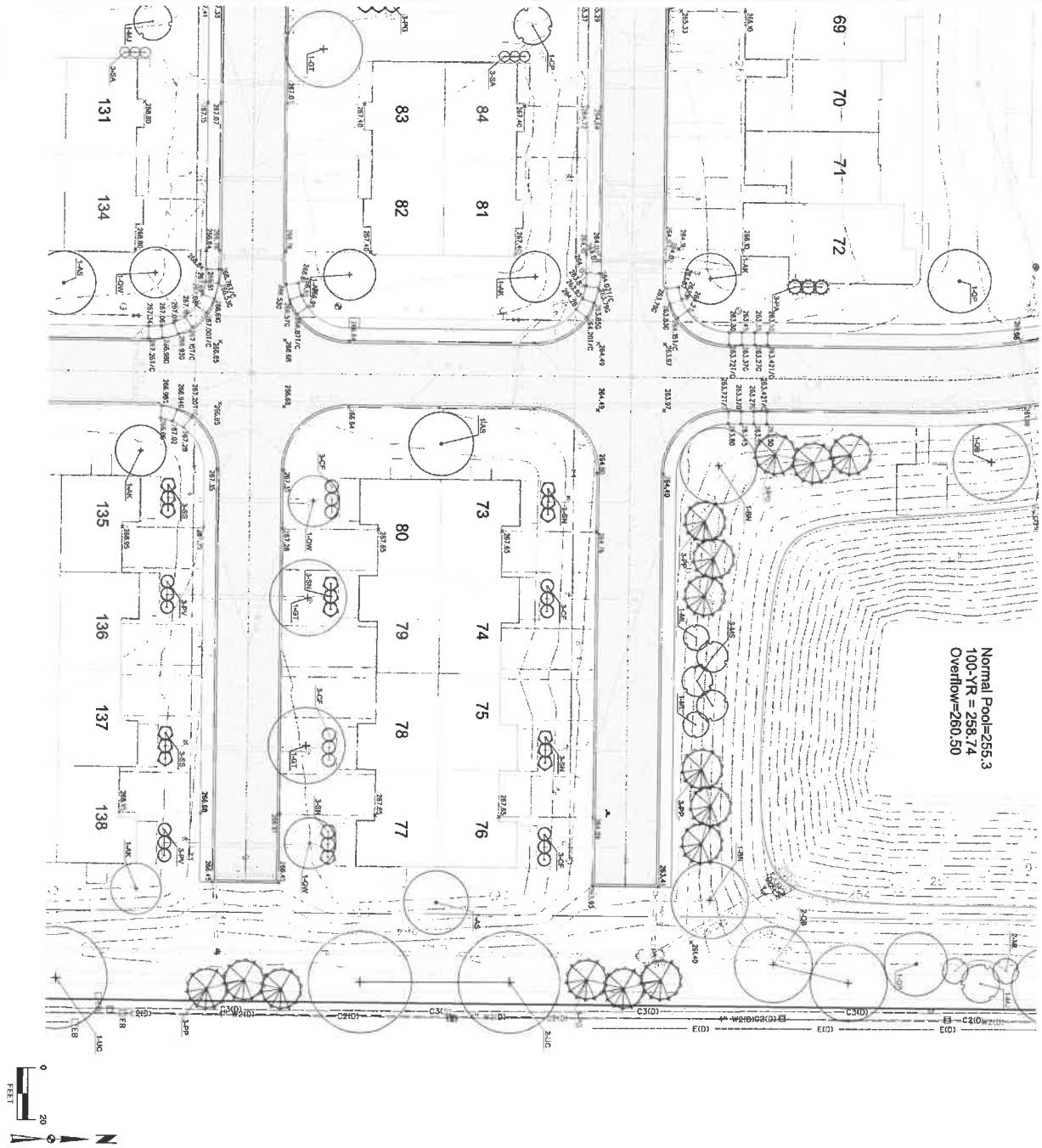

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PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
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1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:

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SNYDER & ASSOCIATES

COVENANT COVE

DETAILED GRADING AND PLANTING PLAN

WEST DES MOINES, IOWA

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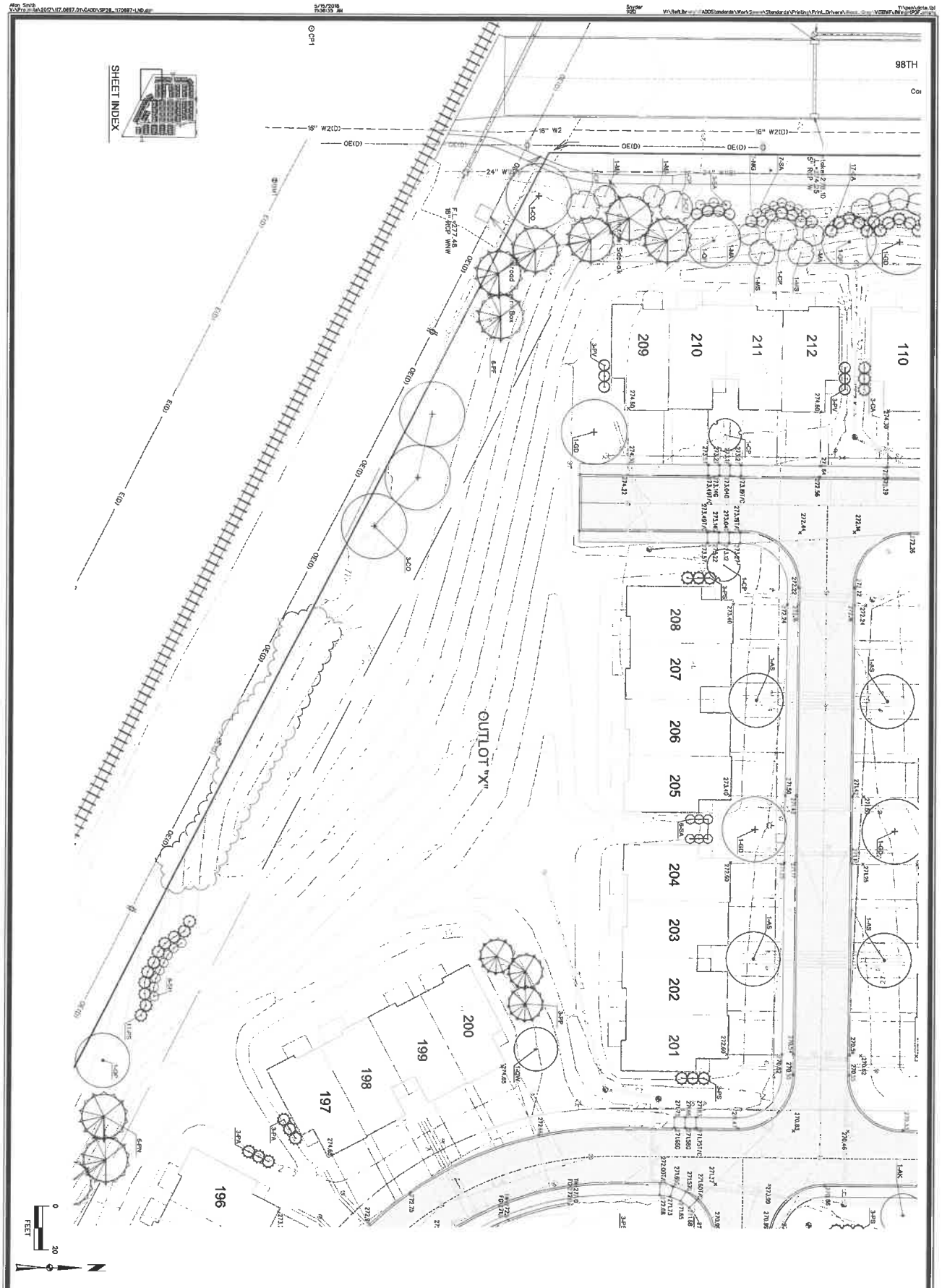

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
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1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: | Pg:

Project No: 1170697 | Sheet 26 of 30

COVENANT COVE

DETAILED GRADING AND PLANTING PLAN

WEST DES MOINES, IOWA

SNYDER & ASSOCIATES, INC.

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

SNYDER & ASSOCIATES

Project No: 1170697

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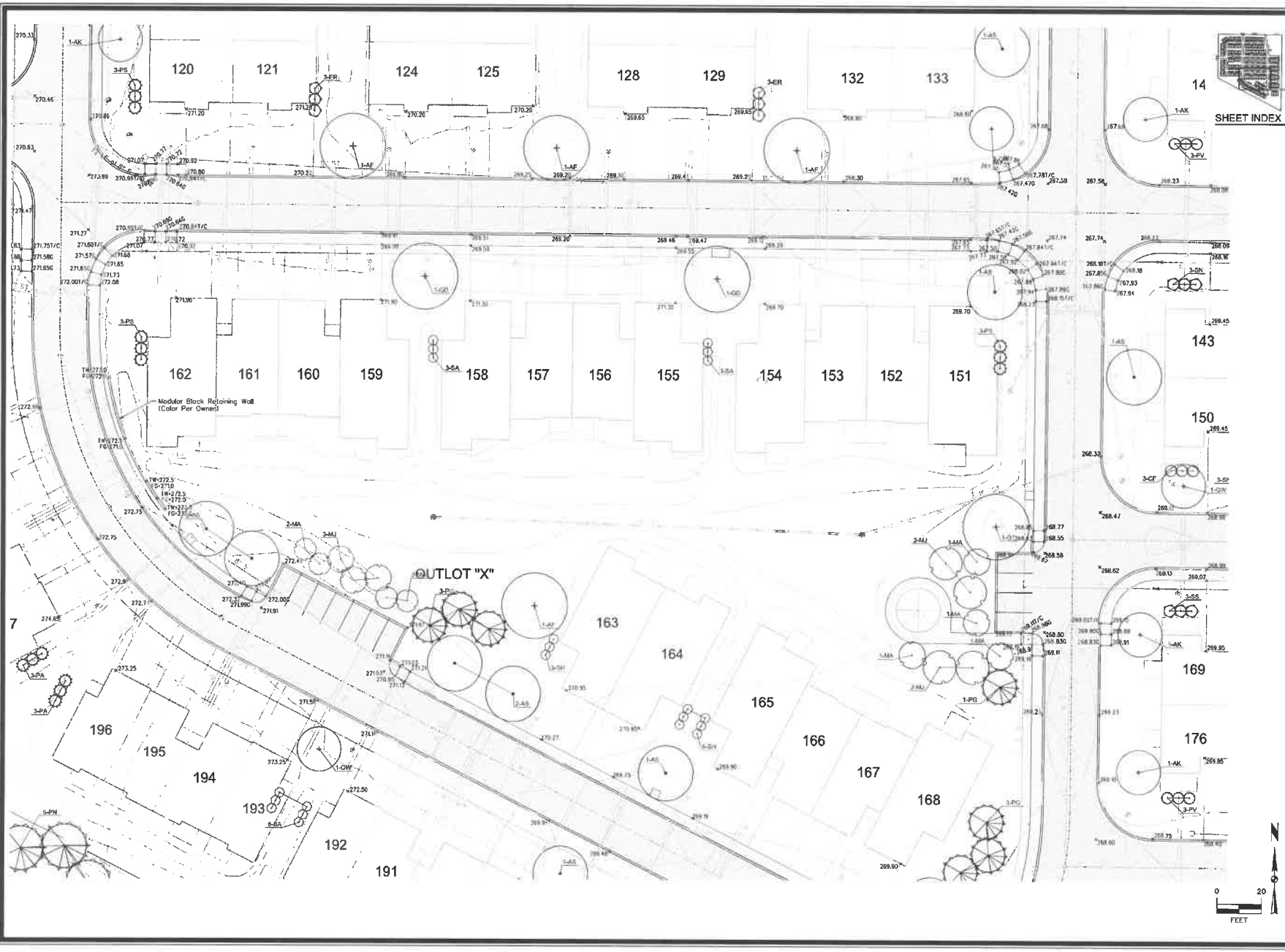

PRELIMINARY - NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 36TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:

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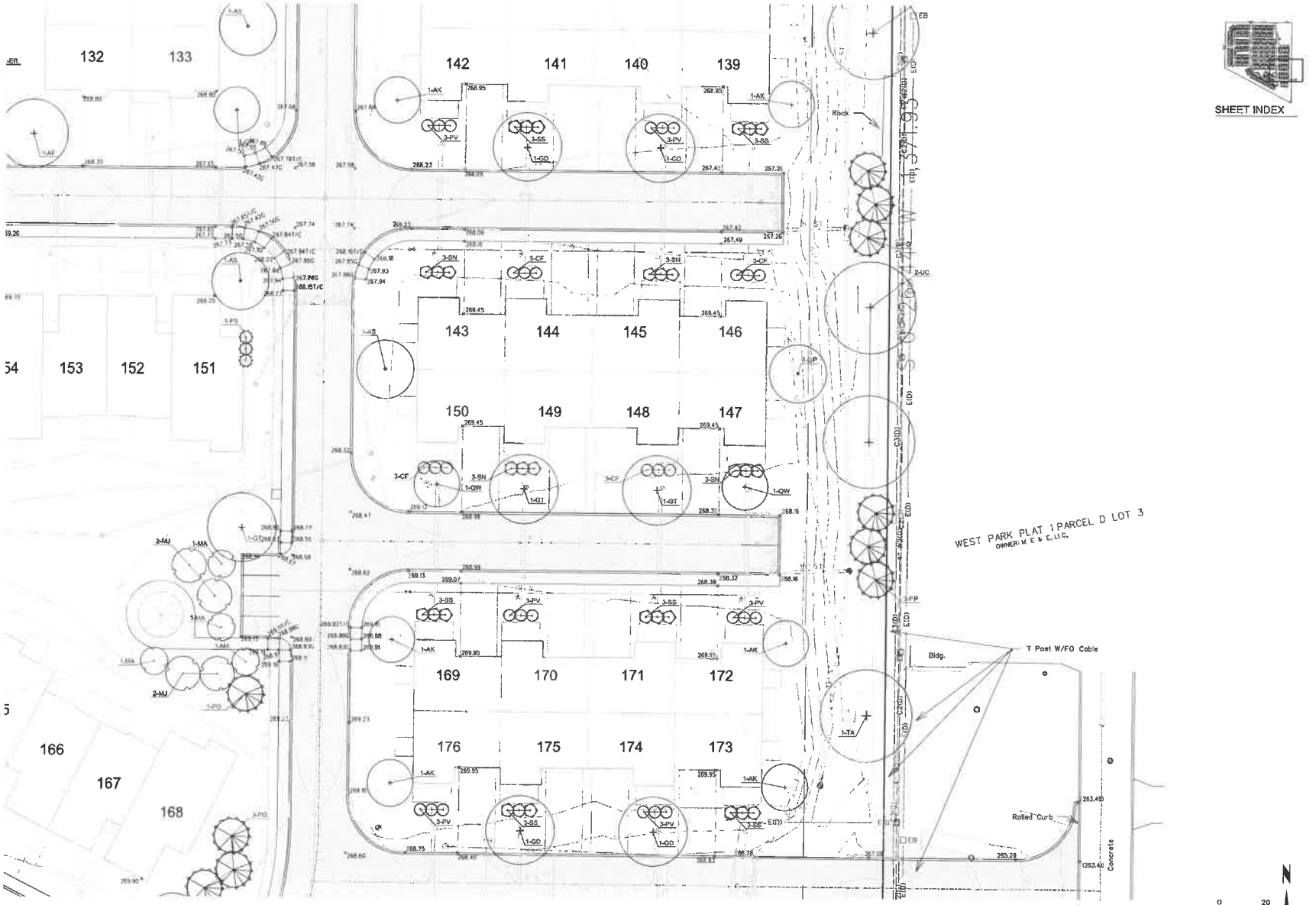

PRELIMINARY • NOT FOR CONSTRUCTION

MARK	REVISION	DATE	BY
2	REVISED WATER MAIN CONNECTION AT 96TH	05/15/18	AWS
1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"=20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pgs
Project No: 1170697 | Sheet 28 of 30

COVENANT COVE

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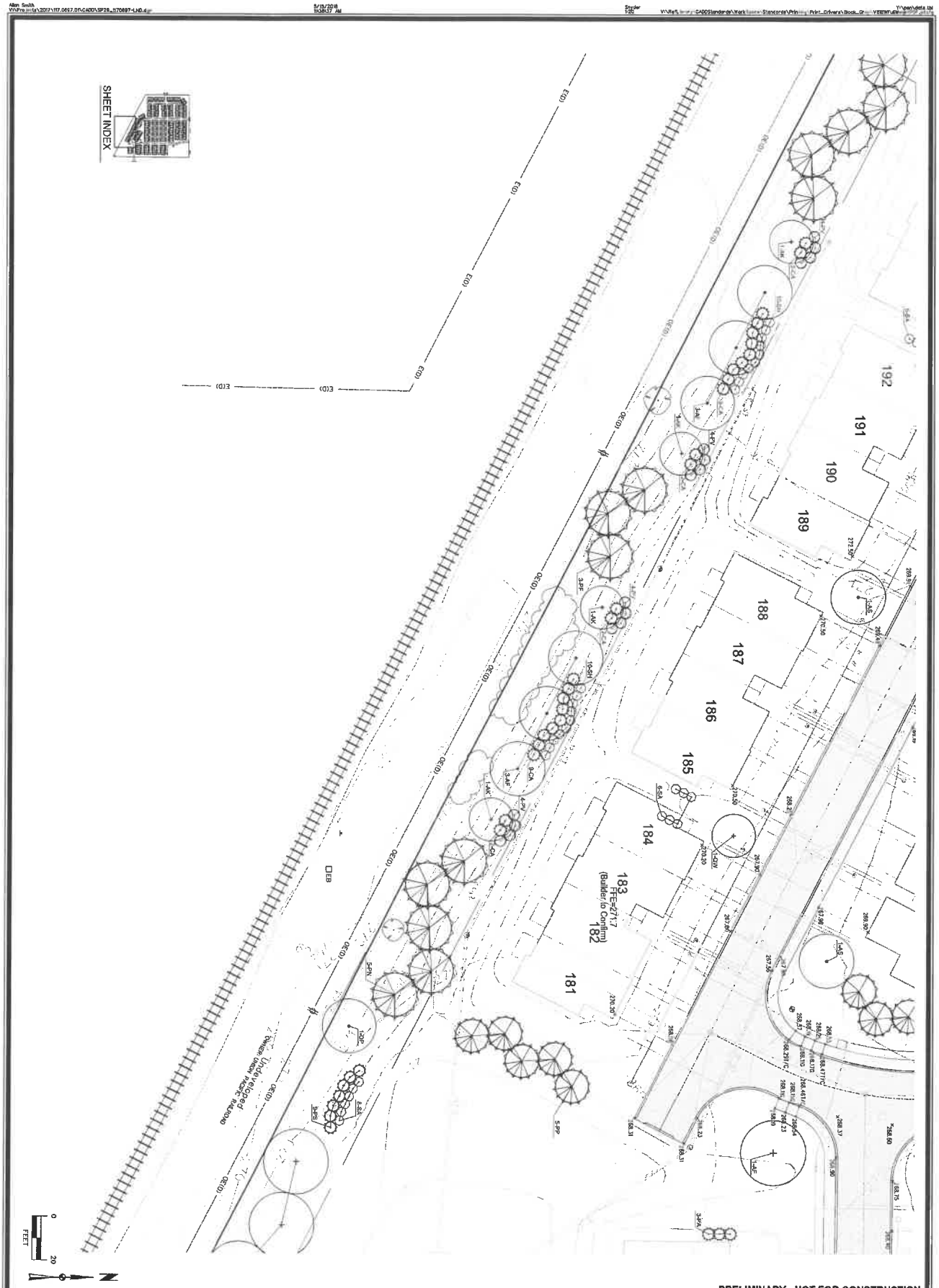

PRELIMINARY - NOT FOR CONSTRUCTION

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1	REVISED PER CITY COMMENTS	05/10/18	AWS

Engineer: CDD | Checked By: BKC | Scale: 1"= 20'
Technician: AWS | Date: 4/05/18 | Field Bk: Pg:

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SNYDER & ASSOCIATES

COVENANT COVE

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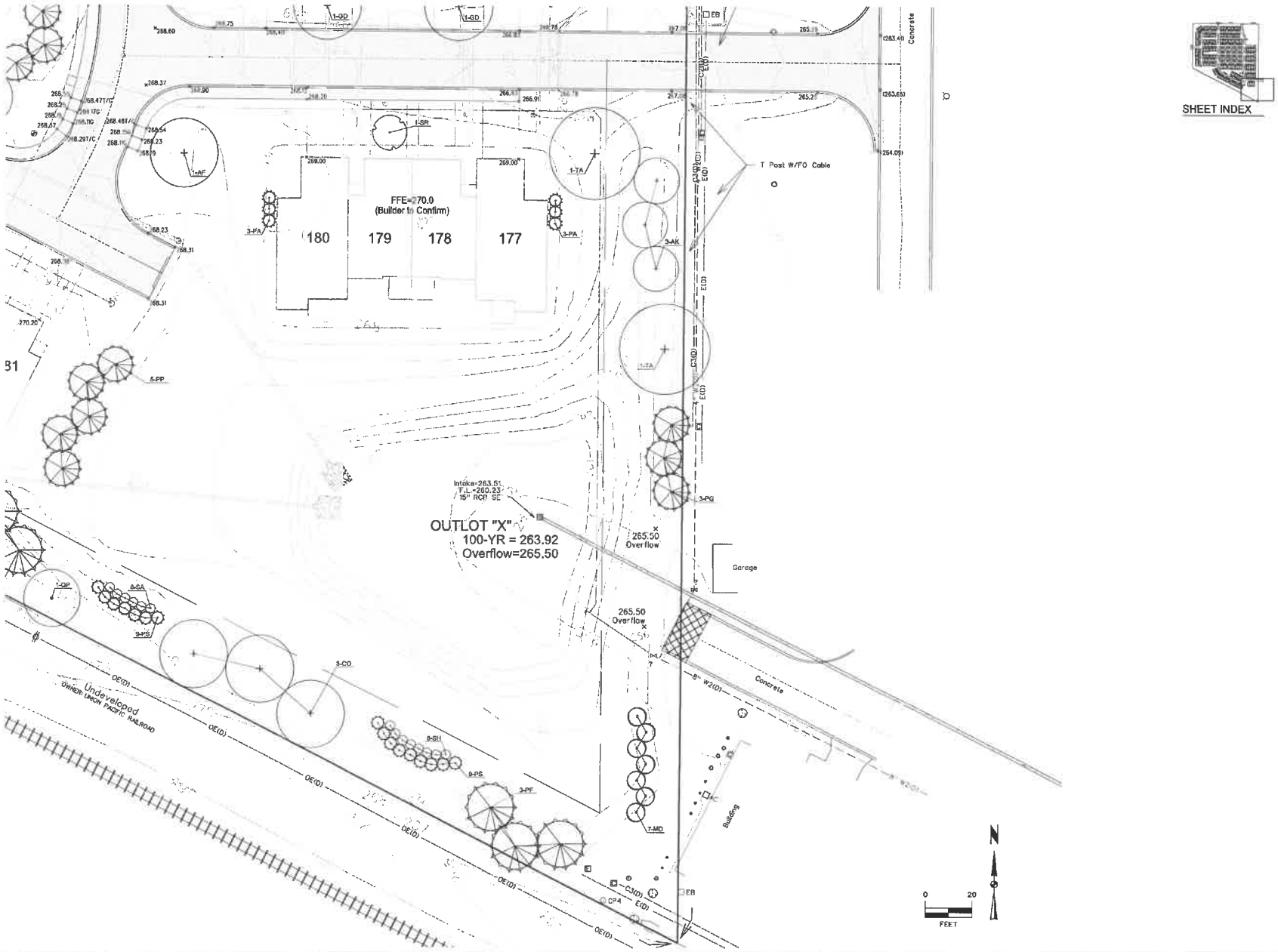
FFE=270.0
(Builder to Confirm)
180
179
178
177
OUTLOT "X"
100-YR = 263.92
Overflow=265.50
Inlet=263.51
F.L.=260.23
15" RCP SE
265.50
Overflow
Garage
Building
Concrete
T Post W/FO Cable
Undeveloped
OWNER: UNION PACIFIC RAILROAD
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