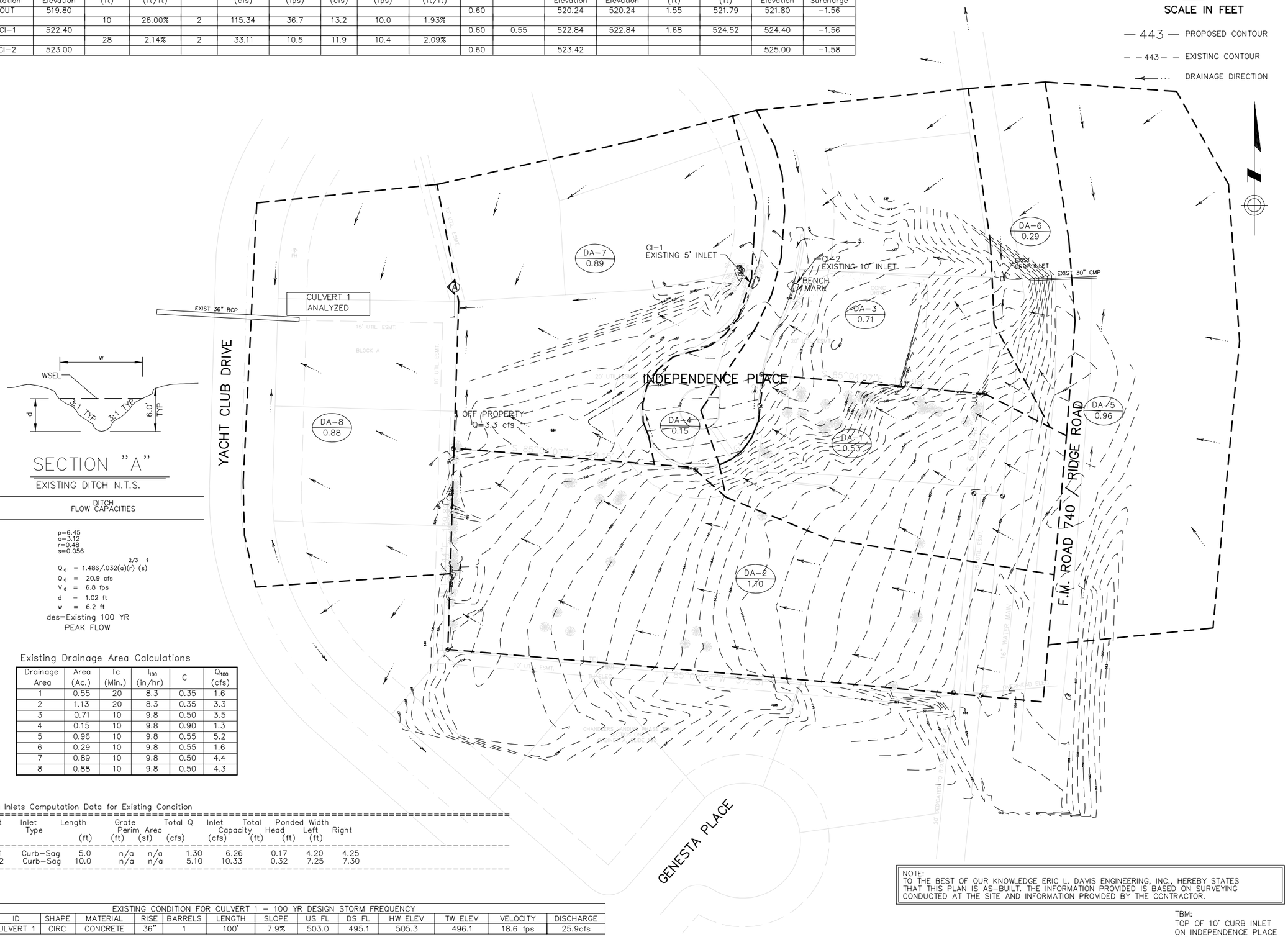
Inlet or Station	Pipe Invert Elevation	Length (ft)	Slope of Sewer (ft/ft)	Diam.	Capacity Full (cfs)	Velocity Full (fps)	QD (cfs)	Q/A Velocity (fps)	Hydraulic Gradient (ft/ft)	Kj	Transition Head	Downstrm Hydraulic Grade Elevation	Upstream Hydraulic Grade Elevation	Velocity Head (ft)	Total Energy Elevation (ft)	Top of Pipe Elevation	Pipe Surcharge
OUT	519.80									0.60		520.24	520.24	1.55	521.79	521.80	−1.56
		10	26.00%	2	115.34	36.7	13.2	10.0	1.93%								
CI−1	522.40									0.60	0.55	522.84	522.84	1.68	524.52	524.40	−1.56
		28	2.14%	2	33.11	10.5	11.9	10.4	2.09%								
CI−2	523.00									0.60		523.42				525.00	−1.58



SECTION "A"

EXISTING DITCH N.T.S.

DITCH
FLOW CAPACITIES

p=6.45
a=3.12
r=0.48
s=0.056

$Q_d = 1.486/.032(a)(r)^{2/3}(s)^{?}$

Q_d = 20.9 cfs
V_d = 6.8 fps
d = 1.02 ft
w = 6.2 ft

des=Existing 100 YR
PEAK FLOW

Existing Drainage Area Calculations

Drainage Area	Area (Ac.)	Tc (Min.)	I_{100} (in/hr)	C	Q_{100} (cfs)
1	0.55	20	8.3	0.35	1.6
2	1.13	20	8.3	0.35	3.3
3	0.71	10	9.8	0.50	3.5
4	0.15	10	9.8	0.90	1.3
5	0.96	10	9.8	0.55	5.2
6	0.29	10	9.8	0.55	1.6
7	0.89	10	9.8	0.50	4.4
8	0.88	10	9.8	0.50	4.3

Sag Inlets Computation Data for Existing Condition

Inlet ID	Inlet Type	Length (ft)	Grate Perim (ft)	Grate Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Width Left (ft)	Ponded Width Right
CI−1	Curb−Sag	5.0	n/a	n/a	1.30	6.26	0.17	4.20	4.25
CI−2	Curb−Sag	10.0	n/a	n/a	5.10	10.33	0.32	7.25	7.30

EXISTING CONDITION FOR CULVERT 1 − 100 YR DESIGN STORM FREQUENCY												
ID	SHAPE	MATERIAL	RISE	BARRELS	LENGTH	SLOPE	US FL	DS FL	HW ELEV	TW ELEV	VELOCITY	DISCHARGE
CULVERT 1	CIRC	CONCRETE	36"	1	100'	7.9%	503.0	495.1	505.3	496.1	18.6 fps	25.9cfs

NOTE:
TO THE BEST OF OUR KNOWLEDGE ERIC L. DAVIS ENGINEERING, INC., HEREBY STATES THAT THIS PLAN IS AS−BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING CONDUCTED AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

TBM:
TOP OF 10' CURB INLET
ON INDEPENDENCE PLACE
ELEV=528.12

DATE	BY	REV

REVISION

ERIC L. DAVIS
ENGINEERING, INC.
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Forney, Texas 75126
972/564−0592 Fax 972/564−6523
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EXISTING DRAINAGE AREA MAP

INDEPENDENCE PASS
CITY OF ROCKWALL, ROCKWALL CO, TEXAS

DEVELOPER:
HUDSON PROPERTIES, INC.
PORTOFINO DRIVE
ROCKWALL, TX 75032
(214) 477−3777

JOB NO.: 064−01
DRAWN BY: GT
CHECKED BY: ML
DATE: 04−16−07

AS−BUILT

STATE OF TEXAS
MITCHELL K. LENAMOND
92714
LICENSED PROFESSIONAL ENGINEER

SCALE: 1"=30'

SHEET 1 OF 1

SHEET 6