

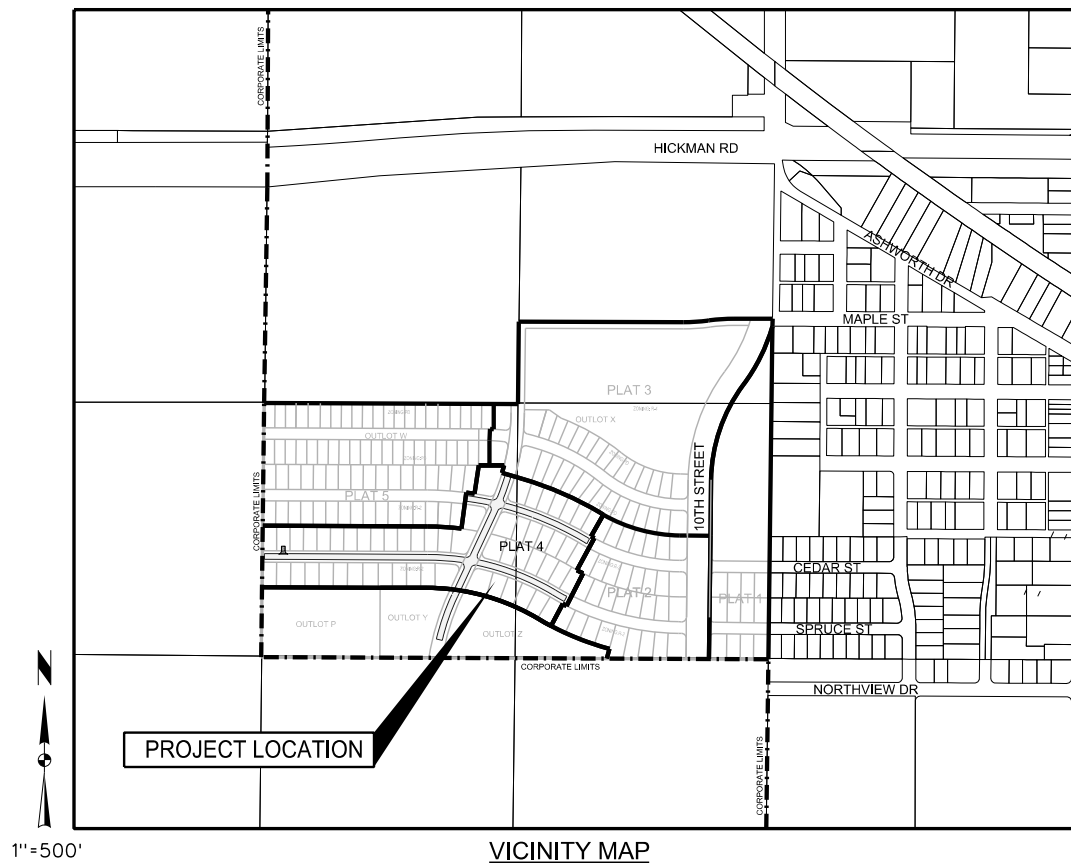
# CONSTRUCTION DOCUMENTS

FOR

# SPRING CREST PLAT 4

## SINGLE FAMILY RESIDENTIAL DEVELOPMENT

## CITY OF WAUKEE, DALLAS COUNTY, IOWA



VICINITY MAP

**OWNER/DEVELOPER**  
 SPRING CREST PARTNERS LLC  
 9550 HICKMAN RD, SUITE 100  
 CLIVE, IA 50325  
 CONTACT: NICK HALFILL  
 PHONE: 515-986-5994

**ENGINEER/PROJECT MANAGER**  
 SNYDER & ASSOCIATES INC  
 2727 SNYDER BLVD  
 ANKENY, IA 50023  
 CONTACT: ERIC CANNON  
 PHONE: 515-964-2020

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2. PROJECT INFORMATION
3. HYDRANT COVERAGE PLAN
4. OVERALL SITE GRADING PLAN
5. DETAILED GRADING PLAN
6. EROSION AND SEDIMENT CONTROL PLAN
- 7-9. SANITARY SEWER AND WATER MAIN PLAN AND PROFILE
10. WATER MAIN PLAN AND PROFILE
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16. STORM SEWER PLAN AND PROFILE
17. INTERSECTION DETAILS
18. MISCELLANEOUS DETAILS

**RECORD DRAWINGS**

THESE PLANS HAVE BEEN REVISED AFTER CONSTRUCTION TO CONFORM WITH INFORMATION FURNISHED BY THE CONTRACTOR AND CONSTRUCTION REVIEWER AND TO REFLECT MEASUREMENTS MADE FOR THE PREPARATION OF FINAL ESTIMATES OF QUANTITIES.

	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. Date: 2-26-20 Eric D. Cannon, P.E.
	License Number 18954 My License Renewal Date is December 31, 2019 Pages or sheets covered by this seal: Sheets 1-18

01/30/20 RSN	04/16/18 JMM
6 REVISED PER AS-BUILT SURVEY	5 REVISED PAVEMENT QUANTITIES
4 REVISED AS PER CITY COMMENTS	04/06/18 JMM
3 REVISED AS PER CITY COMMENTS	03/28/18 JMM
2 REVISED AS PER CITY COMMENTS	02/20/18 JMM
1 REVISED AS PER CITY COMMENTS	01/26/18 JMM
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Engineer: KMM	Checked By: EDC
Technician: JMM	Date: 11/15/17
Field Bk:	Scale: 1"=500'
Project No: 117.1035	Sheet 1 of 18

SPRING CREST PLAT 4

TITLE SHEET

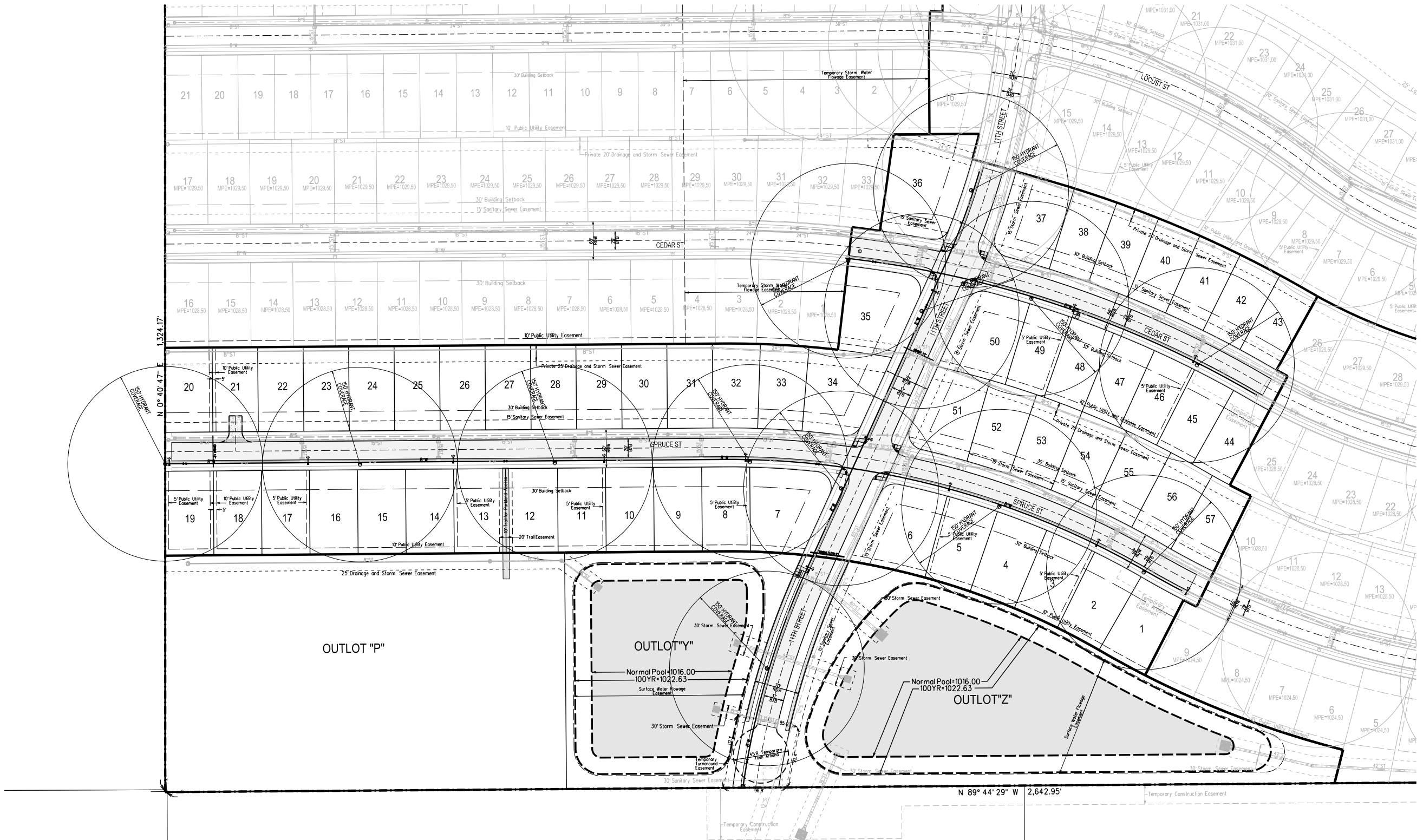
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**SNYDER & ASSOCIATES, INC.**



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 Engineer: KMM  
 Scale: 1" = 80'  
 Field Bk: 117.1035  
 Project No: 117.1035  
 Sheet 3 of 18



**SPRING CREST PLAT 4**

**HYDRANT COVERAGE PLAN**

**SNYDER & ASSOCIATES, INC.**

WAUKEE, IA

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**BENCHMARKS**

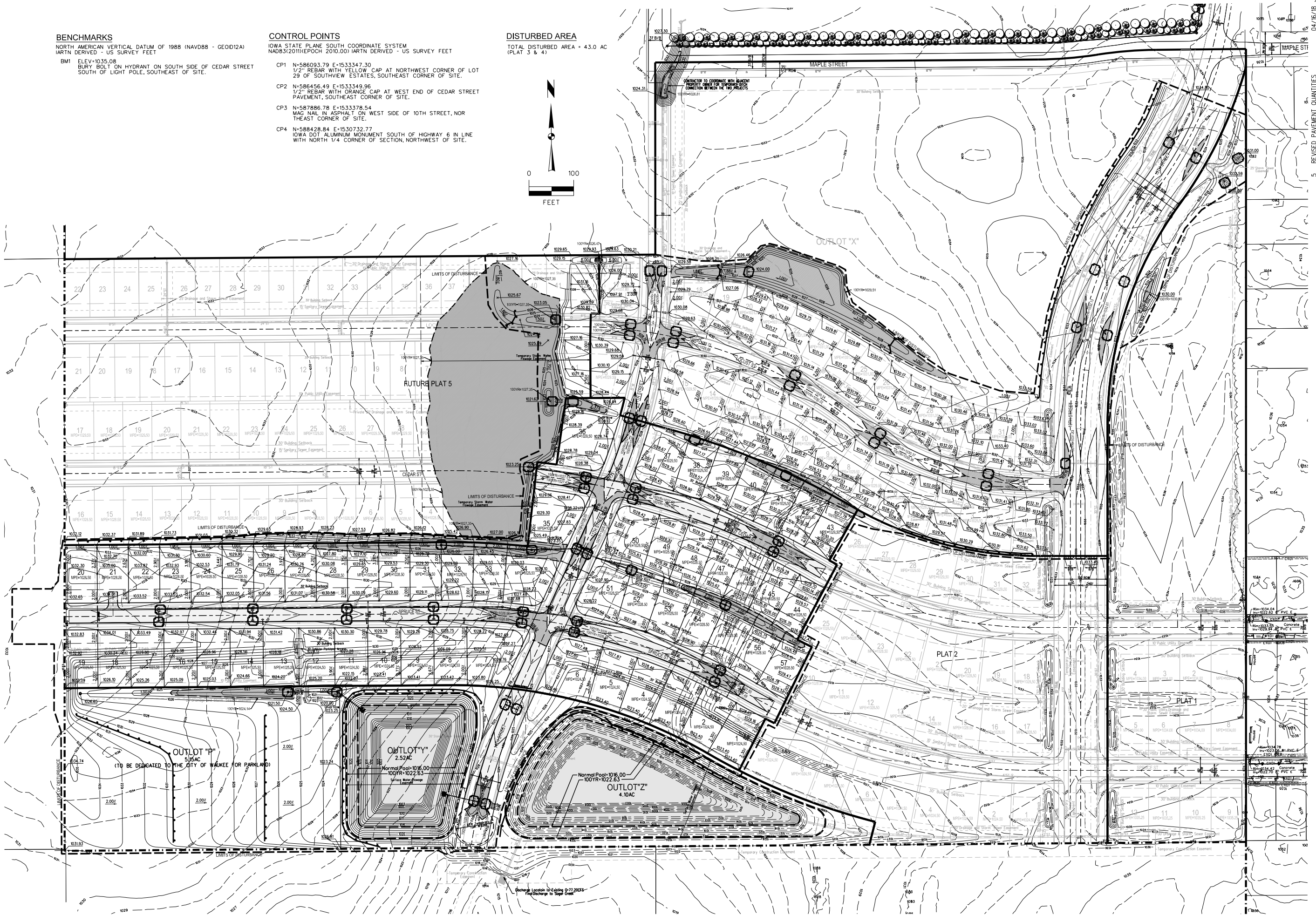
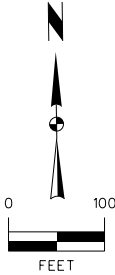
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)  
IARTN DERIVED - US SURVEY FEET  
BM1 ELEV=1035.08  
BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET  
SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

**CONTROL POINTS**

IOWA STATE PLANE SOUTH COORDINATE SYSTEM  
NAD83/2011EPOCH 2010.00 IARTN DERIVED - US SURVEY FEET  
CP1 N=586093.79 E=1533347.30  
1/2" REBAR WITH YELLOW CAP AT NORTHWEST CORNER OF LOT  
29 OF SOUTHWIND ESTATES, SOUTHEAST CORNER OF SITE.  
CP2 N=586456.49 E=1533349.96  
1/2" REBAR WITH ORANGE CAP AT WEST END OF CEDAR STREET  
PAVEMENT, SOUTHEAST CORNER OF SITE.  
CP3 N=587886.78 E=1533378.54  
MAG NAIL IN ASPHALT ON WEST SIDE OF 10TH STREET, NOR  
THEAST CORNER OF SITE.  
CP4 N=588428.84 E=1530732.77  
IOWA DOT ALUMINUM MONUMENT SOUTH OF HIGHWAY 6 IN LINE  
WITH NORTH 1/4 CORNER OF SECTION, NORTHWEST OF SITE.

**DISTURBED AREA**

TOTAL DISTURBED AREA = 43.0 AC  
(PLAT 3 & 4)



5 REVISED PAVEMENT QUANTITIES 04/16/18 JWM

MARK	REVISION	DATE	BY
4	REVISED AS PER CITY COMMENTS	04/06/18	JWM
3	REVISED AS PER CITY COMMENTS	03/28/18	JWM
2	REVISED AS PER CITY COMMENTS	02/20/18	JWM
1	REVISED AS PER CITY COMMENTS	01/26/18	JWM

Engineer: KMM Checked By: EDC  
Technician: JWM Date: 11/15/17 Scale: 1" = 100'  
Field By: Pg:

**WAUKEE, IA**  
**SPRING CREST PLAT 4**  
**OVERALL GRADING PLAN**

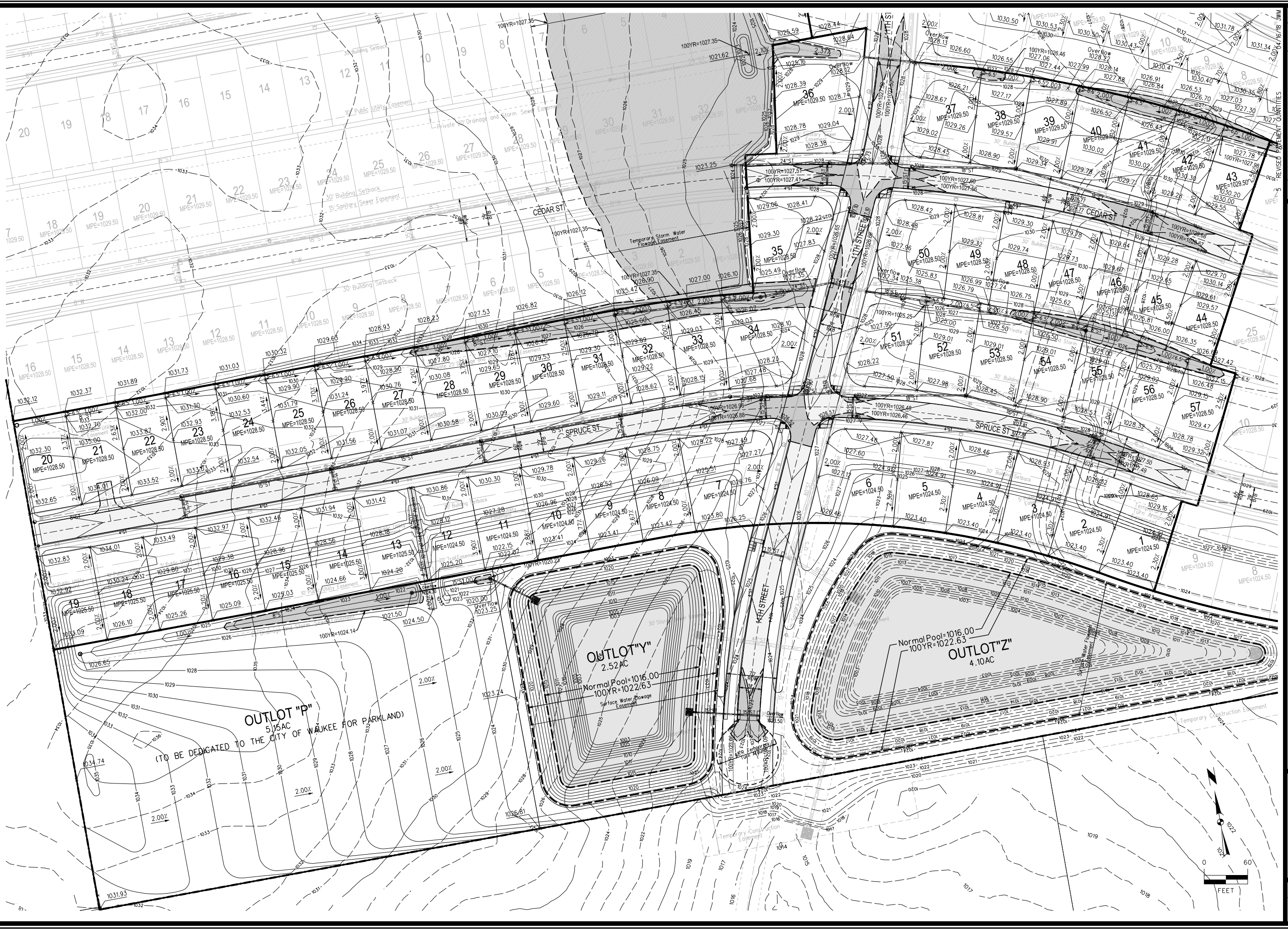


Project No: 117.1035  
Sheet 4 of 18

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Sheet 4 of 18

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3	REVISED AS PER CITY COMMENTS	03/28/18	JMM
2	REVISED AS PER CITY COMMENTS	02/20/18	JMM
1	REVISED AS PER CITY COMMENTS	01/26/18	JMM

Engineer: **KMM** Checked By: **EDC**  
 Technician: **JMM** Date: **11/15/17**  
 Scale: **1"=60'**  
 Field No: **117-1035**

**WAUKEE, IA**  
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 Sheet 5 of 18

**SPRING CREST PLAT 4**  
**DETAILED GRADING PLAN**

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### POLLUTION PREVENTION NOTES

- A. POLLUTION PREVENTION AND EROSION PROTECTION**
  1. CODE COMPLIANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR), NPDES PERMITS AND ALL APPLICABLE STATE AND FEDERAL REGULATIONS. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE TO 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 OWNERS 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 PUBLICATION, DISCHARGE AUTHORITY 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 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 REQUIRED ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE OWNER OR ENGINEER DURING CONSTRUCTION. REPAIR, REPLACE OR 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, DRIVEWAYS, 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. CONTRACTOR TO STRIP, SALVAGE AND RE-Spread TOPSOIL PER SECTION 2010 OF SUDAS STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. TOPSOIL TO BE RE-Spread SHALL BE FREE OF ROCK AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
    - i. STABILIZE UNDEVELOPED, DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX OR SO2 AS SOON AS PRACTICAL UPON COMPLETION OR DELAY OF GRADING OPERATIONS. INITIAL 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, MATERIAL 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 ON-SITE.
    - k. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

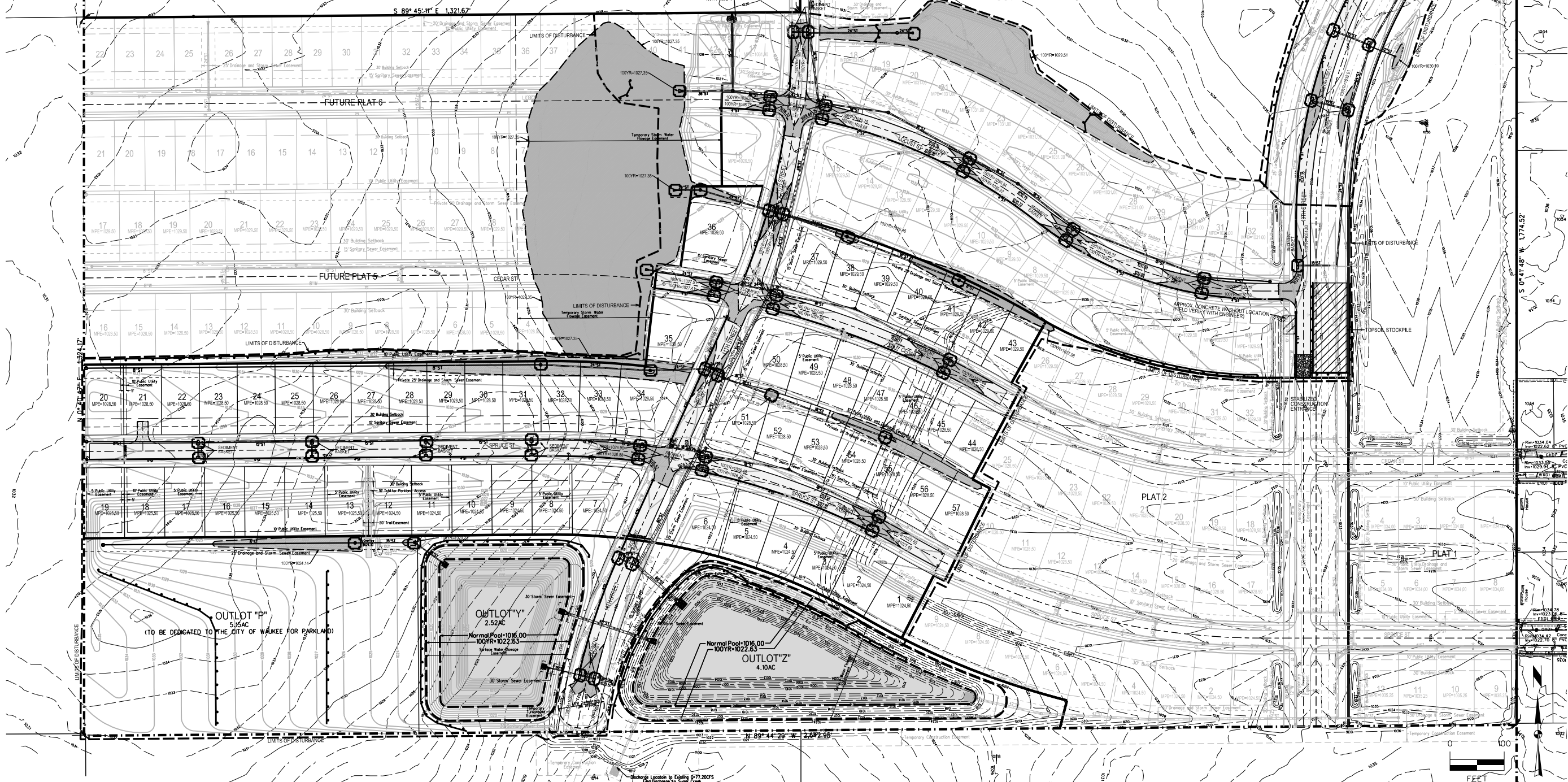
### STORMWATER MANAGEMENT QUANTITIES

SILT FENCE	8200 LF
SEDIMENT BASKET	42 EA
TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE (ENTIRE SITE)	33.15 AC
TYPE 1 SEED MIX (10TH ST ROW FROM NORTH LOT 32 TO PROPERTY LINE, 11TH STREET ROW, OUTLOT "P", OUTLOT "Y", AND OUTLOT "Z")	9.85 AC

### GRADING 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. PROTECT EXISTING UTILITIES FROM CONSTRUCTION DAMAGE. ANY DAMAGE THAT OCCURS SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNER'S SPECIFICATIONS WITHOUT ADDITIONAL COMPENSATION.
- C. GRADES SHOWN ARE FINISHED GRADE AND/OR TOP OF PAVING SLAB (GUTTER), UNLESS OTHERWISE NOTED.
- D. CONTRACTOR SHALL PROVIDE SILT FENCE AROUND ALL STORM INTAKES AND WHERE SHOWN ON THE PLAN. SILT FENCE AROUND STORM INTAKES SHALL BE MAINTAINED UNTIL PAVING AND SEEDING. SOODING ARE COMPLETE. SEDIMENT BASKETS SHALL BE PROVIDED ONCE PAVING IS COMPLETE.
- E. STRIP, SALVAGE AND RE-Spread TOPSOIL PER SECTION 2010 OF SUDAS STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. TOPSOIL TO BE RE-Spread SHALL BE FREE OF ROCK AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
- F. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM NEIGHBORING STREETS, DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES.
- G. CONTRACTOR TO REMOVE ANY SEDIMENT FROM BASIN ACCUMULATED DURING CONSTRUCTION AND REGRADE BASIN TO FINISH DESIGN GRADES PRIOR TO SEEDING.

POTENTIAL STORM WATER MANAGEMENT FACILITY LOCATIONS



### REVISED PAVEMENT QUANTITIES

4	REVISED AS PER CITY COMMENTS	04/06/18	JMM
3	REVISED AS PER CITY COMMENTS	03/28/18	JMM
2	REVISED AS PER CITY COMMENTS	02/20/18	JMM
1	REVISED AS PER CITY COMMENTS	01/26/18	JMM

MARK REVISION DATE BY  
Engineer: KMM Checked By: EDC  
Technician: JMM Date: 11/15/17 Scale: 1"=100'  
Field Bk: 117.1035

# SPRING CREST PLAT 4

## EROSION AND SEDIMENT CONTROL PLAN

### SNYDER & ASSOCIATES, INC.

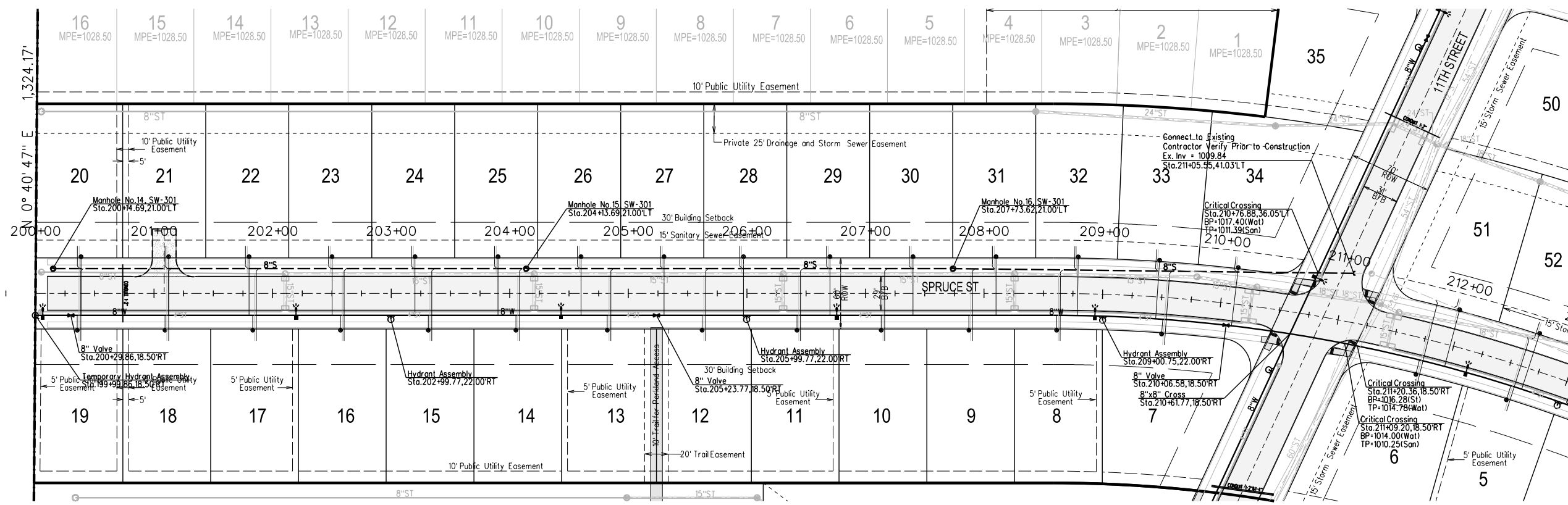
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Project No: 117.1035  
Sheet 6 of 18

WAUKEE, IA  
Date: 11/15/17  
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Sheet 6 of 18



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**BENCHMARKS**

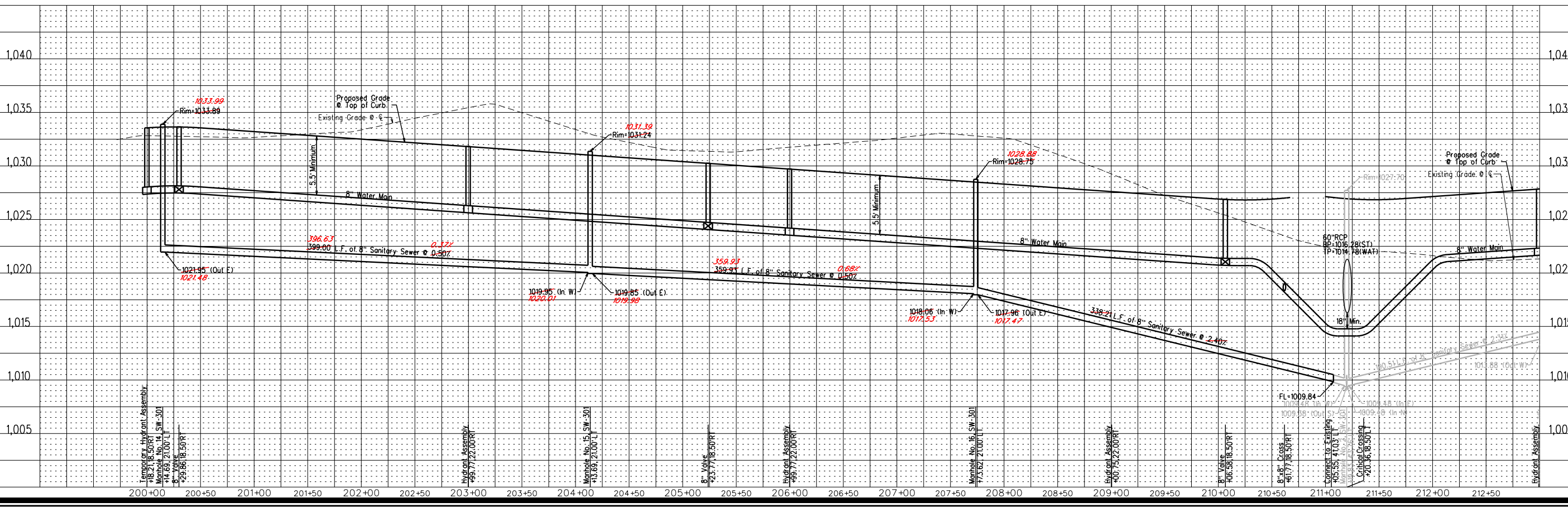
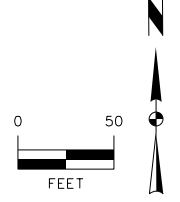
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)  
 IARTN DERIVED - US SURVEY FEET  
 ELEV=1035.08  
 BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET  
 SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

**NOTES**

- CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS AND THE SOILS REPORTS PREPARED BY OTHERS.
- ALL SERVICES ARE TO BE 18" APART AND LOCATED NEAR THE CENTER OF THE LOTS. ALL SERVICE STUBS SHALL BE STUBBED INTO THE LOT AS SHOWN. PLACE 6" STEEL POST BURIED 3 FEET AT END OF ALL SERVICES.
- ALL BACKFILL AND SUBGRADE SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR AND SHALL BE WITHIN A RANGE OF 0% TO +4% OF THE MATERIALS OPTIMUM MOISTURE CONTENT.
- RIM ELEVATIONS ARE SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR TO ADJUST RIM AS NECESSARY TO MEET SPECIFIC CONSTRUCTION REQUIREMENTS.
- ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED AND CONNECTED TO STORM SEWERS WHERE POSSIBLE. LOCATIONS AND DETAIL OF ANY CONNECTION MADE SHALL BE PROVIDED TO THE ENGINEER FOR NOTATION ON AS-BUILT DRAWINGS.
- CONTRACTOR TO INSTALL A STEEL POST AT THE END OF THE SERVICES. EXTEND TOP OF POST 3" MINIMUM ABOVE GROUND. PAINT POST RED FOR SANITARY SEWER SERVICES.
- A SPECIAL STRUCTURAL SUPPORT IS REQUIRED FOR ALL CROSSINGS BETWEEN 6" AND 18".
- CONTRACTOR TO VACUUM TEST ALL SANITARY SEWER MANHOLES.
- ALL NEW AND RELOCATED HYDRANTS ARE TO HAVE STORZ FITTINGS.

**CAUTION:**  
 UTILITY WARNING  
 THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. VERIFY LOCATION OF ALL UTILITIES BEFORE CONSTRUCTION.

**RECORD DRAWINGS**  
 THESE PLANS HAVE BEEN REVISED AFTER CONSTRUCTION TO CONFORM WITH INFORMATION FURNISHED BY THE CONTRACTOR AND CONSTRUCTION REVIEWER AND TO REFLECT MEASUREMENTS MADE FOR THE PREPARATION OF FINAL ESTIMATES OF QUANTITIES.



**SPRING CREST PLAT 4**

**SANITARY SEWER AND WATER MAIN PLAN AND PROFILE**

**SNYDER & ASSOCIATES, INC.**

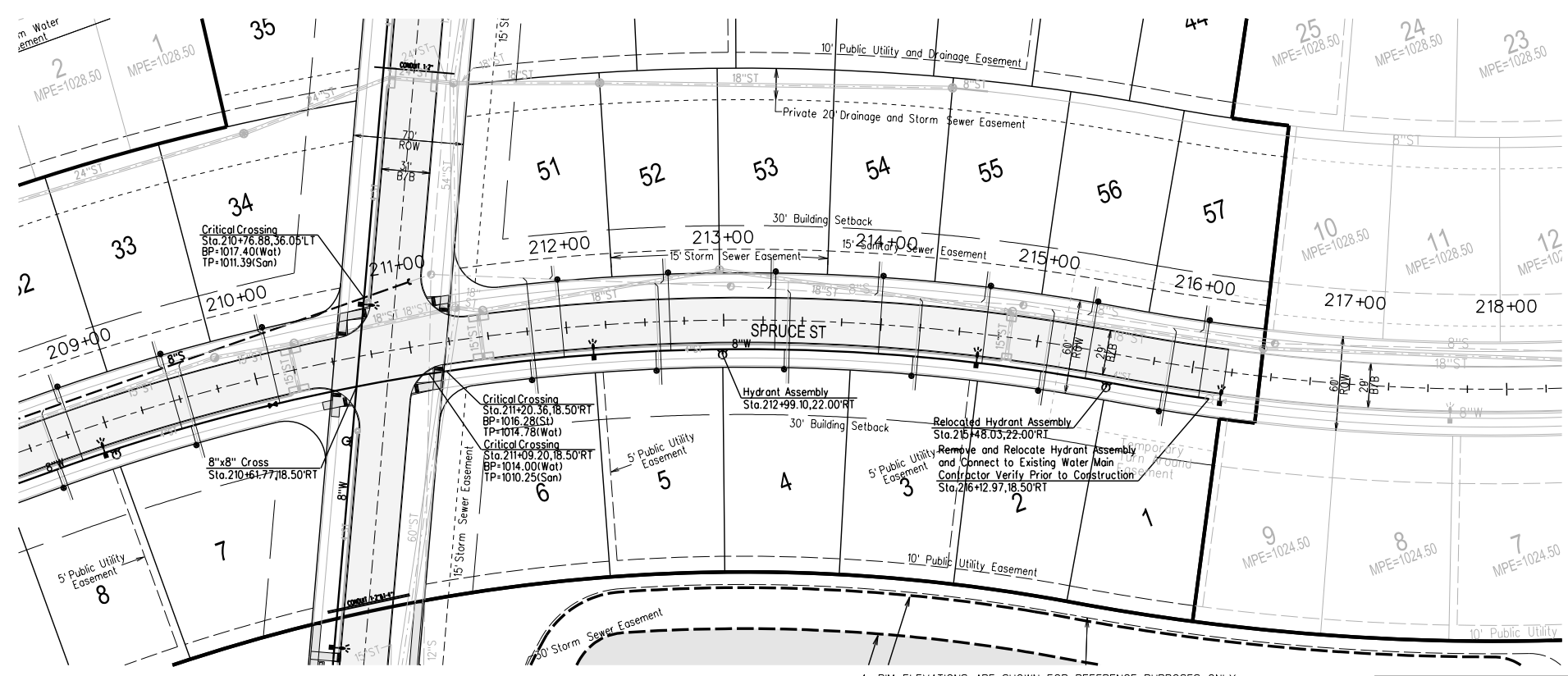


Project No: 117.1035

Sheet 8 of 18

01/30/20 RSN	04/16/18 JMW
6 REVISED PER AS-BUILT SURVEY	04/06/18 JMW
5 REVISED PAVEMENT QUANTITIES	03/28/18 JMW
	02/20/18 JMW
	01/26/18 JMW
MARK	DATE BY
Engineer: KMM	Checked By: EDC
Technician: JMW	Date: 11/15/17
Field Bk:	Scale: 1"=50'
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	Sheet 8 of 18

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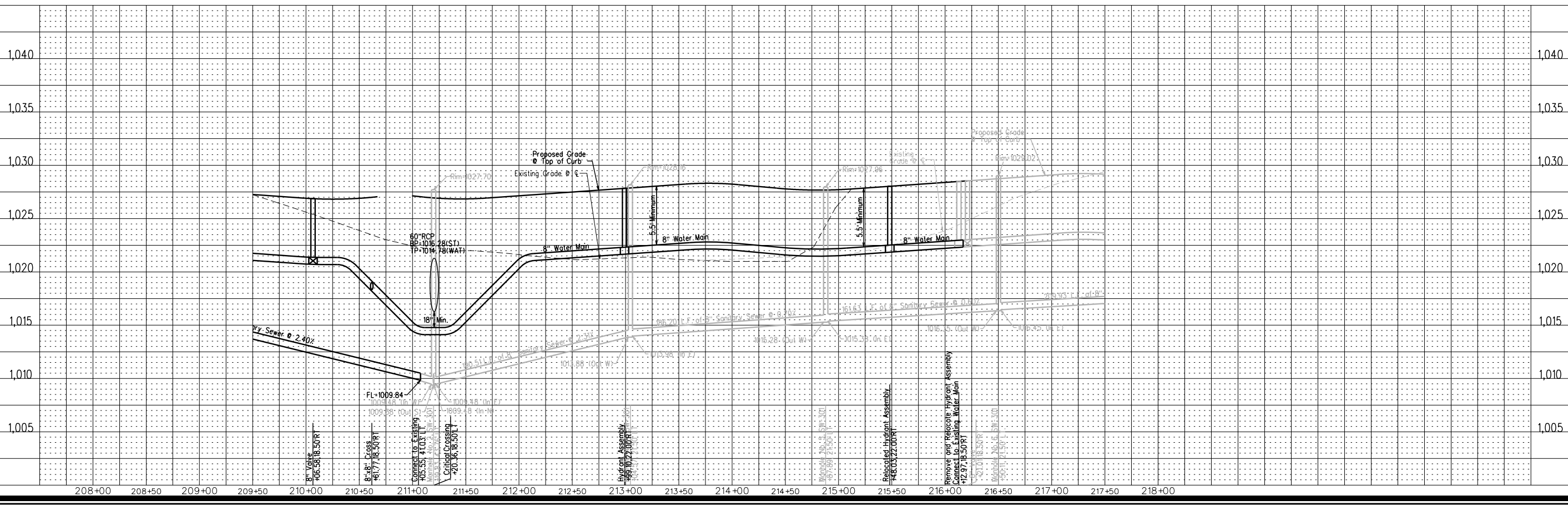
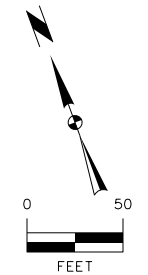
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 SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

**NOTES**

- CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS AND THE SOILS REPORTS PREPARED BY OTHERS.
- ALL SERVICES ARE TO BE 18" APART AND LOCATED NEAR THE CENTER OF THE LOTS. ALL SERVICE STUBS SHALL BE STUBBED INTO THE LOT AS SHOWN PLACE 6" STEEL POST BURIED 3' FEET AT END OF ALL SERVICES.
- ALL BACKFILL AND SUBGRADE SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR AND SHALL BE WITHIN A RANGE OF 0% TO 4% OF THE MATERIALS OPTIMUM MOISTURE CONTENT.
- RIM ELEVATIONS ARE SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR TO ADJUST RIM AS NECESSARY TO MEET SPECIFIC CONSTRUCTION REQUIREMENTS.
- ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED AND CONNECTED TO STORM SEWERS WHERE POSSIBLE. LOCATIONS AND DETAIL OF ANY CONNECTION MADE SHALL BE PROVIDED TO THE ENGINEER FOR NOTATION ON AS-BUILT DRAWINGS.
- CONTRACTOR TO INSTALL A STEEL POST AT THE END OF THE SERVICES. EXTEND TOP OF POST 3" MINIMUM ABOVE GROUND. PAINT POST RED FOR SANITARY SEWER SERVICES.
- A SPECIAL STRUCTURAL SUPPORT IS REQUIRED FOR ALL CROSSINGS BETWEEN 6" AND 18".
- CONTRACTOR TO VACUUM TEST ALL SANITARY SEWER MANHOLES.
- ALL NEW AND RELOCATED HYDRANTS ARE TO HAVE STORZ FITTINGS.

**CAUTION:**  
 UTILITY WARNING  
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MARK	REVISION	DATE	BY
5	REVISED PAVEMENT QUANTITIES	04/16/18	JMM
4	REVISED AS PER CITY COMMENTS	04/06/18	JMM
3	REVISED AS PER CITY COMMENTS	03/28/18	JMM
2	REVISED AS PER CITY COMMENTS	02/20/18	JMM
1	REVISED AS PER CITY COMMENTS	01/26/18	JMM

Engineer: KMM  
 Checked By: EDC  
 Date: 11/15/17  
 Scale: 1" = 50'  
 Field Bk: 117.1035  
 Project No: 117.1035  
 Sheet 9 of 18

**SPRING CREST PLAT 4**

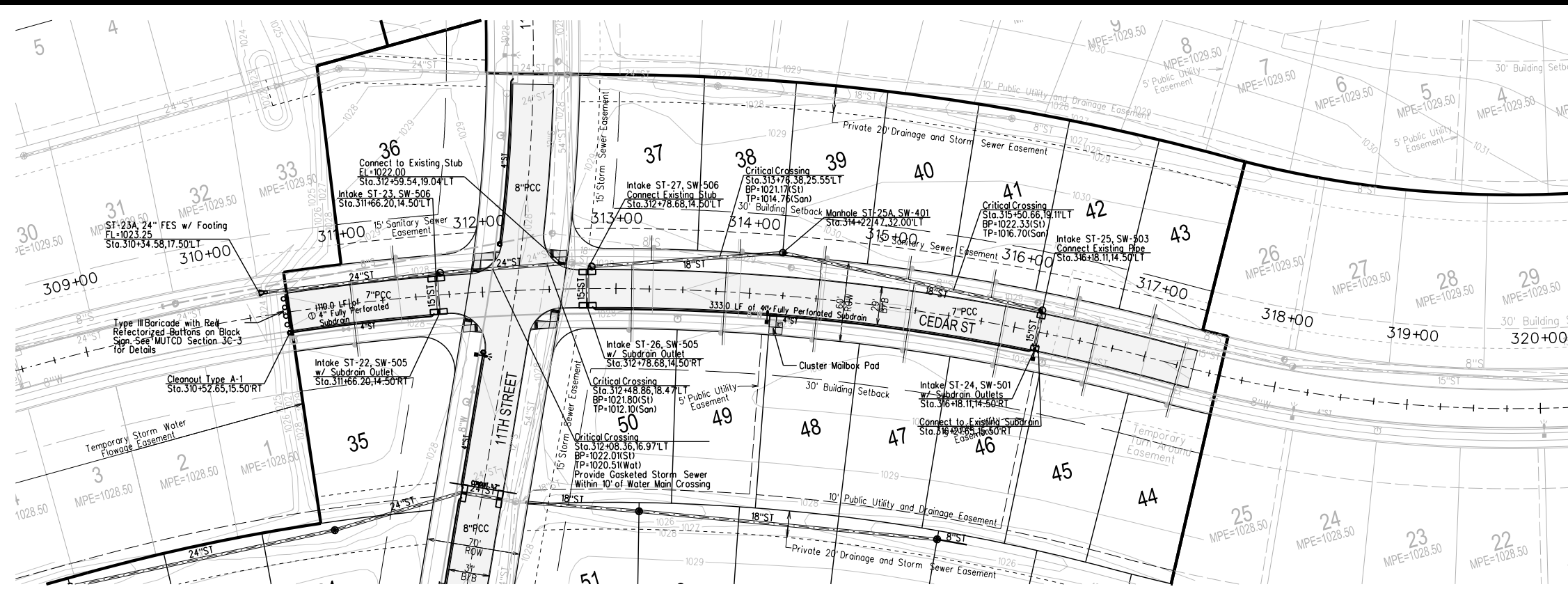
**SANITARY SEWER AND WATER MAIN PLAN AND PROFILE**

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





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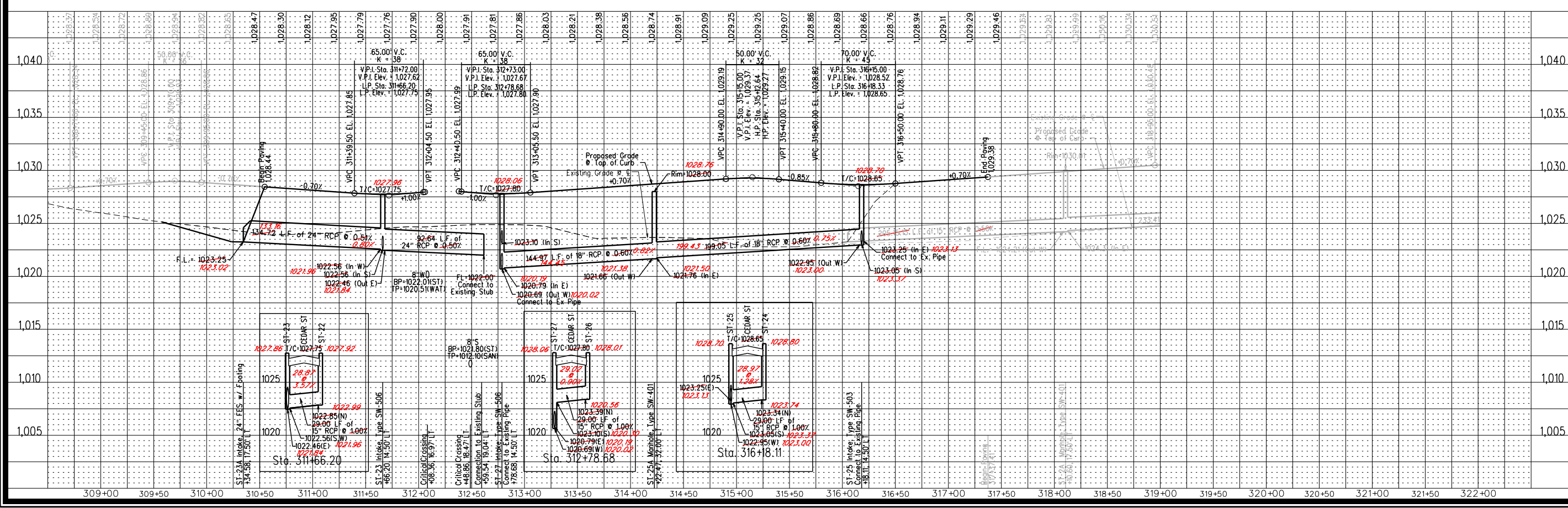
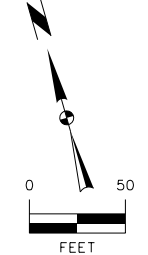


**BENCHMARKS**  
 NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)  
 IARTN DERIVED - US SURVEY FEET  
 ELEV=1035.08  
 BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET  
 SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

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  - A SPECIAL STRUCTURAL SUPPORT IS REQUIRED FOR ALL CROSSINGS BETWEEN 6" AND 18".
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**SPRING CREST PLAT 4**

**PAVEMENT AND STORM SEWER PLAN AND PROFILE**



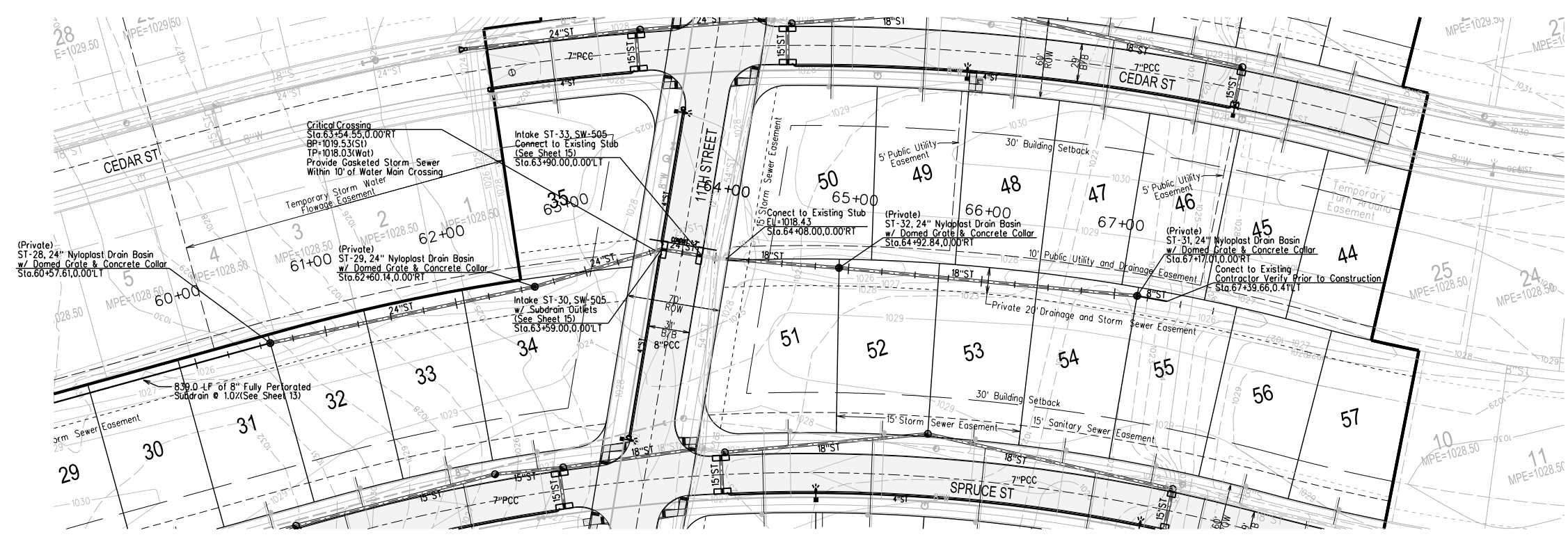
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 Sheet 11 of 18

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

6	REVISED PER AS-BUILT SURVEY	EDC	11/15/17	117.1035
5	REVISED PAVEMENT QUANTITIES	JWM	11/15/17	117.1035
4	REVISED AS PER CITY COMMENTS	JWM	04/06/18	117.1035
3	REVISED AS PER CITY COMMENTS	JWM	03/28/18	117.1035
2	REVISED AS PER CITY COMMENTS	JWM	02/20/18	117.1035
1	REVISED AS PER CITY COMMENTS	JWM	01/26/18	117.1035
MARK	REVISION	DATE	BY	
Engineer:	KMM	Checked By:	JWM	Scale: 1"=50'
Technician:	JWM	Date:	11/15/17	Field No: 117.1035
				Project No: 117.1035
				Sheet 11 of 18

01/30/20 RSN  
 04/16/18 JWM

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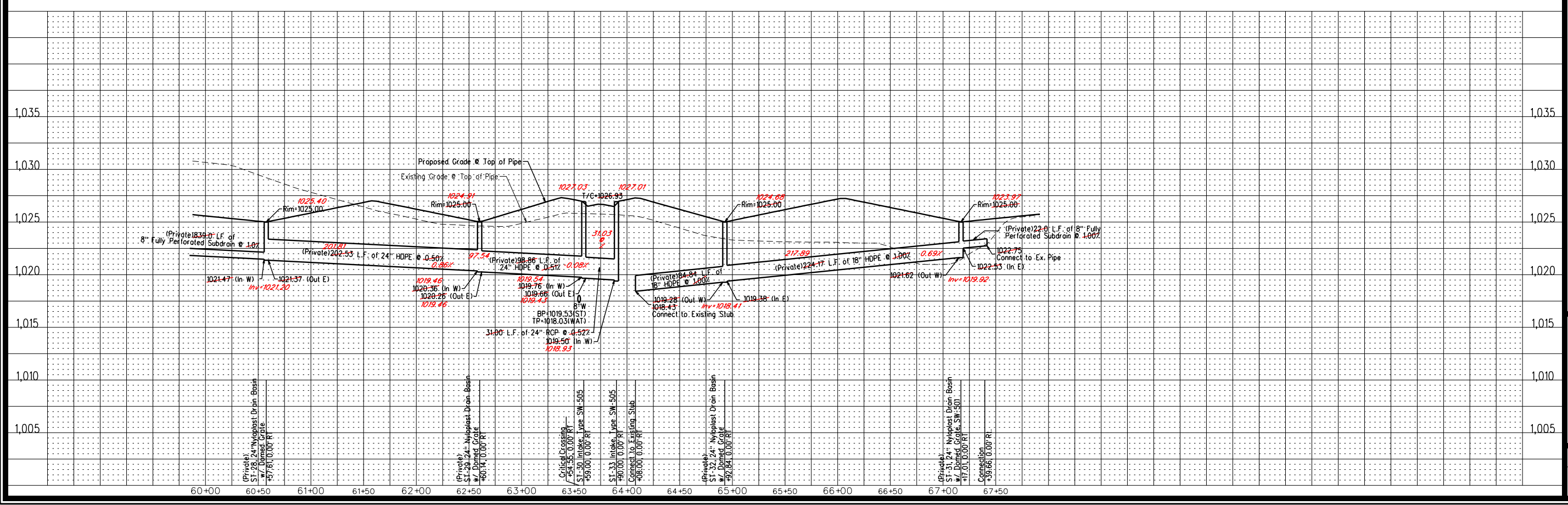
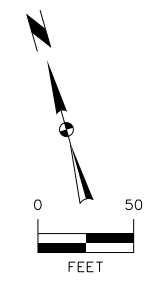


**BENCHMARKS**  
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01/30/20 RSN  
 04/16/18 JMW

6	REVISED PER AS-BUILT SURVEY
5	REVISED PAVEMENT QUANTITIES
4	REVISED AS PER CITY COMMENTS
3	REVISED AS PER CITY COMMENTS
2	REVISED AS PER CITY COMMENTS
1	REVISED AS PER CITY COMMENTS

MARK	REVISION	DATE	BY
Engineer: KMM	Checked By: EDC	DATE: 11/15/17	Scale: 1"=50'
Technician: JMW	Date: 11/15/17	Field Bk: 117-1035	Project No: 117-1035
			Sheet 12 of 18

**SPRING CREST PLAT 4**  
**STORM SEWER PLAN AND PROFILE**

**WAUKEE, IA**

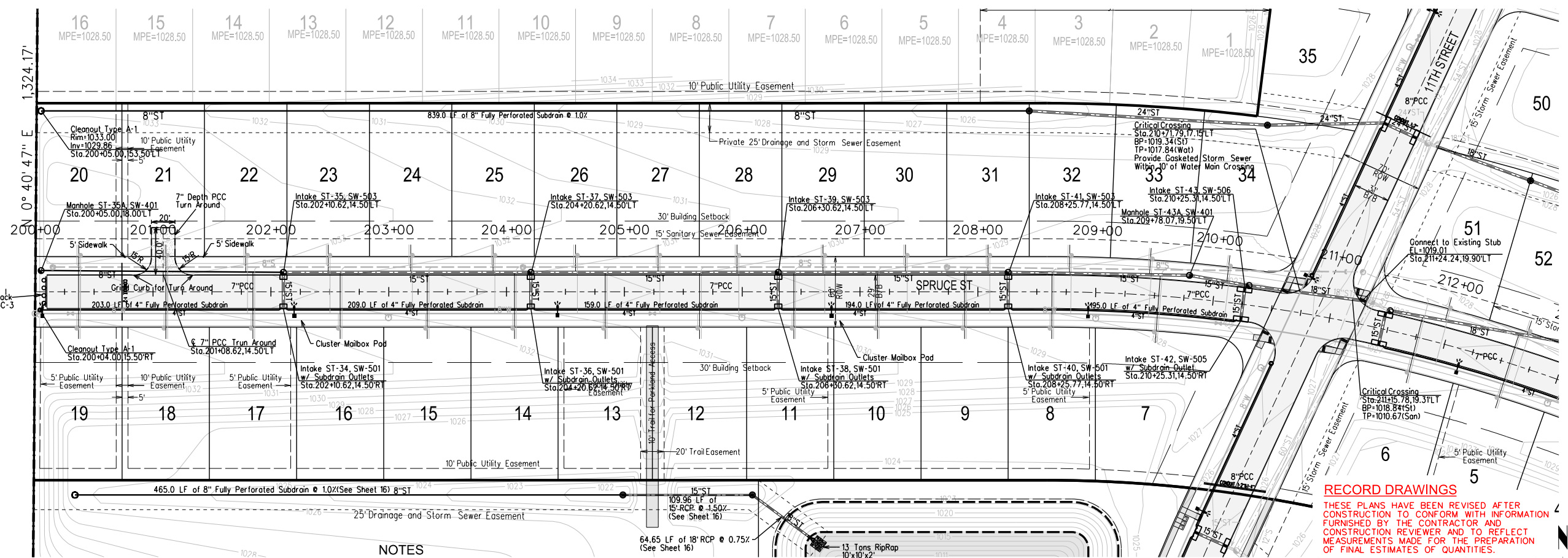
**SNYDER & ASSOCIATES, INC.**



Project No: 117.1035  
 Sheet 12 of 18

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SNYDER & ASSOCIATES, INC.



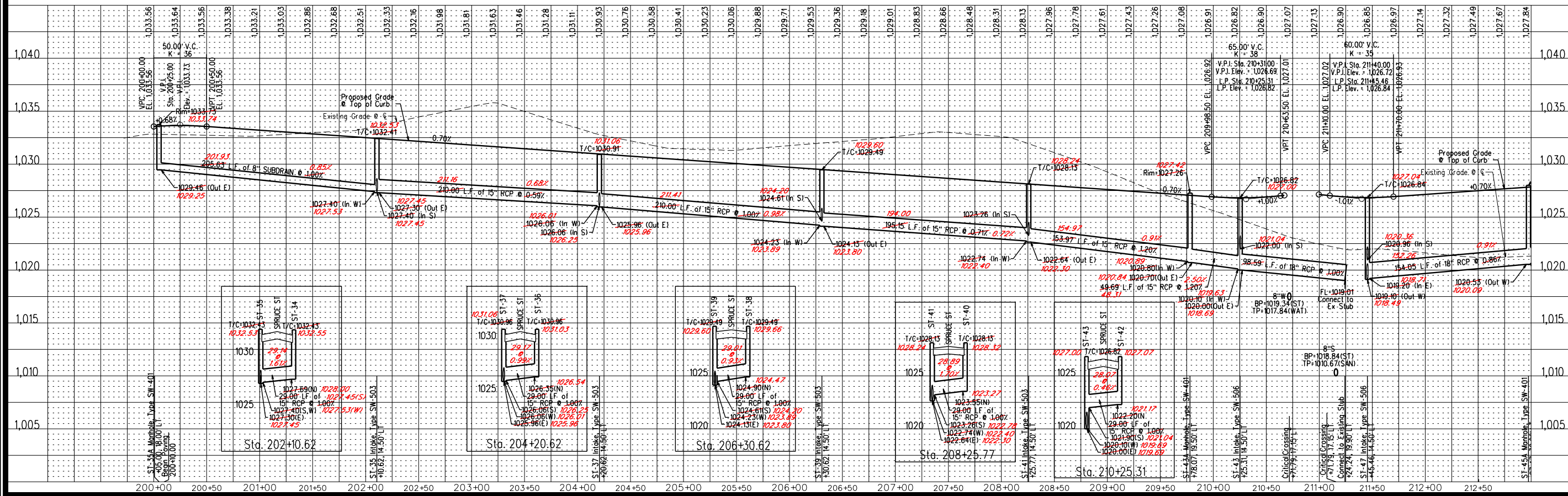
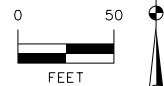
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**SPRING CREST PLAT 4**

**PAVEMENT AND STORM SEWER PLAN AND PROFILE**  
**SNYDER & ASSOCIATES, INC.**



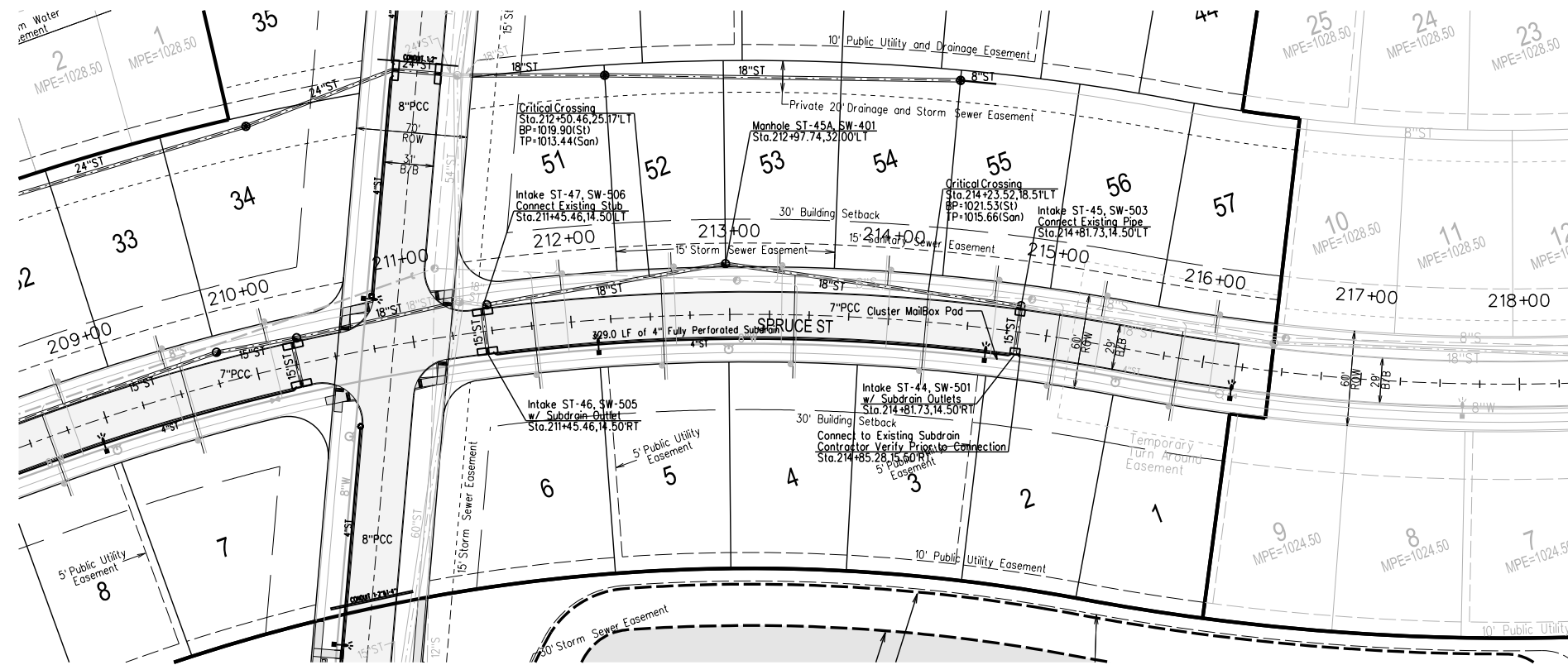
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Sheet 13 of 18

01/30/20 RSN  
04/16/18 JMW

MARK	REVISION	DATE	BY
6	REVISED PER AS-BUILT SURVEY	01/30/20	RSN
5	REVISED PAVEMENT QUANTITIES	04/16/18	JMW
4	REVISED AS PER CITY COMMENTS	04/06/18	JMW
3	REVISED AS PER CITY COMMENTS	03/28/18	JMW
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1	REVISED AS PER CITY COMMENTS	01/26/18	JMW

Engineer: KMM  
Checked By: EDC  
Date: 11/15/17  
Scale: 1"=50'  
Field No: 117.1035  
Project No: 117.1035  
Sheet 13 of 18

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**BENCHMARKS**

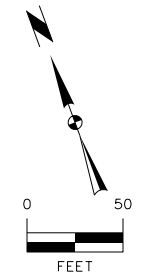
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IARTN DERIVED - US SURVEY FEET

ELEV=1035.08  
BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET  
SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

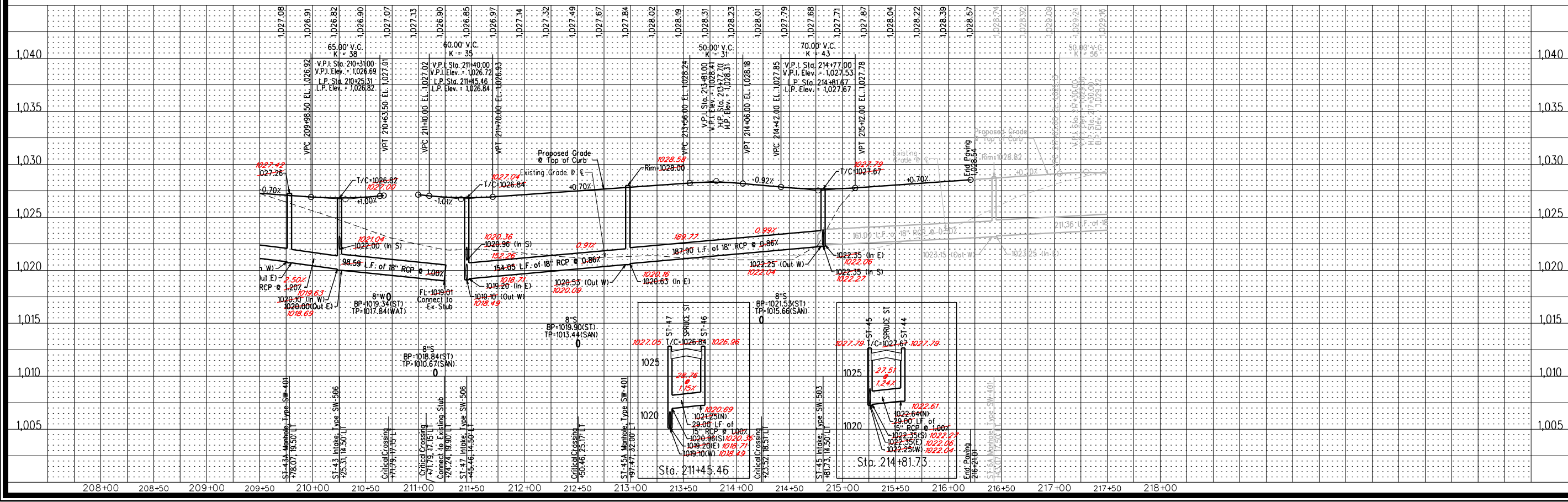
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01/30/20 RSN  
04/16/18 JMM

6	REVISED PER AS-BUILT SURVEY
5	REVISED PAVEMENT QUANTITIES
4	REVISED AS PER CITY COMMENTS
3	REVISED AS PER CITY COMMENTS
2	REVISED AS PER CITY COMMENTS
1	REVISED AS PER CITY COMMENTS

MARK	REVISION	DATE	BY
Engineer: KMM	Checked By: EDC		
Technician: JMM	Date: 11/15/17		
Scale: 1"=50'	Field Bk: 117.1035		
Project No: 117.1035			
			Sheet 14 of 18

**SPRING CREST PLAT 4**

**PAVEMENT AND STORM SEWER PLAN AND PROFILE**

**WAUKEE, IA**  
**SNYDER & ASSOCIATES, INC.**

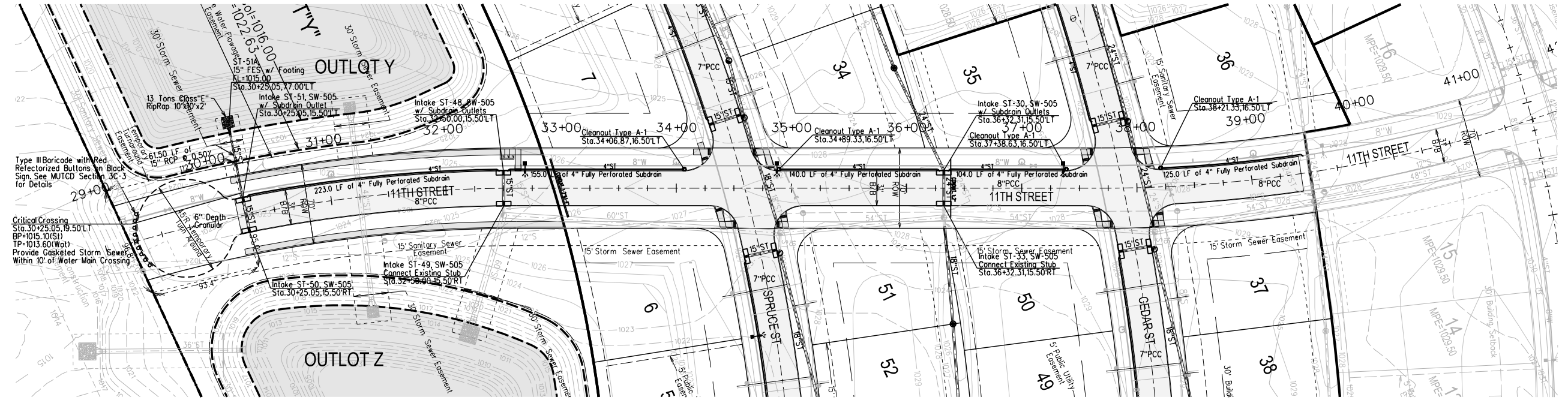


Project No: 117.1035

Sheet 14 of 18

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ANKENY, IOWA 50023  
515-964-2020 | www.snyder-associates.com

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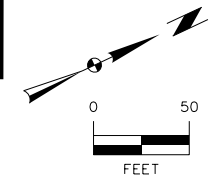
**BENCHMARKS**

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID2A)  
IARTN DERIVED - US SURVEY FEET  
ELEV = 1035.08  
BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET  
SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

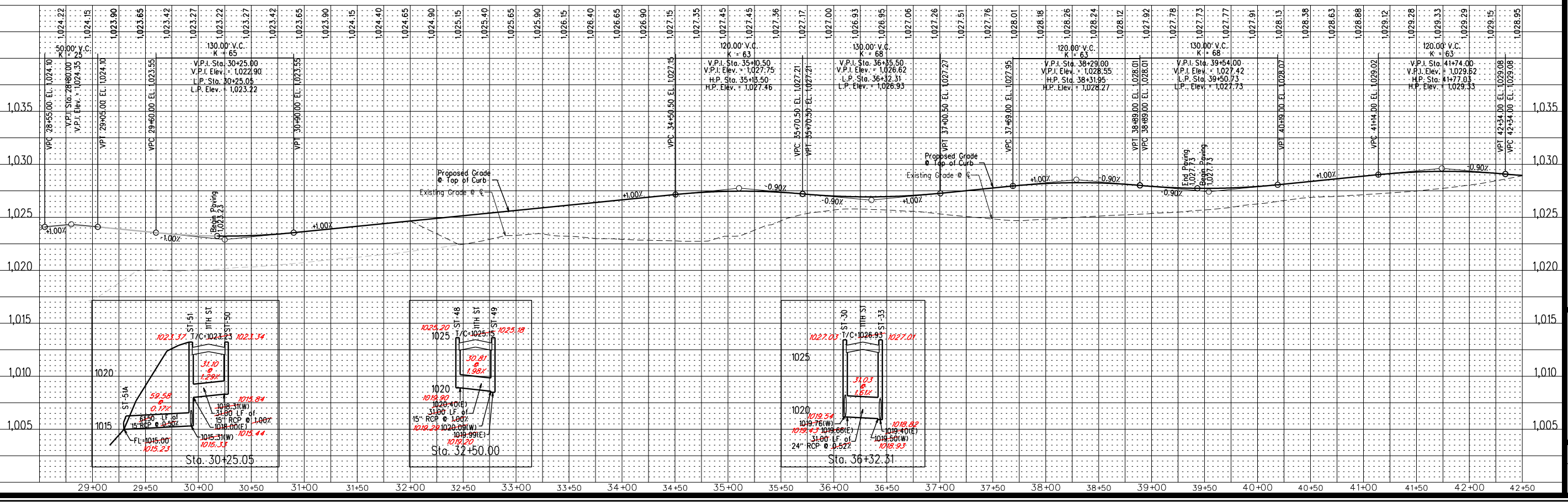
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**SPRING CREST PLAT 4**

**PAVEMENT AND STORM SEWER PLAN AND PROFILE**  
**SNYDER & ASSOCIATES, INC.**



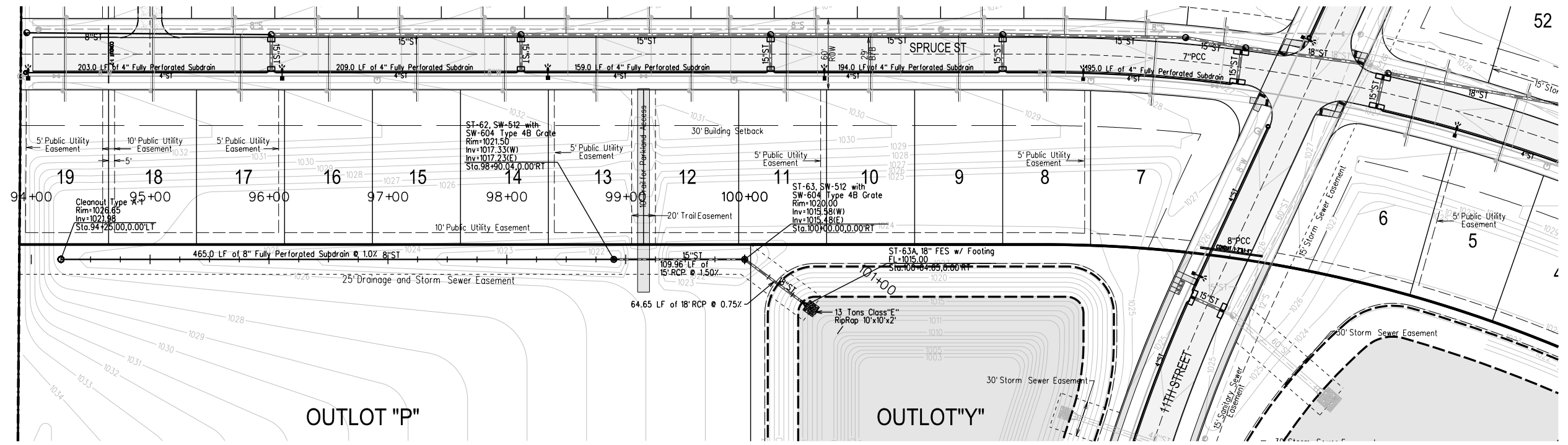
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Sheet 15 of 18

01/30/20 RSN  
04/16/18 JMW  
6 REVISED PER AS-BUILT SURVEY  
5 REVISED PAVEMENT QUANTITIES

4	REVISED AS PER CITY COMMENTS	04/06/18 JMW
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MARK	REVISION	DATE
Engineer: KMM	Checked By: EDC	Scale: 1" = 50'
Technician: JWM	Date: 11/15/17	Field Bk: 117.1035
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WAUKEE, IA  
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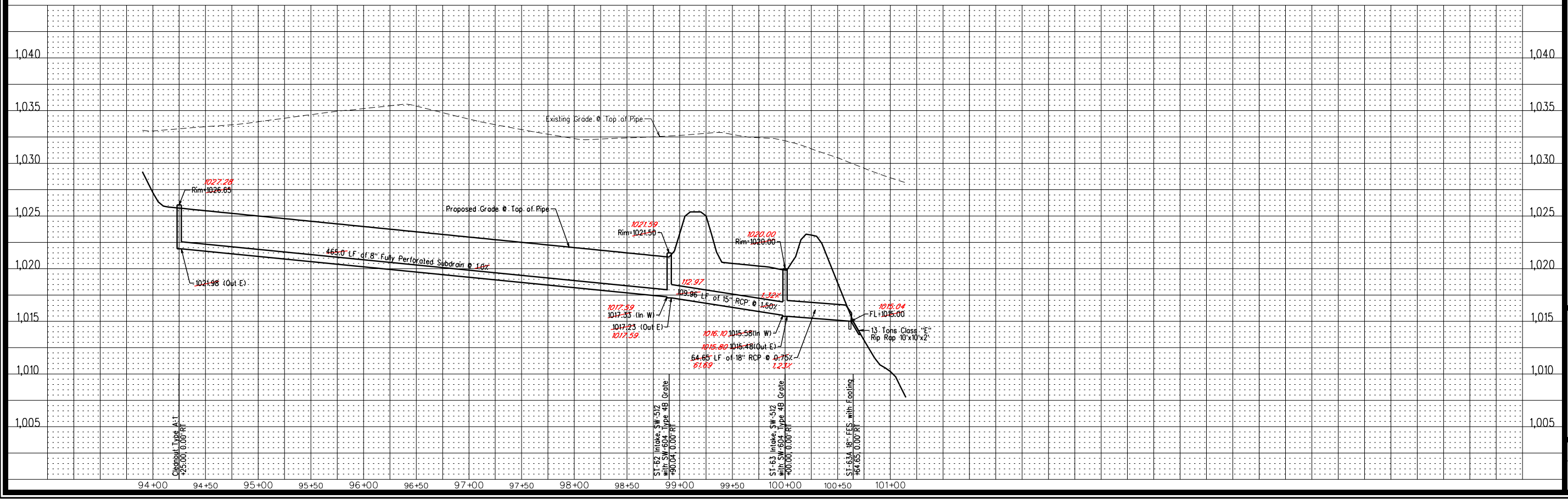
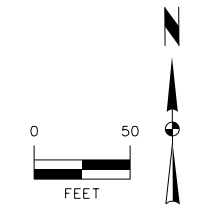
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3	REVISED AS PER CITY COMMENTS	JMM	02/20/18
2	REVISED AS PER CITY COMMENTS	JMM	01/26/18
1	REVISED AS PER CITY COMMENTS	JMM	01/26/18

Project No: 117.1035  
 Sheet 16 of 18  
 Date: 11/15/17  
 Checked By: EDC  
 Engineer: KMM  
 Scale: 1" = 50'  
 Field Bk:

**WAUKEE, IA**

**SNYDER & ASSOCIATES, INC.**

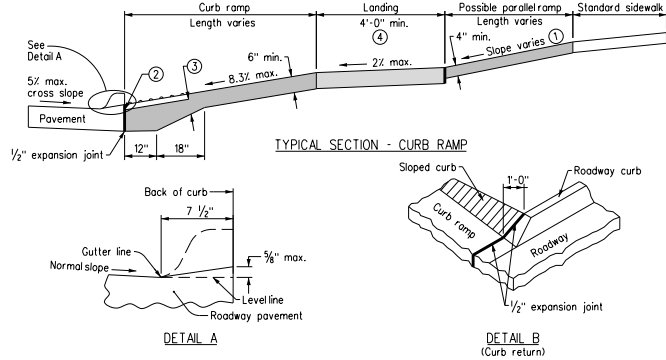
2727 S.W. SNYDER BLVD.  
 ANKENY, IOWA 50023  
 515-964-2020 | www.snyder-associates.com

**SPRING CREST PLAT 4**  
**STORM SEWER PLAN AND PROFILE**

Project No: 117.1035  
 Sheet 16 of 18



Y:\snyder\date.tbl  
V:\p\proj\17-0794-01\CADD\CDR-117035-DTL.dgn  
3/30/2020 1:03:36 PM  
RNESS V:\p\proj\17-0794-01\CADD\CDR-117035-DTL.dgn



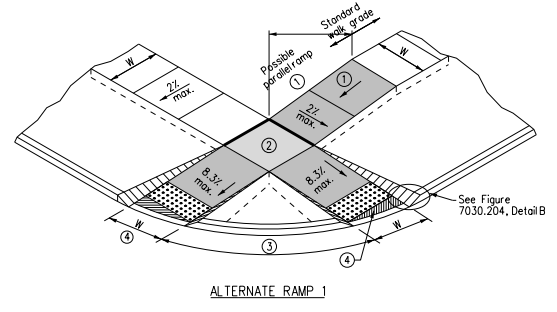
1 GENERAL SIDEWALK DETAILS

If crosswalks are marked, locate ramps, exclusive of flares, within the crosswalk markings.

- Parallel ramp: If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.
- Install a 24 inch wide (min.) strip of detectable warnings at the back of curb. Extend the detectable warnings across the full width of the ramp.
- Provide a minimum of 6 inches of concrete below the detectable warning panel.
- Landing: Maximum slope of 2% in any direction.

Key

- Ramp
- Landing
- Detectable warning

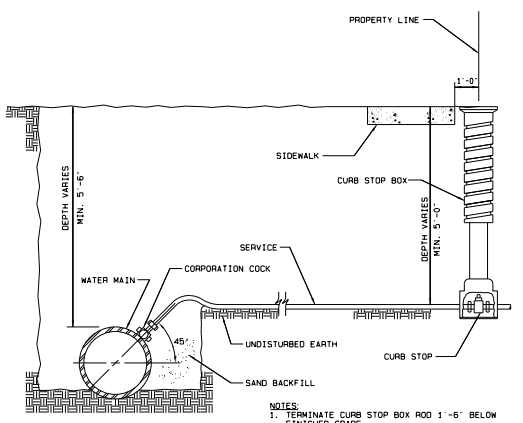


2 CURB RAMPS WITHIN INTERSECTION RADIUS FOR CLASS B OR C SIDEWALK

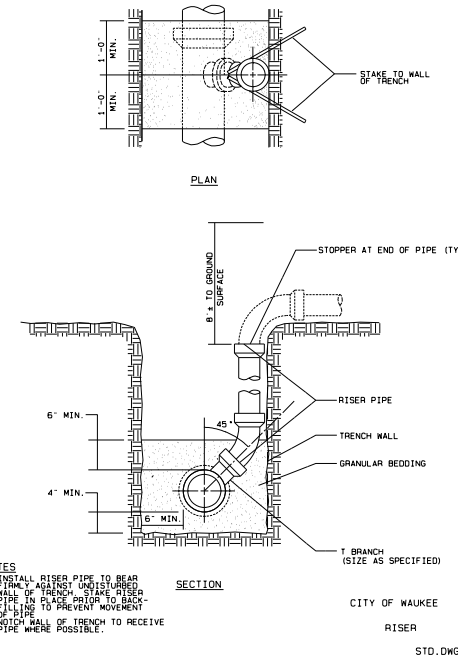
- Parallel ramp: If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.
- Landing: Maximum slope of 2% in any direction.
- Island width: 5 foot minimum. If island is less than 5 feet, eliminate island and provide alternate 2.
- Unless curb ramp is aligned perpendicular to the street radius, provide an area of special shaping at the bottom of the gutterline to provide a smooth transition to the gutterline. 2% maximum slope in any direction.

Key

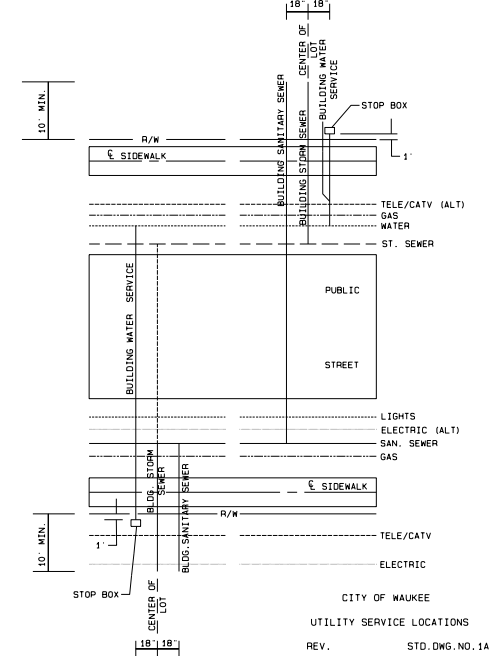
- W = Sidewalk width as specified in the contract documents.
- Ramp
- Landing
- Detectable warning



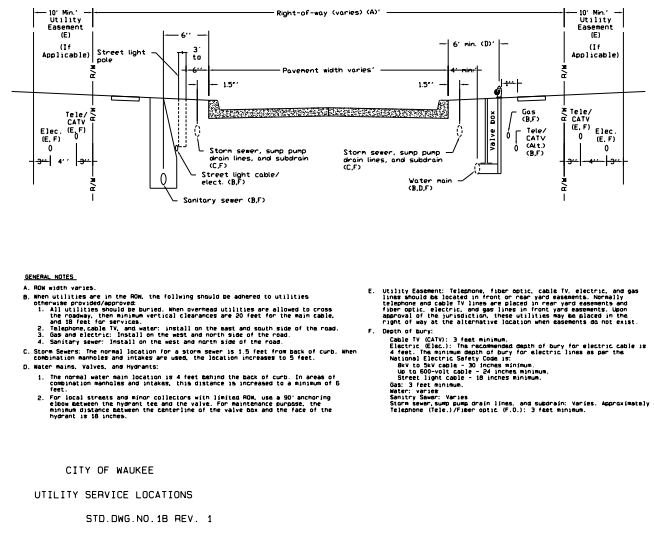
3 CITY OF WAUKEE WATER SERVICE CONNECTION



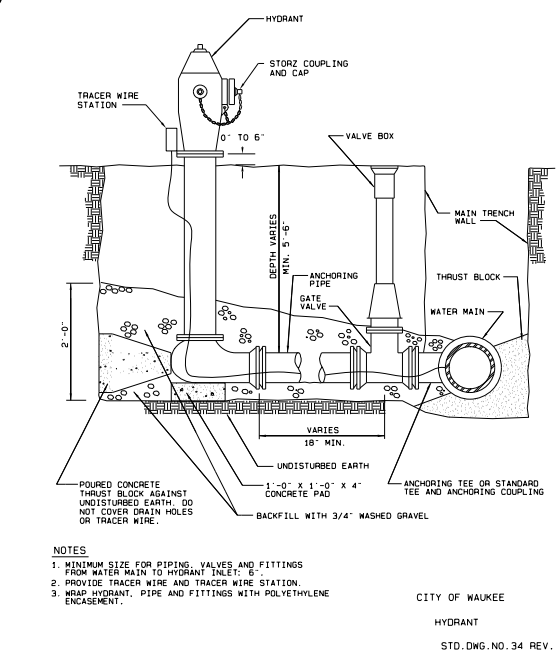
4 CITY OF WAUKEE RISER



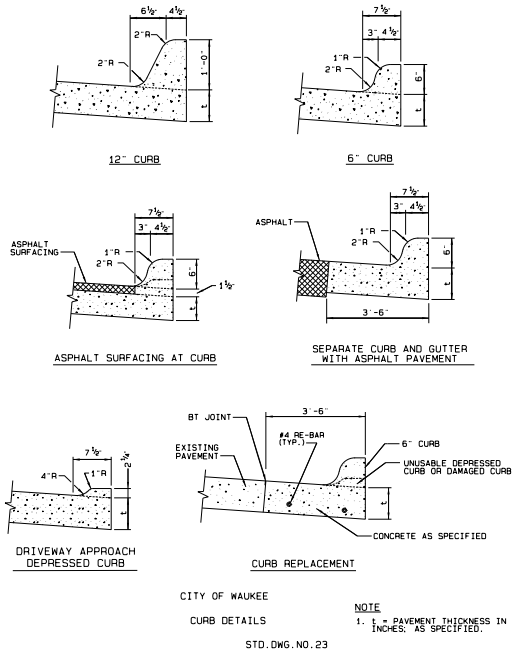
5 CITY OF WAUKEE UTILITY SERVICE LOCATIONS



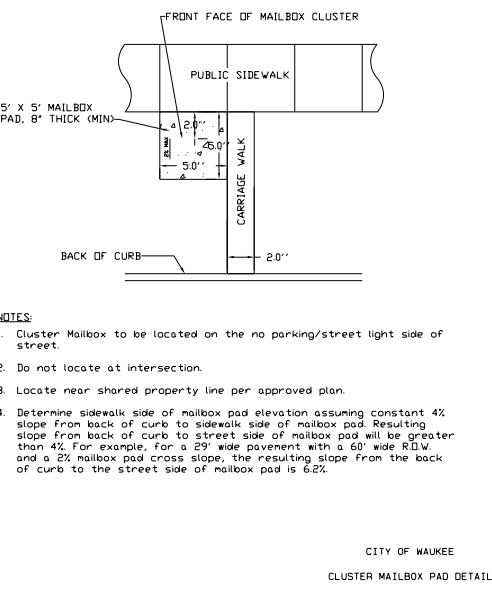
6 CITY OF WAUKEE UTILITY SERVICE LOCATIONS



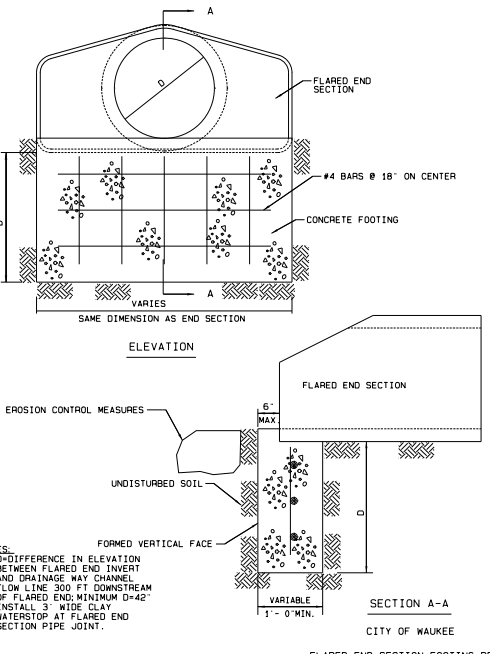
7 CITY OF WAUKEE HYDRANT



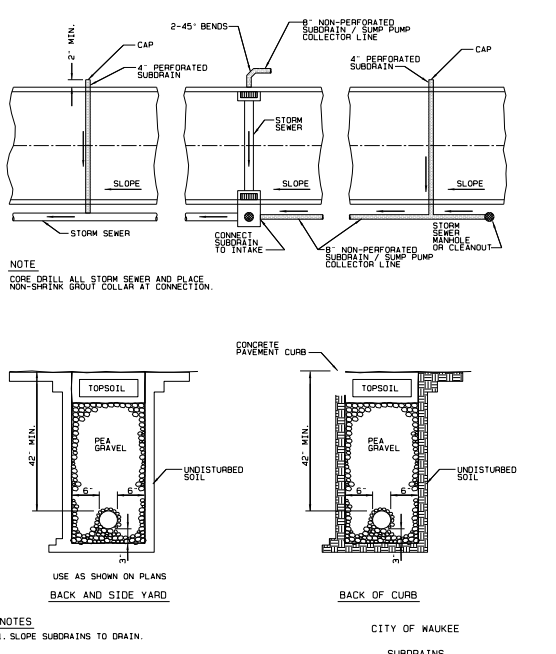
8 CITY OF WAUKEE CURB DETAILS



9 CITY OF WAUKEE CLUSTER MAILBOX PAD



10 CITY OF WAUKEE FLARED END SECTION



11 CITY OF WAUKEE SUBDRAINS

MARK	REVISION	DATE	BY
5	REVISED PAVEMENT QUANTITIES	04/16/18	JMM
4	REVISED AS PER CITY COMMENTS	04/06/18	JMM
3	REVISED AS PER CITY COMMENTS	03/28/18	JMM
2	REVISED AS PER CITY COMMENTS	02/20/18	JMM
1	REVISED AS PER CITY COMMENTS	01/26/18	JMM

Engineer: KMM  
Checked By: EDC  
Date: 11/15/17  
Scale: 1" = 20'  
Field No: 117-1035

Project No: 117.1035  
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WAUKEE, IA

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Project No: 117.1035  
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