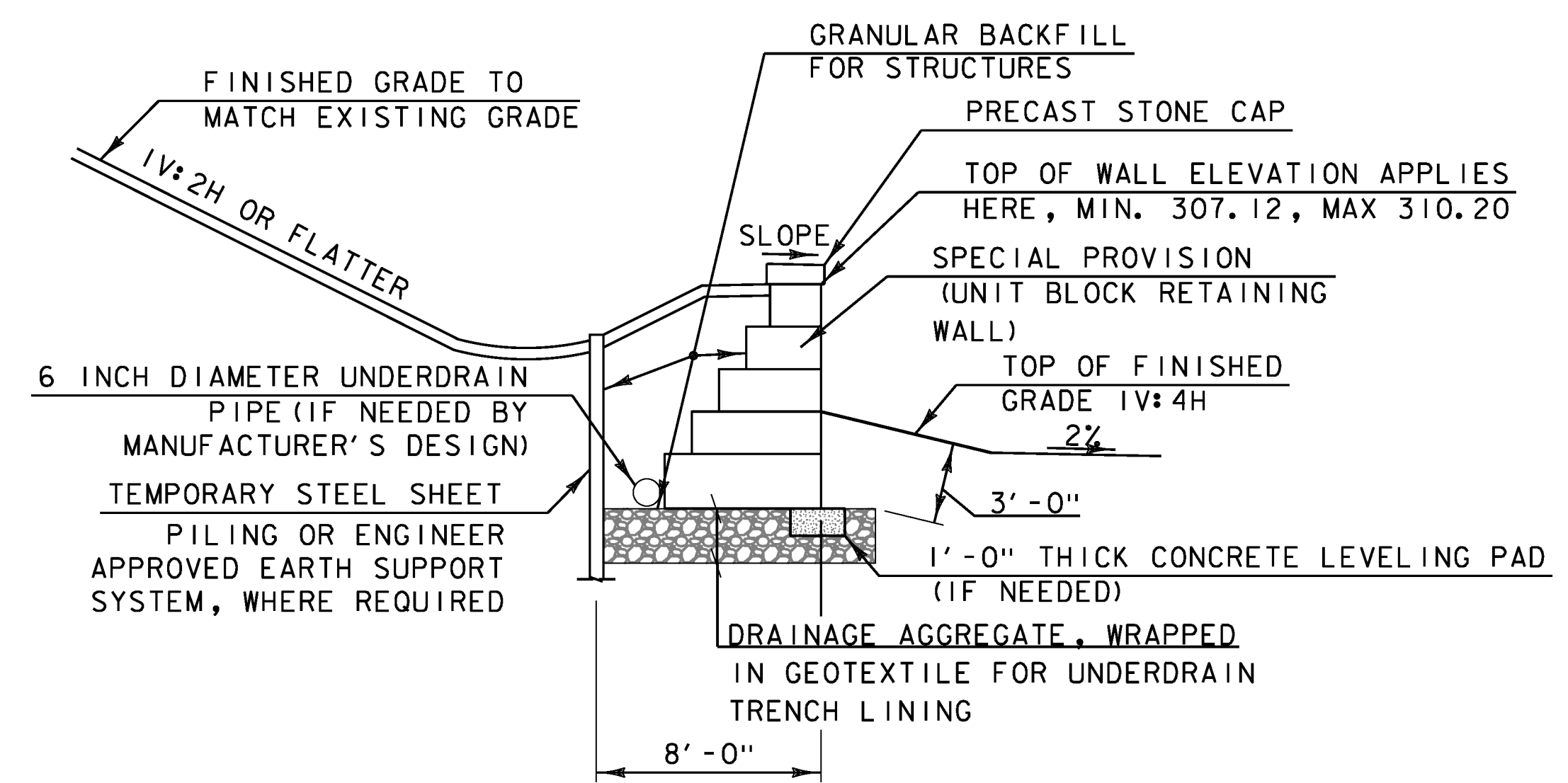
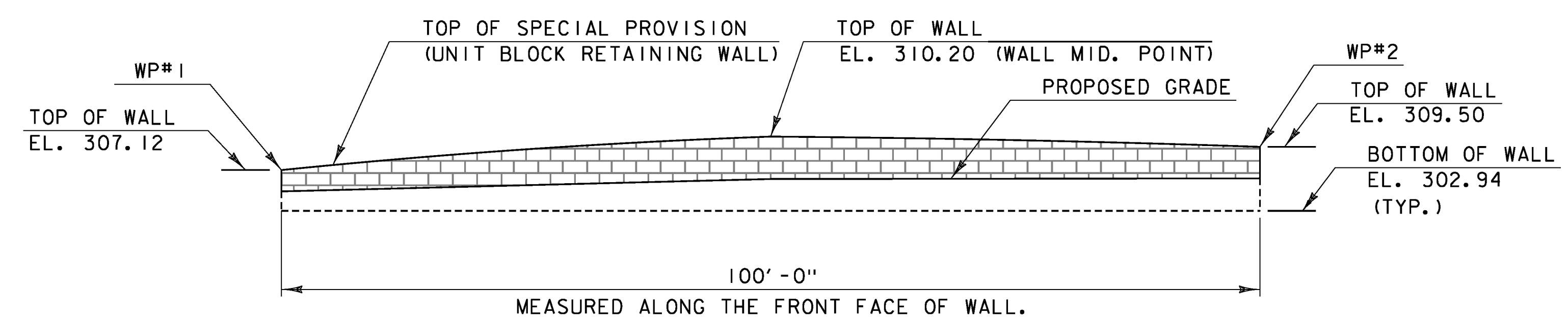


PLAN
SCALE: 1" = 10'-0"



TYPICAL SECTION
SCALE: NOT TO SCALE



DEVELOPED ELEVATION
SCALE: 1" = 10'-0"

B-109 MAX BEARING RESISTANCE AND SETTLEMENT TABLE

DESIGN PARAMETER	703.01A GRANULAR BORROW	704.08-GRANULAR BACKFILL FOR STRUCTURES	LOOSE GRAVELLY SAND (IN-SITU)
DENSITY (LB/FT ³):	130	140	115
INTERNAL FRICTION ANGLE (DEG.):	32	34	32
COEF. OF FRICTION, f:			
-mass concrete cast against soil:	0.45	0.55	0.49
-soil against precast/formed concrete:	0.40	0.48	0.40
ACTIVE EARTH PRESSURE COEF., Ka:	0.31	0.28	0.31
PASSIVE EARTH PRESSURE COEF., Kp:	3.22	3.54	3.22
AT-REST EARTH PRESSURE COEF., Ko:	0.47	0.44	0.47

UNIT BLOCK RETAINING WALL - DESIGN NOTES

- THE UNIT BLOCK RETAINING WALL DETAILS SHOWN ON THIS SHEET ARE FOR INFORMATION PURPOSES. THE MANUFACTURER SHALL BE RESPONSIBLE FOR ALL DESIGN AND DETAILING REQUIRED FOR THIS WALL.
- FINAL DRAWINGS SHALL ALL BE PREPARED BY THE MANUFACTURER/FABRICATOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. ALL MATERIALS WITHIN THE BLOCK WALL VOLUME, METHODS OF CONSTRUCTION, AND THE QUALITY OF MATERIALS SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISIONS FOR THIS PROJECT.
- SEE THE BORING LAYOUT SHEETS AND BORING LOGS (SHEETS 28-32) FOR A DESCRIPTION OF THE IN-SITU SOIL CONDITIONS.
- THE DRAINED STATE OF THE BACKFILL MATERIAL SHALL BE CONSIDERED IN THE DESIGN. IF A FREE DRAINING MATERIAL IS ASSUMED IN THE DESIGN, A DRAINAGE SYSTEM SHALL BE PROVIDED FOR THE WALL SYSTEM CHOSEN. THE COST FOR THE DRAINAGE SYSTEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SPECIAL PROVISION (UNIT BLOCK RETAINING WALL) ITEM.
- EXPANSION AND CONTRACTION SHALL BE CONSIDERED IN THE DESIGN AND DETAILS. PROPER JOINTS SHALL BE DESIGNED, DETAILED AND INCLUDED IN THE BLOCK WALL.
- ALL WALL COMPONENTS SHALL HAVE A MINIMUM DESIGN LIFE OF 75 YEARS.
- REFER TO THE GEOTECHNICAL OFFICE MEMORANDUMS INCLUDED IN THE CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.

UNIT BLOCK RETAINING WALL - CONSTRUCTION NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING THE STORM WATER DRAINAGE IN THE VICINITY OF THE WALL DURING CONSTRUCTION. STORM WATER RUNOFF IS TO BE COLLECTED AND DISCHARGED AWAY FROM THE WALL.
- SUPPORT OF EXCAVATION SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO SPECIAL PROVISION (UNIT BLOCK RETAINING WALL).

UNIT BLOCK RETAINING WALL - MATERIAL NOTES

- THE EXPOSED FACES OF BLOCK WALLS SHALL HAVE AN APPROVED STONE-FACED FINISH. CONTRACTOR SHALL SUBMIT FINISH SAMPLE TO ENGINEER FOR APPROVAL.

UNIT BLOCK RETAINING WALL - RESTRICTIONS

- NO TIMBER ELEMENTS SHALL BE ALLOWED AS FINAL IN PLACE COMPONENTS OF BLOCK WALL SYSTEM SUPPORTING FILL.
- ALL EXPOSED EDGES OF WALL BLOCKS SHALL BE COVERED WITH FINISH COPING UNITS, AS SHOWN ON THE PLANS. THE COSTS FOR THIS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE SPECIAL PROVISION (UNIT BLOCK RETAINING WALL) ITEM.

BACKFILL MATERIAL TABLE

FOOTING WIDTH (FT.)	MAX. BEARING RESISTANCE (KSF)	SETTLEMENT (IN.)
2	2.0	0.505
4	2.8	0.700
6	3.5	0.825
8	4.3	0.930

PROJECT NAME: RICHMOND
 PROJECT NUMBER: CMG PARK (31)
 FILE NAME: z97cl86typret.dgn PLOT DATE: 4/29/2013
 PROJECT LEADER: ERIK ATKINS DRAWN BY: D. RITACCO
 DESIGNED BY: M. ABAZARI CHECKED BY: E. ATKINS
 SPECIAL PROVISION (UNIT BLOCK RET. WALL) SHEET 125 OF 133