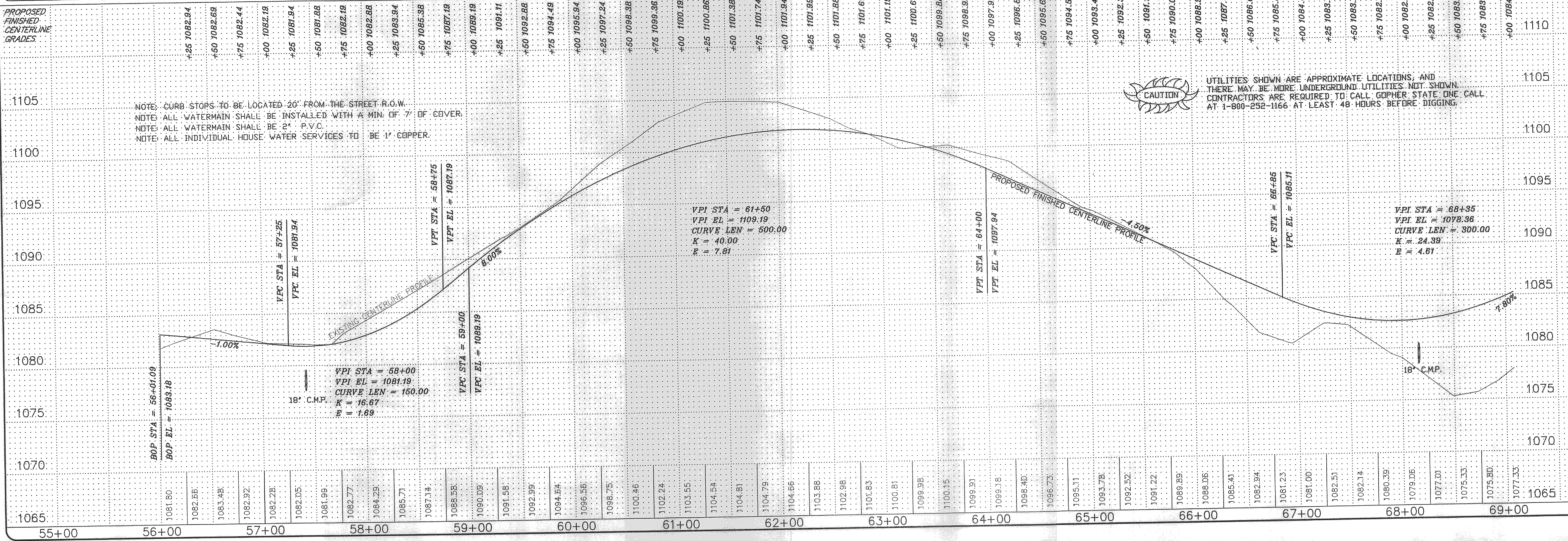
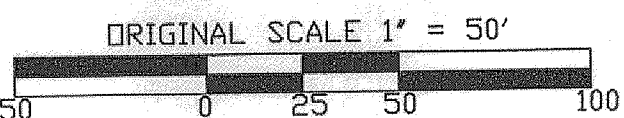


B.M. TRAVERSE PT. 3105 65.00'± S.W. OF N.E. CORNER OF LOT 23, BLOCK 1. ELEV. = 1090.23

B.M. TRAVERSE PT. 100 430.00'± W. OF C. C.R. NO. 9 ON LINE OF PLAT. ELEV. = 1104.76

B.M. TRAVERSE PT. 2106 IN LOT 2 BLOCK 2 WINDCLIFF ROAD STA. 42+68.28 90.55'± LT. ELEV. = 1103.49

# WINDCLIFF TRAIL



**CAUTION**  
 UTILITIES SHOWN ARE APPROXIMATE LOCATIONS, AND THERE MAY BE MORE UNDERGROUND UTILITIES NOT SHOWN. CONTRACTORS ARE REQUIRED TO CALL GOPHER STATE ONE CALL AT 1-800-252-1166 AT LEAST 48 HOURS BEFORE DIGGING.

| REVISIONS | DATE |
|-----------|------|
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|           |      |
|           |      |

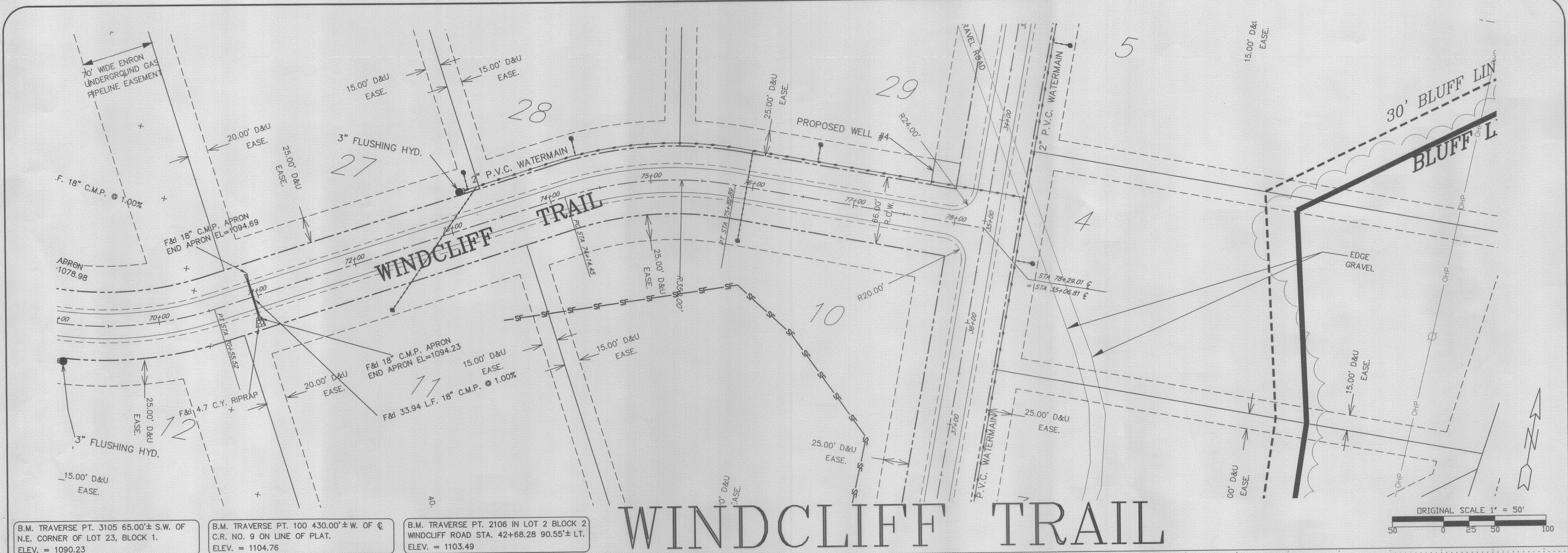
**SOUTH EASTERN ENGINEERING INC.**  
 40 16th St. S.E. Suite D Rochester, MN 55904  
 Ph. (507) 287-0110 Fax (507) 286-9188

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A duly licensed PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Steven P. Viligt*  
 STEVEN P. VILIGT  
 25742 JAC. NO. 20034  
 DATE: 09/25/03

**PLAN & PROFILE - WINDCLIFF TRAIL**  
**WINDCLIFF SUBDIVISION**  
**RODGER & SYLVIA BROWN**  
**LAKE CITY, MINNESOTA**

DRAWN: JPP  
 CHECKED: RAW  
 DATE: 09/25/03  
 H SCALE: 1" = 50'  
 V SCALE: 1" = 5'  
 SHEET 7 of 12  
 PROJ. # 02253

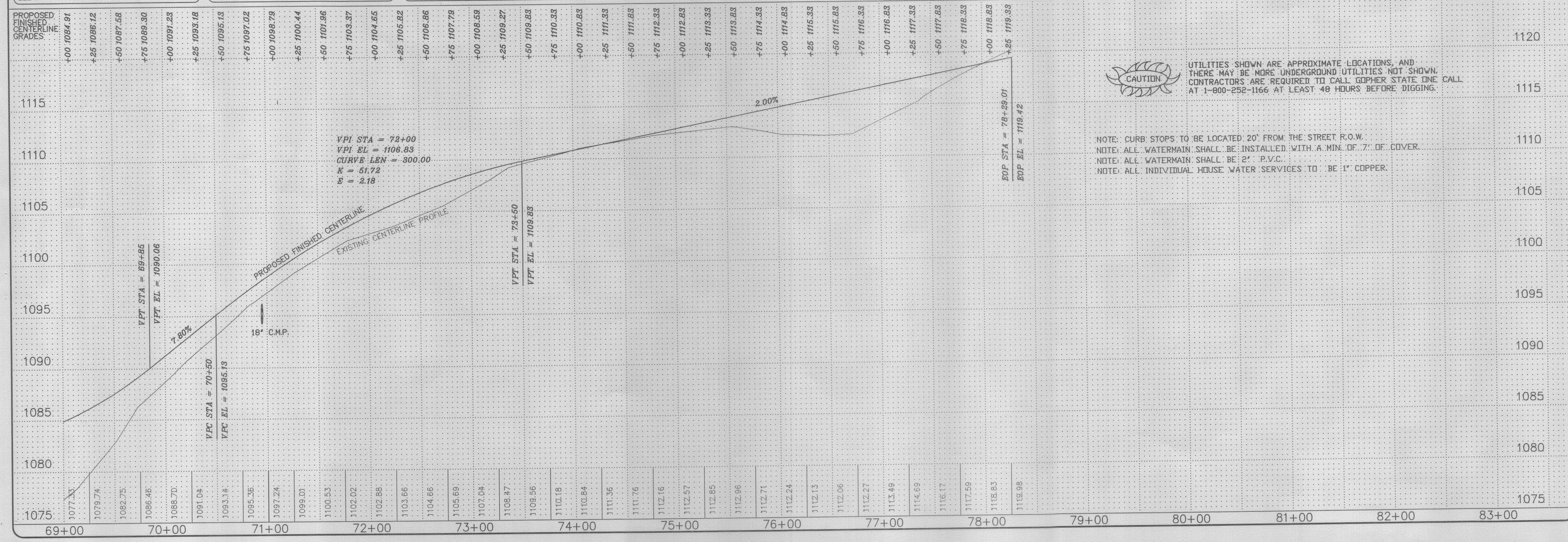
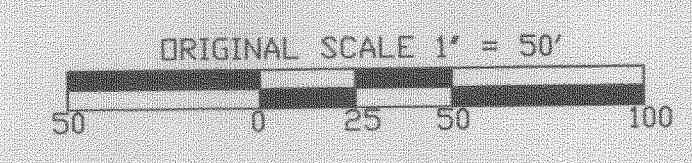


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B.M. TRAVERSE PT. 2106 IN LOT 2 BLOCK 2 WINDCLIFF ROAD STA. 42+68.28 90.55'± LT. ELEV. = 1103.49

# WINDCLIFF TRAIL



| REVISIONS | DATE |
|-----------|------|
|           |      |
|           |      |
|           |      |

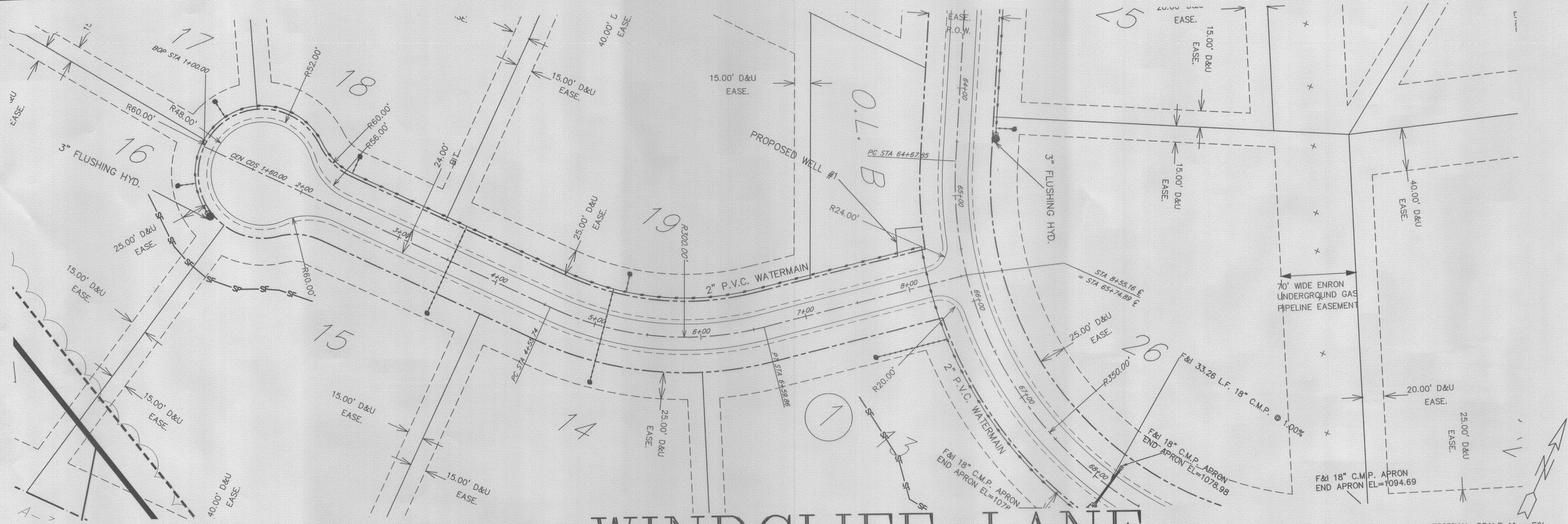
**SOUTH EASTERN ENGINEERING INC.**  
 40 16th St. S.E. Suite D Rochester, MN 55904  
 Ph. (507) 287-0110 Fax (507) 286-9186

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 9/25/03  
 STEVEN P. VEDIG  
 E0034

**PLAN & PROFILE - WINDCLIFF TRAIL**  
**WINDCLIFF SUBDIVISION**  
**RODGER & SYLVIA BROWN**  
**LAKE CITY, MINNESOTA**

DRAWN: JFP  
 CHECKED: RAW  
 DATE: 09/25/03  
 H SCALE: 1" = 50'  
 V SCALE: 1" = 5'  
 SHEET  
**8 of 12**  
 PROJ. # 02253

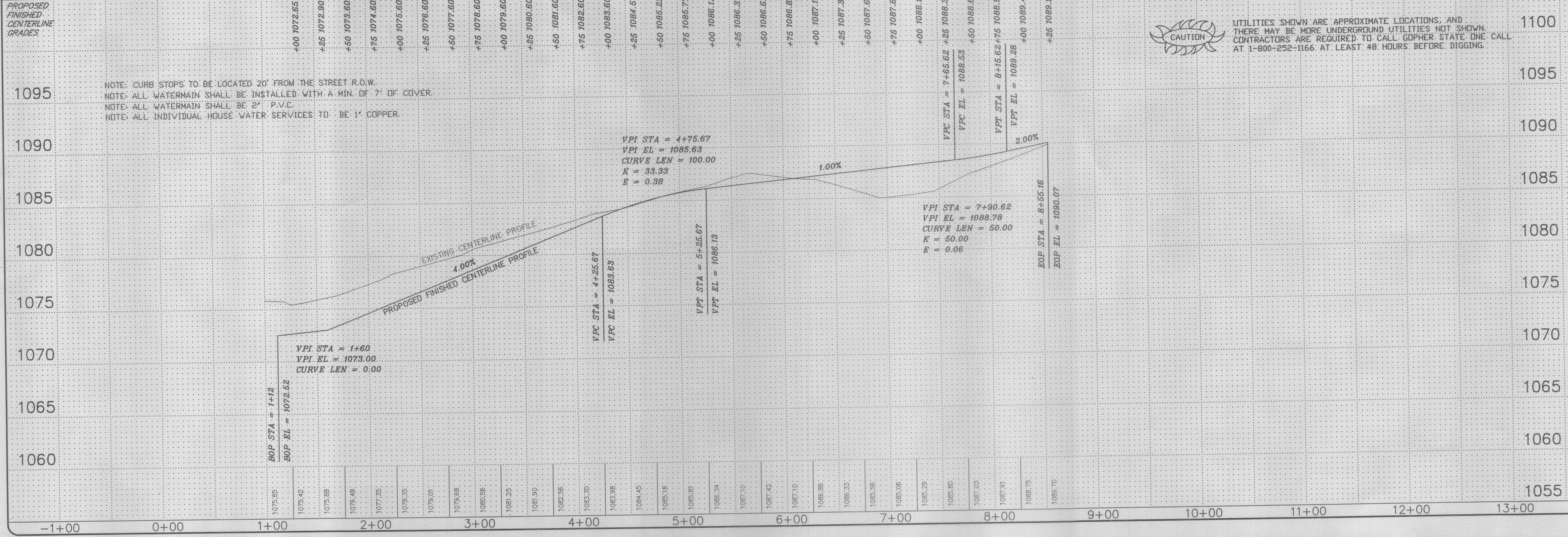
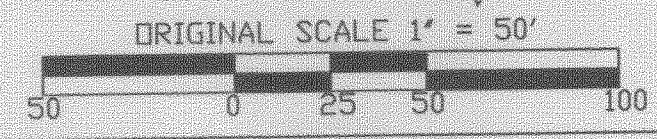


B.M. TRAVERSE PT. 3105 65.00' ± S.W. OF N.E. CORNER OF LOT 23, BLOCK 1. ELEV. = 1090.23

B.M. TRAVERSE PT. 100 430.00' ± W. OF C. C.R. NO. 9 ON LINE OF PLAT. ELEV. = 1104.76

B.M. TRAVERSE PT. 2106 IN LOT 2 BLOCK 2 WINDCLIFF ROAD STA. 42+68.28 90.55' ± LT. ELEV. = 1103.49

# WINDCLIFF LANE



CAUTION UTILITIES SHOWN ARE APPROXIMATE LOCATIONS, AND THERE MAY BE MORE UNDERGROUND UTILITIES NOT SHOWN. CONTRACTORS ARE REQUIRED TO CALL Gopher State One Call AT 1-800-252-1166 AT LEAST 48 HOURS BEFORE DIGGING.

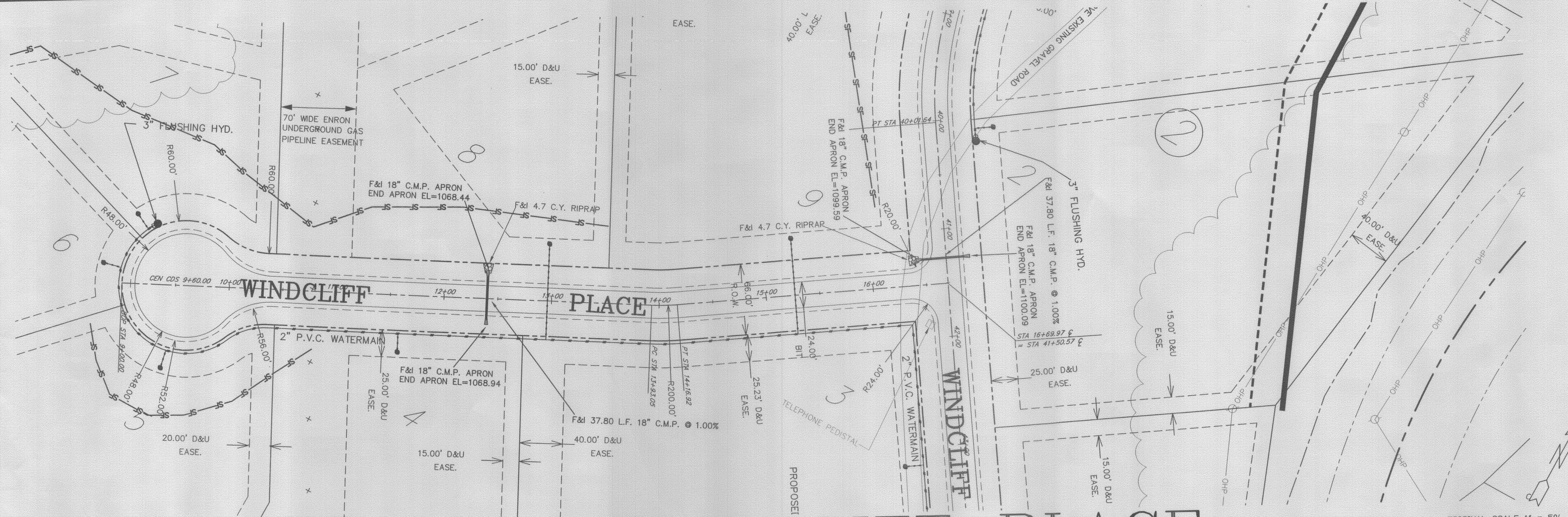
| REVISIONS | DATE |
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**SOUTH EASTERN ENGINEERING INC.**  
 40 16th St. S.E. Suite D Rochester, MN 55904  
 Ph. (507) 287-0110 Fax (507) 286-9186

STEVEN R. VOIGT  
 LICENSED PROFESSIONAL ENGINEER  
 STATE OF MINNESOTA  
 LICENSE NO. 20054

**PLAN & PROFILE - WINDCLIFF LANE**  
**WINDCLIFF SUBDIVISION**  
**RODGER & SYLVIA BROWN**  
**LAKE CITY, MINNESOTA**

DRAWN: JPP  
 CHECKED: RAW  
 DATE: 09/25/03  
 H SCALE: 1" = 50'  
 V SCALE: 1" = 5'  
 SHEET  
**9 of 12**  
 PROJ. # 02253

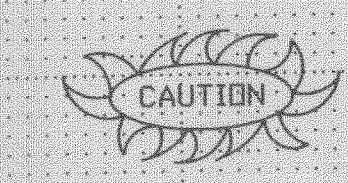
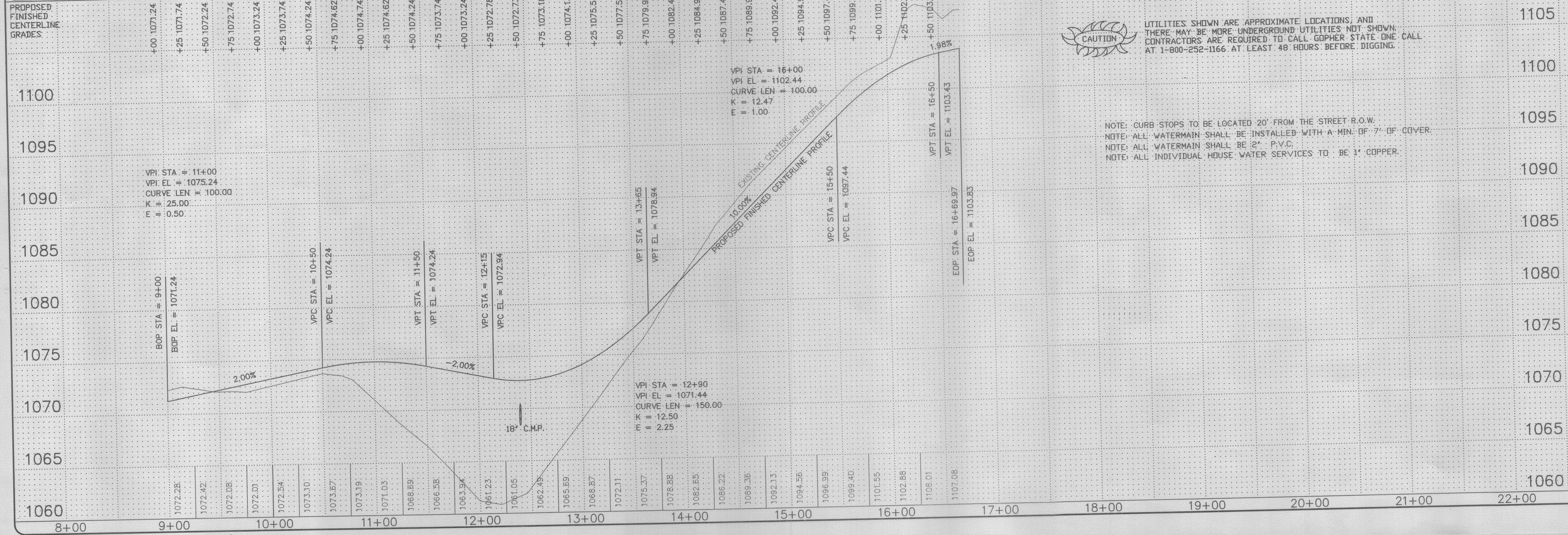


# WINDCLIFF PLACE

B.M. TRAVERSE PT. 3105 65.00'± S.W. OF N.E. CORNER OF LOT 23, BLOCK 1. ELEV. = 1090.23

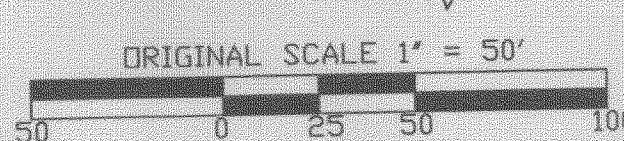
B.M. TRAVERSE PT. 100 430.00'± W. OF C.R. NO. 9 ON LINE OF PLAT. ELEV. = 1104.76

B.M. TRAVERSE PT. 2106 IN LOT 2 BLOCK 2 WINDCLIFF ROAD STA. 42+68.28 90.55'± LT. ELEV. = 1103.49



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NOTE: CURB STOPS TO BE LOCATED 20' FROM THE STREET R.O.W.  
 NOTE: ALL WATERMAIN SHALL BE INSTALLED WITH A MIN. OF 7" OF COVER.  
 NOTE: ALL WATERMAIN SHALL BE 2" P.V.C.  
 NOTE: ALL INDIVIDUAL HOUSE WATER SERVICES TO BE 1" COPPER.



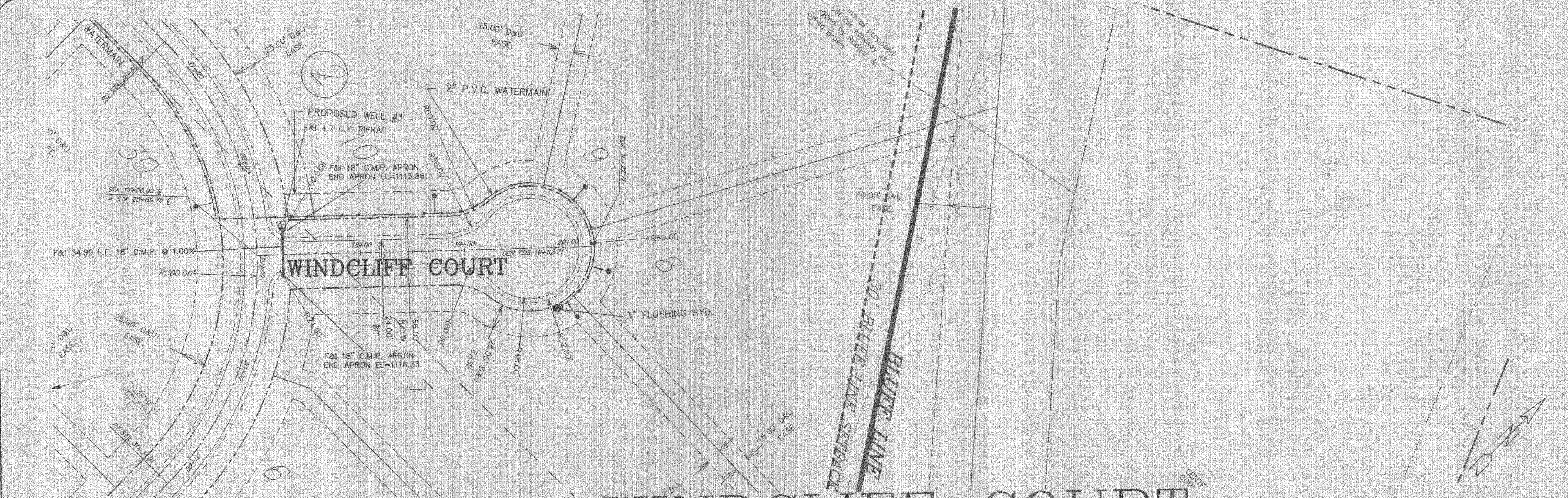
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**SOUTH EASTERN ENGINEERING INC.**  
 40 16th St. S.E. Suite D Rochester, MN 55904  
 Ph. (507) 287-0110 Fax (507) 286-0188

STEVEN P. VOIGT  
 LICENSED PROFESSIONAL ENGINEER  
 STATE OF MINNESOTA  
 No. 20034

**PLAN & PROFILE - WINDCLIFF PLACE**  
**WINDCLIFF SUBDIVISION**  
**RODGER & SYLVIA BROWN**  
**LAKE CITY, MINNESOTA**

DRAWN: JPP  
 CHECKED: RAW  
 DATE: 09/25/03  
 H SCALE: 1" = 50'  
 V SCALE: 1" = 5'  
 SHEET: 10 of 12  
 PROJ. # 02253

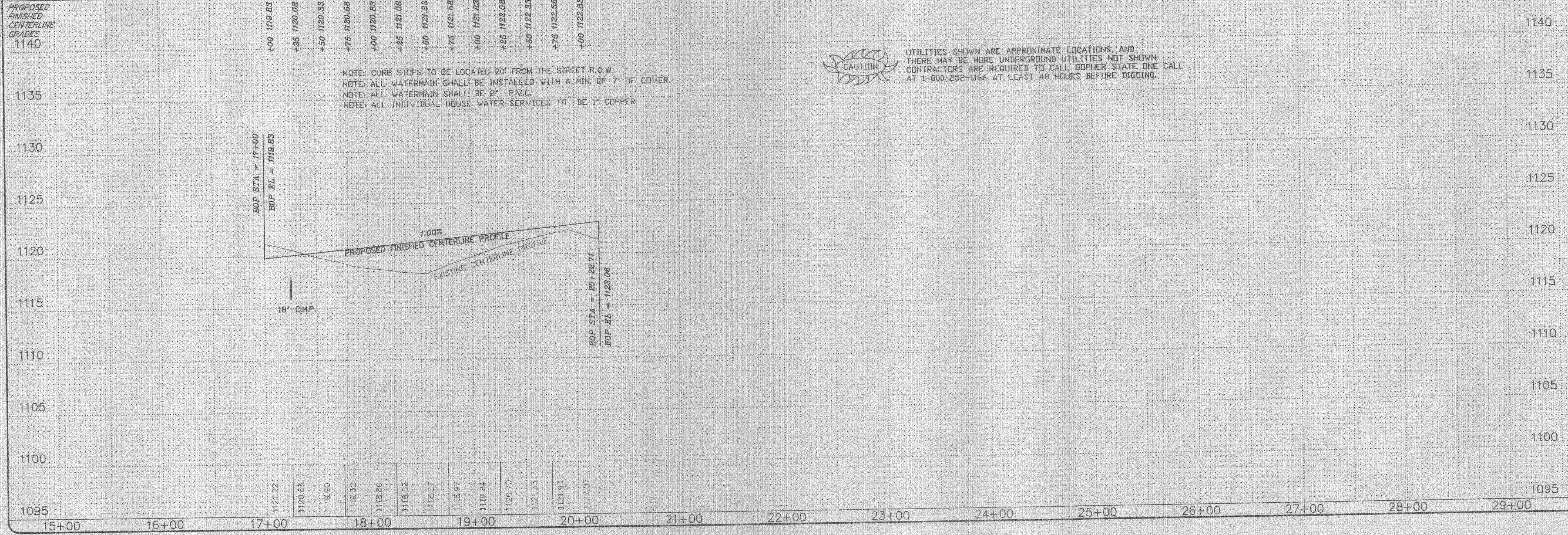
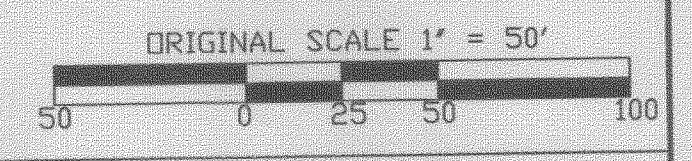


B.M. TRAVERSE PT. 3105 65.00'± S.W. OF N.E. CORNER OF LOT 23, BLOCK 1. ELEV. = 1090.23

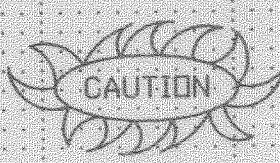
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B.M. TRAVERSE PT. 2106 IN LOT 2 BLOCK 2 WINDCLIFF ROAD STA. 42+68.28 90.55'± LT. ELEV. = 1103.49

# WINDCLIFF COURT



NOTE: CURB STOPS TO BE LOCATED 20' FROM THE STREET R.O.W.  
 NOTE: ALL WATERMAIN SHALL BE INSTALLED WITH A MIN. OF 7' OF COVER.  
 NOTE: ALL WATERMAIN SHALL BE 2\"/>



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| REVISIONS | DATE |
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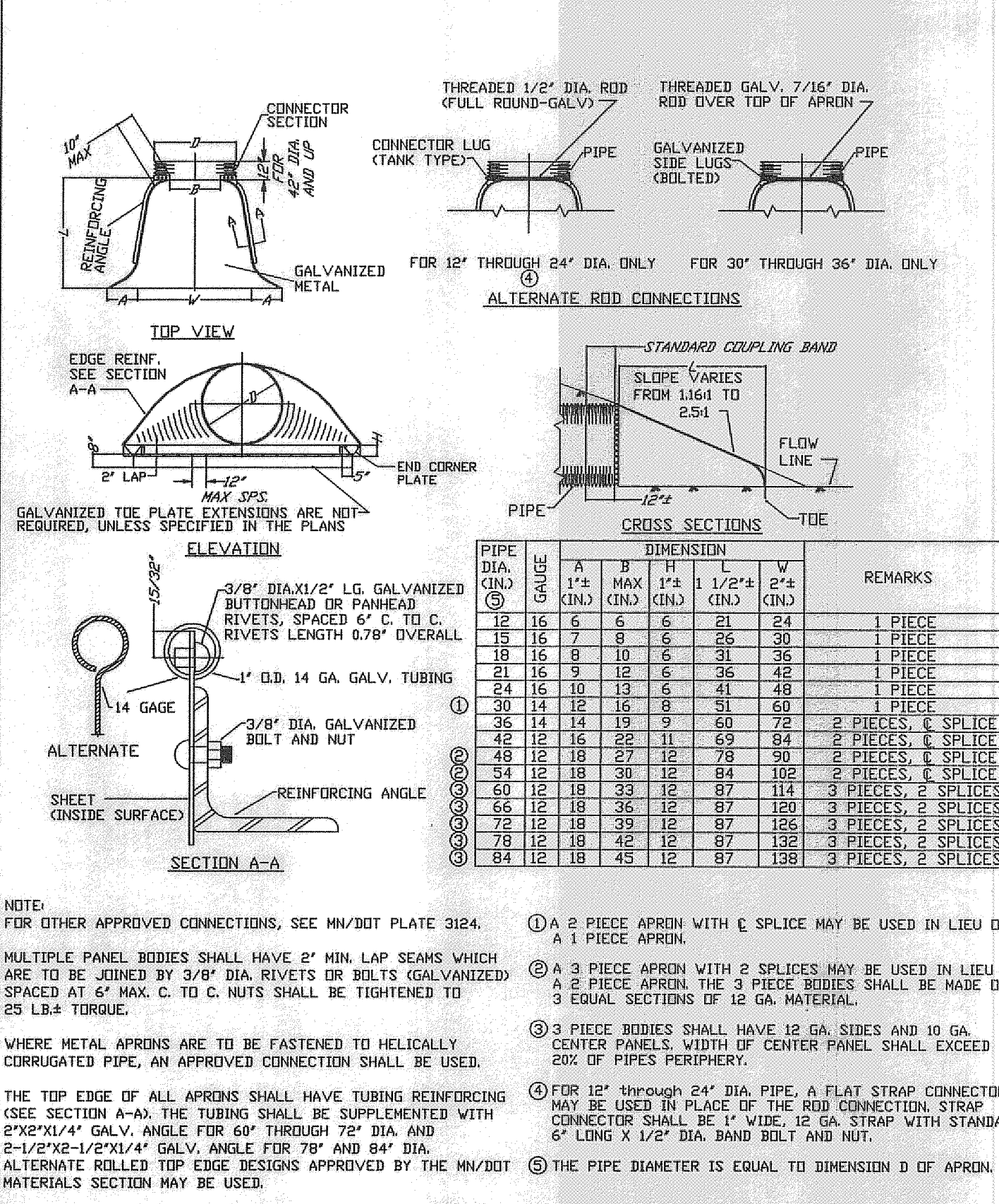
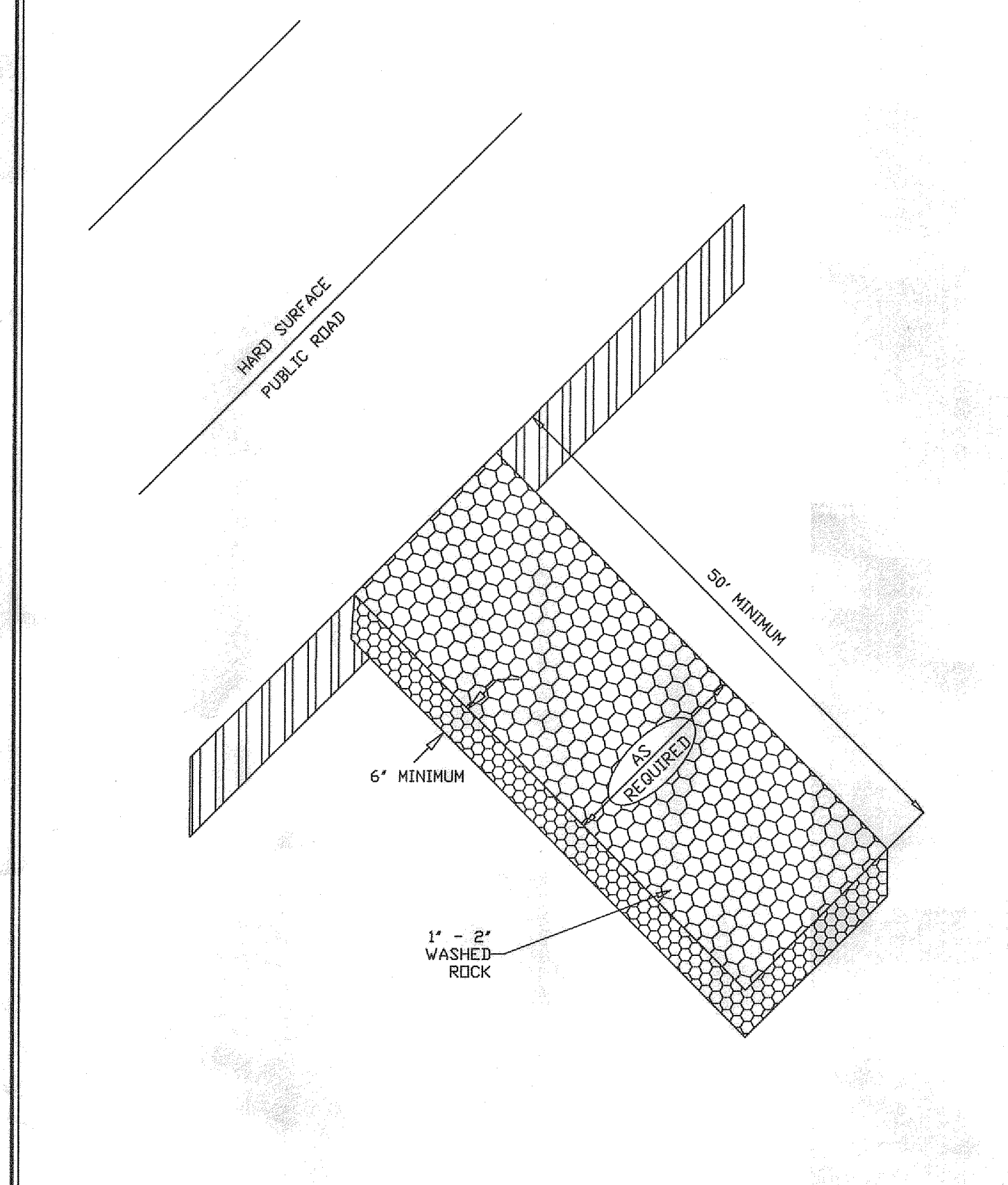
**SOUTH EASTERN ENGINEERING INC.**  
 40 16th St. S.E. Suite D Rochester, MN 55904  
 Ph. (507) 287-0110 Fax (507) 286-0188

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*Steven P. Vitig*  
 STEVEN P. VITIG  
 DATE: 9/27/03 Lic. No. 20534

**PLAN & PROFILE - WINDCLIFF COURT**  
**WINDCLIFF SUBDIVISION**  
**RODGER AND SYLVIA BROWN**  
**LAKE CITY, MINNESOTA**

DRAWN: JPP  
 CHECKED: RAW  
 DATE: 09/25/03  
 H SCALE: 1"=50'  
 V SCALE: 1"=5'  
 SHEET: **11 of 12**  
 PROJ. # 02253



**TABLE OF QUANTITIES RIPRAP AT CMP OUTLETS**

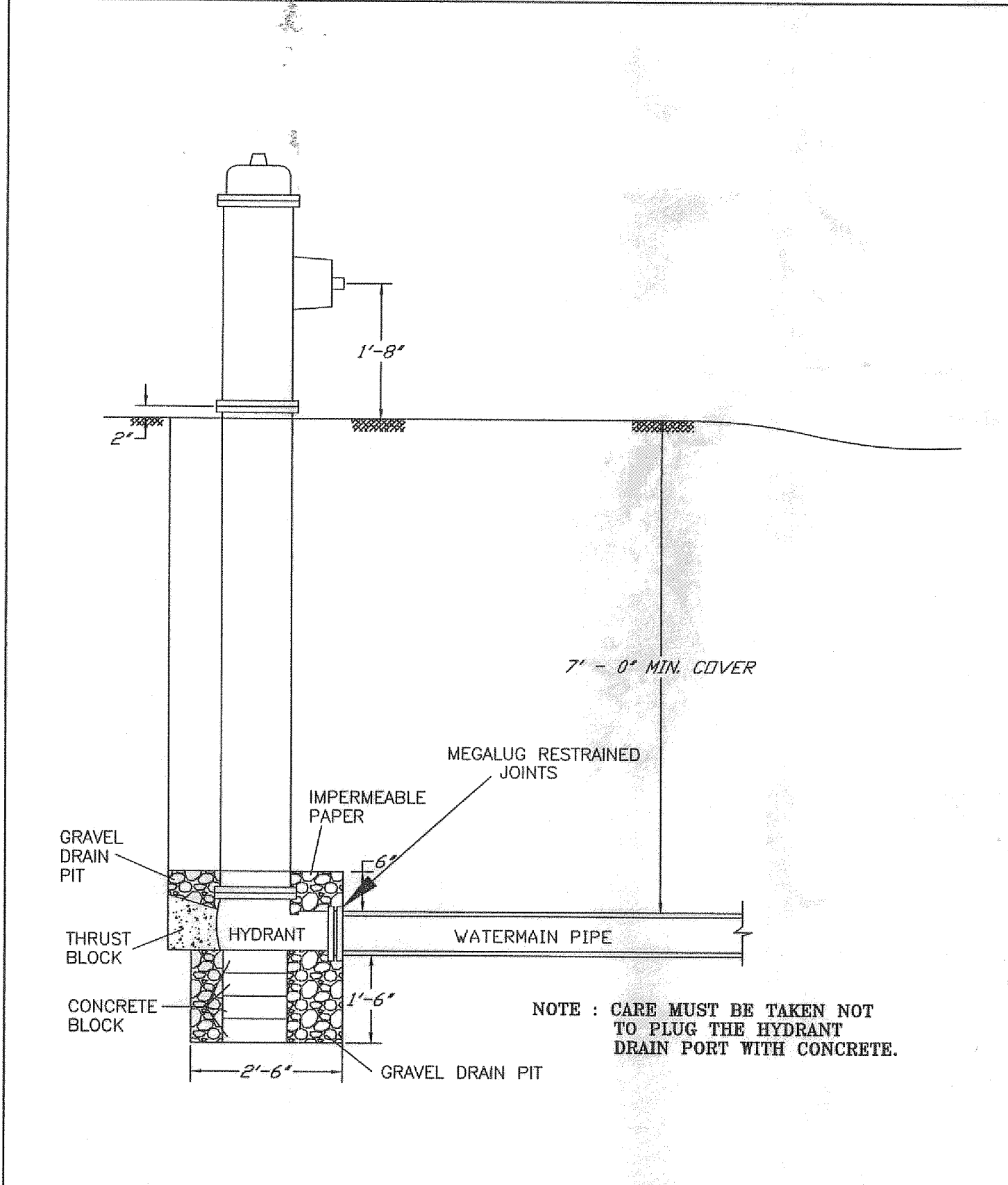
| DIA. OF ROUND PIPE (IN.) | CLASS II<br>d 50 = 6' |                  | CLASS III<br>d 50 = 9' |                  | CLASS IV<br>d 50 = 12' |                  |
|--------------------------|-----------------------|------------------|------------------------|------------------|------------------------|------------------|
|                          | L                     | DEPTH (CU. YDS.) | L                      | DEPTH (CU. YDS.) | L                      | DEPTH (CU. YDS.) |
| 12                       | 8                     | 3.2              | 1.6                    | 4.7              | 6.3                    | 3.2              |
| 15                       | 8                     | 3.5              | 1.8                    | 5.2              | 6.9                    | 3.5              |
| 18                       | 10                    | 4.7              | 2.4                    | 7.0              | 9.4                    | 4.7              |
| 21                       | 10                    | 5.5              | 2.8                    | 8.2              | 10.9                   | 5.5              |
| 24                       | 12                    | 6.5              | 3.3                    | 9.8              | 13.0                   | 6.5              |
| 30                       | 14                    | 8.6              | 4.3                    | 12.8             | 17.1                   | 8.6              |
| 36                       | 16                    | 10.9             | 5.5                    | 16.3             | 21.8                   | 10.9             |
| 42                       | 18                    | 13.5             | 6.8                    | 20.3             | 27.8                   | 13.5             |
| 48                       | 20                    | 16.0             | 8.0                    | 24.0             | 32.0                   | 16.0             |

**TABLE OF QUANTITIES RIPRAP AT CMP-A OUTLETS OR BOXES OF EQUIVALENT SPAN WIDTH**

| SPAN (IN.) | CLASS II<br>d 50 = 6' |                  | CLASS III<br>d 50 = 9' |                  | CLASS IV<br>d 50 = 12' |                  |
|------------|-----------------------|------------------|------------------------|------------------|------------------------|------------------|
|            | L                     | DEPTH (CU. YDS.) | L                      | DEPTH (CU. YDS.) | L                      | DEPTH (CU. YDS.) |
| 17         | 8                     | 3.4              | 1.7                    | 5.0              | 6.7                    | 3.4              |
| 21         | 10                    | 4.6              | 2.3                    | 6.8              | 9.1                    | 4.6              |
| 24         | 10                    | 5.2              | 2.6                    | 7.6              | 10.1                   | 5.1              |
| 28         | 12                    | 6.3              | 3.2                    | 9.5              | 12.6                   | 6.3              |
| 33         | 14                    | 8.3              | 4.2                    | 12.4             | 16.5                   | 8.3              |
| 42         | 16                    | 10.8             | 5.4                    | 16.2             | 21.5                   | 10.8             |
| 49         | 18                    | 13.0             | 6.5                    | 19.5             | 25.9                   | 13.0             |
| 57         | 20                    | 16.2             | 8.1                    | 24.3             | 32.4                   | 16.2             |

**NOTES:**  
 1. PIPE SIZES LARGER THAN THOSE SHOWN REQUIRE A SPECIAL DESIGN. REQUIREMENTS FOR RIPRAP SIZE AND THICKNESS AND FILTER BLANKET WILL BE DESIGNATED IN THE PLANS.  
 2. FOR PIPES GREATER THAN OR EQUAL TO 30", USE 1.5".  
 3. THE CONTRACTOR, AT HIS OPTION, MAY SUBSTITUTE A GEOTEXTILE FABRIC, SPEC. 3770, FOR THE GRANULAR FILTER BLANKET UNLESS OTHERWISE SPECIFIED IN THE PLANS. THE FABRIC SHOULD COVER THE AREA OF THE RIPRAP AND EXTEND UNDER THE CULVERT APRON 3 FT.  
 4. THE DIMENSIONS W AND A ARE GIVEN ON STAND PLATES SIZE 312.

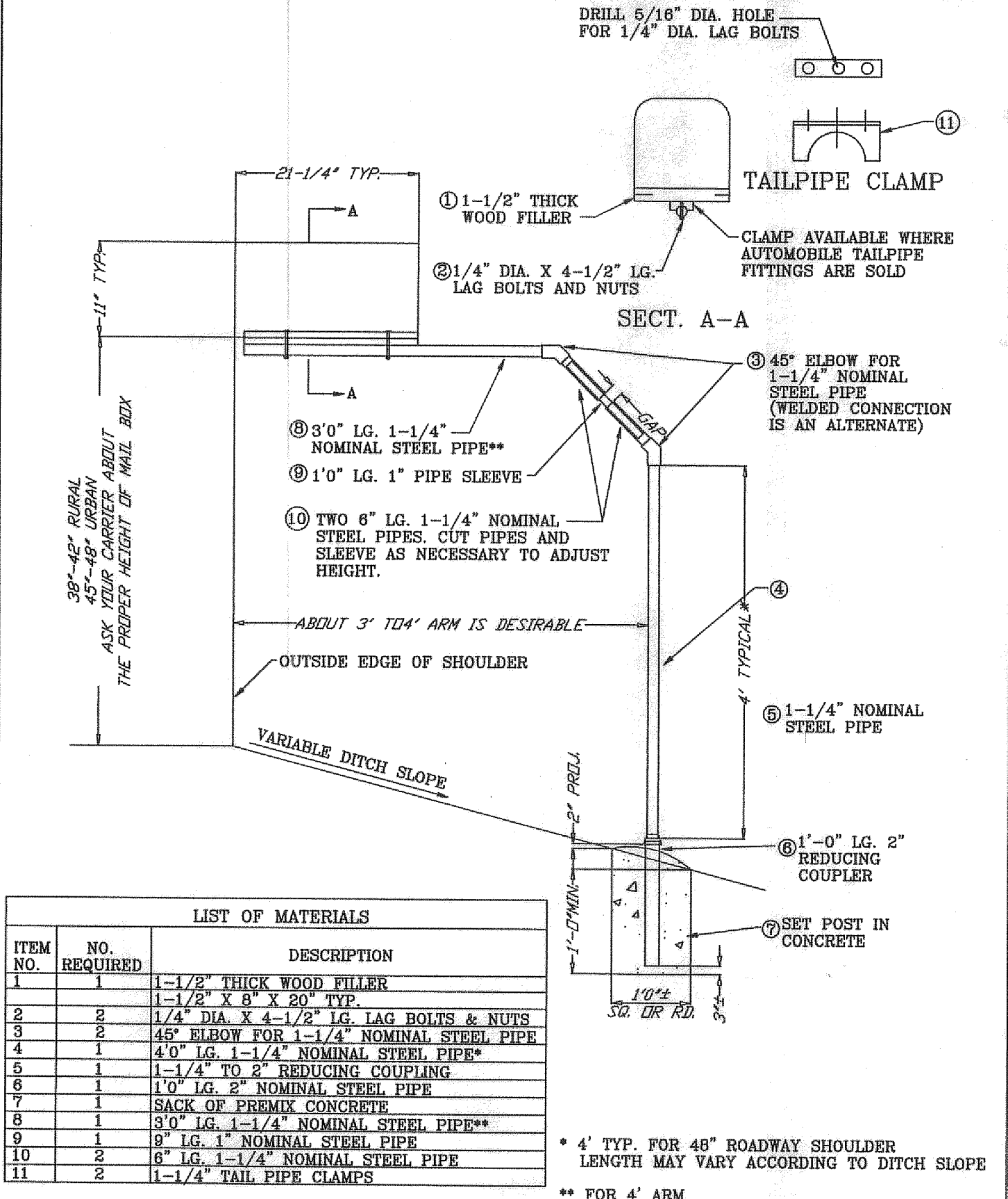
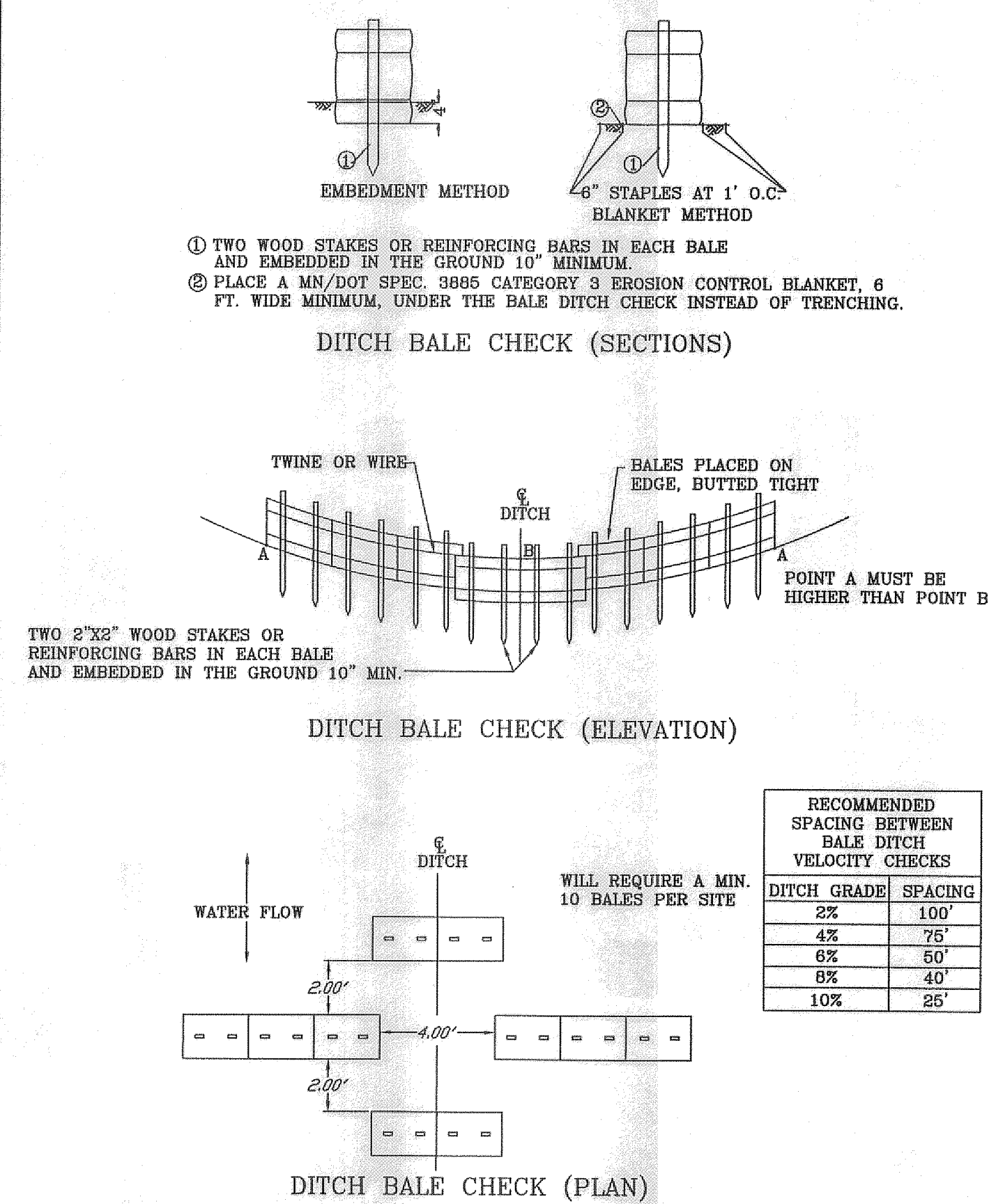
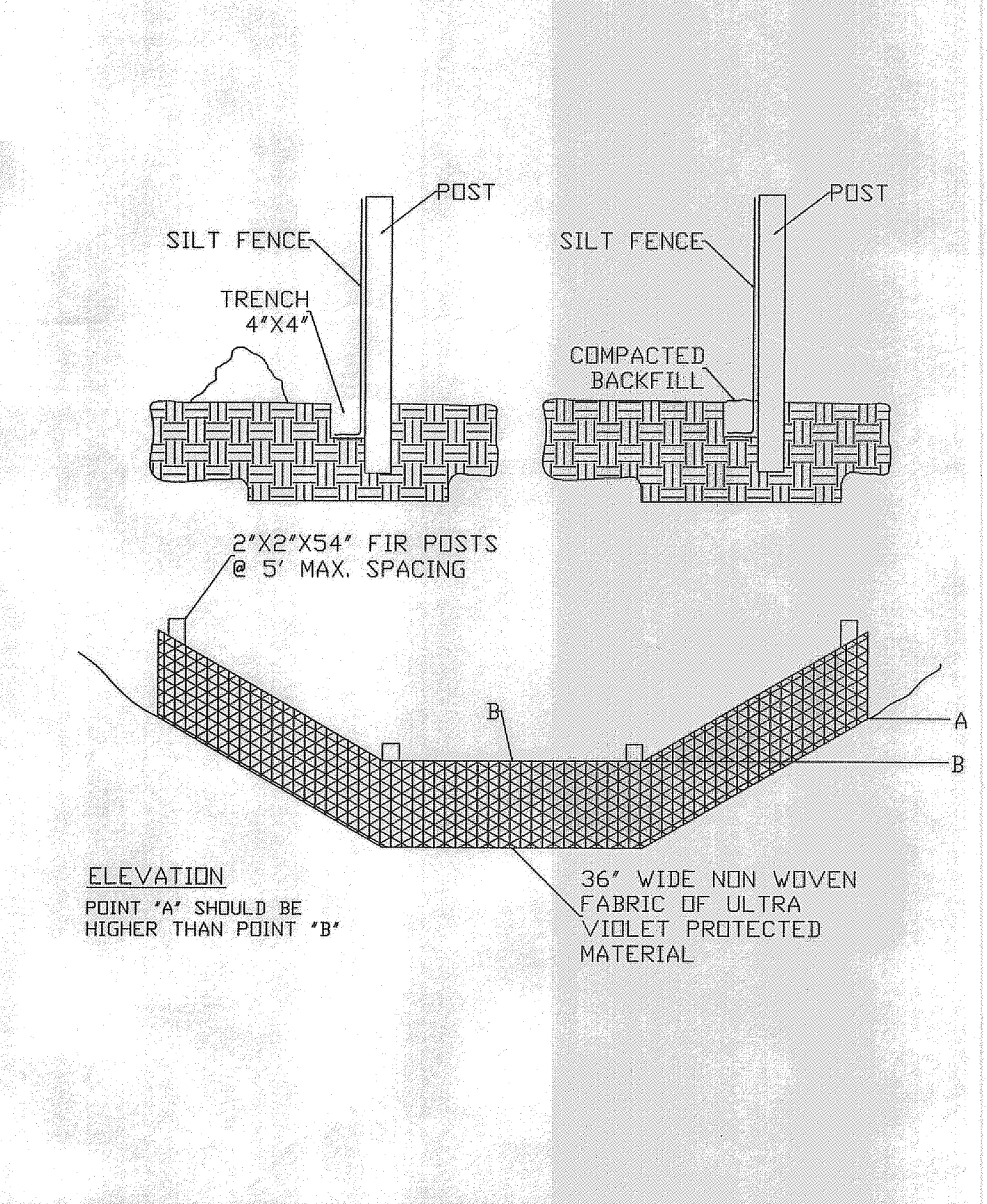
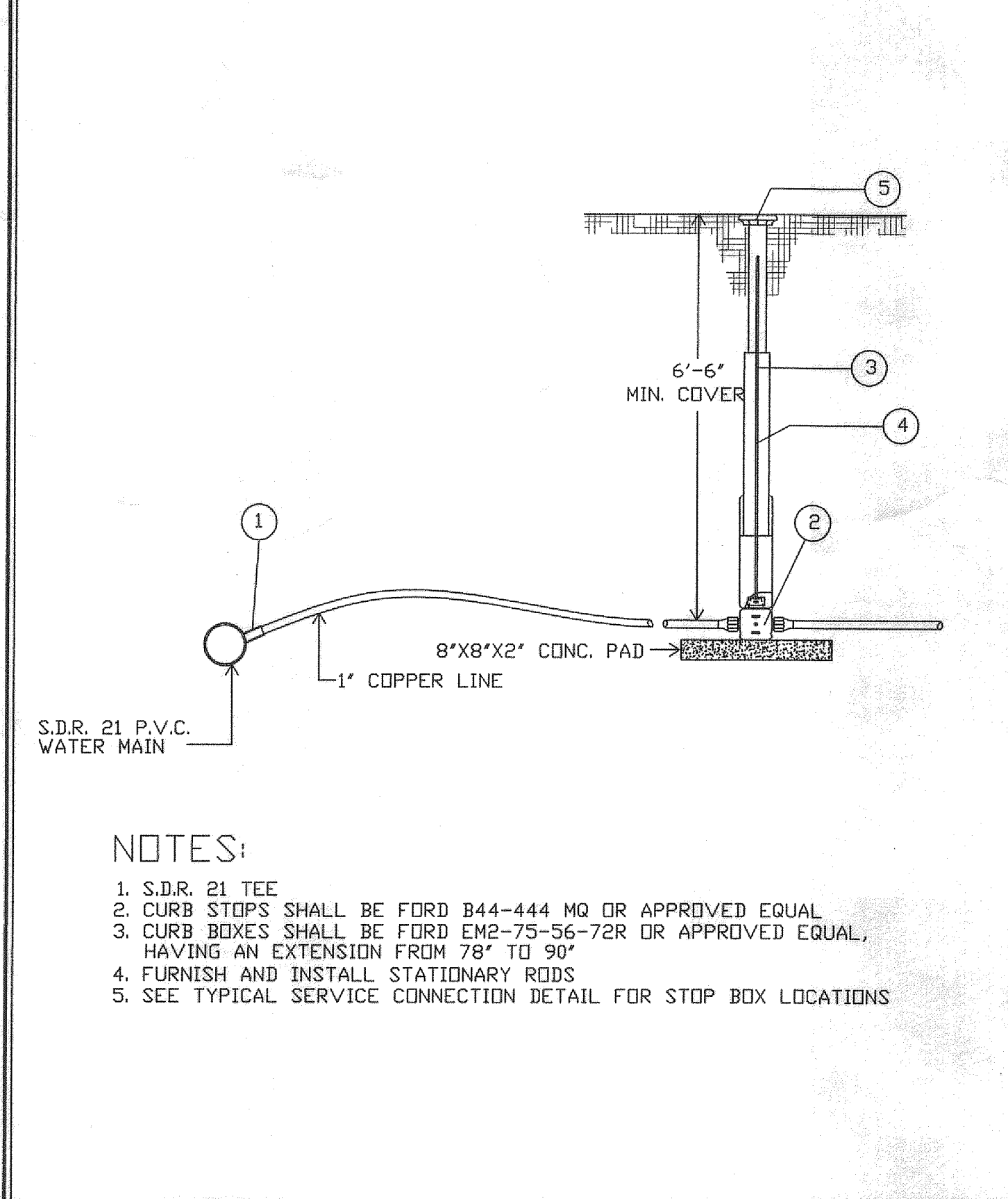


**SOUTH EASTERN ENGINEERING S.E.E.**  
 ROCK CONSTRUCTION ENTRANCE DETAIL (TEMPORARY)  
 STANDARD PLATE NO. 130  
 DATE: 03/03/03

**SOUTH EASTERN ENGINEERING S.E.E.**  
 METAL APRON FOR C.S. PIPE  
 STANDARD PLATE NO. 203.2  
 DATE: 03/03/03

**SOUTH EASTERN ENGINEERING S.E.E.**  
 RIP RAP DETAIL AT CMP OUTLET  
 STANDARD PLATE NO. 204.2  
 DATE: 07/23/03

**SOUTH EASTERN ENGINEERING S.E.E.**  
 TYPICAL POST (FLUSHING) HYDRANT  
 STANDARD PLATE NO. 400.2  
 DATE: 05/09/03



**SOUTH EASTERN ENGINEERING S.E.E.**  
 TYPICAL WATER SERVICE CONNECTION USING S.D.R. 21 P.V.C. PIPE  
 STANDARD PLATE NO. 403.2  
 DATE: 03/03/03

**SOUTH EASTERN ENGINEERING S.E.E.**  
 SILT FENCE DETAIL NO SCALE  
 STANDARD PLATE NO. 515  
 DATE: 03/10/03

**SOUTH EASTERN ENGINEERING S.E.E.**  
 DITCH BALE CHECK  
 STANDARD PLATE NO. 516  
 DATE: 03/03/03

**SOUTH EASTERN ENGINEERING S.E.E.**  
 RECOMMENDED MAIL BOX SUPPORT (STEEL POST)  
 STANDARD PLATE NO. 500  
 DATE: 03/03/03

DATE: \_\_\_\_\_  
 REVISIONS: \_\_\_\_\_  
**SOUTH EASTERN ENGINEERING INC.**  
 40 16TH ST. S.E. Suite D Rochester, MN 55904  
 Ph. (507) 287-0110 Fax (507) 286-9188

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 DATE: 7/29/03 P.E. No. 26959  
 MELBA M. SHAKAL

**STANDARD DETAIL PLATES**  
**WINDCLIFF SUBDIVISION**  
**RODGER & SYLVIA BROWN**  
**LAKE CITY, MINNESOTA**

DRAWN: JPP  
 CHECKED: LRB  
 DATE: 09/25/03  
 H SCALE: NO SCALE  
 V SCALE: NO SCALE  
 SHEET 13 of 18  
 PROJ. # 02253