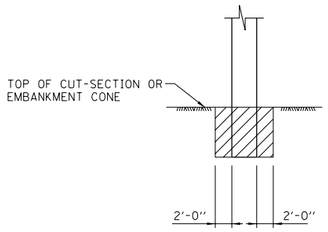
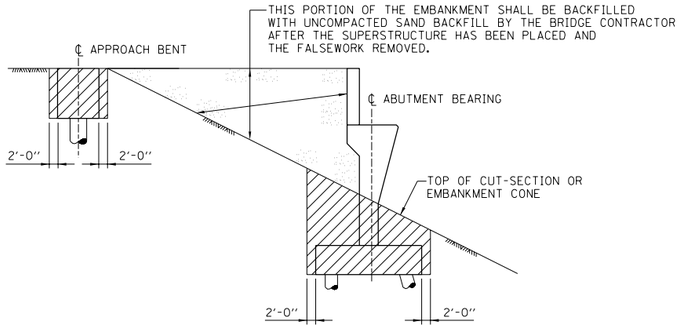
REVISIONS



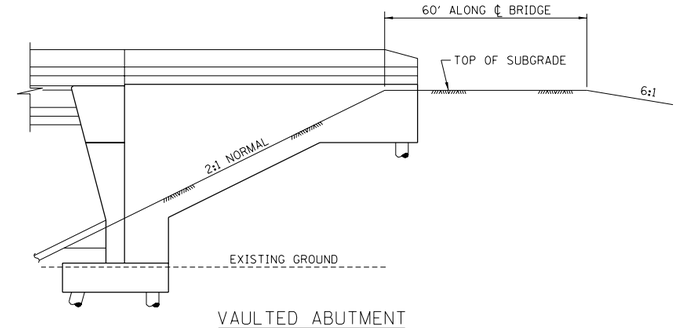
ABUTMENT WING OR CURTAIN WALL



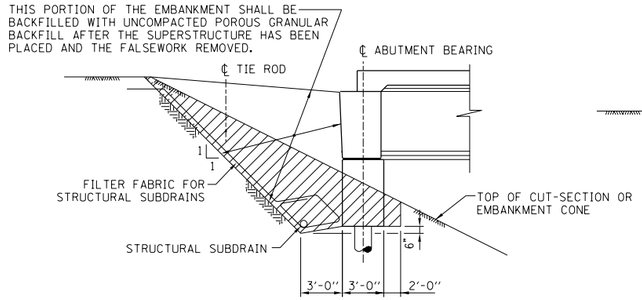
VAULTED ABUTMENT

LEGEND:

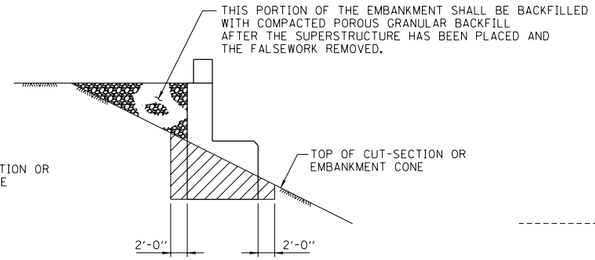
- STRUCTURE EXCAVATION
- SAND BACKFILL
- COMPACTED POROUS GRANULAR BACKFILL
- UNCOMPACTED POROUS GRANULAR BACKFILL



VAULTED ABUTMENT

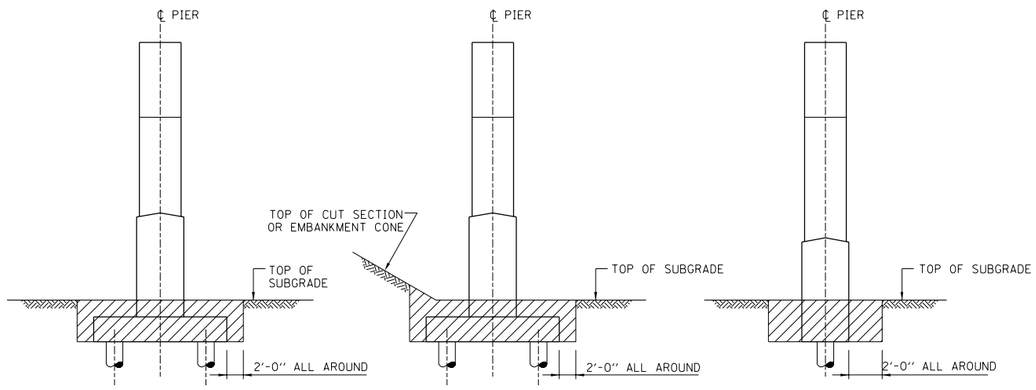


INTEGRAL ABUTMENT

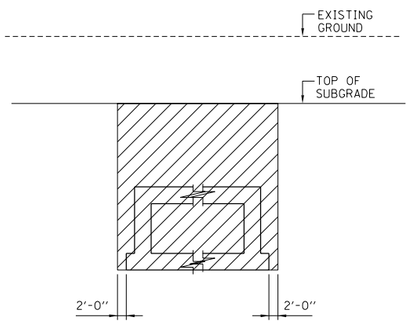


STUB ABUTMENT

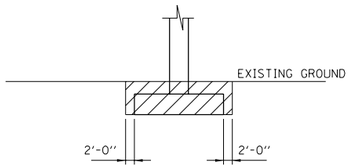
LIMITS OF STRUCTURE EXCAVATION FOR ABUTMENTS



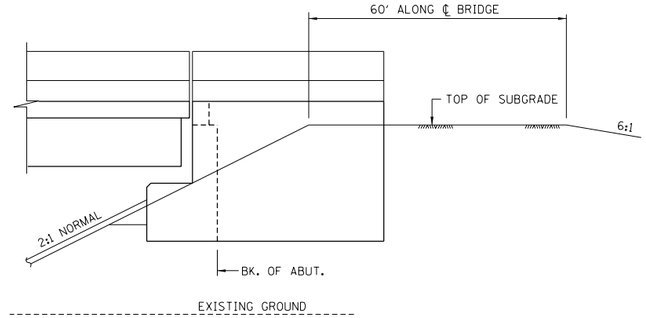
LIMITS OF STRUCTURE EXCAVATION FOR PIERS



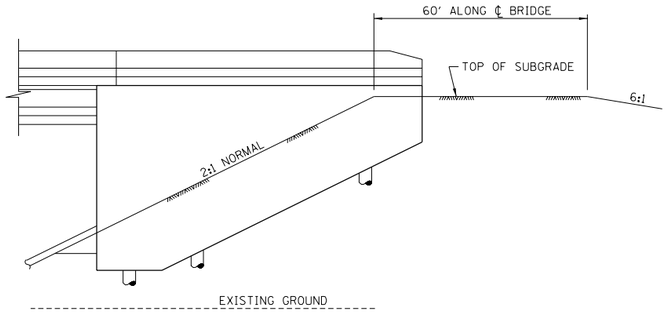
LIMITS OF STRUCTURE
EXCAVATION FOR CULVERTS



LIMITS OF STRUCTURE
EXCAVATION FOR RETAINING WALLS



STUB ABUTMENT



INTEGRAL ABUTMENT

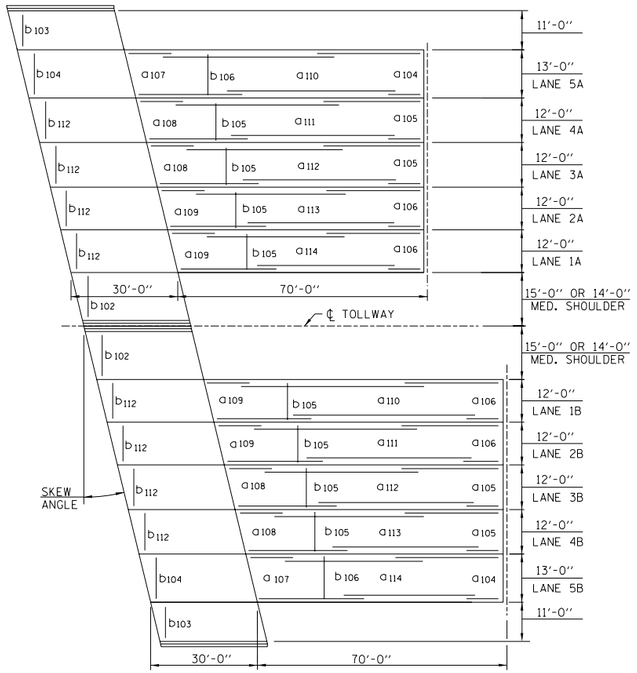
EMBANKMENT CONE DETAILS

APPROVED Jeff Hanley CHIEF ENGINEER DATE 6-14-2006

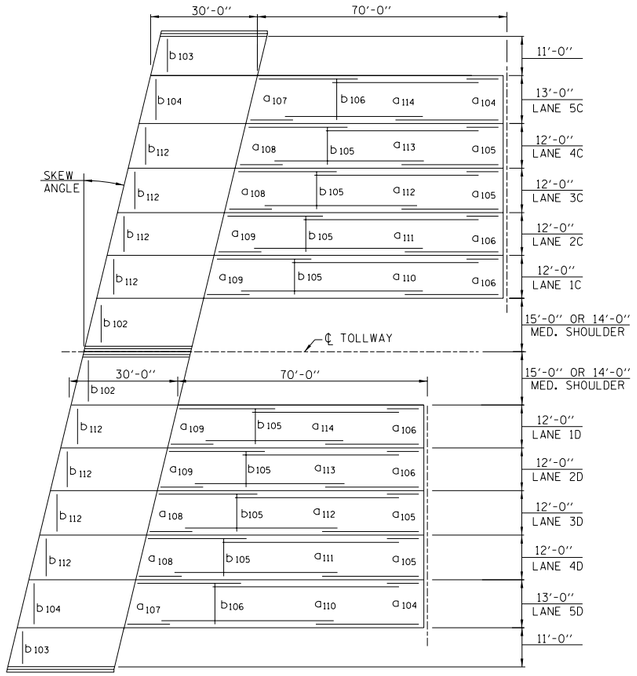
Illinois Tollway
Open Roads for a Faster Future

LIMITS OF STRUCTURE
EXCAVATION AND
EMBANKMENT CONE DETAILS

DATE	STANDARD NO.
5-12-2005	ST 05-1



APPROACH SLAB PLAN, AHEAD RIGHT SKEW



APPROACH SLAB PLAN, AHEAD LEFT SKEW

SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS

BAR	LANE	0° SKEW			5° SKEW			10° SKEW			15° SKEW			20° SKEW			25° SKEW			30° SKEW			35° SKEW			40° SKEW			45° SKEW			50° SKEW			55° SKEW			60° SKEW		
		M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P
a_{110} (E)	5A, 5D	25	1	-	25	1	-	25	2	-	25	2	-	25	2	-	25	2	-	25	2	-	25	2	-	25	3	-	25	3	-	25	3	-	25	3	-	25	4	-
a_{110} (E)	1B, 1C	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	3	-	23	3	-	23	3	-	23	3	-	23	4	-
a_{111} (E)	4A, 4D	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	3	-	23	3	-	23	3	-
a_{111} (E)	2B, 2C	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	3	-	23	3	-	23	3	-
a_{112} (E)	3A, 3B, 3C, 3D	23	1	-	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	3	-	23	3	-
a_{113} (E)	2A, 2D	23	1	-	23	1	-	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-
a_{113} (E)	4B, 4C	23	1	-	23	1	-	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-
a_{114} (E)	1A, 1D	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-
a_{114} (E)	5B, 5C	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	2	-	25	2	-	25	2	-
b_{101} (E)	COMBINED	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	4	-	31	4	-	31	4	-	31	5	-	31	5	-
b_{105} (E)	1A, 1D	19	-	0	19	-	0	19	-	0	19	-	0	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	2	19	-	2	19	-	2
b_{105} (E)	2A, 2D	19	-	0	19	-	0	19	-	0	20	-	0	20	-	1	20	-	1	21	-	1	21	-	1	21	-	1	22	-	1	22	-	2	23	-	2	24	-	2
b_{105} (E)	3A, 3D	19	-	0	19	-	0	20	-	0	20	-	0	21	-	1	22	-	1	22	-	1	23	-	1	24	-	1	25	-	1	26	-	2	27	-	2	29	-	2
b_{105} (E)	4A, 4D	19	-	0	20	-	0	20	-	0	21	-	0	22	-	1	23	-	1	24	-	1	25	-	1	26	-	1	28	-	1	30	-	2	32	-	2	34	-	2
b_{105} (E)	1B, 1C	19	-	0	20	-	0	21	-	0	22	-	0	23	-	1	25	-	1	26	-	1	27	-	1	29	-	1	31	-	1	33	-	2	36	-	2	40	-	2
b_{105} (E)	2B, 2C	19	-	0	20	-	0	21	-	0	21	-	0	22	-	1	23	-	1	24	-	1	25	-	1	27	-	1	28	-	1	30	-	2	32	-	2	35	-	2
b_{105} (E)	3B, 3C	19	-	0	19	-	0	20	-	0	21	-	0	21	-	1	22	-	1	22	-	1	23	-	1	24	-	1	25	-	1	26	-	2	28	-	2	30	-	2
b_{105} (E)	4B, 4C	19	-	0	19	-	0	19	-	0	20	-	0	20	-	1	20	-	1	21	-	1	21	-	1	22	-	1	22	-	1	23	-	2	24	-	2	25	-	2
b_{106} (E)	5A, 5D	19	-	0	20	-	0	21	-	0	22	-	0	23	-	1	24	-	1	26	-	1	27	-	1	29	-	1	31	-	2	33	-	2	36	-	2	40	-	3
b_{106} (E)	5B, 5C	19	-	0	19	-	0	19	-	0	19	-	0	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	2	19	-	2	19	-	2	19	-	3
b_{111} (E)	1A TO 2A, 1D TO 2D	29	-	-	30	-	-	30	-	-	30	-	-	31	-	-	31	-	-	32	-	-	32	-	-	33	-	-	34	-	-	34	-	-	35	-	-	37	-	-
b_{111} (E)	2A TO 3A, 2D TO 3D	29	-	-	30	-	-	31	-	-	32	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-	38	-	-	40	-	-	42	-	-	45	-	-
b_{111} (E)	3A TO 4A, 3D TO 4D	29	-	-	31	-	-	32	-	-	33	-	-	34	-	-	36	-	-	37	-	-	39	-	-	41	-	-	43	-	-	46	-	-	49	-	-	53	-	-
b_{111} (E)	4A TO 5A, 4D TO 5D	29	-	-	31	-	-	33	-	-	34	-	-	36	-	-	38	-	-	40	-	-	42	-	-	45	-	-	48	-	-	52	-	-	56	-	-	62	-	-
b_{111} (E)	1B TO 2B, 1C TO 2C	29	-	-	31	-	-	33	-	-	34	-	-	36	-	-	38	-	-	40	-	-	43	-	-	45	-	-	48	-	-	52	-	-	57	-	-	62	-	-
b_{111} (E)	2B TO 3B, 2C TO 3C	29	-	-	31	-	-	32	-	-	33	-	-	34	-	-	36	-	-	38	-	-	39	-	-	41	-	-	44	-	-	46	-	-	50	-	-	54	-	-
b_{111} (E)	3B TO 4B, 3C TO 4C	29	-	-	30	-	-	31	-	-	32	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-	39	-	-	41	-	-	43	-	-	46	-	-
b_{111} (E)	4B TO 5B, 4C TO 5C	29	-	-	30	-	-	30	-	-	31	-	-	31	-	-	31	-	-	32	-	-	33	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-
t_{101} (E)	COMBINED	174	-	-	174	-	-	176	-	-	179	-	-	183	-	-	190	-	-	198	-	-	209	-	-	223	-	-	242	-	-	265	-	-	297	-	-	341	-	-
t_{102} (E)	COMBINED	174	-	-	174	-	-	176	-	-	179	-	-	183	-	-	190	-	-	198	-	-	209	-	-	223	-	-	242	-	-	265	-	-	297	-	-	341	-	-
t_{103} (E)	COMBINED	2	-	-	3	-	-	3	-	-	4	-	-	5	-	-	5	-	-	6	-	-	6	-	-	7	-	-	8	-	-	9	-	-	0	-	-	0	-	-
t_{104} (E)	COMBINED	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	11	-	-	13	-	-
w_{101} (E)	COMBINED	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	6	-	12	6	-	12	6	-	12	7	-	12	7	-	12	8	-	12	9	-	12	10	-

NOTES:

1. WORK THIS STANDARD WITH STANDARD ST XX-9 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, GENERAL PLAN, SECTIONS AND DETAILS).
2. THE REINFORCING BAR SCHEDULES, BILL OF MATERIAL, AND QUANTITIES ARE CALCULATED FOR TWO (OPPOSITE) TRAFFIC DIRECTIONS AT ONE END OF A DUAL BRIDGE.

REVISIONS

APPROVED Jeff Daley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS FOR 5 LANES

DATE 5-12-2005

STANDARD NO. ST 05-10

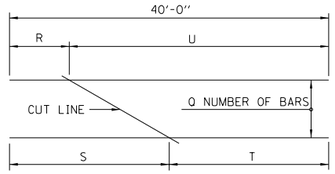
REVISIONS

TABLE OF CUTTING DIAGRAM DIMENSIONS

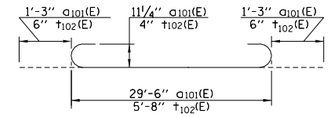
BAR	LANE	Q	DIM.	0° SKEW	5° SKEW	10° SKEW	15° SKEW	20° SKEW	25° SKEW	30° SKEW	35° SKEW	40° SKEW	45° SKEW	50° SKEW	55° SKEW	60° SKEW
a_{104}(E)	5A, 5B, 5C, 5D	13	R	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"
			S	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"
			T	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"
			U	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"
*a_{105}(E)	3A,3B,3C,3D 4A,4B,4C,4D	12	R	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
			S	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"
*a_{106}(E)	1A,1B,1C,1D 2A,2B,2C,2D		T	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"
			U	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"
a_{107}(E)	5A, 5B, 5C, 5D	13	R	9'-2"	9'-9"	10'-3"	10'-10"	11'-5"	12'-1"	12'-9"	13'-7"	14'-5"	15'-5"	16'-7"	18'-1"	20'-0"
			S	19'-7"	19'-7"	19'-7"	19'-8"	19'-8"	19'-8"	19'-9"	19'-9"	19'-9"	19'-10"	19'-10"	19'-11"	20'-0"
			T	20'-5"	20'-5"	20'-5"	20'-4"	20'-4"	20'-4"	20'-3"	20'-3"	20'-3"	20'-2"	20'-2"	20'-1"	20'-0"
			U	30'-10"	30'-3"	29'-9"	29'-2"	28'-7"	27'-11"	27'-3"	26'-5"	25'-7"	24'-7"	23'-5"	21'-11"	20'-0"
*a_{108}(E)	3A,3B,3C,3D 4A,4B,4C,4D	12	R	10'-0"	10'-7"	11'-1"	11'-7"	12'-2"	12'-9"	13'-4"	14'-1"	14'-10"	15'-9"	16'-11"	18'-3"	20'-0"
			S	19'-7"	19'-7"	19'-7"	19'-8"	19'-8"	19'-8"	19'-9"	19'-9"	19'-9"	19'-10"	19'-10"	19'-11"	20'-0"
*a_{109}(E)	1A,1B,1C,1D 2A,2B,2C,2D		T	20'-5"	20'-5"	20'-5"	20'-4"	20'-4"	20'-4"	20'-3"	20'-3"	20'-3"	20'-2"	20'-2"	20'-1"	20'-0"
			U	30'-0"	29'-5"	28'-11"	28'-5"	27'-10"	27'-3"	26'-8"	25'-11"	25'-2"	24'-3"	23'-1"	21'-9"	20'-0"

REINFORCING BAR SCHEDULE FOR APPROACH SLABS

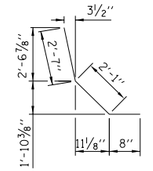
BAR	SIZE	SHAPE	0° SKEW		5° SKEW		10° SKEW		15° SKEW		20° SKEW		25° SKEW		30° SKEW		35° SKEW		40° SKEW		45° SKEW		50° SKEW		55° SKEW		60° SKEW	
			NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a_{101}(E)	9	⊂⊃	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"
a_{102}(E)	9	——	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"
a_{103}(E)	5	——	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"
a_{104}(E)	7	— —	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"
a_{105}(E)	7	— —	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"
a_{106}(E)	7	— —	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"
a_{107}(E)	7	— —	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"
a_{108}(E)	7	— —	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"
a_{109}(E)	7	— —	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"
a_{110}(E)	7	——	48	33'-10"	48	38'-7"	96	22'-10"	96	25'-4"	96	27'-11"	96	30'-8"	96	33'-9"	96	37'-1"	144	28'-0"	144	30'-11"	144	34'-4"	144	38'-8"	192	33'-8"
a_{111}(E)	7	——	46	33'-10"	46	37'-6"	92	21'-8"	92	23'-8"	92	25'-8"	92	27'-10"	92	30'-1"	92	32'-8"	92	35'-7"	92	39'-0"	138	29'-5"	138	32'-9"	138	37'-0"
a_{112}(E)	7	——	46	33'-10"	46	36'-5"	46	39'-1"	92	22'-0"	92	23'-6"	92	25'-0"	92	26'-8"	92	28'-6"	92	30'-7"	92	33'-0"	92	35'-11"	138	27'-0"	138	30'-1"
a_{113}(E)	7	——	46	33'-10"	46	35'-5"	46	37'-0"	46	38'-8"	92	21'-3"	92	22'-2"	92	23'-2"	92	24'-4"	92	25'-7"	92	27'-0"	92	28'-9"	92	30'-10"	92	33'-7"
a_{114}(E)	7	——	48	33'-10"	48	34'-4"	48	34'-11"	48	35'-5"	48	36'-0"	48	36'-8"	48	37'-4"	48	38'-0"	48	38'-10"	96	21'-0"	96	21'-7"	96	22'-3"	96	23'-2"
b_{101}(E)	5	——	186	30'-6"	186	30'-7"	186	30'-11"	186	31'-6"	186	32'-4"	186	33'-6"	186	35'-0"	186	37'-0"	248	30'-0"	248	32'-5"	248	35'-7"	310	32'-1"	310	36'-8"
b_{102}(E)	4	——	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"
b_{103}(E)	4	——	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"
b_{104}(E)	4	——	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"
b_{105}(E)	4	——	152	11'-8"	155	11'-8"	159	11'-8"	164	11'-8"	176	11'-8"	182	11'-8"	187	11'-8"	192	11'-8"	200	11'-8"	208	11'-8"	225	11'-8"	237	11'-8"	252	11'-8"
b_{106}(E)	4	——	38	12'-8"	39	12'-8"	40	12'-8"	41	12'-8"	44	12'-8"	45	12'-8"	47	12'-8"	48	12'-8"	50	12'-8"	54	12'-8"	56	12'-8"	59	12'-8"	65	12'-8"
b_{107}(E)	5	——	0	-	6	12'-8"	6	12'-9"	6	13'-1"	6	13'-5"	6	13'-11"	6	14'-7"	6	15'-5"	6	16'-7"	6	18'-0"	6	19'-10"	6	22'-3"	6	25'-7"
b_{108}(E)	5	——	0	-	24	11'-7"	24	11'-8"	24	11'-11"	24	12'-3"	24	12'-9"	24	13'-4"	24	14'-2"	24	15'-2"	24	16'-6"	24	18'-2"	24	20'-5"	24	23'-6"
b_{109}(E)	5	——	0	-	4	10'-7"	4	10'-8"	4	10'-11"	4	11'-2"	4	11'-8"	4	12'-2"	4	12'-11"	4	13'-10"	4	15'-1"	4	16'-7"	4	18'-8"	4	21'-6"
b_{110}(E)	5	——	0	-	4	13'-1"	4	13'-2"	4	13'-6"	4	13'-10"	4	14'-5"	4	15'-1"	4	16'-0"	4	17'-1"	4	18'-7"	4	20'-6"	4	23'-0"	4	26'-6"
b_{111}(E)	5	——	232	2'-6"	244	2'-6"	252	2'-6"	259	2'-6"	268	2'-6"	278	2'-6"	289	2'-6"	300	2'-6"	312	2'-6"	328	2'-6"	346	2'-6"	368	2'-6"	396	2'-6"
b_{112}(E)	4	——	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"
BRIDGE APPR. SLAB (SQ. YD.)			1,539.4		1,575.6		1,612.3		1,650.2		1,689.9		1,732.2		1,778.1		1,828.9		1,886.4		1,952.9		2,032.2		2,129.9		2,255.6	
REINF. STL., EPOXY CTD. (LBS.)			85,001		86,812		88,640		90,352		92,260		94,059		96,061		98,316		101,273		104,616		108,656		113,713		120,136	
t_{101}(E)	4	——	174	5'-8"	174	5'-8"	176	5'-8"	179	5'-8"	183	5'-8"	190	5'-8"	198	5'-8"	209	5'-8"	223	5'-8"	242	5'-8"	265	5'-8"	297	5'-8"	341	5'-8"
t_{102}(E)	4	⊂⊃	174	6'-8"	174	6'-8"	176	6'-8"	179	6'-8"	183	6'-8"	190	6'-8"	198	6'-8"	209	6'-8"	223	6'-8"	242	6'-8"	265	6'-8"	297	6'-8"	341	6'-8"
t_{103}(E)	4	▭	8	11'-7"	12	11'-7"	12	11'-7"	16	11'-7"	20	11'-7"	20	11'-7"	24	11'-7"	24	11'-7"	28	11'-7"	32	11'-7"	36	11'-7"	0	-	0	-
t_{104}(E)	4	▭	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	44	19'-7"	52	19'-7"
w_{101}(E)	5	——	120	36'-9"	120	36'-11"	120	37'-4"	120	38'-0"	120	39'-1"	144	34'-0"	144	35'-6"	144	37'-5"	168	34'-6"	168	37'-3"	192	35'-11"	216	35'-10"	240	37'-0"
APPR. SLAB GRADE BEAMS CLASS SI CONCRETE (C.Y.)			32.9		33.0		33.4		34.0		35.0		36.3		38.0		40.1		42.9		46.5		51.1		57.3		65.7	
REIN. STL., EPOXY CTD. (LBS.)			6,097		6,145		6,213		6,357		6,549		6,823		7,148		7,532		8,096		8,767		9,658		11,094		12,743	



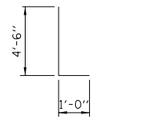
REINFORCEMENT BAR CUTTING DIAGRAM



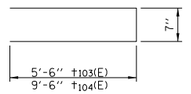
BARS a_{101}(E) & t_{102}(E)



BAR d_{101}(E)



BAR d_{102}(E)



BARS t_{103}(E) & t_{104}(E)

REINFORCING BAR SCHEDULE FOR BARRIERS

BAR	NO.	SIZE	LENGTH	SHAPE
d_{101}(E)	128	6	5'-4"	⌞
d_{102}(E)	128	4	5'-6"	⌞
e_{101}(E)	64	4	14'-8"	——
e_{102}(E)	16	6	29'-6"	——

BILL OF MATERIAL FOR BARRIERS

IDOT PAY ITEM NO.	DESCRIPTION	UNIT	QUANT'Y
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	16.0
50800205	REINFORCING BARS, EPOXY COATED	LBS.	2,302
50300300	PROTECTIVE COAT	SQ. YD.	60

NOTES:

* 1. BARS a_{105}(E), a_{106}(E), a_{108}(E), AND a_{109}(E) ARE TO BE USED IN 12'-0" WIDE LANES, AND THE SHORTEST BAR IN THESE SERIES OF BARS (10'-0" FOR BAR a_{106}(E)) IS TO BE DISCARDED TO MAKE EACH SERIES OF BARS CONTAIN ONLY 23 BARS. BARS a_{104}(E) AND a_{107}(E) ARE TO BE USED IN THE 13'-0" WIDE LANE, AND THE SHORTEST BAR IN THESE SERIES OF BARS (9'-2" FOR BAR a_{104}(e)) IS TO BE DISCARDED TO MAKE EACH SERIES OF BARS CONTAIN ONLY 25 BARS.

2. THE REINFORCING BAR SCHEDULE FOR APPROACH SLABS IS SHOWN FOR 15'-0" WIDE MEDIAN SHOULDERS. FOR 14'-0" WIDE MEDIAN SHOULDERS, AT EACH SKEW ANGLE IN THIS SCHEDULE:
   - REDUCE THE NUMBER OF a_{101}(E) AND a_{102}(E) BARS FROM 178 TO 176 AND FROM 176 TO 174 RESPECTIVELY.
   - REDUCE THE NUMBER OF a_{103}(E) BARS FROM 188 TO 186.
   - REDUCE THE LENGTH OF b_{102}(E) BARS FROM 14'-7" TO 13'-7".
   - REDUCE THE NUMBER OF t_{101}(E) AND t_{102}(E) BARS EACH BY 2 BARS (IN THE SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS, REDUCE M FOR BARS t_{101}(E) AND t_{102}(E) EACH BY 2 BARS).
   - REDUCE THE AREA QUANTITY OF BRIDGE APPROACH SLAB BY 6.7 SQUARE YARDS.
   - REDUCE THE WEIGHT QUANTITY OF APPROACH SLAB REINFORCING STEEL, EPOXY COATED BY 458 POUNDS.
   - REDUCE THE VOLUME QUANTITY OF GRADE BEAM CONCRETE BY (0.370 ÷ COSINE SKEW) CUBIC YARDS.
   - REDUCE THE WEIGHT QUANTITY OF GRADE BEAM REINFORCING STEEL, EPOXY COATED BY 16 POUNDS.

   FURTHERMORE, TRIM THE b_{110}(E) BARS IN THE 14'-0" MEDIAN SHOULDERS AS NECESSARY TO FIT THE SKEW ANGLE.

3. THE AREA OF EACH MAIN APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM THE OUTSIDE FACE OF OUTER BARRIER TO OUTSIDE OF MEDIAN BARRIER BY THE LENGTH OF 30.00 FEET.

4. THE AREA OF EACH TRANSITION APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM LEFT OUTSIDE EDGE OF CONCRETE PAVEMENT TO THE RIGHT OUTSIDE EDGE OF CONCRETE PAVEMENT BY THE MINIMUM LENGTH OF 70.00 FEET PLUS THE ADDITIONAL LENGTH REQUIRED BY THE SKEW ANGLE.

APPROVED Jeff Mosley CHIEF ENGINEER DATE 6-14-2006

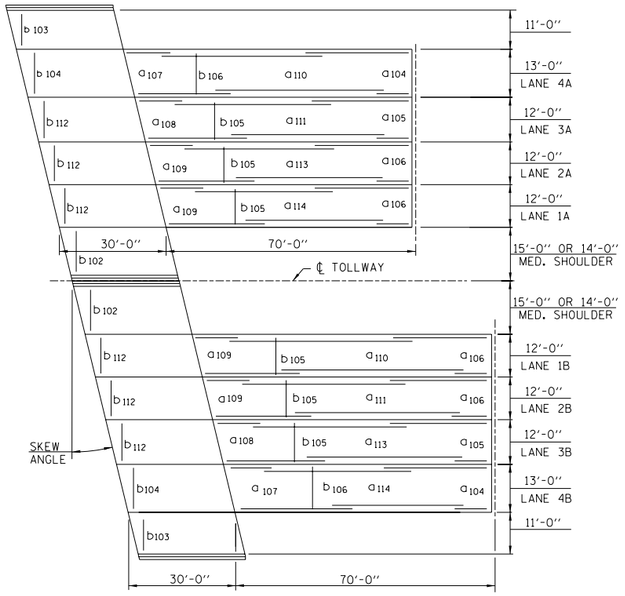
Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB TO CRC PAVEMENT, MAINLINE
BAR SCHEDULES FOR 5 LANES

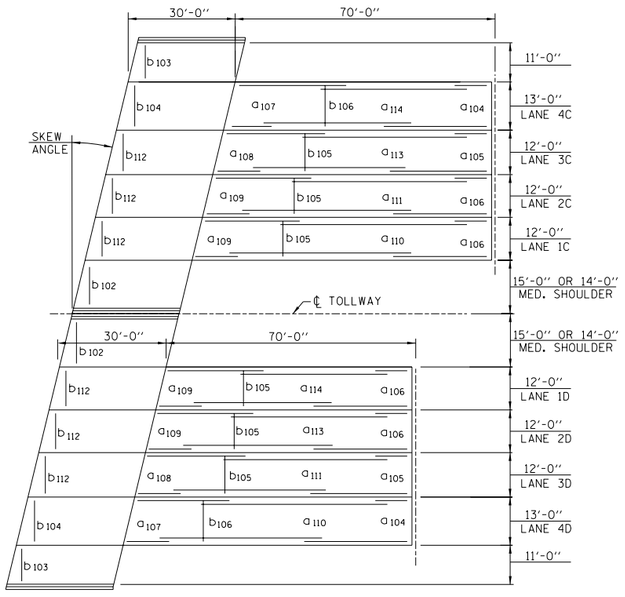
DATE 5-12-2005

STANDARD NO. ST 05-10

REVISIONS



APPROACH SLAB PLAN, AHEAD RIGHT SKEW



APPROACH SLAB PLAN, AHEAD LEFT SKEW

SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS

BAR	LANE	0° SKEW			5° SKEW			10° SKEW			15° SKEW			20° SKEW			25° SKEW			30° SKEW			35° SKEW			40° SKEW			45° SKEW			50° SKEW			55° SKEW			60° SKEW		
		M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P
a_{110}(E)	4A,4D	25	1	-	25	1	-	25	2	-	25	2	-	25	2	-	25	2	-	25	2	-	25	2	-	25	2	-	25	2	-	25	3	-	25	3	-	25	3	-
a_{110}(E)	1B,1C	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	3	-	23	3	-	23	3	-
a_{111}(E)	3A,3D	23	1	-	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	3	-	23	3	-
a_{111}(E)	2B,2C	23	1	-	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-
a_{113}(E)	2A,2D	23	1	-	23	1	-	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-
a_{113}(E)	3B,3C	23	1	-	23	1	-	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-
a_{114}(E)	1A,1D	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	1	-	23	2	-	23	2	-	23	2	-	23	2	-	23	2	-
a_{114}(E)	4B,4C	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	1	-	25	2	-	25	2	-	25	2	-	25	2	-	25	2	-
b_{101}(E)	COMBINED	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	4	-	31	4	-	31	5	-
b_{105}(E)	1A,1D	19	-	0	19	-	0	19	-	0	19	-	0	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	2	19	-	2	19	-	2
b_{105}(E)	2A,2D	19	-	0	19	-	0	19	-	0	20	-	0	20	-	1	20	-	1	21	-	1	21	-	1	21	-	1	22	-	1	22	-	2	23	-	2	24	-	2
b_{105}(E)	3A,3D	19	-	0	19	-	0	20	-	0	20	-	0	21	-	1	22	-	1	22	-	1	23	-	1	24	-	1	25	-	1	26	-	2	27	-	2	29	-	2
b_{105}(E)	1B,1C	19	-	0	20	-	0	21	-	0	21	-	0	22	-	1	23	-	1	24	-	1	25	-	1	27	-	1	28	-	1	30	-	2	32	-	2	35	-	2
b_{105}(E)	2B,2C	19	-	0	19	-	0	20	-	0	21	-	0	21	-	1	22	-	1	22	-	1	23	-	1	24	-	1	25	-	1	26	-	2	28	-	2	30	-	2
b_{105}(E)	3B,3C	19	-	0	19	-	0	19	-	0	20	-	0	20	-	1	20	-	1	21	-	1	21	-	1	22	-	1	22	-	1	23	-	2	24	-	2	25	-	2
b_{106}(E)	4A,4D	19	-	0	20	-	0	20	-	0	21	-	0	22	-	1	23	-	1	24	-	1	25	-	1	26	-	1	28	-	2	30	-	2	32	-	2	34	-	3
b_{106}(E)	4B,4C	19	-	0	19	-	0	19	-	0	19	-	0	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	2	19	-	2	19	-	2	19	-	3
b_{111}(E)	1A TO 2A, 1D TO 2D	29	-	-	30	-	-	30	-	-	30	-	-	31	-	-	31	-	-	32	-	-	32	-	-	33	-	-	34	-	-	34	-	-	35	-	-	37	-	-
b_{111}(E)	2A TO 3A, 2D TO 3D	29	-	-	30	-	-	31	-	-	32	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-	38	-	-	40	-	-	42	-	-	45	-	-
b_{111}(E)	3A TO 4A, 3D TO 4D	29	-	-	31	-	-	32	-	-	33	-	-	34	-	-	36	-	-	37	-	-	39	-	-	41	-	-	43	-	-	46	-	-	49	-	-	53	-	-
b_{111}(E)	1B TO 2B, 1C TO 2C	29	-	-	31	-	-	32	-	-	33	-	-	34	-	-	36	-	-	38	-	-	39	-	-	41	-	-	44	-	-	46	-	-	50	-	-	54	-	-
b_{111}(E)	2B TO 3B, 2C TO 3C	29	-	-	30	-	-	31	-	-	32	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-	39	-	-	41	-	-	43	-	-	46	-	-
b_{111}(E)	3B TO 4B, 3C TO 4C	29	-	-	30	-	-	30	-	-	31	-	-	31	-	-	31	-	-	32	-	-	33	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-
t_{101}(E)	COMBINED	150	-	-	150	-	-	151	-	-	154	-	-	158	-	-	163	-	-	170	-	-	180	-	-	192	-	-	208	-	-	228	-	-	256	-	-	293	-	-
t_{102}(E)	COMBINED	150	-	-	150	-	-	151	-	-	154	-	-	158	-	-	163	-	-	170	-	-	180	-	-	192	-	-	208	-	-	228	-	-	256	-	-	293	-	-
t_{103}(E)	COMBINED	2	-	-	3	-	-	3	-	-	4	-	-	5	-	-	5	-	-	6	-	-	6	-	-	7	-	-	8	-	-	9	-	-	0	-	-	0	-	-
t_{104}(E)	COMBINED	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	11	-	-	13	-	-
w_{101}(E)	COMBINED	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	6	-	12	6	-	12	7	-	12	8	-	12	9	-

NOTES:

1. WORK THIS STANDARD WITH STANDARD ST XX-9 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, GENERAL PLAN, SECTIONS AND DETAILS).
2. THE REINFORCING BAR SCHEDULES, BILL OF MATERIAL, AND QUANTITIES ARE CALCULATED FOR TWO (OPPOSITE) TRAFFIC DIRECTIONS AT ONE END OF A DUAL BRIDGE.

APPROVED Jeff Haley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS FOR 4 LANES

DATE 5-12-2005

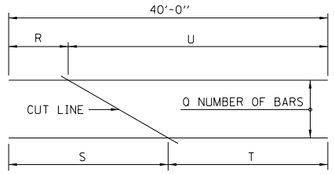
STANDARD NO. ST 05-11

TABLE OF CUTTING DIAGRAM DIMENSIONS

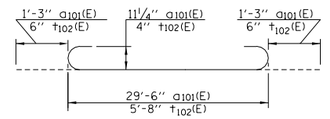
BAR	LANE	Q	DIM.	0° SKEW	5° SKEW	10° SKEW	15° SKEW	20° SKEW	25° SKEW	30° SKEW	35° SKEW	40° SKEW	45° SKEW	50° SKEW	55° SKEW	60° SKEW
$a_{104}(E)$	5A, 5B, 5C, 5D	13	R	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"
			S	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"
			T	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"
			U	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"	30'-10"
*$a_{105}(E)$	3A,3B,3C,3D 4A,4B,4C,4D	12	R	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
			S	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"	19'-7"
*$a_{106}(E)$	1A,1B,1C,1D 2A,2B,2C,2D		T	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"	20'-5"
			U	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"	30'-0"
$a_{107}(E)$	5A, 5B, 5C, 5D	13	R	9'-2"	9'-9"	10'-3"	10'-10"	11'-5"	12'-1"	12'-9"	13'-7"	14'-5"	15'-5"	16'-7"	18'-1"	20'-0"
			S	19'-7"	19'-7"	19'-7"	19'-8"	19'-8"	19'-8"	19'-9"	19'-9"	19'-9"	19'-10"	19'-10"	19'-11"	20'-0"
			T	20'-5"	20'-5"	20'-5"	20'-4"	20'-4"	20'-4"	20'-3"	20'-3"	20'-3"	20'-2"	20'-2"	20'-1"	20'-0"
			U	30'-10"	30'-3"	29'-9"	29'-2"	28'-7"	27'-11"	27'-3"	26'-5"	25'-7"	24'-7"	23'-5"	21'-11"	20'-0"
*$a_{108}(E)$	3A,3B,3C,3D 4A,4B,4C,4D	12	R	10'-0"	10'-7"	11'-1"	11'-7"	12'-2"	12'-9"	13'-4"	14'-1"	14'-10"	15'-9"	16'-11"	18'-3"	20'-0"
			S	19'-7"	19'-7"	19'-7"	19'-8"	19'-8"	19'-8"	19'-9"	19'-9"	19'-9"	19'-10"	19'-10"	19'-11"	20'-0"
*$a_{109}(E)$	1A,1B,1C,1D 2A,2B,2C,2D		T	20'-5"	20'-5"	20'-5"	20'-4"	20'-4"	20'-4"	20'-3"	20'-3"	20'-3"	20'-2"	20'-2"	20'-1"	20'-0"
			U	30'-0"	29'-5"	28'-11"	28'-5"	27'-10"	27'-3"	26'-8"	25'-11"	25'-2"	24'-3"	23'-1"	21'-9"	20'-0"

REINFORCING BAR SCHEDULE FOR APPROACH SLABS

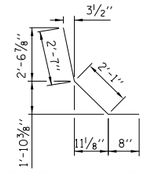
BAR	SIZE	SHAPE	0° SKFW NO	0° SKFW LENGTH	5° SKFW NO	5° SKFW LENGTH	10° SKEW NO	10° SKEW LENGTH	15° SKEW NO	15° SKEW LENGTH	20° SKEW NO	20° SKEW LENGTH	25° SKEW NO	25° SKEW LENGTH	30° SKEW NO	30° SKEW LENGTH	35° SKEW NO	35° SKEW LENGTH	40° SKEW NO	40° SKEW LENGTH	45° SKEW NO	45° SKEW LENGTH	50° SKEW NO	50° SKEW LENGTH	55° SKEW NO	55° SKEW LENGTH	60° SKEW NO	60° SKEW LENGTH
$a_{101}(E)$	9	C	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"
$a_{102}(E)$	9	——	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"
$a_{103}(E)$	7	——	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"
$a_{104}(E)$	7	— —	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"
$a_{105}(E)$	7	— —	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"
$a_{106}(E)$	7	— —	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"
$a_{107}(E)$	7	— —	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"	26	40'-0"
$a_{108}(E)$	7	— —	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"	24	40'-0"
$a_{109}(E)$	7	— —	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"	48	40'-0"
$a_{110}(E)$	7	——	48	33'-10"	48	37'-7"	96	21'-9"	96	23'-8"	96	25'-9"	96	27'-11"	96	30'-3"	96	32'-11"	96	35'-10"	96	39'-3"	144	29'-7"	144	32'-11"	144	37'-3"
$a_{111}(E)$	7	——	46	33'-10"	46	36'-5"	46	39'-1"	92	22'-0"	92	23'-6"	92	25'-0"	92	26'-8"	92	28'-6"	92	30'-7"	92	33'-0"	92	35'-11"	138	27'-0"	138	30'-1"
$a_{113}(E)$	7	——	46	33'-10"	46	35'-5"	46	37'-0"	46	38'-8"	92	21'-3"	92	22'-2"	92	23'-2"	92	24'-4"	92	25'-7"	92	27'-0"	92	28'-9"	92	30'-10"	92	33'-7"
$a_{114}(E)$	7	——	48	33'-10"	48	34'-4"	48	34'-11"	48	35'-5"	48	36'-0"	48	36'-8"	48	37'-4"	48	38'-0"	96	20'-6"	96	21'-0"	96	21'-7"	96	22'-3"	96	23'-2"
$b_{101}(E)$	5	——	186	26'-6"	186	26'-7"	186	26'-10"	186	27'-4"	186	28'-1"	186	29'-1"	186	30'-5"	186	32'-1"	186	34'-3"	186	37'-1"	248	30'-11"	248	34'-6"	310	31'-10"
$b_{102}(E)$	4	——	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"
$b_{103}(E)$	4	——	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"
$b_{104}(E)$	4	——	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"
$b_{105}(E)$	4	——	114	11'-8"	115	11'-8"	118	11'-8"	121	11'-8"	129	11'-8"	132	11'-8"	135	11'-8"	138	11'-8"	143	11'-8"	147	11'-8"	158	11'-8"	165	11'-8"	174	11'-8"
$b_{106}(E)$	4	——	38	12'-8"	39	12'-8"	39	12'-8"	40	12'-8"	43	12'-8"	44	12'-8"	45	12'-8"	46	12'-8"	47	12'-8"	51	12'-8"	53	12'-8"	55	12'-8"	59	12'-8"
$b_{107}(E)$	5	——	0	-	6	12'-8"	6	12'-9"	6	13'-1"	6	13'-5"	6	13'-11"	6	14'-7"	6	15'-5"	6	16'-7"	6	18'-0"	6	19'-10"	6	22'-3"	6	25'-7"
$b_{108}(E)$	5	——	0	-	24	11'-7"	24	11'-8"	24	11'-11"	24	12'-3"	24	12'-9"	24	13'-4"	24	14'-2"	24	15'-2"	24	16'-6"	24	18'-2"	24	20'-5"	24	23'-6"
$b_{109}(E)$	5	——	0	-	4	10'-7"	4	10'-8"	4	10'-11"	4	11'-2"	4	11'-8"	4	12'-2"	4	12'-11"	4	13'-10"	4	15'-1"	4	16'-7"	4	18'-8"	4	21'-6"
$b_{110}(E)$	5	——	0	-	4	13'-1"	4	13'-2"	4	13'-6"	4	13'-10"	4	14'-5"	4	15'-1"	4	16'-0"	4	17'-1"	4	18'-7"	4	20'-6"	4	23'-0"	4	26'-6"
$b_{111}(E)$	5	——	174	2'-6"	182	2'-6"	186	2'-6"	191	2'-6"	196	2'-6"	202	2'-6"	209	2'-6"	215	2'-6"	222	2'-6"	232	2'-6"	242	2'-6"	255	2'-6"	272	2'-6"
$b_{112}(E)$	4	——	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"
BRIDGE APPR. SLAB (SQ. YD.)				1,272.8		1,296.1		1,319.8		1,344.3		1,369.9		1,397.2		1,426.8		1,459.6		1,496.6		1,539.6		1,590.7		1,653.8		1,734.9
REINF. STL., EPOXY CTD. (LBS.)				75,905		77,239		78,372		79,578		80,930		82,139		83,498		85,044		87,070		89,244		92,241		95,762		100,230
$t_{101}(E)$	4	——	150	5'-8"	150	5'-8"	151	5'-8"	154	5'-8"	158	5'-8"	163	5'-8"	170	5'-8"	180	5'-8"	192	5'-8"	208	5'-8"	228	5'-8"	256	5'-8"	293	5'-8"
$t_{102}(E)$	4	C	150	6'-8"	150	6'-8"	151	6'-8"	154	6'-8"	158	6'-8"	163	6'-8"	170	6'-8"	180	6'-8"	192	6'-8"	208	6'-8"	228	6'-8"	256	6'-8"	293	6'-8"
$t_{103}(E)$	4	▭	8	11'-7"	12	11'-7"	12	11'-7"	16	11'-7"	20	11'-7"	20	11'-7"	24	11'-7"	24	11'-7"	28	11'-7"	32	11'-7"	36	11'-7"	0	-	0	-
$t_{104}(E)$	4	▭	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	44	19'-7"	52	19'-7"
$w_{101}(E)$	5	——	120	32'-0"	120	32'-1"	120	32'-5"	120	33'-1"	120	33'-11"	120	35'-2"	120	36'-9"	120	38'-9"	144	34'-9"	144	37'-6"	168	35'-6"	192	34'-10"	216	35'-7"
APPR. SLAB GRADE BEAMS CLASS SI CONCRETE (C.Y.)				28.4		28.5		28.9		29.4		30.3		31.4		32.8		34.7		37.1		40.2		44.2		49.6		56.9
REIN. STL., EPOXY CTD. (LBS.)				5,299		5,344		5,397		5,529		5,704		5,896		6,182		6,518		7,015		7,595		8,377		9,667		11,104



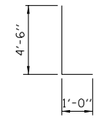
REINFORCEMENT BAR CUTTING DIAGRAM



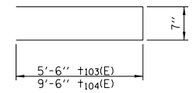
BARS $a_{101}(E)$ & $t_{102}(E)$



BAR $d_{101}(E)$



BAR $d_{102}(E)$



BARS $t_{103}(E)$ & $t_{104}(E)$

REINFORCING BAR SCHEDULE FOR BARRIERS				
BAR	NO.	SIZE	LENGTH	SHAPE
$d_{101}(E)$	128	6	5'-4"	⌞
$d_{102}(E)$	128	4	5'-6"	L
$e_{101}(E)$	64	4	14'-8"	——
$e_{102}(E)$	16	6	29'-6"	——

BILL OF MATERIAL FOR BARRIERS			
IDOT PAY ITEM NO.	DESCRIPTION	UNIT	QUANT'Y
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	16.0
50800205	REINFORCING BARS, EPOXY COATED	LBS.	2,302
50300300	PROTECTIVE COAT	SQ. YD.	60

NOTES:

• 1. BARS $a_{105}(E)$, $a_{106}(E)$, $a_{108}(E)$, AND $a_{109}(E)$ ARE TO BE USED IN 12'-0" WIDE LANES, AND THE SHORTEST BAR IN THESE SERIES OF BARS (10'-0" FOR BAR $a_{106}(E)$) IS TO BE DISCARDED TO MAKE EACH SERIES OF BARS CONTAIN ONLY 23 BARS. BARS $a_{104}(E)$ AND $a_{107}(E)$ ARE TO BE USED IN THE 13'-0" WIDE LANE AND THE SHORTEST BAR IN THESE SERIES OF BARS (9'-2" FOR BAR $a_{104(e)}$) IS TO BE DISCARDED TO MAKE EACH SERIES OF BARS CONTAIN ONLY 25 BARS.

2. THE REINFORCING BAR SCHEDULE FOR APPROACH SLABS IS SHOWN FOR 15'-0" WIDE MEDIAN SHOULDERS. FOR 14'-0" WIDE MEDIAN SHOULDERS, AT EACH SKEW ANGLE IN THIS SCHEDULE:
   - REDUCE THE NUMBER OF $a_{101}(E)$ AND $a_{102}(E)$ BARS FROM 154 TO 152 AND FROM 152 TO 150 RESPECTIVELY.
   - REDUCE THE NUMBER OF $a_{103}(E)$ BARS FROM 162 TO 160.
   - REDUCE THE LENGTH OF $b_{102}(E)$ BARS FROM 14'-7" TO 13'-7".
   - REDUCE THE NUMBER OF $t_{101}(E)$ AND $t_{102}(E)$ BARS EACH BY 2 BARS (IN THE SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS, REDUCE M FOR BARS $t_{101}(E)$ AND $t_{102}(E)$ EACH BY 2 BARS).
   - REDUCE THE AREA QUANTITY OF BRIDGE APPROACH SLAB BY 6.7 SQUARE YARDS.
   - REDUCE THE WEIGHT QUANTITY OF APPROACH SLAB REINFORCING STEEL, EPOXY COATED BY 517 POUNDS.
   - REDUCE THE VOLUME QUANTITY OF GRADE BEAM CONCRETE BY (0.370 ÷ COSINE SKEW) CUBIC YARDS.
   - REDUCE THE WEIGHT QUANTITY OF GRADE BEAM REINFORCING STEEL, EPOXY COATED BY 16 POUNDS.

   FURTHERMORE, TRIM THE $b_{110}(E)$ BARS IN THE 14'-0" MEDIAN SHOULDERS AS NECESSARY TO FIT THE SKEW ANGLE.

3. THE AREA OF EACH MAIN APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM THE OUTSIDE FACE OF OUTER BARRIER TO OUTSIDE OF MEDIAN BARRIER BY THE LENGTH OF 30.00 FEET.

4. THE AREA OF EACH TRANSITION APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM LEFT OUTSIDE EDGE OF CONCRETE PAVEMENT TO THE RIGHT OUTSIDE EDGE OF CONCRETE PAVEMENT BY THE MINIMUM LENGTH OF 70.00 FEET PLUS THE ADDITIONAL LENGTH REQUIRED BY THE SKEW ANGLE.

REVISIONS

SHEET 2 OF 2

APPROVED Jeff Easley CHIEF ENGINEER DATE 6-14-2006

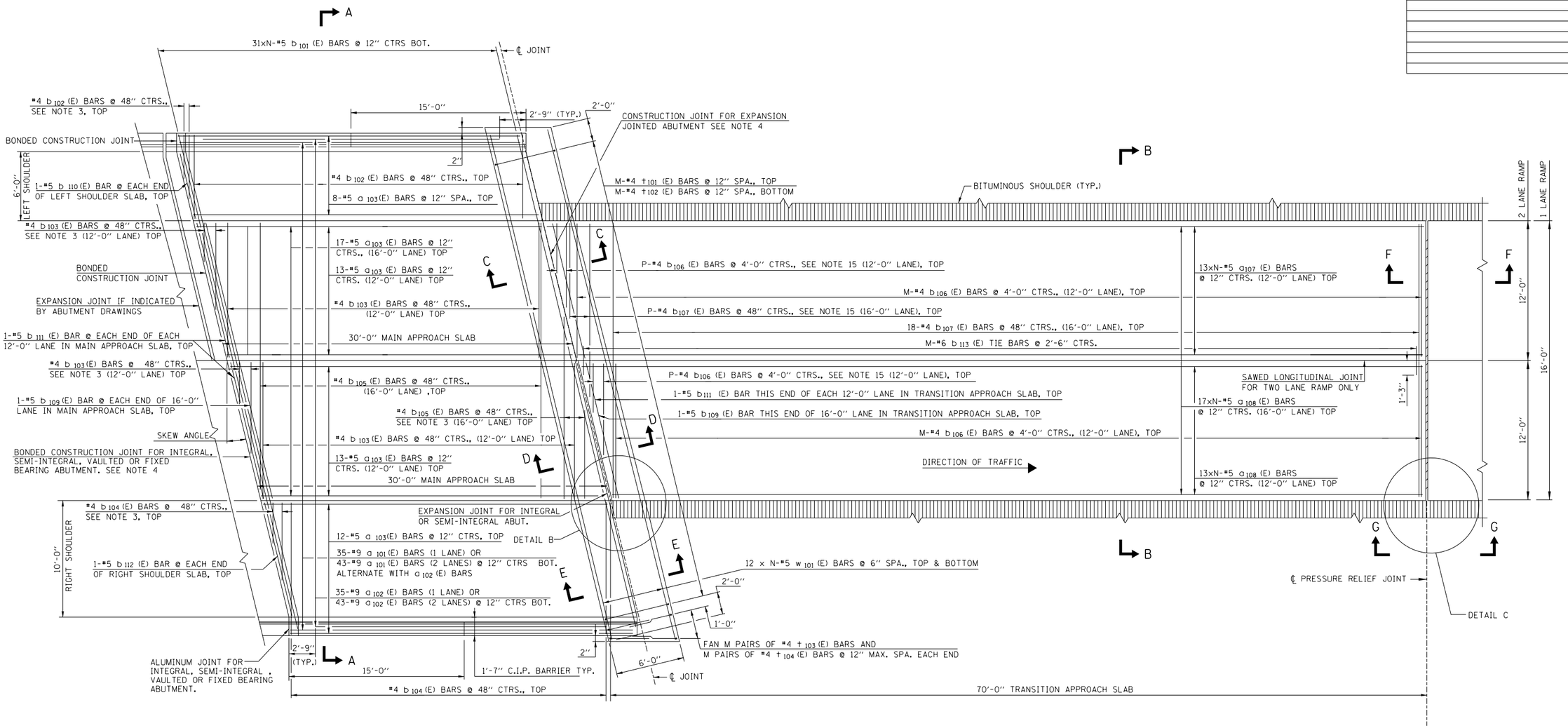
Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB TO CRC PAVEMENT, MAINLINE
BAR SCHEDULES FOR 4 LANES

DATE 5-12-2005

STANDARD NO. ST 05-11

REVISIONS



PLAN

NOTES:

1. TILT HOOK OF #9 BARS FOR MINIMUM 3½" CLEARANCE.
2. USE 1'-4" MIN. LAP FOR #4 BARS. USE 1'-8" MIN. LAP FOR #5 BARS.
3. CUT REINFORCEMENT IN THE FIELD TO FIT THE SKEW AND USE REMAINDER IN OPPOSITE END.
4. SAW CUT ⅜" x 2" DEEP JOINT AND FILL WITH HOT POURED, LOW MODULUS, POLYMER SEALANT MEETING THE REQUIREMENTS OF ASTM D3405.
5. CONCRETE SEALANT SHALL BE APPLIED TO TOP AND TRAFFIC FACES OF BARRIERS.
6. TOOL EDGES OF EXPANSION AND PRESSURE RELIEF JOINTS TO ¼" RADIUS.
7. REINFORCING BARS SHALL MEET THE REQUIREMENTS OF AASHTO M31 (ASTM A615), GRADE 60, AND SHALL CONFORM TO SECTION 508 OF THE IDOT STANDARD SPECIFICATIONS.
8. REINFORCING BARS DESIGNATED "(E)" SHALL BE EPOXY COATED.
9. REINFORCEMENT BENDING DETAILS SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 315, LATEST EDITION.
10. REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
11. EXPOSED CONCRETE EDGES SHALL HAVE ¾" x 45° CHAMFERS. CHAMFERS ONVERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW GROUND LEVEL.
12. CONCRETE BARRIERS SHALL BE CONSTRUCTED & PAID FOR IN ACCORDANCE WITH SECTIONS 503, 508, AND 587 OF THE IDOT STANDARD SPECIFICATIONS.
13. THE NOTATION MXN-#4 a FOR REINFORCING BARS IS DEFINED AS M LINES OF BARS WITH N LENGTHS PER LINE. FOR SCHEDULES OF REINFORCING BAR VARIABLE BILLINGS, SEE SHEETS 4 AND 5 (OF 5) OF THIS SERIES.
14. THE NUMBER OF BARS "P" IS GIVEN IN THE SCHEDULES OF REINFORCING BAR VARIABLE BILLINGS ON SHEETS 4 & 5 (OF 5) OF THIS SERIES.
15. CUT REINFORCEMENT IN THE FIELD TO FIT SKEW AND PLACE REMAINDER IN ADJACENT AREA OR DISCARD OFF SITE.
16. IN THE CORNERS OF THE GRADE BEAM, THE CONCRETE SHALL BE BLOCKED OUT AND THE REINFORCING STEEL SHALL BE RESPACED (OR CUT) FOR GUARDRAIL POSTS, DRAINAGE STRUCTURES, NOISE ABATEMENT WALLS, ETC. AS NECESSARY AND AS APPROVED BY THE ENGINEER.
17. IN REFERENCE TO LONGITUDINAL CONSTRUCTION JOINTS ON SHEET 2 (OF 5) OF THIS SERIES; THESE BARS SHALL BE CUT TO FIT FROM LENGTHS SHOWN IN THE REINFORCING BAR SCHEDULE FOR THE CONSTRUCTION JOINT. THESE BARS MAY BE REPLACED BY ALTERNATIVE BARS AND LENGTHS AS SHOWN IN THE DESIGN PLANS.
18. EXPANSIONS ANCHORS AND DRILLED AND GROUTED DOWELS SHALL CONFORM SUBSECTIONS 532.2 AND 532.3 OF THE TOLLWAY STANDARD SPECIFICATIONS.
19. AS APPROVED BY THE ENGINEER, THE CONTRACTOR MAY ELECT TO REDUCE THE WIDTHS OF THE POUR BY USE OF THE OPTIONAL LONGITUDINAL CONSTRUCTION JOINT SHOWN. JOINTS SHALL BE LOCATED AT THE EDGE OF A TRAFFIC LANE.

SHEET 1 OF 5

APPROVED Jeff Haley CHIEF ENGINEER DATE 6-14-2006

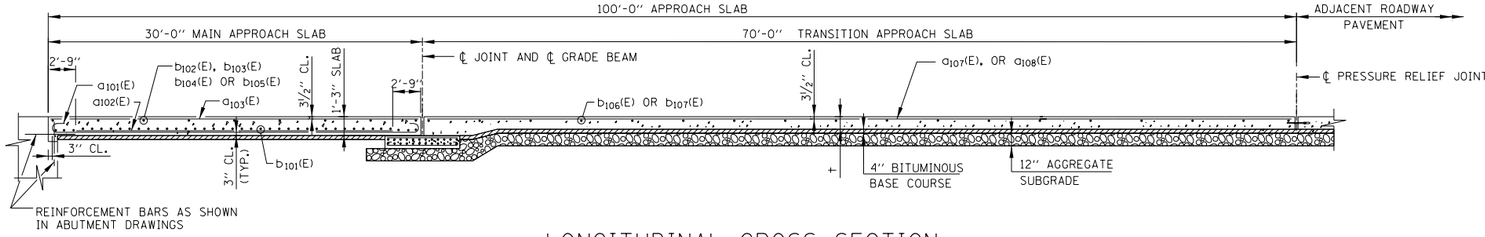
Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB, RAMP, GENERAL PLAN

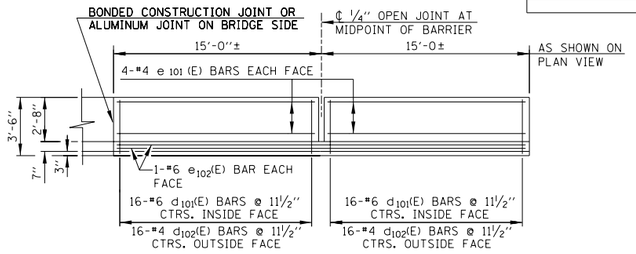
DATE 5-12-2005

STANDARD NO. ST 05-14

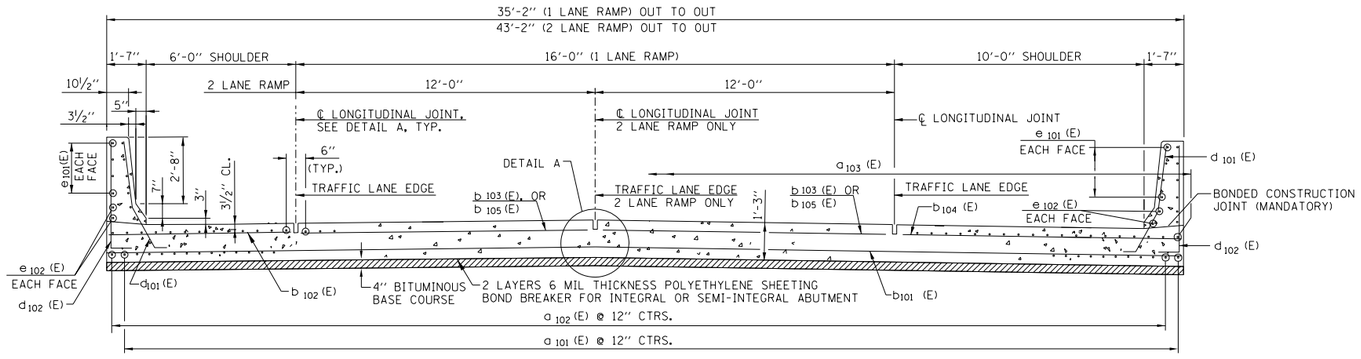
REVISIONS



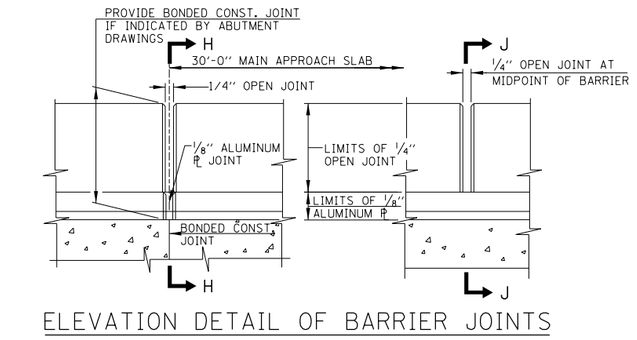
LONGITUDINAL CROSS SECTION



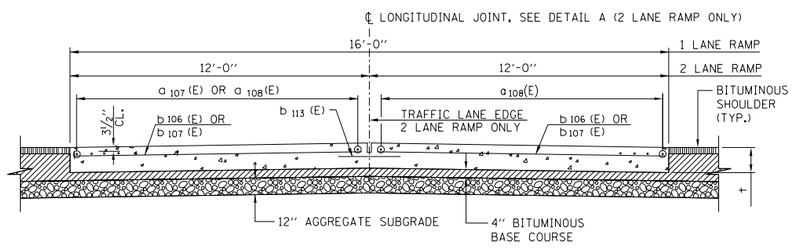
BARRIER ELEVATION



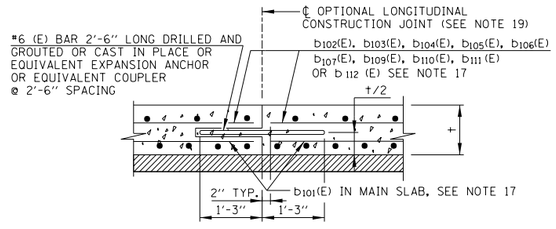
SECTION A-A



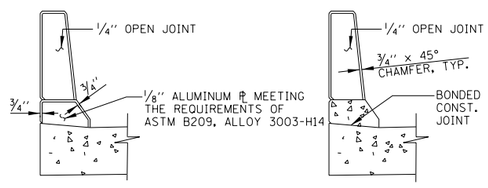
ELEVATION DETAIL OF BARRIER JOINTS



SECTION B-B

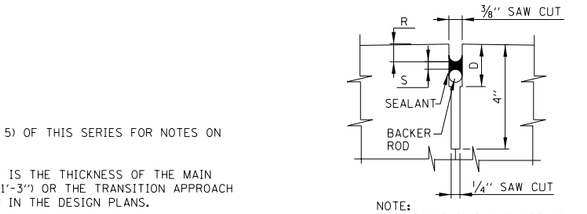


CROSS SECTION THRU OPTIONAL LONGITUDINAL CONSTRUCTION JOINT BETWEEN LANE LINES



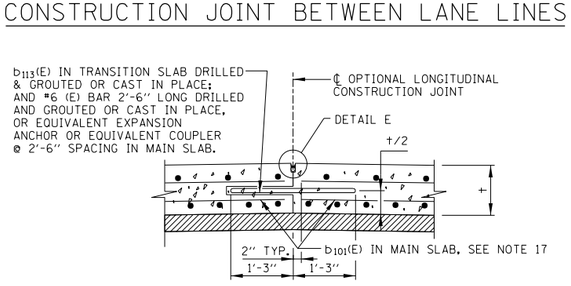
SECTION H-H

SECTION J-J

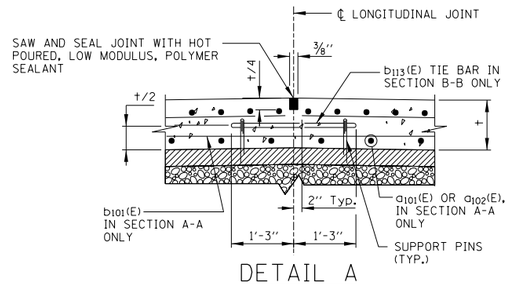


NOTE:
DIMENSIONS D, R & S ARE AS RECOMMENDED BY THE SEALANT MANUFACTURER.

DETAIL E



CROSS SECTION THRU OPTIONAL LONGITUDINAL JOINT WITH CONSTRUCTION JOINT



DETAIL A
TYPICAL LONGITUDINAL JOINT

NOTES:

1. SEE SHEET 1 (OF 5) OF THIS SERIES FOR NOTES ON THIS SHEET.
2. THE THICKNESS + IS THE THICKNESS OF THE MAIN APPROACH SLAB (1'-3") OR THE TRANSITION APPROACH SLAB AS DEFINED IN THE DESIGN PLANS.

APPROVED Jeff Haley CHIEF ENGINEER DATE 6-14-2006

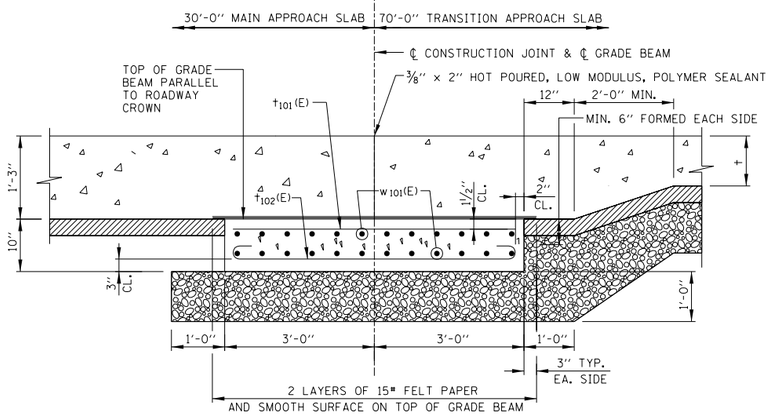
Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB, RAMP, SECTIONS AND DETAILS

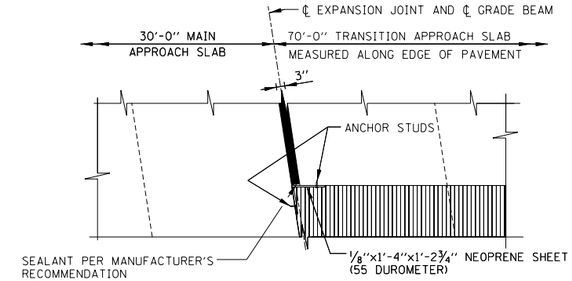
DATE 5-12-2005

STANDARD NO. ST 05-14

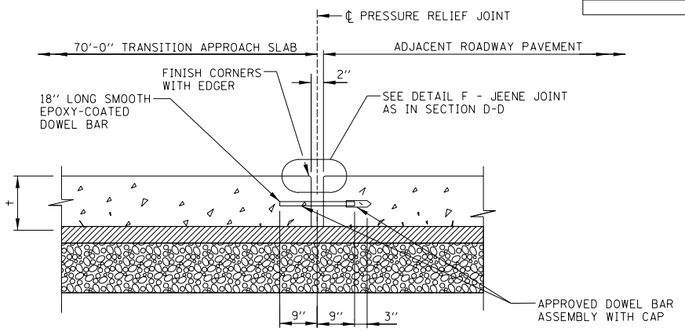
REVISIONS



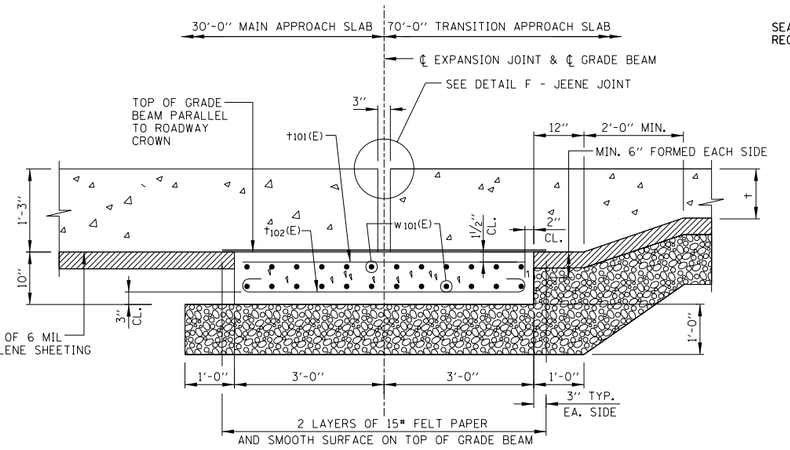
SECTION C-C
FOR NON-INTEGRAL ABUTMENT



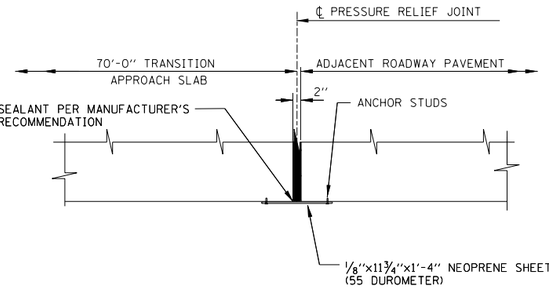
DETAIL B
END PLAN OF EXPANSION JOINT



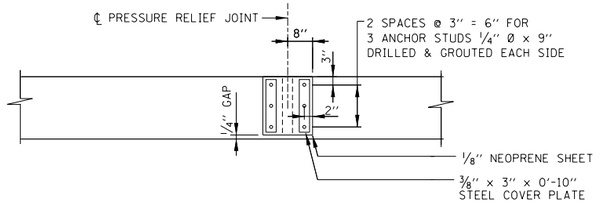
SECTION F-F
PRESSURE RELIEF JOINT



SECTION D-D
FOR INTEGRAL & SEMI-INTEGRAL ABUTMENT



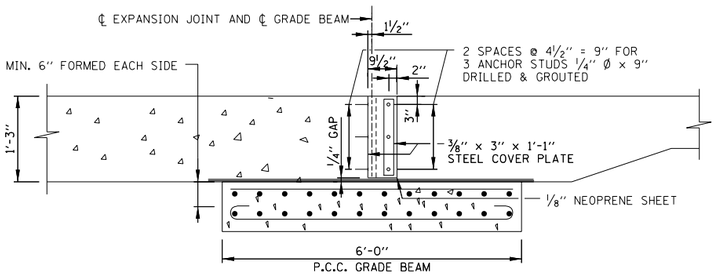
DETAIL C
END PLAN OF PRESSURE RELIEF JOINT



VIEW G-G
END ELEVATION OF PRESSURE RELIEF JOINT

LEGEND

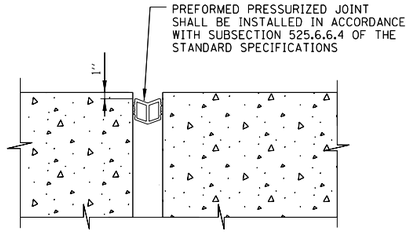
- CONCRETE
- BITUMINOUS BASE COURSE
- AGRREGATE SUBGRADE
- BITUMINOUS SHOULDER
- JOINT SEALANT
- PREFORMED JOINT FILLER



SECTION E-E
END ELEVATION OF EXPANSION JOINT

NOTES:

1. FOR REINFORCEMENT BARS IN APPROACH SLABS, SEE SHEETS 1, 2, 4 & 5 (OF 5) OF THIS SERIES.
2. IN SECTION E-E AND VIEW G-G, ANCHOR STUDS SHALL BE INSTALLED IN ACCORDANCE WITH SUBSECTION 1006.09 OF THE IDOT STANDARD SPECIFICATIONS. STEEL PLATES, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED.
3. THE THICKNESSES OF BITUMINOUS BASE COURSE, AND AGGREGATE SUBGRADE SHALL BE THE SAME AS THEY ARE FOR THE ADJACENT PAVEMENT SECTIONS.
4. THE DIMENSION t IS THE THICKNESS OF THE TRANSITION APPROACH SLAB AS DEFINED IN THE DESIGN PLANS.



DETAIL F
JEENE JOINT

APPROVED Jeff Haley CHIEF ENGINEER DATE 6-14-2006

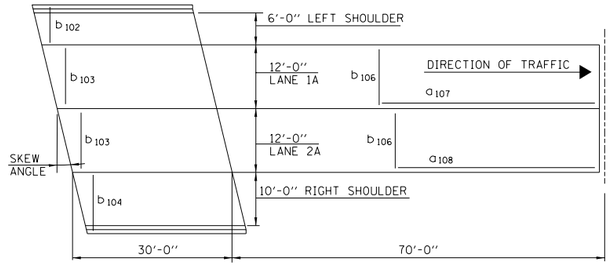
SHEET 3 OF 5

Illinois Tollway
Open Roads for a Faster Future

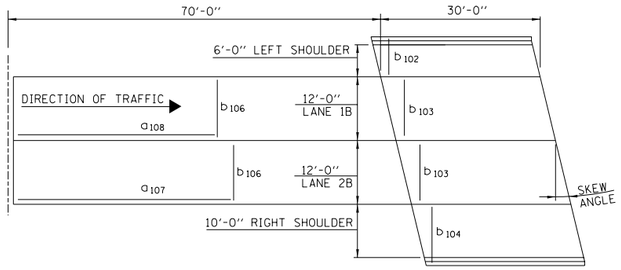
APPROACH SLAB, RAMP, SECTIONS AND DETAILS

DATE 5-12-2005

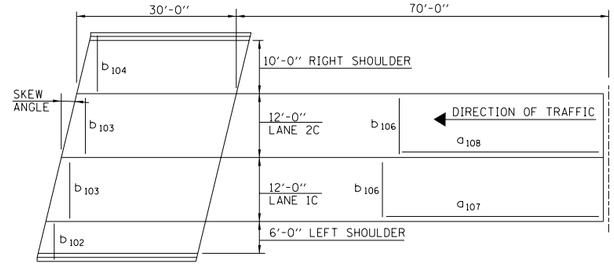
STANDARD NO. ST 05-14



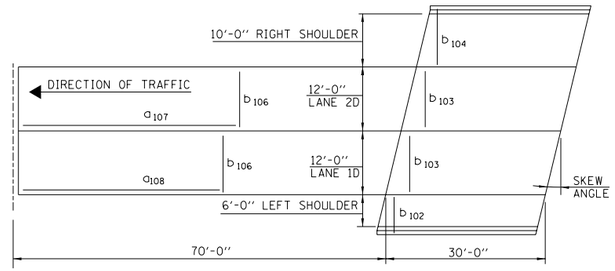
APPROACH SLAB PLAN, AHEAD RIGHT SKEW, LEAVING BRIDGE



APPROACH SLAB PLAN, AHEAD RIGHT SKEW, ENTERING BRIDGE



APPROACH SLAB PLAN, AHEAD LEFT SKEW, ENTERING BRIDGE



APPROACH SLAB PLAN, AHEAD LEFT SKEW, LEAVING BRIDGE

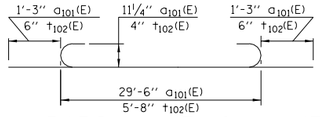
REVISIONS

SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS

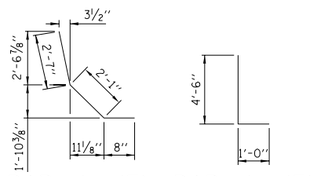
BAR	LANE	0° SKEW			5° SKEW			10° SKEW			15° SKEW			20° SKEW			25° SKEW			30° SKEW			35° SKEW			40° SKEW			45° SKEW			50° SKEW			55° SKEW			60° SKEW		
		M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P
a_{107}(E)	1A,2B,1C,2D	13	2	-	13	2	-	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-
a_{108}(E)	2A,1B,2C,1D	13	2	-	13	2	-	13	2	-	13	2	-	13	2	-	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-
b_{101}(E)	COMBINED	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	3	-
b_{106}(E)	1A,2B,1C,2D	19	-	0	19	-	0	19	-	0	20	-	0	20	-	1	20	-	1	21	-	1	21	-	1	21	-	1	22	-	2	23	-	2	24	-	2			
b_{106}(E)	2A,1B,2C,1D	19	-	0	19	-	0	19	-	0	19	-	0	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	2	19	-	2	19	-	2			
b_{113}(E)	1 TO 2 (A,B,C & D)	29	-	-	30	-	-	30	-	-	30	-	-	31	-	-	31	-	-	32	-	-	32	-	-	33	-	-	33	-	-	34	-	-	35	-	-	36	-	-
t_{101}(E)	COMBINED	41	-	-	41	-	-	41	-	-	41	-	-	42	-	-	43	-	-	45	-	-	47	-	-	50	-	-	54	-	-	59	-	-	66	-	-	75	-	-
t_{102}(E)	COMBINED	41	-	-	41	-	-	41	-	-	41	-	-	42	-	-	43	-	-	45	-	-	47	-	-	50	-	-	54	-	-	59	-	-	66	-	-	75	-	-
t_{103}(E)	COMBINED	2	-	-	3	-	-	3	-	-	4	-	-	4	-	-	5	-	-	6	-	-	6	-	-	7	-	-	8	-	-	9	-	-	0	-	-	0	-	-
t_{104}(E)	COMBINED	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	11	-	-	13	-	-
w_{101}(E)	COMBINED	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	3	-

REINFORCING BAR SCHEDULE FOR APPROACH SLABS

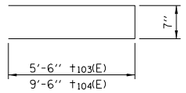
BAR	SIZE	SHAPE	0° SKEW		5° SKEW		10° SKEW		15° SKEW		20° SKEW		25° SKEW		30° SKEW		35° SKEW		40° SKEW		45° SKEW		50° SKEW		55° SKEW		60° SKEW	
			NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a_{101}(E)	9	⊂⊃	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"	43	32'-0"
a_{102}(E)	9	———	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"	43	25'-6"
a_{103}(E)	5	———	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"	46	29'-6"
a_{107}(E)	5	———	26	35'-9"	26	36'-9"	26	37'-10"	26	38'-11"	26	40'-0"	39	28'-10"	39	29'-8"	39	30'-8"	39	31'-9"	39	33'-0"	39	34'-6"	39	36'-4"	39	38'-9"
a_{108}(E)	5	———	26	35'-9"	26	36'-3"	26	36'-9"	26	37'-3"	26	37'-10"	26	38'-5"	26	39'-1"	26	39'-9"	39	28'-5"	39	29'-0"	39	29'-9"	39	30'-8"	39	31'-10"
b_{101}(E)	5	———	62	22'-3"	62	22'-4"	62	22'-7"	62	23'-0"	62	23'-8"	62	24'-6"	62	25'-7"	62	27'-0"	62	28'-10"	62	31'-2"	62	34'-2"	62	38'-2"	93	29'-8"
b_{102}(E)	4	———	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"
b_{103}(E)	4	———	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"	18	11'-8"
b_{104}(E)	4	———	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"
b_{106}(E)	4	———	38	11'-8"	38	11'-8"	38	11'-8"	39	11'-8"	41	11'-8"	41	11'-8"	42	11'-8"	42	11'-8"	42	11'-8"	43	11'-8"	45	11'-8"	46	11'-8"	47	11'-8"
b_{110}(E)	5	———	0	-	2	5'-10"	2	5'-11"	2	6'-0"	2	6'-2"	2	6'-5"	2	6'-8"	2	7'-1"	2	7'-7"	2	8'-3"	2	9'-1"	2	10'-2"	2	10'-2"
b_{111}(E)	5	———	0	-	6	11'-9"	6	11'-10"	6	12'-1"	6	12'-5"	6	12'-10"	6	13'-6"	6	14'-3"	6	15'-3"	6	16'-6"	6	18'-2"	6	20'-4"	6	23'-4"
b_{112}(E)	5	———	0	-	2	9'-10"	2	10'-0"	2	10'-2"	2	10'-5"	2	10'-10"	2	11'-4"	2	12'-0"	2	12'-10"	2	13'-11"	2	15'-3"	2	17'-1"	2	19'-8"
b_{113}(E)	6	———	29	2'-6"	30	2'-6"	30	2'-5"	30	2'-6"	31	2'-6"	31	2'-6"	32	2'-6"	32	2'-6"	33	2'-6"	33	2'-6"	34	2'-6"	35	2'-6"	36	2'-6"
BRIDGE APPR. SLAB (SQ. YD.)				330.6		333.4		336.2		339.1		342.2		345.5		349.1		353.0		357.4		362.6		368.7		376.3		386.0
REINF. STL., EPOXY CTD. (LBS.)				13,856		14,013		14,069		14,153		14,264		14,424		14,564		14,721		14,973		15,219		15,539		15,941		16,530
t_{101}(E)	4	———	41	5'-8"	41	5'-8"	41	5'-8"	41	5'-8"	42	5'-8"	43	5'-8"	45	5'-8"	45	5'-8"	47	5'-8"	50	5'-8"	54	5'-8"	59	5'-8"	66	5'-8"	75	5'-8"
t_{102}(E)	4	⊂⊃	41	6'-8"	41	6'-8"	41	6'-8"	41	6'-8"	42	6'-8"	43	6'-8"	45	6'-8"	45	6'-8"	47	6'-8"	50	6'-8"	54	6'-8"	59	6'-8"	66	6'-8"	75	6'-8"
t_{103}(E)	4	▭	8	11'-7"	12	11'-7"	12	11'-7"	16	11'-7"	16	11'-7"	20	11'-7"	24	11'-7"	24	11'-7"	28	11'-7"	32	11'-7"	36	11'-7"	0	-	0	-
t_{104}(E)	4	▭	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	44	19'-7"	52	19'-7"
w_{101}(E)	5	———	48	22'-9"	48	22'-10"	48	23'-1"	48	23'-7"	48	24'-2"	48	25'-0"	48	26'-2"	48	27'-7"	48	29'-6"	48	31'-10"	48	35'-0"	48	39'-1"	72	30'-4"
APPR. SLAB GRADE BEAMS CLASS SI CONCRETE (C.Y.)				15.4		15.4		15.5		15.7		16.0		16.4		16.9		17.5		18.4		19.4		20.8		22.7		25.2
REIN. STL., EPOXY CTD. (LBS.)				1,539		1,574		1,586		1,642		1,680		1,761		1,866		1,954		2,105		2,286		2,517		3,076		3,576



BARS a_{101}(E) & t_{102}(E)



BAR d_{101}(E) BAR d_{102}(E)



BARS t_{103}(E) & t_{104}(E)

REINFORCING BAR SCHEDULE FOR BARRIERS				
BAR	NO.	SIZE	LENGTH	SHAPE
d_{101}(E)	64	6	5'-4"	└
d_{102}(E)	64	4	5'-6"	└
e_{101}(E)	32	4	14'-8"	———
e_{102}(E)	8	6	29'-6"	———

BILL OF MATERIAL FOR BARRIERS			
IDOT PAY ITEM NO.	DESCRIPTION	UNIT	QUANT'Y
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	8.0
50800205	REINFORCING BARS, EPOXY COATED	LBS.	1,151
50300300	PROTECTIVE COAT	SQ. YD.	30

NOTES:

1. WORK THIS SHEET WITH SHEETS 1, 2, & 3 (OF 5) OF THIS SERIES.
2. THE REINFORCING BARS SCHEDULES, BILL OF MATERIAL, AND QUANTITIES ARE CALCULATED FOR ONE END OF A BRIDGE.
3. THE AREA OF THE MAIN APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM THE OUTSIDE FACE OF THE BARRIER TO OUTSIDE FACE OF OTHER BARRIER BY THE LENGTH OF 30.00 FEET.
4. THE AREA OF THE TRANSITION APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM LEFT OUTSIDE EDGE OF CONCRETE PAVEMENT TO THE RIGHT OUTSIDE EDGE OF CONCRETE PAVEMENT BY THE MINIMUM LENGTH OF 70.00 FEET PLUS THE ADDITIONAL LENGTH REQUIRED BY THE SKEW ANGLE.

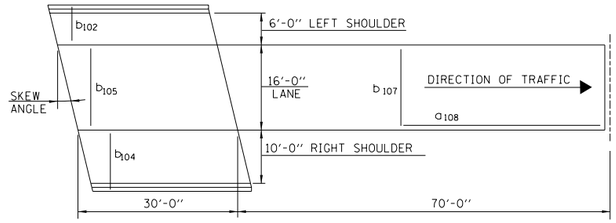
APPROVED Jeff Daley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

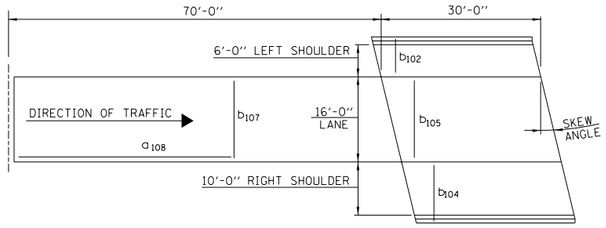
APPROACH SLAB, RAMP, BAR SCHEDULE FOR 2 LANES

DATE 5-12-2005

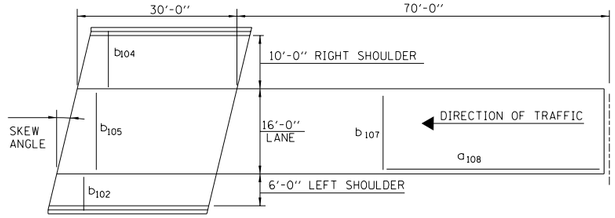
STANDARD NO. ST 05-14



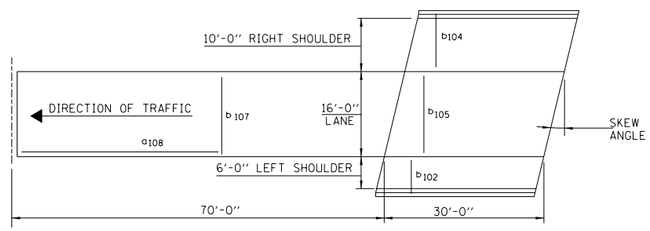
APPROACH SLAB PLAN, AHEAD RIGHT SKEW, LEAVING BRIDGE



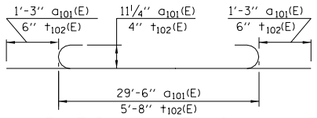
APPROACH SLAB PLAN, AHEAD RIGHT SKEW, ENTERING BRIDGE



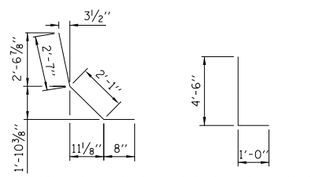
APPROACH SLAB PLAN, AHEAD LEFT SKEW, ENTERING BRIDGE



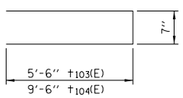
APPROACH SLAB PLAN, AHEAD LEFT SKEW, LEAVING BRIDGE



BARS a_{101} (E) & t_{102} (E)



BAR d_{101} (E) BAR d_{102} (E)



BARS t_{103} (E) & t_{104} (E)

SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS																																			
BAR	0° SKEW			5° SKEW			10° SKEW			15° SKEW			20° SKEW			25° SKEW			30° SKEW			35° SKEW			40° SKEW			45° SKEW			50° SKEW			55° SKEW			60° SKEW		
	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P
a_{108}(E)	17	2	-	17	2	-	17	2	-	17	2	-	17	2	-	17	2	-	17	2	-	17	3	-	17	3	-	17	3	-	17	3	-	17	3	-	17	3	-
b_{101}(E)	31	1	-	31	1	-	31	1	-	31	1	-	31	1	-	31	1	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-	31	2	-
b_{107}(E)	-	-	0	-	-	0	-	-	0	20	-	1	20	-	1	20	-	1	21	-	1	21	-	1	21	-	2	22	-	2	22	-	2	23	-	3	24	-	3
t_{101} (E)	33	-	-	33	-	-	33	-	-	33	-	-	34	-	-	34	-	-	36	-	-	37	-	-	39	-	-	42	-	-	46	-	-	52	-	-	59	-	-
t_{102}(E)	33	-	-	33	-	-	33	-	-	33	-	-	34	-	-	34	-	-	36	-	-	37	-	-	39	-	-	42	-	-	46	-	-	52	-	-	59	-	-
t_{103}(E)	2	-	-	3	-	-	3	-	-	4	-	-	4	-	-	5	-	-	6	-	-	6	-	-	7	-	-	8	-	-	9	-	-	0	-	-	0	-	-
t_{104}(E)	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	11	-	-	13	-	-
w_{101}(E)	12	1	-	12	1	-	12	1	-	12	1	-	12	1	-	12	1	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-	12	2	-

REINFORCING BAR SCHEDULE FOR APPROACH SLABS																																			
BAR	SIZE	SHAPE	0° SKEW		5° SKEW		10° SKEW		15° SKEW		20° SKEW		25° SKEW		30° SKEW		35° SKEW		40° SKEW		45° SKEW		50° SKEW		55° SKEW		60° SKEW	
			NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a_{101}(E)	9	⊂⊃	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"	35	32'-0"
a_{102}(E)	9	——	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"	35	25'-6"
a_{103}(E)	5	——	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"	37	29'-6"
a_{108}(E)	5	——	34	35'-9"	34	36'-9"	34	37'-10"	34	38'-11"	34	40'-0"	34	41'-3"	34	42'-6"	51	30'-8"	51	31'-9"	51	33'-0"	51	34'-6"	51	36'-4"	51	38'-9"
b_{101}(E)	5	——	31	34'-10"	31	34'-11"	31	35'-4"	31	36'-0"	31	37'-0"	31	38'-5"	62	21'-0"	62	22'-1"	62	25'-6"	62	25'-6"	62	27'-11"	62	31'-3"	62	35'-8"
b_{102}(E)	4	——	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"	9	7'-3"
b_{104}(E)	4	——	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"	9	11'-3"
b_{105}(E)	4	——	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"	9	15'-8"
b_{107}(E)	4	——	19	15'-8"	19	15'-8"	19	15'-8"	20	15'-8"	20	15'-8"	20	15'-8"	20	15'-8"	20	15'-8"	21	15'-8"	21	15'-8"	22	15'-8"	22	15'-8"	22	15'-8"
b_{109}(E)	5	——	0	-	3	15'-8"	3	15'-10"	3	16'-2"	3	16'-8"	3	17'-3"	3	18'-1"	3	20'-5"	3	22'-1"	3	22'-1"	3	24'-4"	3	27'-3"	3	31'-4"
b_{110}(E)	5	——	0	-	2	5'-10"	2	5'-11"	2	6'-0"	2	6'-2"	2	6'-5"	2	6'-8"	2	7'-7"	2	8'-3"	2	8'-3"	2	9'-1"	2	10'-2"	2	11'-8"
b_{112}(E)	5	——	0	-	2	9'-10"	2	10'-0"	2	10'-2"	2	10'-5"	2	10'-10"	2	11'-4"	2	12'-0"	2	13'-11"	2	13'-11"	2	15'-3"	2	17'-1"	2	19'-8"
BRIDGE APPR. SLAB (SQ. YD.)				241.7		242.9		244.2		245.5		246.8		248.3		249.9		251.6		253.6		255.9		258.6		262.0		266.3
REINF. STL., EPOXY CTD. (LBS.)				10,779		10,900		10,952		11,023		11,098		11,190		11,356		11,559		11,859		11,926		12,174		12,513		12,947
t_{101} (E)	4	——	33	5'-8"	33	5'-8"	33	5'-8"	33	5'-8"	34	5'-8"	34	5'-8"	36	5'-8"	37	5'-8"	39	5'-8"	42	5'-8"	46	5'-8"	52	5'-8"	59	5'-8"
t_{102} (E)	4	⊂⊃	33	6'-8"	33	6'-8"	33	6'-8"	33	6'-8"	34	6'-8"	34	6'-8"	36	6'-8"	37	6'-8"	39	6'-8"	42	6'-8"	46	6'-8"	52	6'-8"	59	6'-8"
t_{103} (E)	4	▭	8	11'-7"	12	11'-7"	12	11'-7"	16	11'-7"	16	11'-7"	20	11'-7"	24	11'-7"	24	11'-7"	28	11'-7"	32	11'-7"	36	11'-7"	0	-	0	-
t_{104} (E)	4	▭	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	44	19'-7"	52	19'-7"
w_{101}(E)	5	——	24	35'-10"	24	35'-11"	24	36'-4"	24	37'-1"	24	38'-1"	24	39'-6"	48	21'-7"	48	22'-9"	48	26'-2"	48	26'-2"	48	28'-9"	48	28'-9"	48	36'-8"
APPR. SLAB GRADE BEAMS CLASS SI CONCRETE (C.Y.)				11.8		11.9		11.9		12.1		12.3		12.7		13.1		13.6		14.3		15.1		16.3		17.8		19.9
REIN. STL., EPOXY CTD. (LBS.)				1,231		1,264		1,274		1,324		1,357		1,424		1,563		1,629		1,848		1,904		2,097		2,443		3,002

REINFORCING BAR SCHEDULE FOR BARRIERS				
BAR	NO.	SIZE	LENGTH	SHAPE
d_{101}(E)	64	6	5'-4"	L
d_{102}(E)	64	4	5'-6"	L
e_{101}(E)	32	4	14'-8"	——
e_{102}(E)	8	6	29'-6"	——

BILL OF MATERIAL FOR BARRIERS			
IDOT PAY ITEM NO.	DESCRIPTION	UNIT	QUANT'Y
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	8.0
50800205	REINFORCING BARS, EPOXY COATED	LBS.	1,151
50300300	PROTECTIVE COAT	SQ. YD.	30

NOTES:

1. WORK THIS SHEET WITH SHEETS 1, 2, & 3 (OF 5) OF THIS SERIES.
2. THE REINFORCING BARS SCHEDULES, BILL OF MATERIAL, AND QUANTITIES ARE CALCULATED FOR ONE END OF A BRIDGE.
3. THE AREA OF THE MAIN APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM THE OUTSIDE FACE OF THE BARRIER TO OUTSIDE FACE OF OTHER BARRIER BY THE LENGTH OF 30.00 FEET.
4. THE AREA OF THE TRANSITION APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM LEFT OUTSIDE EDGE OF CONCRETE PAVEMENT TO THE RIGHT OUTSIDE EDGE OF CONCRETE PAVEMENT BY THE MINIMUM LENGTH OF 70.00 FEET PLUS THE ADDITIONAL LENGTH REQUIRED BY THE SKEW ANGLE.

REVISIONS

SHEET 5 OF 5

APPROVED Jeff Daley CHIEF ENGINEER DATE 6-14-2006

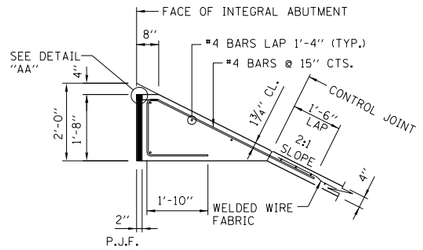
Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB, RAMP, BAR SCHEDULE FOR 1 LANE

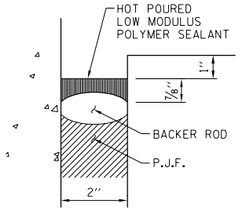
DATE 5-12-2005

STANDARD NO. ST 05-14

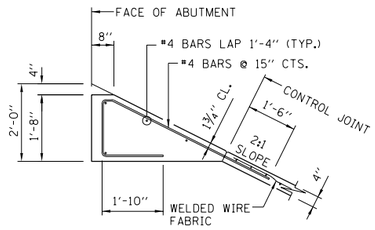
REVISIONS



DETAIL "A"



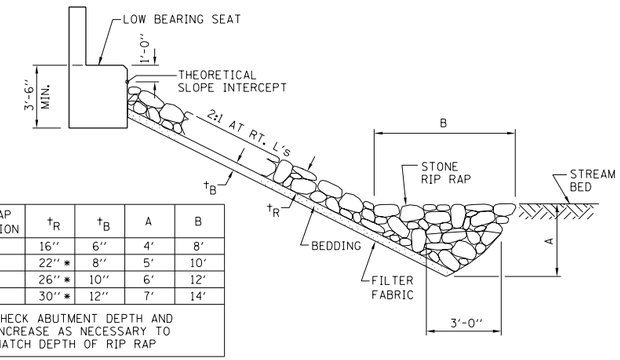
DETAIL "AA"



DETAIL "B"

NOTE:

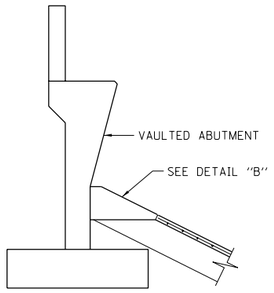
SEALANT, BACKER ROD AND PJF SHALL MEET THE REQUIREMENTS OF SECTIONS 1050 AND 1051 OF THE IDOT STANDARD SPECIFICATIONS.



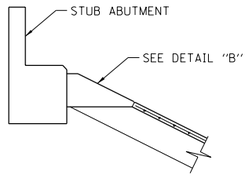
RIP RAP GRADATION	t_R	t_B	A	B
RR4	16''	6''	4'	8'
RR5	22'' *	8''	5'	10'
RR6	26'' *	10''	6'	12'
RR7	30'' *	12''	7'	14'

* CHECK ABUTMENT DEPTH AND INCREASE AS NECESSARY TO MATCH DEPTH OF RIP RAP

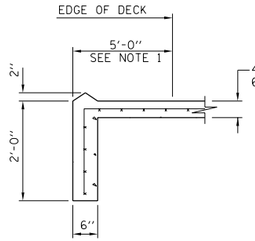
STONE RIPRAP FOR TOLLWAY BRIDGES OVER WATERWAYS



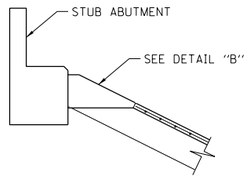
AT VAULTED ABUTMENT



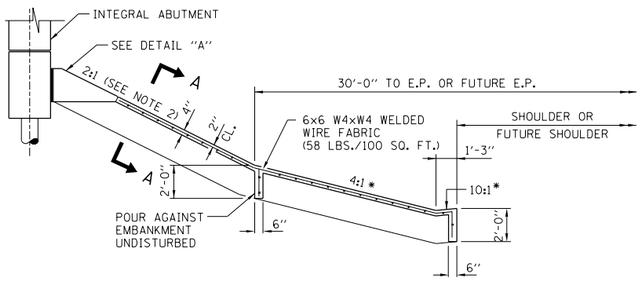
AT STUB ABUTMENT



SECTION A-A



AT STUB ABUTMENT



AT INTEGRAL ABUTMENT

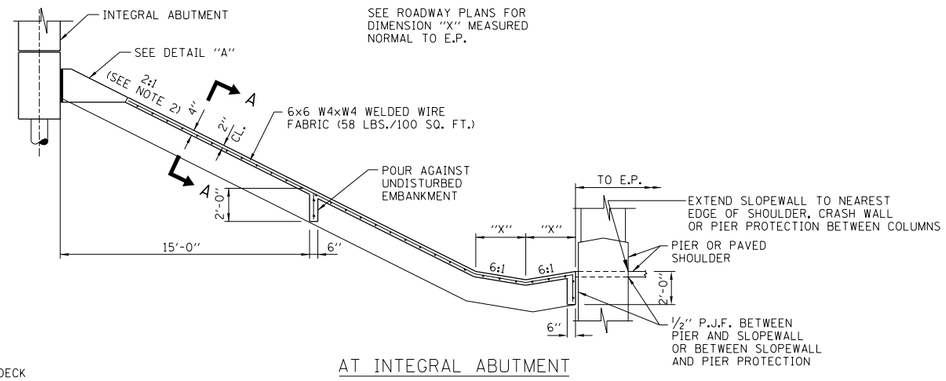
NOTE:

1. DIMENSIONS SHALL BE 2'-0'' IF DECK DRAINS ARE PROVIDED.
2. DIMENSIONS MARKED THUS ARE MEASURED NORMAL TO E.P.

SLOPE WALLS FOR BRIDGES OVER TOLLWAY

NOTE:

SEE ROADWAY PLANS FOR DIMENSION "X" MEASURED NORMAL TO E.P.



AT INTEGRAL ABUTMENT

TOLLWAY BRIDGES OVER CROSSROADS

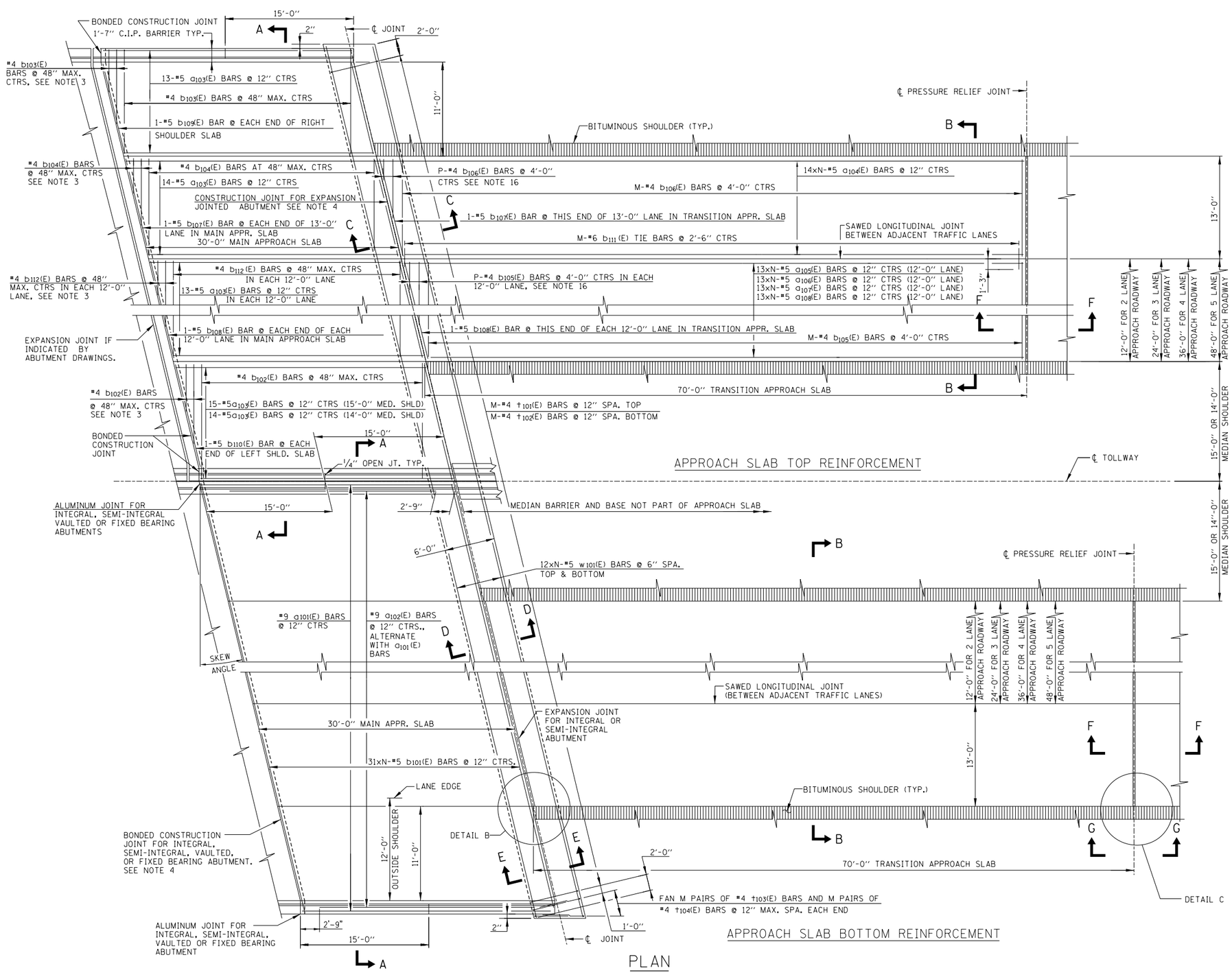
APPROVED Jeff Hanley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

SLOPEWALL DETAILS

DATE	STANDARD NO.
5-12-2005	ST 05-3

REVISIONS



NOTES:

1. TILT HOOK OF #9 BARS FOR MINIMUM 3½" CLEARANCE.
2. USE 1'-4" MIN. LAP FOR #4 BARS. USE 1'-8" MIN. LAP FOR #5 BARS.
3. CUT REINFORCEMENT IN THE FIELD TO FIT THE SKEW AND USE REMAINDER IN OPPOSITE END.
4. SAW CUT ⅜" x 2" DEEP JOINT AND FILL WITH HOT POURED, LOW MODULUS, POLYMER SEALANT MEETING THE REQUIREMENTS OF ASTM D3405.
5. CONCRETE SEALANT SHALL BE APPLIED TO TOP AND TRAFFIC FACES OF MEDIAN AND OUTSIDE BARRIERS.
6. TOOL EDGES OF EXPANSION AND PRESSURE RELIEF JOINTS TO ¼" RADIUS.
7. REINFORCING BARS SHALL MEET THE REQUIREMENTS OF AASHTO M31 (ASTM A615), GRADE 60, AND SHALL CONFORM TO SECTION 508 OF THE IDOT STANDARD SPECIFICATIONS.
8. REINFORCING BARS DESIGNATED "(E)" SHALL BE EPOXY COATED.
9. REINFORCEMENT BENDING DETAILS SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 315, LATEST EDITION.
10. REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
11. EXPOSED CONCRETE EDGES SHALL HAVE ¾" x 45° CHAMFERS. CHAMFERS ON VERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW GROUND LEVEL.
12. CONCRETE BARRIERS SHALL BE CONSTRUCTED & PAID FOR IN ACCORDANCE WITH SECTIONS 503, 508, AND 587 OF THE IDOT STANDARD SPECIFICATIONS.
13. WORK THIS STANDARD WITH STANDARD ST XX-5 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 5 LANES) & ST XX-6 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 4 LANES).
14. THE NOTATION MxN-#4 a FOR REINFORCING BARS IS DEFINED AS M LINES OF BARS WITH N LENGTHS PER LINE. FOR SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS, SEE STANDARDS ST XX-5 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 5 LANES) & ST XX-6 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 4 LANES).
15. THE NUMBER OF BARS "P" IS GIVEN IN THE SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS ON STANDARDS ST XX-5 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 5 LANES) & ST XX-6 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 4 LANES).
16. CUT REINFORCEMENT IN THE FIELD TO FIT SKEW AND PLACE REMAINDER IN ADJACENT AREA OR DISCARD OFF SITE.
17. IN THE CORNERS OF THE GRADE BEAM, THE CONCRETE SHALL BE BLOCKED OUT AND THE REINFORCING STEEL SHALL BE RESPACED (OR CUT) FOR GUARDRAIL POSTS, DRAINAGE STRUCTURES, NOISE ABATEMENT WALLS, ETC. AS NECESSARY AND AS APPROVED BY THE ENGINEER.
18. IN REFERENCE TO LONGITUDINAL CONSTRUCTION JOINTS ON SHEET 2 (OF 3) OF THIS SERIES; THESE BARS SHALL BE CUT TO FIT FROM LENGTHS SHOWN IN THE REINFORCING BAR SCHEDULE FOR THE CONSTRUCTION JOINT. THESE BARS MAY BE REPLACED BY ALTERNATIVE BARS AND LENGTHS AS SHOWN IN THE DESIGN PLANS.
19. EXPANSION ANCHORS AND DRILLED AND GROUTED DOWELS SHALL CONFORM TO SUBSECTIONS 532.2 AND 532.3 OF THE TOLLWAY STANDARD SPECIFICATIONS.
20. AS APPROVED BY THE ENGINEER, THE CONTRACTOR MAY ELECT TO REDUCE THE WIDTHS OF THE POUR BY USE OF THE OPTIONAL LONGITUDINAL CONSTRUCTION JOINT SHOWN. JOINTS SHALL BE LOCATED AT THE EDGE OF A TRAFFIC LANE.

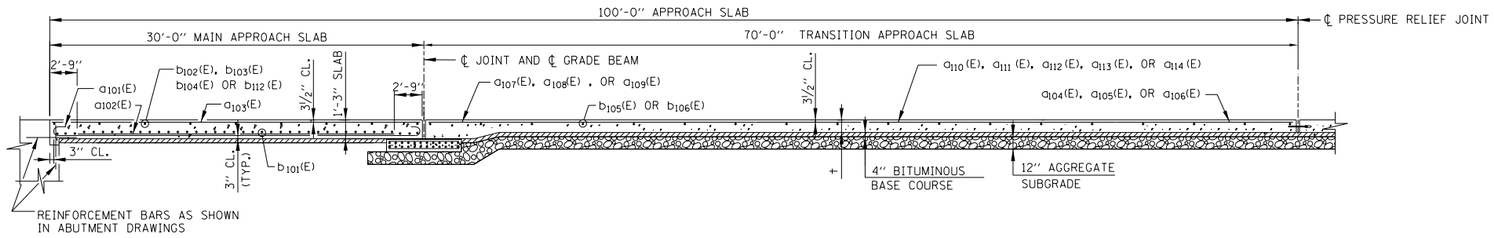
APPROVED Jeff Haley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

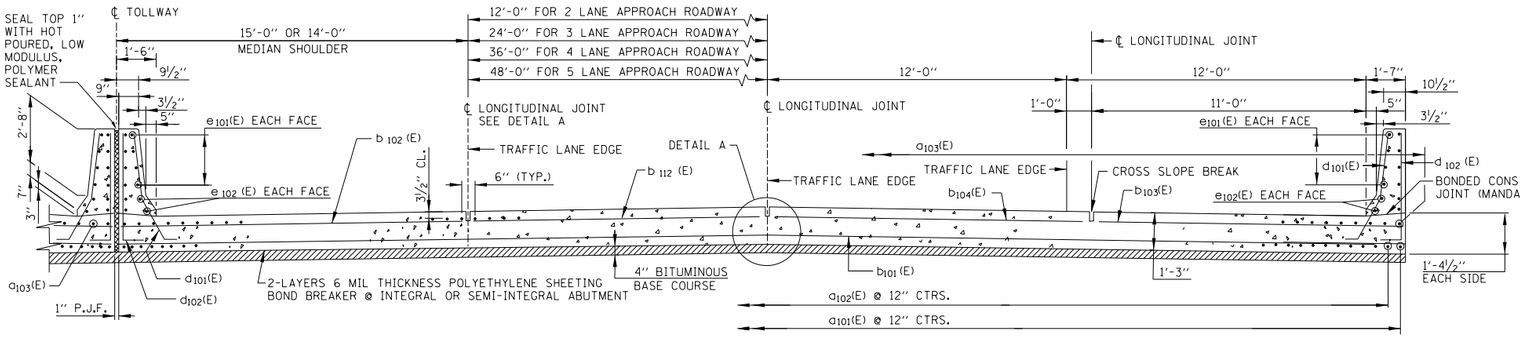
APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, GENERAL PLAN

DATE	STANDARD NO.
5-12-2005	ST 05-4

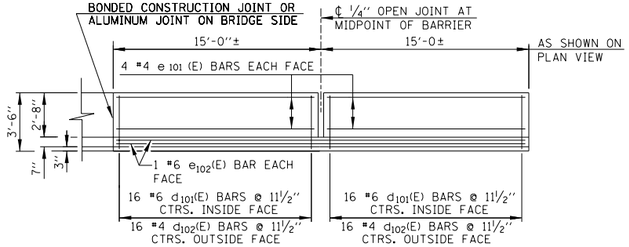
REVISIONS



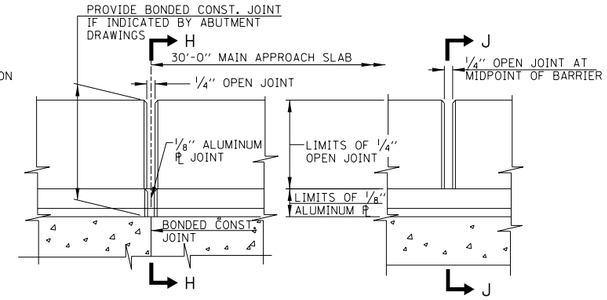
LONGITUDINAL CROSS SECTION



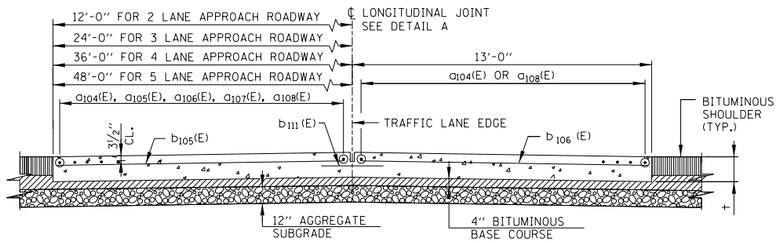
SECTION A-A



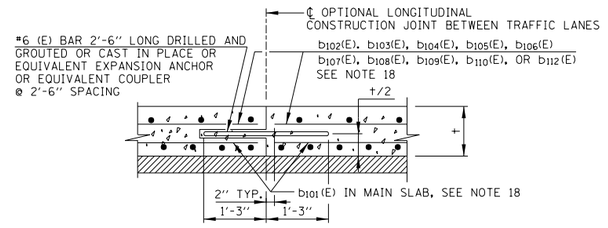
BARRIER ELEVATION



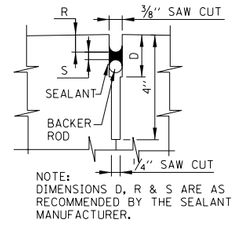
ELEVATION DETAIL OF BARRIER JOINTS



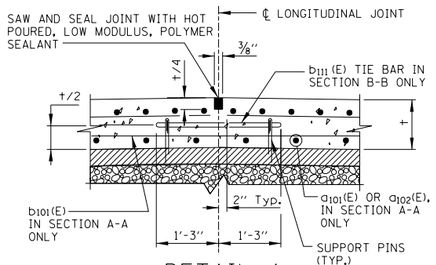
SECTION B-B



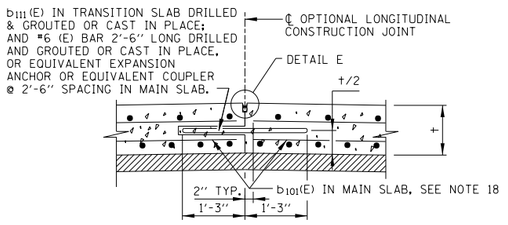
CROSS SECTION THRU OPTIONAL LONGITUDINAL CONSTRUCTION JOINT BETWEEN TRAFFIC LANES



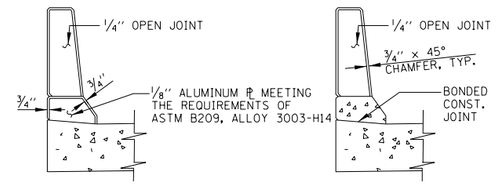
DETAIL E



DETAIL A
TYPICAL LONGITUDINAL JOINT



CROSS SECTION THRU LONGITUDINAL JOINT WITH OPTIONAL CONSTRUCTION JOINT



SECTION H-H

SECTION J-J

NOTES:

1. SEE SHEET 1 (OF 3) OF THIS SERIES FOR NOTES ON THIS SHEET.
2. THE DIMENSION † IS THE THICKNESS OF THE MAIN APPROACH SLAB (1'-3") OR THE TRANSITION APPROACH SLAB AS DEFINED IN THE DESIGN PLANS.

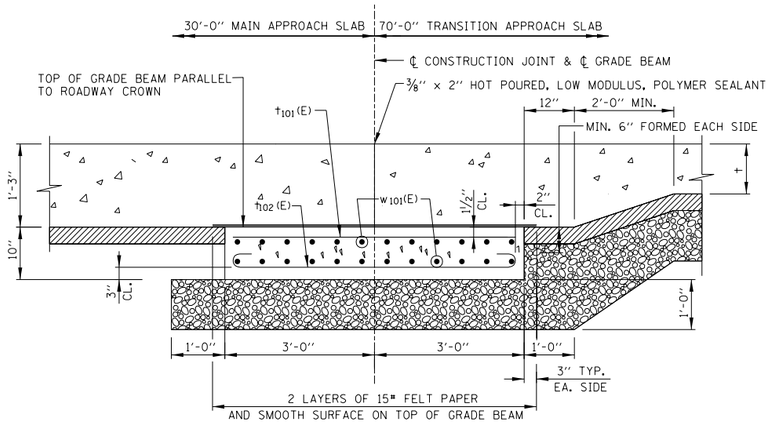
APPROVED Jeff Haley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

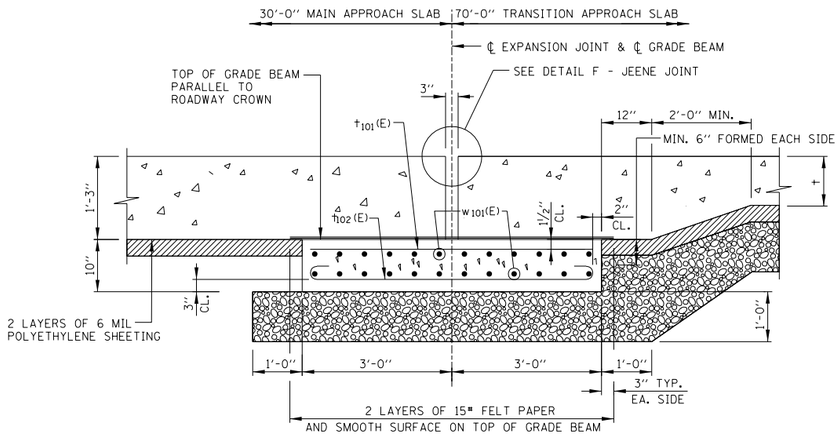
APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, SECTIONS AND DETAILS

DATE	STANDARD NO.
5-12-2005	ST 05-4

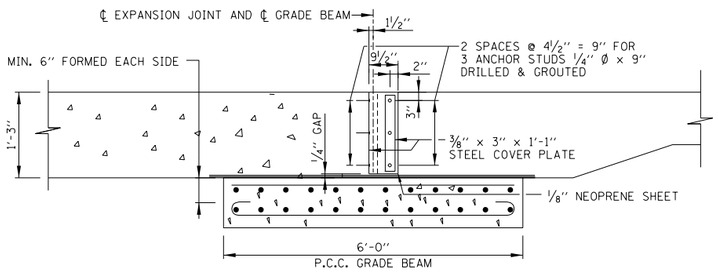
REVISIONS



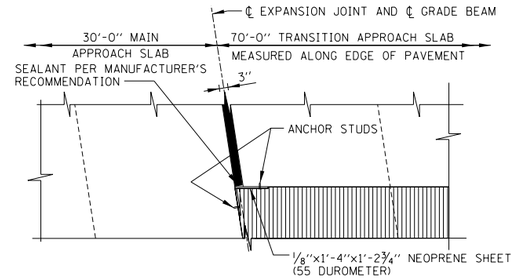
SECTION C-C
FOR NON-INTEGRAL ABUTMENT



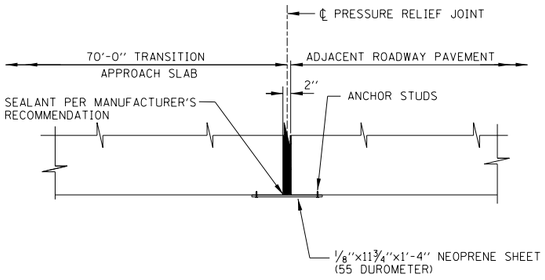
SECTION D-D
FOR INTEGRAL & SEMI-INTEGRAL ABUTMENT



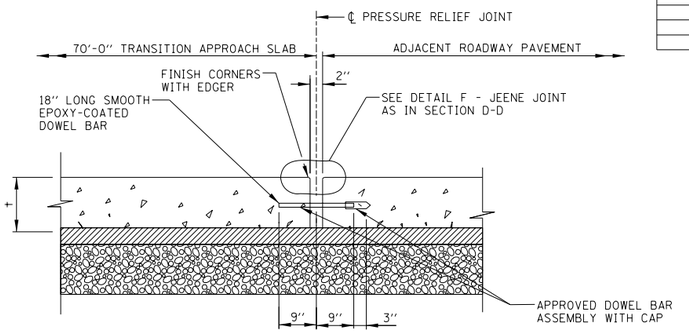
SECTION E-E
END ELEVATION OF EXPANSION JOINT



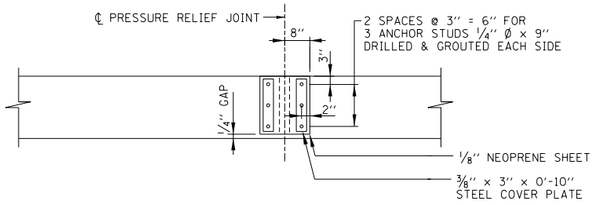
DETAIL B
END PLAN OF EXPANSION JOINT



DETAIL C
END PLAN OF PRESSURE RELIEF JOINT



SECTION F-F
PRESSURE RELIEF JOINT



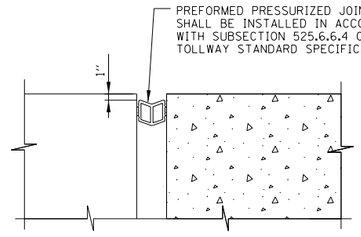
VIEW G-G
END ELEVATION OF PRESSURE RELIEF JOINT

LEGEND

- CONCRETE
- BITUMINOUS BASE COURSE
- AGGREGATE SUBGRADE
- BITUMINOUS SHOULDER
- JOINT SEALANT
- PREFORMED JOINT FILLER

NOTES:

1. FOR REINFORCEMENT BARS IN APPROACH SLABS, SEE SHEETS 1 & 2 (OF 3) OF THIS SERIES, AND STANDARDS ST XX-5 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 5 LANES) & ST XX-6 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 4 LANES).
2. IN SECTION E-E AND VIEW G-G, ANCHOR STUDS SHALL BE INSTALLED IN ACCORDANCE WITH SUBSECTION 1006.09 OF THE IDOT STANDARD SPECIFICATIONS. STEEL PLATES, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED.
3. THE THICKNESSES OF BITUMINOUS BASE COURSE AND AGGREGATE SUBGRADE SHALL BE THE SAME AS THEY ARE FOR THE ADJACENT PAVEMENT SECTIONS.
4. THE DIMENSION + IS THE THICKNESS OF THE TRANSITION APPROACH SLAB AS DEFINED IN THE DESIGN PLANS.



DETAIL F
JEENE EXPANSION JOINT

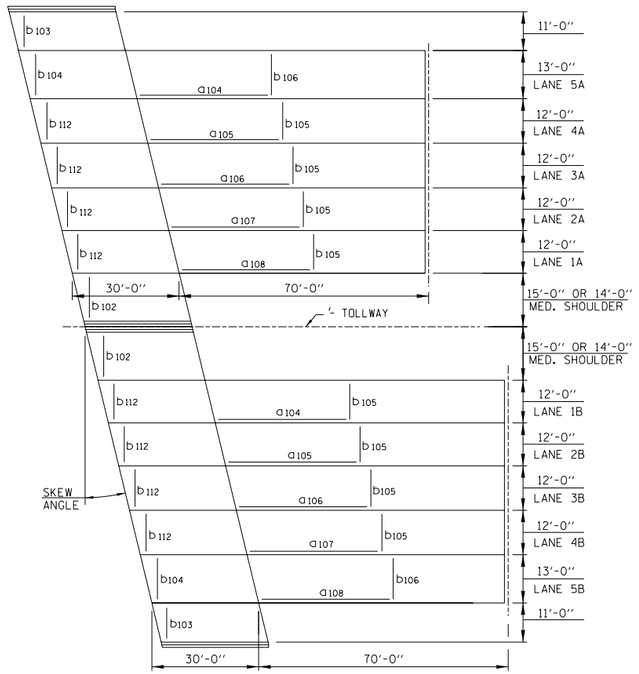
APPROVED Jeff Daley CHIEF ENGINEER DATE 6-14-2006

SHEET 3 OF 3

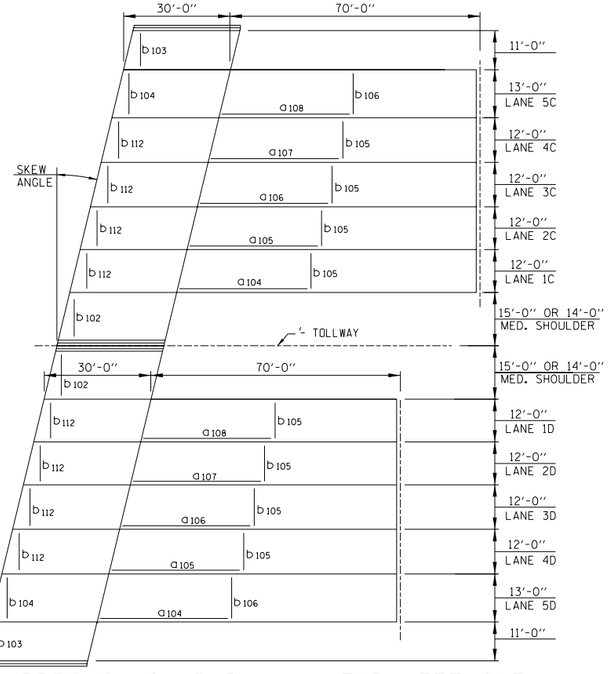
Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, SECTIONS AND DETAILS

DATE	STANDARD NO.
5-12-2005	ST 05-4



APPROACH SLAB PLAN, AHEAD RIGHT SKEW



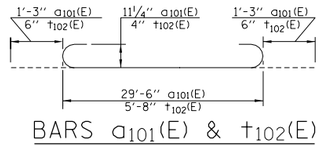
APPROACH SLAB PLAN, AHEAD LEFT SKEW

SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS

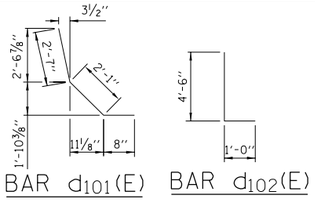
BAR	LANE	0° SKEW			5° SKEW			10° SKEW			15° SKEW			20° SKEW			25° SKEW			30° SKEW			35° SKEW			40° SKEW			45° SKEW			50° SKEW			55° SKEW			60° SKEW		
		M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P
$a_{104}(E)$	5A, 5D	14	2	-	14	2	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-	14	4	-	14	4	-	14	4	-	14	5	-	14	5	-
$a_{104}(E)$	1B, 1C	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	4	-	13	4	-	13	4	-	13	5	-	13	5	-
$a_{105}(E)$	4A, 4D	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	4	-	13	4	-	13	4	-	13	5	-
$a_{105}(E)$	2B, 2C	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	4	-	13	4	-	13	4	-	13	5	-
$a_{106}(E)$	3A, 3B, 3C, 3D	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	4	-	13	4	-
$a_{107}(E)$	2A, 2D	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-
$a_{107}(E)$	4B, 4C	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-
$a_{108}(E)$	1A, 1D	13	2	-	13	2	-	13	2	-	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-
$a_{108}(E)$	5B, 5C	14	2	-	14	2	-	14	2	-	14	2	-	14	2	-	14	2	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-
$b_{101}(E)$	COMBINED	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	4	-	31	4	-	31	4	-	31	5	-	31	5	-
$b_{105}(E)$	1A, 1D	19	-	0	19	-	0	19	-	0	19	-	0	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	2	19	-	2	19	-	2	19	-	2
$b_{105}(E)$	2A, 2D	19	-	0	19	-	0	19	-	0	20	-	0	20	-	1	20	-	1	21	-	1	21	-	1	21	-	1	22	-	1	22	-	2	23	-	2	24	-	2
$b_{105}(E)$	3A, 3D	19	-	0	19	-	0	20	-	0	20	-	0	21	-	1	22	-	1	22	-	1	23	-	1	24	-	1	25	-	1	26	-	2	27	-	2	29	-	2
$b_{105}(E)$	4A, 4D	19	-	0	20	-	0	20	-	0	21	-	0	22	-	1	23	-	1	24	-	1	25	-	1	26	-	1	28	-	1	30	-	2	32	-	2	34	-	2
$b_{105}(E)$	1B, 1C	19	-	0	20	-	0	21	-	0	22	-	0	23	-	1	25	-	1	26	-	1	27	-	1	29	-	1	31	-	1	33	-	2	36	-	2	40	-	2
$b_{105}(E)$	2B, 2C	19	-	0	20	-	0	21	-	0	21	-	0	22	-	1	23	-	1	24	-	1	25	-	1	27	-	1	28	-	1	30	-	2	32	-	2	35	-	2
$b_{105}(E)$	3B, 3C	19	-	0	19	-	0	20	-	0	21	-	0	21	-	1	22	-	1	23	-	1	24	-	1	25	-	1	26	-	1	28	-	2	30	-	2	32	-	2
$b_{105}(E)$	4B, 4C	19	-	0	19	-	0	19	-	0	20	-	0	20	-	1	20	-	1	21	-	1	21	-	1	22	-	1	22	-	1	23	-	2	24	-	2	25	-	2
$b_{106}(E)$	5A, 5D	19	-	0	20	-	0	21	-	0	22	-	0	23	-	1	24	-	1	26	-	1	27	-	1	29	-	1	31	-	2	33	-	2	36	-	2	40	-	3
$b_{106}(E)$	5B, 5C	19	-	0	19	-	0	19	-	0	19	-	0	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	2	19	-	2	19	-	2	19	-	3
$b_{111}(E)$	1A TO 2A, 1D TO 2D	29	-	-	30	-	-	30	-	-	30	-	-	31	-	-	31	-	-	32	-	-	32	-	-	33	-	-	34	-	-	34	-	-	35	-	-	37	-	-
$b_{111}(E)$	2A TO 3A, 2D TO 3D	29	-	-	30	-	-	31	-	-	32	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-	38	-	-	40	-	-	42	-	-	45	-	-
$b_{111}(E)$	3A TO 4A, 3D TO 4D	29	-	-	31	-	-	32	-	-	33	-	-	34	-	-	36	-	-	37	-	-	39	-	-	41	-	-	43	-	-	46	-	-	49	-	-	53	-	-
$b_{111}(E)$	4A TO 5A, 4D TO 5D	29	-	-	31	-	-	33	-	-	34	-	-	36	-	-	38	-	-	40	-	-	42	-	-	45	-	-	48	-	-	52	-	-	56	-	-	62	-	-
$b_{111}(E)$	1B TO 2B, 1C TO 2C	29	-	-	31	-	-	33	-	-	34	-	-	36	-	-	38	-	-	40	-	-	43	-	-	45	-	-	48	-	-	52	-	-	57	-	-	62	-	-
$b_{111}(E)$	2B TO 3B, 2C TO 3C	29	-	-	31	-	-	32	-	-	33	-	-	34	-	-	36	-	-	38	-	-	39	-	-	41	-	-	44	-	-	46	-	-	50	-	-	54	-	-
$b_{111}(E)$	3B TO 4B, 3C TO 4C	29	-	-	30	-	-	31	-	-	32	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-	39	-	-	41	-	-	43	-	-	46	-	-
$b_{111}(E)$	4B TO 5B, 4C TO 5C	29	-	-	30	-	-	30	-	-	31	-	-	31	-	-	31	-	-	32	-	-	33	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-
$t_{101}(E)$	COMBINED	174	-	-	174	-	-	176	-	-	179	-	-	183	-	-	190	-	-	198	-	-	209	-	-	223	-	-	242	-	-	265	-	-	297	-	-	341	-	-
$t_{102}(E)$	COMBINED	174	-	-	174	-	-	176	-	-	179	-	-	183	-	-	190	-	-	198	-	-	209	-	-	223	-	-	242	-	-	265	-	-	297	-	-	341	-	-
$t_{103}(E)$	COMBINED	2	-	-	3	-	-	3	-	-	4	-	-	5	-	-	5	-	-	6	-	-	6	-	-	7	-	-	8	-	-	9	-	-	0	-	-	0	-	-
$t_{104}(E)$	COMBINED	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	11	-	-	13	-	-
$w_{101}(E)$	COMBINED	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	6	-	12	6	-	12	6	-	12	7	-	12	7	-	12	8	-	12	9	-	12	10	-

REINFORCING BAR SCHEDULE FOR APPROACH SLABS

BAR	SIZE	SHAPE	0° SKEW		5° SKEW		10° SKEW		15° SKEW		20° SKEW		25° SKEW		30° SKEW		35° SKEW		40° SKEW		45° SKEW		50° SKEW		55° SKEW		60° SKEW	
			NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LEN GTH	NO.	LENGTH	NO.	LENGTH
$a_{101}(E)$	9	⊂⊃	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"	178	32'-0"
$a_{102}(E)$	9	——	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"	176	24'-6"
$a_{103}(E)$	5	——	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"	188	29'-6"
$a_{104}(E)$	5	——	54	35'-7"	54	38'-3"	81	27'-10"	81	29'-8"	81	31'-8"	81	33'-9"	81	36'-0"	81	38'-5"	108	31'-4"	108	33'-10"	108	36'-9"	135	32'-7"	135	36'-3"
$a_{105}(E)$	5	——	52	35'-7"	52	37'-9"	78	27'-2"	78	28'-8"	78	30'-2"	78	31'-10"	78	33'-8"	78	35'-8"	78	37'-11"	104	30'-10"	104	33'-2"	104	36'-0"	130	32'-1"
$a_{106}(E)$	5	——	52	35'-7"	52	37'-2"	52	38'-10"	78	27'-7"	78	28'-9"	78	30'-0"	78	31'-4"	78	32'-10"	78	34'-7"	78	36'-6"	78	38'-11"	104	31'-9"	104	34'-6"
$a_{107}(E)$	5	——	52	35'-7"	52	36'-8"	52	37'-9"	78	26'-6"	78	27'-3"	78	28'-1"	78	29'-0"	78	30'-1"	78	31'-2"	78	32'-6"	78	34'-1"	78	36'-1"	78	38'-7"
$a_{108}(E)$	5	——	54	35'-7"	54	36'-2"	54	36'-8"	54	37'-3"	54	37'-11"	54	38'-7"	81	26'-9"	81	27'-3"	81	27'-10"	81	28'-6"	81	29'-4"	81	30'-4"	81	31'-8"
$b_{101}(E)$	5	——	186	30'-6"	186	30'-7"	186	30'-11"	186	31'-6"	186	32'-4"	186	33'-6"	186	35'-0"	186	37'-0"	248	30'-0"	248	32'-5"	248	35'-7"	310	32'-1"	310	36'-8"
$b_{102}(E)$	4	——	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"
$b_{103}(E)$	4	——	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"
$b_{104}(E)$	4	——	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"
$b_{105}(E)$	4	——	152	11'-8"	155	11'-8"	159	11'-8"	164	11'-8"	176	11'-8"	182	11'-8"	187	11'-8"	192	11'-8"	200	11'-8"	208	11'-8"	225	11'-8"	237	11'-8"	252	11'-8"
$b_{106}(E)$	4	——	38	12'-8"	39	12'-8"	40	12'-8"	41	12'-8"	44	12'-8"	45	12'-8"	47	12'-8"	48	12'-8"	50	12'-8"	54	12'-8"	56	12'-8"	59	12'-8"	65	12'-8"
$b_{107}(E)$	5	——	0	-	6	12'-8"	6	12'-9"	6	13'-1"	6	13'-5"	6	13'-11"	6	14'-7"	6	15'-5"	6	16'-7"	6	18'-0"	6	19'-10"	6	22'-3"	6	25'-7"
$b_{108}(E)$	5	——	0	-	24	11'-7"	24	11'-8"	24	11'-11"	24	12'-3"	24	12'-9"	24	13'-4"	24	14'-2"	24	15'-2"	24	16'-6"	24	18'-2"	24	20'-5"	24	23'-6"
$b_{109}(E)$	5	——	0	-	4	10'-7"	4	10'-8"	4	10'-11"	4	11'-2"	4	11'-8"	4	12'-2"	4	12'-11"	4	13'-10"	4	15'-1"	4	16'-7"	4	18'-8"	4	21'-6"
$b_{110}(E)$	5	——	0	-	4	13'-1"	4	13'-2"	4	13'-6"	4	13'-10"	4	14'-5"	4	15'-1"	4	16'-0"	4	17'-1"	4	18'-7"	4	20'-6"	4	23'-0"	4	26'-6"
$b_{111}(E)$	5	——	232	2'-6"	244	2'-6"	252	2'-6"	259	2'-6"	268	2'-6"	278	2'-6"	289	2'-6"	300	2'-6"	312	2'-6"	328	2'-6"	346	2'-6"	368	2'-6"	396	2'-6"
$b_{112}(E)$	4	——	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"	72	11'-8"
BRIDGE APPR. SLAB (SQ. YD.)			1,539.4		1,575.6		1,612.3		1,650.2		1,689.9		1,732.2		1,778.1		1,828.9		1,886.4		1,952.9		2,032.2		2,129.9		2,255.6	
REINF STL, EPOXY CTD (LBS.)			58,667		59,661		60,336		61,079		61,886		62,729		63,741		64,849		66,343		68,016		70,062		72,800		76,218	
$t_{101}(E)$	4	——	174	5'-8"	174	5'-8"	176	5'-8"	179	5'-8"	183	5'-8"	190	5'-8"	198	5'-8"	209	5'-8"	223	5'-8"	242	5'-8"	265	5'-8"	297	5'-8"	341	5'-8"
$t_{102}(E)$	4	⊂⊃	174	6'-8"	174	6'-8"	176	6'-8"	179	6'-8"	183	6'-8"	190	6'-8"	198	6'-8"	209	6'-8"	223	6'-8"	242	6'-8"	265	6'-8"	297	6'-8"	341	6'-8"
$t_{103}(E)$	4	▭	8	11'-7"	12	11'-7"	12	11'-7"	16	11'-7"	20	11'-7"	20	11'-7"	24	11'-7"	24	11'-7"	28	11'-7"	32	11'-7"	36	11'-7"	0	-	0	-
$t_{104}(E)$	4	▭	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	44	19'-7"	52	19'-7"
$w_{101}(E)$	5	——	120	36'-9"	120	36'-11"	120	37'-4"	120	38'-0"	120	39'-1"	144	34'-0"	144	35'-6"	144	37'-5"	168	34'-6"	168	37'-3"	192	35'-11"	216	35'-10"	240	37'-0"
APPR. SLAB GRADE BEAMS CLASS SI CONCRETE (C.Y.) REIN. STL., EPOXY CTD (LBS.)			32.9 / 6,097		33.0 / 6,145		33.4 / 6,213		34.0 / 6,357		35.0 / 6,549		36.3 / 6,823		38.0 / 7,148		40.1 / 7,532		42.9 / 8,096		46.5 / 8,767		51.1 / 9,658		57.3 / 11,094		65.7 / 12,743	

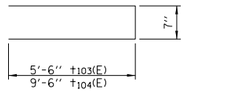


BARS $a_{101}(E)$ & $t_{102}(E)$



BAR $d_{101}(E)$

BAR $d_{102}(E)$



BARS $t_{103}(E)$ & $t_{104}(E)$

REINFORCING BAR SCHEDULE FOR BARRIERS				
BAR	NO.	SIZE	LENGTH	SHAPE
$d_{101}(E)$	128	6	5'-4"	⌞
$d_{102}(E)$	128	4	5'-6"	⌞
$e_{101}(E)$	64	4	14'-8"	——
$e_{102}(E)$	16	6	29'-6"	——

BILL OF MATERIAL FOR BARRIERS			
IDOT PAY ITEM NO.	DESCRIPTION	UNIT	QUANT'Y
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	16.0
50800205	REINFORCING BARS, EPOXY COATED	LBS.	2,302
50300300	PROTECTIVE COAT	SQ. YD.	60

NOTES:

1. WORK THIS STANDARD WITH STANDARD ST XX-4 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, GENERAL PLAN, SECTIONS AND DETAILS).
2. THE REINFORCING BAR SCHEDULES, BILL OF MATERIAL, AND QUANTITIES ARE CALCULATED FOR TWO (OPPOSITE) TRAFFIC DIRECTIONS AT ONE END OF A DUAL BRIDGE.
3. THE AREA OF EACH MAIN APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM THE OUTSIDE FACE OF OUTER BARRIER TO OUTSIDE OF MEDIAN BARRIER BY THE LENGTH OF 30.00 FEET.
4. THE AREA OF EACH TRANSITION APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM LEFT OUTSIDE EDGE OF CONCRETE PAVEMENT TO THE RIGHT OUTSIDE EDGE OF CONCRETE PAVEMENT BY THE MINIMUM LENGTH OF 70.00 FEET PLUS THE ADDITIONAL LENGTH REQUIRED BY THE SKEW ANGLE.
5. THE REINFORCING BAR SCHEDULE FOR APPROACH SLABS IS SHOWN FOR 15'-0" WIDE MEDIAN SHOULDERS. FOR 14'-0" WIDE MEDIAN SHOULDERS, AT EACH SKEW ANGLE IN THIS SCHEDULE:
   - REDUCE THE NUMBER OF $a_{101}(E)$ AND $a_{102}(E)$ BARS FROM 178 TO 176 AND FROM 176 TO 174 RESPECTIVELY.
   - REDUCE THE NUMBER OF $a_{103}(E)$ BARS FROM 188 TO 186.
   - REDUCE THE LENGTH OF $b_{102}(E)$ BARS FROM 14'-7" TO 13'-7".
   - REDUCE THE NUMBER OF $t_{101}(E)$ AND $t_{102}(E)$ BARS BY 2 BARS (IN THE SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS, REDUCE M FOR BARS $t_{101}(E)$ AND $t_{102}(E)$ EACH BY 2 BARS).
   - REDUCE THE AREA QUANTITY OF BRIDGE APPROACH SLAB BY 6.7 SQUARE YARDS.
   - REDUCE THE WEIGHT QUANTITY OF APPROACH SLAB REINFORCING STEEL, EPOXY COATED BY 458 POUNDS.
   - REDUCE THE VOLUME QUANTITY OF GRADE BEAM CONCRETE BY (0.370 ± COSINE SKEW) CUBIC YARDS.
   - REDUCE THE WEIGHT QUANTITY OF GRADE BEAM REINFORCING STEEL, EPOXY COATED BY 16 POUNDS.

   FURTHERMORE, TRIM THE $b_{110}(E)$ BARS IN THE 14'-0" MEDIAN SHOULDERS AS NECESSARY TO FIT THE SKEW ANGLE.

REVISIONS

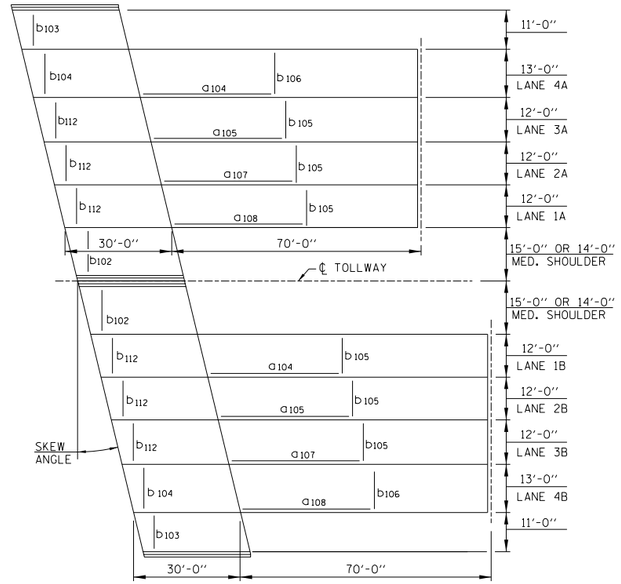
APPROVED Jeff Mosley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

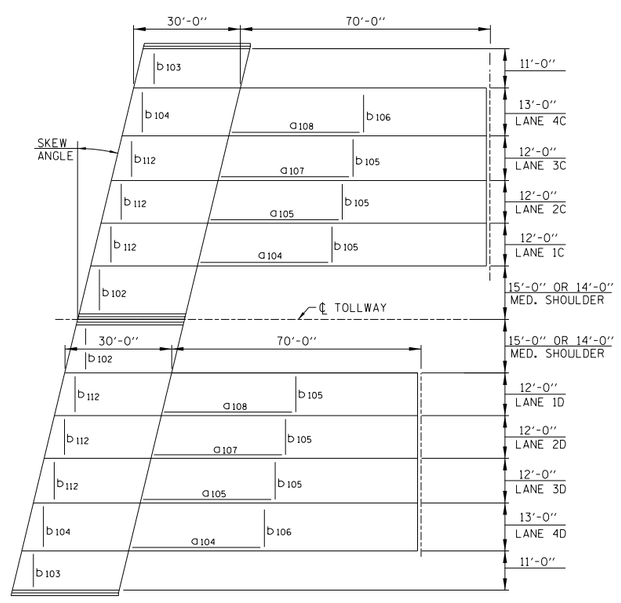
APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 5 LANES

DATE 5-12-2005

STANDARD NO. ST 05-5



APPROACH SLAB PLAN, AHEAD RIGHT SKEW



APPROACH SLAB PLAN, AHEAD LEFT SKEW

SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS

BAR	LANE	0° SKEW			5° SKEW			10° SKEW			15° SKEW			20° SKEW			25° SKEW			30° SKEW			35° SKEW			40° SKEW			45° SKEW			50° SKEW			55° SKEW			60° SKEW		
		M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P	M	N	P
$a_{104}(E)$	4A, 4D	14	2	-	14	2	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-	14	4	-	14	4	-	14	4	-	14	5	-
$a_{104}(E)$	1B, 1C	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	4	-	13	4	-	13	4	-	13	5	-
$a_{105}(E)$	3A, 3D	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	4	-	13	4	-
$a_{105}(E)$	2B, 2C	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	4	-	13	4	-
$a_{107}(E)$	2A, 2D	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-
$a_{107}(E)$	3B, 3C	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-
$a_{108}(E)$	1A, 1D	13	2	-	13	2	-	13	2	-	13	2	-	13	2	-	13	2	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-	13	3	-
$a_{108}(E)$	4B, 4C	14	2	-	14	2	-	14	2	-	14	2	-	14	2	-	14	2	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-	14	3	-
$b_{101}(E)$	COMBINED	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	3	-	31	4	-	31	4	-	31	5	-
$b_{105}(E)$	1A, 1D	19	-	0	19	-	0	19	-	0	19	-	0	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	2	19	-	2	19	-	2
$b_{105}(E)$	2A, 2D	19	-	0	19	-	0	19	-	0	20	-	0	20	-	1	20	-	1	21	-	1	21	-	1	21	-	1	22	-	1	22	-	2	23	-	2	24	-	2
$b_{105}(E)$	3A, 3D	19	-	0	19	-	0	20	-	0	20	-	0	21	-	1	22	-	1	22	-	1	23	-	1	24	-	1	25	-	1	26	-	2	27	-	2	29	-	2
$b_{105}(E)$	1B, 1C	19	-	0	20	-	0	21	-	0	21	-	0	22	-	1	23	-	1	24	-	1	25	-	1	27	-	1	28	-	1	30	-	2	32	-	2	35	-	2
$b_{105}(E)$	2B, 2C	19	-	0	19	-	0	20	-	0	21	-	0	21	-	1	22	-	1	22	-	1	23	-	1	24	-	1	25	-	1	26	-	2	28	-	2	30	-	2
$b_{105}(E)$	3B, 3C	19	-	0	19	-	0	19	-	0	20	-	0	20	-	1	20	-	1	21	-	1	21	-	1	22	-	1	22	-	1	23	-	2	24	-	2	25	-	2
$b_{106}(E)$	4A, 4D	19	-	0	20	-	0	20	-	0	21	-	0	22	-	1	23	-	1	24	-	1	25	-	1	26	-	1	28	-	2	30	-	2	32	-	2	34	-	3
$b_{106}(E)$	4B, 4C	19	-	0	19	-	0	19	-	0	19	-	0	19	-	1	19	-	1	19	-	1	19	-	1	19	-	1	19	-	2	19	-	2	19	-	2	19	-	3
$b_{111}(E)$	1A TO 2A, 1D TO 2D	29	-	-	30	-	-	30	-	-	30	-	-	31	-	-	31	-	-	32	-	-	32	-	-	33	-	-	34	-	-	34	-	-	35	-	-	37	-	-
$b_{111}(E)$	2A TO 3A, 2D TO 3D	29	-	-	30	-	-	31	-	-	32	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-	38	-	-	40	-	-	42	-	-	45	-	-
$b_{111}(E)$	3A TO 4A, 3D TO 4D	29	-	-	31	-	-	32	-	-	33	-	-	34	-	-	36	-	-	37	-	-	39	-	-	41	-	-	43	-	-	46	-	-	49	-	-	53	-	-
$b_{111}(E)$	1B TO 2B, 1C TO 2C	29	-	-	31	-	-	32	-	-	33	-	-	34	-	-	36	-	-	38	-	-	39	-	-	41	-	-	44	-	-	46	-	-	50	-	-	54	-	-
$b_{111}(E)$	2B TO 3B, 2C TO 3C	29	-	-	30	-	-	31	-	-	32	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-	39	-	-	41	-	-	43	-	-	46	-	-
$b_{111}(E)$	3B TO 4B, 3C TO 4C	29	-	-	30	-	-	30	-	-	31	-	-	31	-	-	31	-	-	32	-	-	33	-	-	33	-	-	34	-	-	35	-	-	36	-	-	37	-	-
$t_{101}(E)$	COMBINED	150	-	-	150	-	-	151	-	-	154	-	-	158	-	-	163	-	-	170	-	-	180	-	-	192	-	-	208	-	-	228	-	-	256	-	-	293	-	-
$t_{102}(E)$	COMBINED	150	-	-	150	-	-	151	-	-	154	-	-	158	-	-	163	-	-	170	-	-	180	-	-	192	-	-	208	-	-	228	-	-	256	-	-	293	-	-
$t_{103}(E)$	COMBINED	2	-	-	3	-	-	3	-	-	4	-	-	5	-	-	5	-	-	6	-	-	6	-	-	7	-	-	8	-	-	9	-	-	0	-	-	0	-	-
$t_{104}(E)$	COMBINED	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	11	-	-	13	-	-
$w_{101}(E)$	COMBINED	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	5	-	12	6	-	12	6	-	12	7	-	12	8	-	12	9	-

REINFORCING BAR SCHEDULE FOR APPROACH SLABS

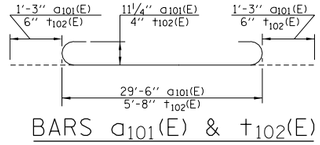
BAR	SIZE	SHAPE	0° SKEW		5 ° SKEW		10° SKEW		15° SKEW		20° SKEW		25° SKEW		30° SKEW		35° SKEW		40° SKEW		45° SKEW		50° SKEW		55° SKEW		60° SKEW	
			NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENG TH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
$a_{101}(E)$	9	⊂ ⊃	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"	154	32'-0"
$a_{102}(E)$	9	———	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"	152	24'-6"
$a_{103}(E)$	5	———	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"	162	29'-6"
$a_{104}(E)$	5	———	54	35'-7"	54	37'-9"	81	27'-2"	81	28'-8"	81	30'-2"	81	31'-10"	81	33'-8"	81	35'-8"	81	37'-11"	108	30'-10"	108	33'-2"	108	36'-0"	135	32'-1"
$a_{105}(E)$	5	———	52	35'-7"	52	37'-2"	52	38'-10"	78	27'-7"	78	28'-9"	78	30'-0"	78	31'-4"	78	32'-10"	78	34'-7"	78	36'-6"	78	38'-11"	104	31'-9"	104	34'-6"
$a_{107}(E)$	5	———	52	35'-7"	52	36'-8"	52	37'-9"	78	26'-6"	78	27'-3"	78	28'-1"	78	29'-0"	78	30'-1"	78	31'-2"	78	32'-6"	78	34'-1"	78	36'-1"	78	38'-7"
$a_{108}(E)$	5	———	54	35'-7"	54	36'-2"	54	36'-8"	54	37'-3"	54	37'-11"	54	38'-7"	81	26'-9"	81	27'-3"	81	27'-10"	81	28'-6"	81	29'-4"	81	30'-4"	81	31'-8"
$b_{101}(E)$	5	———	186	26'-6"	186	26'-7"	186	26'-10"	186	27'-4"	186	28'-1"	186	29'-1"	186	30'-5"	186	32'-1"	186	34'-3"	186	37'-1"	248	30'-11"	248	34'-6"	310	31'-10"
$b_{102}(E)$	4	———	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"	18	14'-7"
$b_{103}(E)$	4	———	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"	18	12'-2"
$b_{104}(E)$	4	———	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"	18	12'-8"
$b_{105}(E)$	4	———	114	11'-8"	115	11'-8"	118	11'-8"	121	11'-8"	129	11'-8"	132	11'-8"	135	11'-8"	138	11'-8"	143	11'-8"	147	11'-8"	158	11'-8"	165	11'-8"	174	11'-8"
$b_{106}(E)$	4	———	38	12'-8"	39	12'-8"	39	12'-8"	40	12'-8"	43	12'-8"	44	12'-8"	45	12'-8"	46	12'-8"	47	12'-8"	51	12'-8"	53	12'-8"	55	12'-8"	59	12'-8"
$b_{107}(E)$	5	———	0	-	6	12'-8"	6	12'-9"	6	13'-1"	6	13'-5"	6	13'-11"	6	14'-7"	6	15'-5"	6	16'-7"	6	18'-0"	6	19'-10"	6	22'-3"	6	25'-7"
$b_{108}(E)$	5	———	0	-	24	11'-7"	24	11'-8"	24	11'-11"	24	12'-3"	24	12'-9"	24	13'-4"	24	14'-2"	24	15'-2"	24	16'-6"	24	18'-2"	24	20'-5"	24	23'-6"
$b_{109}(E)$	5	———	0	-	4	10'-7"	4	10'-8"	4	10'-11"	4	11'-2"	4	11'-8"	4	12'-2"	4	12'-11"	4	13'-10"	4	15'-1"	4	16'-7"	4	18'-8"	4	21'-6"
$b_{110}(E)$	5	———	0	-	4	13'-1"	4	13'-2"	4	13'-6"	4	13'-10"	4	14'-5"	4	15'-1"	4	16'-0"	4	17'-1"	4	18'-7"	4	20'-6"	4	23'-0"	4	26'-6"
$b_{111}(E)$	5	———	174	2'-6"	182	2'-6"	186	2'-6"	191	2'-6"	196	2'-6"	202	2'-6"	209	2'-6"	215	2'-6"	222	2'-6"	232	2'-6"	242	2'-6"	255	2'-6"	272	2'-6"
$b_{112}(E)$	4	———	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"	54	11'-8"
BRIDGE APPR. SLAB (SQ. YD.)			1,272.8		1,296.1		1,319.8		1,344.3		1,369.9		1,397.2		1,426.8		1,459.6		1,496.6		1,539.6		1,590.7		1,653.8		1,734.9	
REINF STL, EPOXY CTD (LBS.)			49,963		50,783		51,229		51,784		52,368		52,977		53,730		54,555		55,553		56,829		58,487		60,462		63,192	
$t_{101}(E)$	4	———	150	5'-8"	150	5'-8"	151	5'-8"	154	5'-8"	158	5'-8"	163	5'-8"	170	5'-8"	180	5'-8"	192	5'-8"	208	5'-8"	228	5'-8"	256	5'-8"	293	5'-8"
$t_{102}(E)$	4	⊂ ⊃	150	6'-8"	150	6'-8"	151	6'-8"	154	6'-8"	158	6'-8"	163	6'-8"	170	6'-8"	180	6'-8"	192	6'-8"	208	6'-8"	228	6'-8"	256	6'-8"	293	6'-8"
$t_{103}(E)$	4	▭	8	11'-7"	12	11'-7"	12	11'-7"	16	11'-7"	20	11'-7"	20	11'-7"	24	11'-7"	24	11'-7"	28	11'-7"	32	11'-7"	36	11'-7"	0	-	0	-
$t_{104}(E)$	4	▭	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	44	19'-7"	52	19'-7"
$w_{101}(E)$	5	———	120	32'-0"	120	32'-1"	120	32'-5"	120	33'-1"	120	33'-11"	120	35'-2"	120	36'-9"	120	38'-9"	144	34'-9"	144	37'-6"	168	35'-6"	192	34'-10"	216	35'-7"
APPR. SLAB GRADE BEAMS CLASS SI CONCRETE (C.Y.) REIN. STL., EPOXY CTD (LBS.)			28.4	5,299	28.5	5,344	28.9	5,397	29.4	5,529	30.3	5,704	31.4	5,896	32.8	6,182	34.7	6,518	37.1	7,015	40.2	7,595	44.2	8,377	49.6	9,667	56.9	11,104

NOTES:

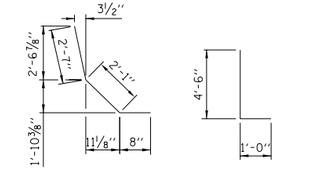
1. WORK THIS STANDARD WITH STANDARD ST XX-4 (APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, GENERAL PLAN, SECTIONS AND DETAILS).
2. THE REINFORCING BARS SCHEDULES, BILL OF MATERIAL, AND QUANTITIES ARE CALCULATED FOR TWO (OPPOSITE) TRAFFIC DIRECTIONS AT ONE END OF A DUAL BRIDGE.
3. THE AREA OF EACH MAIN APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM THE OUTSIDE FACE OF OUTER BARRIER TO OUTSIDE FACE OF MEDIAN BARRIER BY THE LENGTH OF 30.00 FEET.
4. THE AREA OF EACH TRANSITION APPROACH SLAB CALCULATED FOR PAYMENT IS THE PLAN AREA CALCULATED FROM THE WIDTH DIMENSION FROM LEFT OUTSIDE EDGE OF CONCRETE PAVEMENT TO THE RIGHT OUTSIDE EDGE OF CONCRETE PAVEMENT BY THE MINIMUM LENGTH OF 70.00 FEET PLUS THE ADDITIONAL LENGTH REQUIRED BY THE SKEW ANGLE.
4. THE REINFORCING BAR SCHEDULE FOR APPROACH SLABS IS SHOWN FOR 15'-0" WIDE MEDIAN SHOULDERS. FOR 14'-0" WIDE MEDIAN SHOULDERS, AT EACH SKEW ANGLE IN THIS SCHEDULE:
   - REDUCE THE NUMBER OF $a_{101}(E)$ AND $a_{102}(E)$ BARS FROM 154 TO 152 AND FROM 152 TO 150 RESPECTIVELY.
   - REDUCE THE NUMBER OF $a_{103}(E)$ BARS FROM 162 TO 160.
   - REDUCE THE LENGTH OF $b_{102}(E)$ BARS FROM 14'-7" TO 13'-7".
   - REDUCE THE NUMBER OF $t_{101}(E)$ AND $t_{102}(E)$ BARS BY 2 BARS (IN THE SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS, REDUCE M FOR BARS $t_{101}(E)$ AND $t_{102}(E)$ EACH BY 2 BARS).
   - REDUCE THE AREA QUANTITY OF BRIDGE APPROACH SLAB BY 6.7 SQUARE YARDS.
   - REDUCE THE WEIGHT QUANTITY OF APPROACH SLAB REINFORCING STEEL, EPOXY COATED BY 458 POUNDS.
   - REDUCE THE VOLUME QUANTITY OF GRADE BEAM CONCRETE BY (0.370 - COSINE SKEW) CUBIC YARDS.
   - REDUCE THE WEIGHT QUANTITY OF GRADE BEAM REINFORCING STEEL, EPOXY COATED BY 16 POUNDS.

   FURTHERMORE, TRIM THE $b_{110}(E)$ BARS IN THE 14'-0" MEDIAN SHOULDERS AS NECESSARY TO FIT THE SKEW ANGLE.

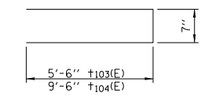
REVISIONS



BARS $a_{101}(E)$ & $t_{102}(E)$



BAR $d_{101}(E)$ BAR $d_{102}(E)$



BARS $t_{103}(E)$ & $t_{104}(E)$

REINFORCING BAR SCHEDULE FOR BARRIERS

BAR	NO.	SIZE	LENGTH	SHAPE
$d_{101}(E)$	128	6	5'-4"	⌞
$d_{102}(E)$	128	4	5'-6"	⌞
$e_{101}(E)$	64	4	14'-8"	———
$e_{102}(E)$	16	6	29'-6"	———

BILL OF MATERIAL FOR BARRIERS

IDOT PAY ITEM NO.	DESCRIPTION	UNIT	QUANT'Y
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	16.0
50800205	REINFORCING BARS, EPOXY COATED	LBS.	2,302
50300300	PROTECTIVE COAT	SQ. YD.	60

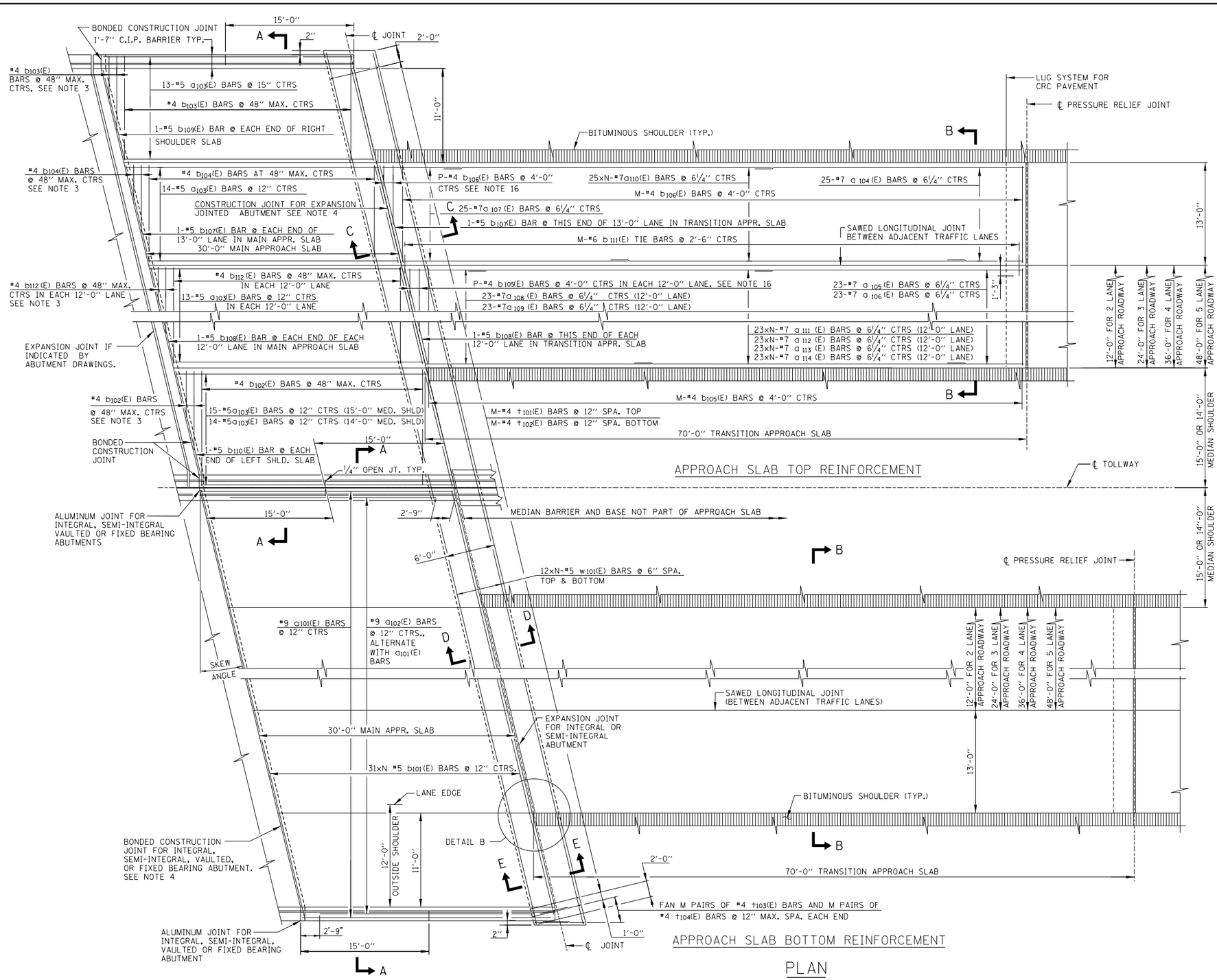
APPROVED Jeff Mosley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB TO J.P.C. PAVEMENT, MAINLINE, BAR SCHEDULE FOR 4 LANES

DATE	STANDARD NO.
5-12-2005	ST 05-6

REVISIONS



NOTES:

1. TILT HOOK OF #9 BARS FOR MINIMUM 3½" CLEARANCE.
2. USE 1'-4" MIN. LAP FOR #4 BARS. USE 1'-8" MIN. LAP FOR #5 BARS. USE 2'-2" MINIMUM LAP FOR #7 BARS
3. CUT REINFORCEMENT IN THE FIELD TO FIT THE SKEW AND USE REMAINDER IN OPPOSITE END.
4. SAW CUT ⅜" x 2" DEEP JOINT AND FILL WITH HOT POURED, LOW MODULUS, POLYMER SEALANT MEETING THE REQUIREMENTS OF ASTM D3405.
5. CONCRETE SEALANT SHALL BE APPLIED TO TOP AND TRAFFIC FACES OF MEDIAN AND OUTSIDE BARRIERS.
6. TOOL EDGES OF EXPANSION AND PRESSURE RELIEF JOINTS TO ¼" RADIUS.
7. REINFORCING BARS SHALL MEET THE REQUIREMENTS OF AASHTO M31 (ASTM A615), GRADE 60, AND SHALL CONFORM TO SECTION 508 OF THE IDOT STANDARD SPECIFICATIONS.
8. REINFORCING BARS DESIGNATED "(E)" SHALL BE EPOXY COATED.
9. REINFORCEMENT BENDING DETAILS SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 315, LATEST EDITION.
10. REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
11. EXPOSED CONCRETE EDGES SHALL HAVE ¾" x 45° CHAMFERS. CHAMFERSON VERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW GROUND LEVEL.
12. CONCRETE BARRIERS SHALL BE CONSTRUCTED & PAID FOR IN ACCORDANCE WITH SECTIONS 503, 508, AND 587 OF THE IDOT STANDARD SPECIFICATIONS.
13. WORK THIS STANDARD WITH STANDARDS ST XX-10 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS AND SCHEDULES FOR 5 LANES) & ST XX-11 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS AND SCHEDULES FOR 4 LANES).
14. THE NOTATION MxN-#4 a FOR REINFORCING BARS IS DEFINED AS M LINES OF BARS WITH N LENGTHS PER LINE. FOR SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS, SEE STANDARDS ST XX-10 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS AND SCHEDULES FOR 5 LANES) & ST XX-11 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS AND SCHEDULES FOR 4 LANES).
15. THE NUMBER OF BARS "P" IS GIVEN IN THE SCHEDULE OF REINFORCING BAR VARIABLE BILLINGS ON STANDARDS ST XX-10 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS AND SCHEDULES FOR 5 LANES) & ST XX-11 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS AND SCHEDULES FOR 4 LANES).
16. CUT REINFORCEMENT IN THE FIELD TO FIT SKEW AND PLACE REMAINDER IN ADJACENT AREA OR DISCARD OFF SITE.
17. IN THE CORNERS OF THE GRADE BEAM, THE CONCRETE SHALL BE BLOCKED OUT AND THE REINFORCING STEEL SHALL BE RESPACED (OR CUT) FOR GUARDRAIL POSTS, DRAINAGE STRUCTURES, NOISE ABATEMENT WALLS, ETC. AS NECESSARY AND AS APPROVED BY THE ENGINEER.
18. IN REFERENCE TO LONGITUDINAL CONSTRUCTION JOINTS ON SHEET 2 (OF 3) OF THIS SERIES; THESE BARS SHALL BE CUT TO FIT FROM LENGTHS SHOWN IN THE REINFORCING BAR SCHEDULE FOR THE CONSTRUCTION JOINT. THESE BARS MAY BE REPLACED BY ALTERNATIVE BARS AND LENGTHS AS SHOWN IN THE DESIGN PLANS.
19. EXPANSIONS ANCHORS AND DRILLED AND GROUTED DOWELS SHALL CONFORM TO SUBSECTIONS 532.2 AND 532.3 OF THE TOLLWAY STANDARD SPECIFICATIONS.
20. AS APPROVED BY THE ENGINEER, THE CONTRACTOR MAY ELECT TO REDUCE THE WIDTHS OF THE POUR BY USE OF THE OPTIONAL LONGITUDINAL CONSTRUCTION JOINT SHOWN. JOINTS SHALL BE LOCATED AT THE EDGE OF A TRAFFIC LANE.
21. BARS a104(E) THRU a109(E) ARE VARIABLE LENGTH SERIES BARS. THE NUMBER IN THE BILLING IS THE NUMBER OF BARS AFTER CUTTING.

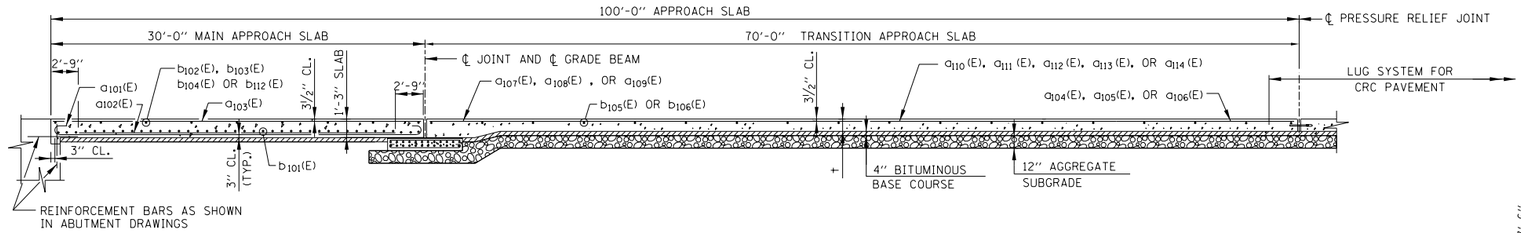
APPROVED Jeff Haley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

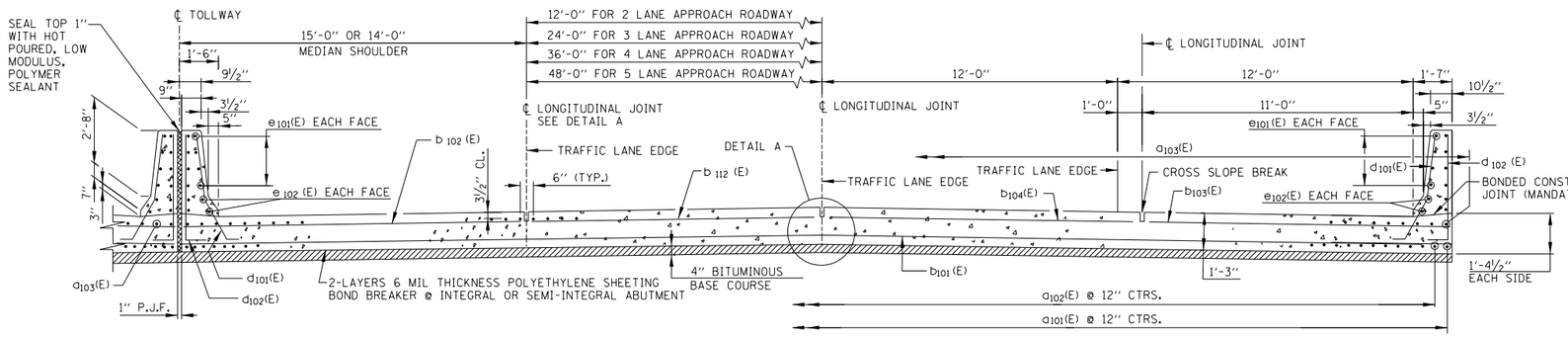
APPROACH SLAB TO CRC PAVEMENT, MAINLINE, GENERAL PLAN

DATE	STANDARD NO.
5-12-2005	ST 05-9

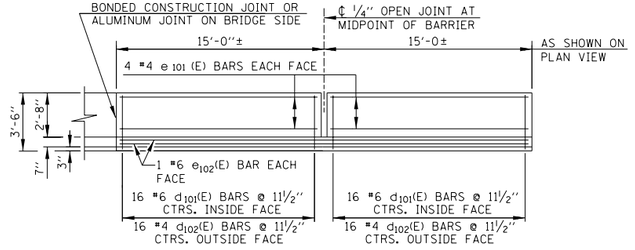
REVISIONS



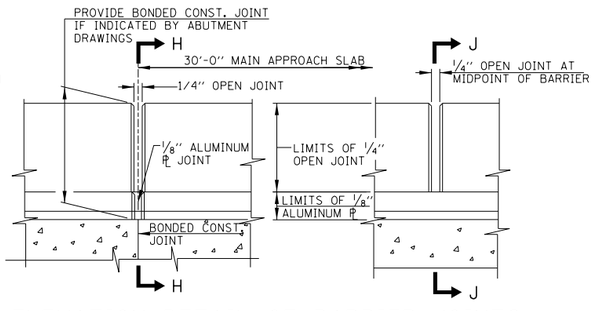
LONGITUDINAL CROSS SECTION



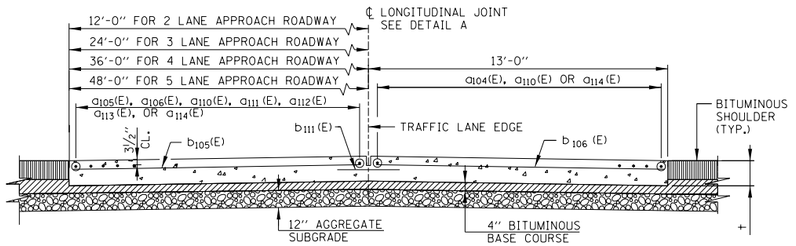
SECTION A-A



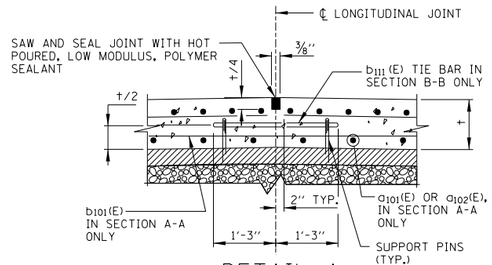
BARRIER ELEVATION



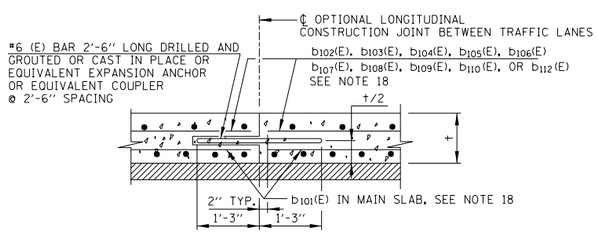
ELEVATION DETAIL OF BARRIER JOINTS



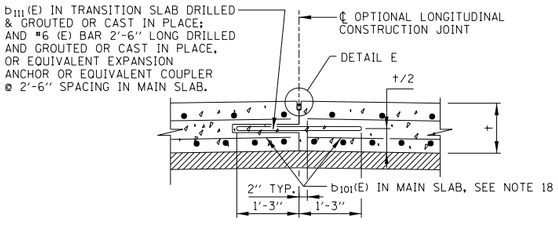
SECTION B-B



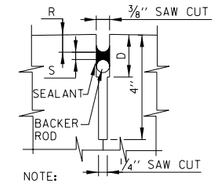
DETAIL A
TYPICAL LONGITUDINAL JOINT



CROSS SECTION THRU OPTIONAL LONGITUDINAL CONSTRUCTION JOINT BETWEEN TRAFFIC LANES

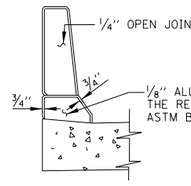


CROSS SECTION THRU LONGITUDINAL JOINT WITH OPTIONAL CONSTRUCTION JOINT

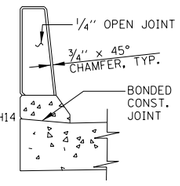


NOTE:
DIMENSIONS D, R & S ARE AS RECOMMENDED BY THE SEALANT MANUFACTURER.

DETAIL E



SECTION H-H



SECTION J-J

NOTES:

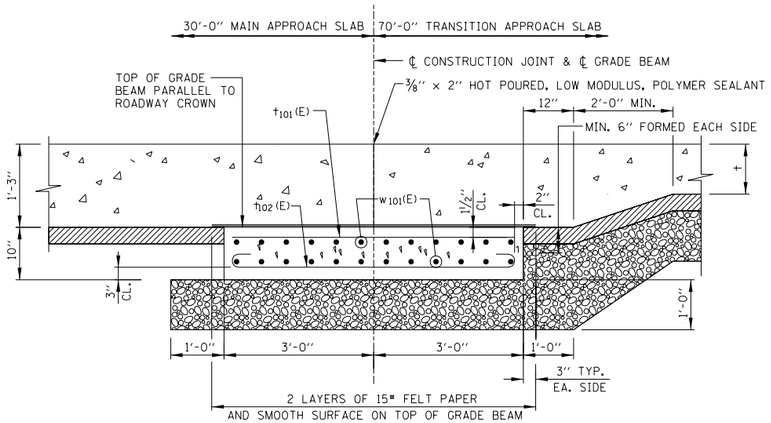
1. SEE SHEET 1 (OF 3) OF THIS SERIES FOR NOTES ON THIS SHEET.
2. THE DIMENSION t IS THE THICKNESS OF THE MAIN APPROACH SLAB (1'-3") OR THE TRANSITION APPROACH SLAB AS DEFINED IN THE DESIGN PLANS.

APPROVED Jeff Haley CHIEF ENGINEER DATE 6-14-2006

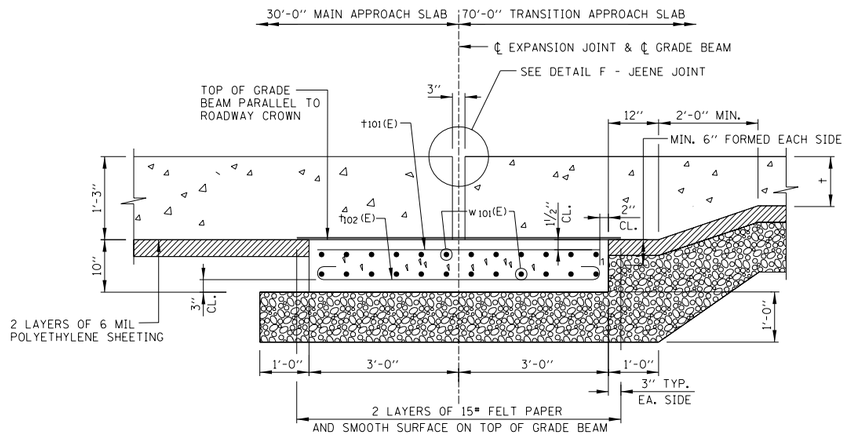
Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB TO CRC PAVEMENT, MAINLINE, SECTIONS AND DETAILS

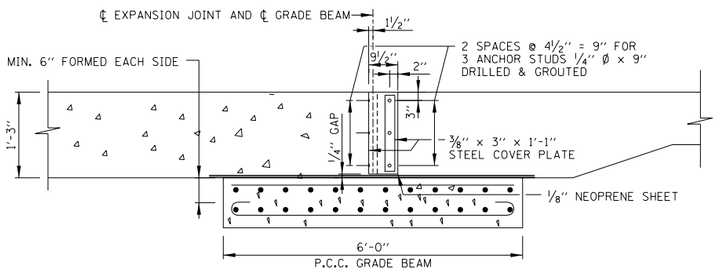
DATE	STANDARD NO.
5-12-2005	ST 05-09



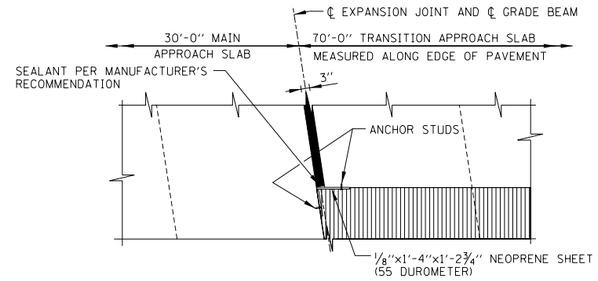
SECTION C-C
FOR NON-INTEGRAL ABUTMENT



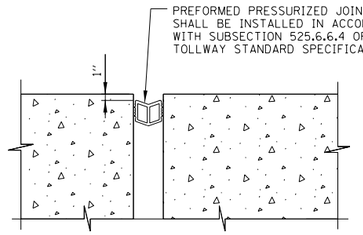
SECTION D-D
FOR INTEGRAL & SEMI-INTEGRAL ABUTMENT



SECTION E-E
END ELEVATION OF EXPANSION JOINT



DETAIL B
END PLAN OF EXPANSION JOINT



DETAIL F
JEENE EXPANSION JOINT

LEGEND

- CONCRETE
- BITUMINOUS BASE COURSE
- AGGREGATE SUBGRADE
- BITUMINOUS SHOULDER
- JOINT SEALANT
- PREFORMED JOINT FILLER

NOTES:

1. FOR REINFORCEMENT BARS IN APPROACH SLABS, SEE SHEETS 1 & 2 AND STANDARDS ST XX-10 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS AND SCHEDULES FOR 5 LANES) & ST XX-11 (APPROACH SLAB TO CRC PAVEMENT, MAINLINE, BAR DETAILS AND SCHEDULES FOR 4 LANES).
2. IN SECTION E-E ANCHOR STUDS SHALL BE INSTALLED IN ACCORDANCE WITH SUBSECTION 1006.09 OF THE IDOT STANDARD SPECIFICATIONS. STEEL PLATES, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED.
3. THE THICKNESSES OF BITUMINOUS BASE COURSE AND AGGREGATE SUBGRADE SHALL BE THE SAME AS THEY ARE FOR THE ADJACENT PAVEMENT SECTIONS.
4. THE DIMENSION t IS THE THICKNESS OF THE TRANSITION APPROACH SLAB AS DEFINED IN THE DESIGN PLANS.

REVISIONS

APPROVED Jeff Daley CHIEF ENGINEER DATE 6-14-2006

Illinois Tollway
Open Roads for a Faster Future

APPROACH SLAB TO CRC PAVEMENT, MAINLINE, SECTIONS AND DETAILS

DATE	STANDARD NO.
5-12-2005	ST 05-09