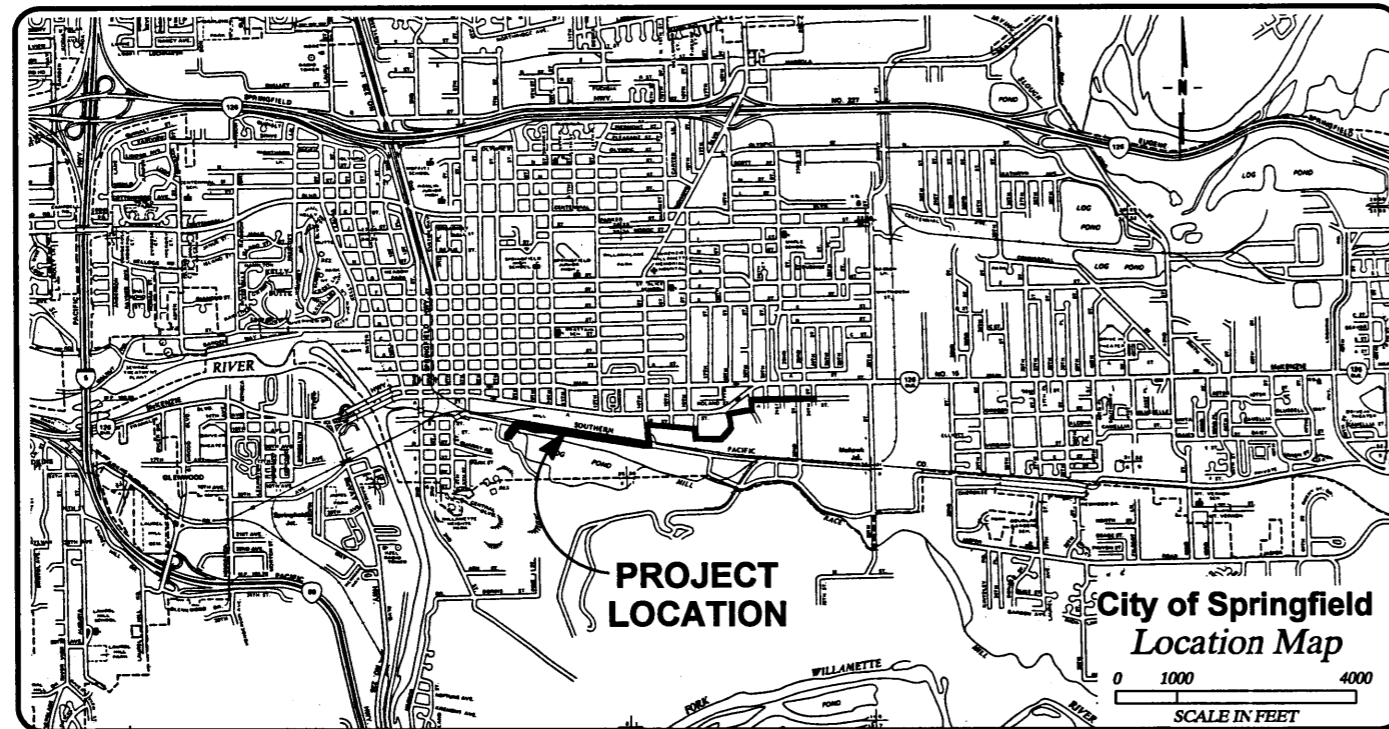


The City of Springfield

SOUTH "A" STREET

TRUNK STORM SEWER REPLACEMENT

PROJECT NO. 1-865



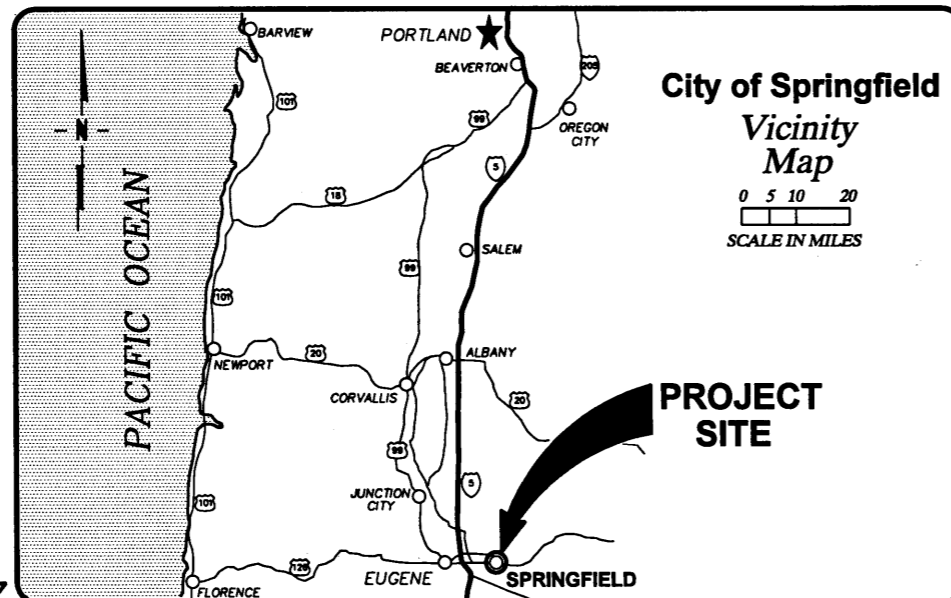
INDEX TO DRAWINGS

| DRAWING NUMBER | DRAWING TITLE |
|----------------|---|
| 1 | VICINITY MAP, LOCATION MAP, AND INDEX TO DRAWINGS |
| 2 | PLAN AND PROFILE STA 0+72 TO STA 11+00 |
| 3 | PLAN AND PROFILE STA 11+00 TO STA 21+00 |
| 4 | PLAN AND PROFILE STA 21+00 TO STA 30+50 |
| 5 | PLAN AND PROFILE STA 30+50 TO STA 43+00 |
| 6 | PLAN AND PROFILE STA 43+00 TO STA 53+00 |
| 7 | PLAN AND PROFILE STA 53+00 TO STA 61+00 |
| 8 | PLAN AND PROFILE STA 61+00 TO STA 69+50 |
| 9 | PLAN AND PROFILE STA 69+50 TO STA 75+76 |
| 10 | DETAILS AND BENCH MARKS |
| 11 | LEGEND, NOTES, ABBREVIATIONS, AND DETAIL |

Have inverts been shot for actual Elev.?

Show A/T system and M's done as change orders to this proj.

Rev 5, 5-9-97



RECORD
DRAWING
FEBRUARY 1997



DESIGN BY:
SOUTHWOOD ENGINEERING CORPORATION
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533

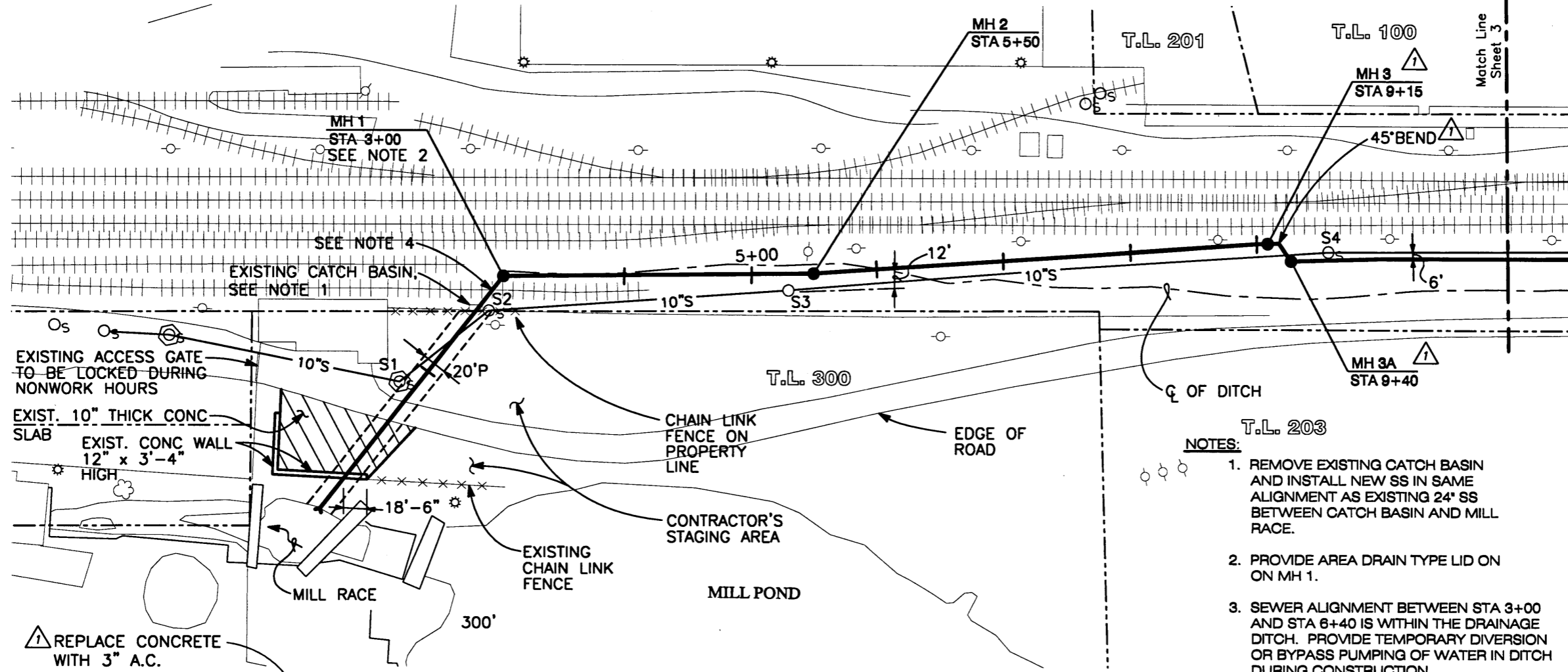
DRAWN BY:
NEW TECH GRAPHICS
510 3RD ST NW
CORVALLIS, OR
(541) 753-9021

| REVISIONS | |
|-----------|------|
| NO. | DATE |
| | |
| | |
| | |

CITY OF SPRINGFIELD, OREGON
**SOUTH A STREET
TRUNK STORM SEWER
REPLACEMENT**

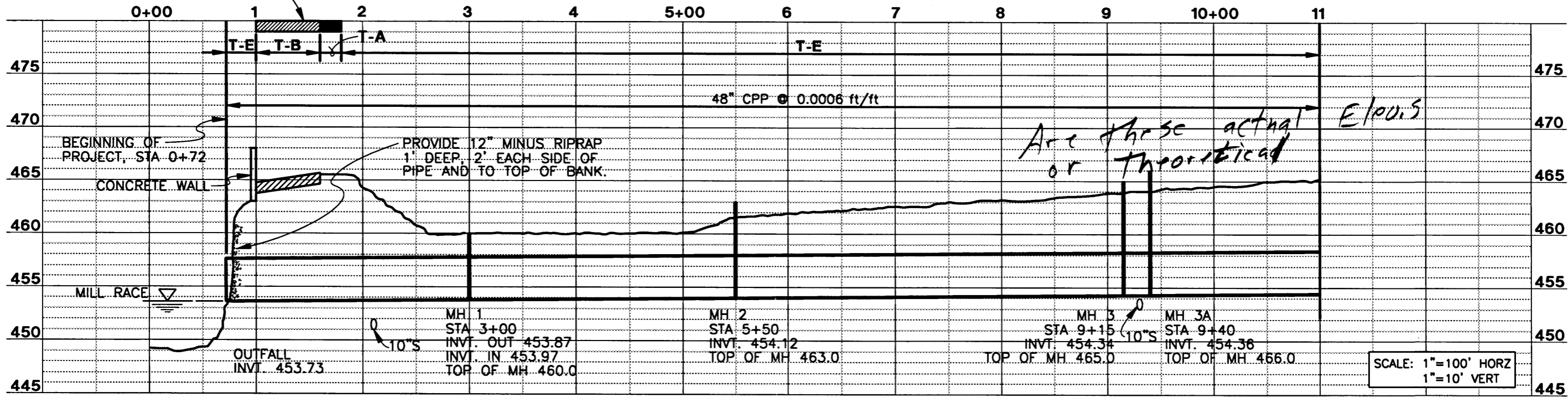
**VICINITY MAP, LOCATION
MAP, AND INDEX TO
DRAWINGS**

SHEET 1 of 11
DATE AUGUST 1996
PROJ NO. 1-865



show ditch & inlet structure built for SP. Forest as CO.

- NOTES:**
1. REMOVE EXISTING CATCH BASIN AND INSTALL NEW SS IN SAME ALIGNMENT AS EXISTING 24" SS BETWEEN CATCH BASIN AND MILL RACE.
 2. PROVIDE AREA DRAIN TYPE LID ON ON MH 1.
 3. SEWER ALIGNMENT BETWEEN STA 3+00 AND STA 6+40 IS WITHIN THE DRAINAGE DITCH. PROVIDE TEMPORARY DIVERSION OR BYPASS PUMPING OF WATER IN DITCH DURING CONSTRUCTION.
 4. EXCAVATE UNDER RAILROAD SPUR OR REMOVE AND REINSTALL, AT CONTRACTOR'S OPTION.
 5. PROVIDE CLEANING, TV INSPECTION, AND AIR TESTING OF EXISTING 10" S BETWEEN MANHOLES S1 AND S4 BEFORE CONSTRUCTION AND TV INSPECTION AND AIR TESTING AFTER CONSTRUCTION (TOTAL LENGTH APPROX. 760').



Are these actual E/PO's or theoretical

SCALE: 1"=100' HORZ
1"=10' VERT

RECORD DRAWING
FEBRUARY 1997



DESIGN BY:
SOUTHWOOD ENGINEERING CORPORATION
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533

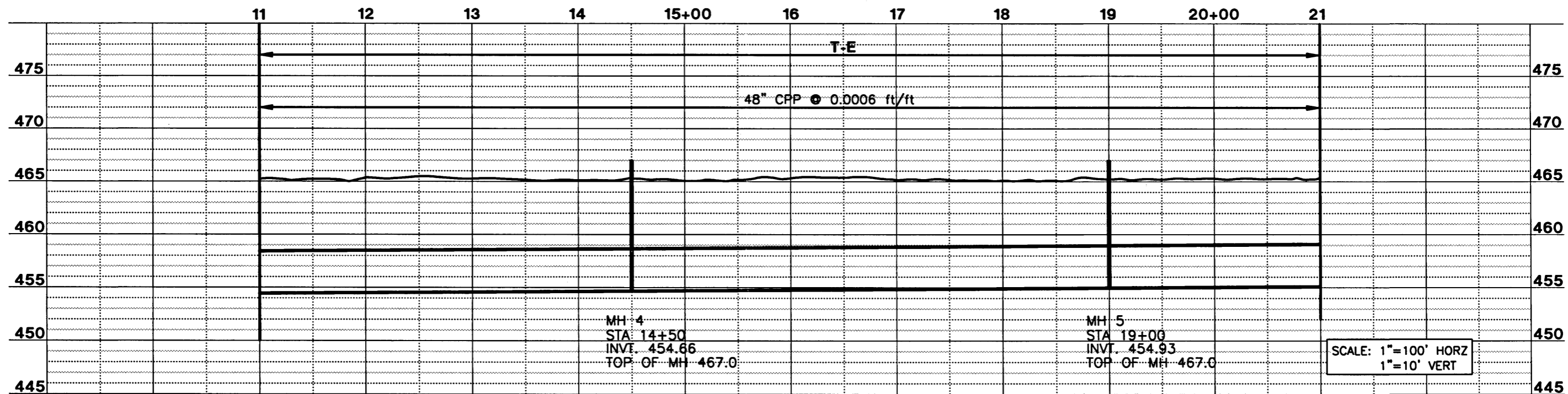
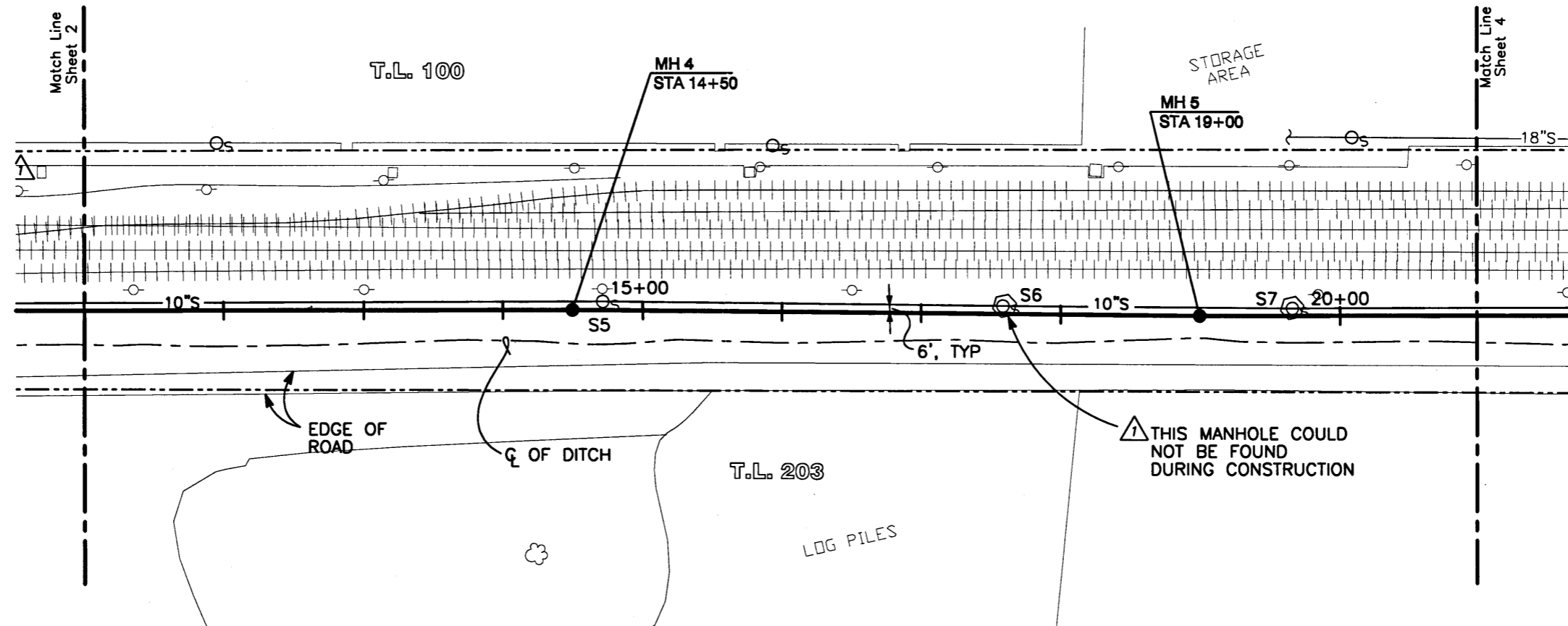
DRAWN BY:
NEW TECH GRAPHICS
510 3RD ST NW
CORVALLIS, OR
(541) 753-9021

| REVISIONS | |
|-----------|-----------------|
| NO. | DATE |
| 1 | 2/97 |
| | RECORD DRAWINGS |

CITY OF SPRINGFIELD, OREGON
SOUTH A STREET TRUNK STORM SEWER REPLACEMENT

**PLAN AND PROFILE
STA 0+72 TO
STA 11+00**

SHEET 2 OF 11
DATE AUGUST 1996
PROJ NO. 1-865



RECORD
DRAWING
FEBRUARY 1997



DESIGN BY:
**SOUTHWOOD
ENGINEERING
CORPORATION**
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533



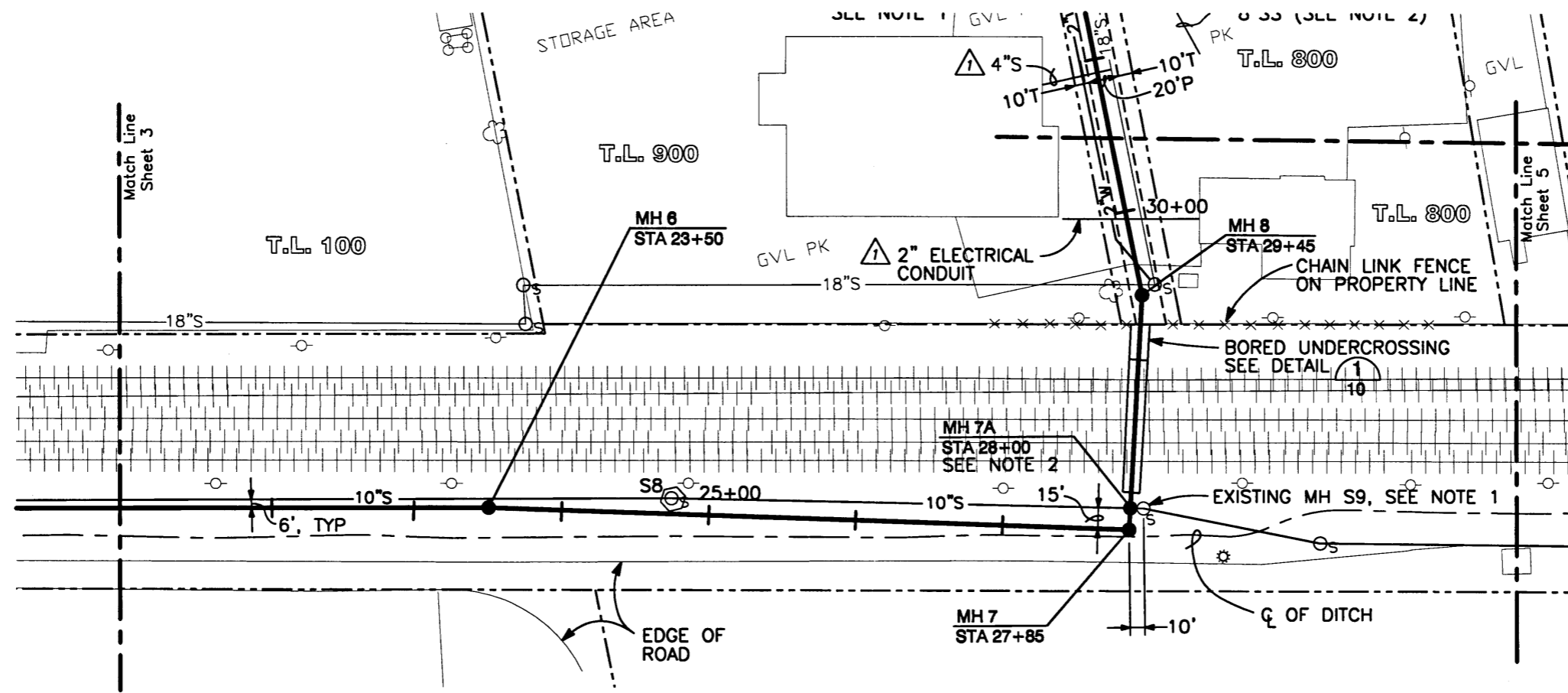
DRAWN BY:
**NEW TECH
GRAPHICS**
510 3RD ST NW
CORVALLIS, OR
(541) 753-9021

| REVISIONS | |
|-----------|-----------------|
| NO. | DATE |
| 1 | 2/97 |
| | RECORD DRAWINGS |
| | |
| | |

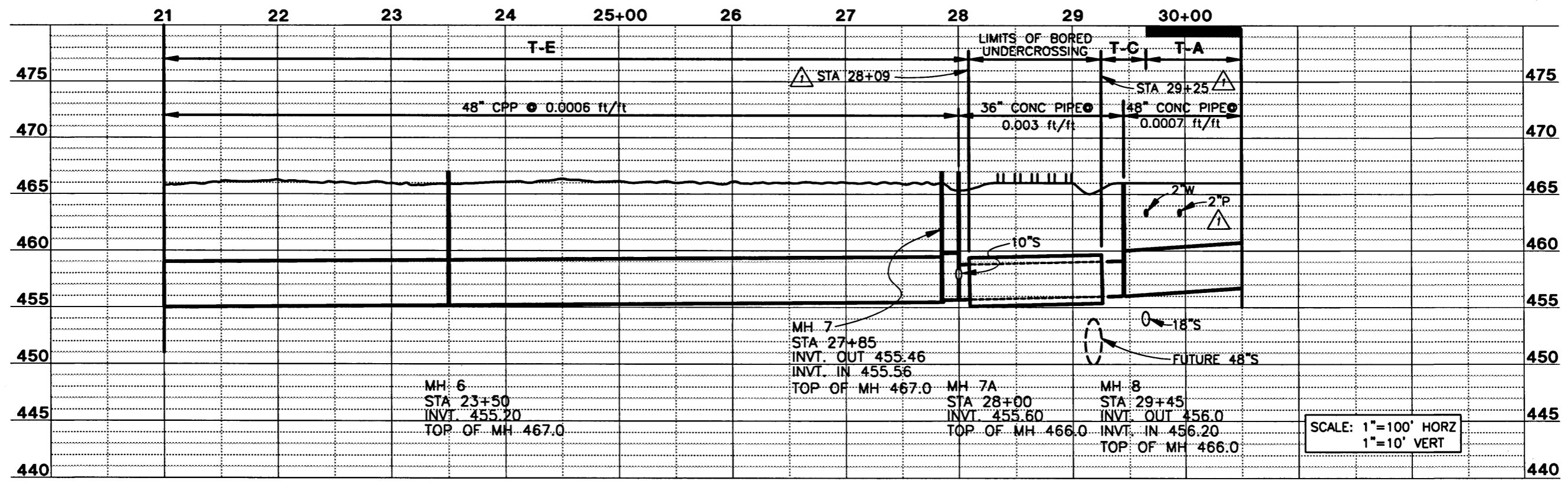
CITY OF SPRINGFIELD, OREGON
**SOUTH A STREET
TRUNK STORM SEWER
REPLACEMENT**

**PLAN AND PROFILE
STA 11+00 TO
STA 21+00**

SHEET 3 OF 11
DATE AUGUST 1996
PROJ NO. 1-865



- NOTES**
1. CONE ON EXISTING 42" DIA. MANHOLE HAS BEEN DAMAGED. CONTRACTOR SHALL PROVIDE AND INSTALL NEW CONE WITH FRAME AND COVER.
 2. REMOVE EXISTING 10" SANITARY SEWER, INSTALL NEW MANHOLE, AND REINSTALL 10" SANITARY SEWER THROUGH NEW MANHOLE.



RECORD DRAWING
FEBRUARY 1997



DESIGN BY:
SOUTHWOOD ENGINEERING CORPORATION
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533

DRAWN BY:
NEW TECH GRAPHICS
510 3RD ST NW
CORVALLIS, OR
(541) 753-9021

| REVISIONS | | |
|-----------|------|-----------------|
| NO. | DATE | DESCRIPTION |
| 1 | 2/97 | RECORD DRAWINGS |

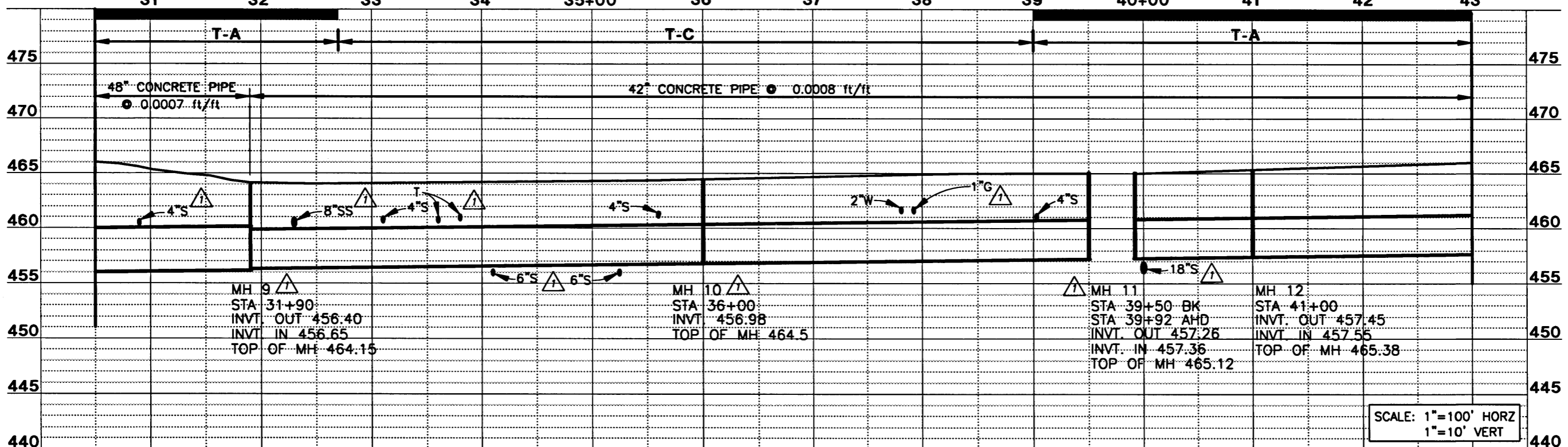
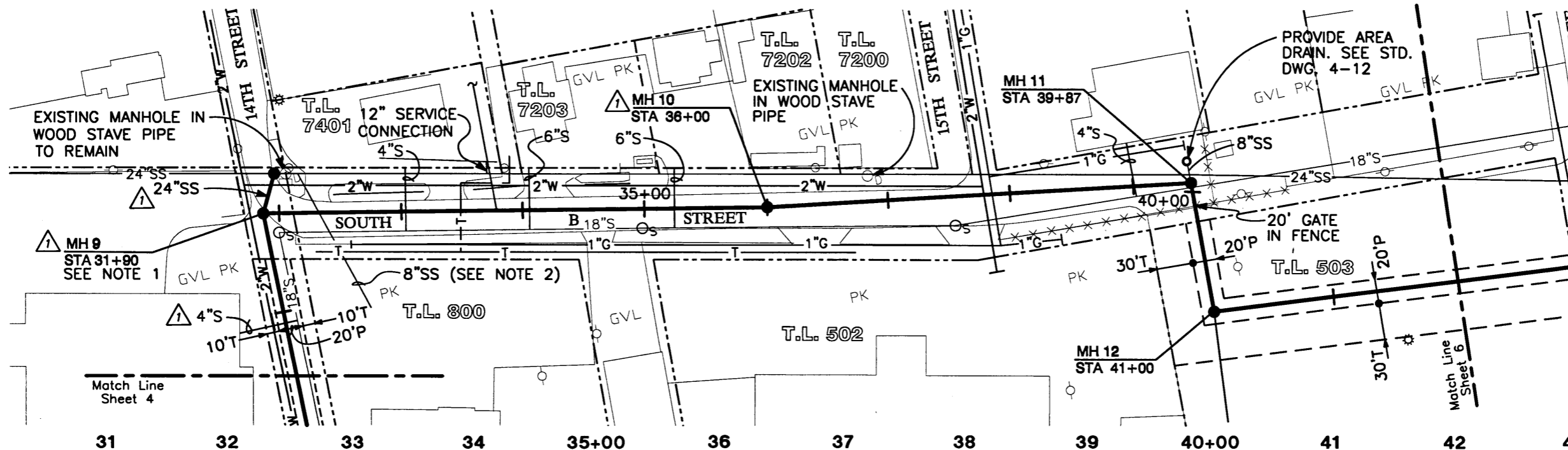
CITY OF SPRINGFIELD, OREGON
SOUTH A STREET TRUNK STORM SEWER REPLACEMENT

**PLAN AND PROFILE
STA 21+00 TO
STA 30+50**

SHEET 4 OF 11
DATE AUGUST 1996
PROJ NO. 1-865

NOTES

- 1. CONSTRUCT NEW MANHOLE OVER CENTERLINE OF EXISTING 24" WOOD STAVE PIPE AND PROVIDE 24" PIPE TO MANHOLE 9.
- 2. CONNECT 8" SS TO NEW 42" SS.



SCALE: 1"=100' HORZ
1"=10' VERT

RECORD DRAWING
FEBRUARY 1997



DESIGN BY:
SOUTHWOOD ENGINEERING CORPORATION
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533

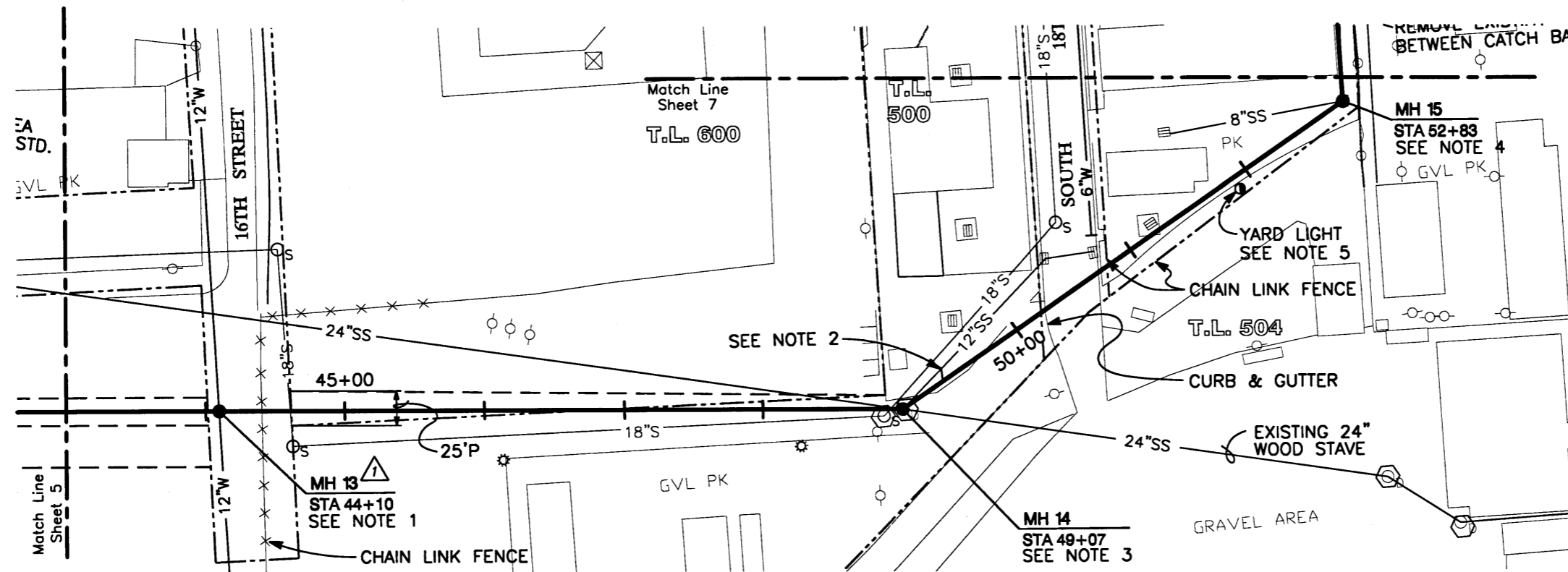
DRAWN BY:
NEW TECH GRAPHICS
510 3RD ST NW
CORVALLIS, OR
(541) 753-9021

| REVISIONS | |
|-----------|-----------------|
| NO. | DATE |
| 1 | 2/97 |
| | RECORD DRAWINGS |

CITY OF SPRINGFIELD, OREGON
SOUTH A STREET TRUNK STORM SEWER REPLACEMENT

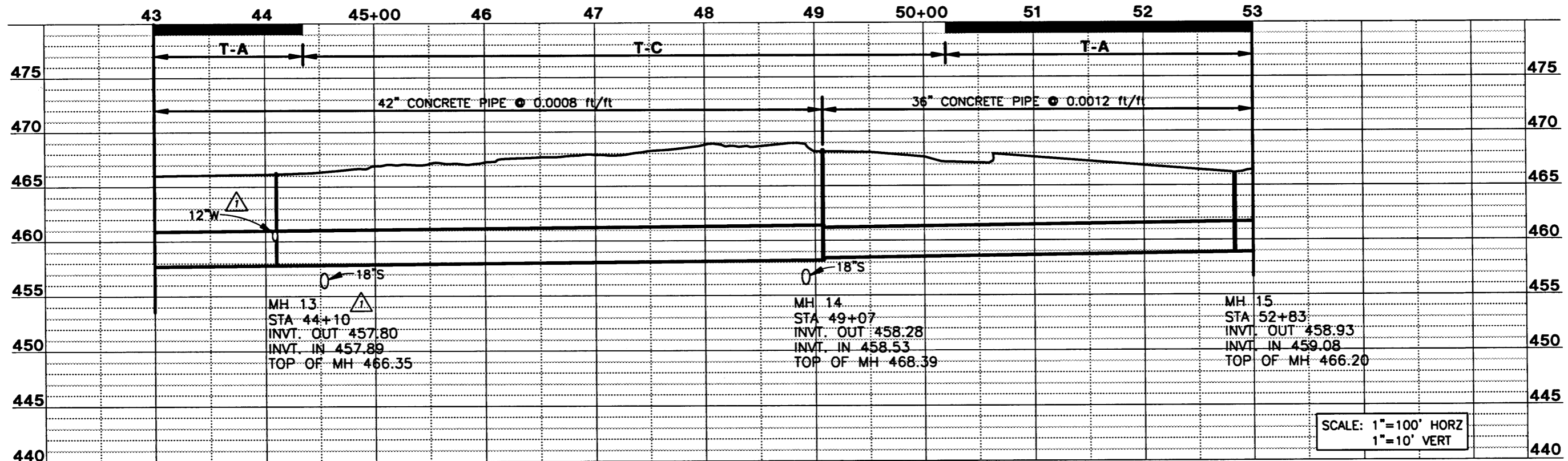
**PLAN AND PROFILE
STA 30+50 TO
STA 43+00 TO**

SHEET 5 OF 11
DATE AUGUST 1996
PROJ. NO. 1-865



NOTES

1. CONSTRUCT NEW MH 13 AROUND EXISTING 12" W.
2. BREAK INTO EXISTING 12" SS, INSTALL 45° BEND AND CONNECT PIPE TO NEW STORM SEWER.
3. INSTALL NEW MANHOLE AT LOCATION OF EXISTING 24" WOOD STAVE PIPE MANHOLE. CONNECT WOOD STAVE PIPE FROM THE EAST TO NEW MANHOLE, (INVT. 462.4±). SEE NOTE 2 ON SHEET 11.
4. REMOVE EXISTING CATCH BASIN AND INSTALL NEW MANHOLE WITH GRATE TYPE LID. CONNECT EXISTING 8" SS TO NEW MANHOLE.
5. REMOVE YARD LIGHT AND REINSTALL AFTER STORM SEWER IS INSTALLED.



RECORD
DRAWING
FEBRUARY 1997



DESIGN BY:
**SOUTHWOOD
ENGINEERING
CORPORATION**
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533



DRAWN BY:
**NEW TECH
GRAPHICS**
510 3RD ST NW
CORVALLIS, OR
(541) 753-9221

| REVISIONS | |
|-----------|-----------------|
| NO. | DATE |
| 1 | 2/97 |
| | RECORD DRAWINGS |

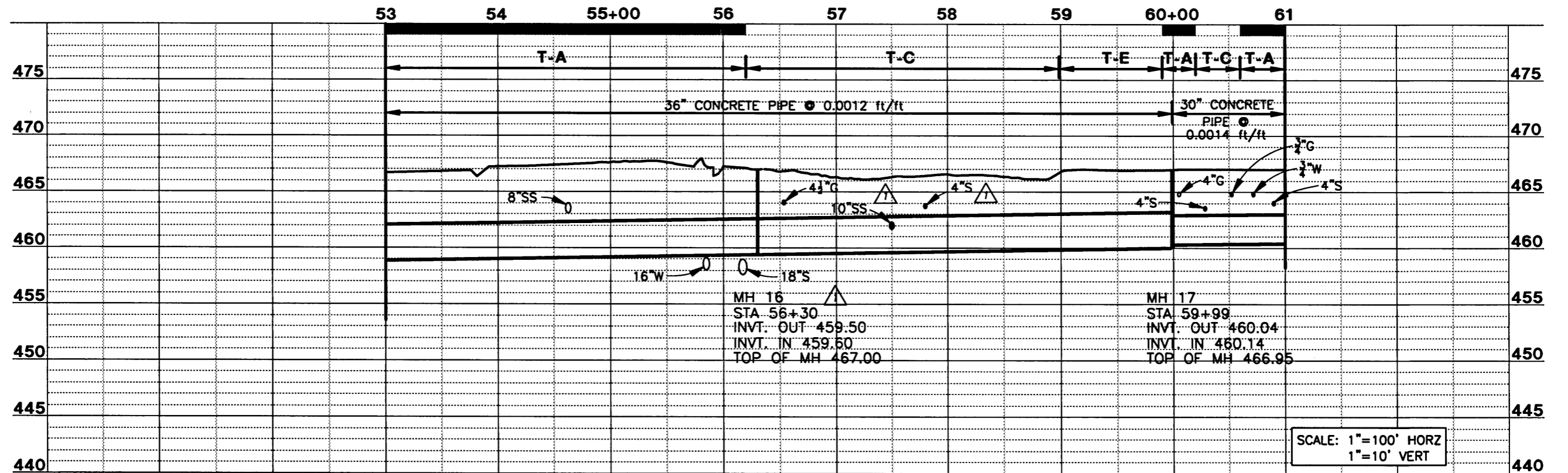
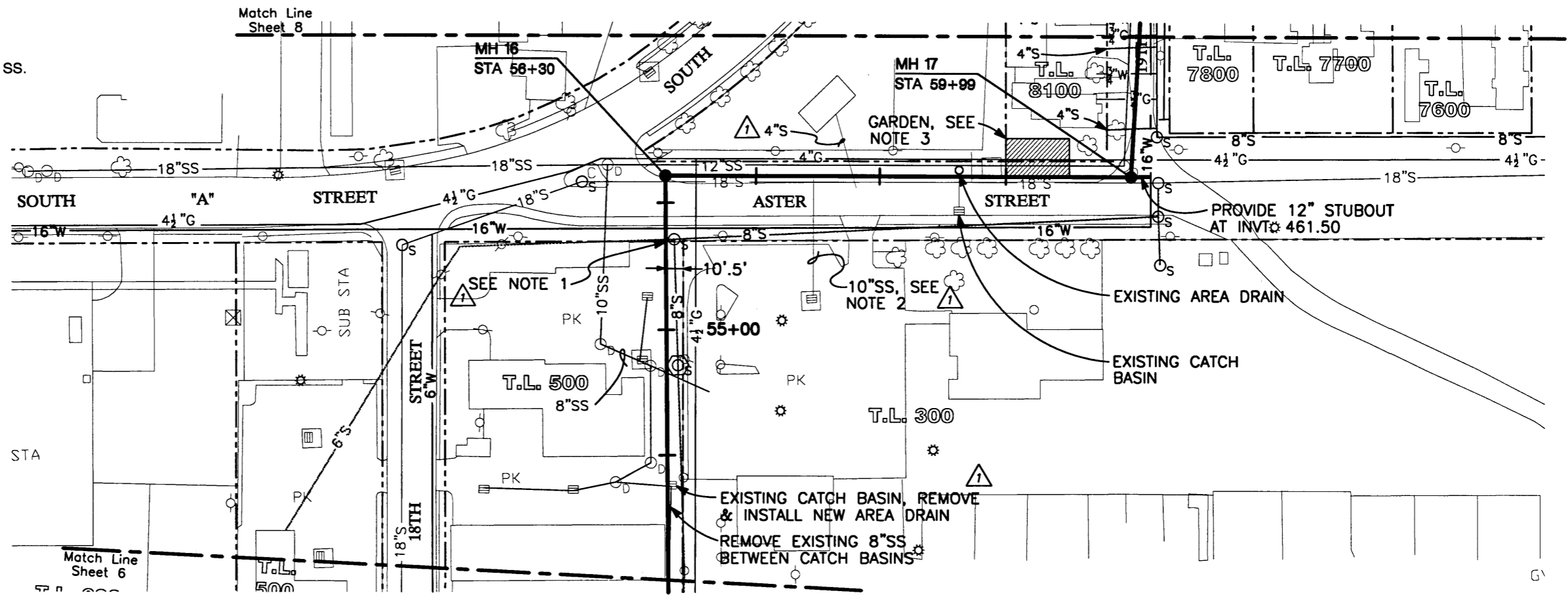
CITY OF SPRINGFIELD, OREGON
**SOUTH A STREET
TRUNK STORM SEWER
REPLACEMENT**

**PLAN AND PROFILE
STA 43+00 TO
STA 53+00**

SHEET 6 OF 11
DATE AUGUST 1996
PROJ NO. 1-865

NOTES

1. EXISTING 6" S HAS BEEN ABANDONED. REMOVE AND PLUG WEST OF NEW 36" SS.
2. CONNECT 10" SS TO NEW 36" SS AND PLUG AT EXISTING 12" SS.
3. REMOVE, STOCKPILE, AND REPLACE TOPSOIL FROM GARDEN AREA.
4. THREE DAYS PRIOR TO PERFORMING WORK BETWEEN MANHOLE 16 AND MANHOLE 17, NOTIFY NW NATURAL GAS COMPANY SO THEIR REPRESENTATIVE CAN BE PRESENT ON SITE DURING CONSTRUCTION.



RECORD
DRAWING
FEBRUARY 1997



DESIGN BY:
SOUTHWOOD ENGINEERING CORPORATION
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533

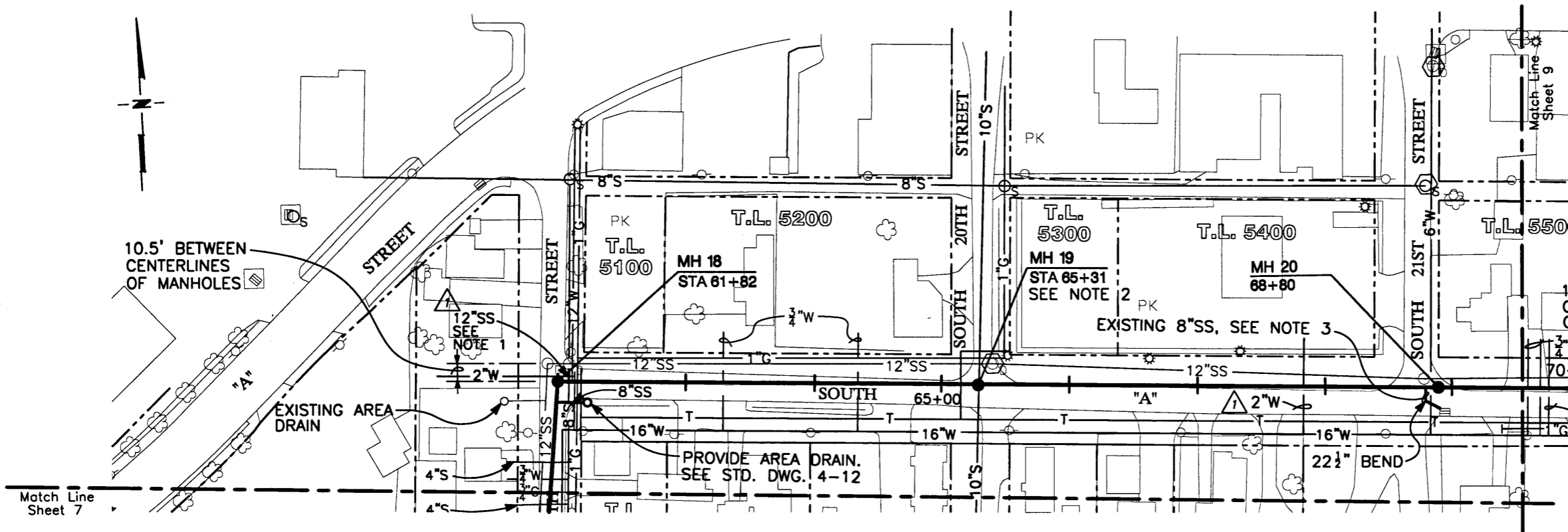
DRAWN BY:
NEW TECH GRAPHICS
310 3RD ST NW
CORVALLIS, OR
(541) 753-9021

| REVISIONS | |
|-----------|-----------------|
| NO. | DATE |
| 1 | 2/97 |
| | RECORD DRAWINGS |

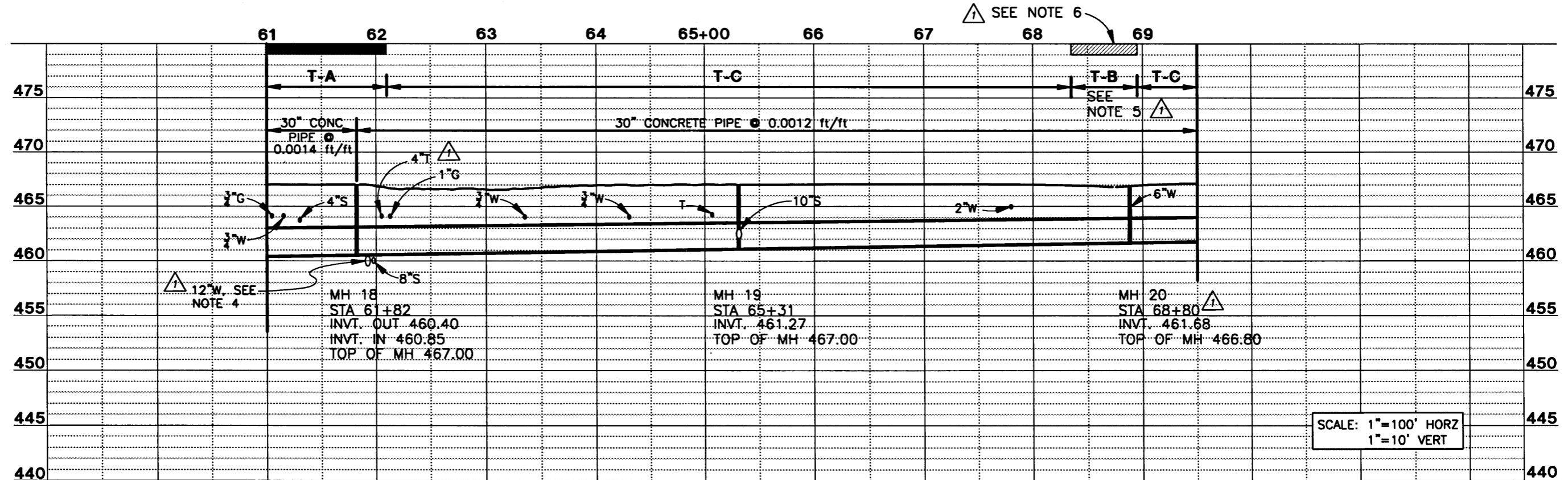
CITY OF SPRINGFIELD, OREGON
**SOUTH A STREET
TRUNK STORM SEWER
REPLACEMENT**

**PLAN AND PROFILE
STA 53+00 TO
STA 61+00**

SHEET 7 OF 11
DATE AUGUST 1996
PROJ. NO. 1-865



- NOTES**
1. CONNECT ABANDONED 12" W TO NEW 30" SS AND BREAK WATER LINE OUT OF EXISTING STORM SEWER MANHOLE.
 2. CONSTRUCT SPECIAL MANHOLE OVER EXISTING 10" PRESSURE LINE. SEE DETAIL 1.
 3. INSTALL NEW MANHOLE ON CENTER-LINE OF EXISTING 8" SS FROM CATCH BASIN. CONNECT 8" SS TO NEW MANHOLE, FILL REMAINDER OF PIPE WITH GROUT, AND PLUG IN EXISTING MH.
 4. 12" W LOWERED BY SPRINGFIELD UTILITY BOARD DURING CONSTRUCTION.
 5. TRENCH BACKFILL UNDER CONCRETE PAVEMENT SHALL BE CONTROLLED DENSITY FILL (CDF).
 6. PROVIDE 5/8" DIA. x 12" THREADED RODS IN WEDGE ANCHORS AT 2' CENTERS ALONG CENTER OF CONCRETE PAVEMENT ON EACH SIDE OF TRENCH.



RECORD
DRAWING
FEBRUARY 1997



DESIGN BY:
SOUTHWOOD ENGINEERING CORPORATION
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533

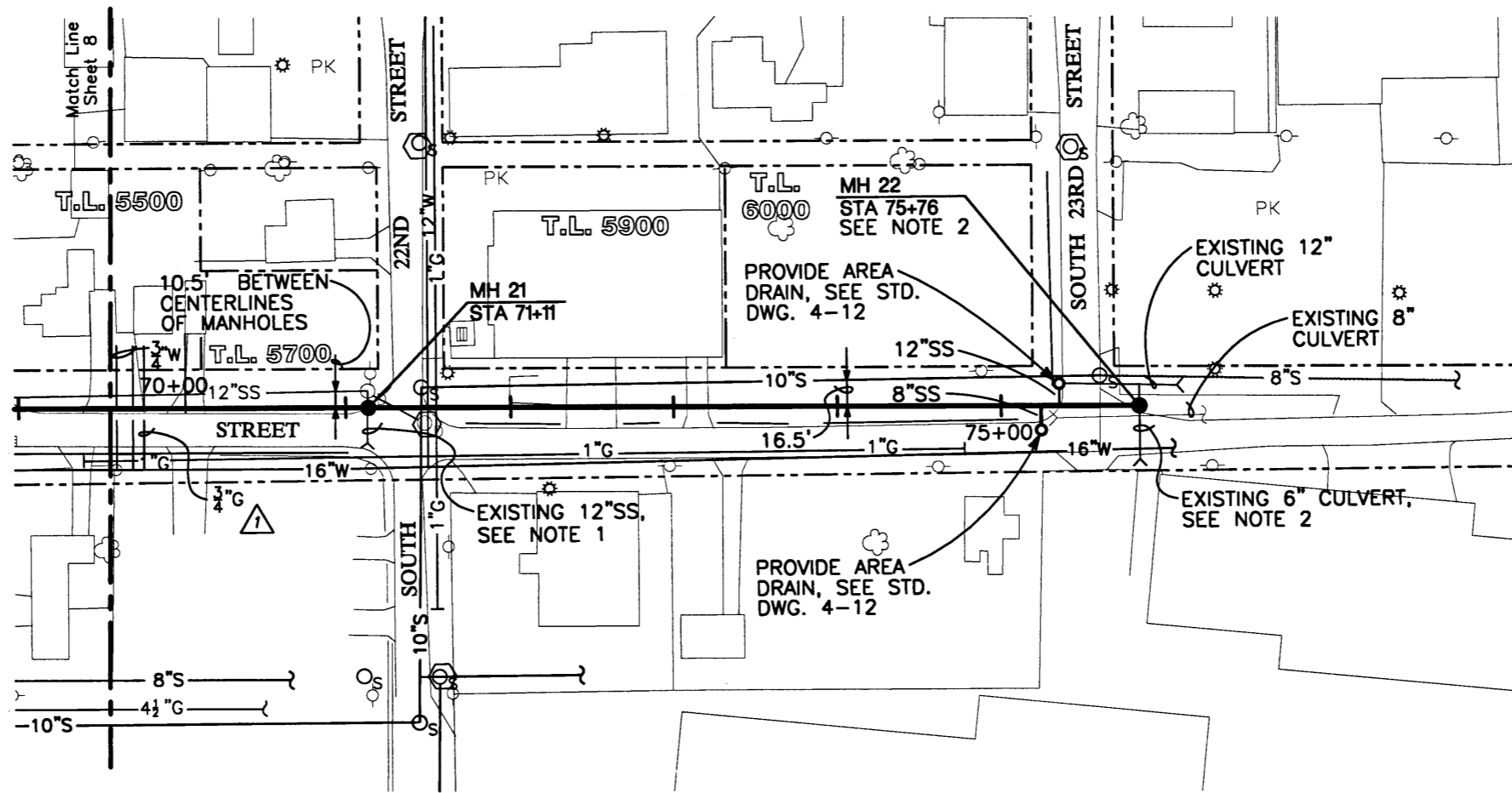
DRAWN BY:
NEW TECH GRAPHICS
510 3RD ST NW
CORVALLIS, OR
(541) 753-9021

| REVISIONS | |
|-----------|-----------------|
| NO. | DATE |
| 1 | 2/97 |
| | RECORD DRAWINGS |

CITY OF SPRINGFIELD, OREGON
SOUTH A STREET TRUNK STORM SEWER REPLACEMENT

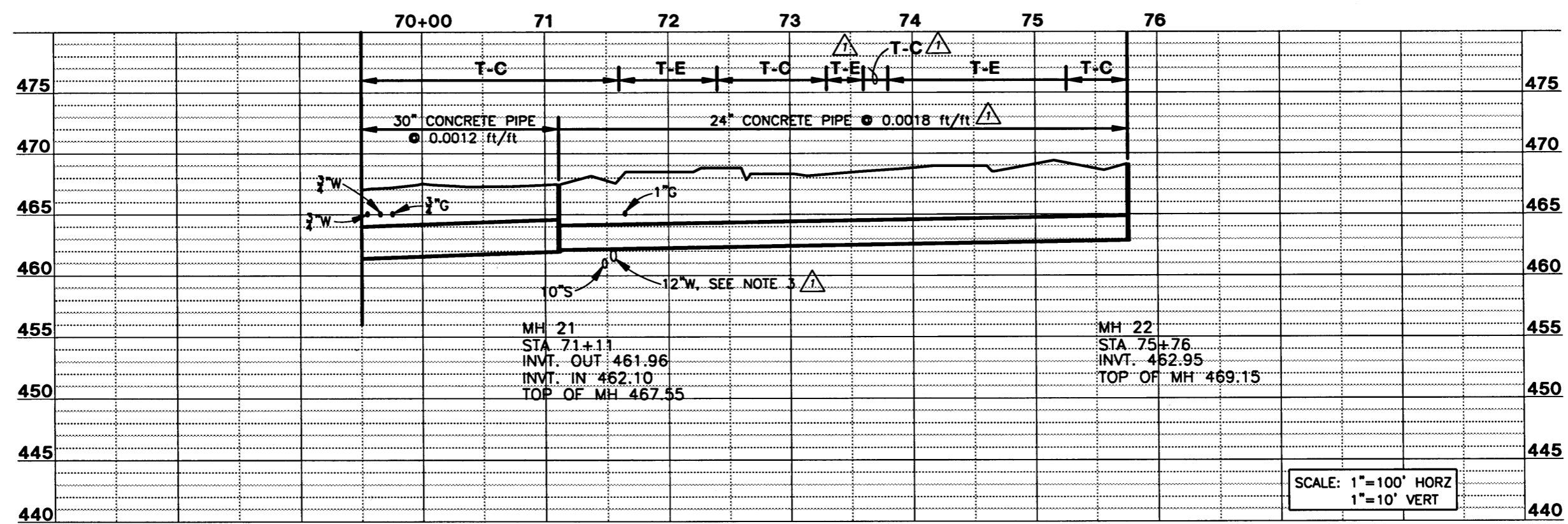
**PLAN AND PROFILE
STA 61+00 TO
STA 69+50**

SHEET 8 OF 11
DATE AUGUST 1996
PROJ NO. 1-865



NOTES

1. CONSTRUCT NEW MANHOLE ON CENTERLINE OF EXISTING 12" SS. CONNECT 12" SS TO NEW MANHOLE, REMOVE REMAINDER OF PIPE, AND PLUG IN EXISTING MH.
2. CONSTRUCT NEW MANHOLE ON CENTERLINE OF EXISTING 6" PVC CULVERT. CONNECT 6" PIPE TO NEW MANHOLE AND PLUG PIPE NORTH OF MANHOLE.
3. 12" W LOWERED BY SPRINGFIELD UTILITY BOARD (SUB) DURING CONSTRUCTION.



RECORD
DRAWING
FEBRUARY 1997



DESIGN BY:
SOUTHWOOD ENGINEERING CORPORATION
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533

DRAWN BY:
NEW TECH GRAPHICS
510 3RD ST NW
CORVALLIS, OR
(541) 753-9221

| REVISIONS | | |
|-----------|------|-----------------|
| NO. | DATE | RECORD DRAWINGS |
| 1 | 2/97 | RECORD DRAWINGS |

CITY OF SPRINGFIELD, OREGON
SOUTH A STREET TRUNK STORM SEWER REPLACEMENT

**PLAN AND PROFILE
STA 69+50 TO
STA 75+76**

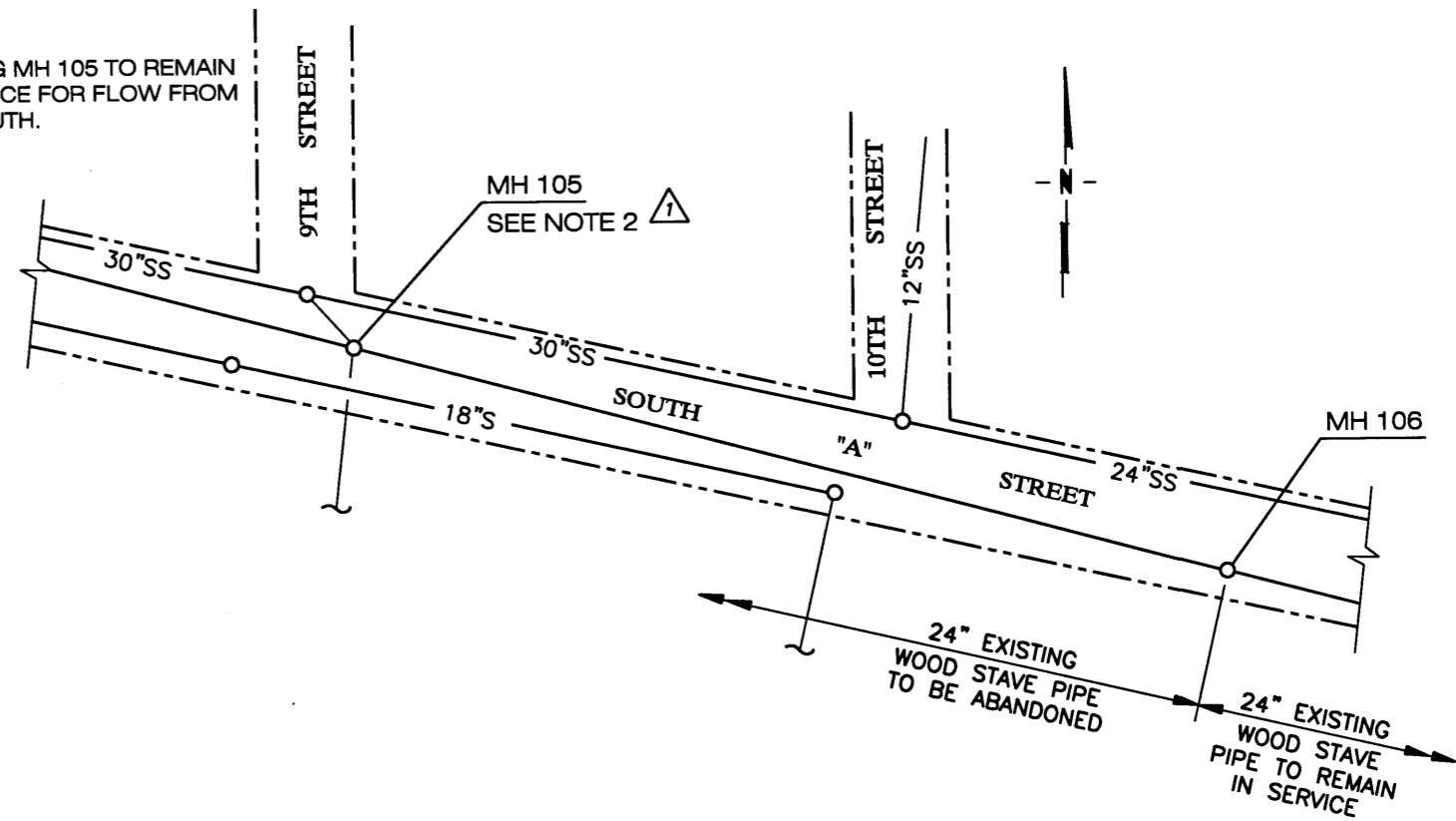
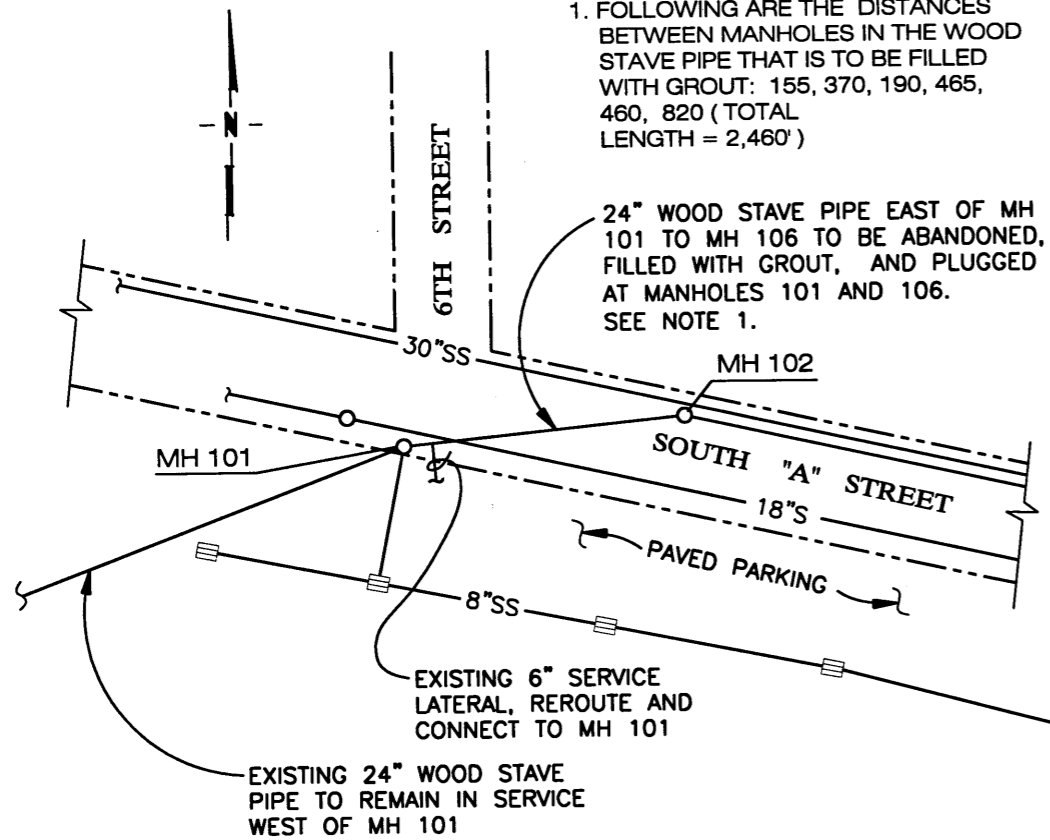
| |
|------------------|
| SHEET 9 OF 11 |
| DATE AUGUST 1996 |
| PROJ NO. 1-865 |

NOTES:

1. FOLLOWING ARE THE DISTANCES BETWEEN MANHOLES IN THE WOOD STAVE PIPE THAT IS TO BE FILLED WITH GROUT: 155, 370, 190, 465, 460, 820 (TOTAL LENGTH = 2,460')

24" WOOD STAVE PIPE EAST OF MH 101 TO MH 106 TO BE ABANDONED, FILLED WITH GROUT, AND PLUGGED AT MANHOLES 101 AND 106. SEE NOTE 1.

2. EXISTING MH 105 TO REMAIN IN SERVICE FOR FLOW FROM THE SOUTH.

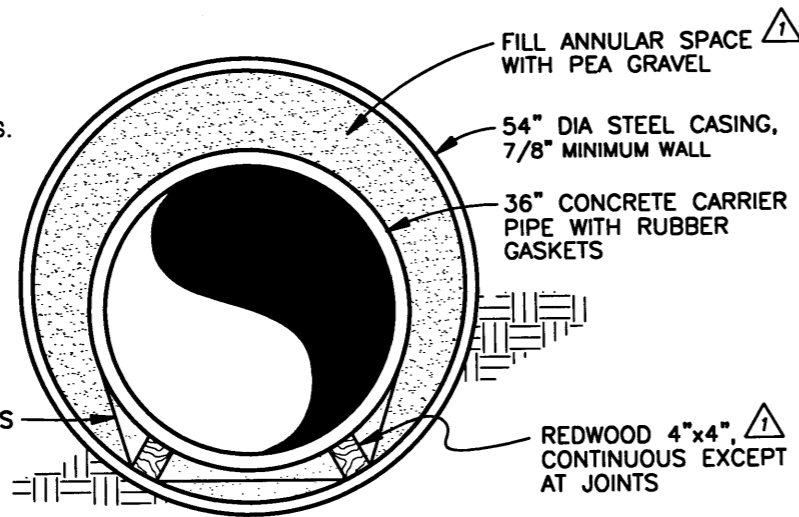


PLAN OF MODIFICATIONS TO WOOD STAVE PIPE

1"=100'

NOTES:

1. PROVIDE GROUT HOLES IN CASING AND PRESSURE GROUT VOIDS OUTSIDE THE CASING. REFER TO STANDARD SPECIFICATIONS.



BORED UNDERCROSSING

DETAIL

1/2" = 1'-0"



CITY OF SPRINGFIELD BENCH MARKS

| STREETS | LOCATION | ELEVATION |
|------------------|--|-----------|
| 5TH & MAIN | BRASS CAP IN AC, SW CORNER | 455.42 |
| 14TH & SOUTH 'A' | N.O.A.A. ROD IN CASE IN SIDEWALK 200 FT. ± EAST OF S.E. CORNER | 464.13 |
| 18TH & SOUTH 'A' | BRASS CAP IN 1/2 CR AT S.W. CORNER | 467.36 |
| 20TH & MAIN | O.S.H.D. BRASS CAP T-613, 20 FT. WEST OF EAST END OF ISLAND | 467.85 |
| 23RD & MAIN | SQUARE TFC IN 1/2 CR, S.E. CORNER | 469.34 |

RECORD DRAWING
FEBRUARY 1997



DESIGN BY:
SOUTHWOOD ENGINEERING CORPORATION
3301 SOUTHWOOD DR.
PHILOMATH, OR 97370
(541) 929-2533

DRAWN BY:
NEW TECH GRAPHICS
510 3RD ST NW
CORVALLIS, OR
(541) 753-9021

| REVISIONS | |
|-----------|-----------------|
| NO. | DATE |
| 1 | 2/97 |
| | RECORD DRAWINGS |

CITY OF SPRINGFIELD, OREGON
SOUTH A STREET TRUNK STORM SEWER REPLACEMENT

DETAILS AND BENCH MARKS

SHEET 10 OF 11
DATE AUGUST 1996
PROJ NO. 1-865

WATER LINE PLAN & PROFILE LEGEND

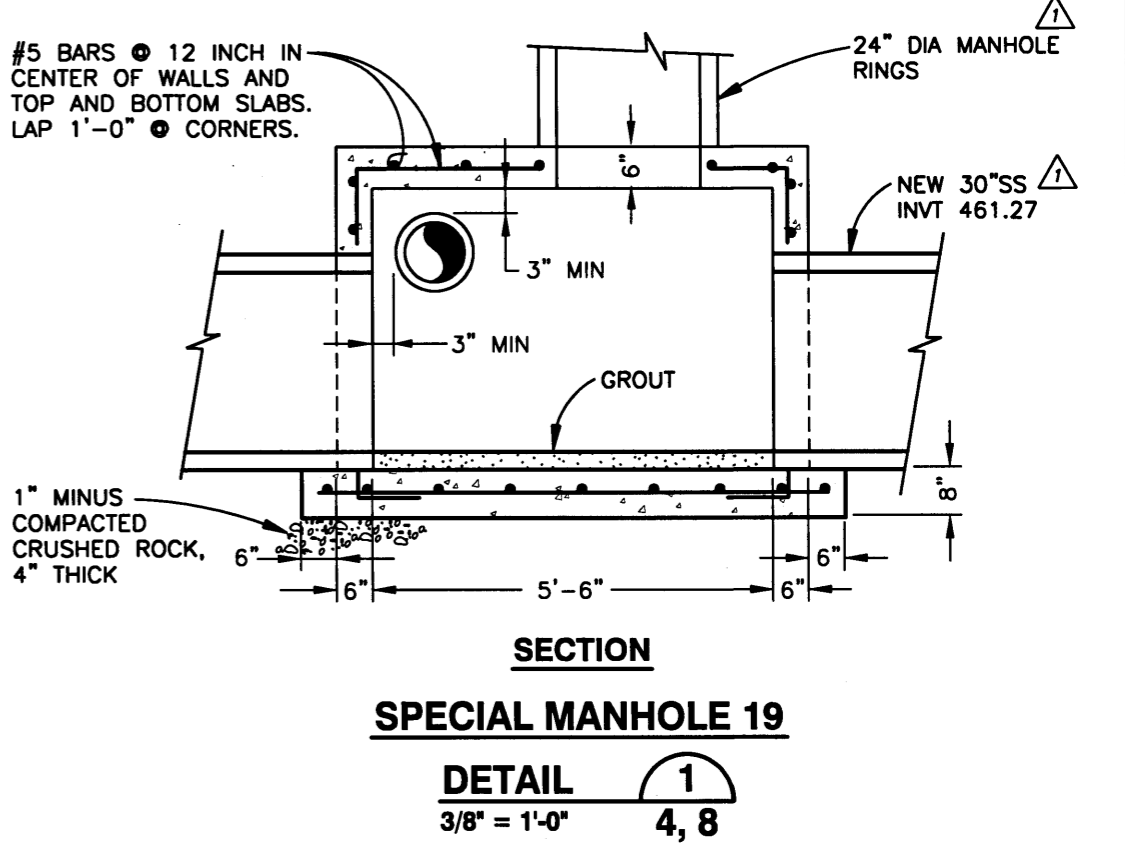
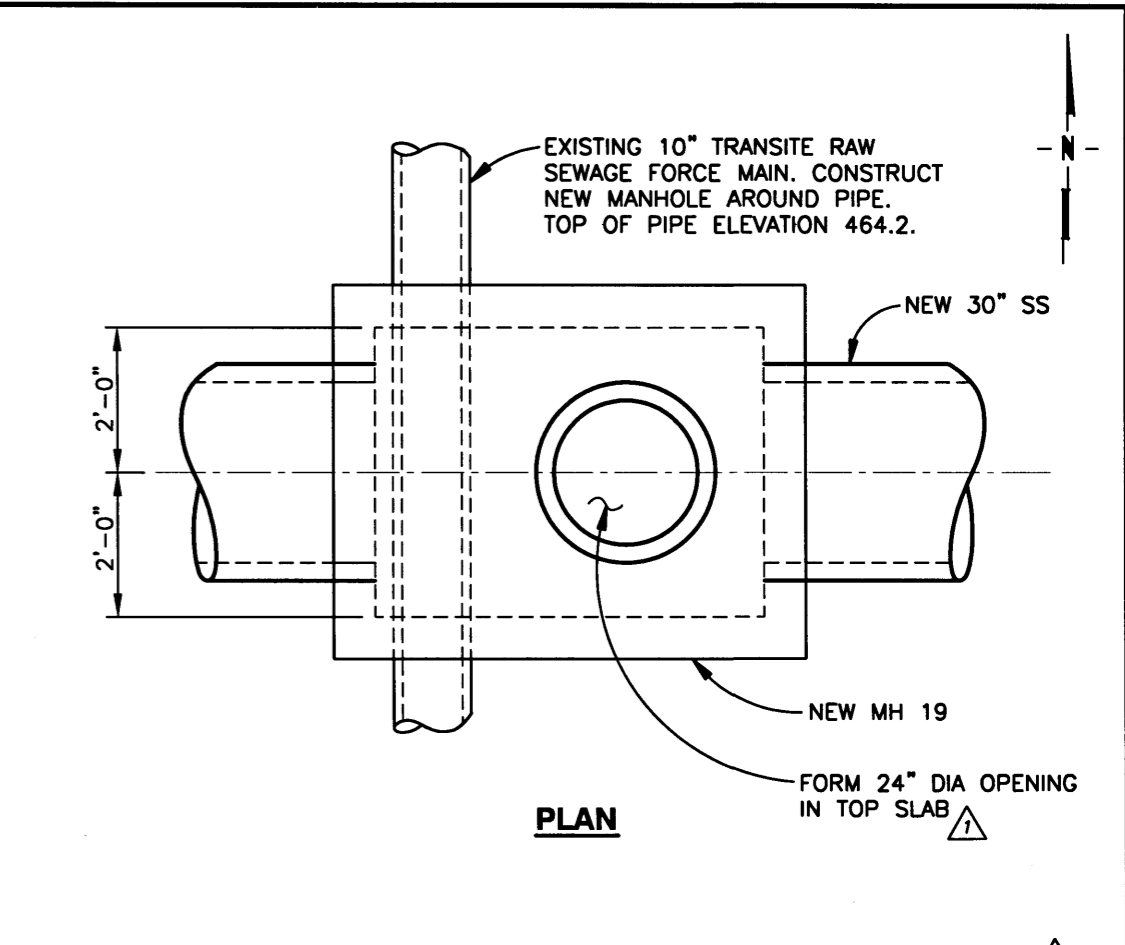
| | |
|--------------------------|---|
| <u>NEW</u> | |
| | ASPHALT CONCRETE PAVEMENT |
| | CONCRETE PAVEMENT |
| T-X (X=A,B,C,D, OR E) | TRENCH BACKFILL CLASSIFICATION, SEE STANDARD DWG 4-16 |
| | MANHOLE |
| | AREA DRAIN |
| <u>EXISTING</u> | |
| — 16"W — | WATERLINE WITH SIZE |
| — 12"S —○ | SANITARY SEWER WITH MANHOLE |
| —○ 8"SS — | STORM SEWER WITH MANHOLE |
| | CATCH BASIN |
| — 1"G — | GAS PIPELINE |
| — T — | UNDERGROUND TELEPHONE CABLE |
| > 12" CMP < | CULVERT WITH SIZE AND TYPE |
| -x-x-x-x- | FENCE LINE |
| ○ | UTILITY POLE |
| <u>GENERAL</u> | |
| — — — — — | PROPERTY LINE AND/OR RIGHT-OF-WAY LINE |
| - - - EL - - - | EASEMENT LINE |
| 30'T | WIDTH OF TEMPORARY EASEMENT |
| 20'P | WIDTH OF PERMANENT EASEMENT |
| — · — · — · | DITCH CENTERLINE |
| | RAILROAD TRACKS |

GENERAL NOTES

- UNLESS OTHERWISE NOTED ALL PIPE ZONE AND BEDDING SHALL CONFORM TO CLASS C. (REFER TO STANDARD DRAWING 4-17).
- WHERE 24" WOOD STAVE PIPE IS TO BE CONNECTED TO A NEW MANHOLE, PROVIDE A 24" CONCRETE STUBOUT FROM THE MANHOLE AND CONNECT TO WOOD STAVE PIPE WITH A CONCRETE CLOSURE COLLAR, 6" MINIMUM THICKNESS AND 6" MINIMUM EACH SIDE OF JOINT.
- ALL SECTIONS OF 24 INCH WOOD STAVE PIPE DESIGNATED TO BE ABANDONED SHALL BE FILLED WITH GROUT.
- GROUT FOR FILLING 24 INCH WOOD STAVE PIPE SHALL CONSIST OF A MIXTURE OF FLY ASH, CEMENT, AND WATER. VOLUME OF WATER SHALL BE AS REQUIRED TO ACHIEVE FLOW WITHIN THE PIPE. MIXTURE SHALL BE IN SUCH PROPORTIONS THAT A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 100 PSI IS ACHIEVED.
- WATER, GAS, AND TELEPHONE LINES THAT INTERFERE WITH THE STORM SEWER PIPE WILL BE RELOCATED BY OTHERS.
- MANHOLE MINIMUM SIZES SHALL BE AS FOLLOWS:
 48" PIPE - 72" DIA MANHOLE
 42" & 36" PIPE - 60" DIA MANHOLE
 30" & 24" PIPE - 48" DIA MANHOLE

ABBREVIATIONS

| | |
|------|------------------------------|
| AC | ASPHALT CONCRETE PAVEMENT |
| CONC | CONCRETE |
| CPP | CORRUGATED POLYETHYLENE PIPE |
| CULV | CULVERT |
| DET | DETAIL |
| EL | ELEVATION |
| EXST | EXISTING |
| G | GAS |
| MIN | MINIMUM |
| P | POWERLINE |
| PS | PRESSURE SEWER |
| PVMT | PAVEMENT |
| RR | RAILROAD |
| S | SANITARY SEWER |
| SS | STORM SEWER |
| T | TELEPHONE |
| TL | TAX LOT |
| TYP | TYPICAL |
| W | WATER |



RECORD DRAWING
FEBRUARY 1997

REGISTERED PROFESSIONAL ENGINEER
 OREGON
 JULY 12 1998
 RONALD P. STAVELIN
 EXPIRES 6/30/98

DESIGN BY:

SOUTHWOOD ENGINEERING CORPORATION
 3301 SOUTHWOOD DR.
 PHILOMATH, OR 97370
 (541) 929-2533

DRAWN BY:

NEW TECH GRAPHICS
 510 3RD ST NW
 CORVALLIS, OR
 (541) 753-9021

| REVISIONS | |
|-----------|-----------------|
| NO. | DATE |
| 1 | 2/97 |
| | RECORD DRAWINGS |

CITY OF SPRINGFIELD, OREGON
SOUTH A STREET TRUNK STORM SEWER REPLACEMENT

LEGEND, NOTES, ABBREVIATIONS, AND DETAIL

SHEET 11 OF 11
 DATE AUGUST 1996
 PROJ NO. 1-865