

CITY OF ALBUQUERQUE



June 26, 2006

Mr. J. Graeme Means, PE
JEFF MORTENSEN & ASSOCIATES
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

RE: AGAVE SUBDIVISION (E-16/D24)
Engineers Certification for Release of Financial Guaranty
Engineers Stamp dated 07/11/2005
Engineers Certification dated 06/22/2006

Dear Graeme:

Based upon the information provided in your Engineer's Certification Submittal dated 06/23/2006, the above referenced plan is adequate to satisfy the Grading and Drainage Certification for Release of Financial Guaranty.

If you have any questions, you can contact me at 924-3982

Sincerely,

Arlene V. Portillo
Plan Checker, Planning Dept.- Hydrology
Development and Building Services

C: Marilyn Maldonado, COA# 768281
File

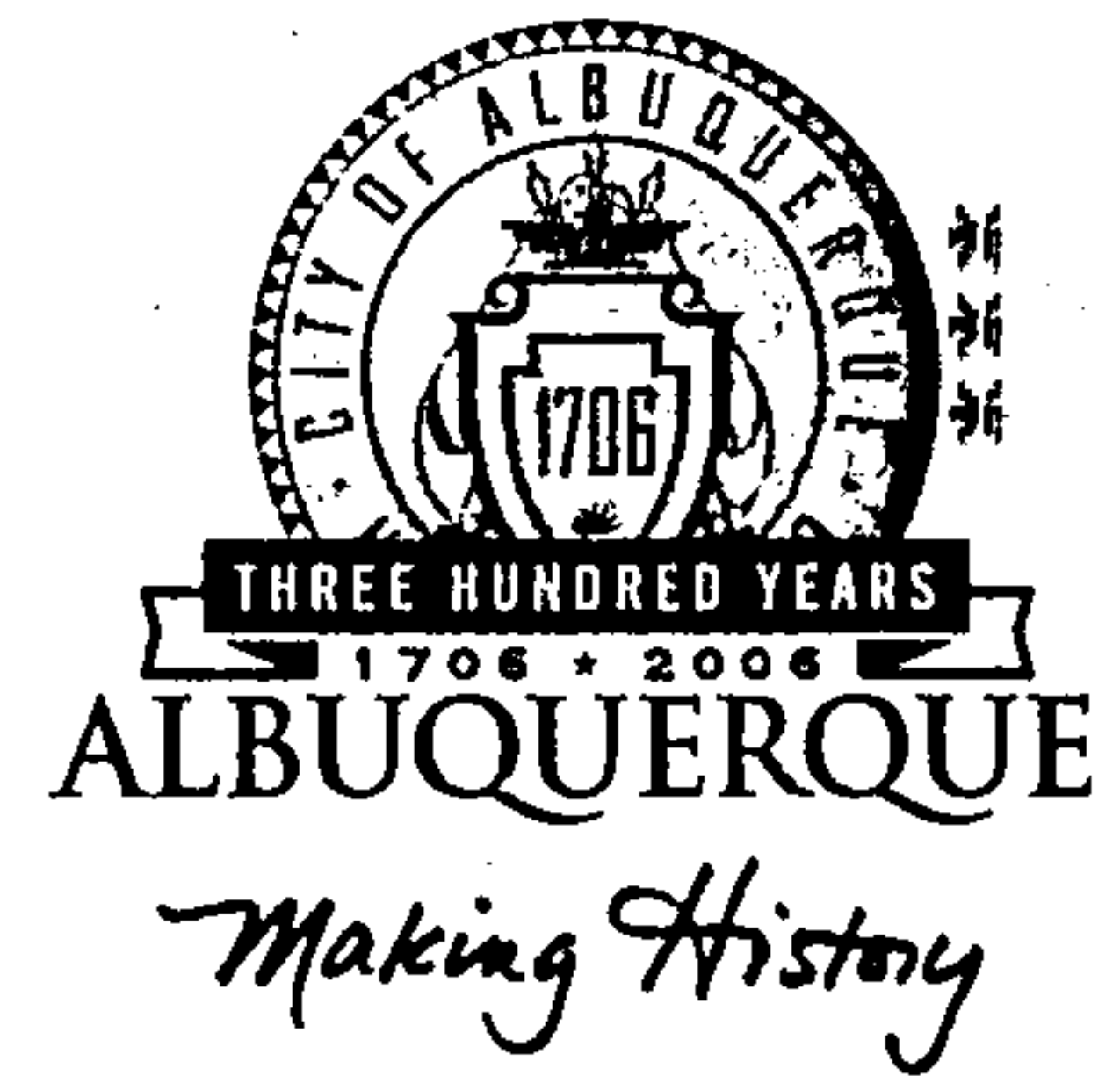
P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

CITY OF ALBUQUERQUE



August 9, 2005

Jeff Mortensen & Associates
J. Graeme Means, NMPE
6010-B Midway Park Blvd NE
Albuquerque, NM 87109

Re: Agave Subdivision
Engineer's Stamp dated 7-11-05, (E16/D24)

Dear Mr. Means,

Based on information contained in your submittal dated 07/19/05, the above referenced report is approved for Preliminary Plat action by the DRB. Once the board approves the plan, please submit a mylar copy for my signature in order to obtain a Rough Grading Permit.

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This project requires a National Pollutant Discharge Elimination System (NPDES) permit. Refer to the attachment that is provided with this letter for details. If you have any questions, please feel free to call the Municipal Development Department, Hydrology section at 768-3654 (Charles Caruso).

If you have any questions, you can contact me at 924-3977.

Sincerely,

Rudy E. Rael,
Associate Engineer, Plan. Dept.
Development and Building Services

BWB

C: Chuck Carusso DMD
file



JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. NE
ALBUQUERQUE NEW MEXICO 87109
505.345.4250 FAX 505.345.4254

JOB NO. 2005.028.4
SHEET NO. 1 OF 8
PREPARED BY GM
DATE 7/7/05

Total Flow in 48" SD (ALL FULLY DEVELOPED)

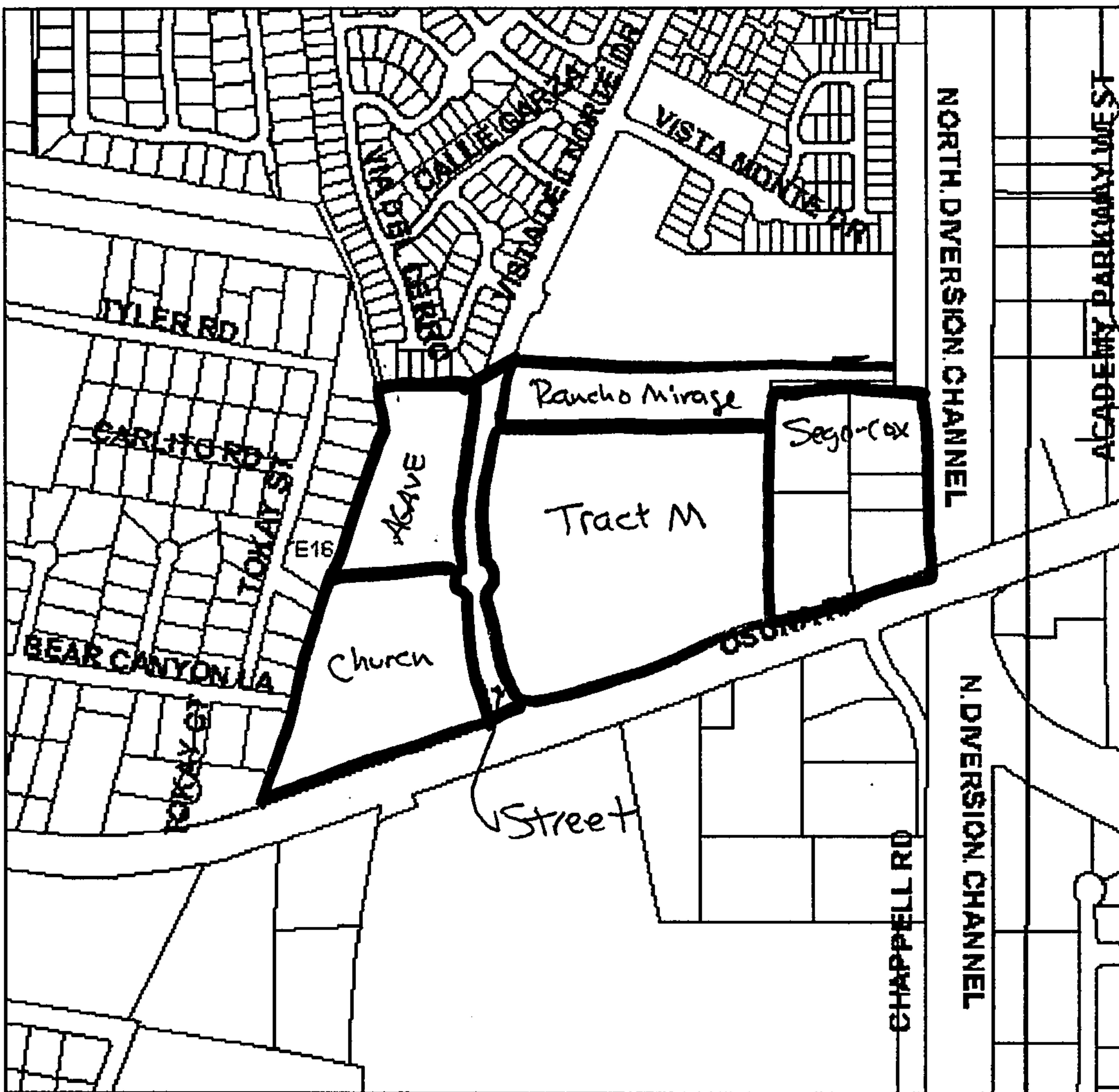
(See Basin Map)		
SEGO COX	47 cfs	(from VDN MDP BYA10)
Rancho Mirage	17.6 cfs	(from E-16/D22, Basins 5-9)
Tract M	105.4 cfs	(Pro-rated from VDN MDP)
Church	39.3 cfs	(E6-D21)
AGAVE	20.0 cfs	
Street	7.9 cfs	(from CPN 5970.81 as-built)
	<u>237.2 cfs</u>	

① shown on PIP for CPN 5970.81 is 243 cfs
(See attached)

Total Flow is less than Design Flow

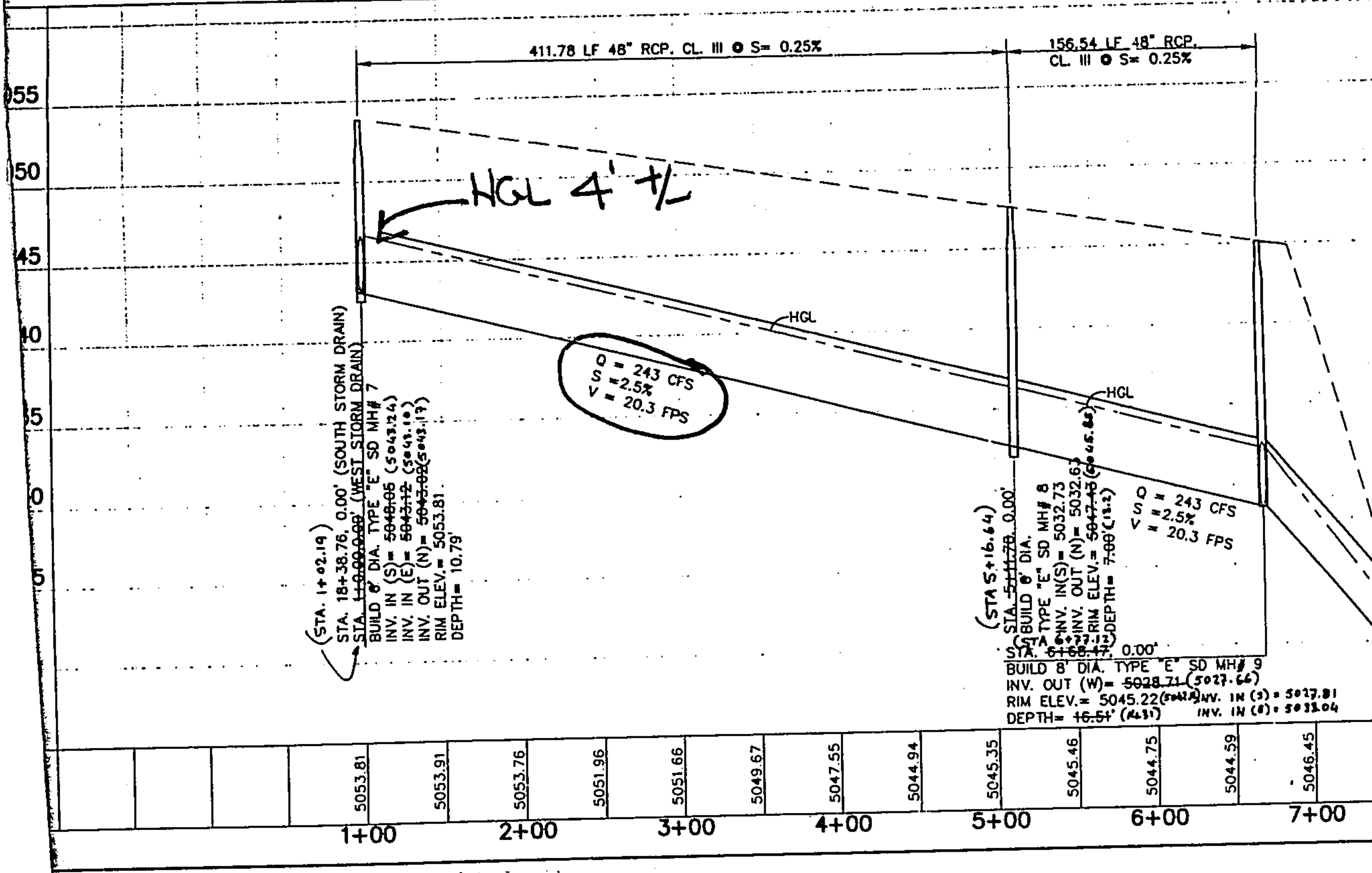
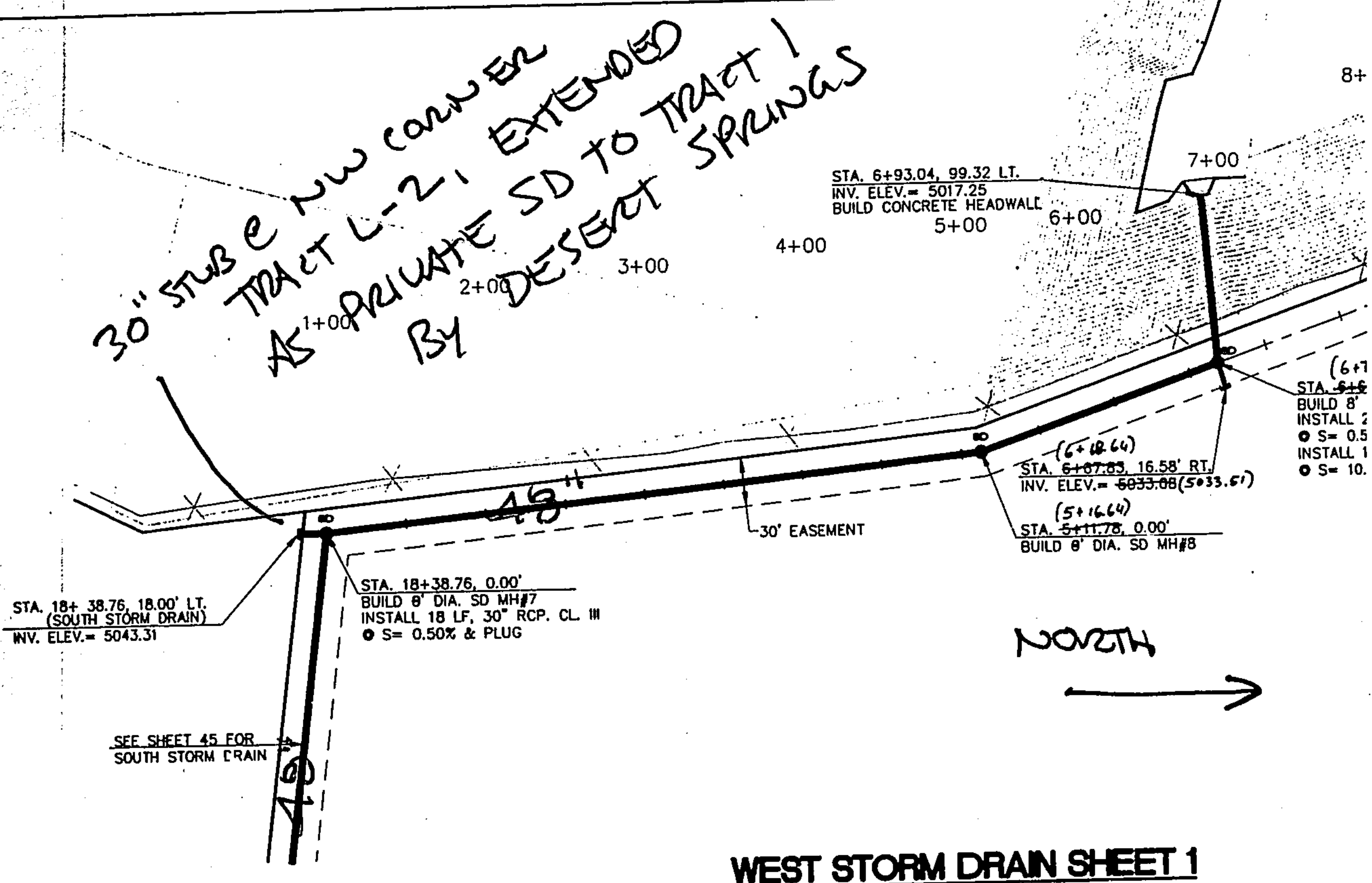
Per PIP for CPN 5970.81, HGL @
MH # 7 $\approx$ 4 (full 48" PIPE)

Following Pressure Calculations use this HGL
as Starting Point.



Offside Basin Map

~~Basin~~ Areas draining to 48" S.D. @
NW Corner Agave.



C 20 B 16 A 12

Worksheet
Worksheet for Pressure Pipe

76
76
76

Project Description	
Worksheet	Pressure Pipe
Flow Element	Pressure Pipe
Method	Manning's Forr
Solve For	Pressure at 1

Private SD Leg 1

Input Data	
Pressure at 2	1.73 psi
Elevation at 1	43.81 ft
Elevation at 2	42.81 ft
Length	120.00 ft
Mannings Coeff	0.013
Diameter	30 in
Discharge	47.10 cfs

← @ 4' Depth per HAL from CPN 5970.81

← 39.3 from Church + 1.4 Basin A + 6.4 Basin B

Results	
Pressure at 1	1.98 psi
Headloss	1.58 ft
Energy Grade at	49.81 ft
Energy Grade at	48.23 ft
Hydraulic Grade :	48.38 ft
Hydraulic Grade :	46.80 ft
Flow Area	4.9 ft ²
Wetted Perimeter	7.85 ft
Velocity	9.60 ft/s
Velocity Head	1.43 ft
Friction Slope	013187 ft/ft

← Rim @ 56.40
← Rim @ 53.84

Worksheet
Worksheet for Pressure Pipe

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36
36

Project Description	
Worksheet	Pressure Pipe
Flow Element	Pressure Pipe
Method	Manning's Forr
Solve For	Pressure at 1

Private SD Leg 2

Input Data	
Pressure at 2	1.98 psi
Elevation at 1	45.60 ft
Elevation at 2	43.88 ft
Length	300.00 ft
Mannings Coeff	0.013
Diameter	30 in
Discharge	39.30 cfs

From Leg 1

← Pult from E16/D21 (Desert Springs Chuvon)

Results	
Pressure at 1	2.43 psi
Headloss	2.75 ft
Energy Grade at	52.20 ft
Energy Grade at	49.44 ft
Hydraulic Grade	51.20 ft
Hydraulic Grade	48.45 ft
Flow Area	4.9 ft ²
Wetted Perimeter	7.85 ft
Velocity	8.01 ft/s
Velocity Head	1.00 ft
Friction Slope	009181 ft/ft

← Rime 57.51 (exist.)
← Rime 56.40 (exist.)

Worksheet

Worksheet for Pressure Pipe

36
36
36

Project Description	
Worksheet	Pressure Pipe
Flow Element	Pressure Pipe
Method	Manning's Forr
Solve For	Pressure at 1

Private SD Leg 3

Input Data	
Pressure at 2	2.43 psi
Elevation at 1	47.12 ft
Elevation at 2	45.60 ft
Length	315.00 ft
Mannings Coeff	0.013
Diameter	30 in
Discharge	39.30 cfs

← From Leg 2

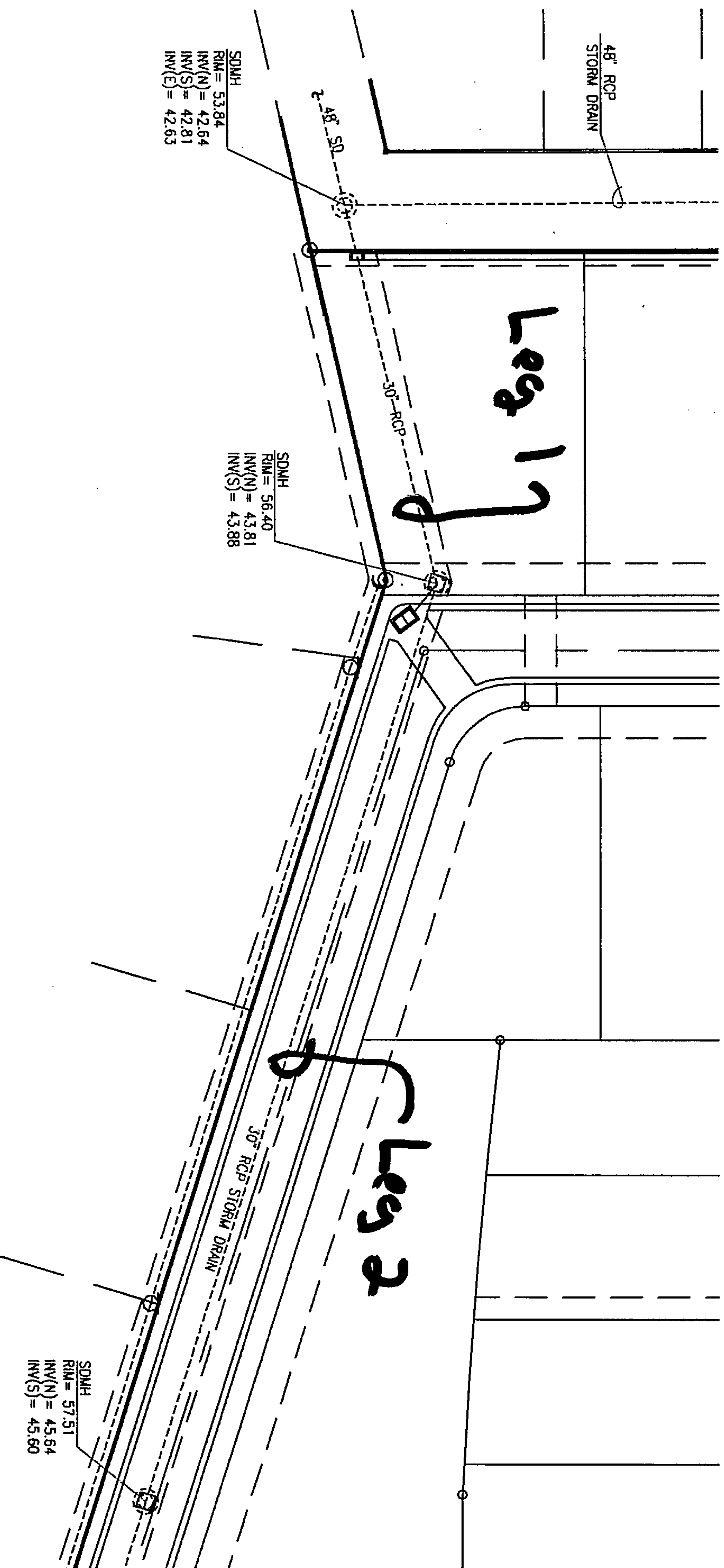
Results	
Pressure at 1	3.02 psi
Headloss	2.89 ft
Energy Grade at	55.09 ft
Energy Grade at	52.20 ft
Hydraulic Grade	54.10 ft
Hydraulic Grade	51.20 ft
Flow Area	4.9 ft ²
Wetted Perimeter	7.85 ft
Velocity	8.01 ft/s
Velocity Head	1.00 ft
Friction Slope	0.009181 ft/ft

← Rim @ 57.66 (exist.)

← Rim @ 57.51 (exist.)

↑ North

1" = 50'



A

