

# SLOPE CASE

TOP OF WALL

— WALL FACE

WEEP HOLE (EXTEND

THROUGH BARRIER,

CONCRETE BARRIER,

FINISHED GRADE\*\* ---

6:1 (H:V) OR FLATTER

15" MIN

BOTTOM OF

FOOTING

H - WAL VARIES

IF APPLICABLE)

SINGLE FACED PRECAST

IF APPLICABLE

(SEE NOTE FOR FENCE OR HANDRAIL ON TOP

OF WALL, IF APPLICABLE)

\*\*SEE ROADWAY PLANS FOR CONCRETE DITCH AND FINISHED GRADE DETAILS.

NO SLOPE CASES

GRADE ELEVATION -

SUBDRAIN FINE AGGREGATE ——
(SEE NOTE FOR SUBSURFACE

DRAINAGE AT WEEP HOLES)

PERMITTED —— CONST. JOINT

KEY WHEN -

(SEE TABLE₩

REQUIRED

WITH #4 DOWELS

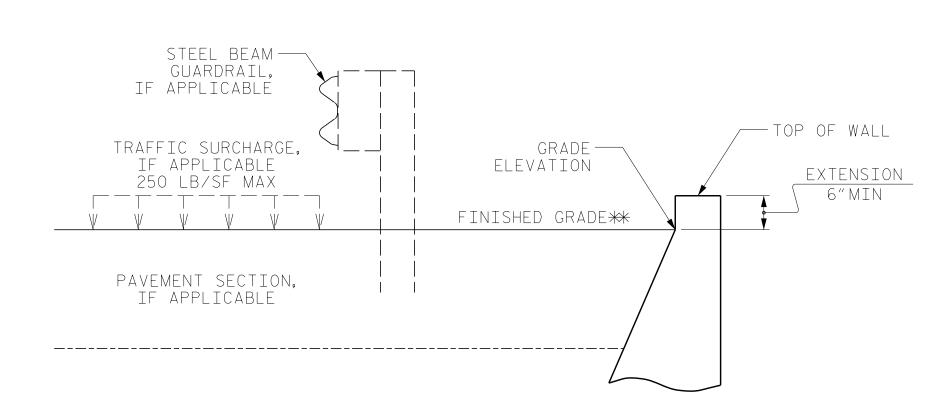
(SEE DETAIL "A")

STONE DRAIN-

(SEE NOTE FOR

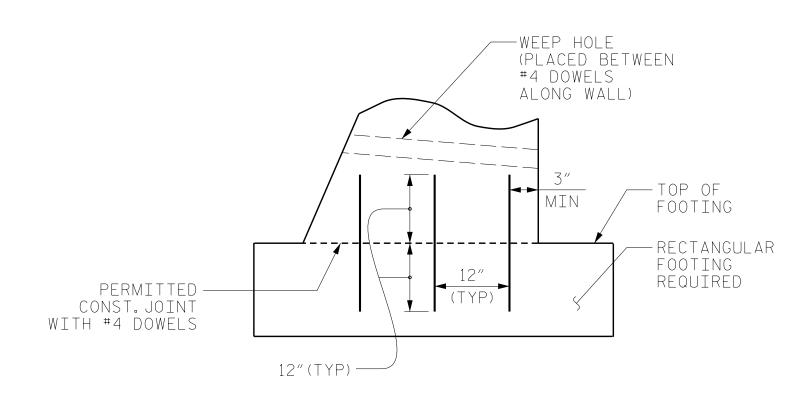
AT WEEP HOLES)

SUBSURFACE DRAINAGE



### NO SLOPE CASE

\*\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

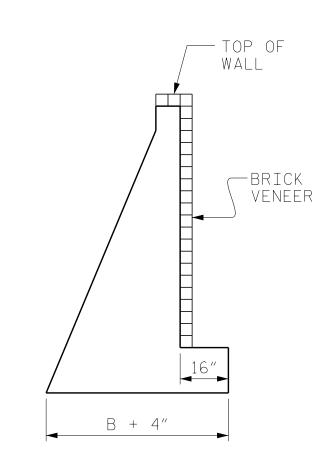


## DETAIL "A"

H (FT)	3 - < 6	6 - 9	> 9 - 12
SLOPE CASE	.66	.70*	.75*
NO SLOPE CASE WITH TRAFFIC SURCHARGE	.80	.75*	.70*
NO SLOPE CASE WITHOUT TRAFFIC SURCHARGE	.60	.60	.60

#### B/H RATIO (B = 2'-6"MIN)

\*\*KEY IS REQUIRED FOR "SLOPE CASE" OR "NO SLOPE CASE WITH TRAFFIC SURCHARGE" WHEN H IS 6' OR GREATER.



#### BRICK VENEER DETAIL

(WHEN APPLICABLE)

#### NOTES:

FOR STANDARD CAST-IN-PLACE (CIP) GRAVITY RETAINING WALLS, SEE CAST-IN-PLACE GRAVITY RETAINING WALLS PROVISION.

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

FOR SINGLE FACED PRECAST CONCRETE BARRIER, SEE ROADWAY PLANS AND SECTION 857 OF THE STANDARD SPECIFICATIONS.

FOR FENCES OR HANDRAILS ON TOP OF WALLS, SEE ROADWAY PLANS FOR FENCE OR HANDRAIL ATTACHMENT DETAILS.

FOR SUBSURFACE DRAINAGE AT WEEP HOLES, SEE ARTICLE 414-8 OF THE STANDARD SPECIFICATIONS.

STANDARD CIP GRAVITY WALLS ARE BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:

UNIT WEIGHT, γ = 120 LB/CF FRICTION ANGLE, φ = 35 DEGREES (GROUNDWATER WITHIN 7'OF BOTTOM OF FOOTING) FRICTION ANGLE, φ = 30 DEGREES

(GROUNDWATER MORE THAN 7'BELOW BOTTOM OF FOOTING)
COHESION, c = 0 LB/SF

DO NOT USE STANDARD CIP GRAVITY WALLS IF ASSUMED SOIL PARAMETERS ARE NOT APPLICABLE OR GROUNDWATER IS ABOVE BOTTOM OF FOOTING.

DO NOT USE STANDARD CIP GRAVITY WALLS WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS BELOW WALLS.

BEFORE BEGINNING STANDARD CIP GRAVITY WALL CONSTRUCTION, SURVEY WALL LOCATIONS AND SUBMIT WALL PROFILE VIEWS (WALL ENVELOPES) FOR REVIEW. FOR WALL ENVELOPES, INCLUDE BOTTOM OF WALL, EXISTING GROUND AND GRADE ELEVATIONS AND OTHER ELEVATIONS AS NEEDED AT INTERVALS OF 25' OR LESS ALONG WALLS. DO NOT START WALL CONSTRUCTION UNTIL WALL ENVELOPES ARE ACCEPTED.

FOR BRICK VENEERS, SUBMIT BRICK SAMPLES FOR APPROVAL BEFORE BEGINNING STANDARD CIP GRAVITY WALL CONSTRUCTION.

DO NOT PLACE CONCRETE FOR FOOTINGS UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

WHEN CONSTRUCTING STANDARD CIP GRAVITY WALLS WITH A CONSTRUCTION JOINT AS SHOWN IN DETAIL "A", PROVIDE A MINIMUM OF 3 EQUALLY SPACED #4 DOWELS AT INTERVALS OF 1'-6" ALONG WALLS.

PROJECT NO. W-5520

\_\_\_\_\_\_COUNTY STATION: 205+20.44 -L2-

5+00.00 -WALL1-

SHEET NO

W-2

TOTAL SHEETS

DATE:

DEPARTMENT OF TRANSPORTATION
RALEIGH

CIP CONCRETE RETAINING WALL

STATE OF NORTH CAROLINA



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



NC LICENSE NO. C-2213

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CHECKED BY :	R. ALONSO	DATE: 06/15/16
DESIGN ENGINEER OF RECORD: _	R. ALONSO	DATE: 06/15/16

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OF WALL

9″MIN

-Ç KEY

STANDARD CIP GRAVITY WALL

\*\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

B - FOOTING WIDTH
SEE TABLE - 2'-6"MIN