

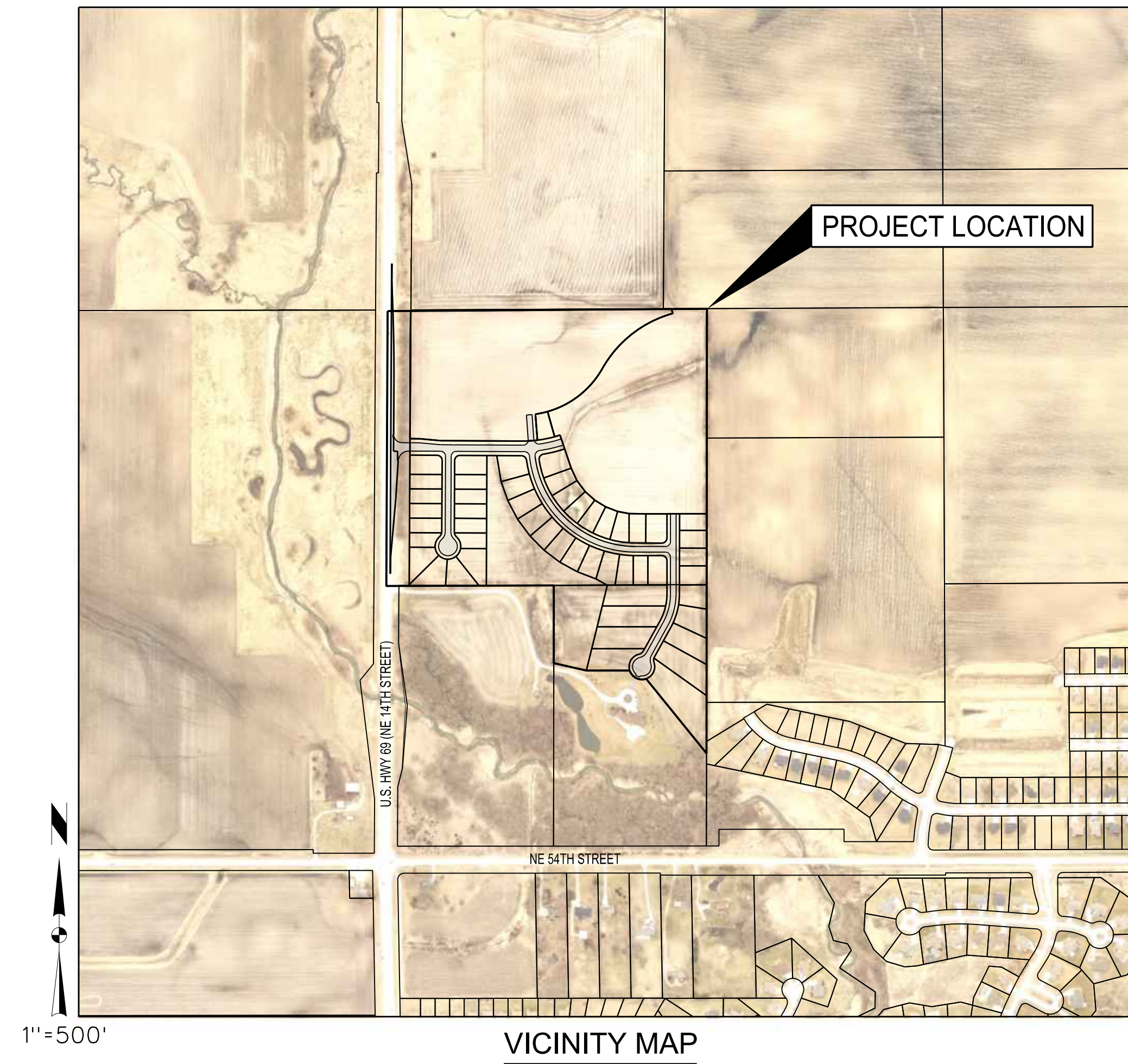
# PLAT & CONSTRUCTION PLANS

## FOR

# HARVEST RIDGE PLAT 1

## SINGLE FAMILY RESIDENTIAL DEVELOPMENT

### CITY OF ANKENY, POLK COUNTY, IOWA

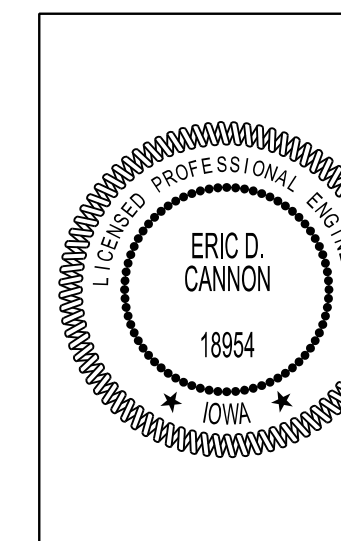


**OWNER/DEVELOPER**

JDEV LLC  
 720 S 68TH ST STE 120  
 WEST DES MOINES, IA 50266-8300  
 CONTACT: NICK JENSEN  
 PHONE: 515-597-5457

**INDEX OF SHEETS**

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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, 2019  
 Pages or sheets covered by this seal: \_\_\_\_\_

**HARVEST RIDGE PLAT 1**

**TITLE SHEET**

**SNYDER & ASSOCIATES, INC.**



Project No: 116.0916

Sheet 1 of 38

APPROVED BY THE CITY OF ANKENY JULY 15, 2019

| MARK | REVISION                            | DATE     | BY  |
|------|-------------------------------------|----------|-----|
| 5    | REVISED AS PER CITY & DOT COMMENTS  | 08/20/19 | JWM |
| 4    | REVISED AS PER CITY COMMENTS        | 07/15/19 | JWM |
| 3    | REVISED AS PER OWNER & DOT COMMENTS | 07/12/19 | JWM |
| 2    | REVISED AS PER CITY COMMENTS        | 07/03/19 | JWM |

**ANKENY, IA**

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

Engineer: KMM

Checked By: EDC

Date: 05/17/19

Scale: 1"=500'

Field Bk:

Project No: 116.0916

Pg:

Sheet 1 of 38

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11:59:55 AM  
J:\C:\C:\C:\C:\C:\C:\C:\C:\C:\C\SNYDER & ASSOCIATES  
Snyder

**LEGEND**

| Features                         | Existing    | Proposed |
|----------------------------------|-------------|----------|
| Spot Elevation                   | 93.0        | 93.0     |
| Contour Elevation                | -x-x-       | -x-x-    |
| Fence (Barbed, Field, Hog)       | -x-x-       | -x-x-    |
| Fence (Chain Link)               | -x-x-       | -x-x-    |
| Fence (Wood)                     | -x-x-       | -x-x-    |
| Fence (Silt)                     | -x-x-       | -x-x-    |
| Tree Line                        | -x-x-       | -x-x-    |
| Tree Stump                       | -x-x-       | -x-x-    |
| Deciduous Tree \ Shrub           |             |          |
| Coniferous Tree \ 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)-   | -DUCT-   |
| Test Hole Location for SUE w/D   |             |          |

(x) Denotes the survey quality service level for utilities

| Sanitary Manhole              | Existing | Proposed |
|-------------------------------|----------|----------|
| 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                  |          |          |
| Electric Transformer          |          |          |
| Traffic Sign                  |          |          |
| Communication Pedestal        |          |          |
| 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                |          |          |
| Mmailbox                      |          |          |
| 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.

**CONTROL POINTS**

IOWA REGIONAL COORDINATE SYSTEM ZONE 8 (AMES-DES MOINES)  
NAD83(2011)EPOCH 2010.00 IARTN DERIVED - US SURVEY FEET

- CP1 N=7557664.88 E=18531706.51  
CUT "X" IN ASPHALT ON THE EAST SIDE OF NE 14TH STREET ON THE NORTH SIDE OF GRAVEL ENTRANCE, WEST SIDE OF SITE.
- CP2 N=7558967.44 E=18531712.66  
CUT "X" IN ASPHALT ON THE EAST SIDE OF NE 14TH STREET ON LINE WITH FENCE AT NORTH PROPERTY LINE, NORTHWEST CORNER OF SITE.
- CP3 N=7558966.26 E=18533211.83  
1/2" REBAR WITH RED CAP 15' SOUTHWEST OF FENCE CORNER, NORTHEAST CORNER OF SITE.
- CP4 N=7557684.15 E=18533215.08  
1/2" REBAR WITH RED CAP 15' NORTHWEST OF FENCE CORNER, SOUTHEAST CORNER OF NORTHWEST 1/4 OF THE SOUTHWEST 1/4.
- CP5 N=7557650.91 E=18532492.63  
1/2" REBAR WITH YELLOW CAP 1' SOUTH OF FENCE LINE, SOUTH CENTER OF NORTHWEST 1/4 OF THE SOUTHWEST 1/4.

**GENERAL NOTES**

- 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.
- CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO 2015 SUDAS STANDARD SPECIFICATIONS AND THE CITY OF ANKENY SUPPLEMENTAL SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE SOILS REPORT.
- LENGTH OF UTILITIES SHOWN ON PLANS ARE DIMENSIONED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE AND INCLUDE FLARED END SECTIONS.
- 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.
- NOTIFY OWNER, ENGINEER AND CITY OF ANKENY AT LEAST 48 HOURS PRIOR TO BEGINNING 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 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 LAYOUT. 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 ADJUSTMENT OF ANY EXISTING UTILITY APPURTENANCES TO FINAL GRADE IS CONSIDERED INCIDENTAL TO THIS PROJECT.

**FEMA FIRM DESIGNATION**

PANEL #19153C0065F (EFF. 2/1/2019)

**ZONING**

EXISTING: R-3 RESTRICTED TO SINGLE FAMILY  
R-3 RESTRICTED TO 10 UNITS PER ACRE OF MULTI-FAMILY

**SURVEYOR**

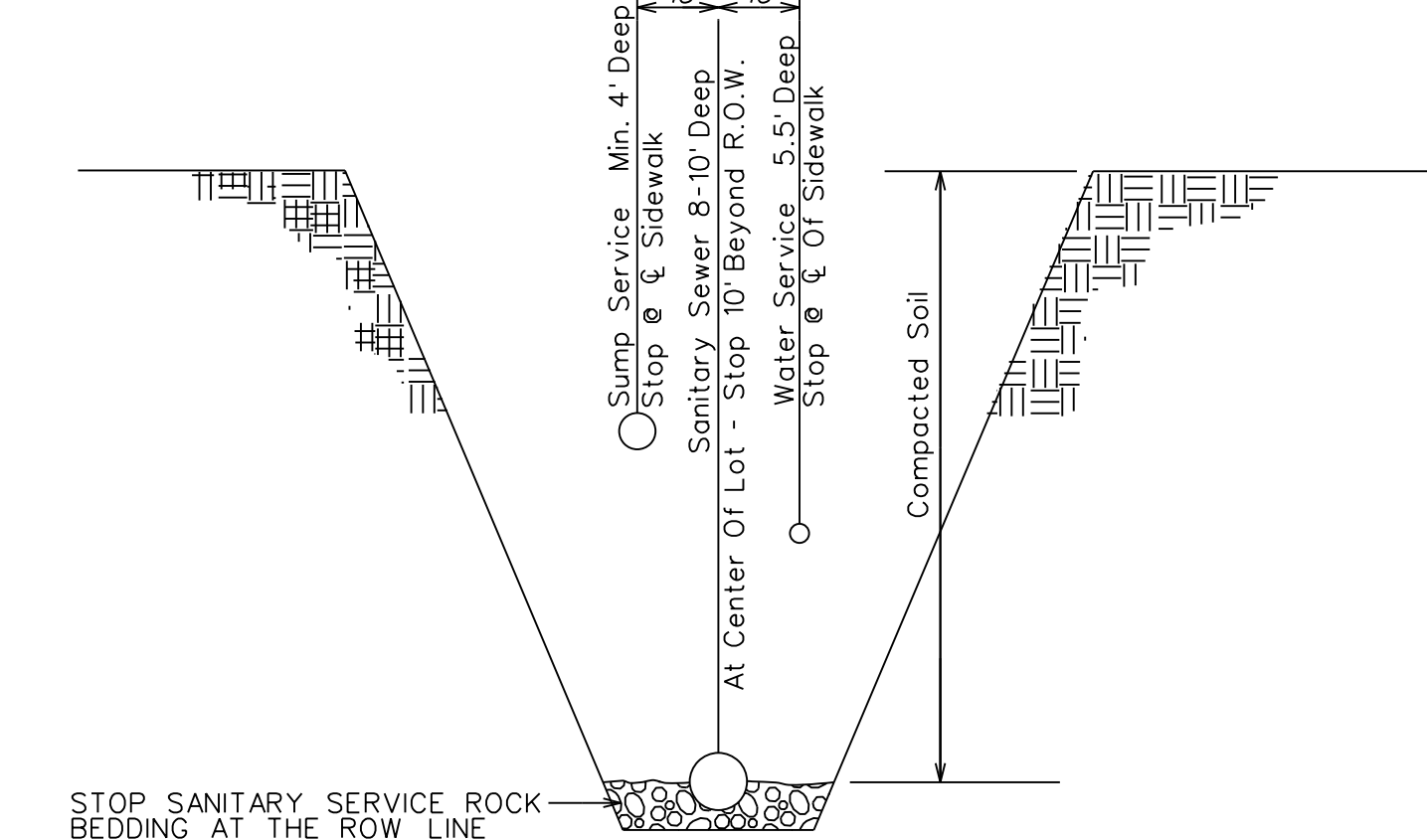
SNYDER AND ASSOCIATES, INC.  
2727 SW SNYDER BLVD  
ANKENY, IA 50023  
CONTACT: ERIN GRIFFIN  
PHONE: 515-964-2020

**BULK REGULATIONS**

FRONT YARD SETBACK = 30 FEET  
REAR YARD SETBACK = 35 FEET  
SIDE YARD SETBACK  
TOTAL SIDE YARD = 15 FEET  
MINIMUM ON ONE SIDE = 7 FEET

**NOTES:**

- DEVELOPER WILL BE RESPONSIBLE FOR STREETLIGHT INSTALLATION WITHIN THE SUBDIVISION AND EAST SIDE OF NE 14TH STREET ALONG THE PLAT BOUNDARIES
- THE DEVELOPER WILL BE RESPONSIBLE FOR SIDEWALK INSTALLATION ON THE EAST SIDE OF NE 14TH STREET (8' TRAIL) ALONG THE PLAT BOUNDARIES. 5' SIDEWALK IS REQUIRED IN THIS SUBDIVISION.
- THE DEVELOPER IS RESPONSIBLE FOR ANY RECOMMENDATIONS FROM THE APPROVED TRAFFIC STUDY.
- OUTLOT Y & Z WILL BE OWNED AND MAINTAINED BY A HOMEOWNER'S ASSOCIATION. THESE LOTS PROVIDE DETENTION & FUNCTION AS A STORM WATER MANAGEMENT EASEMENT AREA.
- THE CITY WILL COST PARTICIPATE FOR 12" OR GREATER WATER MAIN AND 15" OR GREATER SANITARY SEWER.
- OUTLOT X & W WILL BE RESERVED FOR FUTURE DEVELOPMENT
- DRIVEWAYS WILL NEED TO BE PLACED IN LOCATIONS THAT WILL AVOID PROPOSED RAMP AND STORM INTAKE LOCATIONS.



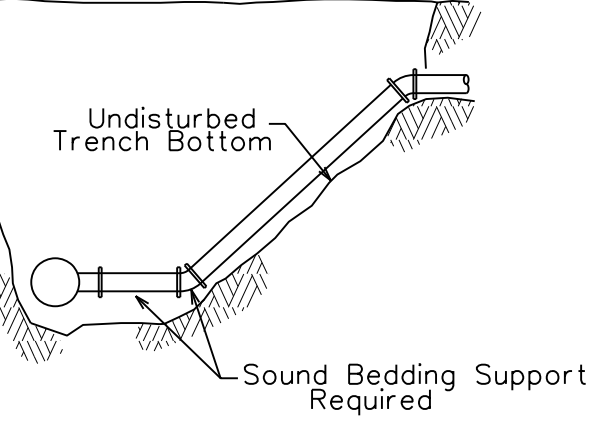
**INTERIM SERVICE LOCATION DETAIL**

| WATER MAIN QUANTITIES     |          |
|---------------------------|----------|
| 8" PVC MAIN               | 3305 LF. |
| 8" VALVE                  | 7 EA.    |
| 12" PVC MAIN              | 2141 LF. |
| 12" VALVE                 | 3 EA.    |
| HYDRANT ASSEMBLY          | 10 EA.   |
| TEMPORARY BLOWOFF HYDRANT | 4 EA.    |
| CONNECT TO EXISTING       | 1 EA.    |
| 1" WATER SERVICE          | 51 EA.   |

| SANITARY SEWER QUANTITIES |          |
|---------------------------|----------|
| 8" MAIN                   | 3948 LF. |
| 30" MAIN                  | 152 LF.  |
| MANHOLE SW-301            | 15 EA.   |
| MANHOLE SW-301(60")       | 1 EA.    |
| CONNECT TO EXISTING       | 1 EA.    |
| 4" SANITARY SERVICE       | 52 EA.   |

| STORM SEWER QUANTITIES            |          |
|-----------------------------------|----------|
| SW-501 INTAKE                     | 7 EA.    |
| SW-503 INTAKE                     | 3 EA.    |
| SW-505 INTAKE                     | 8 EA.    |
| SW-506 INTAKE                     | 1 EA.    |
| SW-506 MODIFIED INTAKE            | 1 EA.    |
| SW-403 (6'X6')                    | 1 EA.    |
| SW-502 (60")                      | 1 EA.    |
| SW-502 (72")                      | 1 EA.    |
| SW-513 INTAKE                     | 2 EA.    |
| MANHOLES SW-401(48")              | 5 EA.    |
| MANHOLES SW-401(60")              | 4 EA.    |
| MANHOLES SW-401(72")              | 1 EA.    |
| MANHOLES SW-401(84")              | 1 EA.    |
| 8" PVC SUMPDRAIN                  | 1026 LF. |
| STORM SEWER CLEANOUT              | 2 EA.    |
| 15" RCP                           | 1399 LF  |
| 18" RCP                           | 487 LF   |
| 18" FES W FOOTING AND APRON GUARD | 3 EA.    |
| 24" RCP                           | 36 LF    |
| 24" FES W FOOTING AND APRON GUARD | 1 EA.    |
| 30" RCP                           | 970 LF   |
| 30" FES W FOOTING AND APRON GUARD | 1 EA.    |
| 36" RCP                           | 407 LF   |
| 36" FES W FOOTING                 | 2 EA.    |
| 42" RCP                           | 241 LF   |
| 48" RCP                           | 113 LF   |
| 48" FES W FOOTING                 | 1 EA.    |
| RIP RAP CLASS "E"                 | 105 TON  |
| 1.5" SUMP SERVICE                 | 51 EA.   |

| PAVEMENT QUANTITIES            |          |
|--------------------------------|----------|
| 7" PCC                         | 8193 SY  |
| 8" PCC (NE 62ND ST)            | 3097 SY  |
| 12" SUBGRADE PREP              | 12761 SY |
| 6" PCC SIDEWALK RAMPS          | 1213 SF  |
| 4" PCC SIDEWALKS               | 761 SF   |
| SEEDING                        | 38.91 AC |
| SILT FENCE                     | 6130 LF  |
| END OF STREET MARKERS          | 15 EA.   |
| GRANULAR TEMPORARY TURN AROUND | 500 TONS |



c) SLOPING LATERAL TRENCH-ANY DEPTH (Slope at 1:1 or Flatter)

**RISER DETAIL**

**POLLUTION PREVENTION NOTES**

- A. POLLUTION PREVENTION AND EROSION PROTECTION
  - CODE COMPLIANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL POTENTIAL POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) NPDES PERMIT, THE U.S. CLEAN WATER ACT AND ANY LOCAL ORDINANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE AND ALL OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.
  - DAMAGE CLAIMS: THE CONTRACTOR WILL HOLD THE OWNER AND ARCHITECT ENGINEER HARMLESS FROM ANY AND ALL CLAIMS OF ANY TYPE WHATSOEVER RESULTING FROM DAMAGES TO ADJOINING PUBLIC OR PRIVATE PROPERTY INCLUDING REASONABLE ATTORNEY FEES INCURRED TO OWNER. FURTHER, IF THE CONTRACTOR FAILS TO TAKE NECESSARY STEPS TO PROMPTLY REMOVE EARTH SEDIMENTATION OR DEBRIS WHICH COMES ONTO ADJOINING PUBLIC OR PRIVATE PROPERTY, THE OWNER MAY, BUT NEED NOT, REMOVE SUCH ITEMS AND DEDUCT THE COST THEREOF FROM AMOUNTS DUE TO THE CONTRACTOR.
- B. STORM WATER DISCHARGE PERMIT
  - THIS PROJECT REQUIRES COVERAGE UNDER THE NPDES GENERAL PERMIT NO. 2 FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDNR, AS REQUIRED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS OF THE NPDES GENERAL PERMIT NO. 2 AS SPECIFIED IN THE CONTRACT DOCUMENTS.
  - ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT, INCLUDING BUT NOT LIMITED TO, THE NOTICE OF INTENT, PROOF OF PUBLICATIONS, DISCHARGE AUTHORIZATION LETTER, CURRENT SWPPP, SITE INSPECTION LOG, AND OTHER ITEMS, SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENT AT ANY JURISDICTION OF THE AGENCIES UPON REQUEST. FAILURE TO COMPLY WITH THE NPDES PERMIT REQUIREMENTS IS A VIOLATION OF THE CLEAN WATER ACT AND THE CODE OF IOWA.
  - A "NOTICE OF DISCONTINUATION" MUST BE FILED WITH THE IDNR UPON FINAL STABILIZATION OF THE DISTURBED SITE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES. ALL PLANS, INSPECTION REPORTS, AND OTHER DOCUMENTS MUST BE RETAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION. THE CONTRACTOR SHALL RETAIN A RECORD COPY AND PROVIDE THE ORIGINAL DOCUMENTS TO THE OWNER UPON PROJECT ACCEPTANCE AND/OR SUBMITTAL OF THE NOTICE OF DISCONTINUATION.
- C. POLLUTION PREVENTION PLAN
  - THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS A SEPARATE DOCUMENT TO THESE PLANS AND DRAWINGS. THE CONTRACTOR SHOULD REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE POLLUTION PREVENTION PLAN MADE DURING CONSTRUCTION.
  - THE SWPPP ILLUSTRATES GENERAL MEASURES AND BEST MANAGEMENT PRACTICES (BMP) FOR COMPLIANCE WITH THE PROJECT'S NPDES PERMIT COVERAGE. ALL BMP'S AND EROSION CONTROL MEASURES REQUIRED AS A RESULT OF CONSTRUCTION ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, NOTE AND IMPLEMENT. ADDITIONAL BMP'S FROM THOSE SHOWN ON THE PLAN MAY BE REQUIRED.
  - THE SWPPP AND SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.
  - THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL PERMIT AND SWPPP INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING BMP'S UNLESS INFEASIBLE OR NOT APPLICABLE:
    - UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE WHEN DISCHARGING FROM BASINS, PROVIDE AND MAINTAIN NATURAL BUFFERS AROUND SURFACE WATERS, DIRECT STORM WATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORM WATER INFILTRATION, AND MINIMIZE SOIL COMPACTION.
    - INSTALL PERIMETER AND FINAL SEDIMENT CONTROL MEASURES SUCH AS SILT BARRIERS, DITCH CHECKS, DIVERSION BERMS, OR SEDIMENTATION BASINS DOWNSTREAM OF SOIL DISTURBING ACTIVITIES PRIOR TO SITE CLEARING AND GRADING OPERATIONS.
    - PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.
    - MAINTAIN ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING ORDER INCLUDING CLEANING, REPAIRING, REPLACEMENT AND SEDIMENT REMOVAL THROUGHOUT THE PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN THE MEASURES HAVE LOST 50% OF THEIR ORIGINAL CAPACITY.
    - INSPECT THE PROJECT AREA AND CONTROL DEVICES (BY QUALIFIED PERSONNEL ASSIGNED BY THE CONTRACTOR) EVERY SEVEN CALENDAR DAYS. RECORD THE FINDINGS OF THESE INSPECTIONS AND ANY RESULTING ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE OWNER OR ENGINEER DURING CONSTRUCTION. REVISE THE SWPPP AND IMPLEMENT ANY RECOMMENDED MEASURES WITHIN 7 DAYS.
    - PREVENT ACCUMULATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON ADJOINING PUBLIC OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, DRAINAGEWAYS, OR UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.
    - INSTALL NECESSARY CONTROL MEASURES SUCH AS SILT BARRIERS, EROSION CONTROL MATS, MULCH, DITCH CHECKS OR RIPRAP AS SOON AS AREAS REACH THEIR FINAL GRADES AND AS CONSTRUCTION OPERATIONS PROGRESS TO ENSURE CONTINUOUS RUNOFF CONTROL. PROVIDE INLET AND OUTLET CONTROL MEASURES AS SOON AS STORM SEWERS ARE INSTALLED.
    - RESPRAD A MINIMUM OF 4 INCHES OF TOPSOIL (INCLUDING TOPSOIL FOUND IN SOIL) ON ALL DISTURBED AREAS EXCEPT WHERE PAVEMENT, BUILDINGS OR OTHER IMPROVEMENTS ARE LOCATED.
    - STABILIZE UNDEVELOPED, DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX, SOD, OR PAVE IMMEDIATELY AS SOON AS POSSIBLE UPON COMPLETION OF DAY OF GRADING OPERATIONS. INITIATE STABILIZATION MEASURES IMMEDIATELY AFTER CONSTRUCTION ACTIVITY IS FINALLY COMPLETED OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WHICH WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
    - COORDINATE LOCATIONS OF STAGING AREAS WITH THE OWNER AND RECORD IN THE SWPPP. UNLESS NOTED OTHERWISE, STAGING AREAS SHOULD CONTAIN THE FOLLOWING: JOB TRAILERS, FUELING / VEHICLE MAINTENANCE AREA, TEMPORARY SANITARY FACILITIES, MATERIALS STORAGE, AND CONCRETE WASHOUT FACILITY. CONTROL RUNOFF FROM STAGING AREAS WITH DIVERSION BERMS AND/OR SILT BARRIERS AND DIRECT TO SEDIMENT BASIN OR OTHER CONTROL DEVICE WHERE POSSIBLE. CONCRETE WASHOUT MUST BE CONTAINED ONSITE.
    - REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

APPROVED BY THE CITY OF ANKENY JULY 15, 2019

| REVISED AS PER CITY & DOT COMMENTS | DATE     | BY  |
|------------------------------------|----------|-----|
| 5                                  | 08/20/19 | JWM |
| 4                                  | 07/15/19 | JWM |
| 3                                  | 07/02/19 | JWM |
| 2                                  | 07/03/19 | JWM |

ANKENY, IA

PROJECT INFORMATION

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

SNYDER & ASSOCIATES, INC.

PROJECT INFORMATION

Project No: 116.0916

Sheet 2 of 38

Sheet 2 of 38

# HARVEST RIDGE PLAT 1

## FINAL PLAT - 2019

AREA ABOVE RESERVED FOR RECORDER'S STAMP

### INDEX LEGEND

SURVEYOR'S NAME:  
ERIN D. GRIFFIN  
SNYDER & ASSOCIATES, INC.  
2727 SW SNYDER BOULEVARD  
ANKENY, IOWA 50023  
515-964-2020  
E.GRIFFIN@SNYDER-ASSOCIATES.COM  
SERVICE PROVIDED BY:  
SNYDER & ASSOCIATES, INC.  
SURVEY LOCATED:  
SECTION 36-81N-24W  
REQUESTED BY:  
JDEV LLC  
RETURN TO:  
ERIN D. GRIFFIN  
SNYDER & ASSOCIATES, INC.  
2727 SW SNYDER BOULEVARD  
ANKENY, IOWA 50023



VICINITY MAP

### PLAT DESCRIPTION

THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) AND THE WEST SIX (6) ACRES OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION THIRTY-SIX (36), TOWNSHIP EIGHTY-ONE (81) NORTH, RANGE TWENTY-FOUR (24) WEST OF THE 5TH P.M., ALL IN POLK COUNTY, IOWA AND PARCEL 2019-80 AS FILED IN BOOK 17335, PAGE 979 OF THE POLK COUNTY RECORDER'S OFFICE BEING A PART OF SECTION 36, TOWNSHIP 81 NORTH, RANGE 24 WEST OF THE 5TH P.M., POLK COUNTY, IOWA AND CONTAINING 54.93 ACRES (2,392,671 S.F.).

### OWNER/DEVELOPER

JDEV LLC  
720 S 68TH ST STE 120  
WEST DES MOINES, IA 50266-8300  
CONTACT: NICK JENSEN  
PHONE: 515-597-5457

### ZONING

EXISTING: R-3 RESTRICTED TO SINGLE FAMILY  
R-3 RESTRICTED TO 10 UNITS PER ACRE OF MULTI-FAMILY  
R-1 SINGLE FAMILY RESIDENTIAL

### BULK REGULATIONS

R-3:  
FRONT YARD SETBACK = 30 FEET  
REAR YARD SETBACK = 35 FEET  
SIDE YARD SETBACK  
ONE STORY:  
TOTAL SIDE YARD = 15 FEET  
MINIMUM ON ONE SIDE = 7 FEET

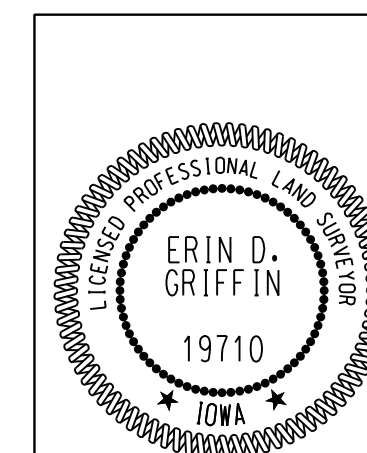
MORE THAN ONE STORY:  
TOTAL SIDE YARD = 17 FEET  
MINIMUM ON ONE SIDE = 8 FEET

R-1:  
FRONT YARD SETBACK = 35 FEET  
REAR YARD SETBACK = 35 FEET  
SIDE YARD SETBACK  
ONE STORY:  
TOTAL SIDE YARD = 18 FEET  
MINIMUM ON ONE SIDE = 8 FEET

MORE THAN ONE STORY:  
TOTAL SIDE YARD = 20 FEET  
MINIMUM ON ONE SIDE = 10 FEET

### NOTES:

1. DEVELOPER WILL BE RESPONSIBLE FOR STREETLIGHT INSTALLATION WITHIN THE SUBDIVISION AND EAST SIDE OF NE 14TH STREET ALONG THE PLAT BOUNDARIES.
2. THE DEVELOPER WILL BE RESPONSIBLE FOR SIDEWALK INSTALLATION ON THE EAST SIDE OF NE 14TH STREET (8' TRAIL) ALONG THE PLAT BOUNDARIES.
3. THE DEVELOPER IS RESPONSIBLE FOR ANY RECOMMENDATIONS FROM THE APPROVED TRAFFIC STUDY.
4. OUTLOT Y & Z WILL BE OWNED AND MAINTAINED BY A HOMEOWNER'S ASSOCIATION.
5. THE CITY WILL COST PARTICIPATE FOR 12" OR GREATER WATER MAIN AND 15" OR GREATER SANITARY SEWER.
6. OUTLOT X & OUTLOT W WILL BE RESERVED FOR FUTURE DEVELOPMENT.
7. DRIVEWAYS WILL NEED TO BE PLACED IN LOCATIONS THAT WILL AVOID PROPOSED RAMP AND STORM INTAKE LOCATIONS.
8. NO DRIVEWAYS ARE ALLOWED OFF THE SOUTH SIDE OF STREET LOT B.



I hereby certify that this land surveying document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Land Surveyor under the laws of the State of Iowa.

Erin D. Griffin, PLS Date \_\_\_\_\_  
License Number 19710  
My License Renewal Date is December 31, 2019  
Pages or sheets covered by this seal:  
Sheets 1 & 2 of 2

HARVEST RIDGE PLAT 1

FINAL PLAT

SNYDER & ASSOCIATES, INC.

ANKENY, IA

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

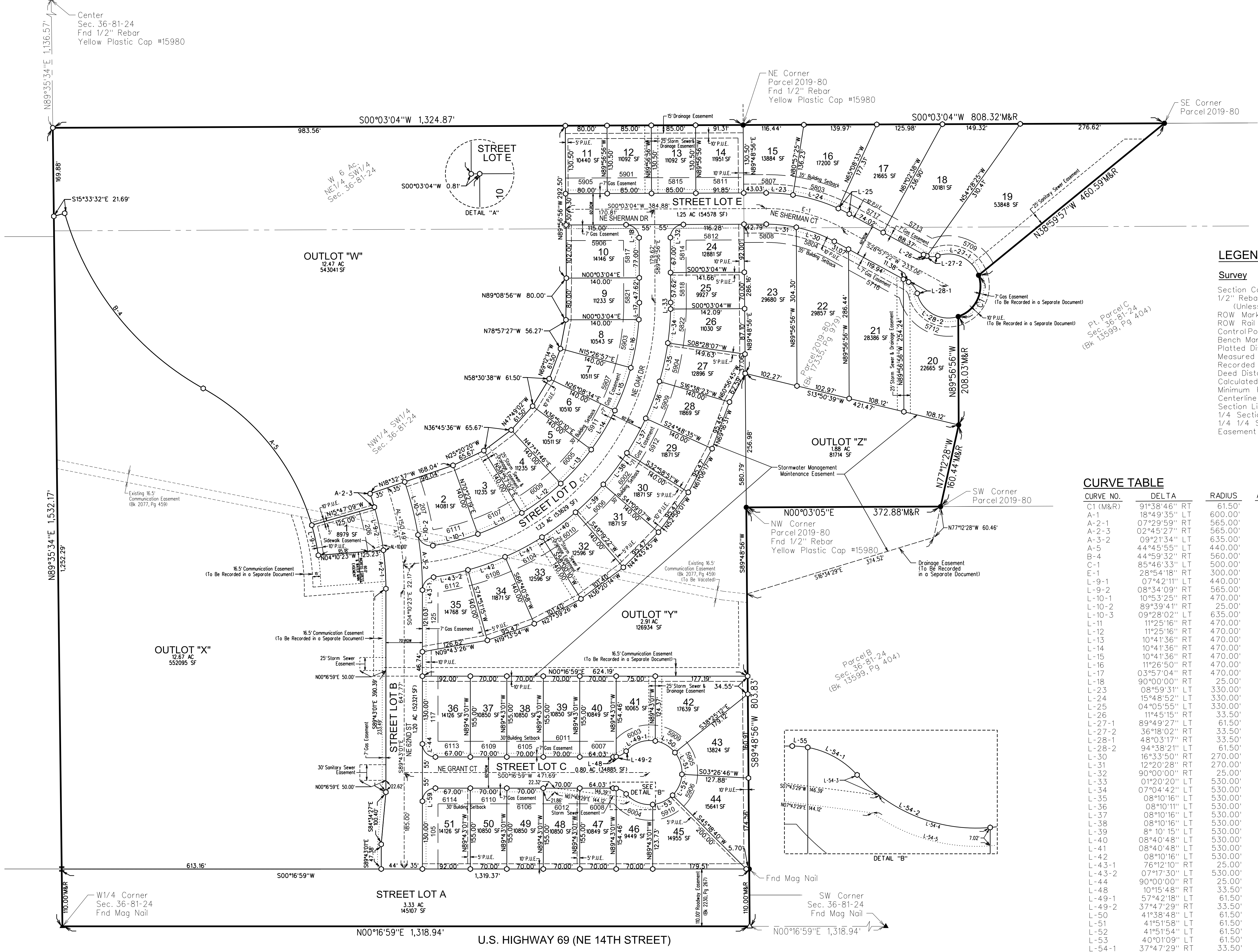
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| 3           | REVISED AS PER OWNER & DOT COMMENTS | 07/12/19    | JWM      |
| 2           | REVISED AS PER CITY COMMENTS        | 07/03/19    | JWM      |
| MARK        |                                     | REVISION    | DATE     |
| Engineer:   | KMM                                 | Checked By: | EDG      |
| Technician: | JWM                                 | Date:       | 05/17/19 |
| Scale:      |                                     | N/A         |          |
| Field Bk:   |                                     | Pg:         |          |
| Project No: |                                     | 116.0916    |          |
| Sheet       |                                     | 1 of 2      |          |



Project No: 116.0916

Sheet 1 of 2

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### LEGEND

#### Survey

- Section Corner
- 1/2" Rebar, Yellow Plastic Cap #19710
- (Unless Otherwise Noted)
- ROW Marker
- ROW Rail
- Control Point
- Bench Mark
- Platted Distance
- Measured Bearing & Distance
- Recorded As
- Deed Distance
- Calculated Distance
- Minimum Protection Elevation
- Centerline
- Section Line
- 1/4 Section Line
- 1/4 1/4 Section Line
- Easement Line

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### CURVE TABLE

| CURVE NO. | DELTA        | RADIUS  | ARC LENGTH | TANGENT | CHORD BEARING/DISTANCE |
|-----------|--------------|---------|------------|---------|------------------------|
| C1 (M&R)  | 91°38'46" RT | 6150'   | 98.37'     | 63.29'  | N63°27'05"W 88.21'     |
| A-1       | 18°49'35" RT | 600.00' | 197.15'    | 99.47'  | N60°52'11"E 196.26'    |
| A-2-1     | 07°29'59" RT | 565.00' | 73.96'     | 37.03'  | S86°31'59"W 73.90'     |
| A-2-3     | 02°45'27" RT | 565.00' | 27.19'     | 13.60'  | S72°50'07"W 27.19'     |
| A-3-2     | 09°21'34" LT | 635.00' | 103.73'    | 51.98'  | N85°36'12"E 103.61'    |
| A-5       | 44°45'55" LT | 440.00' | 343.77'    | 181.20' | N51°49'53"E 335.10'    |
| B-4       | 44°45'55" RT | 560.00' | 439.75'    | 231.92' | N51°56'42"E 428.54'    |
| C-1       | 85°46'33" RT | 500.00' | 748.53'    | 464.43' | S47°30'34"W 680.57'    |
| E-1       | 28°54'18" RT | 300.00' | 151.35'    | 77.32'  | S14°30'13"W 149.75'    |
| L-9-1     | 07°42'11" LT | 440.00' | 59.16'     | 29.62'  | N78°03'56"E 59.11'     |
| L-9-2     | 08°34'09" RT | 565.00' | 84.50'     | 42.33'  | S78°29'55"W 84.42'     |
| L-10-1    | 10°53'25" RT | 470.00' | 89.33'     | 44.80'  | N14°10'59"W 89.20'     |
| L-10-2    | 89°59'41" RT | 25.00'  | 39.12'     | 24.85'  | N36°05'35"E 35.25'     |
| L-10      | 09°28'02" LT | 635.00' | 104.92'    | 52.58'  | N76°11'24"E 104.80'    |
| L-11      | 11°25'16" RT | 470.00' | 93.69'     | 47.00'  | N25°20'20"W 93.53'     |
| L-12      | 11°25'16" RT | 470.00' | 93.69'     | 47.00'  | N36°45'36"W 93.53'     |
| L-13      | 10°41'36" RT | 470.00' | 87.72'     | 43.99'  | N47°49'02"W 87.59'     |
| L-14      | 10°41'36" RT | 470.00' | 87.72'     | 43.99'  | N58°30'38"W 87.59'     |
| L-15      | 10°41'36" RT | 470.00' | 87.72'     | 43.99'  | N69°12'14"W 87.59'     |
| L-16      | 11°26'50" RT | 470.00' | 93.90'     | 47.11'  | N80°16'28"W 93.75'     |
| L-17      | 03°57'04" RT | 470.00' | 32.41'     | 16.21'  | N87°58'24"W 32.40'     |
| L-18      | 90°00'00" RT | 25.00'  | 39.27'     | 25.00'  | S45°03'04"W 35.36'     |
| L-23      | 08°59'31" LT | 330.00' | 51.79'     | 25.95'  | N04°32'50"E 51.74'     |
| L-24      | 15°48'52" LT | 330.00' | 91.08'     | 45.33'  | N16°57'01"E 90.80'     |
| L-25      | 04°05'55" LT | 330.00' | 33.90'     | 23.61'  | N26°54'24"E 23.60'     |
| L-26      | 11°45'15" RT | 33.50'  | 6.87'      | 3.45'   | N23°04'44"E 6.86'      |
| L-27-1    | 89°49'27" LT | 61.50'  | 96.42'     | 61.31'  | N25°48'48"E 86.84'     |
| L-27-2    | 36°18'02" RT | 33.50'  | 21.22'     | 10.98'  | N00°26'54"W 20.87'     |
| L-28-1    | 48°03'17" RT | 33.50'  | 28.10'     | 14.93'  | S52°59'00"W 27.28'     |
| L-28-2    | 94°38'21" LT | 61.50'  | 101.58'    | 66.69'  | S29°41'28"W 90.42'     |
| L-30      | 16°33'50" RT | 270.00' | 78.06'     | 39.30'  | S20°40'27"W 77.78'     |
| L-31      | 12°20'28" RT | 270.00' | 58.16'     | 29.19'  | S06°13'18"W 58.04'     |
| L-32      | 90°00'00" RT | 25.00'  | 39.27'     | 25.00'  | S44°56'56"E 35.36'     |
| L-33      | 01°20'20" LT | 530.00' | 12.39'     | 6.19'   | S89°16'46"E 12.39'     |
| L-34      | 07°04'42" LT | 530.00' | 65.48'     | 32.78'  | S85°04'15"E 65.44'     |
| L-35      | 08°10'11" LT | 530.00' | 75.59'     | 37.86'  | S77°26'45"E 75.52'     |
| L-36      | 08°10'11" LT | 530.00' | 75.59'     | 37.86'  | S69°16'31"E 75.51'     |
| L-37      | 08°10'16" LT | 530.00' | 75.59'     | 37.86'  | S51°06'17"E 75.52'     |
| L-38      | 08°10'16" LT | 530.00' | 75.59'     | 37.86'  | S52°56'01"E 75.52'     |
| L-39      | 8°10'15" LT  | 530.00' | 75.58'     | 37.86'  | S44°45'45"E 75.52'     |
| L-40      | 08°40'48" LT | 530.00' | 80.29'     | 40.22'  | S36°20'14"E 80.21'     |
| L-41      | 08°40'48" LT | 530.00' | 80.29'     | 40.22'  | S27°39'26"E 80.22'     |
| L-42      | 08°10'16" LT | 530.00' | 75.59'     | 37.86'  | S19°13'54"E 75.52'     |
| L-43-1    | 76°12'10" RT | 25.00'  | 33.25'     | 19.60'  | S45°38'30"E 30.85'     |
| L-43-2    | 07°17'30" LT | 530.00' | 67.45'     | 33.77'  | S11°30'01"E 67.40'     |
| L-44      | 90°00'00" RT | 25.00'  | 39.27'     | 25.00'  | N45°16'59"E 35.36'     |
| L-48      | 10°15'48" RT | 33.50'  | 6.00'      | 3.01'   | N04°50'55"W 5.99'      |
| L-49-1    | 57°42'18" LT | 61.50'  | 61.94'     | 33.86'  | N18°55'09"W 59.35'     |
| L-49-2    | 37°47'29" RT | 33.50'  | 22.10'     | 11.47'  | N28°52'34"W 21.70'     |
| L-50      | 41°38'48" RT | 61.50'  | 44.70'     | 23.39'  | N30°45'24"E 43.73'     |
| L-51      | 41°51'58" LT | 61.50'  | 44.94'     | 23.53'  | N72°30'47"E 43.95'     |
| L-52      | 41°51'54" LT | 61.50'  | 44.94'     | 23.52'  | S65°37'17"E 43.94'     |
| L-53      | 40°01'09" RT | 61.50'  | 42.96'     | 22.40'  | S24°40'45"E 42.09'     |
| L-54-1    | 37°47'29" RT | 33.50'  | 22.10'     | 11.47'  | S29°26'31"W 21.70'     |
| L-54-2    | 53°00'26" LT | 61.50'  | 56.90'     | 30.67'  | S21°50'03"W 54.89'     |
| L-54-3    | 10°48'50" LT | 61.50'  | 11.61'     | 5.82'   | S42°55'51"W 11.59'     |
| L-54-4    | 42°11'37" LT | 61.50'  | 45.29'     | 23.73'  | S16°25'38"W 44.27'     |
| L-54-5    | 40°05'22" RT | 68.50'  | 47.93'     | 24.99'  | N15°52'56"E 46.96'     |
| L-55      | 10°15'48" RT | 33.50'  | 6.00'      | 3.01'   | S05°24'53"W 5.99'      |
| L-59      | 90°00'00" RT | 25.00'  | 39.27'     | 25.00'  | S44°43'01"E 35.36'     |

# HARVEST RIDGE PLAT 1

## FINAL PLAT



Project No: 116.0916

Sheet 2 of 2

| NO. | REVISION | AS PER CITY & DOT COMMENTS  | DATE     | BY  |
|-----|----------|-----------------------------|----------|-----|
| 5   | REVISED  | AS PER CITY & DOT COMMENTS  | 08/20/19 | JMM |
| 4   | REVISED  | AS PER CITY COMMENTS        | 07/15/19 | JMM |
| 3   | REVISED  | AS PER OWNER & DOT COMMENTS | 07/10/19 | JMM |
| 2   | REVISED  | AS PER CITY COMMENTS        | 07/03/19 | JMM |

| MARK | REVISION | DATE     | BY  |
|------|----------|----------|-----|
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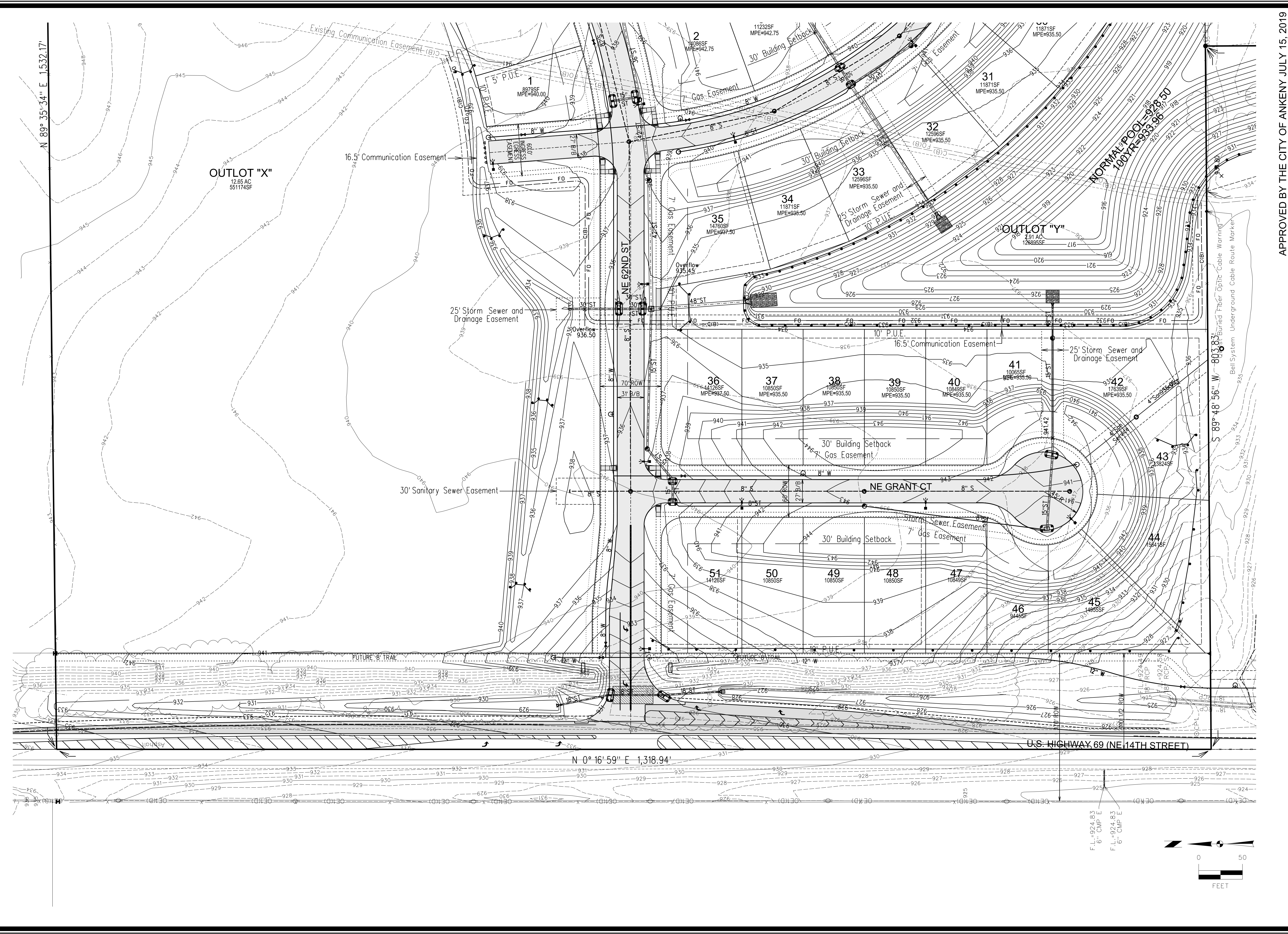
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Field Bk: Pg:  
Project No: 116.0916  
Sheet 2 of 2

# SNYDER & ASSOCIATES, INC.

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

ANKENY, IA

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APPROVED BY THE CITY OF ANKENY JULY 15, 2019

| MARK | REVISION                            | DATE     | BY  |
|------|-------------------------------------|----------|-----|
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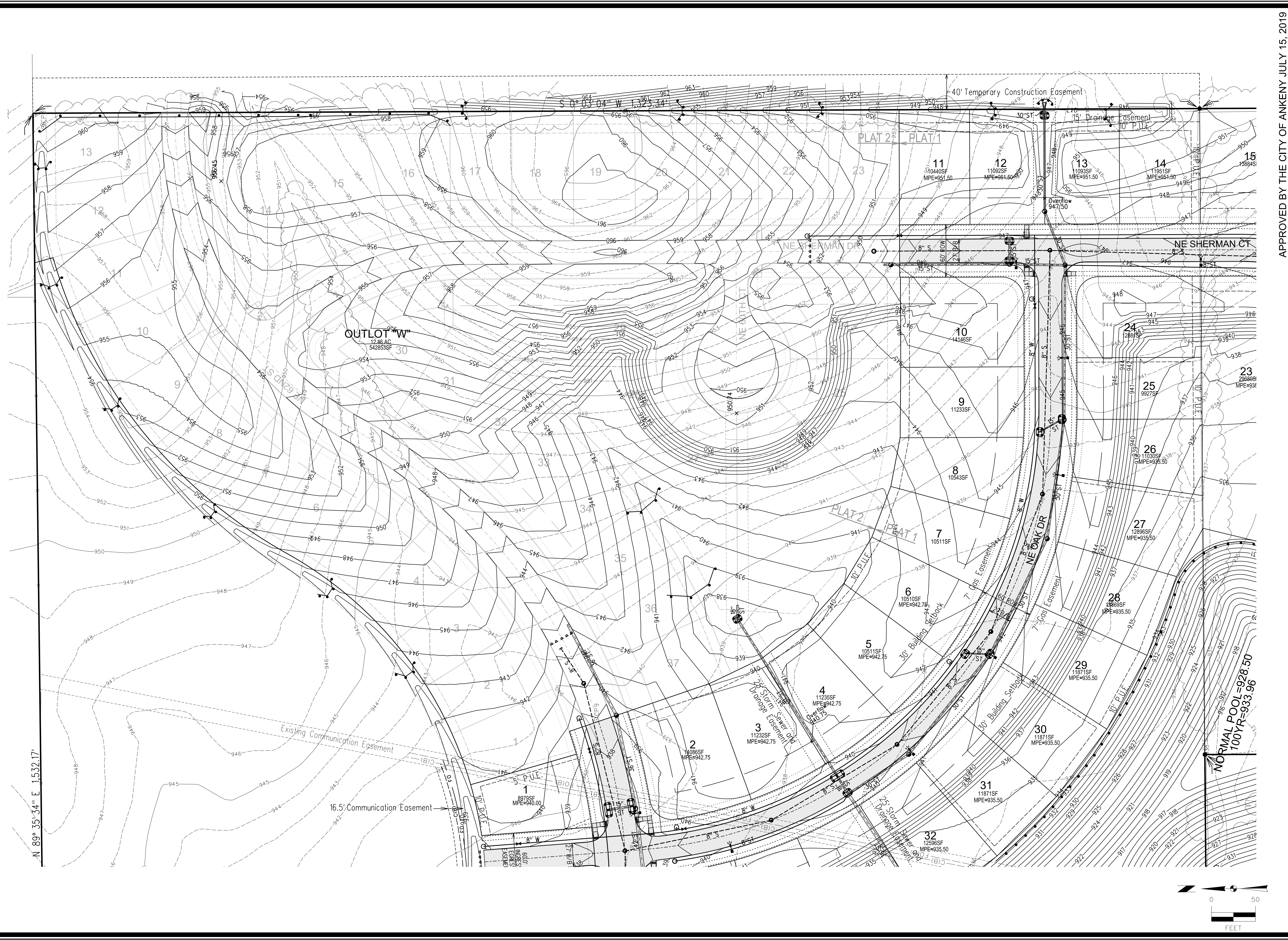
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Technician: JMM  
Date: 05/17/19  
Field Bk: Pg:  
Project No: 116.0916  
Sheet No: 5 of 38

**HARVEST RIDGE PLAT 1**  
**GRADING AND EROSION CONTROL PLAN**  
**SNYDER & ASSOCIATES, INC.**

**SNYDER & ASSOCIATES**  
Project No: 116.0916  
Sheet 5 of 38

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

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| 3    | REVISED AS PER OWNER & DOT COMMENTS | 07/12/19 | JMM |
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Technician: JMM  
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Field Bk:  
Project No: 116.0916  
Sheet 6 of 38

# HARVEST RIDGE PLAT 1

## GRADING AND EROSION CONTROL PLAN

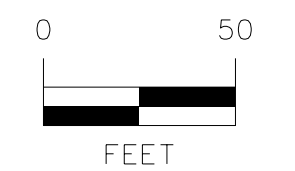
# SNYDER & ASSOCIATES, INC.



Project No: 116.0916  
Sheet 6 of 38

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

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| MARK | REVISION                            | DATE     | BY  |
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 Project No: 116.0916  
 Sheet No: 7 of 38

# HARVEST RIDGE PLAT 1

GRADING AND EROSION CONTROL PLAN

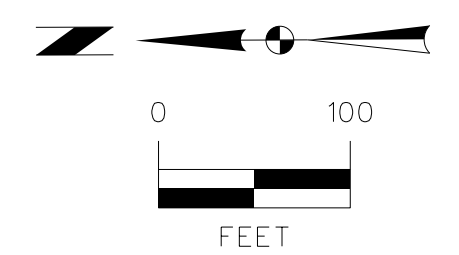
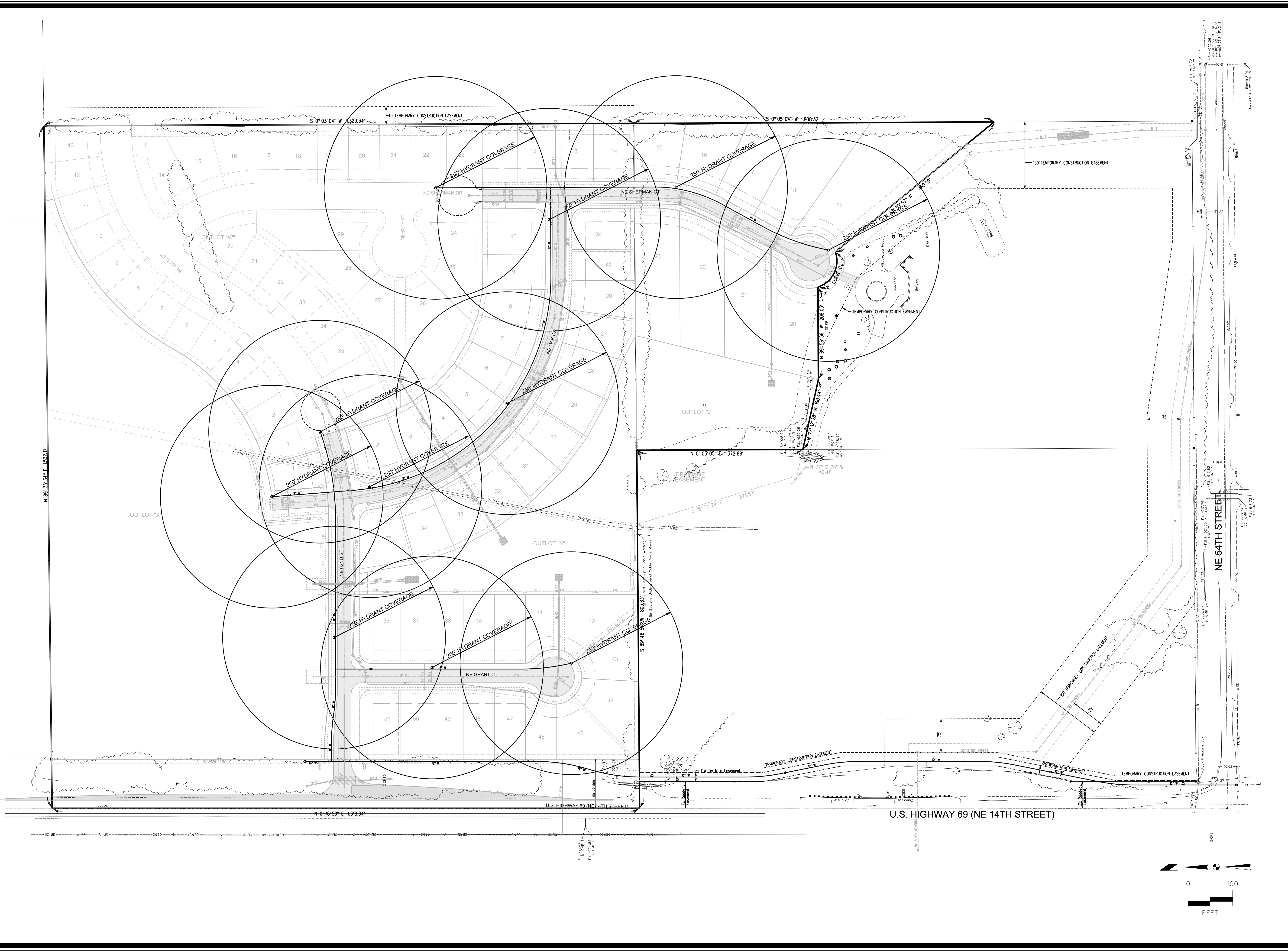
## SNYDER & ASSOCIATES, INC.



Project No: 116.0916  
 Sheet 7 of 38

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

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APPROVED BY THE CITY OF ANKENY JULY 15, 2019

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|---|-------------------------------------|----------|-----|
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| 4 | REVISED AS PER CITY COMMENTS        | 07/15/19 | JWM |
| 3 | REVISED AS PER OWNER & DOT COMMENTS | 07/12/19 | JWM |
| 2 | REVISED AS PER CITY COMMENTS        | 07/03/19 | JWM |

Engineer: KMM  
 Technician: JWM  
 Date: 05/17/19  
 Project No: 116.0916

# HARVEST RIDGE PLAT 1

## HYDRANT COVERAGE

# SNYDER & ASSOCIATES, INC.



Project No: 116.0916  
 Sheet 8 of 38

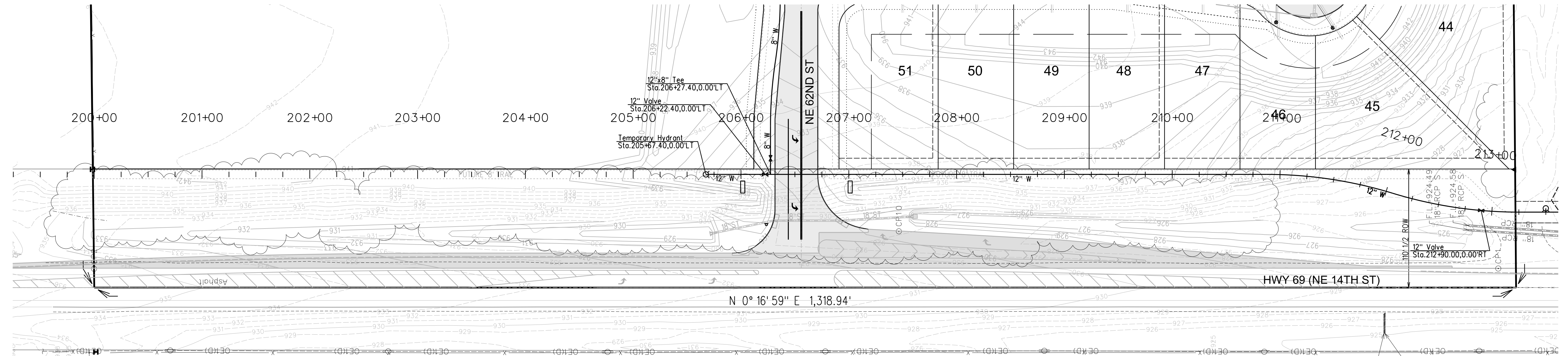
ANKENY, IA

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

Approved By: EDC  
 Date: 05/17/19  
 Scale: 1" = 100'  
 Field Bk: Pg:  
 Sheet 8 of 38



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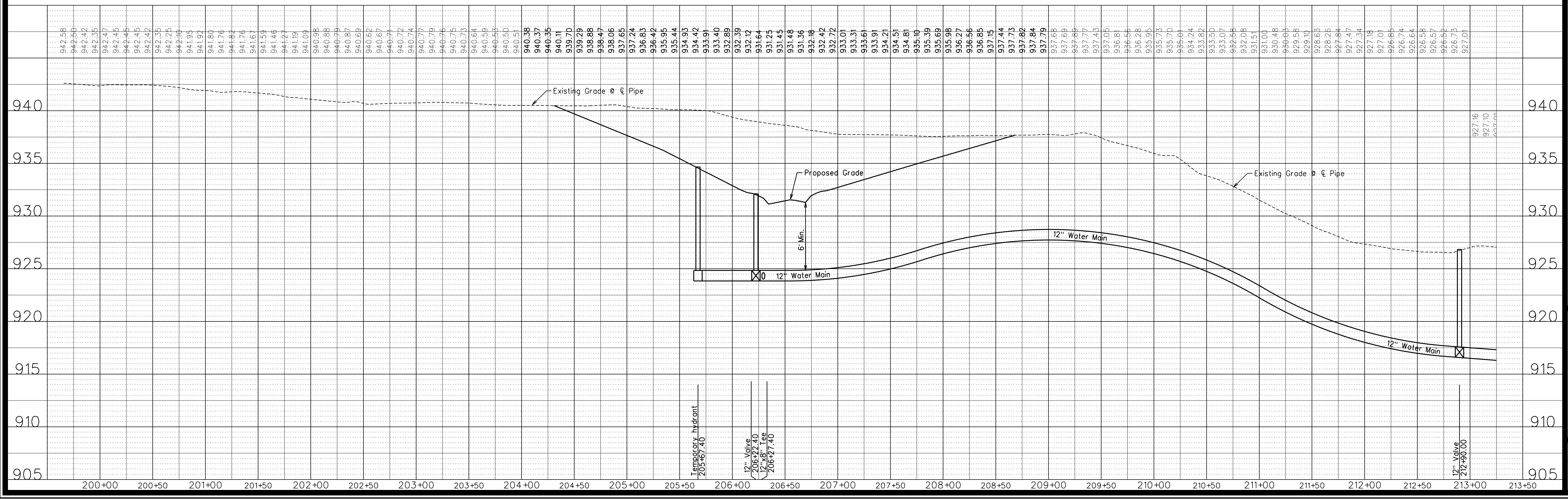
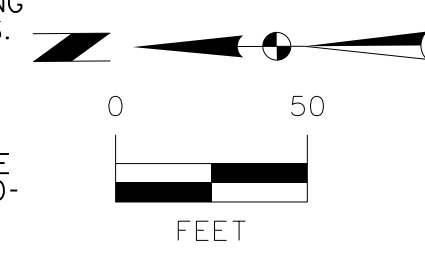
**BENCHMARKS**

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

- BM1 ELEV=936.24  
CUT TRIANGLE AT SOUTHEAST CORNER OF NE 14TH STREET BRIDGE, WEST SIDE OF SITE.
- BM2 ELEV=940.88  
ARROW ON HYDRANT 50' EAST OF LIGHT POLE AT SOUTHEAST QUADRANT OF NE 14TH STREET & NE 54TH STREET, SOUTHWEST CORNER OF SITE.
- BM3 ELEV=923.59  
ARROW ON HYDRANT ON THE SOUTH SIDE OF NE 54TH STREET AT ENTRANCE TO #395 NE 54TH STREET, SOUTHEAST CORNER OF SITE.

**NOTES**

- 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.
- CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO 2019 SUDAS STANDARD SPECIFICATIONS AND THE CITY OF ANKENY SUPPLEMENTAL SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE SOILS REPORT.
- ALL SERVICES ARE TO BE 18" APART AND LOCATED NEAR THE CENTER OF THE LOTS.
- ALL BACKFILL AND SUBGRADE SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR AND SHALL BE WITHIN A RANGE OF -1% TO +4% OF THE MATERIALS OPTIMUM MOISTURE CONTENT.
- ROUTE WATER MAIN AS SHOWN USING PIPE FITTINGS AS NEEDED. USE 45° BENDS OR LESS BOTH HORIZONTAL AND VERTICAL. PIPE DEFLECTION ALONG THE RADIUS SHALL BE DIVIDED EQUALLY AT EACH JOINT AND NO SINGLE JOINT MAY EXCEED PIPE MANUFACTURER TOLERANCES TO RETURN TO ALIGNMENT. ADDITIONAL BENDS MAY BE REQUIRED AT THE CITY'S DISCRETION. PIPE DEFLECTION THAT WOULD EXCEED MANUFACTURER TOLERANCES IS NOT ALLOWED AND MUST BE CORRECTED BY THE EXCAVATION OF PIPE LAID PRIOR TO THE OVER-DEFLECTION OR RESTRAINED JOINT BENDS MUST BE ADDED PER SUDAS AND CITY OF ANKENY SUPPLEMENTAL SPECIFICATIONS. ALL WATERMAIN FITTINGS (INCLUDING BENDS) ARE REQUIRED TO BE SURVEYED WITH SURVEY GRADE COORDINATES.
- COORDINATE WITH ANKENY WATER DEPARTMENT FOR CONNECTIONS, TURNOFFS AND HYDRANT FLUSHING.
- ALONG THE 12" WATER MAIN PROVIDE TRI-VIEW LOCATIONS AS NEEDED SO THAT TRACER WIRE ACCESS SPACING IS PROVIDED AT A MAXIMUM 550' SPACING.
- WHERE CONTRACTOR IS TO TIE INTO THE EXISTING WATER MAIN, PRESSURE TEST SHALL BE PERFORMED TO AN EXISTING VALVE IF THE EXISTING VALVE IS DEFECTIVE, REPAIR OR REPLACE PRIOR TO COMPLETING THE TEST. INSTALLATION OF A NEW VALVE MAY BE REQUIRED IN CIRCUMSTANCES WHERE NO EXISTING VALVE IS IN CLOSE PROXIMITY TO THE END OF THE EXISTING WATER MAIN AS PER THE CITY WATER DEPARTMENT REQUIREMENTS.
- RIM ELEVATIONS ARE SHOWN FOR REFERENCE PURPOSES ONLY. CONTRACTOR TO ADJUST RIM AS NECESSARY TO MEET SPECIFIC CONSTRUCTION REQUIREMENTS.
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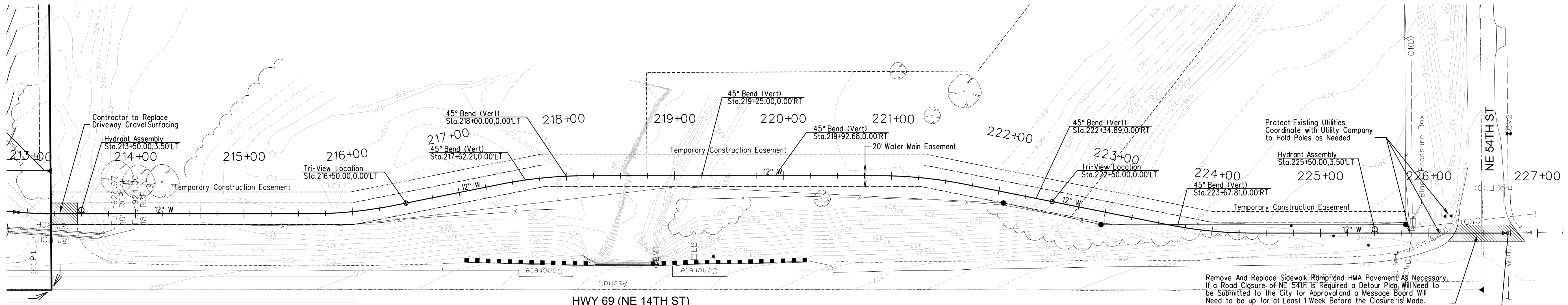
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Technician: JMM  
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2727 S.W. SNYDER BLVD.  
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515-964-2020 | www.snyder-associates.com

**HARVEST RIDGE PLAT 1**  
**WATER MAIN PLAN AND PROFILE**  
**SNYDER & ASSOCIATES, INC.**



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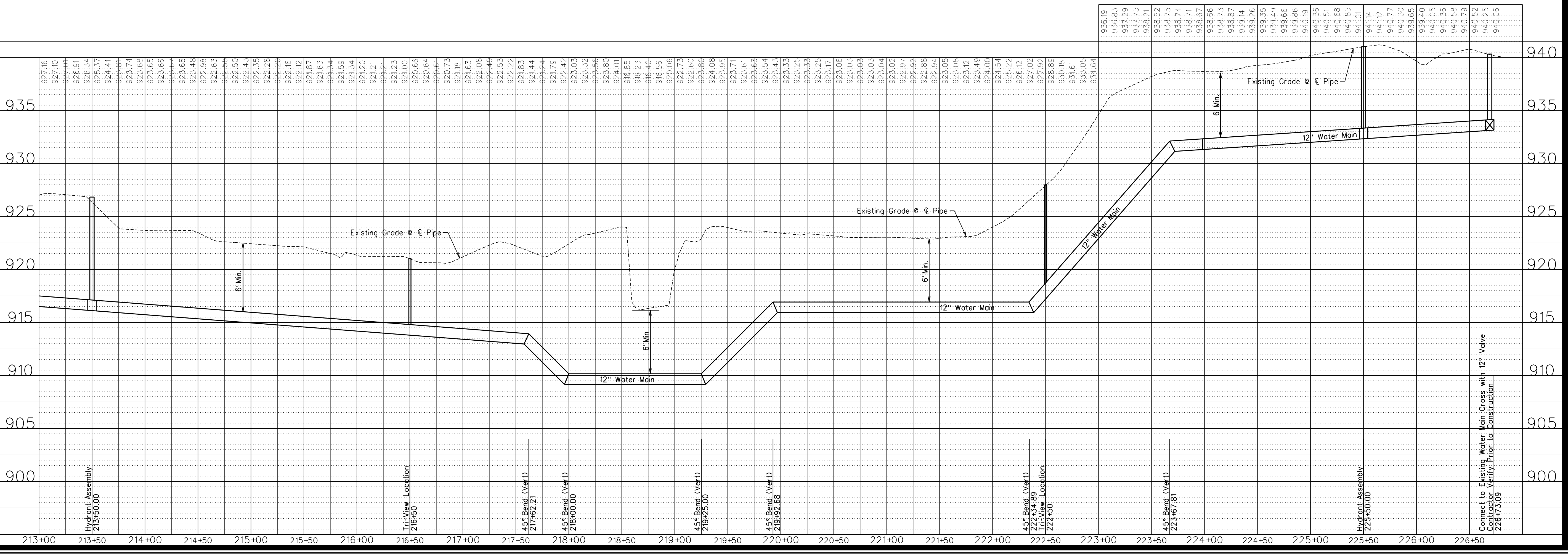
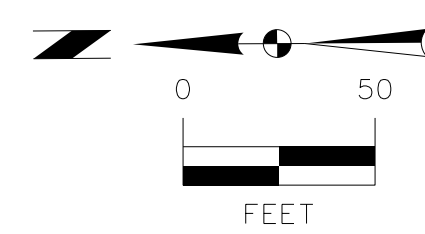


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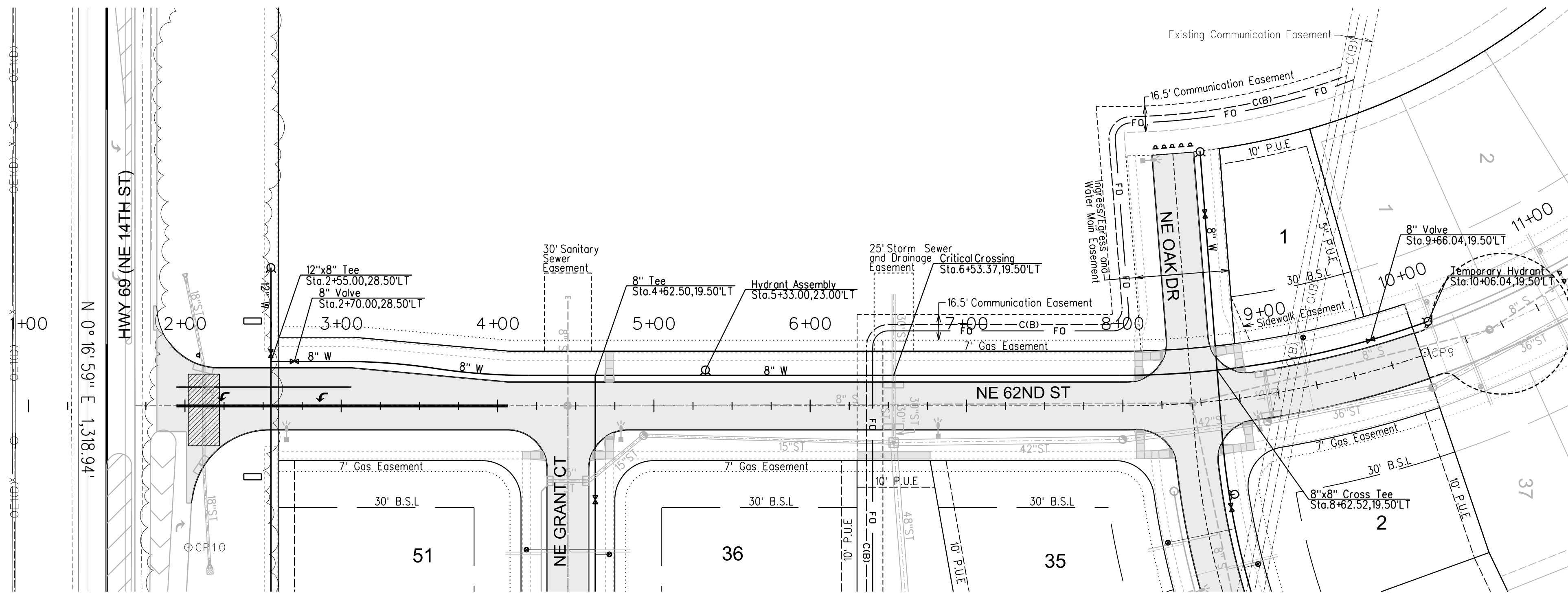
# HARVEST RIDGE PLAT 1

## WATER MAIN PLAN AND PROFILE

### SNYDER & ASSOCIATES, INC.



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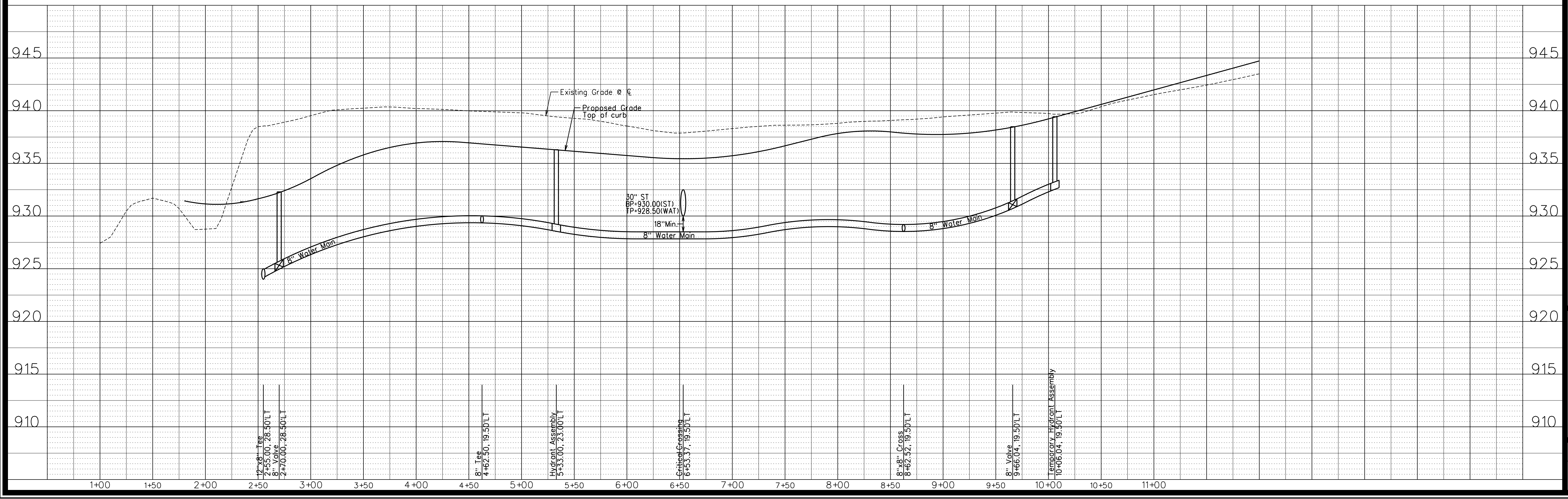
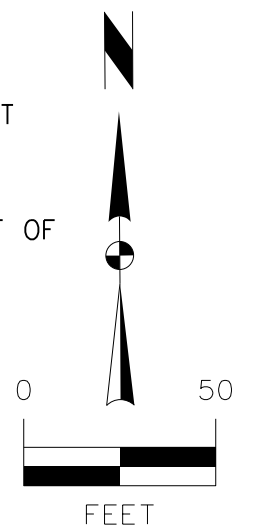
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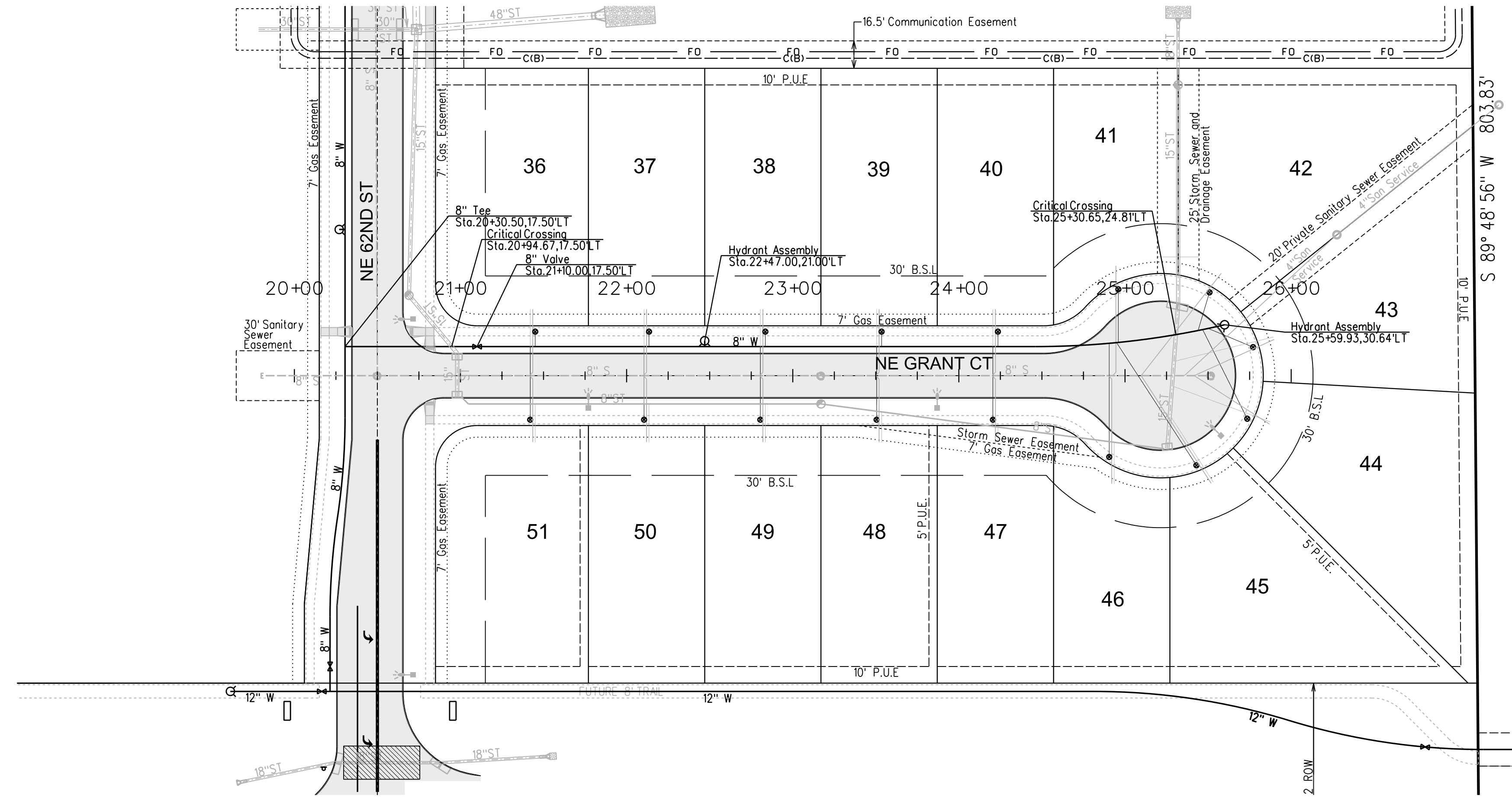
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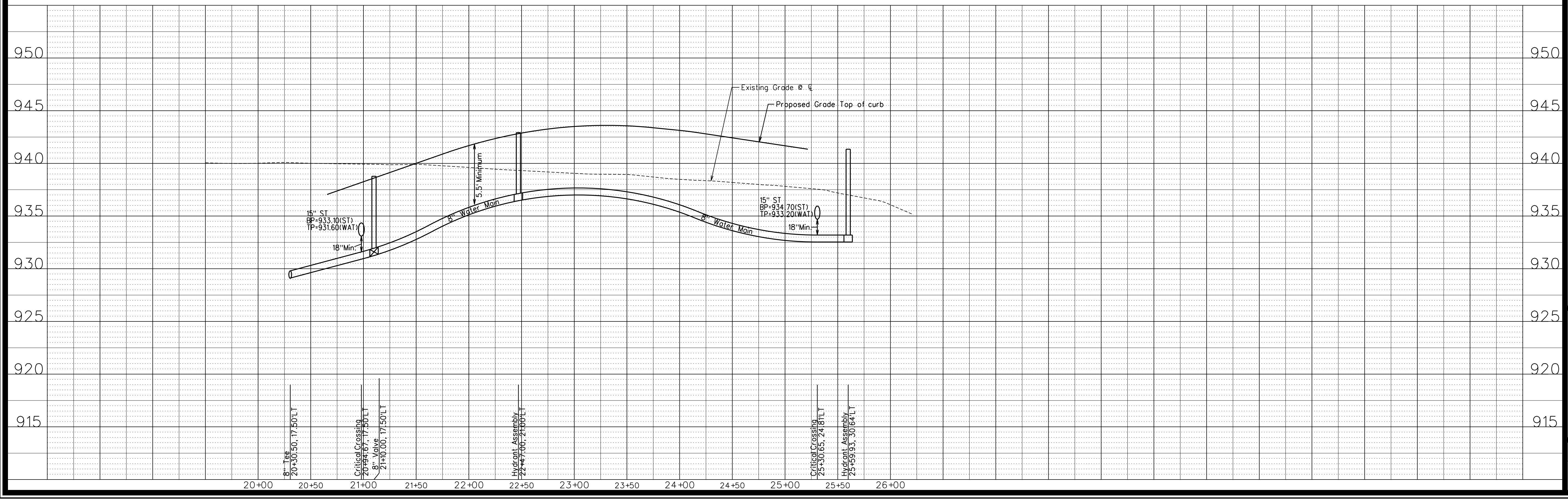
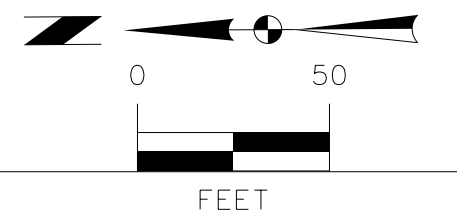
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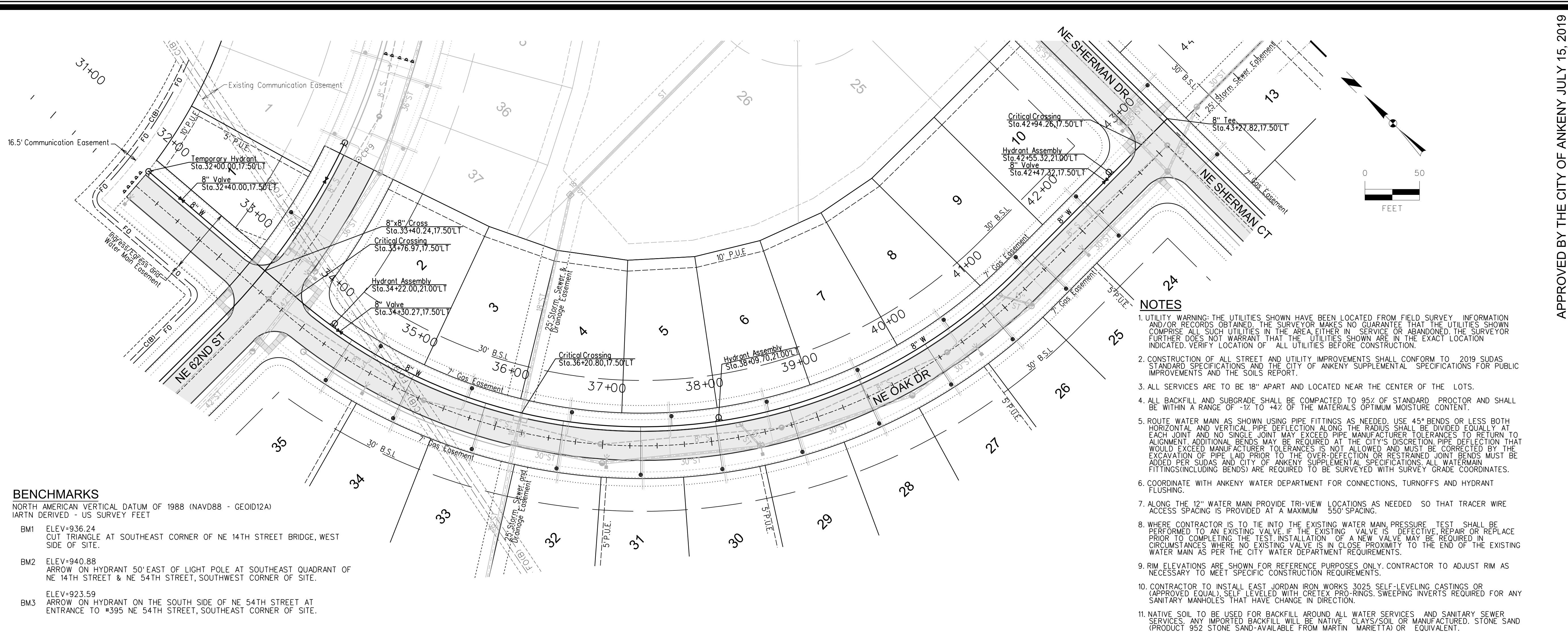
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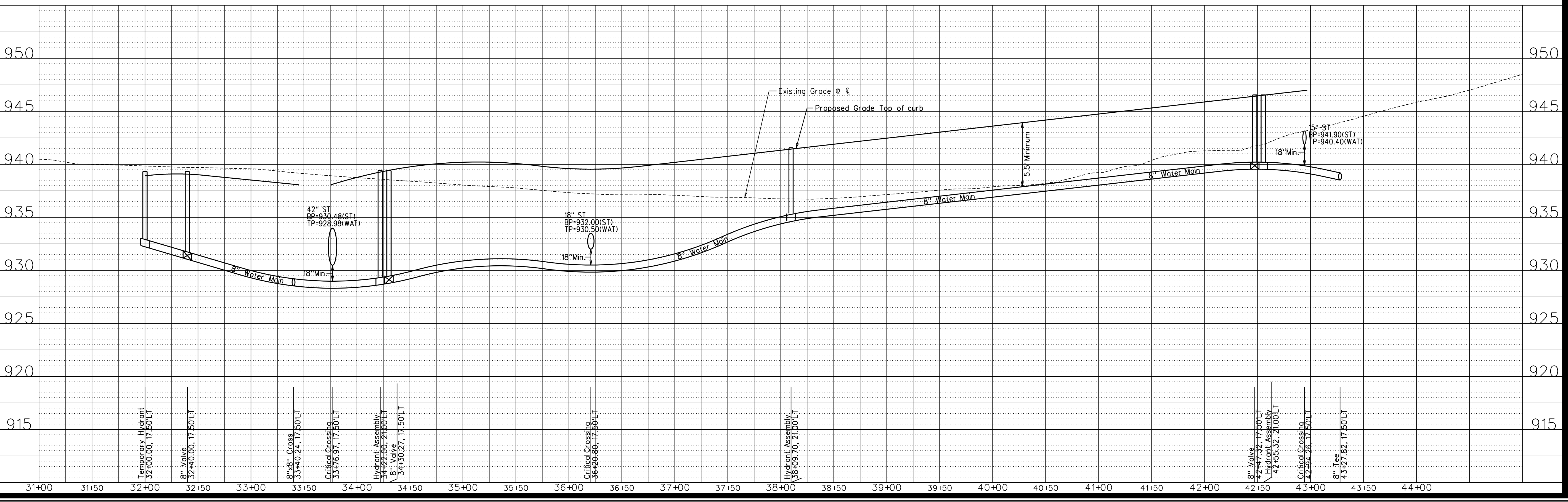
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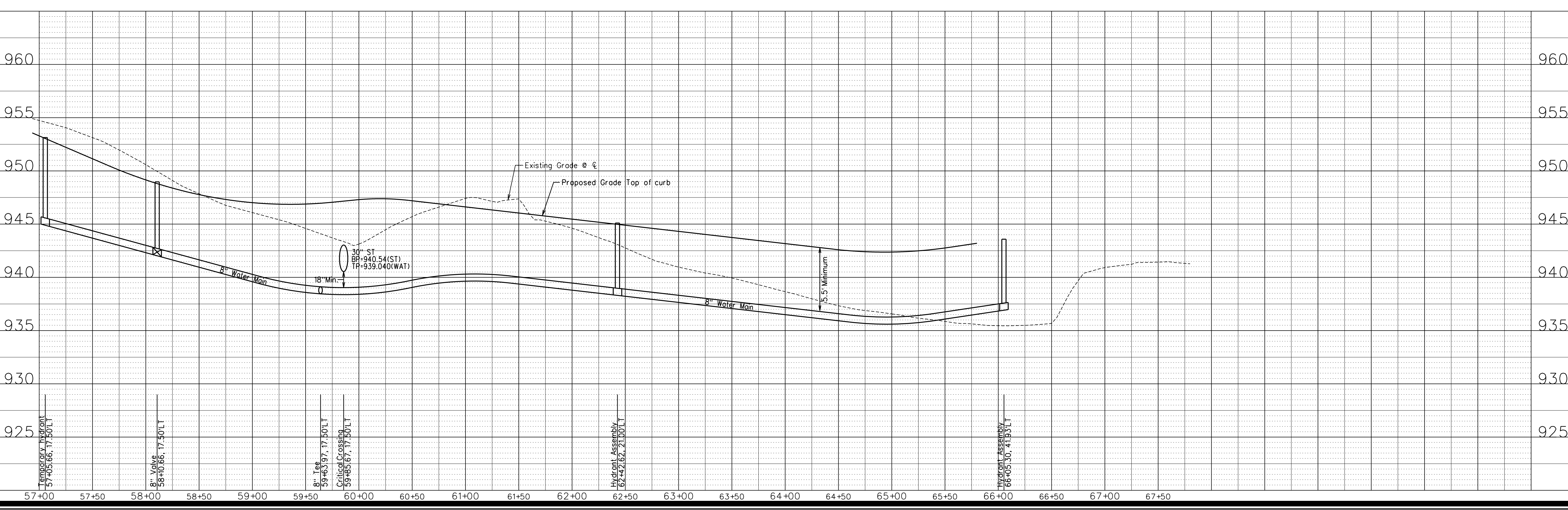
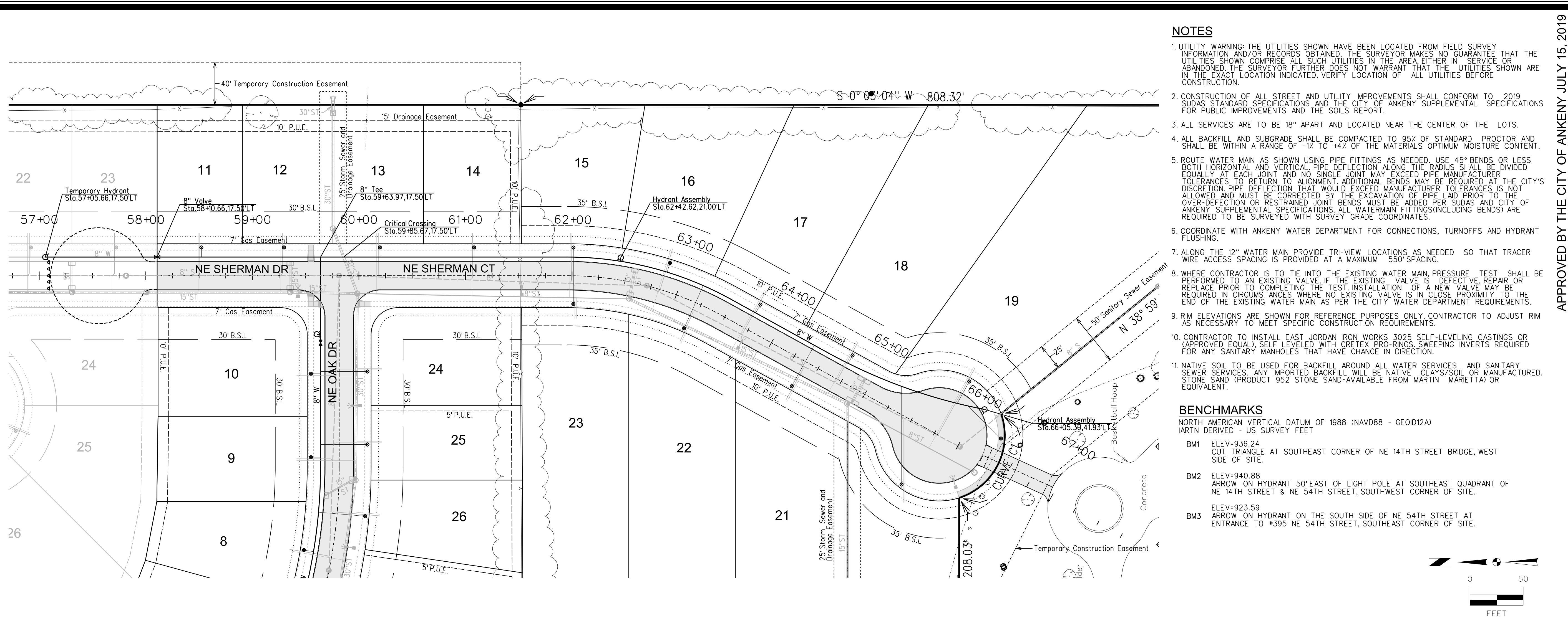
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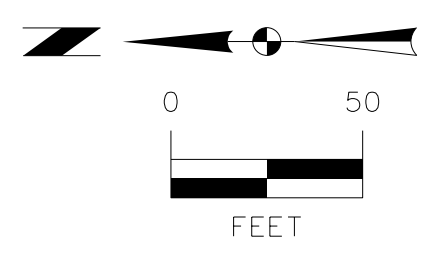


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APPROVED BY THE CITY OF ANKENY JULY 15, 2019

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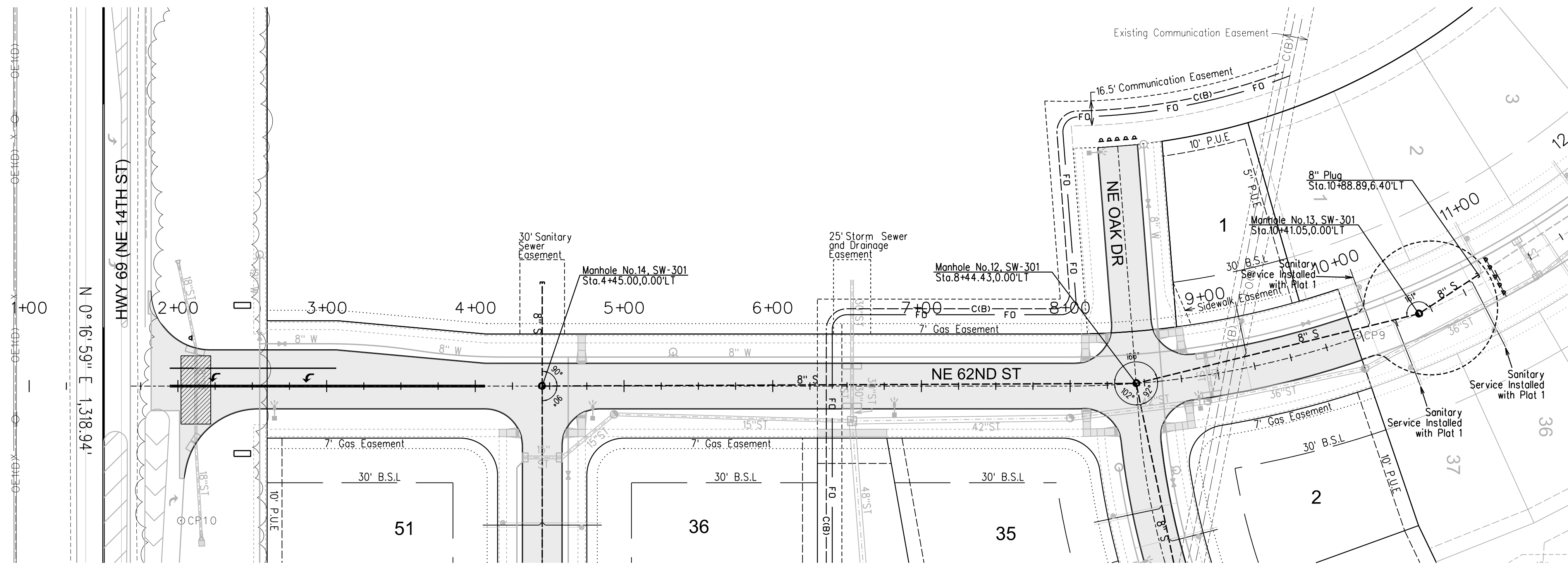
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 Technician: JMM    Date: 05/17/19    Field Bk:    Pg:

**HARVEST RIDGE PLAT 1**  
**WATER MAIN PLAN AND PROFILE**  
**SNYDER & ASSOCIATES, INC.**  
 2727 S.W. SNYDER BLVD.  
 ANKENY, IOWA 50023  
 515-964-2020 | www.snyder-associates.com

  
**SNYDER & ASSOCIATES**  
 Project No: 116.0916  
 Sheet 14 of 38

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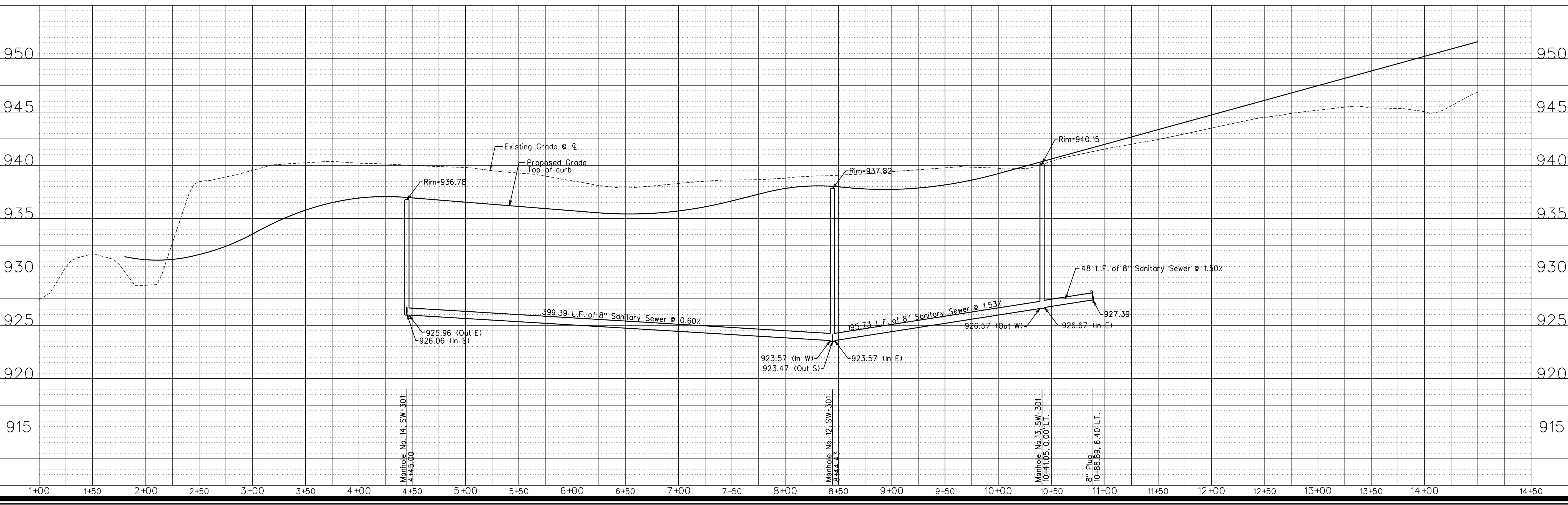
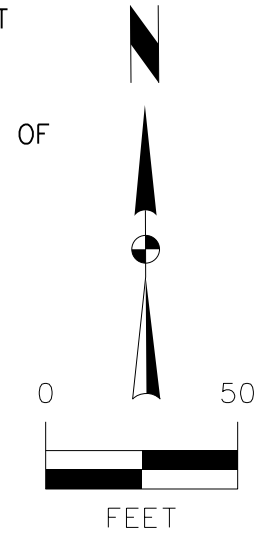
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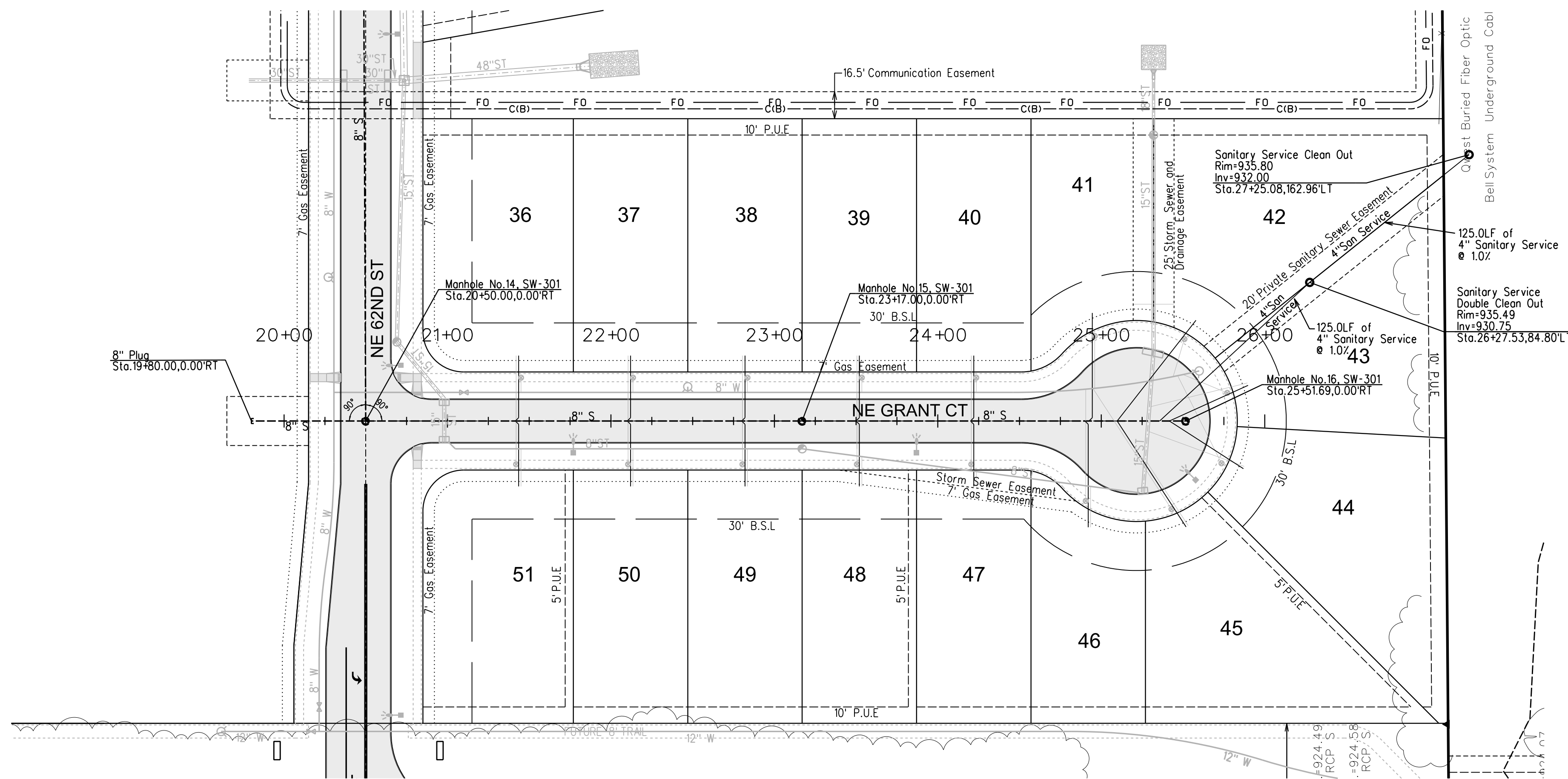
**HARVEST RIDGE PLAT 1**  
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 Sheet 15 of 38

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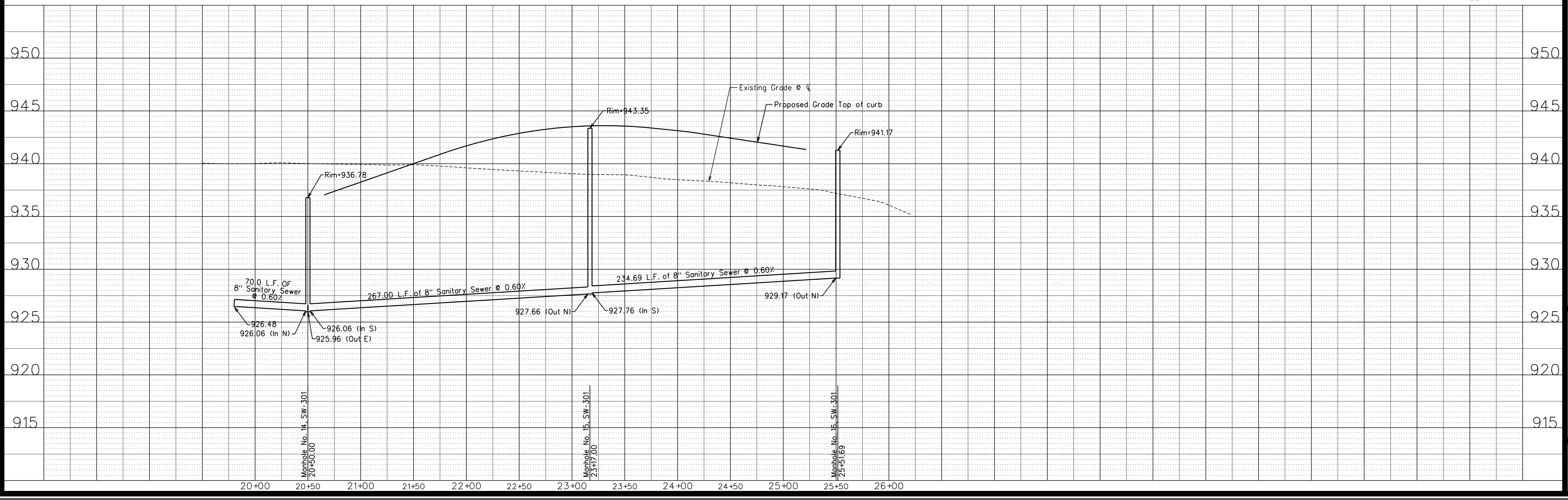
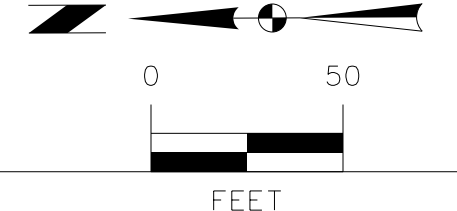
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Technician: JWM Date: 05/17/19 Field Bk: Pg:  
Project No: 116.0916 Sheet 16 of 38

**HARVEST RIDGE PLAT 1**  
SANITARY SEWER PLAN AND PROFILE

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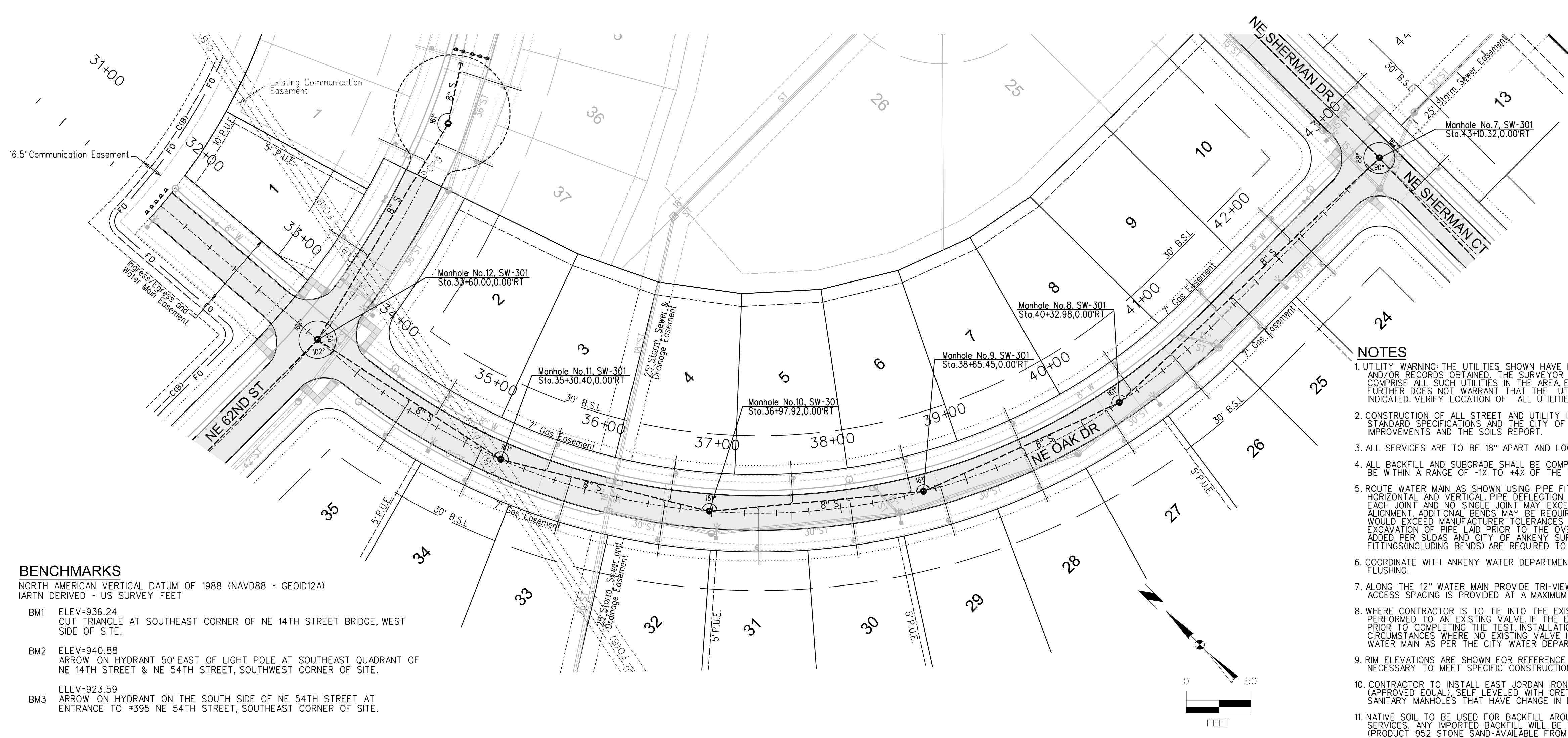
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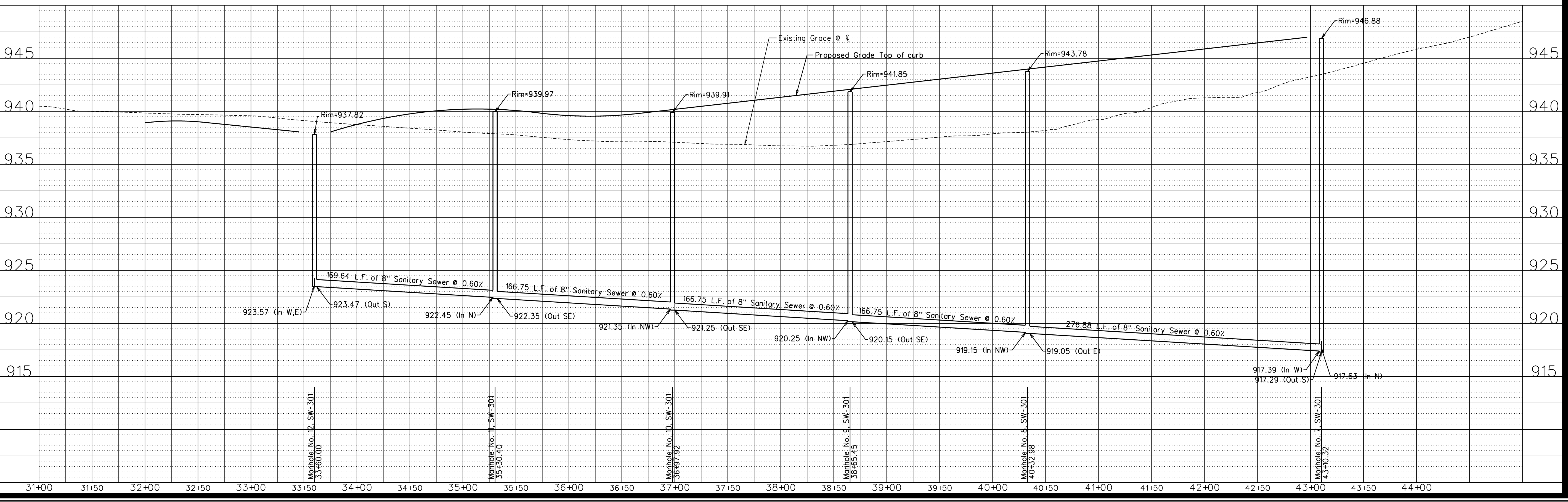
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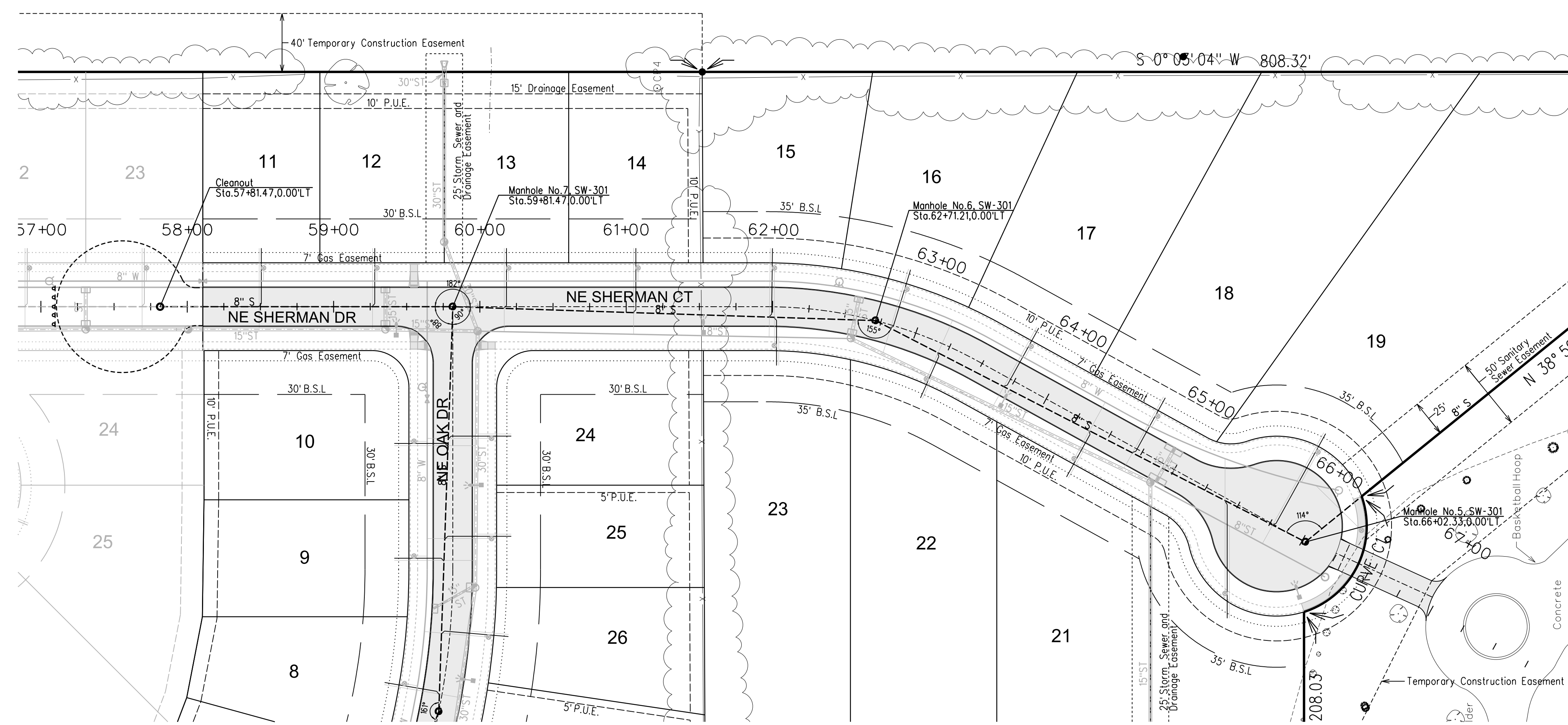
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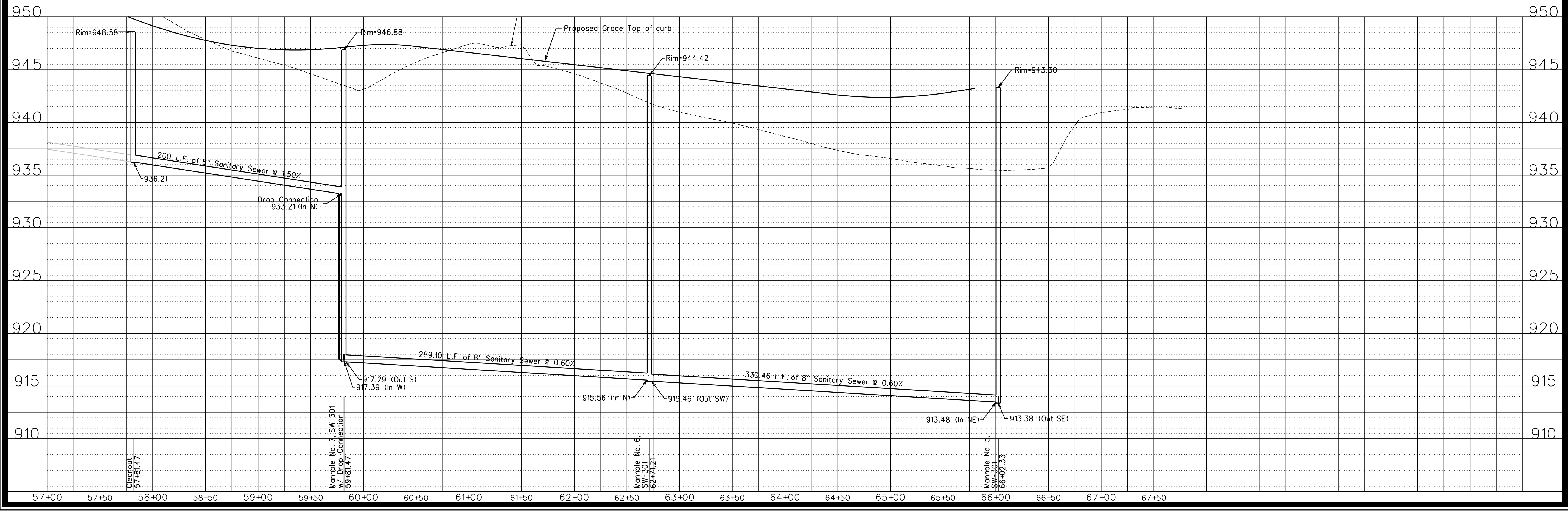
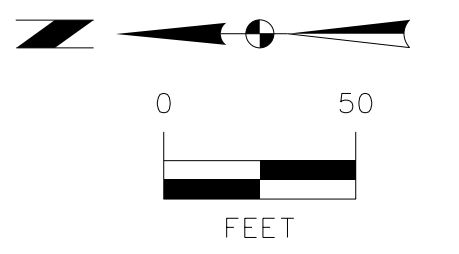


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### BENCHMARKS

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APPROVED BY THE CITY OF ANKENY JULY 15, 2019

| REVISION | DATE     | BY  |
|----------|----------|-----|
| 5        | 08/20/19 | JMM |
| 4        | 07/15/19 | JMM |
| 3        | 07/12/19 | JMM |
| 2        | 07/03/19 | JMM |

Engineer: KMM  
 Checked By: EDC  
 Scale: 1"=50'  
 Technician: JMM  
 Date: 05/17/19  
 Field Bk: Pg.  
 Project No: 116.0916  
 Sheet No: 18 of 38

## HARVEST RIDGE PLAT 1

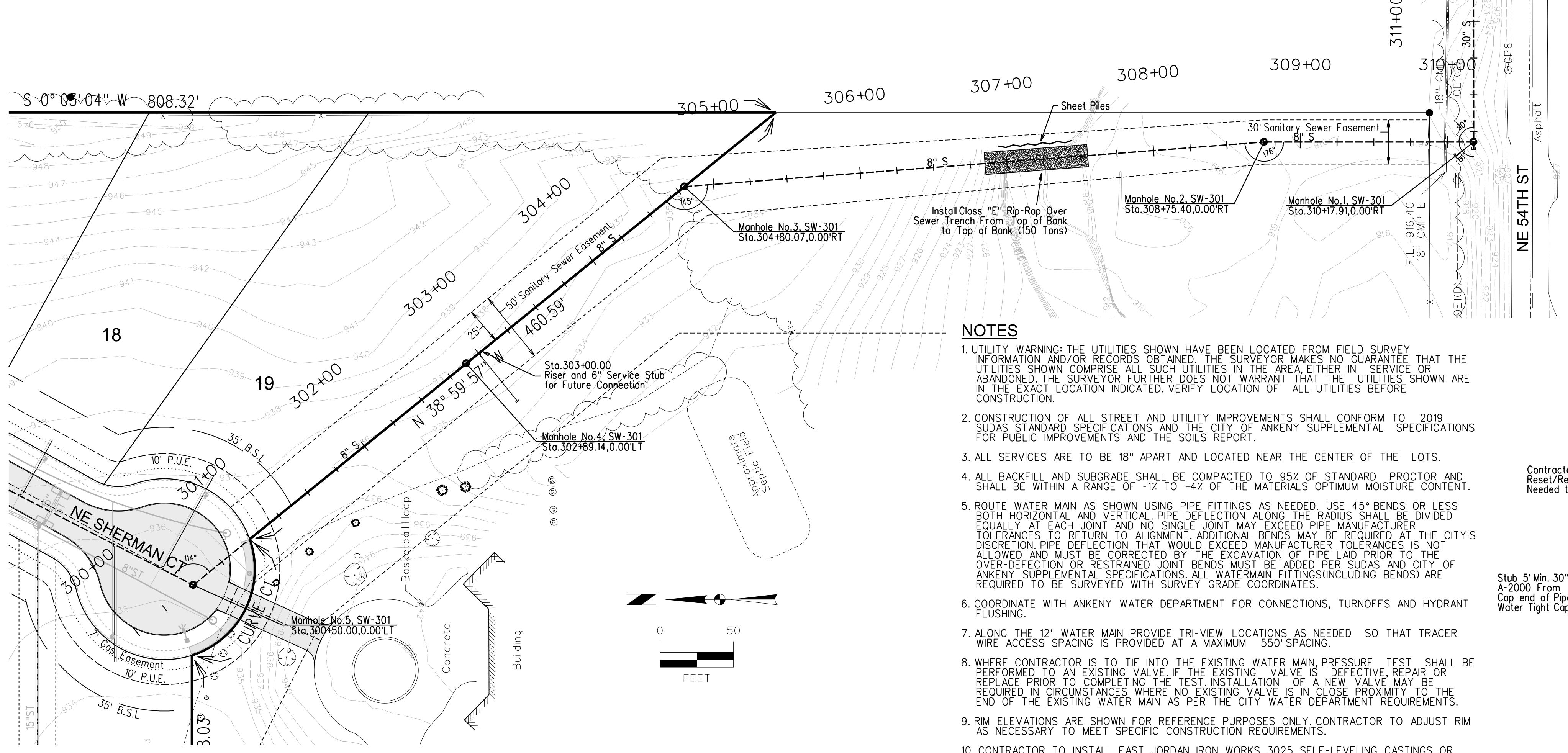
### SANITARY SEWER PLAN AND PROFILE

# SNYDER & ASSOCIATES, INC.

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



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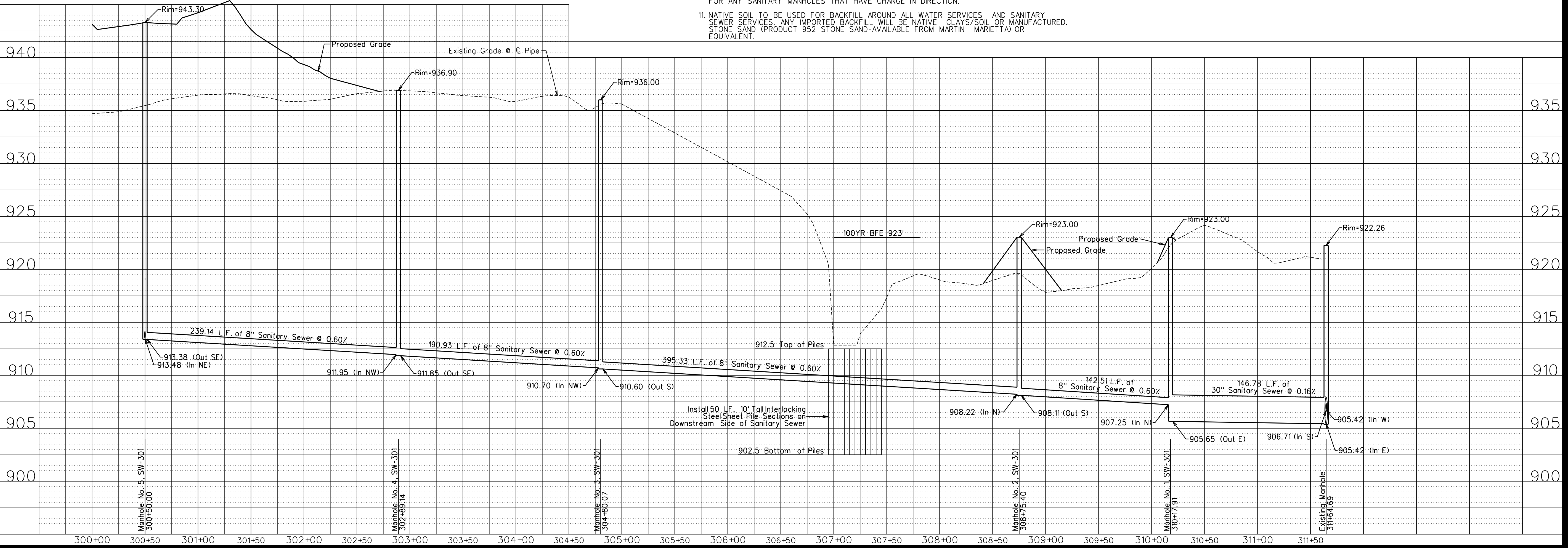
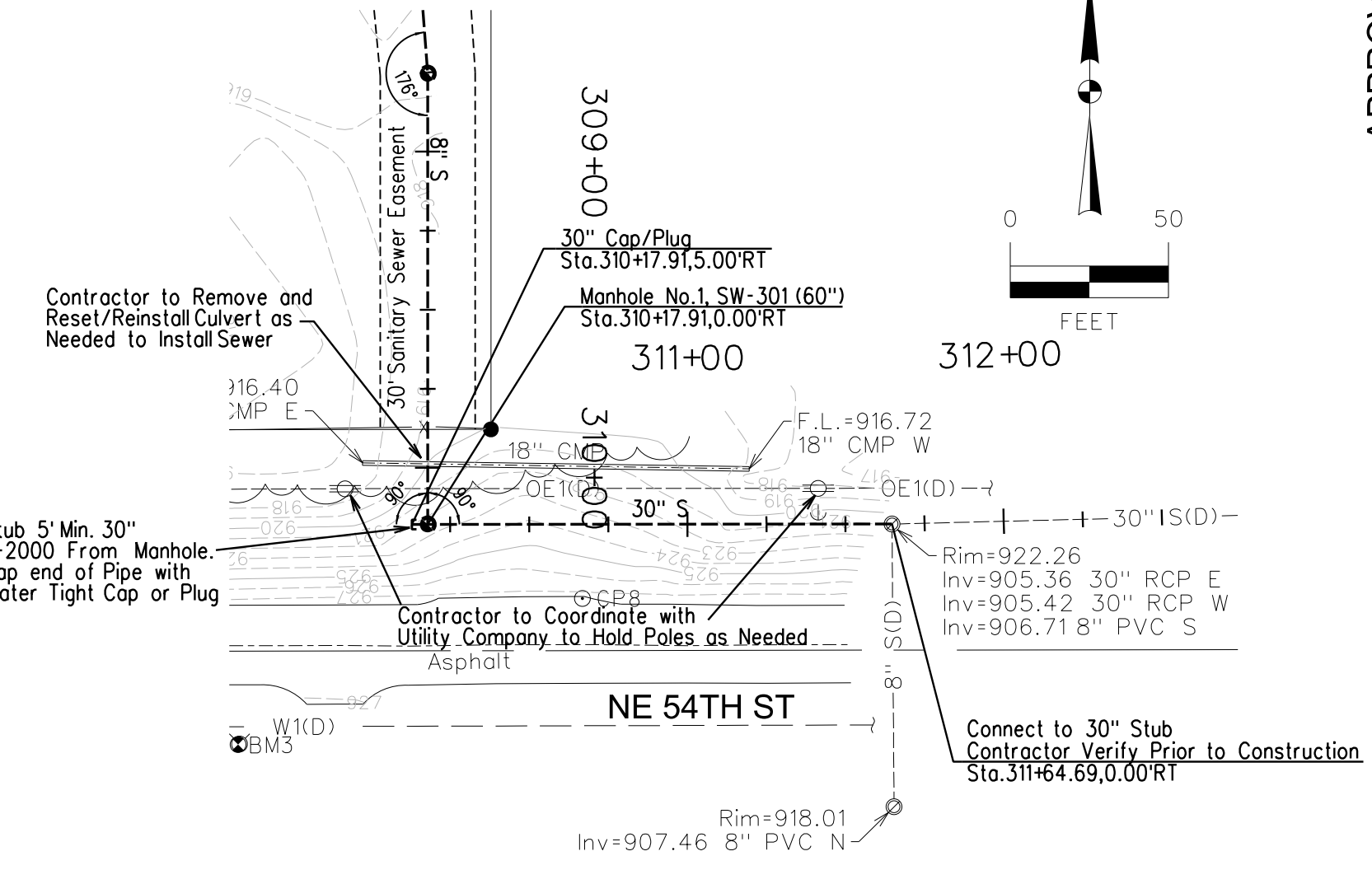


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- ALL BACKFILL AND SUBGRADE SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR AND SHALL BE WITHIN A RANGE OF -1% TO +4% OF THE MATERIALS OPTIMUM MOISTURE CONTENT.
- ROUTE WATER MAIN AS SHOWN USING PIPE FITTINGS AS NEEDED. USE 45° BENDS OR LESS BOTH HORIZONTAL AND VERTICAL. PIPE DEFLECTION ALONG THE ALIGNMENT SHALL BE DIVIDED EQUALLY AT EACH JOINT AND NO SINGLE JOINT MAY EXCEED PIPE MANUFACTURER TOLERANCES TO RETURN TO ALIGNMENT. ADDITIONAL BENDS MAY BE REQUIRED AT THE CITY'S DISCRETION. PIPE DEFLECTION THAT WOULD EXCEED MANUFACTURER TOLERANCES IS NOT ALLOWED AND MUST BE CORRECTED BY THE EXCAVATION OF PIPE LAID PRIOR TO THE OVER-DEFLECTION OR RESTRAINED JOINT BENDS MUST BE ADDED PER SUDAS AND CITY OF ANKENY SUPPLEMENTAL SPECIFICATIONS. ALL WATERMAIN FITTINGS (INCLUDING BENDS) ARE REQUIRED TO BE SURVEYED WITH SURVEY GRADE COORDINATES.
- COORDINATE WITH ANKENY WATER DEPARTMENT FOR CONNECTIONS, TURNOFFS AND HYDRANT FLUSHING.
- ALONG THE 12" WATER MAIN PROVIDE TRI-VIEW LOCATIONS AS NEEDED SO THAT TRACER WIRE ACCESS SPACING IS PROVIDED AT A MAXIMUM 550' SPACING.
- WHERE CONTRACTOR IS TO TIE INTO THE EXISTING WATER MAIN, PRESSURE TEST SHALL BE PERFORMED TO AN EXISTING VALVE. IF THE EXISTING VALVE IS DEFECTIVE, REPAIR OR REPLACE PRIOR TO COMPLETING THE TEST. INSTALLATION OF A NEW VALVE MAY BE REQUIRED IN CIRCUMSTANCES WHERE NO EXISTING VALVE IS IN CLOSE PROXIMITY TO THE END OF THE EXISTING WATER MAIN AS PER THE CITY WATER DEPARTMENT REQUIREMENTS.
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APPROVED BY THE CITY OF ANKENY JULY 15, 2019

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| 2    | REVISED AS PER CITY COMMENTS        | 07/03/19 | JMM |

Engineer: KMM  
Checked By: EDC  
Scale: 1"=50'  
Technician: JMM  
Date: 05/17/19  
Field Bk: Pg.  
Project No: 116.0916  
Sheet No: 19 of 38

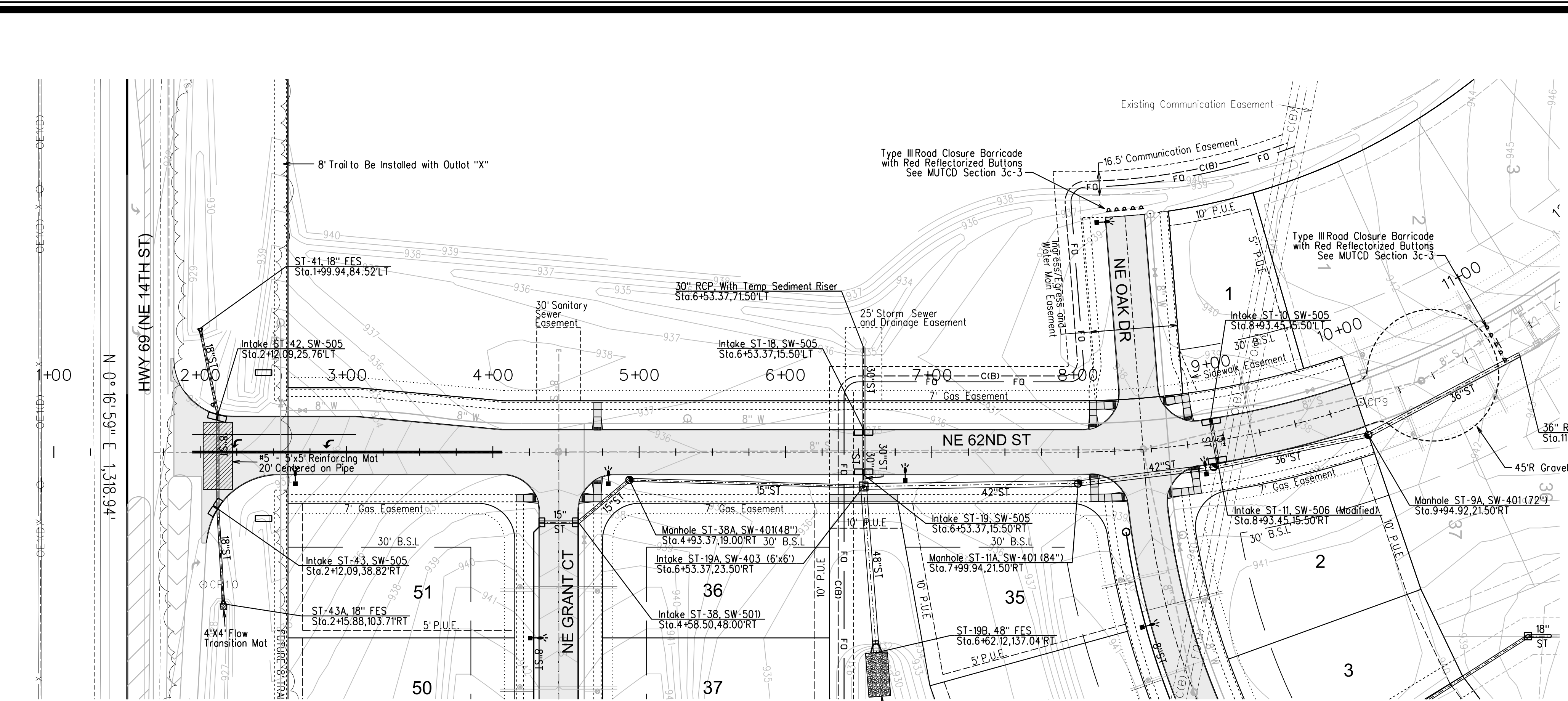
**HARVEST RIDGE PLAT 1**

**SANITARY SEWER PLAN AND PROFILE**

**SNYDER & ASSOCIATES, INC.**



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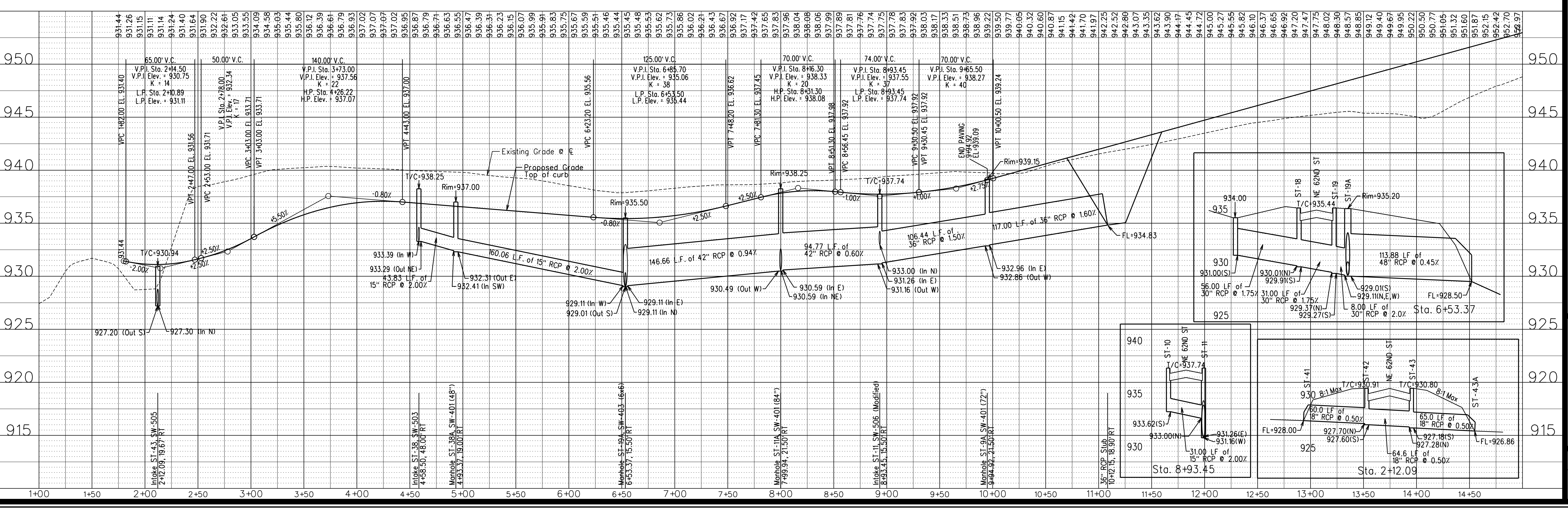
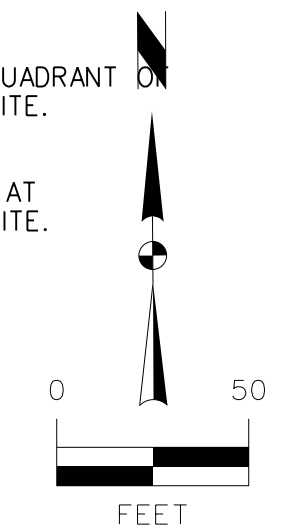


### NOTES

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- ALL FOOTING DRAIN COLLECTORS TO BE SOLID 8" A-2000 PIPE.
- USE DIAPER JOINTS WITH FILTER FABRIC ON ALL STORM SEWERS.

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APPROVED BY THE CITY OF ANKENY JULY 15, 2019

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Engineer: KMM  
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Project No: 116.0916  
Sheet No: 20 of 38

## HARVEST RIDGE PLAT 1

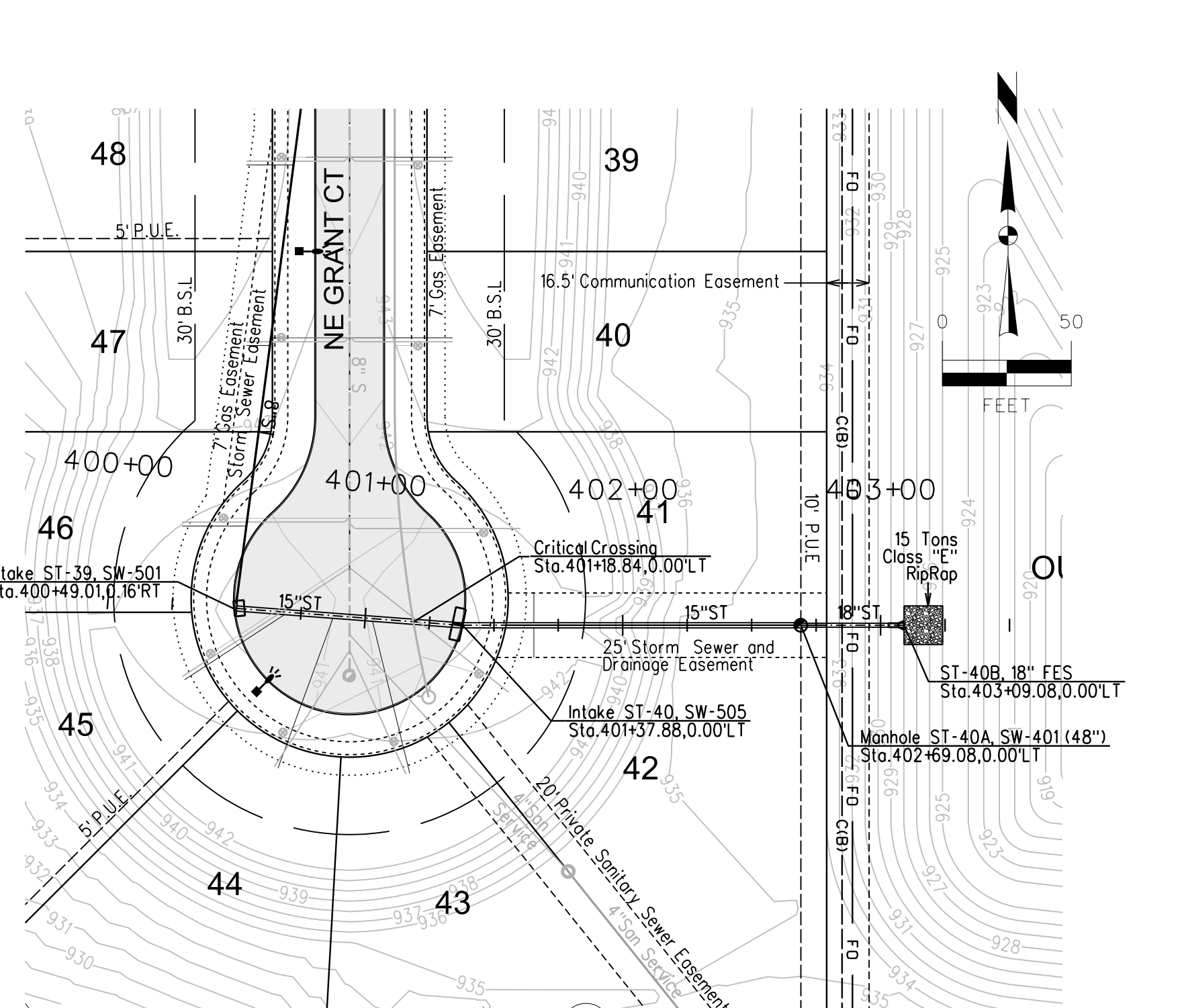
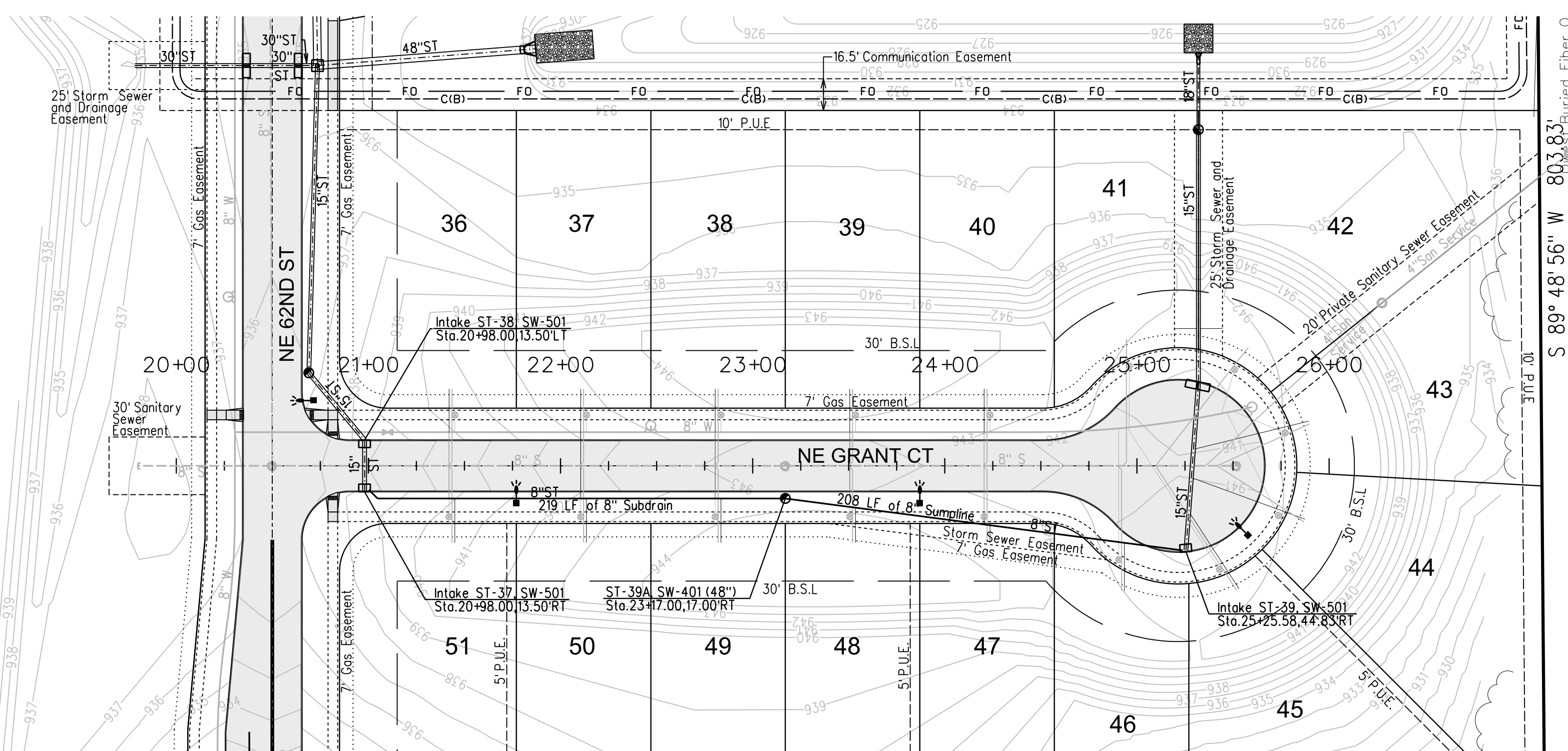
PAVEMENT AND STORM SEWER PLAN AND PROFILE

**SNYDER & ASSOCIATES, INC.**



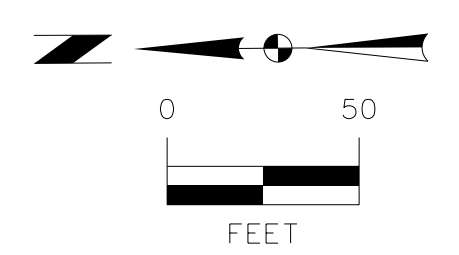
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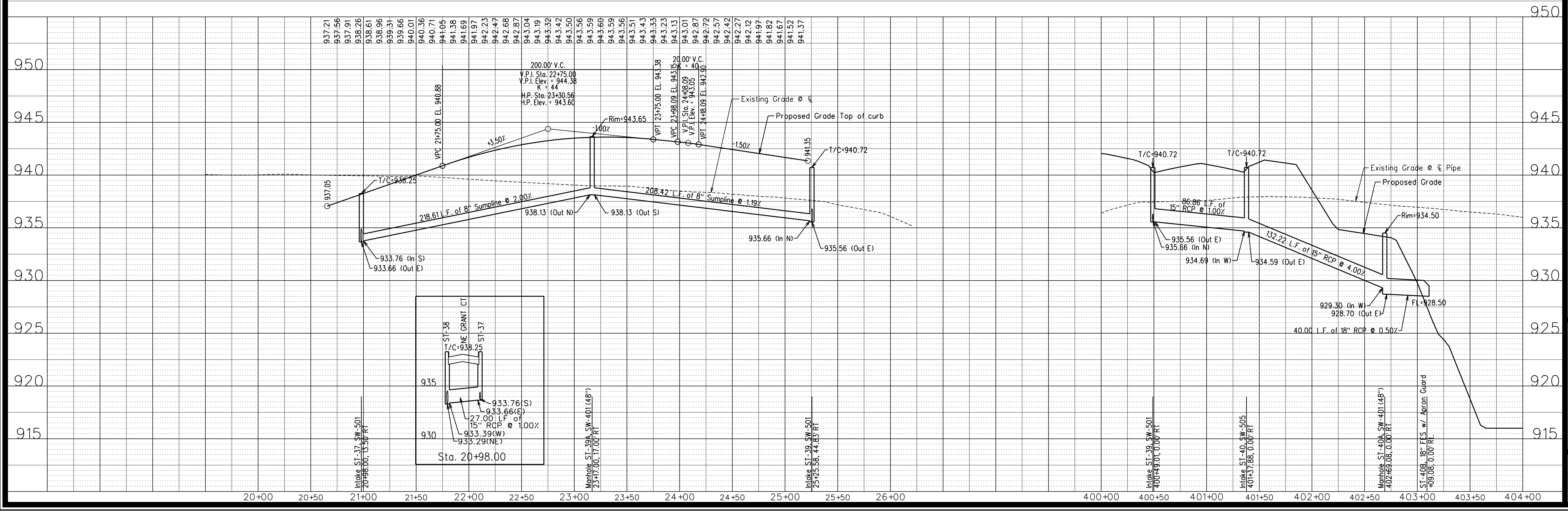
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APPROVED BY THE CITY OF ANKENY JULY 15, 2019

| MARK | REVISION                            | DATE     | BY  |
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| 4    | REVISED AS PER CITY COMMENTS        | 07/15/19 | JWM |
| 3    | REVISED AS PER OWNER & DOT COMMENTS | 07/12/19 | JWM |
| 2    | REVISED AS PER CITY COMMENTS        | 07/03/19 | JWM |

ANKENY, IA

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

**HARVEST RIDGE PLAT 1**

**PAVEMENT AND STORM SEWER PLAN AND PROFILE**

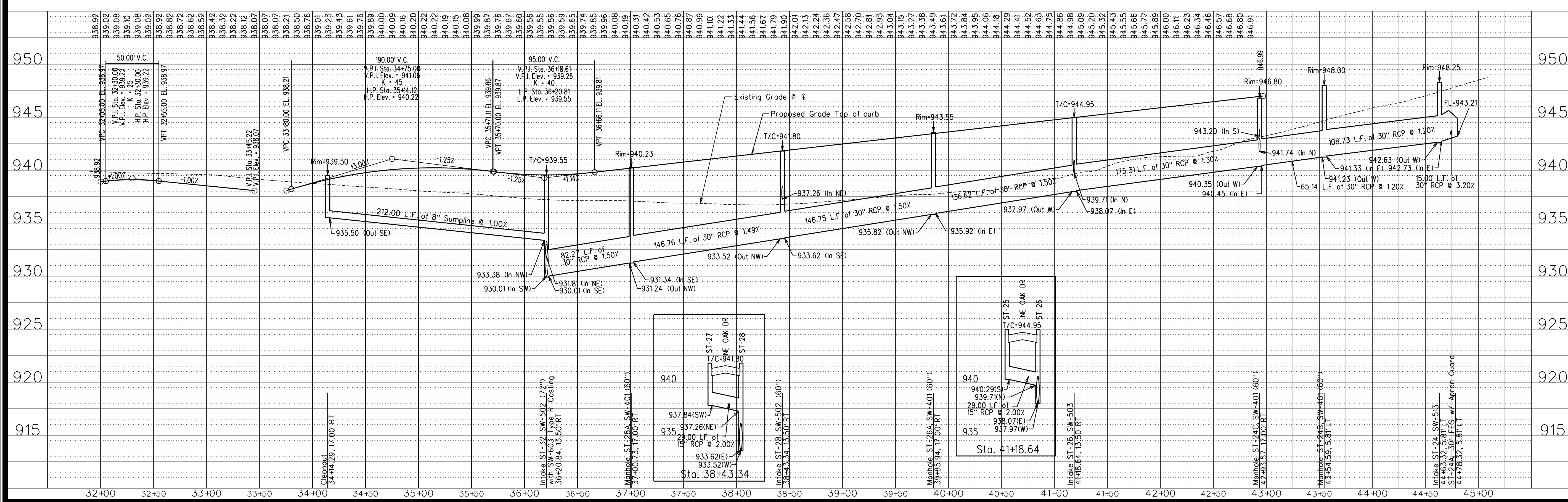
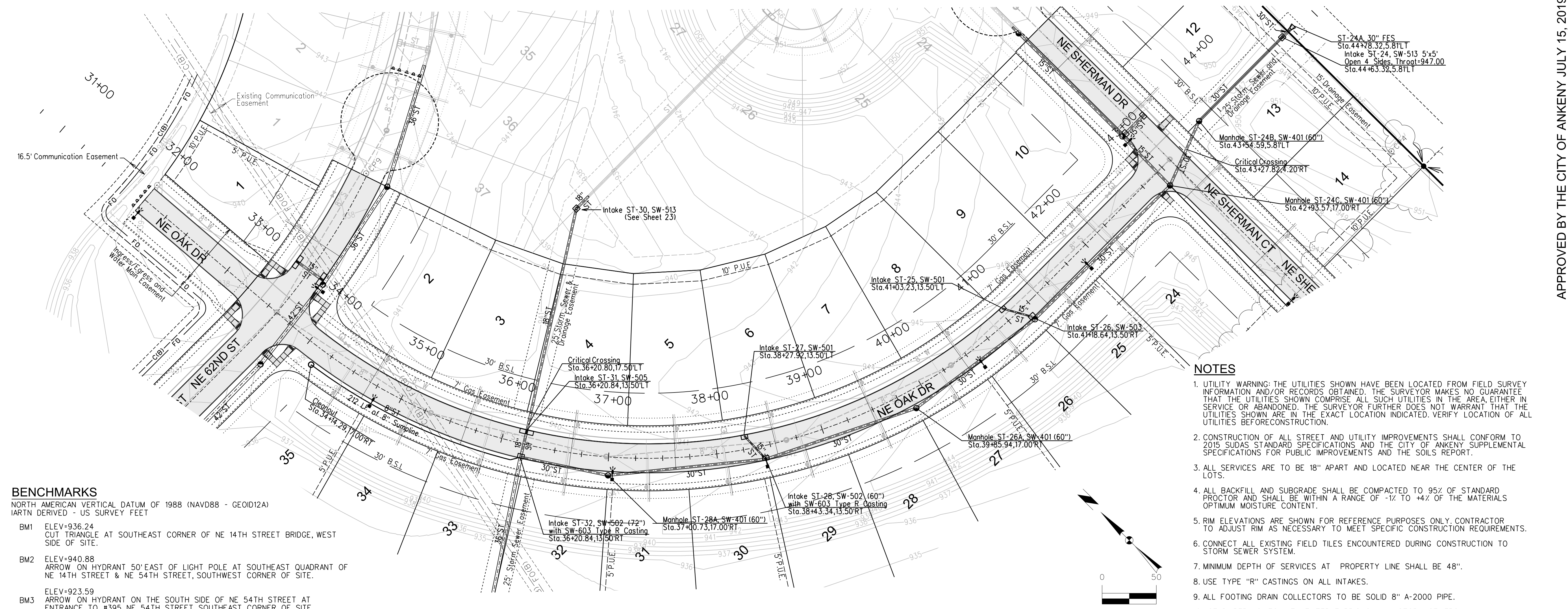
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Project No: 116.0916

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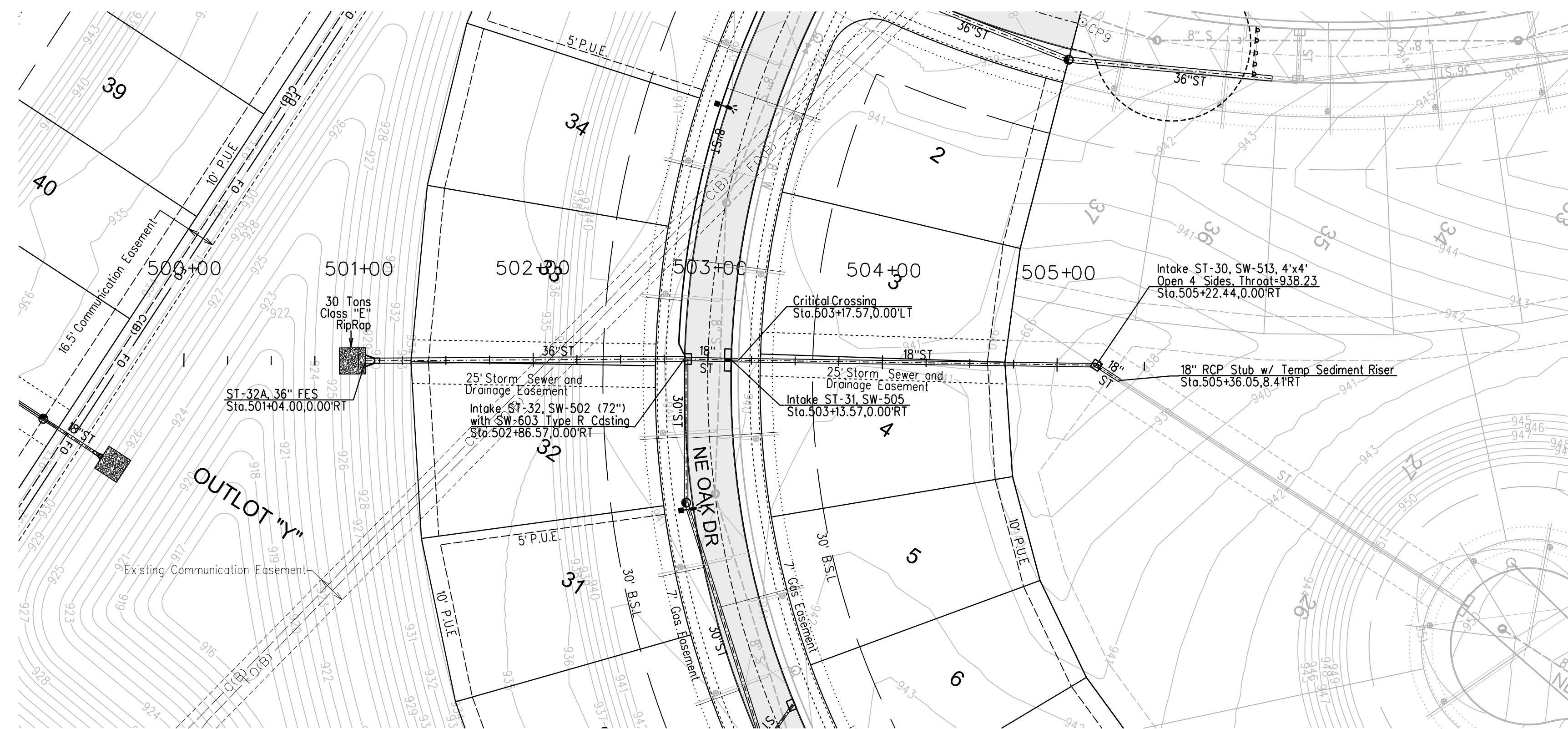
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Engineer: KMM  
Checked By: EDC  
Scale: 1"=50'  
Technician: JMM  
Date: 05/17/19  
Field Bk: Pg.  
Project No: 116.0916  
Sheet 22 of 38

**HARVEST RIDGE PLAT 1**  
**PAVEMENT AND STORM SEWER PLAN AND PROFILE**  
**SNYDER & ASSOCIATES, INC.**

Project No: 116.0916  
Sheet 22 of 38

2727 S.W. SNYDER BLVD.  
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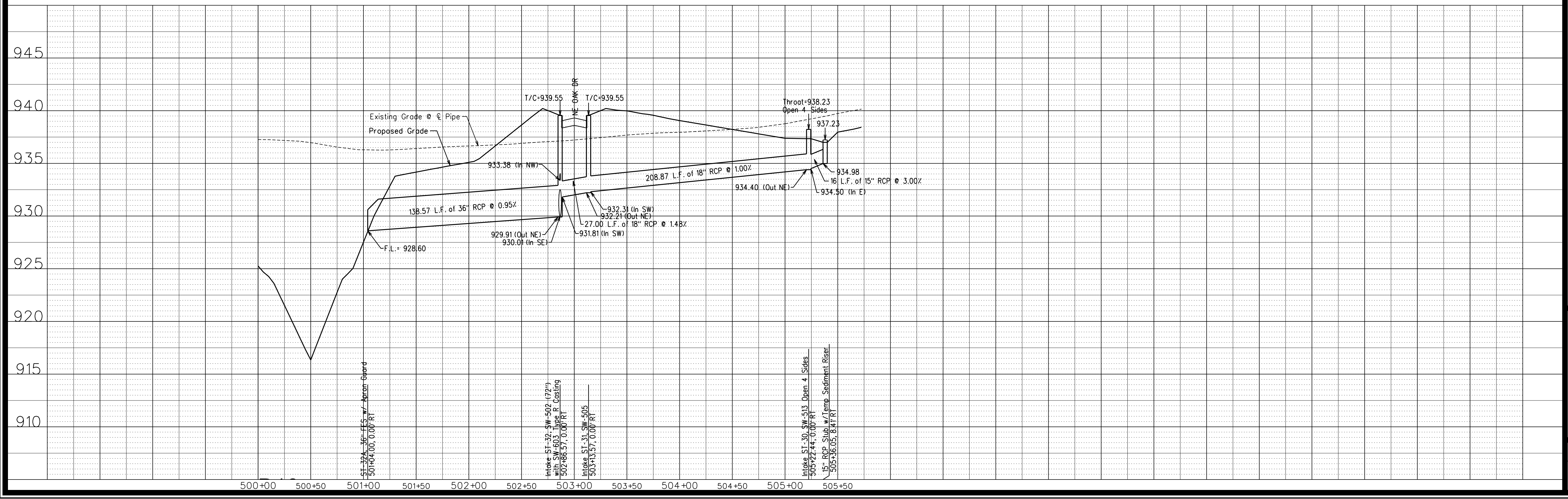
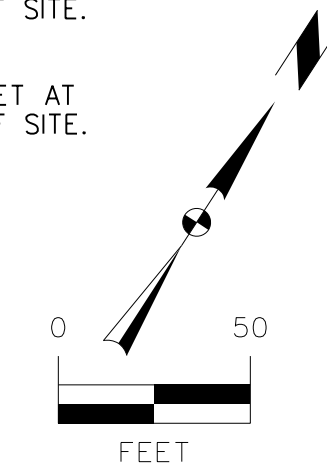
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**ANKENY, IA**

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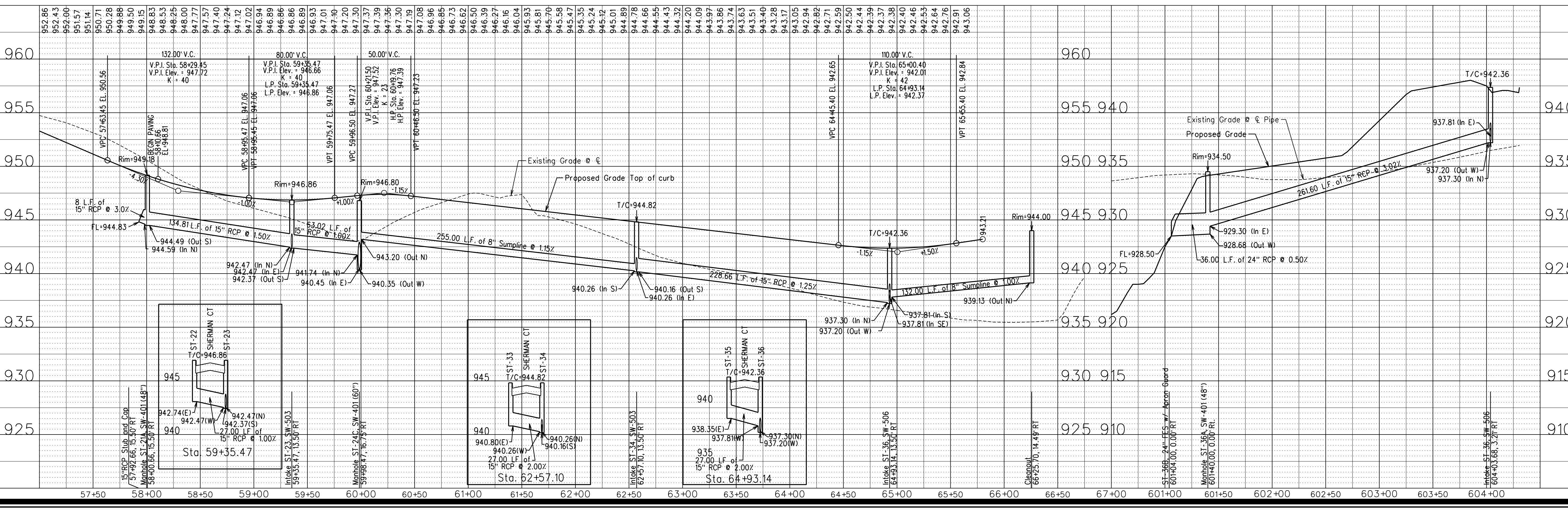
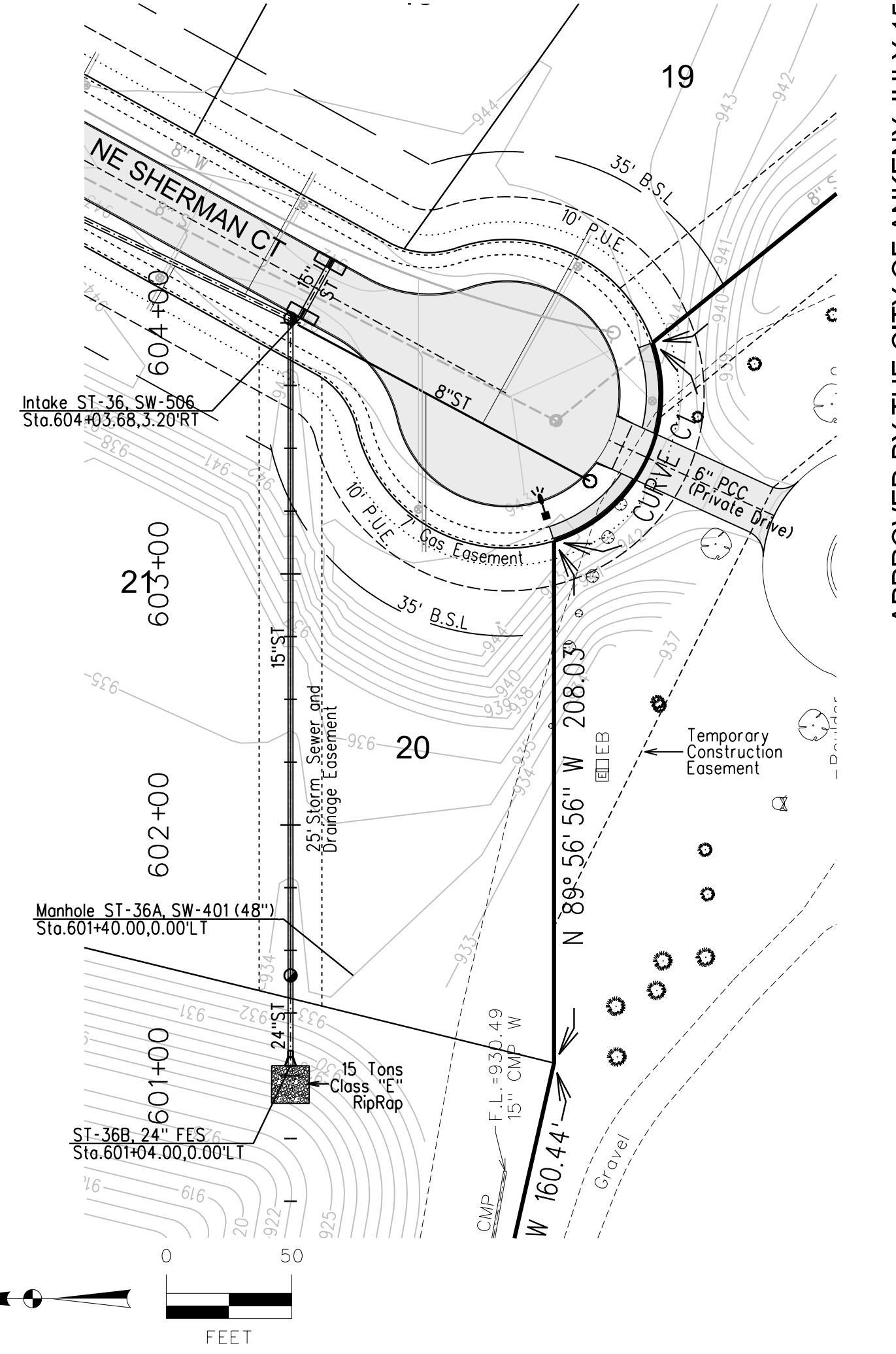
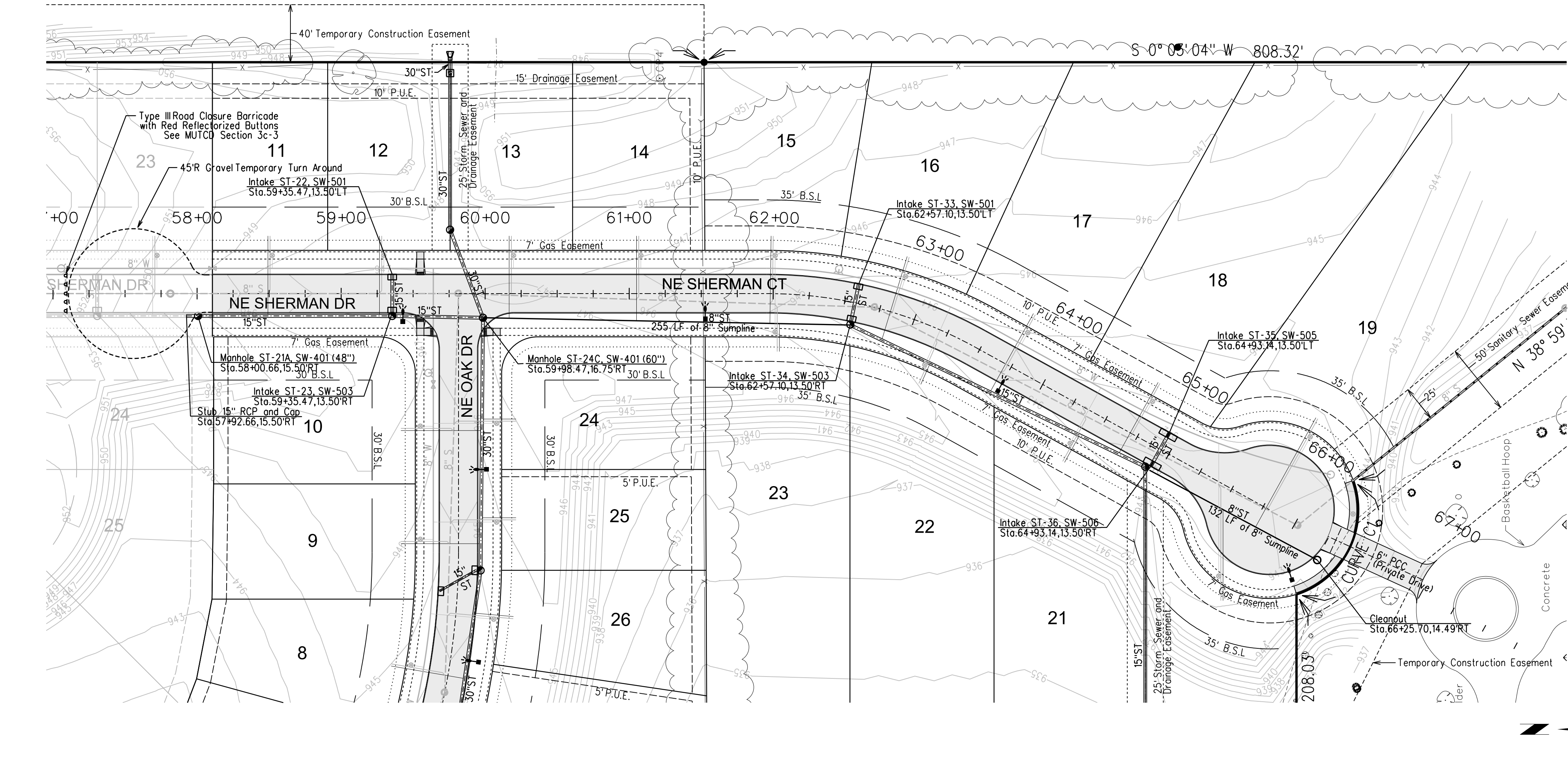
**HARVEST RIDGE PLAT 1**

**STORM SEWER PLAN AND PROFILE**

**SNYDER & ASSOCIATES, INC.**



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APPROVED BY THE CITY OF ANKENY JULY 15, 2019

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Checked By: EDC  
Scale: 1"=50'  
Technician: JMM  
Date: 05/17/19  
Field Bk: Pg.  
Project No: 116.0916  
Sheet 24 of 38

# HARVEST RIDGE PLAT 1

## PAVEMENT AND STORM SEWER PLAN AND PROFILE

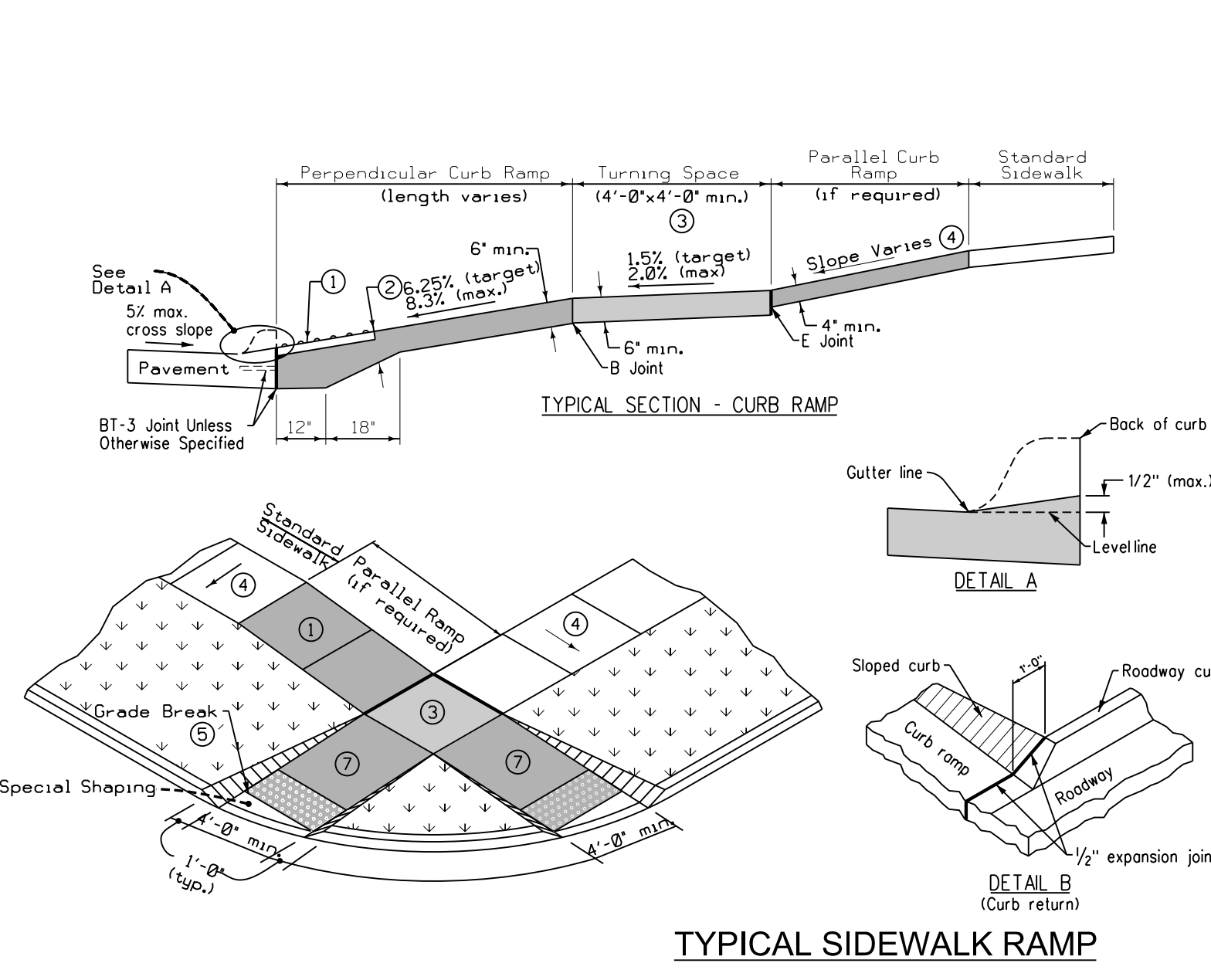
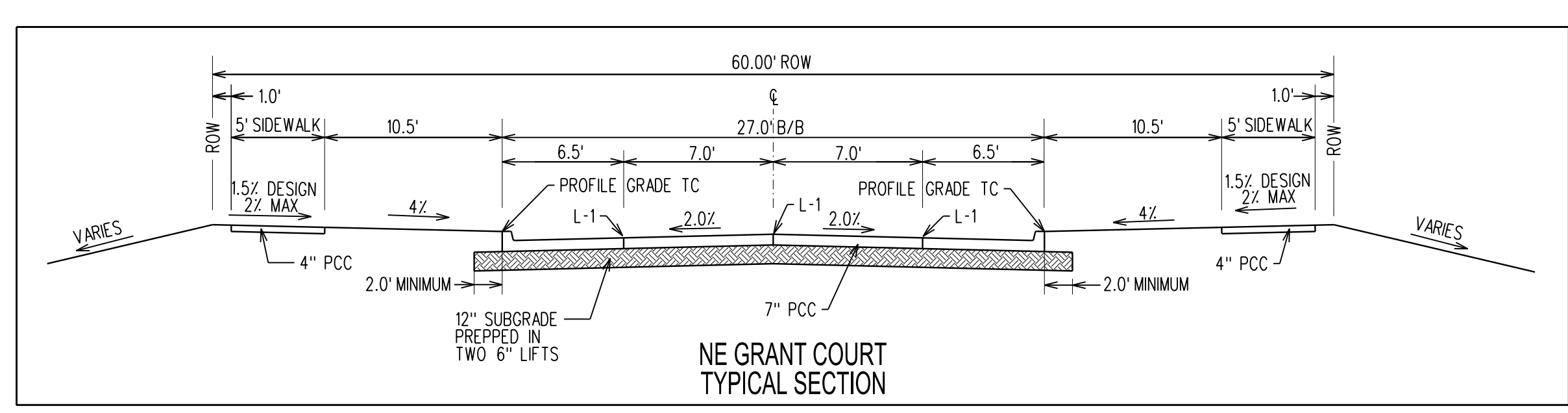
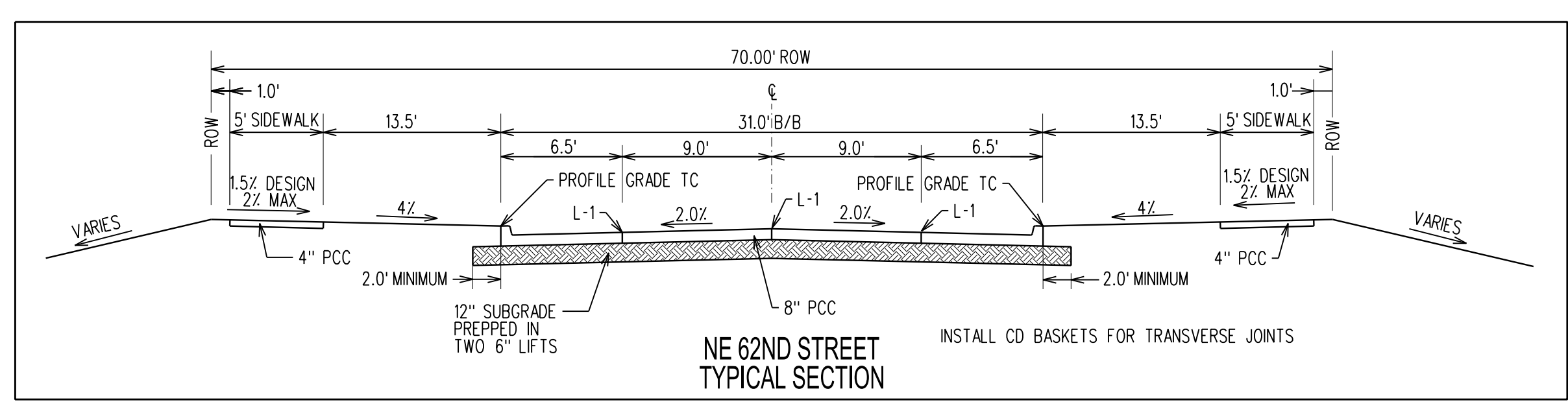
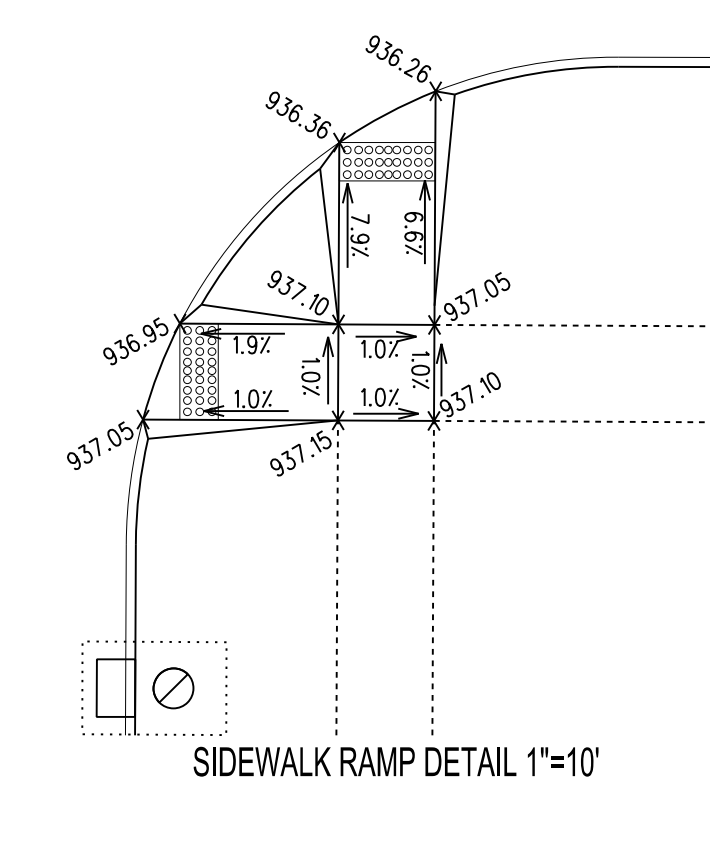
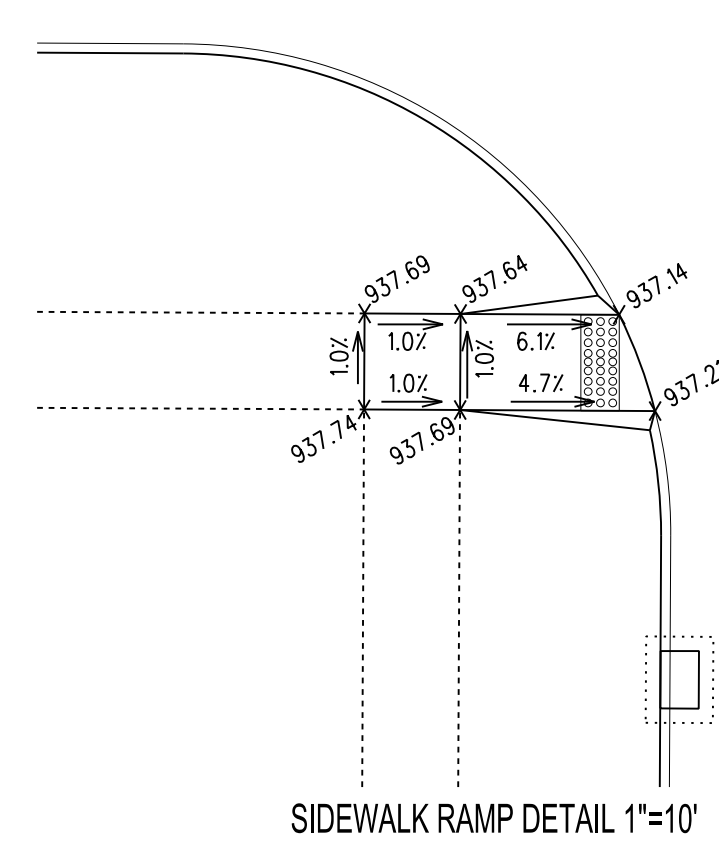
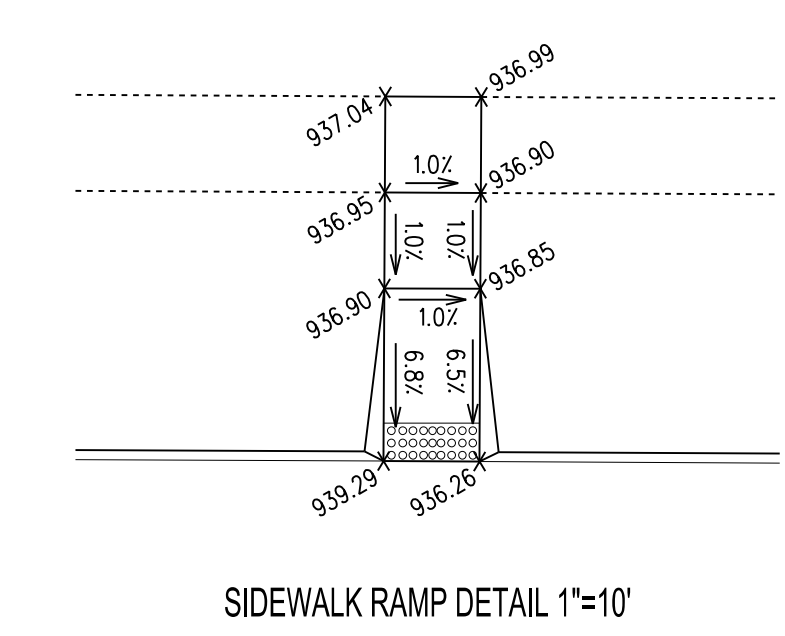
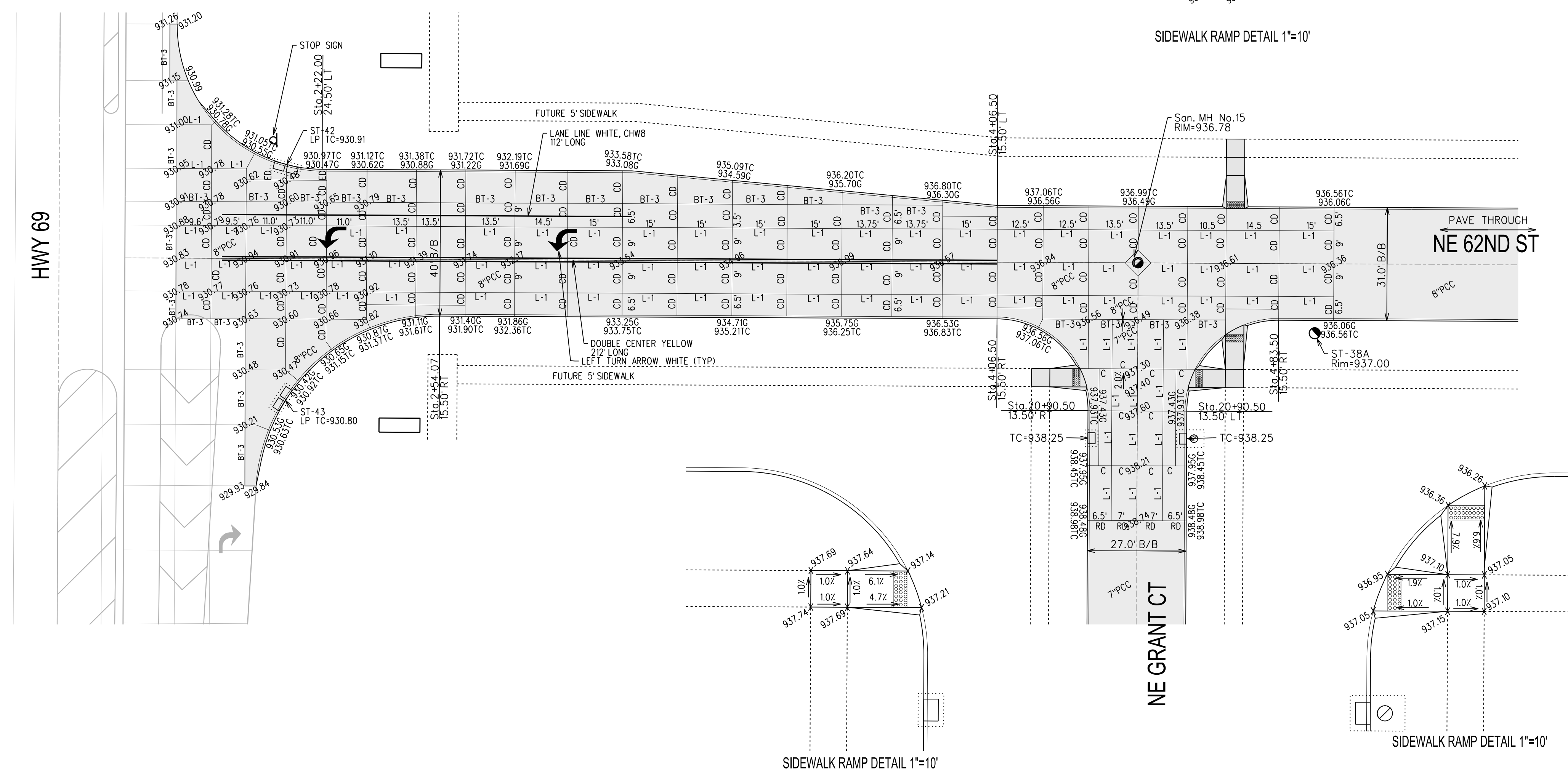
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Sheet 24 of 38



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- If crosswalks are marked, locate ramps, exclusive of flares, within the crosswalk markings.
- Provide a minimum 2 foot width of detectable warning surfaces in the direction of pedestrian travel across the fullwidth of the curb ramp or turning space, exclusive of curbs or flares.
  - Provide a minimum of 6 inches of concrete below the detectable warning panel.
  - Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 4 feet by 4 feet.
  - 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.  
The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.
  - If crossing gate conflicts with location of detectable warning or if pedestrian crossing gate is provided, place detectable warning panel in advance of the crossing gate.
  - Locate front edge of detectable warning panel 12 to 15 feet from centerline of nearest rail. Orient truncated domes parallel to the direction of pedestrian travel.
  - Perpendicular Curb Ramp: Target running slope of 6.25% with maximum running slope of 8.3%.
  - Match pedestrian street crossing cross slope or flatter.
- Key
- Curb Ramp
  - Turning Space
  - Detectable warning
  - GRASS

APPROVED BY THE CITY OF ANKENY JULY 15, 2019

| MARK | REVISION                            | DATE     | BY  |
|------|-------------------------------------|----------|-----|
| 5    | REVISED AS PER CITY & DOT COMMENTS  | 08/20/19 | JMM |
| 4    | REVISED AS PER CITY COMMENTS        | 07/15/19 | JMM |
| 3    | REVISED AS PER OWNER & DOT COMMENTS | 07/12/19 | JMM |
| 2    | REVISED AS PER CITY COMMENTS        | 07/03/19 | JMM |

Engineer: KMM  
 Checked By: EDC  
 Scale: 1"=20'  
 Technician: JMM  
 Date: 05/17/19  
 Field Bk: Pg:  
 Project No: 116.0916  
 Sheet No: 25 of 38

# HARVEST RIDGE PLAT 1

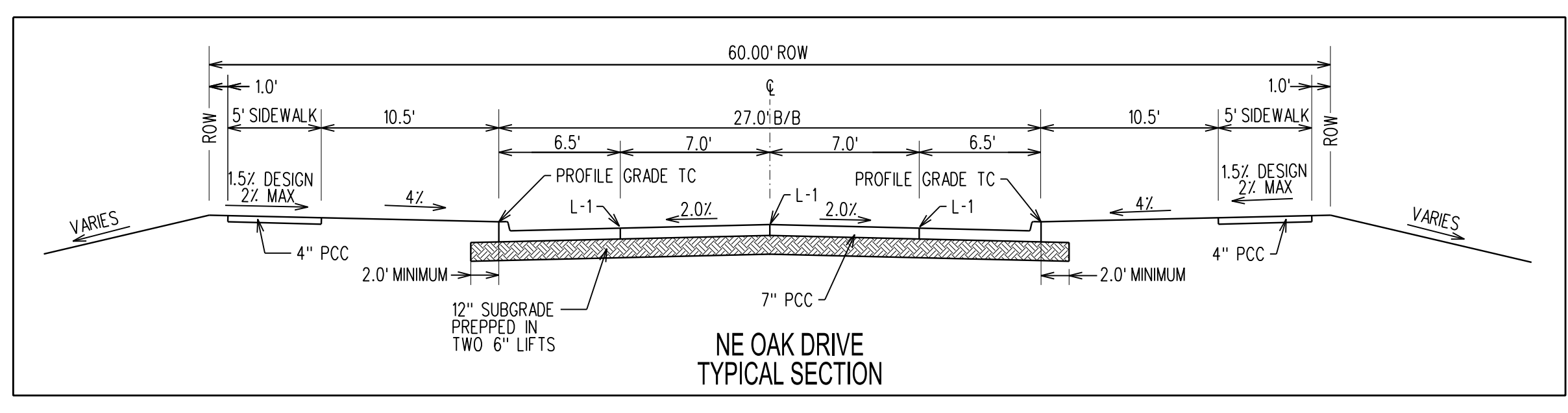
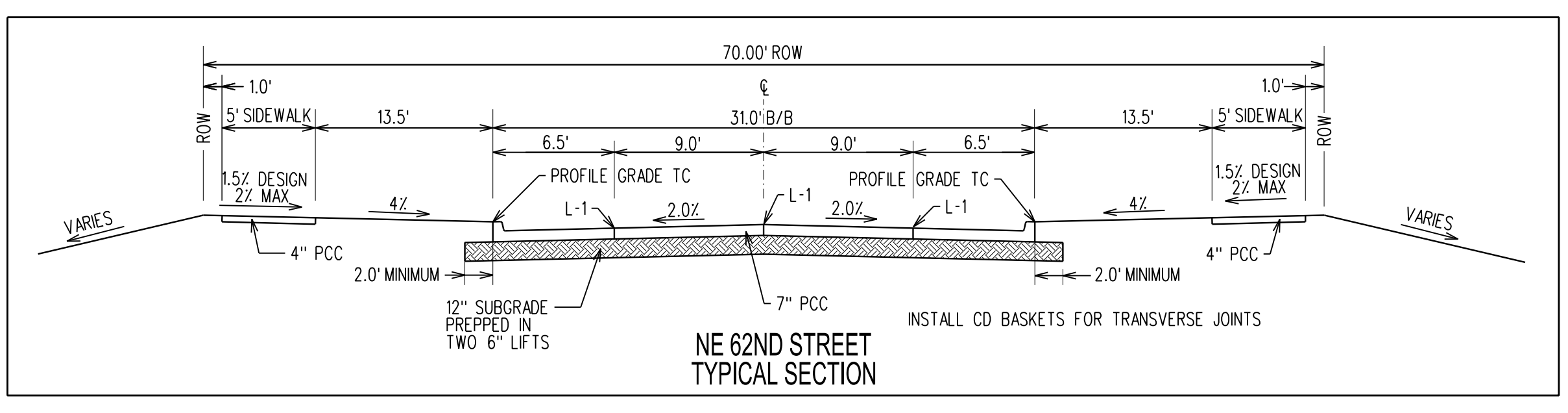
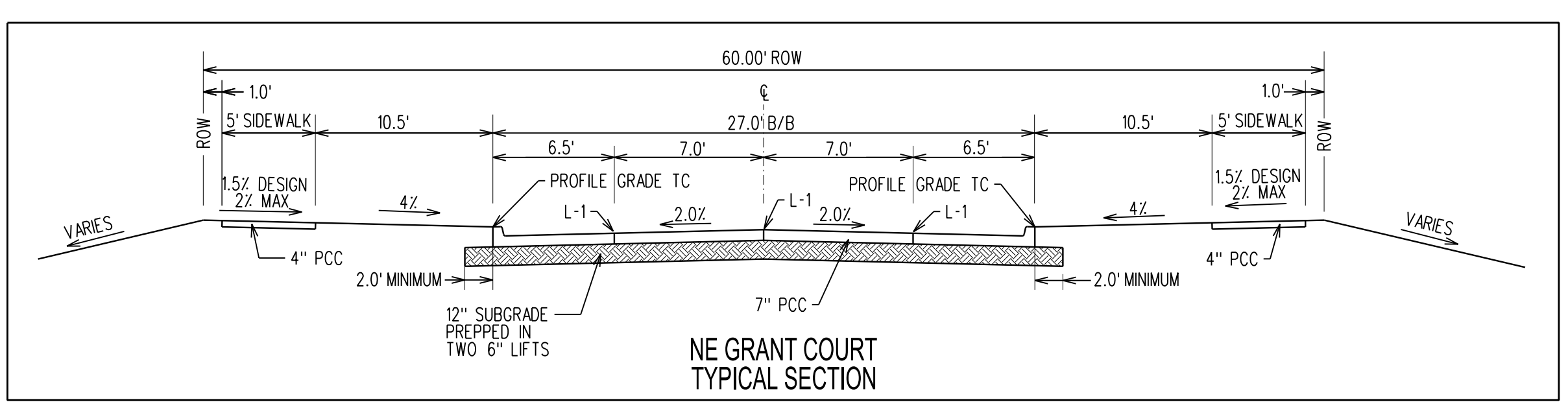
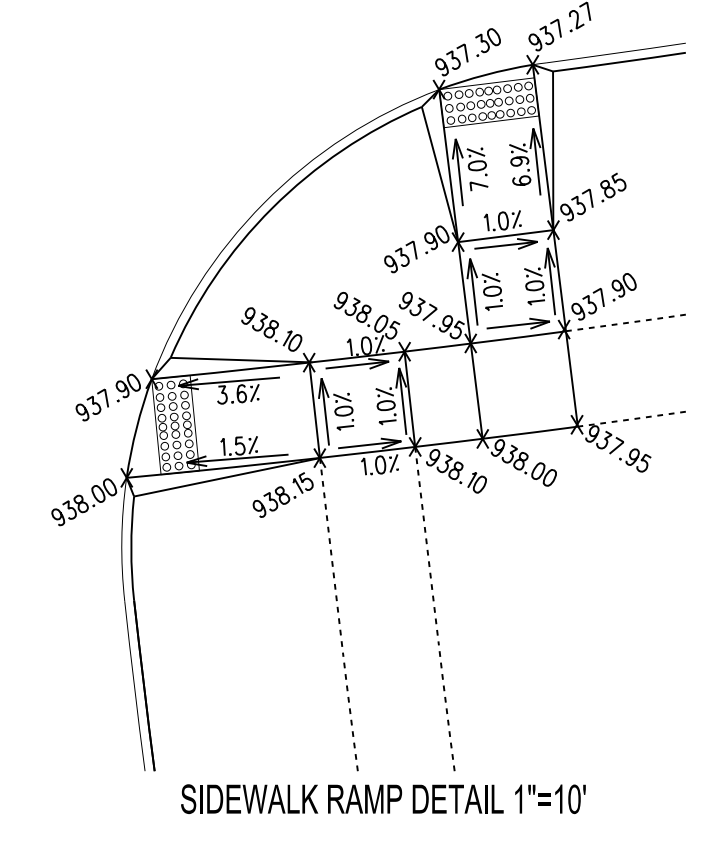
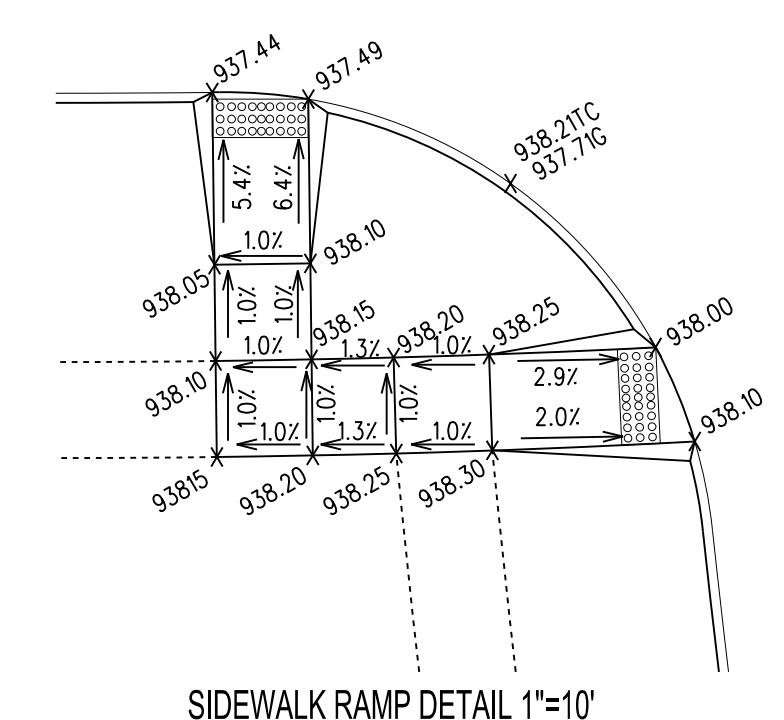
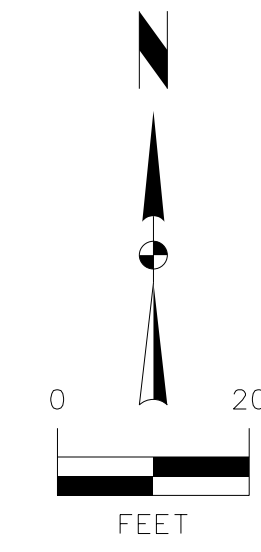
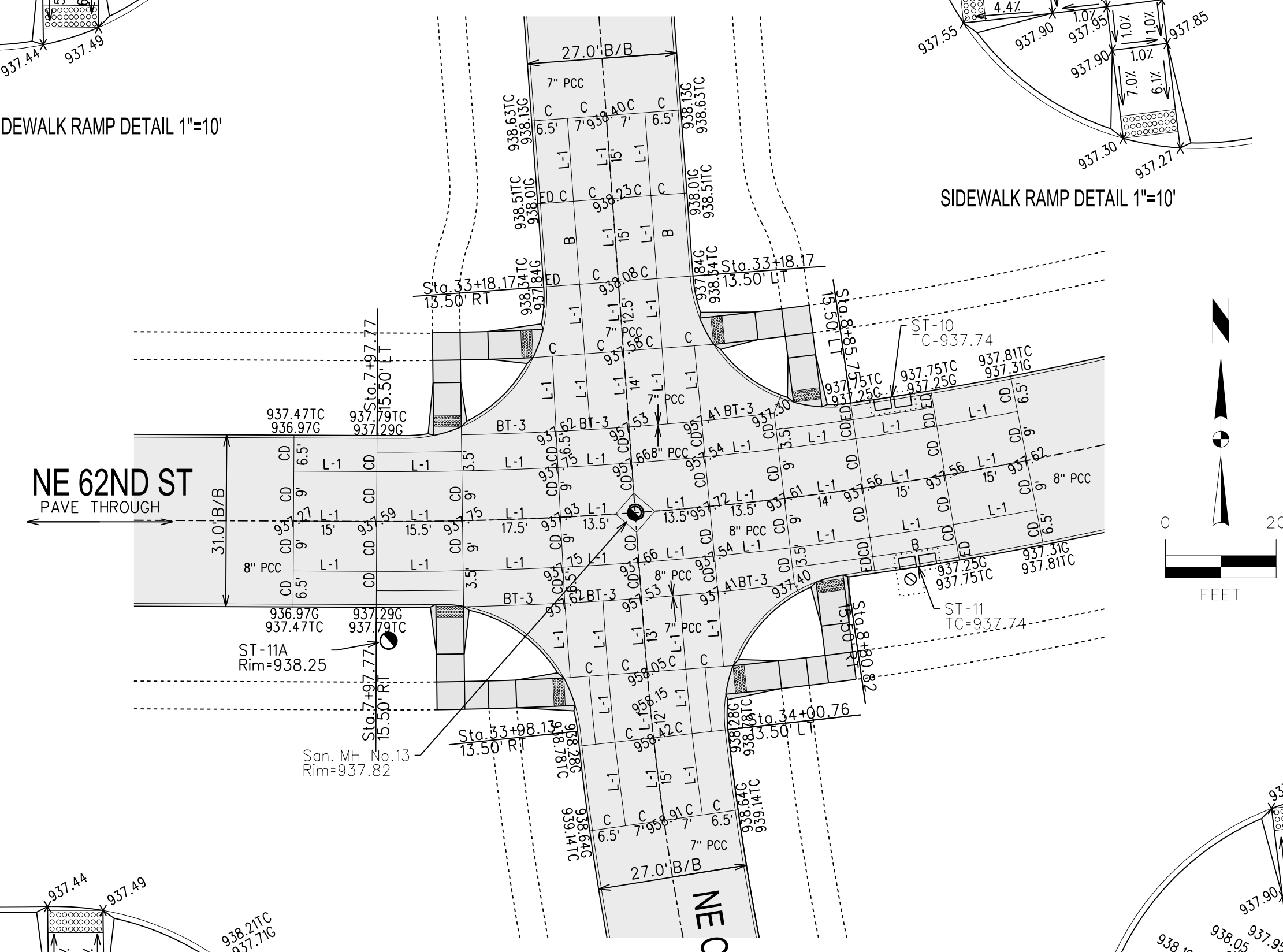
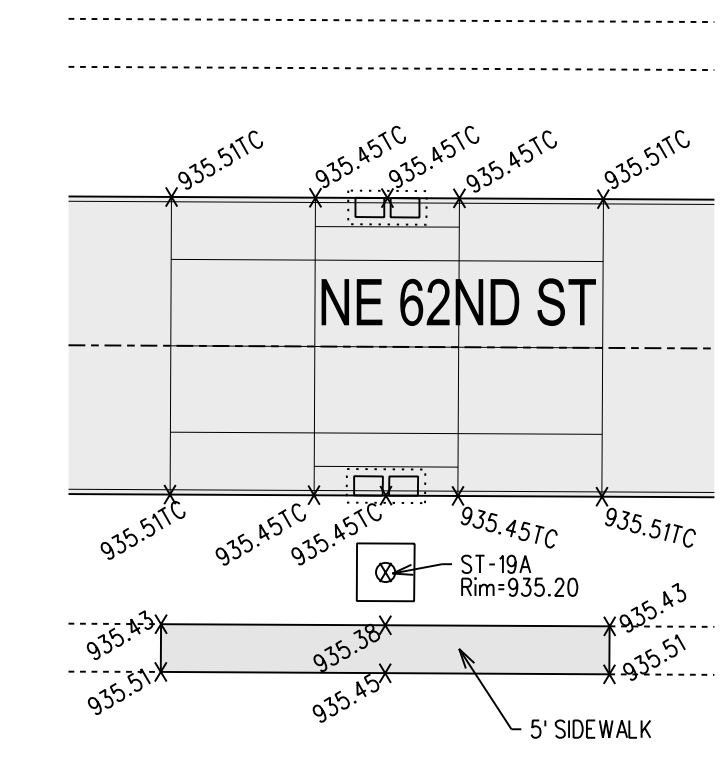
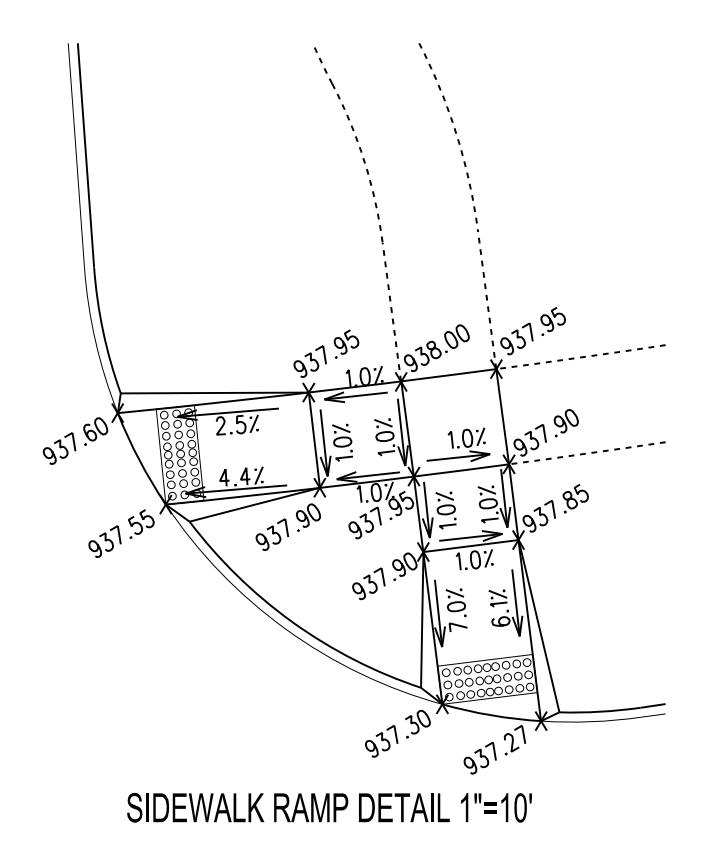
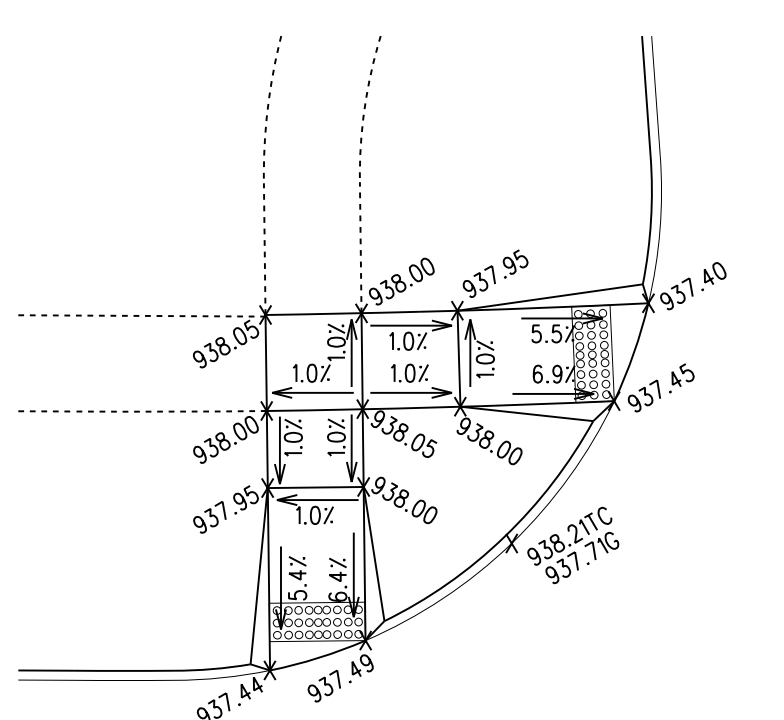
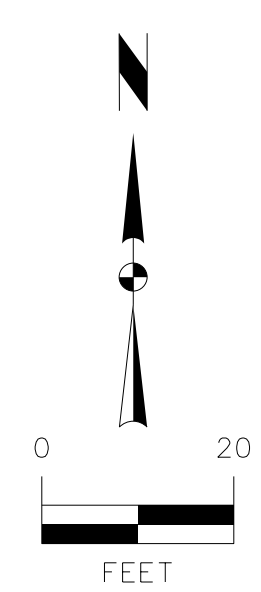
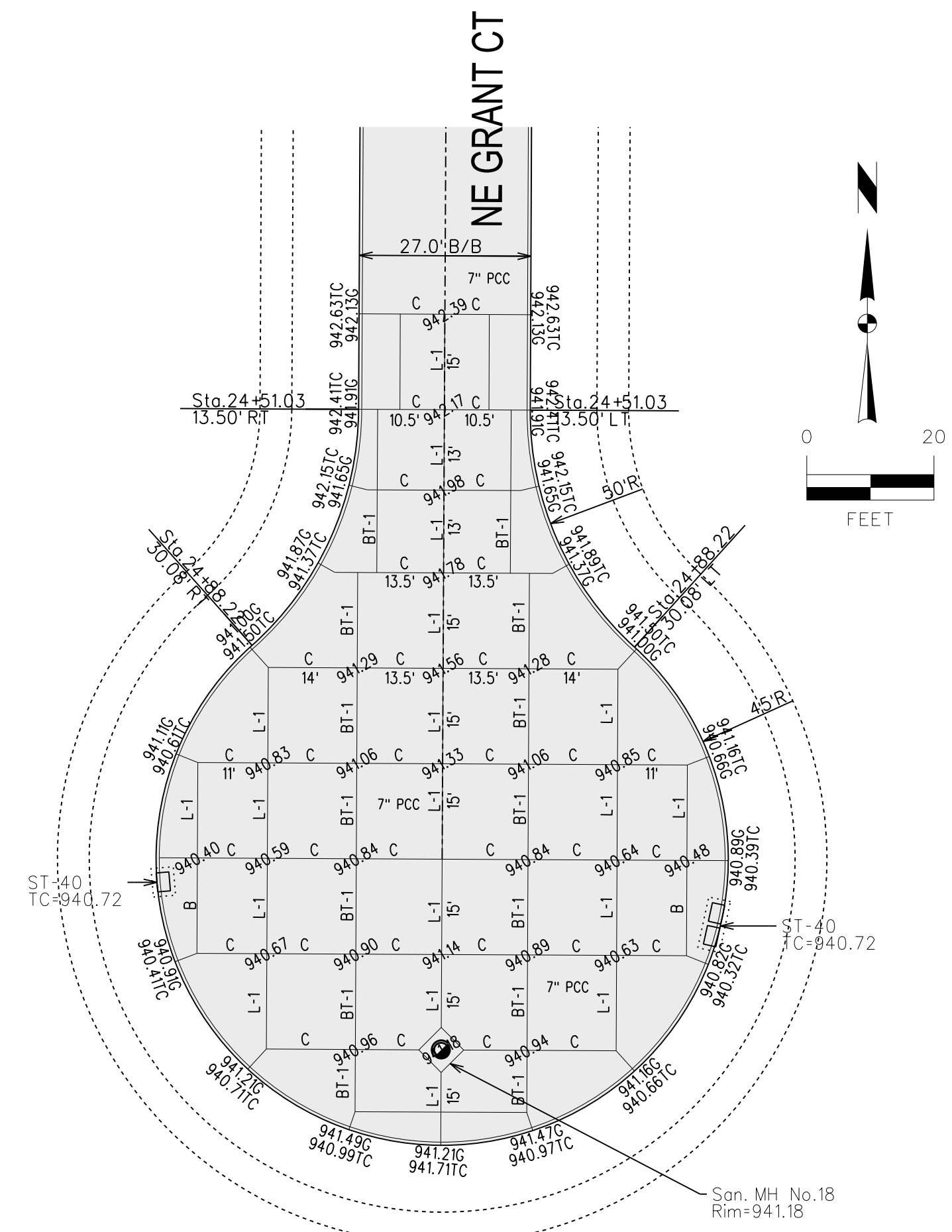
## INTERSECTION AND MISCELLANEOUS DETAILS

# SNYDER & ASSOCIATES, INC.

2727 S.W. SNYDER BLVD.  
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 515-964-2020 | www.snyder-associates.com



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APPROVED BY THE CITY OF ANKENY JULY 15, 2019

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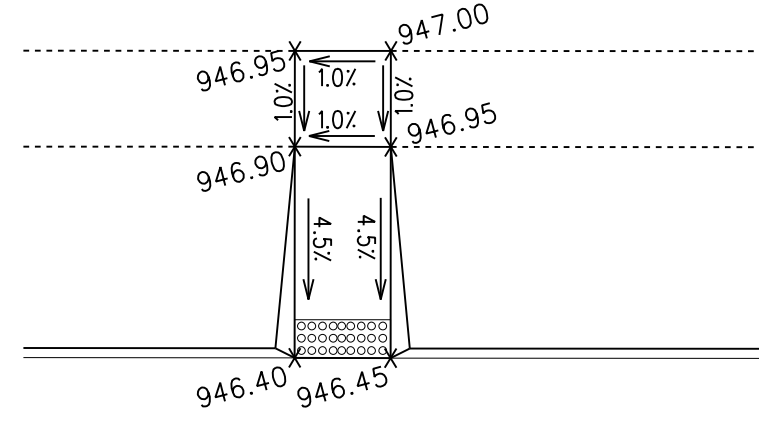
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 Checked By: EDC  
 Scale: 1"=20'  
 Technician: JMM  
 Date: 05/17/19  
 Field Bk: Pg:  
 Project No: 116.0916  
 Sheet No: 26 of 38

# HARVEST RIDGE PLAT 1

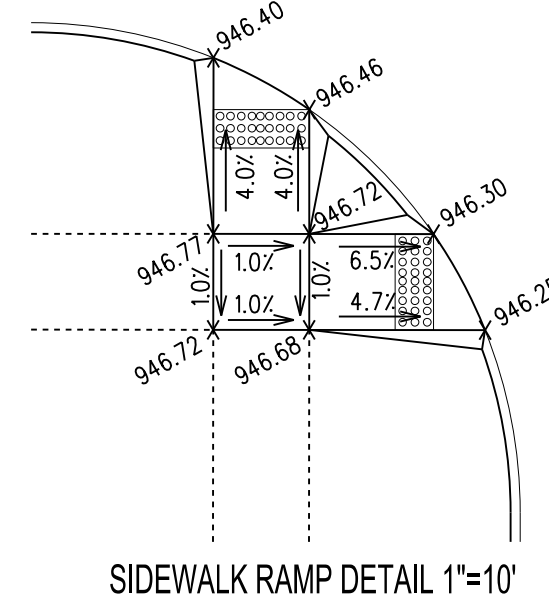
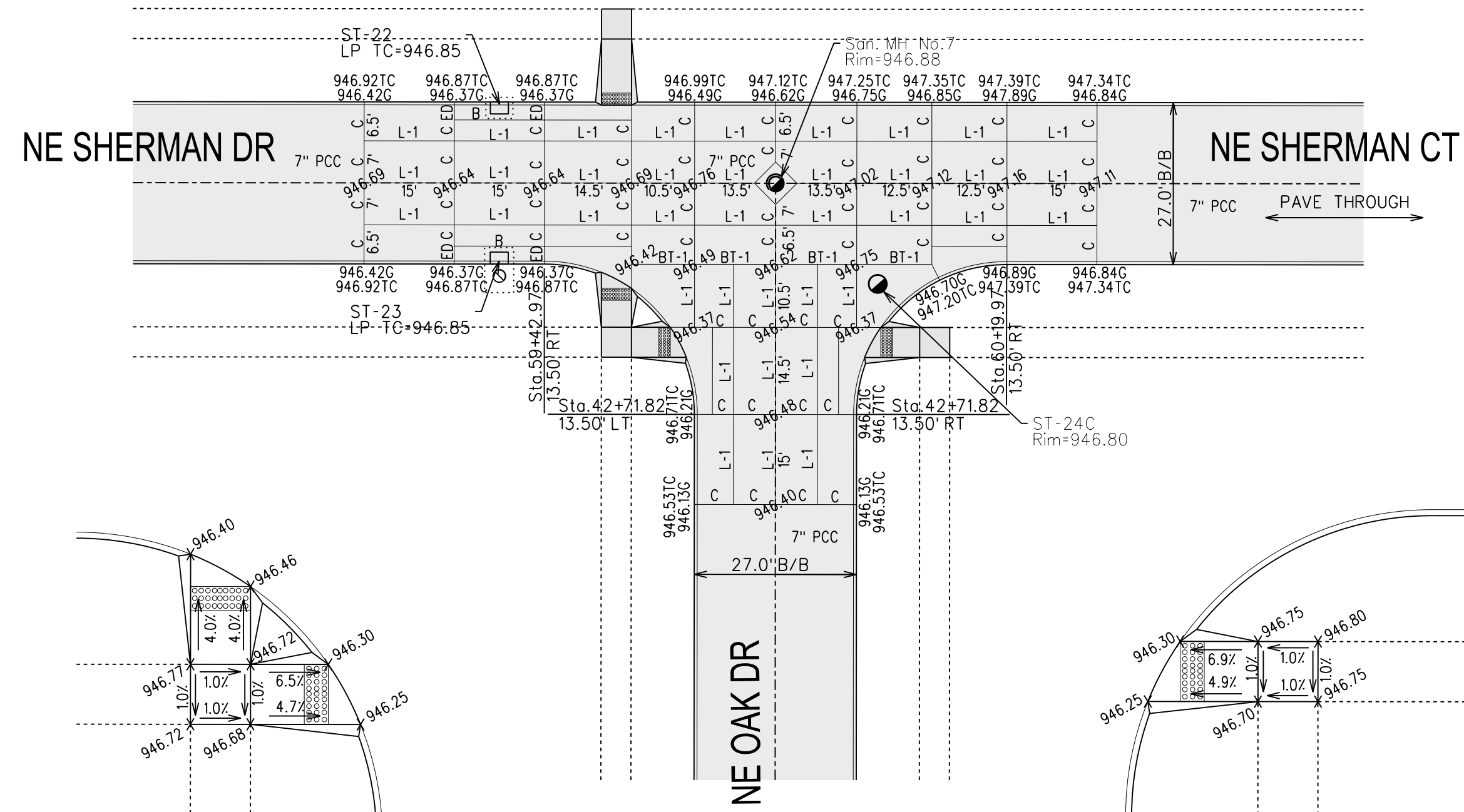
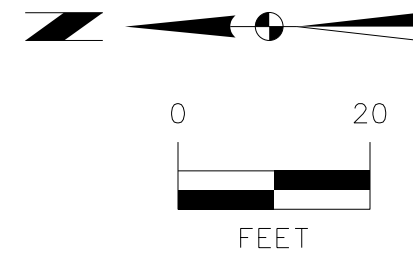
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# SNYDER & ASSOCIATES, INC.

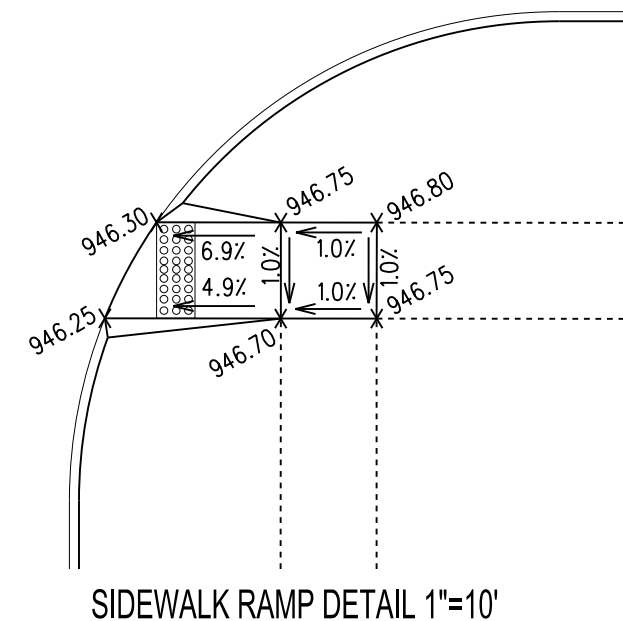




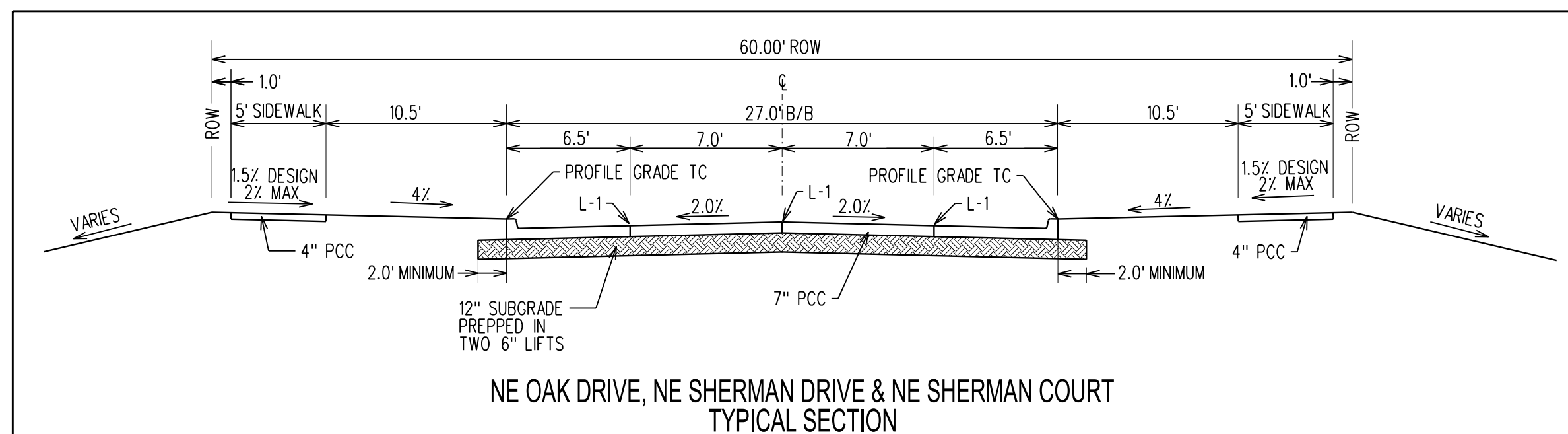
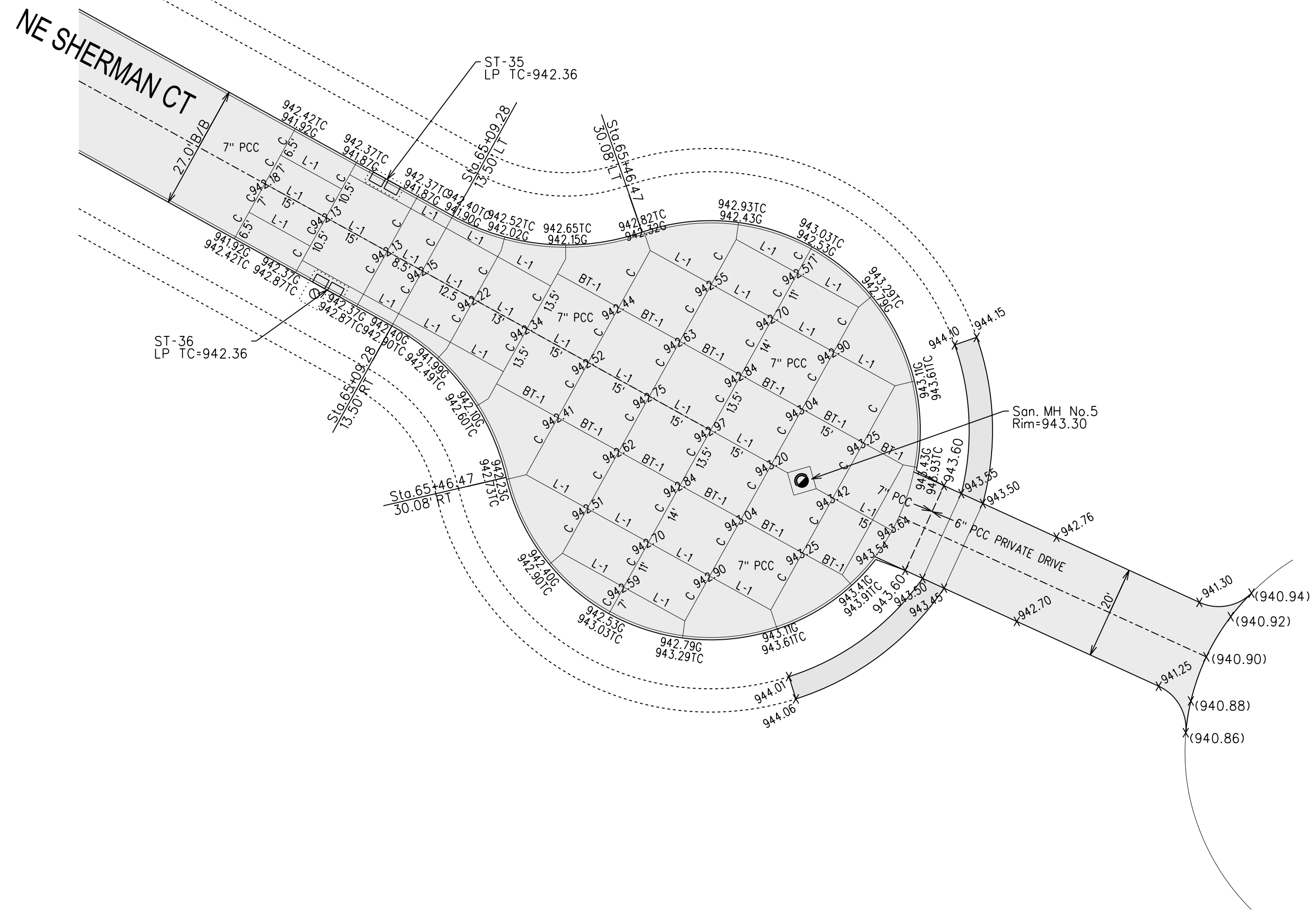
SIDEWALK RAMP DETAIL 1"=10'



SIDEWALK RAMP DETAIL 1"=10'



SIDEWALK RAMP DETAIL 1"=10'



NE OAK DRIVE, NE SHERMAN DRIVE & NE SHERMAN COURT  
TYPICAL SECTION

APPROVED BY THE CITY OF ANKENY JULY 15, 2019

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|------|-------------------------------------|----------|-----|
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Engineer: KMM  
 Technician: JMM  
 Checked By: EDC  
 Date: 05/17/19  
 Scale: 1"=20'  
 Field Bk: Pg.  
 Project No: 116.0916  
 Sheet 27 of 38

**HARVEST RIDGE PLAT 1**

**INTERSECTION AND MISCELLANEOUS DETAILS**

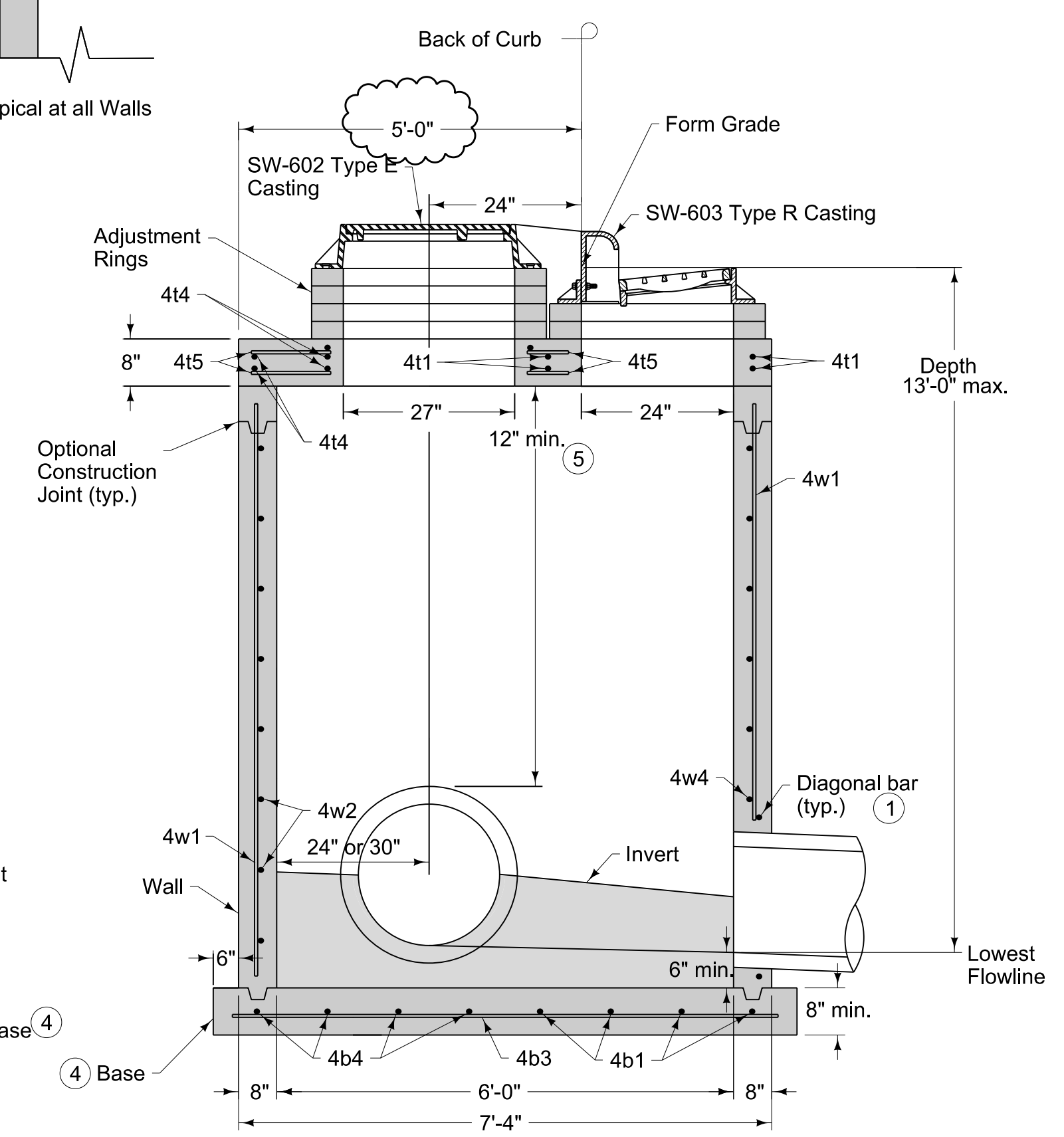
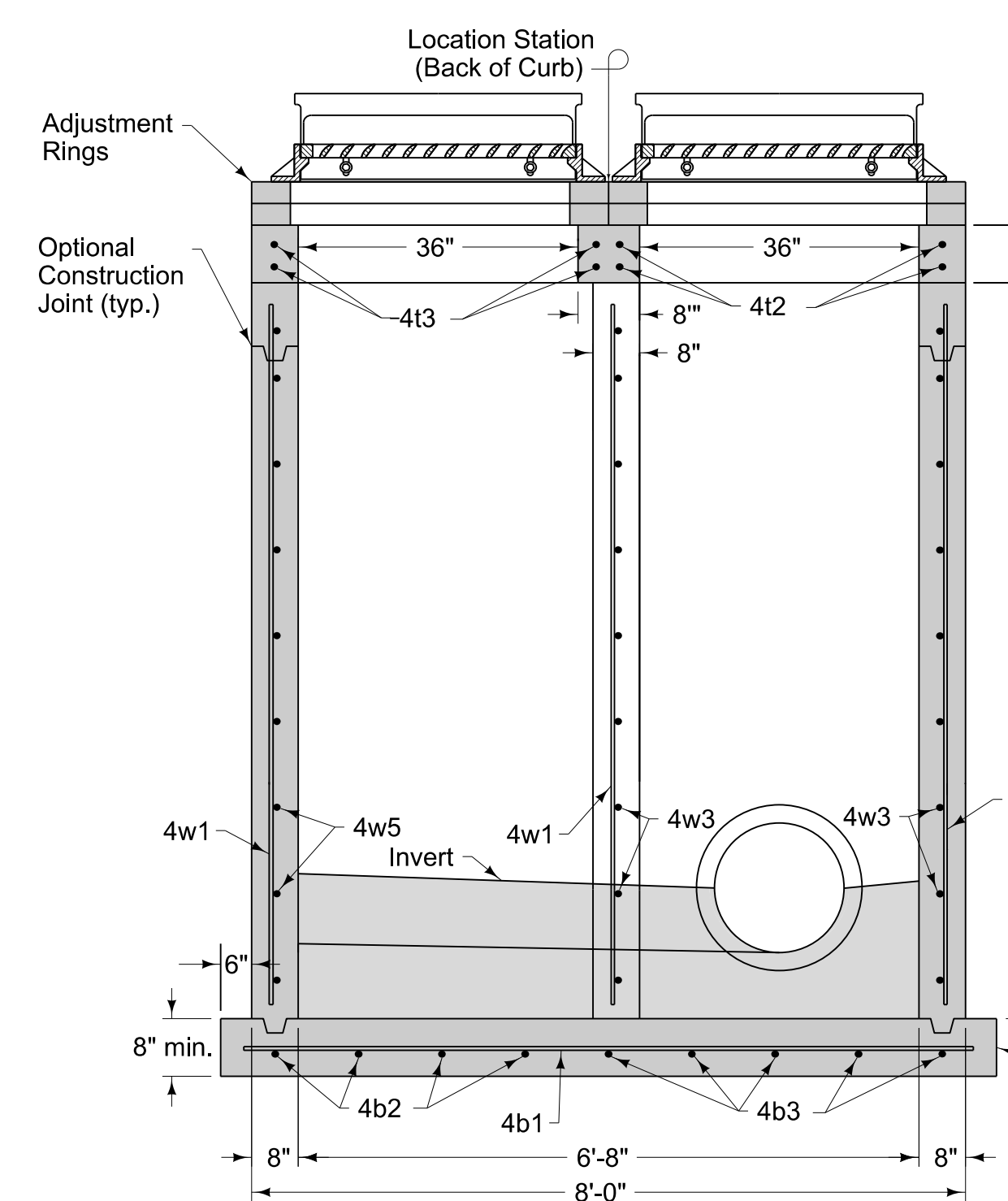
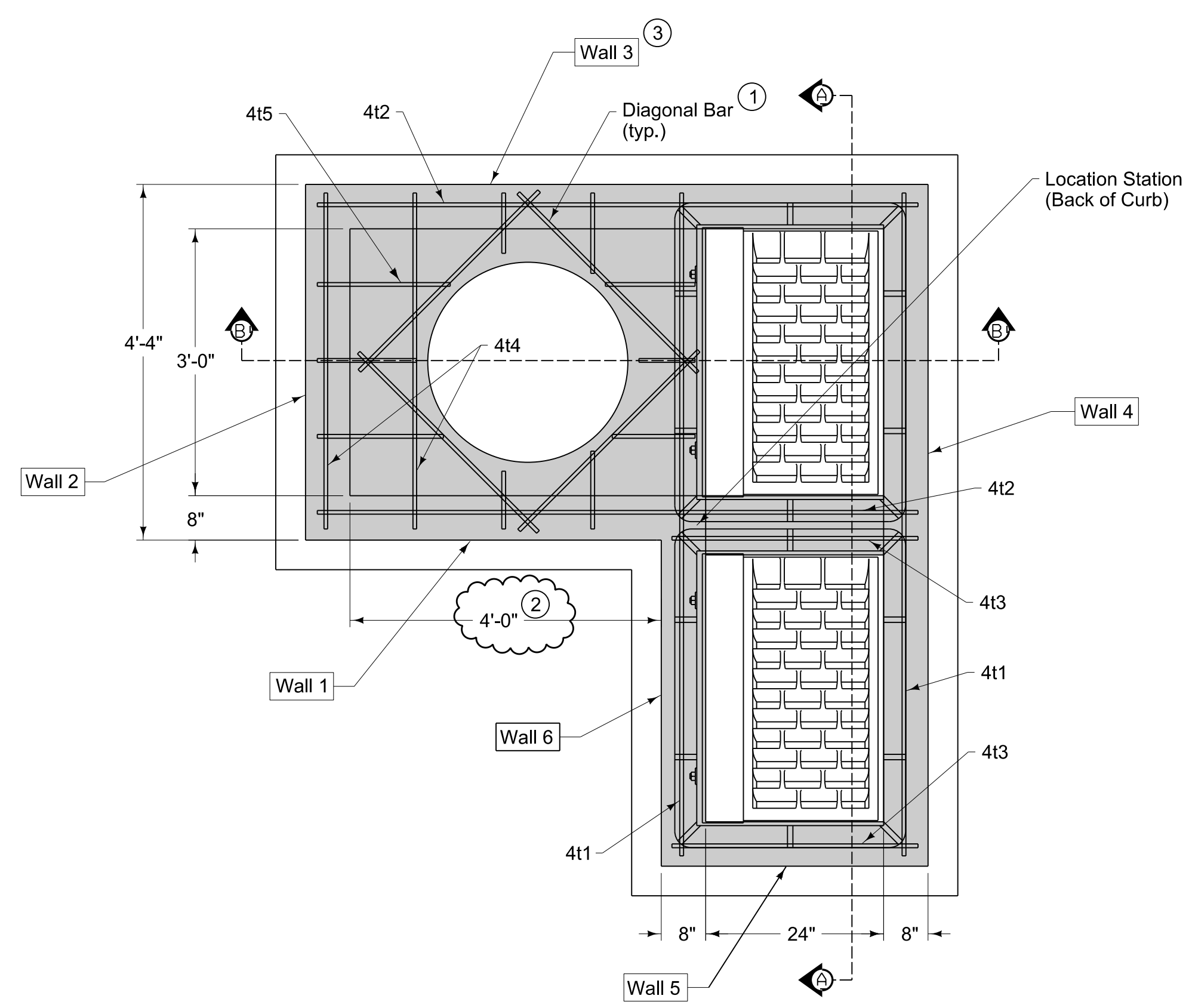
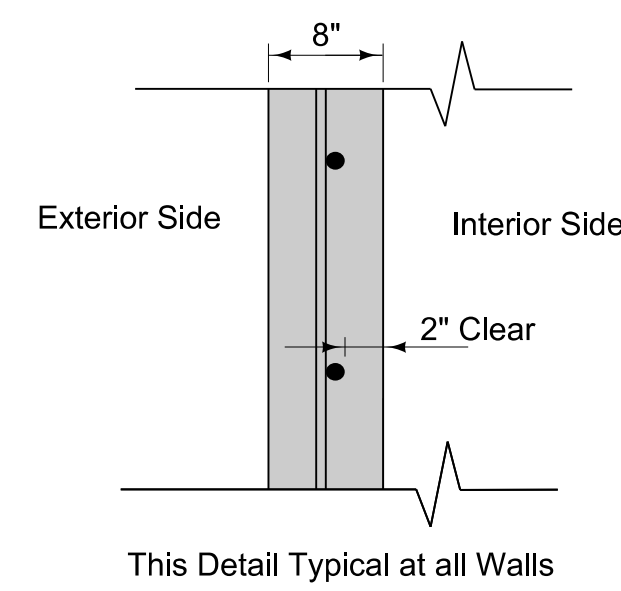
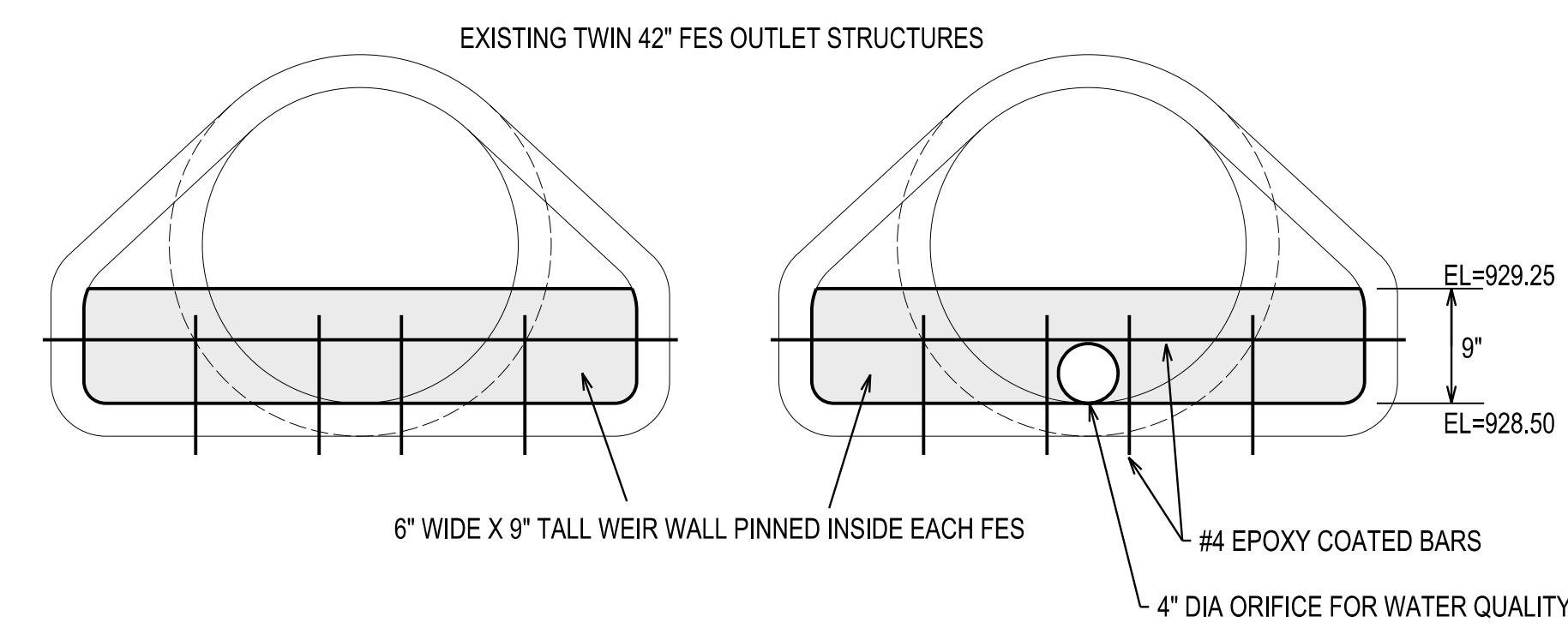
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## WATER QUALITY RESTRICTION



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.

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

- Refer to SW-514 for boxout details.
- Install four #4 diagonal bars at manhole opening and at all pipe openings.
  - If Wall 1 is widened to 4 feet, the maximum pipe diameter can be increased to 36 inches.
  - 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"         |

- Install four #4 diagonal bars at manhole opening and at all pipe openings.
- 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.
- 12 inch minimum wall height above all pipes.

## MODIFIED SW-506

APPROVED BY THE CITY OF ANKENY JULY 15, 2019

| MARK | REVISION                            | DATE     | BY  |
|------|-------------------------------------|----------|-----|
| 5    | REVISED AS PER CITY & DOT COMMENTS  | 08/20/19 | JWM |
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| 2    | REVISED AS PER CITY COMMENTS        | 07/03/19 | JWM |

ANKENY, IA

## HARVEST RIDGE PLAT 1

MISCELLANEOUS DETAILS

SNYDER & ASSOCIATES, INC.



Project No: 116.0916

Sheet 28 of 38

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

Engineer: KMM  
 Checked By: EDC  
 Scale: 1"=20'  
 Technician: JWM  
 Date: 05/17/19  
 Field Bk:  
 Project No: 116.0916  
 Sheet 28 of 38

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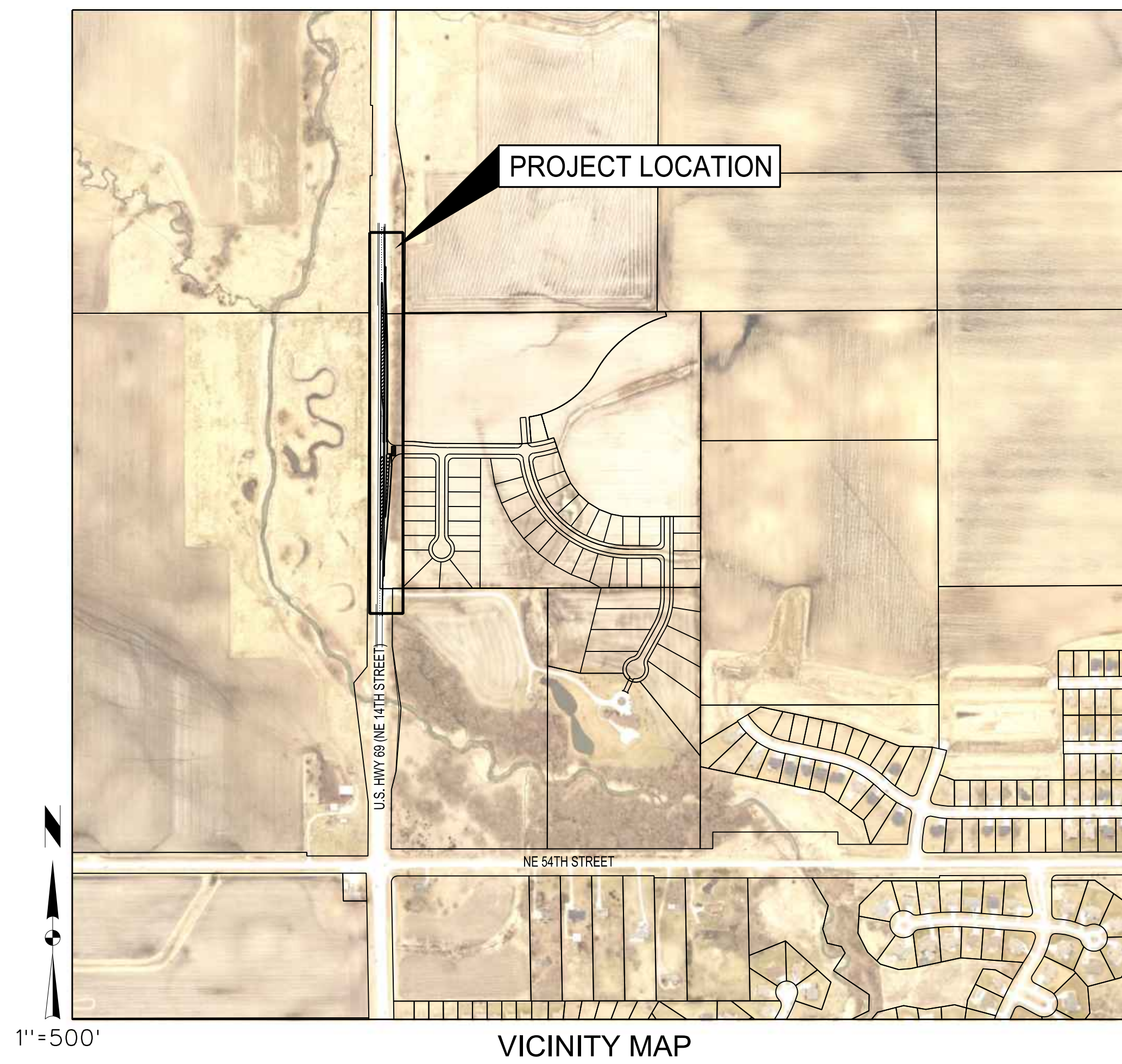
# CONSTRUCTION PLANS

## FOR

# US HWY 69 WIDENING

## HARVEST RIDGE PLAT 1

### CITY OF ANKENY, POLK COUNTY, IOWA



#### INDEX OF SHEETS

- 29. TITLE SHEET
- 30. TYPICAL SECTIONS
- 31-34. HIGHWAY 69 PAVEMENT AND GRADING PLAN
- 34-38. HIGHWAY 69 PAVEMENT MARKING PLAN

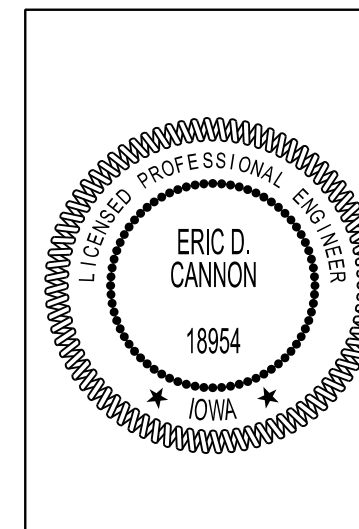
| ESTIMATED PROJECT QUANTITIES |   |        |       | EPO |
|------------------------------|---|--------|-------|-----|
| ITEM NO.                     | ITEM  | UNIT   | TOTAL |     |
| 1                            | Mobilization                                | LS     | 1.0   |     |
| 2                            | Traffic Control                             | LS     | 1.0   |     |
| 3                            | Topsail Strip, Salvage, and Respread        | LS     | 1     |     |
| 4                            | Excavation, Class 10, Roadway               | LS     | 1     |     |
| 5                            | Subgrade Preparation, 12 inches             | SY     | 2967  |     |
| 6                            | Pavement, PCC Class C, 9.5" with CD baskets | SY     | 2298  |     |
| 7                            | Pavement, Partial Depth Patching            | SY     | 312   |     |
| 8                            | Seeding and Fertilizing                     | AC     | 0.75  |     |
| 9                            | Mulching                                    | AC     | 0.75  |     |
| 10                           | Pavement Markings, LPM                      | LS     | 1.0   |     |
| 11                           | Pavement Markings Removal                   | LS     | 1.0   |     |
| 12                           | Milled Shoulder Rumble Strip, PV-12         | LF     | 1076  |     |
| 13                           | Dowel Bar Retrofit(4 Dowels/Joint)          | JOINTS | 80    |     |
| 14                           | Granular Shoulder                           | TONS   | 325   |     |
| 15                           | Modified Sub-Base                           | TONS   | 1870  |     |
| 16                           | 4" Longitudinal Subdrain                    | LF     | 1150  |     |

CONSTRUCTION ADJACENT TO US 69 SHALL MEET THE FOLLOWING:  
 PAVED LANE OR SHOULDERS (PARTIAL OR FULL WIDTH).

- CONSTRUCTION SHALL BE STAGED SO NO DROP-OFFS EXIST AT THE PAVEMENT OR SHOULDER EDGE WHEN THE ADJACENT LANE IS TO BE OPENED TO TRAFFIC. THE PAVEMENT EDGE DROP-OFF REQUIREMENT SHALL BE SATISFIED WITH A SHOULDER FILLET OR FULL SHOULDER WIDTH OF GRANULAR MATERIAL ACCORDING TO ARTICLE 2121.0.3 THE FILLET SHALL EXTEND INTO THE SHOULDER AREA A MINIMUM OF SIX TIMES THE THICKNESS OF THE DROP-OFF AND SHALL BE PLACED PRIOR TO THE ADJACENT LANE BEING OPENED TO TRAFFIC. COMPACTION OF THE FILLET SHALL BE A MINIMUM OF ONE COVERAGE WITH A PNEUMATIC TIRED ROLLER PER 1 INCH OF THICKNESS.
- DO NOT OPEN ADJACENT LANE UNTIL PCC LANE OR SHOULDER IS CURED ENOUGH TO SUPPORT TRAFFIC CONTROL DEVICES.

NOTES:  
 1. ALL IMPROVEMENTS TO BE INSTALLED TO IDOT STANDARD ROAD PLAN SPECIFICATIONS.

TRAFFIC CONTROL NOTES:  
 1. CONTRACTOR TO UTILIZE STANDARD ROAD PLAN TC-202, TC-233 AND TC-232.  
 2. 2 LANES SHALL REMAIN OPEN DAILY FROM 6:00-9:00AM AND 3:00-6:00PM.



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, 2019  
 Pages or sheets covered by this seal: \_\_\_\_\_

| MARK | REVISION                  | DATE     | BY  |
|------|---------------------------|----------|-----|
| 4    | REVISED AS PER DOT REVIEW | 08/20/19 | JWM |
| 3    | REVISED AS PER DOT REVIEW | 07/23/19 | JWM |
| 2    | REVISED AS PER DOT REVIEW | 07/15/19 | JWM |
| 1    | REVISED AS PER DOT REVIEW | 06/21/19 | JWM |

Engineer: EDC    Checked By: EDC    Scale: 1"=500'  
 Technician: JWM    Date: 06/04/19    Field Bk: \_\_\_\_\_  
 Project No: 116.0916    Sheet 29 of 38

**US HWY 69 WIDENING**

**TITLE SHEET**

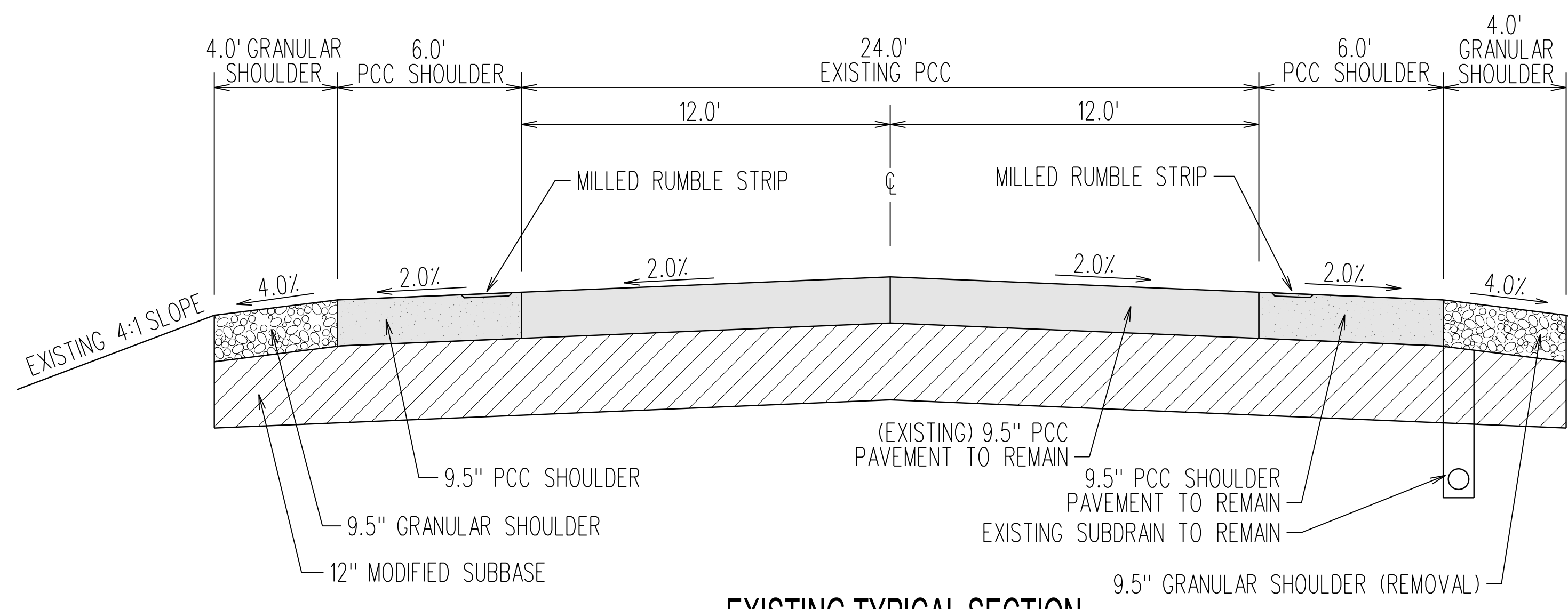
**ANKENY, IA**

**SNYDER & ASSOCIATES, INC.**

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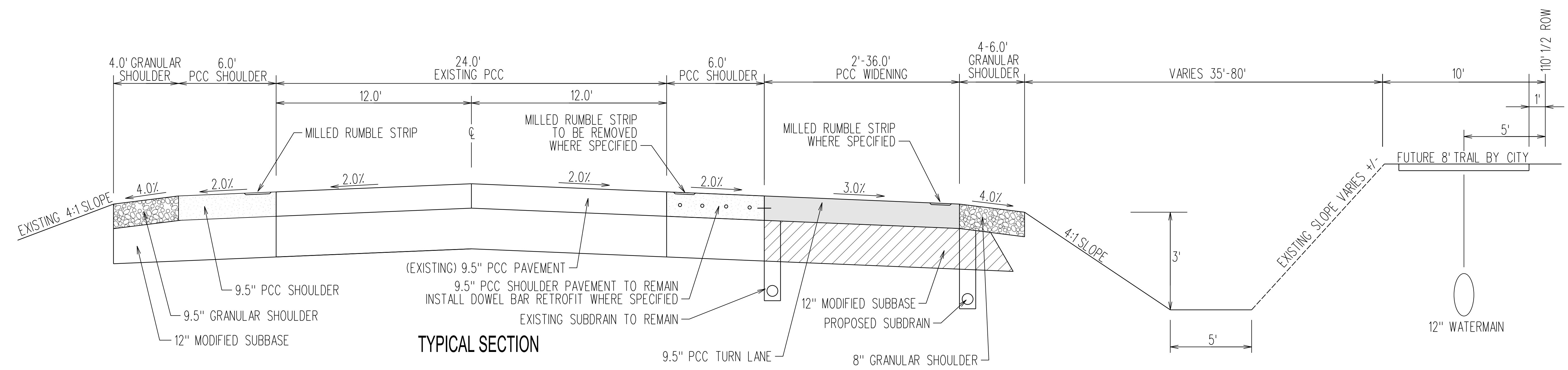
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 Sheet 29 of 38

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**EXISTING TYPICAL SECTION**

- NOTES:**
1. FOR JOINT DETAILS SEE STANDARD ROAD PLAN PV-101  
LONGITUDINAL JOINTS: L-2  
TRANSVERSE JOINTS: CD @ 20' SPACING  
USE BT-3 JOINT AT EXISTING PAVEMENT EDGE



**TYPICAL SECTION**

|             |                           |             |                |
|-------------|---------------------------|-------------|----------------|
| 4           | REVISED AS PER DOT REVIEW | JWM         | 08/20/19       |
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| MARK        |                           | REVISION    | DATE           |
| Engineer:   | EDC                       | Checked By: | EDC            |
| Technician: | JWM                       | Date:       | 06/04/19       |
| Project No: |                           | 116.0916    | Field Bk:      |
| Page:       |                           | 116.0916    | Sheet 30 of 38 |

**US HWY 69 WIDENING**

**TYPICAL SECTIONS**

**SNYDER & ASSOCIATES, INC.**



Project No: 116.0916

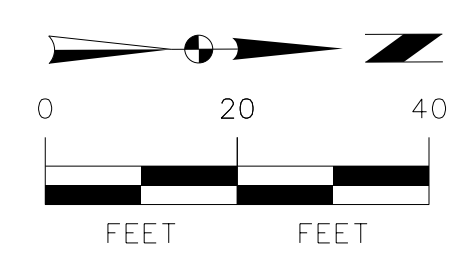
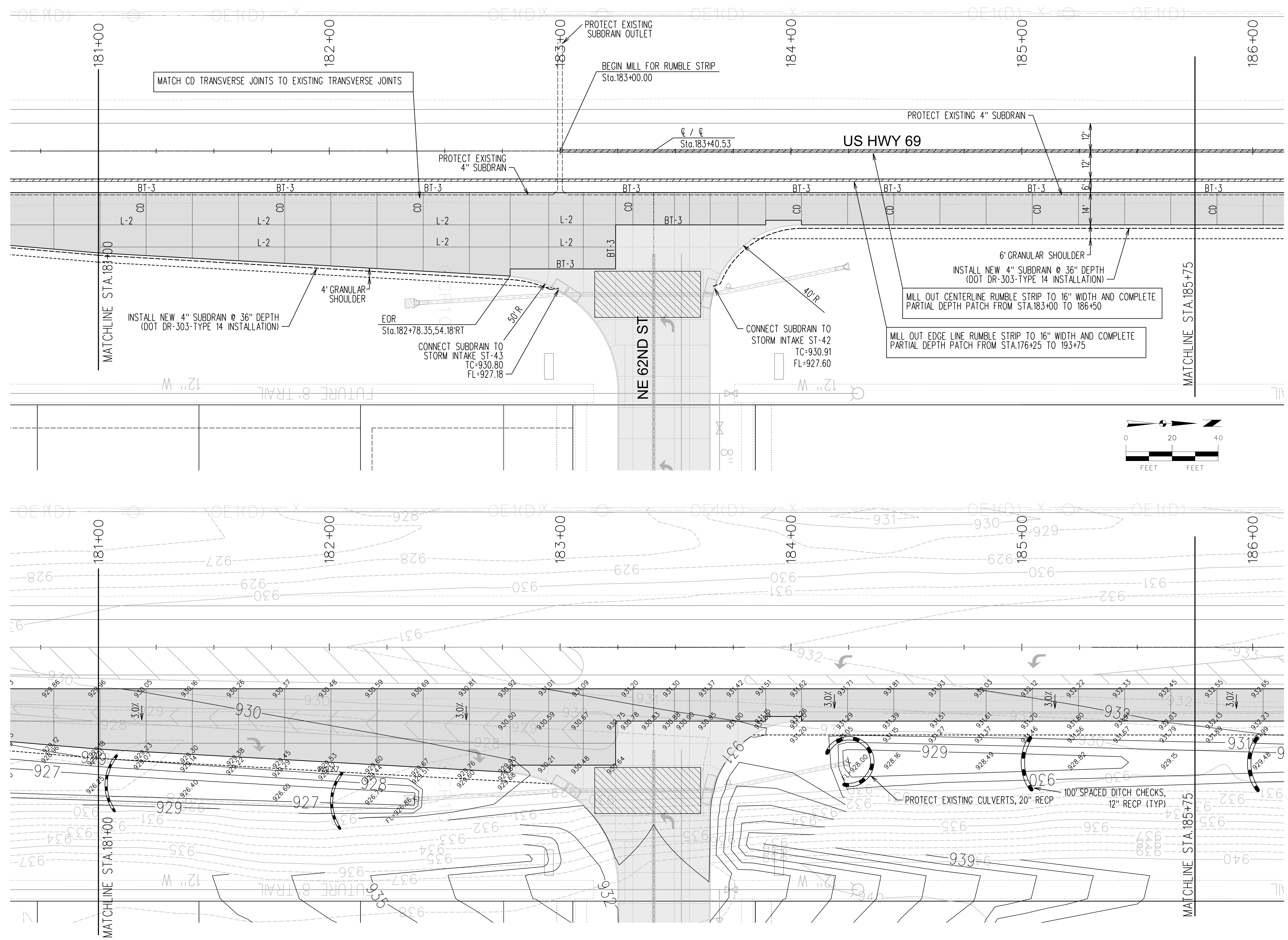
Sheet 30 of 38

**ANKENY, IA**

2727 S.W. SNYDER BLVD.  
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| 1    | REVISED AS PER DOT REVIEW | 06/21/19 | JWM |

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|-------------|-----|-------------|----------|------------|--------|
| Engineer:   | EDC | Checked By: | EDC      | Scale:     | 1"=20' |
| Technician: | JWM | Date:       | 06/04/19 | Field Bk.: |        |

Project No: 116.0916  
Sheet 32 of 38

**US HWY 69 WIDENING**  
**PAVEMENT AND GRADING PLAN**

**ANKENY, IA**

**SNYDER & ASSOCIATES, INC.**

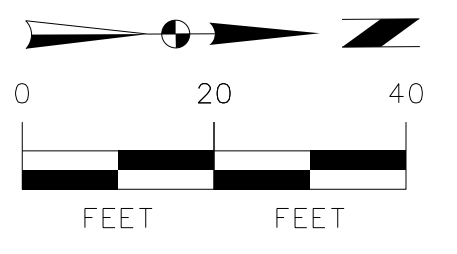
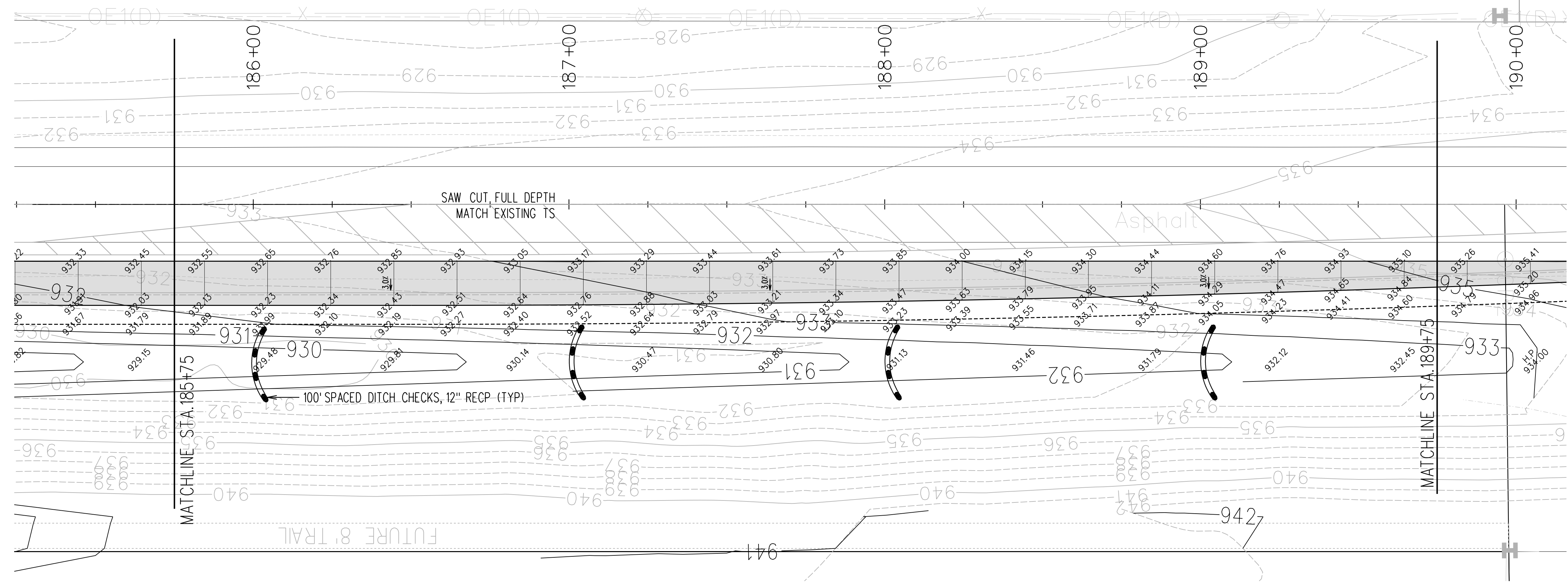
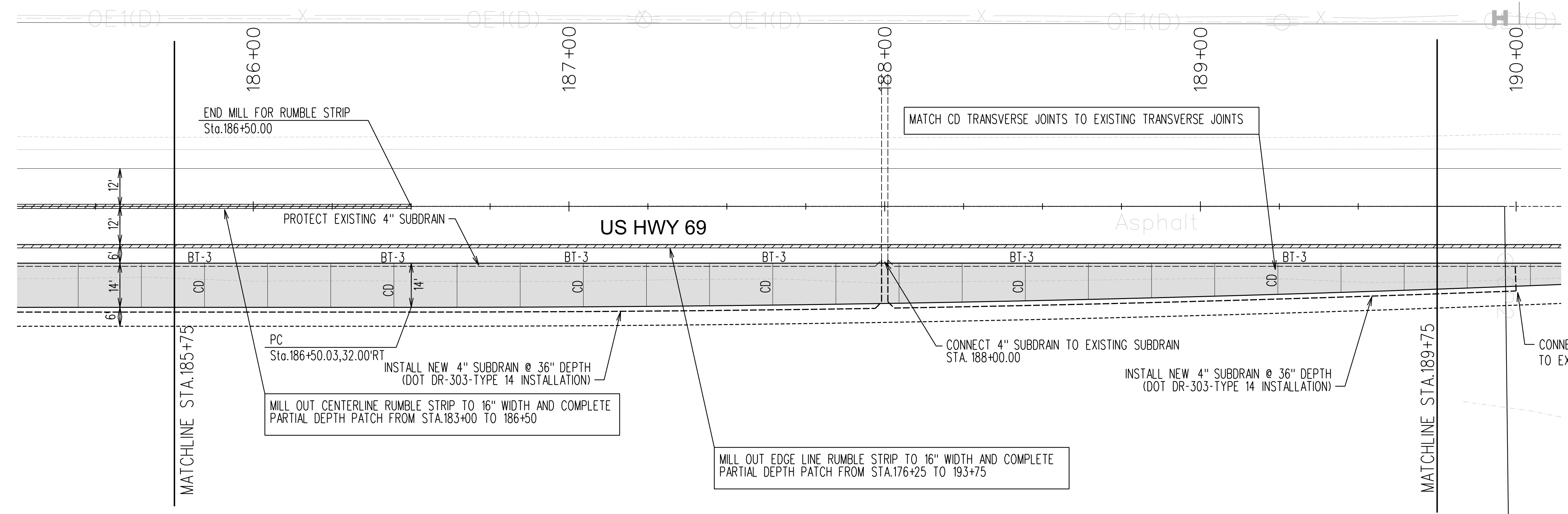
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**SNYDER & ASSOCIATES**

Project No: 116.0916  
Sheet 32 of 38



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| Engineer:   | EDC                       | Checked By: | EDC      |
| Technician: | JWM                       | Date:       | 06/04/19 |
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| Project No: | 116.0916                  | Pg:         |          |
|             |                           | Sheet       | 33 of 38 |

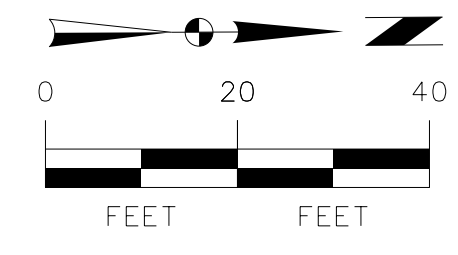
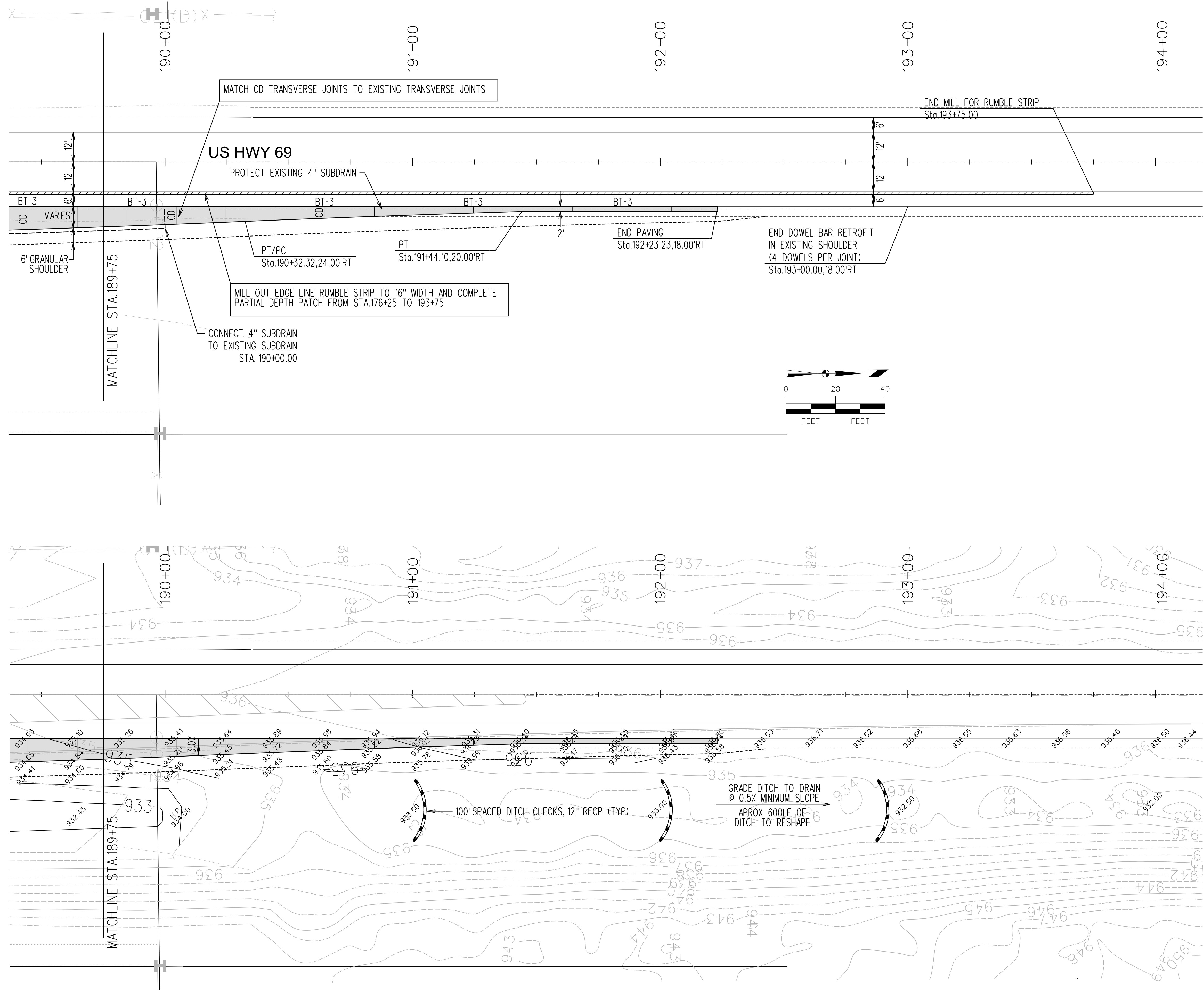
**US HWY 69 WIDENING**  
**PAVEMENT AND GRADING PLAN**  
**SNYDER & ASSOCIATES, INC.**



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 Sheet 33 of 38

**ANKENY, IA**  
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**US HWY 69 WIDENING**  
**PAVEMENT AND GRADING PLAN**  
**SNYDER & ASSOCIATES, INC.**

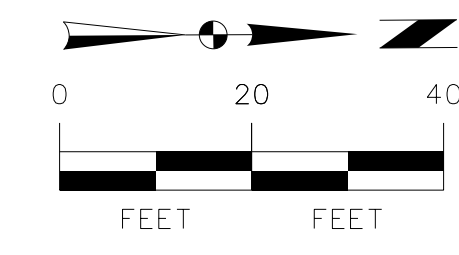
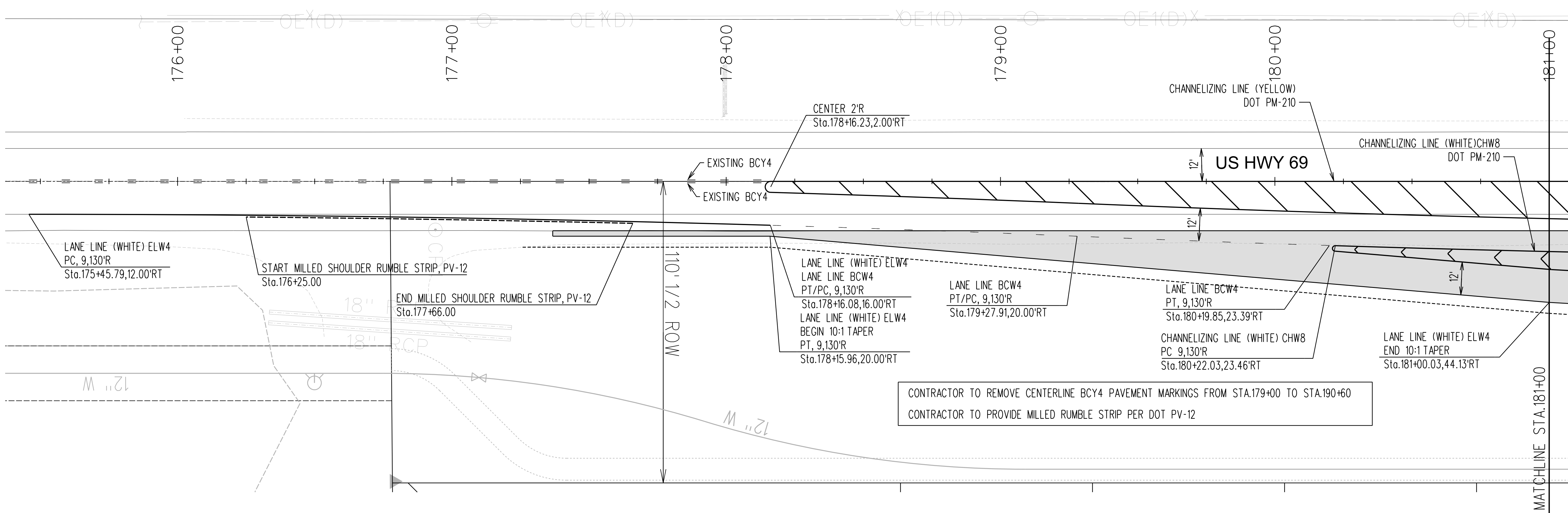


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 Sheet 34 of 38

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| 3             | REVISED AS PER DOT REVIEW | 07/23/19    | JWM            |
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| MARK REVISION |                           | DATE        | BY             |
| Engineer:     | EDC                       | Checked By: | EDC            |
| Technician:   | JWM                       | Date:       | 06/04/19       |
| Field Bk:     |                           | Scale:      | 1"=20'         |
| Project No:   | 116.0916                  | Pg:         | Sheet 34 of 38 |

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**US HWY 69 WIDENING**  
**PAVEMENT MARKING PLAN**  
**SNYDER & ASSOCIATES, INC.**



Project No: 116.0916  
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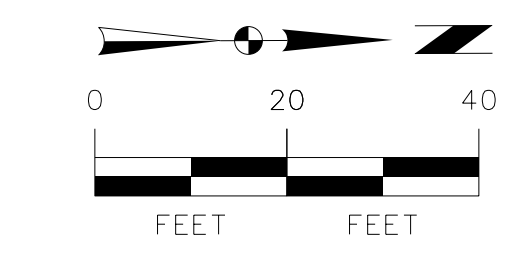
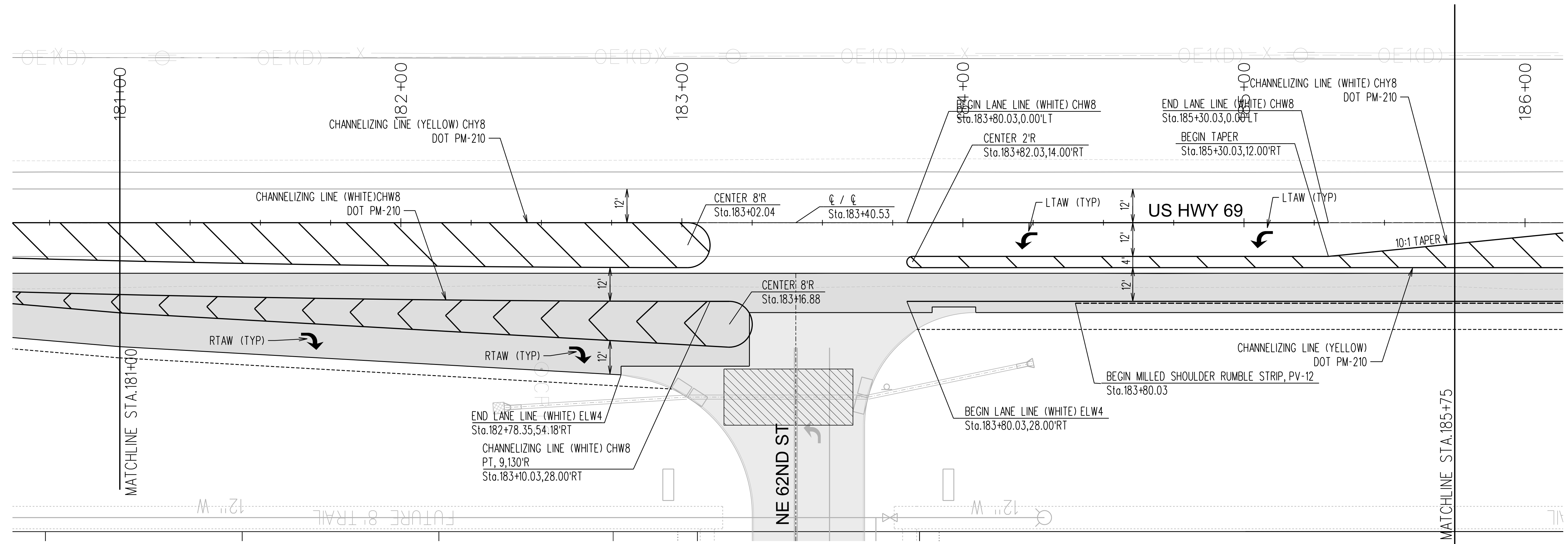
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| 2    | REVISED AS PER DOT REVIEW | 07/15/19 | JWM |
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| Engineer:   | EDC      | Checked By: | EDC            |
| Technician: | JWM      | Date:       | 06/04/19       |
| Field Bk:   | 116.0916 | Scale:      | 1"=20'         |
| Project No: | 116.0916 | Pg:         | Sheet 35 of 38 |

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| Engineer:   | EDC                       | Checked By:    | EDC      |
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|             |                           | Scale:         | 1"=20'   |
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|             |                           | Project No:    | 116.0916 |
|             |                           | Sheet 36 of 38 |          |

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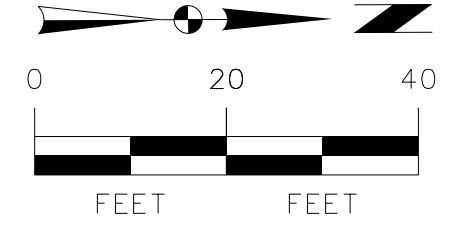
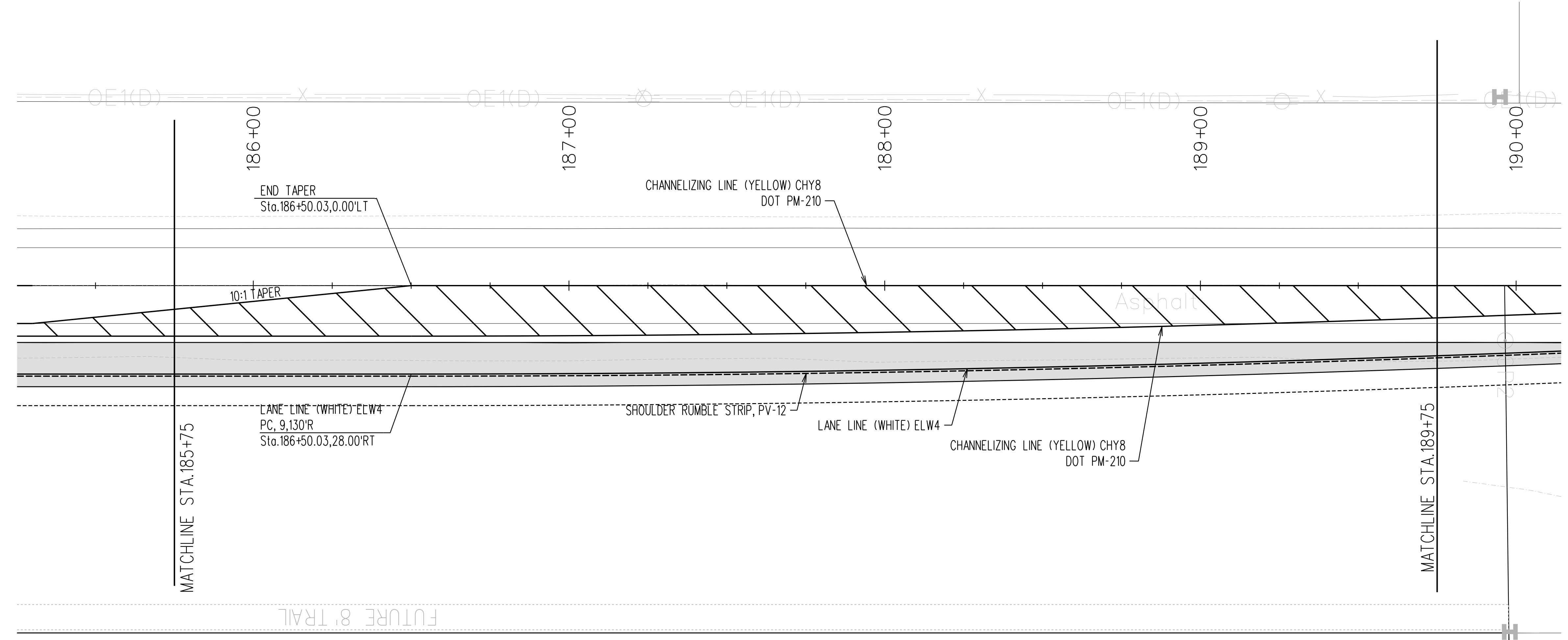
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US HWY 69



| 4           | REVISED AS PER DOT REVIEW | JWM            | 08/20/19 |
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|             |                           | Scale:         | 1"=20'   |
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| Project No: |                           | 116.0916       |          |
|             |                           | Sheet 37 of 38 |          |

**US HWY 69 WIDENING**

**PAVEMENT MARKING PLAN**

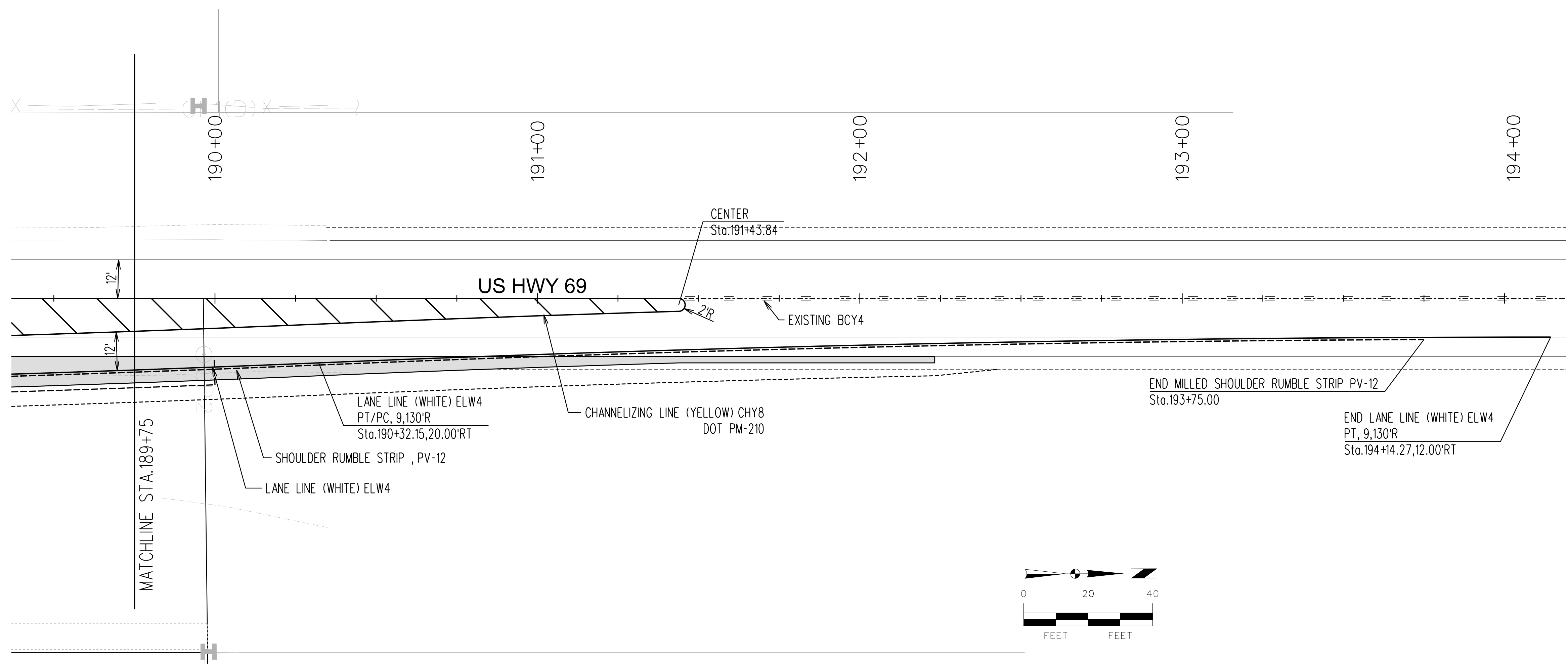
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**US HWY 69 WIDENING**

**PAVEMENT MARKING PLAN**



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|---------------|---------------------------|-------------|-----------|
| 4             | REVISED AS PER DOT REVIEW | JWM         | 08/20/19  |
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| Engineer:     | EDC                       | Checked By: | EDC       |
| Technician:   | JWM                       | Date:       | 06/04/19  |
| Project No:   |                           | 116.0916    | Field Bk: |
| Sheet         |                           | 38 of 38    | Pg:       |