

TRAVERSE COORDINATES				
PNT.	NORTHING	EASTING	ELEV.	DESC.
5	N 3628428.3107	E 11065076.2338	952.16	IPS
7	N 3628562.1050	E 11065021.0590	947.49	PK SET
8	N 3628674.2423	E 11065013.8987	952.47	IPS
10	N 3628746.6320	E 11064982.6630	945.75	PK SET
11	N 3628518.9241	E 11064821.4174	944.27	BR. SPK
12	N 3628893.9640	E 11064716.1279	944.17	IPS
13	N 3628922.9769	E 11065035.6429	947.01	BR. SPK
14	N 3628496.1268	E 11064793.9660	929.48	PK NAIL
N 3628496.2888 E 11064793.1703				
REVISED MAY 19, 2005				

BENCH MARK TBM # 2  
CHISEL SQUARE ON TOP BACK CURB  
AT CORNER CURB INLET NEAR TS # 14  
ELEV.=930.45

WATERLINE AS-BUILT INFORMATION PROVIDED BY  
CALDWELL WHITE ASSOCIATES  
FIELD SURVEYED JANUARY 6, 2006

PROPOSED SANITARY SEWER SCHEDULE		PROPOSED STORM DRAIN SCHEDULE	
1 EXISTING SSMH RIM: 929.73 INV IN: 922.53	13 PROVIDE NEW SSMH RIM: 944.6 INV IN: 938.88 INV OUT: 938.78	L EXISTING SD STRUCTURE SEE UTILITY NOTE 2 RIM: 943.7 LINE 14' INV IN: 934.96	W EXISTING SD STRUCTURE SEE UTILITY NOTE 5 DI-7 INLET RIM: 943.75
2 PROVIDE 19" NEW 12" SDR-21 @ 5.0%	14 PROVIDE 46" NEW 12" SDR-21 @ 1.5%	M PROVIDE 105" NEW 24" CL-III RCP @ 1.0%	X PROVIDE 16" NEW 15" CL-III RCP @ 5.0%
3 PROVIDE NEW SSMH RIM: 930.4 INV IN: 923.58 INV OUT: 923.48	15 PROVIDE NEW SSMH RIM: 944.50 INV IN: 939.67 INV OUT: 939.57	N PROVIDE NEW VDOT STD 4' DIA STORM MANHOLE RIM: 945.6 LINE 0' INV IN: 932.28 LINE 1' INV IN: 937.58 LINE 2' INV IN: 936.40 INV OUT: 932.18	Y PROVIDE NEW VDOT STD DI-30 L=6', H=7' RIM: 944.8 INV OUT: 937.3
4 PROVIDE 104" NEW 12" SDR-21 @ 6.0%	16 PROVIDE 281" NEW 12" SDR-21 @ 2.81%	O PROVIDE 162" NEW 24" CL-III RCP @ 1.25%	Z PROVIDE NEW ADS 2715AG12N 15" INLINE DRAIN WITH DUCTILE IRON 120 RATED GRATE SEE TYPICAL INSTALLATION DETAIL 'J', SHEET C-8
5 PROVIDE NEW SSMH RIM: 935.5 INV IN: 929.92 INV OUT: 929.82	17 PROVIDE 76" NEW 12" SDR-21 @ 1.0%	P PROVIDE NEW VDOT STD 4' DIA STORM MANHOLE RIM: 945.2 INV IN: 938.64 INV OUT: 938.14	AA PROVIDE NEW VDOT STD. DI-7, TYPE B GRATE D=4.0' RIM: 942.5 INV OUT: 938.5
6 PROVIDE 77" NEW 12" SDR-21 @ 5.0%	18 PROVIDE NEW SSMH RIM: 944.75 INV IN: 938.61 INV OUT: 938.51	Q PROVIDE 43" NEW 18" CL-III RCP @ 1.20%	
7 PROVIDE NEW SSMH RIM: 939.90 INV IN: 933.87 INV OUT: 933.77	19 PROVIDE 38" NEW 12" SDR-21 @ 1.0%	R PROVIDE NEW VDOT STD 4' DIA STORM MANHOLE RIM: 945.2 INV IN: 939.26 INV OUT: 938.16	
8 PROVIDE 19" NEW 12" SDR-21 @ 1.0%	20 PROVIDE NEW SSMH RIM: 945.00 INV OUT: 938.99	S PROVIDE 95" NEW 18" CL-III RCP @ 1.06%	
9 PROVIDE NEW SSMH RIM: 944.1 INV IN: 935.37 INV OUT: 935.27	21 PROVIDE 38" NEW 12" SDR-21 @ 1.0%	T PROVIDE NEW VDOT STD 4' DIA STORM MANHOLE RIM: 946.25 INV IN: 940.36 INV OUT: 940.26	
10 PROVIDE 37" NEW 12" SDR-21 @ 1.0%	22 PROVIDE NEW SSMH RIM: 945.65 INV IN: 935.13 INV OUT: 935.03	U PROVIDE 75" NEW 15" CL-III RCP @ 1.05%	
11 PROVIDE NEW SSMH RIM: 944.1 INV IN LINE 12: 937.94 INV IN LINE 17: 937.75 INV OUT: 937.50	23 PROVIDE 11" NEW 12" SDR-21 @ 2.0%	V PROVIDE NEW VDOT STD 4' DIA STORM MANHOLE RIM: 946.30 INV OUT: 941.15	
12 PROVIDE 18" NEW 12" SDR-21 @ 4.7%	24 PROVIDE NEW SSMH RIM: 945.60 INV OUT: 935.35		

UTILITY NOTES

- EXISTING STRUCTURE IS CAST-IN-PLACE. CURB INLETS SHALL BE REMOVED FROM THE STRUCTURE BY SAW CUTTING. CONTRACTOR SHALL CONVERT STRUCTURE TO STANDARD STORM DRAIN MANHOLE BY USING ADAPTER SLAB AND VDOT STD. MH-1 FRAME AND COVER. CONTRACTOR SHALL FIELD VERIFY RIM ELEVATION OF NEW FRAME AND COVER PRIOR TO INSTALLATION. (SEE DETAIL 'F', SHEET C-8)
- EXISTING STRUCTURE IS CAST-IN-PLACE. EXISTING CURB INLET SHALL BE REMOVED FROM THE STRUCTURE BY SAW CUTTING. CONTRACTOR SHALL CONVERT STRUCTURE TO STANDARD STORM DRAIN MANHOLE BY USING ADAPTER SLAB AND VDOT STD. MH-1 FRAME AND COVER. CONTRACTOR SHALL FIELD VERIFY RIM ELEVATION OF NEW FRAME AND COVER PRIOR TO INSTALLATION. (SEE DETAIL 'F', SHEET C-8)
- EXISTING 18" PIPE TO BE REMOVED. NEW 24" CONC. STORM DRAIN PIPE TO BE INSTALLED AT SLOPE INDICATED AND TO ALL APPLICABLE STANDARDS.
- EXISTING CURB INLET AND STRUCTURE TO BE REMOVED. NEW 4" DIAMETER STORM DRAIN MANHOLE AND VDOT STD. MH-1 FRAME AND COVER TO BE INSTALLED. INVERT IN TO MATCH EXISTING.
- EXISTING STRUCTURE IS CAST-IN-PLACE. EXISTING CURB INLET SHALL BE REMOVED FROM THE STRUCTURE BY SAW CUTTING. CONTRACTOR SHALL CONVERT STRUCTURE TO STANDARD STORM DRAIN MANHOLE BY USING ADAPTER SLAB AND VDOT STD. DI-7. CONTRACTOR SHALL FIELD VERIFY RIM ELEVATION OF NEW FRAME AND COVER PRIOR TO INSTALLATION. (SEE DETAIL 'F', SHEET C-8)
- THE GENERAL CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE THE EXACT POINT OF NEW SERVICE CONNECTIONS. SEE ARCHITECTURAL BUILDING AND PLUMBING PLANS FOR SPECIFIC UTILITY SERVICE LOCATIONS AND SIZES.
- THE GENERAL CONTRACTOR SHALL CONTACT "MISS UTILITY" PRIOR TO BEGINNING CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL COORDINATE ALL UTILITY CONSTRUCTION WITH THE GRADING, PAVING AND CURBING CONTRACTORS AS REQUIRED TO MINIMIZE CONFLICTS.
- ALL STORM DRAINAGE AND SANITARY SEWER WORK SHALL HAVE RIGHT-OF-WAY OVER ALL ELECTRICAL, WATERLINE, GAS AND TELEPHONE CONSTRUCTION.
- FOR NATURAL GAS SERVICE THE GENERAL CONTRACTOR SHALL CONTACT ROANOKE GAS COMPANY, (540) 983-3800. ROANOKE GAS WILL PROVIDE AND INSTALL ALL SERVICE TAPS, LINES AND METERS TO THE BUILDING. CONTRACTOR SHALL EXTEND GAS SERVICE LINE FROM THE METER INTO THE BUILDING AS REQUIRED BY THE ARCHITECTURAL PLANS.
- CONTRACTOR SHALL COORDINATE AND FIELD VERIFY NEW RIM ELEVATIONS OF EXISTING SSMH'S WITH GRADING PLAN AND ARCHITECTURAL BUILDING PLANS.
- PIPE LENGTHS SHOWN ARE FROM INVERT IN TO INVERT OUT.

GENERAL SEWER NOTES

A MINIMUM COVER OF THREE (3) FEET IS REQUIRED OVER PROPOSED LINES. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND UNCOVERING ALL MANHOLES AFTER PAVING. MANHOLE TOPS SHALL BE ADJUSTED TO GRADE IF NECESSARY.

ALL EXISTING UTILITIES MAY NOT BE SHOWN, OR MAY NOT BE SHOWN IN THE EXACT LOCATION. THE CONTRACTOR SHALL COMPLY WITH STATE WATER WORKS REGULATIONS, SECTION 12.05.03, WHERE LINES CROSS.

ALL TRENCHES IN EXISTING OR FUTURE HIGHWAY RIGHT OF WAYS SHALL BE COMPACTED ACCORDING TO CITY OF ROANOKE STANDARDS.

LINES SHALL BE STAKED PRIOR TO CONSTRUCTION.

ALL MATERIALS AND METHODS OF CONSTRUCTION FOR NEW SANITARY SEWER PIPES AND STRUCTURES SHOWN ON THE PLANS SHALL BE IN CONFORMANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE WESTERN VIRGINIA WATER AUTHORITY.

**GENERAL WATER NOTES**

A MINIMUM COVER OF THREE (3) FEET IS REQUIRED OVER PROPOSED LINES. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND UNCOVERING VALVE VAULTS AFTER PAVING AND ADJUSTMENT TO FINAL GRADE IF NECESSARY.

ALL EXISTING UTILITIES MAY NOT BE SHOWN, OR MAY NOT BE SHOWN IN THE EXACT LOCATION. THE CONTRACTOR SHALL COMPLY WITH STATE WATER WORKS REGULATIONS, SECTION 12.05.03, WHERE LINES CROSS.

ALL TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH THE CITY OF ROANOKE "RIGHT-OF-WAY EXCAVATION AND RESTORATION STANDARDS", LATEST EDITION. STANDARDS MAY BE OBTAINED FROM THE CITY OF ROANOKE ENGINEERING OFFICE, (540) 853-2856.

ALL NEW CONNECTIONS TO EXISTING MAINS SHALL BE MADE BY THE WESTERN VIRGINIA WATER AUTHORITY.

LINES SHALL BE STAKED PRIOR TO CONSTRUCTION.

WATER MAIN SHALL BE MINIMUM CLASS 52 DUCTILE IRON IN ACCORDANCE TO AWWA C151.

ALL MATERIALS AND METHODS OF CONSTRUCTION FOR NEW WATER LINES AND APPURTENANCES SHOWN ON THE PLANS SHALL BE IN CONFORMANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE WESTERN VIRGINIA WATER AUTHORITY.

**MAINTENANCE OF TRAFFIC**

CONSTRUCTION OF SANITARY SEWER STRUCTURES 2 THROUGH 11 SHALL BE COORDINATED WITH THE ROANOKE CIVIC CENTER STAFF TO MINIMIZE, TO THE GREATEST EXTENT POSSIBLE, THE IMPACTS TO TRAFFIC FLOW INTO AND OUT OF THE EXISTING CIVIC CENTER PARKING LOT.

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ROSSER INTERNATIONAL, INC.  
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Atlanta, Georgia 30308 0880

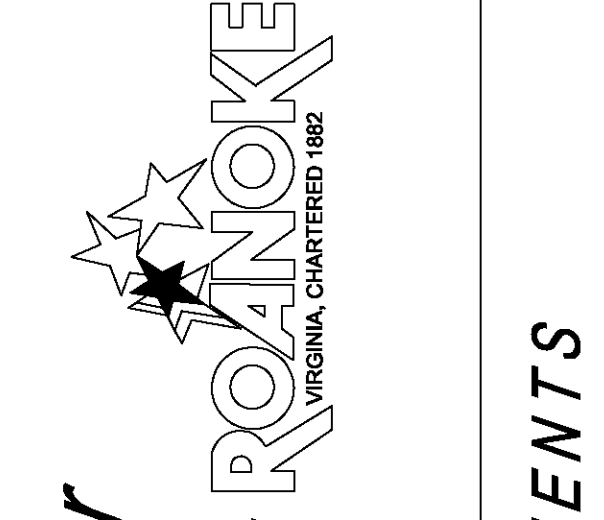
CONSULTANTS

**CWA**  
**CALDWELL WHITE ASSOCIATES**

ENGINEERS / SURVEYORS / PLANNERS

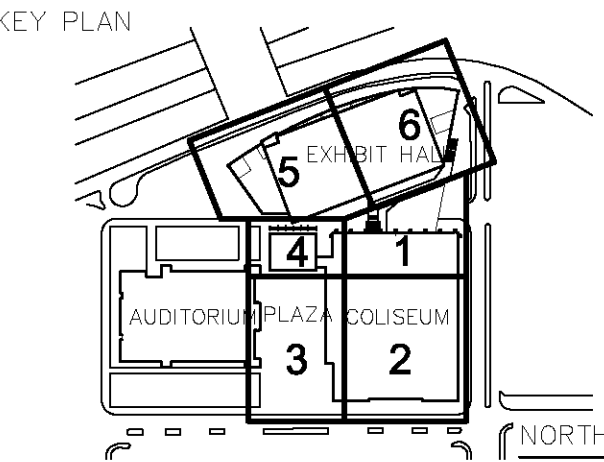
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STAMP



Roanoke Civic Center  
Expansion and  
Renovation - Phase II

CONSTRUCTION DOCUMENTS



PRINTING AND REVISIONS	
12/31/03	PRELIMINARY DESIGN
6/21/04	65% CONSTRUCTION DOCUMENTS
8/09/04	95% CONSTRUCTION DOCUMENTS
10/21/04	100% CONSTRUCTION DOCUMENTS
01/23/06	WATERLINE AS-BUILTS

MARK	DATE	DESCRIPTION
ROSSER PROJECT NUMBER	02070.00...	
DRAWN BY		
CHECKED BY		
DATE RELEASED FOR CONSTRUCTION	10/21/04	
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CADD SHEET FILE NAME	D:\Drawings\03-031 Roanoke Civic Center Expansion\cadd\cadd.dwg	
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UTILITY LAYOUT		
SHEET NUMBER		
C-4		
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OF		

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