

CITY OF MASSILLON
CITY ENGINEER DEPARTMENT
STARK COUNTY, OHIO
SPRINGHAVEN/SPRINGHILL ALLOT. STORM SEWER
OPWC PROJECT NO. CS11B

PROJECT DESCRIPTION

CONSTRUCTION AND RESIZING OF STORM SEWER SYSTEM.
RECONSTRUCTION OF CURBING ALONG WITH THE PLACEMENT
OF UNDERDRAINS. CONTINGENCY ITEM - RESURFACING.
ALTERNATE BID ITEM NO. 1 - STORM SEWER PIPE LINING.
ALTERNATE BID ITEM NO. 2 - ADDITIONAL STORM SEWER.

DESIGN DESIGNATION

CURRENT ADT (1998) 240
DESIGN YEAR ADT (2014) 240
DESIGN HOURLY VOLUME (2014) 10
DIRECTIONAL DISTRIBUTION 100%
TRUCKS (24 HOUR B&C) 1%
DESIGN SPEED 25 MPH
LEGAL SPEED 25 MPH

DESIGN FUNCTIONAL CLASSIFICATION - LOCAL STREET

DESIGN EXCEPTION

NONE

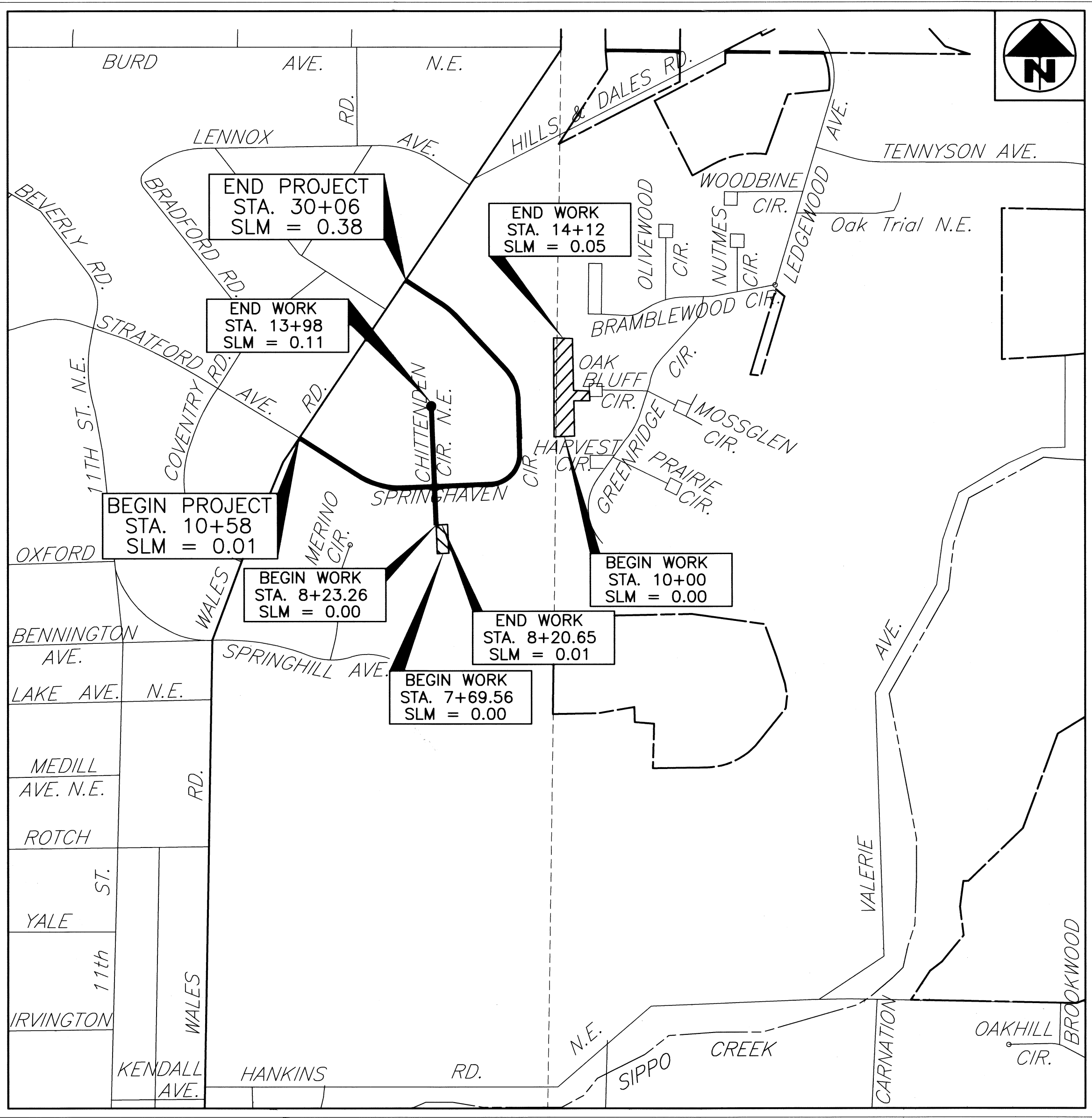
CONVENTIONAL SIGNS

RIGHT OF WAY EXISTING: ———, PROPOSED: ———
COUNTY LINE ———
TOWNSHIP LINE ———
CORPORATION LINE ———
FENCE LINE EXISTING: —X—X—, PROPOSED: —X—X—
GUARDRAIL EXISTING: —O—O—, PROPOSED: —●—●—
MANHOLES EXISTING: ○, PROPOSED: ●, ADJUSTED: ●
CATCH BASINS EXISTING: □, PROPOSED: ■, ADJUSTED: ■
SIGNS 1-POST: T, 2-POST: F, 3-POST: F
EXISTING POLES POWER: P, TELEPHONE T, LIGHT L, SPAN S
PROPOSED POLES POWER: P, TELEPHONE T, LIGHT L, SPAN S
EXIST. UTILITIES VALVE: V, HYDRANT: H, METERS: M / G, GUY: G

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

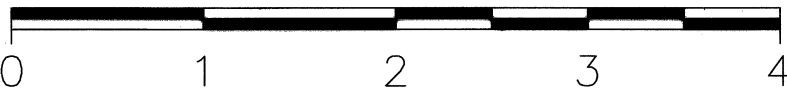
PLAN PREPARED BY:

CITY OF MASSILLON
Engineering Department



LOCATION MAP

SCALE IN MILES



PORTION TO BE IMPROVED
AREA TO BE IMPROVED
STATE & FEDERAL ROUTES
OTHER ROADS

RT. 30 W. — RT. 30 E.
AT THE INDUSTRIAL CROSSROADS OF OHIO
RT. 21
THE CITY OF MASSILLON, OHIO
Mayor
FRANCIS H. CICCINELLI, Jr.

INDEX OF SHEETS:

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APPROVALS

CITY ENGINEER JAMES J. BENEKOS, P.E., P.S. DATE

OFFICIALS

FRANCIS H. CICCINELLI, Jr. MAYOR
ALAN W. CLIMER DIRECTOR OF PUBLIC SAFETY AND SERVICE
JAMES J. BENEKOS, P.E., P.S. CITY ENGINEER
JOE ULRICH WASTE WATER TREATMENT PLANT MANAGER
JOHN FERRERO LAW DIRECTOR/PROSECUTOR
DOLORES B. LOOMIS AUDITOR
BILL H. HAMIT TREASURER
SHARON K. HOWELL CLERK OF COUNCIL

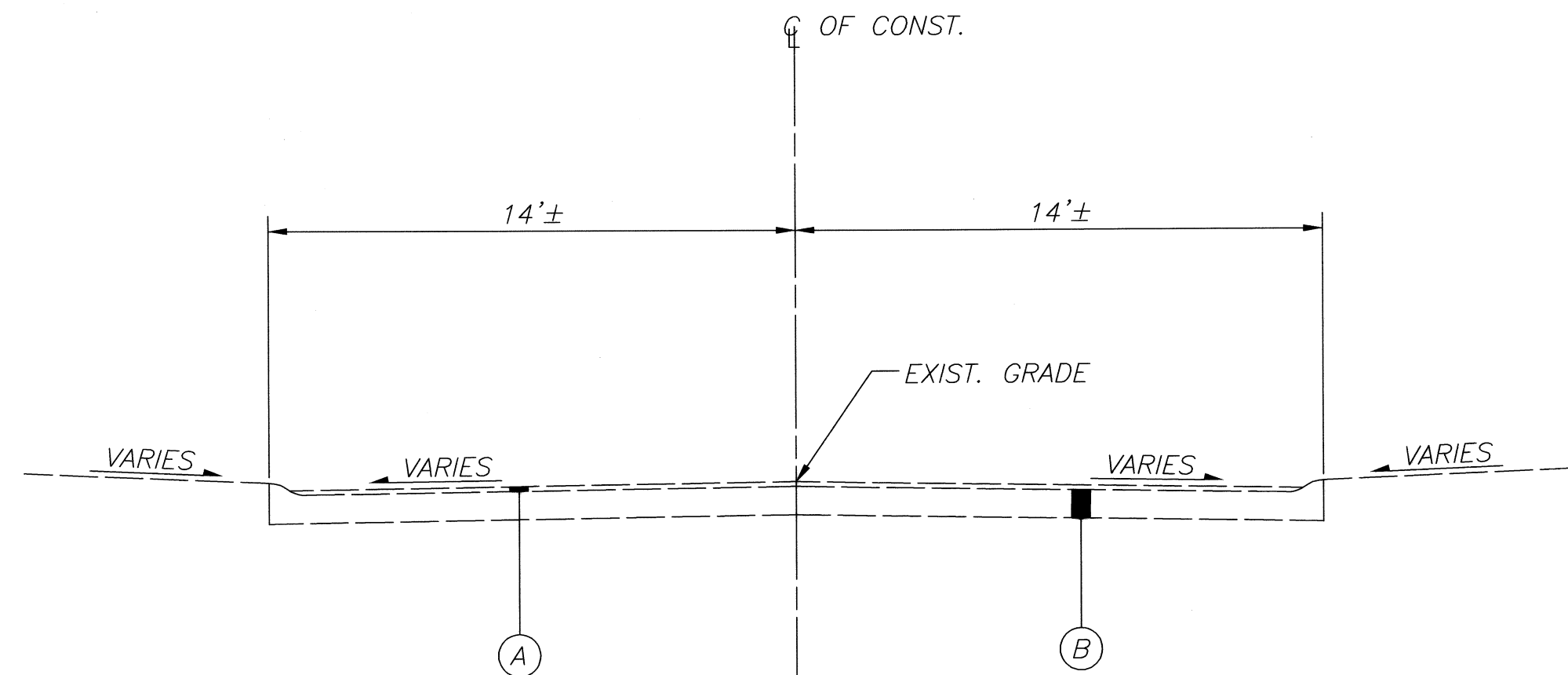
COUNCIL

DENNIS D. HARWIG PRESIDENT
JAMES H. ROHR 1st WARD
BILL AMAN 2nd WARD
CHARLES A. TRIBETT 3rd WARD
WILLIAM POOLE 4th WARD
GLENN E. GAMBER 5th WARD
PAUL F. LAMBERT 6th WARD

COUNCIL AT LARGE

MIKE LOUDIANA
TIM BRYAN
NANCY J. HALTER

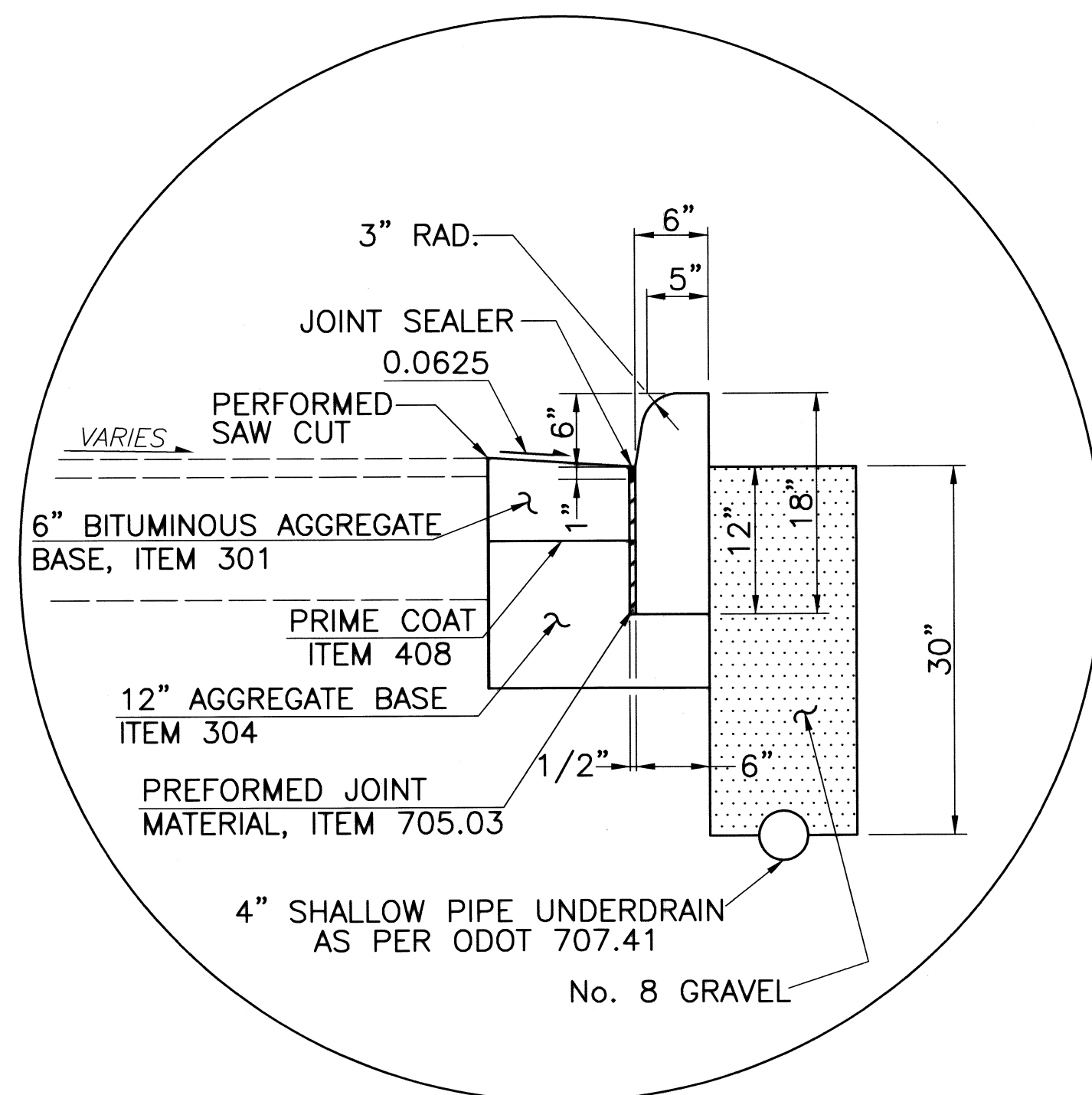
THE CITY OF MASSILLON, OHIO
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DATE: JULY 1998
OPWC NUMBER: CS11B
TITLE SHEET
SPRINGHAVEN/SPRINGHILL ALLOT. STORM SEWER
City of Massillon, Ohio
Francis H. Cicchinelli, Jr.
Mayor
1
21



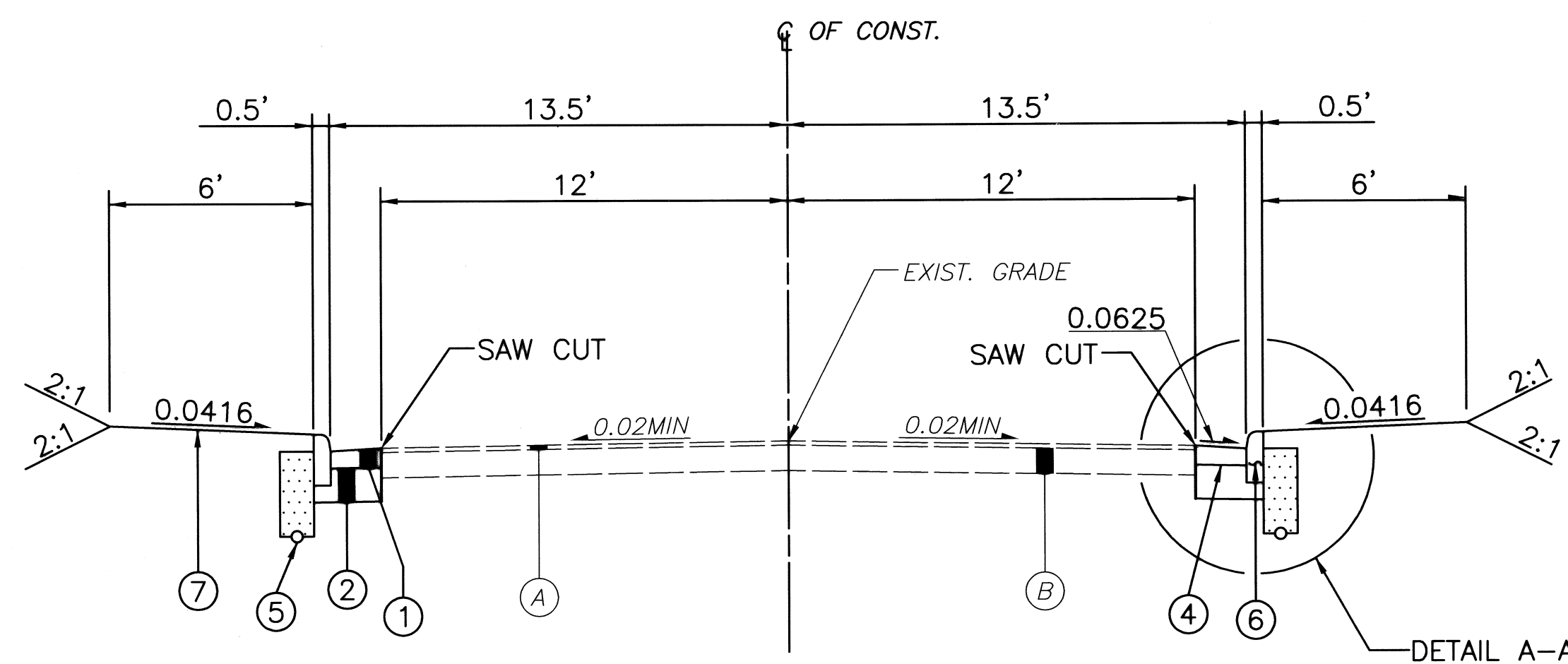
EXISTING TYPICAL SECTION
 SPRINGHAVEN CIR. - STA. 10+58 TO STA. 30+06
 CHITTENDEN CIR. - STA. 8+23.26 TO STA. 13+98

EXISTING LEGEND

- (A) - 1/2"± TO 3"± CHIP AND SEAL
- (B) - 6"± TO 9"± CONCRETE



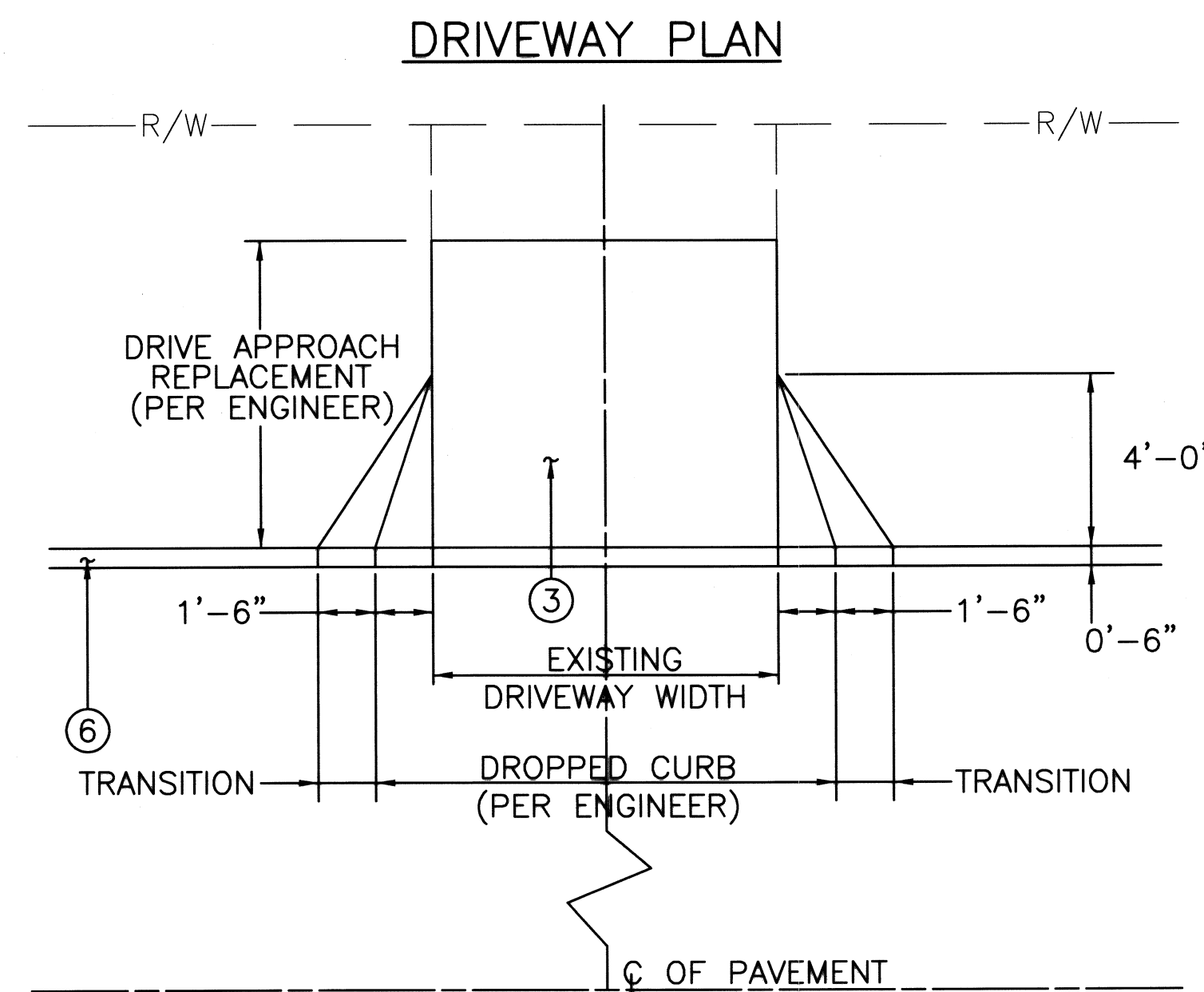
DETAIL A-A



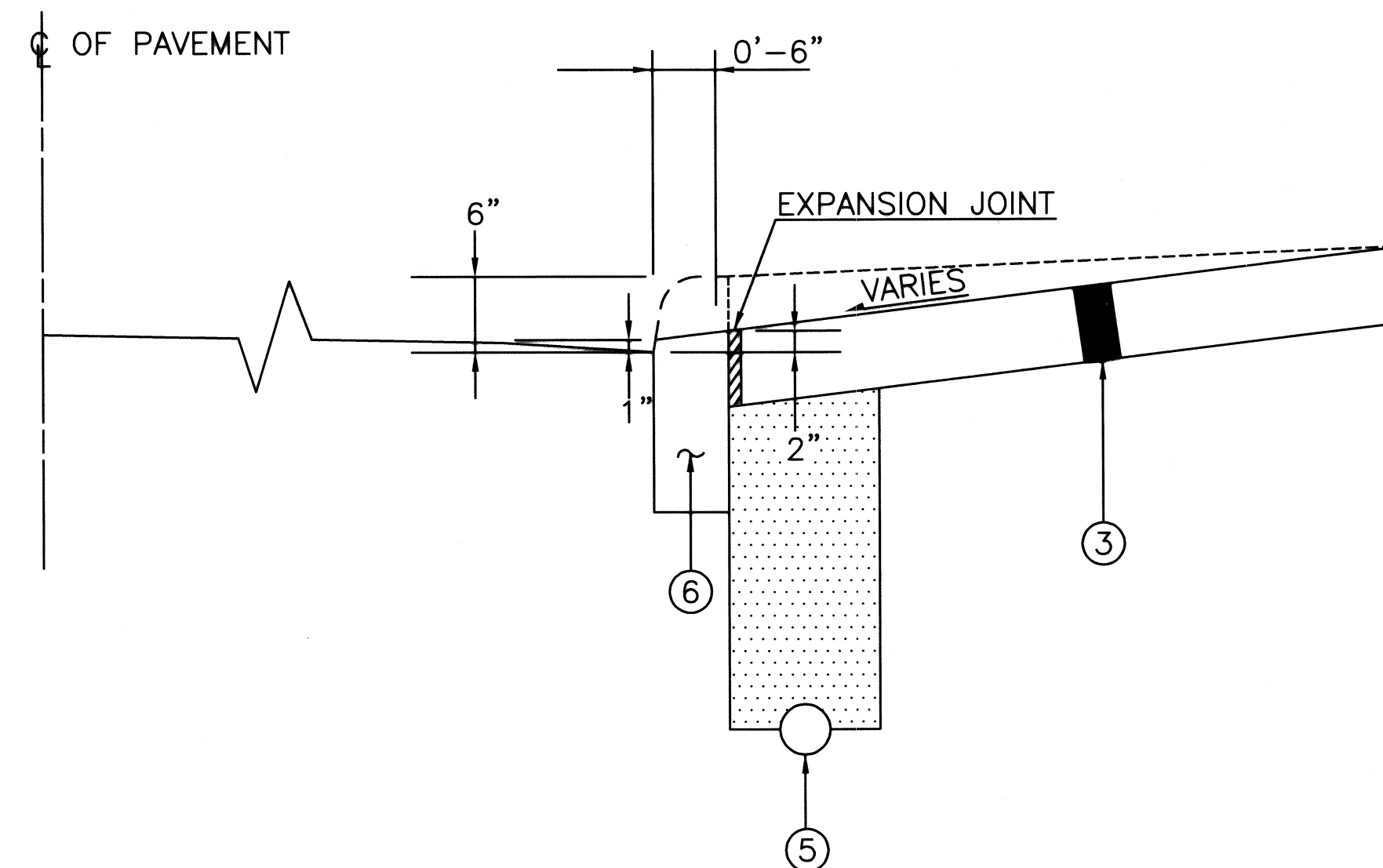
PROPOSED TYPICAL SECTION
 SPRINGHAVEN CIR. - STA. 10+62 TO STA. 30+06
 CHITTENDEN CIR. - STA. 8+26.23 TO STA. 13+98

PROPOSED LEGEND

- (1) ITEM 301 - 6" BITUMINOUS AGGREGATE BASE
- (2) ITEM 304 - 12" CRUSHED AGGREGATE BASE
- (3) ITEM 305 - 6" Portland Cement Concrete (Drive Approach)
- (4) ITEM 408 - PRIME COAT (SEE ITEM 401.12)
- (5) ITEM 605 - 4" SHALLOW PIPE UNDERDRAIN
- (6) ITEM 609 - CONCRETE CURB - ODOT TYPE 6
- (7) ITEM 659 - TOPSOIL, SEEDING AND MULCHING



DRIVEWAY TYPICAL



SPRINGHAVEN AND CHITTENDEN CIRCLE NE - TYPICAL SECTIONS
 STA. 10+58 TO STA. 30+06 AND STA. 8+26.23 TO 13+98
 City of Massillon
 Stark County, Ohio

CITY OF MASSILLON
 Francis H. Cicchinelli, Jr.
 Mayor

ELECTRONIC FILE NAME:
 98SM0102.DWG

DRAWN BY
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DATE
 JUNE 1998

CS11B

THE CITY OF MASSILLON, OHIO

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AMERITECH 50 W. BOWERY, 6TH FLOOR AKRON, OH 44308 800-290-2242 RICK MARSILI	CONSUMER OHIO WATER COMPANY P.O. BOX 584 MASSILLON, OH 44648 (330) 833-4156	OHIO EDISON STARK DIVISION 2600 S. ERIE ST. MASSILLON, OH 44545 (330) 833-3141
MB OPERATING 104 6TH ST. S.W. CANTON, OH 44702 (330) 456-2454	AT&T COMMUNICATIONS 2535 E. 40TH AVE. DENVER, CO 80205-3601 (800) 852-3786	MASSILLON CABLE TV P.O. BOX 814 MASSILLON, OH 44648 (330) 8334134
CITY OF MASSILLON SANITARY SEWER ONE JAMES DUNCAN PLAZA MASSILLON, OH 44646 (330) 830-1722	THE EAST OHIO GAS COMPANY 4725 SOUTHWAY ST. S.W. CANTON, OH 44706 (330) 478-3142 NANCY KOVACH	NORTHEAST OHIO NATURAL GAS CORP. 1425 N. WOOSTER AVE. STRASBURG, OH 44680-9766 (330) 878-5589

THE CONTRACTOR SHALL NOTIFY ALL UTILITIES 48 HOUR PRIOR TO WORK.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE SHOWN AT APPROXIMATE DEPTHS AND WHERE OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

REMOVAL OF TREES OR STUMPS

ALL TREES AND STUMPS REMOVED DURING CONSTRUCTION SHALL BE UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING ANG GRUBBING.

ITEM 202 – MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATION SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NORMAL 4"x4" SQUARE OR 4-1/2" DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NORMAL PIPE SIZE 2" I.D., AND CONFORM TO AASHTO M 181.

HARDWARE (PLATES, SCREWS, BOLTS, ECT.) SHALL BE COMMERIAL-GRADE GAL-VANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR DOUBLE MAIL-BOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLA-TIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.12. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT, (SINGLE) (DOUBLE).

MAILBOX POSTS SHALL BE PLACED IN LOCATION THAT WILL NOT TO BE IN CONFLICT WITH UNDERDRAINS. UNDERDRAINS DAMAGED DURING MAILBOX REPLACEMENT SHALL BE REPLACED AT THE COST OF THE CONTRACTOR.

ITEM 201. LAWN STRIP CLEARING & GRUBBING

SLOPE OF LAWN STRIP SHOULD BE 1/2" PER FOOT GRADE TO BACK OF CURB. PER ENGINEERS DIRECTION.

THIS ITEM IS A LUMP SUM QUANTITY.

ITEM 609. CAST IN PLACE 6"x18" CONCRETE CURB

CURBING WILL BE REPLACED PER ENGINEERS DIRECTION. GRANULAR BEDDING, BACKFILLING AND CONCRETE CURB PLACEMENT ALONG WITH ALL APPURTENANCES IS TO BE INCLUDED IN ITEM 609.

ITEM 659. TOPSOIL. SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL EXPOSED SOIL BETWEEN THE RIGHT OF WAY LINES, AND WITHIN THE CONSTRUCTIONS LIMITS FOR AREAS OUT-SIDE THE RIGHT OF WAY LINES DISTURB DURING CONSTRUCTION.

THE CITY SHALL APPROVE SEED MIX PRIOR TO CONSTRUCTION TO BE USED THROUGH OUT CONSTRUCTION LIMITS. PROPOSED MIX SHALL BE SUBMITTED IN WRITING PRIOR TO ANY CONSTRUCTION.

ITEM 659, SEEDING AND MULCHING LUMP SUM BID

EROSION CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL AND SHALL MEET THE REQUIREMENTS OF 108.04.

ITEM 604. CATCH BASIN NO. 3. 3A

CATCH BASINS SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 604 EXCEPT THAT THAT THE GRATES SHALL BE NEENAH NO. R-4859-C OR EAST JORDAN NO. 6730-2 OR APPROVED EQUALS.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY OF MASSILLON AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE CITY OF MASSILLON.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE CITY OF MASSILLON.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE COPNTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

DOWN SPOUTS

ALL DOWN SPOUTS SHALL BE PUT THROUGH THE CURB AS PER ENGINEERS DIRECTION. CURB OPENING SHALL NOT BE GREATER THAN A 3 1/2" DIAMETER.

THE FOLLOWING WORK SHALL BE PAID FOR UNDER ITEM 609.

ITEM 651. TOPSOIL STOCKPILED

THE MATERIAL FOR THIS ITEM SHALL BE OBTAINED FROM AREAS WITHIN THE PROPOSED RIGHT-OF-WAY.

PROVISION OF THIS 651 ITEM SHALL NOT BE CONSTRUED AS A WAIVER OF THE PROVISIONS OF 201.4. SOD AND INCIDENTAL TOPSOIL REMOVED ELSEWHERE ON THIS PROJECT FOR SALVAGE, FOR USE AS DESCRIBED IN 203.04(e), SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE VARIOUS 203 ITEMS.

MANHOLES. CATCH BASINS AND INLETS REMOVED OR ABANDONED

ALL CASTING SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT-OF-WAY FOR SALVAGE BY THE CITY. CONTACT THE CITY OF MASSILLON STREET SUPERINTENDENT AT 330-833-5746.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

ITEM 407. TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.08 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 408. BITUMINOUS PRIME COAT

THE RATE OF APPLICATION OF THE 408 PRIME COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.40 GALLONS PER SQUARE YARD OF PRIME COAT FOR ESTIMATING PURPOSES ONLY.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 ITEM.

NOTIFICATION OF SAFETY FORCES

THE CONTRACTIOR SHALL NOTIFY THE CITY OF MASSILLON FIRE DEPARTMENT, MASSILLON POLICE DEPARTMENT, CITY ENGINEER AND LOCAL (MASSILLON & JACKSON) SCHOOL DISTRICT TRANSPORTATION SUPERVISOR, AND THE SAFETY & SERVICE DIRECTOR AT LEAST 48 HOURS IN ADVANCE OF ANY STREET CLOSING OR TRAFFIC CHANGE.

GENERAL NOTES

City of Massillon
Stark County, Ohio

CITY OF MASSILLON
Francis H. Cicchinelli, Jr.
Mayor

IT IS HEREBY CERTIFIED THAT THIS IS A TRUE AND CORRECT COPY OF THE ORIGINAL.
THE CITY OF MASSILLON, OHIO

ELECTRONIC FILE NAME:
98SM0104.DWG

OPAC NUMBER
CS11B

DRAWN BY
BAC

DATE
JUNE 1998

DATUM ELEVATION

ALL BENCHMARKS ARE BASED ON REFERENCE BENCHMARKS PROVIDED BY THE CITY OF MASSILLON.

STATIONING

ALL STATIONING SHOWN IS REFERENCED TO THE BASELINE AS SHOWN.

EXISTING DATA

EACH CONTRACTOR SHALL VISIT THE SITE PERSONALLY TO ASCERTAIN THE NATURE OF THE WORK AND BECOME THOROUGHLY FAMILIARIZED WITH THE SITE PRIOR TO BID SUBMISSION.

EXISTING STRUCTURES, GRADES, PIPING, ETC. ARE INDICATED IN APPROXIMATE LOCATION ON THE PLAN. INFORMATION SHOWN IS NOT GUARANTEED TO BE CORRECT AND COMPLETE. THE DATA SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE EXISTENCE OF FACILITIES ABOVE OR BELOW GROUND, WHICH MAY NOT BE SHOWN, WILL NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK.

EXISTING UNDERGROUND UTILITIES SHOWN ARE RECORDS PROVIDED BY UTILITY COMPANIES AND ARE APPROXIMATE ONLY. SERVICE LATERALS ARE NOT SHOWN.

IT IS THE RESPONSIBILITY OF CONTRACTOR TO NOTIFY THE CITY, PRIOR TO BID OPENING NON–CONFORMING OR CONFLICTING INFORMATION.

CONSTRUCTION SPECIFICATIONS & STANDARDS

ALL CONSTRUCTION TO BE CITY OF MASSILLON SPECIFICATIONS AND STANDARDS, THE LATEST EDITION OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS AND FOLLOW ALL OSHA AND ADA REGULATIONS AND REQUIREMENTS.

CONTRACTOR AVAILABILITY

THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A 24 HOUR PHONE NUMBER WHERE THE CONTRACTOR, SHALL BE AVAILABLE FOR EMERGENCIES.

PRESERVATION OF PRIVATE PROPERTY

THE CONTRACTOR SHALL PERFORM WORK AS TO NOT DISTURB, DAMAGE OR DESTROY ANY TELEPHONE OR POWER POLES, SIGNS, LANDSCAPING ITEMS, ETC. ANY ITEM DAMAGED OR DESTROYED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE. PRIOR ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THE ABOVE ITEMS ARE PERFORMED.

PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS, CONCRETE MONUMENTS OR ANY TYPE OF LAND MONUMENT. HE SHALL HAVE ALL LAND MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. HE SHALL REPLACE DESTROYED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY AN OHIO REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.

EXCAVATED MATERIAL

ALL EXCAVATED MATERIAL AND ALL MATERIAL USED IN CONSTRUCTION OF THE WORK SHALL BE PILED IN A MANNER THAT WILL NOT ENDANGER THE WORK AND THAT WILL LEAVE DRIVEWAYS OR OTHER CONTROLS UNOBSTRUCTED AND ACCESSIBLE WHILE THE WORK IS TO BE COMPLETED. SATISFACTORY PROVISIONS SHALL BE MADE FOR STREET DRAINAGE, AND NATURAL WATERCOURSES SHALL NOT TO BE OBSTRUCTED. DURING THE PROGRESS OF THE WORK, ALL MATERIAL PILES SHALL BE KEPT TRIMMED UP AND MAINTAINED IN A NEAT MANNER. ALL EXCAVATED WASTE MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE, AS DIRECTED BY THE ENGINEER. THE WASTE SITE IS TO BE PROVIDED BY THE CONTRACTOR AT NO COST TO THE CITY, UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS. CONTRACTOR MUST PROVIDE A LETTER FROM THE PROPOSED WASTE SITE OWNER PERMITTING SUCH AND HOLDING THE CITY HARMLESS.

ITEM 623. CONSTRUCTION LAYOUT STAKES

CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT AND UPON COMPLETION OF PROJECT AS–BUILT DRAWINGS ARE REQUIRED.

THIS WORK IS TO BE UNDER ITEM 623 CONSTRUCTION STAKING.

SUBSURFACE CONDITIONS

IT IS THE OBLIGATION AND RESPONSIBILITY OF THE BIDDER TO MAKE HIS OWN INVESTIGATIONS OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. THE BIDDER MAY EXAMINE THE RECORDS OF ALL BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS, IF ANY, MADE SOLELY FOR DESIGN PURPOSES FOR THE OWNER. SAID BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS, ARE NOT A PART OF THE CONTRACT DOCUMENTS, EXCEPT TO THE EXTENT THAT THE RESULTS THEREOF ARE SPECIFICALLY SHOWN ON THE PLANS OR INCLUDED IN THE SPECIFICATIONS AND ARE NOT WARRANTED TO SHOW THE ACTUAL SUBSURFACE CONDITIONS. THE CONTRACTOR AGREES THAT THEY WILL MAKE NO CLAIM AGAINST THE OWNER OR THE ENGINEER IF, IN CARRYING OUT THE WORK, HE FINDS THAT THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED DO NOT CONFORM TO THOSE INDICATED BY SAID BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS.

RESTORATION

FOR SEWER INSTALLED, TESTED, AND ACCEPTED UP TO MAY 15TH OF ANY CALENDER YEAR, RESTORATION SHALL BE COMPLETE BY JUNE 30TH OF THAT YEAR. FOR INSTALLATION OF SEWER TESTED AND ACCEPTED FROM MAY 15TH TO SEPTEMBER 30TH OF ANY CALENDER YEAR, RESTORATION SHALL BE COMPLETE BY NOVEMBER 15TH OF THAT CALENDER YEAR. FOR SEWER INSTALLED, TESTED, AND ACCEPTED AFTER NOVEMBER 15TH OF ANY CALENDER YEAR, RESTORATION SHALL BE COMPLETE BY MAY 15TH OF THE NEXT CALENDAR YEAR.

ALL SOIL AREAS DISTURBED BY THE CONTRACTOR SHALL BE TOPSOILED, SEEDED AND MULCHED. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR EACH ITEM OF AFFECTED WORK. TOPSOIL, SEEDING AND MULCHING SHALL NOT BE A SEPERATE PAY ITEM. THIS INCLUDES BACKFILLING, SEEDING AND MULCHING ALONG THE EDGE OF ALL PAVEMENT RESTORATION.

PAVEMENT CROSSINGS WILL RECEIVE TYPE C PAVEMENT REPLACEMENT WITH FULL WIDTH PAVEMENT OVERLAY.

CONTRACTOR TO REPLACE ALL PAVEMENT MARKINGS. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR PAVEMENT.

CONTRACTOR TO USE HOT APPLIED JOINT CRACK SEALER ON ASPHALT PAVEMENT AT ALL ENDS, INTERSECTIONS AND CURBS.

ALL TRENCHES IN ROAD RIGHT OF WAY WILL RECEIVE FULL DEPTH PREMIUM GRANULAR BACKFILL.

ITEM 614 – MAINTENANCE OF TRAFFIC

THE CONTRACTOR SHALL SUPPLY A MAINTENANCE OF TRAFFIC PLAN TO THE CITY OF ENGINEER.

MAINTENANCE OF TRAFFIC PLAN MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO ANY CONSTRUCTION.

ACCESSIBILITY TO PRIVATE PROPERTY

ACCESS TO ALL DRIVEWAYS AND PARKING AREAS WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES EXCEPT WHILE LAYING THE SEWER ACROSS THE DRIVE. THE TRENCH SHALL BE BACKFILLED AT THE END OF EACH WORK DAY TO PROVIDE ACCESS. THE CONTRACTOR MUST NOTIFY EACH PROPERTY OWNER AT LEAST 24 HOURS IN ADVANCE OF CUTTING THIER DRIVEWAY.

FINAL APPROVAL

A VIDEO TAPE WILL BE MADE BY THE CONTRACTOR AND SUBMITTED TO THE CITY PRIOR TO THE PROJECT COMMENCING. AFTER THE FINAL INVOICE IS RECEIVED THE SITE WILL BE VIDEO TAPED AGAIN BY THE CONTRACTOR. ANY DISCREPANCIES WILL BE RESOLVED PRIOR TO FINAL PAYMENT.

COST OF THIS WORK SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

STORM WORK

THE FOLLOWING CONDUIT TYPES MAY BE USED FOR STORM SEWER WITH MORE THAN (1) ONE FOOT OF COVER: 707.42, 706.08, 706.02, WITH JOINTS AS PER 706.10 OR 706.11.

THE FOLLOWING CONDUIT TYPES MAY BE USED FOR STORM SEWER WITH LESS THAN (1) ONE FOOT OF COVER: 706.02 WITH JOINTS AS PER 706.10 OR 706.11.

CONNECTION TO EXISTING SEWERS

CONSTRUCTION OF THE NEW SEWER SHALL BE SCHEDULED AND PERFORMED SUCH THAT ALL NEW SEWER IS IN PLACE TESTED AND FOUND READY FOR ACCEPTANCE BEFORE THE ACTUAL CUTTING AND TIEING INTO THE EXISTING SEWER IS PERFORMED.

INTERNAL TELEVISION INSPECTION

ALL STORM SEWERS 8” DIAMETER AND LARGER, MUST PASS INTERNAL TELE–VISION INSPECTION. THE CONTRACTOR SHALL PROVIDE COMPLETE, INTERNAL INSPECTION VIDEOTAPE TO THE CITY OF MASSILLON ENGINEERING DEPARTMENT. THE VIDEOTAPING PROCEDURE MUST BE IN ACCORDANCE WITH SPECIFICATION SECTION 02743. COST INCLUDED IN OTHER ITEMS OF WORK.

LATERAL LOCATIONS

ALL NEW LATERAL LOCATIONS SHALL BE DETERMINED IN THE FIELD. TO DETERMINE THE LOCATION THE CONTRACTOR SHALL SPEAK TO THE LAND OWNER FOR BEST SUITABLE LOCATION. ALL LOCATIONS MUST BE APPROVED BY ENGINEER.

ALL NEW LATERIAL LOCATIONS TO BE FIELD CHECKED AND LOCATED BY THE ENGINEER PRIOR TO BACKFILLING.

LATERAL PRICE SHALL INCLUDE ALL APPURTENANCES NECESSARY.

ALL NEW LATERIAL CONNECTIONS SHALL BE PAID UNDER THE PERTINENT 603 ITEM.

PRESERVATION OF EXISTING UTILITY SERVICES

ANY EXISTING WATER LINE, SANITARY SEWER, STORM SEWER, GAS LINE OR OTHER UTILITY IN OR OUTSIDE OF THE CONSTRUCTION LIMITS, DAMAGED DURING CONSTRUCTION OF THE PROPOSED PROJECT, WILL BE REPLACED AT THAT CONTRACTORS EXPENSE.



THE CITY OF MASSILLON, OHIO

FOR REVIEW
AT THE ENGINEERING DEPARTMENT

ELECTRONIC FILE NAME:
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DRAWN BY:
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JUNE 1998

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GENERAL NOTES

CITY OF MASSILLON
Francis H. Cicchinelli, Jr.
Mayor

4
21

City of Massillon
Stark County, Ohio

DESCRIPTION	REF. No.	SHEET No.	STATION		SIDE	202		601		602		603					604			605					
			FROM	TO		PIPE REMOVED 21" AND UNDER	CATCH BASIN REMOVED	GROUTED RIP RAP	ROCK CHANNEL PROTECTION TYPE C WITH FILTER FABRIC	CONCRETE MASONRY HEADWALL ODOT HW-1	12" CONDUIT TYPE B	12" CONDUIT TYPE C	21" CONDUIT TYPE B	21" CONDUIT TYPE C	24" CONDUIT TYPE B	24" CONDUIT TYPE C	CATCH BASIN ODOT CB-3A	SIDE DITCH INLET ODOT INLET TYPE I-1	STORM MANHOLE ODOT MH-3	4" SHALLOW PIPE UNDERDRAIN					
UNDERDRAINS						LIN. FT.	EACH	SQ. YD.	CU. YD.	CU. YD.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	LIN. FT.					
	U1	8	10+65	13+00	LT															235					
	U2	8	10+65	13+00	RT															235					
	U3	8	13+00	15+50	LT															250					
	U4	8	13+00	15+50	RT															250					
	U5	9	15+50	15+92.76	LT															45					
	U6	9	15+50	16+03	RT															74					
	U7	9	16+40.64	19+69	LT															330					
	U8	9	16+32	19+69	RT															359					
	U9	9	19+69	20+00	LT															31					
	U10	9	19+69	20+00	RT															31					
	U11	10	20+00	22+81	LT															281					
	U12	10	20+00	22+81	RT															281					
	U13	10	22+81	24+12	LT															131					
	U14	10	22+81	24+12	RT															131					
	U15	10	24+12	25+00	LT															88					
	U16	10	24+12	25+00	RT															88					
	U17	11	25+00	28+00	LT															300					
	U18	11	25+00	28+00	RT															300					
	U19	11	28+00	30+06	LT															206					
	U20	11	28+00	30+06	RT															206					
	U21	12	8+23.26	9+50	LT															127					
	U22	12	8+23.26	9+50	RT															127					
	U23	12	10+24	12+00	LT															179					
	U24	12	10+24	12+00	RT															179					
	U25	13	12+00	13+11	LT															111					
	U26	13	12+00	13+11	RT															111					
	U27	13	13+11	13+27	LT															20					
	U28	13	13+11	13+27	RT															19					
U29	13	13+59.24	(39'RADIUS)	RT & LT															196						

SHEET NUMBER																			ITEM	GRAND TOTAL	UNIT	DESCRIPTION	IT-211 AT THE MAINTENANCE OFFICE THE CITY OF MASSILLON, OHIO
	8		9		10		11		12		13		14		15		17						
																			201	LUMP		ROADWAY	
																			202	LUMP		CLEARING AND GRUBBING	
																			202	LUMP		REMOVE AND REPLACE MAILBOXES	
	180		111		173		217		63		126								202	870	SQ. YD.	DRIVE APRON REMOVAL	
	984		900		1000		1012		754		457								202	5107	L.F.	CURB AND GUTTER REMOVAL, AS PER PLAN	
					27										360				202	387	L.F.	REMOVE EXISTING PIPE (21" & UNDER)	
	2				2										3				202	7	EACH	REMOVE EXISTING CATCH BASIN	
											450				1500				203	1950	CU. YD.	EXCAVATION	
	28		25		28		29		21		13								301	144	CU. YD.	BITUMINOUS AGGREGATE BASE	
	73		67		74		75		56		34								304	379	CU. YD.	AGGREGATE BASE	
	185		115		178		224		65		130								305	897	SQ. YD.	6" PORTLAND CEMENT CONCRETE	
	197		180		200		202		151		91								408	1021	GAL.	BITUMINOUS PRIME COAT	
																			503	100	CU. YD.	LOW STRENGTH MORTAR BACKFILL	
	984		900		1000		1012		754		457								609	5107	L.F.	CURB – ODOT TYPE 6	
																			614	LUMP		MAINTAINING TRAFFIC	
																			623	LUMP		CONSTRUCTION LAYOUT STAKES	
																						EROSION CONTROL	
													2						207	LUMP		TEMPORARY SOIL EROSION AND SEDIMENT CONTROL	
																			601	2	SQ. YD.	RIP RAP	
															110				601	110	CU. YD.	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER FABRIC	
	80		80		90		70		60		30		60		60				653	530	CU. YD.	TOPSOIL FURNISHED AND PLACED	
	690		700		790		570		500		260		490		500				659	4500	SQ. YD.	SEEDING AND MULCHING	
															6				602	6	CU. YD.	DRAINAGE CONCRETE MASONRY – HEADWALL (ODOT HW-1)	
	27		75		26		27												603	155	L.F.	12" CONDUIT – TYPE B	
	244		9		207		299												603	759	L.F.	12" CONDUIT – TYPE C	
									57										603	57	L.F.	21" CONDUIT – TYPE B	
									151		8								603	159	L.F.	21" CONDUIT – TYPE C	
					27														603	27	L.F.	24" CONDUIT – TYPE B	
			337		276														603	613	L.F.	24" CONDUIT – TYPE C	
	4		4		4		2								1				604	15	EACH	CATCH BASIN – ODOT NO. 3A	
									1										604	1	EACH	SIDE DITCH INLET – ODOT NO. I-1	
	2		2		2				1										604	7	EACH	STORM MANHOLE – ODOT NO. 3	
	970		825		1000		1012		612		457								605	4921	L.F.	4" SHALLOW PIPE UNDERDRAIN	
																						CONTINGENCY ITEMS	
															7569				254	7569	SQ. YD.	PAVEMENT PLANNING	
															421				402	421	CU. YD.	ASPHALT CONCRETE	
															421				404	421	CU. YD.	ASPHALT CONCRETE	
															3028				407	3028	GAL.	RUBBERIZED TACK COAT	
															7				604	7	EACH	REHAB MANHOLES WITH NEW CASTINGS & LIDS	
															2				705	2	GAL.	HOT APPLIED JOINT & CRACK SEALER	
															7569				SPECIAL	7569	SQ. YD.	OVERLAY FABRIC	

ELECTRONIC FILE NAME:
98SM0106.DWG

DRAWN BY:
BAC

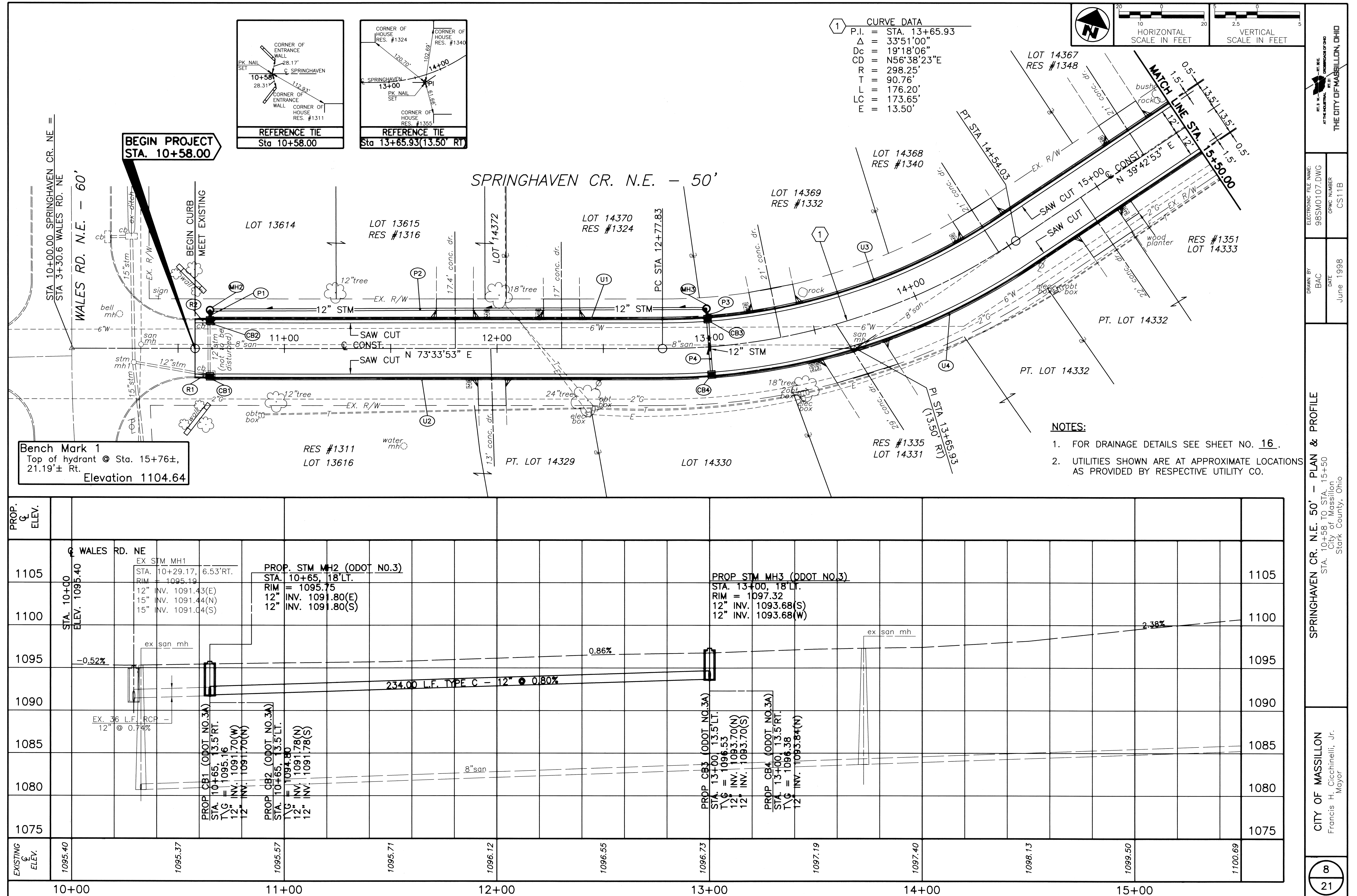
DATE:
JULY 1998

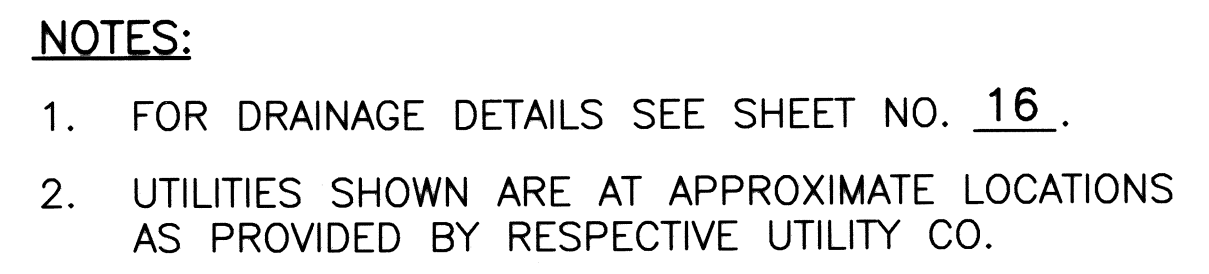
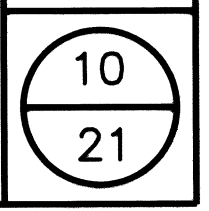
OPWC NUMBER:
CS11B

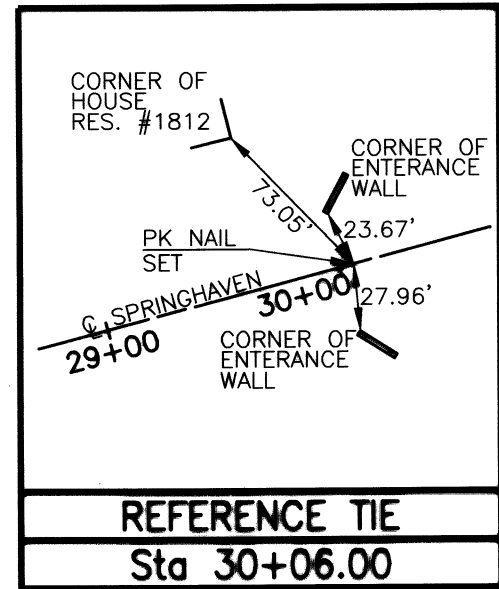
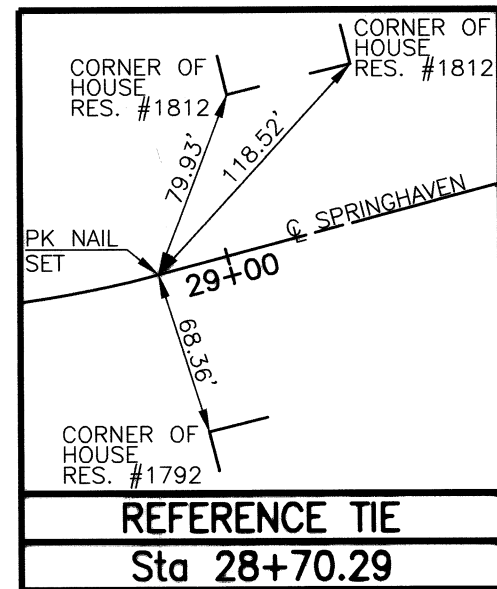
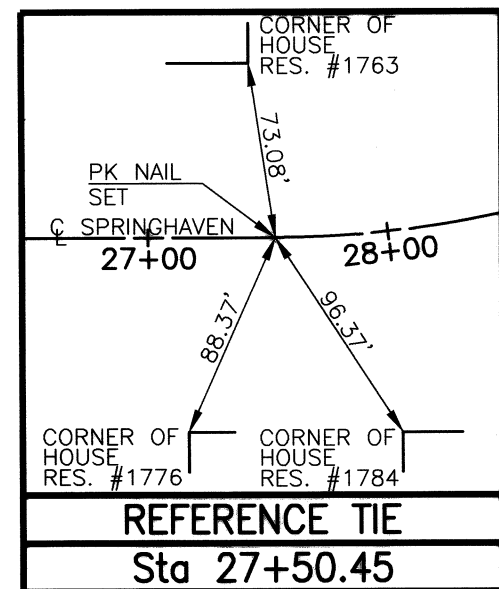
GENERAL SUMMARY
City of Massillon
Stark County, Ohio

CITY OF MASSILLON
Francis H. Cicchinelli, Jr.
Mayor

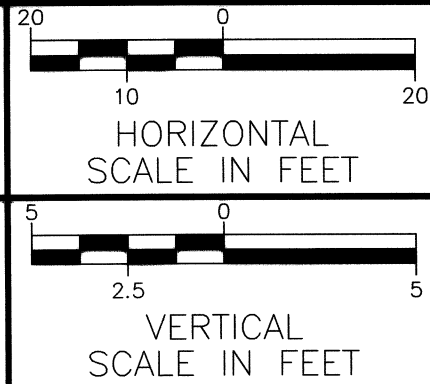
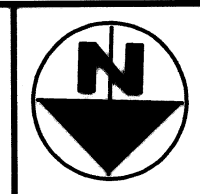
7
21



[illegible]

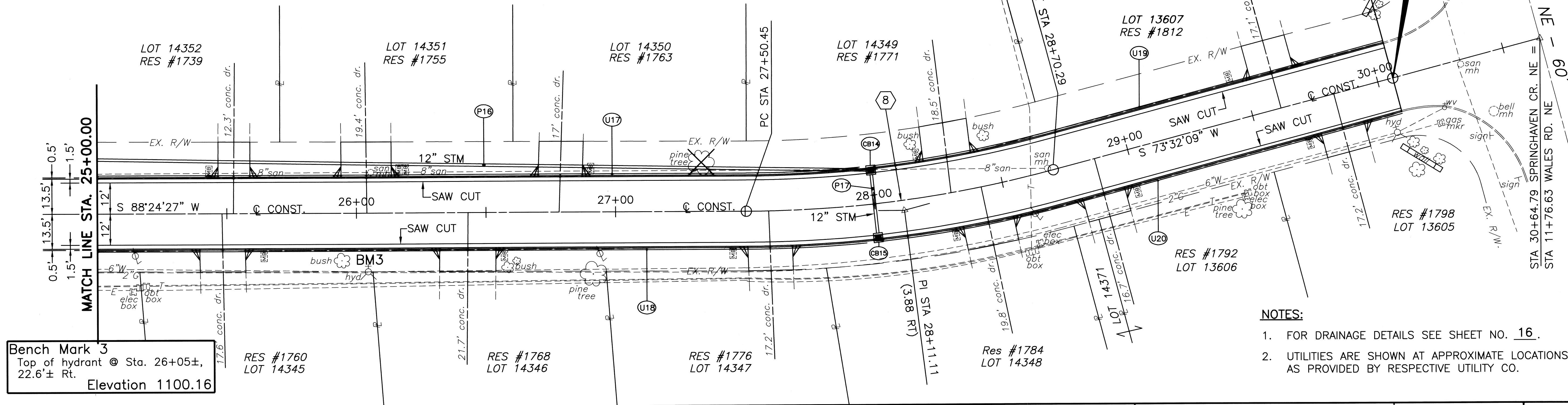


8 CURVE DATA
P.I. = STA. 28+11.11
 Δ = 15°00'00" LT.
Dc = 12°32'31"
CD = S81°03'53"W
R = 457.75'
T = 60.26'
L = 119.84'
LC = 119.50'
E = 3.95'



END PROJECT
STA. 30+06.00

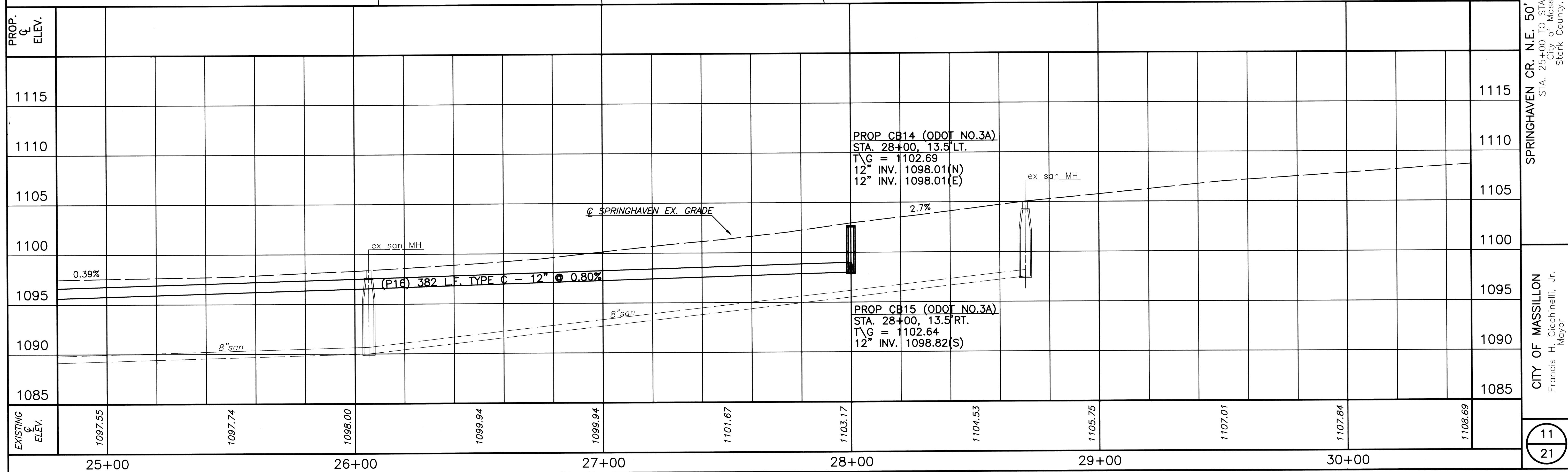
SPRINGHAVEN CR. N.E. - 50'



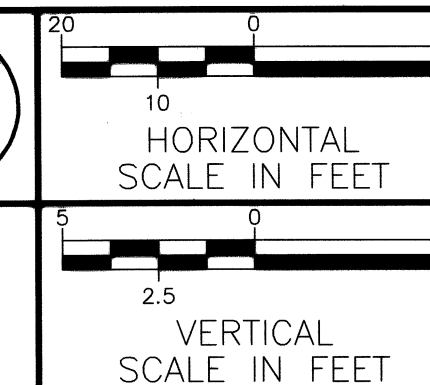
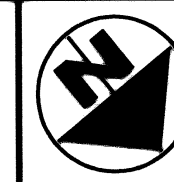
NOTES:

- FOR DRAINAGE DETAILS SEE SHEET NO. 16.
- UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS AS PROVIDED BY RESPECTIVE UTILITY CO.

Bench Mark 3
Top of hydrant @ Sta. 26+05±,
22.6'± Rt.
Elevation 1100.16



2	CURVE DATA	3	CURVE DATA	4	CURVE DATA	5	CURVE DATA
$\Delta = 90^{\circ}00'00"$		$\Delta = 89^{\circ}44'22"$		$\Delta = 90^{\circ}15'38"$		$\Delta = 90^{\circ}00'00"$	
Dc = UNDEFINED		Dc = UNDEFINED		Dc = UNDEFINED		Dc = UNDEFINED	
CD = N05°17'07"W		CD = N84°35'04"E		CD = N05°24'56"W		CD = N84°42'53"E	
R = 36.00'		R = 36.00'		R = 36.00'		R = 36.00'	
T = 36.00'		T = 35.84'		T = 36.16'		T = 36.00'	
L = 56.55'		L = 56.38'		L = 56.71'		L = 56.55'	
LC = 50.91'		LC = 50.80'		LC = 51.03'		LC = 50.91'	
E = 14.91'		E = 14.80'		E = 15.03'		E = 14.91'	



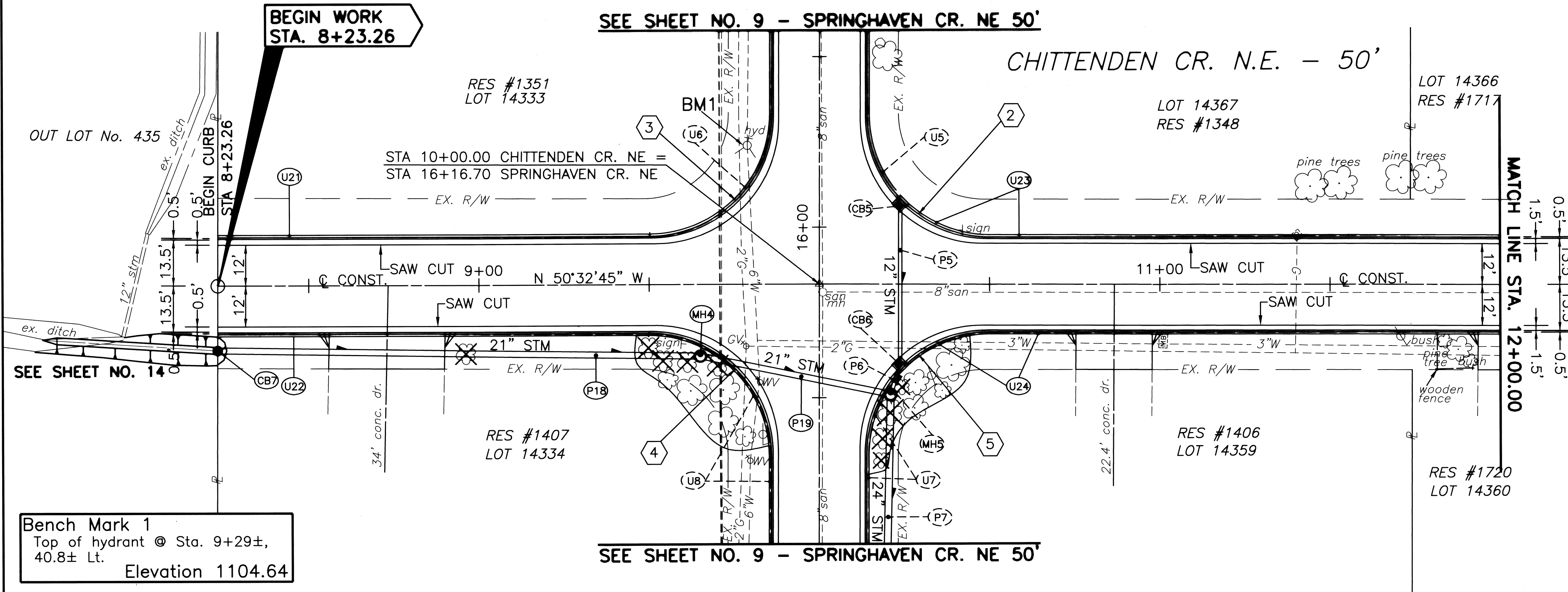
THE CITY OF MASSILLON, OHIO
 ATTORNEY GENERAL
 THE CITY OF MASSILLON, OHIO

ELECTRONIC FILE NAME:
 98SM0111.DWG
 DATE
 June 1998

DRAWN BY
 BAC
 DATE
 June 1998

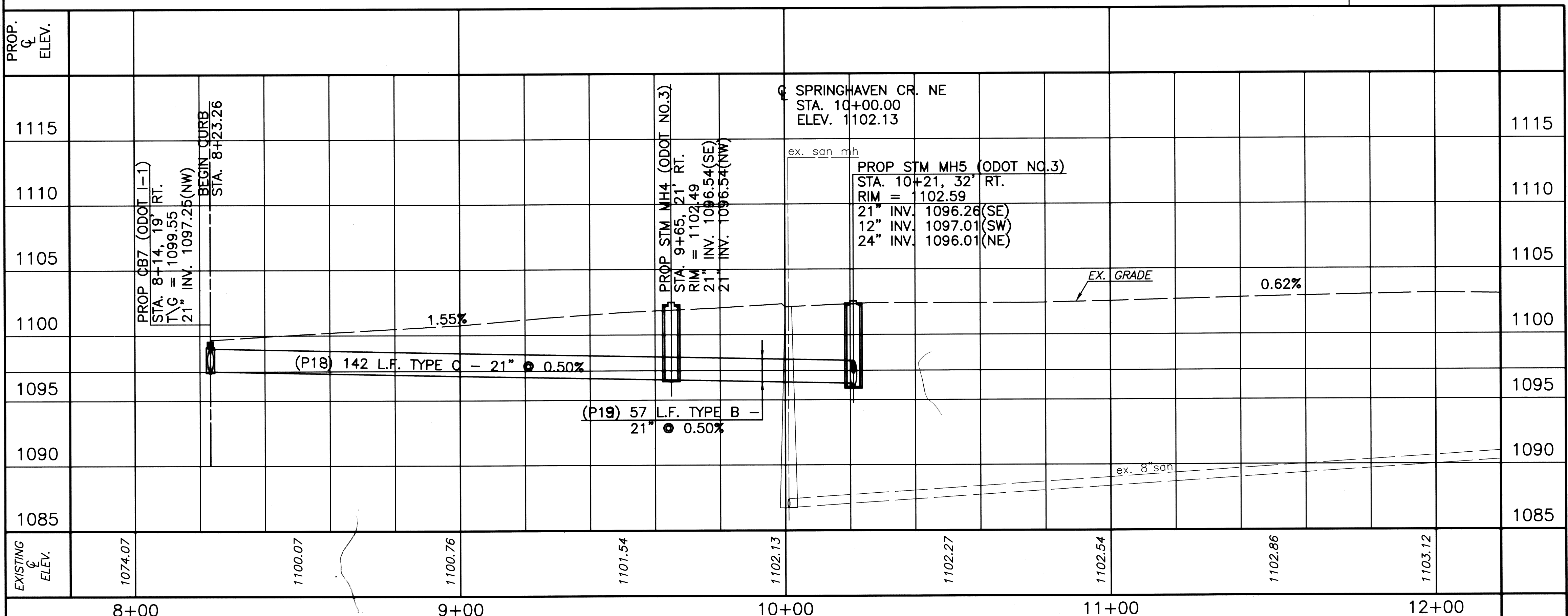
CHITTENDEN CR. N.E. 50' - PLAN & PROFILE
 STA. 8+14 TO STA. 12+00
 City of Massillon
 Stark County, Ohio

CITY OF MASSILLON
 Francis H. Cicchinelli, Jr.
 Mayor



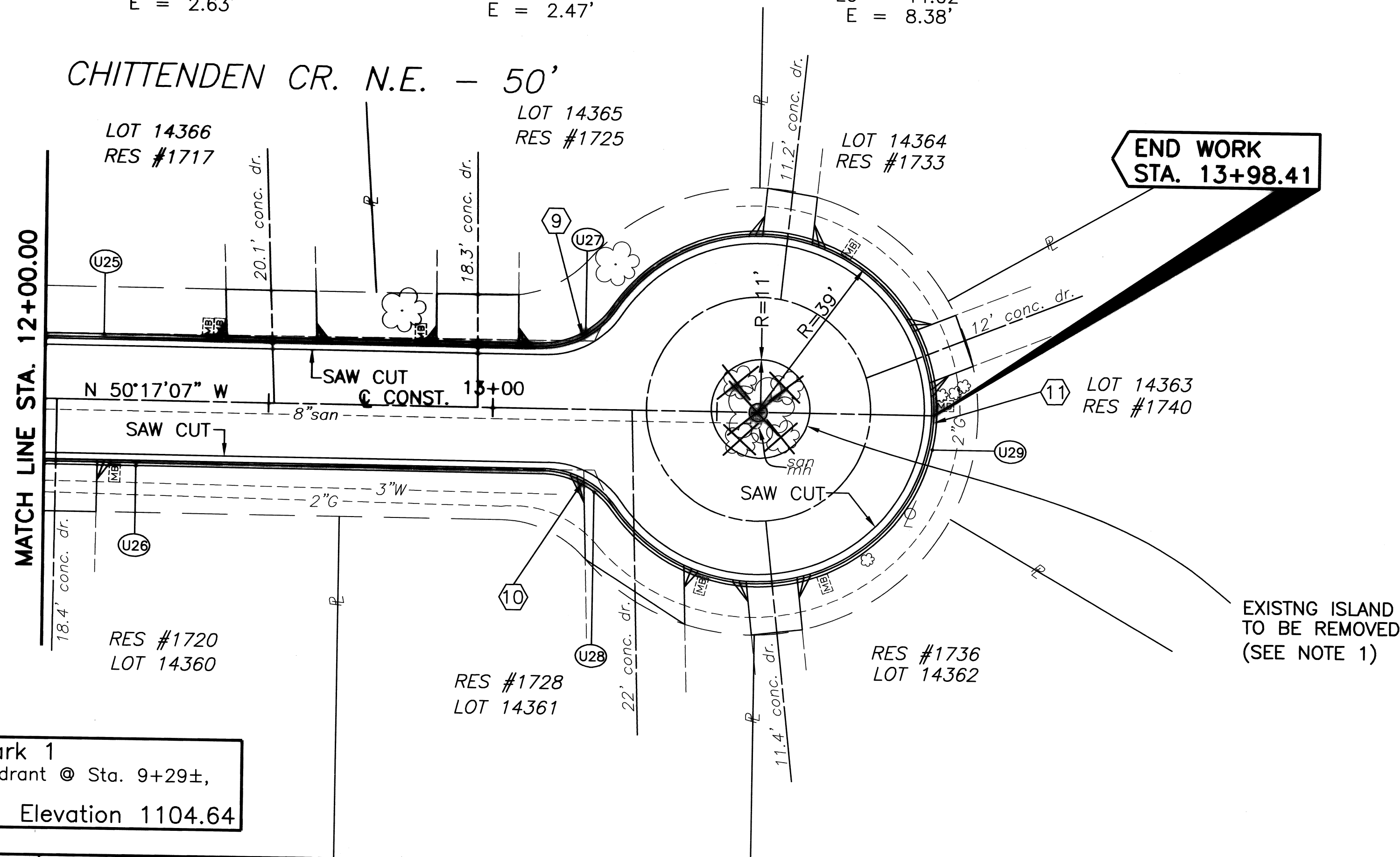
Bench Mark 1
 Top of hydrant @ Sta. 9+29±,
 40.8± Lt.
 Elevation 1104.64

- NOTES:
- UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS AS PROVIDED BY RESPECTIVE UTILITY CO.



9	CURVE DATA	10	CURVE DATA	11	CURVE DATA
$\Delta = 55^{\circ}45'01"$		$\Delta = 54^{\circ}16'29"$		$\Delta = 290^{\circ}31'59"$	
Dc = UNDEFINED		Dc = UNDEFINED		Dc = UNDEFINED	
CD = N78°09'38"W		CD = N23°08'53"W		CD = N38°58'22"E	
R = 20.00'		R = 20.00'		R = 39.00'	
T = 10.58'		T = 10.25'		T = 26.78'	
L = 19.46'		L = 18.95'		L = 195.86'	
LC = 18.70'		LC = 18.25'		LC = 44.02'	
E = 2.63'		E = 2.47'		E = 8.38'	

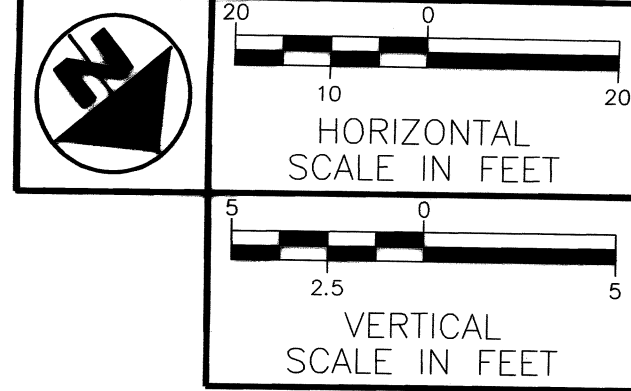
CHITTENDEN CR. N.E. - 50'



Bench Mark 1
Top of hydrant @ Sta. 9+29±,
40.8'± Lt.
Elevation 1104.64

NOTES:

- ISLAND TO BE REMOVED SHALL MEET EXISTING GRADE. PAVEMENT BUILDUP SHALL CONSIST OF 6" OF ITEM 301 AND 1 1/2" OF ITEM 301.
- UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS AS PROVIDED BY RESPECTIVE UTILITY CO.



THE CITY OF MASSILLON, OHIO
AT THE OFFICE OF THE ENGINEER
FOR THE CITY OF MASSILLON, OHIO

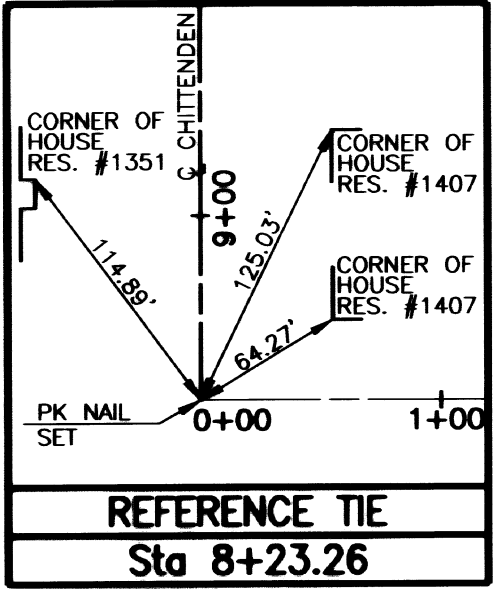
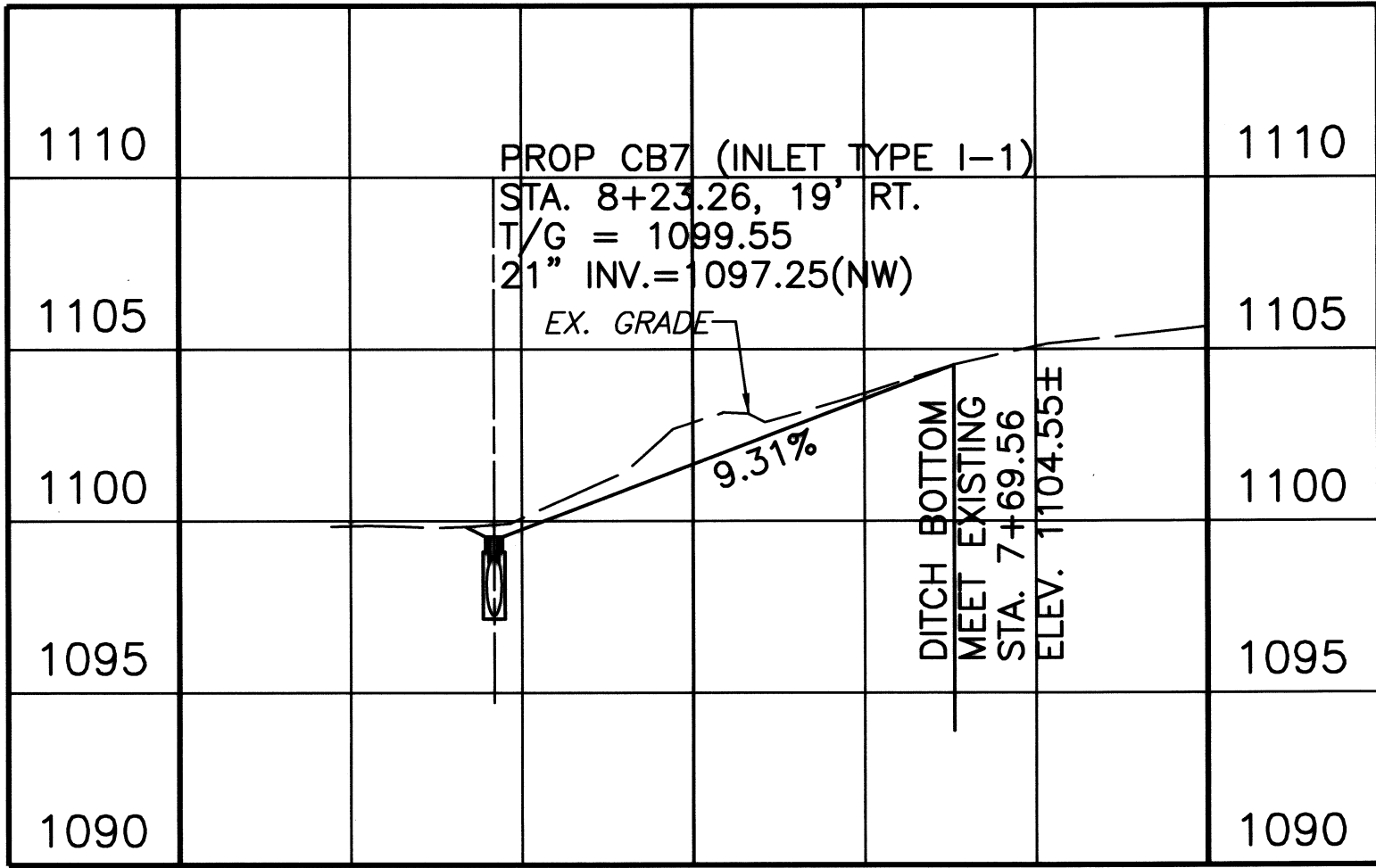
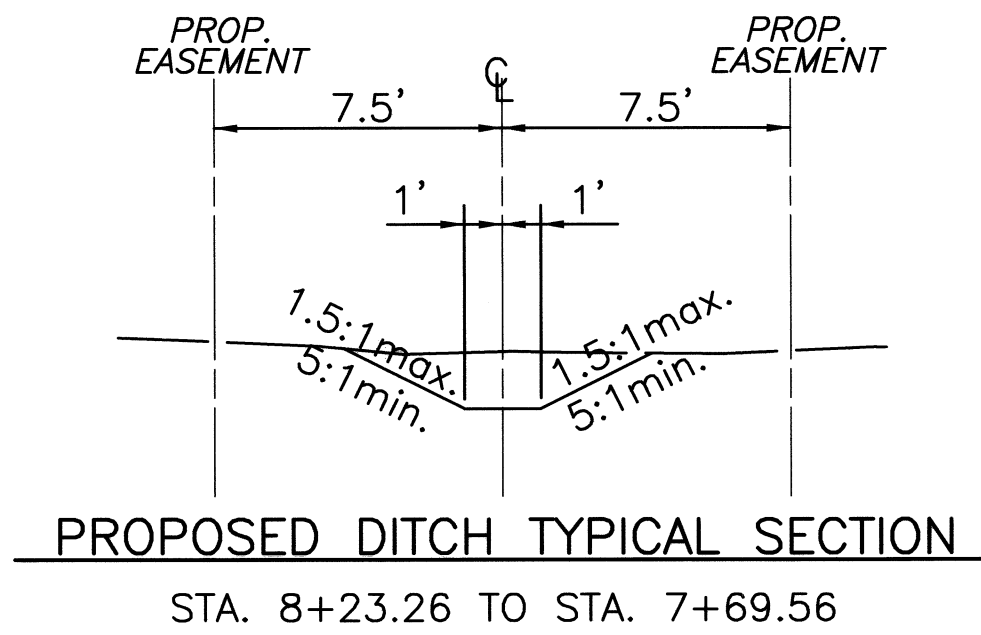
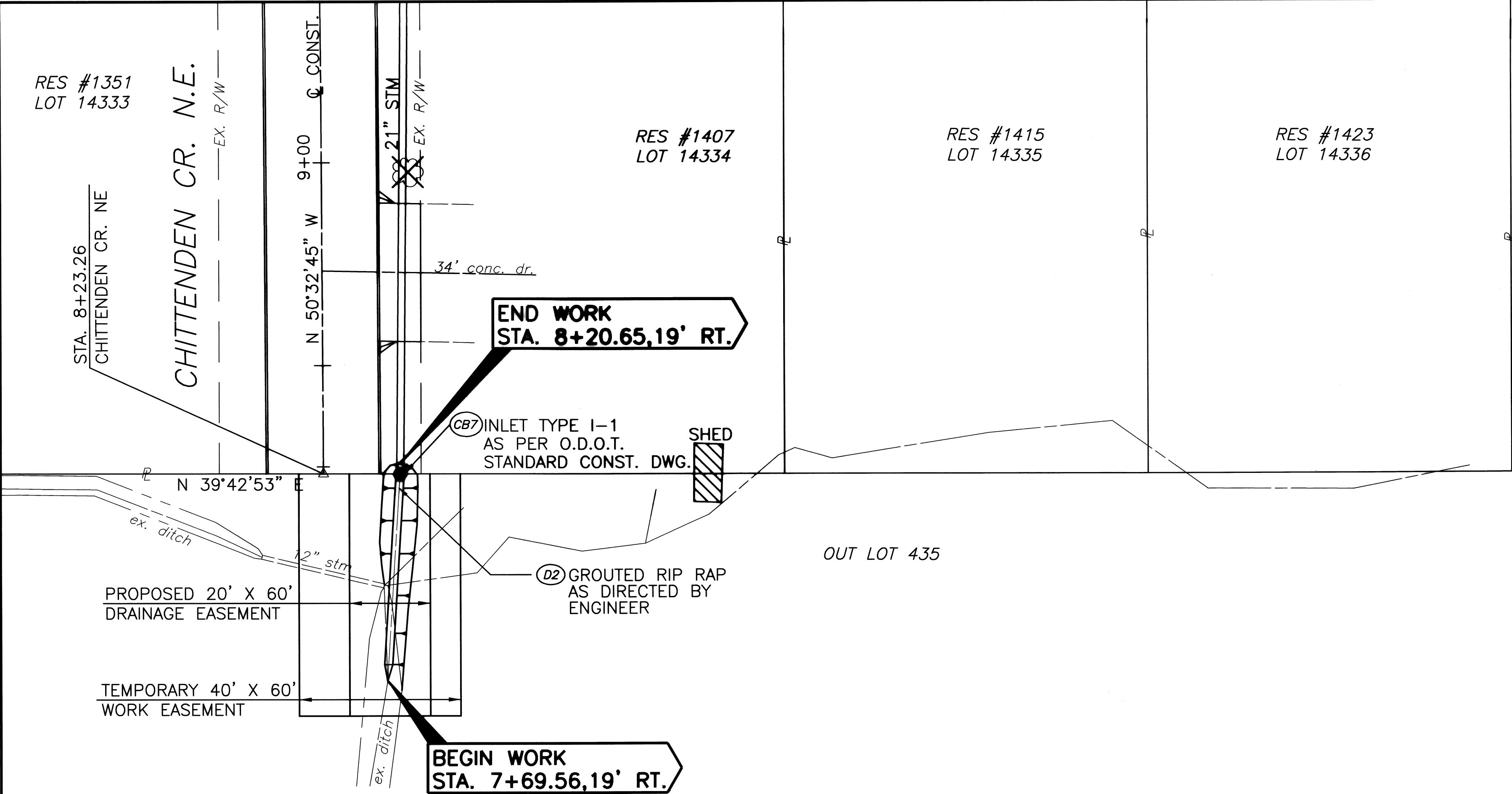
ELECTRONIC FILE NAME:
98SM0112.DWG
OPWC NUMBER:
CS11B

DRAWN BY:
BAC
DATE:
June 1998

CHITTENDEN CR. N.E. 50' - PLAN & PROFILE
STA. 12+00 TO STA. 13+59.24
City of Massillon
Stark County, Ohio

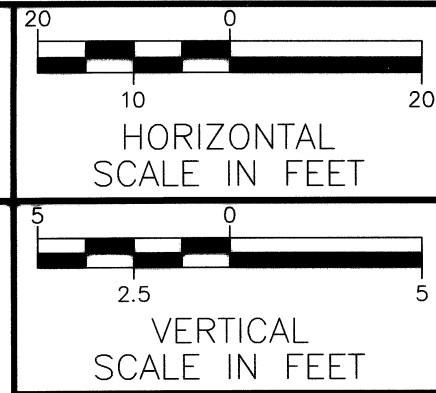
CITY OF MASSILLON
Francis H. Cicchinelli, Jr.
Mayor

PROP. G. ELEV.											
1115											1115
1110											1110
1105											1105
1100	0.62%										1100
1095											1095
1090											1090
1085											1085
EXISTING G. ELEV.	1103.12	1103.52	1103.27	1103.94							
	12+00		13+00								



NOTE:

1. ALL TREES TO BE REMOVED FOR DRAINAGE PURPOSES SHALL BE INCLUDED IN ITEM 201 - CLEARING AND GRUBBING.
2. GRADE FOR POSITIVE DRAINAGE OF OUT LOT 435 AS DIRECTED BY ENGINEER.
3. THE BOTTOM AND 2' UP THE SIDES OF THE PROPOSED DITCH SHALL BE SODDED. SEEDING SHALL BE USED ANYWHERE EARTH IS DESTURBED DUE TO CONSTRUCTION.



THE CITY OF MASSILLON, OHIO

ATTEST: JENNIFER L. BROWN, CITY CLERK

BY: [Signature]

ELECTRONIC FILE NAME: 98SM0113.DWG

DRAWN BY: BAC

DATE: OCTOBER 1998

PROPOSED DRAINAGE SYSTEM

STA. 7+69.56 TO 8+23.26

City of Massillon

Stark County, Ohio

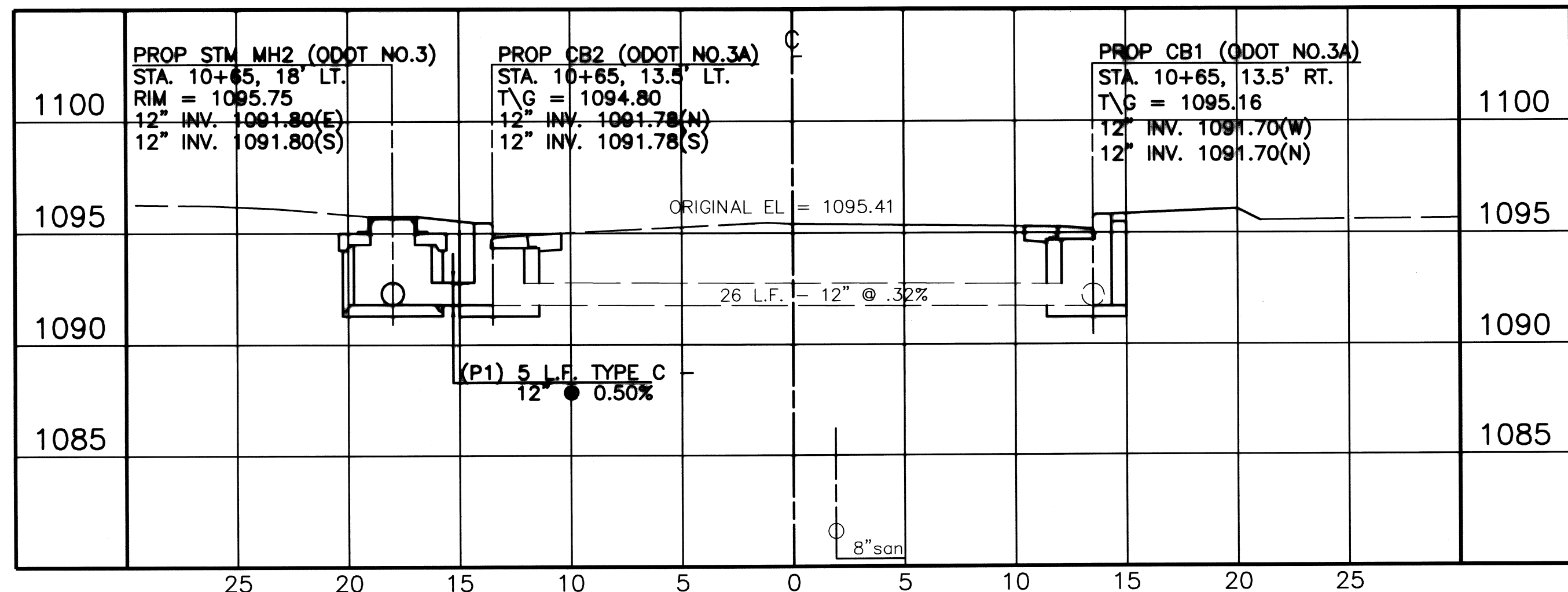
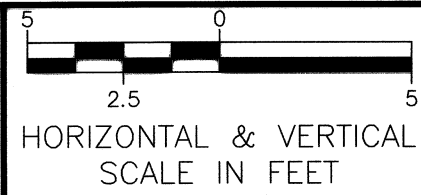
City of Massillon, Ohio

Francis H. Cicchinelli, Jr.

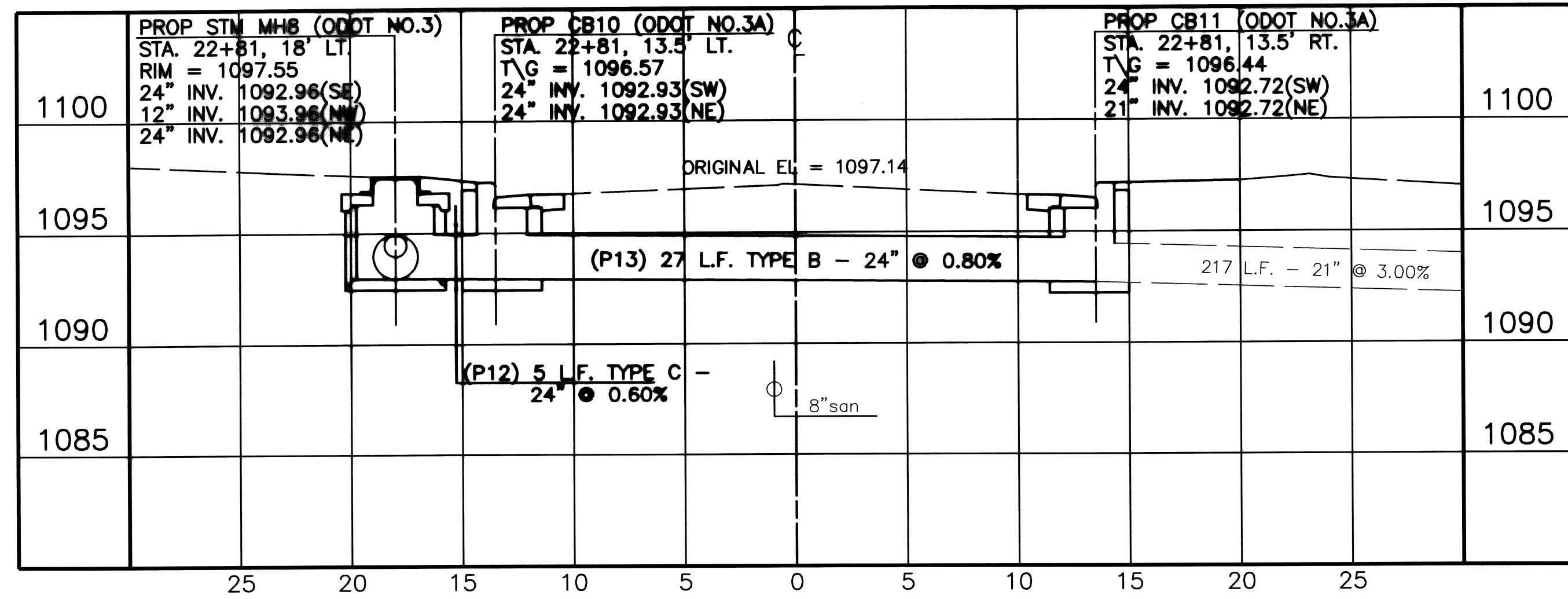
Mayor

14

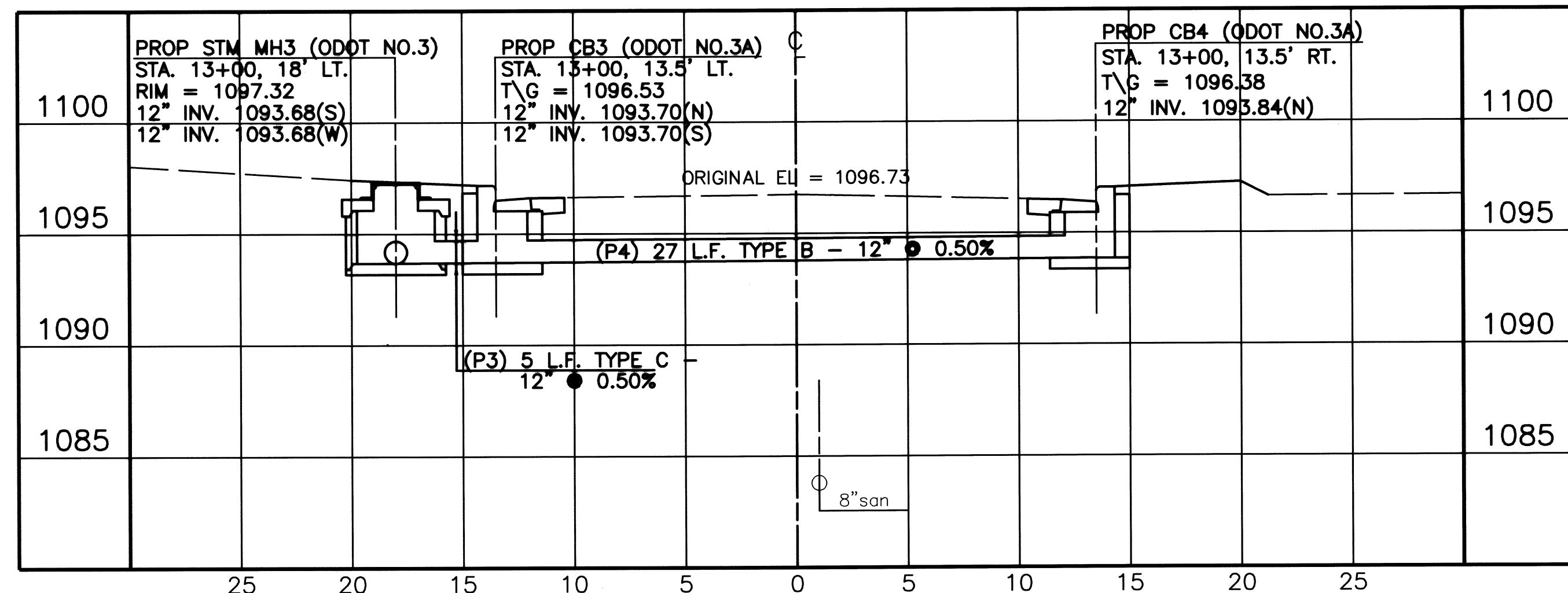
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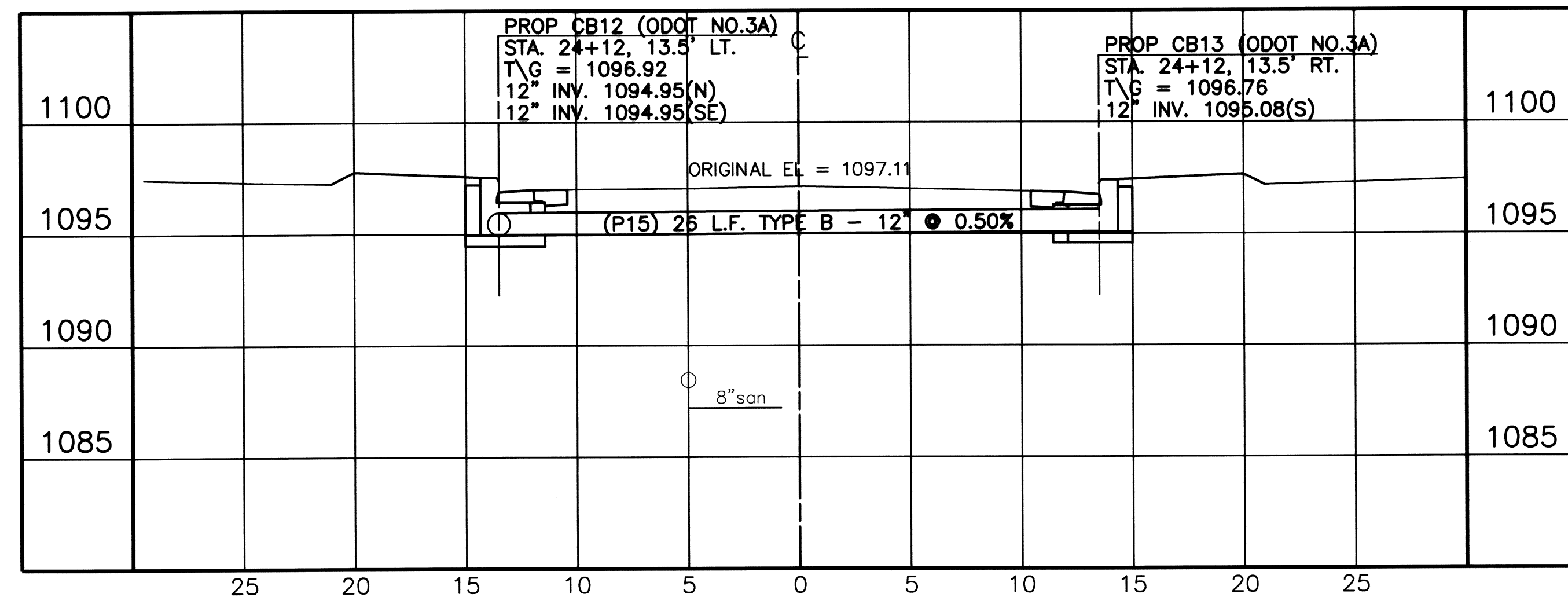
STORM SEWER DETAIL
STA. 10+65 Springhaven Cr. NE



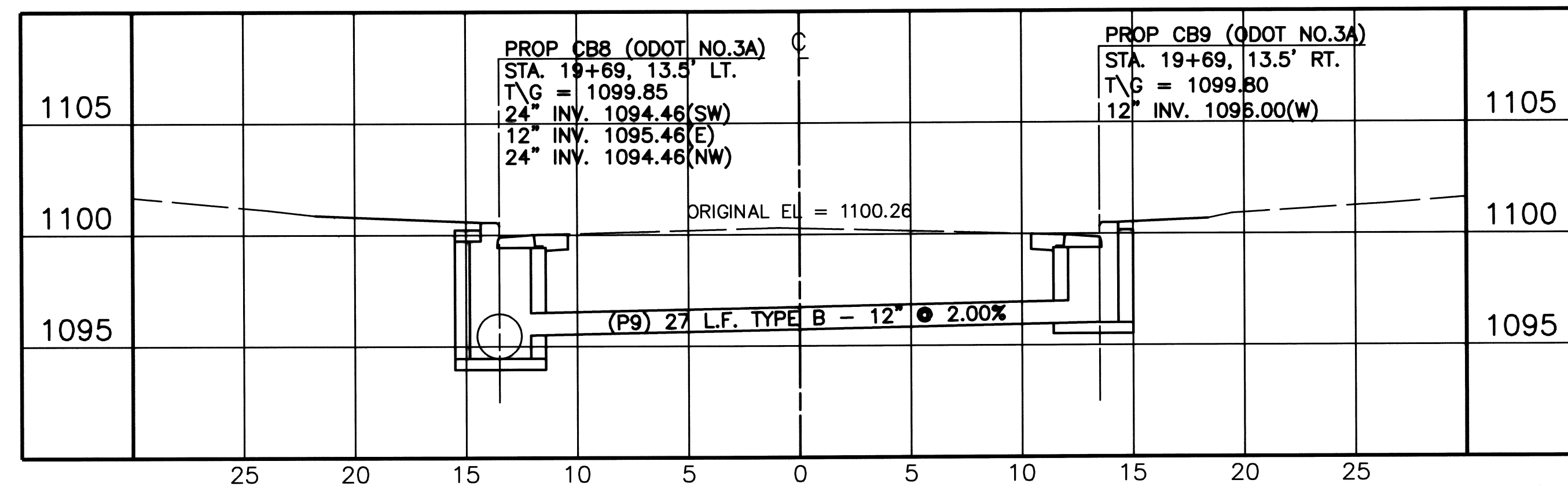
STORM SEWER DETAIL
STA. 22+81 Springhaven Cr. NE



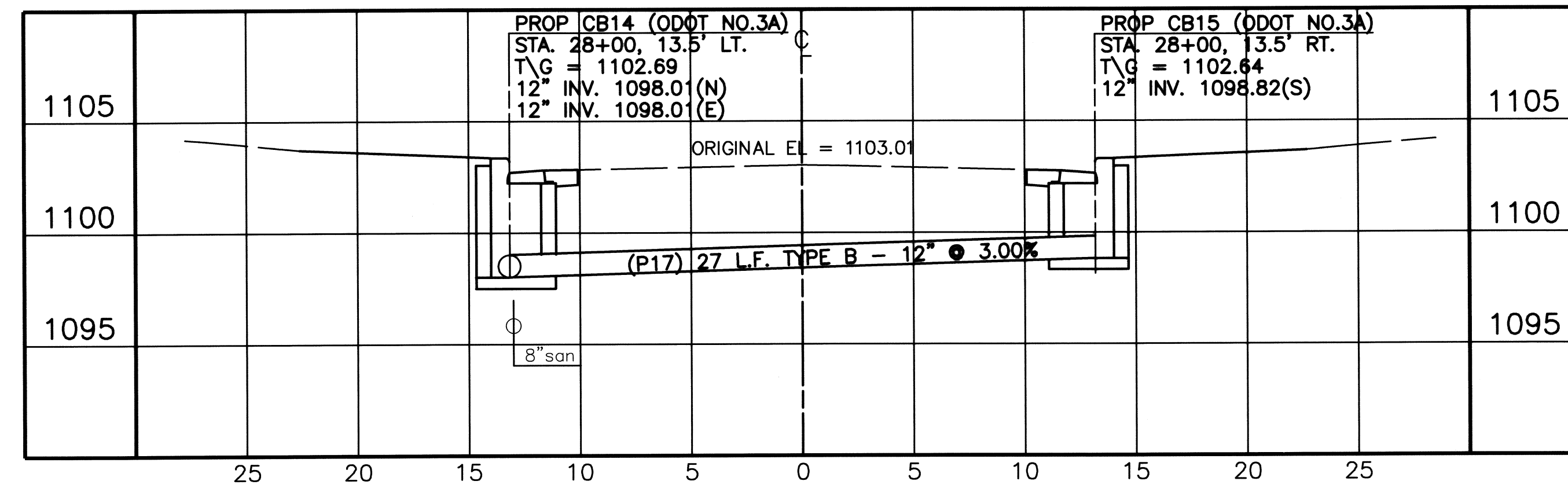
STORM SEWER DETAIL
STA. 13+00 Springhaven Cr. NE



STORM SEWER DETAIL
STA. 24+12 Springhaven Cr. NE



STORM SEWER DETAIL
STA. 19+69 Springhaven Cr. NE



STORM SEWER DETAIL
STA. 28+00 Springhaven Cr. NE

NOTES:

1. UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS AS PROVIDED BY RESPECTIVE UTILITY CO.

THE CITY OF MASSILLON, OHIO
ATTEST:
CITY CLERK

ELECTRONIC FILE NAME:
98SMD115.DWG
DATE
JUNE 1998

DRAWN BY
BAC
DATE
JUNE 1998

SPRINGHAVEN CR. NE 50' - DRAINAGE DETAILS
STA. 10+58 TO STA. 30+06/STA. 8+23.26 TO STA. 13+59.24
City of Massillon
Stark County, Ohio

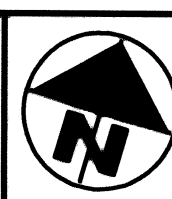
CITY OF MASSILLON
Francis H. Cicchinelli, Jr.
Mayor

END PROJECT
STA. 30+06.00

PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING SHALL HAVE A CROSS SLOPE OF NO LESS THAN 2%. THE PROPOSED ASPHALT CONCRETE LEVELING COARSE MAY VARY IN THICKNESS FROM 1 TO 3 INCHES. THE PROPOSED ASPHALT CONCRETE SURFACE COARSE SHALL HAVE A UNIFORM THICKNESS OF 1.5 INCHES.

AFTER RESURFACING IS COMPLETED, CURBING SHALL HAVE NO LESS THAN 5 TO 6 INCHES OF REVEAL.



RT. 30 W. — RT. 30 E.
AT THE INDUSTRIAL CROSSROADS OF OHIO RT. 21

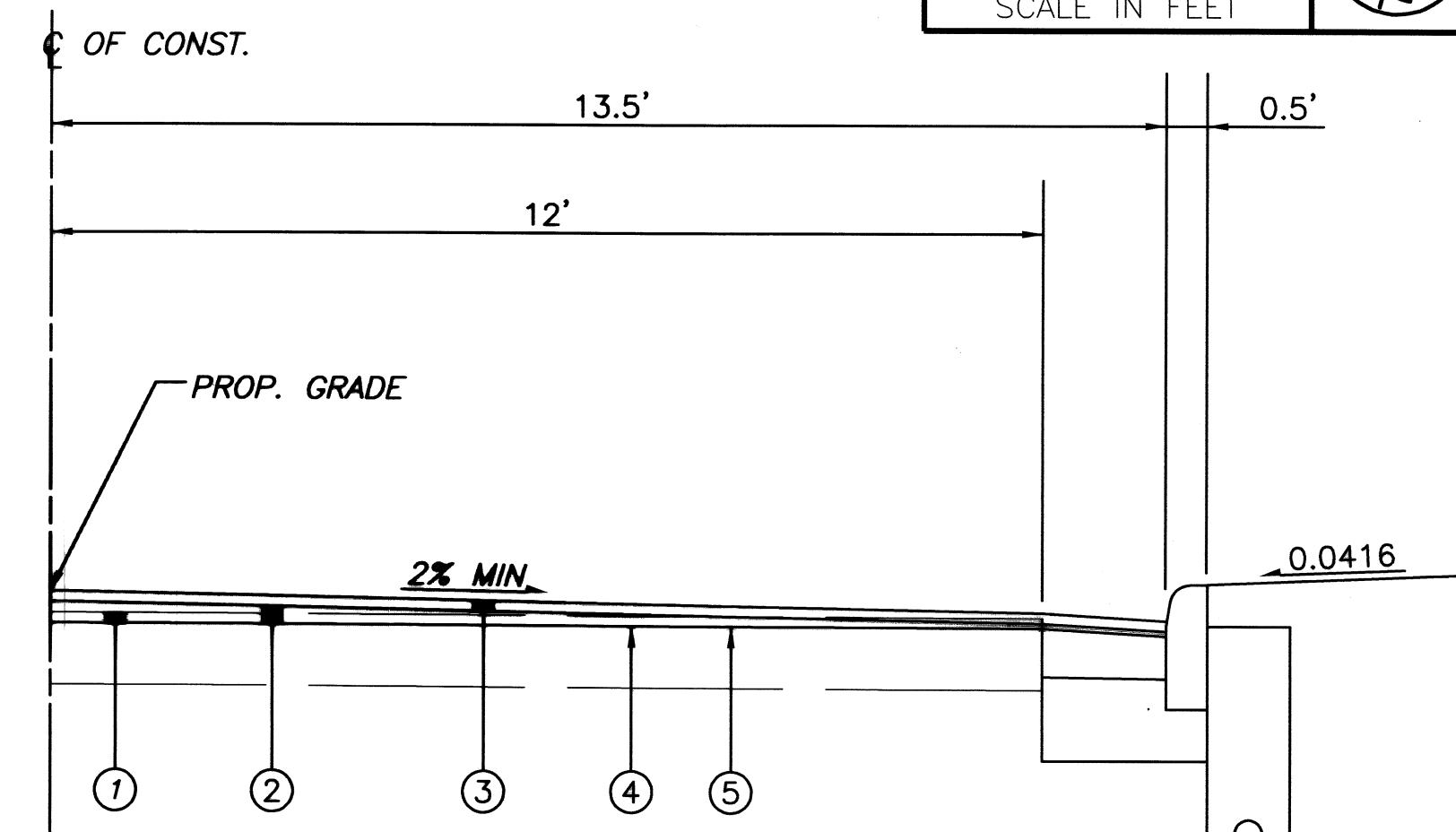
ELECTRONIC FILE NAME:
98SM0116.DWG

COINIC FILE N.
40116.D

DRAWN BY
BAC

CONTINGENCY ITEM - RESURFACING
SPRINGHAVEN CR. NE 50'\\CHITTENDEN CR. NE 50'
STA. 10+58 TO STA. 30+06 & STA. 8+23.26 TO STA. 13+98

CITY OF MASSILLON
Francis H. Cicchinelli, Jr.
Mayor



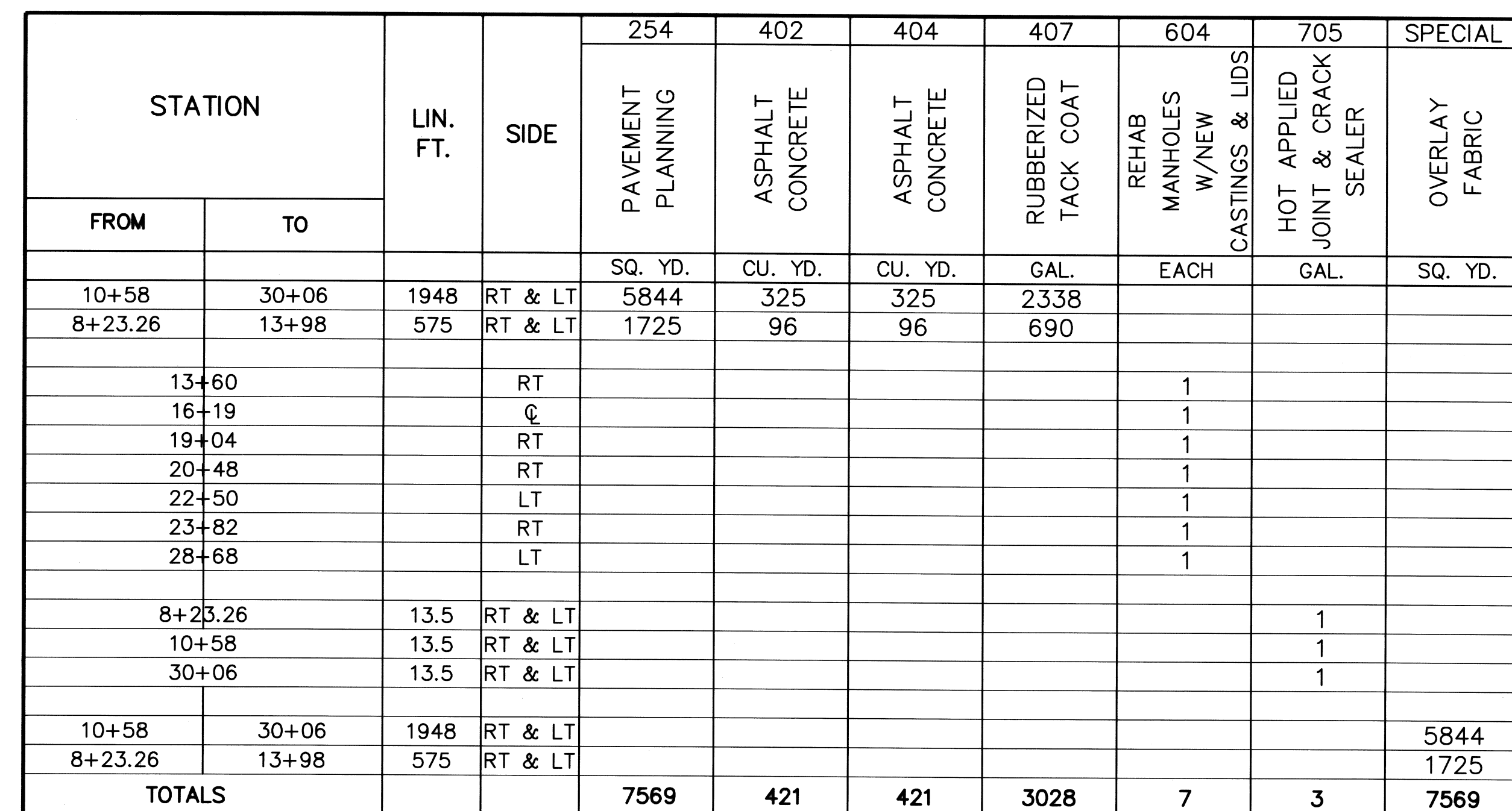
PROPOSED TYPICAL HALF SECTION
 SPRINGHAVEN CIR. - STA. 10+58 TO STA. 30+06
 CHITTENDEN CIR. - STA. 8+23.26 TO STA. 13+98

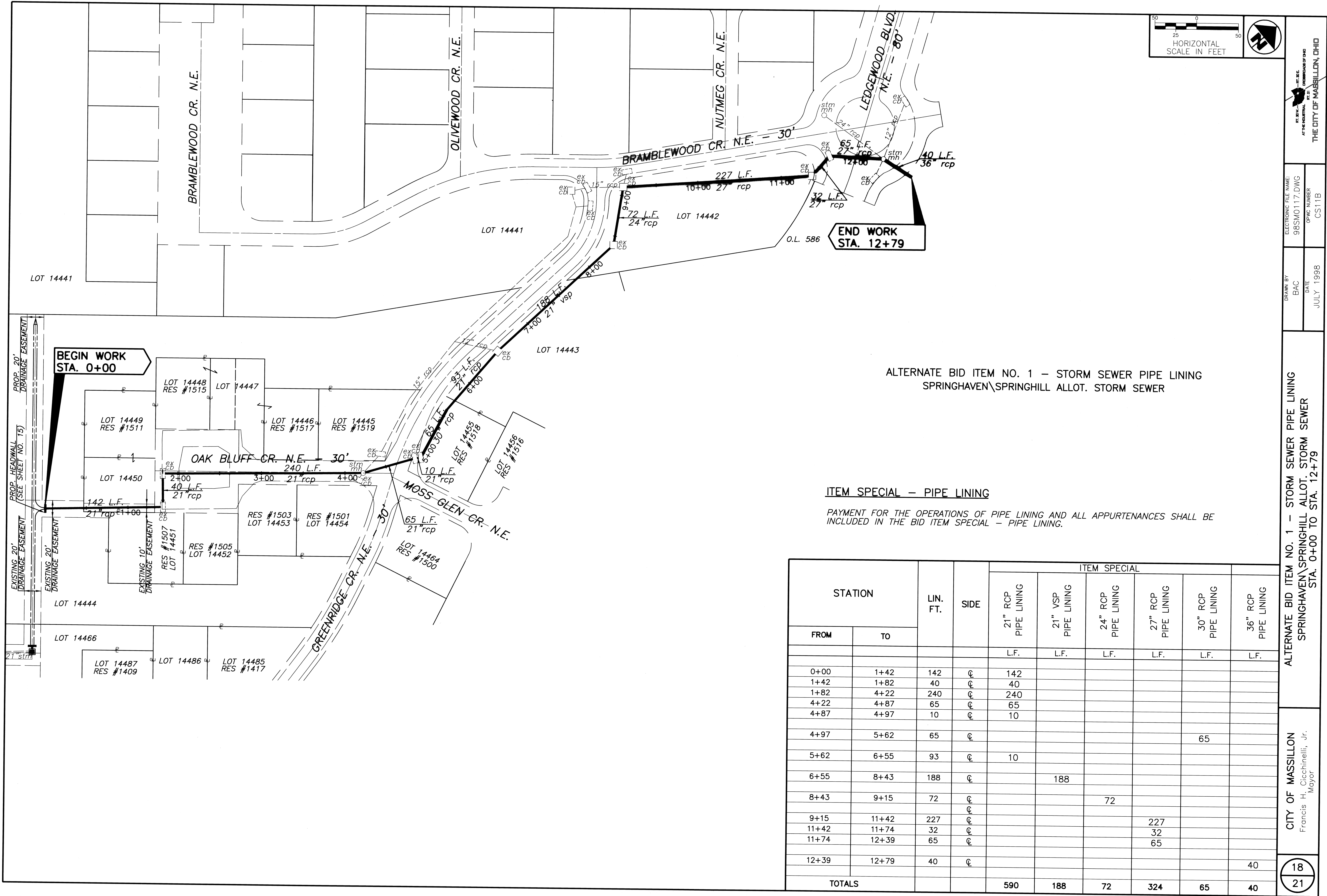
PROPOSED LEGEND

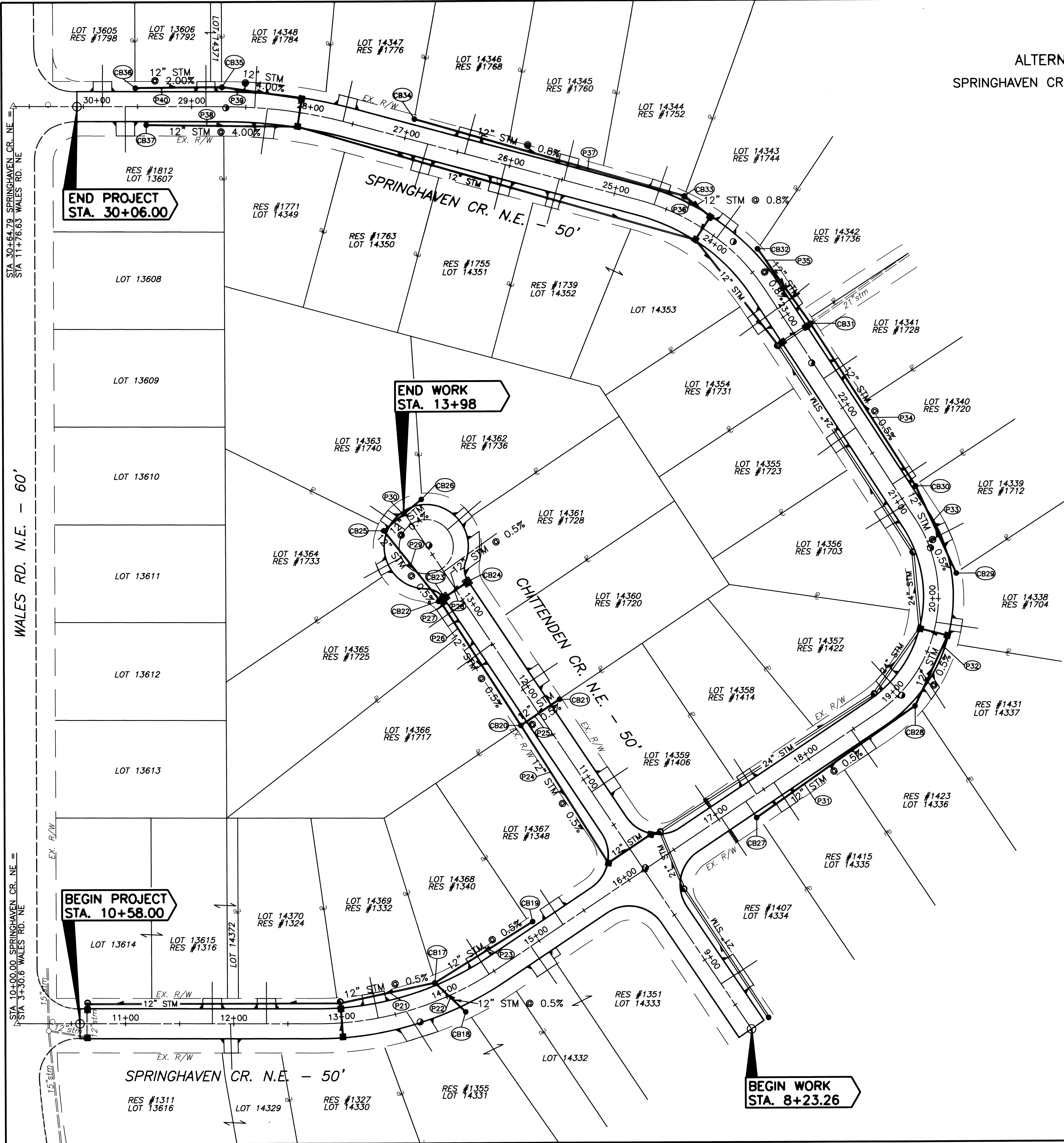
- ① ITEM 254 - PAVEMENT PLANNING
- ② ITEM 402 - 1" TO 3" ASPHALT LEVELING COARSE
- ③ ITEM 404 - 1.5" ASPHALT SURFACE COARSE
- ④ ITEM 407 - RUBBERIZED TACK COAT
- ⑤ ITEM SPECIAL - OVERLAY FABRIC

 AREA TO BE RESURFACED

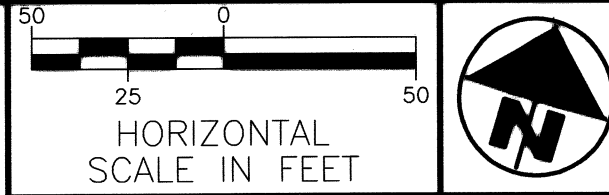
CONTINGECY ITEM – RESURFACING
SPRINGHAVEN CR. NE 50' \ CHITTENDEN CR. NE 50'







ALTERNATE BID ITEM NO. 2
SPRINGHAVEN CR. NE 50'\CHITTENDEN CR. NE 50'



ADDITIONAL STORM SEWER BID ITEM
STORM DETAILS WILL BE ESTABLISHED IF A BID ESTIMATE IS GIVEN FOR THE PROPOSED ADDITIONAL STORM SEWER SYSTEM.

ADDITIONAL STORM PIPE DEPTHS VARY FROM 1 TO 3 FOOT OF COVER.
CATCH BASINS AND DITCH INLETS VARY FROM 2 TO 4 FEET IN DEPTH.

EACH LOT SHALL BE SUPPLIED WITH A SINGLE 6" LATERAL THAT WILL BE INSTALLED FROM THE MAIN TO THE PROPERTY LINE. SAID LATERAL SHALL BE CONNECTED TO FOUNDATION DRAINS, SUMP DRAIN AND WHEN POSSIBLE AS PER ENGINEERS DIRECTION THE DOWN SPOUT WILL BE CONNECTED. THE FOLLOWING WORK SHALL BE PAID FOR UNDER ITEM 603 6" LATERAL.

ALL COSTS RELATED TO THE ADDITIONAL STORM SEWER SYSTEM AND RESIDENTIAL TIE INS SHALL BE PAID FOR UNDER ITEMS 603 AND 604.

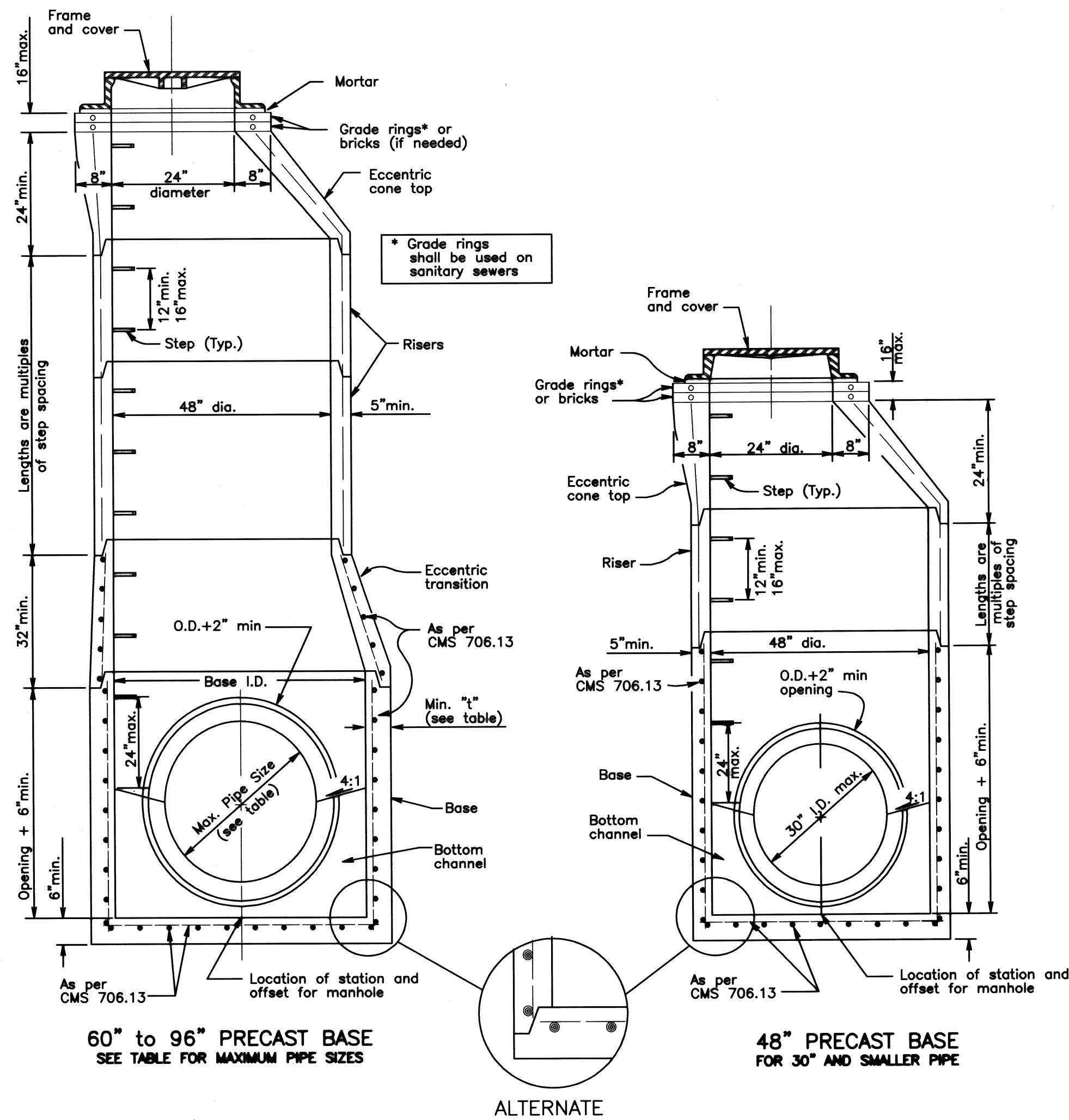
REF. NO.	STATION		SIDE	603			604	
				6" CONDUIT TYPE C	12" CONDUIT TYPE B	12" CONDUIT TYPE C	CATCH BASIN ODOT CB-3A	SIDE DITCH INLET ODOT
	FROM	TO		LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH
P21	13+00	13+95	RT			90		
P22	13+95	14+10	RT & LT		40			
P23	13+95	15+05	RT			107		
P24	10+24	11+74	RT			151		
P25	11+74	13+11	RT & LT		43			
P26	13+11	13+93	RT			137		
P27	13+11	13+98	RT			5		
P28	13+11	13+93	RT & LT		26			
P29	13+11	13+98	RT			83		
P30	13+93	13+98	RT & LT			46		
P31	17+30	19+05	LT			179		
P32	19+05	19+69	RT			72		
P33	20+21	21+03	RT			89		
P34	21+03	22+81	RT			179		
P35	22+81	23+63	RT			85		
P36	24+12	24+40	RT			31		
P37	24+40	26+96	RT			259		
P38	28+00	29+42	LT			140		
P39	28+00	28+72	RT			75		
P40	28+72	29+52	RT			80		
CB17	13+95		LT					1
CB18	14+10		RT					1
CB19	15+05		RT					1
CB20	11+74		RT					1
CB21	11+74		LT					1
CB22	13+11		RT					1
CB23	13+11		RT				1	
CB24	13+11		LT				1	
CB25	13+93		RT					1
CB26	13+98		LT					1
CB27	17+30		RT					1
CB28	19+05		RT					1
CB29	20+21		RT					1
CB30	21+03		RT					1
CB31	22+81		RT					1
CB32	23+63		RT					1
CB33	24+40		RT					1
CB34	26+96		RT					1
CB35	28+72		RT					1
CB36	29+52		RT					1
CB37	29+42		LT					1
TOTALS				0	109	1468	2	19

ALTERNATE BID ITEM NO. 2
SPRINGHAVEN CR. NE 50'\CHITTENDEN CR. NE 50'
ADDITIONAL STORM SEWER FOR RESIDENTIAL TIE INS

CITY OF MASSILLON
Francis H. Cicchinelli, Jr.
Mayor

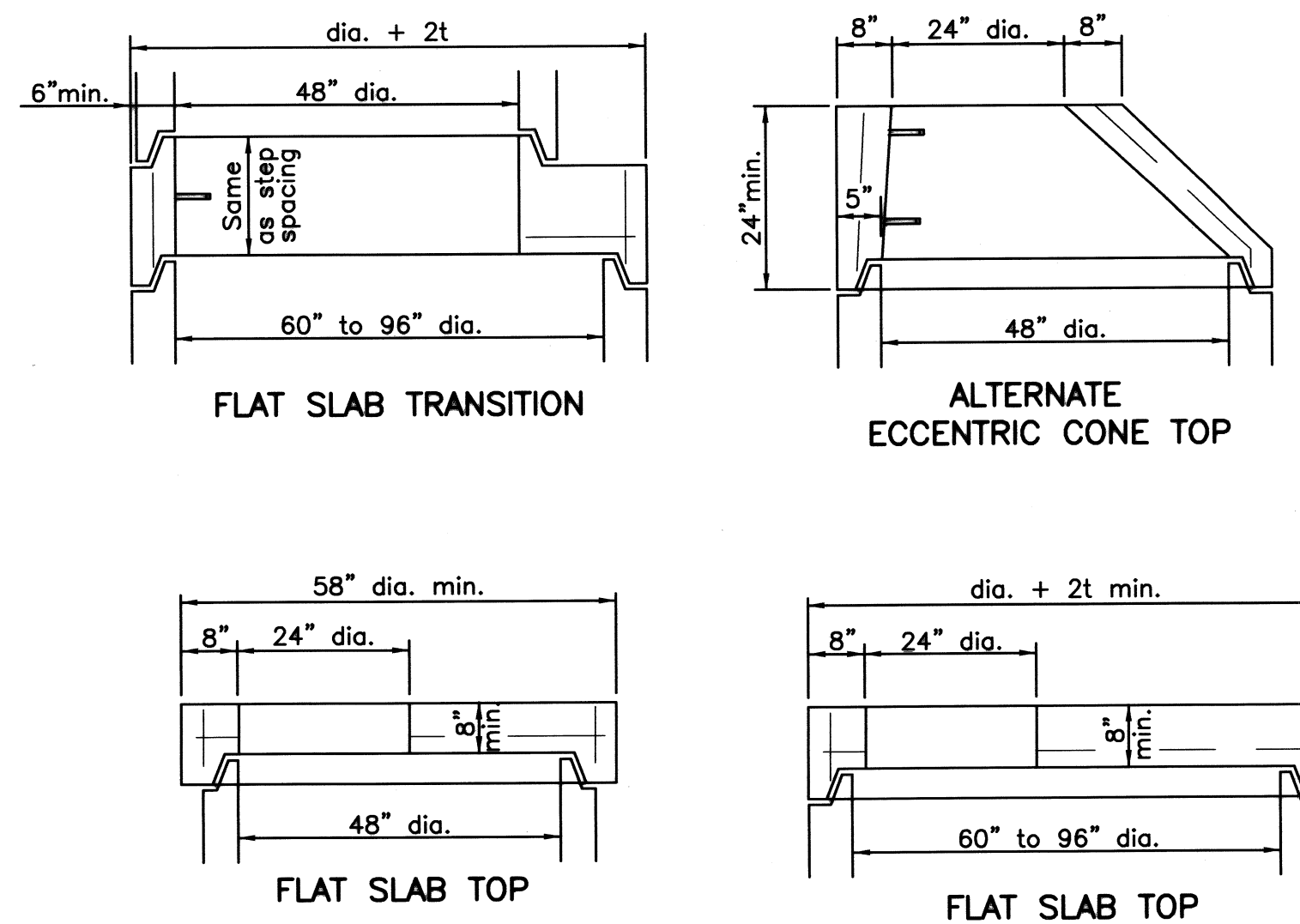
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BAC
DATE:
AUGUST 1998
OPWC NUMBER:
CS11B

THE CITY OF MASSILLON, OHIO
OFFICE OF THE ENGINEER
AT THE HOODING
OFFICE OF THE ENGINEER



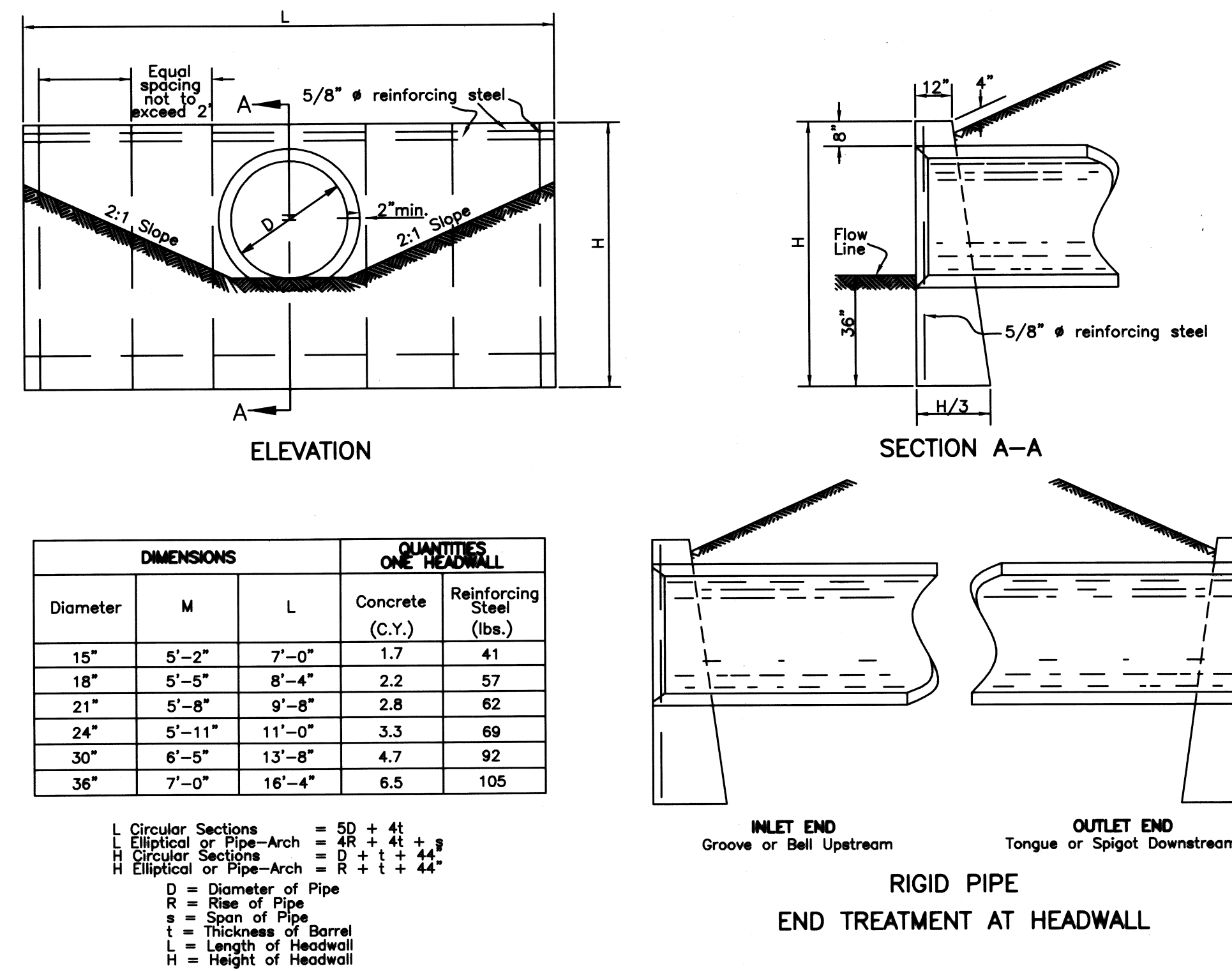
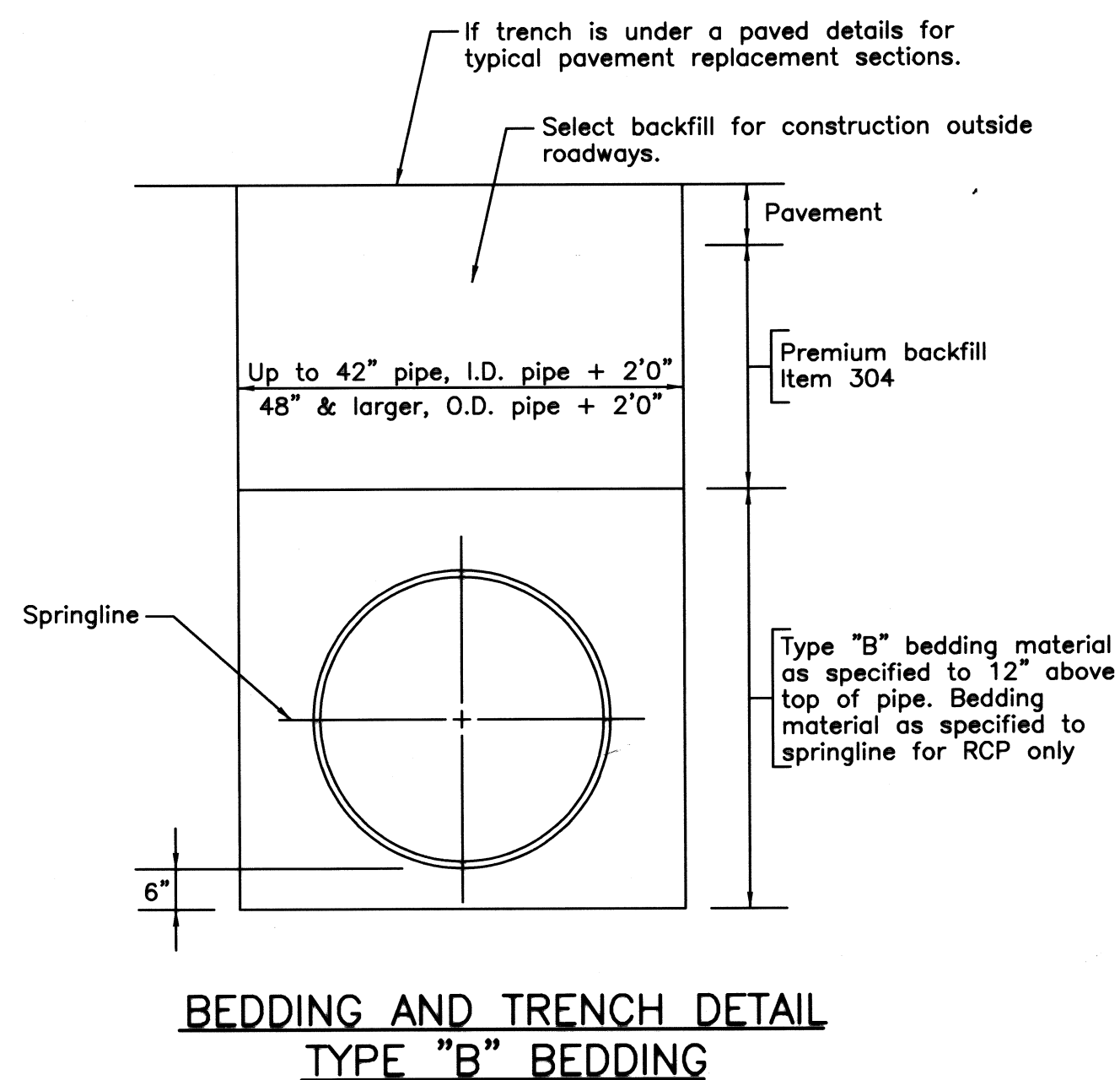
SECTION VIEWS OF REINFORCED PRECAST MANHOLES

MANHOLE NO. 3



Base I.D.	Min. "t"	Max. Pipe Size
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7 1/2"	60"
96"	8"	60"

- NOTES**
- GENERAL:** With normal soil and site conditions this standard precast manhole may be used for any required manhole depth.
- Sections of the precast manhole shall be cast and assembled with either all tongue or all groove ends up. Lift holes may be provided in each section for handling.
- TOP AND TRANSITION (OR REDUCER):** This section shall be a flat slab unless an eccentric cone is specified.
- BASE:** Manhole No. 3 is shown with a monolithic floor and riser which may be cast in one or two operations. A permissible alternate is to cast and ship the floor and barrel separately. Openings for inlet and outlet pipes shall be provided, either when
- Bottom channels may be formed of concrete, precast in the base or field constructed as shown
- RISER SECTIONS:** Openings for 18" and smaller inlet pipes may be either prefabricated, or cut in the field provided the sides of the pipe at the springline do not project into the manhole.
- CONNECTIONS:** Connections between precast manhole sections and pipes on sanitary sewers may be sealed with resilient connectors conforming to ASTM C 923.
- JOINT SEAL:** Seal between precast manhole sections on sanitary sewers shall be resilient and flexible gasket joints per CMS 706.11.
- MATERIALS:** Materials for bases and other precast sections, including reinforcement not specified hereon, shall comply with the requirements of CMS 706.13.
- DROP PIPE:** When specified on the plans, drop pipe shall be constructed as shown on MH-3.1M.
- STEPS, FRAMES AND COVERS:** Shall comply with the requirements set forth on MH-1.1M.



Diameter	DIMENSIONS		QUANTITIES ONE HEADWALL	
	M	L	Concrete (C.Y.)	Reinforcing Steel (lbs.)
15"	5'-2"	7'-0"	1.7	41
18"	5'-5"	8'-4"	2.2	57
21"	5'-8"	9'-8"	2.8	62
24"	5'-11"	11'-0"	3.3	69
30"	6'-5"	13'-8"	4.7	92
36"	7'-0"	16'-4"	6.5	105

L = Circular Sections = $5D + 4t$
 L = Elliptical or Pipe-Arch = $4R + 4t + \pi$
 H = Circular Sections = $D + t + 44$
 H = Elliptical or Pipe-Arch = $R + t + 44$
 D = Diameter of Pipe
 R = Rise of Pipe
 t = Thickness of Barrel
 L = Length of Headwall
 H = Height of Headwall

- NOTES**
- NO. 1 HEADWALL:** Where required will be provided for nonskewed culverts having a diameter or rise of 36 inches or less.
- CONCRETE:** Concrete shall be Class C.
- REINFORCING STEEL:** Bars shall be #5 and epoxy coated.
- DETAILS AND QUANTITIES:** Are shown for circular sections only. When used with reinforced elliptical concrete pipe or corrugated metal pipe arches, it will be necessary to adjust dimensions and quantities to conform to those listed for the nearest size circular pipe. The dimensions established by vertical diameter shall apply to rise, and dimensions established by horizontal diameter shall apply to span. All calculated dimensions shall be rounded to the nearest 1 inch. Chamfer all exposed corners 3/4 of an inch.
- FOUNDATION:** Where the soil borings indicate a bearing capacity of less than 2500 pounds, it will be necessary to increase the width of the footing.
- HEADWALL LOCATION:** To be determined by the intersection of the embankment slope at the back of the headwall at Point "K". The slopes adjacent to the headwall shall be 2:1.