STRUCTURE TABLE				
STRUCTURE #	STRUCTURE TYPE	TOP OF CASTING	INVERT OUT (+) INVERT IN	
S51	S604-1	1164.18	1157.07	1157.27 (S52)
S52	S604-1	1165.82	1163.46	1163.66 (S52) 1163.26 (S53)
S53	S604-1	1172.20	1166.06	1166.10 (S54)
S54	S604-1	1178.00	1170.65	
S55	S604-1	1172.54	1164.00	1164.10 (S56)
S56	S604-1	1170.61	1164.99	1164.99 (S57)
S57	S604-1	1170.40	1166.06	1166.16 (S58)
S58	S604-1 (SV INSIDE DROP)	1170.40	1166.16	1172.14 (S59)
S59	S604-1	1170.11	1173.27	1173.47 (S510)
S510	S604-1	1178.00	1174.18	

Sewer
Tested from MH 2 to MH 5. It passed
Tested from MH 5 to MH 6. It passed
Tested from MH 6 to MH 7 It passed
Tested from MH 7 to MH 8. It passed
Tested from MH 2 to 3 - It passed
Tested from MH 3 to MH 4. It passed
All manholes passed

Tested 12" water main from 12" tap to where it ties in with the 8". 9/27/10
Ken told the rest of 12" water line Dy. Passed - 8/23/10

UTILITY LEGEND

AREA OUTLINED AS PHASE II CONSTRUCTION SHALL BE MASS GRADED TO FINAL GRADE AS SHOWN. STUB UTILITIES TO 5 L.F. BEYOND PROPERTY LINE AND PLUG. IF NO VALVES ARE PRESENT WITHIN 10 FEET OF END OF WATER OR IRRIGATION LINE GATE VALVE SHALL BE PLACED AND CLOSED FOR FUTURE TIE IN. AREA MUST BE PERMANENTLY STABILIZED WITH FULL E&S MEASURES PER SEDIMENT AND EROSION CONTROL PLAN.

(A) 6" SANITARY SEWER LATERAL AT MINIMUM 1.00% SLOPE. COORDINATE WITH ARCHITECTURAL PLANS.

(B) GAS ENTRY WITH GAS METER AT BUILDING. CONTRACTOR RESPONSIBLE FOR INSTALLING PIPE BOLLARD PROTECTION AT METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYING OF INDIVIDUAL METER.

(C) CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH GAS COMPANY REGARDING THE SIZE AND INSTALLATION OF GAS SERVICE LINE.

(D) UNDERGROUND ELECTRIC SERVICE FROM POLE TO BUILDING, CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BEDDING, CONDUIT, CABLES, PULL WIRES, SECONDARY CONDUCTORS, TRACE TAPE, BACKFILL, ETC., WHICH MAY BE REQUIRED BY ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH POWER COMPANIES. THE CONTRACTOR IN CONJUNCTION WITH THE UTILITY COMPANIES SHALL DETERMINE THE AMOUNT OF UTILITY LINE HE IS TO PROVIDE OUTSIDE THE UTILITY COMPANY'S ALLOWANCE.

(E) PROPOSED LOCATION OF TRANSFORMER PAD. CONTRACTOR TO VERIFY EXACT LOCATION AND SIZE WITH POWER COMPANY PRIOR TO INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD, CONDUIT AND PIPE BOLLARDS AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE ELECTRIC COMPANY.

(F) UNDERGROUND TELEPHONE FROM POLE TO BUILDING TO BE EXTENDED BY TELEPHONE COMPANY. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TRENCHING, BEDDING, CONDUIT, PULL WIRES, TRACE TAPE, BACKFILL, ETC., WHICH MAY BE REQUIRED BY TELEPHONE COMPANY. CONTRACTOR SHALL COORDINATE WITH TELEPHONE COMPANY FOR SAID WORK. PROVIDE CONDUITS AS SHOWN.

(G) CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE UTILITY COMPANIES FOR THE INSTALLATION OF OVERHEAD/UNDERGROUND ELECTRIC AND TELEPHONE LINES TYPICAL. CONTRACTOR SHALL COORDINATE THE TYING OF INDIVIDUAL METER WITH THE ELECTRIC COMPANY. SEE NOTE D, E, & F FOR ADDITIONAL NOTES PERTAINING TO ELECTRIC AND TELEPHONE LINES.

(H) DOMESTIC WATERLINE ENTRY WITH METER PER LOCAL WATER COMPANY REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE IN SIDE BLDG. SUCH AS BACKFLOW PREVENTION DEVICES, GATE VALVES, ETC., WHICH MAY BE REQUIRED TO COORDINATE WITH WATER COMPANY.

(I) SPRINKLER ENTRY. CONTRACTOR SHALL BE REQUIRED TO INSTALL ANY APPURTENANCES ON THE SPRINKLER LINE SUCH AS, BUT NOT LIMITED TO, A DOUBLE DETECTOR CHECK BACKFLOW PREVENTION DEVICE, IN SERIES WITH A CHECK VALVE, GATE VALVES, ETC., MEETING WATER COMPANY SPECIFICATIONS. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS.

(J) PROPOSED FIRE HYDRANT, AND ASSEMBLY, TYPICAL AS INDICATED. CONTRACTOR TO PROVIDE PIPE BOLLARD PROTECTION WHEN FIRE HYDRANT IS LOCATED IN PAVED AREA OR WHERE SHOWN. ALL HYDRANTS SHALL BE SUPPLIED BY A MINIMUM 8" WATER LINE.

(K) CONDUIT FOR FIBER POLE MOUNTED SECURITY CAMERAS:
A PULL BOX SHALL BE LOCATED WITHIN THE SIDEWALK AREA OR AS CLOSE TO THE BUILDING AS POSSIBLE. THE CONDUIT FROM THE BUILDING TO THE FIRST PULL BOX SHALL BE 3" DIAMETER CARLON TYPE "DB" DIRECT BURIAL TELEPHONE DUCT OR 3" SCHEDULE 40 PVC. INSTALL GALVANIZED PULL WIRE OR PURPLE PROPYLPOLYETHYLENE ROPE WITH A MINIMUM PULLING TENSION OF 100 POUNDS. THE MINIMUM BURIAL DEPTH SHALL BE 24". INSTALL AN ORANGE DETECTABLE HAZARD TAPE WITH INTEGRAL "BURIED CABLE" WORDING, 12" ABOVE CONDUIT. WHEN THE SECURITY CAMERA LIGHT POLES ARE LOCATED FURTHER THAN 400 FEET FROM THE FIRST PULL BOX, WHICH IS NEXT TO THE BUILDING, EXTEND THE 3" CONDUIT FROM THE FIRST PULL BOX TO A SECOND PULL BOX.

EACH SECURITY CAMERA LIGHT POLE SHALL HAVE A DEDICATED 2" CONDUIT FROM THE NEAREST PAVED AREA PULL BOX TO THE LIGHT POLE BASE JUNCTION BOX. THE CONDUIT SHALL BE CARLON TYPE "DB" DIRECT BURIAL TELEPHONE DUCT OR SCHEDULE 40 PVC. INSTALL GALVANIZED PULL WIRE OR PURPLE PROPYLPOLYETHYLENE ROPE WITH A MINIMUM PULLING TENSION OF 100 POUNDS. THE MINIMUM BURIAL DEPTH SHALL BE 24". INSTALL AN ORANGE DETECTABLE HAZARD TAPE WITH INTEGRAL "BURIED CABLE" WORDING, 12" ABOVE CONDUIT. THE 2" LP CAMERA CONDUIT SHALL BE SEPARATED FROM THE 480VAC LIGHT FIXTURE POWER BY A DIVIDER PLACED IN THE LIGHT POLE BASE JUNCTION BOX.

ALL CHANGES IN DIRECTION OF THE CONDUIT SHALL UTILIZE STANDARD SWEEPS WITH A MINIMUM BENDING RADIUS LISTED IN THE NEC. NO MORE THAN (2) 90-DEGREE BENDS WILL BE ALLOWED BETWEEN PULLING POINTS, OR A TOTAL OF 180 DEGREES COMBINED IN SEVERAL BENDS. PULL BOXES SHALL BE LOCATED EVERY 400 FEET UNLESS THE COMBINED TOTAL OF BENDS REQUIRES ADDITIONAL BOXES.

ALL PULL BOXES LOCATED IN PAVED AREAS SUBJECT TO TRUCK TRAFFIC SHALL BE "H-20" LOAD RATED. THE TYPICAL PULL BOX SIZE WILL BE 17" X 30" X 28" "QUAZITE" PG1730BA28 BOX WITH PG1730H00 LID, OR APPROVED EQUAL. DEEPER BOXES MAY BE REQUIRED WHEN THE CONDUIT ALIGNMENT IS AFFECTED BY OTHER UTILITIES. THE PULL BOX SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATION WITH A CONCRETE COLLAR AND A MINIMUM OF 8" OF GRAVEL COMPACTED PER PROJECT SPECIFICATIONS.

(L) UTILITY BOLLARD.

(M) CONTRACTOR SHALL CONTACT WESTERN VIRGINIA WATER AUTHORITY (WVWA) TO PAY ALL METER AND TAP FEES. AFTER TAP FEE'S ARE PAID TO WVWA, CONTRACTOR SHALL CALL CLEAR FLOW AT 540-942-3300 TO COORDINATE AND ORDER METER VAULT. VAULT COMES PRE-ASSEMBLED WITH METER AND BACKFLOW PREVENTER. CONTRACTOR SHALL INSTALL PRE-ASSEMBLED VAULT AND CONNECT TO PROPOSED WATERLINES ENTERING AND EXITING VAULT. THE CONTRACTOR SHALL PAY ALL FEE'S REQUIRED FOR THE DELIVERY AND INSTALLATION OF VAULT, METER, AND BACKFLOW PREVENTER.

(N) REMOTE FIRE DEPARTMENT CONNECTION (FDC).

PROPOSED UTILITY PLAN LEGEND

- UGE — ELETRICAL CONDUIT
- UGT — TELEPHONE CONDUIT
- SC — SECURITY CAMERA CONDUIT
- 8"SS — SANITARY SEWER PIPE
- 8"W — WATER MAIN PIPE
- 12"W — WATER MAIN PIPE
- 3"W — DOMESTIC WATER PIPING
- 2"W — IRRIGATION WATER PIPING
- GAS — GAS PIPE
- TS — TAMPER SWITCH CONDUIT
- IC — IRRIGATION CONTROLLER CONDUIT
- FDC — FIRE DEPARTMENT CONNECTION
- TAPPING SLEEVE & VALVE
- WATER VALVE
- FIRE HYDRANT
- THRUST BLOCK
- SANITARY SEWER MANHOLE
- POWER POLE
- GAS METER

REFER TO ROADWAY PLANS FOR EROSION CONTROL IN ROAD RIGHTS OF WAY.

IF YOU DIG IN VIRGINIA... CALL US FIRST! 811 OR 1-800-552-7001
THE CONTRACTOR OR HIS REPRESENTATIVE SHALL ENSURE HE HAS A VALID LOCATOR TICKET AT ALL TIMES.

UTILITY PLAN

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

APPROVED

NORTH

VICINITY MAP
N.T.S.

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REGIONAL ENGINEER

Project Title
Walmart SUPERCENTER #1301-02
© CLEARBROOK VILLAGE SHOPPING CENTER
ROANOKE COUNTY, VIRGINIA
BY: WAL-MART REAL ESTATE BUSINESS TRUST
BENTONVILLE, AR

REVISIONS	BY
ADDENDA 5 10/14/09	BGL
VDOT & COUNTY COMMENTS, CCD #1 10/27/09	BGL

DRAWN BY RD
CHECKED BY BGL
DATE 9/21/2009
SCALE 1"= 60'
JOB No. 08-203
SHEET NUMB