

GENERAL NOTES

1. Contractor will be required to provide a minimum advance notice of twenty-four (24) hours to utility companies prior to starting any excavation as follows:

Kansas One-Call 687-2470

The Contractor must notify the following in case of an emergency:

Cox Communications 262-0661
 Westar 383-8600
 SBC 1-800-286-8313
 KGS 832-3121

2. Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. Location information has been obtained from the various utility companies and is either from company record drawings or company-provided field locations. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.

3. A saw cut of at least one-half the depth of existing surface courses or one-fourth the depth of existing total pavement thickness shall be provided at locations where proposed construction abuts an existing surface course or pavement for which partial removal of that surface or pavement is required, except when such saw cuts are within three (3) feet of an existing joint the limits of removal shall be extended to the existing joint. Such saw cuts will not be paid for directly and this cost shall be considered as subsidiary to the removal of the surface or pavement.

4. 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 an unsightly appearance will not be approved.

5. 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 permitting regulations. Any material buried or stockpiled beyond approved of Engineers construction limits would require additional archeological investigations unless buried in a previously approved borrow location.

6. The Engineer shall take field ties to all quarter section corners. The Contractor shall set a City survey monument in the required location where such quarter section corners fall within the limits of pavement construction. Survey monuments will be furnished by the City. The Engineer will accurately locate and install the iron at the quarter section corner. This work will not be paid for directly, but shall be considered subsidiary to the other pay items of work in the contract.

7. The Contractor shall notify pipeline companies at least 24 hours in advance of any work being performed across and/or adjacent to pipelines.

8. The Contractor shall give all property owners and/or tenants of developed property directly abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.

9. The Contractor shall seed, fertilize, and mulch all disturbed areas upon completion of construction. Work to be incidental to the bid item for "Site Clearing and Restoration".

10. There is groundwater on this project; therefore, dewatering is anticipated. The Contractor shall install silt fence in ditches if silt transport is noted during construction. Silt fence will be incidental to the bid items for clearing and restoration. The Contractor will need a Water Rights Appropriation from the Division of Water Resources to allow dewatering.

11. The Contractor shall restore all ditches, channels, bank stabilization, swales, roads, shoulders, pavement entrances, and banks to their original slope and grades. Where existing entrance pipe, drainage pipe, sprinkler systems, roads, storm sewers, sidewalks, drives, pavement markings, signs, mailboxes, fences, etc., conflict with the proposed work they shall be removed and replaced or reset in kind. All of the above including trees, shrubs, grass, sod, and other landscaping, shall be considered subsidiary to other items of work.

12. The Contractor shall microtunnel the gravity sewer line and directional drill the force main from Sta. 408+88 to Sta. 430+00.

13. Tree trimming, when necessary, shall be done according to practices detailed on Sheet C3, Part 1 Plans.

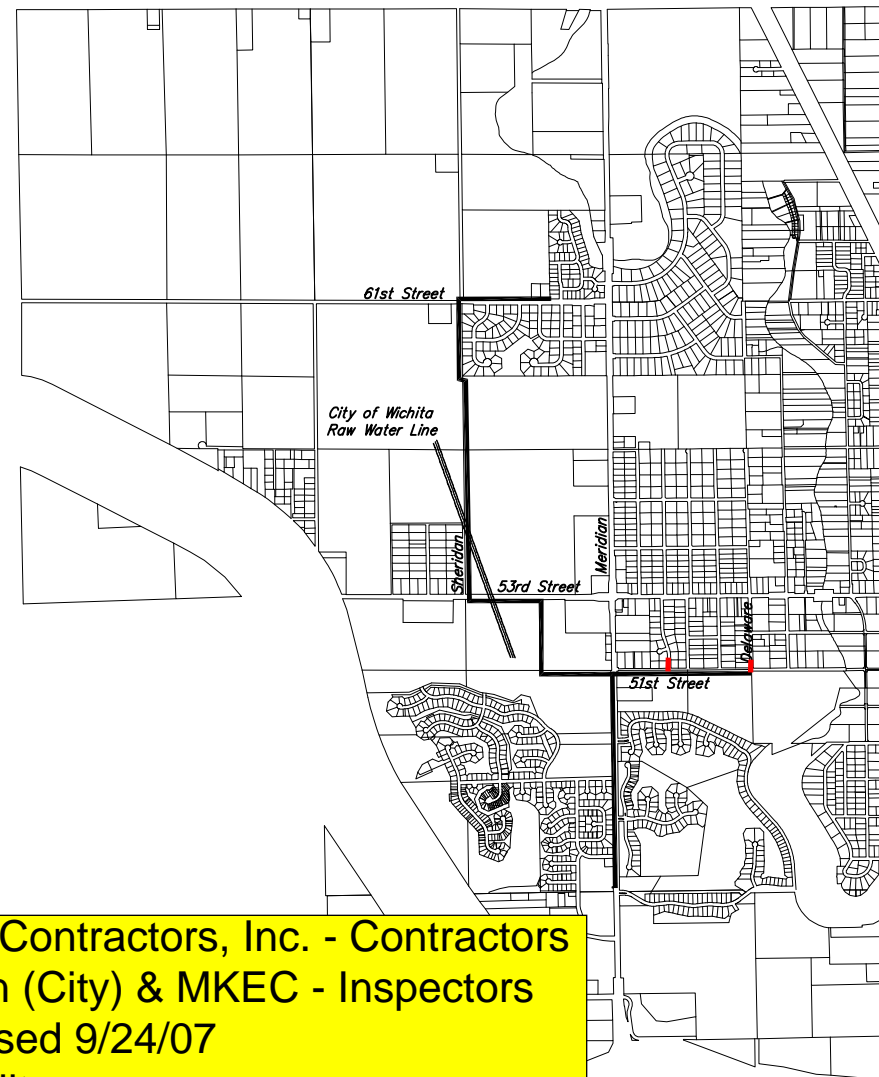
14. ALTERNATE NUMBER 1:
 IF ALTERNATE NO. 1 IS ACCEPTED BY THE CITY, THE CITY SHALL SUPPLY THE CONTRACTOR THE GRADES FOR THE SANITARY SEWER AT EVERY STATION AND THE GRADES OF THE MANHOLES AND STUBS.

NORTH AREA INTERCEPTOR PART 2 - MAIN 15, SS #23 SANITARY SEWER EXTENSION

PROJECT NO. 468-83682

OCA # 744009

OCA # 622083



Utility Contractors, Inc. - Contractors
 Wilson (City) & MKEC - Inspectors
 Released 9/24/07
 As-Built
 Stubs
 .pdf by JDL 6/19/08 & APR 10/03/08

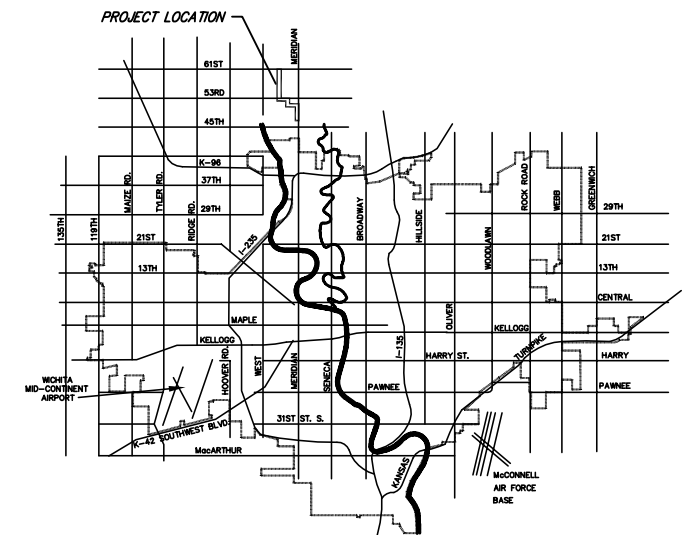
CITY OF WICHITA, KANSAS

INDEX OF SHEETS

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41. SANITARY SEWER DETAILS
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BENCHMARK

BM #1 Sheridan and 61st St. N.
 R.R. spike in the power pole at the south east corner
 of Sheridan and 61st St. N. Power pole is 150' east and
 30' south. MSL 1,338.96



VICINITY MAP



Ruggles & Bohm, P.A.
 Engineering, Surveying, Land Planning
 924 North Main (316) 264-8008
 Wichita, Kansas 67203 (316) 264-4621 fax
 www.rbkansas.com E-mail: info@rbkansas.com



MKEC
 ENGINEERING CONSULTANTS
 411 N. WEBB ROAD
 WICHITA, KS. 67206
 316-684-9600

2627X
 April 19, 2006

MANHOLE LOCATIONS

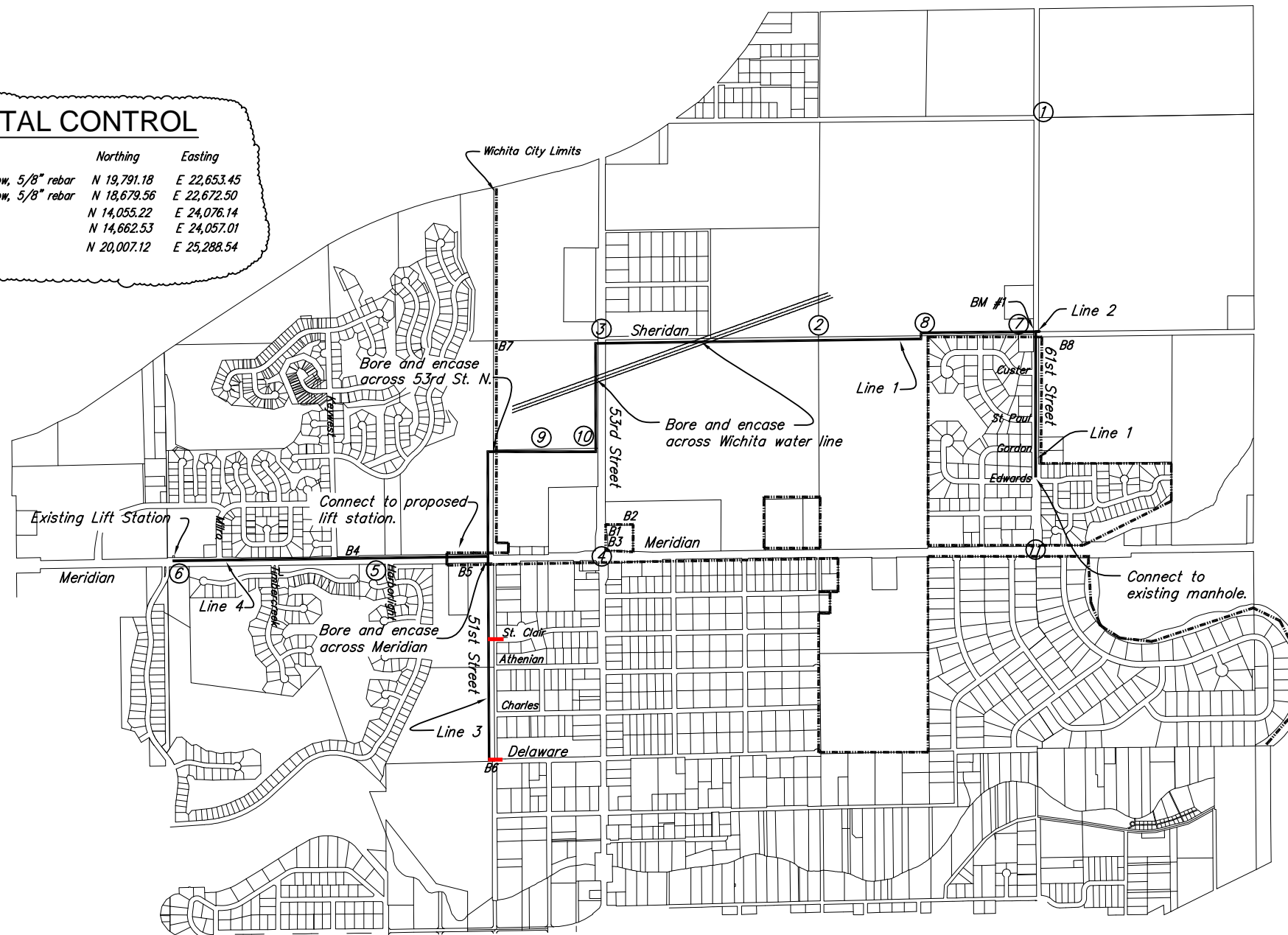
MANHOLE NUMBER	STATION	NORTHING	EASTING
MH 1 -1	STA 10+00.00	N 13,373.01	E 25,016.77
MH 1 -2	STA 12+20.00	N 13,371.20	E 24,796.77
MH 1 -3	STA 16+20.00	N 13,367.93	E 24,396.77
MH 1 -4	STA 19+19.78	N 13,365.47	E 24,097.00
MH 1 -5	STA 22+20.00	N 13,374.77	E 24,090.99
MH 1 -6	STA 25+70.00	N 14,027.41	E 24,084.25
MH 1 -7	STA 28+80.19	N 14,337.54	E 24,078.28
MH 1 -8	STA 31+80.19	N 14,637.49	E 24,072.64
MH 1 -9	STA 34+80.19	N 14,636.78	E 23,772.64
MH 1 -10	STA 38+30.19	N 14,635.96	E 23,422.65
MH 1 -11	STA 41+80.19	N 14,635.13	E 23,072.65
MH 1 -12	STA 44+74.35	N 14,634.44	E 22,778.48
MH 1 -13	STA 46+14.36	N 14,774.43	E 22,776.51
MH 1 -14	STA 49+14.36	N 15,074.40	E 22,772.27
MH 1 -15	STA 52+14.36	N 15,374.37	E 22,768.04
MH 1 -16	STA 55+14.36	N 15,674.34	E 22,763.80
MH 1 -17	STA 58+90.73	N 16,050.07	E 22,758.50
MH 1 -18	STA 59+93.30	N 16,146.62	E 22,722.13
MH 1 -19	STA 62+93.30	N 16,546.58	E 22,716.49
MH 1 -20	STA 66+93.30	N 16,946.54	E 22,710.84
MH 1 -21	STA 71+93.30	N 17,346.58	E 22,705.19
MH 1 -22	STA 75+93.30	N 17,746.44	E 22,698.42
MH 1 -23	STA 79+93.30	N 18,146.38	E 22,691.61
MH 1 -24	STA 83+56.61	N 18,509.65	E 22,685.42
MH 1 -25	STA 83+91.63	N 18,509.36	E 22,650.49
MH 1 -26	STA 87+91.63	N 18,909.30	E 22,643.58
MH 1 -27	STA 91+91.63	N 19,309.33	E 22,636.76
MH 1 -28	STA 95+91.63	N 19,709.18	E 22,629.94
MH 1 -29	STA 98+82.49	N 20,000.00	E 22,624.83
MH 1 -30	STA 99+46.63	N 20,000.17	E 22,689.12
MH 1 -31	STA 103+46.63	N 20,001.18	E 23,089.12
MH 1 -32	STA 106+48.63	N 20,002.02	E 23,391.12
MH 1 -33	STA 109+51.69	N 20,002.88	E 23,694.18
MH 1 -34	STA 112+81.72	N 20,003.78	E 24,024.21
MH 1 -35	STA 116+43.54	N 20,004.68	E 24,386.03
MH 2 -1	STA 200+55.00	N 20,054.93	E 22,624.05
MH 3 -1	STA 301+54.76	N 13,375.55	E 25,481.64
MH 3 -2	STA 304+17.51	N 13,356.33	E 25,743.66
MH 3 -3	STA 308+17.51	N 13,360.50	E 26,143.66
MH 3 -4	STA 310+79.49	N 13,363.24	E 26,405.95
MH 3 -5	STA 314+14.71	N 13,366.73	E 26,741.15
MH 3 -6	STA 315+63.95	N 13,368.29	E 26,890.38
MH 3 -7	STA 317+76.95	N 13,370.51	E 27,103.37
MH 3 -8	STA 319+88.39	N 13,372.71	E 27,314.81
MH 3 -9	STA 321+96.95	N 13,374.88	E 27,523.35
MH 3 -10	STA 323+98.95	N 13,377.02	E 27,725.34
MH 3 -11	STA 325+23.51	N 13,378.29	E 27,849.90
MH 4 -1	STA 408+88.71	N 9,499.15	E 25,435.98
MH 4 -2	STA 412+45.55	N 9,855.94	E 25,430.08
MH 4 -3	STA 416+45.55	N 10,255.90	E 25,423.47
MH 4 -4	STA 420+45.55	N 10,655.74	E 25,419.63
MH 4 -5	STA 424+45.55	N 11,055.74	E 25,413.25
MH 4 -6	STA 427+00.00	N 11,310.09	E 25,406.04
MH 4 -7	STA 430+00.00	N 11,605.91	E 25,396.14
MH 4 -8	STA 432+94.69	N 11,900.56	E 25,381.27
MH 4 -9	STA 436+94.69	N 12,300.50	E 25,344.66
MH 4 -10	STA 440+94.96	N 12,700.45	E 25,338.04
MH 4 -11	STA 444+94.96	N 13,100.39	E 25,331.43
MH 4 -12	STA 447+69.89	N 13,375.55	E 25,326.88



Scale: None

HORIZONTAL CONTROL

Point	Description	Northing	Easting
⑦	NW Corner of Fox Meadow, 5/8" rebar	N 19,791.18	E 22,653.45
⑧	SW Corner of Fox Meadow, 5/8" rebar	N 18,679.56	E 22,672.50
⑨	SM 3/4" iron pipe	N 14,055.22	E 24,076.14
⑩	SM Sandlewood	N 14,662.53	E 24,057.01
⑪	SM 1/2" capped re	N 20,007.12	E 25,288.54



HORIZONTAL CONTROL

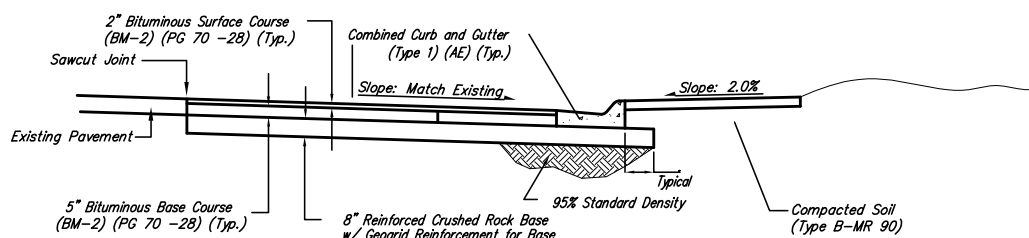
Point	Description	Northing	Easting
①	1" Iron Pipe	N 20,000.00	E 20,000.00
②	SM rebar w/ Baughman Cap	N 17,359.10	E 22,695.01
③	SM 1/2" iron pipe	N 14,709.53	E 22,732.42
④	SM 5/8" rebar w/ Cap	N 14,715.58	E 25,379.73
⑤	SM 5/8" rebar w/ Cap	N 12,069.14	E 25,423.49
⑥	SM rebar w/ MKEC Cap	N 9,425.32	E 25,464.32

Manhole Coordinates Located Above

BORE LOCATIONS

Point	Description
B1	Near 53rd Street North and Meridian
B2	Near 53rd Street North and Meridian
B3	Near 53rd Street North and Meridian
B4	Near Keywest and Meridian
B5	Near 51st Street North and Meridian
B6	Near Delaware and 51st Street North
B7	Near 53rd Street North and Sheridan
B8	Near 61st Street North and Sheridan

Bore Log available upon request.



PAVEMENT REPLACEMENT DETAIL

BENCHMARK

BM #1 Sheridan and 61st St. N.
R.R. spike in the power pole at the south east corner of Sheridan and 61st St. N. Power pole is 150' east and 30' south.
MSL 1338.96



		PDC PDC 8/3/05 2R 44
NORTH AREA INTERCEPTOR KEY MAP		Ruggles & Bohm, P.A. Engineering, Surveying, Land Planning 824 North Main Wichita, Kansas 67203 www.rbkansas.com (316) 264-8008 (316) 264-4621 fax E-mail: info@rbkansas.com
411 N. WEBB ROAD WICHITA, KS. 67206 316-684-9600	PROJECT NUMBER 468-83682	DATE 8/28/05

Note: Both lines were shifted East to allow room for bore pits.

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT THE EXISTING LANDSCAPING. ALL DAMAGED OR DESTROYED LANDSCAPING MUST BE REPLACED WITH LIKE SIZE AND TYPE. ALL REPLACEMENT SUBJECT TO ENGINEERS APPROVAL.

STA. 408+41.00 LINE 4
CONVERSION OF EXISTING WET WELL
SEE SHEET NO. 3.
TOP = 1327.01

See as-built details
on next page.

A-16224-00UP
CBB Northlakes LLC
4647 N Meridian

12" Force Main (JMM
HDPE Drill 160psi).

12" FM line 7' E
of W of back of

12" FM line 18' E of
W of back of curb

15" SS line 10' E of
W back of curb.

15" SS line 22' E of
W of back of curb

15" SS No Dig
Mission Clay Pipe.

12" FM line 7' E of
W of back cub

15" SS line 11' E of
W back of curb

MH 4-1
STA. 408+88.71 LINE 4
CONSTRUCT STD TYPE P MH
TOP = 1327.01

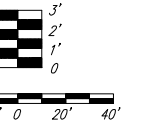
MH 4-2
STA. 412+45.55 LINE 4
CONSTRUCT STD TYPE P MH
TOP = 1326.63

THE CONTRACTOR SHALL MICROTUNNEL
THE GRAVITY MAIN FROM
STA. 408+88 TO STA. 430+00.

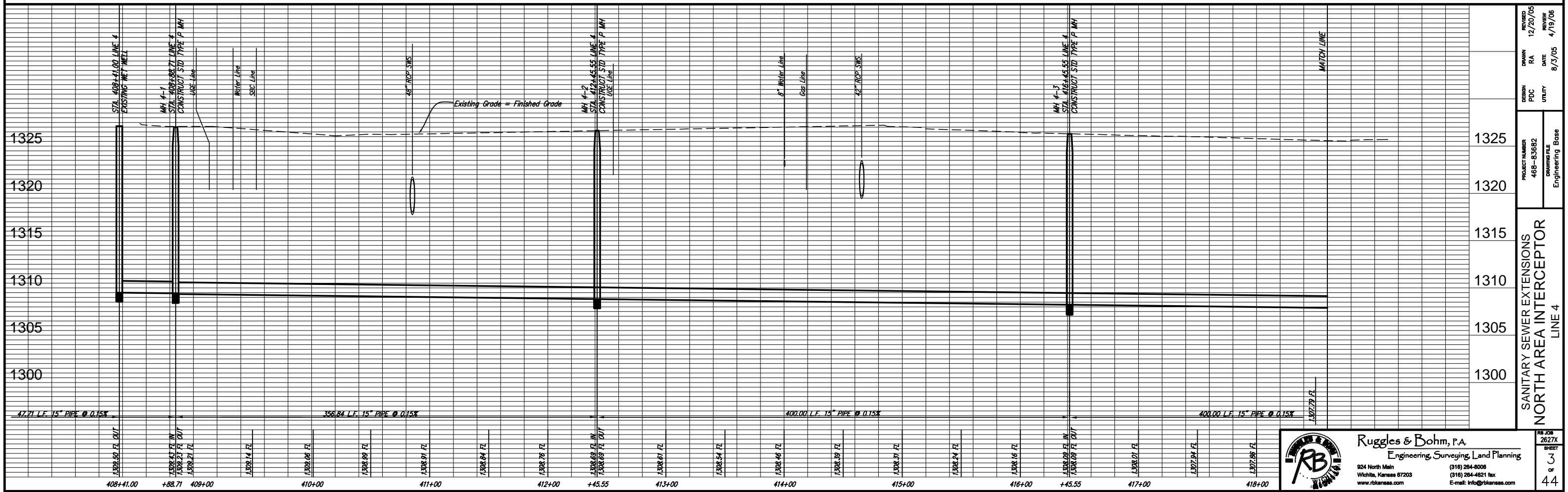
MH 4-3
STA. 416+45.55 LINE 4
CONSTRUCT STD TYPE P MH
TOP = 1326.25



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600



REVISION	12/20/05
DATE	4/19/06
DESIGN	PDC
UTILITY	UTILITY
PROJECT NUMBER	468-83682
DRAWING FILE	Engineering Base
SANITARY SEWER EXTENSIONS NORTH AREA INTERCEPTOR LINE 4	
PROJECT NUMBER	468-83682
DRAWING FILE	Engineering Base
REVISION	12/20/05
DATE	4/19/06
DESIGN	PDC
UTILITY	UTILITY
PROJECT NUMBER	468-83682
DRAWING FILE	Engineering Base
SANITARY SEWER EXTENSIONS NORTH AREA INTERCEPTOR LINE 4	
PROJECT NUMBER	468-83682
DRAWING FILE	Engineering Base
REVISION	12/20/05
DATE	4/19/06
DESIGN	PDC
UTILITY	UTILITY
PROJECT NUMBER	468-83682
DRAWING FILE	Engineering Base



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RB JOB
2627X
SHEET
3
OF
44

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT THE EXISTING LANDSCAPING. ALL DAMAGED OR DESTROYED LANDSCAPING MUST BE REPLACED WITH LIKE SIZE AND TYPE. ALL REPLACEMENT SUBJECT TO ENGINEERS APPROVAL.

Note: Both lines were shifted East to allow room for bore pits.

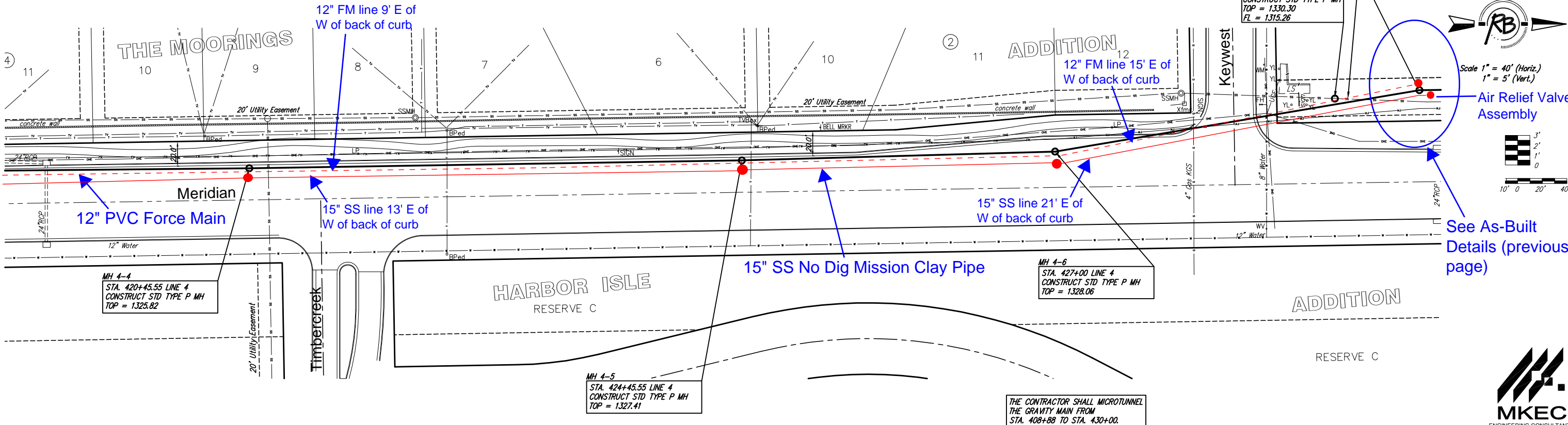
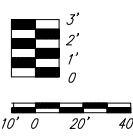
STA. 429+31 TO STA. 432+95 LINE 4 THE SANITARY SEWER LINE SHALL BE ABANDONED IN PLACE, AND CAPPED OR PLUGGED TO CITY OF WICHITA STANDARD SPECIFICATIONS.

MH 4-7 STA. 430+00 LINE 4 CONSTRUCT STD 4' TYPE P MH TOP = 1331.55

STA. 429+31 LINE 4, 5' LT. CONSTRUCT STD TYPE P MH TOP = 1330.30 FL = 1315.26



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)

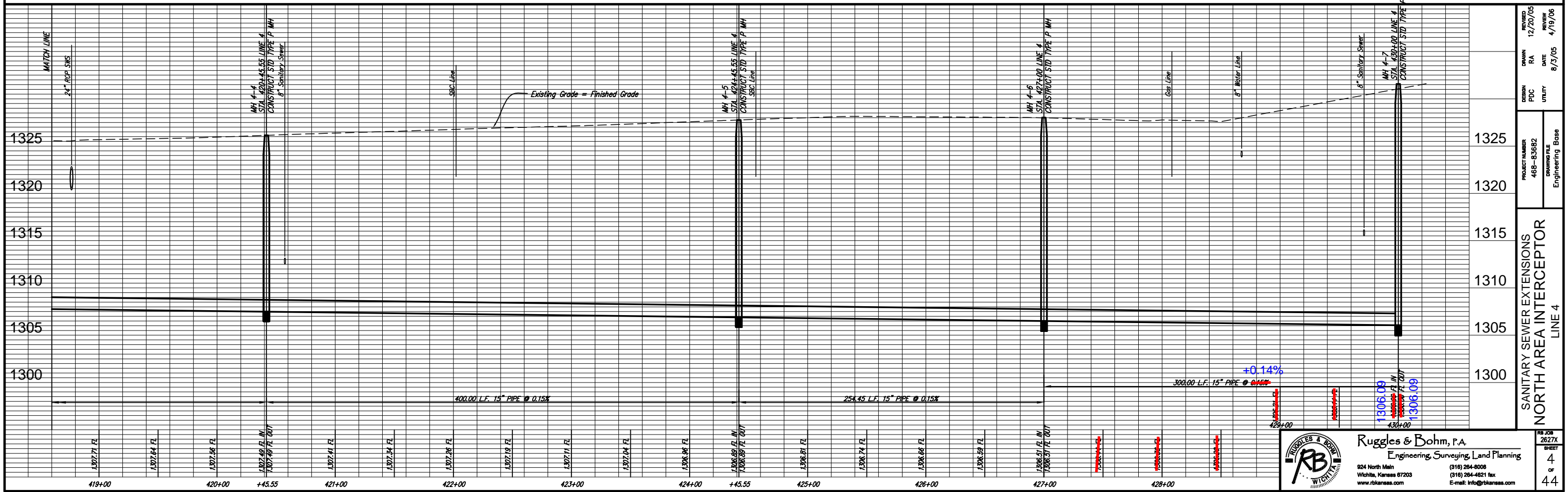


HARBOR ISLE
RESERVE C

ADDITION

RESERVE C

THE CONTRACTOR SHALL MICROTUNNEL THE GRAVITY MAIN FROM STA. 408+88 TO STA. 430+00.



REVISION	12/20/05
DESIGN	PDC
DRAWING FILE	Engineering Base
PROJECT NUMBER	468-83682
DATE	8/3/05
REVIEW	4/19/06
DRAWN	RA
UTILITY	
REVISION	
DATE	
REVIEW	

Ruggles & Bohm, P.A.
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THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT THE EXISTING LANDSCAPING. ALL DAMAGED OR DESTROYED LANDSCAPING MUST BE REPLACED WITH LIKE SIZE AND TYPE. ALL REPLACEMENT SUBJECT TO ENGINEER'S APPROVAL.

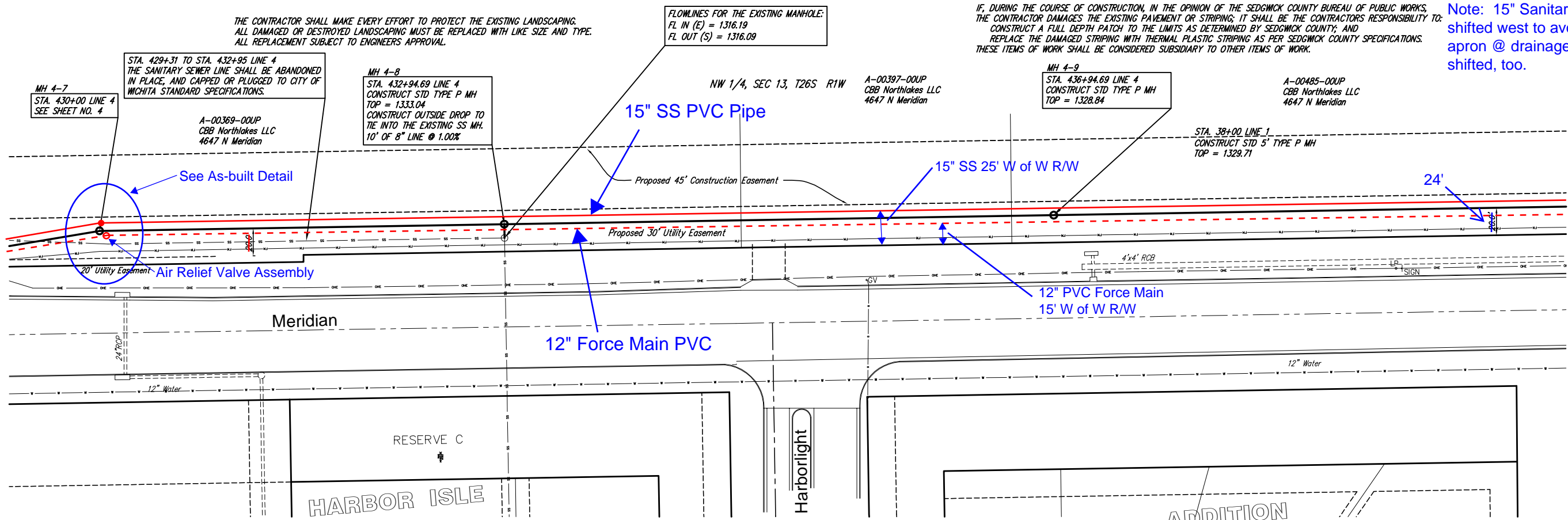
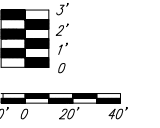
FLOWLINES FOR THE EXISTING MANHOLE:
FL IN (E) = 1316.19
FL OUT (S) = 1316.09

IF, DURING THE COURSE OF CONSTRUCTION, IN THE OPINION OF THE SEDGWICK COUNTY BUREAU OF PUBLIC WORKS, THE CONTRACTOR DAMAGES THE EXISTING PAVEMENT OR STRIPING, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO: CONSTRUCT A FULL DEPTH PATCH TO THE LIMITS AS DETERMINED BY SEDGWICK COUNTY; AND REPLACE THE DAMAGED STRIPING WITH THERMAL PLASTIC STRIPING AS PER SEDGWICK COUNTY SPECIFICATIONS. THESE ITEMS OF WORK SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS OF WORK.

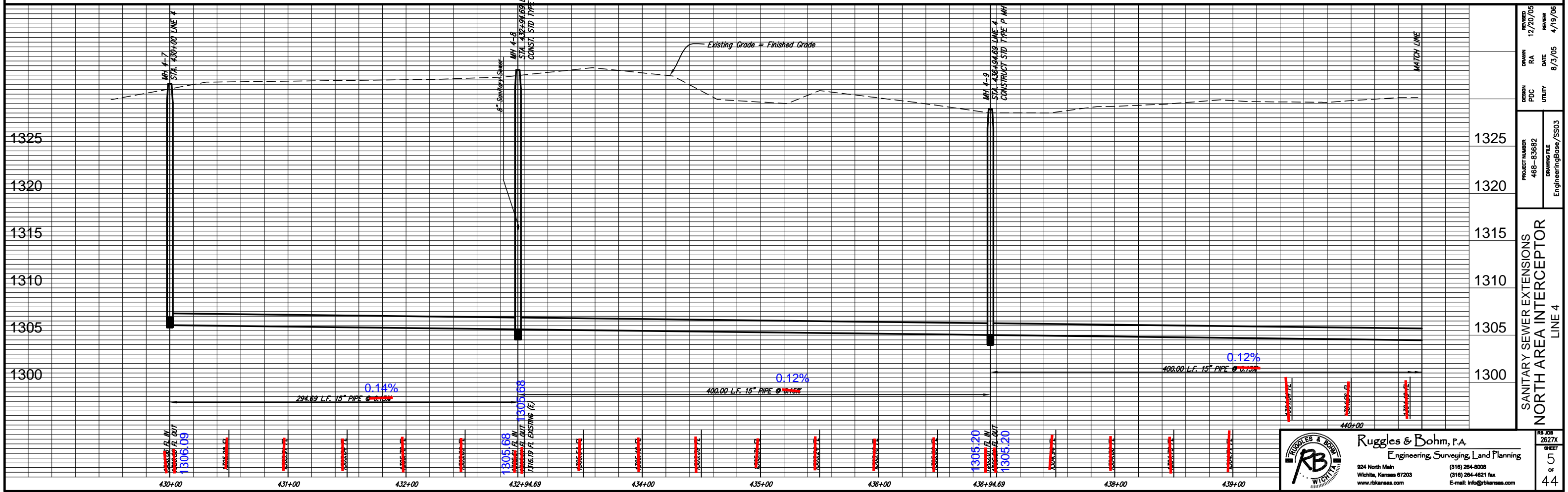
Note: 15" Sanitary Sewer was shifted west to avoid boring under apron @ drainage 12" Force Main shifted, too.



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



THE CONTRACTOR SHALL MICROTUNNEL THE GRAVITY MAIN FROM STA. 408+88 TO STA. 430+00.



REVISION	12/20/05	REVIEW	4/19/06
DRAWN	RA	DATE	8/23/05
DESIGN	PDC	UTILITY	
PROJECT NUMBER	468-83682	DRAWING FILE	EngineeringBase/SS03
SANITARY SEWER EXTENSIONS NORTH AREA INTERCEPTOR LINE 4			
PROJECT	RUGGLES & BOHM, P.A. Engineering, Surveying, Land Planning		
ADDRESS	924 North Main Wichita, Kansas 67203 www.rbkansas.com		
PHONE	(316) 264-0008 (316) 264-4621 fax E-mail: info@rbkansas.com		
JOB NUMBER	2627X	SHEET	5
			44

NW 1/4, SEC 13, T26S R1W

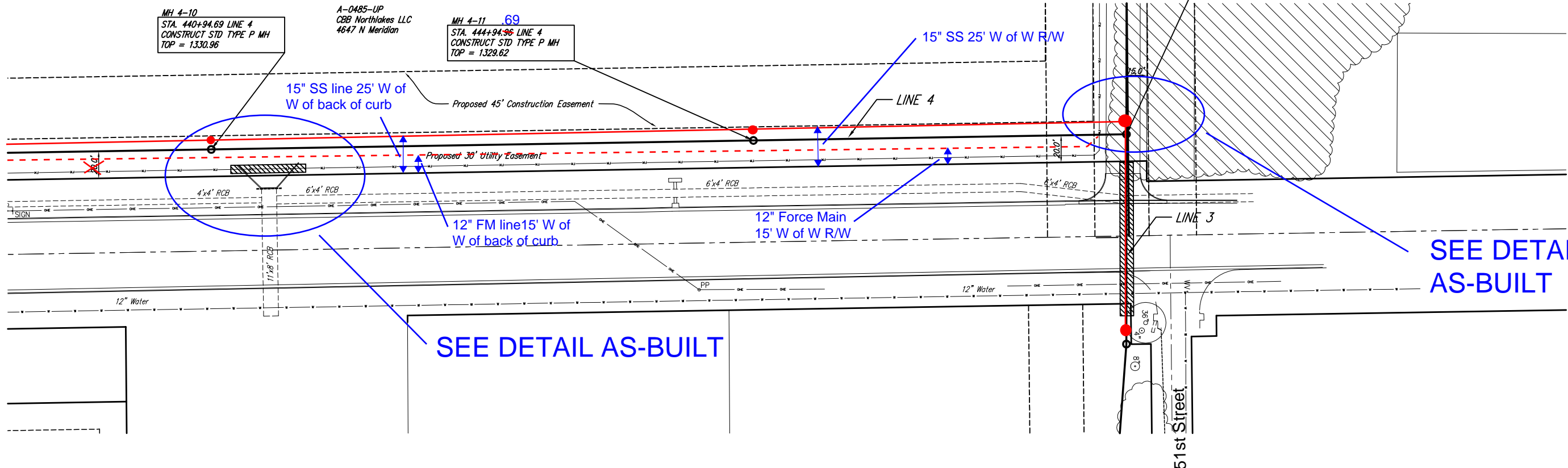
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MH 4-12
STA. 447+69.88 LINE 4 =
STA. 300+00.00 LINE 3
CONSTRUCT STANDARD 5' TYPE P MANHOLE
TOP = 1330.44
SEE SHEET 5, 7, AND 21

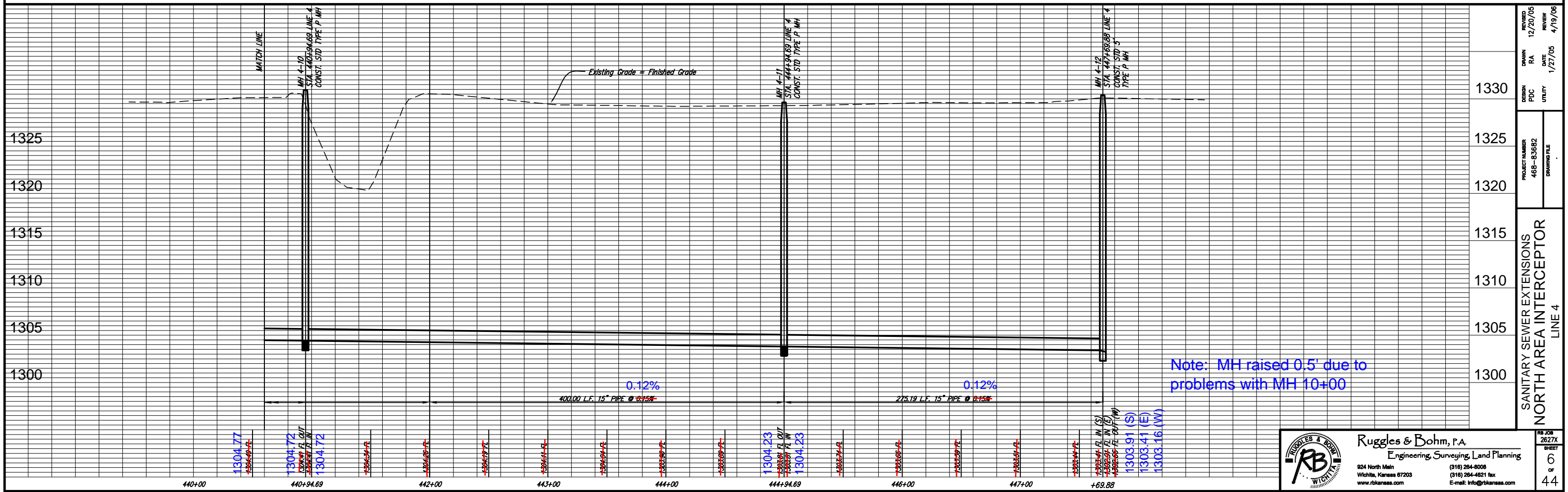
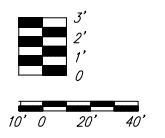
MH 4-10
STA. 440+94.69 LINE 4
CONSTRUCT STD TYPE P MH
TOP = 1330.96

A-0485-UP
CBB Northlakes LLC
4647 N Meridian

MH 4-11 .69
STA. 444+94.96 LINE 4
CONSTRUCT STD TYPE P MH
TOP = 1329.62



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



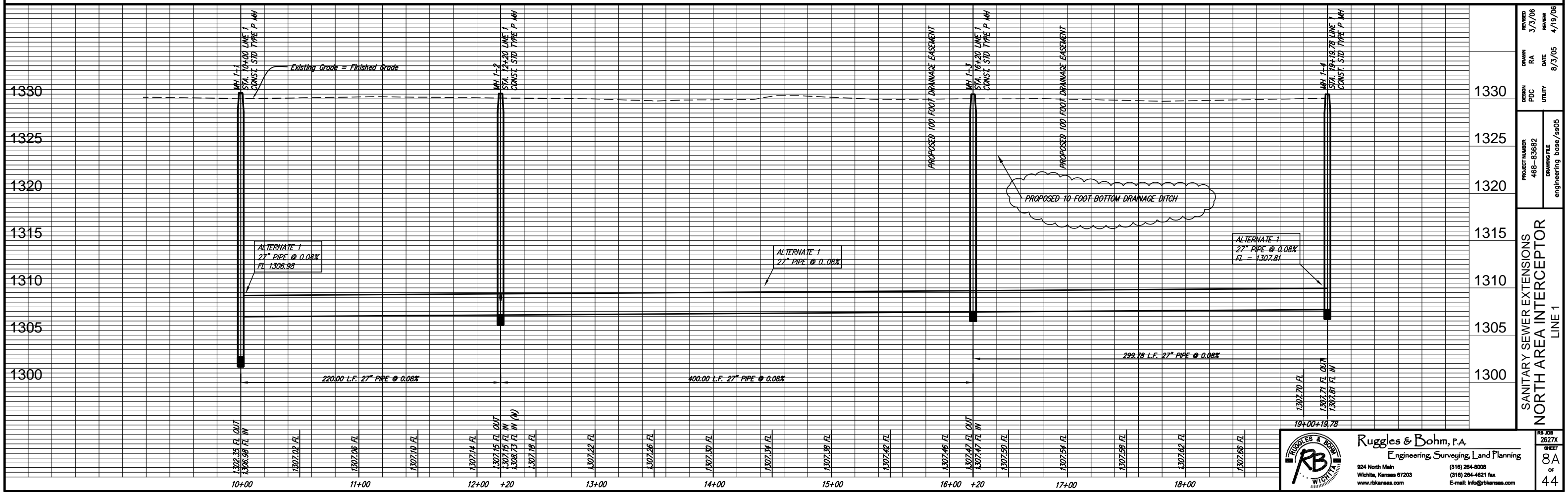
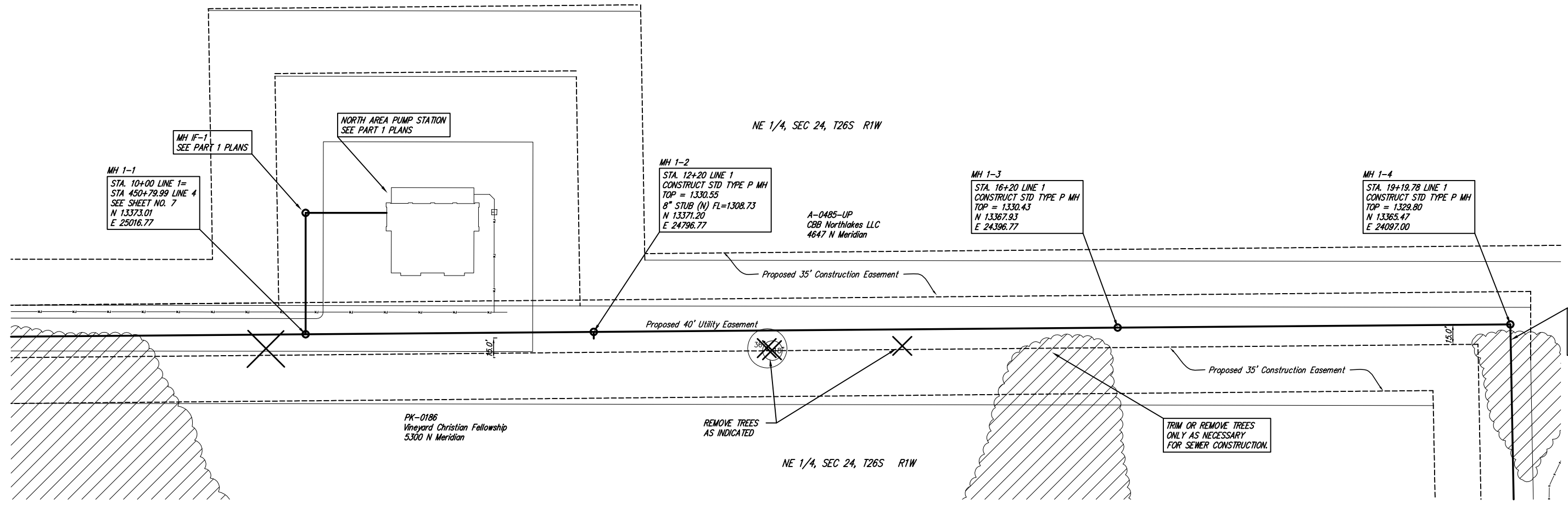
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PROJECT NUMBER	468-83682	DRAWING FILE	1325
REVISION	DATE	REVIEW	4/19/06
12/20/05	1/27/05	4/19/06	
SANITARY SEWER EXTENSIONS			1315
NORTH AREA INTERCEPTOR			1310
LINE 4			1305
			1300

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RB JOB 2627X
SHEET 6 OF 44



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



REVISION	DATE	BY	CHKD
3/3/06	3/3/06	RA	RA
8/3/05	8/3/05	DATE	DATE
6/3/05	6/3/05	DESIGN	UTILITY
PROJECT NUMBER	468-83682	DRAWING FILE	engineering_base/8505
SANITARY SEWER EXTENSIONS			
NORTH AREA INTERCEPTOR			
LINE 1			
PROJECT NUMBER	468-83682	DRAWING FILE	engineering_base/8505
PROJECT NUMBER	468-83682	DRAWING FILE	engineering_base/8505
PROJECT NUMBER	468-83682	DRAWING FILE	engineering_base/8505

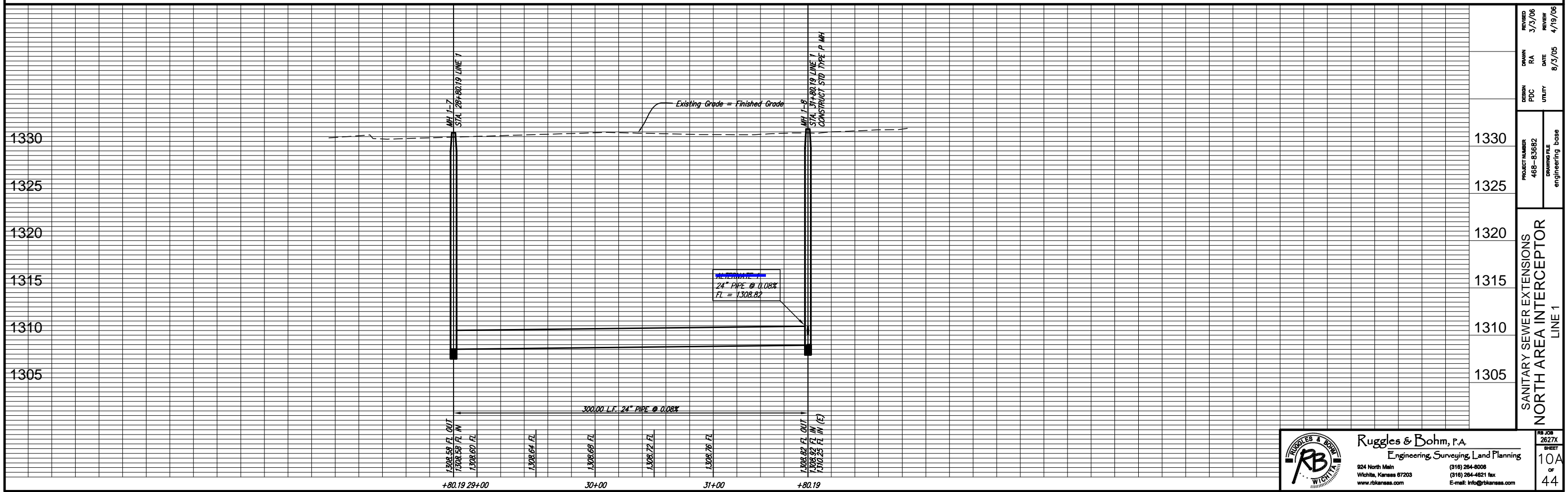
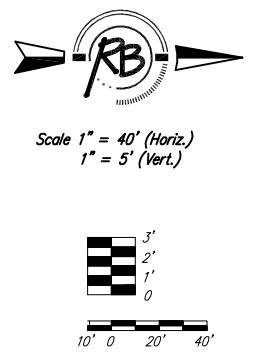
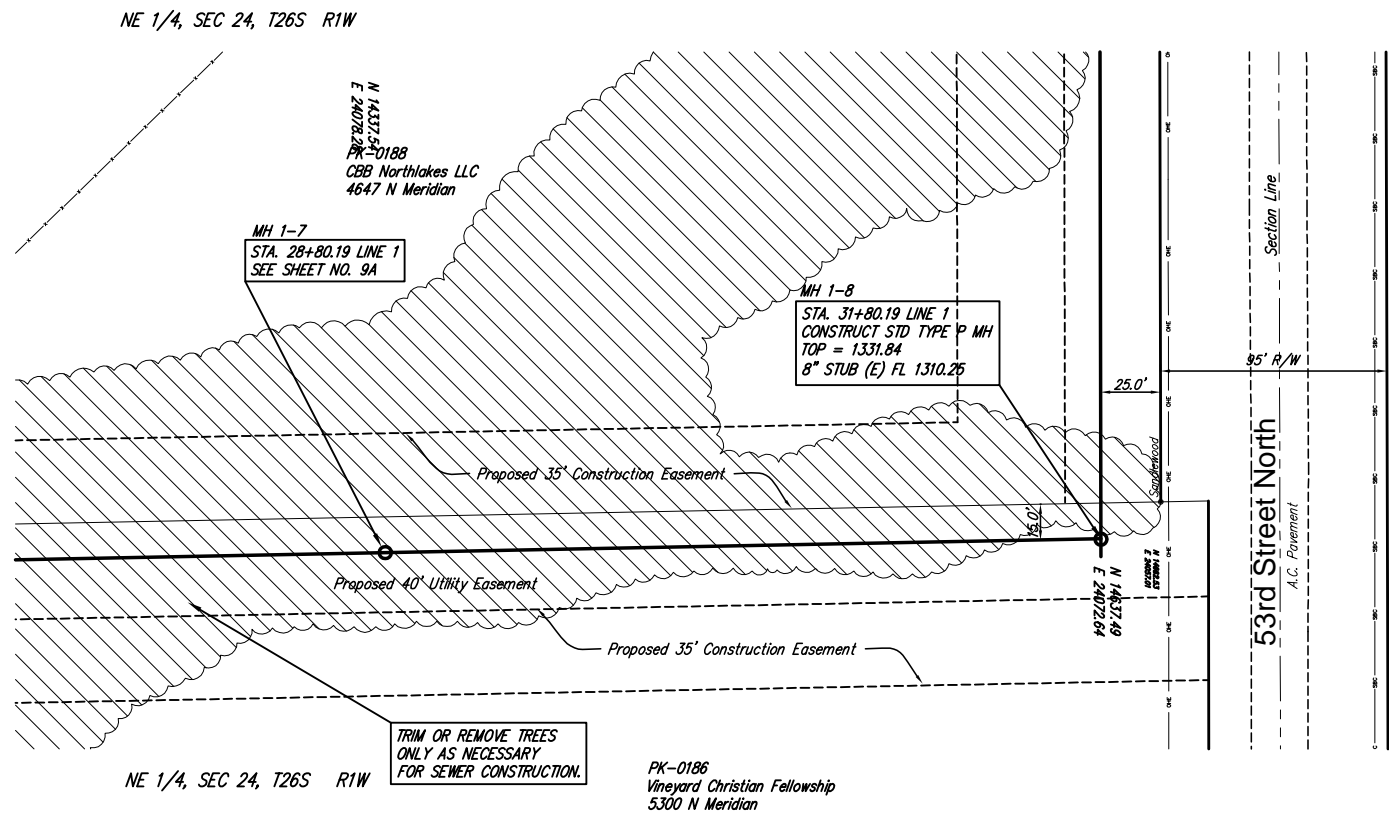
Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning

924 North Main
Wichita, Kansas 67203
www.rbkansas.com

(316) 264-9008
(316) 264-4621 fax
E-mail: info@rbkansas.com

RB JOB 2627X
SHEET 8A
OF 44

SEE NOTE NO. 14 ON SHEET NO. 1 FOR ALTERNATE PIPING INFORMATION



REVISION	3/3/06
REVIEW	4/19/06
DATE	8/5/05
DATE	8/5/05
DESIGN	PDC
UTILITY	UTILITY
PROJECT NUMBER	468-85682
DRAWING FILE	engineering_base
DRAWING FILE	engineering_base
SANITARY SEWER EXTENSIONS	
NORTH AREA INTERCEPTOR	
LINE 1	

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning

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Wichita, Kansas 67203
www.rbkansas.com

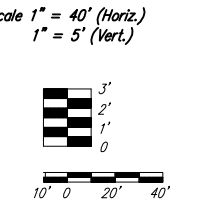
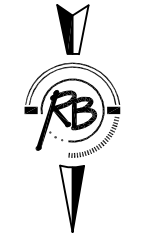
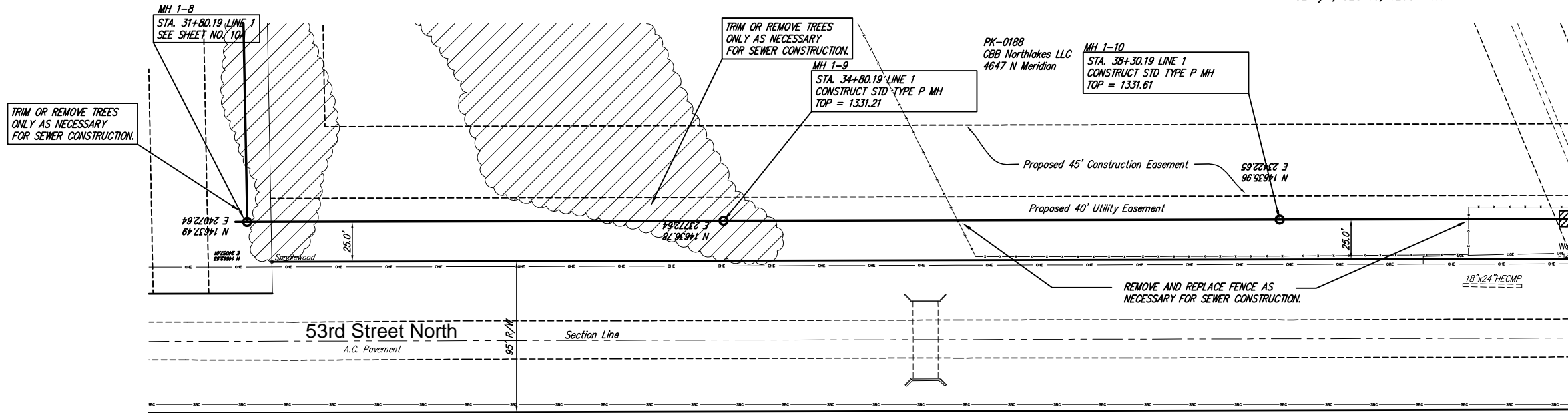
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(316) 264-4621 fax
E-mail: info@rbkansas.com

RB JOB
2627X
SHEET
10A
OF
44

IF, DURING THE COURSE OF CONSTRUCTION, IN THE OPINION OF SEDGWICK COUNTY BUREAU OF PUBLIC WORKS, THE CONTRACTOR DAMAGES THE EXISTING PAVEMENT OR STRIPING; IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO: CONSTRUCT A FULL DEPTH PATCH TO THE LIMITS AS DETERMINED BY SEDGWICK COUNTY. REPLACE THE DAMAGED STRIPING WITH THERMAL PLASTIC STRIPING AS PER SEDGWICK COUNTY SPECIFICATIONS. THESE ITEMS OF WORK SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS OF WORK.

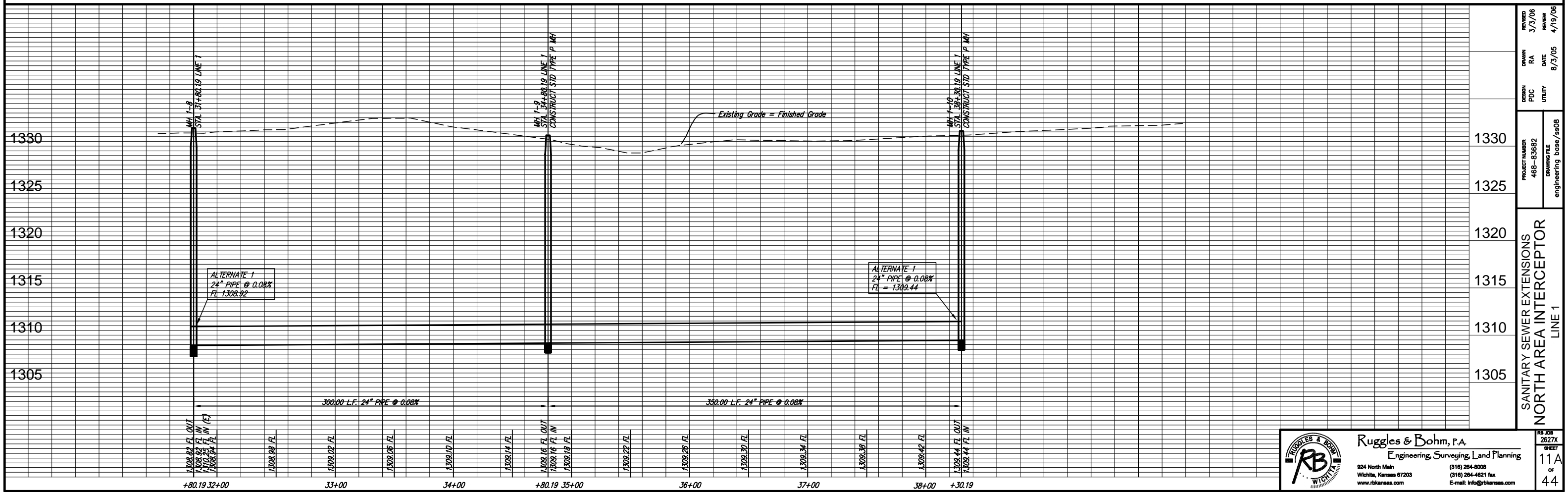
SEE NOTE NO. 14 ON SHEET NO. 1 FOR ALTERNATE PIPING INFORMATION

SE 1/4, SEC 13, T26S R1W



PK-0079-003
R & R Realty LLC
8100 E 22nd St. N.

NE 1/4, SEC 24, T26S R1W



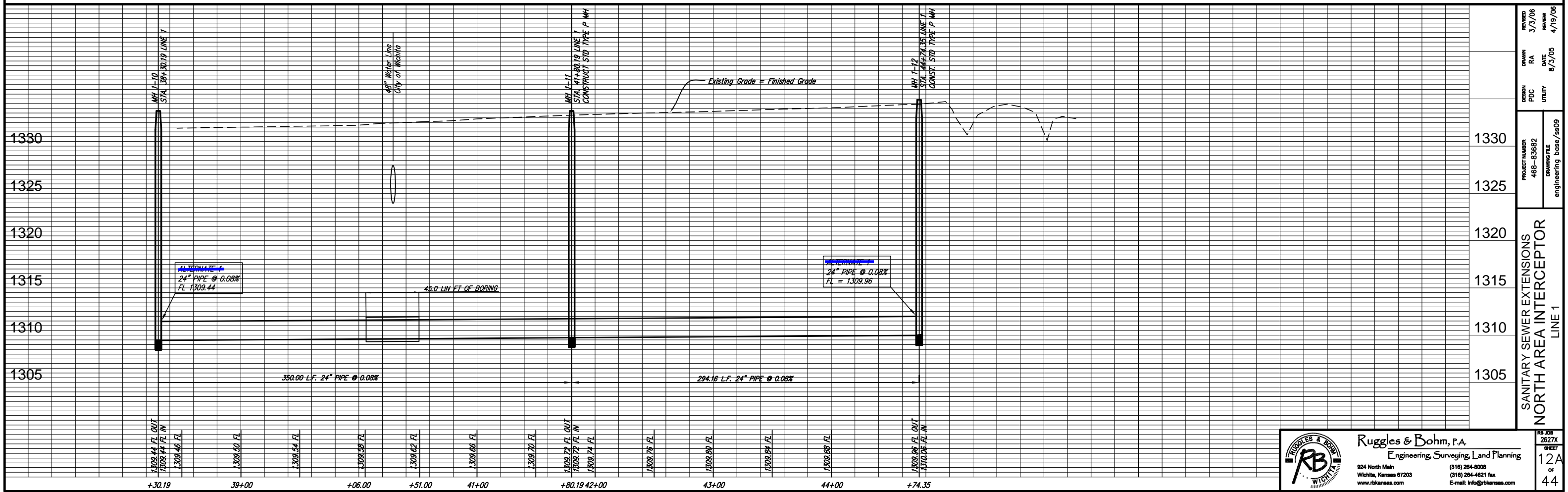
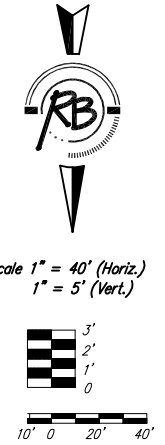
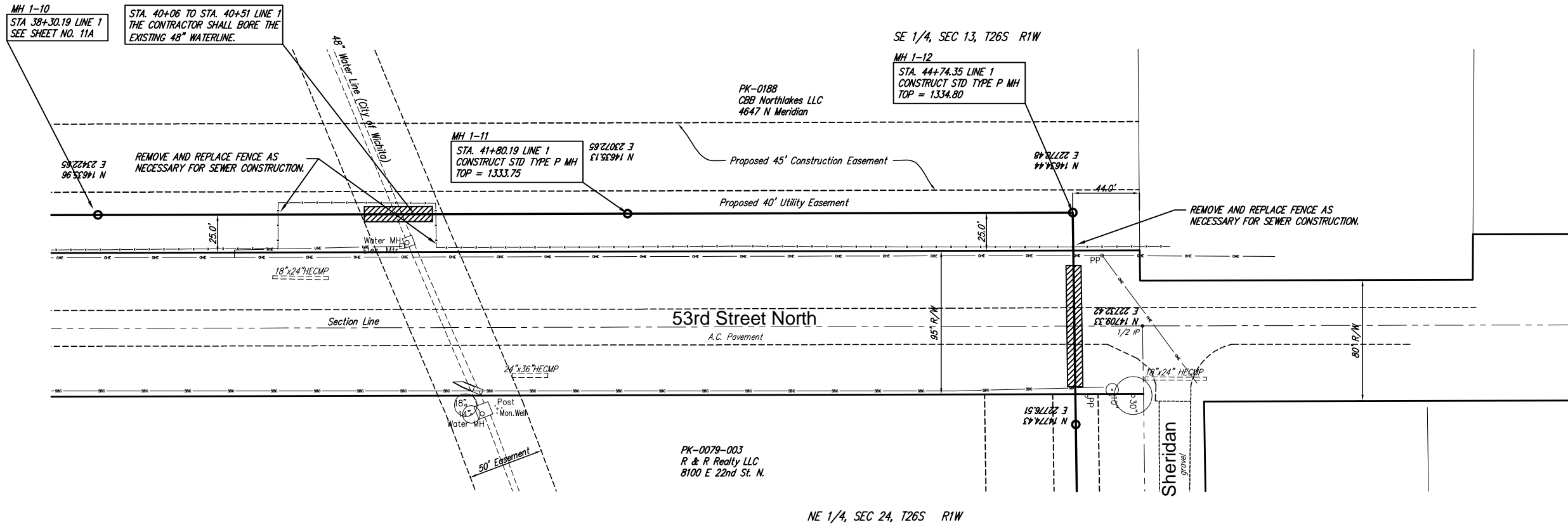
REVISION	3/3/06	REVIEW	4/19/06
DRAWN	RA	DATE	8/23/05
DESIGN	PDC	UTILITY	
PROJECT NUMBER	468-83682	DRAWING FILE	engineering_base/468
SANITARY SEWER EXTENSIONS NORTH AREA INTERCEPTOR LINE 1			

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11A
of
44

IF, DURING THE COURSE OF CONSTRUCTION, IN THE OPINION OF SEDGWICK COUNTY BUREAU OF PUBLIC WORKS, THE CONTRACTOR DAMAGES THE EXISTING PAVEMENT OR STRIPING, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO: CONSTRUCT A FULL DEPTH PATCH TO THE LIMITS AS DETERMINED BY SEDGWICK COUNTY REPLACE THE DAMAGED STRIPING WITH THERMAL PLASTIC STRIPING AS PER SEDGWICK COUNTY SPECIFICATIONS THESE ITEMS OF WORK SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS OF WORK.

SEE NOTE NO. 14 ON SHEET NO. 1 FOR ALTERNATE PIPING INFORMATION



REVISION	DATE	BY
3/3/06	RA	RA
8/3/05	DATE	8/3/05
4/19/06	REVIEW	4/19/06
DESIGN	PDC	UTILITY
PROJECT NUMBER	468-83682	DRAWING FILE
engineering_base/46809		
SANITARY SEWER EXTENSIONS		
NORTH AREA INTERCEPTOR		
LINE 1		
PROJECT NUMBER	468-83682	DRAWING FILE
engineering_base/46809		

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E-mail: info@rbkansas.com

RB JOB 2627X
SHEET 12A
OF 44

Note: Shifted due to location of power pole that is in way of bore pit.

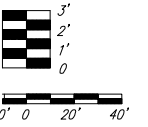
Sta. 45+10 to 46+10
 STA. 05+00.36 TO 06+00.36 LINE 1
 BORE 80 L.F. UNDER 53rd STREET
 100 LF

SEE NOTE NO. 14 ON SHEET NO. 1 FOR ALTERNATE PIPING INFORMATION

SW 1/4, SEC 13, T26S R1W



Scale 1" = 40' (Horiz.)
 1" = 5' (Vert.)



Denton - McWorter

Addition

MH 1-12
 STA. 44+74.35 LINE 1
 SEE SHEET NO. 12A

MH 1-13
 STA. 46+14.36 LINE 1
 CONSTRUCT STD TYPE P MH
 TOP = 1333.08
 8" STUB = 1312.28 (EAST)

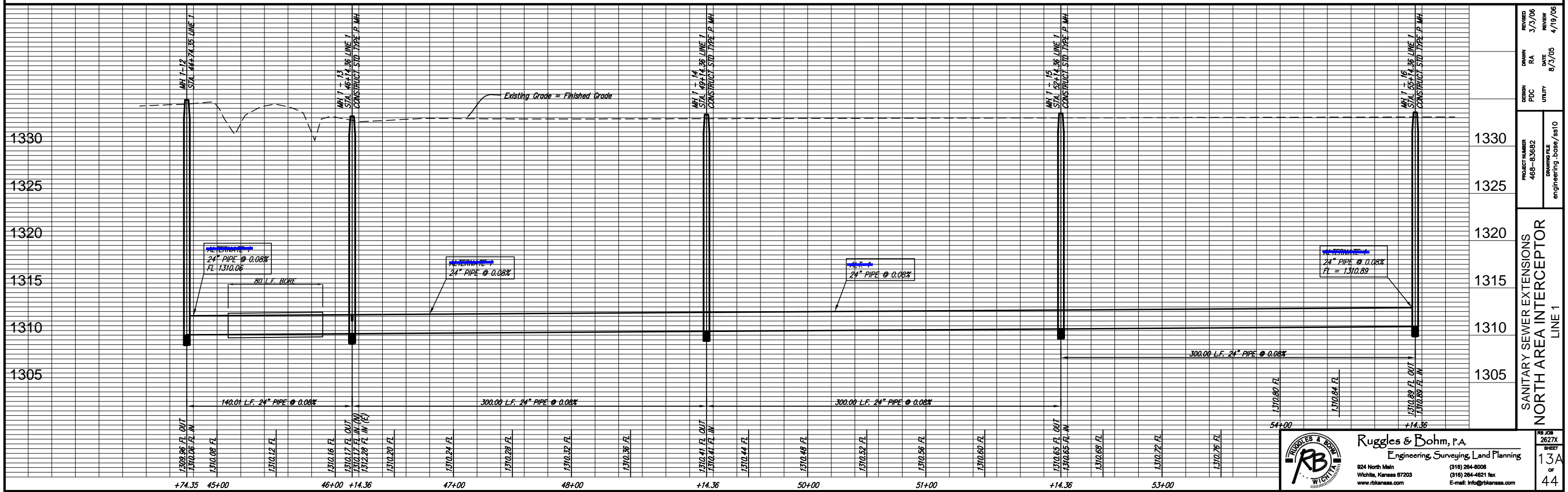
PK-0079-003
 R & R Realty LLC
 8100 E 22nd St. N.

MH 1-14
 STA. 49+14.36 LINE 1
 CONSTRUCT STD TYPE P MH
 TOP = 1333.38

MH 1-15
 STA. 52+14.36 LINE 1
 CONSTRUCT STD TYPE P MH
 TOP = 1333.44

MH 1-16
 STA. 55+14.36 LINE 1
 CONSTRUCT STD TYPE P MH
 TOP = 1333.56

SE 1/4, SEC 13, T26S R1W



DESIGN	PDC	UTILITY	DATE	8/3/05
DRAWN	RA	REVIEW	DATE	4/19/06
PROJECT NUMBER	468-83682	DRAWING FILE	engineering_base/ast10	
SANITARY SEWER EXTENSIONS NORTH AREA INTERCEPTOR LINE 1				

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RB JOB 2627X
 SHEET 13A
 OF 44

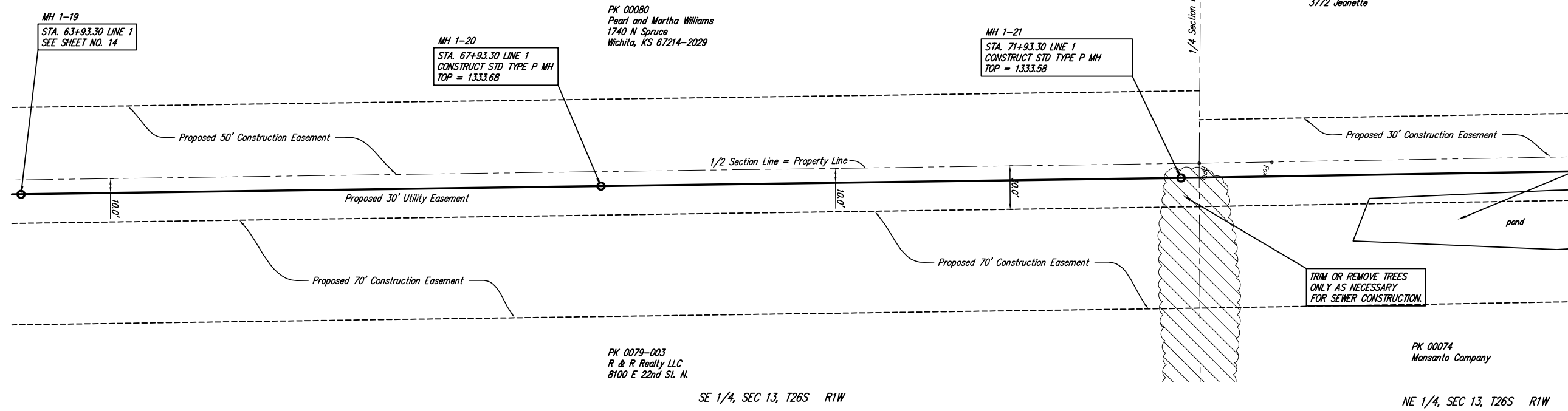
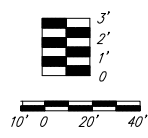
SEE NOTE NO. 14 ON SHEET NO. 1 FOR ALTERNATE PIPING INFORMATION

SW 1/4, SEC 13, T26S R1W

NW 1/4, SEC 13, T26S R1W



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



THE CONTRACTOR SHALL REFER TO THE PROJECT SPECIAL CONDITIONS. THE CONTRACTOR SHALL REMOVE THE DEBRIS AND DISPOSE OF IT IN APPROVED LOCATIONS. EXCESS EXCAVATION MAY BE USED TO FILL THE POND.

PK 00080
Pearl and Martha Williams
1740 N Spruce
Wichita, KS 67214-2029

PK 00078
Leeker, John J & Dorothy Joint Revocable Trust
3772 Jeanette

MH 1-21
STA. 71+93.30 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1333.58

MH 1-20
STA. 67+93.30 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1333.68

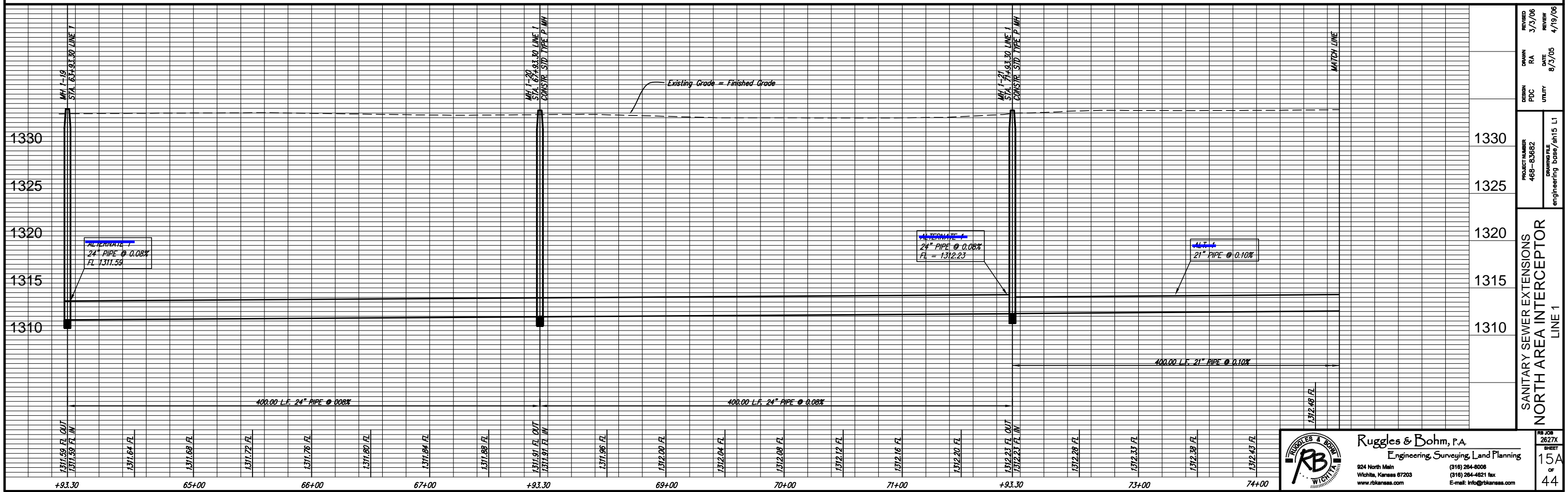
MH 1-19
STA. 63+93.30 LINE 1
SEE SHEET NO. 14

PK 0079-003
R & R Realty LLC
8100 E 22nd St. N.

PK 00074
Monsanto Company

SE 1/4, SEC 13, T26S R1W

NE 1/4, SEC 13, T26S R1W



REVISION	3/3/06
DATE	8/3/05
DESIGN	PDC
PROJECT NUMBER	468-03682
DRAWING FILE	engineering_base/sh15 L1
DESIGNER	RA
DATE	8/3/05
UTILITY	
REVIEW	4/19/06

SANITARY SEWER EXTENSIONS
NORTH AREA INTERCEPTOR
LINE 1

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Wichita, Kansas 67203
www.rbkansas.com

(316) 264-9008
(316) 264-4621 fax
E-mail: info@rbkansas.com

RB JOB 2627X
SHEET 15A
OF 44

SEE NOTE NO. 14 ON SHEET NO. 1 FOR ALTERNATE PIPING INFORMATION

NW 1/4, SEC 13, T26S R1W

PK 00078
Leeker, John J & Dorothy Joint Revocable Trust
3772 Jeanette

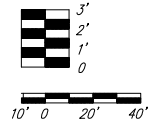
MH 1-25
STA. 83+91.63 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1335.22

STA. 125+81 TO STA. 120+41 LINE 1
THE CONTRACTOR SHALL BORE UNDER THE EXISTING WESTAR LINES.

STA. 84+81 TO STA. 85+61 LINE 1



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



MH 1-22
STA. 75+93.30 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1334.45

Proposed 30' Construction Easement

1/4 Section Line = Property Line

Proposed 30' Utility Easement

Proposed 70' Construction Easement

PK 00074
Monsanto Company

MH 1-23
STA. 79+93.30 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1334.78

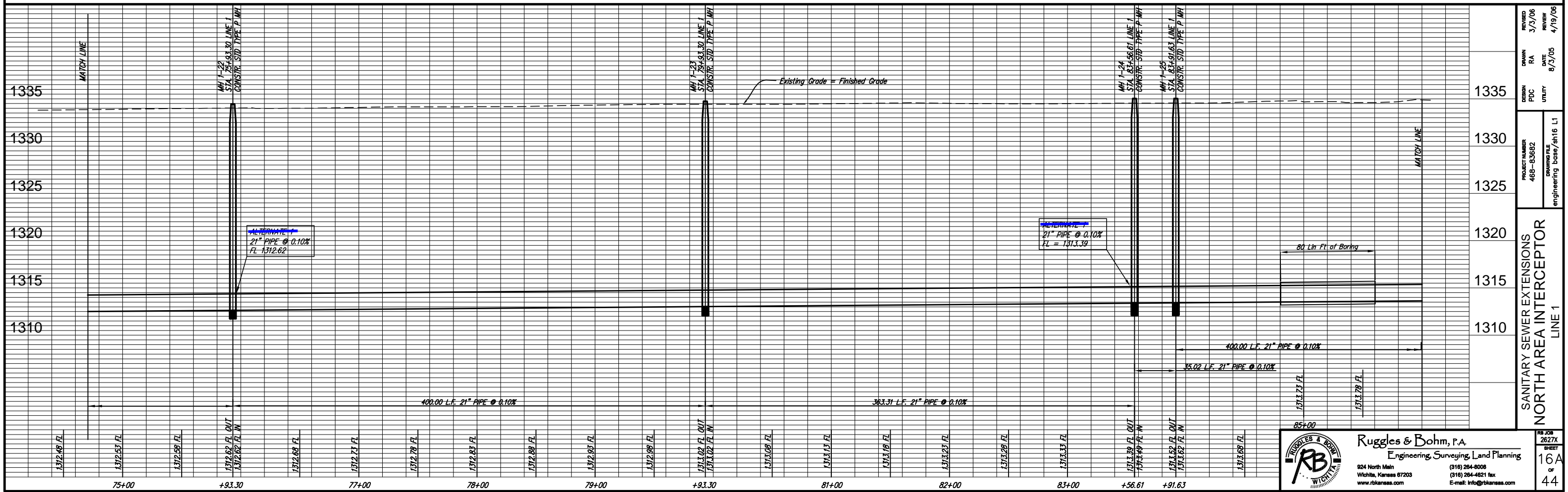
NE 1/4, SEC 13, T26S R1W

MH 1-24
STA. 83+56.61 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1334.90

WESTAR OVERHEAD TRANSMISSION LINES -
MAINTAIN A MINIMUM OF 10' OF
UNDISTURBED SOIL AROUND THE POLE BASES
STA 84+96.30 TO STA 85+46.30

TRIM OR REMOVE TREES
ONLY AS NECESSARY
FOR SEWER CONSTRUCTION.

CAUTION!!!
OVERHEAD TRANSMISSION LINES
CONTACT WESTAR AT LEAST 48 HOURS
PRIOR TO CONSTRUCTION AT:
PHONE (785) 575-1608



DESIGN	PDC	UTILITY
DRAWN	RA	DATE
PROJECT NUMBER	468-03682	DRAWING FILE
REVISION	3/3/06	REVIEW
DATE	8/3/05	4/19/06
DRAWING base/sh16 L1		
engineering base/sh16 L1		

SANITARY SEWER EXTENSIONS
NORTH AREA INTERCEPTOR
LINE 1

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RB JOB 2627X
SHEET 16A
OF 44

STA. 99+07.49 LINE 1
WITH THE WRITTEN PERMISSION OF SEDGWICK COUNTY
BUREAU OF PUBLIC WORKS THE CONTRACTOR MAY
OPEN CUT SHERIDAN. CONTACT JIM WEBER AT 383-7901.

SE 1/4, SEC 12, T26S R1W

PK 00072
Casey, Tedd A & Diane J
2812 W 61st St N

PK 00073
Stout, Ruth Elma Etal
3518 Jefferson
Muskogee, OK 74403

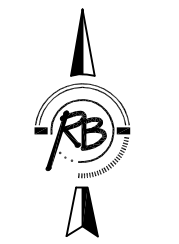
MH 1-29
STA. 98+82.49 LINE 1
SEE SHEET NO. 18

MH 1-30
STA. 99+46.63 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1338.4
12" STUB NORTH FL = 1316.14

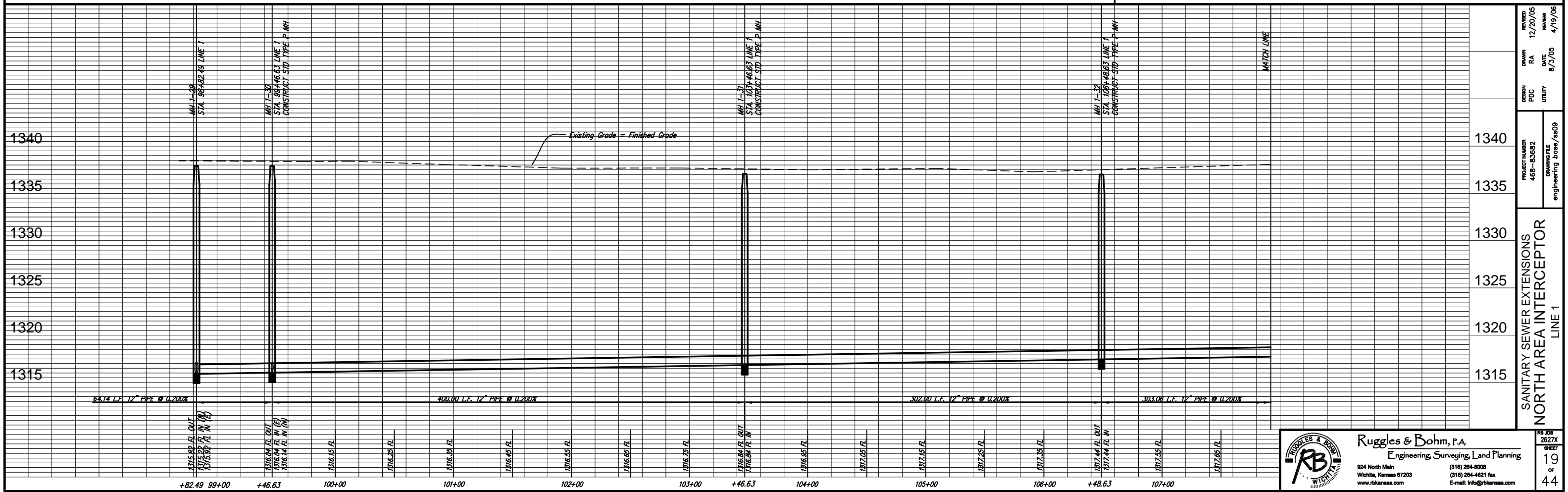
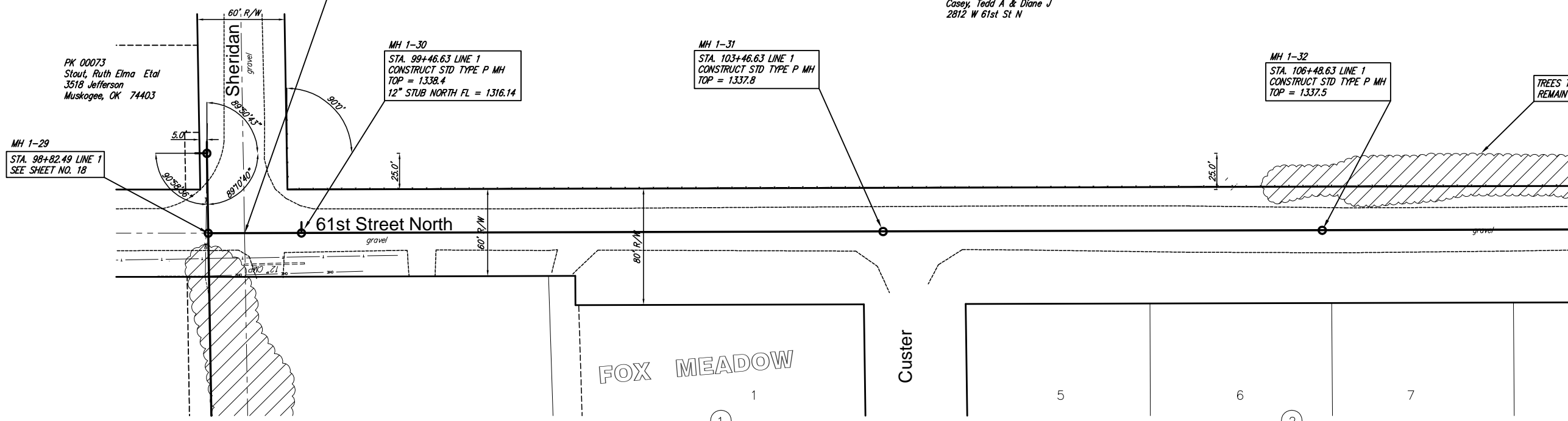
MH 1-31
STA. 103+46.63 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1337.8

MH 1-32
STA. 106+48.63 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1337.5

TREES TO REMAIN



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



DESIGN	PDC	UTILITY	DATE	8/3/05	REVIEW	4/19/06	
PROJECT NUMBER	469-63682	DRAWING FILE	engineering_base/bs09	DATE	8/3/05	REVIEW	4/19/06
PROJECT NUMBER	469-63682	DRAWING FILE	engineering_base/bs09	DATE	8/3/05	REVIEW	4/19/06
PROJECT NUMBER	469-63682	DRAWING FILE	engineering_base/bs09	DATE	8/3/05	REVIEW	4/19/06
PROJECT NUMBER	469-63682	DRAWING FILE	engineering_base/bs09	DATE	8/3/05	REVIEW	4/19/06
PROJECT NUMBER	469-63682	DRAWING FILE	engineering_base/bs09	DATE	8/3/05	REVIEW	4/19/06
PROJECT NUMBER	469-63682	DRAWING FILE	engineering_base/bs09	DATE	8/3/05	REVIEW	4/19/06
PROJECT NUMBER	469-63682	DRAWING FILE	engineering_base/bs09	DATE	8/3/05	REVIEW	4/19/06
PROJECT NUMBER	469-63682	DRAWING FILE	engineering_base/bs09	DATE	8/3/05	REVIEW	4/19/06
PROJECT NUMBER	469-63682	DRAWING FILE	engineering_base/bs09	DATE	8/3/05	REVIEW	4/19/06

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RB JOB 2627X
SHEET 19 of 44

SE 1/4, SEC 12, T26S R1W

PK 00072
Casey, Tedd A & Diane J
2812 W 61st St. N.

PK 00072-1
Wilson, James A Etux
6414 N Sheridan

PK 00072-1A
Casey, Tedd A & Diane J
2812 W 61st St. N.

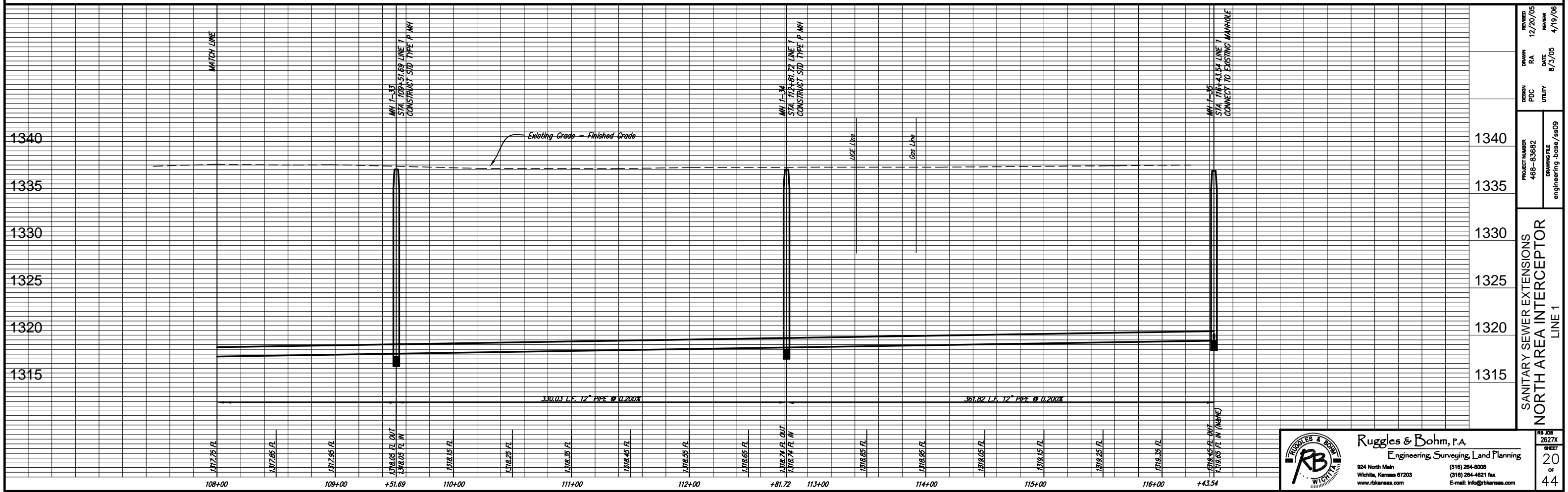
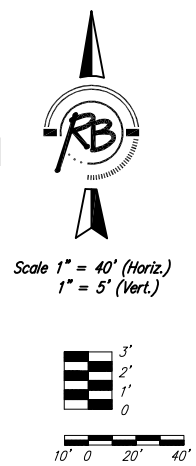
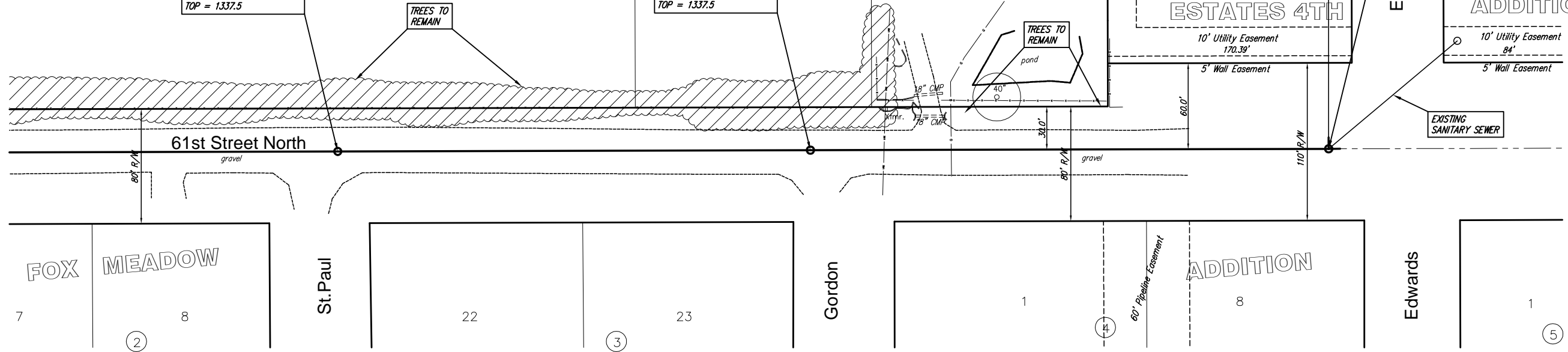
MH 1-35
STA. 116+43.54 LINE 1
CONNECT TO THE EXISTING MH
TOP = 1337.9

MH 1-33
STA. 109+51.69 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1337.5

MH 1-34
STA. 112+81.72 LINE 1
CONSTRUCT STD TYPE P MH
TOP = 1337.5

RIO VISTA
ESTATES 4TH

11
E
ADDITION



REVISION	12/20/05	REVIEW	4/19/06
DRAWN	RA	DATE	8/3/05
DESIGN	PDC	UTILITY	
PROJECT NUMBER	468-83682	DRAWING FILE	engineering_base/ass09
SANITARY SEWER EXTENSIONS NORTH AREA INTERCEPTOR LINE 1			
1340			
1335			
1330			
1325			
1320			
1315			

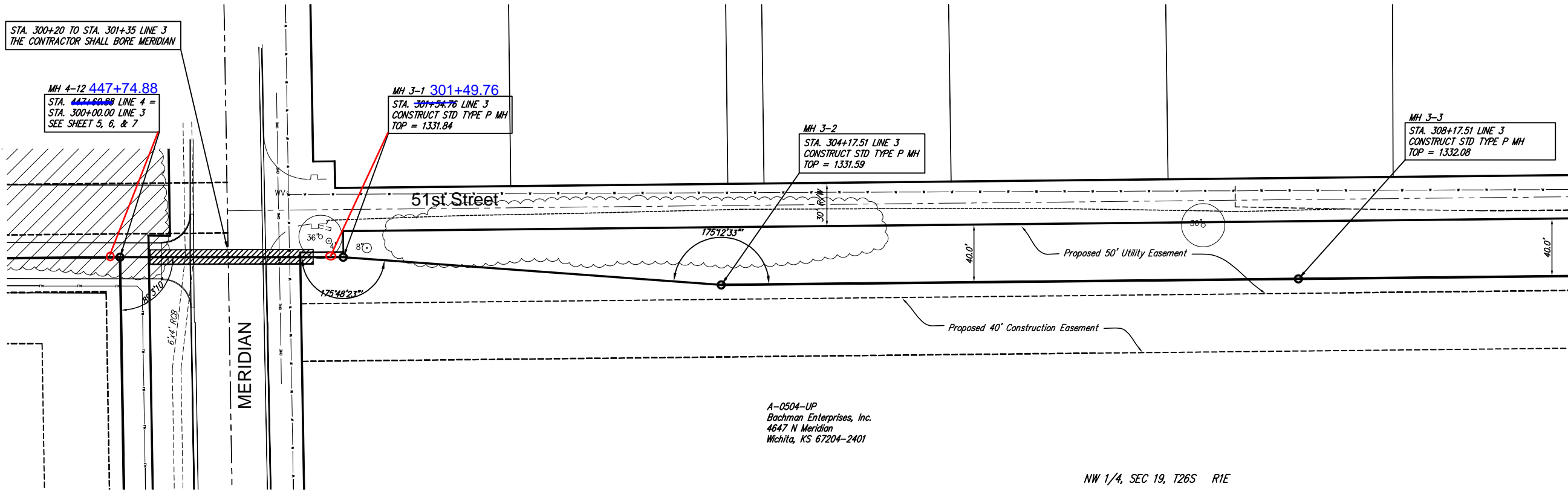
STA. 300+20 TO STA. 301+35 LINE 3
THE CONTRACTOR SHALL BORE MERIDIAN

MH 4-12 447+74.88
STA. 447+74.88 LINE 4 =
STA. 300+00.00 LINE 3
SEE SHEET 5, 6, & 7

MH 3-1 301+49.76
STA. 301+49.76 LINE 3
CONSTRUCT STD TYPE P MH
TOP = 1331.84

MH 3-2
STA. 304+17.51 LINE 3
CONSTRUCT STD TYPE P MH
TOP = 1331.59

MH 3-3
STA. 308+17.51 LINE 3
CONSTRUCT STD TYPE P MH
TOP = 1332.08

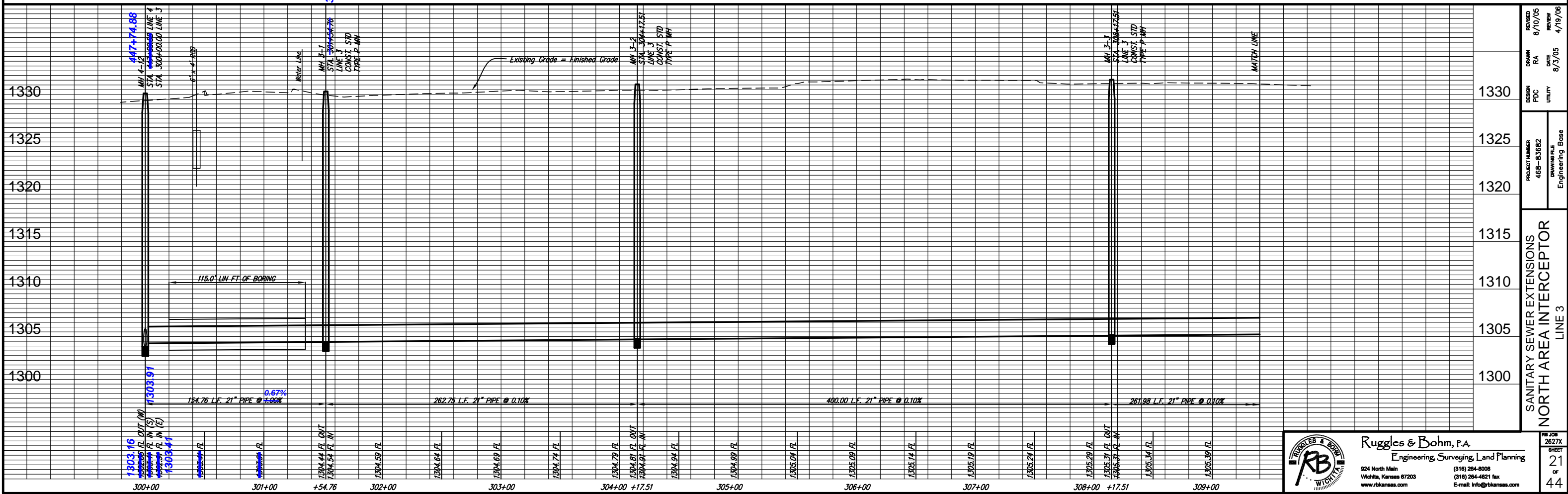
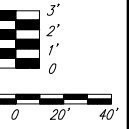


A-0504-UP
Bachman Enterprises, Inc.
4647 N Meridian
Wichita, KS 67204-2401

NW 1/4, SEC 19, T26S R1E



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



REVISION	8/10/05	REVIEW	4/19/06
DRAWN	RA	DATE	8/3/05
DESIGN	PDC	UTILITY	
PROJECT NUMBER	468-83682	DRAWING FILE	Engineering Base
SANITARY SEWER EXTENSIONS NORTH AREA INTERCEPTOR LINE 3			

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning

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Wichita, Kansas 67203
www.rbkansas.com

(316) 264-0008
(316) 264-4621 fax
E-mail: info@rbkansas.com

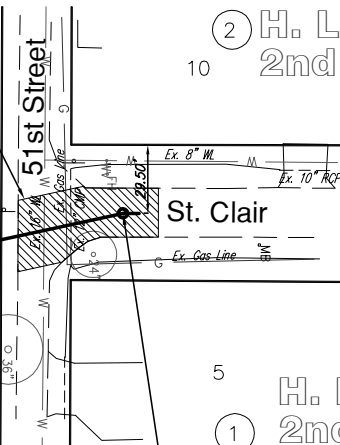
RB JOB 2627X
SHEET 21 OF 44

Unplatted

CONTRACTOR TO REMOVE AND REPLACE 170 SQ YDS OF 5" COMMERCIAL GRADE ASPHALT PAVEMENT.

STA 10+00 LINE 1
CONNECT TO EX. MH
WITH INSIDE DROP
TOP ELEV. = 1332.08

② H. L. Warner
2nd Addition



① H. L. Warner
2nd Addition

MH 1-1
STA 10+92.14 LINE 1
CONSTRUCT STD. TYPE P MH
TOP ELEV. = 1332.26
12" STUB NORTH FL = 1315.80

THE INSIDE DROP SHALL BE AN INTRAFLOW LOW-PROFILE INSIDE DROP SYSTEM FROM ROYAL ENVIRONMENTAL SYSTEMS, INC. THE SALES CONTACT FOR THE PRODUCT IS JEFF SIEVERS, WHO CAN BE REACHED AT 800-817-3240.

THE INSIDE DROP MUST BE ATTACHED TO THE MANHOLE WALL WITH HILTI #00258030 THREADED SLEEVE ELEMENTS COMBINED WITH HILTI HY 150 ADHESIVE ANCHORS USING 1/2" COARSE THREAD #304 STAINLESS STEEL BOLTS. THE SWEEP SECTION MUST BE INSTALLED TO REST ON THE BENCH OR INVERT WITH A #304 STAINLESS STEEL STRAP OVER THE TOP OF THE SWEEP SECTION WITH HILTI #00258030 THREADED SLEEVE ELEMENTS COMBINED WITH HILTI HY 150 ADHESIVE ANCHORS USING 1/2" COARSE THREAD #304 STAINLESS STEEL BOLTS INSTALLED IN THE MANHOLE BENCH ON EACH SIDE OF THE STAINLESS STEEL STRAP.

Northcrest
Estates Addition

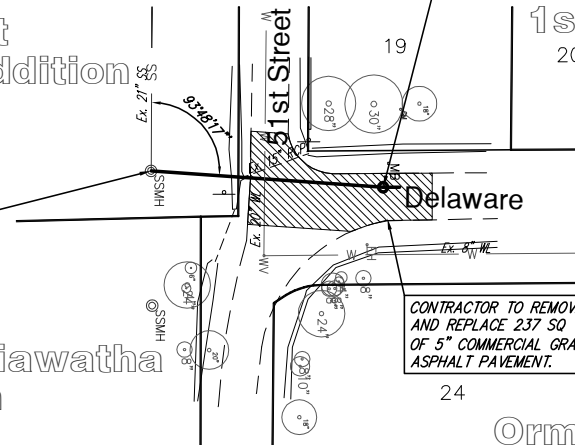
Gardiner Acres
1st Addition

STA 10+00 LINE 2
CONNECT TO EX. MH
TOP ELEV. = 1330.77

CONTRACTOR TO REMOVE AND REPLACE 237 SQ YDS OF 5" COMMERCIAL GRADE ASPHALT PAVEMENT.

Camp Hiawatha
Addition

Ormiston
2nd Addition

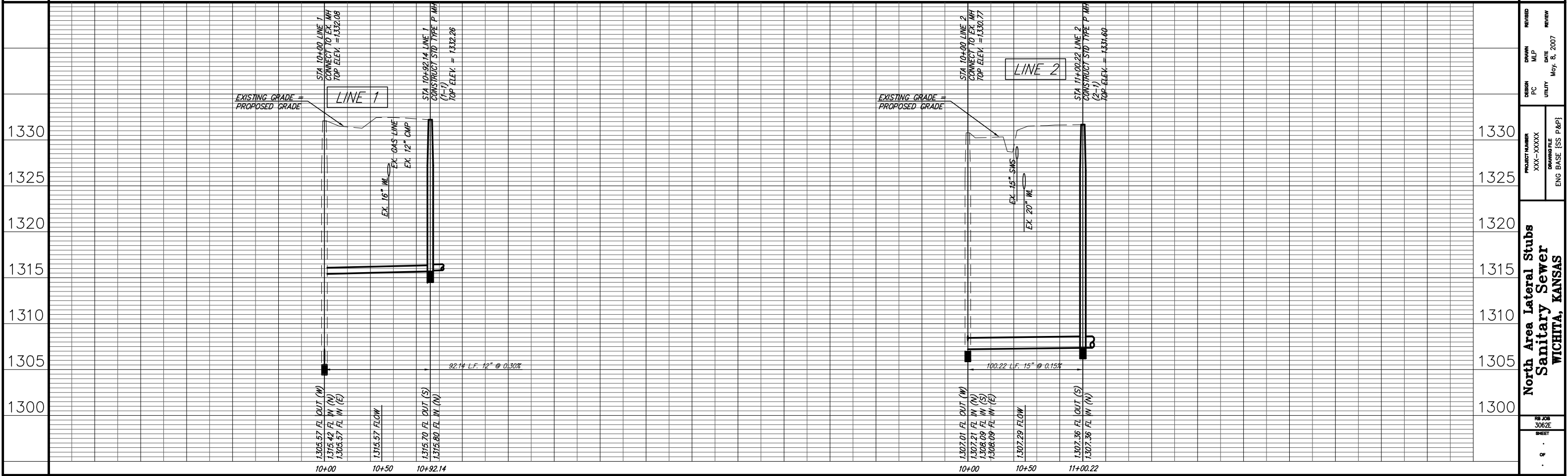


QUANTITIES

DESCRIPTION	QUANTITY	UNIT
12" SANITARY SEWER	93	LIN. FT.
15" SANITARY SEWER	101	LIN. FT.
MANHOLES, STD. TYPE "P"	2	EACH
INSIDE DROP ASSEMBLY	1	EACH
12" STUB	1	EACH
15" STUB	1	EACH
5" COMMERCIAL GRADE PVM/T	407	SQ YD
SITE CLEARING AND RESTORATION	LS	LUMP SUM
EROSION CONTROL BMP'S	LS	LUMP SUM

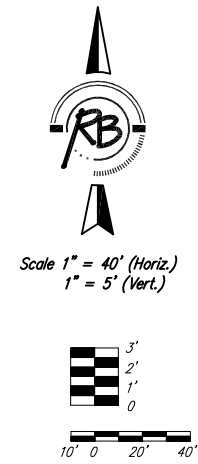
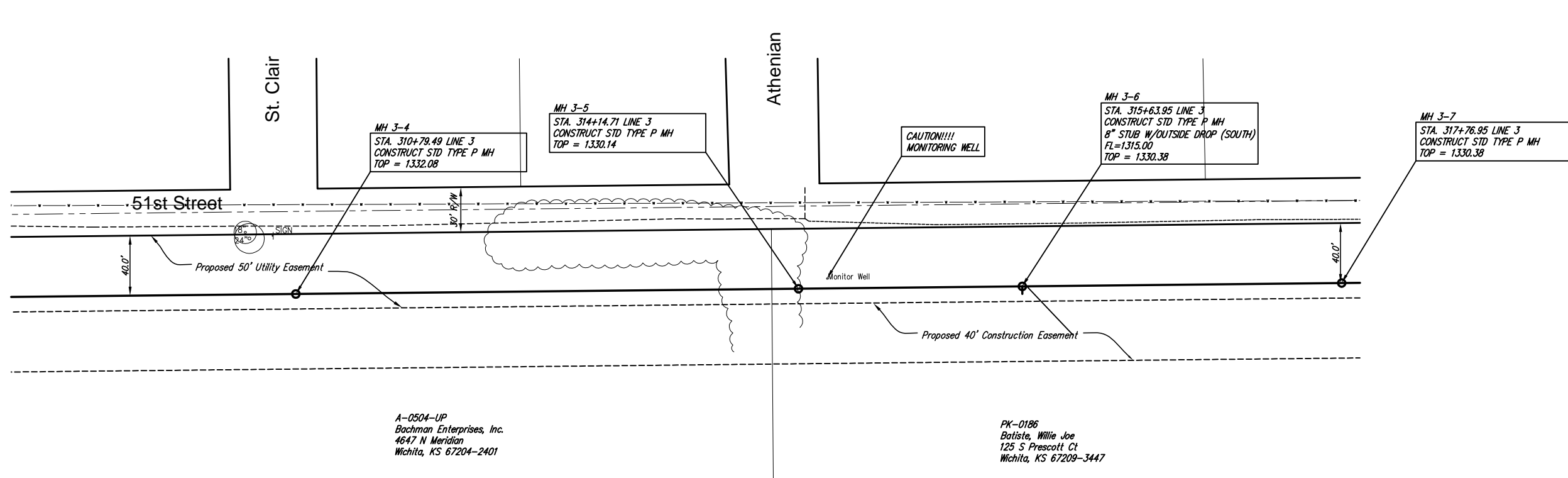


SCALE 1" = 40' HORIZ.
1" = 5' VERT.
IRON = ●



**North Area Lateral Stubs
Sanitary Sewer
MICHITA, KANSAS**

DESIGN PC	DRAWN MLP	REVISION DATE May. 8, 2007	PROJECT NUMBER XXX-XXXXX	REVIEW
DRAWN BY UTILITY		ENGINEER [Signature]		REVIEW
ENG. BASE [SS P&P]				
RUGGLES & BOHM, P.A. Engineering, Surveying, Land Planning 300 West 10th Street MICHITA, KANSAS 67501 Phone: 620-825-1111 Fax: 620-825-1112				

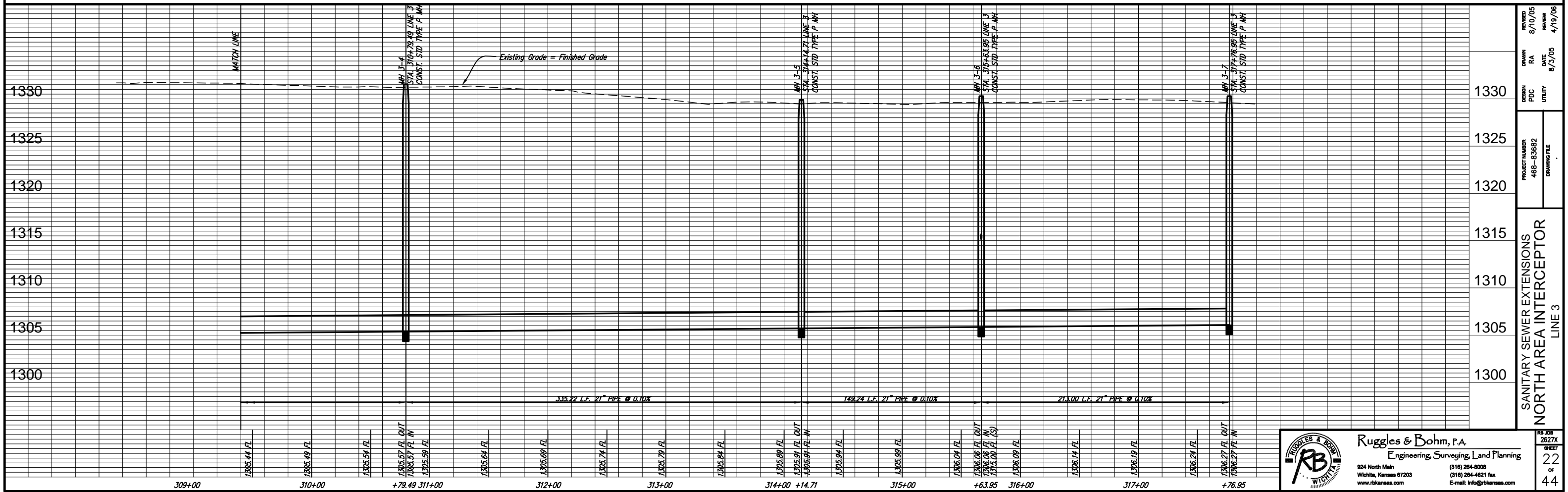


A-0504-UP
Bachman Enterprises, Inc.
4647 N Meridian
Wichita, KS 67204-2401

PK-0186
Batiste, Willie Joe
125 S Prescott Ct
Wichita, KS 67209-3447

MH 3-6 STA. 315+63.95 LINE 3
MH 3-10 STA. 323+98.95 LINE 3
THE CONTRACTOR SHALL FIELD VERIFY
MANHOLE LOCATIONS W/ MR. BOB
PREVITERA W/ REISS AND GODDNESS
ENGINEERS @ 823-0213

NW 1/4, SEC 19, T26S R1E



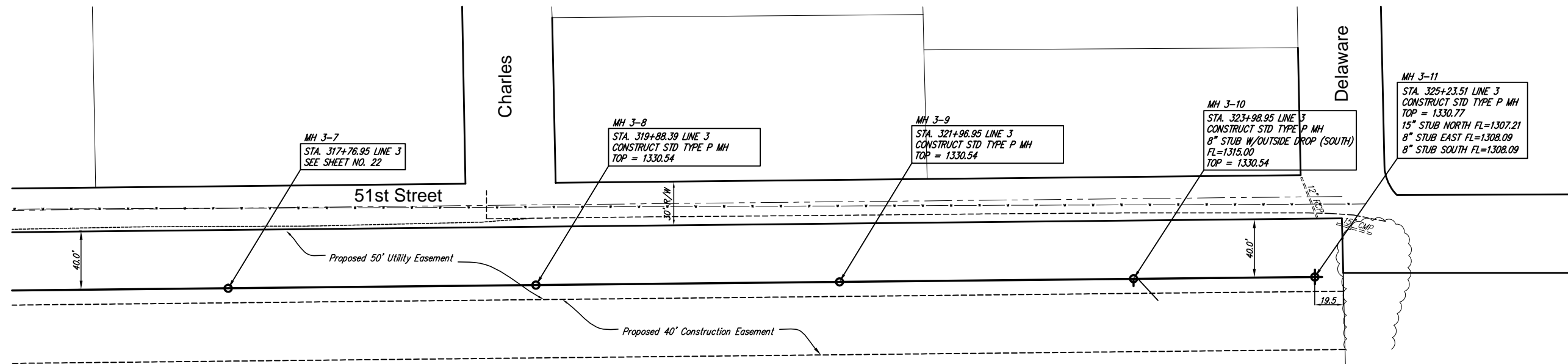
DESIGN	PDC	UTILITY	REVISION	DATE	BY
PROJECT NUMBER	468-83682	DRAWING FILE	8/10/05	8/3/05	4/19/06
SANITARY SEWER EXTENSIONS			LINE 3		
NORTH AREA INTERCEPTOR					

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning

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www.rbkansas.com

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(316) 264-4621 fax
E-mail: info@rbkansas.com

RB JOB 2627X
SHEET 22
OF 44



MH 3-7
STA. 317+76.95 LINE 3
SEE SHEET NO. 22

MH 3-8
STA. 319+88.39 LINE 3
CONSTRUCT STD TYPE P MH
TOP = 1330.54

MH 3-9
STA. 321+96.95 LINE 3
CONSTRUCT STD TYPE P MH
TOP = 1330.54

MH 3-10
STA. 323+98.95 LINE 3
CONSTRUCT STD TYPE P MH
8" STUB W/OUTSIDE DROP (SOUTH)
FL=1315.00
TOP = 1330.54

MH 3-11
STA. 325+23.51 LINE 3
CONSTRUCT STD TYPE P MH
TOP = 1330.77
15" STUB NORTH FL=1307.21
8" STUB EAST FL=1308.09
8" STUB SOUTH FL=1308.09

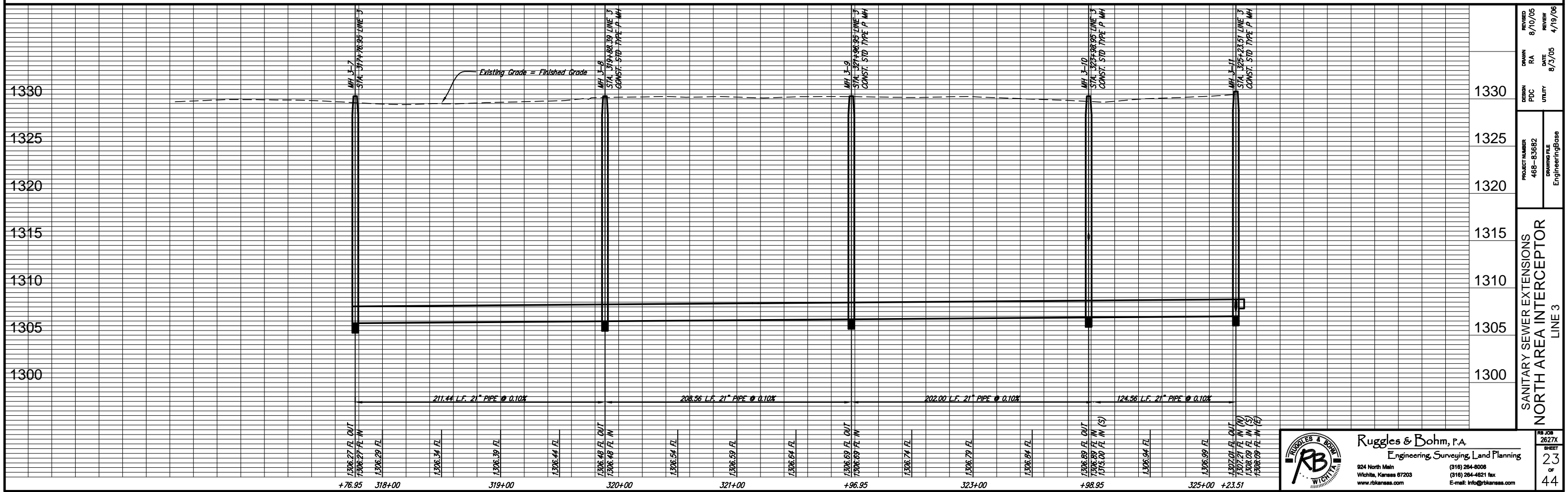
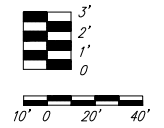
PK-0186
Batiste, Willie Joe
125 S Prescott Ct
Wichita, KS 67209-3447

NW 1/4, SEC 19, T26S R1E

MH 3-6 STA. 315+63.95 LINE 3
MH 3-10 STA. 323+98.95 LINE 3
THE CONTRACTOR SHALL FIELD VERIFY
MANHOLE LOCATIONS W/ MR. BOB
PREWTERA W/ REISS AND GODDNESS
ENGINEERS @ 823-0213



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



REVISION	8/10/05
DATE	8/3/05
REVIEW	4/19/06
DESIGN	PDC
UTILITY	
PROJECT NUMBER	468-83682
DRAWING FILE	EngineeringBase
SANITARY SEWER EXTENSIONS NORTH AREA INTERCEPTOR LINE 3	
1330	
1325	
1320	
1315	
1310	
1305	
1300	

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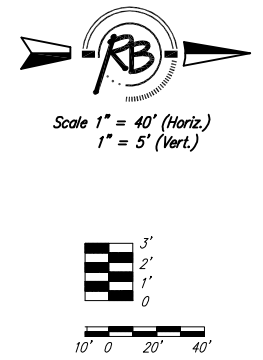
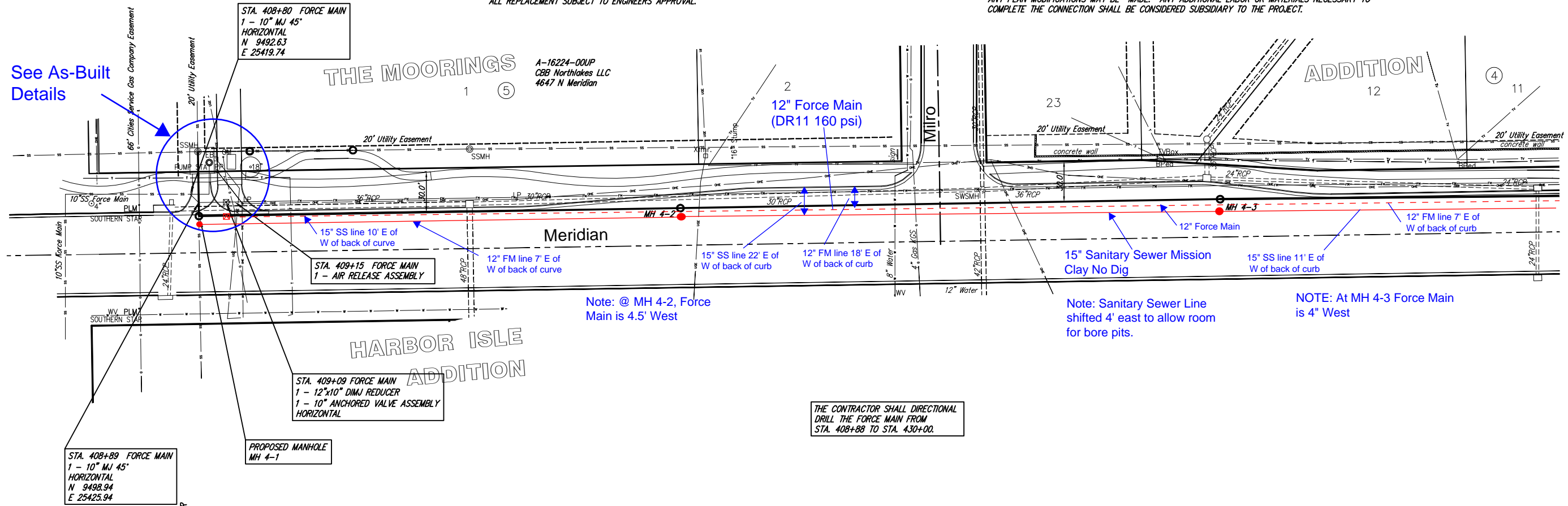
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RB JOB 2627X
SHEET 23 OF 44

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT THE EXISTING LANDSCAPING. ALL DAMAGED OR DESTROYED LANDSCAPING MUST BE REPLACED WITH LIKE SIZE AND TYPE. ALL REPLACEMENT SUBJECT TO ENGINEER'S APPROVAL.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING 10" FORCE MAIN TO VERIFY PIPE SIZE AND HORIZONTAL AND VERTICAL LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT ANY PLAN MODIFICATIONS MAY BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY TO COMPLETE THE CONNECTION SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.



See As-Built Details

THE MOORINGS

ADDITION

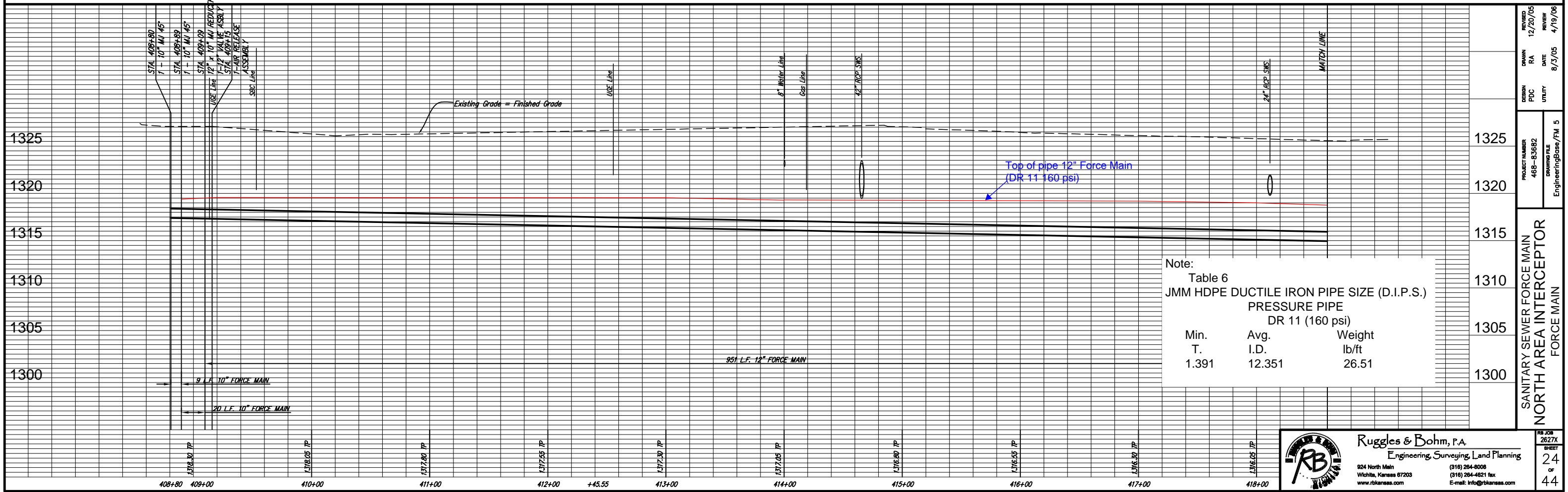
HARBOR ISLE ADDITION

Note: @ MH 4-2, Force Main is 4.5' West

Note: Sanitary Sewer Line shifted 4' east to allow room for bore pits.

NOTE: At MH 4-3 Force Main is 4" West

THE CONTRACTOR SHALL DIRECTIONAL DRILL THE FORCE MAIN FROM STA. 408+88 TO STA. 430+00.



Note:

Table 6
JMM HDPE DUCTILE IRON PIPE SIZE (D.I.P.S.)
PRESSURE PIPE
DR 11 (160 psi)

Min. T.	Avg. I.D.	Weight lb/ft
1.391	12.351	26.51

SANITARY SEWER FORCE MAIN
 NORTH AREA INTERCEPTOR
 FORCE MAIN

DESIGN	PDC	UTILITY
DRAWN	RA	DATE
REVIEWED	12/20/05	REVIEW
PROJECT NUMBER	468-83682	DRAWING FILE
		EngineeringBase/PM 5
		8/3/05
		4/19/06

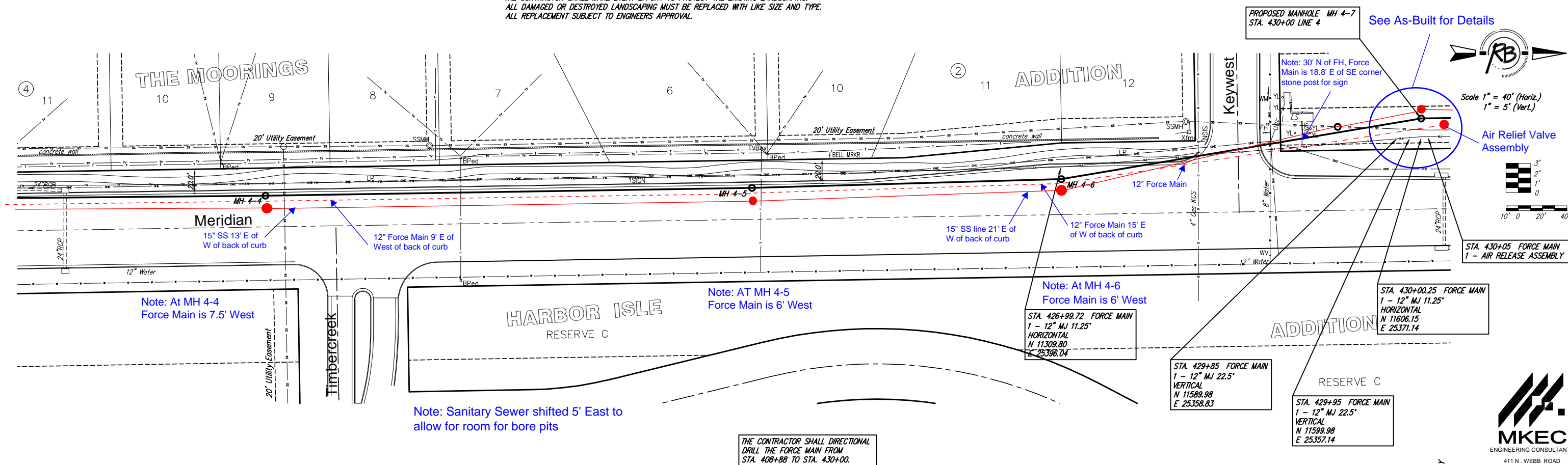
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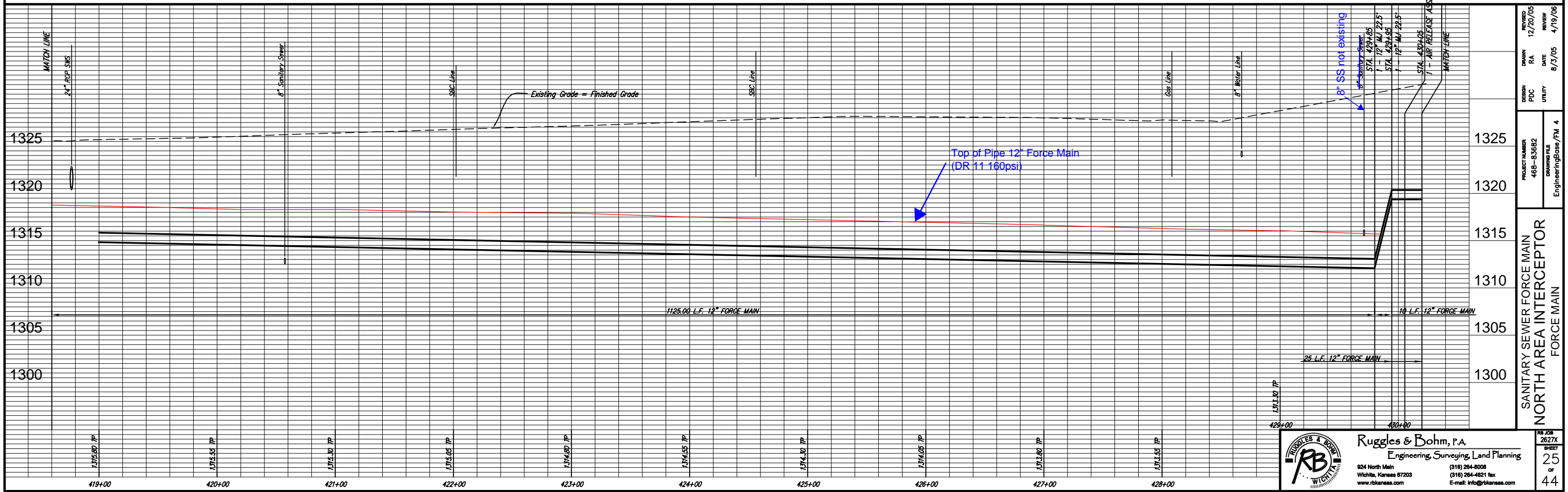
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 E-mail: info@rbkansas.com

RB JOB 2627X
 SHEET 24 OF 44

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT THE EXISTING LANDSCAPING.
ALL DAMAGED OR DESTROYED LANDSCAPING MUST BE REPLACED WITH LIKE SIZE AND TYPE.
ALL REPLACEMENT SUBJECT TO ENGINEERS APPROVAL.



THE CONTRACTOR SHALL DIRECTIONAL DRILL THE FORCE MAIN FROM STA. 408+88 TO STA. 430+00.



REVISION	12/20/05	REVIEW	4/19/06
DESIGN	PDC	UTILITY	8/3/05
PROJECT NUMBER	468-83682	DRAWING FILE	EngineeringBase/PM 4
SANITARY SEWER FORCE MAIN NORTH AREA INTERCEPTOR FORCE MAIN			
DATE	8/3/05	DATE	4/19/06

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IF, DURING THE COURSE OF CONSTRUCTION, IN THE OPINION OF THE SEDGWICK COUNTY BUREAU OF PUBLIC WORKS, THE CONTRACTOR DAMAGES THE EXISTING PAVEMENT OR STRIPING, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO: CONSTRUCT A FULL DEPTH PATCH TO THE LIMITS AS DETERMINED BY SEDGWICK COUNTY; AND REPLACE THE DAMAGED STRIPING WITH THERMAL PLASTIC STRIPING AS PER SEDGWICK COUNTY SPECIFICATIONS. THESE ITEMS OF WORK SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS OF WORK.

NW 1/4, SEC 13, T26S R1W

A-00397-00UP
CBB Northlakes LLC
4647 N Meridian

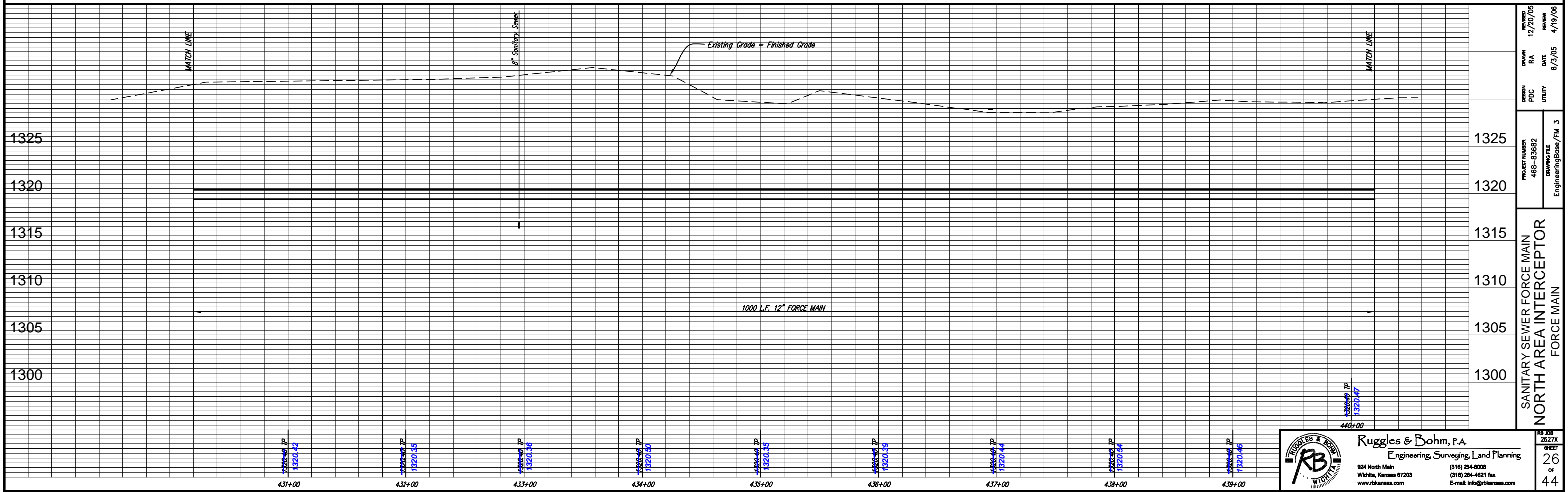
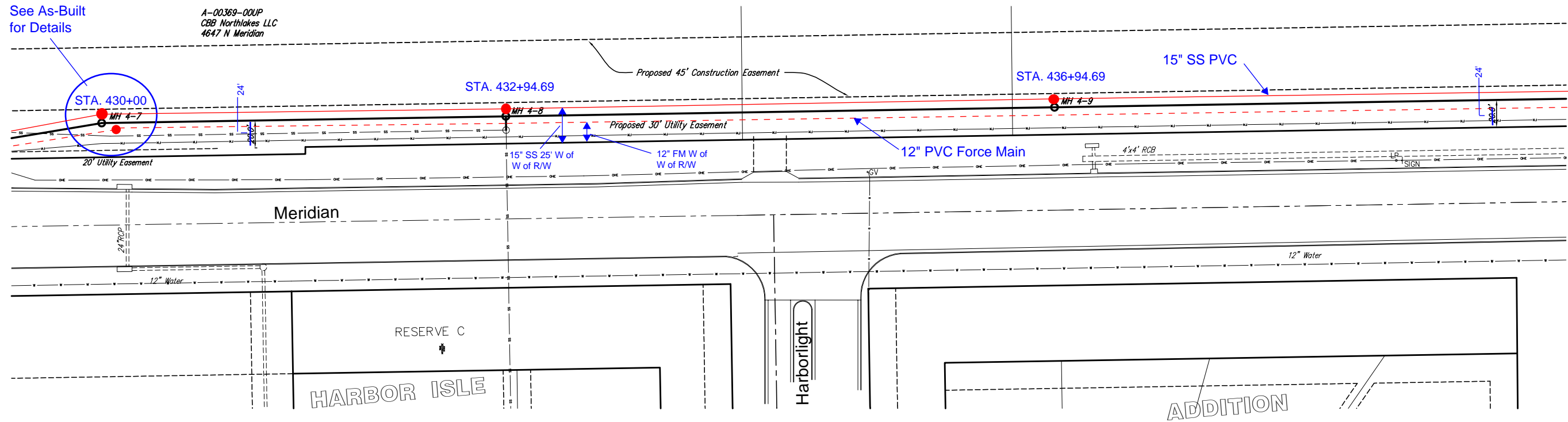
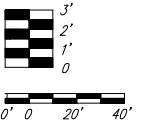
A-00485-00UP
CBB Northlakes LLC
4647 N Meridian

See As-Built for Details

A-00369-00UP
CBB Northlakes LLC
4647 N Meridian



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



REVISION	DATE	BY
12/20/05	RA	REVIEW
8/23/05	DATE	4/19/06
DESIGN	PDC	UTILITY
PROJECT NUMBER	468-83682	DRAWING FILE
EngineeringBase/FM_3		
SANITARY SEWER FORCE MAIN		
NORTH AREA INTERCEPTOR		
FORCE MAIN		

MKEC
ENGINEERING CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

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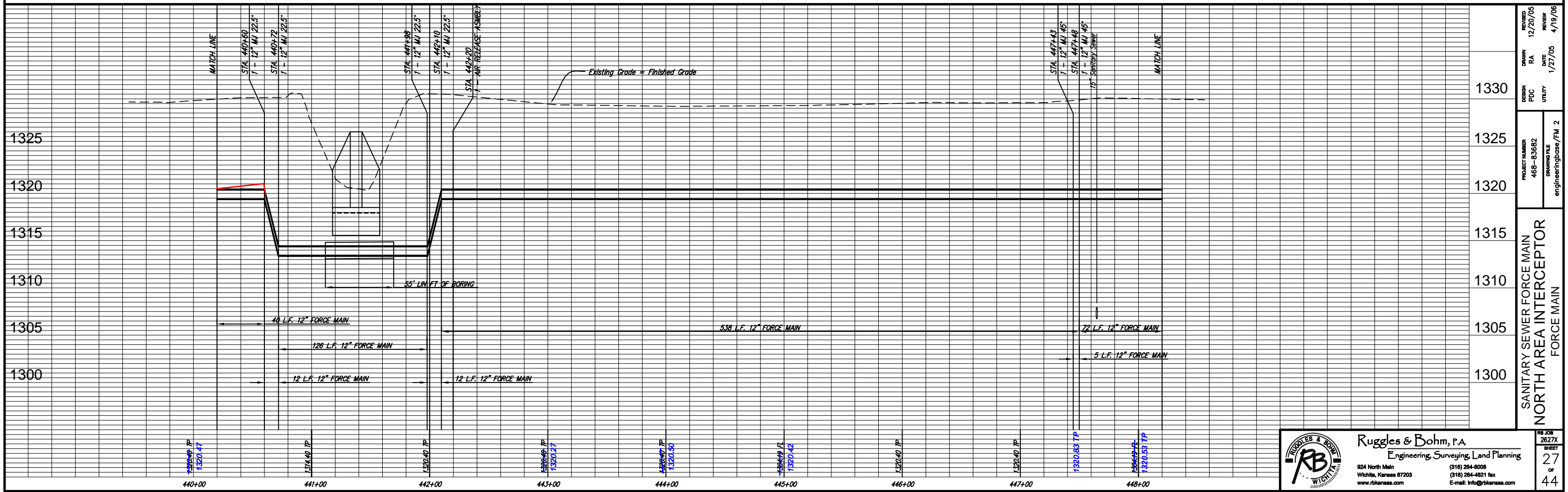
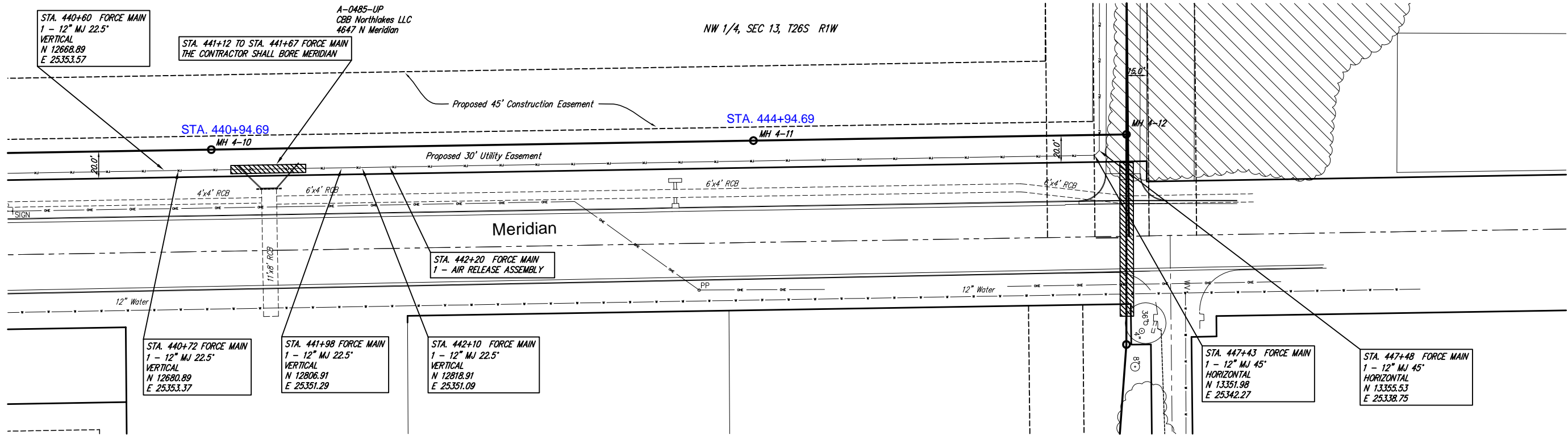
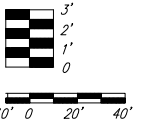
RB JOB 2627X
SHEET 26 OF 44

IF, DURING THE COURSE OF CONSTRUCTION, IN THE OPINION OF THE SEDGWICK COUNTY BUREAU OF PUBLIC WORKS, THE CONTRACTOR DAMAGES THE EXISTING PAVEMENT OR STRIPING, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO: CONSTRUCT A FULL DEPTH PATCH TO THE LIMITS AS DETERMINED BY SEDGWICK COUNTY; AND REPLACE THE DAMAGED STRIPING WITH THERMAL PLASTIC STRIPING AS PER SEDGWICK COUNTY SPECIFICATIONS. THESE ITEMS OF WORK SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS OF WORK.

NW 1/4, SEC 13, T26S R1W



Scale 1" = 40' (Horiz.)
1" = 5' (Vert.)



1330	DESIGN	PDC	UTILITY	DATE	1/27/05	REVIEW	4/19/06
1325	PROJECT NUMBER	468-83682	DRAWING FILE	engineerjgbase/FM 2			
1320	SANITARY SEWER FORCE MAIN						
1315	NORTH AREA INTERCEPTOR						
1310	FORCE MAIN						
1305							
1300							

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MKEC
ENGINEERING CONSULTANTS

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WICHITA, KS. 67206
316-684-9600

STA. 440+72 FORCE MAIN
1 - 12" MJ 22.5"
VERTICAL
N 12680.89
E 25353.37

STA. 441+98 FORCE MAIN
1 - 12" MJ 22.5"
VERTICAL
N 12806.91
E 25351.29

STA. 442+10 FORCE MAIN
1 - 12" MJ 22.5"
VERTICAL
N 12818.91
E 25351.09

STA. 447+43 FORCE MAIN
1 - 12" MJ 45"
HORIZONTAL
N 13351.98
E 25342.27

STA. 447+48 FORCE MAIN
1 - 12" MJ 45"
HORIZONTAL
N 13355.53
E 25338.75

STA. 441+12 TO STA. 441+67 FORCE MAIN
THE CONTRACTOR SHALL BORE MERIDIAN

A-0485-UP
CBB Northlakes LLC
4647 N Meridian

STA. 440+60 FORCE MAIN
1 - 12" MJ 22.5"
VERTICAL
N 12668.89
E 25353.57

