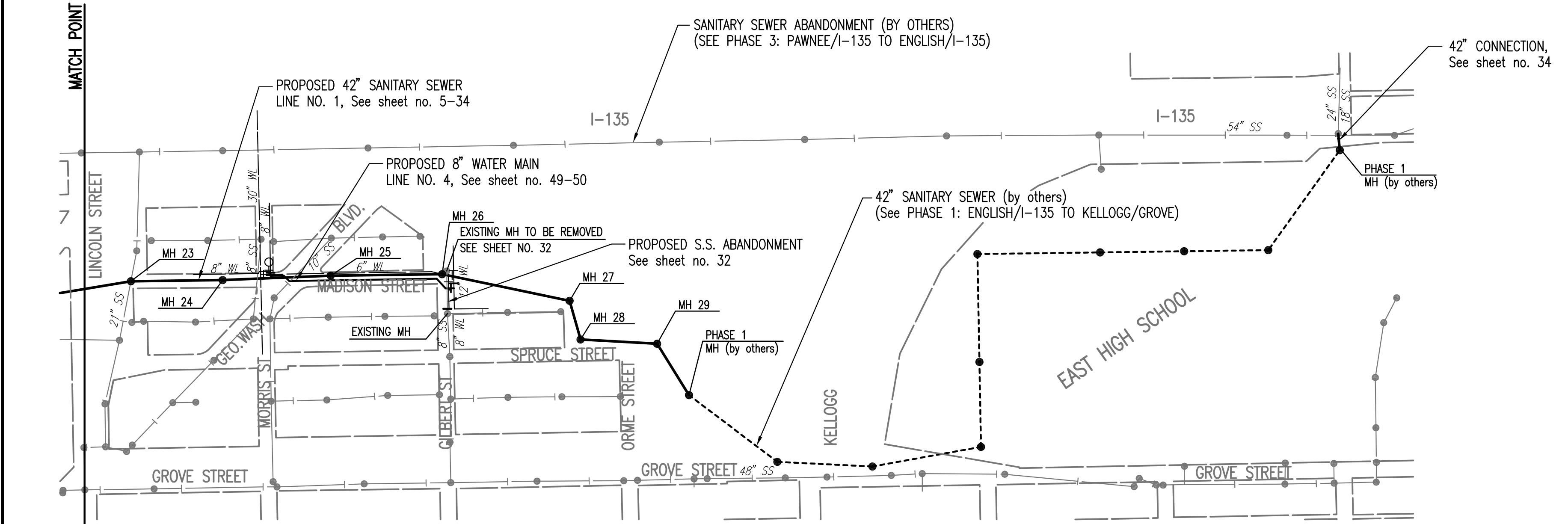
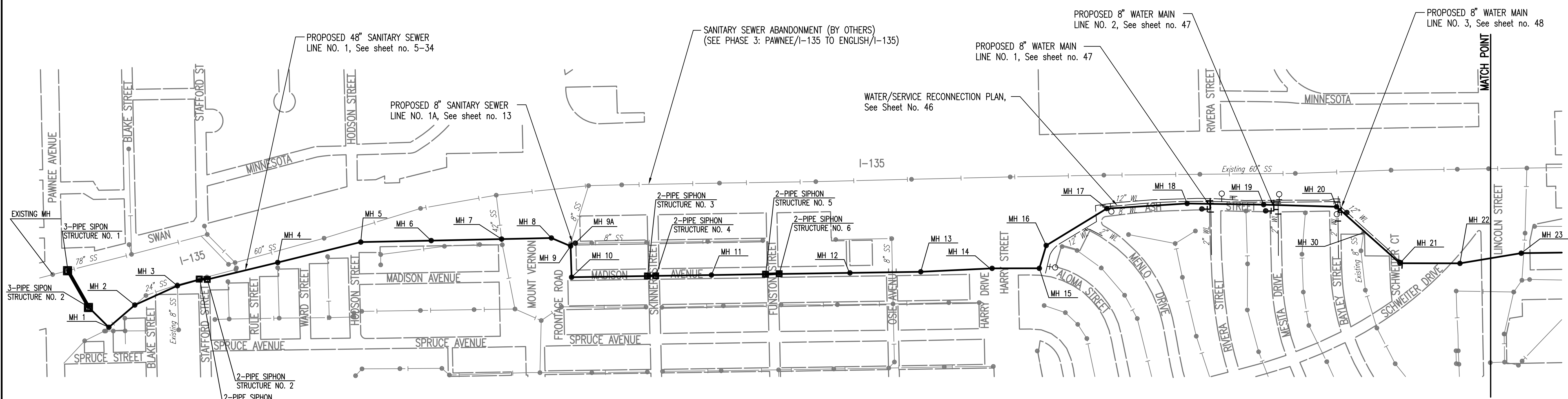


LEGEND

- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER w/MANHOLE
- PROPOSED SANITARY SEWER w/MANHOLE
- PROPOSED SANITARY SEWER w/STRUCTURE
- PROPOSED SANITARY SEWER (BY OTHERS)
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING BLOW OFF
- PROPOSED BLOW OFF

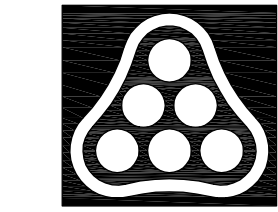


18. THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. WHERE THE CONTRACTOR BELIEVES THE REMOVAL OR TRIMMING IS UNAVOIDABLE, HE SHALL COORDINATE SUCH WORK WITH THE ENGINEER. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION 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 COST FOR ANY NECESSARY TREE TRIMMING, CLEARING AND/OR GRUBBING SHALL BE SUBSIDIARY TO "SITE CLEARING", UNLESS NOTED OTHERWISE.
19. OPENING AND CLOSING WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTION SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED BY THE CONTRACTOR MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. PROJECT INSPECTOR MUST ASCERTAIN THAT ANY VALVE CLOSED BY THE CONTRACTOR IS REOPENED. CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.
20. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLE MAY EXIST WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES AND CABLES. ANY UTILITIES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PROTECT FROM DAMAGE AND SUPPORT EXISTING UTILITIES THROUGH CONSTRUCTION AS APPROVED BY THE UTILITY OWNER AND THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
21. WHERE THE IMPROVEMENTS CROSS EXISTING PUBLIC OR PRIVATE UTILITIES WHICH ARE NOT TO BE ADJUSTED BY OTHERS, THE CONTRACTOR SHALL PROVIDE THE MATERIAL AND MEANS TO PROTECT AND SUPPORT SAID UTILITIES DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER.
22. THE CONTRACTOR SHALL MAINTAIN WATER DISTRIBUTION DURING ALL PHASES OF CONSTRUCTION. REQUESTS FOR SHORT-TERM WATER SERVICE INTERRUPTIONS SHALL BE MADE AT LEAST 72 HOURS IN ADVANCE TO THE CITY OF WICHITA AND WILL BE SUBJECT TO APPROVAL BY THE ENGINEER. SUBJECT TO APPROVAL, THE CONTRACTOR SHALL NOTIFY ALL AFFECTED WATER CUSTOMERS OF PENDING CONSTRUCTION AT LEAST 48 HOURS IN ADVANCE. THE CONTRACTOR SHALL COORDINATE THE SHUT DOWN AND THE ISOLATION OF EXISTING WATER MAINS FOR CONNECTIONS TO THE NEW MAIN WITH THE WICHITA WATER DEPARTMENT.
23. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES, AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.
24. ACCESS IS TO BE MAINTAINED AT ALL TIMES EXCEPT IN THE IMMEDIATE AREA OF CONSTRUCTION. IMMEDIATE AREA OF CONSTRUCTION IS DEFINED AS A MAXIMUM OF 3 BLOCKS IN WHICH PAVEMENT REMOVAL, TRENCHING, PIPE LAYING, BACKFILLING AND PAVEMENT REPLACEMENT IS OCCURRING. TRAFFIC IS TO BE MAINTAINED USING FLAG PERSONS AS NECESSARY. SIDE STREET INTERSECTIONS MAY BE CLOSED WHILE PIPE IS BEING LAID ACROSS THE INTERSECTION, HOWEVER, NO TWO CONSECUTIVE INTERSECTIONS MAY BE CLOSED AT THE SAME TIME. THE CONTRACTOR SHALL UTILIZE BARRICADES, SIGNS, CONES, AND FLAGMEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND AS INDICATED BY THE PROJECT PLANS AND DETAILS. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
25. SEE PLAN SHEETS 51 - 53 FOR ALL SIDEWALK, DRIVEWAY AND PAVEMENT REMOVAL AND/OR REPLACEMENT REQUIREMENTS. APPROXIMATE LIMITS OF SUCH PAVEMENT REMOVAL AND REPLACEMENT SHALL BE AS INDICATED. ALL NEW PAVEMENT SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE CITY OF WICHITA STANDARD SPECIFICATIONS.
26. ALL LANDSCAPING AND FENCING DISTURBED DURING CONSTRUCTION SHALL BE REMOVED AND RESET/REPLACED IN KIND OR AS INDICATED BY THE PROJECT PLANS. THE CONTRACTOR SHALL PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) HOURS TO THE AFFECTED PROPERTY OWNERS PRIOR TO BEGINNING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING" AND "SITE RESTORATION".
27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL KANSAS DEPARTMENT OF TRANSPORTATION PERMIT REQUIREMENTS FOR THE I-135 CROSSING.
28. INSIDE OF EIGHT-FOOT DIAMETER MANHOLES SHALL REMAIN CONSTANT TO THE LOCATION OF THE REDUCING FLAT TOP WHICH CONNECTS THE SIX-FOOT DIAMETER BARREL OR CONE SECTION TO THE EIGHT-FOOT DIAMETER MANHOLE BARREL. THE FLAT TOP SHALL BE 7" (MINIMUM) ABOVE THE FLOWLINE OF THE BOTTOM PIPE.
29. IF IN THE OPINION OF THE CONTRACTOR, EXISTING STORM SEWER PIPE, STORM SEWER STRUCTURES, SANITARY SEWER PIPE, AND/OR WATERLINES AND SERVICES NEED TO BE REMOVED AND REPLACED TO FACILITATE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL OBTAIN THE CONCURRENCE OF THE INSPECTOR PRIOR TO REMOVING SUCH UTILITIES AND SHALL REPLACE TO THE SAME LINES AND GRADES AS EXISTING. BEDDING AND BACKFILL REQUIREMENTS SHALL BE IN ACCORDANCE TO THE CITY OF WICHITA STANDARD SPECIFICATIONS. ALL MATERIALS (INCLUDING WATERLINE VALVES) AND LABOR NECESSARY FOR THE REMOVAL AND REPLACEMENT OF EXISTING UTILITIES SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING" AND "SITE RESTORATION", UNLESS NOTED OTHERWISE IN THE PROJECT PLANS.
30. EASEMENTS AND RIGHT-OF-WAY PROVIDED BY THE OWNER FOR THE PROJECT ARE SHOWN IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION AND ANY ADDITIONAL TEMPORARY CONSTRUCTION EASEMENTS OR RIGHT-OF-WAY THAT IS DESIRED TO USE IN COMPLETING THE WORK.
31. ALL SANITARY SEWER MANHOLES AND CONCRETE STRUCTURES, INCLUDING EXISTING MANHOLES AND STRUCTURES WHERE A SEWER CONNECTION IS MADE SHALL BE LINED AND/OR COATED AS SPECIFIED BY THE PROJECT PLANS AND DETAILS. SEE SHEET NO. 35.
32. UNLESS NOTED OTHERWISE IN THE PLANS, THE CONTRACTOR MAY USE SOLID WALL PVC SDR 35 IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS OR FIBERGLASS REINFORCED POLYMER PIPE FOR THE SANITARY SEWER AS SPECIFIED IN THE PROJECT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.  
ALL PIPE BEDDING REQUIREMENTS SHALL BE IMPROVED BEDDING FOR FLEXIBLE PIPE WITH TYPE I PIPE BEDDING MATERIAL.
33. THE CONTRACTOR SHALL PROVIDE A LOW PRESSURE AIR TEST AND DEFLECTION TEST ON ALL SANITARY SEWER PIPE. THE LOW PRESSURE AIR TEST SHALL HAVE A STARTING PRESSURE OF 4 PSI AND SHALL NOT DROP MORE THAN 1 PSI IN A 30 MINUTE TIME PERIOD. THE TEST SECTION SHALL INCLUDE ALL PIPE BETWEEN MANHOLES. THE DEFLECTION TEST SHALL INCLUDE PASSING A MANDREL, BALL OR CYLINDER OF SIZE NOT LESS THAN 95% OF PIPING DIAMETER THROUGH THE TEST SECTION. THE CITY OF WICHITA WILL COMPLETE THE TELEVISION OF ALL SEWER PIPE. ALL TESTING AND TELEVISION SHALL BE PERFORMED PRIOR TO PLACING THE FINAL PAVEMENT SECTION. THE CITY OF WICHITA SHALL PROVIDE ALL PAVEMENT AND SUB-GRADE MATERIALS TESTING.
34. EROSION CONTROL (BMP'S)  
THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL METHODS AS SPECIFIED ON SHEETS 73-75 THE GENERAL LOCATION OF THE REQUIRED EROSION CONTROL IS ILLUSTRATED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION CONTROL SHOWN THROUGH THE COMPLETION OF THE PROJECT. INSTALLATION OF THESE BMP'S DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION. THE CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE STORM WATER PERMIT.

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA SPECIFICATIONS AND STANDARDS.
2. ALL ELEVATIONS SHOWN ARE BASED ON NGVD 29 DATUM.
3. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:  
KANSAS ONE-CALL 687-2470  
CITY OF WICHITA UTILITY LOCATES WWW.WICHITA.GOV/LOCATE (268-4260)  
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:  
COX COMMUNICATIONS 262-0661  
KANSAS GAS SERVICE 832-3169  
WESTAR ENERGY 383-8600  
BLACK HILLS ENERGY 1(800)-527-0357  
AT&T 1(800)-870-8390  
CITY OF WICHITA WATER DEPARTMENT 262-6000  
CITY OF WICHITA SEWER MAINTENANCE 262-6000
4. THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED TO THE PROJECT AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.
5. EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT HE WILL BE FULLY INFORMED OF THE EXISTING FIELD CONDITIONS AND THE OBSTACLES WHICH MIGHT BE ENCOUNTERED. UPON AWARD OF THE CONTRACT THE CONTRACTOR WILL NOT BE GRANTED ANY ADDITIONAL COMPENSATION WITH REGARDS TO TIME AND MONEY FOR CONDITIONS THAT MAY HAVE BEEN EVALUATED DURING ANY INSPECTION OF THE SITE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS FLOW OF SEWAGE THROUGH CONSTRUCTION. THE COST OF MAINTAINING FLOW OF SEWAGE THROUGH CONSTRUCTION WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER RELATED ITEMS OF WORK.
7. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
8. 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. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE RESTORATION".
9. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
10. MANHOLES SHALL BE TYPE "P" MANHOLES. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS.
11. RUBBLE FROM THE REMOVAL OF PIPE, MANHOLES AND MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED, TREE TRIMMINGS, AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, 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 MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.
12. ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME SOD AS EXISTING OR AS INDICATED BY THE PROJECT PLANS. RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, AND SODDING. ALL SODDING WORK SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. AR6.5 WHICH GOVERNS CLEANUP AND RESTORATION OR REPLACEMENT FOLLOWING CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE RESTORATION".
13. THE CONTRACTOR SHALL PREVENT ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER DURING CONSTRUCTION.
14. 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 ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.
15. EXISTING STORM SEWER RCB'S AND PIPES 15" OR LARGER THAT NEED TO BE REMOVED AND REPLACED TO FACILITATE CONSTRUCTION, SHALL BE REPLACED IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS TO ORIGINAL LINE AND GRADE WITH NEW PRE-CAST RCB OR RCP RESPECTIVELY, AND CAST-IN-PLACE CONCRETE COLLARS. SEE DETAIL, SHEET NO. 44. ALL COST FOR MATERIALS, LABOR AND INCIDENTALS, INCLUDING THE CAST-IN-PLACE CONCRETE COLLARS SHALL BE REIMBURSED AT THE UNIT COST GIVEN FOR EACH RESPECTIVE SIZE, AS MEASURED IN THE FIELD. ALL EXISTING STORM SEWER PIPES 12" AND SMALLER THAT NEED TO BE REMOVED AND REPLACED TO FACILITATE CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERAL NOTE NO. 29 AND CONSIDERED SUBSIDIARY TO "SITE CLEARING" AND "SITE RESTORATION".
16. CONTRACTOR SHALL SUBMIT A BYPASS PUMPING PLAN FOR APPROVAL BY THE CITY OF WICHITA PRIOR TO MAKING CONNECTION TO EXISTING SANITARY SEWER LINES. CONTRACTOR SHALL PERFORM THE NECESSARY INVESTIGATIONS TO DETERMINE POSSIBLE FLOWS AND PUMP CAPACITY. ALL BYPASS PUMPING SHALL HAVE PUMP AND POWER (GENERATOR) REDUNDANCY ON SITE IN CASE BACKUP IS NEEDED. ALL COST ASSOCIATED WITH THE LABOR AND MATERIALS NECESSARY TO BYPASS PUMP SANITARY SEWER FLOWS SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS OF WORK AND WILL NOT BE PAID FOR DIRECTLY.
17. ALL SANITARY SEWER EXCAVATION WITHIN EXISTING PAVEMENT SECTIONS SHALL BE SAND FILLED AND FLUSHED (JETTED AND VIBRATED) WITH WATER PER THE REQUIREMENTS LISTED IN THE STANDARD SPECIFICATIONS FOR THE CITY OF WICHITA, UNLESS FLOWABLE FILL OR OTHER IMPROVED BACKFILL MATERIAL IS OTHERWISE SPECIFIED. THE SAND FILL SHALL BE BROUGHT UP UNIFORMLY TO AN ELEVATION 12 INCHES ABOVE THE TOP OF THE PIPE OR 2 FEET BELOW THE BOTTOM OF PROPOSED PAVEMENT, WHICHEVER IS HIGHER. ALL COSTS FOR SAND FILLING AND FLUSHING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "SAND FILL, FLUSH AND VIBRATE". THIS ITEM SHALL BE PAID FOR AT THE UNIT PRICE BID PER LINEAR FOOT OF TRENCH FILLED REGARDLESS OF TRENCH DEPTH AND/OR PIPE SIZES UNLESS INDICATED OTHERWISE BY PLANS OR CONTRACT. THE ESTIMATED LENGTH OF SANITARY SEWER TRENCH TO BE SAND FILLED AND FLUSHED FOR THIS PROJECT IS: SAND FILL, FLUSH AND VIBRATE = 7,423 LF.

NOTE: WATERLINE VALVES TO BE OPERATED BY CONTRACTOR ONLY IF WATER DEPARTMENT REPRESENTATIVE IS ON SITE.



No.	Revision	By	Date
<b>RELOCATION OF SANITARY SEWER NO. 23</b> <b>PHASE 2: KELLOGG/GROVE TO PAWNEE/1-135</b> <b>KEY MAP AND GENERAL NOTES</b> JAMES L. ARMOUR, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 468-84375 <b>Professional Engineering Consultants, P.A.</b> 303 S. TOPKA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003			
Designed by	MDK, EJB	Job No.	35-07600-001
Drawn by	CSL, JAN	Date	AUGUST 2008
			Sht. 2 of 75

Scaled: 03-09-2010 3:51:22 PM by CSI  
 Plot Scale: 1:300 03-09-2010 3:52:25 PM by CSI  
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