

- CONTROL POINTS**
- Pt. No. 101
N: 1,691,870.5767, E: 1,691,974.8395
60d Nail in concrete joint.
1. 3.0' W. to back of curb.
- Pt. No. 102
N: 1,692,091.3169, E: 1,691,886.6446
60d Nail in concrete joint.
1. 5.0' NNW. to curb end.
2. 36.0' N. to Southwest corner of Cooler Pit.
3. 38' NE. to Southeast corner of Cooler Pit.
- Pt. No. 103
N: 1,692,045.0274, E: 1,692,040.1378
60d Nail in concrete joint.
1. 1.35' W. to back of curb.
2. 101' SW. to Northeast corner steel pool fence.
3. 85.3 SSW. to light on concrete base.
- Pt. No. 104
N: 1,692,229.9472, E: 1,694,211.0705
PK Nail
1. 10.90' E. to masonry wall.
2. 39.80' SSW. to Northeast corner Maintenance Building.
3. 21.60' NNW. to Southwest corner fuel tank.
- Pt. No. 105
N: 1,692,248.2586, E: 1,694,079.4640
PK Nail
1. 70.20' SSE. to Northwest corner Washout Area.
2. 53.70' ENE. to Southwest corner Restrooms.
- Pt. No. 106
N: 1,692,429.5228, E: 1,694,000.9277
PK Nail
1. 10.20' W. to East end curb.
2. 64.70' SE. to top center of well.
3. 51.50' N. to center of triple 6" Elm's.

- BENCHMARK LIST**
- BM #1 - CHISELED SQUARE ON TOP OF NORTH SIDE 24" CONCRETE LIGHT BASE LOCATED 50 FEET EAST OF NORTHEAST CORNER OF SWIMMING POOL
ELEV. = 1371.64 (NAVD 88)
- BM #2 - CHISELED SQUARE ON NORTHEAST CORNER WATER VAULT AT KITCHEN ENTRANCE.
ELEV. = 1373.03 (NAVD 88)
- BM #3 - CHISELED SQUARE SOUTHWEST CORNER OF CONCRETE PAD FOR FUEL TANKS, NORTHEAST OF MAINTENANCE BUILDING.
ELEV. = 1338.88 (NAVD 88)
- BM #4 - CHISELED SQUARE WEST SIDE OF CONCRETE BASE FOR WATER WELL.
ELEV. = 1338.00 (NAVD 88)



CONTRACTOR SHALL PROVIDE AN ALTERNATE BID TO REPLACE THE EXISTING HYDRANT
HYDRANT REPLACED (US PIPE 4 1/2 M-94) Metropolitan 10" Waterline

GENERAL NOTES

- ALL ELEVATIONS SHOWN ARE NAVD 88 DATUM.
- ALL WATER MAINS AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF WICHITA, KANSAS STANDARD SPECIFICATIONS.
- 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 (800) 344-7233 TO REQUEST THE LOCAL UTILITY COMPANIES TO LOCATE ANY EXISTING LINES WITHIN THE PROJECT AREA.
- THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION TO ADVISE THEM OF THE INTENDED WORK AND OF HIS PROPOSED SCHEDULE:

MR. CHAD STEARNS, GOLF COURSE SUPERINTENDENT,
316-733-1874 OR BY EMAIL @ CSTEARNIS@CRESTVIEWCOUNTRYCLUB.COM
- THE BURIED UTILITIES AS LOCATED ON THE PLANS ARE APPROXIMATE LOCATIONS ONLY. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLES MAY EXIST WHICH ARE NOT SHOWN ON THESE PLANS. 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 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.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL NOT BURY VALVE BOXES OR FIRE HYDRANTS THAT HAVE ELEVATIONS WHICH ARE LOWER THAN EXISTING GROUND. THE GROUND AROUND SUCH VALVE BOXES OR FIRE HYDRANTS AND ALONG THE WATERLINE ALIGNMENT SHALL BE BACKFILLED TO THE APPROXIMATE ELEVATION OF THE PROPOSED TOP OF CURB ELEVATION SHOWN ON THE PLAN/PROFILE SHEETS. THE CONTRACTOR SHALL PROVIDE DRAINAGE AWAY FROM THESE VALVE BOXES, FIRE HYDRANTS AND WATERLINES BY CONSTRUCTION OF TEMPORARY DITCHES OR SLOPING THE GROUND AS REQUIRED. ALL COSTS FOR THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE INSTALLED BID PRICE FOR VALVES, FIRE HYDRANTS, OR PIPE.

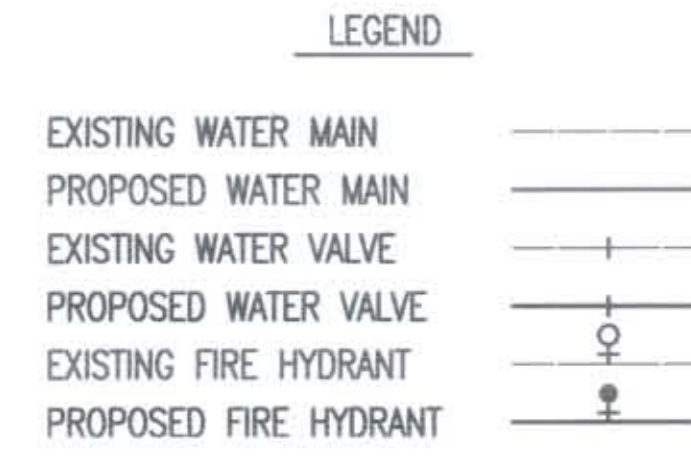
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS. PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL FLAG AND REFERENCE ALL PROPERTY CORNERS THAT MAY BE DISTURBED BY CONSTRUCTION OPERATIONS, AND VERIFY THESE IN THE FIELD IN THE PRESENCE OF THE ENGINEER AND THE CONTRACTOR'S SURVEYOR. AFTER CONSTRUCTION AND BEFORE THE FINAL INSPECTION, A LETTER SIGNED AND SEALED BY THE LICENSED LAND SURVEYOR CERTIFYING REPLACEMENT OF ALL DISTURBED PROPERTY CORNERS SHALL BE SUBMITTED TO THE ENGINEER.
- 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 PLANS 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 COUNTRY CLUB SUCH THAT THERE IS A MINIMUM OF DISRUPTION TO THE COUNTRY CLUB.
- 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 RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, AND BANKS TO THEIR ORIGINAL SLOPES AND GRADES. WHERE EXISTING ENTRANCE PIPE, DRAINAGE PIPE, SIGNS, FENCES, ETC., CONFLICT WITH THE PROPOSED WORK HEREIN, THEY SHALL BE REMOVED AND REPLACED OR RESET, UNLESS OTHERWISE NOTED ON THE PLANS. THE REPLACEMENT OF ALL THE AFOREMENTIONED ITEMS, INCLUDING SEEDING, FERTILIZER, AND MULCHING SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND RESTORATION".

- THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. WHERE THE CONTRACTOR BELIEVES THE REMOVAL OR TRIMMING IS UNAVOIDABLE, HE SHALL COORDINATE SUCH WORK WITH THE ENGINEER. COSTS FOR TREE/SHRUB REMOVAL AND TRIMMING REGARDLESS OF SIZE SHALL BE CONSIDERED SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE CLEARING AND RESTORATION".
- ALL GRASSED AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE REPLANTED WITH GRASS AND FERTILIZED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. EXISTING GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLANTED WITH THE SAME TYPE OF GRASS AS WAS REMOVED. PASTURES AND NATIVE GRASSED AREAS SHALL BE RESEEDING IN ACCORDANCE WITH THE CRITERIA SHOWN BELOW:

NATIVE GRASS MIX:
BIG BLUESTEM - 8 LBS/ACRE
BROME GRASS - 8 LBS/ACRE
SWITCH GRASS - 3 LBS/ACRE
WESTERN WHEATGRASS - 8 LBS/ACRE
INDIAN GRASS - 8 LBS/ACRE
LITTLE BLUESTEM - 5 LBS/ACRE
SIDE OATS GRAMA - 5 LBS/ACRE
TOTAL = 45 LBS/ACRE
SEED APPLICATION = 1 LB/1,000 SQ. FT.
FERTILIZER APPLICATION (N-P-K) = 12-24-12
MULCH = PRAIRIE HAY
MULCH APPLICATION = 90 LBS/1,000 SQ. FT.

ALL COSTS FOR SEEDING AND FERTILIZING SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND 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 OTHER SEEDING IS REQUIRED IN ACCORDANCE WITH GENERAL NOTE NO. 16 ABOVE. 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 CLEARING AND RESTORATION".
- WATERLINES SHALL HAVE A MINIMUM DEPTH OF BURY OF 42 INCHES, UNLESS SHOWN OTHERWISE.
- THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL VALVE BOX COVERS.
- 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 CONTRACTOR'S ACTIVITIES SHALL BE THOROUGHLY CLEANED BY THE CONTRACTOR, AT HIS OWN EXPENSE, PRIOR TO THE FINAL INSPECTION.

- 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 PLANS ARE APPROXIMATE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED AND APPROVED BY THE ENGINEER. PROVISION AND INSTALLATION OF PIPE ADAPTORS, SHORT SECTIONS OF PIPE, AND COUPLERS SHALL BE SUBSIDIARY TO OTHER PAY ITEMS OF WORK.
- THE CONTRACTOR SHALL CONTAIN HIS OPERATIONS TO PERMIT LOCAL AND EMERGENCY TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT ALL TIMES. THE CONTRACTOR SHALL ERRECT WARNING SIGNS, FLASHING LIGHTS, AND BARRICADES IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) TO ENSURE SAFETY AS DIRECTED IN THE GENERAL CONDITIONS. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- 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 CONTRACTOR'S EXPENSE.
- FIRE HYDRANT BURY DEPTHS ARE BASED ON THE TOP ELEVATION OF THE PROPOSED WATER MAIN AND THE APPROXIMATE PROPOSED 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.
- EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT HE WILL BE FULLY INFORMED OF THE EXISTING FIELD CONDITIONS AND THE OBSTACLES WHICH MIGHT BE ENCOUNTERED. UPON AWARD OF THE CONTRACT THE CONTRACTOR WILL NOT BE GRANTED ANY ADDITIONAL COMPENSATION WITH REGARDS TO TIME AND MONEY FOR CONDITIONS THAT MAY HAVE BEEN EVALUATED DURING ANY INSPECTION OF THE SITE.
- THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS DETAILED. THE GENERAL LOCATION OF THE REQUIRED EROSION CONTROL IS ILLUSTRATED ON THE PROJECT KEY MAP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION CONTROL SHOWN THROUGH THE COMPLETION OF THIS PROJECT. INSTALLATION OF THESE EROSION CONTROL DEVICES DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL RE-ESTABLISH CONTROL POINTS AND BENCH MARKS AND VERIFY THEIR ACCURACY.



Saved: 05-15-2012 11:09:50 PM by RFT
 Plot Scale: 1"=100'-15-15-2012 11:20:02 PM by RFT
 C:\2012\12188\12188-02-Key Map and General Notes



No.	Revision	By	Date

CRESTVIEW COUNTRY CLUB
WATERLINE IMPROVEMENTS
KEY MAP AND GENERAL NOTES
 GARY JANZEN, P.E. - INTERIM CITY ENGINEER
 CITY OF WICHITA PRIVATE PROJECT NO. 1664 PPW (607853)

PEC
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 303 SOUTH TOPEKA WICHITA, KS 67202
 316-262-2691 www.pec1.com

Designed by	IDK/MDK	Job No.	35-12168-1720	Sht. 2 of 10
Drawn by	RFT	Date	APRIL 2012	