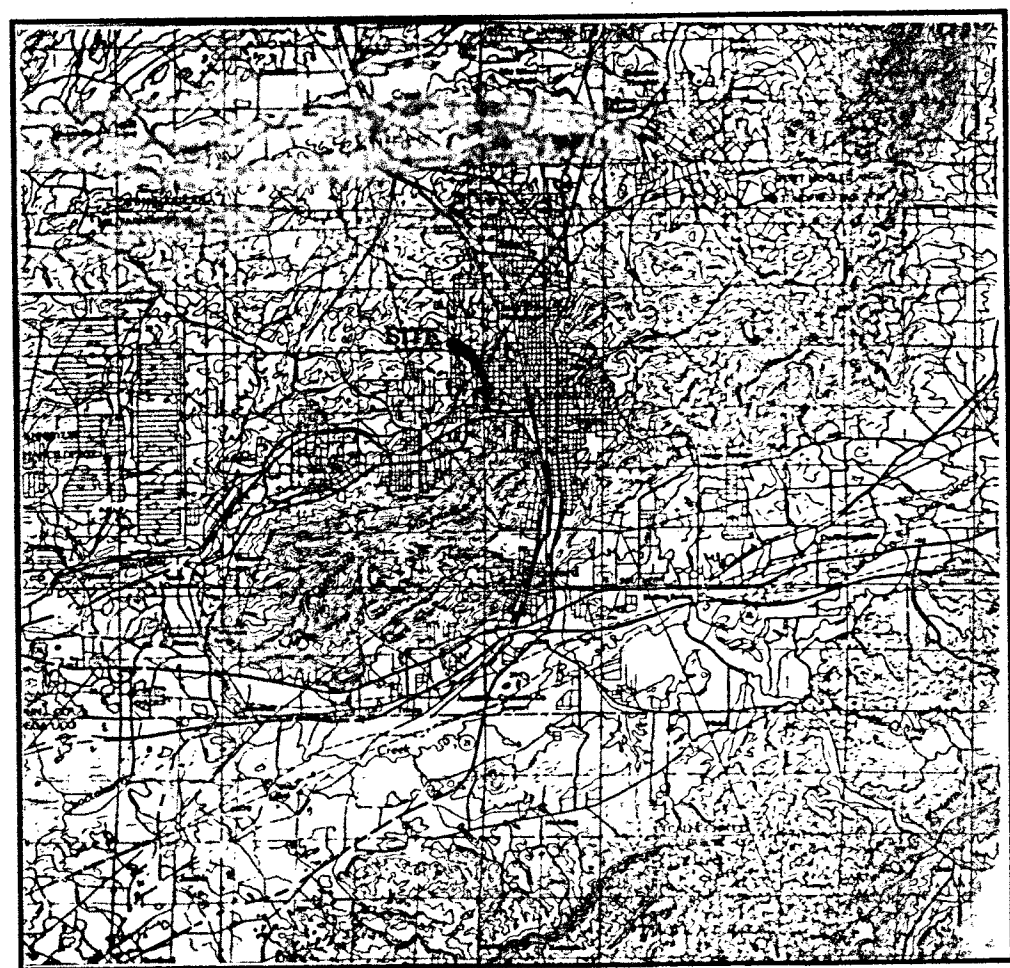


MONSANTO COMPANY

CONSTRUCTION DRAWINGS FOR REVISED COVER SYSTEM

WEST END LANDFILL

ANNISTON, ALABAMA



SITE LOCATION MAP

SCALE IN FEET  
0 2000 4000

Plans Prepared By:

 **Golder Associates**  
3730 CHAMBLEE TUCKER ROAD  
ATLANTA, GEORGIA 30341  
APRIL 1995  
REVISED: AUGUST 1995

OWNER AND OPERATOR:  
MONSANTO COMPANY  
300 BIRMINGHAM HWY.  
ANNISTON, ALABAMA 36201

SITE ADDRESS:  
300 BIRMINGHAM HWY.  
ANNISTON, ALABAMA 36201

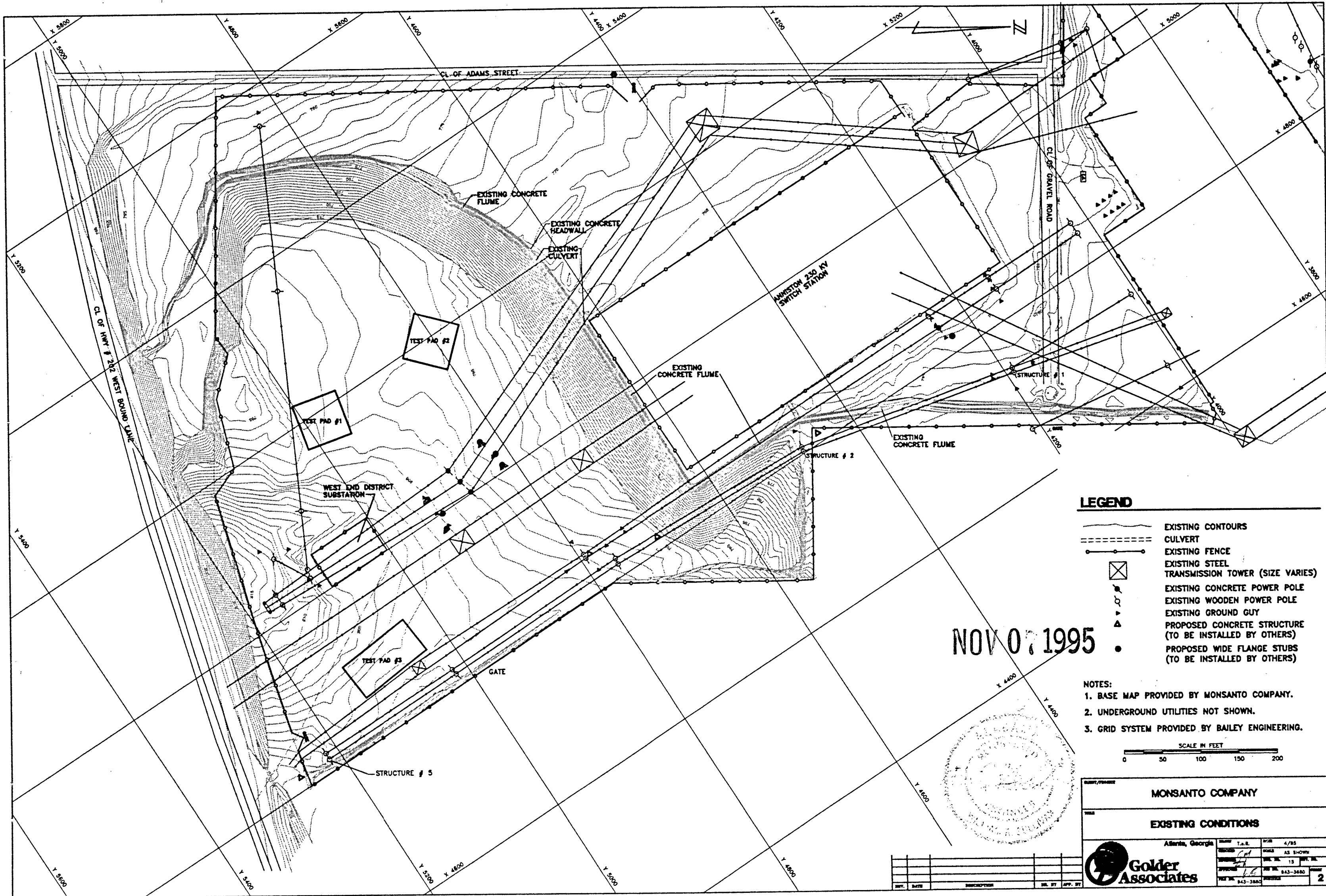
| SHEET NO. | TITLE                                                  | DRAWING NO. |
|-----------|--------------------------------------------------------|-------------|
| 1.        | COVER SHEET                                            | 14          |
| 2.        | EXISTING CONDITIONS                                    | 15          |
| 3.        | EXCAVATION PLAN / REGRADED PLAN                        | 16          |
| 3A.       | CUT/FILL PLAN                                          | 39          |
| 4.        | GEOSYNTHETIC MATERIALS LOCATION PLAN                   | 17          |
| 5.        | FINAL GRADING PLAN                                     | 18          |
| 6.        | SURFACE WATER MANAGEMENT PLAN                          | 19          |
| 7.        | TYPICAL CROSS SECTIONS AND COVER SYSTEM DETAILS        | 20          |
| 8.        | TYPICAL CROSS SECTIONS                                 | 21          |
| 9.        | SEDIMENTATION POND PLAN                                | 22          |
| 10.       | SEDIMENTATION POND DETAILS                             | 23          |
| 11.       | SURFACE WATER MANAGEMENT SYSTEM DETAILS (SHEET 1 OF 2) | 24          |
| 12.       | SURFACE WATER MANAGEMENT SYSTEM DETAILS (SHEET 2 OF 2) | 25          |
| 13.       | MISCELLANEOUS DETAILS                                  | 26          |

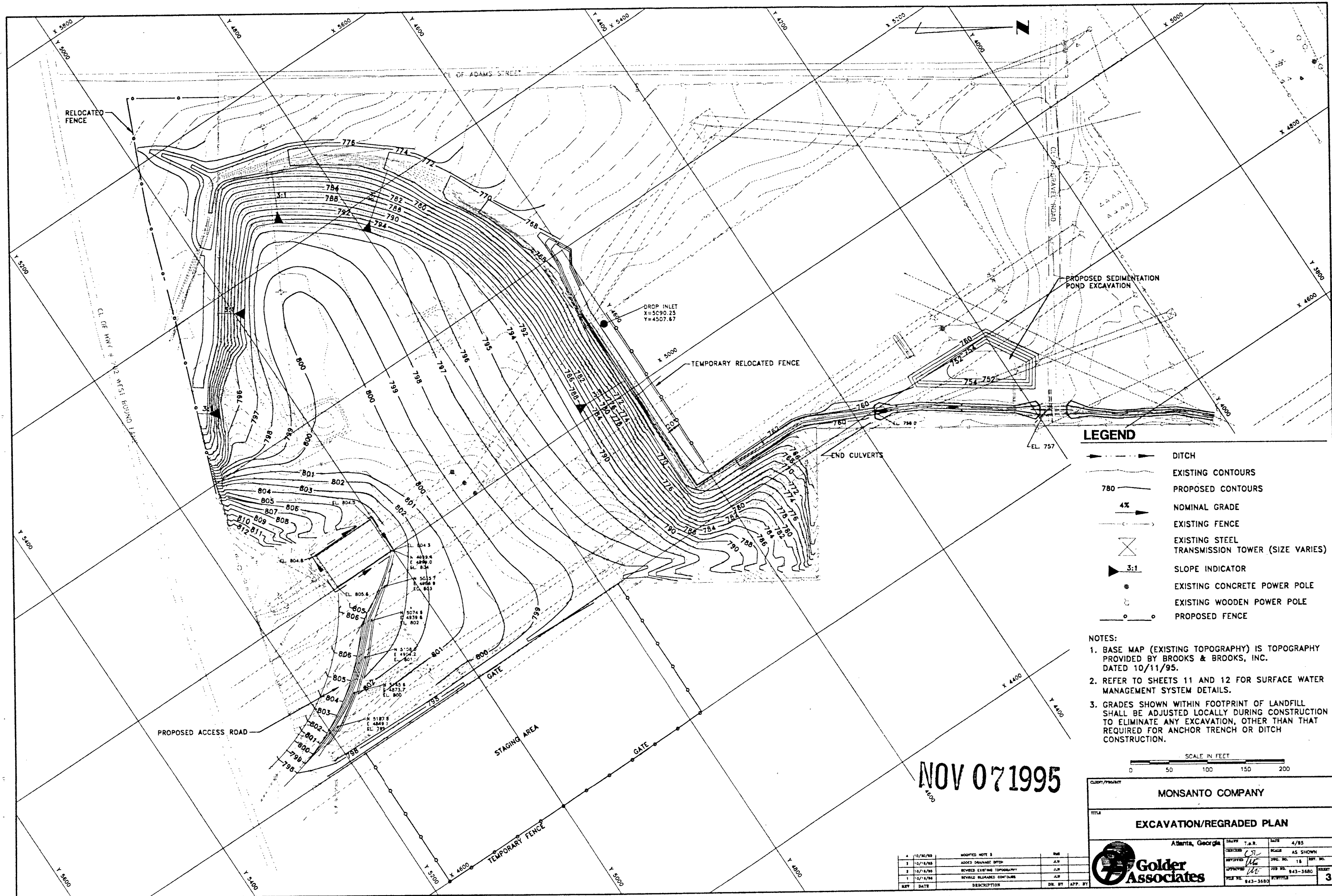
WITH REVISIONS AS OF 11/8/95

**RELEASED  
FOR CONSTRUCTION**

BY \_\_\_\_\_ DATE \_\_\_\_\_

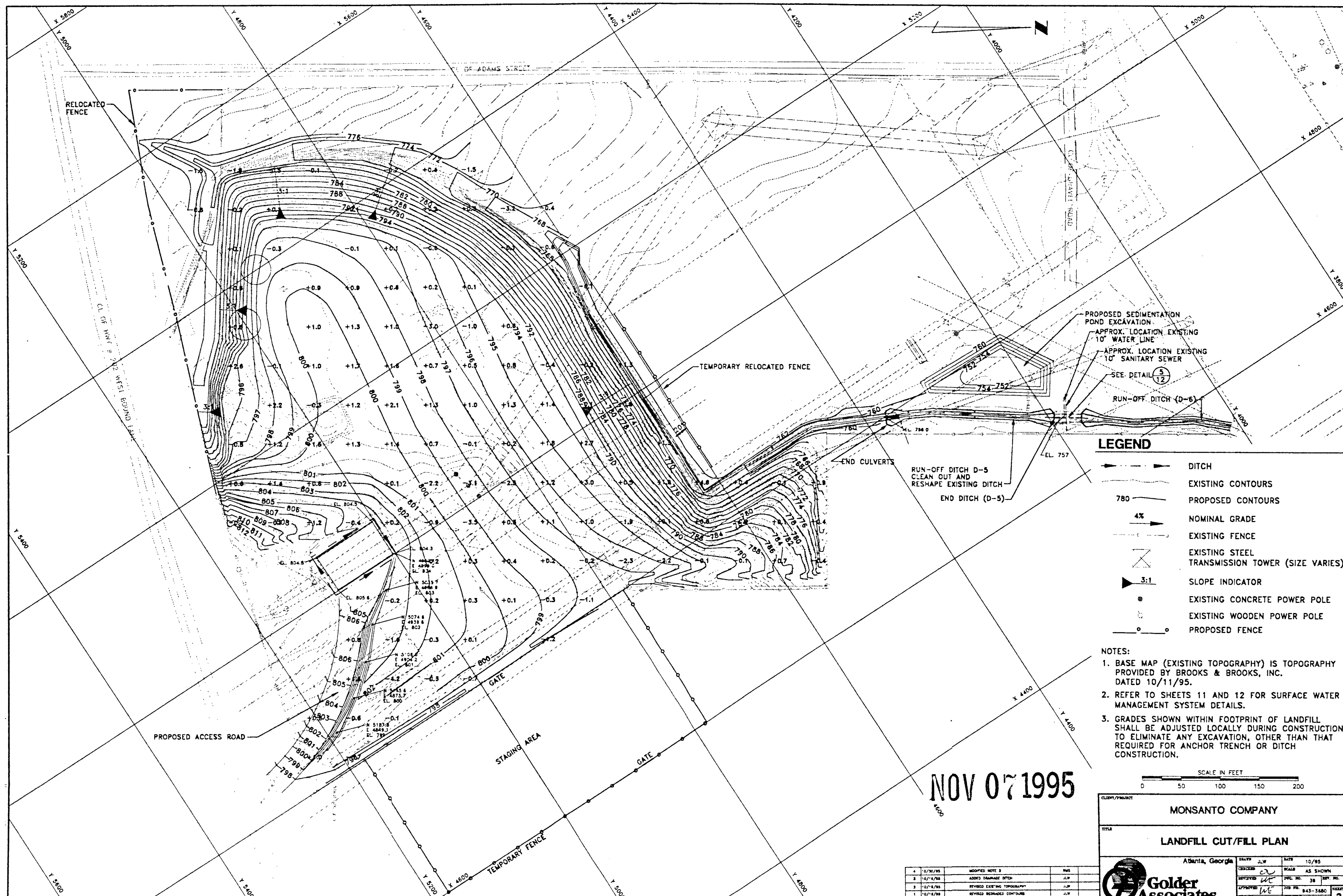
NOV 07 1995





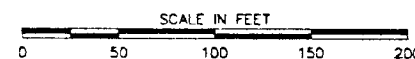
|                          |          |           |          |
|--------------------------|----------|-----------|----------|
| CLIENT/PROJECT           |          |           |          |
| MONSANTO COMPANY         |          |           |          |
| TITLE                    |          |           |          |
| EXCAVATION/REGRADED PLAN |          |           |          |
| Atlanta, Georgia         |          |           |          |
| DRAWN                    | T.S.R.   | DATE      | 4/95     |
| CHECKED                  | J.L.R.   | SCALE     | AS SHOWN |
| DESIGNED                 | J.L.R.   | SHEET NO. | 18       |
| APPROVED                 | J.L.R.   | JOB NO.   | 843-3680 |
| FILE NO.                 | 843-3680 | PROJECT   | 3        |





- LEGEND**
- DITCH
  - EXISTING CONTOURS
  - PROPOSED CONTOURS
  - NOMINAL GRADE
  - EXISTING FENCE
  - EXISTING STEEL TRANSMISSION TOWER (SIZE VARIES)
  - SLOPE INDICATOR
  - EXISTING CONCRETE POWER POLE
  - EXISTING WOODEN POWER POLE
  - PROPOSED FENCE

- NOTES:**
1. BASE MAP (EXISTING TOPOGRAPHY) IS TOPOGRAPHY PROVIDED BY BROOKS & BROOKS, INC. DATED 10/11/95.
  2. REFER TO SHEETS 11 AND 12 FOR SURFACE WATER MANAGEMENT SYSTEM DETAILS.
  3. GRADES SHOWN WITHIN FOOTPRINT OF LANDFILL SHALL BE ADJUSTED LOCALLY DURING CONSTRUCTION TO ELIMINATE ANY EXCAVATION, OTHER THAN THAT REQUIRED FOR ANCHOR TRENCH OR DITCH CONSTRUCTION.

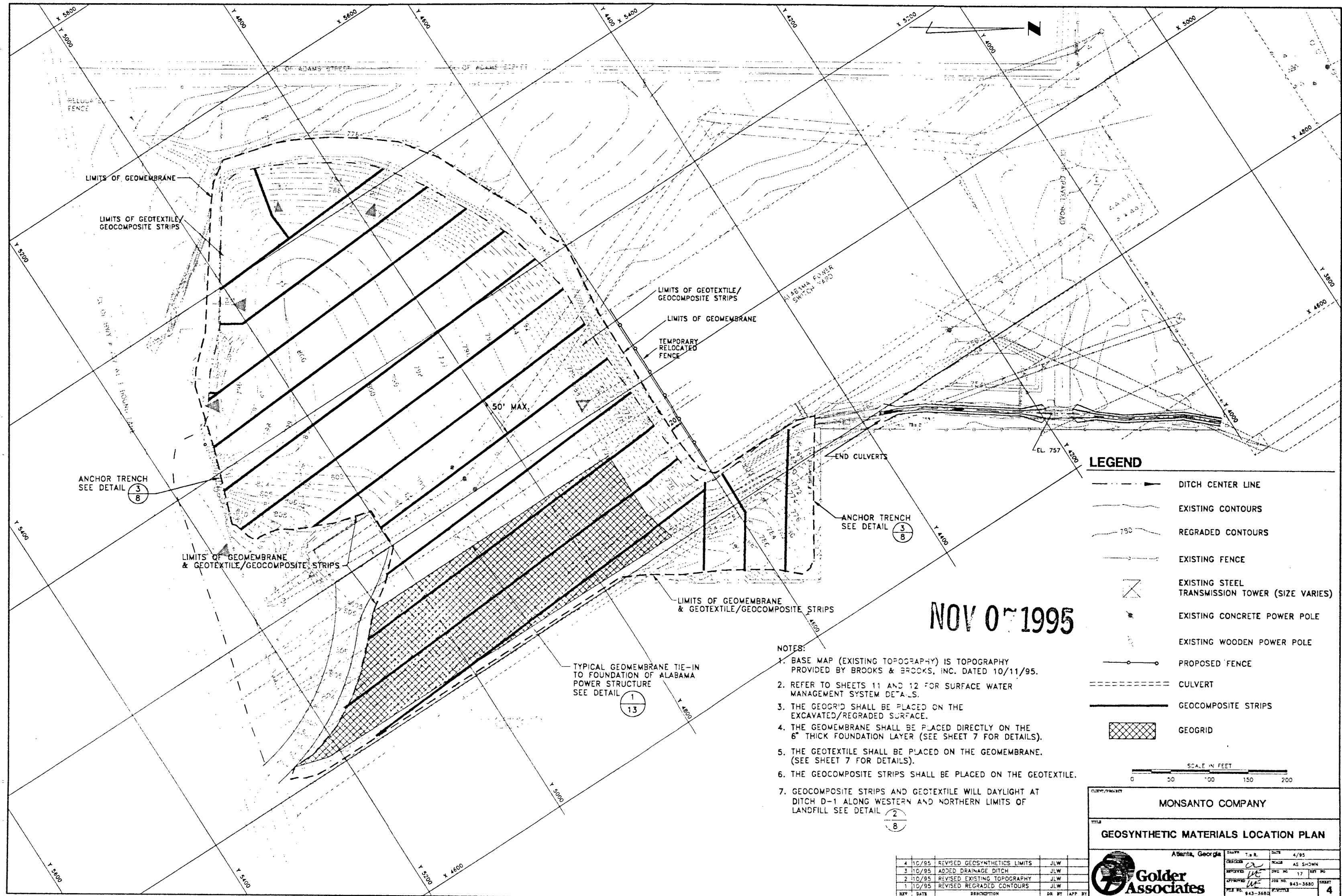


NOV 07 1995

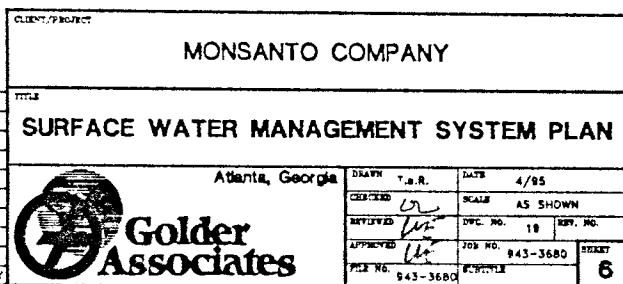
|                |          |                        |          |
|----------------|----------|------------------------|----------|
| CLIENT/PROJECT |          | MONSANTO COMPANY       |          |
| TITLE          |          | LANDFILL CUT/FILL PLAN |          |
| Location       |          | Atlanta, Georgia       |          |
| DESIGNED       | JLW      | DATE                   | 10/95    |
| REVIEWED       | WE       | SCALE                  | AS SHOWN |
| APPROVED       | WE       | JOB NO.                | 843-3680 |
| FILE NO.       | 843-3680 | SHEET                  | 3A       |

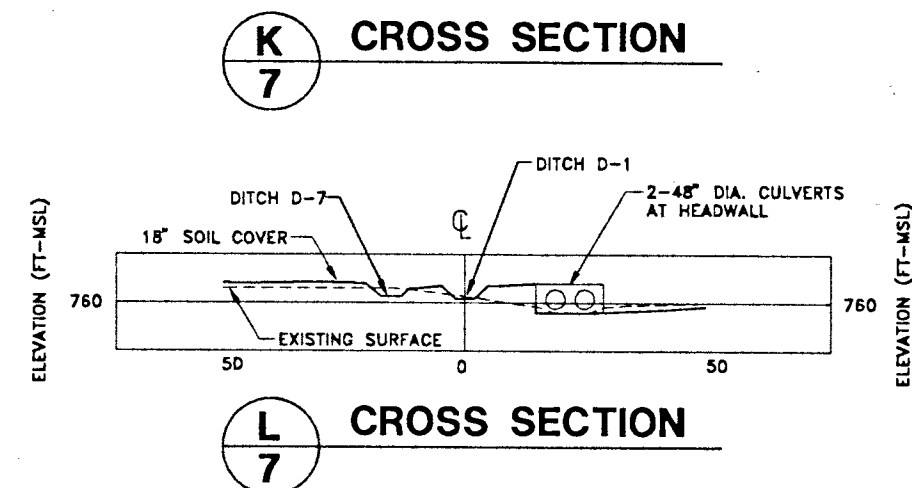
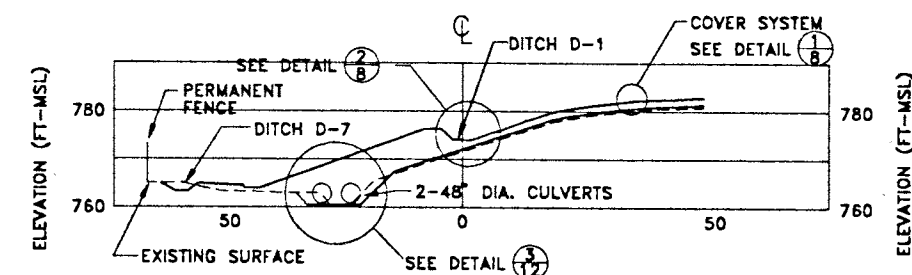
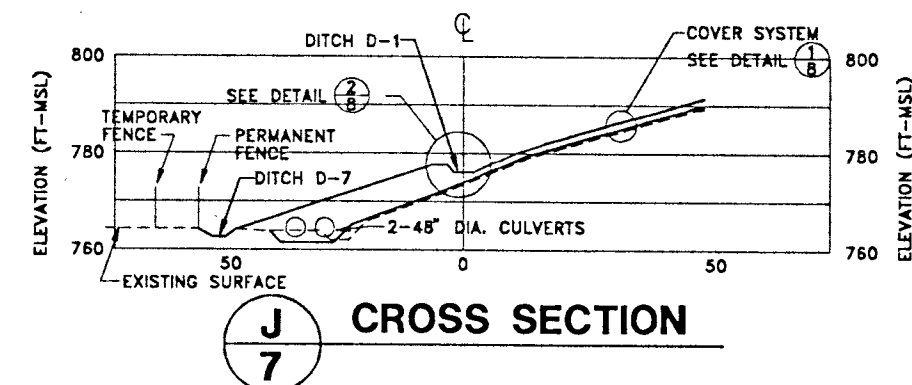
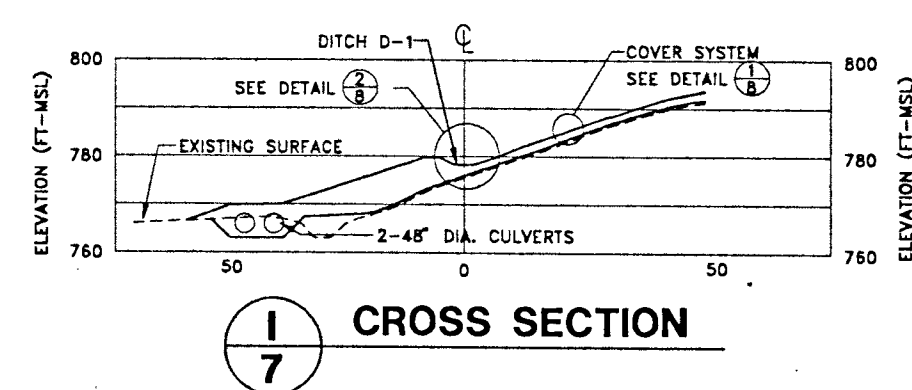
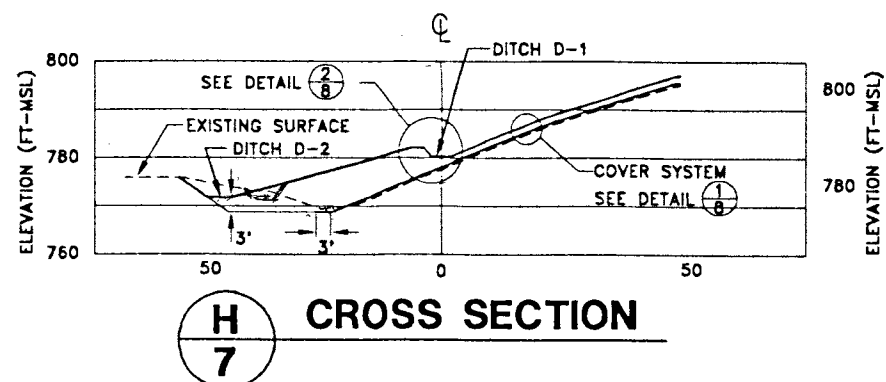
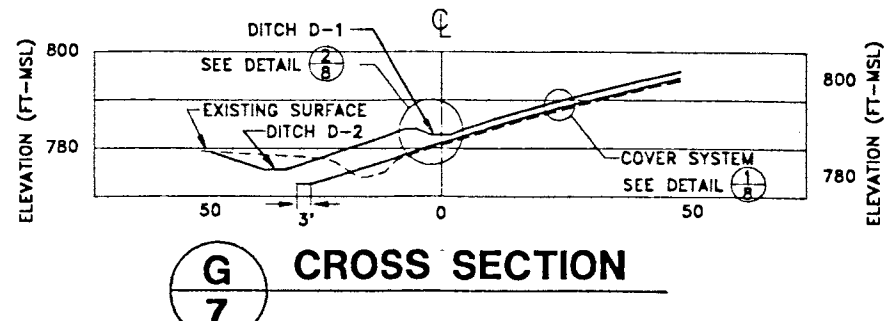
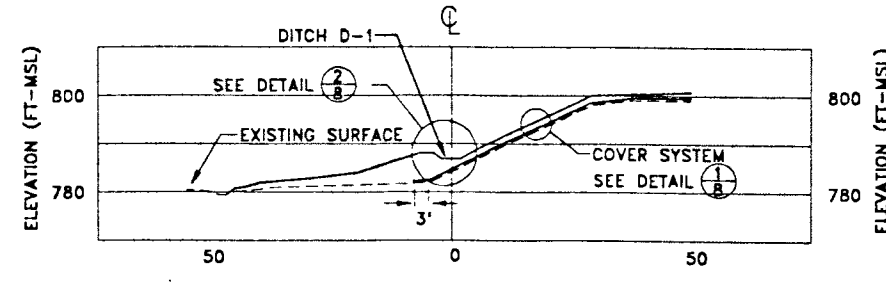
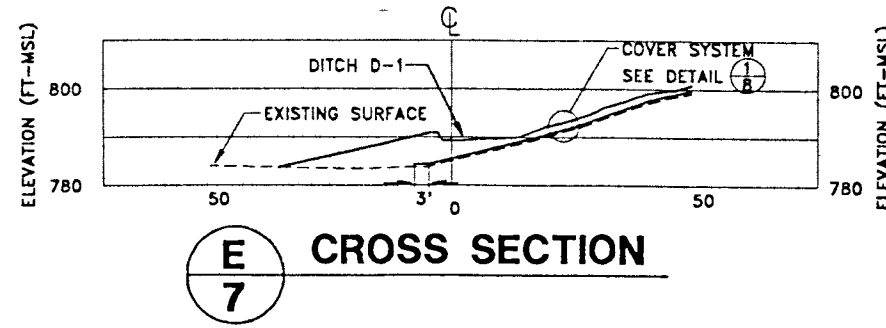
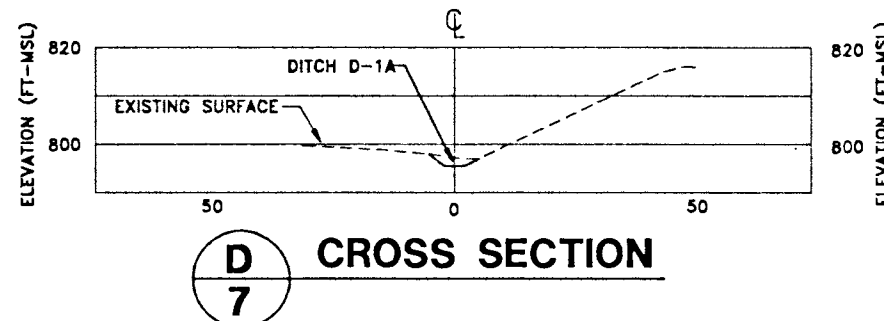
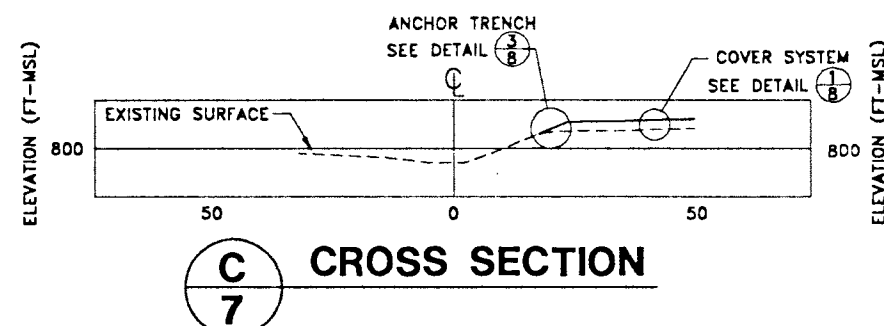
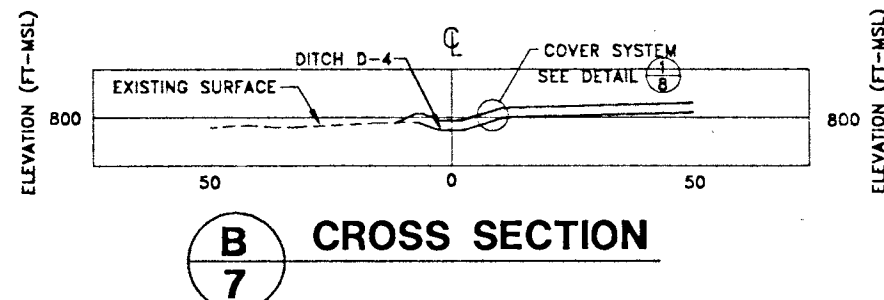
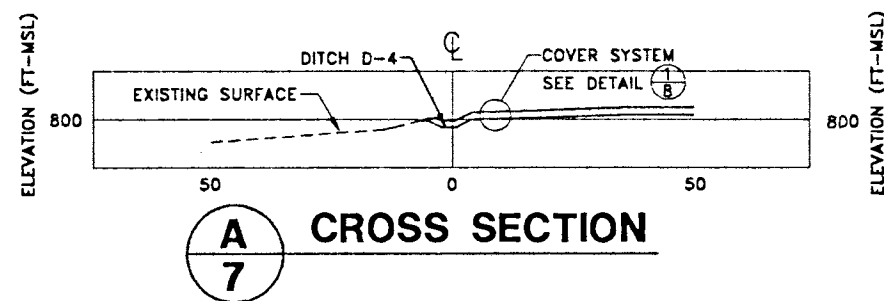
**Goldier Associates**

| REV | DATE     | DESCRIPTION                 | DR | BY  | APP | BY |
|-----|----------|-----------------------------|----|-----|-----|----|
| 4   | 10/30/95 | MODIFIED NOTE 3             |    |     |     |    |
| 3   | 10/14/95 | ADDED DRAINAGE DITCH        |    | JLW |     |    |
| 2   | 10/14/95 | REVISED EXISTING TOPOGRAPHY |    | JLW |     |    |
| 1   | 10/14/95 | REVISED REDGRADED CONTOURS  |    | JLW |     |    |





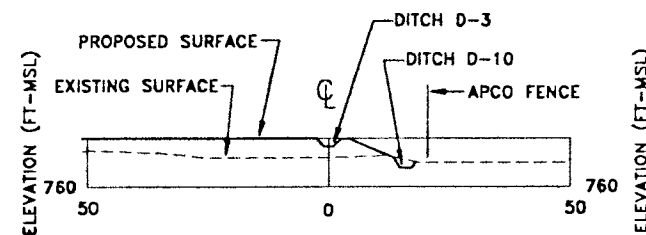




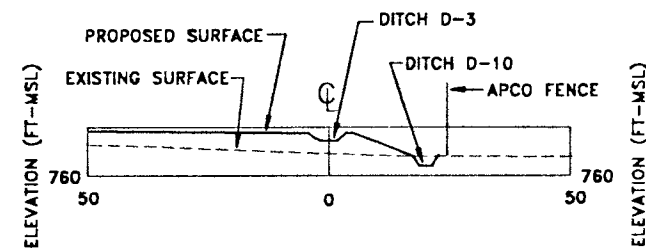
NOV 07 1995

| REV. | DATE  | DESCRIPTION              | DR. BY | APP. BY |
|------|-------|--------------------------|--------|---------|
| 2    | 10/95 | REVISED SECTION J/7      |        |         |
| 1    | 8/95  | CORRECTED REFERENCE 3/12 |        |         |

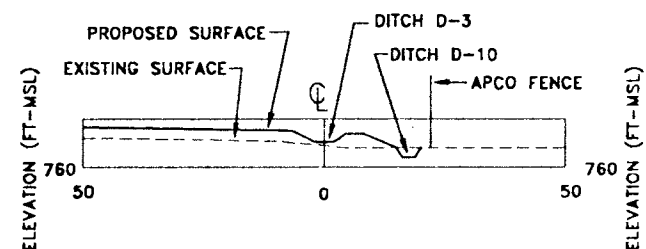
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|------------------------|----------|----------|----------|
| CLIENT / PROJECT       |          |          |          |
| MONSANTO COMPANY       |          |          |          |
| TITLE                  |          |          |          |
| TYPICAL CROSS SECTIONS |          |          |          |
| Atlanta, Georgia       | DRAWN    | JSC      | DATE     |
|                        | 4/95     |          |          |
| Goldier Associates     | CHECKED  | AS SHOWN | REV. NO. |
|                        | 20       |          |          |
| APPROVED               | FILE NO. | 843-3680 | DESKY    |
|                        |          |          | 7        |



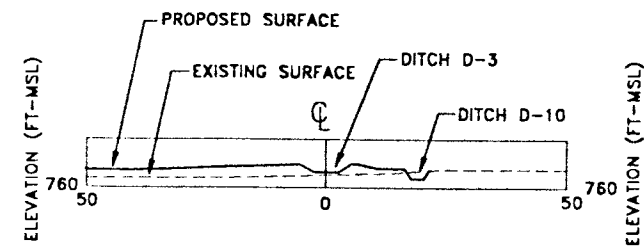
**M**  
**8** CROSS SECTION



**N**  
**8** CROSS SECTION

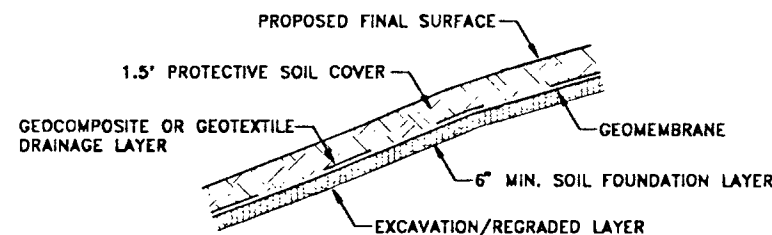


**O**  
**8** CROSS SECTION

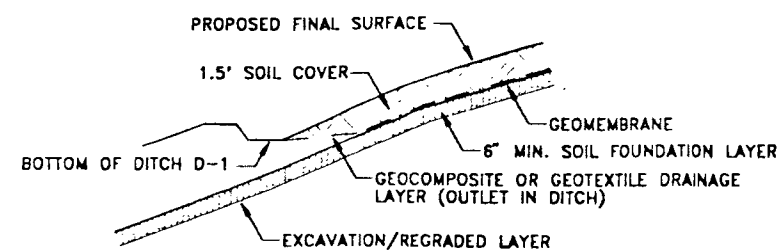


**P**  
**8** CROSS SECTION

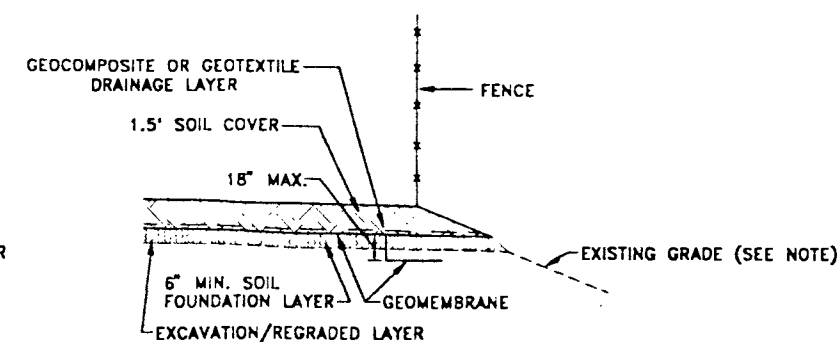
SCALE IN FEET  
0 20 40



**1**  
**8** COVER SYSTEM DETAIL  
N.T.S.



**2**  
**8** DRAINAGE LAYER  
OUTLET DETAIL  
N.T.S.



**3**  
**8** ANCHOR TRENCH DETAIL  
N.T.S.

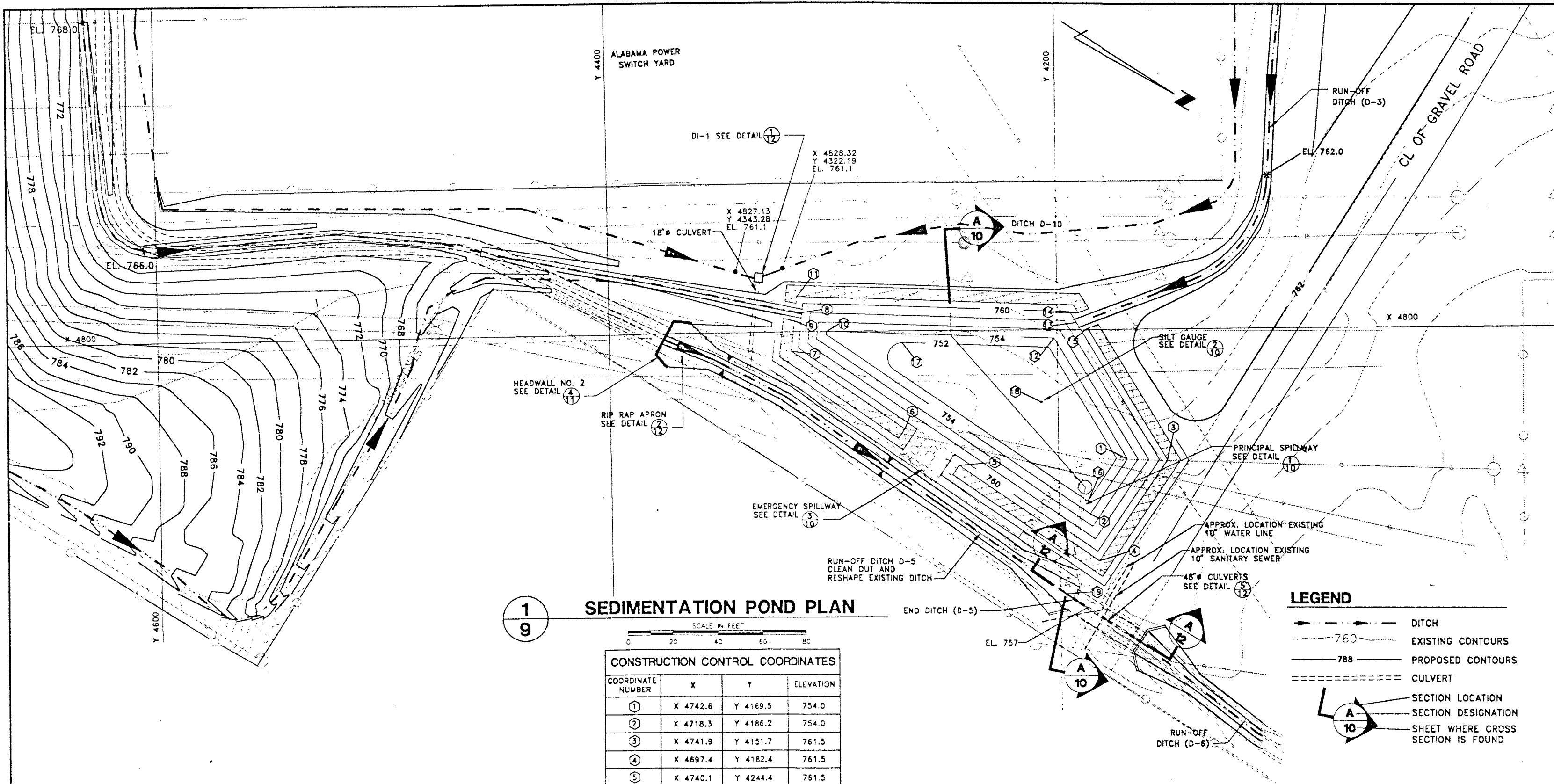
NOTE:  
ANCHOR TRENCH TO BE CONSTRUCTED  
ONLY ON SLOPS GREATER THAN 17%.

NOV 07 1995

| REV. | DATE  | DESCRIPTION                  | DR. | BY | APP. | BY |
|------|-------|------------------------------|-----|----|------|----|
| 2    | 10/95 | REVISED ANCHOR TRENCH DETAIL |     |    |      |    |
| 1    | 10/95 | REVISED CROSS SECTIONS       |     |    |      |    |

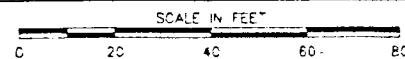
|                                                 |          |          |          |
|-------------------------------------------------|----------|----------|----------|
| CLIENT/PROJECT                                  |          |          |          |
| MONSANTO COMPANY                                |          |          |          |
| TITLE                                           |          |          |          |
| TYPICAL CROSS SECTIONS AND COVER SYSTEM DETAILS |          |          |          |
| Atlanta, Georgia                                |          |          |          |
| DATE                                            | 4/95     | SCALE    | AS SHOWN |
| DESIGNED                                        | JSG      | BY       | 21       |
| REVIEWED                                        | W        | FILE NO. | 945-3680 |
| APPROVED                                        | W        | DATE     | 10/95    |
| FILE NO.                                        | 945-3680 | REVISION | 8        |





1  
9

# SEDIMENTATION POND PLAN



## CONSTRUCTION CONTROL COORDINATES

| COORDINATE NUMBER | X        | Y        | ELEVATION |
|-------------------|----------|----------|-----------|
| 1                 | X 4742.6 | Y 4169.5 | 754.0     |
| 2                 | X 4718.3 | Y 4186.2 | 754.0     |
| 3                 | X 4741.9 | Y 4151.7 | 761.5     |
| 4                 | X 4697.4 | Y 4182.4 | 761.5     |
| 5                 | X 4740.1 | Y 4244.4 | 761.5     |
| 6                 | X 4756.6 | Y 4268.2 | 761.5     |
| 7                 | X 4791.4 | Y 4318.8 | 761.5     |
| 8                 | X 4808.4 | Y 4313.8 | 760.0     |
| 9                 | X 4804.5 | Y 4317.3 | 761.5     |
| 10                | X 4800.1 | Y 4302.7 | 754.0     |
| 11                | X 4815.6 | Y 4316.0 | 761.5     |
| 12                | X 4796.3 | Y 4201.4 | 754.0     |
| 13                | X 4803.2 | Y 4191.5 | 760.0     |
| 14                | X 4807.5 | Y 4190.6 | 761.5     |
| 15                | X 4800.5 | Y 4186.4 | 761.5     |
| 16                | X 4723.8 | Y 4187.3 | 752.0     |
| 17                | X 4794.8 | Y 4268.9 | 752.0     |
| 18                | X 4770   | Y 4207   | 752.0     |
| 19                | X 4683.1 | Y 4197.7 | 757.06    |

## LEGEND

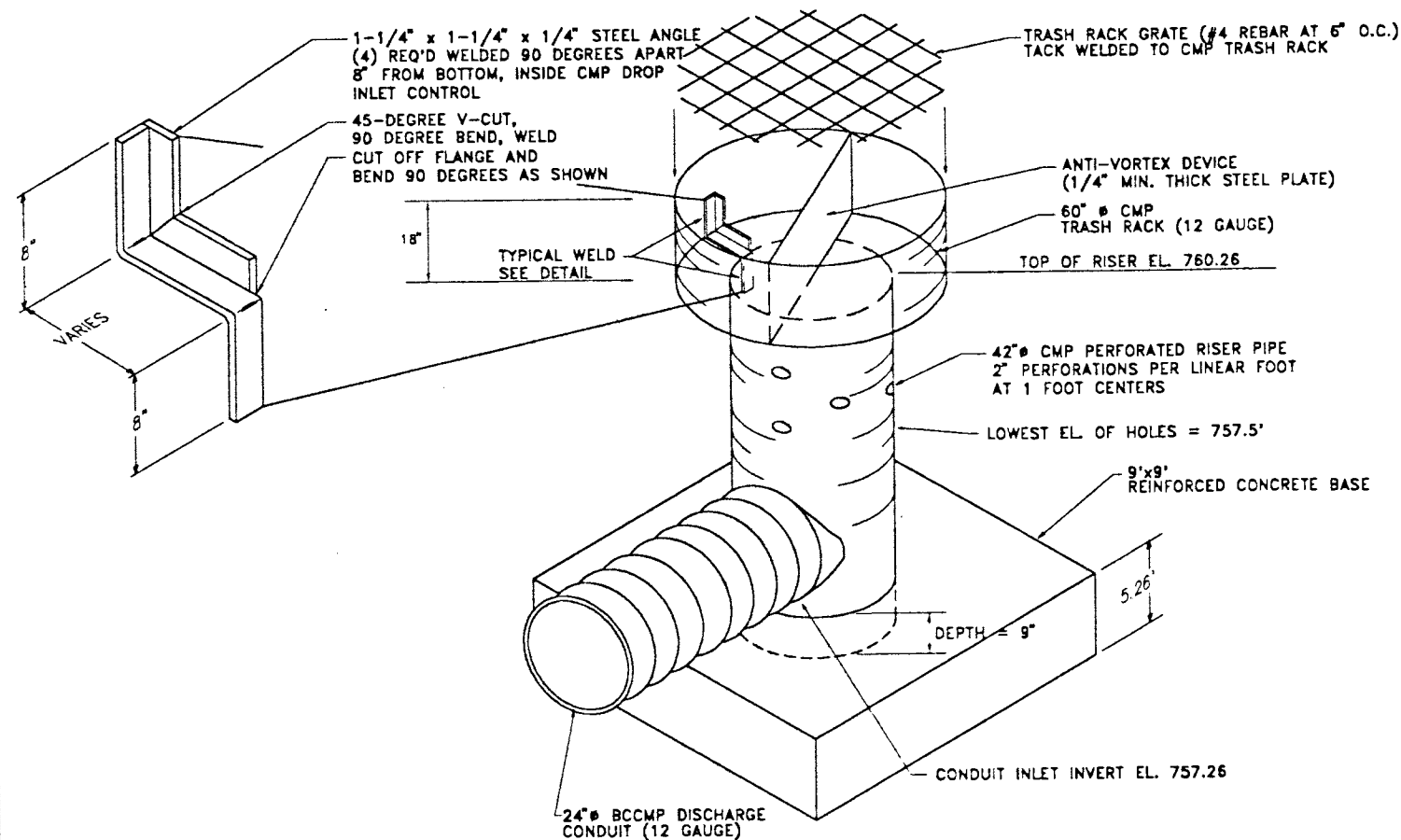
- DITCH
- EXISTING CONTOURS
- PROPOSED CONTOURS
- CULVERT
- SECTION LOCATION
- SECTION DESIGNATION
- SHEET WHERE CROSS SECTION IS FOUND

- BASE MAP (EXISTING TOPOGRAPHY) IS PRELIMINARY TOPOGRAPHY PROVIDED BY BROOKS & BROOKS, INC. DATED 10/11/95.
- FINAL COVER GRADES ARE SHOWN AS NOMINAL.
- REFER TO SHEETS 11 AND 12 FOR SURFACE WATER MANAGEMENT SYSTEM DETAILS.

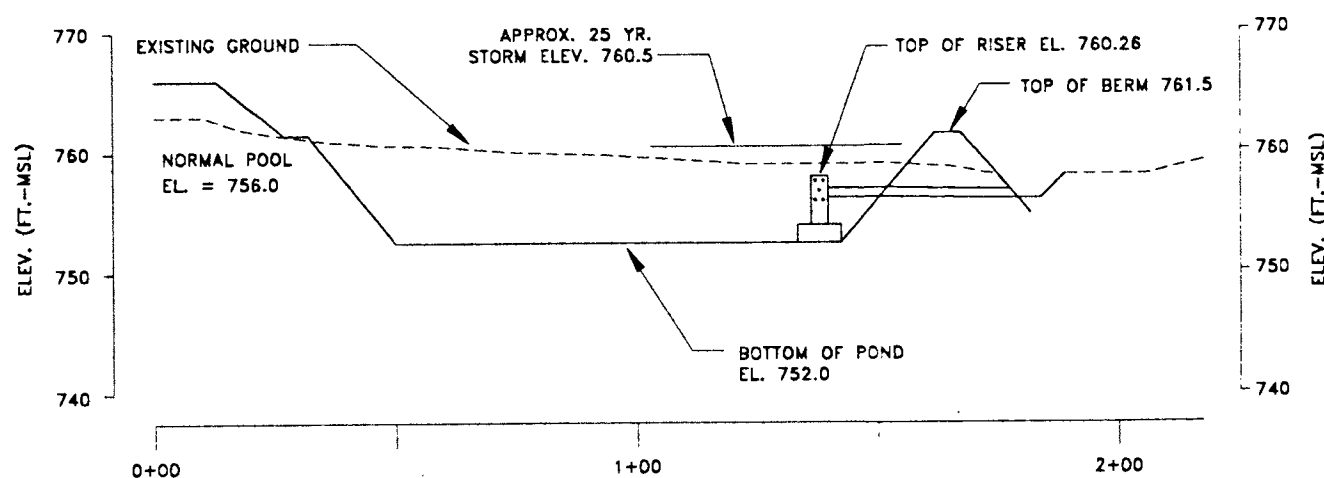
NOV 07 1995

|                         |          |          |   |
|-------------------------|----------|----------|---|
| CLIENT/PROJECT          |          |          |   |
| MONSANTO COMPANY        |          |          |   |
| TITLE                   |          |          |   |
| SEDIMENTATION POND PLAN |          |          |   |
| Atlanta, Georgia        |          |          |   |
| DESIGNED                | DATE     | 4/18/95  |   |
| CHECKED                 | SCALE    | AS SHOWN |   |
| REVISED                 | DATE     | 22       |   |
| APPROVED                | DATE     | 943-3680 |   |
| FILE NO.                | 943-3680 | SHEET    | 9 |

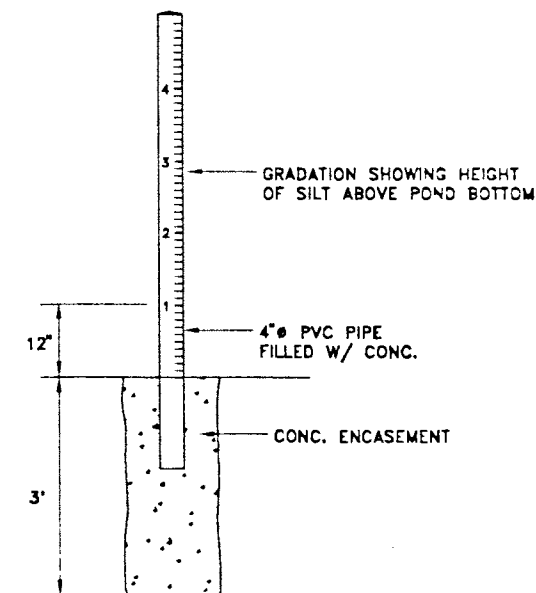




**1**  
**10** **PRINCIPAL SPILLWAY**  
N.T.S.

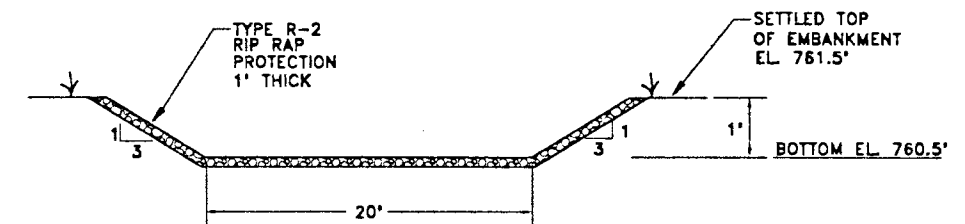


**A**  
**10** **SECTION THROUGH POND**  
SCALE IN FEET  
0 20 40

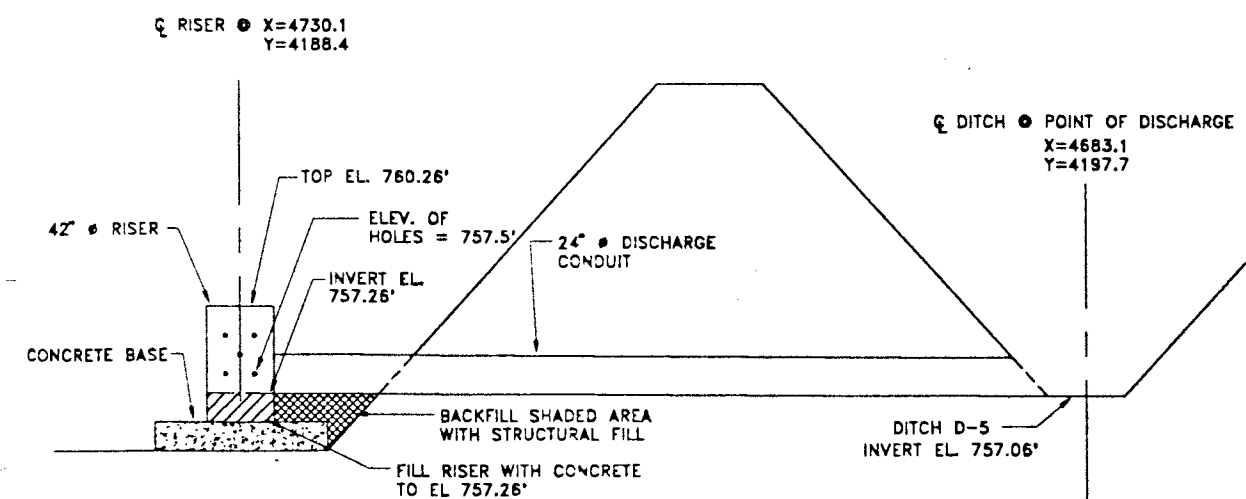


**2**  
**10** **TYPICAL SILT GAUGE**  
N.T.S.

NOTE: SEDIMENT CLEANOUT ELEVATION IS 754.5'.



**3**  
**10** **EMERGENCY SPILLWAY**  
N.T.S.



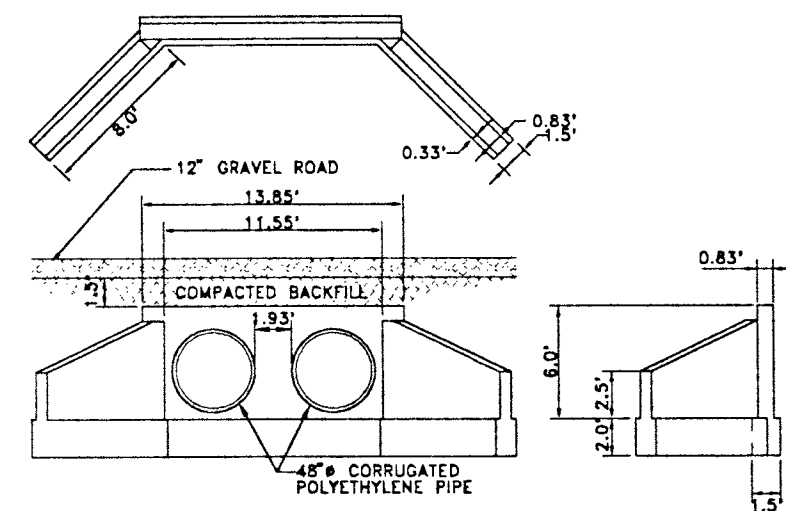
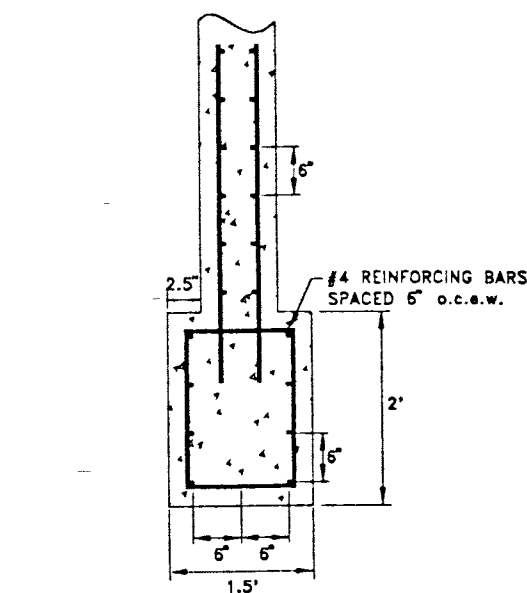
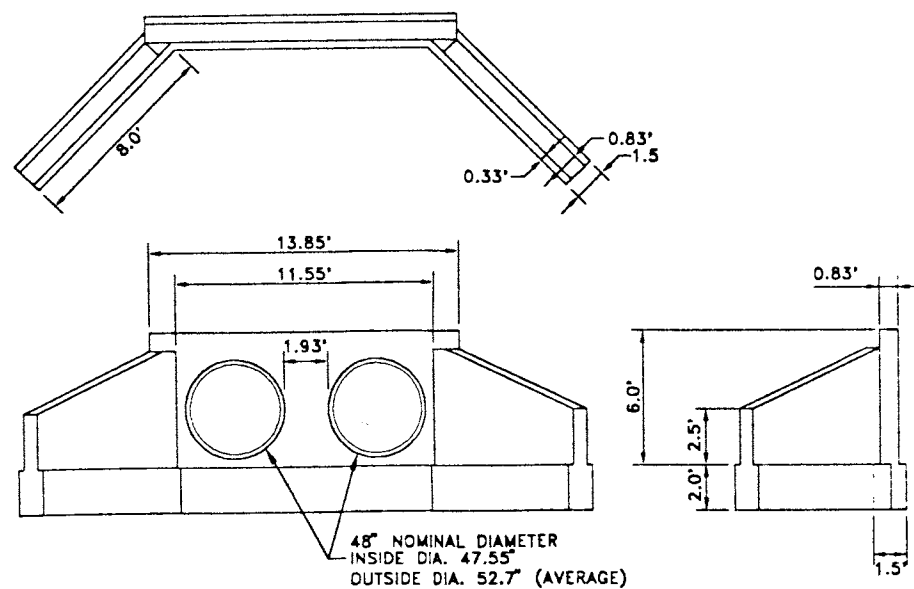
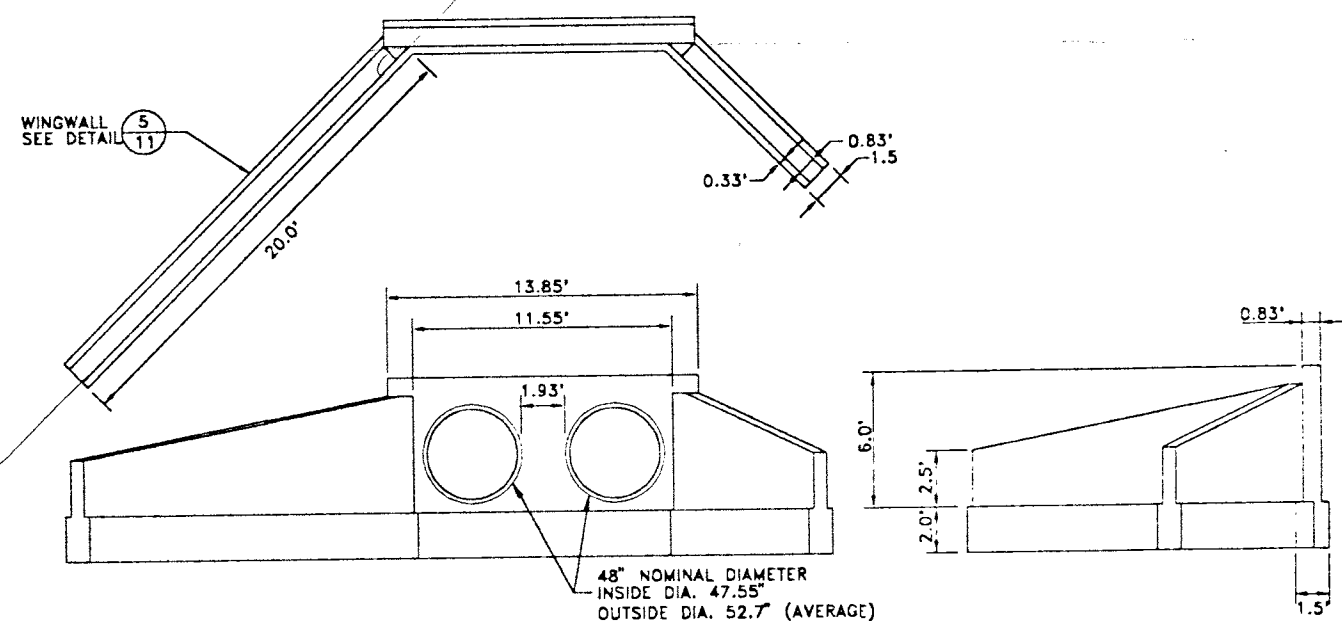
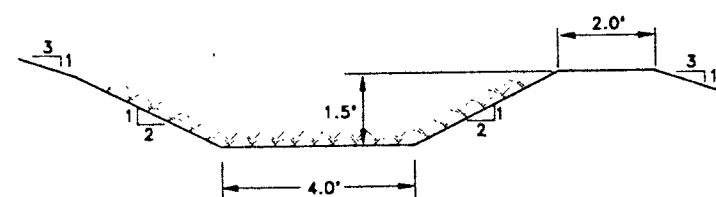
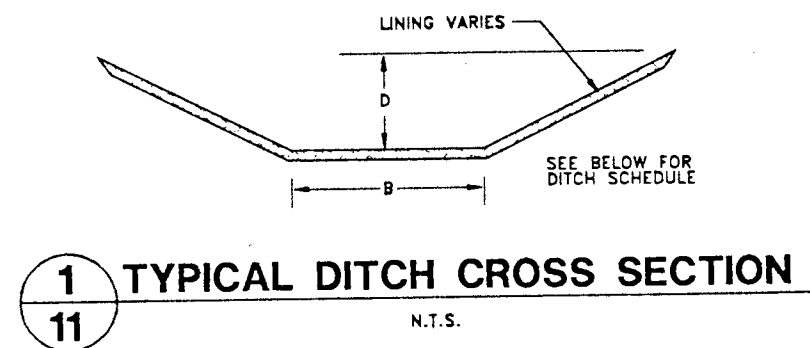
**4**  
**10** **SECTION THROUGH PRINCIPAL SPILLWAY**  
N.T.S.

NOV 07 1995

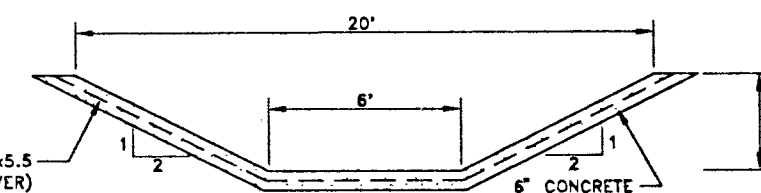
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|----------------------------|----------|----------|------|
| CLIENT/PROJECT             |          |          |      |
| MONSANTO COMPANY           |          |          |      |
| TITLE                      |          |          |      |
| SEDIMENTATION POND DETAILS |          |          |      |
| Atlanta, Georgia           |          |          |      |
| DATE                       | R.C.A.   | DATE     | 4/95 |
| CHECKED                    | SCALE    | AS SHOWN |      |
| APPROVED                   | 23       | REV. NO. |      |
| FILE NO.                   | 943-3880 | REV. NO. | 10   |

|     |       |                                |        |         |
|-----|-------|--------------------------------|--------|---------|
| 3   | 10/95 | ADDED CROSS SECTION 4/10       | JLW    |         |
| 2   | 10/95 | REVISED SPILLWAY CROSS SECTION | JLW    |         |
| 1   | 10/95 | REVISED SPILLWAY CONDUIT SIZE  | JLW    |         |
| REV | DATE  | DESCRIPTION                    | DR. BY | APP. BY |

**Golder Associates**



NOTE: CULVERTS ARE EACH 16' IN LENGTH.



WWF 4x4-W4x4 OR WWF6x6-W5.5x5.5  
REINFORCEMENT (2 IN. MIN. COVER)

| DITCH SCHEDULE |                   |                   |                  |            |             |              |
|----------------|-------------------|-------------------|------------------|------------|-------------|--------------|
| DITCH          | DESIGN FLOW (cfs) | BOTTOM WIDTH (ft) | SIDE SLOPE (X:1) | DEPTH (ft) | LENGTH (ft) | PROTECTION   |
| 1A             | 2                 | 0                 | 2                | 1.5        | 420         | GRASS        |
| 1B             | 6                 | 0                 | 2                | 1.5        | 290         | GRASS        |
| 1              | 43                | 4                 | 2                | 1.5        | 1540        | GRASS/RIPRAP |
| 2              | 290               | 4                 | 2                | 4          | 800         | RIPRAP       |
| 3              | 13                | 4                 | 1.5              | 1.5        | 860         | GRASS        |
| 4              | 2                 | 2                 | 2                | 1.5        | 680         | GRASS        |
| 5              | 290               | 6                 | 2                | 4          | 210         | RIPRAP       |
| 6              | 350               | 6                 | 2                | 4          | 210+        | CONCRETE     |
| 7              | 1                 | 0                 | 2                | 1.5        | 370         | GRASS        |
| 8              | 21                | 2                 | 2                | 1.5        | 160         | TRM          |

NOTE: TRM = TURF REINFORCEMENT MAT SUCH AS ENKAMAT 7010 OR EQUIVALENT.

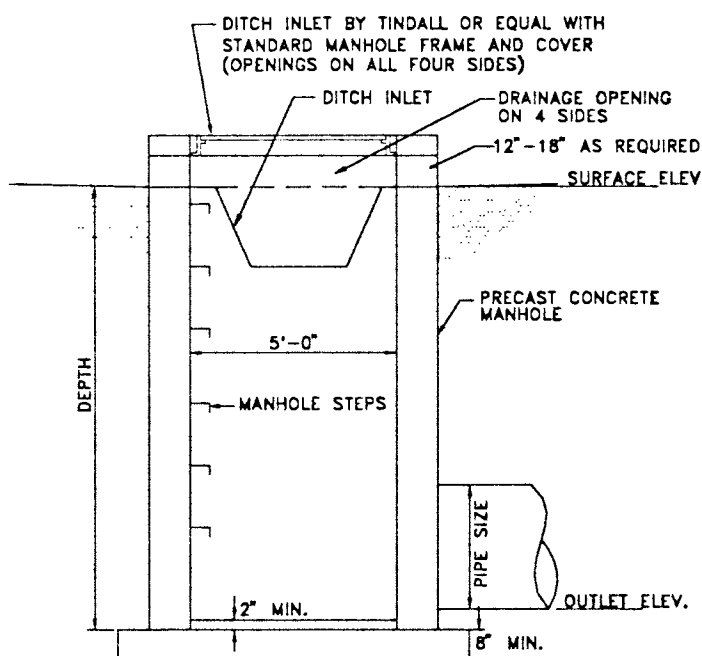
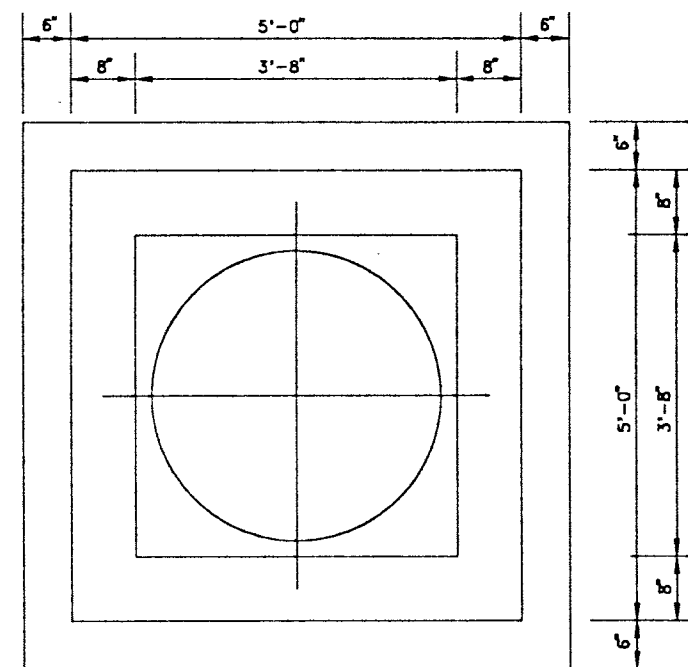
NOV 0, 1995

| REV | DATE  | DESCRIPTION                           | DR. BY | APP. BY |
|-----|-------|---------------------------------------|--------|---------|
| 4   | 10/95 | CHANGE WIDTH OF D-5 & D-6             |        |         |
| 3   | 8/95  | LINING OF DITCH-6 CHANGED TO CONCRETE |        |         |
| 2   | 8/95  | NEW DETAIL 6/11                       |        |         |
| 1   | 8/95  | NEW DETAIL 7/11                       |        |         |

|                                                           |          |                  |          |
|-----------------------------------------------------------|----------|------------------|----------|
| CLIENT/PROJECT                                            |          | MONSANTO COMPANY |          |
| TITLE                                                     |          |                  |          |
| SURFACE WATER MANAGEMENT SYSTEM<br>DETAILS (SHEET 1 OF 2) |          |                  |          |
| DATE                                                      | 4/95     | SCALE            | AS SHOWN |
| DESIGNED                                                  | JSC      | APPROVED         | WJC      |
| FILE NO.                                                  | 943-3680 | PROJECT NO.      | 943-3680 |
| SHEET                                                     |          | 11               |          |

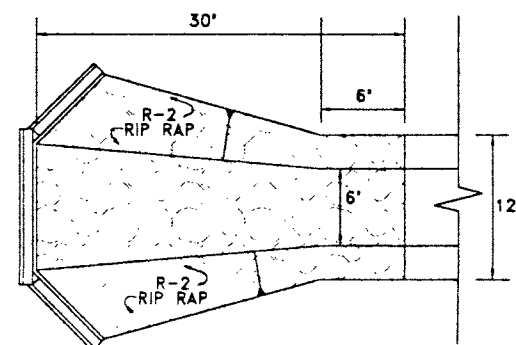
Atlanta, Georgia

**Golder Associates**

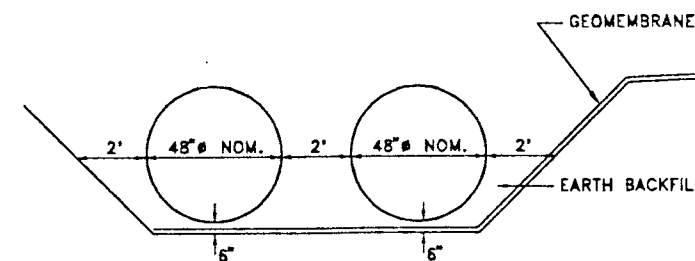


**1**  
**12** **DROP INLET DETAIL**  
N.T.S.

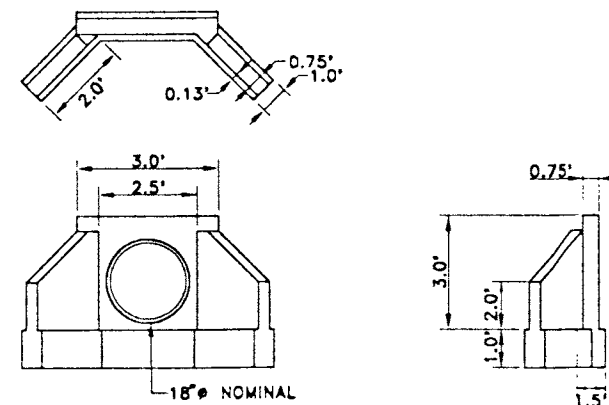
| DI-ID | SURFACE ELEV. | PIPE SIZE | OUTLET INVERT ELEV. AT DITCH | OUTLET INVERT ELEV. AT DROP INLET | DEPTH |
|-------|---------------|-----------|------------------------------|-----------------------------------|-------|
| DI-1  | 772.0         | 24"       | 763.9                        | 768.0                             | 4.2'  |
| DI-2  | 763.0         | 18"       | 757.8                        | 758.0                             | 5.0'  |



**2**  
**12** **RIP RAP APRON DETAIL**  
N.T.S.

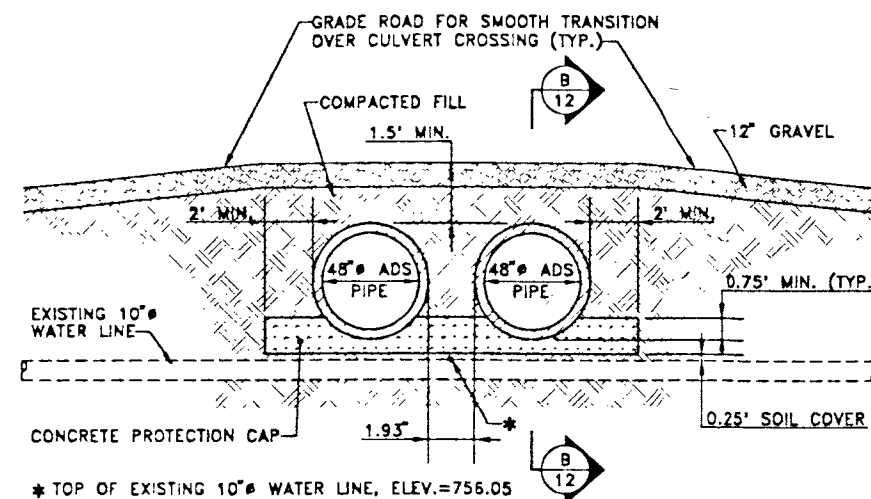


**3**  
**12** **CULVERT DETAIL**  
N.T.S.

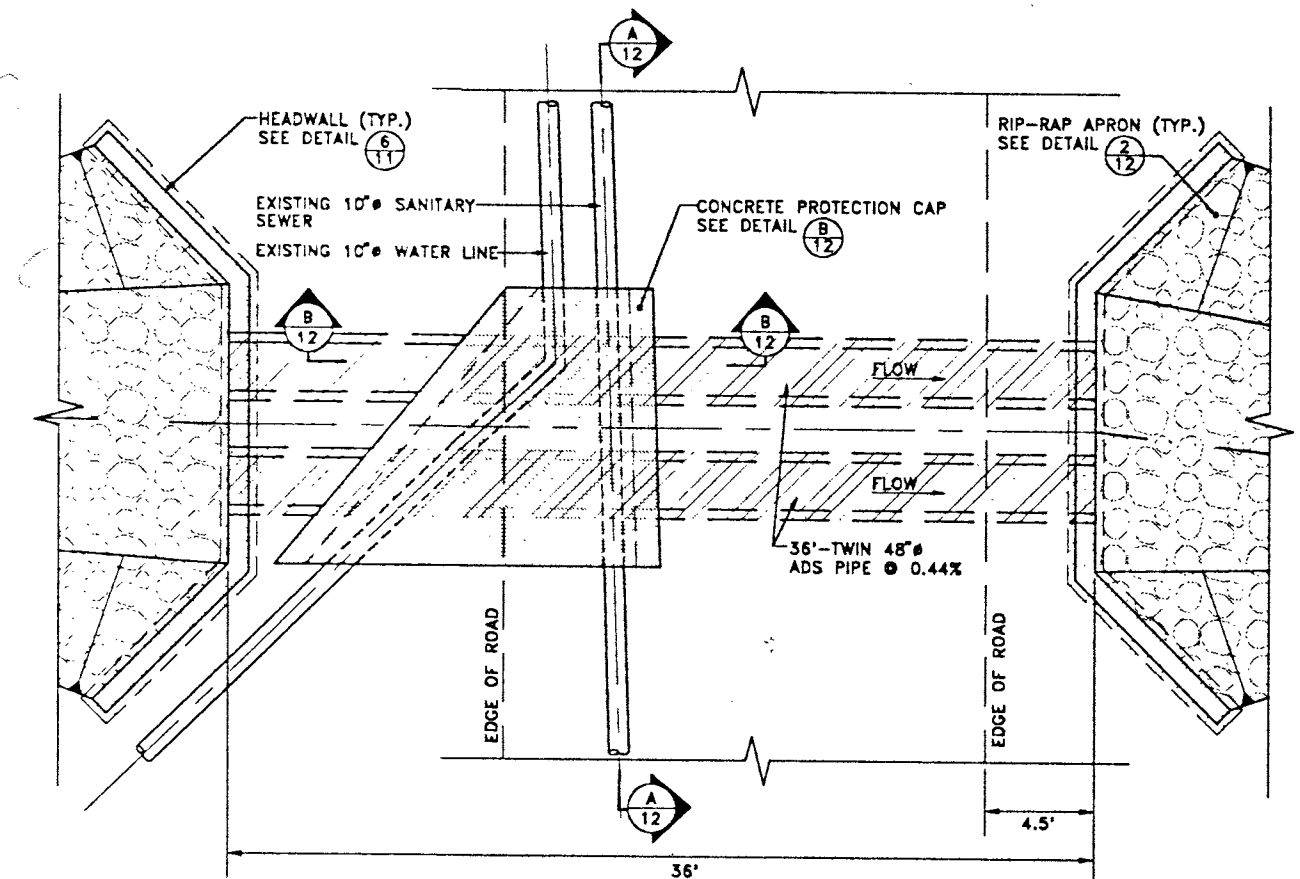


NOTE: CULVERT PIPE WILL HAVE A MINIMUM OF 18" OF COVER UNDER THE ACCESS ROAD.

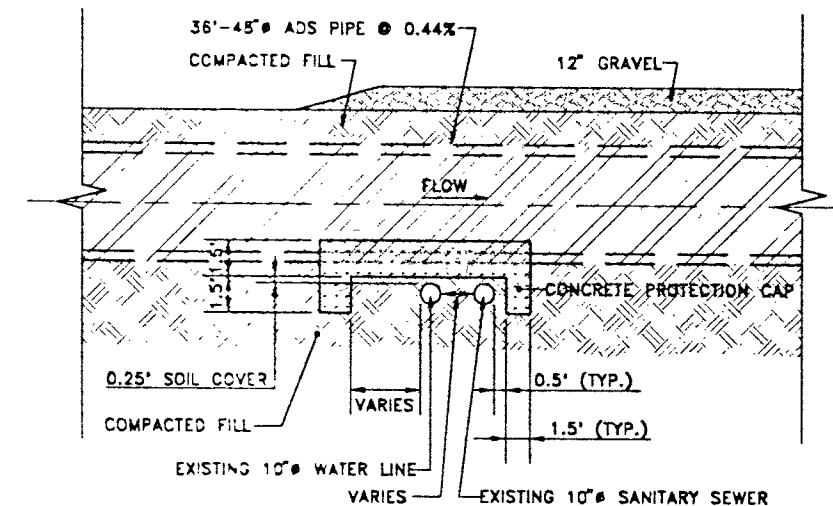
**4**  
**12** **HEADWALL @ 18"Ø PIPE BENEATH ACCESS ROAD**  
N.T.S.



**A**  
**12** **SECTION THRU 48"Ø CULVERTS @ UTILITY CROSSINGS**  
N.T.S.



**5**  
**12** **PLAN VIEW OF CULVERT CROSSING/ UTILITY PROTECTION**  
N.T.S.



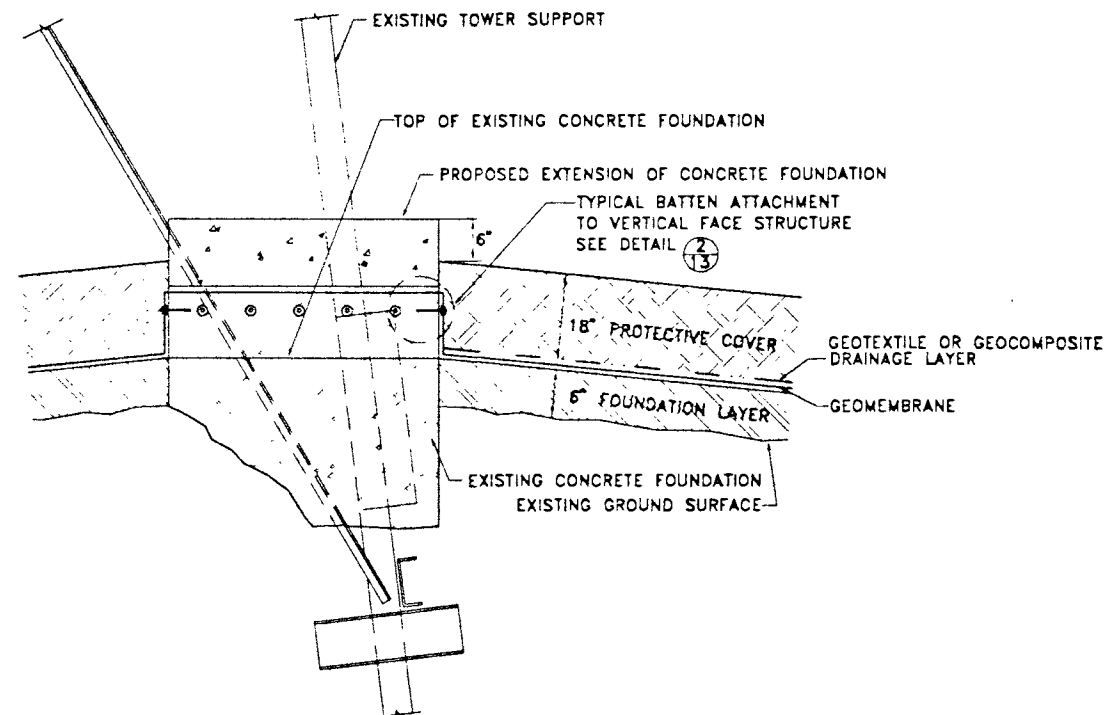
**B**  
**12** **SECTION THRU UTILITY CROSSINGS @ 48"Ø CULVERT**  
N.T.S.

**NOV 07 1995**

| REV. | DATE  | DESCRIPTION                  | DR. | BY | APP. | BY |
|------|-------|------------------------------|-----|----|------|----|
| 4    | 10/95 | REV. DROP INLET TABLE, ADDED | RMS |    |      |    |
| 3    | 10/95 | REVISED DETAIL 4/12          | JLW |    |      |    |
| 2    | 10/95 | REVISED DETAIL 3/12          | JLW |    |      |    |
| 1    | 10/95 | REVISED DROP INLET           | JLW |    |      |    |

|                                                        |          |          |          |
|--------------------------------------------------------|----------|----------|----------|
| CLIENT/PROJECT                                         |          |          |          |
| MONSANTO COMPANY                                       |          |          |          |
| TITLE                                                  |          |          |          |
| SURFACE WATER MANAGEMENT SYSTEM DETAILS (SHEET 2 OF 2) |          |          |          |
| Atlanta, Georgia                                       |          |          |          |
| DRAWN                                                  | JSG      | DATE     | 4/95     |
| CHECKED                                                |          | SCALE    | AS SHOWN |
| DESIGNED                                               |          | FILE NO. | 25       |
| APPROVED                                               |          | JOB NO.  | 943-3580 |
| FILE NO.                                               | 943-3580 | SHEET    | 12       |

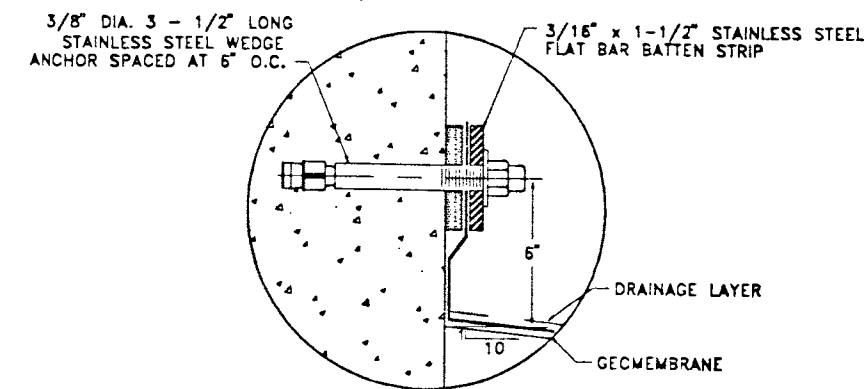




**1**  
**13**

**TYPICAL GEOMEMBRANE TIE-IN TO CONCRETE FOUNDATION**

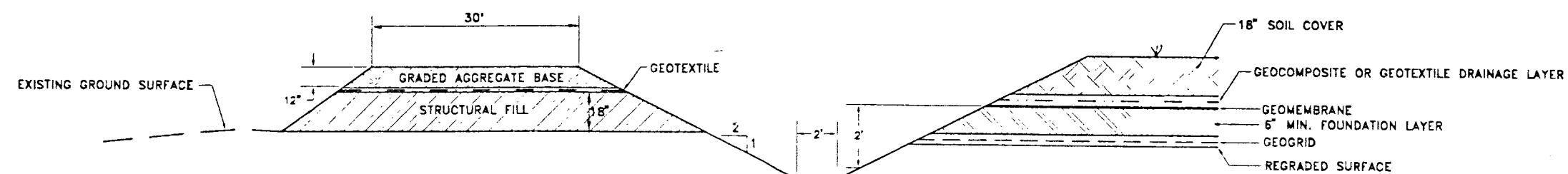
N.T.S.



**2**  
**13**

**TYPICAL BATTEN ATTACHMENT TO VERTICAL FACE STRUCTURE**

N.T.S.



**3**  
**13**

**ACCESS ROAD**

N.T.S.

NOV 07 1995

| REV. | DATE  | DESCRIPTION                            | DR. BY | APP. BY |
|------|-------|----------------------------------------|--------|---------|
| 4    | 11/95 | REMOVED ANCHOR TRENCH FROM DETAIL 3/13 | RVS    |         |
| 3    | 10/95 | REV DETAIL 3/13                        | J.W.   |         |
| 2    | 8/95  | ADDED 3/13                             |        |         |
| 1    | 8/95  | REPLACED 1/13 & 2/13                   |        |         |

|                       |          |          |          |
|-----------------------|----------|----------|----------|
| CLIENT/PROJECT        |          |          |          |
| MONSANTO COMPANY      |          |          |          |
| TITLE                 |          |          |          |
| MISCELLANEOUS DETAILS |          |          |          |
| Atlanta, Georgia      |          | DRAWN    | DATE     |
|                       |          | JSC      | 4/95     |
| CHECKED               | SCALE    | AS SHOWN |          |
| REVIEWED              | DWG. NO. | 28       | REV. NO. |
| APPROVED              | JOB NO.  | 943-3680 | CHECKED  |
| FILE NO.              | 943-3680 |          | 13       |

**Golder Associates**