DEPARTMENT OF TRANSPORTATION

Planning & Engineering
Office of Project Development
700 E Broadway Avenue
Pierre, South Dakota 57501-2586
O: 605.773.3275 | F: 605.773.2614
dot.sd.gov

July 15, 2024

ADDENDUM NO. 1

RE: Item #2, July 17, 2024 Letting - NH 0081(112)95, PCN 06P9, Lake County - Cold Milling, Full Depth Reclamation, Asphalt Concrete Surfacing, Pipe Work, Modify Intersection

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: NO CHANGE

SDEBS BID PROPOSAL: *The electronic bid proposal for this contract has been revised to include the changes associated with this addendum. Bidders must log in to the SDEBS to retrieve and incorporate these changes into their bid.*

Bid Items were added:
Bid Item 004E0030 "Maintenance of Traffic Diversion(s)"
Bid Item 004E0050 "Remove Traffic Diversion(s)"

Quantities for Bid Items were changed:
Bid Item 120E0010 "Unclassified Excavation" changed from 39,727 to 37,172 CuYd
Bid Item 120E0600 "Contractor Furnished Borrow" changed from 30,130 to 27,100 CuYd

PLANS: Please destroy sheets 3, 12, 15, 16, 17, 20, and 52 and replace with the enclosed sheets, dated 7/15/24.

Sheet 3: **Quantities for Bid Items were changed:**
Bid Item 120E0010 "Unclassified Excavation" changed from 39,727 to 37,172 CuYd
Bid Item 120E0600 "Contractor Furnished Borrow" changed from 30,130 to 27,100 CuYd

Sheet 12: TABLE OF MATERIAL QUANTITIES was revised.

Sheets 15-17: TABLE FOR MAINLINE CULVERT WORK was revised.

Sheet 20: TABLE OF EXCAVATION QUANTITIES BY LOCATION and TABLE OF UNCLASSIFED EXCAVATION were revised.

Sheet 52: LAYOUT OF EMBANKMENT AND SURFACING FOR CULVERT REPLACEMENT detail was revised.

Sincerely,

Sam Weisgram
Engineering Supervisor

SW/cj

CC: Travis Dressen, Mitchell Region Engineer
Harry Johnston, Sioux Falls Area Engineer

ESTIMATE OF QUANTITIES

Rev 7/15/24 pm

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0081(112)95	3	167

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
004E0030	Maintenance of Traffic Diversion(s)	Lump Sum	LS
004E0050	Remove Traffic Diversion(s)	Lump Sum	LS
009E0010	Mobilization	Lump Sum	LS
009E3210	Construction Staking	12.310	Mile
009E3230	Grade Staking	12.958	Mile
009E3240	Graded Centerline Staking	12.310	Mile
009E3250	Miscellaneous Staking	12.310	Mile
009E3280	Slope Staking	1.430	Mile
009E3301	Engineer Directed Surveying/Staking	20.0	Hour
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E0130	Remove Traffic Sign	47	Each
110E0500	Remove Pipe Culvert	320	Ft
110E0510	Remove Pipe End Section	8	Each
110E0700	Remove 3 Cable Guardrail	780	Ft
110E1010	Remove Asphalt Concrete Pavement	923.0	SqYd
110E1700	Remove Silt Fence	626	Ft
110E5010	Salvage Delineator	82	Each
110E7150	Remove Sign for Reset	15	Each
110E7500	Remove Pipe for Reset	36	Ft
110E7510	Remove Pipe End Section for Reset	20	Each
120E0010	Unclassified Excavation	37,172	CuYd
120E0100	Unclassified Excavation, Digouts	616	CuYd
120E0600	Contractor Furnished Borrow	27,100	CuYd
120E1000	Muck Excavation	265	CuYd
120E2000	Undercutting	15,733	CuYd
120E6100	Water for Embankment	301.0	MGal
120E6200	Water for Granular Material	1,674.0	MGal
210E3500	Heavy Roadway Shaping	0.200	Mile
230E0010	Placing Topsoil	15,384	CuYd
260E1010	Base Course	2,299.0	Ton
260E1030	Base Course, Salvaged	22,958.0	Ton
260E1050	Base Course, Salvaged Asphalt Mix	11,453.0	Ton
* 260E6000	Granular Material, Furnish	30,327.0	Ton
260E6000	Granular Material, Furnish	11,479.0	Ton
* 270E0200	Blend, Haul, and Stockpile Granular Material	60,654.0	Ton
270E0220	Blend and Stockpile Granular Material	22,958.0	Ton
280E0010	Full Depth Reclamation	317,907	SqYd
320E0005	PG 58-34 Asphalt Binder	3,465.4	Ton
320E1200	Asphalt Concrete Composite	238.0	Ton
320E1203	Class Q3R Hot Mixed Asphalt Concrete	74,469.0	Ton
320E4000	Hydrated Lime	737.3	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	24.6	Mile
330E0010	MC-70 Asphalt for Prime	183.3	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	202.9	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	12.3	Ton
330E1000	Blotting Sand for Prime	902.4	Ton
330E2000	Sand for Flush Seal	46.5	Ton
332E0010	Cold Milling Asphalt Concrete	277,352	SqYd
421E0100	Pipe Culvert Undercut	102	CuYd
450E0122	18" RCP Class 2, Furnish	10	Ft
450E0130	18" RCP, Install	10	Ft
450E0142	24" RCP Class 2, Furnish	172	Ft
450E0150	24" RCP, Install	172	Ft
450E0162	30" RCP Class 2, Furnish	110	Ft
450E0170	30" RCP, Install	110	Ft
450E0182	36" RCP Class 2, Furnish	72	Ft
450E0190	36" RCP, Install	72	Ft
450E0192	42" RCP Class 2, Furnish	70	Ft
450E0200	42" RCP, Install	70	Ft
450E0222	60" RCP Class 2, Furnish	64	Ft
450E0230	60" RCP, Install	64	Ft
450E2016	24" RCP Flared End, Furnish	2	Each
450E2017	24" RCP Flared End, Install	2	Each
450E2024	30" RCP Flared End, Furnish	2	Each
450E2025	30" RCP Flared End, Install	2	Each
450E2028	36" RCP Flared End, Furnish	2	Each
450E2029	36" RCP Flared End, Install	2	Each
450E2032	42" RCP Flared End, Furnish	2	Each
450E2033	42" RCP Flared End, Install	2	Each
450E9000	Reset Pipe	36	Ft
450E9001	Reset Pipe End Section	20	Each
600E0300	Type III Field Laboratory	1	Each
632E1320	2.0"x2.0" Perforated Tube Post	609.0	Ft
632E1340	2.5"x2.5" Perforated Tube Post	24.0	Ft
632E2510	Type 2 Object Marker Back to Back	122	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	194.0	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	177.2	SqFt
632E3500	Reset Sign	15	Each
633E1200	High Build Waterborne Pavement Marking Paint, White	573	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	278	Gal
634E0010	Flagging	1,680.0	Hour
634E0020	Pilot Car	720.0	Hour
634E0110	Traffic Control Signs	746.5	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0630	Temporary Pavement Marking	61.6	Mile
730E0212	Type G Permanent Seed Mixture	952	Lb
732E0100	Mulching	73.2	Ton
734E0602	Low Flow Silt Fence	2,160	Ft
734E0604	High Flow Silt Fence	342	Ft
734E0610	Mucking Silt Fence	174	CuYd
734E0620	Repair Silt Fence	626	Ft
900E0010	Refurbish Single Mailbox	16	Each
900E1980	Storage Unit	1	Each

*** - Denotes Non-Participating**

STRUCTURE NO. 40-120-042

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3290	Structure Staking	1	Each
420E0200	Structure Excavation, Box Culvert	77	CuYd
421E0200	Box Culvert Undercut	219	CuYd
450E4699	Tie Bolts for RCP	6	Each
450E8300	Culvert Joint Cleaning	108.0	Ft
450E8305	Repair Culvert Joint	108.0	Ft
450E8310	Chemical Grout Void Fill	27.0	Gal
460E0120	Class A45 Concrete, Box Culvert	142.6	CuYd
460E0300	Breakout Structural Concrete	32.0	CuYd
460E0380	Install Dowel in Concrete	128	Each
480E0100	Reinforcing Steel	17,020	Lb
700E0210	Class B Riprap	65.6	Ton
831E0110	Type B Drainage Fabric	82	SqYd

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

TABLE OF MATERIALS QUANTITIES

Rev 7/15/24 pm

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0081(112)95	12	167

N.A.B.I. = Not A Bid Item

SECTION PROJECT	UNCL. EXC. CuYd	UNCL. EXC. DIG-OUTS CuYd	REMOVE ASPHALT CONCRETE PAVEMENT SqYd	CONTRACTOR FURNISHED BORROW EXCAVATION CuYd	WATER FOR EMB. MGal	BASE COURSE Ton	BASE COURSE SALVAGED Ton	WATER FOR GRAN. MATER. MGal	COLD MILLING ASPHALT CONCRETE SqYd	BASE COURSE SALVAGED ASPHALT MIX Ton	MILLED MATERIAL TO BE REUSED IN BLENDING	GRANULAR MATERIAL, FURNISH	BLEND AND STOCKPILE GRANULAR MATERIAL	* GRANULAR MATERIAL, FURNISH	* BLEND, HAUL AND STOCKPILE GRANULAR MATERIAL	FULL DEPTH RECLA-MATION SqYd
1	10490	551	826	7282	73	-	1101	1287	245543	10177	37865	551	1101			292067
2	26682	65	97	19818	198	-	12083	236	28880	238	3957	6042	12083			25840
Subtotals:	**37172**	**616**	**923**	**27100**	**271**	**-**	**13184**	**1523**	**274423**	**10415**	**41822**	**6593**	**13184**			**317907**
Add Quans for in Section 1																
Additional Quantities from notes:	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**			**-**
Table of Additional Quantities:	**-**	**-**	**-**	**-**	**-**	**2299**	**9774**	**151**	**2929**	**1038**	**-**	**4886**	9774			**-**
Totals:	**37172**	**616**	**923**	**27100**	**271**	**2299**	**22958**	**1674**	**277352**	**11453**	**41822**	**11479**	**22958**	**30343**	**60686**	**317907**

N.A.B.I. = Not A Bid Item

SECTION PROJECT	CLASS Q3R HOT MIXED ASPHALT CONCRETE Ton	PG 58-34 ASPHALT BINDER Ton	HYDRATED LIME Ton	VIRG. AGGR. N.A.B.I. Ton	SALV. MAT'L. N.A.B.I. Ton	ASPHALT CONCRETE COMPOSITE Ton	MC-70 ASPH. FOR PRIME Ton	BLOTTING SAND FOR PRIME Ton	SS-1h/ CSS-1h ASPH. FOR TACK Ton	SS-1h/ CSS-1h ASPH. FOR FLUSH SEAL Ton	SAND FOR FLUSH SEAL Ton
1	64025	2979.4	633.9	48330	12083	-	160.8	771	175.2	8.8	-
2	8550	397.9	84.7	6454	1614	-	18.9	91	23.0	1.0	-
Subtotals:	**72575**	**3377.3**	**718.6**	**54784**	**13697**	**-**	**179.7**	**862**	**198.2**	**9.8**	**-**
Add Quans for in Section 1	-	-	-	-	-	-	-	10	-	-	-
Additional Quantities from notes:	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**10**	**-**	**-**	**-**
Table of Additional Quantities:	**1894**	**88.1**	**18.7**	**1429**	**358**	**238**	**3.6**	**30.4**	**4.7**	**2.5**	**47**
Totals:	**74469**	**3465.4**	**737.3**	**56213**	**14055**	**238**	**183.3**	**902.4**	**202.9**	**12.3**	**47**

* Denotes Nonparticipating

TABLE FOR MAINLINE CULVERT WORK

Rev 7/15/24 pm

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0081(112)95	15	167

NH 0081(112)95 PCN 06P9 US HWY 81 Sioux Falls Area

LOCATION				PIPE DATA							CULVERT											CULVERT ENDS									EARTHWORK		OBJ MARKER		
											REMOVE / RESET			NEW								REMOVE / RESET			NEW								OM-2 & POST		
														RCP											RCP Flared Ends									
														CIRCULAR																					
SITE NO	CUL-VERT ID	MRM	STATION	NO of PIPE - SIZE (DIA or W x H) DIA = IN W x H = FT	LENGTH	TYPE	DRAINAGE AREA ACRES	DRAINAGE DIRECTION	CLEAR ZONE 20 FT** SIDE OF ROAD	WORK DESCRIPTION	REM PIPE	REM PIPE FOR RESET	RESET PIPE	18"	24"	30"	36"	42"	60"	EXISTING	REM PIPE END	REM END FOR RESET	RESET PIPE END	24"	30"	36"	42"	PIPE CULVERT UNDERCUT	CONTR FURN BORROW EXCAVATION	EXISTING***	SALVAGE	Bk-Bk
					FT						FT	FT	FT	FT	FT	FT	FT	FT	FT	Δ	EA	EA	EA	EA	EA	EA	EA	YD³	YD³	EA	EA	EA
	25880	107.66	**5+79**	1 - 72 DIA	84	RCP ARCH	595	E	**E**	No Work										**FE**											**1**	**2**
									W	No Work										FE											1	2
	25879	107.44	**14+82**	1 - 24 DIA	86	RCP	24	E	**E**	Replace Pipe	**86**				**98**					**FE**	**1**			**1**				**26**			**1**	**1**
									W											FE	1			1							1	1
	25751	106.96	**40+49**	1 - 30 DIA	86	CMP	57	E	**E**	Replace Pipe	**86**					**84**				**FE**	**1**				**1**			**25**			**1**	**2**
									W											FE	1				1						1	2
	25750	106.71	**53+65**	1 - 18 DIA	60	RCP	3	E	**E**	Reset End										**FE**											**1**	**1**
									W	Reset End										FE											1	1
	25749	106.53	**62+54**	1 - 24 DIA	96	RCP	17	E	**E**	No Work										**FE**											**1**	**1**
									W	No Work										FE											1	1
	25748	106.19	**81+03**	1 - 18 DIA	86	RCP	15	E	**E**	No Work										**FE**											**1**	**1**
									W	No Work										FE											1	1
	25747	105.95	**93+05**	1 - 18 DIA	74	RCP	10	E	**E**	No Work										**FE**											**1**	**1**
									W	No Work										FE											1	1
	25746	105.76	**103+19**	1 - 42 DIA	76	CMP	196	W	**E**	Replace Pipe	**76**							**70**		**FE**	**1**						**1**	**26**			**1**	**2**
									W											FE	1						1				1	2
	25644	105.52	**116+25**	1 - 24 DIA	74	CMP	28	W	**E**	No Work										**FE**											**1**	**1**
									W	No Work										FE											1	1
	25643	105.29	**127+63**	1 - 18 DIA	66	RCP	18	W	**E**	No Work										**FE**											**1**	**1**
									W	No Work										FE											1	1
	25642	105.13	**136+06**	1 - 24 DIA	74	RCP	24	W	**E**	No Work										**FE**											**1**	**1**
									W	No Work										FE											1	1
	25641	104.83	**151+62**	1 - 24 DIA	86	RCP	21	E	**E**	Extend For Turn Lane					**12**					**FE**		**1**	**1**								**1**	**1**
									W	Extend For Turn Lane					12					FE		1	1								1	1
	25640	104.68	**158+13**	1 - 18 DIA	58	RCP	4	E	**E**	Extend For Turn Lane					**12**					**FE**		**1**	**1**								**1**	**1**
									W	Extend For Turn Lane					12					FE		1	1								1	1
	25639	104.34	**177+93**	1 - 18 DIA	70	CMP	25	W	**E**	No Work										**FE**											**1**	**1**
									W	No Work										FE											1	1
	25638	103.64	**216+13**	3 - 10 x 8	52	RCBC	9,500	E	**E**	Extend RCBC - See Details										**WW**											**2**	**2**
									W	Extend RCBC - See Details										WW											2	2
	25637	103.41	**227+44**	1 - 18 DIA	70	RCP	14	E	**E**	Reset End										**FE**		**1**	**1**						**5**		**1**	**1**
									W	Reset End										FE		1	1						5		1	1
	25636	103.18	**239+25**	1 - 18 DIA	84	RCP	14	E	**E**	No Work										**FE**											**1**	**1**
									W	No Work										FE											1	1
										TOTALS THIS SHEET	248	-	-	-	146	84	-	70	-		6	6	6	2	2	-	2	77	10		36	42

Δ - END TYPES: FE = FLARED END SL = SLOPED END SB = SAFETY END (w/BARS) SE = SAFETY END (NO BARS) DI = DROP INLET WW = WINGWALLS HW = HEADWALLS EC-END CAP

* - RIGHT-OF-WAY MEASURED FROM A ** - CLEARZONE FROM EDGELINE.

TABLE FOR MAINLINE CULVERT WORK

Rev 7/15/24 pm

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0081(112)95	16	167

NH 0081(112)95 PCN 06P9 US HWY 81 Sioux Falls Area

LOCATION				PIPE DATA						CULVERT												CULVERT ENDS								EARTHWORK		OBJ MARKER		
										REMOVE / RESET			NEW									TYPE	REMOVE / RESET			NEW									
																RCP										RCP Flared Ends								
																CIRCULAR																			
SITE NO	CUL-VERT ID	MRM	STATION	NO of PIPE - SIZE (DIA or W x H) DIA = IN W x H = FT	LENGTH	TYPE	DRAINAGE AREA ACRES	DRAINAGE DIRECTION	CLEAR ZONE 20 FT** SIDE OF ROAD	WORK DESCRIPTION	REM PIPE	REM PIPE FOR RESET	RESET PIPE	18"	24"	30"	36"	42"	60"	EXISTING	REM PIPE END	REM END FOR RESET	RESET PIPE END	24"	30"	36"	42"	PIPE CULVERT UNDERCUT	CONTR FURN BORROW EXCAVATION	EXISTING***	SALVAGE	Bk-Bk	
					FT						FT	FT	FT	FT	FT	FT	FT	FT	FT	Δ	EA	EA	EA	EA	EA	EA	EA	YD³	YD³	EA	EA	EA	
	25634	102.72	**264+98**	1 - 30 DIA	86	RCP		E	**E**	**Extend For Turn Lane**						**12**				**FE**		**1**	**1**								**1**	**2**	
									W	**Extend For Turn Lane**						14				FE		1	1								1	2	
	25632	102.68	**268+40**	2 - 60 DIA	92	RCP	820	E	**E**	**Extend For Turn Lane & Reset 6' pipe**		**12**	**12**						**32**	**FE**		**2**	**2**								**1**	**2**	
									W	**Extend For Turn Lane & Reset 6' pipe**		12	12						32	FE		2	2								1	2	
	25631	102.51	**275+89**	1 - 18 DIA	88	RCP	18	E	**E**	**Extend For Turn Lane**				**4**						**FE**		**1**	**1**								**1**	**1**	
									W	**Extend For Turn Lane**				6						FE		1	1								1	1	
	25629 25630	102.36	**283+72**	2 - 42 DIA	96	RCP ARCH	271	E	**E**	**Reset Southeast End Section**										**FE**		**1**	**1**						**5**		**1**	**2**	
									W	No Work										FE											1	2	
	25628	101.70	**317+85**	1 - 18 DIA	104	RCP	5	E	**E**	No Work										**FE**											**1**	**1**	
									W	No Work										FE											1	1	
	25627	101.26	**341+10**	1 - 30 DIA	84	RCP	80	E	**E**	No Work										**FE**											**1**	**2**	
									W	No Work										FE											1	2	
	25626	101.00	**354+66**	1 - 36 DIA	82	RCP	84	E	**E**	No Work										**FE**											**1**	**2**	
									W	No Work										FE											1	2	
	25624	100.63	**376+53**	1 - 30 DIA	96	RCP	96	E	**E**	No Work										**FE**											**1**	**2**	
									W	No Work										FE											1	2	
	25623	100.28	**394+32**	1 - 18 DIA	78	RCP	10	W	**E**	No Work										**FE**											**1**	**1**	
									W	No Work										FE											1	1	
	25622	99.94	**411+79**	1 - 48 DIA	78	RCP ARCH	154	E / W	**E**	No Work										**FE**											**1**	**2**	
									W	No Work										FE											1	2	
	25620	99.70	**424+33**	1 - 24 DIA	88	RCP	7	W	**E**	**Extend For Turn Lane**					**12**					**FE**		**1**	**1**								**1**	**1**	
									W	**Extend For Turn Lane**					14					FE		1	1								1	1	
	25619	99.45	**438+00**	1 - 30 DIA	90	RCP	74	W	**E**	No Work										**FE**											**1**	**2**	
									W	No Work										FE											1	2	
	25618	99.04	**459+26**	1 - 30 DIA	80	RCP	80	W	**E**	**Reset End and 6' Pipe Section**		**6**	**6**							**FE**		**1**	**1**						**13**		**1**	**2**	
									W	**Reset End and 6' Pipe Section**		6	6							FE		1	1						13		1	2	
	25617	98.73	**473+55**	2 - 60 x DIA	84	RCP	488	W	**E**	No Work										**FE**											**1**	**2**	
									W	No Work										FE											1	2	
	24549	98.62	**481+10**	1 - 8 x 6	60	RCBC	2,183	E	**E**	No Work										**WW**											**1**	**1**	
									W	No Work										WW											1	1	
	24548	98.34	**496+01**	1 - 36 DIA	60	RCP	125	E	**E**	**Reset End**										**FE**		**1**	**1**						**5**		**1**	**2**	
									W	No Work										FE											1	2	
	24547	98.21	**503+23**	2 - 42 DIA	66	RCP	619	E	**E**	No Work										**FE**											**1**	**2**	
									W	No Work										FE											1	2	
										TOTALS THIS SHEET	-	36	36	10	26	26	-	-	64		-	14	14	-	-	-	-	-	36		34	58	

Δ - END TYPES: FE = FLARED END SL = SLOPED END SB = SAFETY END (w/BARS) SE = SAFETY END (NO BARS) DI = DROP INLET WW = WINGWALLS HW = HEADWALLS EC-END CAP

* - RIGHT-OF-WAY MEASURED FROM A ** - CLEARZONE FROM EDGELINE.

TABLE FOR MAINLINE CULVERT WORK

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NH 0081(112)95 PCN 06P9 US HWY 81 Sioux Falls Area

LOCATION				PIPE DATA							CULVERT									CULVERT ENDS								EARTHWORK		OBJ MARKER		
											REMOVE / RESET			NEW						TYPE	REMOVE / RESET			NEW							OM-2 & POST		
														RCP										RCP Flared Ends								
														CIRCULAR																			
SITE NO	CUL-VERT ID	MRM	STATION	NO of PIPE - SIZE (DIA or W x H)	LENGTH	TYPE	DRAINAGE AREA ACRES	DRAINAGE DIRECTION	CLEAR ZONE 20 FT**	WORK DESCRIPTION	REM PIPE	REM PIPE FOR RESET	RESET PIPE	18"	24"	30"	36"	42"	60"	EXISTING	REM PIPE END	REM END FOR RESET	RESET PIPE END	24"	30"	36"	42"	PIPE CULVERT UNDERCUT	CONTR FURN BORROW EXCAVATION	EXISTING***	SALVAGE	Bk-Bk
	DIA = IN W x H = FT				FT				SIDE OF ROAD		FT	FT	FT	FT	FT	FT	FT	FT	FT	Δ	EA	EA	EA	EA	EA	EA	EA	YD³	YD³	EA	EA	EA
	24535	97.70	**529+69**	1 - 36 DIA	72	CMP	119	E	**E**	Replace Pipe	**72**						**72**			**FE**	**1**					**1**		**25**			**1**	**2**
									W	Replace Pipe										FE	1					1					1	2
	24534	97.26	**553+00**	1 - 36 DIA	64	RCP			**E**	No Work										**FE**											**1**	**2**
									W	No Work										FE											1	2
	24533	97.14	**559+00**	1 - 84 DIA	84	RCP	880	E	**E**	No Work										**FE**											**1**	**2**
									W	No Work										FE											1	2
	24530	96.64	**585+14**	1 - 54 DIA	80	RCP	114	E	**E**	No Work										**FE**											**1**	**2**
									W	No Work										FE											1	2
	24529	96.32	**602+64**	1 - 36 DIA	62	RCP	101	E	**E**	No Work										**FE**											**1**	**2**
									W	No Work										FE											1	2
	25106	95.96	**621+75**	1 - 18 DIA	74	RCP	15	E	**E**	No Work										**FE**											**1**	**1**
									W	No Work										FE											1	1
										TOTALS THIS SHEET	72	-	-	-	-	-	72	-	-		2	-	-	-	-	2	-	25	-		12	22
										TOTALS ALL SHEETS	**320**	**36**	**36**	**10**	**172**	**110**	**72**	**70**	**64**		**8**	**20**	**20**	**2**	**2**	**2**	**2**	102	**46**		**82**	**122**

Δ - END TYPES: FE = FLARED END SL = SLOPED END SB = SAFETY END (w/BARS) SE = SAFETY END (NO BARS) DI = DROP INLET WW = WINGWALLS HW = HEADWALLS EC-END CAP

* - RIGHT-OF-WAY MEASURED FROM A

** - CLEARZONE FROM EDGELINE.

TABLE OF EXCAVATION QUANTITIES BY LOCATION

Location	Section	Station	to Station	Remove Topsoil	Excavation CuYd	* Undercut CuYd	* Muck Exc. CuYd	Unstable Exc.	* Contractor Furnished Borrow CuYd	Total Excavation CuYd	** Waste CuYd
223rd St Turn Lane	2	145+03	167+83	1597	2002	5304			5292	14195	978
RCBC Extension (Inslope Transition)	1	212+53	219+60	700					3021	3721	
225th St Turn Lane	2	255+19	277+99	1672	1946	5333	265		7461	16677	1243
228th St Turn Lane	2	409+33	432+13	1625	1932	5096		175	7065	15893	978
Mainline Pipe Culvert Work	2	See Pipe Table		na					46	46	
Temporary Shoulder Widening	1	See Table for Temporary Shoulder Widening(in notes) and Layout							4215	4215	
Mainline Section 1	1	See Typical Sec 1		9790						9790	
				15384	5880	15733	265	175	27100	64537	3199

* The quantities for these items are in the Estimate of Quantities under their respective contract items.

** The quantities for these items are for information only.

TABLE OF UNCLASSIFIED EXCAVATION

Excavation	5880
Undercut	15733
Topsoil	15384
Unstable Excavation	175
Total:	**37172**

PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

When plan quantities are used for payment, the Unclassified Excavation quantity will be used for final payment and the plans quantity of Topsoil and salvaged surfacing items listed in the Table of Unclassified Excavation will not be adjusted according to field measurements.

The following paragraphs are general earthwork information and information in regard to computing the Unclassified Excavation quantity when final cross sections are taken in the field:

The Unstable Material Excavation quantity is included in the Excavation quantity listed in the Table of Unclassified Excavation. When finaling a project, the Unstable Material Excavation quantity will be added to the Excavation quantity to compute the Unclassified Excavation quantity.

The Topsoil quantity in the Table of Unclassified Excavation is an estimate. When finaling a project, the total quantity of field measured Topsoil will be used in place of the estimated Topsoil quantity. The quantity of Topsoil from the cuts will be paid for twice as Unclassified Excavation, as it will be in both the Excavation and Topsoil quantities. This will be full compensation for Excavation, which includes necessary undercutting to provide space for placement of topsoil.

PLACING TOPSOIL

Prior to beginning surfacing operations, a 4” depth of topsoil will be bladed down the respective inslopes and left in a windrow off the shoulder. Following completion of surfacing operations, topsoil will be bladed back up the inslope to the point indicated on the typical section.

Topsoil will also be salvaged and stockpiled prior to constructing the turn lanes and prior to constructing the transition for the RCBC extension at 216+13. Limits of this work, depth of salvage, and stockpile location will be directed by the Engineer. Following completion of construction, topsoil will be spread evenly over the disturbed areas.

The thickness will be approximately 4 inches.

The estimated amount of topsoil to be placed is shown in the Table for Placing Topsoil.

TABLE FOR PLACING TOPSOIL

	Section	Station	to Station	Topsoil (CuYd)
Mainline	1	0+00	145+03	2540
223rd St Turn Lane	2	145+03	167+83	1597
Mainline	1	167+83	212+53	783
RCBC Extension (Inslope Transition)	1	212+53	219+60	700
Mainline	1	219+60	255+19	623
225th St Turn Lane	2	255+19	277+99	1672
Mainline	1	277+99	409+33	2300
228th St Turn Lane	2	409+33	432+13	1625
Mainline	1	432+13	634+47	3544
			Total:	**15384**

UNDERCUTTING

The existing embankment will be undercut in a manner that allows 2 feet of new embankment to be constructed below the finished subgrade top. The remaining new embankment will be benched in to the existing inslope as per Section 120.3 B.2 of the Specifications.

The plan shown quantity will be the basis of payment. However, if there are additional areas of undercut other than what is shown in the plans, the Engineer will direct removal of these areas and the additional areas will be measured according to the Engineer.

CONTRACTOR FURNISHED BORROW EXCAVATION

The Contractor will provide a suitable site for Contractor furnished borrow excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site

For the culvert work locations except the locations where new turn lanes are being constructed and where the RCBC is being extended at 216+13, removing and replacing topsoil will not be measured for payment but will be incidental to the contract unit price per cubic yard for Contractor Furnished Borrow Excavation.

The Contractor will be allowed to place topsoil in lieu of fill material if the fill depth is one foot or less. By doing this the Contractor will not be required to remove and replace the four inches of in place topsoil.

Restoration of the Contractor furnished borrow excavation site will be the responsibility of the Contractor.

The Contractor furnished borrow excavation material will be uniform in texture and free from organic material. The liquid limit will not exceed 45 and the plastic index will not exceed 25.

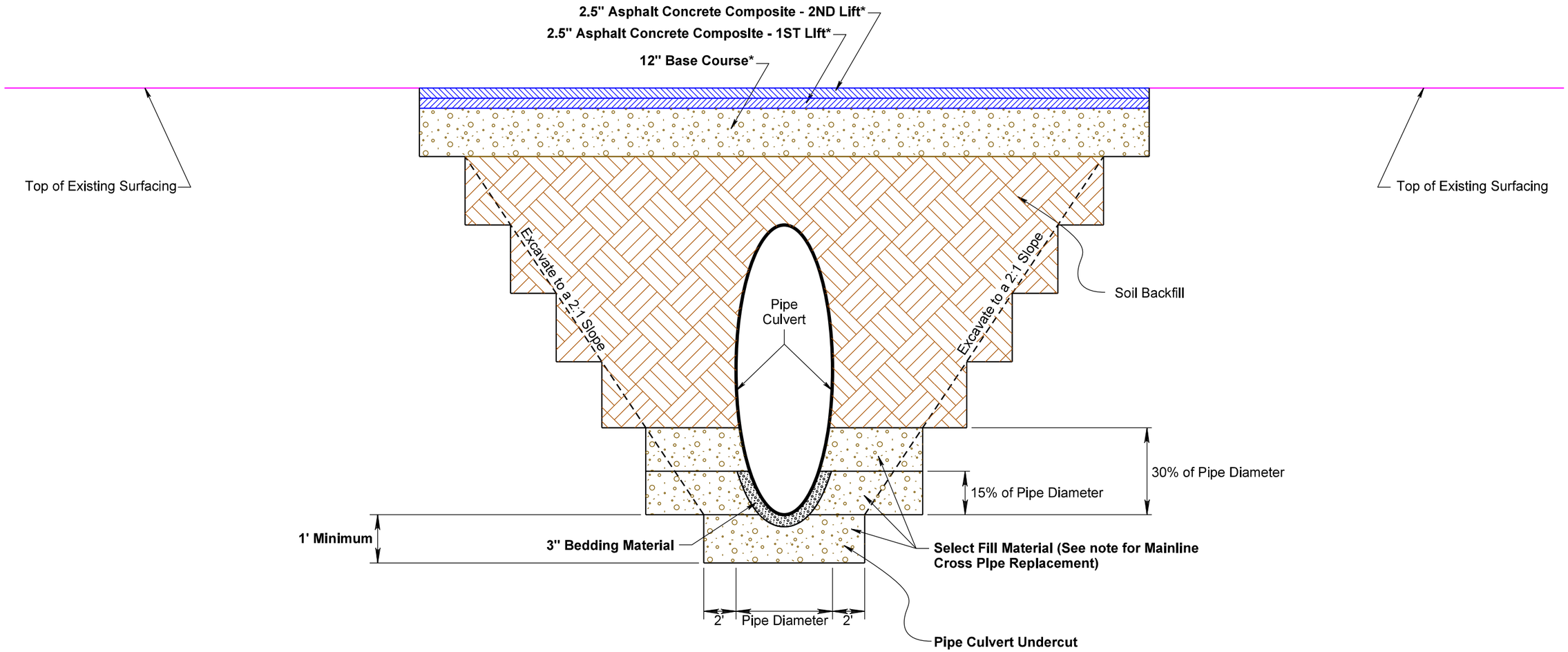
The Contractor will be responsible for the following minimum testing prior to use of each borrow site:

A minimum of one test for liquid limit and plastic index and a 4 point for each location and soil type, with samples obtained according to SD201.

The Department will be responsible for the following minimum testing:

A minimum of one test for liquid limit and plastic index and a 4 point for every 100,000 cubic yards or a major change in soil type. Independent Assurance testing will not be required.

LAYOUT OF EMBANKMENT AND SURFACING FOR CULVERT REPLACEMENT



* Quantity is included in the Table of Additional Quantities.