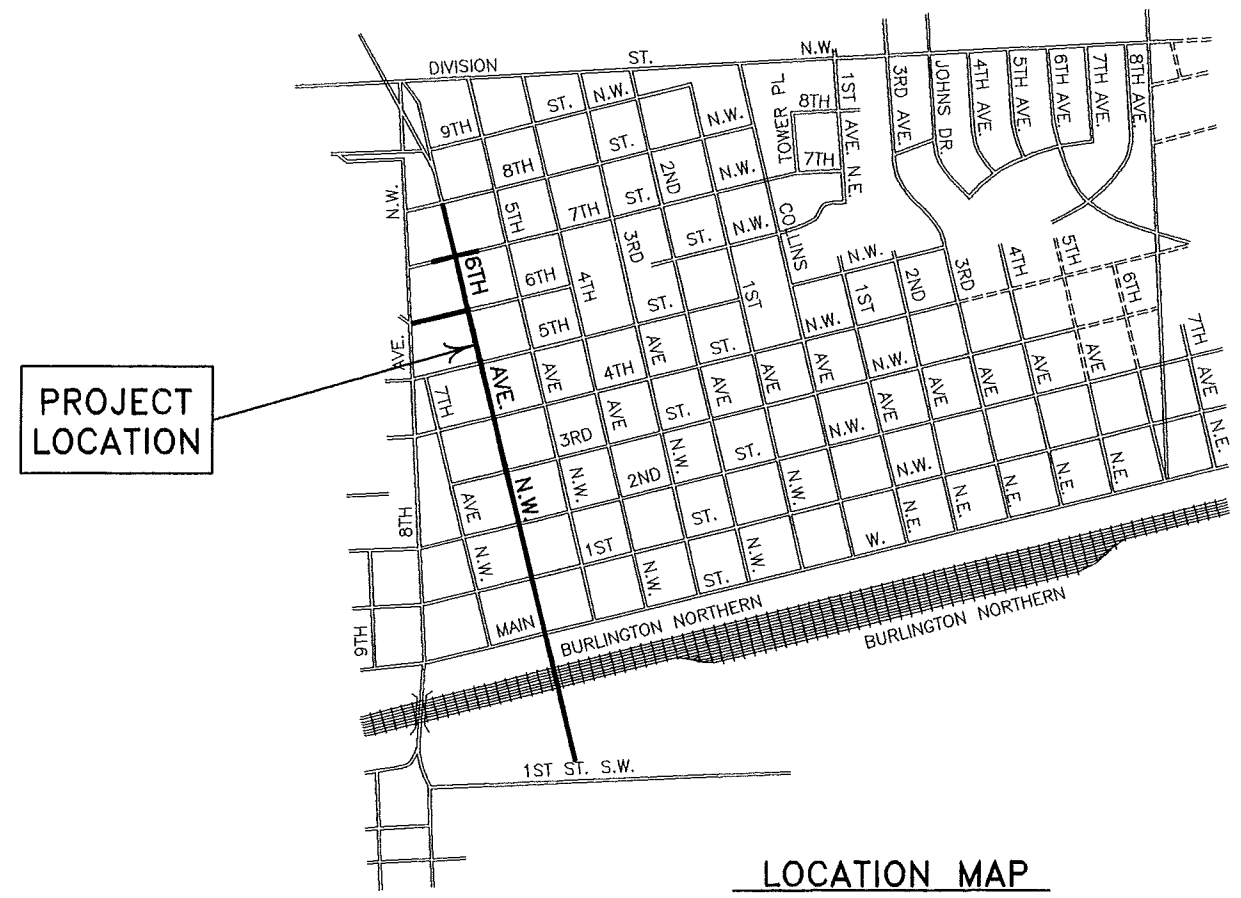


CITY OF MANDAN, NORTH DAKOTA  
6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS

EDA # 05-19-61058

AND

WATER AND SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38



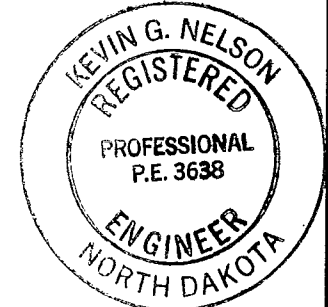
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Brant P. Malsam  
2/8/95



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Kevin G. Nelson  
2/8/95



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ULTEIG ENGINEERS, INC.

BISMARCK • FARGO • MINNEAPOLIS

UEI # 94823

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## GENERAL NOTES FOR ALL SCHEDULES

## GN#1 WEEKLY PLANNING/REPORTING MEETING:

## A. PURPOSE OF WEEKLY MEETING.

1. THE CONTACTOR SHALL ORGANIZE THE WEEKLY MEETING TO COORDINATE THE EFFORTS BETWEEN SUBCONTRACTORS, UTILITIES, LOCAL AUTHORITIES, AND OTHERS.

## B. CONTRACTOR'S PROJECT MANAGER/SUPERINTENDENT, PLANNING, AND REPORTING.

1. THE CONTACTOR WILL BE RESPONSIBLE FOR SENDING A KNOWLEDGEABLE REPRESENTATIVE TO CONDUCT A WEEKLY REPORTING/PLANNING MEETING. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PREPARE MINUTES FOR EACH MEETING AND TO MAKE THE APPROPRIATE DISTRIBUTION OF THE MINUTES.
2. THE CONTACTOR WILL BE REQUIRED TO PROVIDE A WRITTEN SCHEDULE OF THE NEXT WEEK'S WORK AND A TENTATIVE SCHEDULE OF THE FOLLOWING WEEK.
3. REPORTING/PLANNING MEETING WILL INCLUDE DISCUSSION OF PROBLEMS ENCOUNTERED DURING THE CURRENT WEEK; PROVIDING INFORMATION OF INTEREST TO LOCAL AUTHORITIES, SUBCONTRACTORS, AND UTILITIES; AND NEXT WEEK'S PROSPECTIVE SCHEDULE.
4. THE CONTRACTOR SHALL ORGANIZE THE WEEKLY MEETING BY CONTACTING INTERESTED AGENCIES. THESE AGENCIES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- A. ULTEIG ENGINEERS, INC.
- B. CITY ENGINEER'S REPRESENTATIVE
- C. POLICE DEPARTMENT
- D. FIRE DEPARTMENT
- E. AMBULANCE SERVICE
- F. TELEPHONE CO. (US WEST)
- G. POWER CO. (MDU)
- H. CABLE T.V.
- I. GAS CO. (MDU)
- J. SUBCONTRACTORS
- K. CHAMBER OF COMMERCE
- L. MANDAN SCHOOL DISTRICT
- M. MANDAN WATER AND SEWER DEPARTMENT

## C. CONTRACTOR SHALL ADVISE ALL PARTIES OF LOCATION WHERE MEETINGS ARE TO BE HELD.

## D. ALL COSTS ASSOCIATED WITH PLANNING/REPORTING MEETINGS SHALL BE INCIDENTAL.

GN#2 TREES: THE CONTACTOR SHALL EXERCISE CARE IN HIS CONSTRUCTION OPERATIONS TO ENSURE THAT TREES WITHIN THE RIGHT-OF-WAY AND OUTSIDE THE CONSTRUCTION AREA ARE NOT DISTURBED. ALL MINOR TRIMMING OF TREES NECESSARY FOR THE CONSTRUCTION SHALL BE COMPLETED BY QUALIFIED INDIVIDUALS, ALL COSTS INCIDENTAL.

GN#3 DETOURS: A DETAILED SCHEDULE OF WORK REQUIRING CLOSURE OR PARTIAL CLOSURE OF ANY STREET OR MODIFICATION OF ANY EXISTING TRAFFIC PATTERNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE WORK. ONE WEEK PRIOR TO SETTING UP ANY TRAFFIC DIVERSIONS OR DETOURS THE CONTRACTOR SHALL NOTIFY THE MEDIA AND ALL ADJACENT PROPERTY OWNERS ABOUT THE DETOUR. IN ADDITION, TEMPORARY NO PARKING SIGNS SHALL BE ERECTED ALONG STREETS CLOSED TO PARKING FOUR DAYS IN ADVANCE. ALL COSTS INCIDENTAL.

GN#4 CONTRACTOR IS TO BE ADVISED THAT RELOCATION OF PRIVATE UTILITIES WILL TAKE PLACE IN CONJUNCTION WITH THE CONSTRUCTION WORK. CONTRACTOR WILL COORDINATE ALL UTILITY RELOCATION WORK AND WILL COOPERATE WITH UTILITIES DURING ALL PHASES OF THE CONSTRUCTION. ALL COSTS FOR COORDINATING, WORKING WITH, AND WORKING AROUND UTILITIES BEING RELOCATED SHALL BE INCLUDED IN OTHER ITEMS.

GN#5 SCHEDULING OF WORK: CERTAIN FEATURES OF THIS PROJECT ARE CONSIDERED TO NEED A HIGH PRIORITY FOR COMPLETION WITHIN CERTAIN TIME FRAMES OR SCHEDULING AS FOLLOWS:

1. THE MAIN STREET AND 6TH AVE. N.W. INTERSECTION MUST BE REOPENED TO FULL UNRESTRICTED TRAFFIC OPERATIONS (ALL LANES OPERATIONAL) WITHIN 21 CALENDAR DAYS FROM THE TIME TRAFFIC OPERATIONS ARE DISRUPTED BY CONSTRUCTION ACTIVITIES. FAILURE TO COMPLETE WORK ON TIME SHALL RESULT IN LIQUIDATED DAMAGES OF \$400 PER CALENDAR DAY FOR INCONVENIENCE TO THE PUBLIC FOR EACH CALENDAR DAY BEYOND THE 21 DAYS.
2. THE 1ST STREET N.W. AND 6TH AVE. N.W. INTERSECTION CANNOT BE CLOSED TO TRAFFIC OPERATIONS UNTIL THE MAIN STREET AND 6TH AVE. N.W. INTERSECTION IS REOPENED FOR TRAFFIC.
3. NO CONSTRUCTION ACTIVITIES WILL BE ALLOWED FROM 5:00 p.m., JUNE 30, 1995 TO 7:00 a.m., JULY 5, 1995.
4. MAIN STREET MUST BE OPEN TO TRAFFIC FROM 5:00 p.m., JUNE 30, 1995 TO 7:00 a.m., JULY 5, 1995. A TEMPORARY ASPHALT PAVEMENT SURFACE MUST BE PROVIDED DURING THIS TIME IF THE EXISTING PAVEMENT HAS BEEN REMOVED AND THE PERMANENT PAVEMENT HAS NOT YET BEEN INSTALLED.
5. 6TH AVE. N.W. FROM 7TH STREET N.W. TO 8TH STREET N.W. MUST BE OPEN FOR TRAFFIC FROM 5:00 p.m., JUNE 30, 1995 TO 7:00 a.m., JULY 5, 1995.

GN#6 PROVIDING NIGHTTIME ACCESS: THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING NIGHTTIME ACCESS TO ALL RESIDENTIAL DWELLINGS ADJACENT TO THIS PROJECT. FINAL DETAILS ON LOCATION OF ACCESS POINTS AND CONSTRUCTION PROCEDURES SHALL BE WORKED OUT WITH THE ENGINEER IN THE FIELD PRIOR TO START OF THE PROJECT. IT IS UNDERSTOOD THAT ACCESS TO EACH RESIDENTIAL DWELLING EVERY NIGHT WILL NOT BE POSSIBLE.

GN#7 THE CONTRACTOR SHALL PROVIDE A QUALIFIED TRAFFIC MAINTENANCE PERSON WITH THE FOLLOWING QUALIFICATIONS:

## 1. THIS PERSON SHALL:

- A. HAVE COMPLETED A COURSE OF STUDY BASED ON MUTCD AND FURNISHED PROOF.
- B. BE FAMILIAR WITH THE CONTENTS AND INTENTIONS CONTAINED WITHIN THE MUTCD AND NDDOT SPECIFICATIONS.
- C. HAVE PREVIOUS EXPERIENCE WORKING WITH MAINTENANCE AND PROTECTION OF TRAFFIC.
- D. BE COMPETENT TO SUPERVISE PERSONNEL IN TRAFFIC MAINTENANCE OPERATIONS.

## 2. DUTIES:

- A. TO PROVIDE TRAFFIC CONTROL AS REQUIRED BY THE PLANS, STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, OR MUTCD.
  - B. THE TRAFFIC CONTROL PERSON SHALL PROVIDE DOCUMENTATION OF EACH DAY'S INSPECTION RESULTS AND REMEDIAL ACTIVITIES.
3. ALL COSTS ASSOCIATED WITH THE ABOVE REQUIREMENTS SHALL BE INCLUDED IN THE PRICE BID FOR THE TRAFFIC CONTROL ITEMS.

GN#8 PROSECUTION OF WORK:

1. CONSTRUCTION OF THE STORM SEWER SHALL BEGIN AT THE OUTFALL END AND SHALL PROCEED ON A CONTINUAL BASIS TO THE NORTH.
2. FROM MAIN STREET NORTH, THE CONTRACTOR SHALL BEGIN CONSTRUCTION OPERATIONS IN IDENTIFIED WORK SEGMENT AREA #1 (AS SHOWN IN THE CONSTRUCTION SIGNING SHEETS). THE CONTACTOR SHALL COMPLETE ALL ASPECTS OF THE CONSTRUCTION, TO INCLUDE STORM SEWER, WATERLINES, SANITARY SEWER AND OTHER ITEMS WITHIN THIS WORK SEGMENT AREA PRIOR TO MOVING CONSTRUCTION OPERATIONS INTO THE WORK SEGMENT AREA IMMEDIATELY TO THE NORTH.

GN#9 CASS CLAY ACCESS AND WATER SUPPLY:

1. ACCESS TO CASS CLAY'S EAST SIDE GARAGE DOOR CANNOT BE DISRUPTED FOR MORE THAN TWO DAYS. CONTRACTOR MUST COORDINATE WITH EITHER DON LAUF OR ARNIE GLASER (AT CASS CLAY, PHONE No. 663-9875) AT LEAST 4 DAYS IN ADVANCE OF DISRUPTING ACCESS TO GARAGE DOOR.
2. WATER SERVICE TO CASS CLAY CAN ONLY BE DISRUPTED FROM 9:00 PM TUESDAY TO 9:00 PM WEDNESDAY. COORDINATE WATER RELATED CONSTRUCTION ACCORDINGLY.

## GENERAL NOTES FOR ALL SCHEDULES

- GN#10 FLOW WITHIN EXISTING STORM SEWER SYSTEM: THE EXISTING STORM SEWER SYSTEM PRESENTLY HAS CONTINUOUS FLOW OF VARYING RATES. CONTRACTOR WILL NEED TO TAKE MEASURES TO MANAGE THESE FLOWS DURING CONSTRUCTION AS WELL AS FLOWS DURING RAINFALL EVENTS.
- GN#11 WATERMAIN CONSTRUCTION:
1. EXISTING 4" WATERMAIN WITHIN CONSTRUCTION SEGMENTS TO REMAIN IN SERVICE UNTIL SERVICES CAN BE SWITCHED OVER TO NEW 12" WATER-MAIN. NEW 12" WATERMAIN WILL NEED TO BE INSTALLED IN SEGMENTS.
  2. CONTRACTOR WILL BE REQUIRED TO INSTALL TEMPORARY PLUGS IN EXISTING WATERMAIN TO ALLOW SYSTEMATIC WATERMAIN CONSTRUCTION TO OCCUR, LOCATIONS REQUIRE ENGINEER'S APPROVAL. COSTS INCIDENTAL.
  3. ADEQUATE NOTICE TO BE GIVEN TO ALL USERS PRIOR TO DISRUPTING SERVICE. SERVICE CANNOT BE DISRUPTED MORE THAN 8 HOURS.
  4. IT IS ANTICIPATED THAT EXISTING SERVICE LINES WILL BE LEAD. THEREFORE, QUANTITIES REFLECT INSTALLING 1" COPPER FROM NEW 12" MAIN TO EXISTING CURB STOP AND ALSO REPLACING EXISTING CURB STOPS. QUANTITIES ARE ALSO INCLUDED FOR REMOVING AND REPLACING SIDEWALK AND CURB & GUTTER, WHERE REQUIRED, TO INSTALL NEW CURB STOPS.
- GN#12 STREET IMPROVEMENTS WITHIN 6TH AVE. N.W. R.O.W.:
- IN GENERAL THE STREET IMPROVEMENTS WITHIN THE 6TH AVE. N.W. R.O.W. WILL INCLUDE REMOVAL OF EXISTING PAVEMENT FROM THE SOUTH SIDE OF MAIN STREET TO THE NORTH SIDE OF THE INTERSECTION OF 7TH ST. N.W. AND 6TH AVE. N.W.. THIS WILL ALSO INCLUDE THE REMOVAL OF ALL EXISTING CURB AND GUTTER EXCEPT FOR THE WEST SIDE OF 6TH AVE. N.W. FROM MAIN ST. TO 1ST ST. N.W.. NEW STANDARD CURB AND GUTTER, CONCRETE OR ASPHALT PAVEMENT, HANDICAPPED RAMPS AT ALL INTERSECTIONS, AND DRIVEWAYS WILL BE INSTALLED. THE EXISTING CENTERLINE STREET GRADE WILL BE RAISED APPROXIMATELY 6" FROM 1ST ST. N.W. TO 5TH ST. N.W. AND APPROXIMATELY 1 FT. FROM 5TH ST. N.W. TO 7TH ST. N.W.. EXCESS EXCAVATION FROM PIPELAYING OPERATIONS WILL BE USED TO MAKE GRADE ADJUSTMENT WHERE NEEDED. ALL COSTS FOR HAULING, PLACING, COMPACTING AND FINAL GRADING FILL MATERIAL USED TO ADJUST STREET GRADE SHALL BE INCLUDED IN OTHER ITEMS.
- NOTE: ALSO SEE GN#25.
- GN#13 EXISTING STREET SIGNS, STREETLIGHTS, TRAFFIC SIGNALS, MAIL BOXES, BENCHES, PEDESTRIAN CROSSING FLASHING BEACONS AND OTHER SUCH ITEMS:
- CONTRACTOR WILL BE REQUIRED TO PROTECT ALL THE ABOVE ITEMS THROUGHOUT CONSTRUCTION OPERATIONS. IF REQUIRED, THESE ITEMS WILL BE REMOVED, PROTECTED AND REINSTALLED AT NO INCREASED COST TO OWNER. ALL DAMAGED ITEMS WILL BE REPLACED WITH NEW ITEMS, AT CONTRACTOR'S EXPENSE. ALL COSTS INCLUDED IN OTHER ITEMS.
- GN#14 BACKFILLING BEHIND NEW CURB AND GUTTER:
- ALL NEW CURB AND GUTTER WILL BE BACKFILLED WITH COMPACTED EXCAVATED MATERIAL TO WITHIN 4" OF THE TOP OF THE CURB. THE REMAINING 4" WILL BE BACKFILLED WITH BLACK DIRT. IN THOSE AREAS WHERE THE NEW CURB AND GUTTER IS SUBSTANTIALLY HIGHER THAN THE EXISTING, BLACK DIRT WILL BE USED TO LANDSCAPE BETWEEN THE EXISTING SIDEWALK AND THE NEW CURB AND GUTTER. ALL COSTS FOR SUPPLYING BLACK DIRT AND PLACING IT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR BLACK DIRT. THE BLACK DIRT SOURCE REQUIRES ENGINEER'S APPROVAL.
- GN#15 EXISTING GRAVEL SURFACES:
- WHERE CONSTRUCTION ACTIVITIES OCCUR IN EXISTING GRAVELED AREAS THE CONTRACTOR WILL BE REQUIRED TO BLADE THIS MATERIAL TO THE SIDE TO SALVAGE IT. ONCE BACKFILLING OPERATIONS ARE COMPLETE, THE MATERIAL SHALL BE BLADED BACK AND SUPPLEMENTED WITH ADDITIONAL SUBBASE MATERIAL AS DIRECTED BY ENGINEER IN THE FIELD. ALL COSTS FOR BLADING AND SALVAGING EXISTING GRAVEL SURFACE MATERIAL SHALL BE INCLUDED IN OTHER ITEMS. ALL SUPPLEMENTAL SUBBASE MATERIAL SHALL BE PAID FOR AT THE UNIT PRICE BID PER TON.
- GN#16 SCHEDULE "A" PAVEMENT REMOVAL:
- UNDER SCHEDULE "A" THERE WILL BE NO DIFFERENTIATION BETWEEN ASPHALT PAVEMENT OR CONCRETE PAVEMENT REMOVAL. THE UNIT PRICE BID SHALL COVER COSTS FOR REMOVING EITHER. CONTRACTOR SHOULD NOTE THAT SOIL BORINGS #6 AND #7 INDICATE SOME TYPE OF RIGID PAVEMENT IS BENEATH THE ASPHALT PAVEMENT IN THESE AREAS.
- EXACT LIMITS OF CONCRETE PAVEMENT REMOVAL WITHIN THE INTERSECTION OF MAIN STREET AND 6TH AVENUE N.W. WILL BE DETERMINED IN THE FIELD. ALL SAWING TO REMOVE THIS CONCRETE WILL BE INCLUDED IN THE UNIT PRICE BID FOR REMOVAL. EXISTING CONCRETE PAVEMENT REMOVED WITHIN THIS INTERSECTION WILL BE REPLACED WITH ASPHALT PAVEMENT.
- GN#17 AREAS TO BE SODDED:
- ALL GRASSED AREAS THAT ARE DISTURBED NORTH OF MAIN STREET SHALL BE SODDED.
- GN#18 KFC LANDSCAPED AREA:
- THE EXISTING LANDSCAPE AREA EAST OF THE KFC BUILDING (BETWEEN STATION 4200N TO 4265N) SHALL BE RESTORED TO EXISTING CONDITION AFTER CONSTRUCTION OPERATIONS ARE COMPLETE. THIS SHALL INCLUDE ALL SHRUBS, MULCHING, TREES, ECT. NOT A SEPARATE PAY ITEM, ALL COSTS TO BE INCLUDED IN OTHER ITEMS.
- GN#19 COORDINATION WITH OTHER CONTRACTORS:
- CONTRACTOR IS ADVISED THAT ANOTHER PROJECT TO IMPROVE THE EXISTING DRAINAGEWAY EAST OF THE 84" OUTFALL (SEE SS-1) WILL BE LET AT APPROXIMATELY THE SAME TIME. CONTRACTORS WILL BE REQUIRED TO COORDINATE THEIR WORK EFFORTS IN THE AREA OF THE 84" OUTFALL.
- GN#20 DISPOSAL OF REMOVED MATERIALS:
- DISPOSAL OF CONCRETE PAVEMENT, ASPHALT PAVEMENT, CURB AND GUTTER, PIPE, TREES, MANHOLES, INLETS, AND OTHER INERT MATERIALS MAY BE DISPOSED OF AT THE CITY'S INERT LANDFILL LOCATED APPROXIMATELY 8 MILES SOUTHWEST OF THE CITY. THERE WILL BE NO DISPOSAL FEES CHARGED AT THIS SITE. MATERIALS SHALL BE DELIVERED TO THE DESIGNATED AREAS WITHIN THE SITE FOR THE VARIOUS TYPES OF ITEMS TO BE DISPOSED OF.
- GN#21 INLET NUMBERING:
- ALL NEW INLETS HAVE BEEN NUMBERED CONSECUTIVELY, STARTING AT MAIN STREET, INCREASING TO THE NORTH. ALL EXISTING INLETS TO REMAIN AND EXISTING INLETS GETTING REWORKED HAVE THEIR ORIGINAL NUMBERING.

## GENERAL NOTES FOR ALL SCHEDULES

## GN#22 WORK AT EXISTING MH #180 (4162N - RT):

PRIOR TO ABUTTING THE NEW 4'X10' DOUBLE RCBC AGAINST THE EXISTING CHAMBER THE CONTRACTOR WILL BE REQUIRED TO TRIM EXISTING CONCRETE TO PROVIDE A SMOOTH AND TRUE FACE TO ALLOW FOR A TIGHT JOINT/CONNECTION. ANY ADDITIONAL CONCRETE PLACEMENT REQUIRED TO PROVIDE A TIGHT CONNECTION BETWEEN THE EXISTING CHAMBER AND THE NEW RCBC SHALL BE 8" THICK AND REINFORCED WITH No. 6 BARS. ALL COSTS FOR PROVIDING A TIGHT JOINT/CONNECTION BETWEEN THE EXISTING CHAMBER AND THE NEW RCBC SHALL BE INCIDENTAL TO OTHER ITEMS.

WITHIN THE EXISTING STORM SEWER SYSTEM AT THIS LOCATION, THERE ARE EXISTING TELEPHONE CABLES AND ELECTRICAL CONDUITS. U.S. WEST WILL REMOVE TELEPHONE CABLES PRIOR TO OR DURING CONSTRUCTION. CONTRACTOR MAY OR MAY NOT HAVE TO BE INVOLVED WITH THIS COORDINATION. AT THIS TIME THE ELECTRICAL CONDUITS ARE ASSUMED TO BE ABANDONED. CONTRACTOR MUST VERIFY THIS ASSUMPTION. IF CONDUITS ARE ABANDONED, THE CONDUITS AND CONDUCTORS SHALL BE REMOVED AND DISPOSED OF. IF IT IS FOUND THAT THE CONDUIT SYSTEM IS NOT ABANDONED, THEN A CHANGE ORDER WILL BE ISSUED TO HANDLE THEIR RELOCATION AS REQUIRED.

## GN#23 EXISTING SPRINKLER SYSTEMS:

SPRINKLER SYSTEMS FOR LAWN IRRIGATION EXIST AT SEVERAL LOCATIONS ALONG THE PROJECT. SOME OF THESE LOCATIONS ARE IDENTIFIED ON THE PLANS AS FOLLOWS:

SOUTH SIDE OF 2ND ST. NW EAST OF 6TH AVE. NW;  
WEST SIDE OF 6TH AVE. NW NORTH OF 3RD ST. NW;

AT THESE LOCATIONS AND AT OTHER LOCATIONS IDENTIFIED IN THE FIELD THE CONTRACTOR SHALL PROTECT, RECONSTRUCT OR REMODEL THE SPRINKLER SYSTEMS AS REQUIRED TO PROVIDE SYSTEMS TO IRRIGATE BOULEVARDS AND LAWN AREAS AT LEAST EQUAL TO ONES PRESENTLY IN PLACE. EQUIPMENT AND MATERIALS USED SHALL BE AS MANUFACTURED BY RAIN BIRD SALES, INC. OR APPROVED EQUAL. SYSTEMS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. DESIGN AND PRODUCTS USED SHALL BE APPROVED BY THE ENGINEER PRIOR TO ORDERING MATERIALS. COST OF ALL LABOR, MATERIALS AND EQUIPMENT TO COMPLETE THIS WORK SHALL BE INCLUDED IN OTHER ITEMS.

## GN#24 PLUGGING EXISTING WATERMAIN AND EXISTING SANITARY SEWER:

PLUG EXISTING WATERMAINS TO BE ABANDONED ONCE NEW WATERMAINS ARE COMPLETE, APPROVED, ACCEPTED AND READY TO BE PUT IN USE. CONCRETE PLUGS SHALL BE INSTALLED AT ALL LOCATIONS WHERE THE NEW MAINS CONNECT TO EXISTING MAINS, BETWEEN THE "TIE-IN" POINTS, ON THE ABANDONED SEGMENTS.

PLUG EXISTING 10" CLAY SANITARY SEWER ON BOTH SIDES OF TRANSFERRED SERVICES ONCE EACH SERVICE IS CONNECTED TO NEW SEWERMAIN (i.e. 2 PLUGS PER TRANSFERRED SEWER SERVICE). PLUG WITH CONCRETE.

ALL COSTS ASSOCIATED WITH PLUGGING WATERMAINS AND SANITARY SEWER SHALL BE INCLUDED IN OTHER ITEMS.

## GN#25 6TH AVENUE STREET REPLACEMENT:

IF THE CITY ACCEPTS THE BASE BID (SCHEDULES A+B+C) THEN 6TH AVENUE WILL HAVE CONCRETE SURFACING FROM APPROXIMATELY 41+90N TO 68+10N. ALL SIDE STREETS ENTERING 6TH AVENUE WILL HAVE CONCRETE SURFACING EAST OR WEST TO THE CURB RETURN. ASPHALT SURFACING SHALL BE INSTALLED FROM THE CURB RETURN TO THE TIE-IN POINT ON THE SIDE STREET. ALL SURFACING SOUTH OF 41+90N SHALL HAVE ASPHALT SURFACING.

IF CONCRETE PAVEMENT IS INSTALLED, IT SHALL HAVE A 4" SUBBASE OF CLASS 5 AGGREGATE IN ACCORDANCE WITH THE N.D.D.O.T. STANDARD SPECIFICATIONS. THE JOINTING PATTERN SHALL BE AS SHOWN ON THE PLAN SHEETS. THE JOINT BETWEEN THE NEW SURFACE AND THE EXISTING GUTTER ON THE WEST SIDE OF 6TH AVENUE FROM MAIN STREET TO 1ST STREET SHALL HAVE DOWELS DRILLED AND EPOXIED INTO THE EXISTING GUTTER. THE PAVEMENT SECTION SHALL BE AS SHOWN IN THE DETAILS FOR CONCRETE PAVEMENT. AT LOCATIONS WHERE EXISTING 4" WM CONNECTS TO NEW 12" WM THROUGH 12" X 8" TEE AND 8" X 4" REDUCER, 8" WATERMAIN SHALL BE INSTALLED BETWEEN TEE AND REDUCER. THE 8" WATERMAIN SHALL EXTEND BEYOND THE EDGE OF THE CONCRETE PAVEMENT. THE 8" X 4" REDUCER SHALL CONNECT TO THE EXISTING 4" WATERMAIN UNDER THE NEW ASPHALT SURFACING. THE SECTION OF 8" WATERMAIN BETWEEN THE TEE AND THE REDUCER SHALL BE PAID FOR AS 8" WATERMAIN.

IF THE DEDUCT ALTERNATE NO. 1 IS ACCEPTED, 6TH AVENUE IN ITS ENTIRETY WILL BE RESURFACED WITH ASPHALT PAVEMENT. THE PAVEMENT SECTION SHALL BE AS SHOWN IN THE DETAILS FOR ASPHALT PAVEMENT. IT SHALL HAVE A 6" SUBBASE OF CLASS 13 AGGREGATE IN ACCORDANCE WITH THE N.D.D.O.T. STANDARD SPECIFICATIONS.

NOTE: ALSO SEE GN#12.

## GN#26 ABANDONING EXISTING SANITARY MANHOLES:

WHEN ABANDONING EXISTING 10" CLAY SANITARY SEWERMAIN BETWEEN 4TH STREET NW AND 6TH STREET NW, THE EXISTING MANHOLES SHALL BE ABANDONED AS FOLLOWS: REMOVE AND DISPOSE OF EXISTING CASTING, PLUG ALL INVERTS INTO MANHOLE WITH CONCRETE, FILL MANHOLE WITH COMPACTED WASHED SAND AND COVER MANHOLE WITH TOPSOIL. WASHED SAND SHALL BE PAID FOR AT THE UNIT PRICE BID FOR WASHED SAND. COSTS FOR ALL OTHER WORK SHALL BE INCIDENTAL TO INSTALLING THE NEW SANITARY SEWER.

PROJECT QUANTITIES

## SCHEDULE A - 6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>ESTIMATED QUANTITY</u>	<u>INSTALLED QUANTITY</u>	<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>ESTIMATED QUANTITY</u>	<u>INSTALLED QUANTITY</u>
1.	MOBILIZATION	LS	—	—	18.	STORM SEWER PIPE			
2.	PAVEMENT REMOVAL	SY	13,900	13,949		A) 84" RCP - CLASS V	LF	290	290
3.	CLEAR & GRUB TREE					B) BORE OR JACK 84" RCP CL V	LF	395	387
	A) > 4" - 8" DIAMETER	EA	10	—		C) 84" RCP - CLASS II	LF	555	555
	B) > 8" - 12" DIAMETER	EA	1	—		D) 72" RCP - CLASS II	LF	2265	2263
	C) > 12" - 24" DIAMETER	EA	2	2		E) 4' X 6' R.C.B.C.	LF	590	587
	D) > 24" DIAMETER	EA	1	1		F) 4' X 10' DBL R.C.B.C.	LF	40	36
4.	PITRUN GRAVEL	TON	7600	7564		G) 60" RCP - CLASS II	LF	275	275
5.	ROCK BEDDING	TON	3100	2088		H) 36" RCP - CLASS II	LF	115	112
6.	SUBCUT ROCK	TON	200	158		I) 24" RCP - CLASS II	LF	25	25
7.	WASHED SAND	TON	2300	961		J) 12" SDR-35 PVC	LF	520	539
8.	SUBGRADE PREPARATION	SY	15,750	15,363		K) 18" SDR-35 PVC	LF	950	1016
9.	SUBBASE COURSE (CL. 13)	TON	1565	1136		L) 84" RCP F.E.S.	EA	1	1
10.	ASPHALT PAVEMENT	TON	1170	857.32		M) 84" F.E.S. TRASH RACK	EA	1	1
11.	SEAL COAT	SY	2385	2262		N) REMOVE 4'X6' R.C.B.C.	LF	12	12
12.	SIDEWALK REMOVAL	SF	9530	10,451		O) REMOVE 4.5' X 6' R.C.B.C	LF	100	100
13.	4" CONCRETE SIDEWALK	SF	9530	10,751		P) REMOVE 32" SEGMENTED CLAY PIPE	LF	655	655
14.	REMOVE CURB & GUTTER (ALL TYPES)	LF	5550	5982		Q) REMOVE 36" RCP	LF	60	85
15.	STANDARD CURB & GUTTER	LF	5550	5982		R) REMOVE 36" VCP	LF	195	419
16.	DRIVEWAY REMOVAL	SF	6450	7109		S) REMOVE 24" RCP	LF	220	220
17.	DRIVEWAY	SF	6450	7490		T) REMOVE 24" VCP	LF	1760	1760
						U) REMOVE 60" RCP	LF	290	290
						V) REMOVE 48" VCP	LF	85	85

RECORD DRAWING 11/13/96

PROJECT QUANTITIES

## SCHEDULE A - 6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>ESTIMATED QUANTITY</u>	<u>INSTALLED QUANTITY</u>	<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>ESTIMATED QUANTITY</u>	<u>INSTALLED QUANTITY</u>
19.	LOWER EXISTING WATERMAIN				23.	REMOVE EXISTING MANHOLE	EA	<u>13</u>	<u>13</u>
	A) LOWER 12" WATERMAIN	EA	<u>2</u>	<u>3</u>	24.	REMOVE EXISTING INLET	EA	<u>21</u>	<u>21</u>
	B) LOWER 6" WATERMAIN	EA	<u>1</u>	<u>1</u>	25.	TYPE II - SINGLE INLET	EA	<u>53</u>	<u>56</u>
	C) LOWER 4" WATERMAIN	EA	<u>1</u>	<u>—</u>	26.	TYPE II - DOUBLE INLET	EA	<u>7</u>	<u>7</u>
20.	SEEDING	AC	<u>0.5</u>	<u>—</u>	27.	INLET CASTING INSTALLED OVER 4'X6' RCBC	EA	<u>5</u>	<u>5</u>
21.	SODDING	SY	<u>4075</u>	<u>5074</u>	28.	REWORK EXISTING INLET	EA	<u>4</u>	<u>4</u>
22.	STORM SEWER MANHOLES				29.	TRAFFIC CONTROL			
	A) MH #1	EA	<u>1</u>	<u>1</u>		A) SIGNING UNITS	EA	<u>3678</u>	<u>3698</u>
	B) MH #2	EA	<u>1</u>	<u>1</u>		B) TYPE I BARRICADE	EA	<u>8</u>	<u>8</u>
	C) MH #3	EA	<u>1</u>	<u>1</u>		C) TYPE III BARRICADE	EA	<u>40</u>	<u>40</u>
	D) MH #4	EA	<u>1</u>	<u>1</u>		D) DELINEATOR DRUMS	EA	<u>64</u>	<u>—</u>
	E) MH #5	EA	<u>1</u>	<u>1</u>	30.	ADJUST WATER SERVICE			
	F) MH #6	EA	<u>1</u>	<u>1</u>		A) 1" COPPER	LF	<u>1800</u>	<u>1445</u>
	G) MH #7	EA	<u>1</u>	<u>1</u>		B) 1" CURBSTOP & BOX	EA	<u>35</u>	<u>25</u>
	H) MH #8	EA	<u>1</u>	<u>1</u>	31.	BLACK DIRT	CY	<u>1000</u>	<u>—</u>
	I) MH #9	EA	<u>1</u>	<u>1</u>	32.	LANDSCAPING			
	J) MH #10	EA	<u>1</u>	<u>1</u>		A) PATMORE GREEN ASH, 2" CALIPER	EA	<u>14</u>	<u>3</u>
	K) MH #11	EA	<u>1</u>	<u>1</u>	33.	PROJECT SIGN	LS	<u>1</u>	<u>1</u>
	L) MH #12	EA	<u>1</u>	<u>1</u>					
	M) MH #13	EA	<u>1</u>	<u>1</u>					
	N) MH #14	EA	<u>1</u>	<u>1</u>					
	O) MH #15	EA	<u>1</u>	<u>1</u>					

PROJECT QUANTITIES

SCHEDULE B - WATER AND SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>ESTIMATED QUANTITY</u>	<u>INSTALLED QUANTITY</u>	<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>ESTIMATED QUANTITY</u>	<u>INSTALLED QUANTITY</u>
1.	CONCRETE PAVEMENT REMOVAL	SY	<u>180</u>	<u>180</u>	16.	SANITARY MANHOLES	EA	<u>4</u>	<u>5</u>
2.	PITRUN GRAVEL	TON	<u>7000</u>	<u>6956</u>	17.	8" HYDRANT	EA	<u>6</u>	<u>6</u>
3.	SUBCUT ROCK	TON	<u>200</u>	<u>273</u>	18.	SODDING	SY	<u>1000</u>	<u>1428</u>
4.	SUBGRADE PREPARATION	SY	<u>970</u>	<u>2602</u>	19.	VALVES			
5.	SUBBASE COURSE	TON	<u>325</u>	<u>1357</u>		A) 12" VALVE & BOX	EA	<u>17</u>	<u>20</u>
6.	ASPHALT PAVEMENT REMOVAL	SY	<u>790</u>	<u>2424</u>		B) 8" VALVE & BOX	EA	<u>7</u>	<u>11</u>
7.	ASPHALT PAVEMENT	TON	<u>275</u>	<u>622.08</u>		C) 6" VALVE & BOX	EA	<u>2</u>	<u>3</u>
8.	SEAL COAT	SY	<u>790</u>	<u>843</u>	20.	WATER SERVICES			
9.	CONCRETE PAVEMENT	SY	<u>180</u>	<u>180</u>		A) 1" WATER CONNECTION	EA	<u>76</u>	<u>75</u>
10.	SIDEWALK REMOVAL	SF	<u>4070</u>	<u>2435</u>		B) 1" COPPER	LF	<u>1000</u>	<u>1000</u>
11.	4" CONCRETE SIDEWALK	SF	<u>4070</u>	<u>2435</u>		C) 1" CURBSTOP & BOX	EA	<u>36</u>	<u>23</u>
12.	CURB & GUTTER REMOVAL	LF	<u>170</u>	<u>483</u>	21.	CLEAR & GRUB TREE			
13.	STANDARD CURB & GUTTER	LF	<u>170</u>	<u>483</u>		A) > 4" - 8" DIAMETER	EA	<u>2</u>	<u>—</u>
14.	SANITARY SEWER PIPING					B) > 8" - 12" DIAMETER	EA	<u>4</u>	<u>—</u>
	A) 12" PVC SDR-35	LF	<u>200</u>	<u>198</u>		C) > 12" - 24" DIAMETER	EA	<u>5</u>	<u>—</u>
	B) 10" PVC SDR-35	LF	<u>750</u>	<u>827</u>		D) > 24" DIAMETER	EA	<u>1</u>	<u>2</u>
	C) SANITARY SEWER SERVICE	EA	<u>14</u>	<u>14</u>	22.	LANDSCAPING			
15.	WATERMAIN					A) PATMORE GREEN ASH, 2" CALIPER	EA	<u>12</u>	<u>2</u>
	A) 12"	LF	<u>3125</u>	<u>3164</u>					
	B) 8"	LF	<u>165</u>	<u>583</u>					
	C) 6"	LF	<u>160</u>	<u>106</u>					



PROJECT QUANTITIES

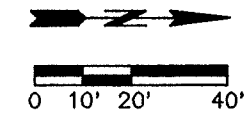
## SCHEDULES C &amp; D - WATER AND SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38

## SCHEDULE C

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>ESTIMATED QUANTITY</u>	<u>INSTALLED QUANTITY</u>
1.	8" CONCRETE PAVEMENT	SY	<u>11,525</u>	<u>11,925</u>
2.	SUBBASE MATERIAL (CL. 5)	TON	<u>2360</u>	<u>3698</u>

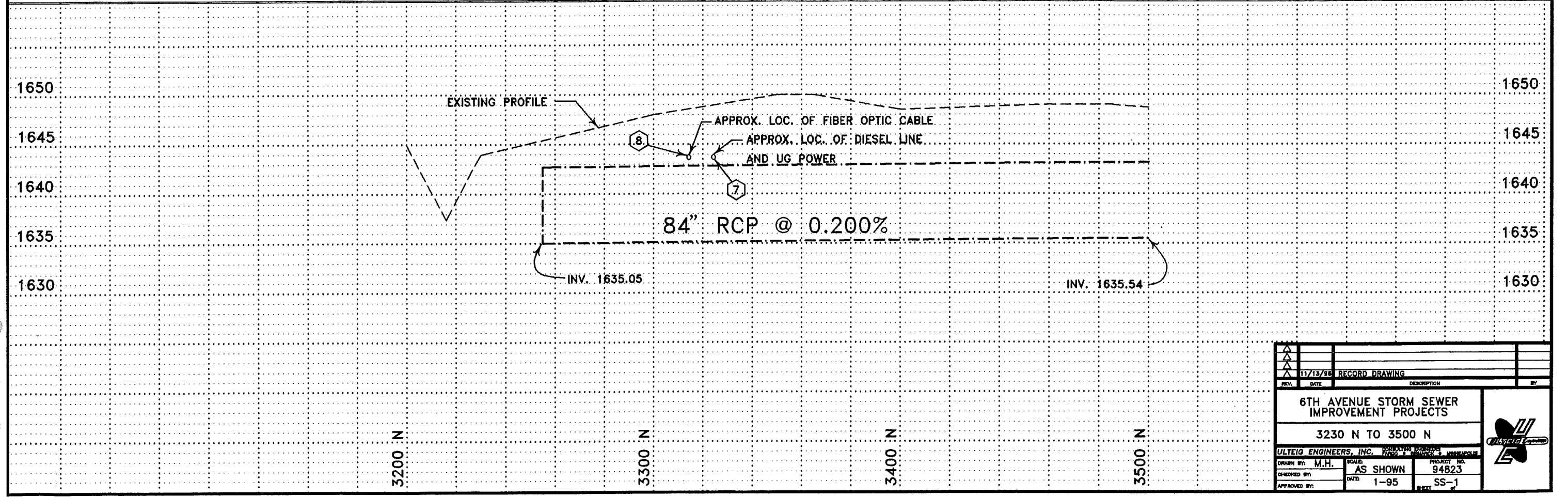
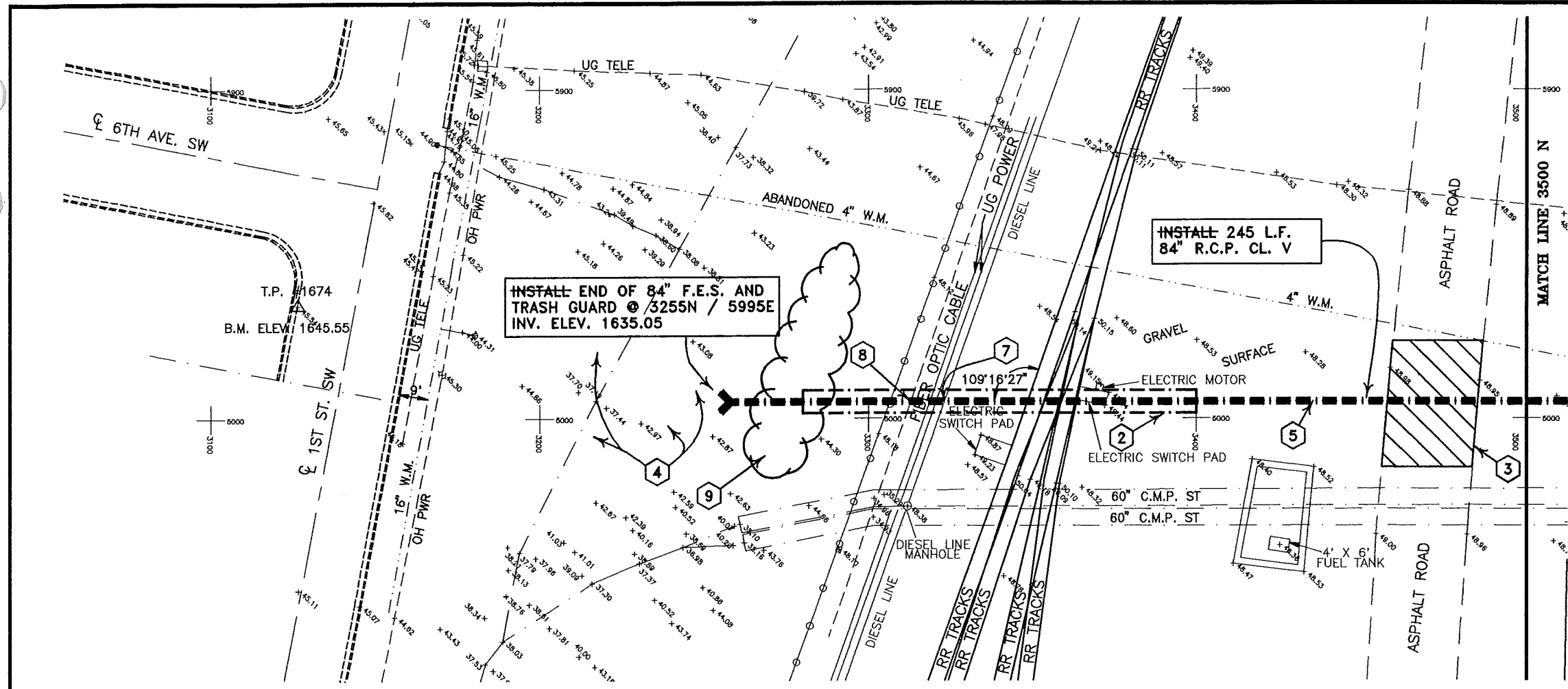
## SCHEDULE D

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>ESTIMATED QUANTITY</u>	<u>INSTALLED QUANTITY</u>
1.	ASPHALT PAVEMENT	TON	<u>3850</u>	<u>—</u>
2.	SUBBASE MATERIAL (CL 13)	TON	<u>3535</u>	<u>—</u>
3.	SEAL COAT	SY	<u>11,525</u>	<u>—</u>

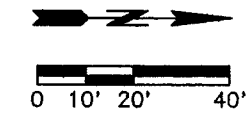


**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 BORE OR JACK 84" RCP FROM 3280 N TO 3400 N.
- 3 REMOVE AND REPLACE ASPHALT, THICKNESS TO MATCH EXISTING.
- 4 SEED DISTURBED AREAS SOUTH OF CHAIN LINK FENCE.
- 5 RESTORE GRAVEL SURFACE WITHIN RAILROAD YARD TO ORIGINAL CONDITION.
- 6 COORDINATE WITH BNI ROADMASTER ALL DETOURING WITHIN RAILROAD YARD.
- 7 VERIFY LOCATION AND DEPTH OF DIESEL LINE PRIOR TO BORING AND JACKING.
- 8 VERIFY LOCATION AND DEPTH OF FIBER OPTIC CABLE PRIOR TO BORING AND JACKING. OWNER OF FIBER OPTIC CABLE MUST BE PRESENT WHEN EXPOSING, MAKE ARRANGEMENTS AS REQUIRED.
- 9 CLEAR AND GRUB TREES AS REQUIRED.

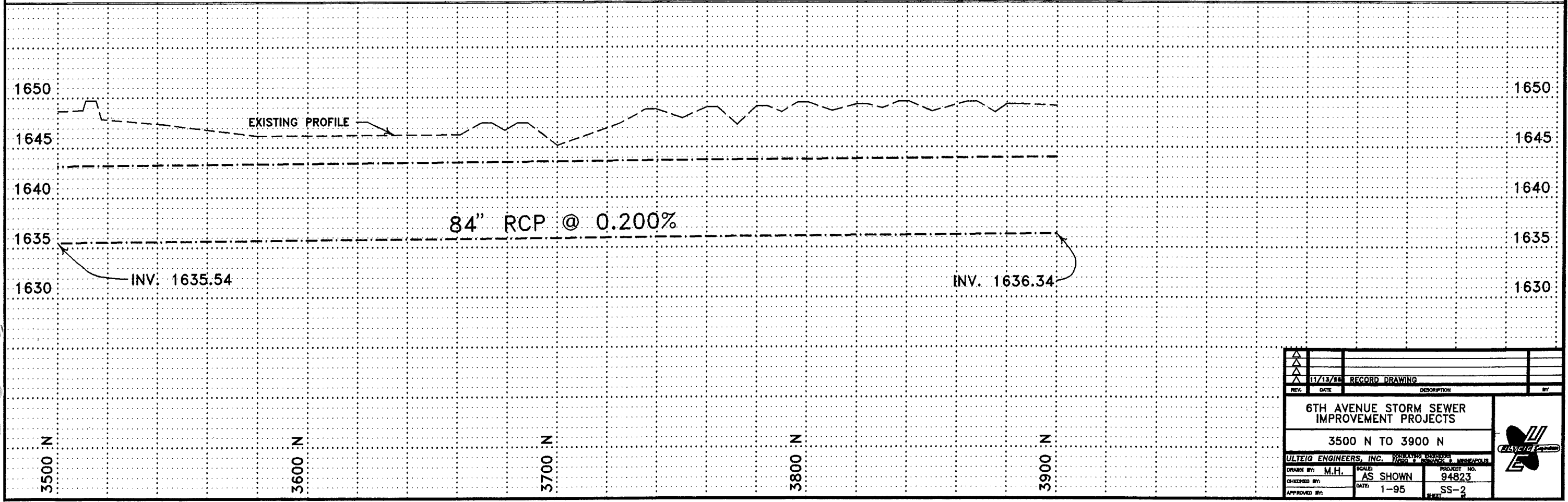
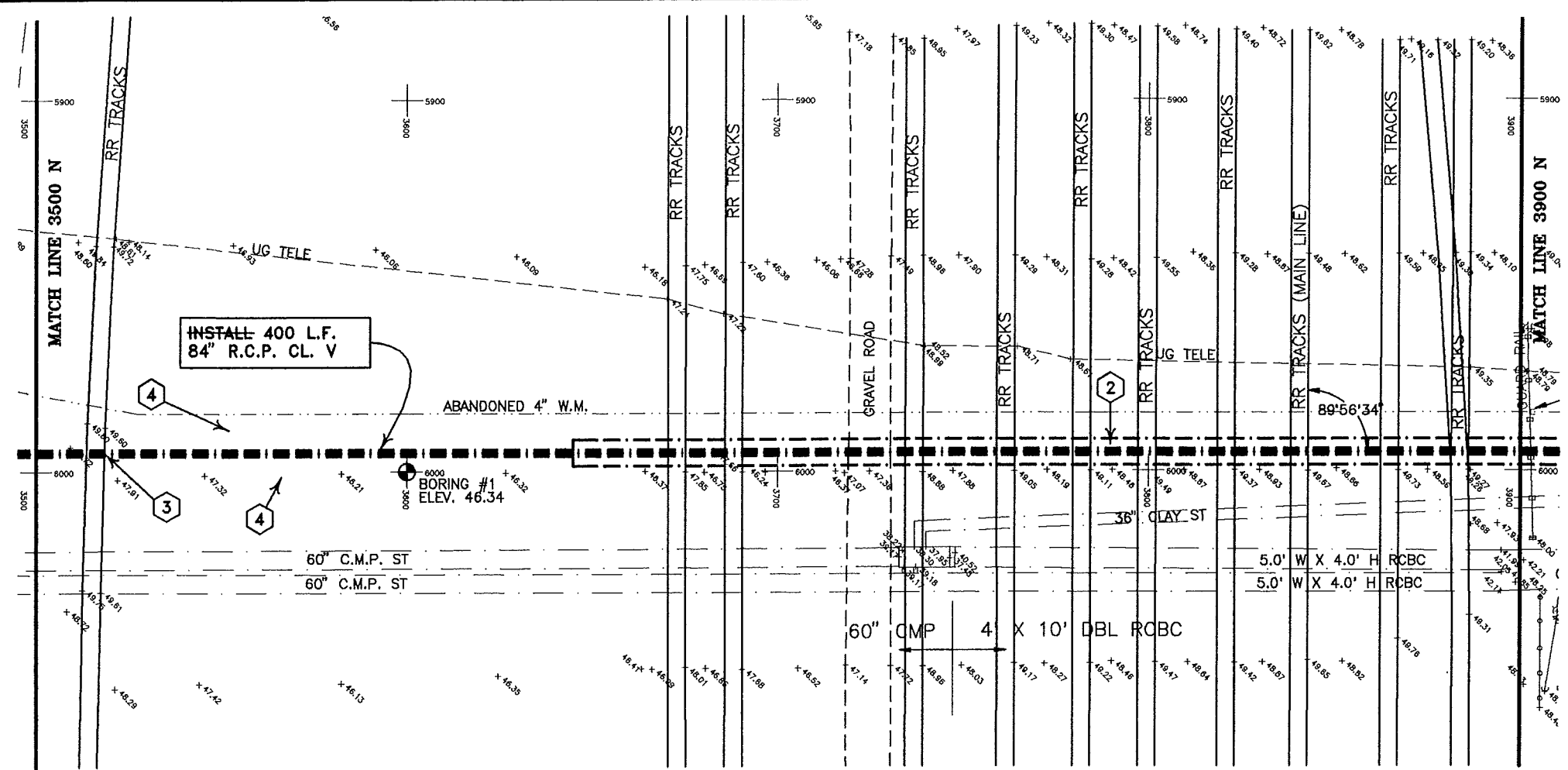


REV.	DATE	DESCRIPTION	BY
11/13/95		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>3230 N TO 3500 N</b>			
<small>ULTEIG ENGINEERS, INC. ENGINEERING CONSULTANTS MINNEAPOLIS, MN</small>			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO: 94823	
CHECKED BY:	DATE: 1-95	SHEET: SS-1	
APPROVED BY:			



**CONSTRUCTION NOTES**

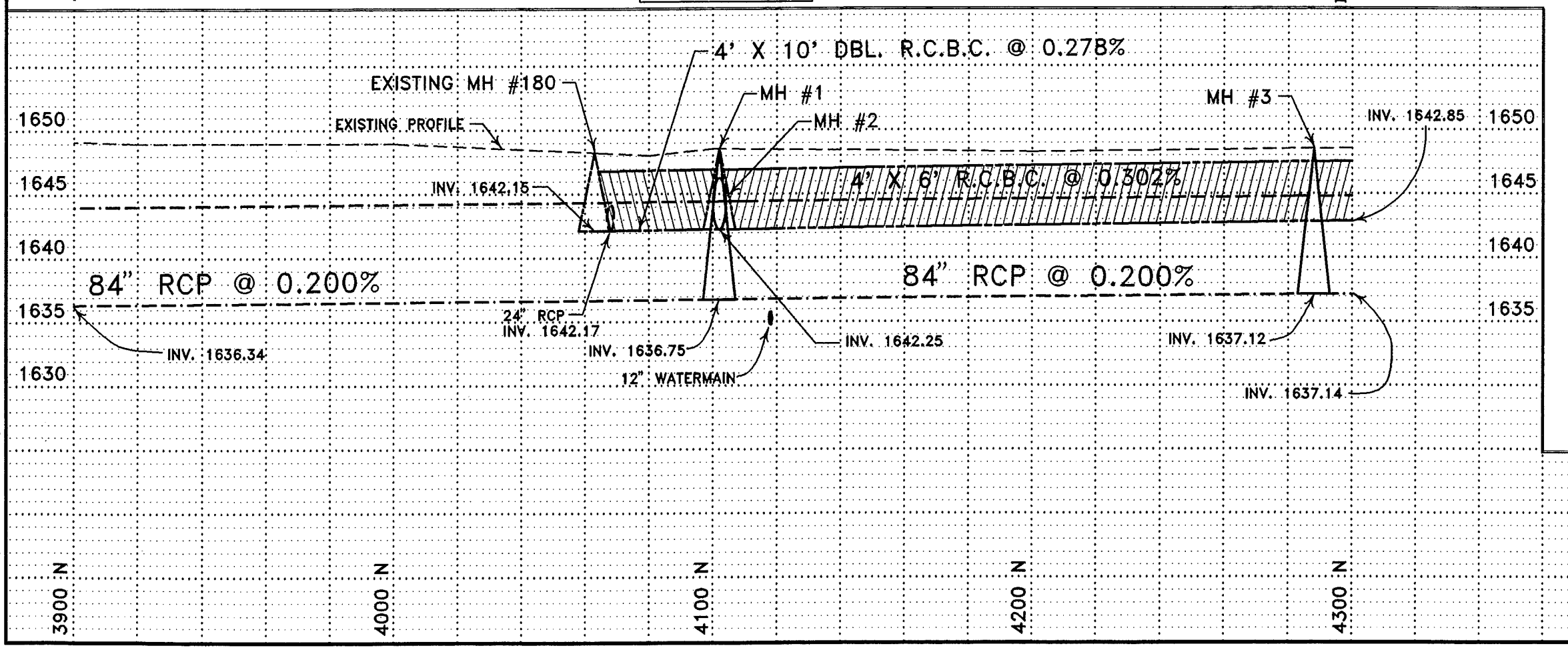
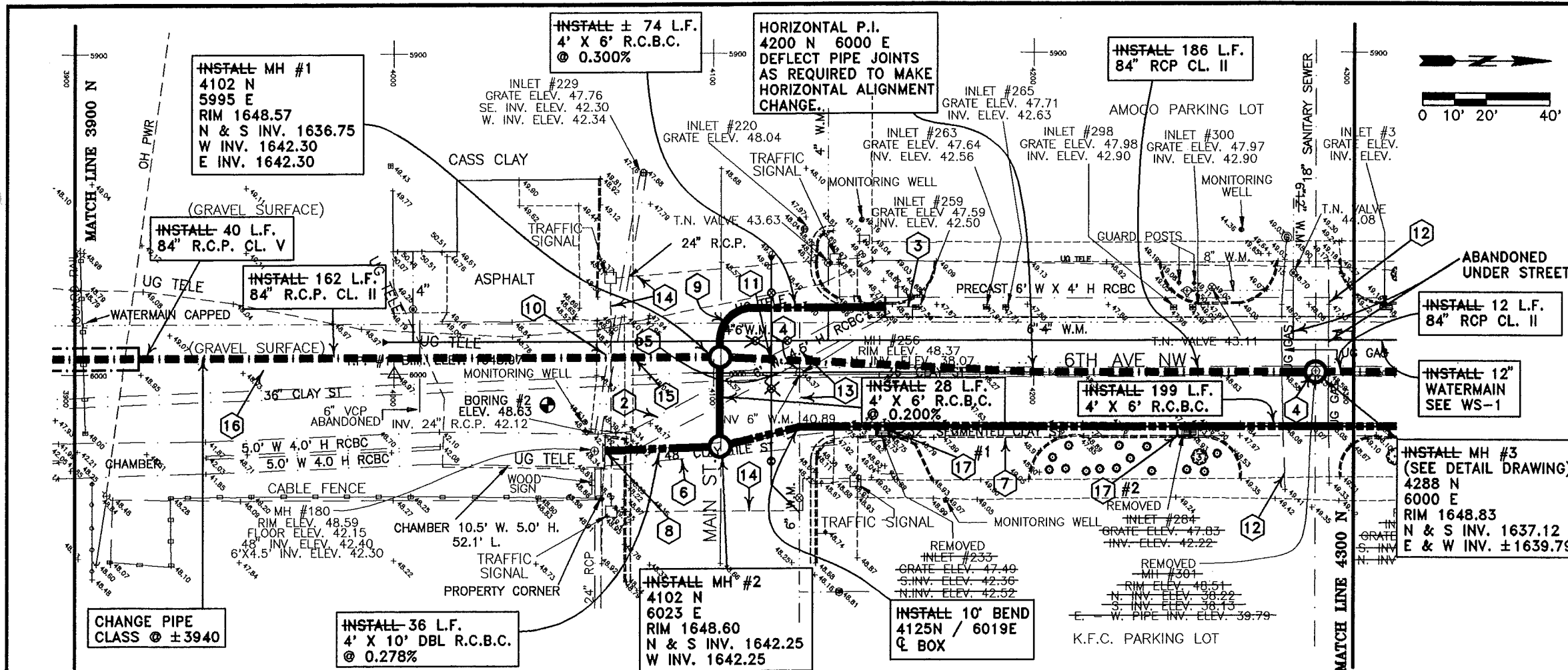
- ① CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- ② BORE OR JACK 84" RCP FROM 3645 N TO 3920 N.
- ③ REMOVE AND REPLACE TRACKS AS REQUIRED TO INSTALL 84" RCP. COORDINATE REMOVAL WITH BNI ROADMASTER. ALL WORK SHALL CONFORM TO B.N.R.R. REQUIREMENTS AND SHALL BE COMPLETED IN ACCORDANCE WITH B.N.R.R. STANDARDS. ALL COSTS INCIDENTAL.
- ④ RESTORE GRAVEL SURFACE WITHIN RAILROAD YARD TO ORIGINAL CONDITION.



11/15/95	RECORD DRAWING	
REV.	DATE	DESCRIPTION
6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS		
3500 N TO 3900 N		
ULTEIG ENGINEERS, INC. PROJECT NO. 94823		
DRAWN BY: M.H.	SCALE: AS SHOWN	DATE: 1-95
CHECKED BY:		SS-2
APPROVED BY:		

CONSTRUCTION NOTES

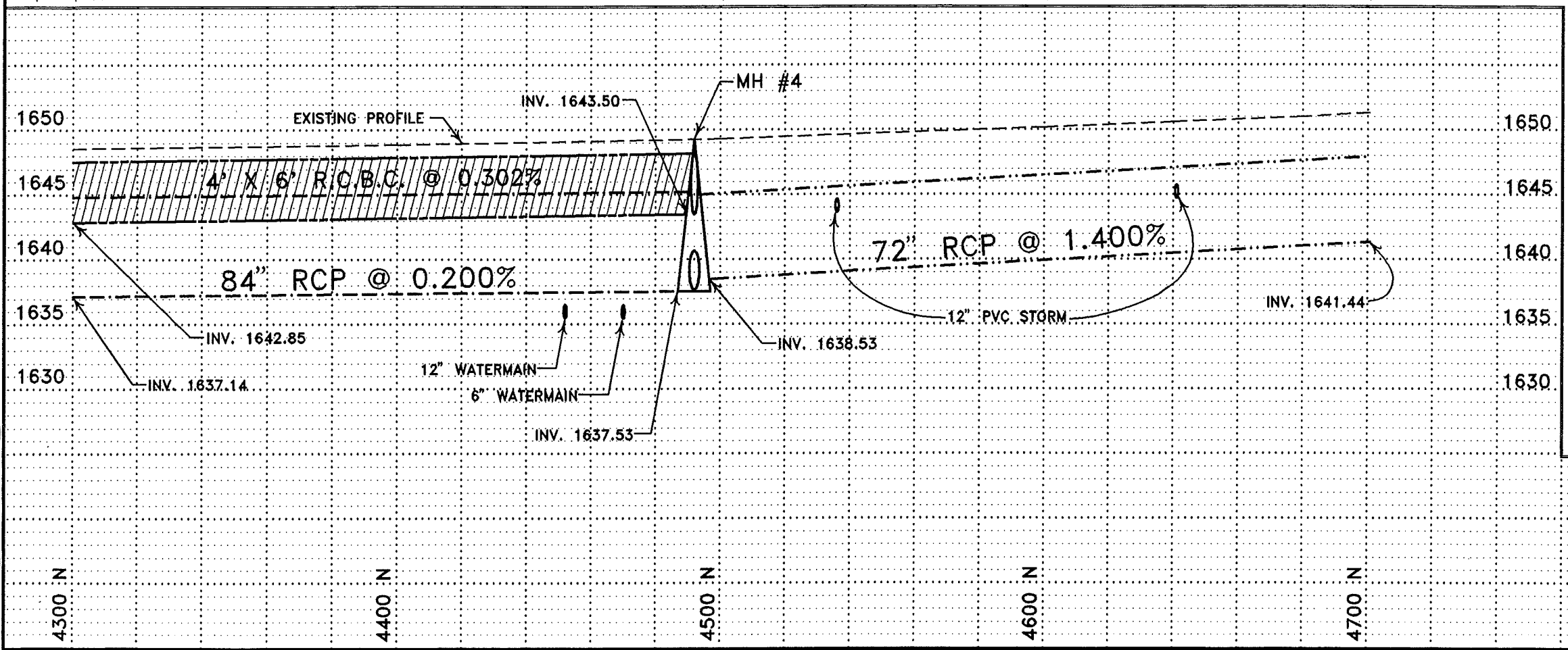
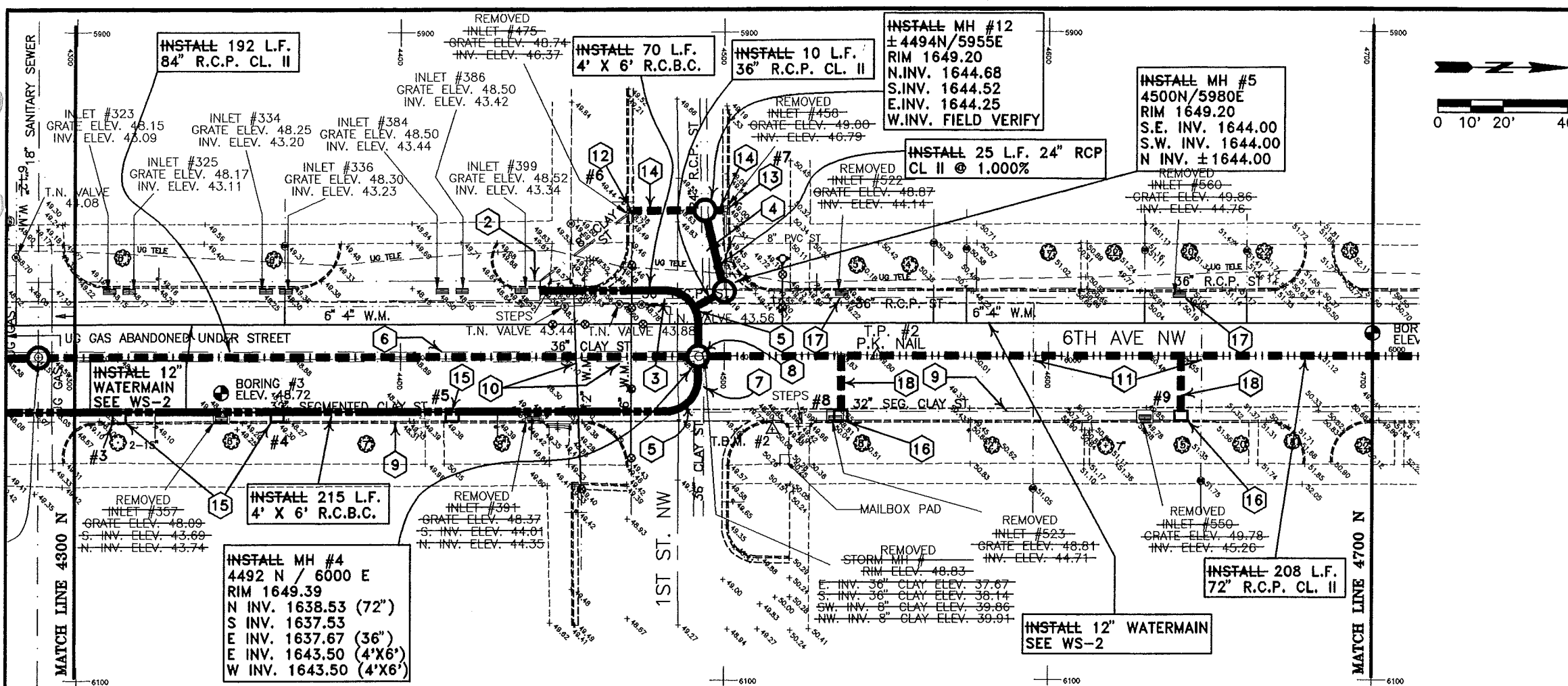
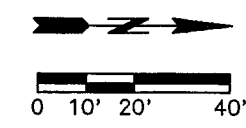
- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
  - 2 REMOVE EXISTING 6' W X 4.5' H R.C.B.C. AND SOUTH 6' OF 4' X 6' R.C.B.C.
  - 3 CONNECT NEW 4' X 6' R.C.B.C. TO EXISTING SPIGOT JOINT AT APPROXIMATELY 4160.5 N. LAY R.C.B.C. BACKWARDS FROM SPIGOT JOINT TO MH #1.
  - 4 REMOVE EXISTING MANHOLE.
  - 5 PLUG 36" VCP WITH CONCRETE AT ± 4120 N, COSTS INCIDENTAL.
  - 6 REMOVE 48" VCP.
  - 7 REMOVE 32" SEGMENTED CLAY PIPE & INLETS.
  - 8 ATTACH NEW 4' X 10' DBL R.C.B.C. TO EXISTING 10.5' W X 5.0' H CHAMBER AT SAME INVERT ELEVATION AND INSTALL TWO 1" Ø CONCRETE PIPE TIE ASSEMBLIES ON EACH SIDE. PROVIDE HOLES IN WALLS OF EXISTING CHAMBER WHERE REQUIRED. PROVIDE WATERTIGHT, GROUTED CONNECTION INSIDE & OUTSIDE. ALL COSTS INCIDENTAL.
  - 9 INSTALL PRECAST 45' BENDS.
  - 10 CONNECT 24" RCP TO 84" RCP. PROVIDE GROUTED CONNECTION. REMOVE AND RELAY 24" RCP AS REQUIRED TO CONNECT TO 84" RCP. PLUG 24" RCP EAST OF 84" RCP WITH CONCRETE, COSTS INCIDENTAL.
  - 11 NEW WATERMAIN TO BE ROUTED BELOW 84" RCP, SEE WS-1.
  - 12 ~~MDU TO LOWER GASMAINS, CONTRACTOR TO COORDINATE.~~
  - 13 PROVIDE ADEQUATELY BLOCKED, TEMPORARY PLUGS IN 6" WATERMAIN EITHER SIDE OF PROPOSED 84" RCP. REMOVE 6" WATERMAIN TO INSTALL 84" RCP, COSTS INCIDENTAL.
  - 14 PROTECT EXISTING TRAFFIC SIGNAL CONDUITS AND CONDUCTORS.
  - 15 REMOVE AND REPLACE CURB & GUTTER AND DRIVEWAY AS REQUIRED.
  - 16 RESTORE GRAVEL SURFACE IN CASS CLAY'S LOT TO ORIGINAL CONDITION.
  - 17 ~~INSTALL SINGLE CASTING WITH TYPE "V" GRATE AS PER DETAIL.~~
- | LOCATION      | GRATE ELEVATION |
|---------------|-----------------|
| #1 4153N - RT | 1647.40         |
| #2 4247N - RT | 1648.30         |



11/13/95	RECORD DRAWING	
REV.	DATE	DESCRIPTION
6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS		
3900 N TO 4300 N		
ULTEIG ENGINEERS, INC.		
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO. 94823
CHECKED BY:	DATE: 1-95	SS-3
APPROVED BY:		

CONSTRUCTION NOTES

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
  - 2 REMOVE NORTH 6' OF EXISTING 4' X 6' R.C.B.C. CONNECT NEW 4' X 6' R.C.B.C. TO BELL JOINT AT ± 4439.85 N.
  - 3 REMOVE 36" RCP.
  - 4 REMOVE 24" RCP.
  - 5 INSTALL PRECAST BENDS. CONNECT 36" RCP FROM MH #5 AT MIDPOINT OF BENDS WEST SIDE 6TH AVE.
  - 6 REMOVE 36" VCP.
  - 7 RECONNECT 36" VCP TO EAST SIDE OF MH #4; COSTS INCIDENTAL.
  - 8 REMOVE EXISTING MANHOLE.
  - 9 REMOVE 32" SEGMENTED CLAY PIPE AND INLETS.
  - 10 12" AND 6" WATERMANS TO BE LOWERED, SEE WS-2.
  - 11 ADJUST WATER SERVICE.
  - 12 REMOVE EXISTING INLET. INSTALL TYPE II-SINGLE INLET (#6), TYPE "V" GRATE, GRATE ELEV. 1648.75, INV. ELEV. 1644.75.
  - 13 REMOVE EXISTING INLET. INSTALL TYPE II-SINGLE INLET (#7), TYPE "V" GRATE, GRATE ELEV. 1649.00, INV. ELEV. 1644.75.
  - 14 INSTALL 18" SDR-35 PVC @ 1.000%.
  - 15 INSTALL SINGLE CASTING WITH TYPE "V" GRATE PER DETAIL.
- |    | LOCATION   | GRATE ELEVATION |
|----|------------|-----------------|
| #3 | 4313N - RT | 1648.48         |
| #4 | 4362N - RT | 1648.60         |
| #5 | 4416N - RT | 1648.75         |
- 
- |    | LOCATION   | GRATE ELEV. | INV. ELEV. |
|----|------------|-------------|------------|
| #8 | 4536N - RT | 1649.36     | 1644.35    |
| #9 | 4641N - RT | 1650.43     | 1645.43    |
- 
- |     | LOCATION  | INV. @ 72" RCP |
|-----|---|----------------|
| #17 | REWORK EXISTING INLET PER DETAIL.                         |                |
| #18 | INSTALL 12" SDR-35 PVC @ 5.000% 12" INV. ELEV. @ 72" RCP: |                |
|     | 4536N - RT  | 1643.66        |
|     | 4641N - RT  | 1644.75        |

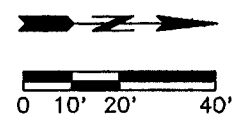
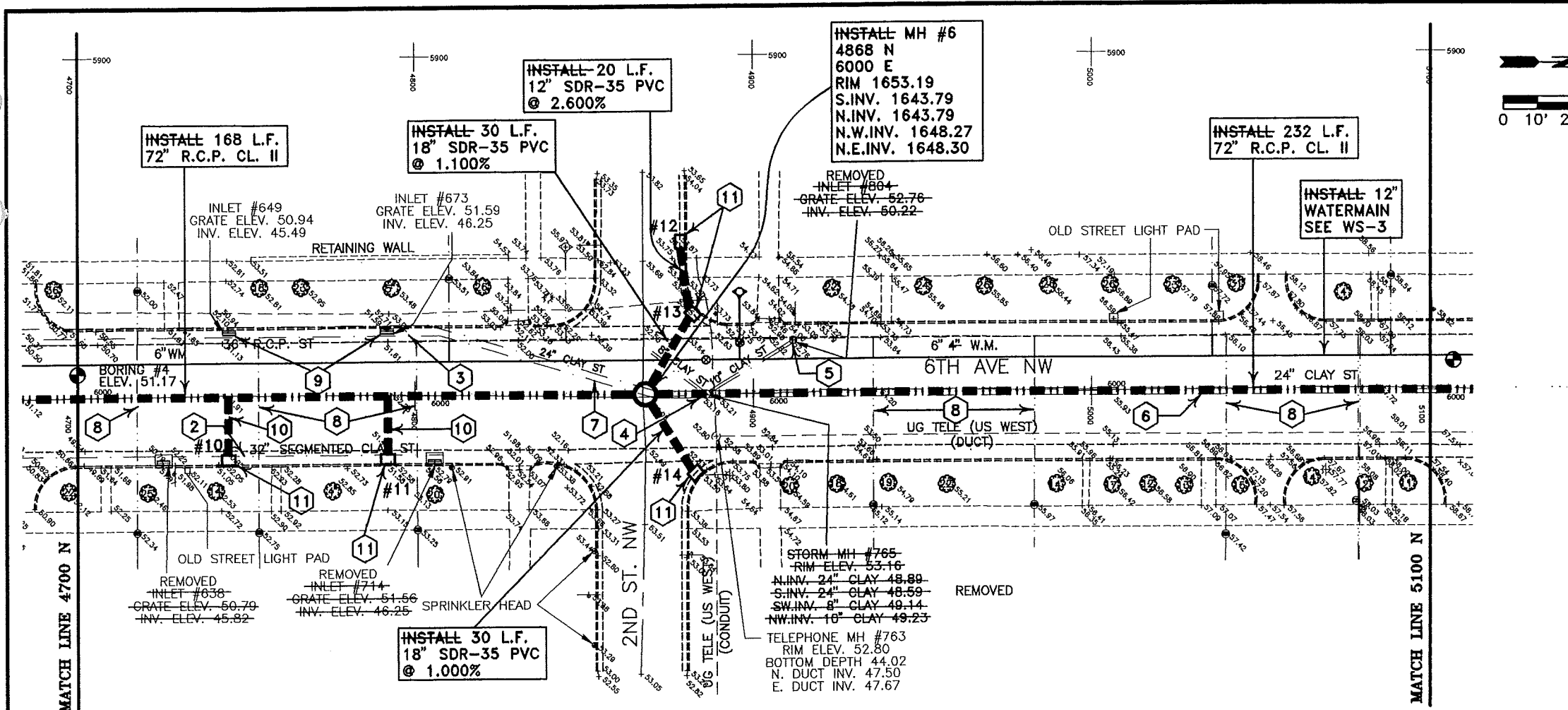


REV.	DATE	DESCRIPTION	BY
11/13/88		RECORD DRAWING	

6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS  
4300 N TO 4700 N

ULTEIG ENGINEERS, INC. CONSULTING ENGINEERS  
1100 N. WISCONSIN ST. MILWAUKEE, WI 53233

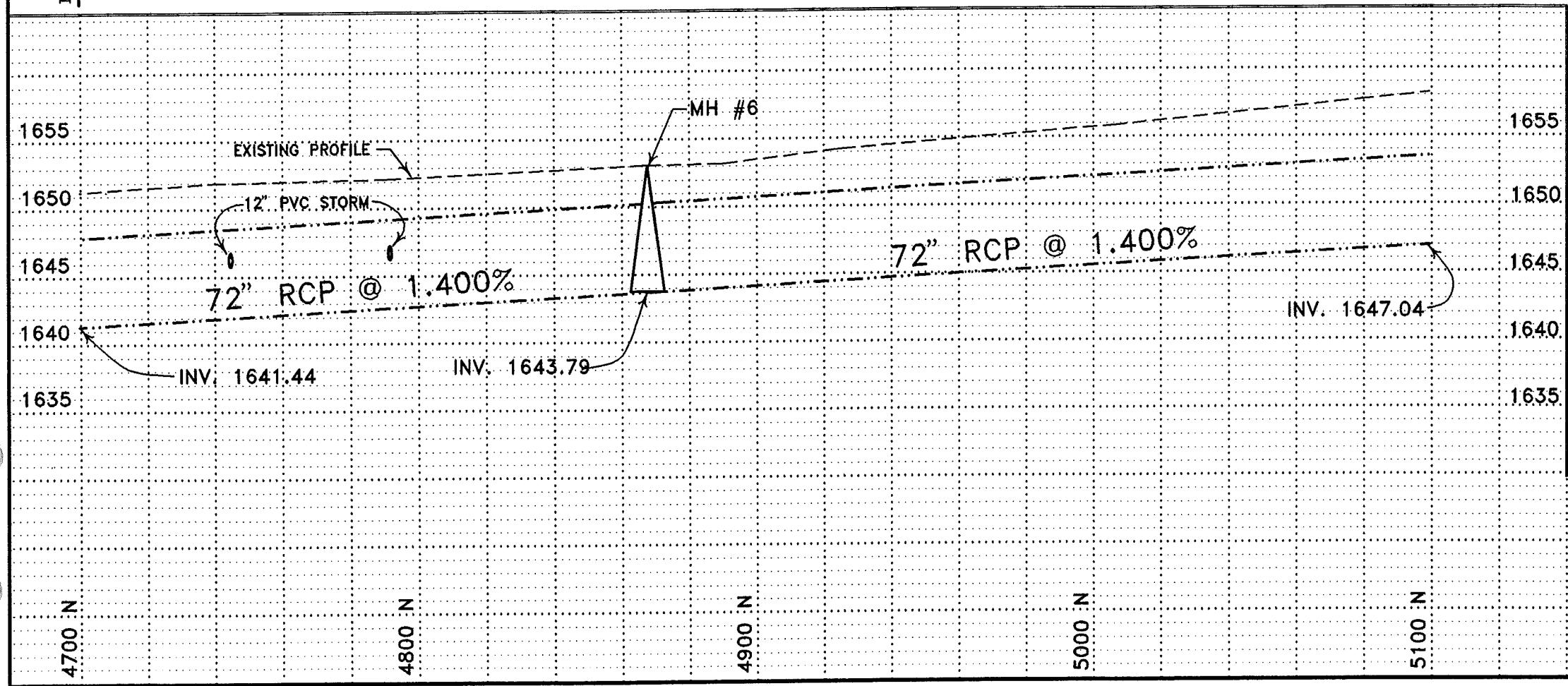
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO.: 94823
CHECKED BY:	DATE: 1-95	SHEET: SS-4
APPROVED BY:		



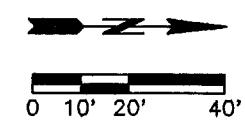
**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
  - 2 REMOVE 32" SEGMENTED CLAY PIPE AND INLETS.
  - 3 PLUG 36" RCP WITH CONCRETE NORTH OF INLET #673, COSTS INCIDENTAL.
  - 4 REMOVE EXISTING MANHOLE.
  - 5 REMOVE EXISTING INLET.
  - 6 REMOVE 24" VCP.
  - 7 PLUG 24" VCP WITH CONCRETE, COSTS INCIDENTAL.
  - 8 ADJUST WATER SERVICE.
  - 9 REWORK EXISTING INLET PER DETAIL.
  - 10 INSTALL 12" SDR-35 PVC @ 5.000%  
12" INV. ELEV. @ 72" RCP:
- | LOCATION | INV. @ 72" RCP |
|----------|----------------|
| 4745N-RT | 1645.82        |
| 4792N-RT | 1646.27        |
- 11 INSTALL INLET:

	LOCATION	TYPE	GRATE	GRATE ELEV.	INV. ELEV.
#10	4745N-RT	II-SINGLE	"V"	1651.50	1646.50
#11	4792N-RT	II-SINGLE	"V"	1651.95	1646.95
#12	5955E-LT	II-SINGLE	"V"	1653.12	1649.12
#13	4883.2N	II-SINGLE	"DR"	1652.60	1648.60
#14	4883.9N				
	6024.4E	II-SINGLE	"DR"	1652.60	1648.60



11/13/95		RECORD DRAWING	
REV.	DATE	DESCRIPTION	BY
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>4700 N TO 5100 N</b>			
ULTEIG ENGINEERS, INC. <small>REGISTERED PROFESSIONAL ENGINEERS - ILLINOIS</small>			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 1-95	SS-5	
APPROVED BY:			



**CONSTRUCTION NOTES**

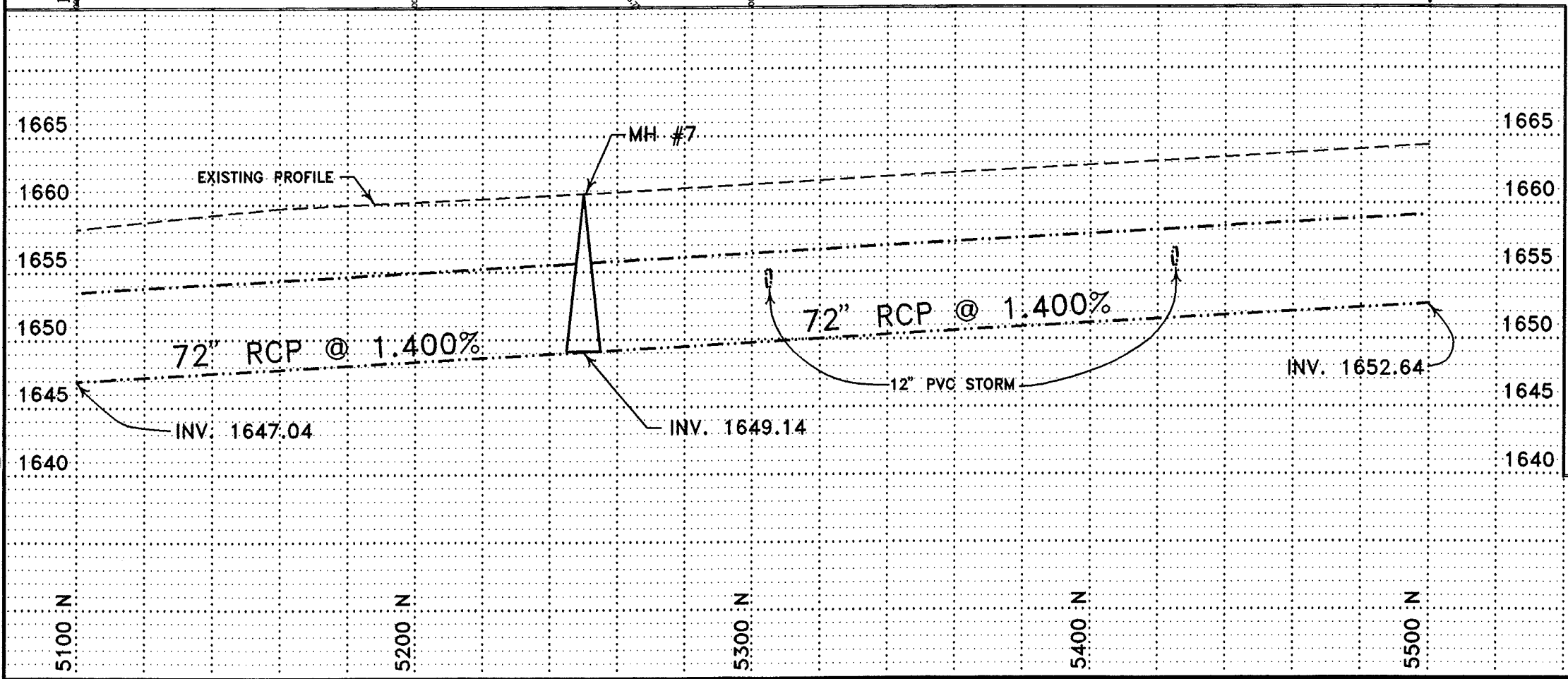
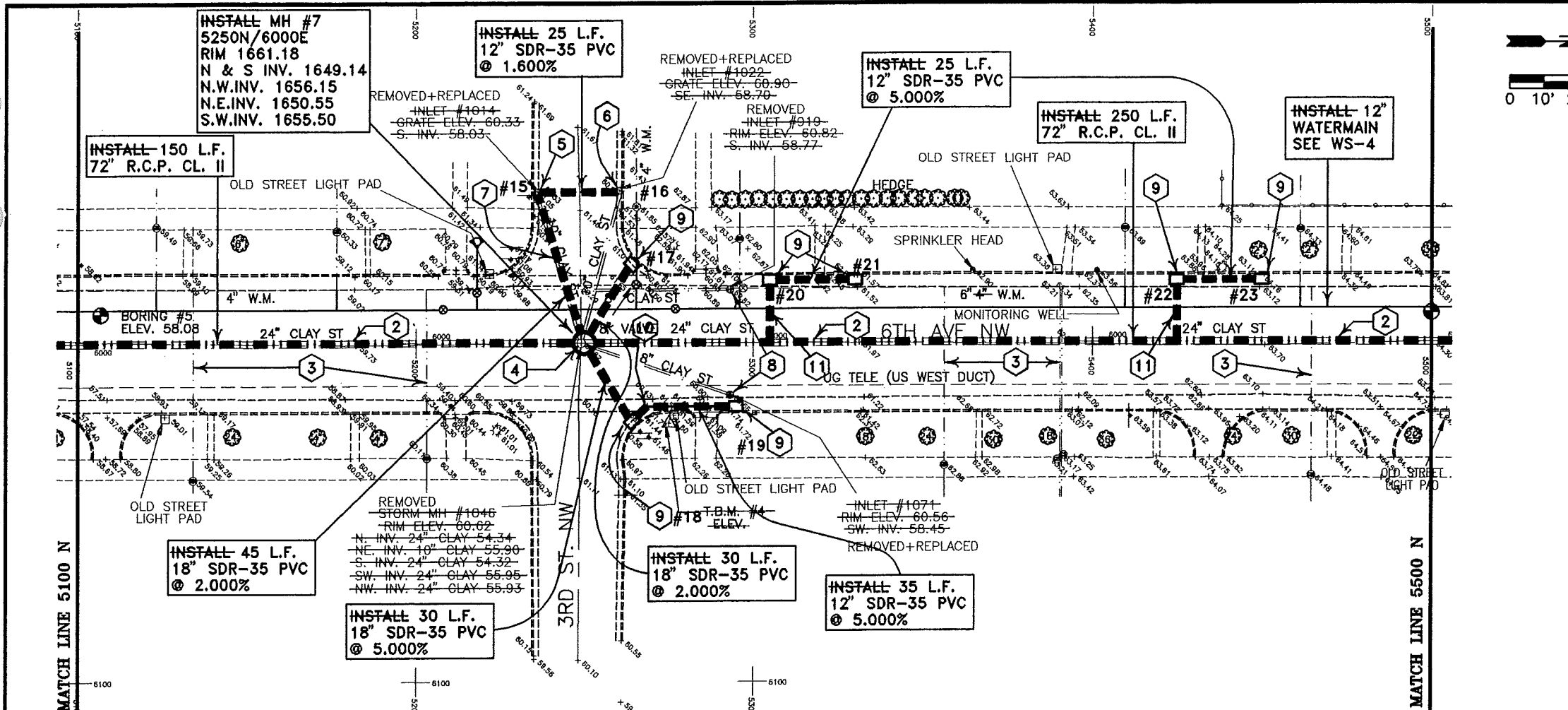
- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 REMOVE 24" VCP.
- 3 ADJUST WATER SERVICE.
- 4 REMOVE EXISTING MANHOLE.
- 5 REMOVE EXISTING INLET. INSTALL TYPE II-SINGLE INLET (#15), TYPE "V" GRATE, GRATE ELEV. 1660.46, INV. ELEV. 1656.40.
- 6 REMOVE EXISTING INLET. INSTALL TYPE II-SINGLE INLET (#16), TYPE "V" GRATE, GRATE ELEV. 1660.84, INV. ELEV. 1656.80.
- 7 REMOVE 10" VCP.
- 8 REMOVE EXISTING INLET.
- 9 -INSTALL INLET:

	LOCATION	TYPE	GRATE	GRATE ELEV.	INV. ELEV.
#17	5265.2N	II-SINGLE	"DR"	1660.75	1656.75
	5975.8E				
#18	5265.3N	II-SINGLE	"DR"	1660.30	1652.05
	6024.3E				
#19	5295N-RT	II-SINGLE	"V"	1661.33	1657.33
#20	5305N-LT	II-SINGLE	"V"	1661.45	1654.45
#21	5330N-LT	II-SINGLE	"V"	1661.78	1657.78
#22	5425N-LT	II-SINGLE	"V"	1663.04	1656.00
#23	5450N-LT	II-SINGLE	"V"	1663.37	1659.37

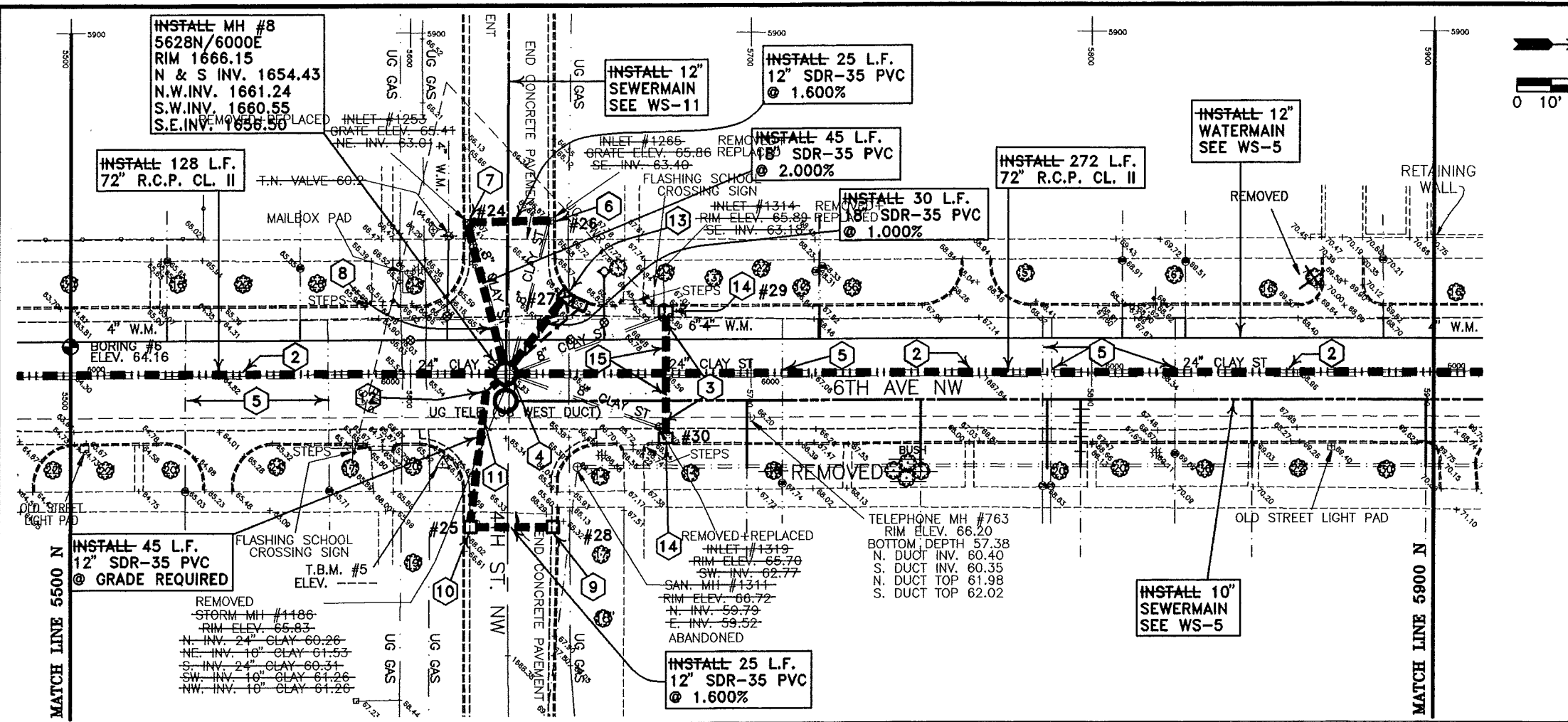
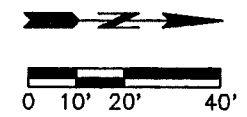
10 INSTALL 45' BEND, COSTS INCLUDED IN OTHER ITEMS.

11 INSTALL 18" SDR-35 PVC @ 5.000%  
18" INV. ELEV. @ 72" RCP:

LOCATION	INV. @ 72" RCP
5305N-LT	1653.75
5425N-LT	1655.30



REV.	DATE	DESCRIPTION	BY
	11/15/99	RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
5100 N TO 5500 N			
ULTEIG ENGINEERS, INC. CONSULTING ENGINEERS MINNEAPOLIS			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 1-95	SS-8	
APPROVED BY:			



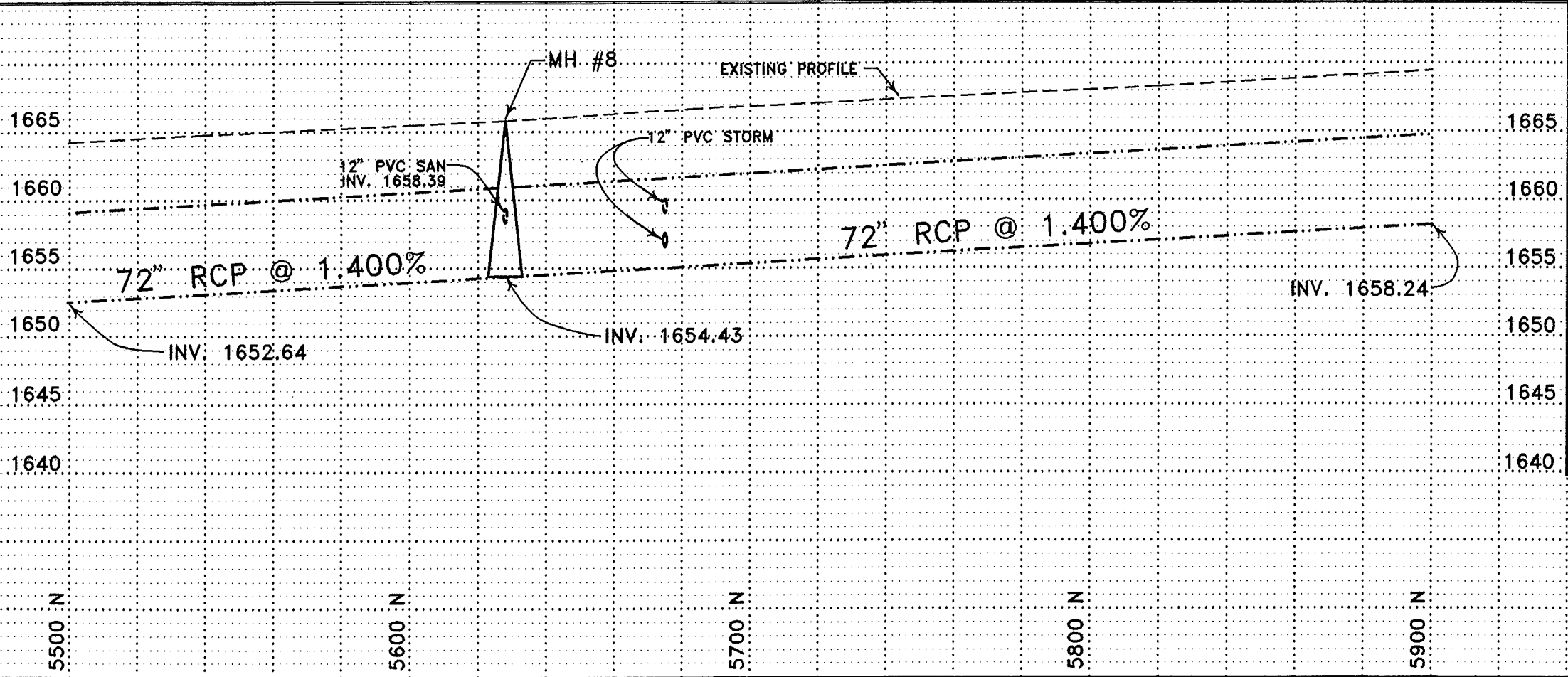
**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 REMOVE 24" VCP.
- 3 REMOVE EXISTING INLET.
- 4 REMOVE EXISTING MANHOLE.
- 5 ADJUST WATER SERVICE.
- 6 REMOVE EXISTING INLET. INSTALL TYPE II-SINGLE INLET (#26), TYPE "V" GRATE, GRATE ELEV. 1665.85, INV. ELEV. 1661.85.
- 7 REMOVE EXISTING INLET. INSTALL TYPE II-SINGLE INLET (#24), TYPE "V" GRATE, GRATE ELEV. 1665.50, INV. ELEV. 1661.45.
- 8 REMOVE 8" VCP.
- 9 ~~INSTALL~~ TYPE II-SINGLE INLET (#28) 6045E, TYPE "DR" GRATE, GRATE ELEV. 1665.00, INV. ELEV. 1661.00.
- 10 ~~INSTALL~~ TYPE II-SINGLE INLET (#25) 6045E, TYPE "DR" GRATE, GRATE ELEV. 1665.40, INV. ELEV. 1660.60.
- 11 INVERT ELEV. OF 12" SDR-35 UNDER TELEPHONE DUCT 1657.00.
- 12 ~~INSTALL~~ 45' BEND, COSTS INCLUDED WITH OTHER ITEMS.
- 13 ~~INSTALL~~ TYPE II-DOUBLE INLET (#27), TYPE "DR & DL" GRATE. 5646.6N/5976.3E, GRATE ELEV 1665.54, INV. ELEV. 1661.54.
- 14 ~~INSTALL~~ TYPE II-SINGLE INLET, TYPE "V" GRATE.

	LOCATION	GRATE ELEV.	INV. ELEV.
#29	5675N-LT	1666.30	1659.80
#30	5675N-RT	1666.30	1657.30

	LOCATION	INV. @ 72" RCP
#15	5675N-LT	1659.10
#15	5675N-RT	1656.60



DATE	11/13/95	DESCRIPTION	RECORD DRAWING
BY			

**6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS**

5500 N TO 5900 N

ULTEIG ENGINEERS, INC. 94823

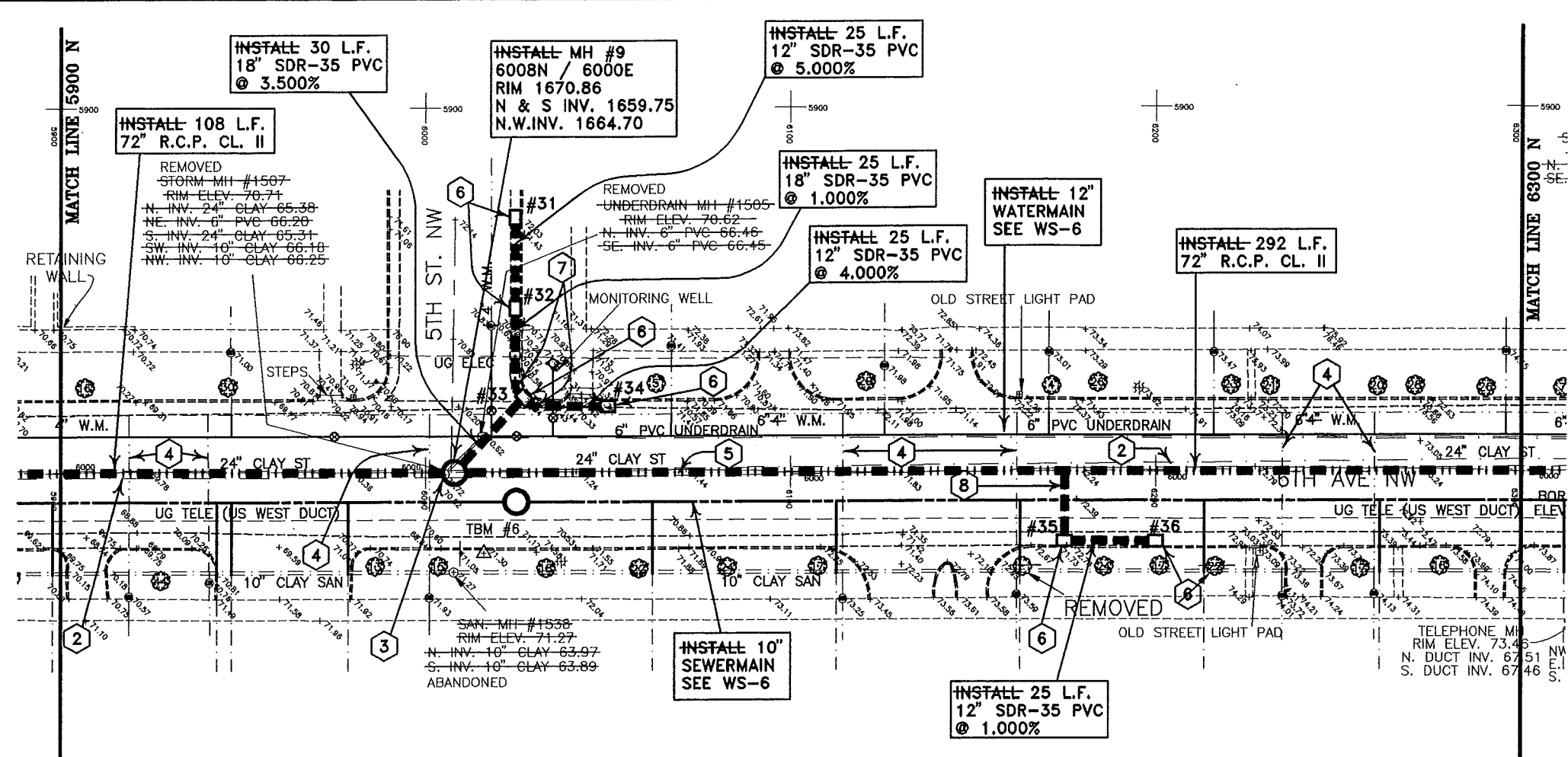
PROJECT NO. 94823

DATE 1-95

SS-7





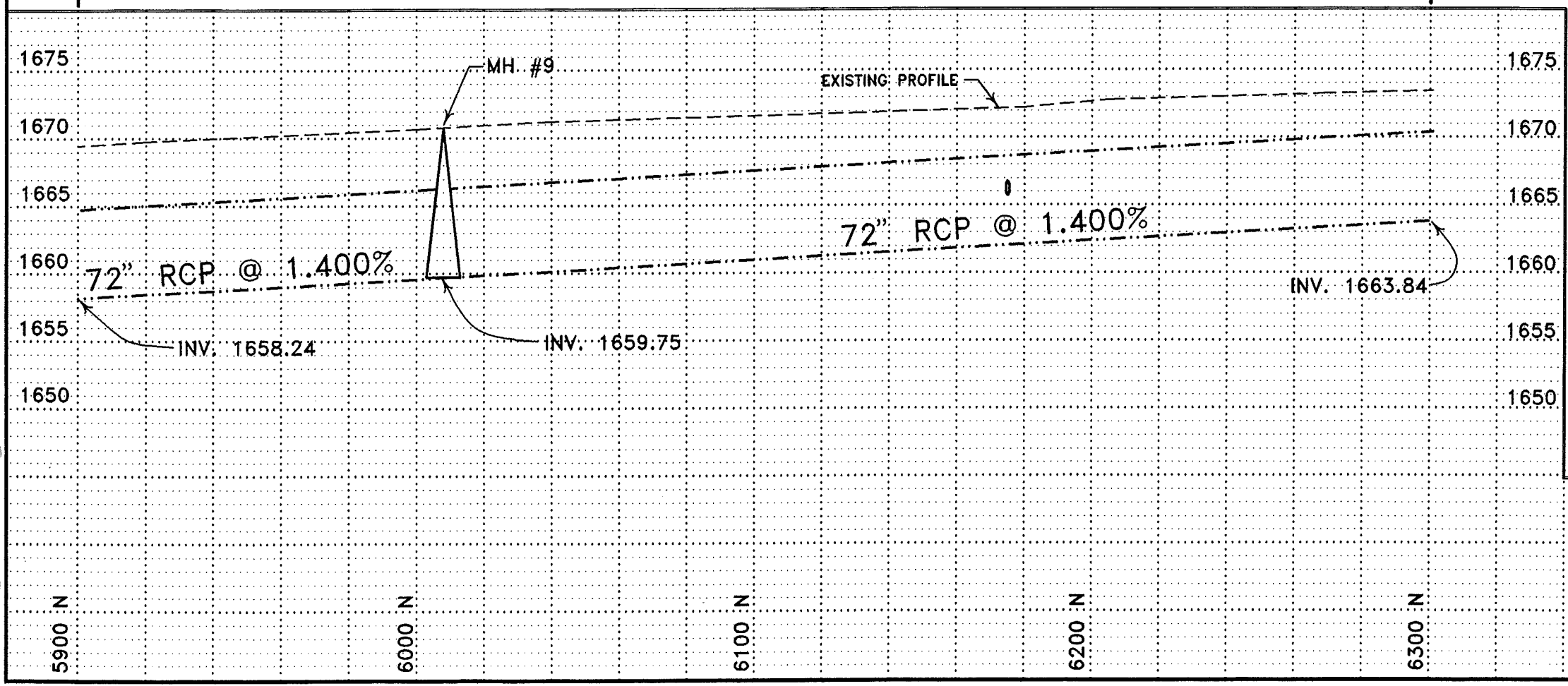


**CONSTRUCTION NOTES**

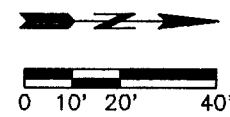
- ① CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- ② REMOVE 24" VCP.
- ③ REMOVE EXISTING MANHOLE.
- ④ ADJUST WATER SERVICE.
- ⑤ FROM 6000N TO 6400N BACKFILL 72" RCP WITH ROCK TO PIPE SPRINGLINE AND WITH WASHED SAND FROM PIPE SPRINGLINE TO WITHIN 2' OF SURFACE.
- ⑥ INSTALL INLET:

	LOCATION	TYPE	GRATE	GRATE ELEV.	INV. ELEV.
#31	5930E-LT	II-SINGLE	"V"	1671.43	1667.25
#32	5955E-LT	II-SINGLE	"V"	1670.05	1666.00
#33	6028.1N	II-DOUBLE	"DR & DL"	1670.28	1665.75
#34	6050N-LT	II-SINGLE	"V"	1670.86	1666.75
#35	6175N-RT	II-SINGLE	"V"	1672.22	1668.20
#36	6200N-RT	II-SINGLE	"V"	1672.49	1668.45

- ⑦ INSTALL 45' BEND, COSTS INCLUDED IN OTHER ITEMS.
- ⑧ INSTALL 45' BEND @ 6175N/6005E, COSTS INCLUDED IN OTHER ITEMS. INSTALL 12" SDR-35 PVC. SLOPE OF 12" = 3.000% FROM INLET TO BEND. INV. @ BEND = 1667.75.

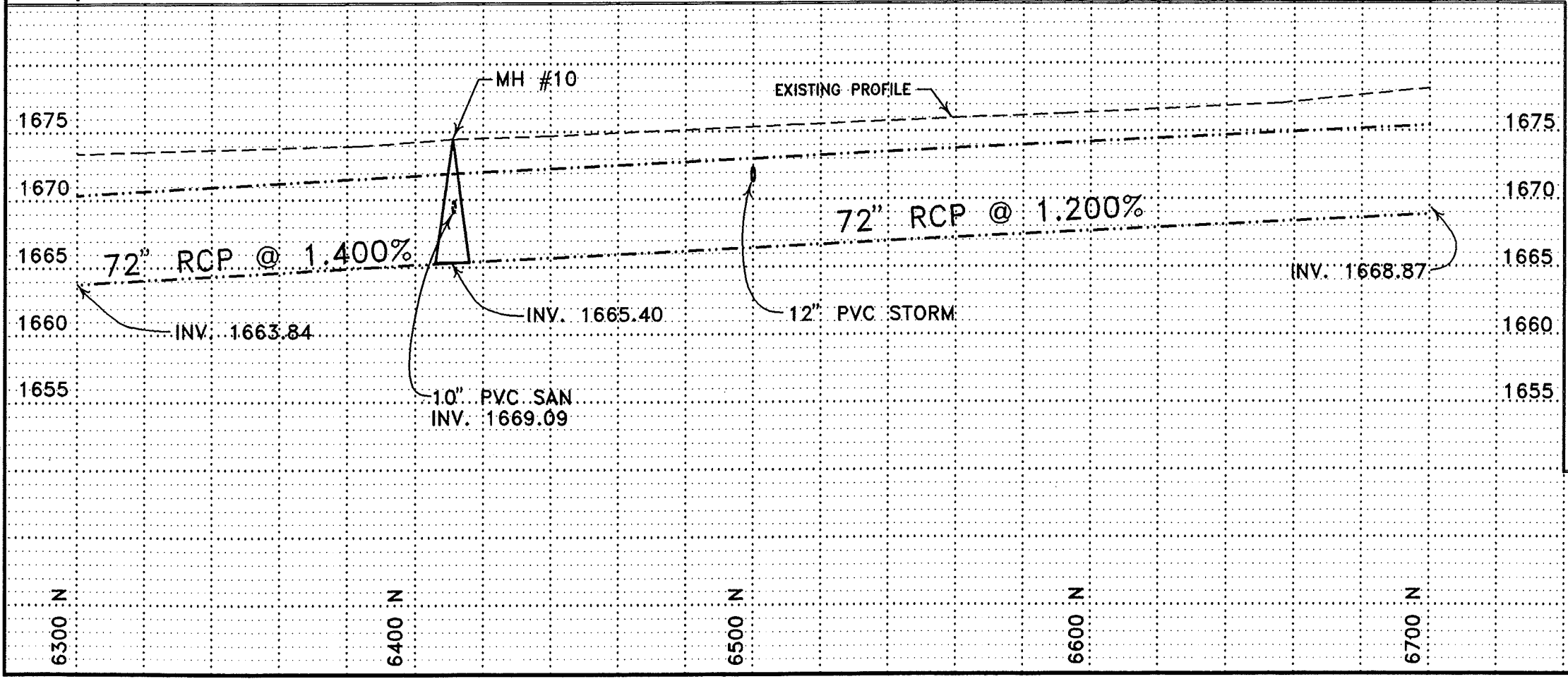
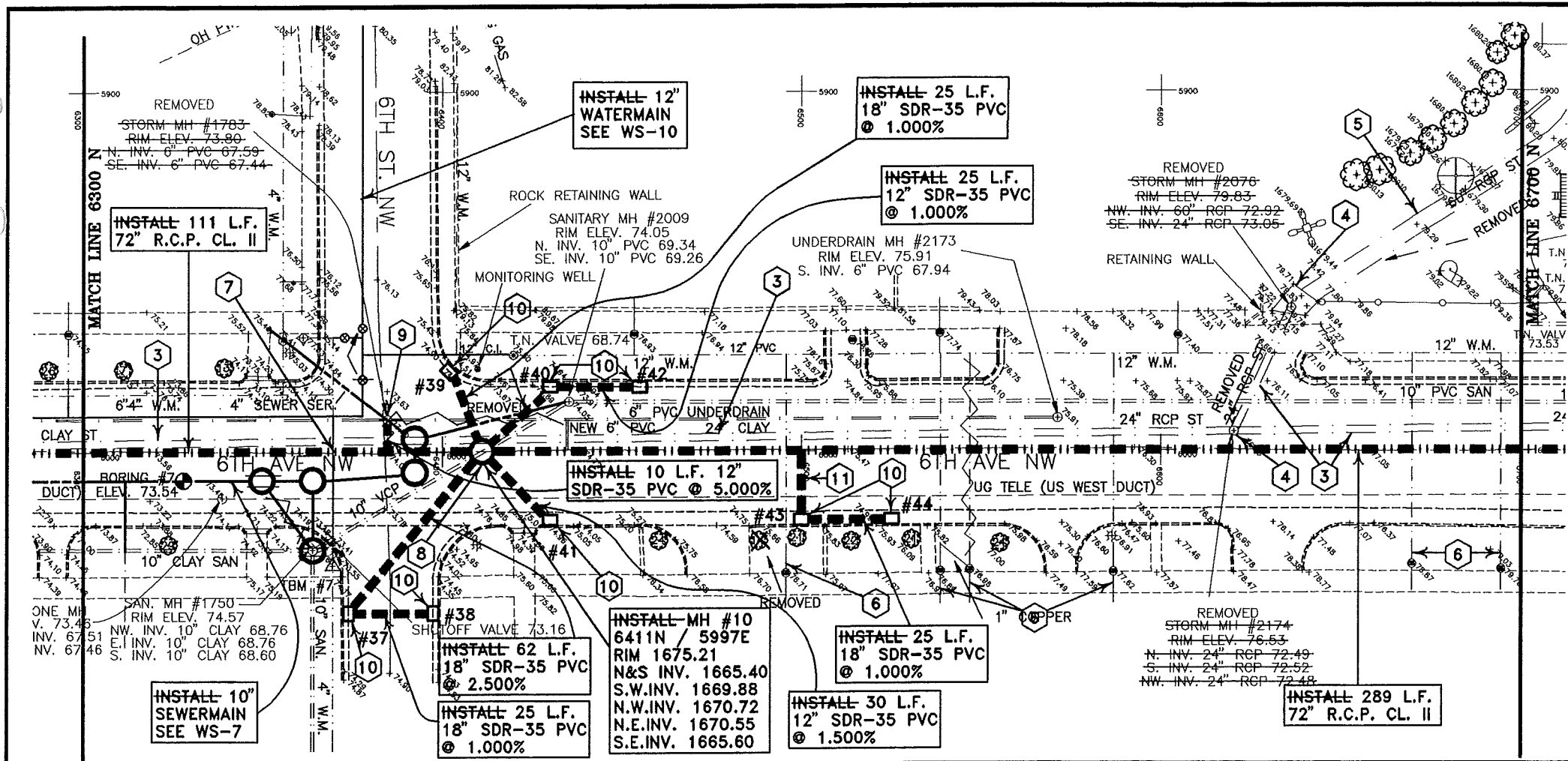


REV.	DATE	DESCRIPTION	BY
11/15/95		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
5900 N TO 6300 N			
ULTEIG ENGINEERS, INC.			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 1-95	SS-8	
APPROVED BY:			

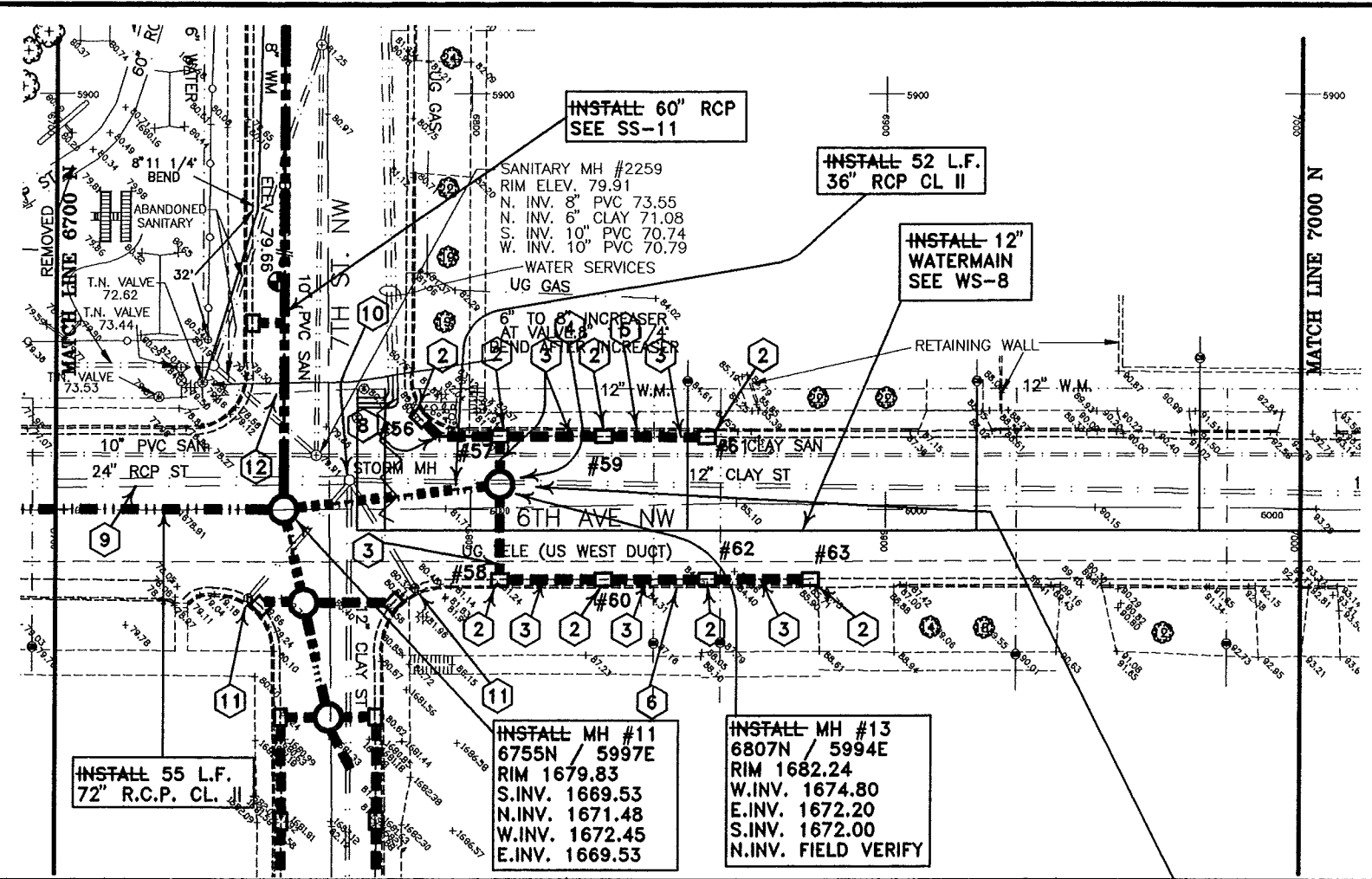
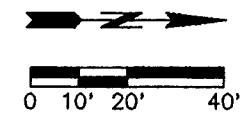


CONSTRUCTION NOTES

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
  - 2 FROM 6000N TO 6400N BACKFILL 72" RCP WITH ROCK TO PIPE SPRINGLINE AND WITH WASHED SAND FROM PIPE SPRINGLINE TO WITHIN 2' OF SURFACE.
  - 3 REMOVE 24" VCP OR 24" RCP.
  - 4 REMOVE EXISTING MANHOLE.
  - 5 REMOVE 60" RCP AND FILL TRENCH TO GRADE WITH EXCESS EXCAVATION. COSTS FOR FILLING TRENCH INCIDENTAL.
  - 6 ADJUST WATER SERVICE.
  - 7 4" WATERMAIN TO BE LOWERED, SEE WS-7.
  - 8 ~~INSTALL 10" SANITARY THROUGH MH#10 USING C900 PVC. NO JOINTS WITHIN MANHOLE. SECURELY GROUT AT BOTH OPENINGS. INSTALL AT SAME GRADE. CONNECT TO 10" VCP EITHER SIDE OF MH #10, COSTS INCLUDED WITH MH #10.~~
  - 9 ~~CONNECT MH #1783 TO 72" RCP. PROVIDE GROUTED CONNECTION TO 72" RCP. COSTS INCIDENTAL. PLUG SOUTH INVERT OF MH #1783 WITH CONCRETE. COSTS INCIDENTAL. TIED IN EAST OF SANITARY MH # 2009~~
  - 10 ~~INSTALL INLET:~~
- | LOCATION               | TYPE      | GRATE     | GRATE ELEV. | INV. ELEV. |
|------------------------|-----------|-----------|-------------|------------|
| #37 6045E-RT           | II-DOUBLE | "DR & DL" | 1673.60     | 1667.15    |
| #38 6045E-LT           | II-DOUBLE | "DR & DL" | 1673.90     | 1669.90    |
| #39 6402.9N<br>5976.6E | II-DOUBLE | "DR & DL" | 1674.13     | 1670.13    |
| #40 6430N-LT           | II-SINGLE | "V"       | 1674.97     | 1670.97    |
| #41 6430N-RT           | II-SINGLE | "V"       | 1674.97     | 1671.00    |
| #42 6455N-LT           | II-SINGLE | "V"       | 1675.25     | 1671.22    |
| #43 6500N-RT           | II-SINGLE | "V"       | 1675.73     | 1671.75    |
| #44 6525N-RT           | II-SINGLE | "V"       | 1676.00     | 1672.00    |
- 11 ~~INSTALL 18" SDR-35 PVC @ 2.500%.  
18" INV. @ 72" RCP 1671.36.~~



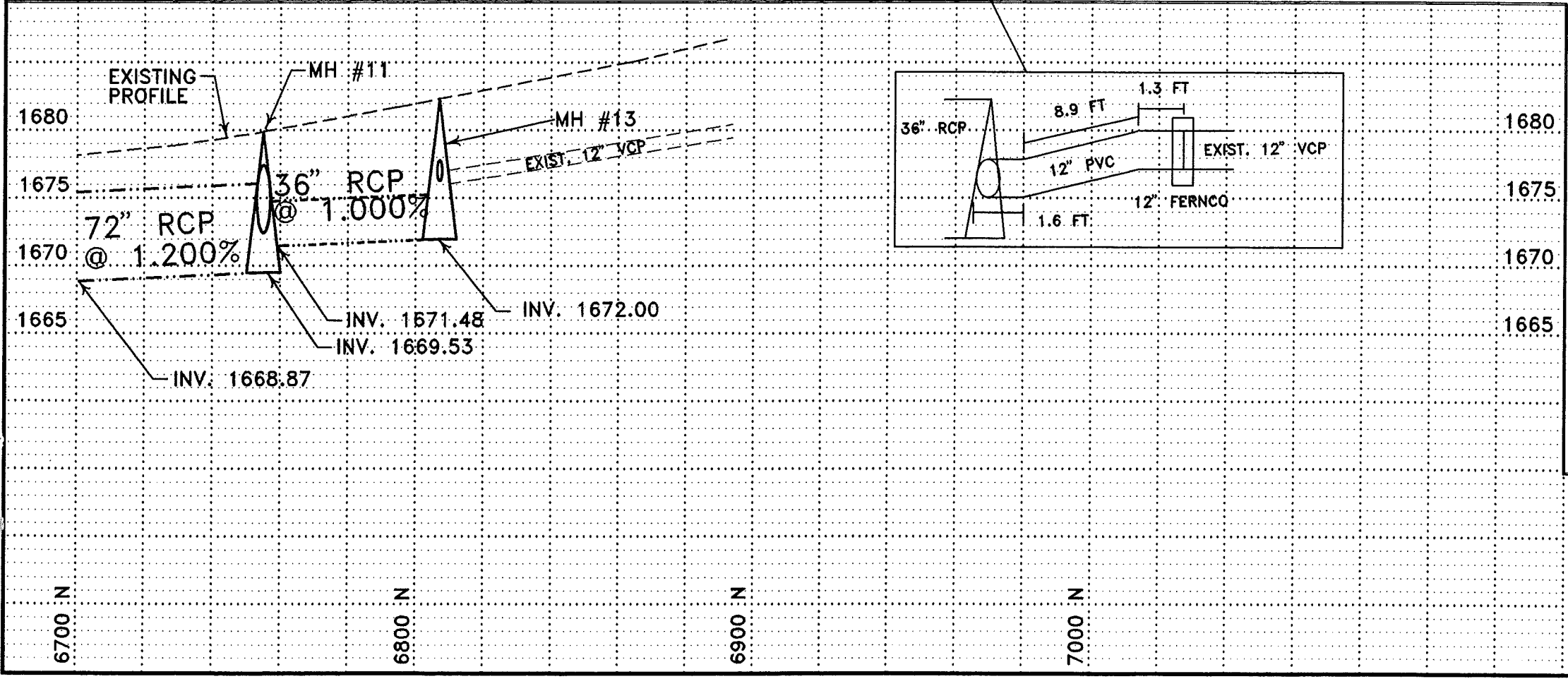
REV.	DATE	DESCRIPTION	BY
11/13/98		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
6300 N TO 6700 N			
ULTEIG ENGINEERS, INC.			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO: 94823	
CHECKED BY:	DATE: 1-95	SHEET: SS-9	
APPROVED BY:			



**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 INSTALL INLET:
 

LOCATION	TYPE	GRATE	GRATE ELEV.	INV. ELEV.
#56 6788.9N } 5976.9E }	II-SINGLE	"DR"	1679.94	1675.90
#57 6807N-LT	II-SINGLE	"V"	1681.20	1675.50
#58 6807N-RT	II-SINGLE	"V"	1681.20	1673.20
#59 6832N-LT	II-SINGLE	"V"	1682.60	1678.50
#60 6832N-RT	II-SINGLE	"V"	1682.60	1678.50
#61 6857N-LT	II-SINGLE	"V"	1684.05	1680.00
#62 6857N-RT	II-SINGLE	"V"	1684.10	1680.10
#63 6882N-RT	II-SINGLE	"V"	1685.35	1681.35
- 3 INSTALL 18" SDR-35 PVC @ 5.000%.
- 4 RECONNECT 12" VCP STORM SEWER TO MH #13, COSTS INCIDENTAL.
- 5 REMOVE AND REPLACE CURB AND GUTTER AND SIDEWALK AS REQUIRED.
- 6 REMOVE AND REPLACE CURB AND GUTTER.
- 7 MH #13 TO BE 36" TEE SECTION, INSTALL PLUG ON NORTH END.
- 8 INSTALL 45' BEND, COSTS INCLUDED IN OTHER ITEMS. INSTALL 12" SDR-35 PVC @ 2.000%.
- 9 REMOVE 24" RCP.
- 10 REMOVE EXISTING MANHOLE.
- 11 REMOVE EXISTING INLET.
- 12 ROUTE 12" WATERMAIN UNDER 60" RCP AS PER STANDARD DETAIL.

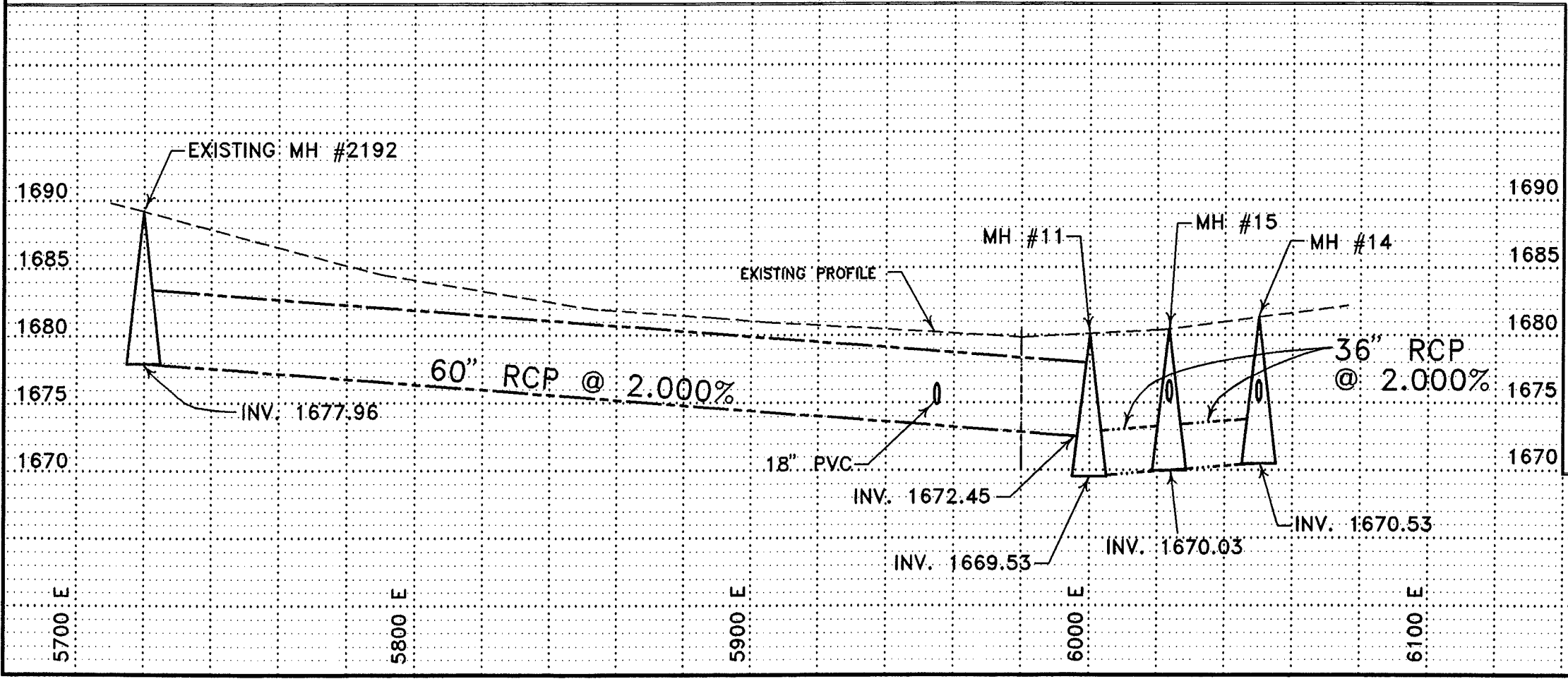
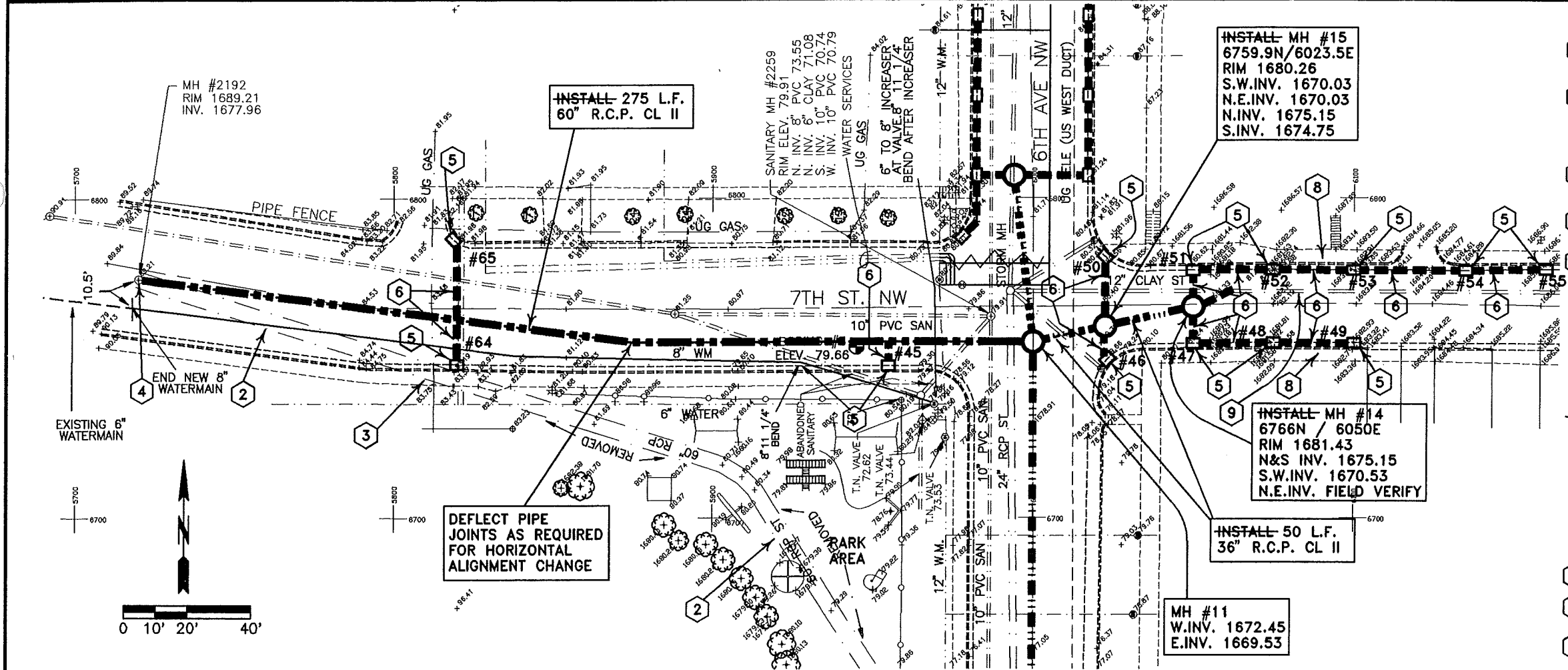


REV.	DATE	DESCRIPTION	BY
11/13/95		RECORD DRAWING	
6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS			
6700 N TO 7000 N			
ULTEIG ENGINEERS, INC. MINNEAPOLIS			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 1-95	SS-10	
APPROVED BY:			

CONSTRUCTION NOTES

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 REMOVE 60" RCP AND FILL TRENCH TO GRADE WITH EXCESS EXCAVATION. COSTS FOR FILLING TRENCH INCIDENTAL. PROTECT ALL PLAYGROUND EQUIPMENT.
- 3 REMOVE AND REPLACE CURB AND GUTTER AND SIDEWALK AS REQUIRED.
- 4 CONNECT NEW 60" RCP TO EXISTING MH #2192, COSTS INCIDENTAL.
- 5 -INSTALL INLET:
 

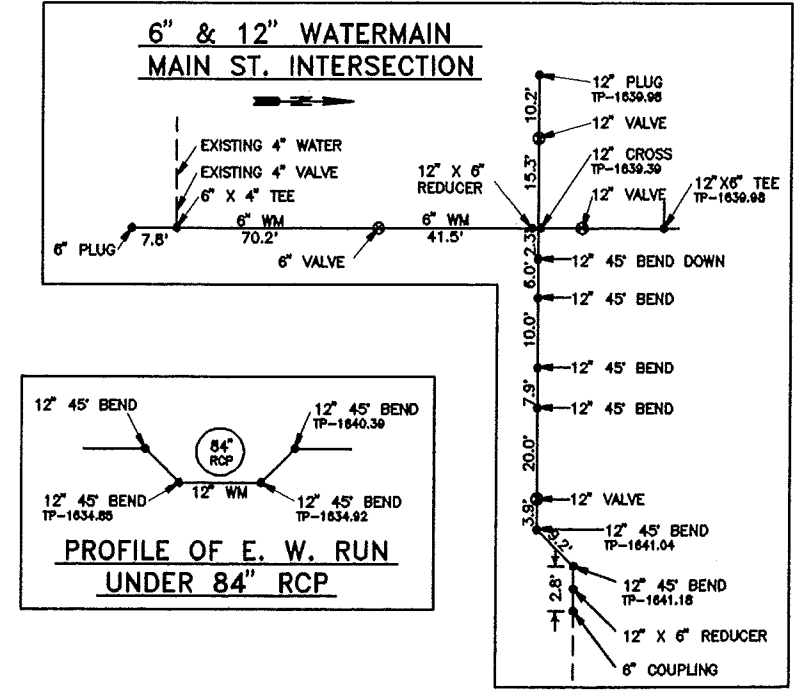
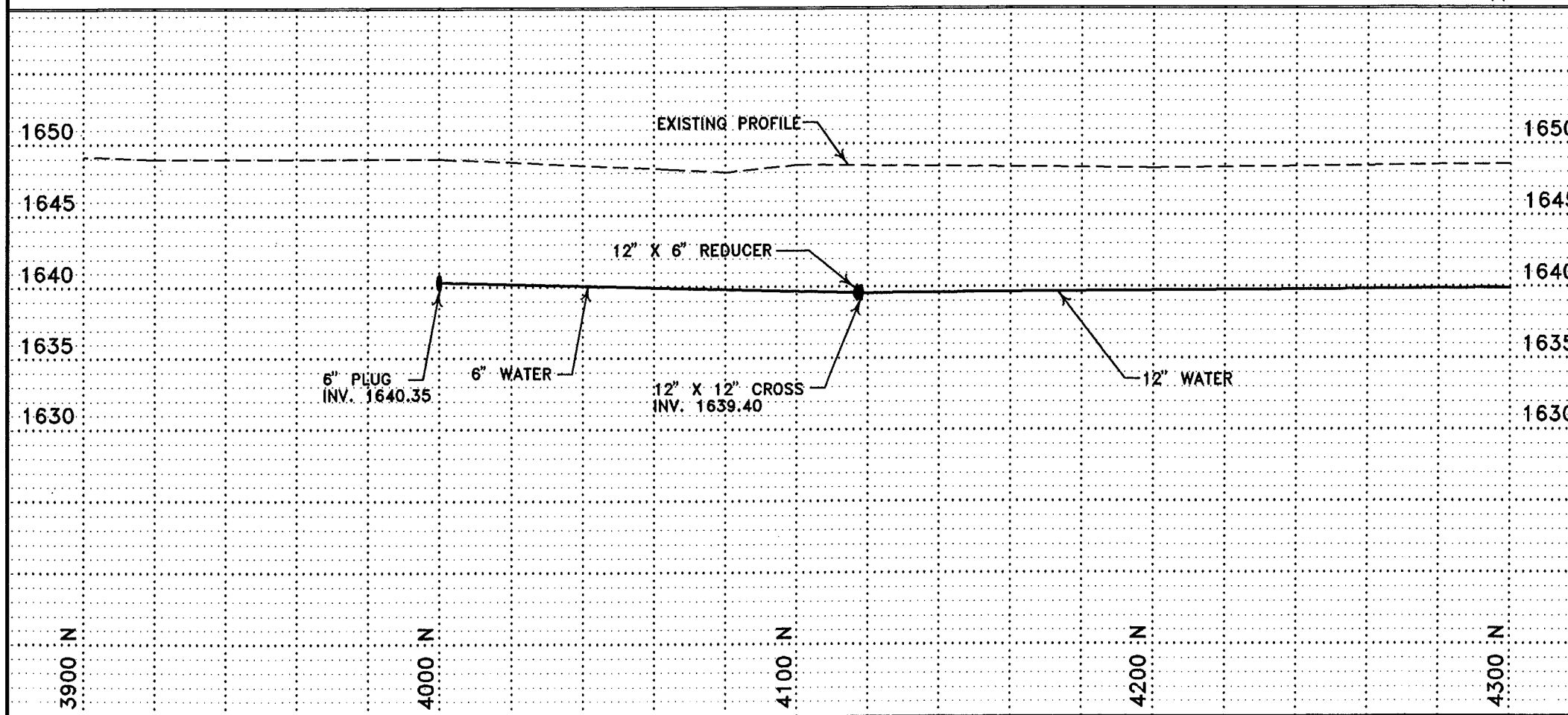
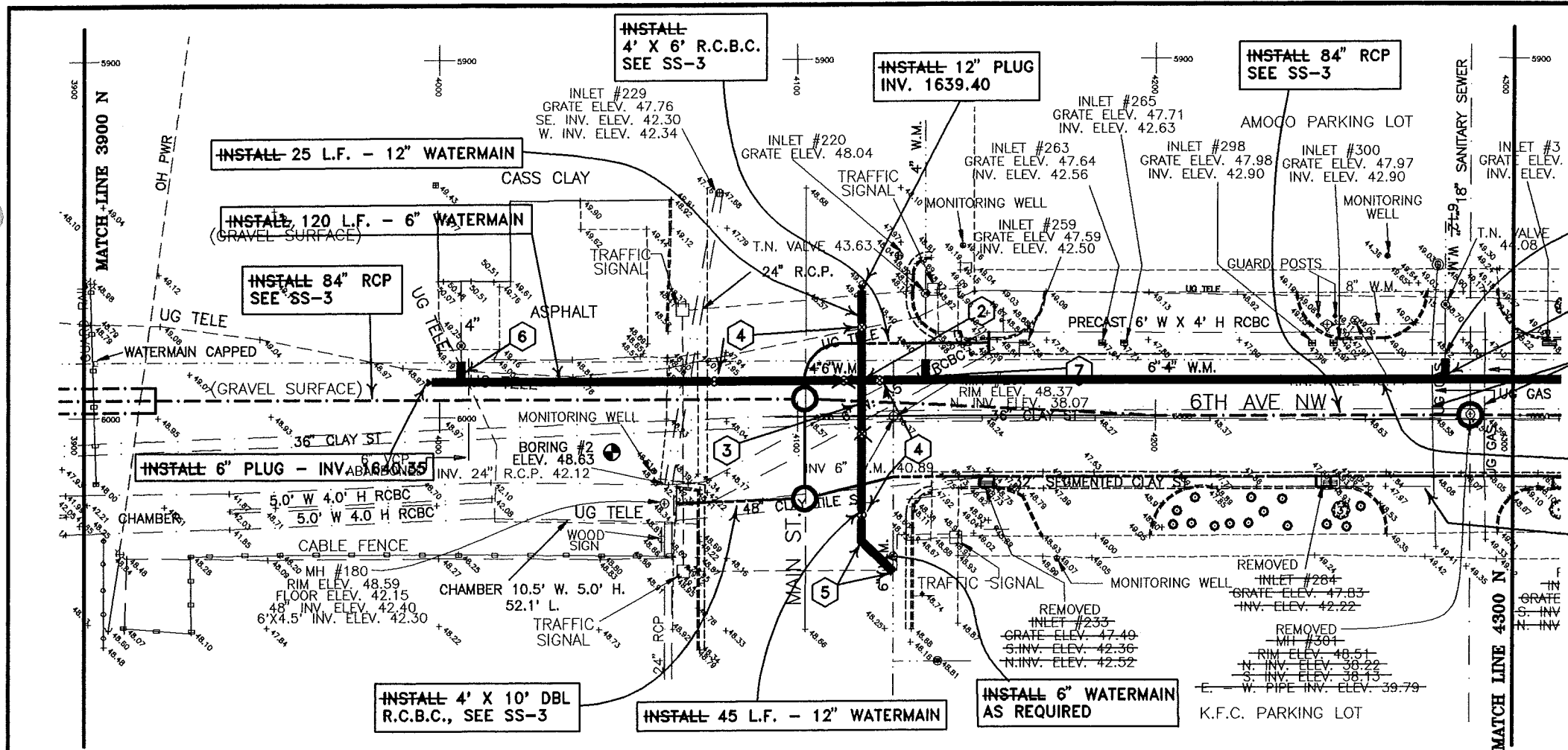
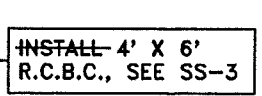
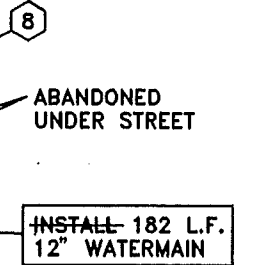
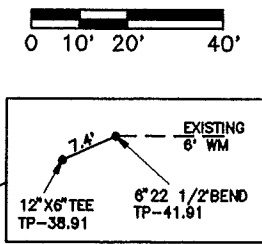
LOCATION	TYPE	GRATE	GRATE EL.	INV. EL.
#45 5955E-RT	II-SINGLE	"V"	1679.30	1675.25
#46 6748.5N 6024.3E	II-DOUBLE	"DR&DL"	1679.30	1675.25
#47 6050E-RT	II-SINGLE	"V"	1680.20	1675.85
#48 6075E-RT	II-SINGLE	"V"	1681.60	1677.10
#49 6100E-RT	II-SINGLE	"V"	1682.60	1678.35
#50 6782.7N 6023.5E	II-DOUBLE	"DR&DL"	1679.65	1676.15
#51 6050E-LT	II-SINGLE	"V"	1680.60	1675.85
#52 6075E-LT	II-SINGLE	"V"	1681.60	1677.10
#53 6100E-LT	II-SINGLE	"V"	1682.60	1678.35
#54 6135E-LT	II-SINGLE	"V"	1683.80	1680.10
#55 6160E-LT	II-SINGLE	"V"	1685.50	1681.35
#64 5820E-RT	II-SINGLE	"V"	1682.55	1678.55
#65 6788.2N 5280.0E	II-SINGLE	"V"	1681.85	1677.85
- 6 -INSTALL 18" SDR-35 PVC @ 5.000%.
- 7 MH #14 AND #15 TO BE 36" - "T" SECTIONS. INSTALL PLUG ON NORTH END OF MH #15.
- 8 REMOVE AND REPLACE CURB AND GUTTER AND SIDEWALK AS REQUIRED.
- 9 RECONNECT 12" VCP STORM SEWER TO MH #14, COSTS INCIDENTAL.



DATE	11/13/95	DESCRIPTION	RECORD DRAWING
REV.			
6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS			
7TH ST N.W.			
DRAWN BY: M.H.		SCALE: AS SHOWN	PROJECT NO. 94823
CHECKED BY:		DATE: 1-95	SS-11
APPROVED BY:			

**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 INSTALL 12" X 12" CROSS, ± 4118N, 5990E, INV. 1639.40. INSTALL 12" X 6" REDUCER ON SOUTH LEG.
- 3 ROUTE NEW 12" WATERMAIN UNDER 84" RCP AS PER STANDARD DETAIL.
- 4 INSTALL VALVE: 4118N/5975E - 12"  
4118N/6005E - 12"  
4123N/5990E - 12"  
4113N/5990E - 6"
- 5 INSTALL 12" X 6" REDUCER, BENDS, AND COUPLING AS REQUIRED TO CONNECT TO EXISTING 6" WATERMAIN.
- 6 INSTALL 2" WATER CONNECTION AND CURB STOP. RECONNECT TO EXISTING SERVICE LINE, COSTS INCIDENTAL.
- 7 INSTALL 12" X 8" TEE, 8" X 4" REDUCER, BENDS, & COUPLING AS REQUIRED TO CONNECT EXISTING 4" WATERMAIN TO NEW 12" WATERMAIN.
- 8 INSTALL 12" TEE AND FITTINGS AS REQUIRED TO CONNECT TO EXISTING 12" WATERMAIN.

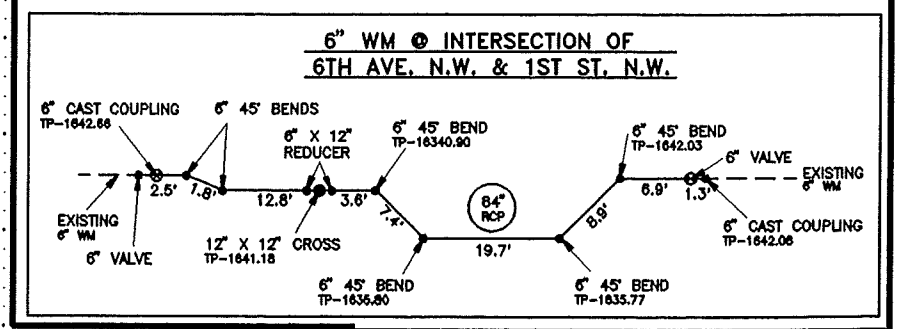
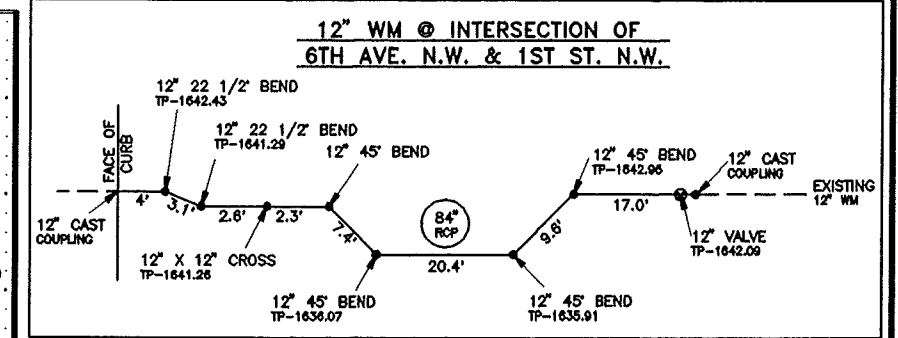
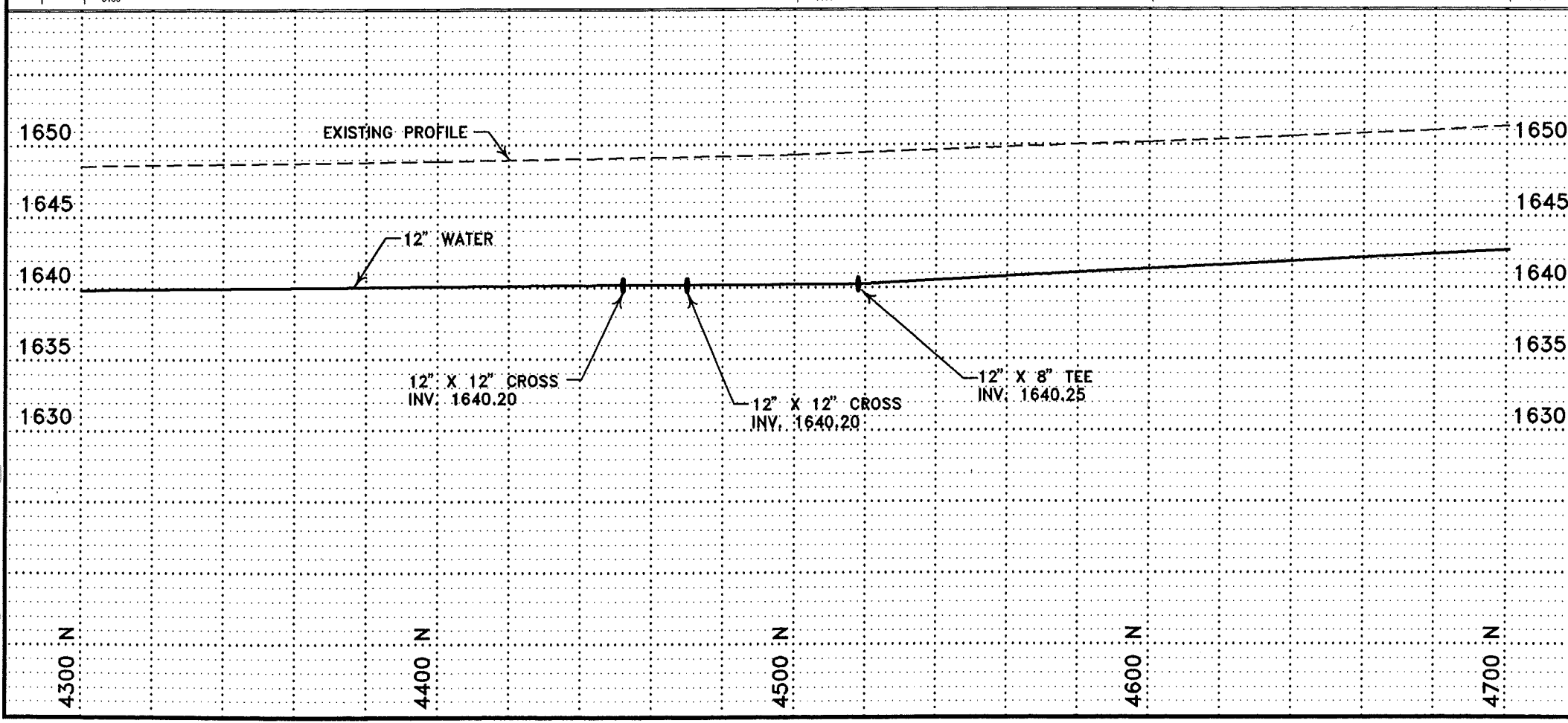
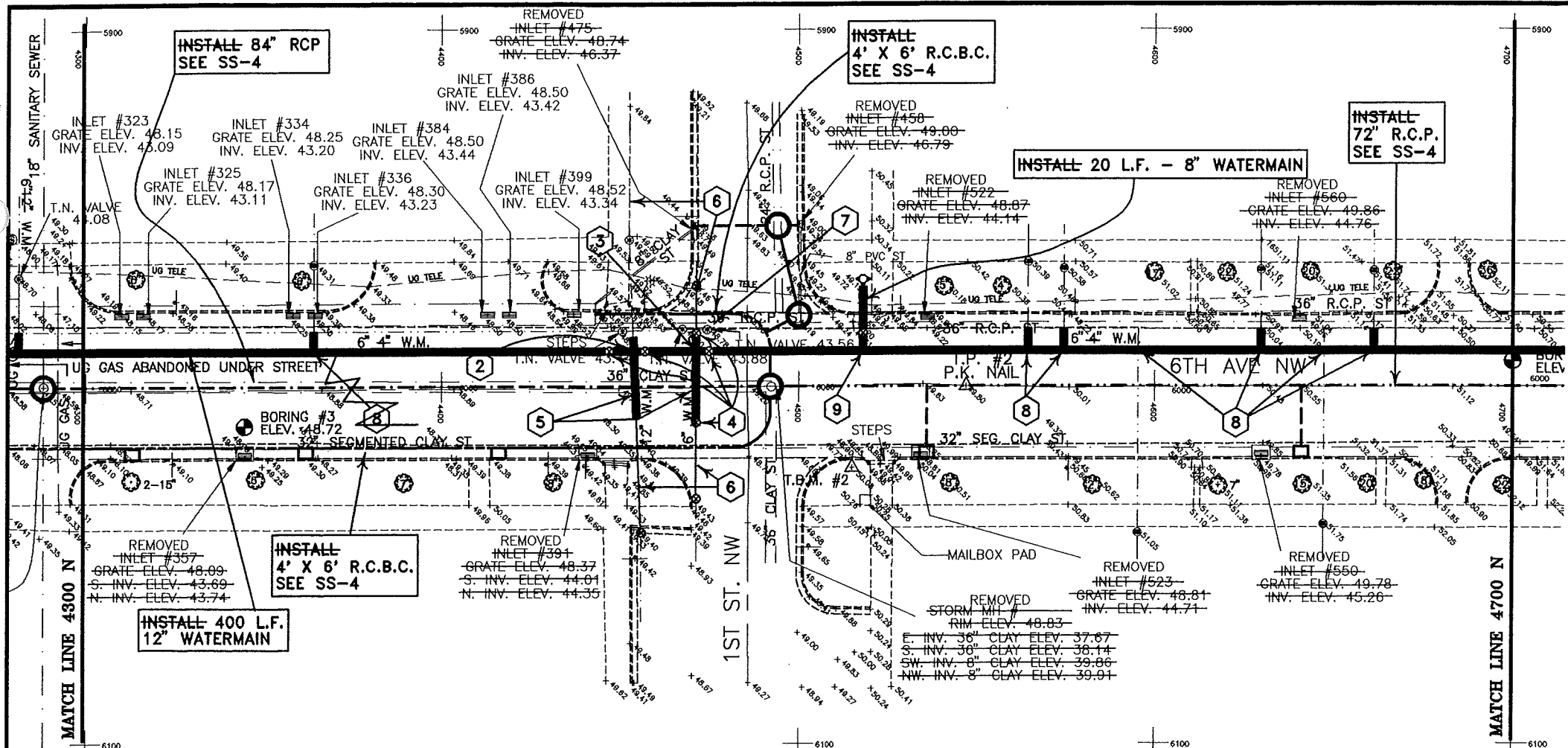
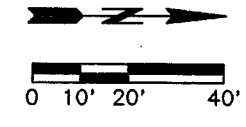


11/13/95		RECORD DRAWING	
REV.	DATE	DESCRIPTION	BY
<b>WATER &amp; SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38</b> 4000 N TO 4300 N			
ULTEIG ENGINEERS, INC. PROJECT NO. 94823			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 2-95	WS-1	
APPROVED BY:			



CONSTRUCTION NOTES

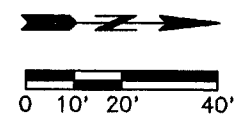
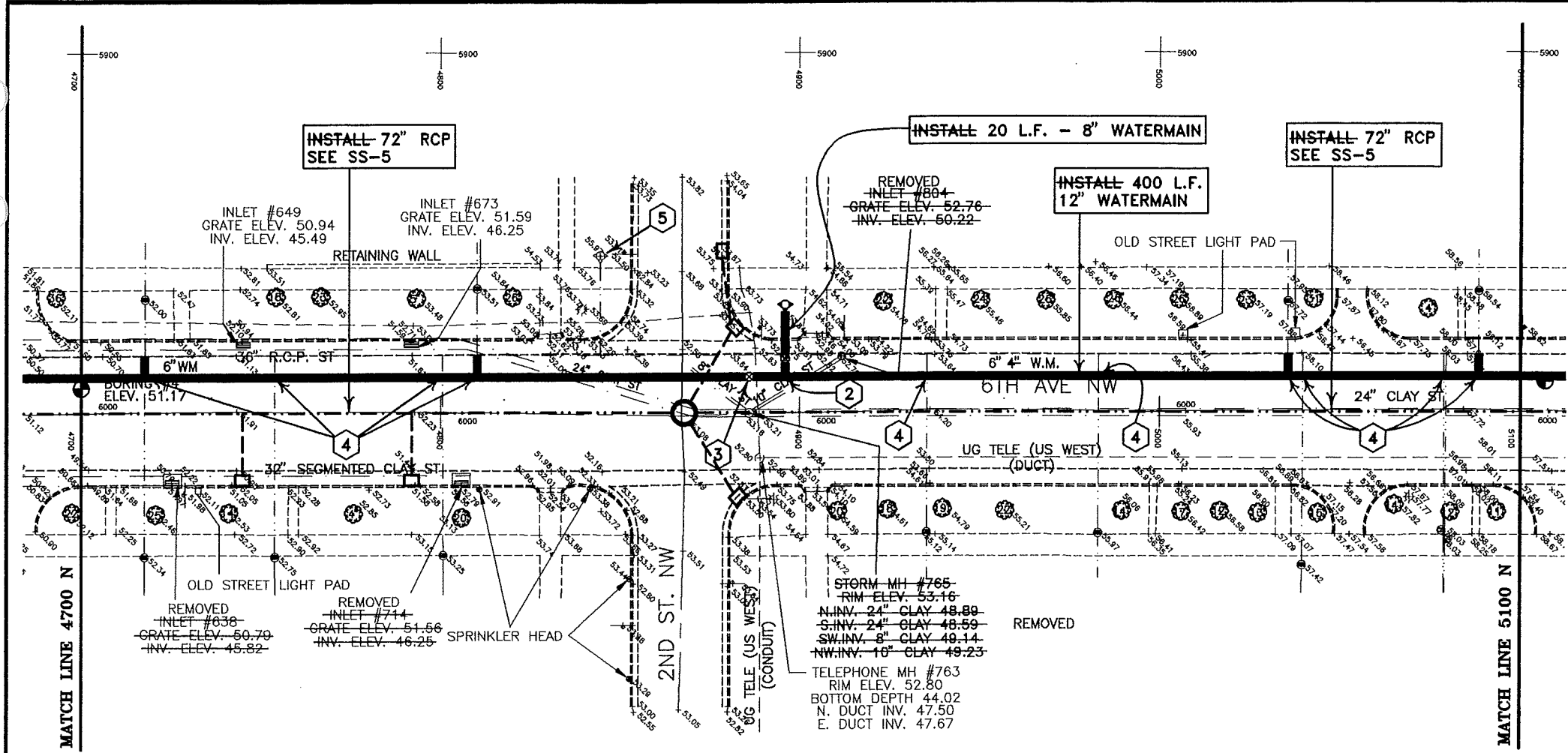
- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 -INSTALL 12" X 12" CROSS, 4452N/5990E. INV. 1640.20.
- 3 -INSTALL 12" X 12" CROSS, 4470N/5990E, INV. 1640.20.  
-INSTALL 12" X 6" REDUCERS ON EAST AND WEST LEGS.
- 4 -INSTALL VALVE : ± 4447N/5990E - 12"  
4457N/5990E - 12"  
4475N/5990E - 12"  
4471N/5985E - 6"  
4471N/6010E - 6"
- 5 ROUTE 12" & 6" WATERMAIN UNDER 84" RCP & 4' X 6' R.C.B.C., IF REQUIRED, AS PER STANDARD DETAIL.
- 6 -INSTALL FITTINGS & COUPLINGS AS REQUIRED TO CONNECT EXISTING WATERMAIN TO NEW WATERMAIN. DO NOT RECONNECT EXISTING 4" WATERMAIN.
- 7 PLUG 4" WATERMAIN TO ALLOW IT TO BE ABANDONED TO THE SOUTH ONCE NEW 12" IS IN OPERATION, COSTS INCIDENTAL.
- 8 MAKE 1" WATERMAIN CONNECTION.
- 9 -INSTALL 12" X 8" TEE, 4518N/5990E INV. 1640.25, 8" VALVE 4518N/5985E, AND 8" HYDRANT 4518N/5970E.



REV.	DATE	DESCRIPTION	BY
1	11/13/98	RECORD DRAWING	

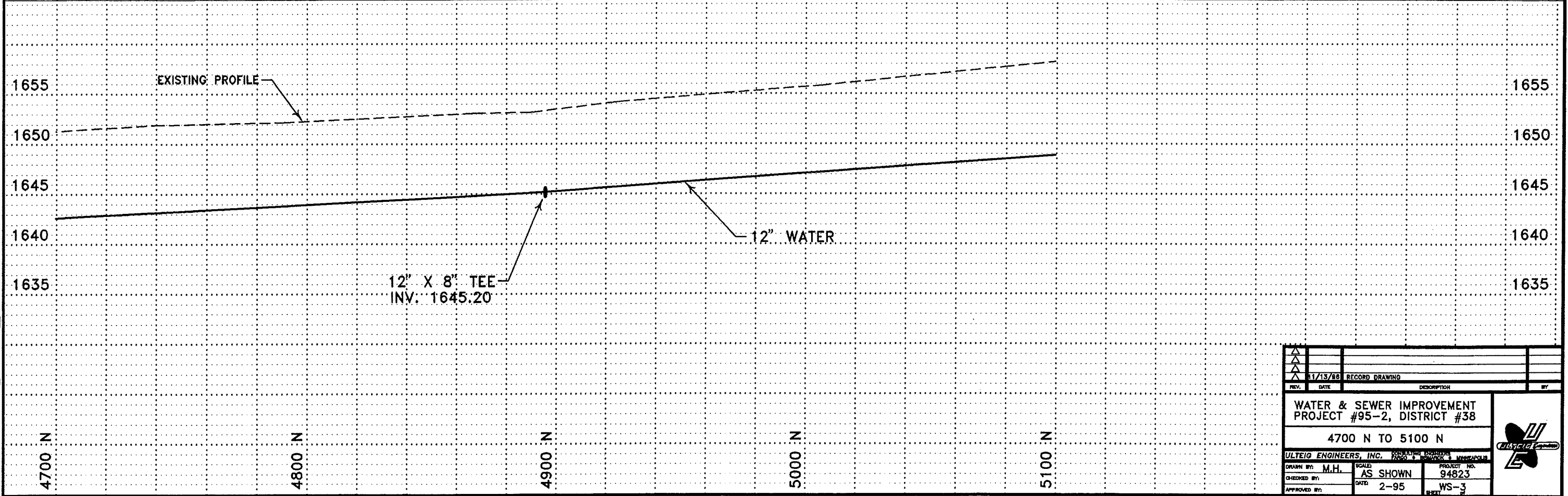
**WATER & SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38**  
**4300 N TO 4700 N**  
 ULTEIG ENGINEERS, INC.

DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO: 94823
CHECKED BY:	DATE: 2-95	WS-2
APPROVED BY:		

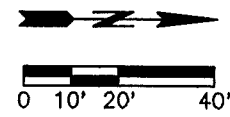


**CONSTRUCTION NOTES**

- ① CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- ② INSTALL 12" X 8" TEE 4896N/5990E - INV. 1647.20, 8" VALVE 4896N/5985E, AND 8" HYDRANT 4896N/5970E.
- ③ INSTALL 12" VALVE 4886N/5990E.
- ④ MAKE 1" WATERMAIN CONNECTION.
- ⑤ REMOVE EXISTING HYDRANT ONCE 4" WATERMAIN IS ABANDONED.

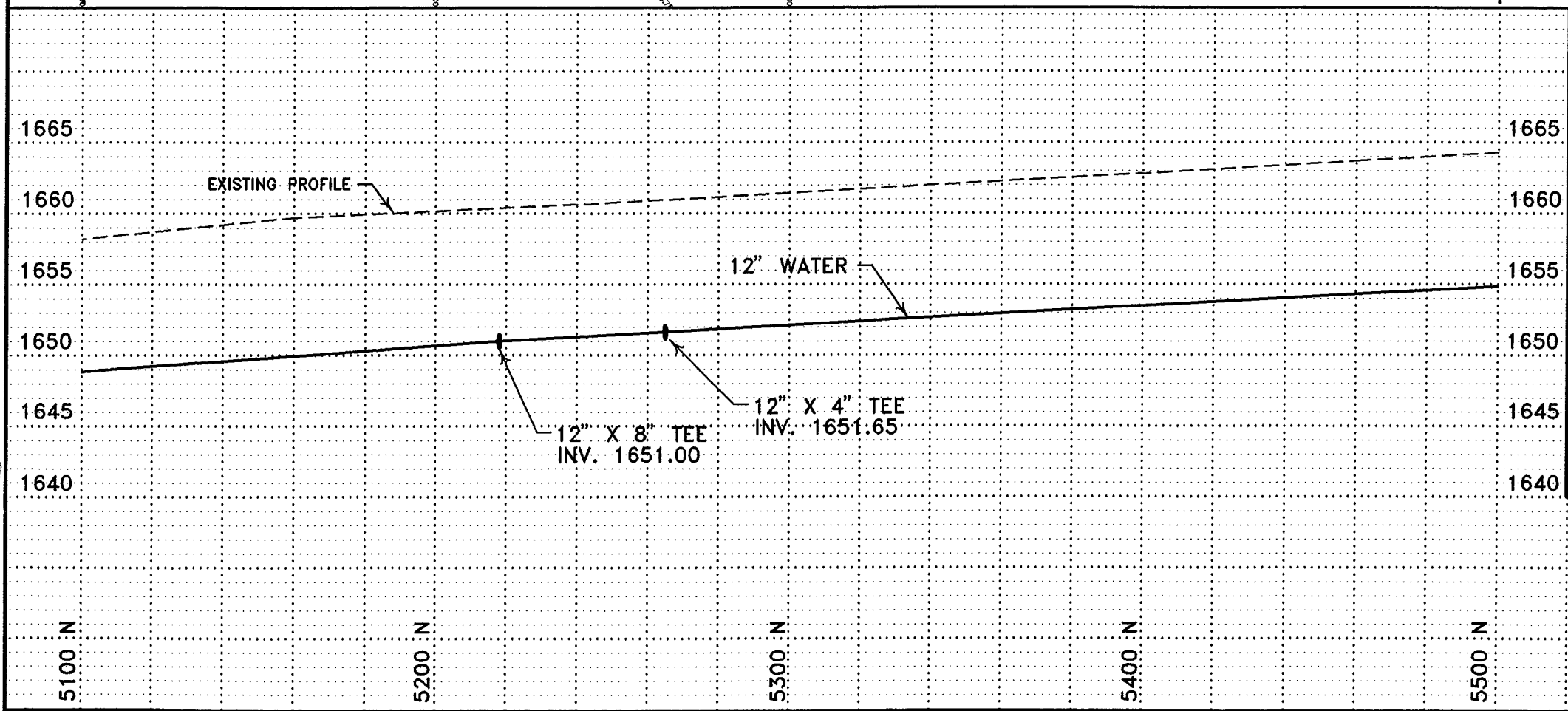
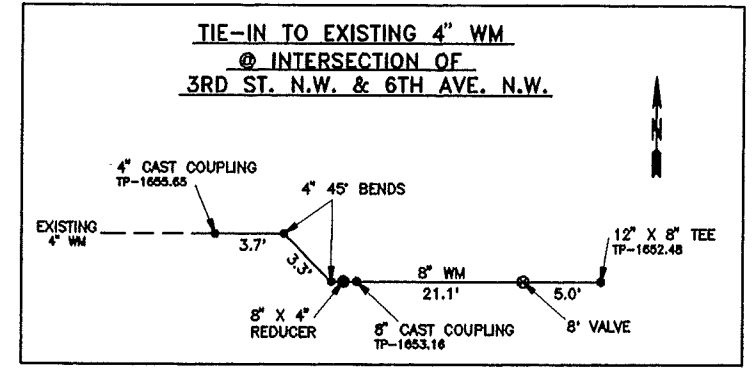
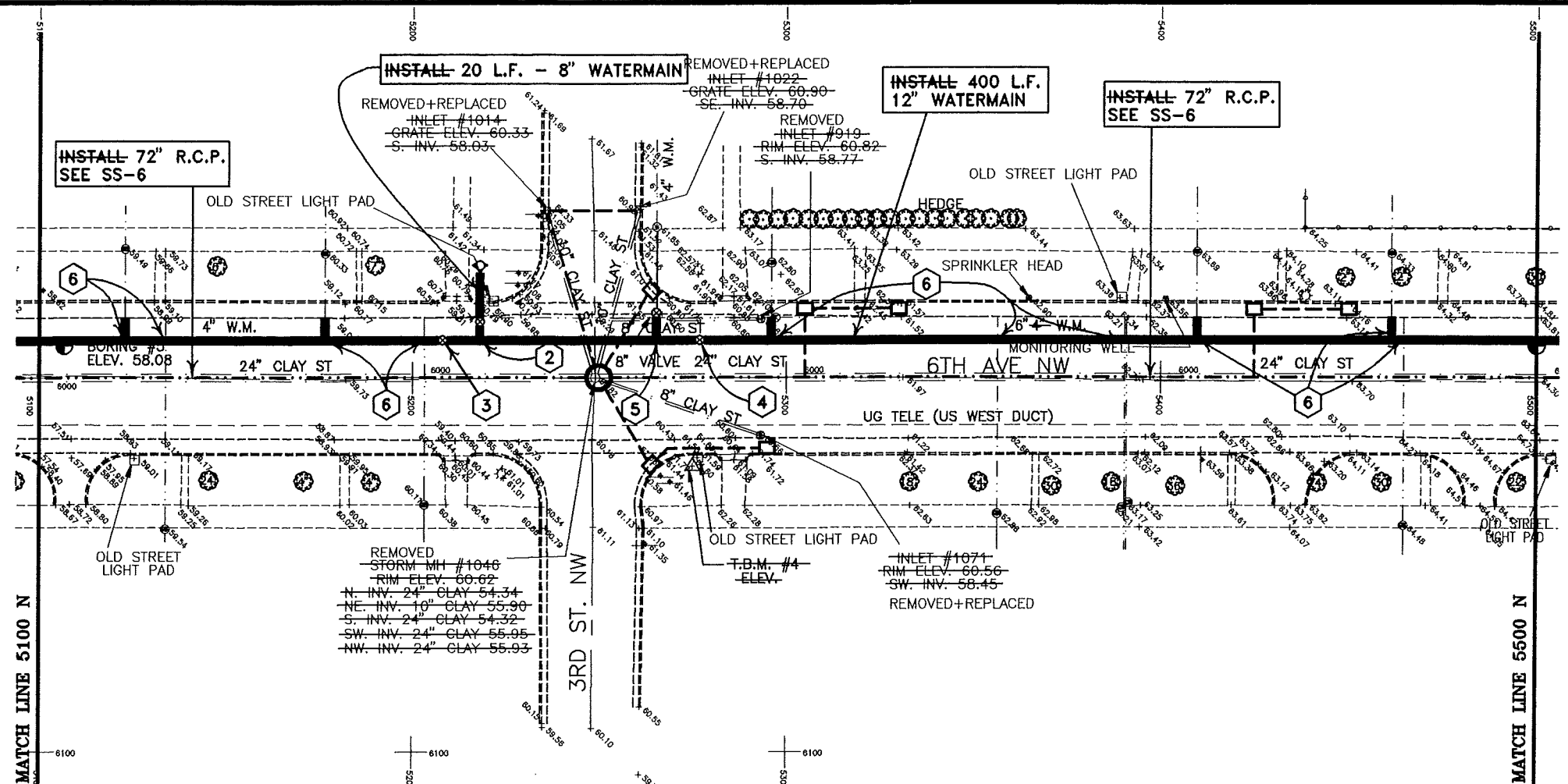


REV.	DATE	DESCRIPTION	BY
1	01/13/88	RECORD DRAWING	
<b>WATER &amp; SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38</b> <b>4700 N TO 5100 N</b>			
<b>ULTEIG ENGINEERS, INC.</b> <small>CONSULTING ENGINEERS</small> <small>1000 W. WISCONSIN ST. MILWAUKEE, WI 53233</small>			
DRAWN BY:	M.H.	SCALE:	AS SHOWN
CHECKED BY:		PROJECT NO.:	94823
APPROVED BY:		DATE:	2-95
		SHEET:	WS-3



CONSTRUCTION NOTES

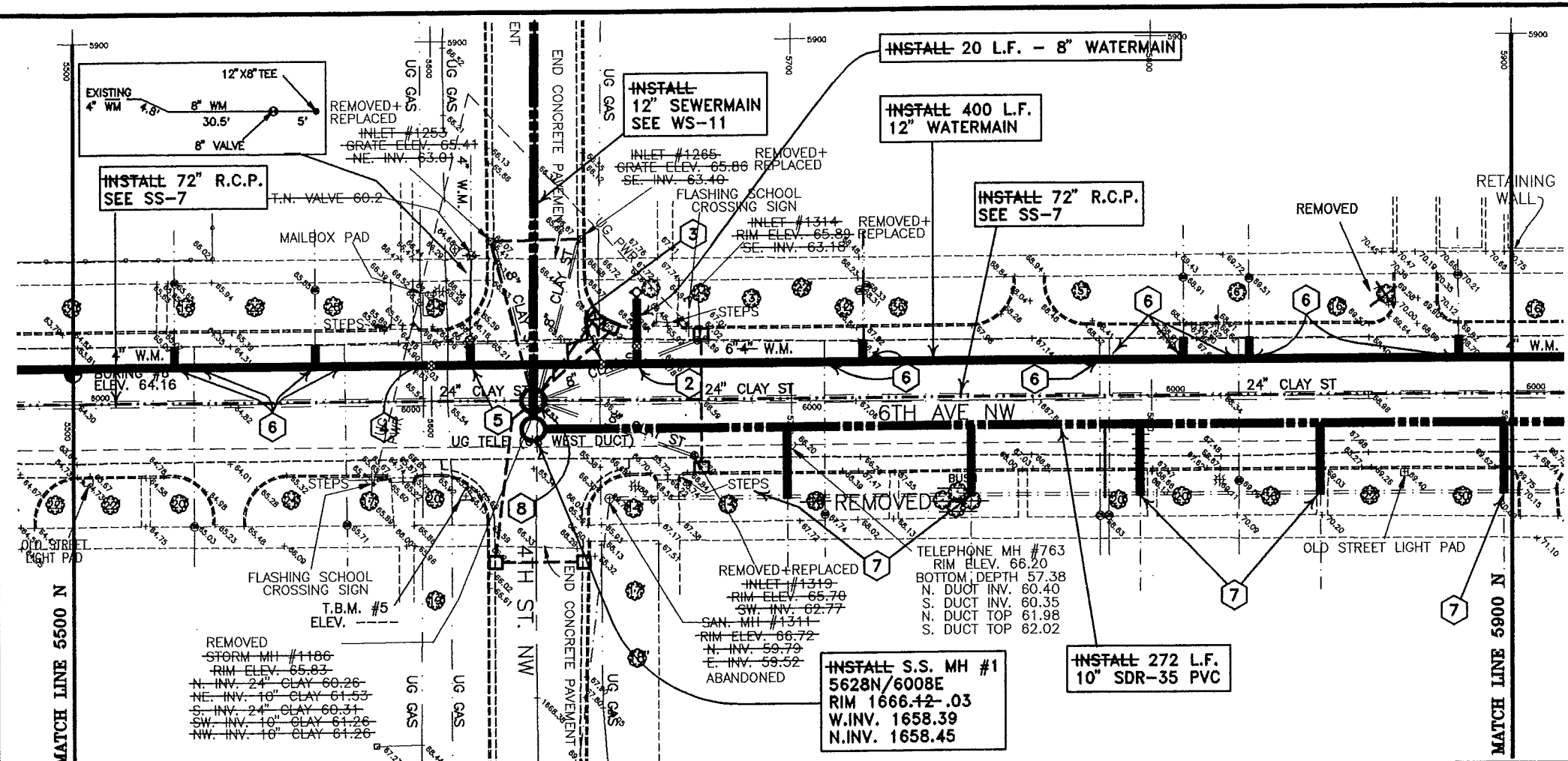
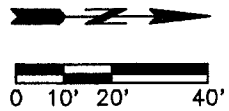
- ① CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- ② INSTALL 12" X 8" TEE 5218N/5990E - INV. 1651.00, 8" VALVE 5218N/5985E, AND 8" HYDRANT 5218N/5970E
- ③ INSTALL 12" VALVE 5208N/5990E.
- ④ INSTALL 12" VALVE 5277N/5990E.
- ⑤ INSTALL 12" X 8" TEE, 8" X 4" REDUCER, BENDS AND COUPLING AS REQUIRED TO CONNECT EXISTING 4" WM TO NEW 12" WM.
- ⑥ MAKE 1" WATER CONNECTION.



REV.	DATE	DESCRIPTION	BY
1	11/15/98	RECORD DRAWING	
<b>WATER &amp; SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38</b> 5100 N TO 5500 N			
ULTEIG ENGINEERS, INC. DRAWN BY: M.H. CHECKED BY: APPROVED BY:		SCALE: AS SHOWN PRODUCT NO: 94823 DATE: 2-95 SHEET: WS-4	

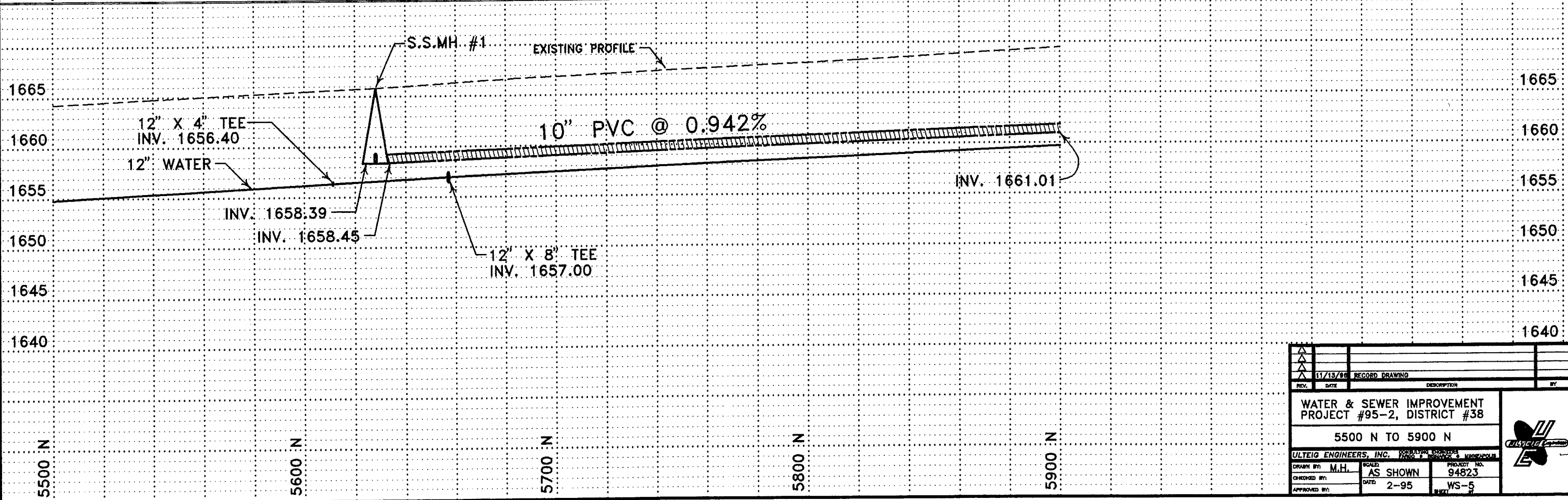




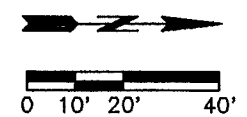
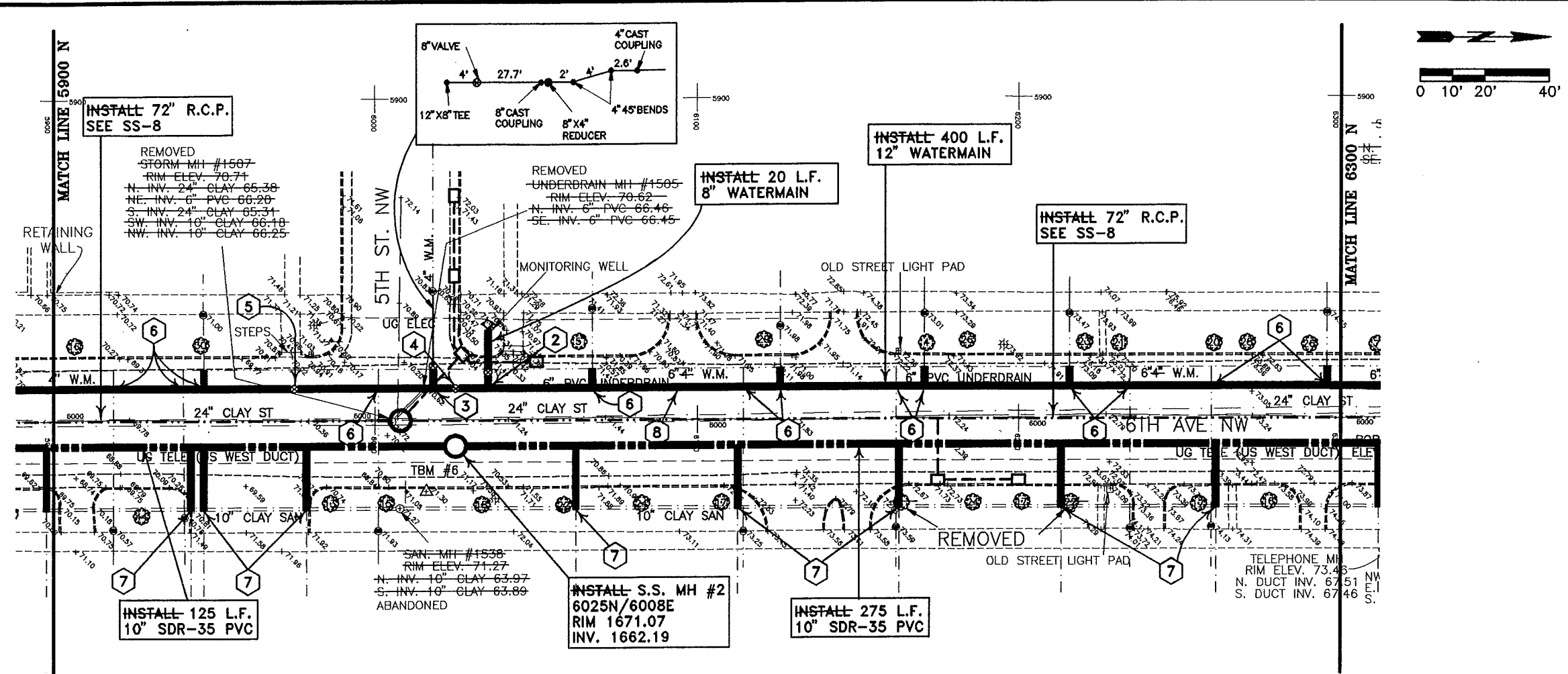


**CONSTRUCTION NOTES**

- ① CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- ② INSTALL 12" X 8" TEE 5657N/5990E - INV. 1657.00, 8" VALVE 5657N/5985E, AND 8" HYDRANT 5657N/5970E.
- ③ INSTALL 12" VALVE 5647N/5990E.
- ④ INSTALL 12" VALVE 5600N/5990E.
- ⑤ INSTALL 12" X 8" TEE, 8" X 4" REDUCER, BENDS AND COUPLING AS REQUIRED TO CONNECT EXISTING 4" WM TO NEW 12" WM.
- ⑥ MAKE 1" WATER CONNECTION.
- ⑦ MAKE 4" SANITARY SEWER CONNECTION.
- ⑧ INSTALL 12" SANITARY SEWER THROUGH MH #8 USING C900 PIPE. NO JOINTS WITHIN 72" RCP. GROUT OPENINGS. COSTS INCLUDED WITH OTHER ITEMS.

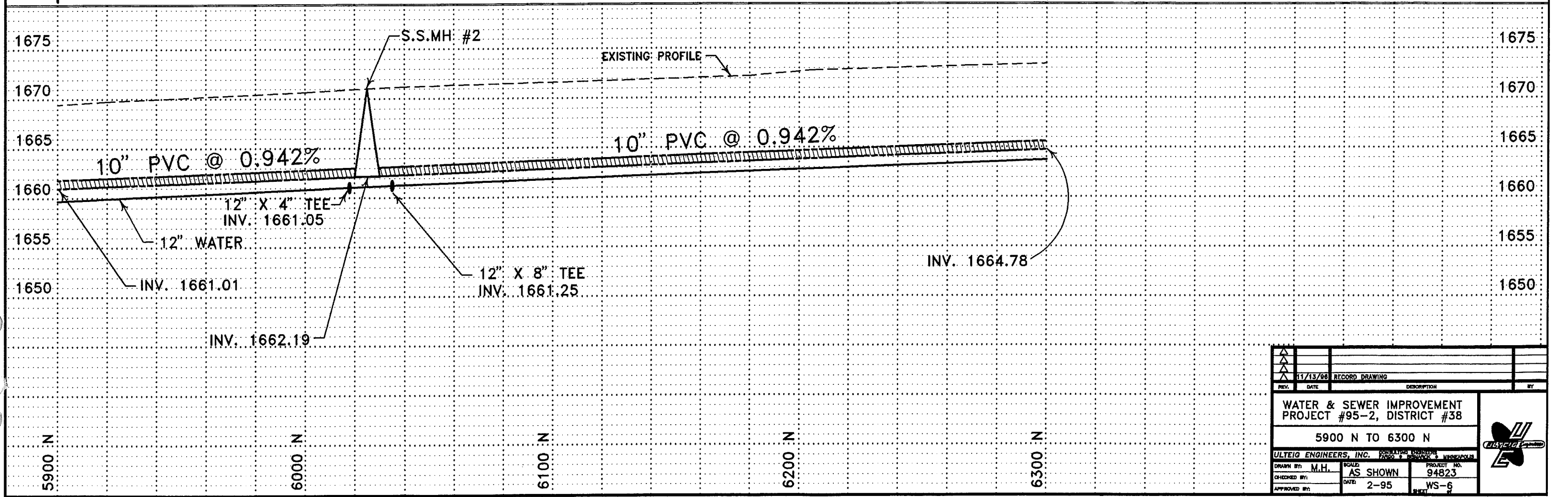


REV.	DATE	DESCRIPTION	BY
1	11/15/98	RECORD DRAWING	
<b>WATER &amp; SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38</b> <b>5500 N TO 5900 N</b>			
ULTEIG ENGINEERS, INC.			
DRAWN BY: M.H.	AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 2-95	WS-5	
APPROVED BY:			

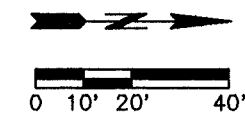


**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 INSTALL 12" X 8" TEE 6035N/5990E - INV. 1661.25, 8" VALVE 6035N/5985E, & 8" HYDRANT 6035N/5970E.
- 3 INSTALL 12" X 8" TEE, 8" X 4" REDUCER, BENDS AND COUPLING AS REQUIRED TO CONNECT EXISTING 4" WM TO NEW 12" WM.
- 4 INSTALL 12" VALVE 6025N/5990E.
- 5 INSTALL 12" VALVE 5975N/5990E.
- 6 MAKE 1" WATER CONNECTION.
- 7 MAKE 4" SANITARY SEWER CONNECTION.
- 8 REMOVE 6" PVC UNDERDRAIN AS NEEDED, COSTS INCIDENTAL.

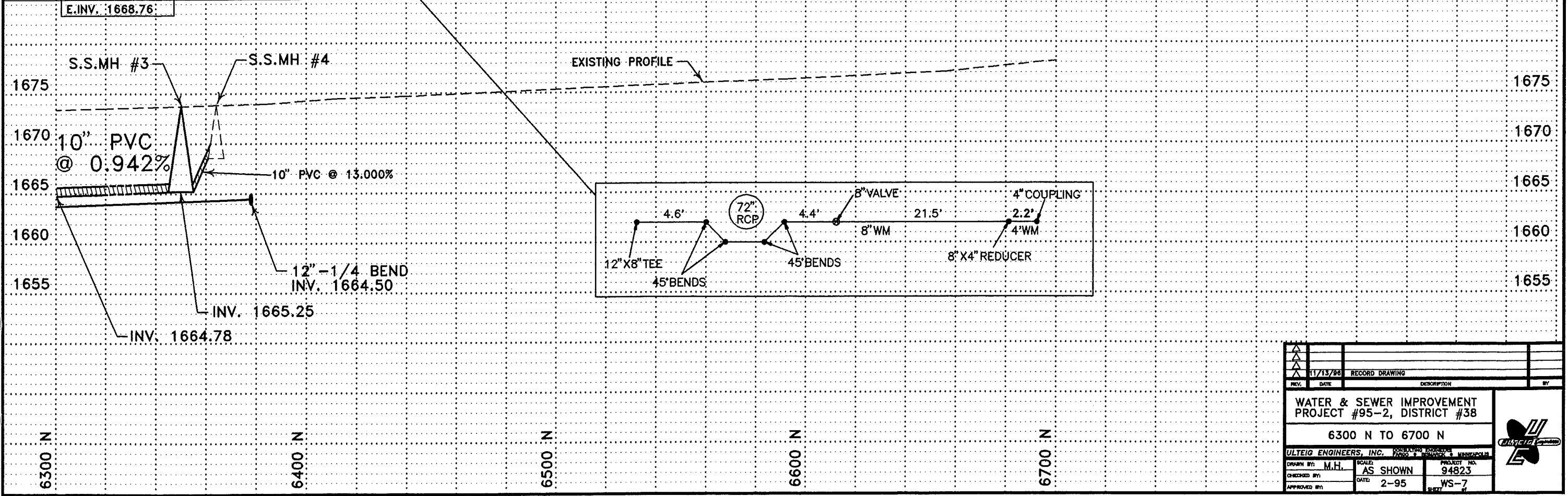
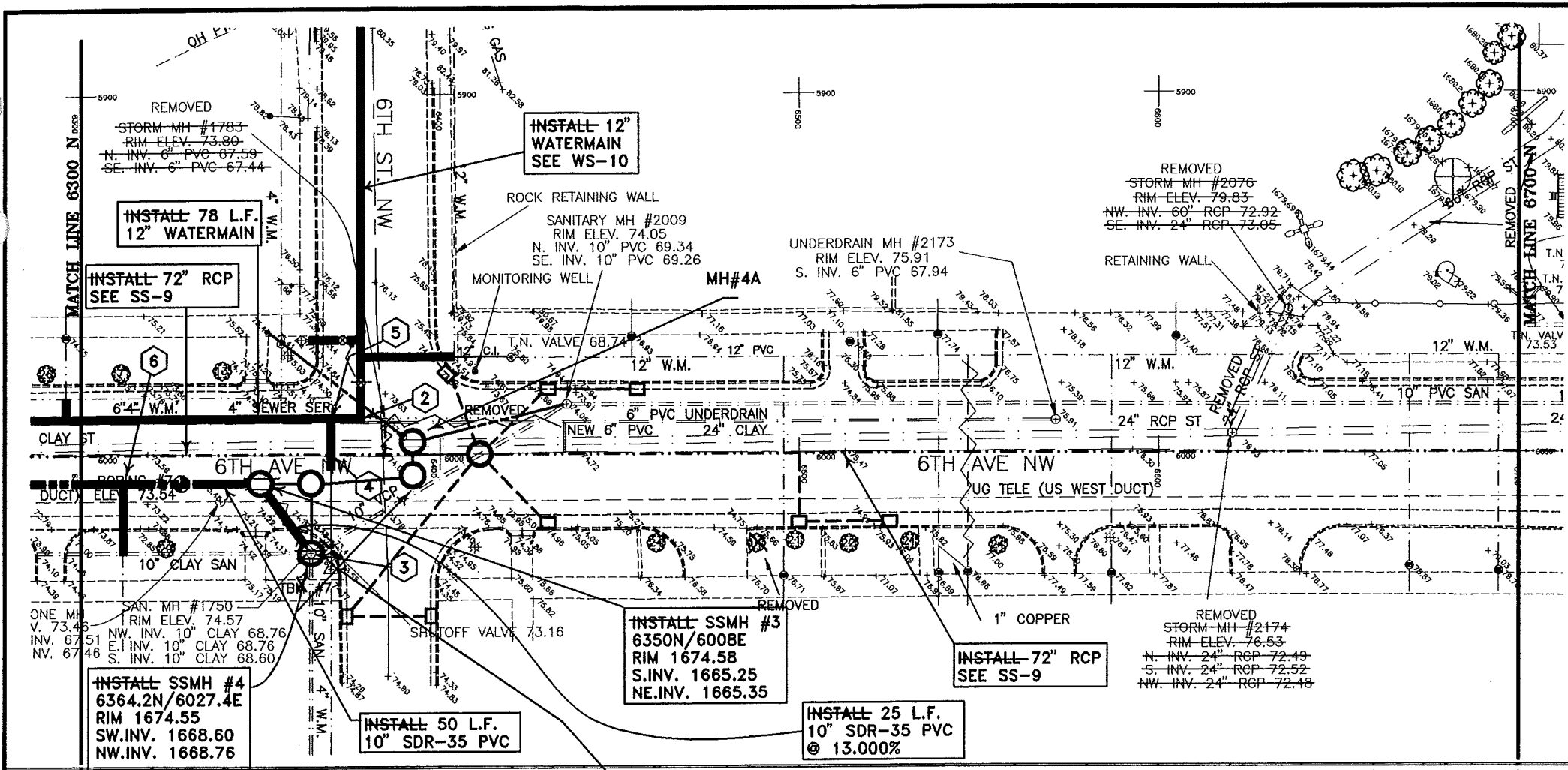


11/13/00	RECORD DRAWING		
REV.	DATE	DESCRIPTION	BY
<b>WATER &amp; SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38</b> 5900 N TO 6300 N			
ULTEIG ENGINEERS, INC.			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO: 94823	
CHECKED BY:	DATE: 2-95	WS-6	
APPROVED BY:			

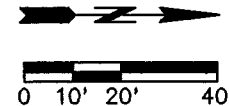
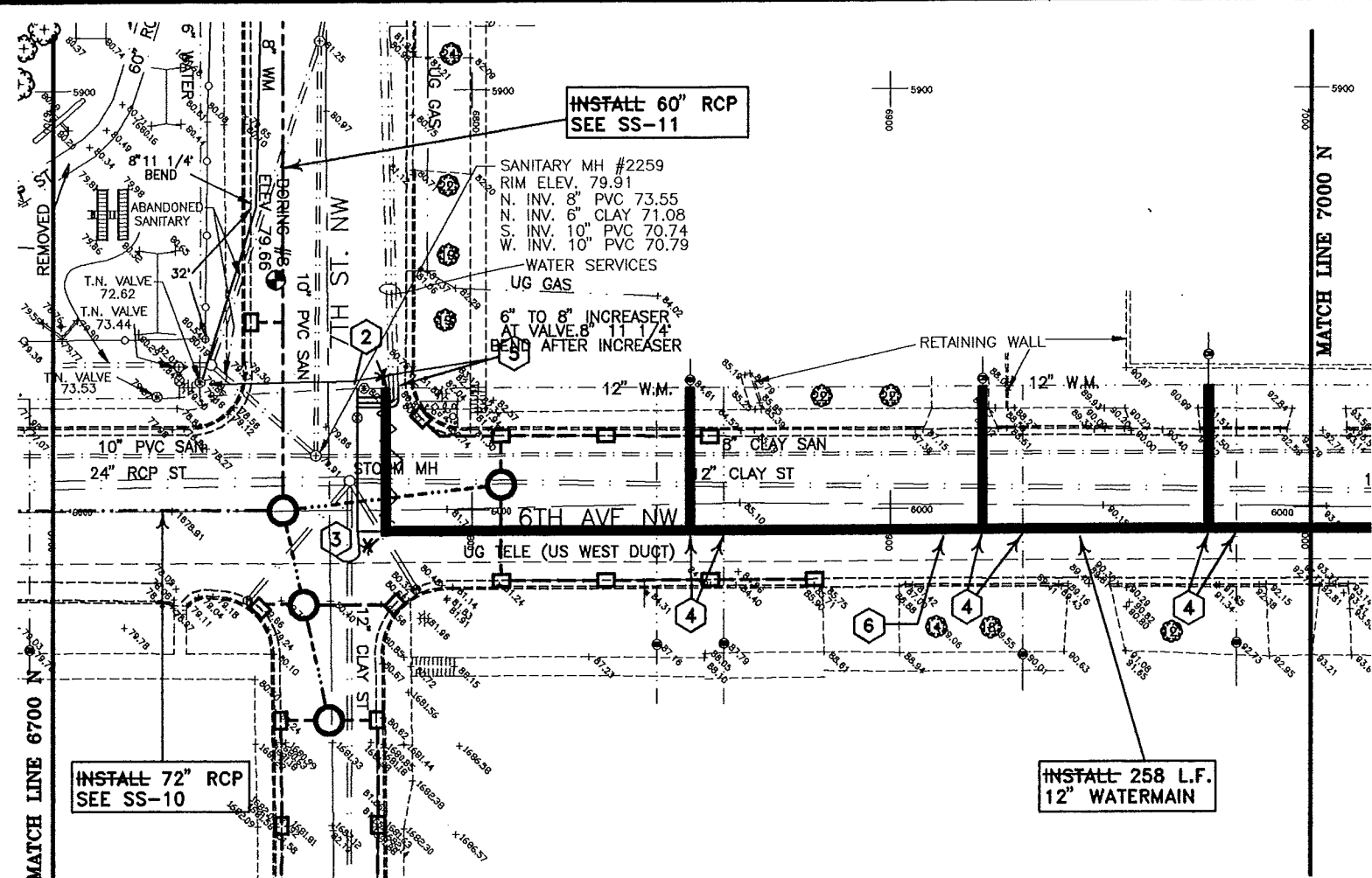


**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 INSTALL 12"-1/4 BEND 6378N/5990E - INV. 1664.50.
- 3 REMOVE EXISTING MANHOLE. PLUG EXISTING 10" SANITARY TO SOUTH. ALL COSTS FOR PLUGGING 10" SHALL BE INCIDENTAL TO REMOVING MANHOLE.
- 4 ROUTE 4" WATERMAIN UNDER 72" RCP AS PER STANDARD DETAIL.
- 5 INSTALL 12" X 8" TEE, 8" X 4" REDUCER, PIPE AND COUPLING AS REQUIRED TO CONNECT TO 4" WATERMAIN.
- 6 MAKE 4" SANITARY SEWER CONNECTION.

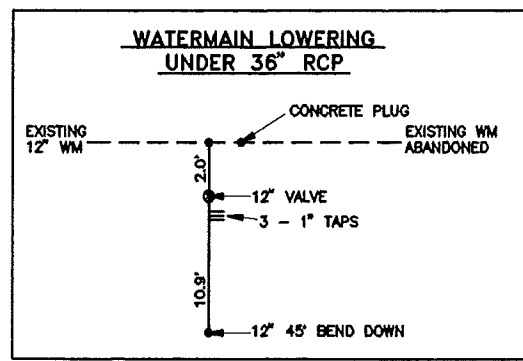
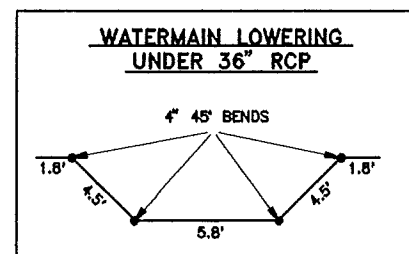
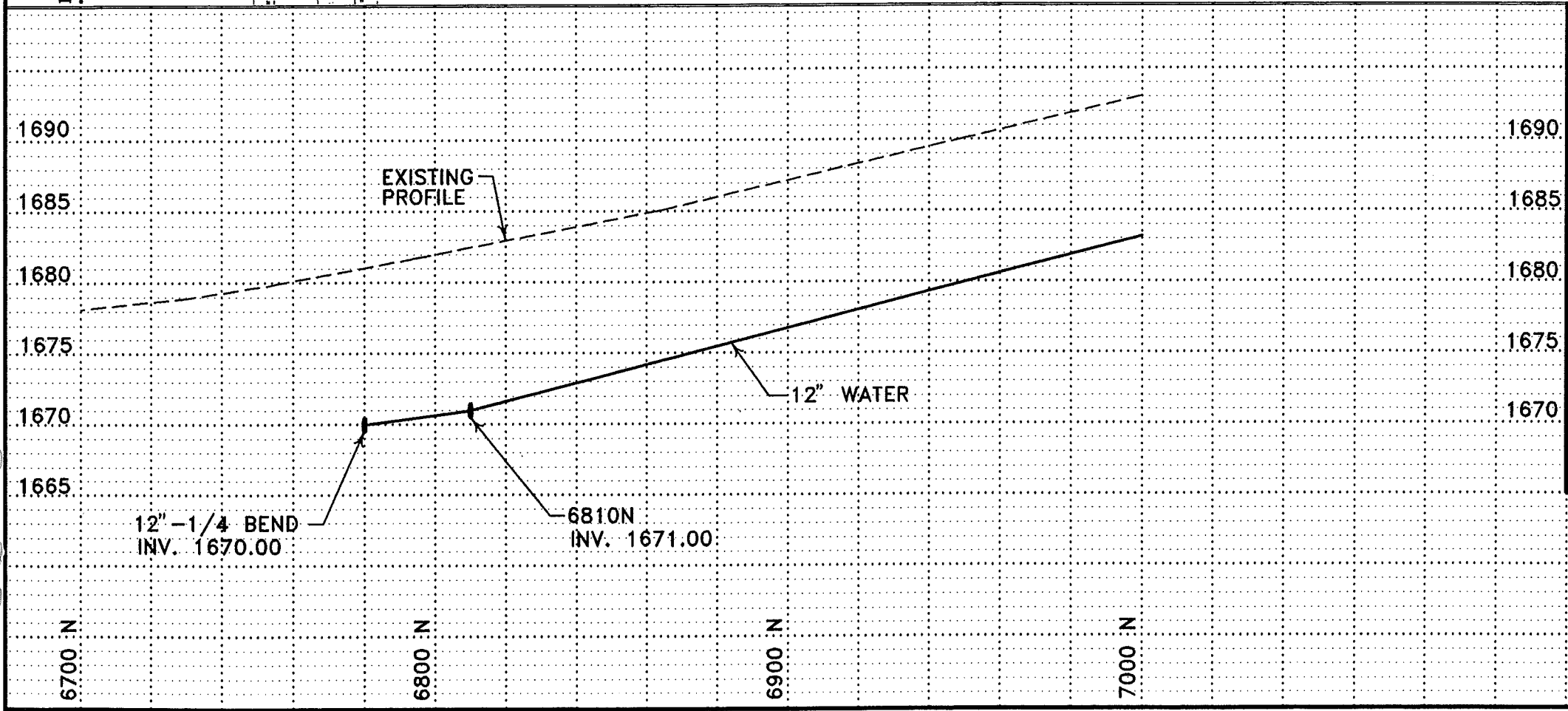


REV.	DATE	DESCRIPTION	BY
1	11/15/98	RECORD DRAWING	
<b>WATER &amp; SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38</b>			
6300 N TO 6700 N			
ULTEIG ENGINEERS, INC.			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO: 94823	
CHECKED BY:	DATE: 2-95	SHEET: WS-7	
APPROVED BY:			



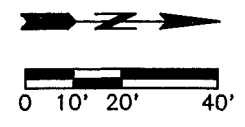
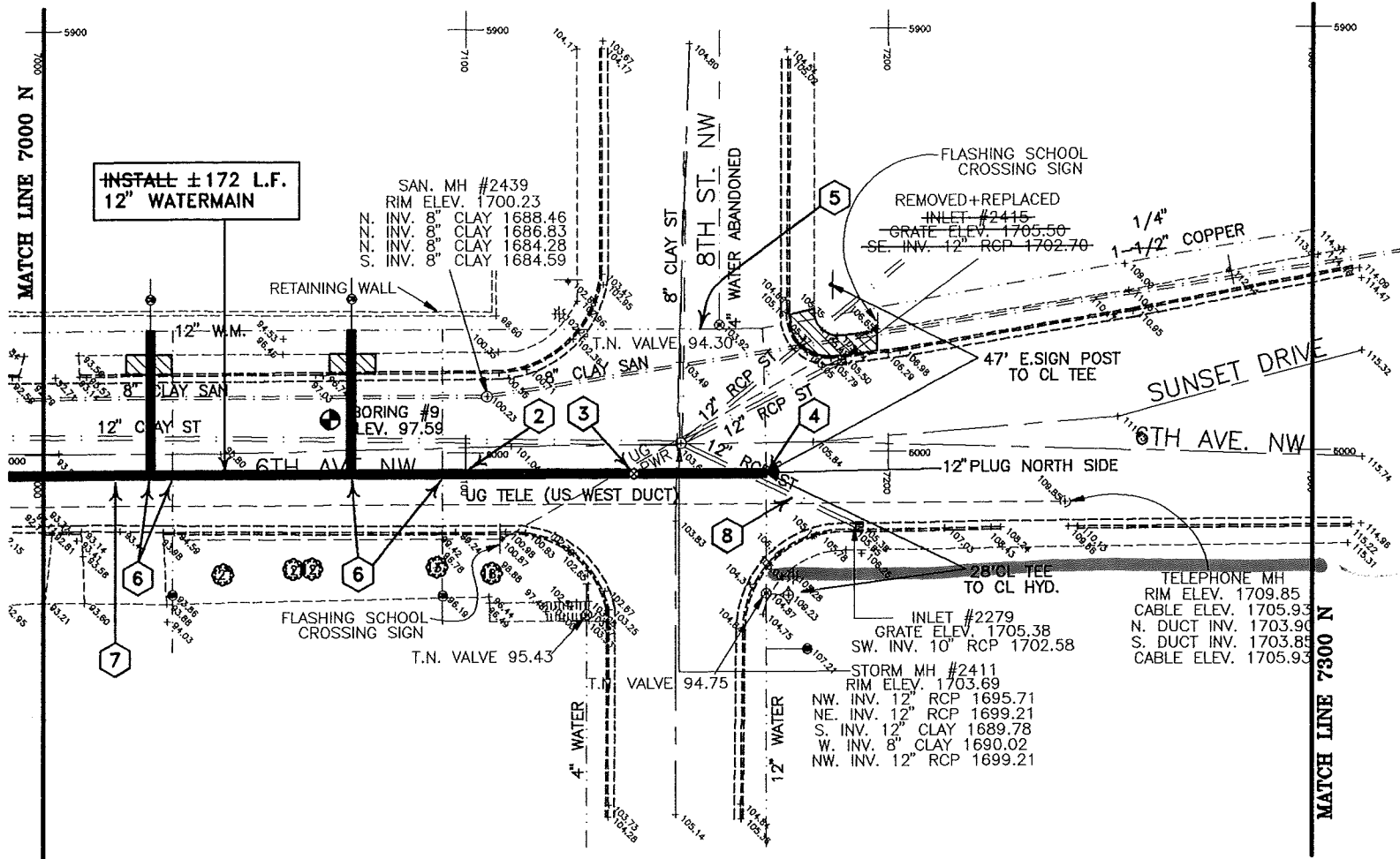
**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 CUT 12" 1/4 BEND INTO EXISTING 12" WATERMAIN 6780N/±5969E.
- 3 INSTALL 12"-1/4 BEND 6780N/6005E - INV. 1670.00.
- 4 MAKE 1" WATER CONNECTION.
- 5 MAKE 3 - 1" WATER CONNECTIONS.
- 6 REMOVE & REPLACE ASPHALT PAVEMENT. 10' IS THE MAXIMUM WIDTH OF REMOVAL AND REPLACEMENT FOR PAYMENT PURPOSES.



REVISIONS	DATE	DESCRIPTION	BY
11/15/95		RECORD DRAWING	
<b>WATER &amp; SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38</b>			
6700 N TO 7000 N			
ULTEIG ENGINEERS, INC.			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO: 94823	
CHECKED BY:	DATE: 2-95	WS-8	
APPROVED BY:			

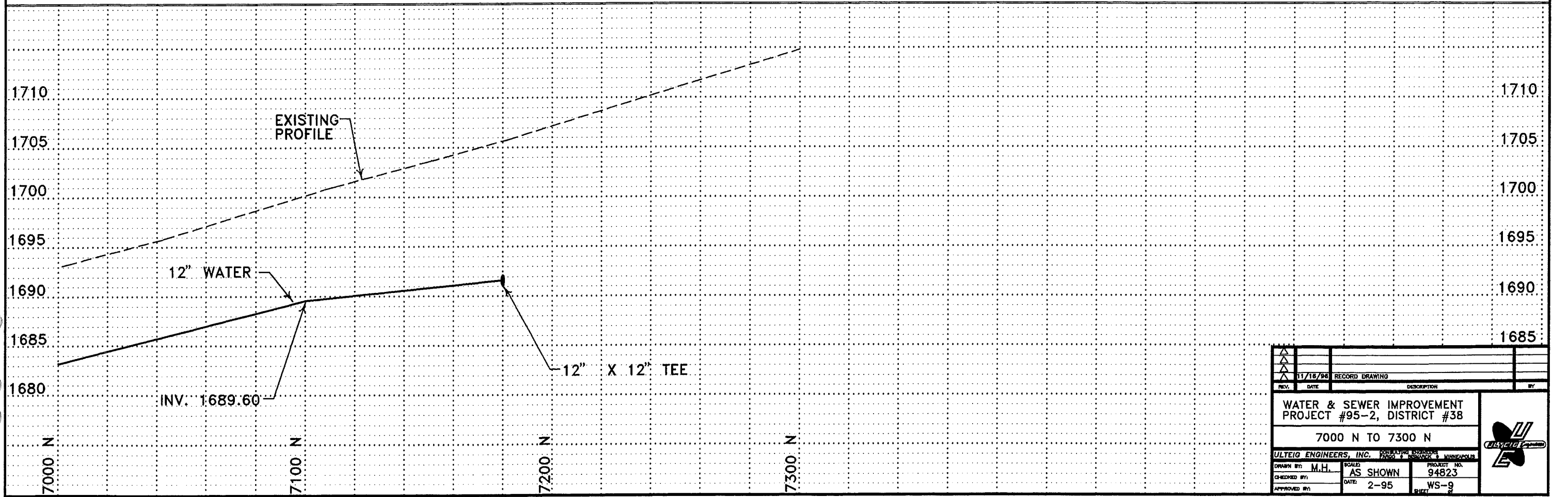




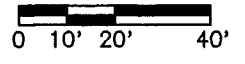
**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 INVERT 12" WATERMAIN 7100N/6005E 1689.60.
- 3 ~~INSTALL~~ 12" VALVE 7140N/6005E.
- 4 CUT 12" X 12" TEE INTO EXISTING 12" WATERMAIN.
- 5 PLUG EXISTING 12" WATERMAIN SOUTH OF 1-1/2" COPPER CONNECTION ONCE EXISTING 12" WATERMAIN TO SOUTH CAN BE ABANDONED, COSTS INCIDENTAL.
- 6 MAKE 1" WATER CONNECTION.
- 7 REMOVE AND REPLACE ASPHALT PAVEMENT. 10' IS THE MAXIMUM WIDTH OF REMOVAL AND REPLACEMENT FOR PAYMENT PURPOSES.
- 8 REMOVE AND RELAY 12" RCP STORM SEWER AS REQUIRED, COSTS INCIDENTAL.

*2" Copper  
906 6th Ave NW*

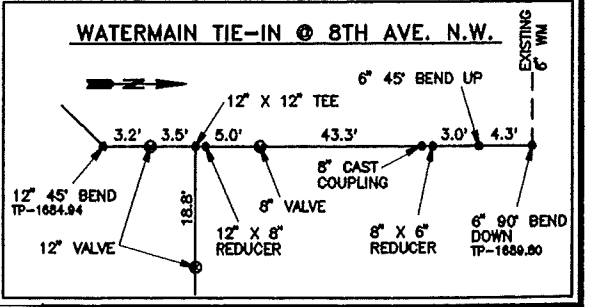
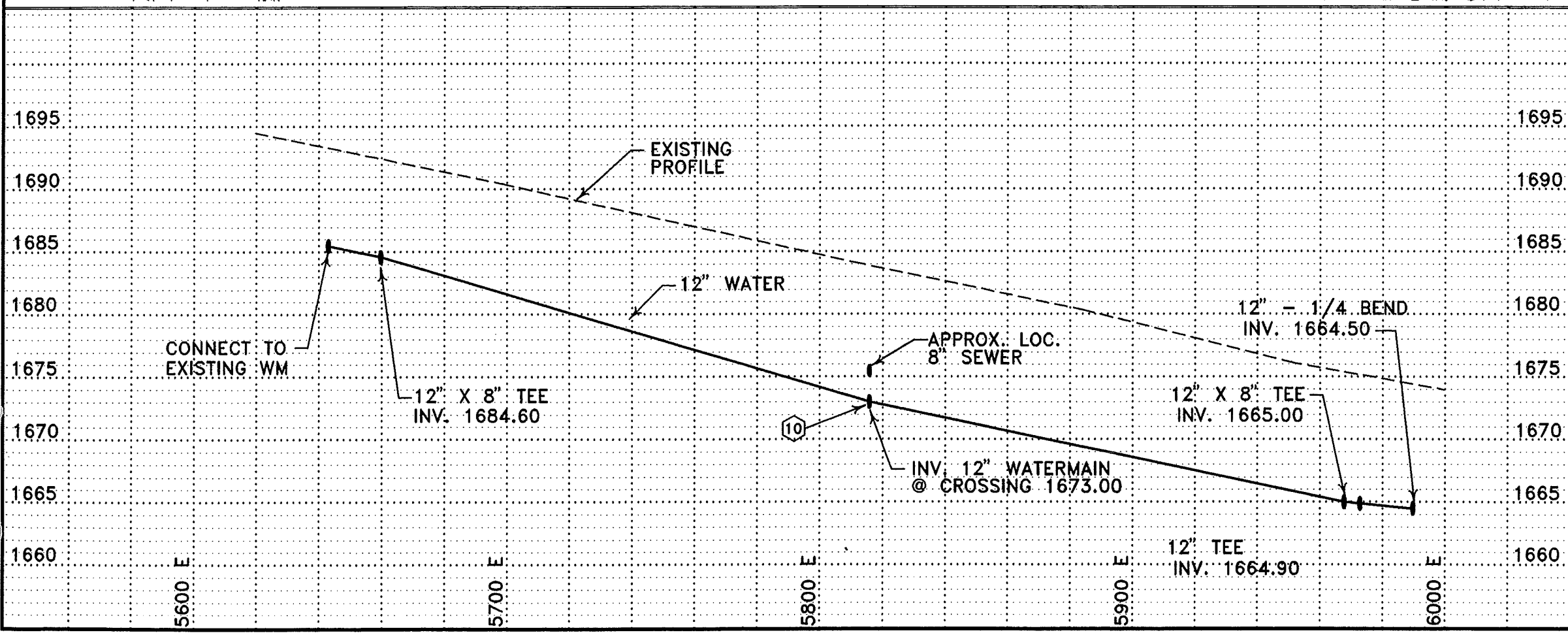
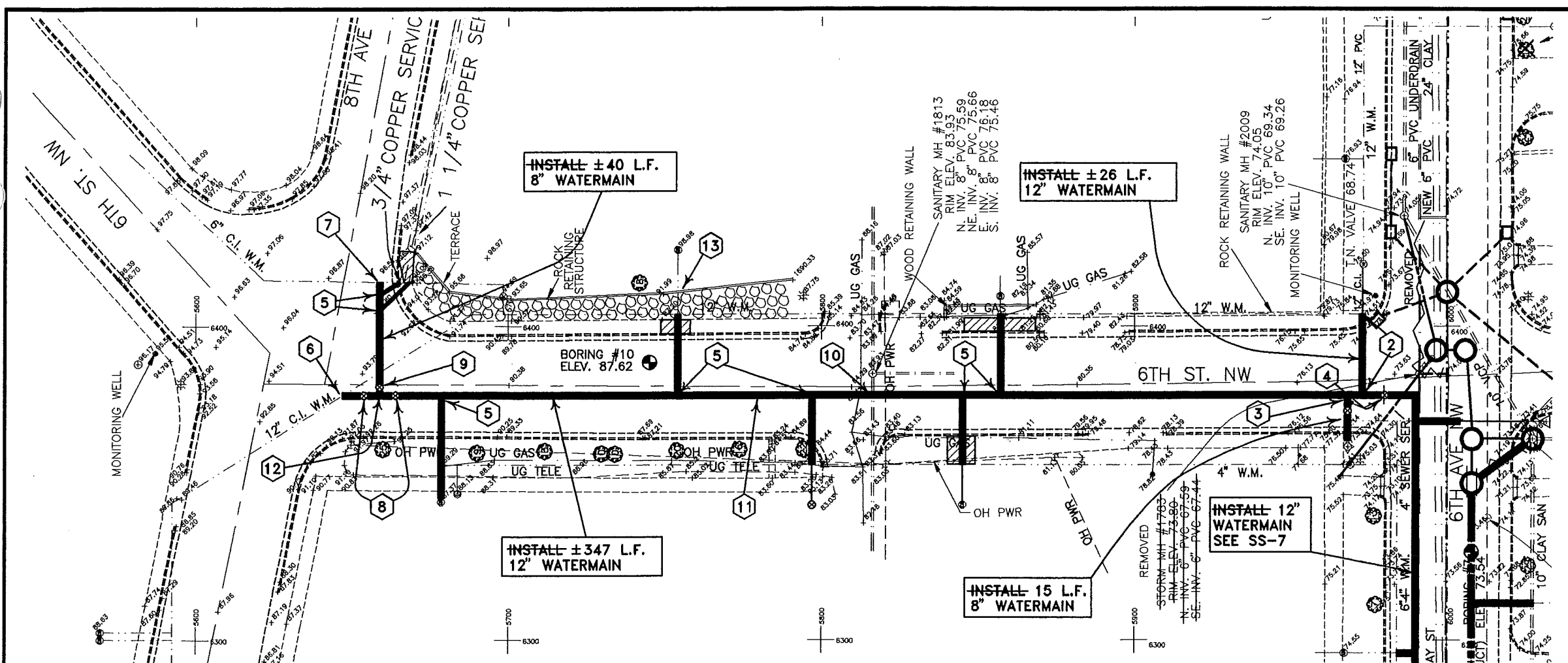


REV.	DATE	DESCRIPTION	BY
11/16/98		RECORD DRAWING	
<b>WATER &amp; SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38</b> 7000 N TO 7300 N			
ULTEIG ENGINEERS, INC.			
DRAWN BY: M.H.	SCALE: AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 2-95	WS-9	
APPROVED BY:			



**CONSTRUCTION NOTES**

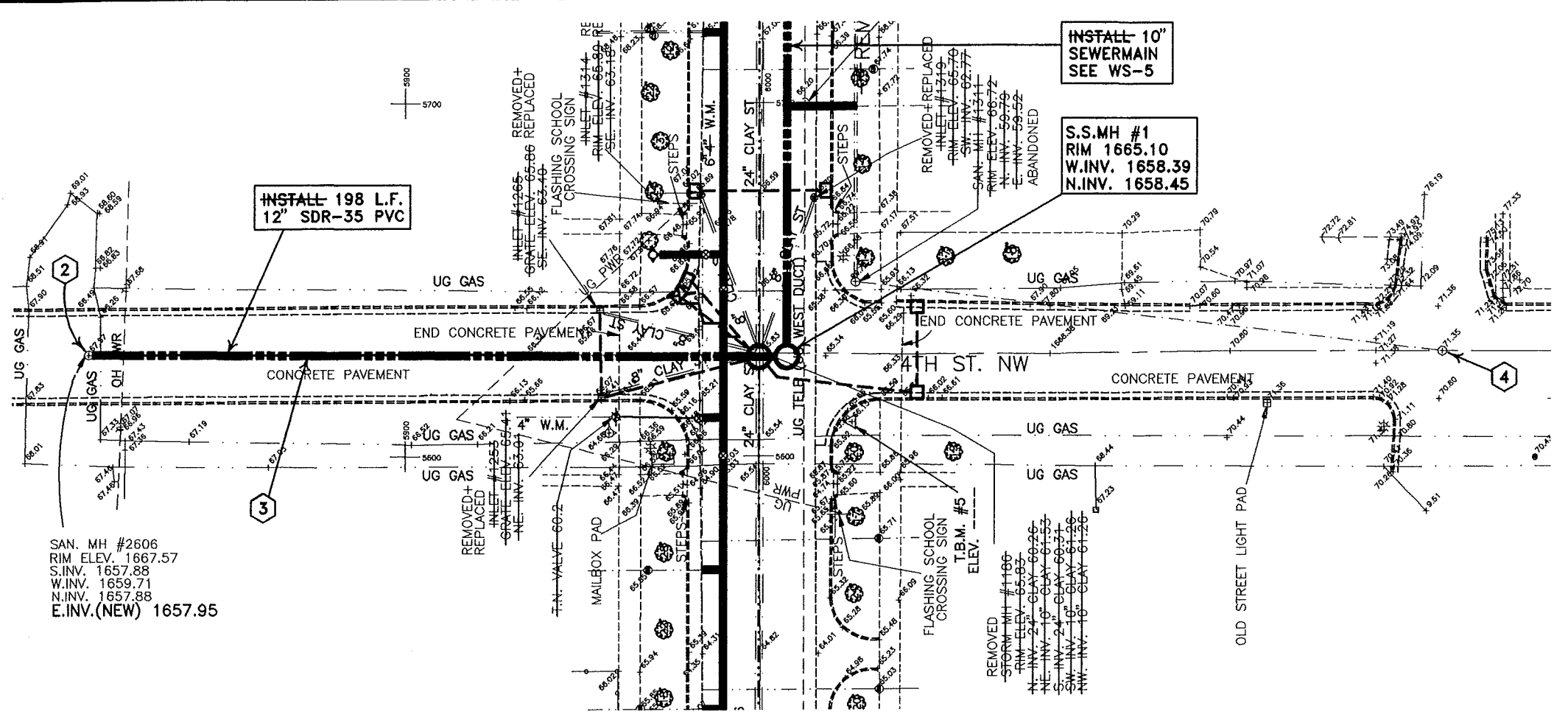
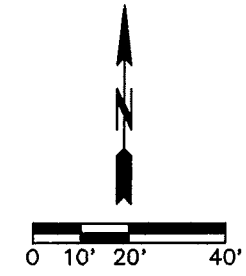
- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 INSTALL 12" TEE & CONNECT TO EXISTING 12" WATERMAIN.
- 3 INSTALL 12" X 8" TEE 6378N/5968E, INV. 1665.00, 8" VALVE 6373N/5968E, 8" HYDRANT 6363N/5968E, & REMOVE EXISTING HYDRANT.
- 4 INSTALL 12" VALVE 6378N/5980E.
- 5 MAKE 1" WATER CONNECTION.
- 6 CUT IN 12" BENDS AND COUPLING AS REQUIRED TO CONNECT TO EXISTING 12" WATERMAIN. CONTRACTOR TO LOCATE AND VERIFY DEPTH PRIOR TO INSTALLING NEW 12" WATERMAIN ON 6TH ST. N.W., COSTS INCIDENTAL. ENGINEER WILL ESTABLISH GRADE FOR 12" WATERMAIN IN THE FIELD.
- 7 CUT IN 8"-1/4 BEND AND COUPLING AS REQUIRED.
- 8 INSTALL 12" VALVE.
- 9 INSTALL 8" VALVE.
- 10 INSTALL NEW 12" WATERMAIN UNDER EXISTING 8" SEWER.
- 11 REMOVE AND REPLACE ASPHALT PAVEMENT. 10' IS THE MAXIMUM WIDTH OF REMOVAL AND REPLACEMENT FOR PAYMENT PURPOSES.
- 12 INSTALL 12" X 8" TEE 6378N/5660E, INV. 1684.60.
- 13 REMOVE AND REPLACE EXISTING ROCK AND MORTAR RETAINING STRUCTURE AS REQUIRED TO ALLOW REPLACING WATER SERVICE. REPLACE TO ORIGINAL CONDITION. ALL COSTS INCIDENTAL TO REPLACING WATER SERVICE.



REV.	DATE	DESCRIPTION	BY
1	11/15/84	RECORD DRAWING	

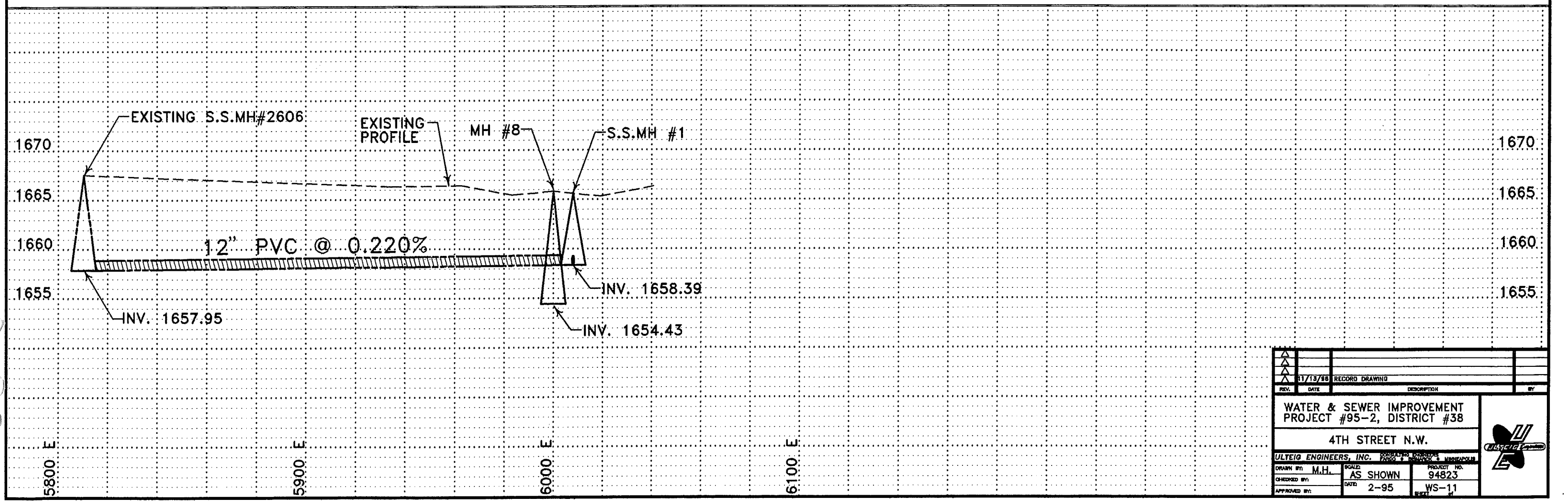
  

WATER & SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38	
6TH STREET N.W.	
ULTEIG ENGINEERS, INC.	PROJECT NO. 94823
DRAWN BY: M.H.	SCALE: AS SHOWN
CHECKED BY:	DATE: 2-95
APPROVED BY:	WS-10



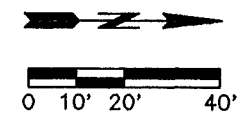
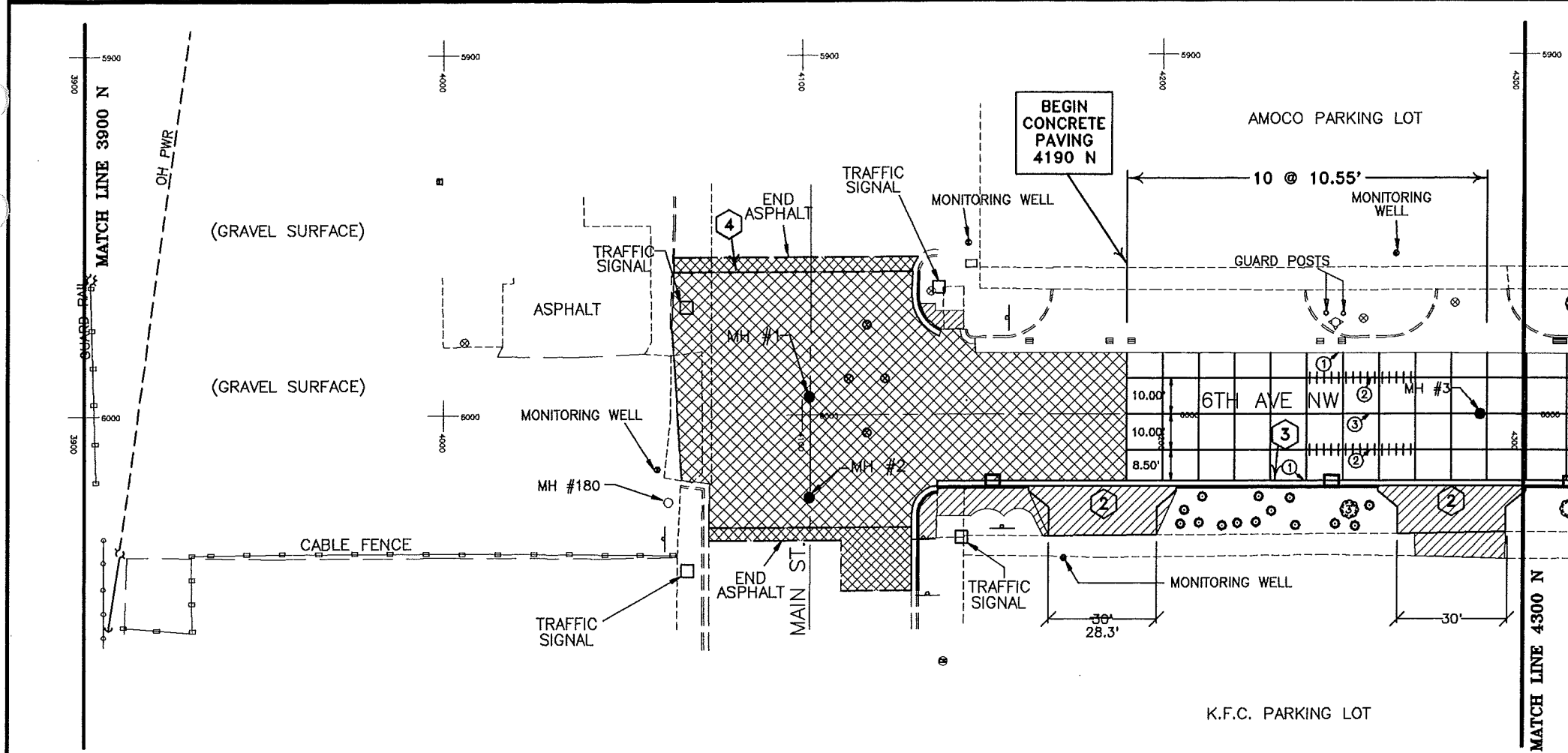
**CONSTRUCTION NOTES**

- 1 CONTRACTOR TO VERIFY LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES.
- 2 CONNECT NEW 12" TO EXISTING MANHOLE AT INVERT ELEVATION 1657.95. REWORK EXISTING INVERT AND PROVIDE WATER TIGHT GROUTED CONNECTION, COSTS INCIDENTAL.
- 3 REMOVE & REPLACE CONCRETE PAVEMENT. 10' IS MAXIMUM PAYMENT WIDTH FOR REMOVAL AND REPLACEMENT.
- 4 PLUG N.W. INV. OF EXISTING SANITARY MANHOLE WHEN NEW SANITARY SEWER ON 6TH AVE. IS IN PLACE AND IN USE. ALL COSTS SHALL BE INCLUDED IN OTHER ITEMS.



REV.	DATE	DESCRIPTION	BY
1	01/13/95	RECORD DRAWING	
<b>WATER &amp; SEWER IMPROVEMENT PROJECT #95-2, DISTRICT #38</b> <b>4TH STREET N.W.</b>			
ULTEIG ENGINEERS, INC.			
DRAWN BY:	M.H.	PROJECT NO.:	94823
CHECKED BY:	AS SHOWN	DATE:	2-95
APPROVED BY:		SHEET:	WS-11

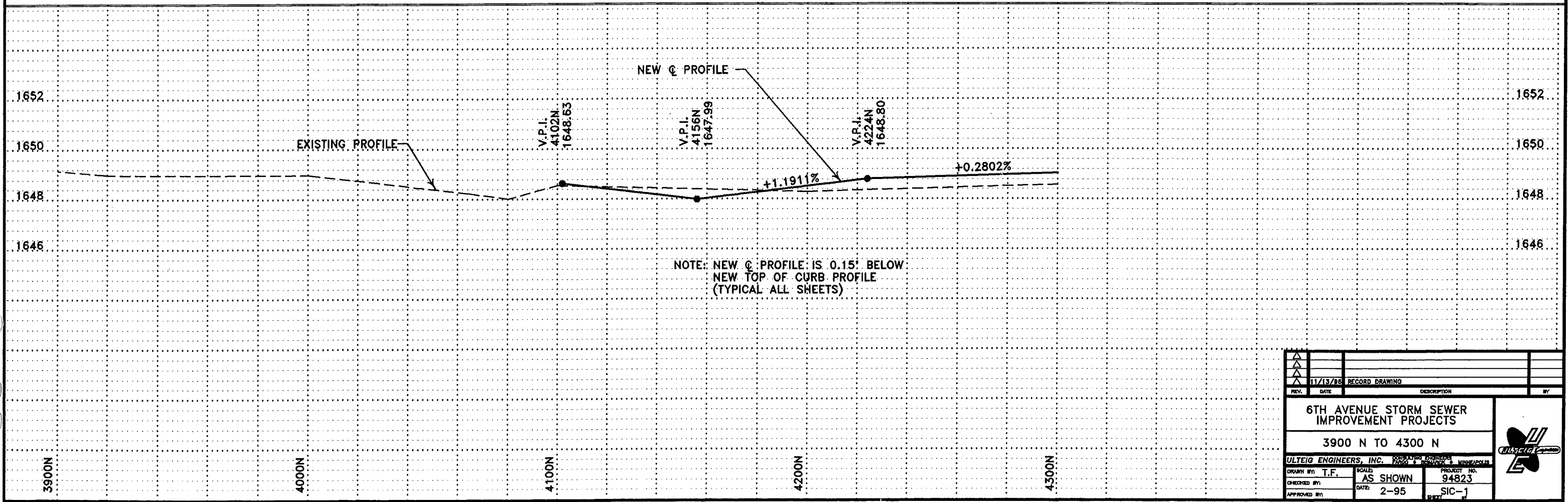




- CONSTRUCTION NOTES**
- 1 ALL UTILITIES WITHIN NEW PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING TOP LIFT IN ASPHALT AREAS AND PRIOR TO PLACING CONCRETE IN CONCRETE PAVING AREAS.
  - 2 CONSTRUCT NEW DRIVEWAY PER DETAIL, SIZE AS SHOWN.
  - 3 SOLID LINES INDICATE CURB AND GUTTER TO BE REMOVED AND REPLACED. DASHED LINES INDICATE EXISTING CURB AND GUTTER TO REMAIN.
  - 4 ~~INSTALL~~ ASPHALT PAVEMENT. NEW GRADES IN INTERSECTION TO MATCH EXISTING GRADES.

- JOINT LEGEND**
- 1 TIED AND KEYED JOINT - No. 3 X 1'-6" @ 3.5' O.C. (CONTINUOUS)
  - 2 TIED AND SAWED JOINT - No. 4 X 2'-0" @ 2.0' O.C. (CONTINUOUS)
  - 3 UNTIED, KEYED JOINT.

NOTES: ALL JOINTS SHALL BE SEALED WITH HOT POURED ELASTIC TYPE SEALER.  
 ALL TIE BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH N.D.D.O.T. STANDARD SPECIFICATIONS SECTION 836.02 B.  
 ALL COSTS FOR TIE BARS, DOWEL BARS, JOINT SAWING AND JOINT SEALING SHALL BE INCLUDED IN THE PRICE BID FOR 8" CONCRETE PAVEMENT.



REV.	DATE	DESCRIPTION	BY
11/13/88		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b> <b>3900 N TO 4300 N</b>			
ULTEIG ENGINEERS, INC. PROJECT NO. 94823			
DRAWN BY: T.F.	SCALE: AS SHOWN	DATE: 2-95	SIC-1



CONSTRUCTION NOTES

- ① ALL UTILITIES WITHIN NEW PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING TOP LIFT IN ASPHALT AREAS AND PRIOR TO PLACING CONCRETE IN CONCRETE PAVING AREAS.
- ② CONSTRUCT NEW DRIVEWAY PER DETAIL, SIZE AS SHOWN.
- ③ REMOVE EXISTING SIDEWALK AS SHOWN. REGRADE AS REQUIRED TO PROVIDE ADEQUATE SLOPE FOR NEW HANDICAP ACCESS. INSTALL NEW SIDEWALK WITH HANDICAP ACCESS PER DETAIL.
- ④ SOLID LINES INDICATE CURB AND GUTTER TO BE REMOVED AND REPLACED. DASHED LINES INDICATE EXISTING CURB AND GUTTER TO REMAIN.
- ⑤ FOR GRADES IN INTERSECTION, SEE INTERSECTION DETAIL SHEETS. FOR JOINTING IN INTERSECTIONS SEE TYPICAL INTERSECTION JOINTING DETAIL.
- ⑥ ~~INSTALL ASPHALT PAVEMENT.~~

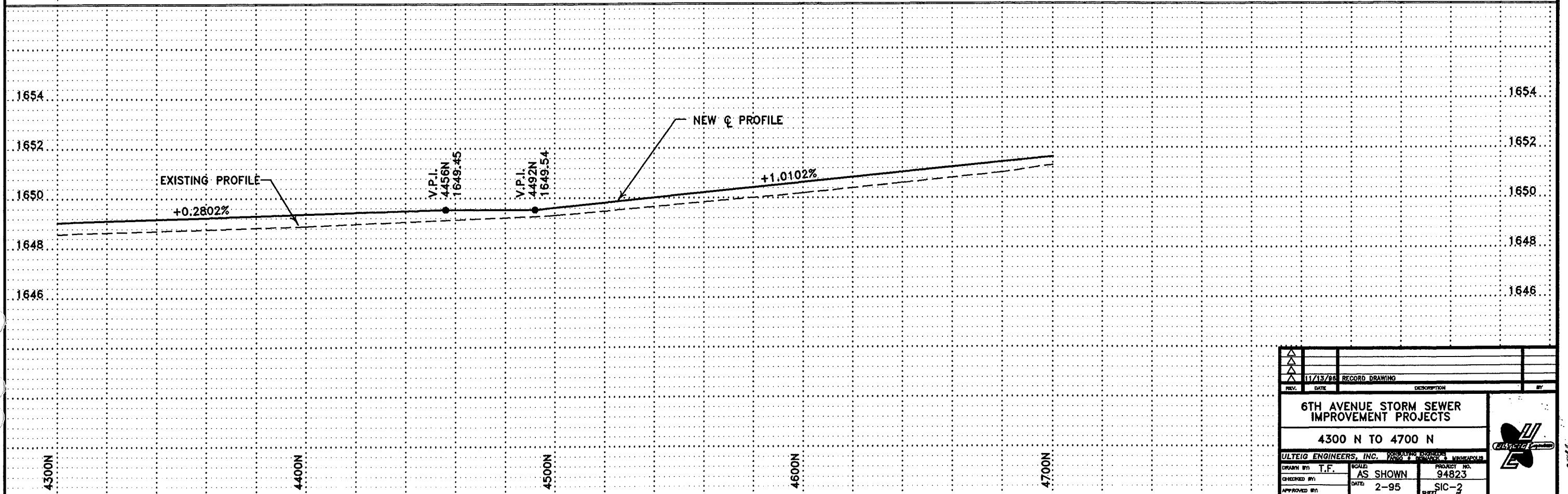
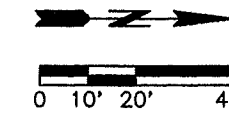
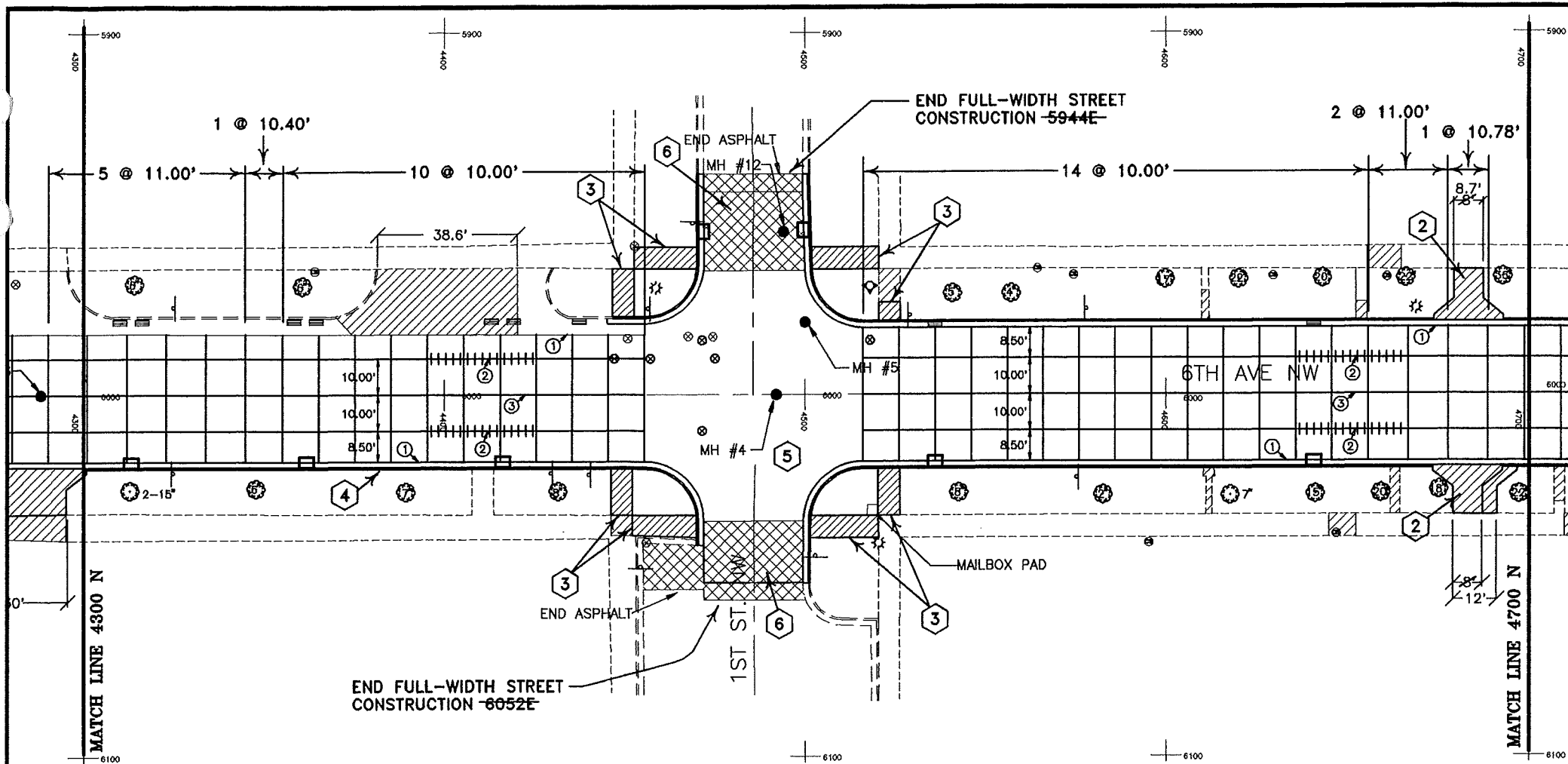
JOINT LEGEND

- ① TIED AND KEYED JOINT - No. 3 X 1'-6" @ 3.5' O.C. (CONTINUOUS)
- ② TIED AND SAWS JOINT - No. 4 X 2'-0" @ 2.0' O.C. (CONTINUOUS)
- ③ UNTIED, KEYED JOINT.

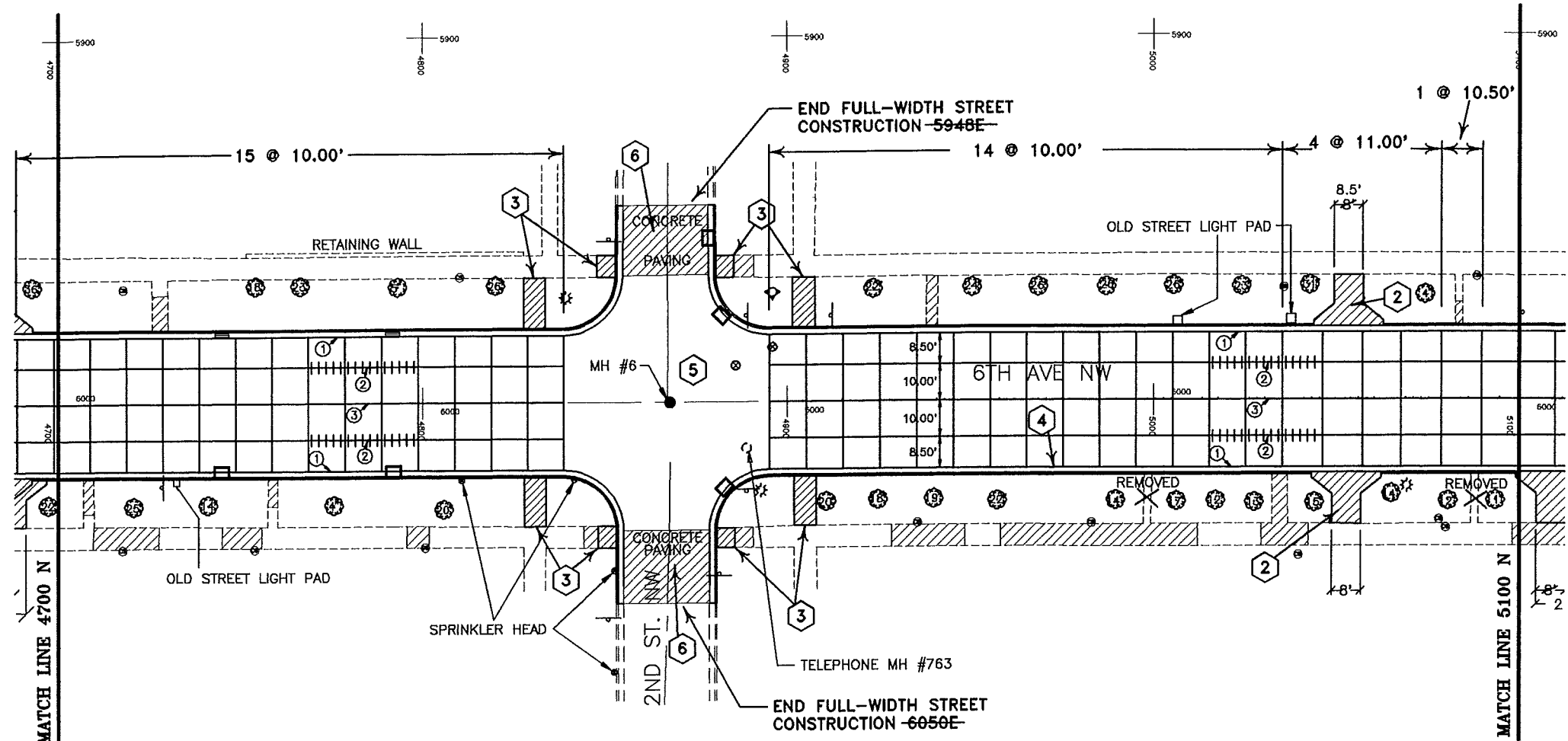
NOTES: ALL JOINTS SHALL BE SEALED WITH HOT POURED ELASTIC TYPE SEALER.

ALL TIE BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH N.D.O.T. STANDARD SPECIFICATIONS SECTION 838.02 B.

ALL COSTS FOR TIE BARS, DOWEL BARS, JOINT SAWING AND JOINT SEALING SHALL BE INCLUDED IN THE PRICE BID FOR 8" CONCRETE PAVEMENT.



REV.	DATE	DESCRIPTION	BY
11/13/88		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>4300 N TO 4700 N</b>			
<b>ULTEIG ENGINEERS, INC.</b>			
DRAWN BY: T.F.	SCALE: AS SHOWN	PROJECT NO.: 94823	
CHECKED BY:	DATE: 2-95	SIC-2	
APPROVED BY:			



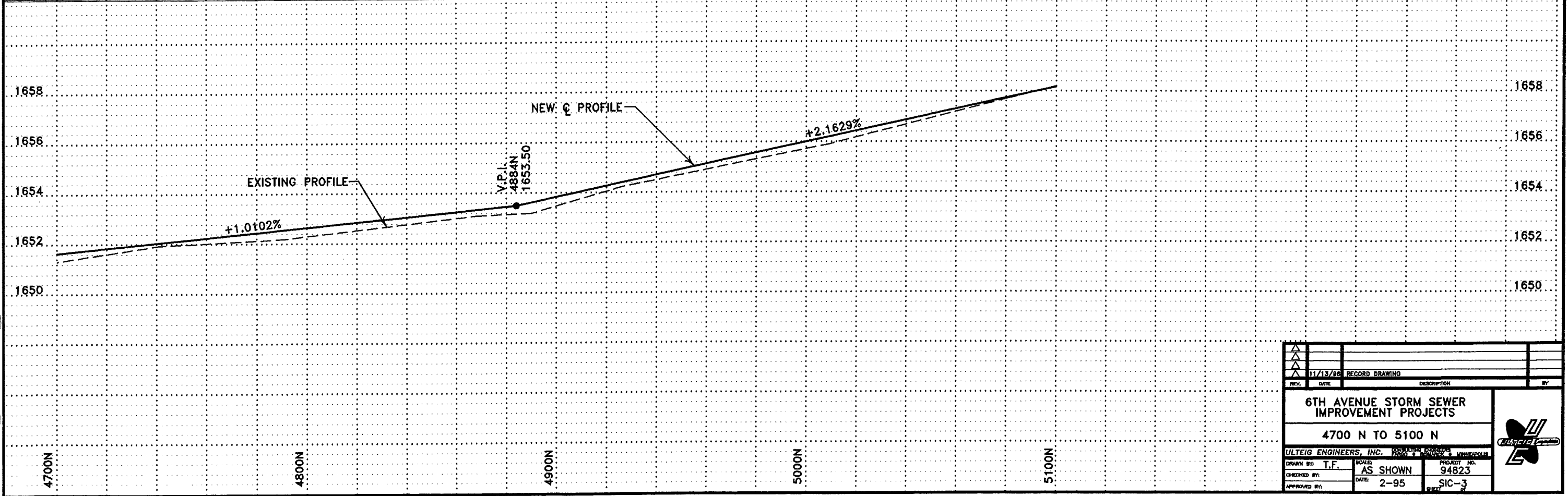
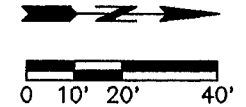
- CONSTRUCTION NOTES**
- ① ALL UTILITIES WITHIN NEW PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING TOP LIFT IN ASPHALT AREAS AND PRIOR TO PLACING CONCRETE IN CONCRETE PAVING AREAS.
  - ② CONSTRUCT NEW DRIVEWAY PER DETAIL, SIZE AS SHOWN.
  - ③ REMOVE EXISTING SIDEWALK AS SHOWN. REGRADE AS REQUIRED TO PROVIDE ADEQUATE SLOPE FOR NEW HANDICAP ACCESS. INSTALL NEW SIDEWALK WITH HANDICAP ACCESS PER DETAIL.
  - ④ SOLID LINES INDICATE CURB AND GUTTER TO BE REMOVED AND REPLACED. DASHED LINES INDICATE EXISTING CURB AND GUTTER TO REMAIN.
  - ⑤ FOR GRADES IN INTERSECTION, SEE INTERSECTION DETAIL SHEETS. FOR JOINTING IN INTERSECTIONS SEE TYPICAL INTERSECTION JOINTING DETAIL.
  - ⑥ ~~INSTALL ASPHALT PAVEMENT.~~  
CONCRETE

- JOINT LEGEND**
- ① TIED AND KEYPED JOINT - No. 3 X 1'-6" @ 3.5' O.C. (CONTINUOUS)
  - ② TIED AND SAWS JOINT - No. 4 X 2'-0" @ 2.0' O.C. (CONTINUOUS)
  - ③ UNTIED, KEYPED JOINT.

NOTES: ALL JOINTS SHALL BE SEALED WITH HOT POURED ELASTIC TYPE SEALER.

ALL TIE BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH N.D.D.O.T. STANDARD SPECIFICATIONS SECTION 838.02 B.

ALL COSTS FOR TIE BARS, DOWEL BARS, JOINT SAWING AND JOINT SEALING SHALL BE INCLUDED IN THE PRICE BID FOR 8" CONCRETE PAVEMENT.



REV.	DATE	DESCRIPTION	BY
11/13/98		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>4700 N TO 5100 N</b>			
ULTEIG ENGINEERS, INC. CONSULTING ENGINEERS MINNEAPOLIS, MN			
DRAWN BY: T.F.	SCALE: AS SHOWN	PROJECT NO.: 94823	
CHECKED BY:	DATE: 2-95	REV: SIC-3	
APPROVED BY:			

CONSTRUCTION NOTES

- 1 ALL UTILITIES WITHIN NEW PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING TOP LIFT IN ASPHALT AREAS AND PRIOR TO PLACING CONCRETE IN CONCRETE PAVING AREAS.
- 2 CONSTRUCT NEW DRIVEWAY PER DETAIL, SIZE AS SHOWN.
- 3 REMOVE EXISTING SIDEWALK AS SHOWN. REGRADE AS REQUIRED TO PROVIDE ADEQUATE SLOPE FOR NEW HANDICAP ACCESS. INSTALL NEW SIDEWALK WITH HANDICAP ACCESS PER DETAIL.
- 4 SOLID LINES INDICATE CURB AND GUTTER TO BE REMOVED AND REPLACED. DASHED LINES INDICATE EXISTING CURB AND GUTTER TO REMAIN.
- 5 FOR GRADES IN INTERSECTION, SEE INTERSECTION DETAIL SHEETS. FOR JOINTING IN INTERSECTIONS SEE TYPICAL INTERSECTION JOINTING DETAIL.
- 6 ~~INSTALL ASPHALT PAVEMENT.~~  
CONCRETE

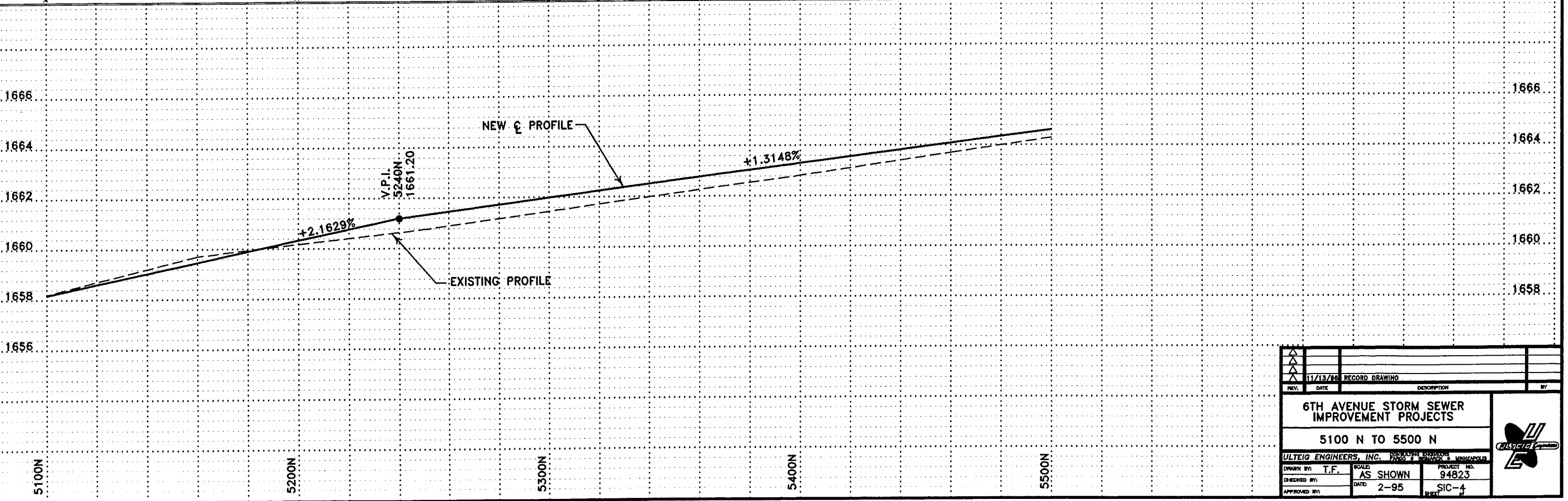
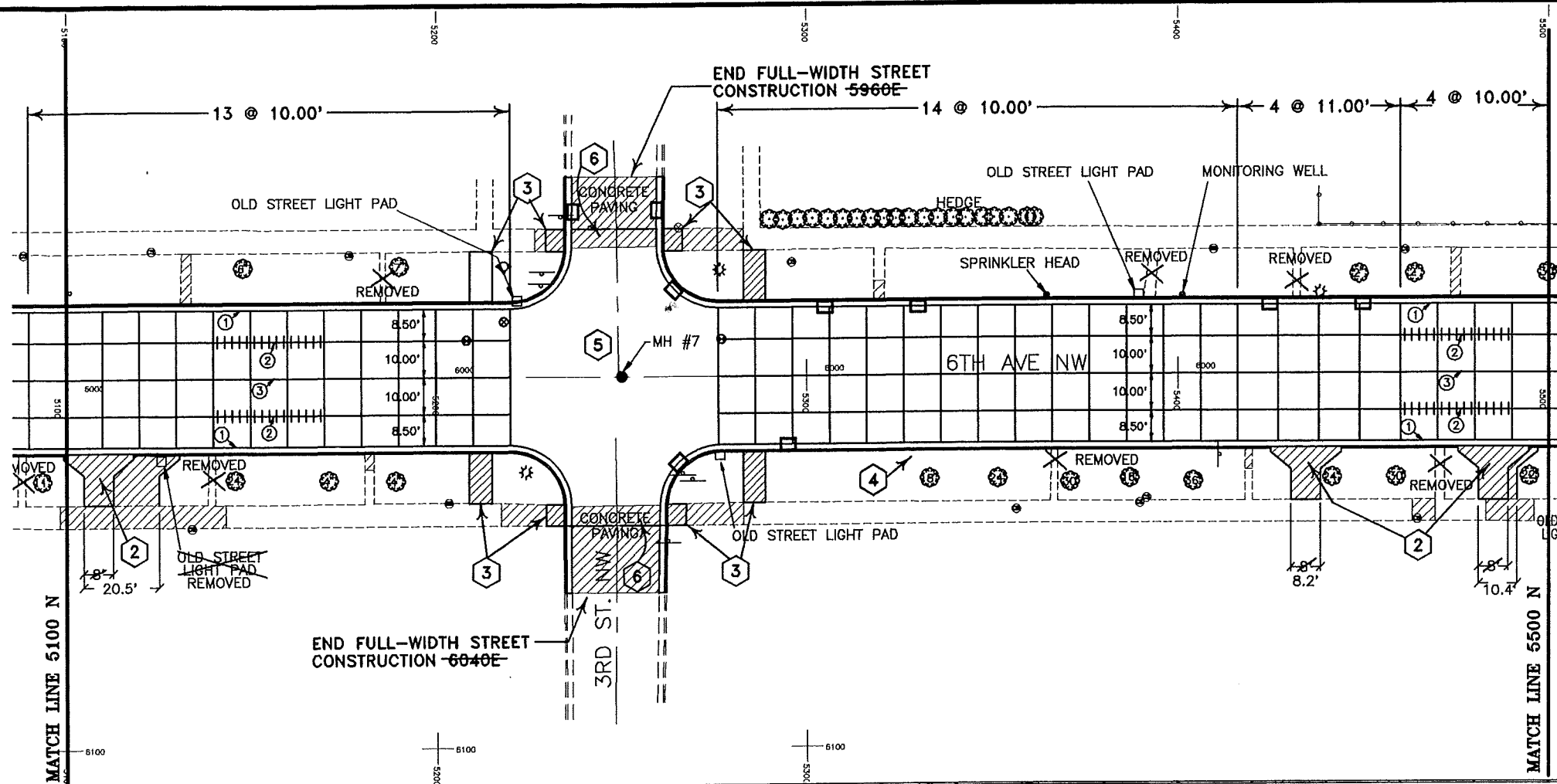
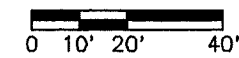
JOINT LEGEND

- 1 TIED AND KEYPED JOINT - No. 3 X 1'-6" @ 3.5' O.C. (CONTINUOUS)
- 2 TIED AND SAWED JOINT - No. 4 X 2'-0" @ 2.0' O.C. (CONTINUOUS)
- 3 UNTIED, KEYPED JOINT.

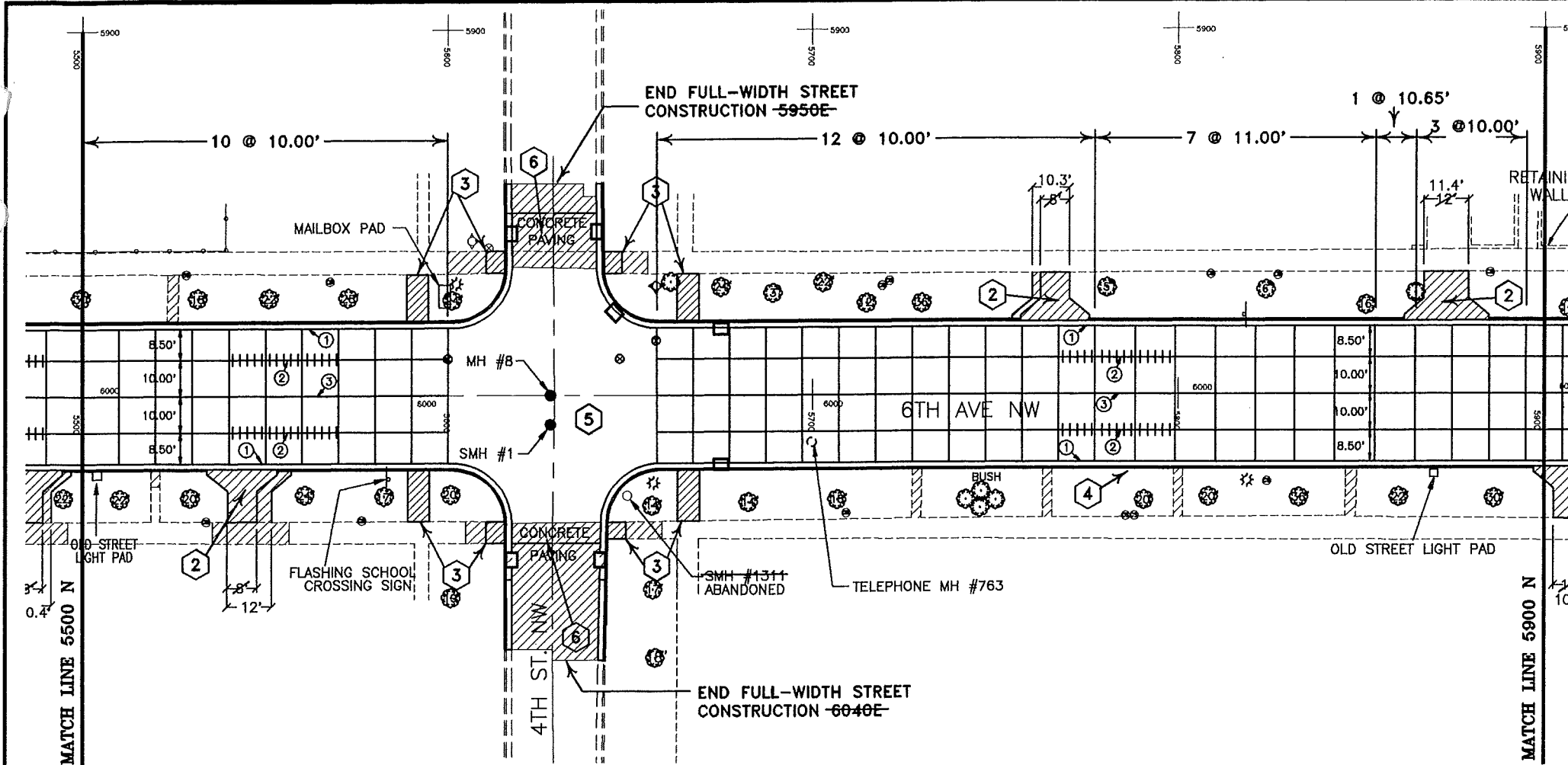
NOTES: ALL JOINTS SHALL BE SEALED WITH HOT Poured ELASTIC TYPE SEALER.

ALL TIE BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH N.D.O.T. STANDARD SPECIFICATIONS SECTION 836.02 B.

ALL COSTS FOR TIE BARS, DOWEL BARS, JOINT SAWING AND JOINT SEALING SHALL BE INCLUDED IN THE PRICE BID FOR 8" CONCRETE PAVEMENT.



REV.	DATE	DESCRIPTION	BY
11/13/95		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>5100 N TO 5500 N</b>			
ULTEIG ENGINEERS, INC. PROJECT NO. 94823			
DRAWN BY: T.F.	SCALE: AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 2-95	SIC-4	
APPROVED BY:			



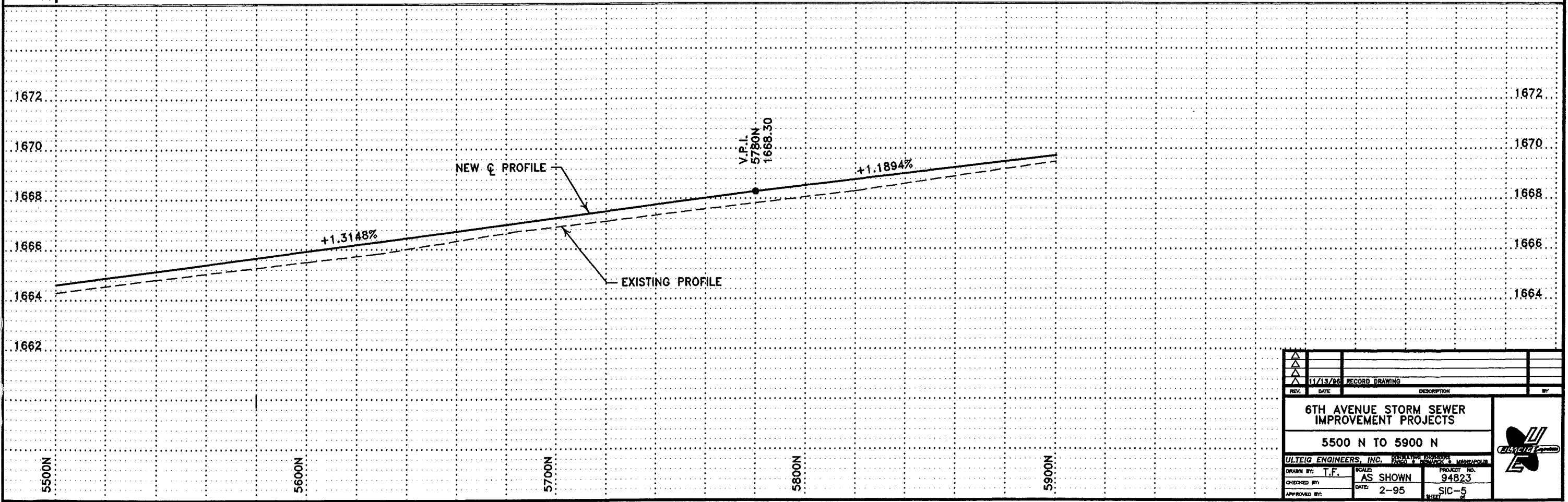
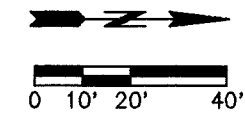
- CONSTRUCTION NOTES**
- 1 ALL UTILITIES WITHIN NEW PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING TOP LIFT IN ASPHALT AREAS AND PRIOR TO PLACING CONCRETE IN CONCRETE PAVING AREAS.
  - 2 CONSTRUCT NEW DRIVEWAY PER DETAIL, SIZE AS SHOWN.
  - 3 REMOVE EXISTING SIDEWALK AS SHOWN. REGRADE AS REQUIRED TO PROVIDE ADEQUATE SLOPE FOR NEW HANDICAP ACCESS. INSTALL NEW SIDEWALK WITH HANDICAP ACCESS PER
  - 4 SOLID LINES INDICATE CURB AND GUTTER TO BE REMOVED AND REPLACED. DASHED LINES INDICATE EXISTING CURB AND GUTTER TO REMAIN.
  - 5 FOR GRADES IN INTERSECTION, SEE INTERSECTION DETAIL SHEETS. FOR JOINTING IN INTERSECTIONS SEE TYPICAL INTERSECTION JOINTING DETAIL.
  - 6 ~~INSTALL ASPHALT PAVEMENT.~~

- JOINT LEGEND**
- 1 TIED AND KEYED JOINT - No. 3 X 1'-6" @ 3.5' O.C. (CONTINUOUS)
  - 2 TIED AND SAWS JOINT - No. 4 X 2'-0" @ 2.0' O.C. (CONTINUOUS)
  - 3 UNTIED, KEYED JOINT.

NOTES: ALL JOINTS SHALL BE SEALED WITH HOT POURED ELASTIC TYPE SEALER.

ALL TIE BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH M.D.O.T. STANDARD SPECIFICATIONS SECTION 836.02 B.

ALL COSTS FOR TIE BARS, DOWEL BARS, JOINT SAWING AND JOINT SEALING SHALL BE INCLUDED IN THE PRICE BID FOR 8' CONCRETE PAVEMENT.



REV.	DATE	DESCRIPTION	BY
11/13/95		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>5500 N TO 5900 N</b>			
ULTEIG ENGINEERS, INC. PROJECT NO. 94823			
DRAWN BY: T.F.	SCALE: AS SHOWN	DATE: 2-95	SHEET: SIC-5
CHECKED BY:			
APPROVED BY:			

CONSTRUCTION NOTES

- 1 ALL UTILITIES WITHIN NEW PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING TOP LIFT IN ASPHALT AREAS AND PRIOR TO PLACING CONCRETE IN CONCRETE PAVING AREAS.
- 2 CONSTRUCT NEW DRIVEWAY PER DETAIL, SIZE AS SHOWN.
- 3 REMOVE EXISTING SIDEWALK AS SHOWN. REGRADE AS REQUIRED TO PROVIDE ADEQUATE SLOPE FOR NEW HANDICAP ACCESS. INSTALL NEW SIDEWALK WITH HANDICAP ACCESS PER DETAIL.
- 4 SOLID LINES INDICATE CURB AND GUTTER TO BE REMOVED AND REPLACED. DASHED LINES INDICATE EXISTING CURB AND GUTTER TO REMAIN.
- 5 FOR GRADES IN INTERSECTION, SEE INTERSECTION DETAIL SHEETS. FOR JOINTING IN INTERSECTIONS SEE TYPICAL INTERSECTION JOINTING DETAIL.
- 6 ~~INSTALL ASPHALT PAVEMENT.~~

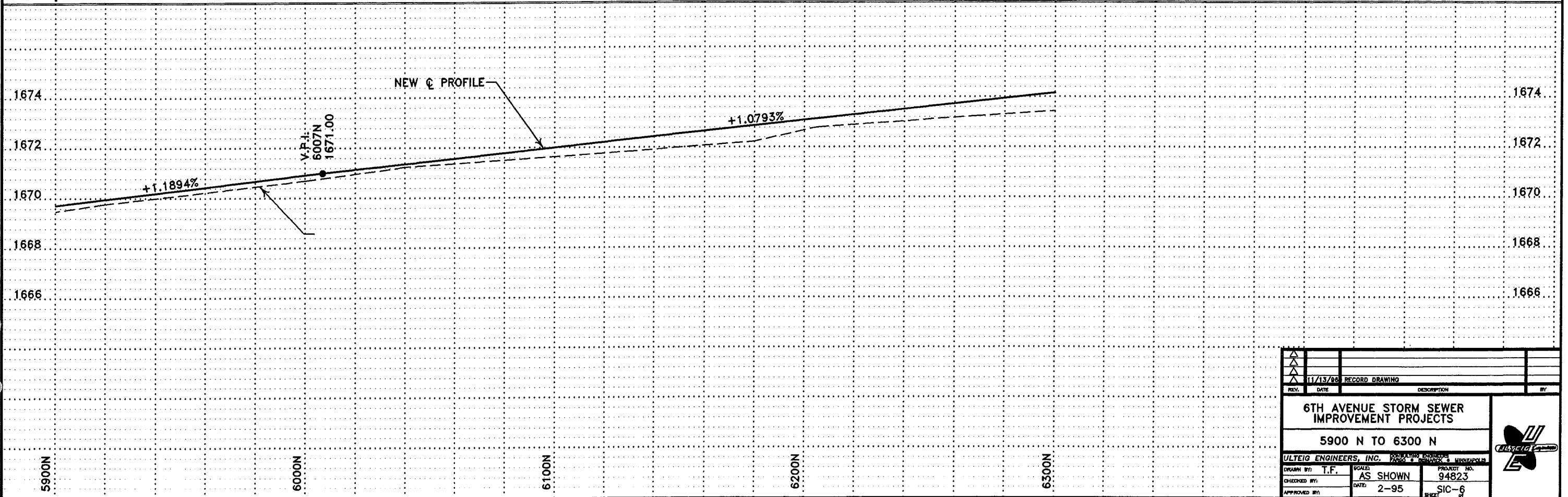
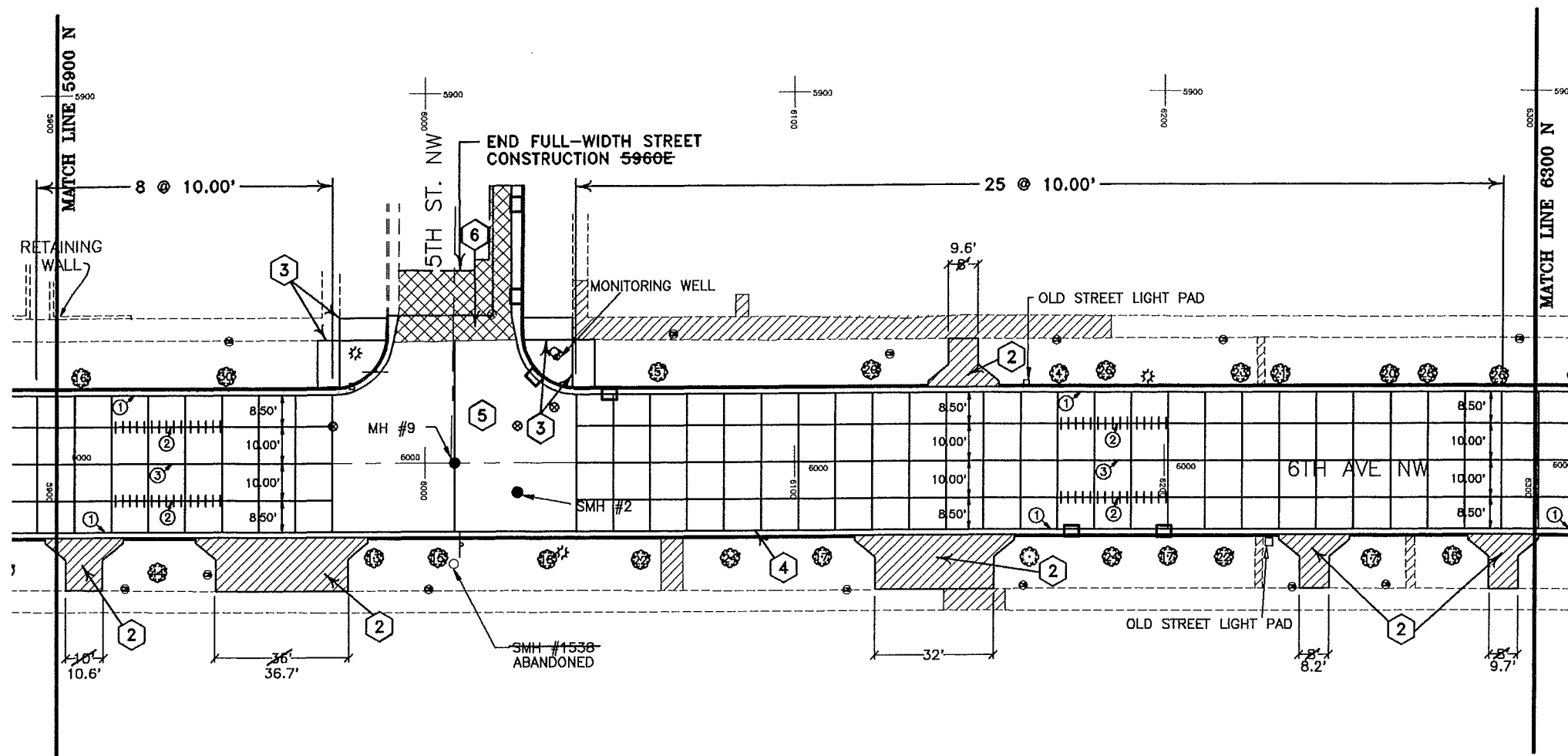
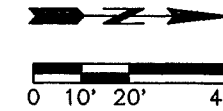
JOINT LEGEND

- 1 TIED AND KEYED JOINT - No. 3 X 1'-6" @ 3.5' O.C. (CONTINUOUS)
- 2 TIED AND SAWS JOINT - No. 4 X 2'-0" @ 2.0' O.C. (CONTINUOUS)
- 3 UNTIED, KEYED JOINT.

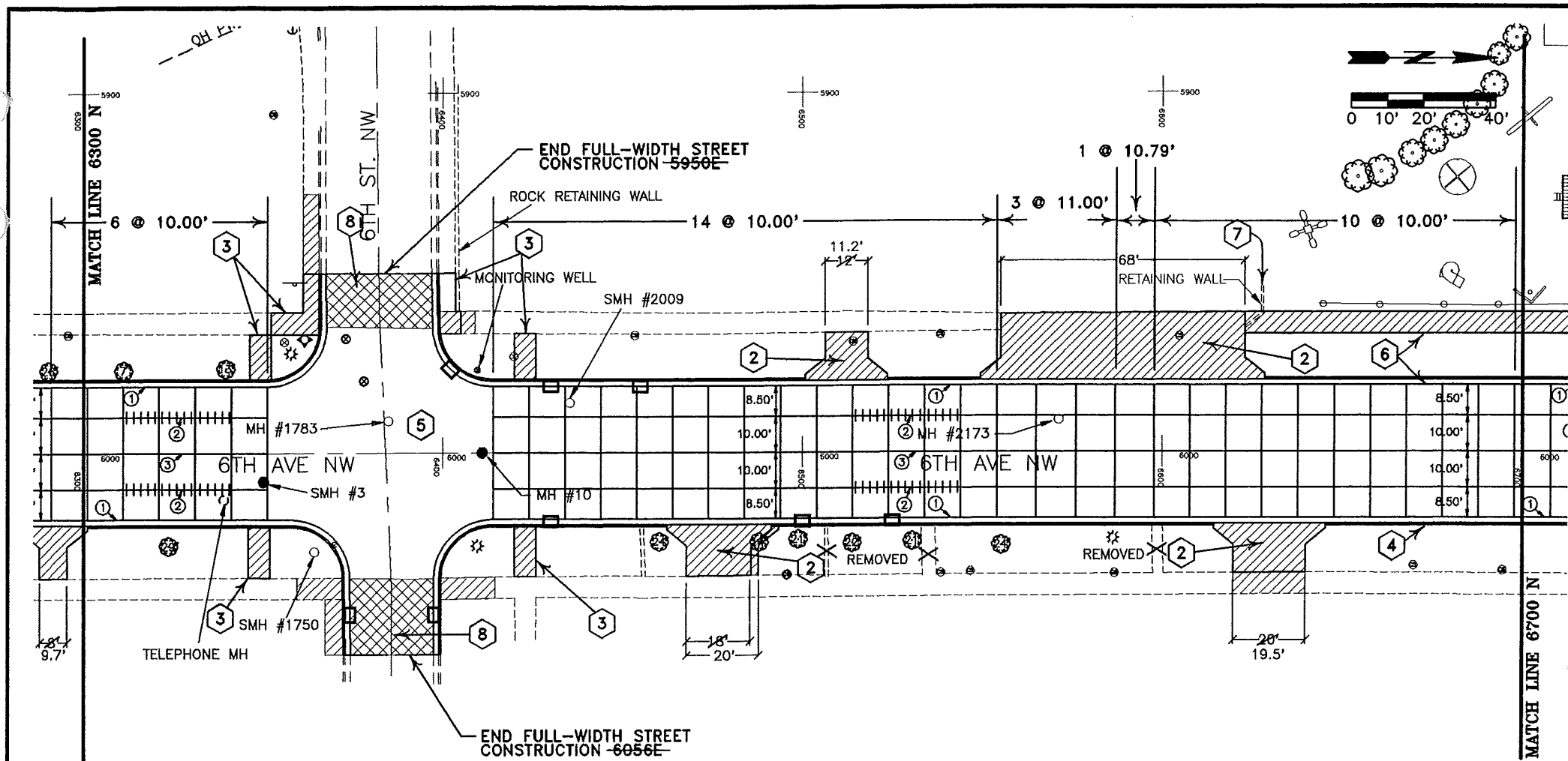
NOTES: ALL JOINTS SHALL BE SEALED WITH HOT POURED ELASTIC TYPE SEALER.

ALL TIE BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH N.D.D.O.T. STANDARD SPECIFICATIONS SECTION 836.02 B.

ALL COSTS FOR TIE BARS, DOWEL BARS, JOINT SAWING AND JOINT SEALING SHALL BE INCLUDED IN THE PRICE BID FOR 8" CONCRETE PAVEMENT.



REV.	DATE	DESCRIPTION	BY
11/13/88		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>5900 N TO 6300 N</b>			
ULTEIG ENGINEERS, INC.		REGISTERED ENGINEERS & SURVEYORS	
DRAWN BY: T.F.	SCALE: AS SHOWN	PROJECT NO: 94823	
CHECKED BY:	DATE: 2-95	SIC-6	
APPROVED BY:			



- CONSTRUCTION NOTES**
- 1 ALL UTILITIES WITHIN NEW PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING TOP LIFT IN ASPHALT AREAS AND PRIOR TO PLACING CONCRETE IN CONCRETE PAVING AREAS.
  - 2 CONSTRUCT NEW DRIVEWAY PER DETAIL, SIZE AS SHOWN.
  - 3 REMOVE EXISTING SIDEWALK AS SHOWN. REGRADE AS REQUIRED TO PROVIDE ADEQUATE SLOPE FOR NEW HANDICAP ACCESS. INSTALL NEW SIDEWALK WITH HANDICAP ACCESS PER DETAIL.
  - 4 SOLID LINES INDICATE CURB AND GUTTER TO BE REMOVED AND REPLACED. DASHED LINES INDICATE EXISTING CURB AND GUTTER TO REMAIN.
  - 5 FOR GRADES IN INTERSECTION, SEE INTERSECTION DETAIL SHEETS. FOR JOINTING IN INTERSECTIONS SEE TYPICAL INTERSECTION JOINTING DETAIL.
  - 6 REMOVE EXISTING SIDEWALK FROM DRIVEWAY TO 6TH STREET N.W.. REPLACE AT LOCATION SHOWN. ALL COSTS ASSOCIATED WITH REMOVING SIDEWALK, REGRADING FOR NEW SIDEWALK AND REPLACING SIDEWALK SHALL BE INCLUDED IN OTHER ITEMS.
  - 7 REMOVE PART OF RETAINING WALL AS REQUIRED TO ALLOW FOR NEW SIDEWALK. METHOD OF REMOVAL OF WALL SHALL BE APPROVED BY ENGINEER. ALL COSTS ASSOCIATED WITH REMOVING WALL SHALL BE INCLUDED IN PRICE BID FOR NEW SIDEWALK.
  - 8 INSTALL ASPHALT PAVEMENT.

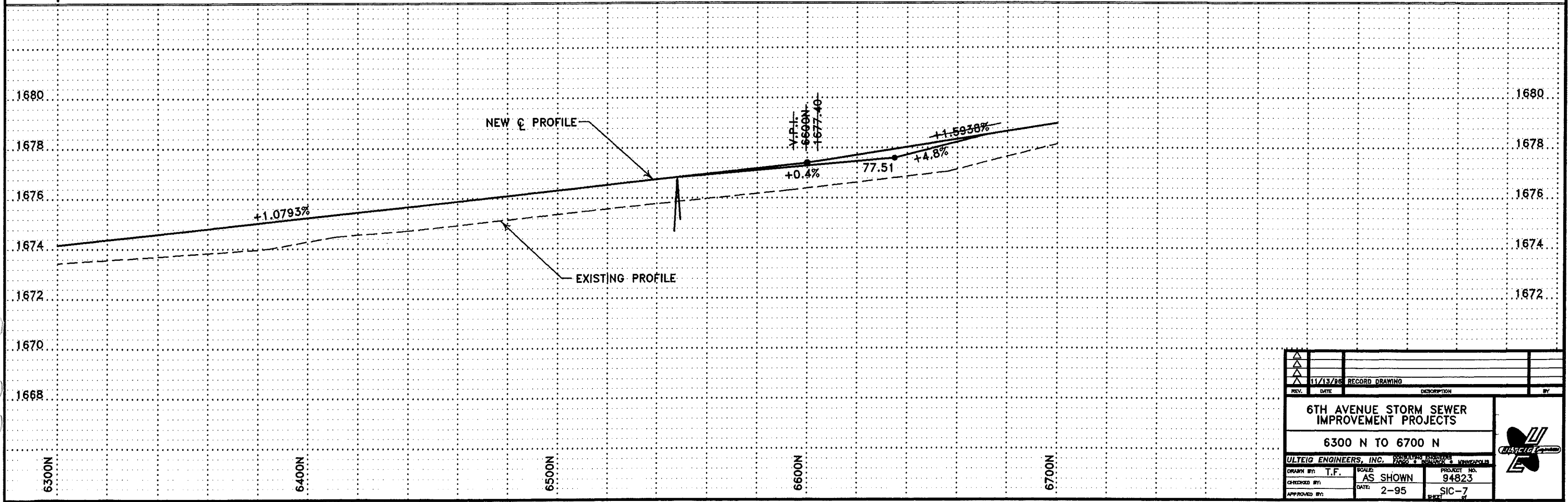
**JOINT LEGEND**

- 1 TIED AND KEYED JOINT - No. 3 X 1'-6" @ 3.5' O.C. (CONTINUOUS)
- 2 TIED AND SAWED JOINT - No. 4 X 2'-0" @ 2.0' O.C. (CONTINUOUS)
- 3 UNTIED, KEYED JOINT.

NOTES: ALL JOINTS SHALL BE SEALED WITH HOT Poured ELASTIC TYPE SEALER.

ALL TIE BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH N.D.D.O.T. STANDARD SPECIFICATIONS SECTION 836.02 B.

ALL COSTS FOR TIE BARS, DOWEL BARS, JOINT SAWING AND JOINT SEALING SHALL BE INCLUDED IN THE PRICE BID FOR 8" CONCRETE PAVEMENT.



REV.	DATE	DESCRIPTION	BY
11/13/95		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>6300 N TO 6700 N</b>			
ULTEIG ENGINEERS, INC. PROJECT NO. 94823			
DRAWN BY: T.F.	SCALE: AS SHOWN	DATE: 2-95	SHEET: SIC-7

CONSTRUCTION NOTES

- 1 ALL UTILITIES WITHIN NEW PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING TOP LIFT IN ASPHALT AREAS AND PRIOR TO PLACING CONCRETE IN CONCRETE PAVING AREAS.
- 2 REMOVE EXISTING SIDEWALK AS SHOWN. REGRADE AS REQUIRED TO PROVIDE ADEQUATE SLOPE FOR NEW HANDICAP ACCESS. INSTALL NEW SIDEWALK WITH HANDICAP ACCESS PER DETAIL.
- 3 SOLID LINES INDICATE CURB AND GUTTER TO BE REMOVED AND REPLACED. DASHED LINES INDICATE EXISTING CURB AND GUTTER TO REMAIN.
- 4 FOR GRADES IN INTERSECTION, SEE INTERSECTION DETAIL SHEETS. FOR JOINTING IN INTERSECTIONS SEE TYPICAL INTERSECTION JOINTING DETAIL.
- 5 ~~INSTALL ASPHALT PAVEMENT.~~

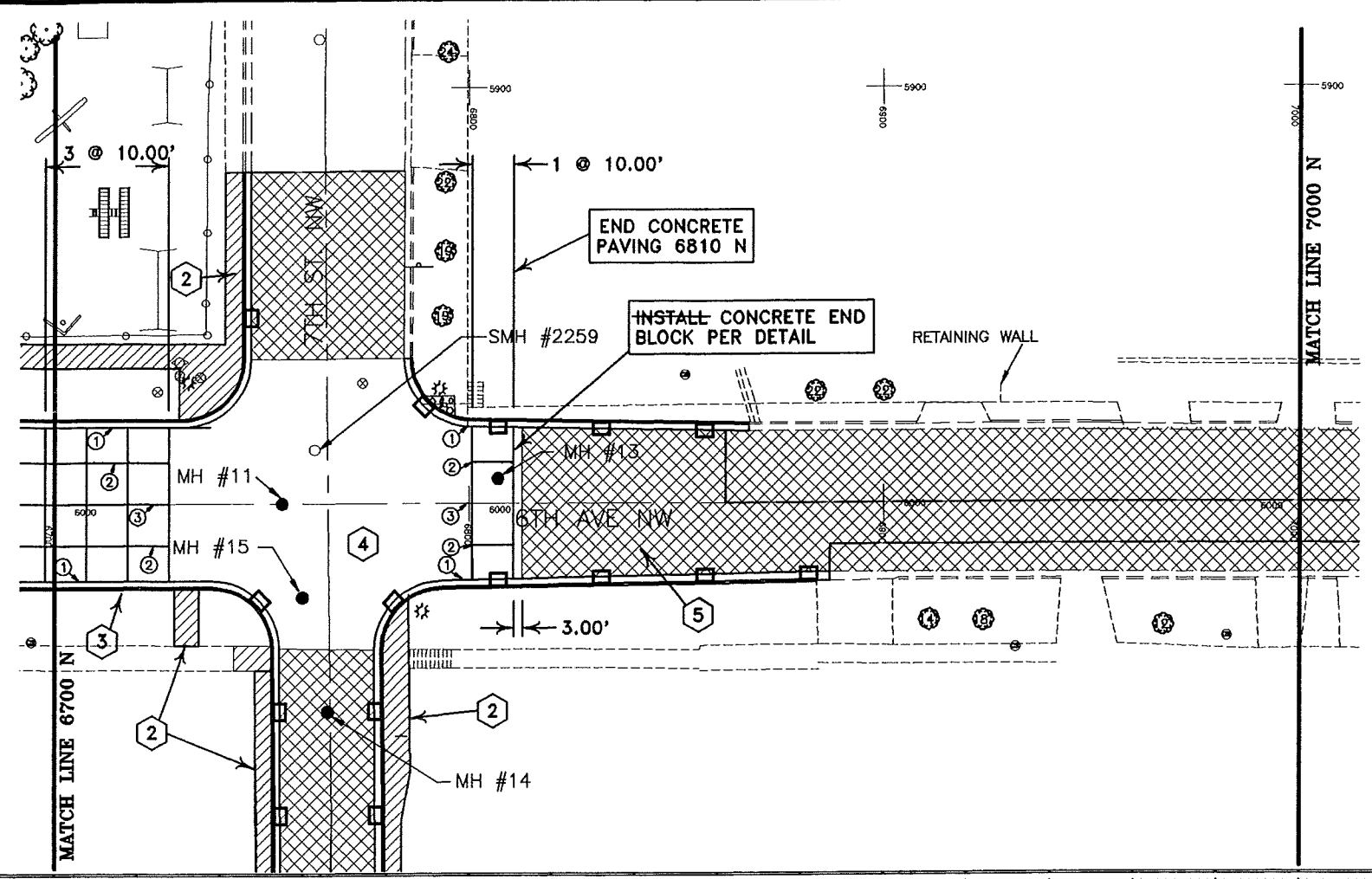
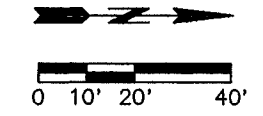
JOINT LEGEND

- 1 TIED AND KEYED JOINT - No. 3 X 1'-6" @ 3.5' O.C. (CONTINUOUS)
- 2 TIED AND SAWED JOINT - No. 4 X 2'-0" @ 2.0' O.C. (CONTINUOUS)
- 3 UNTIED, KEYED JOINT.

NOTES: ALL JOINTS SHALL BE SEALED WITH HOT POURED ELASTIC TYPE SEALER.

ALL TIE BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH N.D.D.O.T. STANDARD SPECIFICATIONS SECTION 836.02 B.

ALL COSTS FOR TIE BARS, DOWEL BARS, JOINT SAWING AND JOINT SEALING SHALL BE INCLUDED IN THE PRICE BID FOR 8" CONCRETE PAVEMENT.



REV.	DATE	DESCRIPTION	BY
1	11/13/88	RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>6700 N TO 7000 N</b>			
ULTEIG ENGINEERS, INC. <small>CONSULTING ENGINEERS</small>			
DRAWN BY: T.F.	SCALE: AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 2-95	SIC-8	
APPROVED BY:			

CONSTRUCTION NOTES

- ① ALL UTILITIES WITHIN NEW PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING TOP LIFT IN ASPHALT AREAS AND PRIOR TO PLACING CONCRETE IN CONCRETE PAVING AREAS.
- ② CONSTRUCT NEW TYPE 2 DRIVEWAY PER DETAIL, SIZE AS SHOWN.
- ③ REMOVE EXISTING SIDEWALK AS SHOWN. REGRADE AS REQUIRED TO PROVIDE ADEQUATE SLOPE FOR NEW HANDICAP ACCESS. INSTALL NEW SIDEWALK WITH HANDICAP ACCESS PER DETAIL.
- ④ SOLID LINES INDICATE CURB AND GUTTER TO BE REMOVED AND REPLACED. DASHED LINES INDICATE EXISTING CURB AND GUTTER TO REMAIN.
- ⑤ FOR GRADES IN INTERSECTION, SEE INTERSECTION DETAIL SHEETS. FOR JOINTING IN INTERSECTIONS SEE TYPICAL INTERSECTION JOINTING DETAIL.
- ⑥ INSTALL ASPHALT PAVEMENT.

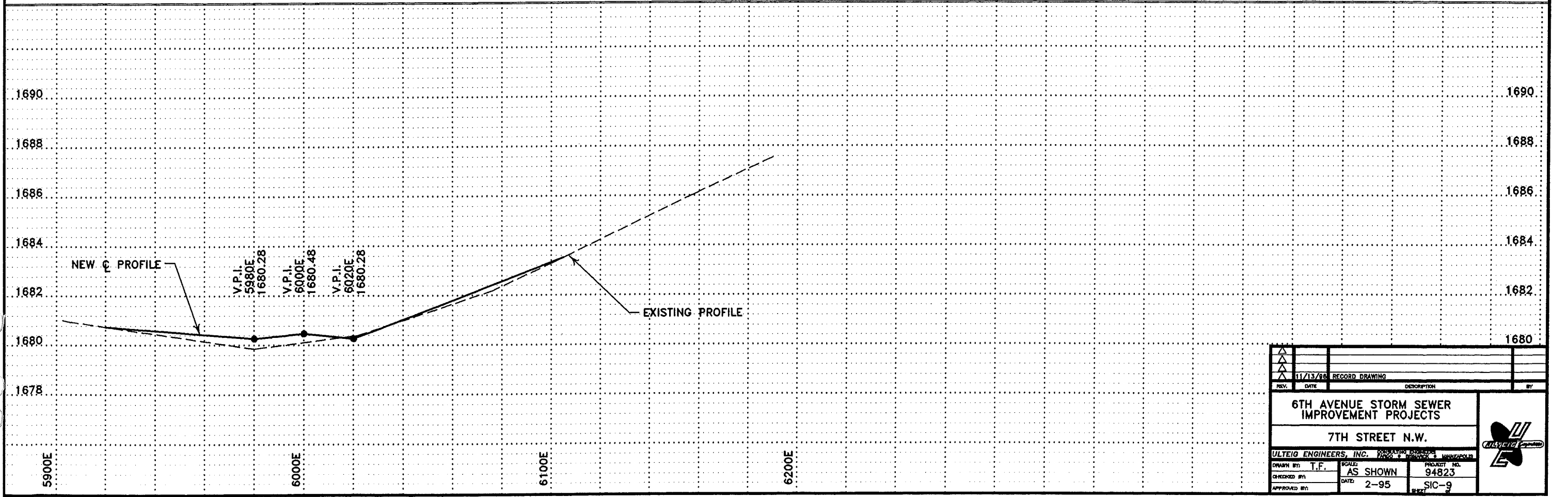
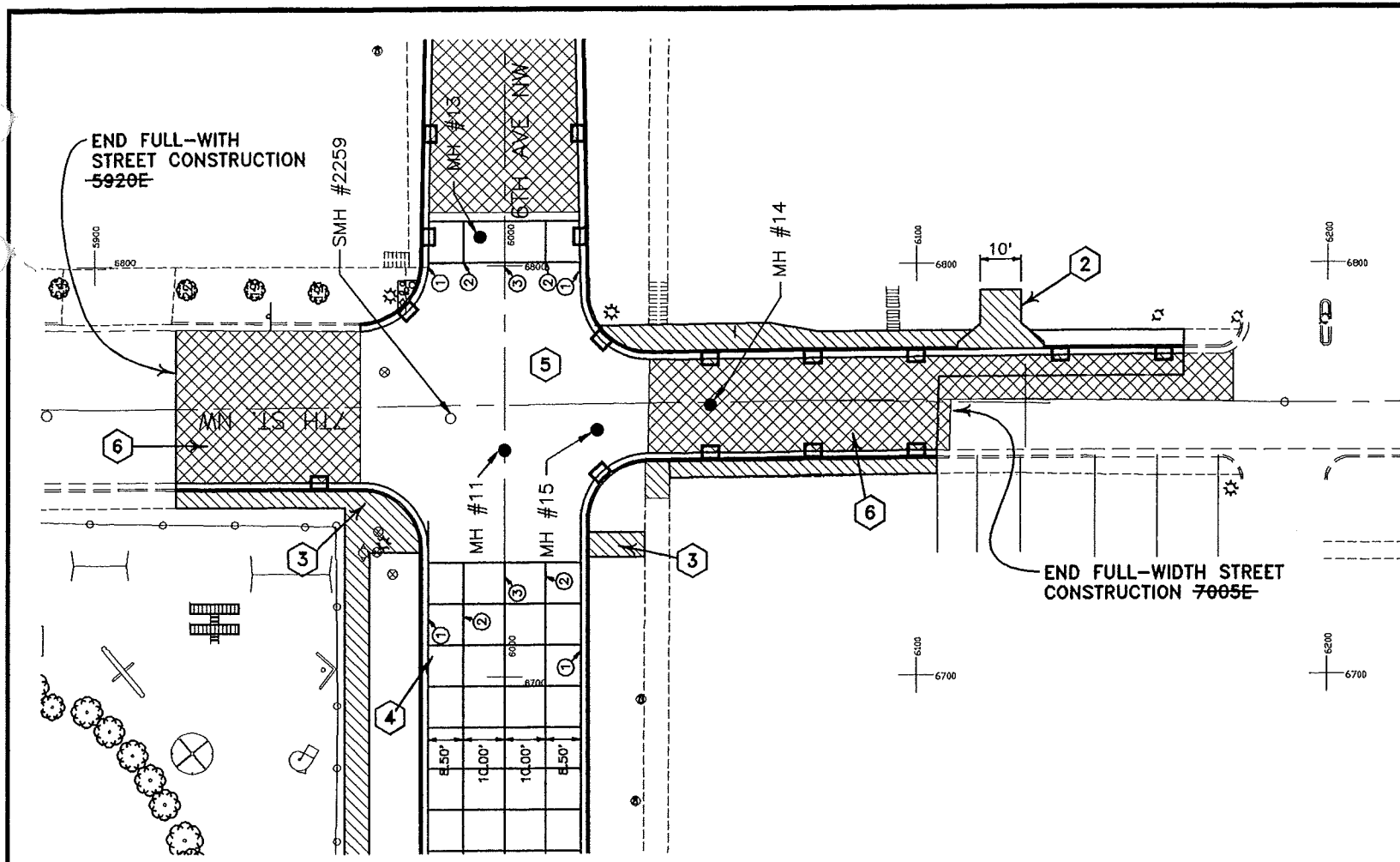
JOINT LEGEND

- ① TIED AND KEYPED JOINT - No. 3 X 1'-6" @ 3.5' O.C. (CONTINUOUS)
- ② TIED AND SAWS JOINT - No. 4 X 2'-0" @ 2.0' O.C. (CONTINUOUS)
- ③ UNTIED, KEYPED JOINT.

NOTES: ALL JOINTS SHALL BE SEALED WITH HOT POURED ELASTIC TYPE SEALER.

ALL TIE BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH N.D.D.O.T. STANDARD SPECIFICATIONS SECTION 836.02 B.

ALL COSTS FOR TIE BARS, DOWEL BARS, JOINT SAWING AND JOINT SEALING SHALL BE INCLUDED IN THE PRICE BID FOR 6" CONCRETE PAVEMENT.



REV.	DATE	DESCRIPTION	BY
11/13/98		RECORD DRAWING	
<b>6TH AVENUE STORM SEWER IMPROVEMENT PROJECTS</b>			
<b>7TH STREET N.W.</b>			
ULTEIG ENGINEERS, INC. <small>REGISTERED PROFESSIONAL ENGINEERS</small>			
DRAWN BY: T.F.	SCALE: AS SHOWN	PROJECT NO. 94823	
CHECKED BY:	DATE: 2-95	SIC-9	
APPROVED BY:			