

THE PURPOSE OF CALCULATIONS BELOW AND THE CHANNELS SHOWN IN THE PLAN VIEW ON THIS SHEET IS TO PROVIDE DETENTION IN ORDER TO RESTRICT THE "INTERIM" CONDITION FLOW FROM THE SITE TO THE EXISTING CONDITION FLOW. THE INTERIM CONDITION DETENTION DETAINS THE INCREASED RUNOFF RESULTING FROM THE CONSTRUCTION OF THE STREETS.

"INTERIM" CONDITION FOR SOUTH DRAINAGE REGION

INTERIM CONDITION WITH SITE INTERIOR UNDEVELOPED. HALF OF SPRINGER ROAD BUILT & HALF OF DATA DRIVE BUILT.

AREA	TOTAL (AC)	AREA W/ C FACTOR OF 0.35	AREA W/ C FACTOR OF 1.0	COMPOSITE C FACTOR	CA	1100 (IN/HR)	INTERIM Q (CFS)
D1	0.66	0.48	0.18	0.52	0.35	9.80	3.38
D2	DOES NOT CONTRIBUTE TO SD SYSTEM IN THE INTERIM CONDITION						
D3	0.53	0.39	0.14	0.52	0.28	9.80	2.72
D4	DOES NOT CONTRIBUTE TO SD SYSTEM IN THE INTERIM CONDITION						
E1	DOES NOT CONTRIBUTE TO SD SYSTEM IN THE INTERIM CONDITION						
E2	1.05	0.72	0.33	0.55	0.58	9.80	5.71
I1	DOES NOT CONTRIBUTE TO SD SYSTEM IN THE INTERIM CONDITION						
I2	0.74	0.52	0.22	0.54	0.40	9.80	3.91
J1	9.41	9.41	0.00	0.35	3.29	9.80	32.28
J2	5.63	5.63	0.00	0.35	1.97	9.80	19.31
TOTAL	18.02	17.16	0.86	0.38	6.87	9.80	67.31

"EXISTING" CONDITION FOR SOUTH DRAINAGE REGION

AREA	AREA (AC)	C FACTOR	CA	TC = 20 MIN (IN/HR)	PRE Q (CFS)
D1	0.66	0.35	0.23	8.3	1.92
D2	DOES NOT CONTRIBUTE TO SD SYSTEM				
D3	0.53	0.35	0.19	8.3	1.54
D4	DOES NOT CONTRIBUTE TO SD SYSTEM				
E1	DOES NOT CONTRIBUTE TO SD SYSTEM				
E2	1.05	0.35	0.37	8.3	3.05
I1	DOES NOT CONTRIBUTE TO SD SYSTEM				
I2	0.74	0.35	0.26	8.3	2.15
J1	9.41	0.35	3.29	8.3	27.34
J2	5.63	0.35	1.97	8.3	16.36
TOTAL	18.02	0.35	6.31	8.3	52.35

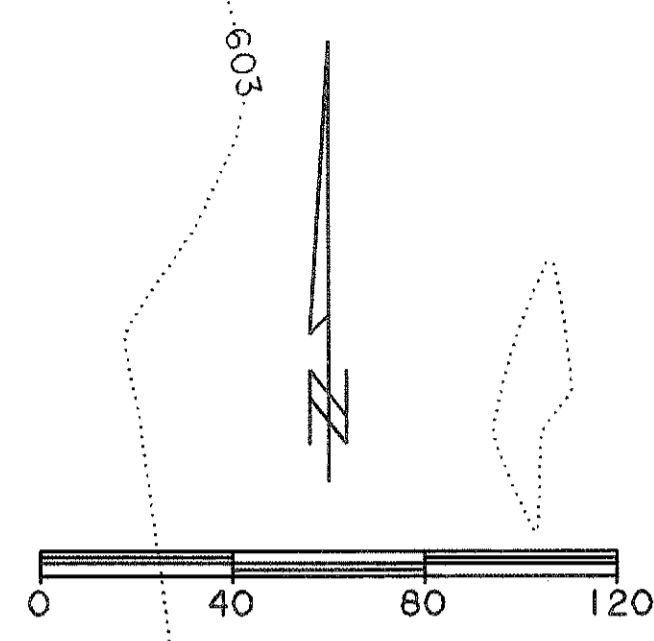
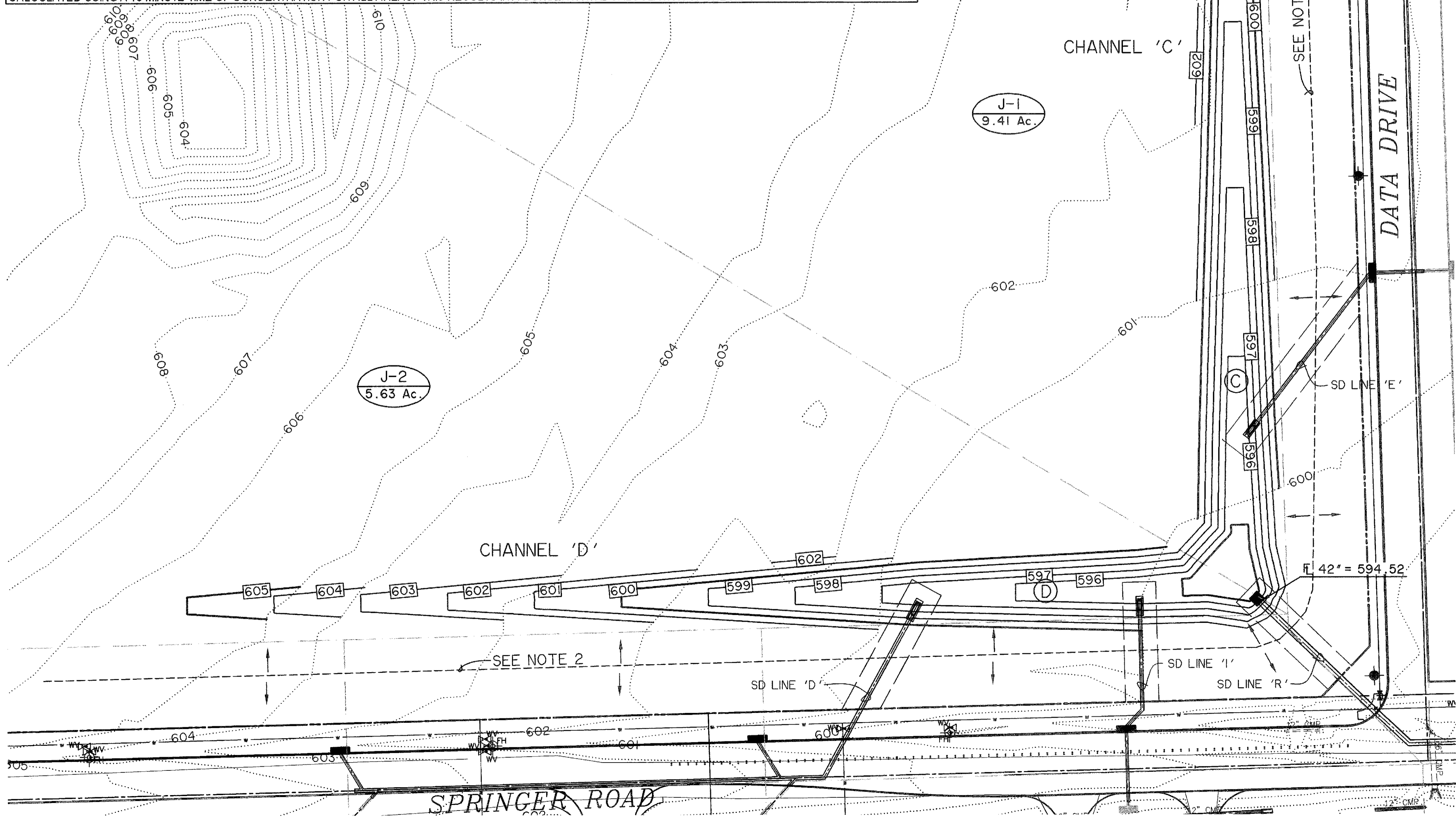
= TOTAL Q ALLOWABLE

APPROXIMATELY 0.56 AC-FT OF STORAGE IS REQUIRED TO DETAIN THE 100-YEAR EVENT IN THE INTERIM CONDITIONS. TO PROVIDE 0.56 AC-FT OF STORAGE, THE 100-YEAR WATER SURFACE ELEVATION AT THE ENTRANCE TO STORM DRAIN LINE 'R' WILL BE 598.2 FT.

THE SOUTH SIDE OF SPRINGER ROAD (AREAS D2, D4, & I1) AND THE EAST SIDE OF DATA DRIVE (AREA E1) SHALL BE ACCOUNTED FOR, CONCERNING DETENTION, WITH THE FUTURE DEVELOPMENT OF THE ADJACENT PROPERTIES. HOWEVER, THE PROPOSED STORM DRAIN SYSTEM IN DISCOVERY AND DATA DRIVE HAS BEEN DESIGNED TO COLLECT AND CARRY THE FULLY DEVELOPED FLOWS FROM THESE AREAS.

COMPOSITE C FACTORS USED IN "INTERIM" CONDITION CALCULATIONS ONLY.

ALTHOUGH IN THE INTERIM CONDITION THE UNDEVELOPED TIMES OF CONCENTRATION FOR AREAS J1 AND J2 WOULD BE 20 MINUTES, THE DETENTION STORAGE WAS CALCULATED USING A 10 MINUTE TIME OF CONCENTRATION FOR ALL AREAS. THIS RESULTS IN A CONSERVATIVE CALCULATION OF THE REQUIRED DETENTION STORAGE.



* BENCH MARKS *

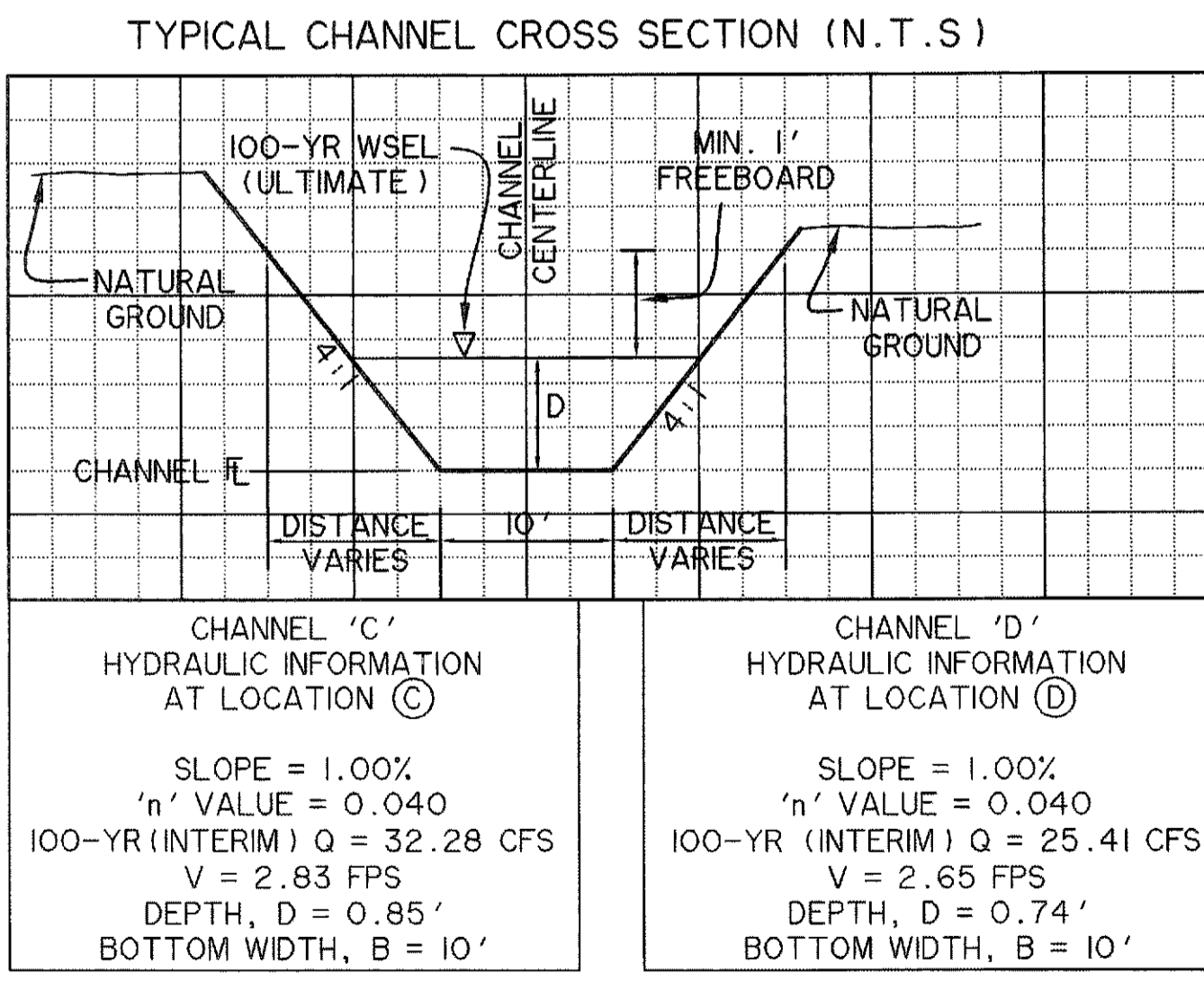
BM A - AN "X" CUT IN THE BACK OF CURB LOCATED AT THE SOUTH RIGHT-OF-WAY LINE OF SPRINGER ROAD ±2470' EAST OF THE INTERSECTION OF SPRINGER ROAD AND F.M. 549. 598.80 FT.

BM B - AN "X" CUT IN THE BACK OF CURB LOCATED AT THE NORTH RIGHT-OF-WAY LINE OF DISCOVERY BOULEVARD ±580' EAST OF THE INTERSECTION OF DISCOVERY BOULEVARD AND F.M. 549. 599.82 FT.

BM C - AN "□" CUT IN DISCOVERY BOULEVARD IN A MEDIAN NOSE ±60' WEST OF THE INTERSECTION OF DISCOVERY BOULEVARD AND F.M. 549. 598.20 FT.

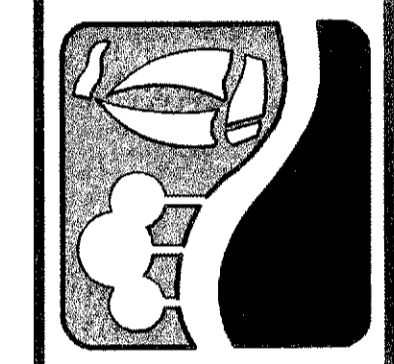
CAUTION !!
EXISTING UTILITIES ARE INDICATED ON THE PLANS FROM AVAILABLE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES, TO NOTIFY ALL UTILITY COMPANIES OF THE CONTRACTORS OPERATIONS, TO PROTECT ALL UTILITIES FROM DAMAGE, TO REPAIR ALL UTILITIES DAMAGED DUE TO THE CONTRACTORS OPERATIONS, AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING UTILITIES.

RECORD DRAWING
4/07/2009
TO THE BEST OF OUR KNOWLEDGE WIER & ASSOCIATES, INC., HERBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.



- NOTES:
1. SEED ALL DISTURBED/GRADED AREAS AFTER CONSTRUCTION. SEE TECHNICAL SPECIFICATIONS IN CONTRACT DOCUMENTS.
2. APPROXIMATE HIGH POINT LOCATION. CONTRACTOR SHALL GRADE TO DRAIN AS INDICATED. MINIMUM SLOPE IS 2%.

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ROCK WALL TECHNOLOGY PARK PHASE III

SOUTHERN INTERIM DETENTION CHANNELS

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