



BENCHMARKS:
 TEMPORARY/SITE BENCHMARK - MAG NAIL WITH A WASHER STAMPED "JPH LAND SURVEYING" SET ON THE SOUTHWEST CURB LINE OF LANDMARK BLVD APPROX 876' SOUTHEASTERLY OF THE INTERSECTION OF LANDMARK BLVD AND LANDMARK PL. NAVD '88 ELEV. 627.37'
 CONTROL POINT NO. COA-14 - 2" BRASS DISK STAMPED "TXDOT COA-14 GPS" 1.730' SOUTH EAST FROM THE INTERSECTION OF LANDMARK PL. & LANDMARK BLVD THEN 40.6' WEST OF STREET SIGN, 8.15' NORTH OF CHAINLINK FENCE & 70.5' EAST OF STREET SIGN NAVD '88 ELEV. 623.19' N 7.030,466,478 E 2,482,171,600 (STATE PLANE) DALLAS COUNTY SCALE FACTOR 1.000136506

LEGEND

- K** (0.40 / 3.34) DRAINAGE AREA LABEL
- ACRES
- DRAINAGE AREA 100YR RUNOFF (CFS)
- PROP. FLOW ARROW
- ▬▬▬ PROP. DRAINAGE BOUNDARY
- 610- EXISTING CONTOUR LINE
- 610- PROPOSED CONTOUR LINE

CAUTION!!!!
 EXISTING PHONE, GAS, ELECTRICAL, FIBER OPTIC & CATV LINES IN PROJECT AREA. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. NOTIFY TEXAS ONE CALL AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
 811

CALL BEFORE YOU DIG!
 TEXAS ONE CALL PARTICIPANTS REQUEST 48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST - STOP CALL
 Texas One Call System
 811

RUNOFF COMPUTATIONS - TO POND

DA	Acreage	C	t _c (min)	I ₁₀₀ (in/hr)	Q ₁₀₀ (cfs)	Notes
A	0.45	0.9	10	9.27	3.75	NE corner of parking lot, 8' CI
B	0.33	0.9	10	9.27	2.75	NW corner of bldg, 10' CI
C	0.40	0.9	10	9.27	3.34	N side of bldg (roof drain)
D	0.41	0.9	10	9.27	3.42	e bank of N parking, 8' CI
E	0.43	0.9	10	9.27	3.59	mid bank of N parking, 8' CI
F	0.76	0.9	10	9.27	6.34	w bank of N parking, 8' CI
G	0.36	0.9	10	9.27	3.00	pond island, pond
H	1.75	0.9	10	9.27	14.60	parking garage, pond
I	0.47	0.9	10	9.27	3.92	SE corner of parking lot, 8' CI
J	0.43	0.9	10	9.27	3.59	SW corner of bldg, 4 GI
K	0.40	0.9	10	9.27	3.34	S side of bldg (roof drain)
Total Q₁₀₀ to Pond					51.64	

RUNOFF COMPUTATIONS - OFF-SITE

DA	Acreage	C	t _c (min)	I ₁₀₀ (in/hr)	Q ₁₀₀ (cfs)	Notes
L	0.09	0.9	10	9.27	0.75	S of parking garage, 15" LI
M	0.28	0.9	10	9.27	2.34	S drive, 4 GI
N	0.30	0.9	10	9.27	2.50	W drive to Landmark Blvd
P	0.34	0.25	10	9.27	0.79	Pre-development A2
Q	3.39	0.25	10	9.27	7.86	S of drive to Landmark Blvd

INLET CALCULATIONS

No.	Inlet Location	Drainage Area (acres)	Q (cfs)	CO from US Inlet (cfs)	Total Gutter Flow (cfs)	Depth of Gutter Flow (ft)	Approach Slope (ft/ft)	Inlet Type	Inlet Length (ft)	Flow Intercepted (cfs)	CO to DS Inlet (cfs)
A	NE corner of parking lot	0.45	3.75	0.00	3.75	0.19	0.0100	low point, curb	8	5.82	0.00
B	NW corner of bldg	0.33	2.75	0.00	2.75	0.16	0.0130	low point, curb	10	6.48	0.00
D	e bank of N parking	0.41	3.42	0.00	3.42	0.21	0.0050	low point, curb	8	6.25	0.00
E	mid bank of N parking	0.43	3.59	0.00	3.59	0.25	0.0050	low point, curb	8	7.15	0.00
F	w bank of N parking	0.76	6.34	0.00	6.34	0.34	0.0050	low point, curb	8	9.51	0.00
I	SE corner of parking lot	0.47	3.92	0.00	3.92	0.23	0.0450	low point, curb	8	6.74	0.00
J	SW corner of bldg	0.43	3.59	0.00	3.59	0.22	0.0175	4 grate inlet		6.46	0.00
M	S drive	0.28	2.34	0.00	0.00	0.0070	0.0070	4 grate inlet		4.00	0.00

STORM DRAIN SYSTEM CALCULATIONS

RUNOFF COLLECTION POINT (INLET OR MANHOLE)			INCREMENTAL DRAINAGE AREA				ACCUMULATED "CA"	TIME AT UPSTREAM STATION	FLOW TIME	TIME AT DS STATION	STORM FREQUENCY	INTENSITY "I"	RUNOFF "Q"	STORM SEWER SIZE	SLOPE OF HYDRAULIC GRADIENT "S"	HYDRAULIC GRADIENT ELEVATION	INFLOW VELOCITY "V1"	OUTFLOW VELOCITY "V2"	VELOCITY HEAD "VH1"	VELOCITY HEAD "VH2"	HEAD LOSS COEFF "Kj"	FRICION HEAD LOSS IN PIPE "L" "S"	HEAD LOSS "H"	ELEV. HGL @ DESIGN PT			
UP STREAM STATION	DOWN STREAM STATION	DISTANCE BETWEEN COLLECTION POINTS (FT)	AREA NO.	DRAINAGE AREA "A" (ACRES)	Total Area (ACRES)	RUNOFF COEFF. "C"	INCREMENTAL "CA"	(MIN)	(MIN)	(MIN)	(YEARS)	(IN/HR)	(CFS)	(IN)	(FT/FT)	UP STREAM	(FPS)	(FPS)	(FT)	(FT)		(FT)		ms.l			
LINE "A" - north side																											
5+01	4+72	29.00	A	0.45	0.45	0.9	0.41	0.41	10.00	0.23	100	9.27	3.75	18	0.0013	628.67	628.63	0.00	2.12	0.00	0.07	1.25	0.00	0.04	628.77		
4+72	2+70	202.00		0.00	0.45	0.9	0.00	0.41	10.00	1.58	100	9.27	3.75	18	0.0013	628.53	628.27	2.12	2.12	0.07	0.07	0.50	45-BEND	0.26	0.10	628.63	
2+70	2+30	40.00		0.00	0.45	0.9	0.00	0.41	10.00	0.43	100	9.27	3.75	21	0.0006	628.17	628.15	2.12	1.56	0.07	0.04	0.70	90-BEND	0.02	0.10	628.27	
2+30	1+39	91.00	B	0.33	0.78	0.9	0.30	0.70	12.24	0.56	100	9.27	6.51	21	0.0017	628.05	627.89	1.56	2.71	0.04	0.11	0.75	0.03	0.15	0.10	628.15	
1+39	1+00	39.00	C+	0.47	1.25	0.9	0.42	1.13	12.80	0.20	100	9.27	10.43	24	0.0021	627.78	627.70	2.71	3.32	0.11	0.17	0.53	0.06	0.08	0.11	627.89	
LINE "B" - south side																											
4+81	4+76	5.00	I	0.47	0.47	0.9	0.42	0.42	10.00	0.04	100	9.27	3.92	18	0.0014	628.43	628.42	0.00	2.22	0.00	0.08	1.25	0.00	0.01	0.10	628.52	
4+76	4+31	45.00		0.00	0.47	0.9	0.00	0.42	10.00	0.34	100	9.27	3.92	18	0.0014	628.38	628.32	2.22	2.22	0.08	0.08	0.50	45-BEND	0.06	0.04	628.42	
4+31	3+06	125.00	LANDSCAPE	0.04	0.51	0.9	0.04	0.46	10.38	0.87	1124	100	9.27	4.25	18	0.0016	628.29	628.08	2.22	2.41	0.08	0.09	0.75	0.06	0.21	0.03	628.32
3+06	1+93	113.00	J	0.43	0.94	0.9	0.39	0.85	11.24	0.75	1113	100	9.27	7.84	24	0.0012	628.01	627.87	2.41	2.50	0.09	0.10	0.30	0.03	0.14	0.07	628.08
1+93	1+90	3.00		0.00	0.94	0.9	0.00	0.85	11.24	0.03	1116	100	9.27	7.84	30	0.0004	627.87	627.87	2.50	1.60	0.10	0.04	0.10	DIA CH	0.00	0.00	628.07
1+90	1+57	33.00	K	0.40	1.34	0.9	0.36	1.21	11.16	0.24	1140	100	9.27	11.18	30	0.0007	627.82	627.79	1.60	2.28	0.04	0.08	0.75	0.03	0.02	0.05	627.87
1+57	1+00	57.00		0.00	1.34	0.9	0.00	1.21	11.16	0.42	1182	100	9.27	11.18	30	0.0007	627.74	627.70	2.28	2.28	0.08	0.08	0.64	75-BEND	0.04	0.05	627.79
0+00		0.00																								627.70	

Walter P. Moore and Associates, Inc.
 TBPE Firm Registration No. 1856

SHANA L. HEFFLER
 LICENSED PROFESSIONAL ENGINEER
 09-16-2015

WALTER P MOORE
 WALTER P. MOORE AND ASSOCIATES, INC.
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 DALLAS, TEXAS 75201.2290
 TBPE FIRM REGISTRATION NO. 1856
 PHONE: 214.740.6200 FAX: 214.740.6300

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
SLH	SLH	APRIL 2015	1" = 50'			14-11

DRAINAGE AREA MAP - PROP. CONDITIONS
C6.00
CAWLEY TOLLWAY OFFICE BUILDING
PART OF TRACT 31, JOSIAH PANCOAST ABSTRACT
14675 DALLAS PARKWAY, ADDISON, TEXAS