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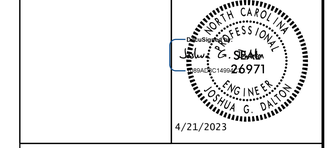
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-2707D	2D-1

HYDRAULICS ENGINEER

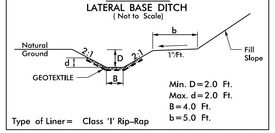


DocuSigned by: Joshua G. Dalton
B89AC3C1499...
4/21/2023

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

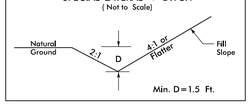
SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 859-2243
ENG FIRM LICENSE NO. C-890

DETAIL #1
LATERAL BASE DITCH
(Not to Scale)



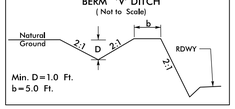
FROM STA. 637+00 TO STA. 639+70 -L- LT
FROM STA. 714+00 TO STA. 715+00 -L- LT
FROM STA. 741+00 TO STA. 743+65 -L- RT

DETAIL #2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



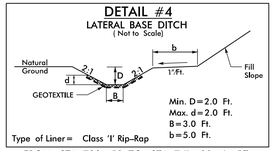
FROM STA. 635+50 TO STA. 637+00 -L- RT
FROM STA. 817+50 TO STA. 818+00 -L- RT
FROM STA. 23+73 TO STA. 25+25 -Y1- RT
FROM STA. 11+00 TO STA. 13+00 -Y2- RT
FROM STA. 32+50 TO STA. 36+50 -Y5- LT
FROM STA. 44+50 TO STA. 46+50 -RAMP_A- RT
FROM STA. 47+50 TO STA. 48+74 -RAMP_A- LT
FROM STA. 14+00 TO STA. 15+45 -SRVRD_1- RT
FROM STA. 14+30 TO STA. 16+00 -SRVRD_3- RT
FROM STA. 23+00 TO STA. 24+00 -SRVRD_3- LT

DETAIL #3
BERM 'V' DITCH
(Not to Scale)



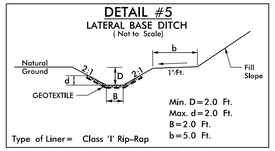
FROM STA. 637+00 TO STA. 638+00 -L- RT
FROM STA. 664+00 TO STA. 665+70 -L- RT
FROM STA. 674+00 TO STA. 675+50 -L- RT
FROM STA. 690+00 TO STA. 691+00 -L- RT
FROM STA. 751+00 TO STA. 754+00 -L- RT
FROM STA. 14+50 TO STA. 16+75 -SRVRD_5- RT

DETAIL #4
LATERAL BASE DITCH
(Not to Scale)



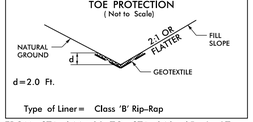
FROM STA. 739+50 TO STA. 741+00 -L- RT
FROM STA. 742+60 TO STA. 743+50 -L- LT
FROM STA. 777+50 TO STA. 779+75 -L- RT
FROM STA. 787+50 TO STA. 789+40 -L- RT
FROM STA. 795+50 TO STA. 796+90 -L- RT

DETAIL #5
LATERAL BASE DITCH
(Not to Scale)



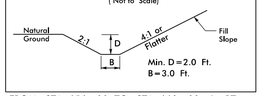
FROM STA. 645+00 TO STA. 646+60 -L- RT
FROM STA. 655+80 TO STA. 658+50 -L- LT

DETAIL #6
TOE PROTECTION
(Not to Scale)



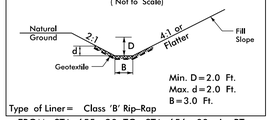
FROM STA. 644+30 TO STA. 646+65 -L- LT
FROM STA. 682+70 TO STA. 684+55 -L- RT
FROM STA. 683+40 TO STA. 684+00 -L- LT
FROM STA. 684+70 TO STA. 686+50 -L- RT
FROM STA. 721+50 TO STA. 725+00 -L- RT
FROM STA. 743+50 TO STA. 744+50 -L- LT
FROM STA. 744+00 TO STA. 745+00 -L- RT
FROM STA. 776+50 TO STA. 778+35 -L- LT
FROM STA. 776+70 TO STA. 777+50 -L- RT
FROM STA. 797+05 TO STA. 798+00 -L- RT
FROM STA. 13+30 TO STA. 15+25 -RAMP_A- RT
FROM STA. 33+50 TO STA. 35+55 -RAMP_A- RT
FROM STA. 16+50 TO STA. 17+20 -SRVRD_4- RT
FROM STA. 19+60 TO STA. 20+50 -SRVRD_5- LT

DETAIL #7
SPECIAL LATERAL BASE DITCH
(Not to Scale)



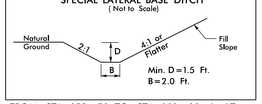
FROM STA. 656+00 TO STA. 660+00 -L- RT

DETAIL #8
SPECIAL LATERAL BASE DITCH
(Not to Scale)



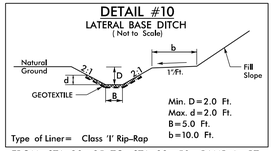
FROM STA. 655+20 TO STA. 656+00 -L- RT

DETAIL #9
SPECIAL LATERAL BASE DITCH
(Not to Scale)



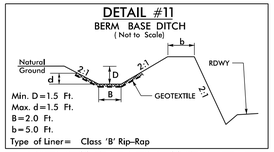
FROM STA. 658+50 TO STA. 660+00 -L- LT
FROM STA. 686+50 TO STA. 687+50 -L- RT
FROM STA. 725+00 TO STA. 728+50 -L- RT

DETAIL #10
LATERAL BASE DITCH
(Not to Scale)



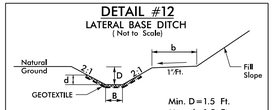
FROM STA. 29+35 TO STA. 33+50 -RAMP_A- RT

DETAIL #11
BERM BASE DITCH
(Not to Scale)



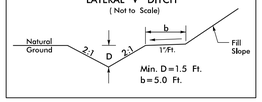
FROM STA. 667+00 TO STA. 668+50 -L- RT
FROM STA. 718+00 TO STA. 718+50 -L- RT
FROM STA. 729+50 TO STA. 732+00 -L- RT
FROM STA. 734+50 TO STA. 739+50 -L- RT

DETAIL #12
LATERAL BASE DITCH
(Not to Scale)



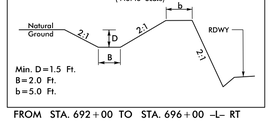
FROM STA. 668+50 TO STA. 669+85 -L- RT
FROM STA. 715+75 TO STA. 718+00 -L- RT

DETAIL #13
LATERAL 'V' DITCH
(Not to Scale)



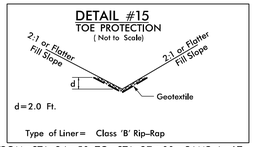
FROM STA. 669+85 TO STA. 671+00 -L- RT
FROM STA. 21+10 TO STA. 22+00 -Y1- RT

DETAIL #14
BERM BASE DITCH
(Not to Scale)



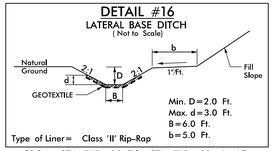
FROM STA. 692+00 TO STA. 696+00 -L- RT

DETAIL #15
TOE PROTECTION
(Not to Scale)



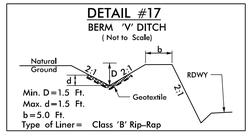
FROM STA. 24+50 TO STA. 27+00 -RAMP_A- LT

DETAIL #16
LATERAL BASE DITCH
(Not to Scale)



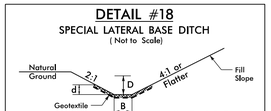
FROM STA. 715+00 TO STA. 719+00 -L- LT

DETAIL #17
BERM 'V' DITCH
(Not to Scale)



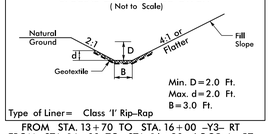
FROM STA. 732+00 TO STA. 734+50 -L- RT
FROM STA. 747+70 TO STA. 751+00 -L- RT
FROM STA. 805+00 TO STA. 807+00 -L- RT
FROM STA. 17+50 TO STA. 21+00 -RAMP_A- LT
FROM STA. 21+50 TO STA. 24+00 -SRVRD_3- RT
FROM STA. 11+80 TO STA. 12+50 -SRVRD_4- RT

DETAIL #18
SPECIAL LATERAL BASE DITCH
(Not to Scale)



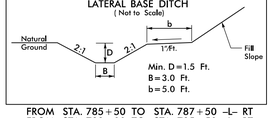
FROM STA. 728+50 TO STA. 729+50 -L- RT
FROM STA. 16+00 TO STA. 16+80 -Y3- RT
FROM STA. 18+00 TO STA. 20+20 -SRVRD_4- LT
FROM STA. 38+00 TO STA. 40+00 -RAMP_A- LT

DETAIL #19
SPECIAL LATERAL BASE DITCH
(Not to Scale)



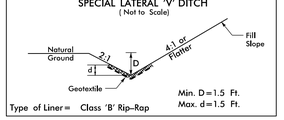
FROM STA. 13+70 TO STA. 16+00 -Y3- RT
FROM STA. 14+00 TO STA. 16+20 -LOOP_A- RT

DETAIL #20
LATERAL BASE DITCH
(Not to Scale)



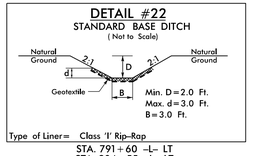
FROM STA. 785+50 TO STA. 787+50 -L- RT
FROM STA. 793+00 TO STA. 795+50 -L- RT

DETAIL #21
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



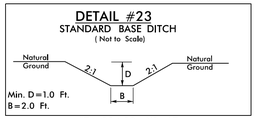
FROM STA. 10+00 TO STA. 14+50 -Y1- RT
FROM STA. 25+25 TO STA. 29+00 -Y1- RT
FROM STA. 16+00 TO STA. 16+50 -RAMP_A- RT
FROM STA. 27+50 TO STA. 34+00 -RAMP_A- LT
FROM STA. 46+00 TO STA. 47+50 -RAMP_A- LT
FROM STA. 14+50 TO STA. 18+00 -LOOP_A- LT

DETAIL #22
STANDARD BASE DITCH
(Not to Scale)



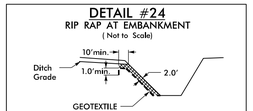
STA. 791+60 -L- LT
STA. 804+55 -L- LT
FROM STA. 847+75 TO STA. 848+55 -L- RT
FROM STA. 849+30 TO STA. 850+60 -L- RT
STA. 19+30 -SRVRD_5- RT

DETAIL #23
STANDARD BASE DITCH
(Not to Scale)



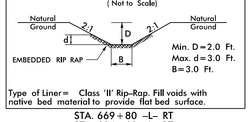
STA. 28+90 -Y2- LT

DETAIL #24
RIP RAP AT EMBANKMENT
(Not to Scale)



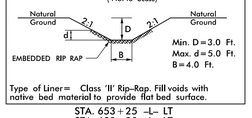
STA. 848+55 -L- RT
STA. 849+25 -L- RT

DETAIL #25
STANDARD BASE CHANNEL
(Not to Scale)



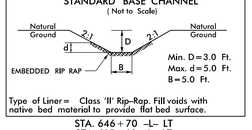
STA. 669+80 -L- RT
STA. 684+60 -L- RT
STA. 764+43 -L- LT

DETAIL #26
STANDARD BASE CHANNEL
(Not to Scale)



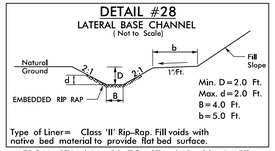
STA. 653+25 -L- LT
STA. 683+30 -L- LT
STA. 778+40 -L- LT
STA. 18+50 -SRVRD_1- LT

DETAIL #27
STANDARD BASE CHANNEL
(Not to Scale)



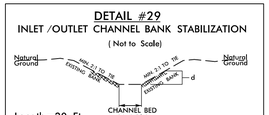
STA. 646+70 -L- LT
STA. 815+60 -L- LT
FROM STA. 843+50 TO STA. 849+40 -L- LT
STA. 19+50 -SRVRD_5- LT

DETAIL #28
LATERAL BASE CHANNEL
(Not to Scale)



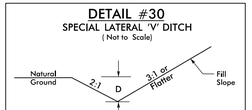
FROM STA. 644+00 TO STA. 645+00 -L- RT

DETAIL #29
INLET /OUTLET CHANNEL BANK STABILIZATION
(Not to Scale)



STA. 763+85 -L- RT
STA. 776+65 -L- RT
STA. 17+40 -SRVRD_4- RT

DETAIL #30
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM STA. 31+00 TO STA. 32+00 -Y2- RT

4/20/2023
n:\documents\design\roadway\dms42388\R2707D_Detail_Drainage_2D1-2D6.dgn
mattsweeney