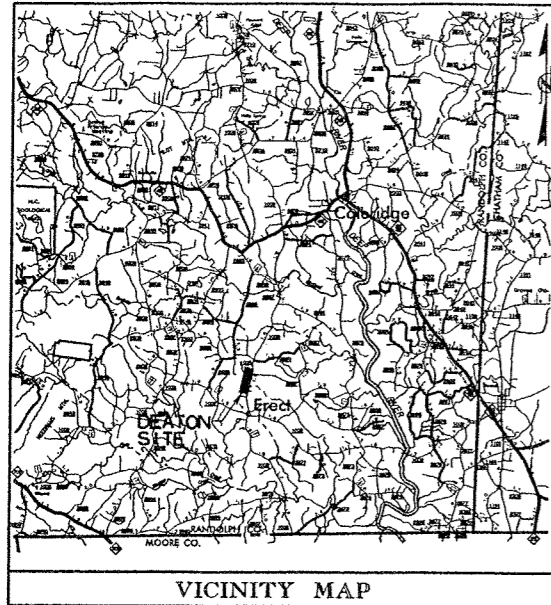


02/03/08

U-2524WM

PROJECT: 8.U492107

See Sheet 1-A For Conventional Symbols



STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
RANDOLPH COUNTY

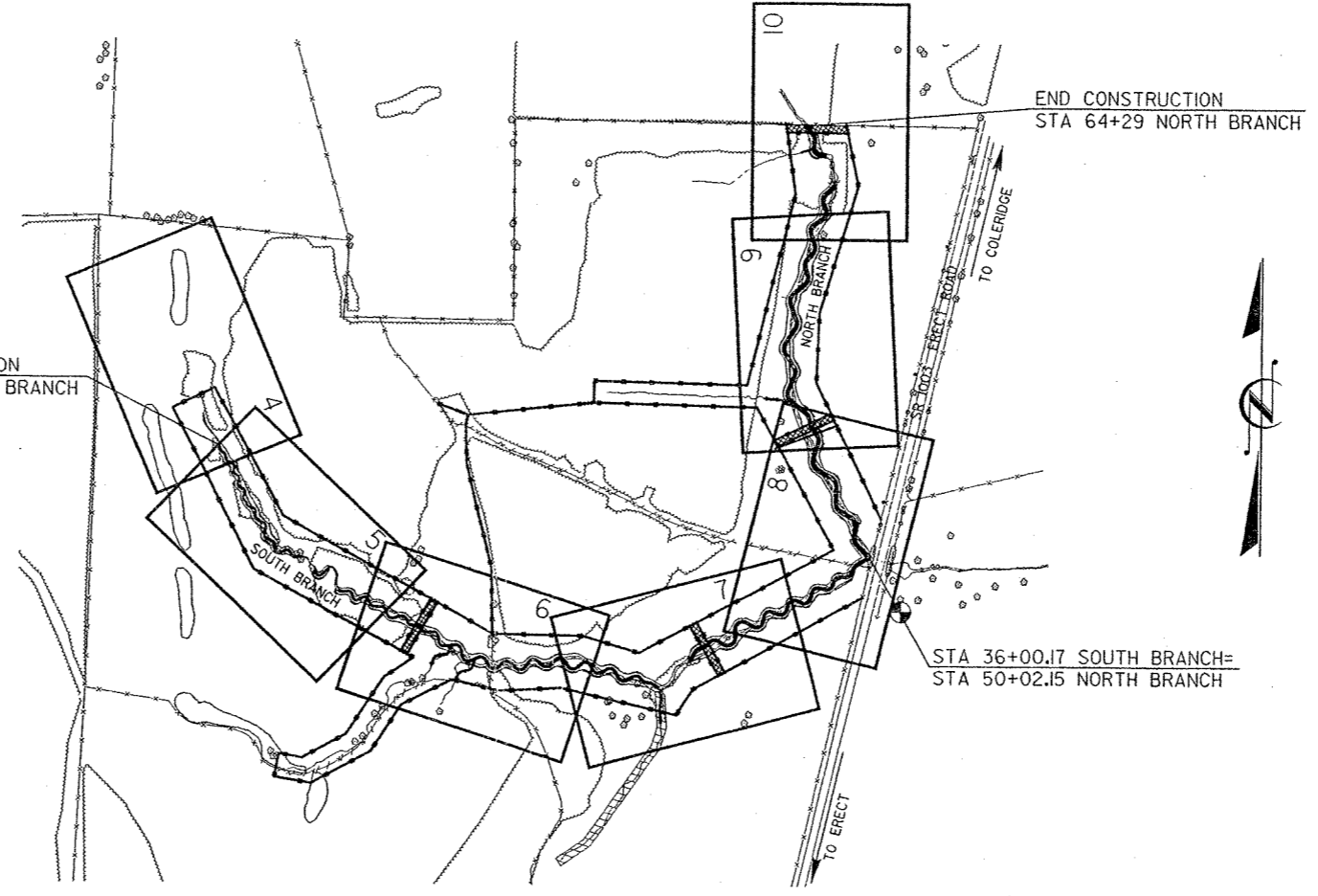
LOCATION: DEATON MITIGATION SITE WEST OF
 SR 1003 (ERECT ROAD), NORTH OF ERECT
 TYPE OF WORK: GRADING, DRAINAGE AND WATER
 SUPPLY SYSTEM

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2524WM	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
8.U492107		PE, R/W, UTIL., CONST.	

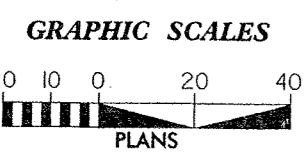
INDEX OF SHEETS

SHEET NO.	SHEET
1	TITLE SHEET
1A	CONVENTIONAL SYMBOLS
2	SITE PLAN
2A THRU 2C	TYPICAL SECTIONS AND MISCELLANEOUS DETAILS
3	SUMMARY OF QUANTITIES
4 THRU 10	PLAN SHEETS
CPP-1	CONSTRUCTION PHASING PLAN
E-1 THRU E-3	ELECTRICAL PLANS
EC-1	EROSION CONTROL PLAN
RF-1	REFORESTATION PLAN
X-1 THRU X-6	CROSS SECTIONS

BEGIN CONSTRUCTION
 STA 10+00 SOUTH BRANCH



N. C. DOT CONTACT: MR. ED LEWIS, PROJECT ENGINEER



DESIGN DATA

STREAM TYPE: E4
 WIDTH/DEPTH RATIO: 10:1
 BANKFULL VELOCITY: 3.5 fps
 BANKFULL DISCHARGE: 7-44cfs
 ENTRENCHMENT RATIO: 4-6
 RADIUS OF CURVE RATIO: 2-3
 SINUOSITY: 1:3
 BED MATERIAL D₅₀: 15mm
 BED MATERIAL D₈₄: 50mm

PROJECT LENGTH

STREAM LENGTH = 1.055 MILES
 CONSERVATION EASEMENT = 13.7 ACRES

Prepared for The North Carolina Department of Transportation
 in the Office of:
 HSM
 1305 NAVAHO DR., SUITE 303
 RALEIGH, NC 27609
 (919)878-5250

2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: _____

LETTING DATE: _____

H. R. CURRIN, P.E.
 PROJECT ENGINEER

S. G. GINN, P.E.
 DESIGN ENGINEER

HYDRAULICS ENGINEER

7-12-02

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER

DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL SYMBOLS

*S.U.E = SUBSURFACE UTILITY ENGINEER

ROADS & RELATED ITEMS

Edge of Pavement	-----
Curb	-----
Prop. Slope Stakes Cut	-----C-----
Prop. Slope Stakes Fill	-----F-----
Prop. Woven Wire Fence	-----○-----
Prop. Chain Link Fence	-----□-----
Prop. Barbed Wire Fence	-----◇-----
Prop. Wheelchair Ramp	-----WCR-----
Curb Cut for Future Wheelchair Ramp	-----CCFR-----
Exist. Guardrail	-----
Prop. Guardrail	-----
Equality Symbol	-----⊕-----
Pavement Removal	-----X-----

RIGHT OF WAY

Baseline Control Point	-----◆-----
Existing Right of Way Marker	-----△-----
Exist. Right of Way Line w/Marker	-----△-----
Prop. Right of Way Line with Proposed	-----
R/W Marker (Iron Pin & Cap)	-----▲-----
Prop. Right of Way Line with Proposed	-----
(Concrete or Granite) R/W Marker	-----⊙-----
Exist. Control of Access Line	-----⊙-----
Prop. Control of Access Line	-----⊙-----
Exist. Easement Line	-----E-----
Prop. Temp. Construction Easement Line	-----E-----
Prop. Temp. Drainage Easement Line	-----TDE-----
Prop. Perm. Drainage Easement Line	-----PDE-----

HYDROLOGY

Stream or Body of Water	-----
River Basin Buffer	-----BZ-----
Flow Arrow	-----→-----
Disappearing Stream	-----
Spring	-----
Swamp Marsh	-----
Shoreline	-----
Falls, Rapids	-----
Prop Lateral, Tail, Head Ditches	-----FLDW-----

STRUCTURES

MAJOR	
Bridge, Tunnel, or Box Culvert	-----CONC-----
Bridge Wing Wall, Head Wall and End Wall	-----CONC WW-----

MINOR	
Head & End Wall	-----CONC HW-----
Pipe Culvert	-----
Footbridge	-----
Drainage Boxes	-----CB-----
Paved Ditch Gutter	-----

UTILITIES

Exist. Pole	-----●-----
Exist. Power Pole	-----○-----
Prop. Power Pole	-----○-----
Exist. Telephone Pole	-----○-----
Prop. Telephone Pole	-----○-----
Exist. Joint Use Pole	-----○-----
Prop. Joint Use Pole	-----○-----
Telephone Pedestal	-----
U/G Telephone Cable Hand Hold	-----
Cable TV Pedestal	-----
U/G TV Cable Hand Hold	-----
U/G Power Cable Hand Hold	-----
Hydrant	-----
Satellite Dish	-----
Exist. Water Valve	-----
Sewer Clean Out	-----
Power Manhole	-----
Telephone Booth	-----
Cellular Telephone Tower	-----
Water Manhole	-----
Light Pole	-----
H-Frame Pole	-----
Power Line Tower	-----
Pole with Base	-----
Gas Valve	-----
Gas Meter	-----
Telephone Manhole	-----
Power Transformer	-----
Sanitary Sewer Manhole	-----
Storm Sewer Manhole	-----
Tank; Water, Gas, Oil	-----
Water Tank With Legs	-----
Traffic Signal Junction Box	-----
Fiber Optic Splice Box	-----
Television or Radio Tower	-----
Utility Power Line Connects to Traffic Signal Lines Cut Into the Pavement	-----TS-----

Recorded Water Line	-----W-----
Designated Water Line (S.U.E.*)	-----W-----
Sanitary Sewer	-----SS-----
Recorded Sanitary Sewer Force Main	-----FSS-----
Designated Sanitary Sewer Force Main(S.U.E.*)	-----FSS-----
Recorded Gas Line	-----G-----
Designated Gas Line (S.U.E.*)	-----G-----
Storm Sewer	-----S-----
Recorded Power Line	-----P-----
Designated Power Line (S.U.E.*)	-----P-----
Recorded Telephone Cable	-----T-----
Designated Telephone Cable (S.U.E.*)	-----T-----
Recorded U/G Telephone Conduit	-----TC-----
Designated U/G Telephone Conduit (S.U.E.*)	-----TC-----
Unknown Utility (S.U.E.*)	-----?UTL-----
Recorded Television Cable	-----TV-----
Designated Television Cable (S.U.E.*)	-----TV-----
Recorded Fiber Optics Cable	-----FO-----
Designated Fiber Optics Cable (S.U.E.*)	-----FO-----
Exist. Water Meter	-----⊙-----
U/G Test Hole (S.U.E.*)	-----⊙-----
Abandoned According to U/G Record	-----ATTUR-----
End of Information	-----E.O.I.-----

BOUNDARIES & PROPERTIES

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Property Line Symbol	-----
Exist. Iron Pin	-----⊙-----
Property Corner	-----+
Property Monument	-----ECM-----
Property Number	-----123-----
Parcel Number	-----6-----
Fence Line	-----X-----
Existing Wetland Boundaries	-----WW & ISBW-----
High Quality Wetland Boundary	-----HLB-----
Medium Quality Wetland Boundaries	-----MQ WLB-----
Low Quality Wetland Boundaries	-----LQ WLB-----
Proposed Wetland Boundaries	-----WLB-----
Existing Endangered Animal Boundaries	-----EAB-----
Existing Endangered Plant Boundaries	-----EPB-----

BUILDINGS & OTHER CULTURE

Buildings	-----
Foundations	-----
Area Outline	-----
Gate	-----
Gas Pump Vent or U/G Tank Cap	-----
Church	-----
School	-----
Park	-----
Cemetery	-----
Dam	-----
Sign	-----
Well	-----
Small Mine	-----
Swimming Pool	-----

TOPOGRAPHY

Loose Surface	-----
Hard Surface	-----
Change in Road Surface	-----
Curb	-----
Right of Way Symbol	-----R/W-----
Guard Post	-----⊙ GP-----
Paved Walk	-----
Bridge	-----
Box Culvert or Tunnel	-----
Ferry	-----
Culvert	-----
Footbridge	-----
Trail, Footpath	-----
Light House	-----

VEGETATION

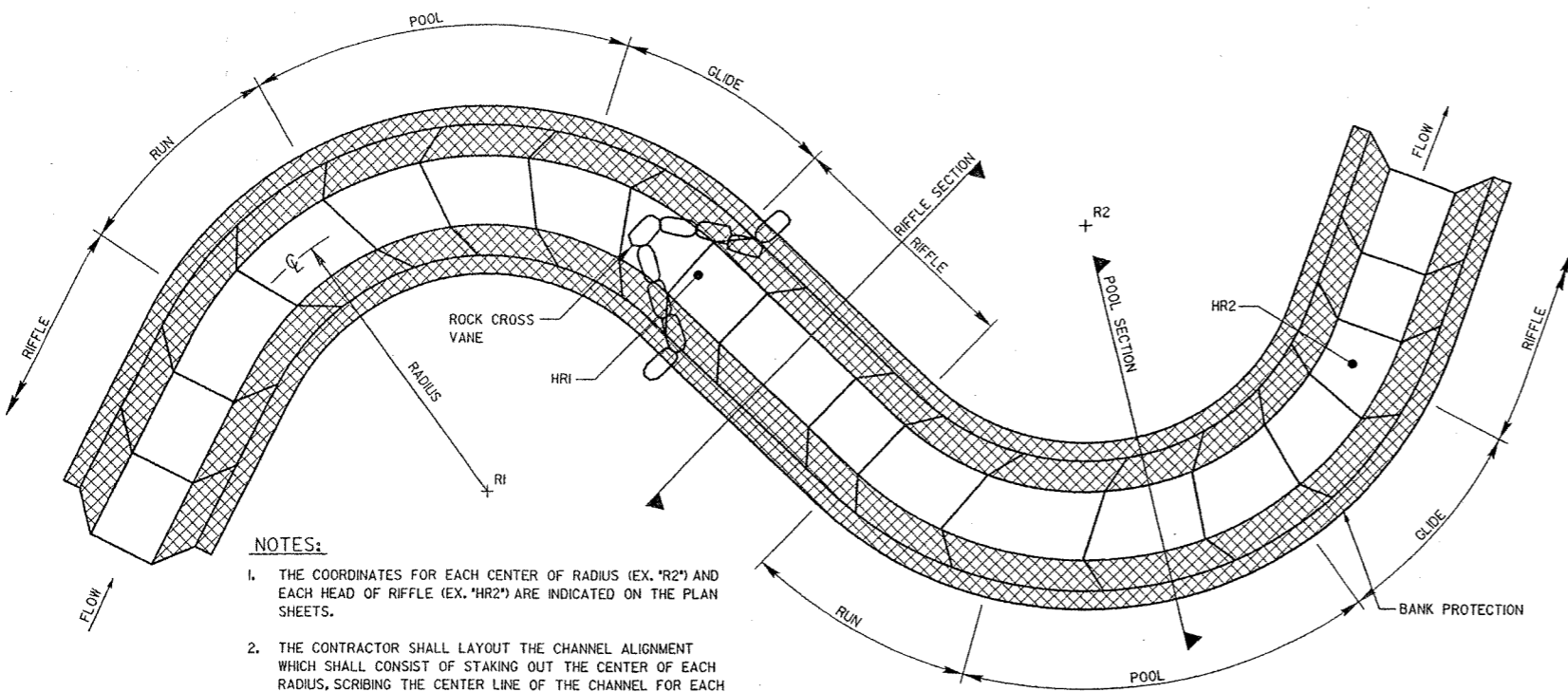
Single Tree	-----
Single Shrub	-----
Hedge	-----
Woods Line	-----
Orchard	-----
Vineyard	-----VINEYARD-----

RAILROADS

Standard Gauge	-----
RR Signal Milepost	-----
Switch	-----

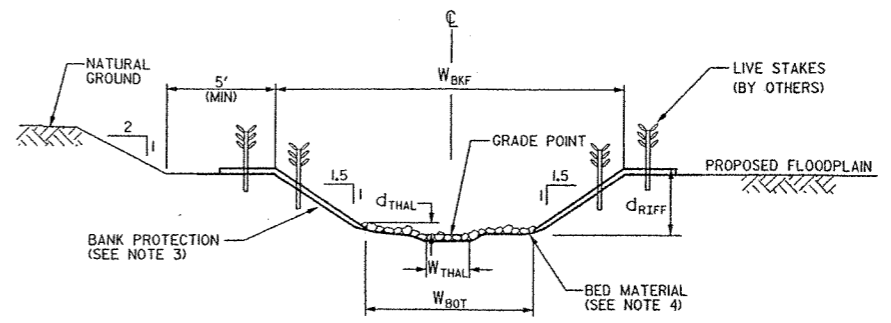
5/28/99
REF: H:\2524\2524.dwg
DATE: 07/26/2006 10:45:25 AM
USER: j...
PLOT: 11x17
SCALE: 1/8"=1'-0"
SHEET: 1-A
TOTAL SHEETS: 1

02/03/98

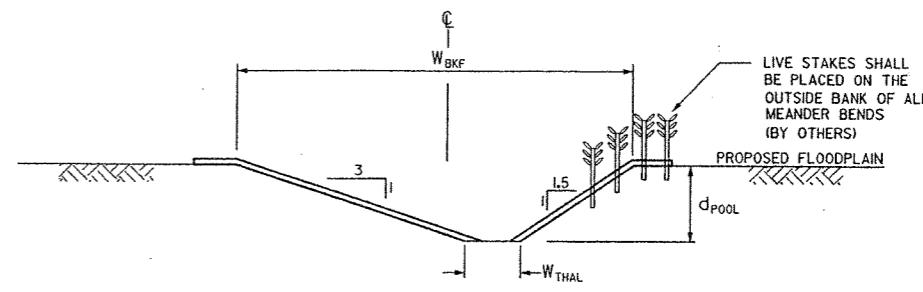


- NOTES:**
1. THE COORDINATES FOR EACH CENTER OF RADIUS (EX. 'R2') AND EACH HEAD OF RIFFLE (EX. 'HR2') ARE INDICATED ON THE PLAN SHEETS.
 2. THE CONTRACTOR SHALL LAYOUT THE CHANNEL ALIGNMENT WHICH SHALL CONSIST OF STAKING OUT THE CENTER OF EACH RADIUS, SCRIBING THE CENTER LINE OF THE CHANNEL FOR EACH BEND USING THE INDICATED RADIUS, AND SCRIBING CENTERLINE OF THE TANGENT SECTIONS BY CONNECTING SUCCESSIVE BENDS WITH A STRAIGHT LINE.
 3. FIELD ADJUSTMENTS OF THE ALIGNMENT MAY BE REQUIRED TO AVOID CERTAIN OBSTACLES. APPROVAL BY THE ENGINEER OF THE STAKE-OUT ALIGNMENT SHALL BE REQUIRED PRIOR TO INITIATION OF THE CONSTRUCTION OF THE CHANNEL.

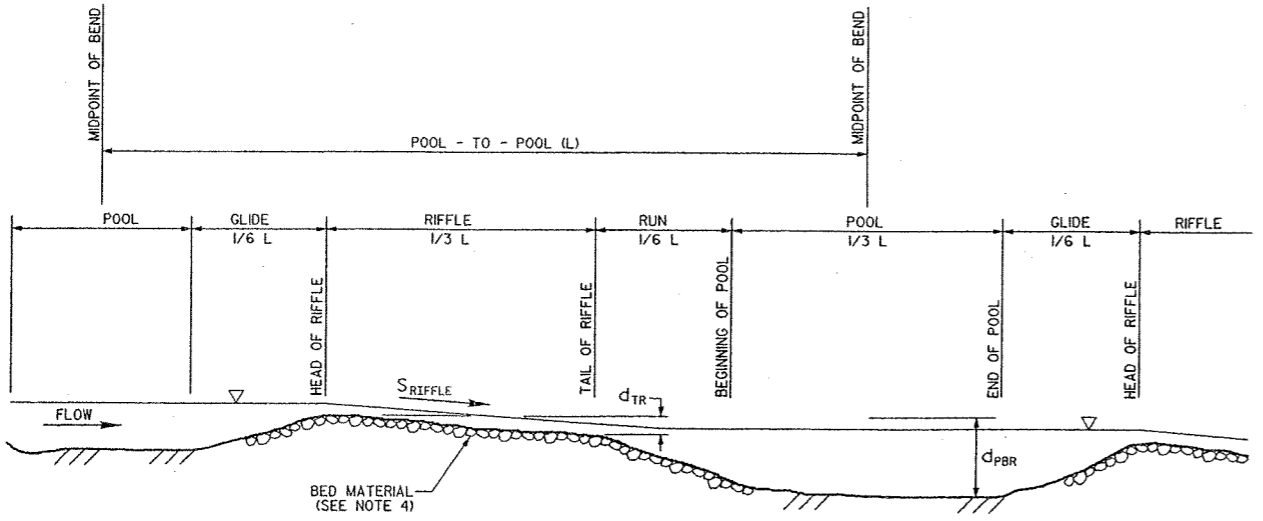
TYPICAL PLAN
NOT TO SCALE



TYPICAL RIFFLE SECTION
NOT TO SCALE



TYPICAL POOL SECTION
NOT TO SCALE

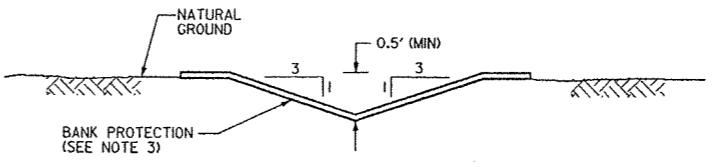


- NOTES:**
1. THE POOL TO POOL SPACING (L) SHALL BE MEASURED AS THE DISTANCE FROM THE MIDPOINT OF THE UPSTREAM BEND TO THE MIDPOINT OF THE DOWNSTREAM BEND.
 2. THE HEAD OF RIFFLE REPRESENTS THE CONTROLLING GRADE POINT ELEVATION AND IS INDICATED ON THE PLAN SHEETS. THE DIMENSIONS d_{TR} (DEPTH AT TOE OF RIFFLE) AND d_{PBR} (DEPTH OF POOL BELOW RIFFLE) ARE MEASURED FROM THE ELEVATION OF THE UPSTREAM HEAD OF RIFFLE.

PROFILE DIMENSIONS		
REACH	S_{RIFF} (%)	d_{PBR} (ft)
STA 10+00 TO STA 14+80	3.4	0.5
STA 14+80 TO STA 20+70	2.7	0.6
STA 20+70 TO STA 28+00	2.2	0.7
STA 28+00 TO STA 36+00	2.0	0.8
STA 50+02 TO STA 55+00	1.5	0.9
STA 55+00 TO STA 64+29	1.5	0.9

TYPICAL PROFILE
NOT TO SCALE

SECTION DIMENSIONS						
REACH	W_{BKF} (ft)	W_{BOT} (ft)	d_{RIFF} (ft)	d_{THAL} (ft)	d_{POOL} (ft)	W_{THAL} (ft)
STA 10+00 TO STA 14+80	3.5	2.3	0.50	0.10	0.7	0.5
STA 14+80 TO STA 20+70	5.3	3.3	0.75	0.10	1.0	0.5
STA 20+70 TO STA 28+00	7.0	4.4	1.00	0.15	1.3	1.0
STA 28+00 TO STA 36+00	8.3	5.3	1.15	0.15	1.6	1.0
STA 50+02 TO STA 55+00	11.0	7.0	1.55	0.20	2.1	1.5
STA 55+00 TO STA 64+29	10.4	6.6	1.45	0.20	2.0	1.5

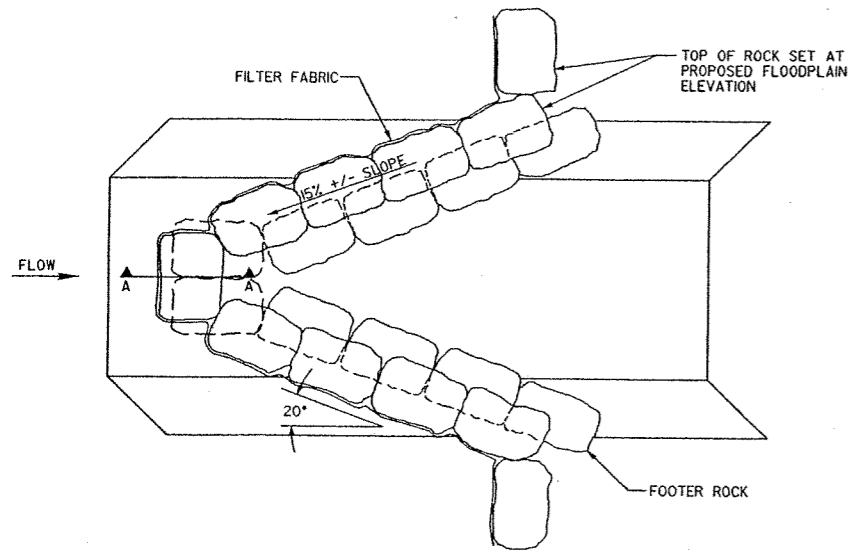


DETAIL 'V' SWALE
NOT TO SCALE

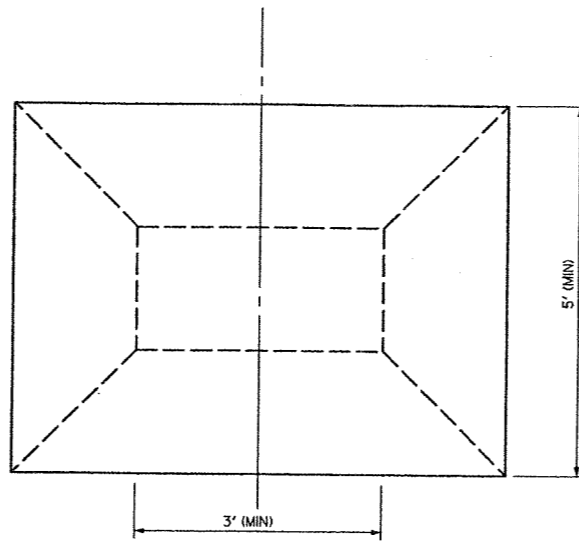
- GENERAL NOTES:**
1. CONSTRUCTION OF THE PROPOSED CHANNEL SHALL CONSIST OF EXCAVATION OF THE CHANNEL SECTION AT THE PROPOSED LOCATION AS INDICATED ON THE PLANS.
 2. MATERIAL EXCAVATED FROM THE PROPOSED CHANNEL AND FLOODPLAIN SHALL BE UTILIZED TO BACKFILL THE EXISTING CHANNEL. BACKFILL SHALL BE COMPACTED TO THE SATISFACTION OF THE ENGINEER.
 3. BANK PROTECTION SHALL CONSIST OF SOD MATTING EXCAVATED FROM ON-SITE. WHERE SOD MATTING IS NOT AVAILABLE, BANK PROTECTION SHALL CONSIST OF NATURAL FIBER MATTING.
 4. BED MATERIAL SHALL CONSIST OF GRAVEL EXCAVATED FROM ON-SITE. BED MATERIAL FROM THE EXISTING CHANNEL SHALL BE DREGGED AND STOCKED PILED FOR USE IN THE PROPOSED CHANNEL. THE CONTRACTOR SHALL PROVIDE SUPPLEMENTAL GRAVEL WHERE THERE IS INSUFFICIENT GRAVEL TO PROVIDE FOR THE ENTIRE BED OF EACH RIFFLE SECTION. THE SUPPLEMENTAL GRAVEL SHALL HAVE A D_{50} OF 15mm AND A D_{84} OF 50mm AND SHALL BE APPROVED BY THE ENGINEER. BED MATERIAL SHALL BE COMPACTED TO THE SATISFACTION OF THE ENGINEER.
 5. PLACING OF LIVE STAKES IS NOT CONSIDERED TO BE PART OF THIS CONTRACT AND SHALL BE ACCOMPLISHED BY OTHERS.

15 INCH
 01/08/2002 09:55:59 AM
 3 362081

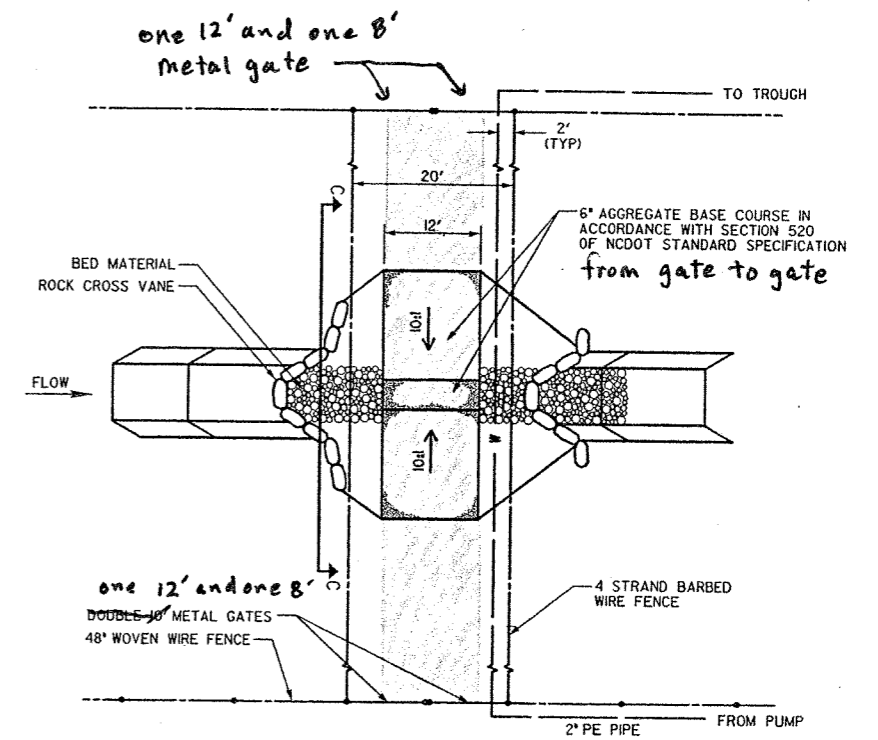
REACH	MIN ROCK DIMENSIONS		
	WIDTH	DEPTH	LENGTH
STA 10+00 TO STA 14+80	0.8	0.8	1.2
STA 14+80 TO STA 20+70	1.2	1.0	1.8
STA 20+70 TO STA 28+00	1.5	1.2	2.3
STA 28+00 TO STA 36+00	1.9	1.4	2.8
STA 50+00 TO STA 55+00	2.5	1.7	3.5
STA 55+00 TO STA 64+29	2.5	1.7	3.5



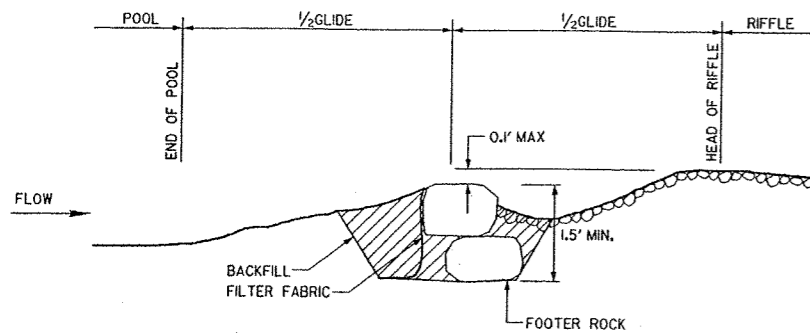
ROCK CROSS VANE - PLAN
NOT TO SCALE



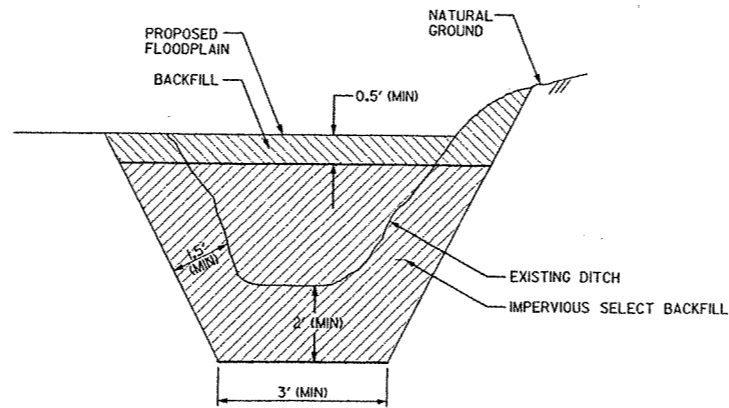
IMPERVIOUS BLOCK - PLAN
NOT TO SCALE



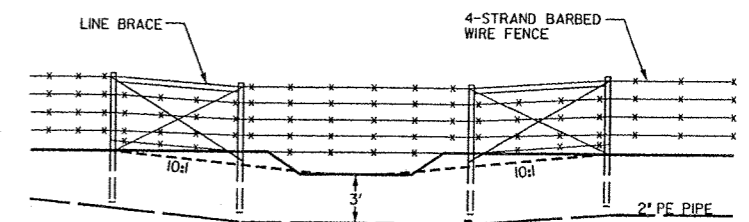
STREAM CROSSING PLAN VIEW
NOT TO SCALE



ROCK CROSS VANE - SECTION A-A
NOT TO SCALE



IMPERVIOUS BLOCK - SECTION
NOT TO SCALE

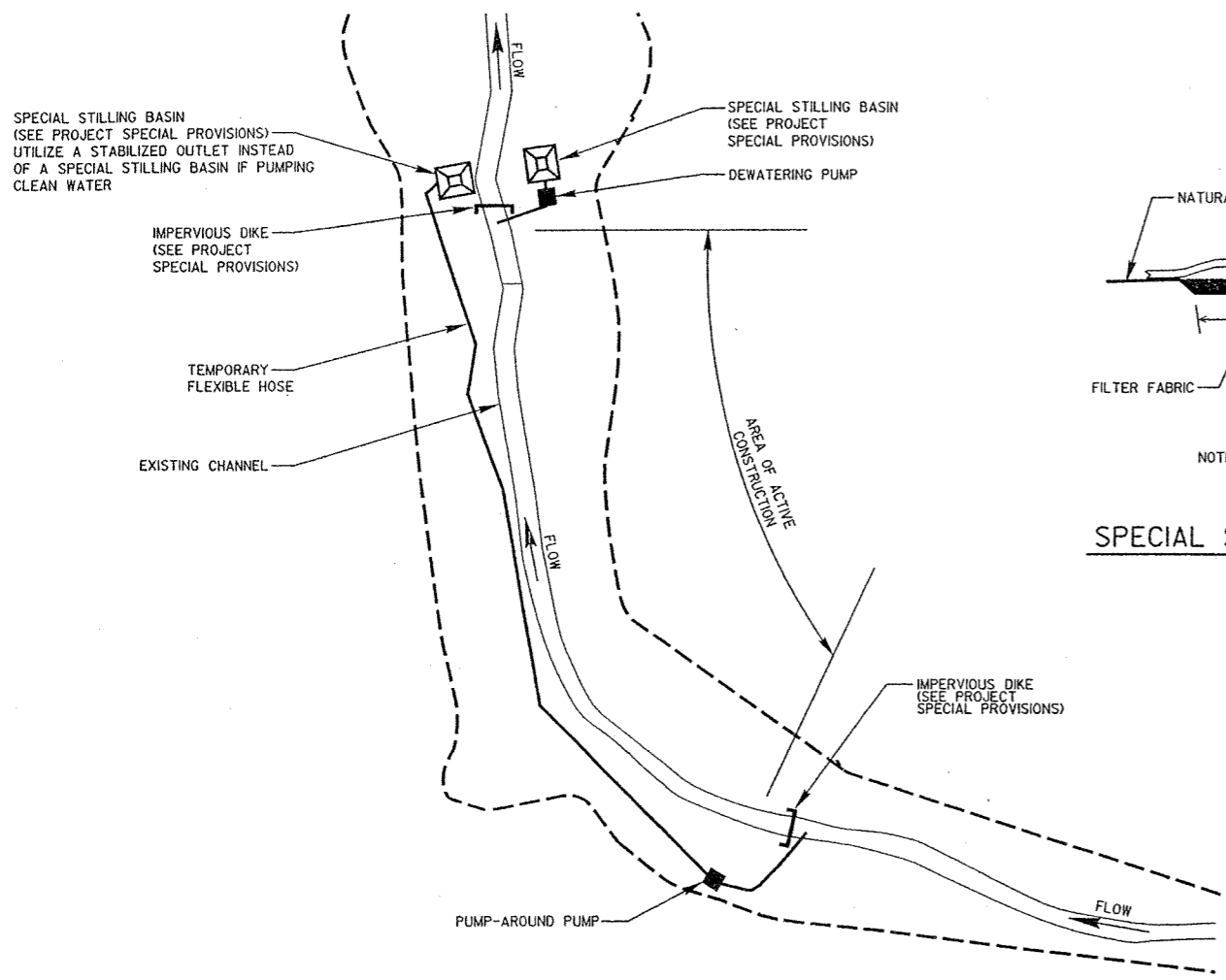


NOTE:
THE TWO LOWEST STRANDS OVER THE CHANNEL SHALL TERMINATE AT ONE OF THE ADJACENT POSTS AND BE SECURED TO THAT POST SUCH THAT FLOATING DEBRIS WOULD DISLODGE THE WIRE WITHOUT DAMAGING THE REMAINING FENCE.

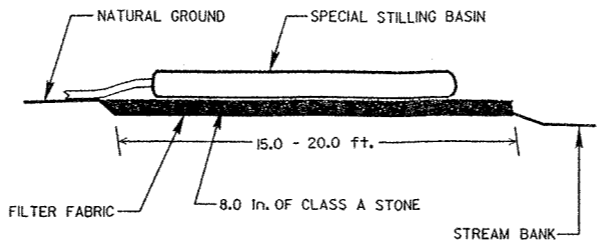
STREAM CROSSING SECTION C-C
NOT TO SCALE

02/03/98

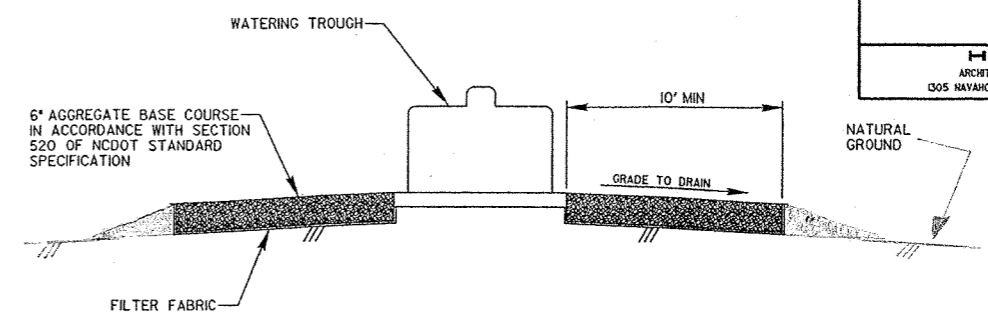
PROJECT REFERENCE NO. U-2524WM	SHEET NO. 2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
H S M M ARCHITECTS - ENGINEERS - PLANNERS 1005 NAYAH DR. SUITE 303 RALEIGH, NC 27609	



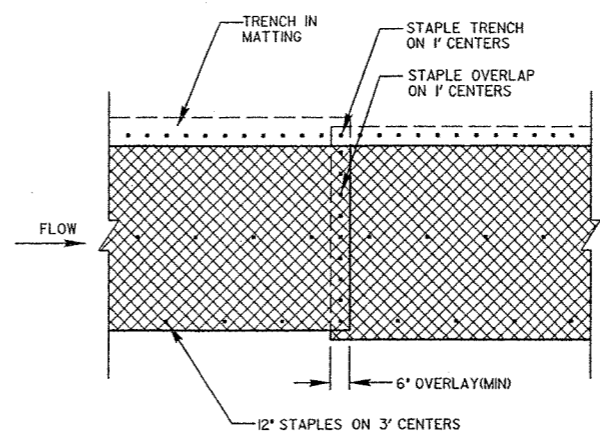
TYPICAL PUMP-AROUND OPERATION
NOT TO SCALE



NOTE: PROVIDE STABILIZED OUTLET TO STREAMBANK
SPECIAL STILLING BASIN WITH ROCK PAD
NOT TO SCALE



TROUGH APRON DETAIL
NOT TO SCALE

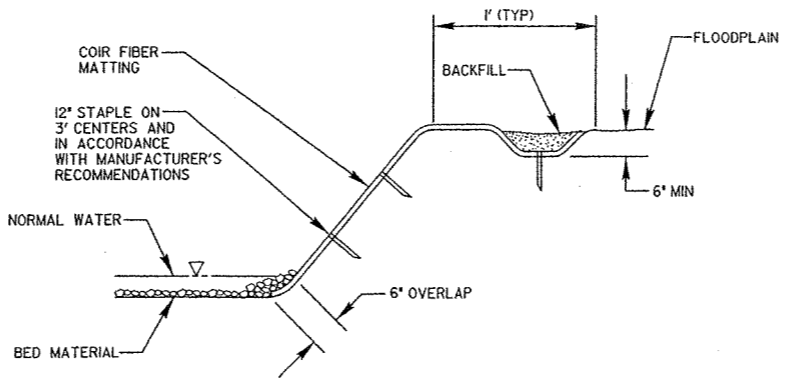


COIR FIBER MATTING DETAIL
NOT TO SCALE

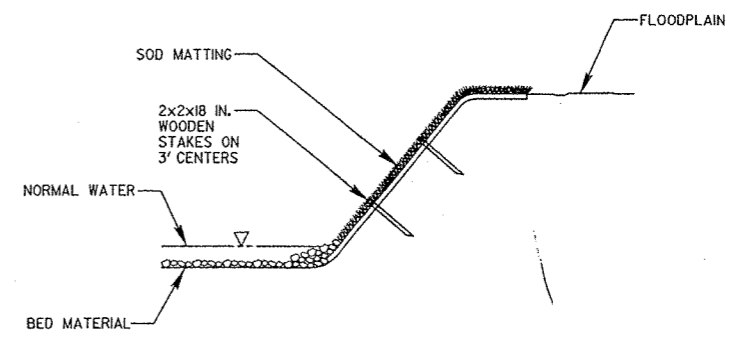
- NOTES:**
- 1) ALL EXCAVATION SHALL BE PERFORMED IN ONLY DRY OR ISOLATED SECTIONS OF CHANNEL.
 - 2) IMPERVIOUS DIKES ARE TO BE USED TO ISOLATE WORK FROM STREAM FLOW WHEN NECESSARY.
 - 3) ALL GRADED AREAS SHALL BE STABILIZED WITHIN 24 HOURS.
 - 4) MAINTENANCE OF STREAM FLOW OPERATIONS SHALL BE INCIDENTAL TO THE WORK. THIS INCLUDES POLYETHYLENE SHEETING, DIVERSION PIPES, PUMPS AND HOSES.
 - 5) PUMPS AND HOSES SHALL BE OF SUFFICIENT SIZE TO DEWATER THE WORK AREA.

SEQUENCE OF CONSTRUCTION FOR TYPICAL PUMP-AROUND

1. INSTALL SPECIAL STILLING BASIN(S).
2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA.
5. PERFORM STREAM RESTORATION WORK IN ACCORDANCE WITH THE PLANS.
6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
7. ALL GRADING AND STABILIZATION MUST BE COMPLETED WITHIN THE PUMP AROUND AREAS BETWEEN THE IMPERVIOUS DIKES. THE IMPERVIOUS DIKE LOCATIONS AS SHOWN ON THIS SHEET ONLY SHOW THE UPPER AND LOWER EXTENT OF WORK FOR EACH STREAM SEGMENT. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF THE IMPERVIOUS DIKE(S).
8. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.



COIR FIBER MATTING SECTION
NOT TO SCALE



SOD MATTING SECTION
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

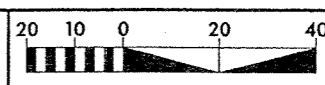
SUMMARY OF EARTHWORK IN CUBIC YARDS

DESC	SECT	QUANTITY	UNIT	ITEM DESCRIPTION
0000100000-N	800	LUMP SUM	LS	Mobilization
0000400000-N	801	LUMP SUM	LS	Construction Surveying
0001010000-N	200	ID	EA	Select Tree Removal
0043000000-N	226	LUMP SUM	LS	Grading
0050000000-N	226	I	ACR	Supplementary Clearing and Grubbing
#21000000-E	520	300	TON	Aggregate Base Course
3503000000-E	866	17,600	LF	Woven Wire Fence, 47' Fabric
3509000000-E	866	1,421	EA	4' Timber Fence Post, 7'-6" Long
3515000000-E	866	280	EA	5' Timber Fence Post, 8'-0" Long
	866	16	EA	Double Gates, 47' High, 10' Wide, 20' Opening
	866	8	EA	Single Gates, 47' High, 4' Wide, 4' Opening
3559000000-E	866	1300	LF	4-Strand Barbed Wire Fence
3563000000-E	SP	430	LF	Temp 47' Woven Wire Fence, W/ Posts
3656000000-E	876	1318	SY	Filter Fabric for Drainage
4400000000-E	1110	32	SF	Work Zone Signs (Stationary)
6000000000-E	1605	1000	LF	Temporary Silt Fence
6006000000-E	1610	103	TON	Stone for Erosion Control, Class A
6009000000-E	1610	12	TON	Stone for Erosion Control, Class B
6012000000-E	1610	1.2	TON	Sediment Control Stone
6015000000-E	1615	2	ACR	Temporary Mulching
6018000000-E	1620	130	LB	Seed for Temporary Seeding
6021000000-E	1620	0.5	TON	Fertilizer for Temporary Seeding
6045000000-E	SP	40	LF	Temporary Pipe (24 Inch)
6070000000-E	SP	10	EA	Special Stilling Basin
6084000000-E	1660	12	ACR	Seeding and Mulching
6090000000-E	1661	100	LB	Seed for Repair Seeding
6093000000-E	1661	0.25	TON	Fertilizer for Repair Seeding
6096000000-E	1662	200	LB	Seed for Supplemental Seeding
6105000000-E	1664	22.6	MG	Water
6110000000-E	SP	200	LF	Impervious Dike
	SP	44	TON	Channel Bed Material (On-site)
	SP	44	TON	Channel Bed Material (Off-site)
	SP	1343	SY	Coir Fiber Matting
	SP	1343	SY	Sod Transplanting
	SP	312	TON	Natural Stone Class Boulder
	SP	LUMP SUM	LS	Water Supply System
	SP	62	CY	Impervious Select Material
	SP	500	LF	Safety Fence

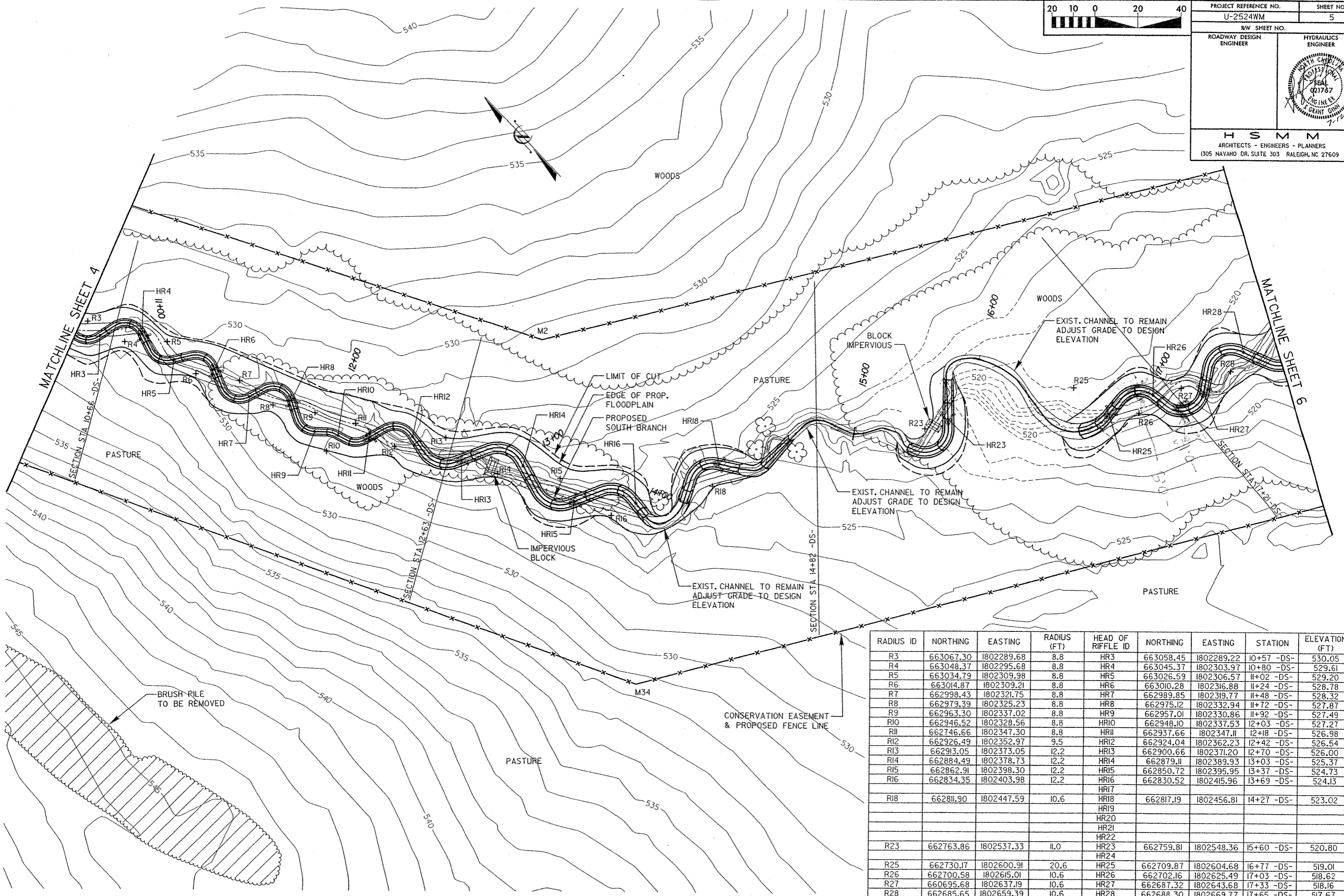
SOUTH BRANCH				
LOCATION	UNCL. EXCAVATION	EMBT +%	BORROW	WASTE
10+00 TO 10+66	11	1	0	10
10+66 TO 12+63	50	16	0	34
12+63 TO 14+40	52	26	0	26
14+40 TO 14+65	3	3	0	0
14+65 TO 14+82	0	1	1	0
14+82 TO 16+10	0	8	8	0
16+10 TO 16+20	6	4	0	2
16+20 TO 17+21	48	33	0	15
17+21 TO 19+90	108	92	0	16
19+90 TO 21+71	81	74	0	7
21+71 TO 24+50	204	115	0	89
24+50 TO 27+39	241	129	0	112
27+39 TO 28+00	30	42	12	0
28+00 TO 28+96	0	68	68	0
28+96 TO 29+50	10	35	25	0
29+50 TO 31+47	62	110	48	0
31+47 TO 33+72	140	121	0	19
33+72 TO 34+89	125	51	0	74
34+89 TO 35+71	85	23	0	62
35+71 TO 36+00	17	3	0	14
SUBTOTAL (SUMMARY *1)	1273	955	162	480
NORTH BRANCH				
LOCATION	UNCL. EXCAVATION	EMBT +%	BORROW	WASTE
50+00 TO 50+12	4	3	0	1
50+12 TO 50+40	25	19	0	6
50+40 TO 50+93	35	33	0	2
50+93 TO 52+02	23	52	29	0
52+02 TO 54+45	155	189	34	0
54+45 TO 57+03	186	247	61	0
57+03 TO 59+22	111	211	100	0
59+22 TO 60+65	90	163	73	0
60+65 TO 61+74	84	166	82	0
61+74 TO 62+61	41	105	64	0
62+61 TO 63+22	10	49	39	0
63+22 TO 63+98	19	47	28	0
63+98 TO 84+29	3	10	7	0
SUBTOTAL (SUMMARY *2)	786	1294	517	9
SUBTOTAL (SUMMARY *1 & *2)	2059	2249	679	489
WASTE USED IN LIEU OF BORROW			-489	-489
PROJECT TOTALS	2059	2249	190	0
EST. FOR REPL. TOPSOIL ON BORROW PIT		10	10	
TOTAL	2059	2259	200	0
SAY	2060	2260	200	0

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING AND CLEARING AND GRUBBING WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR 'GRADING'.

02/02/02
 Project: 1102324.mxd, Date: 02/02/02, Author: [unreadable], Title: [unreadable], Sheet: 5 of 5, Date: 02/02/02, 11:51:15 AM, [unreadable]



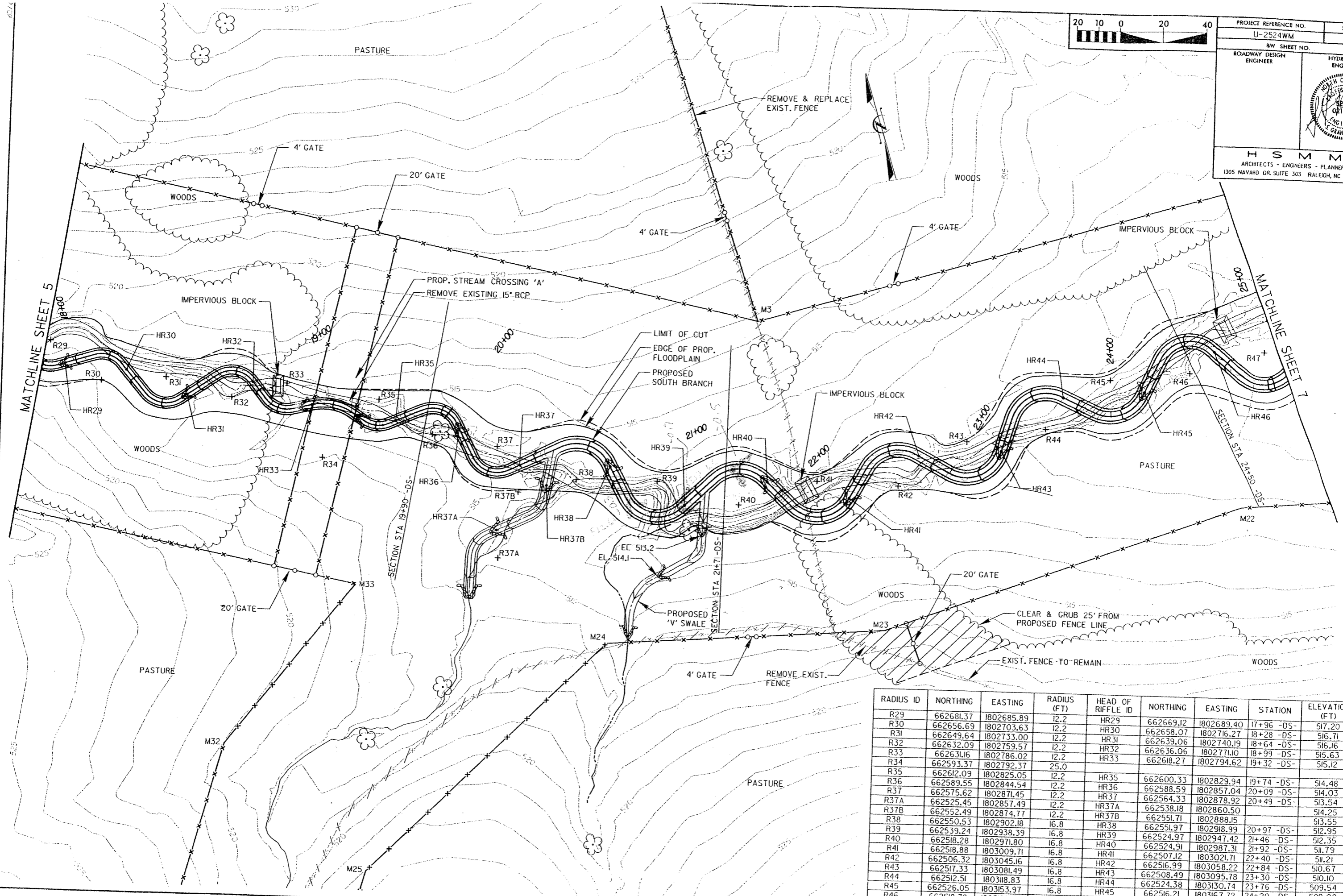
PROJECT REFERENCE NO. U-2524WM		SHEET NO. 5
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
H S M M ARCHITECTS - ENGINEERS - PLANNERS 1305 NAVAHO DR, SUITE 303 RALEIGH, NC 27609		



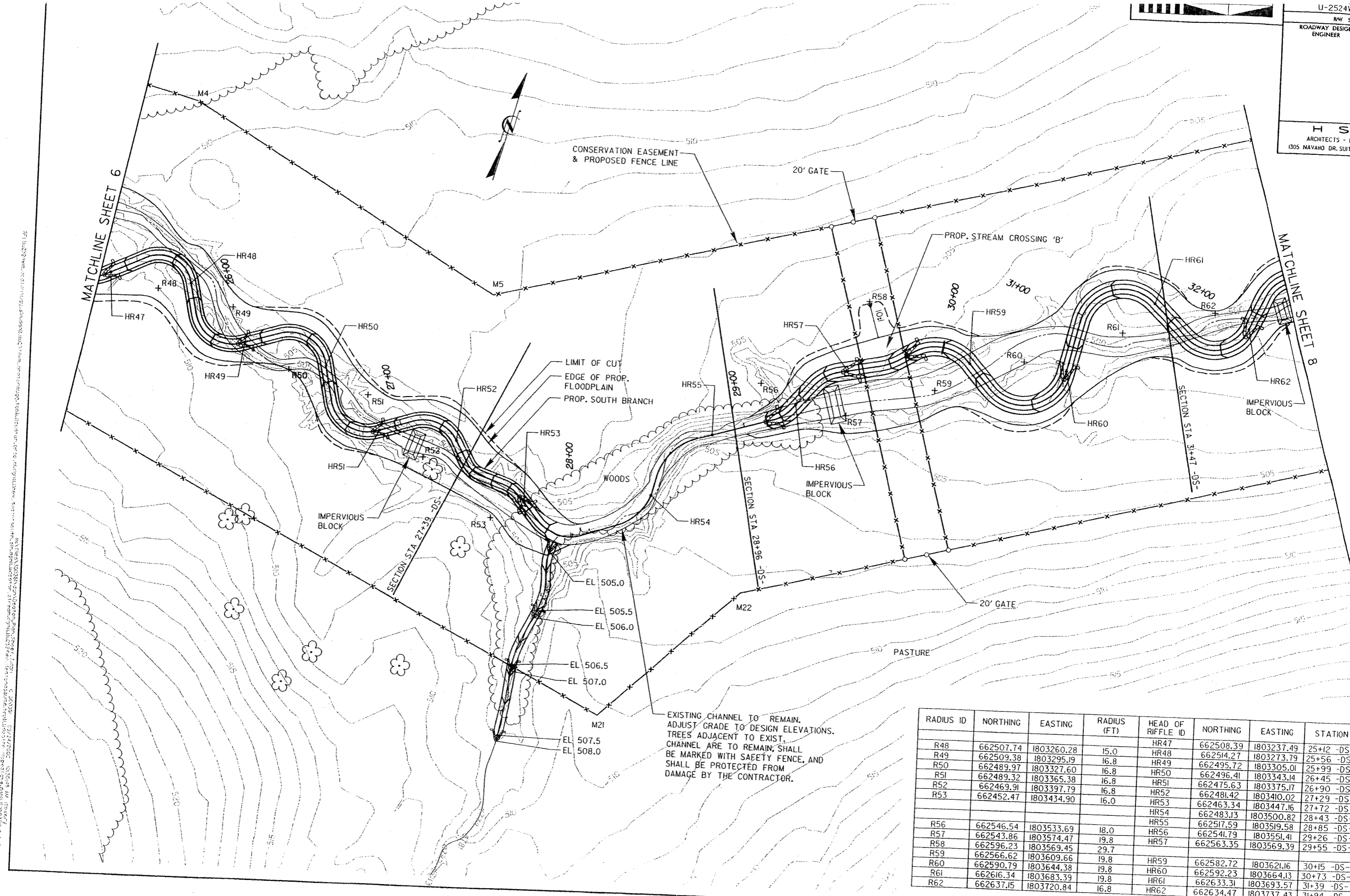
RADIUS ID	NORTHING	EASTING	RADIUS (FT)	HEAD OF RIFFLE ID	NORTHING	EASTING	STATION	ELEVATION (FT)
R3	663067.30	1802289.68	8.8	HR3	663058.45	1802289.22	10+57 -DS-	530.05
R4	663048.37	1802295.68	8.8	HR4	663045.37	1802303.97	10+80 -DS-	529.61
R5	663034.79	1802309.98	8.8	HR5	663026.59	1802306.57	11+02 -DS-	529.20
R6	663014.87	1802309.21	8.8	HR6	663010.28	1802316.88	11+24 -DS-	528.78
R7	662998.43	1802321.75	8.8	HR7	662989.85	1802319.77	11+48 -DS-	528.32
R8	662979.39	1802325.23	8.8	HR8	662975.12	1802332.94	11+72 -DS-	527.87
R9	662963.30	1802337.02	8.8	HR9	662957.01	1802330.86	11+92 -DS-	527.49
R10	662946.52	1802328.56	8.8	HR10	662948.10	1802337.53	12+03 -DS-	527.27
R11	662746.66	1802347.30	8.8	HR11	662937.66	1802347.11	12+18 -DS-	526.98
R12	662926.49	1802352.97	9.5	HR12	662924.04	1802362.23	12+42 -DS-	526.54
R13	662913.05	1802373.05	12.2	HR13	662900.66	1802371.20	12+70 -DS-	526.00
R14	662884.49	1802378.73	12.2	HR14	662879.11	1802389.93	13+03 -DS-	525.37
R15	662862.91	1802398.30	12.2	HR15	662850.72	1802395.95	13+37 -DS-	524.73
R16	662834.35	1802403.98	12.2	HR16	662830.52	1802415.96	13+69 -DS-	524.13
				HR17				
R18	662811.90	1802447.59	10.6	HR18	662817.19	1802456.81	14+27 -DS-	523.02
				HR19				
				HR20				
				HR21				
				HR22				
R23	662763.86	1802537.33	11.0	HR23	662759.81	1802548.36	15+60 -DS-	520.80
				HR24				
R25	662730.17	1802600.91	20.6	HR25	662709.87	1802604.68	16+77 -DS-	519.01
R26	662700.58	1802615.01	10.6	HR26	662702.16	1802625.49	17+03 -DS-	518.62
R27	660695.68	1802637.19	10.6	HR27	662687.32	1802643.68	17+33 -DS-	518.16
R28	662685.65	1802659.39	10.6	HR28	662688.30	1802669.77	17+65 -DS-	517.67



PROJECT REFERENCE NO. U-2524WM	SHEET NO. 6
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
H S M M ARCHITECTS - ENGINEERS - PLANNERS 1305 NAVAHO DR. SUITE 303 RALEIGH, NC 27609	

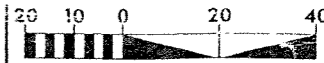


RADIUS ID	NORTHING	EASTING	RADIUS (FT)	HEAD OF RIFFLE ID	NORTHING	EASTING	STATION	ELEVATION (FT)
R29	662681.37	1802685.89	12.2	HR29	662669.12	1802689.40	17+96 -DS-	517.20
R30	662656.69	1802703.63	12.2	HR30	662658.07	1802716.27	18+28 -DS-	516.71
R31	662649.64	1802733.00	12.2	HR31	662639.06	1802740.19	18+64 -DS-	516.16
R32	662632.09	1802759.57	12.2	HR32	662636.06	1802771.10	18+99 -DS-	515.63
R33	662631.16	1802786.02	12.0	HR33	662618.27	1802794.62	19+32 -DS-	515.12
R34	662593.37	1802792.37	25.0					
R35	662612.09	1802825.05	12.2	HR35	662600.33	1802829.94	19+74 -DS-	514.48
R36	662589.55	1802844.54	12.2	HR36	662588.59	1802857.04	20+09 -DS-	514.03
R37	662575.62	1802871.45	12.2	HR37	662564.33	1802878.92	20+49 -DS-	513.54
R37A	662525.45	1802857.49	12.2	HR37A	662538.18	1802860.50		514.25
R37B	662552.49	1802874.77	12.2	HR37B	662551.71	1802888.15		513.55
R38	662550.53	1802902.18	16.8	HR38	662551.97	1802918.99	20+97 -DS-	512.95
R39	662539.24	1802938.39	16.8	HR39	662524.97	1802947.42	21+46 -DS-	512.35
R40	662518.28	1802971.80	16.8	HR40	662524.91	1802987.31	21+92 -DS-	511.79
R41	662518.88	1803009.71	16.8	HR41	662507.12	1803021.71	22+40 -DS-	511.21
R42	662506.32	1803045.16	16.8	HR42	662516.99	1803058.22	22+84 -DS-	510.67
R43	662517.33	1803081.49	16.8	HR43	662508.49	1803095.78	23+30 -DS-	510.10
R44	662512.51	1803118.83	16.8	HR44	662524.38	1803130.74	23+76 -DS-	509.54
R45	662526.05	1803153.97	16.8	HR45	662516.21	1803167.72	24+20 -DS-	509.00
R46	662518.78	1803190.35	15.0	HR46	662525.25	1803204.03	24+67 -DS-	508.43
R47	552518.53	1803226.21	15.0					



EXISTING CHANNEL TO REMAIN. ADJUST GRADE TO DESIGN ELEVATIONS. TREES ADJACENT TO EXIST. CHANNEL ARE TO REMAIN; SHALL BE MARKED WITH SAFETY FENCE, AND SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR.

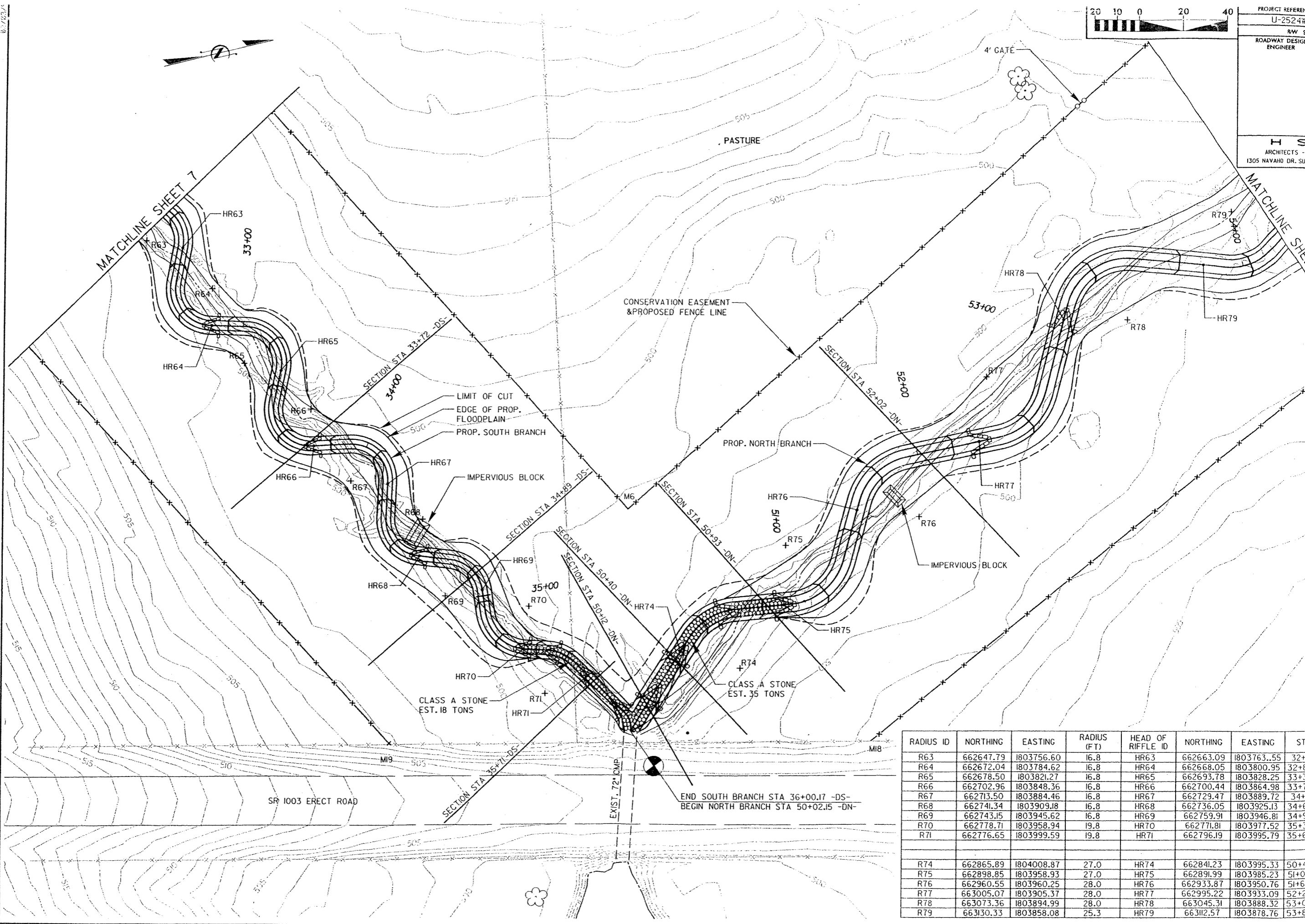
RADIUS ID	NORTHING	EASTING	RADIUS (FT)	HEAD OF RIFFLE ID	NORTHING	EASTING	STATION	ELEVATION (FT)
R48	662507.74	1803260.28	15.0	HR47	662508.39	1803237.49	25+12 -DS-	507.88
R49	662509.38	1803295.19	16.8	HR48	662514.27	1803273.79	25+56 -DS-	507.33
R50	662489.97	1803327.60	16.8	HR49	662495.72	1803305.01	25+99 -DS-	506.81
R51	662489.32	1803365.38	16.8	HR50	662496.41	1803343.14	26+45 -DS-	506.25
R52	662469.91	1803397.79	16.8	HR51	662475.63	1803375.17	26+90 -DS-	505.70
R53	662452.47	1803434.90	16.0	HR52	662481.42	1803410.02	27+29 -DS-	505.22
				HR53	662463.34	1803447.16	27+72 -DS-	504.69
				HR54	662483.13	1803500.82	28+43 -DS-	503.85
R56	662546.54	1803533.69	18.0	HR55	662517.59	1803519.58	28+85 -DS-	503.39
R57	662543.86	1803574.47	19.8	HR56	662541.79	1803551.41	29+26 -DS-	502.95
R58	662596.23	1803569.45	29.7	HR57	662563.35	1803569.39	29+55 -DS-	502.63
R59	662566.62	1803609.66	19.8	HR59	662582.72	1803621.16	30+15 -DS-	501.98
R60	662590.79	1803644.38	19.8	HR60	662592.23	1803664.13	30+73 -DS-	501.33
R61	662616.34	1803683.39	19.8	HR61	662633.31	1803693.57	31+39 -DS-	500.61
R62	662637.15	1803720.84	16.8	HR62	662634.47	1803737.43	31+94 -DS-	500.02



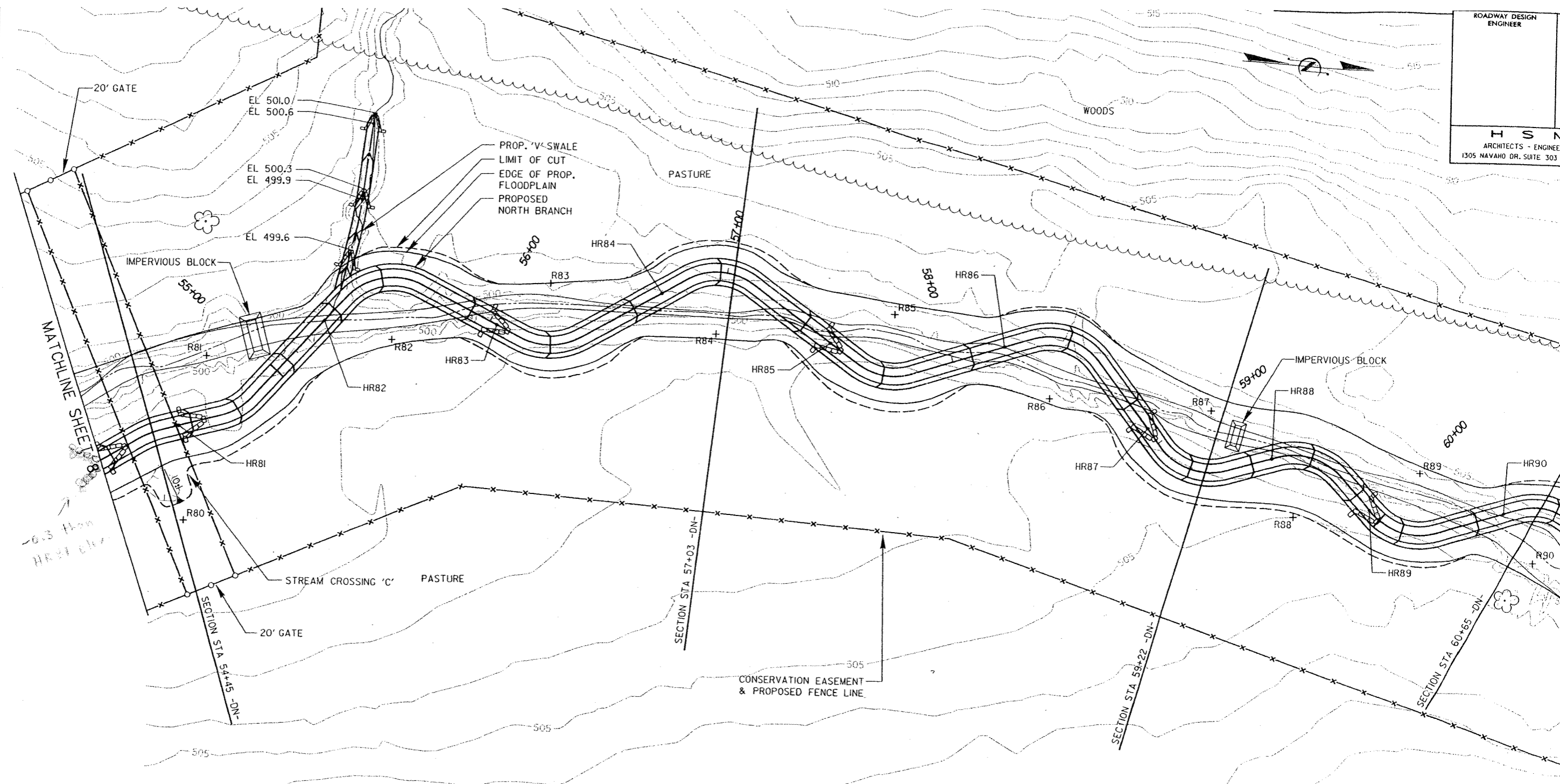
PROJECT REFERENCE
U-2524WM
RW SHEET
ROADWAY DESIGN
ENGINEER

H S
ARCHITECTS - ENGINEERS
1305 NAVAHO DR. SUITE 100

1/2"=100' (VERTICAL)
 1"=100' (HORIZONTAL)
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 1/2"=100' (VERTICAL)
 1"=100' (HORIZONTAL)
 1/2"=100' (VERTICAL)
 1"=100' (HORIZONTAL)



RADIUS ID	NORTHING	EASTING	RADIUS (FT)	HEAD OF RIFFLE ID	NORTHING	EASTING	STA
R63	662647.79	1803756.60	16.8	HR63	662663.09	1803763.55	32+4
R64	662672.04	1803784.62	16.8	HR64	662668.05	1803800.95	32+8
R65	662678.50	1803821.27	16.8	HR65	662693.78	1803828.25	33+3
R66	662702.96	1803848.36	16.8	HR66	662700.44	1803864.98	33+7
R67	662713.50	1803884.46	16.8	HR67	662729.47	1803889.72	34+2
R68	662741.34	1803909.18	16.8	HR68	662736.05	1803925.13	34+6
R69	662743.15	1803945.62	16.8	HR69	662759.91	1803946.81	34+9
R70	662778.71	1803958.94	19.8	HR70	662771.81	1803977.52	35+3
R71	662776.65	1803999.59	19.8	HR71	662796.19	1803995.79	35+6
R74	662865.89	1804008.87	27.0	HR74	662841.23	1803995.33	50+4
R75	662898.85	1803958.93	27.0	HR75	662891.99	1803985.23	51+0
R76	662960.55	1803960.25	28.0	HR76	662933.87	1803950.76	51+6
R77	663005.07	1803905.37	28.0	HR77	662995.22	1803933.09	52+2
R78	663073.36	1803894.99	28.0	HR78	663045.31	1803888.32	53+0
R79	663130.33	1803858.08	25.3	HR79	663112.57	1803878.76	53+8



RADIUS ID	NORTHING	EASTING	RADIUS (FT)	HEAD OF RIFFLE ID	NORTHING	EASTING	STATION	ELEVATION (FT)
R80	663183.68	1803895.85	35.9					
R81	663188.03	1803831.83	23.9	HR81	663179.28	1803859.63	54+55 -DN-	498.15
R82	663258.66	1803820.66	23.9	HR82	663232.23	1803815.27	55+26 -DN-	498.64
R83	663317.54	1803784.85	23.9	HR83	663298.22	1803812.35	56+03 -DN-	499.26
R84	663382.54	1803810.15	23.9	HR84	663360.42	1803795.88	56+73 -DN-	499.83
R85	663450.76	1803797.55	23.9	HR85	663426.77	1803810.46	57+48 -DN-	500.45
R86	663512.40	1803825.86	23.9	HR86	663493.69	1803807.25	58+21 -DN-	501.03
R87	663575.19	1803826.39	23.9	HR87	663551.20	1803834.99	58+93 -DN-	501.62
R88	663309.83	1803865.15	23.9	HR88	663599.92	1803843.25	59+48 -DN-	502.08
R89	663657.02	1803844.94	23.9	HR89	663638.74	1803860.46	59+95 -DN-	502.45
R90	663703.12	1803876.66	21.5	HR90	663690.36	1803858.40	60+50 -DN-	502.91

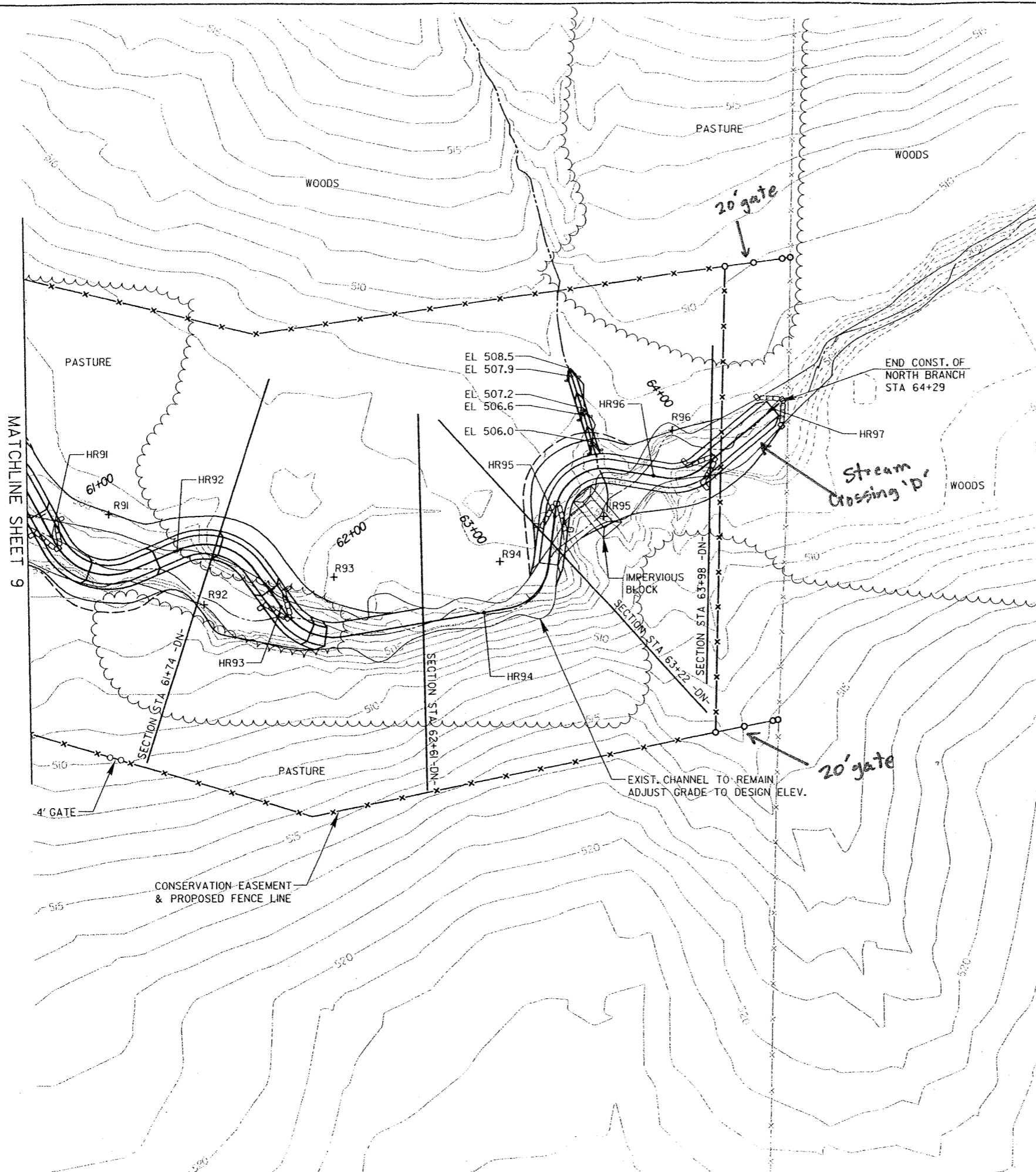
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 Date: ...



PROJECT REFERENCE NO
U-2524WM

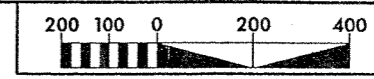
R/W SHEET NO
ROADWAY DESIGN
ENGINEER

H S
ARCHITECTS - ENGINEERS
1305 NAVAHO DR. SUITE 303

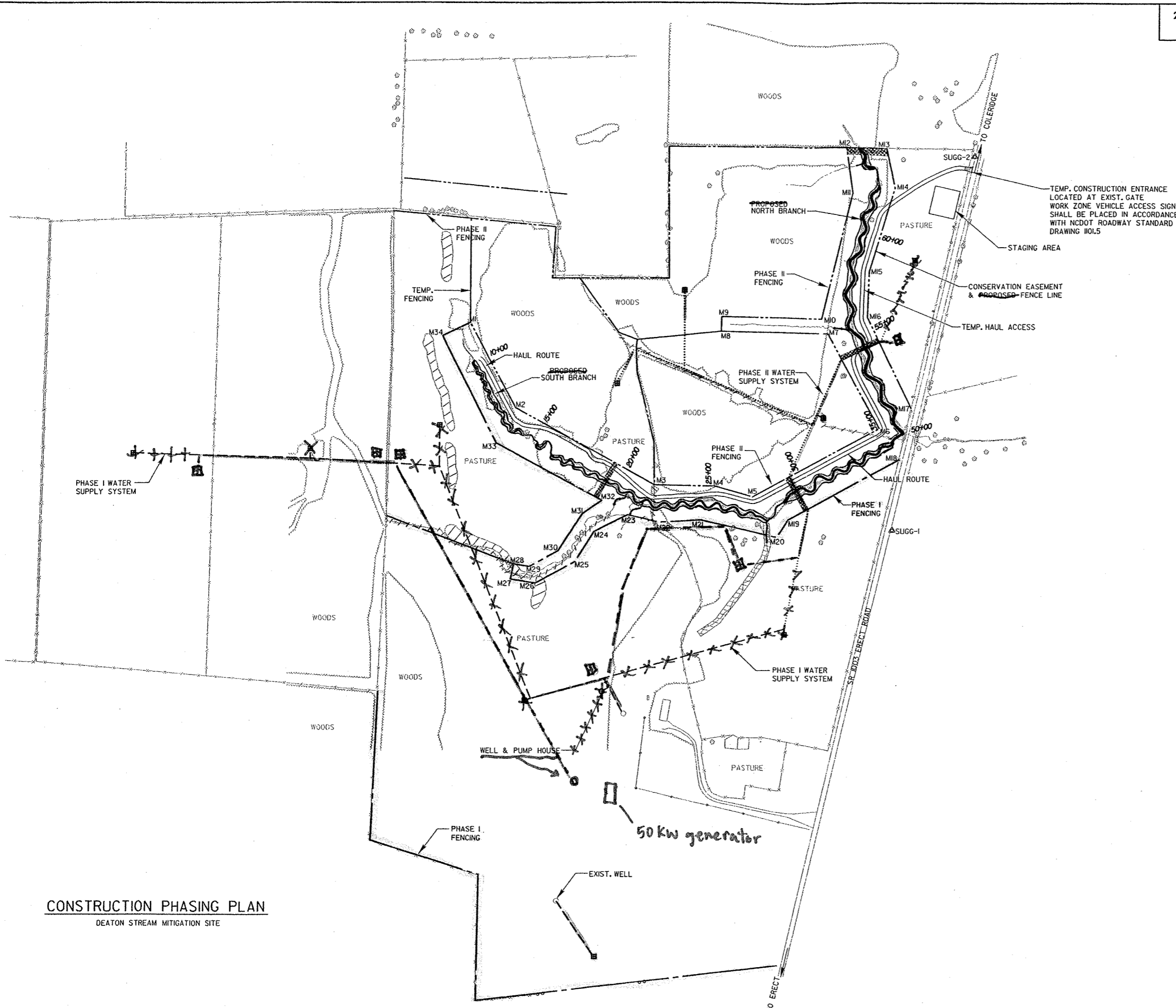


RADIUS ID	NORTHING	EASTING	RADIUS (FT)	HEAD OF RIFFLE ID	NORTHING	EASTING	STATIC
R91	663752.66	1803877.44	21.5	HR91	663732.42	1803885.26	61+08 -1
R92	663786.47	1803909.69	21.5	HR92	663776.82	1803890.43	61+60 -1
R93	663832.30	1803899.80	21.5	HR93	663813.53	1803910.52	62+07 -1
R94	663890.69	1803894.43	17	HR94	663885.20	1803912.61	62+83 -1
R95	663926.96	1803878.48	17	HR95	663909.83	1803878.48	63+31 -C
R96	663951.42	1803848.03	17	HR96	663944.78	1803864.17	63+76 -1
				HR97	663986.60	1803840.43	64+29 -1

DATE: 02/22/91
 PROJECT: U-2524WM
 SHEET: 9
 DRAWN BY: [unreadable]
 CHECKED BY: [unreadable]
 DATE: 02/22/91



PROJECT REFERENCE NO. U-2524WM	SHEET NO. CPP-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
H S M M ARCHITECTS - ENGINEERS - PLANNERS 1305 NAYAHO DR. SUITE 303 RALEIGH, NC 27609	



TEMP. CONSTRUCTION ENTRANCE LOCATED AT EXIST. GATE. WORK ZONE VEHICLE ACCESS SIGNS SHALL BE PLACED IN ACCORDANCE WITH NCDOT ROADWAY STANDARD DRAWING 1101.5

STAGING AREA

CONSERVATION EASEMENT & PROPOSED FENCE LINE

TEMP. HAUL ACCESS

LEGEND	
PHASE I FENCING	
PHASE II FENCING	
PHASE I WATER SUPPLY SYSTEM	
PHASE II WATER SUPPLY SYSTEM	
REMOVE EXIST. FENCE	

Installed water lines and troughs

SEQUENCE OF CONSTRUCTION

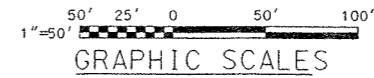
- 1.) INSTALL PHASE I WATER SUPPLY SYSTEM.
- 2.) INSTALL PHASE I FENCING. REMOVE AND DISPOSE OF EXIST. FENCE DENOTED WITH CROSS HATCHING.
- 3.) BEGIN CONSTRUCTION OF THE SOUTH BRANCH AT STA 10+00. CONSTRUCTION SHALL PROCEED IN SUCCESSIVE REACHES WITH THE UPSTREAM REACH BEING COMPLETED PRIOR TO INITIATING CONSTRUCTION OF THE ADJACENT DOWN-STREAM REACH. EACH REACH SHALL BE LIMITED IN LENGTH TO WHAT CAN BE COMPLETED WITHIN ONE WEEK. COMPLETION OF A REACH SHALL CONSIST OF CONSTRUCTION OF THE CHANNEL, FLOODPLAIN, IN-STREAM STRUCTURES, BED MATERIAL, AND EROSION CONTROL MEASURES. CONSTRUCTION SHALL BE DONE IN THE DRY, WITH THE CHANNEL FLOW PIPED AROUND THE REACH UNDER CONSTRUCTION.
- 4.) CONSTRUCTION OF THE NORTH BRANCH SHALL BEGIN AT STA 64+30 AND PROCEED DOWNSTREAM.
- 5.) PHASE II FENCING AND PHASE II WATER SUPPLY SYSTEM MAY BE CONSTRUCTED CONCURRENTLY WITH OR AFTER COMPLETION OF SOUTH AND NORTH BRANCH CONSTRUCTION.
- 6.) REMOVE AND DISPOSE OF TEMPORARY FENCING.
- 7.) STAGING AREA AND TEMP. HAUL ACCESS SHALL BE RIPPED AND RESTORED TO ORIGINAL CONDITIONS.

CONSTRUCTION PHASING PLAN
DEATON STREAM MITIGATION SITE

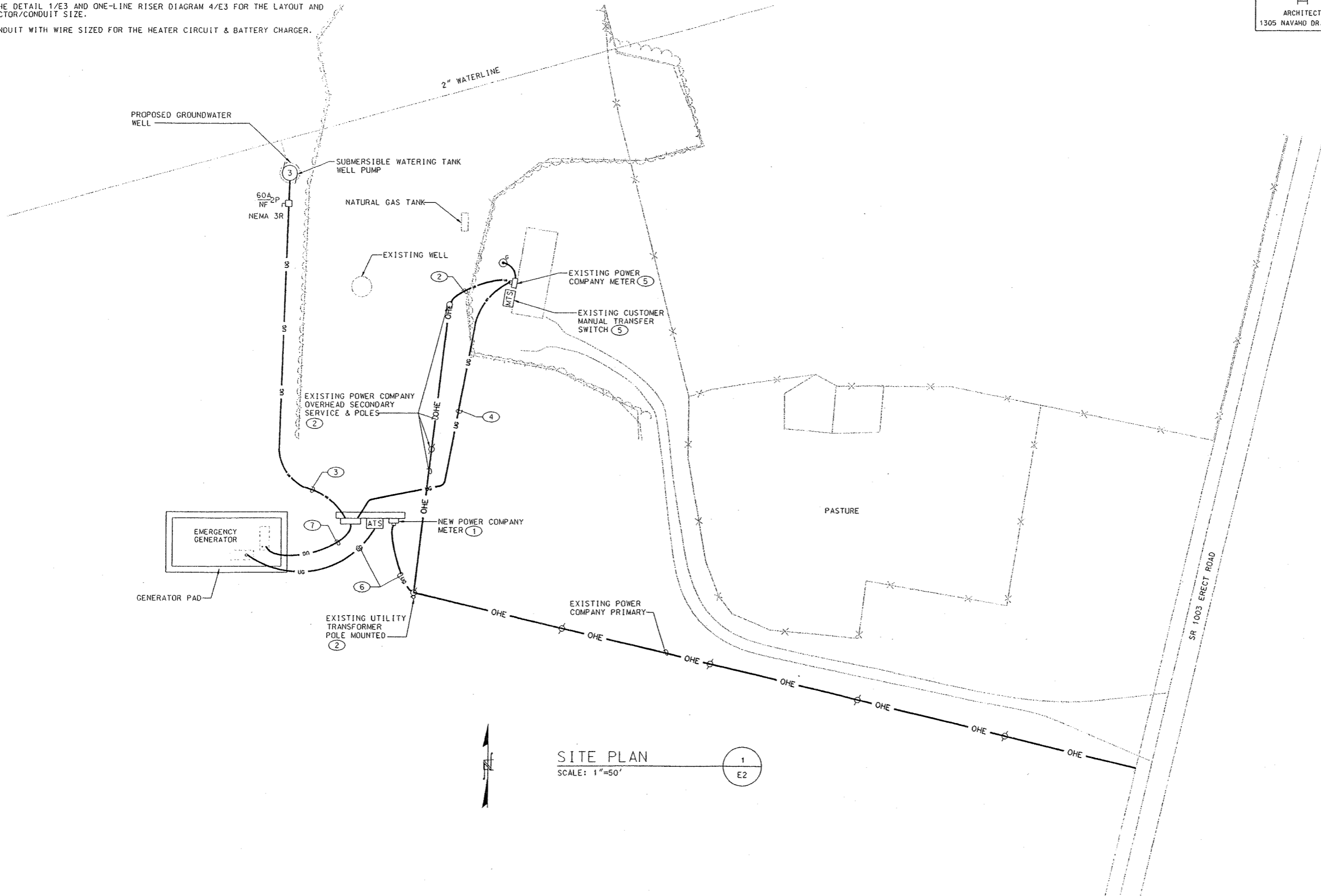
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NOTES SITE PLAN:

- ① NEW POWER COMPANY METER AND UNDERGROUND SERVICE. COORDINATE REQUIREMENTS WITH THE POWER COMPANY. SEE DETAIL 1/E3.
- ② COORDINATE WITH THE POWER COMPANY THE REMOVAL OF THE EXISTING SERVICE FROM THE TRANSFORMER POLE TO THE HOUSE AFTER THE NEW SERVICE IS INSTALLED AND IN SERVICE.
- ③ NEW WELL PUMP FEEDER. PROVIDE 2 #4, 1 #6 GND IN 1 1/4" CONDUIT.
- ④ NEW FEEDER TO DEATON HOUSE. PROVIDE 3 #4/0 IN 2 1/2" CONDUIT.
- ⑤ REMOVE THE EXISTING POWER COMPANY METER AND SERVICE CONDUCTORS. PROVIDE A NEMA 3R, 2P-200A ENCLOSED CIRCUIT BREAKER DISCONNECT TO CONNECT THE NEW HOUSE FEEDER TO THE EXISTING CONDUCTORS TO THE HOUSE'S MAIN PANEL. REMOVE THE EXISTING MANUAL TRANSFER SWITCH AND TURN IT OVER TO THE DEATONS. VERIFY THE PANEL GROUNDING. SEE DETAIL 5/E3.
- ⑥ SEE THE DETAIL 1/E3 AND ONE-LINE RISER DIAGRAM 4/E3 FOR THE LAYOUT AND CONDUCTOR/CONDUIT SIZE.
- ⑦ 1" CONDUIT WITH WIRE SIZED FOR THE HEATER CIRCUIT & BATTERY CHARGER.



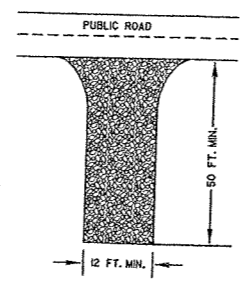
PROJECT REFERENCE NO. U-2524WM	SHEET NO. E2
R/W SHEET NO.	
H S M M ARCHITECTS - ENGINEERS - PLANNERS 1305 NAVAHO DR. SUITE 303 RALEIGH, NC 27609	



SITE PLAN
SCALE: 1"=50'

1
E2

TEMPORARY CONSTRUCTION ENTRANCE



- NOTES:
- 1. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS SHALL BE PROVIDED.
- 2. ENTRANCES SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
- 3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS.
- 4. PERIODIC TOP DRESSING WITH STONE SHALL BE NECESSARY. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
- 5. GRAVEL CONSTRUCTION ENTRANCE SHALL BE LOCATED AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.
- 6. ENTRANCE SHALL BE CONSTRUCTED OF CLASS A STONE.



PROJECT REFERENCE NO. U-2524WM	SHEET NO. EC-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
H S M M ARCHITECTS - ENGINEERS - PLANNERS 1305 NAVAHO DR. SUITE 303 RALEIGH, NC 27609	



NOTES

- 1) CONTRACTOR SHALL USE FABRIC STILLING BASIN FOR PUMPED EFFLUENT. (SEE SHEET 2C).
- 2) TEMPORARY SILT FENCE SHALL BE UTILIZED FOR ALL STOCK PILE AREAS.
- 3) PERMANENT SEEDING SHALL BE APPLIED TO DISTURBED AREAS IN ACCORDANCE WITH SECTION 1620 OF THE NCDOT STANDARD SPECIFICATIONS.

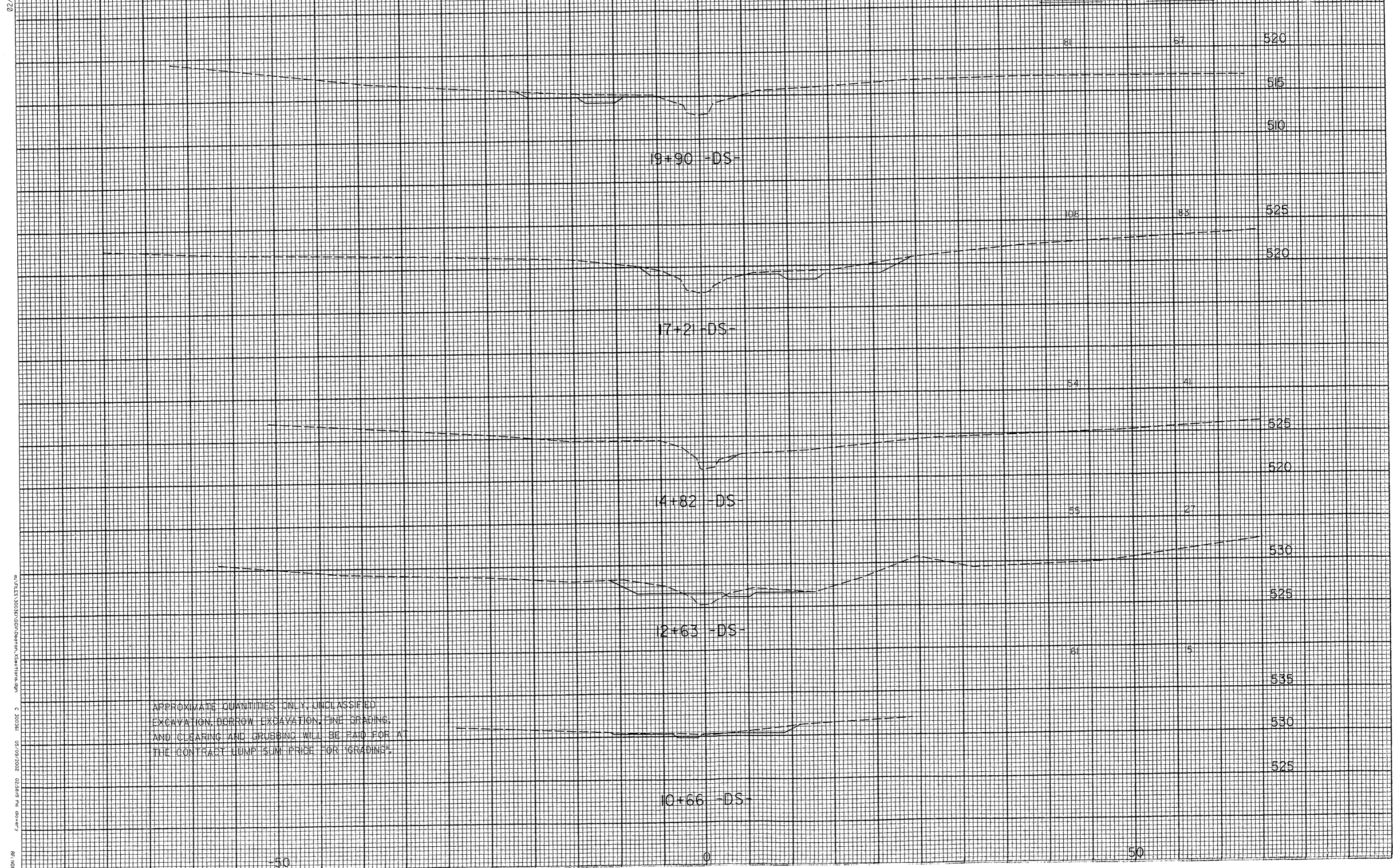
EROSION AND SEDIMENT CONTROL MEASURES

STD #	DESCRIPTION	SYMBOL
1605.01	TEMPORARY SILT FENCE	
1633.01	TEMPORARY ROCK SILT CHECK TYPE-A	

EROSION CONTROL PLAN

DEATON STREAM MITIGATION SITE

02/03/98
DATE PLOTTED
JOB NO. 0408001
PROJECT NAME
SECTION
DATE
TIME
BY



APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED
 EXCAVATION, BORROW EXCAVATION, FINE GRADING,
 AND CLEARING AND GRUBBING WILL BE PAID FOR AT
 THE CONTRACT LUMP-SUM PRICE FOR "GRADING".

ELECTRICAL LEGEND

- CONDUIT RUN CONCEALED IN CEILING OR WALL. HATCHED LINES INDICATE NUMBER OF CONDUCTORS WHEN OTHER THAN TWO.
- CONDUIT RUN CONCEALED IN OR UNDER FLOOR SLAB.
- CONDUIT RUN EXPOSED.
- UNDERGROUND CONDUIT.
- HOME RUN. NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS. LETTERS AND NUMBERS DESIGNATE PANEL AND CIRCUITS. (PANEL R, CIRCUITS 1 AND 3).
- CONDUIT TURNED UP.
- CONDUIT TURNED DOWN.
- GROUND ROD.
- AIR TERMINAL TYPE AS INDICATED.
- GROUND COUNTERPOISE.
- LIGHTNING PROTECTION CONDUCTOR CONCEALED BELOW THE ROOF.
- LIGHTNING PROTECTION DOWN CONDUCTOR RUN CONCEALED DOWN STEEL COLUMN AND WELDED TO THE COLUMN AT THE TOP AND THE BOTTOM.
- LIGHTNING PROTECTION ROOF CONDUCTOR.
- BUILDING GROUND FROM GROUND COUNTER POISE SYSTEM TO BUILDING STEEL.
- LIGHTING FIXTURE TYPE SYMBOL. SEE LIGHTING FIXTURE SCHEDULE.
- LIGHT TRACK.
- POLE MOUNTED AREA LUMINAIRE.
- INCANDESCENT, FLUORESCENT OR HID LIGHTING FIXTURE, CEILING MOUNTED.
- INCANDESCENT, FLUORESCENT OR HID LIGHTING FIXTURE, WALL MOUNTED, MH AS INDICATED.
- INCANDESCENT, FLUORESCENT OR HID LIGHTING FIXTURE, ON EMERGENCY CIRCUIT, WALL MOUNTED, MH AS INDICATED.
- FLOODLIGHTS, MH AS INDICATED.
- FLUORESCENT LIGHTING FIXTURE, WALL MOUNTED.
- FLUORESCENT LIGHTING FIXTURE ON EMERGENCY CIRCUIT, WALL MOUNTED.
- 1X4 FLUORESCENT LIGHTING FIXTURE.
- 2X4 FLUORESCENT LIGHTING FIXTURE.
- 1X4 FLUORESCENT LIGHTING FIXTURE ON EMERGENCY CIRCUIT.
- 2X4 FLUORESCENT LIGHTING FIXTURE ON EMERGENCY CIRCUIT.
- FLUORESCENT LIGHTING FIXTURE, WITH INTEGRALLY MOUNTED PREWIRED EMERGENCY BALLAST.
- EMERGENCY BATTERY PACK LIGHTING FIXTURE.
- EXIT LIGHT, CEILING MOUNTED, DIRECTIONAL ARROWS WHERE INDICATED.
- EXIT LIGHT, WALL MOUNTED, DIRECTIONAL ARROWS WHERE INDICATED. MOUNT BOTTOM OF FIXTURE 6" ABOVE TOP OF DOOR, UNO.
- SINGLE POLE SWITCH, MH 4'-0". SUBSCRIPT INDICATES SWITCH CONTROL, UNO.
- DOUBLE POLE SWITCH, MH 4'-0". UNO.
- THREE-WAY SWITCH, MH 4'-0". UNO.
- FOUR-WAY SWITCH, MH 4'-0". UNO.
- KEY OPERATED SWITCH, MH 4'-0". UNO.
- SWITCH WITH PILOT LIGHT, MH 4'-0". UNO.
- TWO SWITCHES FOR CONTROL OF 3 OR 4 LAMP FIXTURES AS INDICATED ON PLANS. "SX" SHALL CONTROL THE CENTER LAMP(S) AND "SY" SHALL CONTROL THE OUTER LAMPS.
- DIMMER SWITCH, MH 4'-0". UNO. "XXXX" WATTAGE OF DIMMER.
- DUPLEX RECEPTACLE, MH 1'-6". UNO. "WP" DENOTES WEATHERPROOF, "C" INDICATES MOUNTED IN CASEWORK 8" ABOVE SPLASHBACK. "GF1" DENOTES GROUND FAULT CIRCUIT INTERRUPTER. "*" INDICATES MH (4'-0").

- DUPLEX RECEPTACLE, MOUNTED IN FLOOR BOX.
- CONDUIT STUB-UP TO EQUIPMENT.
- SPECIAL PURPOSE RECEPTACLE, LETTER INDICATES TYPE.
- SPECIAL PURPOSE RECEPTACLE, FLOOR MOUNTED, LETTER INDICATES TYPE.
- MULTI-OUTLET ASSEMBLY, MH AS INDICATED.
- OVERHEAD PLUG-IN-BUSWAY WITH DISCONNECTING DEVICE, TYPE AS INDICATED.
- UNDERFLOOR DUCT. "P" INDICATES POWER "T" DENOTES TELEPHONE.
- FLOOR JUNCTION BOX
- TRENCH DUCT OR CELLULAR FLOOR. "CF" INDICATES CELLULAR FLOOR. "TD" INDICATES TRENCH DUCT.
- JUNCTION BOX, "C" INDICATES CEILING MOUNTED.
- JUNCTION BOX, FLOOR MOUNTED.
- HANDHOLE
- SHUNT TRIP
- TYPICAL NOTE REFERENCE SYMBOL.
- TYPICAL ROOM NUMBER.
- TYPICAL KITCHEN EQUIPMENT IDENTIFICATION.
- GENERATOR ANNUNCIATOR PANEL
- ELEVATOR CONTROLLER
- AUTOMATIC TRANSFER SWITCH, MH 6'-0" TO TOP.
- TRANSFORMER, SEE SCHEDULE ON SHEET.
- TIME SWITCH, MH 6'-0", UNLESS INDICATED OTHERWISE.
- SWITCH RATING DISCONNECT SWITCH, MH 6'-0" TO TOP, NEMA 1 ENCL U.N.O. FUSE RATING
- MOTOR STARTER OR CONTROLLER. "M" DENOTES MANUAL.
- PUSHBUTTON STATION, MH 4'-0". "WP" DENOTES WEATHERPROOF.
- MANUAL MOTOR STARTER
- COMBINATION STARTER OR CONTROLLER AND DISCONNECT SWITCH, MH 6'-0" TO TOP.
- ENCLOSED CIRCUIT BREAKER. "S" DENOTES SHUT TRIP CAPABILITY.
- MOTOR ON PIECE OF EQUIPMENT, NUMBER INDICATES HORSEPOWER.
- ALTERNATOR.
- PANELBOARD - 480/277 VOLT, MH 6'-6" TO TOP.
- PANELBOARD - 208/120 VOLT, MH 6'-6" TO TOP.
- TRANSIENT VOLTAGE SURGE SUPPRESSOR.
- DOOR BELL, WALL MOUNTED, VIBRATING TYPE.
- TELEVISION OUTLET, MH 1'-6". UNO.
- CLOSED CIRCUIT TELEVISION CAMERA. "PTZ" DENOTES PAN-TILT-ZOOM.
- MICROPHONE JACK
- MICROPHONE CONTROL
- COMPUTER OUTLET, MH 1'-6".
- TELEPHONE CABINET, MH 6'-0" TO TOP.
- TELEPHONE OUTLET, MH 1'-6". UNO.
- WALL TELEPHONE OUTLET, MH 4'-6".
- DATA OR COMBINATION TELEPHONE/DATA OUTLET, MH 1'-6". UNO.

- CLOCK, MH 7'-6".
- CLOCK HANGER OUTLET, MH 7'-6".
- UNDERGROUND DUCT BANK, SEE DETAIL.
- DUCT SIZE IN INCHES. FLAG INDICATES NUMBER AND ARRANGEMENT OF DUCTS. LETTER INDICATES CABLE DESIGNATION. SEE SCHEDULE. HEAVY LINE INDICATES BOTTOM OF DUCT.
- POWER POLE.
- MANUAL TRANSFER SWITCH, MH 6'-0" TO TOP.
- RECEPTACLE FOR ELECTRIC WATER COOLER. COORDINATE MOUNTING WITH EQUIPMENT PROVIDED.
- QUAD RECEPTACLE, FLUSH FLOOR MOUNTED.
- QUAD RECEPTACLE, MH 1'-6". UNO.
- DATA OR COMBINATION TELEPHONE/DATA OUTLET, FLUSH FLOOR MOUNTED.
- TELEPHONE OUTLET FLOOR MOUNTED.

PROJECT REFERENCE NO. U-2524WM SHEET NO. E1
 R/W SHEET NO.

 H S M M
 ARCHITECTS - ENGINEERS - PLANNERS
 1305 NAVAHO DR. SUITE 303 RALEIGH, NC 27609

GENERAL NOTES:

- 1.) SEE SHEET 2 FOR ABBREVIATIONS AND GENERAL NOTES.
 - 2.) NOT ALL SYMBOLS ARE USED.
 - 3.) MOUNTING HEIGHTS, UNLESS OTHERWISE NOTED ARE TO CENTER LINE OF EQUIPMENT, EXCEPT MOUNTING HEIGHTS OF LIGHTING FIXTURES WHICH IS TO BOTTOM OF FIXTURE.
 - 4.) MECHANICAL EQUIPMENT IS SHOWN IN APPROXIMATE LOCATIONS. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT SEE CIVIL DRAWINGS.
 - 5.) PROVIDE DISCONNECT SWITCHES WHERE NOT INDICATED ON EQUIPMENT PER NEC.
 - 6.) GROUNDING CONDUCTORS ARE NOT INDICATED IN BRANCH CIRCUIT RACEWAYS. PROVIDE GROUND CONDUCTORS AS SPECIFIED.
 - 7.) SEAL PENETRATIONS THRU FLOORS OR WALLS TO MAINTAIN THE WALLS AND FLOORS FIRE, WATERPROOF AND ACOUSTIC RATING INTEGRITY.
 - 8.) ALL ELECTRICAL EQUIPMENT CONNECTIONS AND WIRING SHALL BE RATED FOR 75 DEGREES C RATING THROUGHOUT.
 - 9.) PROVIDE NAMEPLATES ON THE EXTERIOR OF ALL ELECTRICAL PANELS AND ENCLOSURES AS FOLLOWS:

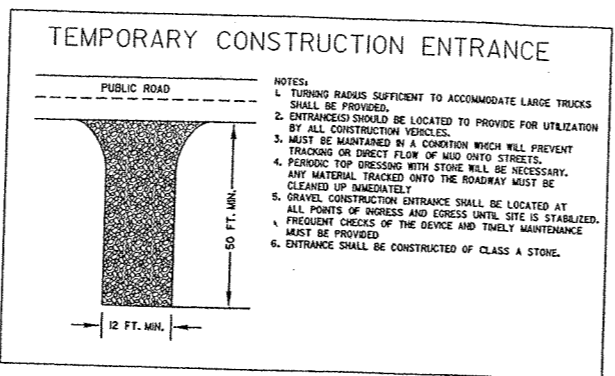
LINE 1: DEVICE ID	PANEL LP1
LINE 2: DEVICE RATING	100A, 120/208V-3PH, 4W
LINE 3: POWER SOURCE	FEEDS FROM PANEL MDP
LINE 4: INSTALLATION DATE	INSTALLED: 2002
- FOR DISCONNECT SWITCHES AND MOTOR STARTERS THE TOP LINE SHALL BE THE NAME/DESIGNATION OF THE EQUIPMENT BEING FED BY THE SWITCH/STARTER.

GENERAL DEMOLITION NOTES:

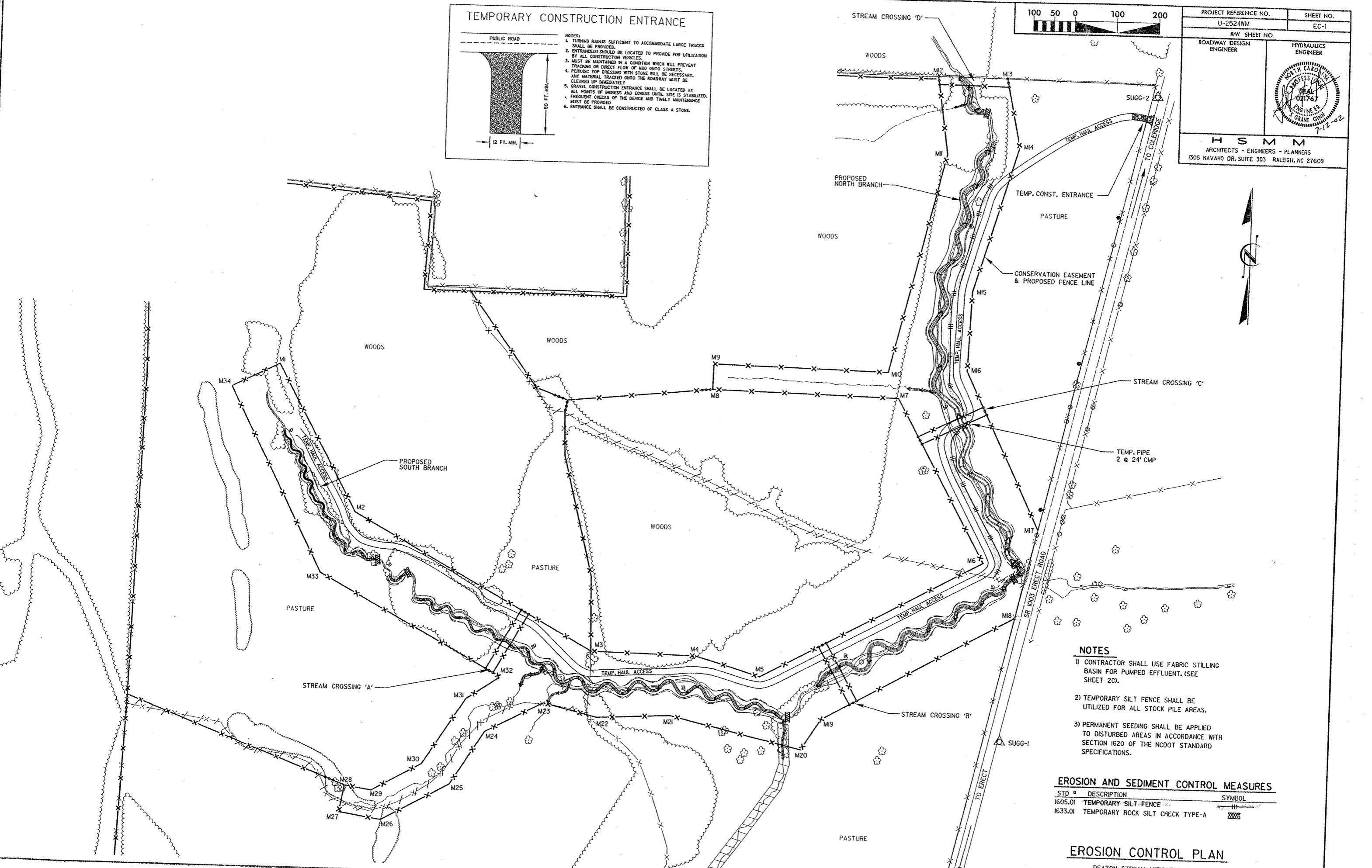
- 1.) REMOVE EACH ITEM OF EQUIPMENT INDICATED TO BE DEMOLISHED AND ITS ASSOCIATED CIRCUITRY BACK TO THE PANEL, SWITCHBOARD OR CONTROLLER, EXCEPT AS OTHERWISE INDICATED.
 - a.) ASSOCIATED CIRCUITRY INCLUDES CONDUIT, CONDUCTORS, BOXES, WIRING DEVICES, COVERPLATES, LAMPS, FIXTURES, WIREWAYS, SWITCHES, STARTERS, ETC., WHICH ARE ASSOCIATED WITH THE ITEM TO BE REMOVED.
 - b.) WHERE CONDUIT ASSOCIATED WITH AN ITEM TO BE REMOVED IS IN AN INACCESSIBLE AREA, (SUCH AS ENCASED IN CONCRETE), ABANDON INACCESSIBLE CONDUIT IN PLACE AND CAP OR SEAL.
 - c.) WHERE SUCH INACCESSIBLE CONDUIT ENDS OR MUST BE TERMINATED IN FINISHED SURFACE OF WALL, CEILING OR FLOOR, CUT CONDUIT FLUSH AND FILL VOID WITH NON-SHRINKING GROUT AND FINISH TO MATCH SURROUNDING SURFACES.
- 2.) WHERE ONLY A PORTION OF A CIRCUIT'S LOAD IS SCHEDULED TO BE REMOVED, REMOVE ONLY THAT PORTION ASSOCIATED WITH THE DEMOLISHED DEVICE TO A POINT WHERE THE REMAINING LOAD IS ACTIVE AND MAINTAIN IN A GOOD OPERATING LOCATION.
- 3.) WHERE EXTENSION OF AN EXISTING CIRCUIT IS REQUIRED, RUN CONDUIT AND WIRE CONCEALED FROM THE ITEM'S EXISTING LOCATION TO ITS NEW LOCATION.

ELECTRICAL DRAWING LIST:

- E1 LEGEND, GENERAL NOTES & GENERAL DEMOLITION NOTES
- E2 SITE PLAN
- E3 DETAILS



PROJECT REFERENCE NO. U-2524WM	SHEET NO. EC-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
H S M M ARCHITECTS - ENGINEERS - PLANNERS 1305 NAVAHO DR. SUITE 303 RALEIGH, NC 27609	



- NOTES**
- 1) CONTRACTOR SHALL USE FABRIC STILLING BASIN FOR PUMPED EFFLUENT. (SEE SHEET 2C).
 - 2) TEMPORARY SILT FENCE SHALL BE UTILIZED FOR ALL STOCK PILE AREAS.
 - 3) PERMANENT SEEDING SHALL BE APPLIED TO DISTURBED AREAS IN ACCORDANCE WITH SECTION 1620 OF THE NCDOT STANDARD SPECIFICATIONS.

EROSION AND SEDIMENT CONTROL MEASURES

STD #	DESCRIPTION	SYMBOL
1605.01	TEMPORARY SILT FENCE	—#—
1633.01	TEMPORARY ROCK SILT CHECK TYPE-A	[Symbol]

EROSION CONTROL PLAN
DEATON STREAM MITIGATION SITE

02/03/98

0 2.5 5

PROJ. REFERENCE NO.
U-2524WM

SHEET NO.
X-1

TOTAL SHEETS
6

EXCAVATION

EMBANKMENT

81 67 520

515

510

19+90 -DS-

108 83 525

520

17+21 -DS-

54 41

525

520

14+82 -DS-

55 27

530

525

12+63 -DS-

61 5

535

530

525

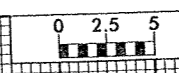
10+66 -DS-

APPROXIMATE QUANTITIES ONLY; UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, AND CLEARING AND GRUBBING WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING".

UPPERMIDDLESEX COUNTY RECORDS

2002/03/50 180000 0

3000124



EXCAVATION EMBANKMENT

500

495

490

35+71 -DS-

101

23

505

500

495

34+89 -DS-

125

45

500

495

33+72 -DS-

140

10

505

500

3+47 -DS-

50

0

0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000
 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000
 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

EXCAVATION	EMBANKMENT
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155	171
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500

495

52+02 -DN-

490

23	47
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500

495

50+93 -DN-

490

35	30
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500

495

50+40 -DN-

490

29	19
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500

495

50+12 -DN-

490

02/03/98
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EXCAVATION	EMBANKMENT
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84	151	510
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60+65 -DN-

90	149	505
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59+22 -DN-

111	92	500
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57+03 -DN-

186	224	495
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54+45 -DN-

		505
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		500
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		495
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-50

0

50

02/02/03/02 05/09/2002 03:00:00 PM gshawry

0 2.5 5

PROJ. REFERENCE NO.
U-2524WM

SHEET NO.
X-6

TOTAL SHEETS
6

EXCAVATION

EMBANKMENT

