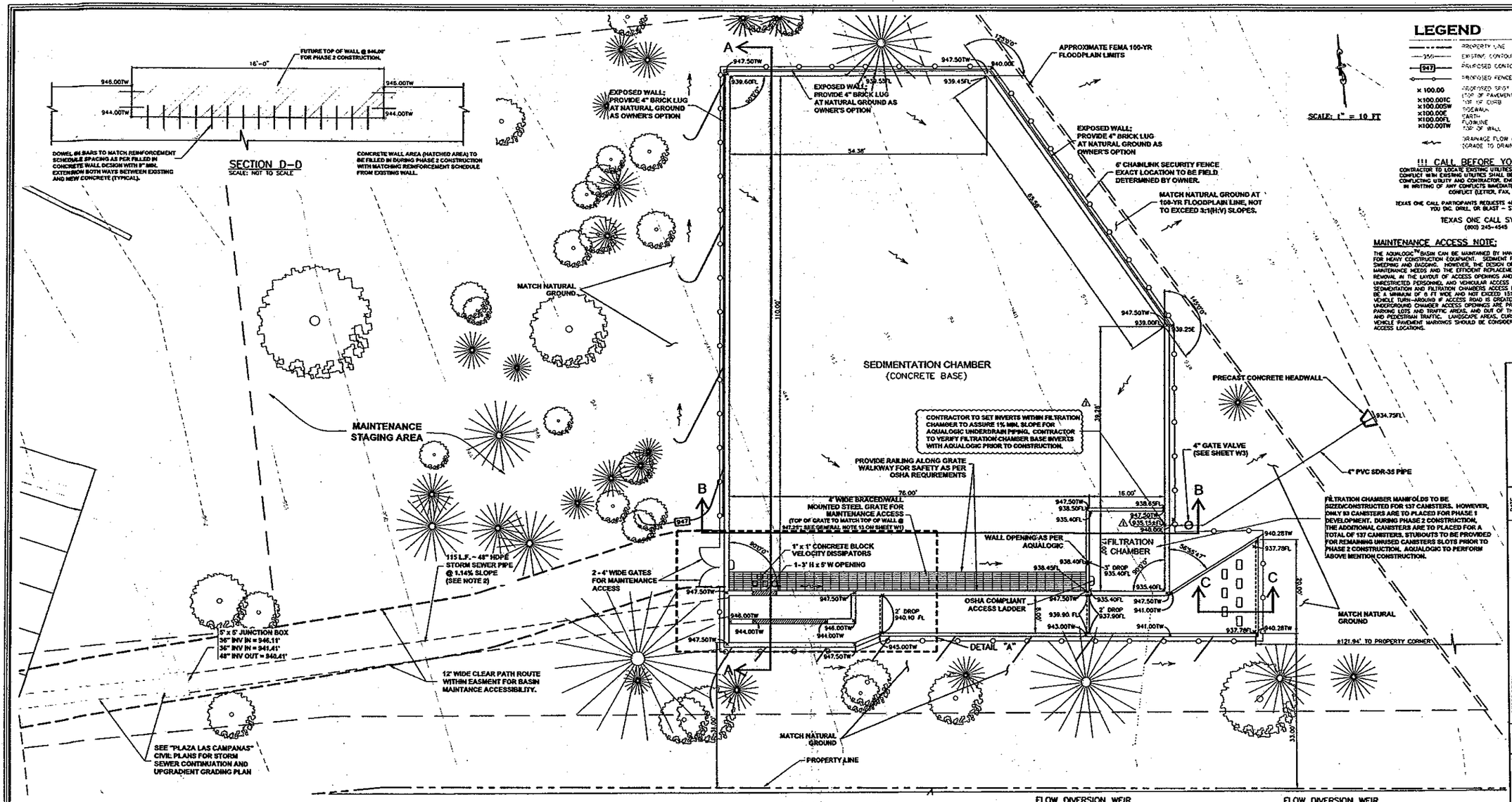
SECTION D-D
SCALE: NOT TO SCALE



SCALE: 1" = 10 FT

LEGEND

- PROPERTY LINE
- 950 EXISTING CONTOUR
- 947 PROPOSED CONTOUR
- PROPOSED FENCE
- x 100.00 PROPOSED SPOT ELEVATIONS (IN FEET)
- x100.00TC (TOP OF PAVEMENT UNLESS OTHERWISE SPECIFIED)
- x100.00SW TOP OF CURB
- x100.00E SIDEWALK
- x100.00FL EARTH
- x100.00TW FLOWLINE
- TOP OF WALL
- DRAINAGE FLOW ARROWS (GRADE TO DRAIN)

!!! CALL BEFORE YOU DIG !!!

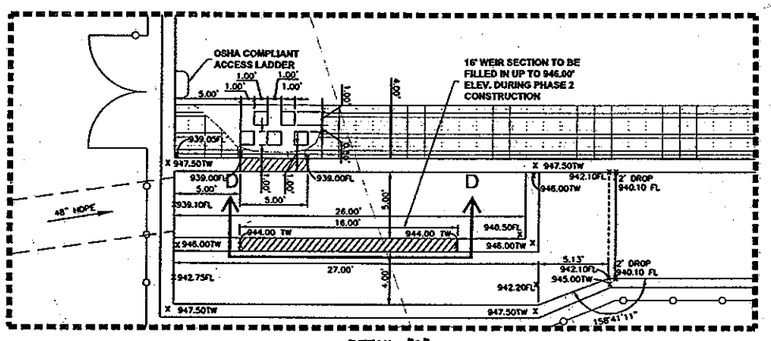
CONTRACTOR TO LOCATE EXISTING UTILITIES PRIOR TO WORK. ANY CONFLICT WITH EXISTING UTILITIES SHALL BE REMOVED BETWEEN SAID CONFLICTING UTILITY AND CONTRACTOR. ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONFLICTS IMMEDIATELY UPON DISCOVERY OF CONFLICT (LETTER, FAX, EMAIL).

TEXAS ONE CALL PARTICIPANTS REQUESTS 48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST - STOP AND CALL.

TEXAS ONE CALL SYSTEM
(800) 245-4545

MAINTENANCE ACCESS NOTE:

THE AQUALOGIC™ BASIN CAN BE MAINTAINED BY HAND OPERATIONS WITHOUT THE NEED FOR HEAVY CONSTRUCTION EQUIPMENT. SEDIMENT REMOVAL IS PERFORMED BY HAND SWEEPING AND DAGGING. HOWEVER, THE DESIGN OF THE BASIN SHALL CONSIDER MAINTENANCE NEEDS AND THE EFFICIENT REPLACEMENT OF FILTERS AND SEDIMENT REMOVAL IN THE LAYOUT OF ACCESS OPENINGS AND LADDERS. PROVIDE FOR 24/7 UNRESTRICTED PERSONNEL AND VEHICULAR ACCESS DRIVES (IF REQUIRED) TO THE SEDIMENTATION AND FILTRATION CHAMBERS ACCESS PANELS. ACCESS DRIVES SHOULD BE A MINIMUM OF 6 FT WIDE AND NOT EXCEED 15% GRADE. PROVIDE PICK-UP VEHICLE TURN-AROUND IF ACCESS ROAD IS GREATER THAN 200 FT. OPEN AND UNDERGROUND CHAMBER ACCESS OPENINGS ARE PREFERRED TO BE LOCATED OFF PARKING LOTS AND TRAFFIC AISLES, AND OUT OF THE PATH OF NORMAL VEHICULAR AND PEDESTRIAN TRAFFIC. LANDSCAPE AREAS, CURBED ISLANDS OR RESTRICTED VEHICLE PAVEMENT MARKINGS SHOULD BE CONSIDERED FOR UNDERGROUND CHAMBER ACCESS LOCATIONS.



DETAIL "A"
SCALE: 1" = 5'

POND PLAN

GRADING NOTES

1. ALL DISTURBED, NATURAL GROUND AREAS SHALL BE REVEGETATED WITH GRASS SOD (UNLESS IN CONFLICT WITH LANDSCAPE PLANS). SEE TCEQ TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES (RG-348, REV. JULY 2003) FOR NOTES AND DETAILS FOR SOD INSTALLATION.
2. SOIL STABILIZATION PRACTICES TO OCCUR OVER SITE IN ACCORDANCE WITH THE ASSOCIATED WATER POLLUTION ABATEMENT PLAN AND RELATED PLAN MODIFICATIONS APPROVED BY TCEQ.
3. GENERAL CONTRACTOR, OR THEIR SUBCONTRACTORS, WHO ARE RESPONSIBLE FOR DISTURBING ACTIVITIES SHALL ENSURE GRASS REVEGETATION HAS GROWN AT LEAST 1-1/2" HIGH WITH 95% COVERAGE WITH NO BARE SPOTS LARGER THAN 10 SQUARE FEET.

SURVEY NOTES

1. ENGINEER DOES NOT CERTIFY TO SURVEY/TOPOGRAPHIC INFORMATION OR BENCHMARKS PREPARED BY SURVEYOR AND DEPICTED ON THIS PLAN. GENERAL CONTRACTOR & SUBCONTRACTORS SHALL REVIEW PROPOSED LAYOUT FOR CONFLICTS AS THEY APPLY TO WORK PERFORMED FROM SURVEY/TOPOGRAPHIC INFORMATION DEPICTED. IF CONFLICT IS FOUND CONTACT BOTH ENGINEER & GENERAL CONTRACTOR IN WRITING (MAIL, FAX, EMAIL) IMMEDIATELY FOR DIRECTION.
2. IF ADDITIONAL BENCHMARKS BEYOND THOSE REFLECTED ON THE REFERENCED PLANS ARE DESIRED BY GENERAL CONTRACTOR AND/OR SUBCONTRACTORS TO EXECUTE THEIR PROPOSED WORK THEY MAY CONTACT, COORDINATE, HIRE, AND PAY FOR SURVEYOR TO SET SAID ADDITIONAL ON-SITE REFERENCE BENCHMARKS THEY MAY DEEM NECESSARY.

BENCHMARK NOTE:

REFERENCE BENCHMARKS LISTED ON "PLAZA LAS CAMPANAS" CIVIL PLANS DONE BY OTHERS. CONTRACTOR TO VERIFY ACCURACY OF BENCHMARK AND SURVEY INFORMATION PRIOR TO CONSTRUCTION FOR PROPOSED WORK SHOWN ON THESE PLANS.

FLOW DIVERSION WEIR
16' WEIR CALCULATIONS (PHASE 1 ONLY)

16' LONG WEIR w/ 133.9 cfs 25-YR FLOW

$Q = C_w L H^{1.5}$

where
$C_w = 3.33$
$Q_w = 133.9$ cfs
$L = 16$ FT

TOTAL HEAD OVER WEIR = 1.98 Feet

GENERAL NOTES:

1) STRUCTURAL DESIGN FOR ALL STRUCTURAL COMPONENTS OF THE BASIN SUCH AS CONCRETE WALLS AND BASE OF BASIN AND CONCRETE INFRASTRUCTURE ALONG BASIN EXTERIOR SHALL BE PREPARED BY A STRUCTURAL ENGINEER, LICENSED IN THE STATE OF TEXAS.

2) PROPOSED STORM SEWER PIPE SHALL BE ADS, N-12 WT HDPE OR APPROVED EQUAL. CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION AND DETAILS.

3) CONTACT PHIL KING, P.E. AT (210) 355-6546 OR AT PKING@AQUALOGIC-USA.COM FOR AQUALOGIC SYSTEM INFORMATION AND CONSTRUCTION CORRDINATION OF AQUALOGIC SYSTEM.

TREE NOTE:

LANDSCAPE ARCHITECT AND/OR OWNERS TO SPECIFY WHICH TREES ARE TO BE REMOVED OR SAVED. IF CONFLICT EXISTS BETWEEN THESE PLANS AND TREES TO BE PRESERVED THAT WOULD CAUSE CONFLICT WITH PROPOSED LAYOUT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY (LETTER, FAX, EMAIL) FOR DIRECTION.

FLOW DIVERSION WEIR
32' WEIR CALCULATIONS (TOTAL SITE)

32' LONG WEIR w/ 133.9 cfs 25-YR FLOW

$Q = C_w L H^{1.5}$

where
$C_w = 3.33$
$Q_w = 133.9$ cfs
$L = 32$ FT

TOTAL HEAD OVER WEIR = 1.25 Feet

POND DATA (PHASE 1 ONLY)

SEDIMENTATION VOLUME REQUIRED = 40,320 CF
SEDIMENTATION VOLUME PROVIDED (EXCLUDING 3" SED. DEPTH) = 41,297 CF
SEDIMENTATION VOLUME PROVIDED (INCLUDING 3" SED. DEPTH) = 43,998 CF
TOTAL BASIN AREA W/OUT FILTRATION CHAMBER = 8,805 SF
TOTAL BASIN AREA W/ FILTRATION CHAMBER = 9,110 SF
FILTRATION AREA REQUIRED = 185.57 SF
FILTRATION AREA PROVIDED = 222.00 SF
TOP OF WATER SURFACE ELEV = 944.00'
NUMBER OF CANISTERS = 93

POND DATA (TOTAL SITE)

SEDIMENTATION VOLUME REQUIRED = 59,129 CF
SEDIMENTATION VOLUME PROVIDED (EXCLUDING 3" SED. DEPTH) = 59,427 CF
SEDIMENTATION VOLUME PROVIDED (INCLUDING 3" SED. DEPTH) = 61,628 CF
TOTAL BASIN AREA W/OUT FILTRATION CHAMBER = 8,805 SF
TOTAL BASIN AREA W/ FILTRATION CHAMBER = 9,110 SF
FILTRATION AREA REQUIRED = 270.30 SF
FILTRATION AREA PROVIDED = 272.00 SF
TOP OF WATER SURFACE ELEV = 945.00'
NUMBER OF CANISTERS = 137

REVISION	DESCRIPTION	DATE
A	REVISIONS PER TCEQ COMMENTS	10/05/07

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PERM. WATER POLLUTION ABATEMENT PLAN

PLAZA LAS CAMPANAS
LOOP 1604 W. & HUEBNER RD.
SAN ANTONIO, TX 78248

SHEET
W2