

**LEGEND**

EXISTING	PROPOSED	STORM MANHOLE
STHM	STJM	STORM JUNCTION BOX
CI	CI	CURB INLET
CI	CI	GRATE INLET
CI	CI	SAFETY END TREATMENT
---	---	PROPOSED STORM SEWER PIPE
---	---	EXISTING CONTOUR
---	---	PROPOSED MINOR CONTOUR (1 FOOT)
---	---	PROPOSED MAJOR CONTOUR (5 FOOT)

- DRAINAGE NOTES**
- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY, COUNTY AND STATE REGULATIONS AND CODES, OSHA STANDARDS AND PROJECT SITE WORK SPECIFICATIONS. CONTRACTOR SHALL VERIFY EXISTING LOCATIONS OF EXISTING PUBLIC AND PRIVATE SANITARY AND SEWER LINES PRIOR TO COMMENCING CONSTRUCTION.
  - CONTRACTOR SHALL CALL 811 FOR FIELD LOCATION OF EXISTING UTILITIES. NOTE THAT 811 ONLY LOCATES THOSE UTILITIES REGISTERED WITH THE SERVICE AND DOES NOT LOCATE ALL UTILITIES.
  - THESE DRAWINGS DO NOT IMPLY TO SHOW ALL EXISTING UTILITIES, LOCATIONS AND SIZES OF EXISTING PUBLIC AND PRIVATE UTILITIES ARE FROM CITY AND UTILITY COMPANY RECORDS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES AND FOR DAMAGES RESULTING FROM FAILURE TO DO SO.
  - ALL EXISTING STRUCTURES, FENCING AND TREES WITHIN CONSTRUCTION AREA, UNLESS NOTED OTHERWISE TO REMAIN, SHALL BE REMOVED AND DISPOSED OF OFF SITE. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES.
  - CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE FOR THE DURATION OF THE PROPOSED PROJECT AND SURROUNDING AREAS.
  - ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (HDD) LOADING AND BE INSTALLED ACCORDINGLY.
  - ALL ROOF DRAINS TO THE BUILDING SHALL END AT OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY FLUSH AT THE END AND SEALANTE.

**\*\*CAUTION\*\* - NOTICE TO CONTRACTOR**

THE CONTRACTOR IS PUT ON NOTICE THAT THERE MAY BE NEARBY UNDERGROUND PROJECTS AND EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENT SHOWN ON THE PLANS.

**SEEDING AND MULCHING NOTE**

CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS WITHIN THE SUBJECT BOUNDARY NOT FENCED OR OTHERWISE COVERED, PER THE SPECIFICATIONS. ALL AREAS DISTURBED OUTSIDE THE PROPERTY BOUNDARY SHALL ALSO BE SEEDING AND MULCHING AND COVER SHALL BE ESTABLISHED TO PREVENT EROSION. CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY WATERING UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.

**INSPECTIONS/CERTIFICATIONS NOTE**

ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY LOCAL CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO SUBSTANTIAL PROJECT COMPLETION.

**PERMITS NOTE**

CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED BY FEDERAL, STATE, OR LOCAL CODES AND/OR UTILITY SERVICE COMPANIES PRIOR TO START OF CONSTRUCTION.

**TOPOGRAPHIC SURVEY NOTE**

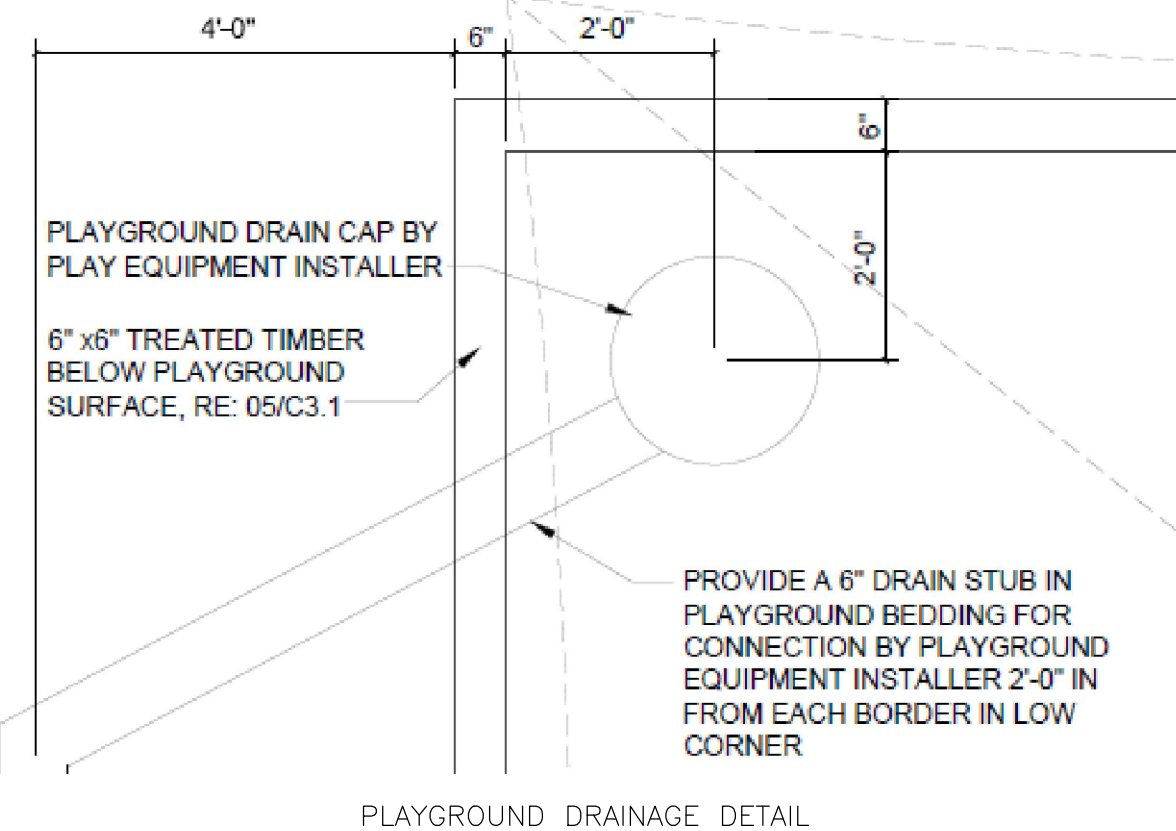
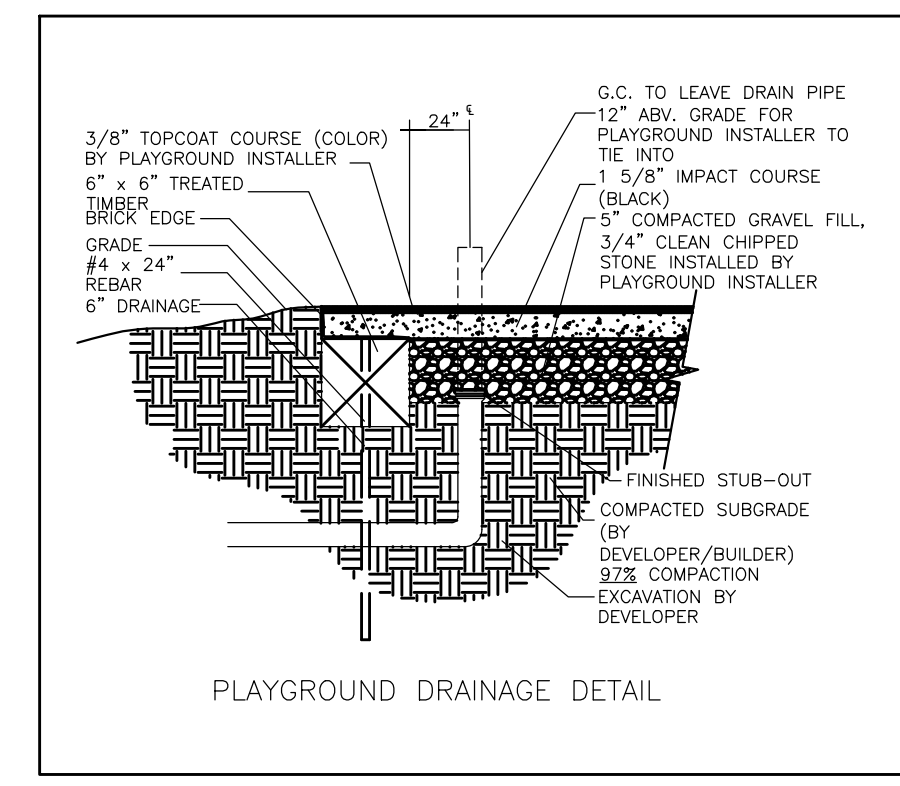
EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS WAS PREPARED BY SCI SURVEY CONSULTANTS, INC. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW. THE ENGINEER'S SEAL ON THESE PLANS DOES NOT APPLY TO THE PROPERTY BOUNDARY INFORMATION SHOWN HEREON.

**Form 3.3: Storm Sewer Calculations Table**

System ID	Length (ft)	# of Barrels	Pipe Size (in)	Box Span Rise (ft)	Type	Area (sf)	Wetted Perimeter (ft)	Hydraulic Radius (ft)	Manning's n	Flowline Elevation				Incremental Drainage Area			Accumulated C'A	Upstream Tc (min)	Design Storm Freq. (yr)	Intensity (in/hr)	Runoff (cfs)	Conduit Capacity (cfs)	Partial Flow (Yes/No)	Velocity (ft/s)	Time in Conduit (min)	Friction Slope (ft/ft)	Friction Headloss (ft)	HGL				V1^2/2g (ft)	V2^2/2g (ft)	Jct. Type	Coeff. Kj	Headloss (ft)	Design HGL	Top of Curb Elev.	HGL Depth Below T/C (ft)	Remarks
										Upstream	Downstream	Slope (ft/ft)	Inlet ID	Area (sf)	C	C'A												C'A	U/S	D/S										
A-4	169	1	15	-	-	1.23	3.93	0.31	0.012	547.29	545.60	0.01	P-2	0.29	0.90	0.26	0.26	1.37	2.52	7.02	Yes	2.06	1.37	0.0004	0.073	543.60	543.53	-	0.07	Curb Inlet	1.25	0.08	547.37	552.30	4.93	-				
B-1	34	1	15	-	-	1.23	3.93	0.31	0.012	545.27	545.10	0.005	P-3	0.13	0.90	0.12	0.12	0.61	1.14	4.96	Yes	0.93	0.61	0.0002	0.007	545.11	545.10	-	0.01	Curb Inlet	1.25	0.02	545.29	550.70	5.41	-				
A-3	108	1	18	-	-	1.77	4.71	0.38	0.012	542.90	541.84	0.01	P-4, P-5	0.73	0.90	0.66	1.03	1.68	10.06	11.41	Yes	5.99	0.31	0.0011	0.112	542.00	541.99	0.07	0.50	Curb Inlet	1.25	0.63	543.53	549.85	6.32	-				
C-2	228	1	12	-	-	0.79	3.14	0.25	0.012	546.12	543.75	0.01	P-9	0.10	0.90	0.09	0.18	1.65	1.79	3.96	Yes	2.29	1.65	0.0006	0.126	544.94	544.81	-	0.08	DS	0.25	0.02	546.14	550.60	4.46	-				
D-1	19	1	10	-	-	0.55	2.62	0.21	0.012	545.40	545.21	0.01	P-6	0.10	0.90	0.09	0.09	0.19	0.90	2.38	Yes	1.96	0.19	0.0005	0.009	546.15	546.14	-	0.04	"V" Type	1.25	0.05	545.45	549.50	4.05	-				
C-1	88	1	12	-	-	0.79	3.14	0.25	0.012	544.81	543.75	0.01	P-7	0.08	0.90	0.07	0.07	3.34	0.68	4.25	Yes	0.86	1.70	0.0002	0.019	543.77	543.75	-	0.01	DS	0.25	0.00	544.81	550.60	5.79	-				
A-2	6	1	24	-	-	3.14	6.28	0.50	0.012	541.84	541.78	0.01	P-10	0.08	0.90	0.08	1.10	1.71	10.81	24.57	Yes	3.44	0.03	0.0005	0.004	541.86	541.86	0.50	0.18	Jct. Box	0.25	0.05	541.89	548.50	6.61	-				
E-4	19	1	8	-	-	0.35	2.09	0.17	0.012	543.65	543.45	0.01	-	0.02	0.90	0.02	0.02	1.10	0.20	1.35	Yes	0.58	0.54	0.0002	0.004	543.45	543.45	0.02	0.01	Catch Basin	1.25	0.01	543.66	549.55	5.89	-				
E-3	19	1	8	-	-	0.35	2.09	0.17	0.012	543.45	543.25	0.01	-	0.02	0.90	0.02	0.04	0.55	0.41	1.35	Yes	1.17	0.27	0.0004	0.007	543.26	543.25	0.05	0.02	Catch Basin	1.25	0.03	543.48	549.55	6.07	-				
E-2	19	1	8	-	-	0.35	2.09	0.17	0.012	543.25	543.00	0.01	-	0.02	0.90	0.02	0.06	0.28	0.61	1.51	Yes	1.75	0.18	0.0006	0.011	543.01	543.00	0.08	0.05	Catch Basin	1.25	0.06	543.31	549.55	6.24	-				
E-1	14	1	8	-	-	0.35	2.09	0.17	0.012	543.00	542.85	0.01	-	0.02	0.90	0.02	0.08	0.10	0.81	1.36	Yes	2.33	0.10	0.0007	0.010	542.86	542.85	-	0.08	Catch Basin	1.25	0.11	543.11	549.55	6.44	-				
A-1	28	1	24	-	-	3.14	6.28	0.50	0.012	541.78	541.50	0.01	-	-	-	1.44	1.81	14.10	24.57	Yes	4.49	0.10	0.0007	0.019	543.52	543.50	0.18	0.31	Jct. Box	0.25	0.08	541.86	548.75	6.89	-					

**Form 3.2: Inlet Design Calculations Table**

Inlet ID	Design Freq. (yr)	C	Area ID	Area Runoff				Inlets Capacity			Inlet By-pass		Remarks		
				Time of Concentration (min)	Intensity (in/hr)	Area (acres)	Runoff (cfs)	Upstream Bypass (cfs)	Total Flow (cfs)	Inlet Length (ft)	Inlet Capacity (cfs)	Flow (cfs)		C'A	To Inlet ID
C-2	0.90	-	P-2	10.00	9.80	0.29	2.52	-	2.52	5.00	5.00	3.25	-	-	-
C-3	0.90	-	P-3	10.00	9.80	0.13	1.14	-	1.14	5.00	5.00	3.25	-	-	-
C-1	0.90	-	P-4, P-5	10.00	9.80	0.73	6.40	-	6.40	5.00	5.00	6.99	-	-	-
J-2	0.90	-	P-2, P-3, P-4, P-5	10.00	9.80	1.14	10.06	-	-	-	-	-	-	-	(5'x5')
CB-4	0.90	-	-	10.00	9.80	0.02	0.20	-	-	1.00	1.00	0.35	-	-	(1'x1')
CB-3	0.90	-	-	10.00	9.80	0.02	0.20	-	-	1.00	1.00	0.35	-	-	(1'x1')
CB-2	0.90	-	-	10.00	9.80	0.02	0.20	-	-	1.00	1.00	0.35	-	-	(1'x1')
CB-1	0.90	-	-	10.00	9.80	0.02	0.20	-	-	1.00	1.00	0.35	-	-	(1'x1')
Y-1	0.90	-	P-6	10.00	9.80	0.10	0.90	-	0.90	8	8	8.71	-	-	(2'x2')
J-1	0.90	-	P-2, P-3, P-4, P-5, P-6, P-7, P-9, P-10	10.00	9.80	1.51	13.28	-	-	-	-	-	-	-	(5'x5')



**FINAL AS-BUILT RECORD PLANS**

TO THE BEST OF OUR KNOWLEDGE, KSA, HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.



**RESPONSIBILITY NOTE**

ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.

**COURTIN DENTAL OFFICE**  
**ROCKWALL, TEXAS 75032**

**STORM SEWER PLAN**

DESIGNED BY: TG  
DESIGNED BY: DK  
LATEST REVISION: 07/20/2021  
KSA JOB NO.: 18-1620-01  
PROJECT NAME: PROJECT NAME

**KSA**  
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STATE OF TEXAS  
DANIEL KOTTUR  
PROFESSIONAL ENGINEER  
83947  
02/22/2022

SEAL: TBPE Firm Registration No. F-1356  
SHEET NO. **C6.0**