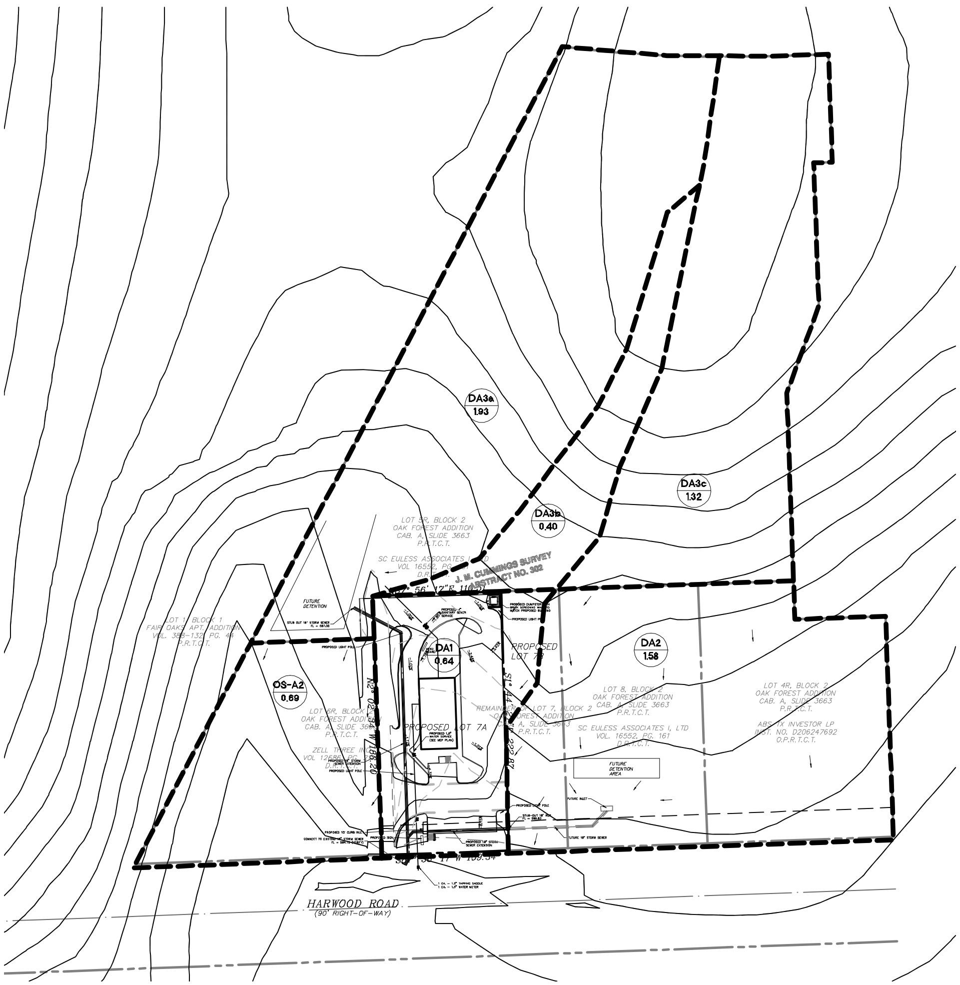

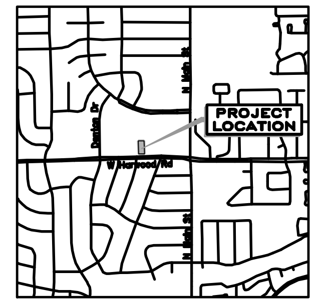

VICINITY MAP
SCALE: 1" = 1000'

DRAINAGE LEGEND

DA1 0.64 — DRAINAGE AREA NUMBER; DRAINAGE AREA SIZE (AC.)

EXISTING DRAINAGE AREA BOUNDARY

DRAINAGE STUDY CALCULATIONS AND NOTES:

1. THIS SITE CURRENTLY DRAINS FROM NORTH TO SOUTH INTO THE HARWOOD ROAD RIGHT-OF-WAY WHICH PARALLELS THE SOUTH PROPERTY LINE. THE PROPOSED SITE WILL FOLLOW THE SAME DRAINAGE PATTERN AND HAVE A RUN-OFF COEFFICIENT "C" VALUE = 0.95.

2. THIS SITE WAS ORIGINALLY INCLUDED IN THE DRAINAGE STUDY COMPLETED AS PART OF THE OAK FOREST ADDITION LOTS 4R, 5R, 6R, 7 & 8 CONSTRUCTION PLANS AS PREPARED BY GSES, INC.

3. THE CITY WILL NOT MAINTAIN ANY INTERIOR DRAINAGE SYSTEMS THAT ORIGINATE WITHIN THIS PRIVATE DEVELOPMENT.

4. THE FOLLOWING DRAINAGE STUDY INFORMATION IS PROVIDED FOR REFERENCE:

"C" = 0.40 (PRE-DEVELOPED)
"C" = 0.95 (POST-DEVELOPED)
Tc = 10 MINUTES
I_{100-yr} = 11.6 in/hr (TP 40)

POST-DEVELOPED 100-YR FLOW CALCULATION:

$Q_{100-yr} = 0.64 \times 11.6 \times 0.95 = 7.05$ cfs

DRAINAGE AREA	SIZE (ac.)	"C"	I_{100-yr} (in/hr)	Q_{100-yr} (cfs)
DA1 (LOT 7A)	0.64	0.95	11.6	7.05
DA2 (LOT 8A&4R)	1.58	0.95	11.6	17.4
DA3b (PORTION LOT 5R)	0.40	0.40	11.6	1.86
DA3c (PORTION LOT 5R)	1.32	0.40	11.6	6.12

HARWOOD ROAD STORM SEWER CAPACITY ANALYSIS:

FROM THE CITY GARAGE (LOT 6R. BLOCK 2 – OAK FOREST ADDITION) CONSTRUCTION PLANS, DATED JANUARY 1997, THE EXISTING 21" RCP LATERAL LINE "B" WAS CONSTRUCTED TO THE SOUTHWEST CORNER OF LOT 7.

BASED ON MANNING'S EQN:
THE 21" RCP LATERAL HAS A CAPACITY OF 17.8 CFS, BASED ON A 0.9% GRADE.

THIS LOT 7A DEVELOPMENT INCLUDES THE EXTENSION OF TWO 18" DIA. RCP LATERALS FROM THE EXISTING 21" RCP LATERAL IN THE HARWOOD ROAD RIGHT-OF-WAY.

BASED ON MANNING'S EQN:
THIS 18" RCP LATERAL, WHICH SERVES LOTS 7A, 8A, & 4R, HAS A CAPACITY OF 12.4 CFS, BASED ON A 1.0% GRADE.

THEREFORE, THE PROPOSED 18" DIA. RCP STORM DRAIN WILL BE ADEQUATE TO ACCOMMODATE THE 100-YR FLOWS FOR DA1 AND DA3b (7.05 + 1.86 = 8.91 CFS). HOWEVER LOTS 8 & 4R WILL REQUIRE DETENTION FACILITIES, SINCE DA2 & DA3c 100-YR Q VALUES (17.4 + 6.12 = 23.52 CFS) > AVAILABLE CAPACITY OF THE PROPOSED 18" RCP (12.4 – 8.91 = 3.49 CFS).

LEGEND

- PROPERTY CORNER – IRON ROD FOUND
- PROPERTY CORNER – IRON ROD SET
- STREET LIGHT
- TRAFFIC SIGNAL POLE
- UTILITY POLE
- GUY WIRE
- TELEPHONE MANHOLE
- GAS METER
- SIGN
- SANITARY SEWER CLEANOUT
- EXISTING / PROPOSED SANITARY SEWER MANHOLE
- GRATE INLET
- STORM SEWER MANHOLE
- EXISTING / PROPOSED FIRE HYDRANT
- WATER METER
- EXISTING / PROPOSED WATER VALVE
- CHAIN LINK FENCE
- WIRE FENCE
- WOOD FENCE
- OVERHEAD ELECTRIC LINE-EXISTING
- OVERHEAD ELECTRIC LINE-PROPOSED
- UNDERGROUND ELECTRIC LINE-EXISTING
- UNDERGROUND ELECTRIC LINE-PROPOSED
- WATER LINE-EXISTING
- WATER LINE-PROPOSED
- SANITARY SEWER LINE-EXISTING
- SANITARY SEWER LINE-PROPOSED
- NATURAL GAS LINE-EXISTING
- NATURAL GAS LINE-PROPOSED
- TELEPHONE LINE-EXISTING
- TELEPHONE LINE-PROPOSED
- SILT FENCE
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CEMENT TREATED FLEX BASE PAVEMENT
- PROPOSED GRAVEL AREA
- PROPOSED CONCRETE SIDEWALK

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 40 ft.

ISSUED FOR:
PERMITTING ----
CONSTRUCTION ----

HUFFMAN CONSULTING ENGINEERS

REVISIONS

PRELIMINARY PLANS OF
CHURCH'S CHICKEN IN EULESS
FOR
GLOBAL SKY PROPERTIES, L.P.
EULESS, TEXAS

PRELIMINARY

DRAINAGE STUDY

DATE 5/15/09
DESIGN BY JYH
DRAWN BY AdMR
REVIEW BY DOSSANI
SHEET NO. C1