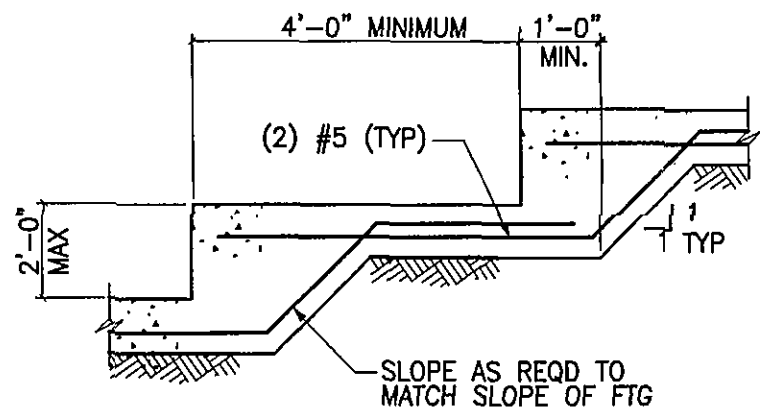
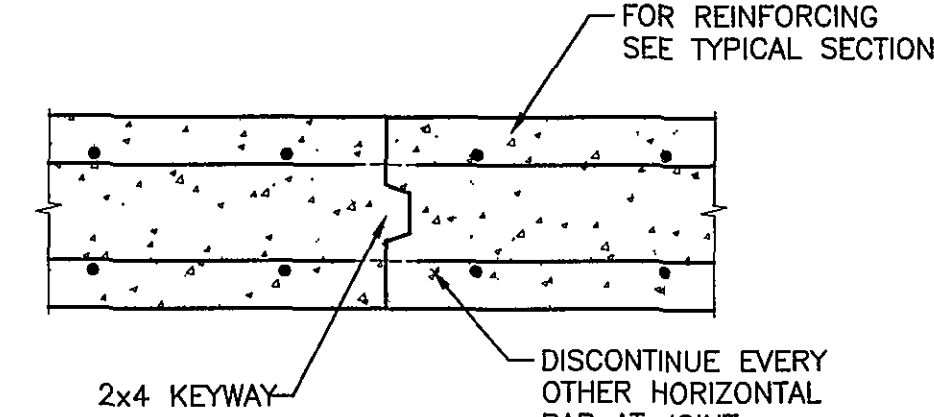


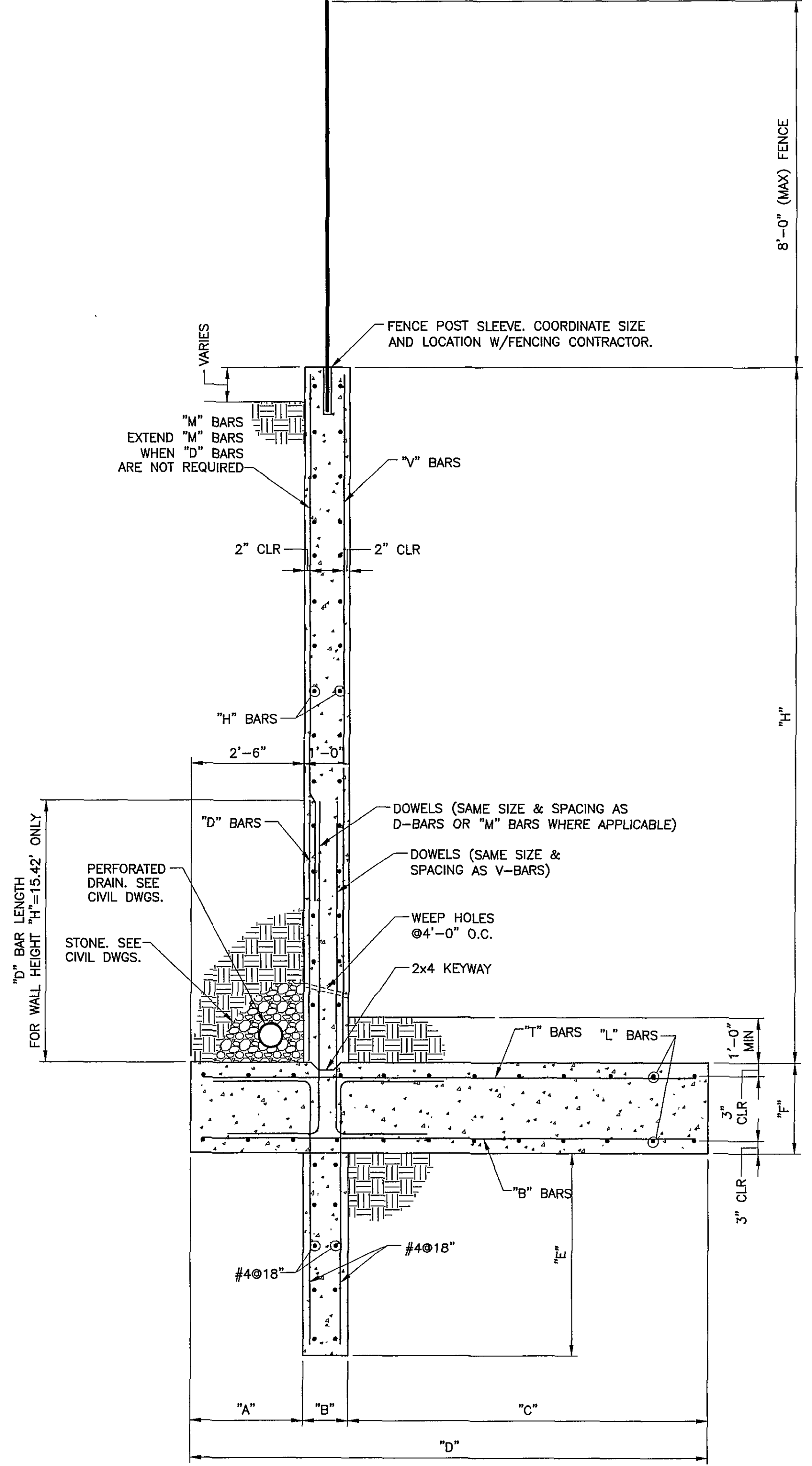
PLAN VIEW
SCALE: 1/16" = 1'-0"



DETAIL - STEP FOOTING
SCALE: 1/4" = 1'-0"



TYPICAL WALL CONTRACTION JOINT
SCALE: 1" = 1'-0"



SECTION
SCALE: 1/2" = 1'-0"

GENERAL REQUIREMENTS

- THE STRUCTURE HAS BEEN DESIGNED TO RESIST LOADS AS A COMPLETED STRUCTURE ONLY. APPLICATION OF CONSTRUCTION LOADS TO THE PARTIALLY COMPLETED STRUCTURE SHALL BE CONSIDERED BY THE CONTRACTOR AND INCLUDED IN THE DESIGN OF SHORING, BRACING, FORM WORK, AND OTHER SUPPORTING ELEMENTS PROVIDED FOR CONSTRUCTION OF THE STRUCTURE.
- CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, REPORTING ANY DISCREPANCIES TO THE ENGINEER AS THE WORK PROCEEDS.
- WALL ELEVATIONS WERE PROVIDED BY HURT & PROFFITT, INC. CONTRACTOR TO VERIFY BEFORE CONSTRUCTION.

APPLICABLE CODES AND STANDARDS

- VUSB, VIRGINIA UNIFORM STATEWIDE BUILDING CODE - 2006.
- IBC-2006, "INTERNATIONAL BUILDING CODE"
- ASCE 7, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"
- ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".

DESIGN LOADS

- LIVE LOAD
ACTIVE EQUIVALENT FLUID PASSIVE 66PSF
PASSIVE EQUIVALENT FLUID PRESSURE 64PSF/FT
SLIDING COEFFICIENT 0.47

FOUNDATION

- AN ALLOWABLE SOIL BEARING CAPACITY OF 2,000 psf WAS USED FOR FOUNDATION DESIGN BASED ON A GEOTECHNICAL REPORT BY HURT & PROFFITT, INC. PROJECT NO. 20080140.
- ENGINEERED FILL SHALL BE AN APPROVED MATERIAL PLACED IN HORIZONTAL LAYERS WITH A MAXIMUM LOOSE THICKNESS OF 8". EACH LAYER SHALL BE COMPACTED TO A MINIMUM DRY DENSITY OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698 (STANDARD PROCTOR METHOD). FULL-TIME DENSITY TESTS SHALL BE PERFORMED TO VERIFY COMPACTION REQUIREMENTS ARE MET.
- FOOTINGS SHALL BE CARRIED TO LOWER ELEVATION THAN THOSE SHOWN ON DRAWINGS IF REQUIRED TO REACH FIRM SOIL.

CONCRETE

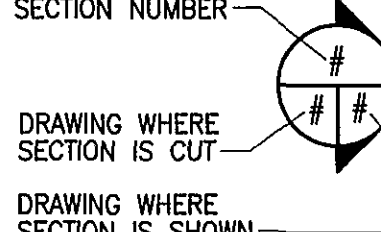
- MATERIALS (COMPRESSIVE STRENGTH AT 28 DAYS)
FOOTING/KEY 3,000 PSI
WALLS 4,000 PSI
FOOTINGS AND EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED

- REINFORCING STEEL
REINFORCING BARS ASTM A615, GRADE 60
WELDED WIRE FABRIC ASTM A185

BAR#	DEVELOPMENT LENGTH(INCHES)	LAP LENGTH
#4	17"	22"
#6	25"	33"
#8	34"	44"

LEGEND

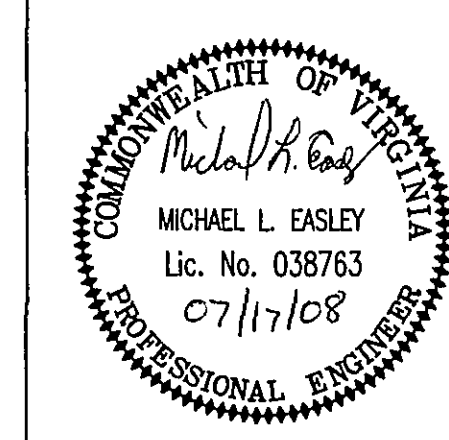
- CLR CLEAR
CONC. CONCRETE
CONT. CONTINUOUS
E.W. EACH WAY
FTG. FOOTING
O.C. ON CENTER
WCJ WALL CONTROL JOINT



RETAINING WALL SCHEDULE

WALL THICKNESS	A	B	C	D	E	F	MAX WALL HEIGHT H	B BARS	D BARS	D BAR LENGTH	H BARS	L BARS	M BARS	T BARS	V BARS
1'-0"	2'-6"	1'-0"	8'-0"	11'-6"	4'-6"	2'-0"	15.42'	#8@14"	#8@6"	8'-0"	#4@16"	#6@10"	#8@18"	#6@11"	#4@12"
1'-0"	2'-6"	1'-0"	3'-0"	6'-6"	2'-0"	1'-4"	8'-0"	#6@14"	#6@10"	N/A	#4@16"	#5@10"	#6@10"	#5@12"	#4@12"
1'-0"	2'-6"	1'-0"	1'-0"	4'-6"	0"	1'-0"	4'-0"	#4@12"	#4@12"	N/A	#4@16"	#5@14"	#4@12"	#4@12"	#4@12"

Master Engineers
And Designers, Inc.
904 Lakeside Drive, Lynchburg, VA 24501
434-846-1350 Fax: 434-846-1351
(Project No. 409-056)



HURT AND PROFFITT, INC. PROJECT NO. 20080140
G.L. NO. 260-07-A5.3
FILE. NO. G-12176

HURT & PROFFITT
INCORPORATED
2524 LANGHORNE ROAD
LYNCHBURG VA 24501
800.242.4906 TOLL FREE
434.847.7796 MAIN
434.847.0047 FAX

OLD DWG: STD DWG:
"THIS DRAWING IS THE PROPERTY OF AMERICAN ELECTRIC POWER AND IS LOANED UPON CONDITION THAT IT IS NOT TO BE COPIED OR REPRODUCED, IN WHOLE OR IN PART, OR USED FOR FURNISHING INFORMATION TO ANY PERSON WITHOUT THE WRITTEN CONSENT OF AMERICAN ELECTRIC POWER, OR FOR ANY PURPOSE DETRIMENTAL TO THEIR INTEREST, AND IS TO BE RETURNED UPON REQUEST."

APPALACHIAN POWER COMPANY
7th STREET STATION EXPANSION
CITY OF ROANOKE VIRGINIA

RETAINING WALL DETAILS

SCALE: AS NOTED	DR: NRH/JWG	ENG: MDW	CH: FHJ/RAH
WO#:	APPD: MDW	DATE: 07/17/08	
1 RIVERSIDE PLAZA COLUMBUS, OH 43215	DWG. NO.	8 OF 10	R E V

NO	DATE	REVISION DESCRIPTION	DR	ENG	CK	ISSUE#
----	------	----------------------	----	-----	----	--------