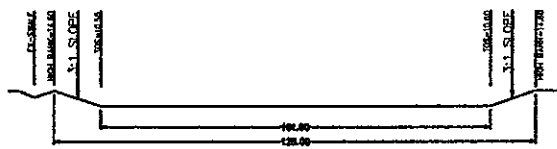
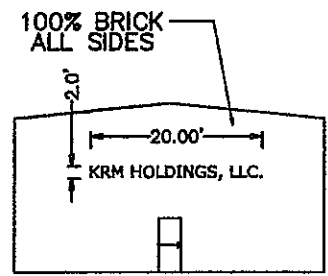


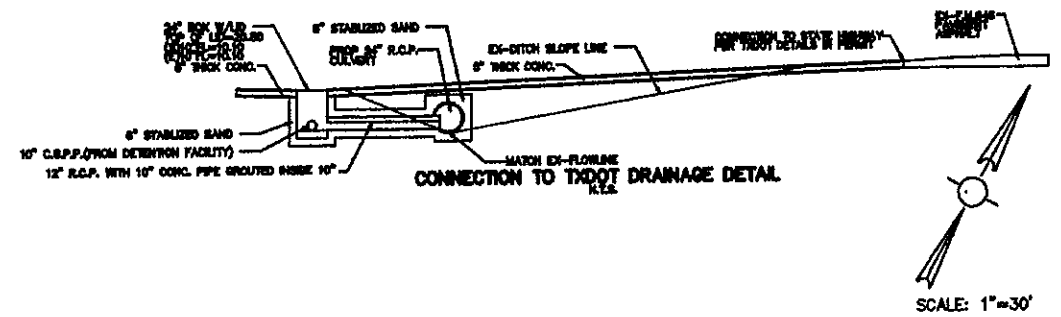
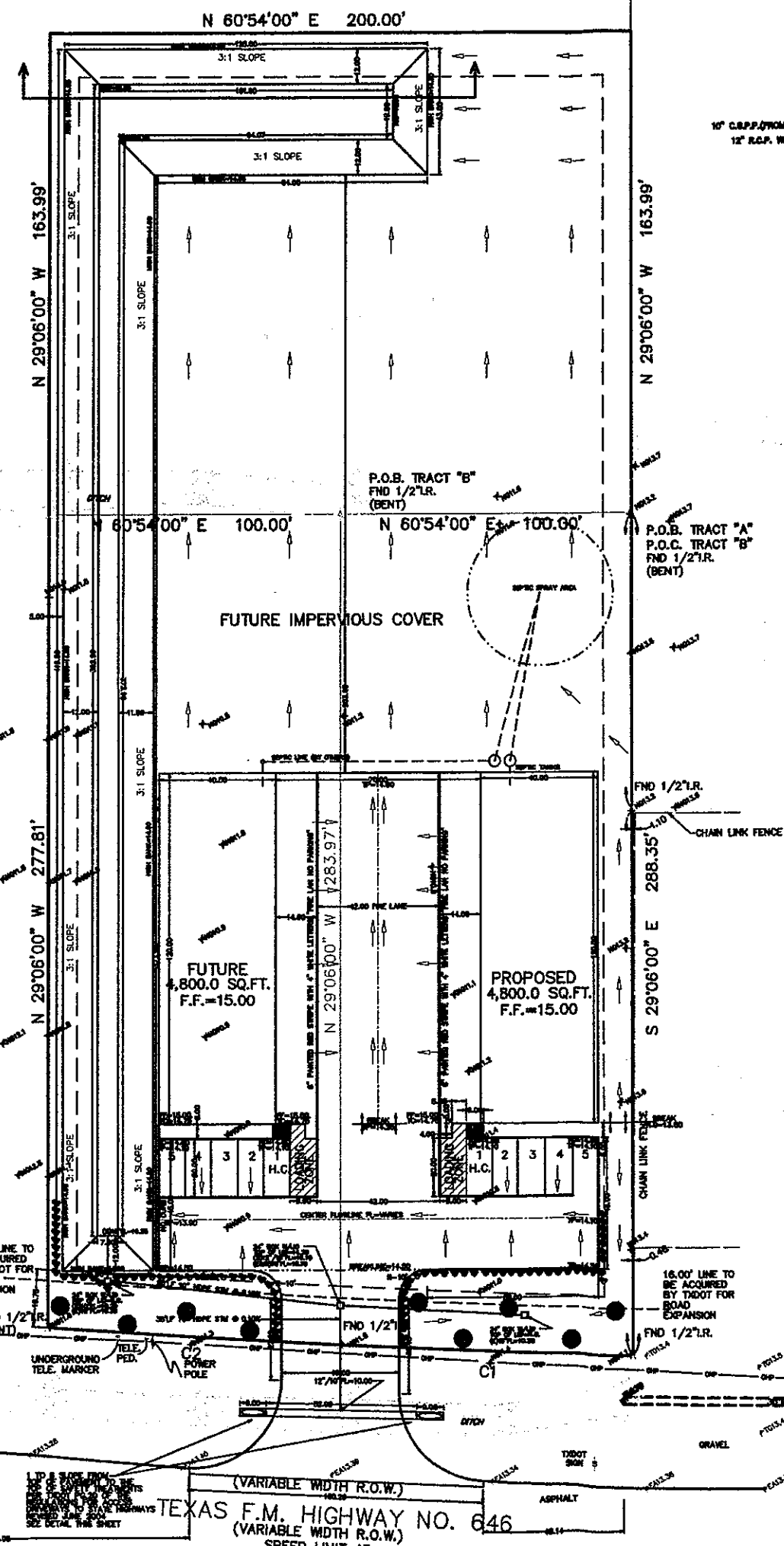
VICINITY MAP
N.T.S.



FND 1/2" R. 100.00'



SIGN DETAIL



CONNECTION TO TxDOT DRAINAGE DETAIL

SCALE: 1"=30'

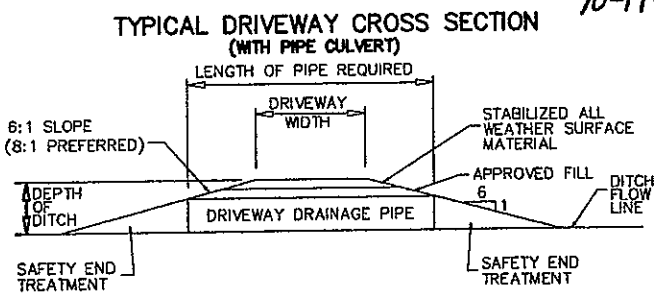
DRAINAGE CALCULATIONS FOR COMMERCIAL WAREHOUSE ON 5008 EAST F.M. 646, BAILEY, TX
DRAINAGE CALCULATIONS (EXISTING FOR GALVESTON COUNTY)
 TOTAL DEVELOPED DRAINAGE AREA = 1.30 AC.
 TOTAL ACRES COVERED BY BUILDINGS & DRIVEWAYS AREAS = 0.00 AC.
 $Q = C \cdot P \cdot (A)^{0.7}$ 2-YR EXISTING PER TxDOT
 $Q = 0.110 \cdot (0.30)^{0.7} = 6.95 \cdot A = 1.30 = 2.98$ CFS (2YR TxDOT)
 $Q = 2.98$ CFS (2YR ALLOWABLE DISCHARGE TO TxDOT)
 $Q = C \cdot P \cdot (A)^{0.7}$ 100-YR EXISTING PER TxDOT
 $Q = 0.125 \cdot (0.30)^{0.7} = 11.85 \cdot A = 1.30 = 5.679$ CFS (100-YR TxDOT)
 $Q = 5.679$ CFS (100-YR ALLOWABLE DISCHARGE TO TxDOT)
DRAINAGE CALCULATIONS FOR COMMERCIAL WAREHOUSE ON 5008 EAST F.M. 646, BAILEY, TX
DRAINAGE CALCULATIONS (PLANNED)
 TOTAL DEVELOPED DRAINAGE AREA = 1.30 AC.
 TOTAL ACRES COVERED BY BUILDINGS & DRIVEWAYS AREAS = 1.10 AC.
 STORAGE = 0.60' ADV.
 $0.65 \cdot 1.10 = 0.715$ AC/FT
 STORAGE = 0.715 AC/FT REQUIRED
 DETENTION VOLUME REQUIRED
 $0.715 \cdot 43560 = 31,145.40$ CUBIC FEET REQUIRED DETENTION VOLUME
DETENTION VOLUME PROVIDED
 TOP AREA OF DETENTION = 12,039.74 SQ.FT.
 BOTTOM AREA OF DETENTION = 3,423.79 SQ.FT.
 TOTAL CU.FT. OF DETENTION = 12039.74 + 3423.79 = 15,463.53/2 = 7731.76
 $7731.76 \cdot \text{AVG. DEPTH } 4.2 = 32,473.39$ CUBIC FEET OF DETENTION
DETENTION VOLUME PROVIDED = 32,473.39 CU.FT./0.63 AC/FT
 OUTFALL THROUGH 10 INCH DIA PIPE WITH RESTRICTOR = 6" DIA PIPE
 AREA = 3 FT AREA OF 6" PIPE = 2 SQ FT
 PIPE COEFFICIENT C = 0.8
 OUTFALL RATE $Q = C \cdot A \cdot (2g \cdot H)^{0.5}$
 $Q = 0.8 \cdot 2 \cdot (2 \cdot 32.2 \cdot 1.7)^{0.5}$
 $Q = 1.674$ CFS PROPOSED DISCHARGE AMOUNT
 $1.674 \cdot 3600 = 6026$ CF/HR
 TIME TO DRAIN DETENTION SWALE
 $= 32473.39 / 6026 = 5.38$ HOURS TOTAL VOLUME TO DRAIN

PARKING TABULATION
 CITY REQUIRES ~ 1 SPACE FOR EVERY 250 SQ.FT. RETAIL SPACE
 CITY REQUIRES ~ 1 SPACE FOR EVERY 1000 SQ.FT. WAREHOUSE SPACE
 RETAIL BUILDING = 0.0 SQ.FT.
 WAREHOUSE BUILDING = 4,800.00 SQ.FT.
 TOTAL SPACES REQUIRED = 5 SPACES
 TOTAL SPACES PROVIDED = 5 SPACES

LANDSCAPE GREEN SPACE CALCULATION:
 TOTAL DEVELOPMENT AREA = 2.082 AC./90,691.92 SQ.FT.
 15% OF TOTAL AREA = 31,891.99 SQ.FT. REQUIRED GREEN SPACE
 GREEN SPACE PROVIDED (DETENTION PONDS NOT INCLUDED)
 TOTAL GREEN SPACE PROVIDED:
 31,891.99 SQ.FT.
 OR 35% OF TOTAL LOT AREA.

TREE CALCULATION:
 1-TREE FOR EVERY 30' OF FRONTAGE
 246.83 OR 250/30 = 8.33 TREES REQUIRED
 9 TREES REQUIRED
 9 SAVANNAH HOLLIES PROVIDED

LAND CALCULATION FOR REZONING
 1. 1.306 ACRES ~ Abst. 164, Page 10, Block 39 Clifton Land & Production Company Sub.
 2. 0.776 ACRES ~ Abst. 164, Page 10, Block 39 Edward Payne Survey
 TOTAL ACRES FOR REZONING = 2.082 ACRES
 REZONING FROM (O) OPEN TO (PI) PLANNED INDUSTRIAL



TYPICAL DRIVEWAY CROSS SECTION (WITH PIPE CULVERT)

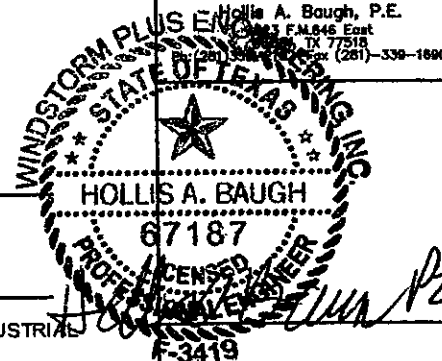
LEGEND.

- TOS = TOE OF SLOPE
- TOL = TOP OF LID (STORM)
- CGPP = CORRUGATED PLASTIC
- HB = HIGH BANK (TOP OF BERM)
- FF = FINISHED FLOOR
- TC = TOP OF CURB
- TP = TOP OF PAVEMENT
- FL = FLOWLINE
- BL/EAL = BREAKLINE ELEVATION
- DRAINAGE FLOW ARROW
- EXISTING ELEVATIONS
- DRAINAGE AREA BOUNDARY
- SYMBOL FOR FABRIC FENCE (SEE SHEET 3)

WINDSTORM + PLUS ENGINEERING SERVICE
 Windstorm + Inspections
 Construction & Drainage Plans

Issue Date: _____

No.	Date	Revisions
1	11/11/08	SHOW MORE DETENTION FOR SITE, NOT DEVELOPED LAND
2	8/02/10	SHOW DRIVEWAY DISTANCES TO EXISTING DRIVEWAYS FROM PROP.
3	8/15/10	CHANGE SIZE OF BLDG. PER MR. MITROWSKI TO 4,800.00 SQ.FT.
4	7/19/10	ONE 18.00' TO TxDOT FOR FUTURE ROAD EXPANSION
5	8/13/10	PURCHASE ANOTHER 0.70 AC TO BRING PROPERTY TOTAL TO 2.082 AC



MATT MITROWSKI
 KRM HOLDINGS, LLC WAREHOUSE
 5009 F.M. 646 EAST
 TEXAS CITY, TEXAS

Project Name: WAREHOUSE DEVELOPMENT
 Sheet Title: ZONING PLAN

Designed By: SWA	Drawn By: SWA
Checked By: HAB	Date: 10/19/2010
Scale: 1:30/24X36 1:50/11X17	SHEET 3 OF 8

TEXAS F.M. HIGHWAY NO. 646
 (VARIABLE WIDTH R.O.W.)
 SPEED LIMIT 45