

AS-BUILT

STORM SEWER IMPROVEMENTS

to serve

SUNNYDALE POINTE APARTMENTS

550 W 33rd STREET
CITY OF WICHITA, KANSAS

GARY JANZEN, P.E. City Engineer

Project Number
0424 PPD (607861)



GENERAL NOTES:

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:

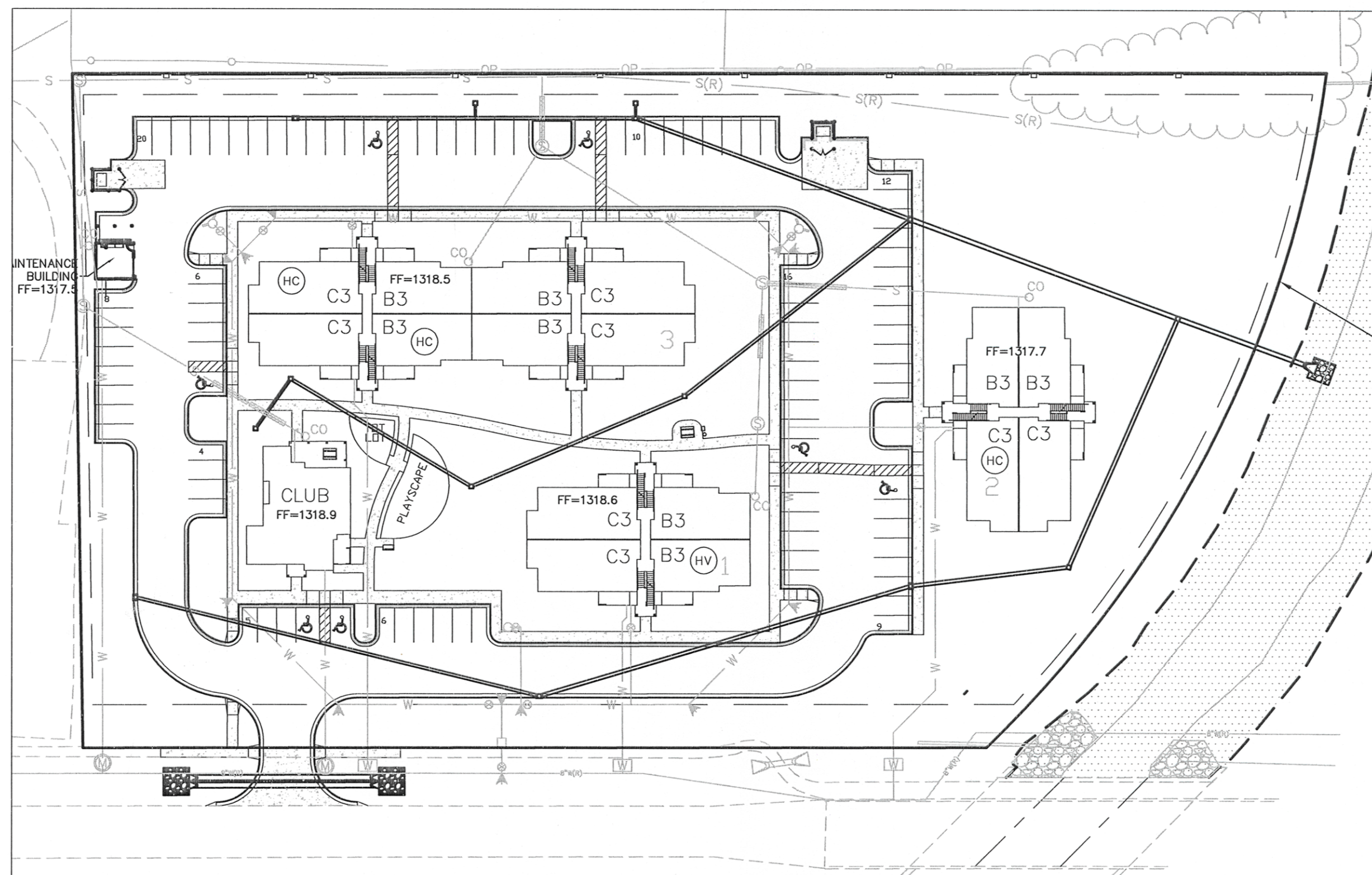
KANSAS ONE-CALL 687-2470
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

AT&T 1-800-246-8464
Black Hills Energy 1-800-694-8989
City of Wichita Water 1-316-268-4555
City of Wichita Sewer 1-316-268-4073
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 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 WATER DISTRIBUTION 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 FIELD GRADES.
- THE CONTRACTOR SHALL NOTIFY THE CONSULTANT 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.
- ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.
- 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.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
- CITY MAINTENANCE OF STORM SEWER ENDS AT RIGHT-OF-WAY OR EASEMENT LINE.
- 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.
- 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.

CONTRACTOR: ZIMMERMAN PROPERTIES CONSTRUCTION

INSPECTION FIRM: KAW VALLEY ENGINEERING

INSPECTOR: A THOMPSON



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STORM PLAN AND PROFILE	C611
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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 = 3.8 AC
Water Quality Treatment: OFFSITE BMP PROGRAM
Downstream Channel Protection: NOT REQUIRED < 5 AC
Detention: NOT REQUIRED-10% RULE
The Bmp used for this development is OFFSITE BMP PROGRAM

APPROVED AS NOTED
BY WICHITA PUBLIC WORKS
ENGINEERING DIVISION

Engineering *Rebecca Liff* 11/7/16
Utilities *Joe Hinkle PE* 11/18/16

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 by 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 BENCH MARK:

BM #3
CHISELED SQUARE ON THE NORTHWEST CORNER OF THE BRIDGE ABUTMENT OF THE BRIDGE CROSSING OF CHISHOLM CREEK AT 33RD STREET.
ELEV = 1318.72 NAVD 88

BM #4
CHISELED SQUARE ON A CONCRETE 2'x2' LIGHT POLE BASE AT THE SOUTHEAST CORNER, 225 FEET WEST OF THE SOUTHWEST CORNER PROPERTY.
ELEV = 1317.95 NAVD 88

CAUTION - NOTICE TO CONTRACTOR:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

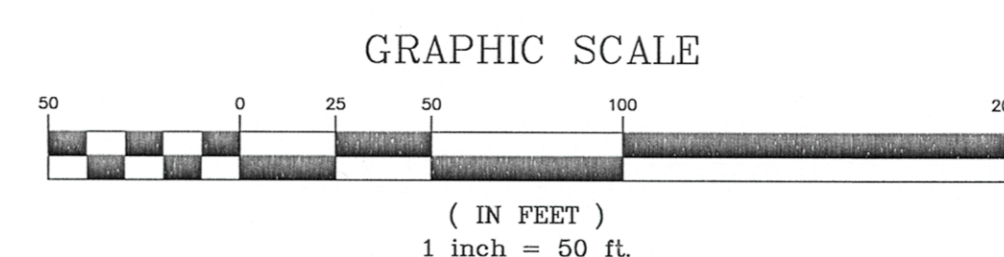
THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

SAFETY NOTICE TO CONTRACTOR:

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

WARRANTY / DISCLAIMER:

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

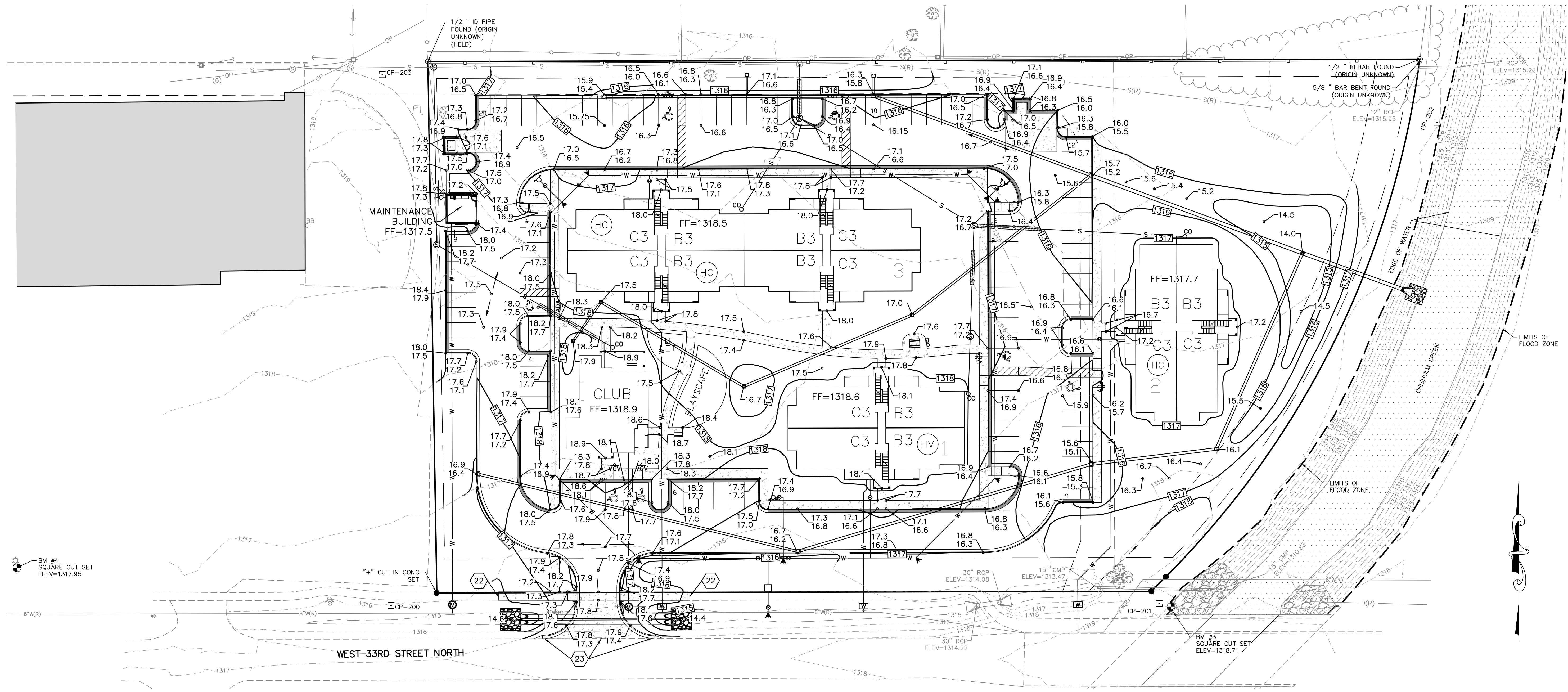


NOVEMBER, 2016

PROJ. NO. C15_8121 DSN: KGK MICHAEL R. OSBOURN
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KAW VALLEY ENGINEERING

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-113. EXPIRES 12/31/16



HORIZONTAL AND VERTICAL DATUM:
 KANSAS STATE PLANE BASED ON THE WICHITA CONTROL NETWORK (NAD83) (NAVD88)
 CAF: 1.000055149 (WICHITA NETWORK-NAD83)
 NOTE: ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES.

BM #1 (VERTICAL CONTROL)
 NORTHING: 1705608.4133
 EASTING: 1645968.2248
 ELEV = 1321.32

PROJECT CONTROL:
 CP-200 (HORIZONTAL CONTROL)
 NORTHING: 1707042.7847
 EASTING: 1646777.1179
 ELEV = 1315.89

CP-201
 1/2"x24" REBAR W/ CONTROL CAP
 NORTHING: 1707043.9104
 EASTING: 1647230.5280
 ELEV = 1318.48

CP-202
 1/2"x24" REBAR W/ CONTROL CAP
 NORTHING: 1707327.9918
 EASTING: 1647394.6005
 ELEV = 1317.15

PROJECT BENCH MARK:
BM #3
 CHISELED SQUARE ON THE NORTHWEST CORNER OF THE BRIDGE ABUTMENT OF THE BRIDGE CROSSING OF CHISHOLM CREEK AT 33RD STREET.
 ELEV = 1318.72

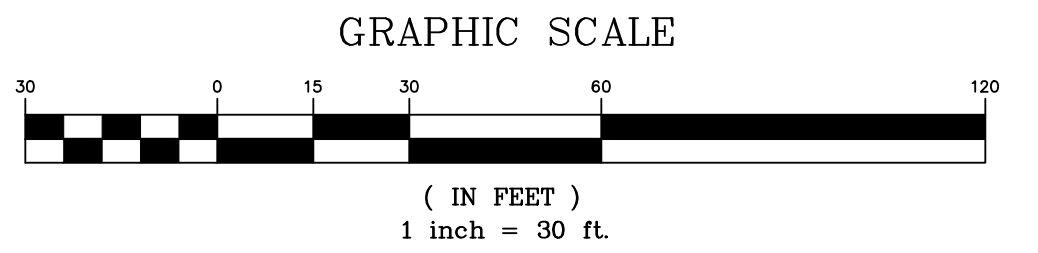
BM #4
 CHISELED SQUARE ON A CONCRETE 2'x2' LIGHT POLE BASE AT THE SOUTHEAST CORNER, 225 FEET WEST OF THE SOUTHWEST CORNER PROPERTY.
 ELEV = 1317.95

NOTE:
 1. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE, SLOPED PAVING, EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
 2. THESE PLANS HAVE NOT BEEN VERIFIED WITH FINAL ARCHITECTURAL CONTRACT DRAWINGS. CONTRACTOR SHALL VERIFY AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR IS FULLY RESPONSIBLE FOR REVIEW AND COORDINATION OF ALL DRAWINGS AND CONTRACT DOCUMENTS.

- GRADING NOTES:**
- THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE. EXCESS TOPSOIL MAY BE WASTED IN FILL SLOPES PROVIDED THAT NO TOPSOIL WILL BE WASTED WITHIN 10 FEET OF THE EDGE OF THE BUILDING OR PARKING AREA. BURNING OF TIMBER WILL NOT BE PERMITTED UNLESS APPROVAL IS OBTAINED FROM GOVERNING OFFICIALS. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES.
 - AREAS TO RECEIVE FILL SHALL BE SCARIFIED AND THE TOP 8-INCH DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.
 - OFF-SITE FILL MATERIAL SHALL HAVE A PLASTICITY INDEX OF 25 OR LESS, A LIQUID LIMIT OF 45 OR LESS AND CONTAIN NO ROCK LARGER THAN FOUR INCHES. OFF-SITE FILL MATERIAL SHALL BE APPROVED BY THE OWNER PRIOR TO BRINGING ON SITE.
 - EARTHWORK UNDER THE BUILDING SHALL COMPLY WITH THE PROJECT ARCHITECTURAL PLANS. OTHER FILL MATERIAL SHALL BE MADE IN LIFTS NOT TO EXCEED EIGHT INCHES DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. FILL MATERIAL MAY INCLUDE ROCK FROM ON-SITE EXCAVATION IF CAREFULLY PLACED SO THAT LARGE STONES ARE WELL DISTRIBUTED AND VOIDS ARE COMPLETELY FILLED WITH SMALLER STONES, EARTH, SAND OR GRAVEL TO FURNISH A SOLID EMBANKMENT. NO ROCK LARGER THAN THREE INCHES IN ANY DIMENSION NOR ANY SHALE SHALL BE PLACED IN THE TOP 12 INCHES OF EMBANKMENT.
 - AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS.
 - IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED, A QUALIFIED GEOTECHNICAL ENGINEER SHALL RECOMMEND TO THE OWNER THE METHODS OF UNDERCUTTING AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL. ALL PROOFROLLING AND UNDERCUTTING SHOULD BE PERFORMED DURING A PERIOD OF DRY WEATHER.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING

THE COORDINATES PROVIDED ON THIS PLAN ARE FOR INFORMATION AND CHECKING PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALCULATE CONSTRUCTION STAKING COORDINATES ACCORDING TO THE DIMENSIONS SHOWN ON THESE PLANS. CONTRACTOR SHALL VERIFY THE ACCURACY OF THE COORDINATES SHOWN HEREON BEFORE CONSTRUCTION.

IF DISCREPANCIES EXIST BETWEEN THE GRADING NOTES AND THE RECOMMENDATIONS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT, THE RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT SHALL GOVERN.



THIS SHEET FOR INFORMATION ONLY

- NOTES:**
- 22 MATCH EXISTING SIDEWALK ELEVATION
 - 23 MATCH EXISTING PAVEMENT ELEVATION

- LEGEND:**
- SECTION CORNER
 - BENCHMARK
 - CONTROL POINT
 - MONUMENT FOUND ORIGIN UNKNOWN UNLESS OTHERWISE NOTED
 - MONUMENT SET
 - SECTION LINE
 - PLATTED
 - MEASURED
 - CALCULATED MEASURED
 - CHAIN LINK CONCRETE
 - WOOD FENCE
 - RCP REINFORCED CONCRETE PIPE
 - CMP CORRUGATED METAL PIPE
 - VCP VITRIFIED CLAY PIPE
 - EXISTING GRADE 1' CONTOUR
 - EXISTING GRADE 5' CONTOUR
 - DECIDUOUS TREE
 - EXISTING SPOT ELEVATION
 - STUMP
 - TREE LINE
 - FINISH FLOOR ELEVATION
 - DEADMAN ANCHOR
 - LIGHT POLE
 - OVERHEAD POWER LINE (# OF LINES)
 - UTILITY POLE
 - UTILITY POLE W/ TRANSFORMER
 - SANITARY SEWER LINE
 - SANITARY SEWER MANHOLE
 - FLARED END SECTION
 - FIRE HYDRANT
 - WATER LINE GATE VALVE
 - FLOOD ZONE A
 - APPROXIMATE LOCATION OF FLOOD ZONES PER FEMA WEBSITE
 - BREAKER BOX
 - EDGE OF WEARING SURFACE (BRIDGE)

CHK	CHK
DWN	DWN
DSN	DSN
KKC	KKC
PER CITY COMMENTS	PER CITY COMMENTS
INITIAL ISSUE	INITIAL ISSUE
DATE	DATE
REV	DESCRIPTION
1	10/27/16
0	9/20/16

11676
 12/21/16
 PROFESSIONAL ENGINEER

MICHAEL R. OSBOURN
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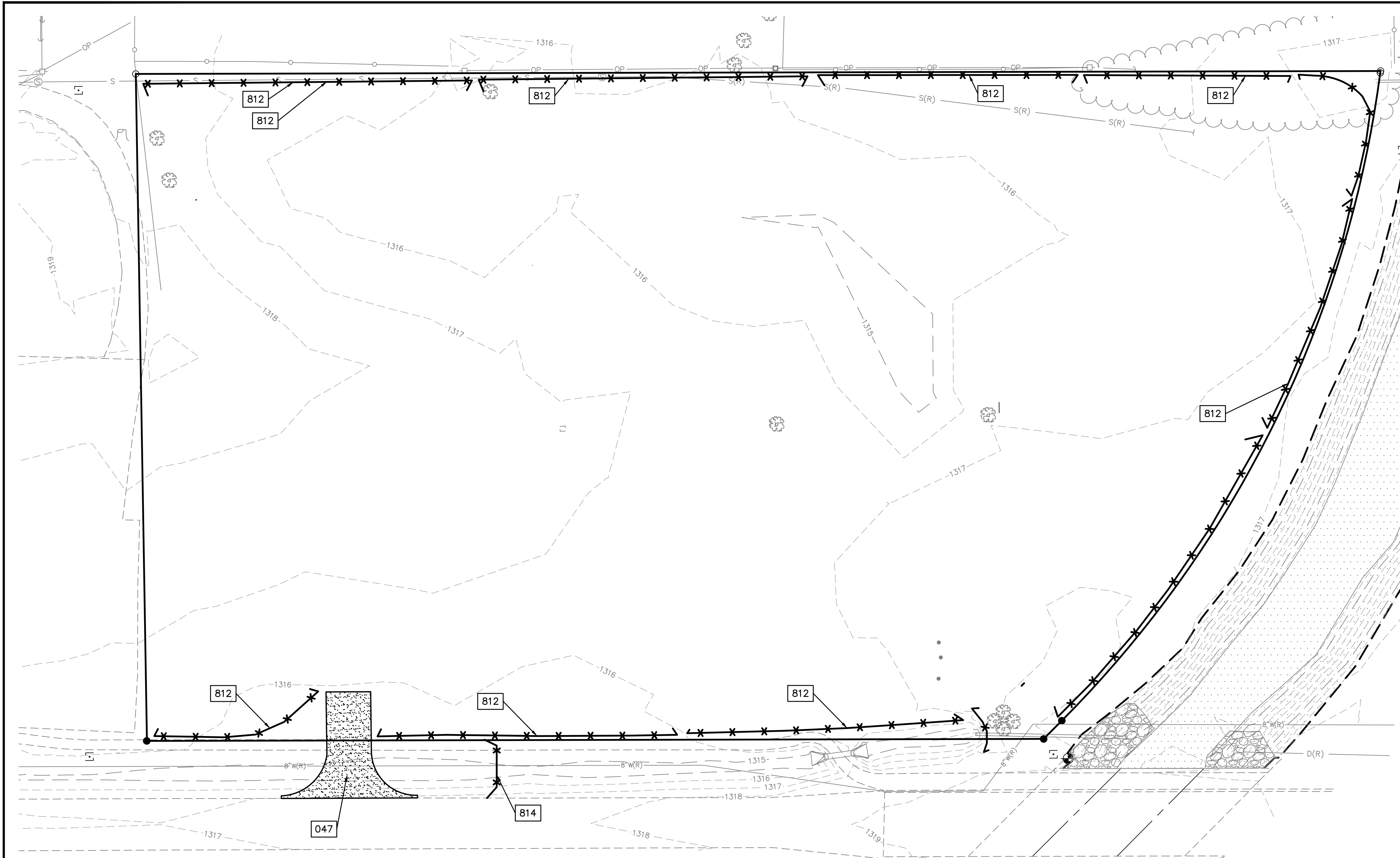
KAW VALLEY ENGINEERING
 KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-113. EXPIRES 12/31/16

811
 Know what's below.
 Call before you dig.

SUNNYDALE POINTE APARTMENTS
 WEST 33RD STREET NORTH
 WICHITA, KANSAS 67204

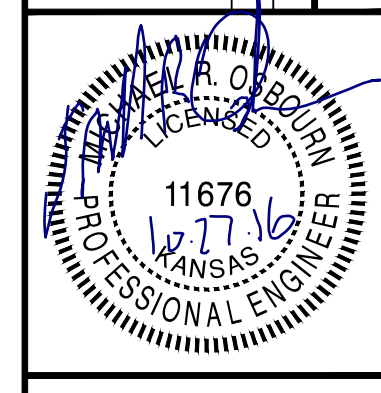
CIVIL CONSTRUCTION DOCUMENTS
 GRADING PLAN

PROJ. NO. C1508121
 DESIGNER K DRAWN BY THR
 CFN 8121GP
 SHEET C300 REV 1



- GENERAL NOTES:**
- PROPERTY LINE IS LIMITS OF CONSTRUCTION EXCEPT AS SHOWN.
 - THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS PRIOR TO BEGINNING EARTHWORK OPERATIONS.
 - THE CONTRACTOR SHALL MAINTAIN ALL SILT CONTROL MEASURES DURING CONSTRUCTION.
 - ALL SILT SHALL REMAIN ON SITE AND SURROUNDING STREETS SHALL BE KEPT CLEAR OF ALL MUD AND DEBRIS.
 - A SEDIMENTATION BARRIER IS TO BE INSTALLED AS SHOWN.
 - ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE SEDIMENTATION BARRIERS MAINTAINED AS NEEDED TO PREVENT SEDIMENTATION BYPASS OF THE BARRIER.
 - SLOPES ARE TO BE LEFT IN A ROUGH CONDITION DURING GRADING.
 - CURB INLET SEDIMENTATION BARRIERS ARE TO BE INSTALLED AROUND INLETS AND WEIRS WHERE SEDIMENTATION IS A CONCERN. INLET BARRIERS SHALL BE EITHER BLOCK AND GRAVEL, OR SECURED STRAW BALES, OR SILT FENCE.
 - SEDIMENT IS TO BE REMOVED FROM STORM WATER DRAINAGE SYSTEMS.
 - RIPRAP IS TO BE INSTALLED AT AREAS OF CONCENTRATED FLOW (I.E. CULVERT OUTLETS).
 - CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL AS HE/SHE DEEMS NECESSARY.
 - THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR AS NECESSARY TO INSTALL AND MAINTAIN ADEQUATE EROSION AND SILTATION CONTROLS REQUIRED TO PREVENT SOIL EROSION FROM LEAVING THE PROJECT SITE. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT METHODS UTILIZED ARE ADEQUATE AND COMPLY WITH REQUIREMENTS OF THE SPECIFICATIONS AND GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
 - TEMPORARY SEDIMENT FENCE/STRAW BALES TO REMAIN UNTIL ADEQUATE VEGETATION IS ESTABLISHED.
 - MUD AND DEBRIS SHALL BE CLEANED UP AT THE CONCLUSION OF EACH WORKING DAY, OR AFTER EACH RAINFALL IF SILT IS PRESENT.
 - INSPECTION, MAINTENANCE AND REPAIR OF EROSION CONTROL DEVICES SHALL BE ON GOING THROUGHOUT THE LIFE OF BUILDING CONSTRUCTION TO KEEP THE DEVICES IN OPERABLE CONDITION AT ALL TIMES. ADDITIONAL MEASURES SHALL BE INSTALLED AS REQUIRED BY ACTUAL FIELD CONDITIONS AND/OR GOVERNING INSPECTION AGENCIES.
 - INSTALL CONSTRUCTION ENTRANCE AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING THE SITE AND AS SHOWN ON PLANS.
 - AT COMPLETION OF SITE GRADING AND OTHER RELATED CONSTRUCTION ACTIVITIES, ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE SEED, SODDED, OR LANDSCAPED AS SHOWN ON THE LANDSCAPE PLAN WITHIN 14 DAYS.
 - TOPSOIL IS TO BE PLACED IN AREAS UNSUITABLE FOR VEGETATIVE GROWTH.
 - STRIP TOPSOIL PRIOR TO EXCAVATION, STOCKPILE AND SPREAD ONTO DISKED SUBGRADE (4" MIN) A THICKNESS OF 4 INCHES.
 - ROCK LINING (RIPRAP) SHALL BE DURABLE STONE CONTAINING A COMBINED TOTAL OF NOT MORE THAN 10 PERCENT OF EARTH, SAND, SHALE AND NON-DURABLE ROCK. AT LEAST 60 PERCENT OF THE MASS SHALL BE OF PIECES HAVING A MINIMUM WEIGHT OF 150 POUNDS OR MORE PER CUBIC FOOT.
 - THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR RESOLVING COMPLAINTS IN THE EVENT THAT COMPLAINTS OR DAMAGE CLAIMS ARE FILED DUE TO DAMAGES OCCURRING ADJACENT TO OR DOWNSTREAM FROM PROPERTY BY SEDIMENT RESULTING FROM EROSION ON THE PROJECT SITE.
 - GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON SITE TO KEEP SOLID WASTE FROM ENTRY INTO WATERS.
 - ALL FUELING FACILITIES PRESENT ON SITE SHALL ADHERE TO APPLICABLE FEDERAL AND STATE REQUIREMENTS CONCERNING UNDERGROUND STORAGE, ABOVE GROUND STORAGE AND DISPENSERS, INCLUDING SPILL PREVENTION, CONTROL AND COUNTER MEASURES.
 - EROSION CONTROL IS TO BE PLACED IN PHASING AS CONSTRUCTION PROGRESSES.
 - MINIMAL WASHING OF CONCRETE EQUIPMENT ALLOWED, CHUTE, ETC. CONCRETE WASHOUT OF THE DRUM IS NOT ALLOWED. ANY PIT/WASHOUT AREA NEEDS TO BE MAINTAINED IN A NON-DISCHARGING MANNER AND ANY WASTE RESIDUE WILL NEED TO BE CLEANED OUT AND REMOVED AT THE END OF PROJECT.

PROJ. NO.	C15-8121
DESIGNER	KGK
DRAWN BY	NJN
CFN	8121ECP
SHEET	C400
REV	1



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SUNNYDALE POINTE APARTMENTS
WEST 33RD STREET NORTH
WICHITA, KANSAS 67204

STORM SEWER IMPROVEMENT PLANS
EROSION CONTROL- PHASE I

- 047 STABILIZED CONSTRUCTION ENTRANCE
812 SILT FENCE BARRIER
814 SILT FENCE DITCH CHECK

- EROSION & PROPOSED IMPROVEMENTS LEGEND:**
- 1218 EXISTING GROUND CONTOUR (1' INTERVALS)
 - SILT FENCE BARRIER
 - STABILIZED CONSTRUCTION ENTRANCE

EROSION AND SEDIMENT CONTROL NOTES
PHASE 1: ESTABLISH PERIMETER PROTECTION PRIOR TO COMMENCEMENT OF CONSTRUCTION

- EROSION AND SEDIMENT CONTROL INSPECTION PROCEDURES**
THE FOLLOWING PROCEDURES WILL BE USED TO MAINTAIN EROSION AND SEDIMENTATION CONTROLS.
- ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT PRODUCING RUNOFF AND DAILY DURING PROLONGED RAINFALL PERIODS.
 - ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE MADE WITHIN 24 HOURS OF THE INSPECTION.
 - SEDIMENT WILL BE REMOVED FROM THE SILT BARRIERS WHEN IT HAS REACHED ONE-THIRD OF THE HEIGHT OF THE BARRIER.
 - SILT BARRIERS WILL BE INSPECTED FOR DEPTH OF ACCUMULATED SEDIMENT, TEARS, ATTACHMENT TO POSTS, AND STABILITY ON A WEEKLY BASIS.
 - TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
 - INSPECT RIPRAP AND AGGREGATE COVERED AREAS FOR BARE SPOTS AND WASHOUTS.
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- TEMPORARY AND PERMANENT SEEDING**
TEMPORARY SEEDING
SEEDBED PREPARATION
SEEDBED SHOULD BE WELL-PULVERIZED, LOOSE AND UNIFORM. LIME AND FERTILIZER SHOULD BE APPLIED ACCORDING TO SOIL TEST RECOMMENDATIONS. IF pH IS UNKNOWN, APPLY LIME AT A RATE OF 2 TONS/ACRE. APPLY A 10-10-10 GRADE FERTILIZER AT 700-1,000 LB/ACRE. INCORPORATE BOTH INTO THE TOP 4-6 INCHES OF SOIL. PLANT SELECTION - ANNUAL RYE GRASS, WHEAT OR OATS FOR TEMPORARY SEEDING
- SEEDING**
EVENLY APPLY SEED USING A CYCLONE SEEDER (BROADCAST), DRILL, CULTIPACKER SEEDER OR HYDROSEEDER. ANNUAL RYE GRASS SHOULD BE APPLIED AT A RATE OF 120 LBS/ACRE, WHEAT OR OATS SHOULD BE APPLIED AT A RATE OF 100 LBS/ACRE. BROADCAST SEEDING AND HYDROSEEDING ARE APPROPRIATE FOR STEEP SLOPES WHERE EQUIPMENT CANNOT BE DRIVEN. HAND BROADCASTING IS NOT RECOMMENDED BECAUSE OF THE DIFFICULTY IN ACHIEVING A UNIFORM DISTRIBUTION. SMALL GRAINS SHOULD BE PLANTED NO MORE THAN 1 INCH DEEP, AND GRASSES AND LEGUMES NO MORE THAN 1/2 INCH. BROADCAST SEED MUST BE COVERED BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY FIRMED WITH A ROLLER OR CULTIPACKER. HYDROSEEDED MIXTURES SHOULD INCLUDE A WOOD FIBER (CELLULOSE) MULCH.
- MULCHING**
THE USE OF MULCH WILL HELP ENSURE ESTABLISHMENT UNDER NORMAL CONDITIONS AND IS ESSENTIAL TO SEEDING SUCCESS UNDER HARSH CONDITIONS SUCH AS SEEDING IN FALL OR WINTER COVER (WOOD FIBER MULCHES ARE NOT CONSIDERED ADEQUATE FOR THIS USE), SLOPES STEEPER THAN 3:1, EXCESSIVELY HOT OR DRY WEATHER, ADVERSE SOILS (SHALLOW, ROCKY, HIGH IN CLAY OR SAND), AND AREAS RECEIVING CONCENTRATED FLOW. IF AREA TO BE MULCHED IS SUBJECT TO CONCENTRATED WATERFLOW, AS IN CHANNELS, ANCHOR MULCH WITH NETTING.
- MAINTENANCE**
RESEED, REFERTILIZE AND MULCH AREAS OF INSUFFICIENT GROWTH. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.
- PERMANENT SEEDING**
SEE PROJECT SPECIFICATIONS FOR PERMANENT SEEDING REQUIREMENTS.

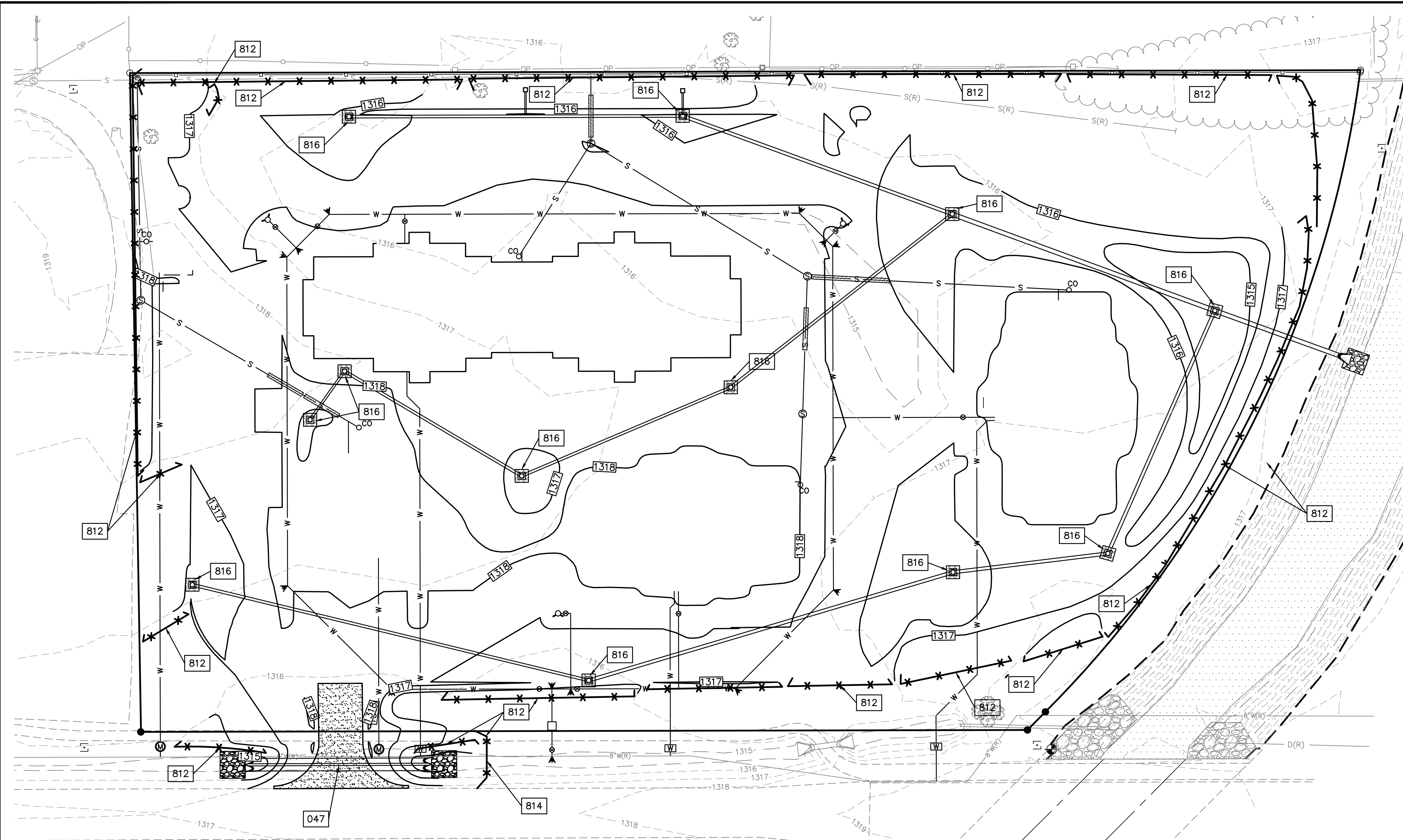
LEGEND:

- SECTION CORNER
- BENCHMARK
- CONTROL POINT
- MONUMENT FOUND ORIGIN UNKNOWN UNLESS OTHERWISE NOTED
- MONUMENT SET
- SECTION LINE
- PLATTED
- MEASURED
- CALCULATED MEASURED
- CHAIN LINK FENCE
- WOOD FENCE
- REINFORCED CONCRETE PIPE
- CORRUGATED METAL PIPE
- VITRIFIED CLAY PIPE
- EXISTING GRADE 1' CONTOUR
- EXISTING GRADE 5' CONTOUR
- DECIDUOUS TREE
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- WATER LINE GATE VALVE
- FLOOD ZONE A
- APPROXIMATE LOCATION OF FLOOD ZONES PER FEMA WEBSITE
- BREAKER BOX
- EDGE OF WEARING SURFACE (BRIDGE)

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.



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- CURB INLET SEDIMENTATION BARRIERS ARE TO BE INSTALLED AROUND INLETS AND WEIRS WHERE SEDIMENTATION IS A CONCERN. INLET BARRIERS SHALL BE EITHER BLOCK AND GRAVEL, OR SECURED STRAW BALES, OR SILT FENCE.
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EROSION AND SEDIMENT CONTROL INSPECTION PROCEDURES

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EROSION AND SEDIMENT CONTROL NOTES

- PHASE 1:** ESTABLISH PERIMETER PROTECTION PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- PHASE 2:** INTERNAL SLOPE AND INLET PROTECTION INSTALLED AT COMPLETIONS OF ROUGH GRADING AND UTILITY INSTALLATION.

DETAILS - SEE DETAIL SHEET NO. C490 AND C491 FOR THE FOLLOWING DETAILS

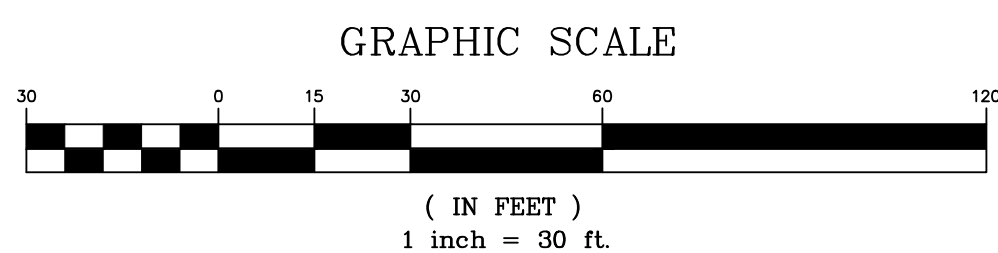
- 047 STABILIZED CONSTRUCTION ENTRANCE
- 812 SILT FENCE BARRIER
- 814 SILT FENCE DITCH CHECK
- 816 SILT FENCE BARRIER FOR AREA INLETS

EROSION & PROPOSED IMPROVEMENTS LEGEND:

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PROJ. NO.	C15_8121
DESIGNER	KGK
DRAWN BY	NJN
CFN	
SHEET	8121ECP
	C401
REV	1

REV	DATE	DESCRIPTION
1	10/27/16	PER CITY COMMENTS
0	9/20/16	INITIAL ISSUE

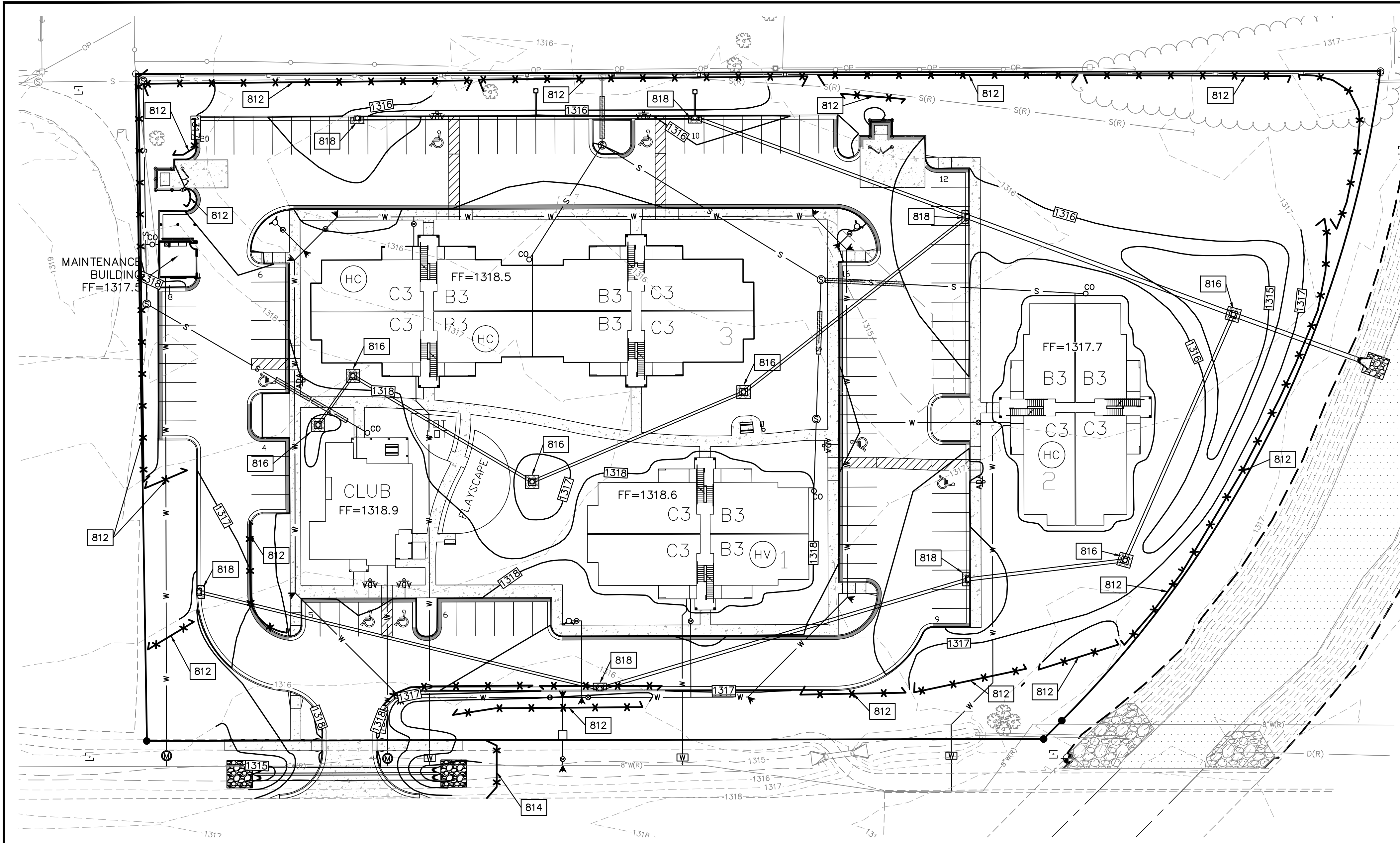
14700 WEST 114TH TERRACE
LENEXA, KANSAS 66215
PH. (913) 884-9150 | FAX (913) 884-9877
kawvalley.com | www.kawvalley.com

KAW VALLEY ENGINEERING

KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-113. EXPIRES 12/31/16

MICHAEL R. OSBOURN
ENGINEER
KS #. 11676

811
Know what's below.
Call before you dig.



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- MONUMENT SET
- SECTION LINE
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- (M) MEASURED
- (CM) CALCULATED MEASURED
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- EWS EDGE OF WEARING SURFACE (BRIDGE)

EROSION & PROPOSED IMPROVEMENTS LEGEND:

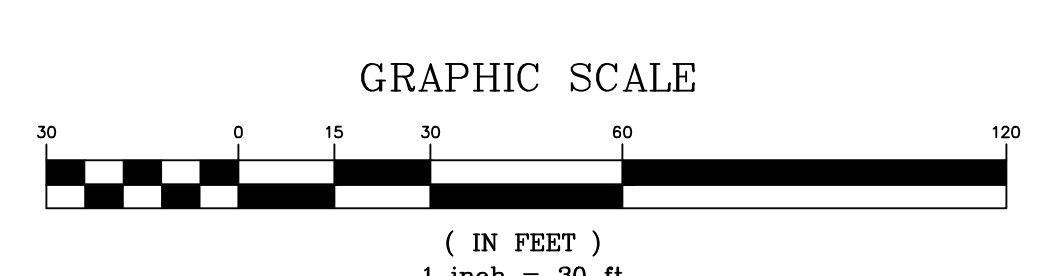
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PROJ. NO.	C15_8121
DESIGNER	KGK
DRAWN BY	NJN
CFN	8121ECP
SHEET	C402
REV	1

PER CITY COMMENTS

REV	DATE	DESCRIPTION
1	10/27/16	PER CITY COMMENTS
0	9/20/16	INITIAL ISSUE

PROFESSIONAL ENGINEER
11676
MICHAEL R. OSBOURN
ENGINEER
KS #. 11676

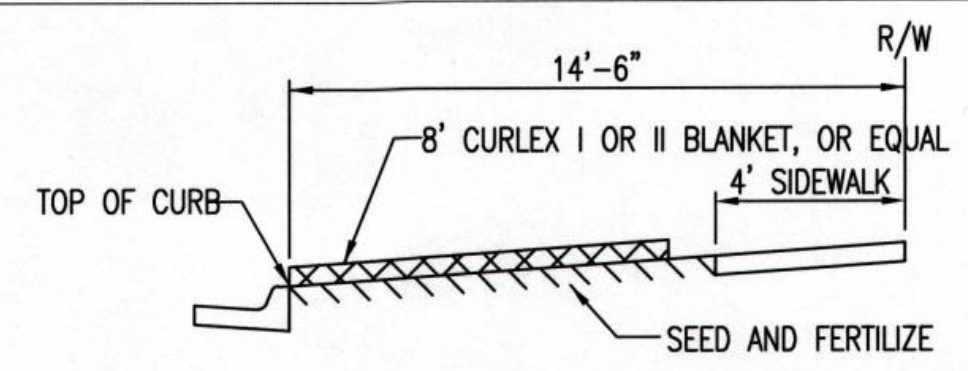
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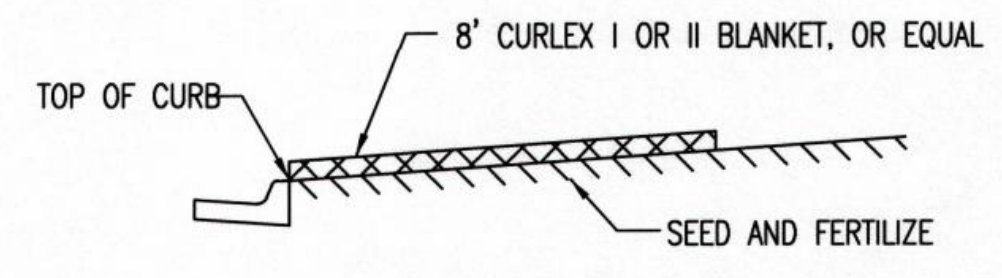
SUNNYDALE POINTE APARTMENTS
WEST 33RD STREET NORTH
WICHITA, KANSAS 67204

STORM SEWER IMPROVEMENT PLANS
EROSION CONTROL- PHASE III

811
Know what's below.
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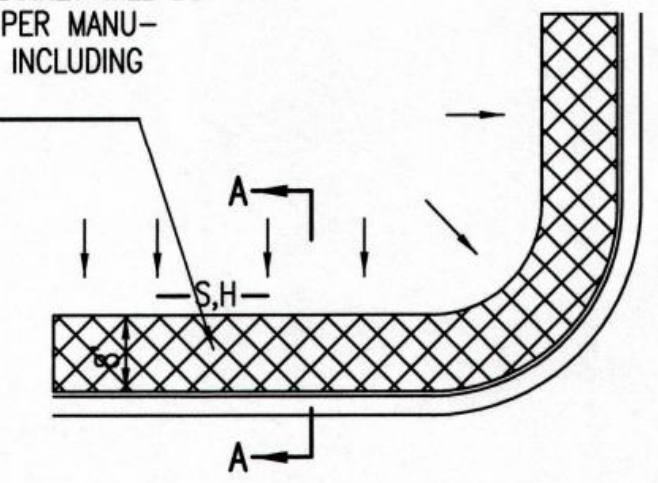


SECTION B-B

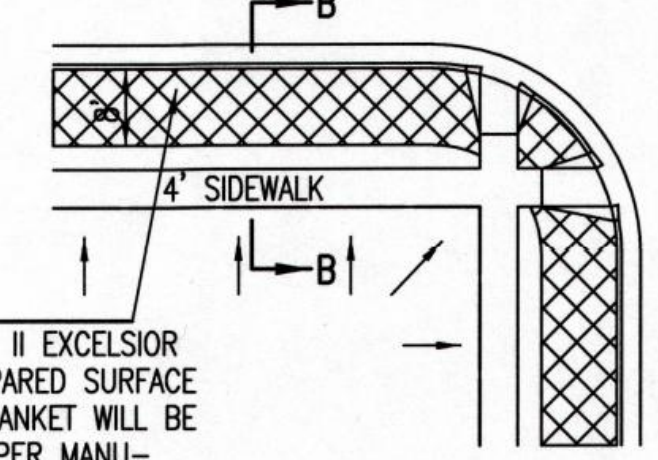


SECTION A-A

INSTALL 8' WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURERS RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)



SOUTH STREET

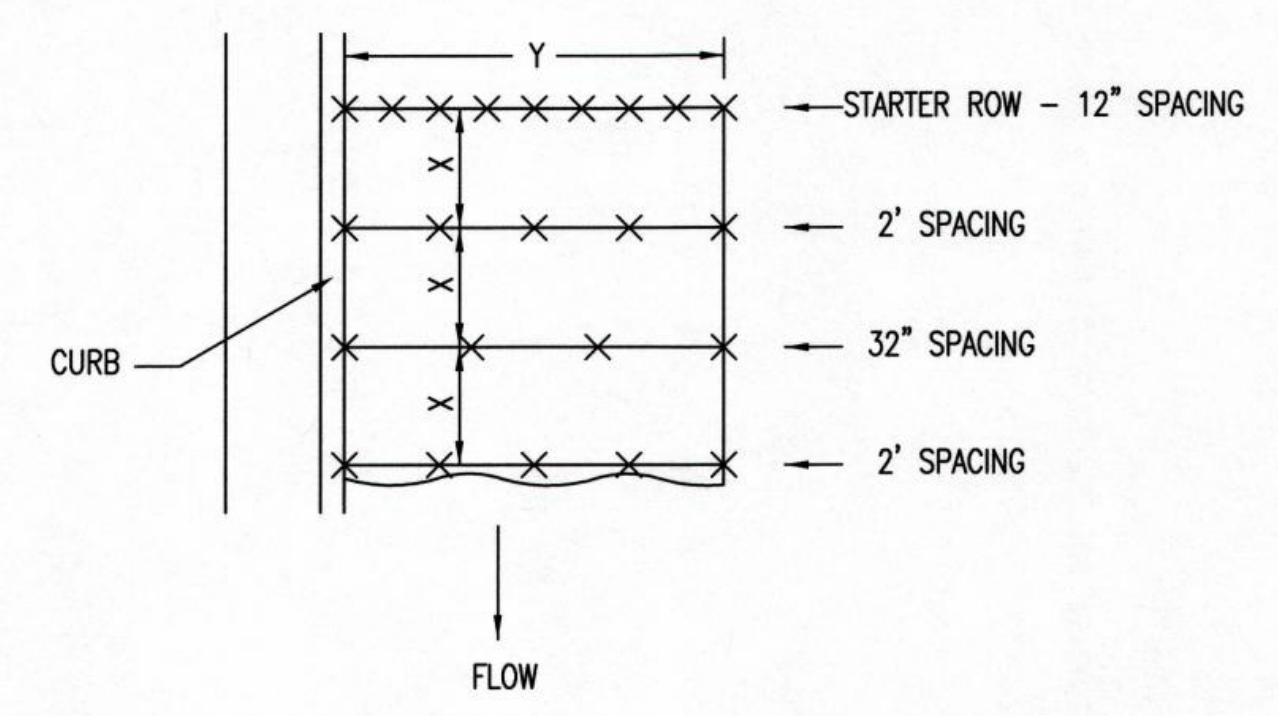


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GENERAL NOTES

- 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.

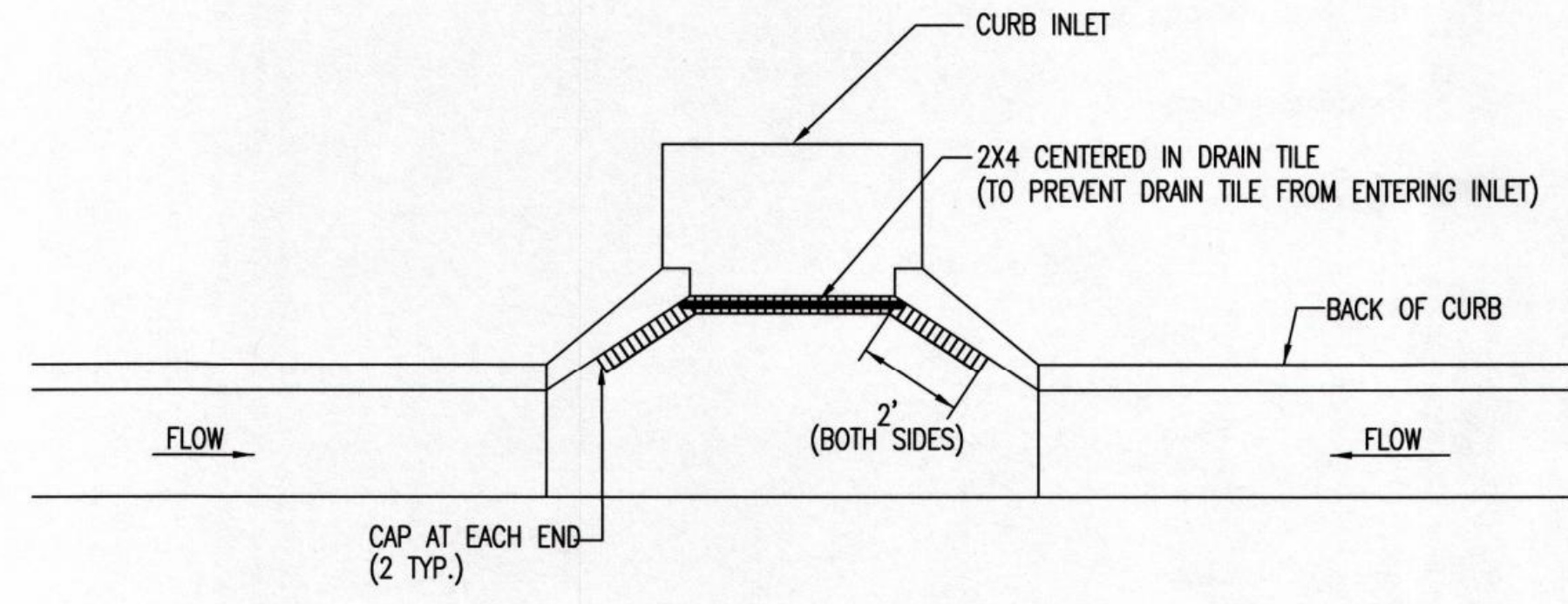
BACK OF CURB PROTECTION DETAIL



STAPLE PATTERN

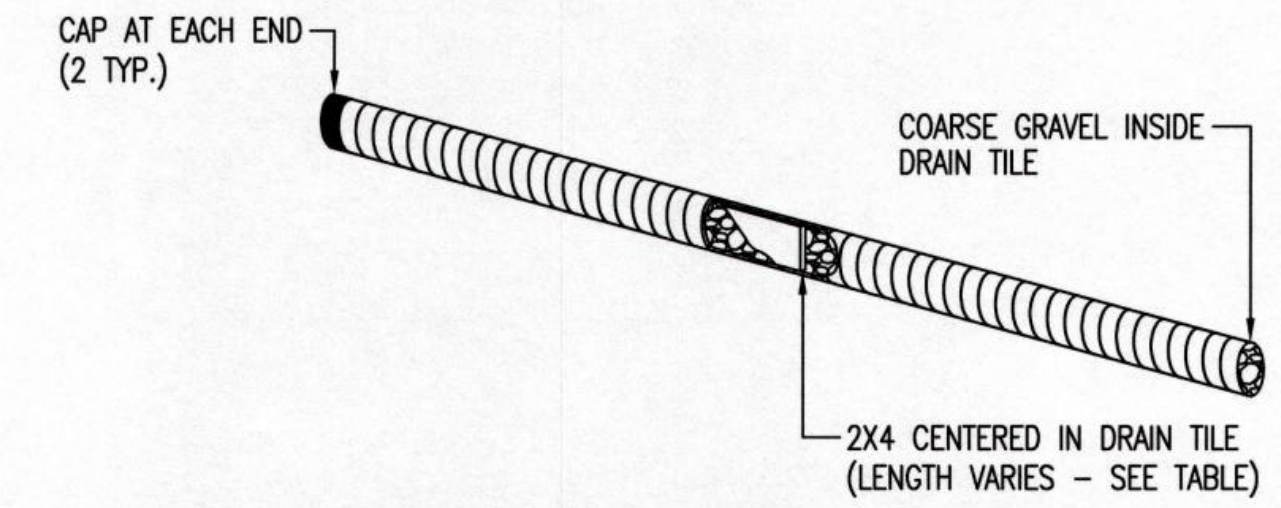
NOTES: USE 6\"/>

DETAILS FOR APPROVED EROSION CONTROL MAT

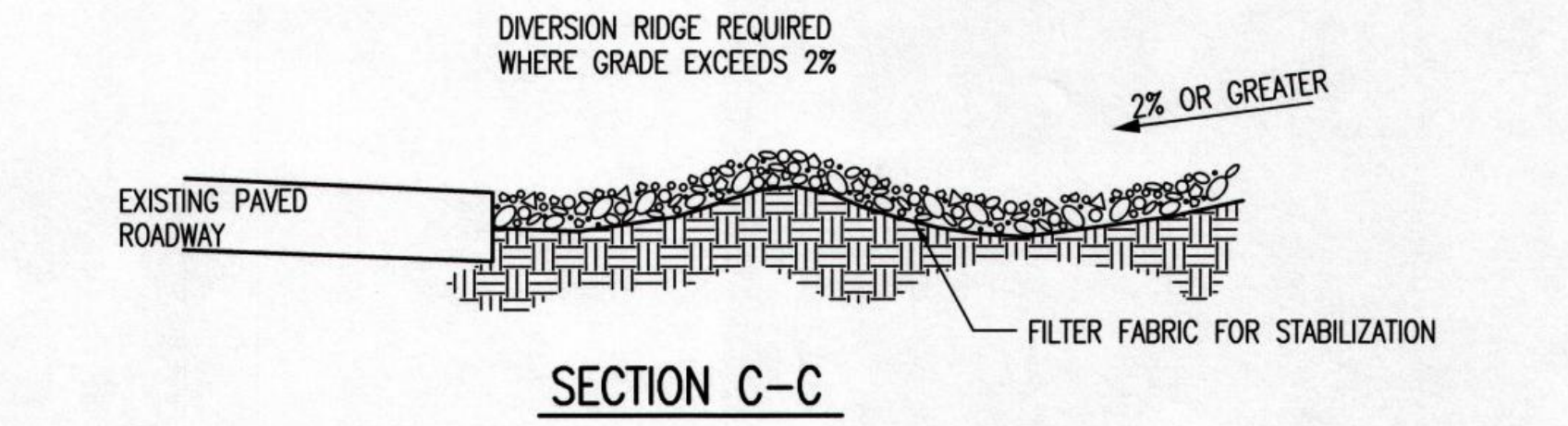


NOTE: PLACE 4\"/>

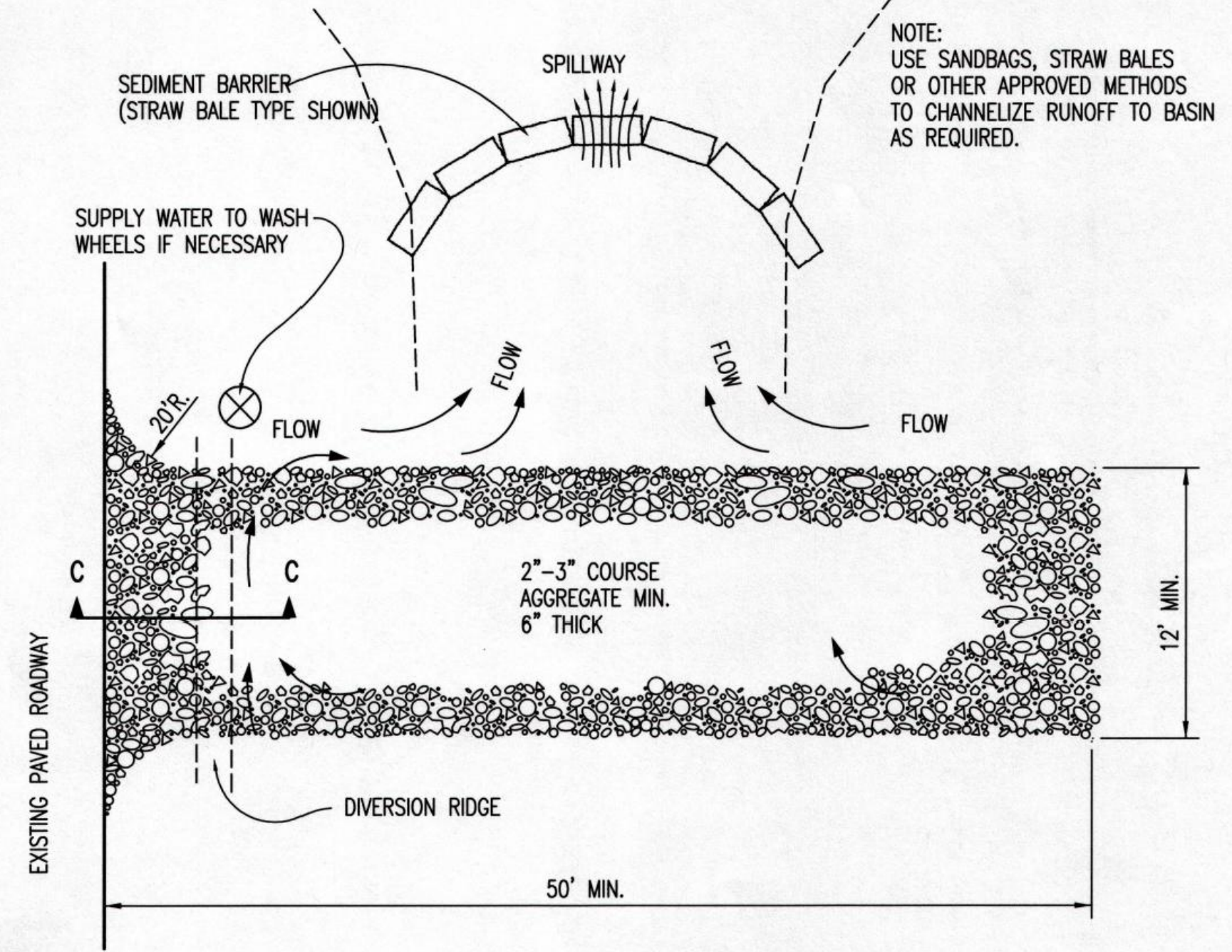
2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



CURB INLET PROTECTION
4\"/>



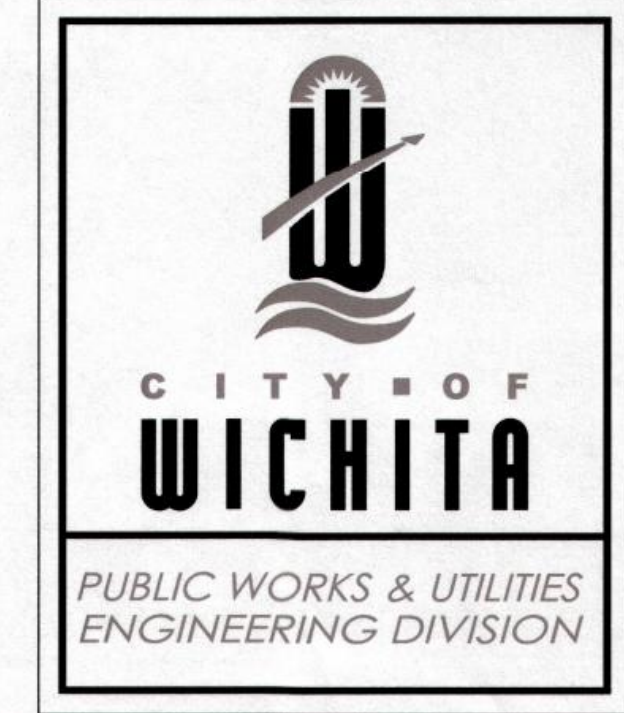
SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE 047

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

10/27/16	PER CITY COMMENTS	DSN	DWN	CHK
9/20/16	INITIAL ISSUE	KGK	KGK	
0				
1				

11676
MICHAEL R. OSBOURN
ENGINEER
KS #. 11676

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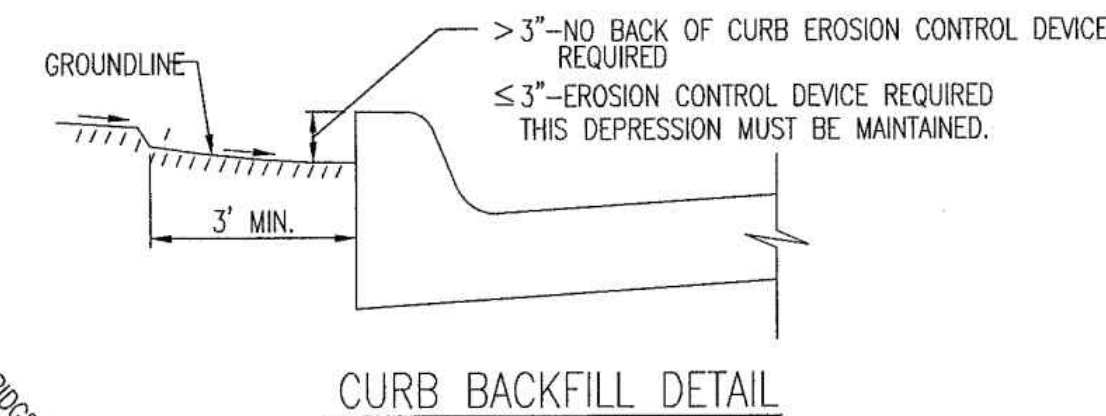
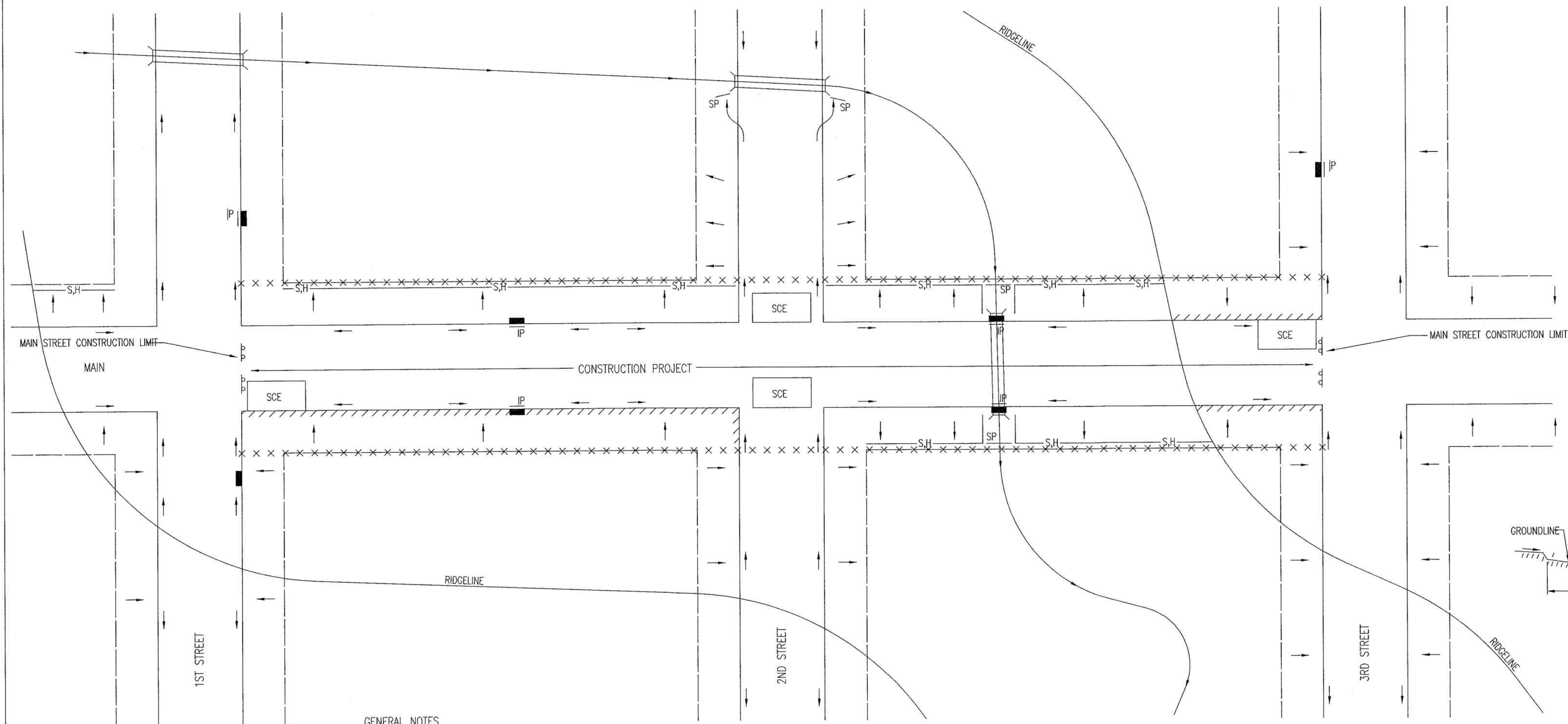
SUNNYDALE POINTE APARTMENTS
WEST 33RD STREET NORTH
WICHITA, KANSAS 67204

STORM SEWER IMPROVEMENT PLANS
EROSION CONTROL DETAILS

PROJ. NO. C15_8121
DESIGNER KGK DRAWN BY NJN
CFN
SHEET 8121DET REV
C490 1

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.

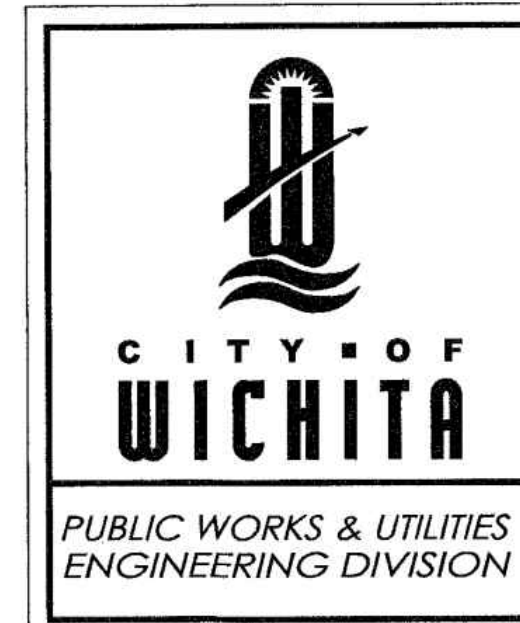


LEGEND

- 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

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 SOODED, 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)

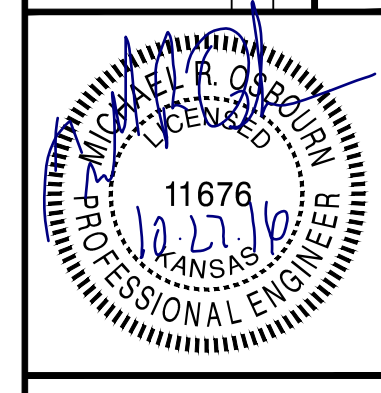


STREET IMPROVEMENT PROJECTS		
CITY ENGINEER GARY JANZEN, P.E.		
PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET

REVISION: JUNE 2015

SW-504

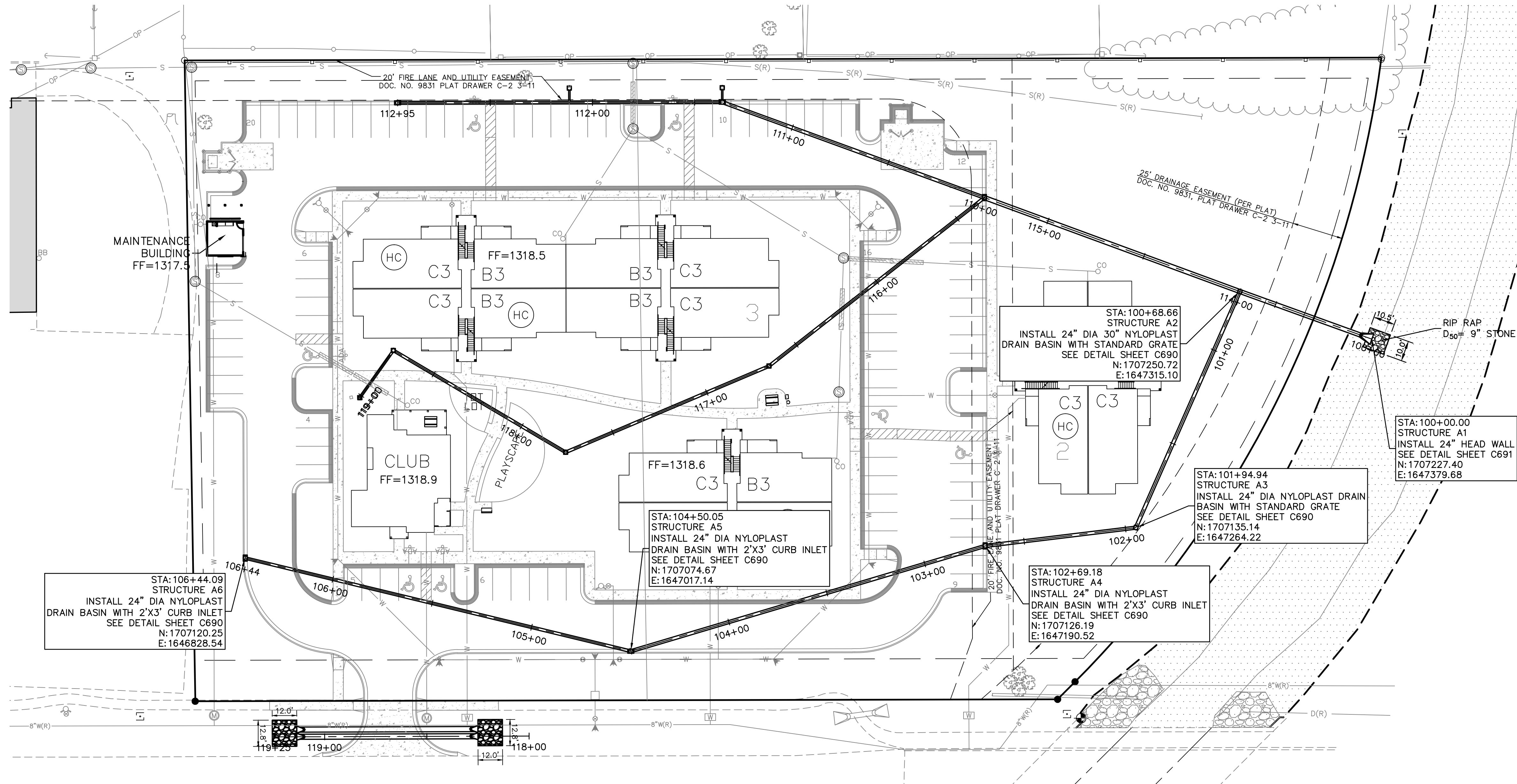
REV	DATE	DESCRIPTION
1	10/27/16	PER CITY COMMENTS
0	9/20/16	INITIAL ISSUE



MICHAEL R. OSBOURN
ENGINEER
KS #. 11676

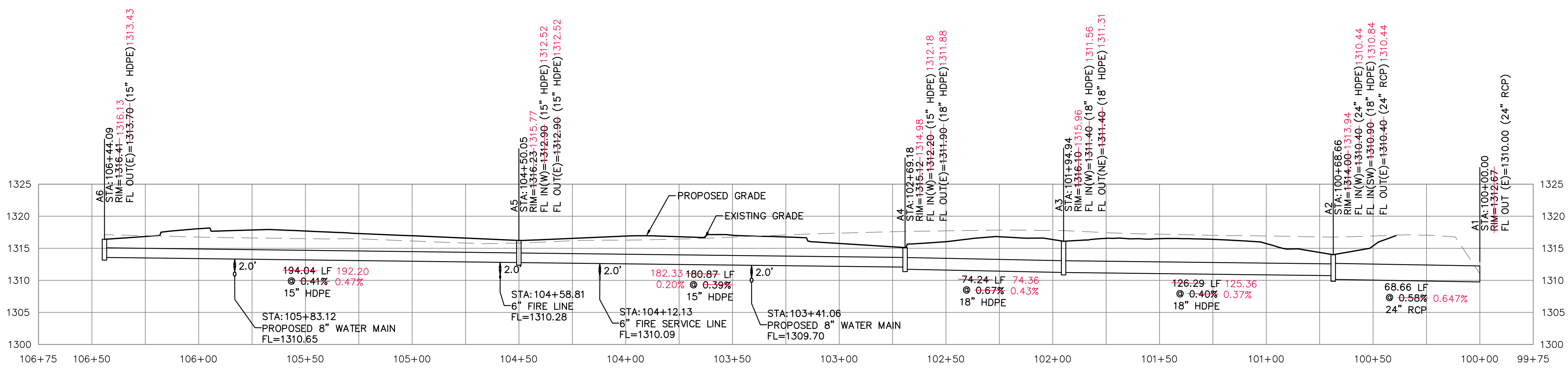
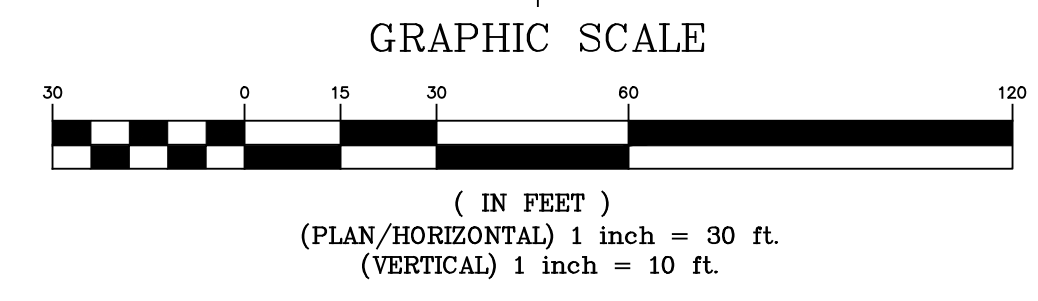
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SUNNYDALE POINTE APARTMENTS	
WEST 33RD STREET NORTH WICHITA, KANSAS 67204	
STORM SEWER IMPROVEMENT PLANS	
EROSION CONTROL DETAILS	
PROJ. NO.	C15-8121
DESIGNER	KGK
DRAWN BY	NJN
CFN	8121DET
SHEET	REV
C493	1



STORM SEWER NOTES:

1. HDPE PIPE SHALL HAVE WATER TIGHT JOINTS.
2. CURB INLET RIM ELEVATIONS ARE TO FLOW LINE OF GUTTER.
3. GRATE INLET RIM ELEVATIONS ARE TO TOP OF GRATE.
4. STORM STRUCTURE COORDINATES ARE TO CENTER OF STRUCTURE.
5. CONTRACTOR TO CONNECT 8" LANDSCAPE DRAIN TO PROPOSED STORM SEWER PIPE OR STRUCTURE USING NYLOPLAST INSERTA TEE. CONTRACTOR TO INSURE SUFFICIENT SLOPE TO DRAIN.



PRIVATE STORM LINE A



Know what's below.
Call before you dig.

PROJ. NO.	C15_8121
DESIGNER	KGK
DRAWN BY	GCW
CFN	8121DPP
SHEET	C610
REV	0

SUNNYDALE POINTE APARTMENTS
WEST 33RD STREET NORTH
WICHITA, KANSAS 67204

AS-BUILT STORM SEWER PLANS
STORM PLAN AND PROFILE

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MICHAEL R. OSBOURN
LICENSED PROFESSIONAL ENGINEER
KANSAS
11676
EXPIRES 12/31/18

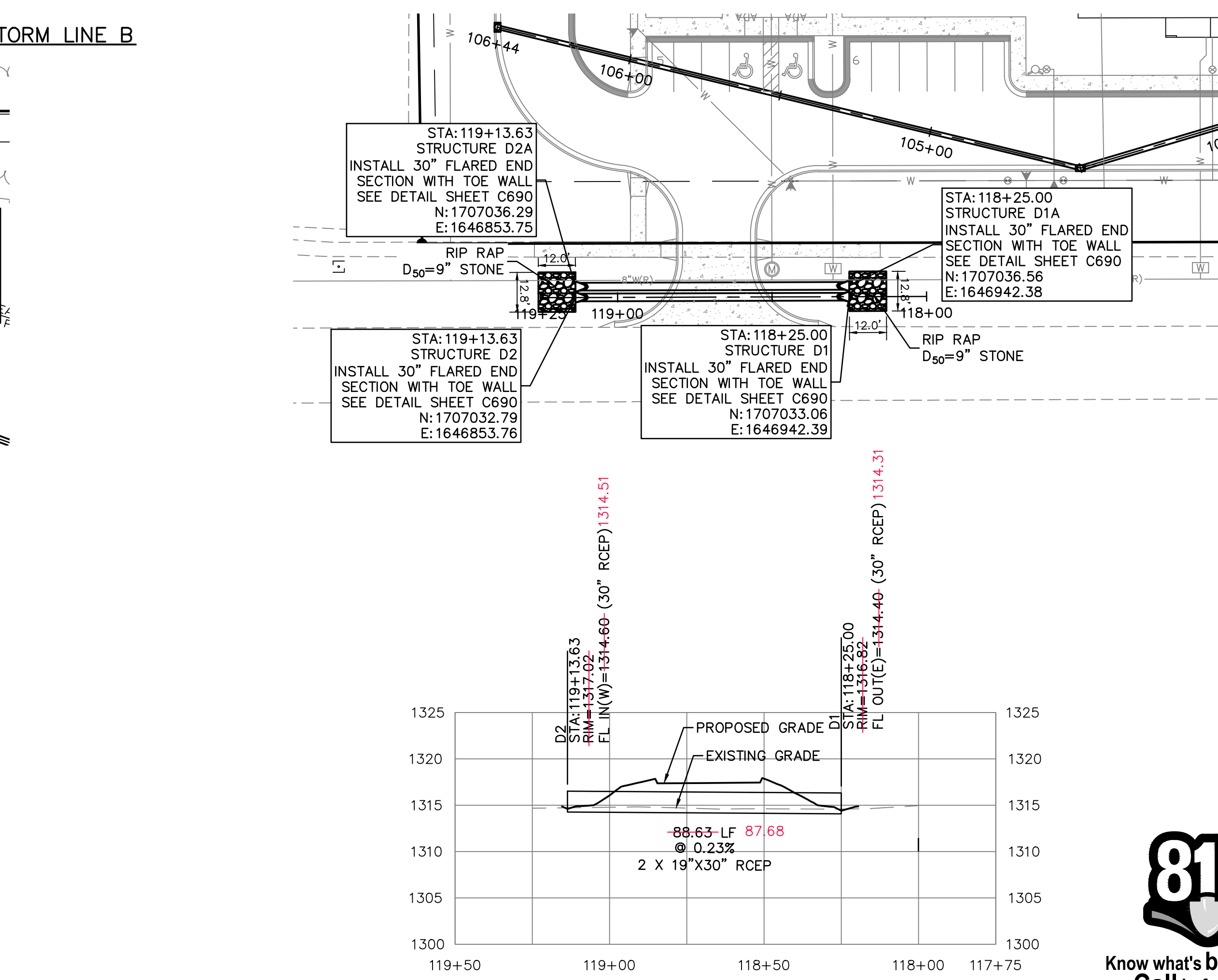
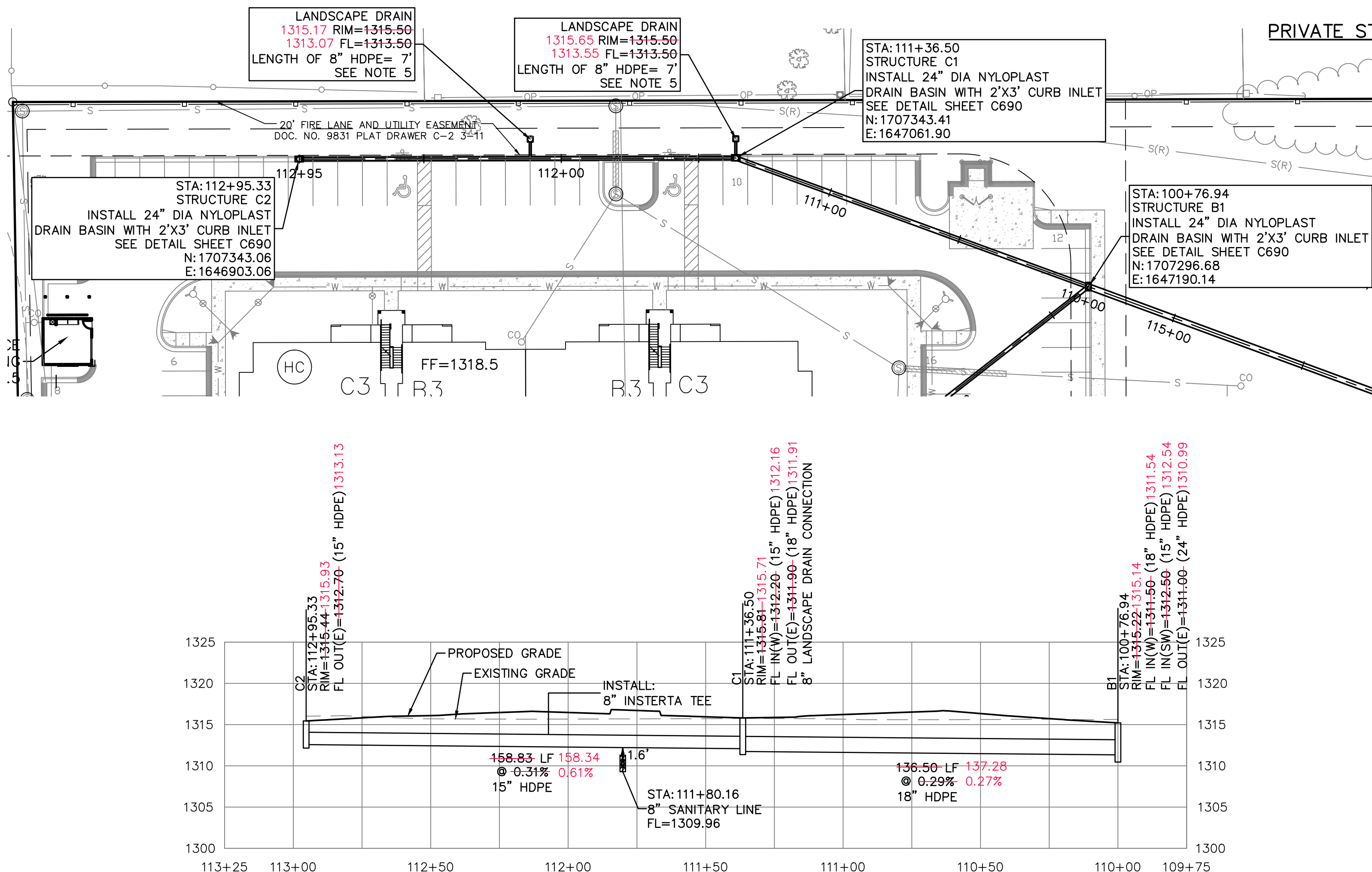
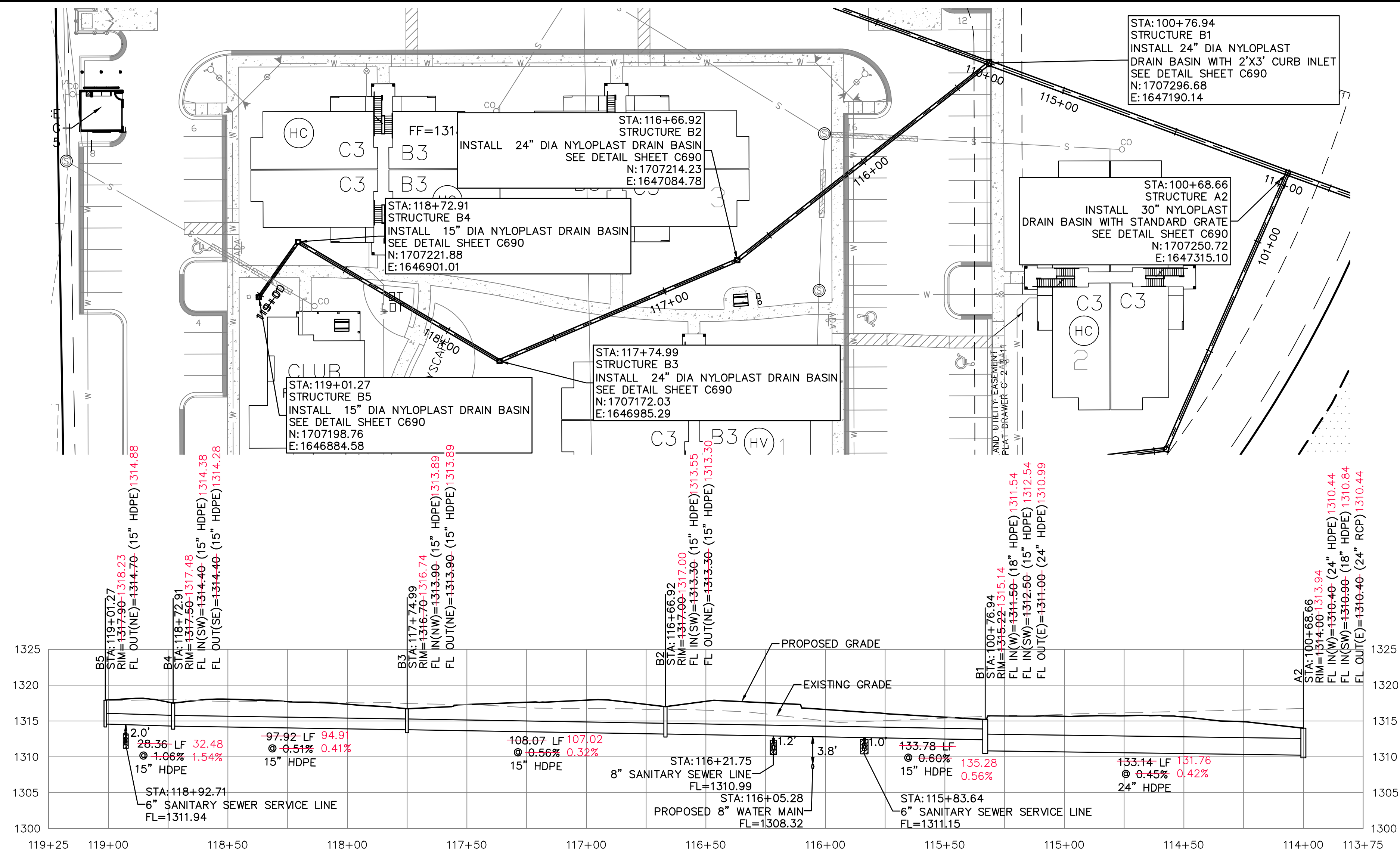
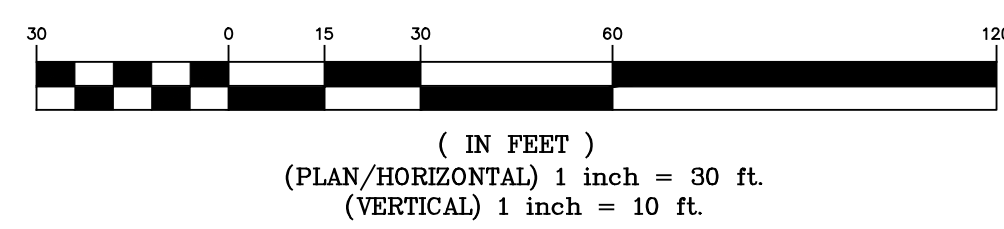
REV	DATE	DESCRIPTION
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		DSN
		DWN
		CHK

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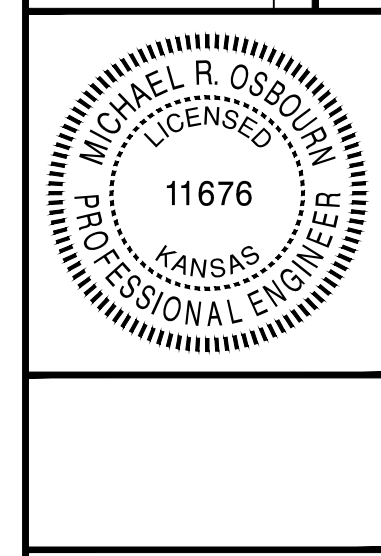
STORM SEWER NOTES:

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3. GRATE INLET RIM ELEVATIONS ARE TO TOP OF GRATE.
4. STORM STRUCTURE COORDINATES ARE TO CENTER OF STRUCTURE.
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GRAPHIC SCALE



REV	DATE	DESCRIPTION
0	5/15/17	INITIAL ISSUE

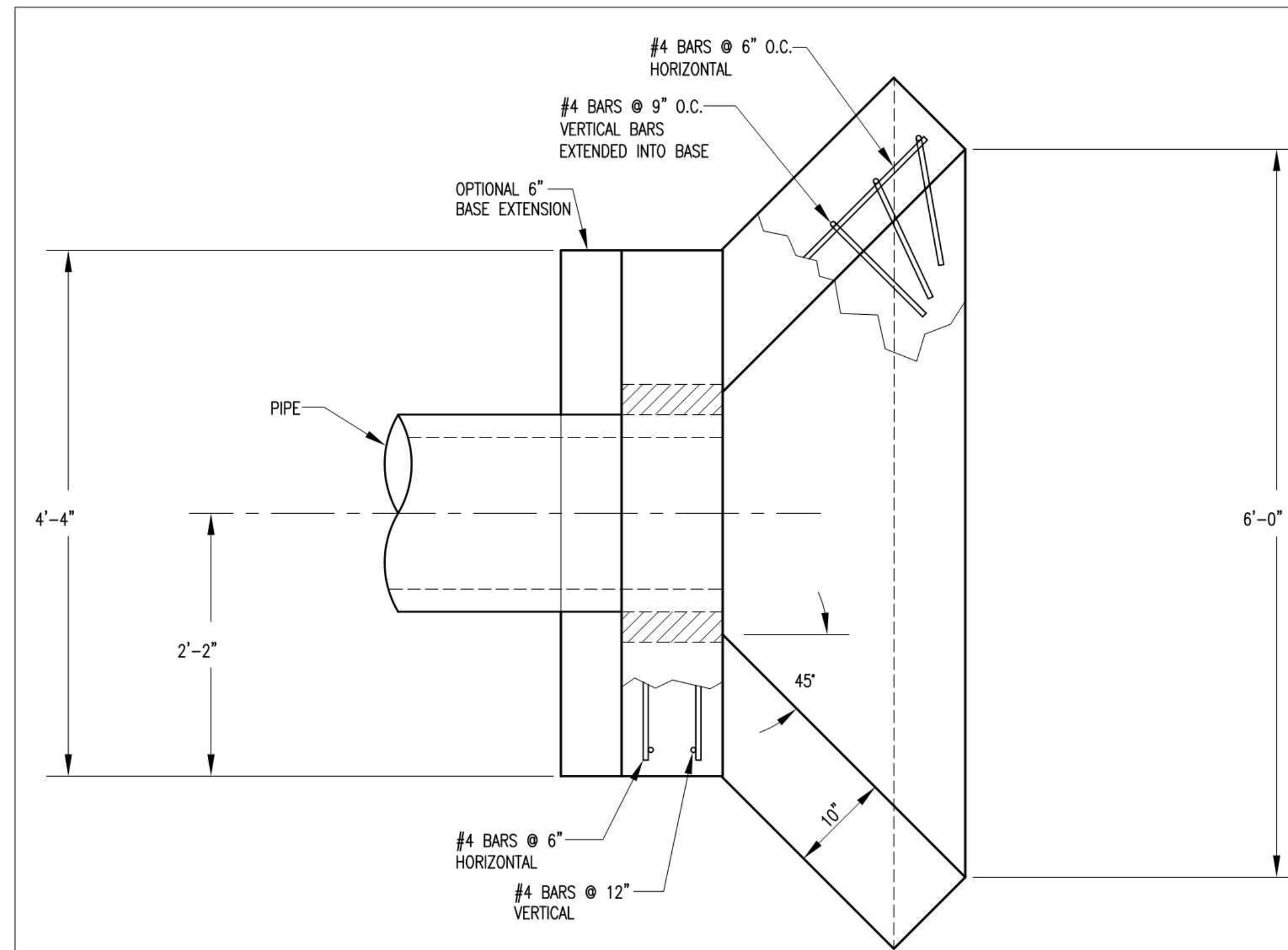


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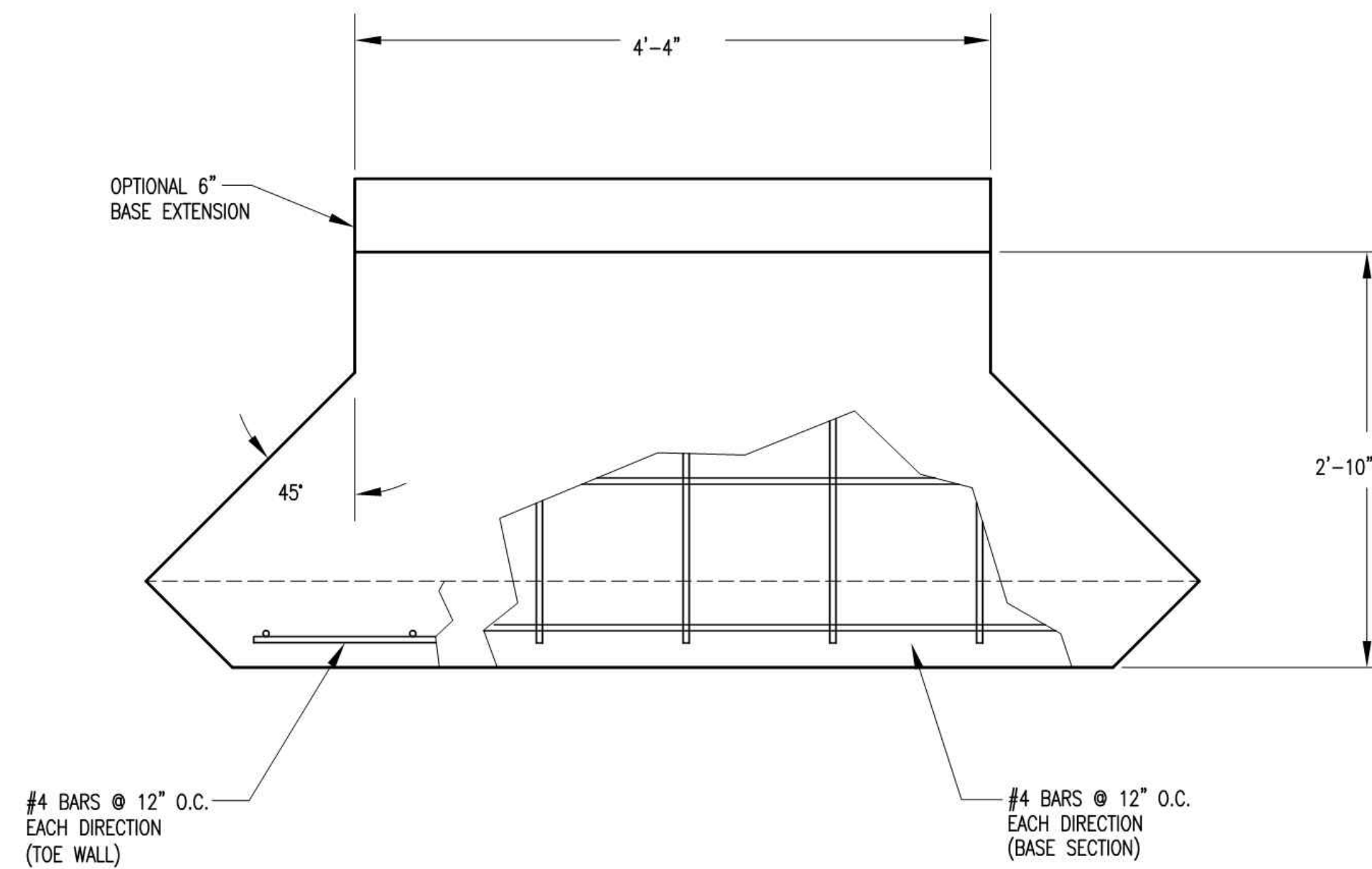
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SUNNYDALE POINTE APARTMENTS WEST 33RD STREET NORTH WICHITA, KANSAS 67204	
PROJ. NO.	C15_8121
DESIGNER	KGK
DRAWN BY	GCW
CFN	8121DPP
SHEET	C611
REV	0

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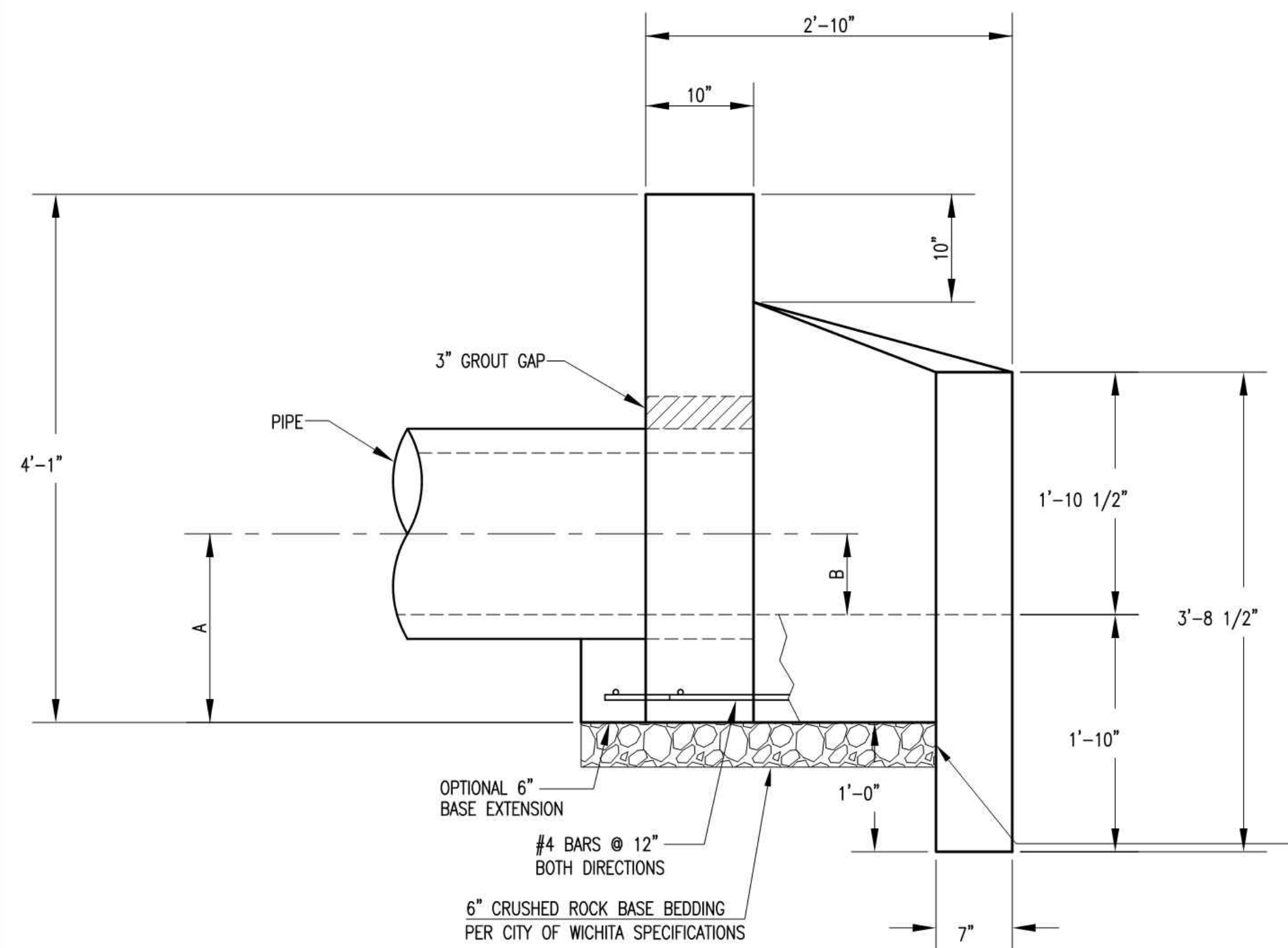


PLAN VIEW

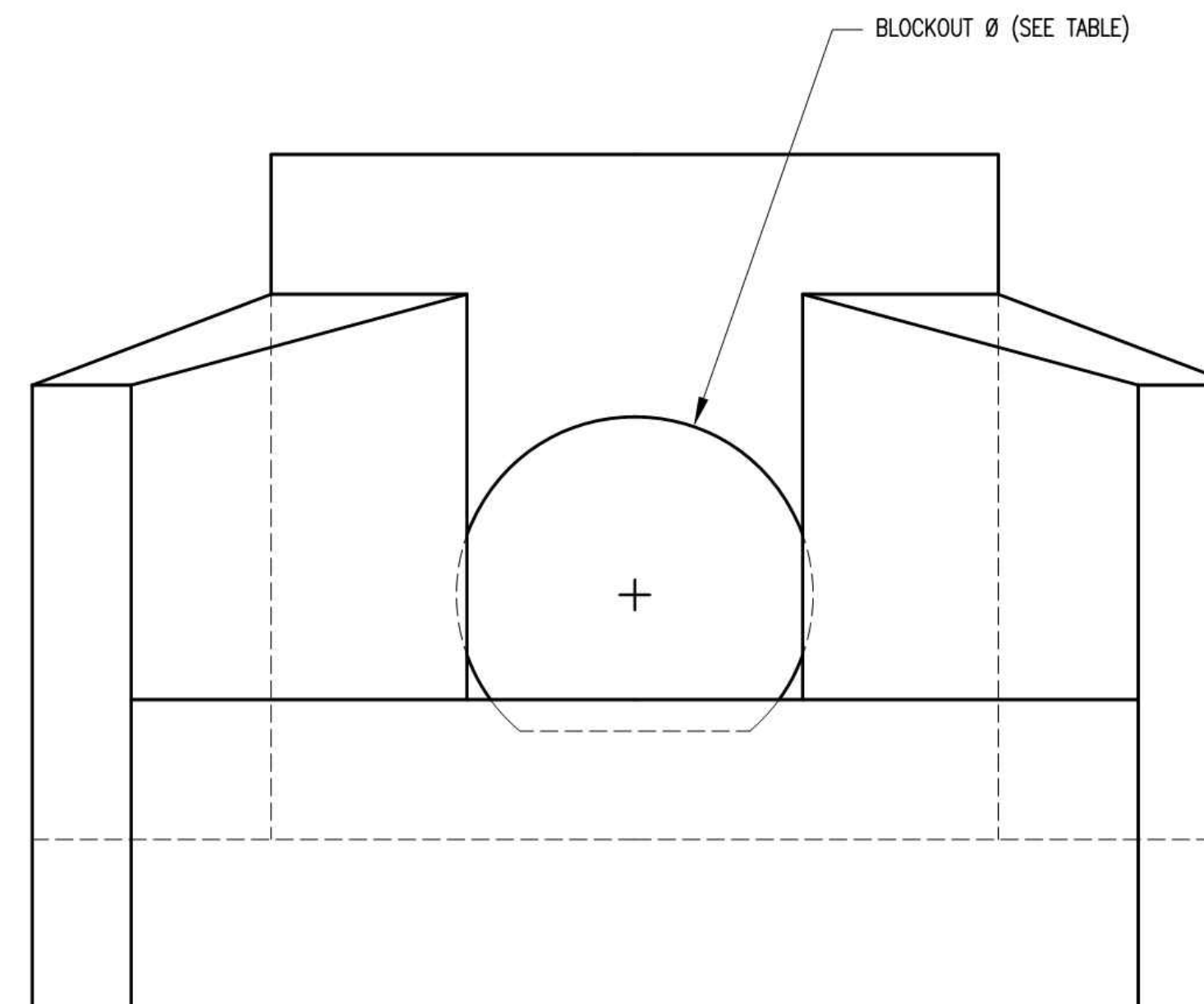


PLAN VIEW
BASE

PIPE Ø	A	B	BLOCKOUT Ø
15"	1'-5 1/2"	7 1/2"	2'-1 1/2"
18"	1'-7"	9"	2'-5"
24"	1'-10"	1'-0"	3'-0"



ELEVATION

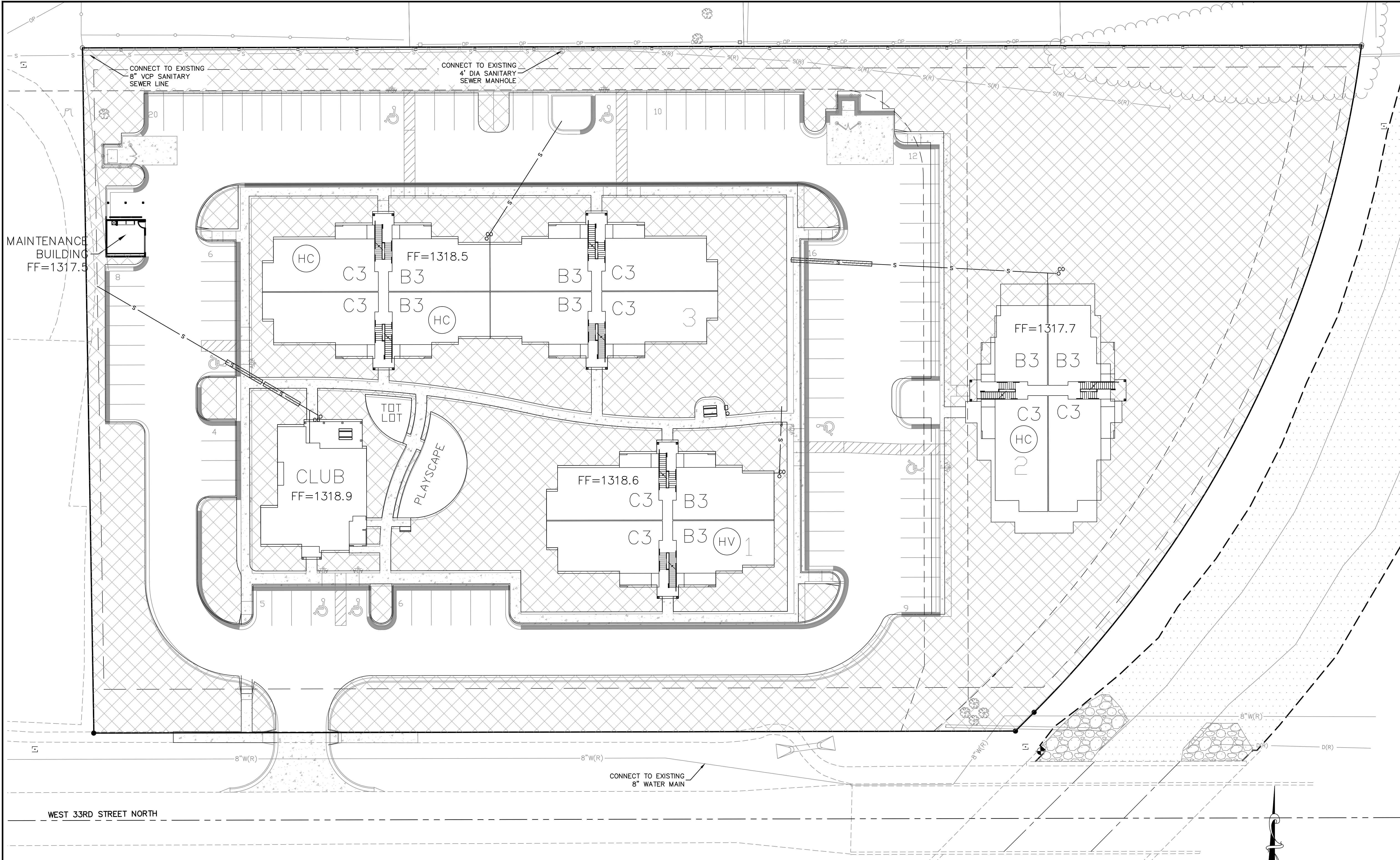


FRONT VIEW

HEADWALLS, AS SHOWN, WILL NOT SUPPORT FLAP GATE.

<p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>	<p>HEADWALL DETAILS FOR 15", 18", AND 24" PIPE</p>	
	<p>CITY ENGINEER GARY JANZEN, P.E.</p>	
PROJECT NUMBER	OCA NUMBER	DATE
		11/2010
CITY ENGINEER'S OFFICE		SHEET
<p>CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501</p>		

14700 WEST 114TH TERRACE LENEKA, KANSAS 66215 PH. (913) 894-9150 FAX (913) 894-5977 kawvalley.com www.kawvalley.com	<p>KAW VALLEY ENGINEERING KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-113. EXPIRES 12/31/16</p>
	<p>MICHAEL R. OSBOURN ENGINEER KS #. 11676</p>
<p>SUNNYDALE POINTE APARTMENTS WEST 33RD STREET NORTH WICHITA, KANSAS 67204</p>	<p>STORM SEWER IMPROVEMENT PLANS STORM DETAILS</p>
<p>PROJ. NO. C15_8121</p>	<p>DESIGNER KJK DRAWN BY N.J.N.</p>
<p>CFN 8121DET</p>	<p>SHEET 1</p>
<p>SHEET C691</p>	<p>REV 1</p>
<p>10/27/16 PER CITY COMMENTS</p>	<p>DATE DESCRIPTION</p>
<p>0 9/20/16 INITIAL ISSUE</p>	<p>DSN DWN CHK</p>
<p>1 KJK</p>	<p></p>
<p>0 KJK</p>	<p></p>

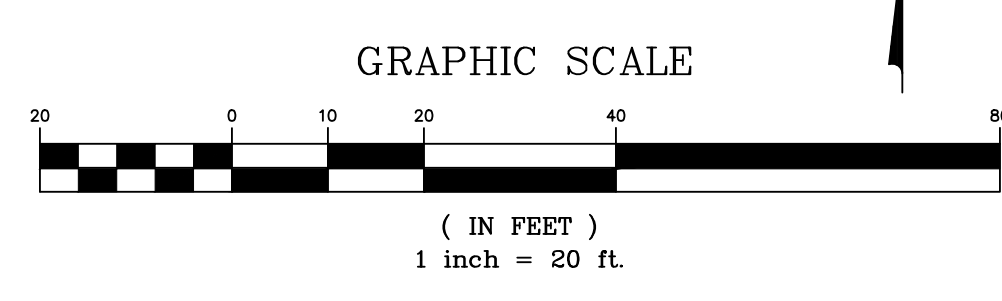


SITE CALCULATIONS:
 TOTAL AREA= 165,046 SF
 IMPERVIOUS= 79,044 SF
 PERVIOUS= 86,002 SF
 EXISTING IMPERVIOUS= 0 SF

SAFETY NOTICE TO CONTRACTOR
 IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

WARRANTY / DISCLAIMER
 THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

CAUTION - NOTICE TO CONTRACTOR
 THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.



PROJ. NO.	C15-8121
DESIGNER	KGK
DRAWN BY	NJN
CFN	
SHEET	8121ERU
REV	1
C695	

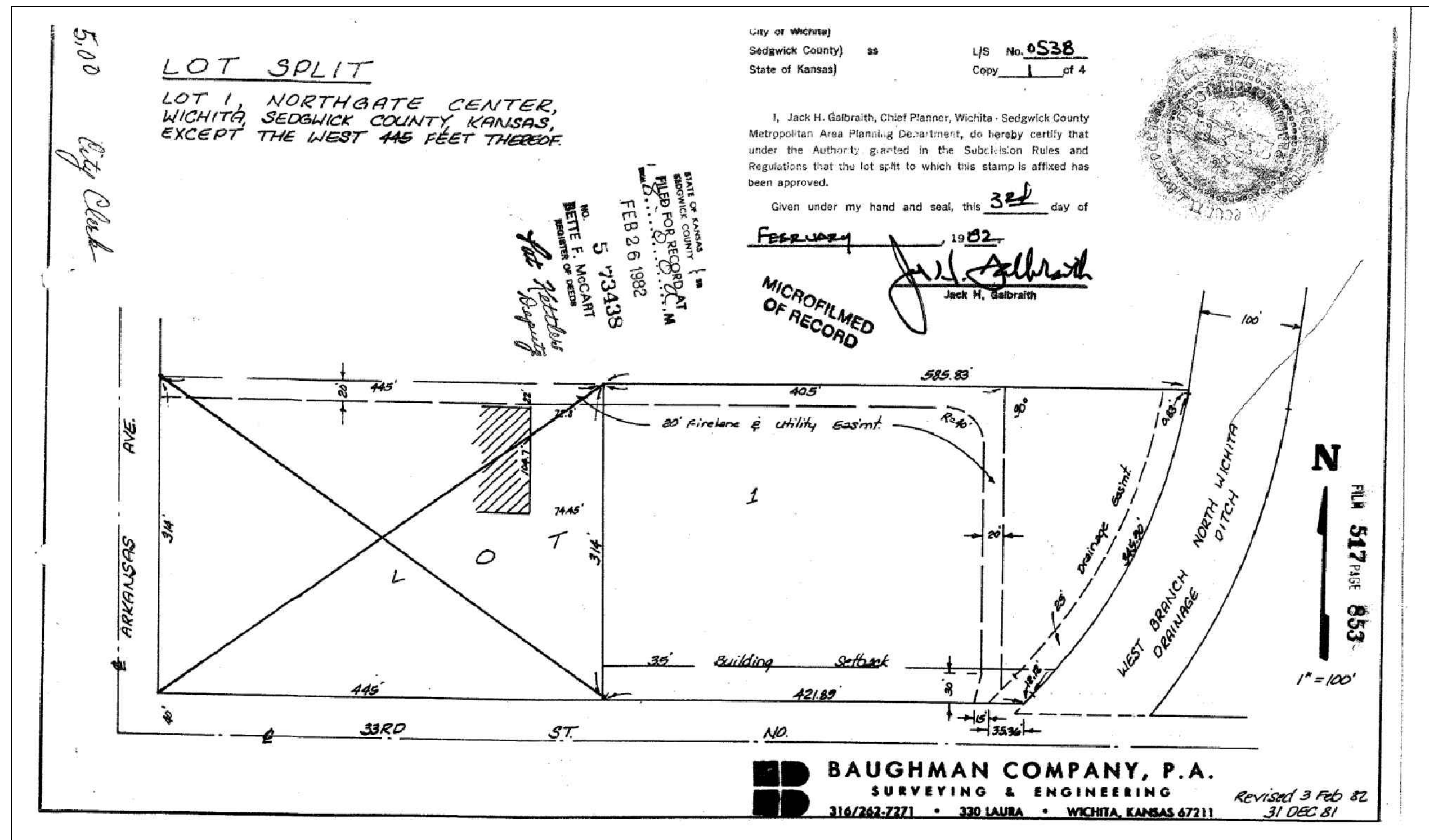
10/22/16	PER CITY COMMENTS	KGK	NJN	CHK
0	INITIAL ISSUE	KGK	NJN	DWN
9/20/16	DATE			
	DESCRIPTION			

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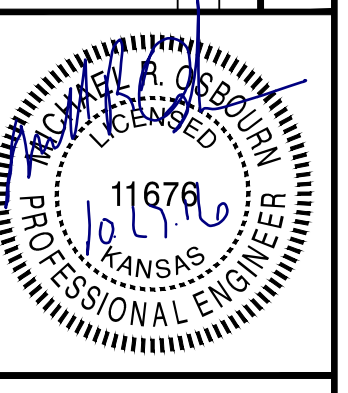
SUNNYDALE POINTE APARTMENTS
 WEST 33RD STREET NORTH
 WICHITA, KANSAS 67204

STORM SEWER IMPROVEMENT PLANS
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 ENGINEER
 KS #. 11676

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SUNNYDALE POINTE APARTMENTS
WEST 33RD STREET NORTH
WICHITA, KANSAS 67204

STORM SEWER IMPROVEMENT PLANS
LOT SPLIT

PROJ. NO.	C15_8121
DESIGNER	KGK
DRAWN BY	NJN
CFN	
SHEET	1

