

**General Notes:**

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. GEOTECHNICAL REPORT AVAILABLE UPON REQUEST.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS: KANSAS ONE-CALL 687-2470  
  
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:  
  
AT&T 1-800-246-8464  
BLACK HILLS ENERGY 1-800-694-8989  
CITY OF WICHITA WATER & SEWER 1-316-219-8921  
CITY OF WICHITA STORMWATER 1-316-268-4090  
CITY OF WICHITA TRAFFIC 1-316-268-4034  
COX COMMUNICATIONS 1-888-249-3530  
KANSAS GAS SERVICE 1-888-482-4950  
WESTAR ENERGY 1-800-544-4857
- UTILITY SERVICE LINES, POLES, ETC. ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, IN THE OPINION OF THE ENGINEER, THAT WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS. OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WILL REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE CITY ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- THE ENGINEERING DIVISION SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FINAL GRADES BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOTIFY THE INSPECTING ENGINEER AND TOM MASON AT 316-268-4574 WITH THE CITY OF WICHITA WITH THE ANTICIPATED CONSTRUCTION START DATE AND NOTIFY THEM OF PROJECT COMPLETION. STAKING AND INSPECTION FOR THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- IF TRAFFIC WILL BE IMPACTED BY CONSTRUCTION, A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY TRAFFIC ENGINEER, BRIAN COON AT TRAFFIC@WICHITA.GOV BEFORE CONSTRUCTION CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES TO FACILITATE CONSTRUCTION. ALL CONSTRUCTION ZONE MARKINGS AND SIGNAGE SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. ALL COSTS ASSOCIATED WITH CONSTRUCTION MARKINGS AND SIGNAGE SHALL BE THE CONTRACTORS RESPONSIBILITY.
- ALL ELEVATIONS SHOWN ARE NAVD 88.
- ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE RESTORED TO MATCH EXISTING CONDITIONS.

- ANY SIDEWALK, DRIVE APPROACH, OR STREET PAVEMENT REMOVED TO CONSTRUCT PROJECT MUST HAVE A PAVEMENT CUT PERMIT AND BE REPLACED BY THE CITY CONTRACTOR. PERMITS CAN BE OBTAINED BY CALLING 316-268-4501 OR 316-268-4480.
- CITY MAINTENANCE OF STORM SEWER ENDS AT THE LAST STRUCTURE IN THE EASEMENT OR RIGHT-OF-WAY.
- A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUNDED AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUND SHALL BE CONSTRUCTED WITH NEW DEVELOPMENT A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP TO THE MANHOLE.
- GEOTECHNICAL REPORT AVAILABLE UPON REQUEST.
- CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH OPENINGS OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- THE INSPECTING FIRM SHALL SUBMIT TO THE CITY STORMWATER MAINTENANCE DIVISION A DIGITAL COPY OF THE CCTV INSPECTION OF THE CONDUITS AND STRUCTURES FOLLOWING CONSTRUCTION. THE DIGITAL FILE FORMATION SHALL BE COMPATIBLE WITH THE CITY INPUT TEMPLATE. A COPY OF THE TEMPLATE IS AVAILABLE UPON REQUEST AT 316-268-4090.
- THE CONTRACTOR SHALL PROTECT FROM DAMAGE AND SUPPORT EXISTING UTILITIES THROUGH CONSTRUCTION AS APPROVED BY THE UTILITY OWNER AND THE ENGINEER AT THE CONTRACTORS EXPENSE.

**OWNER:**  
**Cottages Crestview LLC.**  
  
A Delaware Limited Liability Company  
4200 East Skelly Drive, Suite 800  
Tulsa, Oklahoma 74135  
Phone: (918)492-1983

**Sheet Index**

- SHEET NUMBER - NAME
- 17006 PPD - GE00
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  - GE02 - SITE DIMENSION PLAN 1
  - GE03 - SITE DIMENSION PLAN 2
  - GE04 - SITE DIMENSION PLAN 3
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  - GE13 - GRADING, PAVING & EROSION CONTROL
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  - SD08 - STORM PROFILES B, F, G, & H
  - SD09 - STORM PROFILES C, D, E, & I
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  - SW-501 BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE
  - SW-502 SILT FENCE DITCH CHECK AND BARRIER DETAILS
  - SW-503 STRAW BALE AND DITCH CHECK AND BARRIER DETAILS
  - SW-504 STREET IMPROVEMENT PROJECTS
  - SW-505 SUBDIVISION DEVELOPMENT PROCESS

THE FOLLOWING STANDARD DRAWINGS FROM THE CITY OF WICHITA PUBLIC WORKS DEPARTMENT WILL BE REQUIRED:

- SW-201 SINGLE/DOUBLE DROP INLET
- SW-202 DOUBLE/DOUBLE/DROP INLET WITH BEAM
- SW-303 MANHOLE/INLET FRAME AND COVER (STORM SEWER)
- SW-402 HEADWALL DETAILS FOR 15" 18" AND 24" PIPE
- SW-403 HEADWALL DETAILS FOR 30" AND 36" PIPE

**Benchmark 1**  $\diamond$   
CHSLD X TOP OF EAST END OF 8X3 RCB  
(1,685,835.0N, 1,691,547.7E)  
ELEVATION = 1,329.90 (NAVD 88)

**Benchmark 2**  $\diamond$   
CHSLD X AT SE CORNER TOP STORM STR  
ON SE CORNER 127TH & DOUGLAS  
(1,687,621.9N, 1,691,550.7E)  
ELEVATION = 1,350.37 (NAVD 88)

# STORM SEWER IMPROVEMENTS

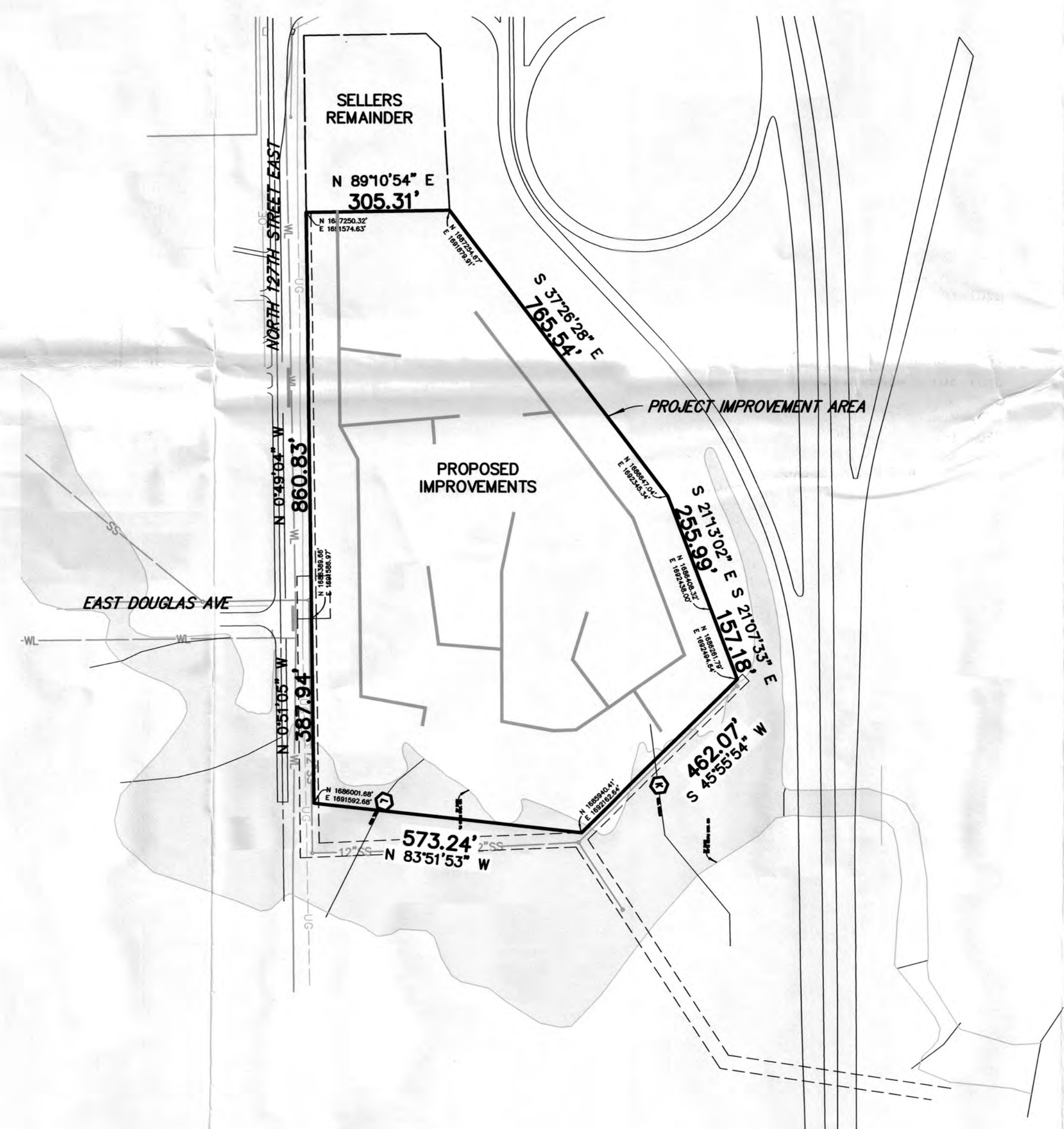
to serve

## Cottages at Crestview Apartments

### 110 North 127th Street East

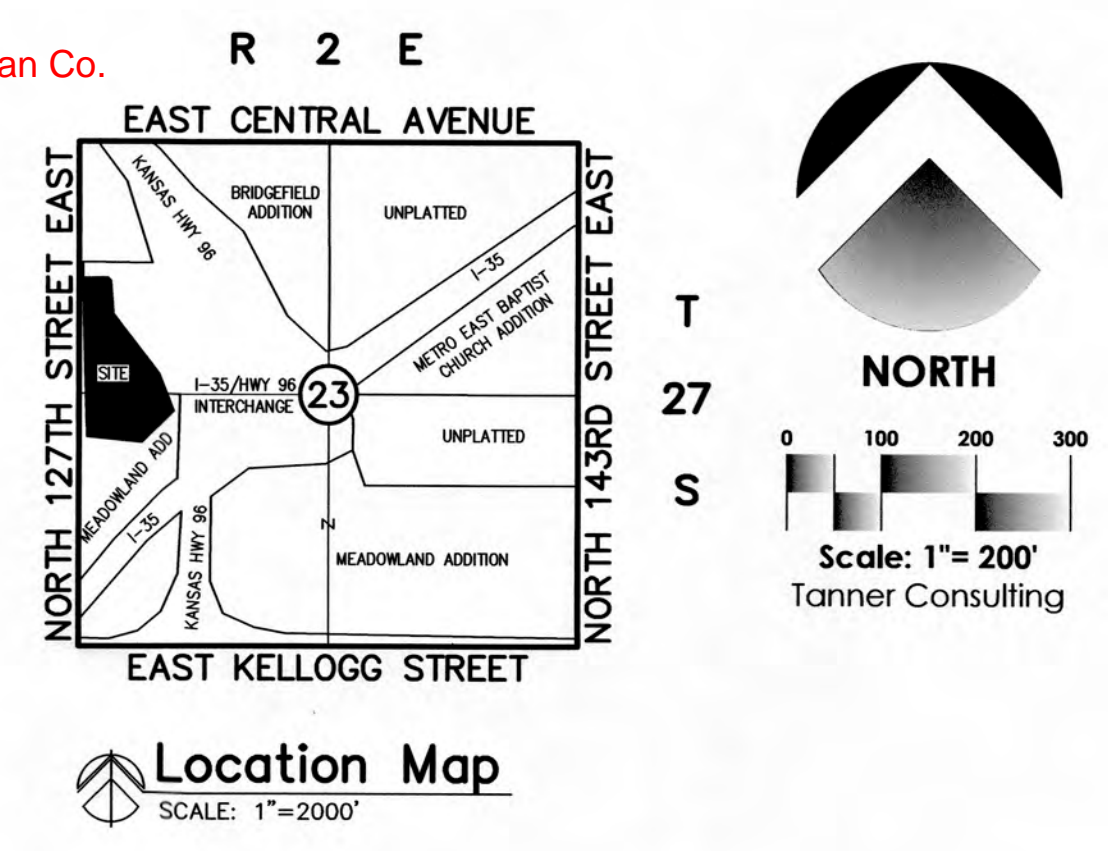
#### City of Wichita, Kansas

**Gary Janzen, P.E. City Engineer**  
**Project Number**  
**0478 PPD (133119)**



**AS BUILT PLANS**

Contractor: Mies Const.  
Inspector: Wayne Korber, Baughman Co.  
As Builts by: KEK 4/30-18



**STORMWATER CERTIFICATION:**  
NEW DEVELOPMENT

THESE CONSTRUCTION PLANS WERE PREPARED IN ACCORDANCE WITH THE CURRENT STORMWATER MANAGEMENT REGULATIONS AS SET FORTH IN THE CITY OF WICHITA'S STORMWATER MANAGEMENT ORDINANCE 16.32 AND THE POLICIES/GUIDELINES PRESENTED IN THE WICHITA/SEDGWICK COUNTY STORMWATER MANUAL.

DISTURBED AREA = 19.85 ACRES  
WATER QUALITY TREATMENT: OFFSITE BMP PROGRAM  
DOWNSTREAM CHANNEL PROTECTION: N/A  
DETENTION: 10% RULE APPLIED  
THE BMP USED FOR THIS DEVELOPMENT IS AN OFFSITE BMP PROGRAM.

APPROVED AS NOTED BY  
WICHITA PUBLIC WORKS ENGINEERING AND  
STORMWATER DIVISION

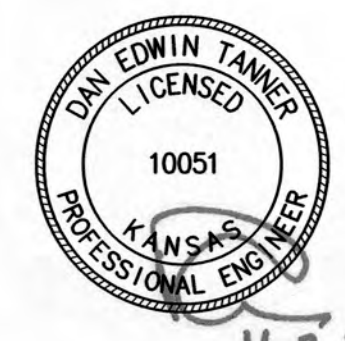
Engineering *Juanita Kallman 1-3-18*  
Stormwater *Joe Hepp PE 1-3-18*

**NOTE TO CONTRACTORS**

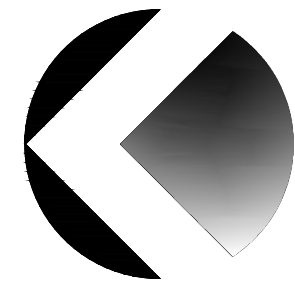
INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF KANSAS. NO WORK SHALL BE PERFORMED THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED WITHOUT WRITTEN AUTHORIZATION BY CITY ENGINEERING. ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE CURRENT CITY OF WICHITA SPECIFICATIONS AND STANDARDS AND SPECIAL PROVISIONS. (ON FILE AND AVAILABLE AT WICHITA.GOV). AN APPROVED COPY OF THESE PLANS SIGNED BY CITY STAFF ARE REQUIRED ON-SITE.

**Project Narrative**

SITE UTILITY IMPROVEMENTS TO SERVE MULTI FAMILY APARTMENT DWELLING AT THE INTERSECTION OF NORTH 127TH ST. EAST AND EAST DOUGLAS AVE.



P:\2017\7006\Civil\Sheets\17006\_PPD\CV.dwg, GEO1, 11/3/2017 10:48:02 AM, LPATTERSON, I.I., TANNER CONSULTING, LLC, OK, CA 2661 EXP 6/30/2019



NORTH

0 25 50 75

Scale: 1"= 50'

Tanner Consulting

**Benchmark 1**  $\phi$   
 CHSLD X TOP OF EAST END OF 8X3 RCB  
 (1,685,835.0N, 1,691,547.7E)  
 ELEVATION = 1,329.90 (NAVD 88)

**Benchmark 2**  $\phi$   
 CHSLD X AT SE CORNER TOP STORM STR  
 ON SE CORNER 127TH & DOUGLAS  
 (1,687,621.9N, 1,691,550.7E)  
 ELEVATION = 1,350.37 (NAVD 88)

**Legend**

- EXISTING SANITARY SEWER
- EXISTING WATERLINE
- EXISTING GAS LINE
- EXISTING EASEMENT
- PROPOSED STORM LINE
- PROPOSED SANITARY SEWER
- PROPOSED WATER LINE
- PROPOSED UTILITY EASEMENT

**ZONING:**

CUP DP-248 PARCEL 1, AND 1B AS AMENDED

PLAT: MEADOWLAND ADDITION PC124-5A  
 LOT SPLIT: 29703807

SUBJECT PROPERTY QUALIFIES FOR NO ON-SITE DETENTION PER THE 10% RULE

SUBJECT PROPERTY WILL PAY FEE INTO OFFSITE BMP PROGRAM

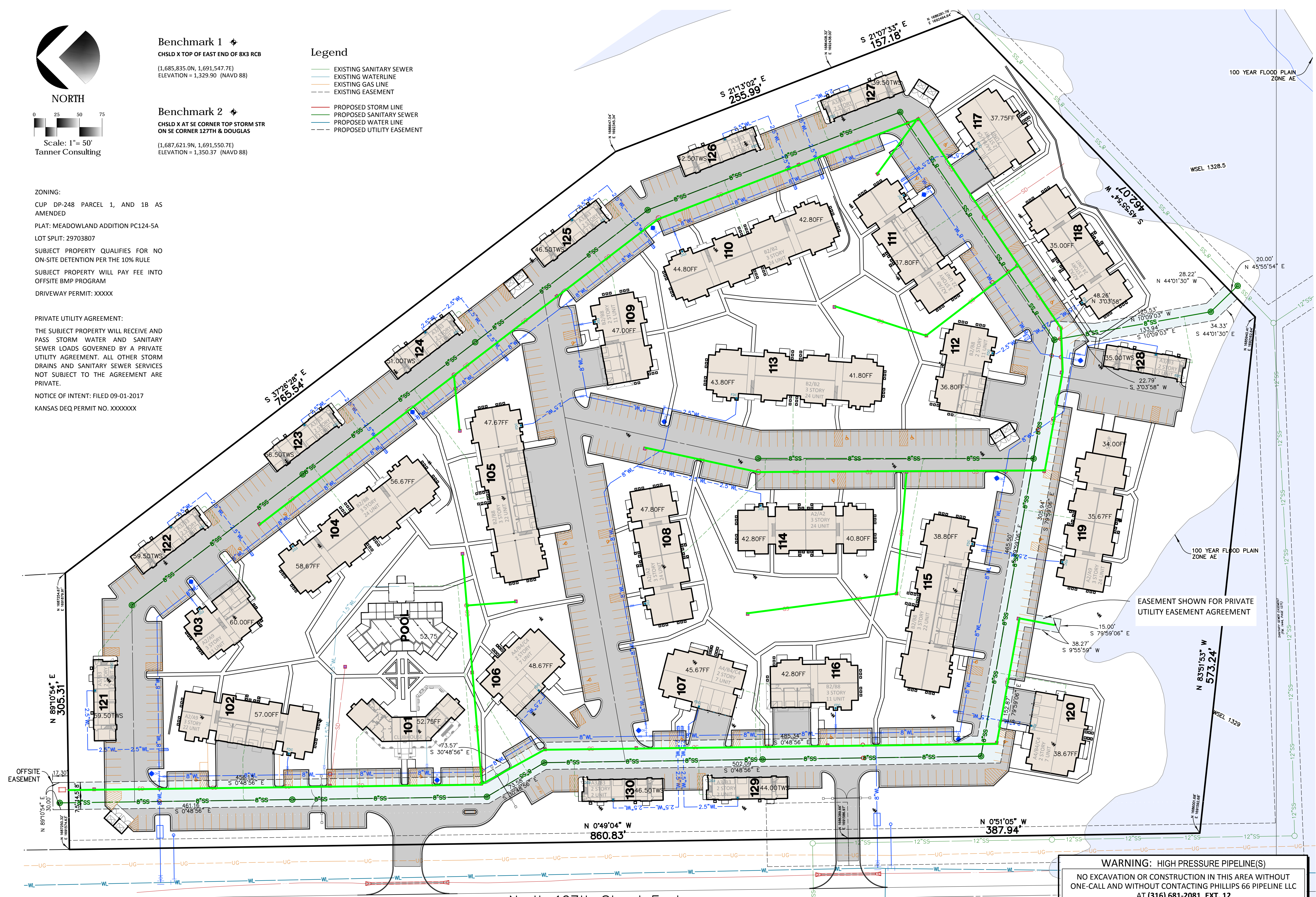
DRIVEWAY PERMIT: XXXXX

**PRIVATE UTILITY AGREEMENT:**

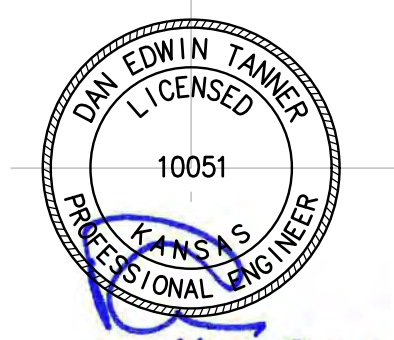
THE SUBJECT PROPERTY WILL RECEIVE AND PASS STORM WATER AND SANITARY SEWER LOADS GOVERNED BY A PRIVATE UTILITY AGREEMENT. ALL OTHER STORM DRAINS AND SANITARY SEWER SERVICES NOT SUBJECT TO THE AGREEMENT ARE PRIVATE.

NOTICE OF INTENT: FILED 09-01-2017

KANSAS DEQ PERMIT NO. XXXXXX



**WARNING: HIGH PRESSURE PIPELINE(S)**  
 NO EXCAVATION OR CONSTRUCTION IN THIS AREA WITHOUT ONE-CALL AND WITHOUT CONTACTING PHILLIPS 66 PIPELINE LLC AT (316) 681-2081, EXT. 12



11-2-2017

**Tanner Consulting LLC**  
 CIVIL ENGINEERING | LAND SURVEYING  
 LANDSCAPE ARCHITECTURE | PLANNING

5323 SOUTH LEWIS AVENUE  
 TULSA OKLAHOMA 74105-6539  
 OFFICE: 918.745.9929  
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CERTIFICATE OF AUTHORIZATION NO. KS CA E-1311 EXP. 12/31/2017



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MILESTONE	DATE
1ST SUBMITTAL	08/18/17
2ND SUBMITTAL	10/06/17
3RD SUBMITTAL	10/26/17
PLOT DATE: 11/03/17	

# Cottages At Crestview

## Grading, Drainage & Utilities

### Wichita, Kansas

PROJECT: 17006  
 ISSUE DATE:  
 ATLAS PAGE NO:  
 PLAN SCALE: (H) 1"=50'  
 (V) N/A

Overall Site & Utility Plan

**GE01**  
 OF 00

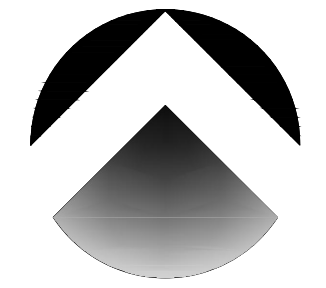
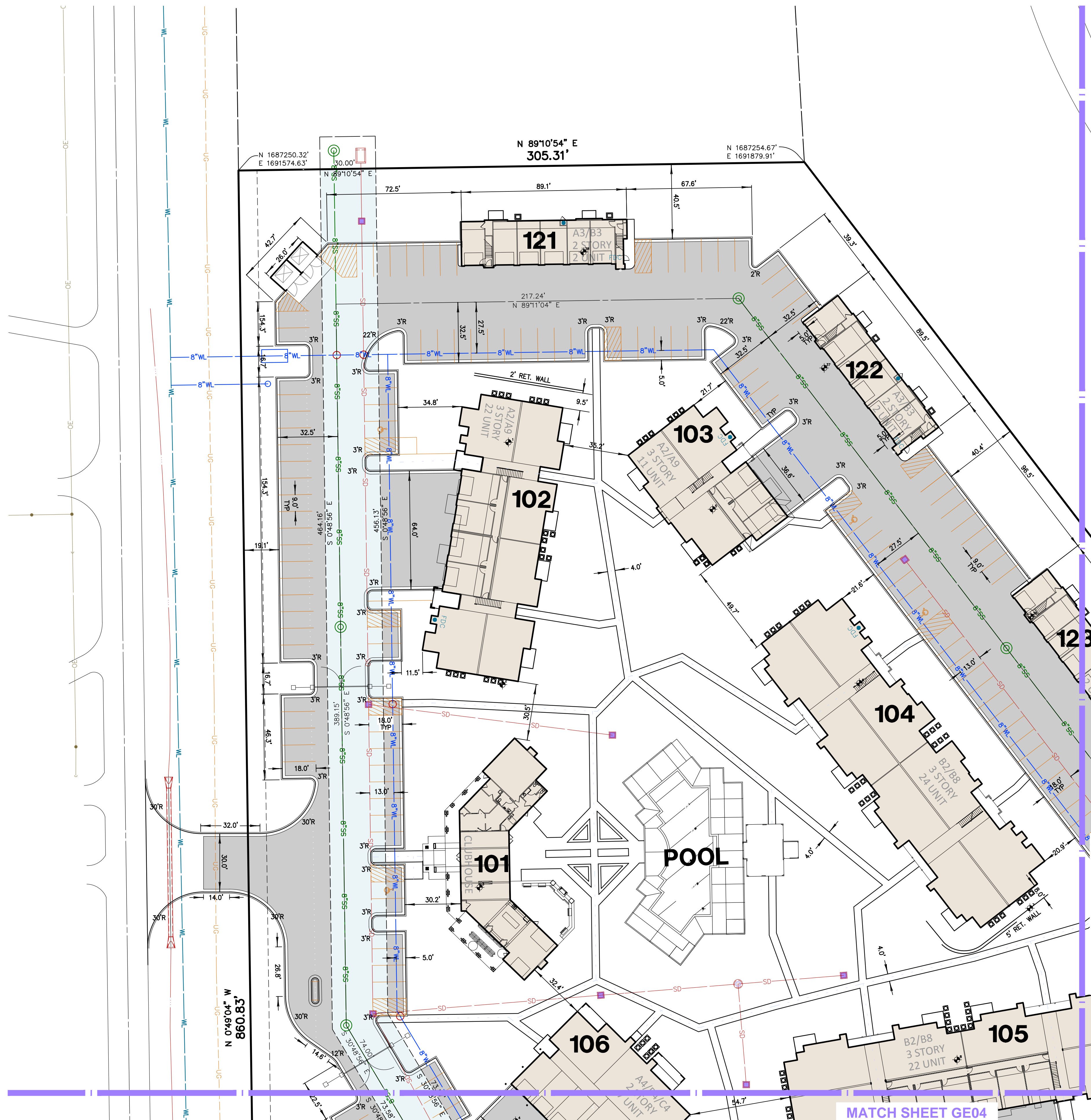
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**Site Notes**

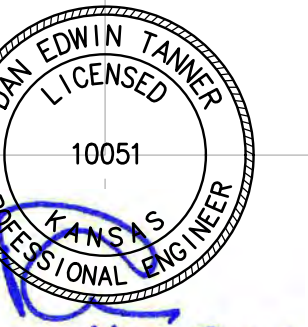
- ALL DIMENSIONS SHOWN HEREON ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS SHOWN OTHERWISE ON PLANS.
- THE CONTRACTOR SHALL MAINTAIN A TWO FOOT (2') SEPARATION BETWEEN THE GAS LINE CONDUIT AND ALL OTHER CONDUITS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL CONDUITS PRIOR TO PAVING WHETHER OR NOT SHOWN ON CIVIL PLANS.
- BUILDINGS SHOWN HEREON ARE REPRESENTATIVE ONLY AND NOT FOR CONSTRUCTION. REFER TO ARCHITECTURAL PLANS FOR COMPLETE BUILDING DIMENSIONS, DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL COORDINATE ALL UTILITY SERVICES WITH UTILITY SUPPLIER. LAYOUT MAY BE MODIFIED AS NEEDED.
- COORDINATE ALL BUILDING CONNECTIONS AND LINE/METER SIZING WITH THE MECHANICAL, ELECTRICAL, AND PLUMBING PLANS.
- UTILITY SERVICE CONNECTIONS SHALL BE INSTALLED AS PER APPLICABLE CITY CODES AND SPECIFICATIONS.
- ELECTRICAL CONDUIT SHALL BE 4" PVC SCH40 (GRAY), TELEPHONE CONDUIT SHALL BE 4" PVC SCH40 (WHITE) AND CABLE TELEVISION CONDUIT SHALL BE 4" SDR 35 PVC (WHITE). ALL ARE TO BE INSTALLED WITH A PULL STRING.
- MAXIMUM FINISHED LONGITUDINAL SLOPE FOR SIDEWALK MUST NOT EXCEED 5%, UNLESS OTHERWISE SPECIFIED HEREIN. MAXIMUM FINISHED CROSS SLOPE FOR SIDEWALKS MUST NOT EXCEED 2%. ALL WORK MUST MEET APPLICABLE ADA REQUIREMENTS. ANY CONSTRUCTED SLOPES EXCEEDING ADA REQUIREMENTS MUST BE REPLACED PRIOR TO ACCEPTANCE.

**Legend**

- ACCESSIBILITY ROUTE
- AI AREA INLET
- C&G CURB & GUTTER
- CO SEWER CLEAN-OUT
- CONC CONCRETE
- CHBS CHISELED BOX SET
- CHXF CHISELED X FOUND
- CVF CHISELED V FOUND
- D/E DRAINAGE EASEMENT
- DS DOWNSPOUT
- ESMT EASEMENT
- FH FIRE HYDRANT
- GUY GUY ANCHOR
- IPF IRON PIN FOUND
- IPFVC IRON PIN FOUND, YELLOW CAP
- OE OVERHEAD ELECTRIC
- PP POWER POLE
- R RADIUS
- RE: REFER TO
- ROW RIGHT OF WAY
- SDIN STORM DRAIN INLET
- SDJB STORM DRAIN JUNCTION BOX
- SDMH STORM DRAIN MANHOLE
- SS SANITARY SEWER
- SSMH SANITARY SEWER MANHOLE
- TMH TELEPHONE MANHOLE
- TYP TYPICAL
- WL WATERLINE
- WM WATER METER
- WV WATER VALVE
- UG UNDERGROUND GAS LINE
- UE UNDERGROUND ELECTRIC
- UT UNDERGROUND TELEPHONE
- U/E UTILITY EASEMENT
- XFMR TRANSFORMER



NORTH  
Scale: 1" = 30'  
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11-2-2017  
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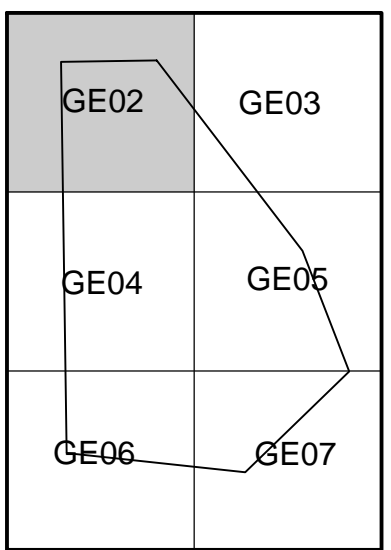
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# Cottages At Crestview

Grading, Drainage & Utilities  
Wichita, Kansas

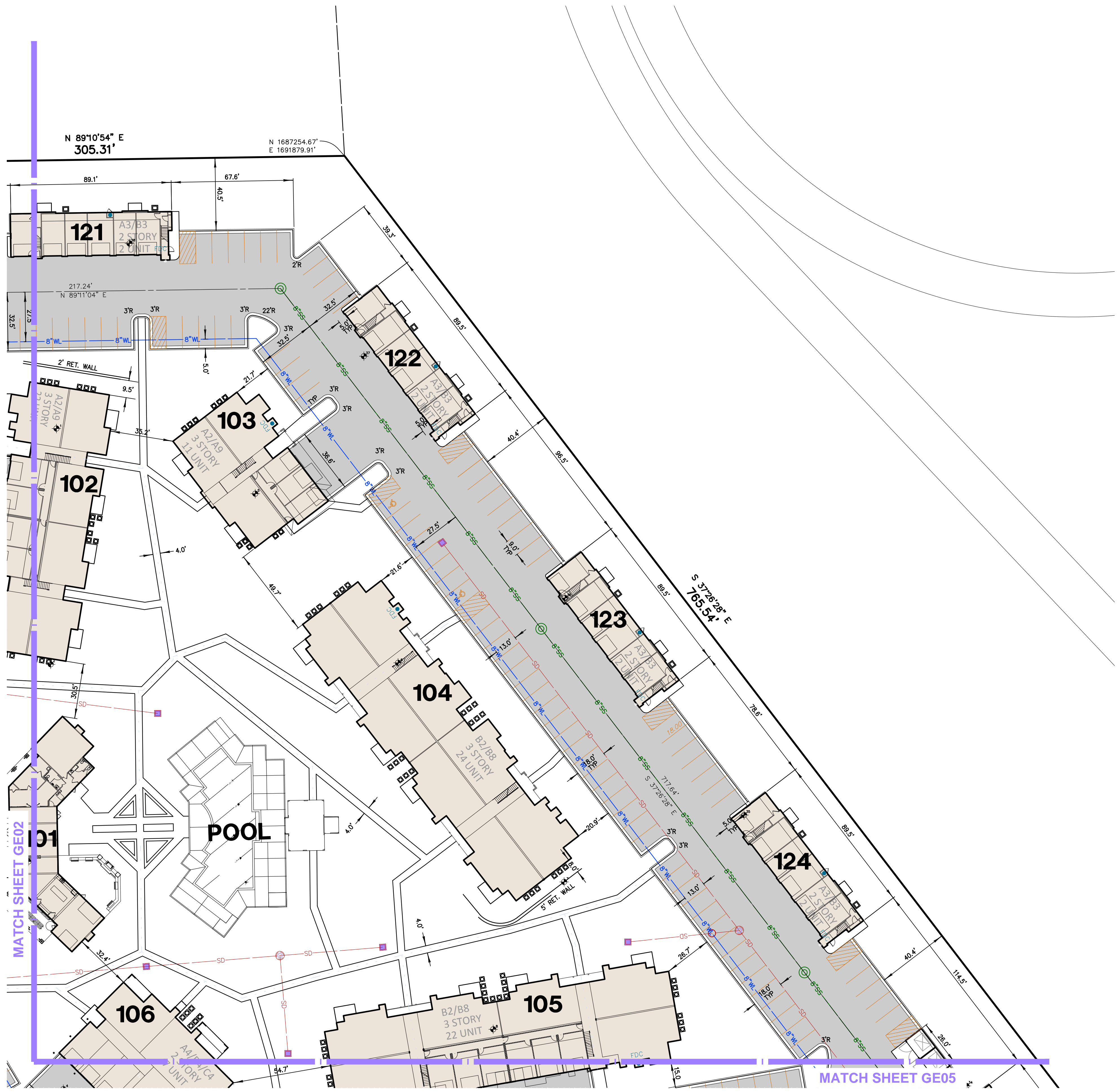


Site Key Map  
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PROJECT: 17006  
ISSUE DATE:  
ATLAS PAGE NO:  
PLAN SCALE: (H) 1"=30'  
(V) N/A

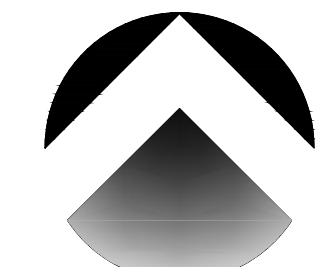
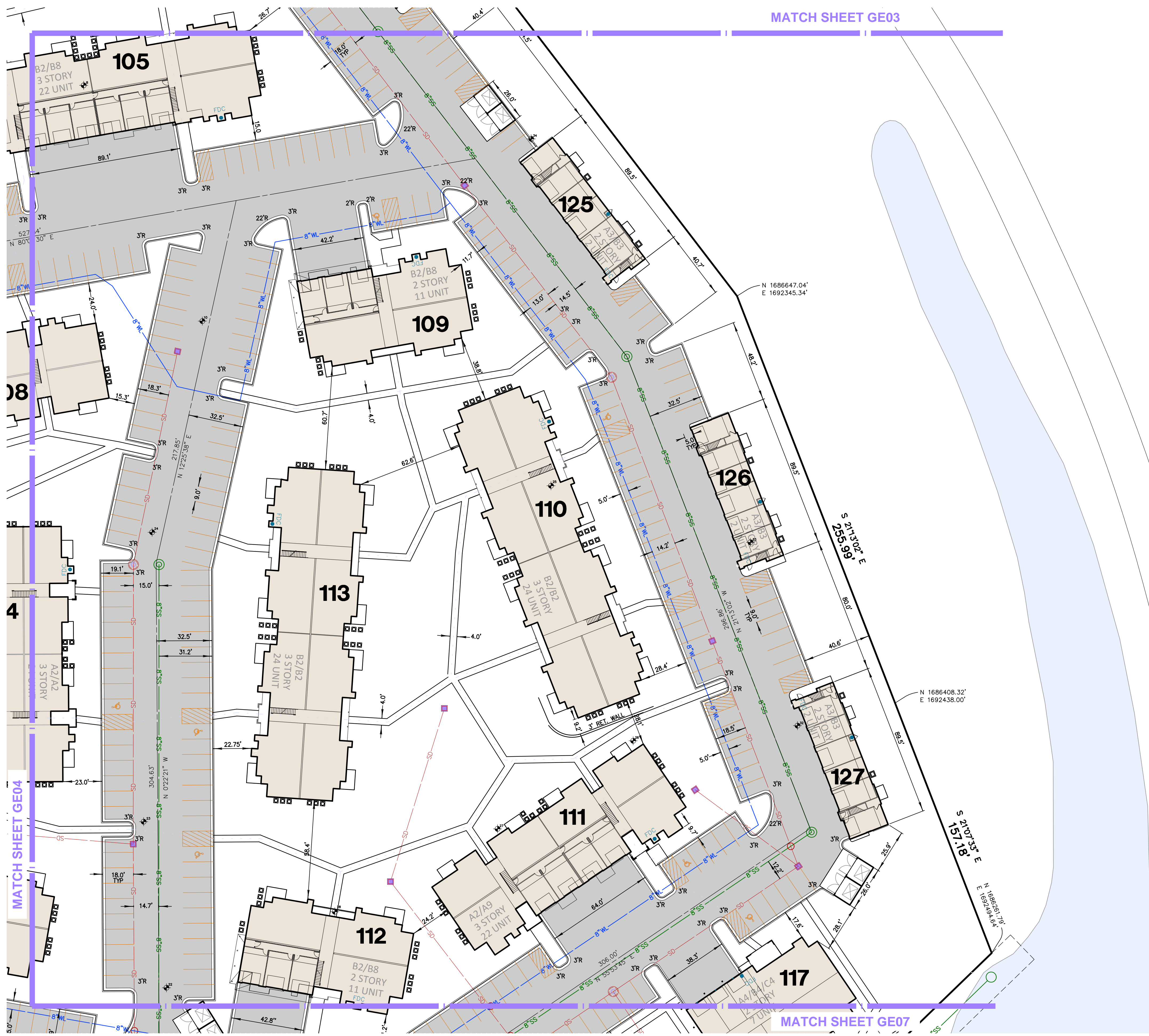
Site Dimension Plan 1

**GE02**  
OF 00

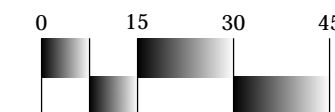




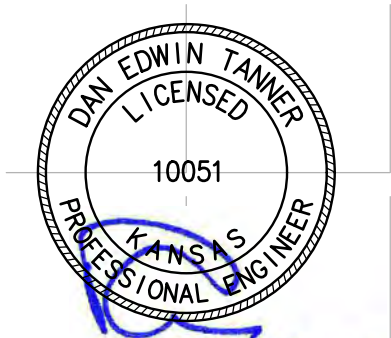
MATCH SHEET GE03



NORTH



Scale: 1"= 30'  
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# Cottages At Crestview

Grading, Drainage & Utilities  
 Wichita, Kansas

PROJECT: 17006

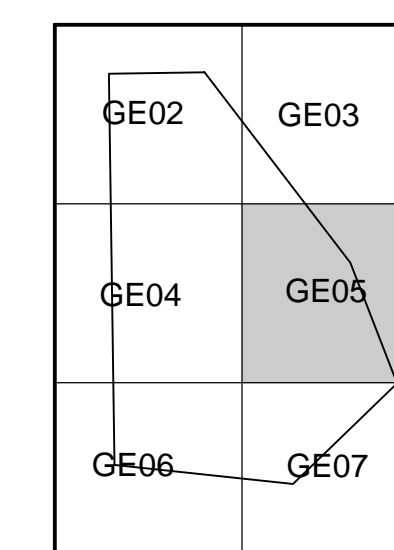
ISSUE DATE:  
ATLAS PAGE NO:

PLAN SCALE: (H) 1"=30'  
(V) N/A

Site Dimension  
Plan 4

# GE05

OF 00



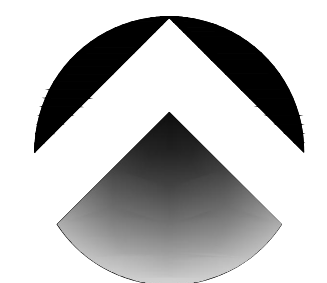
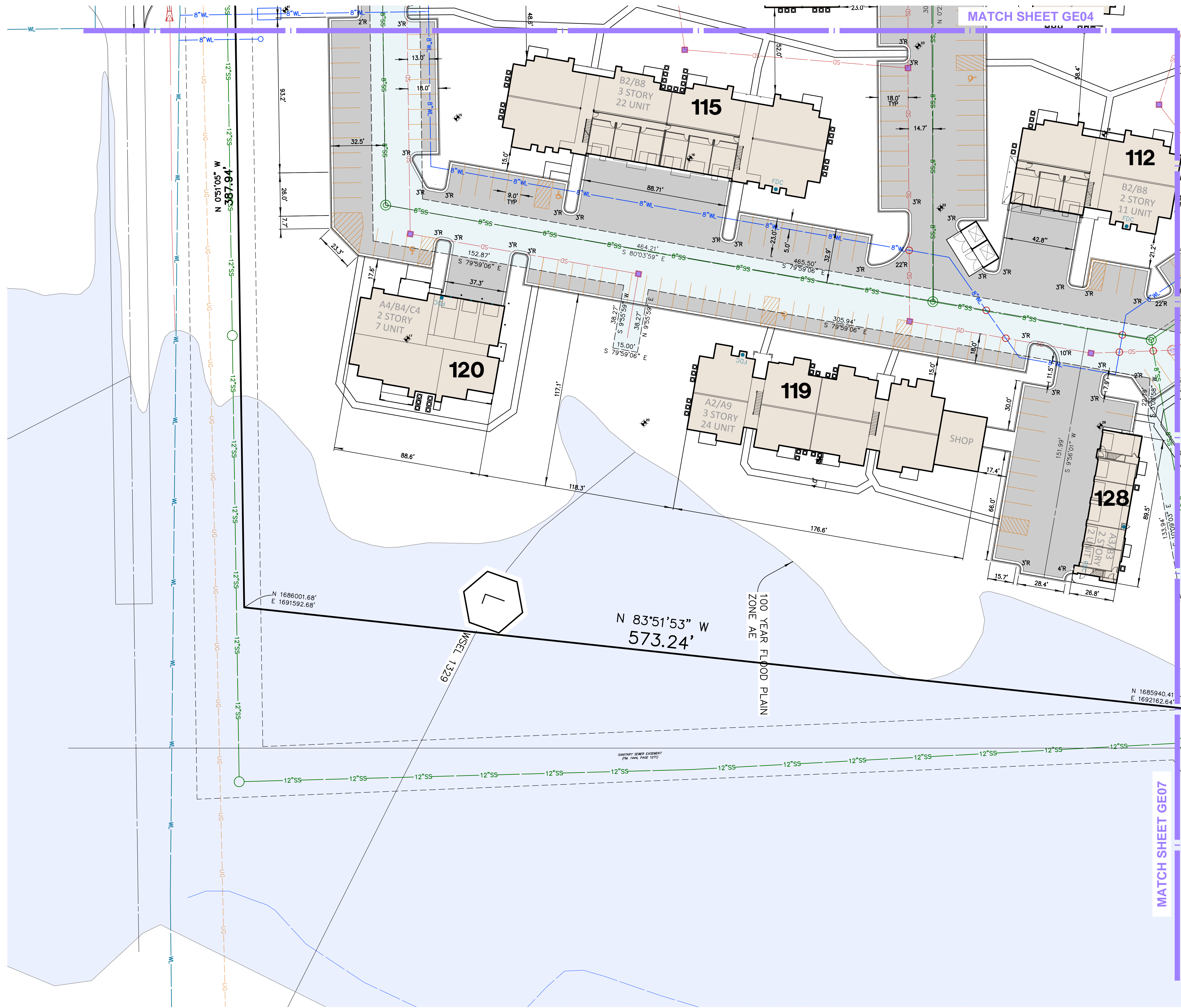
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MATCH SHEET GE04

MATCH SHEET GE07

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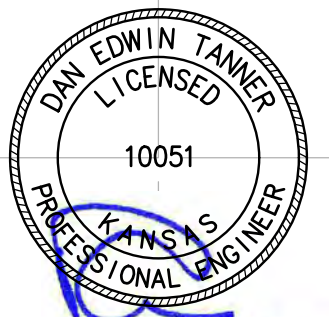


**NORTH**

0 15 30 45

Scale: 1" = 30'

Tanner Consulting



11.2.2017

**Tanner Consulting LLC**

CIVIL ENGINEERING | LAND SURVEYING  
LANDSCAPE ARCHITECTURE | PLANNING

5323 SOUTH LEWIS AVENUE  
TULSA OKLAHOMA 74105-6539  
OFFICE: 918.745.9929  
www.tannerbaltshop.com

CERTIFICATE OF AUTHORIZATION NO.  
KS CA E-1311 EXP. 12/31/2017

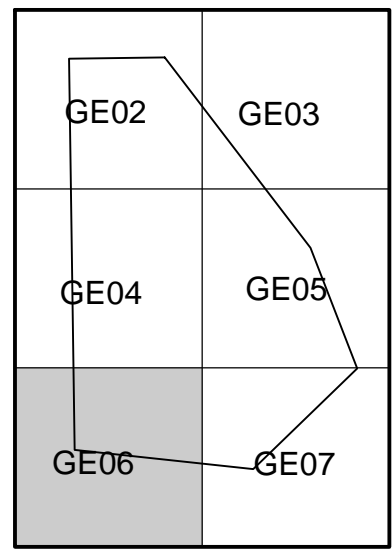


**811**

Know what's below.  
Call before you dig.

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MILESTONE	DATE
1ST SUBMITTAL	08/18/17
2ND SUBMITTAL	10/06/17
3RD SUBMITTAL	10/26/17
PLOT DATE: 11/03/17	



**Site Key Map**

Scale: NONE

**NORTH**

# Cottages At Crestview

## Grading, Drainage & Utilities

### Wichita, Kansas

PROJECT: 17006

ISSUE DATE:

ATLAS PAGE NO:

PLAN SCALE: (H) 1"=30'

(V) N/A

**Site Dimension Plan 5**

**GE06**

OF 00

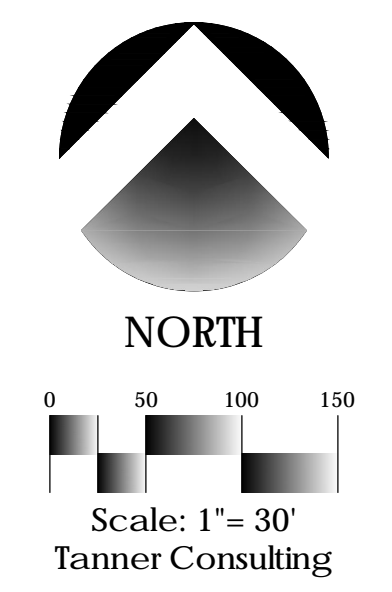
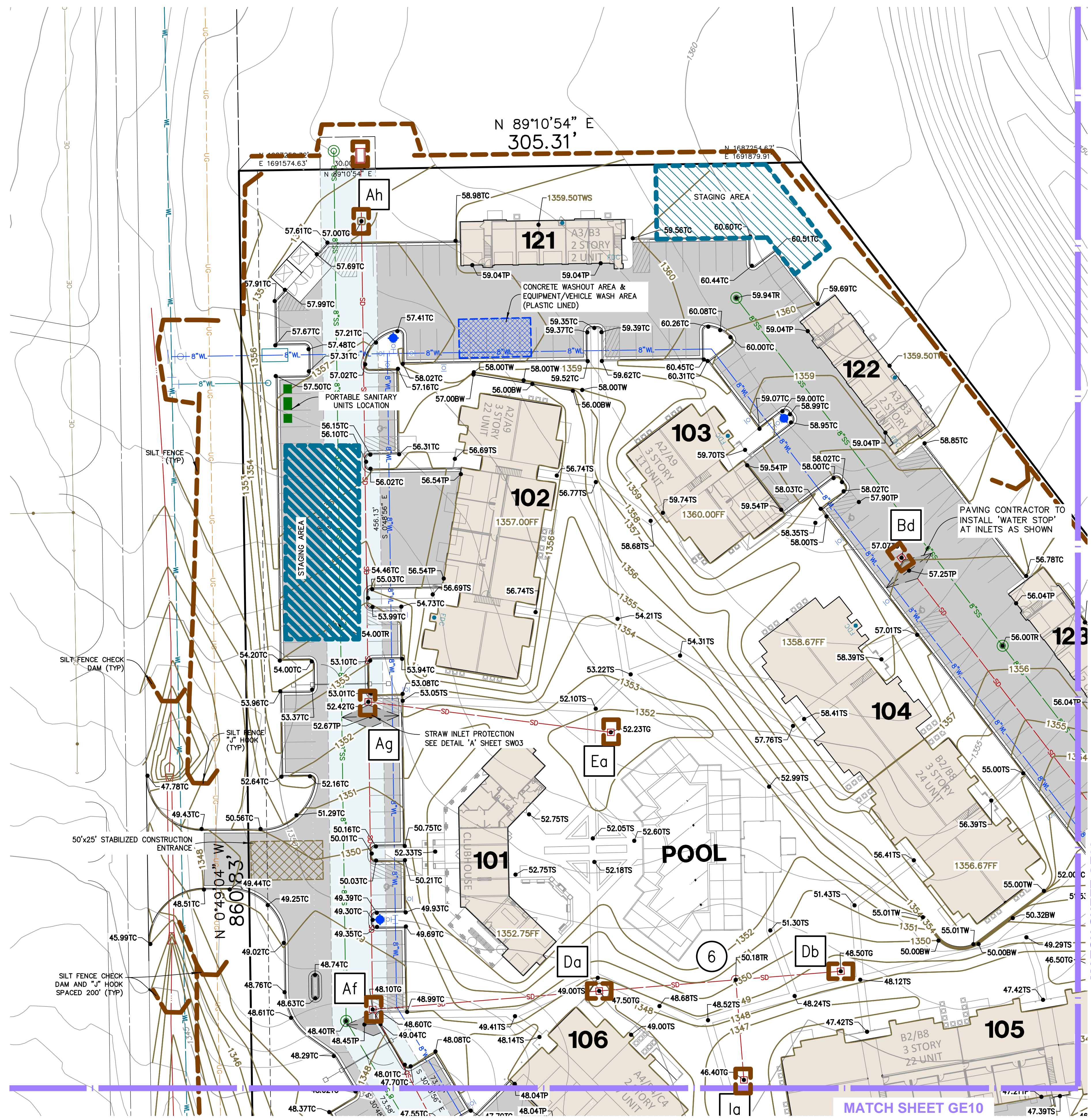


**Erosion Control Notes**

- ALL EROSION CONTROL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT CITY STANDARD CONSTRUCTION SPECIFICATIONS.
- ALL EROSION CONTROL CONSTRUCTION SHALL BE INSPECTED BY THE PRIVATE CONTRACTOR INSPECTORS, AND REPORTED TO THE CITY INSPECTOR IN ACCORDANCE WITH CITY POLICY.
- EROSION CONTROL SHALL START WITH INITIAL CONSTRUCTION AND BE PRACTICED THROUGHOUT THE PROJECT.
- SILT FENCES SHALL BE CONSTRUCTED ADJACENT TO ALL DRAINAGE-WAYS, AND IN ALL AREAS THAT WILL ERODE INTO THE STORM SEWER SYSTEM.
- WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR 14 DAYS, THE DISTURBED AREAS SHALL BE STABILIZED WITH SEED AND MULCH.
- THE CONTRACTOR SHALL RE-SEED ALL AREAS DISTURBED DURING CONSTRUCTION AND CONTRACTOR SHALL BE RESPONSIBLE FOR SEEDING AREAS UNTIL GROWTH IS ESTABLISHED TO A UNIFORM HEIGHT OF TWO (2) INCHES.
- THERE ARE NO OFFSITE MATERIAL, WASTE, BORROW, OR EQUIPMENT STORAGE AREAS.
- THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE UPDATED AS NECESSARY TO REMAIN CONSISTENT WITH ANY CHANGES APPLICABLE TO PROTECT SURFACE WATER RESOURCES IN SEDIMENT EROSION SITE PLANS OR SITE PLANS OR SITE PERMITS, OR STORM WATER MANAGEMENT SITE PLANS OR SITE PERMITS APPROVED BY STATE OR LOCAL OFFICIALS FOR WHICH THE PERMITEE RECEIVES WRITTEN NOTICE.
- A MINIMUM OF 18" BERMUDA SOD SHALL BE PLACED BEHIND ALL CURBS AND FLUMES IMMEDIATELY AFTER CONSTRUCTION.

**Grading Notes**

- ALL GRADING SHALL MEET OR EXCEED THE CITY OF WICHITA CONSTRUCTION STANDARDS AND MUNICIPAL POLICY.
- THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS BEFORE EXCAVATING.
- TOPSOIL SHALL BE STRIPPED TO A DEPTH WHERE SOIL IS FREE OF ROOTS AND VEGETATION.
- SUBGRADE STABILIZATION SHALL BE AT THE DIRECTION OF THE ENGINEER, OR AS SPECIFIED IN SUBSURFACE GEOTECHNICAL REPORT.
- CIVIL ENGINEER WILL NOT INTERPRET SOILS REPORTS OR ACCEPT RESPONSIBILITY FOR ALTERNATIVE METHODS PROPOSED BY THE CONTRACTOR.
- UNDERCUTTING OF SOFT SPOTS AND PLACEMENT OF EARTHWORK IS GOVERNED FIRST BY THE GEOTECHNICAL REPORT. OBSERVATION AND TESTING SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER TO VERIFY THAT THE SOFT SPOTS ARE PROPERLY OVEREXCAVATED AND REPLACED OR STABILIZED.
- CONTRACTOR SHALL PROVIDE WATER AS REQUIRED TO OBTAIN SPECIFIED COMPACTION.
- STRIPPING, PROOFROLLING, SUBGRADE SCARIFICATION AND COMPACTION, AND FILL CONSTRUCTION IN THE BUILDING AND PAVING AREAS SHALL BE PERFORMED ACCORDING TO THE SUBSURFACE GEOTECHNICAL REPORT. EMBANKMENT BENEATH BUILDING PADS OR FOR PAVING SUBGRADE SHALL BE PLACED IN LIFTS NOT EXCEEDING EIGHT (8) INCHES AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT, UNLESS OTHERWISE SPECIFIED THEREIN.
- THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO IMPORT OR EXPORT MATERIAL AS NECESSARY TO ACHIEVE THE GRADES SHOWN ON THE CIVIL ENGINEER'S DOCUMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL IN-PLACE FINAL TRIM AREAS TO CONDITION PRIOR TO PLACING TOPSOIL. TOPSOIL SHALL BE PLACED AND ACCEPTED PRIOR TO THE PLACEMENT OF SOD.
- THE SIDEWALK CONTRACTOR IS RESPONSIBLE FOR ALL REMAINING FINAL TRIM.
- FINAL GRADES OF ABOVE SURFACE UTILITIES NOT IN PAVED AREAS, INCLUDING BUT NOT LIMITED TO STORM SEWER MANHOLE LIDS, WATER METER LIDS AND SEWER CLEANOUTS, ARE TO BE ADJUSTED BY THE UTILITY CONTRACTOR TO CONFORM TO LANDSCAPING SOD INSTALLATION.
- TRANSFORMER PADS AND PEDESTALS ARE TO BE LEVEL AND PLUMB.
- CARE SHALL BE TAKEN TO ADJUST GAS METERS AND MANIFOLDS SO AS TO APPEAR CORRECTLY POSITIONED.
- GENERAL CONTRACTOR SHALL MONITOR INSTALLATION OF SERVICE PEDESTALS, SHALL ACCEPT THE CONDITION OF THE WORK BY OTHERS, AND SHALL BE RESPONSIBLE TO EMPLOY CONTRACTORS AS NECESSARY TO CORRECT POOR WORKMANSHIP.
- PAVING CONTRACTOR IS RESPONSIBLE TO REVIEW ALL FIELD ESTABLISHED GRADES PRIOR TO PLACEMENT OF MATERIALS SO AS TO PROVIDE POSITIVE DRAINAGE IN ALL CASES.
- CORRECTIVE MEASURES DIRECTED BY THE ENGINEER MAY INCLUDE COMPLETE REMOVAL AND REPLACEMENT AT NO COST TO OWNER IN CASES OF POOR WORKMANSHIP OR UNSATISFACTORY IN-PLACE CONDITIONS.
- CONTRACTOR SHALL COORDINATE AND PROVIDE ALL STAKING NECESSARY TO INSTALL CONDUITS SUFFICIENT FOR UTILITY AND IRRIGATION SERVICES WHETHER OR NOT SHOWN ON THE CIVIL ENGINEER'S PLANS.
- CONTRACTOR SHALL BE OBLIGATED TO KEEP DUST AT A MINIMUM AS REQUIRED BY CITY ENGINEER.
- CONTRACTOR AND ALL RELATED CONSTRUCTION ACTIVITIES WILL BE REQUIRED TO MAINTAIN NORMAL WORKING HOURS IF SIGNIFICANT PUBLIC REQUEST ARE MADE TO THE CITY TO THIS REGARD.
- CONTRACTOR AND ALL RELATED CONSTRUCTION ACTIVITIES ARE REQUIRED TO MAINTAIN NORMAL NOISE LEVELS AND ALL EQUIPMENT AND VEHICLES ARE REQUIRED TO BE PROPERLY MUFFLED.
- SITE GRADING IS EXPECTED TO BE PERFORMED IN A MANNER CONSISTENT WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWP3) PREVIOUSLY SUBMITTED FOR THIS PROJECT.



**Benchmark 1**  $\blacklozenge$   
 CHSLD X AT EAST END OF 8X3 RCB  
 (1,685,835.0N, 1,691,547.7E)  
 ELEVATION = 1,329.90 (NAVD 88)

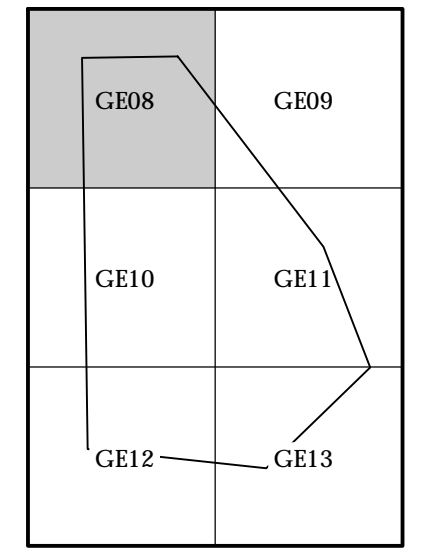
**Benchmark 2**  $\blacklozenge$   
 CHSLD X AT SE CORNER TOP STORM STR  
 ON SE CORNER 127TH & DOUGLAS  
 (1,687,621.9N, 1,691,550.7E)  
 ELEVATION = 1,350.37 (NAVD 88)

**Legend**

- BW BASE OF WALL FINISH GRADE
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- EP EDGE OF PAVING
- EX EXISTING GROUND
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- FG FINISH GRADE
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**Erosion Control Legend**

- INLET PROTECTION (SEE DETAIL)
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE/CROSSING
- STAGING AREA
- PORTABLE SANITARY UNITS LOCATION
- CHECK DAM
- CONCRETE WASHOUT



**Site Key Map**  
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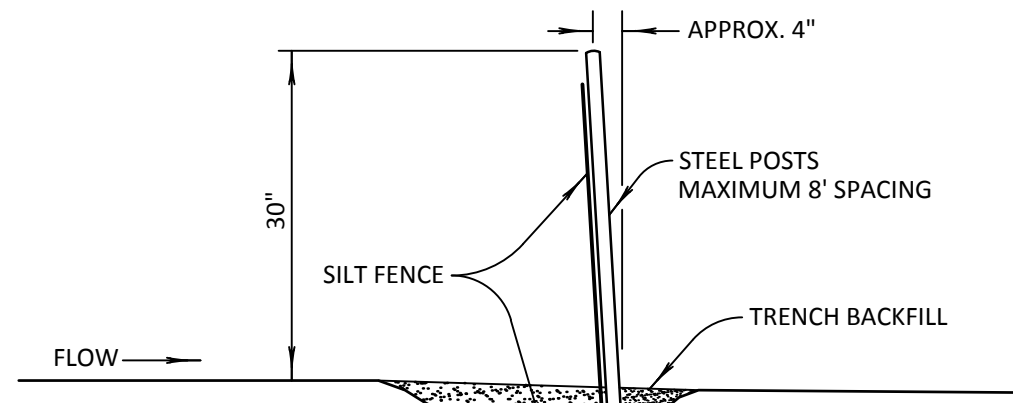
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**Cottages At Crestview**  
 Grading, Drainage & Utilities  
 Wichita, Kansas

PROJECT: 17006  
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 (V) N/A

Grading,  
 Paving &  
 Erosion Control

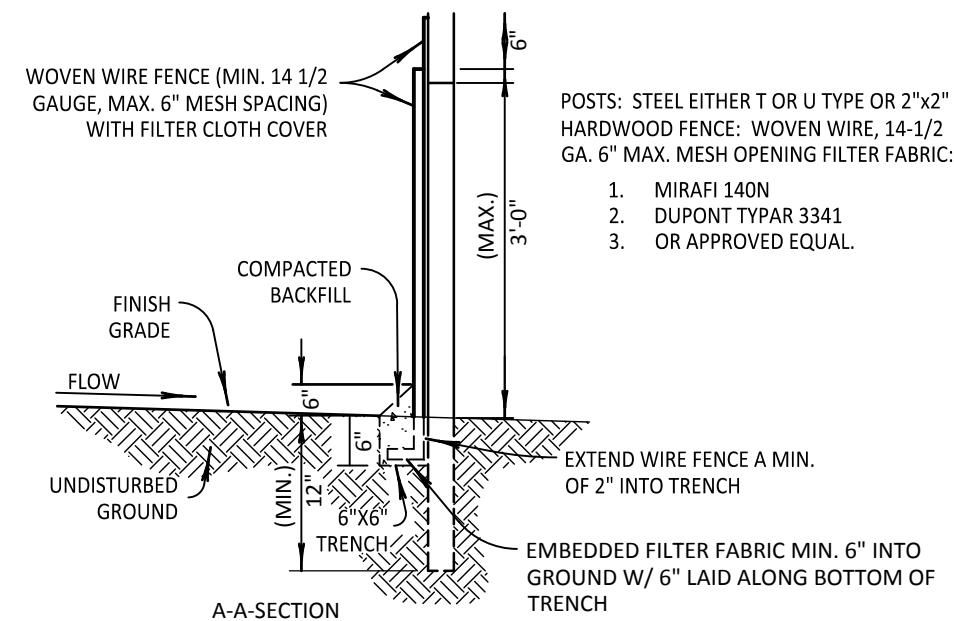
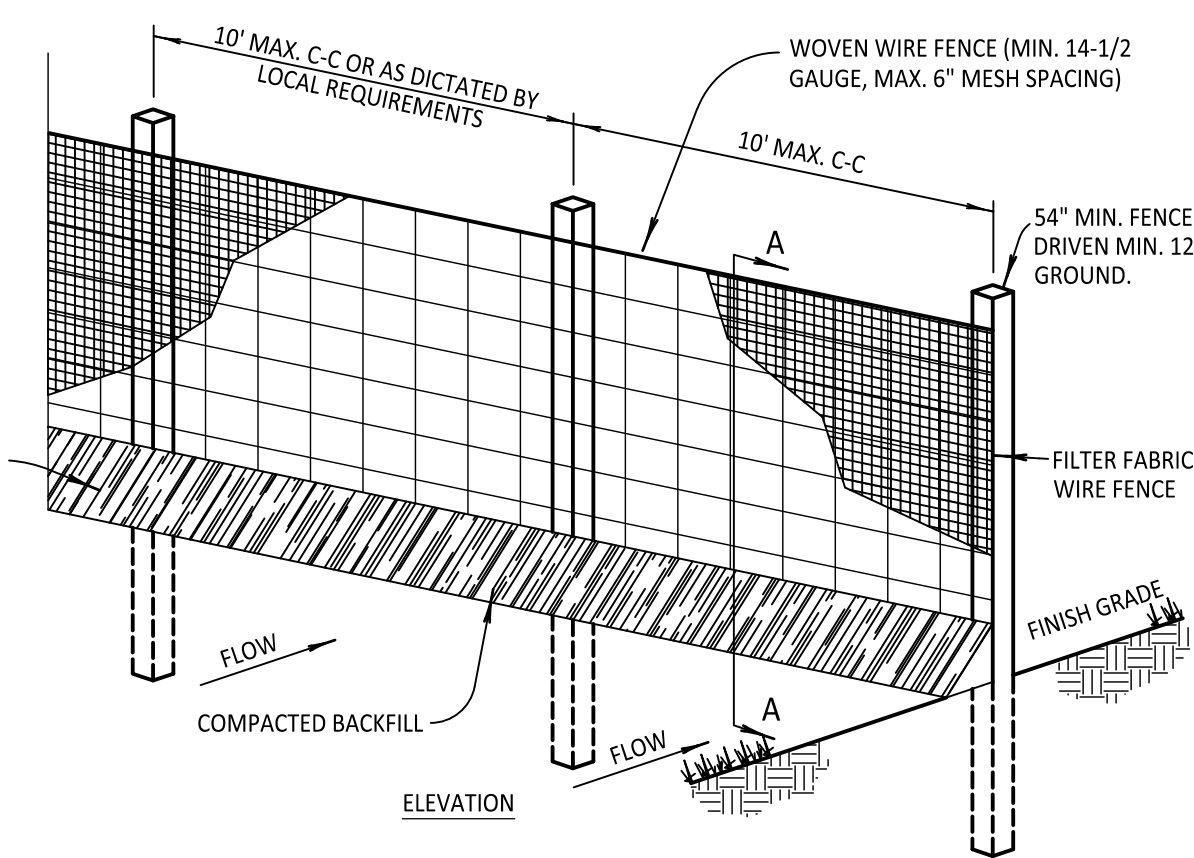
**GE08**  
 OF 00



1. POSTS SHALL BE ANGLED SLIGHTLY TOWARD RUNOFF SOURCE.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN AND BACKFILLED.
3. THE TRENCH SHOULD BE 6" DEEP BY 3' TO 4' WIDE TO ALLOW SILT FENCE TO BE LAID IN AND BACKFILLED.
4. SILT FENCE SHALL BE FASTENED TO POSTS OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE POSTS.
5. INSPECTION SHALL BE FREQUENT & REPAIR OR REPLACEMENT PROMPT.
6. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO IMPEDE STORMWATER FLOW.
7. TRAPPED SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND LOCATION WHICH WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6" TO 9" AND DISPOSED OF AS IN NOTE 7 ABOVE.

### C Silt Fence Detail

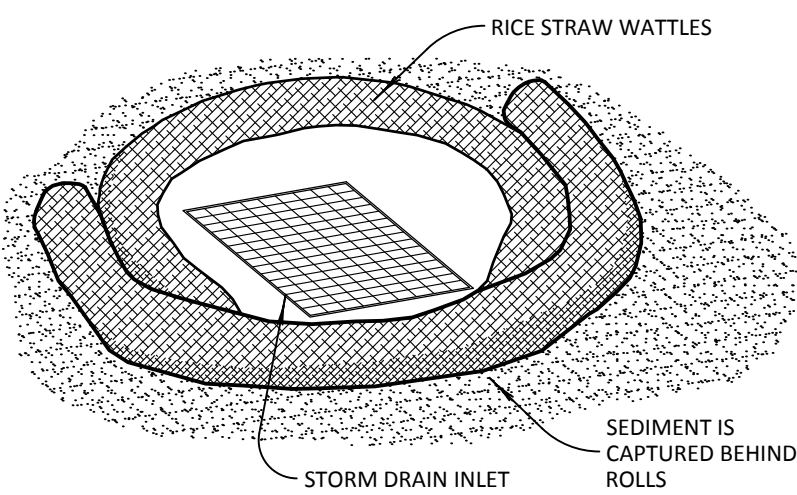
Scale: NONE



1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE EROSION CONTROL PLAN. COLLECTED MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. ALL SILT FENCE SHALL INCLUDE WIRE SUPPORT UNLESS INDICATED OTHERWISE.

### B Silt Fence With Wire Support

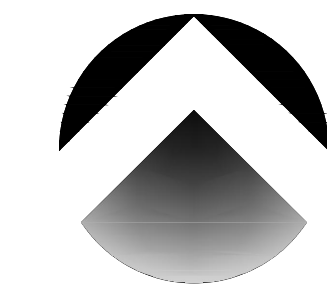
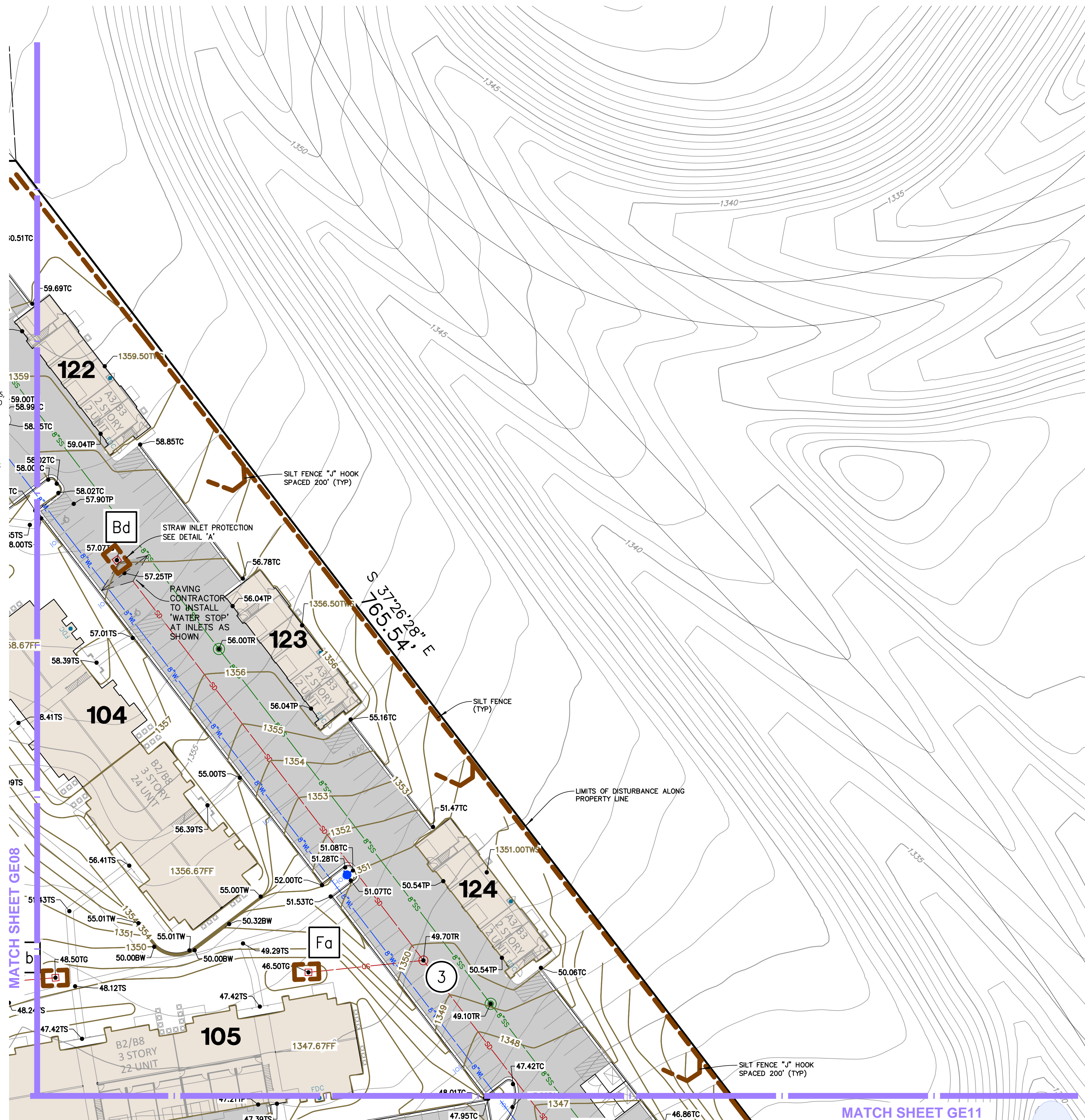
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1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. FIBER ROLLS SHOULD BE INSPECTED AFTER EVERY SIGNIFICANT STORM EVENT TO CLEAR AND DISPOSE OF SEDIMENT AND DEBRIS.

### A Straw Inlet Control Filter

Scale: NONE



NORTH  
Scale: 1" = 30'  
Tanner Consulting

Benchmark 1  
CHSLD X TOP OF EAST END OF 8X3 RCB  
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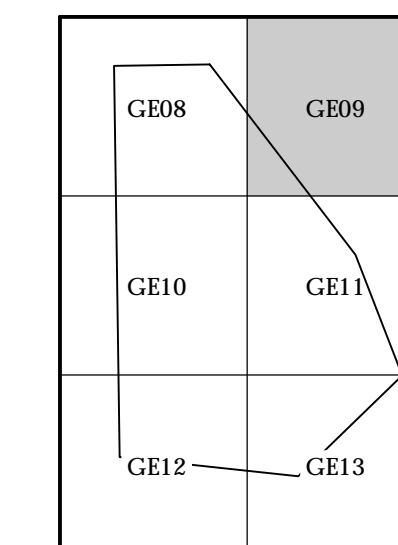
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### Erosion Control Legend

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Site Key Map  
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NORTH



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# Cottages At Crestview

## Grading, Drainage & Utilities

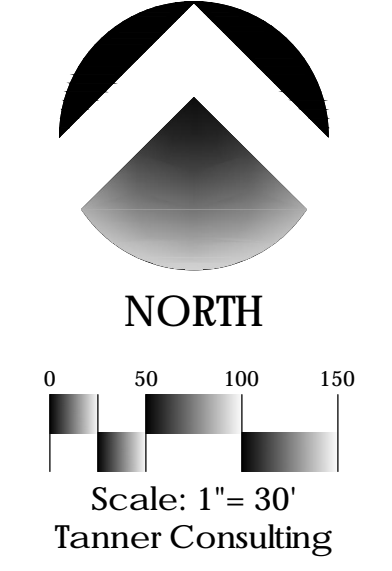
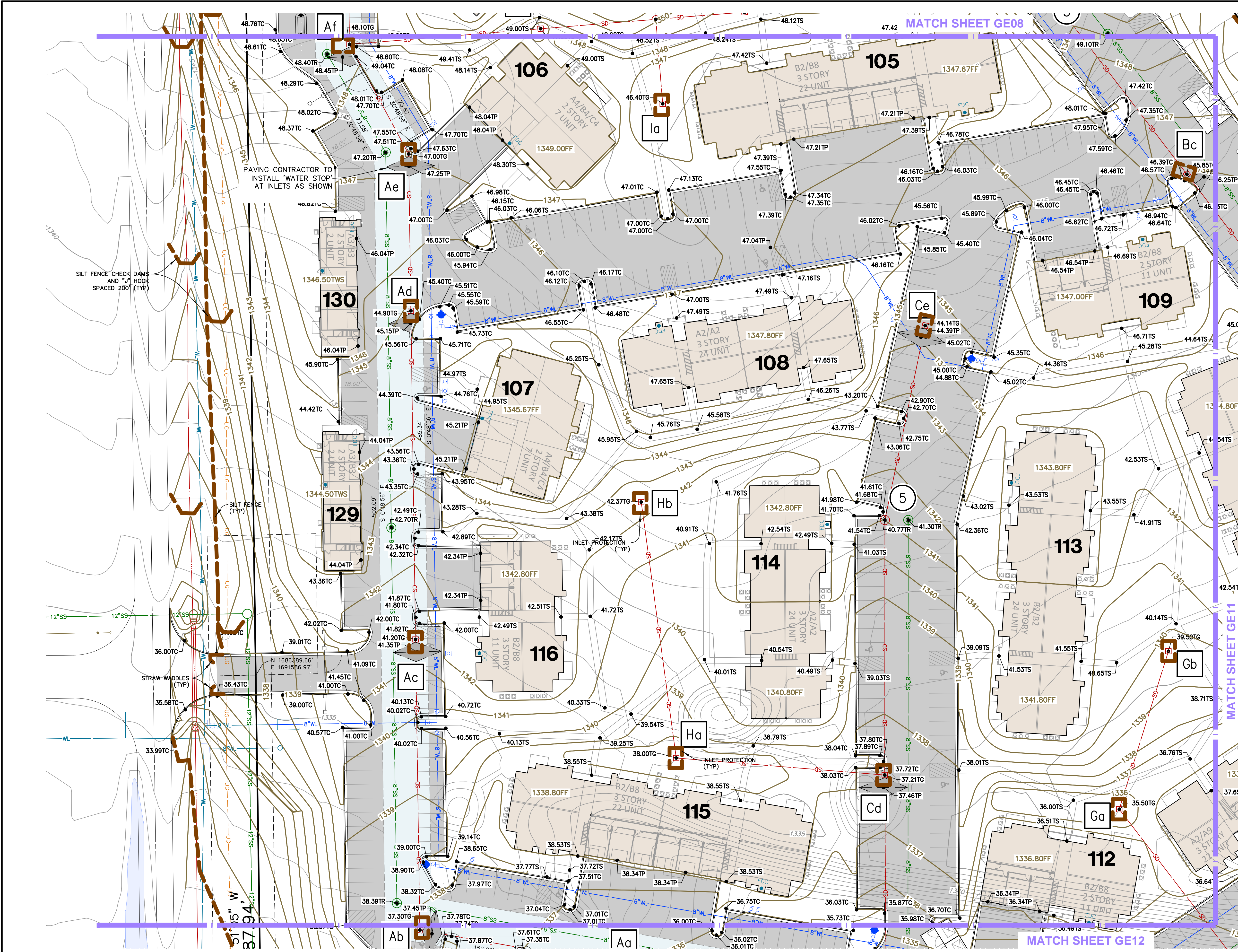
### Wichita, Kansas

PROJECT: 17006  
ISSUE DATE:  
ATLAS PAGE NO:  
PLAN SCALE: (H) 1"=30'  
(V) N/A

Grading,  
Paving &  
Erosion Control

# GE09

OF 00

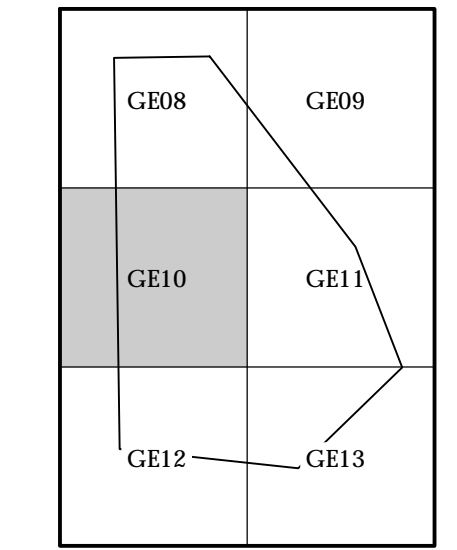


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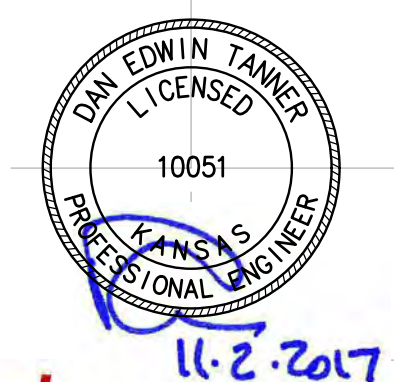
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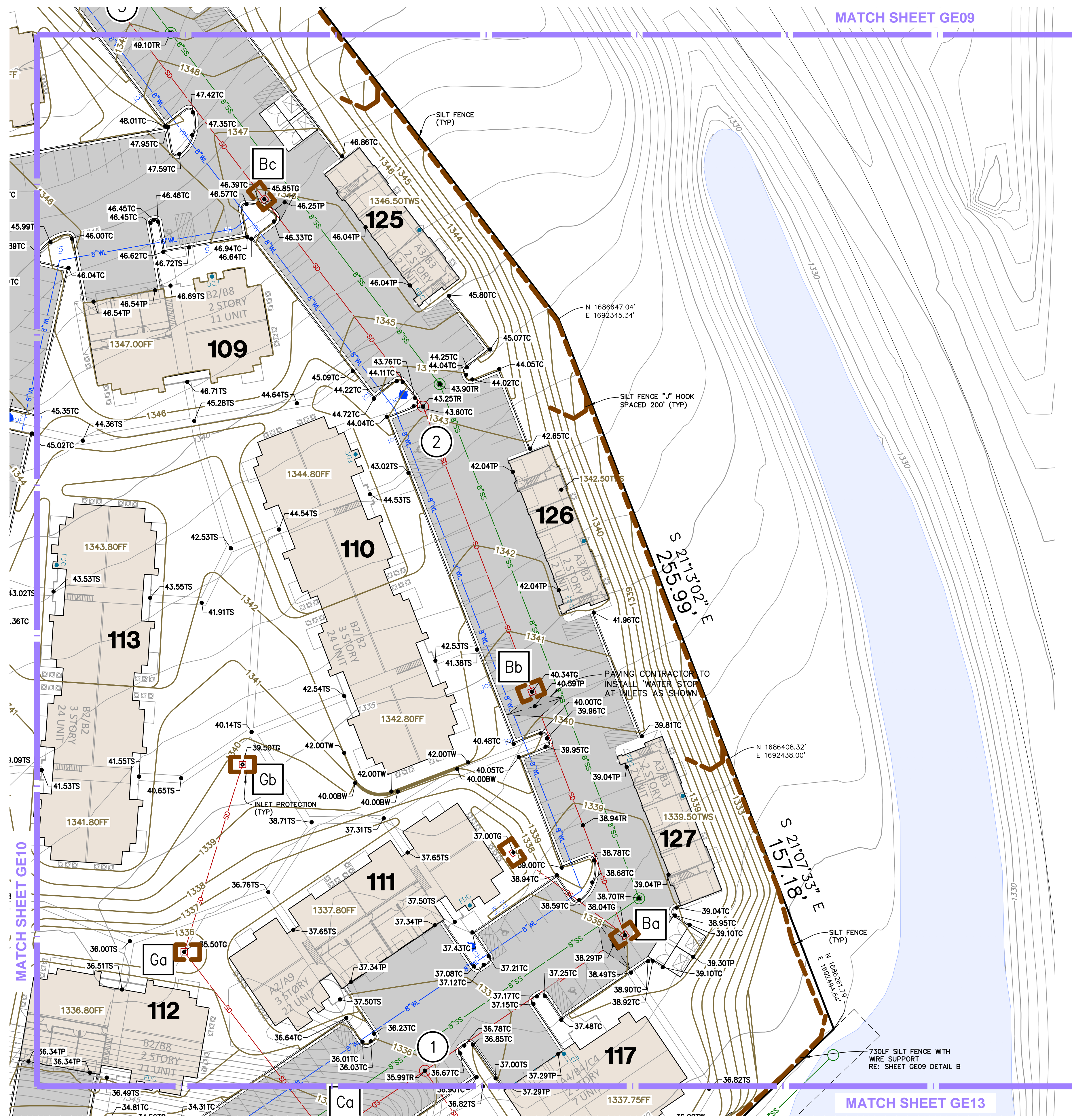
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Grading,  
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# GE10

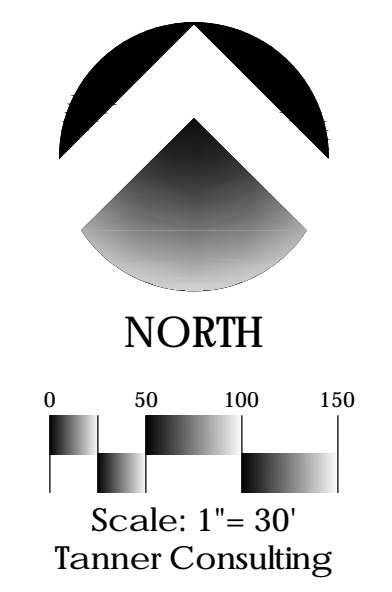
OF 00



MATCH SHEET GE09

MATCH SHEET GE10

MATCH SHEET GE13



**Benchmark 1** ♦  
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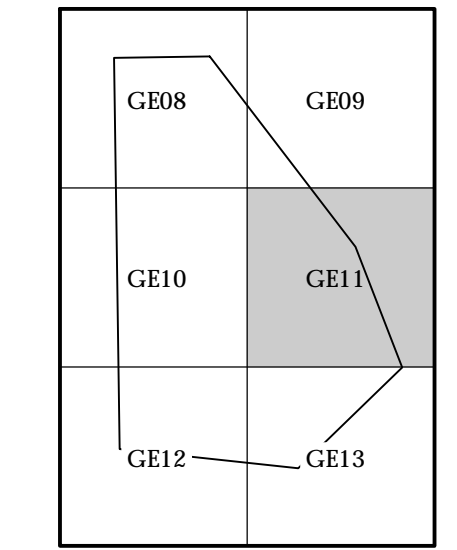
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**Legend**

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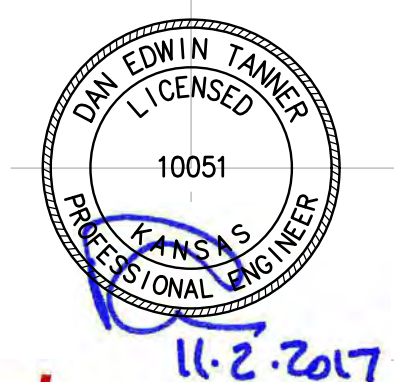
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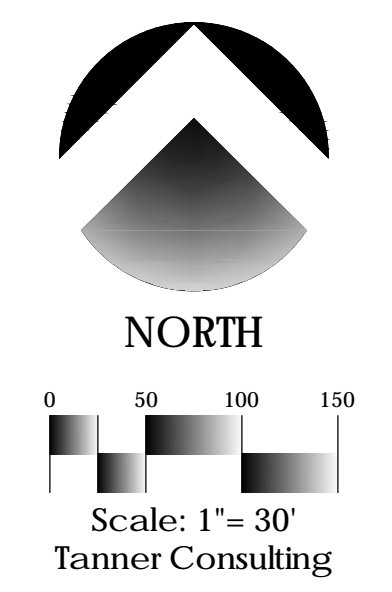
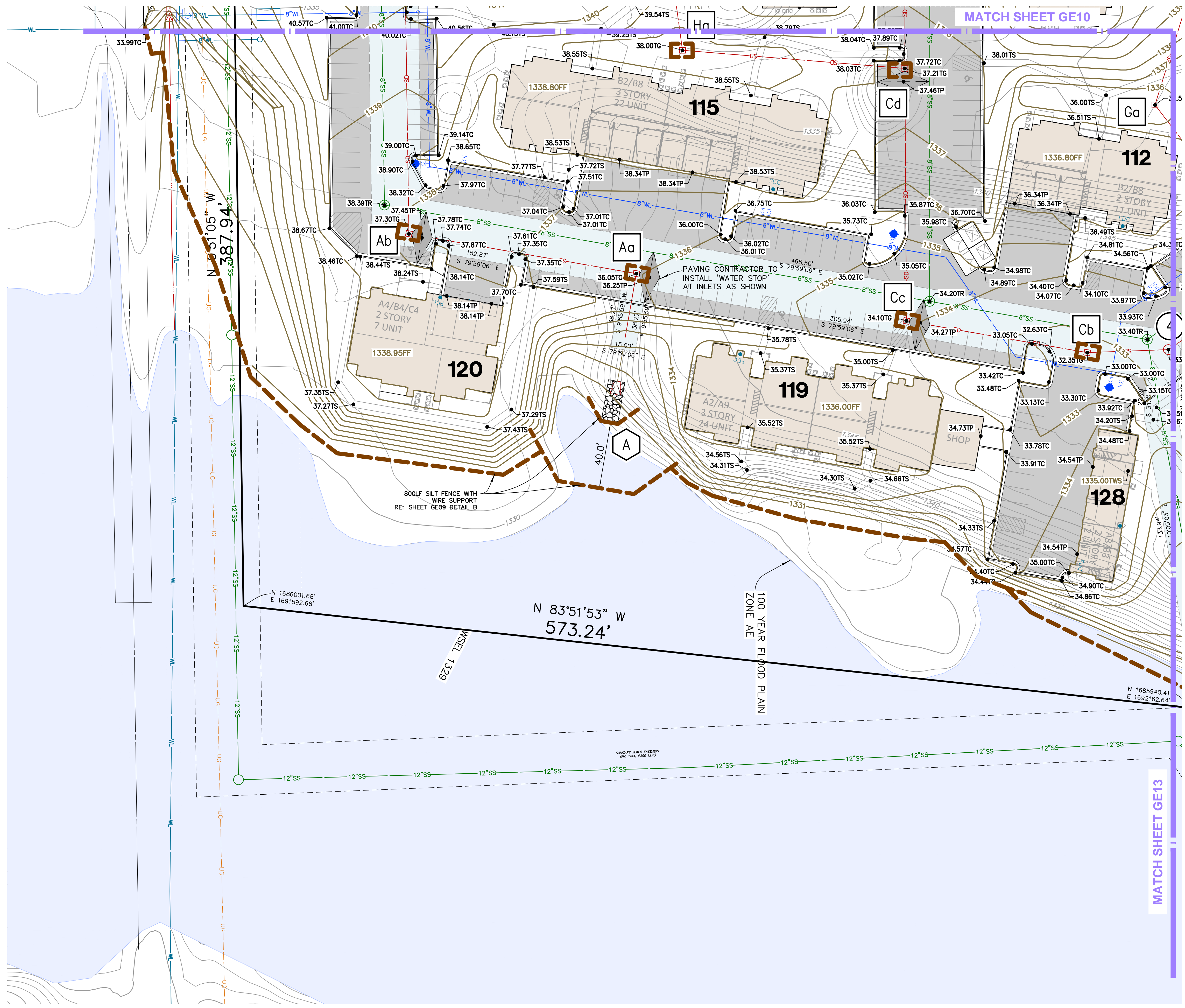
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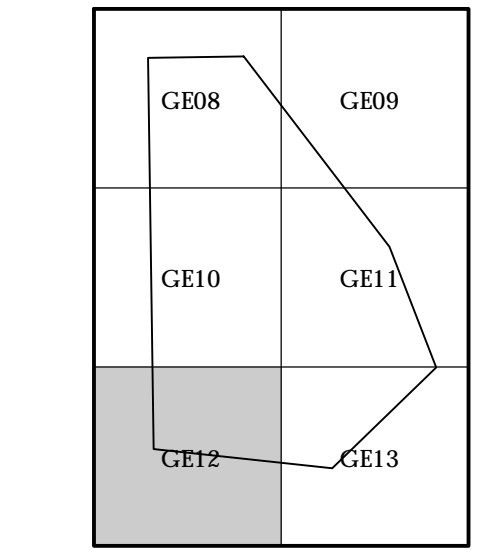
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 ON SE CORNER 127TH & DOUGLAS  
 (1,687,621.9N, 1,691,550.7E)  
 ELEVATION = 1,350.37 (NAVD 88)

**Legend**

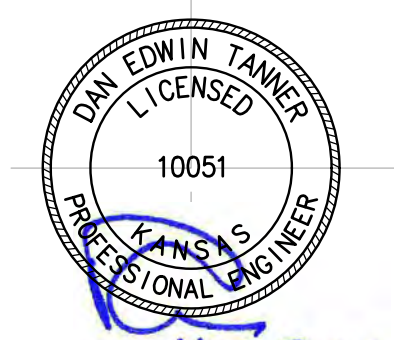
- BW BASE OF WALL FINISH GRADE
- CTRN CURB TRANSITION
- EP EDGE OF PAVING
- EX EXISTING GROUND
- FF FINISH FLOOR
- FG FINISH GRADE
- FL FLOWLINE
- GU GUTTER
- TC TOP OF CURB
- TG TOP OF GRATE
- TP TOP OF PAVING
- TR TOP OF RIM
- TS TOP OF SIDEWALK OR STEP
- TW TOP OF WALL FINISH GRADE
- TWS TOP OF WHEEL STOP

**Erosion Control Legend**

- INLET PROTECTION (SEE DETAIL)
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE/CROSSING
- STAGING AREA
- PORTABLE SANITARY UNITS LOCATION
- CHECK DAM
- CONCRETE WASHOUT



**Site Key Map**  
 Scale: NONE



11-2-2017  
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 TULSA OKLAHOMA 74105-6539  
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 KS CA-E-1311 EXP. 12/31/2017



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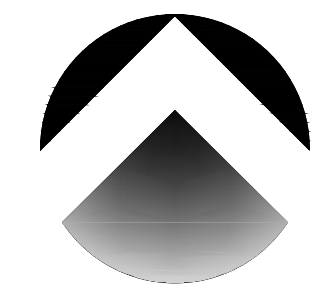
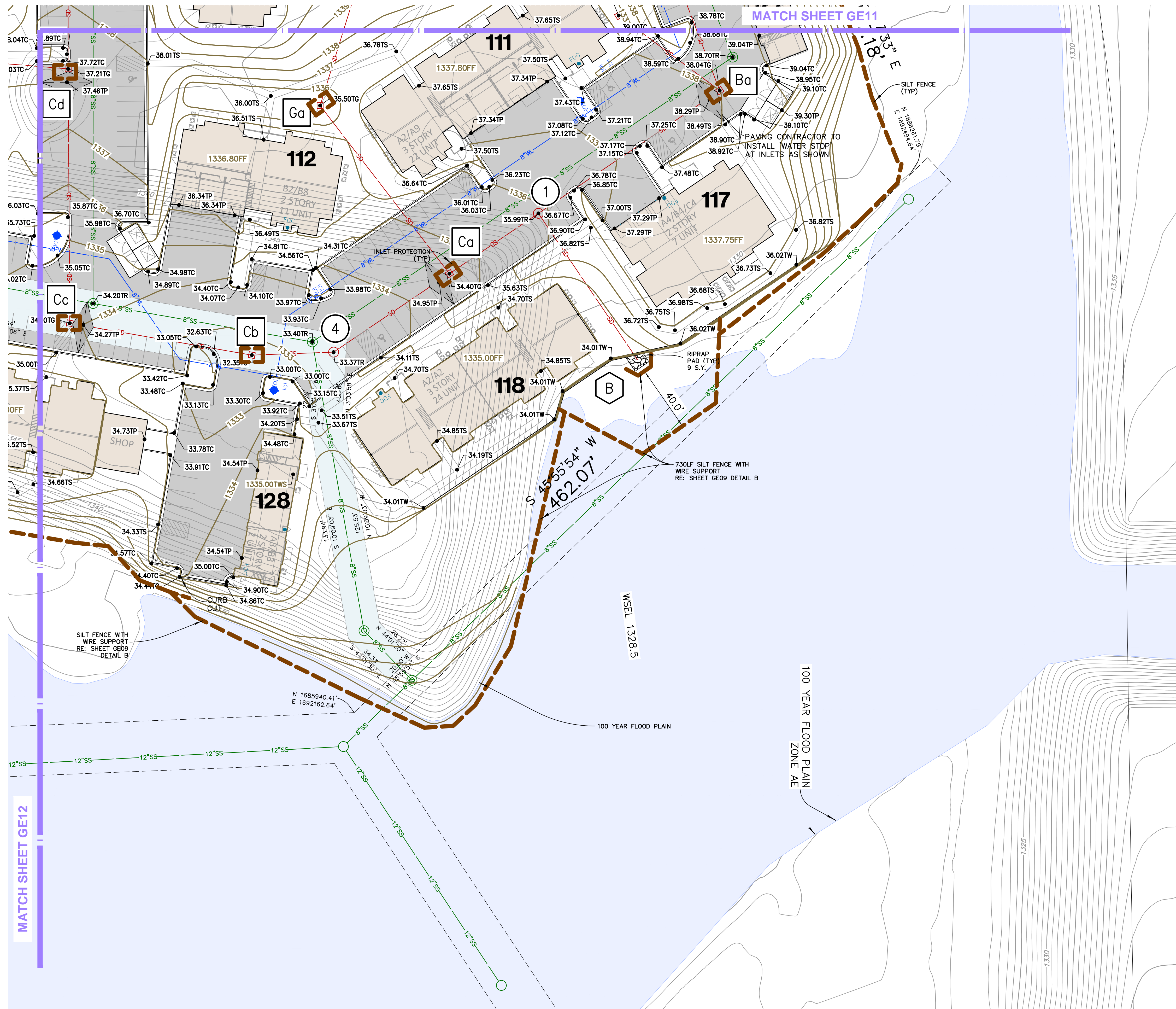
MILESTONE	DATE
1ST SUBMITTAL	08/18/17
2ND SUBMITTAL	10/06/17
3RD SUBMITTAL	10/26/17
PLOT DATE: 11/03/17	

**Cottages At Crestview**  
 Grading, Drainage & Utilities  
 Wichita, Kansas

PROJECT: 17006  
 ISSUE DATE:  
 ATLAS PAGE NO:  
 PLAN SCALE: (H) 1"=30'  
 (V) N/A

Grading,  
 Paving &  
 Erosion Control

**GE12**  
 OF 00



NORTH  
0 50 100 150  
Scale: 1" = 30'  
Tanner Consulting

**Benchmark 1**  $\blacklozenge$   
CHSLD X TOP OF EAST END OF 8X3 RCB  
(1,685,835.0N, 1,691,547.7E)  
ELEVATION = 1,329.90 (NAVD 88)

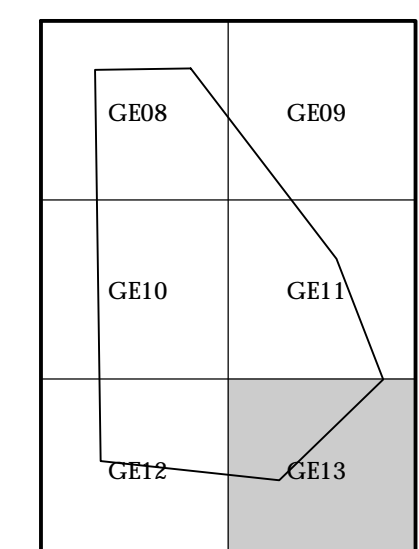
**Benchmark 2**  $\blacklozenge$   
CHSLD X AT SE CORNER TOP STORM STR  
ON SE CORNER 127TH & DOUGLAS  
(1,687,621.9N, 1,691,550.7E)  
ELEVATION = 1,350.37 (NAVD 88)

**Legend**

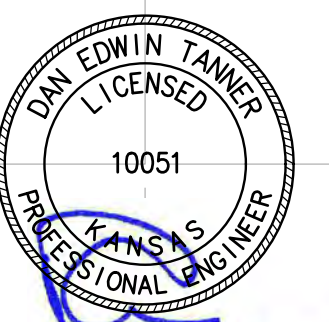
- BW BASE OF WALL FINISH GRADE
- CTRN CURB TRANSITION
- EP EDGE OF PAVING
- EX EXISTING GROUND
- FF FINISH FLOOR
- FG FINISH GRADE
- FL FLOWLINE
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- TC TOP OF CURB
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**Erosion Control Legend**

- INLET PROTECTION (SEE DETAIL)
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE/CROSSING
- STAGING AREA
- PORTABLE SANITARY UNITS LOCATION
- CHECK DAM
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**Site Key Map**  
Scale: NONE  
NORTH



11-2-2017  
**Tanner Consulting LLC**

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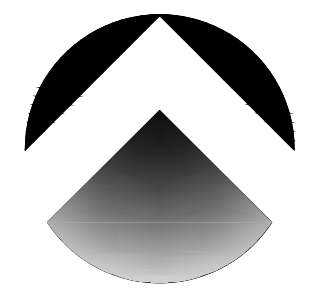
MILESTONE	DATE
1ST SUBMITTAL	08/18/17
2ND SUBMITTAL	10/06/17
3RD SUBMITTAL	10/26/17
PLOT DATE: 11/03/17	

**Cottages At Crestview**  
Grading, Drainage & Utilities  
Wichita, Kansas

PROJECT: 17006  
ISSUE DATE:  
ATLAS PAGE NO:

PLAN SCALE: (H) 1"=30'  
(V) N/A

Grading,  
Paving &  
Erosion Control  
**GE13**  
OF 00



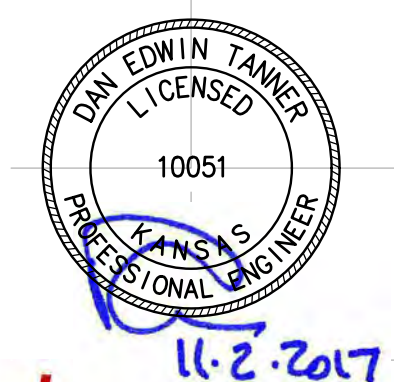
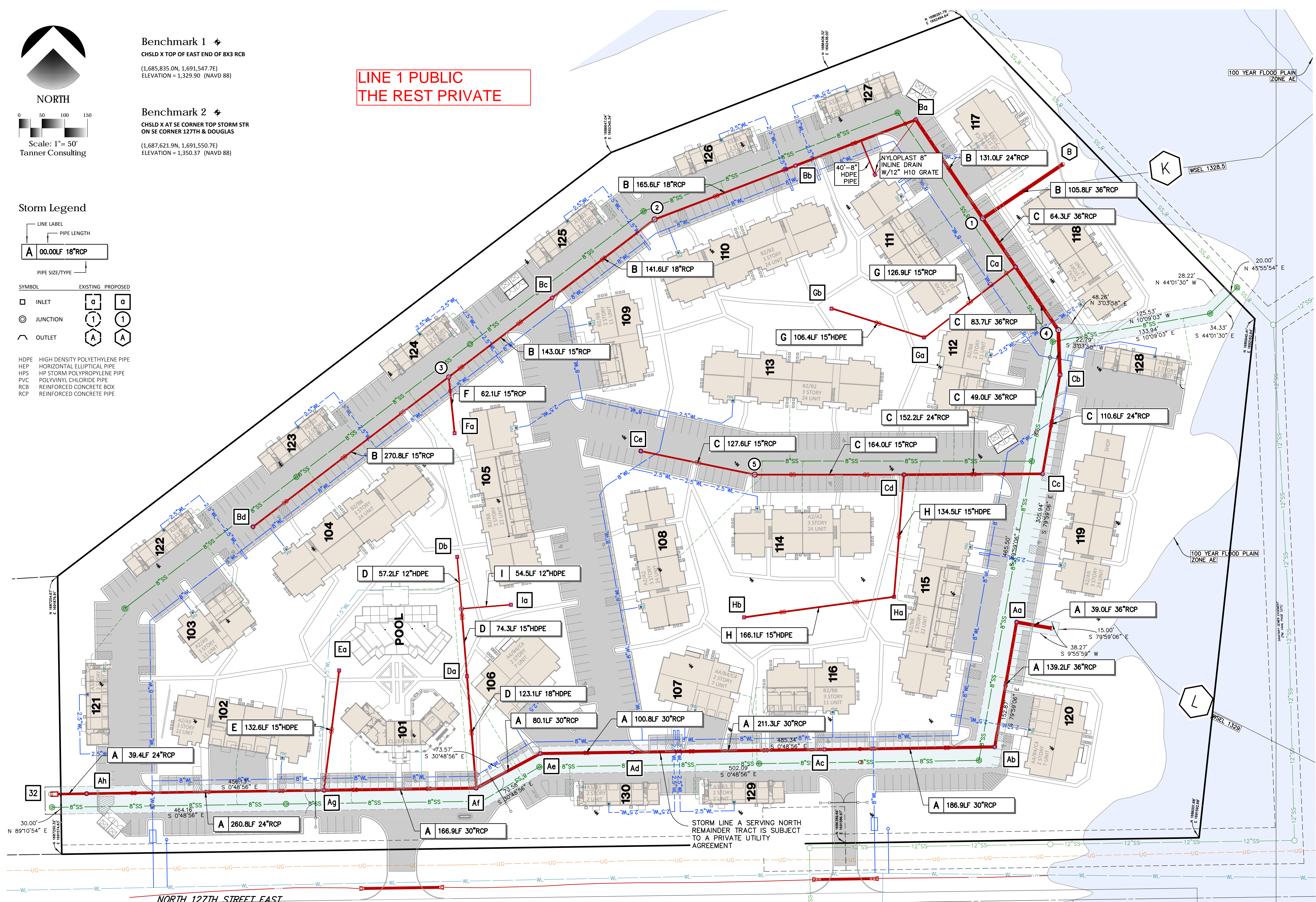
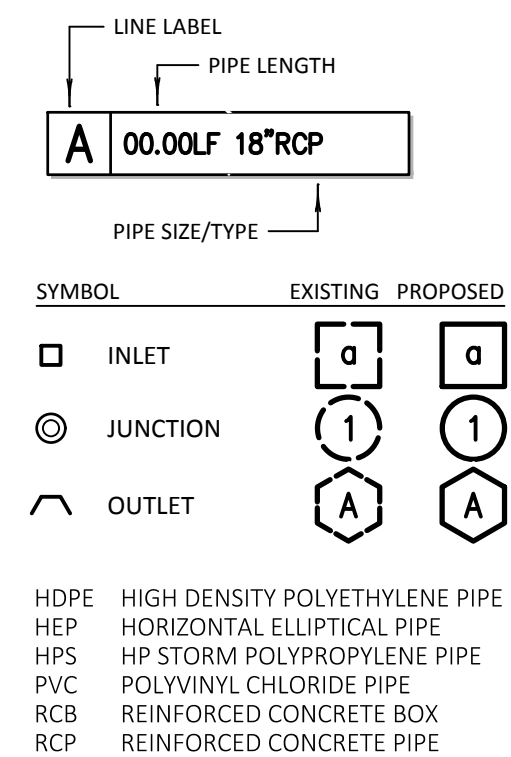
Scale: 1" = 50'  
Tanner Consulting

**Benchmark 1**  $\blacklozenge$   
CHSLD X TOP OF EAST END OF 8X3 RCB  
(1,685,835.0N, 1,691,547.7E)  
ELEVATION = 1,329.90 (NAVD 88)

**Benchmark 2**  $\blacklozenge$   
CHSLD X AT SE CORNER TOP STORM STR  
ON SE CORNER 127TH & DOUGLAS  
(1,687,621.9N, 1,691,550.7E)  
ELEVATION = 1,350.37 (NAVD 88)

**LINE 1 PUBLIC  
THE REST PRIVATE**

**Storm Legend**



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2ND SUBMITTAL	10/06/17
3RD SUBMITTAL	10/26/17

PLOT DATE: 11/03/17

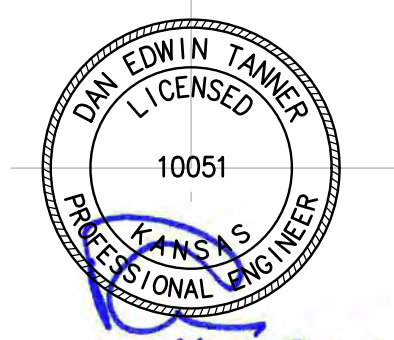
# Cottages At Crestview

Grading, Drainage & Utilities  
Wichita, Kansas

PROJECT: 17006  
ISSUE DATE:  
ATLAS PAGE NO:  
PLAN SCALE: (H) 1"=50'  
(V) N/A  
**Storm Plan**

**SD01**  
OF 00

P:201717006\CIVIL\SD01\11/03/2017 10:50:45 AM, LPT:TERSON, H., TANNER CONSULTING, LLC., OK CA 2661 EXP 6/30/2019

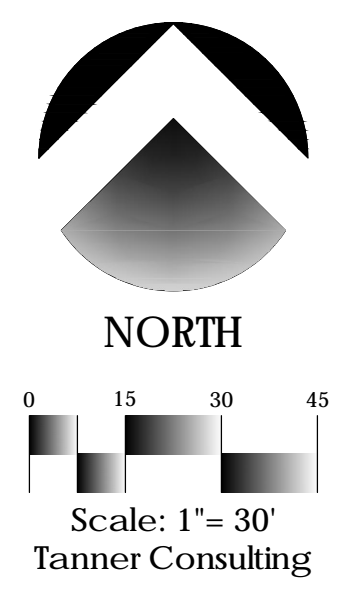


11-2-2017  
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3RD SUBMITTAL	10/26/17
PLOT DATE: 11/03/17	

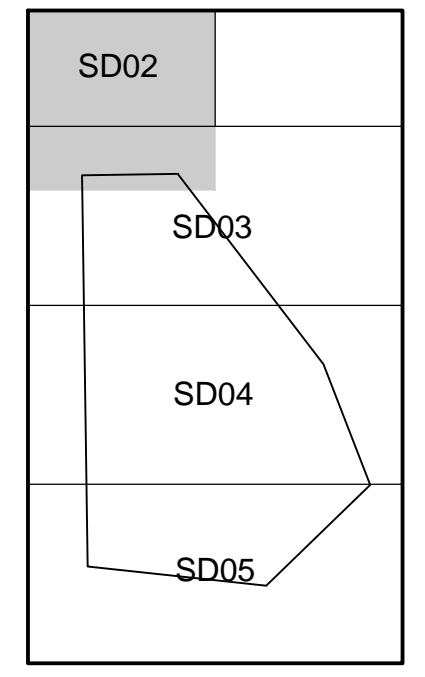


**Benchmark 1**  $\blacklozenge$   
 CHSLD X TOP OF EAST END OF 8X3 RCB  
 (1,685,835.0N, 1,691,547.7E)  
 ELEVATION = 1,329.90 (NAVD 88)

**Benchmark 2**  $\blacklozenge$   
 CHSLD X AT SE CORNER TOP STORM STR  
 ON SE CORNER 127TH & DOUGLAS  
 (1,687,621.9N, 1,691,550.7E)  
 ELEVATION = 1,350.37 (NAVD 88)

**Legend**

- A PROPOSED DRAINAGE AREA LABEL
- PROPOSED DRAINAGE AREA LIMITS
- A ORIGINAL DRAINAGE AREA LABEL
- ORIGINAL DRAINAGE AREA LIMITS
- DRAINAGE AREA FLOW PATH
- a INFLOW STRUCTURE LABEL
- 1 JUNCTION STRUCTURE LABEL
- B EXISTING STRUCTURE LABEL



**Site Key Map**  
 Scale: NONE NORTH

# Cottages At Crestview

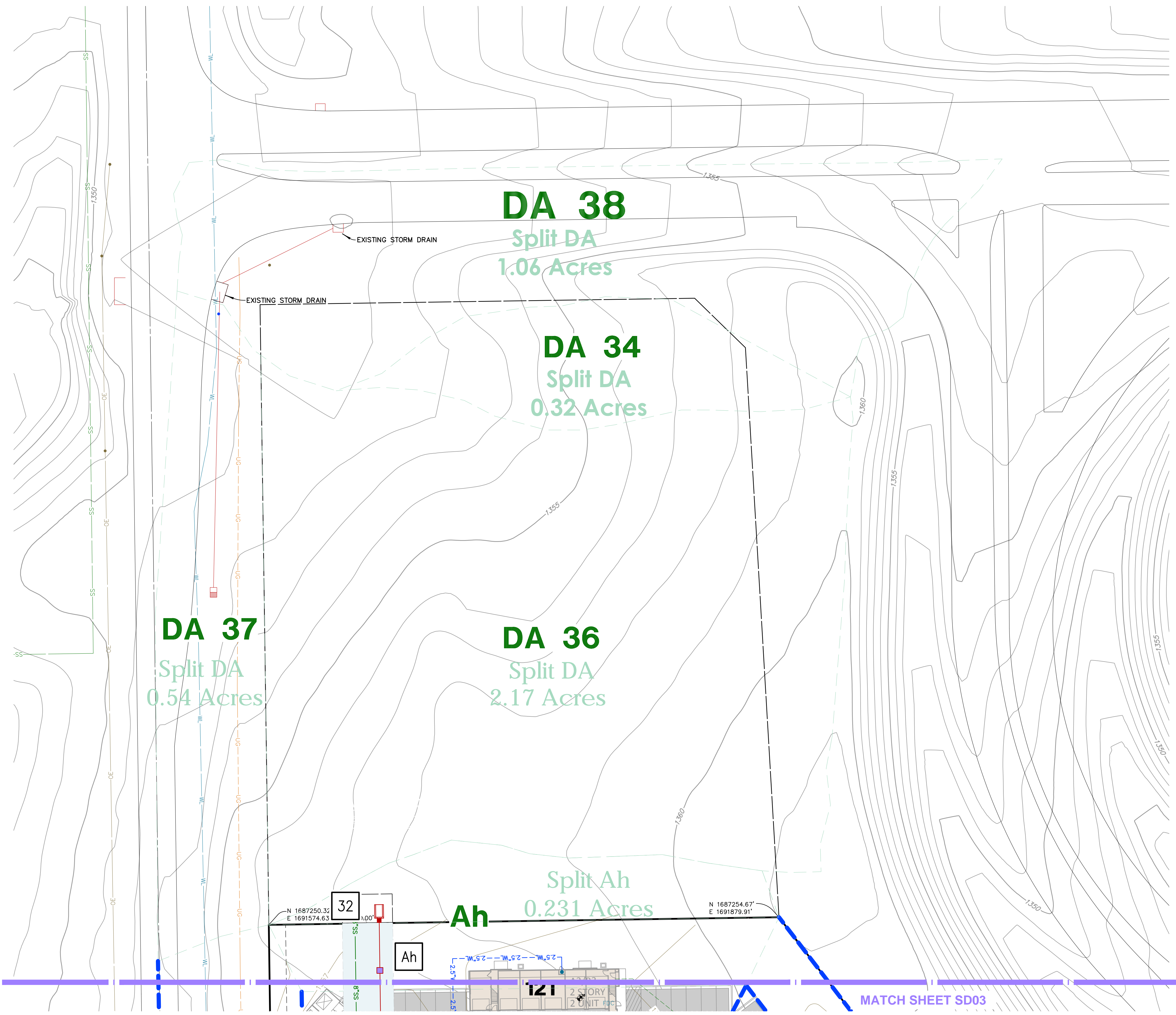
Grading, Drainage & Utilities  
 Wichita, Kansas

PROJECT: 17006  
 ISSUE DATE:  
 ATLAS PAGE NO:  
 PLAN SCALE: (H) 1"=30'  
 (V) N/A

Offsite Storm Sewer And Drainage Area

## SD02

OF 00



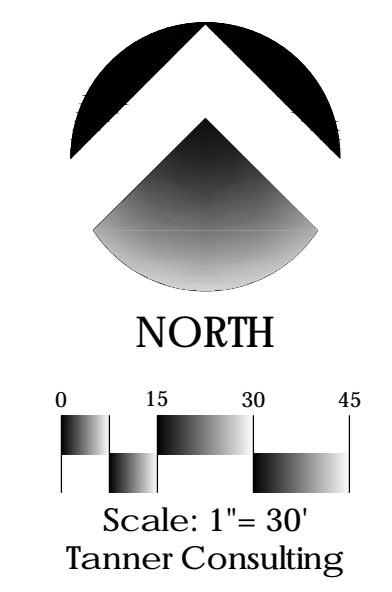


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2ND SUBMITTAL	10/06/17
3RD SUBMITTAL	10/26/17
PLOT DATE: 11/03/17	

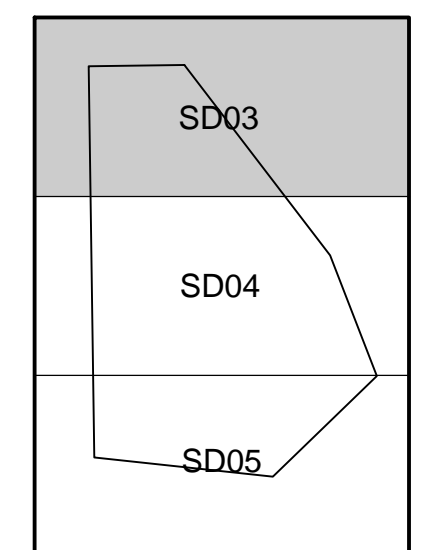


**Benchmark 1**  $\blacklozenge$   
 CHSLD X TOP OF EAST END OF 8X3 RCB  
 (1,685,835.0N, 1,691,547.7E)  
 ELEVATION = 1,329.90 (NAVD 88)

**Benchmark 2**  $\blacklozenge$   
 CHSLD X AT SE CORNER TOP STORM STR  
 ON SE CORNER 127TH & DOUGLAS  
 (1,687,621.9N, 1,691,550.7E)  
 ELEVATION = 1,350.37 (NAVD 88)

**Legend**

- A PROPOSED DRAINAGE AREA LABEL
- PROPOSED DRAINAGE AREA LIMITS
- A ORIGINAL DRAINAGE AREA LABEL
- ORIGINAL DRAINAGE AREA LIMITS
- DRAINAGE AREA FLOW PATH
- a INFLOW STRUCTURE LABEL
- 1 JUNCTION STRUCTURE LABEL
- B EXISTING STRUCTURE LABEL



**Site Key Map**  
 Scale: NONE

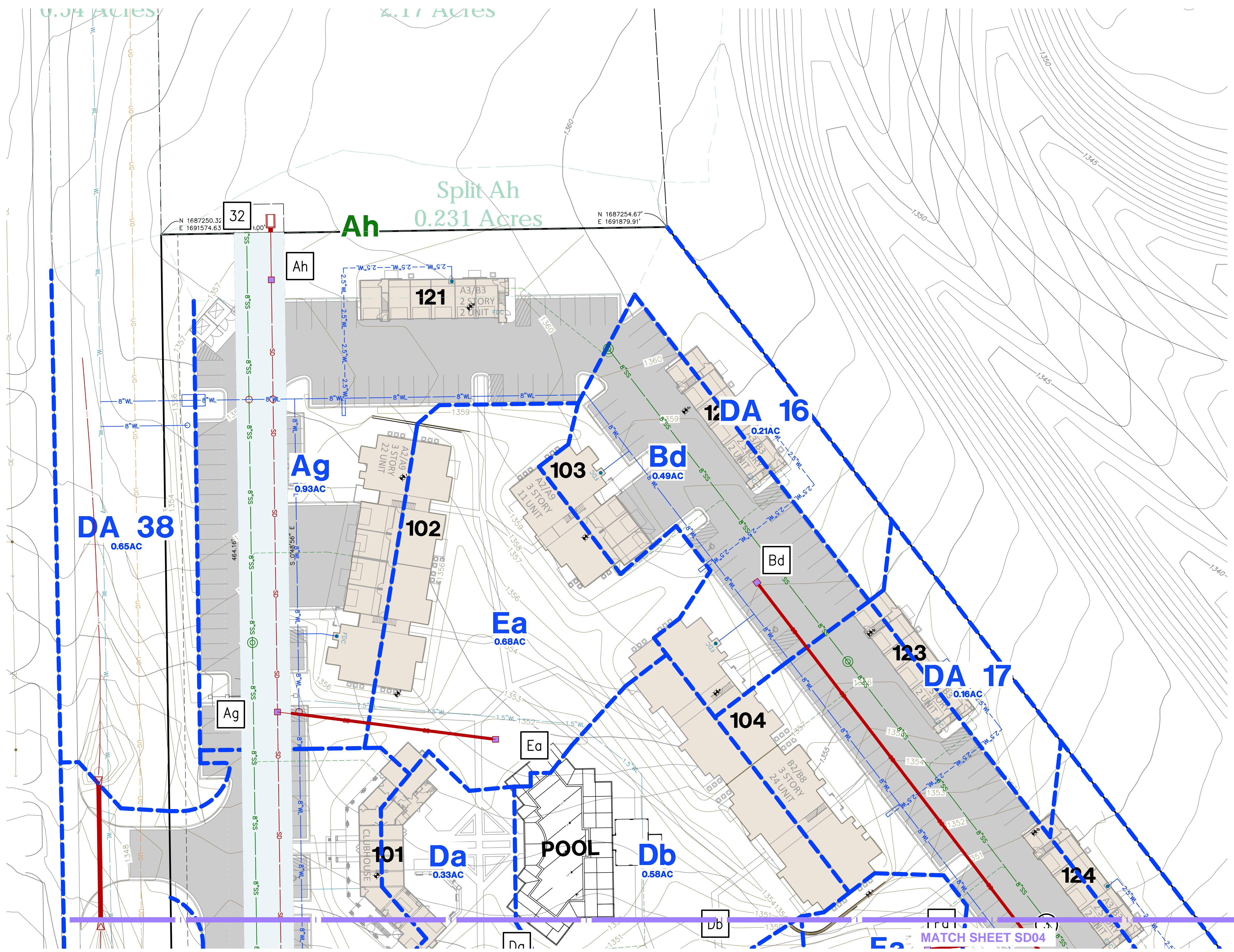
# Cottages At Crestview

Grading, Drainage & Utilities  
 Wichita, Kansas

PROJECT: 17006  
 ISSUE DATE:  
 ATLAS PAGE NO:  
 PLAN SCALE: (H) 1"=30'  
 (V) N/A

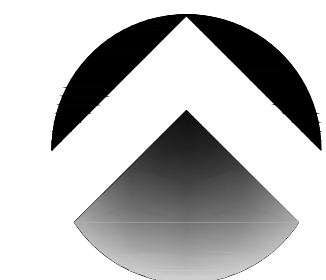
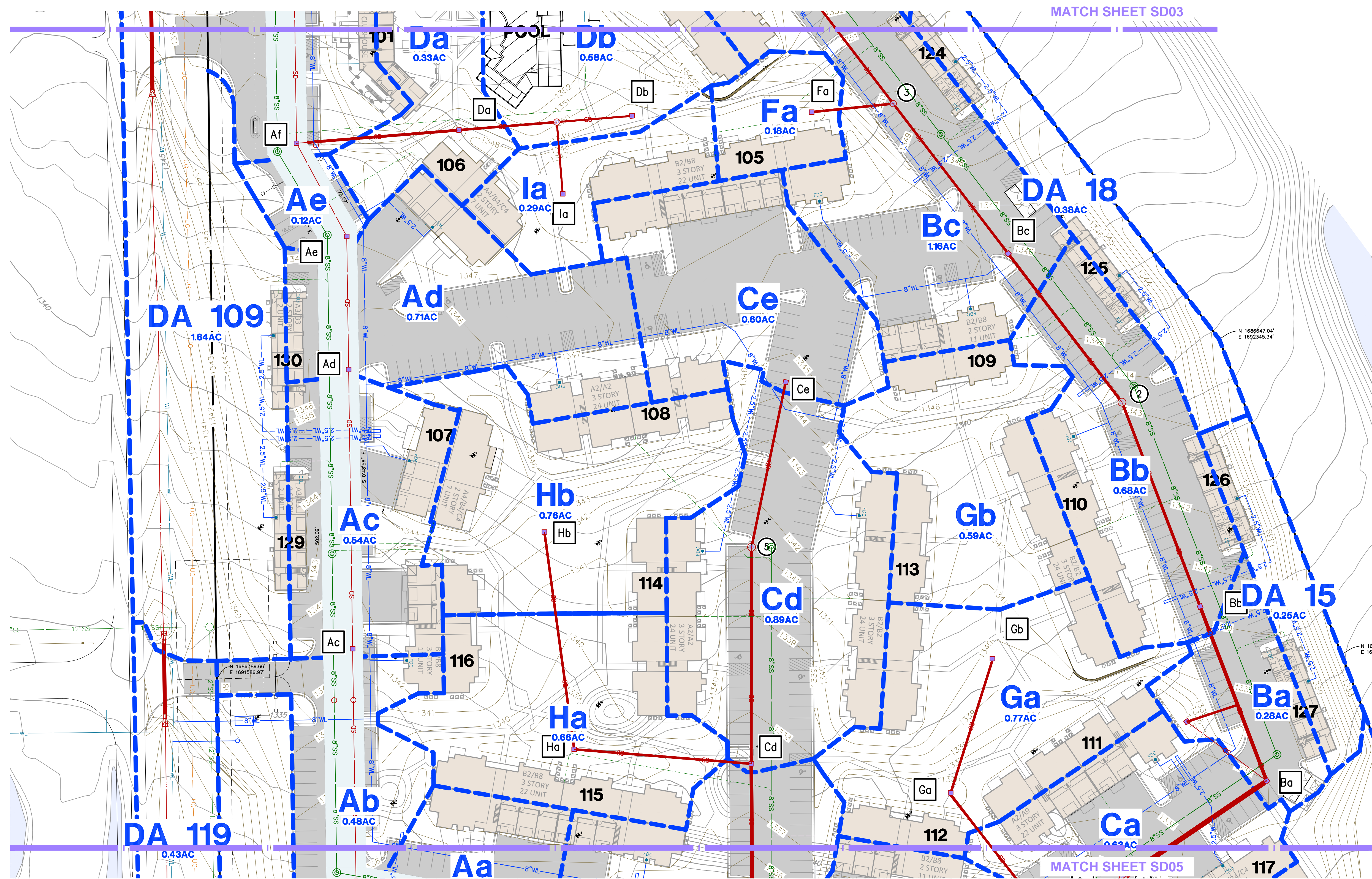
Storm Sewer  
 Drainage Area

**SD03**  
 OF 00



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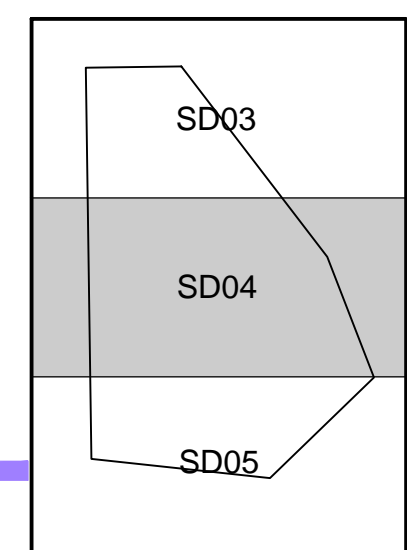


NORTH  
Scale: 1" = 30'  
Tanner Consulting

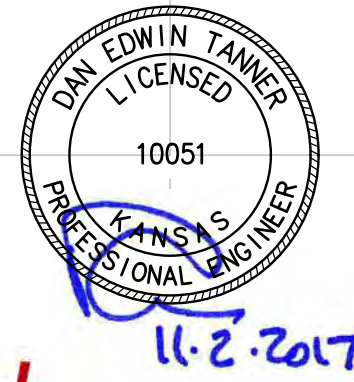
Benchmark 1  
CHSLD X TOP OF EAST END OF 8X3 RCB  
(1,685,835.0N, 1,691,547.7E)  
ELEVATION = 1,329.90 (NAVD 88)

Benchmark 2  
CHSLD X AT SE CORNER TOP STORM STR  
ON SE CORNER 127TH & DOUGLAS  
(1,687,621.9N, 1,691,550.7E)  
ELEVATION = 1,350.37 (NAVD 88)

- Legend**
- A PROPOSED DRAINAGE AREA LABEL
  - PROPOSED DRAINAGE AREA LIMITS
  - A ORIGINAL DRAINAGE AREA LABEL
  - ORIGINAL DRAINAGE AREA LIMITS
  - DRAINAGE AREA FLOW PATH
  - a INFLOW STRUCTURE LABEL
  - 1 JUNCTION STRUCTURE LABEL
  - B EXISTING STRUCTURE LABEL



Site Key Map  
Scale: NONE



11-2-2017  
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MILESTONE	DATE
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2ND SUBMITTAL	10/06/17
3RD SUBMITTAL	10/26/17
PLOT DATE: 11/03/17	

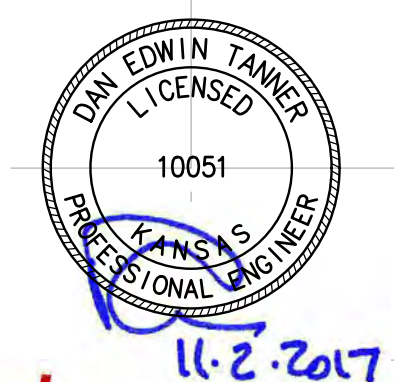
# Cottages At Crestview

## Grading, Drainage & Utilities

### Wichita, Kansas

PROJECT: 17006  
ISSUE DATE:  
ATLAS PAGE NO:  
PLAN SCALE: (H) 1"=30'  
(V) N/A  
Storm Sewer Drainage Area

**SD04**  
OF 00

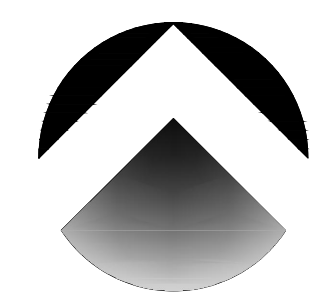


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3RD SUBMITTAL	10/26/17
PLOT DATE: 11/03/17	



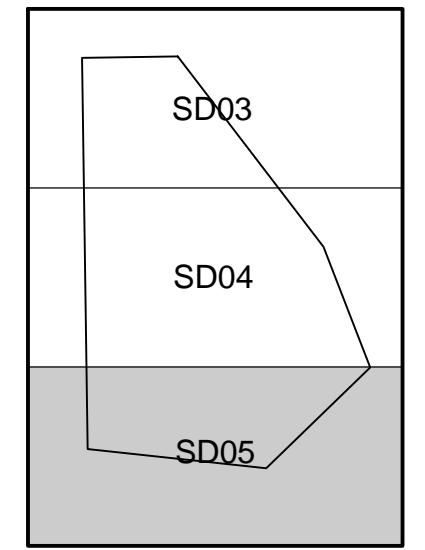
NORTH  
 Scale: 1" = 30'  
 Tanner Consulting

Benchmark 1  
 CHSLD X TOP OF EAST END OF 8X3 RCB  
 (1,685,835.0N, 1,691,547.7E)  
 ELEVATION = 1,329.90 (NAVD 88)

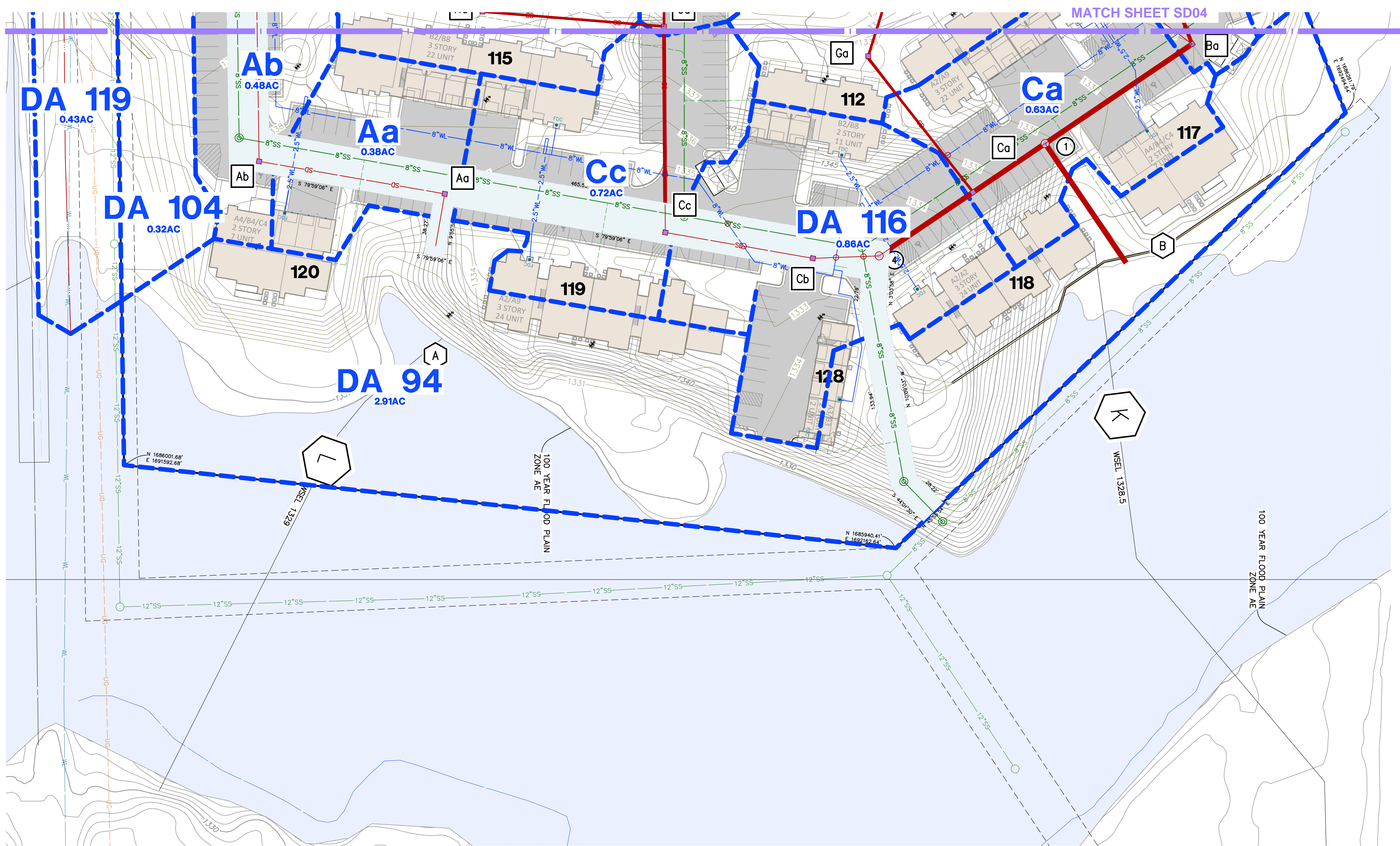
Benchmark 2  
 CHSLD X AT SE CORNER TOP STORM STR  
 ON SE CORNER 127TH & DOUGLAS  
 (1,687,621.9N, 1,691,550.7E)  
 ELEVATION = 1,350.37 (NAVD 88)

**Legend**

- A PROPOSED DRAINAGE AREA LABEL
- PROPOSED DRAINAGE AREA LIMITS
- A ORIGINAL DRAINAGE AREA LABEL
- ORIGINAL DRAINAGE AREA LIMITS
- ~ DRAINAGE AREA FLOW PATH
- a INFLOW STRUCTURE LABEL
- 1 JUNCTION STRUCTURE LABEL
- B EXISTING STRUCTURE LABEL



Site Key Map  
 Scale: NONE



# Cottages At Crestview

## Grading, Drainage & Utilities

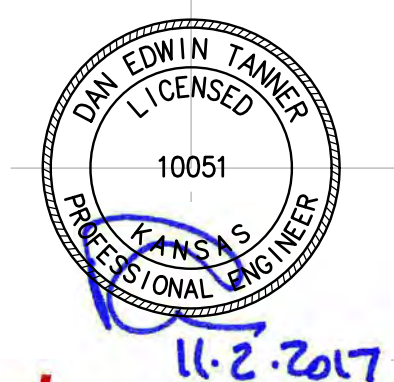
### Wichita, Kansas

PROJECT: 17006  
 ISSUE DATE:  
 ATLAS PAGE NO:  
 PLAN SCALE: (H) 1"=30'  
 (V) N/A

Storm Sewer  
 Drainage Area

**SD05**  
 OF 00





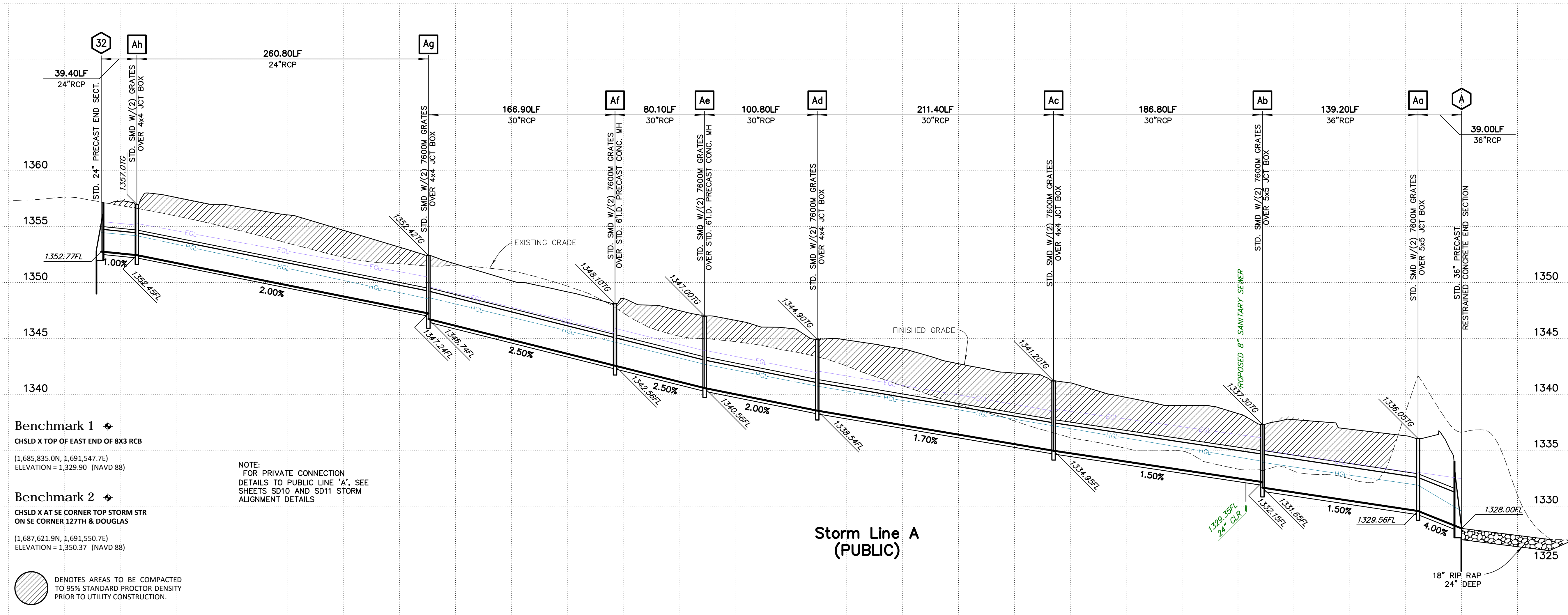
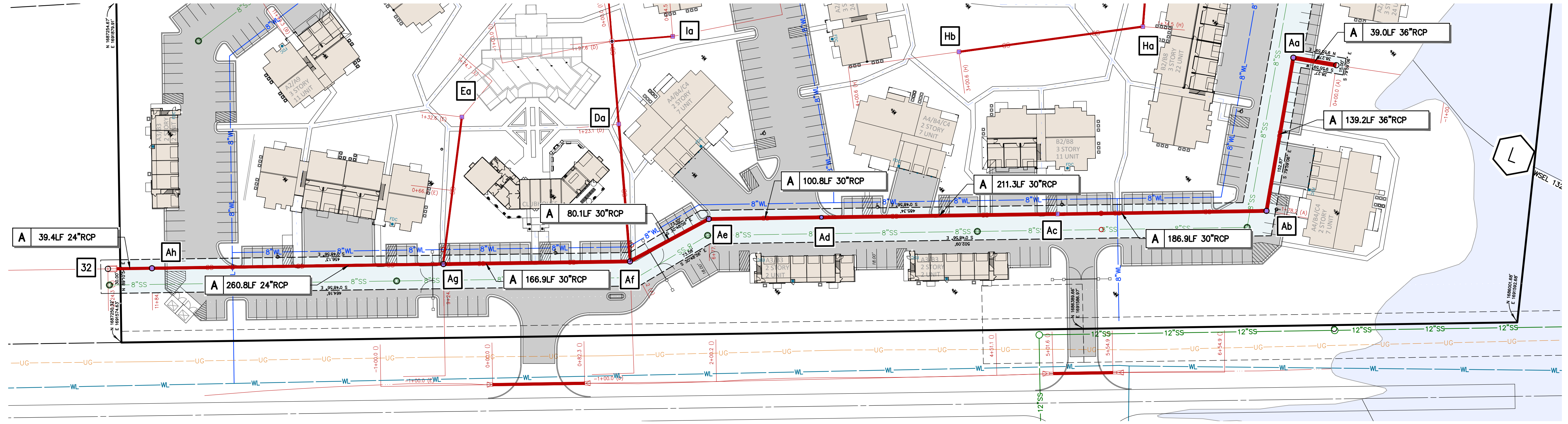
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 LANDSCAPE ARCHITECTURE | PLANNING  
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2ND SUBMITTAL	10/06/17
3RD SUBMITTAL	10/26/17

PLOT DATE: 11/03/17



NOTE:  
 FOR PRIVATE CONNECTION  
 DETAILS TO PUBLIC LINE 'A', SEE  
 SHEETS SD10 AND SD11 STORM  
 ALIGNMENT DETAILS

⊘ DENOTES AREAS TO BE COMPACTED  
 TO 95% STANDARD PROCTOR DENSITY  
 PRIOR TO UTILITY CONSTRUCTION.

# Cottages At Crestview

## Grading, Drainage & Utilities

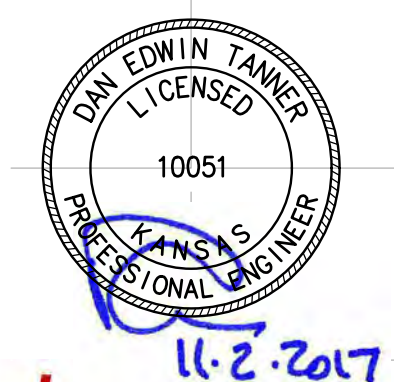
### Wichita, Kansas

PROJECT: 17006  
 ISSUE DATE:  
 ATLAS PAGE NO:  
 PLAN SCALE: (H) 1"=50'  
 (V) 1"=5'

Storm Line A  
 Plan & Profile

**SD07**  
 OF 00





**Tanner Consulting LLC**  
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 KS CA E-1311 EXP. 12/31/2017



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MILESTONE	DATE
1ST SUBMITTAL	08/18/17
2ND SUBMITTAL	10/06/17
3RD SUBMITTAL	10/26/17

PLOT DATE: 11/03/17

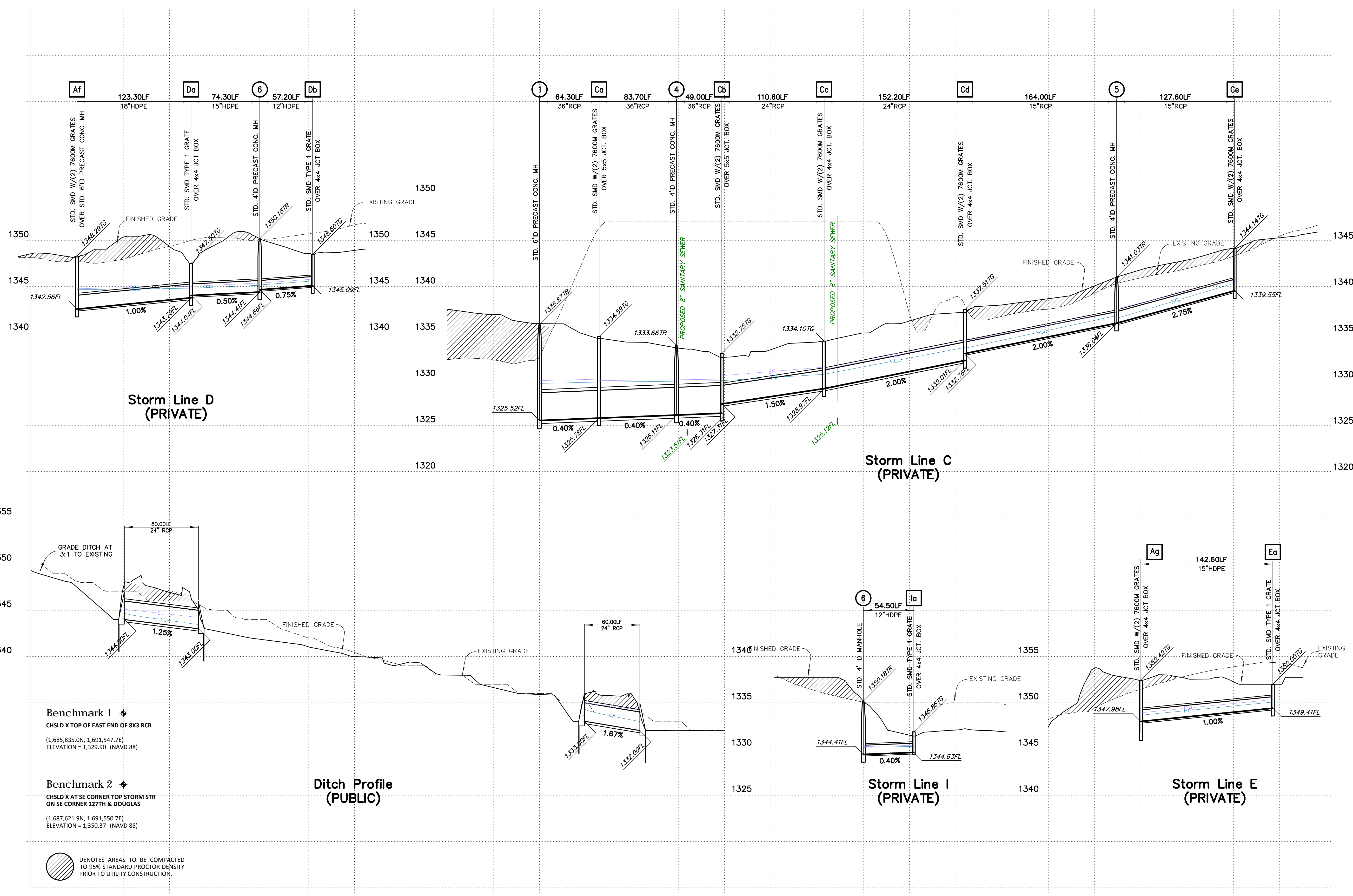
# Cottages At Crestview

Grading, Drainage & Utilities  
 Wichita, Kansas

PROJECT: 17006  
 ISSUE DATE:  
 ATLAS PAGE NO:  
 PLAN SCALE: (H) 1"=50'  
 (V) 1"=5'

Storm Profiles  
 C, D, E, & I

**SD09**  
 OF 00



**Storm Line D (PRIVATE)**

**Storm Line C (PRIVATE)**

**Storm Line I (PRIVATE)**

**Storm Line E (PRIVATE)**

**Ditch Profile (PUBLIC)**

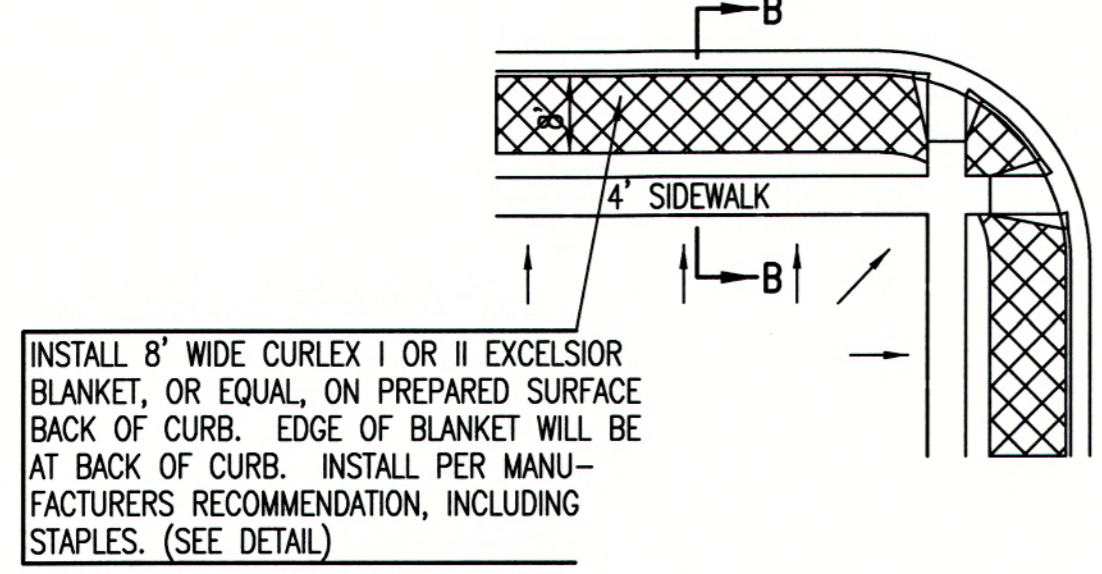
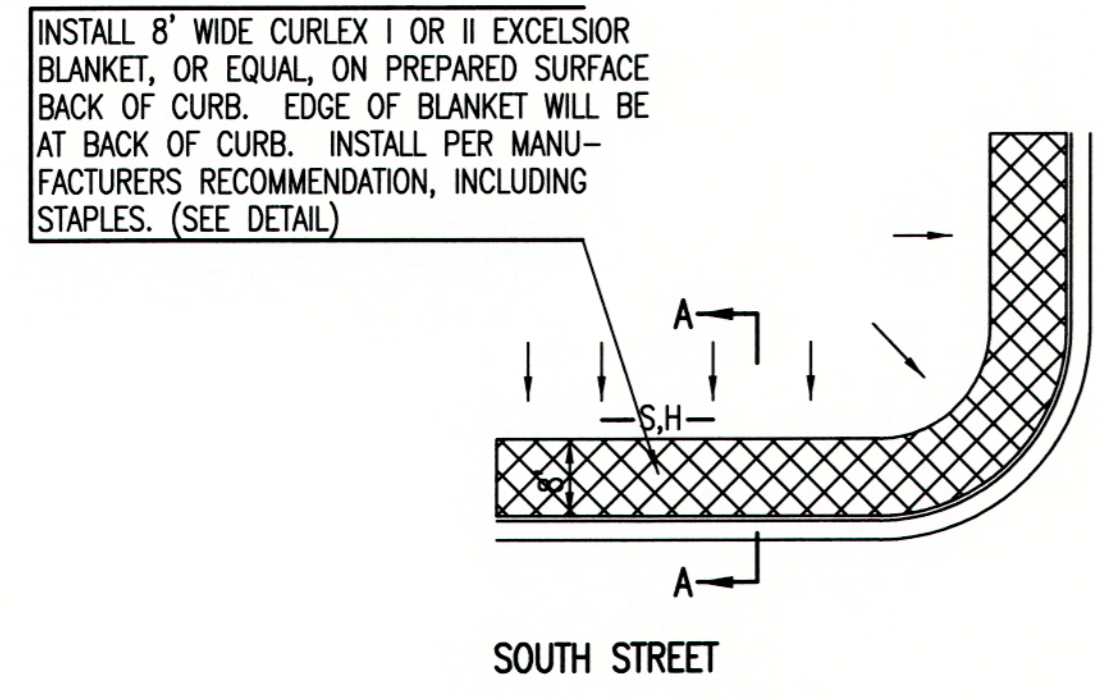
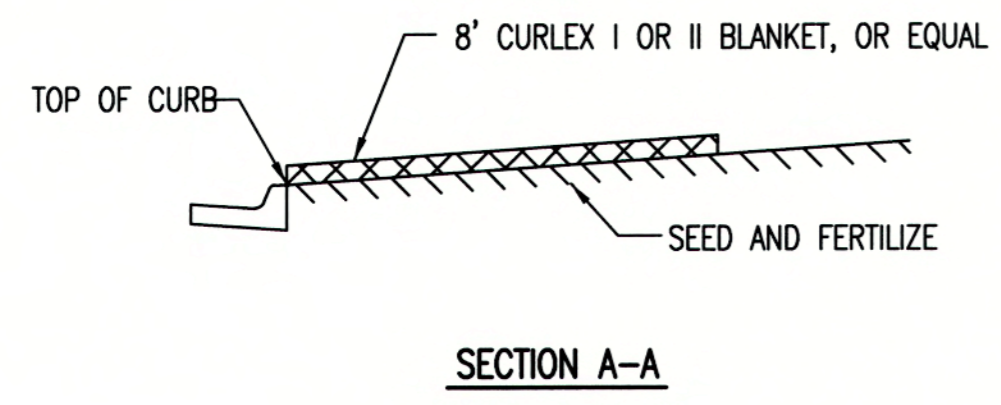
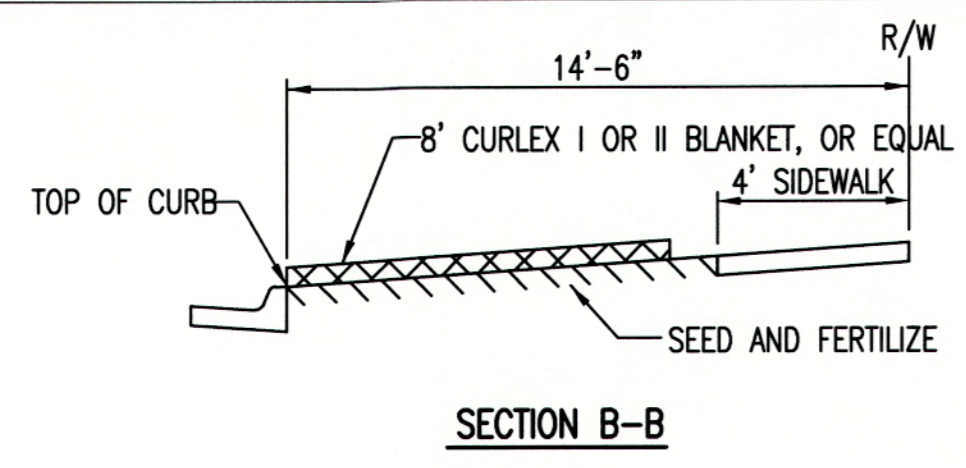
**Benchmark 1**  $\blacklozenge$   
 CHSLD X TOP OF EAST END OF 8X3 RCB  
 (1,685,835.0N, 1,691,547.7E)  
 ELEVATION = 1,329.90 (NAVD 88)

**Benchmark 2**  $\blacklozenge$   
 CHSLD X AT SE CORNER TOP STORM STR  
 ON SE CORNER 127TH & DOUGLAS  
 (1,687,621.9N, 1,691,550.7E)  
 ELEVATION = 1,350.37 (NAVD 88)

DENOTES AREAS TO BE COMPACTED TO 95% STANDARD PROCTOR DENSITY PRIOR TO UTILITY CONSTRUCTION.

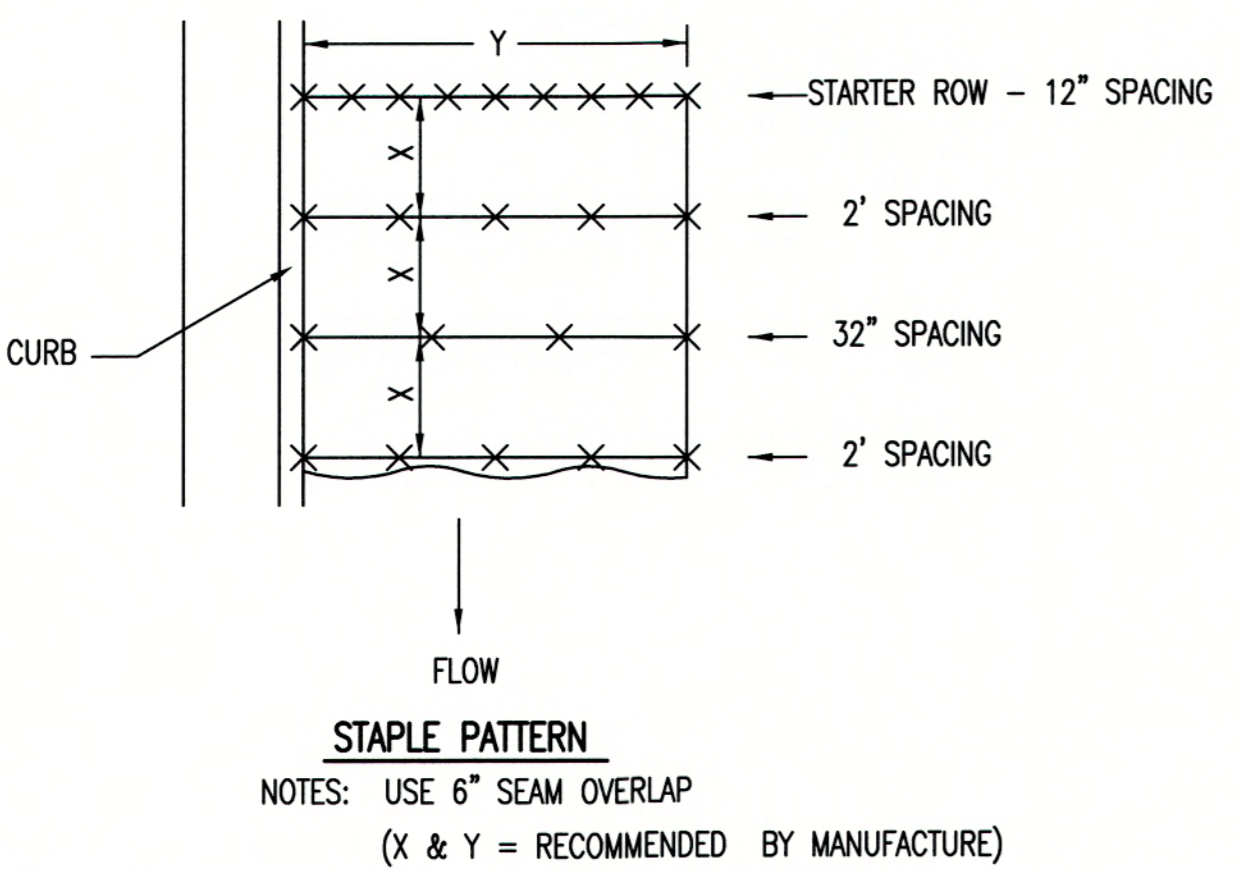




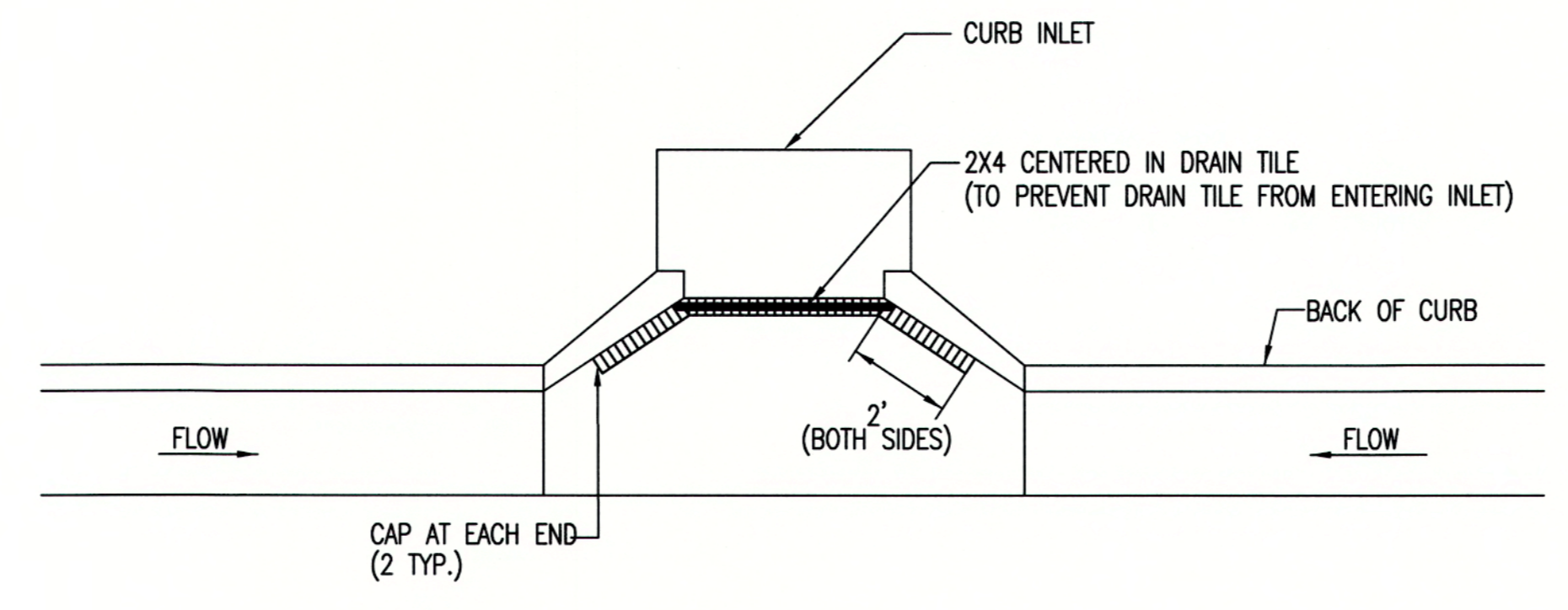


- GENERAL NOTES**
- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
  - EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
  - AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

**BACK OF CURB PROTECTION DETAIL**

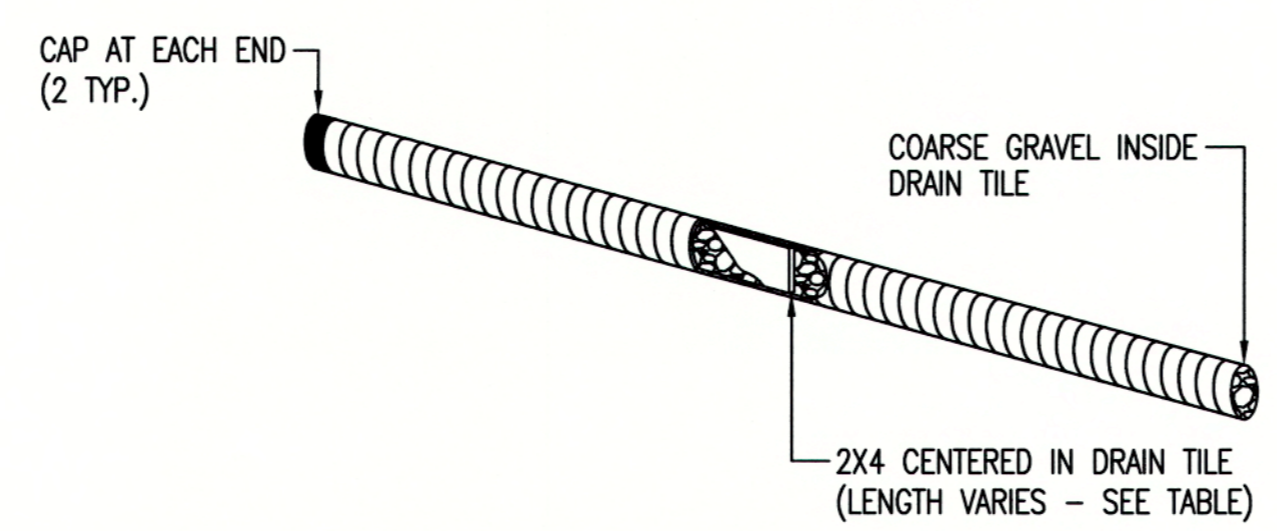


**DETAILS FOR APPROVED EROSION CONTROL MAT**

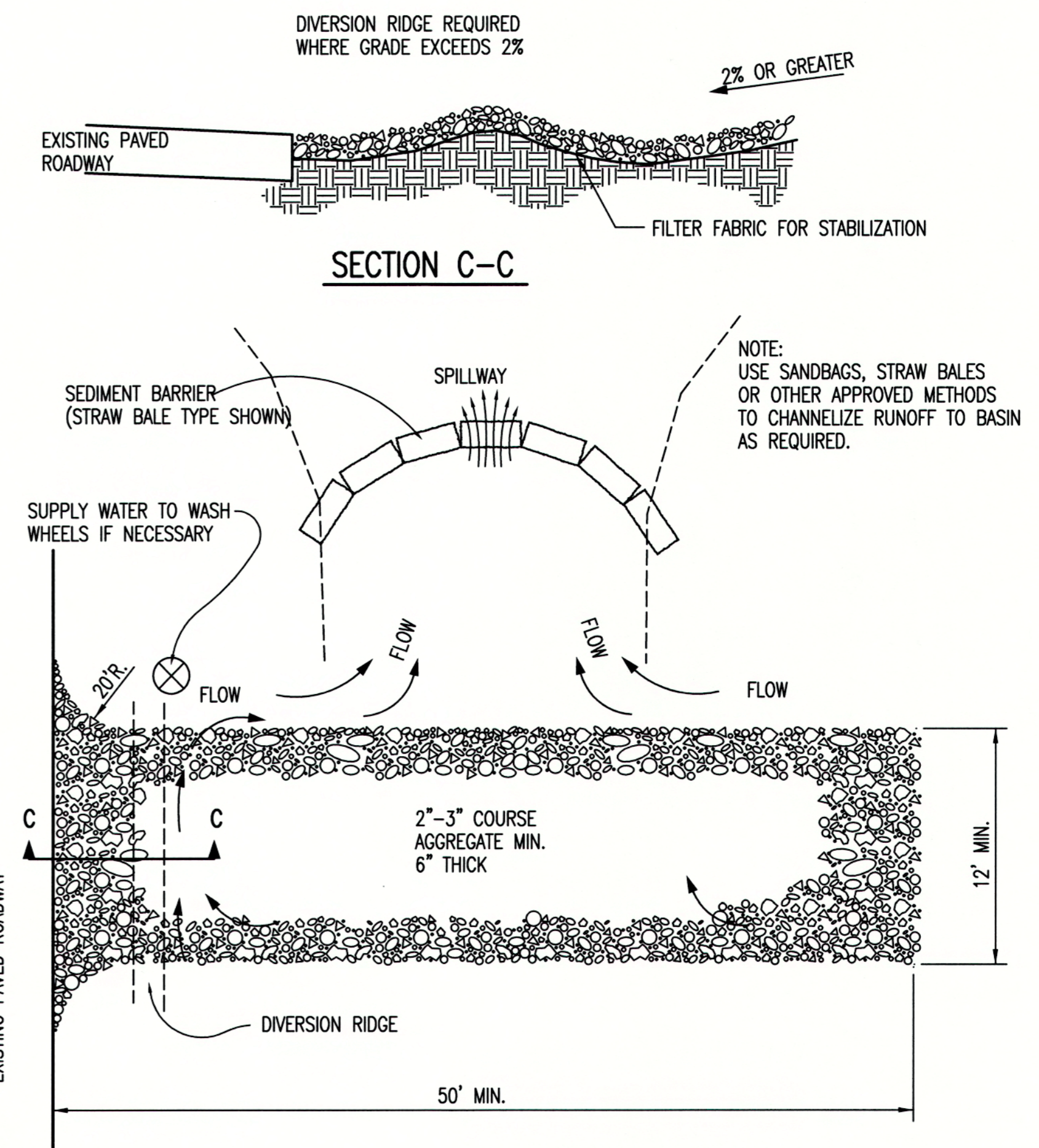


NOTE: PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



**CURB INLET PROTECTION  
4" PERFORATED PIPE W/ GRAVEL**



**STABILIZED CONSTRUCTION ENTRANCE**

- GENERAL NOTES**
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  - WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
  - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
  - DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

REVISION DATE: MAY 2013



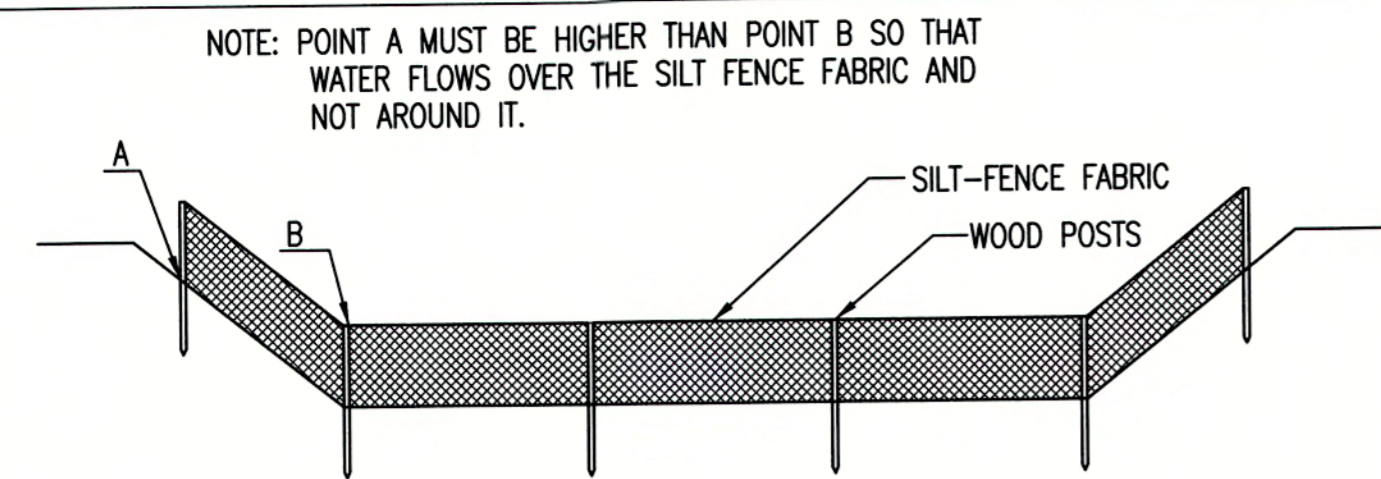
**BACK OF CURB PROTECTION,  
CURB INLET PROTECTION AND  
CONSTRUCTION ENTRANCE**

CITY ENGINEER  
**GARY JANZEN, P.E.**

PROJECT NUMBER	OCA NUMBER	DATE
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CITY ENGINEER'S OFFICE  
CITY HALL - SEVENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1620  
(316) 268-4501

SHEET



**ELEVATION**  
**SILT FENCE DITCH CHECKS**  
(STREAM PROTECTION)

**MATERIAL SPECIFICATION:**

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

**PLACEMENT:**

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED. SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. SILT FENCE SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.

THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH CHECK DITCH GRADE (%)	SPACING CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

**PROPER INSTALLATION METHOD:**

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS AT LEAST 12" DEEP BY 6" WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSTREAM EDGE OF THE TRENCH. LINE TWO SIDES OF THE TRENCH WITH THE FABRIC AS SHOWN ON DETAIL. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE ON THE UPSTREAM SIDE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 24". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

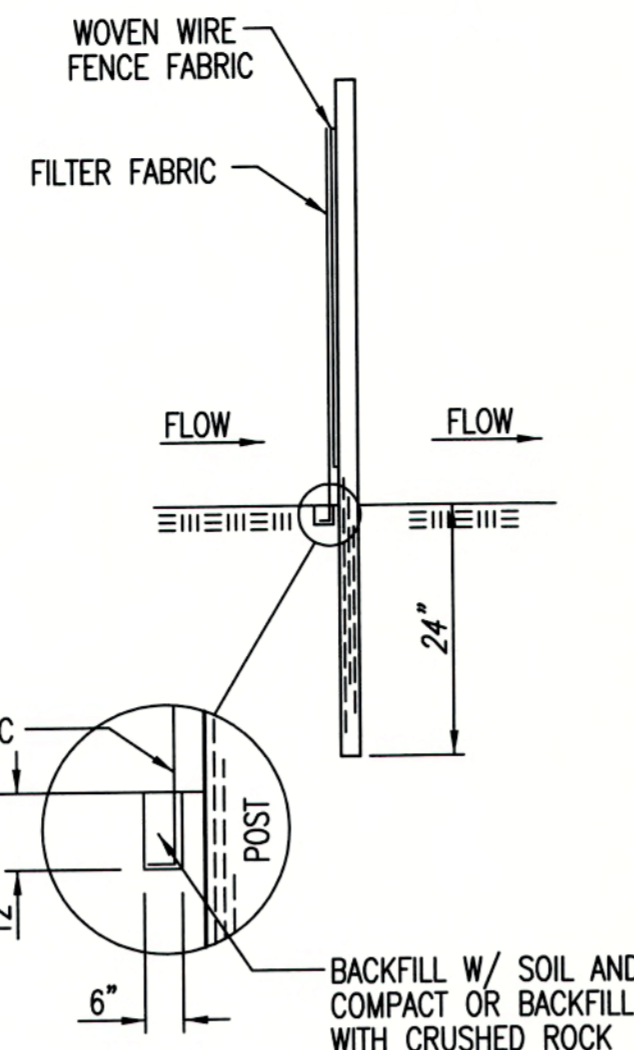
**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK—NOT OVER IT. PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. SILT FENCE INSTALLATIONS QUICKLY DETERIORATE WHEN WATER OVERTOPS THEM. DO NOT PLACE SILT FENCE POSTS ON THE UPSTREAM SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE A SILT FENCE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE SILT FENCE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE LOW POINT ON THE TOP OF THE FENCE. DO NOT PLACE SILT FENCE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.

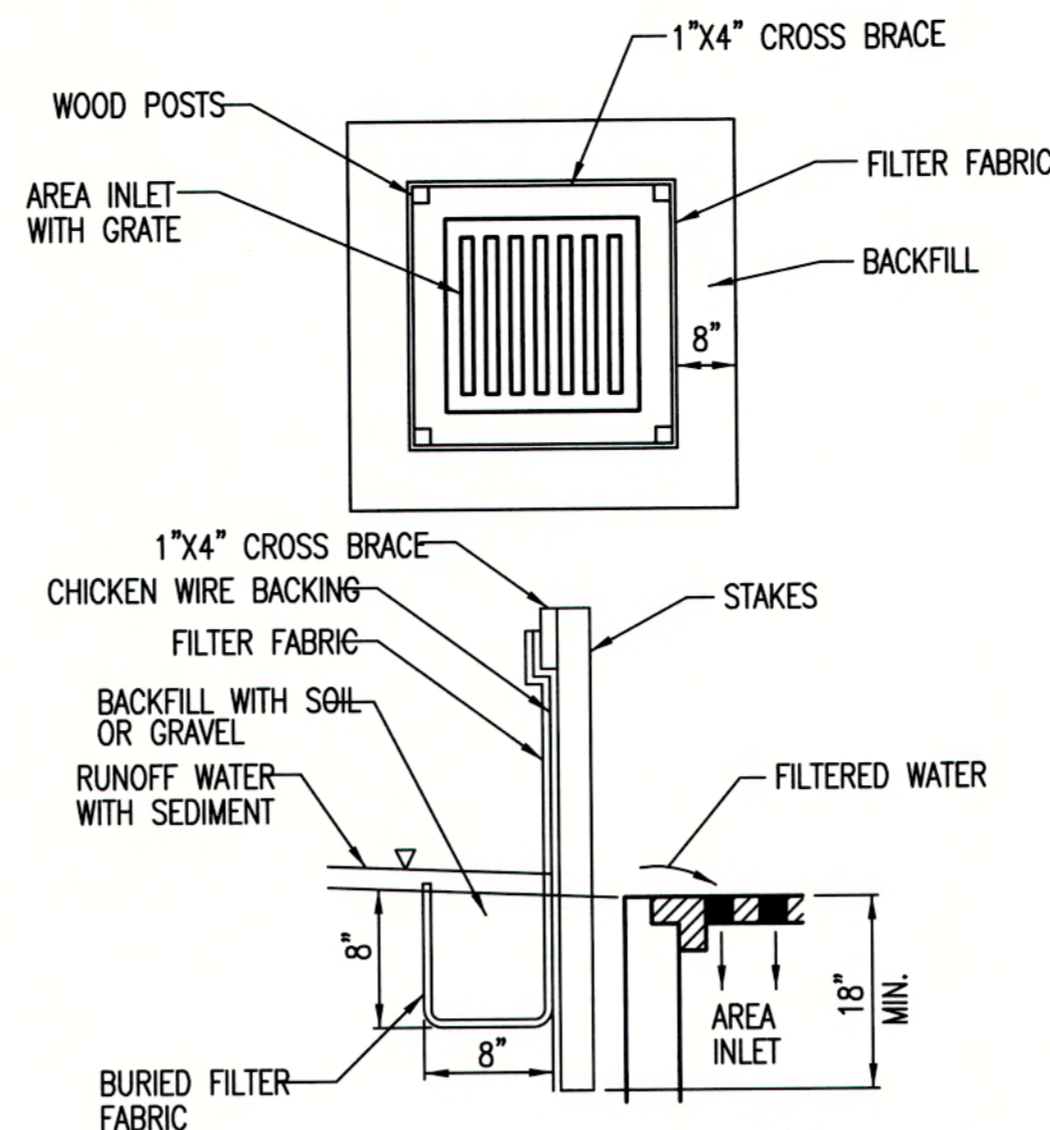
**INSPECTION AND MAINTENANCE:**

SILT FENCE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW AROUND THE DITCH CHECK?
- DOES WATER FLOW UNDER THE DITCH CHECK?
- DOES THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



**ANCHOR TRENCH DETAIL**



**SILT FENCE BARRIERS FOR AREA INLETS**  
(INLET PROTECTION)

**MATERIAL SPECIFICATION:**

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. THE MATERIAL USED TO FRAME THE TOPS OF THE POSTS SHOULD BE 1" BY 4" BOARDS. SILT FENCE FABRIC AND SUPPORT BACKING SHOULD BE ATTACHED TO THE WOODEN POSTS AND FRAME WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

**PLACEMENT:**

PLACE A SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME. WHEN A SILT FENCE BARRIER FOR AREA INLETS IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

**PROPER INSTALLATION METHOD:**

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 8" DEEP BY 8" WIDE. DRIVE POSTS TO A DEPTH OF AT LEAST 18" AROUND THE PERIMETER OF THE AREA INLET. THE DISTANCE BETWEEN POSTS SHOULD BE 4' OR LESS. IF THE DISTANCE BETWEEN TWO ADJACENT CORNER POSTS IS MORE THAN 4', ADD ANOTHER POST(S) BETWEEN THEM. CONNECT THE TOPS OF ALL THE POSTS WITH A WOODEN FRAME MADE OF 1" BY 4" BOARDS. USE NAILS OR SCREWS FOR FASTENING. ATTACH THE WIRE OR POLYMERIC-MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC LONG ENOUGH TO WRAP AROUND THE PERIMETER OF THE AREA INLET. ADD MORE LENGTH FOR OVERLAPPING THE FABRIC JOINT. PLACE THE EDGE OF THE FABRIC IN THE TRENCH, STARTING AT THE OUTSIDE EDGE OF THE TRENCH. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. ATTACH THE SILT FENCE TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. THE JOINT SHOULD BE OVERLAPPED TO THE NEXT POST.

NOTE: WHEN A SILT FENCE BARRIER FOR AREA INLET IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

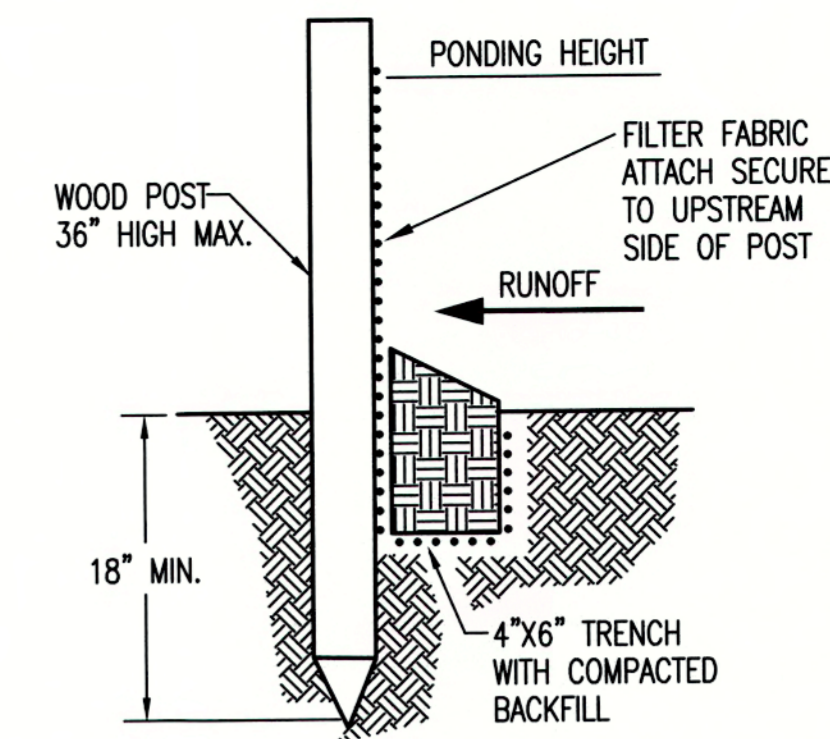
**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET—NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS. THE CORNER POSTS AROUND AREA INLETS ARE STRESSED IN TWO DIRECTIONS WHEREAS A NORMAL SILT FENCE IS ONLY STRESSED IN ONE DIRECTION. THIS ADDED STRESS REQUIRES MORE SUPPORT.

**INSPECTION AND MAINTENANCE:**

SILT FENCE BARRIER FOR AREA INLETS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW UNDER THE SILT FENCE?
- DOES THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



**SILT FENCE BARRIERS**

**MATERIAL SPECIFICATION:**

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

**PLACEMENT:**

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, SILT FENCE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. SILT FENCE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

**PROPER INSTALLATION METHOD:**

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 6" DEEP BY 4" WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT-FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES. DO NOT PLACE SILT-FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT. SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND—SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.


**INSPECTION AND MAINTENANCE:**

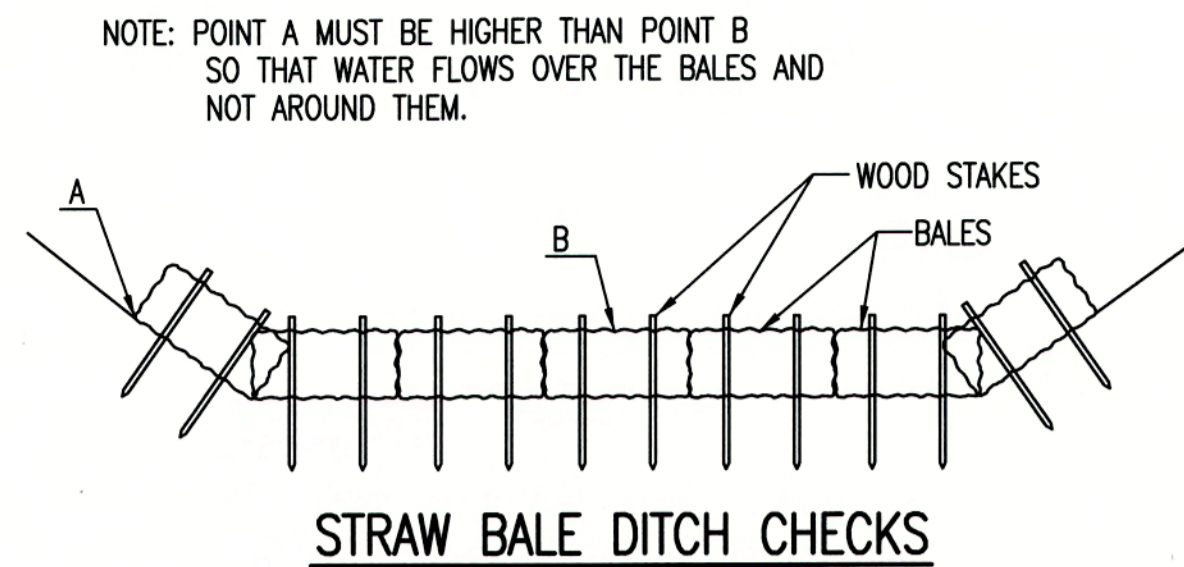
SILT FENCE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
- DOES WATER FLOW UNDER THE SLOPE BARRIER?
- DO THE SILT FENCES SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

REVISION DATE: MAY 2013



 <b>CITY OF WICHITA</b> PUBLIC WORKS & UTILITIES ENGINEERING DIVISION			<b>SILT FENCE DITCH CHECK AND BARRIER DETAILS</b>		
			CITY ENGINEER <b>GARY JANZEN, P.E.</b>		
PROJECT NUMBER	OCA NUMBER	DATE	SHEET		
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501					



**STRAW BALE DITCH CHECKS**

**MATERIAL SPECIFICATION:**

BALE DITCH CHECKS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. OPTIONAL: THE DOWNSTREAM SCOUR APRON SHOULD BE CONSTRUCTED OF A DOUBLE-NETTED STRAW EROSION-CONTROL BLANKET AT LEAST 6' WIDE. OPTIONAL: THE METAL LANDSCAPE STAPLES USED TO ANCHOR THE EROSION-CONTROL BLANKET SHOULD BE AT LEAST 8" LONG.

**PLACEMENT:**

BALE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE DITCH CHECK SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. STRAW BALE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. BALES SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED. THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH GRADE (%)	CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

**PROPER INSTALLATION METHOD:**

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH-IT WILL BE USED LATER. OPTIONAL: ON THE DOWNSTREAM SIDE OF THE TRENCH, ROLL OUT A LENGTH OF EROSION-CONTROL BLANKET (SCOUR APRON) EQUAL TO THE LENGTH OF THE TRENCH. PLACE THE UPSTREAM EDGE OF THE EROSION-CONTROL BLANKET ALONG THE BOTTOM UPSTREAM EDGE OF THE TRENCH. THE EROSION CONTROL BLANKET SHOULD BE ANCHORED IN THE TRENCH WITH ONE ROW OF 8" LANDSCAPE STAPLES PLACED ON 18" CENTERS. THE REMAINDER OF THE EROSION-CONTROL BLANKET (THE PORTION THAT IS NOT LYING IN THE TRENCH) WILL SERVE AS THE DOWNSTREAM SCOUR APRON. THIS SECTION OF THE BLANKET SHOULD BE ANCHORED TO THE GROUND WITH 8" LANDSCAPE STAPLES PLACED AROUND THE PERIMETER OF THE BLANKET ON 18" CENTERS. THE REMAINDER OF THE BLANKET SHOULD BE ANCHORED USING TWO EVENLY SPACED ROWS OF 8" LANDSCAPE STAPLES ON 18" CENTERS PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSTREAM SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP AND EXTEND UPSTREAM NO MORE THAN 24".

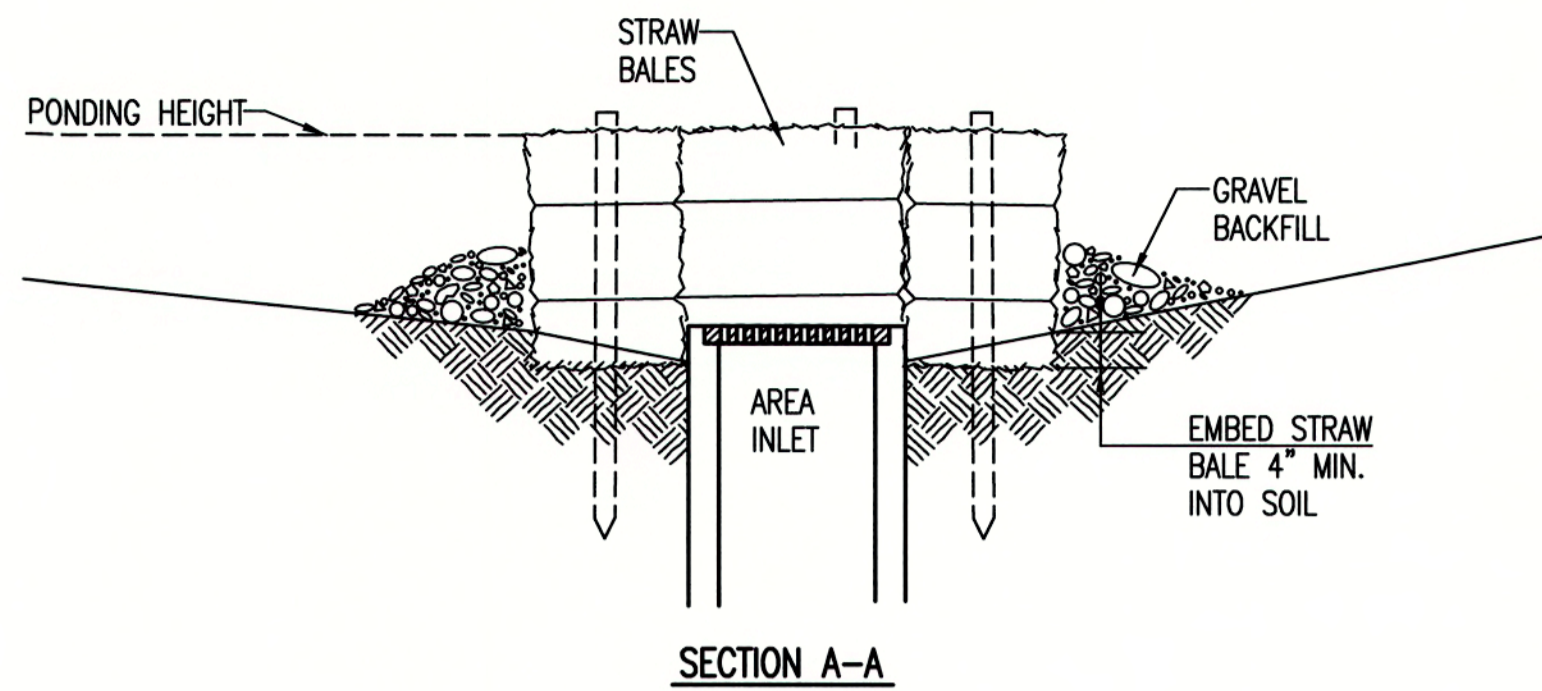
**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

DO NOT PLACE A BALE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE BALE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH-CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. DO NOT PLACE BALE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE DITCH CHECKS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE CHECK.

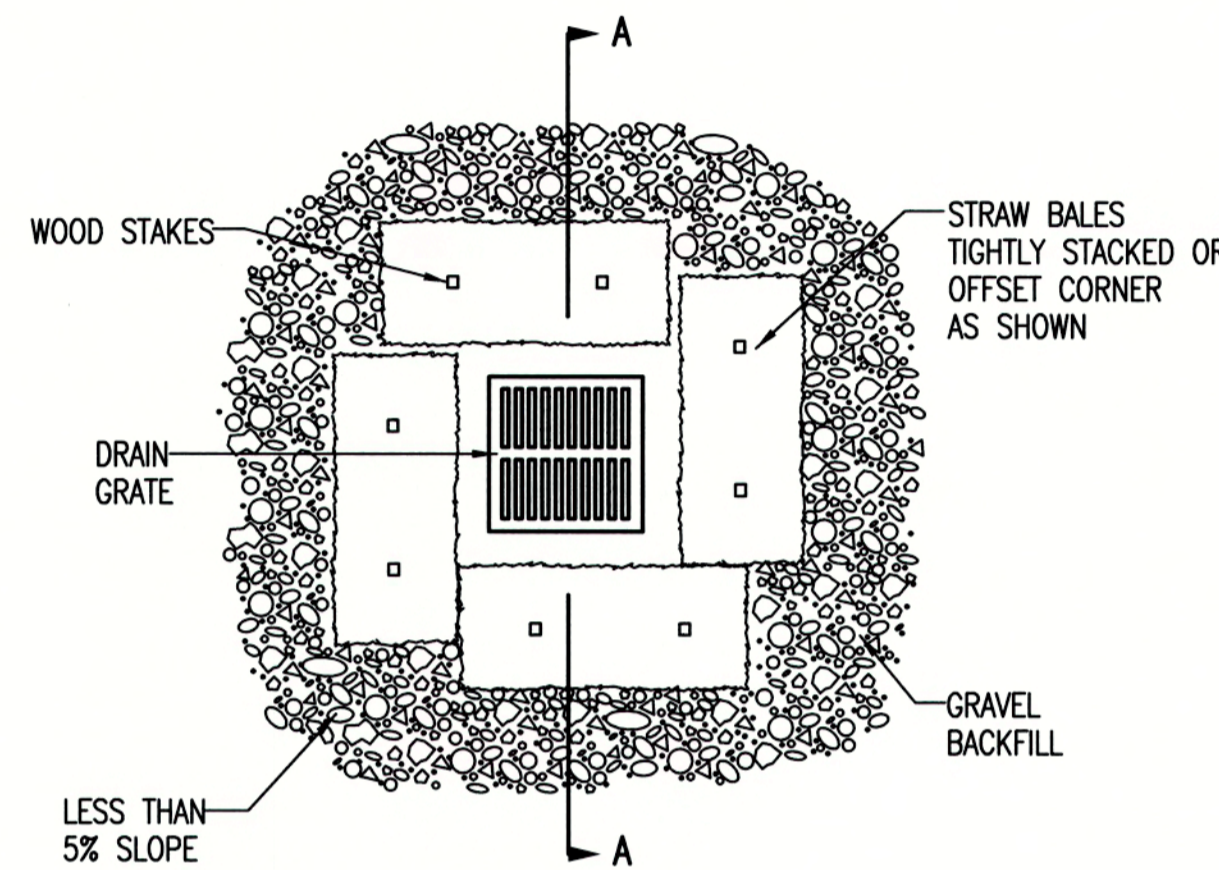
**INSPECTION AND MAINTENANCE:**

BALE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW AROUND THE DITCH CHECK?
- DOES WATER FLOW UNDER THE DITCH CHECK?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES AND/OR SCOUR APRONS (OPTIONAL) DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



**SECTION A-A**



**STRAW BALE BARRIERS FOR AREA INLETS (INLET PROTECTION)**

**MATERIAL SPECIFICATION:**

BALE AREA INLET BARRIERS SHOULD BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

**PLACEMENT:**

BALE AREA INLET BARRIERS SHOULD BE PLACED DIRECTLY AROUND THE PERIMETER OF A DROP INLET. WHEN A BALE AREA INLET BARRIER IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

**PROPER INSTALLATION METHOD:**

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 4" DEEP BY A BALE'S WIDTH WIDE. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. SOME BALES MAY NEED TO BE SHORTENED TO FIT INTO THE TRENCH AROUND THE AREA INLET. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE RECEIVING SIDE OF THE BARRIER AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP. NOTE: WHEN A BALE AREA INLET BARRIER IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

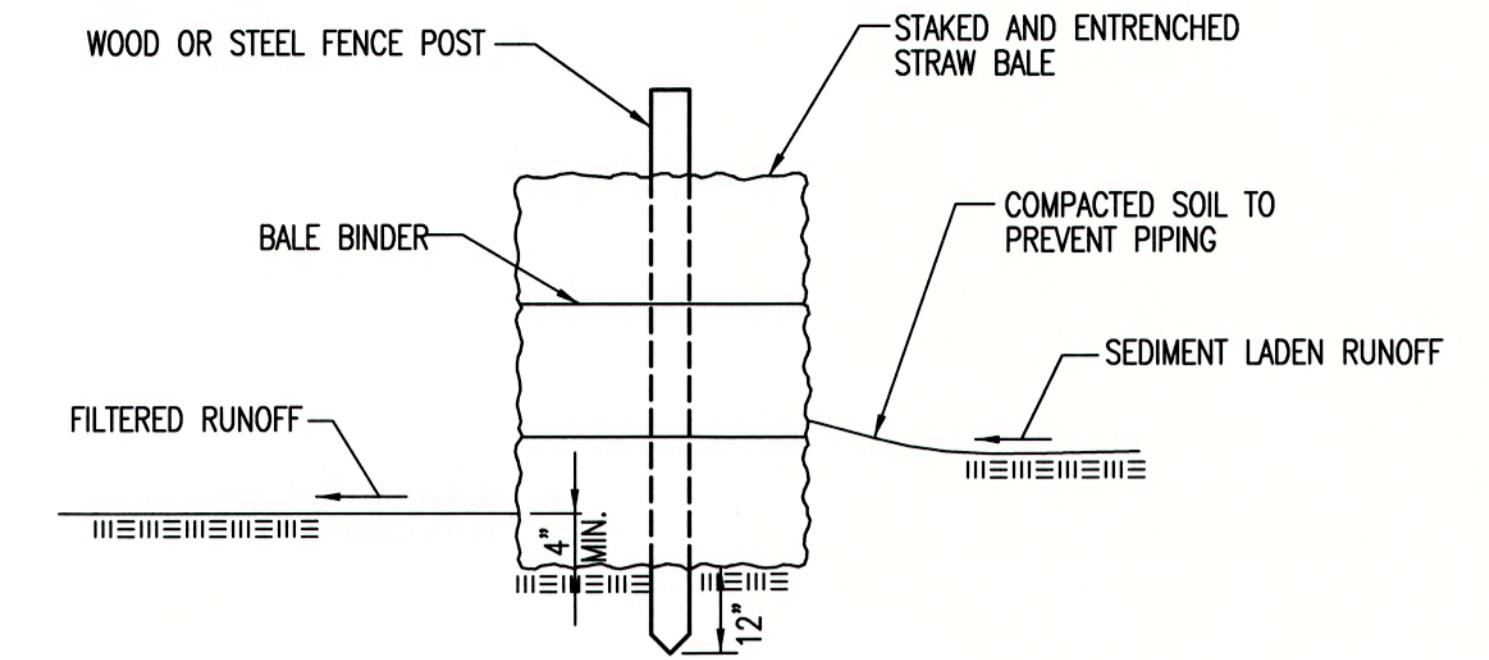
**LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:**

BALES SHOULD BE PLACED DIRECTLY AGAINST THE PERIMETER OF THE AREA INLET. THIS ALLOWS OVERTOPPING WATER TO FLOW DIRECTLY INTO THE INLET INSTEAD OF ONTO NEARBY SOIL CAUSING SCOUR. BALE AREA INLET BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

**INSPECTION AND MAINTENANCE:**

BALE AREA INLET BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW UNDER THE AREA INLET BARRIER?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



**STRAW BALE BARRIERS**

**MATERIAL SPECIFICATION:**

BALE SLOPE BARRIERS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

**PLACEMENT:**

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, BALE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. BALE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

**PROPER INSTALLATION METHOD:**

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSLOPE SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.

**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

WHEN PRACTICAL, DO NOT PLACE BALE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. CONCENTRATED FLOW OVER A SLOPE BARRIER CREATES A SCOUR HOLE ON THE DOWNSLOPE SIDE OF THE BARRIER. THE SCOUR HOLE EVENTUALLY UNDERMINES THE BALES AND THE BARRIER FAILS. DO NOT PLACE BALE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE SLOPE BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

**INSPECTION AND MAINTENANCE:**

BALE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
- DOES WATER FLOW UNDER THE SLOPE BARRIER?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

REVISION DATE: MAY 2013



**STRAW BALE DITCH CHECK AND BARRIER DETAILS**

CITY ENGINEER  
**GARY JANZEN, P.E.**

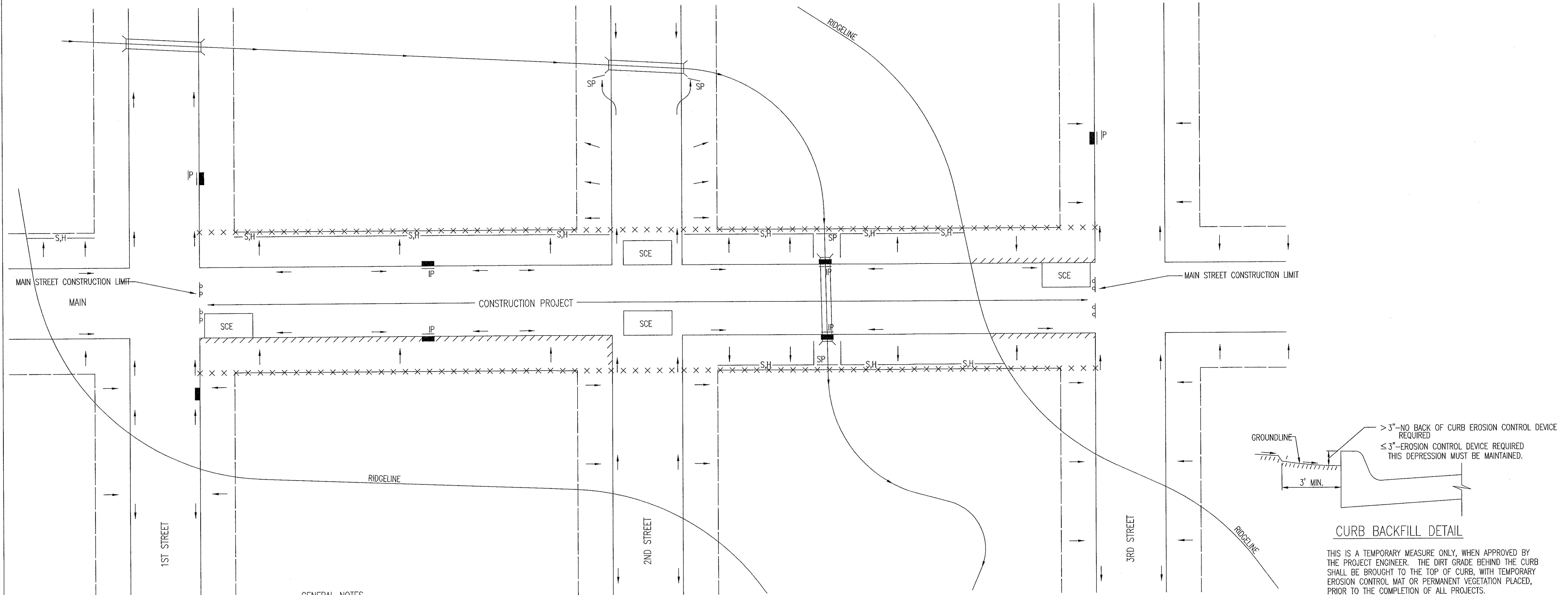
PROJECT NUMBER      OCA NUMBER      DATE

CITY ENGINEER'S OFFICE  
CITY HALL - SEVENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1620  
(316) 268-4501

SHEET

GENERAL NOTES

- THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPES OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
- EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.
- IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.
- FOR PROJECTS DISTURBING LESS THAN 1 ACRE, CONTRACTORS ARE ENCOURAGED TO PREPARE STORMWATER POLLUTION PREVENTION PLANS PRIOR TO CONSTRUCTION. EROSION CONTROL DEVICES MUST BE USED ON ALL PROJECTS.
- FAILURE TO USE AND MAINTAIN EROSION CONTROL DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE CONTRACTOR TO THE PENALTIES PROVIDED FOR THEREIN.
- THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT DEVICE OTHER THAN THOSE SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED AS LONG AS THEY ARE EFFECTIVE AND MAINTAINED.



GENERAL NOTES

- THE INTENT OF ALL EROSION CONTROL DEVICES IS TO KEEP ALL SEDIMENT CONFINED TO THE CONSTRUCTION SITE, AND OUT OF ALL UNDERGROUND PIPES, DITCHES, LAKES, AND OTHER DRAINAGE FACILITIES, AND OFF OF STREETS.
- THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT-OF-WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.
- EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.
- INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED, AS NEEDED, TO PREVENT MUD FROM TRACKING ONTO STREETS NOT UNDER CONSTRUCTION AND ON STREETS WITHIN THE PROJECT LIMITS IF TRAFFIC IS BEING MAINTAINED THROUGH THE PROJECT.
- ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.
- THE CONTRACTOR WILL BE REQUIRED TO PLACE EROSION CONTROL DEVICES BACK OF CURB, WHENEVER WATER CAN DRAIN OVER CURB, TO KEEP ERODED SOIL OUT OF THE GUTTERLINES, IN ACCORDANCE WITH THE FOLLOWING:
  - THE DEVICE REQUIRED WILL BE APPROVED EROSION CONTROL MAT LISTED ON THE CITY'S APPROVED MATERIAL LIST. SAID BLANKET SHALL BE PLACED OVER THE APPROPRIATE SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS. (SEE SOIL EROSION BMPs - BACK OF CURB SEDIMENT BARRIER DETAILS)
  - THIS DEVICE SHALL BE INSTALLED IMMEDIATELY WHENEVER THE CURB IS BACKFILLED TO WITHIN 3" OF THE TOP OF CURB. (SEE CURB BACKFILL DETAIL) OTHER BMP'S MAY BE REQUIRED AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB.
  - ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
  - SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT-OF-WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)

LEGEND

- R-O-W LIMITS
- DRAINAGE FLOW PATH
- x x x x x R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP INLET PROTECTION
- S,H SILT FENCE OR HAY BALE BARRIER
- SP STREAM PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE
- //// BACK OF CURB PROTECTION



**CITY OF WICHITA**  
PUBLIC WORKS & UTILITIES  
ENGINEERING DIVISION

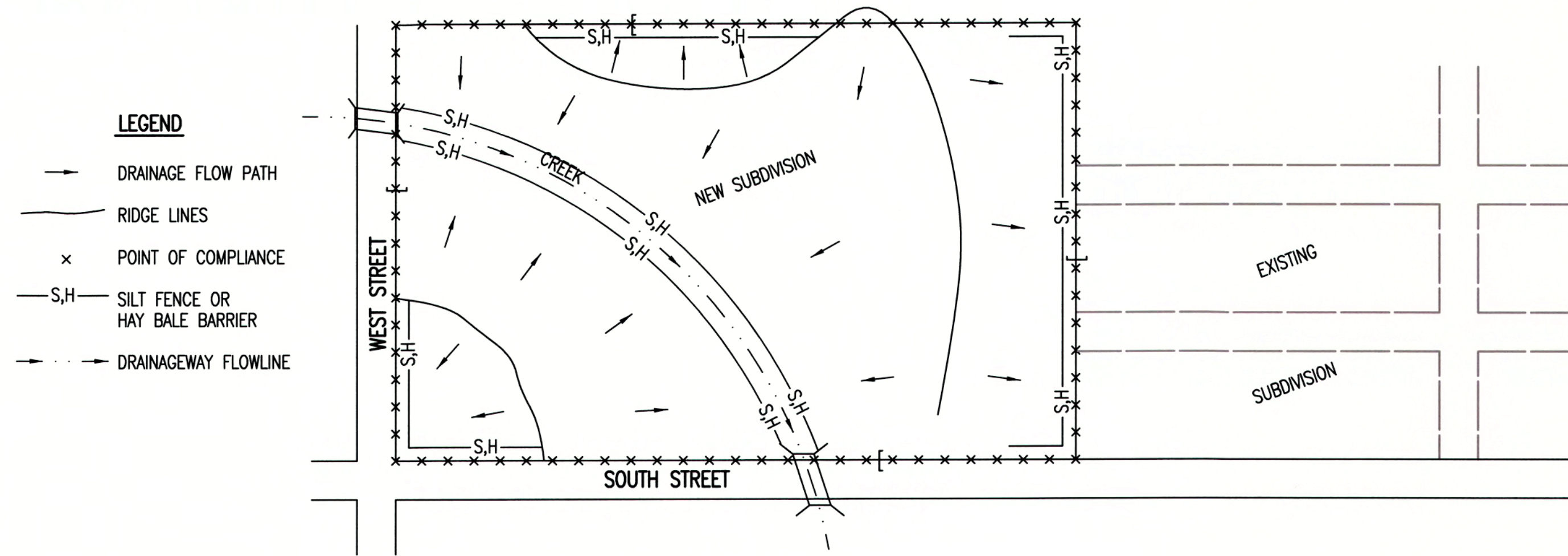
REVISION: JUNE 2015

**STREET IMPROVEMENT PROJECTS**

CITY ENGINEER  
**GARY JANZEN, P.E.**

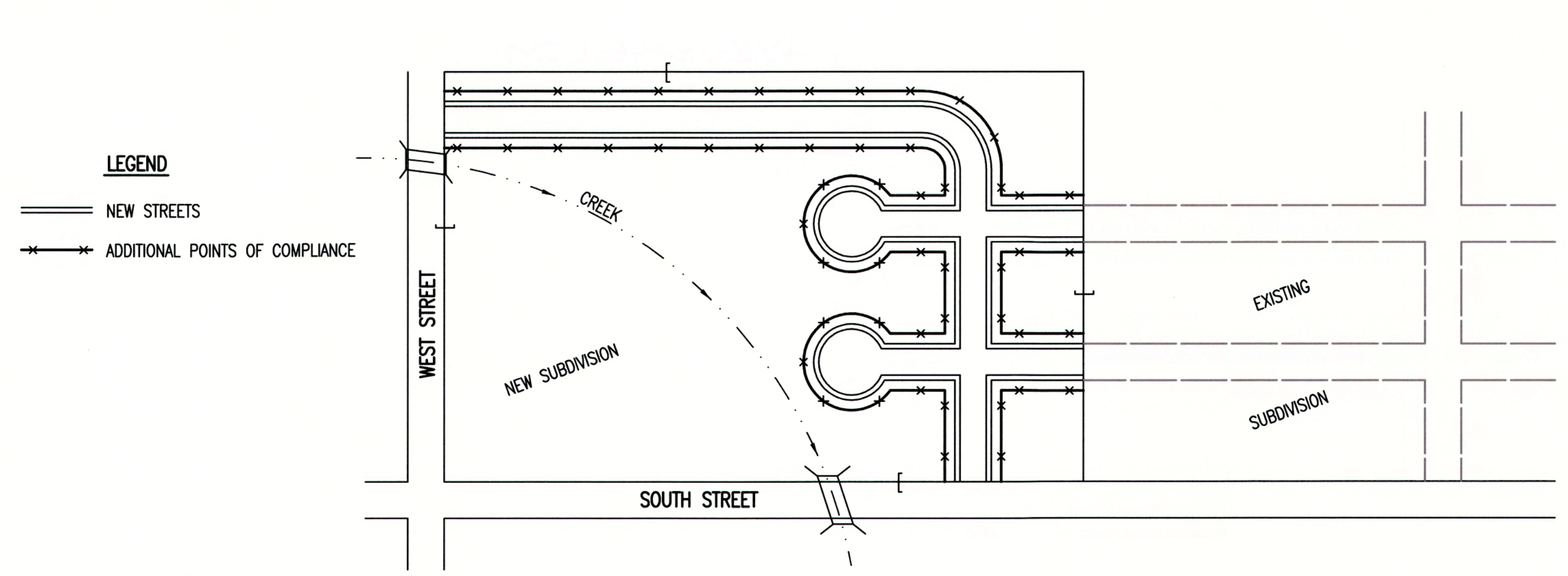
PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE		SHEET
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		

**PHASE 1 – INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)**



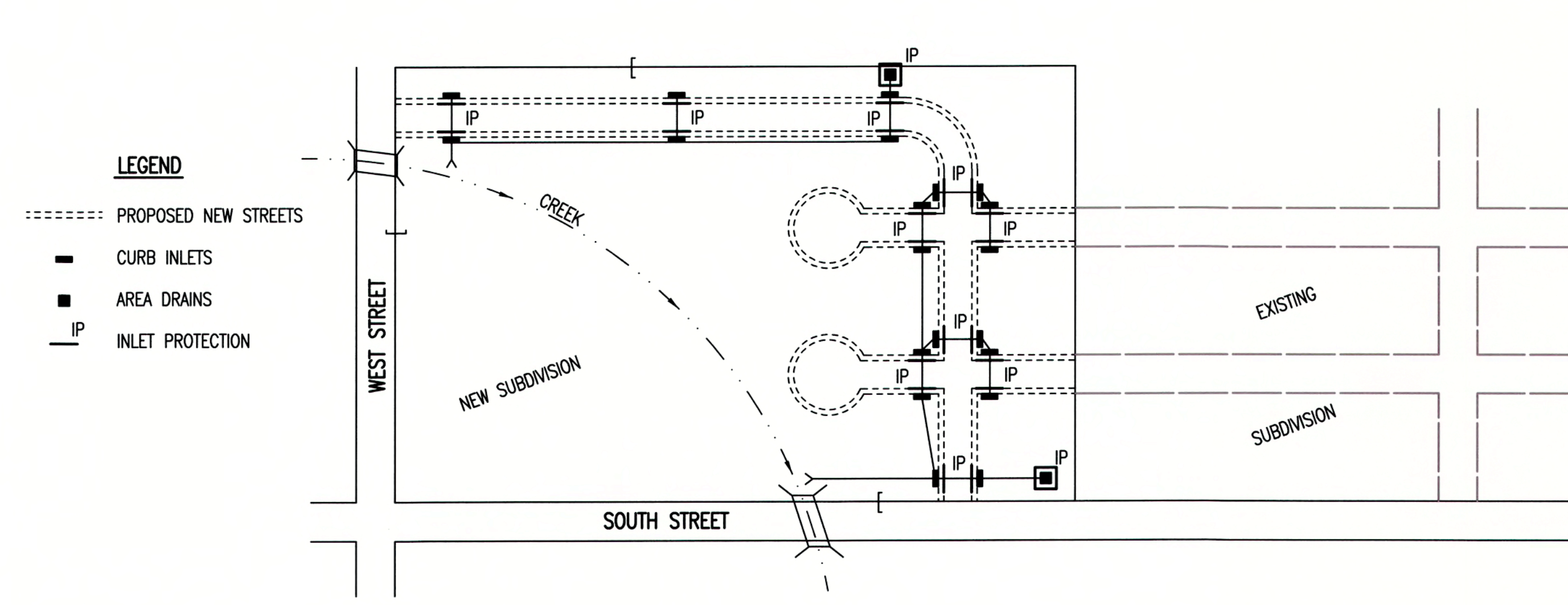
- LEGEND**
- DRAINAGE FLOW PATH
  - RIDGE LINES
  - x POINT OF COMPLIANCE
  - S,H SILT FENCE OR HAY BALE BARRIER
  - - - DRAINAGEWAY FLOWLINE
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
  2. HAY BALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE EROSION CONTROL DEVICES WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
  3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR STREETS ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE EROSION CONTROL DEVICES WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
  4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED WITHIN 48 HOURS OR BY FRIDAY AT 6:00 PM, WHICHEVER IS EARLIER.
  5. CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL EROSION CONTROL DEVICES AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDARY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE EROSION CONTROL DEVICES AT THEIR WORK LOCATIONS, AS NEEDED.
  6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
  7. IF THE INITIAL EARTH WORK AND UTILITIES ARE DONE AS PART OF A PUBLIC IMPROVEMENT PROJECT, THESE EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS SPECIFIED IN THE INDIVIDUAL PROJECT CONTRACTS. THE CONTRACTOR WILL MAINTAIN THE DEVICES UNTIL COMPLETION OF THE CONTRACT, AT WHICH TIME THE DEVELOPER WILL ASSUME MAINTENANCE RESPONSIBILITIES. IF THESE CONTRACTS ARE NOT PUBLIC IMPROVEMENT PROJECTS, THE DEVELOPER WILL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THESE DEVICES.
  8. WITHIN 14 DAYS OF COMPLETION OF EARTHWORK ACTIVITIES IN ANY GIVEN AREA, THAT AREA SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED.

**PHASE 3 – STREET CONSTRUCTION**



- LEGEND**
- NEW STREETS
  - x ADDITIONAL POINTS OF COMPLIANCE
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL EROSION CONTROL DEVICES INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
  2. CURB OPENING INLET PROTECTION:
    - A. SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
    - B. NON-SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
  3. EROSION CONTROL DEVICES WILL BE REQUIRED BACK OF CURB WHEREVER WATER CAN FLOW OVER THE CURB AND THE CURB HAS BEEN BACKFILLED TO WITHIN 3" OR LESS OF THE TOP OF CURB (SEE CURB BACKFILL DETAIL). FOR CURBS NOT YET ENTIRELY BACKFILLED (3" OR MORE BELOW TOP OF CURB), ADDITIONAL DEVICES WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
  4. SEE DETAIL SHEET FOR BACK OF CURB PROTECTION.
  5. THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLEMENTED WITH HAY BALE OR SILT FENCE EROSION CONTROL DEVICES AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
  6. THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB EROSION CONTROL DEVICES.
  7. THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB EROSION CONTROL DEVICES IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.

**PHASE 2 – INSTALLATION OF STORM SEWER**

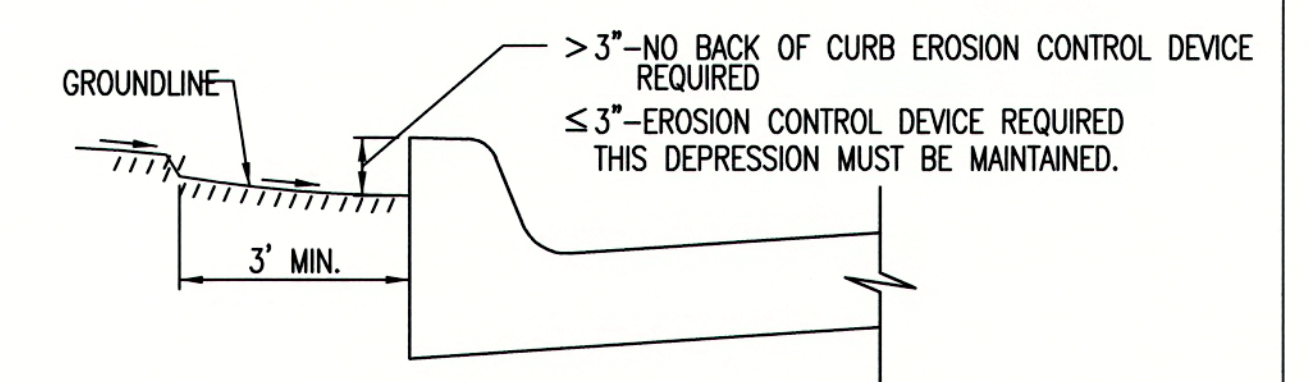


- LEGEND**
- - - - - PROPOSED NEW STREETS
  - CURB INLETS
  - AREA DRAINS
  - IP INLET PROTECTION
1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
  2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
  3. AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAY BALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
  4. CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION DEVICES MUST BE INSTALLED. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION. SEE PHASE 3 – STREET CONSTRUCTION.
  5. THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE DEVICES.
  6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE EROSION CONTROL DEVICES ONCE INSTALLED.
  7. ALL DISTURBED GROUND WILL BE FINAL GRADED AND TEMPORARILY OR PERMANENTLY SEEDED WITHIN 14 DAYS IF COMPLETION OF WORK IN ANY GIVEN PART OF THE SUBDIVISION.
  8. ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOD, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

**GENERAL NOTES**

1. THE INTENT OF ALL EROSION CONTROL DEVICES IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, LAKES, STREETS OR ANY OTHER OTHER DRAINAGE FEATURE.
2. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
3. EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON SOIL EROSION BMP'S DETAIL SHEETS.
4. PERSONS DESTROYING EROSION CONTROL DEVICES SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT DEVICES.
5. THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 1 ACRE OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL DEVICES ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLANS.
6. FOR SUBDIVISIONS SMALLER THAN 1 ACRE, SOIL EROSION DEVICES ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
7. FAILURE TO USE AND MAINTAIN SOIL EROSION DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
8. THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE DEVICES OTHER THAN THAT SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
9. A STABILIZED EARTH SURFACE IS DEFINED AS ONE THAT IS HARD SURFACED WITH CONCRETE, ASPHALT, OR THE LIKE, OR ONE ON WHICH 70% OF THE GRASS HAS GERMINATED ON THE ENTIRE SURFACE.

SEE DETAIL SHEET FOR BACK OF CURB PROTECTION DETAIL



**CURB BACKFILL DETAIL (STREET CONSTRUCTION ONLY)**

THIS IS A TEMPORARY MEASURE ONLY, WHEN APPROVED BY THE PROJECT ENGINEER. THE DIRT GRADE BEHIND THE CURB SHALL BE BROUGHT TO THE TOP OF CURB, WITH TEMPORARY EROSION CONTROL MAT OR PERMANENT VEGETATION PLACED, PRIOR TO THE COMPLETION OF ALL PROJECTS.

REVISION DATE: MAY 2013



**CITY OF WICHITA**  
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

<b>SUBDIVISION DEVELOPMENT PROCESS</b>		
CITY ENGINEER <b>GARY JANZEN, P.E.</b>		
PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET