

RELOCATION OF SANITARY SEWER NO. 23 INTERCEPTOR ALONG I-135 FROM ENGLISH TO PAWNEE

PHASE 2 : KELLOGG/GROVE TO PAWNEE/I-135

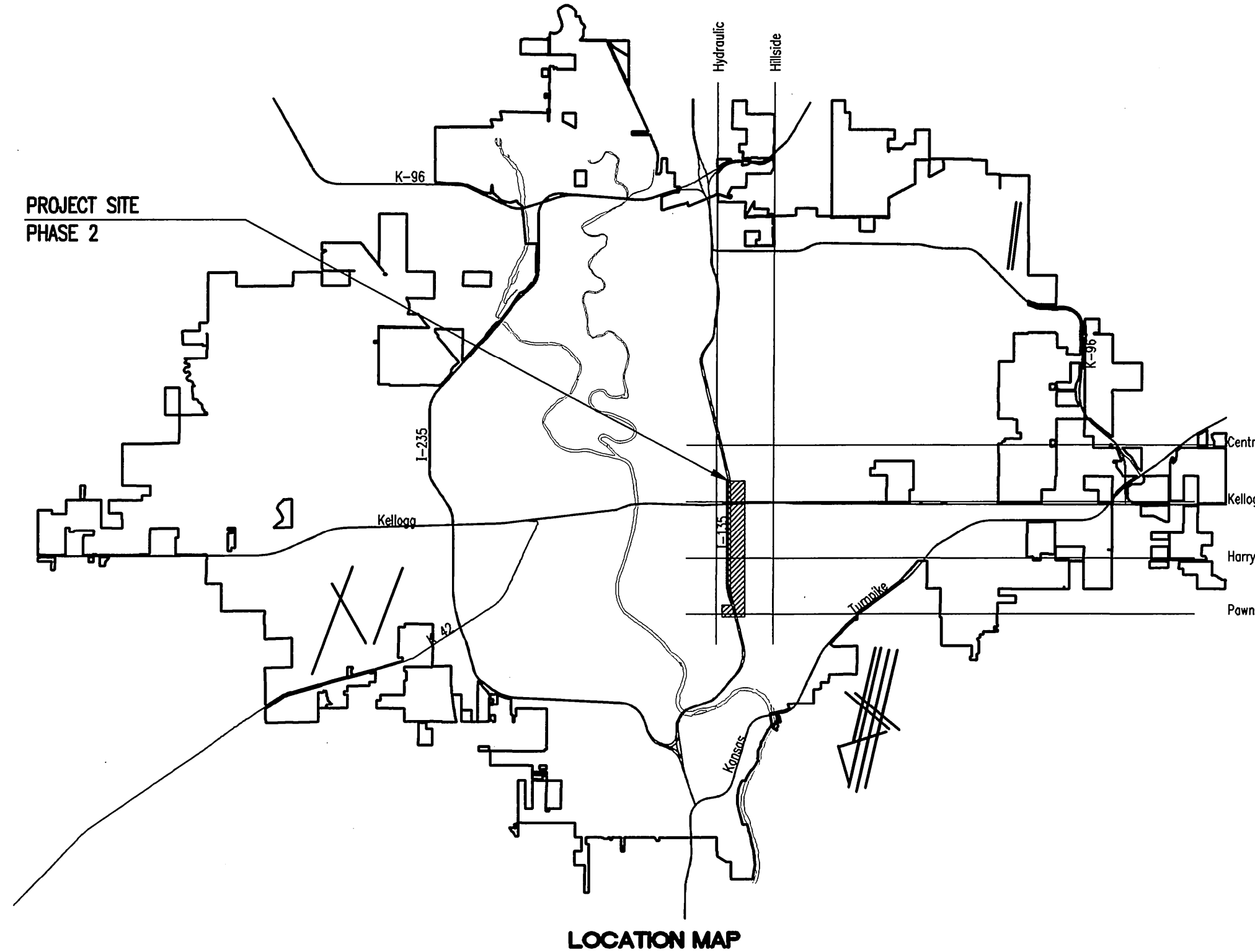
IN THE CITY OF WICHITA, KANSAS

OCA NO. 624087

CITY OF WICHITA PROJECT NO. 468-84375

JAMES L. ARMOUR, P.E. - CITY ENGINEER

As-built
 SJ Louis Construction - Contractor
 J. Westhoff - City of Wichita, Field Project Engineer
 Strothman/Hicks - City of Wichita, Inspectors
 Release Date: 9/1/2011
 pdf: APRosas 3/29/2012

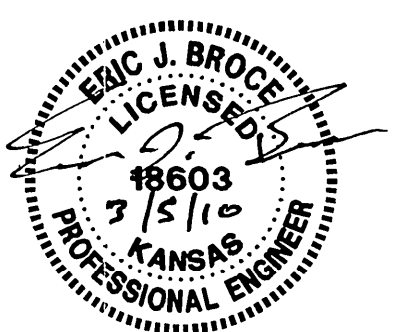
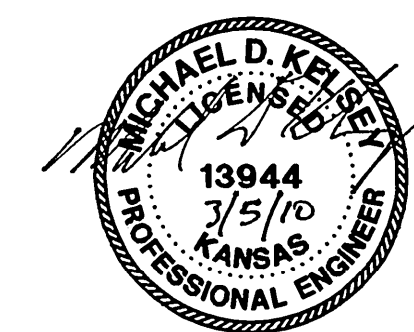


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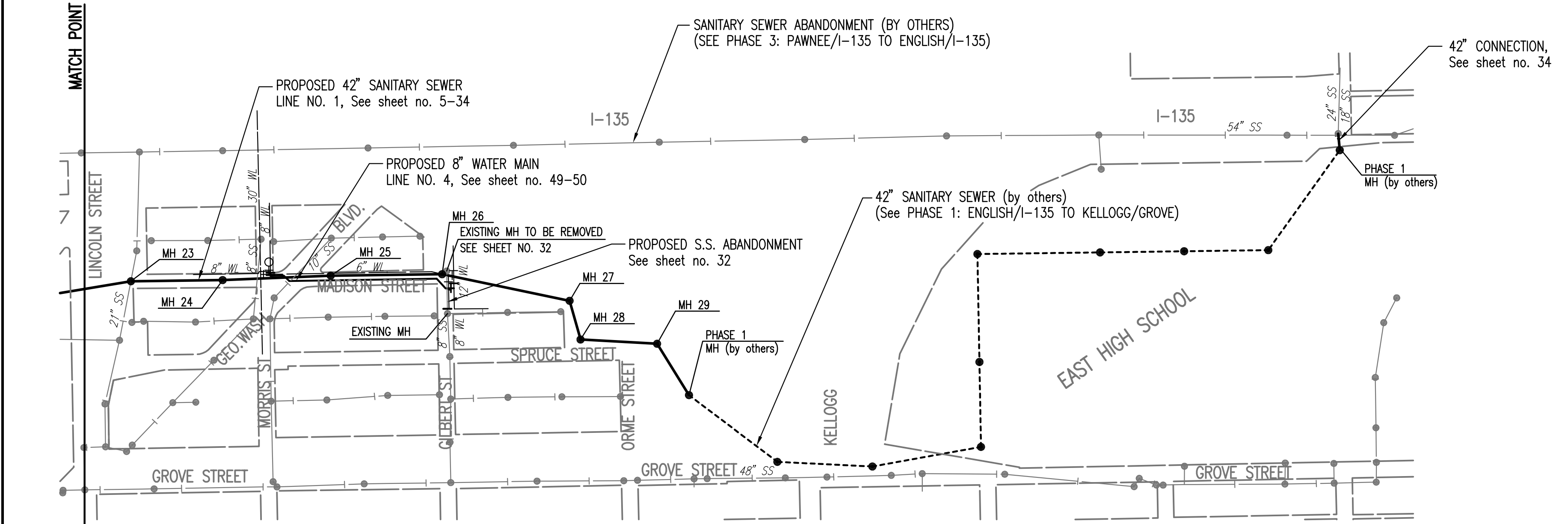
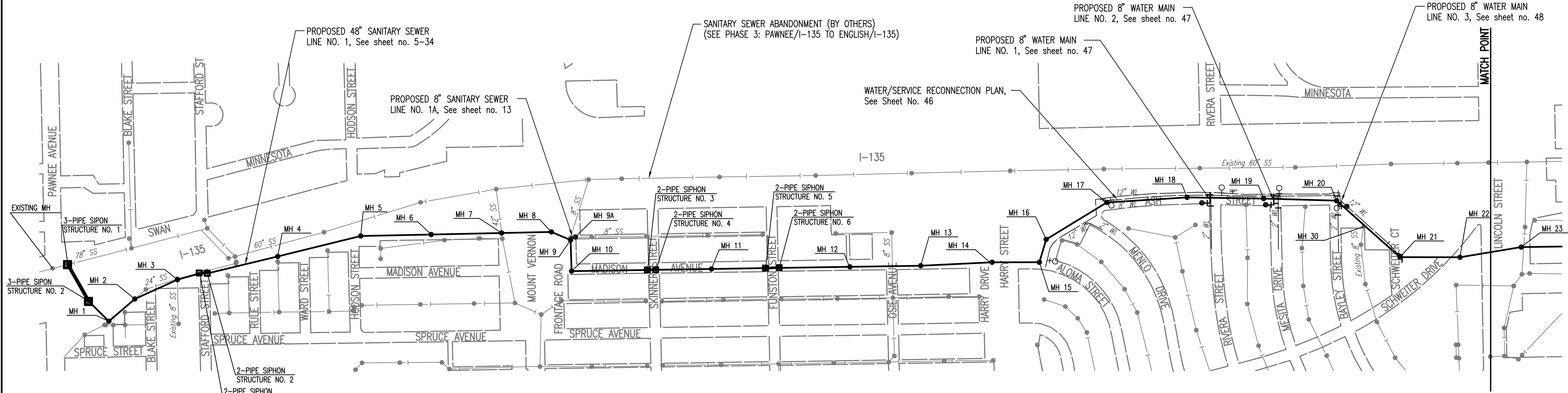
MARCH 2010

PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS



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

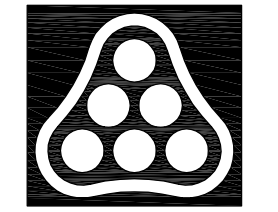
1. ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA SPECIFICATIONS AND STANDARDS.
2. ALL ELEVATIONS SHOWN ARE BASED ON NGVD 29 DATUM.
3. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

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:

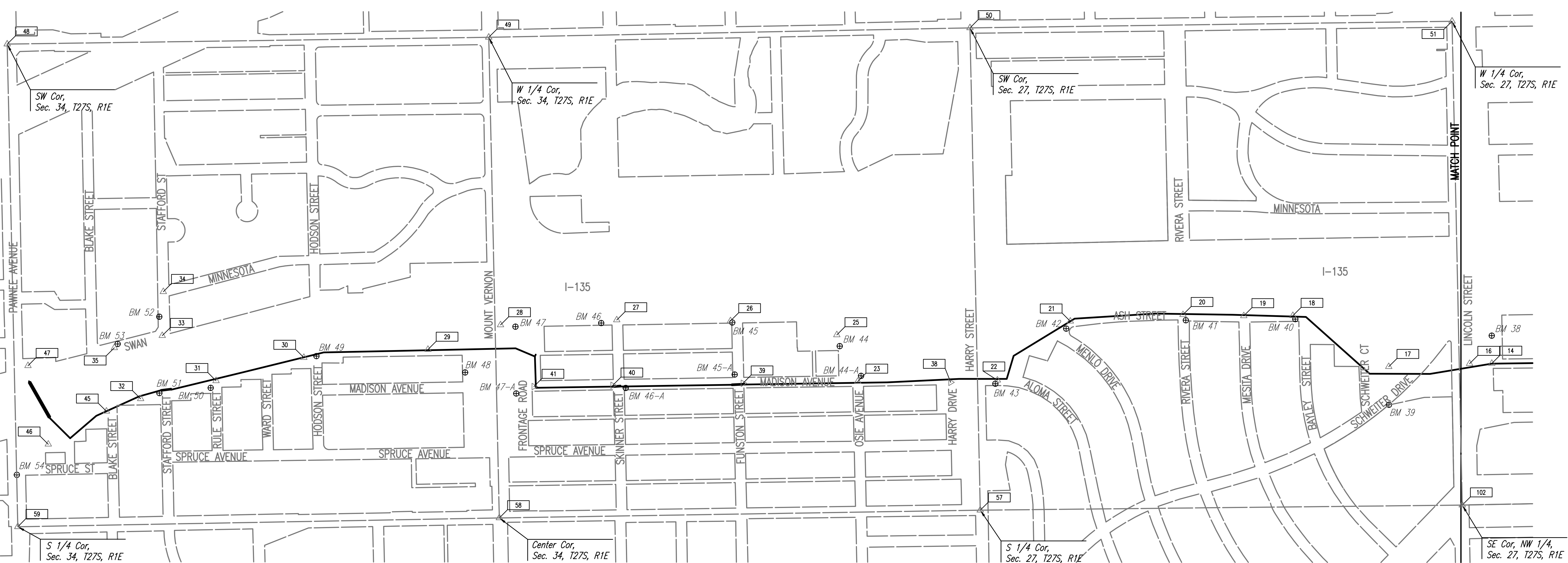
COX COMMUNICATIONS 262-0661
KANSAS GAS SERVICE 832-3169
WESTAR ENERGY 383-8600
BLACK HILLS ENERGY 1(800)-527-0357
AT&T 1(800)-870-8390
CITY OF WICHITA WATER DEPARTMENT 262-6000
CITY OF WICHITA SEWER MAINTENANCE 262-6000
4. THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR 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.

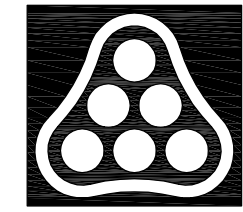
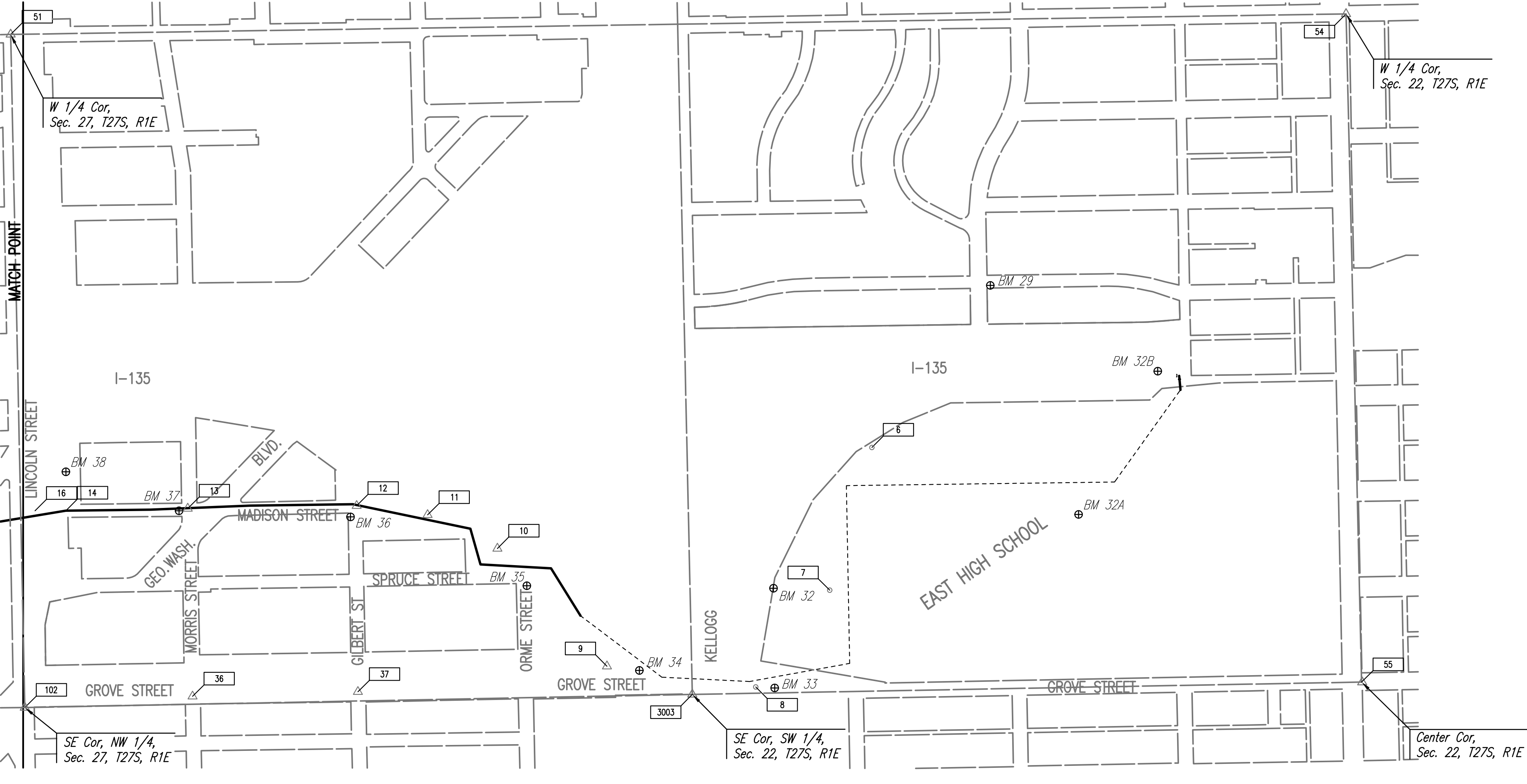


No.	Revision	By	Date
RELOCATION OF SANITARY SEWER NO. 23 PHASE 2: KELLOGG/GROVE TO PAWNEE/I-135 KEY MAP AND GENERAL NOTES JAMES L. ARMOUR, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 468-84375 Professional Engineering Consultants, P.A. 303 S. TOPKA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003			
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
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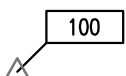
P&B
SCALE: 1" = 300'



No.	Revision	By	Date
RELOCATION OF SANITARY SEWER NO. 23 PHASE 2: KELLOGG/GROVE TO PAWNEE/I-135 HORIZONTAL AND VERTICAL CONTROL JAMES L. ARMOUR, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 468-84375 Professional Engineering Consultants, P.A. 303 S. TOPEKA • 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. 3 of 75

Saved: 03-03-2010 8:11:10 AM by: CSL
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SECTION CORNERS



PL # 48 N: 1,672,512.1319, E: 1,654,784.1150
SW Cor., Sec. 34, T27S, R1E
Found 3/4" IP in monument box
± center intersection Pawnee and Hydraulic
49.40' NE to chiseled "+" top back curb
57.38' SE to chiseled "+" top back curb
52.76' SW to chiseled "+" top back curb
47.19' NW to chiseled "+" top back curb

PL # 49 N: 1,675,166.3435, E: 1,654,746.6798
W 1/4 Cor., Sec. 34, T27S, R1E
Found 3/4" IP in monument box
± center intersection Mt. Vernon and Hydraulic
55.25' SW to nail and shiner in E face light pole
54.77' NW to city BM disc on traffic signal pole base
70.94' NNE to nail and shine in W face light pole
54.69' SE to chiseled "+" in center front face curb inlet

PL # 50 N: 1,677,818.4077, E: 1,654,694.8027
SW Cor., Sec. 27, T27S, R1E
Found 1/2" bar with cap LS960 in monument box
± center intersection Hydraulic and Harry
69.64' SW to chiseled "+" on NW corner concrete base to traffic controller
76.14' NW to chiseled "+" on concrete sign base
80.11' NE to chiseled "+" on center front curb inlet
72.01' SE to city BM disc on concrete base traffic pole

PL # 51 N: 1,680,475.6203, E: 1,654,658.3194
W 1/4 Cor., Sec. 27, T27S, R1E
Found 3/4" IP in monument box
Center intersection Lincoln and Hydraulic
69.86' SW to chiseled "+" on N side concrete for traffic control
55.76' NW to chiseled "+" on S side of concrete for traffic signal
68.04' NE to COW BM disc on traffic signal pole
76.00' SSE to chiseled "+" on front face curb inlet

PL # 57 N: 1,677,875.3302, E: 1,657,353.0811
S 1/4 Cor., Sec. 27, T27S, R1E
Found 1/2" IP in monument box
center intersection Harry and Grove
41.35' SSE to chiseled "+" front face curb inlet
54.91' WSW to chiseled "+" front face curve inlet
38.44' NNW to chiseled "+" top curb
44.70' NE to chiseled "+" top curb

PL # 58 N: 1,675,224.4059, E: 1,657,395.7780
Center Cor., Sec. 34, T27S, R1E
Found 1/2" IP in monument box
± center intersection Mt. Vernon and Grove
38.70' SE to nail and shiner SW face light pole
41.90' NE to three nails in NW face utility pole
58.12' NW to PK nail in SW face light pole
49.93' SW to top center fire hydrant

PL # 59 N: 1,672,570.4955, E: 1,657,444.4514
S 1/4 Cor., Sec. 34, T27S, R1E
Found 1/2" bar in monument box
± center intersection Pawnee and Grove
34.30' S to bent spike and washer on W face power pole
14.02' E chiseled "+" on W end island
39.33' W to chiseled "+" on E end island
55.83' NNE to nail on shiner W face power pole

PL # 3003 N: 1,683,175.7196, E: 1,657,273.1582
SE Cor., Sec. 22, T27S, R1E
Set 1/2" Bar with PEC cap

BENCHMARK LIST



BM 32 - Chiseled "d" on the Northwest corner of the water fountains slab located between the baseball fields on South side of the East High School Sports Fields. ELEV. = 1295.47

BM 33 - Chiseled "d" on top at North end of concrete median at Grove Street, 180' North of the North face Kellogg Overpass. ELEV. = 1295.83

BM 34 - City of Wichita Bass Disc on Easet of side concrete base of steel power tower, on West side of Grove Street, 100' ± South of Kellogg Overpass. C.O.W. Record MSL = 1295.39 ELEV. = 1295.46

BM 35 - Chiseled "d" on top of curb located on the East end of the North curb return of Orme Street, 40' ± East of the @ Spruce Street, opposite a Fire Hydrant. ELEV. = 1292.69

BM 36 - Chiseled "d" on top of curb located on the East end of curb on the South side of Gilbert Street, 50' East of Madison Street. ELEV. = 1291.22

BM 37 - Chiseled "d" on top of South end of curb return at the Southeast corner at the intersection of Morris and Madison Streets. ELEV. = 1290.99

BM 38 - Chiseled "d" on the Northwest corner of the curb inlet located mid-block between Ash and Morris Streets, 150' North of @ of Lincoln Street. ELEV. = 1290.06

BM 39 - Chiseled "d" on the Northwest corner of a curb inlet at the Southeast corner of Ash and Bayley Streets. ELEV. = 1288.45

BM 40 - Chiseled "d" on the top of curb on the East end of a curb return at the Northeast corner of Ash and Rivera Streets. ELEV. = 1290.67

BM 41 - Chiseled "d" on the top center Southwest face of curb inlet at the Northeast corner of Ash and Menlo Streets. ELEV. = 1288.69

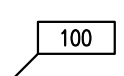
BM 42 - Chiseled "d" on the top Southeast corner of curb inlet at the Southeast corner of Madison and Wilma Streets, North of Harry Street Overpass, 75' ±. ELEV. = 1288.62

BM 43 - Chiseled "d" on the West side of concrete of a steel power tower, located 200' West and 120' South of the intersection of Madison and Osie Streets. ELEV. = 1292.26

BM 44 - Chiseled "d" on the East side of an 8' Diameter concrete base of electrical structure steel tower on the West side of the intersection of Osie and Madison Streets. ELEV. = 1289.86

BM 44-A - Chiseled "d" on top curb at mid-point of curb on SE corner intersection Ash and Funston Streets ELEV. = 1286.04

CONTROL POINTS



BM 45-A - Chiseled "d" on North side of an 8' Diameter concrete base of an electrical structure steel tower at the Southwest corner of Madison and Funston Streets. ELEV. = 1288.03

BM 46 - Chiseled "d" on top curb E side of Ash Street on the S edge of drive way N of House No. 1910 Ash Street. ELEV. = 1285.72

BM 46-A - Chiseled "d" on top of curb between two curb inlets at the Northeast corner of Madison and Skinner Streets. ELEV. = 1285.92

BM 47 - Chiseled "d" on center of bottom step of concrete steps on the N side of Mt. Vernon Street overpass, 50' ± E of Ash Street. ELEV. = 1287.65

BM 47-A - Chiseled "d" on the Northwest corner of storm drain manhole lid, located 75' ± Southeast of the center of the intersection of Madison and Ash Streets. ELEV. = 1286.19

BM 48 - Chiseled "d" in top center 4' X 8' concrete vault top between the 2 lids on the vault, located 170' S of Mt. Vernon Street and 120' W of Madison Street. ELEV. = 1286.58

BM 49 - Chiseled "d" on the center S side of concrete storm drain manhole top, located 30' N of intersection Madison and Hodson Streets. ELEV. = 1285.71

BM 50 - Chiseled "d" on the W side concrete base steel power tower, located at SE corner Madison and Rule Streets. ELEV. = 1284.73

BM 51 - Chiseled "d" on S side concrete base steel power tower, located at the SW corner of Madison and Stafford Streets. ELEV. = 1284.53

BM 52 - Chiseled "d" on S top of curb Stafford Street, 120' W of Swan Street on the E side of concrete drive going S to "The Vineyard Church". ELEV. = 1283.87

BM 53 - Chiseled "d" on W top of curb Swan Street 150' N of Blake Street on the N side of concrete drive going W to "The Vineyard Church" parking lot. ELEV. = 1284.05

BM 54 - COW Brass Disk "GROVE PAWNEE" located 1 block W of Grove on the W side of concrete light base in the center median of Grove Street, E of I-135 overpass. ELEV. = 1283.83

Pt. No. 6
N: 1,683,886.7675, E: 1,656,294.8203
1/2" Bar near SW. corner West football practice field "East High School"
1. 20.8' WSW to chain link fence
2. 27.0' W to E face 30" steel power pole
3. 64.5' NW to SE corner concrete shot put pad

Pt. No. 7
N: 1,683,719.8440, E: 1,656,860.1061
1/2" Bar 30' South and 2' West of SW corner chain link fence around East High Baseball field

Pt. No. 8
N: 1,683,426.8115, E: 1,657,243.5974
60d Nail in centerline concrete of median of Grove Ave. 150'± N of N face Kellogg overpass online W chain link fence to West

Pt. No. 9
N: 1,682,837.6790, E: 1,657,161.5678
Chiseled "+" set on centerline concrete sidewalk at "T" intersection on West side of Grove Ave.
200'± S of S face Kellogg overpass

Pt. No. 10
N: 1,682,403.4170, E: 1,656,694.9833
1/2" Bar on top of berm on southern point of the berm
1. 38.0' NW to wrought Iron R/W fence
2. 12.5' SE to 12' Mimosa tree

Pt. No. 11
N: 1,682,127.2474, E: 1,656,561.6433
1/2" Bar 300'± N of Gilbert and Madison Intersection
1. 16.3' W to East face 30" steel power pole
2. 57' S to N face 18" Locust tree

Pt. No. 12
N: 1,681,845.7907, E: 1,656,525.8194
1/2" Bar at N back sidewalk of Gilbert St. online with the centerline of Madison Street
1. 20.8' ENE to center power pole
2. 18' NNW to center of manhole

Pt. No. 13
N: 1,681,177.0726, E: 1,656,536.5273
Mag Nail @ intersection Madison & Morris St.
1. 36.2' NW to top center fire hydrant
2. 28.7' NE to SW face power pole

Pt. No. 14
N: 1,680,694.7771, E: 1,656,544.4813
1/2" Bar on North edge sidewalk on @ Madison 150' N of Lincoln
1. 56.6' ENE to SW corner house # 842 S Madison
2. 15.30' E to W face power pole

Pt. No. 16
N: 1,680,572.1678, E: 1,656,545.4630
1/2" Bar on centerline Madison Extended South and on the South Edge Sidewalk North of Lincoln St.

Pt. No. 17
N: 1,680,126.8639, E: 1,656,562.1687
1/2" Bar 120' N of Schweiter Ct. and 165' W of Schweiter St.
1. 11.7' SSE to face large steel power pole
2. 8.5' NNW to wrought iron fence

Pt. No. 18
N: 1,679,598.1300, E: 1,656,280.9631
60d Nail in centerline concrete joint Ash St. at S. end Curve 59' South of Bayley St. centerline extended West

Pt. No. 19
N: 1,679,327.4487, E: 1,656,282.1203
60d Nail in centerline concrete joint Centerline Ash and Mesita St.

Pt. No. 20
N: 1,678,992.5640, E: 1,656,275.6242
60d Nail in centerline concrete joint Centerline Intersection Ash and Rivera

Pt. No. 21
N: 1,678,371.6131, E: 1,656,311.7997
60d Nail in centerline concrete joint Ash St.
1. 27.8' NW to top fire hydrant
2. 15.2' E to SW corner curb inlet
3. 73.7' N of centerline intersection Ash and Menlo Sts.

Pt. No. 22
N: 1,677,969.3895, E: 1,656,636.7155
60d Nail in centerline concrete joint of Madison St.
1. 53.4' S of centerline intersection joints Madison & Wilma St.
2. 17.0' SE to NW corner curb inlet

Pt. No. 23
N: 1,677,199.8881, E: 1,656,643.2943
60d Nail in centerline concrete joints centerline Madison and Osie Sts.

Pt. No. 25
N: 1,677,084.3982, E: 1,656,387.0020
1/2" Bar 115' S and 256' W of intersection Madison & Osie
1. 8.7' SE to W edge sidewalk
2. 8.4' NW to wood fence
3. 27.5' NE to 12" Oak
4. 24.8' SW to 15" Oak

Pt. No. 26
N: 1,676,498.8720, E: 1,656,309.5919
Mag Nail in high edge of curb at SE corner intersection Ash and Funston
1. 5.8' E to @ water meter
2. 28.8' NE to face of light power
3. 48.4' SSE to N end concrete retaining wall at fence corner

Pt. No. 27
N: 1,675,871.7114, E: 1,656,304.7672
60d nail in @ concrete joint, @ Ash and Skinner Streets

Pt. No. 28
N: 1,675,230.9488, E: 1,656,332.2036
1/2" bar on S edge sidewalk on top of berm at Mt. Vernon and Ash Streets
1. 17.5' W to @ Ash Street
2. 2.5' S to N back curb Mt. Vernon Street

Pt. No. 29
N: 1,674,831.3135, E: 1,656,467.4184
1/2" bar 3' E of a wooden fence corner
1. 17.9' W of @ sidewalk
2. 370' S of @ Mt. Vernon Street
3. 105' ± NE of 20" Pine trees

Pt. No. 30
N: 1,674,146.9583, E: 1,656,511.8964
60d nail in @ concrete joint of Madison Street at the S end curve 69' S of @ Hodson Street extended W

Pt. No. 31
N: 1,673,663.2883, E: 1,656,639.8497
Mag nail in @ concrete joint Madison and Rule Streets
1. 48.55' SE to NW corner base plate of steel power pole
2. 43.40' NE to S end wrought iron fence

Pt. No. 32
N: 1,673,247.7315, E: 1,656,739.1623
1/2" bar near the SW corner of garden area, 10' W and 130' S of intersection Madison and Stafford Streets
1. 20.5' W to center of manhole
2. 21.0' S to E end guard rail
3. 17.6' S to N face power pole
4. 10.5' E to @ concrete joint Madison extended S

Pt. No. 33
N: 1,673,366.7156, E: 1,656,391.1260
Mag nail in concrete joint on @ of Swan Street 12' S of @ of Stafford Street

Pt. No. 34
N: 1,673,372.3922, E: 1,656,148.8697
60d nail in @ of intersection Stafford and Minnesota Streets

Pt. No. 35
N: 1,673,102.3908, E: 1,656,457.9168
60d nail in @ concrete joint Swan Street online with @ E entrance "The Vineyard" parking lot

Pt. No. 36
N: 1,681,196.2226, E: 1,657,280.7209
Mag nail in @ concrete joint Morris Street
1. 8.0' E of E high edge of curb Grove Street
2. 16.9' S of S rim sewer manhole

Pt. No. 37
N: 1,681,851.1624, E: 1,657,262.7189
60d nail in @ concrete joint Gilbert Street on E high edge curb Grove Street

Pt. No. 38
N: 1,677,712.0721, E: 1,656,648.4534
60d spike at intersection Madison and Spruce Streets in concrete joint on the E edge of Madison's pavement and at the @ concrete joint of spruce to the E

Pt. No. 39
N: 1,676,567.4817, E: 1,656,653.4571
60d spike in concrete joint @ of Madison Street at N right of way Funston Street

Pt. No. 40
N: 1,675,849.6348, E: 1,656,664.9602
60d spike in concrete joint @ of Madison Street at S right of way Skinner Street

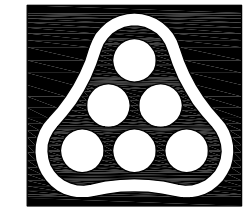
Pt. No. 41
N: 1,675,414.9165, E: 1,656,671.6760
2" mag nail in concrete joint on the @ of Madison Street at N P.C. of Ash Street

Pt. No. 45
N: 1,673,058.9796, E: 1,656,808.0219
Set 60d nail in concrete joint in cul-de-sac Blake Street
1. 27.5' N center line concrete joint Blake Street
2. 23.5' W chain link fence corner post

Pt. No. 46
N: 1,672,738.5503, E: 1,656,989.7552
Set 1/2" bar 150' N of N curb line Pawnee and 150' E of E face bridge N Bound I-135
1. 14.3' NW center street light pole
2. 12.9' W edge concrete ramp pavement
3. 11.0' E W face cedar tree

Pt. No. 47
N: 1,672,626.5960, E: 1,656,556.8350
Set 1/2" bar NW corner Pawnee and I-135
1. 19.9' SE face power pole
2. 44' S N cur line Pawnee Avenue
3. 28' E W curb line I-135 Ramp
4. 31' W NE corner steel pipe guard rail gas regulator station

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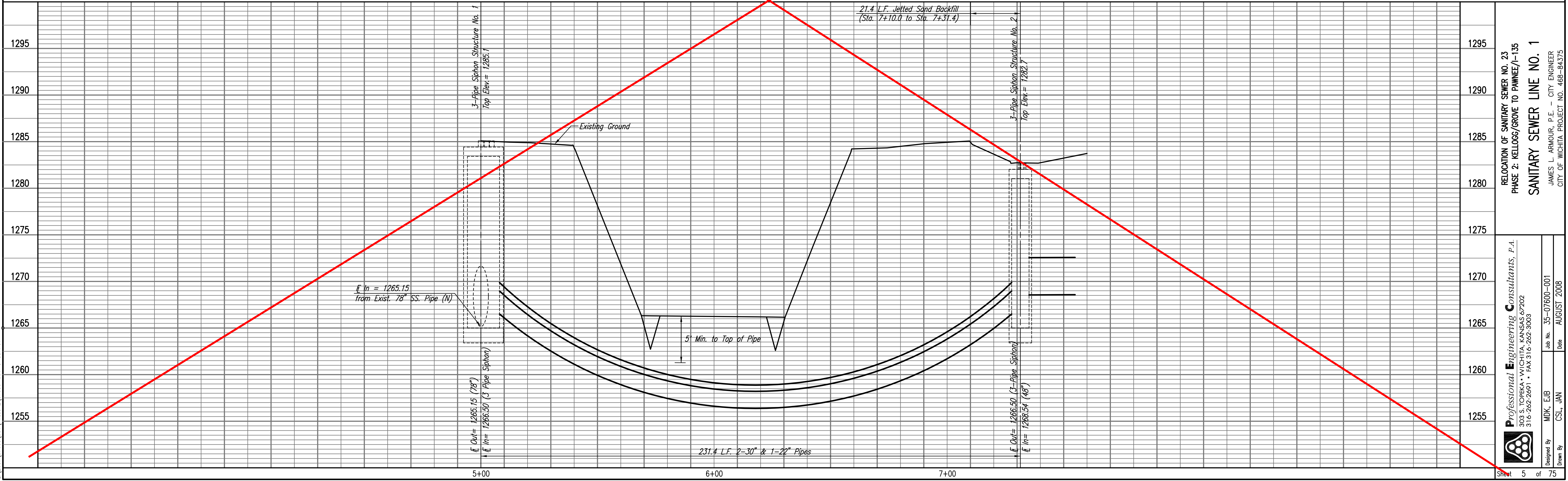
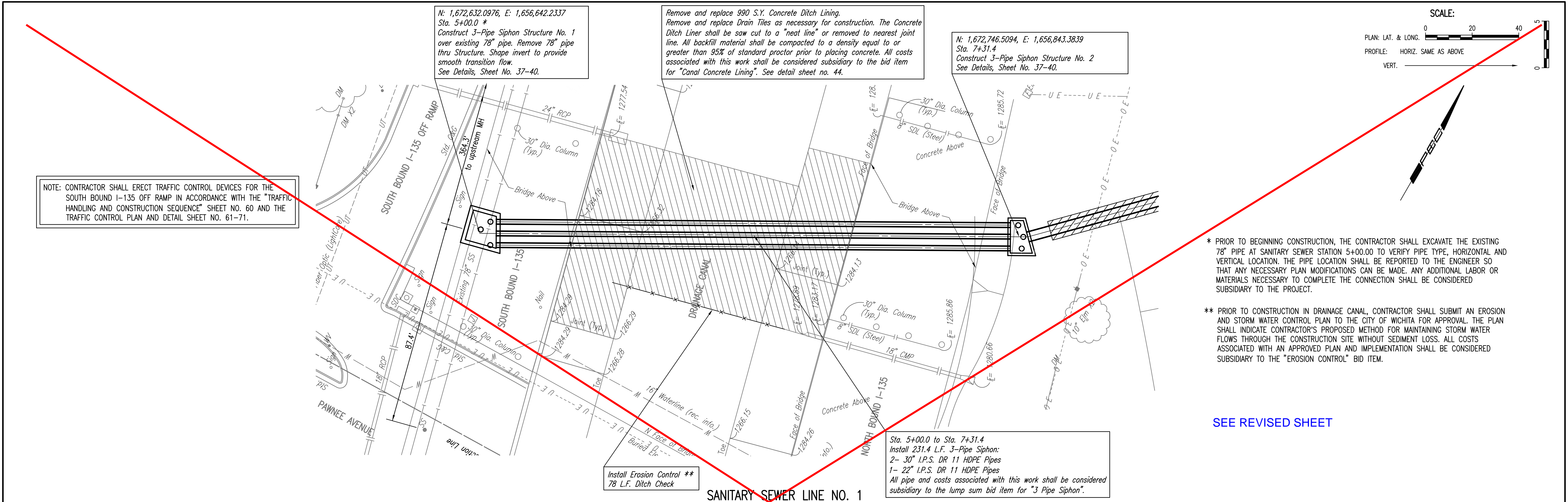


No.	Revision	By	Date
RELOCATION OF SANITARY SEWER NO. 23 PHASE 2: KELLOGG/GROVE TO PAWNEE/I-135 HORIZONTAL AND VERTICAL CONTROL JAMES L. ARMOUR, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 468-84375			
Professional Engineering Consultants, P.A. 303 S. TOPEKA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003			
Designed by	MDK, EJB	Job No.	35-07600-001
Drawn by	CSL, JAN	Date	AUGUST 2008
			Sht. 4 of 75

PLAN	CHECKED	BY	DATE
	CHECKED		

PROFILE	CHECKED	BY	DATE
	CHECKED		

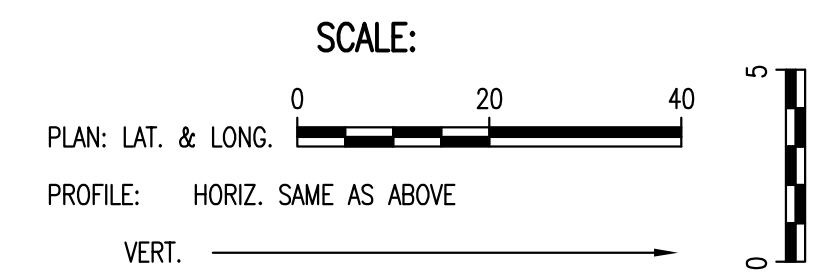
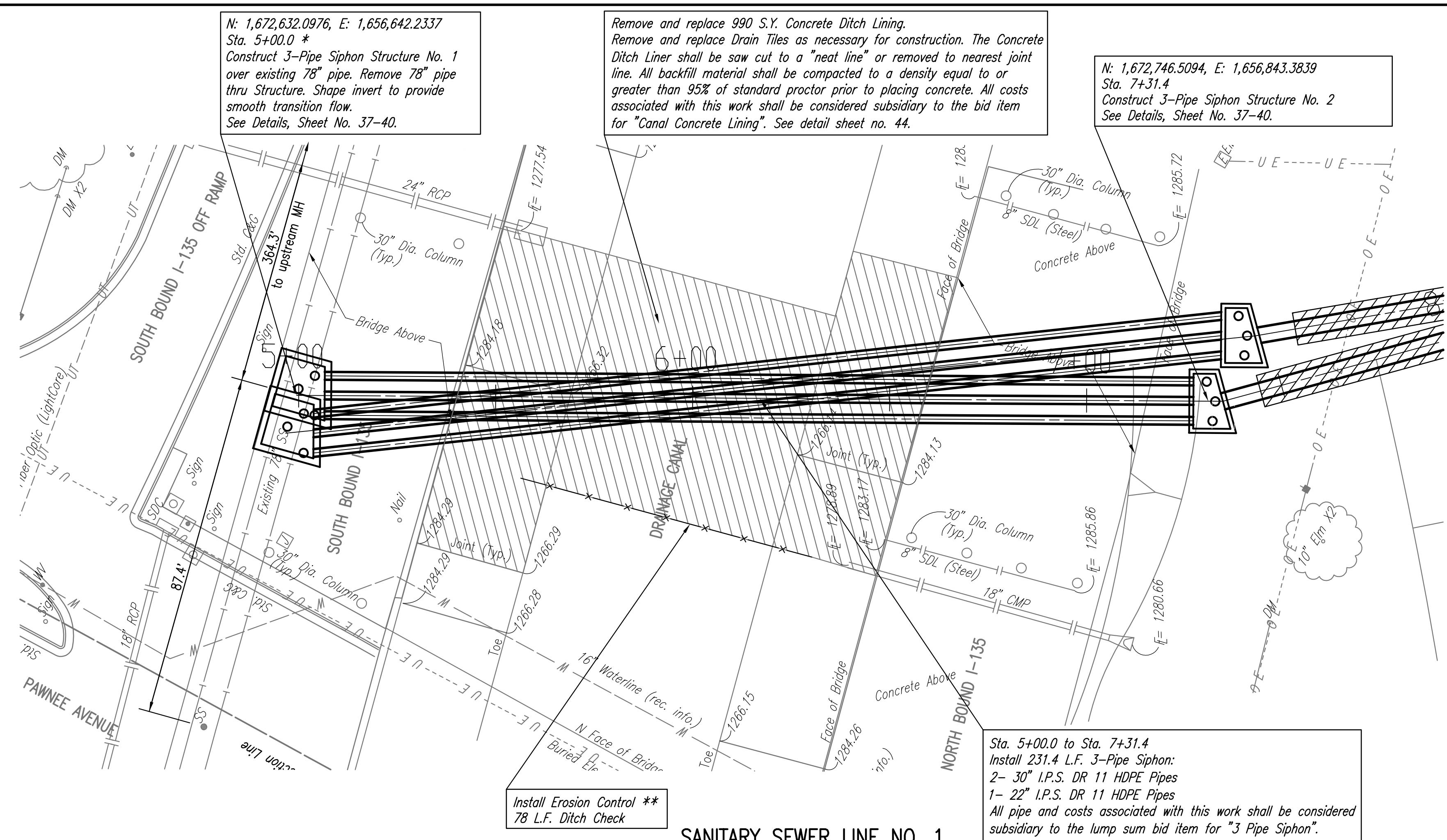
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 03-09-2010 11:59:40 AM by: CSI



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PROFILE	CHECKED	DATE
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NOTE: CONTRACTOR SHALL ERECT TRAFFIC CONTROL DEVICES FOR THE SOUTH BOUND I-135 OFF RAMP IN ACCORDANCE WITH THE "TRAFFIC HANDLING AND CONSTRUCTION SEQUENCE" SHEET NO. 60 AND THE TRAFFIC CONTROL PLAN AND DETAIL SHEET NO. 61-71.

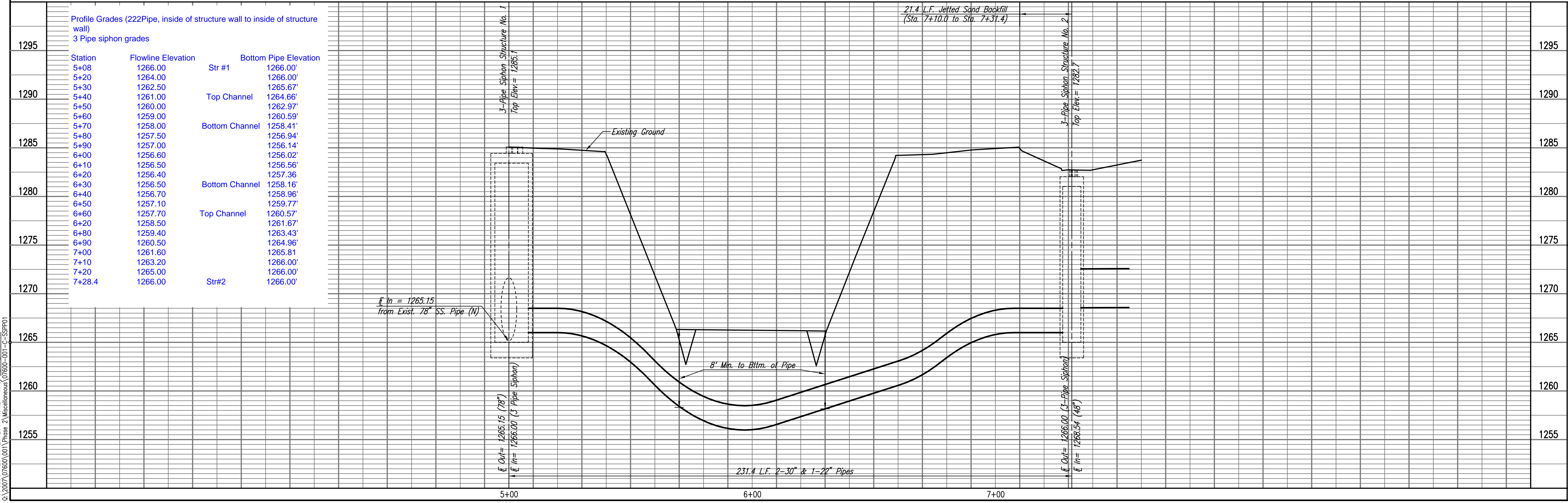


* PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING 78" PIPE AT SANITARY SEWER STATION 5+00.00 TO VERIFY PIPE TYPE, HORIZONTAL AND VERTICAL LOCATION. THE PIPE LOCATION SHALL BE REPORTED TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY TO COMPLETE THE CONNECTION SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

** PRIOR TO CONSTRUCTION IN DRAINAGE CANAL, CONTRACTOR SHALL SUBMIT AN EROSION AND STORM WATER CONTROL PLAN TO THE CITY OF WICHITA FOR APPROVAL. THE PLAN SHALL INDICATE CONTRACTOR'S PROPOSED METHOD FOR MAINTAINING STORM WATER FLOWS THROUGH THE CONSTRUCTION SITE WITHOUT SEDIMENT LOSS. ALL COSTS ASSOCIATED WITH AN APPROVED PLAN AND IMPLEMENTATION SHALL BE CONSIDERED SUBSIDIARY TO THE "EROSION CONTROL" BID ITEM.

REVISED SHEET

SANITARY SEWER LINE NO. 1



Drawn: 01-26-2011 4:50:15 PM by JLM
 Plot Scale: 1/20 01-26-2011 4:51:21 PM by JEFF L. MURPHY
 0:\2007\07600\001\Phase 2\Miscellaneous\07600-001-C-SSPP01

Professional Engineering Consultants, P.A.
 803 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

Designed By: MDK, EJB
 Drawn By: CSL, JAN

Job No. 35-07600-001
 Date: AUGUST 2008

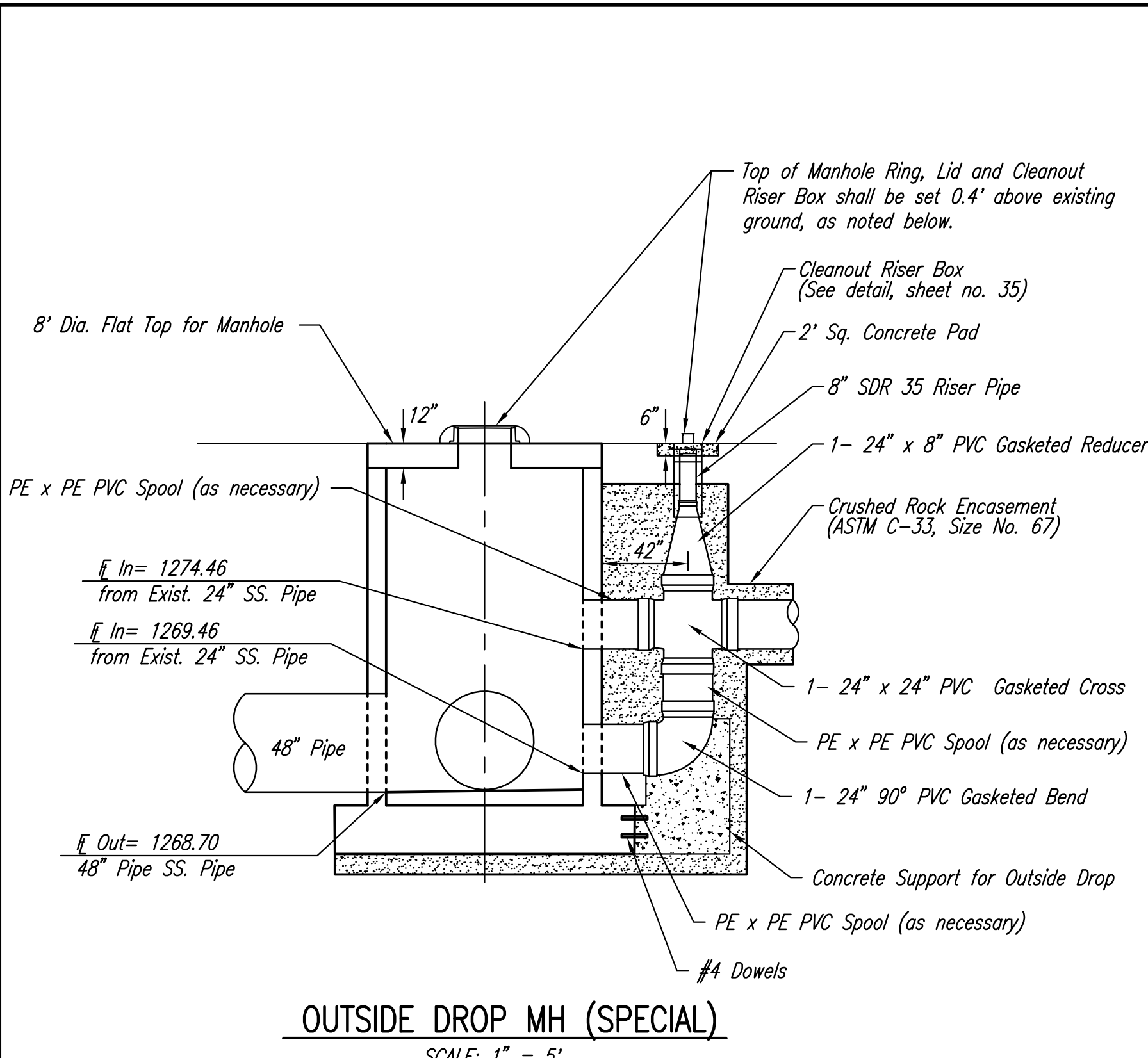
RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PAWNEE/I-135
 SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Sheet 5 of 75

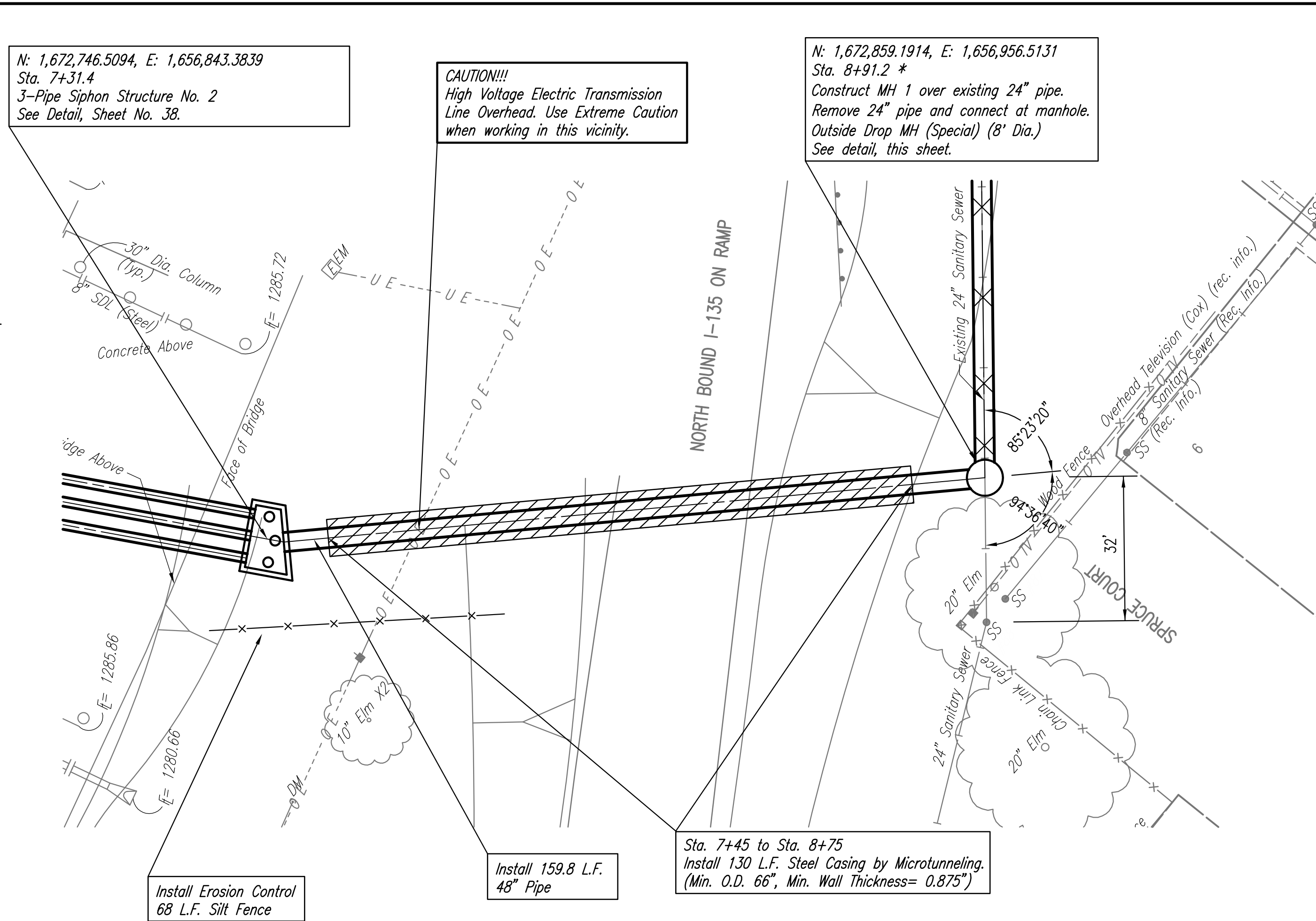
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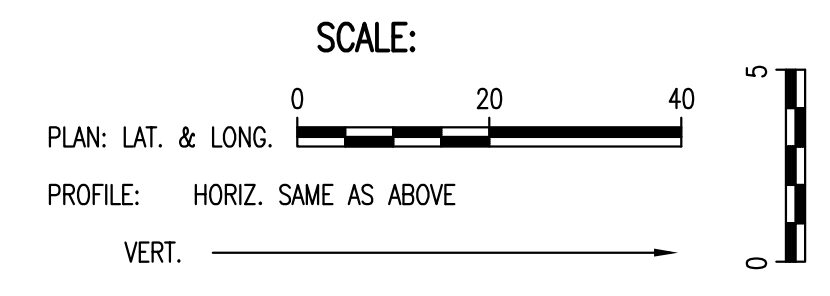
OUTSIDE DROP MH (SPECIAL)
 SCALE: 1" = 5'



N: 1,672,746.5094, E: 1,656,843.3839
 Sta. 7+31.4
 3-Pipe Siphon Structure No. 2
 See Detail, Sheet No. 38.

CAUTION!!!
 High Voltage Electric Transmission
 Line Overhead. Use Extreme Caution
 when working in this vicinity.

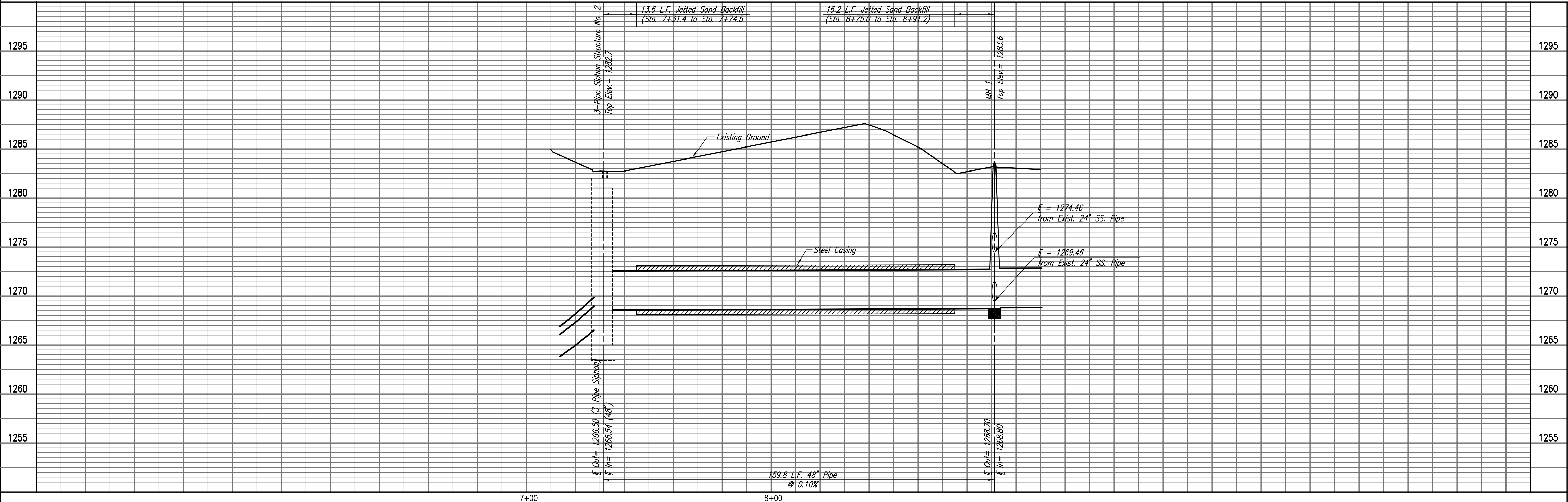
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 Sta. 8+91.2 *
 Construct MH 1 over existing 24\"/>



* PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING 24\"/>

⌊ - Denotes Pipe Plug to be installed.
 (Subsidiary to "Site Clearing")
 X - Denotes 24\"/>

SANITARY SEWER LINE NO. 1



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

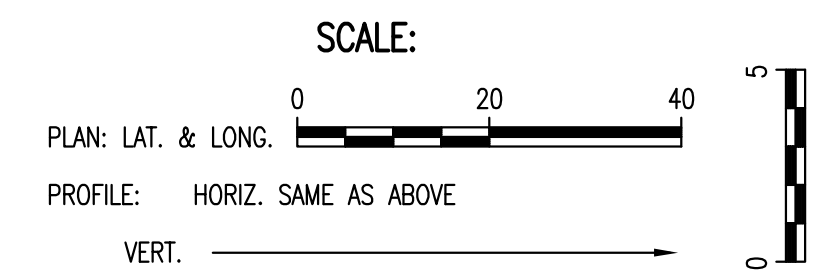
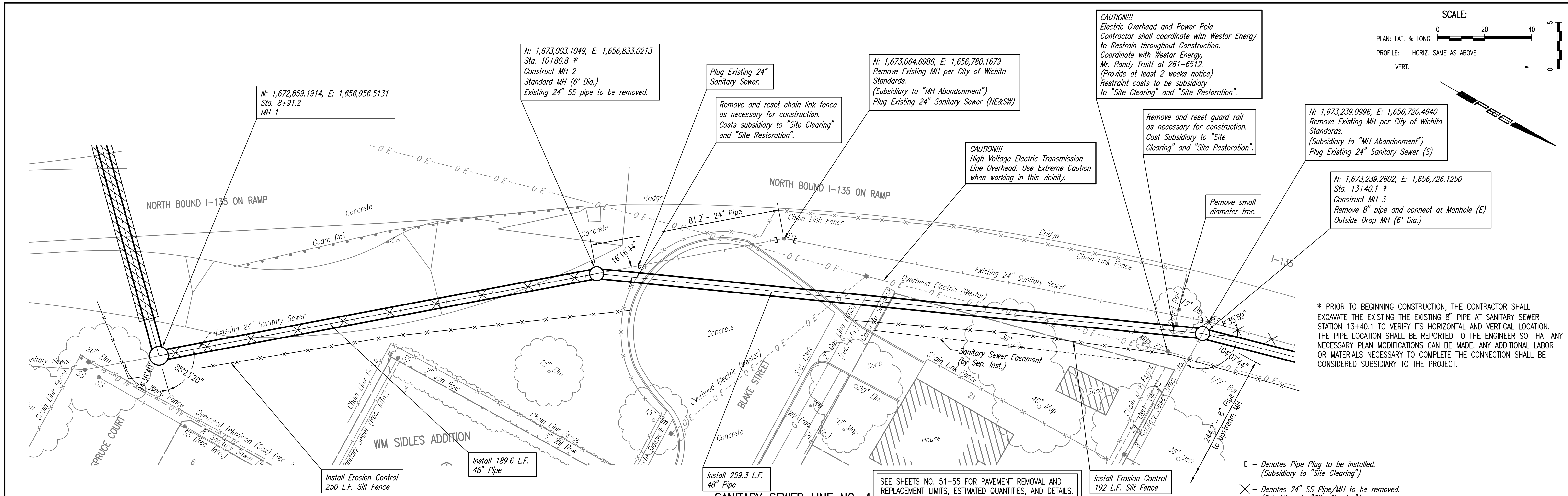
Designed By: MDK, EJB
 Drawn By: CSL, JAN
 Job No.: 35-07600-001
 Date: AUGUST 2008

Sheet 6 of 75

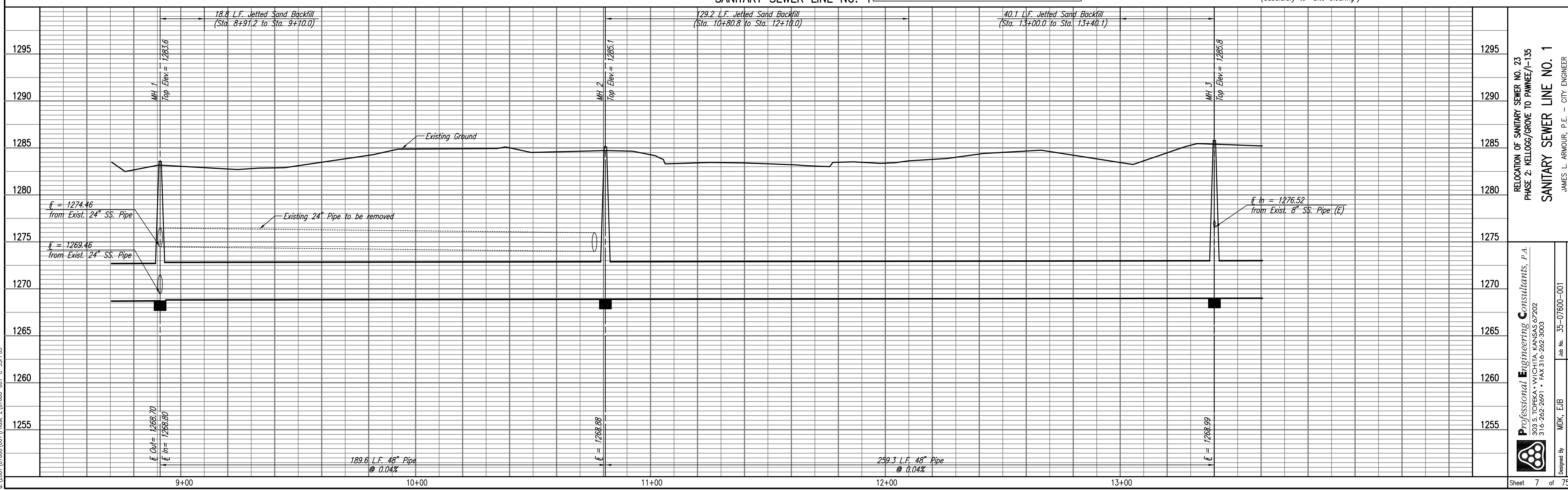
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 03/09/2010 07:00:00 Phase 2/07600-001-C-SSPP03



* PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING 8" PIPE AT SANITARY SEWER STATION 13+40.1 TO VERIFY ITS HORIZONTAL AND VERTICAL LOCATION. THE PIPE LOCATION SHALL BE REPORTED TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY TO COMPLETE THE CONNECTION SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANWEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

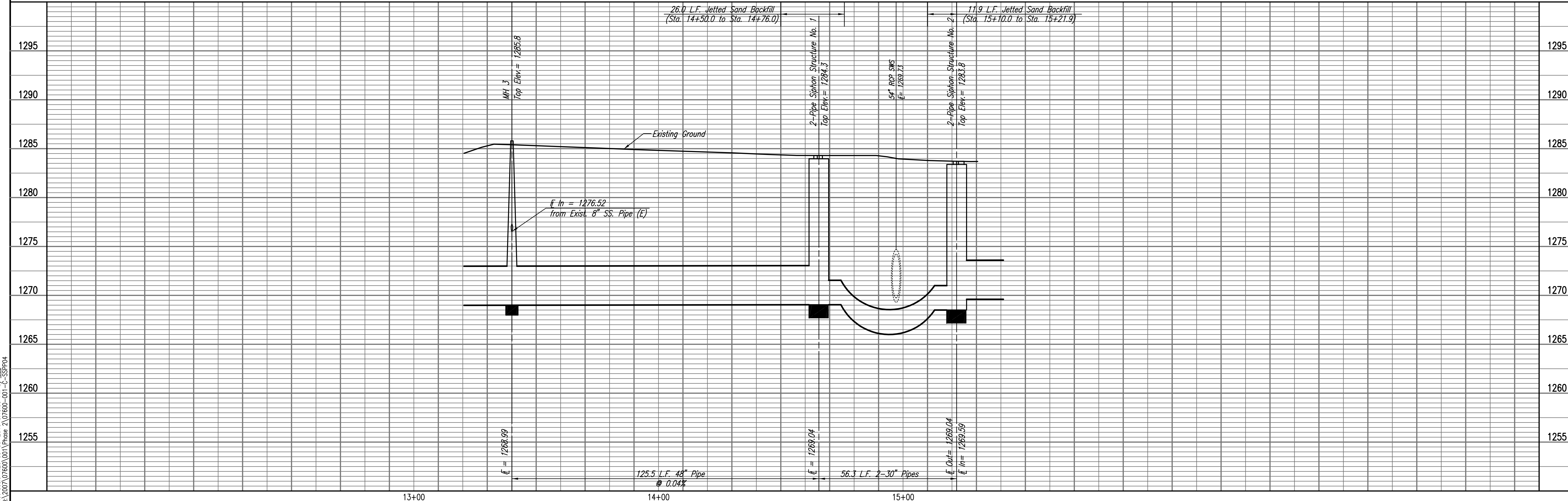
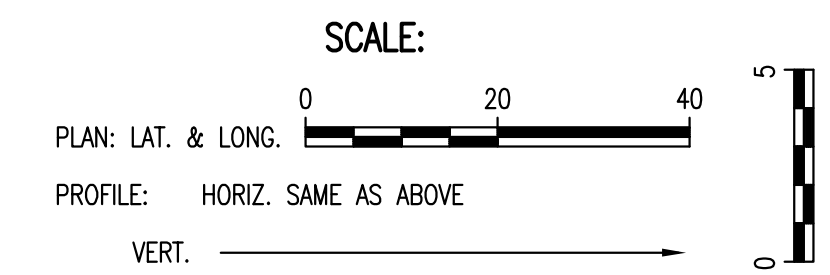
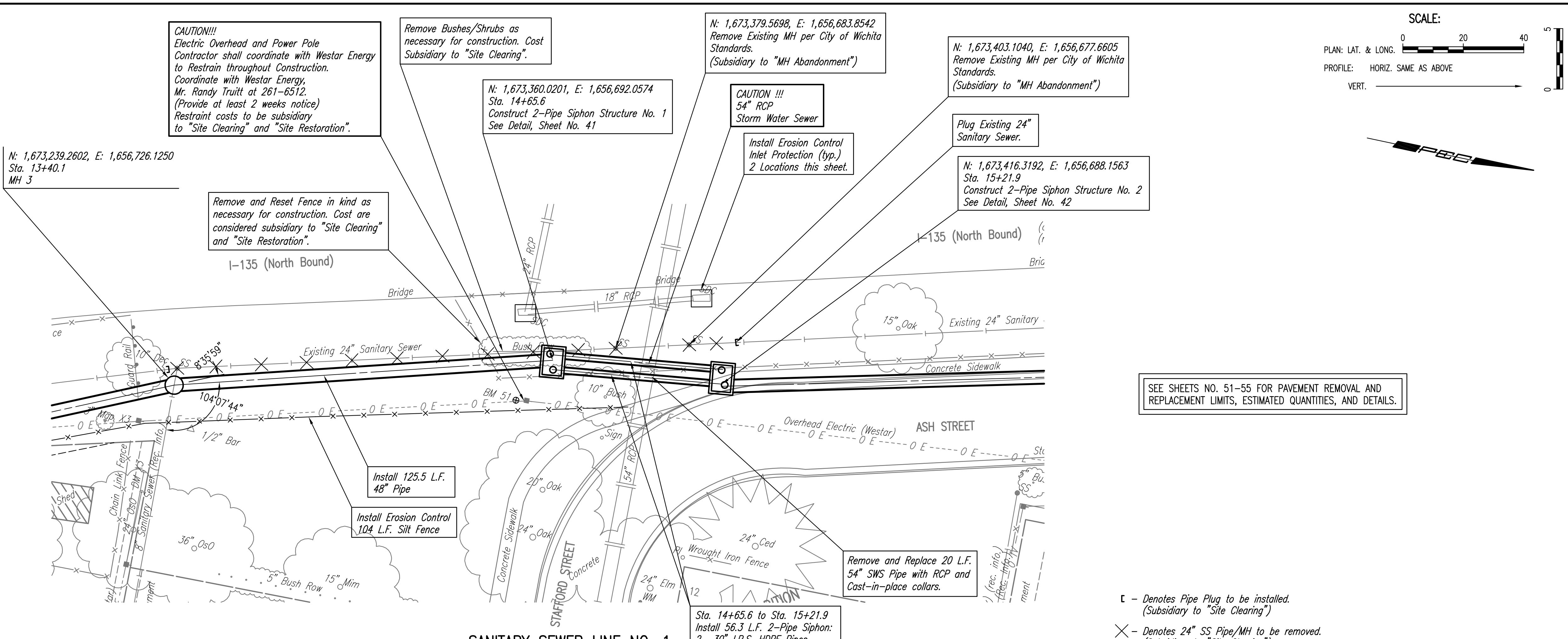
Job No. 35-07600-001 Date AUGUST 2008
 Designed By MDK, EJB Drawn By CSJ, JAN

Sheet 7 of 75

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BY		

Served 03-09-2010 3:40:22 PM by CSL
 Plot Scale 1:20 03-09-2010 3:48:55 PM by CSL
 03/09/2010 07:00:00 Phase 2\07600-01-C-55PP04



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANWEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

Designed By: MDK, EJB
 Drawn By: CSL, JAN

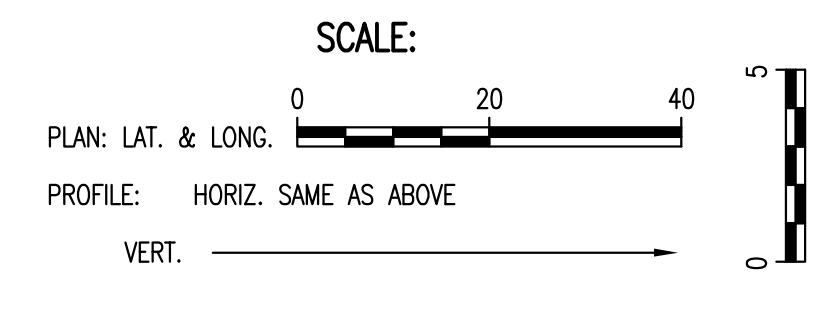
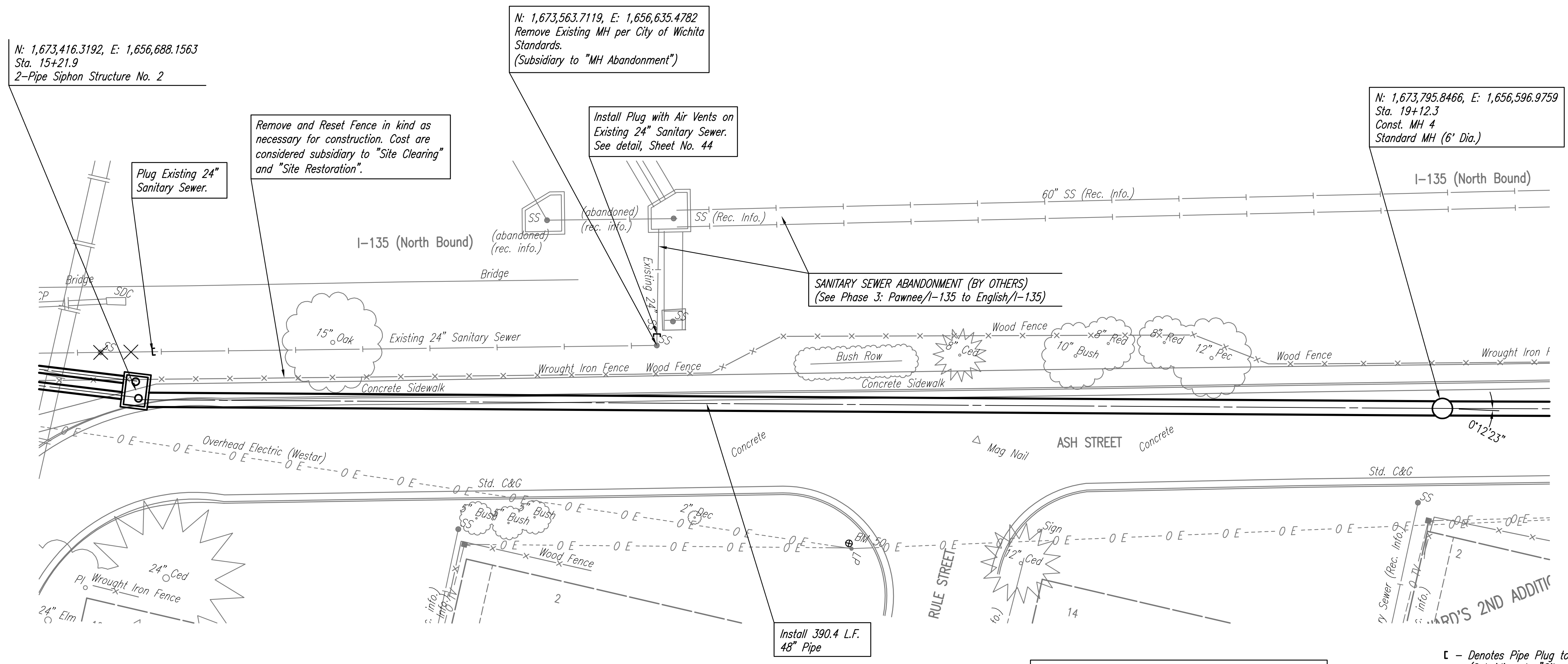
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 Date AUGUST 2008

Sheet 8 of 75

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DATE		

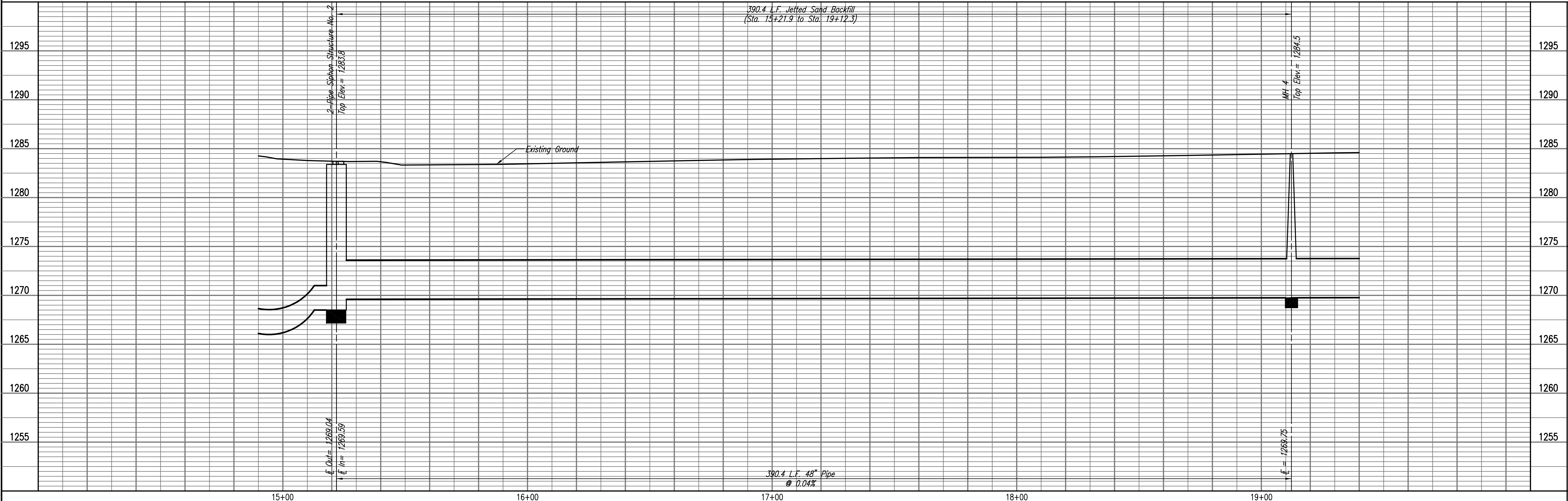
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SANITARY SEWER LINE NO. 1

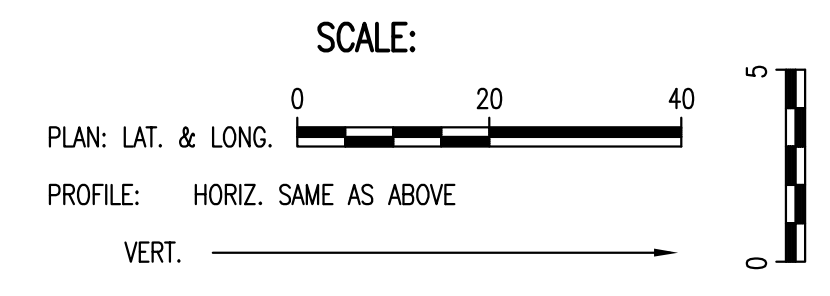
SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.

- - Denotes Pipe Plug to be installed. (Subsidiary to "Site Clearing")
- ✕ - Denotes 24" SS Pipe/MH to be removed. (Subsidiary to "Site Clearing")



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/I-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003
 Job No. 35-07600-001 Date AUGUST 2008
 Designed By MDK, EJB Drawn By CSL, JAN
 Sheet 9 of 75



N: 1,674,256.6201, E: 1,656,483.6008
Sta. 23+86.8
MH 5

N: 1,674,647.2553, E: 1,656,475.4701
Sta. 27+77.6
Const. MH 6
Standard MH (6' Dia.)

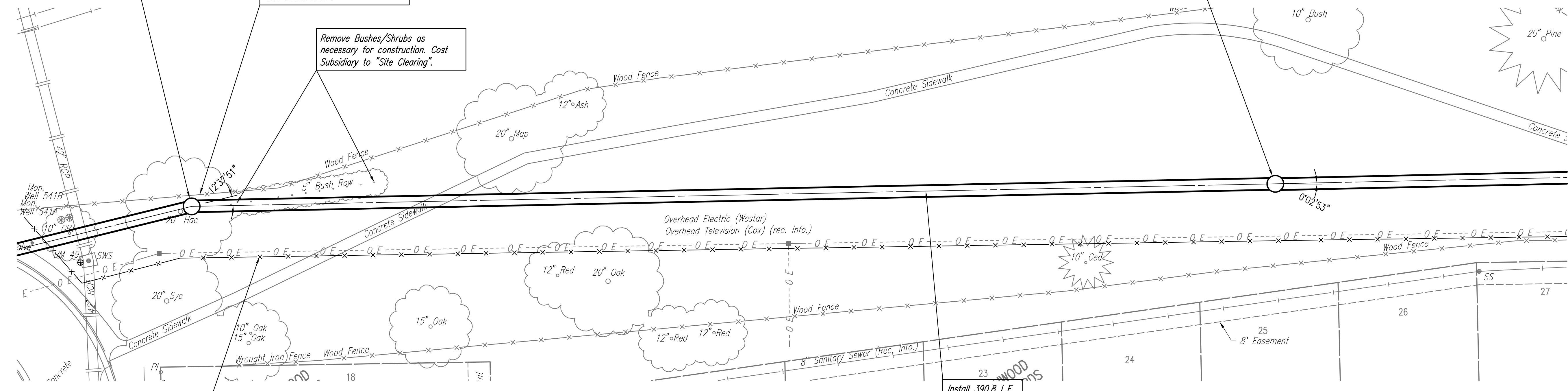
Remove and Reset Fence in kind as necessary for construction. Cost Subsidiary to "Site Clearing" and "Site Restoration".

Remove Buses/Shrubs as necessary for construction. Cost Subsidiary to "Site Clearing".

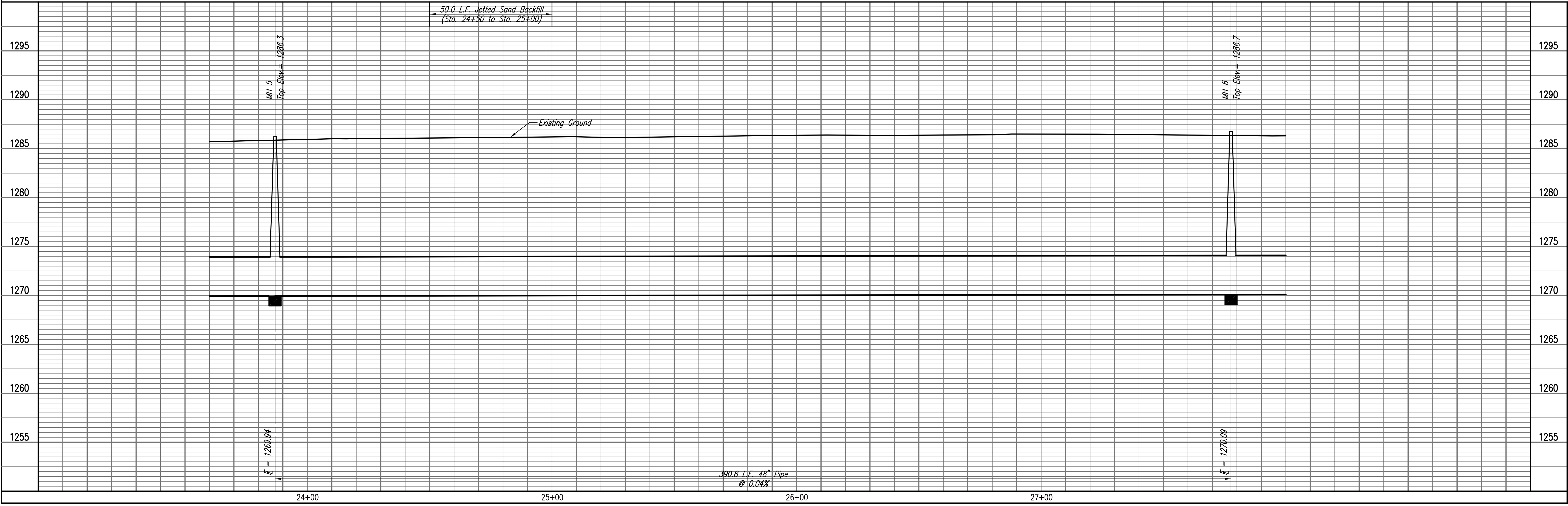
Install Erosion Control 405 L.F. Silt Fence

Install 390.8 L.F. 48" Pipe

SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.



SANITARY SEWER LINE NO. 1



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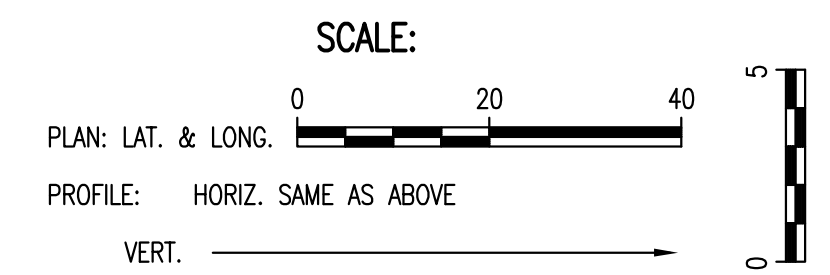
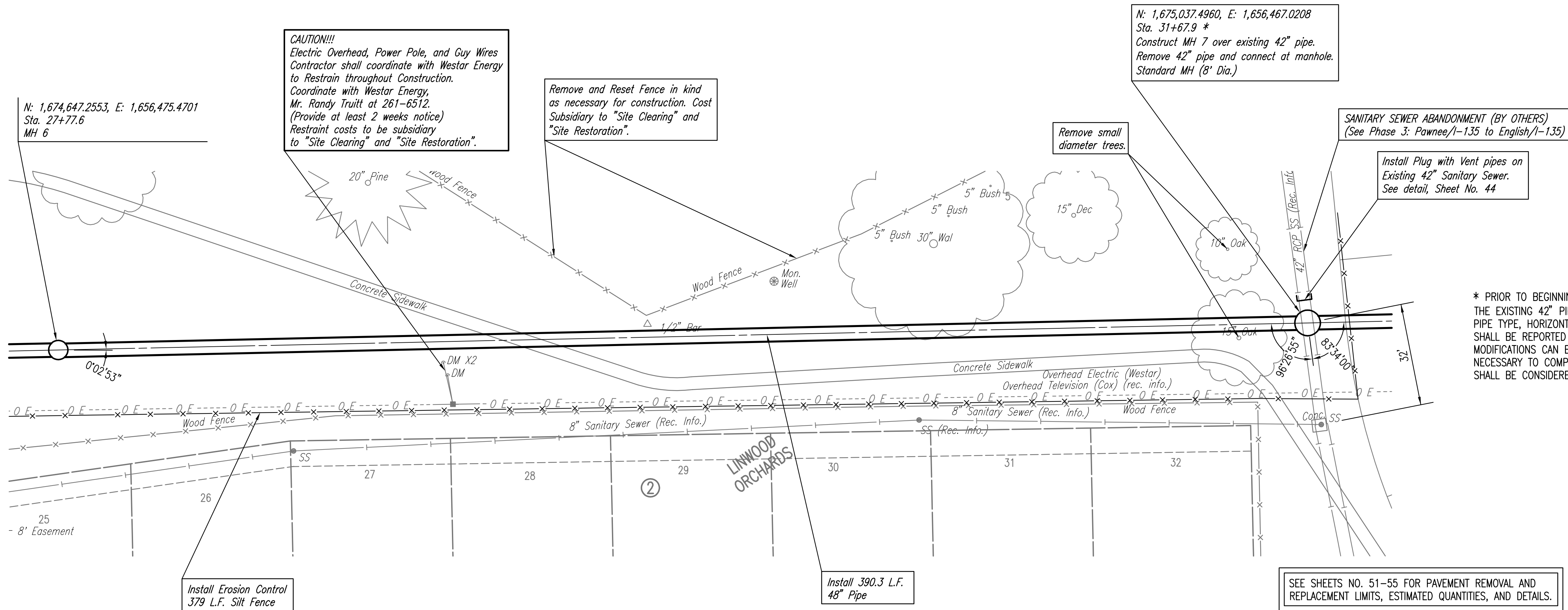
RELOCATION OF SANITARY SEWER NO. 23
PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
SANITARY SEWER LINE NO. 1
JAMES L. ARMOUR, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
603 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003
Job No. 35-07600-001 Date AUGUST 2008
Designed By MDK, EJB
Drawn By CSL, JAN

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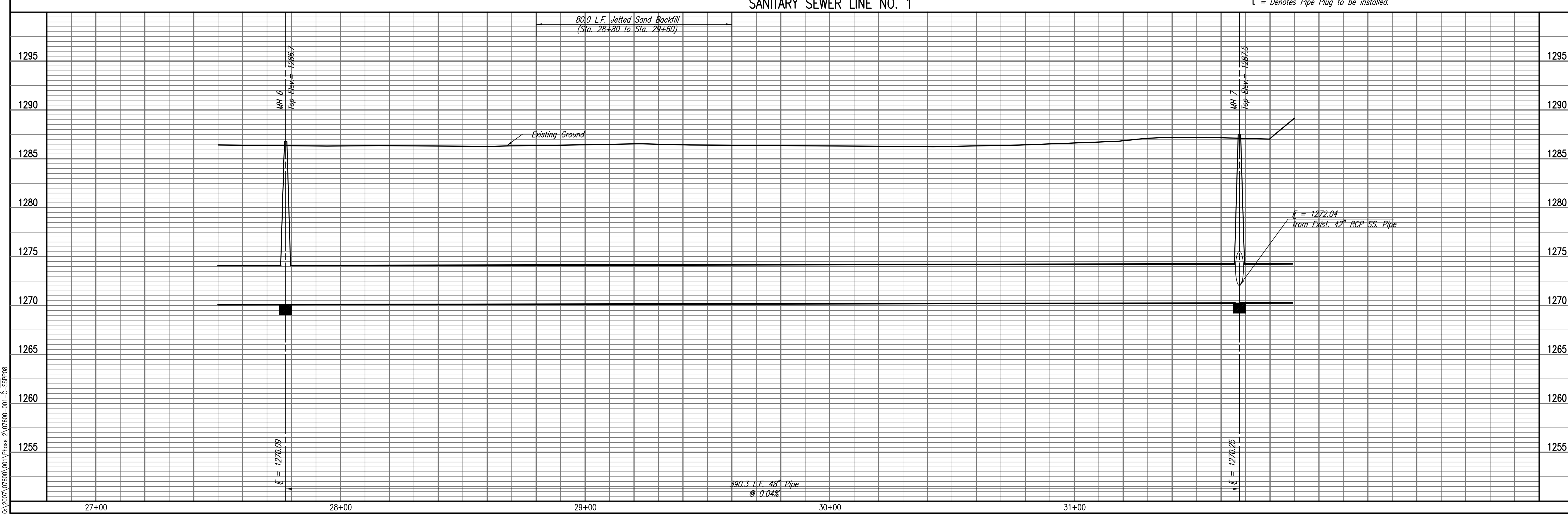
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 03/09/2010 09:00:00 Phase 2\07600-01-C-55PP08



* PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE
 THE EXISTING 42" PIPE AT SANITARY SEWER STATION 31+67.9 TO VERIFY
 PIPE TYPE, HORIZONTAL AND VERTICAL LOCATION. THE PIPE LOCATION
 SHALL BE REPORTED TO THE ENGINEER SO THAT ANY NECESSARY PLAN
 MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS
 NECESSARY TO COMPLETE THE CONNECTION, INCLUDING BYPASS PUMPING,
 SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

SANITARY SEWER LINE NO. 1

⊔ = Denotes Pipe Plug to be installed.



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PAWNEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

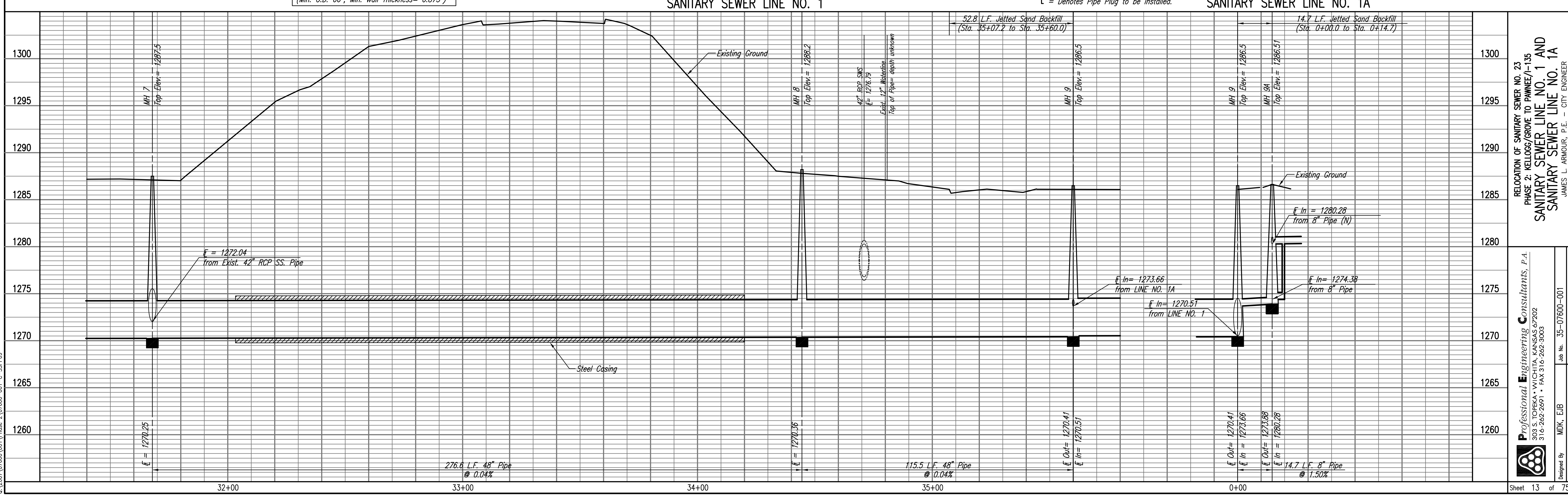
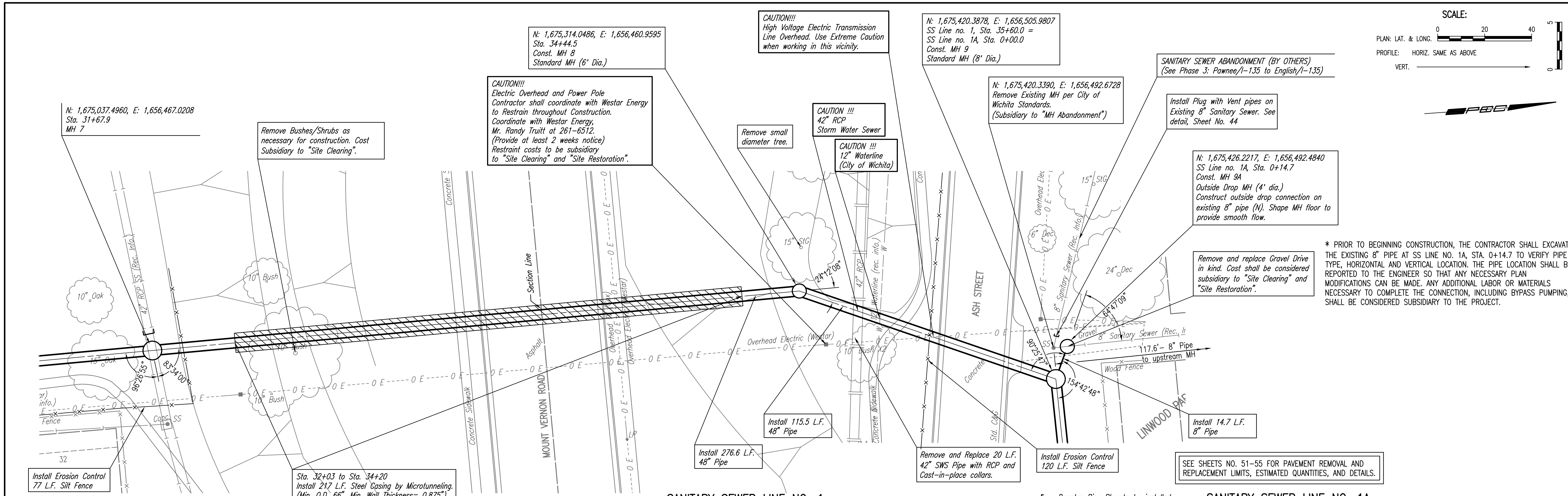
Designed By: MDK, EJB
 Drawn By: CSL, JAN
 Job No.: 35-07600-001
 Date: AUGUST 2008

Sheet 12 of 75

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* PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING 8" PIPE AT SS LINE NO. 1A, STA. 0+14.7 TO VERIFY PIPE TYPE, HORIZONTAL AND VERTICAL LOCATION. THE PIPE LOCATION SHALL BE REPORTED TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY TO COMPLETE THE CONNECTION, INCLUDING BYPASS PUMPING, SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.

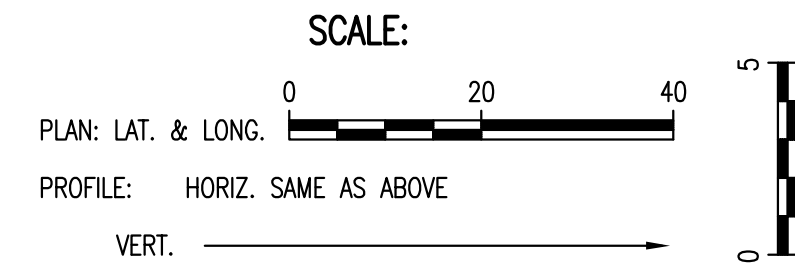
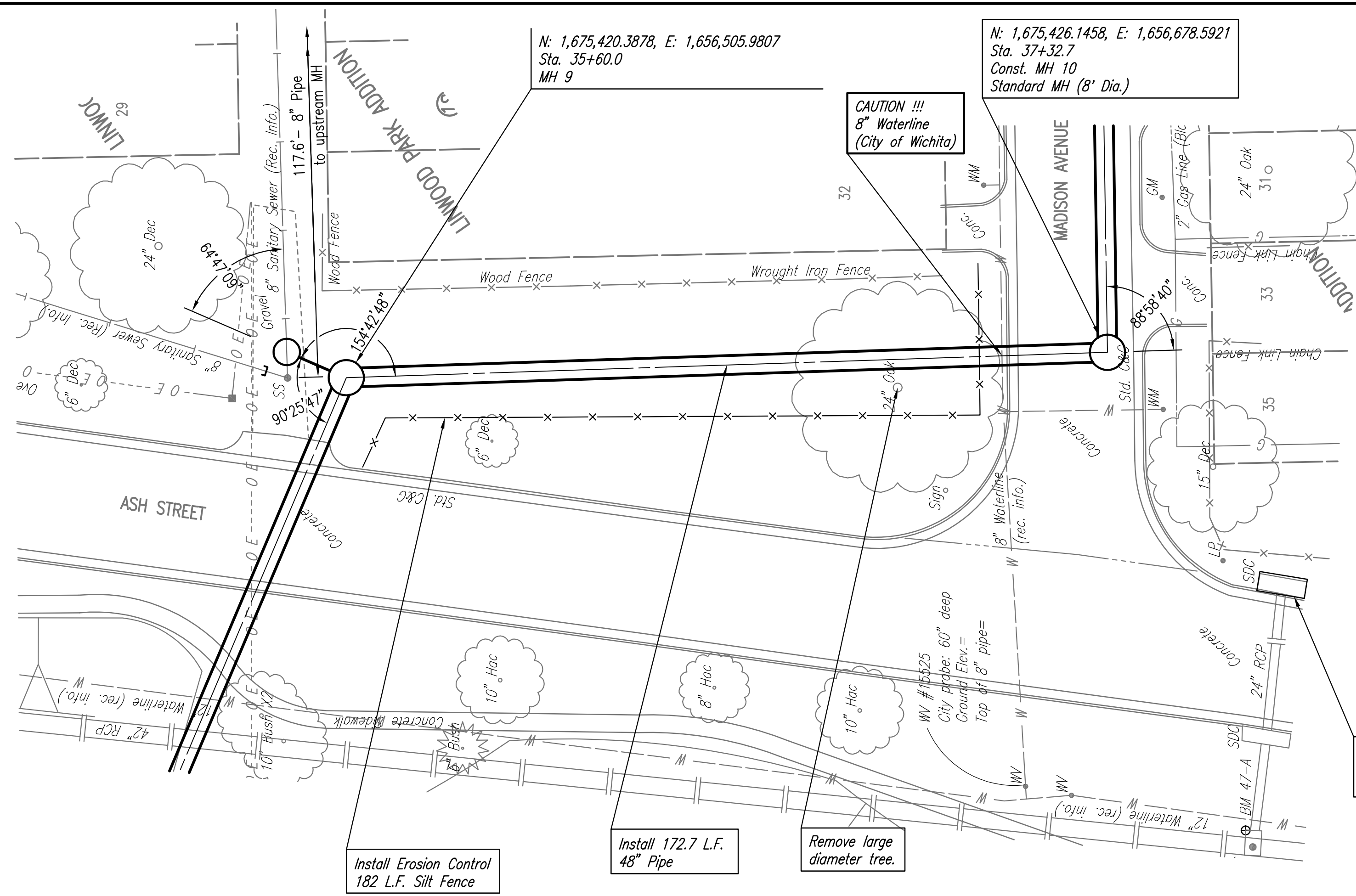
RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
 SANITARY SEWER LINE NO. 1 AND
 SANITARY SEWER LINE NO. 1A
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 903 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316.262.2691 • FAX 316.262.3003
 Designed By: MDK, EJB
 Drawn By: CSL, JAN
 Job No.: 35-07600-001
 Date: AUGUST 2008
 Sheet 13 of 75

PLAN	CHECKED	BY	DATE
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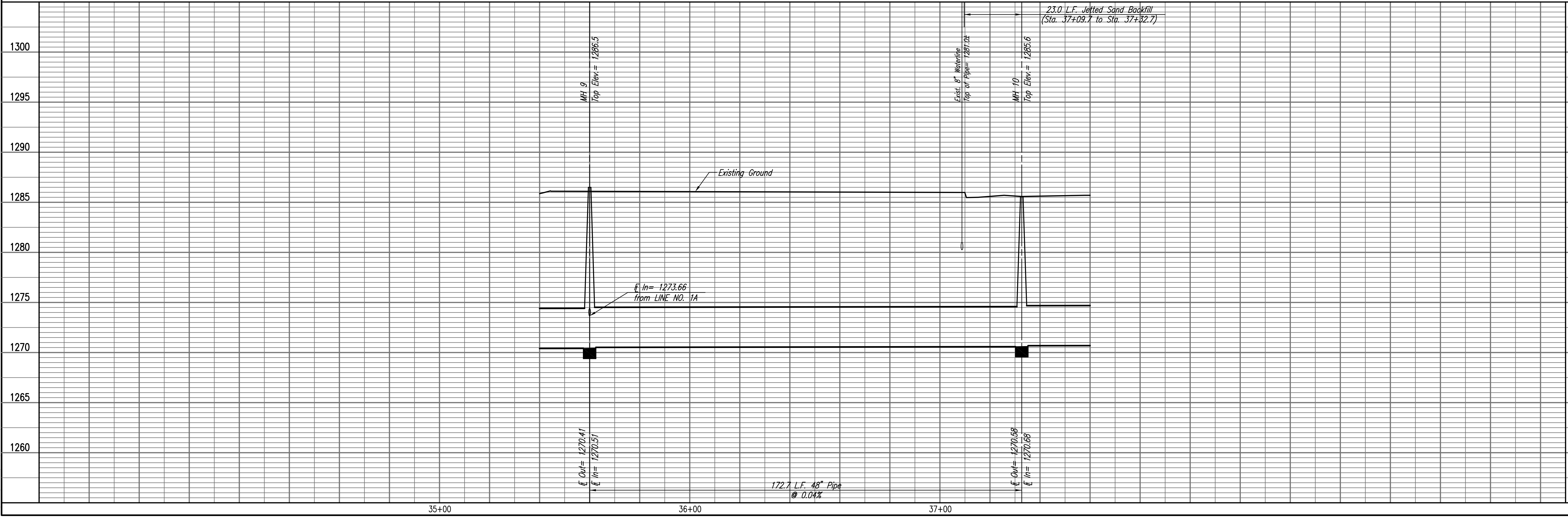


SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.

Install Erosion Control Inlet Protection (typ.) 1 Locations this sheet.

SANITARY SEWER LINE NO. 1

⊔ = Denotes Pipe Plug to be installed.



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

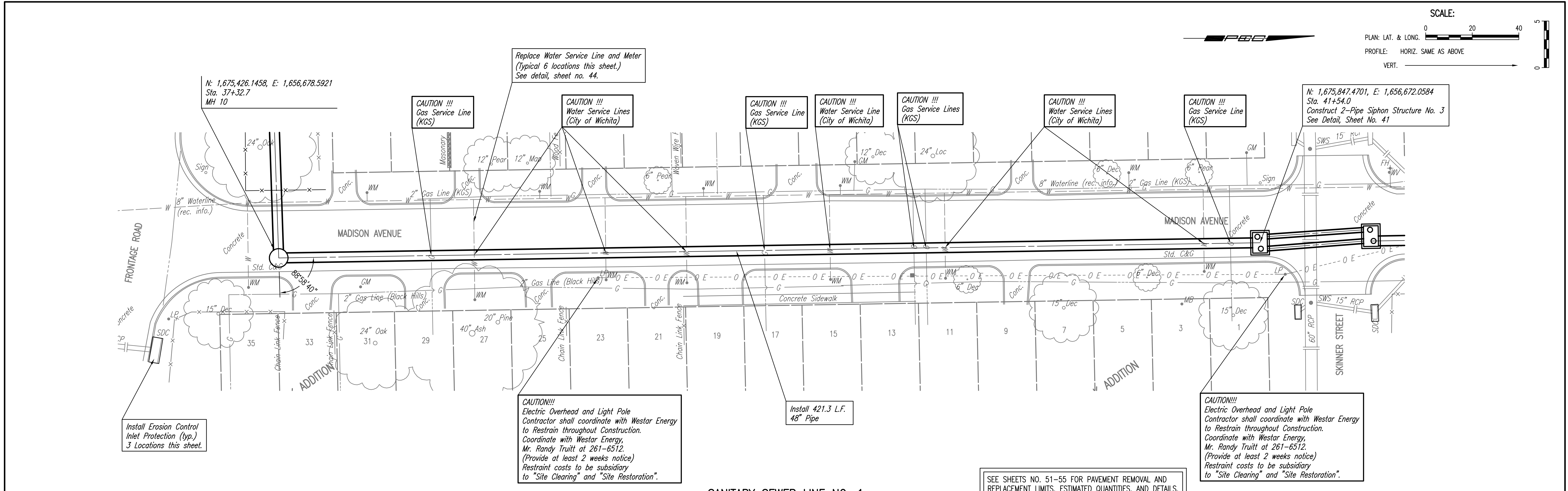
Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

Designed By: MDK, EJB
 Drawn By: CSL, JAN
 Job No.: 35-07600-001
 Date: AUGUST 2008

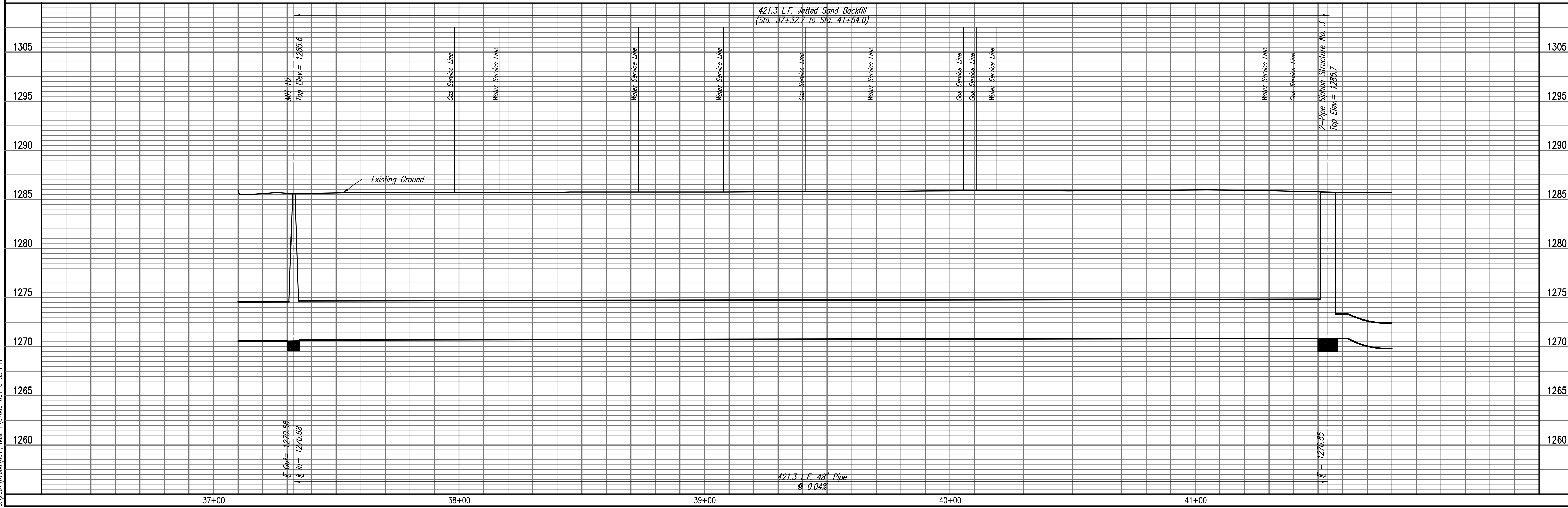
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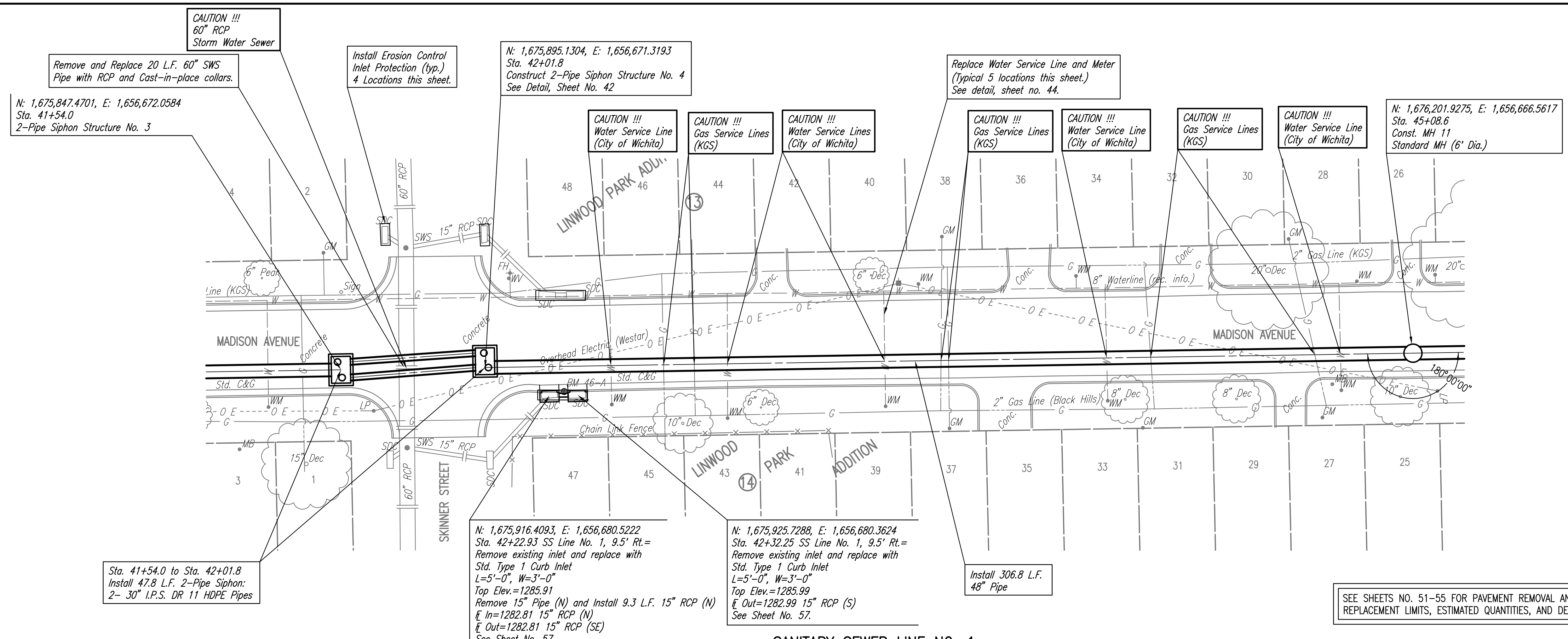
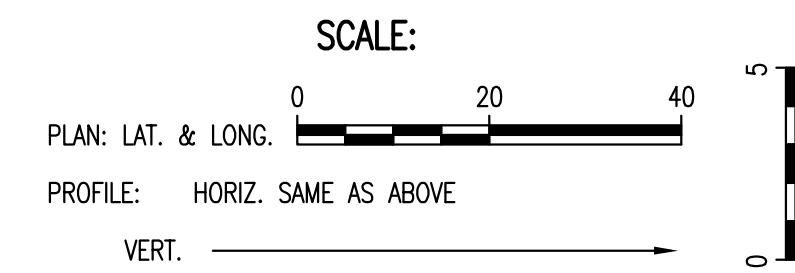
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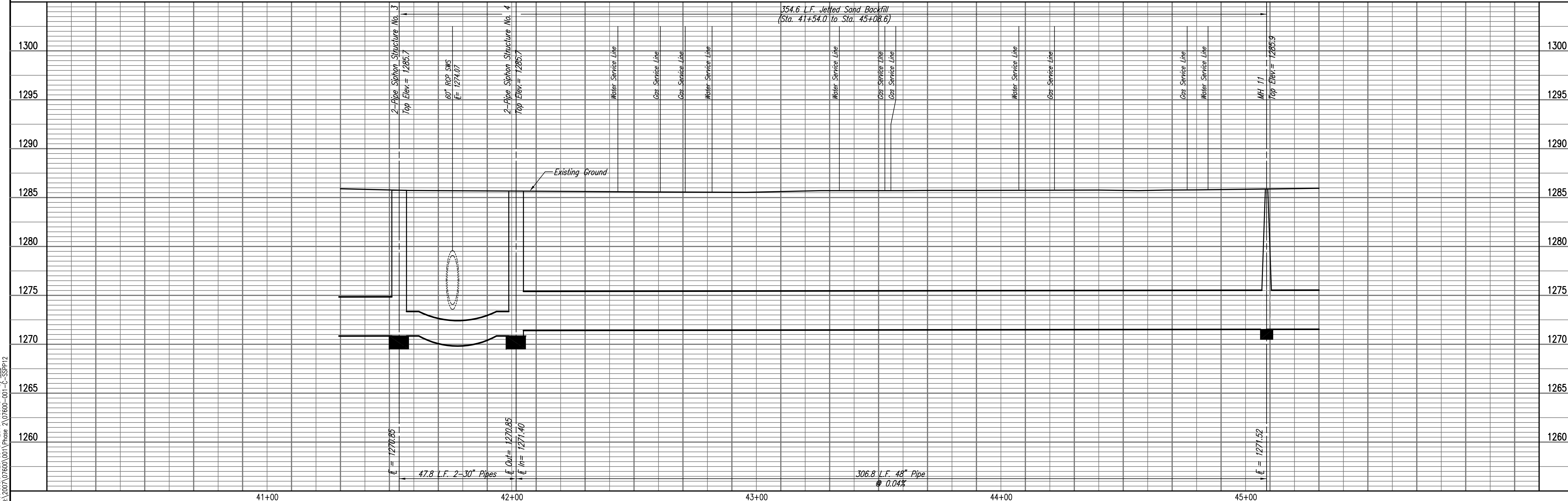
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SANITARY SEWER LINE NO. 1



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANWEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 803 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

Designed By: MDK, EJB
 Drawn By: CSL, JAN

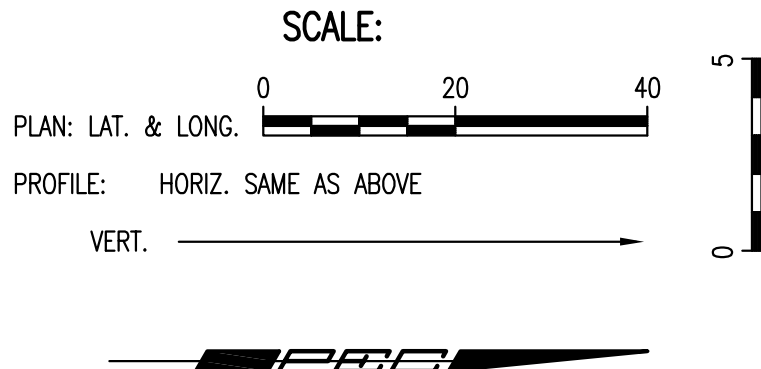
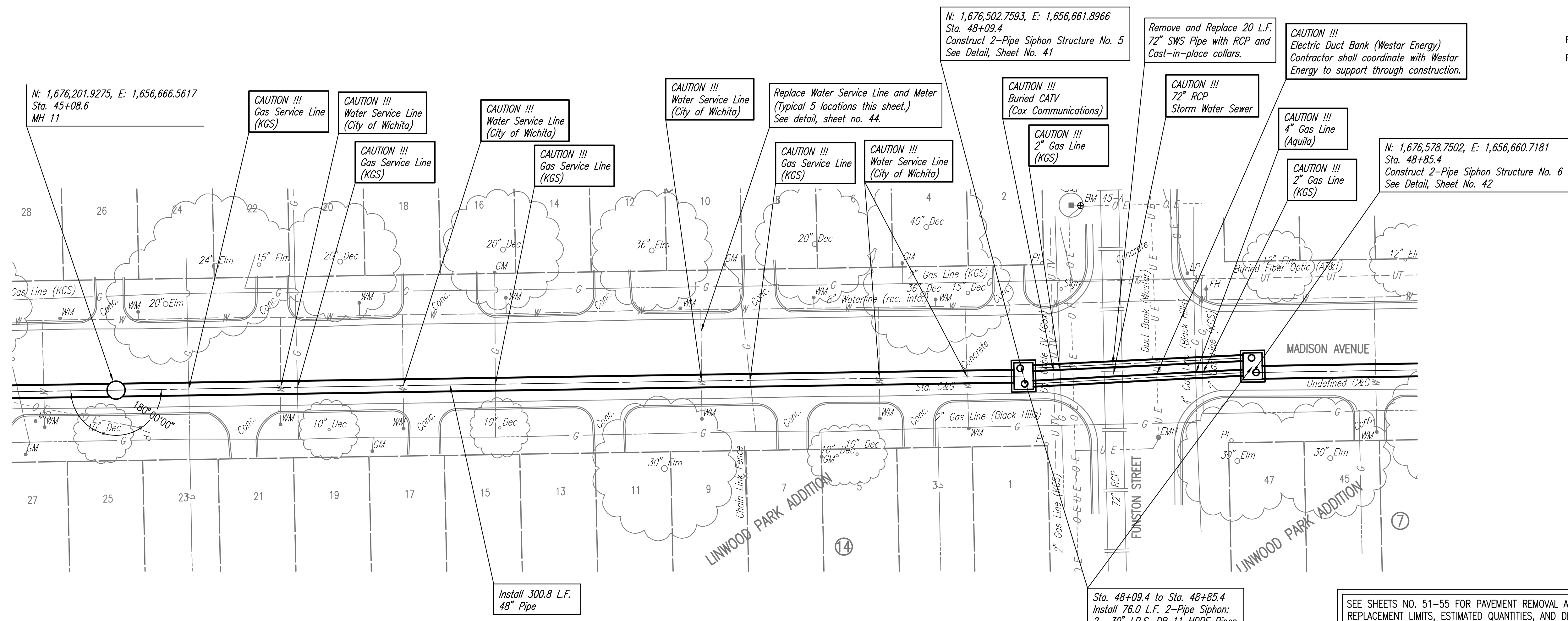
Job No.: 35-07600-001
 Date: AUGUST 2008

Sheet 16 of 75

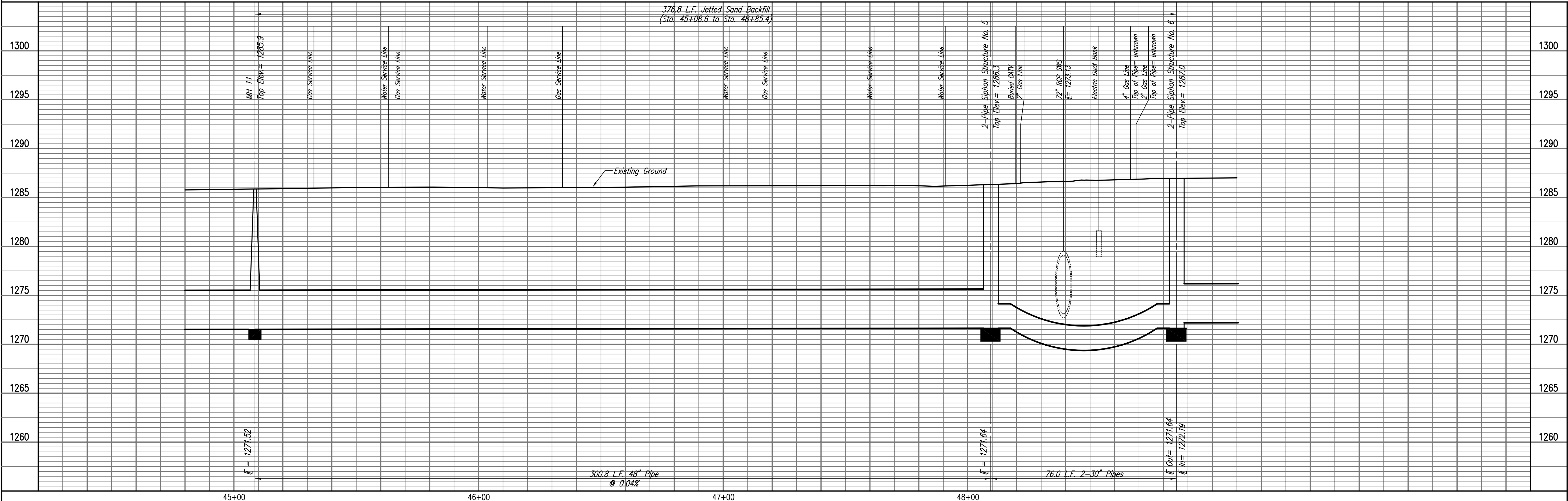
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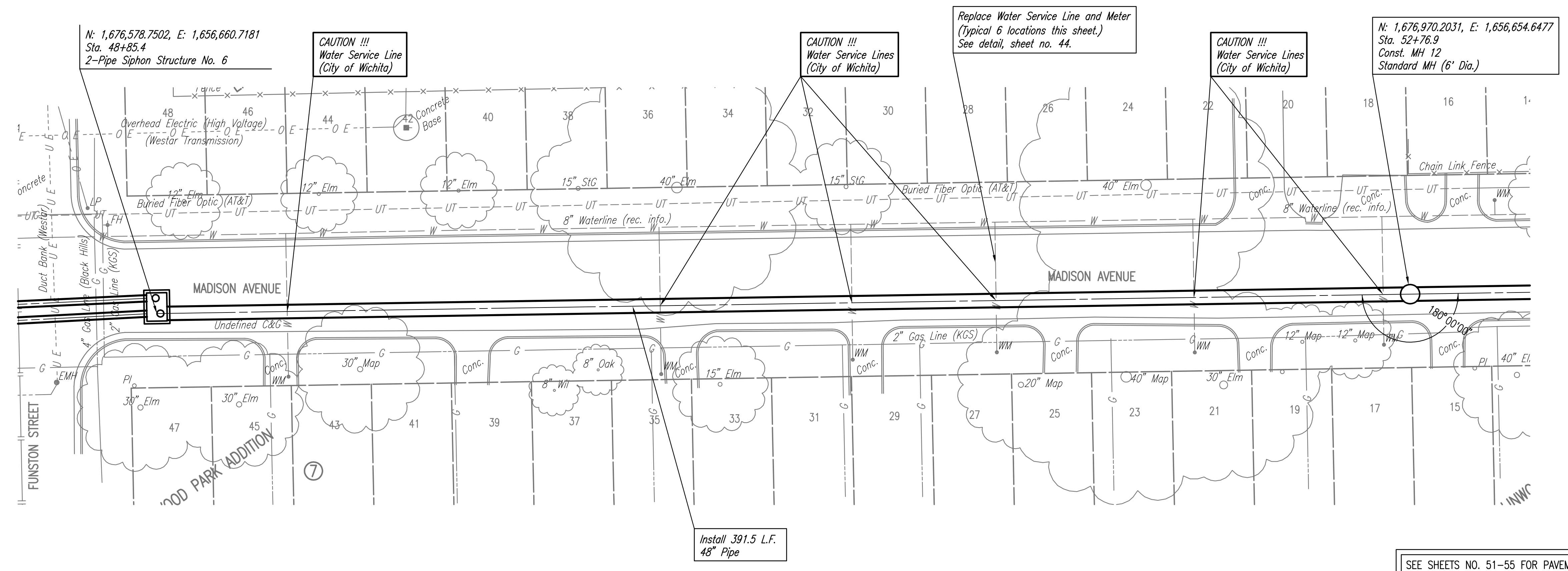
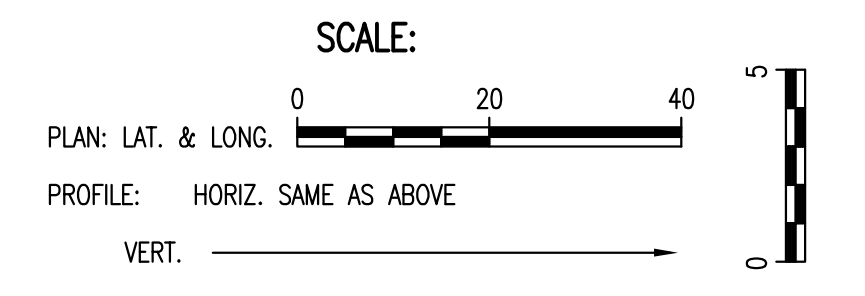


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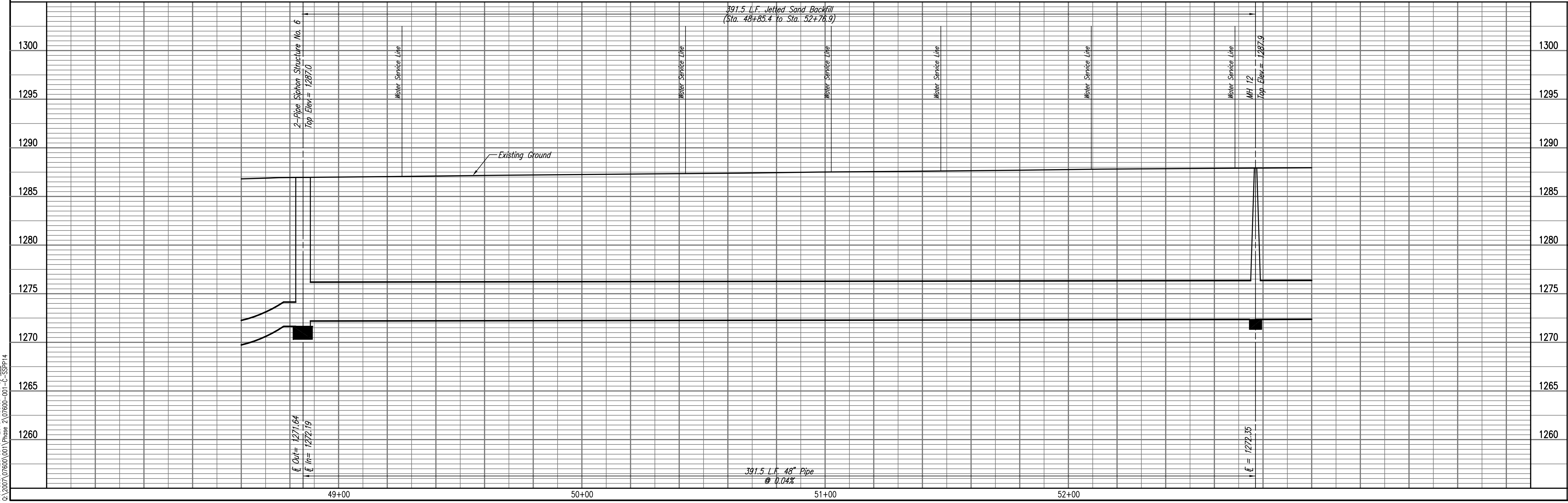
RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANWEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
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 Job No. 35-07600-001 Date AUGUST 2008
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 Drawn By CSL, JAN
 Sheet 17 of 75



SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.

SANITARY SEWER LINE NO. 1



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 06-88-8372

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 Job No.: 35-07600-001
 Date: AUGUST 2008

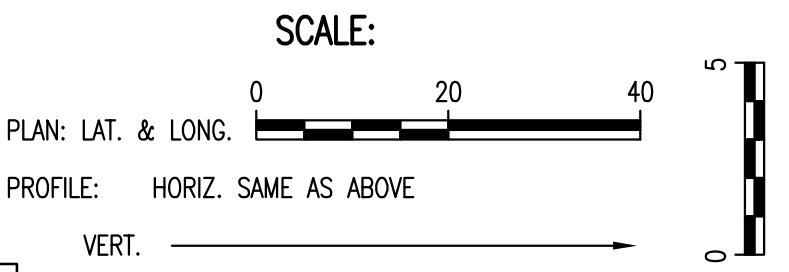
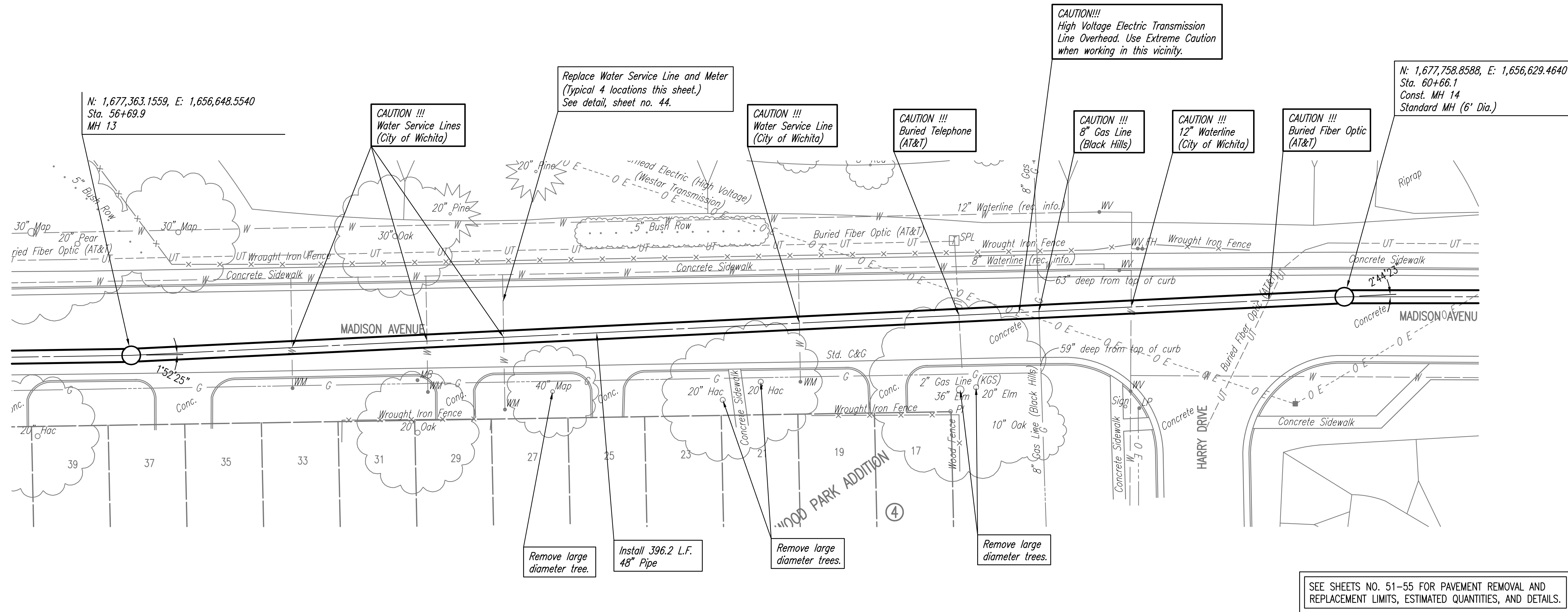
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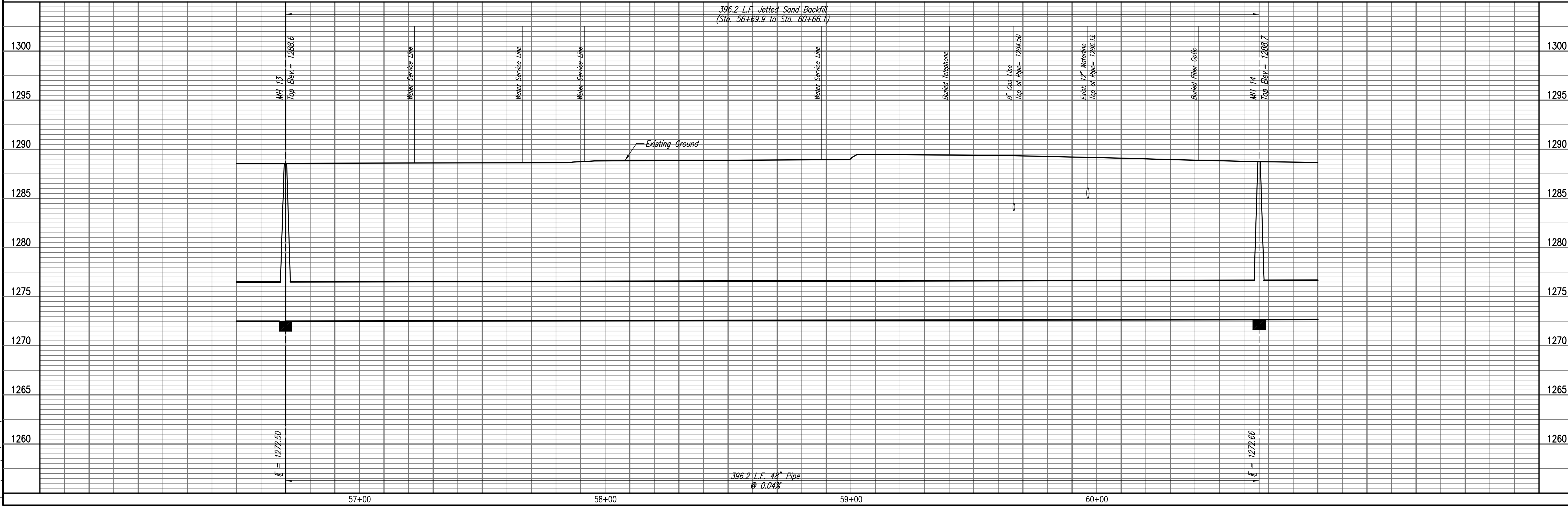
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SANITARY SEWER LINE NO. 1

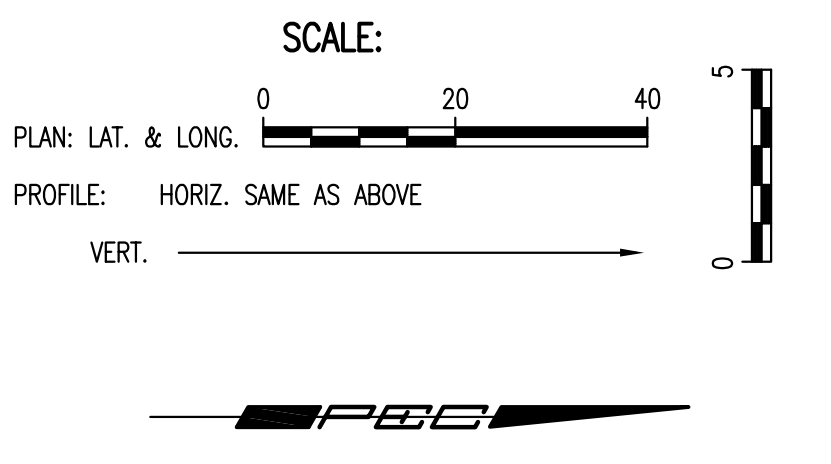
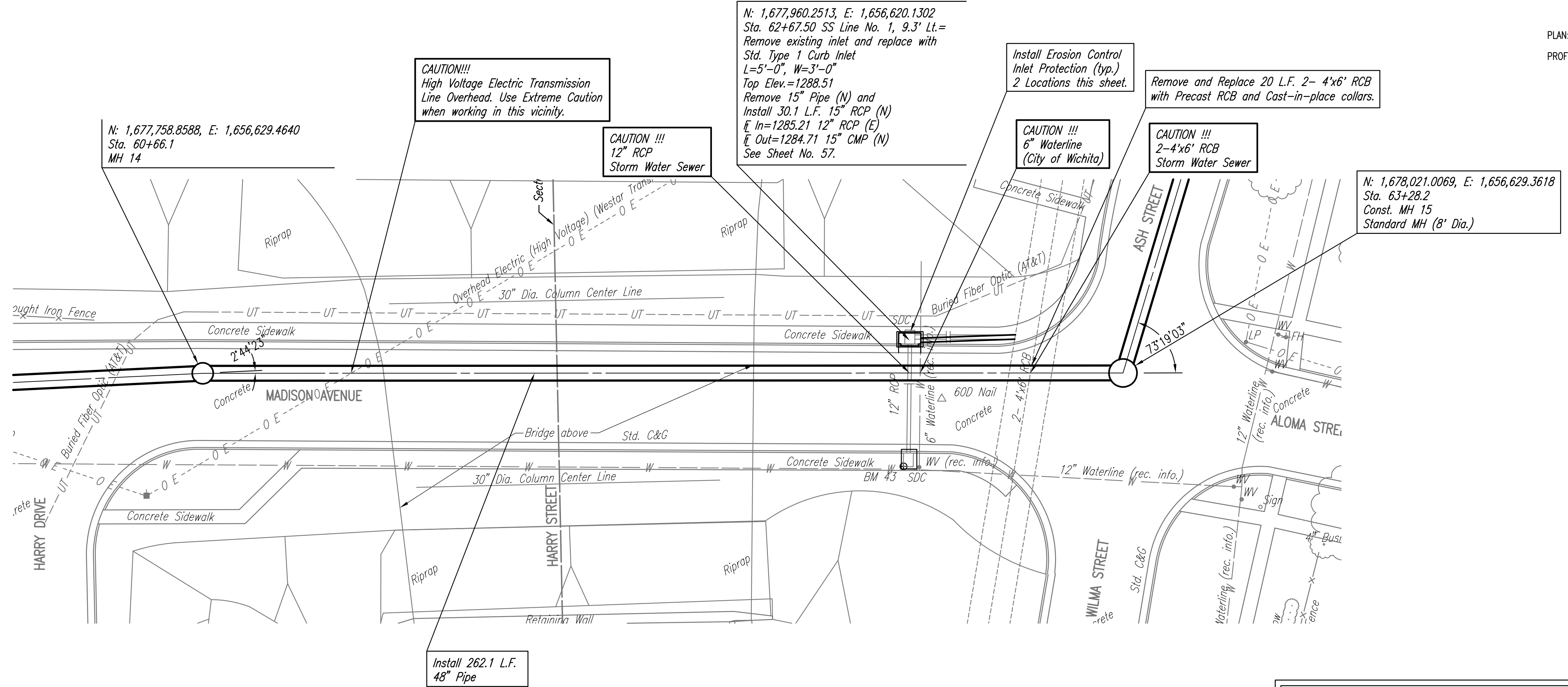


SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.

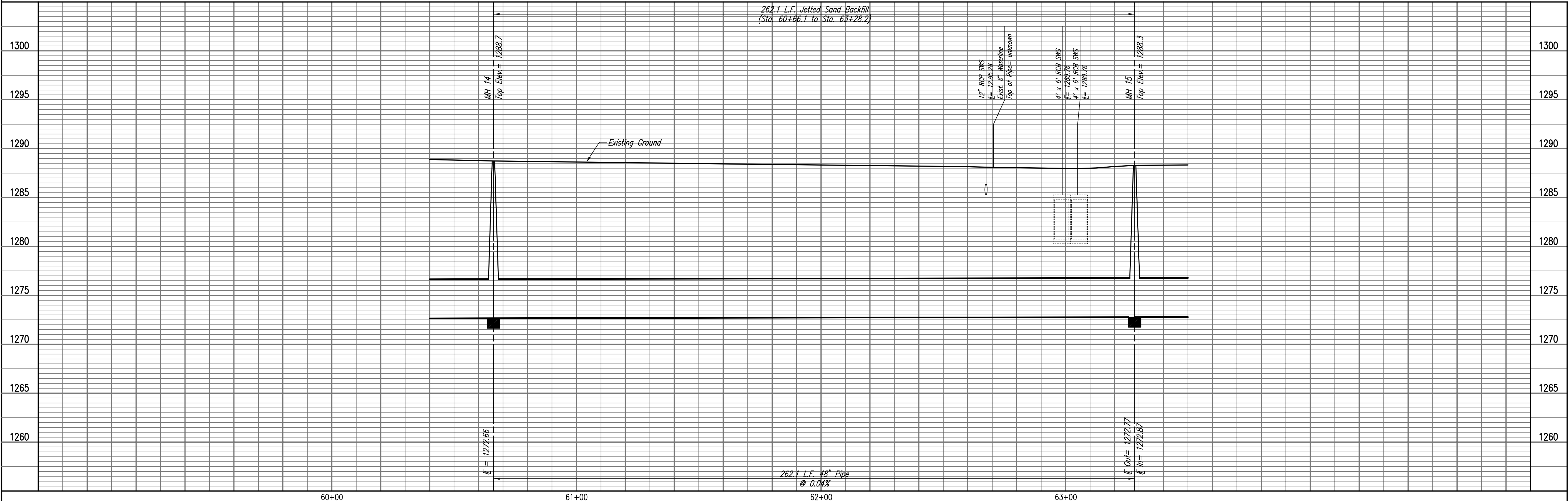
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SANITARY SEWER LINE NO. 1



Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

Designed By: MDK, EJB
 Drawn By: CSL, JAN

Job No. 35-07600-001
 Date AUGUST 2008

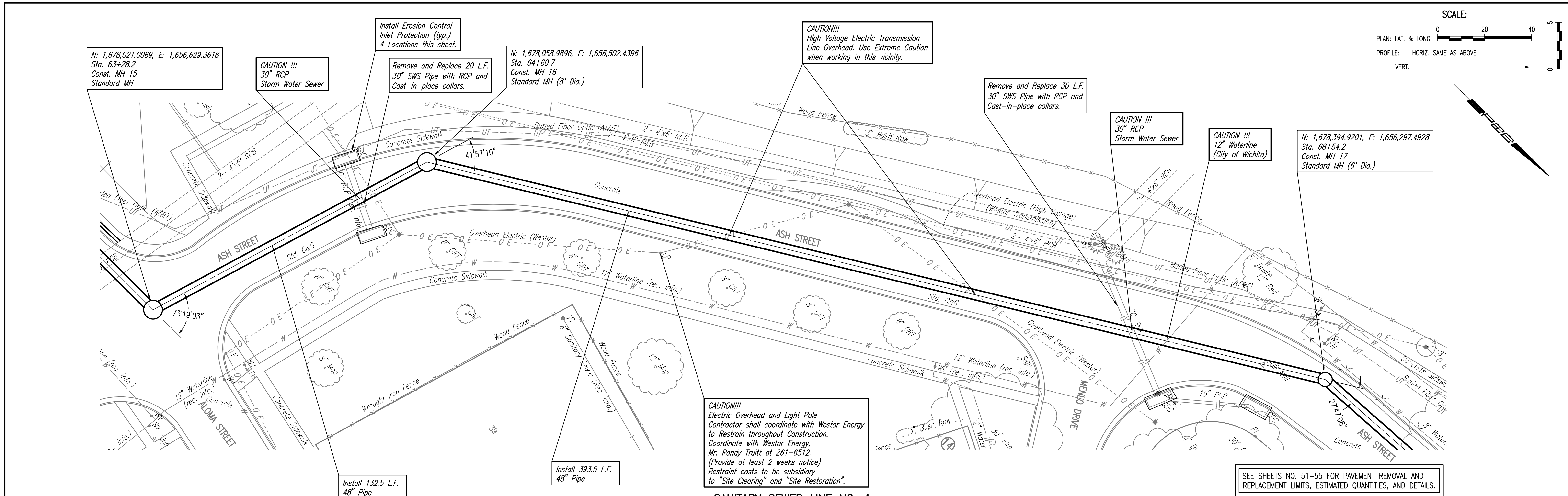
RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
 SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Sheet 21 of 75

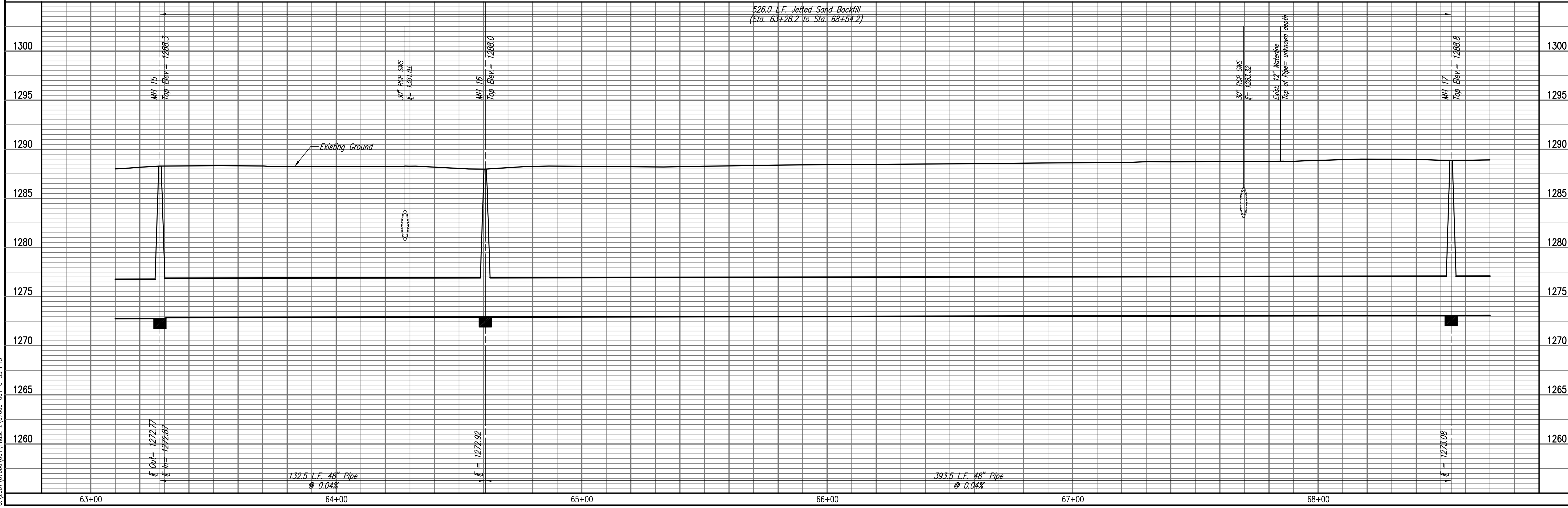
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SANITARY SEWER LINE NO. 1



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANWEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 903 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

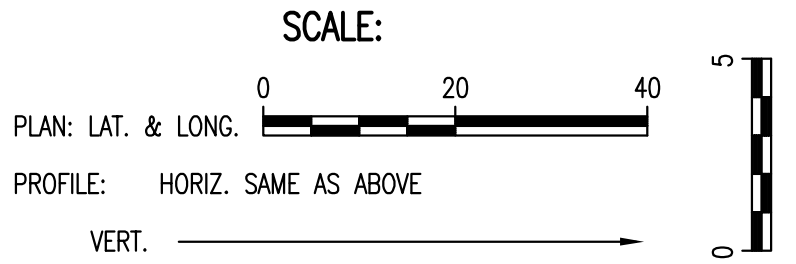
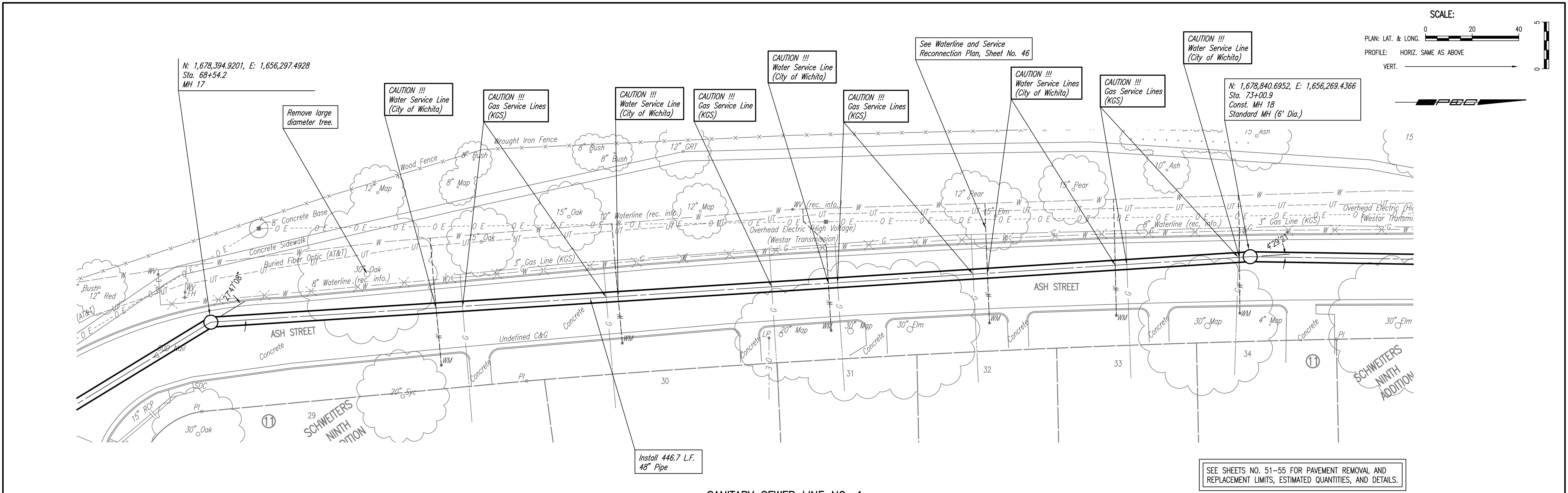
Designed By: MDK, EJB
 Drawn By: CSL, JAN
 Job No.: 35-07600-001
 Date: AUGUST 2008

Sheet 22 of 75

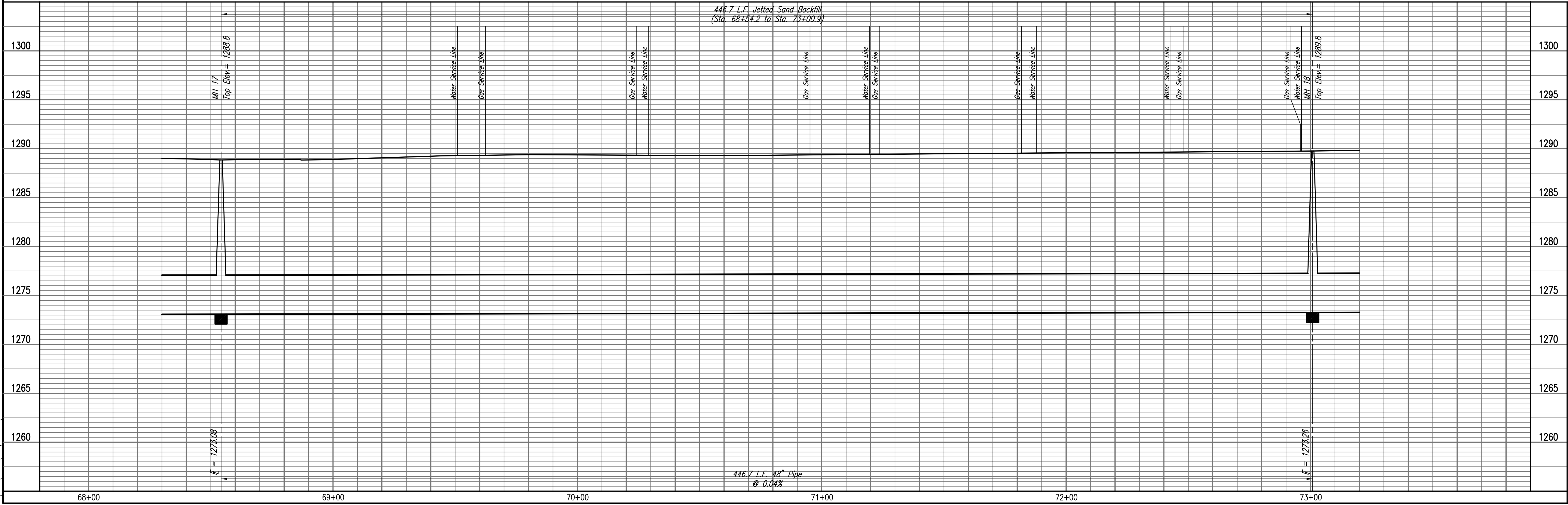
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SANITARY SEWER LINE NO. 1



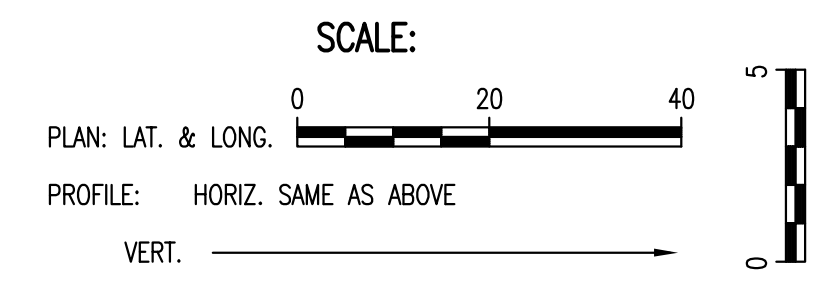
RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
 SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
 316.262.2691 • FAX 316.262.3003

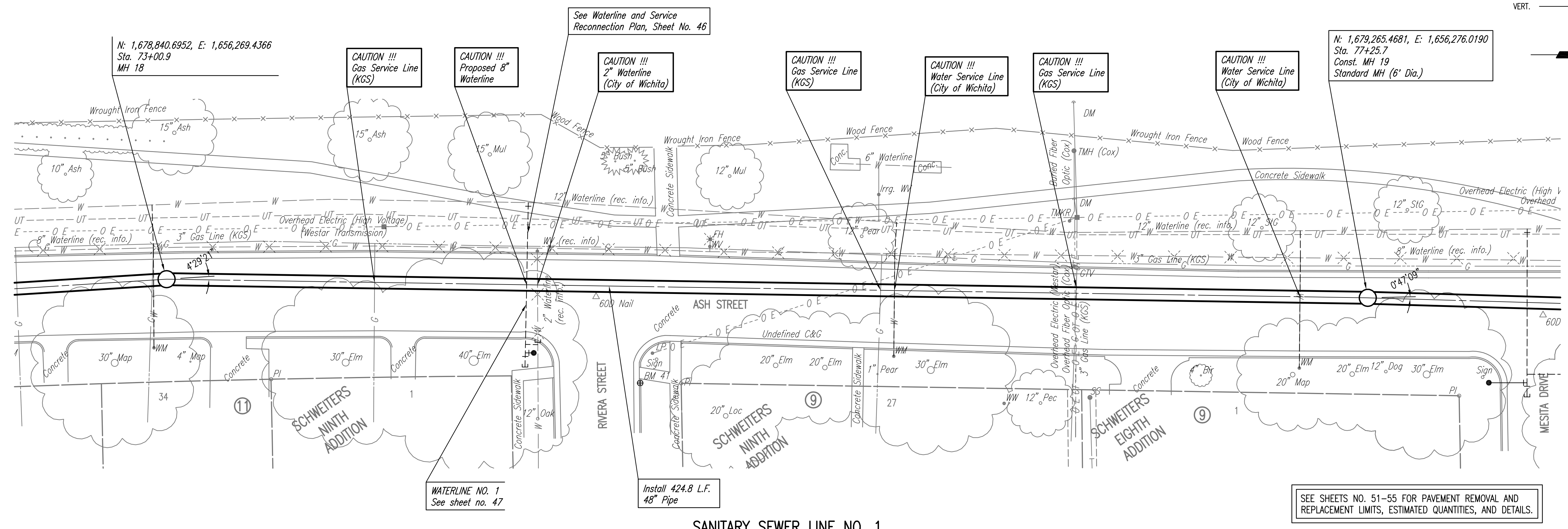
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 Drawn By: CSL, JAN

Job No.: 35-07600-001
 Date: AUGUST 2008

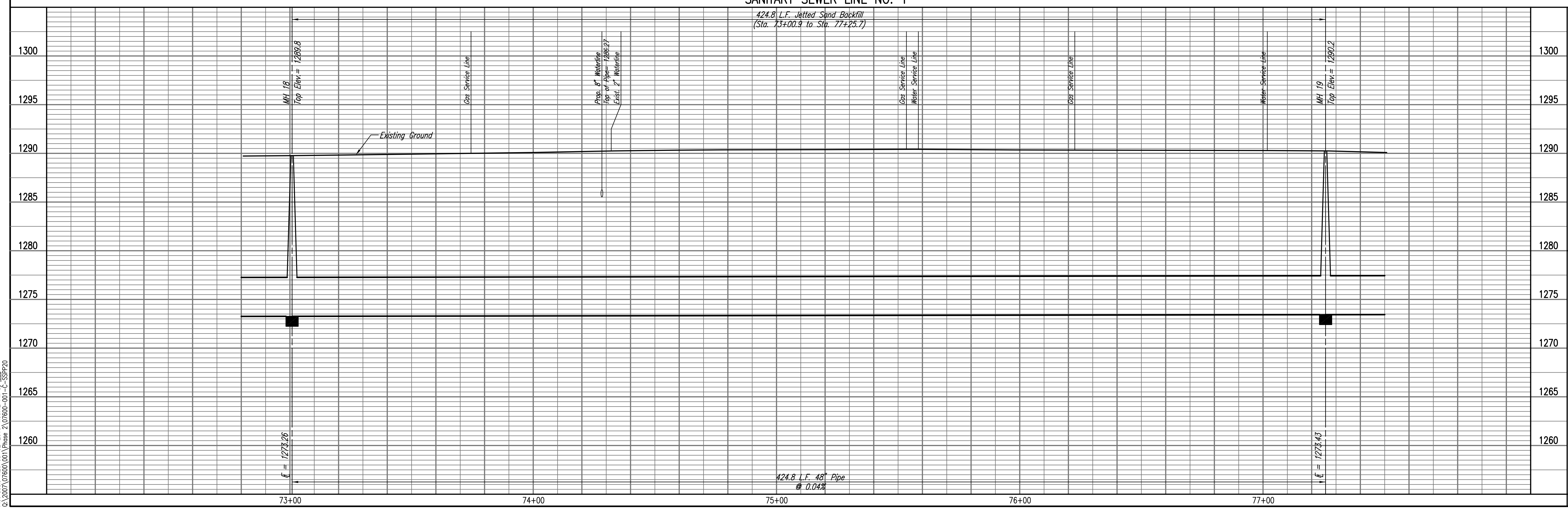
Sheet 23 of 75



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Professional Engineering Consultants, P.A.
603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Job No. 35-07600-001
Date AUGUST 2008

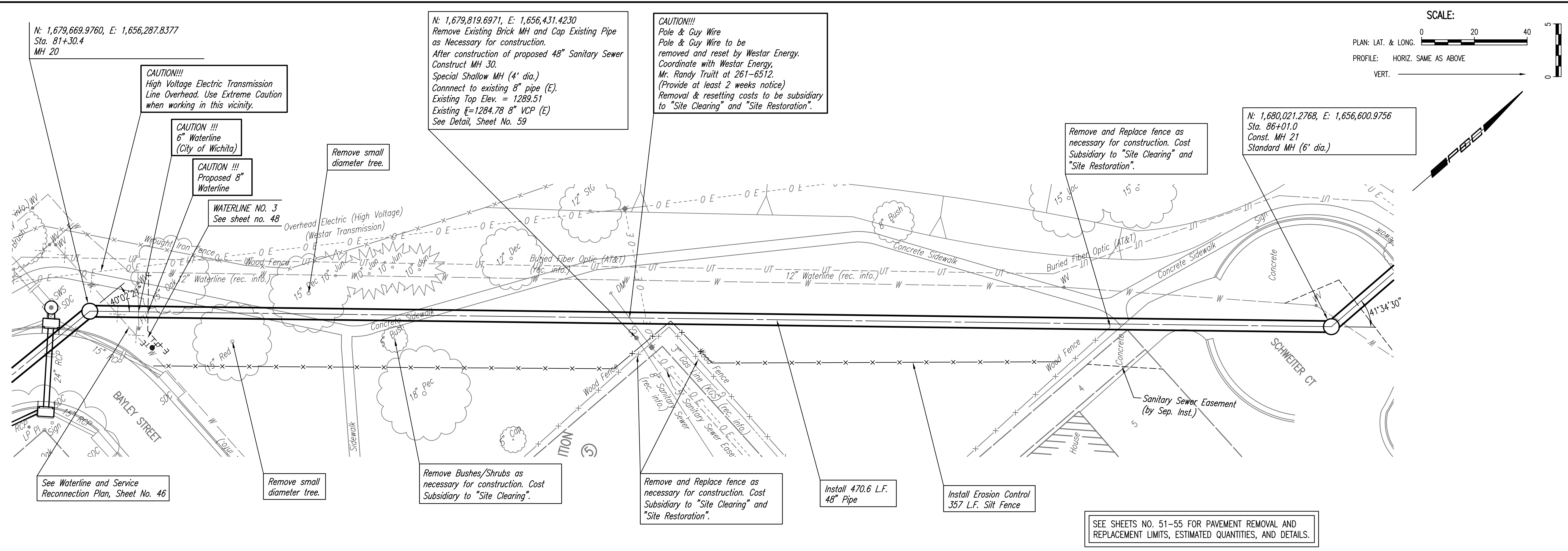
Designed By MDK, EJB
Drawn By CSL, JAN

RELOCATION OF SANITARY SEWER NO. 23
PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
SANITARY SEWER LINE NO. 1
JAMES L. ARMOUR, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 468-84375

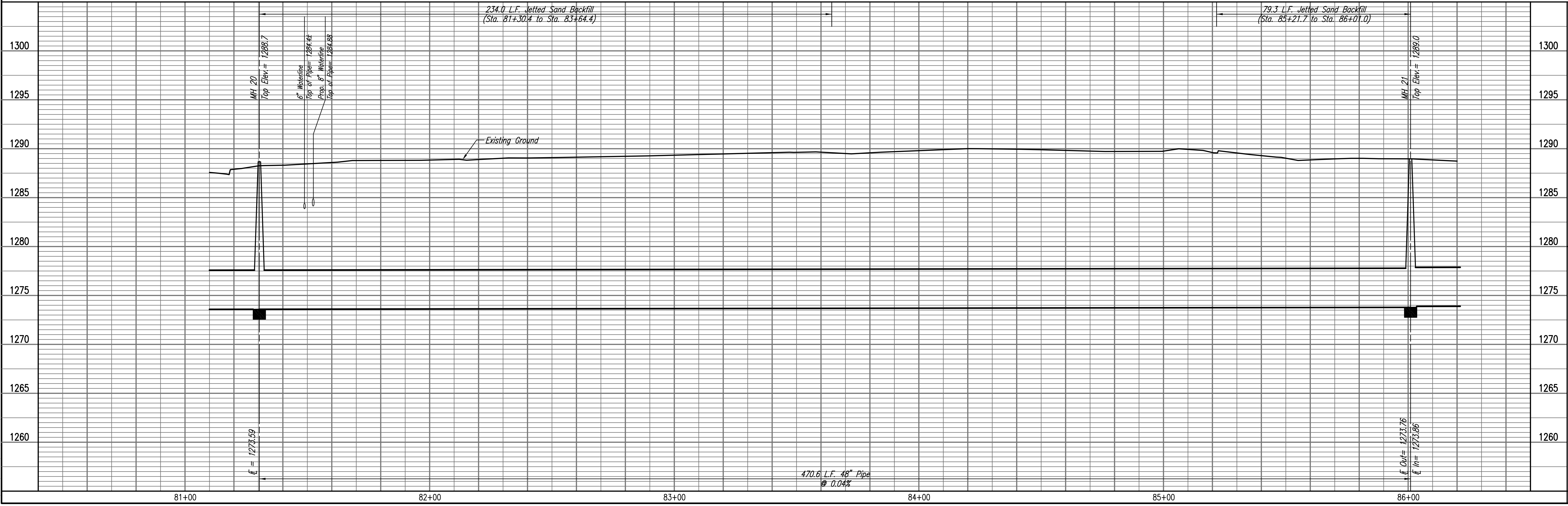
Sheet 24 of 75

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SANITARY SEWER LINE NO. 1



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Professional Engineering Consultants, P.A.
 903 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
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Designed By: MDK, EJB
 Drawn By: CSL, JAN

Job No.: 35-07600-001
 Date: AUGUST 2008

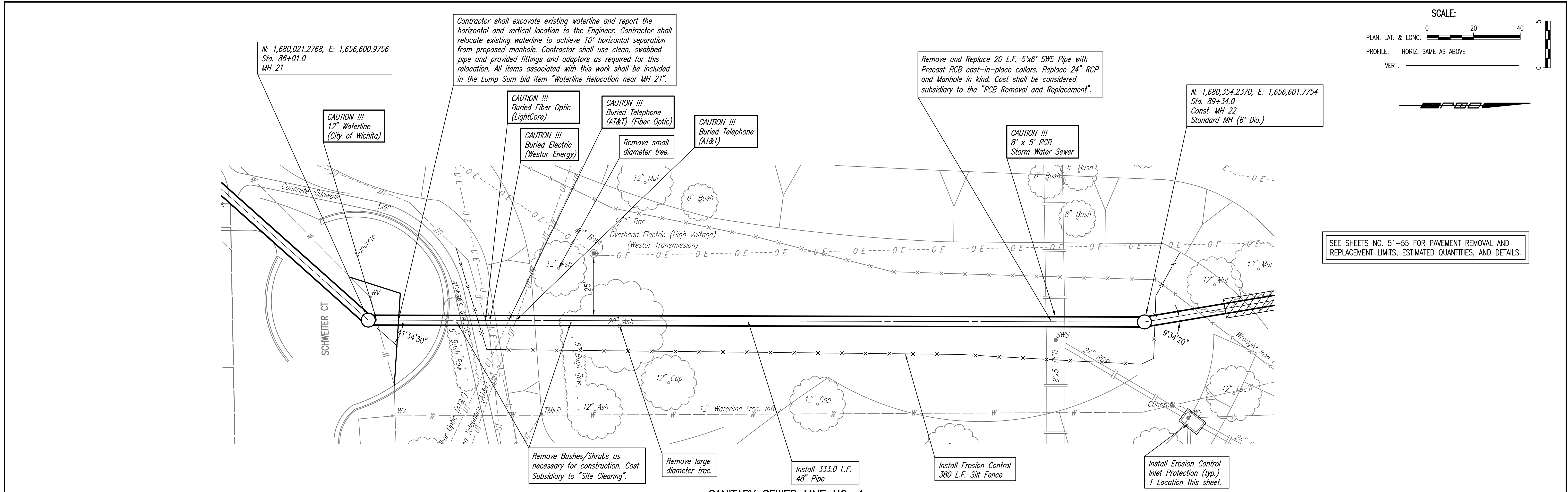
RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO FAWNEE/1-135
 SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Sheet 26 of 75

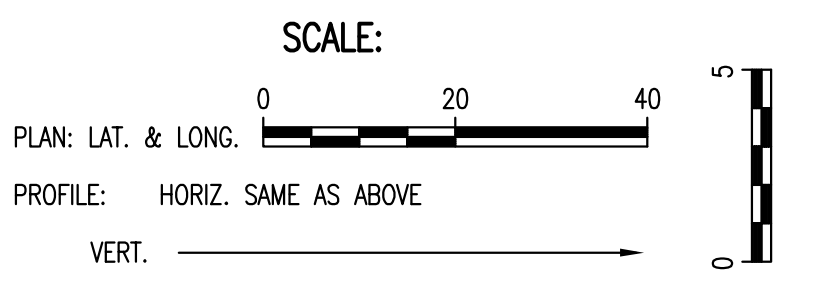
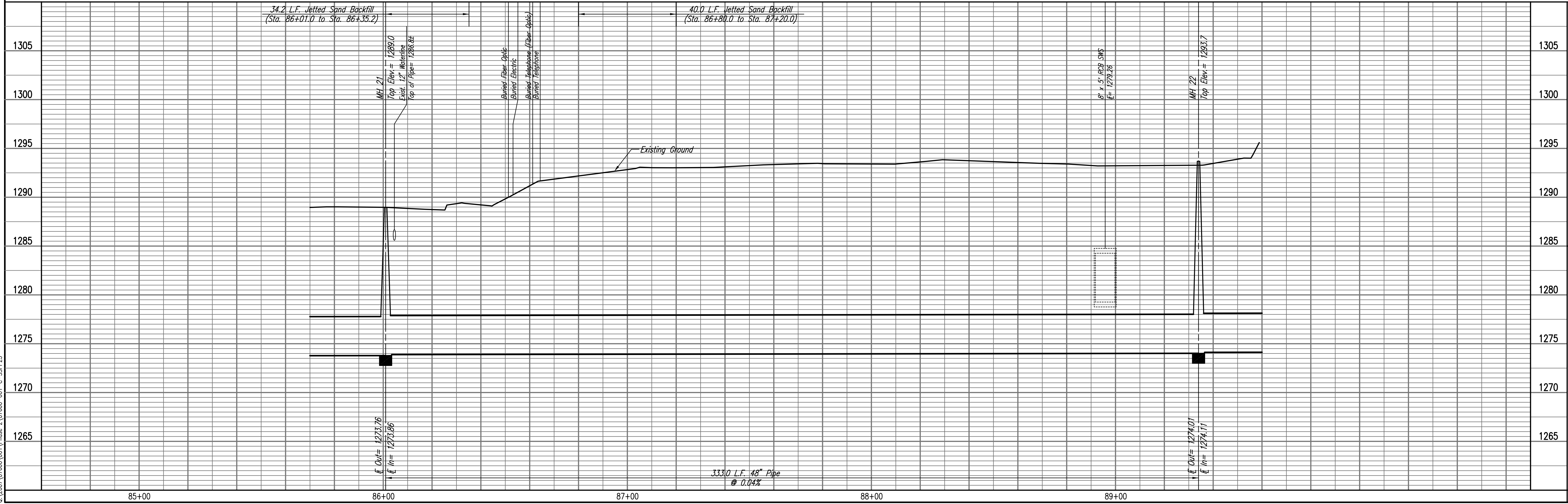
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SANITARY SEWER LINE NO. 1



**RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
 SANITARY SEWER LINE NO. 1**

JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316.262.2691 • FAX 316.262.3003

Designed By: MDK, EJB
 Drawn By: CSL, JAN

Job No. 35-07600-001
 Date AUGUST 2008

Sheet 27 of 75

N: 1,680,354.2370, E: 1,656,601.7754
 Sta. 89+34.0 (back) =
 Sta. 89+26.7 (ahead)
 MH 22

Remove and Reset Fence in kind as necessary for construction. Cost Subsidiary to "Site Clearing" and "Site Restoration".

Remove large diameter trees.

CAUTION!!!
 High Voltage Electric Transmission Line Overhead. Use Extreme Caution when working in this vicinity.

Remove and Replace 20 L.F. 4'x6' RCB Pipe with Precast RCB and Cast-in-place Collars.

CAUTION !!!
 4' x 6' RCB Storm Water Sewer

CAUTION !!!
 4" Gas Line ** (Black Hills Energy)

N: 1,680,694.1692, E: 1,656,545.2883
 Sta. 92+71.3 *
 Construct MH 23 over existing 21" pipe. Remove 21" pipe thru MH. Standard MH (8' Dia.)

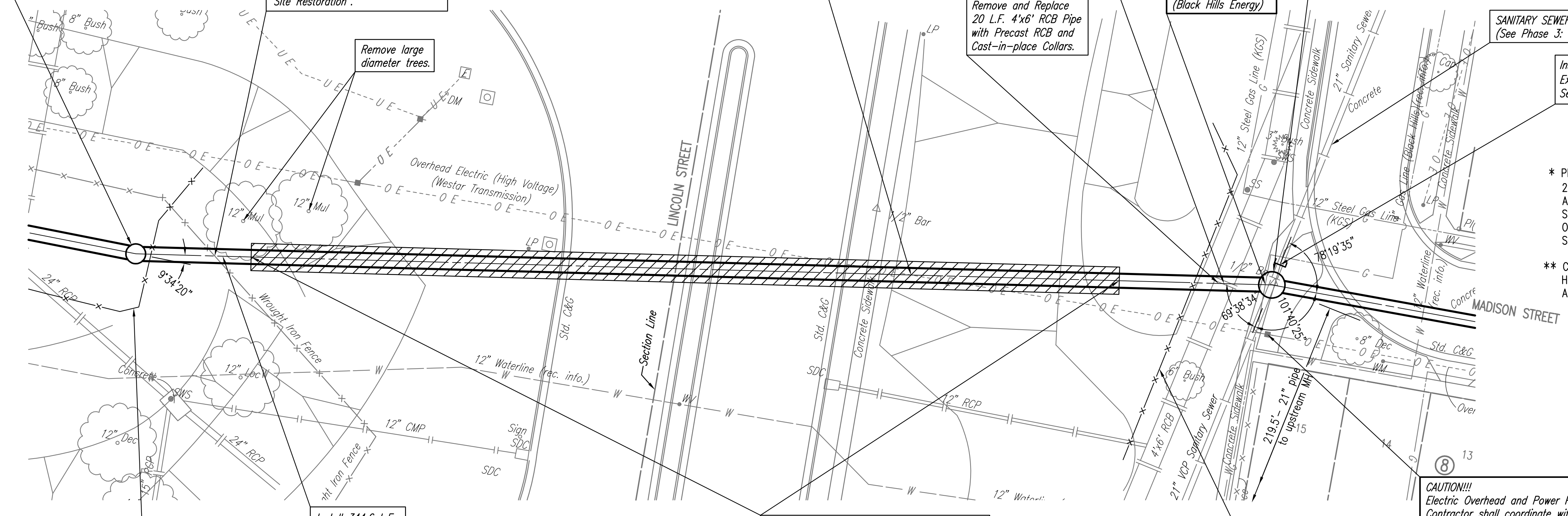
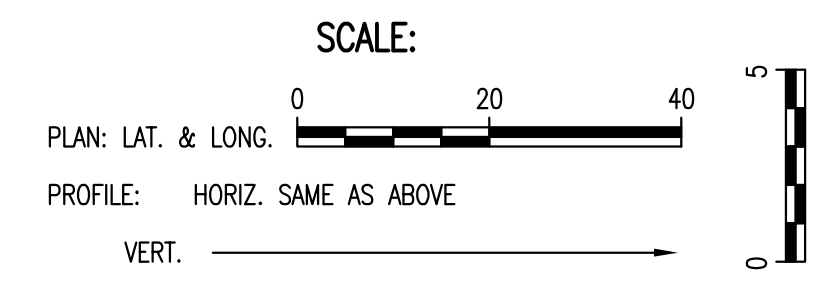
SANITARY SEWER ABANDONMENT (BY OTHERS)
 (See Phase 3: Pawnee/1-135 to English/1-135)

Install Plug with Vent pipes on Existing 21" Sanitary Sewer. See detail, Sheet No. 44

* PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING 21" PIPE AT SANITARY SEWER STATION 92+71.3 TO VERIFY PIPE TYPE, HORIZONTAL AND VERTICAL LOCATION. THE PIPE LOCATION SHALL BE REPORTED TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY TO COMPLETE THE CONNECTION SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

** CONTRACTOR SHALL COORDINATE THE RELOCATION OF THE 4" GAS LINE WITH BLACK HILLS ENERGY AS NECESSARY FOR CONSTRUCTION. PROVIDE AT LEAST 2 WEEKS ADVANCED NOTICE TO UTILITY COMPANY.

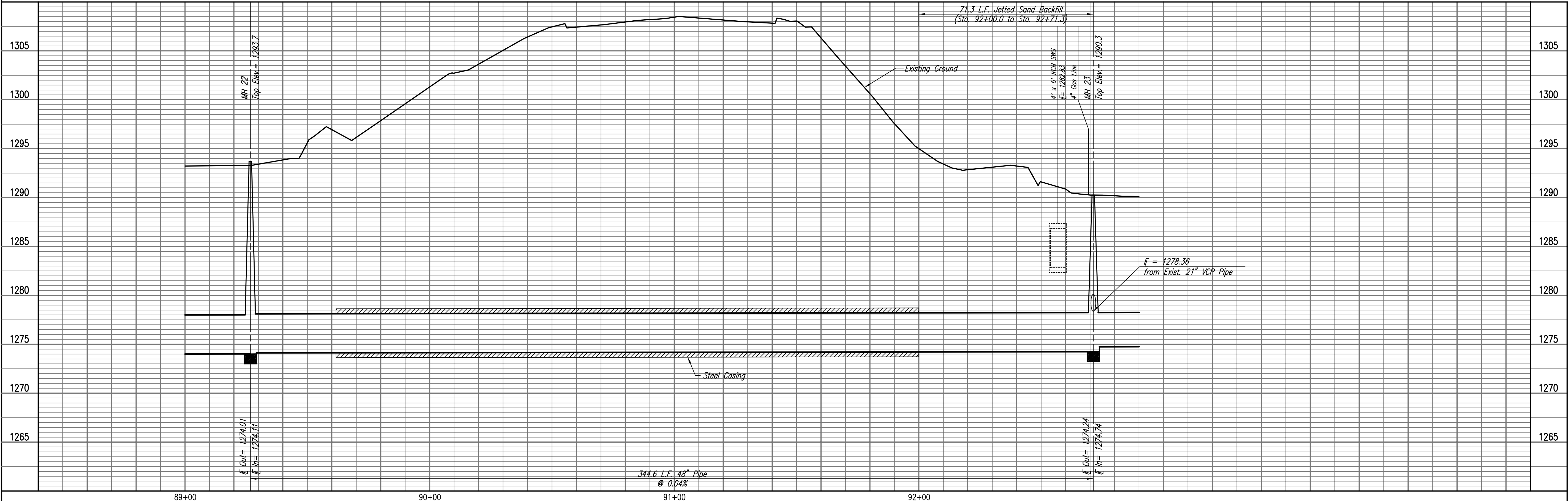
CAUTION!!!
 Electric Overhead and Power Pole Contractor shall coordinate with Westar Energy to Restrain throughout Construction. Coordinate with Westar Energy, Mr. Randy Truitt at 261-6512. (Provide at least 2 weeks notice) Restraint costs to be subsidiary to "Site Clearing" and "Site Restoration".



Sta. 89+62 to Sta. 92+25
 Install 263 L.F. Steel Casing by microtunneling.
 (Min. O.D. 66", Min. Wall Thickness = 0.875")

Install Erosion Control 110 L.F. Silt Fence

SANITARY SEWER LINE NO. 1



MH 22
 Top Elev. = 1283.7

71.3 L.F. Jetted Sand Backfill
 (Sta. 92+00.0 to Sta. 92+71.3)

4' x 6' RCB SWS
 E = 1282.83

4" Gas Line
 MH 23
 Top Elev. = 1280.3

E = 1278.36
 from Exist. 21" VCP Pipe

344.6 L.F. 48" Pipe
 @ 0.04%

E O.V. = 1274.01
 E I.V. = 1274.11

E O.V. = 1274.24
 E I.V. = 1274.74

89+00

90+00

91+00

92+00

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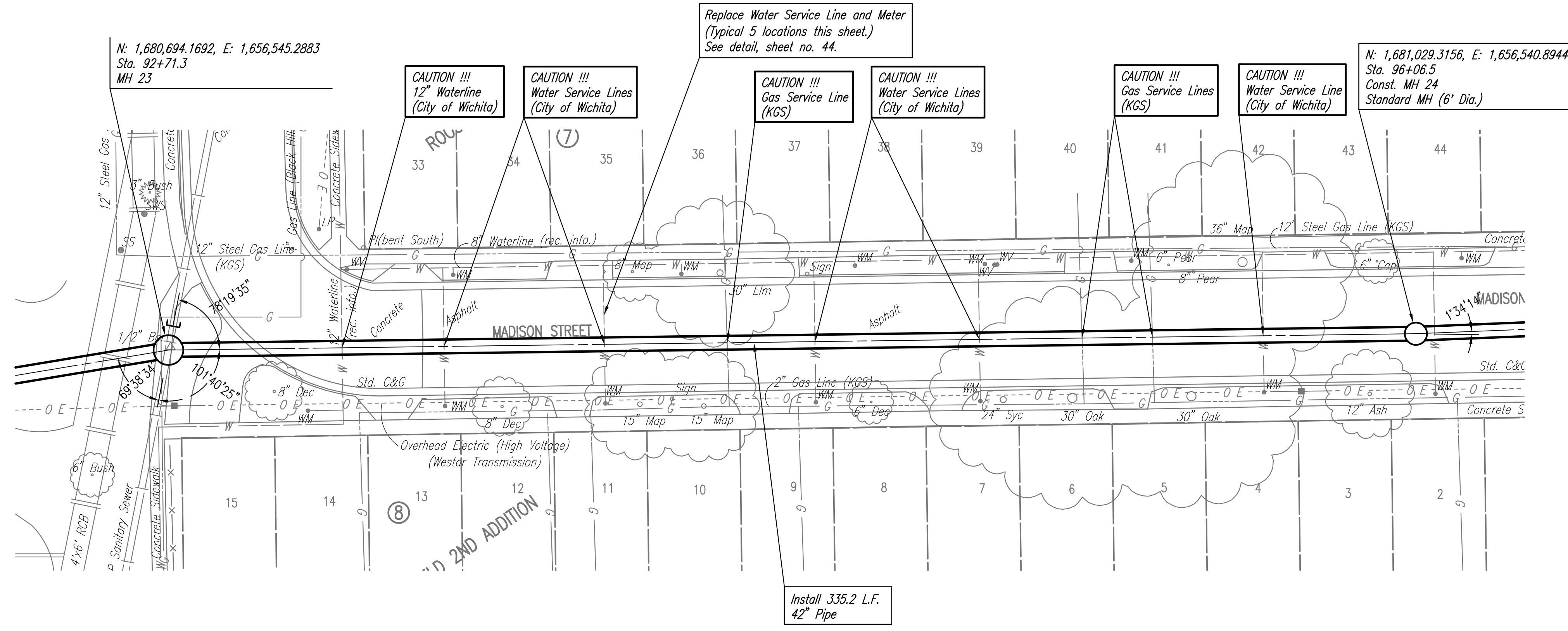
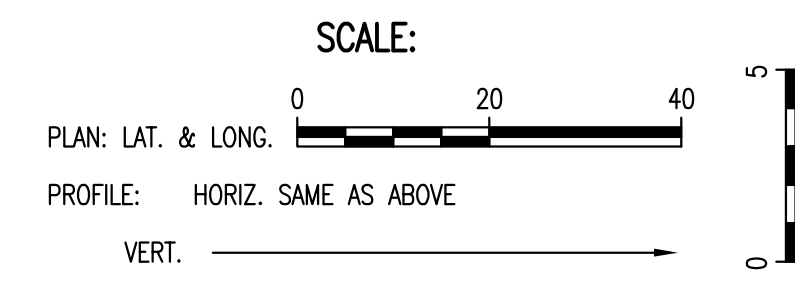
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RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PAWNEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 803 S. TOPICKA AVENUE, SUITE 100, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

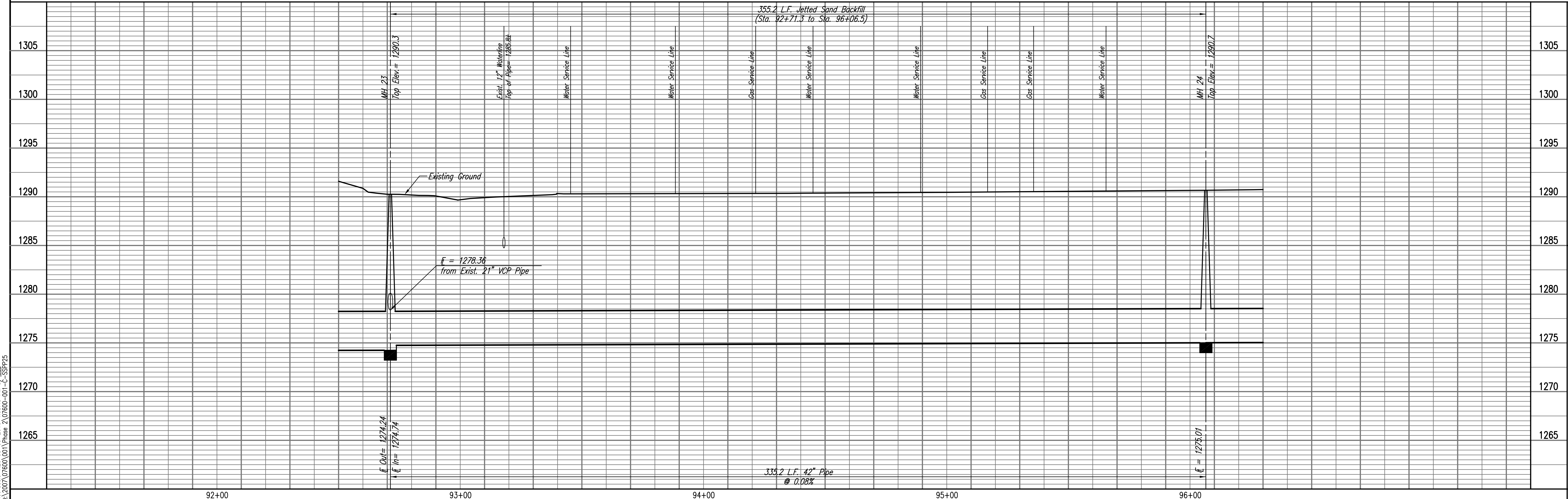
Job No. 35-07600-001
 Date AUGUST 2008
 Designed By MDK, EJB
 Drawn By CSL, JAN



SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.

SANITARY SEWER LINE NO. 1

⊔ = Denotes Pipe Plug to be installed.



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BY		

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RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

Designed By: MDK, EJB
 Drawn By: CSL, JAN
 Job No.: 35-07600-001
 Date: AUGUST 2008

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	CHECKED	

PROFILE	CHECKED	DATE
	CHECKED	

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 03-2007\07600\001\Phase 2\07600-01-C-55PP26

N: 1,681,029.3156, E: 1,656,540.8944
 Sta. 96+06.5
 MH 24

CAUTION !!!
 Water Service Line
 (City of Wichita)

Replace Water Service Line and Meter
 (Typical 2 locations this sheet.)
 See detail, sheet no. 44.

CAUTION !!!
 Gas Service Line
 (KGS)

CAUTION !!!
 Water Service Line
 (City of Wichita)

CAUTION !!!
 Existing 8"
 Sanitary Sewer

CAUTION !!!
 4" Gas Line
 (KGS)

CAUTION !!!
 12" Steel Gas Line
 (KGS)

CAUTION !!!
 30" Waterline (City of Wichita)
 Contractor shall coordinate with
 Water Utility Department to
 support thru construction.

Remove and Replace 20 L.F.
 72" SWS Pipe with RCP and
 Cast-in place collars.

CAUTION !!!
 72" Seg. Block Culvert
 Storm Water Sewer

CAUTION !!!
 Buried Telephone
 (AT&T)

WATERLINE NO. 4
 See sheet no. 49

CAUTION !!!
 Proposed 8"
 Waterline

CAUTION !!!
 Existing 10"
 Sanitary Sewer

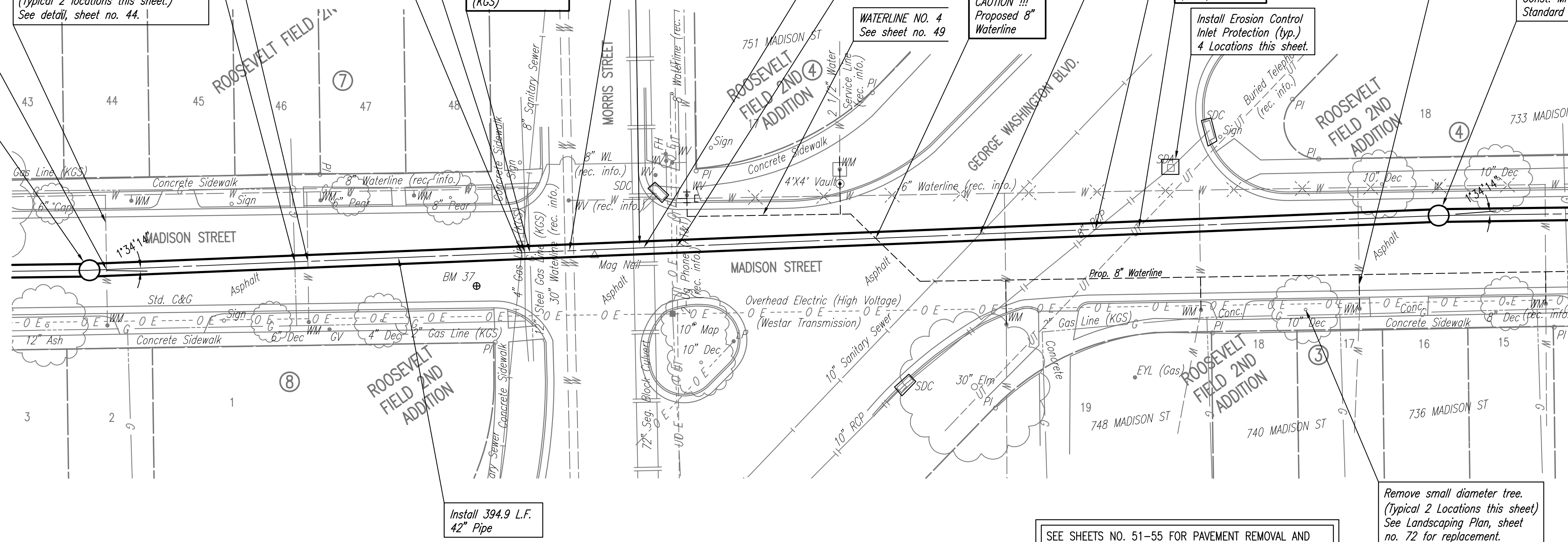
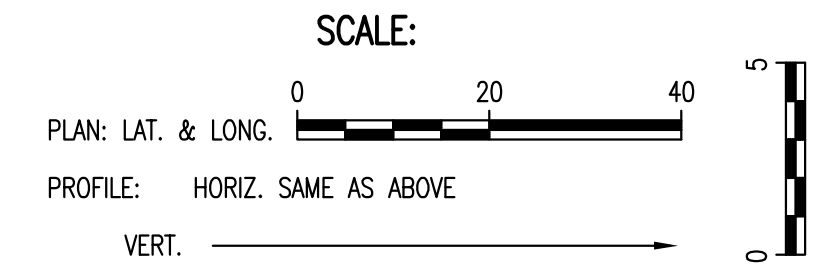
CAUTION !!!
 8" RCP
 Storm Water Sewer

CAUTION !!!
 Buried Telephone
 (AT&T)

Install Erosion Control
 Inlet Protection (typ.)
 4 Locations this sheet.

Waterline Service Reconnection
 (typ.) See Sheet No. 49

N: 1,681,423.9523, E: 1,656,524.8938
 Sta. 100+01.4
 Const. MH 25
 Standard MH (6' Dia.)



SANITARY SEWER LINE NO. 1

SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND
 REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.

Remove small diameter tree.
 (Typical 2 Locations this sheet)
 See Landscaping Plan, sheet
 no. 72 for replacement.



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/1-135
SANITARY SEWER LINE NO. 1
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

Designed By: MDK, EJB
 Drawn By: CSL, JAN
 Job No.: 35-07600-001
 Date: AUGUST 2008

SCALE:

PLAN: LAT. & LONG. 0 20 40

PROFILE: HORIZ. SAME AS ABOVE

VERT. 0



N: 1,681,830.7675, E: 1,656,519.5603
Sta. 104+08.3
MH 26

CAUTION !!!
6" Waterline
(City of Wichita)

CAUTION !!!
Existing 8" Sanitary Sewer
(to be abandoned)

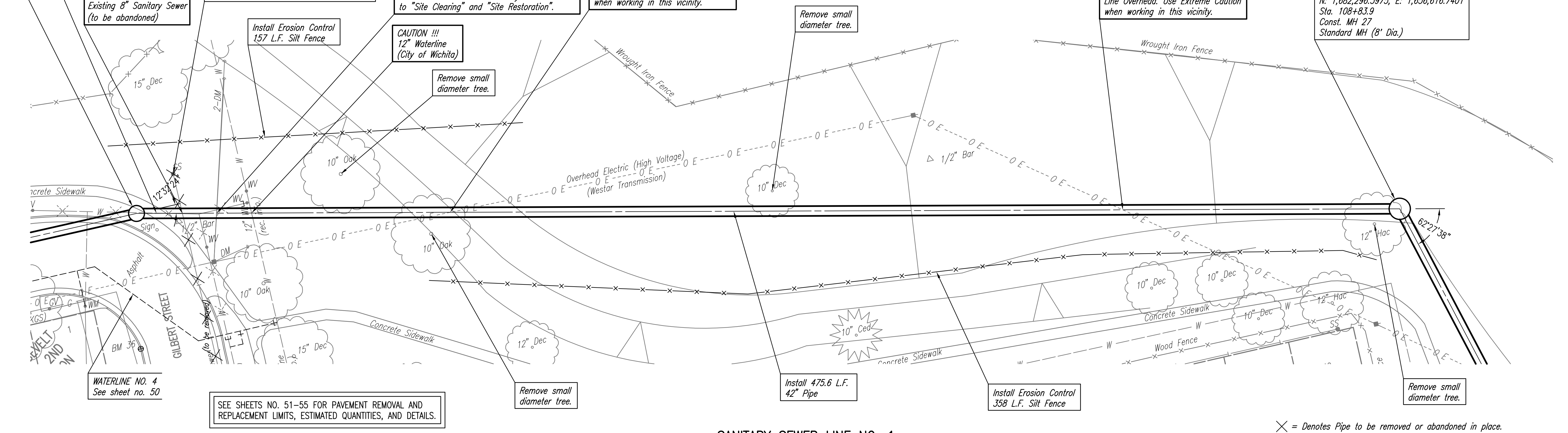
N: 1,681,847.3651, E: 1,656,507.8673
Remove existing MH and abandon 155.6
L.F. existing 8" Sanitary Sewer Line (E) to
next MH. Plug existing 8" pipe (W) at
existing MH as shown on sheet no. 2. All
cost associated with this work shall be
considered subsidiary to "Site Clearing".

CAUTION!!!
Power Pole and Guy Wire
Contractor shall coordinate with Westar Energy
to Restrain Pole throughout Construction.
Coordinate with Westar Energy,
Mr. Randy Truitt at 261-6512.
(Provide at least 2 weeks notice)
Restraint costs to be subsidiary
to "Site Clearing" and "Site Restoration".

CAUTION!!!
High Voltage Electric Transmission
Line Overhead. Use Extreme Caution
when working in this vicinity.

CAUTION!!!
High Voltage Electric Transmission
Line Overhead. Use Extreme Caution
when working in this vicinity.

N: 1,682,296.3975, E: 1,656,616.7401
Sta. 108+83.9
Const. MH 27
Standard MH (8' Dia.)



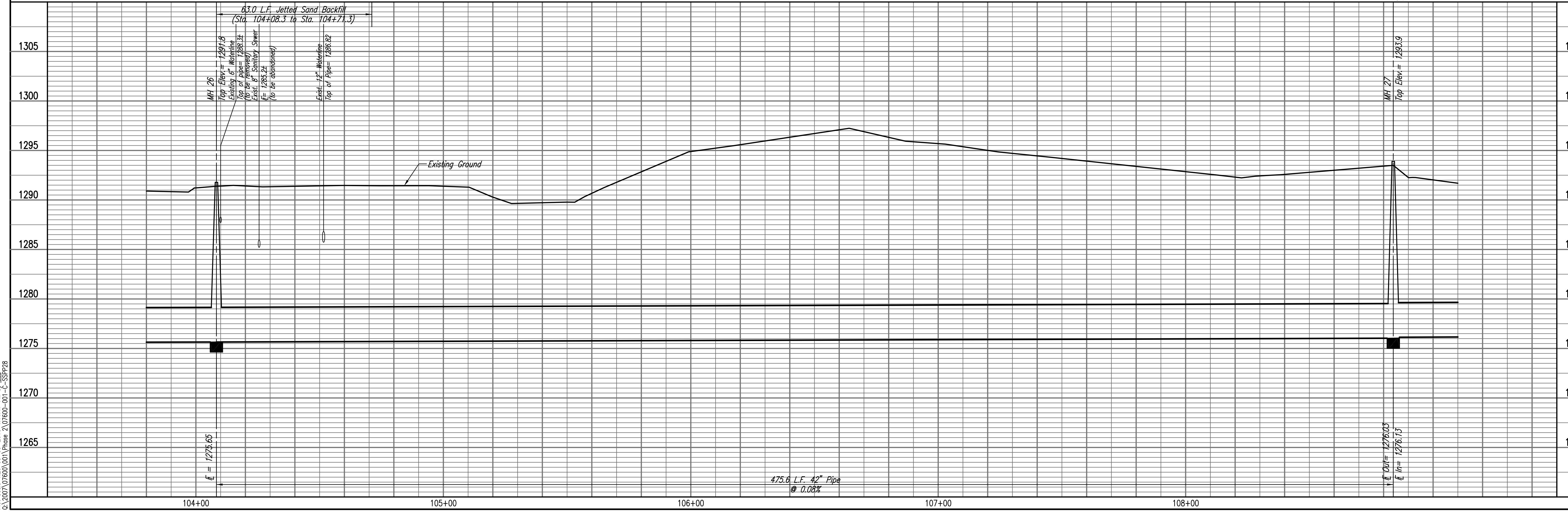
SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND
REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.

SANITARY SEWER LINE NO. 1

X = Denotes Pipe to be removed or abandoned in place.
(Subsidiary to "Site Clearing")

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03/09/2010 09:20:00 Phase 2\07600-01-C-55PP28

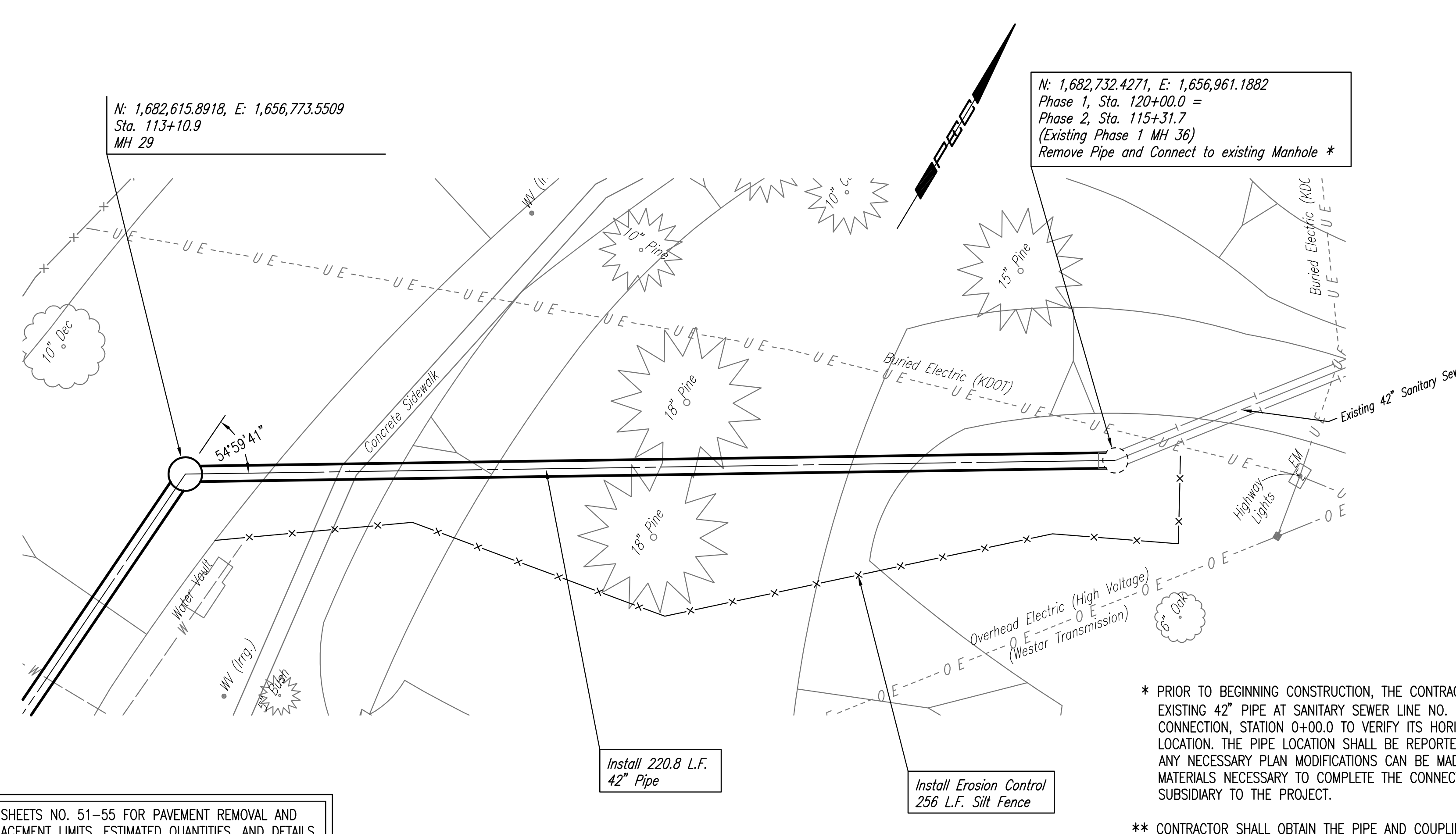
RELOCATION OF SANITARY SEWER NO. 23
PHASE 2: KELLOGG/GROVE TO PANWEE/-135
SANITARY SEWER LINE NO. 1
JAMES L. ARMOUR, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
316-262-2691 FAX 316-262-3003
Designed By: MDK, EJB
Drawn By: CSL, JAN
Job No.: 35-07600-001
Date: AUGUST 2008
Sheet 32 of 75

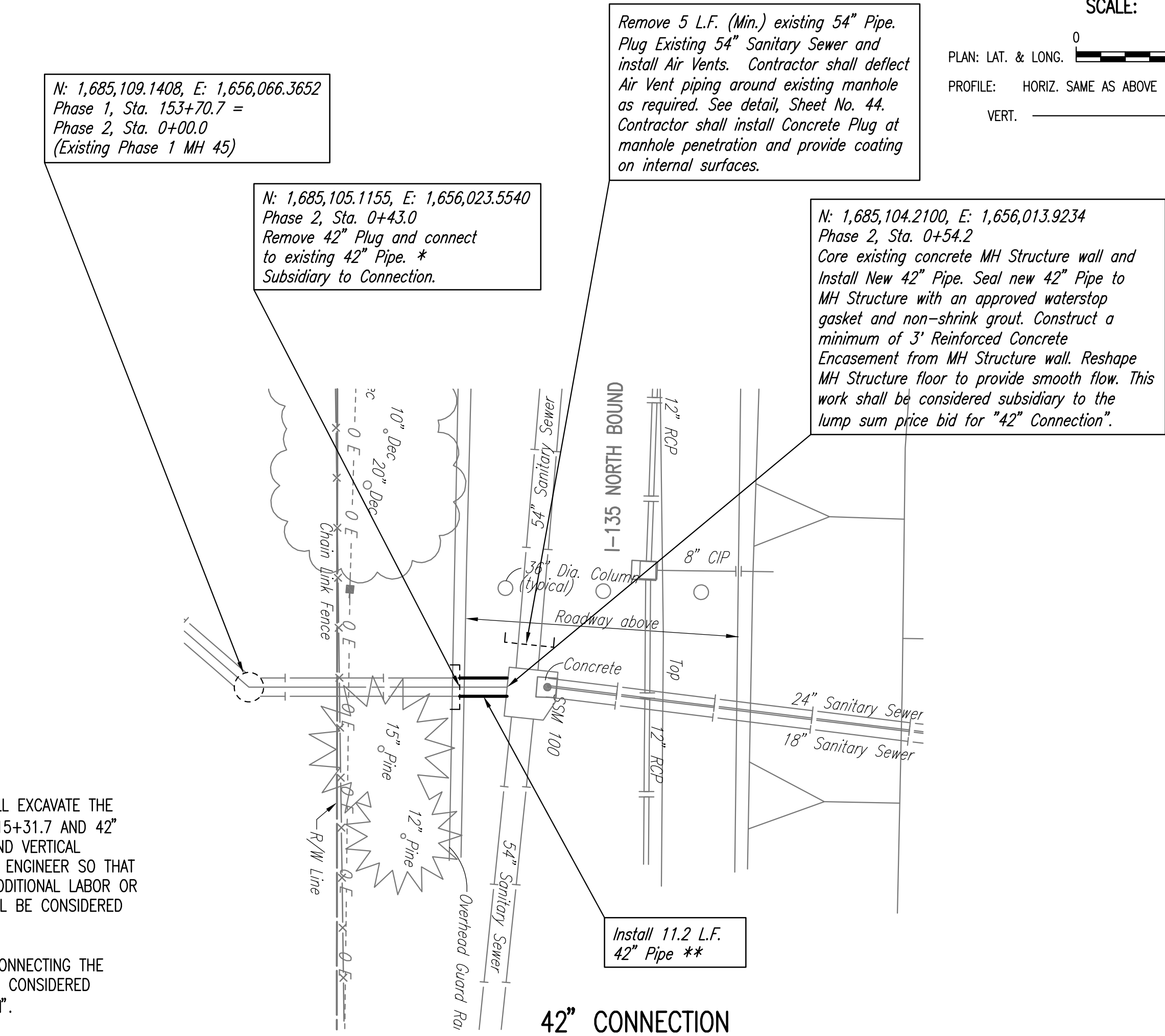
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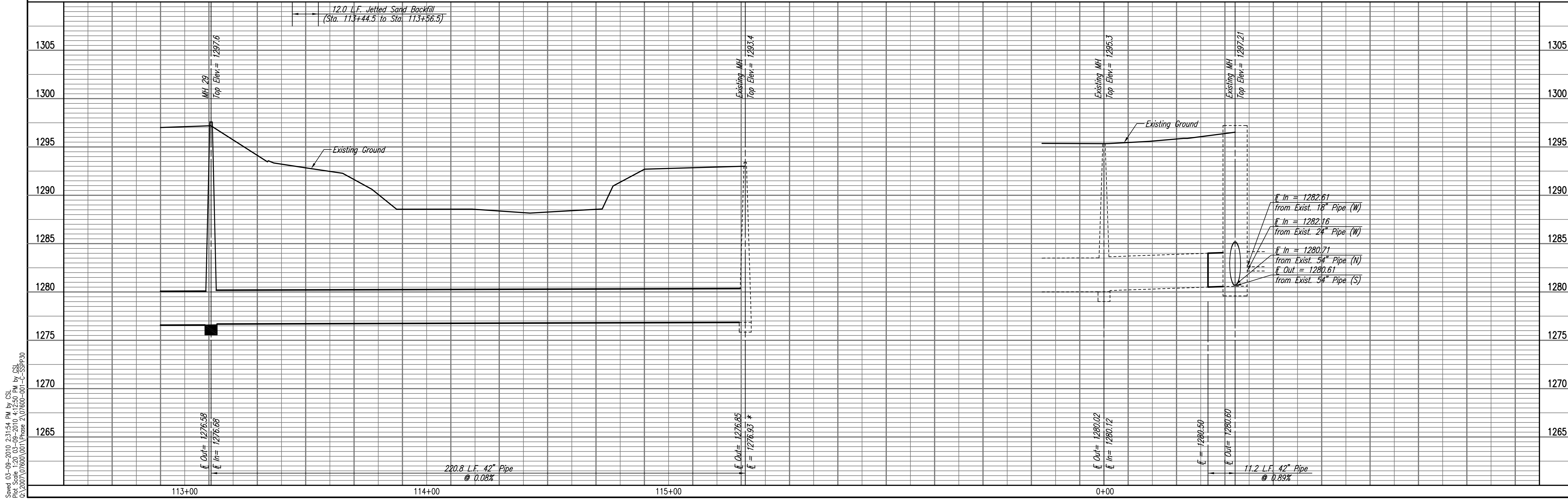
SEE SHEETS NO. 51-55 FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS, ESTIMATED QUANTITIES, AND DETAILS.



SANITARY SEWER LINE NO. 1



42" CONNECTION



RELOCATION OF SANITARY SEWER NO. 23
 PHASE 2: KELLOGG/GROVE TO PANNEE/-135
 SANITARY SEWER LINE NO. 1
 AND 42" CONNECTION
 JAMES L. ARMOUR, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84375

Professional Engineering Consultants, P.A.
 603 S. TOPICKA AVENUE, WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

Designed By: MDK, EJB
 Drawn By: CSL, JAN
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 Date: AUGUST 2008

Sheet 34 of 75

Drawn: 03-09-2010 2:31:54 PM by CSL
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