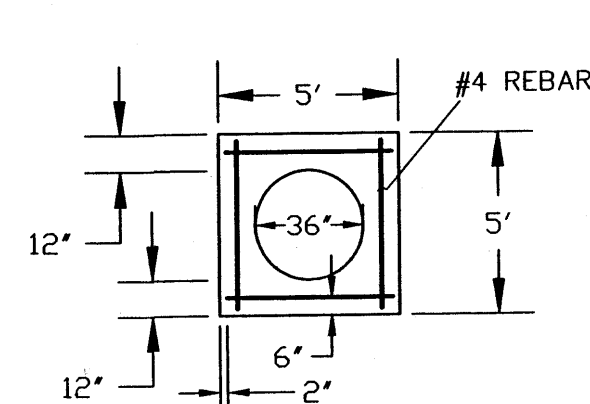
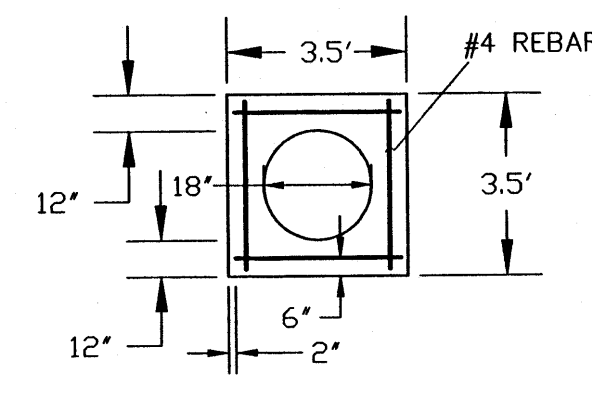


| INLET # | TYPE    | INV. IN | INV. OUT | FLOW INTERCEPTED CFS |
|---------|---------|---------|----------|----------------------|
| 1       | "A"     | -----   | 4982.72  | 7.10                 |
| 2       | "A"     | -----   | 4982.72  | 7.10                 |
| 3       | "A"     | 4981.95 | 4981.85  | 5.95                 |
| 4       | "C"     | 4981.95 | 4981.85  | 5.95                 |
| 5       | "A"     | -----   | 4980.35  | 4.05                 |
| 6       | "C"     | -----   | 4980.35  | 4.05                 |
| 7       | DBL "A" | -----   | 4978.66  | 28.18                |
| 8       | "A"     | -----   | 4978.66  | 28.18                |
| 9       | DBL "A" | 9       | 4978.66  | 23.97                |

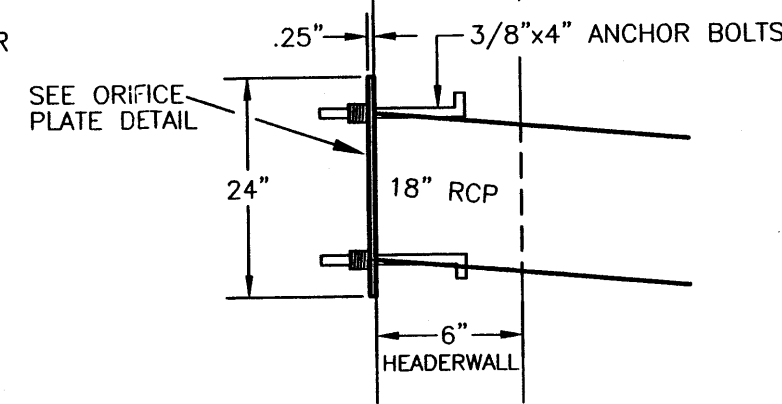
| MH # | TYPE | INV. IN | INV. OUT | MH SIZE (DIA.)<br>(FT) |
|------|------|---------|----------|------------------------|
| 1    | "E"  | 4981.28 | 4981.18  | 4                      |
| 2    | "E"  | 4980.04 | 4979.94  | 6                      |
| 3    | "E"  | 4979.38 | 4979.28  | 4                      |
| 4    | "E"  | 4978.13 | 4978.08  | 4                      |
| 5    | "E"  | 4977.08 | 4976.98  | 4                      |
| 6    | "E"  | 4972.14 | 4972.04  | 4                      |
| 7    | "E"  | 4963.04 | 4962.94  | 4                      |



6" HEADERWALL FOR 36" RCP

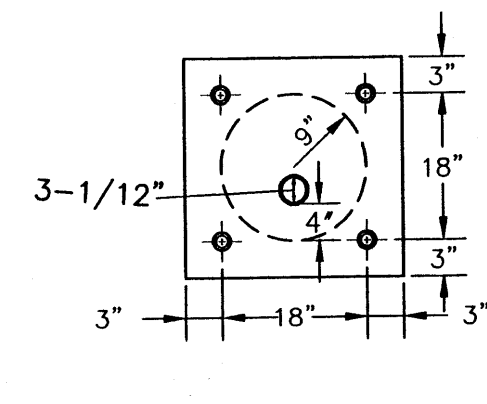


### 6"HEADERWALL FOR 18" CRP

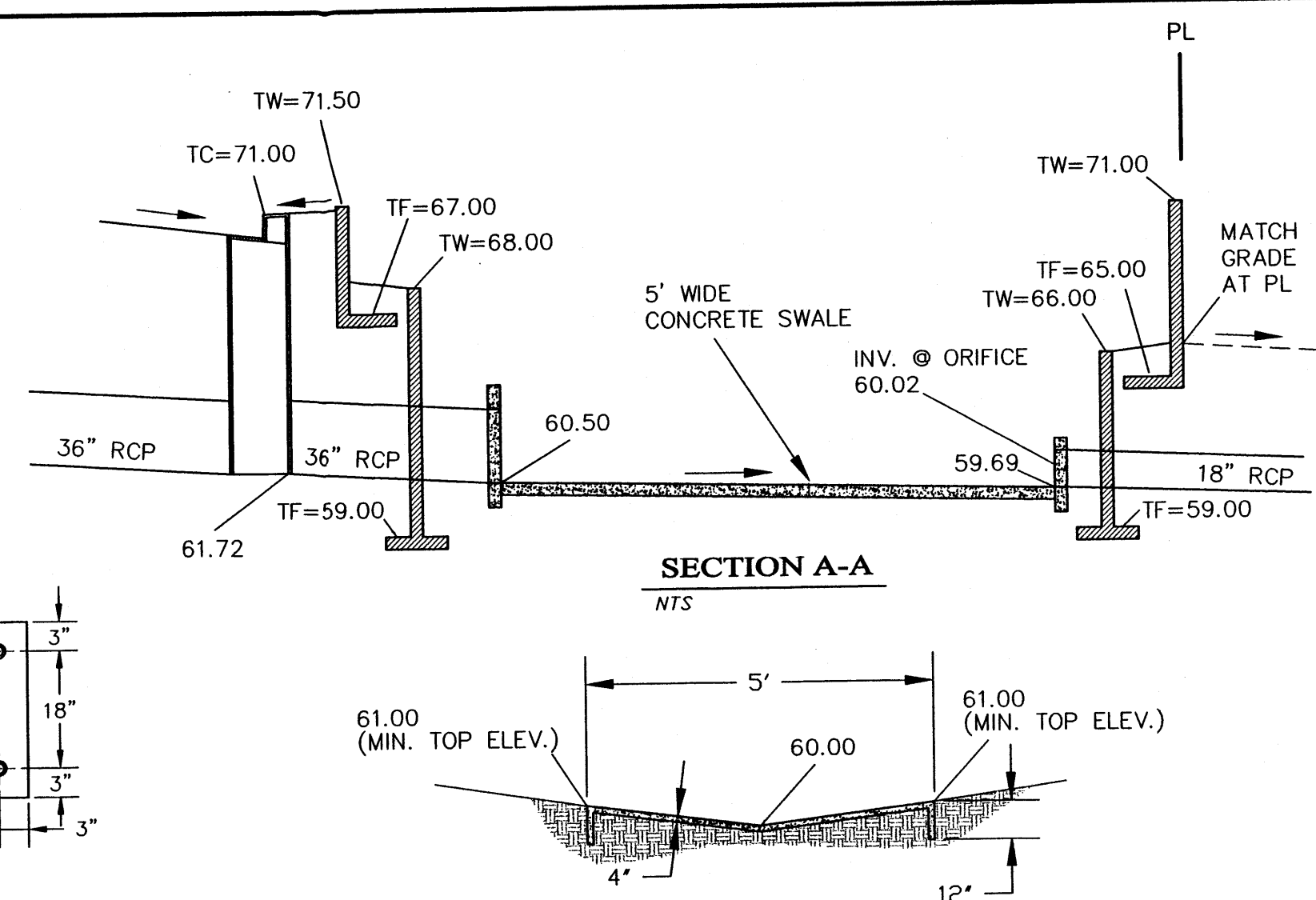


### HEADERWALL SECTION

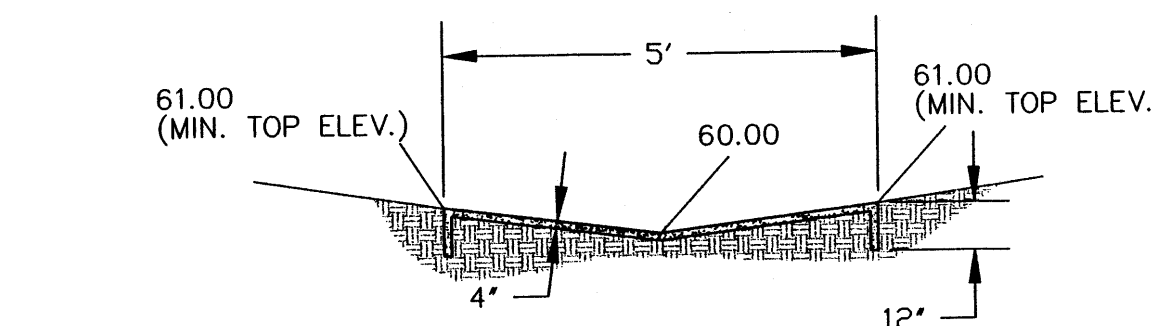
NTS (TO BE INSTALLED @ THE INFLOW  
OF THE 18" RCP)



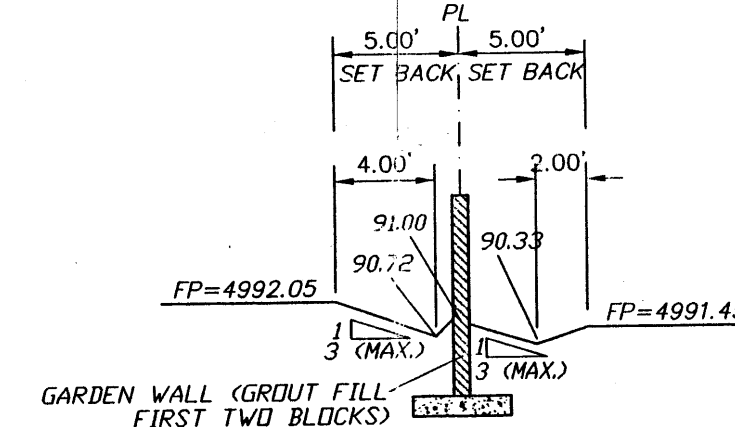
### ORIFICE PLATE DETAIL



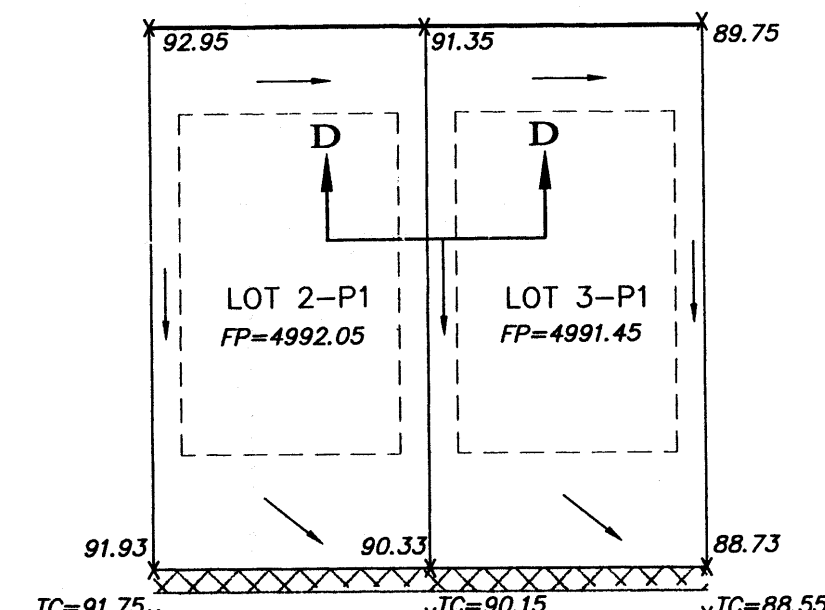
**SECTION A-A**



### CONCRETE SWALE DETAIL



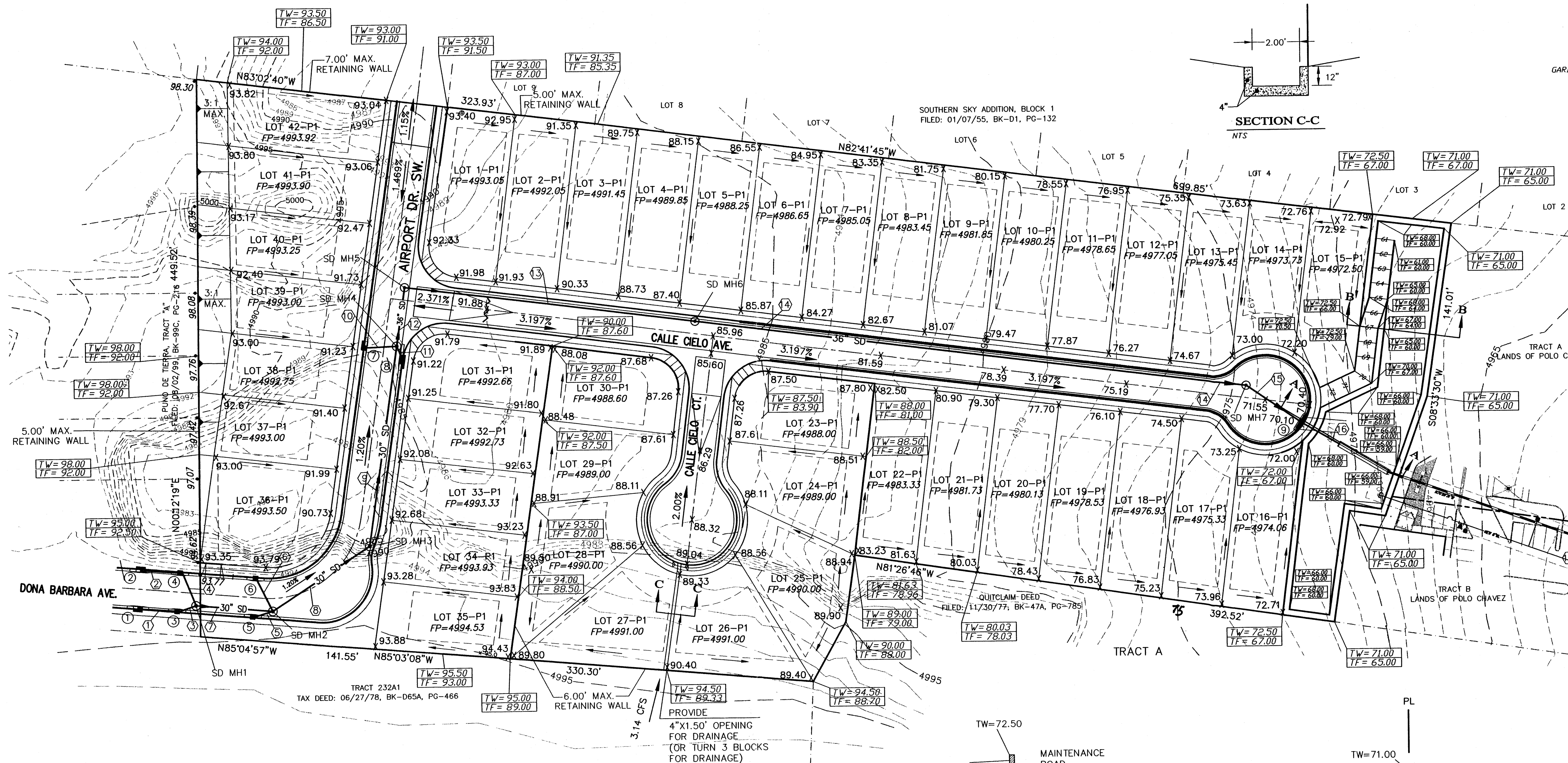
SECTION D-D



### TYPICAL LOT GRADING

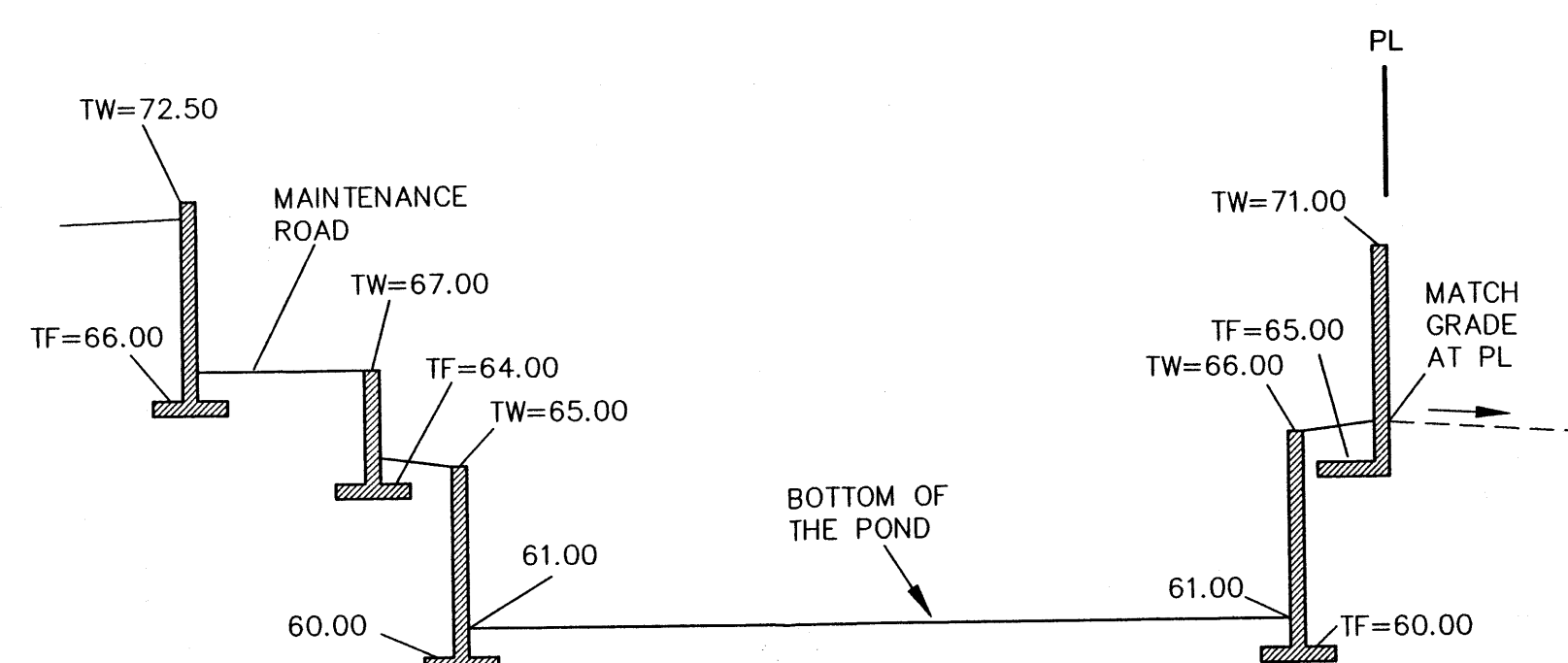
- ### LEGEND

-   
  
 24" SD PROPOSED STORM SEWER  
 SET BACK  
 EXISTING CURB & GUTTER  
 PROPOSED CURB & GUTTER  
 5505 EXISTING CONTOUR (MAJOR)  
 5504 EXISTING CONTOUR (MINOR)  
 5508 PROPOSED CONTOUR  
 BOUNDARY LINE  
 EXISTING LOT LINE  
 EASEMENT  
 PROPOSED SIDEWALK  
 TOP OF RETAINING WALL  
 TOP OF FOTTING  
 PROPOSED SPOT ELEVATION  
 X 70.28  
 X TC=95.44  
 FP=5505.00  
 X 5265.16  
 X TC=5265.16  
 EXISTING GRADE (TOP OF CURB)  
 RETAINING WALL

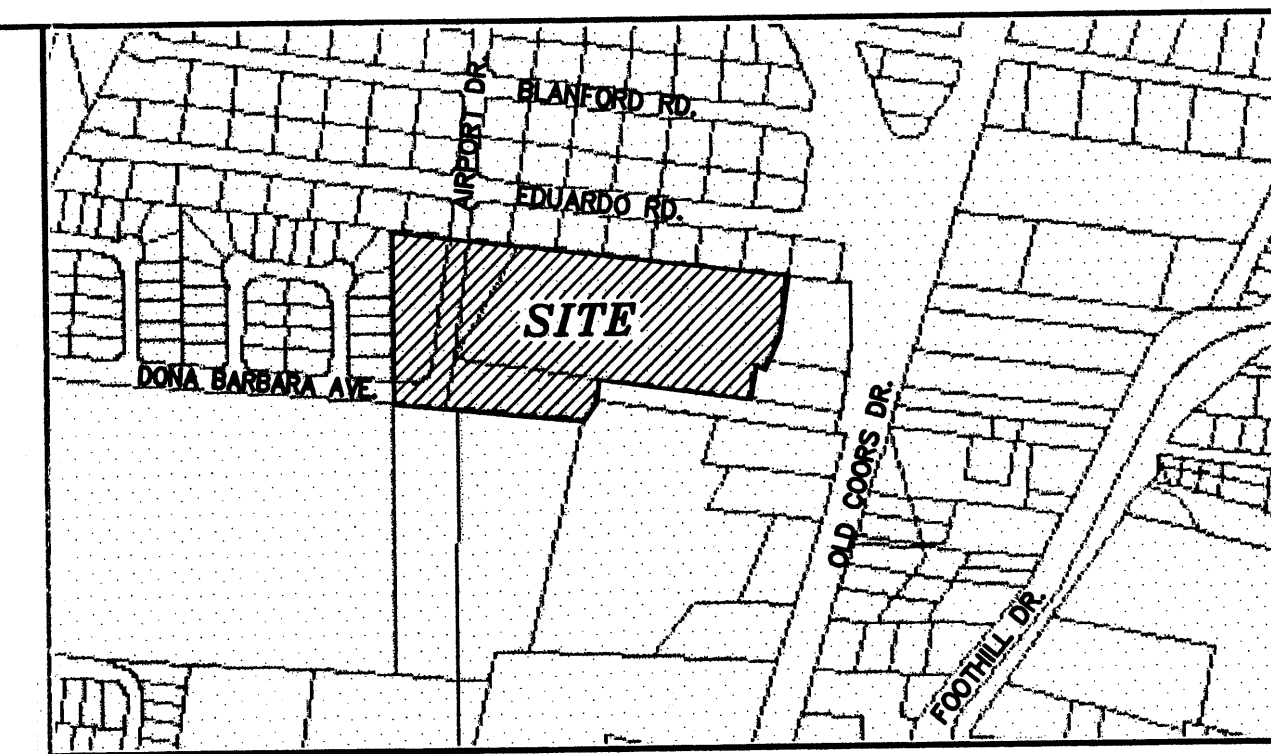
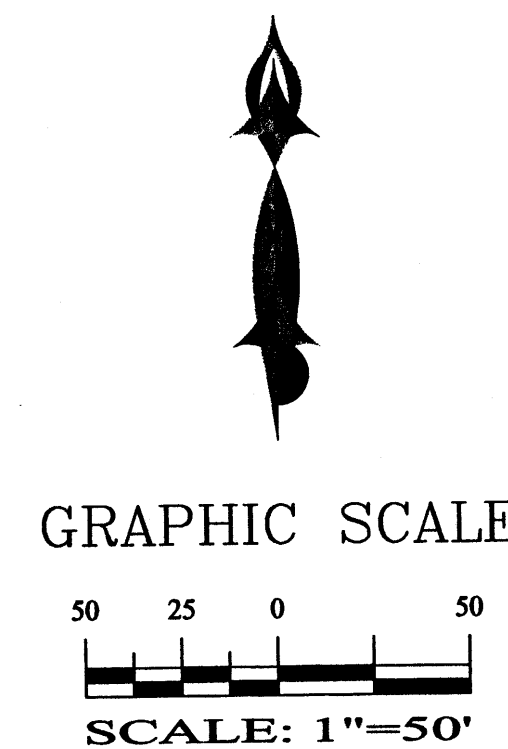


1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL STORM RUNOFF ON SITE.
4. REPAIR OF DAMAGED FACILITIES AND CLEAN-UP OF SEDIMENT ACCUMULATION ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.
6. ALL THE DISTURBED AREAS MUST BE REVEGETATED.

- 1: ADD 4900 TO SPOT ELEVATIONS TO SHOW TRUE ELEVATION.
- 2: CONTOUR INTERVAL IS ONE (1) FOOT.
- 3: ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION  
HAVING AN ELEVATION OF 4986.027 FEET ABOVE SEA LEVEL.
- 4: UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED  
ON ONLY THE ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT  
INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER  
INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR  
EXACT LOCATION AND/ OR DEPTH PRIOR TO EXCAVATION OR DESIGN CON-  
SIDERATIONS.
- 5: THIS IS NOT A BOUNDARY SURVEY. BEARINGS ARE ASSUMED, DISTANCES ARE FOUND  
FOUND. PROPERTY CORNERS ARE FOR INFORMATIONAL PURPOSES ONLY.  
SLOPES ARE AT 3:1 MAXIMUM.
- 6: TOPOGRAPHY WAS PROVIDED BY THE OWNER.



## SECTION B-B

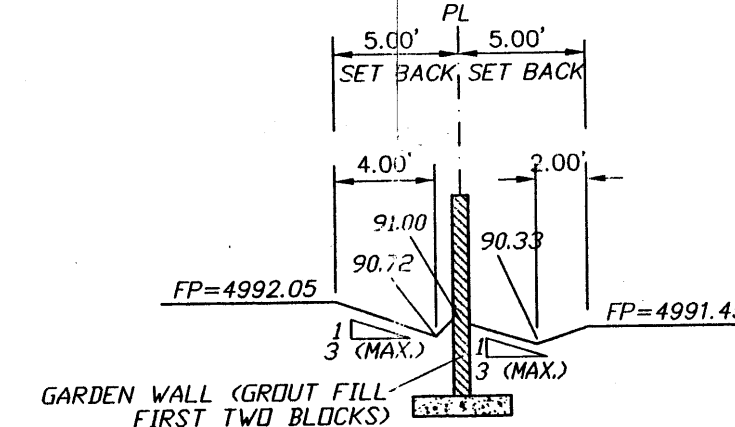


VICINITY MAP

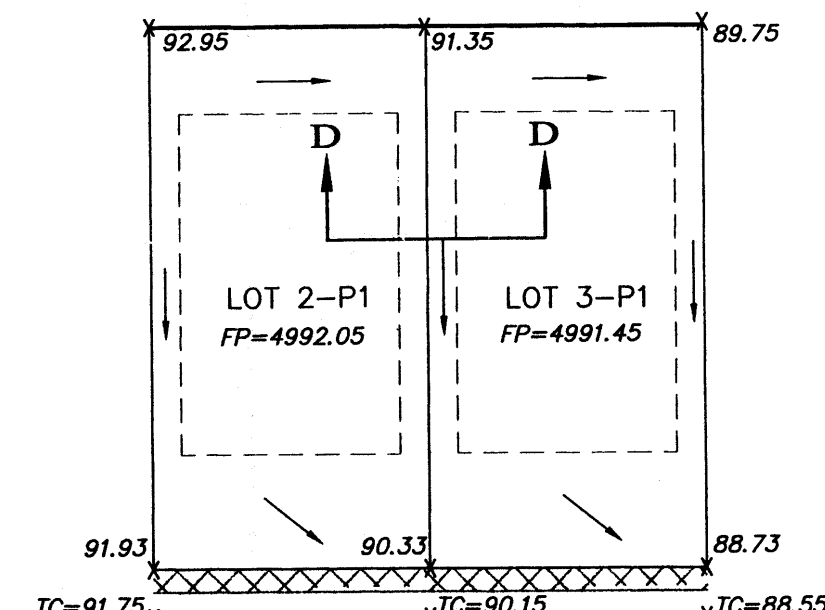
**M-11-Z**

**LEGAL DESCRIPTION:**

TRACT C, LAND OF POLO CHAVES, AND TRACTS A-1, A-2, SAN JOSE TRACT



SECTION D-D



### TYPICAL LOT GRADING

- ### LEGEND

-   
  
 24" SD PROPOSED STORM SEWER  
 SET BACK  
 EXISTING CURB & GUTTER  
 PROPOSED CURB & GUTTER  
 5505 EXISTING CONTOUR (MAJOR)  
 5504 EXISTING CONTOUR (MINOR)  
 5508 PROPOSED CONTOUR  
 BOUNDARY LINE  
 EXISTING LOT LINE  
 EASEMENT  
 PROPOSED SIDEWALK  
 TOP OF RETAINING WALL  
 TOP OF FOTTING  
 PROPOSED SPOT ELEVATION  
 X 70.28  
 X TC=95.44  
 FP=5505.00  
 X 5265.16  
 X TC=5265.16  
 EXISTING GRADE (TOP OF CURB)  
 RETAINING WALL

ROUGH GRADING APPROVAL

DATE 11/11/71 BIOLOGY 3

SHAHAB BIAZAL  
P.E. #13479

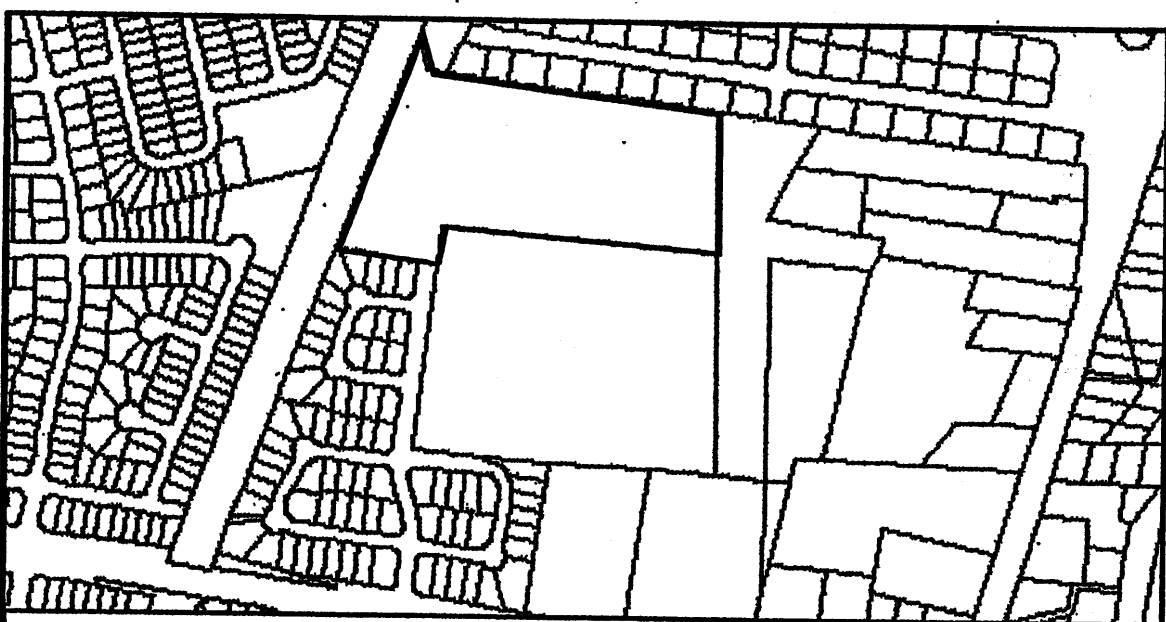


4416 ANAHEIM AVE., NE  
ALBUQUERQUE, NEW MEXICO 87113  
(505)899-5570

**CIELO LIND SUBDIVISION  
GRADING AND DRAINAGE PLAN**

|                           |                  |                     |                   |
|---------------------------|------------------|---------------------|-------------------|
| DRAWING:<br>200419-GR.DWG | DRAWN BY:<br>SHH | DATE:<br>08-07-2004 | SHEET #<br>1 OF 1 |
|---------------------------|------------------|---------------------|-------------------|

LAST REVISION: 06-17-20



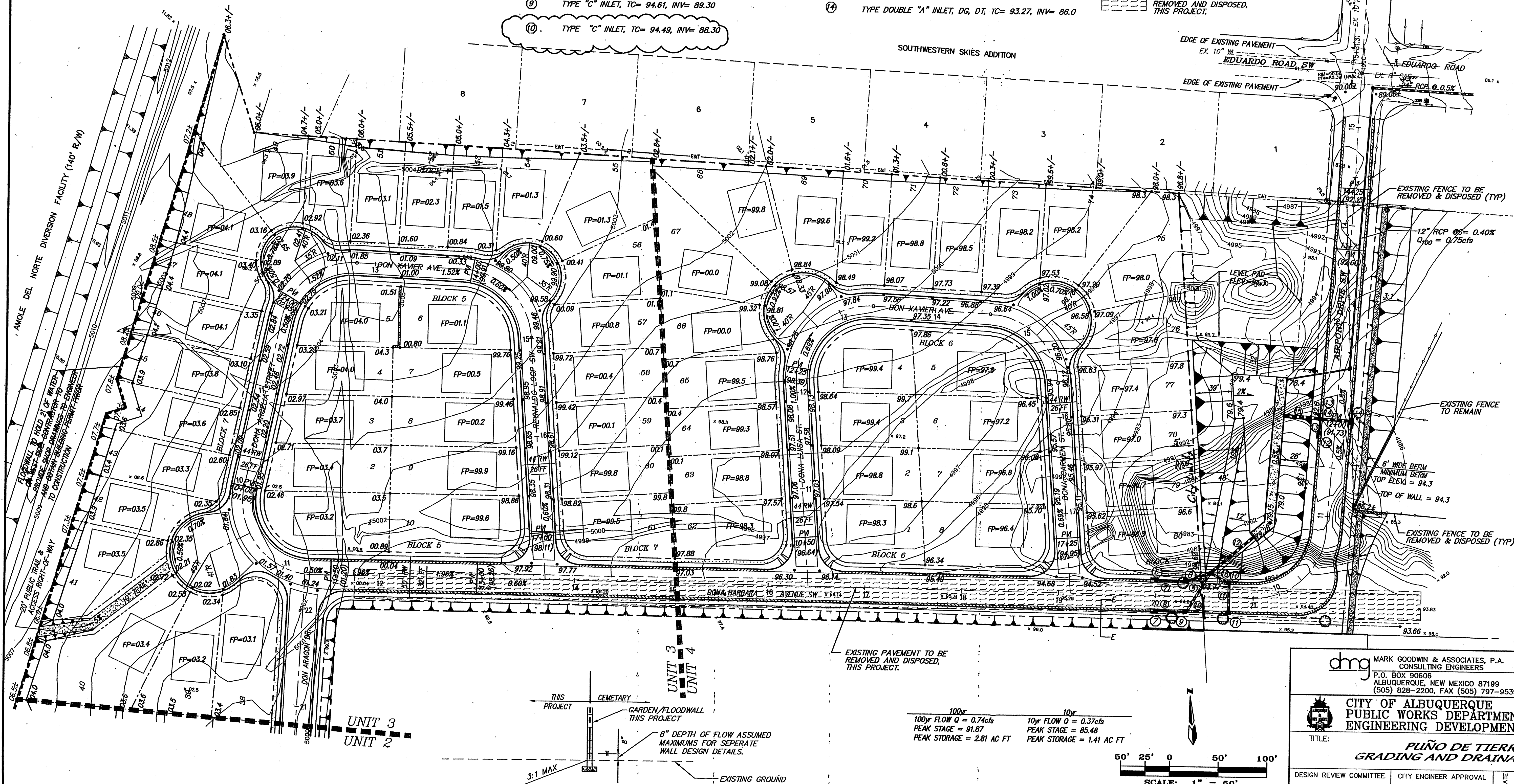
VICINITY MAP ZONE MAP: M-10

LEGEND

- ⑦ 27.05 LF. 18" RCP @ S=1.0%  
Q<sub>max</sub> = 7.10cfs Qcapacity = 10.5cfs  
V<sub>max</sub> = 4.0fps
- ⑧ 27.05 LF. 18" RCP @ S=1.0%  
Q<sub>max</sub> = 7.10cfs Qcapacity = 10.5cfs  
V<sub>max</sub> = 4.0fps
- ⑨ 22.87 LF. 24" RCP @ S=1.0%  
Q<sub>max</sub> = 13.05cfs Qcapacity = 22.6cfs  
V<sub>max</sub> = 4.0fps
- ⑩ 44.34 LF. 24" RCP @ S=1.0%  
Q<sub>max</sub> = 13.05cfs Qcapacity = 22.6cfs  
V<sub>max</sub> = 4.0fps
- ⑪ 27.00 LF. 24" RCP @ S=1.0%  
Q<sub>max</sub> = 17.10cfs Qcapacity = 22.6cfs  
V<sub>max</sub> = 5.4fps
- ⑫ 55.28 LF. 30" RCP @ S=1.0%  
Q<sub>max</sub> = 34.20cfs Qcapacity = 41.0cfs  
V<sub>max</sub> = 7.0fps
- ⑬ 12 LF. 24" RCP @ S=1.0%  
Q<sub>max</sub> = 19.56cfs Qcapacity = 22.6cfs  
V<sub>max</sub> = 6.2fps
- ⑭ 28 LF. 30" RCP @ S=1.0%  
Q<sub>max</sub> = 39.12cfs Qcapacity = 41.0cfs  
V<sub>max</sub> = 8.0fps
- ⑮ 36.5 LF. 36" RCP @ S=1.0%  
Q<sub>max</sub> = 58.68cfs Qcapacity = 66.7cfs  
V<sub>max</sub> = 8.3fps
- ⑯ 12.44 LF. 24" RCP @ S=1.0%  
Q<sub>max</sub> = 17.10cfs Qcapacity = 22.6cfs  
V<sub>max</sub> = 5.4fps

- ARTERIAL PAVEMENT
- TEMPORARY PAVEMENT
- EXISTING PAVEMENT
- NEW SIDEWALK CONSTRUCTED THIS PROJECT
- DEFERRED SIDEWALKS
- NEW RETAINING WALLS OVER 18"
- EXISTING PAVEMENT TO BE REMOVED AND DISPOSED, THIS PROJECT.
- MOUNTABLE CURB & GUTTER
- STANDARD 8" CURB & GUTTER
- UNIT BOUNDARY LINE
- NEW STORM DRAIN LINE
- TRACT/LOT BOUNDARY
- RIGHT OF WAY
- EASEMENTS
- PROPERTY LINE
- HANDICAP RAMPS PER COA DWG #2418 THIS PROJECT.
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING POWER POLE
- EXISTING STORM SEWER MANHOLE

- ⑥ TYPE "A" INLET TC= 94.73, INV= 90.00
- ⑦ TYPE "A" INLET TC= 94.72, INV= 90.00
- ⑧ TYPE "C" INLET TC= 94.61, INV= 89.30
- ⑨ TYPE "C" INLET TC= 94.61, INV= 89.30
- ⑩ TYPE "C" INLET TC= 94.49, INV= 88.30
- ⑪ TYPE "A" INLET TC= 94.49, INV= 89.10
- ⑫ TYPE DOUBLE "A" INLET, DG, ST, TC= 93.33, INV= 84.5
- ⑬ TYPE DOUBLE "A" INLET, DG, ST, TC= 93.27, INV= 85.2
- ⑭ TYPE DOUBLE "A" INLET, DG, DT, TC= 93.27, INV= 86.0



SECTION E-E  
N/S

100yr  
100yr FLOW Q = 0.74cfs  
PEAK STAGE = 91.87  
PEAK STORAGE = 2.81 AC FT

10yr  
10yr FLOW Q = 0.37cfs  
PEAK STAGE = 85.48  
PEAK STORAGE = 1.41 AC FT

SCALE: 1" = 50'

APPROVED FOR  
ROUGH GRADING  
(±18")

CITY HYDROLOGY

DATE

MARK GOODWIN & ASSOCIATES, P.A.  
CONSULTING ENGINEERS  
P.O. BOX 90606  
ALBUQUERQUE, NEW MEXICO 87199  
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DEVELOPMENT GROUP

TITLE: PUÑO DE TIERRA  
GRADING AND DRAINAGE PLAN

DESIGN REVIEW COMMITTEE CITY ENGINEER APPROVAL

FOR INFORMATION  
ONLY

CITY PROJECT NO.

594082

ZONE MAP NO.

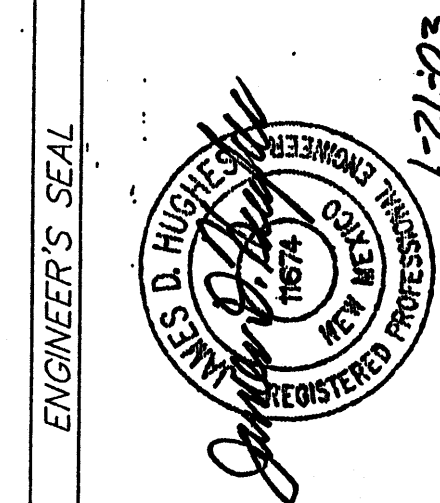
M-10

SHEET

5

OF

22

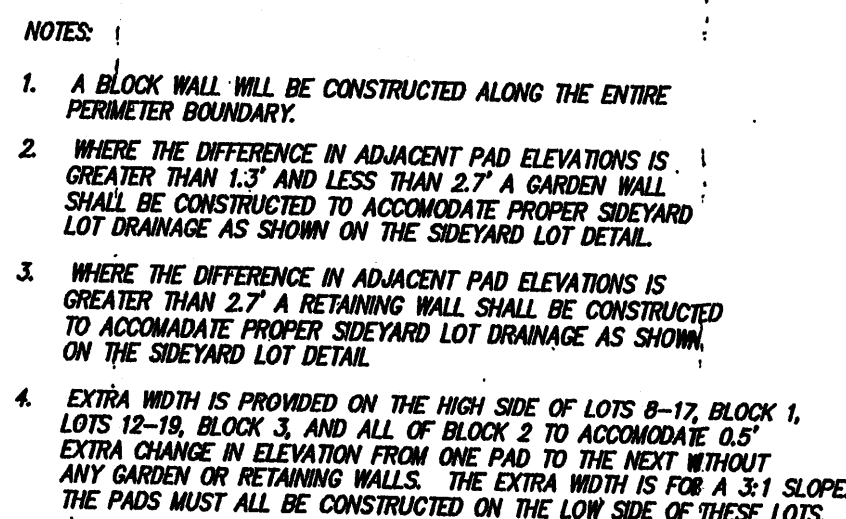


For Information  
Only

10 FLOW DEPTHS ARE TAKEN FROM PLATE 22.3 D-1 OF THE DPM AND REDUCED BY 3/4" FOR ROLL CURB TYPES TO ACCOUNT FOR THE DIFFERENCE IN GUTTER DEPRESSION. ALLOWABLE DEPTHS MAY NOT EXCEED CURB HEIGHTS WHICH ARE 0.33' FOR ROLL CURB AND GUTTER AND 0.67' FOR STANDARD CURB AND GUTTER.

11 ENERGY DEPTH IS CALCULATED AS FLOW DEPTH PLUS ENERGY HEAD. ALLOWABLE DEPTHS ARE 0.87'

12 SPREAD OF WATER FOR 10 YEAR FLOW IN ARENAL IS 11.75' ALLOWING 0.125' ACROSS FIRST 2' FROM CURB FACE (1.5' GUTTER) AND 0.195' RISE ACROSS THE NEXT 9.75' AT 2.0%. THIS MEETS DPM CRITERIA FOR ARTERIAL STREETS LEAVING MORE THAN ONE OF THE TWO LANES OPEN.



**DRAINAGE MANAGEMENT PLAN**

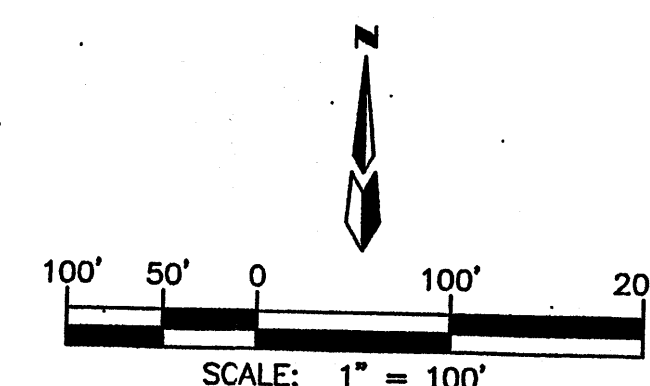
ROADS FROM THIS SITE WILL BE CONTROLLED BY A PERMANENT DETENTION POND WHICH INITIALLY BE CONSTRUCTED AS A RETENTION POND. IT WILL BE CONVERTED TO A DETENTION POND (WITH JUST 1 CFS DISCHARGE) AFTER A SEVERE PROJECT BUILDS THE EDUARDO C&M STORM SEWER. EDUARDO AVERAGE STREET GRADE IS 2% AND THE SEWER BASIN #212 CONTAINS 108 cfs TO THE REACH BETWEEN GOORS RD. AND AIRPORT DR. THE CAPACITY OF THE STREET WITH CURB AND GUTTER IS ONLY ABOUT 54 cfs (WHICH THE DEPTH OF FLOW IS 0.55'). THE VELOCITY IS ABOUT 5.5 f/s AND THE TOTAL ENERGY DEPTH IS 1.00 FEET. A 30" PIPE IN EDUARDO CAN CARRY THE OTHER 54 cfs. THIS PLAN IS IN ACCORDANCE WITH THE AERIAL DRAINAGE MASTER PLAN DATED 5-23-00.

~~WORTH POND~~

~~100 yr, 6hr VOLUME = 2.45 ac. ft. @ ELEV. 90.10.~~  
~~100 yr 10 day VOLUME = 2.38 ac. ft. @ ELEV 91.83~~  
~~TOP OF POND VOLUME = 4.15 ac. ft. @ ELEV 92.10~~  
~~TEMPORARY ON SITE RETENTION POND~~  
~~V<sub>60d</sub> = 1.244 + 2.740 = 3.984 ac.ft.~~

 DRAINAGE AREA BOUNDARY  
 UNIT BOUNDARY  
 DRAINAGE AREA ID'S

1. THE CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION SHALL GOVERN ALL WORK.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DIST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DIT. THIS SHD. INVOLVING NETTING THE SOIL TO KEEP IT FROM BLOWING.
5. THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.
6. ALL STREET ELEVATIONS SHOWN ARE FINISHED FLOWLINE ELEVATIONS.
7. ALL WALLS MUST BE PERMITTED AND INSPECTED SEPARATELY BY THE CITY BUILDING DEPT.
8. A 10' PRIVATE DRAINAGE EASEMENT (PDE) IS GRANTED ON ALL SIDELOTS AND ON NEAR LOT LINES WHERE THEY ADJ. THE SIDEWAY OF THE ADJACENT LOT, TO BE MAINTAINED JOINTLY BY THE ADJACENTS.



**dmg** MARK GOODWIN & ASSOCIATES, P.A.  
CONSULTING ENGINEERS  
P.O. BOX 90606  
ALBUQUERQUE, NEW MEXICO 87199  
(505) 828-2200, FAX (505) 797-9531

|                                                                                       |                                                                                 |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|  | CITY OF ALBUQUERQUE<br>PUBLIC WORKS DEPARTMENT<br>ENGINEERING DEVELOPMENT GROUP |
|                                                                                       | TITLE: <i>PUÑO DE TIERRA<br/>GRADING AND DRAINAGE PLAN</i>                      |

|                             |                        |
|-----------------------------|------------------------|
| DESIGN REVIEW COMMITTEE     | CITY ENGINEER APPROVAL |
| <b>FOR INFORMATION ONLY</b> |                        |

|                  |              |
|------------------|--------------|
| CITY PROJECT NO. | ZONE MAP NO. |
|------------------|--------------|

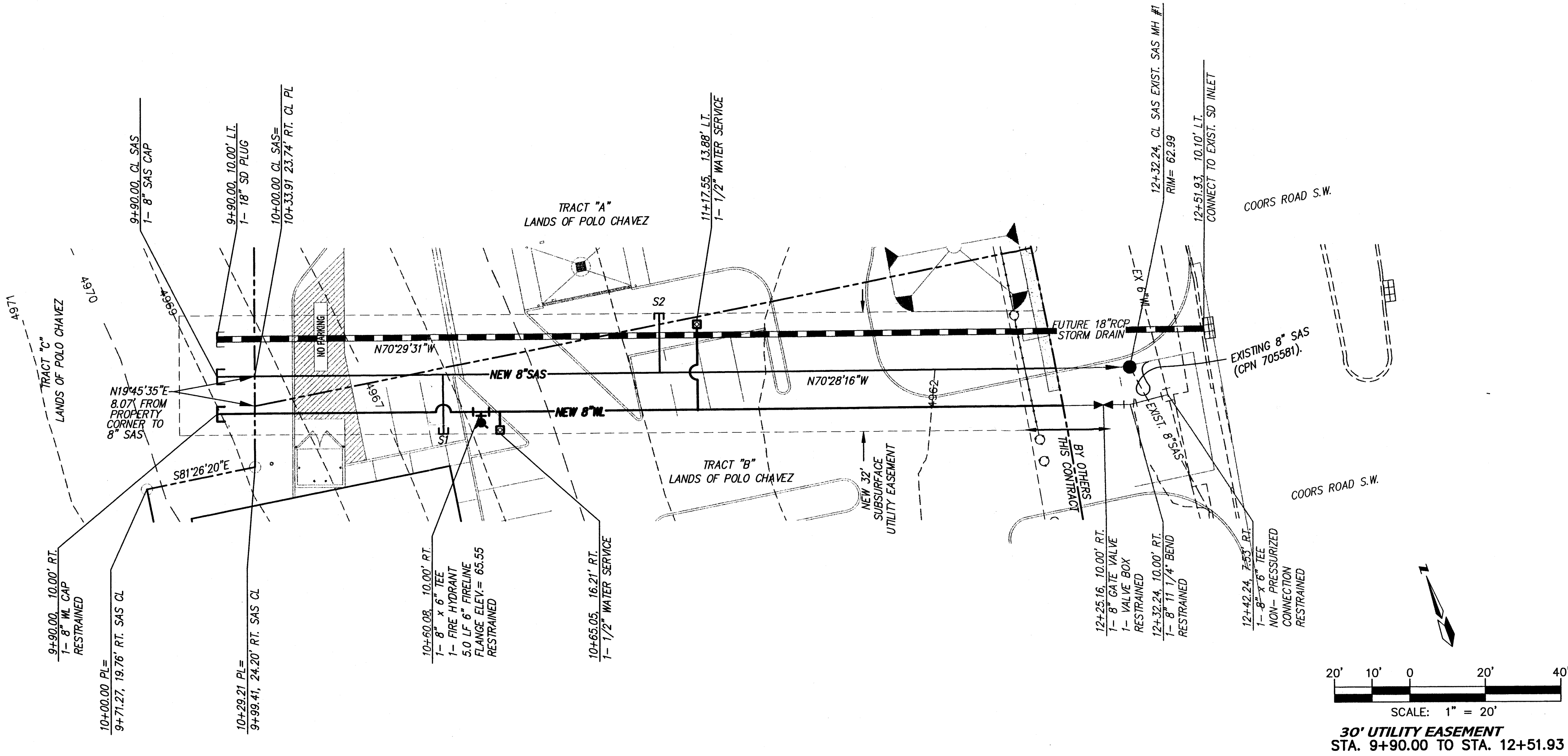
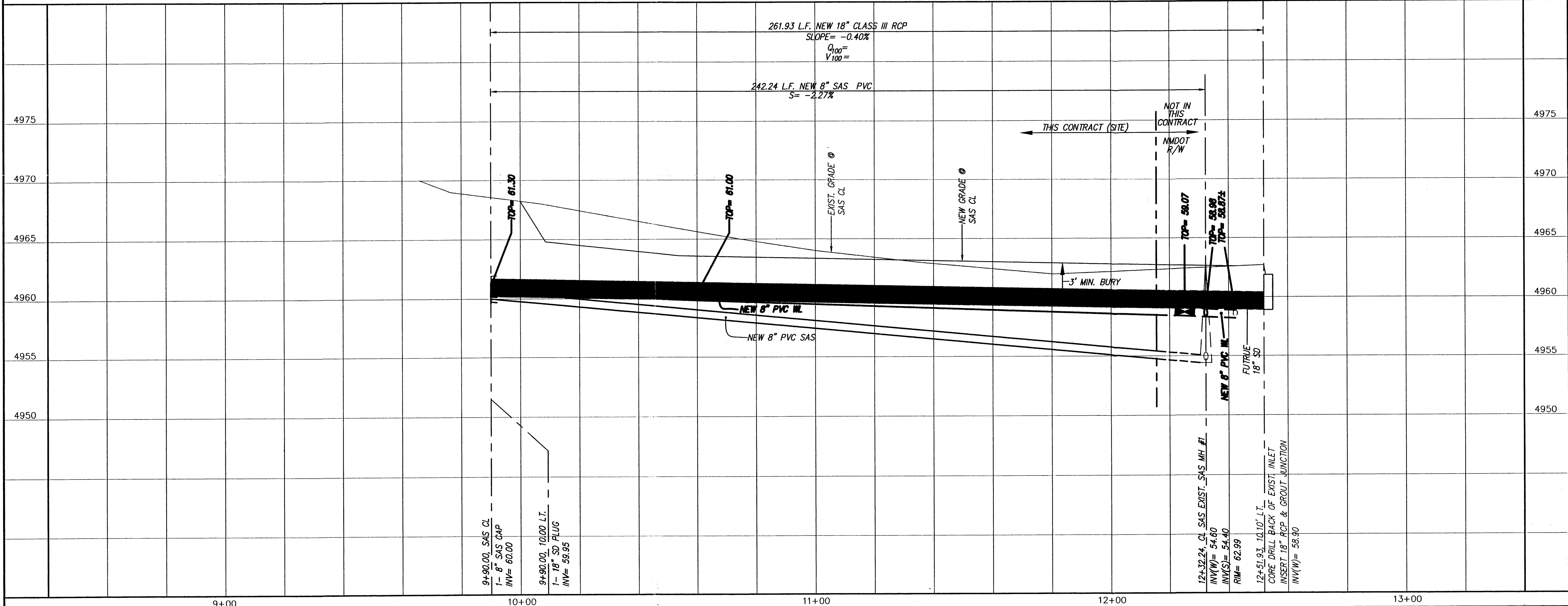
| SURVEY INFORMATION |    |      | BENCH MARKS                                                  |  | AS BUILT INFORMATION   |      |
|--------------------|----|------|--------------------------------------------------------------|--|------------------------|------|
| FIELD NOTES        |    |      |                                                              |  |                        |      |
| NO.                | BY | DATE |                                                              |  | CONTRACTOR             |      |
|                    |    |      | STATION IS A STANDARD C.O.A. BRASS CAP SET IN CONCRETE 0.20' |  | WORKED BY              |      |
|                    |    |      | ABOVE GROUND AND STAMPED "1-MID".                            |  | INSPECTED BY           | DATE |
|                    |    |      |                                                              |  | ACCEPTANCE BY          | DATE |
|                    |    |      | FROM THE INTERSECTION OF SOUTH COORS RD. ROSENDO GARCA RD.   |  | DRAWINGS               | DATE |
|                    |    |      | AND SAGE RD. TRAIL. WEST ON SAGE RD. APPROXIMATELY 1.1 MI.   |  | CORRECTED BY           |      |
|                    |    |      | TO UNSER BLVD. STATION IS LOCATED 64.0' EAST FROM CENTERLINE |  | MICRO-FILM INFORMATION |      |
|                    |    |      | OF UNSER AND 88.0' SOUTH FROM CENTERLINE OF SAGE.            |  | RECORDED BY            | DATE |
|                    |    |      |                                                              |  | NO.                    |      |
|                    |    |      | X=358,982.76 Y=1,436,654.64 1:2 5/20/00 00                   |  |                        |      |

[illegible]

For Information Only

RECEIVED  
JUN 6 2004  
HYDROLOGY SECTION





**NOTES**

1. THE CENTERLINE USED FOR THIS SHEET IS THE NEW SAS LINE.
2. TRENCHING, ASPHALT CUTTING AND PATCHING SHALL CONFORM TO BERNALILLO COUNTY STANDARD DRAWING 2465. A BERNALILLO COUNTY INSPECTOR (848-1500) MUST VERIFY PAVEMENT THICKNESS PRIOR TO PATCHING.

**SANITARY SEWER SERVICES**

| SERVICE | STATION AT EASMT. | INV. ELEV. AT EASMT. | LENGTH AT EASMT. |
|---------|-------------------|----------------------|------------------|
| S1      | 10+50.19          | 59.68                | 15.90'           |
| S2      | 11+07.56          | 58.45                | 15.86'           |

**RESTRAINED JOINT LENGTH FOR BENDS, VALVES, DEAD ENDS (FT.)**

| PIPE SIZE | 90° | 45° | 22.5° | 11.25° | VALVE |
|-----------|-----|-----|-------|--------|-------|
| 8"        | -   | -   | -     | 2      | 60'   |

LENGTH OF RESTRAINED PIPE ON EACH SIDE OF THE BEND. RESTRAIN BRANCH AT FITTING ONLY MINIMUM ATTACHED PIPE LENGTH, RUN SIDE OF TEE: 10.00 FEET.

**RESTRAINED JOINT LENGTH FOR TEES (FT.)**

| PIPE SIZE | RUN | BRANCH |
|-----------|-----|--------|
| 8"x8"x6"  | 7'  | 5'     |

**30' UTILITY EASEMENT**  
STA. 9+90.00 TO STA. 12+51.93  
SCALE: HORZ. 1" = 20'  
VERT. 1" = 5'

**ENGINEER'S SEAL**

MARK GOODWIN & ASSOCIATES, P.A.  
CONSULTING ENGINEERS  
P.O. BOX 90606  
ALBUQUERQUE, NEW MEXICO 87199  
(505) 828-2200, FAX (505) 797-9539

**CITY OF ALBUQUERQUE**  
**PUBLIC WORKS DEPARTMENT**

TITLE: **ALL WASHED UP CARWASH & LAUNDROMAT 2004**  
**30' UTILITY EASEMENT**  
**UTILITY IMPROVEMENTS**

DESIGN REVIEW COMMITTEE: CITY ENGINEER APPROVAL

LAST DESIGN UPDATE: MO./DAY/YR.

DESIGNED BY: JMM DATE: 02/04  
DRAWN BY: KIS DATE: 02/04  
CHECKED BY: DMG DATE: 02/04

**AS BUILT INFORMATION**

CONTRACTOR: [Blank]  
WORK: [Blank]  
DATE: [Blank]

**BENCH MARKS**

ACS Brass Cap stamped "7-M1"  
Near the intersection of Old Coors Rd. S.W. and New Coors Blvd. S.W.  
Station is 102.5 feet south of the extended centerline of Eduardo Road S.W. and 46.8 feet west of the centerline of Coors Frontage Road S.W. on the east side of Coors Boulevard S.W. set flush on curb.  
Geographic Position (NAD 1983), in feet  
N.M. State Plane Coordinates (Central Zone)  
X=363,847.24 Y=1,475,980.04  
Elevation=4966.027 NGVD29, in feet

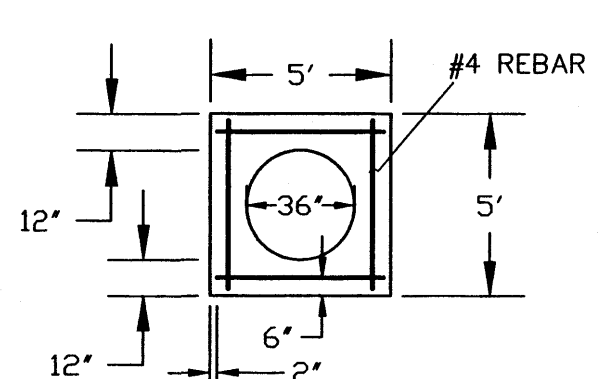
CITY PROJECT NO. [Blank] ZONE MAP NO. **M-11-Z** SHEET **2** OF **2**

For Information Only

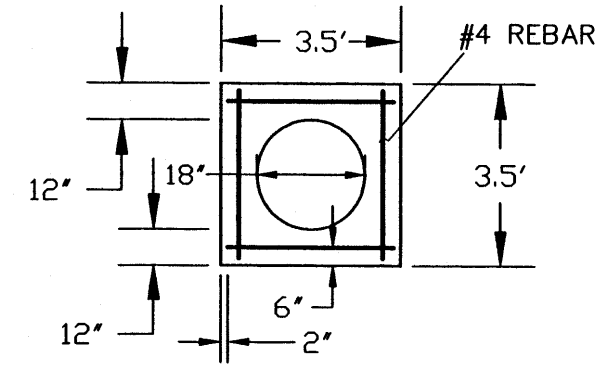
| PIPE # | SIZE (IN) | LENGTH (FT) | SLOPE (%) | FLOW (CFS) | VELOCITY (FT/S) |
|--------|-----------|-------------|-----------|------------|-----------------|
| 1      | 18        | 26.05       | 1.00      | 7.10       | 6.79            |
| 2      | 18        | 26.05       | 1.00      | 7.10       | 6.79            |
| 3      | 24        | 14.07       | 2.00      | 13.05      | 10.14           |
| 4      | 24        | 28.55       | 2.00      | 13.05      | 10.14           |
| 5      | 18        | 14.84       | 1.00      | 4.05       | 5.90            |
| 6      | 18        | 30.47       | 1.00      | 4.05       | 5.90            |
| 7      | 24        | 62.30       | 2.00      | 26.10      | 12.12           |
| 8      | 30        | 94.46       | 0.70      | 34.20      | 8.59            |
| 9      | 30        | 163.30      | 0.70      | 34.20      | 8.59            |
| 10     | 24        | 26.42       | 2.00      | 28.18      | 12.29           |
| 11     | 24        | 11.50       | 2.00      | 28.18      | 12.29           |
| 12     | 36        | 47.44       | 2.00      | 90.55      | 16.33           |
| 13     | 36        | 236.82      | 2.00      | 90.55      | 16.33           |
| 14     | 36        | 450.00      | 2.00      | 90.55      | 16.33           |
| 15     | 36        | 55.54       | 2.00      | 90.55      | 16.33           |
| 16     | 36        | 34.00       | 3.59      | 114.52     | 21.68           |
| 17     | 18        | 261.90      | 0.30%     | 0.73       | 2.36            |

| INLET # | TYPE    | INV. IN | INV. OUT | FLOW INTERCEPTED CFS |
|---------|---------|---------|----------|----------------------|
| 1       | "A"     | ----    | 4982.72  | 7.10                 |
| 2       | "A"     | ----    | 4982.72  | 7.10                 |
| 3       | "A"     | 4981.95 | 4981.85  | 5.95                 |
| 4       | "C"     | 4981.95 | 4981.85  | 5.95                 |
| 5       | "A"     | ----    | 4980.35  | 4.05                 |
| 6       | "C"     | ----    | 4980.35  | 4.05                 |
| 7       | DBL "A" | ----    | 4978.66  | 28.18                |
| 8       | "A"     | ----    | 4978.66  | 28.18                |
| 9       | DBL "A" | 9       | 4978.66  | 23.97                |

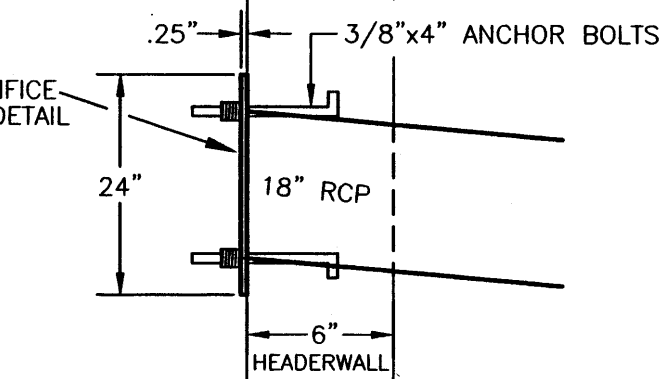
| MH # | TYPE | INV. IN | INV. OUT | MH SIZE (DIA.) (FT) |
|------|------|---------|----------|---------------------|
| 1    | "E"  | 4981.28 | 4981.18  | 4                   |
| 2    | "E"  | 4980.04 | 4979.94  | 6                   |
| 3    | "E"  | 4979.38 | 4979.28  | 4                   |
| 4    | "E"  | 4978.13 | 4978.08  | 4                   |
| 5    | "E"  | 4977.08 | 4976.98  | 4                   |
| 6    | "E"  | 4972.14 | 4972.04  | 4                   |
| 7    | "E"  | 4963.04 | 4962.94  | 4                   |



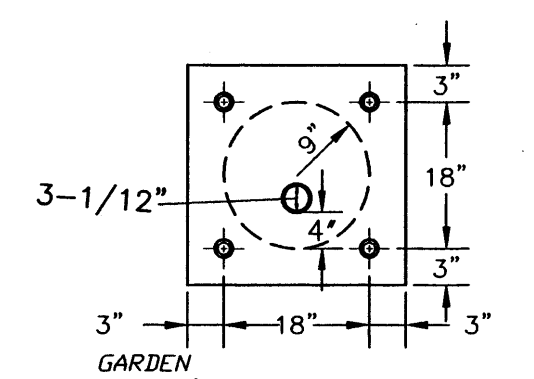
6" HEADERWALL FOR 36" RCP  
NTS



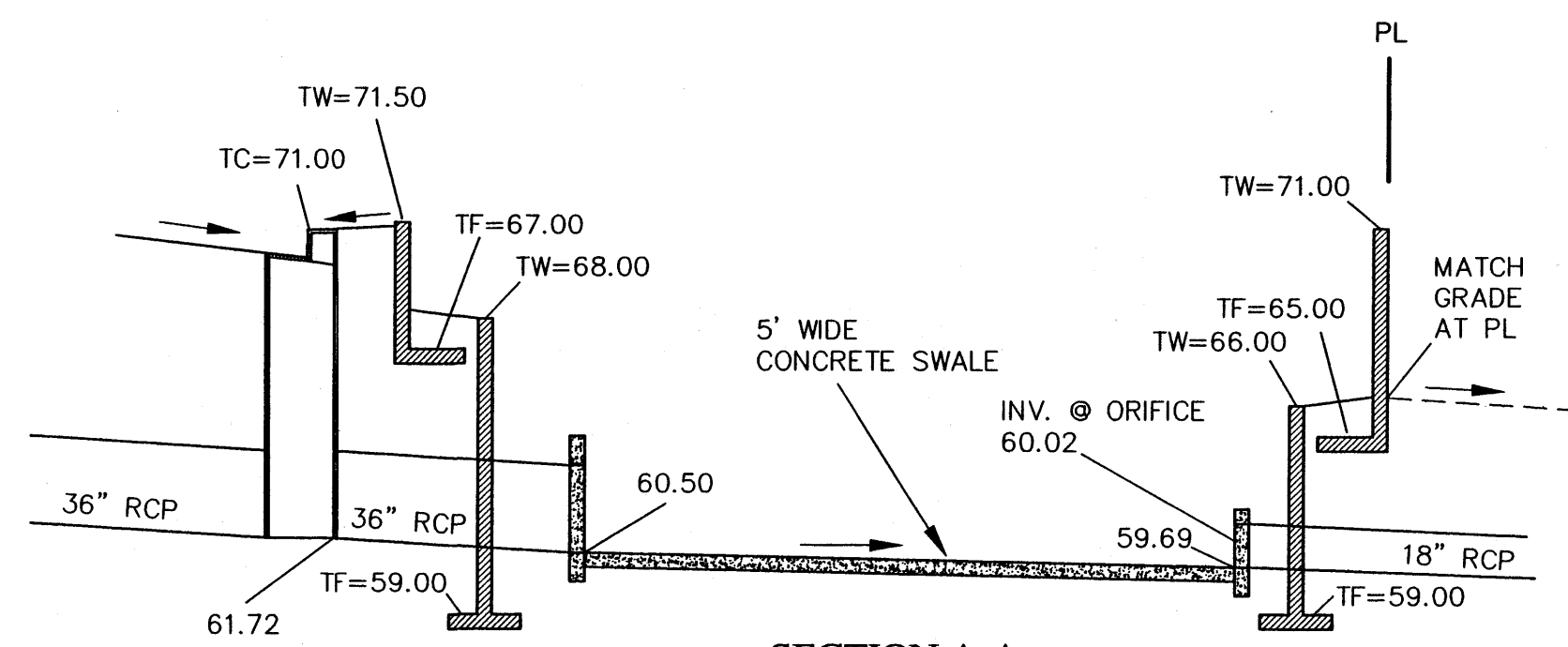
6" HEADERWALL FOR 18" CRP  
NTS



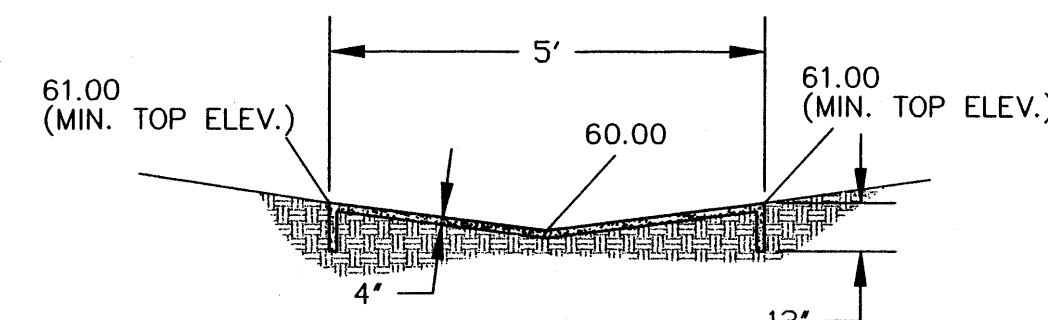
HEADERWALL SECTION  
NTS  
(TO BE INSTALLED @ THE INFLOW OF THE 18" RCP)



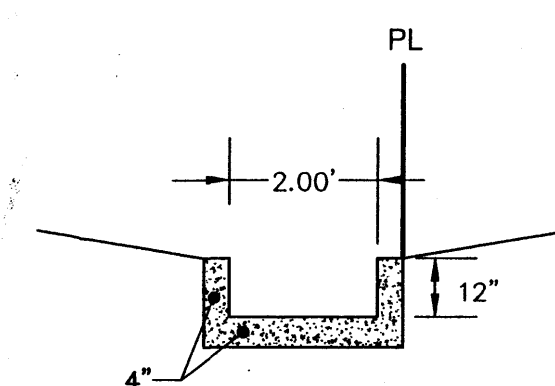
ORIFICE PLATE DETAIL  
NTS



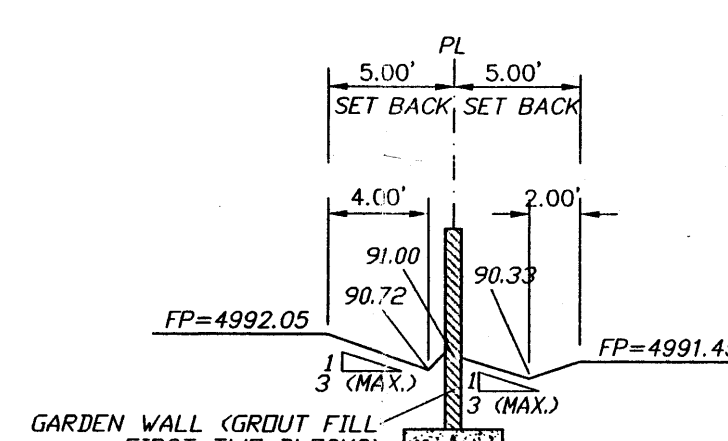
SECTION A-A  
NTS



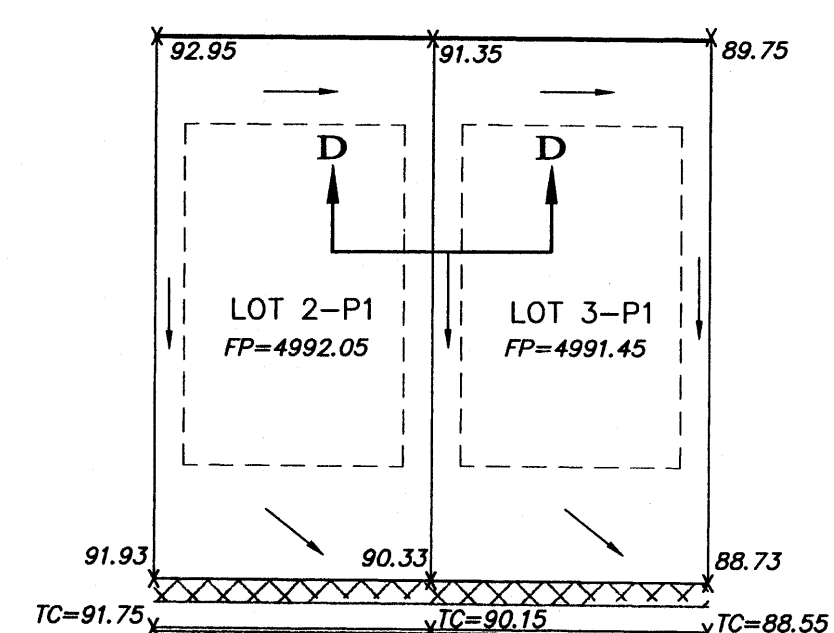
CONCRETE SWALE DETAIL  
NTS



SECTION C-C  
NTS



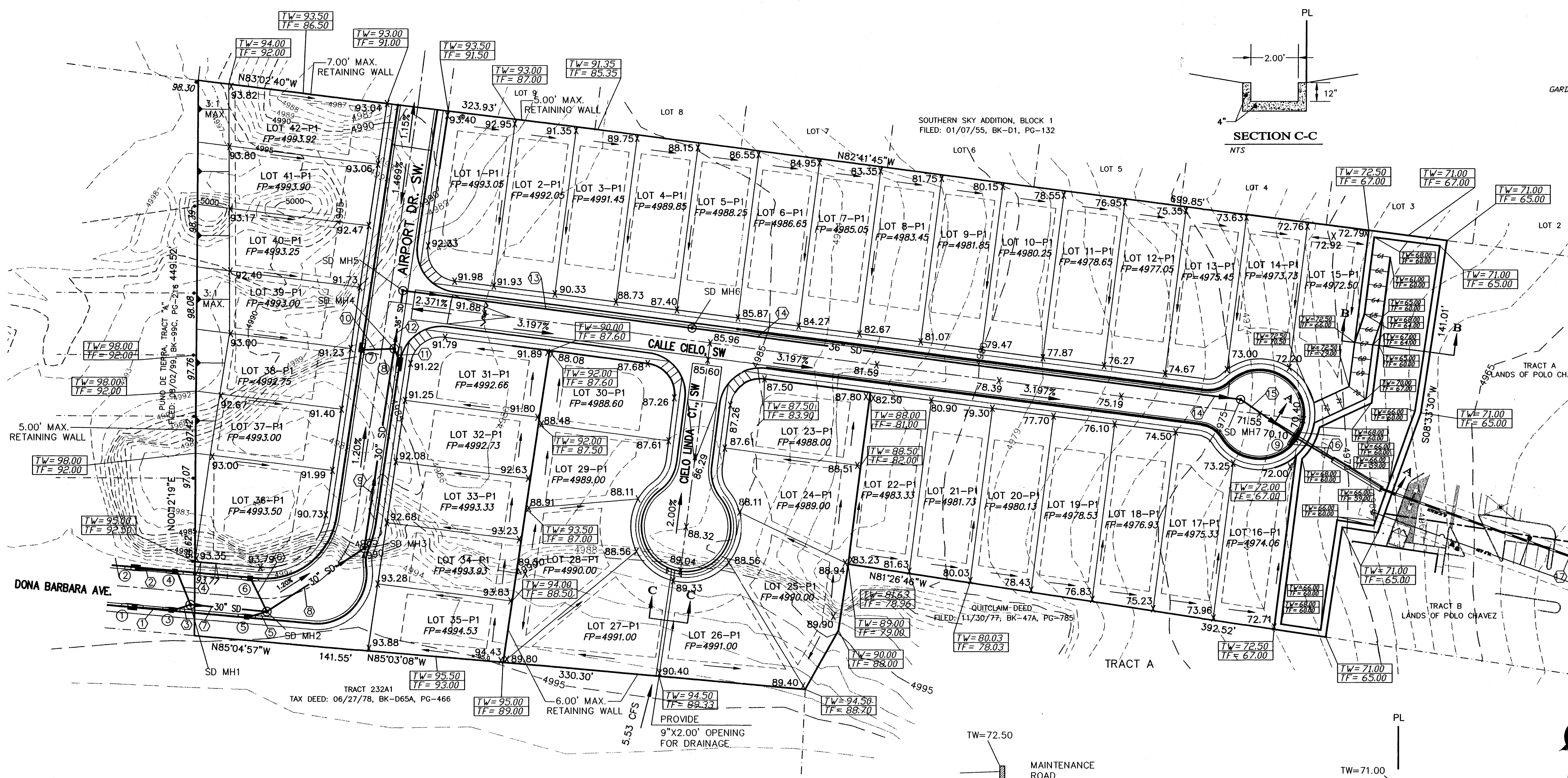
SECTION D-D  
NTS



TYPICAL LOT GRADING  
NTS

#### LEGEND

- EXISTING SAS MANHOLE
- ⊠ EXISTING VALVE W/BOX
- 24" SD — PROPOSED STORM SEWER
- SET BACK
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- 5505 --- EXISTING CONTOUR (MAJOR)
- 5504 --- EXISTING CONTOUR (MINOR)
- 5508 --- PROPOSED CONTOUR
- BOUNDARY LINE
- EXISTING LOT LINE
- EASEMENT
- PROPOSED SIDEWALK
- TOP OF RETAINING WALL
- TOP OF FOOTING
- X 70.28 PROPOSED SPOT ELEVATION
- X TC=95.44 PROPOSED TOP OF CURB
- FP=5505.00 PROPOSED FINISH PAD
- X 5265.16 PROPOSED FINISH PAD
- X TC=5265.16 EXISTING GRADE (TOP OF CURB)
- RETAINING WALL

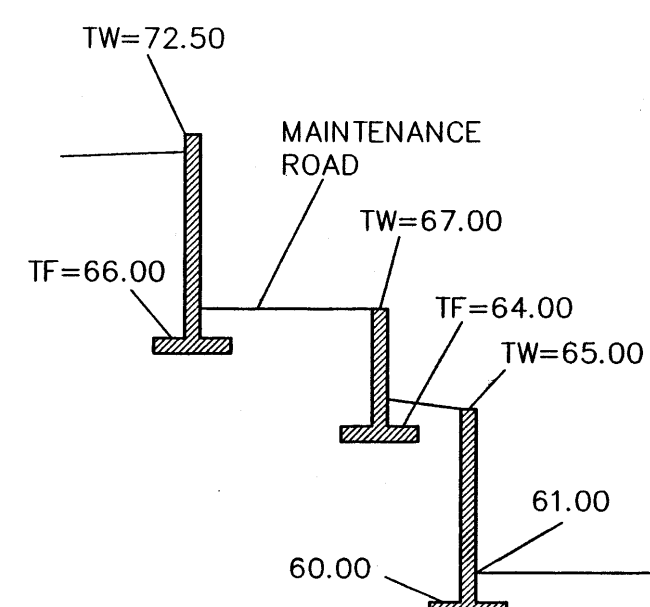


#### EROSION CONTROL PLAN AND POLLUTION PREVENTION NOTES

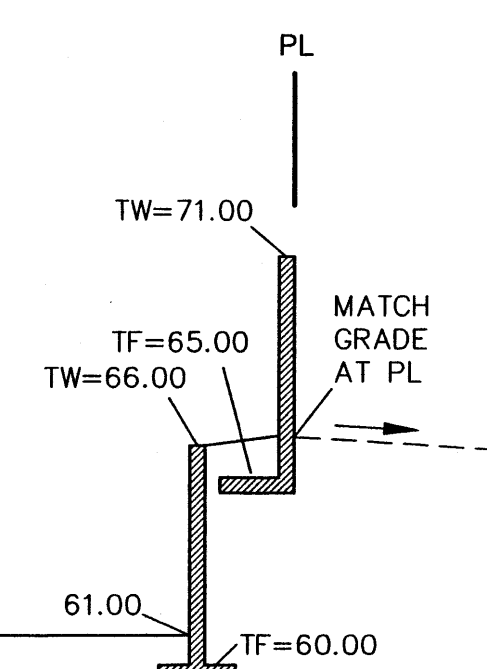
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL STORM RUNOFF ON SITE.
- REPAIR OF DAMAGED FACILITIES AND CLEAN-UP OF SEDIMENT ACCUMULATION ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.
- ALL THE DISTURBED AREAS MUST BE REVEGETATED.

#### GENERAL NOTES:

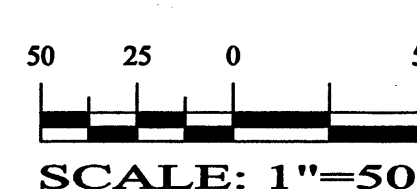
- ADD 4900 TO SPOT ELEVATIONS TO SHOW TRUE ELEVATION.
- CONTOUR INTERVAL IS ONE (1) FOOT.
- ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION HAVING AN ELEVATION OF 4966.027 FEET ABOVE SEA LEVEL.
- UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
- THIS IS NOT A BOUNDARY SURVEY, BEARINGS ARE ASSUMED, DISTANCES AND FOUND PROPERTY CORNERS ARE FOR INFORMATIONAL PURPOSES ONLY.
- SLOPES ARE AT 3:1 MAXIMUM.
- TOPOGRAPHY WAS PROVIDED BY THE OWNER.



SECTION B-B  
NTS



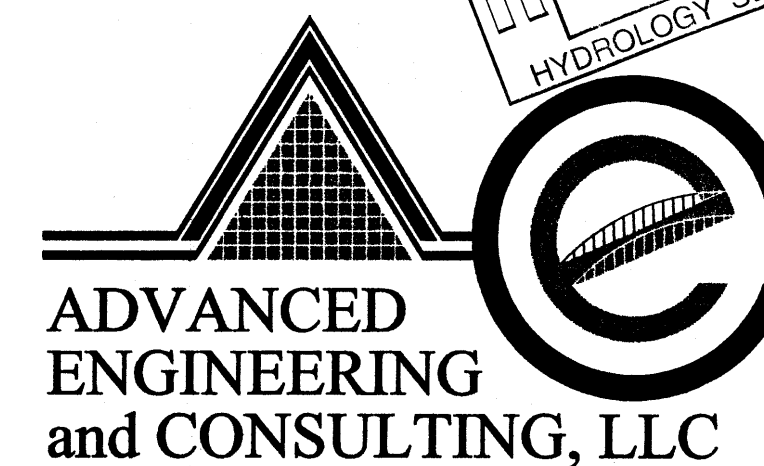
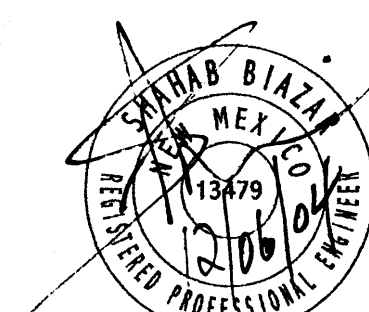
#### GRAPHIC SCALE



SCALE: 1"=50'

ROUGH GRADING APPROVAL

DATED DEC 6 2004



SHAHAB BIAZAR  
P.E. #13479

4416 ANAHEIM AVE., NE  
ALBUQUERQUE, NEW MEXICO 87113  
(505) 899-5570

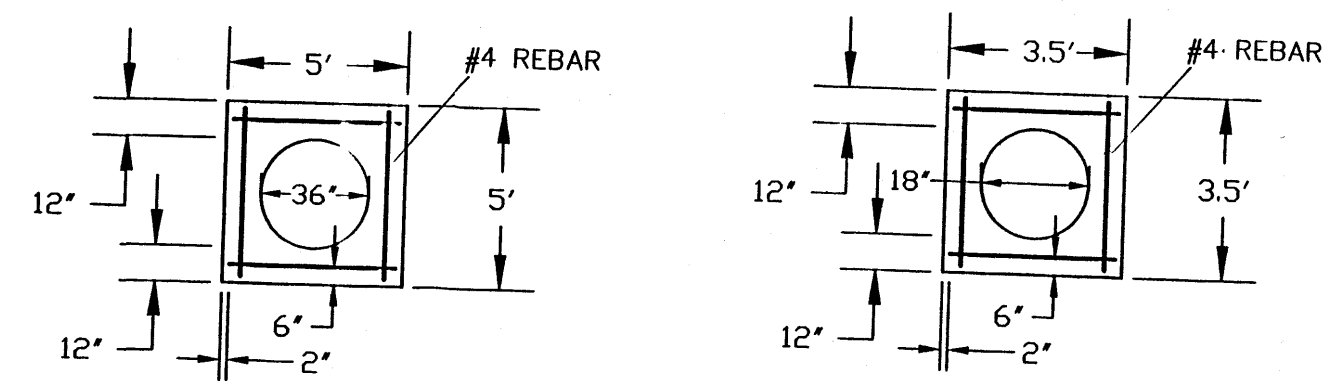
#### CIELO LINDO SUBDIVISION GRADING AND DRAINAGE PLAN

| DRAWING:      | DRAWN BY: | DATE:      | SHEET # |
|---------------|-----------|------------|---------|
| 200439-GR.DWG | SHH       | 08-07-2004 | 1 OF 1  |

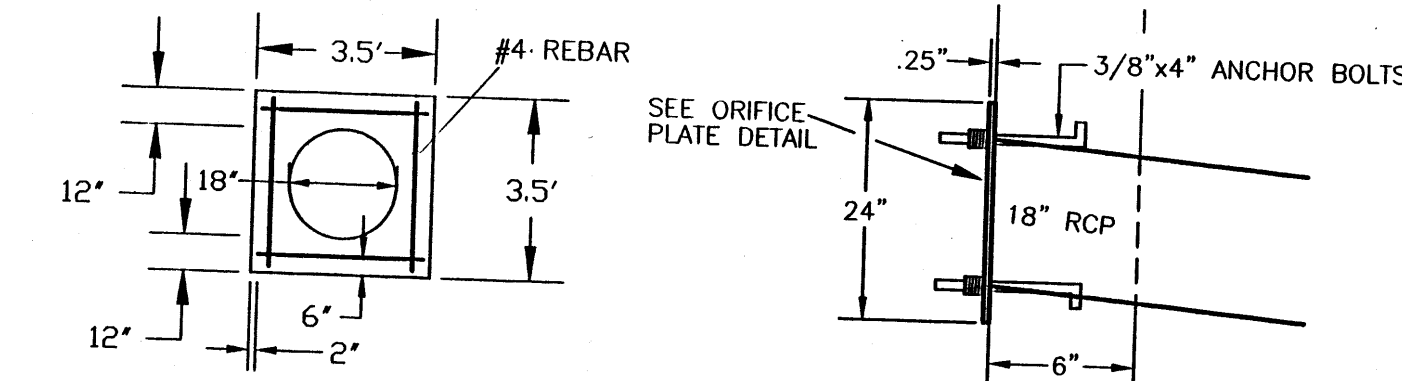
| PIPE # | SIZE (IN) | LENGTH (FT) | SLOPE (%) | FLOW (CFS) | VELOCITY (FT/S) |
|--------|-----------|-------------|-----------|------------|-----------------|
| 1      | 18        | 26.05       | 1.00      | 7.10       | 6.79            |
| 2      | 18        | 26.05       | 1.00      | 7.10       | 6.79            |
| 3      | 24        | 14.07       | 2.00      | 13.05      | 10.14           |
| 4      | 24        | 28.55       | 2.00      | 13.05      | 10.14           |
| 5      | 18        | 14.84       | 1.00      | 4.05       | 5.90            |
| 6      | 18        | 30.47       | 1.00      | 4.05       | 5.90            |
| 7      | 24        | 62.30       | 2.00      | 26.10      | 12.12           |
| 8      | 30        | 94.46       | 0.70      | 34.20      | 8.59            |
| 9      | 30        | 163.30      | 0.70      | 34.20      | 8.59            |
| 10     | 24        | 26.42       | 2.00      | 28.18      | 12.29           |
| 11     | 24        | 11.50       | 2.00      | 28.18      | 12.29           |
| 12     | 36        | 47.44       | 2.00      | 90.55      | 16.33           |
| 13     | 36        | 236.82      | 2.00      | 90.55      | 16.33           |
| 14     | 36        | 450.00      | 2.00      | 90.55      | 16.33           |
| 15     | 36        | 55.54       | 2.00      | 90.55      | 16.33           |
| 16     | 36        | 34.00       | 3.59      | 114.52     | 21.68           |
| 17     | 18        | 261.90      | 0.30      | 0.73       | 2.36            |

| INLET # | TYPE    | INV. IN | INV. OUT | FLOW INTERCEPTED CFS |
|---------|---------|---------|----------|----------------------|
| 1       | "A"     | ---     | 4982.72  | 7.10                 |
| 2       | "A"     | ---     | 4982.72  | 7.10                 |
| 3       | "A"     | 4981.95 | 4981.85  | 5.95                 |
| 4       | "C"     | 4981.95 | 4981.85  | 5.95                 |
| 5       | "A"     | ---     | 4980.35  | 4.05                 |
| 6       | "C"     | ---     | 4980.35  | 4.05                 |
| 7       | DBL "A" | ---     | 4978.66  | 28.18                |
| 8       | "A"     | ---     | 4978.66  | 28.18                |
| 9       | DBL "A" | ---     | 4978.66  | 23.97                |

| MH # | TYPE | INV. IN | INV. OUT | MH SIZE (DIA.) (FT) |
|------|------|---------|----------|---------------------|
| 1    | "E"  | 4981.28 | 4981.18  | 4                   |
| 2    | "E"  | 4980.04 | 4979.94  | 6                   |
| 3    | "E"  | 4979.38 | 4979.28  | 4                   |
| 4    | "E"  | 4978.13 | 4978.08  | 4                   |
| 5    | "E"  | 4977.08 | 4976.98  | 4                   |
| 6    | "E"  | 4972.14 | 4972.04  | 4                   |
| 7    | "E"  | 4963.04 | 4962.94  | 4                   |



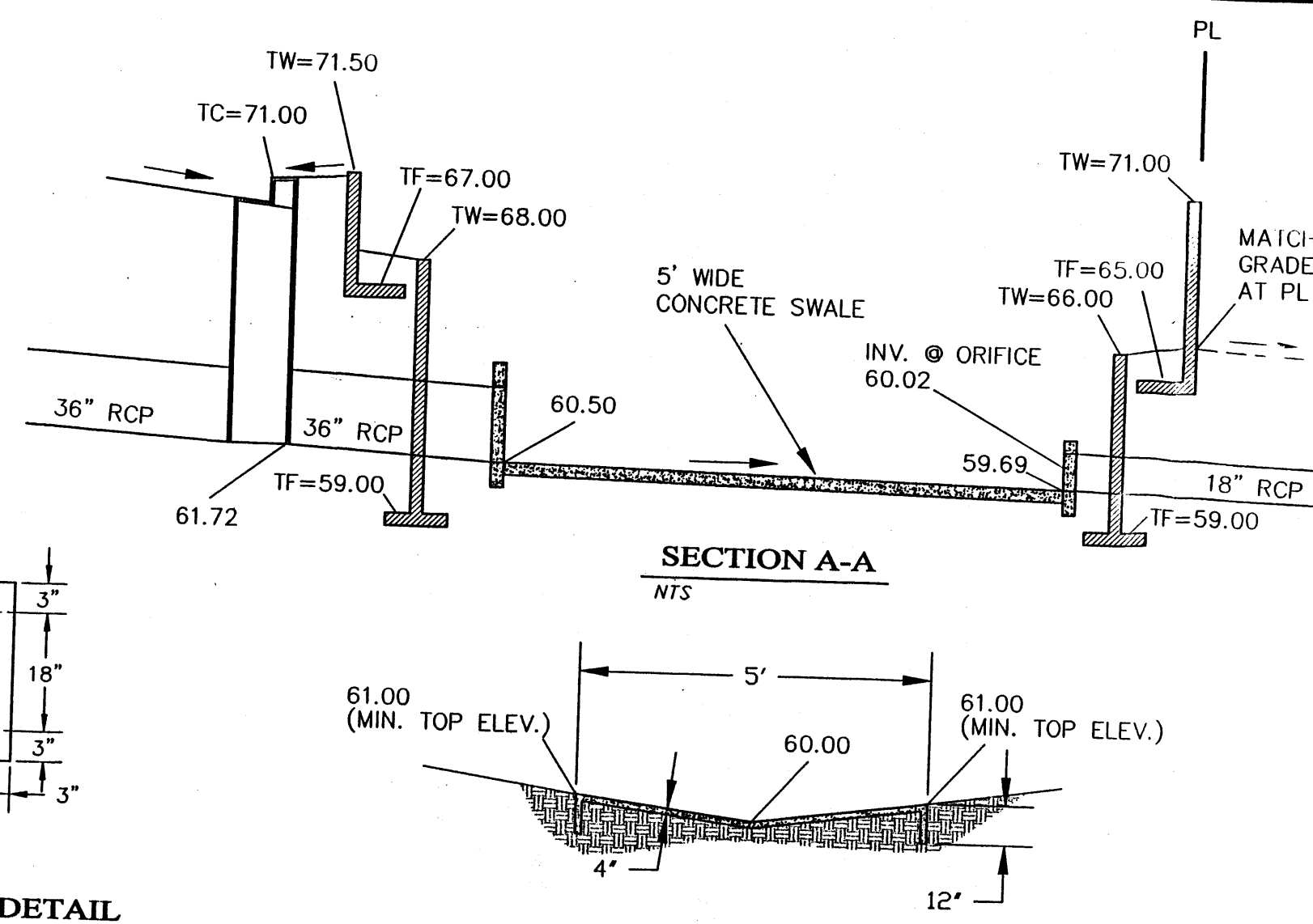
6" HEADERWALL FOR 36" RCP  
NTS



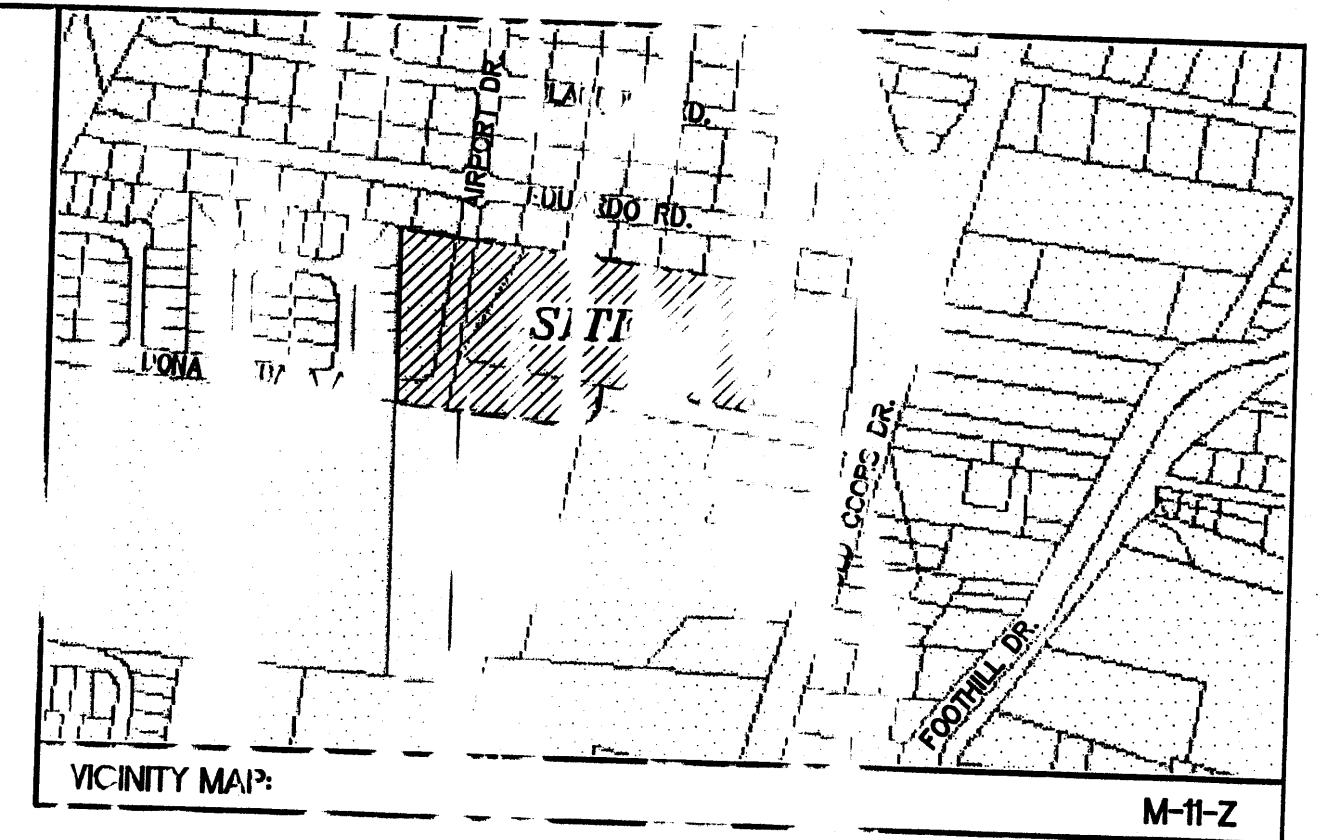
6" HEADERWALL FOR 18" RCP  
NTS

HEADERWALL SECTION  
NTS (TO BE INSTALLED @ THE INFLOW OF THE 18" RCP)

ORIFICE PLATE DETAIL  
NTS



CONCRETE SWALE DETAIL  
NTS

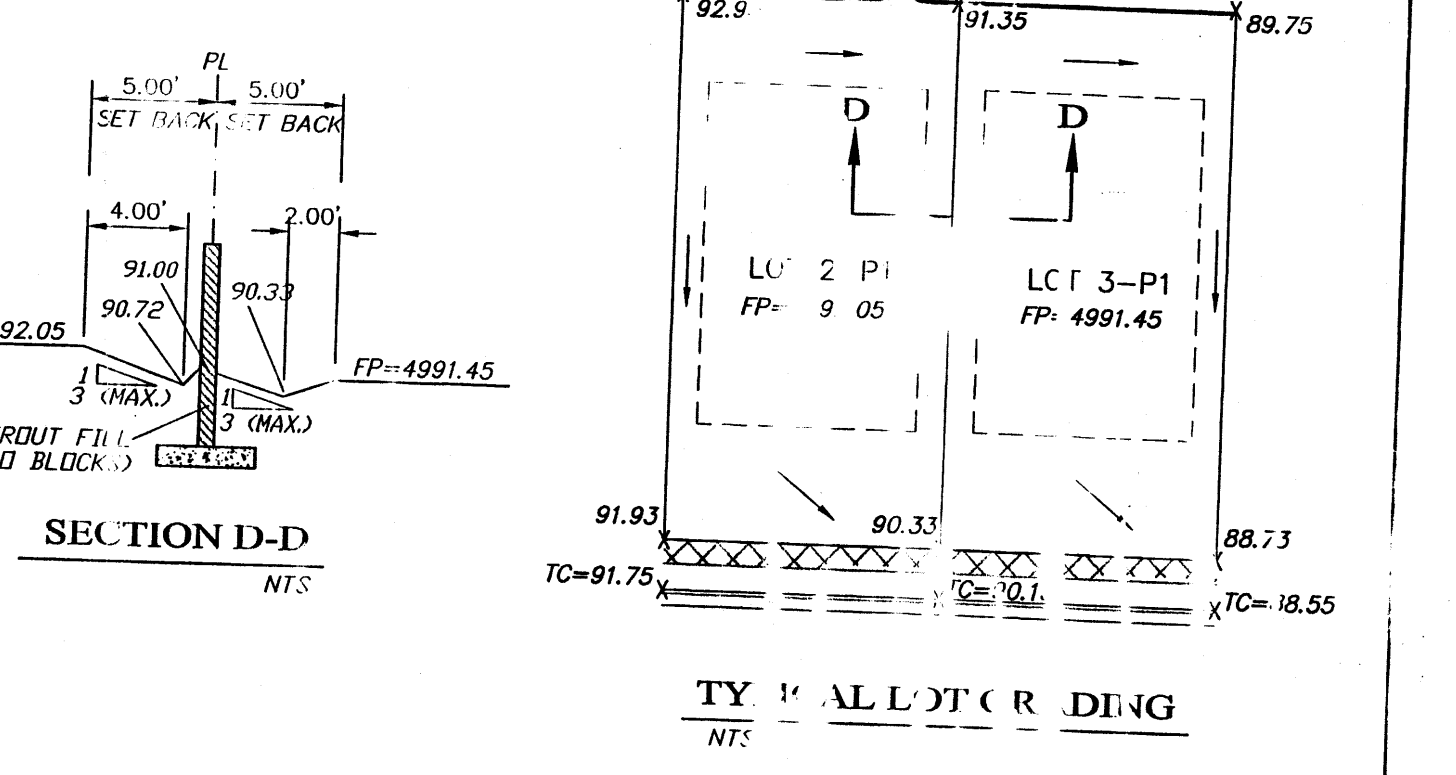
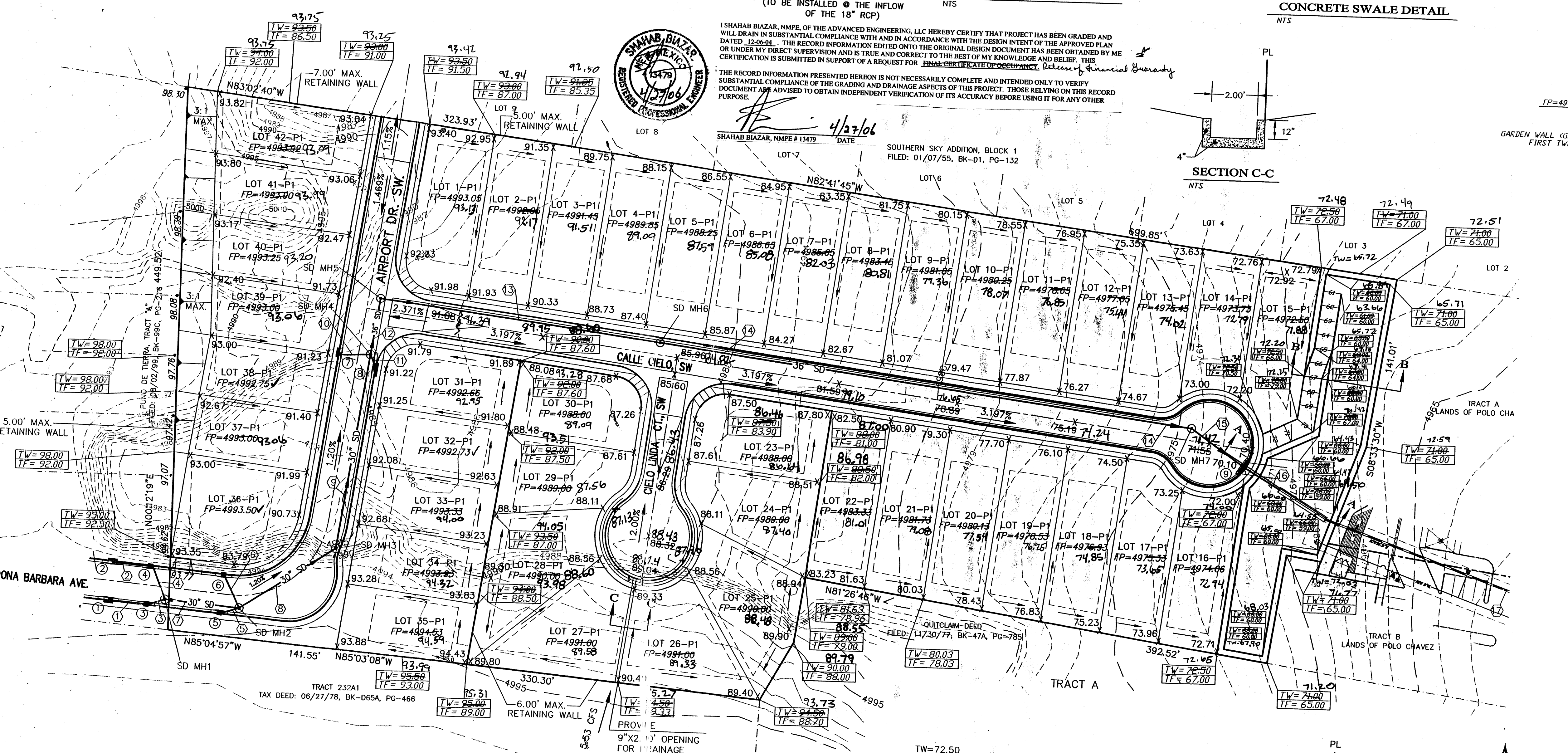


LEGEND DESCRIPTION:  
TRACT A, LAND OF POLO CHAVES, AND TRACTS A-1, A-2, SAN JOSE TRACT

I SHAHAB BIAZAR, NMPE, OF THE ADVANCED ENGINEERING, LLC HEREBY CERTIFY THAT PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 12-06-04. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR FINAL CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

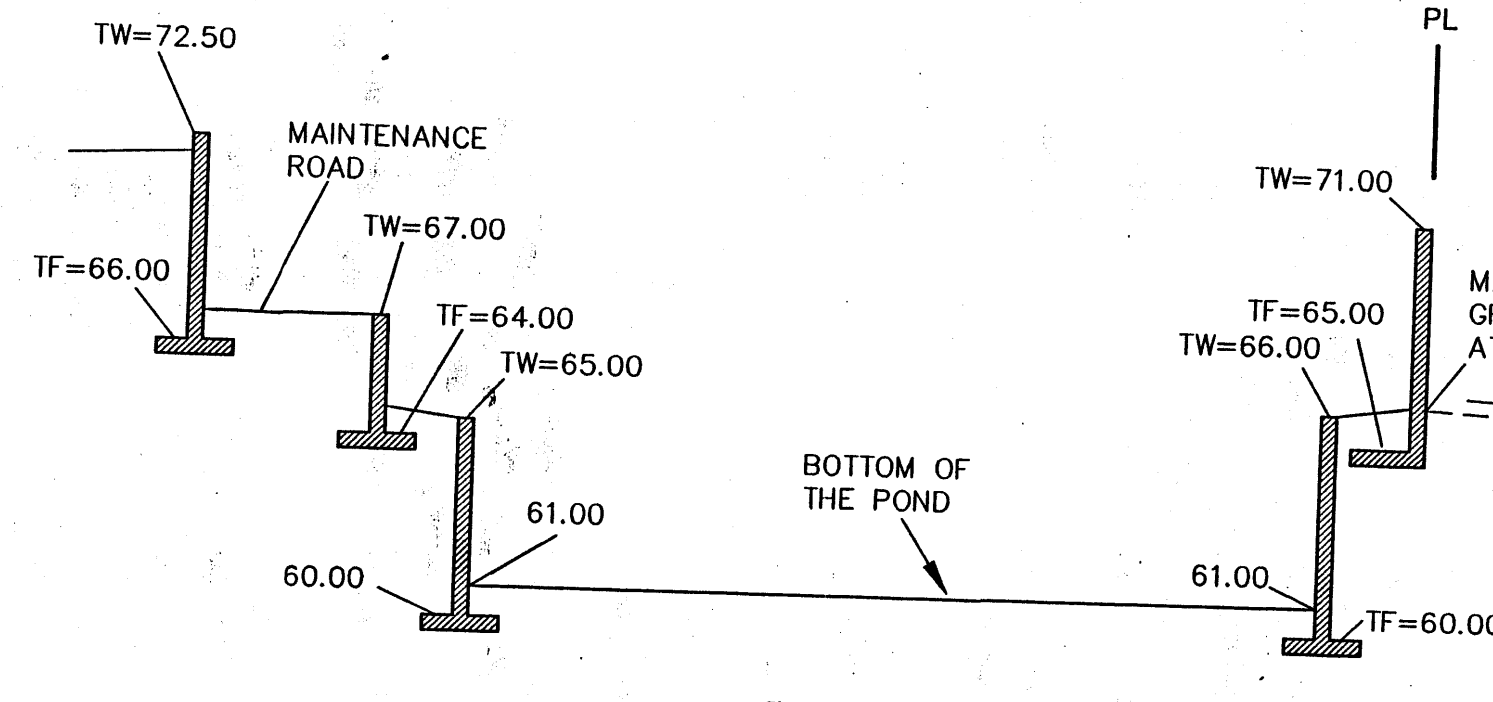
4/23/06  
SHAHAB BIAZAR, NMPE #13479  
SOUTHERN SKY ADDITION, BLOCK 1  
FILED: 01/07/55, BK-01, PG-132



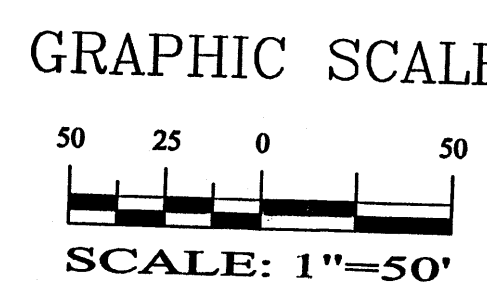
- LEGEND
- EXISTING SAND MANHOLE
  - EXISTING VALVE W/BOX
  - PROPOSED STORM SEWER
  - SET BACK
  - EXISTING CURB & GUTTER
  - PROPOSED CURB & CUTTER
  - EXISTING CONTOUR (MAJOR)
  - EXISTING CONTOUR (MINOR)
  - PROPOSED SPOT ELEVATION
  - BOUNDARY
  - EXISTING LOT LINE
  - EASEMENT
  - PROPOSED SIDEWALK
  - TOP OF RETAINING WALL
  - TOP OF FOTTING
  - PROPOSED SPOT ELEVATION
  - PROPOSED TOP OF CURB
  - PROPOSED FINISH PAD
  - PROPOSED FINISH PAD
  - EXISTING GRADE (TOP OF CURB)
  - RETAINING WALL

- EROSION CONTROL PLAN AND POLLUTION PREVENTION NOTES
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
  - CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
  - CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL STORM RUNOFF ON SITE.
  - REPAIR OF DAMAGED FACILITIES AND CLEAN-UP OF SEDIMENT ACCUMULATION ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
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  - ALL THE DISTURBED AREAS MUST BE REVEGETATED.

- GENERAL NOTES:
- ADD 4900 TO SPOT ELEVATIONS TO SHOW TRUE ELEVATION.
  - CONTOUR INTERVAL IS ONE (1) FOOT.
  - ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION HAVING AN ELEVATION OF 4966.027 FEET ABOVE SEA LEVEL.
  - UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR CONSIDERATIONS.
  - THIS IS NOT A BOUNDARY SURVEY, BEARINGS ARE ASSUMED, DISTANCES AND FOUND PROPERTY CORNERS ARE FOR INFORMATIONAL PURPOSES ONLY.
  - SLOPES ARE AT 3:1 MAXIMUM.
  - TOPOGRAPHY WAS PROVIDED BY THE OWNER.



SECTION B-B  
NTS



ROUGH GRADING APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_

SHAHAB BIAZAR  
P.E. #13479

ADVANCED ENGINEERING and CONSULTING, LLC  
4111 ANA BLVD., NE  
ALBUQUERQUE, NM 87113  
(505) 899-1700

CIELO LINDO SUBDIVISION  
GRADING AND DRAINAGE PLAN

|                        |               |                  |                |
|------------------------|---------------|------------------|----------------|
| DRAWING: 200439-GR.DWG | DRAWN BY: SHH | DATE: 08-07-2004 | SHEET # 1 OF 1 |
|------------------------|---------------|------------------|----------------|

LAST REVISION: 06-17-2004