

- ### GENERAL NOTES
- NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY OR INSTALL ANY OBJECTS WITHIN THE PUBLIC RIGHTS-OF-WAY OR EASEMENTS OF THE CITY OF RIVERSIDE WITHOUT A VALID CONSTRUCTION PERMIT OR A STREET OPENING PERMIT OR AN ENCROACHMENT PERMIT ISSUED BY THE CITY'S PUBLIC WORKS DEPARTMENT.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAR THE RIGHT-OF-WAY IN ACCORDANCE WITH THE PROVISIONS OF LAW AS IT AFFECTS EACH UTILITY INCLUDING IRRIGATION LINES AND APPURTENANCES AND AT NO COST TO THE CITY.
 - CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE DEPARTMENT OF PUBLIC WORKS, STANDARD DRAWINGS AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.
 - THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING OR RE-ESTABLISHING AND REFERENCING SURVEY MONUMENTS DESTROYED, DISTURBED OR BURIED AS A RESULT OF CONSTRUCTION SHOWN HEREON.
 - ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD.
 - CONTRACTOR IS TO VERIFY EXISTING SEWER LOCATION AND ELEVATION PRIOR TO START OF CONSTRUCTION.
 - A PLUG IS TO BE INSTALLED AND WILL REMAIN IN PLACE WHERE THE NEW SEWER CONNECTS WITH THE EXISTING SEWER UNTIL THE NEW SEWER IS ACCEPTED BY THE CITY.
 - CONTRACTOR IS TO PROVIDE ADDITIONAL MANHOLE GRADE RINGS AS REQUIRED BETWEEN EXISTING GROUND AND FUTURE STREET GRADE TO PROVIDE FOR FUTURE ADJUSTMENT.
 - VERIFIED CLAY PIPE JOINTS SHALL BE POLYURETHANE TYPE "G" JOINTS PER SECTION 206-2.3 OF THE STANDARD SPECIFICATIONS.

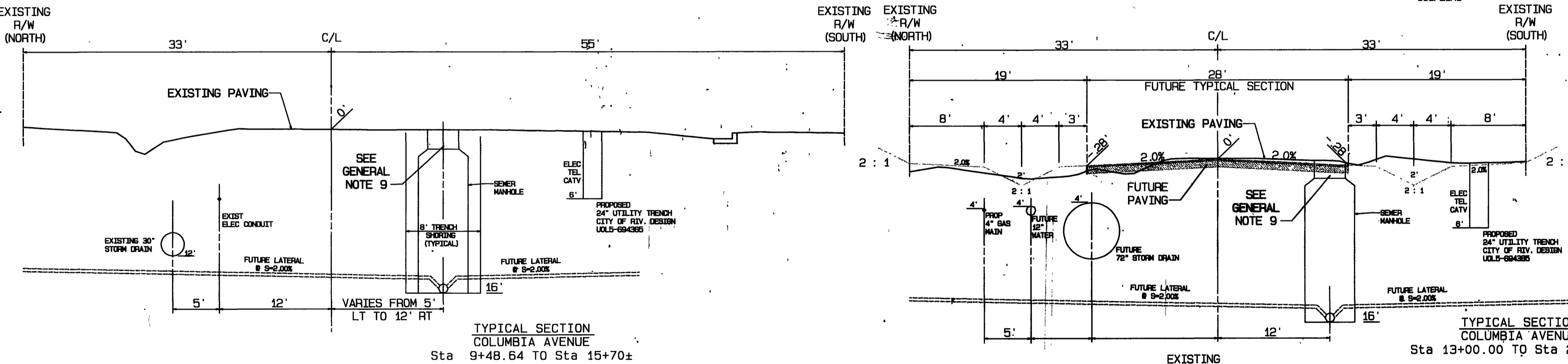
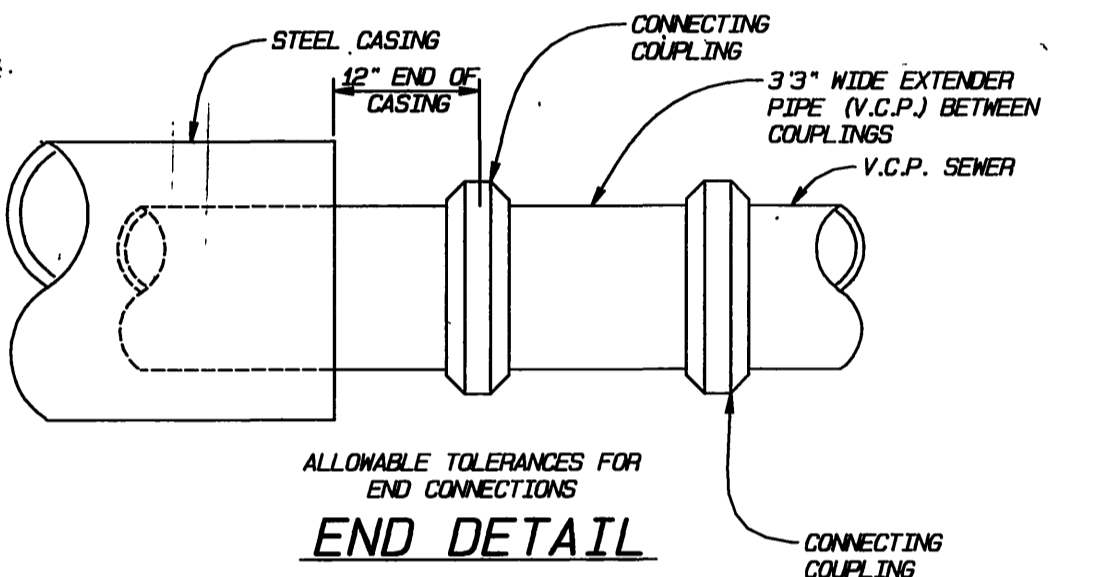
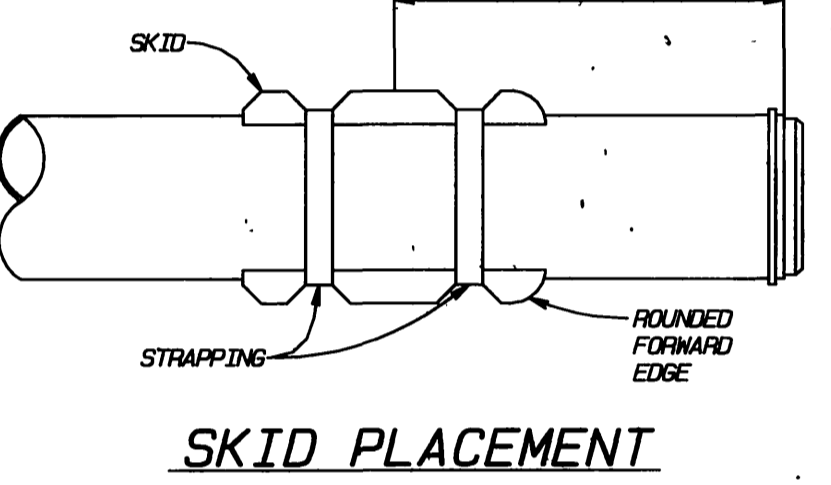
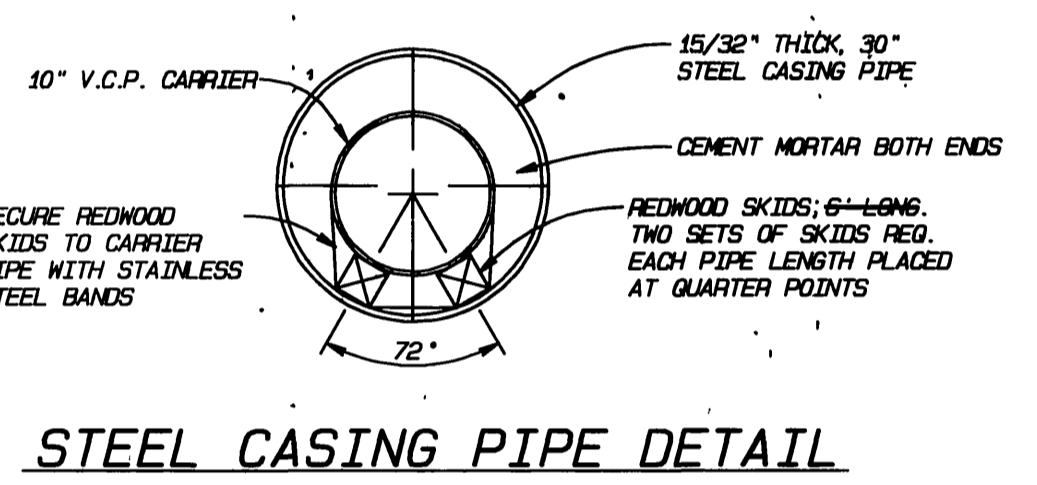
CASING NOTES:

- | CONTENTS TO BE HANDLED | CARRIER PIPE | CASING PIPE |
|-------------------------|---------------|-----------------|
| OUTSIDE DIAMETER | 12" +/- | 30 15/16" +/- |
| PIPE MATERIAL | 10" V.C.P. | 30" STEEL |
| WALL THICKNESS | 1 1/16" | 15/32" |
| ACTUAL WORKING PRESSURE | GRAVITY | |
| TYPE OF JOINT | BELL & SPIGOT | WELDED |
| COATING | NONE | COAL TAR EPOXY |
| METHOD OF INSTALLATION | OPEN TRENCH | BORED OR JACKED |

PROTECTION AT ENDS OF CASING:
 BOTH ENDS ----- CEMENT MORTAR
 BURY: BASE OF RAIL TO TOP OF CASING ----- 15" +/-
- STEEL CASING SHALL BE INSTALLED BY MEANS OF JACKING OR BY BORING.
- CARRIER PIPE SHALL BE AIR TESTED PRIOR TO SEALING CASING WITH GROUT. UPSTREAM AND DOWN STREAM ELEVATIONS TO BE VERIFIED PRIOR TO SEALING CASING. ENDS OF CASING TO BE SEALED WITH BRICK AND MORTAR. PLACE 1" MIN. DIA. PVC PIPE @ INVERT OF CASING (AT THE DOWNSTREAM END ONLY) THROUGH THE BRICK & MORTAR AND SURROUND IT WITH 2 cu. ft. CRUSHED ROCK.
- ALL SKIDS ARE TO BE SQUARE IN CROSS SECTION AND MAY BE MADE FROM REDWOOD, #2 OR BETTER DOUGLAS FIR, SOUND MATERIAL, TO BE MALMANIZED OR CREOSOTED (REDWOOD NEED NOT BE TREATED).
- SKIDS SHALL BE ATTACHED TO PIPE BY STRAPPING WITH A STANDARD STRAPPING MACHINE, TO HOLD SKIDS IN PLACE DURING PULLING OPERATIONS. USE STAINLESS BAND, OR METHOD OF "CLEATING" SKIDS TOGETHER.

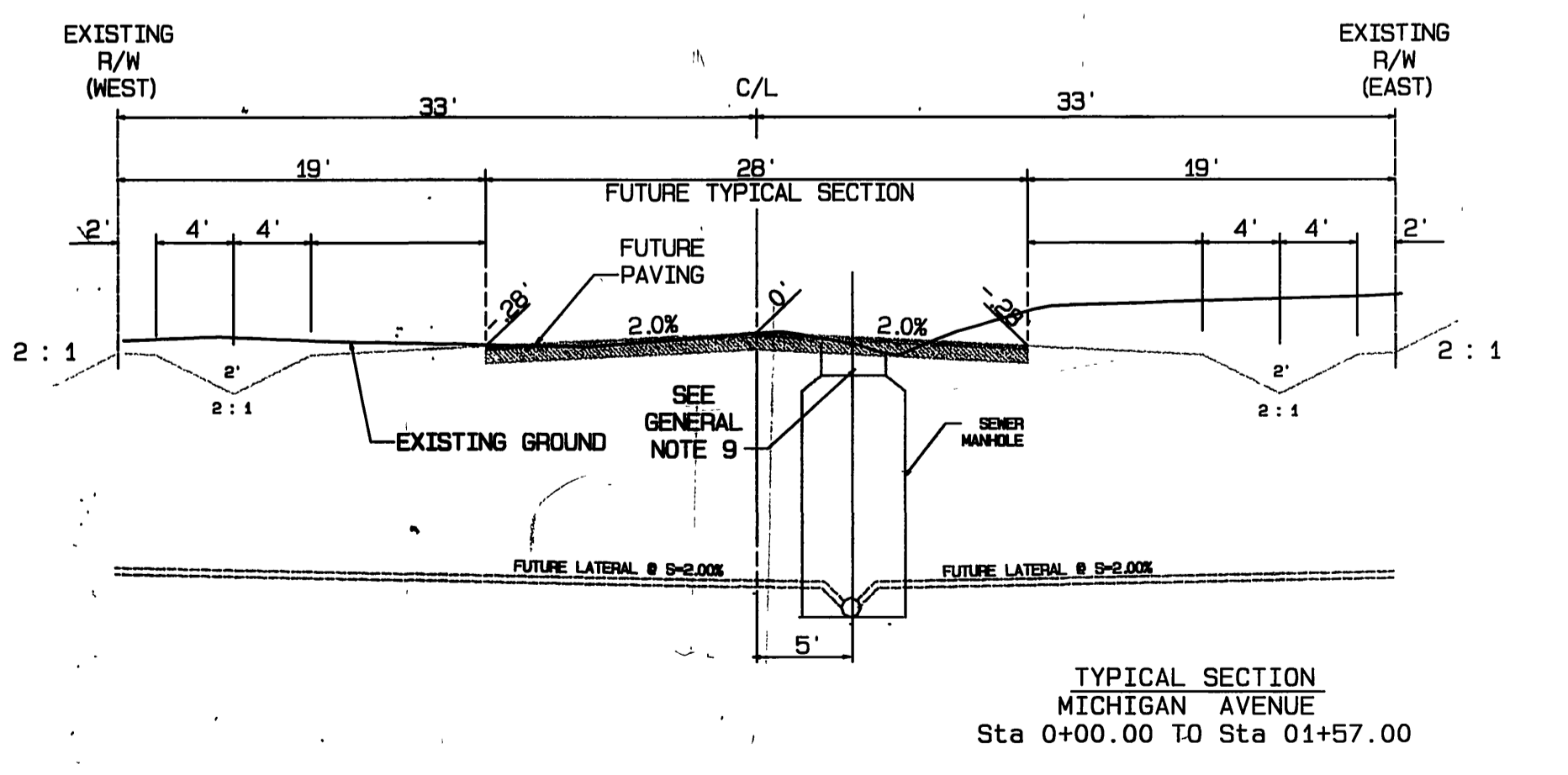
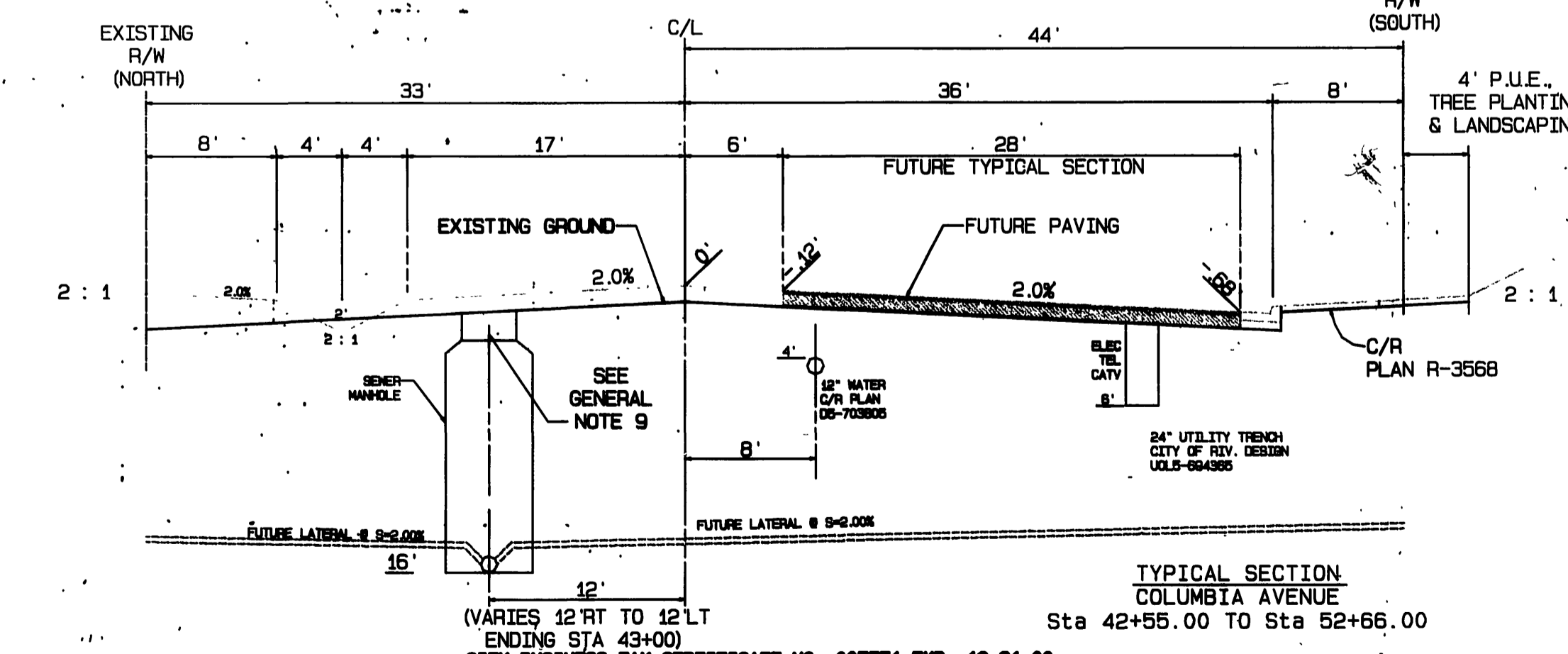
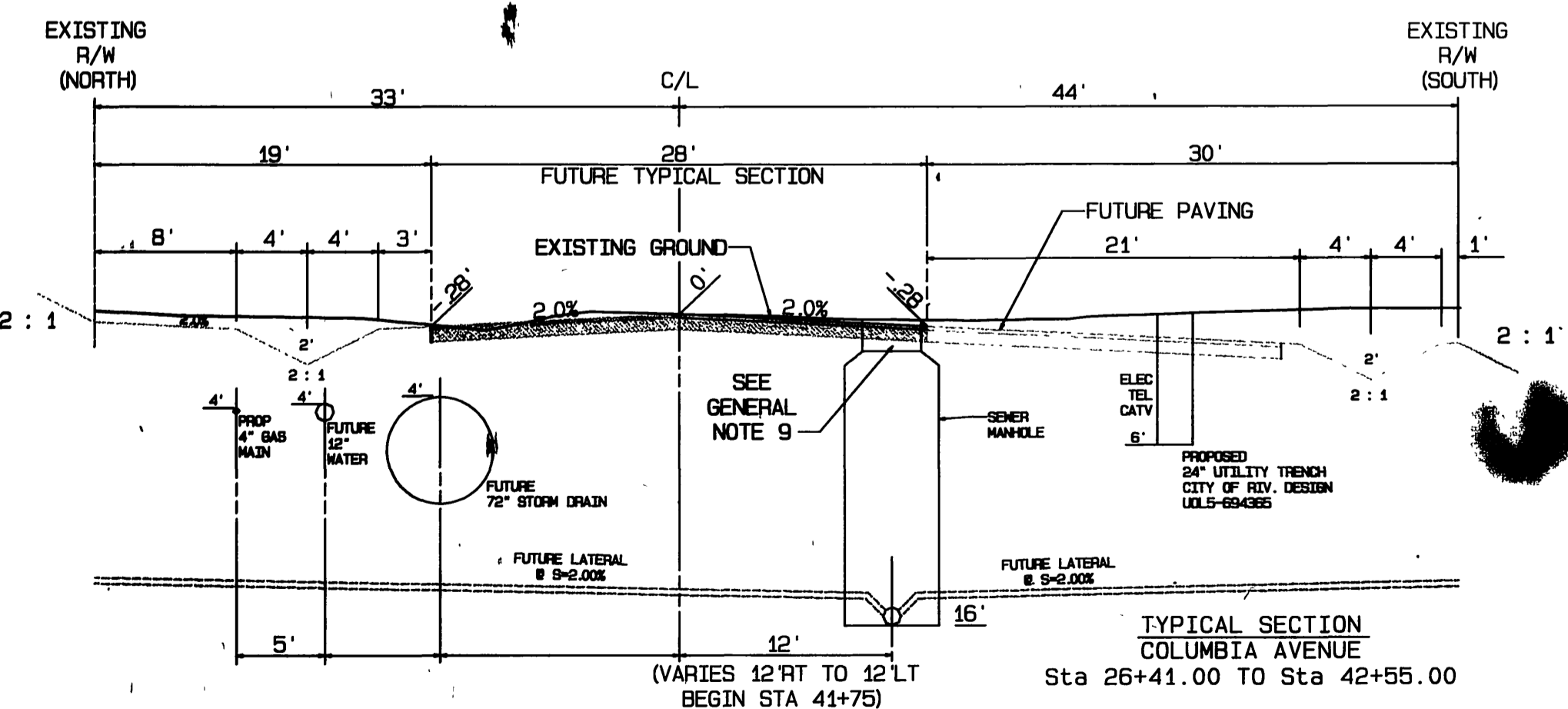
SKID SPECIFICATIONS:

ALL SKIDS SHALL BE OF REDWOOD, 24" TO 30" IN LENGTH, 4" IN WIDTH, AND OF SUFFICIENT HEIGHT TO PROVIDE A MINIMUM 2" CLEARANCE AT COUPLINGS. ALL SKIDS SHALL BE OF EQUAL DIMENSIONS AND POSITIONED UNIFORMLY.



CONSTRUCTION NOTES

- STEEL PIPE CASING, 30" DIA. 15/32 WALL, PER DETAILS ON SHEET #1
- CONSTRUCT 10" V.C.P. SEWERLINE, PIPE BEDDING PER STD. 452 (CASE 2)
- CONSTRUCT 12" V.C.P. SEWERLINE, PIPE BEDDING PER STD. 452 (CASE 2)
- CONSTRUCT 8" V.C.P. SEWERLINE, PIPE BEDDING PER STD. 452 (CASE 2)
- CONSTRUCT 10" D.I.P. SEWERLINE, PIPE BEDDING PER STD. 452 (CASE 2)
- CONSTRUCT SEWER MANHOLE PER CITY STD. DMG. NO. 500



BENCH MARK:
 ELEVATION FOR THIS JOB WAS OBTAINED FROM RIVERSIDE CITY BENCHMARK JB-AS. THE BENCHMARK "JB-A" IS LOCATED UNDER A METAL COVER AT THE CL, INTERSECTION OF IOWA AND MARLBOROUGH, A BRASS DISK IN A CAPWELL MONUMENT.
 BENCHMARK USED:
 RIVERSIDE CITY BENCHMARK JB-AS, ELEVATION = 929.11'



ALBERT A. WEBB ASSOCIATES CIVIL ENGINEERS
 3788 MCCRAY STREET RIVERSIDE, CA 92506
 (909) 686-1070
 APPROVED BY: *Matthew E. Webb* DATE: 6/12/00
 R.C.E. NO. C92985

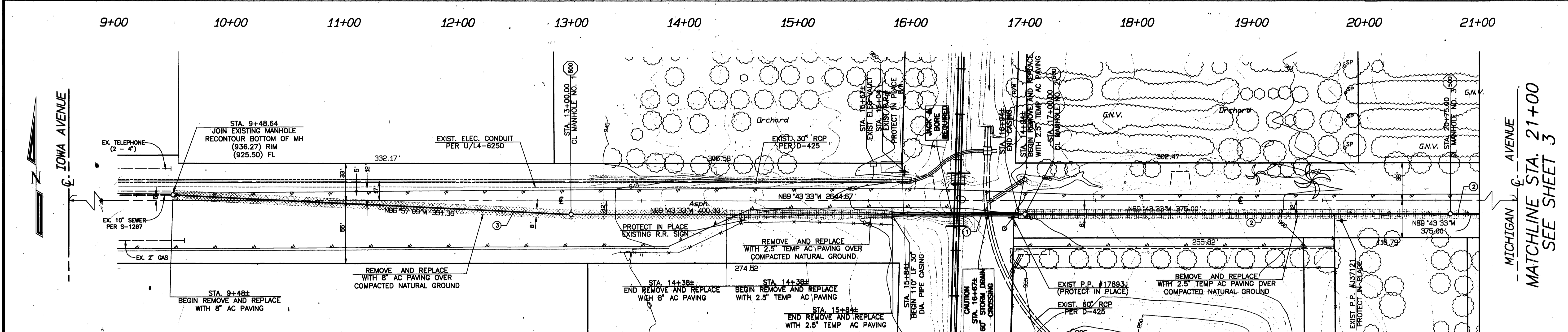
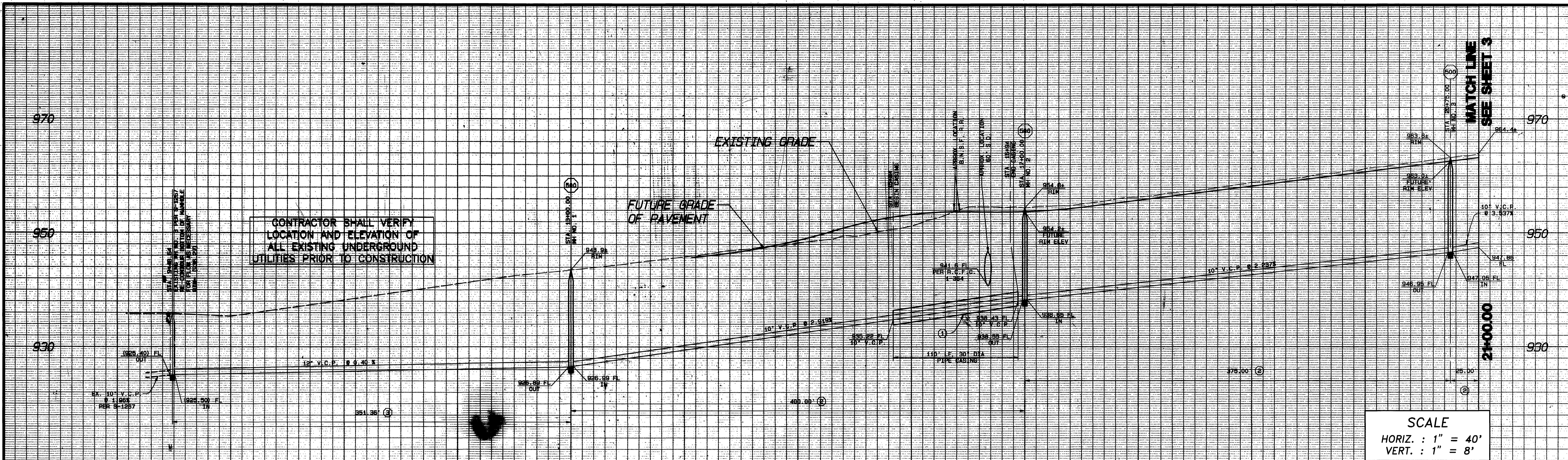
DATE	APPROVED BY
6/12/00	<i>R.M. Smith</i>
PRINCIPAL ENGINEER	DIRECTOR OF PUBLIC WORKS
TRAFFIC DIVISION	
STREET SERVICES	
S.W. ENG. NO.	0183636

CITY OF RIVERSIDE, CALIFORNIA PUBLIC WORKS DEPARTMENT
 APPROVED BY: *R.M. Smith*
 DATE: 6-13-2000

SEWER IMPROVEMENT PLANS
COLUMBIA AVE EXTENSION FROM 800' ELY OF IOWA AVE TO MICHIGAN AVE
 SCALE: AS SHOWN

ACCOUNT NO. DRAMING NUMBER
S-1726
 SHEET 1 OF 6
 99-0043B

INDEXED 7/17/2000 LFT



CONSTRUCTION NOTES

- ① STEEL PIPE CASING, 30" DIA. 15/32 WALL, PER DETAILS ON SHEET #1
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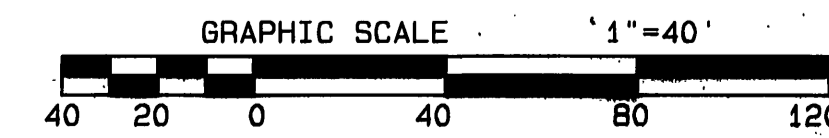
- REMOVE AND REPLACE WITH 8" OF ASPHALT PAVING OVER COMPACTED NATURAL GROUND.
- REMOVE AND REPLACE WITH 2.5" OF TEMPORARY ASPHALT PAVING OVER COMPACTED NATURAL GROUND.

COLUMBIA AVENUE

BNSF RAILROAD

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600

BENCH MARK:
ELEVATION FOR THIS JOB WAS OBTAINED FROM RIVERSIDE CITY BENCHMARK JB-A3. THE BENCHMARK "JB-A" IS LOCATED UNDER A METAL COVER AT THE CL. INTERSECTION OF IOWA AND MARLBOROUGH. A BRASS DISK IN A CAPPELL MONUMENT.
BENCHMARKS USED:
RIVERSIDE CITY BENCHMARK JB-A3. ELEVATION = 929.11'



CITY BUSINESS TAX CERTIFICATE NO. 002731 EXP. 12-31-00

**ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS**
3788 MCCABY STREET RIVERSIDE, CA 92506
(909) 686-1070

APPROVED BY: *Matthew E. Webb* DATE: 6/12/00
R.C.E. NO. C27385

NO.	REVISIONS	APPR. DATE

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY: *[Signature]* BY DATE: 6/13/00
APPROVED BY: *[Signature]* BY DATE: 6/13/00

PRINCIPAL ENGINEER
PARK DEPARTMENT
TRAFFIC DIVISION
STREET SERVICES

P.N. ENG. NBR. 776 6/2/00
DATE 6-13-2000

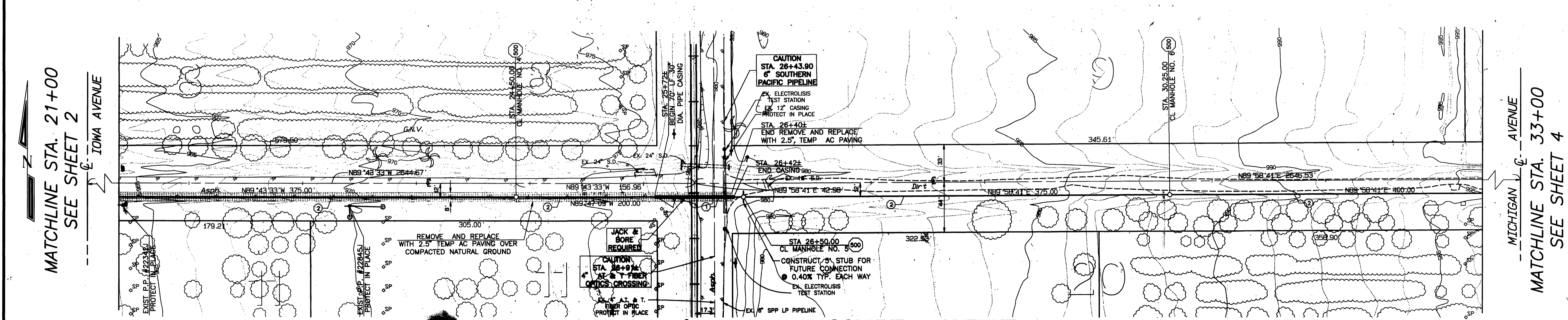
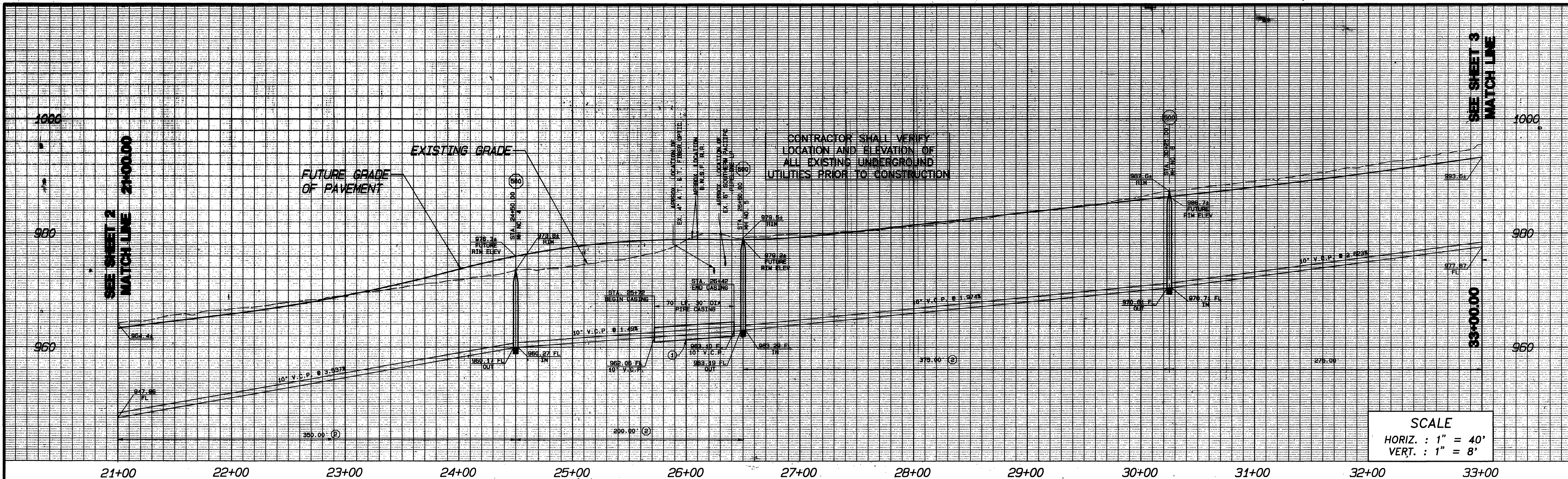
SEWER IMPROVEMENT PLANS

**COLUMBIA AVE EXTENSION
FROM 800' ELY OF IOWA AVE
TO MICHIGAN AVE**

SCALE: AS SHOWN

ACCOUNT NO.
DRAWING NUMBER
S-1726
SHEET 2 OF 6
99-0043B

INDEXED 7/17/2000 LHT



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COLUMBIA AVENUE

REMOVE AND REPLACE WITH 2.5" TEMP AC PAVING OVER COMPACTED NATURAL GROUND.

JACK & BORE REQUIRED

CAUTION STA. 26+98 AT T FIBER OPTICS CROSSING

CAUTION STA. 26+43.90 6" SOUTHERN PACIFIC PIPELINE

EX. ELECTROLYSIS TEST STATION EX. 12" CASING PROTECT IN PLACE

STA. 26+40 END REMOVE AND REPLACE WITH 2.5" TEMP AC PAVING

STA. 26+42 END CASING

STA. 26+50.00 CL MANHOLE NO. 500

CONSTRUCT 8" STUB FOR FUTURE CONNECTION @ 0.40% TYP. EACH WAY

EX. ELECTROLYSIS TEST STATION

EX. 8" SPP LP PIPELINE

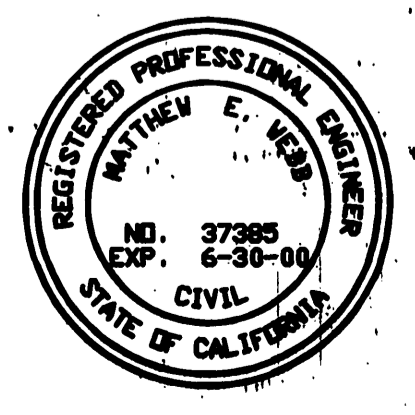
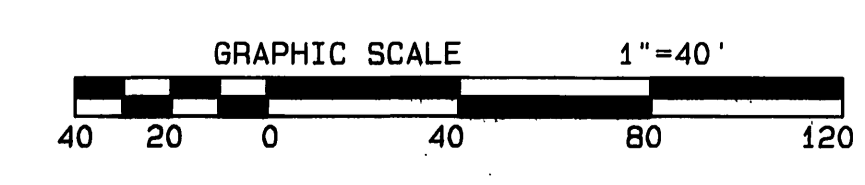
1. NOTIFY MR. G.L. RAY (909) 873-5152 AT LEAST ONE WEEK PRIOR TO COMMENCEMENT OF WORK NEAR PIPELINE. MR RAY WILL ARRANGE FOR A PIPELINE REPRESENTATIVE TO BE PRESENT DURING POT HOLE AND OTHER WORK NEAR THE PIPELINE.
2. POT HOLE THE 6-INCH PIPELINE BY HAND EXCAVATION (IN THE PRESENCE OF A PIPELINE REPRESENTATIVE) AT POINT OF PROPOSED UTILITY CROSSINGS PRIOR TO THE USE OF POWER EQUIPMENT. THE 6-INCH PIPELINE MUST ALSO BE EXPOSED AND OBSERVABLE IF BORE AND JACK OPERATIONS CROSS THE FACILITY. BACKFILL AROUND THE PIPELINE MUST BE SAND (OR ROCK FREE DIRT) AND MUST BE HAND COMPACTED.
3. INSTALL THE PROPOSED UTILITY CROSSING TO PROVIDE A MINIMUM OF TWO FEET OF CLEARANCE BETWEEN SFP'S PIPELINE (KINDER MORGAN PIPELINE) AND THE UTILITY.
4. PROTECT IN PLACE SFP'S (KINDER MORGAN'S) EXISTING ELECTROLYSIS TEST STATIONS AND CATHODIC PROTECTION RECTIFIER UNIT.



BENCH MARK:

ELEVATION FOR THIS JOB WAS OBTAINED FROM RIVERSIDE CITY BENCHMARK JB-A3. THE BENCHMARK "JB-A" IS LOCATED UNDER A METAL COVER AT THE C.L. INTERSECTION OF IOWA AND MARLBOROUGH. A BRASS DISK IN A CAPWELL MONUMENT.

BENCHMARKS USED:
 RIVERSIDE CITY BENCHMARK JB-A3. ELEVATION = 929.11'



CITY BUSINESS TAX CERTIFICATE NO. 002781 EXP. 12-31-00

ALBERT A. WEBB ASSOCIATES
 CIVIL ENGINEERS
 3788 MCCRAY STREET RIVERSIDE, CA 92506
 (909) 686-1070

APPROVED BY: *Matthew E. Webb* DATE: 6/12/00
 R.C.E. NO. 637385

W.D. 99-0043 FOR COLUMBIA AVE EXTENSION F.B. 1999

MARK	REVISIONS	APPR. DATE

CITY OF RIVERSIDE, CALIFORNIA
 PUBLIC WORKS DEPARTMENT

APPROVED BY: *[Signature]* DATE: 6/13/00
 APPROVED BY: *[Signature]* DATE: 6/13/00

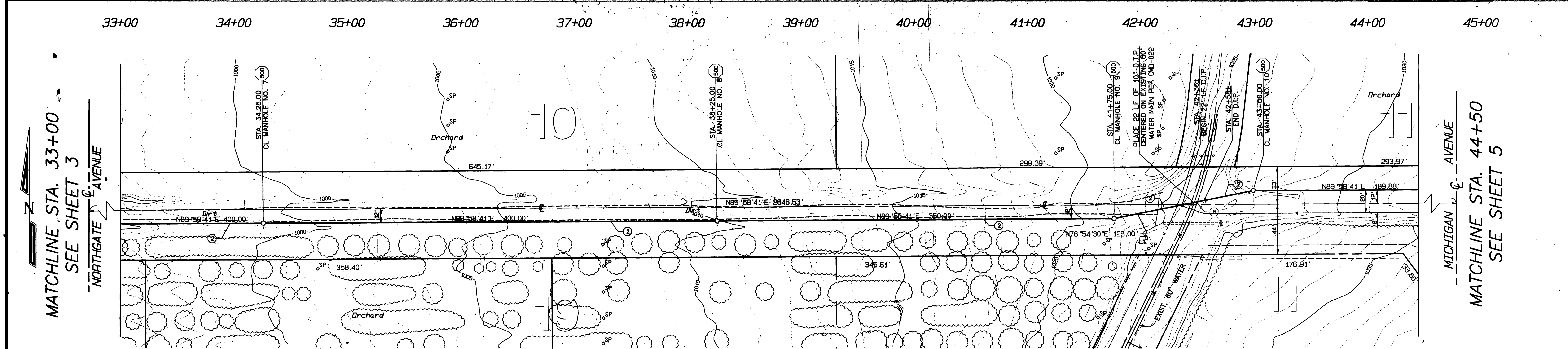
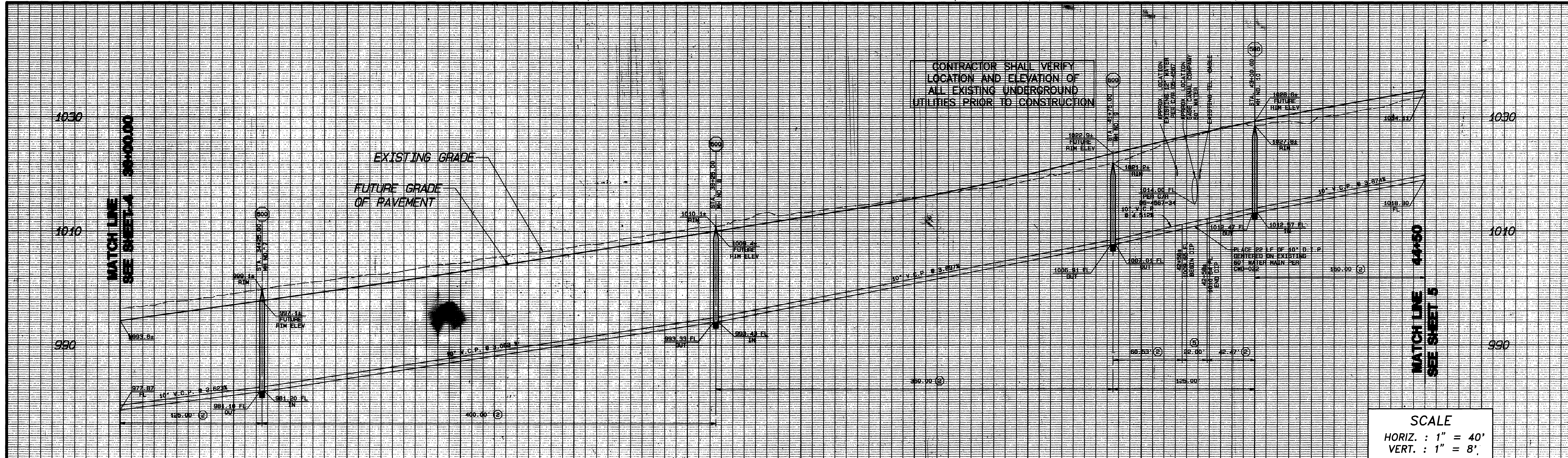
PARK DEPARTMENT
 TRAFFIC DIVISION
 STREET SERVICES

P.N. ENG. NBR. 0081320
 DATE 6-13-2000

ACCOUNT NO. 99-0043
 DRAWING NUMBER
S-1726
 SHEET 3 OF 6

SCALE: AS SHOWN
 99-0043B

INDEXED 7/17/2000 LHT

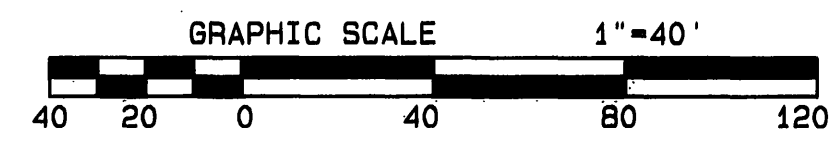


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NOTE:
CONTOURS SHOWN SOUTH OF THE CENTERLINE OF COLUMBIA AVE FROM THE GAGE CANAL RIGHT OF WAY TO MICHIGAN AVE DOES NOT REFLECT ROUGH GRADING THAT WAS RECENTLY PERFORMED BY OTHERS.

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800-227-2600

BENCH MARK:
ELEVATION FOR THIS JOB WAS OBTAINED FROM RIVERSIDE CITY BENCHMARK JB-AS, THE BENCHMARK "JB-A" IS LOCATED UNDER A METAL COVER AT THE CL. INTERSECTION OF IOWA AND MARLBOROUGH, A GRASS DISK IN A CAPWELL MONUMENT.
BENCHMARKS USED:
RIVERSIDE CITY BENCHMARK JB-AS, ELEVATION = 929.11'



CITY BUSINESS TAX CERTIFICATE NO. 000781 EXP. 12-31-00

**ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS**
3788 MCCRAY STREET RIVERSIDE, CA 92506
(909) 686-1070

APPROVED BY *Matthew E. Webb* DATE 6/12/00
R.C.E. NO. C37385

CITY OF RIVERSIDE, CALIFORNIA PUBLIC WORKS DEPARTMENT	
APPROVED BY	BY DATE
PRINCIPAL ENGINEER	<i>R. McQuinn</i>
PARK DEPARTMENT	
TRAFFIC DIVISION	
STREET SERVICES	
P.W. ENG. NBR.	DATE
	6-13-2000

ACCOUNT NO.	DRAWING NUMBER
99-0043B	S-1726
	SHEET 4 OF 6
SCALE: AS SHOWN	

INDEXED 7/17/2000 LHT

CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION

EXISTING GRADE
FUTURE GRADE OF PAVEMENT

SCALE
HORIZ. : 1" = 40'
VERT. : 1" = 8'

44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00

SEE SHEET 6

PALMYRITA AVENUE

MICHIGAN AVENUE

NOTE:

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RESEARCH PARK DRIVE

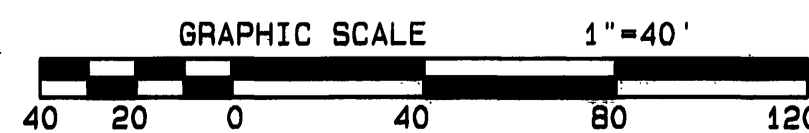
COLUMBIA AVENUE

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE 1-800-227-2600

BENCH MARK:

ELEVATION FOR THIS JOB WAS OBTAINED FROM RIVERSIDE CITY BENCHMARK JB-A3. THE BENCHMARK "JB-A" IS LOCATED UNDER A METAL COVER AT THE C.L. INTERSECTION OF IOWA AND HARBORBOROUGH A BRASS DISK IN A CAPWELL MONUMENT.

BENCH MARKS USED:
RIVERSIDE CITY BENCHMARK JB-A3. ELEVATION = 929.11'



CITY BUSINESS TAX CERTIFICATE NO. 005781 EXP. 12-31-00
ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 MCCRAY STREET RIVERSIDE, CA 92506
(909) 686-1070
APPROVED BY: *Matthew J. Webb* DATE: 6/12/00
R.C.E. NO. C37385
N.O. 86-0043 FOR COLUMBIA AVE EXTENSION F.B. 1998

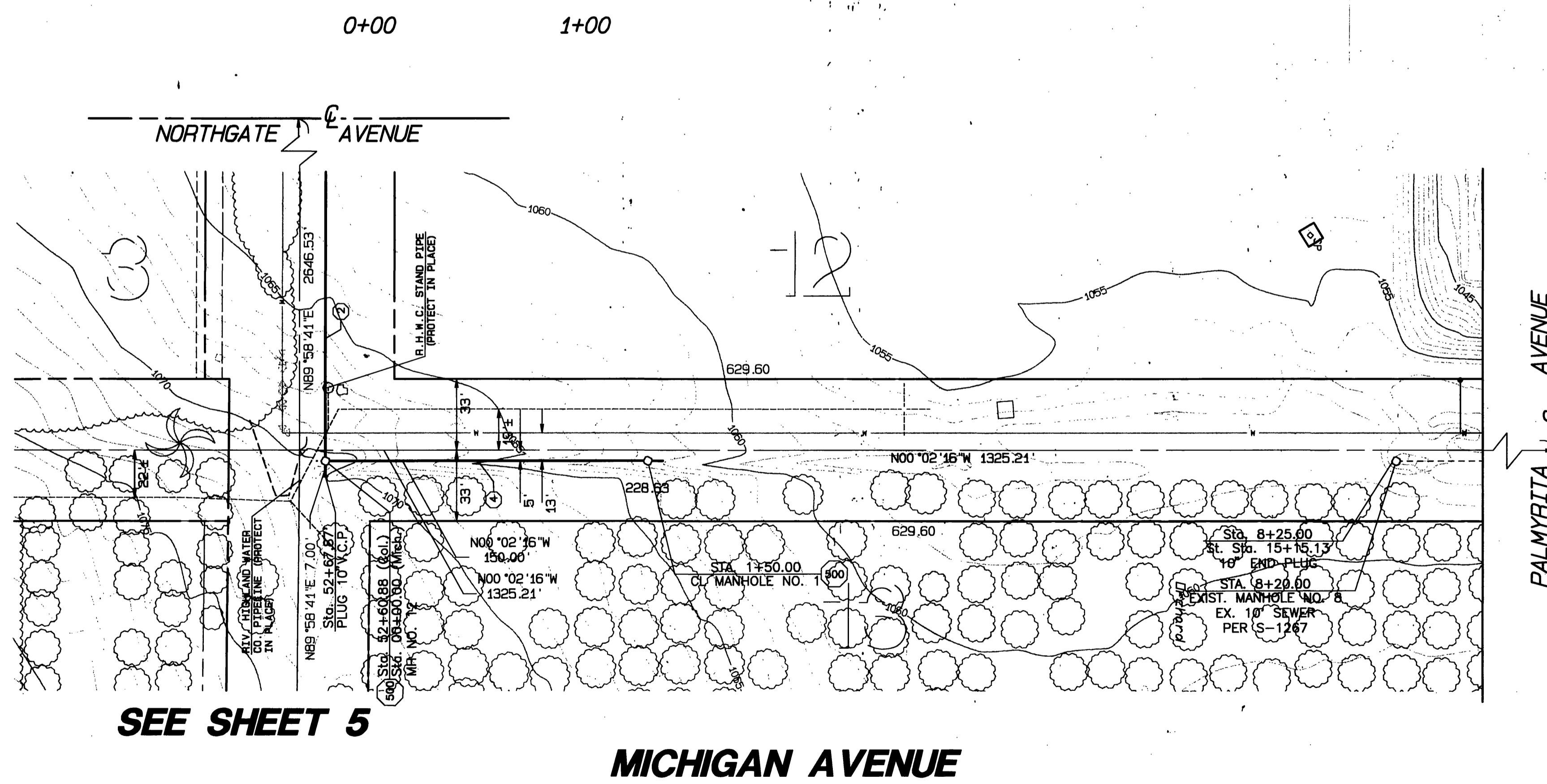
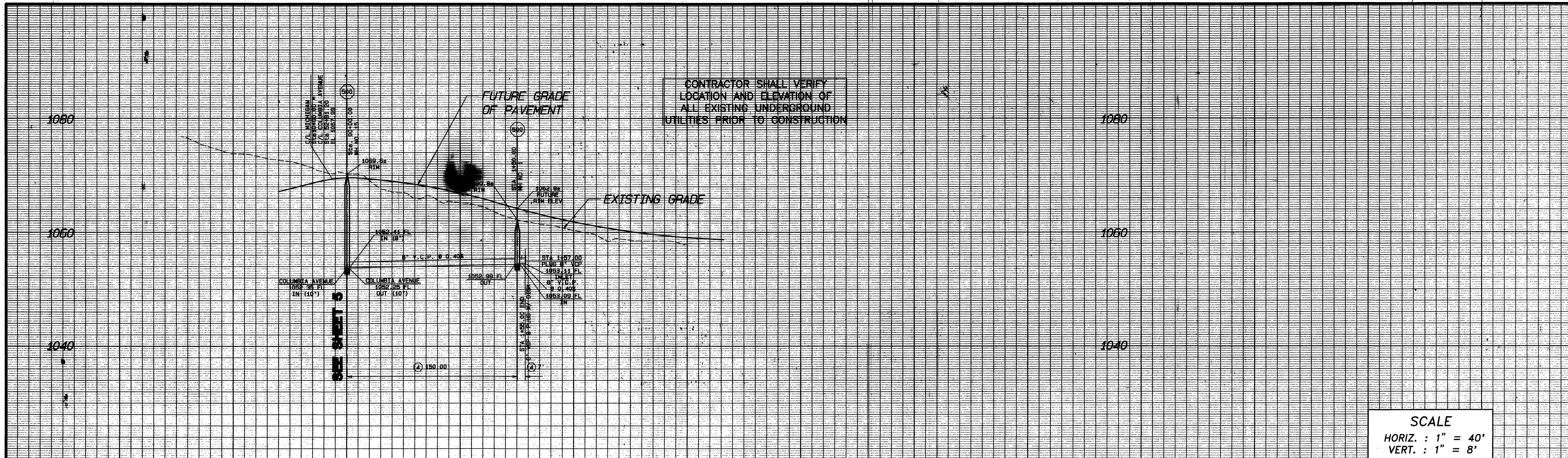
MARK	REVISIONS	APPR. DATE

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT
APPROVED BY: *R.M. Smith* DATE: 6/13/00
PRINCIPAL ENGINEER
PARK DEPARTMENT
TRAFFIC DIVISION
STREET SERVICES
P.W. ENG. MGR. DATE: 6/13/2000

SEWER IMPROVEMENT PLANS
COLUMBIA AVE EXTENSION
FROM 800' ELY OF IOWA AVE
TO MICHIGAN AVE
SCALE: AS SHOWN

ACCOUNT NO.
DRAWING NUMBER
S-1726
SHEET 5 OF 6
99-0043B

INDEXED 7/17/2000 LHH

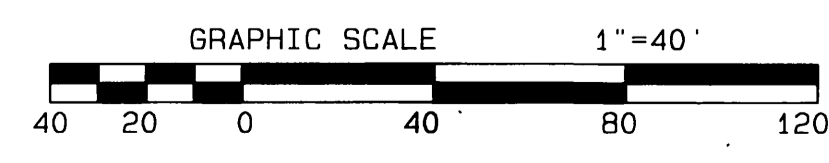


NOTE:
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UNDERGROUND SERVICE ALERT
 CALL: TOLL FREE
 1-800
 227-2600
NO WORKING DATA BEFORE YOU DIG

BENCH MARK:
 ELEVATION FOR THIS JOB WAS OBTAINED FROM RIVERSIDE CITY BENCHMARK JB-A3. THE BENCHMARK "JB-A" IS LOCATED UNDER A METAL COVER AT THE C.L. INTERSECTION OF IOWA AND MARLBOROUGH, A BRASS DISK IN A CAPWELL MONUMENT.
 BENCHMARKS USED:
 RIVERSIDE CITY BENCHMARK JB-A3. ELEVATION = 929.11'



CITY BUSINESS TAX CERTIFICATE NO. 005751 EXP. 12-31-00
ALBERT A. WEBB ASSOCIATES
 CIVIL ENGINEERS
 3788 MCCRAY STREET RIVERSIDE, CA 92506
 (909) 686-1070
 APPROVED BY *Matthew E. Webb* DATE 6/12/00
 R.C.E. NO. C37385

MARK	REVISIONS	APPR.	DATE

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT
 APPROVED BY *[Signature]* BY DATE *[Signature]*
 PRINCIPAL ENGINEER
 PARK DEPARTMENT
 TRAFFIC DIVISION
 STREET SERVICES
 P.W. ENG. MSR. *[Signature]*

SEWER IMPROVEMENT PLANS
COLUMBIA AVE EXTENSION
FROM 800' E'LY OF IOWA AVE
TO MICHIGAN AVE
 SCALE: AS SHOWN

ACCOUNT NO.
 DRAWING NUMBER
S-1726
 SHEET 6 OF 6
 99-0043B

INDEXED 7/17/2000 4th