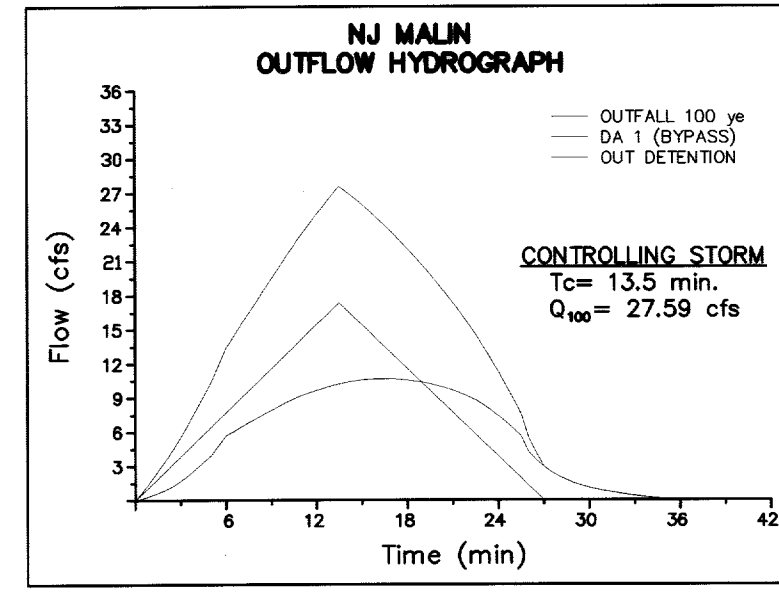


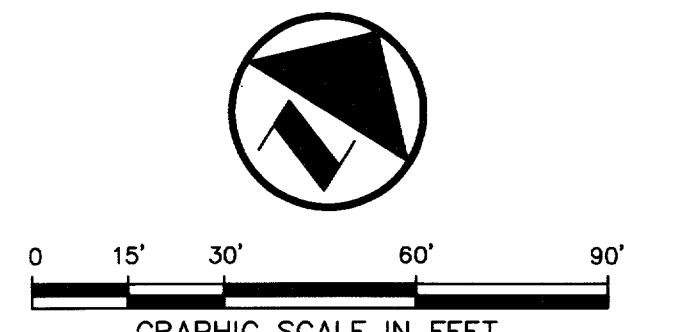
**BENCH MARK LIST.**  
 BM #1 ALUMINUM DISK SET IN CONCRETE STAMPED "ARP 2 ADS",  
 LOCATED ON THE ADDISON AIRPORT, APPROXIMATELY 400'  
 EAST OF THE CONTROL TOWER  
 ELEV=570.88

**MIDWAY PARK NORTH II**  
 (VOL. 83035, PG. 1180)  
 LOT 1



**EXISTING DRAINAGE CONDITIONS**  
 A = 5.09 Acres  
 $T_c = 14$  minutes  
 $I_{100} = 8.74$  in/hr  
 $C_{comp} = 0.69$   
 $Q_{100} = 27.39$  cfs - ALLOWABLE DISCHARGE  
 $(3.92+1.17)$

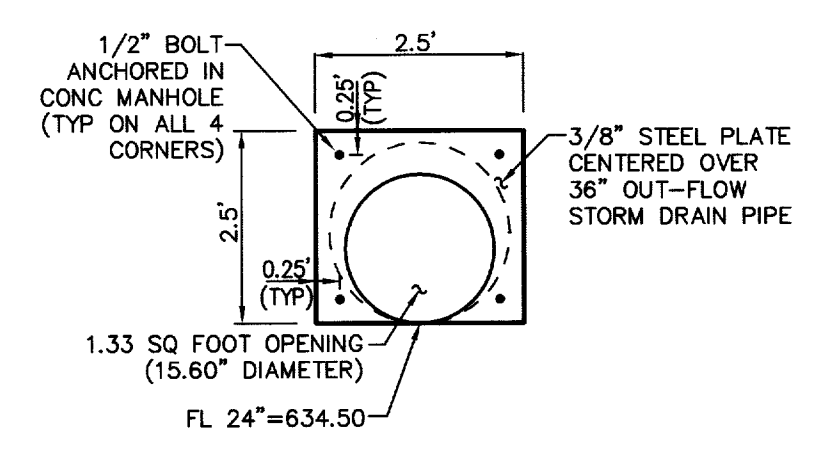
WHERE 3.92 ACRES = EXISTING DEVELOPED CONDITIONS  
 1.17 ACRES = EXISTING UNDEVELOPED CONDITIONS



- LEGEND**
- B. BOLLARD
  - EM ELECTRIC METER
  - PP POWER POLE
  - LS LIGHT STANDARD
  - WM WATER METER
  - WV WATER VALVE
  - ICV IRRIGATION CONTROL VALVE
  - FH FIRE HYDRANT
  - CO CLEANOUT
  - MH MANHOLE
  - GM GAS METER
  - TSC TRAFFIC SIGNAL CONTROL
  - TSP TRAFFIC SIGNAL POLE
  - TE TELEPHONE BOX
  - TV TV BOX
  - FP FLAG POLE
  - TS TRAFFIC SIGN
  - PL PROPERTY LINE
  - F FENCE
  - E13 EXIST CONTOUR
  - NEW IMPERVIOUS AREA (1.17 ACRES)
  - 1 DRAINAGE AREA No. 0100 FLOW IN C.F.S.
  - DRAINAGE AREA DIVIDE LINE

**DRAINAGE AREA TABLE**

| DRAINAGE AREA No. | AREA (acres) | C   | Tc (minutes) | I <sub>100</sub> (inch/hour) | Q <sub>100</sub> (cfs) |
|-------------------|--------------|-----|--------------|------------------------------|------------------------|
| 1                 | 2.75         | 0.8 | 13.5         | 7.95                         | 17.37                  |
| 2                 | 0.65         | 0.8 | 10.0         | 8.74                         | 3.85                   |
| 3                 | 0.21         | 0.8 | 10.0         | 8.74                         | 1.47                   |
| 4                 | 0.56         | 0.8 | 10.0         | 8.74                         | 3.92                   |
| 5                 | 1.04         | 0.8 | 10.0         | 8.74                         | 7.27                   |



**FLOW REDUCER PLATE**  
**ORIFACE PLATE CALCS**  
 $Q = CA\sqrt{2gh} = 10.95$  cfs  
 $C = 0.65$  (discharge coefficient)  
 $A =$  AREA OPENING (sq ft)  
 $g = 32.2$  ft/sec  
 $h = 2.5$  (depth of water)  
 $A = 1.33$  SQUARE FOOT

**GRADING AND DRAINAGE GENERAL NOTES**

- REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS REGARDING FILL COMPACTION AND MOISTURE CONTENT.
- UNLESS NOTED, ALL FILL IS TO BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT. FILL TO BE PLACED IN A MAXIMUM OF 6" LIFTS.
- ALL WALKS TO HAVE A MAXIMUM CROSS SLOPE OF 2%.
- GRADING OF ALL HANDICAPPED SPACES AND ROUTES TO CONFORM TO STATE, LOCAL AND FEDERAL GUIDELINES.
- UNLESS NOTED, STORM DRAIN LINES MAY BE OF THE FOLLOWING MATERIALS:
  - A. RCP C-76, CLASS III (WITHIN ALL PUBLIC RIGHT-OF-WAY)
  - B. ADS N-12
  - C. HANDOR HI-Q
 AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS & TOWN OF ADDISON SPECIFICATIONS.
- UNLESS NOTED, GRATE INLET TO BE "AMERICAN INDUSTRIAL PRE-CAST PRODUCTS, INC." PRECAST CATCH BASIN, SIZED AS SHOWN, OF APPROVED EQUAL.
- FINAL PAVING, CURB AND SIDEWALK ELEVATIONS WILL BE PLACED AT PLUS OR MINUS 0.03 FOOT.
- REFER TO LANDSCAPE SPECIFICATION FOR SEEDING AND SODDING REQUIREMENTS.
- ANY CONCRETE, ROCK OR MATERIAL DEEMED UNSUITABLE FOR SUBGRADE, BY ENGINEER, SHALL BE DISPOSED OF OFFSITE AT CONTRACTOR'S EXPENSE.
- TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 6.2.10, AND SHALL BE MECHANICALLY COMPACTED IN ACCORDANCE WITH NCTCOG ITEM 6.2.9 TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
- EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 6.2.9 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
- A ROUND MANHOLE COVER MEETING CITY SPECIFICATIONS SHALL BE PLACED IN ALL INLET TOPS. THE MANHOLE COVER SHALL BE PLACED NEAR THE OUTLET PIPE.
- ALL CONCRETE FOR INLETS AND DRAINAGE STRUCTURES SHALL CONFORM TO NCTCOG ITEM 7.4.5, CLASS "A" UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN STANDARD CITY SPECIFICATIONS.
- CRUSHED STONE BEDDING OR APPROVED EQUAL SHALL BE PROVIDED BY THE CONTRACTOR WHEN ROCK IS ENCOUNTERED IN TRENCHES. THERE SHALL BE NO ADDITIONAL PAY ITEM OF THE CRUSHED STONE BEDDING.
- IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTORS EXPENSE.

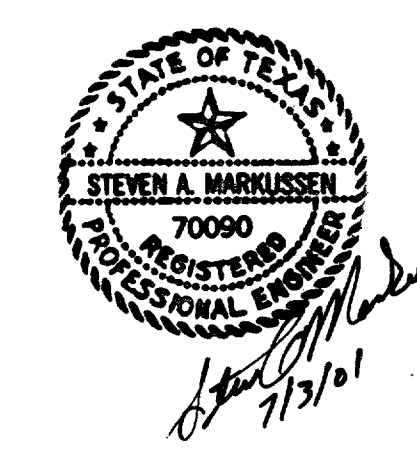
**RECORD DRAWING**  
 THIS DRAWING HAS BEEN REVISED TO REFLECT CONSTRUCTION RECORDS MAINTAINED AND PROVIDED BY THE CONTRACTOR FOR THIS PROJECT.  
 CONTRACTOR: PHOENIX COMMERCIAL INC.  
 DATE REVISED: 11/18/2002

**STORM SEWER CALCULATIONS**

| LINE / STATION                  | SIZE | Q <sub>100</sub> (cfs) | C (cfs) | V (fps) | V <sup>2</sup> /2g | S <sub>f</sub> |
|---------------------------------|------|------------------------|---------|---------|--------------------|----------------|
| LINE "ST-1" (0+00 - 0+72.31)    | 24"  | 10.95                  | 18.65   | 3.49    | 0.19               | 0.002343       |
| LINE "ST-2" (0+00 - 1+13.20)    | 21"  | 11.19                  | 15.20   | 4.65    | 0.34               | 0.006796       |
| LINE "ST-2" (1+24.21 - 2+18.01) | 18"  | 7.27                   | 10.92   | 4.11    | 0.26               | 0.004790       |
| LINE "ST-3" (0+00 - 2+65.87)    | 12"  | 3.85                   | 3.90    | 4.90    | 0.39               | 0.011678       |

15800 MIDWAY ROAD Ltd.  
 (VOL. 83174, PG. 4832)

M:\DWG-21\2200-01.07A\C4.0 STORM SEWER PLAN.DWG



|     |            |                |
|-----|------------|----------------|
| NO. | DATE       | REVISION       |
| 1   | 11/18/2002 | RECORD DRAWING |

Pacheco Koch Consulting Engineers  
 9401 LBJ FREEWAY SUITE 300 DALLAS, TEXAS 75243 972.235.3031

**STORM SEWER PLAN**  
**NJ MALIN EXPANSION**  
**MIDWAY ROAD**  
**ADDISON, TEXAS**  
**CITY OF ADDISON, TEXAS**

| DESIGN | DRAWN | DATE          | SCALE  | NOTES | FILE | NO.         |
|--------|-------|---------------|--------|-------|------|-------------|
| CJE    | JLM   | JULY 03, 2001 | 1"=30' |       |      | <b>C4.0</b> |

PK FILE: 2206-01.074

DWG FILE: C4.0 STORM SEWER  
 XREF FILE: ARCH.DWG