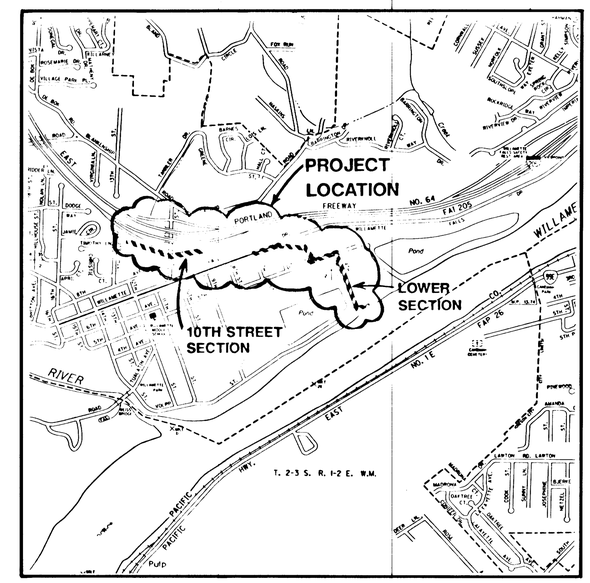
PLANS FOR:

WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

FOR

CITY OF WEST LINN, OREGON



VICINITY MAP

1. CONTRACTOR SHALL PROCURE AND CONFORM TO ALL CONSTRUCTION PERMITS REQUIRED BY CITY OF WEST LINN AND ODOT. CONTRACTOR TO NOTIFY CITY AND ALL UTILITY COMPANIES 48 BUSINESS HOURS PRIOR TO START OF CONSTRUCTION, AND COMPLY WITH ALL OTHER REQUIREMENTS OF ORS 757.541 TO 757.571.
2. ALL MATERIALS AND WORKMANSHIP FOR PUBLIC FACILITIES TO CONFORM TO CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS. CONSTRUCTION TO BE DONE BETWEEN 8:00 A.M. AND 5:00 P.M.
3. ALL EXISTING FACILITIES TO BE MAINTAINED IN-PLACE BY THE CONTRACTOR UNLESS OTHERWISE SHOWN OR DIRECTED. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO SUPPORT, MAINTAIN, OR OTHERWISE PROTECT EXISTING UTILITIES AND OTHER FACILITIES AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR TO LEAVE EXISTING FACILITIES IN AN EQUAL OR BETTER-THAN-ORIGINAL CONDITION AND TO THE SATISFACTION OF THE ENGINEER.
4. CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES, WARNING SIGNS, TRAFFIC CONES PER CITY AND ODOT REQUIREMENTS. ACCESS TO DRIVEWAYS TO BE MAINTAINED AT ALL TIMES. ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITY.
5. ALL MANHOLES, CLEANOUTS, MONUMENTS, GAS VALVES, WATER VALVES, AND SIMILAR STRUCTURES SHALL BE ADJUSTED TO MATCH FINISH GRADE OF THE PAVEMENT, SIDEWALK, OR MEDIAN STRIP WHEREIN THEY LIE UNLESS OTHERWISE SHOWN ON DRAWINGS OR AS DIRECTED BY ENGINEER.
6. CONTRACTOR TO NOTIFY PRIVATE UTILITIES FOR RELOCATION OF POWER POLES, VAULTS, ETC.
7. THE LOCATION AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY NOR THE COMPLETENESS OF SUCH RECORDS. CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
8. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WHERE NEW FACILITIES CROSS. IF GRADE MODIFICATION IS NECESSARY, CONTRACTOR TO NOTIFY ENGINEER PRIOR TO CONSTRUCTION.
9. UPON COMPLETION OF CONSTRUCTION OF PUBLIC FACILITIES, CONTRACTOR TO SUBMIT AS-BUILT DRAWINGS TO THE ENGINEER. IN ADDITION, CONTRACTOR TO SUBMIT SUITABLE MAINTENANCE BOND TO THE CITY PRIOR TO FINAL PAYMENT.
10. CRUSHED ROCK TRENCH BACKFILL TO BE UNDER ALL IMPROVED AREAS. ALL PIPES TO BE BEDDED WITH MINIMUM 4" CRUSHED ROCK BEDDING AND BACKFILLED WITH COMPACTED CRUSHED ROCK IN THE PIPE ZONE.
11. REMOVE AND REPLACE ALL EXISTING SIGNS, MAILBOXES, FENCES, LANDSCAPING, ETC. AS REQUIRED TO AVOID DAMAGE DURING CONSTRUCTION.
12. CONTRACTOR TO HYDROSEED ALL EXPOSED SLOPES UPON COMPLETION.
13. CONTRACTOR TO PROVIDE SUFFICIENT AND ADEQUATE SHORING FOR ALL EXCAVATIONS. SHORING TO CONFORM TO OSHA REQUIREMENTS AND SHALL BE OF CONTRACTOR'S DESIGN.
14. CONTRACTOR TO DRAIN AND DEWATER TRENCHES AS REQUIRED TO PROVIDE A DRY TRENCH FREE OF ANY STANDING WATER.
15. CONTRACTOR TO SUBMIT BYPASS PUMPING PLAN FOR REVIEW AND APPROVAL WITHIN 10 DAYS OF START OF CONSTRUCTION.
16. AIR TEST ALL NEW PIPEWORK FOR LEAKS. USE APPROVED LOW PRESSURE AIR TEST METHOD. APWA 1990 EDITION. HYDROSTATICALLY TEST MANHOLE PER APWA SECTION 306.3.03, 1990 EDITION. ENGINEER OR HIS REPRESENTATIVE TO WITNESS AIR TEST OF SEWER AND HYDROSTATIC TEST OF MANHOLE.
17. TACK COAT VERTICAL EDGES OF PAVEMENT PRIOR TO PLACING CLASS B MIX. DO REPAVING WORK ONLY UNDER FAVORABLE WEATHER CONDITIONS.
18. CONTRACTOR TO COMPLETE WORK AS OUTLINED IN SUGGESTED SEQUENCE OF OPERATIONS CONTAINED HEREIN. VARIATIONS FROM SEQUENCE MUST BE APPROVED IN WRITING BY ENGINEER.

SUGGESTED SEQUENCE OF OPERATIONS

1. The following sequence of operations does not include all steps and is intended only to outline the framework of construction.
2. The flow of sewage through the wastewater collection system must be maintained at all times throughout the construction process.
3. **General** - The work will be completed in four phases. Phases shall be completed in sequential order. Each phase shall be substantially complete including A.C. paving before beginning the next phase.
4. The Phases are as Follows:

Phase 1 Lower Section, Sta. 10+00 to Sta. 26+98 including laterals and service laterals.

Phase 2 Lower Section, Sta. 26+98 to Sta. 31+58. Bypass pumping will be required for this phase.

Phase 3 Lower Section, Sta. 31+58 to Sta. 36+92.

Phase 4 Upper Section.

5. The suggested Sequence of Operations is:

a. Submit work schedule and bypass pumping plan in duplicate to the Engineer for review and approval.

b. Obtain any required permits.

c. Mobilize to job site.

d. Construct Phase 1:

1) Make connection to existing manhole at Sta. 10+00.
2) Construct sewer from Sta. 10+00 to Sta 26+98.
3) Provide as required temporary bypass of existing sewer at Sta. 10+31±.
4) Extend culverts at Sta. 14+30± prior to constructing sewer through this section.
5) Locate service to mobile home. Install TEE in appropriate location.
6) Provide as required temporary bypass of existing sewer at Sta. 19+50±.
7) Install temporary water service to house on east side of 5th Street.
8) Construct laterals B, C & D to extent possible with existing sewers remaining in service.
9) Air test new sewers. Hydrostatically test manholes.
10) Construct service lateral to mobile home.
11) Complete laterals B, C & D. Construct service lateral to two houses on 5th Avenue. Place new sewers into service.
12) Construct service lateral and new water service to house on 5th Street.
13) Abandon, remove and plug existing manholes.
14) Perform surface restoration.

e. Construct Phase 2:

1) Install bypass pumping equipment.
2) Construct sewer from Sta. 26+98 to 31+58.
3) Install TEE in appropriate location for service lateral.
4) Air test new sewer. Hydrostatically test manholes.
5) Place new sewer into operation.
6) Construct service lateral to red house on south side of sewer.
7) Remove, abandon and plug existing manholes as designated.
8) Perform surface restoration.

f. Construct Phase 3

1) Construct sewer from Sta 31+58 to Sta 36+92.
2) Provide temporary bypass at Sta. 32+80±.
3) Air test new sewer. Hydrostatically test manholes.
4) Place new sewer in operation.
5) Remove, abandon and plug existing manholes as designated.
6) Perform surface restoration.

g. Construct Phase 4

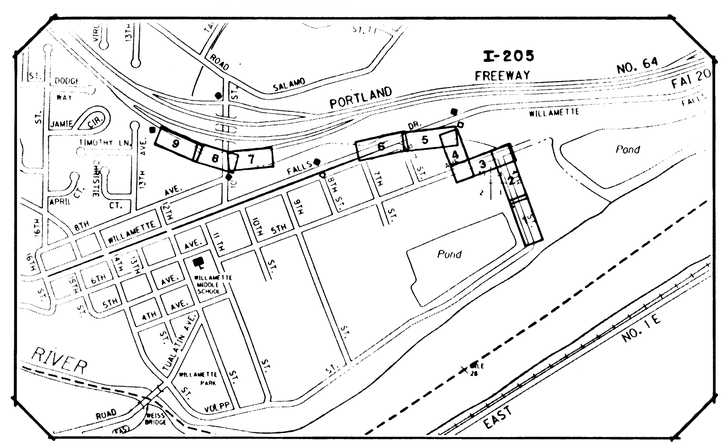
1) Mobilize boring rig.
2) Install casing under 10th Street.
3) Construct sewer from Sta. 10+00 to 22+55.
4) Provide temporary bypass at Sta. 14+35±.
5) Air test new sewer, hydrostatically test manholes.
6) Place new sewer into operation.
7) Construct Lateral A.
8) Construct service laterals as shown.
9) Remove, abandon and plug existing manholes as designated.
10) Place finish grade cover material from Sta. 10+50± to Sta. 13+70 including drainage culvert.
11) Perform surface restoration.

RECORD DRAWINGS

Provisions Drawn by _____ Date 1-16-92

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION, TYPE OF COMPONENT, NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS.

WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS & PLANNERS



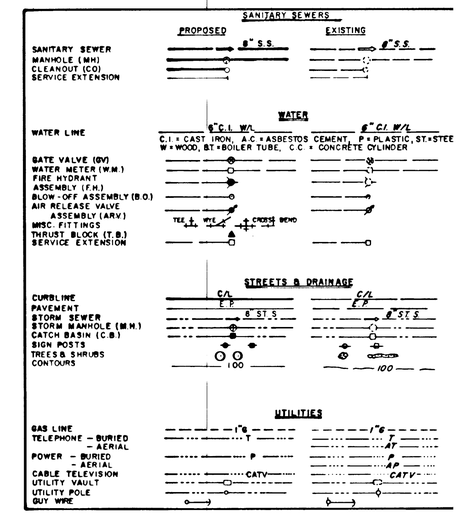
TRAFFIC SIGNING & SHEET REFERENCE MAP

SIGN SYMBOL

END CONSTRUCTION

ROAD CONSTRUCTION AHEAD

SIGN 36"X 36" W20-1

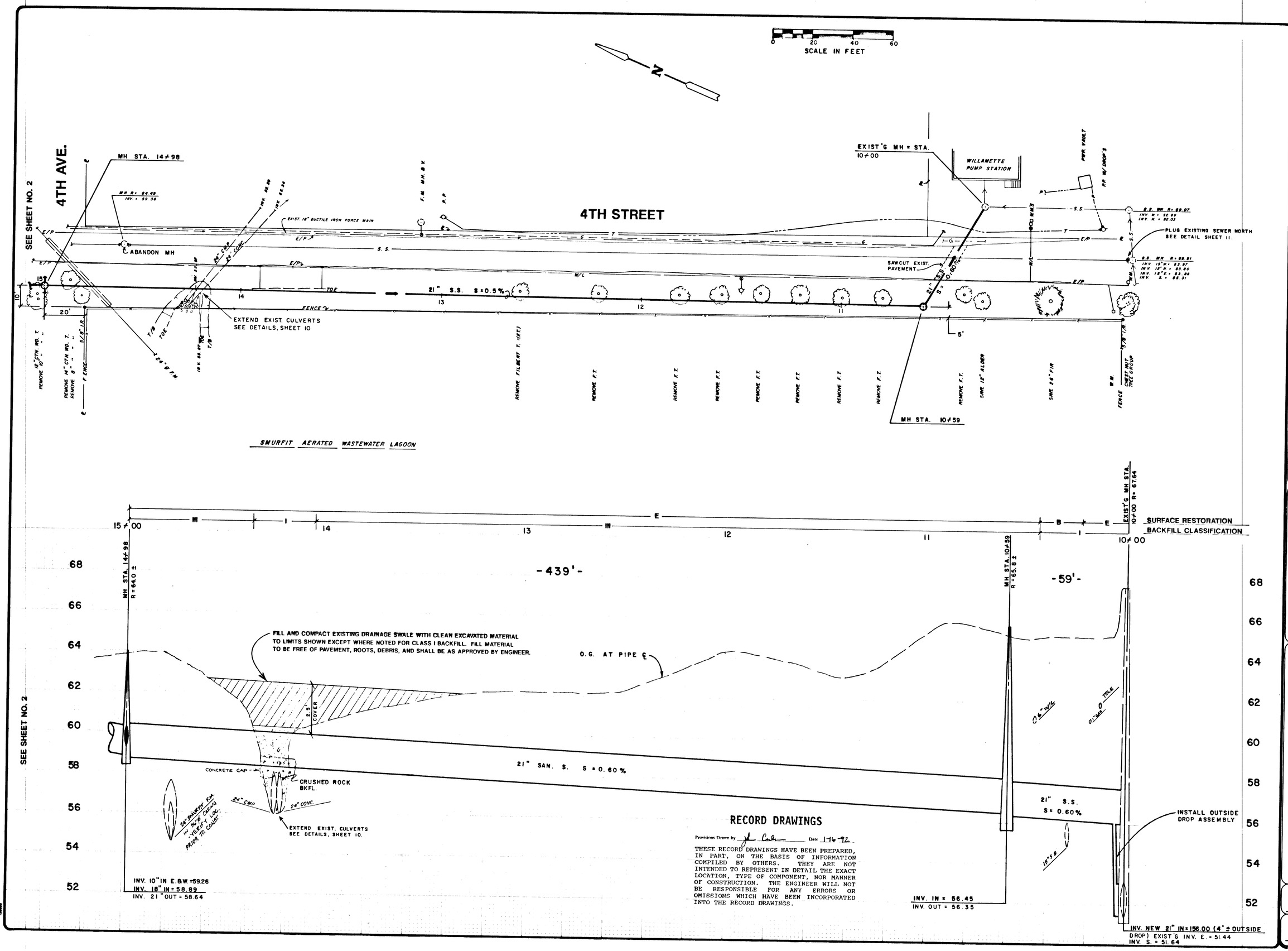


LEGEND

SHEET INDEX

SHT.NO.	DESCRIPTION
1	LOWER SECTION STA. 10+00 TO STA. 15+00
2	LOWER SECTION STA. 15+00 TO STA. 19+50
3	LOWER SECTION STA. 19+50 TO STA. 24+00
4	LOWER SECTION STA. 24+00 TO STA. 27+00
5	LOWER SECTION STA. 27+00 TO STA. 32+00
6	LOWER SECTION STA. 32+00 TO END
7	10TH STREET SECTION STA. 10+00 TO STA. 14+35
8	10TH STREET SECTION STA. 14+35 TO STA. 20+00
9	10TH STREET SECTION STA. 20+00 TO END
10	DETAILS
11	DETAILS

1249.301.1



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NO.	DATE	DESCRIPTION	BY
1	1-15-92	AS-BUILT REVISIONS	

REVISIONS

SCALE
HORIZ: 1" = 20'
VERT: 1" = 2'

DSN. J.Y.
DRN. M.D.P.
CKD. ____
DATE: JULY, 1991

WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS & PLANNERS
3421 25TH ST. S.E., SALEM, OR. 97302 (503)585-2474
13500 S.W. 72ND AVE. PORTLAND, OR. 97223 (503)684-9226

CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENTS

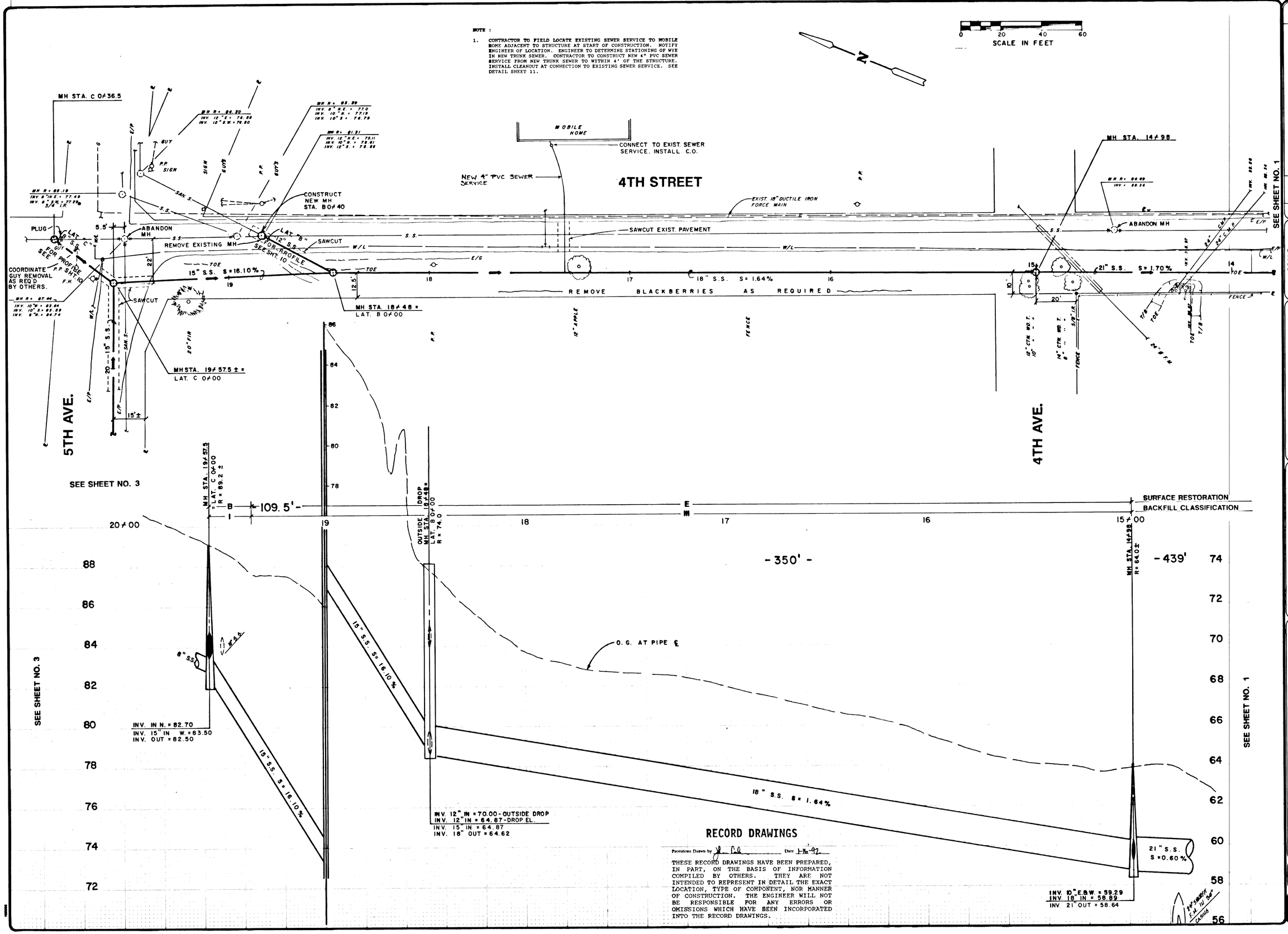
LOWER SECTION
STA. 10+00 - STA. 15+00

SHEET 1 OF 11

JOB NUMBER 1249.301.1

NOTE :

1. CONTRACTOR TO FIELD LOCATE EXISTING SEWER SERVICE TO MOBILE HOME ADJACENT TO STRUCTURE AT START OF CONSTRUCTION. NOTIFY ENGINEER OF LOCATION. ENGINEER TO DETERMINE STATIONING OF WYE IN NEW TRUNK SEWER. CONTRACTOR TO CONSTRUCT NEW 4" PVC SEWER SERVICE FROM NEW TRUNK SEWER TO WITHIN 4' OF THE STRUCTURE. INSTALL CLEANOUT AT CONNECTION TO EXISTING SEWER SERVICE. SEE DETAIL SHEET 11.



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Revisions Drawn by _____ Date 1-16-92

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NO.	DATE	DESCRIPTION	BY
1	1-15-91	AS-BUILT REVISIONS	

REVISIONS

SCALE
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VERT: 1" = 2'

DSN. J.Y.
DRN. M.D.P.
CKD. J.Y.
DATE: JULY, 1991

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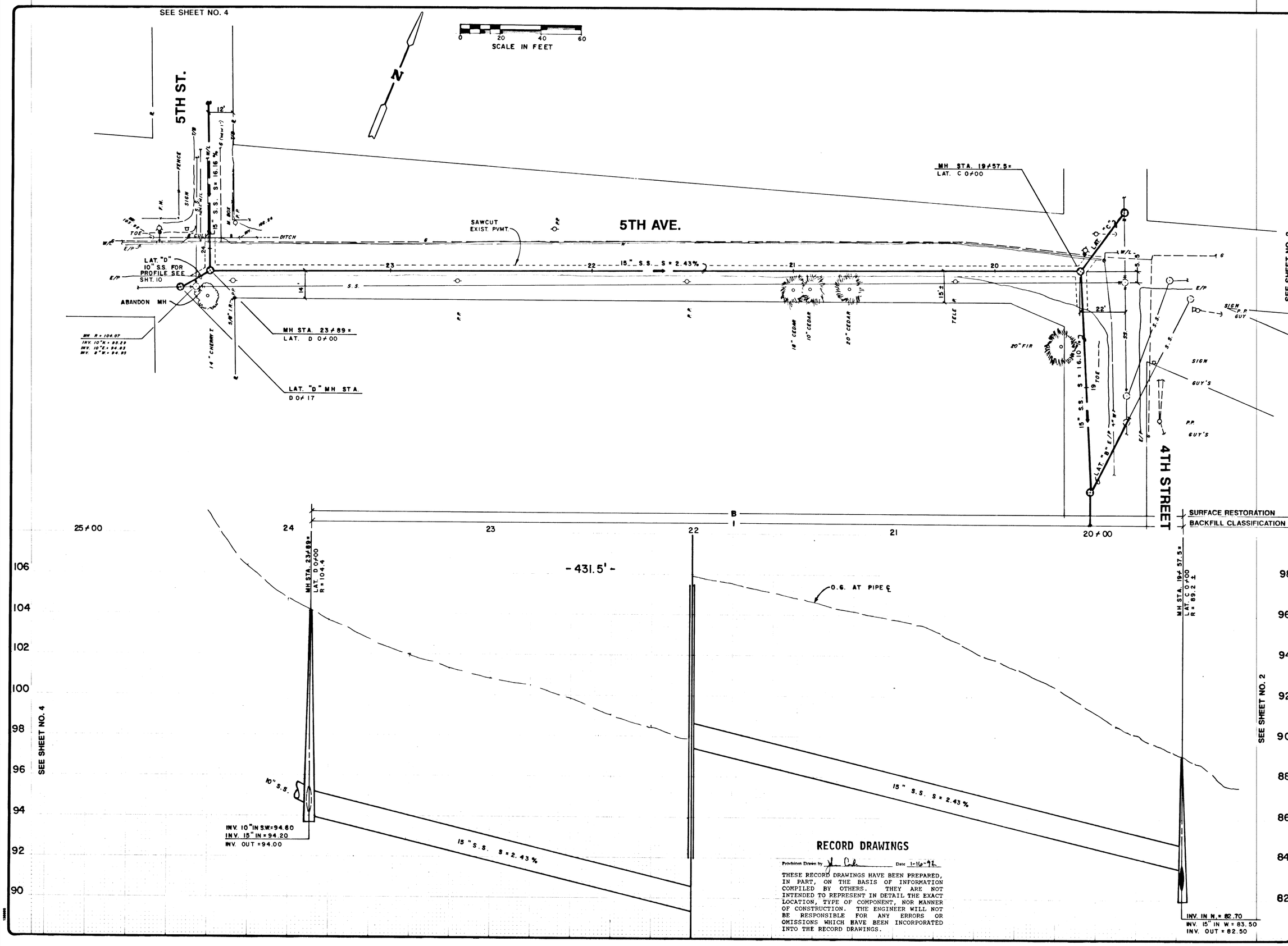
CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

LOWER SECTION
STA. 15+00 - STA. 19+50

SHEET 2 OF 11

JOB NUMBER 1249.301.1



RECORD DRAWINGS

Provisions Drawn by [signature] Date 1-16-92

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NO.	DATE	DESCRIPTION	BY
1	1-15-92	AS-BUILT REVISIONS	JC

REVISIONS

SCALE
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VERT: 1" = 2'

DSN. J.Y.
DRN. M.D.P.
CKD. [illegible]
DATE: JULY, 1991

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CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

LOWER SECTION
STA. 19+50 - STA. 24+00

SHEET 3 OF 11

JOB NUMBER 1249.301.1

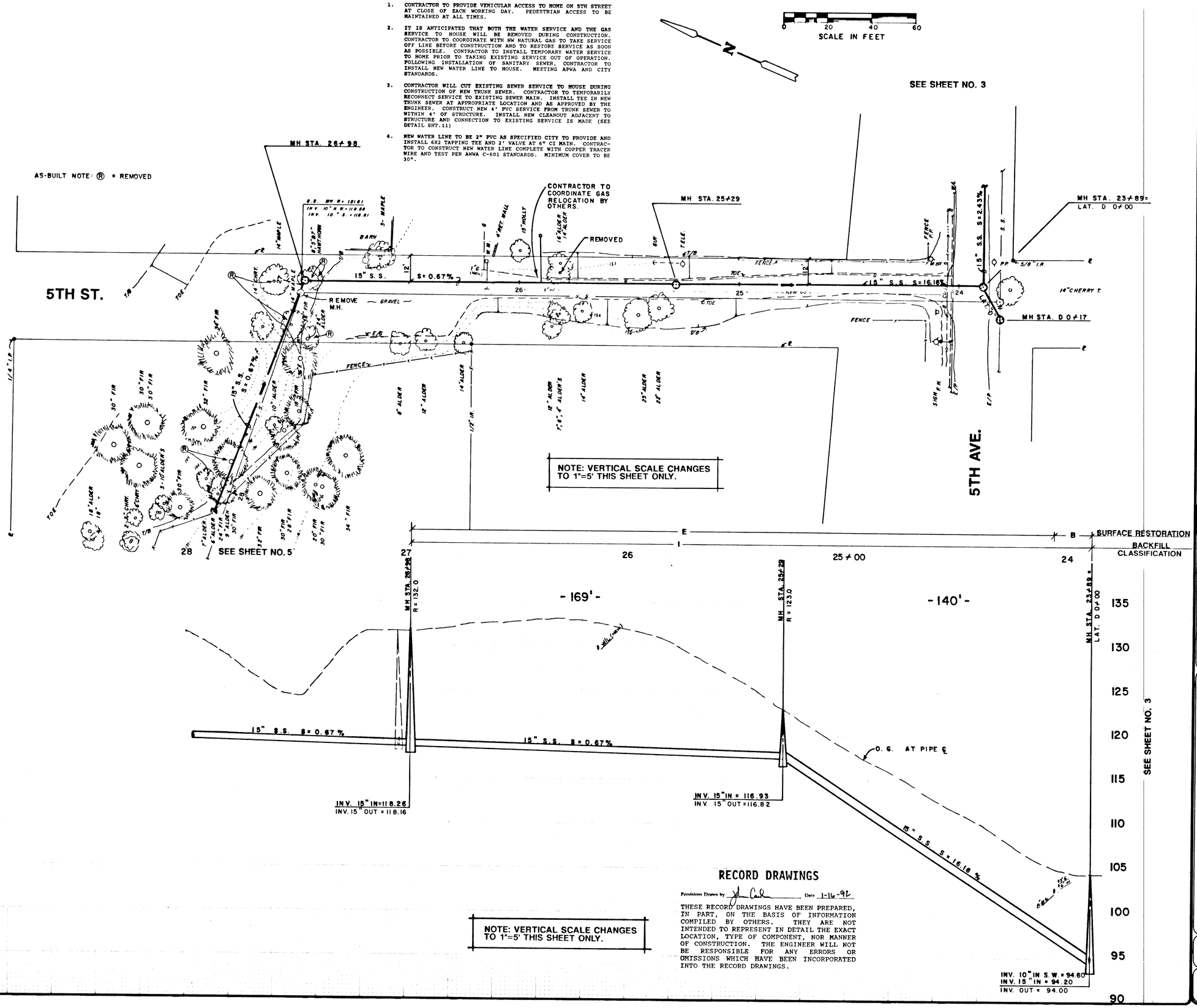
NOTES

1. CONTRACTOR TO PROVIDE VEHICULAR ACCESS TO HOME ON 5TH STREET AT CLOSE OF EACH WORKING DAY. PEDESTRIAN ACCESS TO BE MAINTAINED AT ALL TIMES.

2. IT IS ANTICIPATED THAT BOTH THE WATER SERVICE AND THE GAS SERVICE TO HOUSE WILL BE REMOVED DURING CONSTRUCTION. CONTRACTOR TO COORDINATE WITH NW NATURAL GAS TO TAKE SERVICE OFF LINE BEFORE CONSTRUCTION AND TO RESTORE SERVICE AS SOON AS POSSIBLE. CONTRACTOR TO INSTALL TEMPORARY WATER SERVICE TO HOME PRIOR TO TAKING EXISTING SERVICE OUT OF OPERATION. FOLLOWING INSTALLATION OF SANITARY SEWER. CONTRACTOR TO INSTALL NEW WATER LINE TO HOUSE. MEETING APWA AND CITY STANDARDS.

3. CONTRACTOR WILL CUT EXISTING SEWER SERVICE TO HOUSE DURING CONSTRUCTION OF NEW TRUNK SEWER. CONTRACTOR TO TEMPORARILY RECONNECT SERVICE TO EXISTING SEWER MAIN. INSTALL TEE IN NEW TRUNK SEWER AT APPROPRIATE LOCATION AND AS APPROVED BY THE ENGINEER. CONSTRUCT NEW 4" PVC SERVICE FROM TRUNK SEWER TO WITHIN 4' OF STRUCTURE. INSTALL NEW CLEANOUT ADJACENT TO STRUCTURE AND CONNECTION TO EXISTING SERVICE IS MADE (SEE DETAIL SHT.11)

4. NEW WATER LINE TO BE 2" PVC AS SPECIFIED CITY TO PROVIDE AND INSTALL 6X2 TAPPING TEE AND 2' VALVE AT 6" CI MAIN. CONTRACTOR TO CONSTRUCT NEW WATER LINE COMPLETE WITH COPPER TRACER WIRE AND TEST PER AWWA C-601 STANDARDS. MINIMUM COVER TO BE 30".



RECORD DRAWINGS

Provisions Drawn by [signature] Date 1-16-92

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NO.	DATE	DESCRIPTION	BY
		REVISIONS	

SCALE
HORIZ: 1" = 20'
VERT: 1" = 5'
DSN. J.Y.
DRN. M.D.P.
CKD.
DATE: JULY 1991

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CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

LOWER SECTION
STA. 24+00 - STA. 27+00

SHEET 4 OF 11

JOB NUMBER 1249.301.1

NOTES:

1. (R) = TREE TO BE REMOVED.
(ALL OTHER TREES ARE TO REMAIN)

2. SEWER FROM STA. 26+98 TO STA. 31+58 TO BE CONSTRUCTED IN SAME ALIGNMENT AS EXISTING SEWER. BYPASS PUMPING WILL BE REQUIRED (SEE SPECIFICATIONS). FLOW THROUGH SEWER SYSTEM SHOULD BE MAINTAINED AT ALL TIMES.

3. CONTRACTOR TO CONFINE ACTIVITIES TO WORK LIMITS SHOWN AND SHALL SAVE TREE FACILITIES NOT DESIGNATED FOR REMOVAL.

4. CONTRACTOR TO REGRADE ALIGNMENT TO EXISTING CONFIGURATION FOLLOWING SEWER CONSTRUCTION UNLESS OTHERWISE NOTIFIED IN WRITING BY THE ENGINEER.

5. CONTRACTOR TO IMPLEMENT ALL NECESSARY MEANS AND METHODS, INCLUDING BUT NOT LIMITED TO , SHORING AND DEWATERING TO PREVENT UNDERMINING AND/OR DAMAGE TO ALL EXISTING FACILITIES.

6. EXISTING SEWER SERVICE TO HOUSE WILL BE CUT DURING CONSTRUCTION. CONTRACTOR TO INSTALL WYE AT LOCATION APPROVED BY THE ENGINEER AND CONSTRUCT NEW 4" PVC SERVICE LATERAL TO WITHIN 5' OF HOME. INSTALL CLEANOUT AT CONNECTION TO EXISTING SEWER SERVICE ADJACENT TO HOME.

7. CONSTRUCT NEW MANHOLE AT STA. 31+58 IN SAME LOCATION AS EXISTING MANHOLE. REMOVE 6'± OF 8" SEWER WEST AND 4" SEWER NORTH. CONNECT TO STRUCTURALLY SOUND PIPE WITH FERNCO COUPLING AND EXTEND SEWERS INTO NEW MANHOLE.

RECORD DRAWINGS

Provisions Drawn by [illegible] Date 1-16-92

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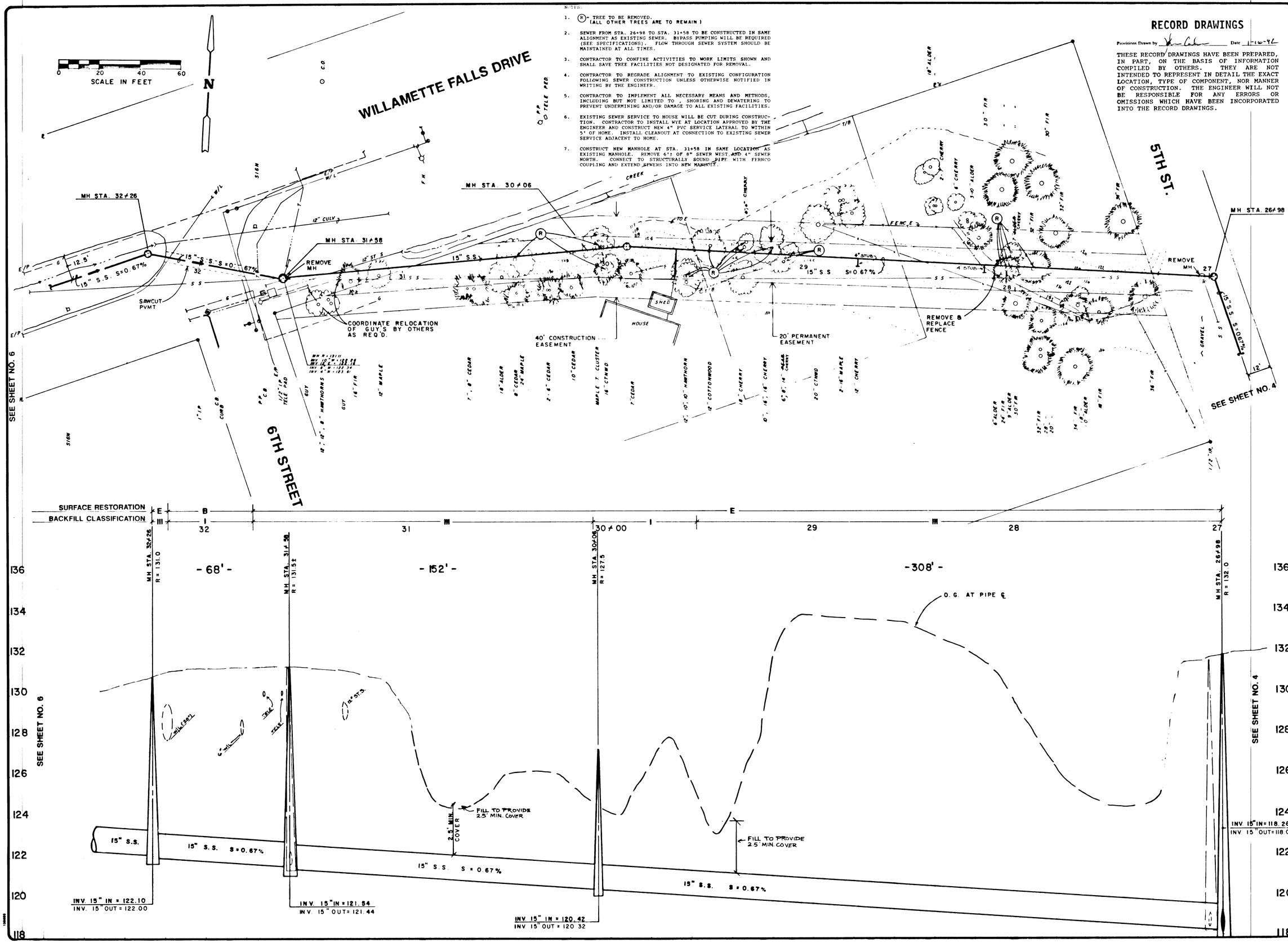

NO.	DATE	DESCRIPTION	BY
1	1-16-92	AS-BUILT REVISIONS	

REVISIONS

SCALE
HORIZ: 1" = 20'
VERT: 1" = 2'

DSN. J.Y.
DRN. M.D.P.
CKD. S.
DATE: JULY, 1991

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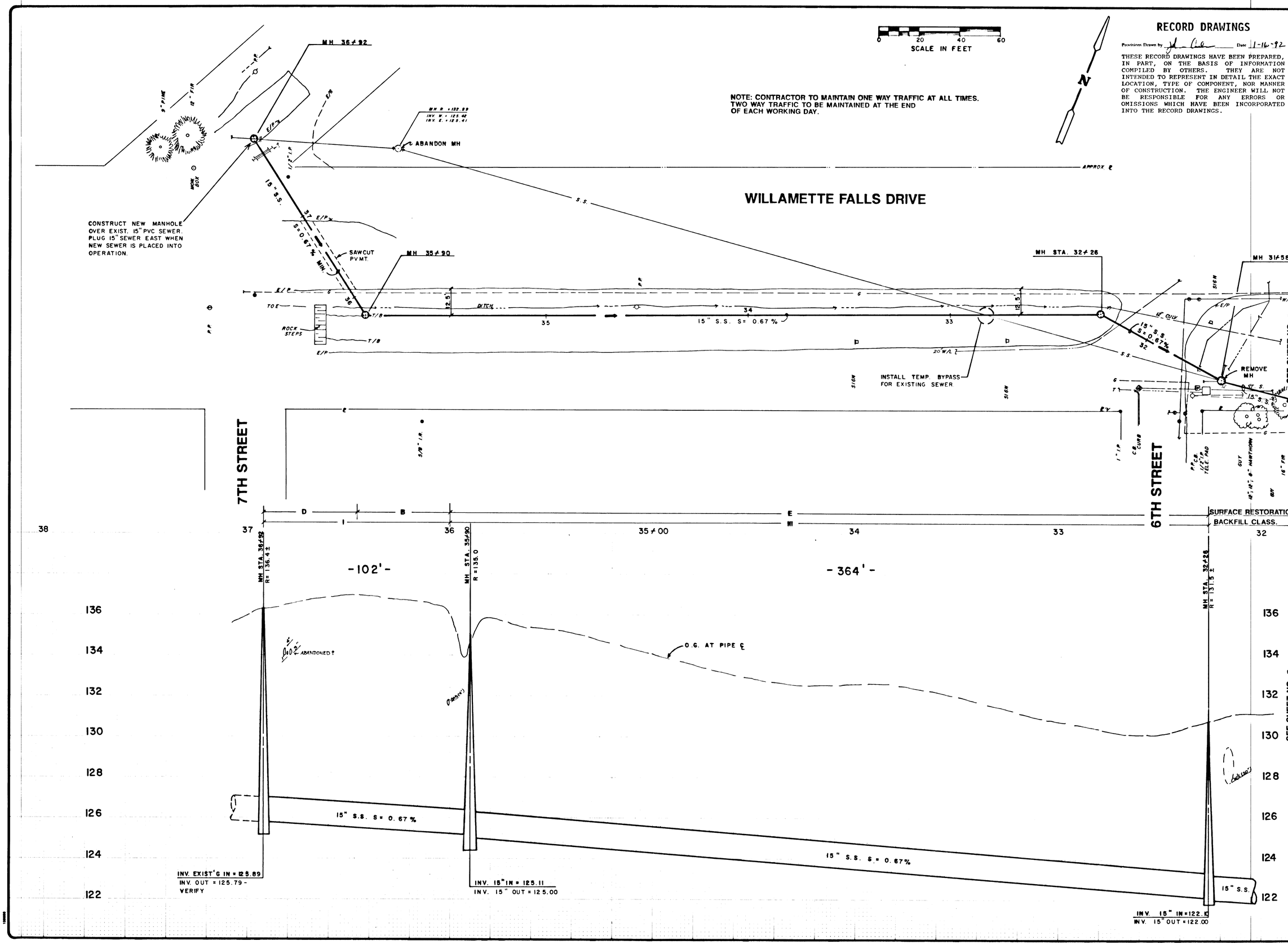
CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

LOWER SECTION
STA. 27/00 - STA. 32/00

SHEET 5 OF 11

JOB NUMBER 1249.301.1



RECORD DRAWINGS

Provisions Drawn by _____ Date 11-16-92

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NO.	DATE	DESCRIPTION	BY
1	11-16-92	AS-BUILT REVISIONS	

REVISIONS

SCALE
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VERT: 1" = 2'

DSN. J.Y.
DRN. M.D.P.
CKD.
DATE: JULY, 1991

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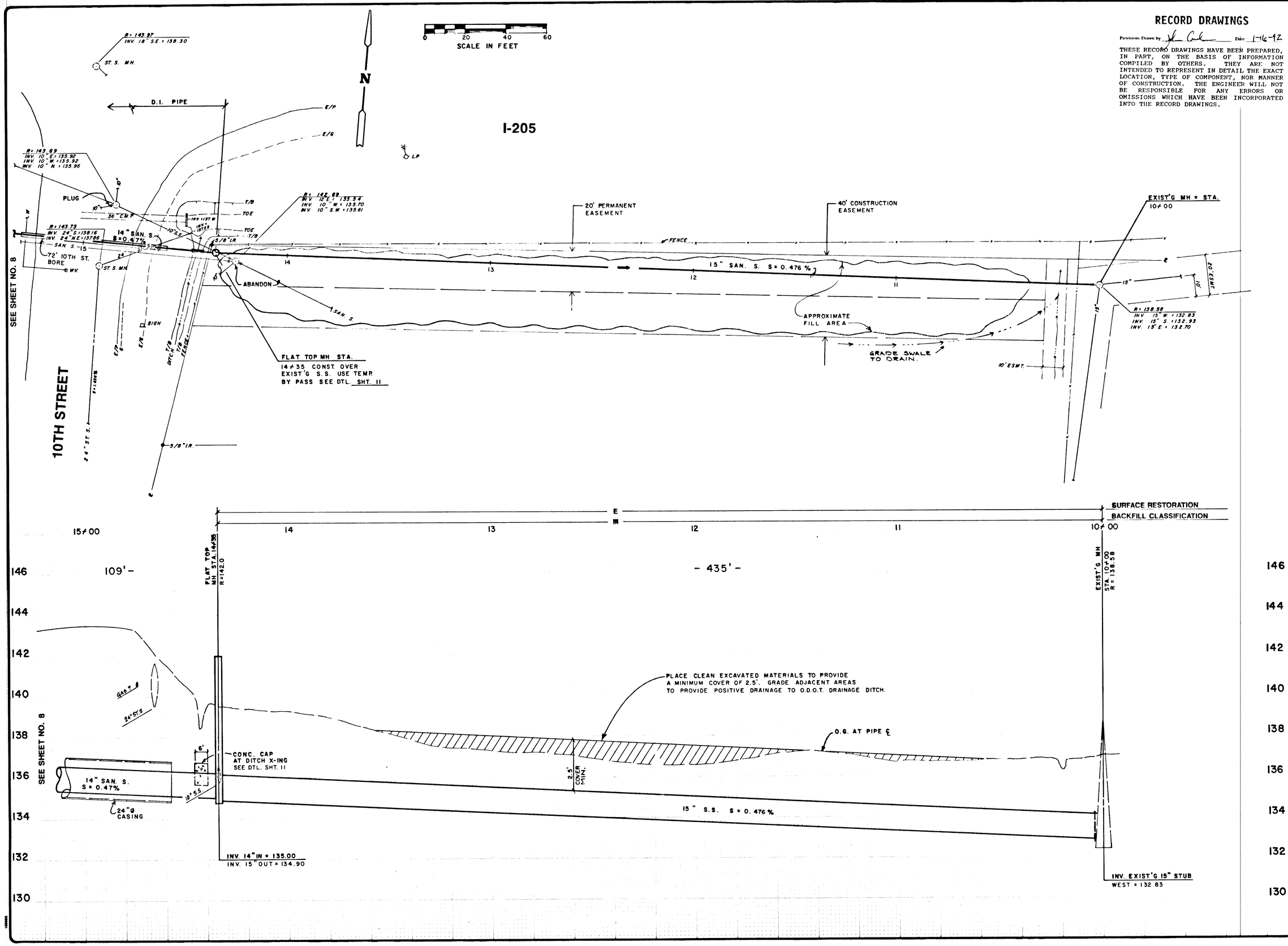
CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

LOWER SECTION STA. 32+00 - END

SHEET 6 OF 11

JOB NUMBER 1249.301.1



RECORD DRAWINGS

Provisions Drawn by [signature] Date 1-16-92

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NO.	DATE	DESCRIPTION	BY
3	6/26/92	AS-BUILT REVISED FILL AREA	JC
2	1-16-92	AS-BUILT REVISIONS	JC
1	8/06/91	REV. PIPE TO D.I. STA. 14+35 ON/IN	JY

REVISIONS

SCALE
HORIZ: 1" = 20'
VERT: 1" = 2'

DSN. J.Y.
DRN. M.D.P.
CKD.
DATE: JULY 1991

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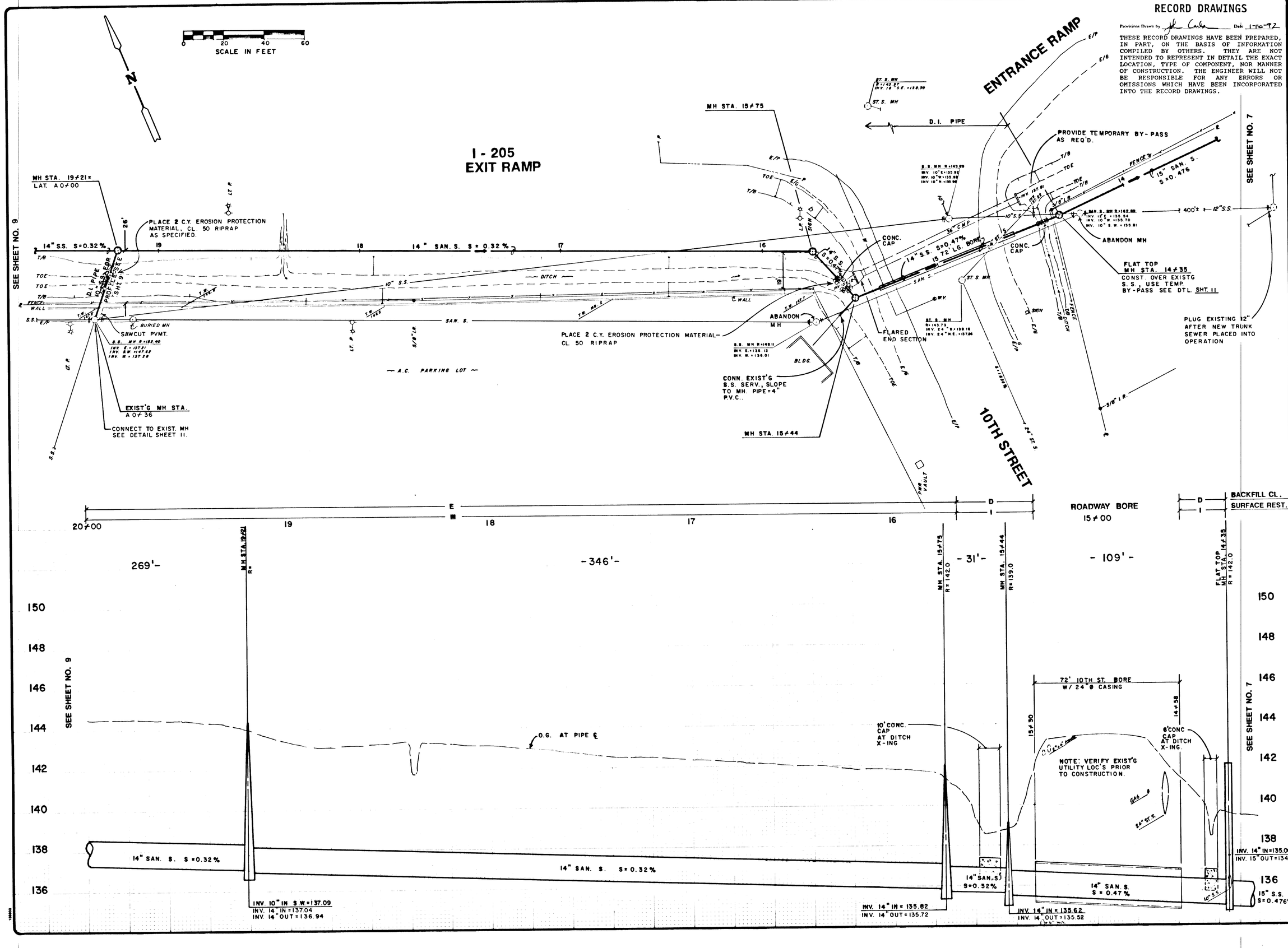
CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

10TH STREET SECTION
STA. 10+00 - STA. 14+35

SHEET 7 OF 11

JOB NUMBER 1249.301.1



RECORD DRAWINGS

Provisions Drawn by [illegible] Date 1-16-97

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NO.	DATE	DESCRIPTION	BY
2	1-16-97	AS-BUILT REVISIONS	JC
1	6/26/97	REV. PIPE FROM VAC TO 8" PVC, 14+35 TO EAST	JC

REVISIONS

SCALE
HORIZ: 1"=20'
VERT: 1"=2'

DSN. J.Y.
DRN. M.D.P.
CKD.
DATE: JULY 1991

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CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

10TH STREET SECTION
STA. 14/35 - STA. 20/00

SHEET 8 OF 11

JOB NUMBER 1249.301.1

RECORD DRAWINGS

Provisions Drawn by [signature] Date 1-16-92

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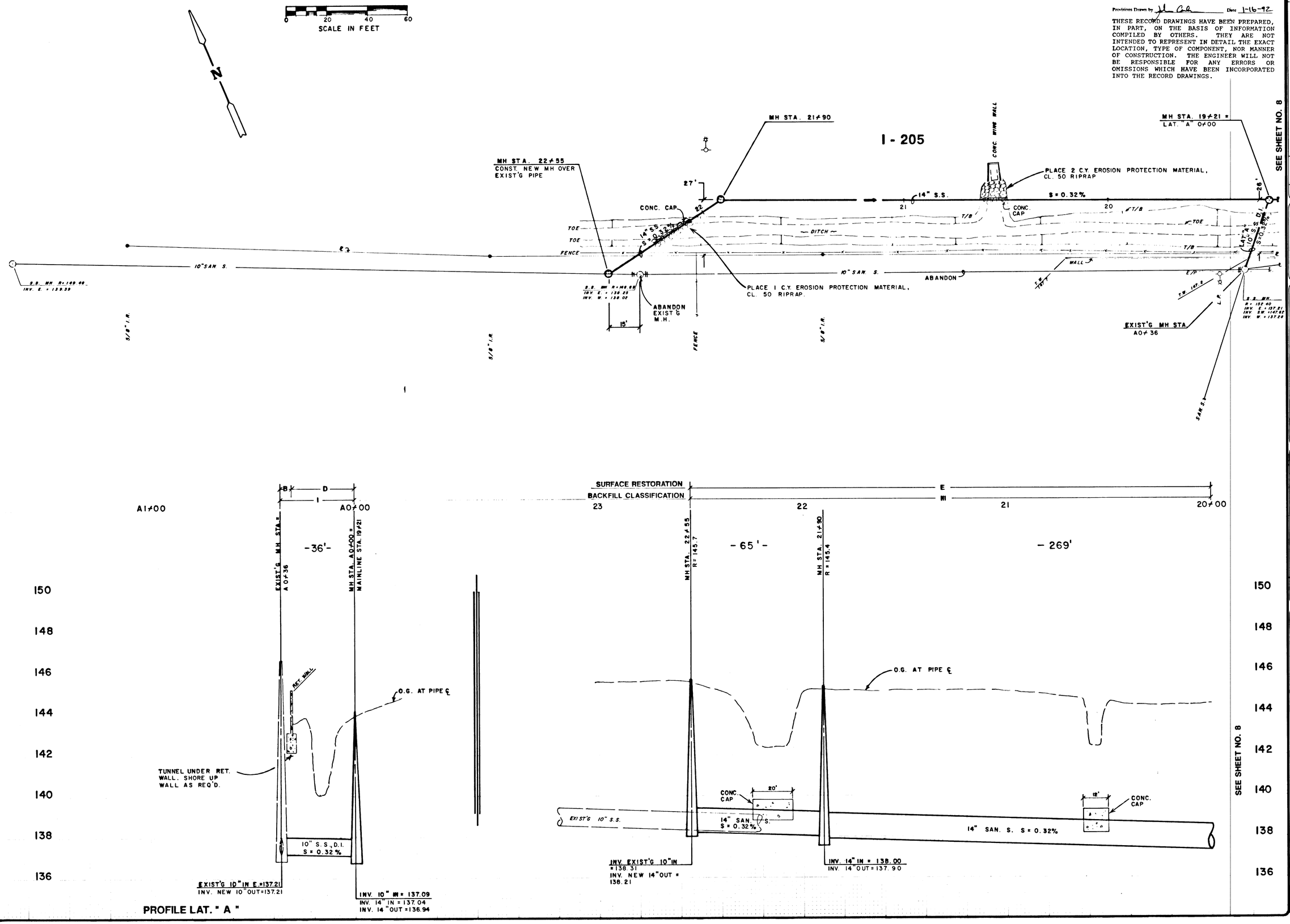


PROFILE LAT. " A "

NO.	DATE	DESCRIPTION	BY
2	1-16-92	AS-BUILT	J.C.
1	8/06/91	REV. PIPE FROM PVC TO D.I.	J.Y.

REVISIONS

SCALE
HORIZ: 1" = 20'
VERT: 1" = 2'

DSN. J.Y.
DRN. M.D.P.
CKD.
DATE: JULY 1991

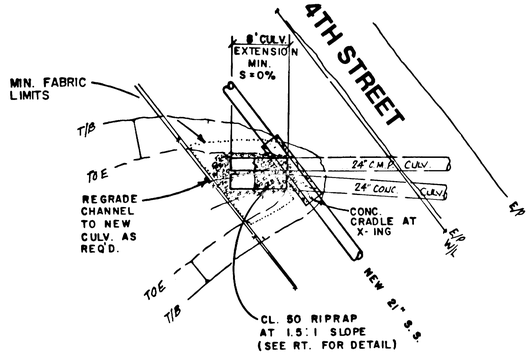
WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS & PLANNERS
3421 25TH ST. S.E., SALEM, OR. 97302 (503)585-2474
13500 S.W. 72ND AVE. PORTLAND, OR. 97223 (503)684-9226

CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

10TH STREET SECTION STA. 20+00 TO END

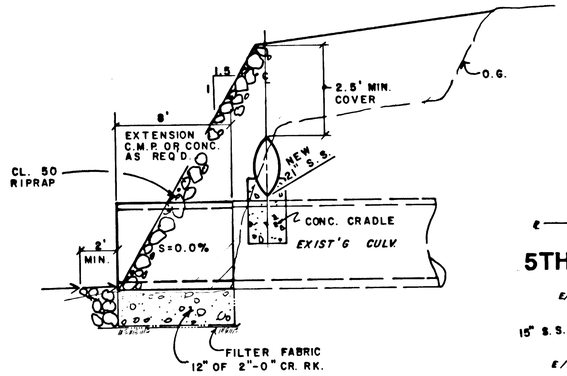
SHEET 9 OF 11

JOB NUMBER 1249.301.1



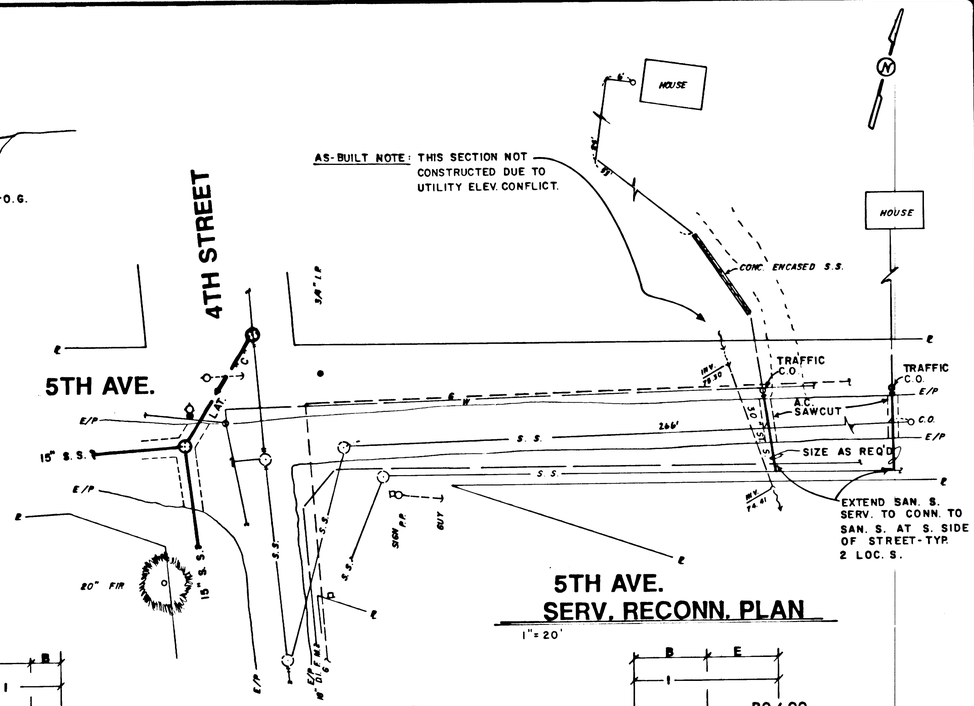
4TH ST. CULV. EXTENSION PLAN

1" = 10'



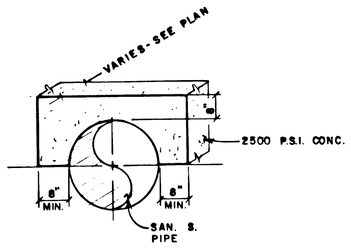
CULV. EXTENSION DETAIL

N.T.S.



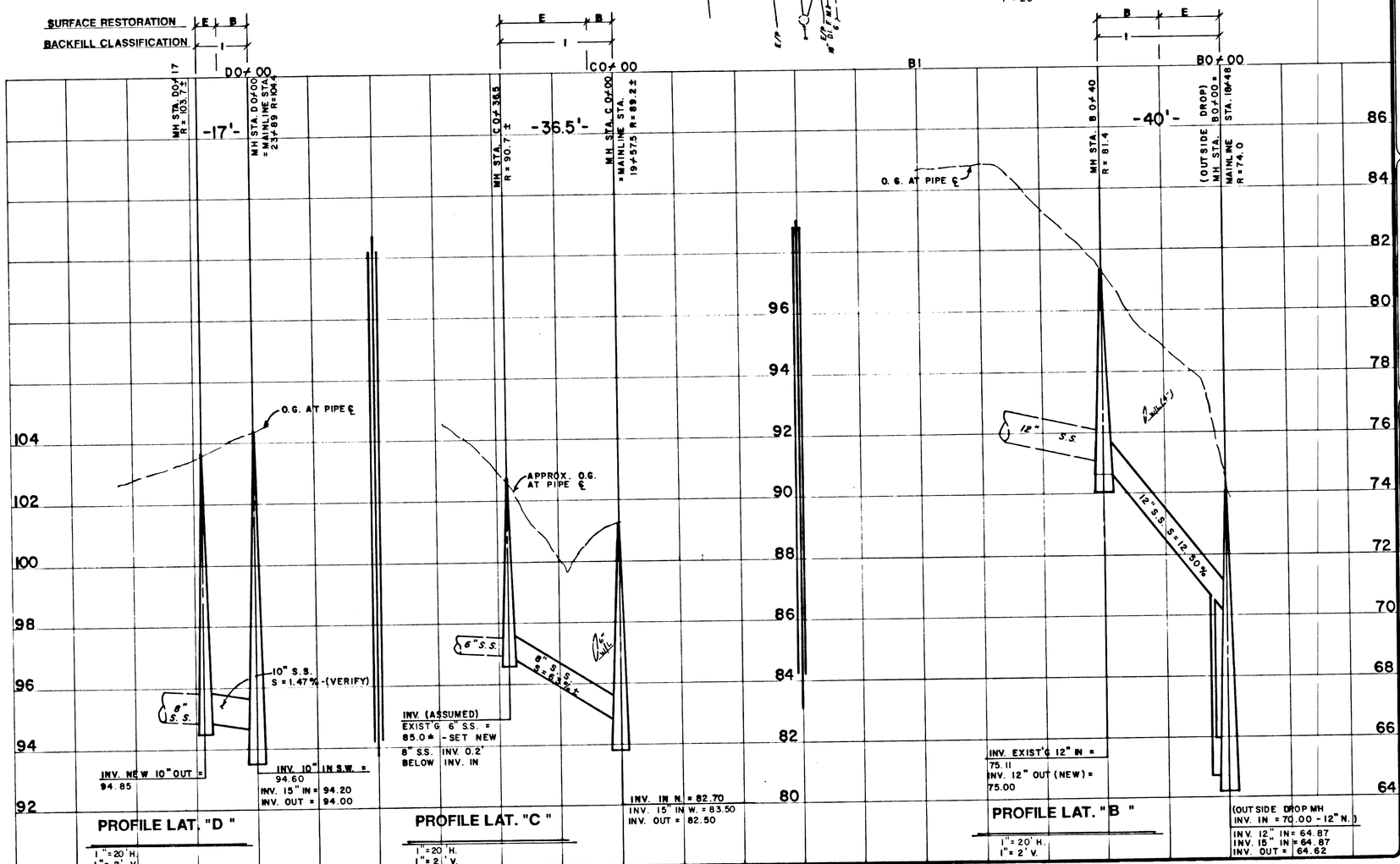
5TH AVE. SERV. RECONN. PLAN

1" = 20'



CONC. CAP DETAIL

N.T.S.



PROFILE LAT. "D"

1" = 20' H.
1" = 2' V.

PROFILE LAT. "C"

1" = 20' H.
1" = 2' V.

PROFILE LAT. "B"

1" = 20' H.
1" = 2' V.

RECORD DRAWINGS

Provisions Drawn by [illegible] Date 1-16-92

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NO.	DATE	DESCRIPTION	BY
1	1-16-92	AS-BUILT REVISIONS	JC

REVISIONS

SCALE
HORIZ: NOTED
VERT:

DSN. J.Y.
DRN. M.D.P.
CKD. S.J.
DATE: JULY, 1991

REGISTERED PROFESSIONAL ENGINEER — 7/24/91

WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS & PLANNERS
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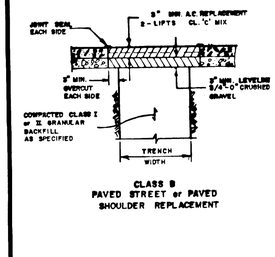
CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

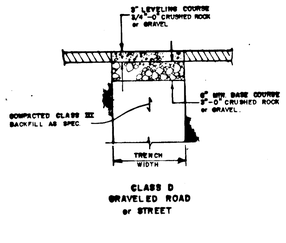
DETAILS

SHEET 10 OF 11

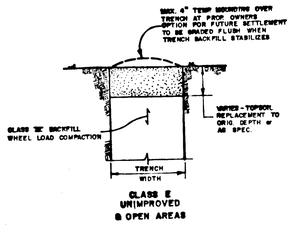
JOB NUMBER 1249.301.1



CLASS B
PAVED STREET or PAVED SHOULDER REPLACEMENT



CLASS D
GRAVELED ROAD or STREET



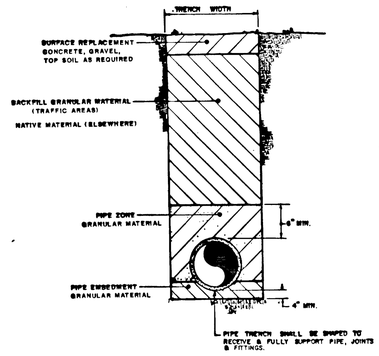
CLASS E
UNIMPROVED & OPEN AREAS

SURFACE RESTORATION DETAILS

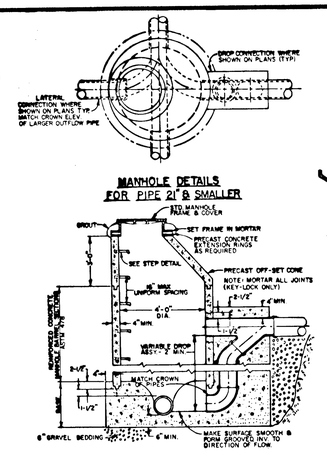
MAXIMUM TRENCH WIDTHS

NOMINAL PIPE SIZE	6"	8"	10"	12"	15"	18"	21"	24"	27"	30"
USUAL MAXIMUM TRENCH WIDTH	2'-0"	2'-0"	2'-6"	2'-6"	2'-6"	3'-0"	3'-6"	3'-9"	4'-0"	4'-6"

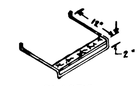
ENGINEER WILL CONSIDER ADJUSTING USUAL TRENCH WIDTH TO ACCOMMODATE CONDITIONS ENCOUNTERED



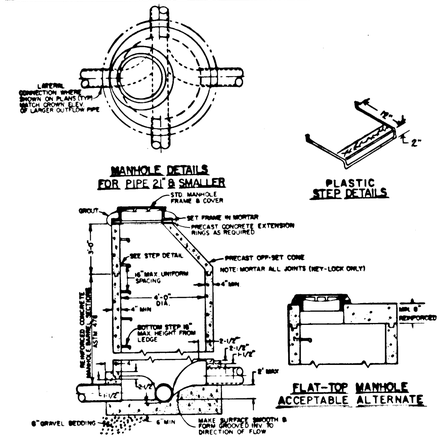
TRENCH SECTION



OUTSIDE DROP MANHOLE



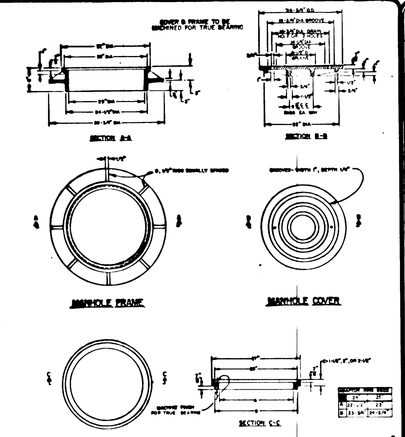
PLASTIC STEP DETAILS



MANHOLE DETAILS FOR PIPE 21" & SMALLER

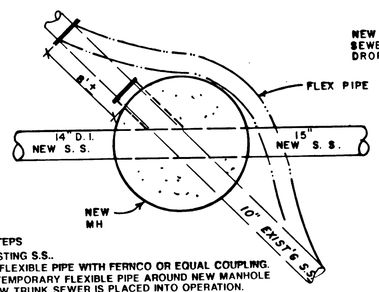
MANHOLE DETAIL

PLASTIC STEP DETAILS



MANHOLE CASTING DETAILS

SURFACE RESTORATION DETAILS

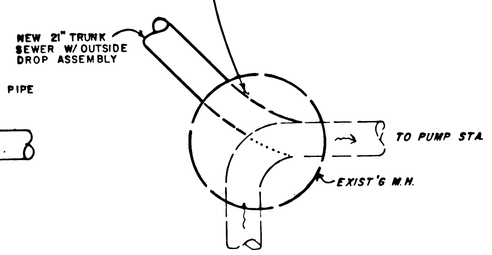


BYPASS STEPS
1. CUT EXISTING S.S..
2. ATTACH FLEXIBLE PIPE WITH FERNCO OR EQUAL COUPLING.
3. ROUTE TEMPORARY FLEXIBLE PIPE AROUND NEW MANHOLE UNTIL NEW TRUNK SEWER IS PLACED INTO OPERATION.
4. MAINTAIN DURING CONSTRUCTION.
5. REMOVE FLEX. PIPE AND CONNECT TO NEW MANHOLE. USE FERNCO COUPLING TO CONNECT NEW PVC PIPE TO MANHOLE WITH EXISTG. SEWER.

GRAVITY MANHOLE BYPASS PLAN

N.T.S.

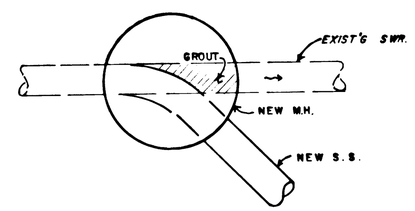
CHIP OUT EXISTING MANHOLE BASE TO CONST. CHANNEL FOR NEW SEWER. PLACE BASKET SCREEN IN MANHOLE TO PREVENT ALL CONCRETE AND DEBRIS FROM ENTERING PUMP STATION WET WELL. FINISH NEW CHANNEL WITH GROUT TO PROVIDE SWOOTH AND UNIFORM CHANNEL.



CONNECTION TO EXIST'G MANHOLE STA. 10+00 LOWER SECTION

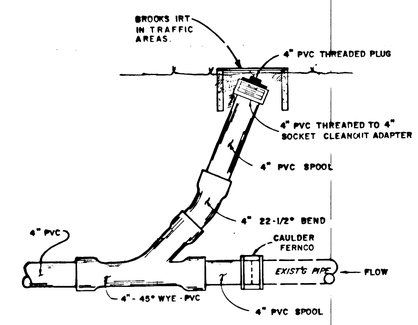
N.T.S.

CONST. STEPS:
1. CONSTRUCT NEW MANHOLE OVER EXIST'G SEWER. EXISTING REMAINS IN SERVICE, CONSTRUCT WITH CHANNEL FOR NEW SEWER.
2. REMOVE UPPER EXIST'G SEWER, DIRECT FLOW INTO NEW PIPE.
3. PLUG OLD SEWER WITH NON SHRINK GROUT.
4. FINISH CHANNEL WITH GROUT TO PROVIDE SMOOTH FINISH.

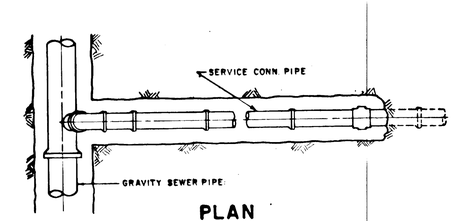


NEW MANHOLE CONSTRUCTED OVER EXIST'G SEWER(TYP.)

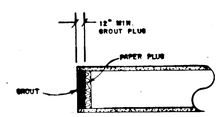
N.T.S.



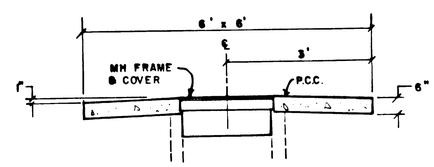
TYPICAL CLEAN OUT INSTALLATION



PLAN

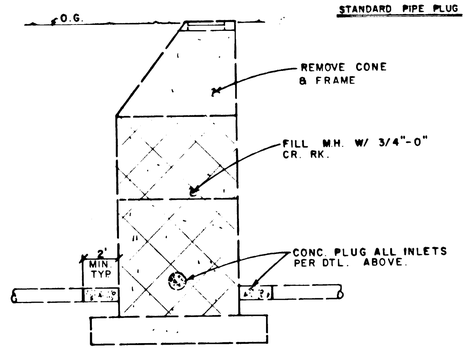


STANDARD PIPE PLUG

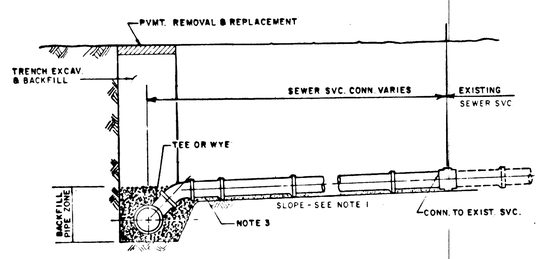


MANHOLE PROTECTION SLAB DTL.

N.T.S. (LOCATE IN ODOT R/W ONLY)



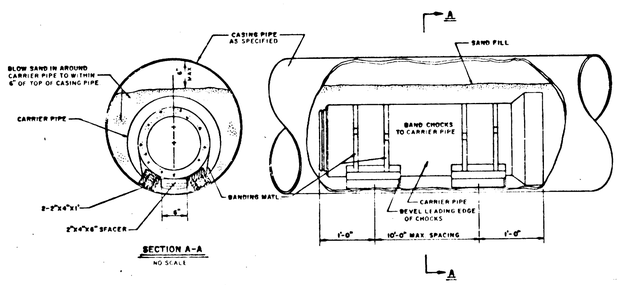
MANHOLE ABANDONMENT & PLUG DTL.



SECTION

1. WHEN SLOPE EXCEEDS 20%, USE ANCHOR BLOCKS, MIN. SLOPE = 1%.
2. FOR APPROVED MATERIALS SEE SPECIFICATIONS.
3. BEDDING MATERIAL FOR SERVICE LINES MAY BE 3/4"-0 CRUSHED ROCK, OR 3/8"-1/4" PEA GRAVEL.

TYP. SERVICE DTL.



BORING CASING DETAIL

RECORD DRAWINGS

Provisions Drawn by J. L. Cole Date 1-16-92

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NO.	DATE	DESCRIPTION	BY

SCALE
HORIZ:
VERT:
DSN. J.Y.
DRN. M.D.P.
CKD.

7/24/91

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CITY OF WEST LINN, OREGON
WILLAMETTE FALLS DRIVE TRUNK SEWER IMPROVEMENT

DETAILS

SHEET 11 OF 11
JOB NUMBER 1249.301.1