SANITARY SEWER MAIN
Lateral 467, SWI
PROJECT NO. 468-83218

INCIDENTAL DRAINAGE
Storm Water Sewer
PROJECT NO. 468-83251

SHELLY'S ORCHARD ADDITION
CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, P.E. - CITY ENGINEER
OCA NO. 743868

GENERAL NOTES

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
Kansas Gas Service	383-8600
K.G.E. Electric	383-8600
Peoples Natural Gas Company	1-800-303-0357
Southwestern Bell Telephone Company	1-800-286-8313
City of Wichita Water Department	262-6000
City of Wichita Sewer Maintenance	262-6000

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.

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.

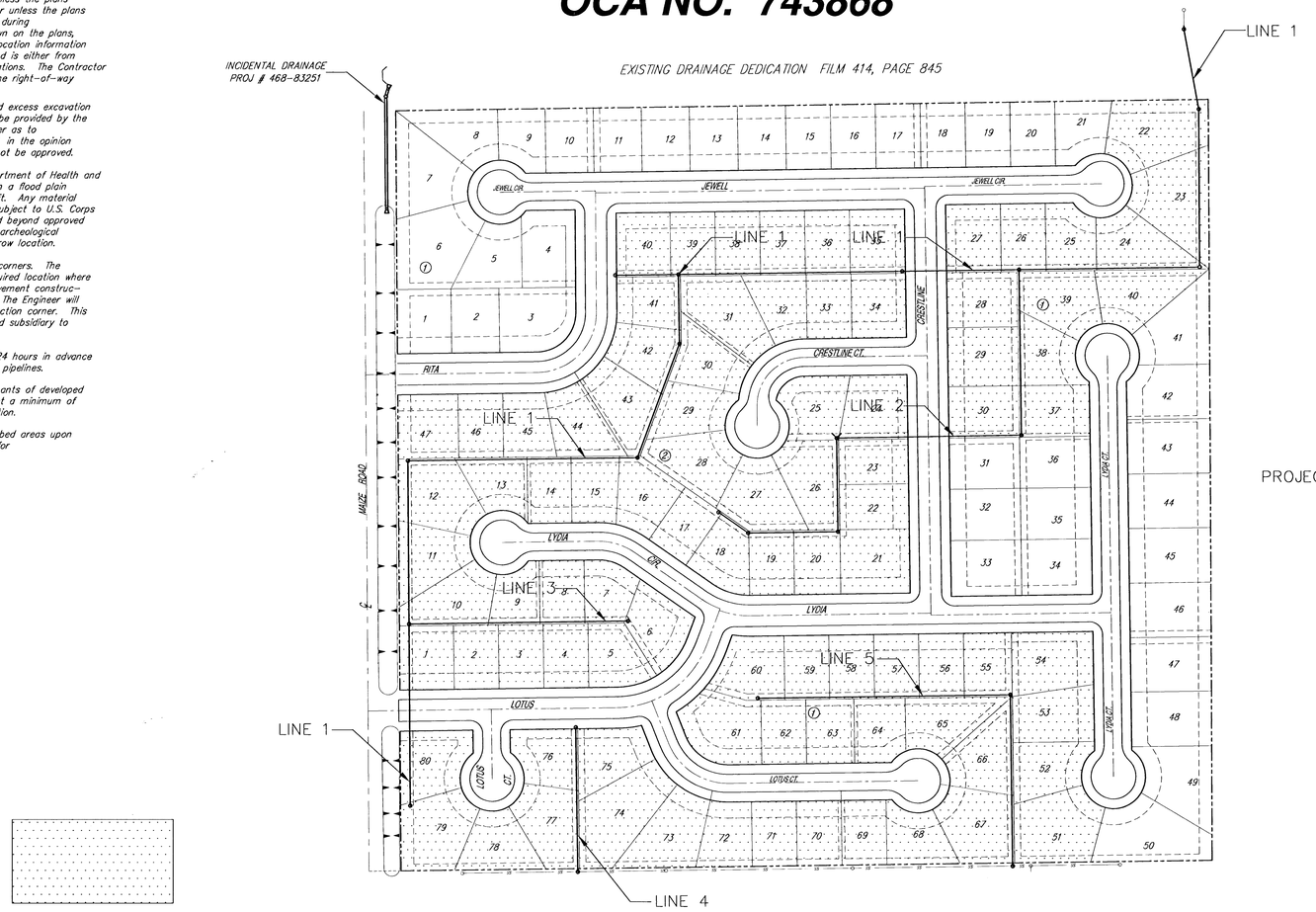
All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps permitting 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.

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 located 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.

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

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.

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



BENEFIT DISTRICT

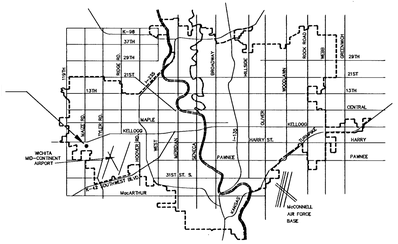
Bench Marks

CITY OF WICHITA DISC @ MAIZE ROAD AND MAY STREET 31.5' S. AND 38.0' E. OF THE CENTERLINE OF BOTH. ELEV. = 1317.67 (CITY DATUM)

INDEX

1.	TITLE SHEET
2.-7.	PLAN/PROFILE
8.	TYPE "P" MANHOLE DETAIL
9.	MANHOLE FRAME AND COVER
10.	SERVICE RISER ASSEMBLY
11.-12.	DITCH GRADING
13.-14.	EASEMENT GRADING
15.	KEY MAP
16.	FINAL PLAT

PROJECT LOCATION



VICINITY MAP

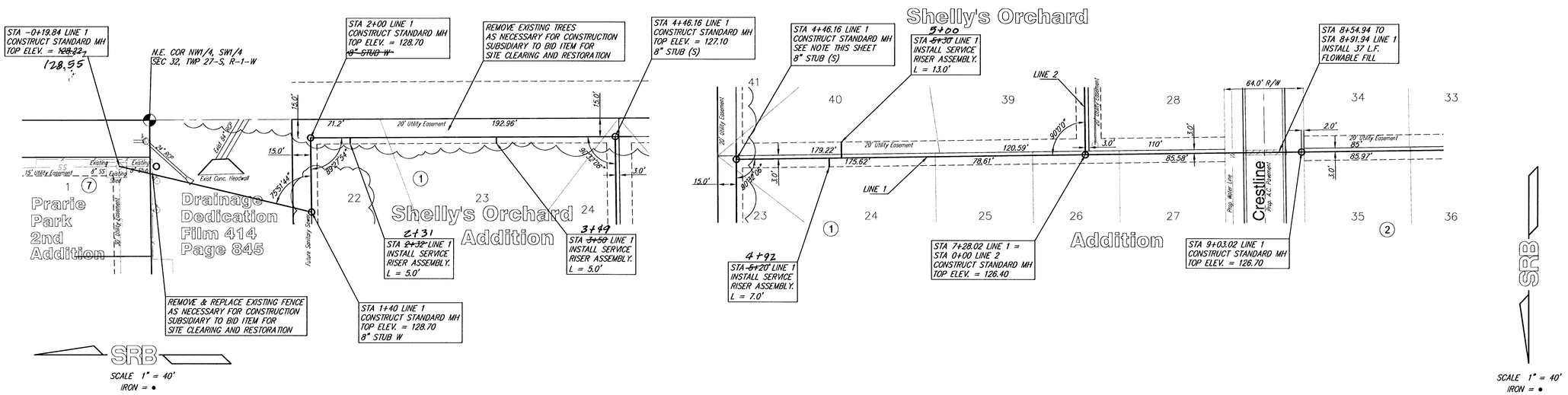
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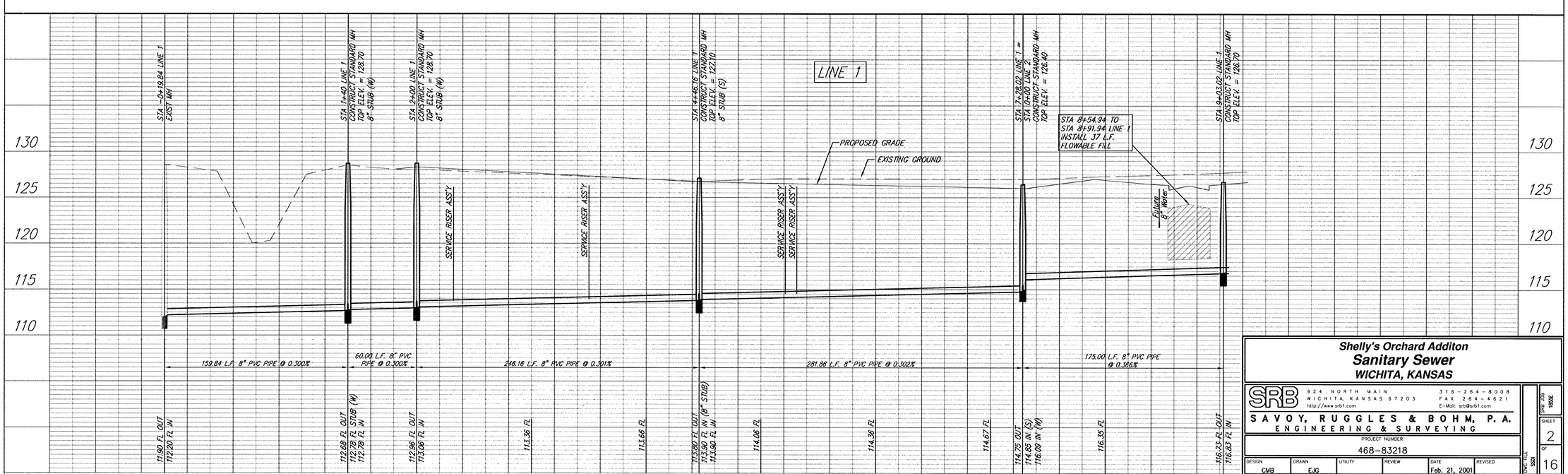
Scale: 1" = 400'

Booked
P-202
12/5/01
R.D.L
AS BUILT

CHRISTOPHER MICHAEL PRUITT LICENSED 11631 4/16/02 PROFESSIONAL ENGINEER

SRB 924 NORTH MAIN WICHITA, KANSAS 67203 316-264-8008 FAX 264-4621
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING





Shelly's Orchard Additon

Sanitary Sewer

WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
http://www.srb1.com
316-264-8008
FAX 264-4621
E-Mail: srb@srb1.com

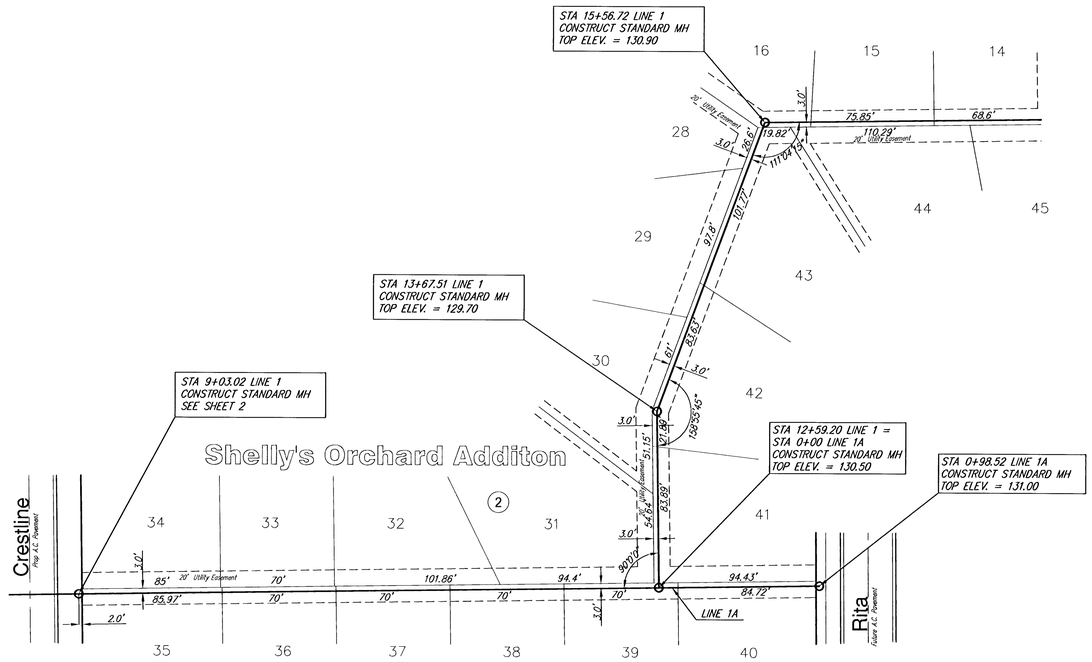
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ENGINEERING & SURVEYING

PROJECT NUMBER 468-83218

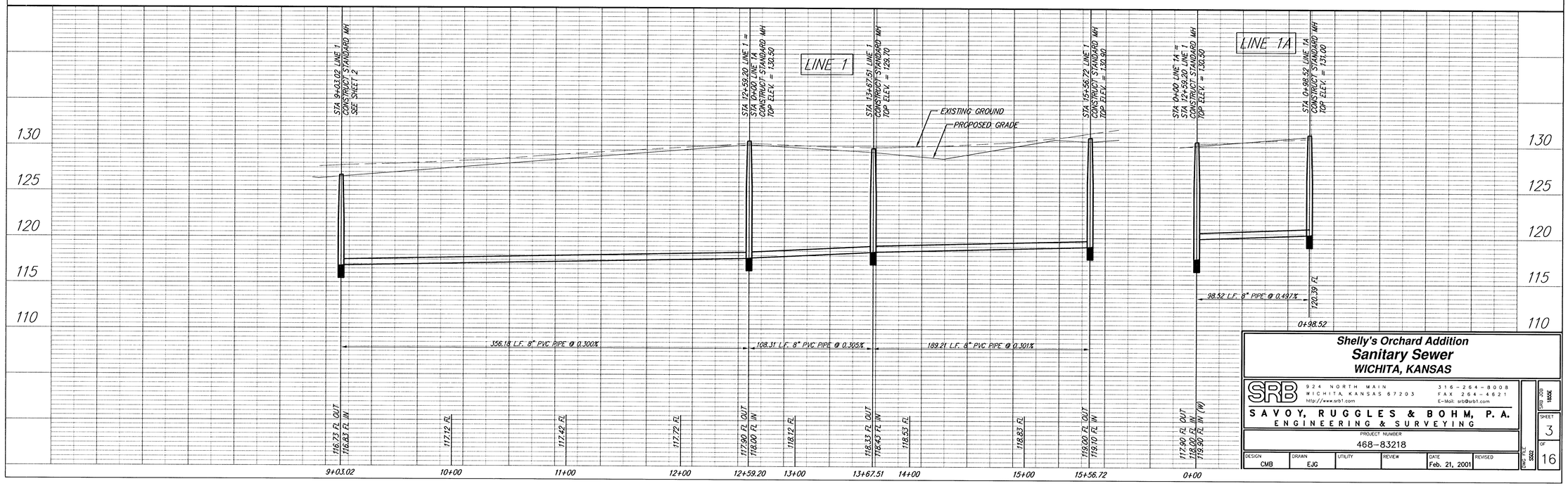
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CMB	EJG			Feb. 21, 2001	

DWG. TITLE SSD

SHEET 2 OF 16



SCALE 1" = 40'
IRON = ●



Shelly's Orchard Addition
Sanitary Sewer
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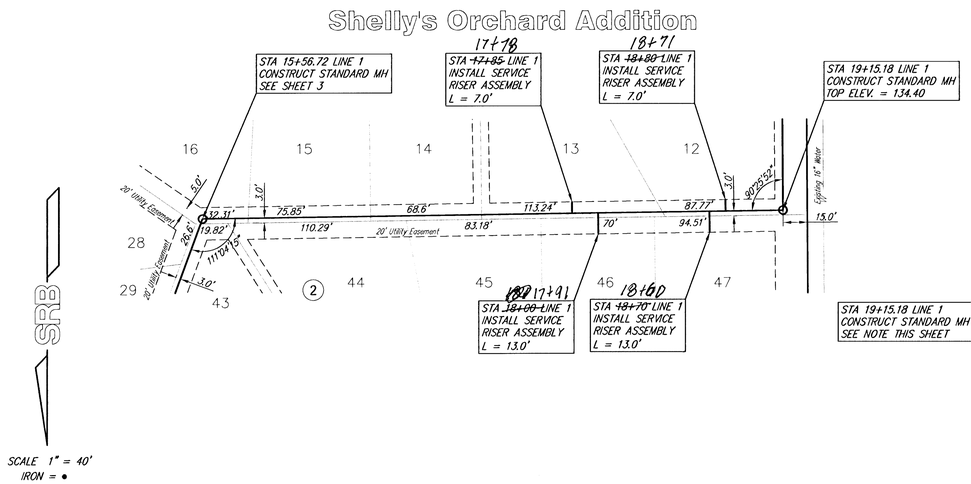
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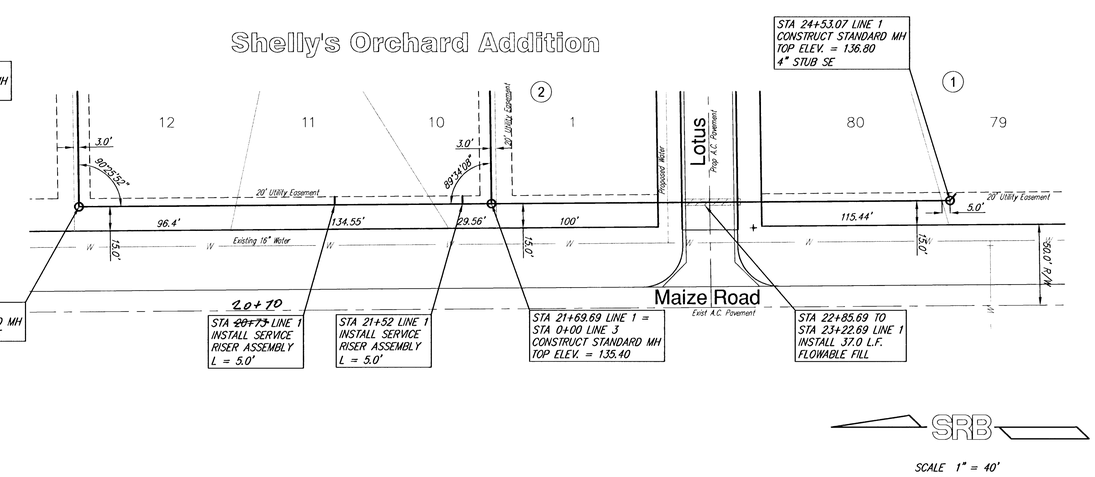
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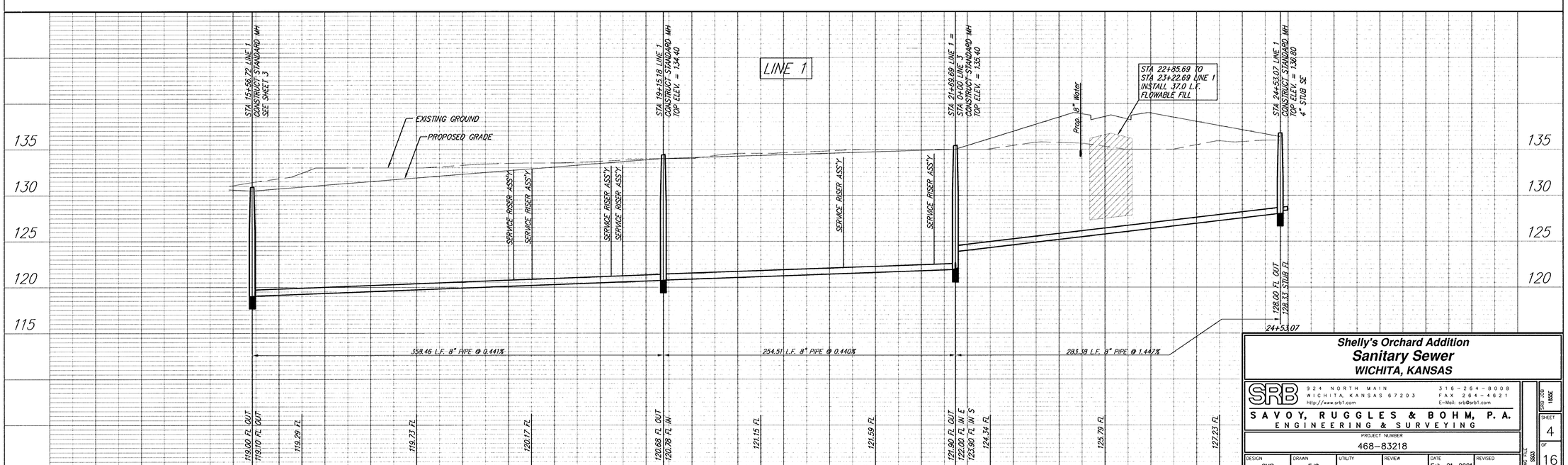
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SCALE: 1"=40'

SHEET 3 OF 16







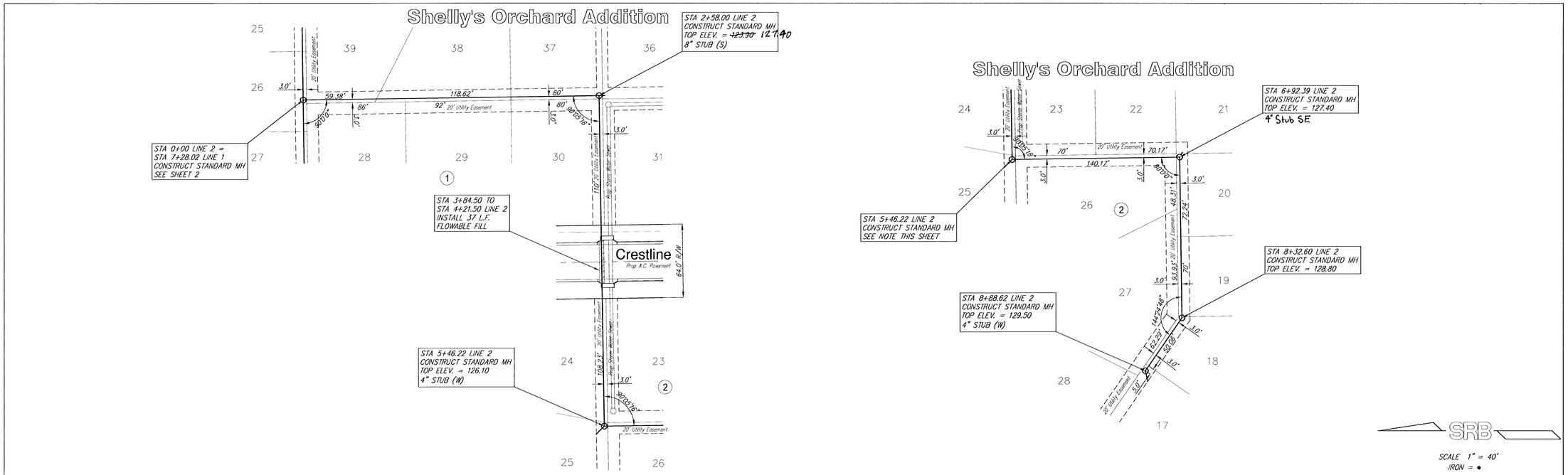
Shelly's Orchard Addition
Sanitary Sewer
WICHITA, KANSAS

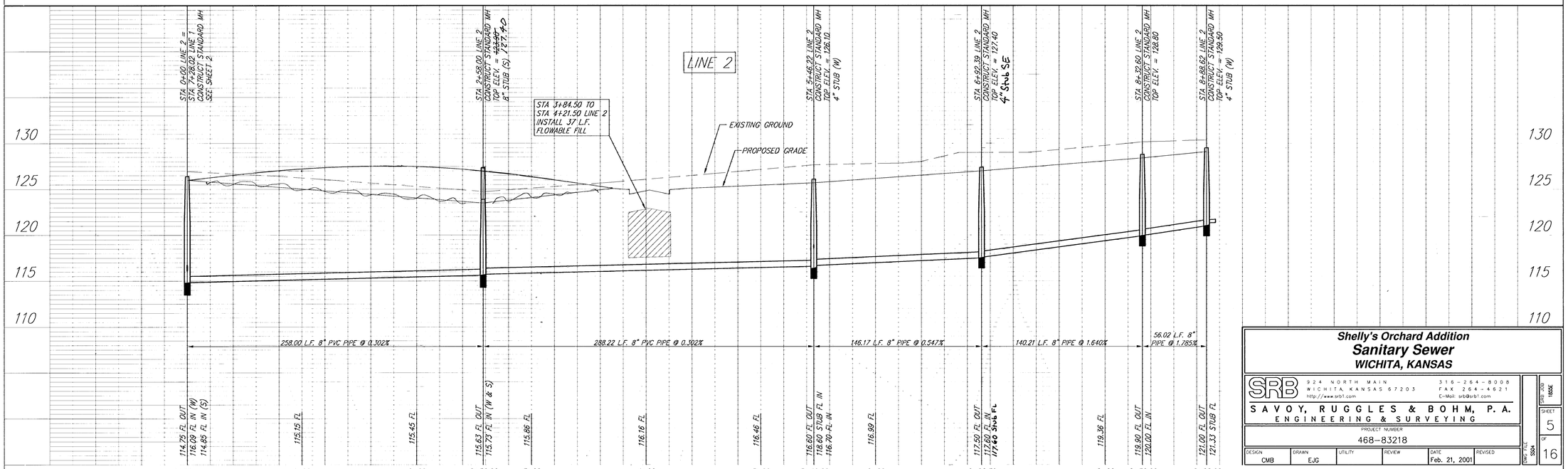
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316-264-8008 FAX 264-4621 E-Mail: srb@srb1.com
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SRB JOB 18002
SHEET 4 OF 16





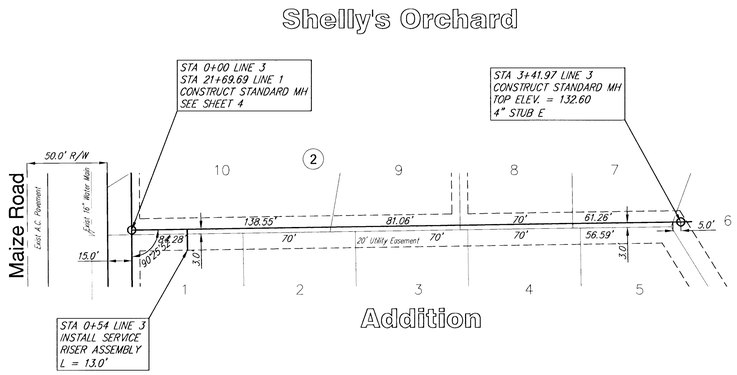
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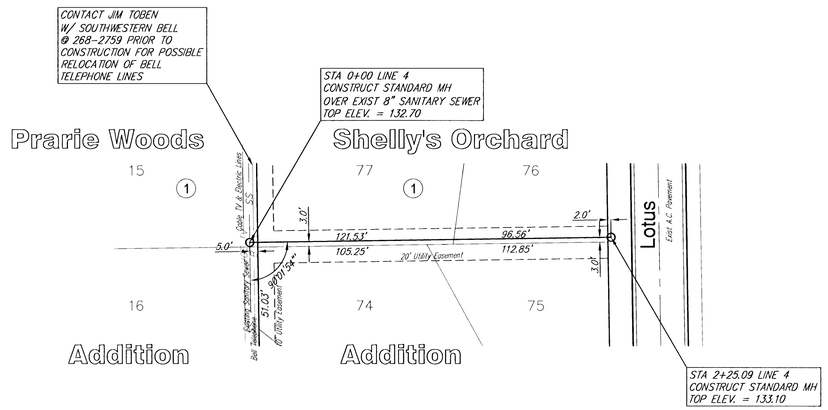
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SRB JOB 1555E
SHEET 5 OF 16
DWG FILE 5554



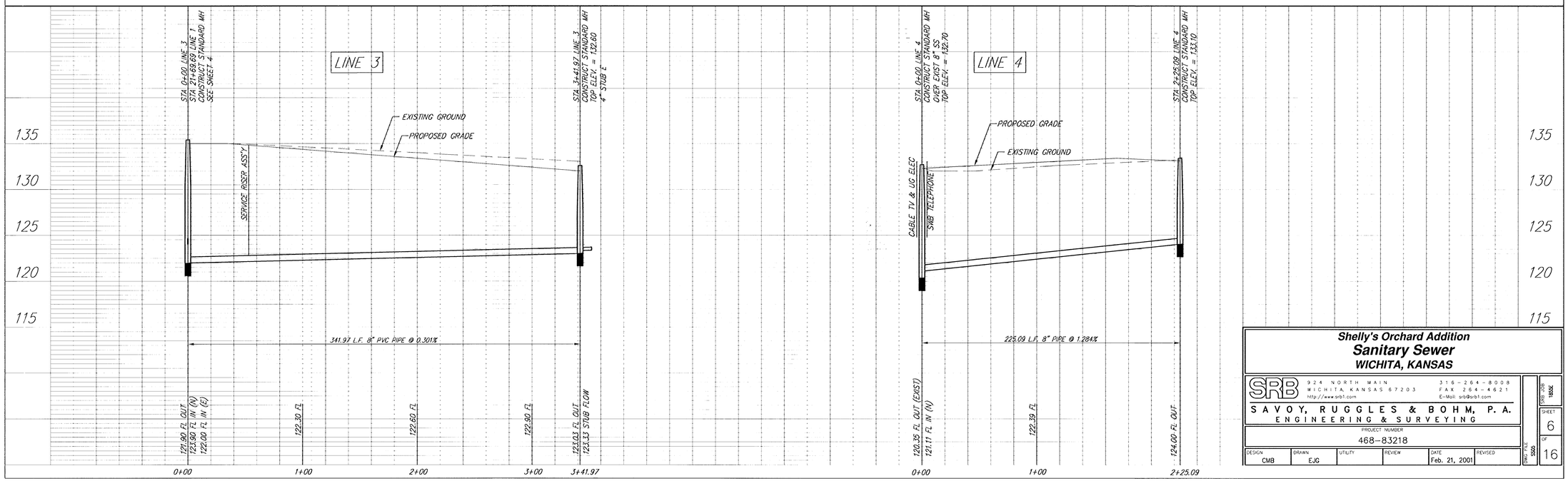


SRB

SCALE 1" = 40'
IRON = ●

SRB

SCALE 1" = 40'
IRON = ●



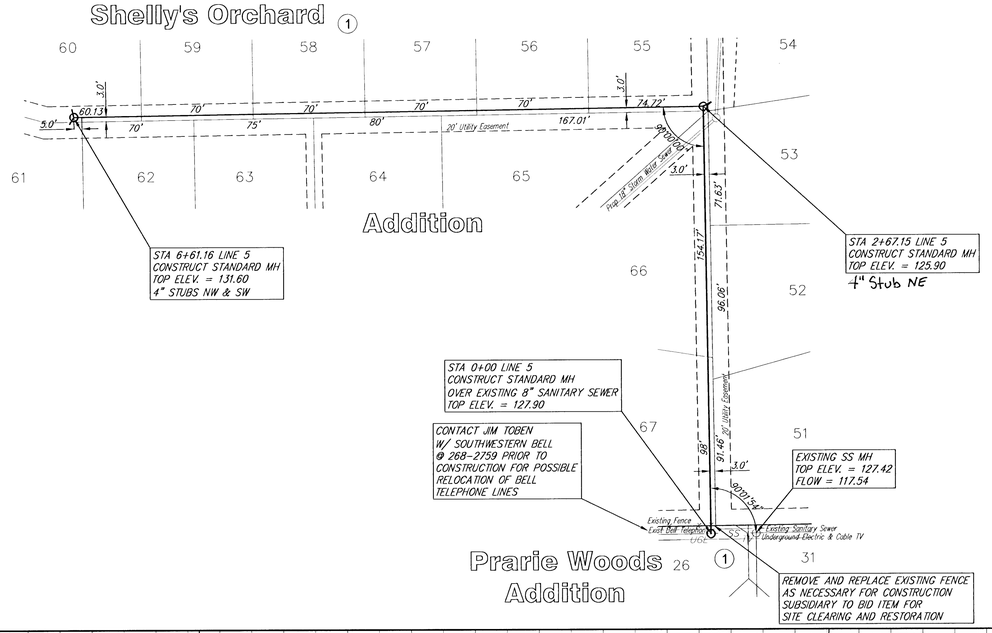
Shelly's Orchard Addition
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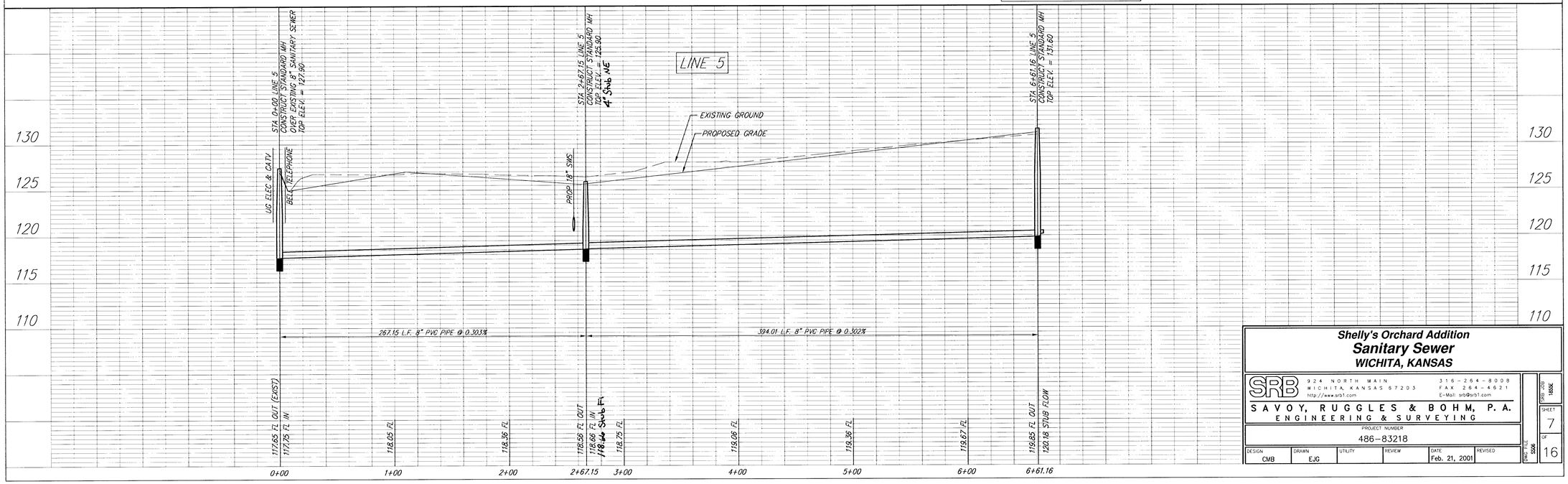
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SHEET 6 OF 16





Shelly's Orchard Addition
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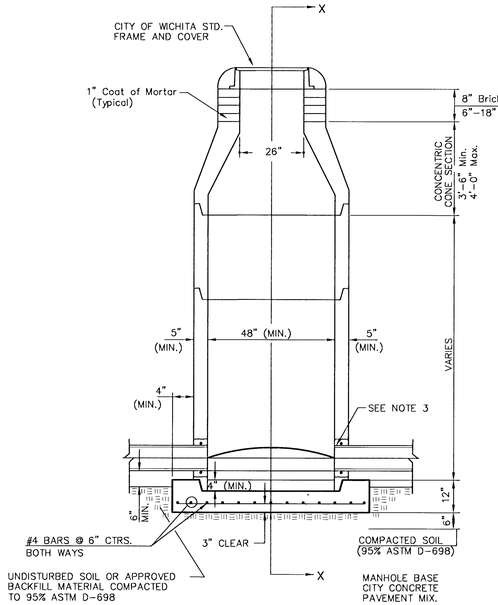
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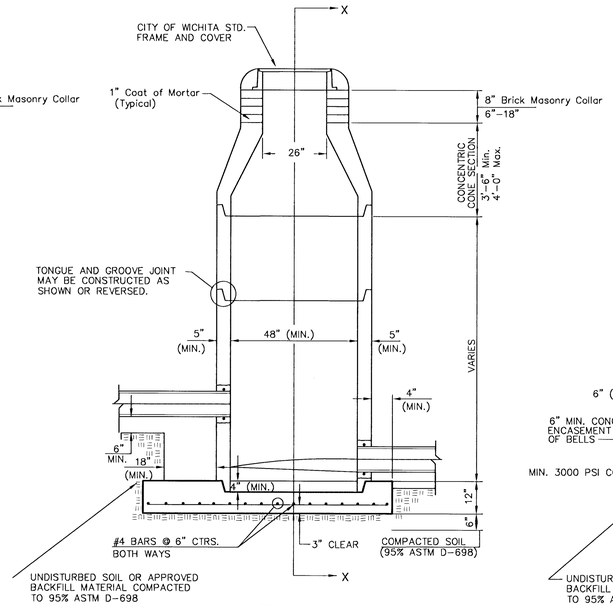
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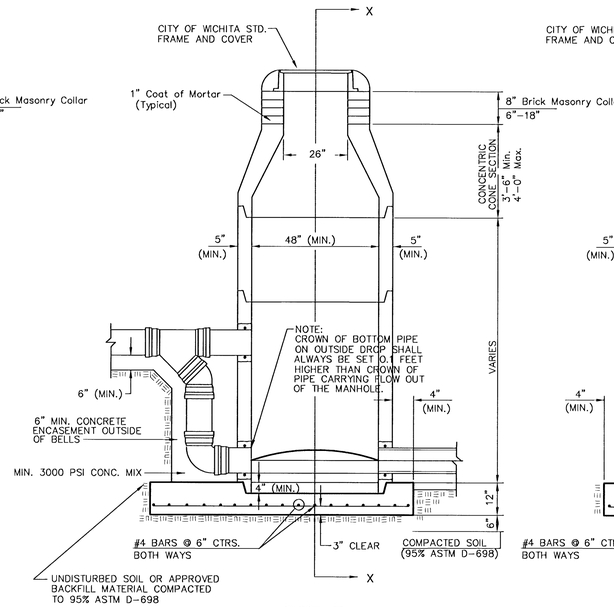
SEWER APPURTENANCES DETAILS



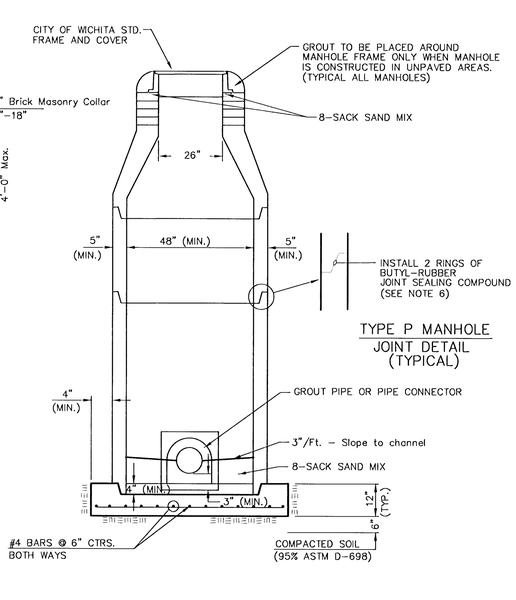
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE



SECTION X
(TYPICAL)

GENERAL NOTES

PRECAST MANHOLE NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNEMEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4'. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
12. OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
13. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
14. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MAHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
15. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
16. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
17. STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
18. A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

STANDARD TYPE 'P' MANHOLES

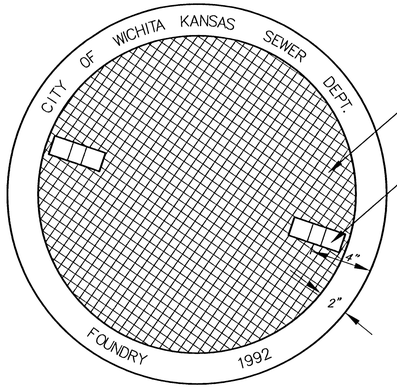
M. E. LINDEBAK P.E. - CITY ENGINEER

PROJECT NUMBER	OCA #
468-83218	
DATE: MAR 96	SHEET 8 OF 16

MANHOLE FRAME AND COVER DETAIL

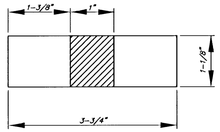
ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE COVER
Weight = 180 Lbs.

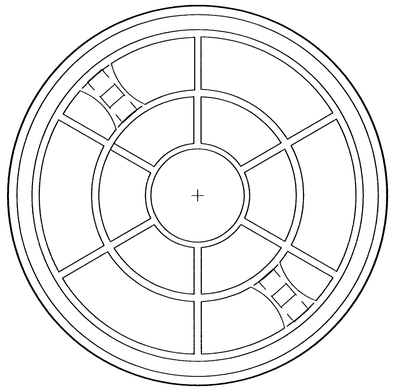


TOP VIEW

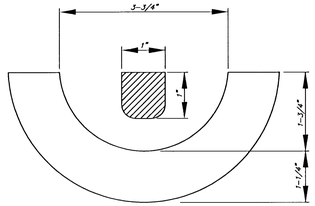
PICKHOLE DETAIL



TOP VIEW

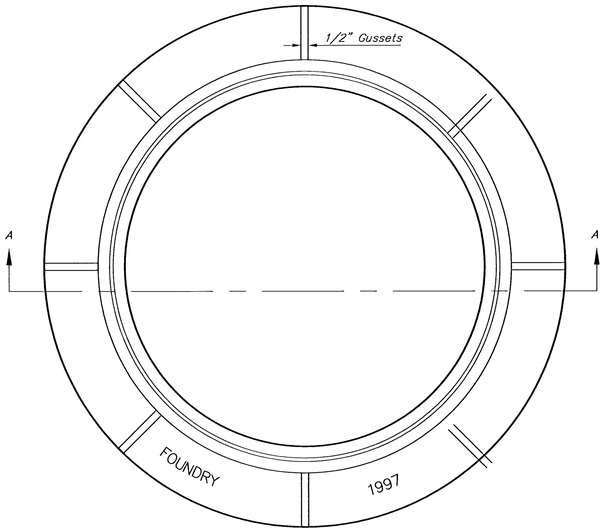


BOTTOM VIEW

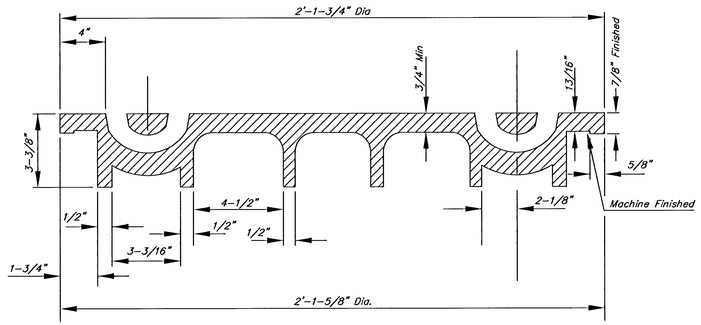


SECTION VIEW

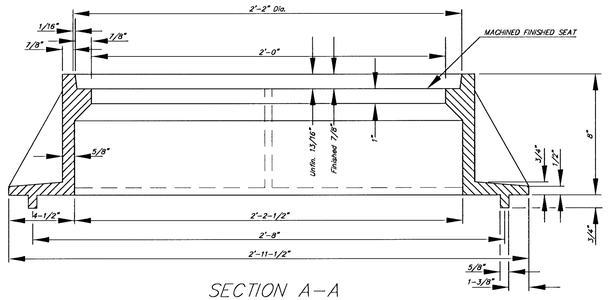
MANHOLE FRAME
Weight = 240 Lbs.



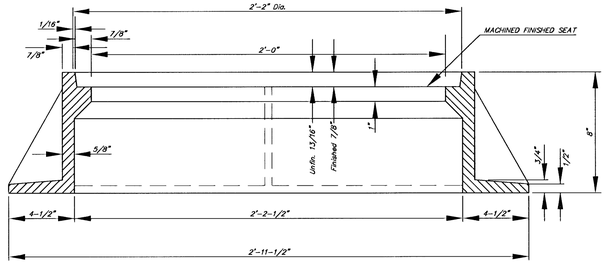
TOP VIEW



SECTION VIEW



SECTION A–A
MUD RING



SECTION A–A

GENERAL NOTES

1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A–48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

2. MANHOLE CASTINGS SHALL WEIGH A MINIMUM OF 180 POUNDS ON THE SOLID COVER AND 240 POUNDS ON THE MANHOLE RING. THIS IS A TOTAL OF 420 POUNDS ON A RING AND COVER SET. CASTINGS WEIGHING LESS THAN THE MINIMUM SPECIFICATIONS WILL NOT BE ACCEPTED.

3. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDARY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON–ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

4. THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SEATING SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUM–FERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

5. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL – SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

MANHOLE FRAME AND COVER

M. E. LINDEBAK P.E. – CITY ENGINEER

PROJECT NUMBER 468–83218

OCA #

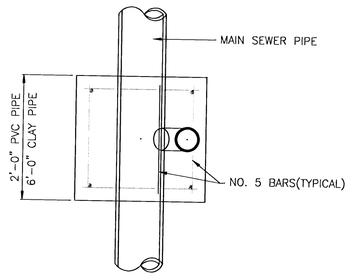
DATE MAR '96

SHEET 9 OF 16

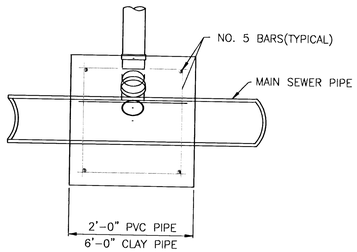
VERTICAL RISER DETAILS

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS
OCTOBER 1992

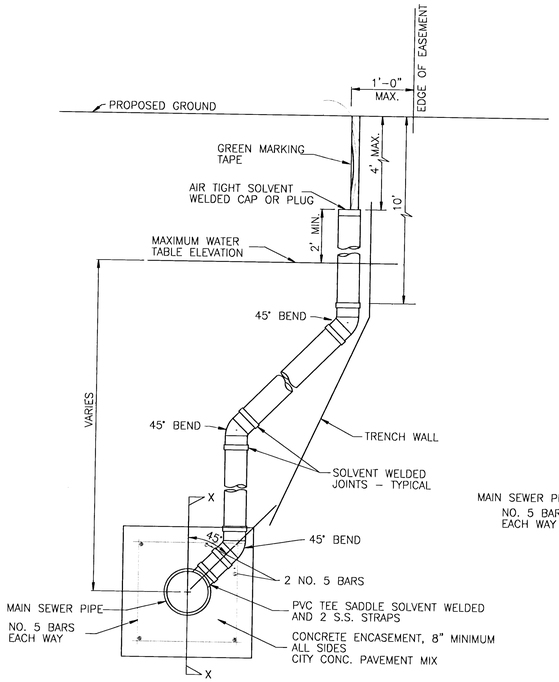
SEWER SERVICE TABLE												
LOCATION						FOR INFORMATION ONLY	RECORD INFORMATION (TO BE COMPLETED BY PROJECT INSPECTOR)					
NO.	TYPE	LOT NO.	BLOCK NO.	LINE NO.	STATION/ DIRECTION	APPROXIMATE LENGTH 4" PIPE	DISTANCE FROM NEAREST MANHOLE UPSTREAM	DISTANCE FROM NEAREST MANHOLE DOWNSTREAM	NO.	Vert.	Horz.
1	TYPE "B" CONNECTION	22	1	1	2+32.00, Rt	5.0'			1	10.5'	5'
2	TYPE "B" CONNECTION	23	1	1	3+52.00, Rt	5.0'			2	9.5'	5'
3	TYPE "B" CONNECTION	24	1	1	5+20.00, Rt	7.0'			3	8.0'	7'
4	TYPE "B" CONNECTION	40	1	1	5+30.00, Lt	13.0'			4	8.0'	13'
5	TYPE "B" CONNECTION	13	2	1	17+85.00, Lt	7.0'			5	8.0'	7'
6	TYPE "B" CONNECTION	46	2	1	18+00.00, Rt	13.0'			6	8.0'	13'
7	TYPE "B" CONNECTION	47	2	1	18+70.00, Rt	13.0'			7	8.5'	13'
8	TYPE "B" CONNECTION	12	2	1	18+80.00, Lt	7.0'			8	8.5'	7'
9	TYPE "B" CONNECTION	11	2	1	20+73.00, Lt	5.0'			9	8.5'	5.0'
10	TYPE "B" CONNECTION	10	2	1	21+52.00, Lt	5.0'			10	8.5'	5.0'
11	TYPE "B" CONNECTION	1	2	3	0+54.00, Rt	13.0'			11	8.0'	13.0'



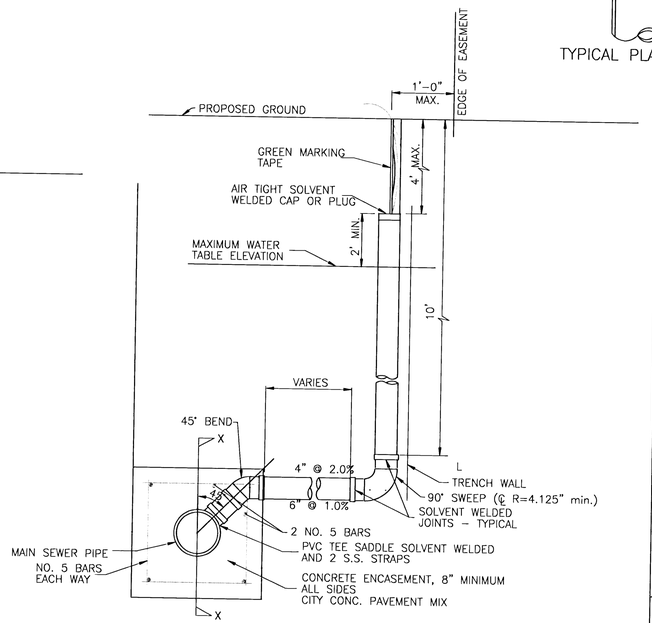
TYPICAL PLAN VIEW



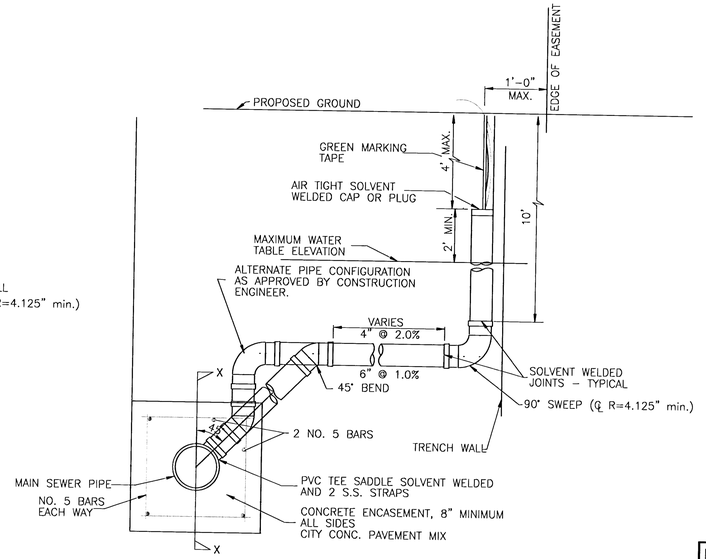
TYPICAL SECTION X–X



METHOD "A"



METHOD "B"



METHOD "C"

NOTE: RISER PIPE REQUIREMENTS AT MANHOLE STUBS SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

GENERAL NOTES

1. RISERS. Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table. Risers shall also be installed to serve all lots and tracts where the sanitary sewer main depth is greater than 12 feet below the proposed ground elevation. Installation of risers because of field conditions shall be as approved by the Construction Engineer. The location of the risers to serve developed property shall be approved by the property owner and the Construction Engineer.

2. PIPE STUBS. Pipe stubs shall be installed in manholes where locations of manholes will provide satisfactory service connection as determined by the Construction Engineer. The vertical distance between the flowline of the manhole pipe stub and the flowline of the sanitary sewer main out of the manhole shall not exceed 2 feet. Risers shall be utilized at manhole pipe stubs as indicated in Note 1. Manhole pipe stubs shall be set such that the top of the stub is not lower than the top of the sanitary sewer main.

3. SIZING. Pipe stubs and risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers or pipe stubs are required because of field conditions, the risers and stubs shall be six-inch diameter for commercial or industrial properties and 4" or 6" diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers and stubs shall be approved by the Construction Engineer prior to installation.

4. RISER OR STUB MATERIAL. Risers and stubs shall be constructed of SDR 35 PVC Pipe or Schedule 40 PVC Pipe, meeting the requirements of the latest revision of A.S.T.M. . All pipe joints shall be solvent welded.

5. REINFORCED CONCRETE ENCASEMENT. Riser connections to clay pipe sanitary sewers shall be reinforced concrete encased both ways from the riser centerline. The reinforced concrete encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet of the riser centerline. Riser connections to PVC Sanitary Sewer mains shall be reinforced concrete encased one foot each way from the riser centerline. The concrete encasement shall be reinforced using reinforcing steel as shown in the appropriate drawing. The concrete shall conform to the City Standard Specifications for concrete pavement.

6. BEDDING. Bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted from the depth of the sanitary sewer main to the top of the sanitary sewer riser pipe. Compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.

7. SUPPORT OF RISERS. Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and backfilling the riser pipe shall be approved by the Construction Engineer.

8. PLUGGING. The ends of the riser pipes and manhole stubs shall be plugged using an airtight solvent welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. Caps or plugs which do not provide an airtight seal will not be accepted.

9. TOP OF THE RISER PIPE. The top elevation of the sanitary sewer riser pipe shall be built per plan elevations, unless otherwise directed by the Construction Engineer. Where riser elevations are not shown on the plans, the top of the risers shall be set at an elevation four feet below the proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation two feet (min.) above the maximum water table elevation, regardless of the riser elevation shown on the plans.

10. MARKING. Locations of the ends of the sanitary sewer riser pipe shall be marked by fastening green colored plastic tape to the end of the riser. The tape shall be supported by a length of wooden 2 x 4, extending from the top of the riser pipe to the proposed ground surface. The green tape shall be visible and extend one foot above the proposed ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of three inches, specifically manufactured for the purpose of identification of underground sewers.

11. LOCATION MEASURES. The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicating the direction from the manhole, the direction and distance from the main, riser size, and elevation of the top of the riser.

12. RISER LOCATION. The riser shall be located per plan if shown. If not shown on the plan, the riser shall be located at the center of the lot, within one foot of the property side of the easement for the lot being served. All riser locations shall be approved by the Construction Engineer prior to installation.

13. PAYMENT. "Sanitary sewer risers" shall be paid for at the contract unit price per each, which price shall be full compensation for all pipe, fittings, marking tape, length of wooden 2 x 4, reinforced concrete encasement, support during backfill, backfill, labor, site restoration, and any other items necessary to complete the work.

"Manhole stubs" shall be paid for at the contract unit price per each, which shall be full compensation for all labor, material, and incidentals necessary to complete the work including all pipe, fittings, reinforced concrete encasement, and all other items as required and listed for "Sanitary Sewer Risers".

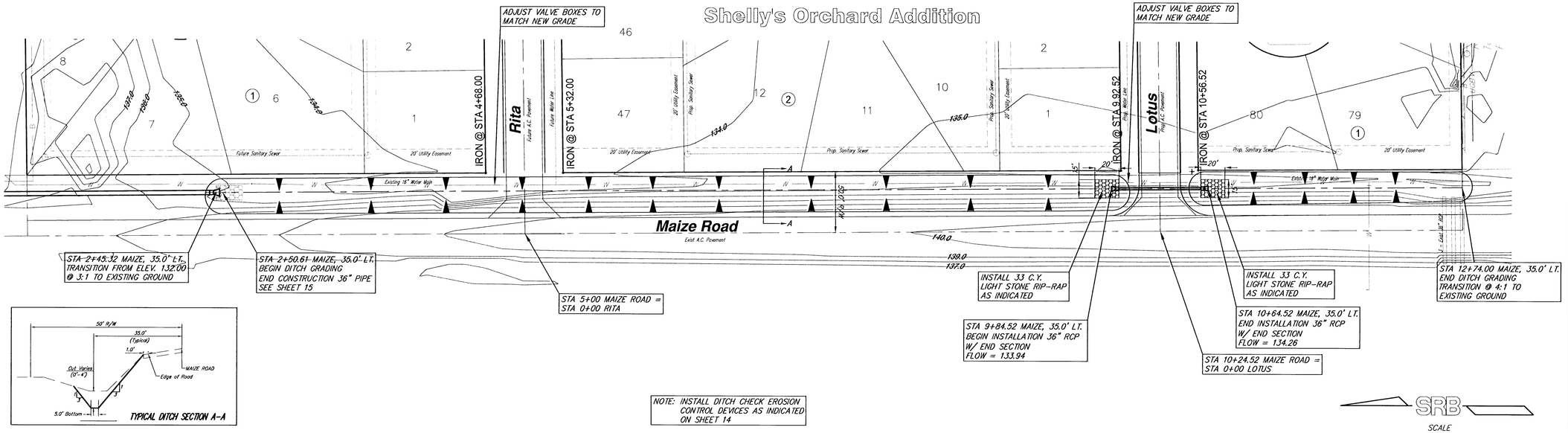
THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL – SEVENTH FLOOR
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WICHITA, KANSAS 67202
(316) 268-4501
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VERTICAL RISER DETAIL

M. E. LINDEBAK P.E. – CITY ENGINEER

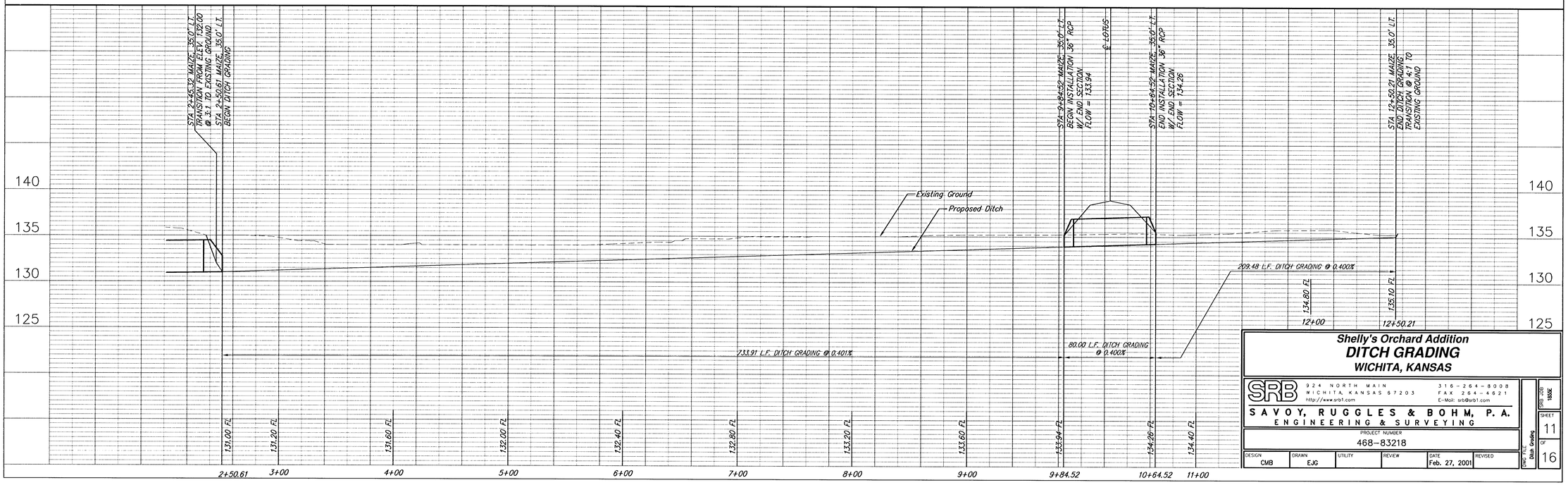
PROJECT NUMBER	OCA #
468-83218	7 7
DATE MAR 96	SHEET 10 OF 16



NOTE: INSTALL DITCH CHECK EROSION CONTROL DEVICES AS INDICATED ON SHEET 14

SRB

SCALE
1" = 40' Horiz. (Plan)
1" = 5' Vert. (Profile)



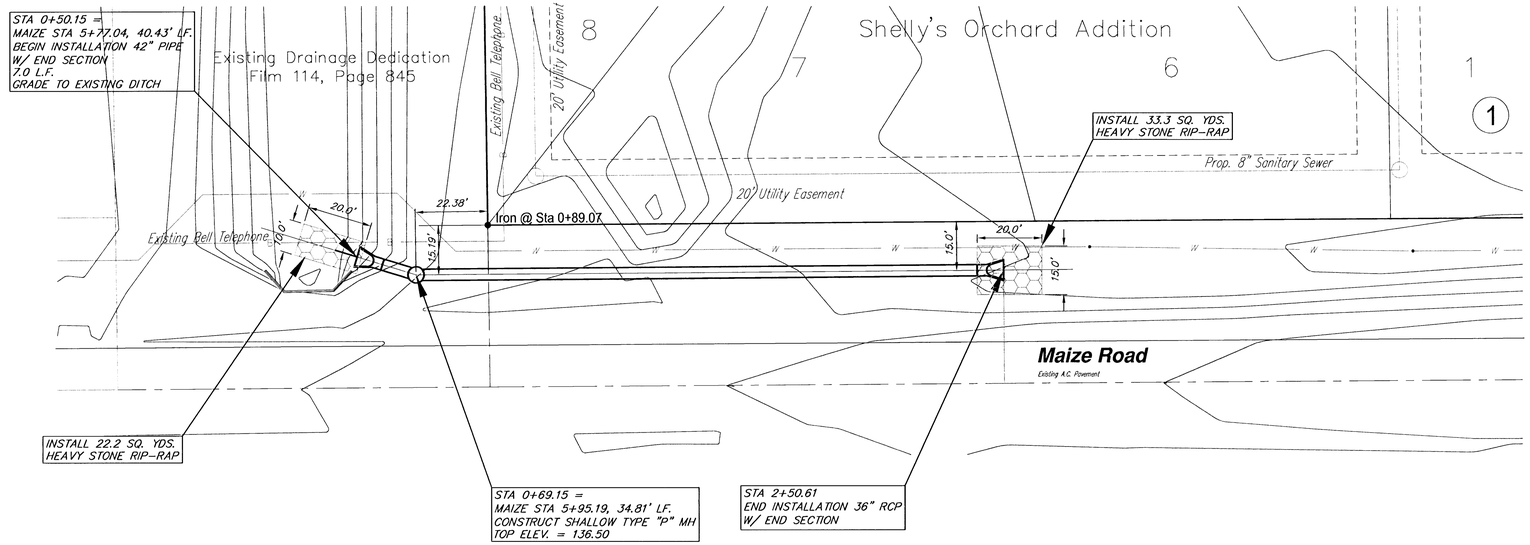
Shelly's Orchard Addition
DITCH GRADING
WICHITA, KANSAS

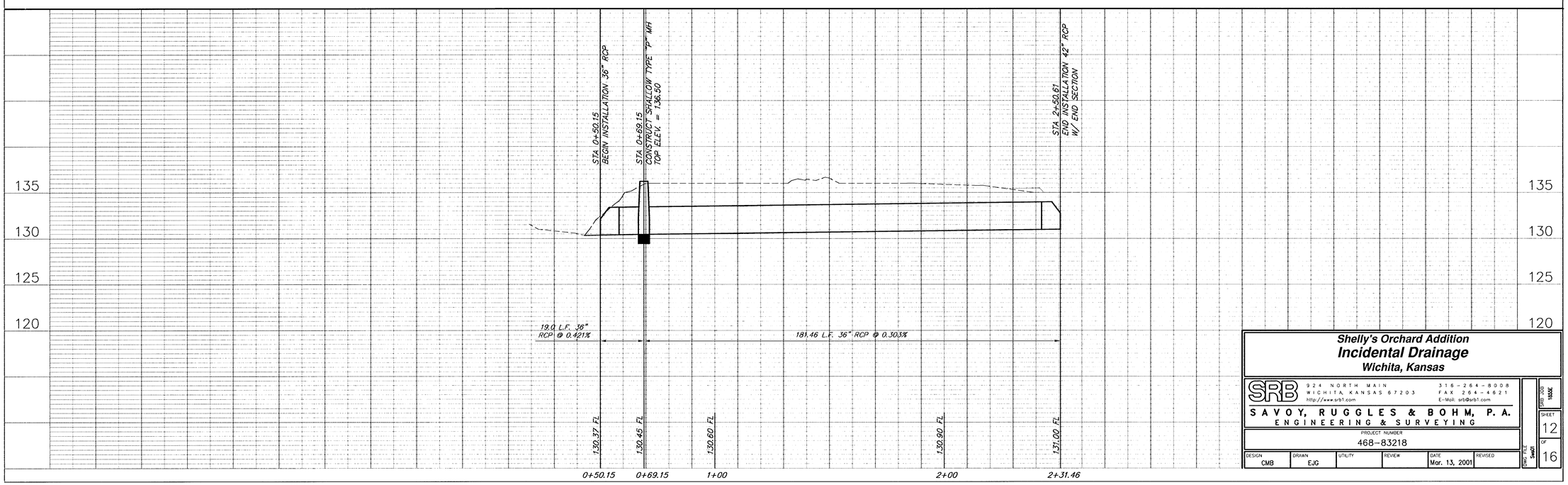
SRB 924 NORTH MAIN WICHITA, KANSAS 67203 316-264-8008 FAX 264-4621 E-Mail: srb@srb1.com
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

PROJECT NUMBER 468-83218

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
CMB	EJG			Feb. 27, 2001	

CHEC. FILE: Ditch Grading
SHEET 11 OF 16





Shelly's Orchard Addition

Incidental Drainage

Wichita, Kansas

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924 NORTH MAIN
WICHITA, KANSAS 67203
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316-264-8008
FAX 264-4621
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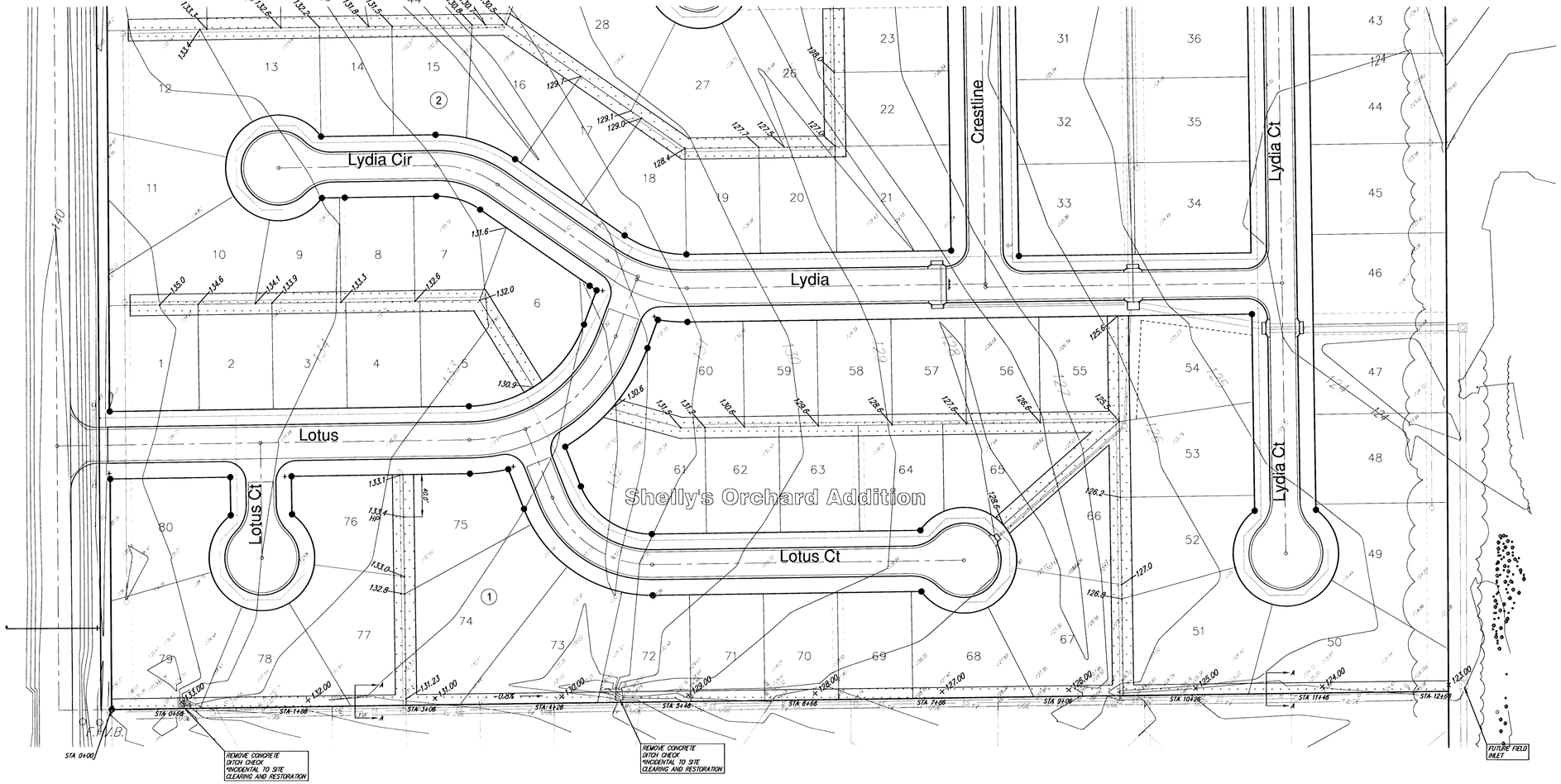
SAVOY, RUGGLES & BOHM, P. A.
ENGINEERING & SURVEYING

PROJECT NUMBER					
468-83218					
DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
CMB	EJG			Mar. 13, 2001	

DWG FILE: Swo01

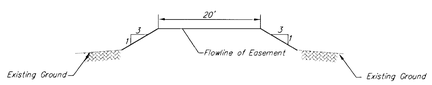
NOV 2001 ISSUE

SHEET 12 OF 16

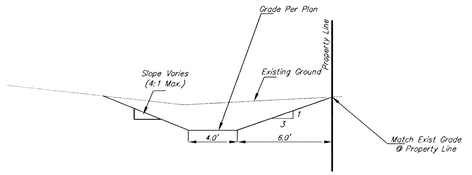




EASEMENT GRADING CUT SECTION



EASEMENT GRADING FILL SECTION



EASEMENT GRADING SECTION A-A

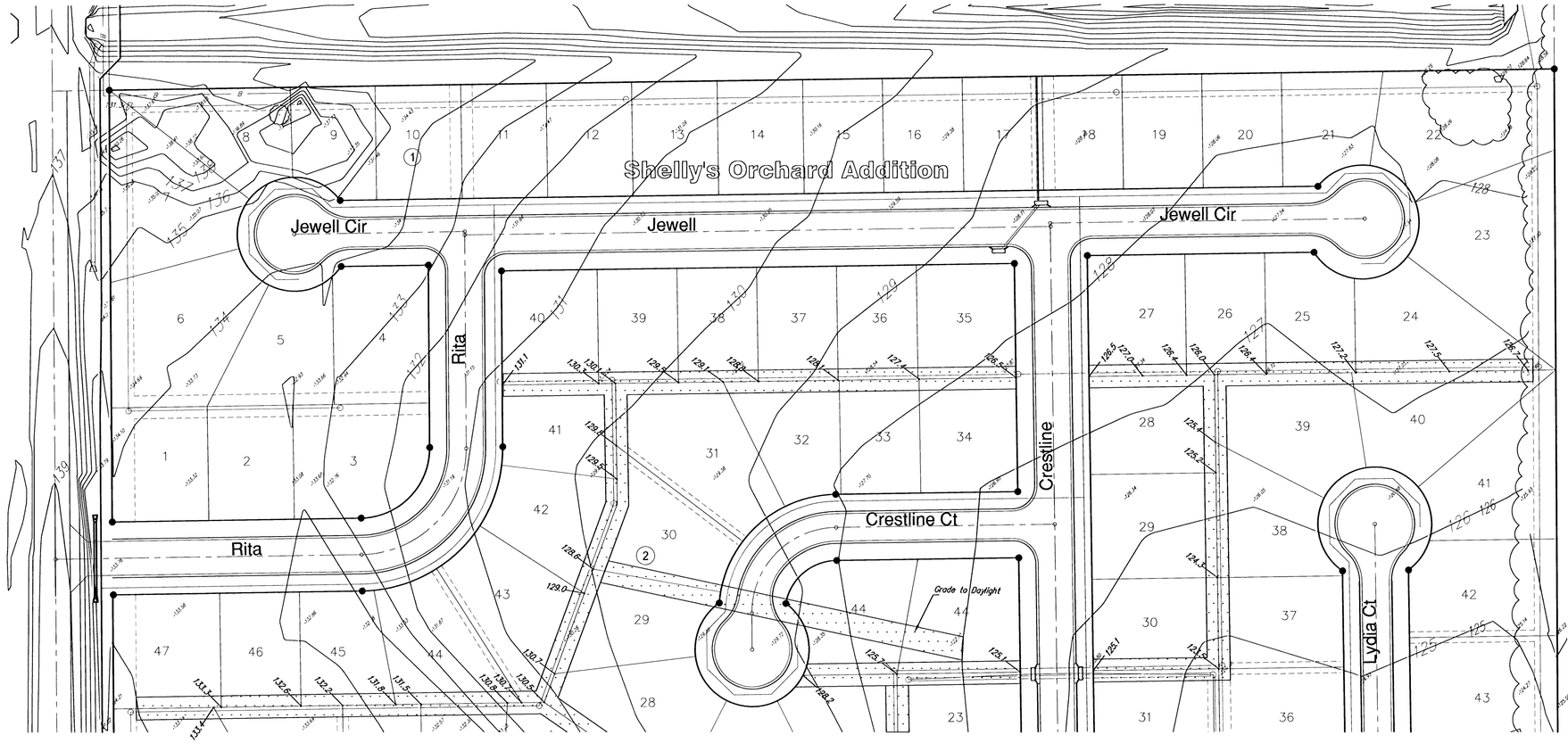
SHELLY'S ORCHARD ADDITION
EASEMENT GRADING
WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
www.srb1.com
316-264-8008
FAX 264-4621
E-mail: srb@srb1.com
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

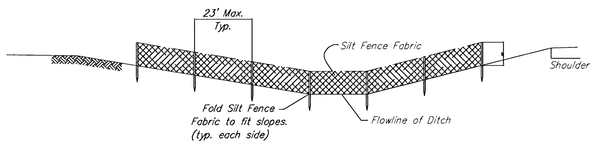
PROJECT NUMBER 468-83218

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
CMB	EJG			Feb. 26, 2001	

SRB JOB 18002E
SHEET 13
OF 16
DWG. FILE: Easement Grading_01



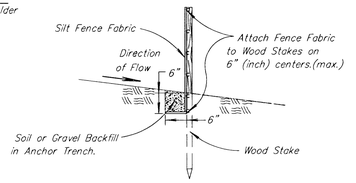
SCALE 1" = 50'



SILT FENCE DITCH CHECK



HAY BALE DITCH CHECK



SILT FENCE DITCH CHECK SECTION

NOTE: For clarity of details, this view has been enlarged.

GENERAL NOTES

STRAW OR HAY BALE NOTES:

1. Place Bales tightly together, with loose straw or hay wedged between Bales to close off any openings.
2. Wood Stakes shall be 2" x 2" (nom.) x 4'-0" long (min.)
3. Use as many Bales as necessary to completely block the entire width of ditch flowline, with excess Bale length cut into fore and back slopes.
4. Use as many Bales as necessary on fore and back slopes to insure water does not flow around barrier.
5. Use only twine to bind bales. The use of wire binding is prohibited because it does not readily biodegrade.

SILT FENCE NOTES:

1. Wood Stakes shall be 2" x 2" (nom.) x 5'-0" long (min.)
2. Attach Fence Fabric to wood stakes with staples, wire, or nails.
3. Use as many wood stakes as necessary to achieve a maximum spacing of 5' across ditch cross section.

TEMPORARY DITCH CHECK SPACING

DITCH & SLOPE (%)	SPACING INTERVAL (Ft.)
1.0	200
1.5	133
2.0	100
2.5	80
3.0	66
3.5	57
4.0	50
4.5	44
5.0	40
5.5	38
6.0	35
6.5	30
7.0	28
7.5	26
8.0	25
8.5	23
9.0	22
9.5	21
10.0	20

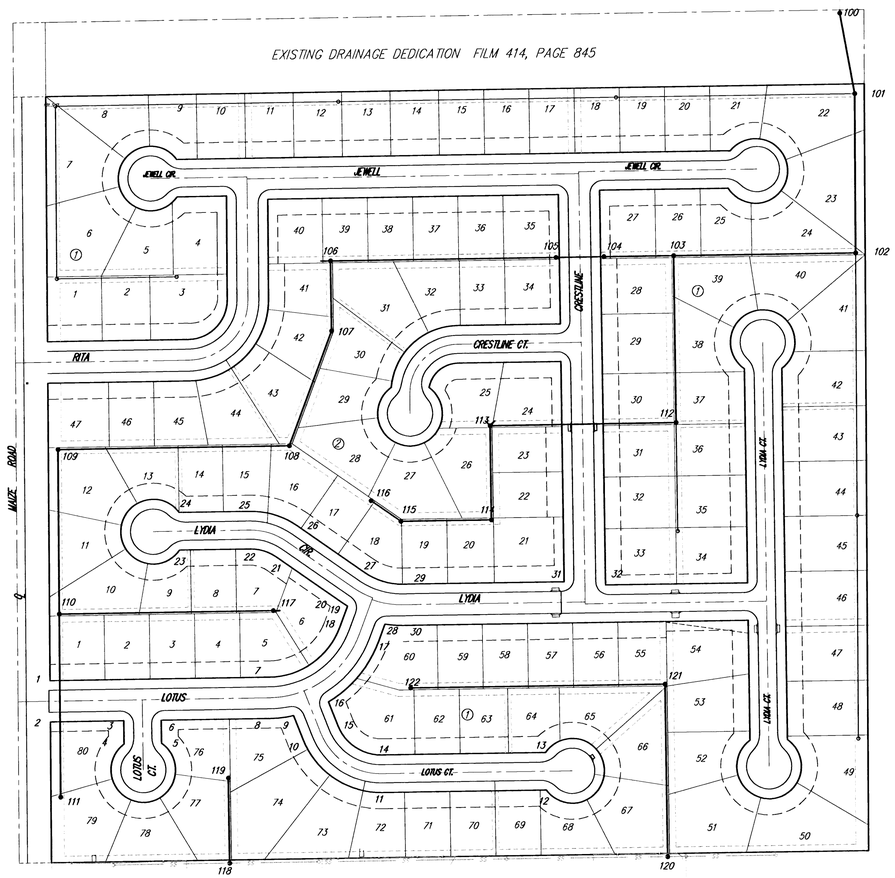
SHELLY'S ORCHARD ADDITION
EASEMENT GRADING
WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
www.srb1.com
316-264-8008
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SAVOY, RUGGLES & BOHM, P. A.
ENGINEERING & SURVEYING

PROJECT NUMBER 468-83218

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
CMB	EJG			Feb. 26, 2001	

SRB JOB 16506
SHEET 14
OF 16
DWG. FILE Easement Grading 02



1	N 18982.28	E 20057.07	Block Corner
2	N 18918.28	E 20057.52	Block Corner
3	N 18919.93	E 20171.24	Block Corner
4	N 18884.06	E 20171.76	PC
5	N 18884.90	E 20229.76	PT
6	N 18920.77	E 20229.24	Block Corner
7	N 18987.20	E 20397.06	PC
8	N 18923.21	E 20397.99	PC
9	N 18927.43	E 20434.41	Block Corner
10	N 18889.97	E 20449.21	PC
11	N 18808.39	E 20571.05	PT
12	N 18812.07	E 20825.27	PC
13	N 18870.06	E 20824.43	PT
14	N 18866.38	E 20570.21	PT
15	N 18911.28	E 20503.15	PC
16	N 18948.74	E 20488.35	Block Corner
17	N 19042.29	E 20566.14	PT
18	N 19064.41	E 20506.08	PT
19	N 19096.74	E 20517.99	Block Corner
20	N 19101.06	E 20511.42	PT
21	N 19173.09	E 20407.62	PC
22	N 19185.75	E 20366.11	PT
23	N 19184.18	E 20257.89	PC
24	N 19242.18	E 20257.05	PT
25	N 19243.74	E 20365.28	PT
26	N 19220.74	E 20440.69	PC
27	N 19148.71	E 20544.48	PT
28	N 19068.88	E 20575.93	Block Corner
29	N 19130.88	E 20602.94	PC
30	N 19066.89	E 20603.87	PC
31	N 19154.51	E 20853.38	Block Corner
32	N 19128.43	E 20917.46	Block Corner
100	N 20013.53	E 21280.53	MH
101	N 19888.85	E 21303.67	MH
102	N 19642.70	E 21304.94	MH
103	N 19638.62	E 21023.11	MH
104	N 19637.06	E 20915.12	MH
105	N 19635.99	E 20841.12	MH
106	N 19630.93	E 20491.99	MH
107	N 19522.72	E 20493.47	MH
108	N 19345.19	E 20428.00	MH
109	N 19340.01	E 20069.59	MH
110	N 19085.50	E 20071.35	MH
111	N 18802.13	E 20073.32	MH
112	N 19380.65	E 21026.84	MH
113	N 19376.04	E 20738.65	MH
114	N 19229.89	E 20740.76	MH
115	N 19227.86	E 20600.57	MH
116	N 19259.80	E 20554.55	MH
117	N 19090.30	E 20402.96	MH
118	N 18699.18	E 20334.94	MH
119	N 18831.20	E 20333.03	MH
120	N 18708.63	E 21013.37	MH
121	N 18975.75	E 21009.51	MH
122	N 18970.05	E 20615.54	MH

SCALE 1" = 100'
IRON = ●

Shelly's Orchard Addition
Key Map
WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
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FAX 264-4821
E-mail: srb@srb1.com
SAVOY, RUGGLES & BOHM, P. A.
ENGINEERING & SURVEYING

PROJECT NUMBER
468-83218

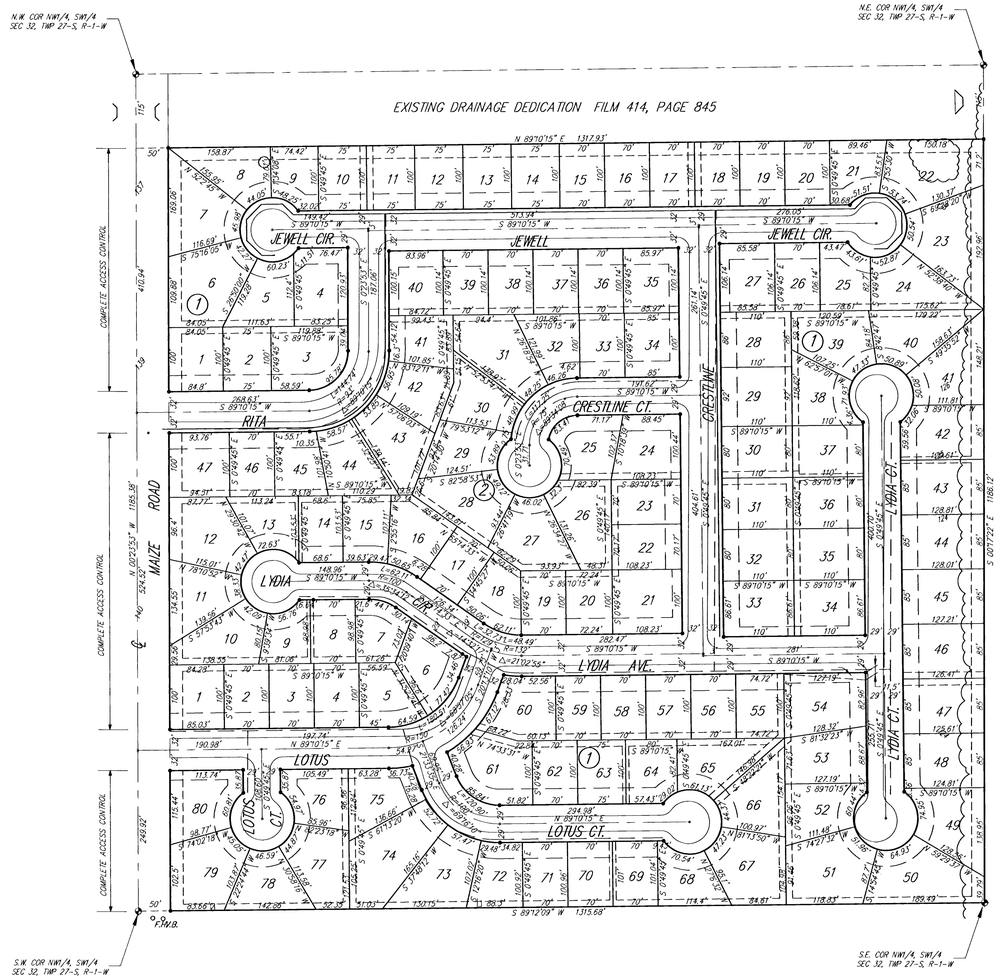
DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
CMB	EJG			Feb. 26, 2001	

DRAWING NO. 1836E

SHEET 15 OF 16

SHELLY'S ORCHARD ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS



MINIMUM BUILDING PAD ELEVATION FOR LOWEST OPENING TO A STRUCTURE			
LOT	BLOCK	ELEVATION	
		CITY DATUM	N.G.V.D.
8, 9, 10	1	133.5	1320.9
11, 12, 13	1	132.0	1319.4
14, 15, 16	1	130.5	1317.9
17, 18, 19	1	130.0	1317.4
20, 21, 22	1	129.5	1316.9

BENCHMARK:
City of Wichita Benchmark disc @ Maize Road and May Street 31.5' S. and 38' E. of centerline both.
Elev.=137.67 (City Datum)
Elev.=1325.07 (NGVD)

1" = 100'

● = 1/2" REBAR W/SRB CAP

S.B. = BUILDING SETBACK

C.A.C. = COMPLETE ACCESS CONTROL

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
http://www.feist.com/~srb
316-264-8008
FAX 264-4621
E-mail: srb@feist.com
SAVOY, RUGGLES & BOHM, P.A.
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DWG FILE: 00536PF-R1.J
PROJECT NO. 96F00536P

16-03-01-04