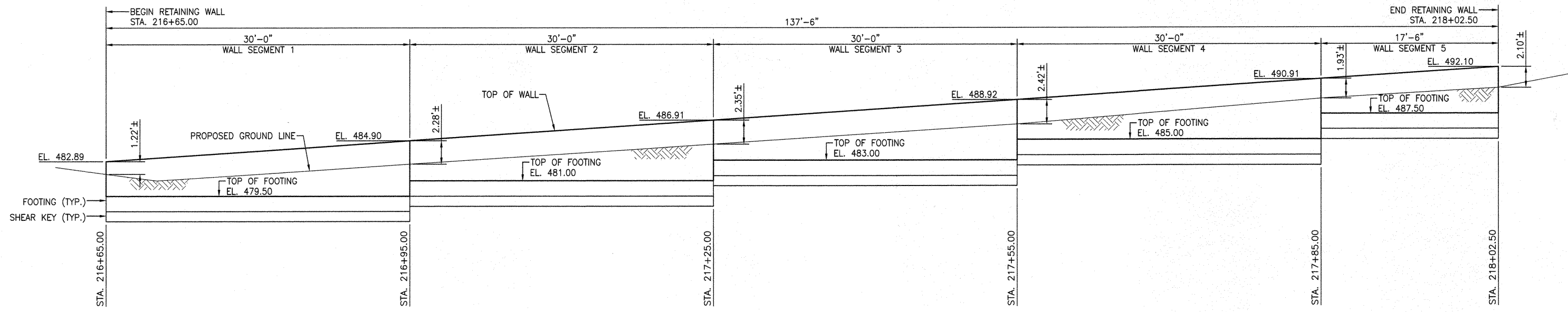


PLAN
0 5 10 FEET



ELEVATION
0 5 10 FEET

INDEX OF DRAWINGS	
SHEET NO.	DESCRIPTION
1	GENERAL PLAN AND ELEVATION
2	GENERAL NOTES AND TYPICAL SECTION

MARK	DESCRIPTION	BY	CHK'D	APP'D	DATE
REVISIONS					

DESCRIPTION	DWG. NO.	APP'D DATE
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	04/15/04
BACKFILL AT STRUCTURES	RC-12M	03/30/06
STANDARD ALUMINUM PEDESTRIAN RAILING	BC-716M	07/24/06
STANDARD WALL CONSTRUCTION & EXPANSION JOINT DETAILS	BC-735M	01/21/03
STANDARD REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	01/21/03

SUPPLEMENTAL DRAWINGS

PREPARED BY
JACOBS 1247 WARD AVENUE
SUITE 100
WEST CHESTER
PENNSYLVANIA 19380

Kate O'Connor
ENGINEER (P.E.)
DATE: 10/5/09

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION

RECOMMENDED 10/21/2009
Henry M. Bernauer
DISTRICT BRIDGE ENGINEER

SHEET 1 OF 2
* SUPPLEMENTAL DRAWINGS
BPAA-152723

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GENERAL NOTES:

1. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2007 (INCLUDING SUPPLEMENTS) AND CONTRACT SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS:

1. RETAINING WALL: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, THIRD EDITION, 2004, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, SEPTEMBER 2007.
2. DESIGN LIVE LOAD: LIVE LOAD SURCHARGE PER DESIGN MANUAL, PART 4.

GENERAL:

1. ALL STATIONS AND ELEVATIONS ARE IN FEET. ALL OTHER DIMENSIONS ARE IN FEET AND INCHES UNLESS NOTED OTHERWISE.
2. ALL PLAN DIMENSIONS ARE HORIZONTAL EXCEPT AS NOTED.
3. USE CLASS A CEMENT CONCRETE IN CAST-IN-PLACE RETAINING WALL AND FOOTINGS
4. EPOXY COAT ALL REINFORCEMENT IN WALL STEM.
5. A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT.
6. PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET REQUIREMENTS OF ASTM A 615, ASTM A 996, OR LOW ALLOY STEEL BARS AND ASTM A 706. DO NOT WELD GRADE 60 REINFORCING BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA IF APPROVED BY THE CHIEF BRIDGE ENGINEER.
7. PROVIDE MINIMUM LAP AND EMBEDMENT LENGTH OF 30 DIAMETERS, OR IN ACCORDANCE WITH BC-736M.
8. PROVIDE 2-INCH CONCRETE COVER ON REINFORCEMENT BARS, EXCEPT AS NOTED.
9. CHAMFER EXPOSED CONCRETE EDGES 1" x 1" EXCEPT AS NOTED.
10. APPLY ARCHITECTURAL TREATMENT IN ACCORDANCE WITH CONTRACT SPECIAL PROVISIONS.
11. DIMENSIONS SHOWN ARE FOR A TEMPERATURE OF 68 DEGREES FAHRENHEIT.
12. SEISMIC FORCES WERE CONSIDERED FOR ACCELERATION COEFFICIENT 0.15.
13. PROVIDE 3'-0" MINIMUM EMBEDMENT DEPTH FOR BOTTOM OF FOOTING.
14. KEY FOR CONSTRUCTION JOINTS MAY FORMED INTO THE STEM OR INTO THE FOOTINGS.
15. TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH #4 TIE BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. PROVIDE THE BARS WITH THE 90° HOOK AT ONE END AND 135° HOOK AT THE OTHER END. ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.

GENERAL CONSTRUCTION:

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFE ERECTION OF ALL STRUCTURES. PROVIDE ALL NECESSARY BRACING AND SUPPORTS. CONSTRUCTION ACTIVITY WILL NOT BE ALLOWED OUTSIDE OF THE RIGHT-OR-WAY.

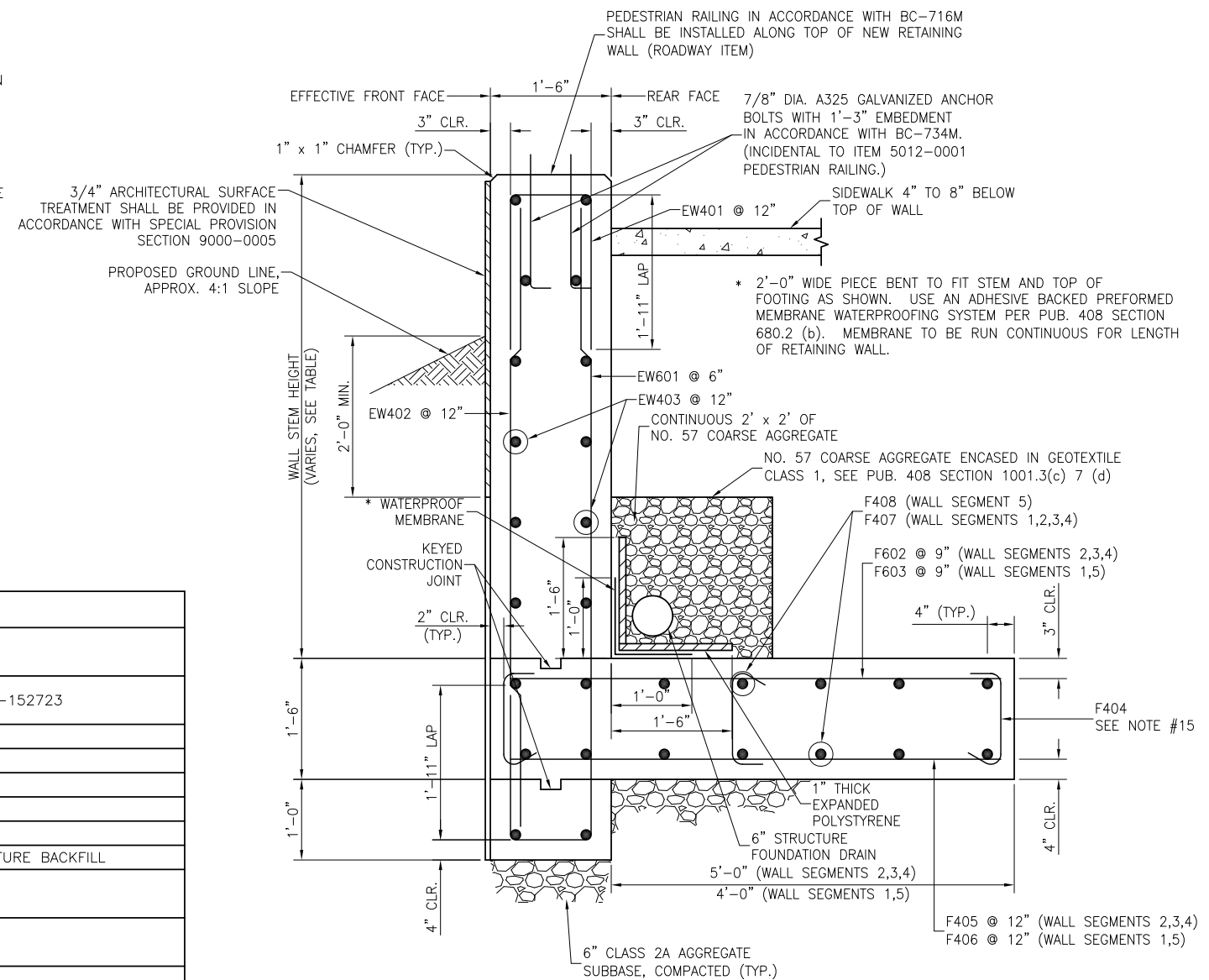
FOOTING NOTES:

1. THE FOUNDATION EXCAVATION SHOULD BE INSPECTED BY A QUALIFIED ENGINEER. ANY SOFT, LOOSE OR UNSUITABLE MATERIAL ENCOUNTERED AT THE FOOTING EXCAVATION SHALL BE REMOVED AND REPLACED WITH CLASS C CEMENT CONCRETE UP TO THE BOTTOM OF FOOTING LEVEL IN LIEU OF AGGRAGATE SUBBASE.
2. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR SHALL PROVIDE DEWATERING SO THAT THE EXCAVATION IS DRY ENOUGH FOR INSPECTION AND CONCRETE PLACEMENT.

WALL SEGMENT	AVG. WALL HEIGHT*
1	6.89
2	7.57
3	7.58
4	7.59
5	6.68

*AVG. WALL HEIGHT = WALL STEM + 1'-6" FOOTING + 1'-0" SHEAR KEY AT SEGMENT MID-POINT

TABULATION OF STRUCTURE ITEMS			
QUANTITY	ITEM NO. UNIT	QUANTITY & UNIT	DESCRIPTION
1	8255-0001 UNIT		CONSTRUCTION OF CONCRETE RETAINING WALL, BPAA-152723
		162 CY	CLASS 3 EXCAVATION
		95 SY	SUBBASE 6" DEPTH (NO. 2A)
		21 CY	NO. 57 COARSE AGGREGATE
		91 CY	CLASS A CEMENT CONCRETE
		150 LF	6" STRUCTURE FOUNDATION DRAIN
AND		28 CY	SELECTED BORROW EXCAVATION, STRUCTURE BACKFILL
3710	1002-0001 LB		REINFORCEMENT BARS
6910	1002-0053 LB		REINFORCEMENT BARS, EPOXY COATED
1	9000-0005 LS		ARCHITECTURAL SURFACE TREATMENT FOR STRUCTURE BPAA-152723

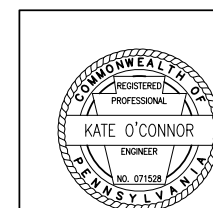
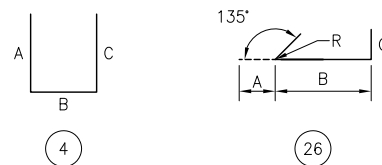


RETAINING WALL TYPICAL SECTION



RETAINING WALL BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	
EW401	4	138	4'-10"	4	1'-11"	1'-0"	1'-11"	
EW601	6	276	10'-11"	4	VARY 1'-11" TO 4'-5 3/8"	1'-0"	VARY 8'-0" TO 5'-5 5/8"	VARY BEND OF BAR OR LAP LENGTH ACCORDING TO WALL HEIGHT TO ALLOW FOR ONE BAR LENGTH
EW402	4	142	VARY 5'-5 5/8" TO 8'-4"	STR				VARY BAR LENGTHS ACCORDING TO WALL HEIGHT VARIATIONS
EW403	4	66	VARY 8'-6" TO 32'-6 1/2"	STR				VARY BAR LENGTHS PER WALL SEGMENT LENGTHS
F404	4	111	1'-9"	26	4 1/2"	1'-0"	4 1/2"	
F405	4	93	6'-0"	STR				
F406	4	49	5'-0"	STR				
F602	6	123	6'-0"	STR				
F603	6	65	5'-0"	STR				
F407	4	35	29'-6"	STR				
F408	4	8	17'-0"	STR				



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

TREDYFFRIN TOWNSHIP
CHESTER COUNTY

MPMS 87149
IRISH ROAD STA 216+65 TO 280+00

RETAINING WALL
STRUCTURE DRAWINGS

RECOMMENDED _____

DISTRICT BRIDGE ENGINEER

SHEET 2 OF 2

* SUPPLEMENTAL DRAWINGS

BPAA-152723