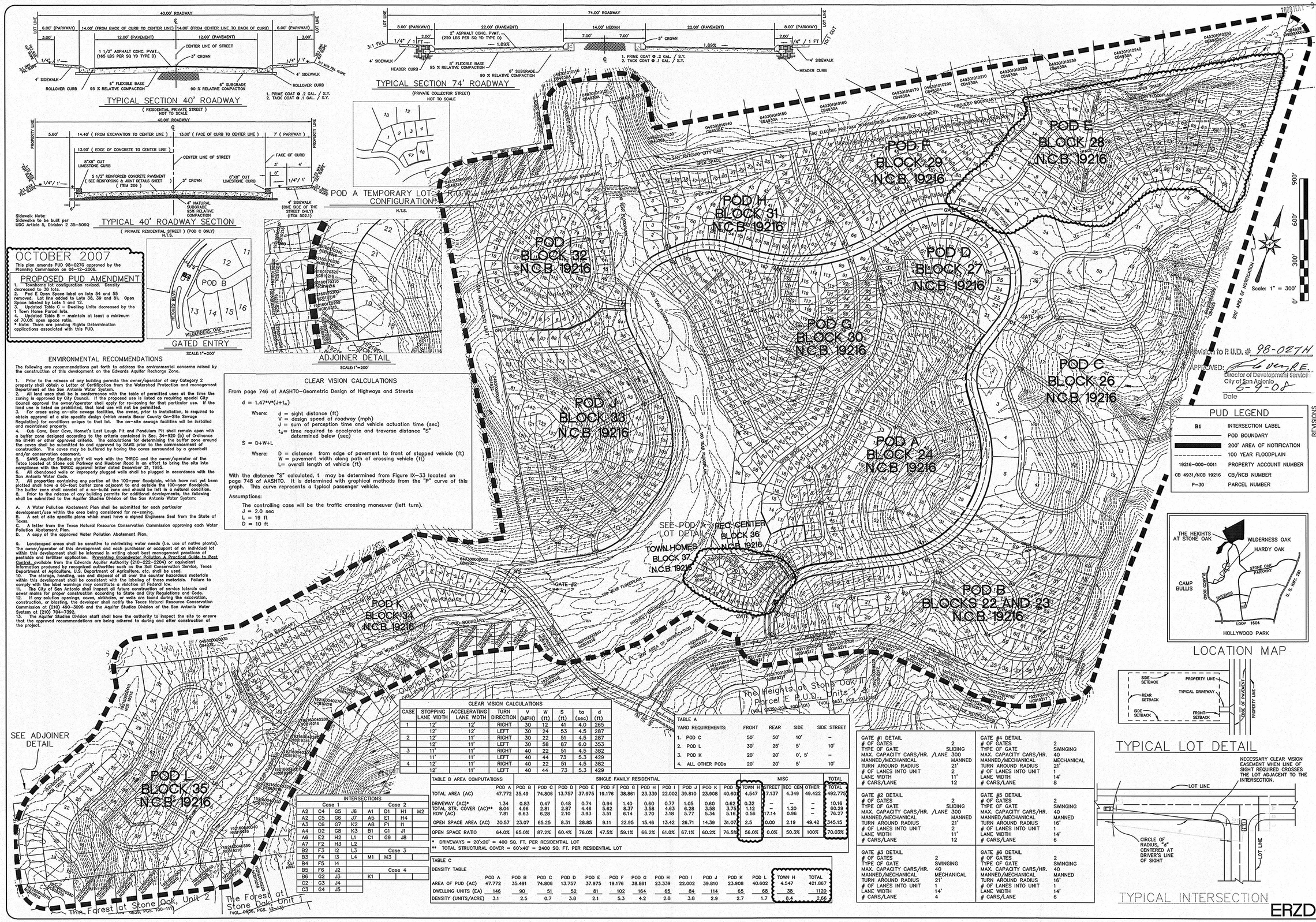
DEVELOPMENT SERVICES
RECEIVED
2008 JUN -9 AM 10: 31



ENVIRONMENTAL RECOMMENDATIONS

The following are recommendations put forth to address the environmental concerns raised by the construction of this development on the Edwards Aquifer Recharge Zone.

1. Prior to the release of any building permits the owner/operator of any Category 2 property shall obtain a Letter of Certification from the Watershed Protection and management Department of the San Antonio Water System.
2. All land uses shall be in conformance with the table of permitted uses at the time the zoning is approved by City Council. If the proposed use is listed as requiring special City Council approval the owner/operator shall apply for re-zoning for that particular use. If the land use is listed as prohibited, that land use will not be permitted.
3. For areas using on-site sewage facilities, the owner, prior to installation, is required to obtain approval of a site specific design (which meets Bexar County On-Site Sewage Regulation) for conditions unique to that lot. The on-site sewage facilities will be installed and maintained properly.
4. Cub Cave, Bear Cave, Hornet's Lost Laugh Pit and Pendulum Pit shall remain open with a buffer zone designed according to the criteria contained in Sec. 34-920 (b) of Ordinance No 81491 or other approved criteria. The calculations for determining the buffer zone around the caves shall be submitted to and approved by SAWS prior to the commencement of construction. The caves may be buffered by having the caves surrounded by a greenbelt and/or conservation easement.
5. SAWS Aquifer Studies staff will work with the TNRCC and the owner/operator of the Tetco located at Stone oak Parkway and Huebner Road in an effort to bring the site into compliance with the TNRCC approval letter dated December 21, 1995.
6. All abandoned wells or improperly plugged wells shall be plugged in accordance with the San Antonio Water Code.
7. All properties containing any portion of the 100-year floodplain, which have not yet been platted shall have a 60-foot buffer zone adjacent to and outside the 100-year floodplain. The buffer zone shall consist of a no-build zone and should be left in a natural condition.
8. Prior to the release of any building permits for additional developments, the following shall be submitted to the Aquifer Studies Division of the San Antonio Water System:

A. A Water Pollution Abatement Plan shall be submitted for each particular development/use within the area being considered for re-zoning.
B. A set of site specific plans which must have a signed Engineers Seal from the State of Texas.
C. A letter from the Texas Natural Resource Conservation Commission approving each Water Pollution Abatement Plan.
D. A copy of the approved Water Pollution Abatement Plan.

9. Landscaped areas shall be sensitive to minimizing water needs (i.e. use of native plants). The owner/operator of this development and each purchaser or occupant of an individual lot within this development shall be informed in writing about best management practices of pesticide and fertilizer application. Preventing Groundwater Pollution A Practical Guide to Pest Control, available from the Edwards Aquifer Authority (210-222-2204) or equivalent information produced by recognized authorities such as the Soil Conservation Service, Texas Department of Agriculture, U.S. Department of Agriculture, etc. shall be used.
10. The storage, handling, use and disposal of all over the counter hazardous materials within this development shall be consistent with the labeling of those materials. Failure to comply with the label warnings may constitute a violation of Federal law.
11. The City of San Antonio shall inspect all future construction of service laterals and sewer mains for proper construction according to State and City Regulations and Code.
12. If any solution openings, caves, sinkholes, or wells are found during the excavation, construction, or blasting, the developer shall notify the Texas Natural Resource Conservation Commission at (210) 490-3096 and the Aquifer Studies Division of the San Antonio Water System at (210) 704-7392.
13. The Aquifer Studies Division staff shall have the authority to inspect the site to ensure that the approved recommendations are being adhered to during and after construction of the project.

CLEAR VISION CALCULATIONS

From page 746 of AASHTO–Geometric Design of Highways and Streets

$d = 1.47*V*(J+t_a)$

Where: d = sight distance (ft)
V = design speed of roadway (mph)
J = sum of perception time and vehicle actuation time (sec)
t_a = time required to accelerate and traverse distance "S" determined below (sec)

$S = D+W+L$

Where: D = distance from edge of pavement to front of stopped vehicle (ft)
W = pavement width along path of crossing vehicle (ft)
L= overall length of vehicle (ft)

With the distance "S" calculated, t may be determined from Figure IX–33 located on page 748 of AASHTO. It is determined with graphical methods from the "P" curve of this graph. This curve represents a typical passenger vehicle.

Assumptions:

The controlling case will be the traffic crossing maneuver (left turn).
J = 2.0 sec
L = 19 ft
D = 10 ft

CLEAR VISION CALCULATIONS

CASE	STOPPING LANE WIDTH	ACCELERATING LANE WIDTH	TURN DIRECTION	V (MPH)	W (ft)	S (ft)	ta (sec)	d (ft)
1	12'	12'	RIGHT	30	12	41	4.0	265
	12'	12'	LEFT	30	24	53	4.5	287
2	12'	11'	RIGHT	30	22	51	4.5	287
	12'	11'	LEFT	30	58	87	6.0	353
3	11'	11'	RIGHT	40	22	51	4.5	382
	11'	11'	LEFT	40	44	73	5.3	429
4	12'	11'	RIGHT	40	22	51	4.5	382
	12'	11'	LEFT	40	44	73	5.3	429

TABLE A

YARD REQUIREMENTS:	FRONT	REAR	SIDE	SIDE STREET
1. POD C	50'	50'	10'	–
2. POD L	30'	25'	5'	10'
3. POD K	20'	20'	0', 5'	–
4. ALL OTHER PODs	20'	20'	5'	10'

TABLE B AREA COMPUTATIONS

	SINGLE FAMILY RESIDENTIAL													MISC				TOTAL
	POD A	POD B	POD C	POD D	POD E	POD F	POD G	POD H	POD I	POD J	POD K	POD L	TOWN H	STREET	REC CEN	OTHER		TOTAL
TOTAL AREA (AC)	47.772	35.49	74.806	13.757	37.975	19.176	38.861	23.339	22.002	39.810	23.908	40.602	4.547	7.137	4.349	49.422		492.775
DRIVEWAY (AC)*	1.34	0.83	0.47	0.48	0.74	0.94	1.40	0.60	0.77	1.05	0.60	0.62	0.32	–	–	–		10.16
TOTAL STR. COVER (AC)**	8.04	4.96	2.81	2.87	4.46	5.62	8.37	3.58	4.63	6.28	3.58	3.75	1.12	–	1.20	–		60.29
ROW (AC)	7.81	6.63	6.28	2.10	3.93	3.51	6.14	3.70	3.18	5.77	5.34	5.16	0.56	17.14	0.96	–		76.27
OPEN SPACE AREA (AC)	30.57	23.07	65.25	8.31	28.85	9.11	22.95	15.46	13.42	26.71	14.39	31.07	2.5	0.00	2.19	49.42		345.15
OPEN SPACE RATIO	64.0%	65.0%	87.2%	60.4%	76.0%	47.5%	59.1%	66.2%	61.0%	67.1%	60.2%	76.5%	56.0%	0.0%	50.3%	100%		70.03%

* DRIVEWAYS = 20'x20' = 400 SQ. FT. PER RESIDENTIAL LOT
** TOTAL STRUCTURAL COVER = 60'x40' = 2400 SQ. FT. PER RESIDENTIAL LOT

TABLE C

DENSITY TABLE

	POD A	POD B	POD C	POD D	POD E	POD F	POD G	POD H	POD I	POD J	POD K	POD L	TOWN H	TOTAL
AREA OF PUD (AC)	47.772	35.491	74.806	13.757	37.975	19.176	38.861	23.339	22.002	39.810	23.908	40.602	4.547	421.867
DWELLING UNITS (EA)	146	90	51	52	81	102	164	65	84	114	65	68	38	1120
DENSITY (UNITS/ACRE)	3.1	2.5	0.7	3.8	2.1	5.3	4.2	2.8	3.8	2.9	2.7	1.7	8.4	2.66

INTERSECTIONS

Case 1								Case 2				
A2	C4	G5	J6	A1	D1	H1	M2					
A2	C5	G6	J7	A5	E1	H4						
A3	C6	G7	K2	A8	F1	I1						
A4	D2	G8	K3	B1	G1	J1						
A6	E2	H2	L1	C1	G9	J8						
A7	F2	H3	L2									
B2	F3	I2	L3	Case 3								
B3	F4	I3	L4	M1	M3							
B4	F5	I4										
B5	F6	J2		Case 4								
B6	G2	J3		K1								
C2	G3	J4										
C3	G4	J5										

GATE #1 DETAIL

# OF GATES	2
TYPE OF GATE	SLIDING
MAX. CAPACITY CARS/HR. /LANE	300
MANNED/MECHANICAL	MANNED
TURN AROUND RADIUS	21'
# OF LANES INTO UNIT	2
LANE WIDTH	11'
# CARS/LANE	12

GATE #2 DETAIL

# OF GATES	2
TYPE OF GATE	SLIDING
MAX. CAPACITY CARS/HR. /LANE	300
MANNED/MECHANICAL	MANNED
TURN AROUND RADIUS	21'
# OF LANES INTO UNIT	2
LANE WIDTH	11'
# CARS/LANE	12

GATE #3 DETAIL

# OF GATES	2
TYPE OF GATE	SWINGING
MAX. CAPACITY CARS/HR.	40
MANNED/MECHANICAL	MECHANICAL
TURN AROUND RADIUS	21'
# OF LANES INTO UNIT	1
LANE WIDTH	14'
# CARS/LANE	4

GATE #4 DETAIL

# OF GATES	2
TYPE OF GATE	SWINGING
MAX. CAPACITY CARS/HR.	40
MANNED/MECHANICAL	MECHANICAL
TURN AROUND RADIUS	21'
# OF LANES INTO UNIT	1
LANE WIDTH	14'
# CARS/LANE	8

GATE #5 DETAIL

# OF GATES	2
TYPE OF GATE	SWINGING
MAX. CAPACITY CARS/HR.	40
MANNED/MECHANICAL	MANNED
TURN AROUND RADIUS	16'
# OF LANES INTO UNIT	1
LANE WIDTH	14'
# CARS/LANE	6

GATE #6 DETAIL

# OF GATES	2
TYPE OF GATE	SWINGING
MAX. CAPACITY CARS/HR.	40
MANNED/MECHANICAL	MANNED
TURN AROUND RADIUS	16'
# OF LANES INTO UNIT	1
LANE WIDTH	14'
# CARS/LANE	6

JACK JOHNSON COMPANY
Designing World Destinations
Inc-Phoenix - 1777 S.Bellaire Drive - Park City - Utah 84098
Telephone - 435-649-7333 Fax - 435-649-7333
www.jackjohnson.com

DATE: SEPT 13, 2007
DESIGNED BY: J.A.M.
DRAWN BY: J.A.M./N.C.
CHECKED BY: C.R.H.
SCALE: 1" = 300'
FILE NAME: 169PUD.DWG

REVISIONS

NO.	DATE	DESCRIPTION	BY	APPROVAL DATE
9	8-13-07	REVISED POD E, TOWN HOME PARCEL	L.A.S.	08/12/2008
8	6-7-06	REVISED POD A, G, TOWN HOME PARCEL	L.A.S.	11/20/06
7	10-11-05	REVISED POD A, B & C	L.A.S.	
6	10-24-03	REVISED SIDEWALK WIDTH ON DETAILS	L.A.S.	
5	9-18-2003	REVISED POD A, NOTE ADDED TO A SET.	L.A.S.	
4	10/27/2000	REVISED POD D,E,G	R.A.G.	6/12/2002
3	3/6/2000	REVISED POD A, G, D, E, F & G.	L.J.K.	6/12/2002
2	8/28/2000	REVISED PRD PLAN #98-027.	N.C.	6/28/2000
1	6/16/2000	REVISED PRD PLAN	N.C.	6/28/2000

REVISED PUD PLAN #98-027H FOR THE HEIGHTS AT STONE OAK

PUD PLAN #98-027H

REVISED PUD PLAN

SHEET 01 OF 01

ERZD

A memo from the

CITY of SAN ANTONIO

Development Services

Master Development Section

TO: Todd Morril, P.E. **DATE:** May 9, 2008

Address: 1777 Sun Peak Drive
Park City, Utah 84098

FROM: Richard Carrizales, Sr. Engineering Technician

COPIES TO: File

SUBJECT: PUD# 98-027 H **Name:** Heights at Stone Oak, PUD

The plat or plan referenced above was heard by the ☐ Planning Commission

Glover, P.E.
☒ Director of Development Services

The following action was taken: ☒APPROVED With Conditions
☐ DISAPPROVED

A plat will not be recorded pending site improvements, the required guarantee is posted or payment of impact fees are paid (or filed).

Approved with the following Conditions:

- The dedicatory instrument(s) (Legal Instrument) for common areas and facilities must be approved by the City Attorney as to legal form prior to any plat recordation and shall be recorded at the same time as the plat. UDC 35-344(i)