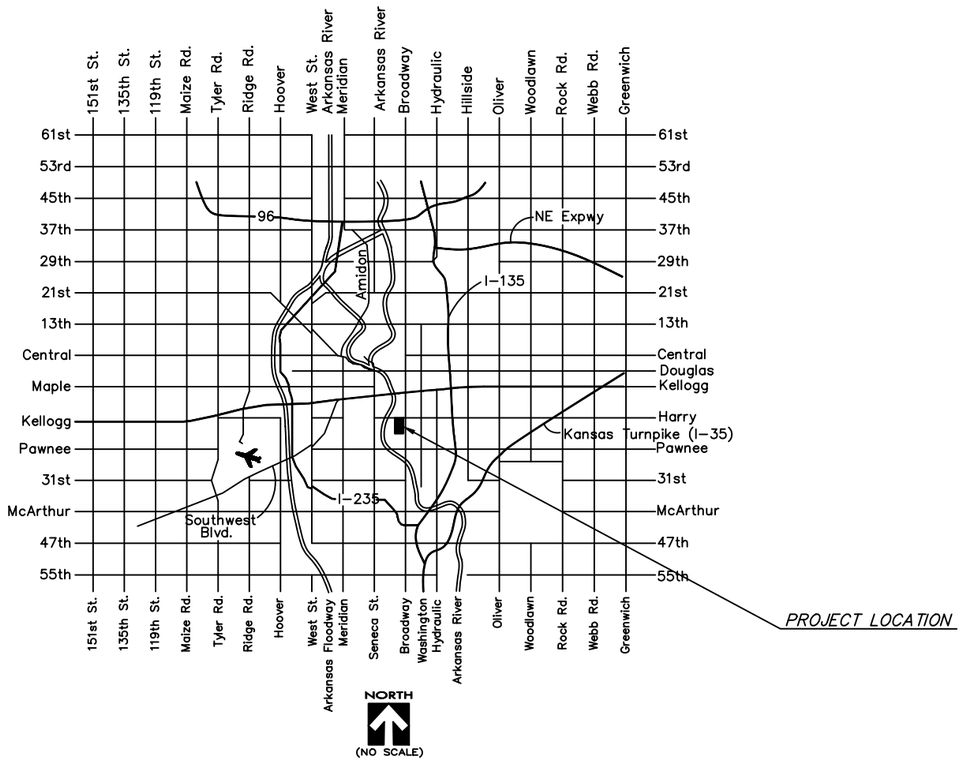
City of Wichita
Sedgwick County, Kansas

MAIN AND MARKET WATER MAIN REPLACEMENTS

CITY PROJECT NUMBER: 448 90283
OCA NUMBER: 636185

CITY ENGINEER:
MR. JAMES L. ARMOUR, PE



INDEX OF SHEETS:

JULY 2007

PLANS PREPARED BY:

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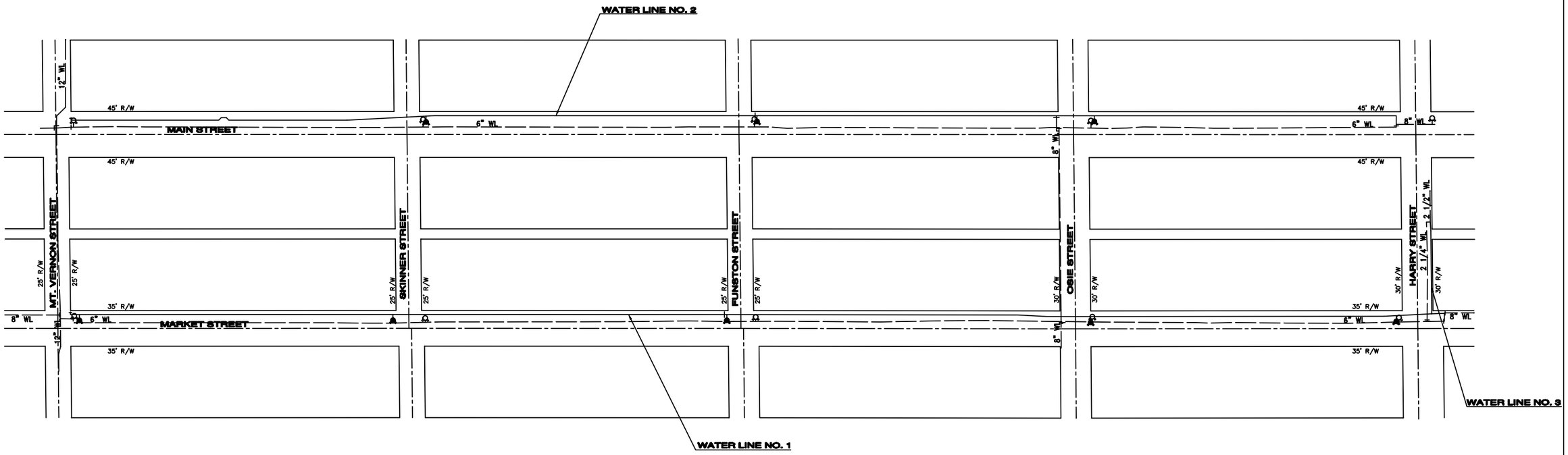

GENERAL NOTES:

1. ALL WATER MAINS AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF WICHITA, KANSAS STANDARD SPECIFICATIONS.
2. ALL ELEVATIONS SHOWN ARE CITY OF WICHITA DATUM.
3. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY EIGHT 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	1-800-482-4950
AQUILA NETWORKS	1-800-527-0357
WESTAR ENERGY	383-8600
AT&T	1-800-870-8390
CITY OF WICHITA WATER DEPARTMENT	268-4940
CITY OF WICHITA SEWER DEPARTMENT	268-4940

4. IT IS INTENTED FOR THE CONTRACTOR TO USE DIRECTIONAL DRILLING METHODS TO CONSTRUCT THIS WATER MAIN REPLACEMENT PROJECT. PIPE INSTALLATION WILL BE PAID FOR UNDER THE BID ITEM "WL PIPE _", REGARDLESS OF THE INSTALLATION METHOD USED BY THE CONTRACTOR. THE WATER MAIN SHALL BE CONSTRUCTED ON THE ALIGNMENT SHOWN BY THE PLANS. ALL TREES SHALL BE SAVED AND PROTECTED FROM DAMAGE, UNLESS OTHERWISE APPROVED BY THE CONSTRUCTION ENGINEER OR SHOWN ON THE PLANS.
5. PAVEMENT REMOVAL AND REPLACEMENT WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO THE WATER LINE PIPE INSTALLATION. WHEN PAVEMENT REMOVAL IS REQUIRED, THE CONTRACTOR SHALL REPLACE IT IN KIND, REGARDLESS OF WIDTH, PAVEMENT TYPE AND/OR THICKNESS. THE MINIMUM LIMITS OF REMOVAL SHALL BE ONE FOOT BEYOND THE PIPELINE TRENCH. REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE CITY OF WICHITA STANDARD SPECIFICATIONS. CURB & GUTTER REMOVAL AND REPLACEMENT SHALL ALSO BE CONSIDERED SUBSIDIARY TO THE WATER LINE PIPE INSTALLATION.
6. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST AVAILABLE INFORMATION. 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.
7. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING WATERLINES AT THE CONNECTION TO VERIFY PIPE SIZE, PIPE TYPE, FITTINGS AND THE HORIZONTAL AND VERTICAL LOCATIONS. THE CONTRACTOR REPORT HIS FINDINGS TO THE ENGINEER SO THAT ANY PLAN MODIFICATIONS MAY BE MADE. ONCE THE WATERLINE IS LOCATED AND EXPOSED, THE CITY OF WICHITA WILL FURNISH AND PERFORM THE WATER TAPS TO THE EXISTING WATER MAINS AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL REIMBURSE THE CITY OF WICHITA WATER DEPARTMENT FOR THIS WORK.
8. THE EXISTING WATERLINES ARE TO BE ABANDONED IN PLACE. ALL EXISTING PIPING TO BE ABANDONED SHALL BE PLUGGED OR REPLACED AS PART OF THIS PROJECT SHALL CAPPED AT EACH END AND SHALL BE COMPLETELY REMOVED FROM SERVICE. THE METHOD OF WATERLINE ABANDONMENT SHALL BE APPROVED BY THE CONSTRUCTION ENGINEER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK AND SHALL BE CONSIDERED SUBSIDIARY TO THE PRICE BID FOR WATERLINE CONSTRUCTION.
9. GAS LINE DEPTHS THROUGHOUT THE PROJECT VARY. THE CONTRACTOR SHALL EXPOSE THE EXISTING GAS LINES AT ALL CROSSINGS. IF THE LOCATION OF THE GAS LINE IS IN CONFLICT WITH THE PROPOSED WATERLINE, THE CONTRACTOR SHALL REPORT HIS FINDINGS TO THE ENGINEER SO NECESSARY PLAN MODIFICATIONS CAN BE MADE. CARE SHOULD BE TAKEN SO THE GAS LINES ARE NOT DAMAGED DURING CONSTRUCTION. ALL COSTS ASSOCIATED WITH LOCATING GAS LINES AND ADJUSTING WATERLINE PROFILE AS REQUIRED WILL BE SUBSIDIARY TO PIPE, COMPLETE IN PLACE.
10. 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.
11. 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 PERFORMED WITHOUT INSPECTION IS SUBJECT TO BE UNCOVERED FOR INSPECTION.
12. 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.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING EXISTING PROPERTY IRONS AND RIGHT-OF-WAY MONUMENTS. THE CONTRACTOR SHALL BE REQUIRED TO REESTABLISH ANY PROPERTY IRONS OR RIGHT-OF-WAY MONUMENTS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS OR MONUMENTS SHALL BE REESTABLISHED BY A LICENSED SURVEYOR IN ACCORDANCE WITH STATE LAWS. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO SITE CLEARING & RESTORATION.
14. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES, AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES UNLESS SHOWN OTHERWISE IN THE PLANS.
15. ANY EXCESS EXCAVATION OR RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED AND TREE TRIMMINGS SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO BE APPROVED OF BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, 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 US 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.
16. ALL LAWN AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE BUT NOT LIMITED TO, TOP SOIL PREPARATION, SEEDING, MULCH AND/OR RESEEDING. ALL SEEDING WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. AR78 WHICH CITY OF WICHITA STANDARD GOVERNS CLEANUP AND RESTORATION OF REPLACEMENT FOLLOWING CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE CLEARING & RESTORATION".
17. THE CONTRACTOR SHALL SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH TEMPORARY RYE GRASS. RYE GRASS SHALL BE PLANTED AT A MINIMUM RATE OF SIX (6) POUNDS PER ONE THOUSAND (1000) SQUARE FEET. THIS TEMPORARY SEEDING MAY BE OMITTED ONLY IF OTHER SEEDING IS REQUIRED IN ACCORDANCE WITH GENERAL NOTE NO. 16 ABOVE. TEMPORARY SEEDING OR PERMANENT SEEDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED.
18. INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA AND LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY THE PROJECT SPECIAL PROVISIONS. THE CONTRACTOR SHALL UTILIZE BARRICADES, SIGNS, GUARDS, AND FLAGMEN IN FLAGMEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN TO THE CITY FOR APPROVAL PRIOR TO BEGINNING WORK.
19. A SAW CUT OF AT LEAST ONE-HALF THE DEPTH OF EXISTING SURFACE COURSES OR ONE FOURTH THE DEPTH OF THE EXISTING TOTAL PAVEMENT THICKNESS SHALL BE PROVIDED AT LOCATIONS WHERE PROPOSED CONSTRUCTION ABUTS AN EXISTING SURFACE COURSE OR PAVEMENT IS REQUIRED, 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 WILL BE CONSIDERED SUBSIDIARY TO THE REMOVAL OF THE SURFACE OR PAVEMENT.
20. ALL IRRIGATION, LANDSCAPING, AND FENCING DISTURBED DURING CONSTRUCTION SHALL BE REMOVED AND RESET IN KIND, BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT HOURS TO THE AFFECTED PROPERTY OWNERS PRIOR TO BEGINNING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND RESTORATION".
21. THE CONTRACTOR SHALL MINIMIZE WATER SERVICE INTERRUPTIONS TO PROPERTY OWNERS WITHIN THE PROJECT AREA. ANY PROPERTY OWNERS WHO WILL HAVE SERVICE INTERRUPTED SHALL BE GIVEN WRITTEN NOTICE AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE. NO PROPERTY OWNERS SHALL HAVE THEIR WATER SERVICE INTERUPPTED FOR MORE THAN A FOUR (4) HOUR PERIOD.
22. EXISTING METER BOXES, RINGS, AND LIDS SHALL BE DISPOSED OF BY THE CONTRACTOR.
23. ALL SIDEWALK REPLACEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WICHITA STANDARDS. WHERE THE SIDEWALK IS TO BE REPLACED AT STREET INTERSECTIONS, THE CONTRACTOR SHALL CONSTRUCT WHEELCHAIR RAMPS PER THE CITY OF WICHITA STANDARD SPECIFICATIONS. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE WATER LINE PIPE INSTALLATION.
24. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES (BMP'S) TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS. OR ANY OTHER DRAINAGE FEATURE. THE CITY OF WICHITA STANDARD DETAILS FOR SOIL EROSION BMP'S ARE A PART OF THIS SET OF PLANS AND ARE INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF SOIL EROSION PROTECTION WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL BID THE PROJECT ACCORDINGLY. BMP'S SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY SOIL EROSION BMP'S DAMAGED OR DESTROYED DURING THE CONSTRUCTION PROCESS. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE SUBSIDIARY TO THE BID ITEM "SOIL EROSION BMP'S."
25. NEW SERVICES SHALL BE PROVIDED TO ALL LOCATIONS ALONG THE PROPOSED ALIGNMENT WHERE METERS ARE EXISTING, OR AS DIRECTED BY THE CONSTRUCTION ENGINEER. THE CONTRACTOR SHALL PROVIDE NEW 1" SERVICE TUBING. SETTER, METER, BOX, AND LID. SERVICES WILL BE BID ON A PER EACH BASIS FOR LONG AND SHORT SERVICES. LONG SERVICE LINE IS GREATER THAN 20'. SHORT SERVICE LINE LENGTH IS LESS THAN OR EQUAL TO 20'. EXISTING METERS AND SETTERS SHALL BE SALVAGED TO THE CITY OF WICHITA WATER AND SEWER DEPARTMENT. EXISTING SERVICE LINES TO BE ABANDONED SHALL BE CUT AND CAPPED. EXISTING METER BOXES, RINGS, AND LIDS SHALL BE DISPOSED OF BY THE CONTRACTOR.

NORTH

FEET
0 20 40
GRAPHIC SCALE FOR 1" = 20'

LEGEND:

PROPOSED WATER LINE
EXISTING WATER LINE
PROPOSED FIRE HYDRANT
EXISTING FIRE HYDRANT
PROPOSED WATER VALVE
EXISTING VALVE

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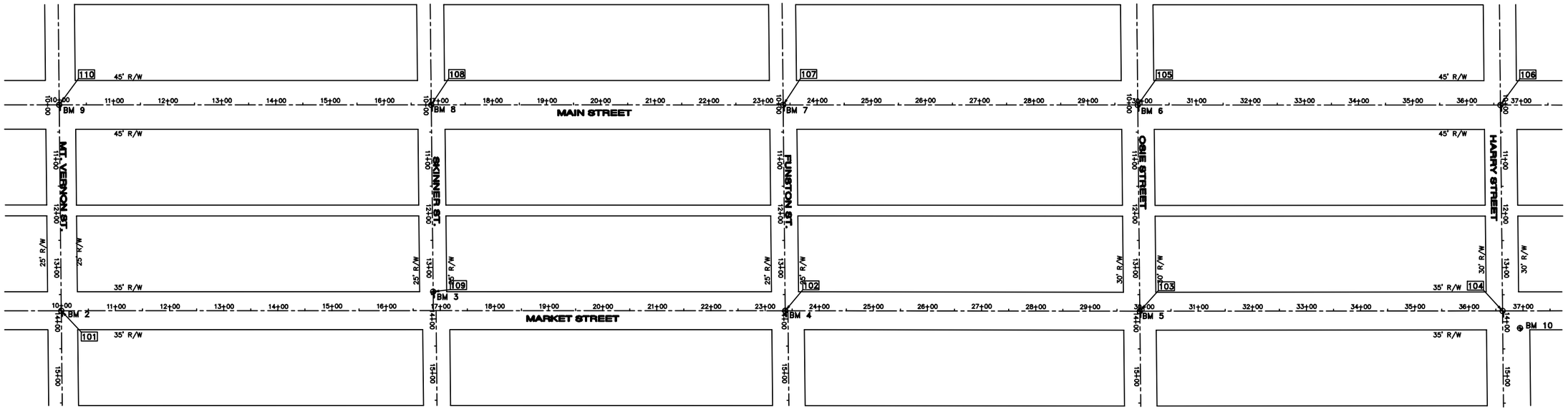
KEY MAP AND GENERAL NOTES

MAIN AND MARKET W.L. IMPROVEMENTS
City of Wichita
Sedgwick County, Kansas

scale: as noted
drawn by: das
checked by: cry
date: 7/17/07
P/N: 07-238
revisions:



HORIZONTAL COORDINATE CONTROL:

POINT NO. 101
N.5000.000, E. 5000.000
WL NO. 1, BL STA. 10+00=
MT. VERNON ST. CL, BL STA. 13+79.90
FOUND 1 1/2" I.P. IN THIMBLE AT CL MARKET STREET AND MT. VERNON STREET R/W.

POINT NO. 102
N. 6337.247 E. 5000.000
WL NO. 1, BL STA. 23+37.25=
FUNSTON ST. CL, BL STA. 13+79.81
FOUND 1 1/2" I.P.& 60D NAIL IN THIMBLE AT CL OF MARKET STREET AND FUNSTON STREET R/W.

POINT NO. 103
N. 6992.227 E. 5000.857
WL NO. 1, BL STA. 29+92.23=
OSIE ST. CL, BL STA. 13+80.54
FOUND PK NAIL IN ASPH. AT CL MARKET STREET AND OSIE STREET R/W.

POINT NO. 104
N. 7662.249 E. 5000.240
WL NO. 1, BL STA. 36+62.25=
WL NO. 3, BL STA. 13+79.76
FOUND 3/4" IP IN THIMBLE AT CL MARKET STREET AND HARRY STREET R/W.

POINT NO. 105
N. 6988.436 E. 4620.336
WL NO. 2, BL STA. 29+92.26=
OSIE ST. CL, BL STA. 10+00
FOUND 1 1/2" I.P. AND PK NAIL IN THIMBLE AT CL MAIN STREET AND OSIE STREET R/W.

POINT NO. 106
N. 7658.396 E. 4620.499
WL NO. 2, BL STA. 36+62.23 =
WL NO. 3, BL STA. 10+00
FOUND 3/4" I.P. IN THIMBLE AT CL MAIN STREET AND HARRY STREET R/W.

POINT NO. 107
N. 6333.420 E. 4620.209
WL NO. 2, BL STA. 23+37.25=
FUNSTON ST. CL, BL STA. 10+00
FOUND 3/4" I.P. IN THIMBLE AT CL MAIN STREET AND FUNSTON STREET R/W.

POINT NO. 108
N. 5683.412 E. 4620.166
WL NO. 2, BL STA. 16+87.24=
SKINNER ST. CL, BL STA. 10+00
FOUND 3/4" I.P. IN THIMBLE AT CL MAIN STREET AND SKINNER STREET R/W.

POINT NO. 109
N. 5686.931 E. 4964.813
WL NO. 1, BL STA. 16+87.29, 35.00' LEFT=
SKINNER ST. CL, BL STA. 13+44.67
FOUND 3/4" I.P. IN THIMBLE AT WEST R/W OF MARKET STREET AND CL OF SKINNER STREET R/W.

POINT NO. 110
N. 4996.175 E. 4620.120
WL NO. 2, BL STA. 10+00=
MT. VERNON ST. CL, BL STA. 10+00
FOUND 1 1/2" I.P. IN THIMBLE AT CL OF MT. VERNON STREET AND CL OF MAIN STREET R/W.

BENCHMARK:

BM. #1 – ELEV. 100.81 = STD. DISC., 146.0' EAST OF CL OF BROADWAY AVE., AND 20.2' NORTH OF CL OF MT. VERNON ST.

BM. #2 – ELEV. 99.86 = TOP OF 1 1/2" IRON PIPE IN THIMBLE, AT CL OF MT. VERNON ST. AND CL MARKET ST.

BM. #3 – ELEV. 101.76 = TOP OF 3/4" IRON PIPE IN THIMBLE, AT CL SKINNER ST. AND WEST R/W OF MARKET ST.

BM. #4 – ELEV. 102.64 = TOP OF PK NAIL IN 1 1/2" IRON PIPE IN THIMBLE, CL MARKET ST. AND CL FUNSTON ST.

BM. #5 – ELEV. 103.21 = TOP OF PK NAIL IN ASPHALT STREET, CL OF MARKET ST. AND CL OSIE ST.

BM. #6 – ELEV. 103.35 = TOP OF PK NAIL IN 1 1/2" IRON PIPE IN THIMBLE, CL OF MAIN ST. AND CL OSIE ST.

BM. #7 – ELEV. 102.69 = TOP OF 3/4" IRON PIPE IN THIMBLE, CL OF MAIN ST. AND CL FUNSTON ST.

BM. #8 – ELEV. 101.91 = TOP OF 3/4" IRON PIPE IN THIMBLE, CL OF MAIN ST. AND CL SKINNER ST.

BM. #9 – ELEV. 100.76 = TOP OF 1 1/2" IRON PIPE IN THIMBLE, CL OF MT. VERNON ST. AND CL MAIN ST.

BM. #10 – ELEV. 105.44 = "+" CHISELED IN CONC. SIDEWALK, 31.88' EAST OF CL OF MARKET STREET AND 31.98' NORTH OF CL OF HARRY STREET R/W.

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HORIZONTAL AND VERTICAL CONTROL

MAIN AND MARKET W.L. IMPROVEMENTS
City of Wichita
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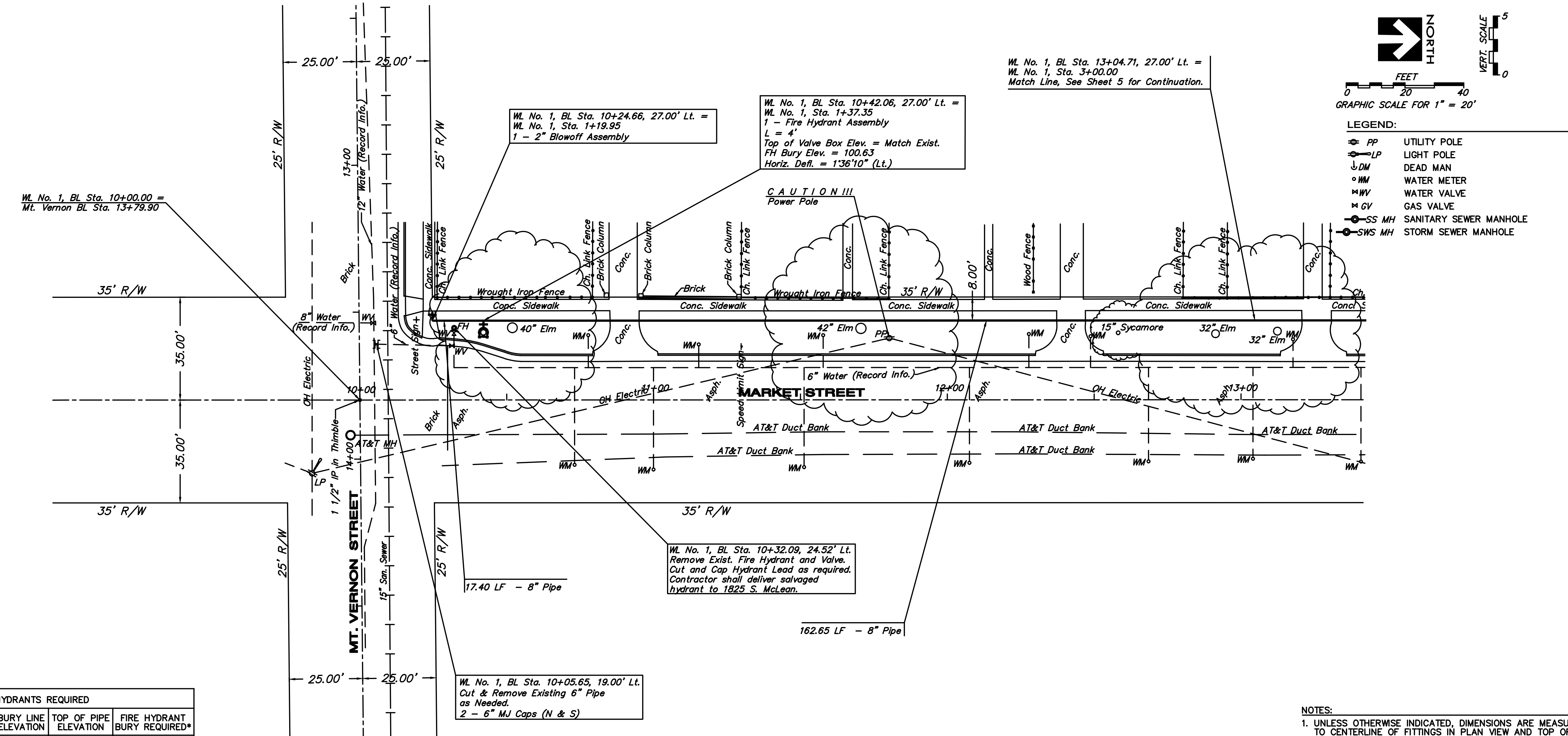


LEGEND:

- PP UTILITY POLE
- LP LIGHT POLE
- DM DEAD MAN
- WM WATER METER
- WV WATER VALVE
- GV GAS VALVE
- SS MH SANITARY SEWER MANHOLE
- SWS MH STORM SEWER MANHOLE

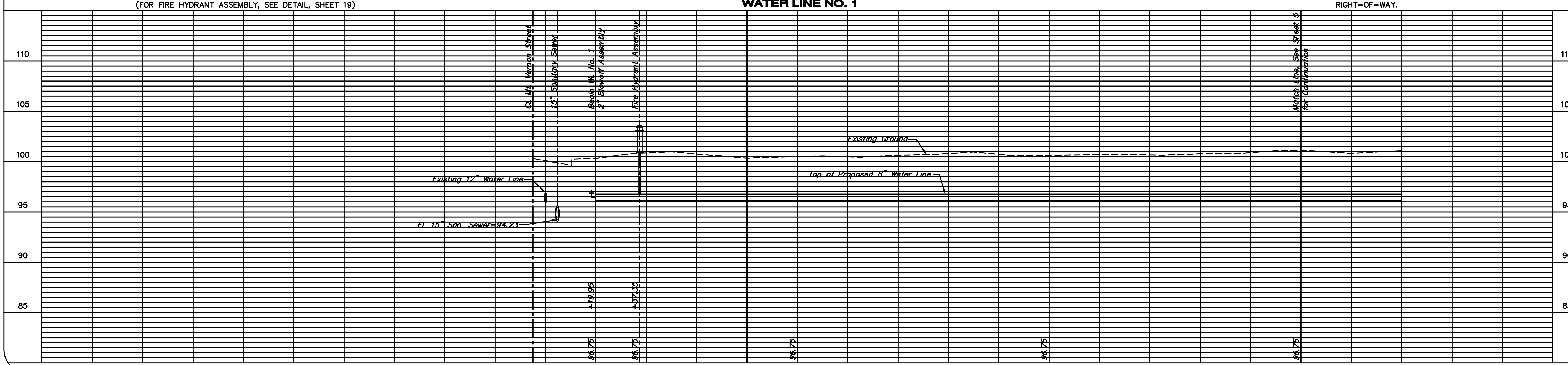
FIRE HYDRANTS REQUIRED

STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
WL NO. 1, STA. 1+37.35	100.63	96.75	4.5'

(FOR FIRE HYDRANT ASSEMBLY, SEE DETAIL, SHEET 19)

NOTES:
1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 1 BASELINE = CENTERLINE OF MARKET STREET RIGHT-OF-WAY.

WATER LINE NO. 1



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WATER LINE NO. 1 PLAN AND PROFILE

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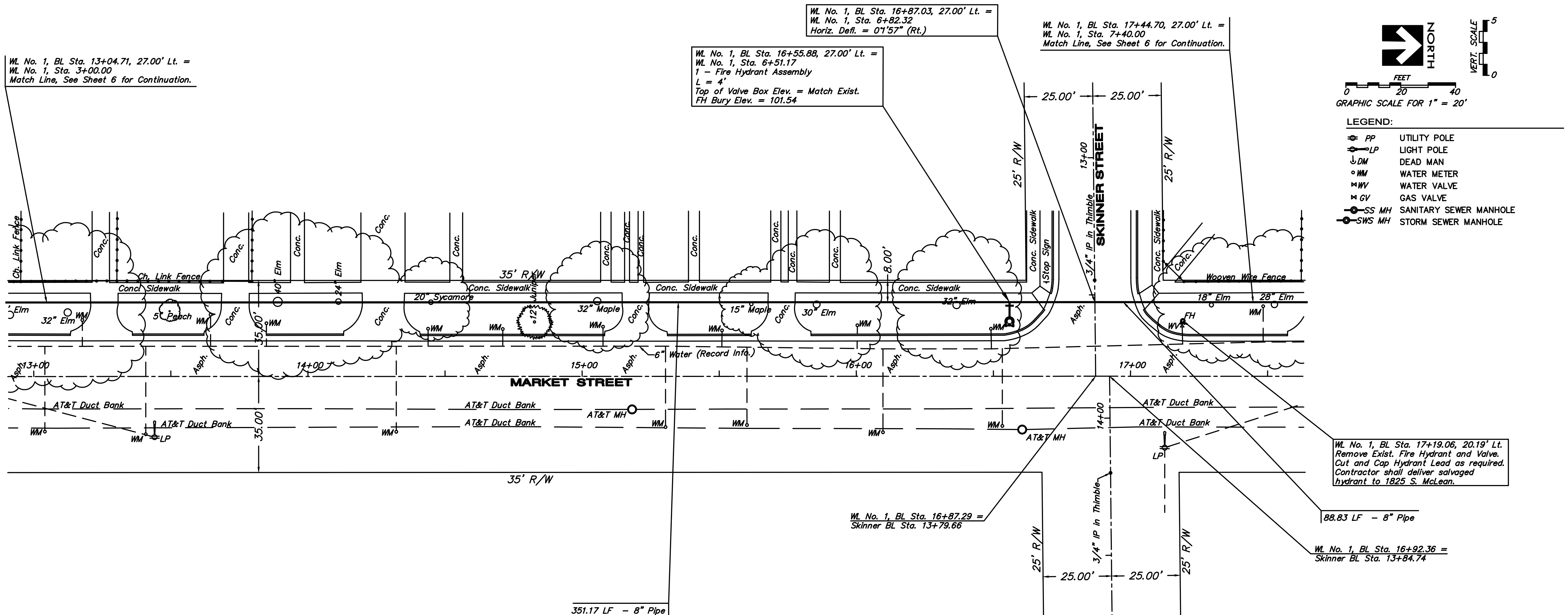


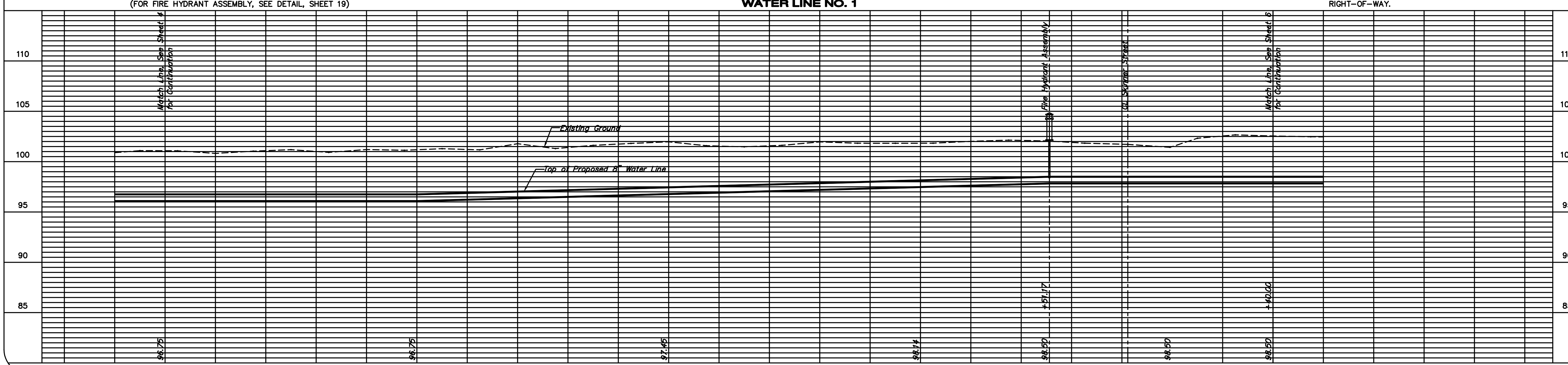
WL No. 1, BL Sta. 13+04.71, 27.00' Lt. =
WL No. 1, Sta. 3+00.00
Match Line, See Sheet 6 for Continuation.
WL No. 1, BL Sta. 16+87.03, 27.00' Lt. =
WL No. 1, Sta. 6+82.32
Horiz. Defl. = 01°57" (Rt.)
WL No. 1, BL Sta. 16+55.88, 27.00' Lt. =
WL No. 1, Sta. 6+51.17
1 – Fire Hydrant Assembly
L = 4'
Top of Valve Box Elev. = Match Exist.
FH Bury Elev. = 101.54
WL No. 1, BL Sta. 17+44.70, 27.00' Lt. =
WL No. 1, Sta. 7+40.00
Match Line, See Sheet 6 for Continuation.
NORTH
GRAPHIC SCALE FOR 1" = 20'
VERT. SCALE
LEGEND:
PP UTILITY POLE
LP LIGHT POLE
DM DEAD MAN
WM WATER METER
WV WATER VALVE
GV GAS VALVE
SS MH SANITARY SEWER MANHOLE
SWS MH STORM SEWER MANHOLE
SKINNER STREET
MARKET STREET
35' R/W
25' R/W
25.00'
6" Water (Record Info.)
AT&T Duct Bank
AT&T MH
Conc. Sidewalk
Ch. Link Fence
Wooven Wire Fence
3/4" IP in Thimble
Stop Sign
WL No. 1, BL Sta. 17+19.06, 20.19' Lt.
Remove Exist. Fire Hydrant and Valve.
Cut and Cap Hydrant Lead as required.
Contractor shall deliver salvaged
hydrant to 1825 S. McLean.
88.83 LF – 8" Pipe
WL No. 1, BL Sta. 16+87.29 =
Skinner BL Sta. 13+79.66
WL No. 1, BL Sta. 16+92.36 =
Skinner BL Sta. 13+84.74
351.17 LF – 8" Pipe

FIRE HYDRANTS REQUIRED			
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
WL NO. 1, STA. 6+51.17	101.54	98.50	4.0'

(FOR FIRE HYDRANT ASSEMBLY, SEE DETAIL, SHEET 19)

NOTES:
1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 1 BASELINE = CENTERLINE OF MARKET STREET RIGHT-OF-WAY.

WATER LINE NO. 1



Match Line, See Sheet 4 for Continuation
Existing Ground
Top of Proposed 8" Water Line
Fire Hydrant Assembly
CL Skinner Street
Match Line, See Sheet 5 for Continuation
110
105
100
95
90
85
+51.17
+40.00
96.75
96.75
97.45
98.14
98.50
98.50
98.50
3+00
4+00
5+00
6+00
7+00

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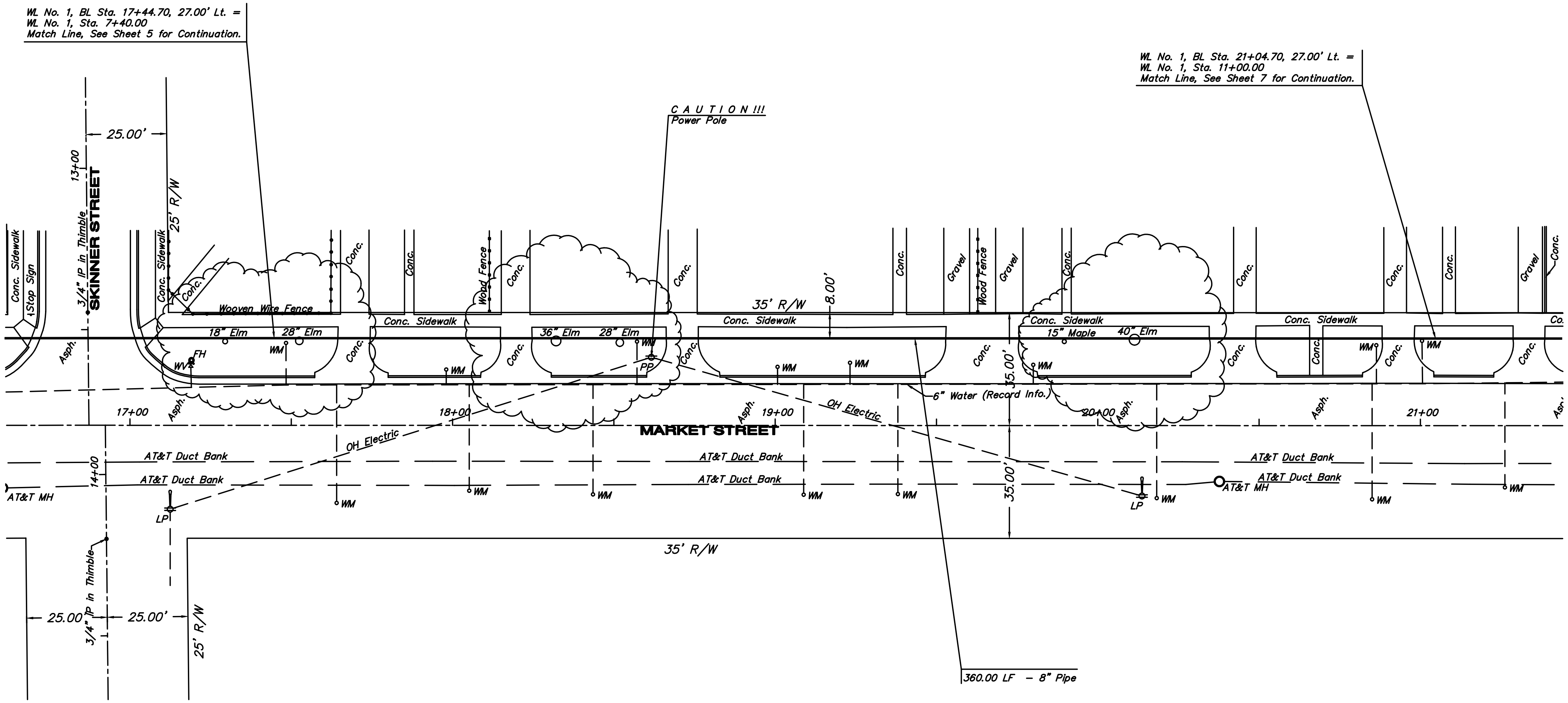

NORTH

VERT. SCALE

FEET

GRAPHIC SCALE FOR 1" = 20'

LEGEND:

PP	UTILITY POLE
LP	LIGHT POLE
DM	DEAD MAN
WM	WATER METER
WV	WATER VALVE
GV	GAS VALVE
SS MH	SANITARY SEWER MANHOLE
SWS MH	STORM SEWER MANHOLE

NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
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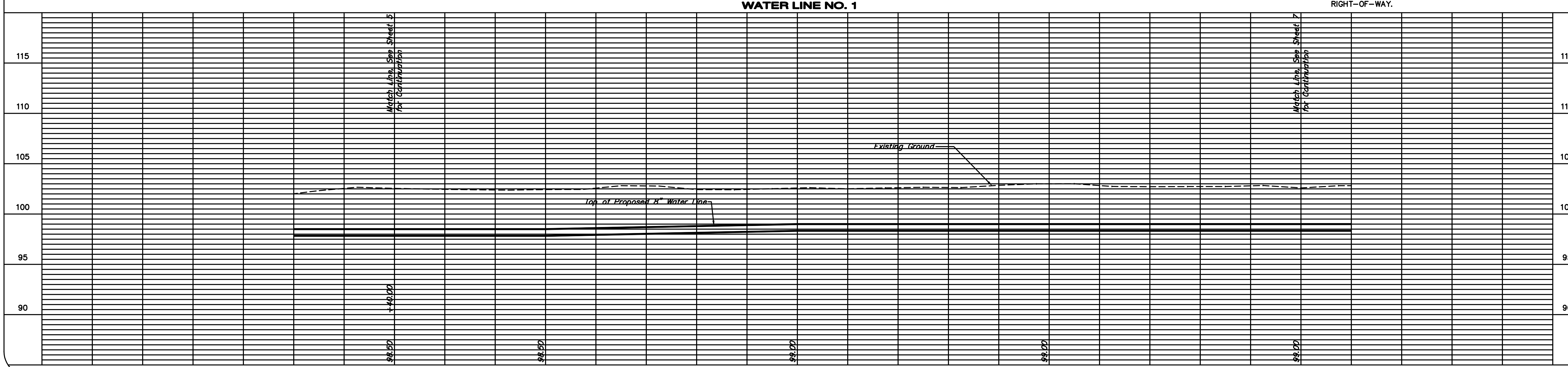
WATER LINE NO. 1



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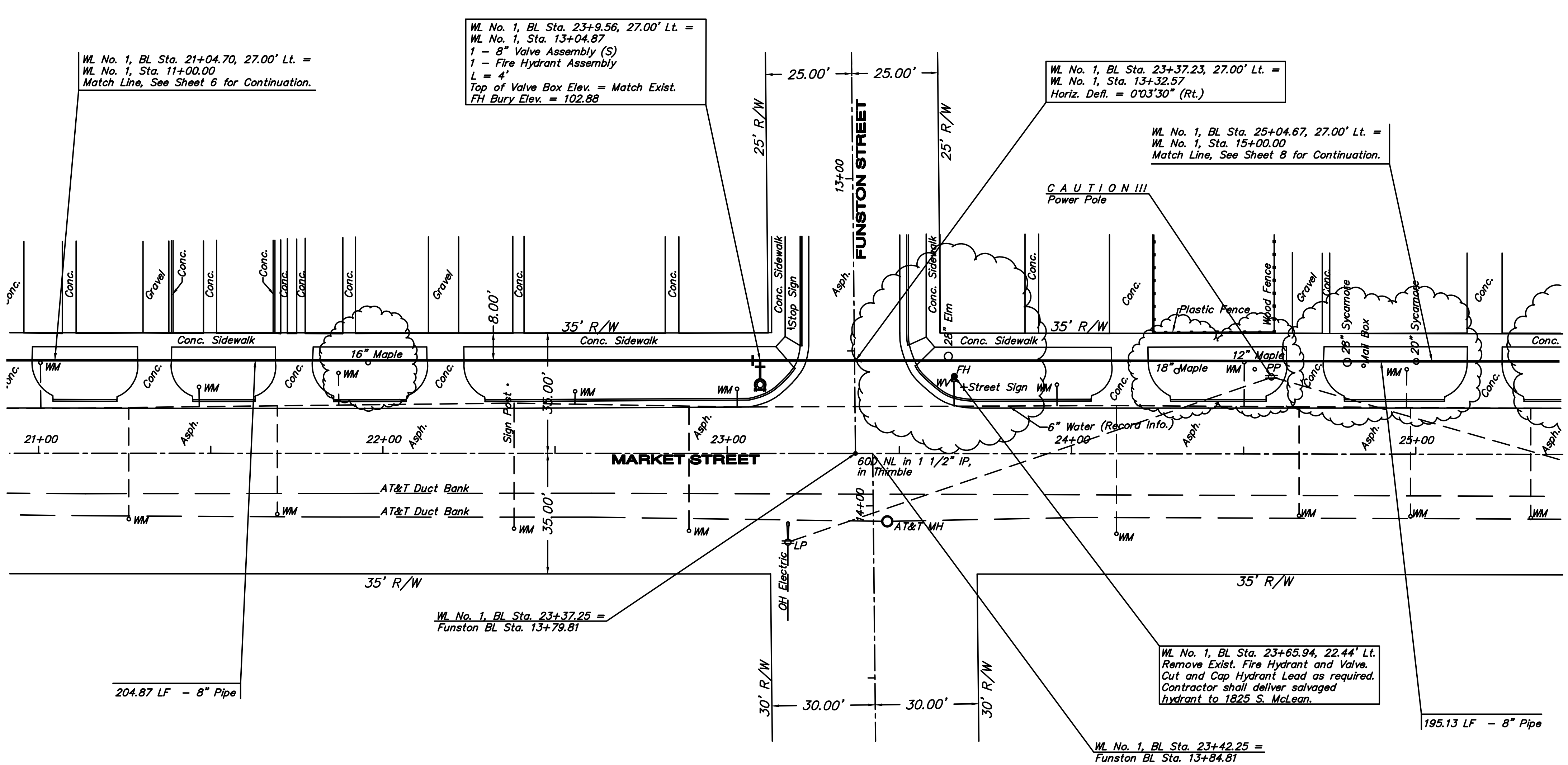
WATER LINE NO. 1 PLAN AND PROFILE

MAIN AND MARKET W.L. IMPROVEMENTS
City of Wichita
Sedgwick County, Kansas

scale: as noted
drawn by: das
checked by: cry
date: 6/25/07
P/N: 07–238
revisions:



NORTH

VERT. SCALE 0 5

FEET 0 20 40

GRAPHIC SCALE FOR 1" = 20'

LEGEND:

PP	UTILITY POLE
LP	LIGHT POLE
DM	DEAD MAN
WM	WATER METER
WV	WATER VALVE
GV	GAS VALVE
SS MH	SANITARY SEWER MANHOLE
SWS MH	STORM SEWER MANHOLE

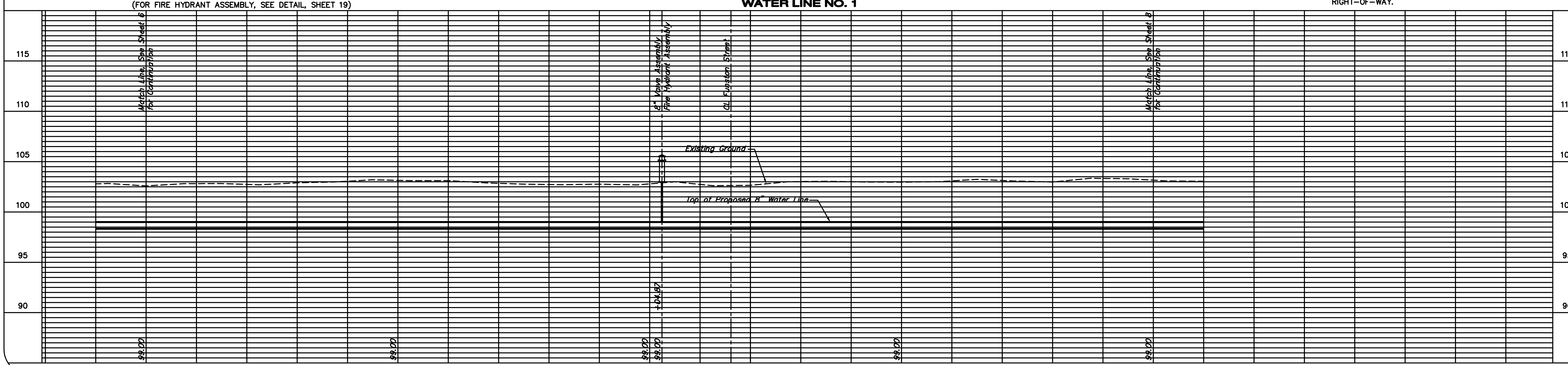
FIRE HYDRANTS REQUIRED			
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
WL NO. 1, STA. 13+04.87	102.88	99.00	4.5'

(FOR FIRE HYDRANT ASSEMBLY, SEE DETAIL, SHEET 19)

NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 1 BASELINE = CENTERLINE OF MARKET STREET RIGHT–OF–WAY.

WATER LINE NO. 1



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Sedgwick County, Kansas

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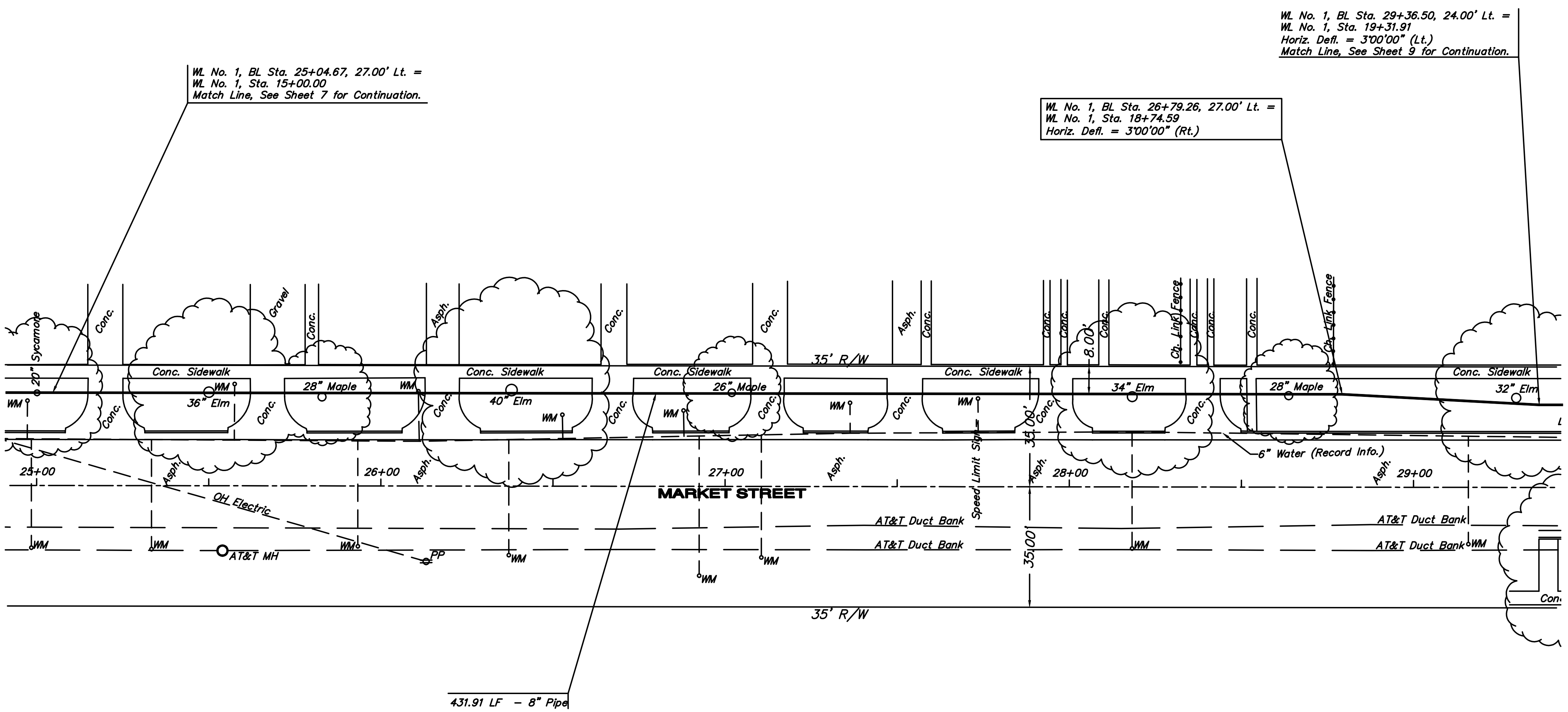
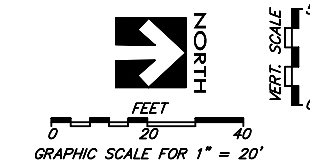




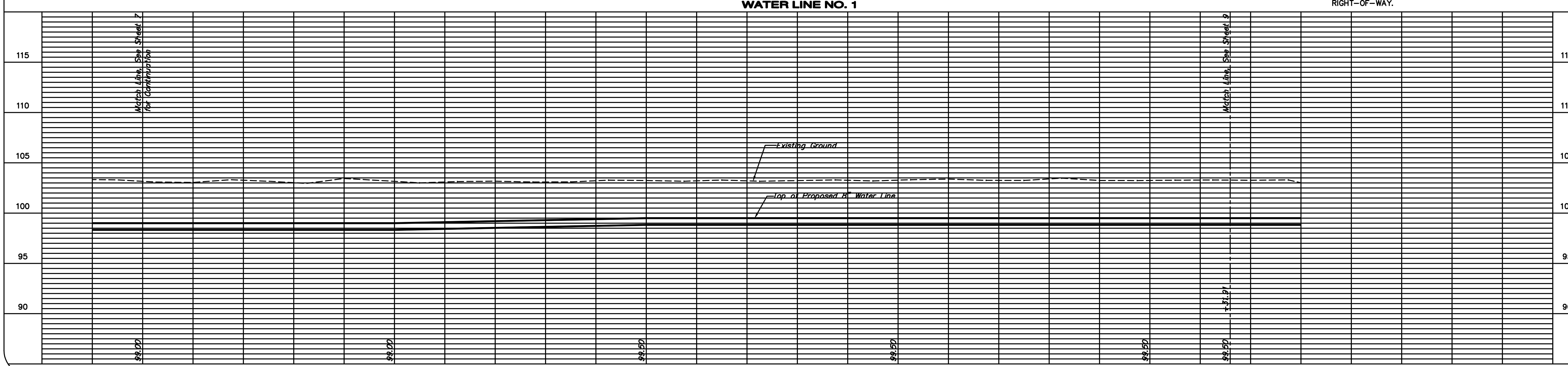
LEGEND:

- PP — UTILITY POLE
- LP — LIGHT POLE
- DM — DEAD MAN
- WM — WATER METER
- WV — WATER VALVE
- GV — GAS VALVE
- SS MH — SANITARY SEWER MANHOLE
- SWS MH — STORM SEWER MANHOLE

NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 1 BASELINE = CENTERLINE OF MARKET STREET RIGHT-OF-WAY.

WATER LINE NO. 1



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Sedgwick County, Kansas

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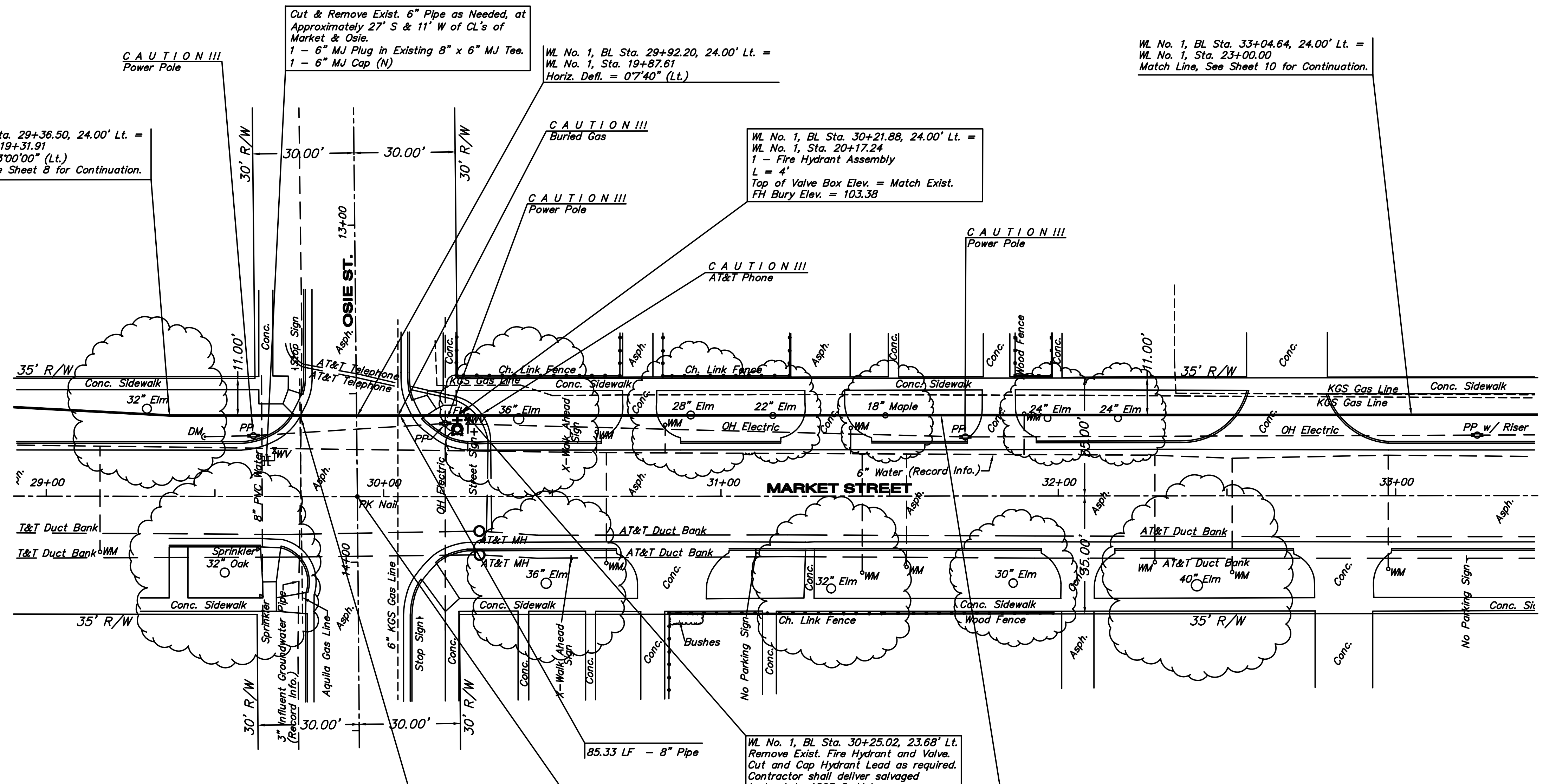


LEGEND:

Symbol	Description
PP	UTILITY POLE
LP	LIGHT POLE
DM	DEAD MAN
WM	WATER METER
WV	WATER VALVE
GV	GAS VALVE
SS MH	SANITARY SEWER MANHOLE
SWS MH	STORM SEWER MANHOLE

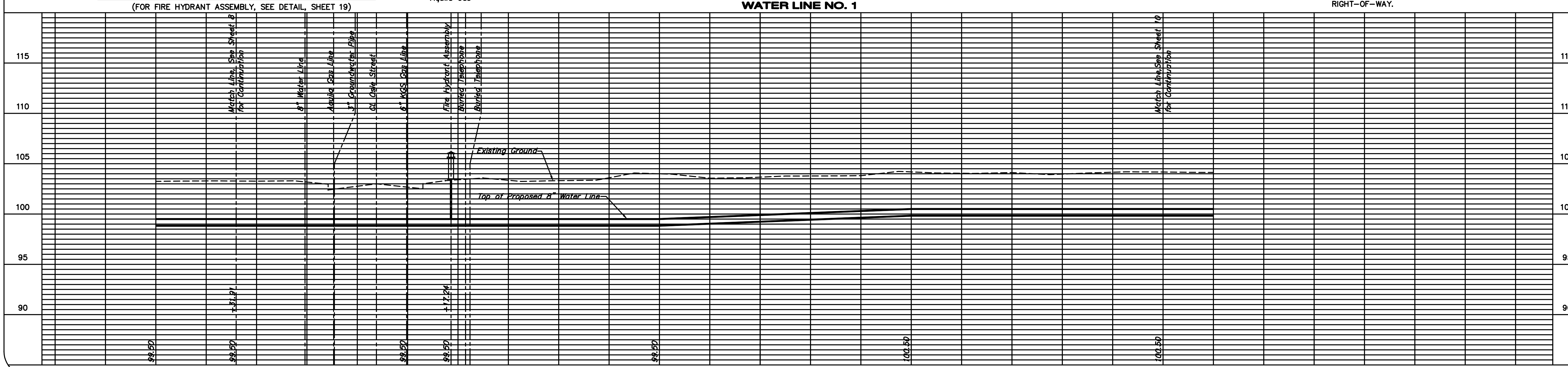
FIRE HYDRANTS REQUIRED

STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
WL NO. 1, STA. 20+17.24	103.38	99.50	4.5'

(FOR FIRE HYDRANT ASSEMBLY, SEE DETAIL, SHEET 19)

NOTES:
1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 1 BASELINE = CENTERLINE OF MARKET STREET RIGHT-OF-WAY.

WATER LINE NO. 1



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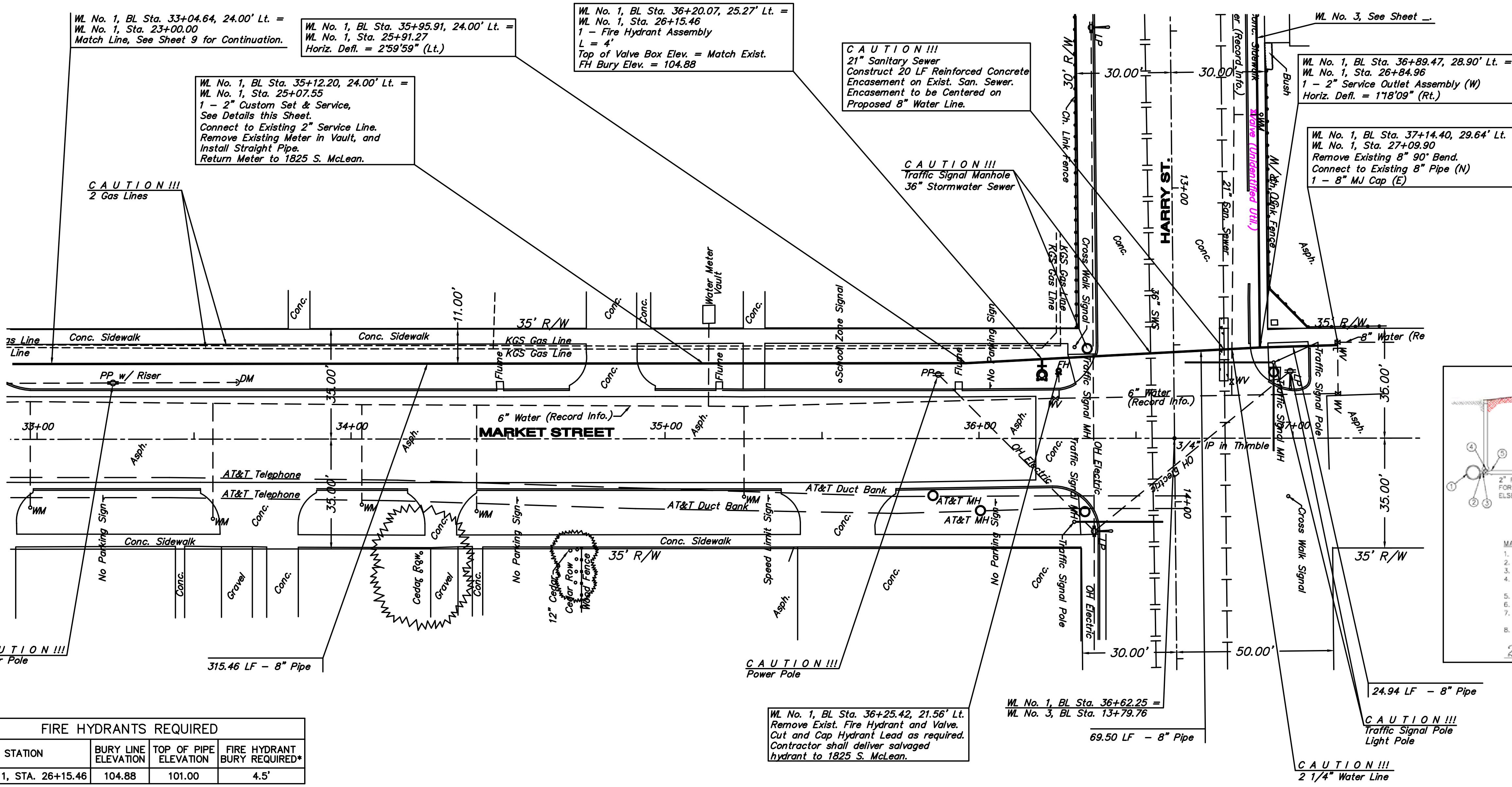
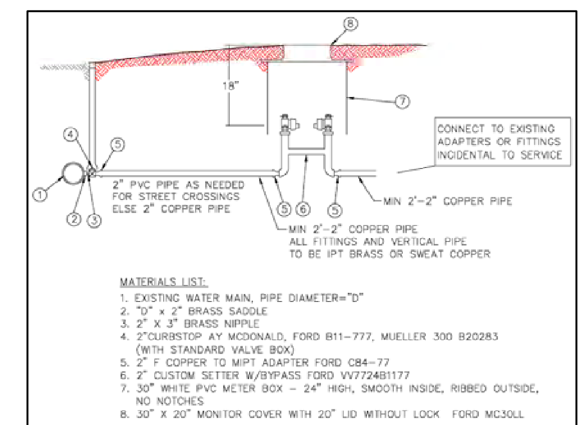


LEGEND:

PP	UTILITY POLE
LP	LIGHT POLE
DM	DEAD MAN
WM	WATER METER
WV	WATER VALVE
GV	GAS VALVE
SS MH	SANITARY SEWER MANHOLE
	STORM SEWER MANHOLE



MATERIALS LIST:
1. EXISTING WATER MAIN, PIPE DIAMETER="D"
2. "D" x 2" BRASS SADDLE
3. 2" X 3" BRASS NIPPLE
4. 2"CURBSTOP AY MCDONALD, FORD B11-777, MUELLER 300 B20283 (WITH STANDARD VALVE BOX)
5. 2" F COPPER TO MIPT ADAPTER FORD C84-77
6. 2" CUSTOM SETTER W/BYPASS FORD VV7724B1177
7. 30" WHITE PVC METER BOX – 24" HIGH, SMOOTH INSIDE, RIBBED OUTSIDE, NO NOTCHES
8. 30" X 20" MONITOR COVER WITH 20" LID WITHOUT LOCK FORD MC30LL

2" CUSTOM SET & SERVICE

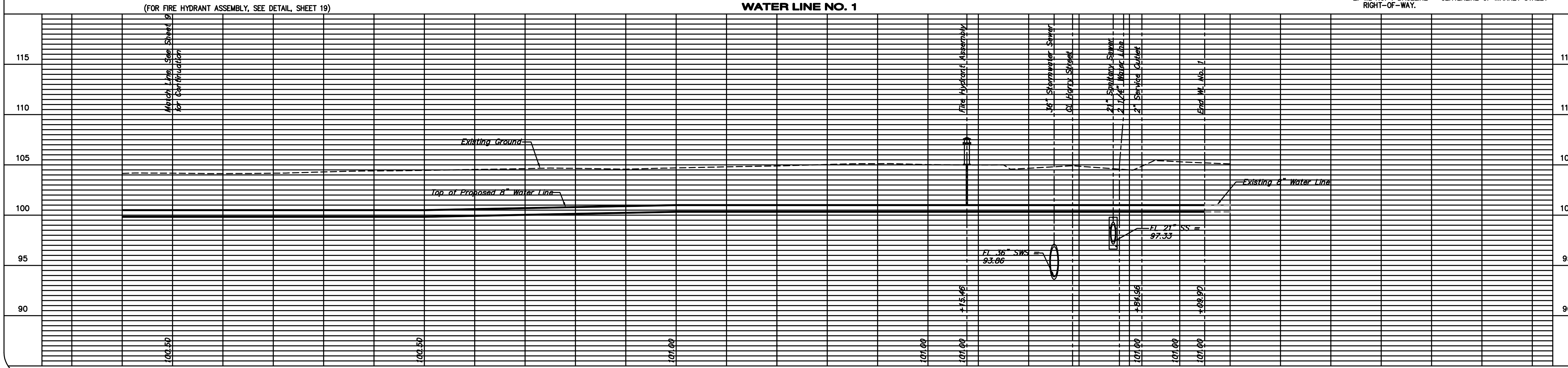
FIRE HYDRANTS REQUIRED

STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
WL NO. 1, STA. 26+15.46	104.88	101.00	4.5'

(FOR FIRE HYDRANT ASSEMBLY, SEE DETAIL, SHEET 19)

NOTES:
1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 1 BASELINE = CENTERLINE OF MARKET STREET RIGHT-OF-WAY.

WATER LINE NO. 1



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City of Wichita
Sedgwick County, Kansas

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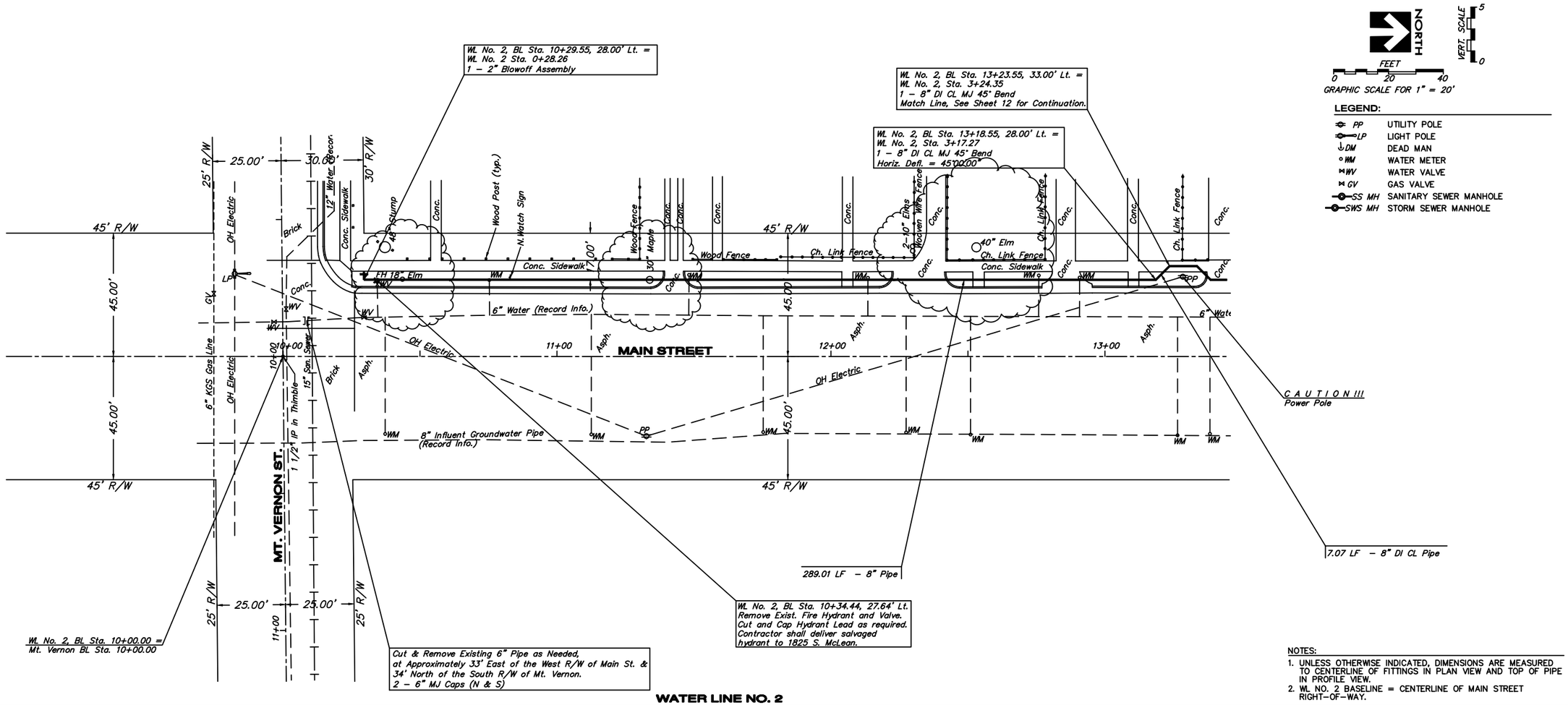
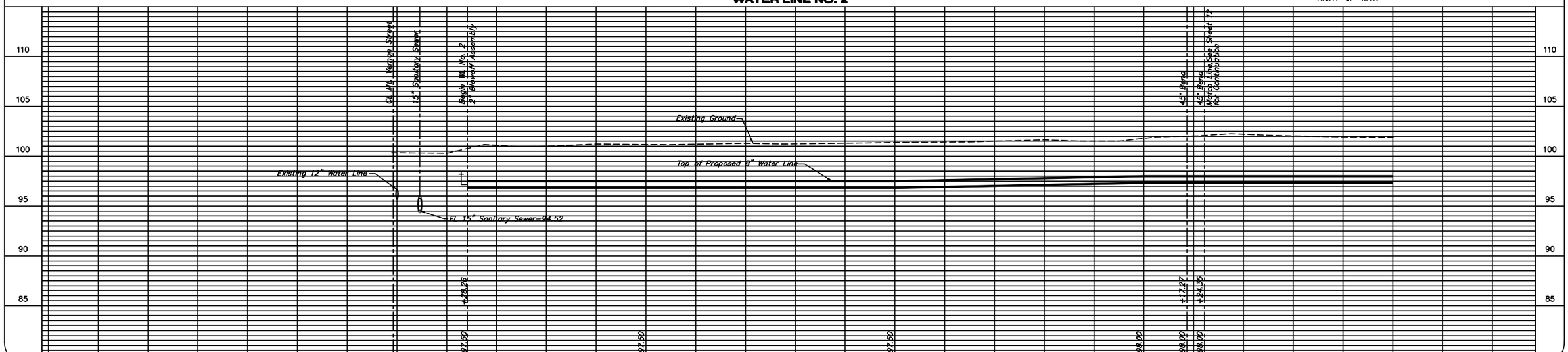


NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 2 BASELINE = CENTERLINE OF MAIN STREET RIGHT-OF-WAY.

WATER LINE NO. 2



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WATER LINE NO. 2
PLAN AND PROFILE

MAIN AND MARKET W.L. IMPROVEMENTS
City of Wichita
Sedgwick County, Kansas

scale:	as noted
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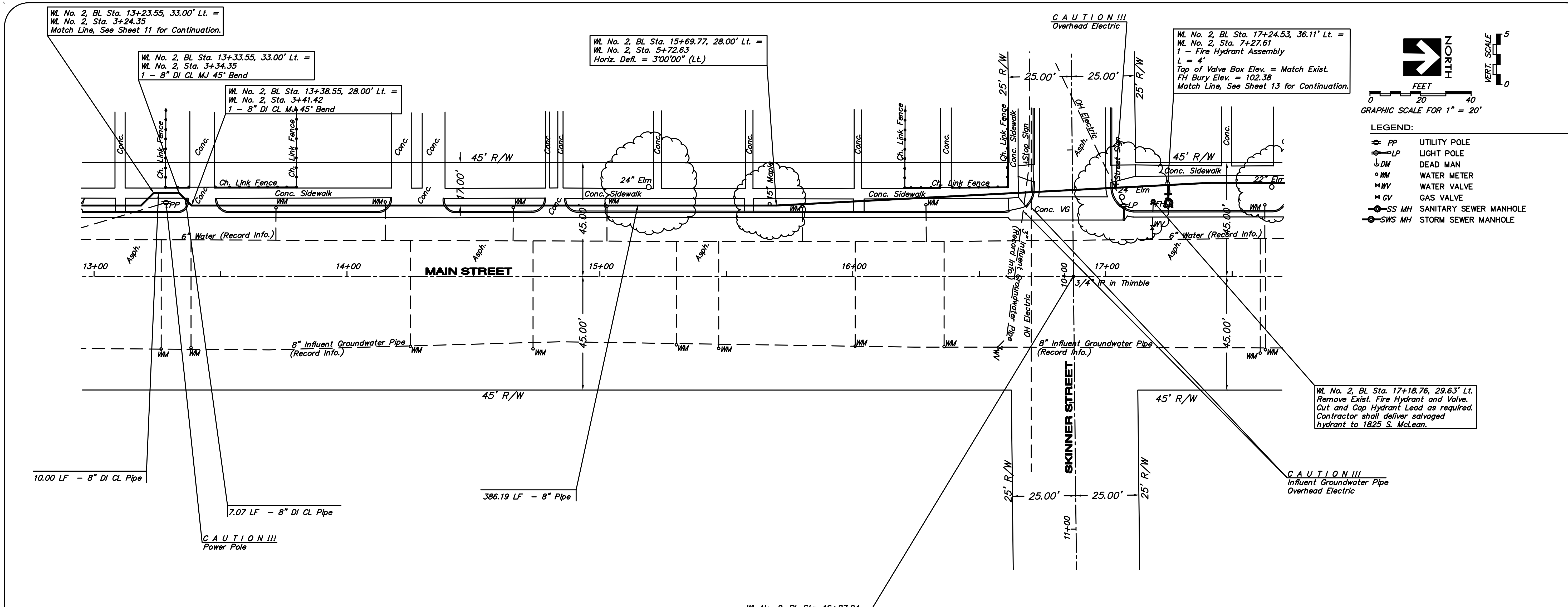
Sheet No.
11 of 26



WL No. 2, BL Sta. 13+23.55, 33.00' Lt. =
WL No. 2, Sta. 3+24.35
Match Line, See Sheet 11 for Continuation.
WL No. 2, BL Sta. 13+33.55, 33.00' Lt. =
WL No. 2, Sta. 3+34.35
1 – 8" DI CL MJ 45° Bend
WL No. 2, BL Sta. 13+38.55, 28.00' Lt. =
WL No. 2, Sta. 3+41.42
1 – 8" DI CL MJ 45° Bend
WL No. 2, BL Sta. 15+69.77, 28.00' Lt. =
WL No. 2, Sta. 5+72.63
Horiz. Defl. = 3°00'00" (Lt.)
C A U T I O N !!!
Overhead Electric
WL No. 2, BL Sta. 17+24.53, 36.11' Lt. =
WL No. 2, Sta. 7+27.61
1 – Fire Hydrant Assembly
L = 4'
Top of Valve Box Elev. = Match Exist.
FH Bury Elev. = 102.38
Match Line, See Sheet 13 for Continuation.
NORTH
VERT. SCALE
FEET
GRAPHIC SCALE FOR 1" = 20'
LEGEND:
PP UTILITY POLE
LP LIGHT POLE
DM DEAD MAN
WM WATER METER
WV WATER VALVE
GV GAS VALVE
SS MH SANITARY SEWER MANHOLE
SWS MH STORM SEWER MANHOLE
45' R/W
25' R/W
25.00'
17.00'
45.00'
Conc.
Ch. Link Fence
Conc. Sidewalk
24" Elm
15" Maple
22" Elm
Stop Sign
Street Sign
OH Electric
Conc. VG
6" Water (Record Info.)
Asph.
13+00
14+00
15+00
16+00
17+00
10+00
11+00
MAIN STREET
SKINNER STREET
3/4" IP in Thimble
8" Influent Groundwater Pipe
(Record Info.)
3" Influent Groundwater Pipe (Record Info.)
WL No. 2, BL Sta. 17+18.76, 29.63' Lt.
Remove Exist. Fire Hydrant and Valve.
Cut and Cap Hydrant Lead as required.
Contractor shall deliver salvaged
hydrant to 1825 S. McLean.
10.00 LF – 8" DI CL Pipe
7.07 LF – 8" DI CL Pipe
386.19 LF – 8" Pipe
C A U T I O N !!!
Power Pole
C A U T I O N !!!
Influent Groundwater Pipe
Overhead Electric
WL No. 2, BL Sta. 16+87.24 =
Skinner BL Sta. 10+00.00

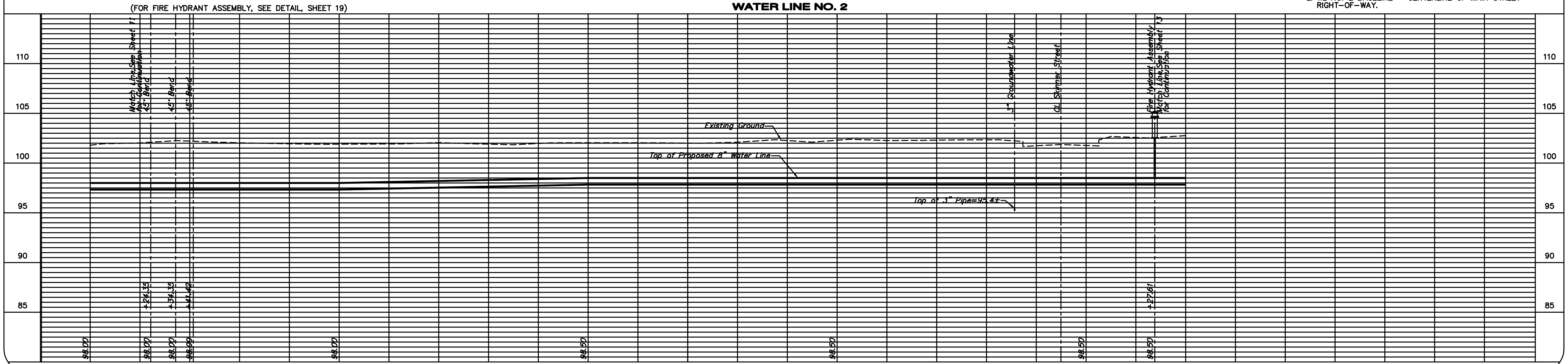
FIRE HYDRANTS REQUIRED			
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
WL NO. 2, STA. 7+27.61	102.38	98.50	4.5'

(FOR FIRE HYDRANT ASSEMBLY, SEE DETAIL, SHEET 19)

NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 2 BASELINE = CENTERLINE OF MAIN STREET RIGHT-OF-WAY.

WATER LINE NO. 2



110
105
100
95
90
85
Match Line, See Sheet 11 for Continuation
45° Bend
45° Bend
45° Bend
3" Groundwater Line
CL Skinner Street
Fire Hydrant Assembly
Match Line, See Sheet 13 for Continuation
Existing Ground
Top of Proposed 8" Water Line
Top of 3" Pipe=95.4±
+24.35
+34.35
+41.42
+27.61
98.00
98.00
98.00
98.00
98.00
98.50
98.50
98.50
98.50
3+00
4+00
5+00
6+00
7+00

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WATER LINE NO. 2 PLAN AND PROFILE

MAIN AND MARKET W.L. IMPROVEMENTS
City of Wichita
Sedgwick County, Kansas

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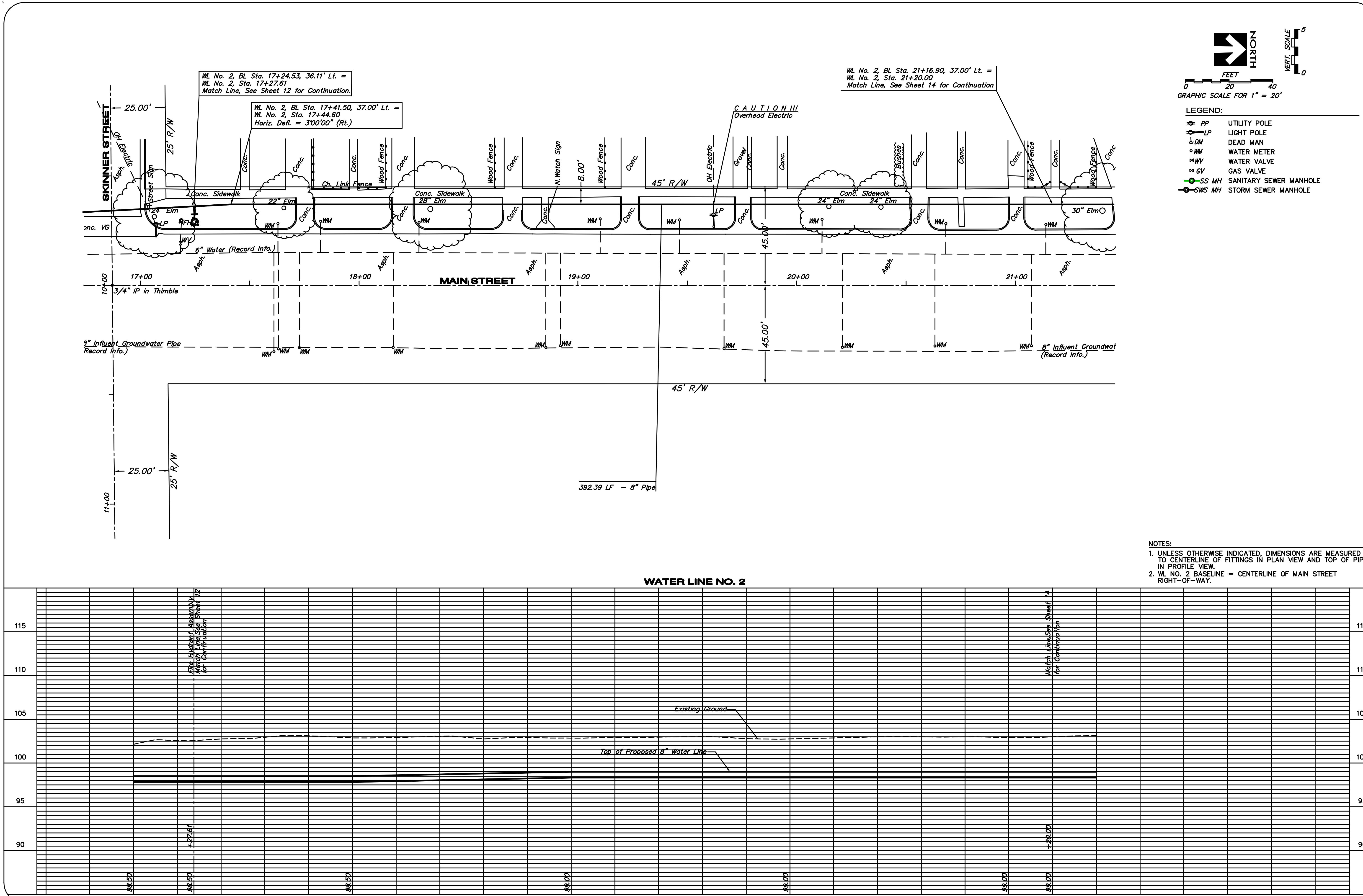

LEGEND:

PP	UTILITY POLE
LP	LIGHT POLE
DM	DEAD MAN
WM	WATER METER
WV	WATER VALVE
GV	GAS VALVE
SS MH	SANITARY SEWER MANHOLE
SWS MH	STORM SEWER MANHOLE

NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 2 BASELINE = CENTERLINE OF MAIN STREET RIGHT-OF-WAY.

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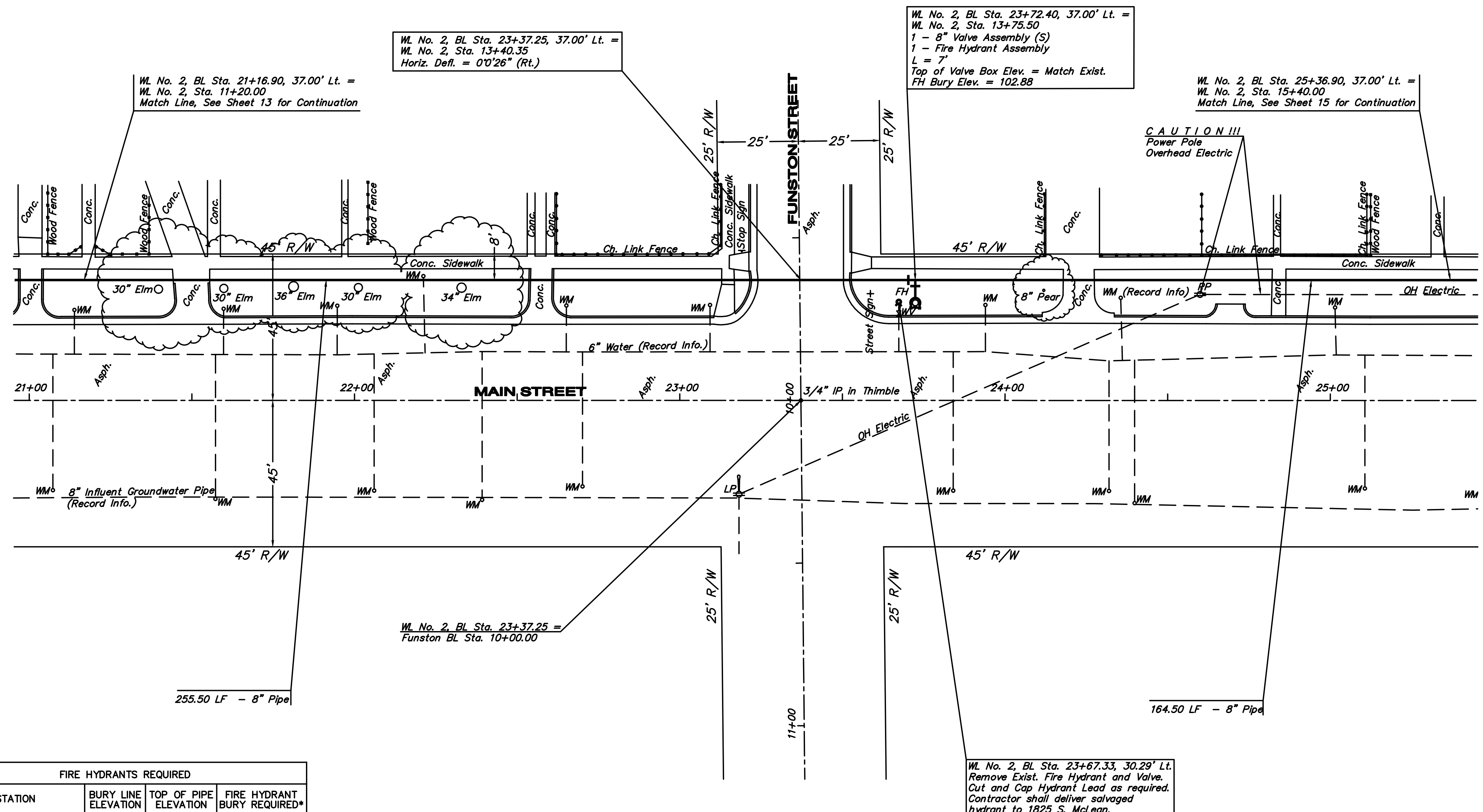


NORTH

VERT. SCALE 5 0

FEET 0 20 40

GRAPHIC SCALE FOR 1" = 20'

LEGEND:

- PP UTILITY POLE
- LP LIGHT POLE
- DM DEAD MAN
- WM WATER METER
- WV WATER VALVE
- GV GAS VALVE
- SS MH SANITARY SEWER MANHOLE
- SWS MH STORM SEWER MANHOLE

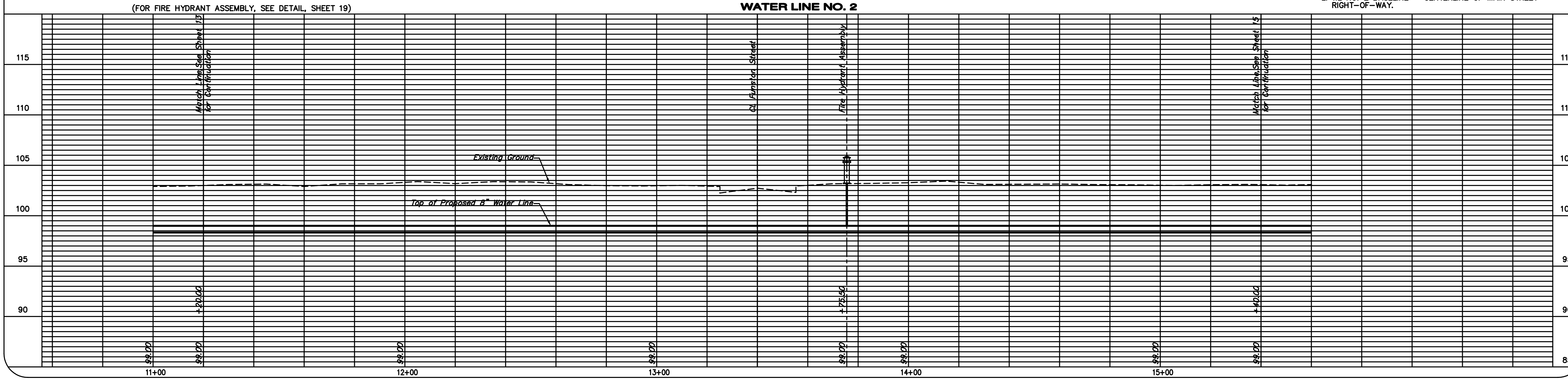
FIRE HYDRANTS REQUIRED			
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
WL NO. 1, STA. 13+75.50	102.88	99.00	4.5'

(FOR FIRE HYDRANT ASSEMBLY, SEE DETAIL, SHEET 19)

NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 2 BASELINE = CENTERLINE OF MAIN STREET RIGHT-OF-WAY.

WATER LINE NO. 2



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City of Wichita
Sedgwick County, Kansas

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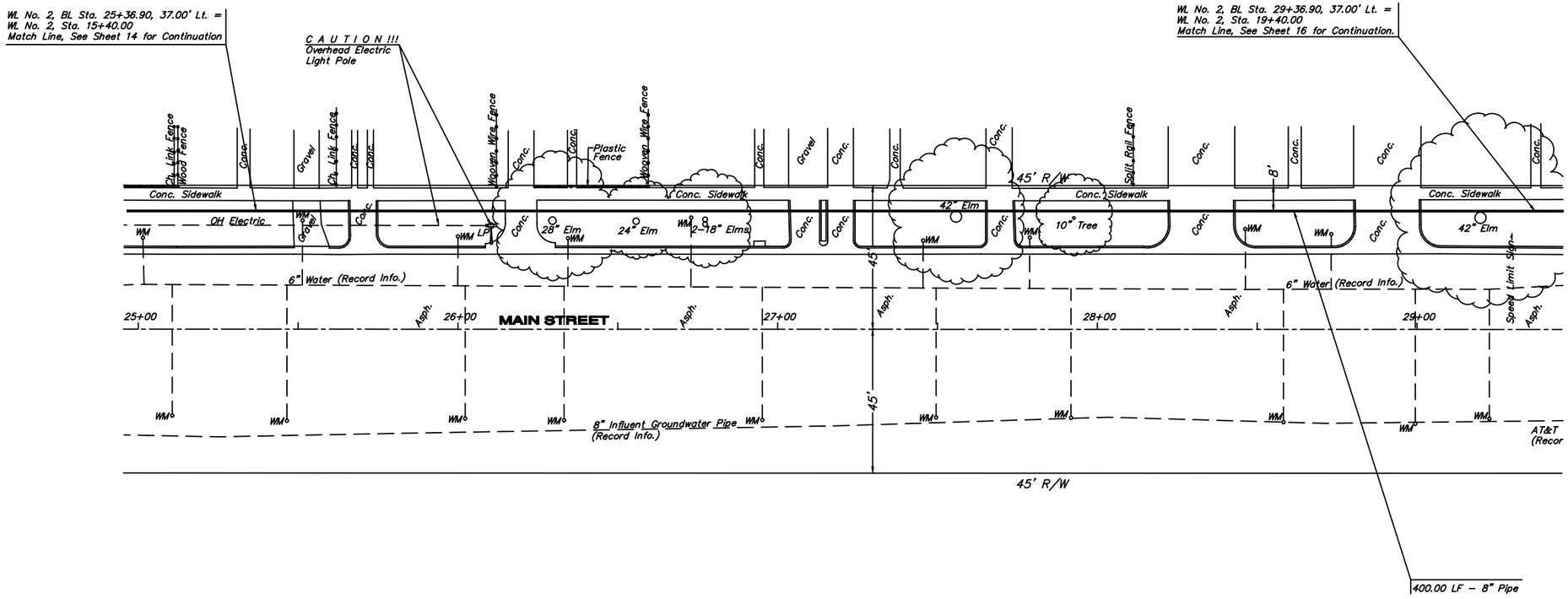


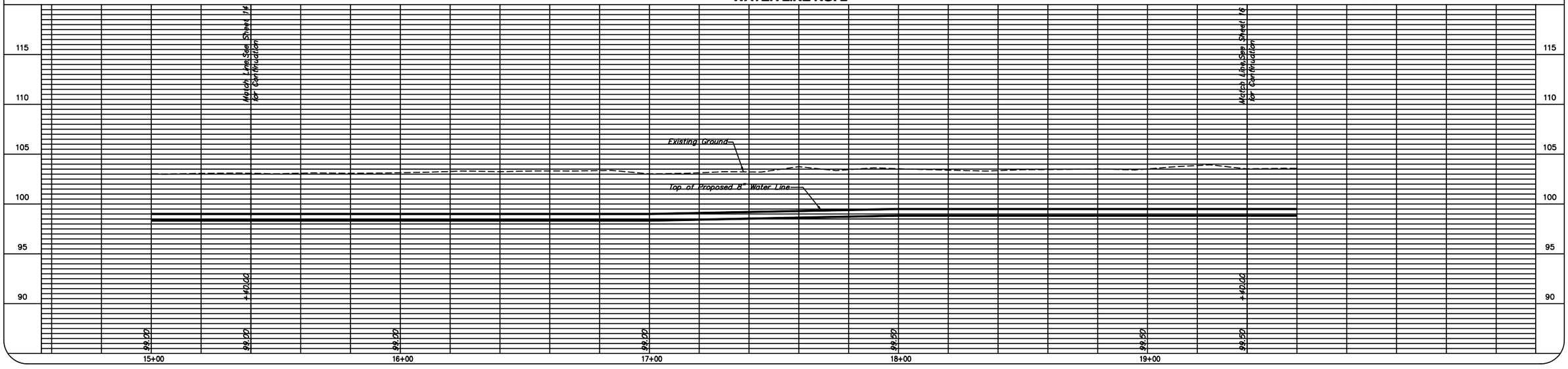
LEGEND:

PP	UTILITY POLE
LP	LIGHT POLE
DM	DEAD MAN
WM	WATER METER
WV	WATER VALVE
GV	GAS VALVE
SS MH	SANITARY SEWER MANHOLE
SWS MH	STORM SEWER MANHOLE

NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 2 BASELINE = CENTERLINE OF MAIN STREET RIGHT-OF-WAY.

WATER LINE NO. 2



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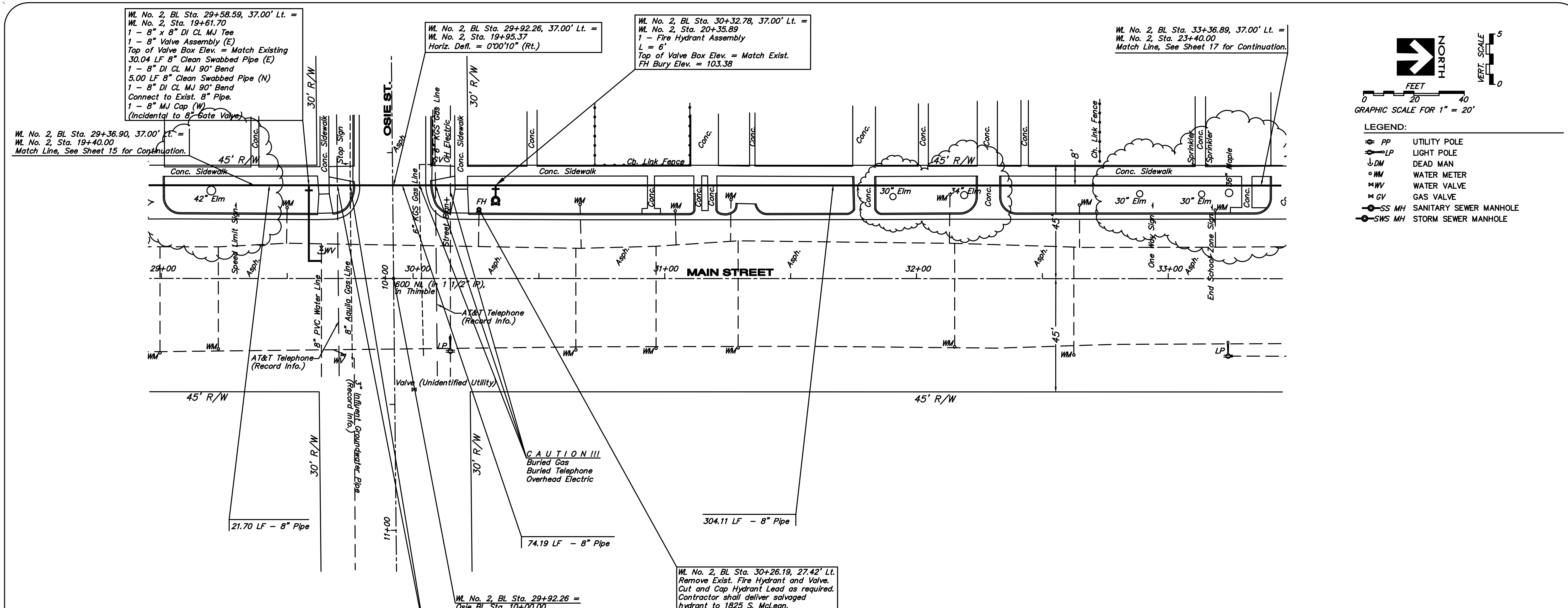
Sheet No.
15 of 26


WL No. 2, BL Sta. 29+58.59, 37.00' Lt. =
WL No. 2, Sta. 19+61.70
1 – 8" x 8" DI CL MJ Tee
1 – 8" Valve Assembly (E)
Top of Valve Box Elev. = Match Existing
30.04 LF 8" Clean Swabbed Pipe (E)
1 – 8" DI CL MJ 90° Bend
5.00 LF 8" Clean Swabbed Pipe (N)
1 – 8" DI CL MJ 90° Bend
Connect to Exist. 8" Pipe.
1 – 8" MJ Cap (W)
(Incidental to 8" Gate Valve)
WL No. 2, BL Sta. 29+92.26, 37.00' Lt. =
WL No. 2, Sta. 19+95.37
Horiz. Defl. = 0°00'10" (Rt.)
WL No. 2, BL Sta. 30+32.78, 37.00' Lt. =
WL No. 2, Sta. 20+35.89
1 – Fire Hydrant Assembly
L = 6'
Top of Valve Box Elev. = Match Exist.
FH Bury Elev. = 103.38
WL No. 2, BL Sta. 33+36.89, 37.00' Lt. =
WL No. 2, Sta. 23+40.00
Match Line, See Sheet 17 for Continuation.
WL No. 2, BL Sta. 29+36.90, 37.00' Lt. =
WL No. 2, Sta. 19+40.00
Match Line, See Sheet 15 for Continuation.
NORTH
VERT. SCALE
FEET
0 20 40
GRAPHIC SCALE FOR 1" = 20'
LEGEND:
PP UTILITY POLE
LP LIGHT POLE
DM DEAD MAN
WM WATER METER
WV WATER VALVE
GV GAS VALVE
SS MH SANITARY SEWER MANHOLE
SWS MH STORM SEWER MANHOLE
OSIE ST.
MAIN STREET
30' R/W
45' R/W
Conc. Sidewalk
Ch. Link Fence
42" Elm
30" Elm
34" Elm
36" Maple
Speed Limit Sign
Stop Sign
Street Sign
One Way Sign
End School Zone Sign
8" PVC Water Line
8" Aquila Gas Line
6" KGS Gas Line
OH Electric
Valve (Unidentified Utility)
3" Influent Groundwater Pipe (Record Info.)
AT&T Telephone (Record Info.)
60D NL (in 1 1/2" IP), in Thimble
29+00
30+00
31+00
32+00
33+00
10+00
11+00
CAUTION !!!
Buried Gas
Buried Telephone
Overhead Electric
21.70 LF – 8" Pipe
74.19 LF – 8" Pipe
304.11 LF – 8" Pipe
WL No. 2, BL Sta. 30+26.19, 27.42' Lt.
Remove Exist. Fire Hydrant and Valve.
Cut and Cap Hydrant Lead as required.
Contractor shall deliver salvaged hydrant to 1825 S. McLean.
WL No. 2, BL Sta. 29+92.26 =
Osie BL Sta. 10+00.00
CAUTION !!!
Buried Telephone
Buried Gas

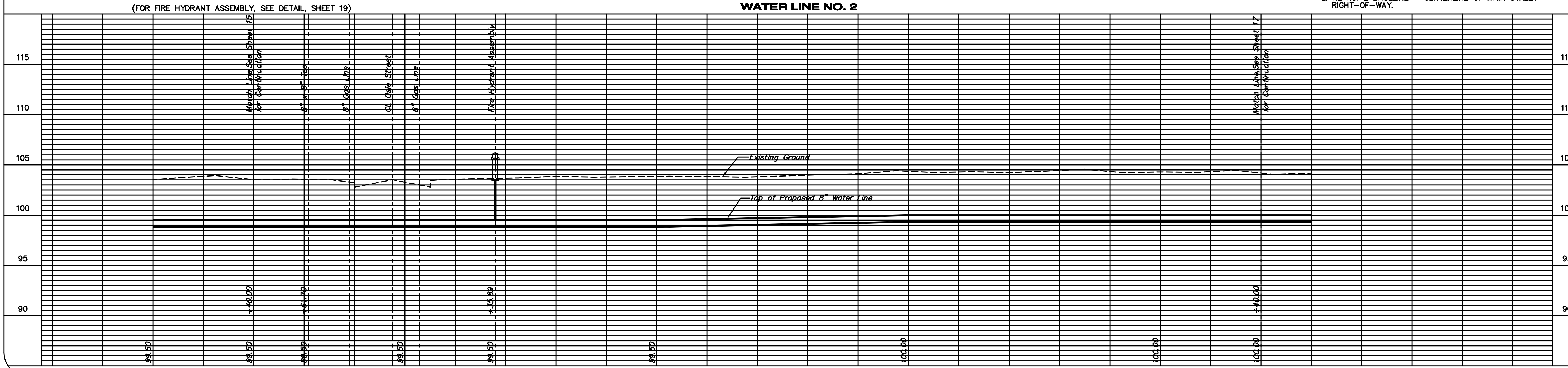
FIRE HYDRANTS REQUIRED			
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
WL NO. 2, STA. 20+35.89	103.38	99.50	4.5'

(FOR FIRE HYDRANT ASSEMBLY, SEE DETAIL, SHEET 19)

NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 2 BASELINE = CENTERLINE OF MAIN STREET RIGHT-OF-WAY.

WATER LINE NO. 2


115
110
105
100
95
90
Match Line See Sheet 15 for Continuation
8" x 8" Tee
8" Gas Line
CL Osie Street
6" Gas Line
Fire Hydrant Assembly
Match Line See Sheet 17 for Continuation
Existing Ground
Top of Proposed 8" Water Line
+40.00
+61.70
+35.89
99.50
100.00
19+00
20+00
21+00
22+00
23+00

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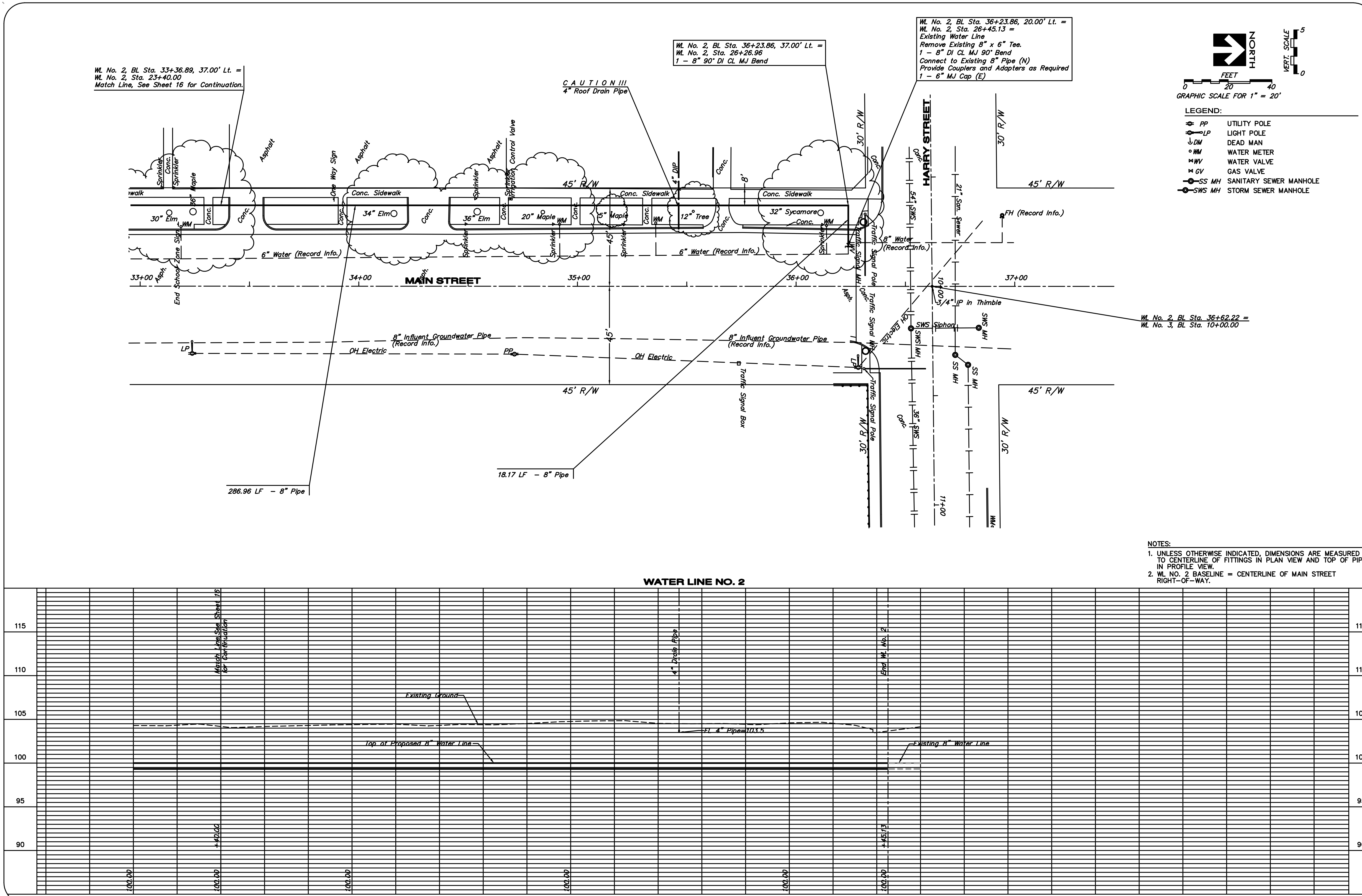
WATER LINE NO. 2 PLAN AND PROFILE

MAIN AND MARKET W.L. IMPROVEMENTS
City of Wichita
Sedgwick County, Kansas

scale: as noted
drawn by: das
checked by: cry
date: 6/25/07
P/N: 07-238
revisions:


WL No. 2, BL Sta. 33+36.89, 37.00' Lt. =
WL No. 2, Sta. 23+40.00
Match Line, See Sheet 16 for Continuation.
C A U T I O N !!!
4" Roof Drain Pipe
WL No. 2, BL Sta. 36+23.86, 37.00' Lt. =
WL No. 2, Sta. 26+26.96
1 – 8" 90° DI CL MJ Bend
WL No. 2, BL Sta. 36+23.86, 20.00' Lt. =
WL No. 2, Sta. 26+45.13 =
Existing Water Line
Remove Existing 8" x 6" Tee.
1 – 8" DI CL MJ 90° Bend
Connect to Existing 8" Pipe (N)
Provide Couplers and Adapters as Required
1 – 6" MJ Cap (E)
NORTH
VERT. SCALE
FEET
GRAPHIC SCALE FOR 1" = 20'
LEGEND:
PP UTILITY POLE
LP LIGHT POLE
DM DEAD MAN
WM WATER METER
WV WATER VALVE
GV GAS VALVE
SS MH SANITARY SEWER MANHOLE
SWS MH STORM SEWER MANHOLE
MAIN STREET
HARRY STREET
45' R/W
30' R/W
Conc. Sidewalk
6" Water (Record Info.)
8" Water (Record Info.)
8" Influent Groundwater Pipe (Record Info.)
OH Electric
Traffic Signal Pole
Traffic Signal Box
FH (Record Info.)
3/4" IP in Thimble
SWS Siphon
WL No. 2, BL Sta. 36+62.22 =
WL No. 3, BL Sta. 10+00.00
286.96 LF – 8" Pipe
18.17 LF – 8" Pipe
33+00
34+00
35+00
36+00
37+00
NOTES:
1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 2 BASELINE = CENTERLINE OF MAIN STREET RIGHT-OF-WAY.
WATER LINE NO. 2
Match Line See Sheet 16 for Continuation
4" Drain Pipe
End WL No. 2
Existing Ground
FL 4" Pipe=103.5
Top of Proposed 8" Water Line
Existing 8" Water Line
115
110
105
100
95
90
+40.00
+45.13
100.00
23+00
24+00
25+00
26+00

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WATER LINE NO. 2 PLAN AND PROFILE

MAIN AND MARKET W.L. IMPROVEMENTS
City of Wichita
Sedgwick County, Kansas

scale: as noted
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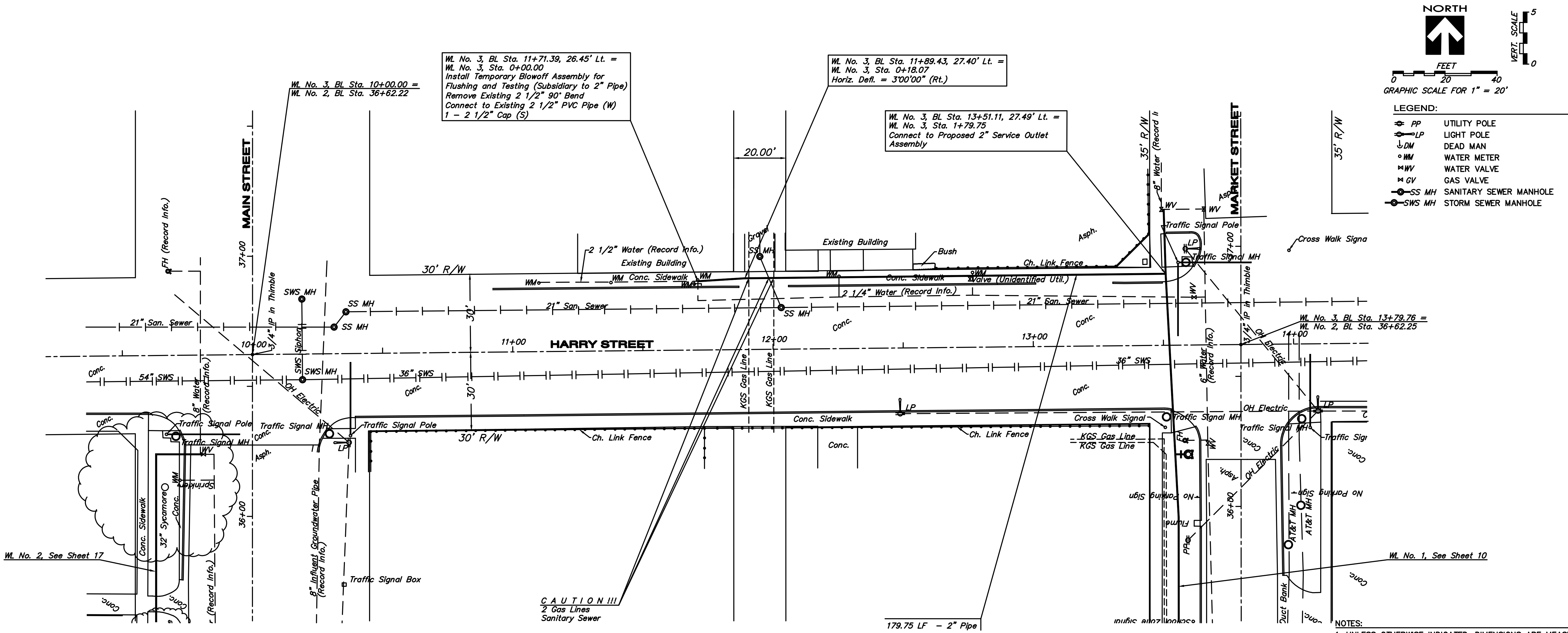
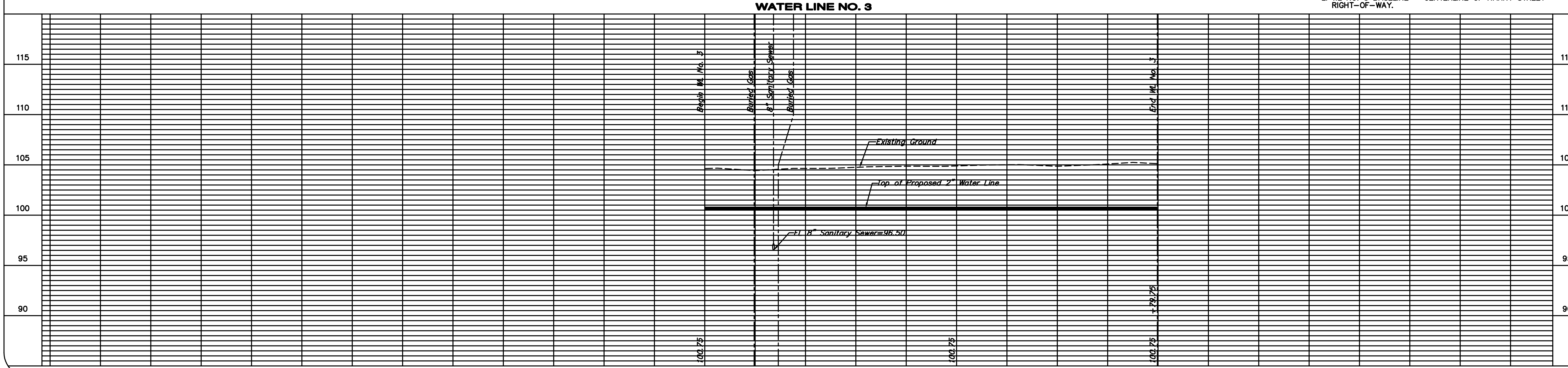


NOTES:

1. UNLESS OTHERWISE INDICATED, DIMENSIONS ARE MEASURED TO CENTERLINE OF FITTINGS IN PLAN VIEW AND TOP OF PIPE IN PROFILE VIEW.
2. WL NO. 3 BASELINE = CENTERLINE OF HARRY STREET RIGHT-OF-WAY.

WATER LINE NO. 3



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WATER LINE NO. 3 PLAN AND PROFILE

MAIN AND MARKET W.L. IMPROVEMENTS
City of Wichita
Sedgwick County, Kansas

scale: as noted
drawn by: das
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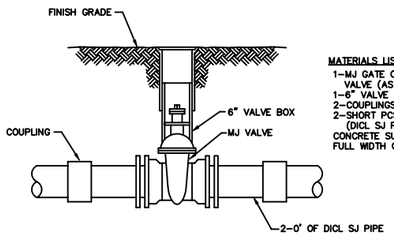
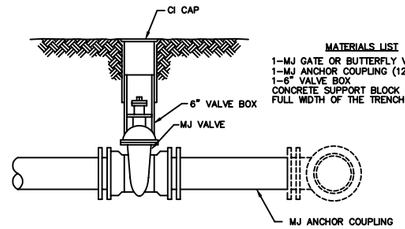
date: 6/25/07
P/N: 07-238
revisions:



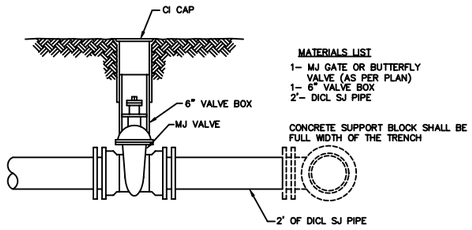
MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-6" VALVE BOX
2-COUPLINGS
2-SHORT PCS. (DICL SJ PIPE)
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

LINE VALVE ASSEMBLY



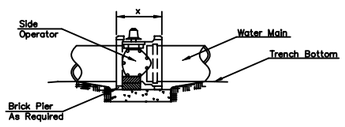
MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-MJ ANCHOR COUPLING (12" OR SMALLER)
1-6" VALVE BOX
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

ANCHORED VALVE ASSEMBLY



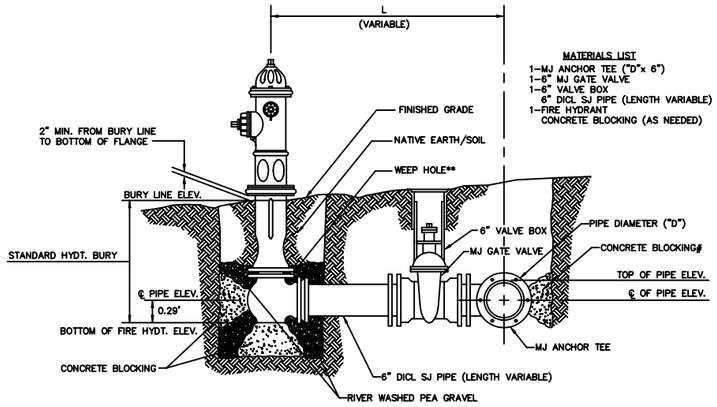
MATERIALS LIST
1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1- 6" VALVE BOX
2'- DICL SJ PIPE
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

VALVE ASSEMBLY



NOTES
1. This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. Larger lines to be detailed on plans.
2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
3. Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



MATERIALS LIST
1-MJ ANCHOR TEE ("D"x 6")
1-6" MJ GATE VALVE
1-6" VALVE BOX
6" DICL SJ PIPE (LENGTH VARIABLE)
1-FIRE HYDRANT
CONCRETE BLOCKING (AS NEEDED)

** CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES.

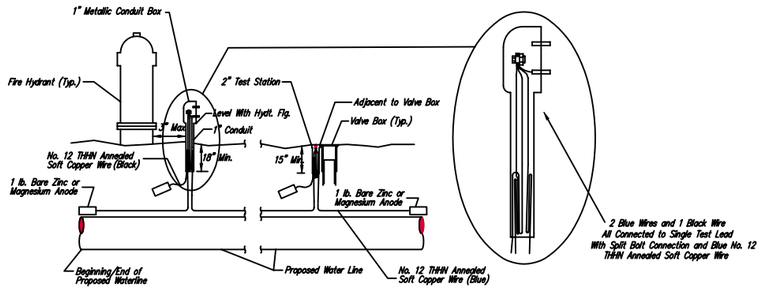
CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

* IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.

FIRE HYDRANTS REQUIRED			
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
WL NO. 1, STA. 1+37.35	100.63	96.75	4.5'
WL NO. 1, STA. 6+51.17	101.54	98.50	4.0'
WL NO. 1, STA. 13+04.87	102.88	99.00	4.5'
WL NO. 1, STA. 20+17.24	103.38	99.50	4.5'
WL NO. 1, STA. 26+15.46	104.88	101.00	4.5'
WL NO. 2, STA. 7+27.61	102.38	98.50	4.5'
WL NO. 2, STA. 13+75.50	102.88	99.00	4.5'
WL NO. 2, STA. 20+35.89	103.38	99.50	4.5'

FIRE HYDRANT ASSEMBLY

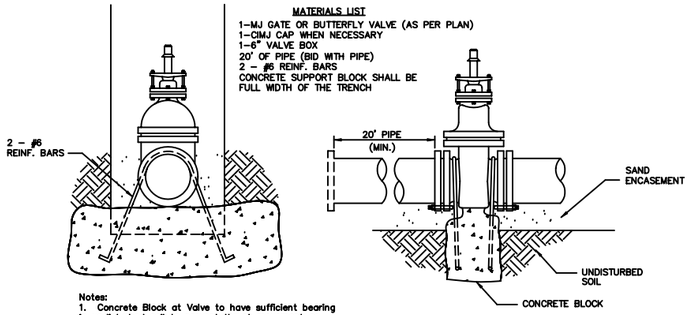
PER CITY OF WICHITA SPECIFICATIONS



TRACER WIRE
Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used at splice locations. Electrical tape shall cover all splices so no bare wire is exposed. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of the waterlines. Any exceptions to the location of test stations shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 1 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.
WIRE
The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. The insulation sheathing shall be removed such that 1" bare copper wire is exposed at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.
TEST STATIONS
The test station for fire hydrant applications shall be a 1 inch galvanized conduit style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS3B as manufactured by HANDLEY Industries or approved equal. The conduit style shall be attached to a 1 inch rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be installed to allow 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.
ANODES
The anodes shall be 1 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to Black No. 12 THHN annealed soft copper wire which shall be extended to the test station.

TRACER WIRE DETAIL

COST IS SUBSIDIARY TO PIPE INSTALLATION

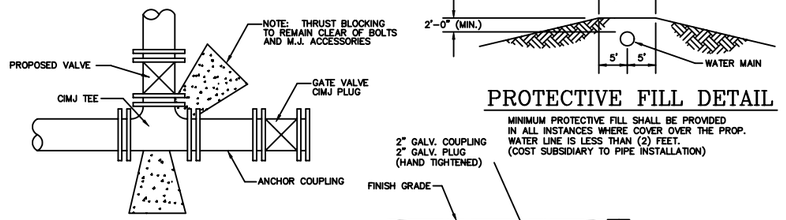


MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-CIMJ CAP WHEN NECESSARY
1-6" VALVE BOX
20' OF PIPE (BID WITH PIPE)
2 - #6 REINF. BARS
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

Notes:
1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
2. The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.
3. All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

THRUST AT VALVES	
VALVE	THRUST AT 150 #/in²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

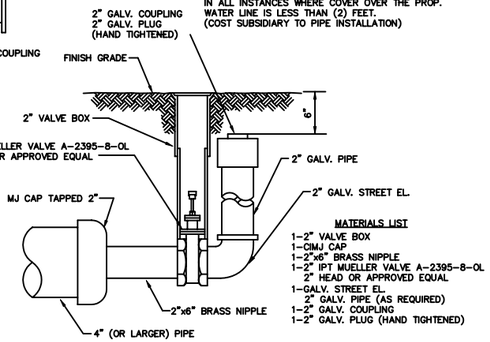
ANCHORED VALVE ASSEMBLY, SPECIAL



KEY BLOCK DETAIL

PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN (2) FEET. (COST SUBSIDIARY TO PIPE INSTALLATION)



MATERIALS LIST
1-2" VALVE BOX
1-CIMJ CAP
1-2"x6" BRASS NIPPLE
1-2" IPT MUELLER VALVE A-2395-8-OL
2" HEAD OR APPROVED EQUAL
1-GALV. STREET EL.
2" GALV. PIPE (AS REQUIRED)
1-2" GALV. COUPLING
1-2" GALV. PLUG (HAND TIGHTENED)

2" BLOWOFF ASSEMBLY

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4500
(316) 268-4114 FAX

STANDARD WATER ASSEMBLY DETAILS

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

PROJECT NUMBER	INDEX CODE
448 90283	XXXXX
DATE	SHEET 19 OF 26
SEPT. 2002	

Revised: 6-7-00, MCG

METER NO.	ADDRESS		WATER LINE NO.	SHEET NO.	SERVICE LINE TYPE L = LONG; S = SHORT	COMMENTS
	HOUSE NO.	STREET				
1	1960	S. MARKET STREET	1		L	
2	1959	S. MARKET STREET	1		S	
3	1957	S. MARKET STREET	1		S	
4	1954	S. MARKET STREET	1		L	
5	1950	S. MARKET STREET	1		L	
6	1949	S. MARKET STREET	1		S	
7	1946	S. MARKET STREET	1		L	
8	1943	S. MARKET STREET	1		S	
9	1940	S. MARKET STREET	1		L	
10	1939	S. MARKET STREET	1		S	
11	1936	S. MARKET STREET	1		L	
12	1935	S. MARKET STREET	1		S	
13	1931	S. MARKET STREET	1		S	
14	1930	S. MARKET STREET	1		L	
15	1925	S. MARKET STREET	1		S	
16	1923	S. MARKET STREET	1		S	
17	1920	S. MARKET STREET	1		L	
18	1917	S. MARKET STREET	1		S	
19	1915	S. MARKET STREET	1		S	
20	1912	S. MARKET STREET	1		L	
21	1908	S. MARKET STREET	1		L	
22	1905	S. MARKET STREET	1		S	
23	1904	S. MARKET STREET	1		L	
24	1902	S. MARKET STREET	1		L	
25	1901	S. MARKET STREET	1		S	
26	1857	S. MARKET STREET	1		S	
27	1856	S. MARKET STREET	1		L	
28	1853	S. MARKET STREET	1		S	
29	1852	S. MARKET STREET	1		L	
30	1847	S. MARKET STREET	1		S	
31	1846	S. MARKET STREET	1		L	
32	1844	S. MARKET STREET	1		L	
33	1841	S. MARKET STREET	1		S	
34	1840	S. MARKET STREET	1		L	
35	1837	S. MARKET STREET	1		S	
36	1833	S. MARKET STREET	1		S	
37	1832	S. MARKET STREET	1		L	
38	1828	S. MARKET STREET	1		L	
39	1827	S. MARKET STREET	1		S	
40	1824	S. MARKET STREET	1		L	
41	1819	S. MARKET STREET	1		S	
42	1818	S. MARKET STREET	1		L	
43	1815	S. MARKET STREET	1		S	
44	1811	S. MARKET STREET	1		S	
45	1807	S. MARKET STREET	1		S	
46	1806	S. MARKET STREET	1		L	
47	1804	S. MARKET STREET	1		L	
48	1802	S. MARKET STREET	1		L	
49	1801	S. MARKET STREET	1		S	
50	1755	S. MARKET STREET	1		S	
51	1752	S. MARKET STREET	1		L	
52	1751	S. MARKET STREET	1		S	
53	1748	S. MARKET STREET	1		L	
54	1746	S. MARKET STREET	1		L	
55	1741	S. MARKET STREET	1		S	
56	1740	S. MARKET STREET	1		L	
57	1739	S. MARKET STREET	1		S	
58	1738	S. MARKET STREET	1		L	
59	1737	S. MARKET STREET	1		S	
60	1727	S. MARKET STREET	1		S	
61	1726	S. MARKET STREET	1		L	
62	1725	S. MARKET STREET	1		S	

METER NO.	ADDRESS		WATER LINE NO.	SHEET NO.	SERVICE LINE TYPE L = LONG; S = SHORT	COMMENTS
	HOUSE NO.	STREET				
63	1724	S. MARKET STREET	1		L	
64	1722	S. MARKET STREET	1		L	
65	1721	S. MARKET STREET	1		S	
66	1720	S. MARKET STREET	1		L	
67	1717	S. MARKET STREET	1		S	
68	1714	S. MARKET STREET	1		L	
69	1711	S. MARKET STREET	1		S	
70	1709	S. MARKET STREET	1		S	
71	1704	S. MARKET STREET	1		L	
72	1660	S. MARKET STREET	1		L	
73	1655	S. MARKET STREET	1		S	
74	1652	S. MARKET STREET	1		L	
75	1645	S. MARKET STREET	1		S	
76	1640	S. MARKET STREET	1		L	
77	1636	S. MARKET STREET	1		L	
78	1635	S. MARKET STREET	1		S	
79	1633	S. MARKET STREET	1		S	
80	1632	S. MARKET STREET	1		L	
81	1620	S. MARKET STREET	1		L	
82	1618	S. MARKET STREET	1		L	
83	1614	S. MARKET STREET	1		L	
84	1605	S. MARKET STREET	1		S	
85	1960	S. MAIN STREET	2		L	
86	1955	S. MAIN STREET	2		S	
87	1954	S. MAIN STREET	2		L	
88	1950	S. MAIN STREET	2		L	
89	1947	S. MAIN STREET	2		S	
90	1946	S. MAIN STREET	2		L	
91	1943	S. MAIN STREET	2		S	
92	1941	S. MAIN STREET	2		S	
93	1940	S. MAIN STREET	2		L	
94	1938	S. MAIN STREET	2		L	
95	1937	S. MAIN STREET	2		S	
96	1933	S. MAIN STREET	2		S	
97	1930	S. MAIN STREET	2		L	
98	1926	S. MAIN STREET	2		L	
99	1925	S. MAIN STREET	2		S	
100	1921	S. MAIN STREET	2		S	
101	1916	S. MAIN STREET	2		L	
102	1915	S. MAIN STREET	2		S	
103	1914	S. MAIN STREET	2		L	
104	1910	S. MAIN STREET	2		L	
105	1906	S. MAIN STREET	2		L	
106	1905	S. MAIN STREET	2		S	
107	1903	S. MAIN STREET	2		S	
108	1902	S. MAIN STREET	2		L	
109	1901	S. MAIN STREET	2		S	
110	1859	S. MAIN STREET	2		S	
111	1852	S. MAIN STREET	2		L	
112	1850	S. MAIN STREET	2		L	
113	1846	S. MAIN STREET	2		L	
114	1844	S. MAIN STREET	2		L	
115	1843	S. MAIN STREET	2		S	
116	1841	S. MAIN STREET	2		S	
117	1840	S. MAIN STREET	2		L	
118	1839	S. MAIN STREET	2		S	
119	1835	S. MAIN STREET	2		S	
120	1831	S. MAIN STREET	2		S	
121	1828	S. MAIN STREET	2		L	
122	1826	S. MAIN STREET	2		L	
123	1824	S. MAIN STREET	2		L	
124	1820	S. MAIN STREET	2		L	

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WATER METER SERVICE SCHEDULE

MAIN AND MARKET WATER LINE IMPROVEMENTS
City of Wichita
Sedgwick County, Kansas

scale: as noted
drawn by: das
checked by: cry
date: 6/25/07
P/N: 07-238
revisions:

METER NO.	ADDRESS		WATER LINE NO.	SHEET NO.	SERVICE LINE TYPE L = LONG; S = SHORT	COMMENTS
	HOUSE NO.	STREET				
125	1818	S. MAIN STREET	2		L	
126	1817	S. MAIN STREET	2		S	
127	1815	S. MAIN STREET	2		S	
128	1813	S. MAIN STREET	2		S	
129	1812	S. MAIN STREET	2		L	
130	1807	S. MAIN STREET	2		S	
131	1804	S. MAIN STREET	2		L	
132	1803	S. MAIN STREET	2		S	
133	1802	S. MAIN STREET	2		L	
134	1757	S. MAIN STREET	2		S	
135	1756	S. MAIN STREET	2		L	
136	1752	S. MAIN STREET	2		L	
137	1749	S. MAIN STREET	2		S	
138	1747	S. MAIN STREET	2		S	
139	1746	S. MAIN STREET	2		L	
140	1745	S. MAIN STREET	2		S	
141	1742	S. MAIN STREET	2		L	
142	1738	S. MAIN STREET	2		L	
143	1735	S. MAIN STREET	2		S	
144	1732	S. MAIN STREET	2		L	
145	1731	S. MAIN STREET	2		S	
146	1729	S. MAIN STREET	2		L	
147	1728	S. MAIN STREET	2		S	
148	1725	S. MAIN STREET	2		S	
149	1722	S. MAIN STREET	2		L	
150	1718	S. MAIN STREET	2		L	
151	1717	S. MAIN STREET	2		S	
152	1710	S. MAIN STREET	2		L	
153	1709	S. MAIN STREET	2		S	
154	1706	S. MAIN STREET	2		L	
155	1705	S. MAIN STREET	2		S	
156	1703	S. MAIN STREET	2		S	
157	1702	S. MAIN STREET	2		L	
158	1659	S. MAIN STREET	2		S	
159	1655	S. MAIN STREET	2		S	
160	1654	S. MAIN STREET	2		L	
161	1652	S. MAIN STREET	2		L	
162	1650	S. MAIN STREET	2		L	
163	1649	S. MAIN STREET	2		S	
164	1647	S. MAIN STREET	2		S	
165	1645	S. MAIN STREET	2		S	
166	1642	S. MAIN STREET	2		L	
167	1639	S. MAIN STREET	2		S	
168	1638	S. MAIN STREET	2		L	
169	1621	S. MAIN STREET	2		S	
170	1601	S. MAIN STREET	2		S	
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METER NO.	ADDRESS		WATER LINE NO.	SHEET NO.	SERVICE LINE TYPE L = LONG; S = SHORT	COMMENTS
	HOUSE NO.	STREET				

YOUNG & ASSOCIATES, P.A.
Civil Engineering ■ Surveying ■ Land Development
100 S. Georgie, Derby, KS 67037
tele: (316)788-2552, fax: (316)788-4408
email: youngpa@onemain.com

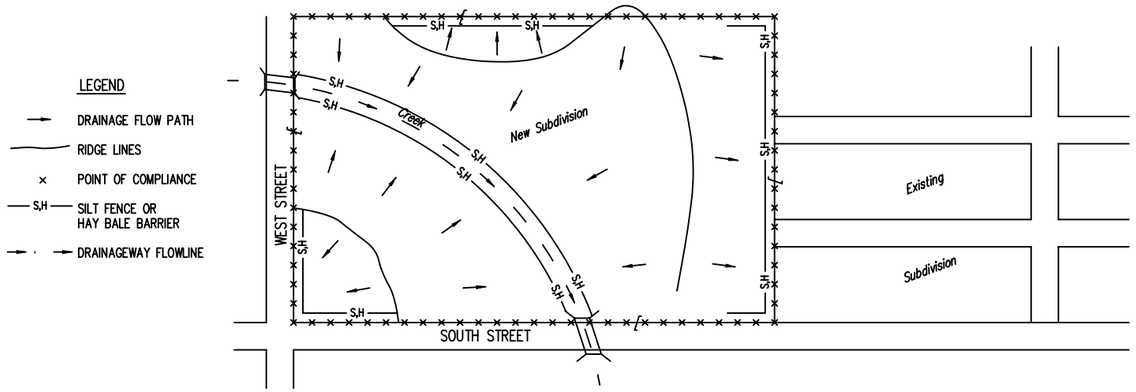
WATER METER
SERVICE SCHEDULE

MAIN AND MARKET WATER LINE IMPROVEMENTS
City of Wichita
Sedgwick County, Kansas

scale: as noted
drawn by: das
checked by: cry
date: 6/25/07
P/N: 07-238
revisions:

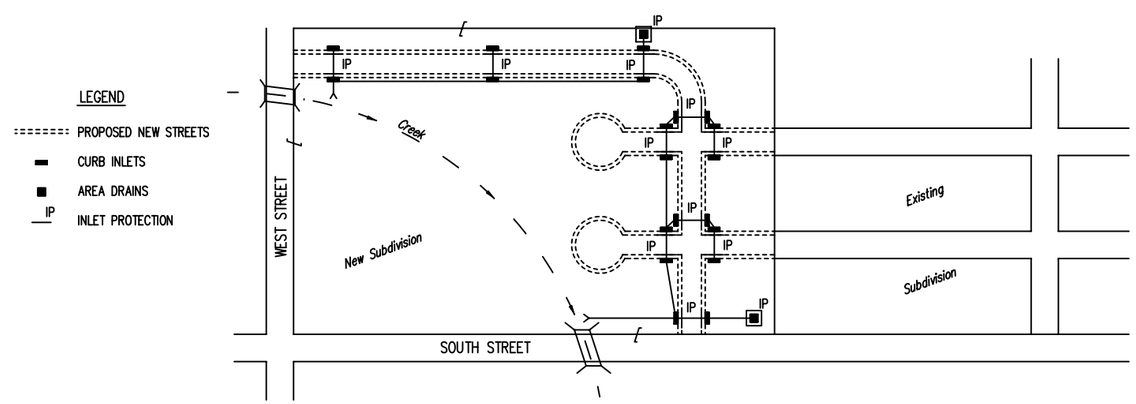
Sheet No.
21 of 26

PHASE 1 – INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)



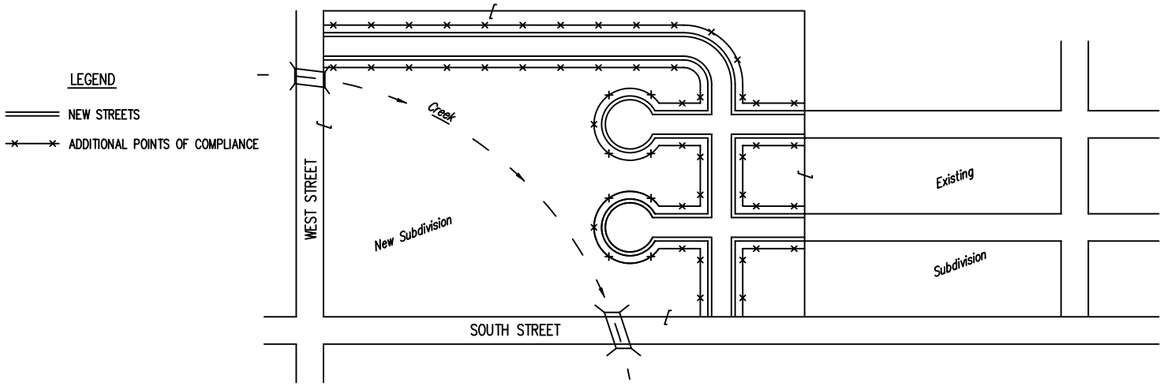
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2. HAY BALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE EROSION CONTROL DEVICES WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR STREETS ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE EROSION CONTROL DEVICES WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED WITHIN 48 HOURS OR BY FRIDAY AT 6:00 PM, WHICHEVER IS EARLIER.
5. CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL EROSION CONTROL DEVICES AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDARY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE EROSION CONTROL DEVICES AT THEIR WORK LOCATIONS, AS NEEDED.
6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
7. IF THE INITIAL EARTH WORK AND UTILITIES ARE DONE AS PART OF A PUBLIC IMPROVEMENT PROJECT, THESE EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS SPECIFIED IN THE INDIVIDUAL PROJECT CONTRACTS. THE CONTRACTOR WILL MAINTAIN THE DEVICES UNTIL COMPLETION OF THE CONTRACT, AT WHICH TIME THE DEVELOPER WILL ASSUME MAINTENANCE RESPONSIBILITIES. IF THESE CONTRACTS ARE NOT PUBLIC IMPROVEMENT PROJECTS, THE DEVELOPER WILL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THESE DEVICES.
8. WITHIN 14 DAYS OF COMPLETION OF EARTHWORK ACTIVITIES IN ANY GIVEN AREA, THAT AREA SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED.

PHASE 2 – INSTALLATION OF STORM SEWER



1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
3. AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAY BALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
4. CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION DEVICES MUST BE INSTALLED. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION. SEE PHASE 3 – STREET CONSTRUCTION.
5. THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE DEVICES.
6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE EROSION CONTROL DEVICES ONCE INSTALLED.
7. ALL DISTURBED GROUND WILL BE FINAL GRADED AND TEMPORARILY OR PERMANENTLY SEEDED WITHIN 14 DAYS IF COMPLETION OF WORK IN ANY GIVEN PART OF THE SUBDIVISION.
8. ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOD, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

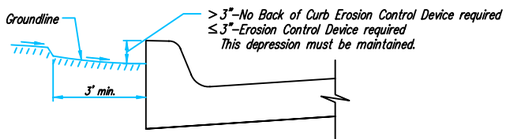
PHASE 3 – STREET CONSTRUCTION



1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL EROSION CONTROL DEVICES INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
   A. SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
   B. NON-SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
3. EROSION CONTROL DEVICES WILL BE REQUIRED BACK OF CURB WHEREVER WATER CAN FLOW OVER THE CURB AND THE CURB HAS BEEN BACKFILLED TO WITHIN 3" OR LESS OF THE TOP OF CURB (SEE CURB BACKFILL DETAIL). FOR CURBS NOT YET ENTIRELY BACKFILLED (3" OR MORE BELOW TOP OF CURB), ADDITIONAL DEVICES WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
4. SEE DETAIL SHEET FOR BACK OF CURB PROTECTION.
5. THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLEMENTED WITH HAY BALE OR SILT FENCE EROSION CONTROL DEVICES AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
6. THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB EROSION CONTROL DEVICES.
7. THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB EROSION CONTROL DEVICES IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.

GENERAL NOTES:
1. THE INTENT OF ALL EROSION CONTROL DEVICES IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, LAKES, STREETS OR ANY OTHER OTHER DRAINAGE FEATURE.
2. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
3. EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON SOIL EROSION BMP'S DETAIL SHEETS.
4. PERSONS DESTROYING EROSION CONTROL DEVICES SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT DEVICES.
5. THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 1 ACRE OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL DEVICES ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLANS.
6. FOR SUBDIVISIONS SMALLER THAN 1 ACRE, SOIL EROSION DEVICES ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
7. FAILURE TO USE AND MAINTAIN SOIL EROSION DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
8. THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE DEVICES OTHER THAN THAT SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
9. A STABILIZED EARTH SURFACE IS DEFINED AS ONE THAT IS HARD SURFACED WITH CONCRETE, ASPHALT, OR THE LIKE, OR ONE ON WHICH 70% OF THE GRASS HAS GERMINATED ON THE ENTIRE SURFACE.

SEE DETAIL SHEET FOR BACK OF CURB PROTECTION DETAIL



CURB BACKFILL DETAIL
(STREET CONSTRUCTION ONLY)

CITY OF WICHITA

SOIL EROSION BMPs

SUBDIVISION DEVELOPMENT PROCESS

JIM ARMOUR, P.E.
CITY ENGINEER

PROJECT NUMBER	OCA NO.
448-90283	636185
DATE: JAN. 2007	SHEET 22 OF 26

GENERAL NOTES:

1. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPES OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.

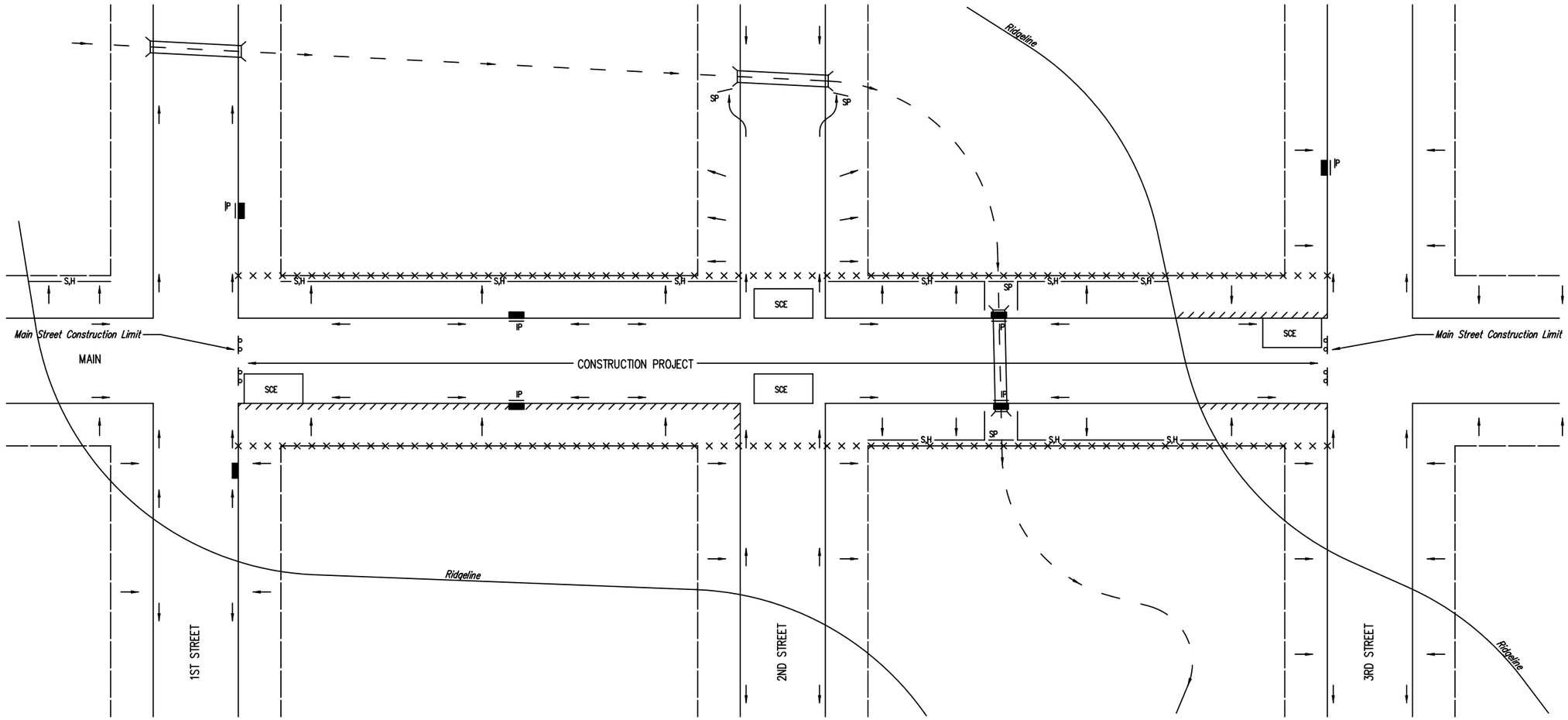
2. EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.

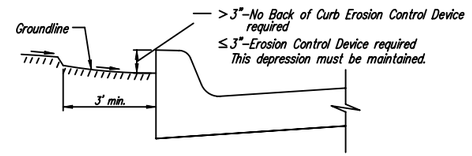
3. IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.

4. FOR PROJECTS DISTURBING LESS THAN 1 ACRE, CONTRACTORS ARE ENCOURAGED TO PREPARE STORMWATER POLLUTION PREVENTION PLANS PRIOR TO CONSTRUCTION. EROSION CONTROL DEVICES MUST BE USED ON ALL PROJECTS.

5. FAILURE TO USE AND MAINTAIN EROSION CONTROL DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE CONTRACTOR TO THE PENALTIES PROVIDED FOR THEREIN.

6. THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT DEVICE OTHER THAN THOSE SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED AS LONG AS THEY ARE EFFECTIVE AND MAINTAINED.





CURB BACKFILL DETAIL

LEGEND

- R-O-W LIMITS
- DRAINAGE FLOW PATH
- R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP — INLET PROTECTION
- S,H — SILT FENCE OR HAY BALE BARRIER
- SP — STREAM PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- BACK OF CURB PROTECTION

NOTES:

1. THE INTENT OF ALL EROSION CONTROL DEVICES IS TO KEEP ALL SEDIMENT CONFINED TO THE CONSTRUCTION SITE, AND OUT OF ALL UNDERGROUND PIPES, DITCHES, LAKES, AND OTHER DRAINAGE FACILITIES, AND OFF OF STREETS.

2. THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT-OF-WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.

3. EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.

4. INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.

5. EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.

6. STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED, AS NEEDED, TO PREVENT MUD FROM TRACKING ONTO STREETS NOT UNDER CONSTRUCTION AND ON STREETS WITHIN THE PROJECT LIMITS IF TRAFFIC IS BEING MAINTAINED THROUGH THE PROJECT.

7. ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.

8. THE CONTACTOR WILL BE REQUIRED TO PLACE EROSION CONTROL DEVICES BACK OF CURB, WHENEVER WATER CAN DRAIN OVER CURB, TO KEEP ERODED SOIL OUT OF THE GUTTERLINES, IN ACCORDANCE WITH THE FOLLOWING:
   A. THE DEVICE REQUIRED WILL BE CURLEX | OR ‖ EXCELSIOR BLANKET, OR EQUAL. SAID BLANKET SHALL BE PLACED OVER THE APPROPRIATE SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS. (SEE SOIL EROSION BMPs – BACK OF CURB SEDIMENT BARRIER DETAILS)
   B. THIS DEVICE SHALL BE INSTALLED IMMEDIATELY WHENEVER THE CURB IS BACKFILLED TO WITHIN 3" OF THE TOP OF CURB. (SEE CURB BACKFILL DETAIL) OTHER BMP'S MAY BE REQUIRED AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB.
   C. ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
   D. SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT-OF-WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)

CITY OF WICHITA

SOIL EROSION BMPs

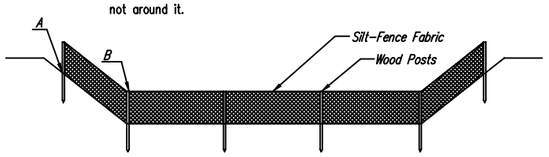
STREET IMPROVEMENT PROJECTS

JIM ARMOUR, P.E.
CITY ENGINEER

PROJECT NUMBER	OCA NO.
448-90283	636185

DATE	SHEET
JAN. 2007	SHEET 23 OF 26

NOTE: Point A must be higher than Point B so that water flows over the silt fence fabric and not around it.



ELEVATION

SILT FENCE DITCH CHECKS
(STREAM PROTECTION)

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

Place silt fence in ditches where it is unlikely that it will be overtopped.
Water should flow through a silt fence ditch check, not over it. Silt fence ditch checks often fail when overtopped.
Silt fence ditch checks should be placed perpendicular to the flowline of the ditch.
The silt fence should extend far enough so that the ground level at the ends of the fence is higher than the top of the low point of the fence. This prevents water from flowing around the check.
Silt fence ditch checks should not be placed in ditches where high flows are expected. Rock checks should be used instead.
Silt fence should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.

The following table provides check spacing for a given ditch grade:

Ditch Check Ditch grade (%)	Spacing Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is at least 12" deep by 6" wide.
Extend the trench in a straight line along the entire length of the proposed ditch check.
Place the soil on the upstream side of the trench for later use.
Roll out a continuous length of silt fence fabric on the downstream side of the trench.
Place the edge of the fabric in the trench starting at the top upstream edge of the trench.
Line two sides of the trench with the fabric as shown on detail. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed.
Lay the exposed silt fence on the upstream side of the trench to clear an area for driving in the posts. Just downstream of the trench, drive posts into the ground to a depth of at least 24". Place posts no more than 4' apart.
Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

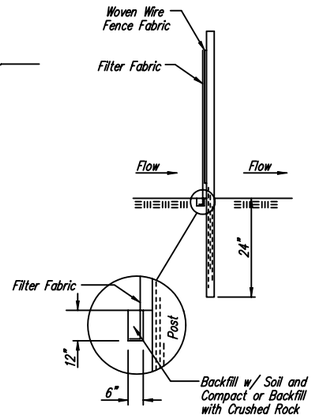
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence ditch check–not over it. Place silt fence in ditches where it is unlikely that it will be overtopped. Silt fence installations quickly deteriorate when water overtops them.
Do not place silt fence posts on the upstream side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not place a silt fence ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow.
Do not place silt fence ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow.
Follow prescribed ditch check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks.
Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the fence is higher than the low point on the top of the fence.
Do not place silt fence ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.

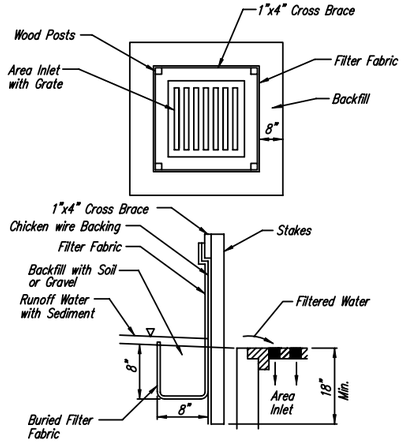
Inspection and Maintenance:

Silt fence ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow around the ditch check?
Does water flow under the ditch check?
Does the silt fence sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the ditch check?



ANCHOR TRENCH DETAIL



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The wire or polymeric mesh backing used to help support the silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
The material used to frame the tops of the posts should be 1" by 4" boards.
Silt fence fabric and support backing should be attached to the wooden posts and frame with staples, wire, zip ties, or nails.

Placement:

Place a silt fence drop inlet barrier in a location where it is unlikely to be overtopped.
Water should flow through silt fence, not over it. Silt fence barriers for area inlets often fail when repeatedly overtopped.
When used as a barrier for area inlets, silt fence fabric and posts must be supported at the top by a wooden frame.
When a silt fence barrier for area inlets is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper installation method:

Excavate a trench around the perimeter of the area inlet that is at least 8" deep by 8" wide.
Drive posts to a depth of at least 18" around the perimeter of the area inlet.
The distance between posts should be 4' or less. If the distance between two adjacent corner posts is more than 4', add another post(s) between them.
Connect the tops of all the posts with a wooden frame made of 1" by 4" boards. Use nails or screws for fastening.
Attach the wire or polymeric–mesh backing to the outside of the post/frame structure with staples, wire, zip ties, or nails.
Roll out a continuous length of silt fence fabric long enough to wrap around the perimeter of the area inlet. Add more length for overlapping the fabric joint. Place the edge of the fabric in the trench, starting at the outside edge of the trench. Line all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed.
Attach the silt fence to the outside of the post/frame structure with staples, wire, zip ties, or nails. The joint should be overlapped to the next post.

Note: When a silt fence barrier for area inlet is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

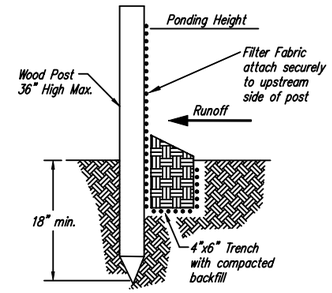
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence barrier for area inlet–not over it. Place a silt fence barrier for area inlet in a location where it is unlikely to be overtopped. Silt fence barrier for area inlets often fail when repeatedly overtopped.
Do not place posts on the outside of the silt fence barrier for area inlet. In this configuration, the force of the water is not resisted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not install silt fence barrier for area inlets without framing the top of the posts. The corner posts around area inlets are stressed in two directions whereas a normal silt fence is only stressed in one direction. This added stress requires more support.

Inspection and Maintenance:

Silt fence barrier for area inlets should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow under the silt fence?
Does the silt fence sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the area inlet barrier?



SILT FENCE BARRIERS

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

A slope barrier should be used at the toe of a slope when a ditch does not exist. The slope barrier should be placed on nearly level ground 5' to 10' away from the toe of a slope. The barrier is placed away from the toe of the slope to provide adequate storage for settling out sediment.
When practicable, silt fence slope barriers should be placed along contours to avoid a concentration of flow.
Silt fence slope barriers can also be placed along right–of–way fence lines to keep sediment from crossing onto adjacent property. When placed in this manner, the slope barrier will not likely follow contours.

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 6" deep by 4" wide.
Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use.
Roll out a continuous length of silt fence fabric on the downslope side of the trench.
Place the edge of the fabric in the trench starting at the top upslope edge. Line all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt–fence fabric should remain exposed.
Lay the exposed silt fence upslope of the trench to clear an area for driving in the posts. Just downslope of the trench, drive posts into the ground to a depth of at least 18".
Place posts no more than 4' apart.
Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

List of common placement/installation mistakes to avoid:

When practicable, do not place silt fence slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. When the flow concentrates, it overtops the barrier and the silt fence slope barrier quickly deteriorates.
Do not place silt–fence posts on the upslope side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not place silt fence slope barriers in areas with shallow soils underlain by rock. If the barrier is not sufficiently anchored, it will wash out.
Silt fence slope barriers must be dug into the ground–silt fence at ground level does not work because water will flow underneath.

Inspection and Maintenance:

Silt fence slope barriers should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Are there any points along the slope barrier where water is concentrating?
Does water flow under the slope barrier?
Do the silt fences sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the slope barrier?

CITY OF WICHITA

SOIL EROSION BMPs

SILT FENCE DITCH CHECK AND BARRIER DETAILS

JIM ARMOUR, P.E.
CITY ENGINEER

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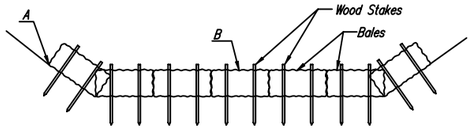
NOTE: Point A must be higher than Point B so that water flows over the bales and not around them.



STRAW BALE DITCH CHECKS

Material Specification:

Bale ditch checks may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Optional: The downstream scour apron should be constructed of a double-netted straw erosion-control blanket at least 6' wide.
Optional: The metal landscape staples used to anchor the erosion-control blanket should be at least 8" long.

Placement:

Bale ditch checks should be placed perpendicular to the flowline of the ditch.
The ditch check should extend far enough so that the ground level at the ends of the check is higher than the top of the lowest center bale. This prevents water from flowing around the check.
Straw bale ditch checks should not be placed in ditches where high flows are expected. Rock checks should be used instead.
Bales should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.
The following table provides check spacing for a given ditch grade:

Ditch grade (%)	Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is 4" deep and a bale's width wide. Extend the trench in a straight line along the entire length of the proposed ditch check. Place the soil on the upstream side of the trench-it will be used later.
Optional: On the downstream side of the trench, roll out a length of erosion-control blanket (scour apron) equal to the length of the trench. Place the upstream edge of the erosion-control blanket along the bottom upstream edge of the trench. The erosion control blanket should be anchored in the trench with one row of 8" landscape staples placed on 18" centers. The remainder of the erosion-control blanket (the portion that is not lying in the trench) will serve as the downstream scour apron. This section of the blanket should be anchored to the ground with 8" landscape staples placed around the perimeter of the blanket on 18" centers. The remainder of the blanket should be anchored using two evenly spaced rows of 8" landscape staples on 18" centers placed perpendicular to the flowline of the ditch.
Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the upstream side of the check and compact it. The compacted soil should be no more than 3" to 4" deep and extend upstream no more than 24".

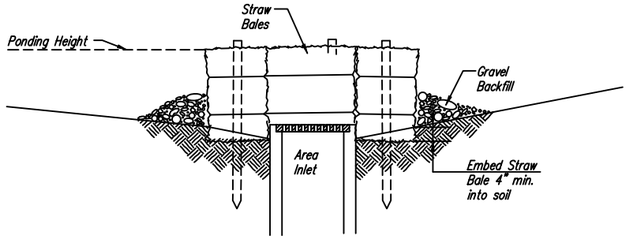
List of common placement/installation mistakes to avoid:

Do not place a bale ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow.
Do not place bale ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow.
Follow prescribed ditch-check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks.
Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the check is higher than the top of the lowest center bale.
Do not place bale ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.
Bale ditch checks must be dug into the ground. Bales at ground level do not work because they allow water to flow under the check.

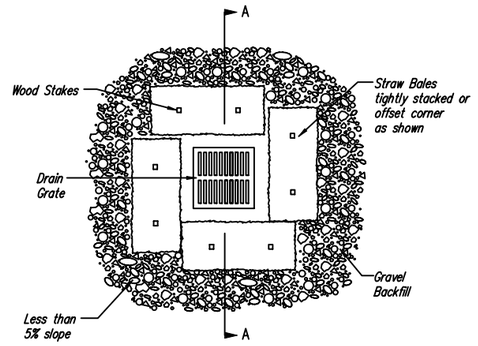
Inspection and Maintenance:

Bale ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow around the ditch check?
Does water flow under the ditch check?
Does water flow through spaces between abutting bales?
Are any bales and/or scour aprons (optional) dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the ditch check?



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

Material Specification:

Bale area inlet barriers should be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

Placement:

Bale area inlet barriers should be placed directly around the perimeter of a drop inlet.
When a bale area inlet barrier is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper Installation Method:

Excavate a trench around the perimeter of the area inlet that is at least 4" deep by a bale's width wide.
Place the bales in the trench, making sure that they are butted tightly. Some bales may need to be shortened to fit into the trench around the area inlet. Two stakes should be driven through each bale, approximately 6" to 8" in from the bale ends.
Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the receiving side of the barrier and compact it. The compacted soil should be no more than 3" to 4" deep.
Note: When a bale area inlet barrier is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

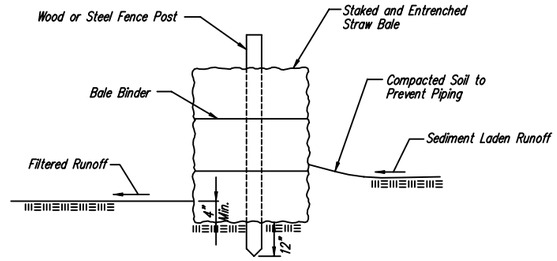
List of common placement installation mistakes to avoid:

Bales should be placed directly against the perimeter of the area inlet. This allows overtopping water to flow directly into the inlet instead of onto nearby soil causing scour.
Bale area inlet barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale area inlet barriers should be inspected every 7 days and within 24 hours of a rainfall 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow under the area inlet barrier?
Does water flow through spaces between abutting bales?
Are any bales dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the area inlet barrier?



STRAW BALE BARRIERS

Material Specification:

Bale slope barriers may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

Placement:

A slope barrier should be used at the toe of a slope when a ditch does not exist. The slope barrier should be placed on nearly level ground 5' to 10' away from the toe of a slope. The barrier is placed away from the toe of the slope to provide adequate storage for settling out sediment.
When practicable, bale slope barriers should be placed along contours to avoid a concentration of flow.
Bale slope barriers can also be placed along right-of-way fence lines to keep sediment from crossing onto adjacent property. When placed in this manner, the slope barrier will not likely follow contours.

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 4" deep and a bale's width wide. Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use.
Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the upslope side of the check and compact it. The compacted soil should be no more than 3" to 4" deep.

List of common placement/installation mistakes to avoid:

When practical, do not place bale slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. Concentrated flow over a slope barrier creates a scour hole on the downslope side of the barrier. The scour hole eventually undermines the bales and the barrier fails.
Do not place bale slope barriers in areas with shallow soils underlain by rock. If the barrier is not anchored sufficiently, it will wash out.
Bale slope barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale slope barriers should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Are there any points along the slope barrier where water is concentrating?
Does water flow under the slope barrier?
Does water flow through spaces between abutting bales?
Are any bales dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the slope barrier?

CITY OF WICHITA

SOIL EROSION BMPs

STRAW BALE DITCH CHECK AND BARRIER DETAILS

JIM ARMOUR, P.E.
CITY ENGINEER

PROJECT NUMBER	OCA NO.
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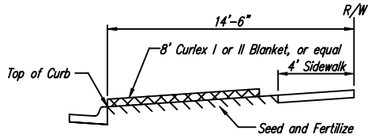
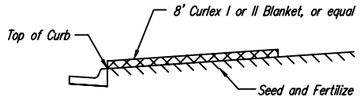
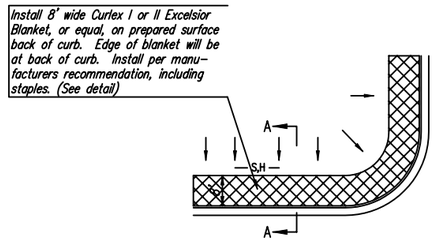


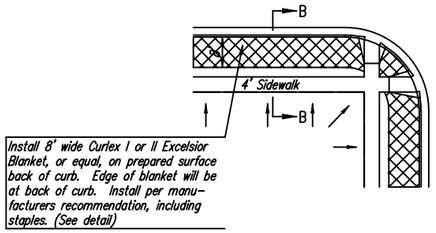
SECTION B–B



SECTION A–A



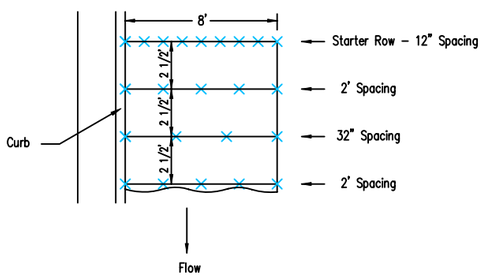
SOUTH STREET

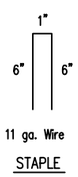


NOTES:

1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

BACK OF CURB PROTECTION DETAIL

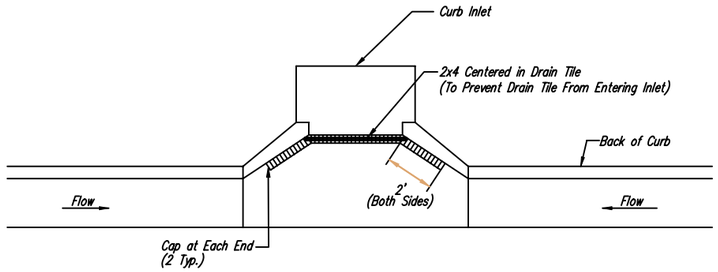




STAPLE PATTERN

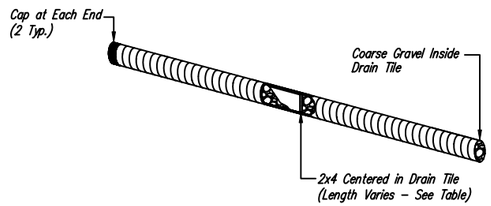
NOTES: Use 6" seam overlap

DETAILS FOR CURLEX I OR II BLANKETS

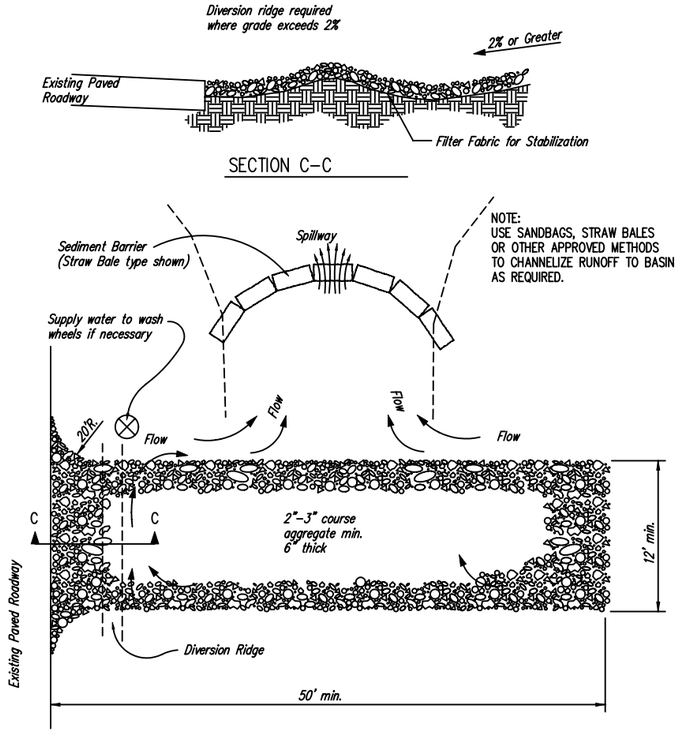


Note:
Place 4" perforated PVC pipe, filled with 1/2"–1" dia. gravel, in front of curb inlet as shown.

2X4 LENGTH	INLET TYPE	INLET OPENING
5'–6"	1–A	5'–0"
10'–6"	1–A	10'–0"
15'–6"	1–A	15'–0"



CURB INLET PROTECTION
4" PERFORATED PIPE W/ GRAVEL



STABILIZED CONSTRUCTION ENTRANCE

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

CITY OF WICHITA

SOIL EROSION BMPs

BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

JIM ARMOUR, P.E.
CITY ENGINEER

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