

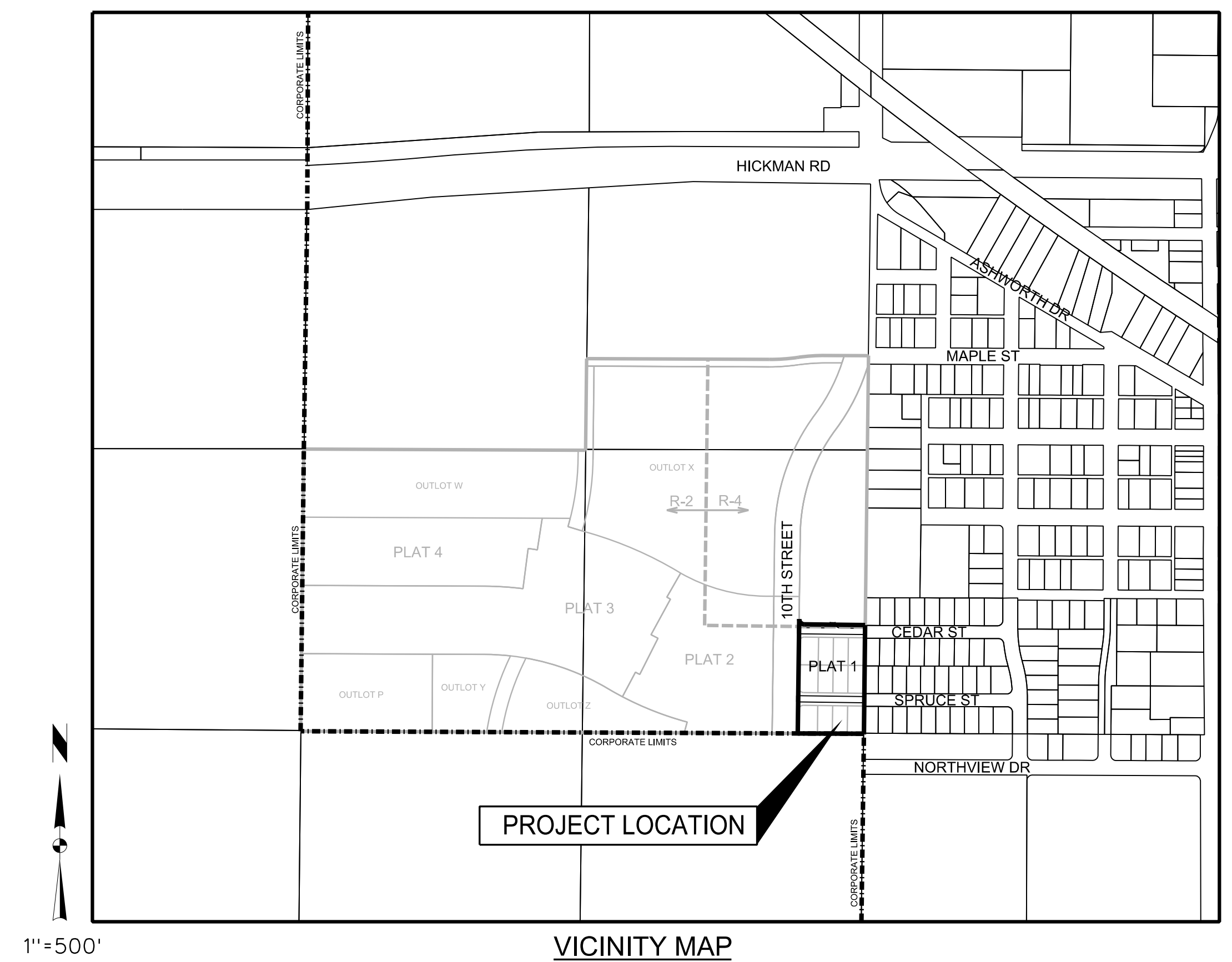
CONSTRUCTION DOCUMENTS

FOR

SPRING CREST PLAT 1

SINGLE FAMILY RESIDENTIAL DEVELOPMENT

CITY OF WAUKEE, DALLAS COUNTY, IOWA



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

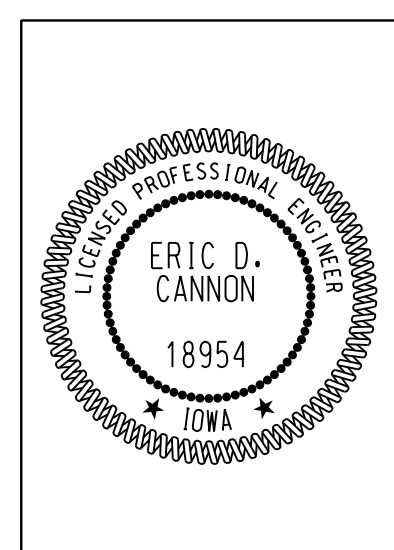
ENGINEER/PROJECT MANAGER
 SNYDER & ASSOCIATES INC
 2727 SNYDER BLVD
 ANKENY, IA 50023
 CONTACT: ERIC CANNON
 PHONE: 515-964-2020

INDEX OF SHEETS

1. TITLE SHEET
2. PROJECT INFORMATION
3. HYDRANT COVERAGE PLAN
4. OVERALL SITE GRADING PLAN
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6. EROSION AND SEDIMENT CONTROL PLAN
7. SANITARY SEWER AND WATER MAIN PLAN AND PROFILE
- 8-10. PAVEMENT AND STORM SEWER PLAN AND PROFILE
11. STORM SEWER PLAN AND PROFILE
12. INTERSECTION DETAILS
- 13-14. MISCELLANEOUS DETAILS
15. LANDSCAPE PLAN

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.

Eric D. Cannon, P.E. _____ Date
 License Number 18954
 My License Renewal Date is December 31, 2017
 Pages or sheets covered by this seal:
 Sheets 1-14

SPRING CREST PLAT 1

TITLE SHEET

SNYDER & ASSOCIATES, INC.

WAUKEE, IA

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

Project No: 116.0697

Sheet 1 of 15

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|-------------|------------------------------|-------------|---------------|
| 5 | REVISED PER AS-BUILT SURVEY | 12/19/17 | AJD |
| 4 | REVISED AS PER CITY COMMENTS | 08/03/17 | JWM |
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| MARK | | REVISION | DATE BY |
| Engineer: | KMM | Checked By: | EDC |
| Technician: | JWM | Date: | 06/20/07 |
| Field Bk: | | Scale: | 1"=500' |
| Project No: | 116.0697 | | |
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LEGEND

| Features | Existing | Proposed |
|--|----------|----------|
| Spot Elevation | 93.0 | 93.0 |
| Contour Elevation | 93 | 93 |
| Fence (Barbed, Field, Hog) | | |
| Fence (Chain Link) | | |
| Fence (Wood) | | |
| Fence (Silt) | | |
| Tree Line | | |
| Tree Stump | | |
| Deciduous Tree \ Shrub | | |
| Coniferous Tree \ Shrub | | |
| Communication | | |
| Overhead Communication | | |
| Fiber Optic | | |
| Underground Electric | | |
| Overhead Electric | | |
| Gas Main with Size | | |
| High Pressure Gas Main with Size | | |
| Water Main with Size | | |
| Sanitary Sewer with Size | | |
| Duct Bank | | |
| Test Hole Location for SUE w/ID | | |
| (x) Denotes the survey quality service level for utilities | | |
| Sanitary Manhole | | |
| Storm Sewer with Size | | |
| Storm Manhole | | |
| Single Storm Sewer Intake | | |
| Double Storm Sewer Intake | | |
| Fire Hydrant | | |
| Fire Hydrant on Building | | |
| Water Main Valve | | |
| Water Service Valve | | |
| Well | | |
| Utility Pole | | |
| Guy Anchor | | |
| Utility Pole with Light | | |
| Utility Pole with Transformer | | |
| Street Light | | |
| Yard Light | | |
| Electric Box | | |
| Electric Transformer | | |
| Traffic Sign | | |
| Communication Pedestal | | |
| Communication Manhole | | |
| Communication Handhole | | |
| Fiber Optic Manhole | | |
| Fiber Optic Handhole | | |
| Gas Valve | | |
| Gas Manhole | | |
| Gas Apparatus | | |
| Fence Post or Guard Post | | |
| Underground Storage Tank | | |
| Above Ground Storage Tank | | |
| Sign | | |
| Satellite Dish | | |
| Mailbox | | |
| Soil Boring | | |

UTILITY CONTACT INFORMATION

UTILITY CONTACT FOR MAPPING INFORMATION SHOWN AS RECEIVED FROM THE IOWA ONE CALL DESIGN REQUEST SYSTEM, TICKET NUMBER 551604197.

| | |
|-----------------------|------------------------------------|
| G1-GAS | CITY OF WAUKEE |
| W1-WATER | TIM ROYER |
| S-SANITARY SEWER | 515-978-7920 |
| | troyer@waukee.org |
| E1-ELECTRIC | MIDAMERICAN ENERGY |
| OE1-OVERHEAD ELECTRIC | CRAIG RANFELD |
| | 515-252-6632 |
| | MECDSDesignLocates@midamerican.com |
| C1-COMMUNICATION | MEDIACOM COMMUNICATIONS |
| | PAUL MAY |
| | 515-246-2252 |
| | pmay@mediacomcc.com |
| C2-COMMUNICATION | CENTURYLINK |
| | TOM STURMER |
| | 720-578-8090 |
| | thomas.sturmer@centurylink.com |
| CLEAR PER MAP | UNITE PRIVATE NETWORKS |
| | CLARK LUNDY |
| | 515-321-3336 |
| | clark.lundy@upnlc.com |
| CLEAR PER MAP | NORTHERN NATURAL GAS COMPANY |
| | KEITH GOOD |
| | 515-202-5067 |
| | keith.good@nngco.com |
| CLEAR PER MAP | XENIA RURAL WATER DISTRICT |
| | LAIRD VAN ZEE |
| | 515-676-2117 |
| | lvandee@xeniamwater.org |
| NO RESPONSE | CONSOLIDATED COMMUNICATIONS |
| | JONI MCCABE |
| | 517-387-1770 |
| | joni.mccabe@consolidated.com |

GENERAL NOTES

- 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.
- CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, STATEWIDE URBAN DESIGN AND SPECIFICATIONS AND THE SOILS REPORTS PREPARED BY OTHERS.
- LENGTH OF UTILITIES SHOWN ON PLANS ARE DIMENSIONED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.
- 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. THE CONTRACTOR SHALL NOTIFY THE CITY OF WAUKEE AT LEAST ONE WEEK PRIOR TO ANY ANTICIPATED LANE CLOSURE.
- NOTIFY OWNER, ENGINEER AND CITY OF WAUKEE AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL ALSO NOTIFY THE CITY OF WAUKEE ENGINEERING DEPARTMENT AT LEAST 48 HOURS PRIOR TO ANY PLANNED WEEKEND OR HOLIDAY WORK.
- CONSTRUCT MANHOLES AND APPURTENANCES AS WORK PROGRESSES. BACKFILL WITH SUITABLE MATERIAL AND COMPACT TO 95% MAXIMUM DENSITY.
- IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.
- ALL FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED OR REPAIRED AND NOTED ACCORDINGLY ON THE AS-BUILT DOCUMENTS.
- 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. CONTACT THE CITY OF WAUKEE FOR APPROVAL OF ANY CHANGES AND THAT ANY CHANGES COMPLETED WITHOUT CITY APPROVAL ARE SUBJECT TO REMOVAL IN ORDER TO MEET CITY OF WAUKEE STANDARDS.
- CONTRACTOR TO LOAD AND TRANSPORT ALL MATERIALS CONSIDERED TO BE UNDESIRABLE TO BE INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-SITE WASTE SITE.
- 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 RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
- ALL PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AND/OR TOP OF PAVING SLAB (GUTTER), UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM NEIGHBORING STREETS, DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
- THE ADJUSTMENT OF ANY EXISTING UTILITY APPURTENANCES TO FINAL GRADE IS CONSIDERED INCIDENTAL TO THE SITE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING EROSION AND SEDIMENT 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 COSESCO PERMIT IS REQUIRED FOR THIS PROJECT.
- CONTRACTOR TO COORDINATE NATURAL GAS, ELECTRICAL, TELEPHONE AND ANY OTHER FRANCHISE UTILITY SERVICES WITH UTILITY SERVICE PROVIDER, CITY OF WAUKEE, AND THE OWNER PRIOR TO CONSTRUCTION.
- IF STORM SEWER CROSSES ABOVE WATER MAIN OR CROSSES LESS THAN 18" BELOW A WATER MAIN THEN STORM SEWER SHALL BE CONSTRUCTED OF REINFORCED CONCRETE WITH A FLEXIBLE O-RING GASKET RATED AT 13 PSIOR GREATER. O-RING GASKET JOINTS SHALL BE INSTALLED ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATERMAIN TO THE STORM SEWER IS AT LEAST TEN FEET.
- A PRECONSTRUCTION MEETING WILL BE REQUIRED A MINIMUM OF ONE WEEK PRIOR TO CONSTRUCTION ACTIVITIES BEGINNING.
- ALL STAKING SHALL BE DONE UNDER THE DIRECTION OF A LICENSED ENGINEER OR LAND SURVEYOR INCLUDING PEDESTRIAN FACILITIES.
- ANY CHANGES PROPOSED TO THE CONSTRUCTION DRAWINGS DURING CONSTRUCTION SHALL BE APPROVED IN WRITING BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE DURING CONSTRUCTION THAT HAVE NOT BEEN GRANTED APPROVAL IN WRITING BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- ALL SANITARY SEWER AND STORM SEWER SHALL BE CLEANED AND TELEVISED PRIOR TO PAVING. THE CITY OF WAUKEE SHALL WITNESS ALL CLEANING AND TELEVISION. COPIES OF THE REPORT AND VIDEO SHALL BE PROVIDED TO THE CITY OF WAUKEE. ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.
- ALL CONNECTIONS TO EXISTING SANITARY MANHOLES SHALL BE CORE DRILLED WITH A LINK SEAL.
- PLACE 3/4" EXPANSION JOINT BETWEEN ALL PCC PAVEMENT/SIDEWALKS AND BUILDINGS. PLACE 1/2" EXPANSION JOINT BETWEEN SIDEWALKS AND PCC PAVEMENT. THE PCC RAMP JOINT LOCATED AT THE BACK OF CURB AND ALL EXPANSION JOINTS SHALL BE SEALED.
- AS-BUILTS SHALL BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT INCLUDING ALL UTILITIES AND AS-BUILT GRADES FOR DRAINAGE SWALES, OVERFLOWS, ACCESSIBLE RAMPS AND DETENTION FACILITIES. THE CONTRACTOR SHALL PROVIDE INFORMATION TO THE DESIGN ENGINEER FOR INCLUSION ON THE RECORD AS-BUILT DRAWINGS.
- ALL UTILITIES SHALL BE CONSTRUCTED TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND ALL UTILITIES SHALL BE TESTED TO CITY STANDARDS. THE CITY SHALL WITNESS ALL TESTING.
- CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING CONCRETE SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE.
- AN APPROVED SITE PLAN THE THE TOWNHOME DEVELOPMENT MUST BE SUBMITTED PRIOR TO ANY CONSTRUCTION ON SITE.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE SUBMITTALS OF ALL CONSTRUCTION MATERIALS TO THE WAUKEE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
- ALL NEW AND RELOCATED HYDRANTS ARE TO HAVE STORZ FITTINGS

BULK REGULATIONS AND SETBACKS

R-2
MINIMUM LOT WIDTH 65 FEET
FRONT YARD 30 FEET
SIDE YARD 7 FEET
REAR YARD 30 FEET
MINIMUM LOT 10,000SF 2 FAMILY
MINIMUM LOT 8,000SF SINGLE FAMILY

R-4
MINIMUM LOT AREA 3500 SF
MINIMUM LOT WIDTH 20 FEET PER UNIT 75' OVERALL
FRONT YARD 30 FEET
SIDE YARD 7 FEET MINIMUM ONE SIDE 15 FEET TOTAL
REAR YARD 30 FEET

PROPERTY DESCRIPTION

THE SOUTH 1/2 OF THE NORTHEAST 1/4 AND THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 32, TOWNSHIP 79 NORTH, RANGE 26 WEST OF THE 5TH P.M., BEING IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA, EXCEPT PARCEL 17-140 AS FILED IN BOOK 2016, PAGE 24530 OF THE DALLAS COUNTY RECORDER'S OFFICE AND EXCEPT AN ACQUISITION PLAT FILED IN BOOK 1998, PAGE 60 OF SAID DALLAS COUNTY RECORDER'S OFFICE AND EXCEPT A CONDEMNATION PLAT RECORDED IN BOOK 10, PAGE 260 OF SAID DALLAS COUNTY RECORDER'S OFFICE AND CONTAINING 93.56 ACRES (4,075,350 S.F.).

ZONING

EXISTING: R-4, R-2

| WATER MAIN QUANTITIES | |
|---------------------------|---------|
| 8" PVC MAIN | 912 LF. |
| 8" VALVE | 3 EA. |
| HYDRANT ASSEMBLY | 2 EA. |
| TEMPORARY BLOWOFF HYDRANT | 2 EA. |
| CONNECT TO EXISTING | 2 EA. |

| SANITARY SEWER QUANTITIES | |
|---------------------------|---------|
| 8" TRUSS PIPE | 580 LF. |
| MANHOLES SW-301 | 3 EA. |
| CONNECT TO EXISTING | 2 EA. |

| STORM SEWER QUANTITIES | |
|-----------------------------------|---------|
| SW-505 INTAKE | 1 EA. |
| SW-506 INTAKE | 3 EA. |
| MODIFIED SW-506 INTAKE | 3 EA. |
| SW-511 INTAKE | 2 EA. |
| MANHOLES SW-401(48") | 2 EA. |
| MANHOLES SW-401(60") | 3 EA. |
| MANHOLES SW-401(72") | 2 EA. |
| MANHOLES SW-401(84") | 1 EA. |
| CLEANOUT | 1 EA. |
| 4" PVC SUBDRAIN | 593 LF. |
| 4" HDPE SUBDRAIN | 680 LF. |
| SUBDRAIN CLEANOUT TYPE A-1 | 2 EA. |
| SUBDRAIN OUTLET STRUCTURE | 2 EA. |
| 8" PVC SUMPDRAN | 290 LF. |
| 15" RCP | 492 LF. |
| 15" FES W FOOTING AND APRON GUARD | 1 EA. |
| 18" RCP | 220 LF. |
| 30" RCP | 405 LF. |
| 36" RCP | 557 LF. |
| 36" FES W FOOTING AND APRON GUARD | 2 EA. |
| 42" RCP | 677 LF. |
| 42" FES W FOOTING | 1 EA. |
| RIP RAP | 60 TONS |

| PAVEMENT QUANTITIES | |
|----------------------|----------|
| 7" PCC | 2176 SY. |
| 12" SUBGRADE PREP | 2418 SY. |
| PCC SIDEWALK & RAMPS | 73 SY. |
| DETECTABLE WARNINGS | 40 SF. |
| MAILBOX PAD | 2 EA. |

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 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.

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(2011)EPOCH 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 SOUTHVIEW 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, NORTH EAST 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.



| REVISED AS PER CITY COMMENTS | DATE | BY |
|------------------------------|----------|-----|
| 4 | 08/03/17 | JWM |
| 3 | 08/01/17 | JWM |
| 2 | 07/28/17 | JWM |
| 1 | 07/07/17 | JWM |

Engineer: KMM
Checked By: EDC
Scale: 1"=1'
Field Bk: Pg.
Project No: 116.0697

WAUKEE, IA

PROJECT INFORMATION

SPRING CREST PLAT 1

SNYDER & ASSOCIATES, INC.

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

SNYDER & ASSOCIATES

Project No: 116.0697

Sheet 2 of 15

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BENCHMARKS

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)
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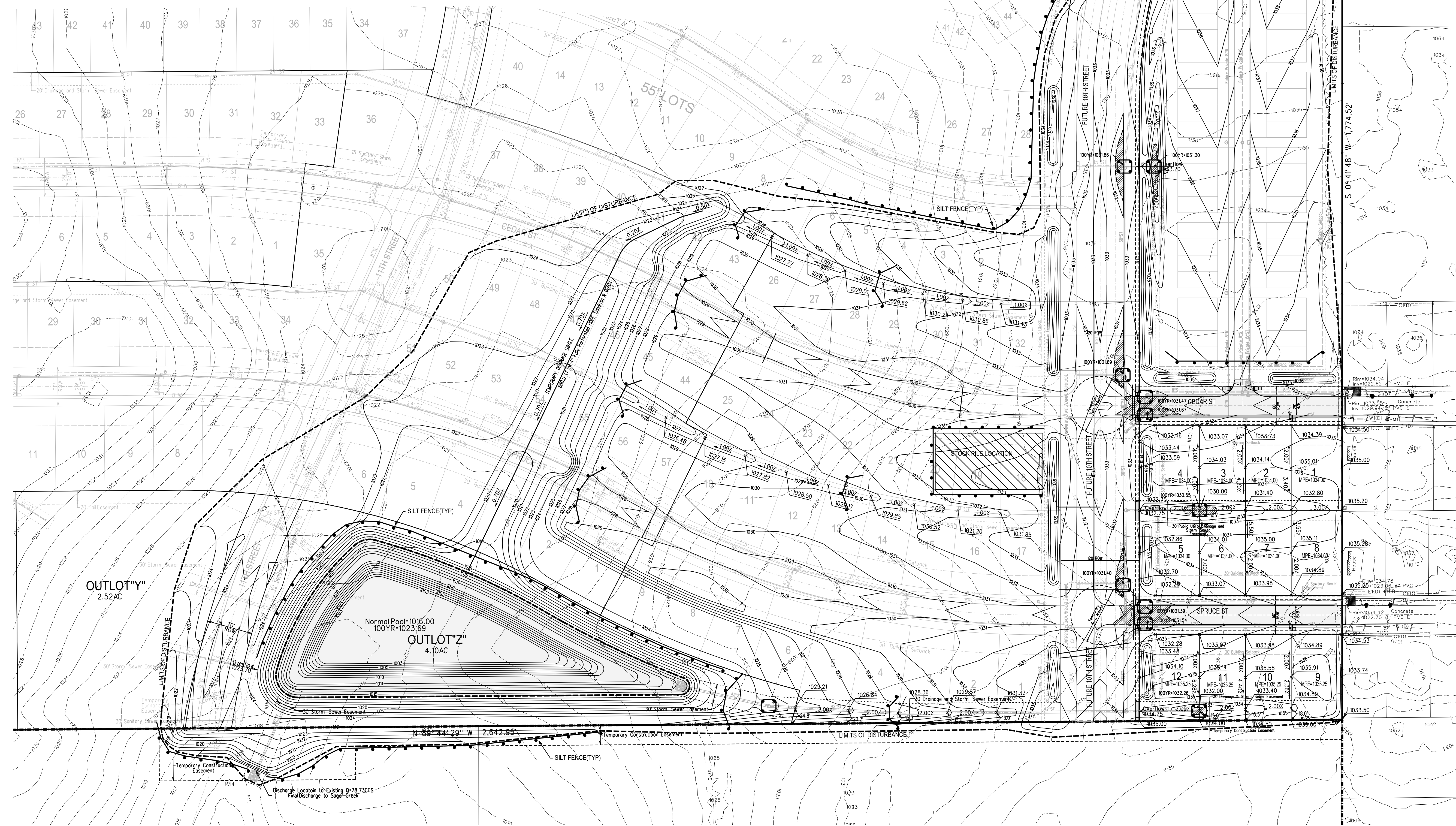
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- CP4 N=588428.84 E=1530732.77
IOWA DOT ALUMINUM MONUMENT SOUTH OF HIGHWAY 6 IN LINE WITH NORTH 1/4 CORNER OF SECTION, NORTHWEST OF SITE.

DISTURBED AREA

TOTAL DISTURBED AREA = 34.2AC



5 REVISED PER AS-BUILT SURVEY 12/19/17 AD

| | | |
|-----------------|------------------------------|---------------|
| 4 | REVISED AS PER CITY COMMENTS | 08/03/17 JMM |
| 3 | REVISED AS PER CITY COMMENTS | 08/01/17 JMM |
| 2 | REVISED AS PER CITY COMMENTS | 07/28/17 JMM |
| 1 | REVISED AS PER CITY COMMENTS | 07/07/17 JMM |
| MARK | REVISION | DATE BY |
| Engineer: KMM | Checked By: EDC | Scale: 1"=80' |
| Technician: JWM | Date: 06/20/07 | Field Bk: |

SPRING CREST PLAT 1
OVERALL SITE GRADE PLAN
SNYDER & ASSOCIATES, INC.
WAUKEE, IA



Project No: 116.0697
Sheet 4 of 15

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

Sheet 4 of 15

1/11/2018 9:23:23 AM Snyder 1800 12/19/17 JMM 08/03/17 JMM 08/01/17 JMM 07/28/17 JMM 07/07/17 JMM

POLLUTION PREVENTION NOTES

- A. POLLUTION PREVENTION AND EROSION PROTECTION**
1. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL POTENTIAL POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) NPDES PERMIT, THE U.S. CLEAN WATER ACT AND ANY LOCAL ORDINANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE AND ALL OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.
 2. DAMAGE CLAIMS: THE CONTRACTOR WILL HOLD THE OWNER AND ARCHITECT/HARBORER 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 PERMIT NO. 2 INCLUDING CREATING OR MAINTAINING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND POSSIBLY OBTAINING THE GENERAL PERMIT COVERAGE FROM THE IDNR.
 2. ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT, INCLUDING BUT NOT LIMITED TO THE NOTICE OF INTENT, PROOF OF PUBLICATIONS, DISCHARGE AUTHORIZATION LETTER, CURRENT SWPPP, SITE INSPECTION LOG, AND OTHER ITEMS SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENTED TO ANY JURISDICTIONAL AGENCIES UPON REQUEST. FAILURE TO COMPLY WITH THESE 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 MATTERS, 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.

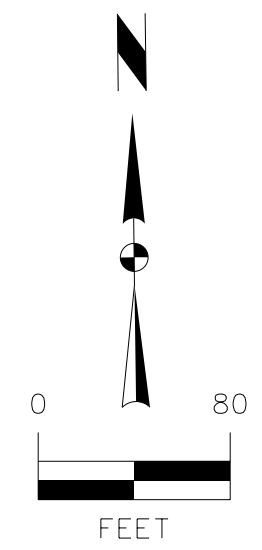
STORMWATER MANAGEMENT QUANTITIES

| | |
|---|---------|
| SILT FENCE | 4920 LF |
| SEDIMENT BASKETS | 7 EA |
| FERTILIZING & MULCHING | 34.2 AC |
| TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE(ENTIRE SITE) | 34.2 AC |

POTENTIAL STORM WATER MANAGEMENT FACILITY LOCATIONS

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/SODDING ARE COMPLETE. SEDIMENT BASKETS SHALL BE PROVIDED ONCE PAVING IS COMPLETE.
- E. STRIP SALVAGE AND RE-SPREAD TOPSOIL PER SECTION 2010 OF SUPAS STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. TOPSOIL TO BE RE-SPREAD SHALL BE FREE OF ROCK AND DEBRIS 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.



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| 4 | REVISED AS PER CITY COMMENTS | 08/03/17 JMM |
| 3 | REVISED AS PER CITY COMMENTS | 08/01/17 JMM |
| 2 | REVISED AS PER CITY COMMENTS | 07/28/17 JMM |
| 1 | REVISED AS PER CITY COMMENTS | 07/07/17 JMM |
| MARK | REVISION | DATE BY |
| Engineer: | KMM | Checked By: EDC |
| Technician: | JMM | Date: 06/20/2017 |
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| Project No: | 116.0697 | Field Bk: |
| Sheet | 6 of 15 | |

SPRING CREST PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

SNYDER & ASSOCIATES, INC.

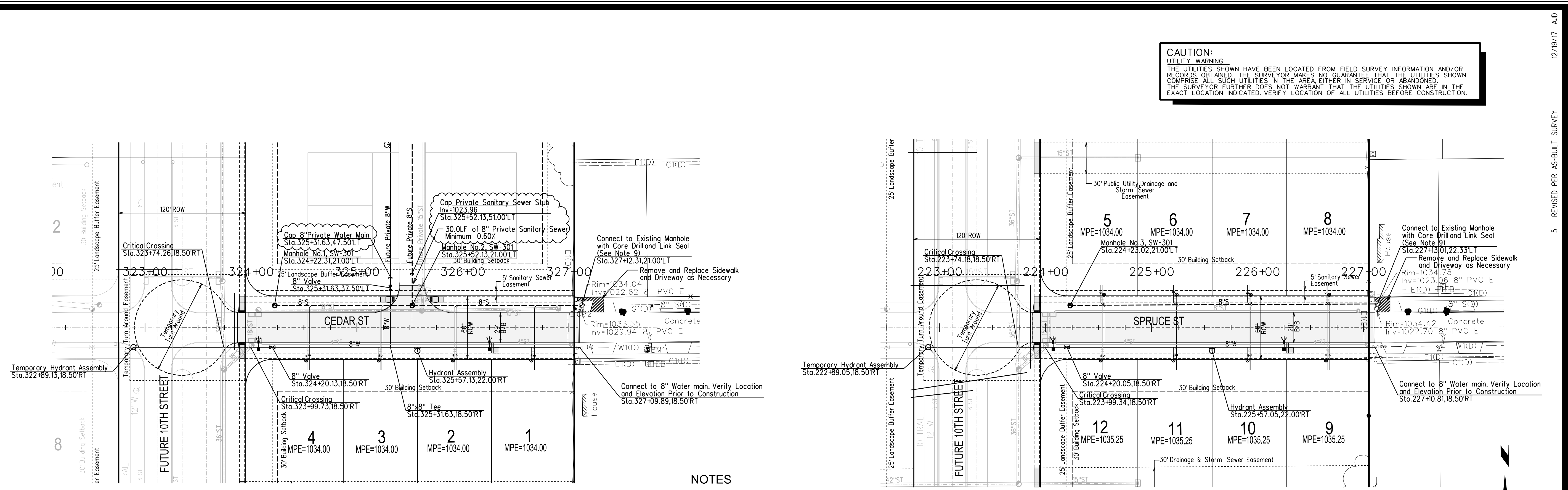
2727 S.W. SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

WAUKEE, IA

Project No: 116.0697

Sheet 6 of 15

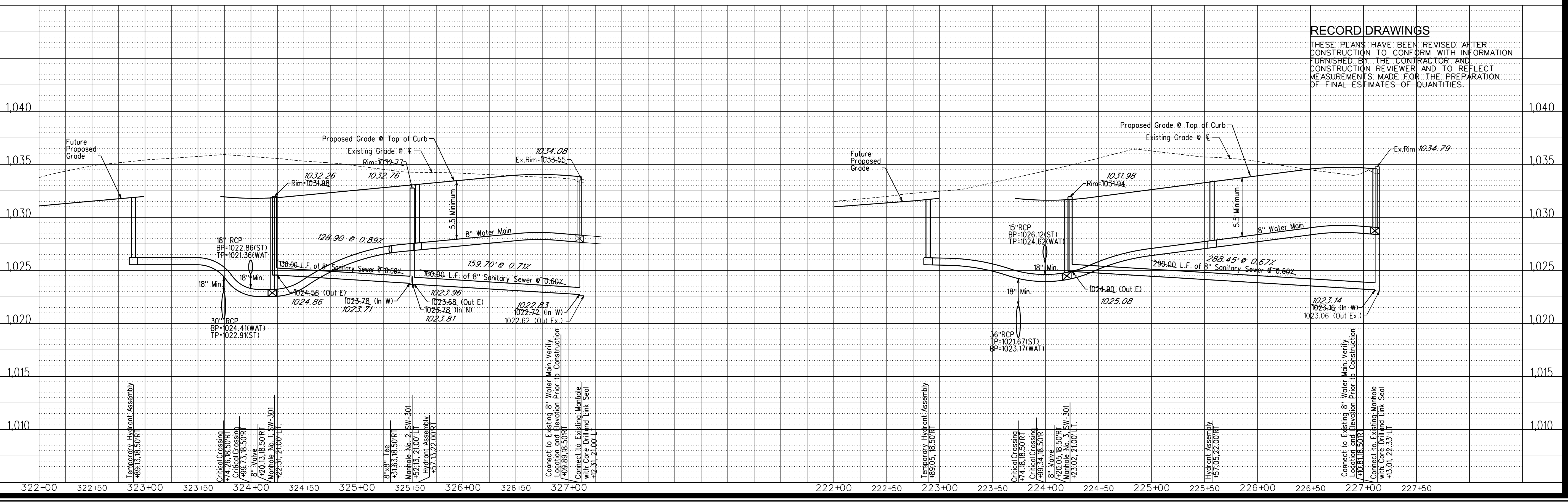
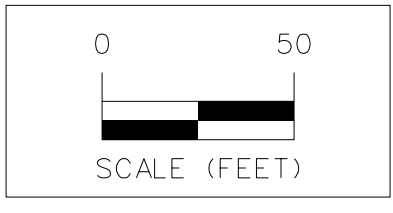
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BENCHMARKS
 NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)
 IARTN DERIVED - US SURVEY FEET
 BM1 ELEV=1035.08
 BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET
 SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

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.
- COORDINATE CONNECTION AND REMOVALS OF EXISTING MANHOLES WITH THE CITY AND PROPERTY OWNERS ONE WEEK PRIOR TO CONSTRUCTION.
- ALL NEW AND RELOCATED HYDRANTS ARE TO HAVE STORZ FITTINGS



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.

CAUTION:
 UTILITY WARNING
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SPRING CREST PLAT 1

SANITARY SEWER AND WATER MAIN PLAN AND PROFILE

SNYDER & ASSOCIATES, INC.



Project No: 116.0697

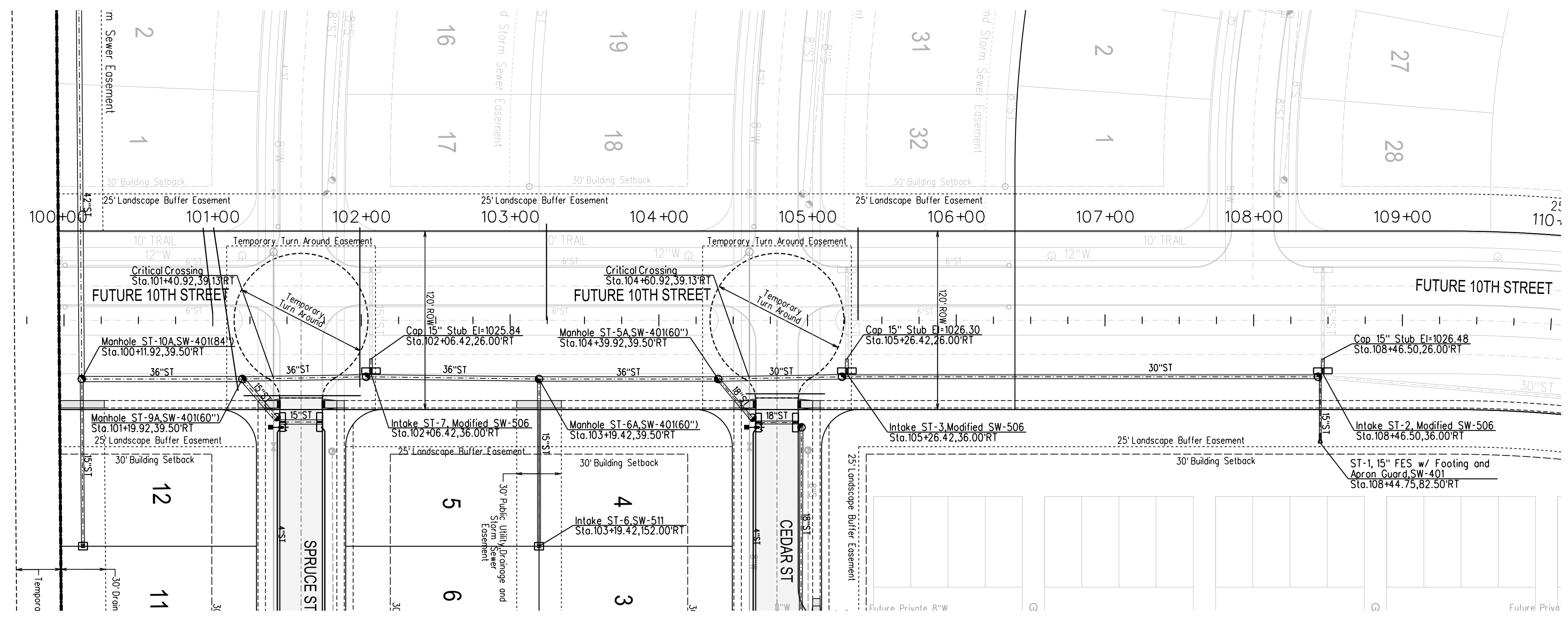
Sheet 7 of 15

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| 3 | REVISED AS PER CITY COMMENTS | 08/01/17 | JWM |
| 2 | REVISED AS PER CITY COMMENTS | 07/28/17 | JWM |
| 1 | REVISED AS PER CITY COMMENTS | 07/07/17 | JWM |
| MARK | | REVISION | DATE BY |
| Engineer: KMM | | Checked By: EDC | Scale: 1"=50' |
| Technician: JWM | | Date: 06/20/07 | Field Bk: |
| Project No: 116.0697 | | Sheet 7 of 15 | |

WAUKEE, IA
 2727 S.W. SNYDER BLVD.
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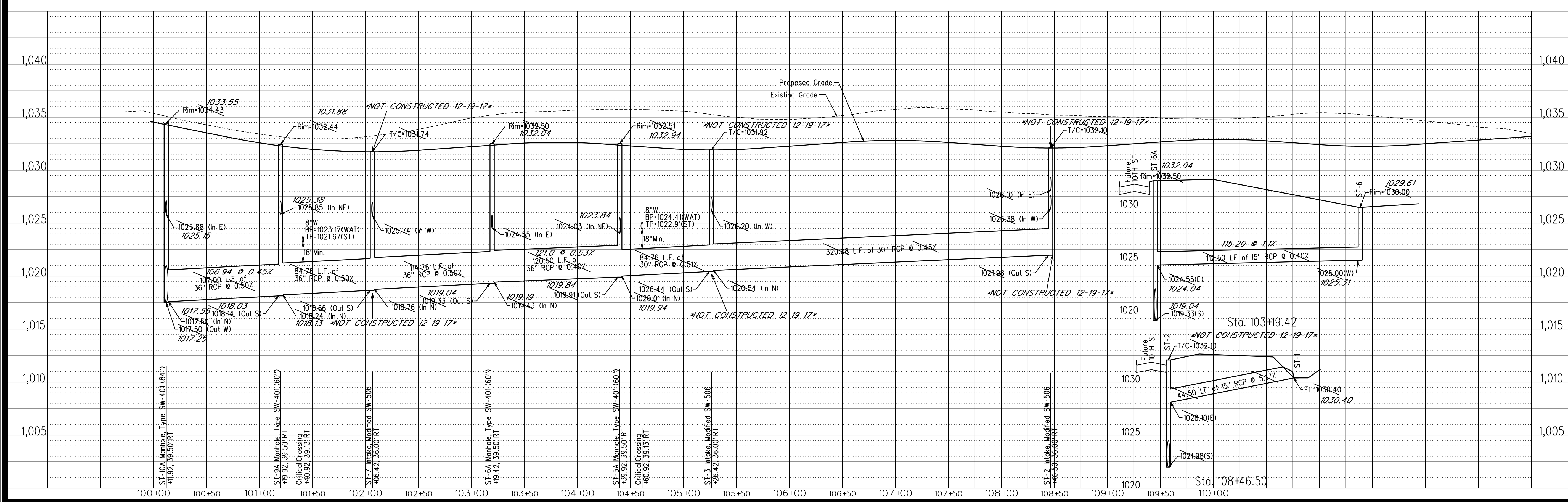
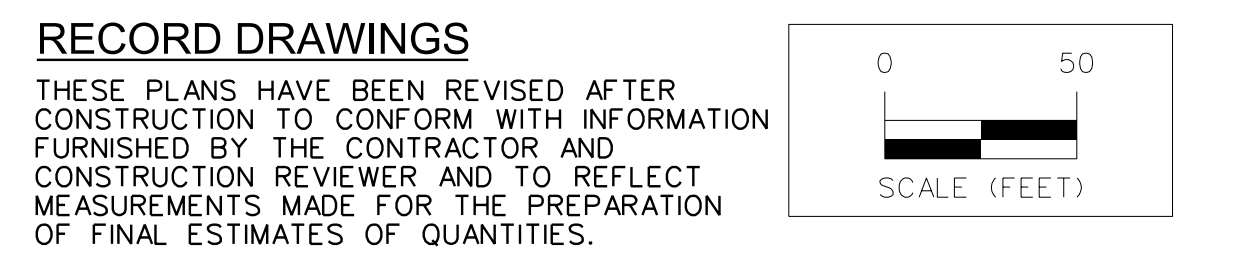
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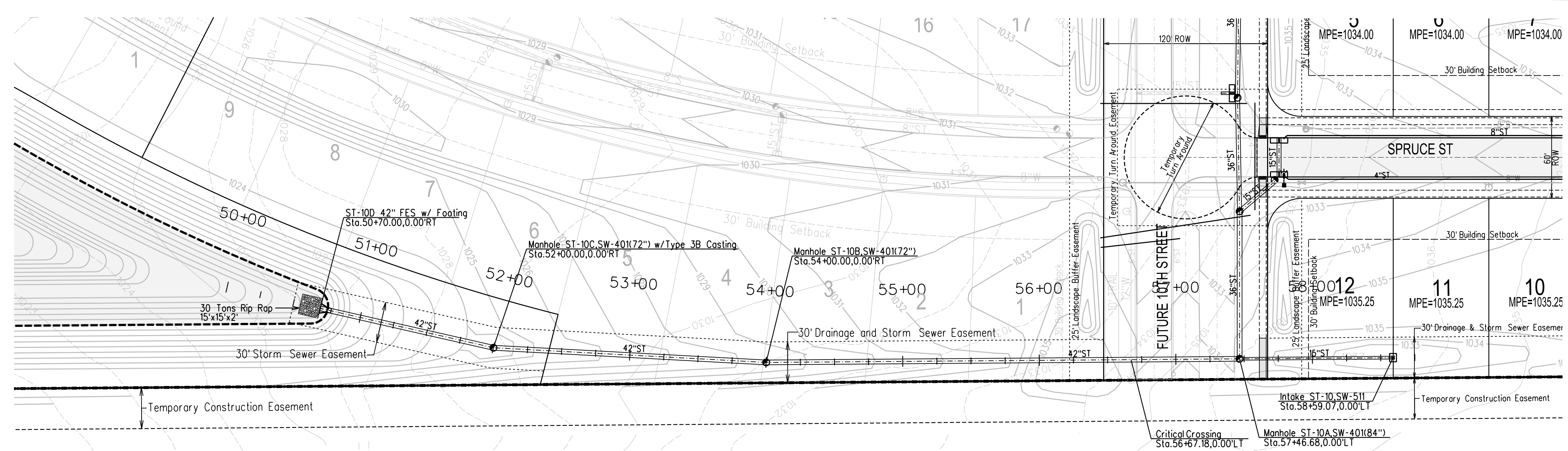
- NOTES**
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 - GASKETED STORM SEWER TO WITHIN 10' OF ALL WATER MAIN CROSSINGS.

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.



SPRING CREST PLAT 1
STORM SEWER PLAN AND PROFILE
SNYDER & ASSOCIATES, INC.
 Project No: 116.0697
 Sheet 9 of 15

12/19/17 AD
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 Sheet 10 of 15
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CAUTION: UTILITY WARNING
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NOTES

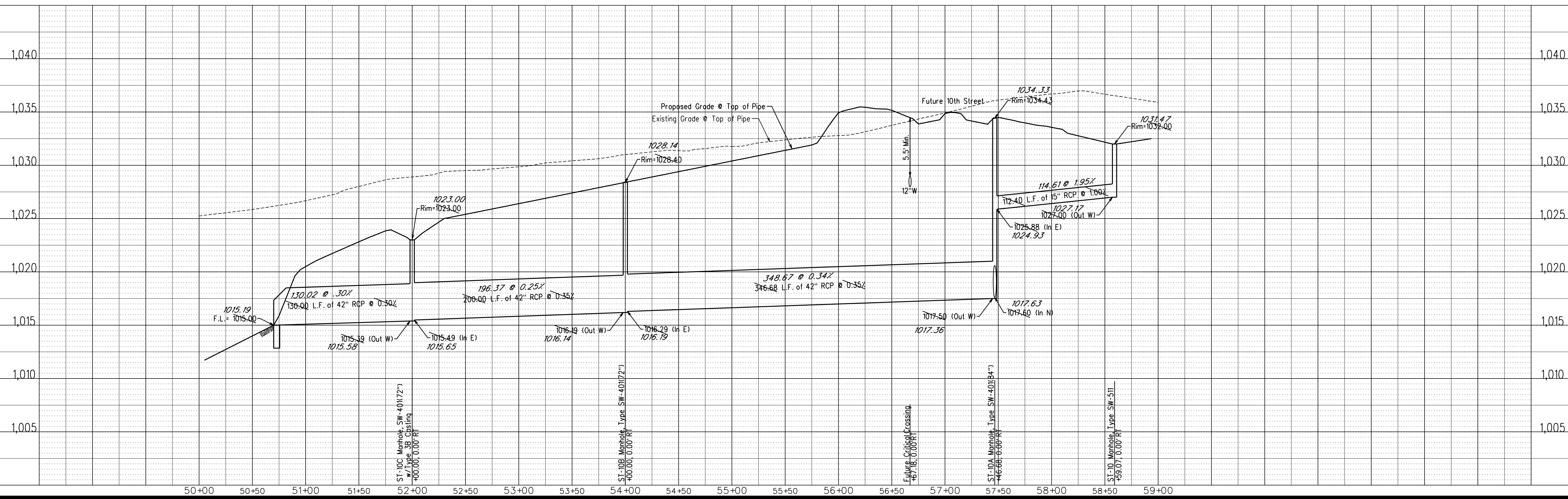
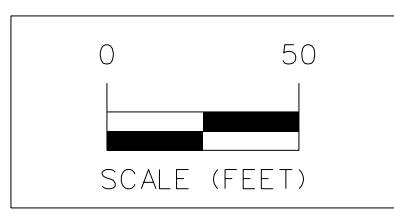
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BENCHMARKS

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 BM1 ELEV=1035.08
 BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

RECORD DRAWINGS

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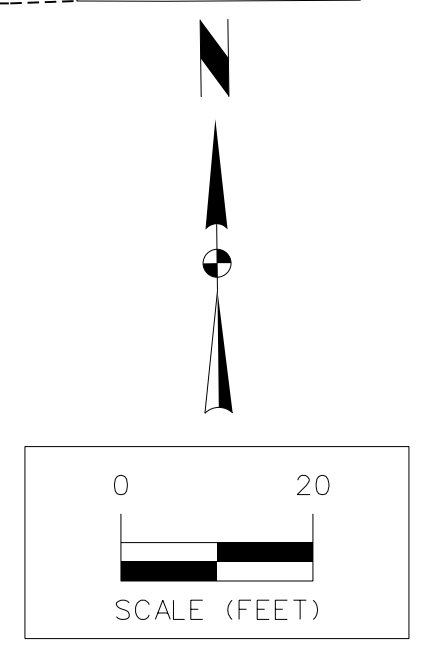
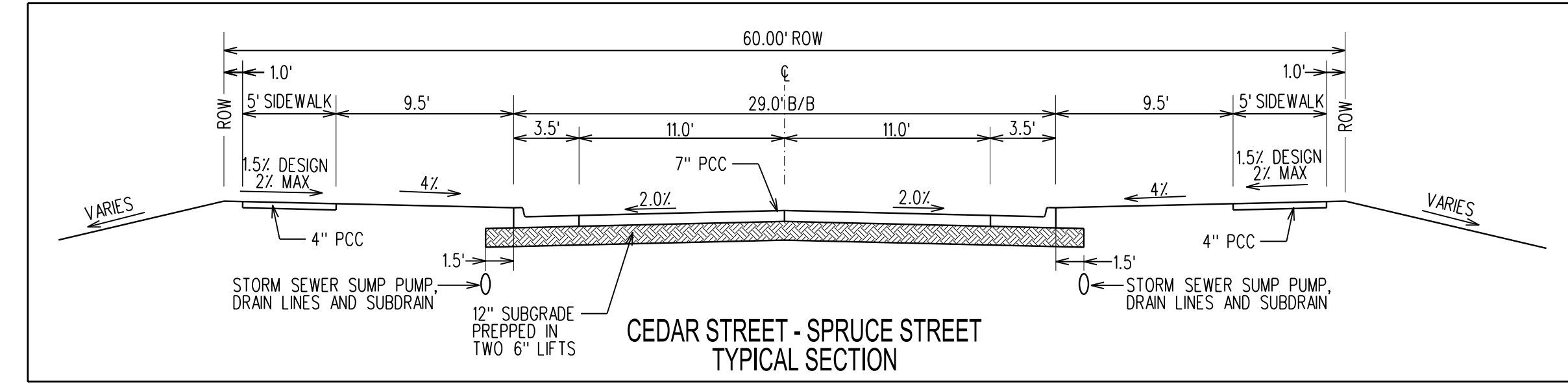
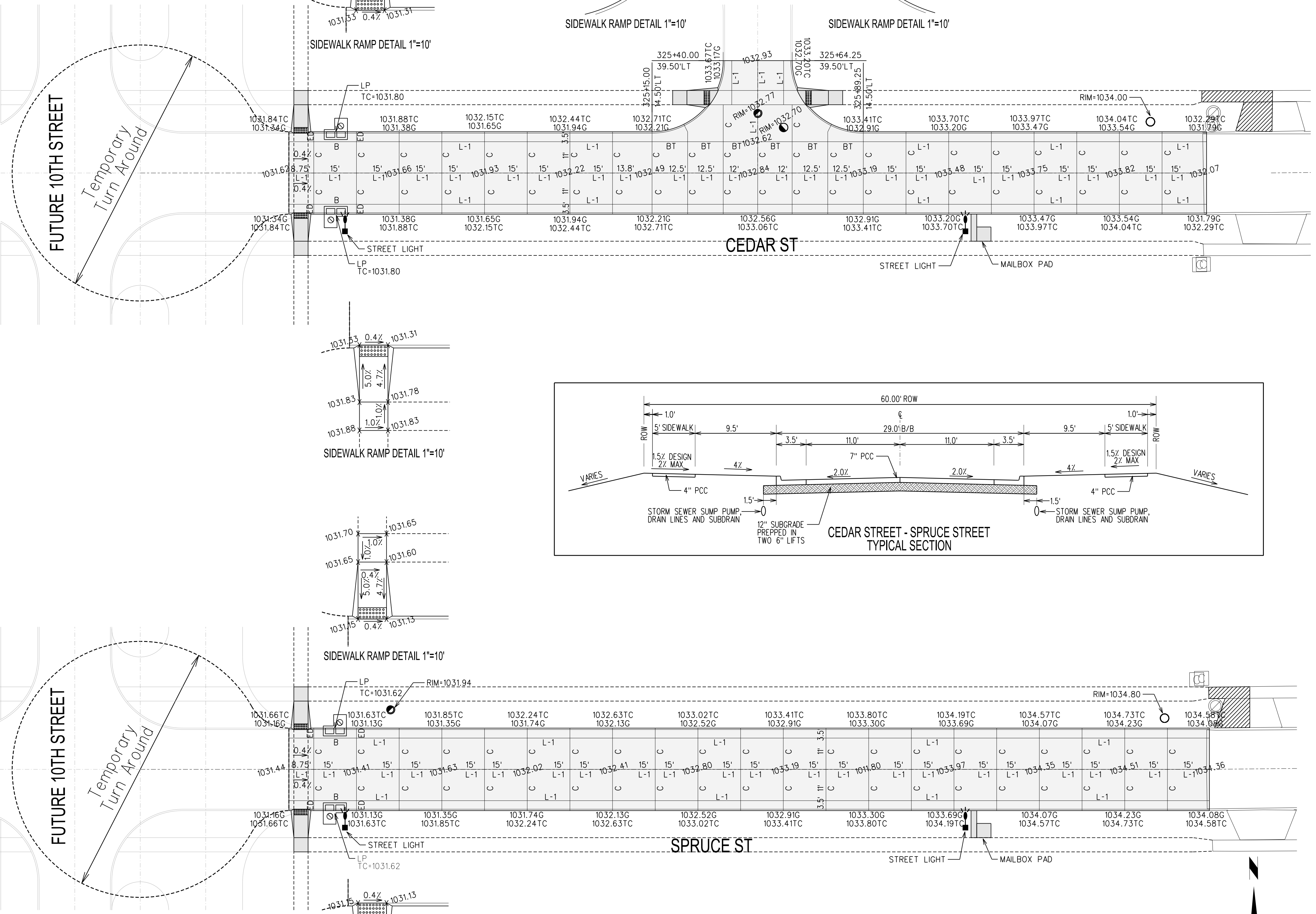
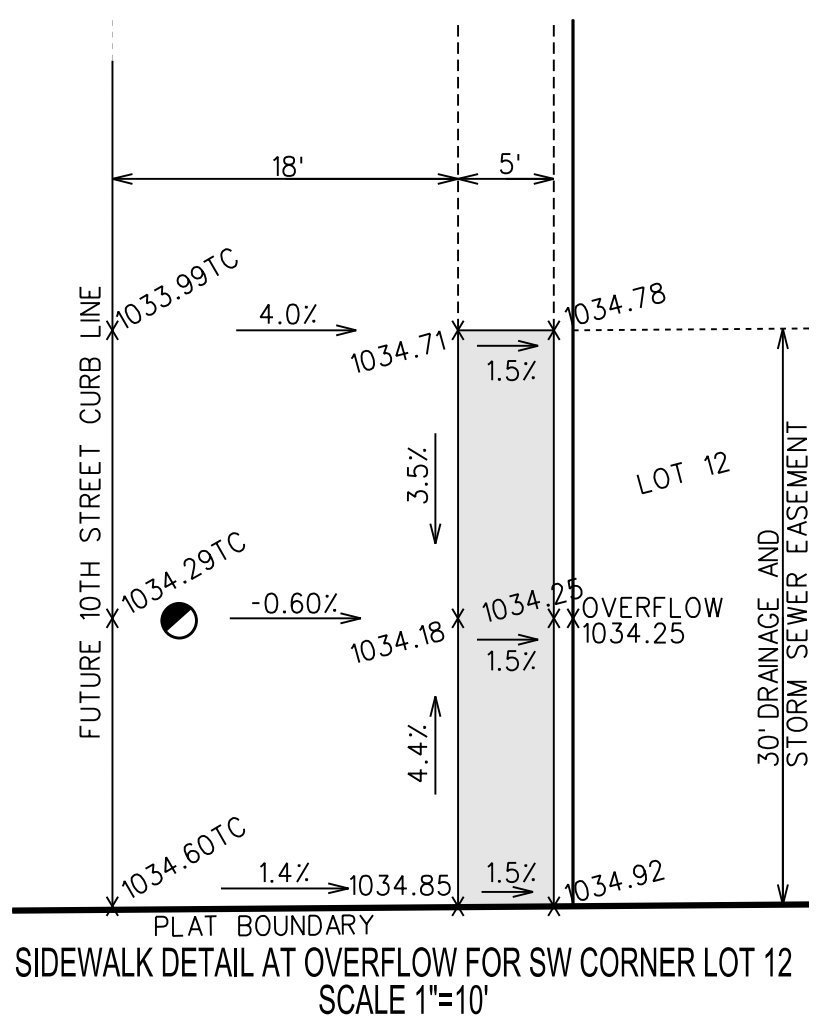
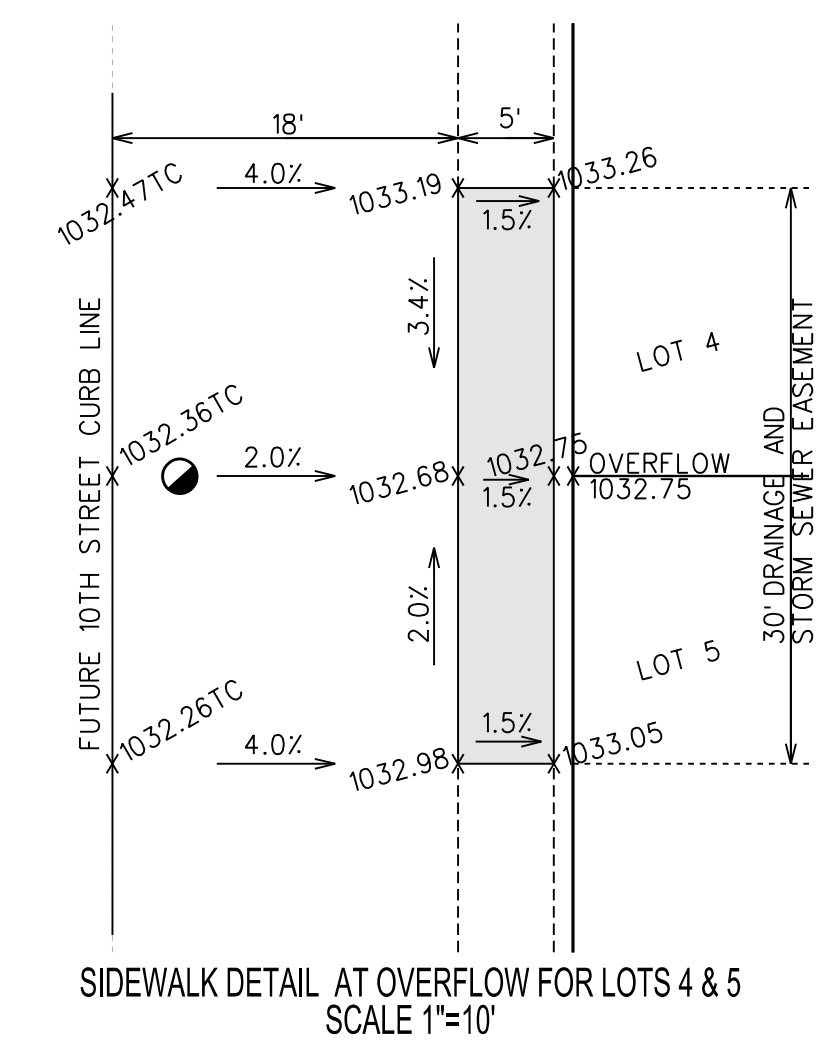
SPRING CREST PLAT 1

STORM SEWER PLAN AND PROFILE

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12/19/17 AD

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| 4 | REVISED AS PER CITY COMMENTS | 08/03/17 | JWM |
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| 2 | REVISED AS PER CITY COMMENTS | 07/28/17 | JWM |
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SPRING CREST PLAT 1

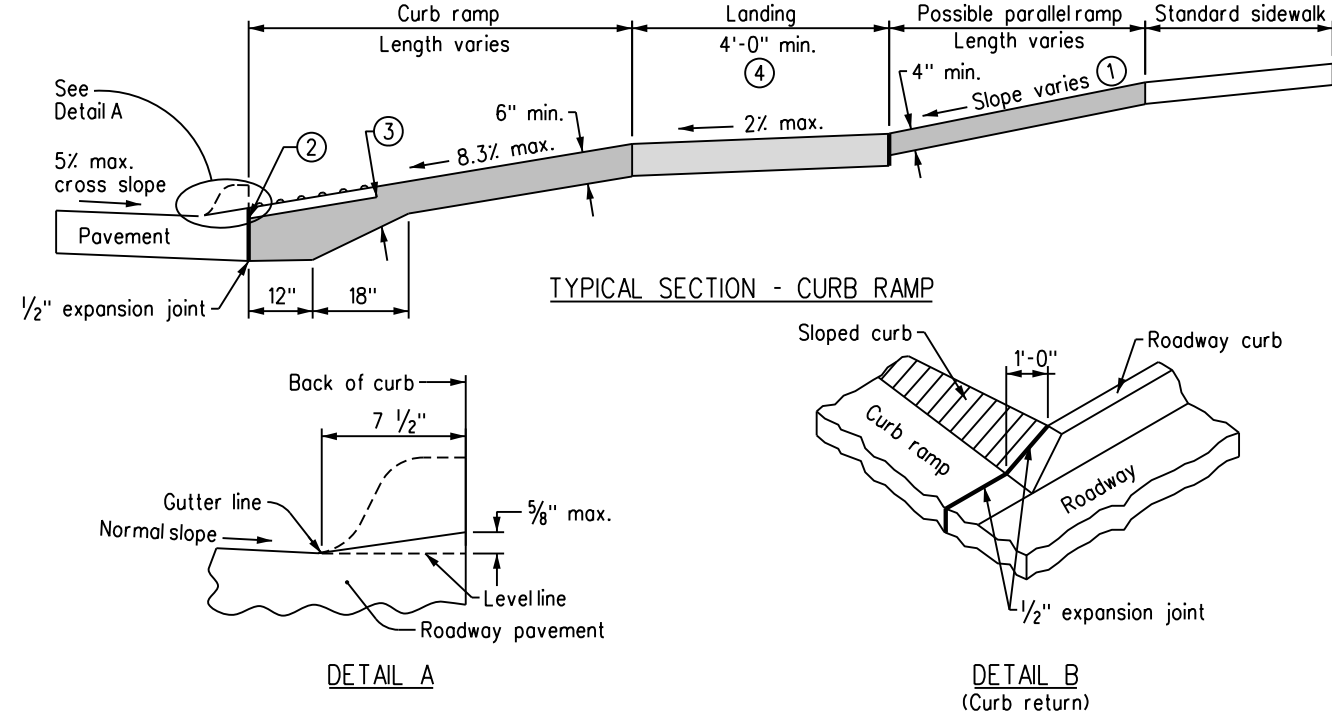
INTERSECTION DETAILS

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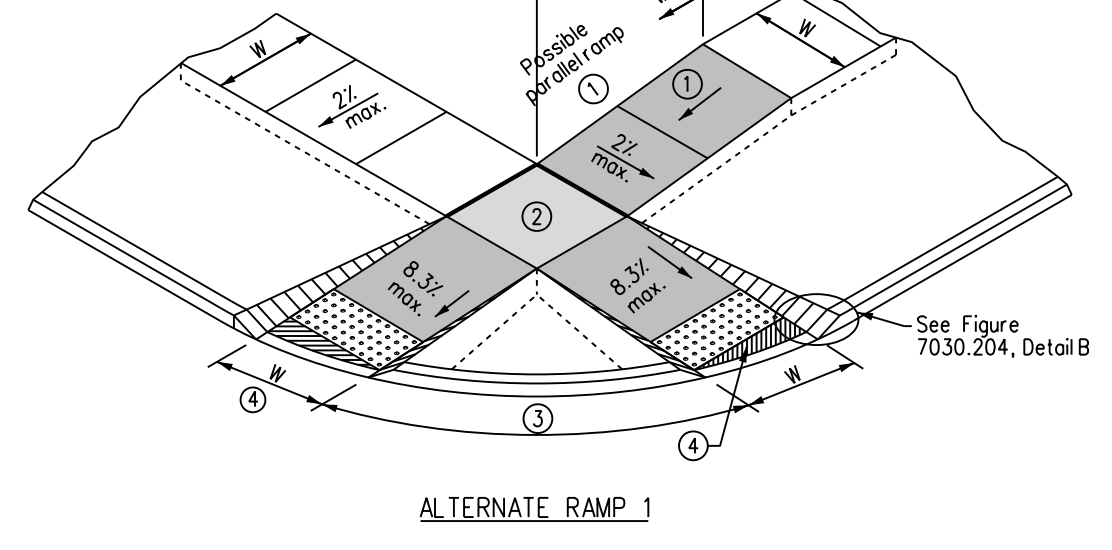


If crosswalks are marked, locate ramps, exclusive of flares, within the crosswalk markings.

- 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

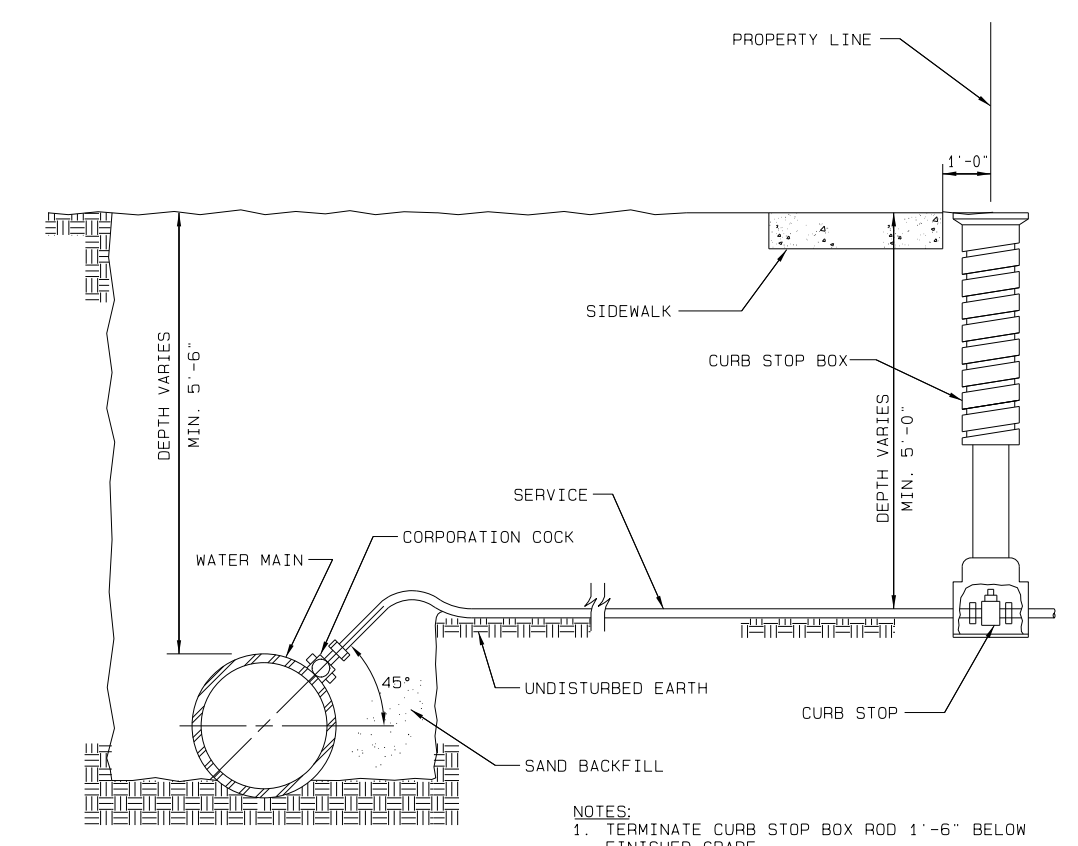
- Ramp
- Landing
- Detectable warning



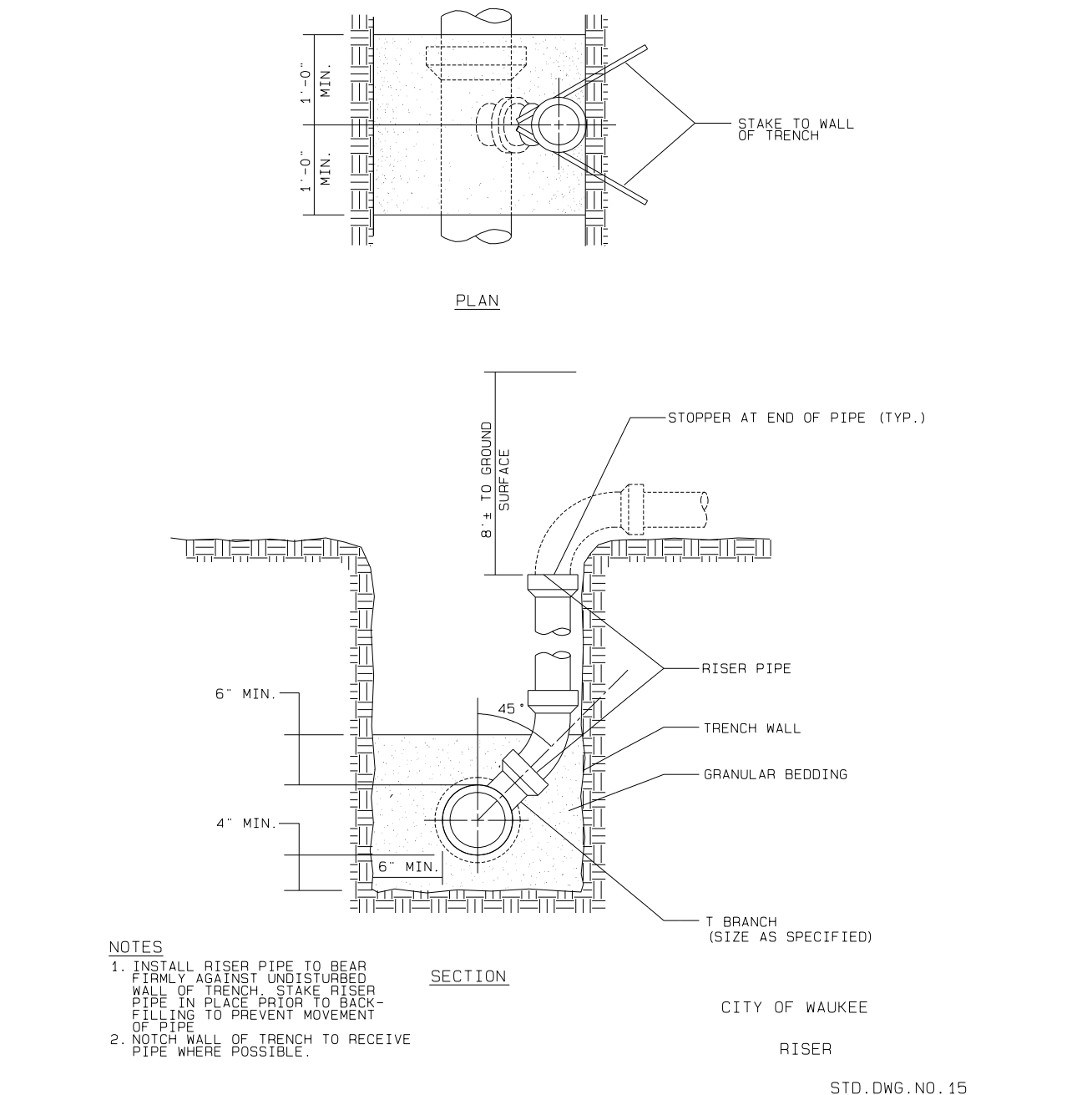
- Parallel ramp: If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.
- Landing: Maximum slope of 2% in any direction.
- 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 ramp to provide a smooth transition to the gutterline. 2% maximum slope in any direction.

1 GENERAL SIDEWALK DETAILS

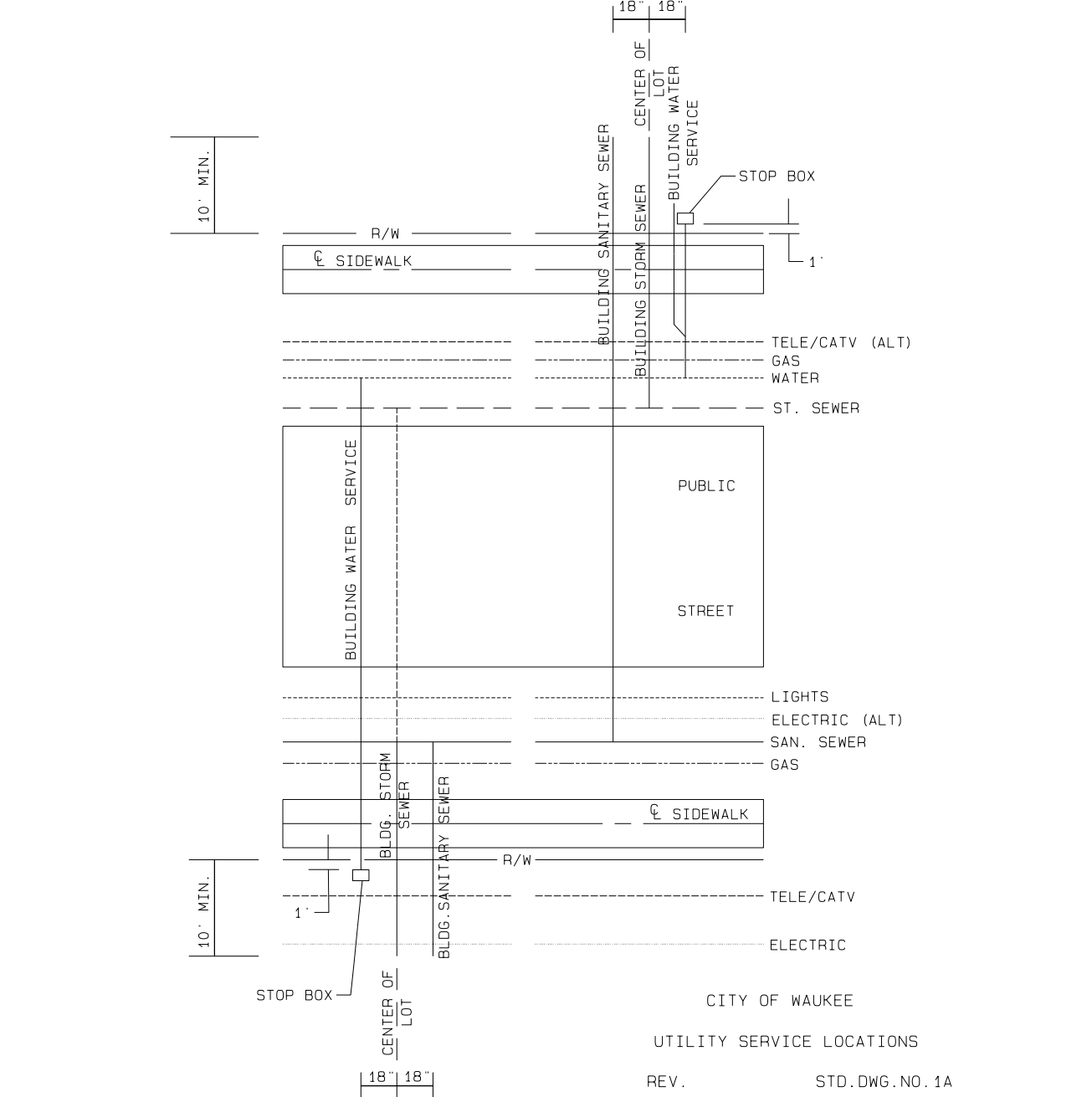
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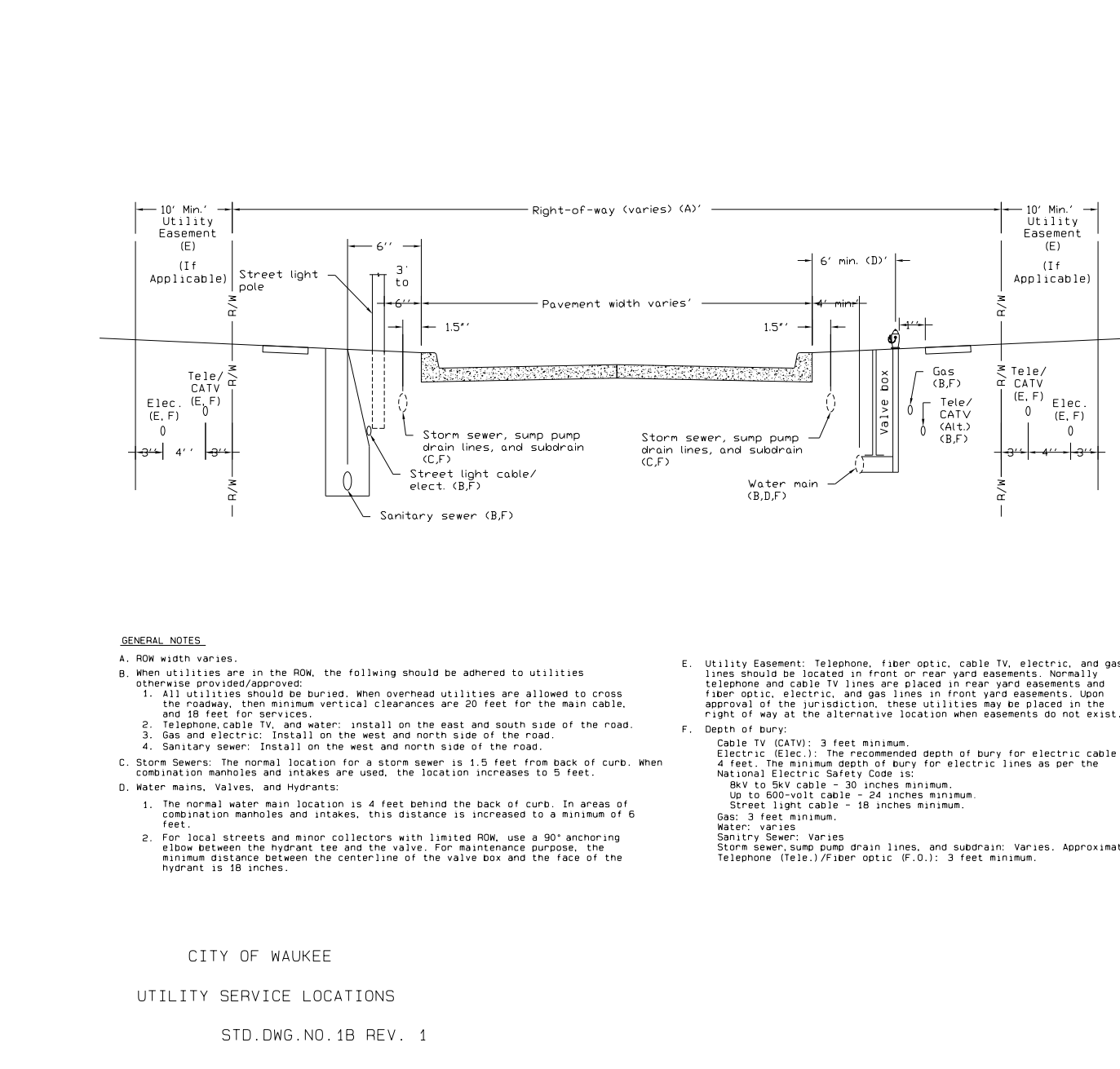
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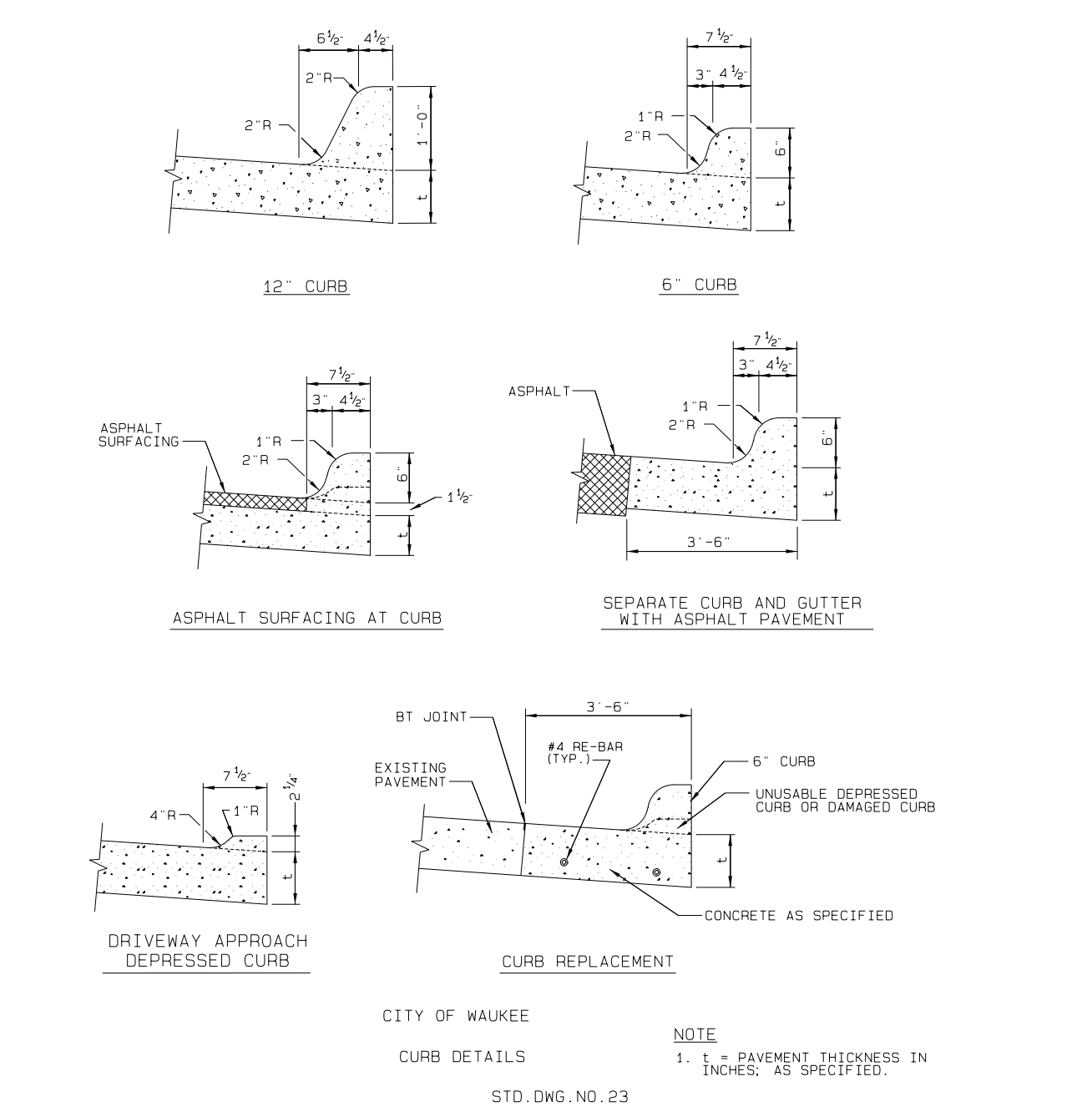
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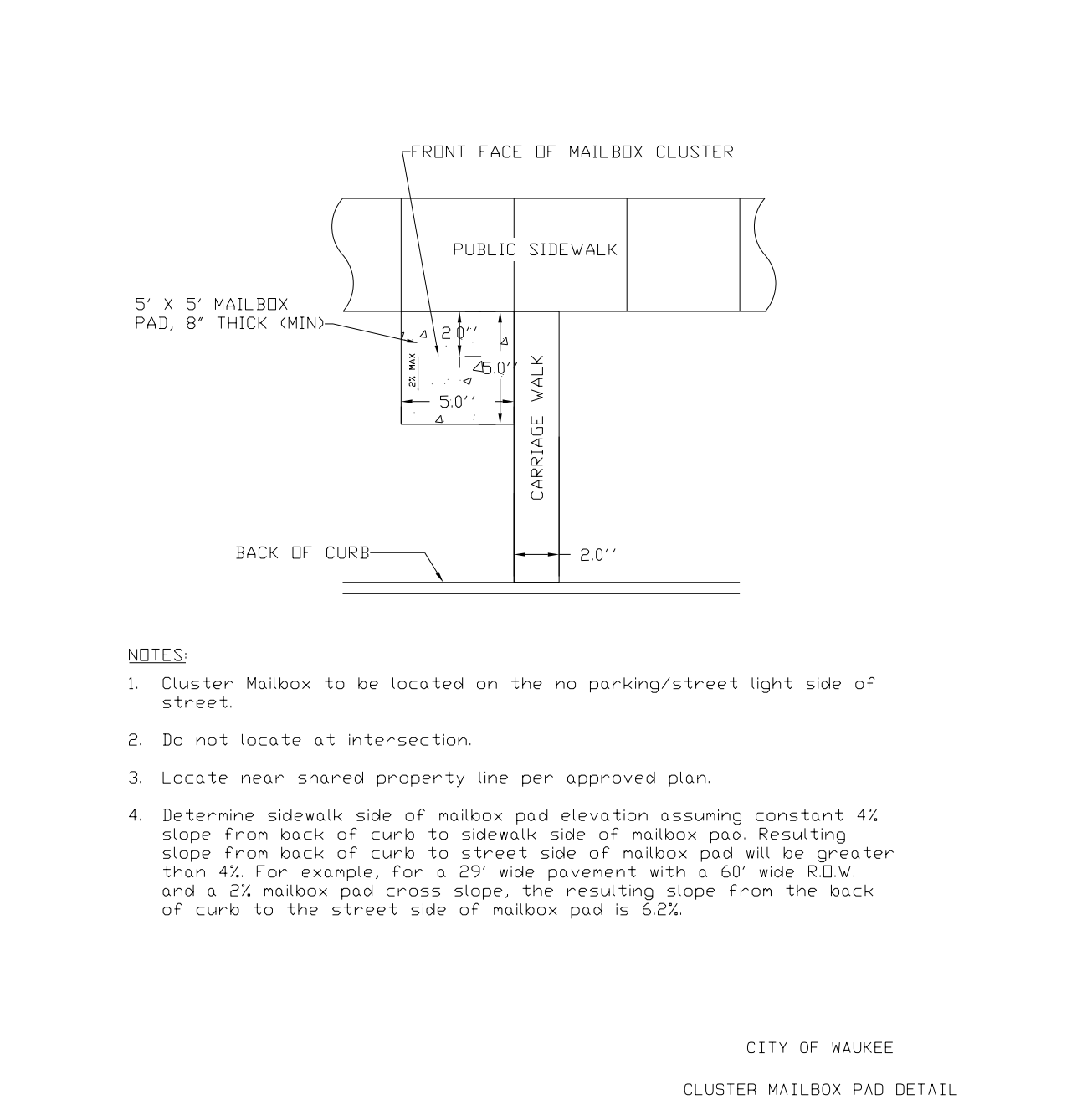
5 CITY OF WAUKEEE UTILITY SERVICE LOCATIONS



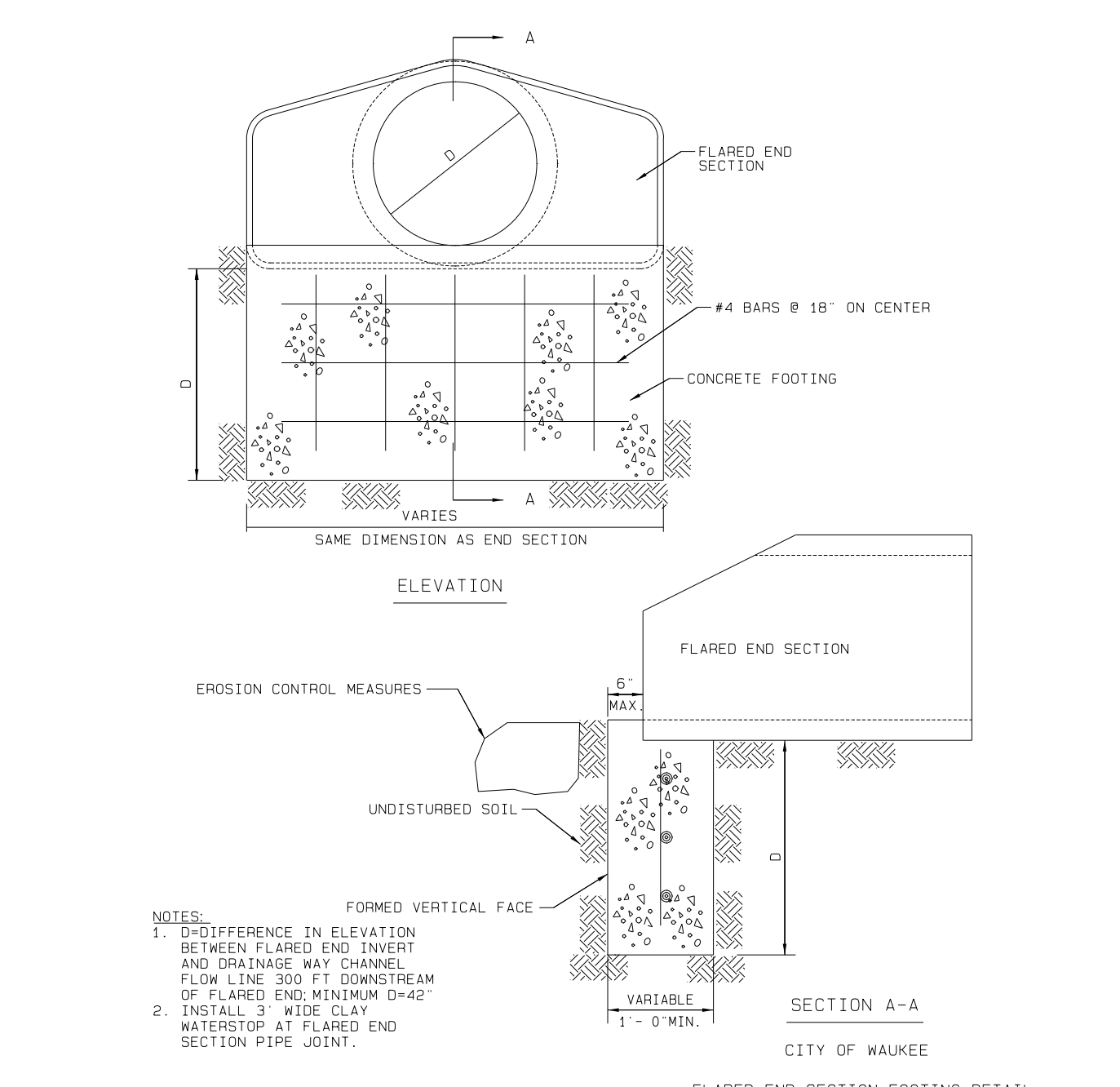
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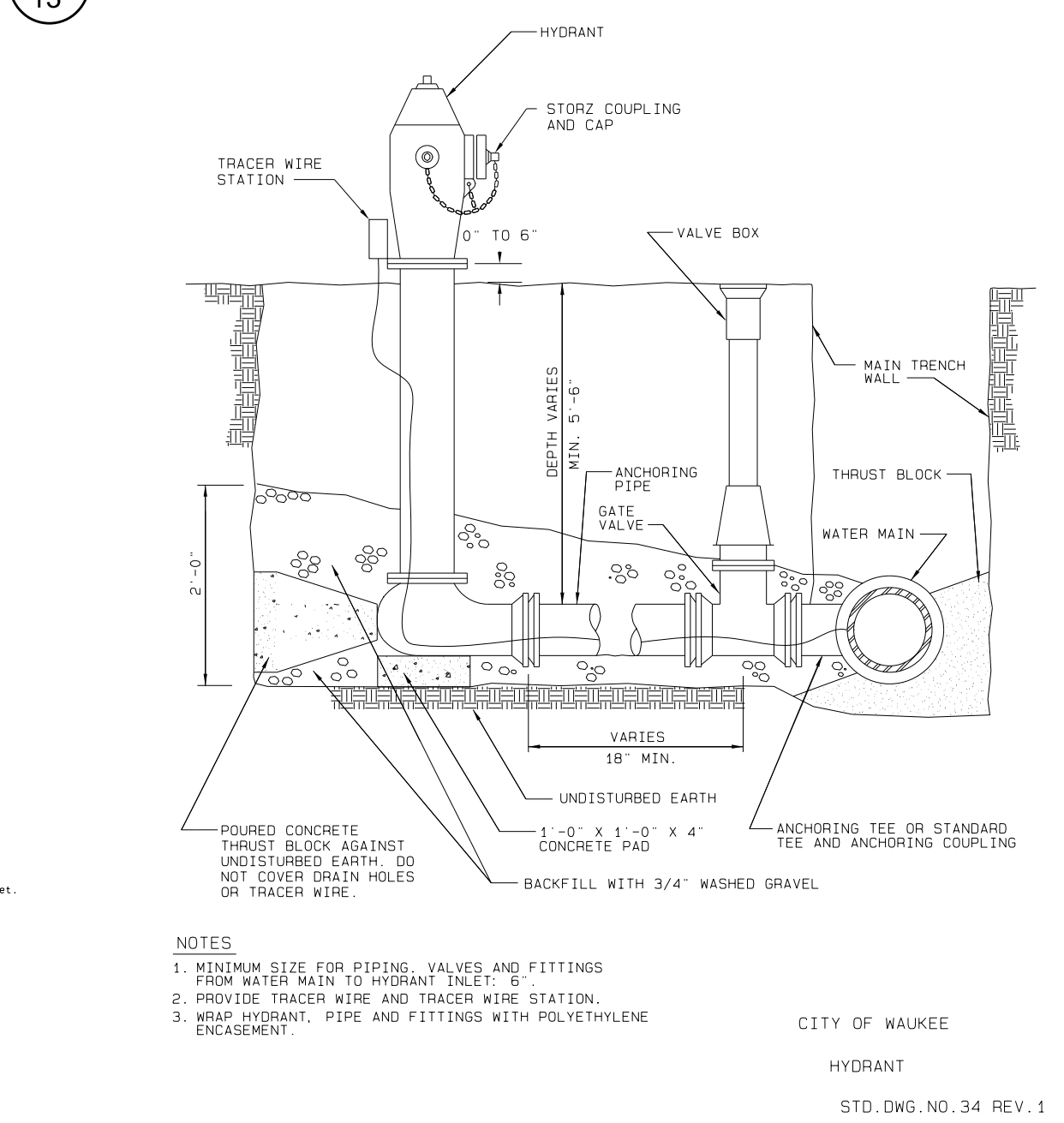
8 CITY OF WAUKEEE CURB DETAILS



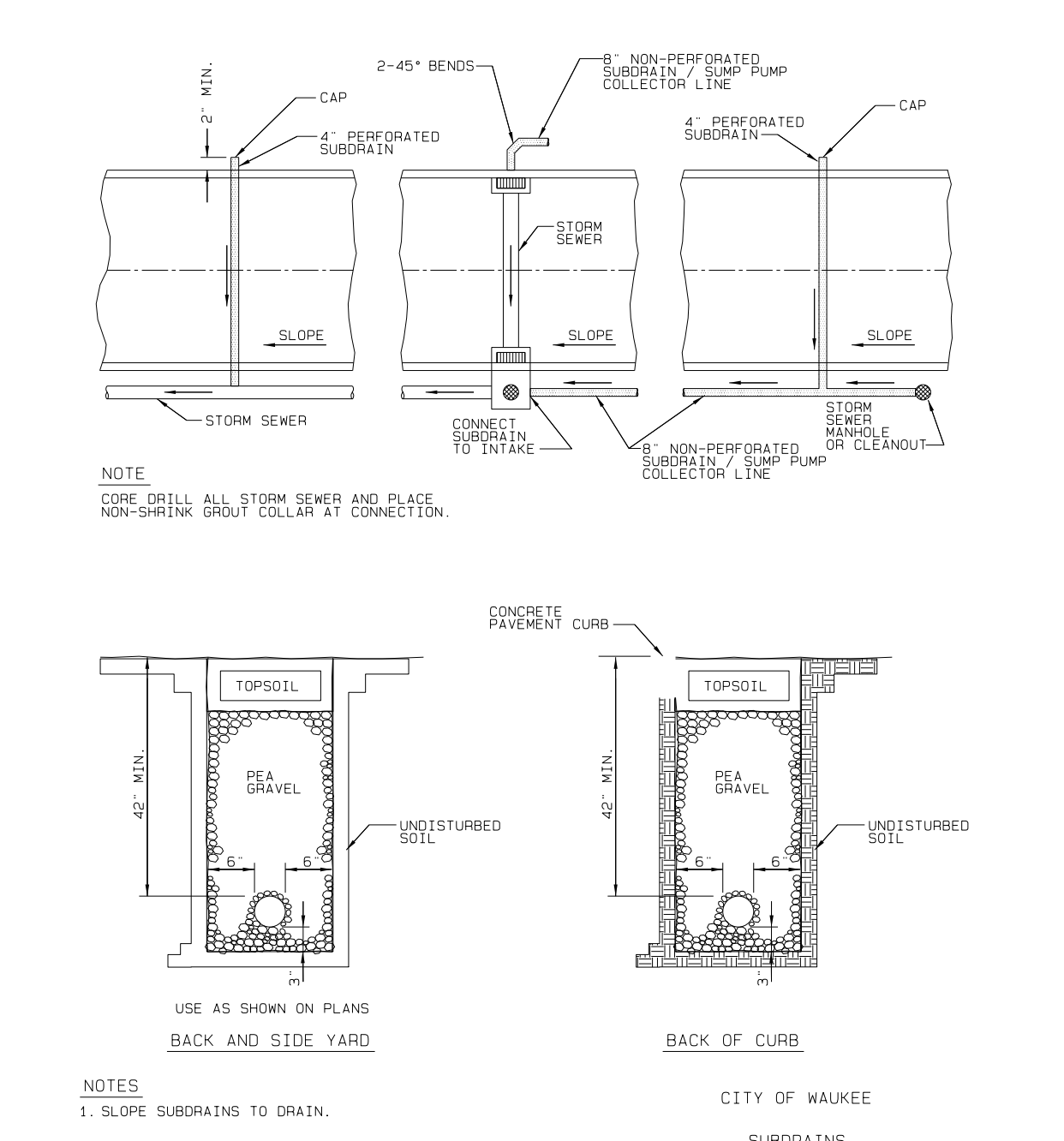
9 CITY OF WAUKEEE CLUSTER MAILBOX PAD



10 CITY OF WAUKEEE FLARED END SECTION



7 CITY OF WAUKEEE HYDRANT



11 CITY OF WAUKEEE SUBDRAINS

12/19/17 AD
5 REVISED PER AS-BUILT SURVEY

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| 4 | REVISED AS PER CITY COMMENTS | 08/03/17 JMM |
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| | Engineer: KMM | Checked By: EDC |
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| | Date: 06/20/07 | Project No.: |
| | 116.0697 | Sheet 13 of 15 |

WAUKEE, IA

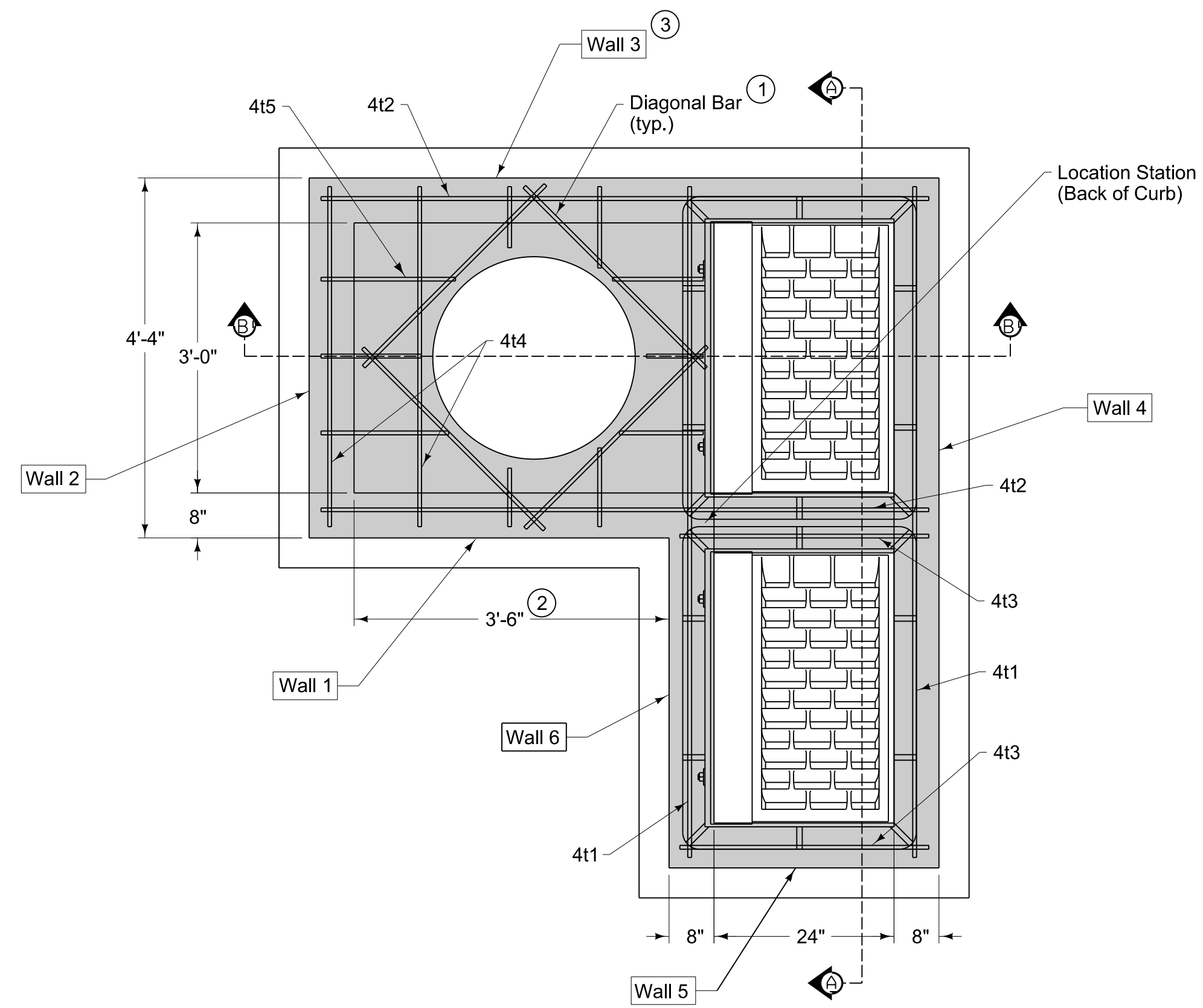
SNYDER & ASSOCIATES, INC.

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

SPRING CREST PLAT 1

MISCELLANEOUS DETAILS

Project No: 116.0697
Sheet 13 of 15

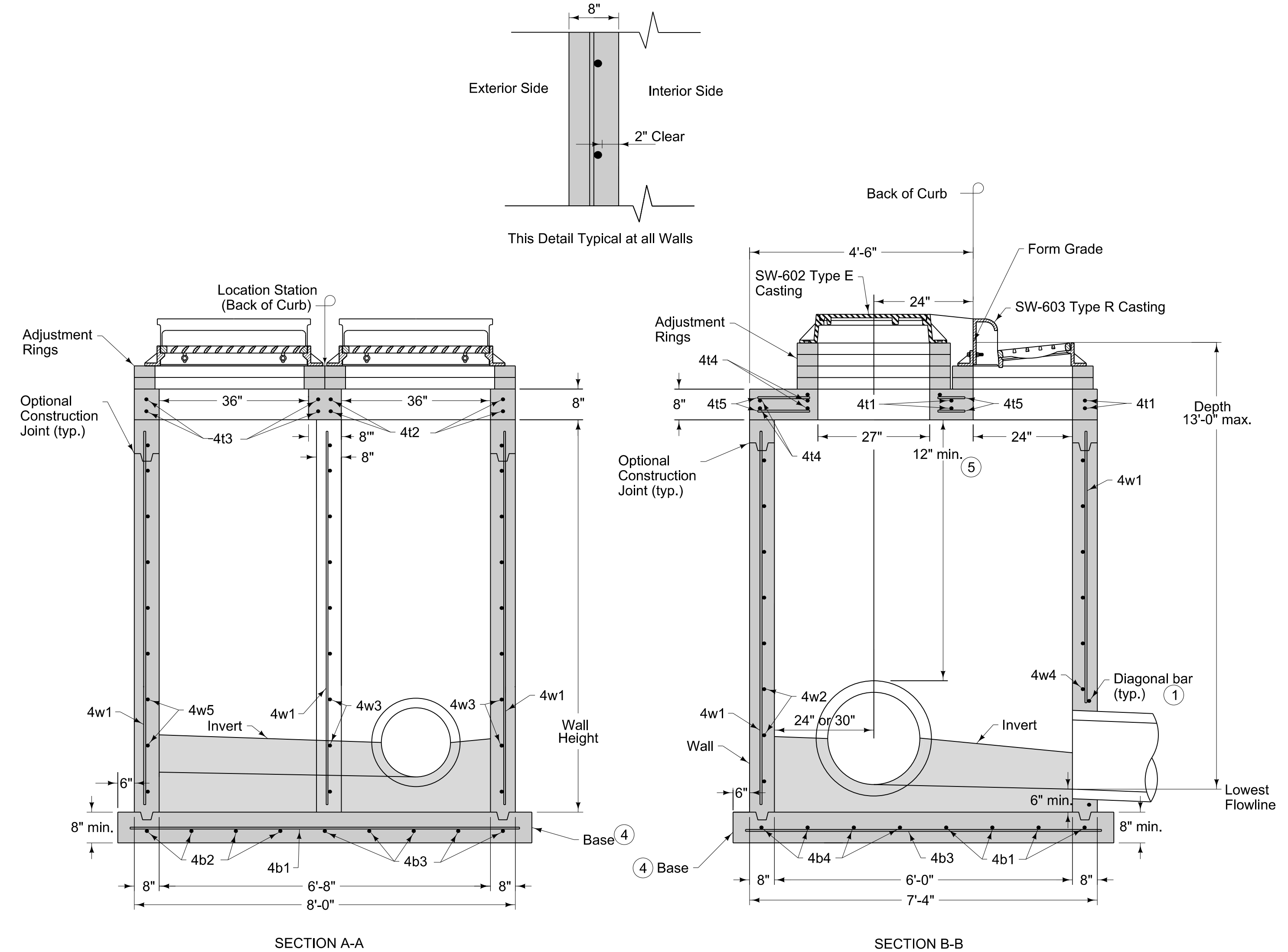


Maximum pipe diameters are set based on maximum structure depth of 6 feet-6 inches and the objective of placement of the centerline of the pipe on the centerline of the manhole opening for maintenance purposes.

Refer to SW-514 for boxout details.

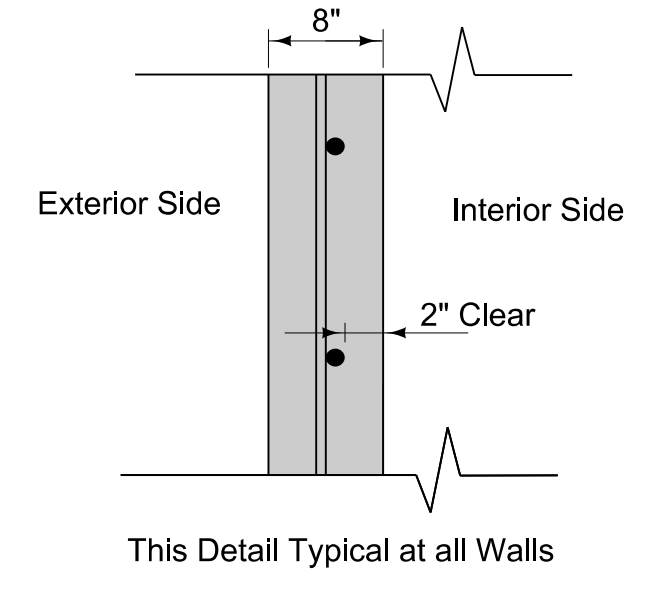
| Wall | Max. Dia. |
|------|-----------|
| 1 | 30" (2) |
| 2 | 24" |
| 3 | 36" (3) |
| 4 | 42" |

- (1) Install four #4 diagonal bars at manhole opening and at all pipe openings.
- (2) If Wall 1 is widened to 4 feet, the maximum pipe diameter can be increased to 36 inches.
- (3) If Wall 1 is widened to 4 feet, the maximum pipe diameter in Wall 3 can be increased to 42 inches.



| Mark | Size | Location | Shape | Count | Length | Spacing |
|------|------|---------------|-------|--------|----------------------|------------|
| 4t1 | 4 | Top | — | 4 | 7'-4" | See Detail |
| 4t2 | 4 | Top | — | 4 | 6'-8" | See Detail |
| 4t3 | 4 | Top | — | 4 | 2'-8" | See Detail |
| 4t4 | 4 | Top | — | 8 | 3'-8" | 12" |
| 4t5 | 4 | Top | — | 6 | 4'-2" | 12" |
| 4b1 | 4 | Base | — | 4 | 7'-10" | 12" |
| 4b2 | 4 | Base | — | 4 | 3'-2" | 12" |
| 4b3 | 4 | Base | — | 5 | 7'-2" | 12" |
| 4b4 | 4 | Base | — | 4 | 4'-2" | 12" |
| 4w1 | 4 | Walls | — | 29 | Wall Height minus 4" | 12" |
| 4w2 | 4 | Wall 2 | — | Varies | 4'-0" | 5" |
| 4w3 | 4 | Walls 1 and 3 | — | Varies | 7'-0" | 5" |
| 4w4 | 4 | Wall 4 | — | Varies | 7'-8" | 5" |
| 4w5 | 4 | Wall 5 | — | Varies | 3'-0" | 5" |
| 4w6 | 4 | Wall 6 | — | Varies | 4'-2" | 5" |

- (1) Install four #4 diagonal bars at manhole opening and at all pipe openings.
- (4) Cast-in-place base shown. If base is precast integral with walls, the footprint of base is not required to extend beyond the outer edge of the walls.
- (5) 12 inch minimum wall height above all pipes.



5 REVISED PER AS-BUILT SURVEY 12/19/17 AID

| MARK | REVISION | DATE | BY |
|------|------------------------------|----------|-----|
| 4 | REVISED AS PER CITY COMMENTS | 08/03/17 | JWM |
| 3 | REVISED AS PER CITY COMMENTS | 08/01/17 | JWM |
| 2 | REVISED AS PER CITY COMMENTS | 07/28/17 | JWM |
| 1 | REVISED AS PER CITY COMMENTS | 07/07/17 | JWM |

Engineer: KMM Checked By: EDC
 Technician: JWM Date: 06/20/07
 Project No: 116.0697
 Field Bk: Pg. 14 of 15

SPRING CREST PLAT 1

MODIFIED SW-506

SNYDER & ASSOCIATES, INC.



