

EARTHWORK								
1	2	3	4	5	6	7	8	
LOCATION	EARTH EXCAVATION	ROCK EXCAVATION	UNSUITABLE OR UNSTABLE MATERIAL	SUITABLE EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTH BALANCE WASTE(+) OR SHORTAGE(-)	TOPSOIL EXCAVATION & PLACEMENT	
STATION TO STATION	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	
URBAN GRUNDY								
STAGE 1								
IL 47								
6032+87 TO 6105+96	2910		728	1637	1362	275		
PROLOGIS PRKWY.								
1603+02 TO 1604+93	185		46	104	18	86		
STAGE 2								
IL 47								
6029+00 TO 6112+56	24560		15403	6868	24033	-17165	3037	
GRANVILLE RD.								
100+52 TO 107+21	2176		309	1401	56	1345	314	
STAGE 3								
IL 47								
6027+00 TO 6205+20	50413		38030	9287	126640	-117353	7228	
PROLOGIS PRKWY.								
1604+20 TO 1605+50	46		10	27		27	2	
NELSON RD.								
200+49 TO 208+48	1900		1672	171	490	-319	382	
AIRPORT RD.								
300+00 TO 308+95	1747		228	1139	310	829	278	
MINOOKA RD.								
403+58 TO 408+59	476		1	357	380	-23	158	
STAGE 3A								
PROLOGIS PRKWY.								
1605+00 TO 1605+50	28		7	16		16		
STAGE 3B								
PROLOGIS PRKWY.								
1603+02 TO 1605+50	4		-19	-11	84	-95	26	
STAGE 4								
IL 47								
6100+00 TO 6205+20	17689		1349	12255	66391	-54136	7584	
MINOOKA RD.								
409+38 TO 416+53	1356		955	301	740	-439	345	
URBAN GRUNDY SUB-TOTAL								
	103490		58718	33551	220504	-186953	19354	
RURAL GRUNDY								
STAGE 3								
IL 47								
6205+20 TO 6257+48	24557		18550	4506	35565	-31059	2328	
SHERRILL RD.								
500+88 TO 508+59	460		-191	202	2810	-2608	408	
STAGE 4								
IL 47								
6205+20 TO 6257+48	7852		-1665	4640	38446	-33806	4837	
SHERRILL RD.								
509+39 TO 516+08	1864		1447	313	1748	-1435	287	
RURAL GRUNDY SUB-TOTAL								
	34733		18141	9661	78569	-68908	7860	
RURAL KENDALL								
STAGE 1								
IL 47								
6282+03 TO 6292+78	409		102	230	248	-18		
STAGE 3								
IL 47								
6257+48 TO 6277+00	14587	570	7822	5644	22776	-17132	1985	
SB CONNECTOR								
22+00 TO 37+09	2561		1464	823	1865	-1042	390	

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STATION TO STATION	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	
STAGE 4								
IL 47								
6257+48 TO 6266+00	1370		-204	874	6059	-5185	729	
RURAL KENDALL								
	18927	570	9184	7571	30948	-23377	3104	
TOTAL								
	157150	570	86043	50783	330021	-279238	30318	

USE PAY ITEM TOTALS BELOW

INFORMATION:
 SHRINKAGE FACTORS: EARTH EXCAVATION: 25%
 ROCK EXCAVATION: 0%

UC = UNDERCUT (FROM CROSS-SECTIONS)
 C = CUT (FROM CROSS-SECTIONS)
 TSE = TOPSOIL STRIPPING & EARTH EXCAVATION
 TSP = TOPSOIL EXCAVATION & PLACEMENT (COLUMN 8)

COLUMN 1 - LOCATION FROM PLANS
 COLUMN 2 - CUT QUANTITIES FROM CROSS SECTIONS (C + TSE + UC) MINUS TOPSOIL EXCAVATION & PLACEMENT (TSP)
 COLUMN 3 - QUANTITIES FROM CROSS SECTIONS
 COLUMN 4 - CUT MATERIAL THAT IS DETERMINED TO BE EITHER UNSTABLE OR UNSUITABLE FOR USE IN EMBANKMENT
 = UNDERCUT (UC) + [CUT (C) X 25%] + [TOPSOIL STRIPPING & EARTH EXCAVATION (TSE) - TOPSOIL EXCAVATION & PLACEMENT (TSP)]
 COLUMN 5 - = [(COLUMN 2 - COLUMN 4) X (1-EARTH EXCAVATION SHRINKAGE FACTOR)] + COLUMN 3 X (1-ROCK EXCAVATION SHRINKAGE FACTOR)]
 COLUMN 6 - QUANTITIES FROM CROSS SECTIONS
 COLUMN 7 - = COLUMN 5 - COLUMN 6
 COLUMN 8 - QUANTITIES FROM CROSS SECTIONS, THESE QUANTITIES ARE NOT INCLUDED IN EARTH EXCAVATION OR EMBANKMENT

PAY ITEMS:
 COLUMN #2 IS EARTH EXCAVATION = 157150CU YD
 COLUMN #3 IS ROCK EXCAVATION = 570CU YD
 COLUMN #4 IS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL = 86043CU YD
 COLUMN #7 IS FURNISHED EXCAVATION = 279238CU YD
 COLUMN #8 IS TOPSOIL EXCAVATION & PLACEMENT = 30318CU YD

NOTES:
 1. THE TOP 12 INCHES OF THE EXISTING SOILS WITHIN THE LIMITS OF THE PROPOSED PAVEMENT SHALL BE REMOVED (TSE) AS SHOWN IN THE CROSS SECTIONS. THIS WORK SHALL BE PAID FOR AS EARTH EXCAVATION, OR IF USED FOR TOPSOIL PURPOSES, TOPSOIL EXCAVATION AND PLACEMENT (TSP).
 2. ALL SOILS SHALL BE TESTED BEFORE BEING INCORPORATED INTO THE NEW EMBANKMENT. THE ENGINEER RESERVES THE RIGHT TO RE-CLASSIFY ANY OF THE UNSUITABLE MATERIAL AND USE IT AS EMBANKMENT MATERIAL FOR SIDESLOPES OR IN SOD COVERED RAISED MEDIANS.
 3. THE EXISTING SUBGRADE SOILS MAY BE PRONE TO SWELLING UPON WETTING. THEREFORE, AT LOCATIONS WHERE NEW EMBANKMENT FILL HEIGHT IS GREATER THAN 2 FEET AND LESS THAN 8 FEET, THE TOP 6 INCHES OF SUBGRADE SOILS SHOULD BE DISKED, DRIED, AND RECOMPACTED BETWEEN +2% AND +4% OF THE OPTIMUM MOISTURE CONTENT AND BETWEEN 90% AND 95% OF THE STANDARD DRY DENSITY.
 4. BASED ON SOIL BORINGS, 25% OF THE EXCAVATED SOILS (BELOW THE 12" TSE) THROUGHOUT THE PROJECT AREA ARE EXPECTED TO HAVE HIGH PLASTICITY (LL AND PI) AND MAY BE PRONE TO SWELLING UPON WETTING. THESE SOILS ARE ASSUMED TO BE UNSUITABLE MATERIAL FOR EMBANKMENT AND SHOULD NOT BE USED AS EMBANKMENT FILL UNLESS THEY HAVE LL LESS THAN 50%, PI BETWEEN 12% AND 20%, A MAXIMUM DRY DENSITY GREATER THAN 90 PCF, AND ORGANIC CONTENT LESS THAN 10%.

TEMPORARY EROSION CONTROL SEEDING								
STATION +/- TO STATION +/-	SIDE	SEEDING CLASS 7 ACRES	POUNDS PER APPLICATION PER ACRE	NUMBER OF APPLICATIONS	TOTAL POUND	MULCH, METHOD 2 ACRE		
URBAN GRUNDY								
6027+00.00 TO 6205+17.00	LT & RT	39.27	100	1	3927	39.27		
STAGE 1								
6038+00.00 TO 6104+00.00	LT	0.80	100	1	80	0.80		
STAGE 3								
6105+00.00 TO 6205+00.00	RT	3.10	100	1	310	3.10		
URBAN GRUNDY SUB-TOTAL					4317	43.25		
RURAL GRUNDY								
6205+17.00 TO 6257+48.00	LT & RT	16.44	100	1	1644	16.44		
STAGE 3								
6206+00.00 TO 6257+47.00	RT	1.50	100	1	150	1.50		
RURAL GRUNDY SUB-TOTAL					1794	18.00		
RURAL KENDALL								
6257+48.00 TO 6277+00.00	LT & RT	8.65	100	1	865	8.65		
STAGE 3								
6258+00.00 TO 6265+00.00	RT	0.20	100	1	20	0.20		
RURAL KENDALL SUB-TOTAL					885	8.75		
TOTAL					6996	70.00		

MULCH METHOD 2 IS USED FOR TEMPORARY MULCHING