

# PRIVATE STORM SEWER TO SERVE ARBY'S 37TH AVENUE AND MAIZE ROAD WICHITA, KANSAS

PRIVATE PROJECT NO. 0236PDD  
CITY OF WICHITA  
SEDGWICK COUNTY, KANSAS  
GARY JANZEN, P.E. – CITY ENGINEER



### NOTE TO CONTRACTOR

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. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

### GENERAL NOTES

- THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) HOURS TO UTILITY COMPANIES TO STARTING ANY EXCAVATION AS FOLLOWS.  

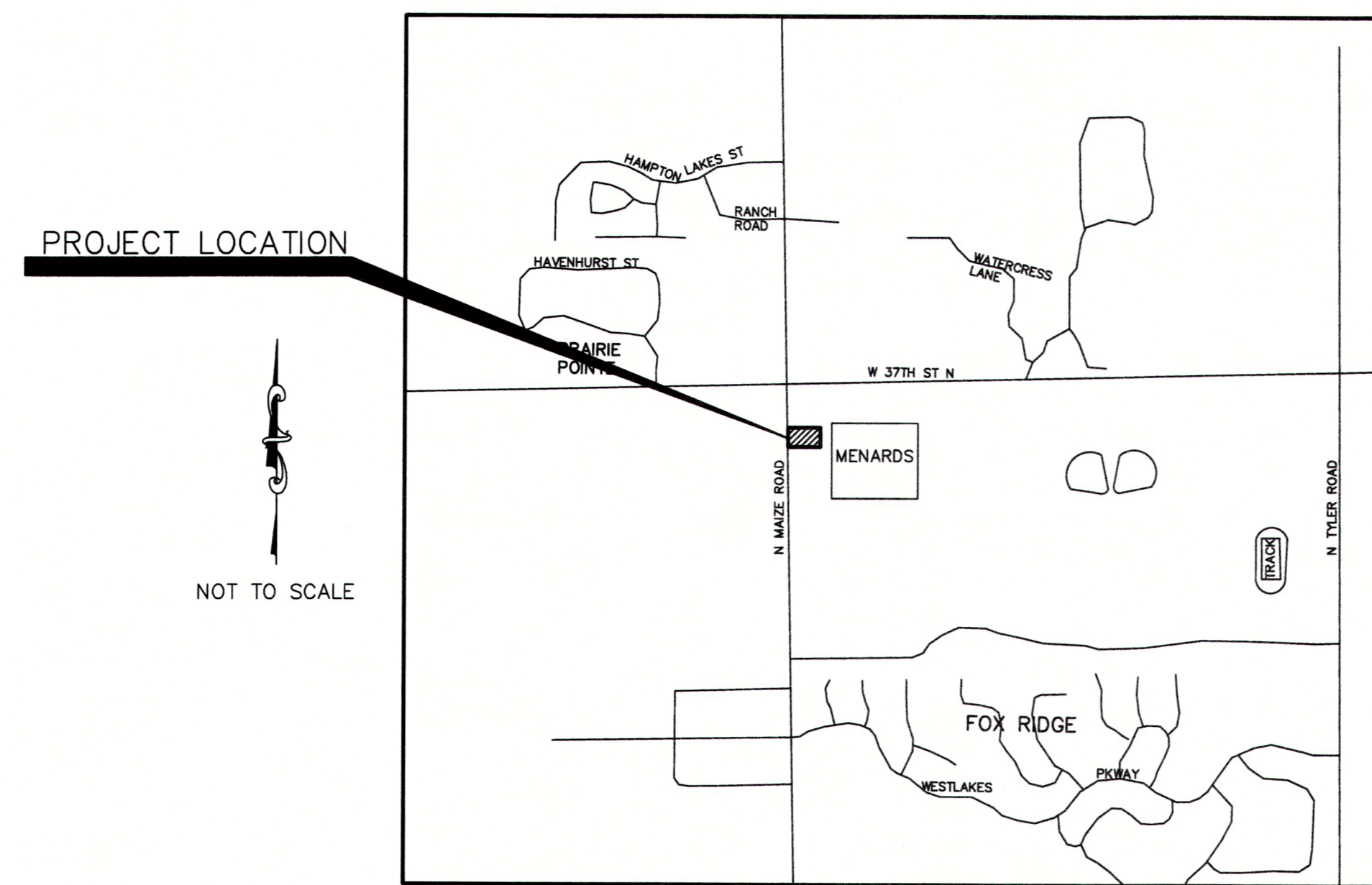
KANSAS ONE-CALL	1-800-344-7233
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THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF EMERGENCY

BLACK HILLS ENERGY	1-316-258-5606
WESTAR ENERGY	1-316-261-6734
AT&T TELEPHONE COMPANY	1-316-268-2245
COX COMMUNICATIONS	1-316-260-7475
LEVEL 3 COMM	1-877-366-8344
CITY OF WICHITA WATER & SEWER DEPARTMENT	1-316-268-4555
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL 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.
- EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM VARIOUS COMPANIES AND IS EITHER FROM COMPANY UTILITY DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY BE ENCOUNTERED.
- 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 THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE 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 WOULD 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 WOULD REQUIRE ADDITIONAL ARCHEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY BORROW LOCATION.
- UNLESS SHOWN OR STATED OTHERWISE ON THESE DRAWINGS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA SPECIFICATIONS.
- SITE RESTORATION AND PREPARATION SHALL BE SUBSIDIARY TO THE PROJECT.

**CONTACT PERSON:**  
KEITH D. BEATTY, P.E., KAW VALLEY ENGINEERING, INC. (785) 208-5240

**STORMWATER COMPLIANCE STATEMENT:**  
DISTURBED AREA=0.89 ACRES  
IMPERVIOUS AREA=0.67 ACRES  
WQV=0.035 ACRE FEET  
DETENTION AND WATER QUALITY PROVIDED THIS DEVELOPMENT AND DESIGN IS COMPLIANCE WITH SECTION 16.32 OF THE CITY CODE.



LOCATION MAP  
CITY OF WICHITA, KANSAS



KEITH D. BEATTY  
PROFESSIONAL ENGINEER

AS BUILTS	
Contractor: McCullough Excavation, Inc. 11/25/2014	Project Inspector: Tom Jones <b>KEMILLER</b> ENGINEERING PA. 117 E. Leola, Wichita, KS 67202 (316)284-0242

BY CITY ENGINEER OF WICHITA  
APPROVED AS NOTED:

ENGINEER *Rebecca Dail* 8/7/14  
STORMWATER *Steve Fox* 8/7/14

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### INDEX TO SHEETS:

- TITLE SHEET
- SITE PLAN
- 3-4. SITE DETAIL SHEET
- STORM SEWER – PLAN & PROFILE
- GRADING PLAN
- EROSION CONTROL PLAN
- GRADING & EROSION CONTROL DETAIL SHEET
- DRAINAGE AREA MAP
- UTILITY PLAN
- 11-12. UTILITY DETAIL SHEET

**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.

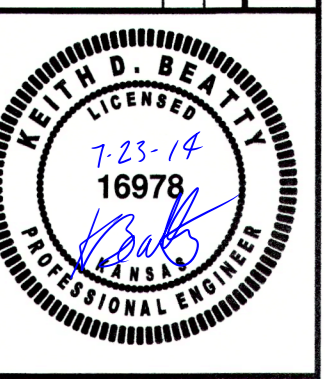
**WARRANTY / DISCLAIMER**  
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WE WARRANT THESE DESIGNS 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.**

### BENCHMARKS:

- BM #1: SQUARE CUT AT THE SOUTHWEST CORNER OF CONCRETE 3' SOUTH OF TRAFFIC SIGNAL BOX, 68.8' EAST OF THE CENTER LINE OF MAIZE ROAD AND 60.8' SOUTH OF THE CENTERLINE OF 37TH STREET. NAVD 88 ELEV=1355.34
- BM #2: SQUARE CUT AT THE TOP OF CURB OF CATCH BASIN 27' EAST AND 10' SOUTH OF THE EASTERN MOST CORNER OF LOT 5, BLOCK 1, STONEBRIDGE COMMERCIAL ADDITION. NAVD 88 ELEV=1353.83
- BM #3: SQUARE CUT AT THE SOUTHWEST CORNER OF CURB INLET 7' EAST OF THE SOUTHEAST CORNER OF LOT 4, BLOCK 1, STONEBRIDGE COMMERCIAL ADDITION. NAVD 88 ELEV=1354.00

REV	DATE	DESCRIPTION	BY	CHK
2	7-23-14		BKR	KDB
1	4-24-14	INITIAL ISSUE	BKR/JLL	KDB
			KS	DSN



KEITH D. BEATTY  
ENGINEER  
KS # 16978

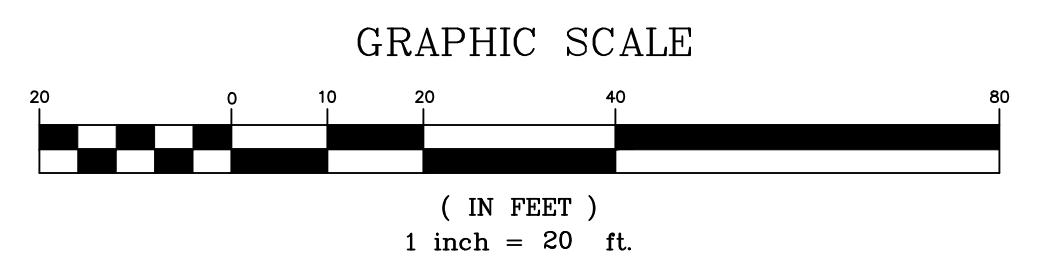
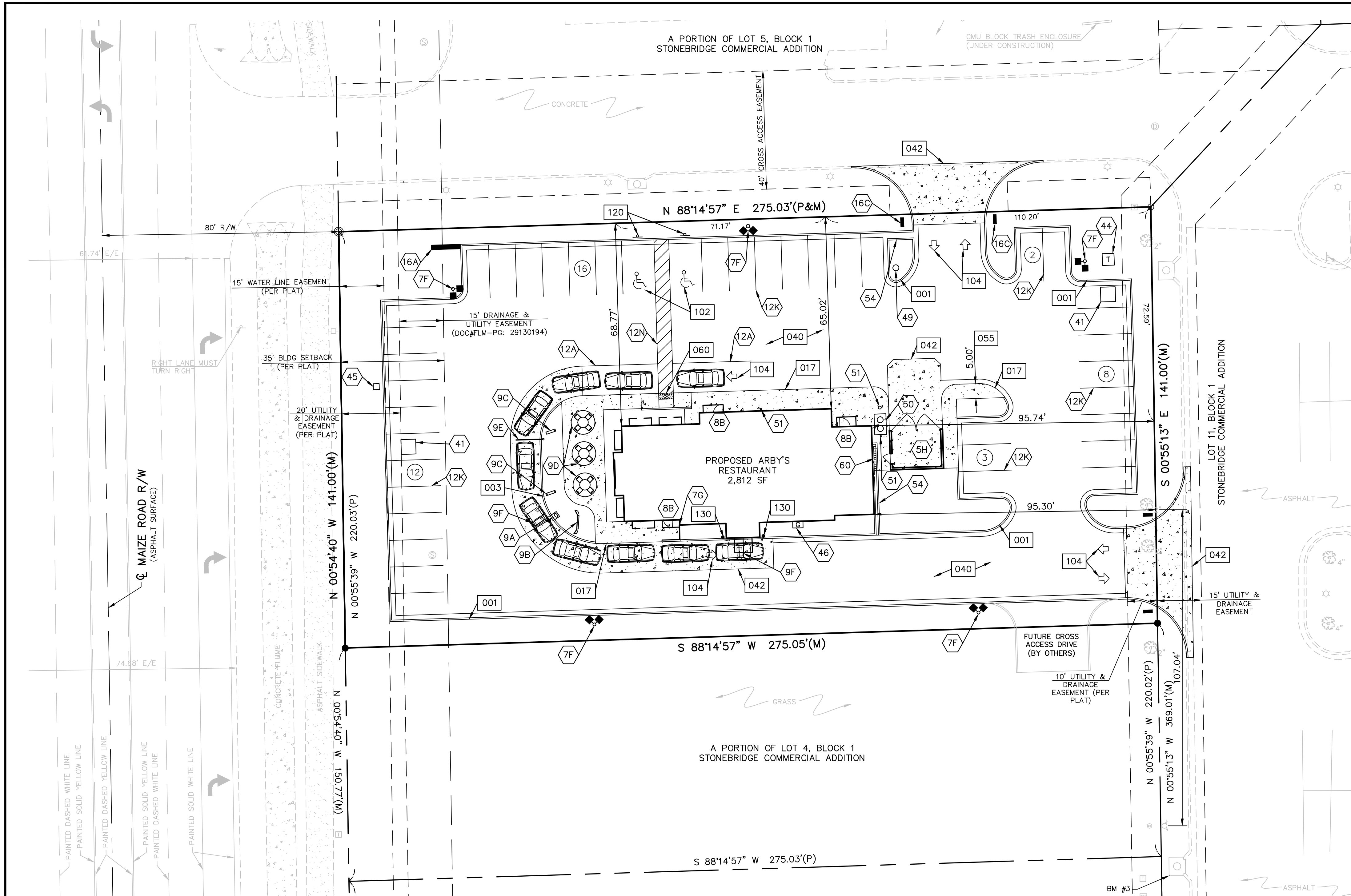
**KAW VALLEY ENGINEERING, INC.**  
CONSULTING ENGINEERS – LAND SURVEYORS  
2318 S. W. 10TH AVE., SUITE 104  
JUNCTION CITY, KANSAS 66401  
PH. (785) 762-5040 | FAX (785) 762-7744  
jdb@kveeng.com | www.kveeng.com

JUNCTION CITY, KS | KANSAS CITY, MO | LENEXA, KS | SALINA, KS  
KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-113. EXPIRES 12/31/14

**ARBY'S**  
37TH AVENUE & MAIZE ROAD  
WICHITA, KANSAS

**PRIVATE STORM SEWER**  
TITLE SHEET

PROJ. NO.	A13-6461
DESIGNER	KDB
DRAWN BY	BKR
CFN	REV
6461DTS	2
SHEET	1 OF 12



- CONSTRUCTION NOTES:**
- COORDINATE START-UP AND ALL CONSTRUCTION ACTIVITIES WITH OWNER.
  - CONSTRUCTION METHODS AND MATERIALS NOT SPECIFIED IN THESE PLANS ARE TO MEET OR EXCEED THE ARBY'S STANDARD SPECIFICATIONS.
  - ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH AND IN ACCORDANCE WITH REGULATIONS OF THE AUTHORITIES CONCERNED.
  - PUBLIC CONVENIENCE AND SAFETY: THE CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER THAT WILL INSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC, AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC AND RESIDENTS ALONG AND ADJACENT TO HIGHWAYS IN THE CONSTRUCTION AREA.
  - ALL DIMENSIONS SHOWN ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
  - ACCESSIBLE STALLS SHOWN WITH A "V" SHALL BE 16'-0" MIN. AND SHALL HAVE A SIGN DESIGNATING "VAN-ACCESSIBLE". SEE DETAIL 102 AND 120.
  - WHEN ASPHALT PAVING IS USED CURB AND GUTTER DETAIL 001 SHALL BE USED. WHEN CONCRETE PAVING IS USED CURB AND GUTTER DETAIL 003 SHALL BE USED.

- DETAILS - SEE DETAIL SHEET NO. C190 FOR THE FOLLOWING DETAILS**
- 001 CONCRETE CURB AND GUTTER
  - 003 INTEGRAL CONCRETE CURB
  - 017 CURB WALK/CURB (AT BUILDING)
  - 040 ASPHALT PAVEMENT
  - 042 CONCRETE PAVEMENT (DYED BLACK)
  - 055 CONCRETE SIDEWALK
  - 060 ACCESSIBLE RAMP
  - 090 90° ACCESSIBLE & VAN ACCESSIBLE SPACE STRIPING
  - 102 PAINTED PARKING ARROWS
  - 120 ACCESSIBLE PARKING SIGNAGE
  - 130 BOLLARD DETAIL

**SITE DATA:**  
 LOT AREA = 38,776 SF  
 BUILDING AREA = 2,812 SF  
 PARKING LOT AREA = 24,066 SF  
 BUILDING COVERAGE = 7.3%  
 LOT COVERAGE = 81.0%

REQUIRED PARKING = ONE PER THREE SEATS  
 PROVIDED PARKING = 41 STALLS (2 OF WHICH ARE HANDICAP ACCESSIBLE)

**OWNER/DEVELOPER:**  
 UNITED STATES BEEF CORPORATION  
 ANDY BENNING, DIRECTOR OF SITE DEVELOPMENT  
 4923 EAST 49TH STREET  
 TULSA, OKLAHOMA 74135  
 (918) 665-0740

**ENGINEER:**  
 KAW VALLEY ENGINEERING, INC.  
 KEITH D. BEATTY, P.E.  
 2319 NORTH JACKSON / P.O. BOX 1304  
 JUNCTION CITY, KANSAS 66441  
 (785) 762-5040

**ARCHITECT:**  
 WHITE DESIGN GROUP  
 CHRIS WHITE  
 5801 EAST 41ST STREET  
 TULSA, OKLAHOMA 74135  
 (918) 664-1557

- NOTES:**
- 5H TRASH ENCLOSURE (SEE ARCH. PLANS)
  - 7F LIGHT POLE (SEE ARCH. PLANS)
  - 7G HANDRAIL (SEE ARCH. PLANS)
  - 8B ENTRANCE (SEE ARCH. PLANS)
  - 9A SPEAKER BOX (SEE ARCH. PLANS)
  - 9B MENU BOARD (SEE ARCH. PLANS)
  - 9C PREVIEW BOARD (SEE ARCH. PLANS)
  - 9D OUTDOOR DINING TABLE (SEE ARCH. PLANS)
  - 9E HEIGHT RESTRICTION POLE (SEE ARCH. PLANS)
  - 9F UNDERGROUND DETECTOR LOOP (SEE ARCH. PLANS)
  - 12A 4" TRAFFIC WHITE STRIPE
  - 12K WHITE PARKING LOT STRIPING (SHERWIN-WILLIAMS TM 2160 LEAD FREE OR APPROVED EQUAL) 4" YELLOW STRIPES @ 2'-0" O.C. (45')
  - 16A STANDARD PYLON SIGN (SEE SIGN PLANS)
  - 16C DIRECTIONAL SIGN (SEE SIGN PLANS)
  - 41 AREA INLET (SEE GRADING PLAN)
  - 44 TRANSFORMER PAD (SEE UTILITY PLAN)
  - 45 WATER METER (SEE UTILITY PLAN)
  - 46 GAS METER (SEE UTILITY PLAN)
  - 49 NYLOPLAST DRAIN BASIN (SEE GRADING PLAN)
  - 50 GREASE INTERCEPTOR (SEE PLUMBING PLAN)
  - 51 CLEAN-OUT (SEE UTILITY PLAN)
  - 54 DRAINAGE FLUME (SEE GRADING PLAN)
  - 60 FLUME WITH GRATE (SEE GRADING PLAN)

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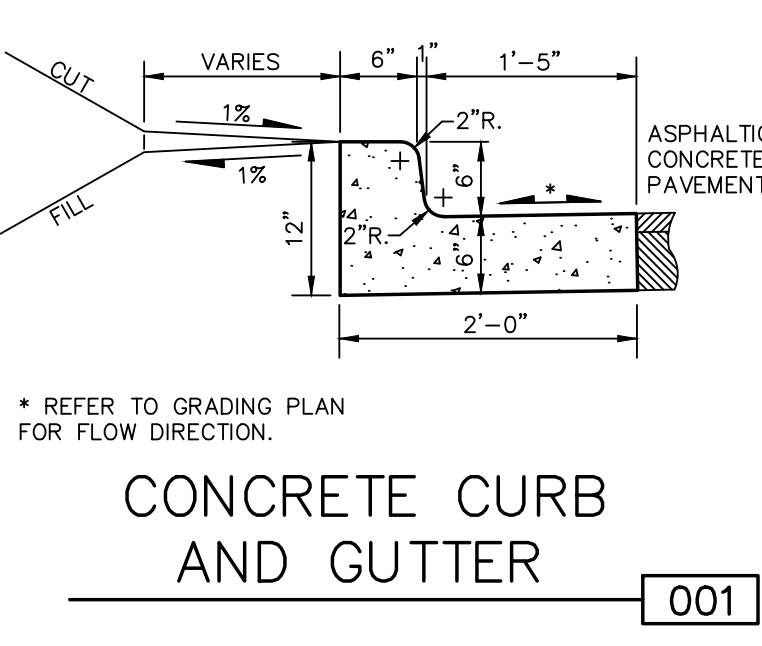
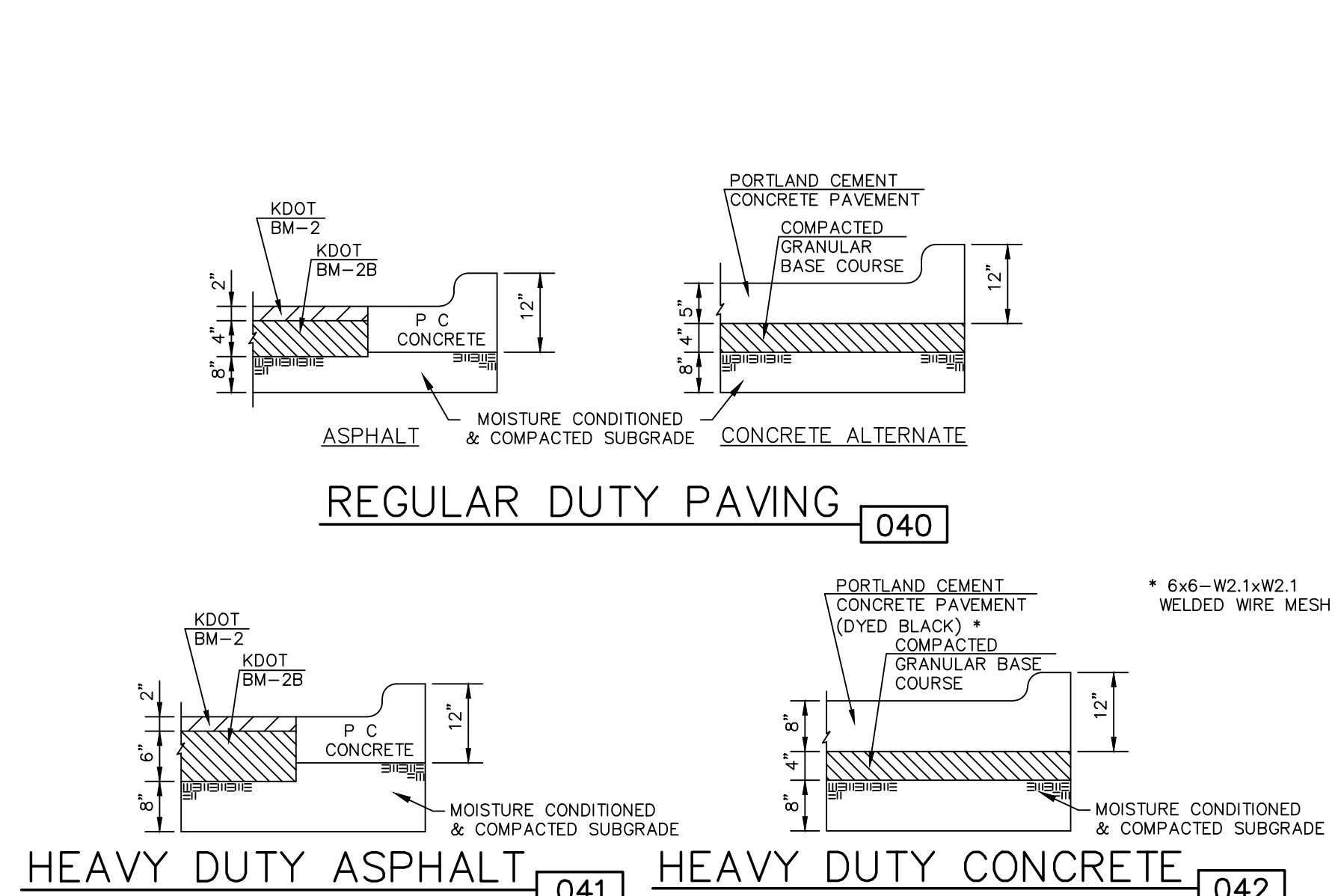
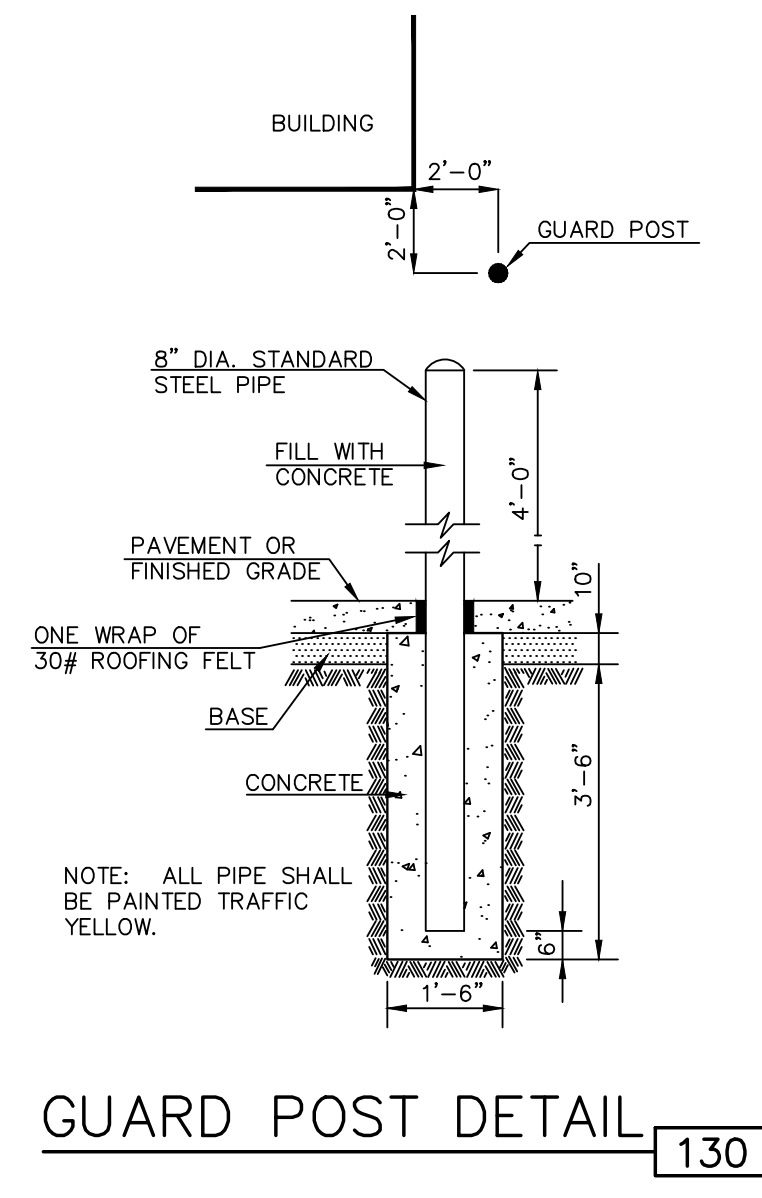
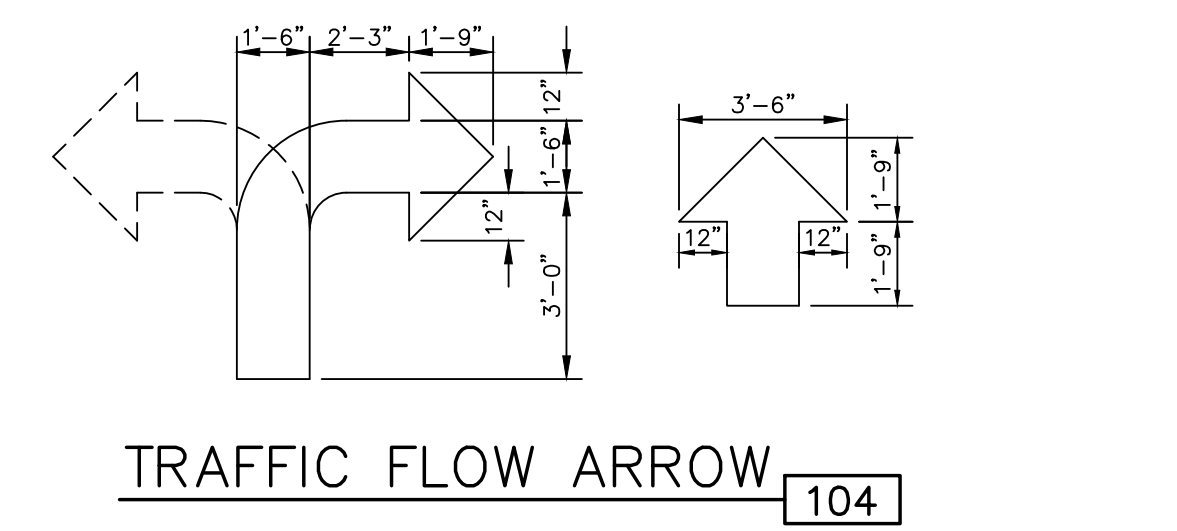
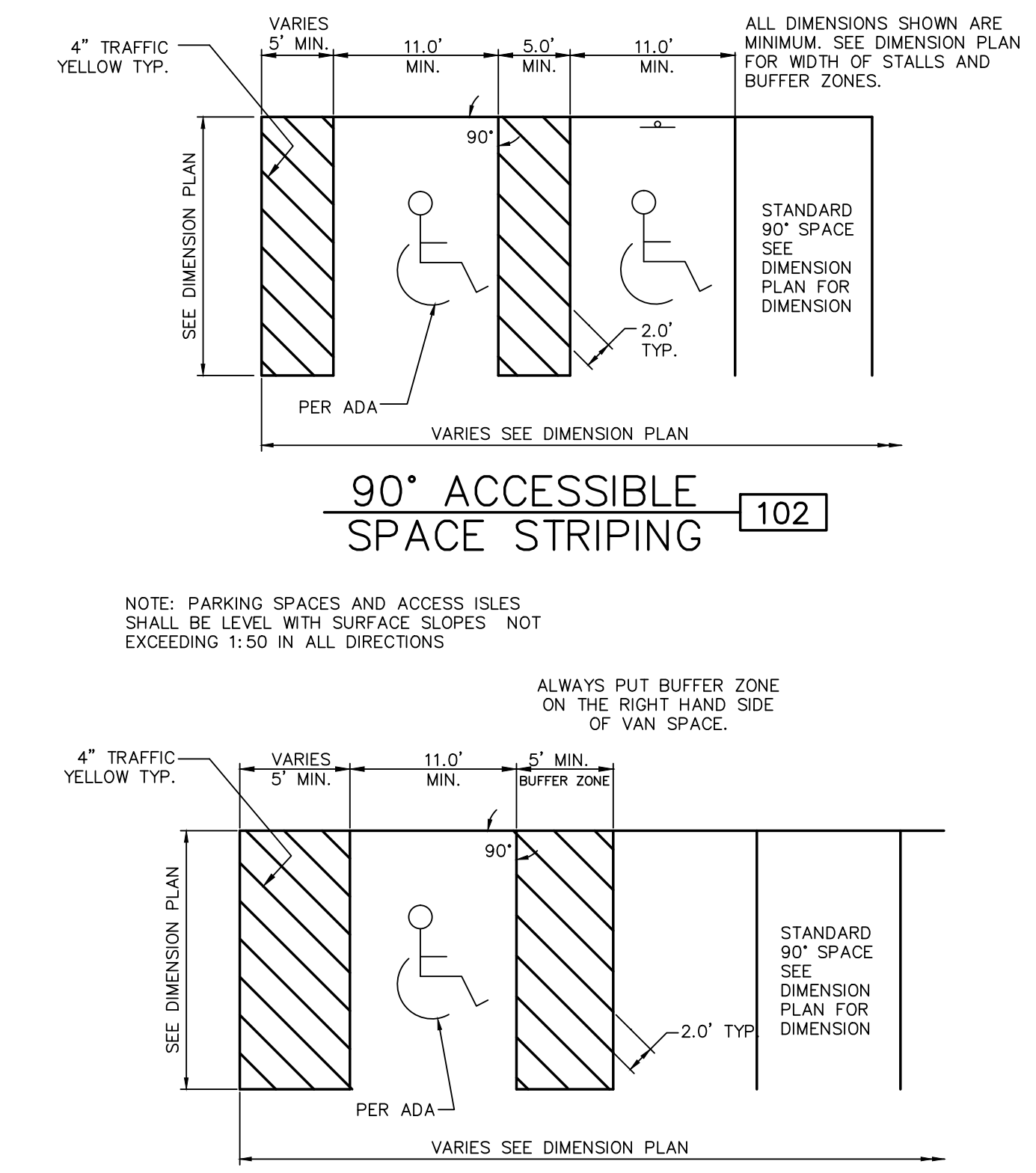
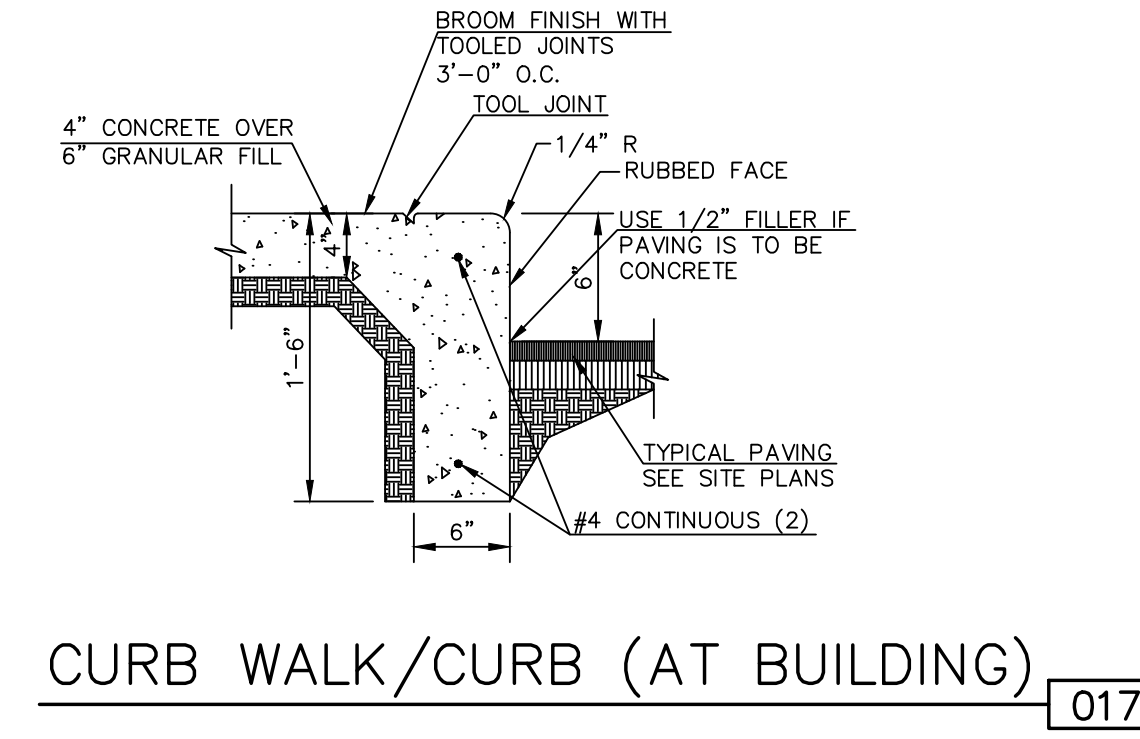
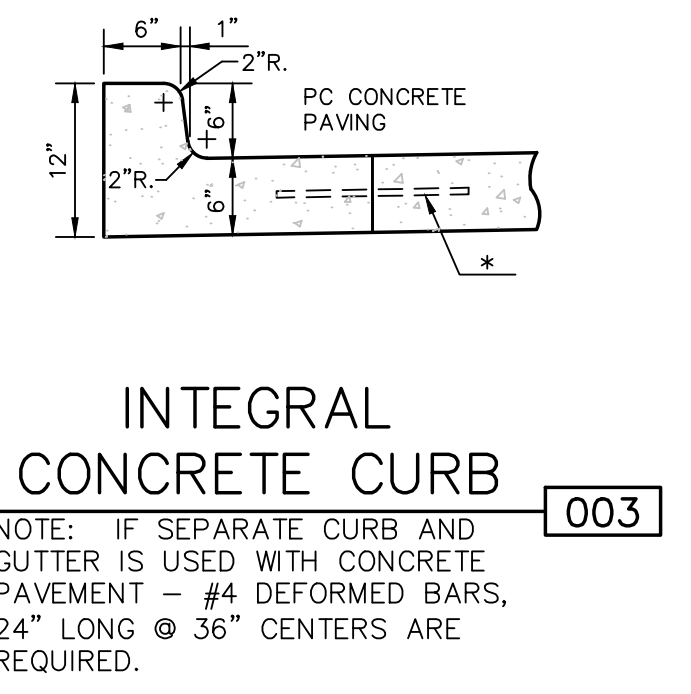
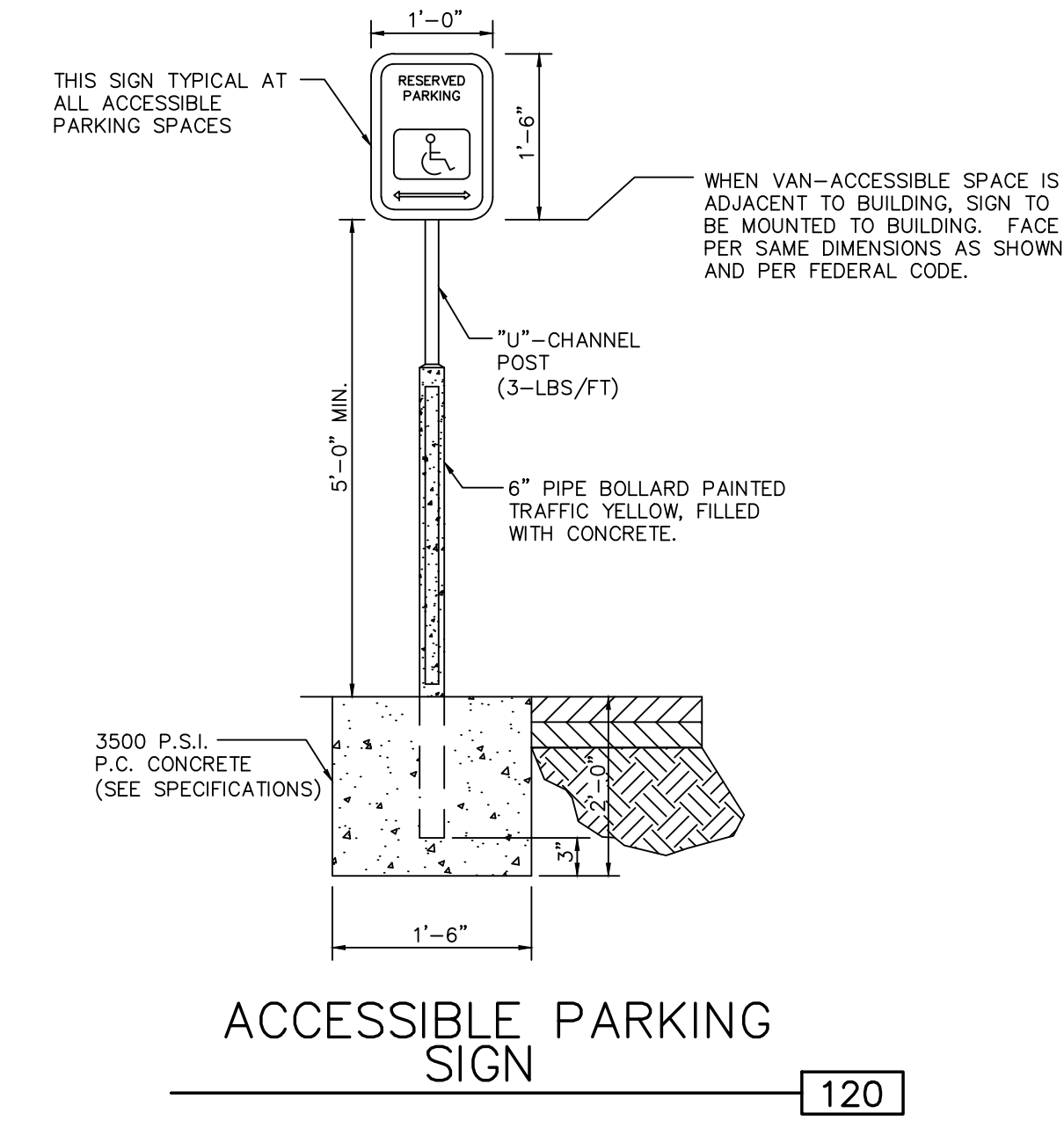
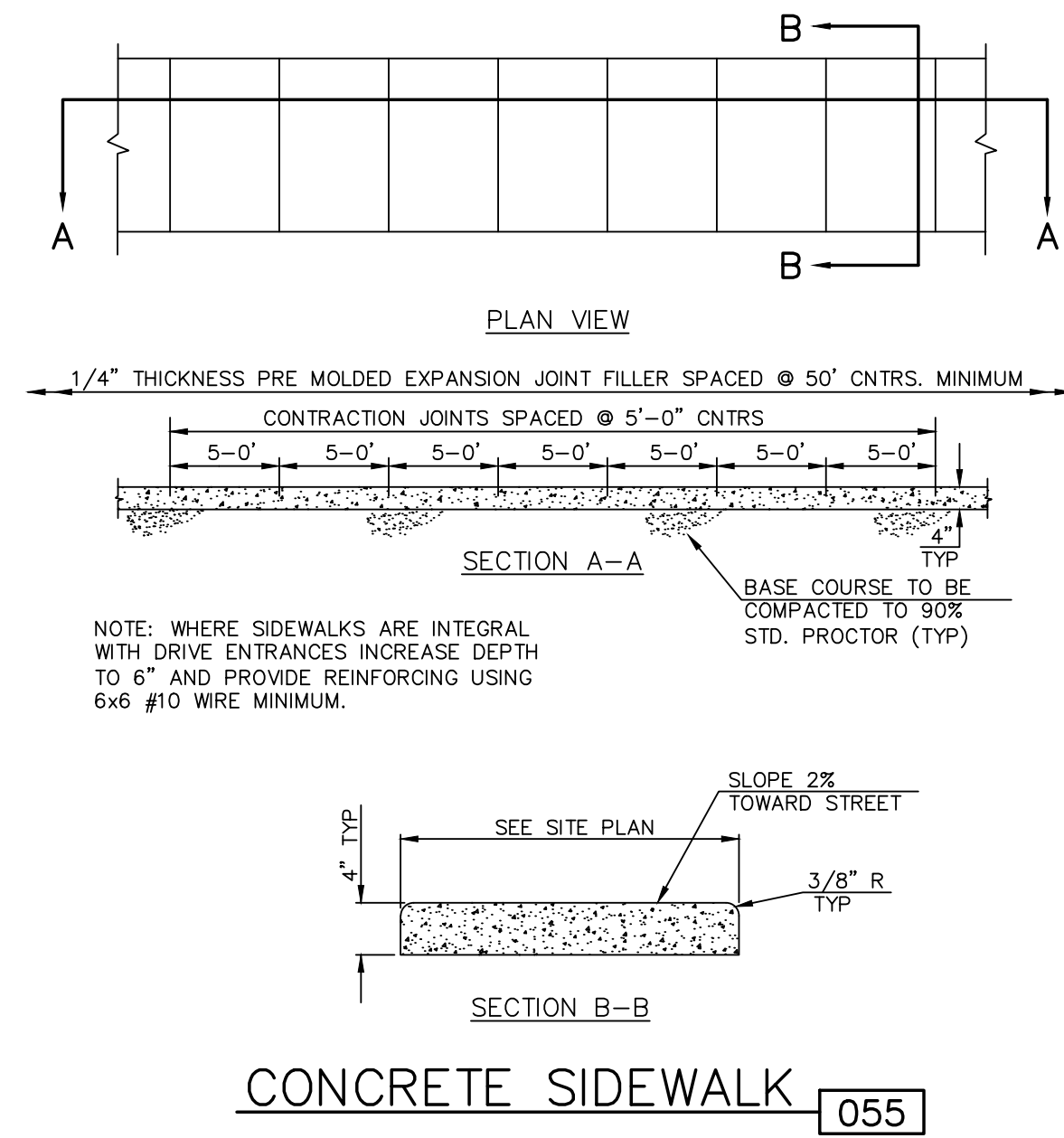
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**NOTE:**

- 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.
- 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 CONTRACTOR DOCUMENTS.
- ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS ARE PERPENDICULAR TO PROPERTY LINE.
- ACTUAL SIGN LOCATIONS TO BE COORDINATED WITH CONSTRUCTION MANAGER.
- IF EXISTING CONDITIONS OF SITE DIFFER FROM FIELD CONDITIONS, CONTRACTOR TO CONTACT GEOTECHNICAL ENGINEER OF RECORD IMMEDIATELY.

SHEET ADDED

	KAW VALLEY ENGINEERING, INC. CONSULTING ENGINEERS - LAND SURVEYORS 2319 NORTH JACKSON   P.O. BOX 1304 JUNCTION CITY, KANSAS 66441 PH. (785) 762-5040   FAX (785) 762-7744 jbe@kve.com   www.kve.com	KEITH D. BEATTY ENGINEER KS # 16978	REV. DATE DESCRIPTION		
			2	7-23-14	REVISED PER CITY COMMENTS
			1	4-24-14	INITIAL ISSUE
ARBY'S 3730 N MAIZE ROAD WICHITA, KANSAS	PRIVATE STORM SEWER SITE PLAN	PROJ. NO. A13_6461	DESIGNER KDB	DRAWN BY JP / B/JH	CFN 6461DSP
		SHEET C100	REV. 2	KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO PERFORM ENGINEERING SERVICES BY KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-115. EXPIRES 12/31/14	KS BKR / KDB KS BKR / JH KS BKR / JH DSN DWN CHK



1. FLEXIBLE PAVEMENT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE KANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR STATE ROAD & BRIDGE CONSTRUCTION.  
ASPHALT SURFACE COURSE - TYPE BM-2  
ASPHALT BASE COURSE - TYPE BM-2B
2. PORTLAND CEMENT CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS WITH 6% ENTRAINED AIR  $\pm 2\%$  AND SHALL MEET OR EXCEED THE SPECIFICATIONS SET FORTH IN THE LATEST EDITION OF THE KANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT'S STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, DIVISION 400.
3. REFER TO ARBY'S SITework SPECIFICATIONS FOR CONCRETE PAVEMENT JOINTING, SPACING, AND DETAILS.
4. PAVEMENT DESIGN BASED ON UNSTABILIZED SUBGRADE CBR OF 2 OF 3.
5. HEAVY DUTY CONCRETE IS AN OPTIONAL PAVEMENT FOR 041 HEAVY DUTY ASPHALT. WHEN PLANS SPECIFY 042 NO ALTERNATES ARE ALLOWED.
6. 6x6-W2.1xW2.1 WELDED WIRE MESH SHALL BE PLACED IN HEAVY DUTY CONCRETE PAVEMENT.

KS	BKR	KDB
KS	BKR/LL	KDB
KS	KS	DSN
KS	KS	CHK

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**KEITH D. BEATTY**  
LICENSED PROFESSIONAL ENGINEER  
16978  
KANSAS

KEITH D. BEATTY  
ENGINEER  
KS # 16978

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jke@kve.com | www.kve.com

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EXPIRES 12/31/14

**ARBY'S**  
3730 N MAIZE ROAD  
WICHITA, KANSAS  
PRIVATE STORM SEWER  
SITE DETAIL SHEET

PROJ. NO. **A13\_6461**

DESIGNER **KDB**

DRAWN BY **JP**

CFN **REV**

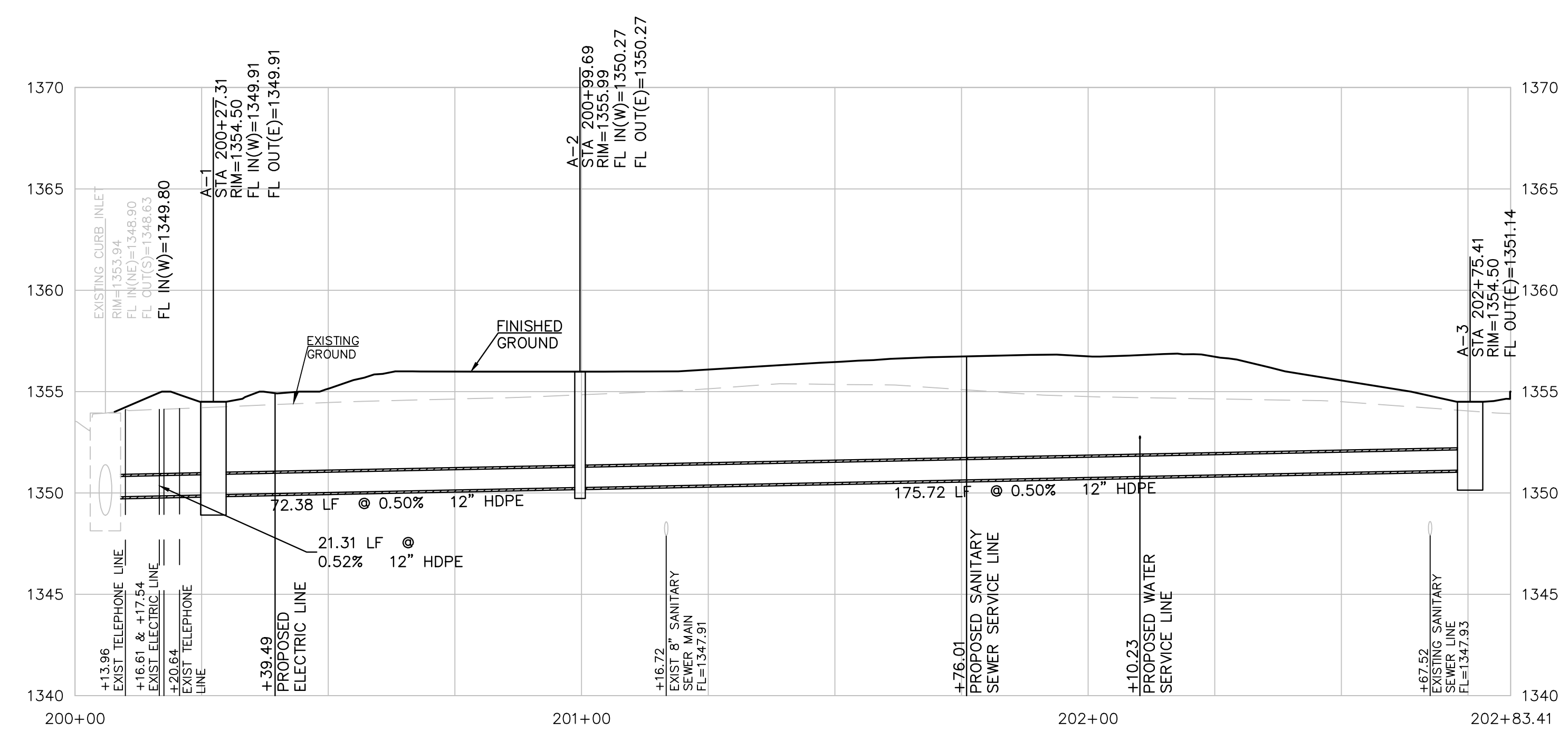
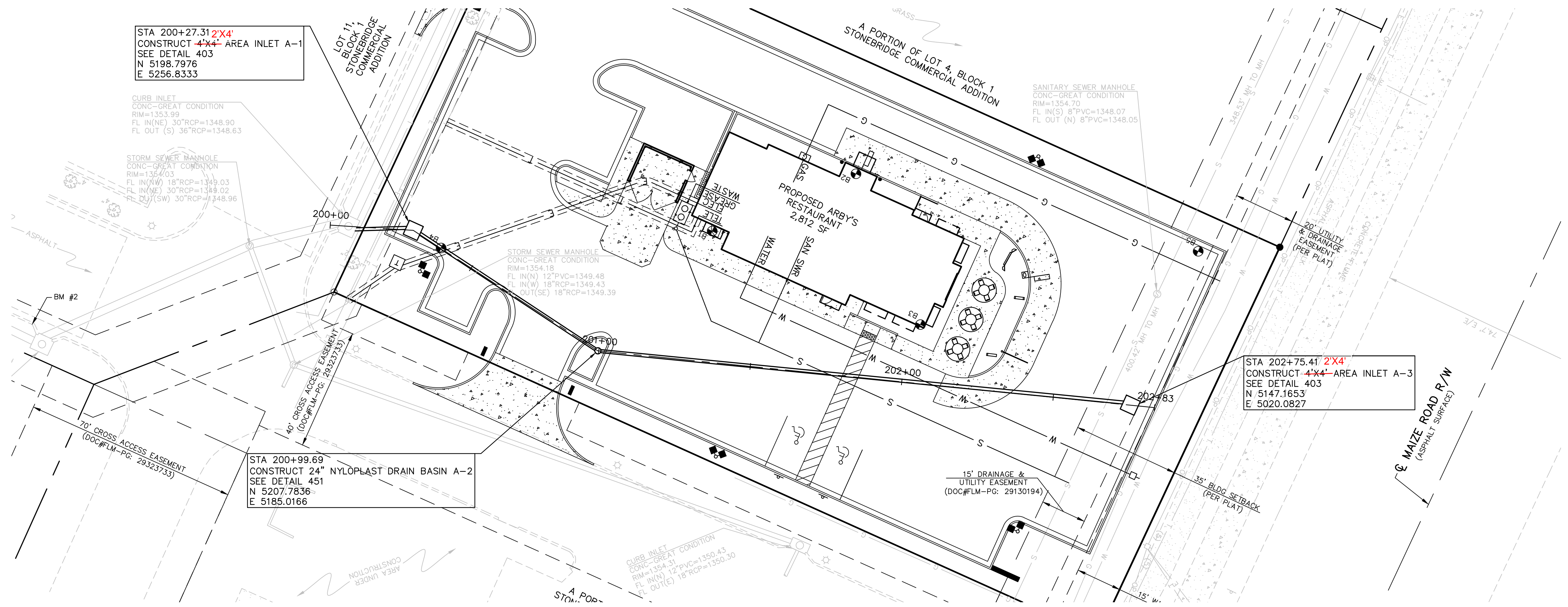
SHEET **6461DDET**

3 OF 12

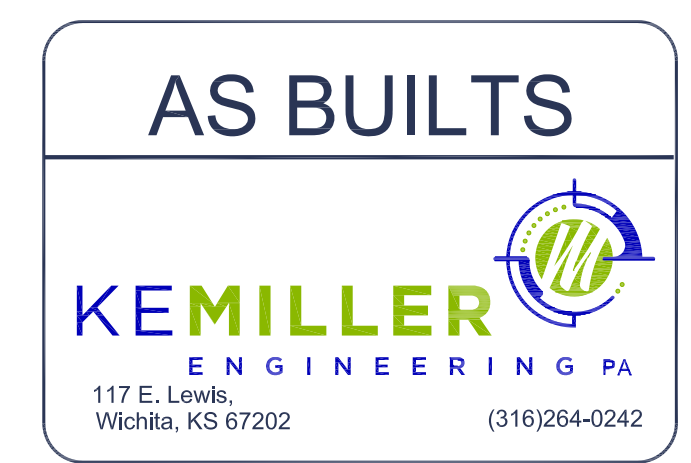
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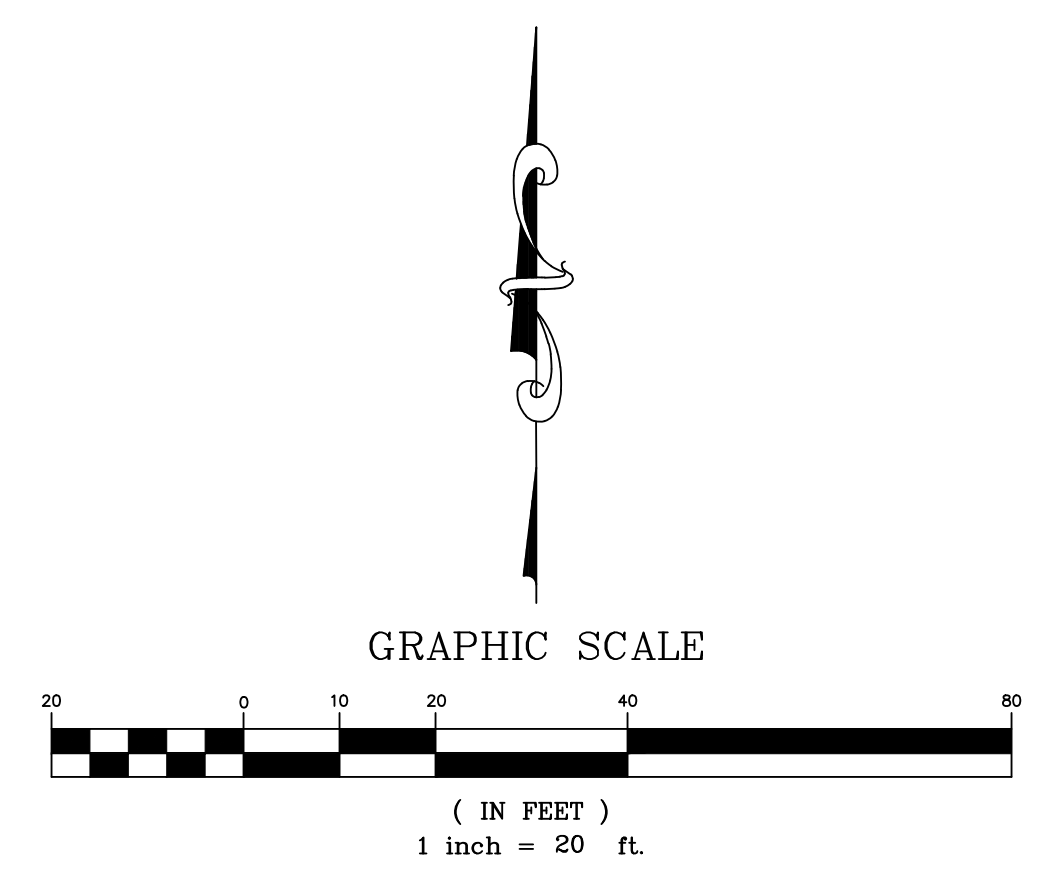
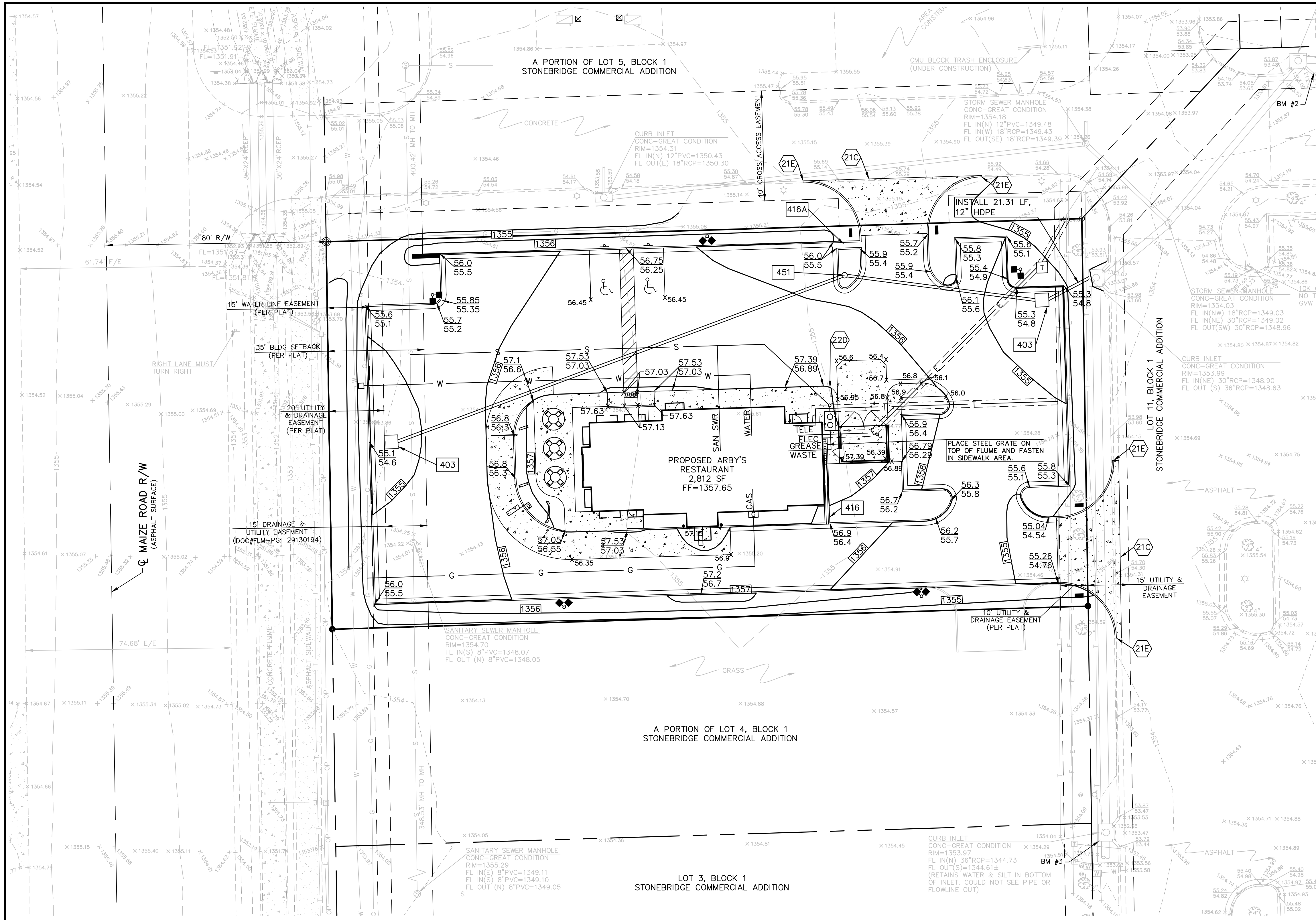
SCALE:  
 PLAN: 1"=20'  
 PROFILE: 1"=20' HORIZ.  
 1"=5' VERT.



- BENCHMARKS:**
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KEITH D. BEATTY ENGINEER KS # 16978		
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<b>ARBY'S</b> <b>37TH AVENUE &amp; MAIZE ROAD</b> <b>WICHITA, KANSAS</b> <b>PRIVATE STORM SEWER</b> <b>STORM SEWER - PLAN &amp; PROFILE</b>		
PROJ. NO.	A13_6461	
DESIGNER	KDB	
DRAWN BY	BKR	
CFN	REV	
6461DDPP	2	
SHEET	5 OF 12	
REV	DATE	DESCRIPTION
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1	4-24-14	INITIAL ISSUE
KS	BKR	KDB
KS	BKR/JL	KDB
DSN	DWN	CHK

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.



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

- 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 BETWEEN 10 AND 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 AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
  - ALL SLOPES ARE TO BE 3:1 OR FLATTER UNLESS OTHERWISE INDICATED.
  - ALL SLOPES EXCEEDING 3:1 SHALL BE PROTECTED BY RIP RAP, CONCRETE PAVING, OR OTHER METHODS INDICATED ON THESE PLANS, THAT WILL PREVENT EROSION AND PLACED SUCH THAT THE SURFACE IS FLUSH WITH SURROUNDING GROUND AND SHAPED TO CHANNEL WATER IN DIRECTIONS INDICATED.
  - ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON-SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
  - CONTRACTOR SHALL USE SILT FENCE OR OTHER MEANS OF CONTROLLING EROSION ALONG THE EDGE OF THE PROPERTY OR OTHER BOTTOM OF SLOPE LOCATIONS.
  - CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.
  - THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
  - IT IS NOT THE DUTY OF THE ENGINEER OR THE OWNER TO REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE AT ANY TIME DURING CONSTRUCTION.
  - THE SITEWORK FOR THIS PROJECT SHALL MEET OR EXCEED THE ARBY'S STANDARD SITEWORK SPECIFICATIONS.
  - PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURE OR TO END OF END SECTIONS.
  - HANDICAP STALLS SHALL MEET ADA REQUIREMENTS AND SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION AT THE BUILDING ENTRY AND ACCESSIBLE PARKING STALLS. SLOPES EXCEEDING 2.0% WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

- BENCHMARKS:**
- BM #1: SQUARE CUT AT THE SOUTHWEST CORNER OF CONCRETE 3' SOUTH OF TRAFFIC SIGNAL BOX, 68.8' EAST OF THE CENTER LINE OF MAIZE ROAD AND 60.8' SOUTH OF THE CENTERLINE OF 37TH STREET. NAVD 88 ELEV=1355.34
  - BM #2: SQUARE CUT AT THE TOP OF CURB OF CATCH BASIN 27' EAST AND 10' SOUTH OF THE EASTERN MOST CORNER OF LOT 5, BLOCK 1, STONEBRIDGE COMMERCIAL ADDITION. NAVD 88 ELEV=1353.83
  - BM #3: SQUARE CUT AT THE SOUTHWEST CORNER OF CURB INLET 7' EAST OF THE SOUTHEAST CORNER OF LOT 4, BLOCK 1, STONEBRIDGE COMMERCIAL ADDITION. NAVD 88 ELEV=1354.00

- LEGEND (PROPOSED)**
- 55.9 SPOT ELEVATION (ADD 1300), X TOP OF PAVEMENT
  - 55.6 TOP OF CURB (ADD 1300)
  - 55.1 FLOWLINE OF CURB (ADD 1300)
  - FLOW DIRECTION
  - 1355 FINISHED 1' CONTOUR INTERVALS, TOP OF PAVEMENT

- DETAILS - SEE DETAIL SHEET 07 FOR THE FOLLOWING DETAILS**
- 403 AREA INLET
  - 416 CONCRETE DRAINAGE FLUME
  - 416A CONCRETE DRAINAGE FLUME
  - 451 24" NYLOPLAST DRAIN

- NOTES:**
- 21C MATCH EXISTING PAVEMENT ELEVATIONS
  - 21E SAW CUT & REMOVE EXISTING CURB AND GUTTER & MATCH EXISTING PAVEMENT
  - 22D TRANSITION FROM FULL CURB TO NO CURB

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.

**NOTE:**

- 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.
- 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.

**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.

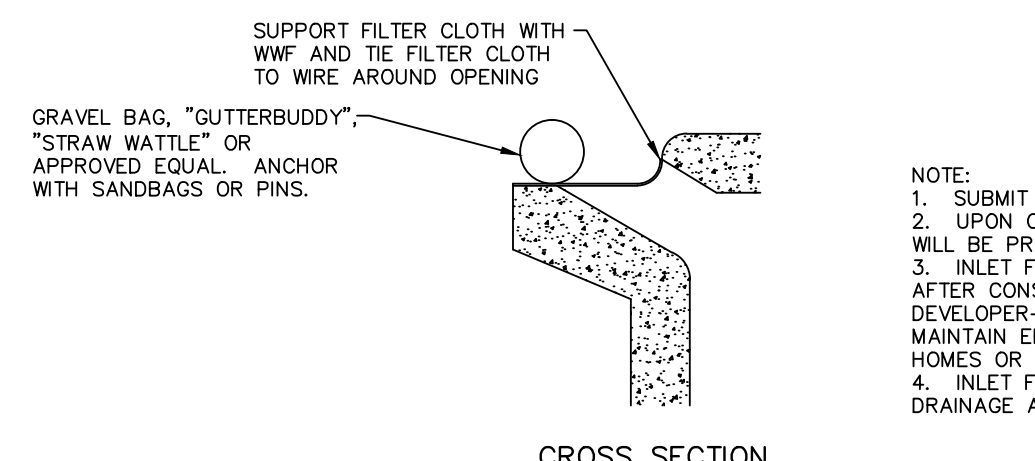
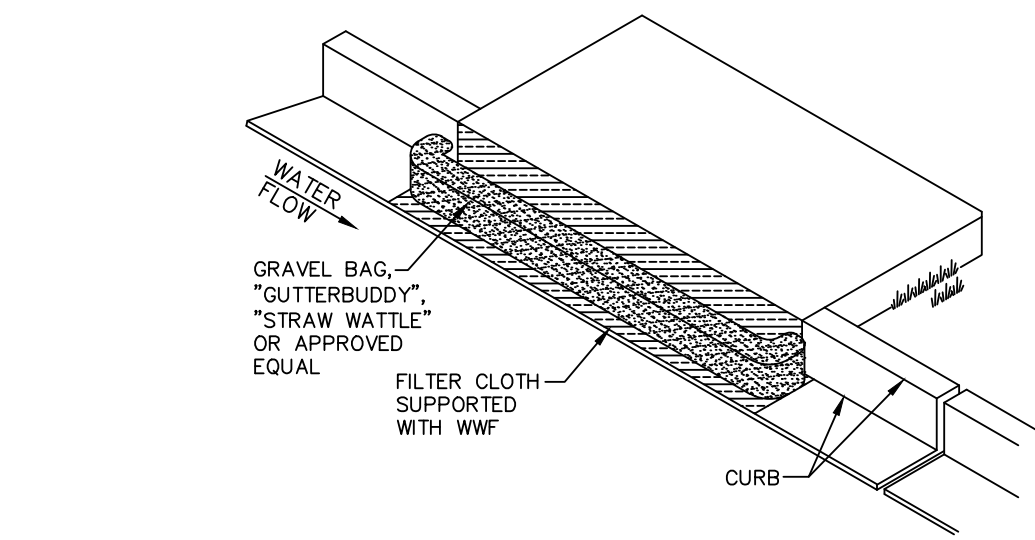
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SHEET ADDED

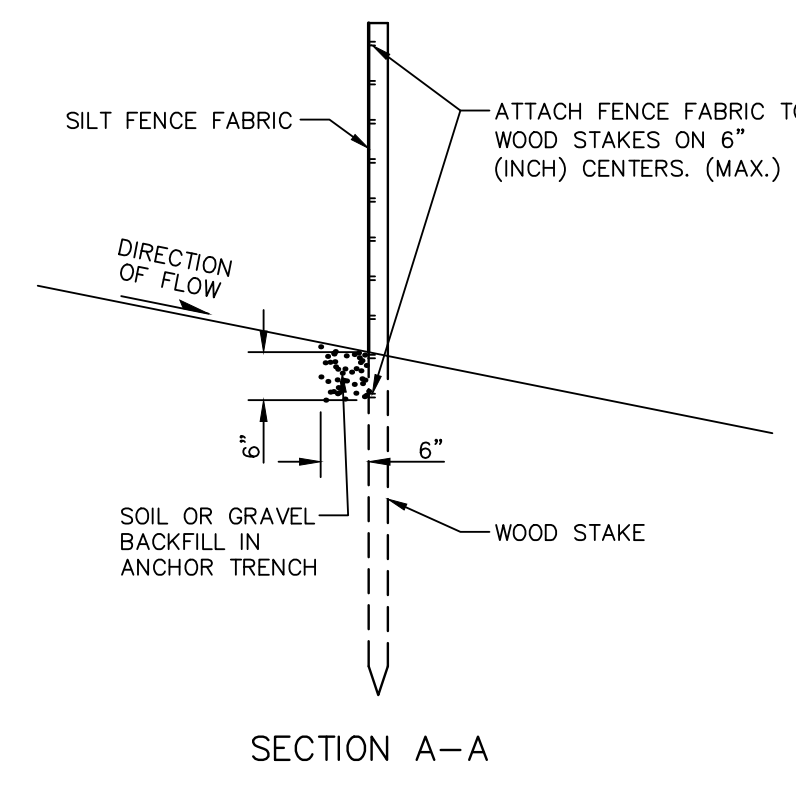
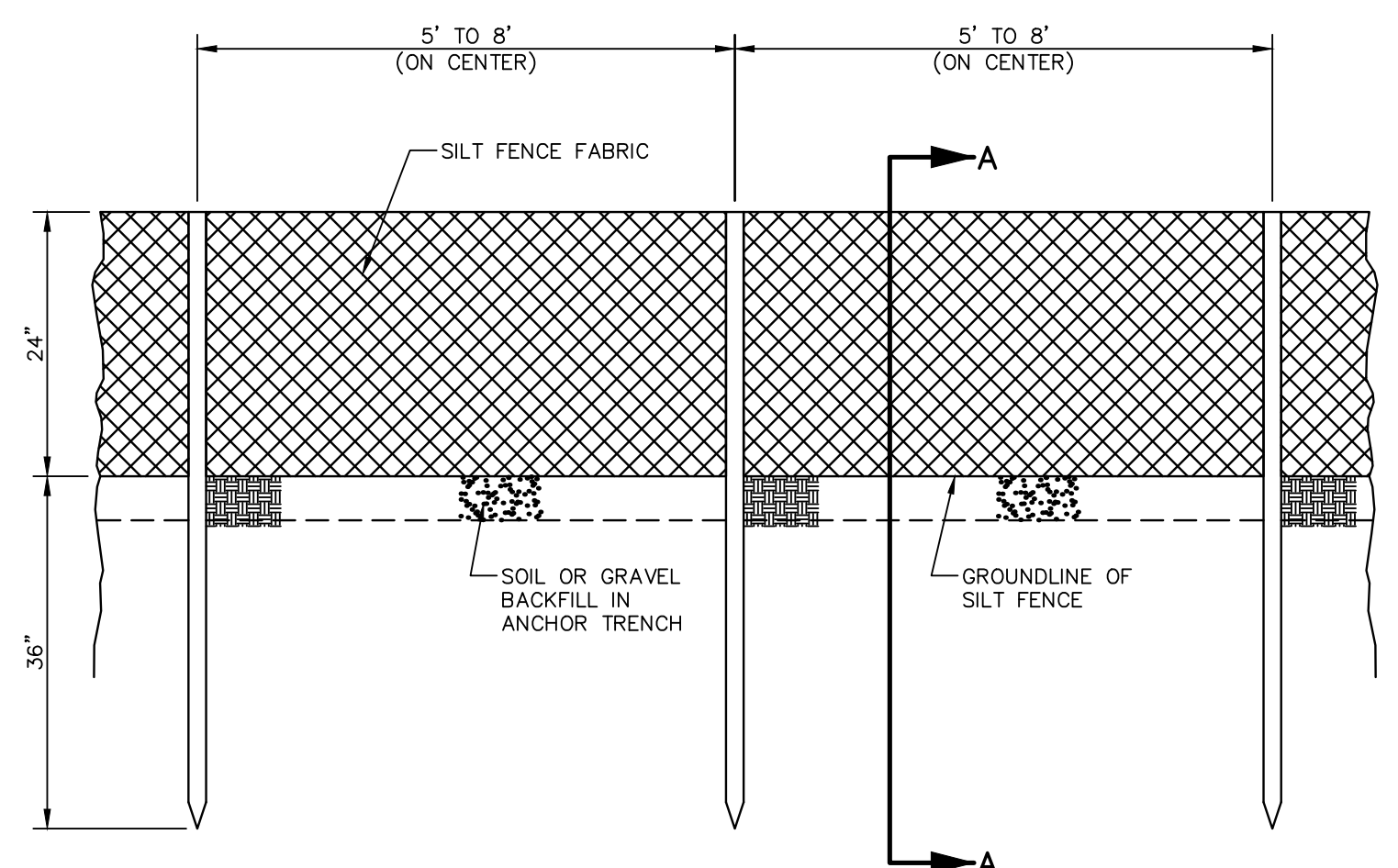
KS	BKR	KDB	CHK
KS	BKR/4L	KDB	CHK
KS	REVISED PER CITY COMMENTS		
KS	INITIAL ISSUE		
2	7-23-14	REVISED PER CITY COMMENTS	
1	4-24-14	INITIAL ISSUE	
	REV	DATE	DESCRIPTION
KEITH D. BEATTY ENGINEER KS # 16978			
<b>KAW VALLEY ENGINEERING, INC.</b> CONSULTING ENGINEERS - LAND SURVEYORS 2319 NORTH JACKSON   P.O. BOX 1304 JUNCTION CITY, KANSAS 66441 PH. (785) 762-5040   FAX (785) 762-7744 jke@kve.com   www.kve.com			
JUNCTION CITY, KS   KANSAS CITY, MO   LENA, KS   SALINA, KS KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO PERFORM ENGINEERING SERVICES BY KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-115, EXPIRES 12/31/14			
<b>ARBY'S</b> 3730 N MAIZE ROAD WICHITA, KANSAS PRIVATE STORM SEWER GRADING PLAN			
PROJ. NO.	A13_6461		
DESIGNER	KDB		
DRAWN BY	JP/BJH		
CFN	6461DGP		
SHEET	6 OF 12		
	2		



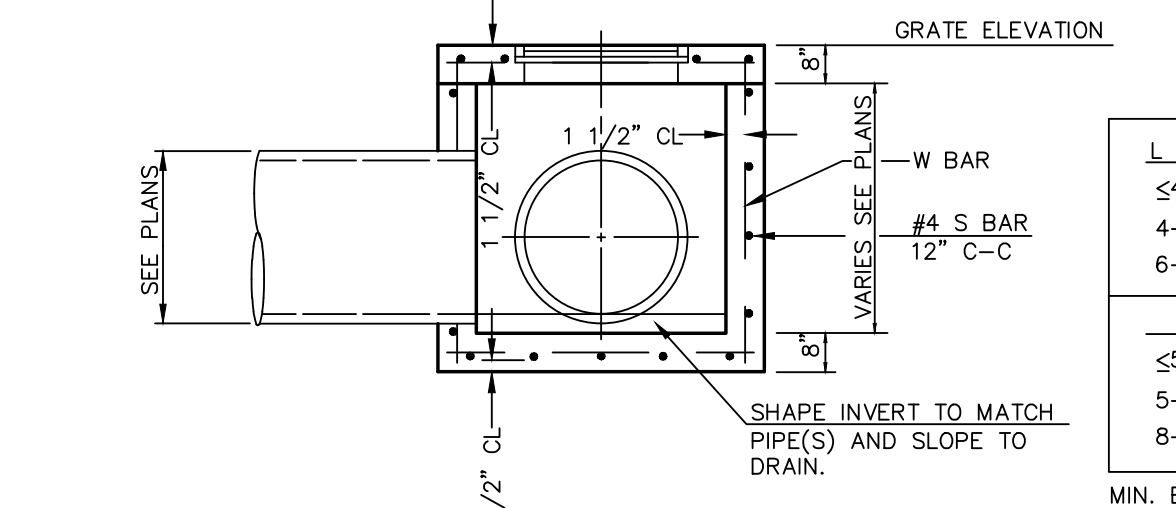
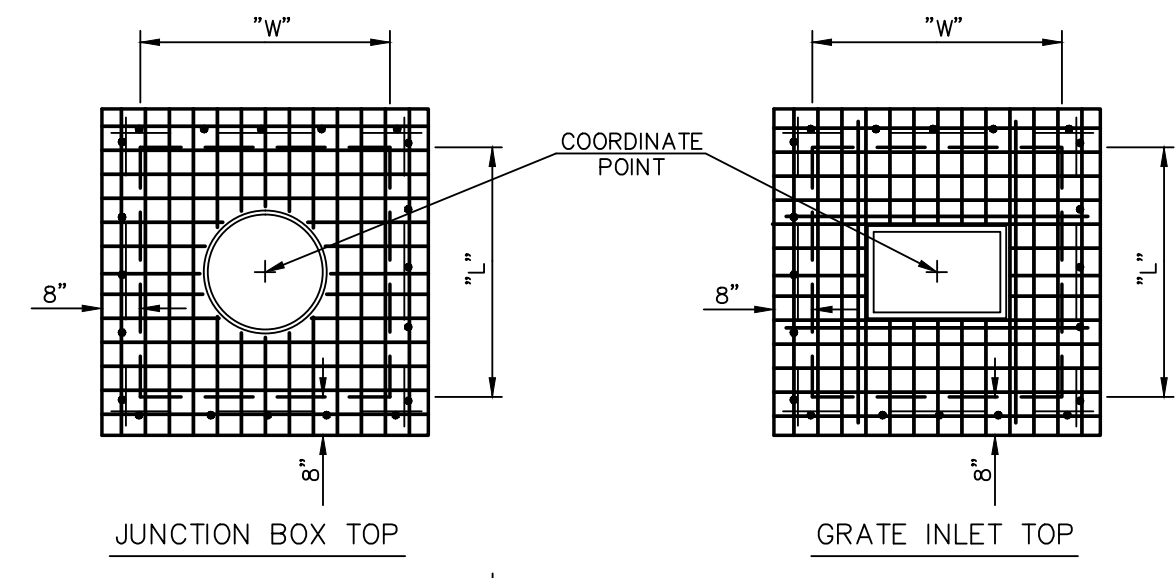


- NOTE:
1. SUBMIT FILTER PLAN AND TYPE FOR APPROVAL.
  2. UPON CONSTRUCTION OF INLET FILTER PROTECTION WILL BE PROVIDED. HAY BALES NO LONGER APPROVED.
  3. INLET FILTER PROTECTION TO BE LEFT IN PLACE AFTER CONSTRUCTION OF THIS PROJECT.
  4. DEVELOPER-OWNER TO DIRECT LOT BUILDER TO MAINTAIN EROSION CONTROL WHILE CONSTRUCTING HOMES OR MAINTAIN THEMSELVES.
  5. INLET FILTER TO REMAIN IN PLACE UNTIL 90% OF DRAINAGE AREA IS SODDED OR SEEDED.

**INLET FILTER PROTECTION** 818  
N.T.S.



**SEDIMENTATION FENCE** 812



L OR W	S BARS
≤ 4'	#4@6"
4'-6"	#5@6"
6'-8"	#6@6"

H	W BARS
≤ 5'	#4@12"
5'-8"	#5@8"
8'-12"	#6@6"

MIN. BOX SIZE:  
3.5' X 4.0' FOR SINGLE GRATE &  
4.0' X 5.5' FOR DOUBLE GRATE

ALL CONCRETE: F'C = 3500 P.S.I.

NOTE: WHERE PIPE SIZE ALLOWS, A 4' DIAMETER PRECAST MANHOLE, CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH ANSI/ASTM C478, MAY BE USED IN LIEU OF CAST IN PLACE BOX. ALTERNATE MATERIALS AND CONSTRUCTION METHODS MAY BE USED WITH THE ENGINEER'S APPROVAL.

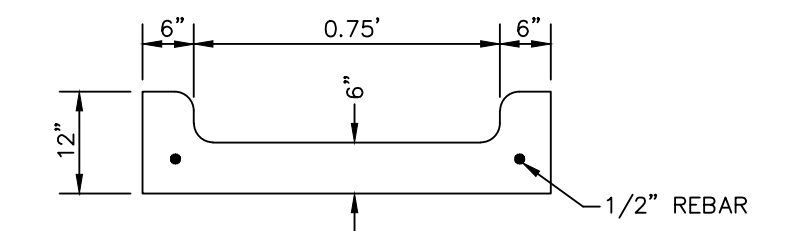
CASTING NUMBERS ARE NEENAH FOUNDRY. EQUAL SUBSTITUTIONS ARE PERMITTED.

JUNCTION BOX LID AND RING = R-6019

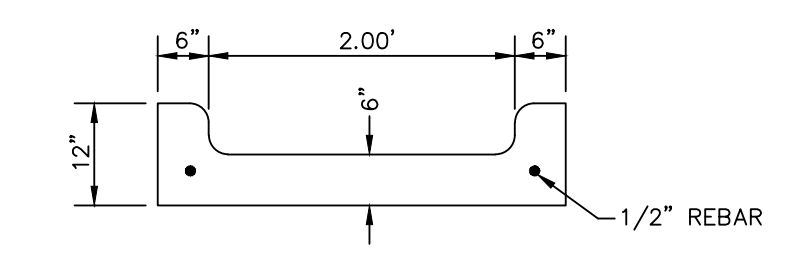
GRATE = R-6673-1, USE R-6673-0 WHERE DOUBLE GRATE IS SPECIFIED

UNLESS OTHERWISE NOTED ON SITE GRADING PLAN

**GRATE INLET OR JUNCTION BOX** 403

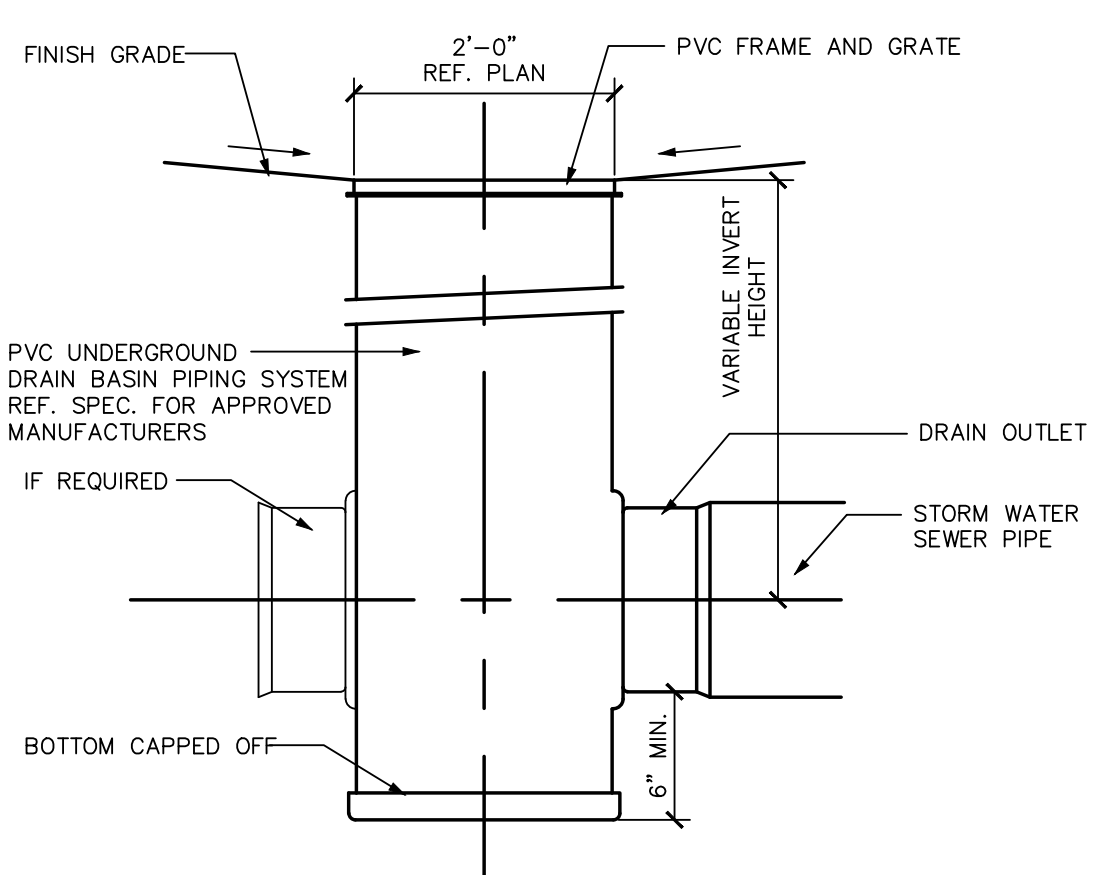
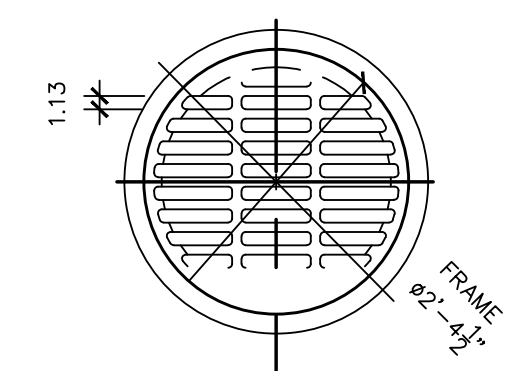


**CONCRETE DRAINAGE FLUME** 416

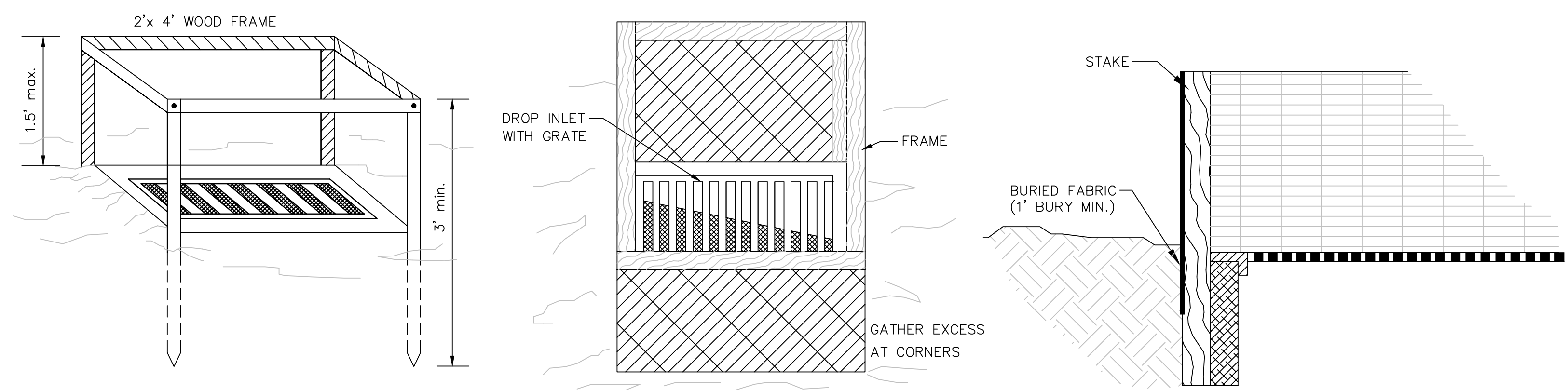


**CONCRETE DRAINAGE FLUME** 416A

SHEET ADDED

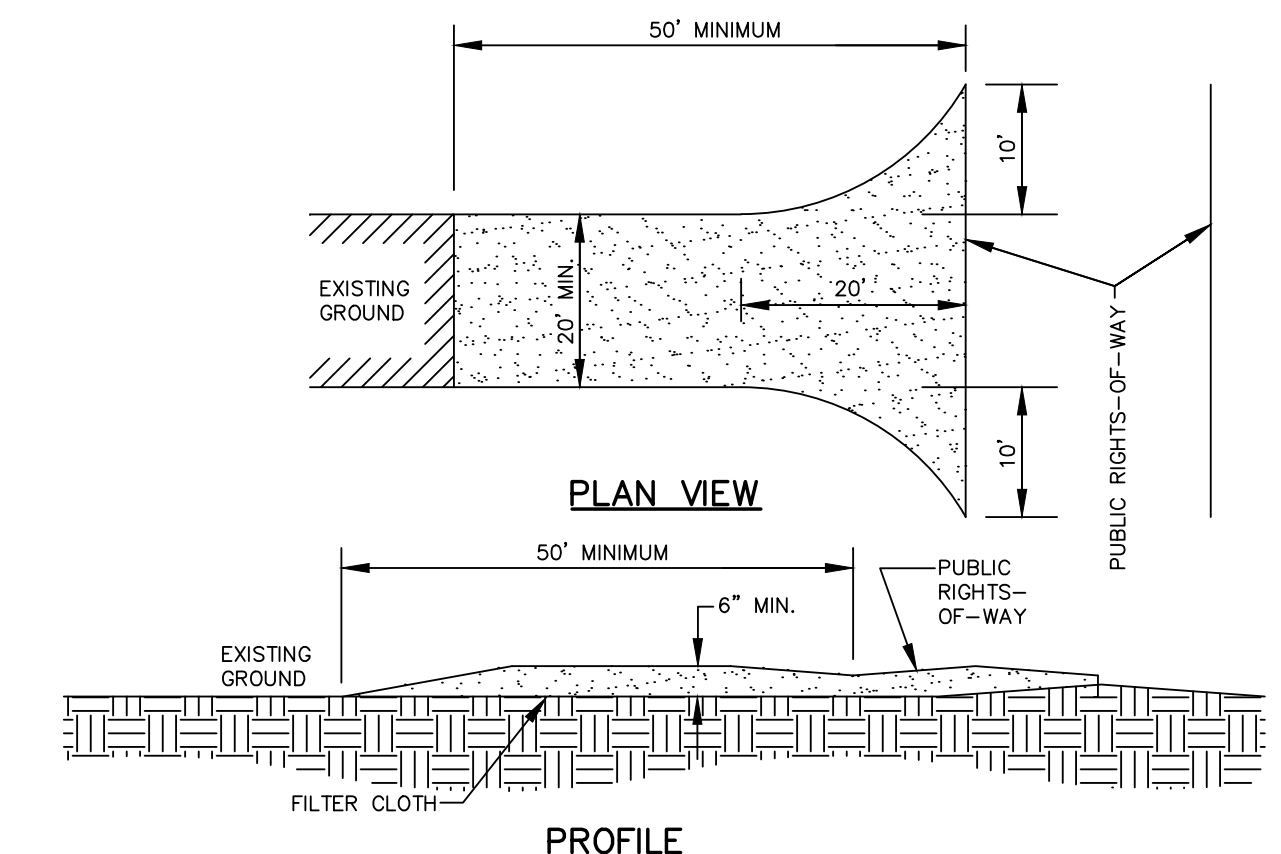


**NYLOPLAST 24" DRAIN BASIN** 451



- CONSTRUCTION SPECIFICATIONS**
1. AS SYNTHETIC FABRIC, USE A PERVIOUS SHEET OF NYLON, POLYESTER, OR ETHYLENE YARN - EXTRA STRENGTH - THAT CONTAINS ULTRAVIOLET RAY INHIBITORS AND STABILIZERS. FABRIC SHOULD BE SUFFICIENTLY POROUS TO PROVIDE ADEQUATE DRAINAGE OF THE TEMPORARY SEDIMENT POOL. BURLAP MAY BE USED FOR SHORT-TERM APPLICATIONS. IT MUST BE REPLACED EVERY 60 DAYS.
  2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS.
  3. FOR STAKES, USE 2 X 4 INCH WOOD (PREFERRED) OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF THREE FEET.
  4. SPACE STAKES EVENLY AROUND THE PERIMETER OF THE INLET A MAXIMUM OF THREE FEET APART, AND SECURELY DRIVE THEM INTO THE GROUND, APPROXIMATELY 18 INCHES APART.
  5. TO PROVIDE NEEDED STABILITY TO THE INSTALLATION, FRAME WITH 2 X 4 INCH WOOD STRIPS AROUND THE CREST TO THE OVERFLOW AREA AT A MINIMUM OF 1.5 FEET ABOVE THE DROP INLET CREST.
  6. PLACE THE BOTTOM 12 INCHES OF THE FABRIC IN A TRENCH AND BACKFILL THE TRENCH WITH AT LEAST FOUR INCHES OF CRUSHED STONE OR TWELVE INCHES OF COMPACTED SOIL.
  7. FASTEN FABRIC SECURELY TO THE STAKES AND FRAME. JOINTS MUST BE OVERLAPPED TO THE NEXT STAKE.
  8. THE TOP OF THE FRAME AND FABRIC MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE FROM THE DROP INLET TO KEEP RUNOFF FROM BYPASSING THE INLET. IT MAY BE NECESSARY TO BUILD A TEMPORARY DIKE ON THE DOWN SLOPE SIDE OF THE STRUCTURE TO PREVENT BYPASS FLOW. MATERIAL FROM WITHIN THE SEDIMENT POOL MAY BE USED FOR DIKING.
- MAINTENANCE**
1. INSPECT THE FABRIC BARRIER AFTER EACH RAIN AND MAKE REPAIRS AS NEEDED.
  2. REMOVE SEDIMENT FROM THE POOL AREA NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN EVENT. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE FABRIC DURING SEDIMENT REMOVAL.
  3. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SEDIMENT AND DISPOSE OF THEM PROPERLY. BRING THE DISTURBED AREA TO THE GRADE OF THE DROP INLET AND SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.

**TEMPORARY DROP INLET PROTECTION** 816  
N.T.S.



- CONSTRUCTION ENTRANCE NOTES:**
1. STONE SIZE - USE 2" STONE OR RECLAIMED OR RECYCLED EQUIVALENT.
  2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET.
  3. THICKNESS - NOT LESS THAN (6) INCHES.
  4. WIDTH - TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
  5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
  6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 3:1 SLOPES WILL BE PERMITTED.
  7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
  8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
  9. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED AFTER EACH RAIN.

**CONSTRUCTION ENTRANCE** 047  
DETAIL

REV	DATE	DESCRIPTION
2	7-23-19	REVISED PER CITY COMMENTS
1	4-24-14	INITIAL ISSUE



KEITH D. BEATTY  
ENGINEER  
KS # 16978

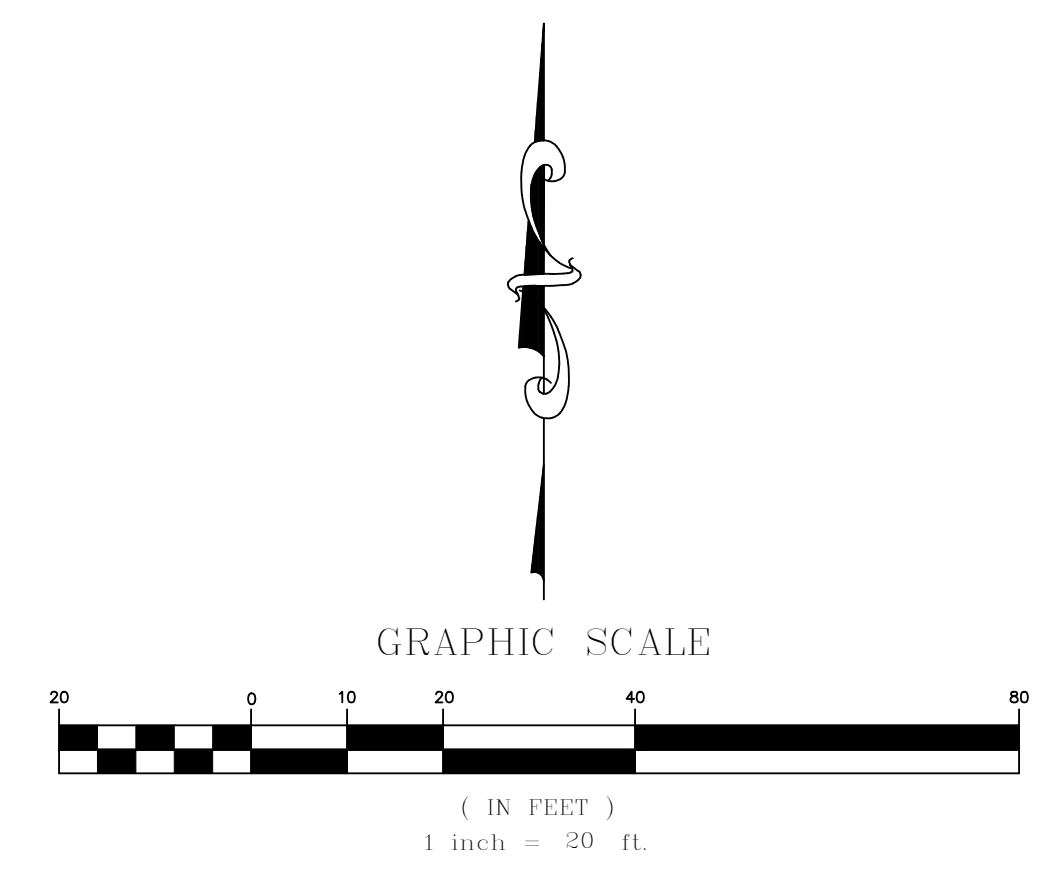
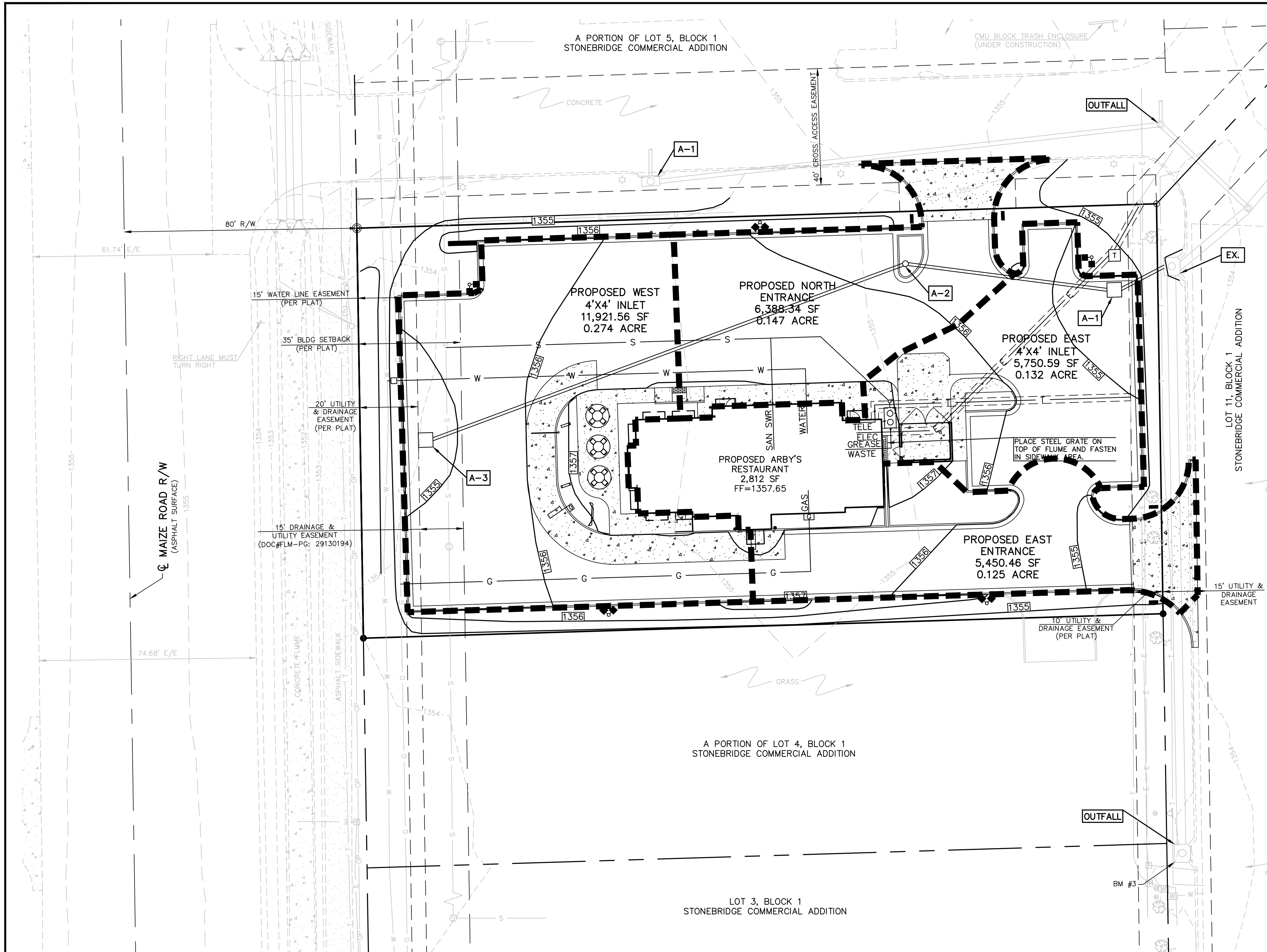
**KAW VALLEY ENGINEERING, INC.**  
CONSULTING ENGINEERS - LAND SURVEYORS  
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JUNCTION CITY, KANSAS 66441  
PH. (785) 762-5040 | FAX (785) 762-7744  
jke@kve.com | www.kve.com

JUNCTION CITY, KS | KANSAS CITY, MO | LENEXA, KS | SALINA, KS  
KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO PROVIDE ENGINEERING SERVICES IN KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-115.  
EXPIRES 12/31/14

PROJ. NO.	A13_6461
DESIGNER	KDB
DRAWN BY	JP
CFN	6461DDET
SHEET	8 OF 12
REV	2

**ARBY'S**  
3730 N MAIZE ROAD  
WICHITA, KANSAS

**PRIVATE STORM SEWER  
GRADING & EROSION CONTROL DETAIL SHEET**



KS	BKR	KDB
KS	BKR/JL	KDB
KS	KS	DSN
KS	KS	CHK

REV DATE DESCRIPTION

2	7-23-14	REVISED PER CITY COMMENTS
1	4-24-14	INITIAL ISSUE

**KEITH D. BEATTY**  
LICENSED PROFESSIONAL ENGINEER  
7231-9  
16978  
KANSAS

KEITH D. BEATTY  
ENGINEER  
KS # 16978

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**ARBY'S**  
3730 N MAIZE ROAD  
WICHITA, KANSAS 67205  
PRIVATE STORM SEWER  
DRAINAGE AREA MAP

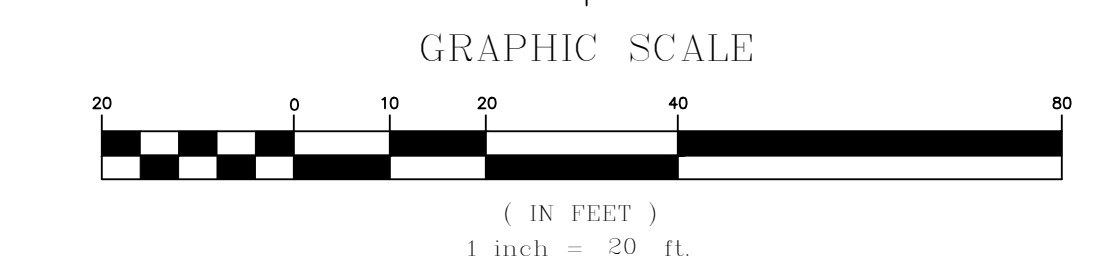
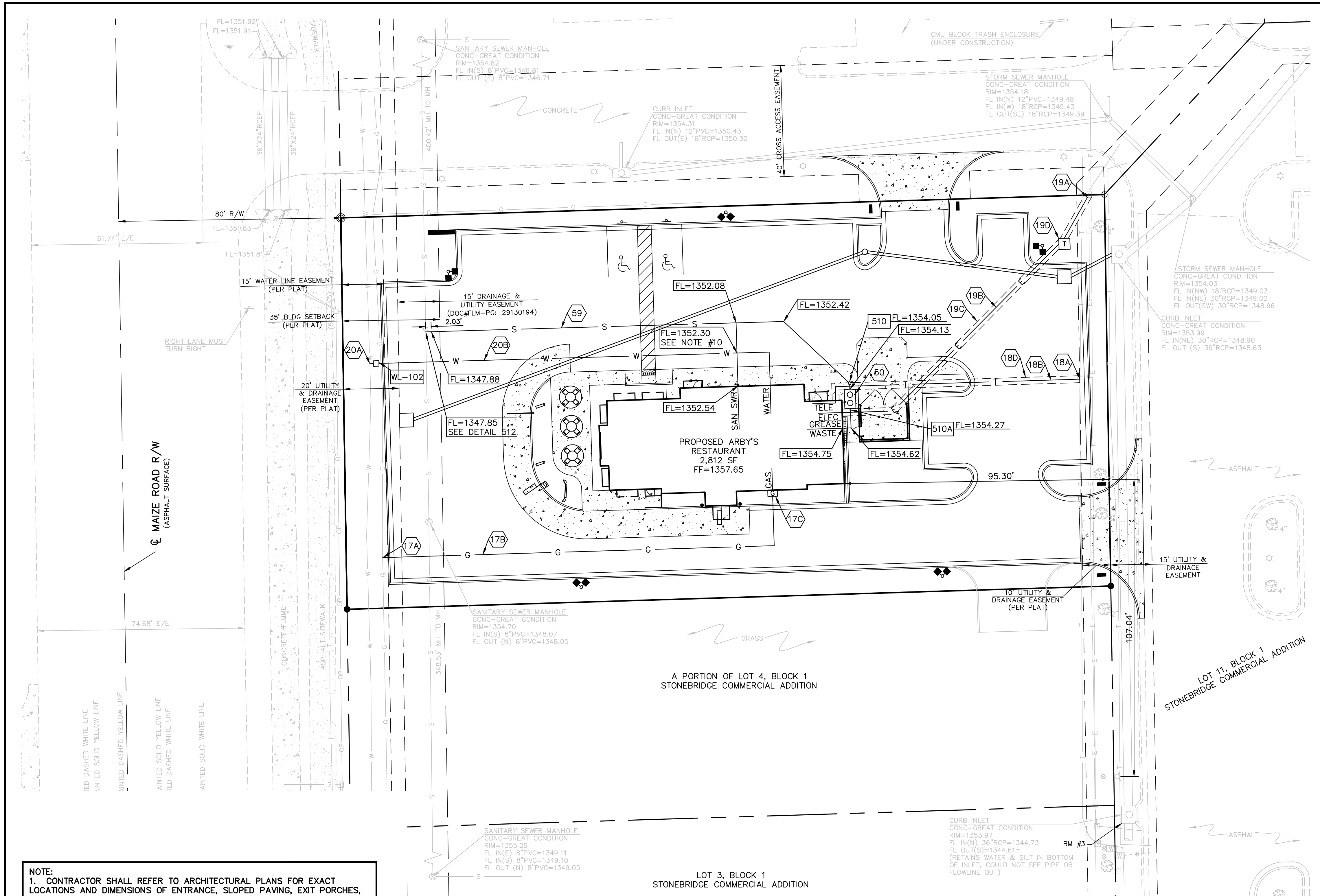
PROJ. NO. **A13\_6461**  
DESIGNER **KDB**  
DRAWN BY **JP/BJH**  
SHEET **6461DDAM**  
9 OF 12

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Line	Flow Rate (cfs)	Line Size (in)	Barrels	Line Type	100-Year Design Storm				Hydraulic Grade Line			Velocity (ft/s)		
					Line Len. (ft)	Line Slope (%)	Invert Elevation Dn (ft)	Invert Elevation Up (ft)	Inlet/Rim Elevation Dn (ft)	Inlet/Rim Elevation Up (ft)	Dn (ft)		Up (ft)	Junct. (ft)
A-1 to Existing Inlet	3.50	12	1	Cir.	21.31	0.52	1349.80	1349.91	1353.94	1354.50	1350.59	1350.91	1351.20	3.37
A-2 to A-1	2.40	12	1	Cir.	72.38	0.50	1349.91	1350.27	1354.50	1355.99	1351.20	1351.53	1351.58	3.05
A-3 to A-2	2.48	12	1	Cir.	175.72	0.50	1350.27	1351.14	1355.99	1354.50	1351.58	1352.43	1352.59	3.54



- UTILITY NOTES:**
- CONSTRUCTION SHALL NOT START ON ANY PUBLIC WATER OR SANITARY SEWER SYSTEM UNTIL WRITTEN APPROVAL OR PERMITS HAVE BEEN RECEIVED FROM THE OWNER.
  - ALL UTILITY AND STORM SEWER TRENCHES CONSTRUCTED UNDER AREAS THAT RECEIVE PAVING SHALL BE BACKFILLED TO 18 INCHES ABOVE THE TOP OF THE PIPE WITH SELECT GRANULAR MATERIAL PLACED ON EIGHT-INCH LIFTS, AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
  - CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCE OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR. **KAW VALLEY ENGINEERING AND OWNER ARE TO BE HELD HARMLESS.**
  - DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR UNDER SUPERVISION OF A REPRESENTATIVE OF THE CITY WATER DEPARTMENT. CONTRACTOR SHALL NOTIFY THE CITY OF WICHITA WATER DEPARTMENT 24 HOURS MINIMUM, PRIOR TO ANY TESTING.
  - ALL WATER AND SANITARY SEWER SYSTEMS THAT ARE TO BE PUBLIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS PREVIOUSLY APPROVED BY THE CITY OF WICHITA AND THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT (KDHE) AND SHALL BE INSPECTED BY THE CITY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT THIS INSPECTION OCCURS.
  - LOCATIONS SHOWN FOR PROPOSED WATER LINES ARE APPROXIMATE. VARIATIONS MAY BE MADE, WITH APPROVAL OF THE ENGINEER, TO AVOID CONFLICTS.
  - CONTRACTOR TO INSTALL TRACING TAPE ALONG ALL NON-METALLIC WATER MAINS AND SERVICE LINES PER SPECIFICATIONS.
  - CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF NEW UTILITIES.
  - WATER LINES SHALL HAVE A MINIMUM COVER OF 42 INCHES. ALL VALVES ON MAINS AND FIRE HYDRANT LEADS SHALL BE WITH VALVE BOX ASSEMBLIES. THE SIZE OF VALVE BOX ASSEMBLY TO BE INSTALLED IS DETERMINED BY THE TYPE AND SIZE OF VALVE. VALVE BOX CAPS SHALL HAVE THE WORD "WATER".
  - A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN PARALLEL WATER AND SANITARY SEWER LINES. WHEN IT IS NECESSARY FOR ANY WATER LINE TO CROSS A SANITARY SEWER LINE, THE SEWER LINE SHALL BE ENCASED IN CONCRETE OR CONSTRUCTED OF DUCTILE IRON PIPE OR PVC PIPE WITH NO JOINTS WITHIN 10 FEET OF THE CROSSING UNLESS THE WATER LINE IS AT LEAST 2 FEET CLEAR DISTANCE ABOVE THE SANITARY SEWER LINE.

- DETAILS - SEE DETAIL SHEET NO. 10 & 11 FOR THE FOLLOWING DETAILS
- 206 TRENCH AND BEDDING DETAILS
  - 510 CLEAN-OUT
  - 510A 2-WAY CLEAN-OUT
  - 512 SEWER SERVICE CONNECTION DETAIL
  - WL-102 STANDARD WATER SERVICE DETAIL (CITY DETAIL)

- NOTES:
- 17A POINT OF CONNECTION - GAS SERVICE
  - 17B GAS SERVICE PER LOCAL GAS COMPANY
  - 17C GAS METER
  - 18A POINT OF CONNECTION - TELEPHONE SERVICE
  - 18B UNDERGROUND TELEPHONE SERVICE PER LOCAL TELEPHONE COMPANY
  - 18D 2-3" CONDUIT INSTALLED BY CONTRACTOR - TELEPHONE SERVICE
  - 19A POINT OF CONNECTION - ELECTRIC SERVICE
  - 19B UNDERGROUND POWER PER LOCAL POWER COMPANY
  - 19C 4" CONDUIT INSTALLED BY CONTRACTOR - ELECTRIC SERVICE
  - 19D TRANSFORMER PAD BY CONTRACTOR
  - 20A POINT OF CONNECTION - WATER SERVICE
  - 20B 1 1/2" WATER LINE INSTALLED BY CONTRACTOR
  - 50 GREASE INTERCEPTOR (SEE PLUMBING PLAN)
  - 59 4" SANITARY SEWER SERVICE LINE (MIN 1% GRADE)

- BENCHMARKS:**
- BM #1: SQUARE CUT AT THE SOUTHWEST CORNER OF CONCRETE 3' SOUTH OF TRAFFIC SIGNAL BOX, 68.8' EAST OF THE CENTER LINE OF MAIZE ROAD AND 60.8' SOUTH OF THE CENTERLINE OF 37TH STREET. NAVD 88 ELEV=1355.34
  - BM #2: SQUARE CUT AT THE TOP OF CURB OF CATCH BASIN 27' EAST AND 10' SOUTH OF THE EASTERN MOST CORNER OF LOT 5, BLOCK 1, STONEBRIDGE COMMERCIAL ADDITION. NAVD 88 ELEV=1353.83
  - BM #3: SQUARE CUT AT THE SOUTHWEST CORNER OF CURB INLET 7' EAST OF THE SOUTHEAST CORNER OF LOT 4, BLOCK 1, STONEBRIDGE COMMERCIAL ADDITION. NAVD 88 ELEV=1354.00

**NOTE TO GENERAL CONTRACTOR:**  
 GENERAL CONTRACTOR TO VERIFY ALL EXISTING UTILITIES WITH DIG SAFE AND CONTACT THE DESIGN ENGINEER IF ANY DISCREPANCIES ARE FOUND.

**NOTE:**

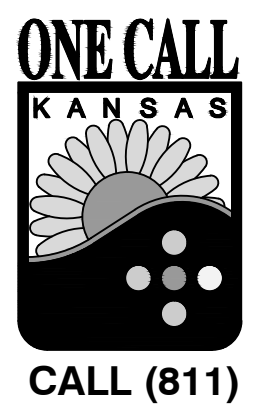
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE, SLOPED PAVING, EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- THESE PLANS HAVE NOT BEEN VERIFIED WITH FINAL ARCHITECTURAL CONTRACT DRAWINGS.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

**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.

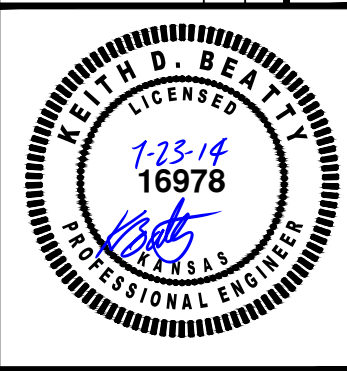
- WATER & SEWER SERVICE**  
 WICHITA WATER & SEWER DEPT  
 455 N MAIN  
 WICHITA, KANSAS 67202  
 GREG LÖLLEY  
 (316) 268-4555
- EMERGENCY DISPATCH**  
 (316) 262-6000
- STORM WATER SEWER**  
 STORM WATER MANAGEMENT  
 455 N MAIN  
 WICHITA, KANSAS 67202  
 SCOTT LINDEBAK  
 (316) 268-4908
- GAS SERVICE**  
 BLACK HILLS ENERGY  
 1611 SOUTH HOOVER  
 WICHITA, KANSAS 67209  
 JOHN STARK  
 (316) 258-5606
- ELECTRIC SERVICE**  
 WESTAR  
 PO BOX 208  
 WICHITA, KANSAS 67201  
 MARSHA JESSE  
 (316) 261-6734
- TELEPHONE/CABLE/INTERNET SERVICE**  
 AT&T  
 154 N. BROADWAY, ROOM 210  
 WICHITA, KANSAS 67202  
 JIM TOBEN  
 (316) 268-2245
- COX COMMUNICATIONS**  
 JEFF CAPPS  
 (316) 260-7475
- LEVEL 3 COMM**  
 (877) 366-8344  
 (316) 263-3198



SHEET ADDED

DESIGNER	A13_6461	REVISED PER CITY COMMENTS	KS	BKR	KDB
DRAWN BY	KDB	INITIAL ISSUE	KS	BKR/JL	KDB
CFN	6461DUP	REV DATE	7-23-14	2	1
SHEET	10 OF 12	DESCRIPTION	DSN	DWN	CHK

**ARBY'S**  
 3730 N MAIZE ROAD  
 WICHITA, KANSAS  
 PRIVATE STORM SEWER  
 UTILITY PLAN



KEITH D. BEATTY  
 ENGINEER  
 KS # 16978

**KAW VALLEY ENGINEERING, INC.**  
 CONSULTING ENGINEERS - LAND SURVEYORS  
 2319 NORTH JACKSON | P.O. BOX 1304  
 JUNCTION CITY, KANSAS 66441  
 PH. (785) 762-5040 | FAX (785) 762-7744  
 jbe@kve.com | www.kve.com  
 JUNCTION CITY, KS | KANSAS CITY, MO | LENA, KS | SALINA, KS  
 KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO PERFORM ENGINEERING SERVICES BY KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-115.  
 EXPIRES 12/31/14



