

STARGATE WATER FACILITIES

BARTONVILLE WATER SUPPLY CORPORATION DENTON COUNTY, TEXAS

JULY 2010



BIGGS & MATHEWS, INC.

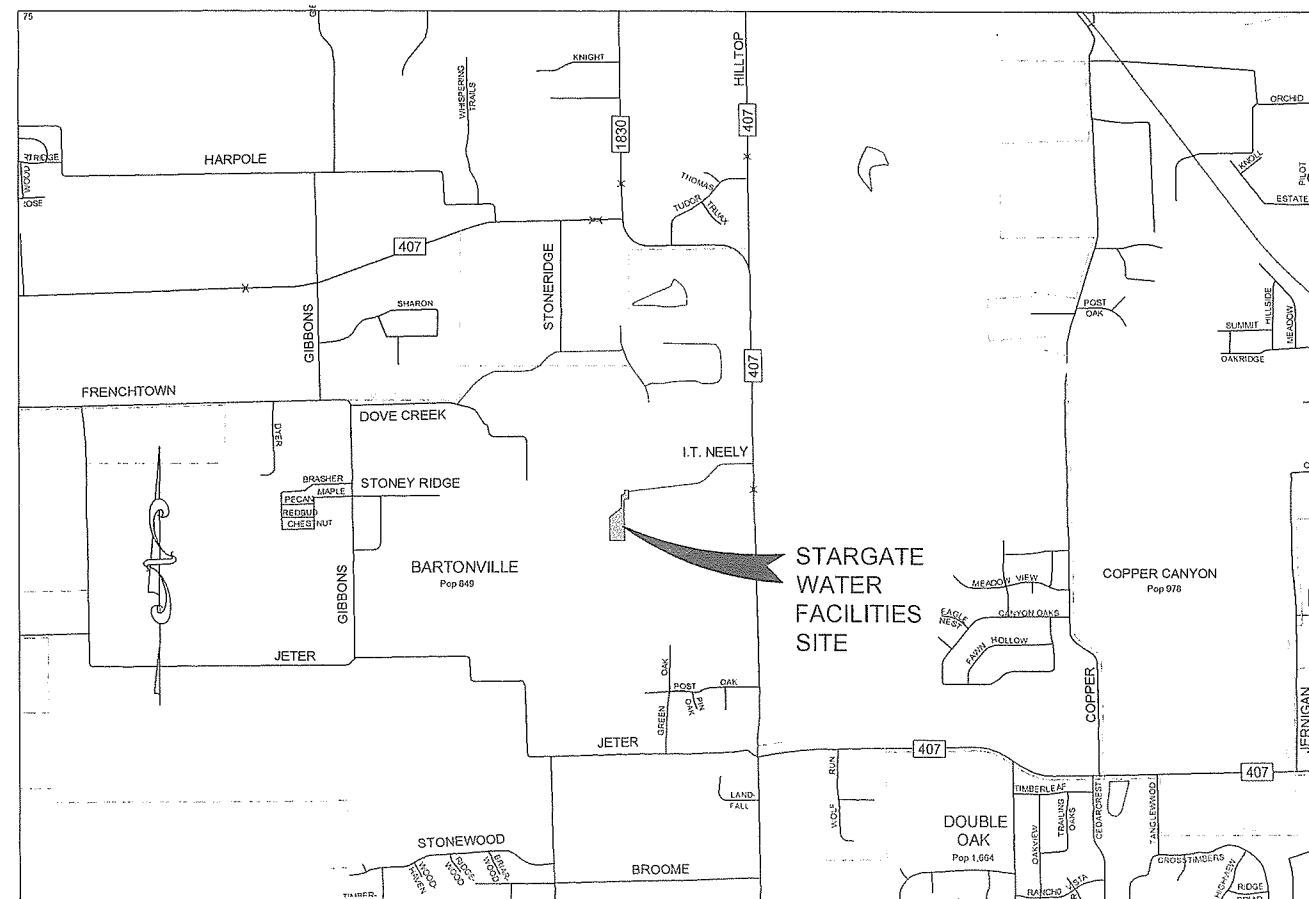
Consulting Engineers

2500 BROOK AVENUE

V: 940-766-0156

WICHITA FALLS, TEXAS 76301 F: 940-766-3383

TEXAS REGISTERED ENGINEERING FIRM F-834



LOCATION MAP
SCALE: 1" = 2000'



BARTONVILLE WATER SUPPLY CORPORATION
1911 EAST JETER ROAD
BARTONVILLE, TEXAS 76226
OFFICE : 817-430-3541
FAX : 817-430-3526

BOARD OF DIRECTORS :

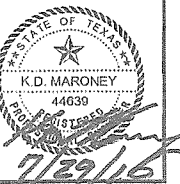
Larry Kaufman	President
Michael L. Paulson	Vice President
Patrick McDonald	Secretary / Treasurer
Susan Crawford	Director
Gracie Egan	Director
David Moore	Director
Dean White	Director

Received

AUG 3 2010

General Manager: Jim Leggieri *Town of Bartonville*

ORIGINAL

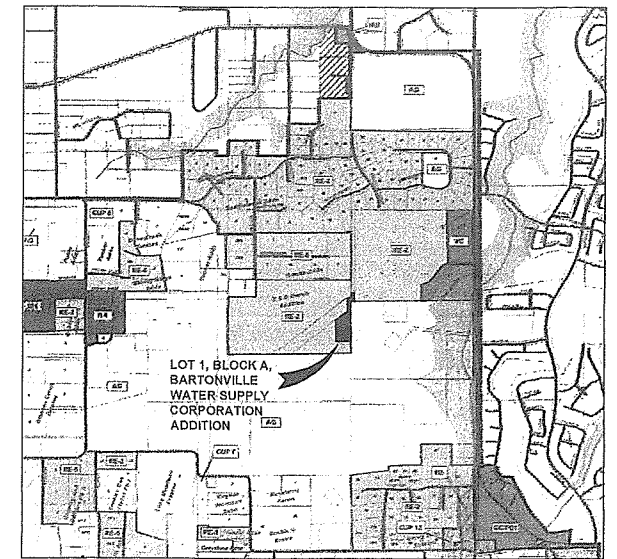
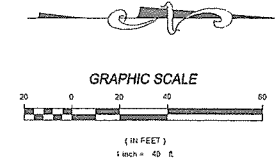


D. COOK SURVEY, A-230

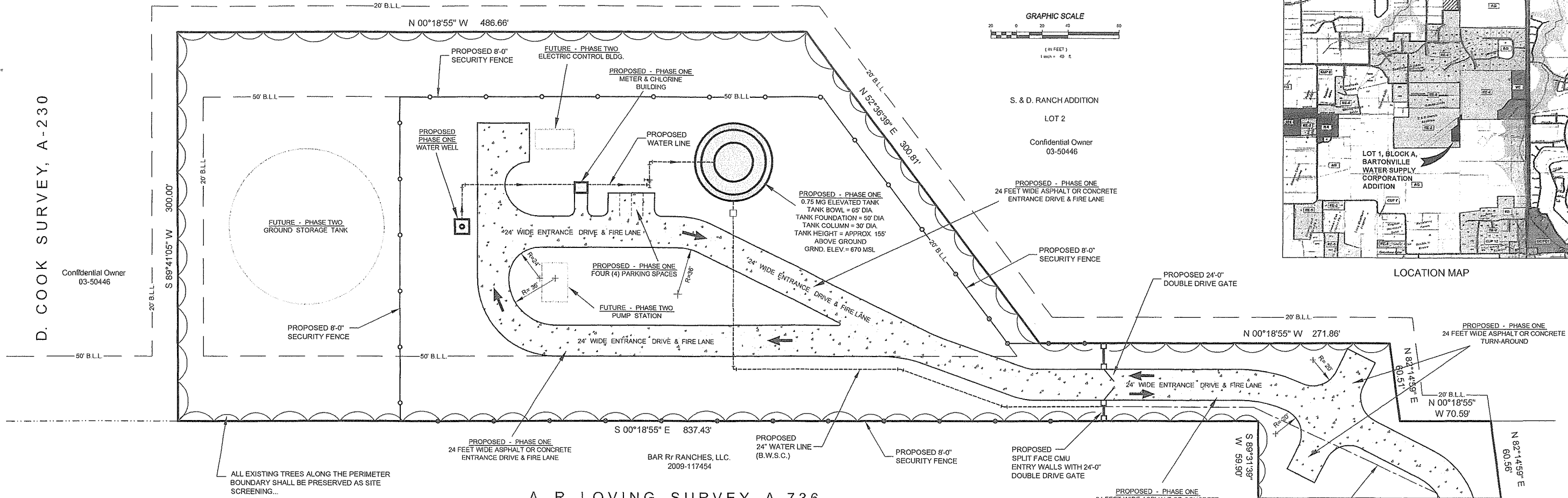
S. & D. RANCH ADDITION

LOT 2

Confidential Owner
03-50446



LOCATION MAP



S. & D. RANCH ADDITION
LOT 2
Confidential Owner
03-50446

PROPOSED - PHASE ONE
24 FEET WIDE ASPHALT OR CONCRETE
ENTRANCE DRIVE & FIRE LANE

PROPOSED 8'-0" SECURITY FENCE

PROPOSED 24'-0" DOUBLE DRIVE GATE

PROPOSED - PHASE ONE
24 FEET WIDE ASPHALT OR CONCRETE
TURN-AROUND

A. R. LOVING SURVEY, A-736

ALL EXISTING TREES ALONG THE PERIMETER BOUNDARY SHALL BE PRESERVED AS SITE SCREENING...

BAR R R RANCHES, LLC.
2009-117454

PROPOSED SPLIT FACE CMU ENTRY WALLS WITH 24'-0" DOUBLE DRIVE GATE

PLACE OF BEGINNING

FIELD NOTES

A TRACT OF LAND MORE COMMONLY KNOWN AS LOT 1, BLOCK A, BARTONVILLE WATER SUPPLY CORPORATION ADDITION, AN ADDITION TO THE TOWN OF BARTONVILLE, TEXAS, AS RECORDED IN CABINET V, PAGE 806, DENTON COUNTY PLAT RECORDS, DENTON COUNTY, TEXAS AND ALSO BEING IN THE DAN COOK SURVEY, A-230, AND THE ABRAHAM LOVING SURVEY A-736, TOWN OF BARTONVILLE, DENTON COUNTY, TEXAS, BEING THAT CERTAIN CALLED 4.735 ACRE TRACT OF LAND DESCRIBED IN DEED TO BARTONVILLE WATER SUPPLY CORPORATION (BWSC) RECORDED IN VOLUME 4679, PAGE 2895 OF THE REAL PROPERTY RECORDS OF DENTON COUNTY, TEXAS, AND BEING MORE SPECIFICALLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 1/2 INCH IRON ROD AT THE EASTERLY SOUTHEAST CORNER OF SAID 4.735 ACRE TRACT, BEING THE SOUTHWEST CORNER OF THAT CERTAIN CALLED 102.0418 ACRE TRACT OF LAND DESCRIBED IN DEED TO W. BRUCE MONROE, RECORDED IN VOLUME 4631, PAGE 570 OF REAL PROPERTY RECORDS OF DENTON COUNTY, TEXAS, AND BEING ON THE NORTH LINE OF THAT CERTAIN TRACT OF LAND DESCRIBED IN DEED TO STARGATE SPORT HORSES, L.P. RECORDED IN VOLUME 4754, PAGE 785 OF THE REAL PROPERTY RECORDS OF DENTON COUNTY, TEXAS;

THENCE SOUTH 89°27'40" WEST 59.87 FEET, ALONG THE NORTH LINE OF SAID STARGATE TRACT, TO A SANDSTONE MONUMENT FOUND AT THE NORTHWEST CORNER THEREOF, BEING AN INNER ELL CORNER OF SAID LOT 1, BLOCK A;

THENCE SOUTH 00°18'55" EAST 837.43 FEET, ALONG THE WEST LINE OF SAID STARGATE TRACT AND THE EAST LINE OF SAID LOT 1, BLOCK A, TO A 1/2 INCH IRON AT THE SOUTHERLY SOUTHEAST CORNER THEREOF, BEING AN ELL CORNER OF LOT 2, S & D RANCH ADDITION, AN ADDITION TO THE TOWN OF BARTONVILLE ACCORDING TO PLAT THEREOF RECORDED IN CABINET U, PAGE 933 OF THE PLAT RECORDS OF DENTON COUNTY, TEXAS;

THENCE SOUTH 89°41'05" WEST 300.00 FEET, ALONG THE MOST SOUTHERLY SOUTH LINE OF SAID LOT 1, BLOCK A, AND ITS COMMON LINE WITH SAID LOT 2, S & D RANCH ADDITION, TO A 1/2 INCH IRON ROD;

THENCE NORTH 00°18'55" WEST 486.66 FEET, ALONG THE SOUTHERLY WEST LINE OF SAID LOT 1, BLOCK A, AND CONTINUING ALONG ITS COMMON LINE WITH SAID LOT 2, S & D RANCH ADDITION, TO A 1/2 INCH IRON ROD;

THENCE NORTH 52°36'39" EAST 300.81 FEET, CONTINUING ALONG SAID COMMON LINE, TO A 1/2 INCH IRON ROD;

THENCE NORTH 00°18'55" WEST 271.86 FEET, CONTINUING ALONG SAID COMMON LINE, TO A 1/2 INCH IRON ROD;

THENCE NORTH 82°14'59" EAST 60.51 FEET, CONTINUING ALONG SAID COMMON LINE, TO A 1/2 INCH IRON ROD;

THENCE NORTH 00°18'55" WEST 70.59 FEET, CONTINUING ALONG SAID COMMON LINE, TO A 1/2 INCH IRON ROD;

THENCE NORTH 82°14'59" EAST 60.56 FEET, TO A 1/2 INCH IRON ROD AT AN ELL CORNER OF SAID LOT 2, S & D RANCH ADDITION, BEING THE MOST NORTHEASTERLY CORNER OF SAID LOT 1, BLOCK A, AND BEING ON THE WEST LINE OF SAID MONROE TRACT;

THENCE SOUTH 00°15'59" EAST 188.46 FEET, ALONG SAID LINE, TO THE POINT OF BEGINNING AND CONTAINING APPROXIMATELY 4.735 ACRES OF LAND.

GENERAL NOTES:

1. THE NAME AND ADDRESS OF THE OWNER / DEVELOPER:
BARTONVILLE WATER SUPPLY CORP.
1911 E. JETER ROAD
BARTONVILLE, TEXAS 76226-9401
2. THE EXISTING USES OF THE SUBJECT PROPERTY,
ZONED: RE-2 RESIDENTIAL ESTATES 2 (2 ACRE LOTS)
BARTONVILLE W.S.C. - WATER FACILITIES SITE
3. SUBJECT PROPERTY DOES NOT LIE WITHIN 100 YEAR FLOOD PLAIN, ZONE X,
DENTON COUNTY, TEXAS AND INCORPORATED AREAS, COMMUNITY PANEL NO. 48121C0510 E,
DATED APRIL 2, 1997
4. THERE ARE NO KNOWN GAS / OIL WELLS OR PIPELINES ON THIS TRACT...
5. CHLORINE AND AMMONIA GAS IN 150 lbs. BOTTLES WILL BE UTILIZED IN THE CHLORINE / METER BUILDING FOR DISINFECTION OF THE WATER SUPPLY PER TCEQ REQUIREMENTS

BASIS OF BEARINGS

SOUTH 89°41'05" WEST FOR THE SOUTH LINE OF LOT 1, BLOCK A, BARTONVILLE WATER SUPPLY CORPORATION ADDITION PER CAB. V, PAGE 806, DENTON COUNTY PLAT RECORDS

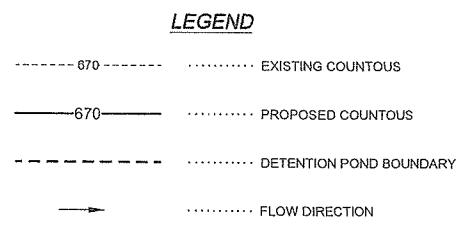
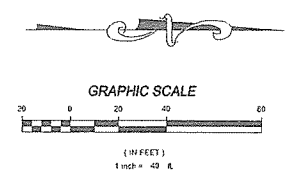
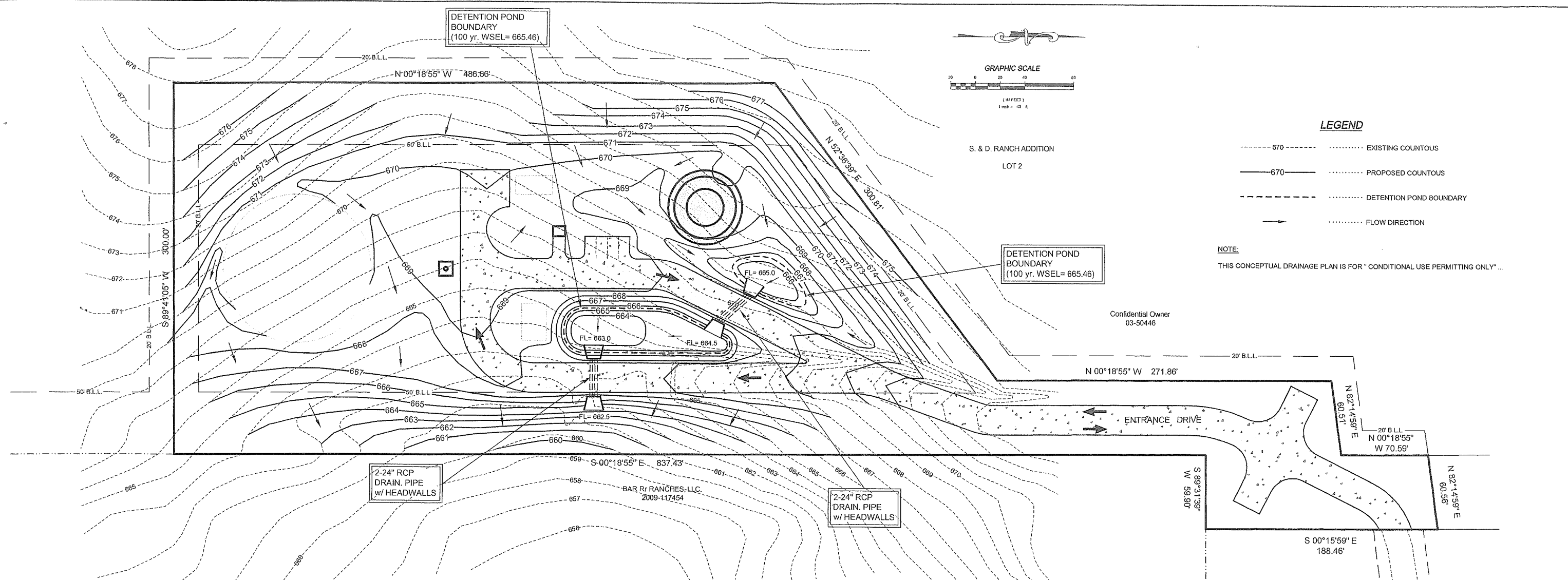
SITE PLAN
LOT 1, BLOCK A, (4.735 ACRES)
BARTONVILLE W. S. C. ADDITION

STARGATE WATER FACILITIES
BARTONVILLE WATER SUPPLY CORP.
DENTON COUNTY, TEXAS

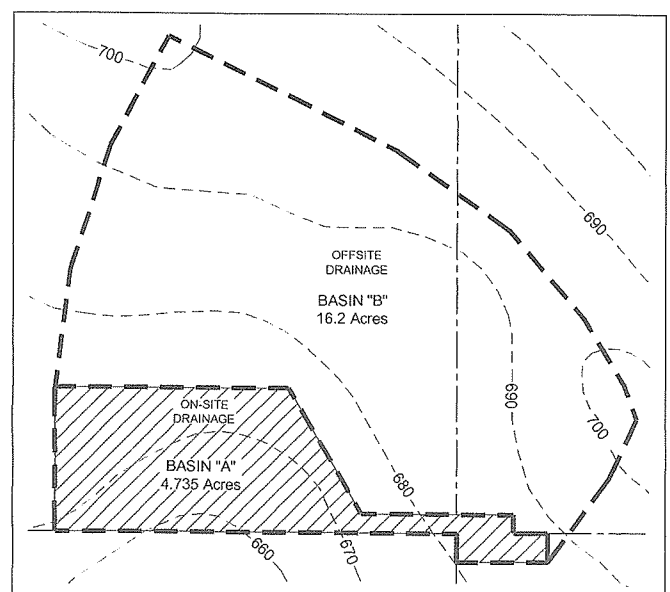


BIGGS & MATHEWS, INC.
CONSULTING ENGINEERS / SURVEYORS
TEXAS REGISTERED ENGINEERING FIRM F-634
2500 BROOK AVENUE W. (409) 765-0150
WICHITA FALLS, TX 76701 F. (940) 765-3383

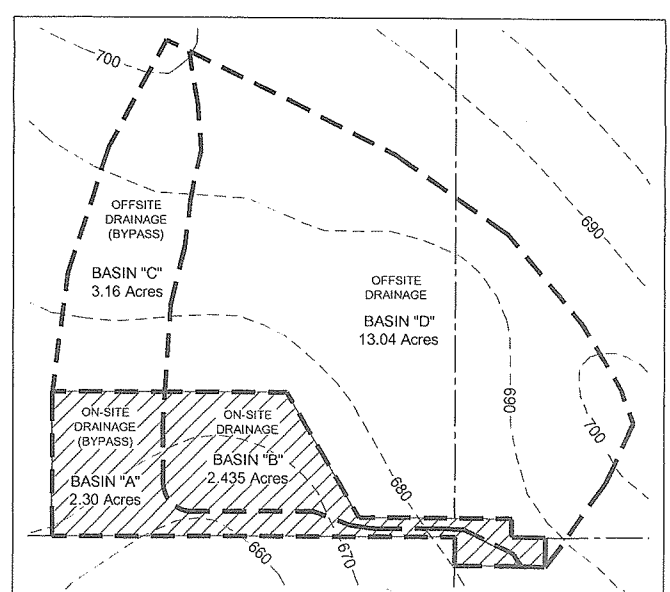
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		DW	JMJ			1
		CK	KDM		REVISED	CF 6



NOTE:
THIS CONCEPTUAL DRAINAGE PLAN IS FOR "CONDITIONAL USE PERMITTING ONLY"



UNDEVELOPED DRAINAGE AREAS
SCALE 1" = 200'



DEVELOPED DRAINAGE AREAS
SCALE 1" = 200'

UNDEVELOPED DRAINAGE CHARACTERISTICS

DRAINAGE AREA ID	TYPE OF COVER	RUNOFF COEFFICIENT	AREA (ACRES)
BASIN "A"	UNDEVELOPED LAND	0.30	4.735 Ac.
BASIN "B"	UNDEVELOPED LAND	0.30	16.2 Ac.
TOTAL DRAINAGE AREA = 20.935 AC. (COMPOSITE C = 0.42)			

DEVELOPED DRAINAGE CHARACTERISTICS

DRAINAGE AREA ID	TYPE OF COVER	RUNOFF COEFFICIENT	AREA (ACRES)
BASIN "A"	DEVELOPED LAND	0.44	2.30 Ac.
BASIN "B"	DEVELOPED LAND	0.44	2.435 Ac.
BASIN "C"	UNDEVELOPED LAND	0.30	3.16 Ac.
BASIN "D"	UNDEVELOPED LAND	0.30	13.04 Ac.
TOTAL DRAINAGE AREA = 20.935 AC. (COMPOSITE C = 0.42)			

DETENTION POND STORAGE (FT³)

REQUIRED STORAGE v.s. PROPOSED STORAGE					
STORM EVENT	100 YEAR	50 YEAR	25 YEAR	10 YEAR	5 YEAR
REQUIRED STORAGE	580	528	465	401	341
PROPOSED STORAGE	5177	4541	3724	3040	2558

OUTLET STRUCTURE RELEASE (CFS)

ALLOWABLE RELEASE v.s. PROPOSED RELEASE					
STORM EVENT	100 YEAR	50 YEAR	25 YEAR	10 YEAR	5 YEAR
ALLOWABLE RELEASE	50.01	45.21	39.77	34.22	29.06
PROPOSED RELEASE	36.47	33.43	29.55	26.12	21.91

DETENTION POND ELEVATION - STORAGE - DISCHARGE RELATIONSHIP

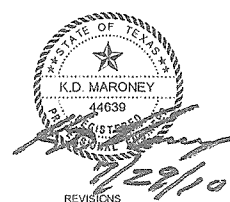
ELEVATION (FT ³)	STORAGE (FT ³)	DISCHARGE (CFS)
663	0	0
664	675.0	7.85
665	3088.5	26.52
666	7628.5	45.59
667	14,588.0	58.56

40' B.W.S.C. ACCESS & UTILITY EASEMENT PER DOC. NO. 2004-18142

GRADING & DRAINAGE PLAN
LOT 1, BLOCK A, (4.735 ACRES)
BARTONVILLE W. S. C. ADDITION

STARGATE WATER FACILITIES
BARTONVILLE WATER SUPPLY CORP.

DENTON COUNTY, TEXAS



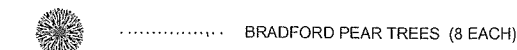
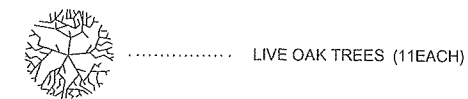
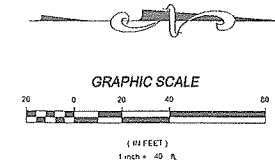
REVISIONS

DATE	DESCRIPTION	DN	KDM	DATE	0-28-2009	SHEET
		DW	JLM	SCALE	1" = 40'	2
		CK	KDM	REVISED		OF 6

S. & D. RANCH ADDITION

Confidential Owner
03-50446

LEGEND



S. & D. RANCH ADDITION

LOT 2

Confidential Owner
03-50446

LANDSCAPE NOTES:

1. LANDSCAPING DESIGN AND CONSTRUCTION BY GREG THOMPSON LANDSCAPE...
2. SITE IRRIGATION BY GREG THOMPSON LANDSCAPE TO CONSIST OF BUBBLERS AT EACH TREE AND ROTARY POP-UPS FOR ADEQUATE SITE COVERAGE...

D. COOK SURVEY, A-230

Confidential Owner
03-50446

LOT 2

N 00°18'55" W 486.66'

PROPOSED 8'-0" SECURITY FENCE

FUTURE - PHASE TWO
GROUND STORAGE TANK

BERMUDA SEEDED

BERMUDA SEEDED

PROPOSED 8'-0" SECURITY FENCE

PROPOSED 24'-0" DOUBLE DRIVE GATE

PROPOSED 8'-0" SECURITY FENCE

N 00°18'55" W 271.86'

BERMUDA SEEDED

BERMUDA SEEDED

BERMUDA SEEDED

BAR Rr RANCHES, LLC.
2009-117454

PROPOSED 8'-0" SECURITY FENCE

PROPOSED - PHASE ONE
SPLIT FACE CMU
ENTRY WALLS WITH 24'-0"
DOUBLE DRIVE GATE

A. R. LOVING SURVEY, A-736

S 00°15'59" E 188.46'

YETI, LLC
01-24102

40' B.W.S.C. ACCESS &
UTILITY EASEMENT
PER DOC. NO. 2004-18142

EXISTING ALL-WEATHER DRIVE

TO F.M. 407

LANDSCAPING PLAN
LOT 1, BLOCK A, (4.735 ACRES)
BARTONVILLE W. S. C. ADDITION

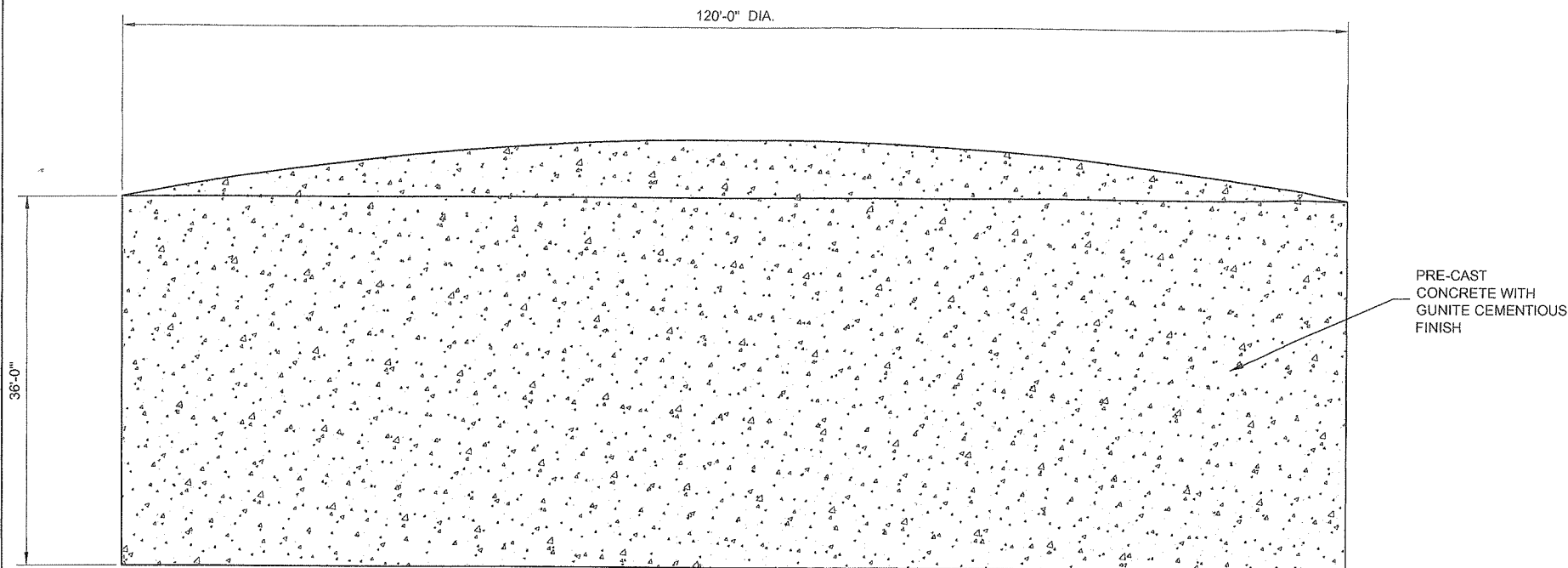
STARGATE WATER FACILITIES
BARTONVILLE WATER SUPPLY CORP.

DENTON COUNTY, TEXAS



BIGGS & MATHEWS, INC.
CONSULTING ENGINEERS / SURVEYORS
TEXAS REGISTERED ENGINEERING FIRM F-031
2500 BROOK AVENUE W. (040) 766-0150
WICHITA FALLS, TX 76301 F. (040) 768-3383

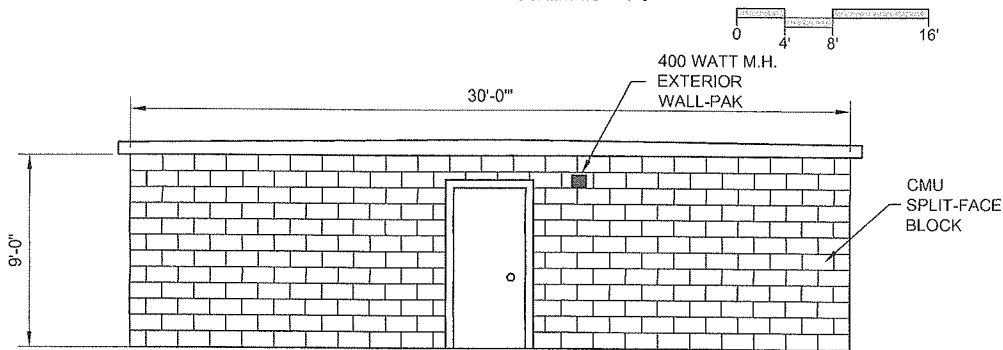
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		CK	KDM	REVISED		OF 6



EAST ELEVATION

FUTURE PHASE TWO - GROUND STORAGE TANK

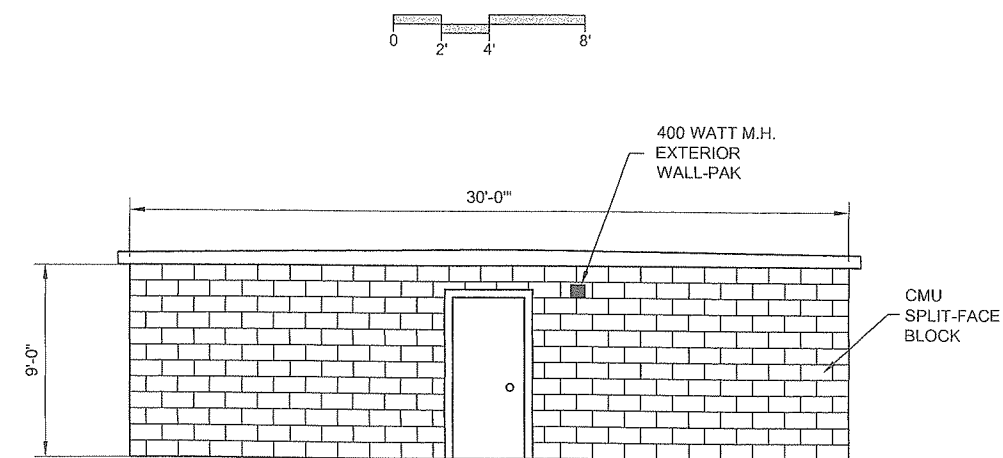
SCALE: 1/8" = 1'-0"



SOUTH ELEVATION

FUTURE PHASE TWO - PUMP STATION

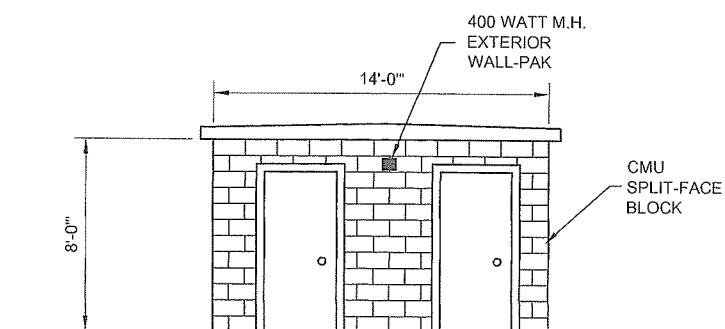
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EAST ELEVATION

FUTURE PHASE TWO - ELECTRIC CONTROL BUILDING

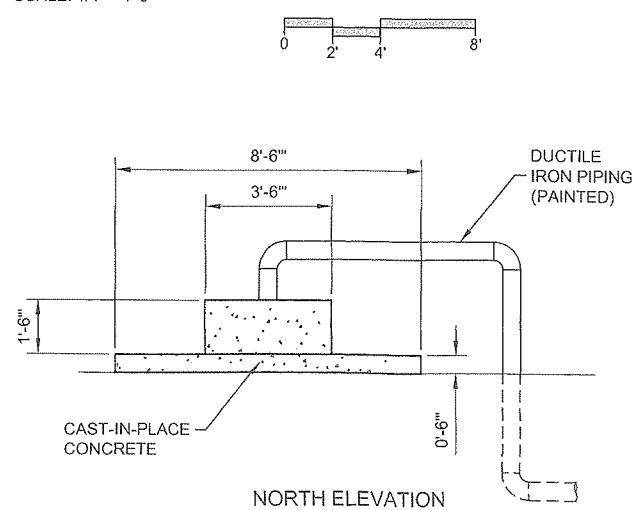
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EAST ELEVATION

PROPOSED PHASE ONE - METER & CHLORINE BUILDING

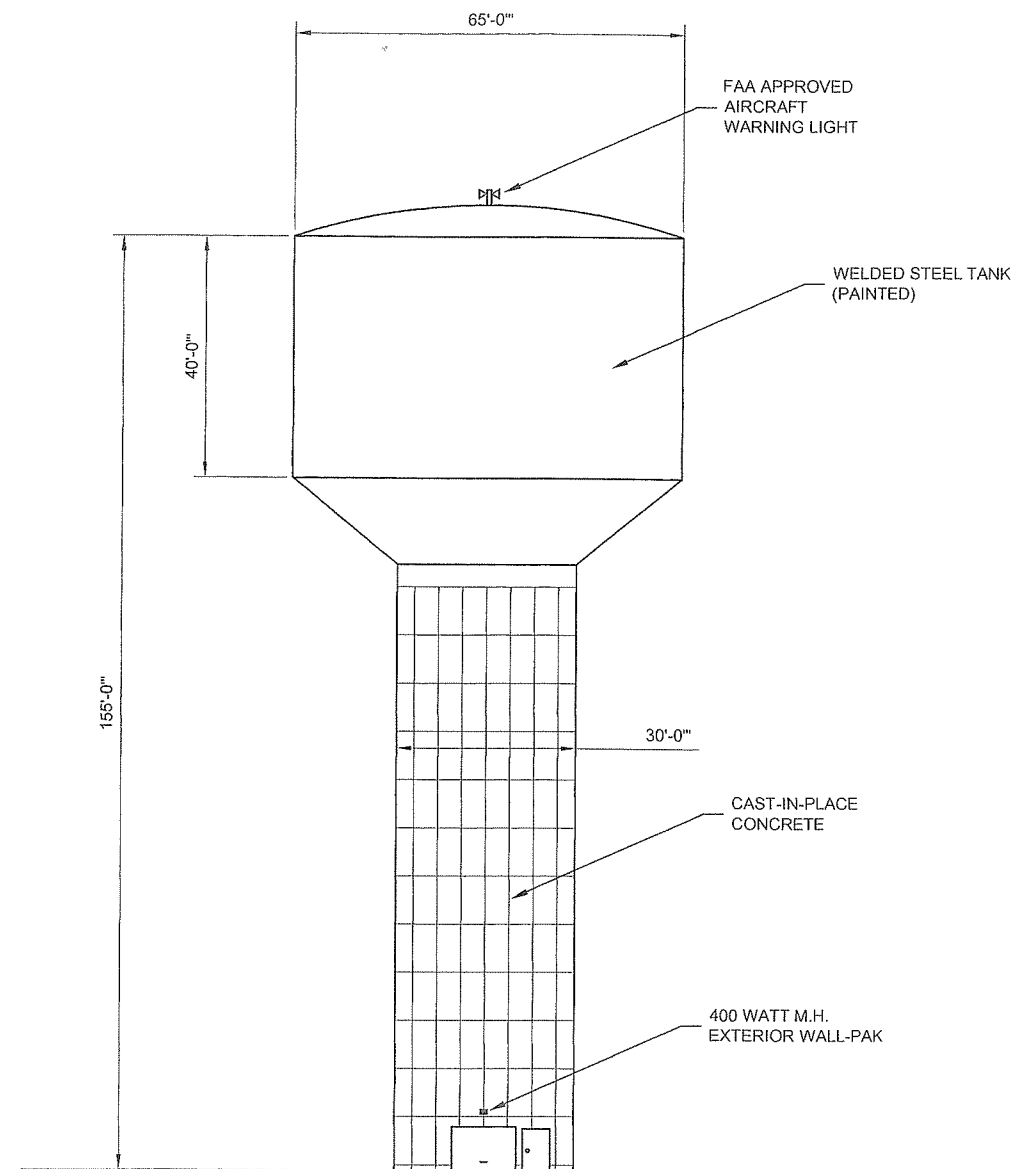
SCALE: 1/4" = 1'-0"



NORTH ELEVATION

PROPOSED PHASE ONE - WELL HEAD

SCALE: 3/8" = 1'-0"



EAST ELEVATION

PROPOSED PHASE ONE - 0.75 M.G. ELEVATED WATER TANK

SCALE: 1/16" = 1'-0"

GENERAL NOTES:

1. CMU COLOR SELECTED BY TOWN OF BARTONVILLE...
2. STEEL TANK COLOR SELECTED BY TOWN OF BARTONVILLE...
3. GROUND STORAGE TANK COLOR SELECTED BY TOWN OF BARTONVILLE...
4. CHLORINE AND AMMONIA GAS IN 150 lbs. BOTTLES WILL BE UTILIZED IN THE CHLORINE / METER BUILDING FOR DISINFECTION OF THE WATER SUPPLY PER TCEQ REGULATIONS...

FACILITY STRUCTURES
ELEVATIONS
LOT 1, BLOCK A, (4.735 ACRES)
BARTONVILLE W. S. C. ADDITION

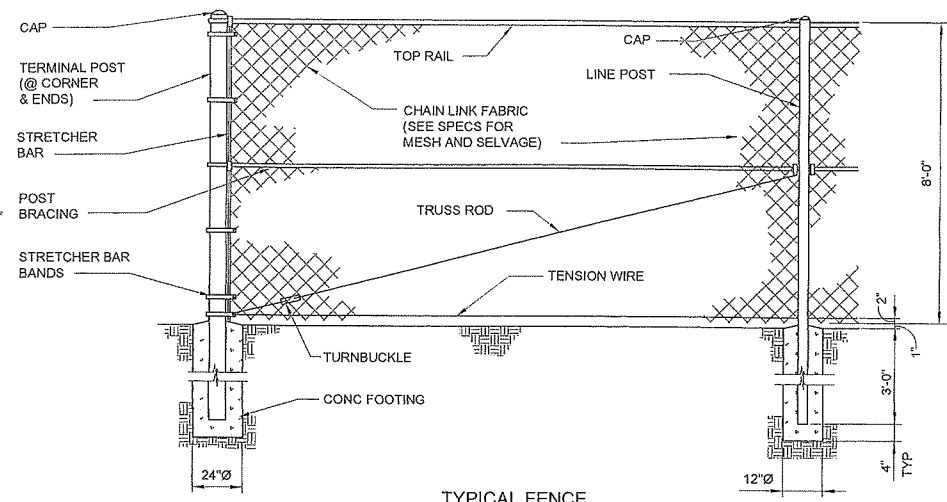
STARGATE WATER FACILITIES
BARTONVILLE WATER SUPPLY CORP.

DENTON COUNTY, TEXAS

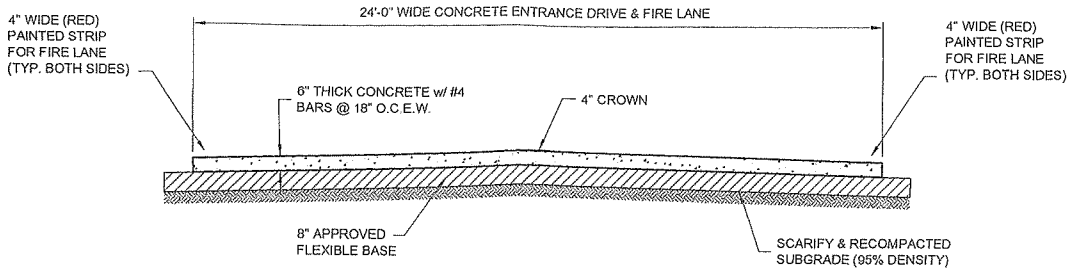


BIGGS & MATHEWS, INC.
CONSULTING ENGINEERS / SURVEYORS
TEXAS REGISTERED ENGINEERING FIRM F-034
2500 BROOK AVENUE V. (040) 708-0159
WICHITA FALLS, TX 76301 F. (040) 708-3383

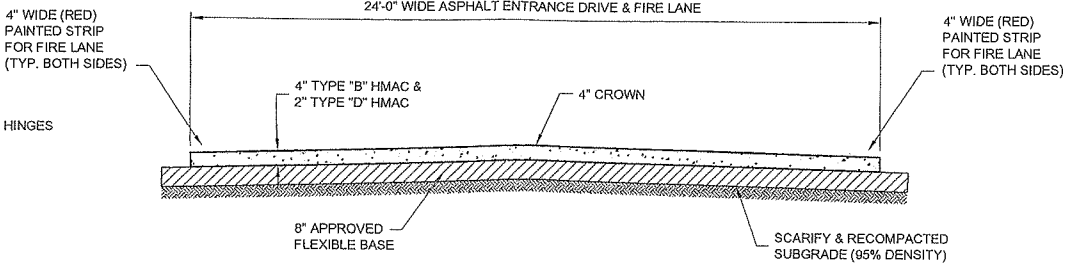
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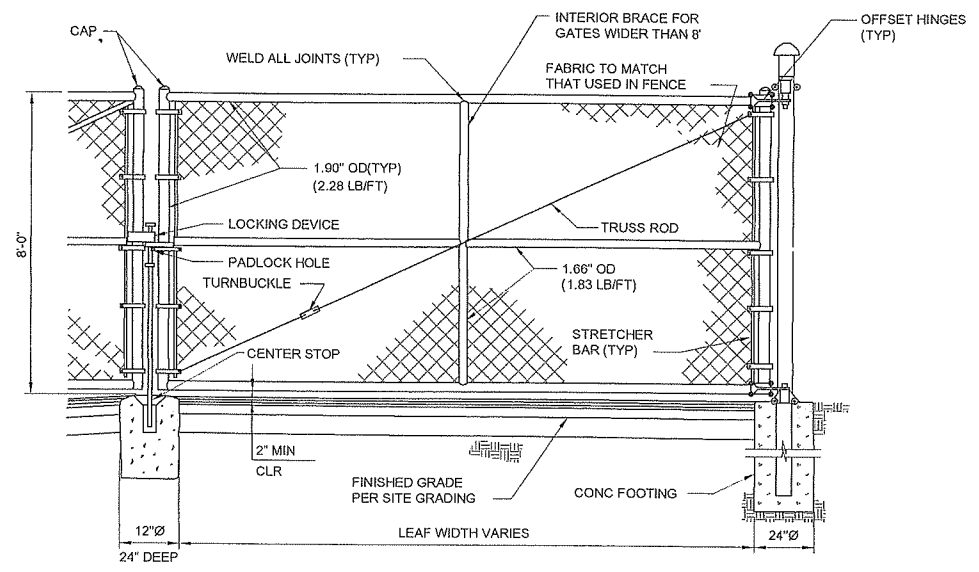
TYPICAL FENCE



CONCRETE PAVEMENT SECTION



ASPHALT PAVEMENT SECTION

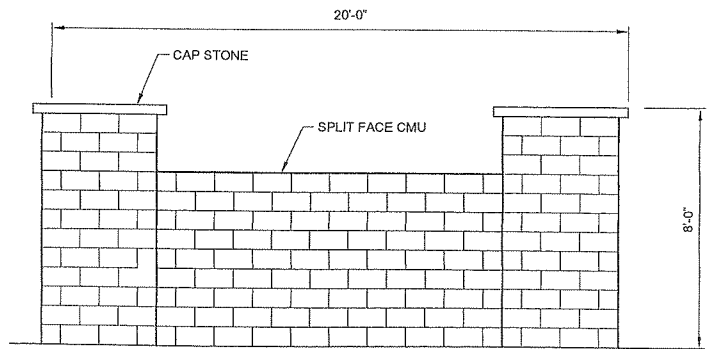


SWING GATE

FENCING NOTES:

1. SECURITY FENCING SHALL COMPLY WITH TCEQ REQUIREMENTS...
2. FABRIC AND POST SHALL BE INDUSTRIAL GRADE AND SHALL BE EQUIVALENT TO PERMAFUSED II CHAIN LINK WITH COLOER SELECTED BY THE TOWN OF BARTONVILLE...

TYPICAL SECURITY FENCING & GATE DETAIL (PER T.C.E.Q.)



TYPICAL SPLIT FACE CMU ENTRY WALL DETAIL (2 REQUIRED))

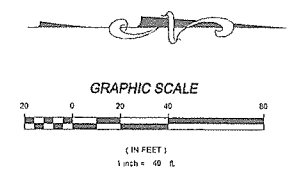
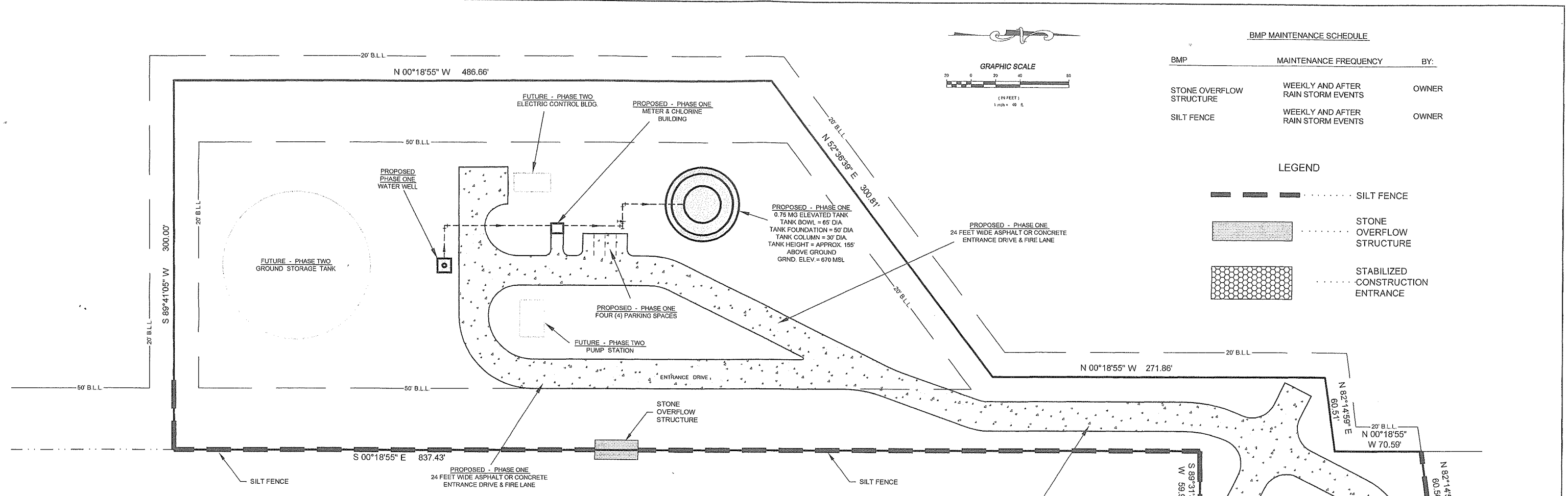


TYPICAL DETAILS
 LOT 1, BLOCK A, (4.735 ACRES)
 BARTONVILLE W. S. C. ADDITION
 STARGATE WATER FACILITIES
 BARTONVILLE WATER SUPPLY CORP.

DENTON COUNTY, TEXAS

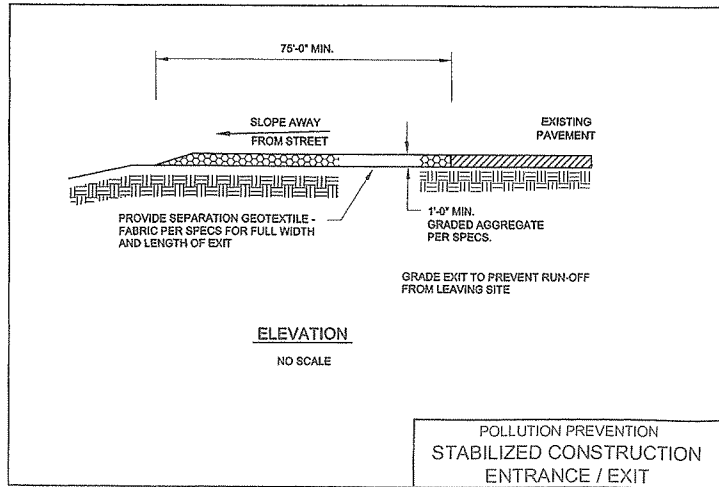
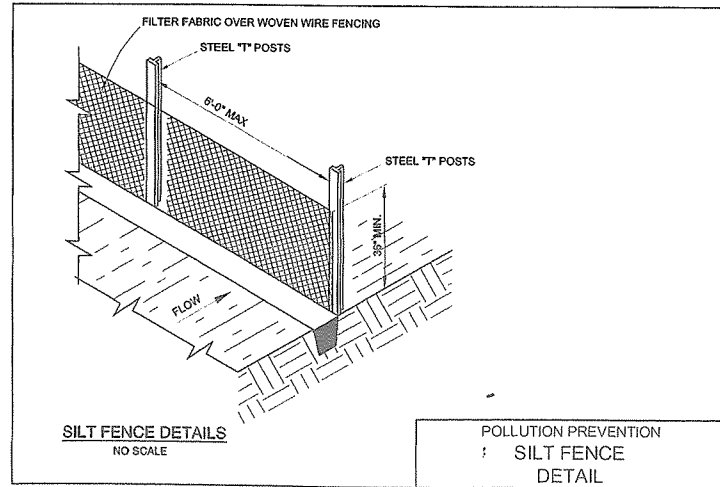
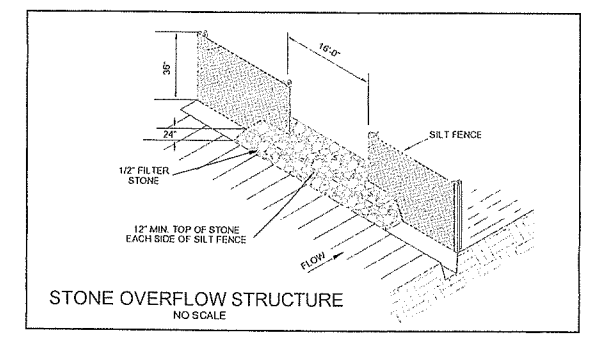
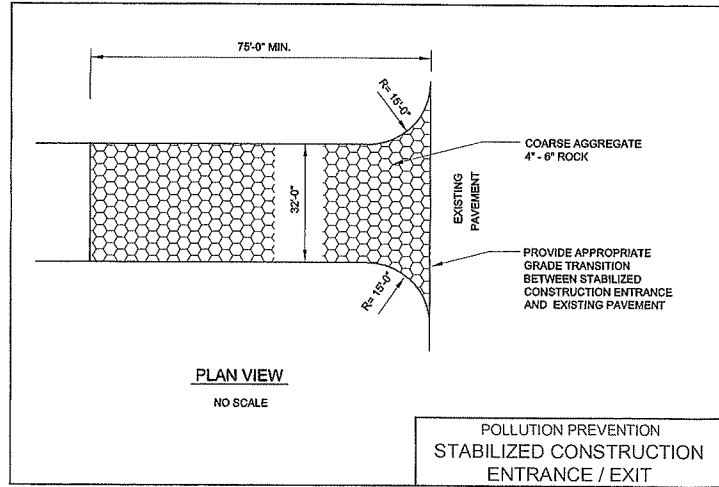
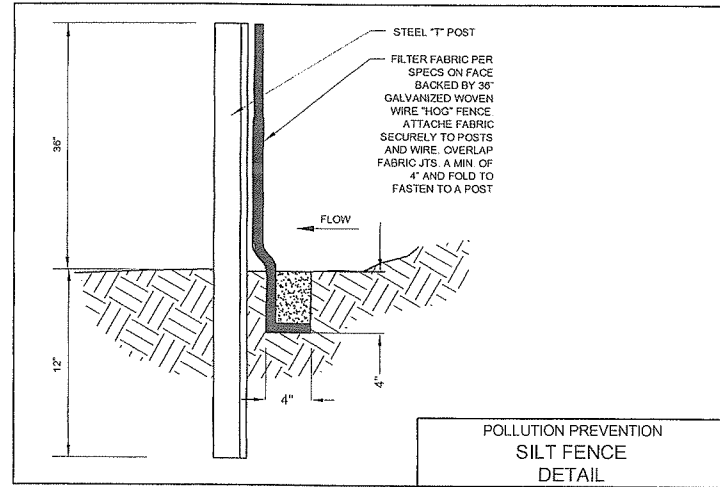
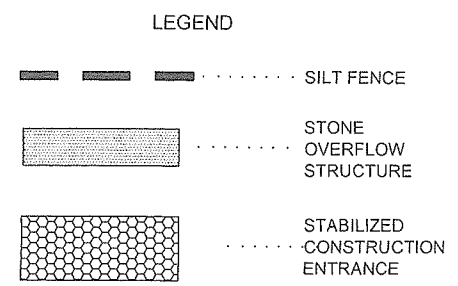
BIGGS & MATHEWS, INC.
 CONSULTING ENGINEERS / SURVEYORS
 TEXAS REGISTERED ENGINEERING FIRM F-634
 2500 BROOK AVENUE V (840) 765-0155
 WICHITA FALLS, TX 76701 F (840) 765-3353

DATE	DESCRIPTION	DN	KDM	DATE	7-23-10	SHEET
		DW	JMJ	SCALE	1" = 40'	5
		CK	KDM	REVISED		CF 6

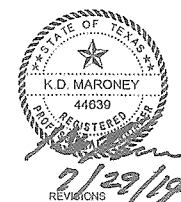


BMP MAINTENANCE SCHEDULE

BMP	MAINTENANCE FREQUENCY	BY:
STONE OVERFLOW STRUCTURE	WEEKLY AND AFTER RAIN STORM EVENTS	OWNER
SILT FENCE	WEEKLY AND AFTER RAIN STORM EVENTS	OWNER



- CONSTRUCTION NOTES**
- SET 2" x 2" WOODEN STAKES OR METAL T-POSTS SPACED A MAX. OF 6'-0" APART AND EMBEDDED A MIN. 12" ...
 - WHENEVER CONSTRUCTION EQUIPMENT AND VEHICLES ENTER OR EXIT FROM A PAVED AREA, A STABILIZED ENTRANCE SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS ON THIS SHEET...
 - WOVEN WIRE FENCE TO BE FASTENED SECURELY TO POSTS WITH STAPLES OR WIRE TIES...
 - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MIDSECTION...
 - MINIMUM HEIGHT OF FILTER SHALL BE 36" ABOVE NATURAL GROUND...
 - WHEN TWO SECTIONS OF FILTER CLOTH JOIN EACH OTHER, THEY SHALL BE OVERLAPPED A MIN. OF 4" AT THE POSTS AND FOLDED...
 - SEE DETAILS THIS SHEET...



STORMWATER POLLUTION PREVENTION PLAN
 LOT 1, BLOCK A, (4.735 ACRES)
 BARTONVILLE W. S. C. ADDITION
 STARGATE WATER FACILITIES
 BARTONVILLE WATER SUPPLY CORP.
 DENTON COUNTY, TEXAS



DATE	DESCRIPTION	DN	KDM	DATE	7-23-10	SHEET
		DW	JMJ	SCALE	1" = 40'	6
		CK	KDM	REVISED		OF 6