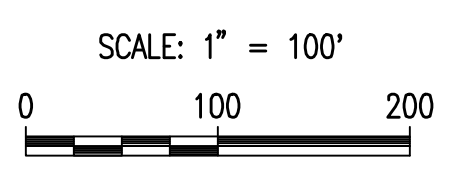
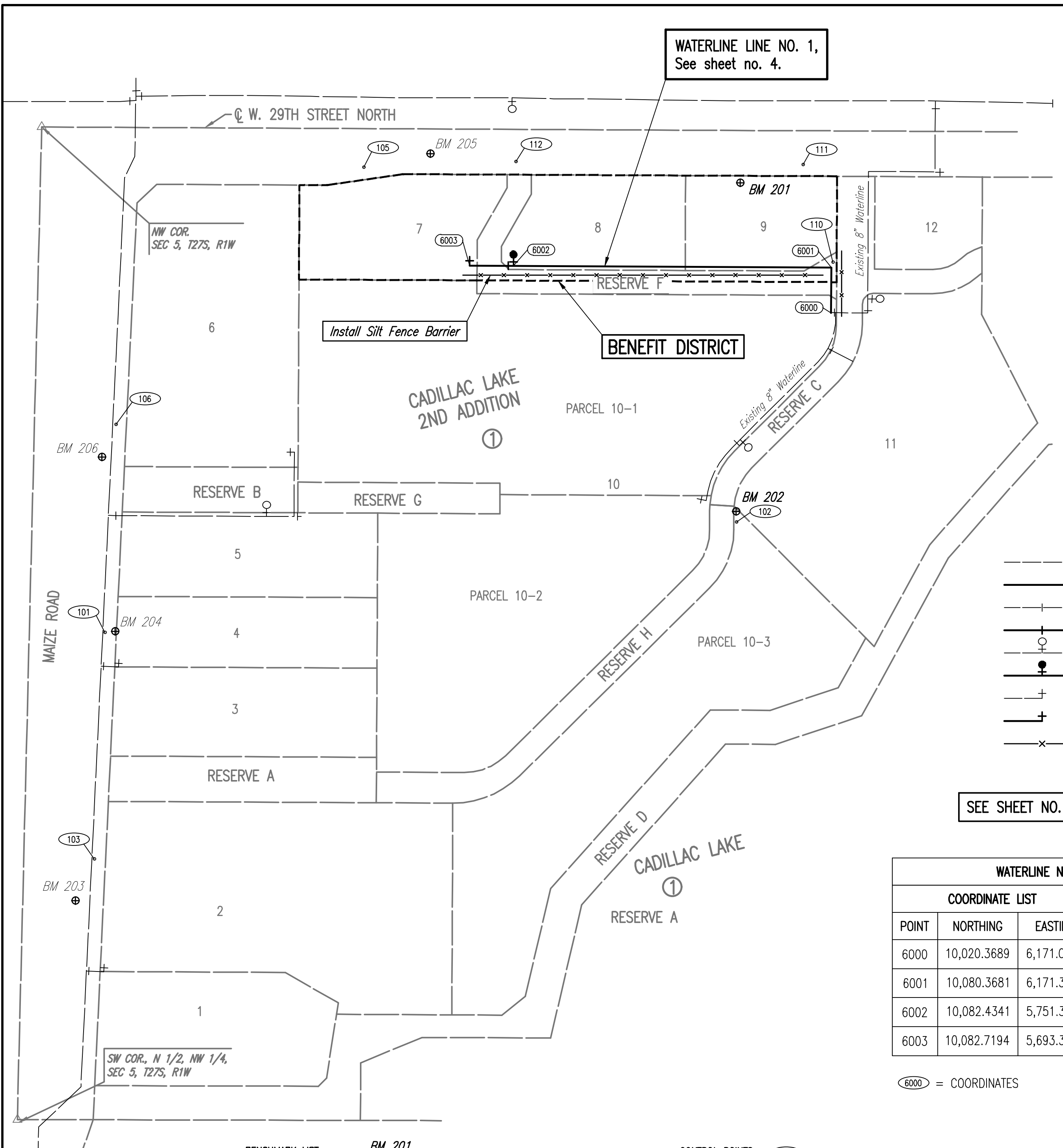


Served 02-22-2019 10:15:02 AM by KURTIS DEKAT
 Plot Scale 1:1 02-22-2019 10:35:42 AM by KURTIS DEKAT
 U:\Wichita-Civil\2018\180773\000\Drawings\180773-000-002-KEY MAP, BUBBLE MAP, AND GENERAL NOTES



LEGEND

- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- + EXISTING WATER VALVE
- + PROPOSED WATER VALVE
- + EXISTING FIRE HYDRANT
- + PROPOSED FIRE HYDRANT
- + EXISTING BLOW OFF
- + PROPOSED BLOW OFF
- x SILT FENCE BARRIER

SEE SHEET NO. 3 FOR PLAT COORDINATES.

WATERLINE NO. 1 COORDINATE LIST				
COORDINATE LIST				
POINT	NORTHING	EASTING	STATION	DESCRIPTION
6000	10,020.3689	6,171.0834	0+00.00	EXISTING VALVE/BEND
6001	10,080.3681	6,171.3786	0+60.00	BEND
6002	10,082.4341	5,751.3836	4+80.00	FIRE HYDRANT/VALVE
6003	10,082.7194	5,693.3844	5+38.00	BLOWOFF

6000 = COORDINATES

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT THEY WILL BE FULLY INFORMED OF THE EXISTING FIELD CONDITIONS AND THE OBSTACLES WHICH MIGHT BE ENCOUNTERED. UPON AWARD OF THE CONTRACT THE CONTRACTOR WILL NOT BE GRANTED ANY ADDITIONAL COMPENSATION WITH REGARDS TO TIME AND MONEY FOR CONDITIONS THAT MAY HAVE BEEN EVALUATED DURING ANY INSPECTION OF THE SITE.
- AT LEAST 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT 1-316-687-2470 OR 811 TO REQUEST THE LOCAL UTILITY COMPANIES TO LOCATE ANY EXISTING LINES WITHIN THE PROJECT AREA.
- THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

EMERGENCY DISPATCH	911
AT&T	800-246-8464
CITY OF WICHITA WATER & SEWER	316-219-8921
CITY OF WICHITA STORMWATER	316-268-4090
CITY OF WICHITA TRAFFIC	316-268-4034
BLACK HILLS ENERGY	800-694-8989
COX COMMUNICATIONS	888-249-3530
KANSAS GAS SERVICE	888-482-4950
WESTAR ENERGY	800-544-4857
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION AT THE CONTRACTORS EXPENSE.
- ALL ELEVATIONS SHOWN ARE NAVD88 DATUM. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL RE-ESTABLISH CONTROL POINTS AND BENCH MARKS AND VERIFY THEIR ACCURACY.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE DRAWINGS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLES MAY EXIST WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL HAVE ALL BURIED LINES LOCATED AND FLAGGED IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND REVIEW ALL BURIED LINES LOCATED TO DETERMINE IF CONFLICTS EXIST. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES. ANY LINES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY THEIR CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS. ALL COSTS FOR THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO "SITE RESTORATION".
- EASEMENTS AND RIGHT-OF-WAY PROVIDED BY THE OWNER FOR THE PROJECT ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION OF ANY ADDITIONAL TEMPORARY EASEMENTS OR RIGHT-OF-WAY DESIRED TO USE IN COMPLETING THE WORK.
- THE CONTRACTOR SHALL CONTAIN THEIR OPERATIONS TO PERMIT LOCAL AND EMERGENCY TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT ALL TIMES. INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA AND LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION. THE CONTRACTOR SHALL UTILIZE WARNING SIGNS, FLASHING LIGHTS, BARRICADES, AND FLAGMEN IN COMPLIANCE WITH LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) TO ENSURE SAFETY.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED, TREE TRIMMINGS, AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.
- THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE. THE COST FOR ANY NECESSARY TREE TRIMMING, CLEARING AND/OR GRUBBING SHALL BE SUBSIDIARY TO "SITE CLEARING". FULL TREE REMOVAL SHALL BE NOTED ON THE PLANS AND SHALL BE BID AS "TREE REMOVED, LARGE", "TREE REMOVED, SMALL", OR "TREE ROW REMOVED".
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, AND BANKS TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE. WHERE EXISTING ENTRANCE PIPE, DRAINAGE PIPE, SIGNS, FENCES, IRRIGATION, LANDSCAPING, ETC., CONFLICT WITH THE PROPOSED WORK HEREIN, THEY SHALL BE REMOVED AND REPLACED OR RESET, UNLESS OTHERWISE NOTED ON THE DRAWINGS. THE REPLACEMENT OF ALL THE AFOREMENTIONED ITEMS, INCLUDING SEEDING, FERTILIZER, AND MULCHING SHALL BE CONSIDERED SUBSIDIARY TO "SITE RESTORATION".
- THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS SPECIFIED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL THROUGH THE COMPLETION OF THIS PROJECT. INSTALLATION OF THESE EROSION CONTROL DEVICES DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION. THE FOLLOWING QUANTITIES ARE ESTIMATED, AND SHOULD BE CONSIDERED THE MINIMUM EFFORT REQUIRED.

SILT FENCE BARRIER	480 L.F.
CONSTRUCTION ENTRANCE	1 EACH
- THE CONTRACTOR SHALL TAKE CARE TO PREVENT SILT AND DEBRIS FROM ENTERING ANY STORM DRAINAGE SYSTEM DURING CONSTRUCTION. PIPES OR STRUCTURES WHICH CONTAIN MATERIALS FROM THE CONTRACTORS ACTIVITIES SHALL BE THOROUGHLY CLEANED BY THE CONTRACTOR, AT THEIR OWN EXPENSE, PRIOR TO THE FINAL INSPECTION.
- ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS/SOD AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, SEEDING, MULCHING, AND/OR RE-SEEDING. ALL SEEDING/SODDING WORK SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. AR6.5 WHICH GOVERNS CLEANUP AND RESTORATION OR REPLACEMENT FOLLOWING CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO "SITE RESTORATION".
- THE CONTRACTOR SHALL SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH TEMPORARY RYE GRASS. RYE GRASS SEED SHALL BE PLANTED AT A MINIMUM RATE OF SIX (6) POUNDS PER ONE THOUSAND (1,000) SQUARE FEET. THIS TEMPORARY SEEDING MAY BE OMITTED ONLY IF PERMANENT SEEDING/SODDING IS APPLIED. TEMPORARY SEEDING OR PERMANENT SEEDING/SODDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED. ALL COSTS FOR TEMPORARY RYE GRASS SEEDING SHALL BE CONSIDERED SUBSIDIARY TO "SITE RESTORATION".
- THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION, TYPE, SIZE AND CLASS OF EXISTING WATERLINES PRIOR TO MAKING CONNECTIONS. EXISTING WATERLINE LOCATIONS AS SHOWN ON THE DRAWINGS ARE APPROXIMATE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED. PROVISION AND INSTALLATION OF PIPE ADAPTORS, SHORT SECTION OF PIPE, AND COUPLERS SHALL BE SUBSIDIARY TO THE PRICE BID FOR PIPE IN PLACE.
- THE CONTRACTOR MUST SCHEDULE THE CONNECTIONS TO THE EXISTING WATER MAINS WITH THE CITY SUCH THAT THERE IS MINIMUM DISRUPTION TO THE CITY.
- CONTRACTOR SHALL PROVIDE MATERIALS AS NECESSARY FOR TEMPORARY BLOW OFF OF WATERLINE FOR CONNECTIONS TO THE EXISTING WATERLINE. WATERLINE MATERIALS AT TIE-INS SHALL BE CONSTRUCTED WITH CLEAN, SWABBED PIPE AND FLUSHED UPON COMPLETION OF TIE-INS.
- WATERLINES SHALL HAVE A MINIMUM DEPTH OF BURY OF 42 INCHES, UNLESS SHOWN OTHERWISE.
- ALL TRENCHING AND BACKFILLING SHALL BE TYPE I OR III UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- FIRE HYDRANT BURY DEPTHS ARE BASED ON THE TOP ELEVATION OF THE PROPOSED WATER MAIN AND THE APPROXIMATE GROUND ELEVATION AT THE LOCATION OF THE FIRE HYDRANT. THE CONTRACTOR SHALL VERIFY THESE ELEVATIONS PRIOR TO INSTALLING FIRE HYDRANTS. ANY MODIFICATIONS REQUIRED TO THE FIRE HYDRANT BURY DEPTH DUE TO THE CONTRACTOR'S FIELD ADJUSTMENTS TO THE WATER MAIN PROFILE SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY. PROPOSED ADJUSTMENTS MUST BE APPROVED BY THE RESIDENT INSPECTOR PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL NOT BURY VALVE BOXES OR FIRE HYDRANTS THAT HAVE ELEVATIONS WHICH ARE LOWER THAN EXISTING GROUND. AS DIRECTED BY THE ENGINEER THE CONTRACTOR SHALL ADJUST VALVE BOXES AND FIRE HYDRANTS TO MATCH EXISTING GROUND OR PROVIDE DRAINAGE AWAY FROM THESE VALVE BOXES AND FIRE HYDRANTS BY SLOPING THE GROUND AS REQUIRED. ALL COSTS FOR THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE INSTALLED BID PRICE FOR VALVES, OR FIRE HYDRANTS.
- THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL VALVE BOX COVERS.
- THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- 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.
- NO SERVICES WILL BE INSTALLED AS PART OF THIS PROJECT.
- CONCRETE THRUST BLOCKING SHALL BE INSTALLED AT ALL HORIZONTAL AND VERTICAL DEFLECTIONS OF 11 1/4 DEGREES OR MORE. THRUST BLOCKING SHALL BE SIZED AS SHOWN IN THE DETAILS. COSTS FOR CONCRETE THRUST BLOCKING SHALL BE CONSIDERED SUBSIDIARY TO THE UNIT PRICE FOR PIPE IN PLACE.
- THE CONTRACTOR SHALL INSTALL TRACER WIRE AND TEST STATIONS ALONG THE ENTIRE ROUTE OF THE PROPOSED WATERLINE AS SHOWN AND REQUIRED IN THE "TRACER WIRE DETAIL" ON THE WATERLINE DETAILS SHEET. ALL COSTS ASSOCIATED WITH THE TRACER WIRE AND TEST STATIONS INCLUDING LABOR, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE CONSIDERED SUBSIDIARY TO PIPE INSTALLATION.

- BENCHMARK LIST**
- BM-201 - SQUARE CUT ON TOP OF THE RETAINING WALL AT THE SOUTHEAST CORNER OF THE CONCRETE PAD FOR THE ELECTRIC TRANSFORMER #10105 ON THE SOUTH SIDE OF 29TH ST N AND 800 FT EAST OF THE BIKE PATH ON THE EAST SIDE OF N MAIZE RD. ELEV.= 1352.00 NAVD88
 - BM-202 - SQUARE CUT ON THE NORTHEAST CORNER OF THE CURB INLET LID ON THE EAST SIDE OF THE STREET, SOUTHWEST OF THE HAMPTON INN. ELEV.= 1350.72 NAVD88
 - BM-203 - SQUARE CUT ON THE NORTHEAST CORNER OF THE HEADWALL, SOUTH OF THE 2ND DRIVE SOUTH OF 29TH ST. N, ALONG N. MAIZE RD. ELEV.= 1350.84 NAVD88
 - BM-204 - "X" CUT ON THE NORTH RIM OF THE TELEPHONE DUCT BANK MANHOLE, BETWEEN THE 2 DRIVES TO THE EAST, SOUTH OF 29TH ST. N ALONG N MAIZE RD. ELEV.= 1350.51 NAVD88
 - BM-205 - SQUARE CUT ON THE TOP OF CURB, EAST OF THE CURB INLET WEST OF THE MAIN ENTRANCE TO SAM'S CLUB ALONG 29TH ST. N ELEV.= 1351.65 NAVD88
 - BM-206 - SQUARE CUT ON THE SOUTHEAST CORNER OF THE HEADWALL OF THE DITCH CULVERT ON THE NORTH SIDE OF THE 1ST DRIVE SOUTH OF 29TH ST. N ALONG N MAIZE RD. ELEV.= 1351.35 NAVD88

- CONTROL POINTS**
- CP-101
N- 9597.50, E- 5211.69
PK NAIL IN THE WEST EDGE OF ASPHALT BIKE PATH.
1. 13.7' E TO THE TELEPHONE DUCT BANK MANHOLE.
2. 17.9' ENE TO THE NORTHEAST CORNER OF THE EAST WINGWALL.
 - CP-102
N- 9744.04, E- 6045.69
1/2" REBAR WITH PEC CONTROL CAP SET FLUSH WITH GROUND, SOUTHWEST OF THE HAMPTON INN.
1. 3.0' SW TO THE EAST BACK OF CURB.
2. 2.4' NE TO THE WEST SIDE OF THE SIDEWALK.
3. 2.6' NW TO THE SOUTHEAST CORNER OF THE CURB INLET LID.
 - CP-103
N- 9298.28, E- 5197.55
PK NAIL IN THE WEST EDGE OF ASPHALT BIKE PATH.
1. 106.2' N TO CENTERLINE OF 1ST DRIVE SOUTH OF 29TH ST.
2. 60.7' SSW TO BMK-203.
 - CP-105
N- 10212.77, E- 5553.69
1/2" REBAR, SOUTH OF SIDEWALK ALONG SOUTH SIDE OF 29TH ST.
1. 20.4' TO SOUTH BACK OF CURB ALONG 29TH ST.
2. 65.5' W TO THE CENTERLINE OF DRIVE TO SOUTH.

- CP-106
N- 9872.87, E- 5225.98
MAG NAIL IN THE WEST EDGE OF ASPHALT BILE PATH.
1. 64.9' S TO NORTH EDGE OF DRIVE.
2. 47.4' SSW TO BMK-206.
- CP-110
N- 10087.00, E- 6173.40
1/2" REBAR WITH PEC CONTROL CAP SET FLUSH WITH THE GROUND.
1. 24.0' E TO THE CENTERLINE OF THE NORTH-SOUTH STREET.
2. 26.3' S TO THE CENTERLINE OF THE DRIVE TO THE WEST.
3. 57.65' NNE TO THE CENTER OF THE LIGHT POLE.
- CP-111
N- 10216.37, E- 6133.99
MAG NAIL IN SIDEWALK JOINT.
1. 13.7' N TO THE SOUTH BACK OF CURB ALONG 29TH ST.
2. 70.1' E TO THE CENTERLINE OF THE NORTH-SOUTH STREET.
- CP-112
N- 10219.88, E- 5754.72
MAG NAIL IN SIDEWALK JOINT.
1. 13.4' W TO CENTERLINE OF THE DRIVE.
2. 12.0' N TO THE SOUTH BACK OF CURB ALONG 29TH ST.

	Revision	By	Date
	WATER DISTRIBUTION SYSTEM IMPROVEMENTS CADILLAC LAKE 2ND ADDITION - PHASE 2		
	KEY MAP, BUBBLE MAP, AND GENERAL NOTES		
	GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 448-90833		
		PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com	
Designed by	JAG	Job No.	35-180773-0-42
Drawn by	CSL	Date	DECEMBER 2019
			Sht. 2 of 13