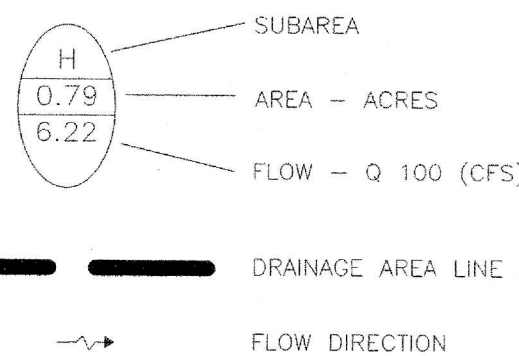


DRAINAGE LEGEND



TEXAS EXCAVATION  
SAFETY SERVICES  
1-800-344-8377

PRE DEVELOPED DRAINAGE SUMMARY										
100 YEAR STORM EVENT										
LAKE FOREST DRIVE - ADDISON TEXAS										
DRAINAGE AREA	IMPERVIOUS AREA C=0.95	PERVIOUS AREA C=0.25	TOTAL AREA (ac)	C IMPERVIOUS	C PERVIOUS	WEIGHTED C VALUE	Tc	I(100) (IN/HR)	Q (100) (cfs)	REMARKS
<b>ON-SITE DRAINAGE</b>										
A	0.000	0.271	0.271	0.95	0.25	0.25	15	7.52	0.51	DRAINS TOWARDS NW PROP CORNER
B	0.096	1.013	1.109	0.95	0.25	0.31	15	7.52	2.59	DRAINS TOWARDS LAKE FOREST DRIVE
<b>OFF-SITE DRAINAGE</b>										
OS-1	0.204	0.003	0.207	0.95	0.25	0.94	15	7.52	1.46	LAKE FOREST DRIVE DRAINAGE
OS-2	1.286	0.920	2.206	0.95	0.25	0.66	15	7.52	10.92	TOWARDS SWALE IN LAKE FOREST DR.
OS-3	0.987	1.416	2.403	0.95	0.25	0.54	15	7.52	9.71	TO INLET NEAR SWC OF OUR PROPERTY
OS-4	0.074	0.138	0.212	0.95	0.25	0.49	15	7.52	0.79	TO INLET AT NW PROP CORNER

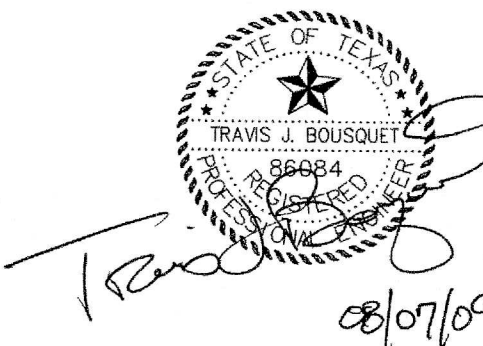
Engineer Information:

The Bousquet Group, Inc.  
P.O. Box 545  
Argyle, TX. 76226  
940.455.2177  
940.455.2254 fax



Texas Firm No. F-8942

Professional of Record:



LOT 1B, MILLIKEN ADDITION  
VICTOR MEYER CUSTOM HOMES, LLC  
MICHAEL AND RACHEL HARDIN  
14905 LAKE FOREST DRIVE  
ADDISON, TEXAS

Revisions:

#	Date Issued:	Description:

Sheet Title:

**PRE-DEVELOPED  
DRAINAGE AREA MAP**

Date: August 7, 2009

Project Number: 09015.0

Drawn By: TJB

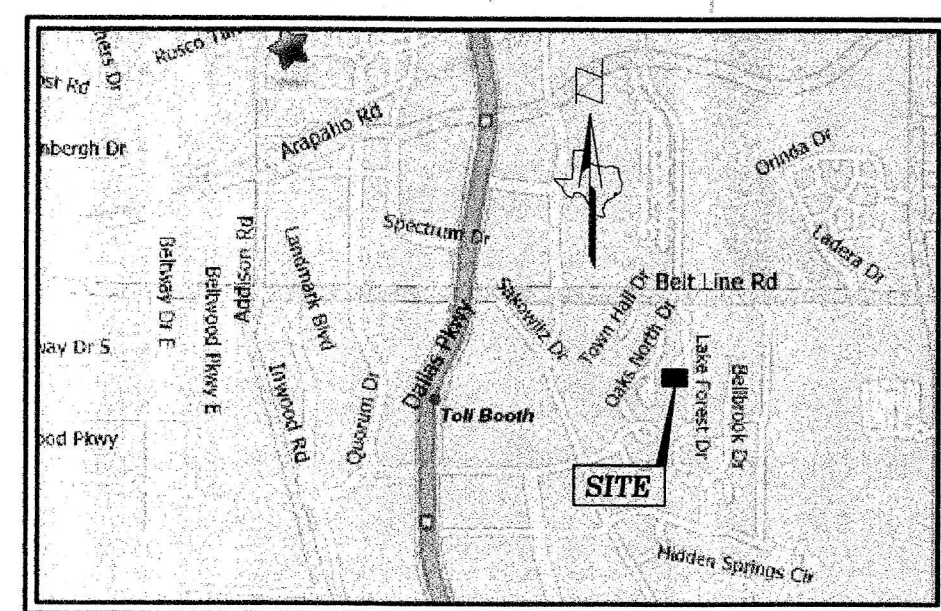
Sheet Number:

**C-3.0**





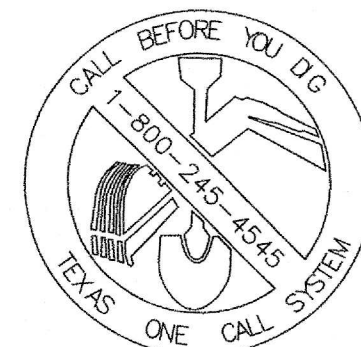




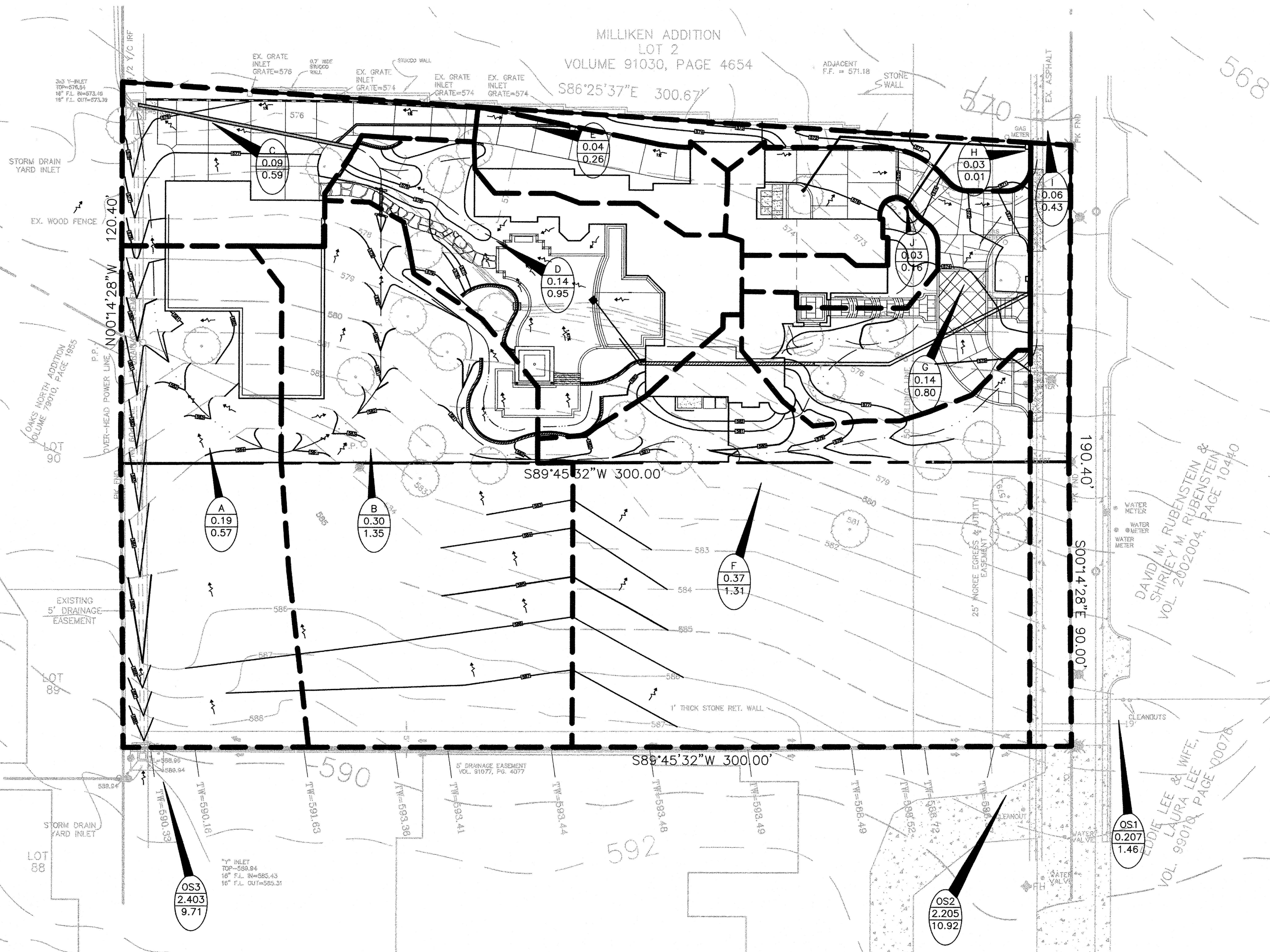
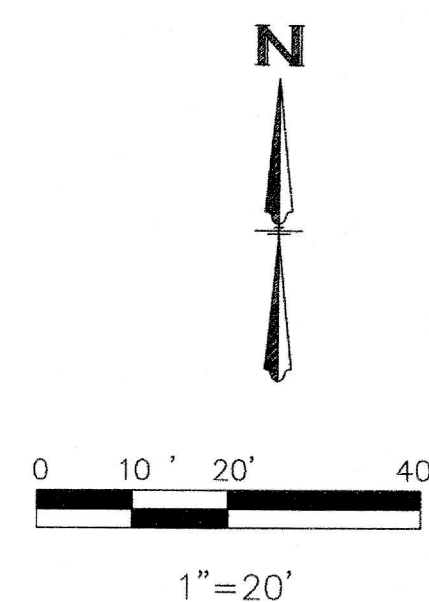
VICINITY MAP

BENCH MARKS

BENCHMARK:  
SQUARE CUT ON CURB RETURN WEST SIDE OF MONFORT  
AND SAKOWITZ, NE CORNER ELEV=608.63



TEXAS EXCAVATION  
SAFETY SERVICES  
1-800-344-8377



POST DEVELOPED DRAINAGE SUMMARY  
100 YEAR STORM EVENT  
LAKE FOREST DRIVE - ADDISON TEXAS

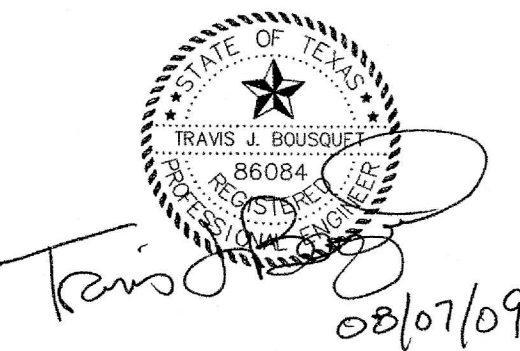
DRAINAGE AREA	IMPERVIOUS AREA C=0.95	PERVIOUS AREA C=0.25	TOTAL AREA (ac)	C IMPERVIOUS	C PERVIOUS	WEIGHTED C VALUE	Tc	I(100) (IN/HR)	Q (100) (cfs)	REMARKS
TOWARDS NW PROPERTY CORNER										
A	0.040	0.150	0.190	0.95	0.25	0.40	15	7.52	0.57	DRAINS TOWARDS NW PROP CORNER
B	0.150	0.150	0.300	0.95	0.25	0.60	15	7.52	1.35	DRAINS TOWARDS NW PROP CORNER
C	0.080	0.010	0.090	0.95	0.25	0.87	15	7.52	0.59	DRAINS TOWARDS NW PROP CORNER
D	0.130	0.010	0.140	0.95	0.25	0.90	15	7.52	0.95	DRAINS TOWARDS NW PROP CORNER
E	0.036	0.004	0.040	0.95	0.25	0.88	15	7.52	0.26	DRAINS TOWARDS NW PROP CORNER
TOTAL			0.760						3.724	
TOWARDS LAKE FOREST										
F	0.175	0.175	0.350	0.95	0.25	0.50	15	7.52	1.31	TOWARDS SWALE IN LAKE FOREST DR.
G	0.112	0.028	0.140	0.95	0.25	0.76	15	7.52	0.80	TOWARDS SWALE IN LAKE FOREST DR.
H	0.000	0.030	0.030	0.95	0.25	0.06	15	7.52	0.01	TOWARDS SWALE IN LAKE FOREST DR.
I	0.060	0.000	0.060	0.95	0.25	0.95	15	7.52	0.43	TOWARDS SWALE IN LAKE FOREST DR.
J	0.023	0.007	0.030	0.95	0.25	0.73	15	7.52	0.16	TOWARDS SWALE IN LAKE FOREST DR.
TOTAL			0.610						2.713	

Engineer Information:

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Argyle, TX. 76226  
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Texas Firm No. F-8942

Professional of Record:



LOT 1B, MILLIKEN ADDITION  
VICTOR MEYER CUSTOM HOMES, LLC  
MICHAEL AND RACHEL HARDIN  
14905 LAKE FOREST DRIVE  
ADDISON, TEXAS

Revisions:

#	Date Issued:	Description:

Sheet Title:  
POST DEVELOPED  
DRAINAGE AREA MAP

Date: August 7, 2009

Project Number: 09015.0

Drawn By: TJB

Sheet Number:

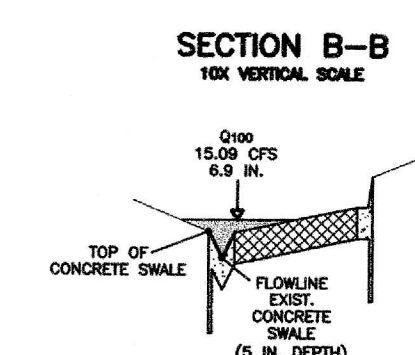
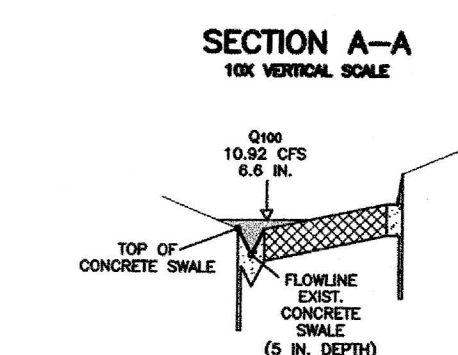
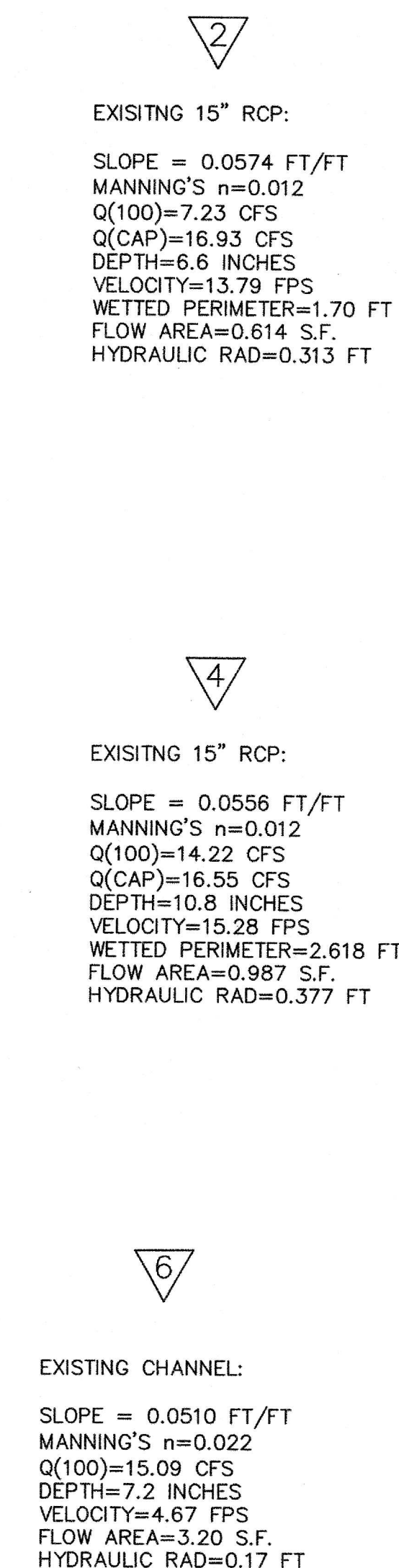
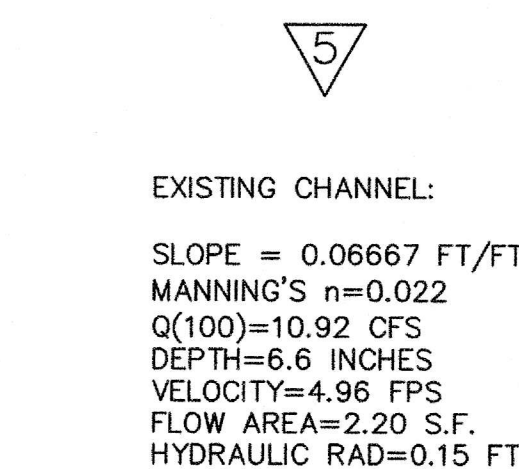
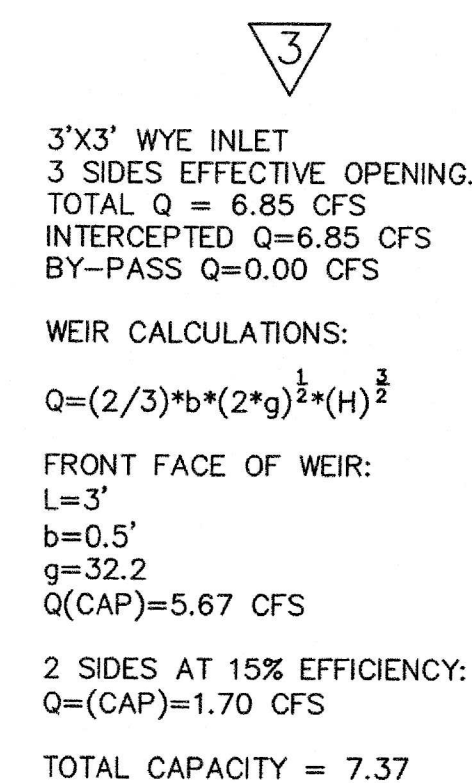
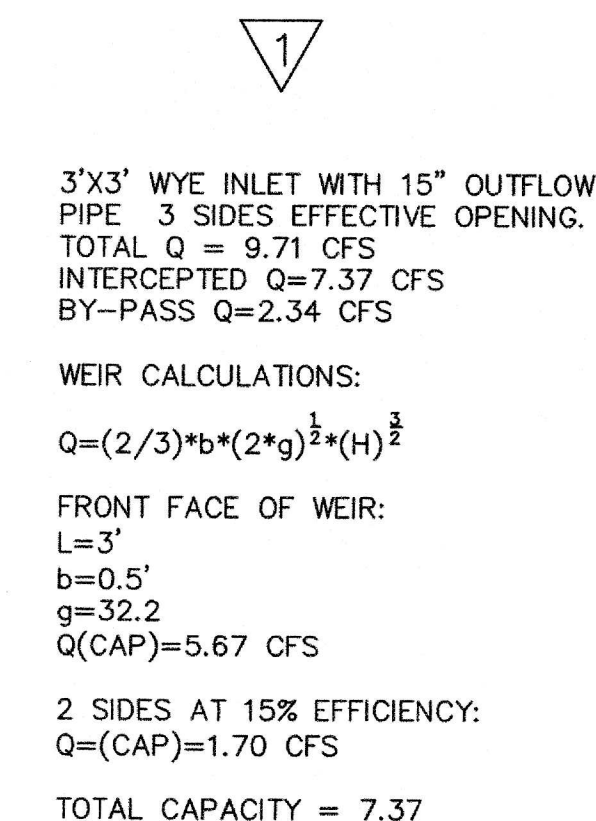
C-3.2





Pipe diameter, d (inch)	Manning Roughness Constant, n	Slope, s	Hydraulic Radius (ft)	Velocity (ft/sec)	Area (ft <sup>2</sup> )	Discharge (cfs)
6	0.012	0.005	0.125	2.1949773	0.196375	0.431038667
12	0.012	0.0075	0.25	4.267389915	0.7855	3.352034778

PIPE B:  
Q(100)=0.26 CFS  
Q(CAP)=0.43 CFS



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**VICTOR MEYER CUSTOM HOMES, LLC**  
**MICHAEL AND RACHEL HARDIN**  
**14905 LAKE FOREST DRIVE**  
**ADDISON, TEXAS**

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Sheet Title: **DRAINAGE  
CALCULATIONS**

Date: August 7, 2008

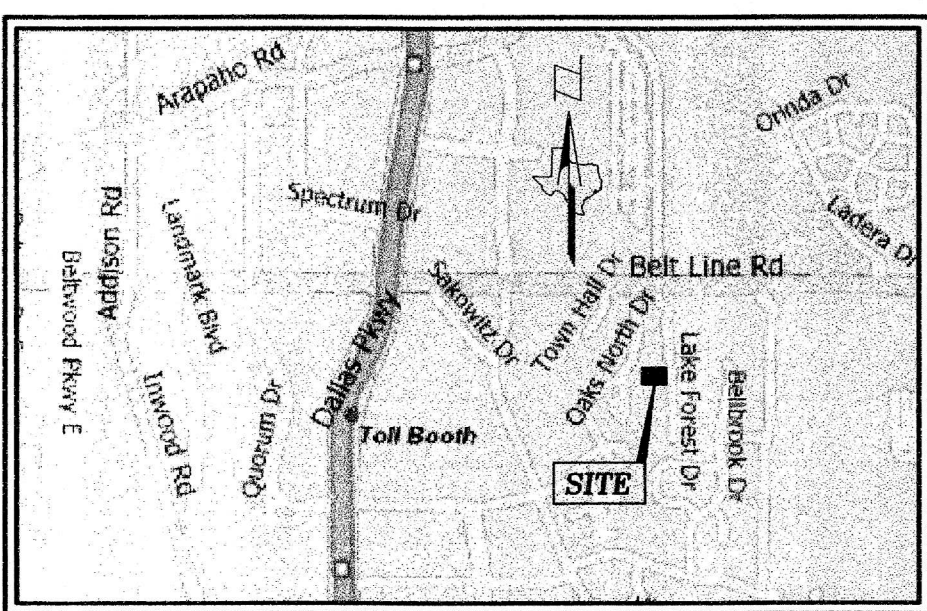
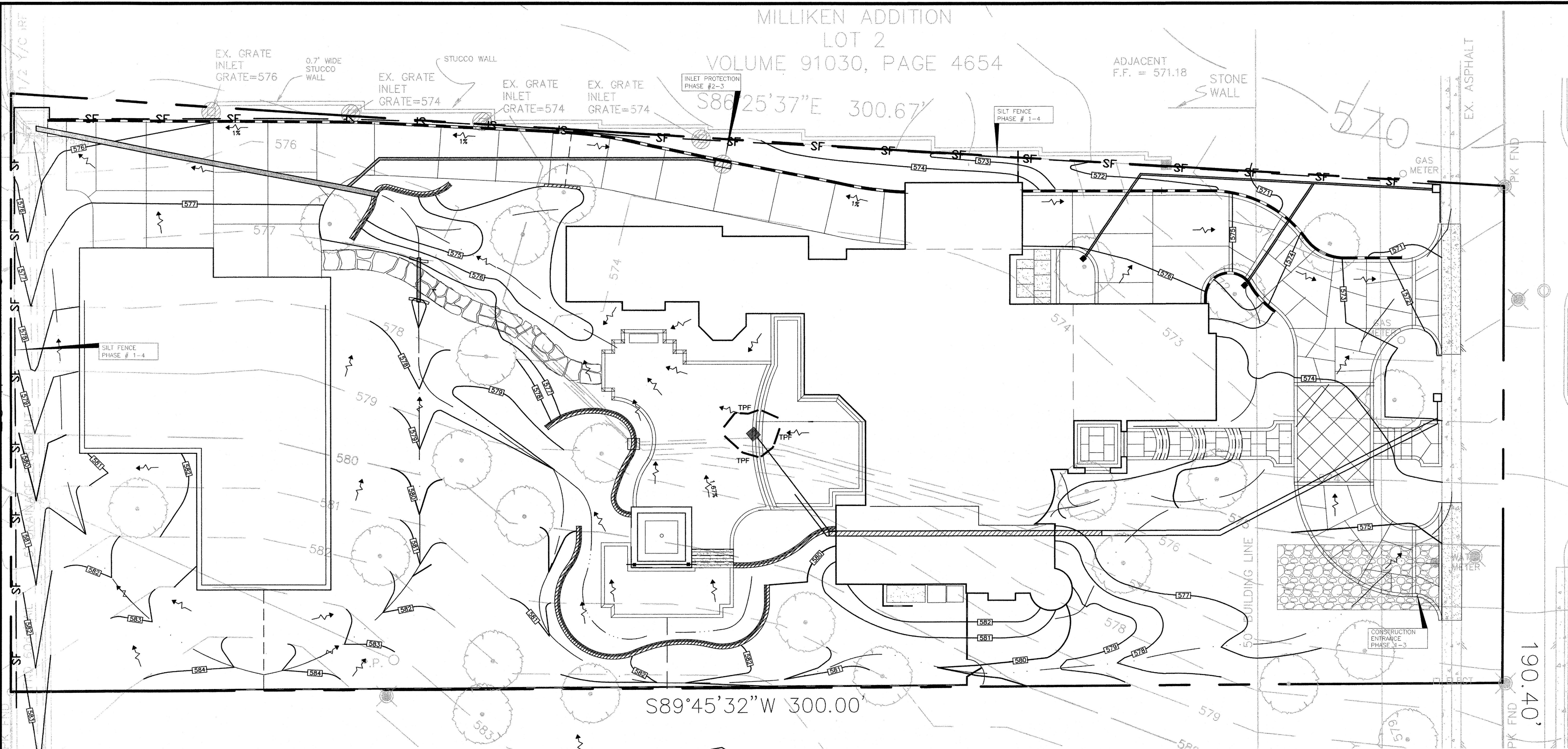
Project Number: 09015

Drawn By: T.J.

Sheet Number:

## C-3.3

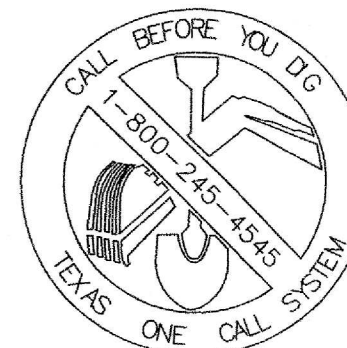




VICINITY MAP

BENCH MARKS

BENCHMARK:  
SQUARE CUT ON CURB RETURN WEST SIDE OF MONFORT  
AND SAKOWITZ, NE CORNER ELEV=608.63



TEXAS EXCAVATION  
SAFETY SERVICES  
1-800-344-8377

EROSION CONTROL GENERAL NOTES:

- CONTRACTOR TO REFER TO "INTEGRATED STORM WATER MANAGEMENT - DESIGN MANUAL FOR CONSTRUCTION", DECEMBER 2003, BY THE NORTH TEXAS COUNCIL OF GOVERNMENTS (NCTCOG) FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS.
- ALL PERIMETER EROSION CONTROL MEASURES AND ROCK STABILIZED ENTRANCE/EXIT MUST BE INSTALLED PRIOR TO ANY EARTHMOVING ACTIVITIES. SEE TYPICAL CONSTRUCTION SCHEDULE BELOW.
- PRIOR TO STARTING CONSTRUCTION, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION SHALL BEGIN UNTIL ALL PERMITS HAVE BEEN RECEIVED.
- CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE. CONTRACTOR SHALL REPAIR ANY DAMAGE DONE TO PRIVATE OR PUBLIC PROPERTY.
- THE GENERAL CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT LEAST ONCE A WEEK AND WITHIN 24 HOURS AFTER A STORM EVENT OF 0.5 INCH OR GREATER, IN ORDER TO MAINTAIN EFFICIENT FUNCTION OF THE CONTROLS. EROSION CONTROL MEASURES THAT PROVE TO BE INEFFECTIVE SHALL BE REPLACED WITH ADDITIONAL MEASURES.
- CONTRACTOR SHALL TAKE ANY AND ALL AVAILABLE PRECAUTIONS TO CONTROL DUST DURING THE CONSTRUCTION LIFE OF THIS PROJECT. DUST CONTROL TO BE ACCOMPLISHED BY SPRINKLING WATER, OR BY OTHER MEANS APPROVED BY THE CITY AND ENGINEER.
- CONTRACTOR TO ENSURE COMPLIANCE WITH ANY AND ALL LAND DISTURBANCE NOTIFICATIONS REQUIREMENTS, AND THAT ALL REQUIRED EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE STATE, LOCAL, OR FEDERAL REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR PREVENTING THE FLOW OF OR OFF-SITE TRACKING OF SEDIMENT AND OR OTHER POLLUTANTS ONTO ADJACENT STREETS OR PROPERTIES.
- CONTRACTOR TO MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF THE CONSTRUCTION.
- CONTRACTOR TO REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND/OR THE ESTABLISHMENT OF A HARDY GRASS COVER.
- PERMANENT SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED WITHIN 14 DAYS OF COMPLETION OF FINISHED GRADING FOR ANY DISTURBED AREA.
- ALL DISTURBED SOIL MUST BE STABILIZED WITHIN FOURTEEN (14) DAYS IN AREAS WHERE GRADING IS TEMPORARILY OR PERMANENTLY STOPPED FOR MORE THAN TWENTY ONE (21) DAYS. IN THE EVENT THAT FINAL EROSION CONTROL MEASURES CANNOT BE COMPLETED, TEMPORARY MEASURES SHALL BE INSTALLED AND MAINTAINED AT NO EXTRA COST TO THE OWNER. AREAS DISTURBED SHALL BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS COVER IS ESTABLISHED IN ALL DENUDED AREAS. SEEDING SHALL BE BROADCAST SEEDING (BERMUDA GRASS) IN ACCORDANCE WITH NTCOG SPECIFICATIONS ITE 3.10 SEEDING.

EROSION CONTROL LEGEND:

- PROPERTY LINE
- PROPOSED CONTOUR ELEVATION
- EXISTING CONTOUR ELEVATION
- PROPOSED CONSTRUCTION ENTRANCE SEE DETAIL NO 33A
- PROPOSED SILT FENCE SEE DETAIL NO. 31A
- PROPOSED CURB INLET PROTECTION SEE DETAIL NO. 37C

CONSTRUCTION SCHEDULE AND PHASING:

- PHASE 1 - GRADING OF SITE
- PHASE 2 - UTILITY INSTALLATION
- PHASE 3 - PAVING OF SITE
- PHASE 4 - LANDSCAPING / SOIL STABILIZATION

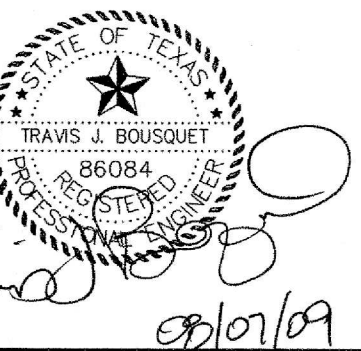
Engineer Information:

The Bousquet Group, Inc.

P.O. Box 545  
Argyle, TX. 76226  
940.455.2177  
940.455.2254 fax

Texas Firm No. F-8942

Professional of Record:



LOT 1B, MILLIKEN ADDITION  
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MICHAEL AND RACHEL HARDIN  
14905 LAKE FOREST DRIVE  
ADDISON, TEXAS

FOR PERMIT

Revisions:

#	Date Issued	Description
1	7/23/2009	Initial Issue

Sheet Title:

EROSION CONTROL  
PLAN

Date: July 23, 2009

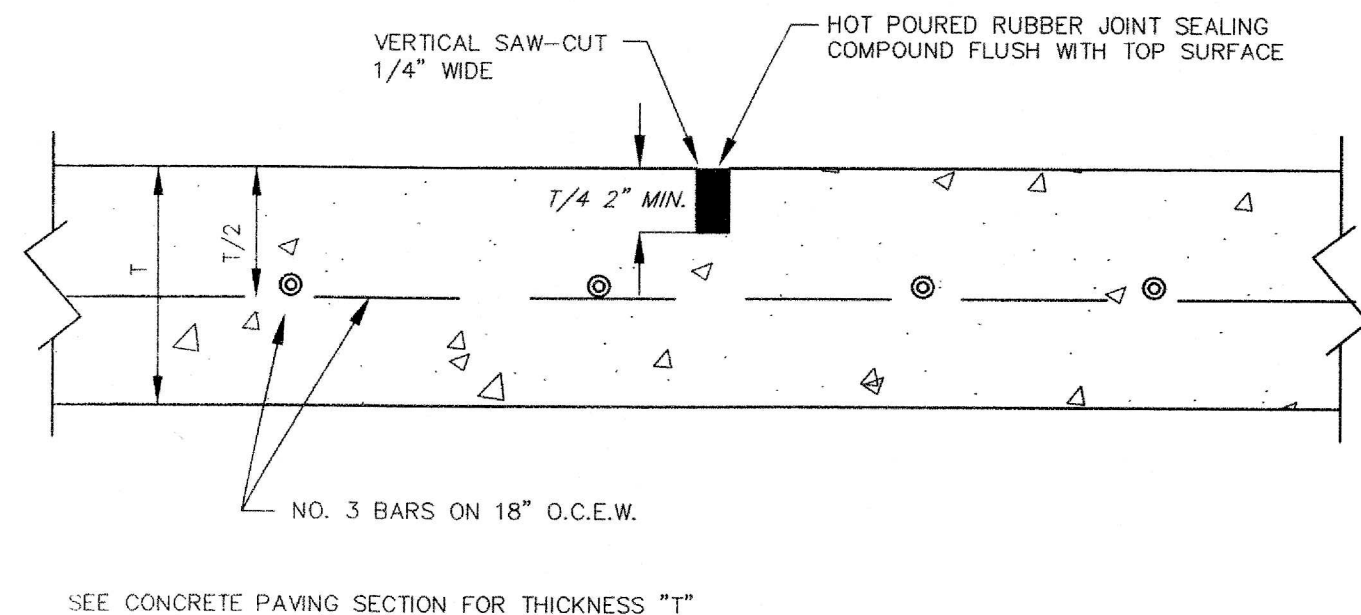
Project Number: 09015.0

Drawn By: TJB

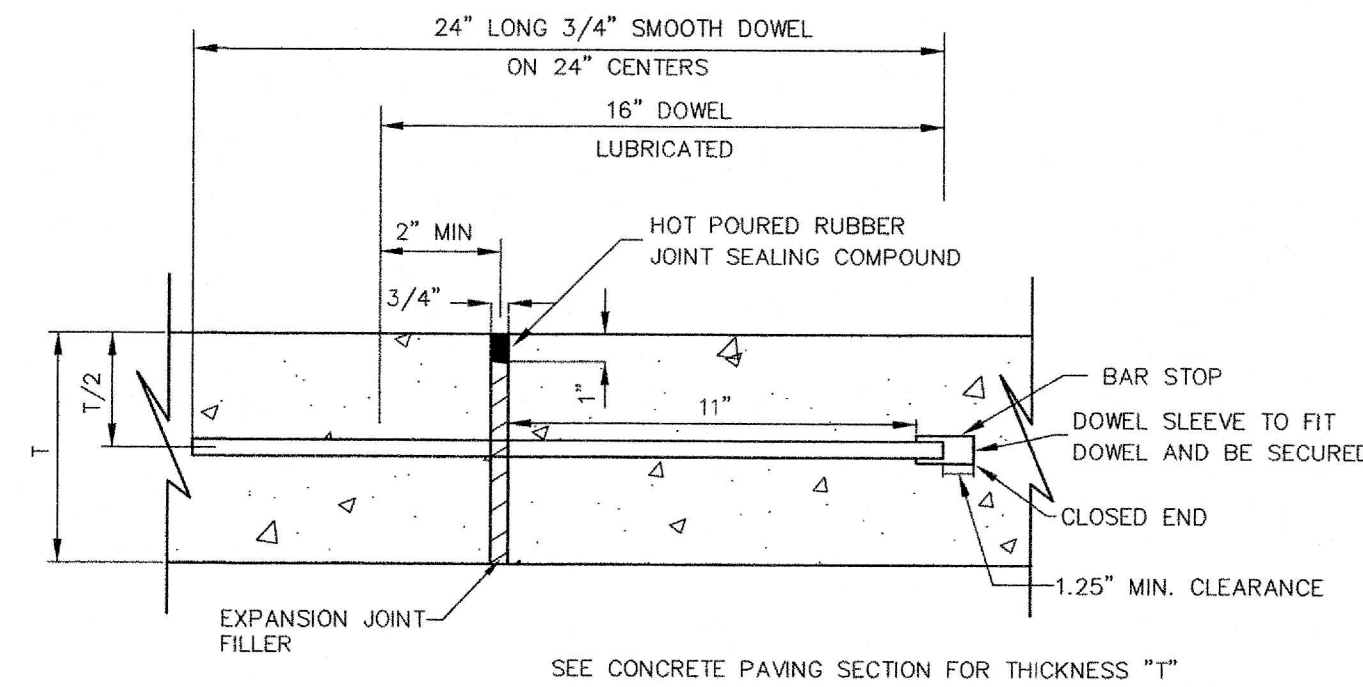
Sheet Number:

C-3.4

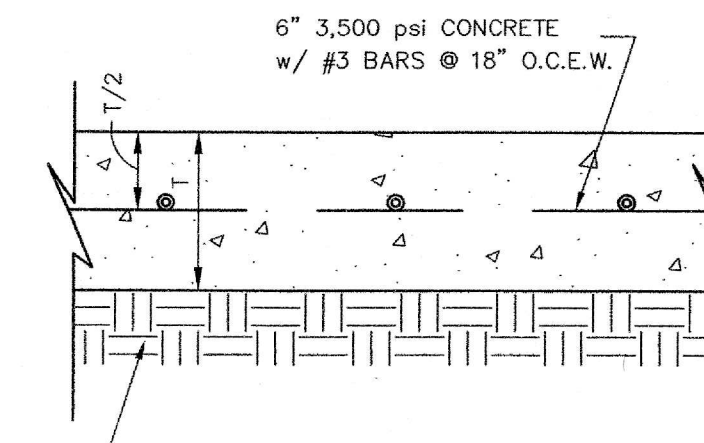




**3B CONTROL JOINT**  
N.T.S.



**3A EXPANSION JOINT DETAIL**  
N.T.S.



**1C REINF. CONCRETE PAVING**  
N.T.S.

**PAVING NOTES:**

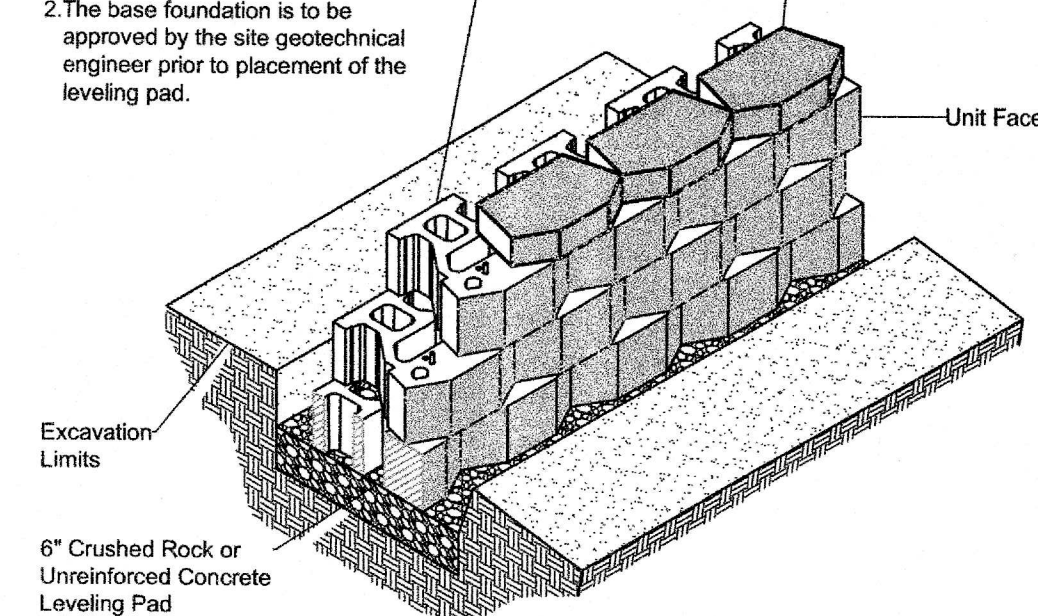
1. SUBGRADE TO BE MODIFIED WITH 6% HYDRATED LIME(DRY WEIGHT), IN ACCORDANCE WITH THE APPLICABLE PROVISION OF ITEM 260 OF THE LATEST TXDOT SPECIFICATIONS. SUBGRADE TO HAVE A PI OF 15 OR LESS.
2. CONCRETE TO BE A MINIMUM OF 3,500 P.S.I. @ 28 DAYS.
3. CONCRETE TO HAVE 5% (+/- 1%) AIR ENTRAINMENT
4. CONTROL JOINTS TO BE PLACED AT A MINIMUM OF 15'.

**1C CONCRETE PAVING SECTIONS**

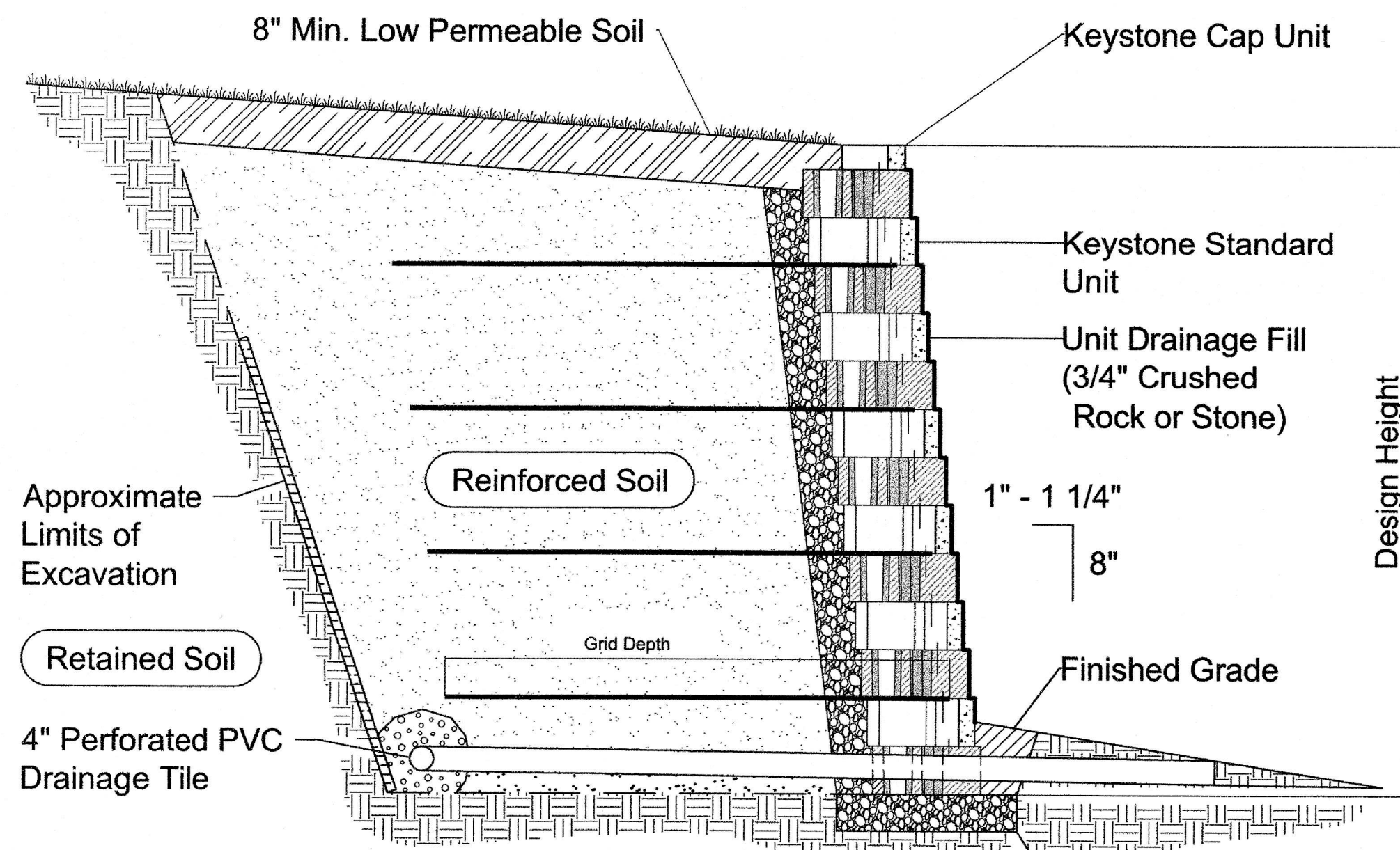
**Base Leveling Pad Notes:**

1. The leveling pad is to be constructed of crushed stone or 2,000 psi unreinforced concrete
2. The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.

Standard Unit	Cap Unit
Width: 18"	Width: 18"
Depth: 18"	Depth: 10 1/2"
Height: 8"	Height: 4"
Weight: 102 lbs	Weight: 45 lbs

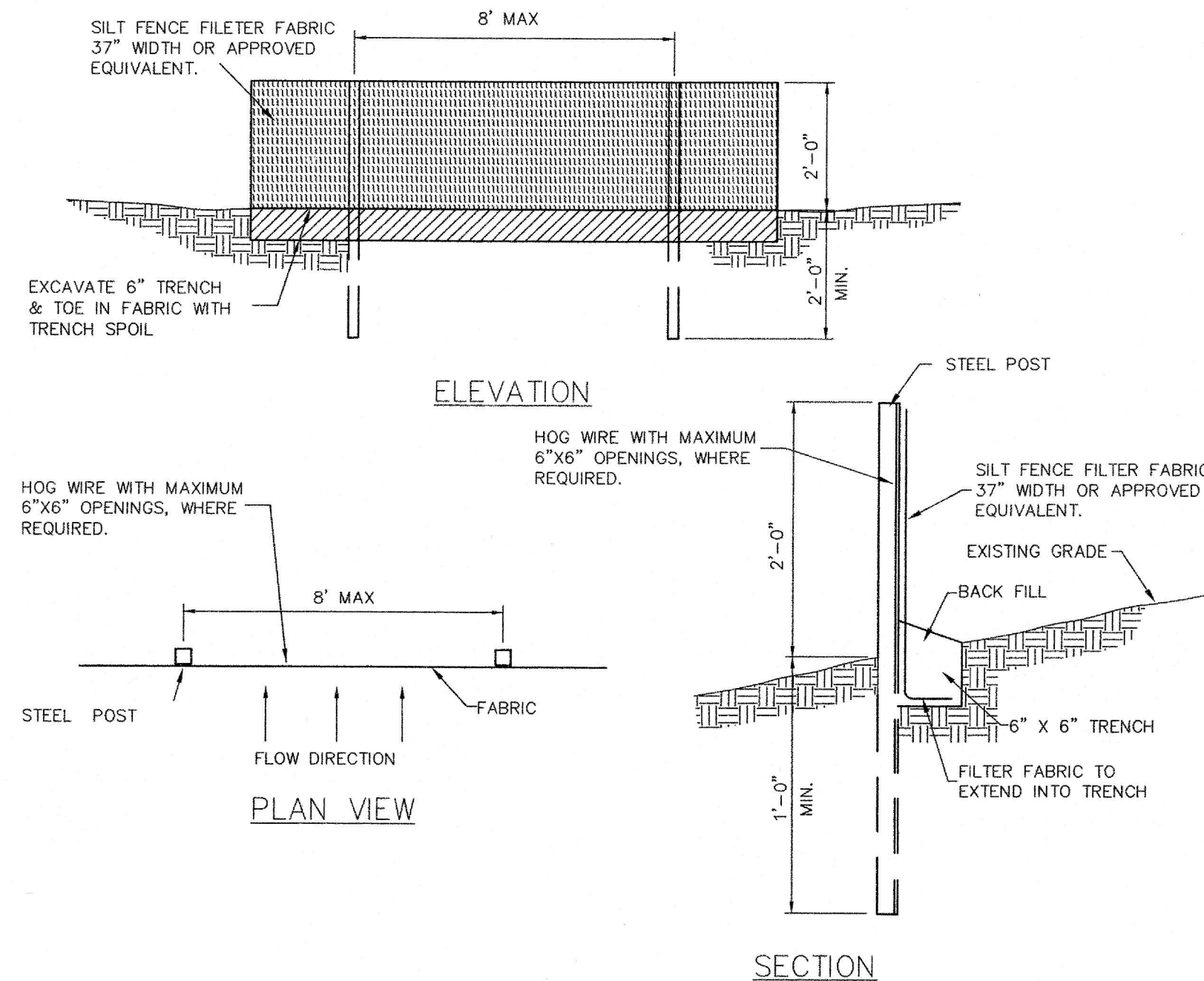


**Standard Unit/Base Pad Isometric Section View**  
\*Dimensions & Weight May Vary by Region

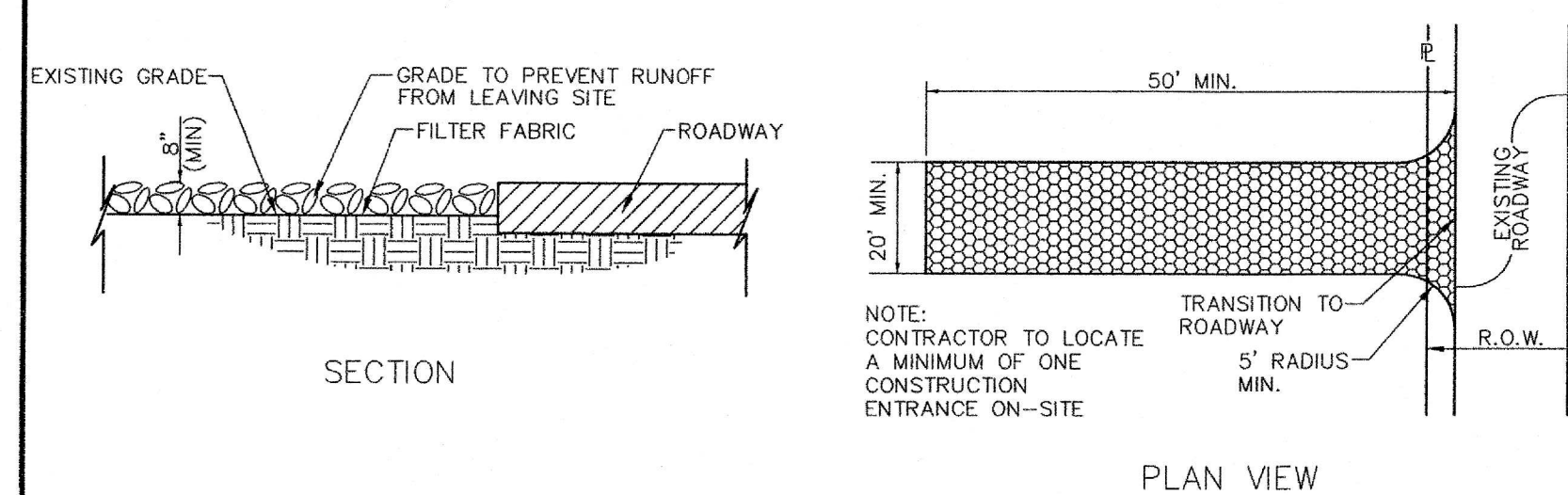


**Note:**  
When site conditions require, wrap drainage tile in 3/4 inch aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.

**Typical Reinforced Wall Section**  
Standard Unit - 1 inch Setback



**31A SILT FENCE DETAIL**  
N.T.S.

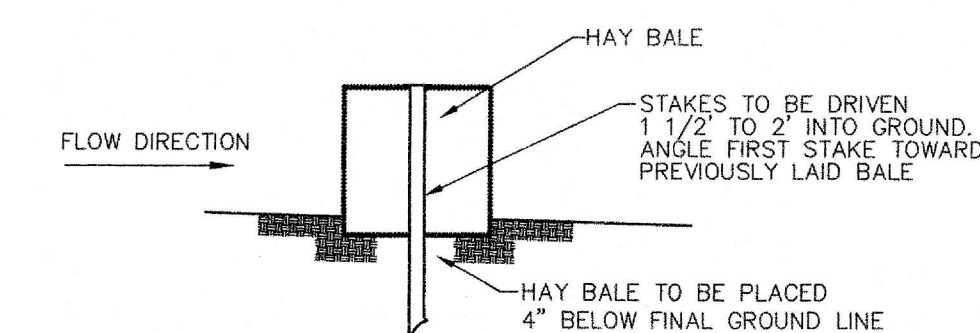


**33A STABILIZED CONSTRUCTION ENTRANCE**  
N.T.S.



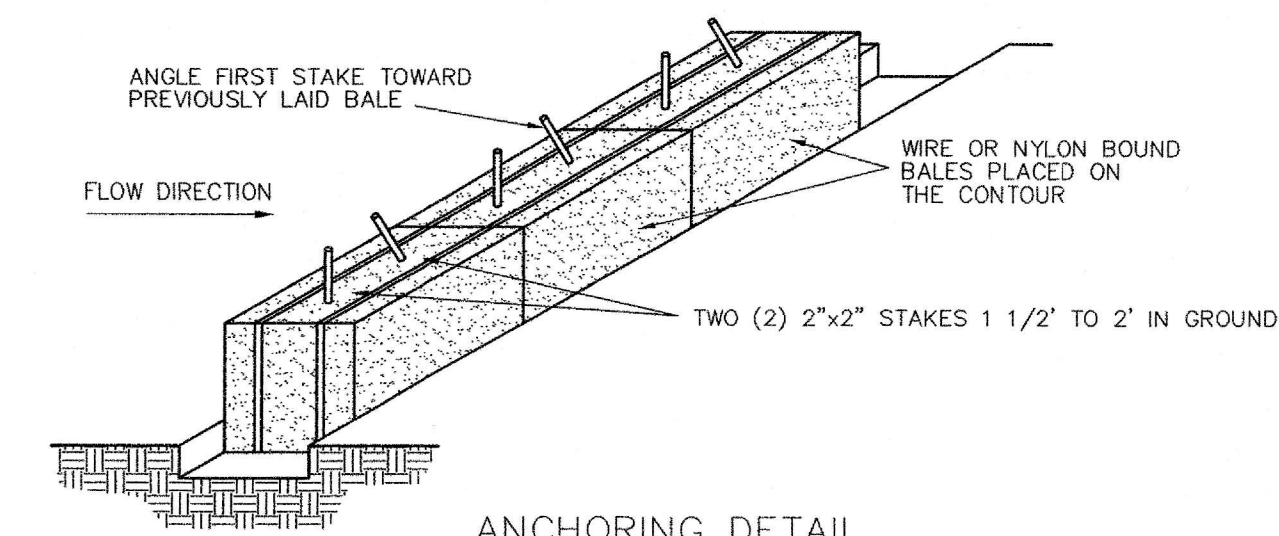
**HAY BALE CHECK DAM DETAIL**  
STORM SEWER CURB INLET  
N.T.S.

**HAY BALE CHECK DAM DETAIL**  
STORM SEWER GRATE INLET  
N.T.S.



**NOTES:**

1. Bales shall be placed in a row with ends tightly abutting the adjacent bales.
2. Each bale shall be embedded in the soil a minimum of 4".
3. Bales shall be securely anchored in place by stakes or rebars driven through the bales. The first stake in each bale shall be angled toward previously laid bale to force bales together.
4. Inspection shall be frequent and repair or replacement shall be made promptly as needed.
5. Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.



**ANCHORING DETAIL**

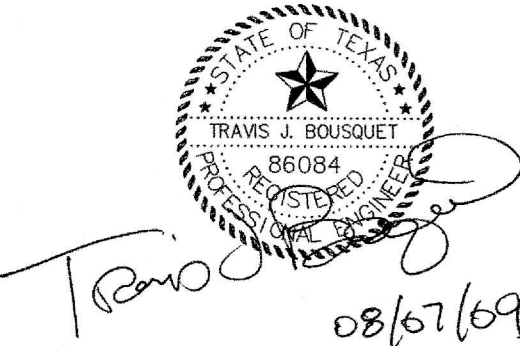
**37C ALTERNATE - HAY BALE INSTALLATION DETAIL**  
N.T.S.

Engineer Information:

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14905 LAKE FOREST DRIVE  
ADDISON, TEXAS

**Revisions:**

#	Date Issued:	Description:
-	-	-

Sheet Title:

**DETAILS**

Date: August 7, 2009

Project Number: 09015.0

Drawn By: TJB

Sheet Number:

**C-4.0**