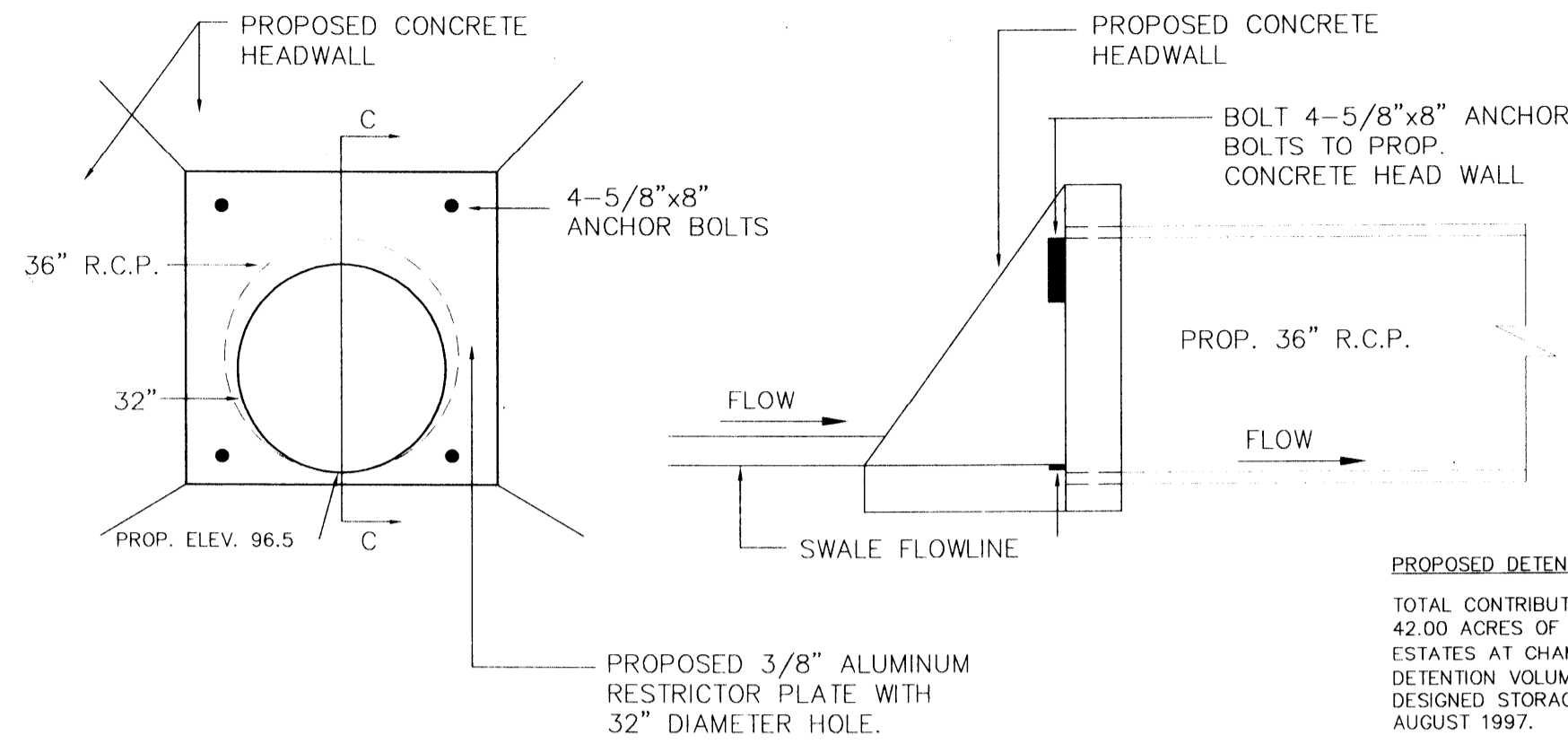
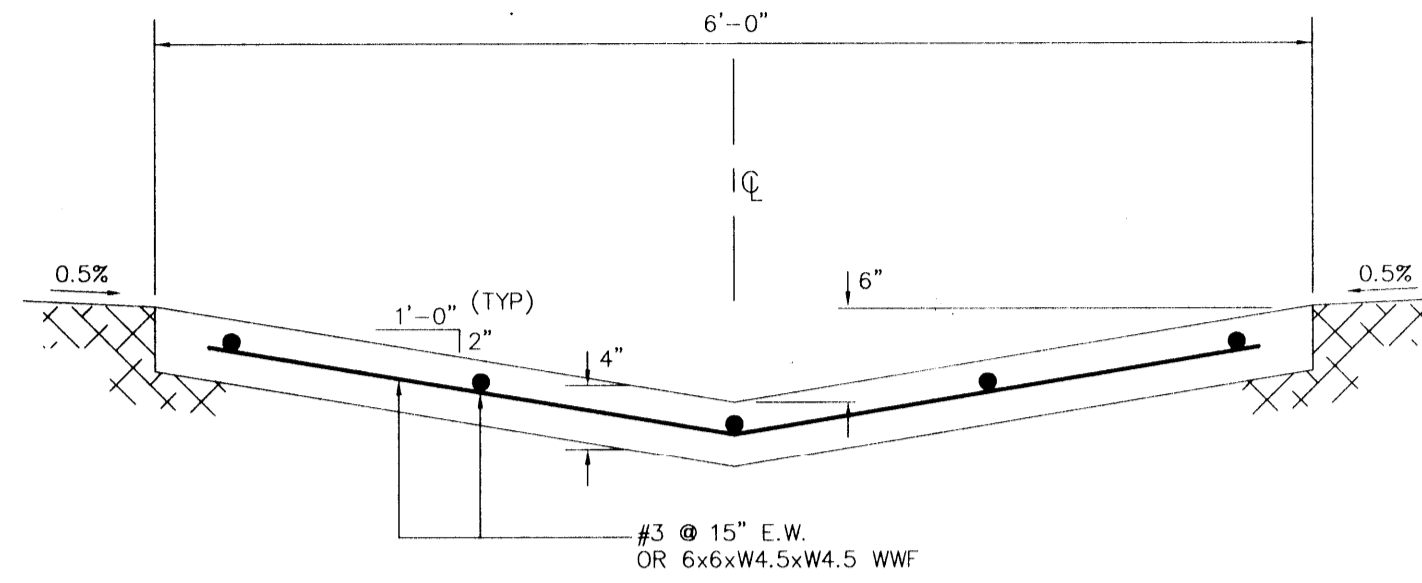


NOTE:

100YR WATER SURFACE FOR POND I WAS DETERMINED FROM PEI'S RANCH COUNTRY ESTATES DETENTION SYSTEM DATED JULY 1997.
 25YR WATER SURFACE FOR POND I WAS DETERMINED FROM PEI'S RANCH COUNTRY ESTATES DETENTION SYSTEM DATED JULY 1997.



OUTFLOW RESTRICTOR PLAN

PROPOSED DETENTION BASIN SUMMARY

TOTAL CONTRIBUTING ACREAGE SERVED THIS PHASE: 42.00 ACRES OF CREDIT FOR FUTURE DEVELOPMENT WITHIN ESTATES AT CHAMPIONS PARK NORTH
 DETENTION VOLUME PROVIDED (100 YR. FREQ.): 25.05 ACRE-FOOT
 DESIGNED STORAGE COEFFICIENT: 0.589 (PER APPROVED REVISED REPORT DATED AUGUST 1997).

STORAGE VOLUME REQUIRED

25 YEAR: 13.00 AC-FT.
 100 YEAR: 18.577 AC-FT.

PROPOSED STORAGE VOLUME

25 YEAR: 13.55
 100 YEAR: 25.05

PROPOSED MAXIMUM DESIGN WATER SURFACE ELEVATION

25 YEAR FREQUENCY: EL = 113.42 POND
 100 YEAR FREQUENCY: EL = 115.94 POND

PROPOSED MAXIMUM RELEASE RATE

25 YEAR FREQUENCY: Q = 48.90 cfs POND
 100 YEAR FREQUENCY: Q = 60.02 cfs POND

MAXIMUM ALLOWABLE RELEASE RATE

25 YEAR FREQUENCY: Q = 52.00 cfs ULTIMATE
 100 YEAR FREQUENCY: Q = 73.00 cfs ULTIMATE

PROPOSED POND SURFACE

25 YEAR: 113.42 ELEV. PROPOSED
 100 YEAR: 115.94 ELEV. PROPOSED

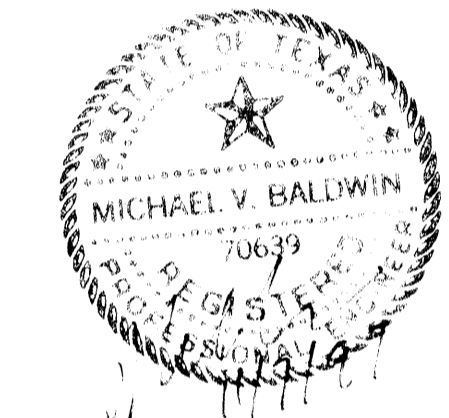
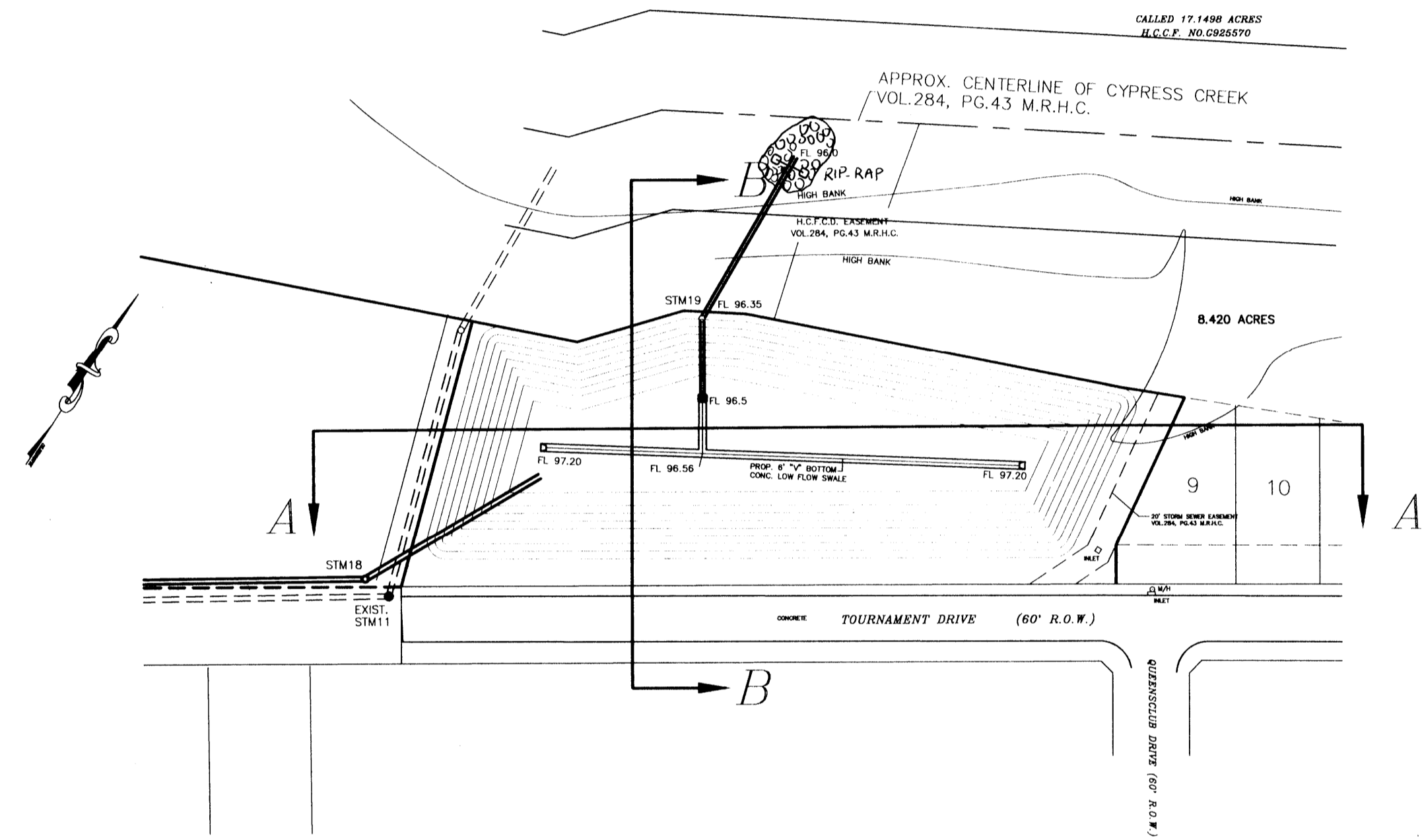
EXISTING K100-00-00 WATER SURFACE ELEVATION

25 YEAR FREQUENCY: EL = 113.50 (FROM INTERPOLATED HCFCD MODEL K100-00-00)
 100 YEAR FREQUENCY: EL = 116.00 (FROM HCFCD MODEL K100-00-00)

- HARRIS COUNTY FLOOD CONTROL DISTRICT, WATERSHED MANAGEMENT DEPARTMENT, SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION (713/684-4050). A COPY OF THE APPROVED CONSTRUCTION DRAWINGS IS REQUIRED AT THIS TIME.
- ENGINEER SHALL SUBMIT LETTER AND RECORD DRAWINGS TO HARRIS COUNTY FLOOD CONTROL DISTRICT, WATERSHED MANAGEMENT DEPARTMENT, REQUESTING INSPECTION AND ACCEPTANCE OF ITEMS CONSTRUCTED IN HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT OF WAY. PRIOR TO REQUESTING INSPECTION, THE DRAINAGE RIGHT OF WAY AND/OR EASEMENTS SHALL BE STAKED AND FLAGGED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING AND RESTORING BACKSLOPE DRAINAGE SYSTEMS.
- ALL DISTURBED AREAS WITHIN THE HARRIS COUNTY FLOOD CONTROL DISTRICT RIGHT OF WAY, INCLUDING THE DETENTION BASIN BOTTOM, SHALL BE SEEDED AS PER HARRIS COUNTY FLOOD CONTROL SPECIFICATION PART IV, SECTION 15, ENTITLED "SEEDING".
- BACKFILL TO BE COMPACTED IN NO GREATER THAN 1 FOOT LIFTS TO THE DENSITY OF THE UNDISTURBED ADJACENT SOIL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING CHANNEL FLOWLINE TO DESIGN ELEVATION AS SHOWN ON PLANS AND DRAINAGE STREAM AS NECESSARY TO INSURE NO WATER IN STORM SEWER DURING "DRY" CONDITIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FLOW IN CHANNEL DURING CONSTRUCTION AND RESTORING CHANNEL TO ORIGINAL CONDITION.
- ALL EXCAVATED MATERIAL IS TO BE REMOVED FROM THE HCFCD RIGHT OF WAY. NO FILL IS TO BE PLACED WITHIN A DESIGNATED FLOOD PLAIN AREA WITHOUT FIRST OBTAINING A FILL PERMIT.
- CONTRACTOR WITH THE ASSISTANCE OF THE ENGINEER IF NECESSARY, SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL PERMITS.

DETENTION SUMMARY

- Area Served = 42.00 acres
- Detention Storage Rate = $C_s = 0.589$
- Detention Storage Volume Required = 18.577 acre-feet
- Detention Storage Volume Provided = 25.05 acre-feet
- Maximum Design Water Surface Elevation = 115.94 POND
- Maximum Outflow Rate Allowed = 73 cfs
- Maximum Outflow Rate Provided = 60.02 cfs
- Restrictor Size = 32 inches Pond



Rev.	Date	Description	App.

PRIVATE UTILITY LINES SHOWN

ENTEX, INC.

SOUTHWESTERN BELL TELEPHONE CO.
Valid for One Year Only

HOUSTON LIGHTING & POWER CO.
Approval Only for Crossing Underground
Ductlines Unless Noted. Valid at Time of Review Only.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS & ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE GROUP

SECTION APPROVALS

WATER ENGINEERING	TRAFFIC AND SIGNAL ENGINEERING
WASTEWATER ENGINEERING	STREET & BRIDGE ENGINEERING
STORM SEWER ENGINEERING	CONSTRUCTION

OTHER DEPARTMENTS

PLANNING AND DEVELOPMENT	SPONSOR DEPARTMENT
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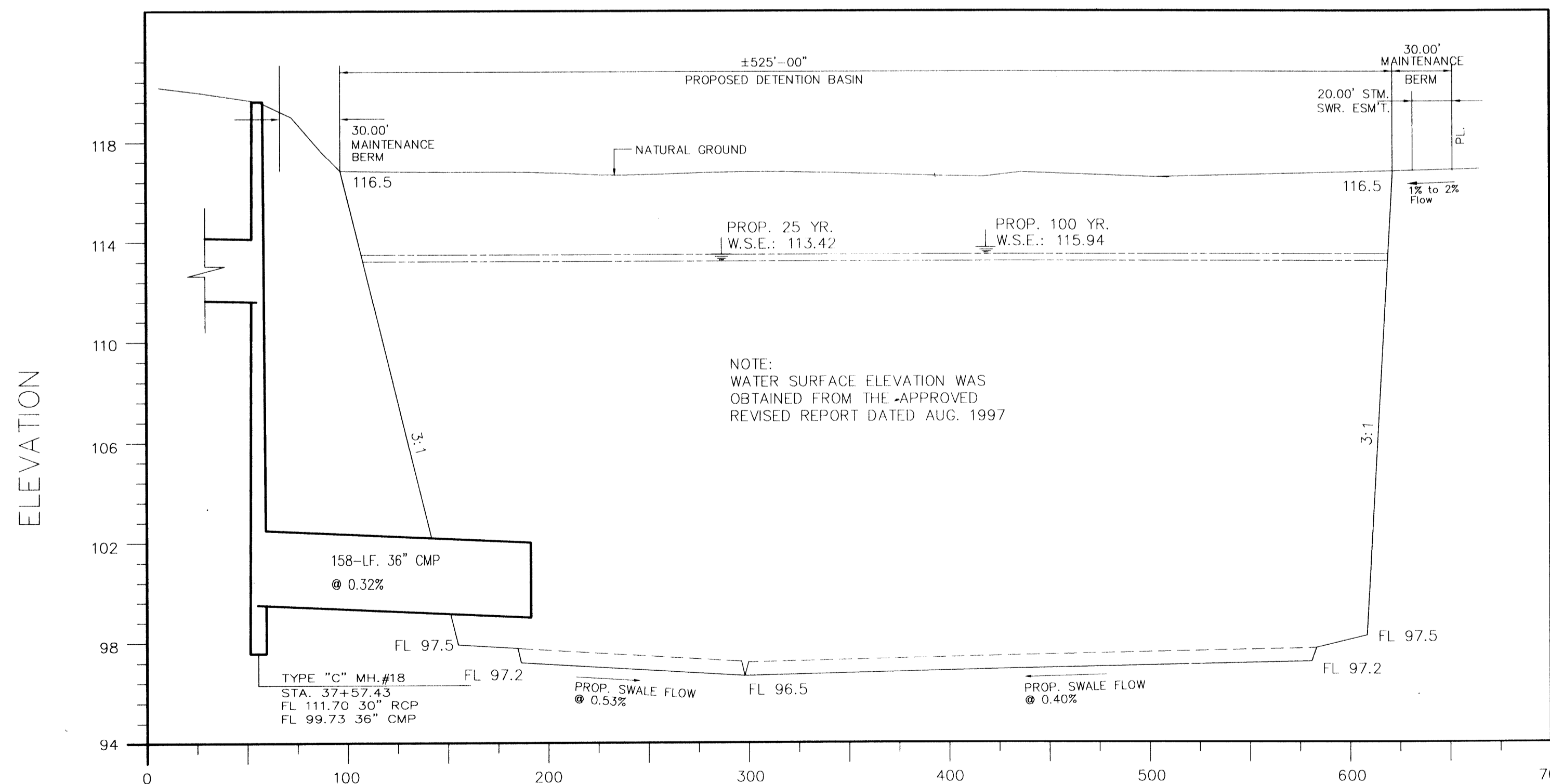
CITY ENGINEER: *[Signature]* 1/15/98
 DIRECTOR OF PUBLIC WORKS AND ENGINEERING: *[Signature]* 1-16-98

SUBMITTED: _____
 SCALE: 1" = 100'
 DATE: AUGUST 1997
 SURVEY BY: _____
 F B NO: _____

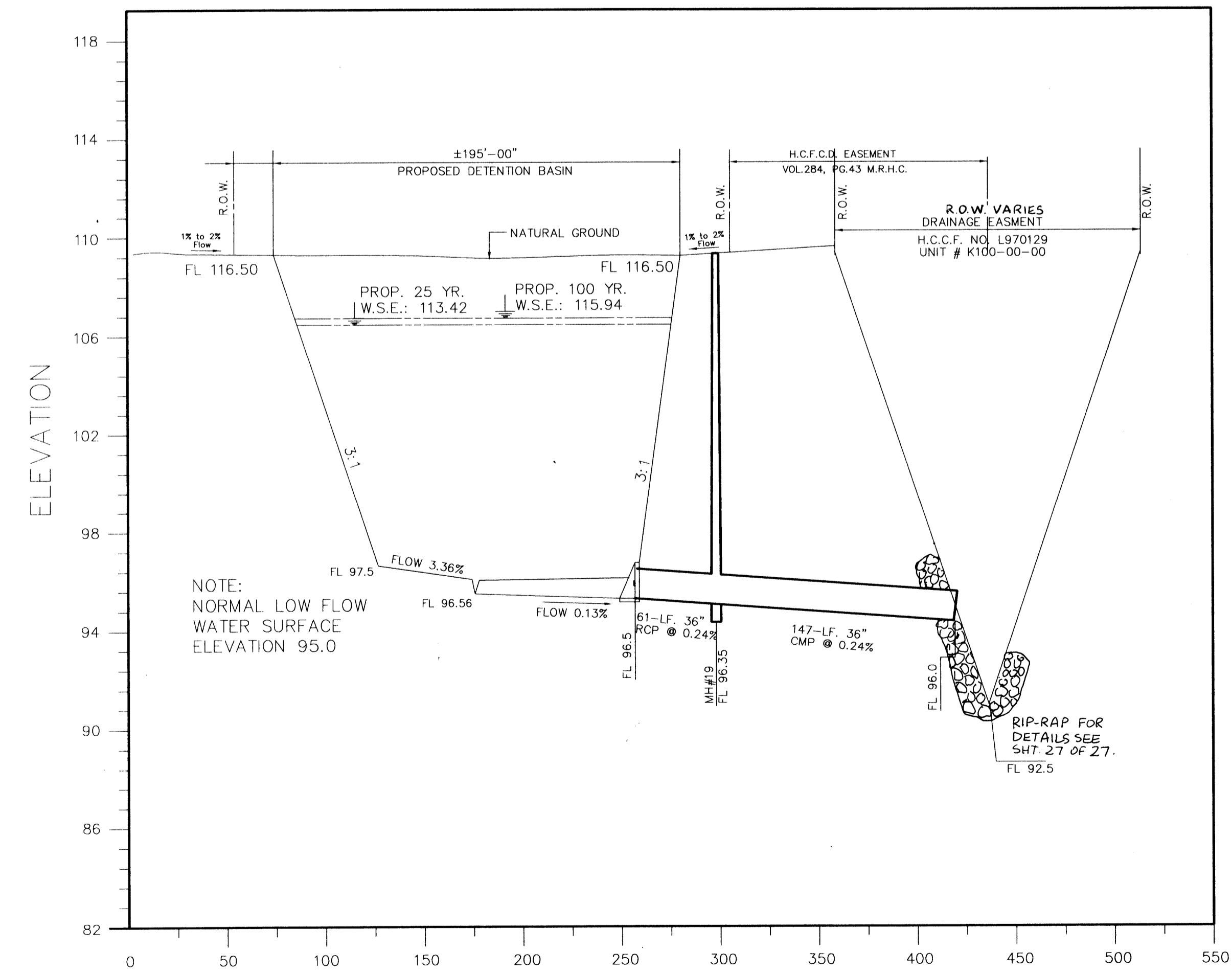
DESIGNED BY: TIM
 DRAWN BY: TIM
 SHEET NO. 5 OF 27 SHEETS
 CITY DWG. NO. _____

ESTATES AT CHAMPIONS PARK NORTH

DETENTION POND CROSS SECTION



SECTION A-A
SCALE
H: 1" = 50' V: 1" = 4'



SECTION B-B
SCALE
H: 1" = 50' V: 1" = 4'