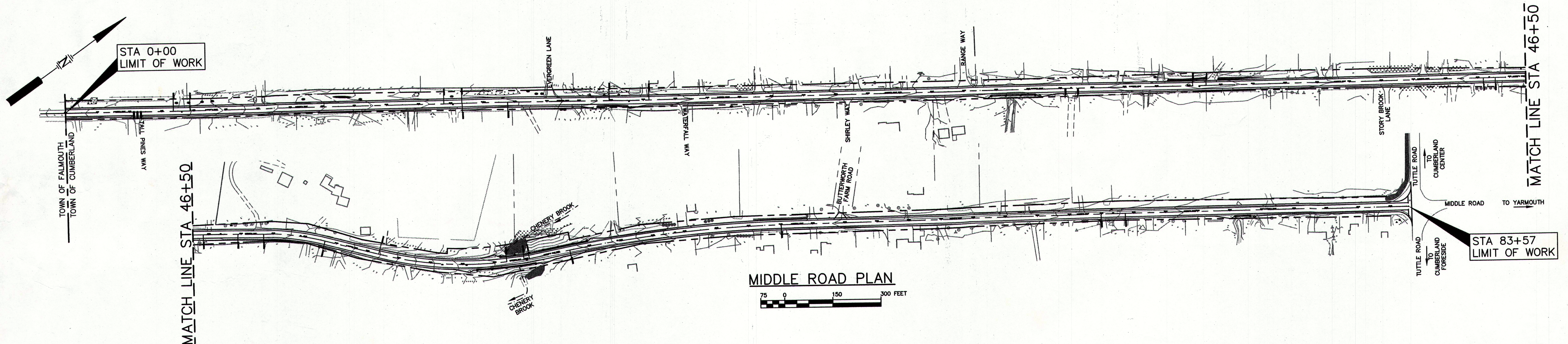


TOWN OF CUMBERLAND MIDDLE ROAD IMPROVEMENTS CUMBERLAND, MAINE

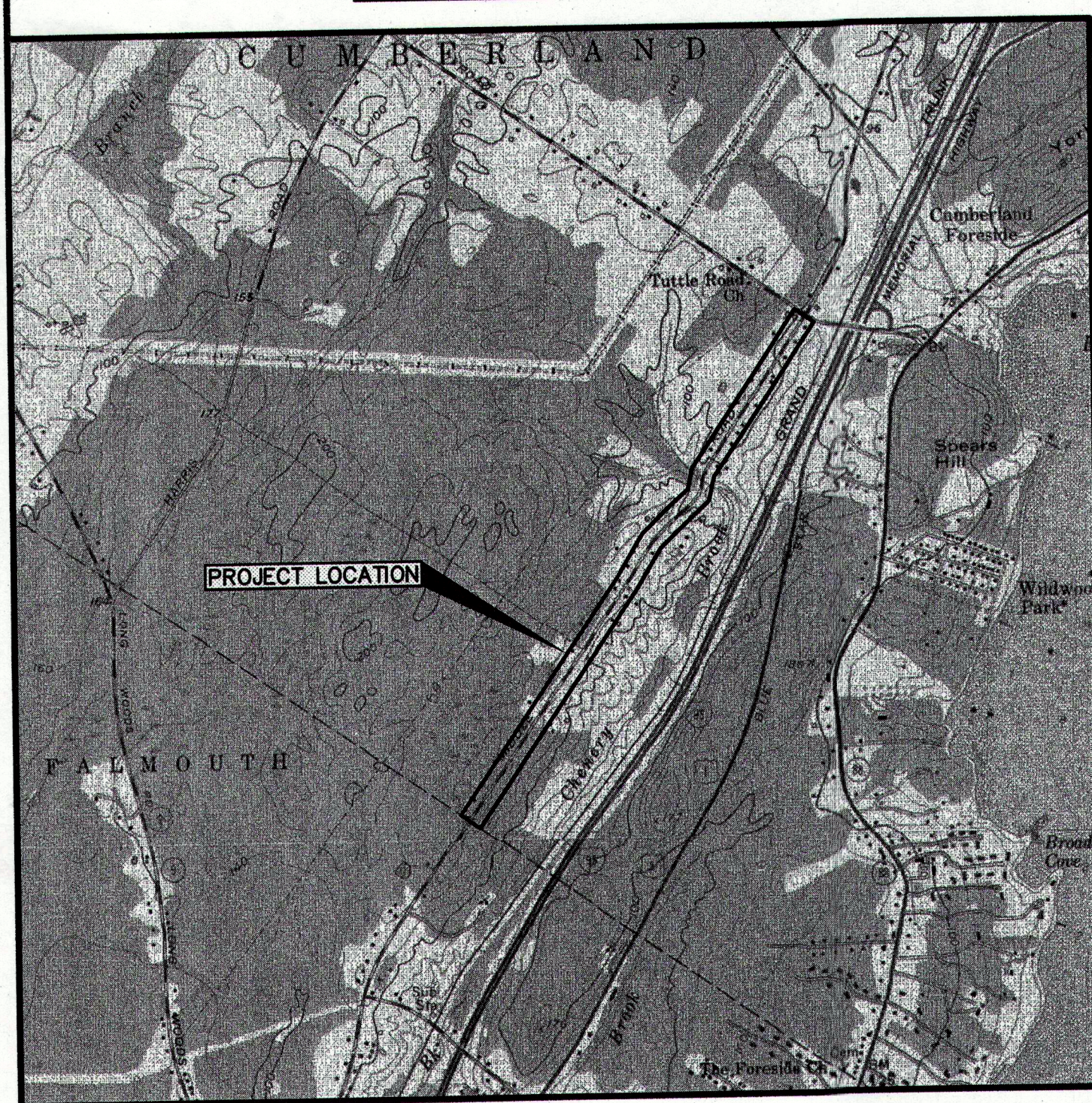
CUMBERLAND COUNTY
PROJECT LENGTH: 1.6 MILES
ROADWAY IMPROVEMENT PROJECT
SPRING 2017

Middle Road
Middle Road



MIDDLE ROAD PLAN
75 0 150 300 FEET

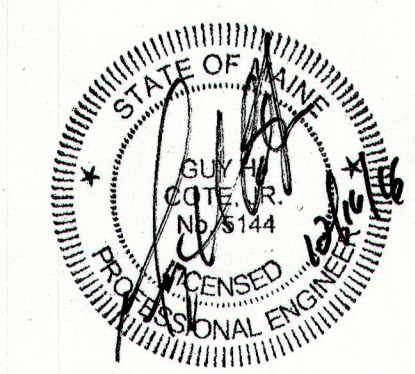
LOCATION MAP



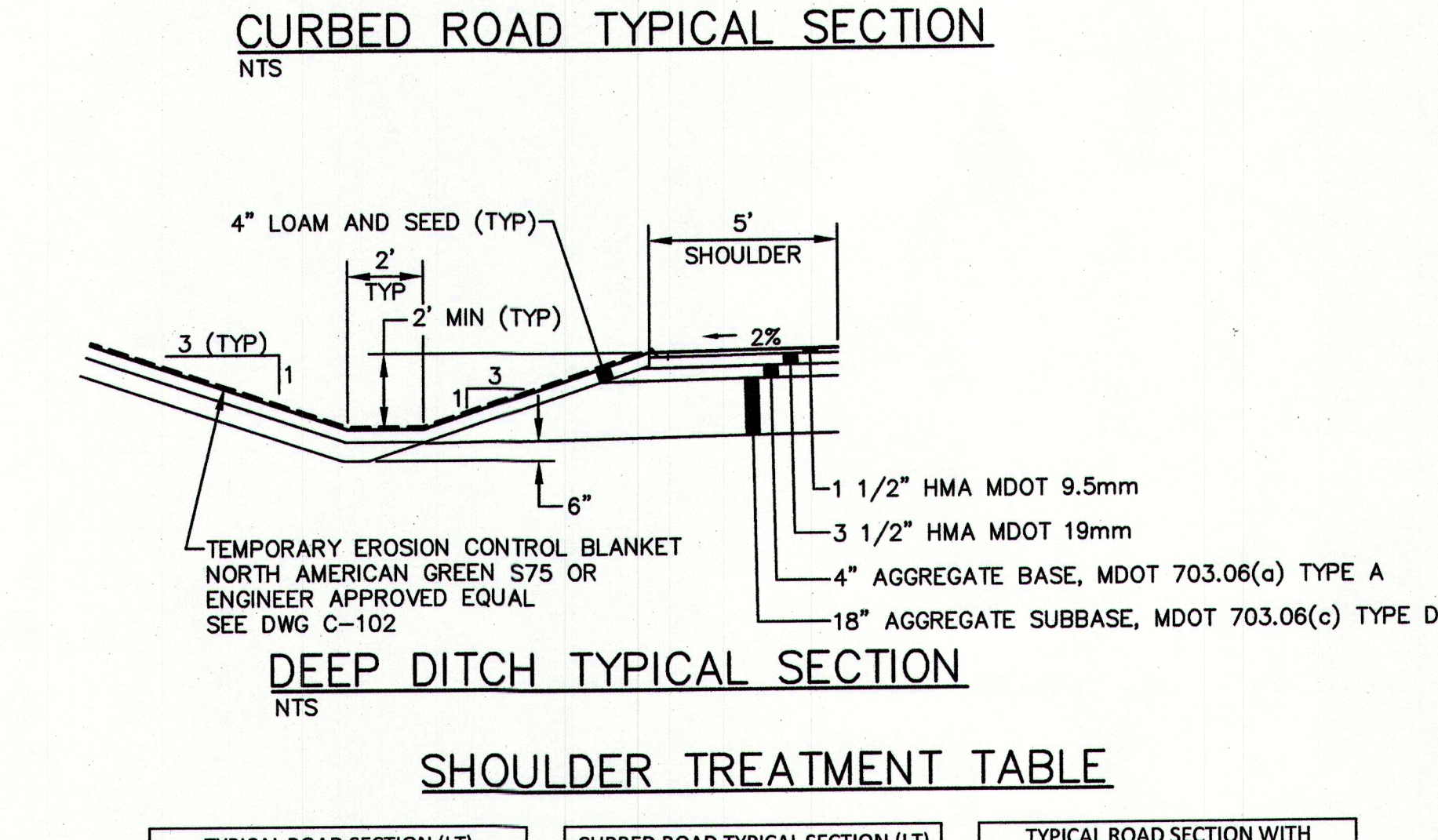
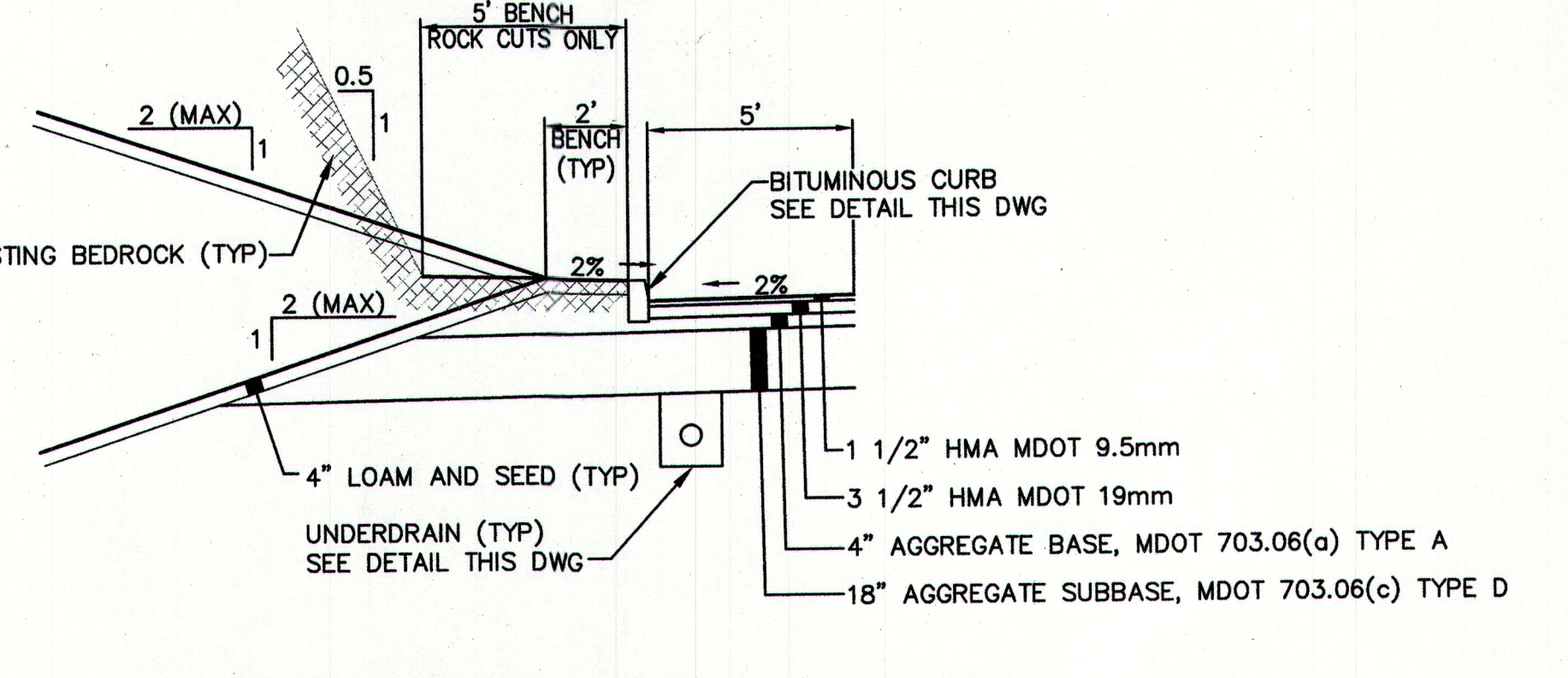
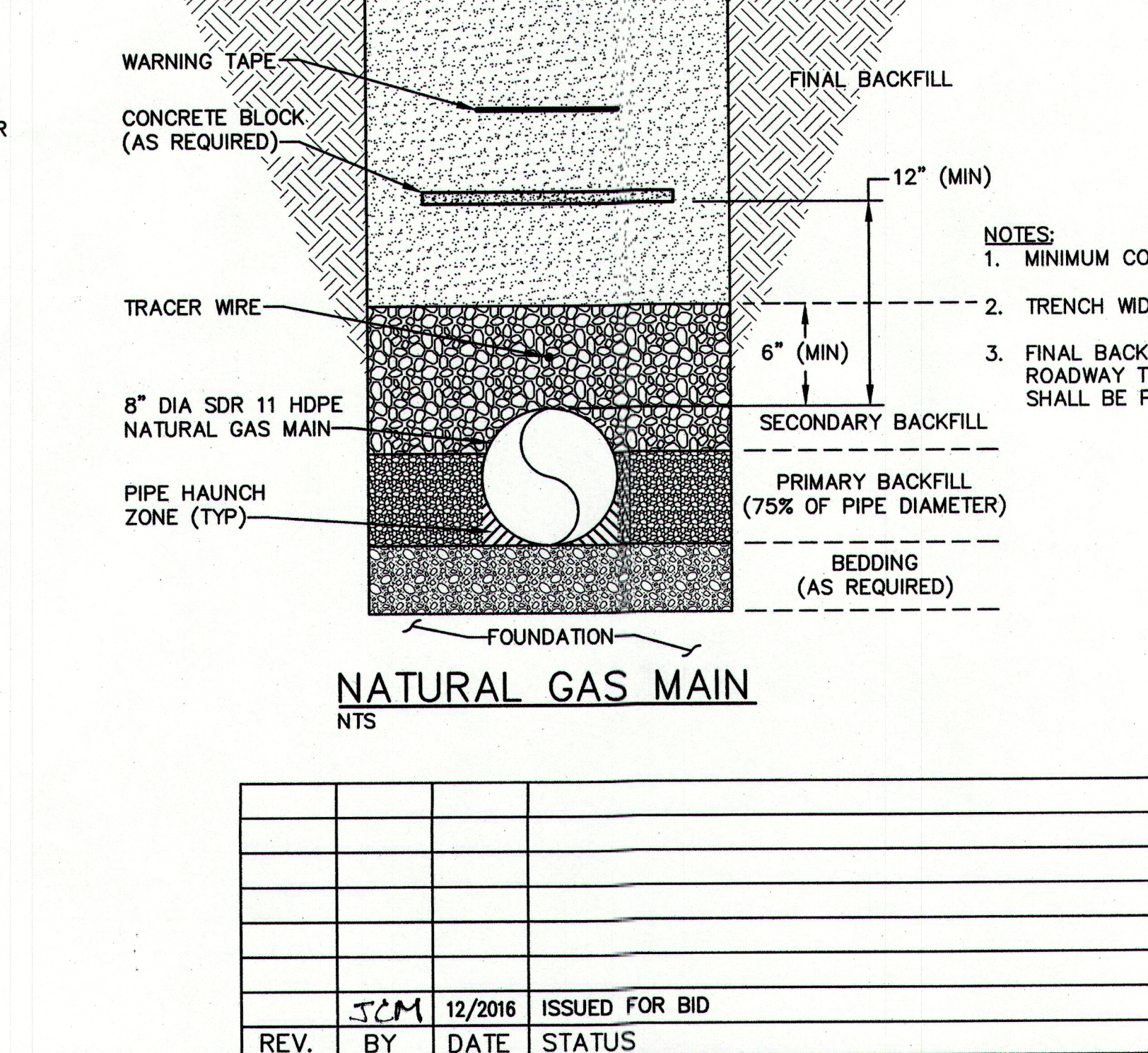
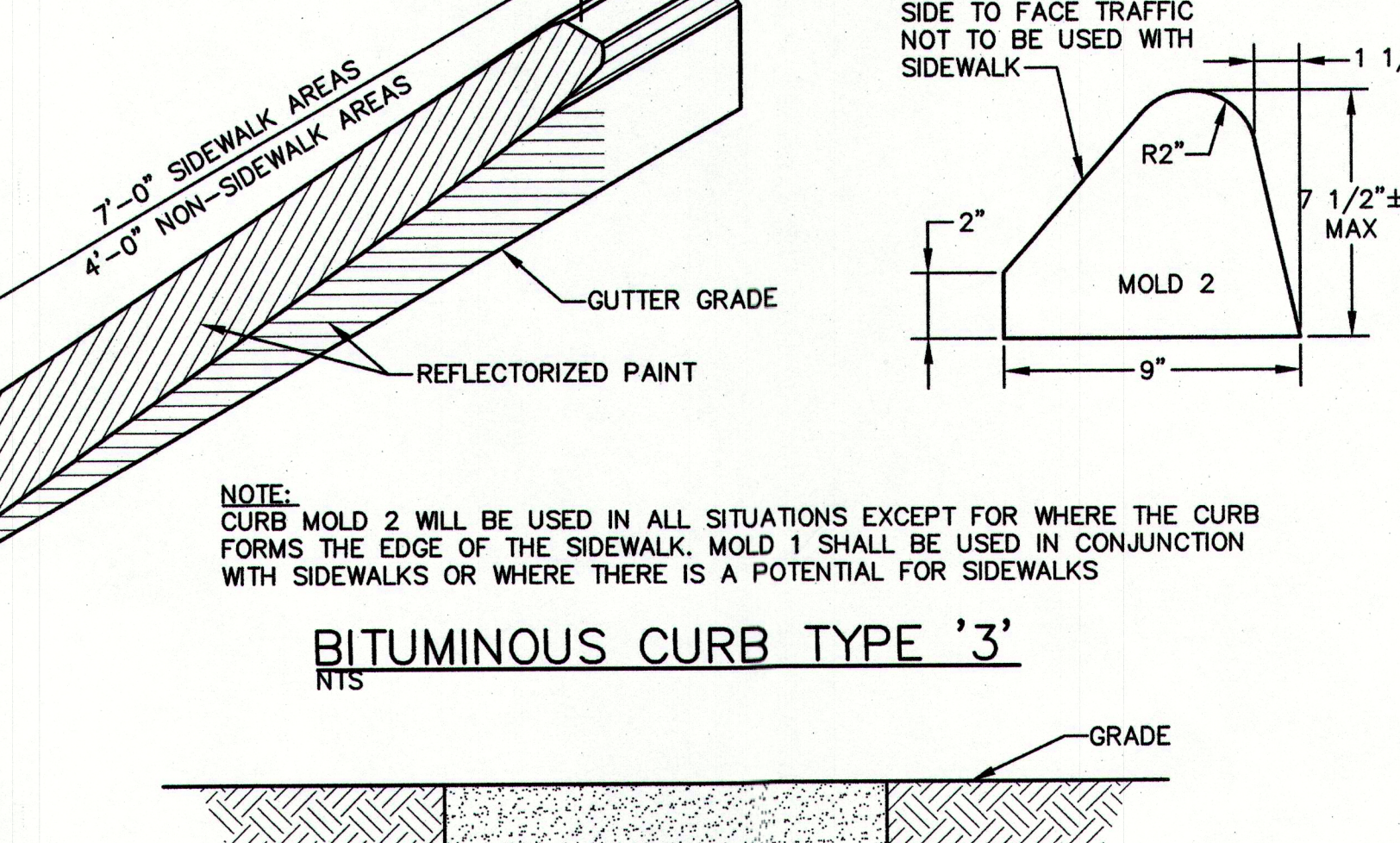
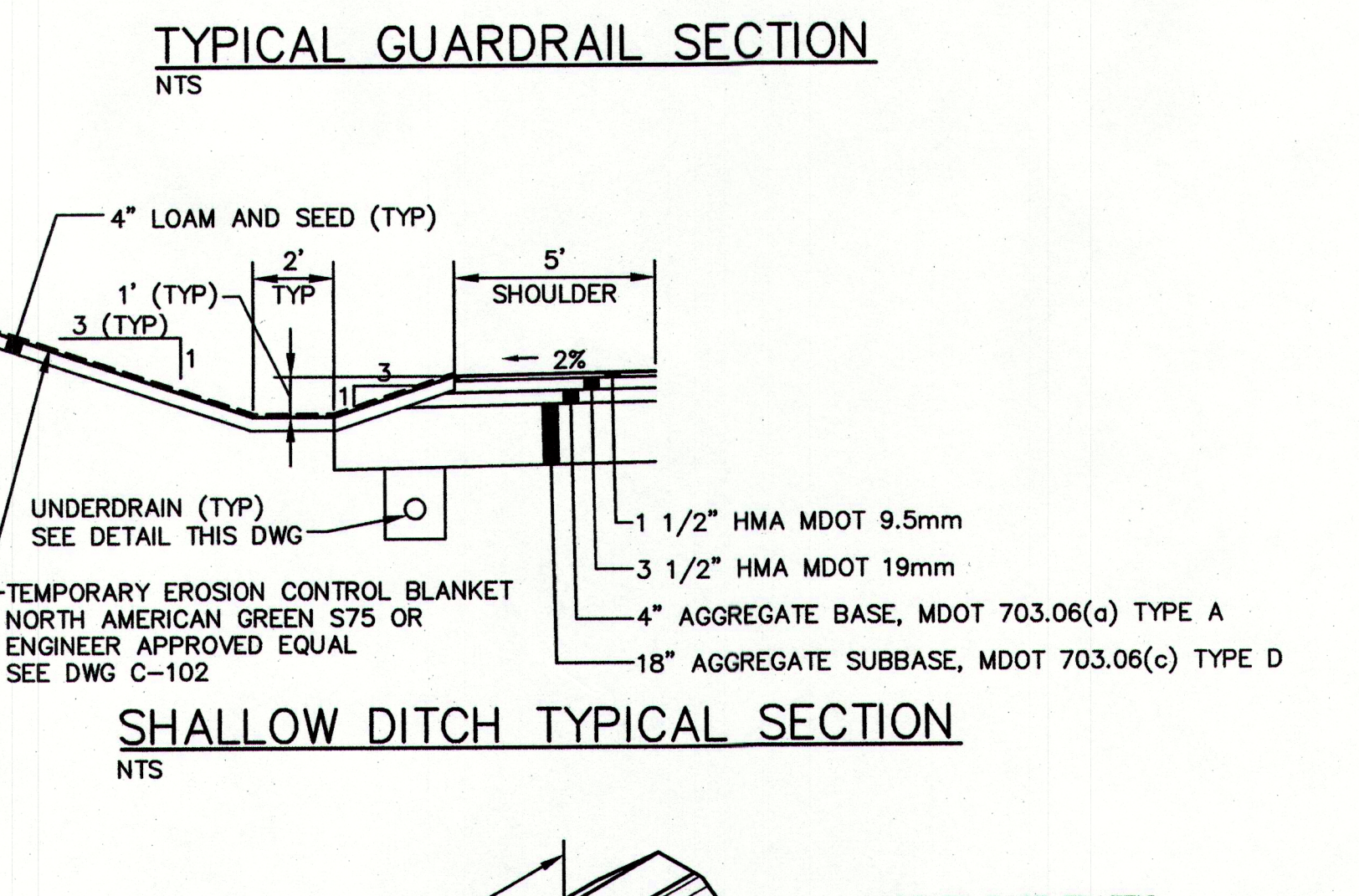
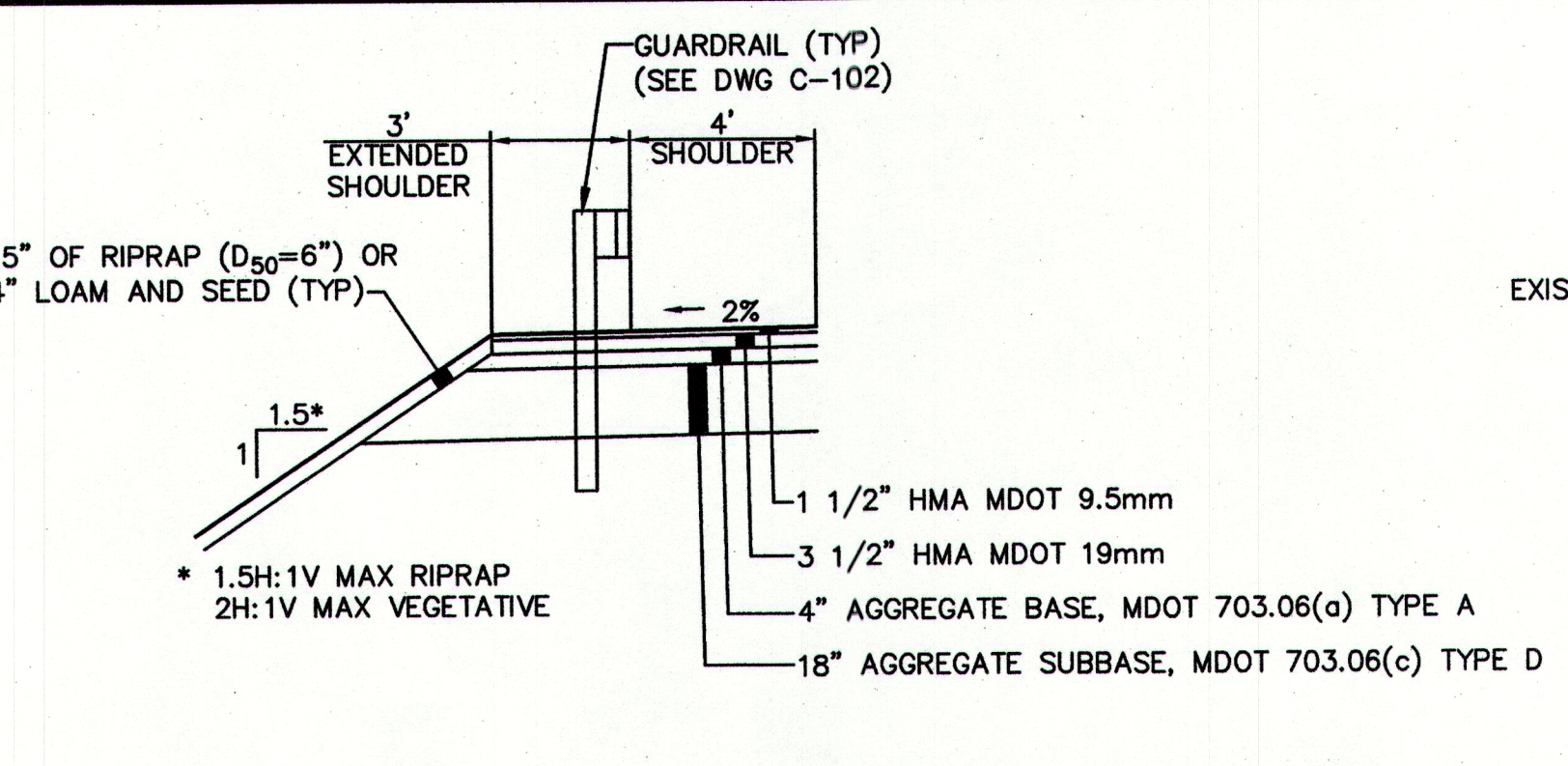
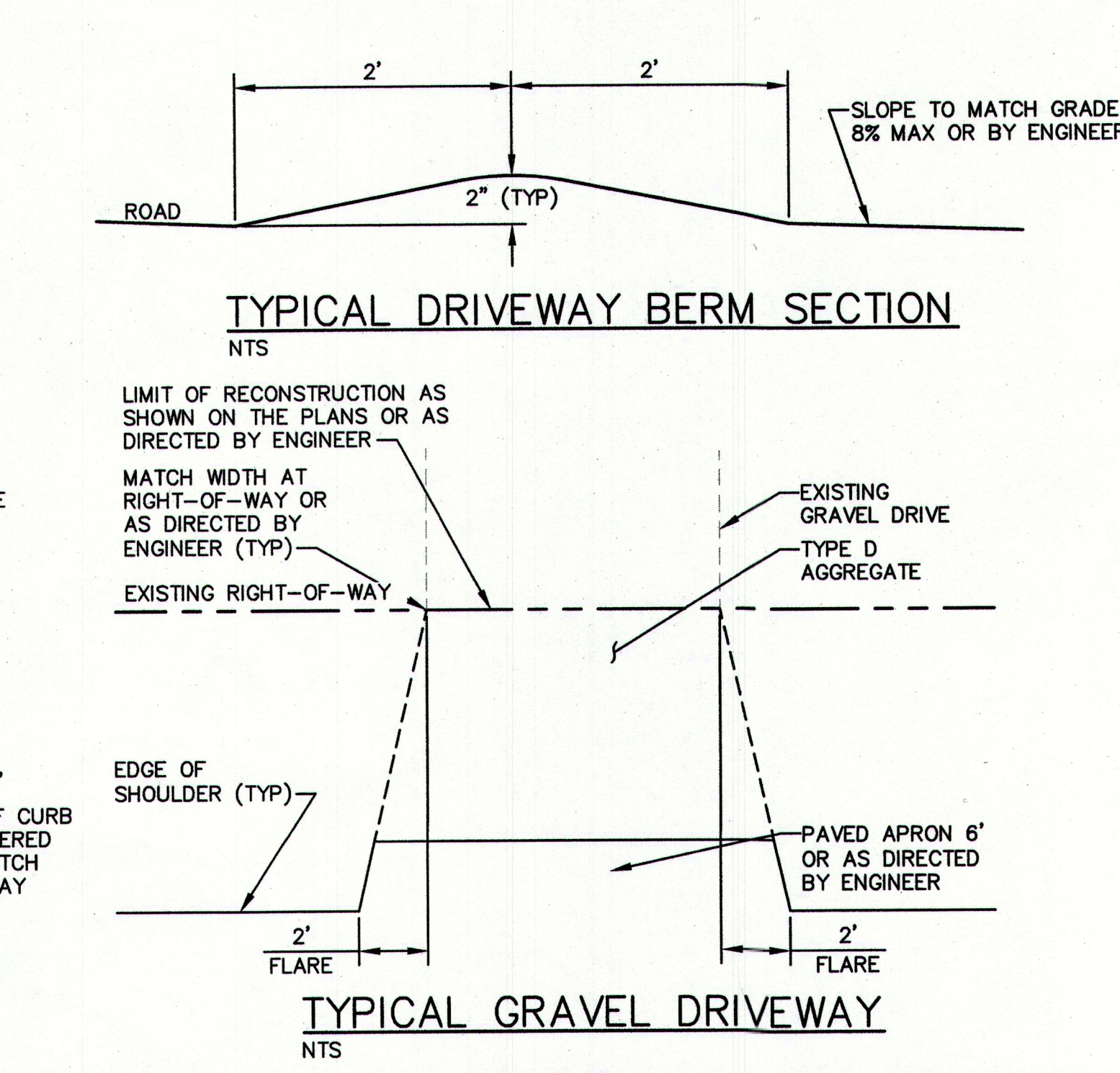
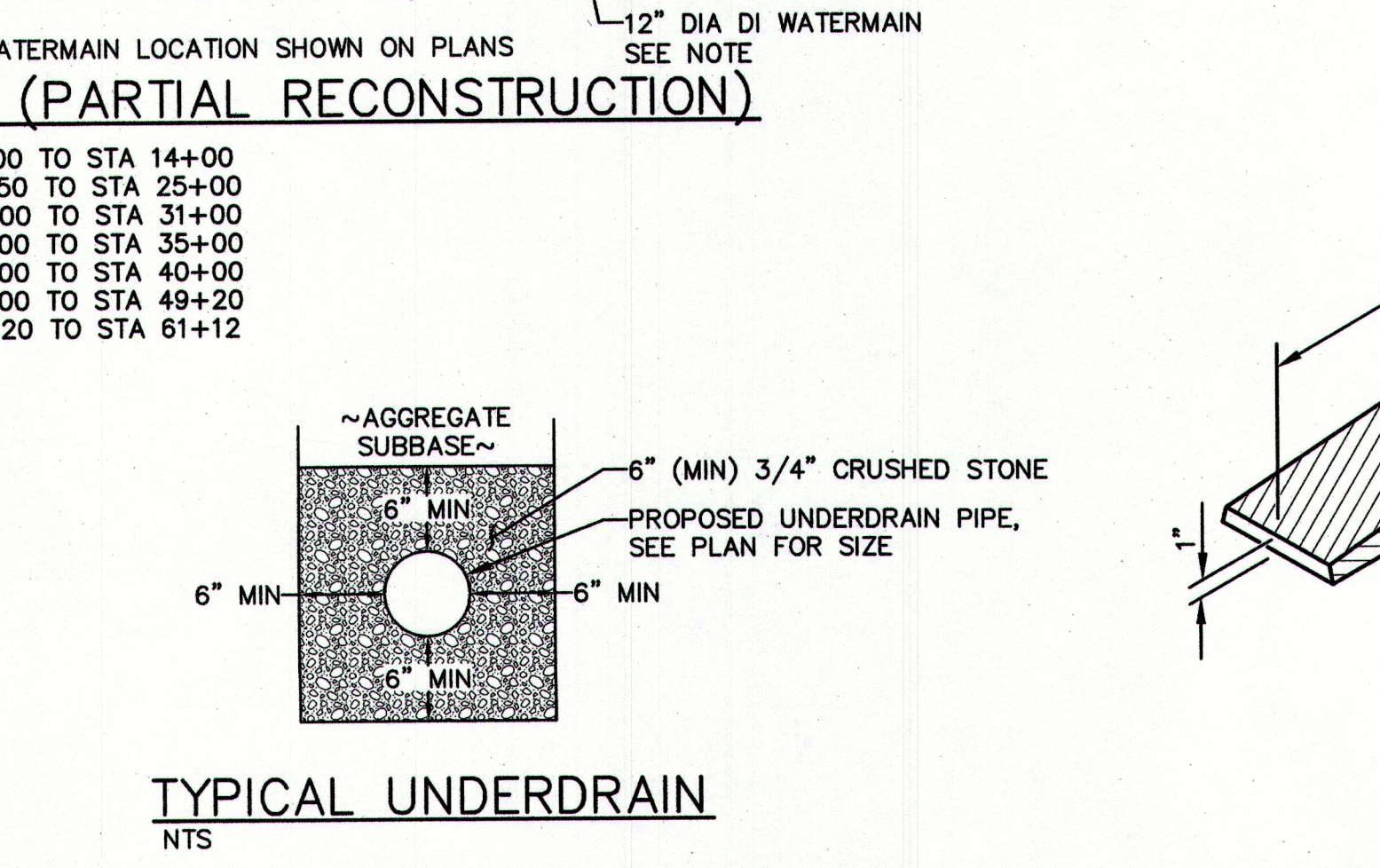
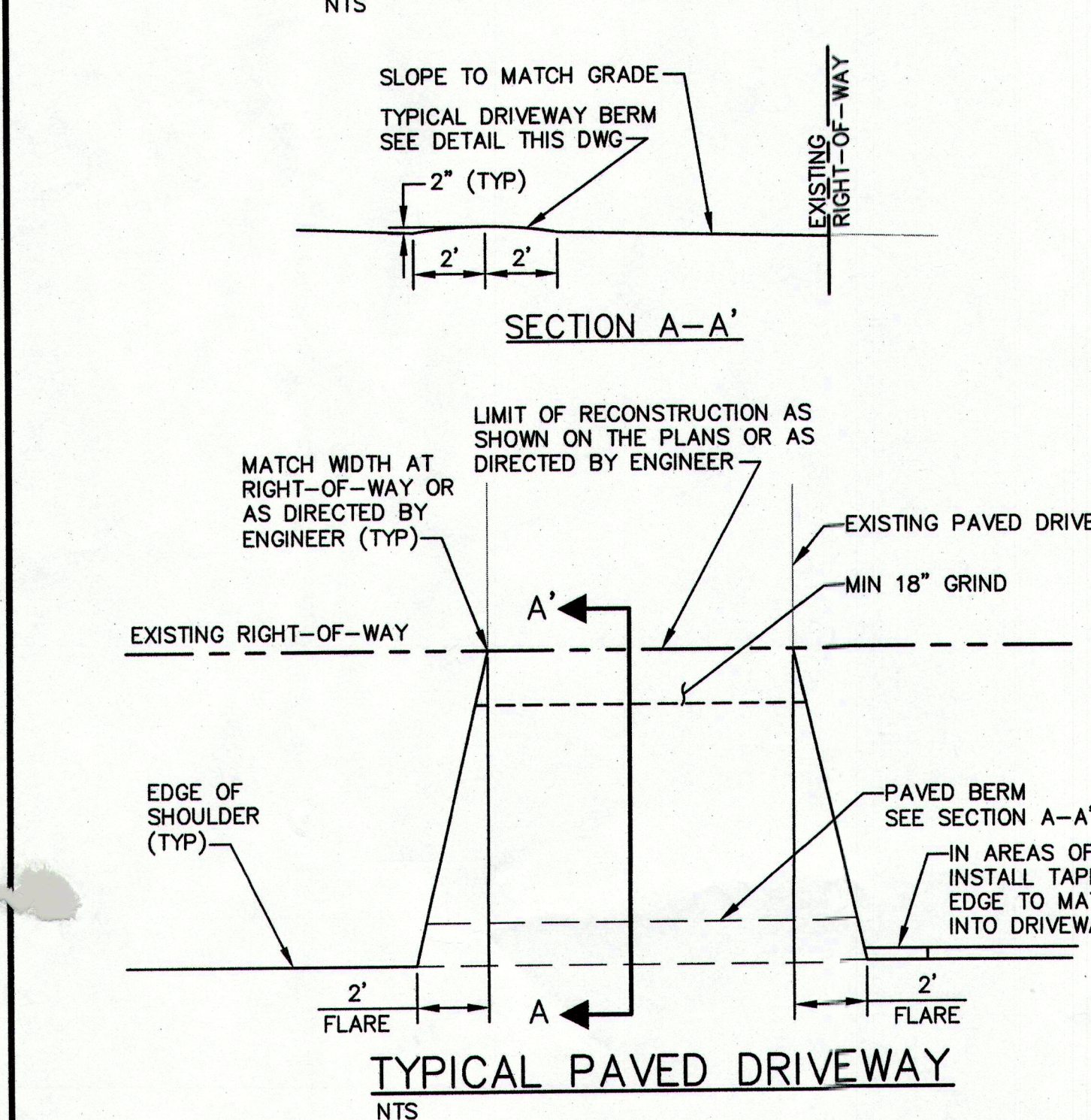
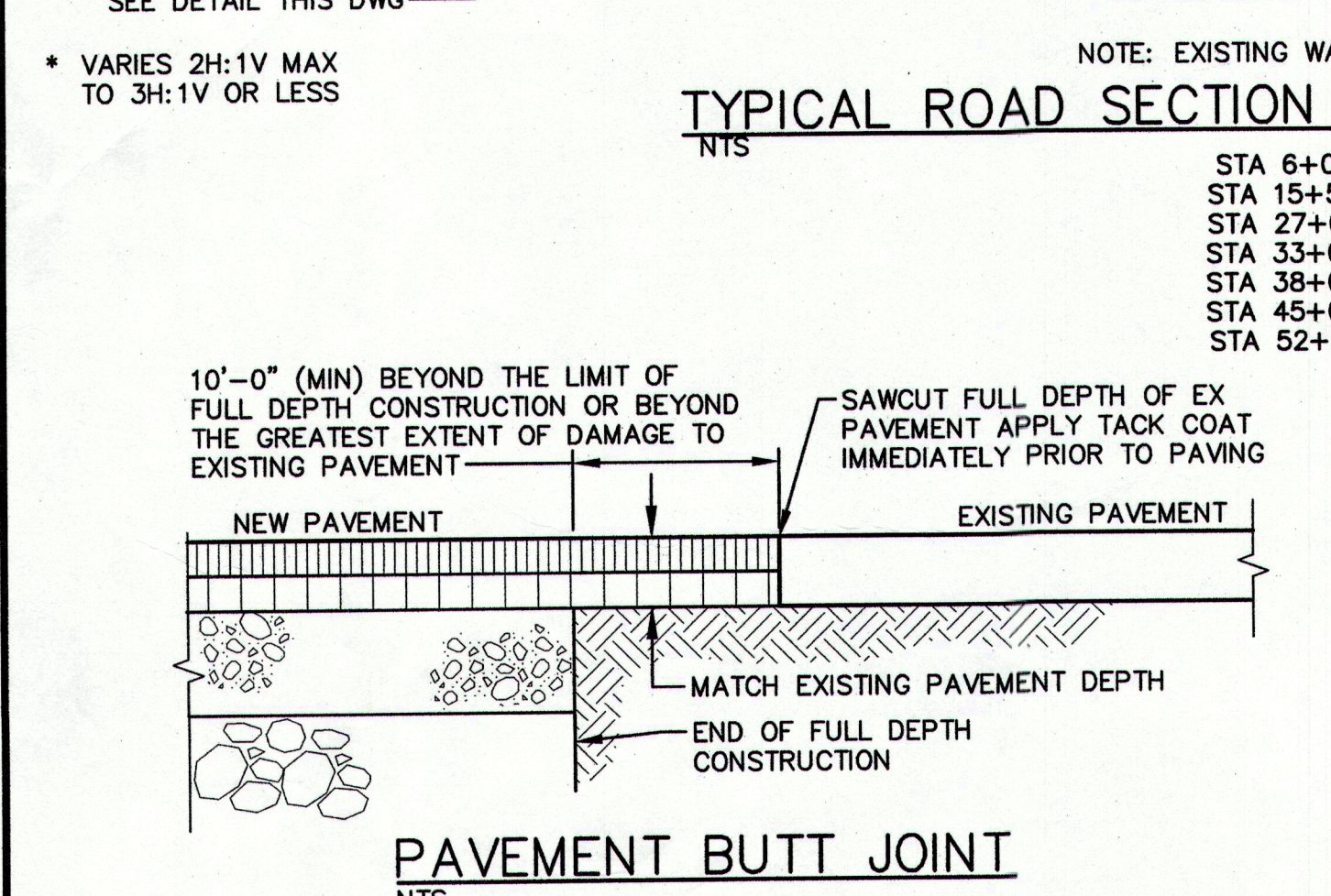
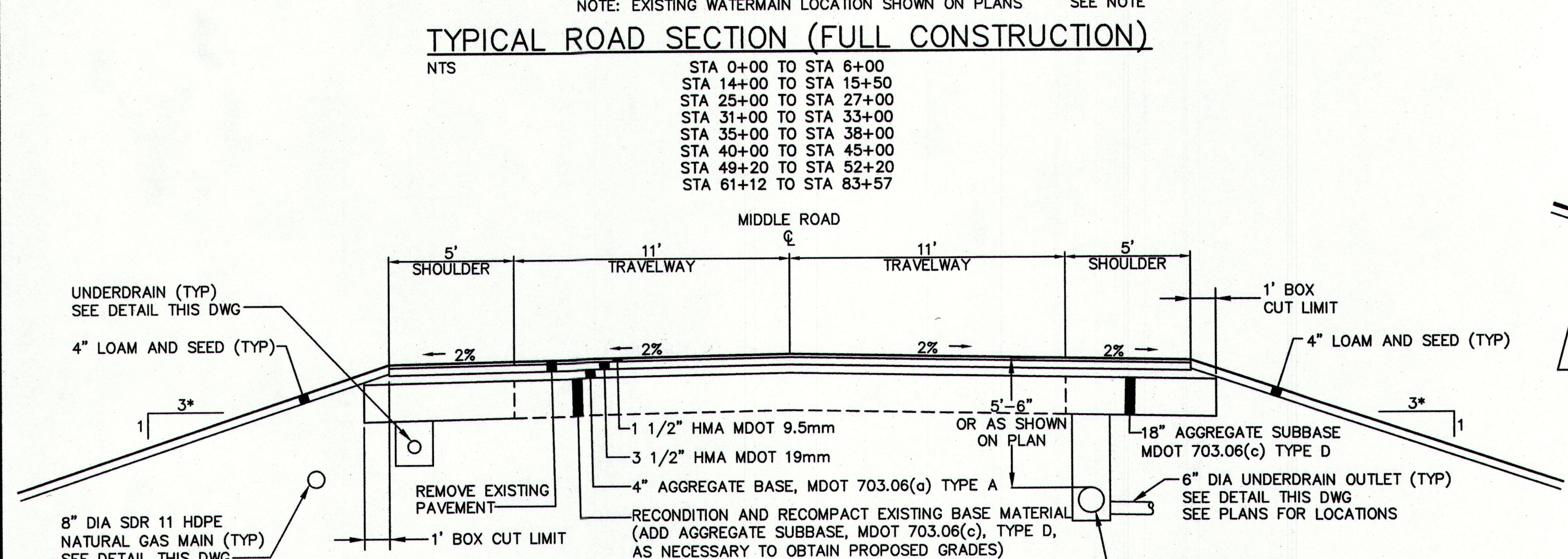
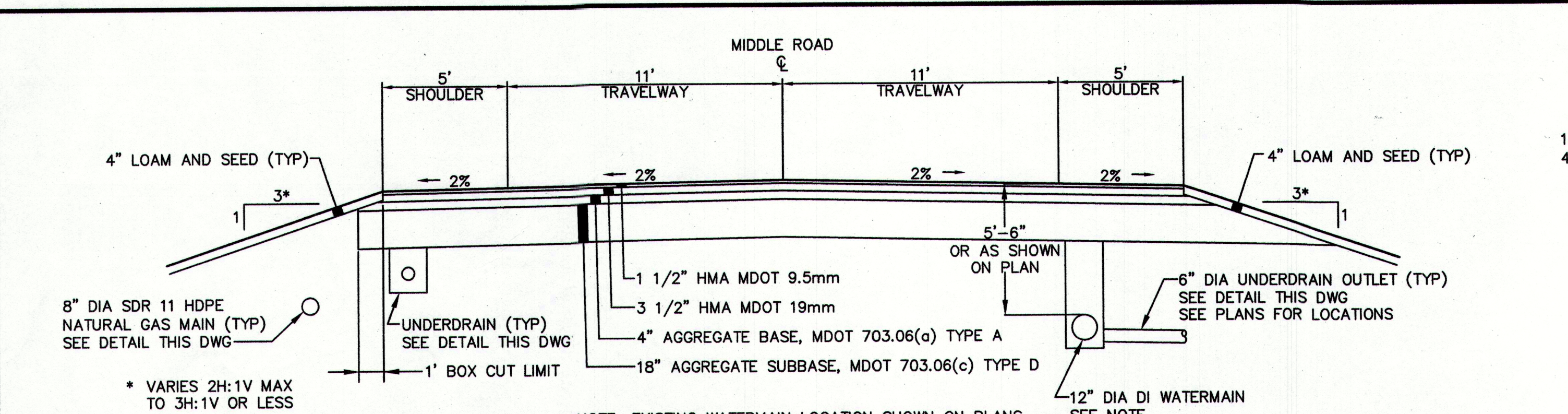
SME
Sevee & Maher Engineers, Inc.

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com



TITLE	DWG NO
TITLE SHEET	
TYPICAL SECTIONS	C-100
GENERAL NOTES, LEGEND AND ABBREVIATIONS	C-101
DETAILS AND SECTIONS	C-102 & C-103
EROSION CONTROL NOTES AND DETAILS	C-104
CULVERT EXTENSION PLAN	C-105
WATER MAIN CONNECTION PLAN	C-106
MIDDLE ROAD PLAN AND PROFILES	C-200 TO C-213
MIDDLE ROAD CROSS SECTIONS	C-214 TO C-244



SHOULDER TREATMENT TABLE

TYPICAL ROAD SECTION (LT)		CURBED ROAD TYPICAL SECTION (LT)		TYPICAL ROAD SECTION WITH 2:1 SIDE SLOPE (RT)	
STATION FROM	STATION TO	STATION FROM	STATION TO	STATION FROM	STATION TO
0+00.0	2+00.0	2+00.0	4+25.0	3+88.0	16+00.0
4+25.0	12+62.5	34+12.5	35+55.0	19+62.5	25+75.0
27+80.0	30+70.0	35+84.0	37+12.5	27+87.5	28+62.5
40+25.0	43+12.5	50+00.0	55+04.0	33+62.5	40+87.5
58+50.0	61+12.5	71+75.0	73+00.0	41+62.5	43+62.5
		73+45.0	74+35.0	57+65.0	59+50.0

TYPICAL ROAD SECTION (RT)		CURBED ROAD TYPICAL SECTION (RT)		SHALLOW/DEEP DITCH TYPICAL SECTION (LT)	
STATION FROM	STATION TO	STATION FROM	STATION TO	STATION FROM	STATION TO
0+00.0	3+88.0	45+87.5	49+06.0	17+90.0	19+75.0
18+10.0	19+62.5	49+25.0	50+00.0	21+75.000	27+80.0
25+75.0	28+20.0	57+12.5	61+17.0	30+70.0	34+12.5
30+85.0	33+62.5	64+20.0	64+90.0	37+12.500	40+25.0
40+87.5	41+62.5	65+13.0	65+75.0	43+87.500	50+00.0
43+62.5	45+87.5	73+45.0	73+95.0	61+12.500	END
50+00.0	53+70.0				
56+90.0	57+12.5				
61+17.0	77+50.0				
78+82.5	END				

TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

TYPICAL SECTIONS

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DESIGN BY: JCM
DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: [Signature]
LMN: NONE
CTB: SME-STD

JOB NO. 16047.00 DWG FILE DETAILS C-100

GENERAL NOTES:

- EXISTING TOPOGRAPHY FROM PLAN ENTITLED "EXISTING CONDITIONS SURVEY FOR TOWN OF CUMBERLAND, MIDDLE ROAD, CUMBERLAND MAINE" BY BOUNDARY POINTS PROFESSIONAL LAND SURVEYORS, INC, DATED 2-15-2015. SEE SURVEYORS NOTES ON THIS DWG FOR MORE INFORMATION.
- WETLAND BOUNDARIES DELINEATED BY AL FRICK OF FALMOUTH, MAINE, DATED 4/1/2016.
- ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH NEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
- THE TOWN OF CUMBERLAND SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED. THE TOWN OF CUMBERLAND SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.
- ALL SIGNING, SIGNAL AND STRIPING MATERIALS AND PLACEMENT SHALL CONFORM TO THE MAINE DOT STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION, SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS AND WITH THE FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2009 EDITION.
- ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED, UNLESS OTHERWISE NOTED. SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS, AND SEEDING METHOD NO. 2 SHALL BE USED IN ALL OTHER LOCATIONS. LOAM SHALL BE PLACED TO A MINIMUM DEPTH OF 4" IN METHOD NO. 1 AREAS, AND 2" IN ALL OTHER AREAS UNLESS OTHERWISE NOTED OR DIRECTED.
- DISPOSITION OF SURPLUS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SURPLUS MATERIAL SHALL NOT BE DISPOSED OF ON THE PROJECT SITE. DISPOSITION SHALL BE MADE ONLY AT WASTE AREAS WHICH ARE LICENSED TO ACCEPT SUCH MATERIALS, UNLESS THE MATERIALS CAN BE INCORPORATED IN FILLS IN OTHER PROJECTS OF THE CONTRACTOR. ALL WASTE AREAS SHALL BE APPROVED BY THE RESIDENTS.
- EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CFR PART 1926.650-652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
- THE CONTRACTOR SHALL CONTACT DIG-SAFE AND APPROPRIATE AUTHORITIES PRIOR TO ANY SUBSURFACE ACTIVITIES.
- IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS, IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW UNDERWATER BACKFILL.
- ALL CLEARING AND TRIMMING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING AND TRIMMING SHALL BE ESTABLISHED BY THE CONTRACTOR AND APPROVED IN THE FIELD BY THE ENGINEER.
- BUTT JOINTS SHALL BE USED AT ALL LOCATIONS WHERE THE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING OPENING PERMITS. CONTRACTOR SHALL BE RESPONSIBLE APPLYING FOR AND ALL COSTS ASSOCIATED WITH OBTAINING OPENING PERMITS FROM THE TOWN IF REQUIRED.
- MAINTENANCE OF TRAFFIC SHALL BE PER THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2009 EDITION.
- THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL NECESSARY BARRICADES, LIGHTS, WARNING SIGNS AND OTHER DEVICES TO SAFEGUARD TRAFFIC PROPERLY WHILE WORK IS IN PROGRESS FOR THE DURATION OF THE PROJECT.
- DRIVEWAY ACCESSES SHALL BE MAINTAINED AT ALL TIMES.
- THE CONTRACTOR SHALL SUBMIT A PLAN TO CONTROL TRAFFIC DURING THE PERIOD OF CONSTRUCTING THE IMPROVEMENTS TO THE ENGINEER AND THE TOWN OF CUMBERLAND FOR APPROVAL. WHICH CONFORMS TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", 2009 EDITION. THE CONTRACTOR MUST MAINTAIN TWO WAY TRAFFIC WHENEVER PRACTICABLE AND MUST MAINTAIN AT LEAST ONE WAY ALTERNATING TRAFFIC FLOW AT ALL TIMES. ALL TRAFFIC SHALL BE CONTROLLED DURING THE PERIOD OF CONSTRUCTION IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
- THE CONTRACTOR SHALL COMPLY WITH THE INSURANCE REQUIREMENTS OUTLINED UNDER SECTION 110 IN THE DEPARTMENT'S STANDARD SPECIFICATIONS NOVEMBER 2014 EDITION (HEREAFTER STANDARD SPECIFICATIONS). MINIMUM INSURANCE REQUIREMENTS SHALL INCLUDE AT LEAST WORKERS' COMPENSATION INSURANCE, COMMERCIAL, GENERAL LIABILITY, AND AUTOMOBILE LIABILITY INSURANCE AS DEFINED THEREIN. THE CONTRACTOR SHALL PROVIDE THE DEPARTMENT WITH SATISFACTORY PROOF OF SUCH INSURANCE COVERAGE. IN THE EVENT THAT SUCH INSURANCE IS TERMINATED OR CANCELED WITHOUT BEING REPLACED WITH COMPARABLE INSURANCE, THE DEPARTMENT MAY SUSPEND OR TERMINATE THE CONSTRUCTION OF ALL TRAFFIC IMPROVEMENTS IN PROGRESS AT THE TIME OF SUCH TERMINATION OR CANCELLATION.
- THE CONTRACTOR SHALL PROVIDE THE TOWN WITH A PERFORMANCE BOND, CERTIFIED CHECK OR OTHER NEGOTIABLE SECURITY ACCEPTABLE TO THE OWNER IN THE FULL AMOUNT OF THE COST TO CONSTRUCT SUCH IMPROVEMENTS WHICH CONFORMS TO THE GENERAL REQUIREMENTS FOR SUCH SURETY AS OUTLINED UNDER SECTION 110.2 IN THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL PROVIDE THE TOWN OF CUMBERLAND WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE IMPROVEMENTS, AND AN EMERGENCY CONTACT LIST.
- ALL IMPROVEMENTS SHALL BE CONSTRUCTED AS SHOWN ON THE FINAL PLANS IN ACCORDANCE WITH THE MAINE DOT STANDARD SPECIFICATIONS NOVEMBER 2014 EDITION, DETAILS AND ANY REVISIONS.
- THE CONTRACTOR SHALL ALLOW OR ARRANGE FOR THE TOWN OF CUMBERLAND, ITS INSPECTORS, AGENTS, EMPLOYEES, AND CONTRACTORS OR INVITED GUESTS, TO ENTER UPON ANY LAND OWNED OR CONTROLLED BY THE CONTRACTOR OUTSIDE OF AND ADJOINING THE RIGHT-OF-WAY OF ANY HIGHWAY OR PUBLIC WAY, WHICH MAY BE USED FOR CONSTRUCTION OF THE TRAFFIC IMPROVEMENTS, AT ANY AND ALL TIMES AND FOR ANY AND ALL PURPOSES NECESSARY OR INCIDENTAL TO SUCH INSPECTION OR TESTING.
- THE PLACEMENT OF BITUMINOUS PAVING MATERIALS SHALL BE SUBJECT TO ALL OF THE WEATHER AND SEASONAL LIMITATIONS OUTLINED UNDER MAINE DOT STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION DIVISION 400, PAVEMENTS, SECTION 401, PARAGRAPH 401.06.
- ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE AND RESET POST SIGNS, MAILBOXES, AND POLES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT BID PRICES. IF ANY DAMAGE OCCURS TO POSTS, SIGNS, MAILBOXES OR ASSOCIATED HARDWARE DURING REMOVAL, STORAGE OR RESETTING, THE DAMAGED MATERIALS SHALL BE REPLACED BY THE CONTRACTOR, TO THE SATISFACTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. UNDERGROUND FACILITIES INDICATED ON THE CROSS SECTIONS HAVE BEEN CARRIED OVER FROM THE PLAN VIEW DATA AND MAY ALSO INCLUDE FURTHER APPROXIMATIONS OF THE ELEVATIONS BASED UPON STRAIGHT LINE INTERPOLATION FROM THE NEAREST MANHOLES, GATE VALVES, OR TEST PITS. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK AND SCHEDULE AND THE UTILITY RELOCATION WORK WITH THE PROPER UTILITY COMPANY. UTILITY CONTACTS FOR THIS PROJECT ARE:

CENTRAL MAINE POWER
CONTACT: THOMPSON ATWOOD
TELEPHONE: (207) 791-1022
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103

FAIRPOINT
CONTACT: MR. MARTY PEASE
TELEPHONE: (207) 797-1119
FAIRPOINT
5 DAVIS FARM ROAD
PORTLAND, MAINE 04103

TIME WARNER CABLE
CONTACT: MARK PELLETIER
TELEPHONE: (207) 253-2324
TIME WARNER CABLE
118 JOHNSON ROAD
PORTLAND, MAINE 04102

PORTLAND WATER DISTRICT
CONTACT: JAY ARNOLD
TELEPHONE: (207) 774-5961
P.O. BOX 3553
225 DOUGLASS STREET
PORTLAND, MAINE 04530
- ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
- PROPERTY LINE AND R.O.W. MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE, BY A MAINE PROFESSIONAL LAND SURVEYOR.
- EXISTING CONDITIONS BASED ON SURVEY COMPLETED BY BOUNDARY POINTS.
- CONSTRUCTION SHALL NOT COMMENCE UNTIL AUTHORIZED BY THE TOWN AND THE ENGINEER (SEE NOTE 1).
- THE CONTRACTOR SHALL SUBMIT A QC PLAN AS OUTLINED UNDER MAINE DOT STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION DIVISION 400, PAVEMENTS, SECTION 401, PARAGRAPH 401.19, FOR APPROVAL BY THE TOWN OF CUMBERLAND AND THE ENGINEER. THE ACCEPTANCE METHOD SHALL BE METHOD D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF ANY PAVING. THE DENS AND DISCREPANCY REQUIREMENTS SHALL APPLY AS OUTLINED IN SECTION 401.204 OF THE MAINE DOT STANDARD SPECIFICATIONS. CORES WILL BE REQUIRED AT LOCATIONS REQUESTED BY THE ENGINEER. THE TOWN MAY TAKE SAMPLES FOR TESTING AT THEIR DISCRETION TO DETERMINE IF THE MIX IS WITHIN THE TOLERANCES LISTED IN TABLE 8 OF SECTION 401.204.
- ALL PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED SHALL BE REMOVED IN ACCORDANCE WITH THE MAINE DOT SPECIFICATIONS.
- ALL NEW SIGNS SHALL HAVE HIGH INTENSITY RETRO-REFLECTIVE SHEETING. WHEN WOOD POSTS ARE USED THEY SHALL BE PRESSURE TREATED.
- A TACK COAT OF EMULSIFIED ASPHALT, RS-1 OR HWS-1 SHALL BE APPLIED TO ANY EXISTING PAVEMENT AT A RATE OF APPROXIMATELY 0.025 GALLONS/S.Y., AND ON MILLED PAVEMENT APPROXIMATELY 0.050 GALLONS/S.Y. A FOG COAT OF EMULSIFIED ASPHALT SHALL BE BETWEEN SHIM/INTERMEDIATE COURSE AND THE SURFACE COURSE, AT A RATE NOT TO EXCEED 0.025 GALLONS/S.Y.
- THE CONTRACTOR SHALL COMPLETE THE WORK WITHIN RIGHTS-OF-WAY OR EASEMENTS, EXCEPT AS SHOWN ON THE PLANS AND WILL BE RESPONSIBLE IF GRUBBING OCCURS ON PRIVATE PROPERTY.
- ALL EXISTING WATER VALVE COVERS AND ANY OTHER EXISTING UTILITIES SHALL BE ADJUSTED TO GRADE BY THE APPROPRIATE UTILITY COMPANY.
- ALL EXISTING DRAINAGE CATCH BASIN AND OUTLET INFORMATION SHALL BE FIELD VERIFIED PRIOR TO ORDERING NEW STRUCTURES.
- ALL GUARDRAIL SHALL BE GALVANIZED OR APPROVED EQUIVALENT.
- ACTUAL GRUBBING LIMITS MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY THE RESIDENT. ESTIMATED GRUBBING DEPTHS ARE 6 INCHES IN FIELD AREAS AND 12 INCHES IN WOODED AREAS.

- DRIVEWAY FILL SIDE SLOPES SHALL BE THE SAME AS THE NON-GUARDRAIL FILL SLOPES UNLESS OTHERWISE NOTED ON THE PLANS.
- GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1' ABOVE WATER LEVEL OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW UNDERWATER BACKFILL.
- RESIDENTIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH: 2 INCHES HOT MIX ASPHALT 9.5mm, COMMERCIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH: 3" HMA AND 11" AGGREGATE SUBBASE COURSE GRAVEL. THE EXTENT OF RECONSTRUCTION SHALL BE COORDINATED WITH THE ENGINEER.
- ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING SHALL BE INCIDENTAL TO THE RELATED PAVING ITEMS.
- THE FOLLOWING SHALL BE INCIDENTAL TO THE 603 ITEM(S):

ANY CUTTING OF EXISTING CULVERTS AND OR CONNECTORS NECESSARY TO INSTALL NEW CULVERT REPLACEMENTS OR EXTENSIONS
ALL PIPE EXCAVATION INCLUDING ANY CUTTING AND REMOVAL OF PAVEMENT
ALL DITCHING AT PIPE ENDS
FURNISHING, PLACING, GRADING, AND COMPACTING OF ANY NEW GRAVEL AND/OR FILL MATERIAL INCLUDING GRANULAR BORROW USED UNDER PIPES
GRANULAR BORROW UNDER THE PIPE SHALL MEET THE REQUIREMENTS FOR UNDERWATER BACKFILL
ALL WORK NECESSARY TO CONNECT TO EXISTING PIPES AND DRAINAGE STRUCTURES
FLOW LINES MAY BE CHANGED BY 1.5 FT
ANY NECESSARY CLEARING OF BRUSH AND NON-PAY TREES AT CULVERT ENDS
BACKFILL ANY NECESSARY CUTTING OF EXISTING PIPES TO FIT AREAS OF PROPOSED CATCH BASINS
- NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.
- INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE RESIDENT.
- ALL 6" UNDERDRAIN SHOWN ON THE CROSS SECTIONS WILL HAVE THE FLOW LINE SCALED FROM THE CROSS SECTIONS. ALL FLOW LINE ELEVATIONS ARE SUBJECT TO APPROVAL BY THE RESIDENT.
- A 3 FT. X 3 FT. SQUARE RIPRAP PAD SHALL BE CONSTRUCTED AT U.D. OUTLETS.
- GUARDRAIL END TREATMENTS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL.
- HOLES CREATED BY GUARDRAIL INSTALLATION WILL BE FILLED AND COMPACTED WITH APPROVED MATERIALS AS DIRECTED BY THE RESIDENT. PAYMENT TO BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.
- TWO REFLECTORIZED FLEXIBLE G.R. MARKERS WILL BE INSTALLED AT EACH GUARDRAIL END, AND SHALL BE INCIDENTAL TO THE 608 ITEMS.
- A DELINEATOR POST (ITEM 606.35) WILL BE INSTALLED AT EACH UNDERDRAIN OUTLET, AND SHALL BE INCIDENTAL TO THE 606 ITEMS.
- LOAM HAS BEEN ESTIMATED FOR DISTURBED AREAS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING MAILBOXES TO ENSURE THAT THE MAIL WILL BE DELIVERABLE. MAILBOXES SHALL BE RELOCATED SO THAT THE POSTS ARE 1 FOOT BEHIND EDGE OF SHOULDER OR AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK; IT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR THE CAREFUL SIDE STAKING OF EXISTING CENTERLINE AS PER STANDARD SPECIFICATION 105.6.2. SIDE STAKES SHALL BE PLACED SAFELY OUTSIDE OF THE CONSTRUCTION LIMITS AND THE EXISTING CENTERLINE GRADES SHALL BE TRANSFERRED TO THESE STAKES.
- ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITY REQUIRED TO INSTALL DRAINAGE STRUCTURES. ADDITIONAL EXCAVATION FOR THE CONTRACTOR'S CONVENIENCE OR TO COMPLY WITH BACKSLOPING REQUIREMENTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELATED DRAINAGE ITEMS.
- NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION'S BEST MANAGEMENT PRACTICES FOR EROSION CONTROL & SEDIMENT CONTROL, FEBRUARY, 2008.
- PRIOR TO ROADWAY CONSTRUCTION, CONTRACTOR SHALL TRIM ALL TREE BRANCHES WITHIN RIGHT OF WAY, TO 18 FEET ABOVE THE PAVEMENT. AFTER PAVING IS COMPLETED, CONTRACTOR SHALL TRIM ANY BRANCHES DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION, TRIMMING OF BRANCHES SHALL BE INCIDENTAL TO THE CONTRACT.
- TEST PITS OF ALL UTILITY CROSSINGS SHALL BE COMPLETED TWO WEEKS IN ADVANCE OF THE START OF CONSTRUCTION OR ORDERING OF MATERIALS. TEST PIT INFORMATION SHALL BE PROMPTLY PROVIDED TO ENGINEER FOR REVIEW.
- THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.
- LOCATION OF WATER MAINS ARE APPROXIMATE AND BASED ON A COMPOSITE OF AS-BUILT PLANS AND SURVEYED FEATURES SUCH AS VALVES.
- COORDINATE WITH APPROPRIATE UTILITY COMPANY FOR SUPPORT OF UTILITY POLES AS NECESSARY.
- TEST PITS SHALL BE COMPLETED PRIOR TO ORDERING STRUCTURES TO DETECT EXACT ELEVATION/LOCATION OF EXISTING UTILITIES. TEST PIT INFORMATION SHALL BE PROVIDED TO THE ENGINEER TO REVIEW PRIOR TO ORDERING STRUCTURES FOR THEIR REVIEW. TEST PITS SHALL INCLUDE ALL EXCAVATION, BACKFILL AND TEMPORARY PAVEMENT IN ROAD SECTIONS.
- ANY DAMAGE CAUSED TO THE EXISTING UTILITIES BY THE CONTRACTORS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO SEPARATE PAYMENT SHALL BE MADE.
- SEDIMENT OUTLET HOODS SHALL BE INSTALLED ON ALL CATCH BASIN OUTLET PIPES 18 INCHES AND SMALLER. THE COSTS FOR SEDIMENT OUTLET HOODS SHALL BE INCIDENTAL TO THE RESPECTIVE CATCH BASIN.
- ALL CATCH BASINS SHALL HAVE 2 FOOT SUMPS.
- ANY BASE PAVEMENT NOT SURFACED BEFORE WINTER WILL REQUIRE TEMPORARY PAVEMENT MARKINGS OF PAINT, BOTH YELLOW CENTERLINE AND WHITE EDGE LINES AND WILL BE CONSIDERED PART OF ITEM 627.733.
- ALL DRIVEWAY CULVERTS TO BE REMOVED. SEE PLAN AND PROFILE SHEETS FOR DETAILS ON REPLACEMENT. IF NON LISTED, DRIVEWAY CULVERTS SHALL BE DISPOSED OF.

SURVEYOR'S NOTES

- THIS SURVEY PLAN IS COPYRIGHT PROTECTED. THIS PLAN IS THE PROPERTY OF BOUNDARY POINTS, AND SHALL NOT BE USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF AN AUTHORIZED AGENT OF BOUNDARY POINTS. ALL RIGHTS RESERVED.
- THIS SURVEY PLAN IS ONLY VALID IF AUTHENTIC EMBOSSSED SEAL AND SIGNATURE OF CERTIFYING PROFESSIONAL APPEAR ON THE FACE OF THIS SURVEY PLAN.
- REFERENCE IS MADE TO THE CONTRACTUAL AGREEMENT BETWEEN THE PROFESSIONAL LAND SURVEYOR AND THE CLIENT.
- THIS SURVEY PLAN IS SUBJECT TO POSSIBLE REVISION UPON RECEIPT OF A CERTIFIED TITLE OPINION.
- ON THE BASIS OF MY KNOWLEDGE, INFORMATION AND BELIEF I CERTIFY EXCLUSIVELY TO THE CLIENT THAT THIS SURVEY PLAN, MADE TO THE NORMAL STANDARD OF CARE, SUBSTANTIALLY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR LAND SURVEYOR STANDARDS.
- NO CERTIFICATION IS MADE TO THE EXISTENCE OR NONEXISTENCE OF HAZARDOUS SUBSTANCES, ENVIRONMENTALLY SENSITIVE AREAS, UNDERGROUND UTILITIES, UNDERGROUND STRUCTURES, ZONING REGULATIONS OR REAL ESTATE TITLE.
- DIG SAFE MUST BE CONTACTED AND CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND DIMENSIONS OF ALL UTILITIES PRIOR TO EXCAVATION.
- THE SOURCE OF BEARINGS FOR THIS LAND SURVEY WAS MAINE STATE PLANE GRID NORTH AMERICAN DATUM OF 1983 LOCATED IN THE WEST ZONE.
- ELEVATIONS AND CONTOURS DEPICTED HEREON BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 BEING MEAN SEA LEVEL.
- MIDDLE ROAD WAS REDEFINED BY CUMBERLAND COUNTY COMMISSIONERS IN JULY 1908. RECORDED IN PLAN BOOK 49, PAGE 3, BEING 60-FOOT WIDE.

GRADING NOTES:

- ADD 4-INCHES OF LOAM, SEED AND MULCH TO DISTURBED AREAS UNLESS OTHERWISE NOTED. PROVIDE EROSION CONTROL MESH ON ALL SLOPES 6:1 OR STEEPER AND ALONG DITCH CHANNELS.
- GRADE SURFACES TO DRAIN AWAY FROM BUILDING. PUDDLING OF WATER IN PAVED OR UNPAVED AREAS WILL NOT BE ACCEPTABLE, EXCEPT FOR AREAS DESIGNATED AS PONDS.
- MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. INSPECT WEEKLY AND AFTER EACH STORM AND REPAIR AS NEEDED. REMOVE SEDIMENTS FROM THE SITE. PLACE IN AREA OF LOW EROSION POTENTIAL AND STABILIZE WITH SEED AND MULCH.

DIG SAFE NOTES:

PRIOR TO EXCAVATION, VERIFY THE UNDERGROUND UTILITIES, PIPES, STRUCTURES AND FACILITIES. PROVIDE THE FOLLOWING MINIMUM MEASURES:

- PRE-MARK THE BOUNDARIES OF YOUR PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES, SO UTILITY CREWS KNOW WHERE TO MARK THEIR LINES.
- CALL DIG SAFE AT 811 AT LEAST THREE BUSINESS DAYS - BUT NO MORE THAN 30 CALENDAR DAYS - BEFORE STARTING WORK. DO NOT ASSUME SOMEONE ELSE WILL MAKE THE CALL.
- IF BLASTING, NOTIFY DIG SAFE AT LEAST ONE BUSINESS DAY IN ADVANCE.
- WAIT THREE BUSINESS DAYS FOR LINES TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES. NOTE THE COLOR OF THE MARKS AND THE TYPE OF UTILITIES THEY INDICATE. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
- CONTACT THE LANDOWNER AND OTHER "NON-MEMBER" UTILITIES (WATER, SEWER, GAS, ETC.) FOR THEM TO MARK THE LOCATIONS OF THEIR UNDERGROUND FACILITIES. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
- RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS OF INITIAL NOTIFICATION, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY OR ANY OTHER REASON.
- HAND DIG WITHIN 18 INCHES IN ANY DIRECTION OF ANY UNDERGROUND LINE UNTIL THE LINE IS EXPOSED. MECHANICAL METHODS MAY BE USED FOR INITIAL SITE PENETRATION, SUCH AS REMOVAL OF PAVEMENT OR ROCK.
- DIG SAFE REQUIREMENTS ARE IN ADDITION TO TOWN, CITY AND/OR STATE DOT STREET OPENING PERMIT REQUIREMENTS.
- FOR COMPLETE DIG SAFE REQUIREMENTS, CALL THE PUBLIC UTILITIES COMMISSION (PUC) OR VISIT THEIR WEBSITE.
- IF YOU DAMAGE, DISLOCATE OR DISTURB ANY UNDERGROUND UTILITY LINE, IMMEDIATELY NOTIFY THE AFFECTED UTILITY. IF DAMAGE CREATES SAFETY CONCERNS, CALL THE FIRE DEPARTMENT AND TAKE IMMEDIATE STEPS TO SAFEGUARD HEALTH AND PROPERTY.
- ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED OR IF LINES ARE IMPROPERLY MARKED, YOU MUST FILE AN INCIDENT REPORT WITH THE PUC FOR AN INCIDENT REPORT FORM VISIT WWW.STATE.ME.US/MPUC OR CALL THE PUC AT 1-800-452-4699.

TYPICAL ABBREVIATIONS:

ACOMP	ASPHALT COATED CMP	EA	EACH	OC	ON CENTER
ACP	ASBESTOS CEMENT PIPE	EAG	EXISTING GROUND OR GRADE	OD	OUTSIDE DIAMETER
AC	ACRE	ELEC	ELECTRIC	PC	POINT OF CURVE
AGG	AGGREGATE	EL	ELEVATION	PD	PERIMETER DRAIN
ALUM	ALUMINUM	ELB	ELBOW	PI	POINT OF INTERSECTION
APPD	APPROVED	EOP	EDGE OF PAVEMENT	PIV	POST INDICATOR VALVE
APPROX	APPROXIMATE	EQUIP	EQUIPMENT	PT	POINT OF TANGENT
ARMH	AIR RELEASE MANHOLE	EST	ESTIMATED	PERF	PERFORATED
ASB	ASBESTOS	EXC	EXCAVATE	PP	POWER POLE
ASP	ASPHALT	EXIST	EXISTING	PSI	POUNDS PER SQUARE INCH
AUTO	AUTOMATIC	FI	FIELD INLET	PVC	POLYVINYL CHLORIDE
AUX	AUXILIARY	FG	FINISH GRADE	PWMT	PAVEMENT
AVE	AVENUE	FIBRGL	FIBERGLASS	QTY	QUANTITY
AZ	AZIMUTH	FDM	FOUNDATION	RCP	REINFORCED CONCRETE PIPE
BCOMP	BITUMINOUS COATED CMP	FLEX	FLEXIBLE	ROW	RIGHT OF WAY
BM	BENCH MARK	FLG	FLANGE	RAD	RADIUS
BIT	BITUMINOUS	FLO	FLOOR	REQD	REQUIRED
BUILD	BUILDING	FPS	FEET PER SECOND	RT	RIGHT
BOT	BOTTOM	FT OR	FEET	RTE	ROUTE
BRG	BEARING	FT	FOOTING	S	SLOPE
BV	BALL VALVE	GA	GAUGE	SCH	SCHEDULE
CB	CATCH BASIN	GAL	GALLON	SF	SQUARE FEET
CEN	CENTER	GALV	GALVANIZED	SHT	SHEET
CEM LIN	CEMENT LINED	GPD	GALLONS PER DAY	SMH	SANITARY MANHOLE
CMP	CORRUGATED METAL PIPE	GPM	GALLONS PER MINUTE	ST	STREET
CO	CLEAN CUT	HQPE	HIGH DENSITY POLYETHYLENE	STA	STATION
COB	CUBIC FEET	HORIZ	HORIZONTAL	SY	SQUARE YARD
CFS	CUBIC FEET PER SECOND	HP	HORSEPOWER	TAN	TANGENT
CI	CAST IRON	HYD	HYDRANT	TDM	TOTAL DYNAMIC HEAD
CL	CLASS	ID	INSIDE DIAMETER	TEMP	TEMPORARY
CONC	CONCRETE	IN OR	INCHES	TYP	TYPICAL
CONST	CONSTRUCTION	INV	INVERT	UD	UNDERDRAIN
CONTR	CONTRACTOR	INV EL	INVERT ELEVATION	V	VOLTS
CTR	CURE STOP	LB	POUND	VA TEE	VALVE ANCHORING TEE
CJ	COPPER	LC	LEACHATE COLLECTION	VERT	VERTICAL
CY	CUBIC YARD	LD	LEAK DETECTION	WG	WATER GATE
D	DEGREE OF CURVE	LF	LINEAR FEET	W/O	WITH WITHOUT
DBL	DOUBLE	LOC	LOCATION	YD	YARD
DEG OR	DEGREE	LT	LEACHATE TRANSPORT		
DEPT	DEPARTMENT	MH	MANHOLE		
DI	DUCTILE IRON	MJ	MECHANICAL JOINT		
DIA OR Ø	DIAMETER	MON	MISCELLANEOUS MONUMENT		
DM	DIMENSION				
DIST	DISTANCE				
DN	DOWN				
DR	DRAIN				
DWG	DRAWING				
		NITC	NOT IN THIS CONTRACT		
		NTS	NOT TO SCALE		
		N/T	NOW OR FORMERLY		
		N#	NUMBER		

LEGEND

EXISTING	PROPOSED

TOWN OF CUMBERLAND MIDDLE ROAD IMPROVEMENTS CUMBERLAND, MAINE

GENERAL NOTES, LEGEND AND ABBREVIATIONS

SME

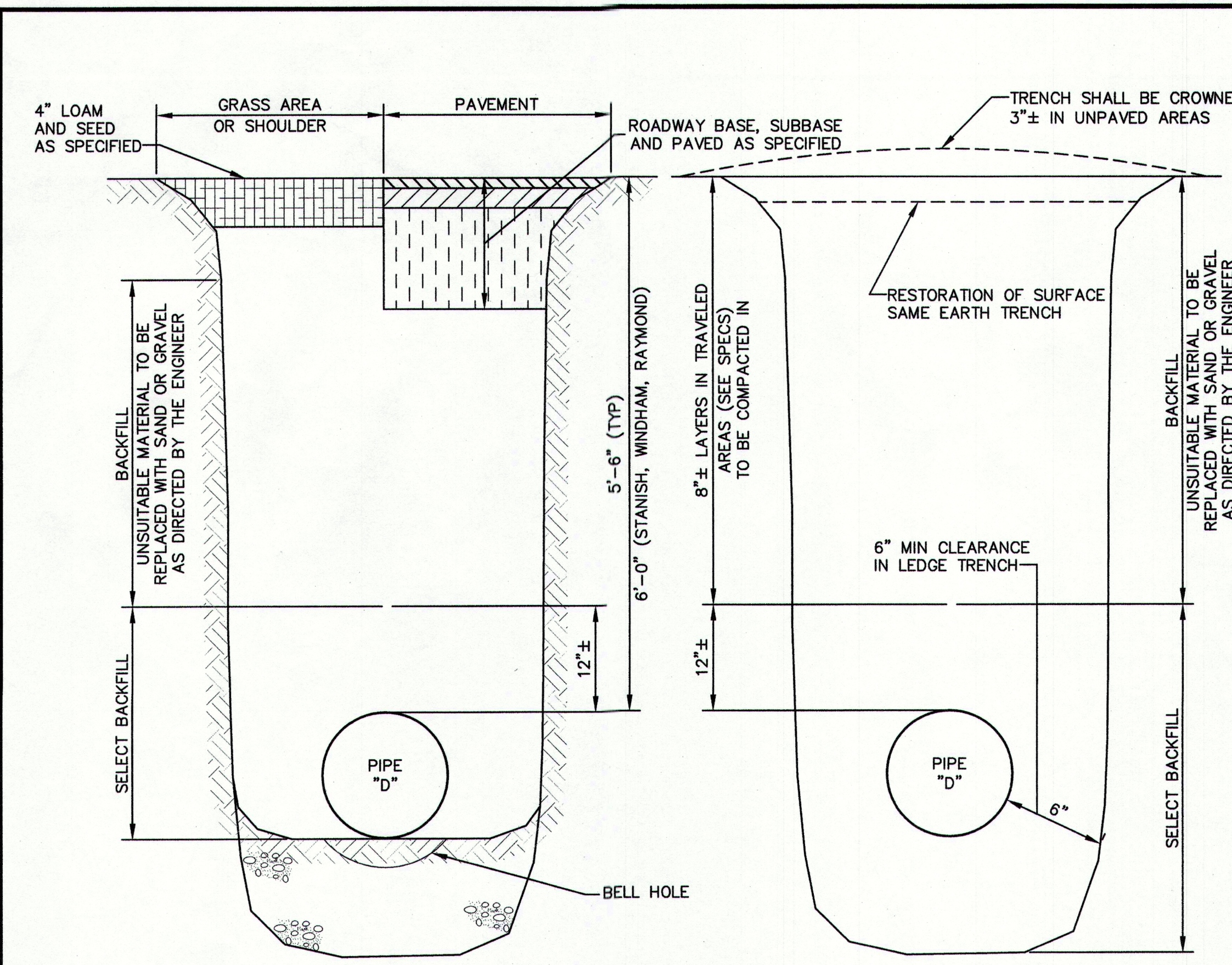
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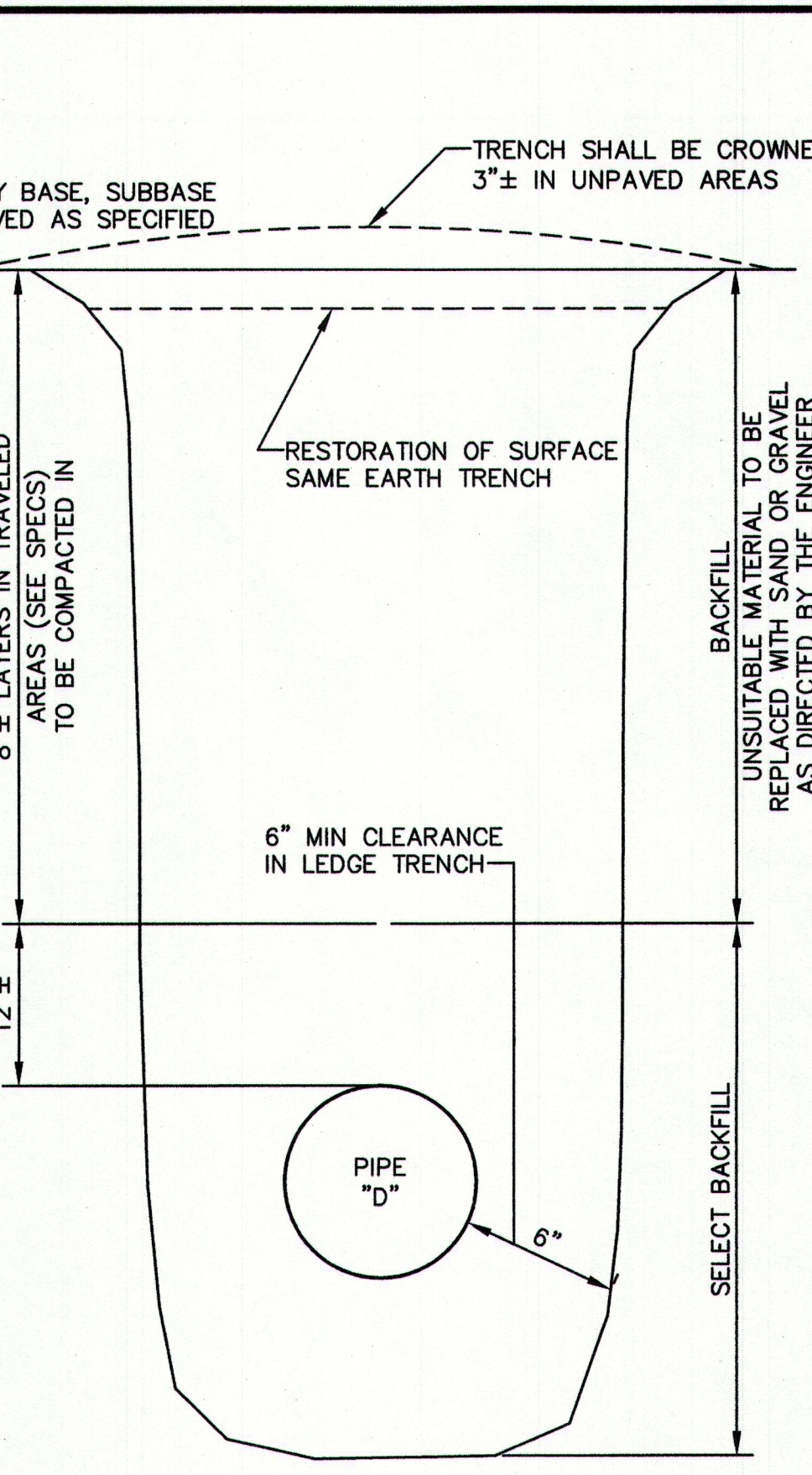
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DRAWN BY: SJM
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CHECKED BY:
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CTB: SME-STD

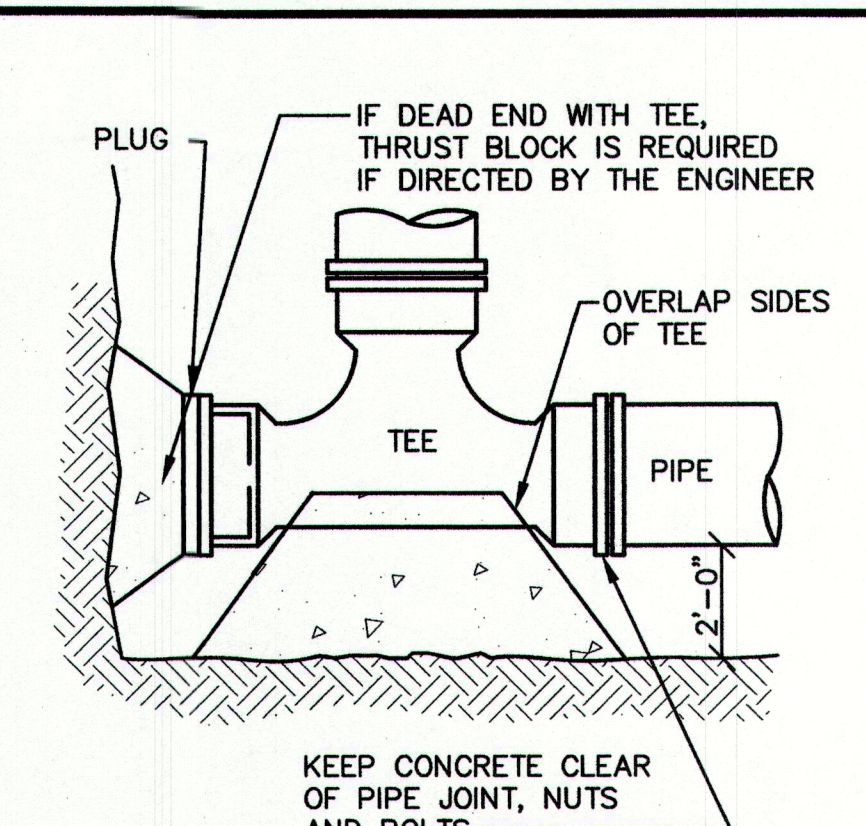
C-101



SECTION THRU EARTH TRENCH
NTS



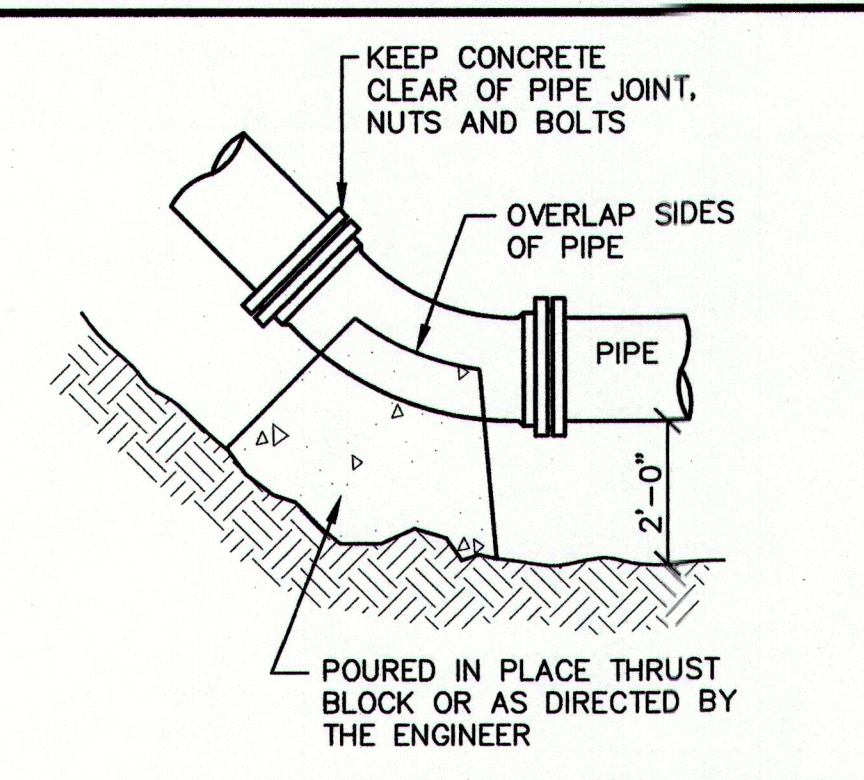
SECTION THRU LEDGE TRENCH
NTS



THRUST AT FITTINGS IN LBS. AT 100 LBS PER SQUARE INCH WATER PRESSURE

PIPE SIZE IN	90° ELBOW	45° ELBOW	VALVES, TEES AND DEAD ENDS
4"	2,600	1,420	1,850
6"	5,400	2,900	3,800
8"	9,300	5,000	6,500
10"	13,900	7,550	10,850
12"	19,700	10,800	13,900

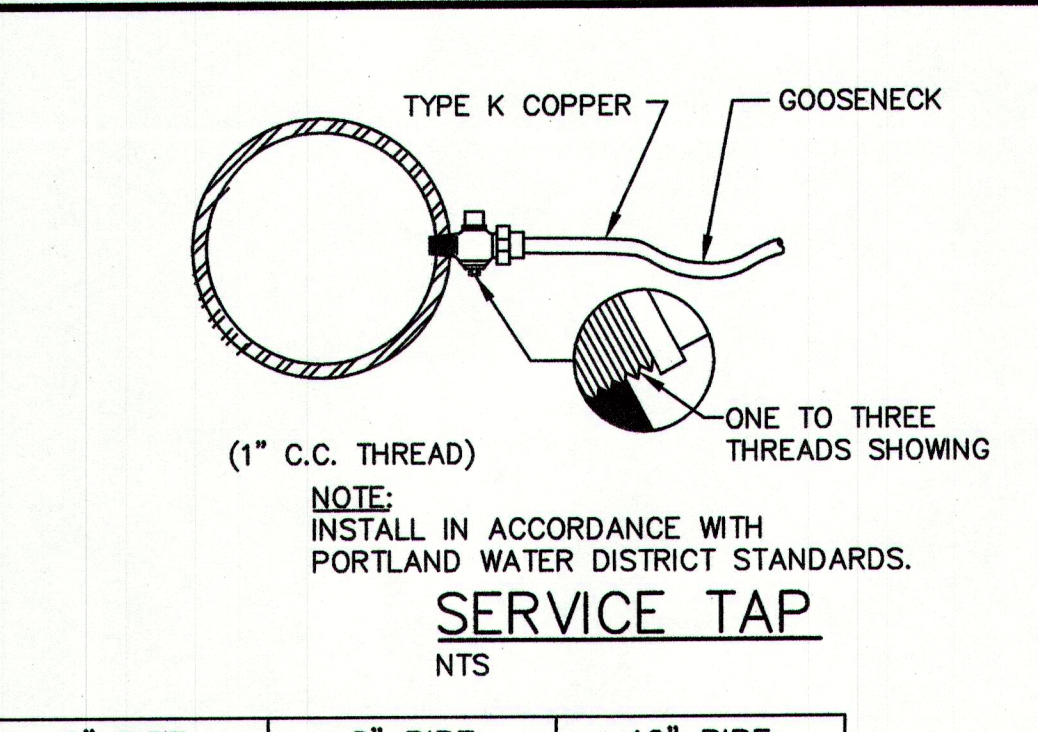
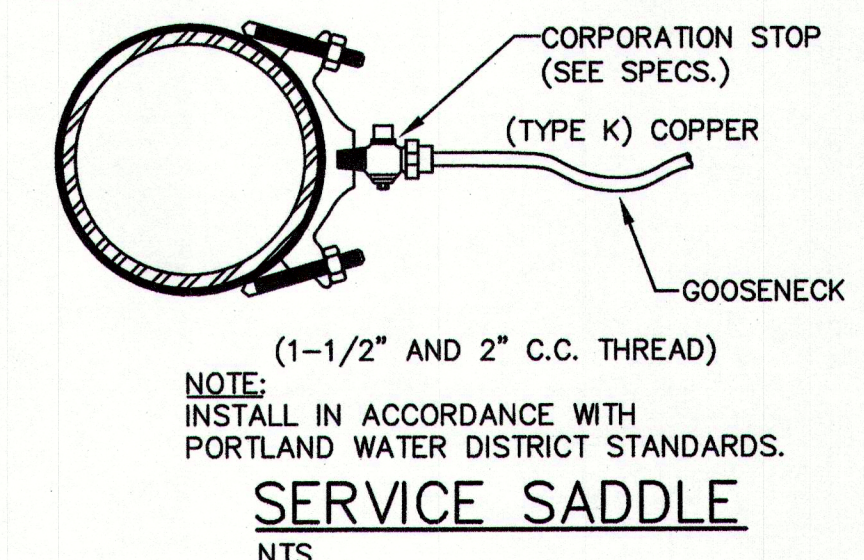
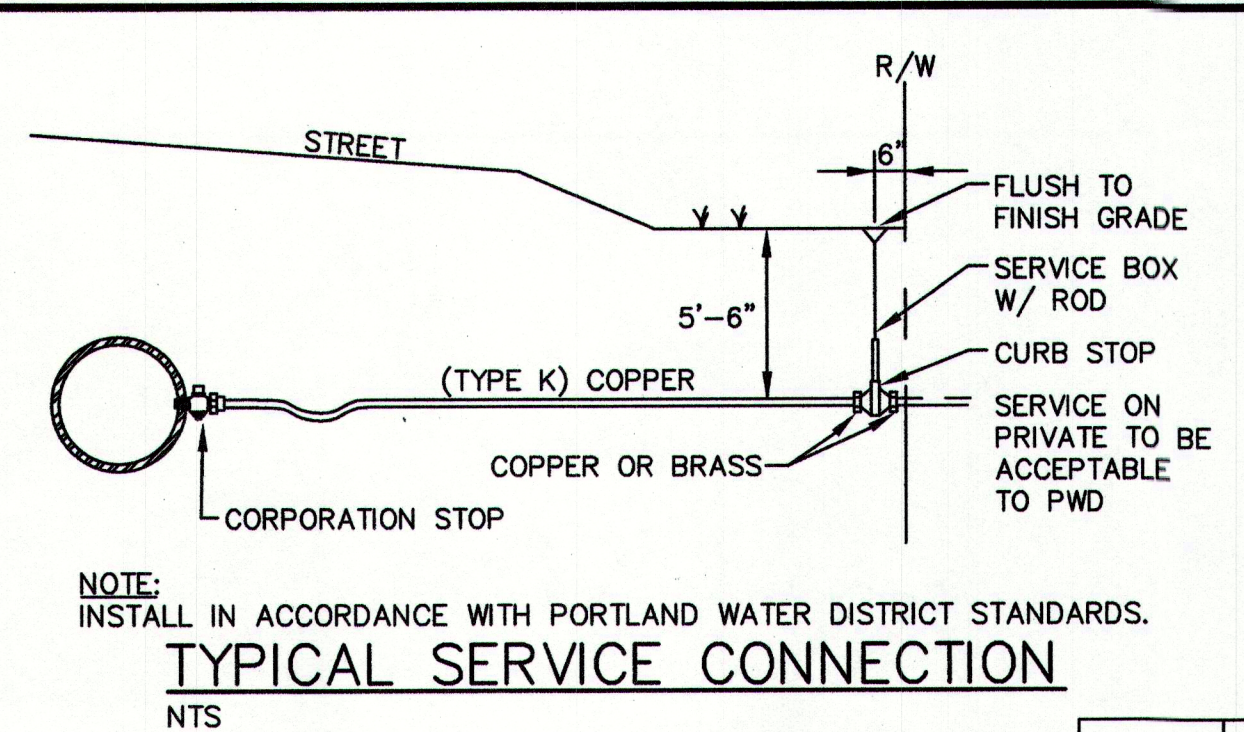
THRUST BLOCK DETAIL
NTS



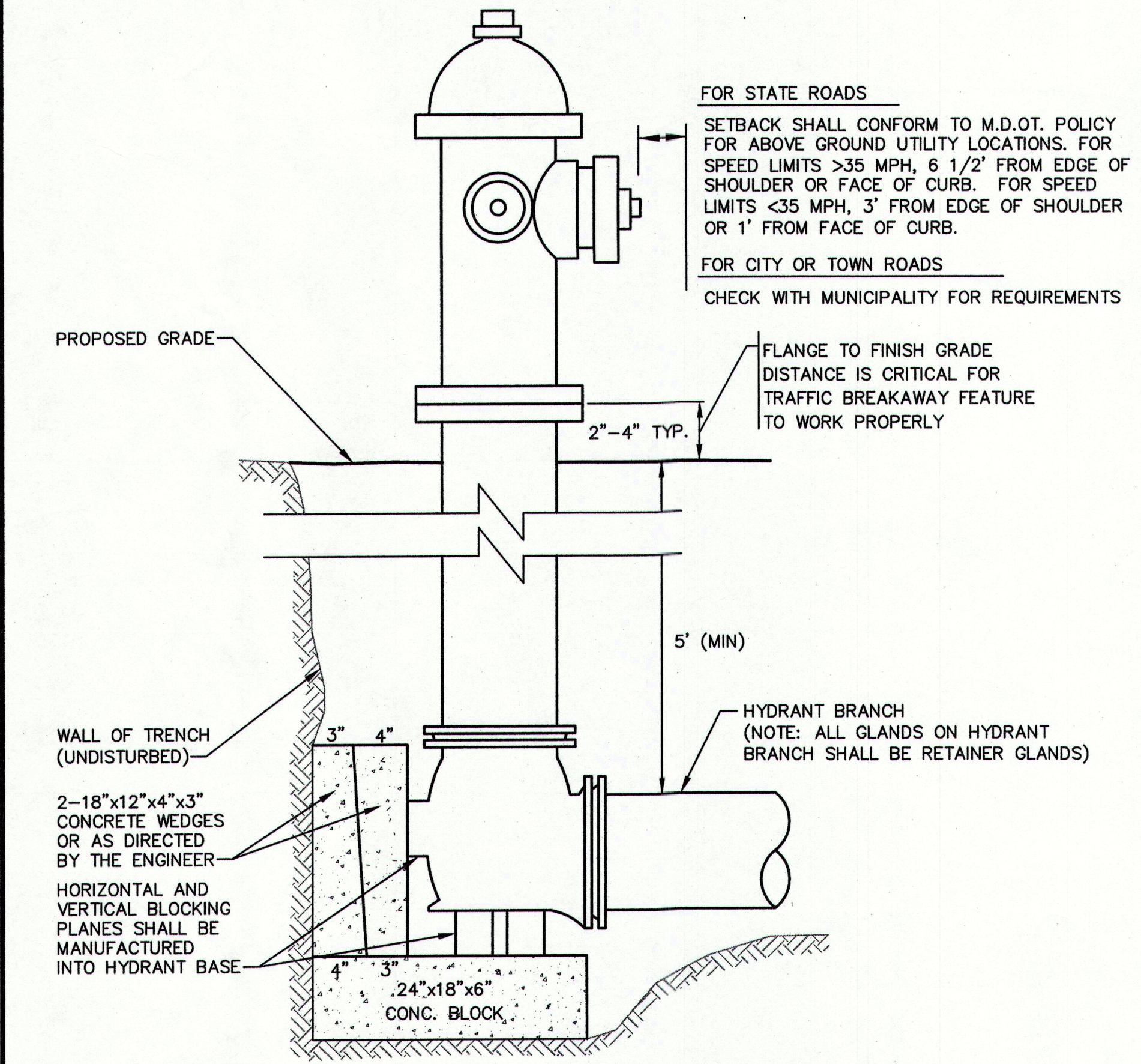
MINIMUM THRUST BLOCK BEARING AREA REQ'D AGAINST UNDISTURBED MATERIAL (SQFT)

PIPE SIZE	90° BEND	TEE	PLUG	45° BEND	22 1/2° AND SMALLER
16"	28	22	20	15	8
12"	16	14	11	9	4
8"	7	6	5	4	2
6"	5	4	3	2	2

1. SIZE OF THRUST BLOCK MAY BE INCREASED BY THE ENGINEER TO MEET SOIL CONDITIONS FOUND DURING CONSTRUCTION.
2. FOR PIPES 6" OR SMALLER USE THRUST BLOCK FOR 6" PIPE.

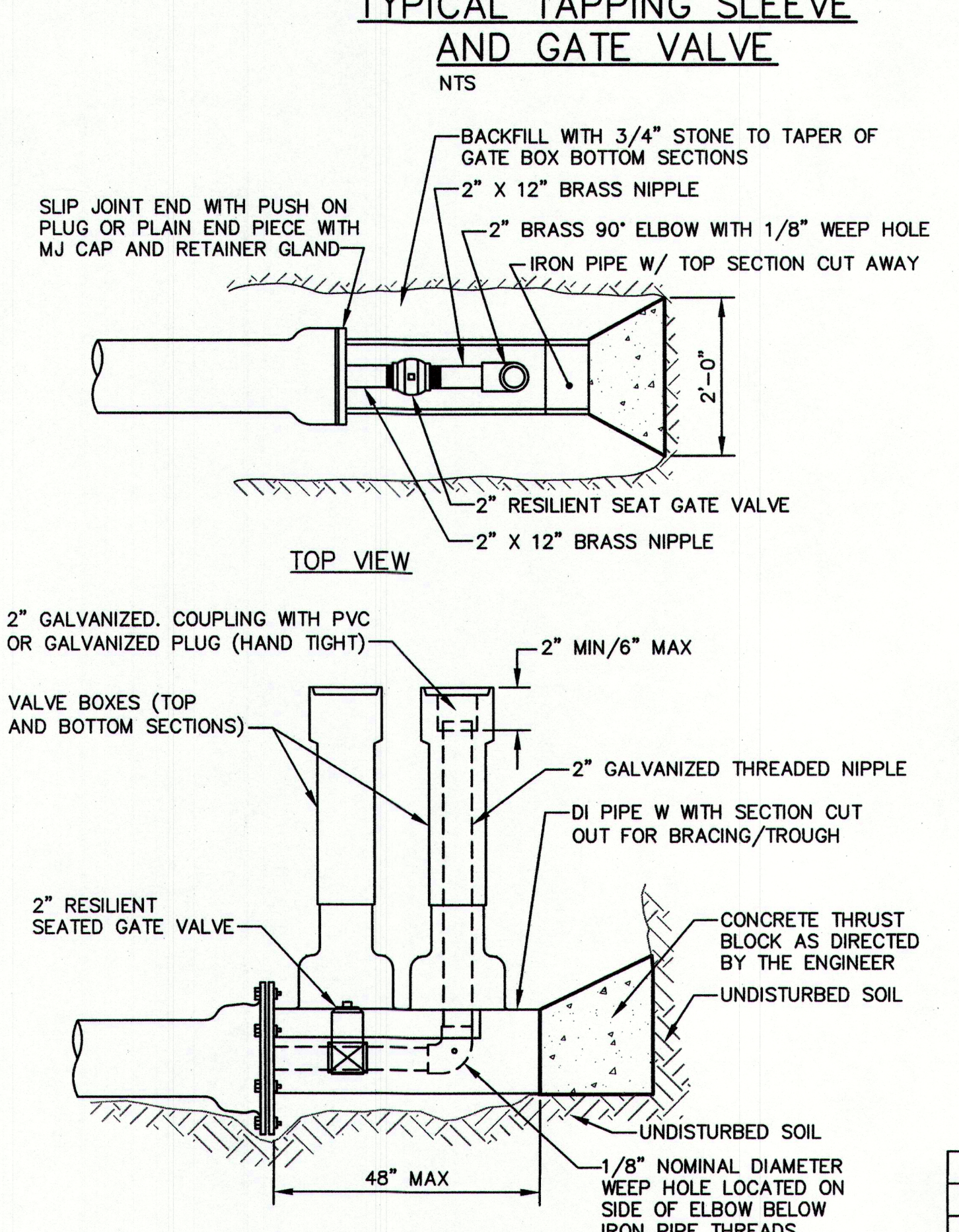


H	6" PIPE		8" PIPE		12" PIPE	
	D	L	D	L	D	L
12"	1' 6-1/2"	0' 10-1/2"	1' 7-1/2"	0' 9-1/2"	1' 11-1/2"	0' 5-1/2"
13"	1' 7-1/2"	0' 11-7/8"	1' 8-1/2"	0' 10-7/8"	2' 0-1/2"	0' 6-7/8"
14"	1' 8-1/2"	1' 1-5/16"	1' 9-1/2"	1' 0-5/16"	2' 1-1/2"	0' 8-5/16"
15"	1' 9-1/2"	1' 2-11/16"	1' 10-1/2"	1' 1-11/16"	2' 2-1/2"	0' 9-11/16"
16"	2' 0-1/2"	1' 3-1/8"	2' 1-1/2"	1' 2-1/8"	2' 3-1/2"	0' 10-1/8"
17"	2' 1-1/2"	1' 4-1/8"	2' 2-1/2"	1' 3-1/8"	2' 4-1/2"	1' 0-9/16"
18"	2' 2-1/2"	1' 5-9/16"	2' 3-1/2"	1' 4-9/16"	2' 5-1/2"	1' 1-15/16"
19"	2' 3-1/2"	1' 6-15/16"	2' 4-1/2"	1' 5-15/16"	2' 6-1/2"	1' 2-3/8"
20"	2' 4-1/2"	1' 7-3/8"	2' 5-1/2"	1' 6-3/8"	2' 7-1/2"	1' 3-3/8"
21"	2' 5-1/2"	1' 8-13/16"	2' 6-1/2"	1' 7-13/16"	2' 8-1/2"	1' 4-13/16"
22"	2' 6-1/2"	1' 9-13/16"	2' 7-1/2"	1' 8-13/16"	2' 9-1/2"	1' 5-13/16"
23"	2' 7-1/2"	1' 10-13/16"	2' 8-1/2"	1' 9-13/16"	2' 10-1/2"	1' 6-13/16"
24"	2' 8-1/2"	1' 11-13/16"	2' 9-1/2"	1' 10-13/16"	2' 11-1/2"	1' 7-13/16"
25"	2' 9-1/2"	1' 12-13/16"	2' 10-1/2"	1' 11-13/16"	2' 12-1/2"	1' 8-13/16"
26"	2' 10-1/2"	1' 13-13/16"	2' 11-1/2"	1' 12-13/16"	2' 13-1/2"	1' 9-13/16"
27"	2' 11-1/2"	1' 14-13/16"	2' 12-1/2"	1' 13-13/16"	2' 14-1/2"	1' 10-13/16"
28"	2' 12-1/2"	1' 15-13/16"	2' 13-1/2"	1' 14-13/16"	2' 15-1/2"	1' 11-13/16"
29"	2' 13-1/2"	1' 16-13/16"	2' 14-1/2"	1' 15-13/16"	2' 16-1/2"	1' 12-13/16"
30"	2' 14-1/2"	1' 17-13/16"	2' 15-1/2"	1' 16-13/16"	2' 17-1/2"	1' 13-13/16"
31"	2' 15-1/2"	1' 18-13/16"	2' 16-1/2"	1' 17-13/16"	2' 18-1/2"	1' 14-13/16"
32"	2' 16-1/2"	1' 19-13/16"	2' 17-1/2"	1' 18-13/16"	2' 19-1/2"	1' 15-13/16"
33"	2' 17-1/2"	1' 20-13/16"	2' 18-1/2"	1' 19-13/16"	2' 20-1/2"	1' 16-13/16"
34"	2' 18-1/2"	1' 21-13/16"	2' 19-1/2"	1' 20-13/16"	2' 21-1/2"	1' 17-13/16"
35"	2' 19-1/2"	1' 22-13/16"	2' 20-1/2"	1' 21-13/16"	2' 22-1/2"	1' 18-13/16"
36"	2' 20-1/2"	1' 23-13/16"	2' 21-1/2"	1' 22-13/16"	2' 23-1/2"	1' 19-13/16"
37"	2' 21-1/2"	1' 24-13/16"	2' 22-1/2"	1' 23-13/16"	2' 24-1/2"	1' 20-13/16"
38"	2' 22-1/2"	1' 25-13/16"	2' 23-1/2"	1' 24-13/16"	2' 25-1/2"	1' 21-13/16"
39"	2' 23-1/2"	1' 26-13/16"	2' 24-1/2"	1' 25-13/16"	2' 26-1/2"	1' 22-13/16"
40"	2' 24-1/2"	1' 27-13/16"	2' 25-1/2"	1' 26-13/16"	2' 27-1/2"	1' 23-13/16"
41"	2' 25-1/2"	1' 28-13/16"	2' 26-1/2"	1' 27-13/16"	2' 28-1/2"	1' 24-13/16"
42"	2' 26-1/2"	1' 29-13/16"	2' 27-1/2"	1' 28-13/16"	2' 29-1/2"	1' 25-13/16"
43"	2' 27-1/2"	1' 30-13/16"	2' 28-1/2"	1' 29-13/16"	2' 30-1/2"	1' 26-13/16"
44"	2' 28-1/2"	1' 31-13/16"	2' 29-1/2"	1' 30-13/16"	2' 31-1/2"	1' 27-13/16"
45"	2' 29-1/2"	1' 32-13/16"	2' 30-1/2"	1' 31-13/16"	2' 32-1/2"	1' 28-13/16"
46"	2' 30-1/2"	1' 33-13/16"	2' 31-1/2"	1' 32-13/16"	2' 33-1/2"	1' 29-13/16"
47"	2' 31-1/2"	1' 34-13/16"	2' 32-1/2"	1' 33-13/16"	2' 34-1/2"	1' 30-13/16"
48"	2' 32-1/2"	1' 35-13/16"	2' 33-1/2"	1' 34-13/16"	2' 35-1/2"	1' 31-13/16"
49"	2' 33-1/2"	1' 36-13/16"	2' 34-1/2"	1' 35-13/16"	2' 36-1/2"	1' 32-13/16"
50"	2' 34-1/2"	1' 37-13/16"	2' 35-1/2"	1' 36-13/16"	2' 37-1/2"	1' 33-13/16"
51"	2' 35-1/2"	1' 38-13/16"	2' 36-1/2"	1' 37-13/16"	2' 38-1/2"	1' 34-13/16"
52"	2' 36-1/2"	1' 39-13/16"	2' 37-1/2"	1' 38-13/16"	2' 39-1/2"	1' 35-13/16"
53"	2' 37-1/2"	1' 40-13/16"	2' 38-1/2"	1' 39-13/16"	2' 40-1/2"	1' 36-13/16"
54"	2' 38-1/2"	1' 41-13/16"	2' 39-1/2"	1' 40-13/16"	2' 41-1/2"	1' 37-13/16"
55"	2' 39-1/2"	1' 42-13/16"	2' 40-1/2"	1' 41-13/16"	2' 42-1/2"	1' 38-13/16"



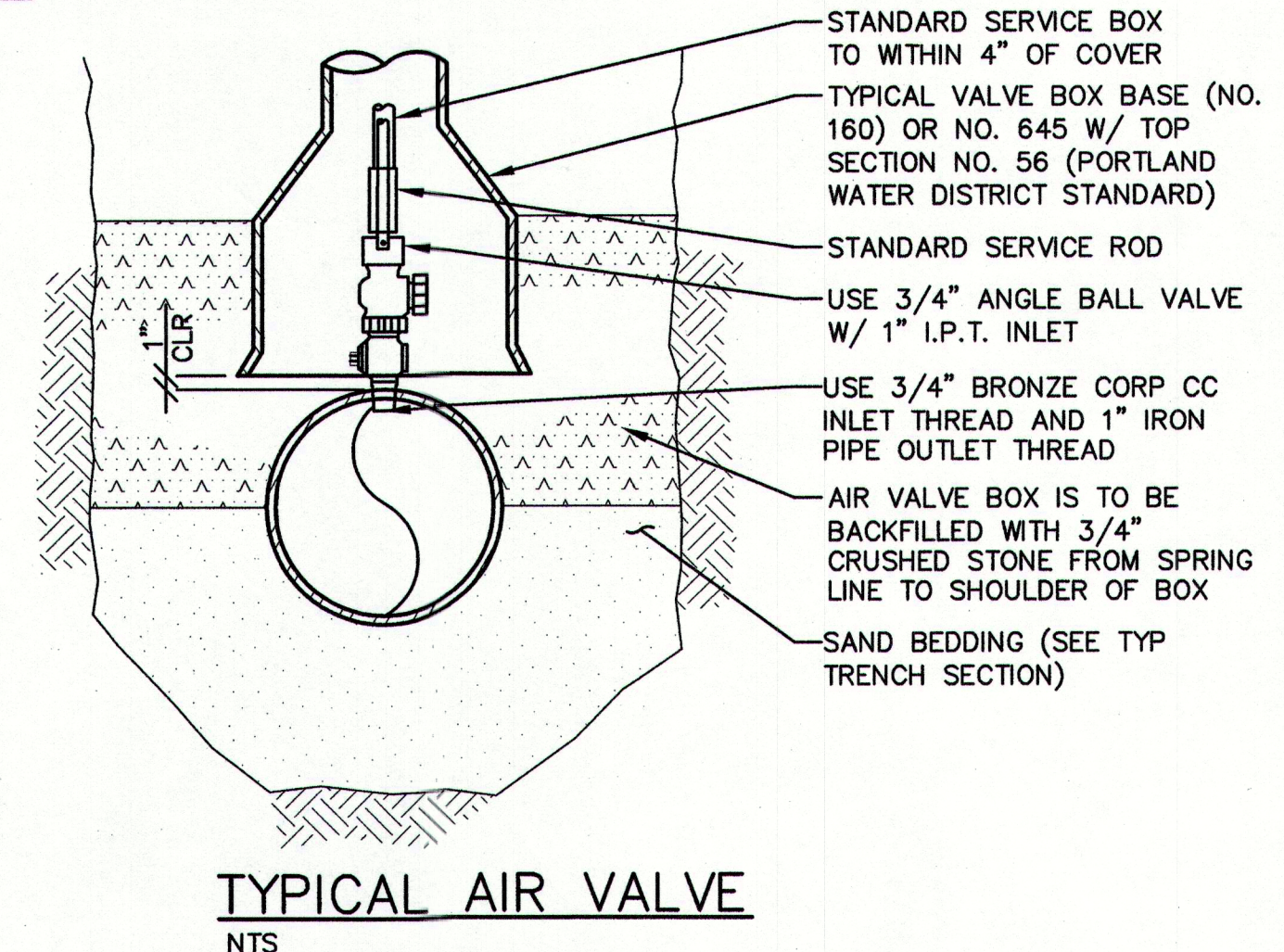
- NOTES:
1. INSTALL IN ACCORDANCE WITH PORTLAND WATER DISTRICT STANDARDS.
2. ALL HYDRANT INSTALLATIONS SHALL CONSIST OF 12"x6" SWIVEL TEE, 6" GATE VALVE, 6" DI PIPE AND HYDRANT.

TYPICAL HYDRANT INSTALLATION
NTS

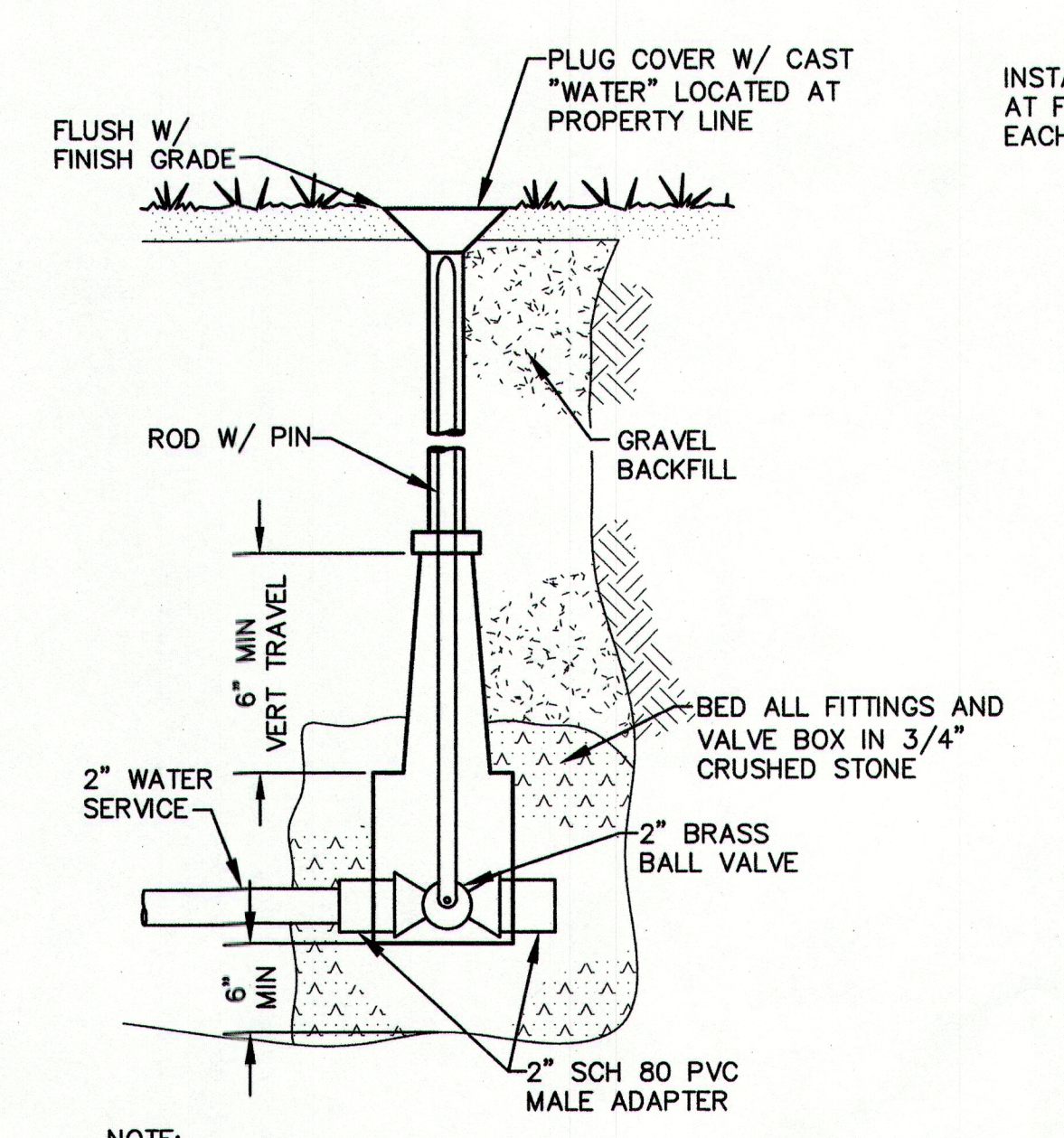


NOTE: INSTALL IN ACCORDANCE WITH PORTLAND WATER DISTRICT STANDARDS.

STANDARD 2" BLOW OFF
NTS

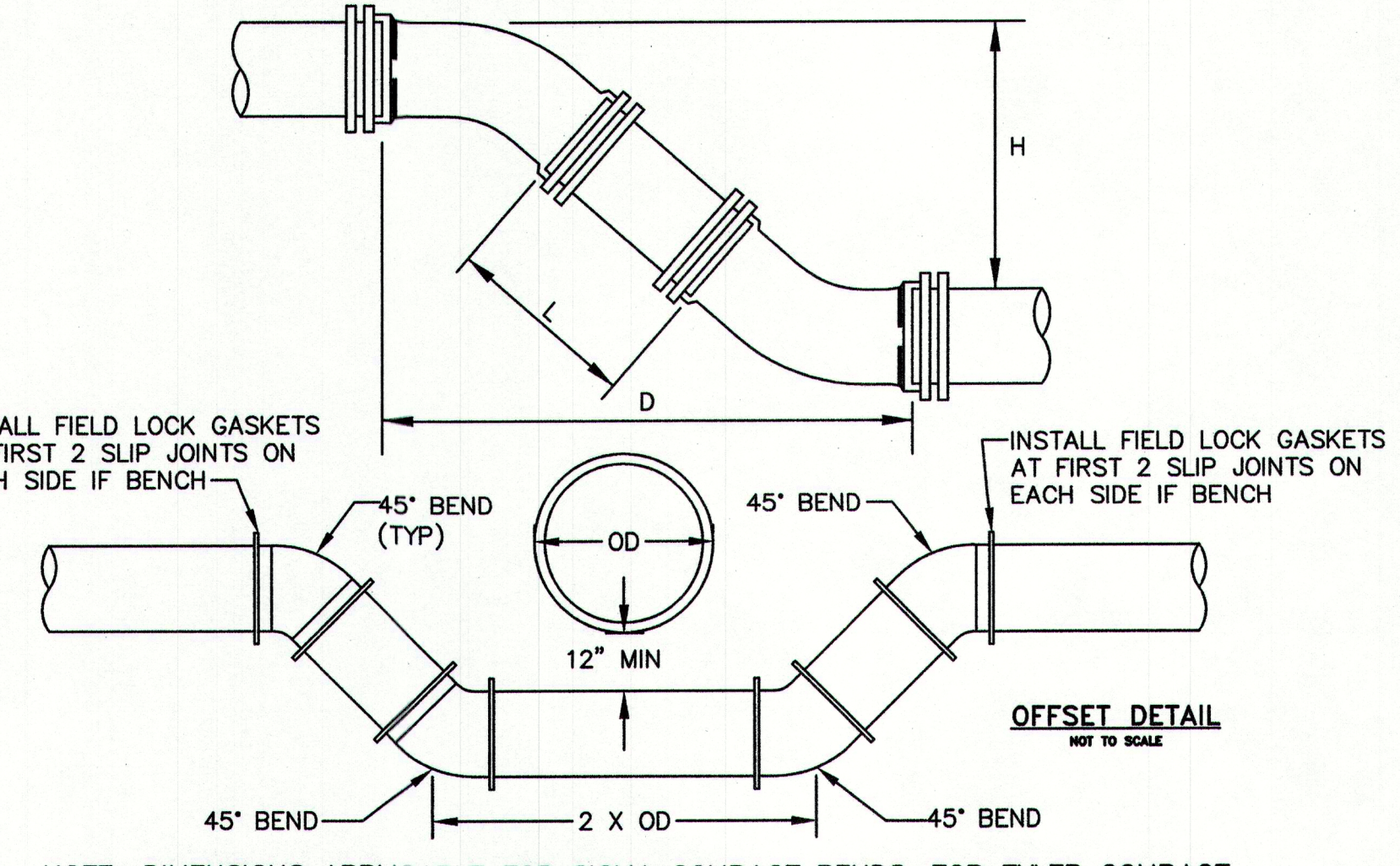


TYPICAL AIR VALVE
NTS



NOTE: INSTALL IN ACCORDANCE WITH PORTLAND WATER DISTRICT STANDARDS.

WATER MAIN CURB STOP
NTS

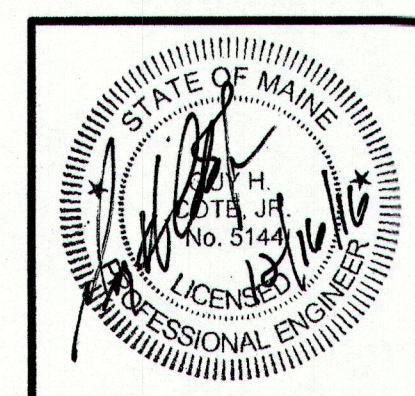


NOTE: DIMENSIONS APPLICABLE FOR SIGMA COMPACT BENDS. FOR TYLER COMPACT BENDS, ADD 1/2" TO "D" DIMENSION AND SUBTRACT 1/2" FROM "L" DIMENSION. FOR OTHER FITTINGS REFER TO MANUFACTURER'S RECOMMENDATIONS.

TYPICAL MAIN OFFSET
NTS

WATER MAIN NOTES:

- IF ANY CONFLICT EXISTS BETWEEN THESE DETAILS AND THOSE PUBLISHED BY THE PORTLAND WATER DISTRICT, THAN THE PORTLAND WATER DISTRICT DETAILS SHALL GOVERN.
- GENERAL LOCATION AND NUMBER OF SERVICE CONNECTIONS SHOWN ON PLANS. HOWEVER, CONTRACTOR SHALL COORDINATE WITH LAND OWNER AND ENGINEER TO FIELD DETERMINE EXACT LOCATIONS.



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

DETAILS AND SECTIONS

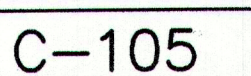
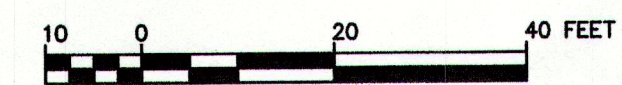
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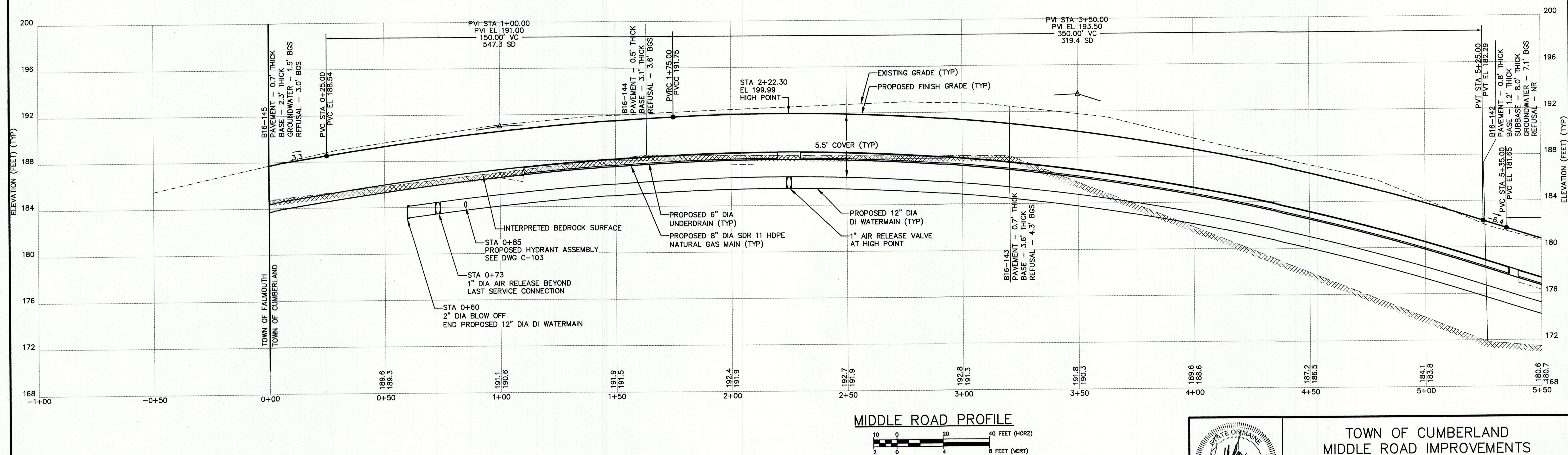
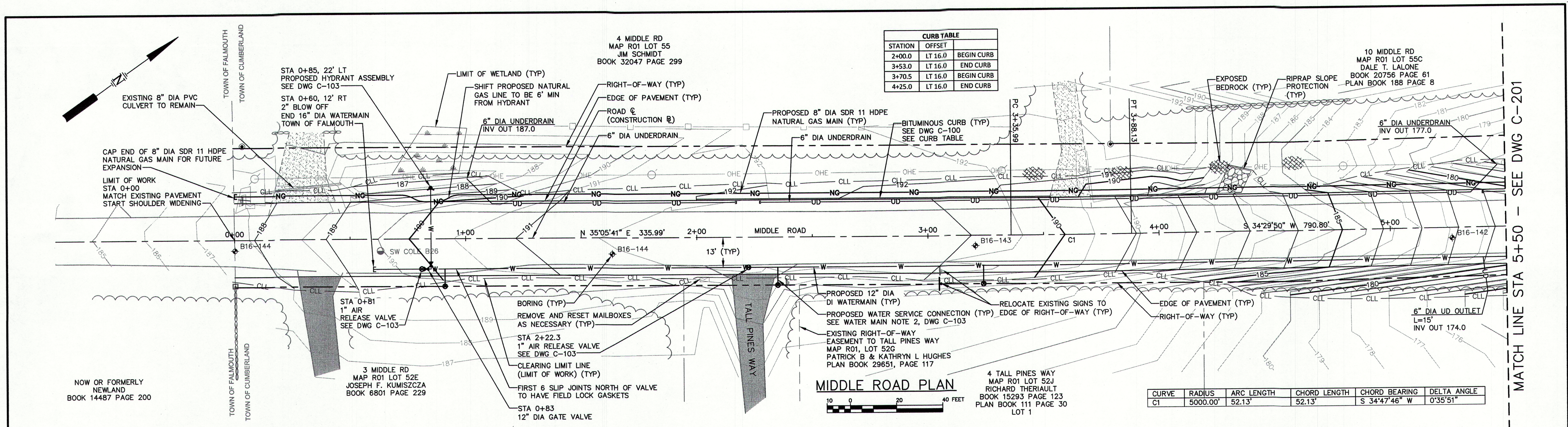
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CHECKED BY: JMC
LMN: NONE
CTB: SME-STD
C-103

JOB NO. 16047.00 DWG FILE DETAILS

REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



	JCM	12/2016	ISSUED FOR BID
REV.	BY	DATE	STATUS



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID
2	JCM	12/2016	ISSUED FOR BID
3	JCM	12/2016	ISSUED FOR BID
4	JCM	12/2016	ISSUED FOR BID
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8	JCM	12/2016	ISSUED FOR BID
9	JCM	12/2016	ISSUED FOR BID
10	JCM	12/2016	ISSUED FOR BID

TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

MIDDLE ROAD PLAN AND PROFILE
STA 0+00 TO STA 5+50

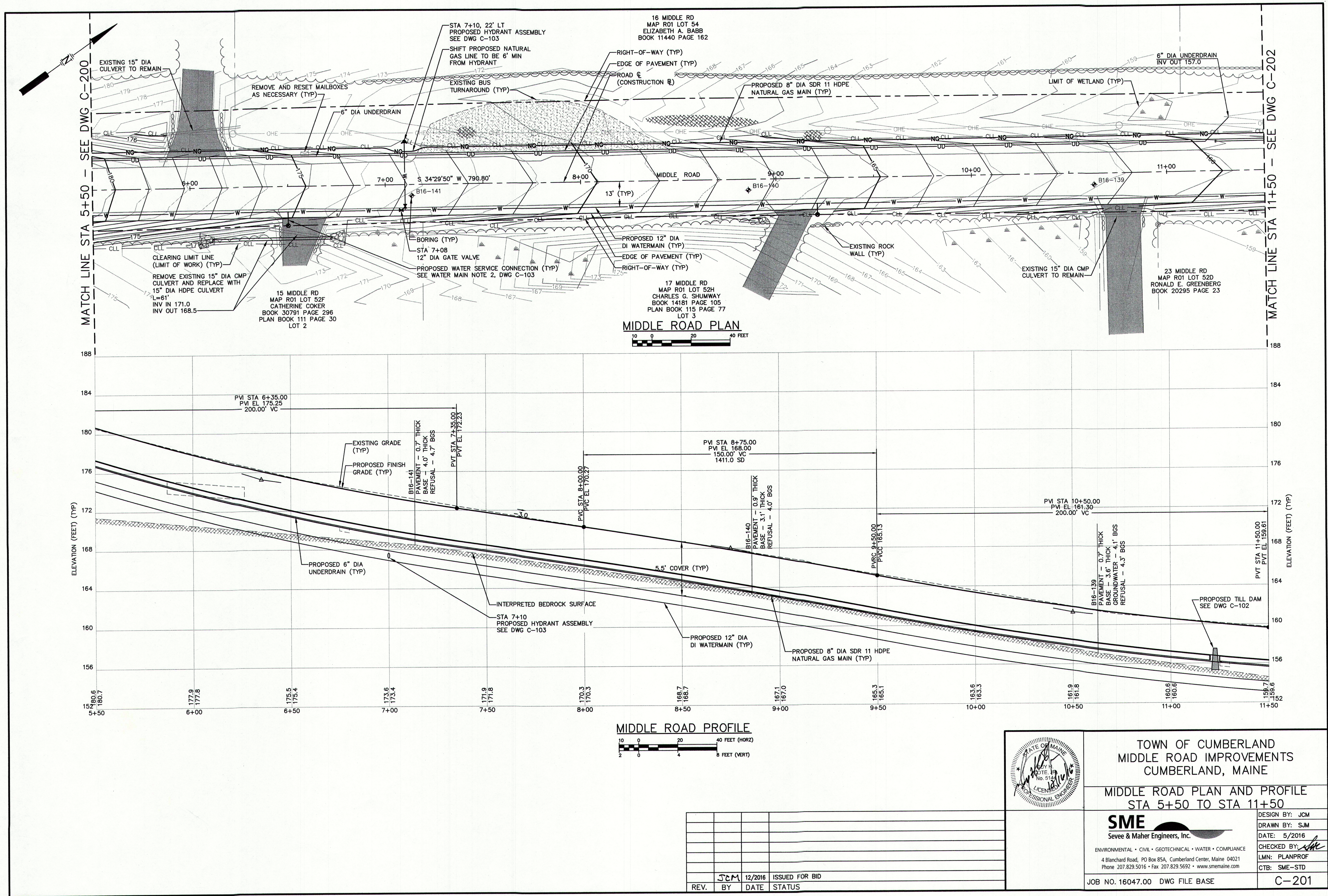
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DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: [Signature]
LMN: PLANPROF
CTB: SME-STD

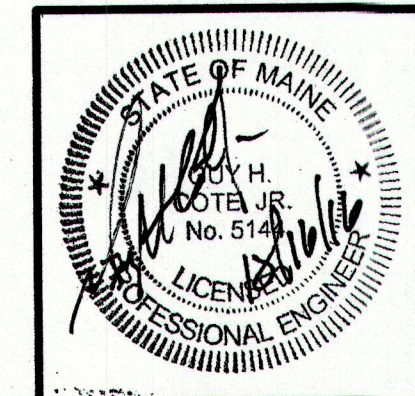
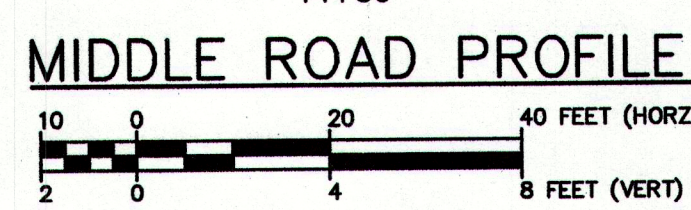
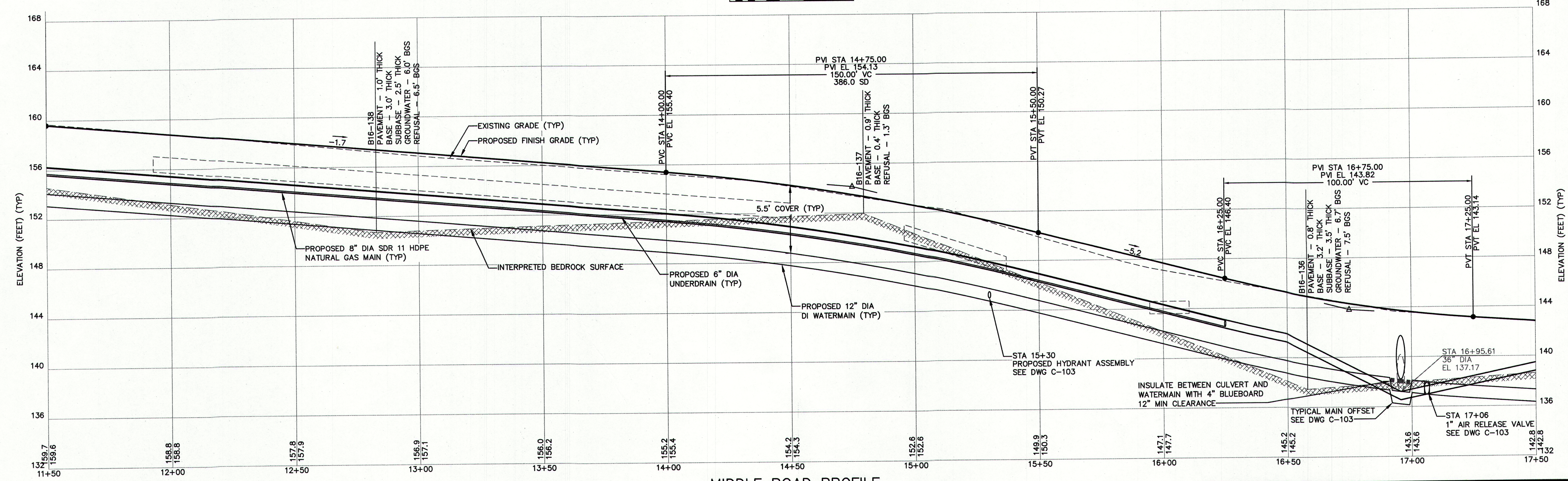
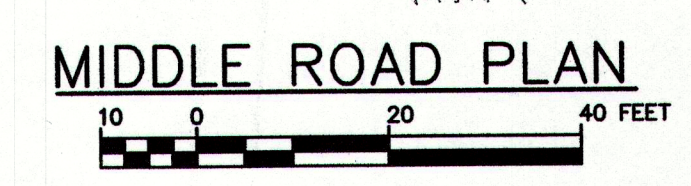
C-200



MATCH LINE STA 11+50 - SEE DWG C-201

MATCH LINE STA 17+50 - SEE DWG C-203

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C2	5000.00'	56.31'	56.31'	N 34°10'29" E	0°38'43"
C3	7000.00'	142.09'	142.09'	N 34°26'01" E	1°09'47"
C4	10000.00'	123.92'	123.92'	N 34°39'36" E	0°42'36"



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

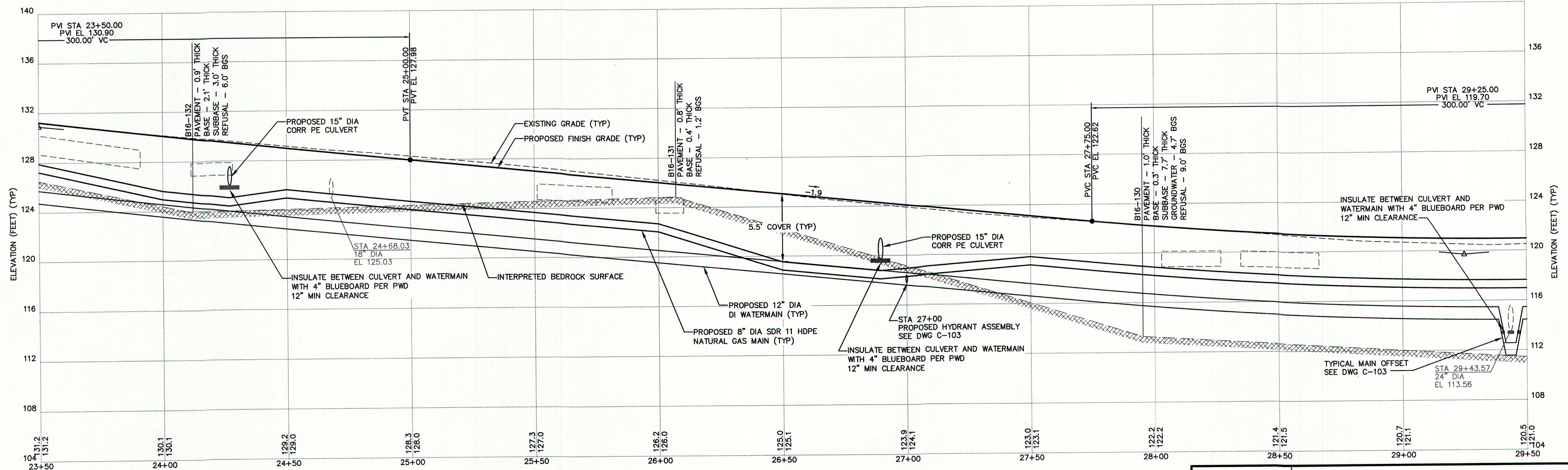
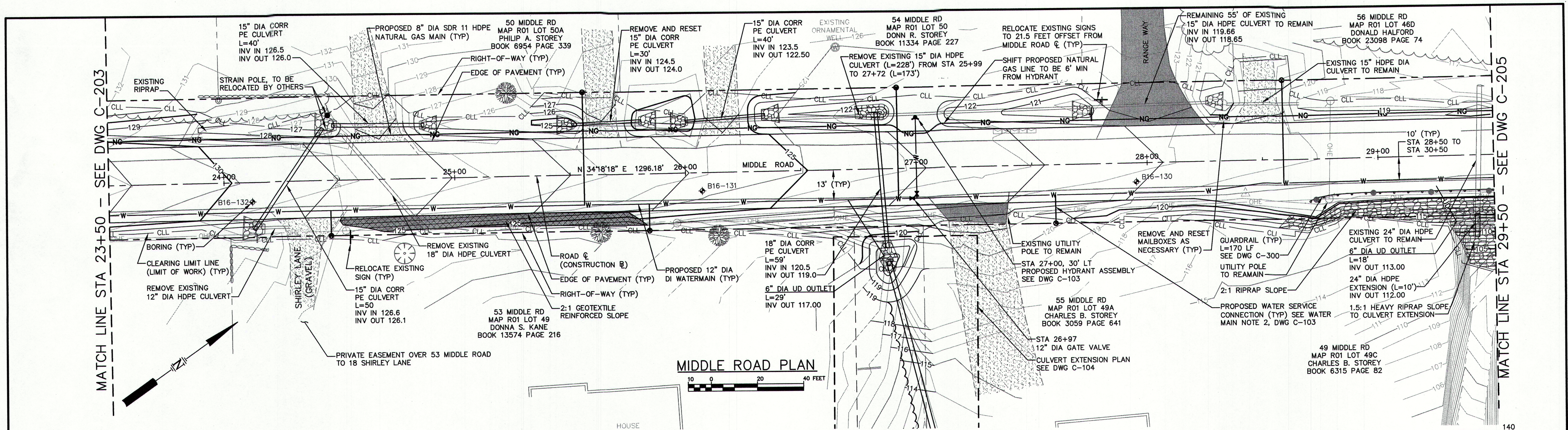
MIDDLE ROAD PLAN AND PROFILE
STA 11+50 TO STA 17+50

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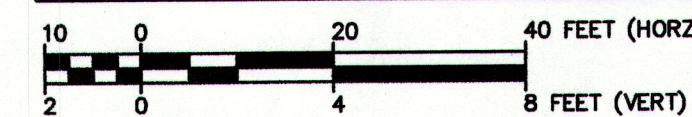
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DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: [Signature]
LMN: PLANPROF
CTB: SME-STG
C-202

REV.	BY	DATE	STATUS
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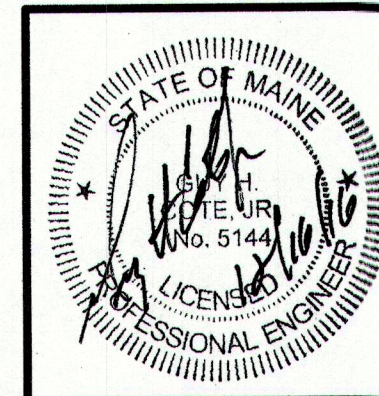
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MIDDLE ROAD PROFILE



REV.	BY	DATE	STATUS
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2	JCM	12/2016	ISSUED FOR BID
3	JCM	12/2016	ISSUED FOR BID
4	JCM	12/2016	ISSUED FOR BID
5	JCM	12/2016	ISSUED FOR BID
6	JCM	12/2016	ISSUED FOR BID
7	JCM	12/2016	ISSUED FOR BID
8	JCM	12/2016	ISSUED FOR BID
9	JCM	12/2016	ISSUED FOR BID
10	JCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

MIDDLE ROAD PLAN AND PROFILE
STA 23+50 TO STA 29+50

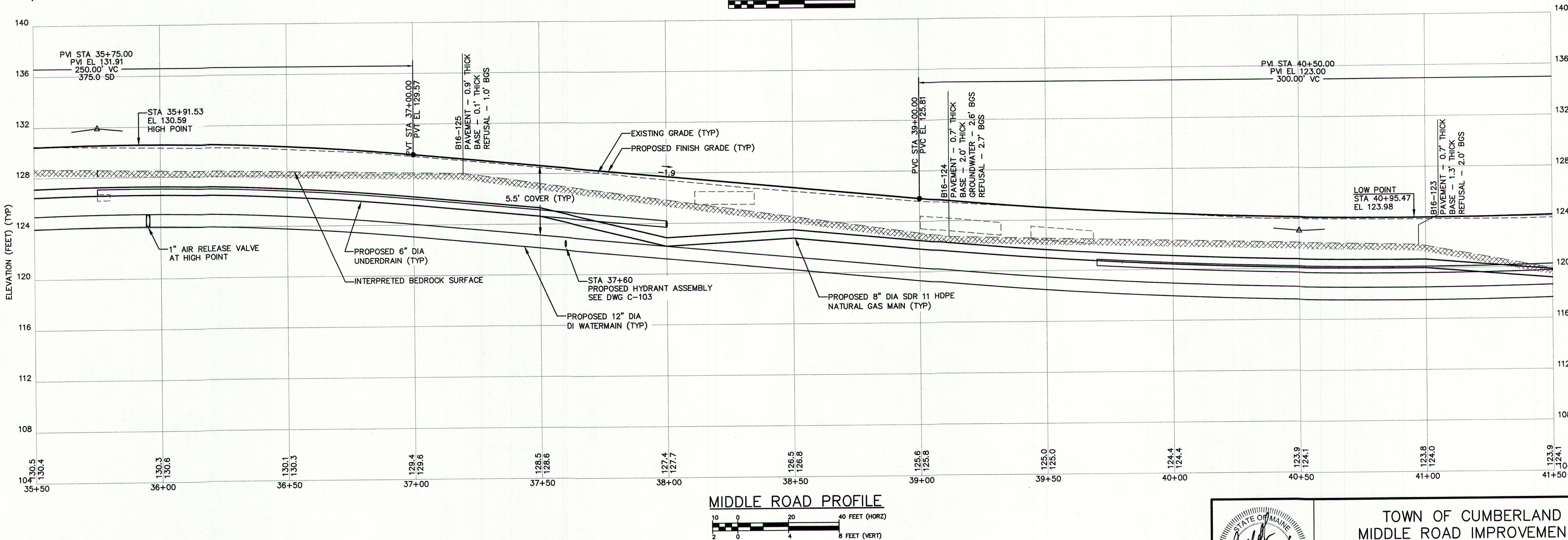
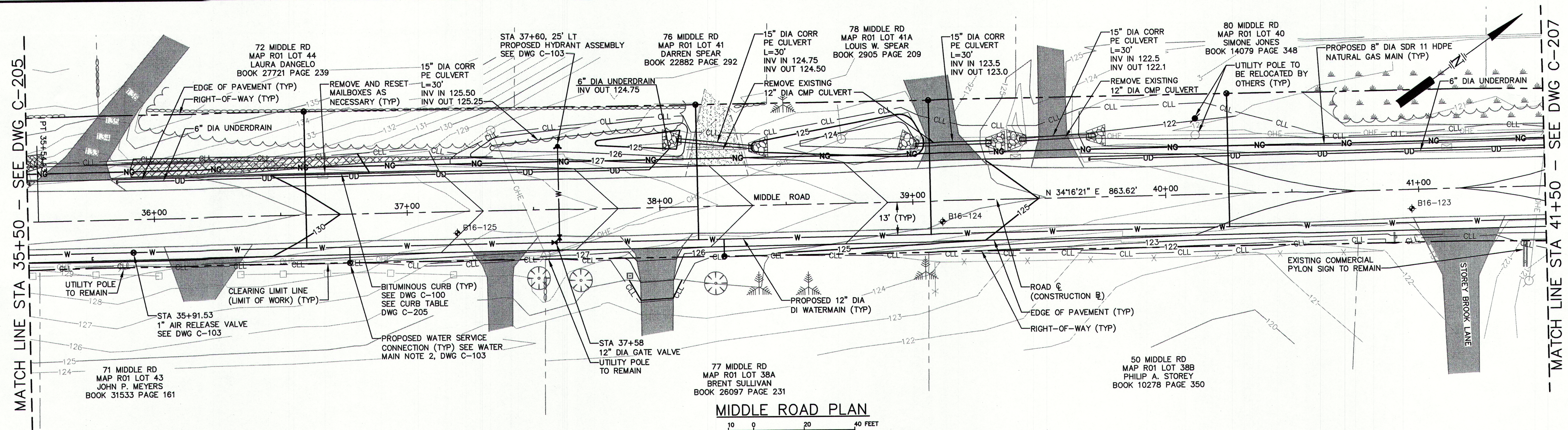
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C-204



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID

TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

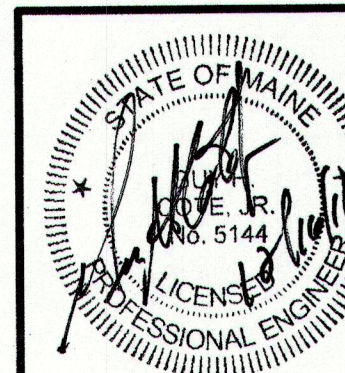
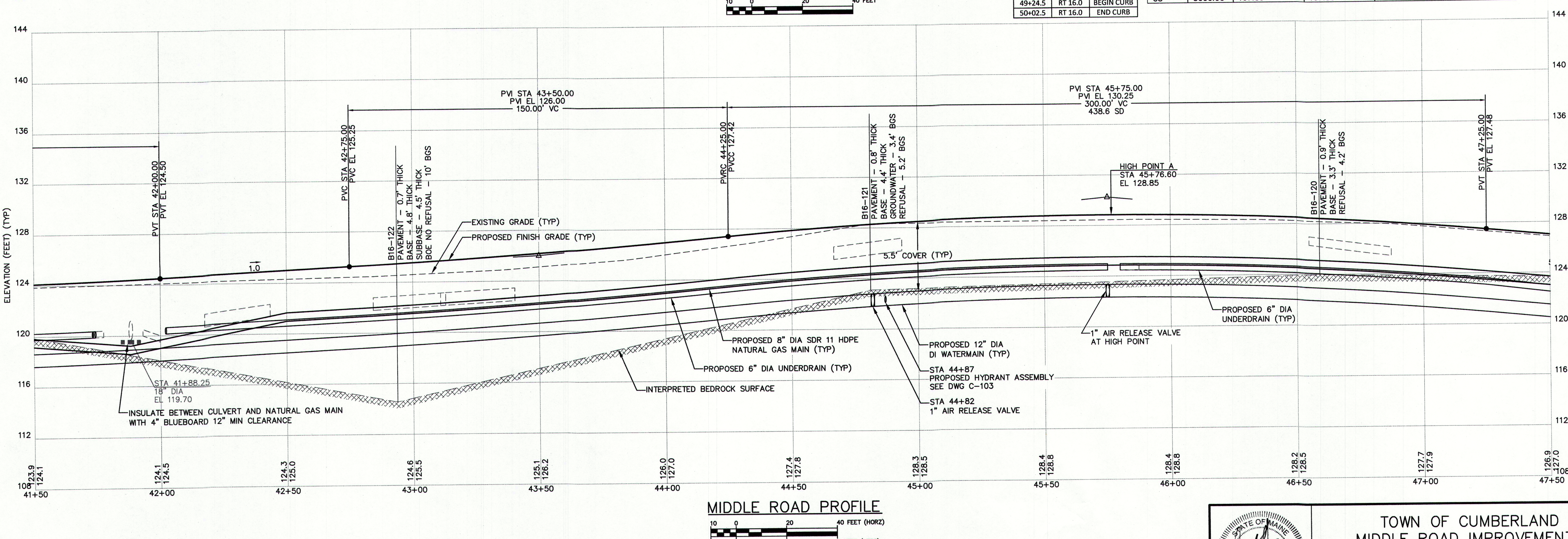
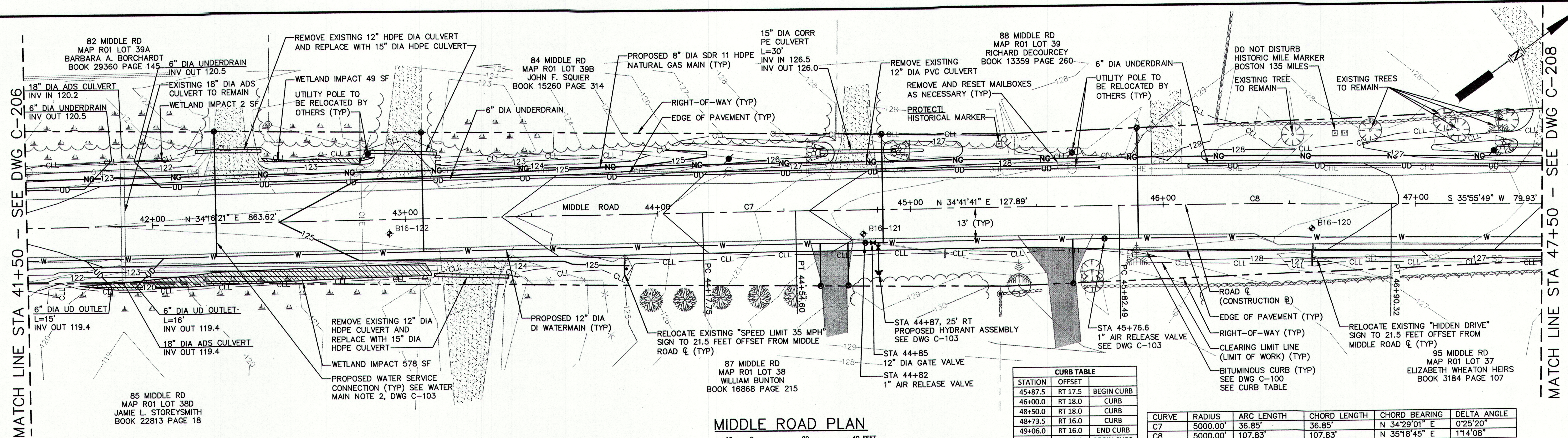
MIDDLE ROAD PLAN AND PROFILE
STA 35+50 TO STA 41+50

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C-206



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

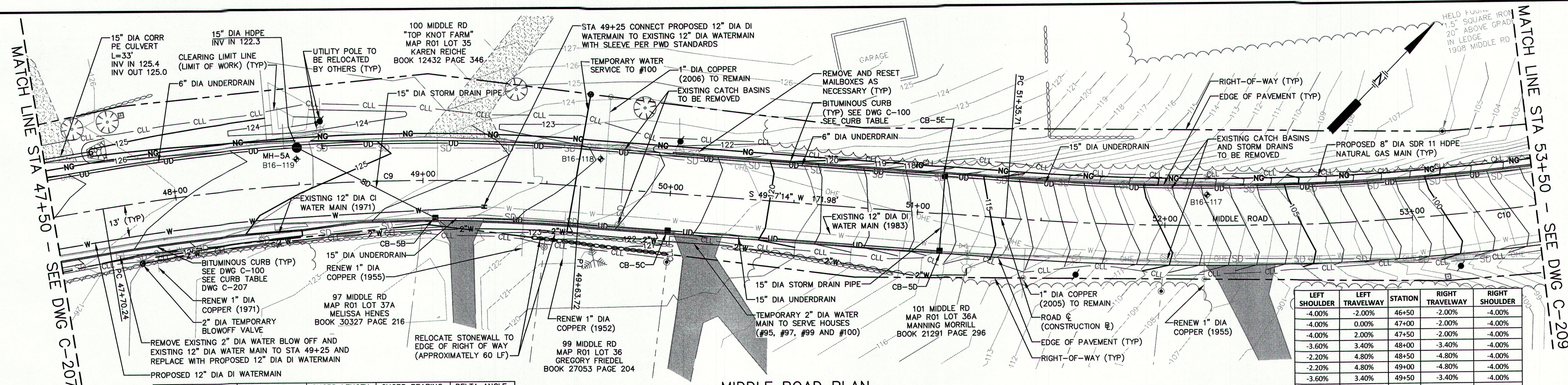
MIDDLE ROAD PLAN AND PROFILE
STA 41+50 TO STA 47+50

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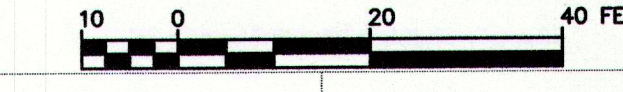
JOB NO. 16047.00 DWG FILE BASE C-207

REV.	BY	DATE	STATUS
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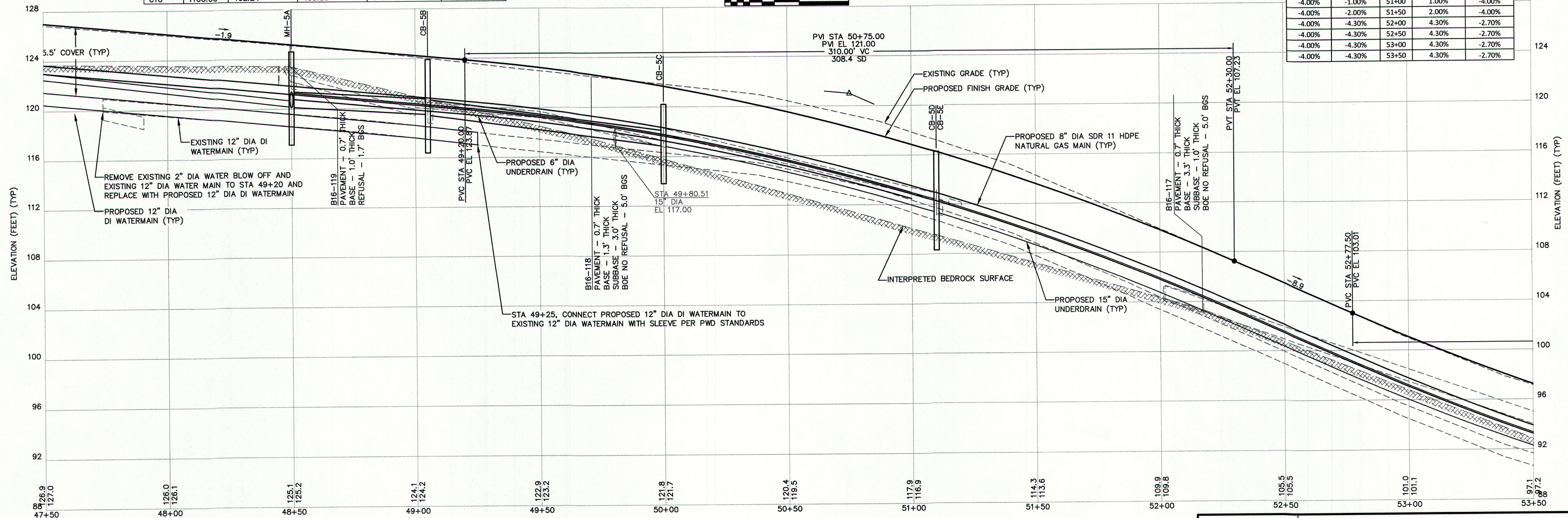


CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C9	800.00'	193.48'	193.01'	N 42°51'32" E	13°51'25"
C10	1100.00'	402.24'	400.00'	S 39°18'42" W	20°57'05"

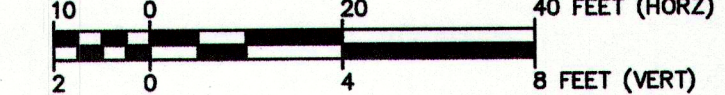
MIDDLE ROAD PLAN



LEFT SHOULDER	LEFT TRAVELWAY	STATION	RIGHT TRAVELWAY	RIGHT SHOULDER
-4.00%	-2.00%	46+50	-2.00%	-4.00%
-4.00%	0.00%	47+00	-2.00%	-4.00%
-4.00%	2.00%	47+50	-2.00%	-4.00%
-3.60%	3.40%	48+00	-3.40%	-4.00%
-2.20%	4.80%	48+50	-4.80%	-4.00%
-2.20%	4.80%	49+00	-4.80%	-4.00%
-3.60%	3.40%	49+50	-3.40%	-4.00%
-4.00%	2.00%	50+00	-2.00%	-4.00%
-4.00%	0.00%	50+50	0.00%	-4.00%
-4.00%	-1.00%	51+00	1.00%	-4.00%
-4.00%	-2.00%	51+50	2.00%	-4.00%
-4.00%	-4.30%	52+00	4.30%	-2.70%
-4.00%	-4.30%	52+50	4.30%	-2.70%
-4.00%	-4.30%	53+00	4.30%	-2.70%
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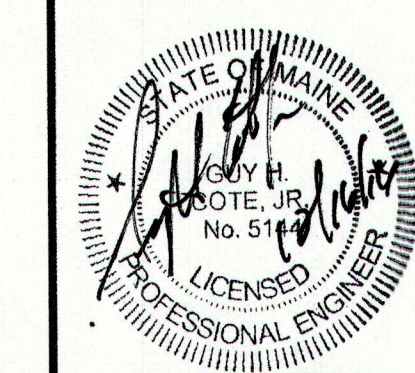


MIDDLE ROAD PROFILE



STRUCTURE	DIA	LOCATION STATION & OFFSET	RIM EL	INV IN	FROM STRUCTURE	INV OUT	TO STRUCTURE	PIPE
INLET	-	48+47.3, 23.6 RT	-	122.3	FIELD	122.0	MH-5A	7 LF OF 15" DIA HDPE S=0.043'/
MH-5A	4'	48+50, 15' LT	125.6	122.0 121.6	6" INLET 6" UD	120.7	CB-5B	58 LF OF 15" DIA HDPE S=0.020'/
CB-5B	4'	49+05, 15' RT	123.9	119.5	MH-5A	119.4	CB-5C	95 LF OF 15" DIA HDPE S=0.021'/
CB-5C	4'	50+00, 15' RT	120.2	117.4	CB-5B	117.3	CB-5D	106 LF OF 15" DIA HDPE S=0.05'/
CB-5D	4'	51+10, 15' RT	116.2	112.5	CB-5C	111.9	CB-5E	27 LF OF 15" DIA HDPE S=0.0644'/
CB-5E	4'	51+10, 15' LT	116.0	109.7 110.7	6" UD CB-5D	109.6	CB-5F	332 LF OF 15" DIA HDPE S=0.068'/
CB-5F	4'	54+50, 15' LT	91.0	87.1	CB-5E	EXISTING	OUTLET	CONNECT TO EXISTING 24" DIA SD
CB-5G	4'	57+15, 15' RT	87.9	84.8	6" UD	84.7	OUTLET	16 LF OF 15" DIA HDPE S=0.006'/

STATION	OFFSET	BEGIN CURB
50+00.0	LT 16.0	BEGIN CURB
54+50.0	LT 16.0	CURB
55+02.5	LT 25.0	END CURB



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

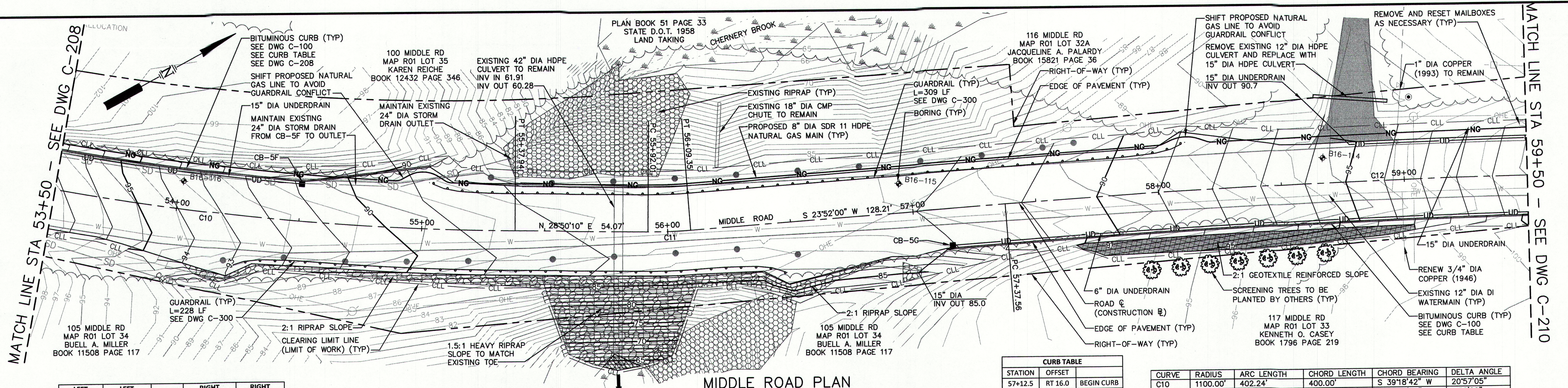
MIDDLE ROAD PLAN AND PROFILE
STA 47+50 TO STA 53+50

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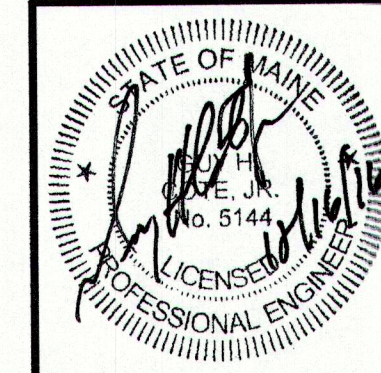
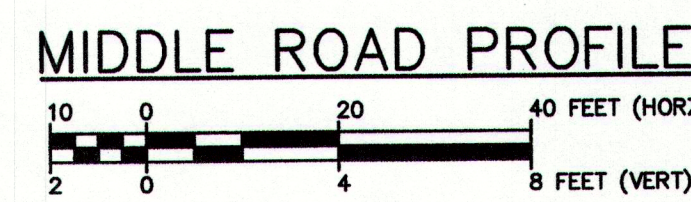
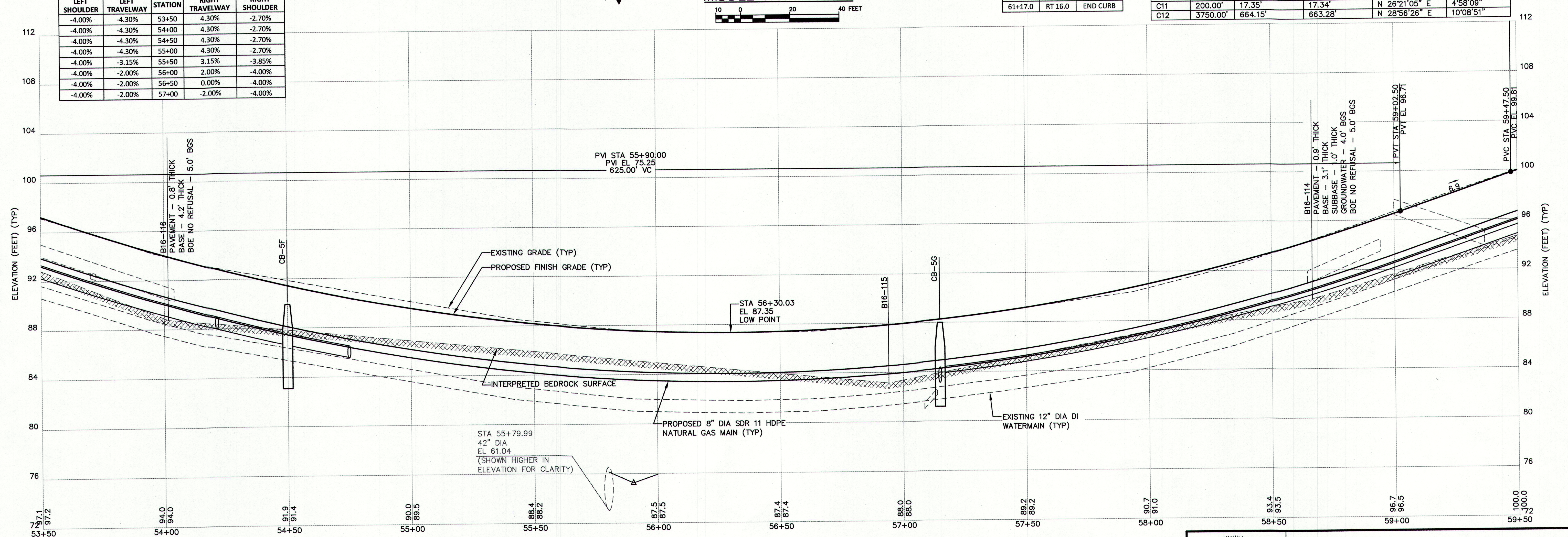
REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



LEFT SHOULDER	LEFT TRAVELWAY	STATION	RIGHT TRAVELWAY	RIGHT SHOULDER
-4.00%	-4.30%	53+50	4.30%	-2.70%
-4.00%	-4.30%	54+00	4.30%	-2.70%
-4.00%	-4.30%	54+50	4.30%	-2.70%
-4.00%	-4.30%	55+00	4.30%	-2.70%
-4.00%	-3.15%	55+50	3.15%	-3.85%
-4.00%	-2.00%	56+00	2.00%	-4.00%
-4.00%	-2.00%	56+50	0.00%	-4.00%
-4.00%	-2.00%	57+00	-2.00%	-4.00%

STATION	OFFSET	BEGIN CURB
57+12.5	RT 16.0	BEGIN CURB
61+17.0	RT 16.0	END CURB

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C10	1100.00'	402.24'	400.00'	S 39°18'42" W	20°57'05"
C11	200.00'	17.35'	17.34'	N 26°21'05" E	4°58'09"
C12	3750.00'	664.15'	663.28'	N 28°56'26" E	10°08'51"



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

MIDDLE ROAD PLAN AND PROFILE
STA 53+50 TO STA 59+50

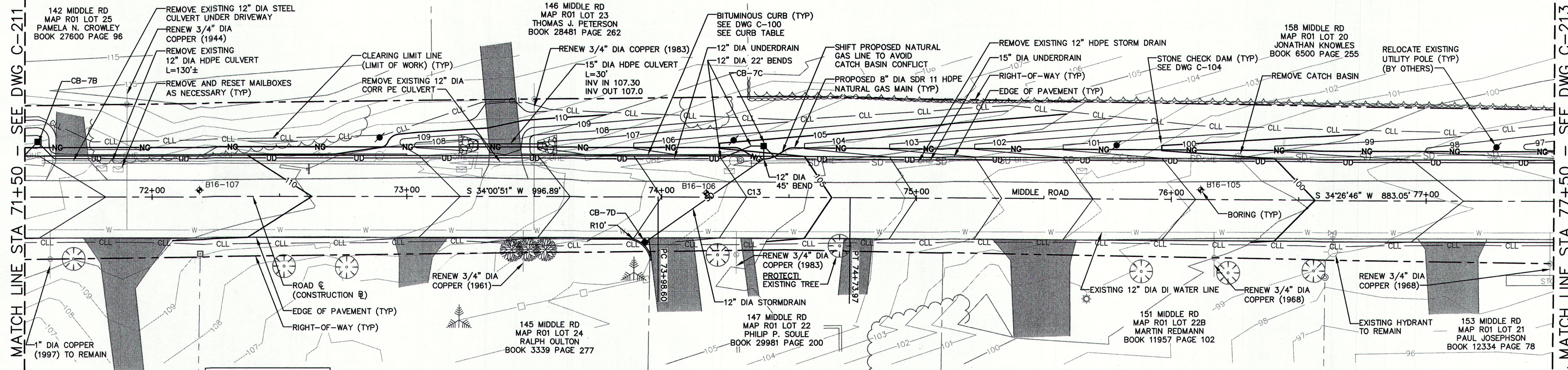
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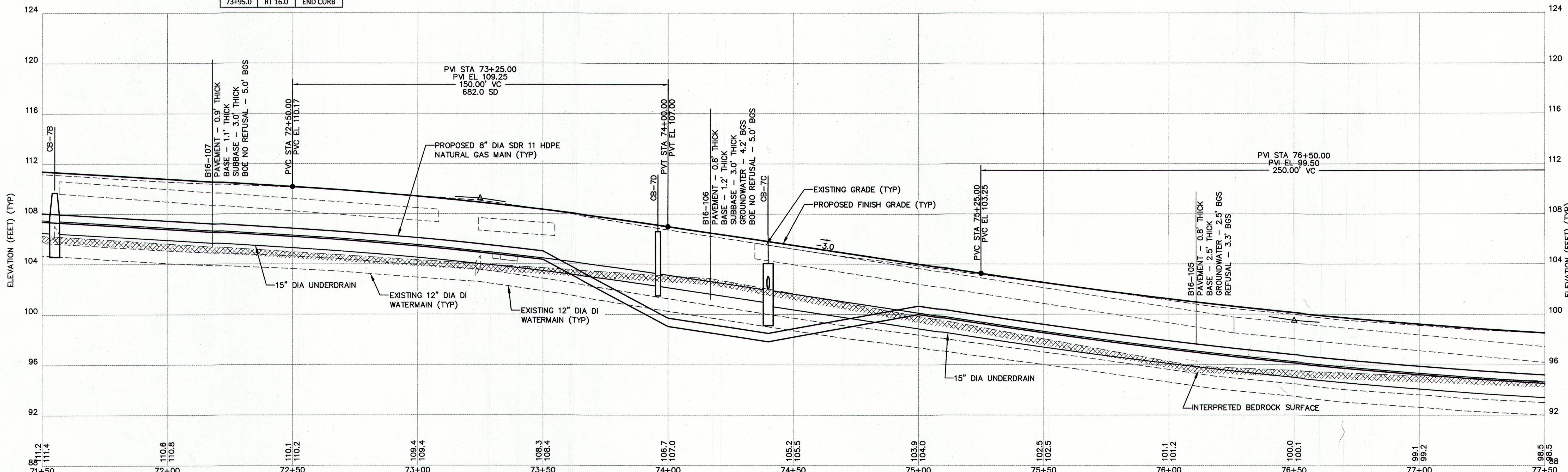
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C-209

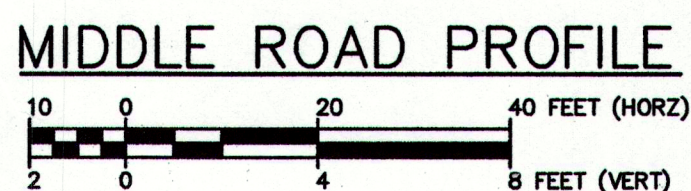
REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



CURB TABLE		
STATION	OFFSET	
71+75.0	LT 16.0	BEGIN CURB
73+00.0	LT 16.0	END CURB
73+45.0	LT 16.0	BEGIN CURB
74+35.0	LT 16.0	END CURB
73+45.0	RT 16.0	BEGIN CURB
73+95.0	RT 16.0	END CURB



STRUCTURE	DIA	LOCATION STATION & OFFSET	RIM EL	INV IN	FROM STRUCTURE	INV OUT	TO STRUCTURE	PIPE
UD	-	-	-	110.6	-	108.7	CB-7A	195 LF OF 6\" DIA HDPE S=0.020'/
CB-7A	4'	70+80, 20' LT	111.3	108.7	6\" UD	108.2	CB-7B	76 LF OF 12\" DIA HDPE S=0.012'/
CB-7B	4'	71+55, 20' LT	109.7	107.3	CB-7A	107.2	CB-7C	237 LF OF 12\" DIA HDPE S=0.023'/
CB-7C	4'	74+40, 20' LT	104.5	101.7 101.6	CB-7B CB-7D	101.5	CB-7E	440 LF OF 15\" DIA HDPE S=0.024'/
CB-7D (TYPE F)	2'	73+93, 17.8' RT	106.6	-	CB-7C	102.9	CB-7C	57 LF OF 12\" DIA HDPE S=0.023'/
CB-7E	4'	78+27.5, 25' LT	94.7	92.0	CB-7C	90.8	OUTLET PIPE	54 LF OF 30\" DIA HDPE S=0.015'/
OUTLET PIPE	-	78+26, 22' RT	-	90.8	CB-7E	90.0	DISCHARGE	-



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID

TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

MIDDLE ROAD PLAN AND PROFILE
STA 71+50 TO STA 77+50

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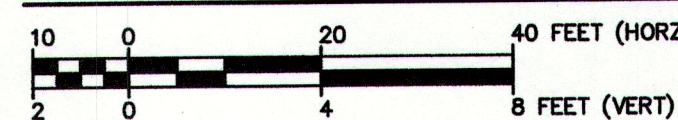
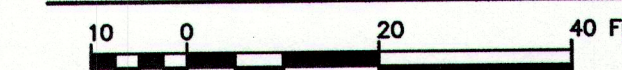
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C-212



STRUCTURE	DIA	LOCATION STATION & OFFSET	RIM EL	INV IN	FROM STRUCTURE	INV OUT	TO STRUCTURE	PIPE
UD	-	78+27, 25' LT	-	94.0	-	92.2	CB-8B	273 LF OF 6" DIA HDPE S=0.0071/'
CB-8A	4'	82+96.8, 15' LT	96.4	93.9	6" UD	93.4	CB-8B	187 LF OF 12" DIA HDPE S=0.0131/'
CB-8B	4'	81+10.6, 23' LT	94.2	92.0 91.7 91.0	6" UD CB-8A 12" INLET	90.6	MH-8B	34 LF OF 18" DIA HDPE S=0.0131/'
MH-8B	4'	81+11.7, 20' RT	95.2	92.2 90.2	(2) 6" UD CB-8B	90.1	OUTLET PIPE	50 LF OF 18" DIA HDPE S=0.0101/'
OUTLET PIPE	-	78+26, 22' LT	-	90.1	MH-8B	89.6	DISCHARGE	-
UD	-	83+42, 25' LT	-	94.5	-	93.9	CB-8A	50 LF OF 6" DIA HDPE S=0.0121/'

TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

MIDDLE ROAD PLAN AND PROFILE
STA 77+50 TO STA 83+57

SME

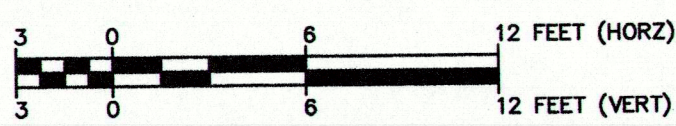
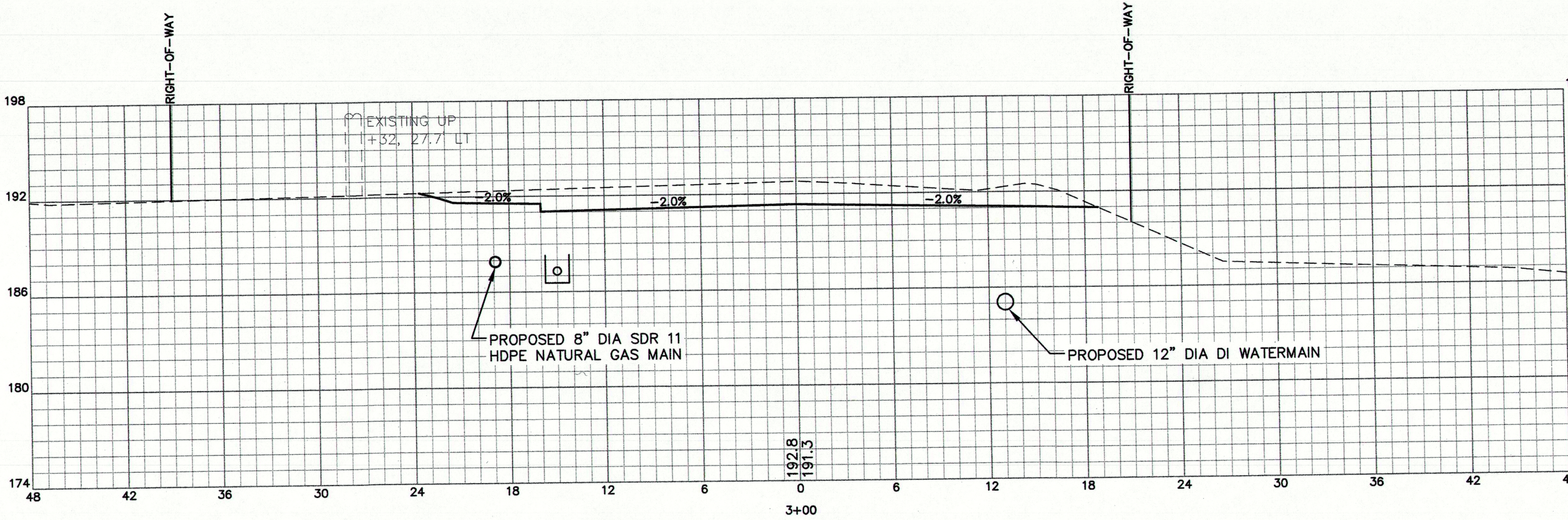
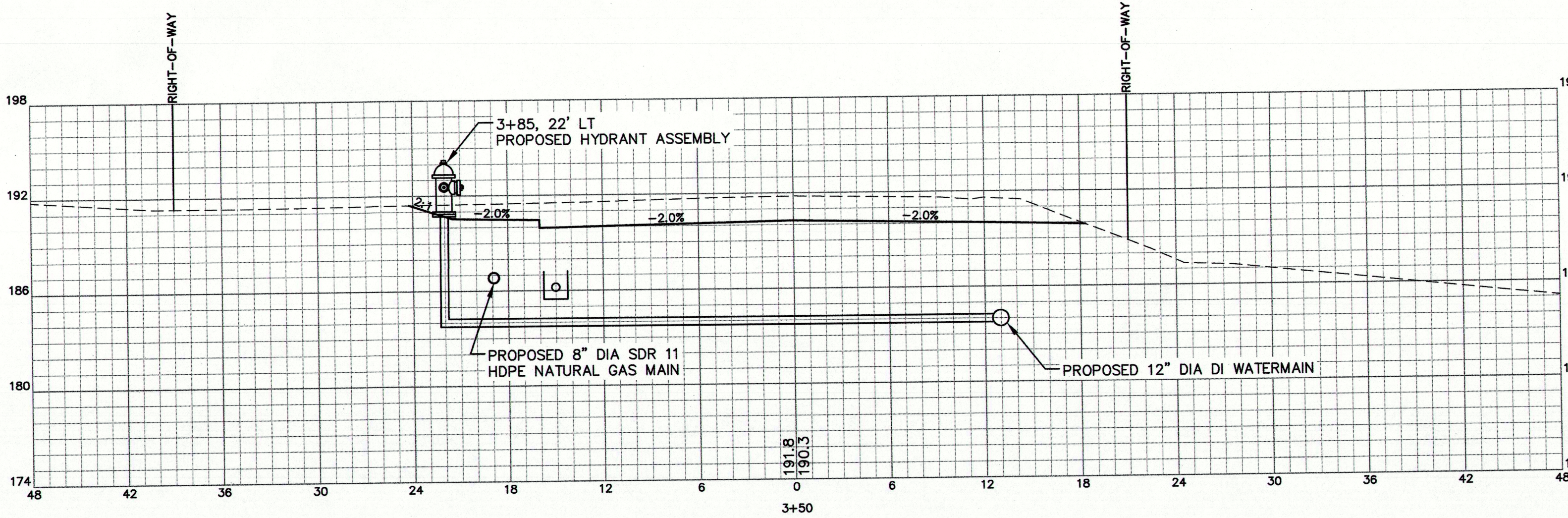
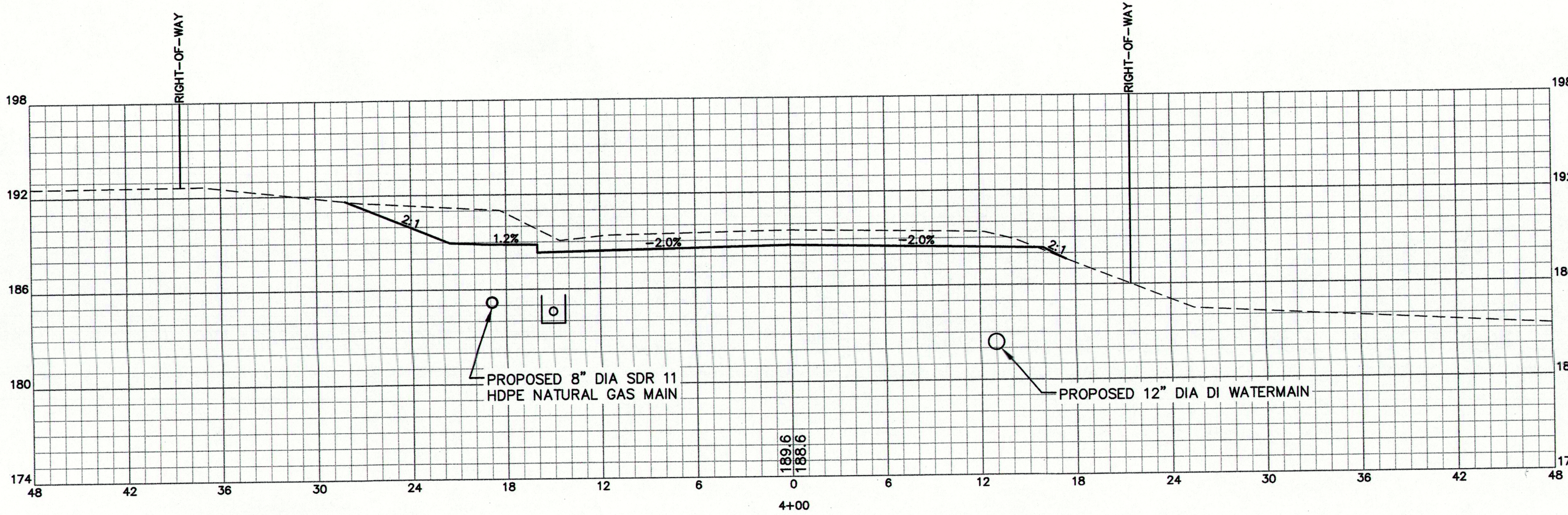
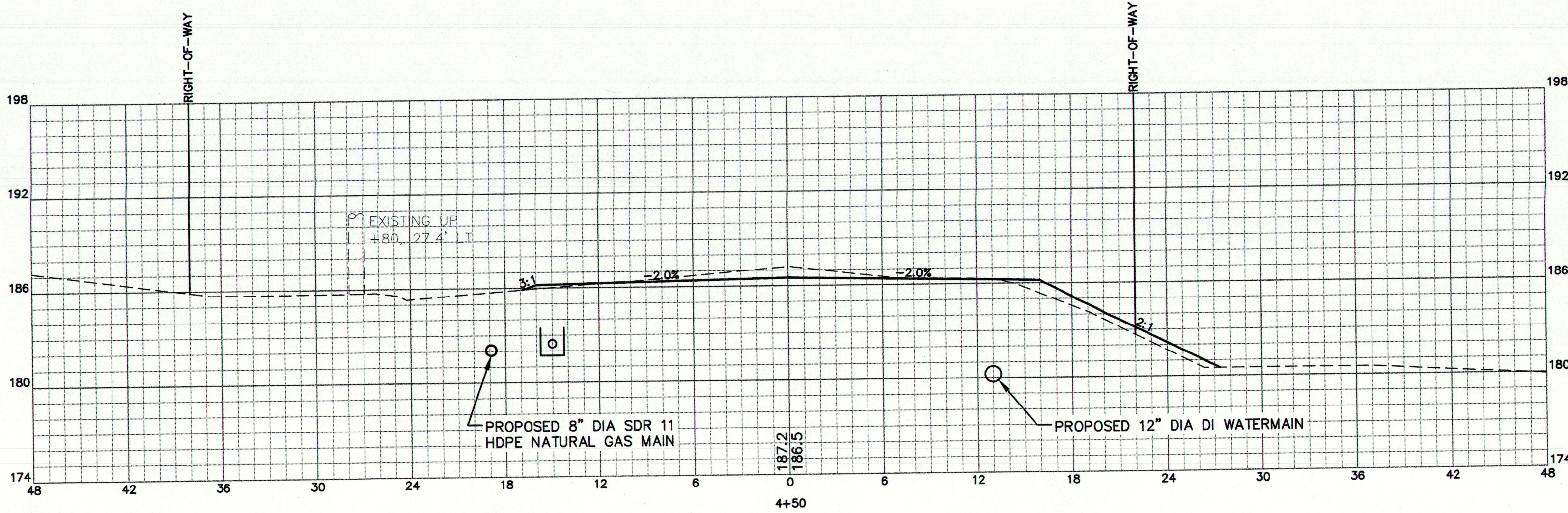
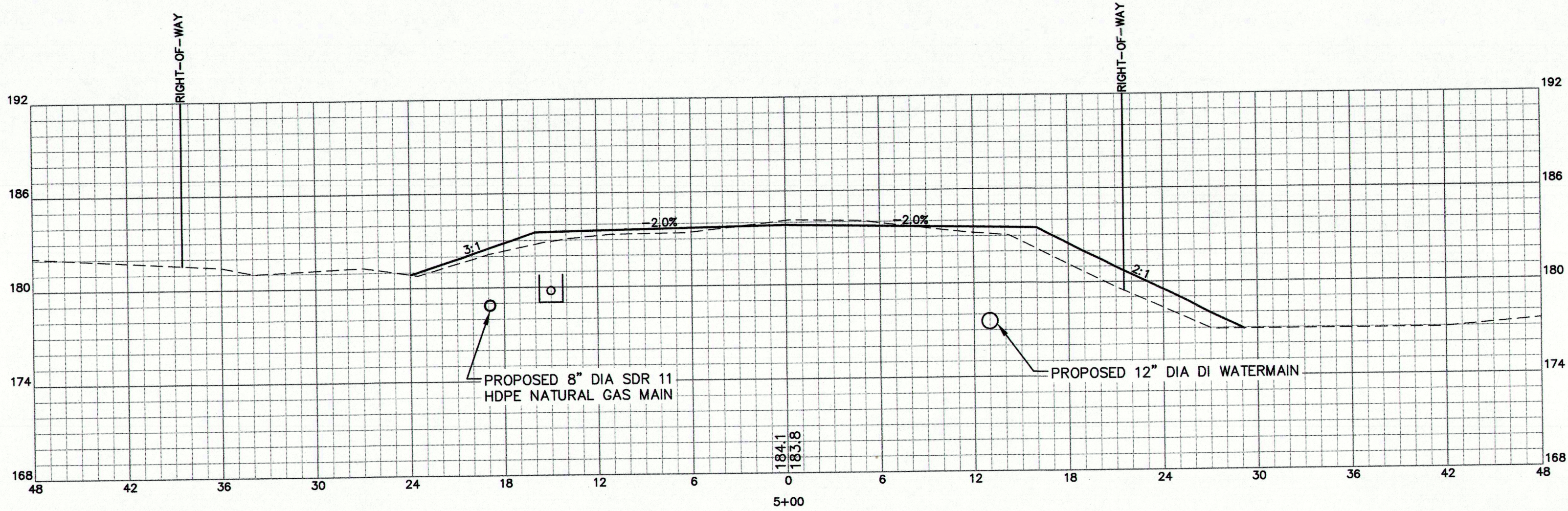
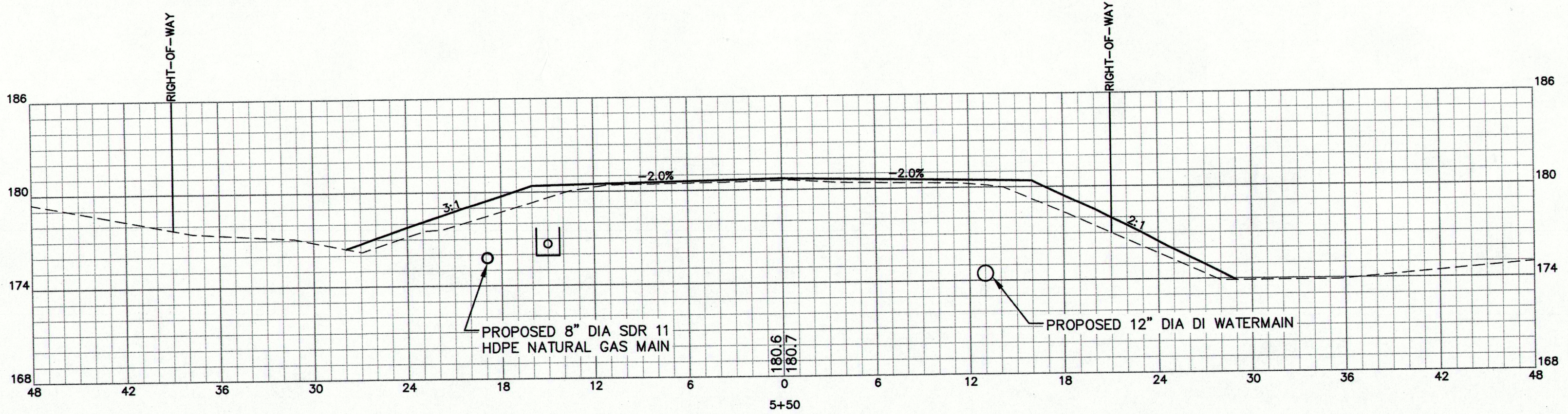
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CTR: SME-STD

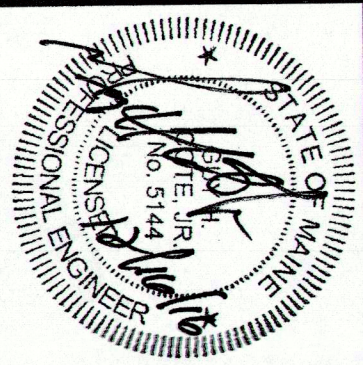
JOB NO. 16047.00 DWG FILE BASE

C-213

	JCM	12/2016	ISSUED FOR BID
REV.	BY	DATE	STATUS



REV.	BY	DATE	STATUS
1	SCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

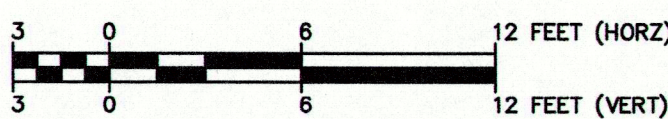
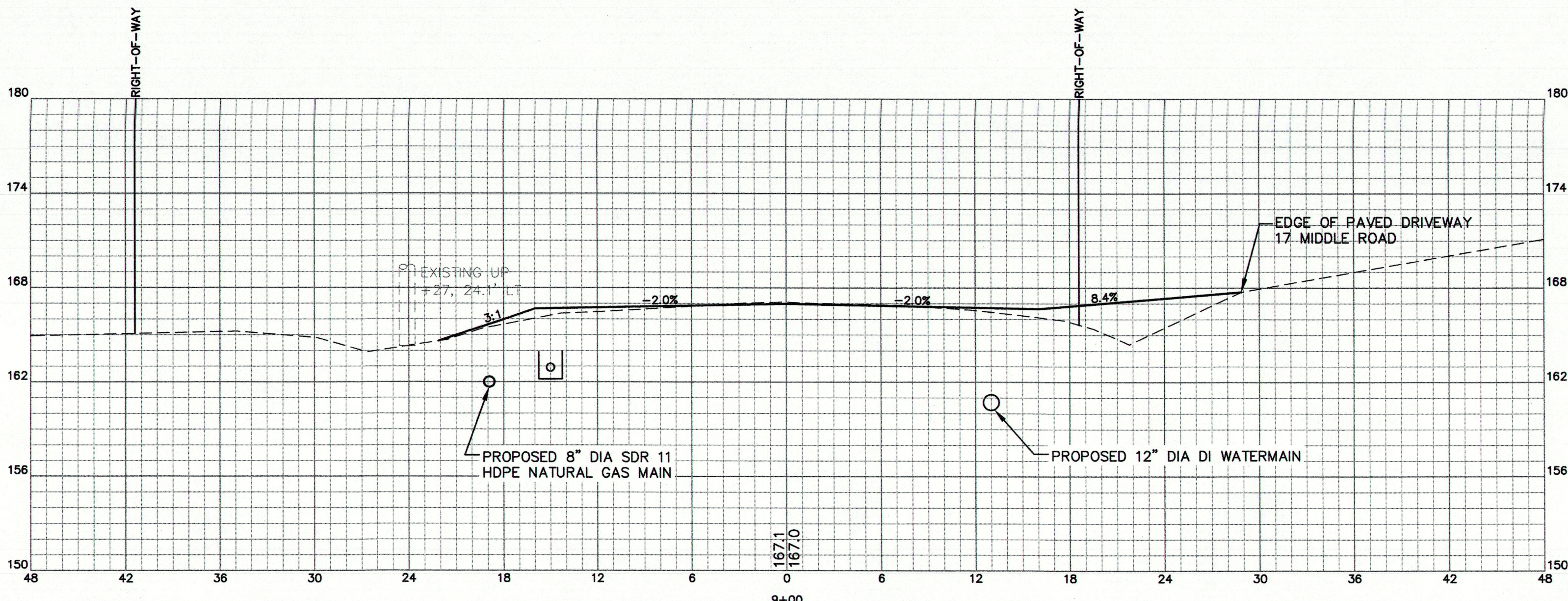
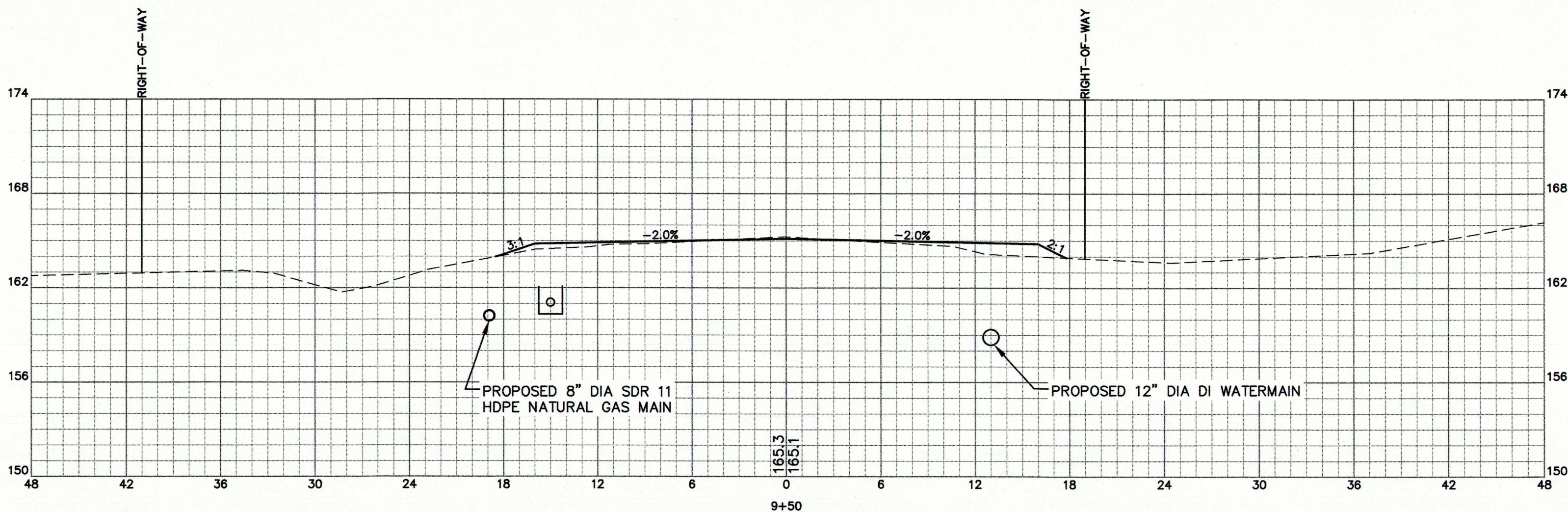
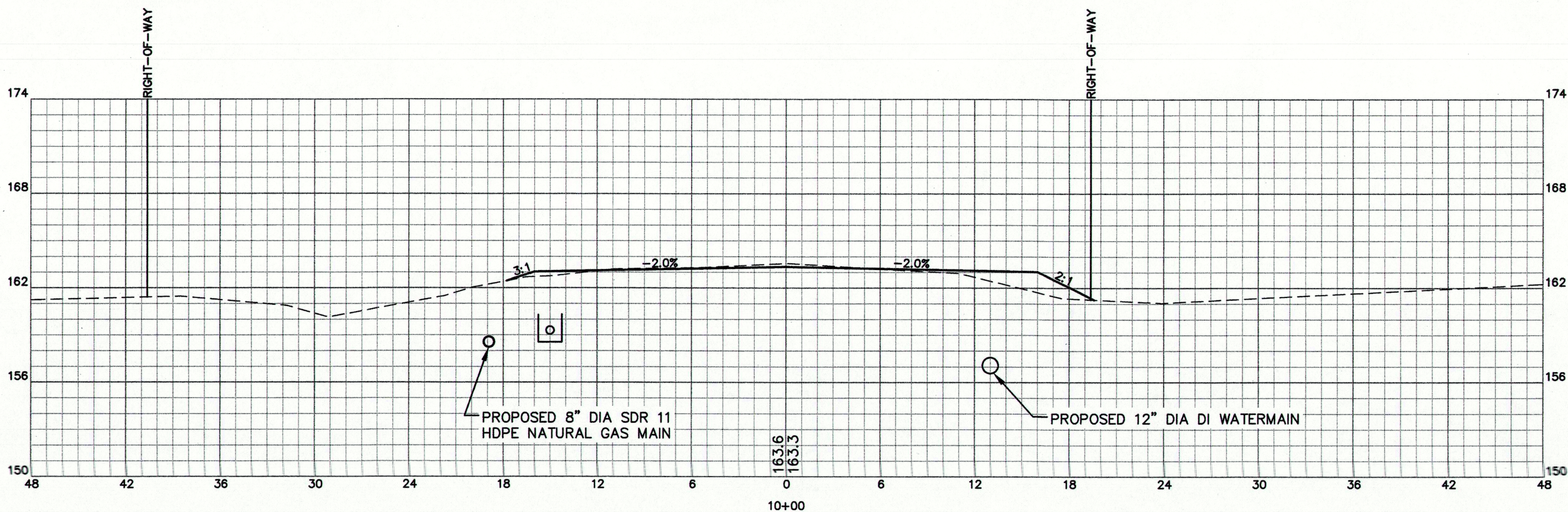
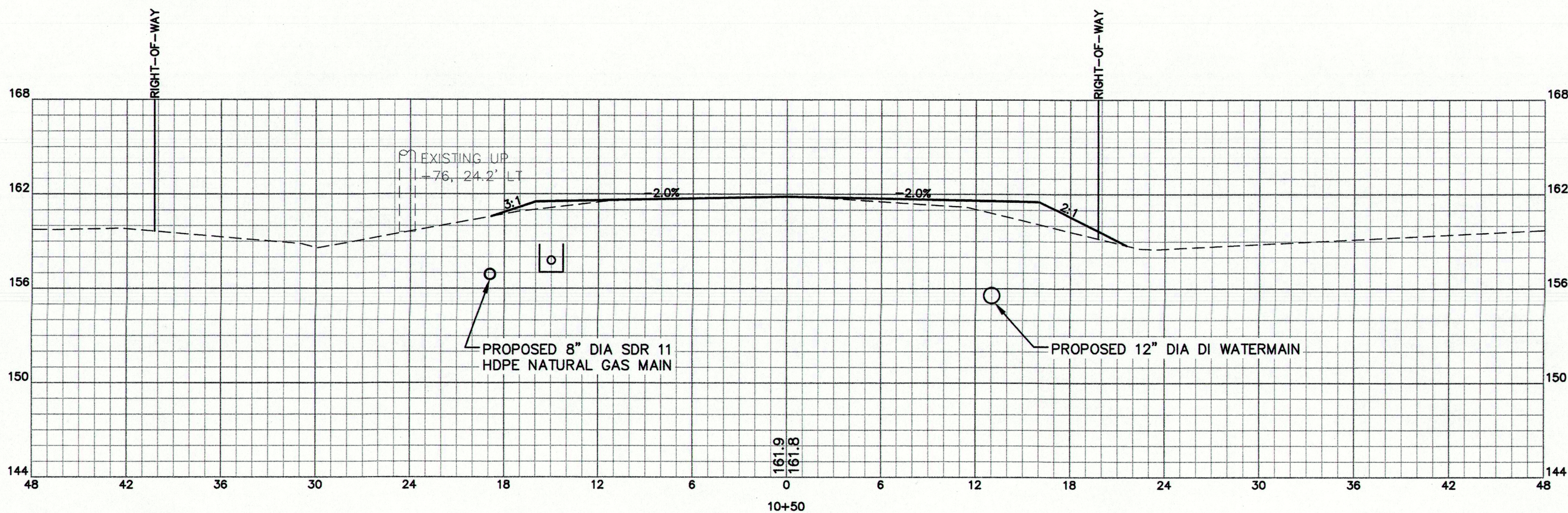
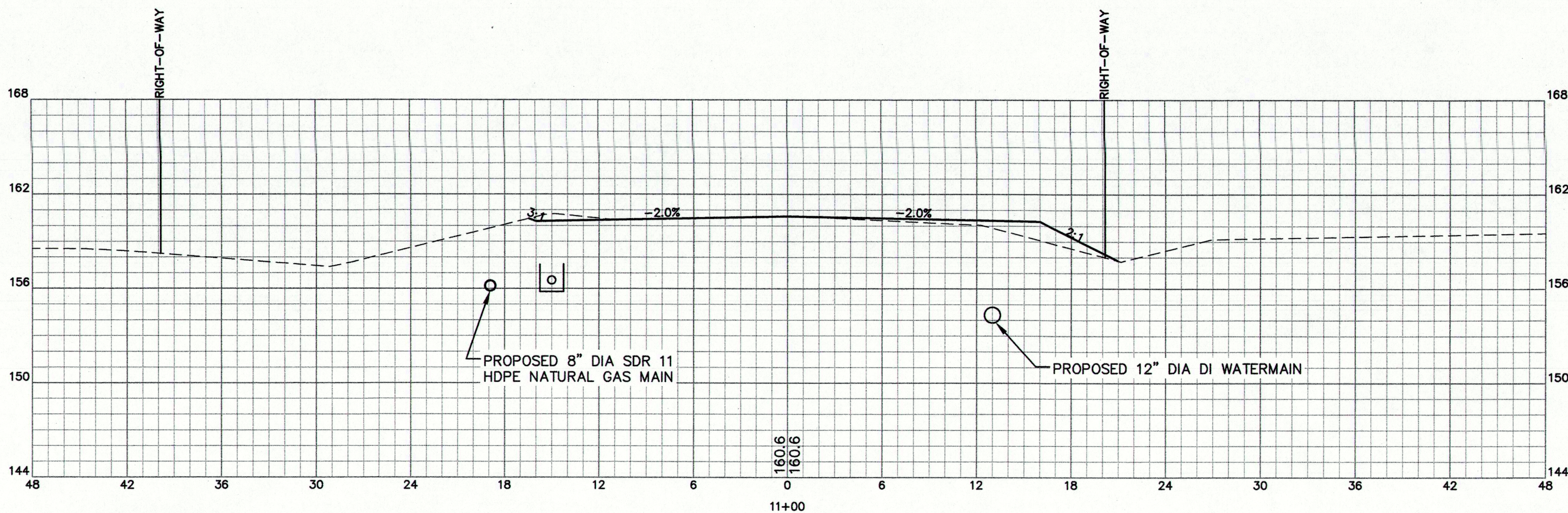
CROSS SECTIONS
STA 3+00 TO STA 5+50

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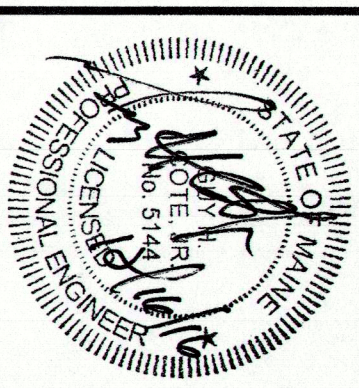
JOB NO. 16047.00 DWG FILE BASE

DESIGN BY: JCM
 DRAWN BY: SAM
 DATE: 5/2016
 CHECKED BY: [Signature]
 LAM: NONE
 CTR: SME-STD
C-215

C-216



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 9+00 TO STA 11+00

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DESIGN BY: JCM

DRAWN BY: SAM

DATE: 5/2016

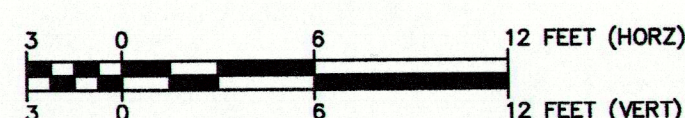
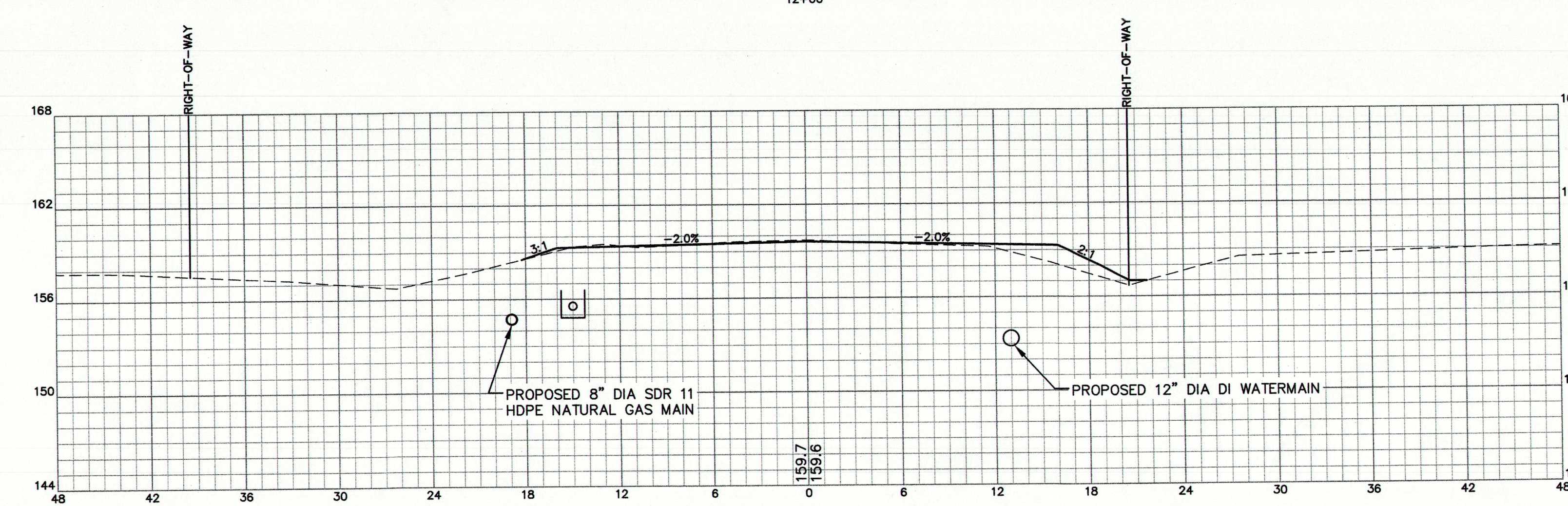
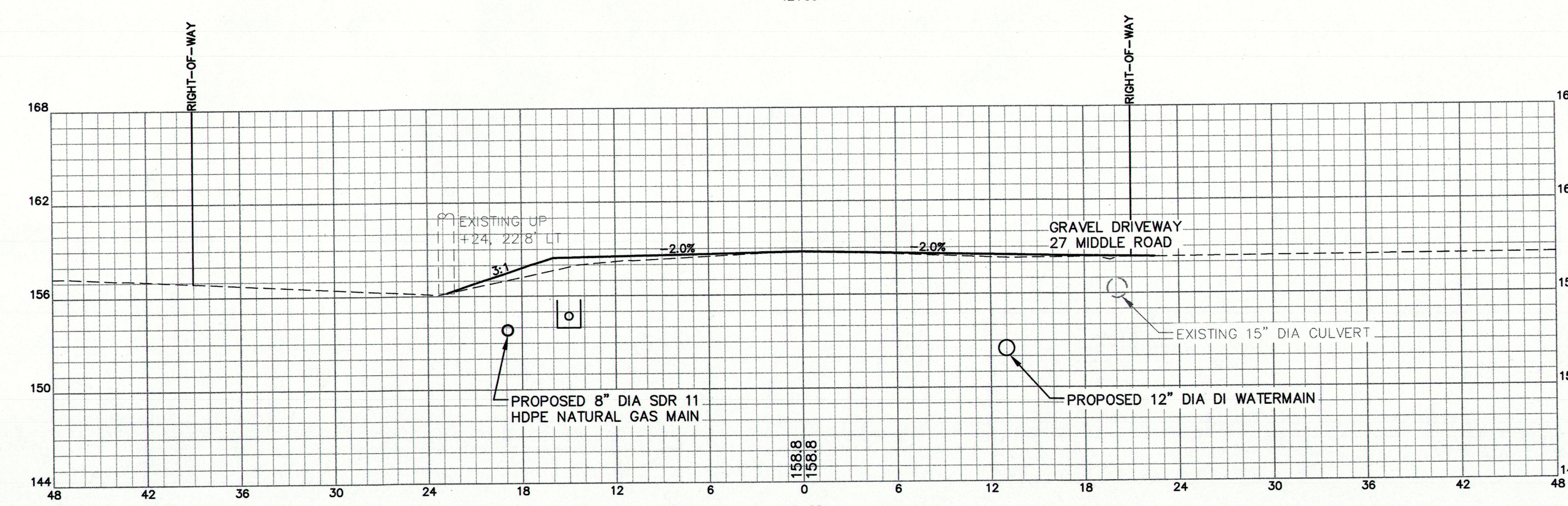
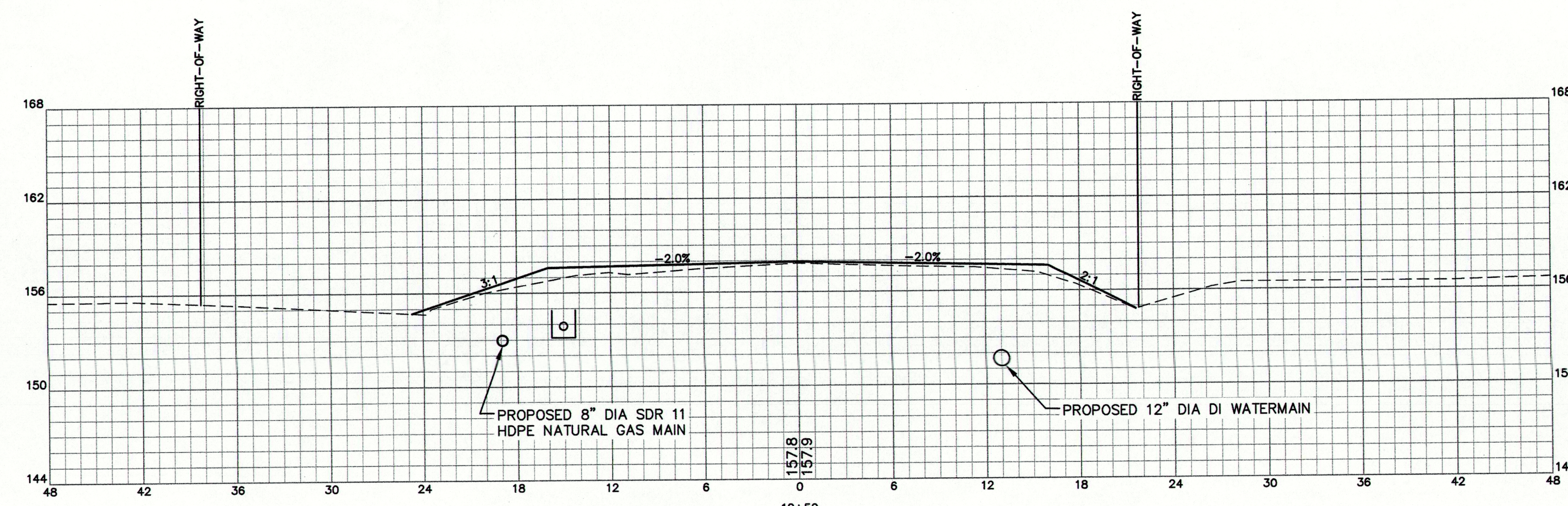
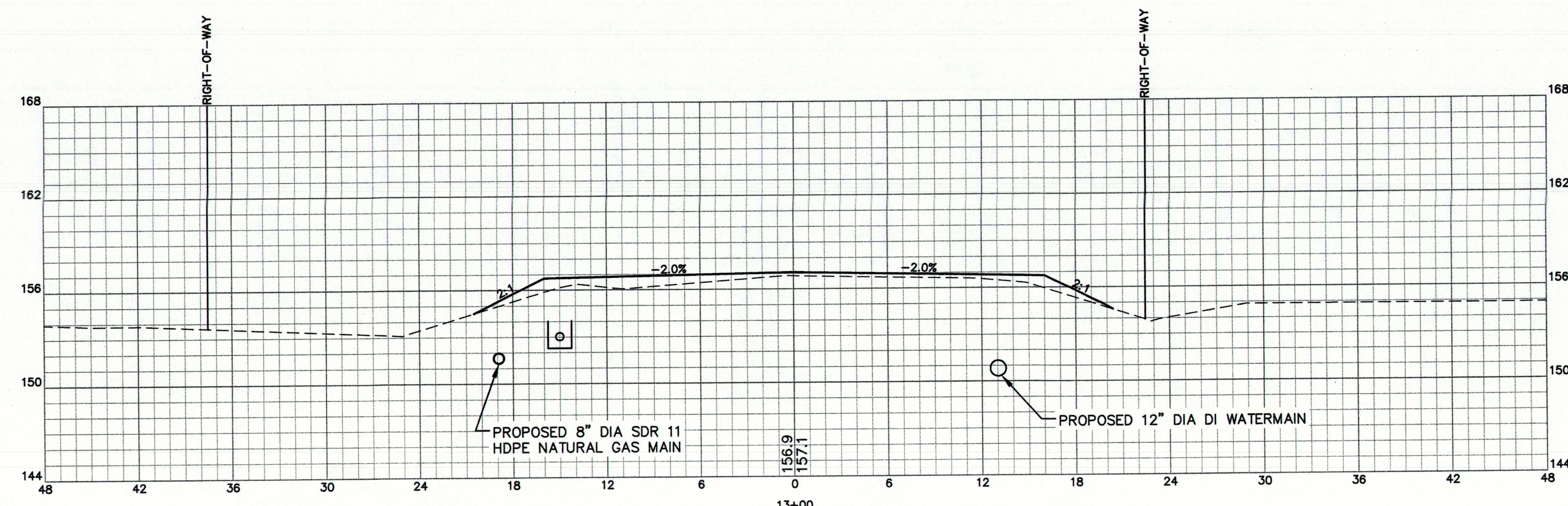
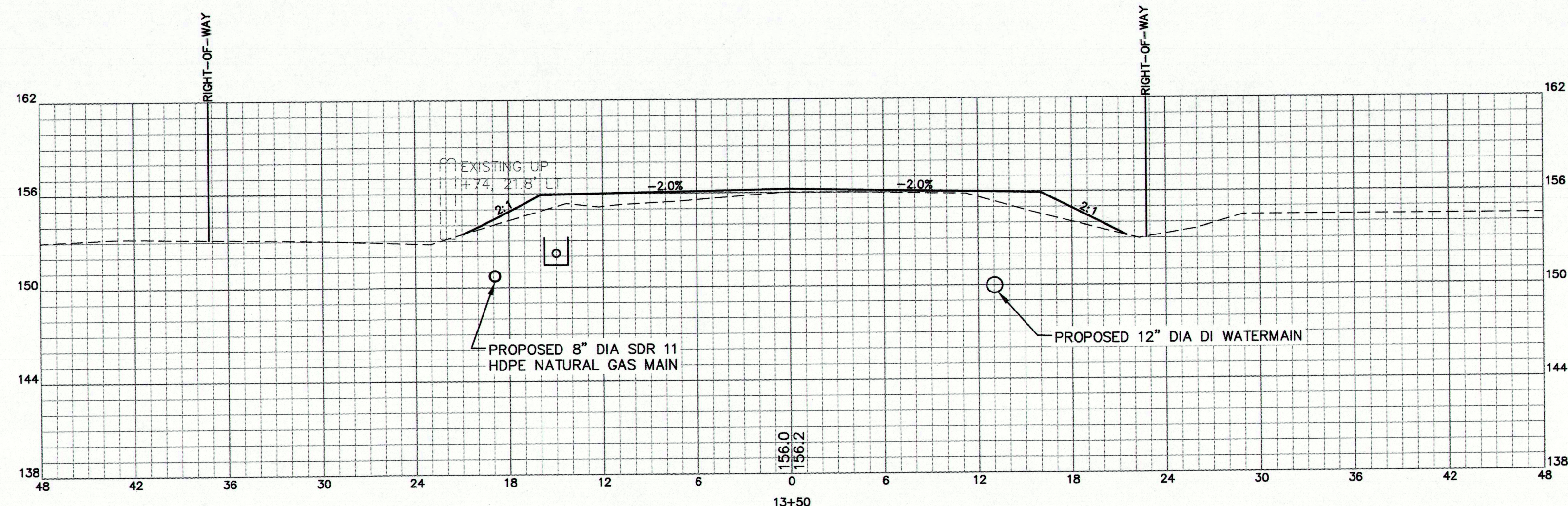
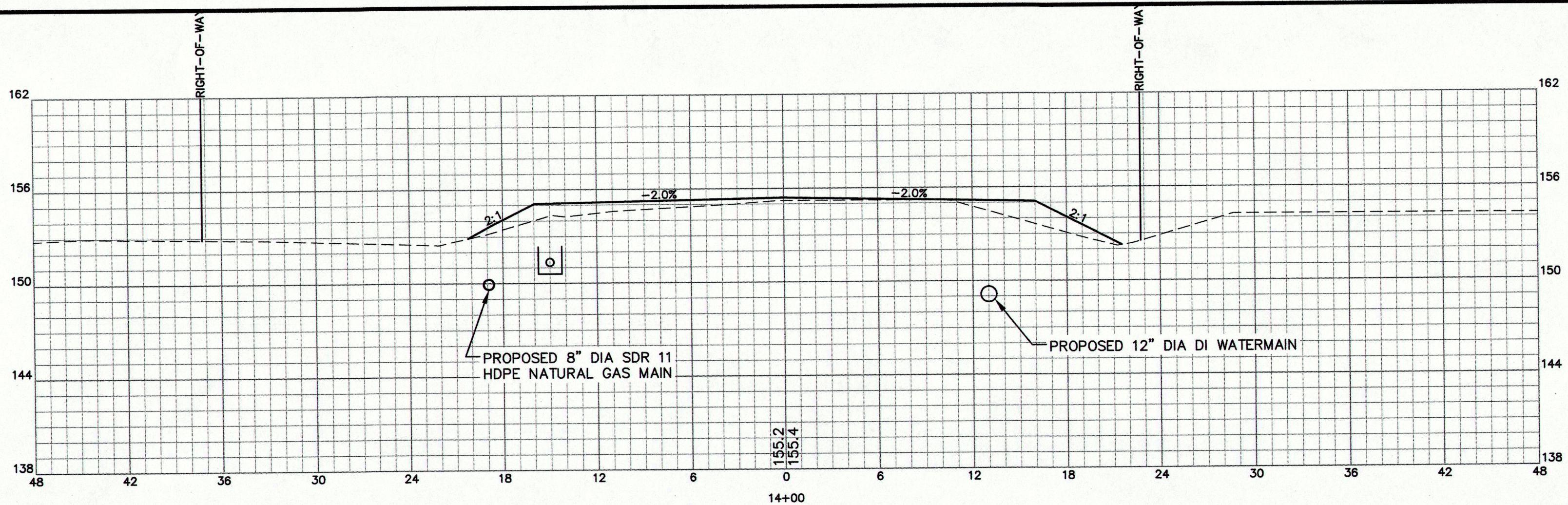
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LMN: NONE

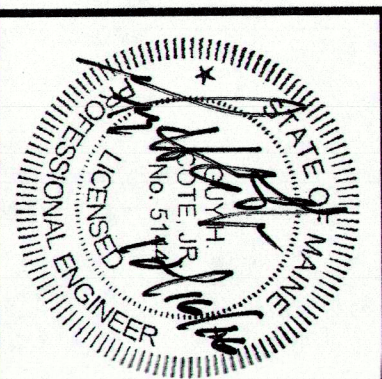
CTB: SME-STD

JOB NO. 16047.00 DWG FILE BASE

C-217



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

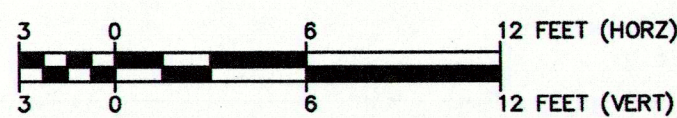
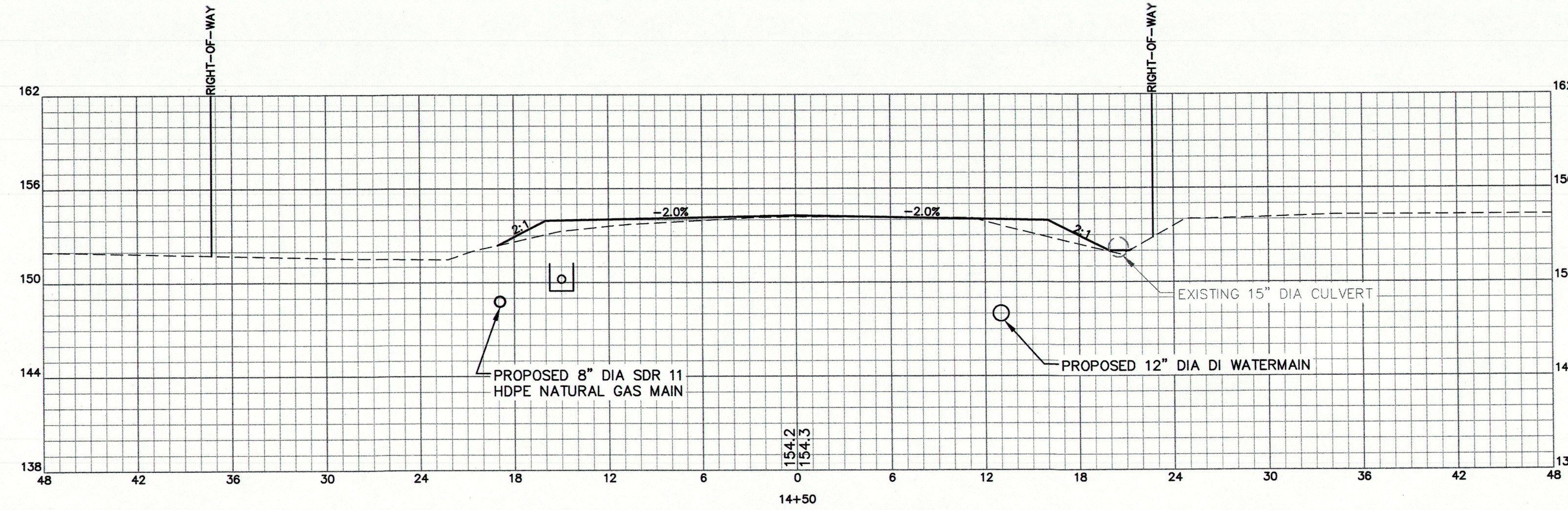
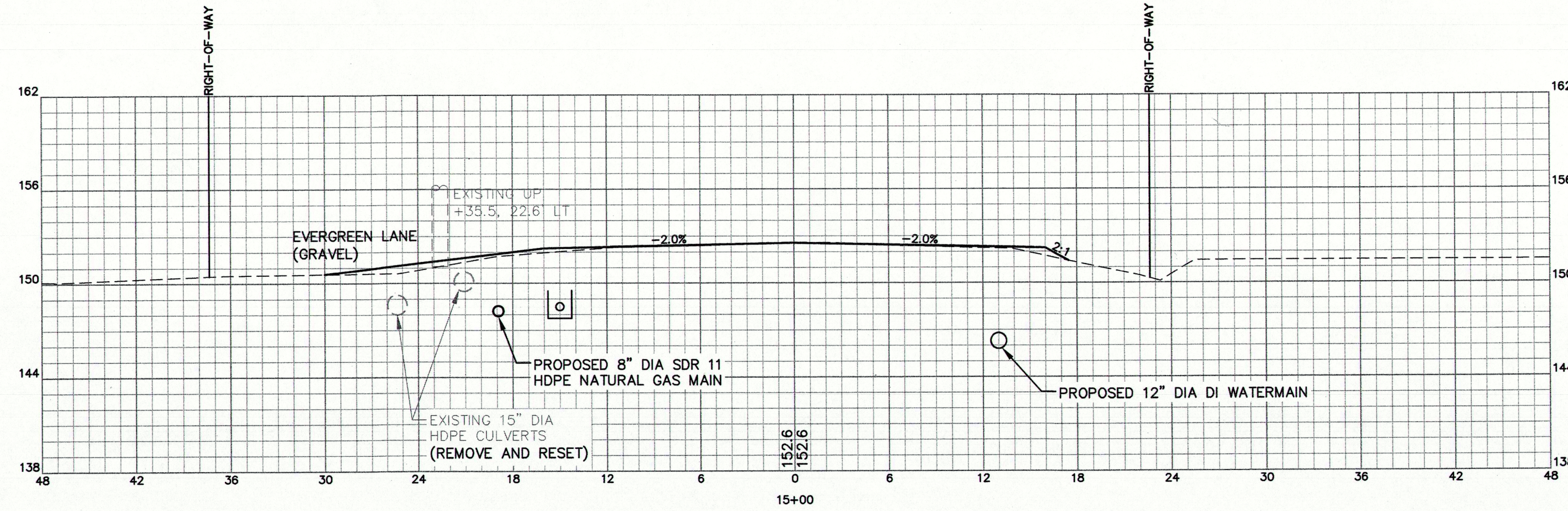
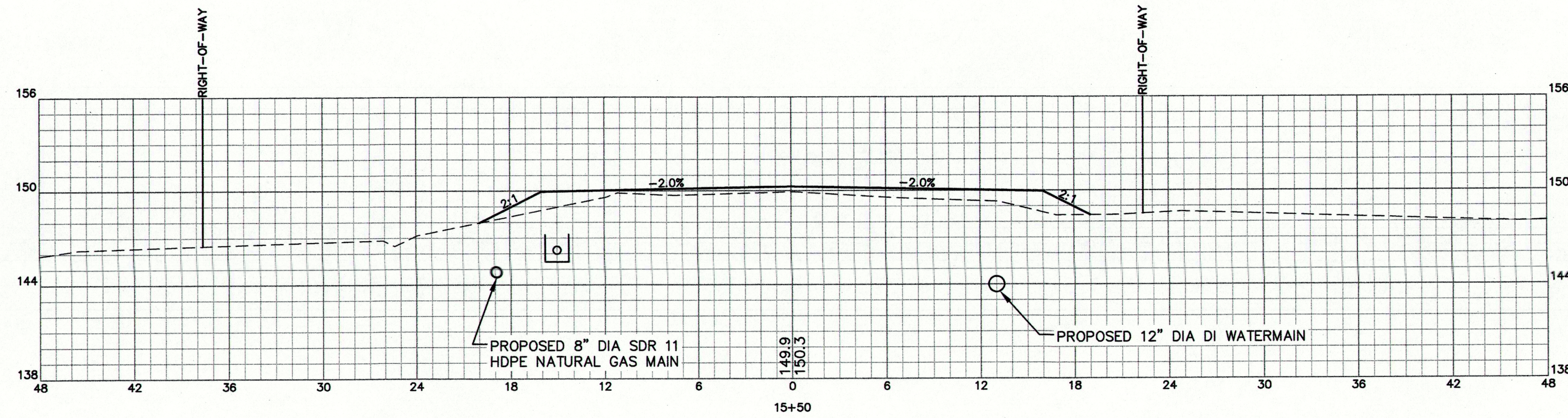
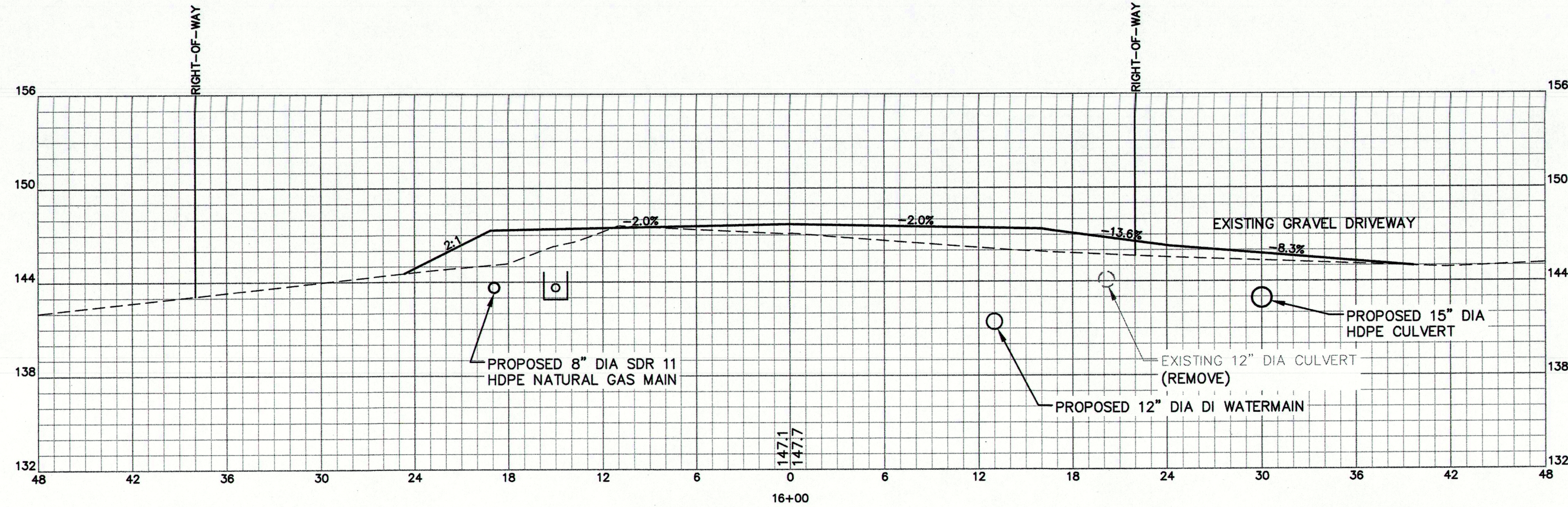
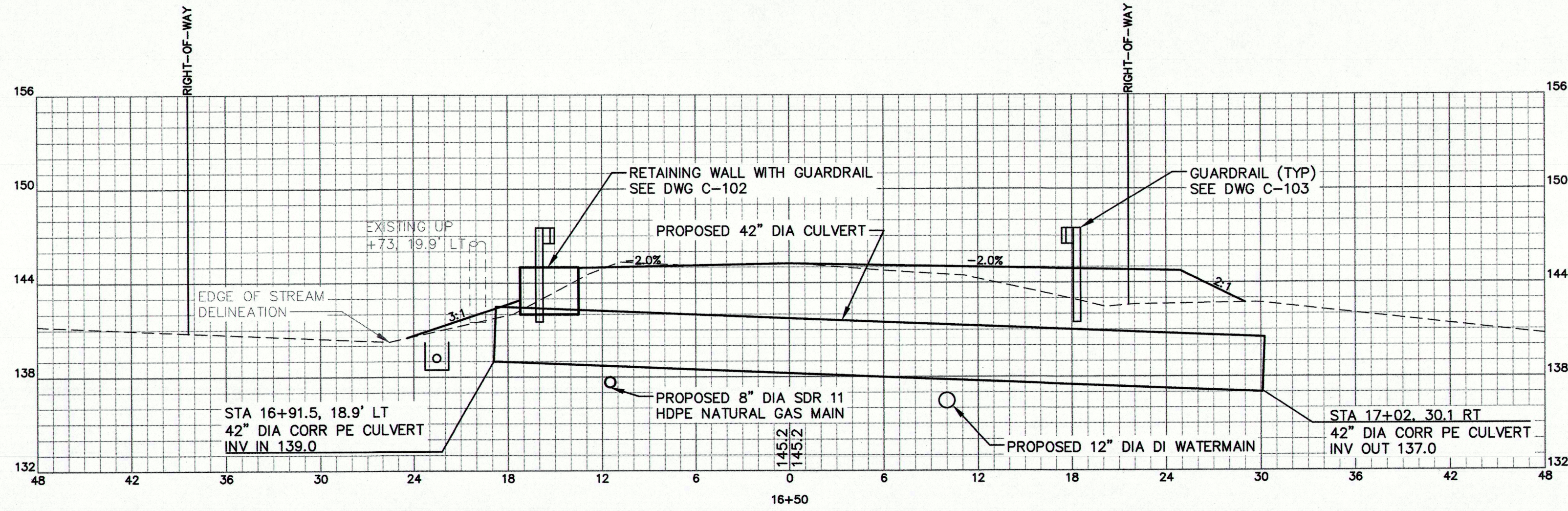
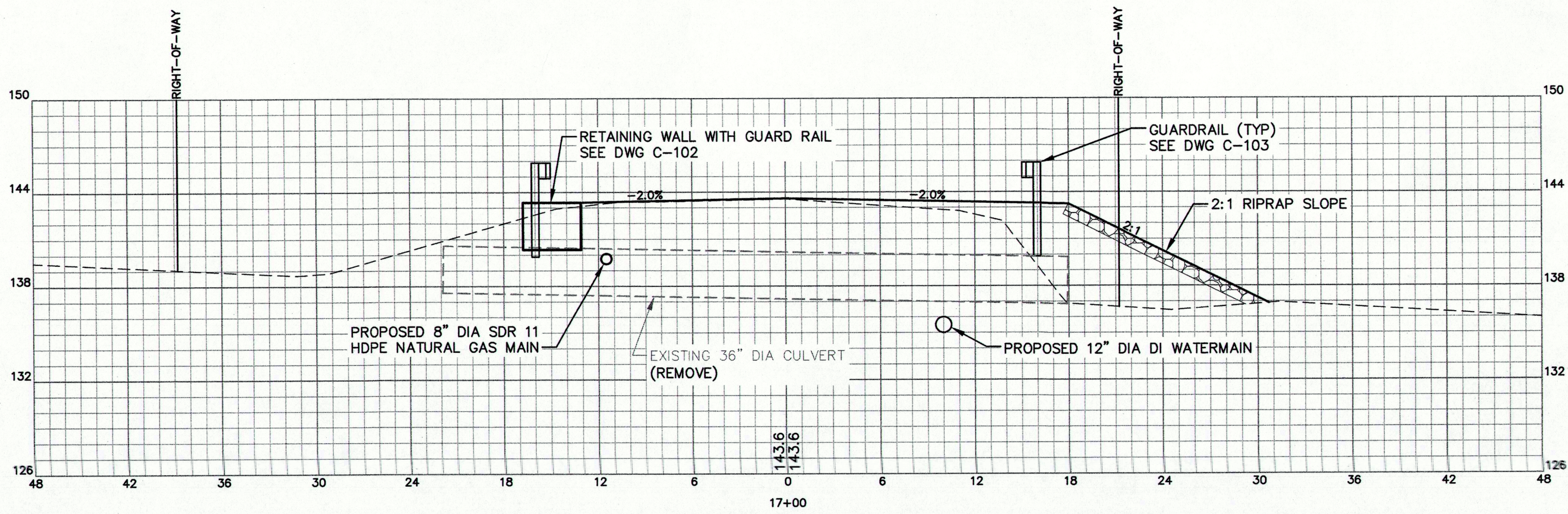
CROSS SECTIONS
STA 11+50 TO STA 14+00

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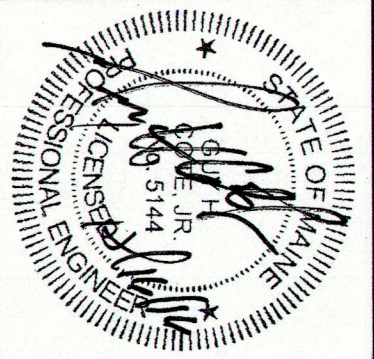
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DRAWN BY: SLM
DATE: 5/2016
CHECKED BY: *[Signature]*
LMN: NONE
CTB: SME-STD

JOB NO. 16047.00 DWG FILE BASE

C-218



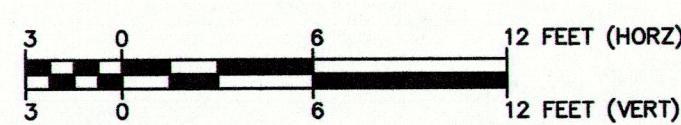
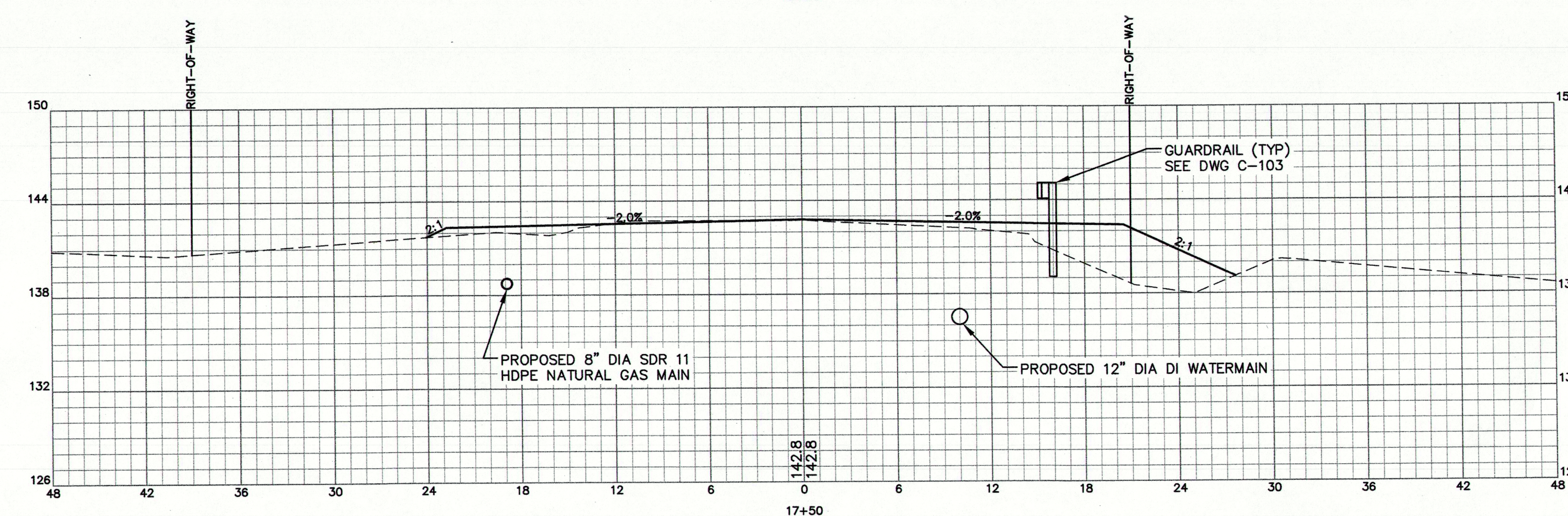
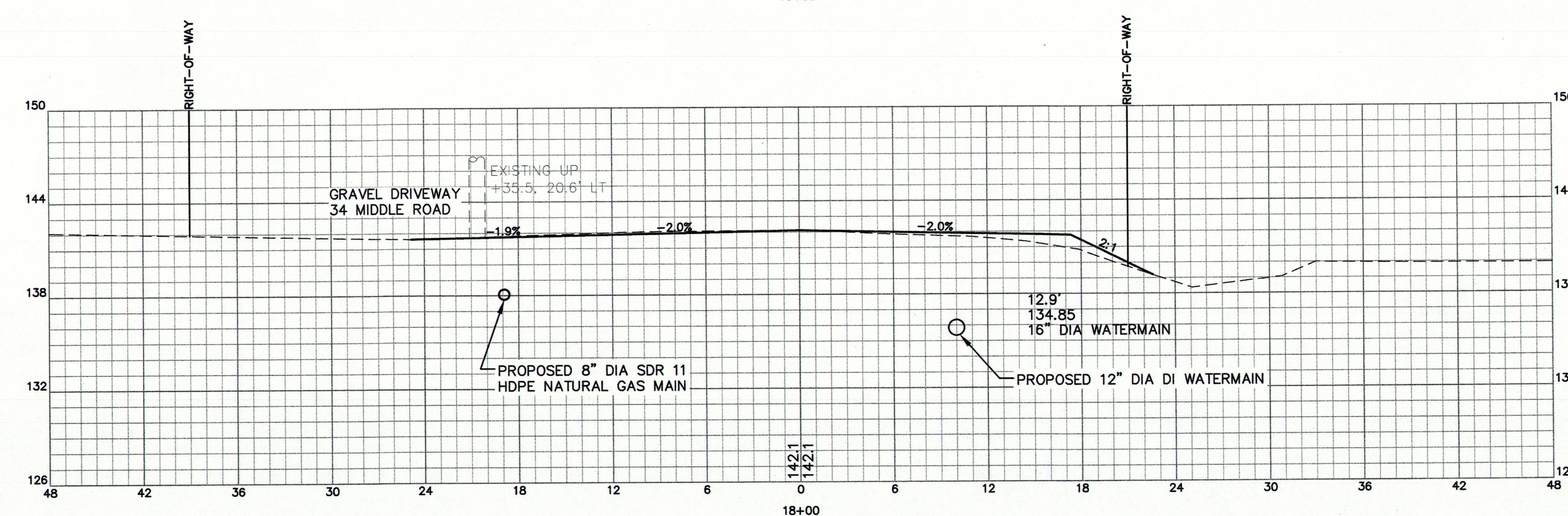
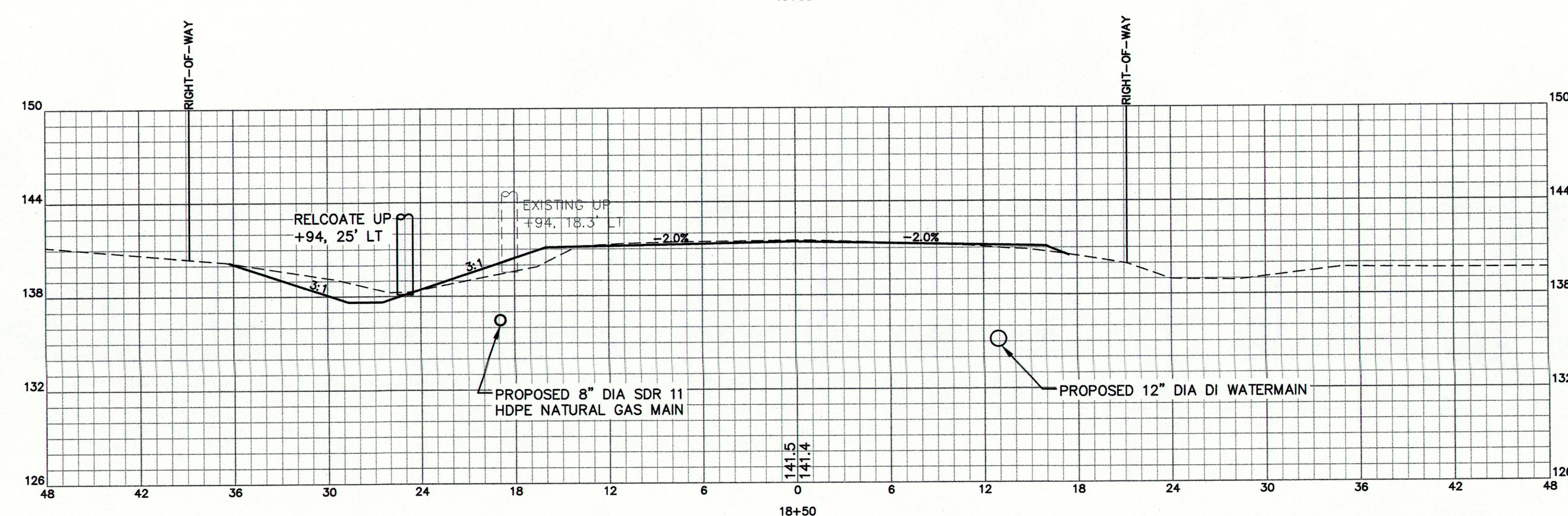
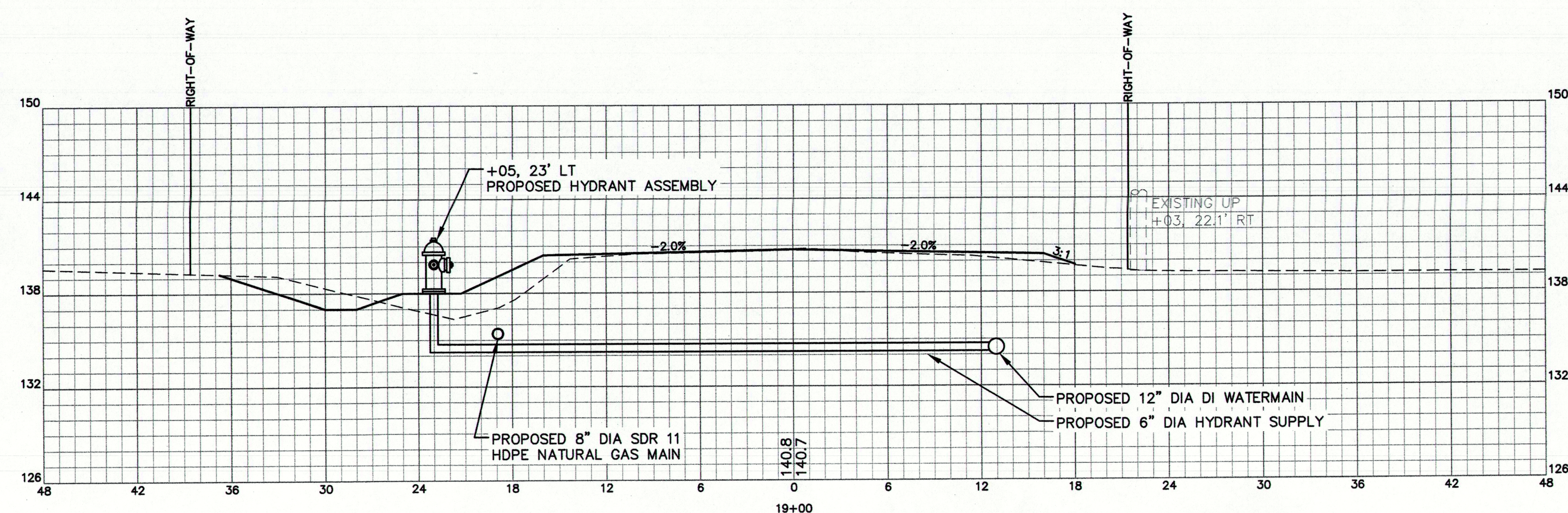
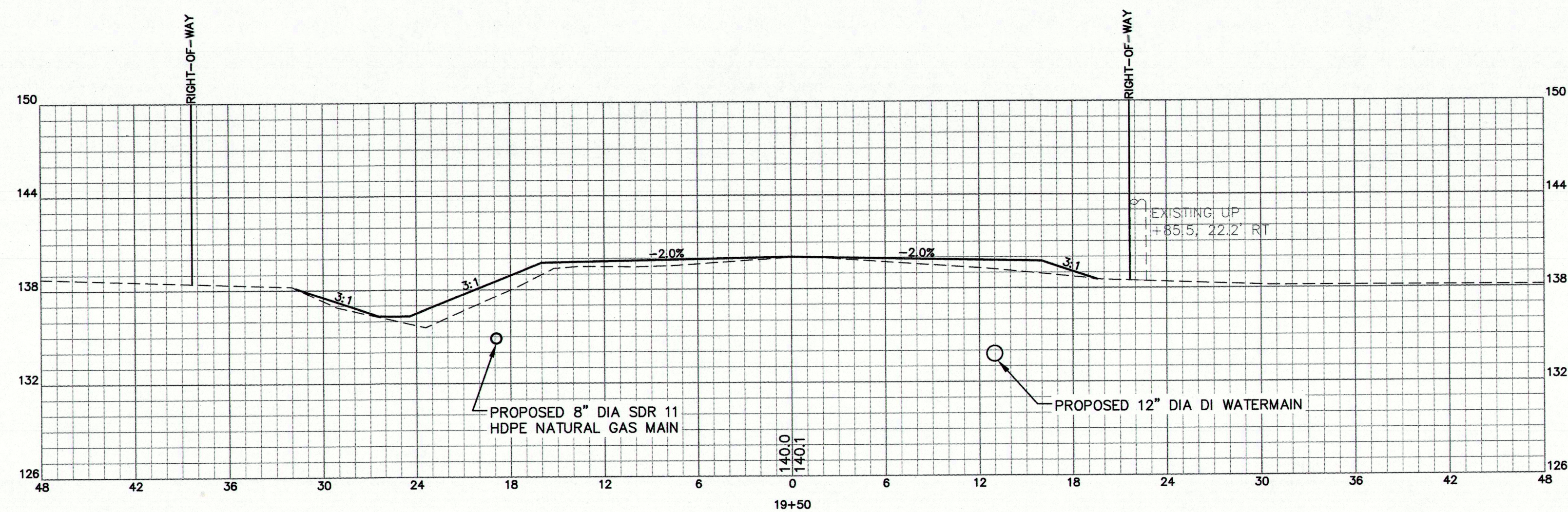
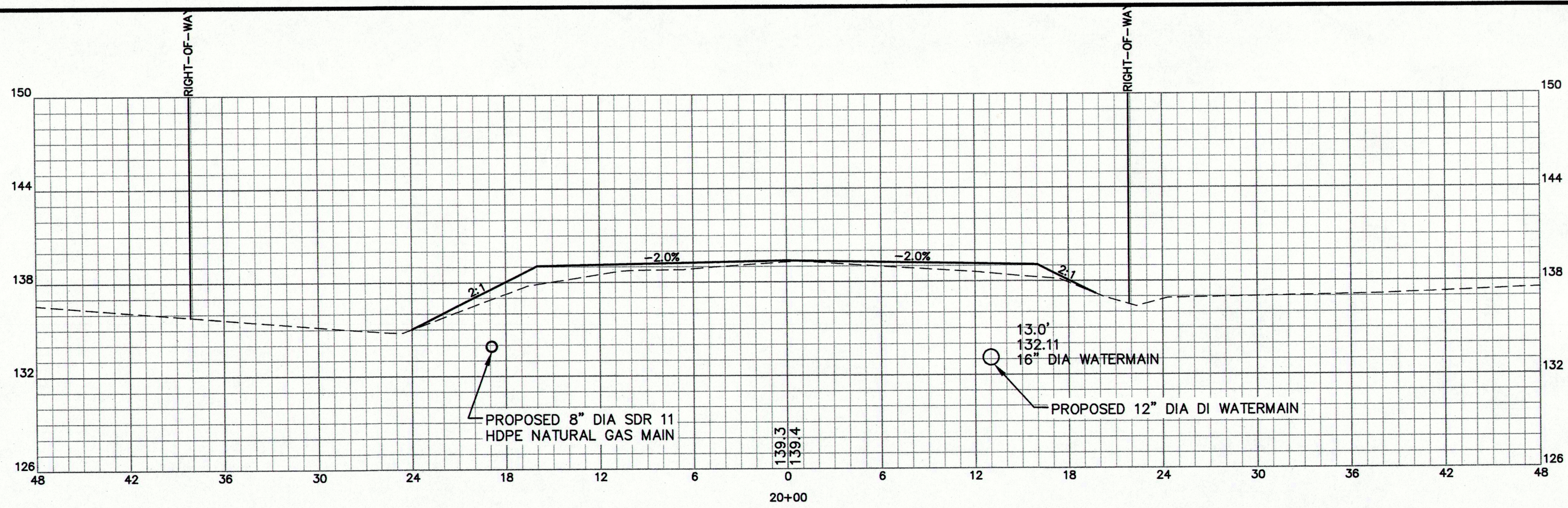
REV.	BY	DATE	STATUS
5	JCM	12/20/16	ISSUED FOR BID



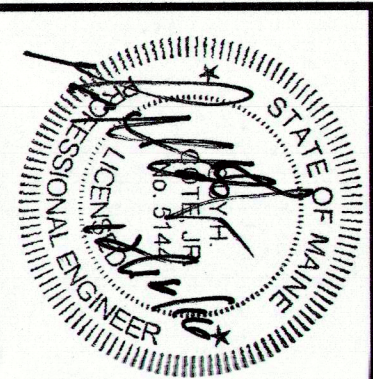
TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE
CROSS SECTIONS
STA 14+50 TO STA 17+00

SME
Seave & Maher Engineers, Inc.
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DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: *[Signature]*
LUN: NONE
CTB: SME-STD
JOB NO. 16047.00 DWG FILE BASE
C-219

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REV.	BY	DATE	STATUS
1	JCM	12/20/16	ISSUED FOR BID



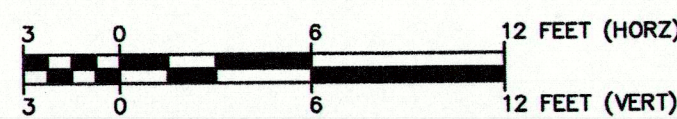
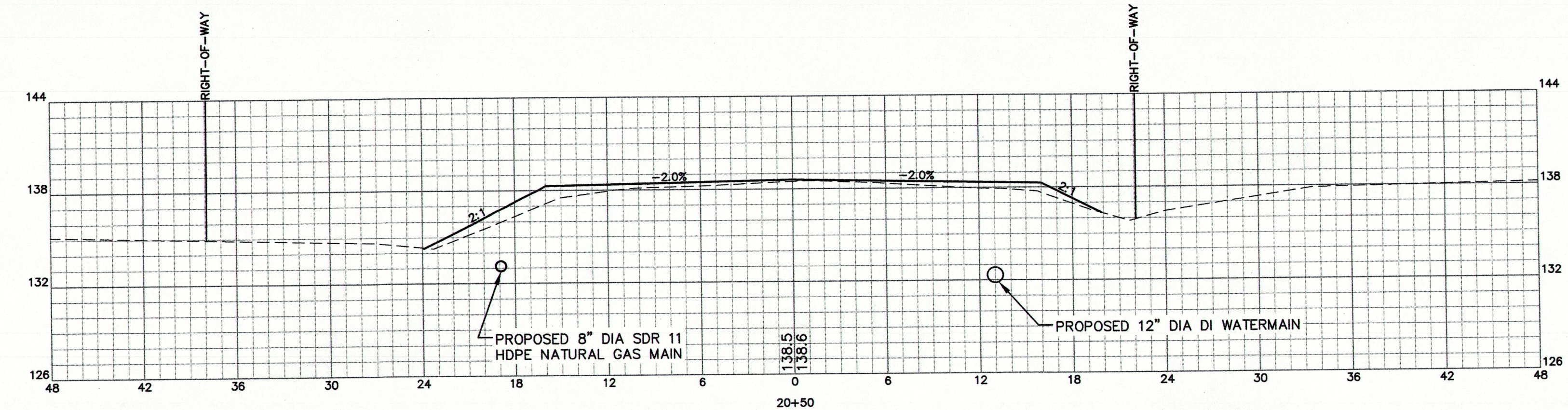
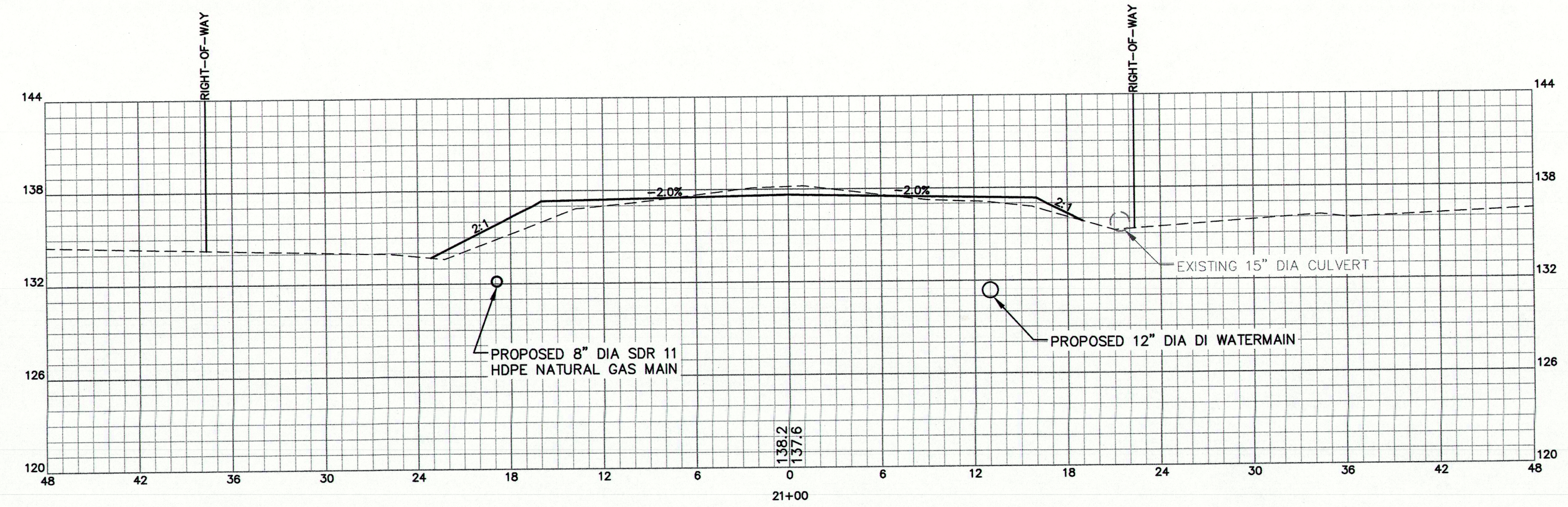
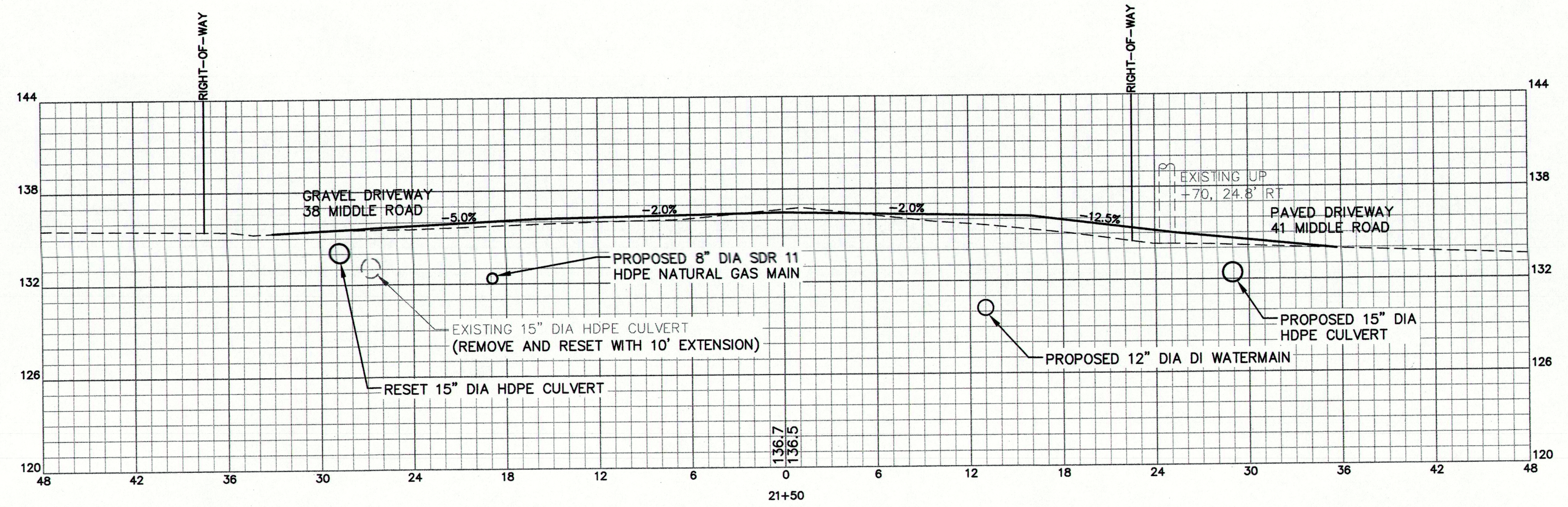
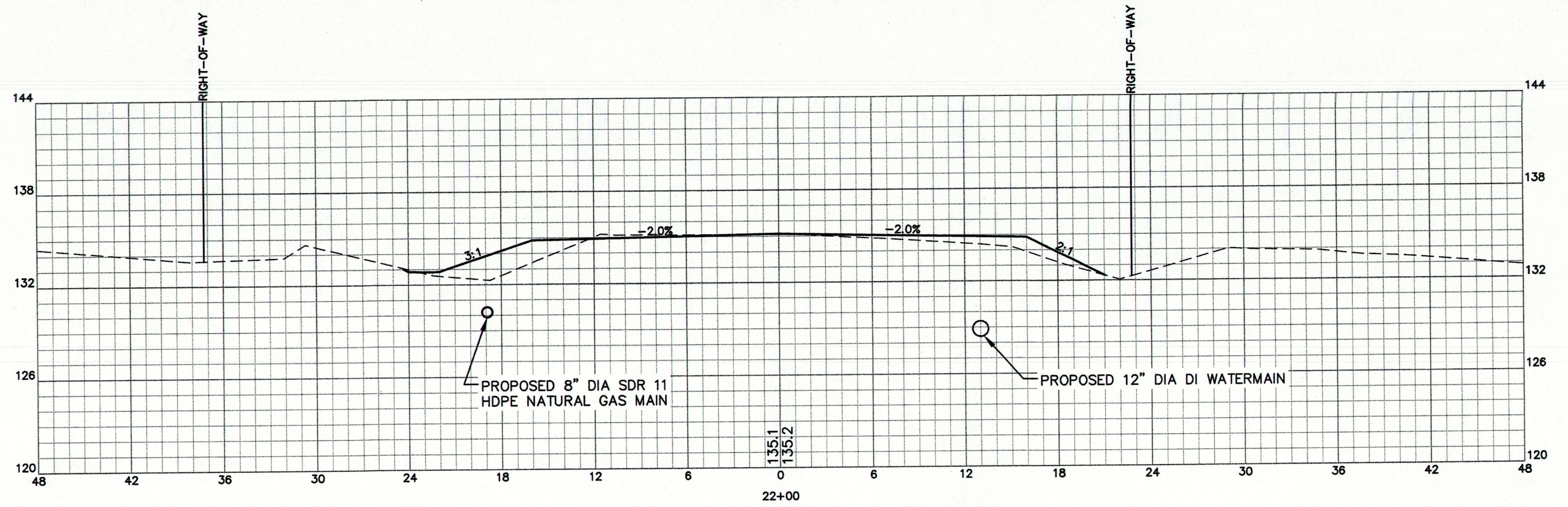
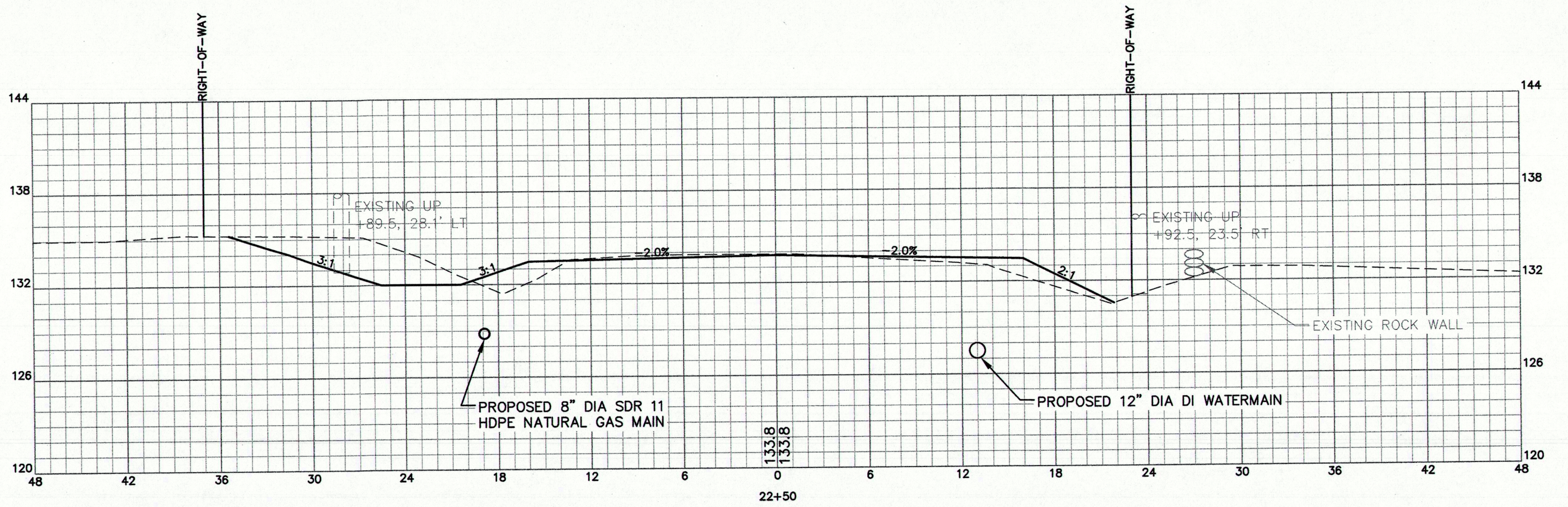
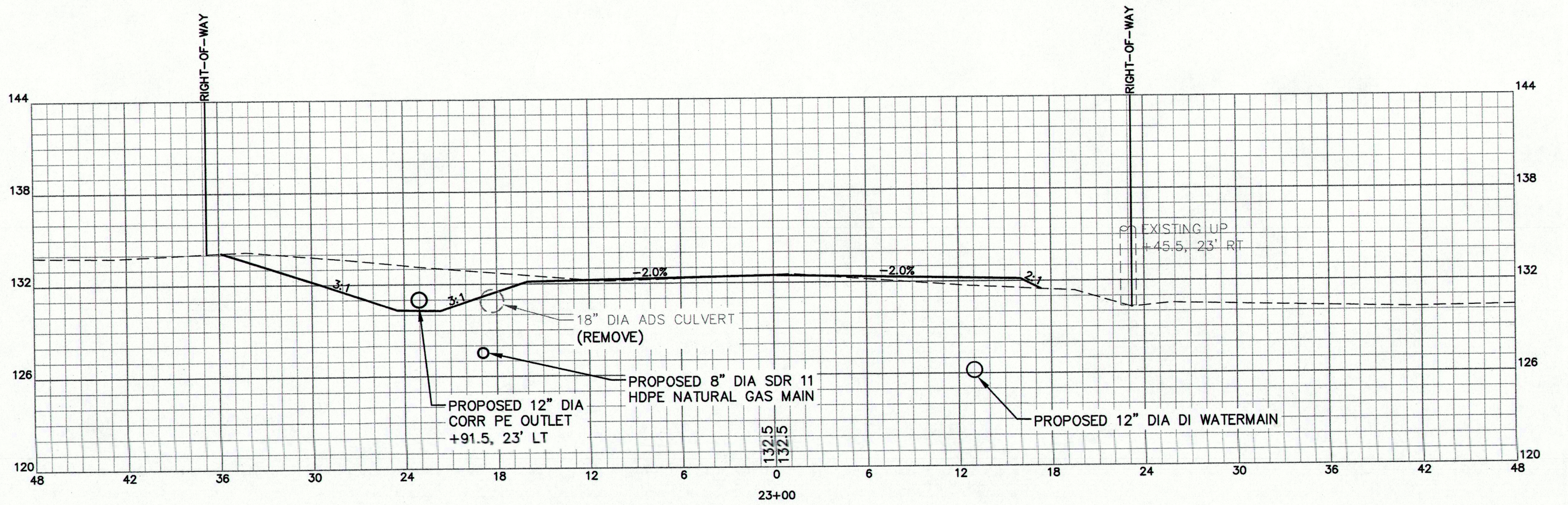
TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 17+50 TO STA 20+00

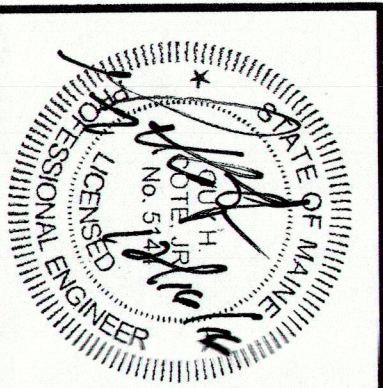
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DESIGN BY: JCM
DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: *[Signature]*
LMN: NONE
CTB: SME-STD

JOB NO. 16047.00 DWG FILE BASE C-220



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



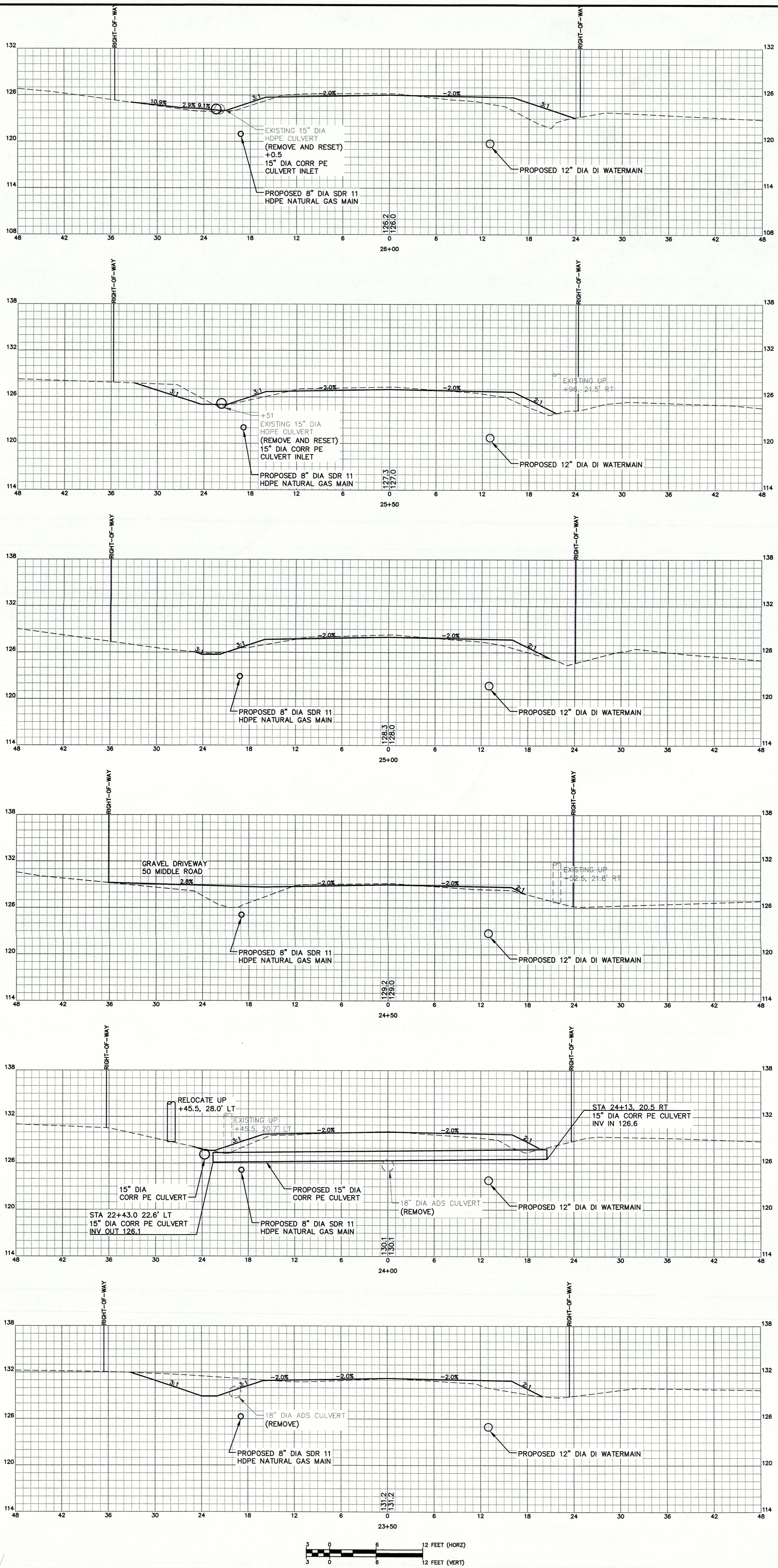
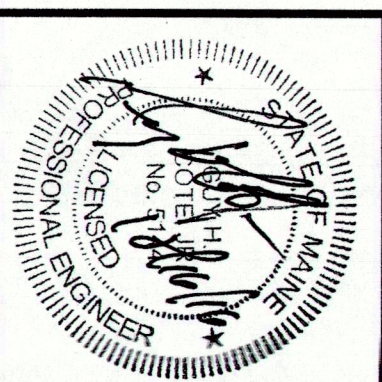
TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 20+50 TO STA 23+00

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JOB NO. 16047.00 DWG FILE BASE C-221

DESIGN BY: JCM
DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: [Signature]
LWI: NONE
CTB: SME-STD

[illegible]

TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS

STA 23+50 TO STA 26+00

SME

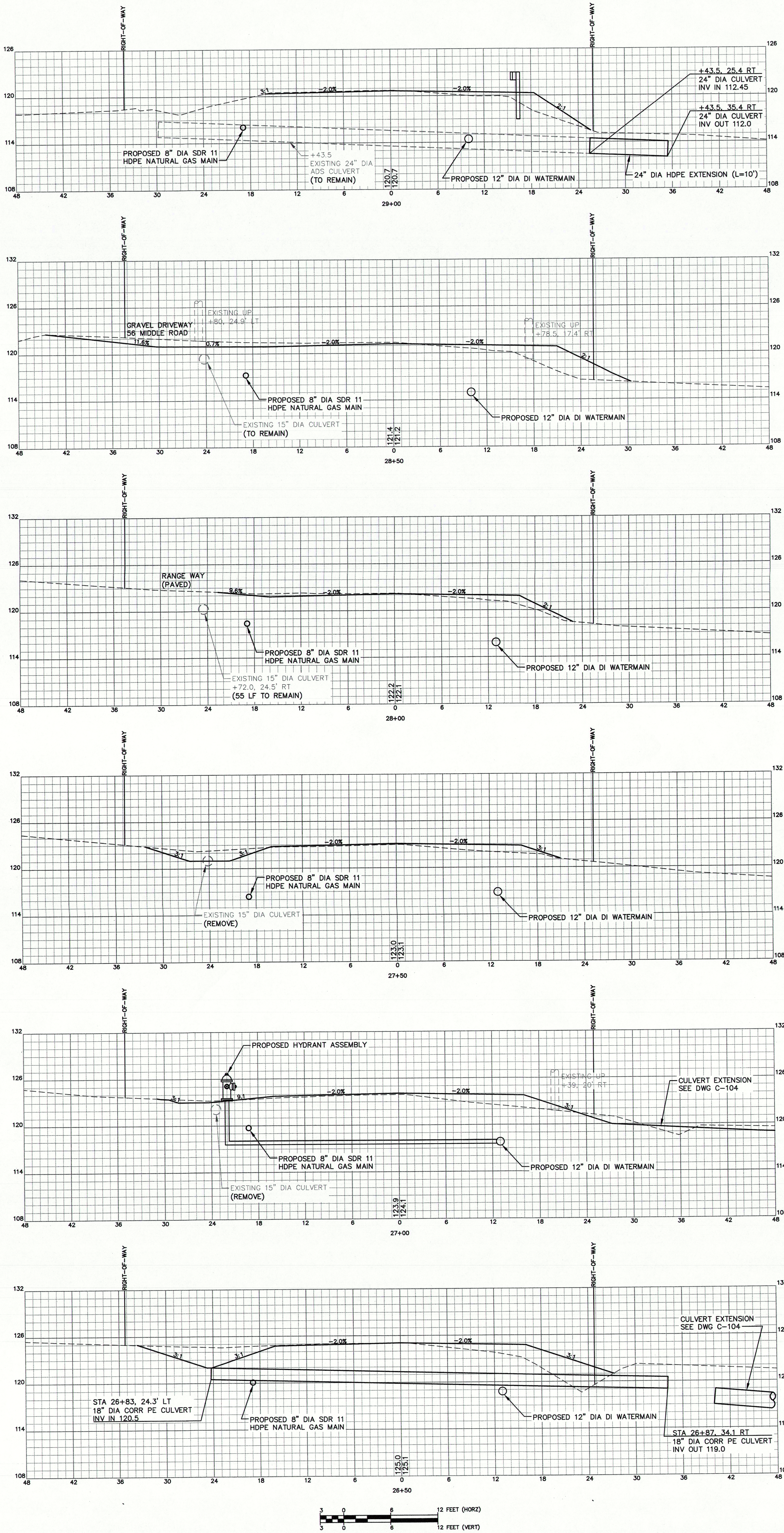
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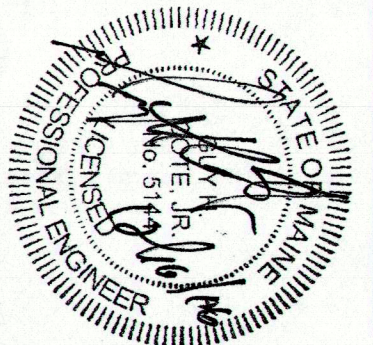
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C-222



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

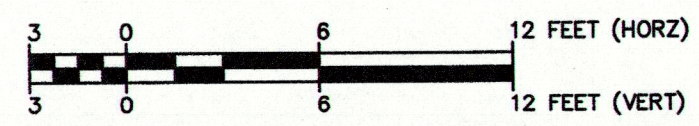
CROSS SECTIONS
26+50 TO STA 29+00

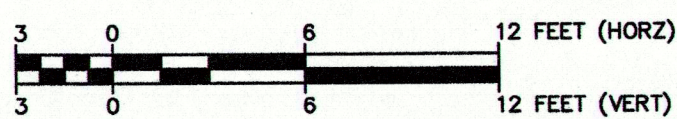
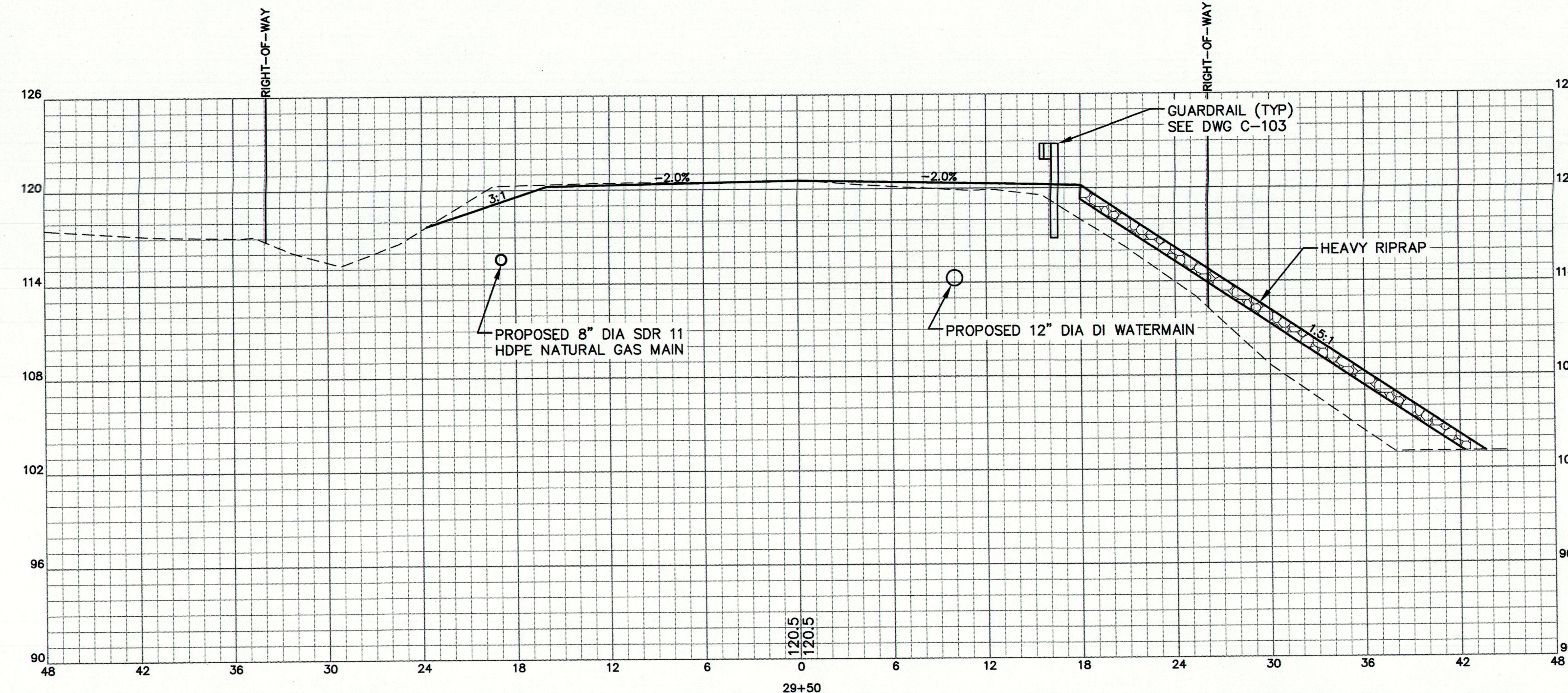
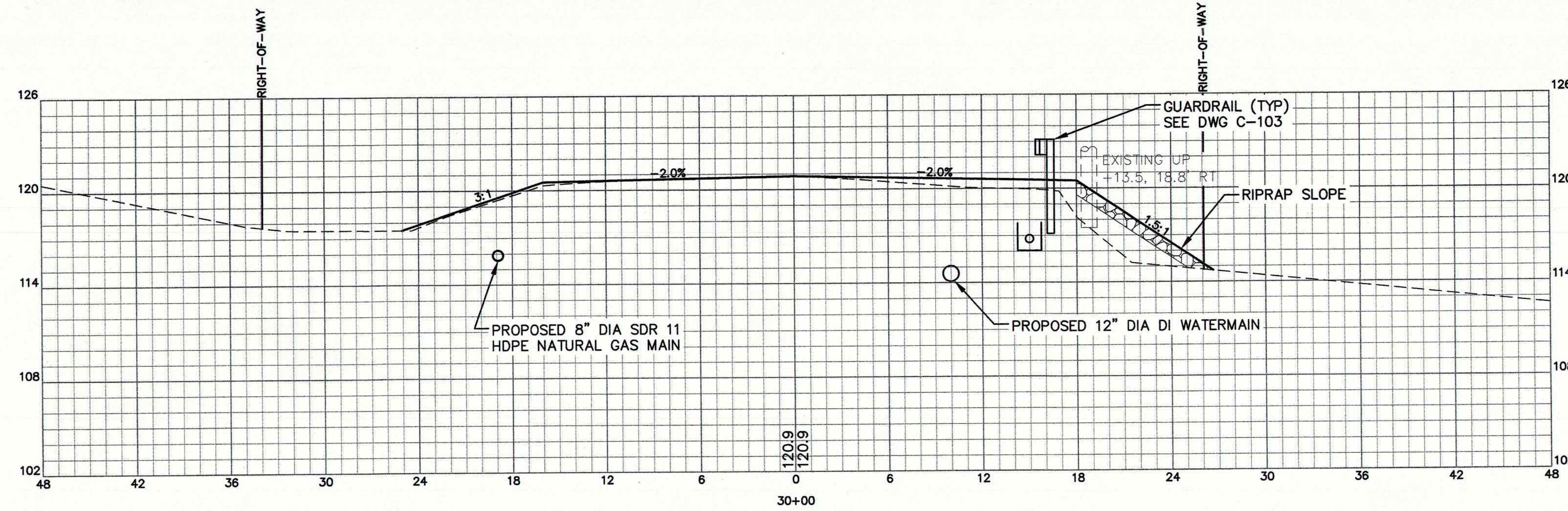
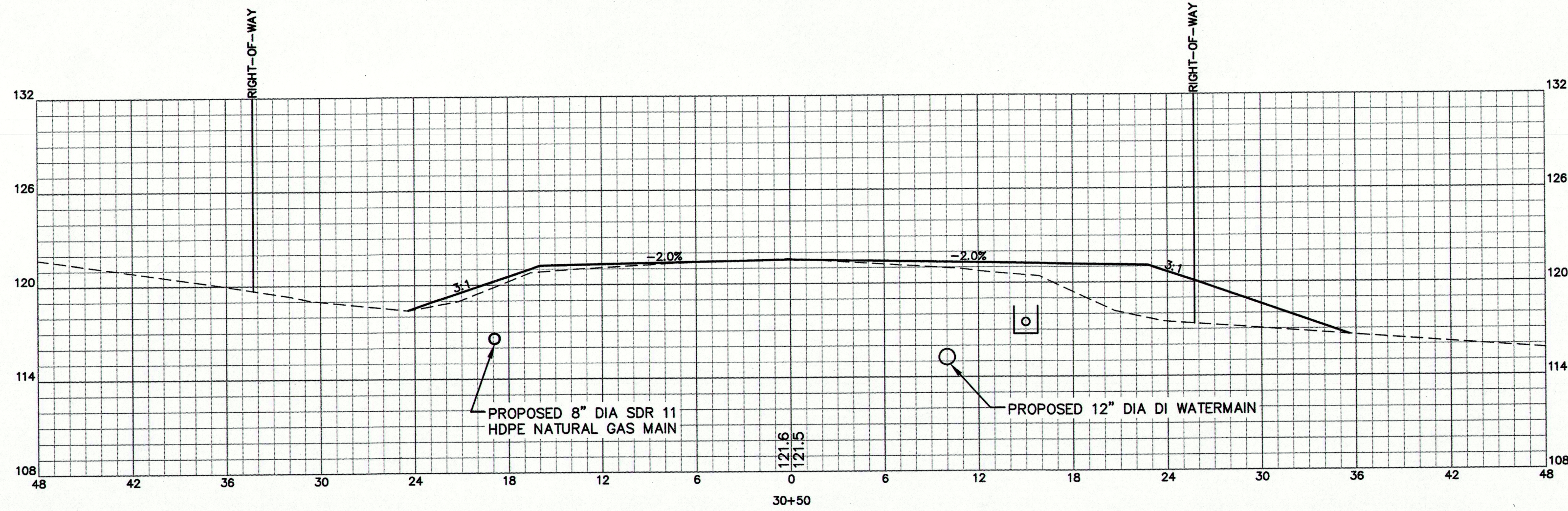
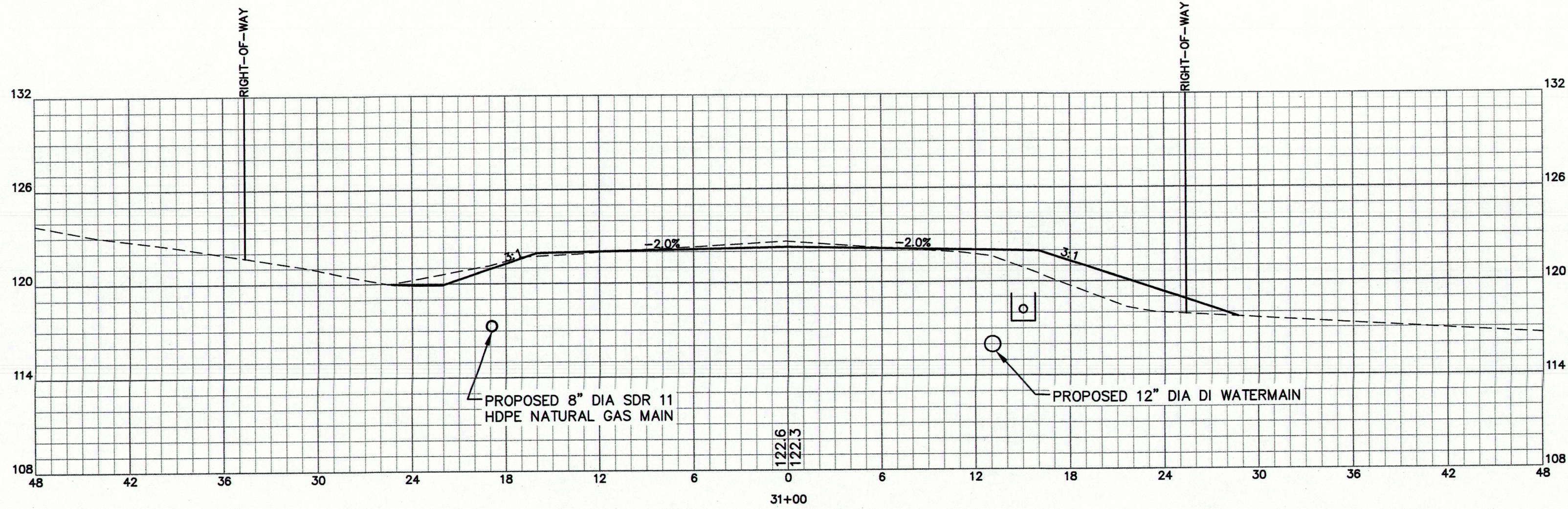
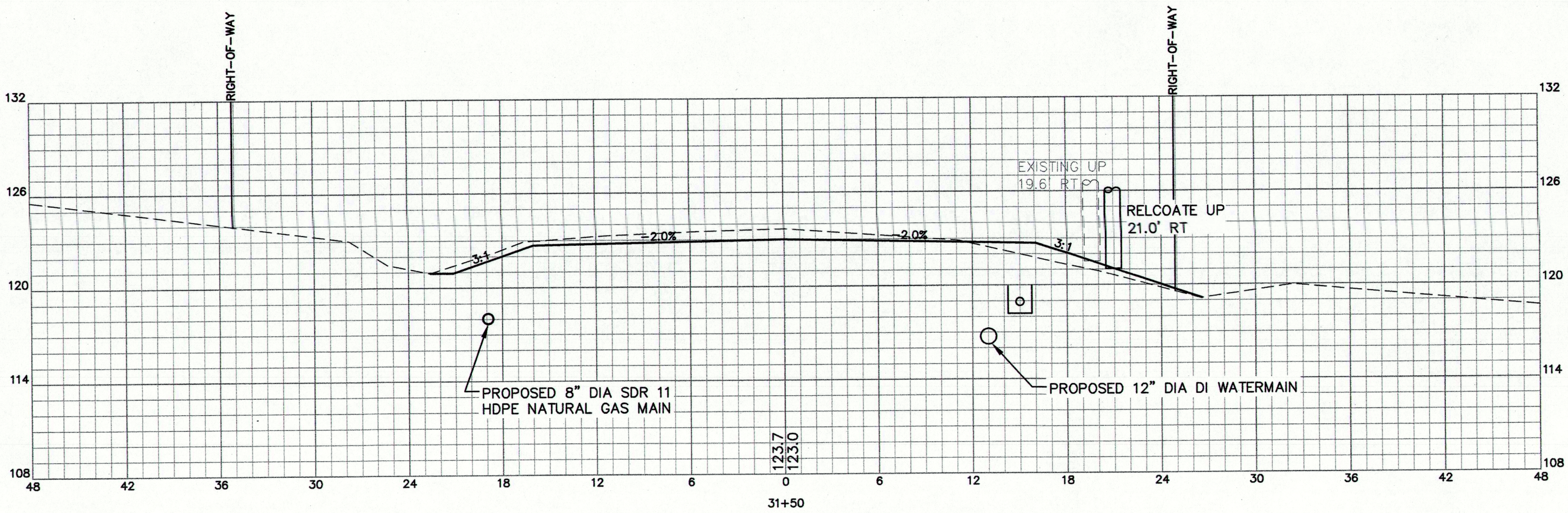
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DRAWN BY: SJM
DATE: 5/2016
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LMM: NONE
CTB: SME-STD

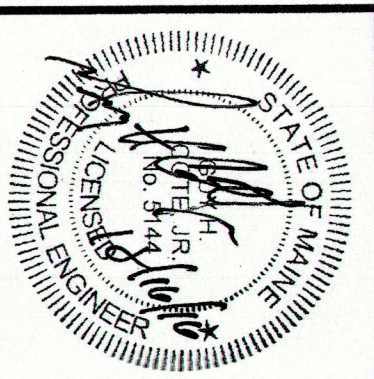
JOB NO. 16047.00 DWG FILE BASE

C-223





REV.	BY	DATE	STATUS
1	SCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND MIDDLE ROAD IMPROVEMENTS CUMBERLAND, MAINE

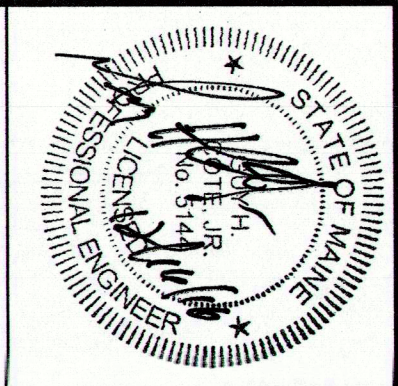
CROSS SECTIONS STA 29+00 TO STA 31+50

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DESIGN BY: JCM
DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: *[Signature]*
LIN: NONE
CTB: SME-STD

JOB NO. 16047.00 DWG FILE BASE C-224

REV.	BY	DATE	STATUS
3	JCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

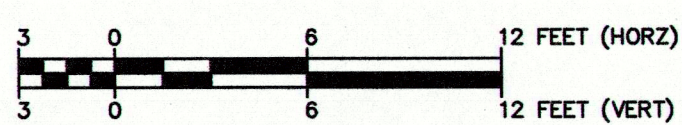
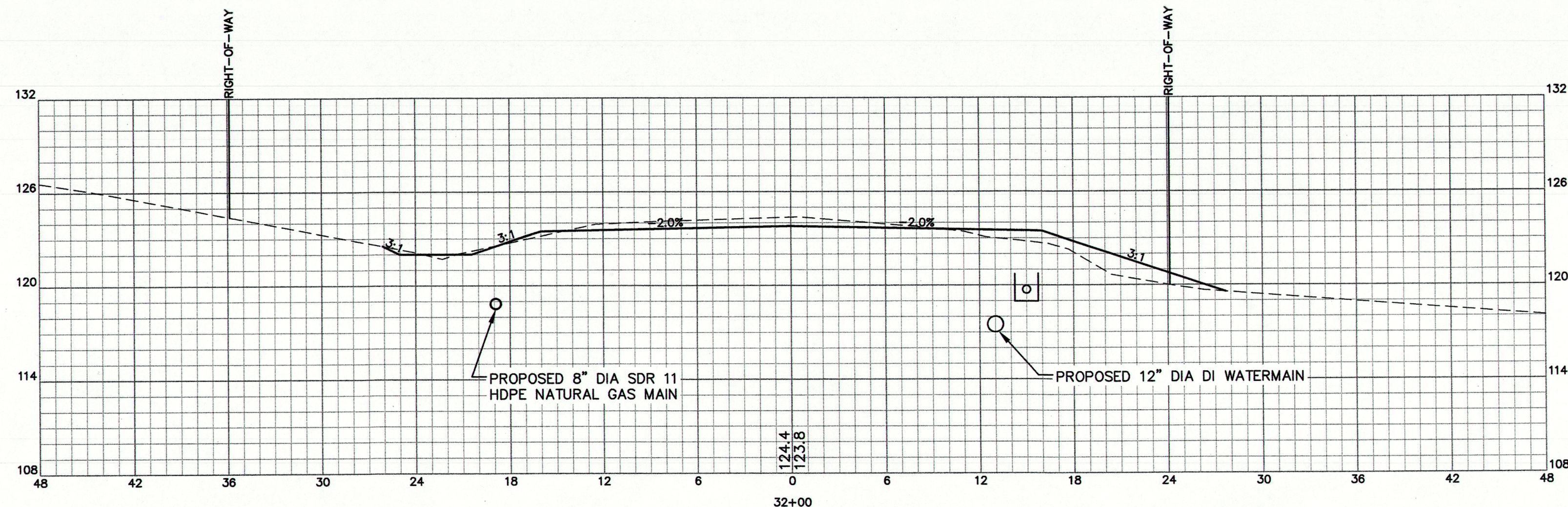
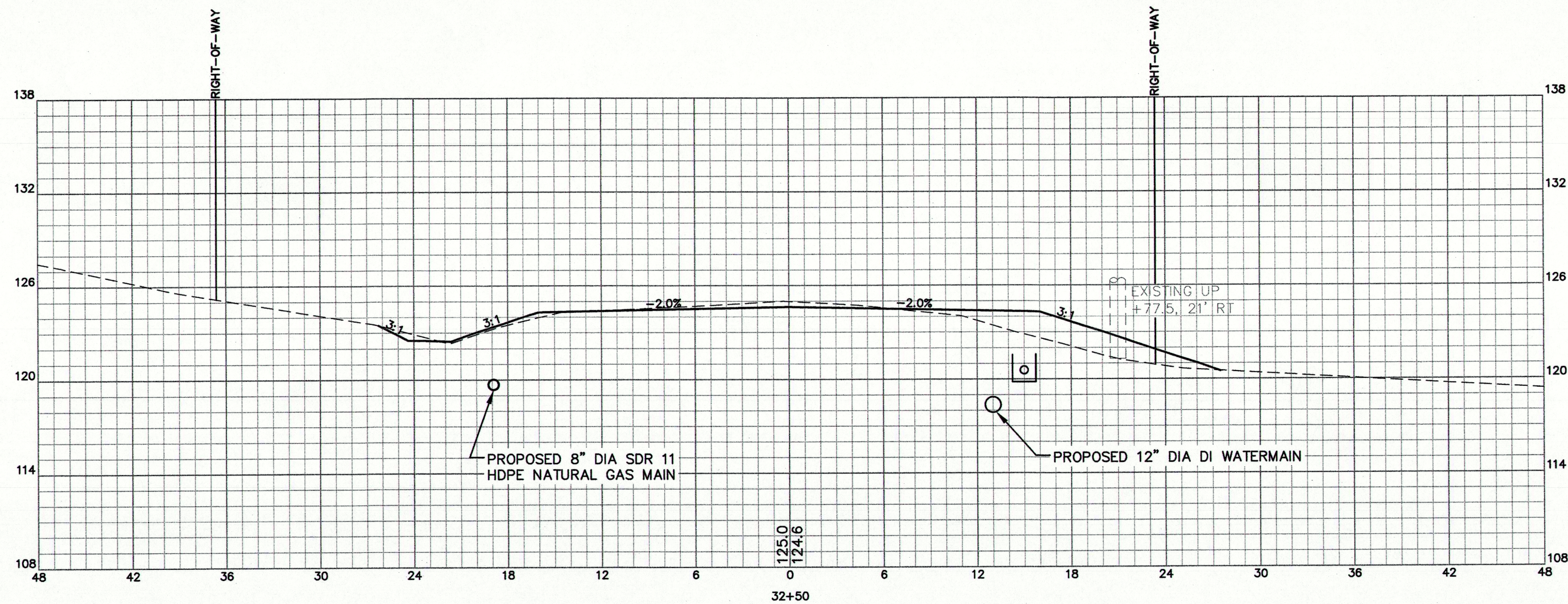
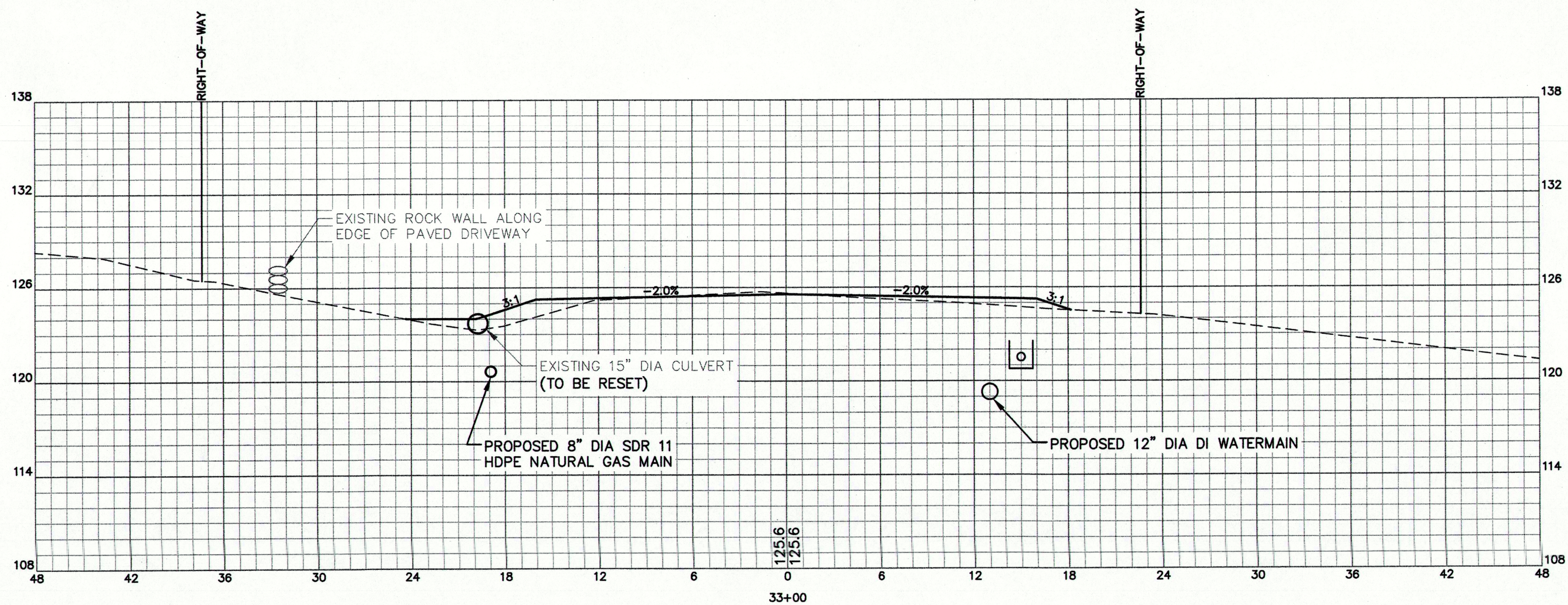
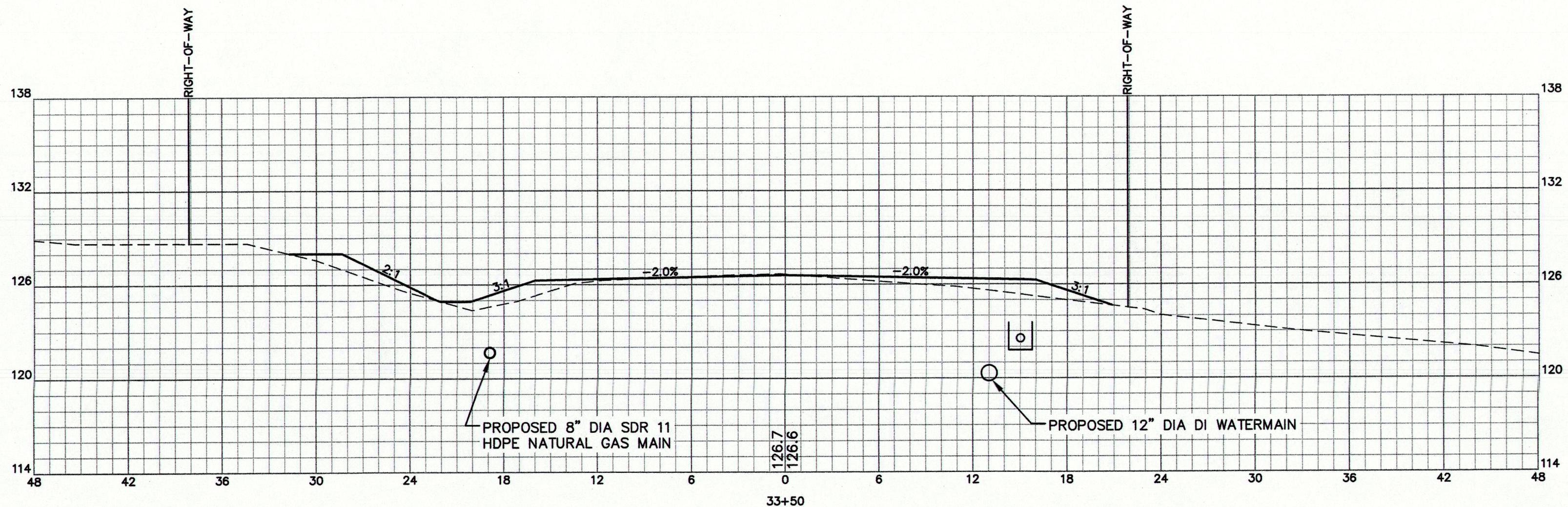
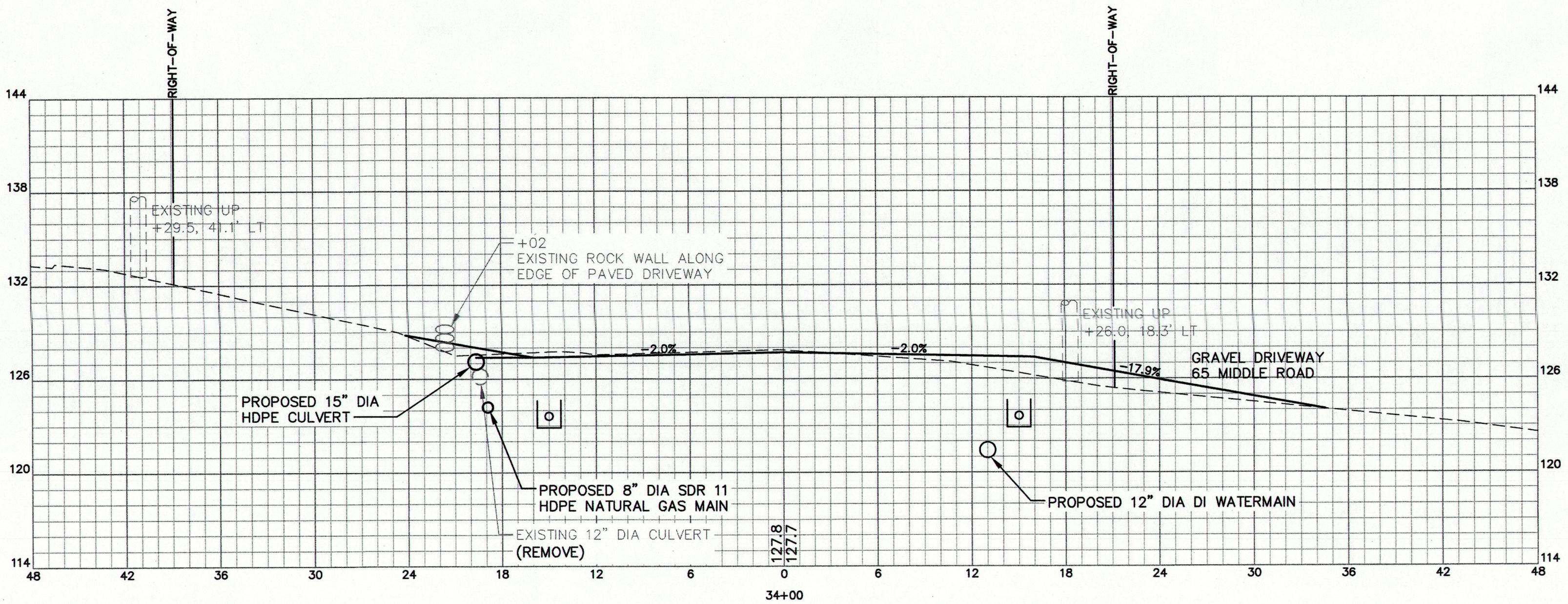
CROSS SECTIONS
STA 32+00 TO STA 34+00

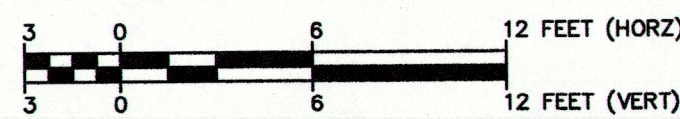
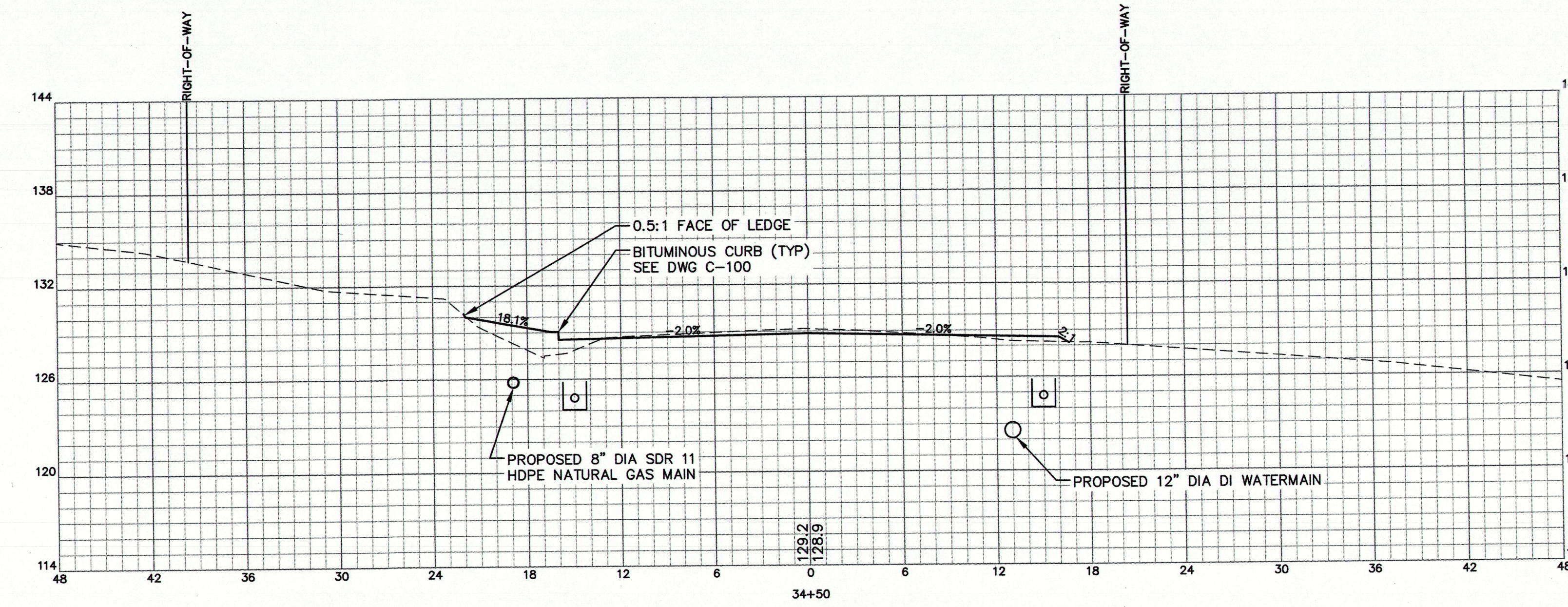
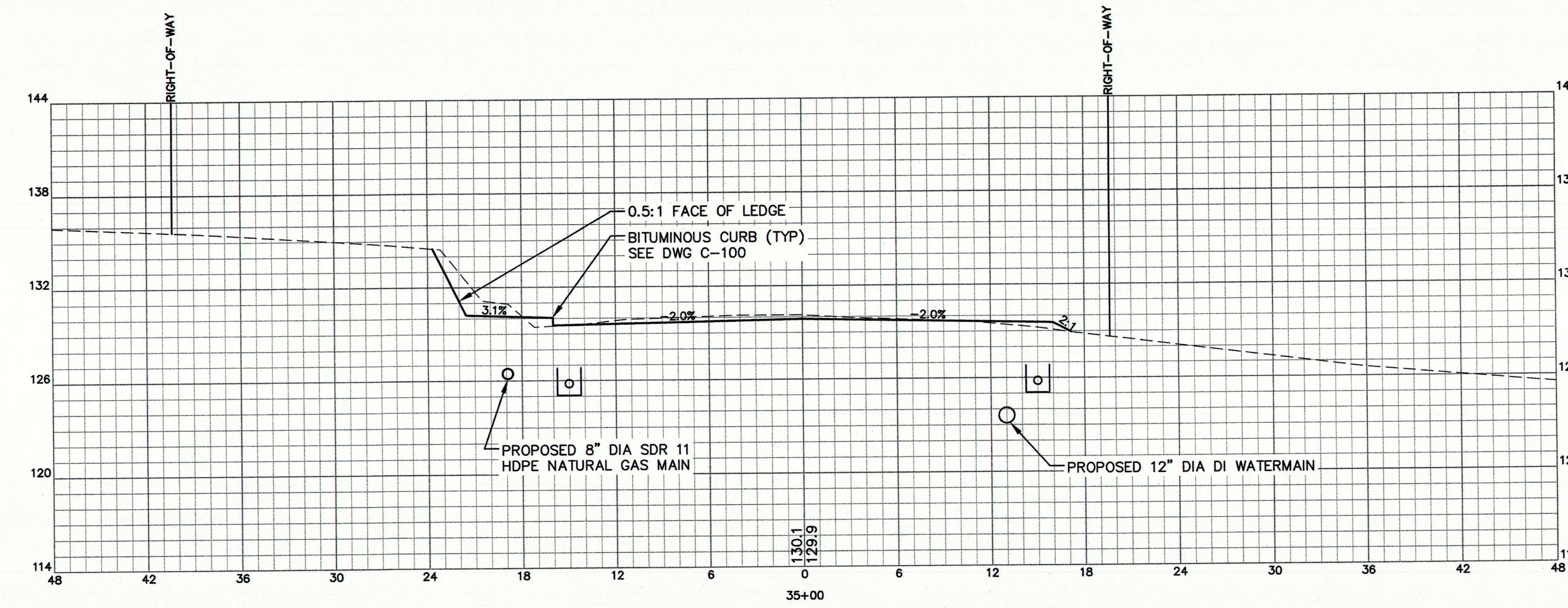
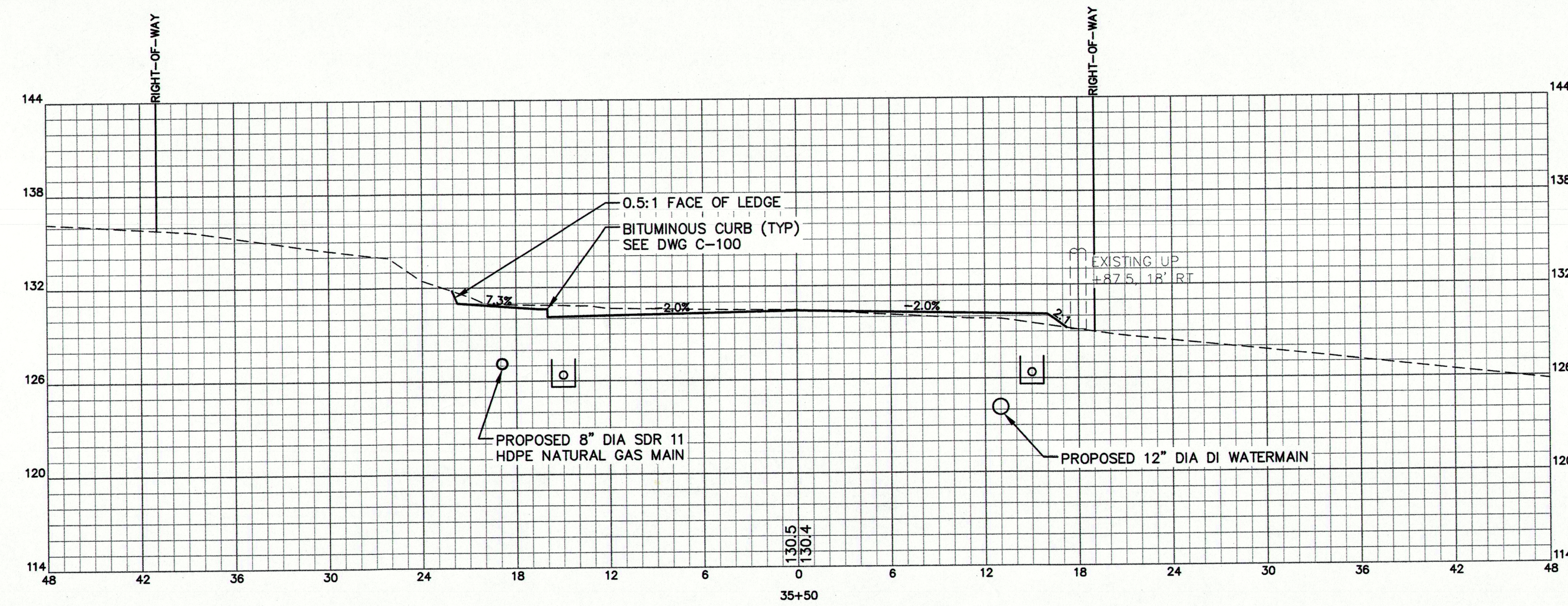
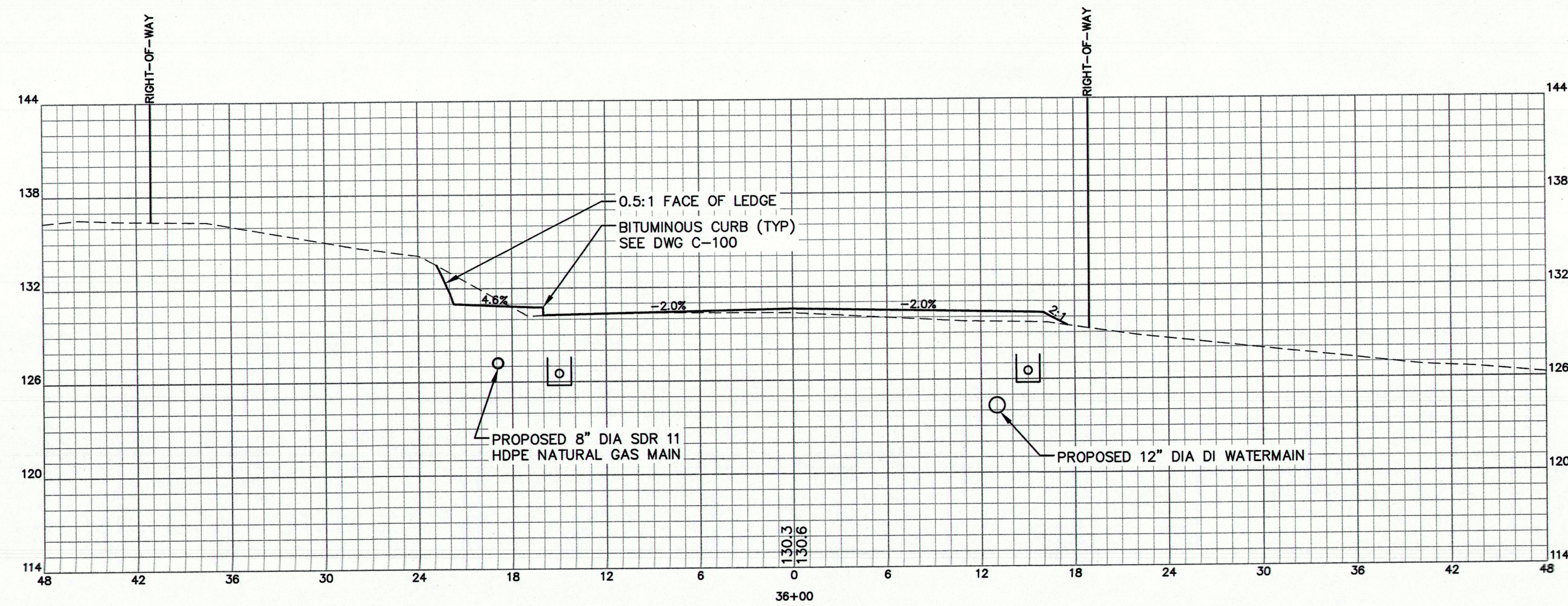
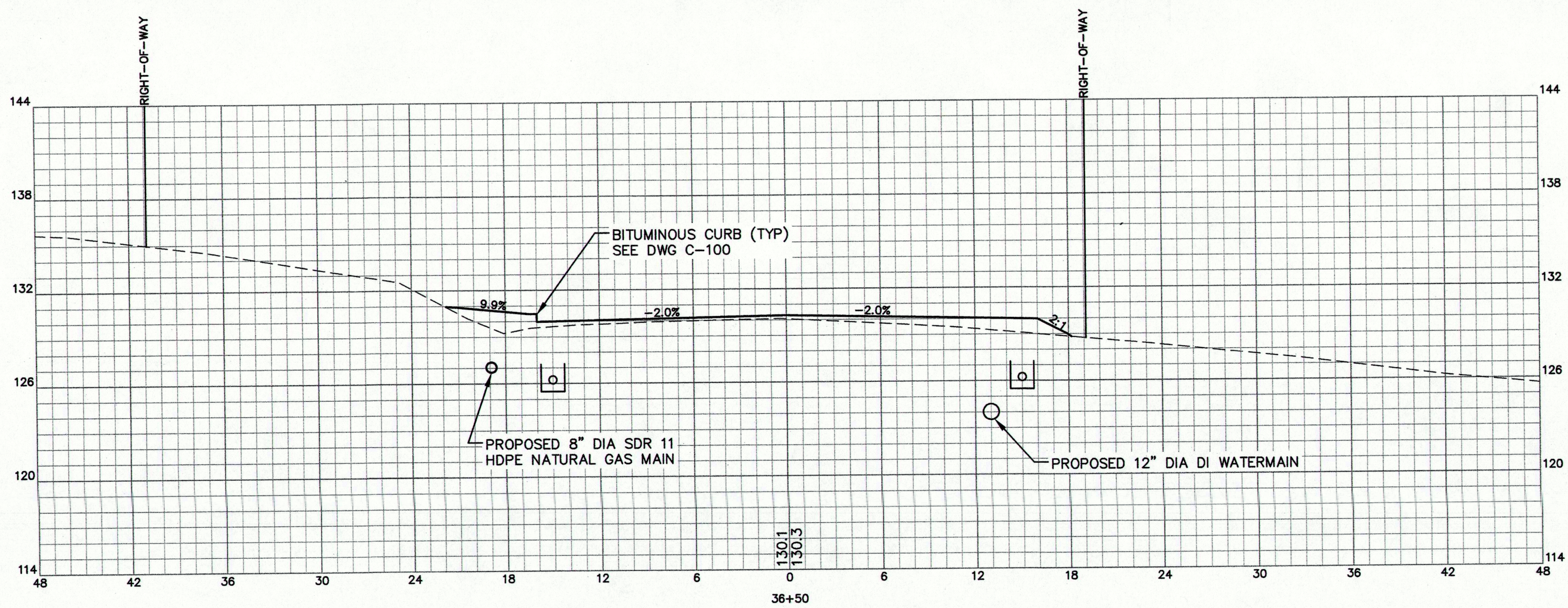
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DESIGN BY: JCM
 DRAWN BY: SJM
 DATE: 5/2016
 CHECKED BY: *[Signature]*
 LHM: NONE
 CIB: SME-STD

JOB NO. 16047.00 DWG FILE BASE

C-225





REV.	BY	DATE	STATUS
1	JCM	12/20/16	ISSUED FOR BID

TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

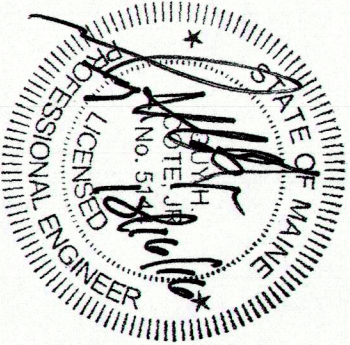
CROSS SECTIONS
STA 34+50 TO STA 36+50

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DESIGN BY: JCM
DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: *[Signature]*
LUN: NONE
CTB: SME-STD

JOB NO. 16047.00 DWG FILE BASE
C-226

REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



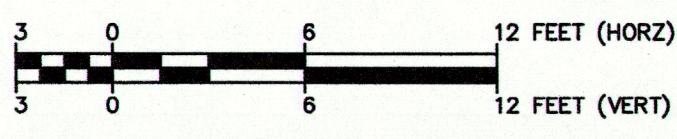
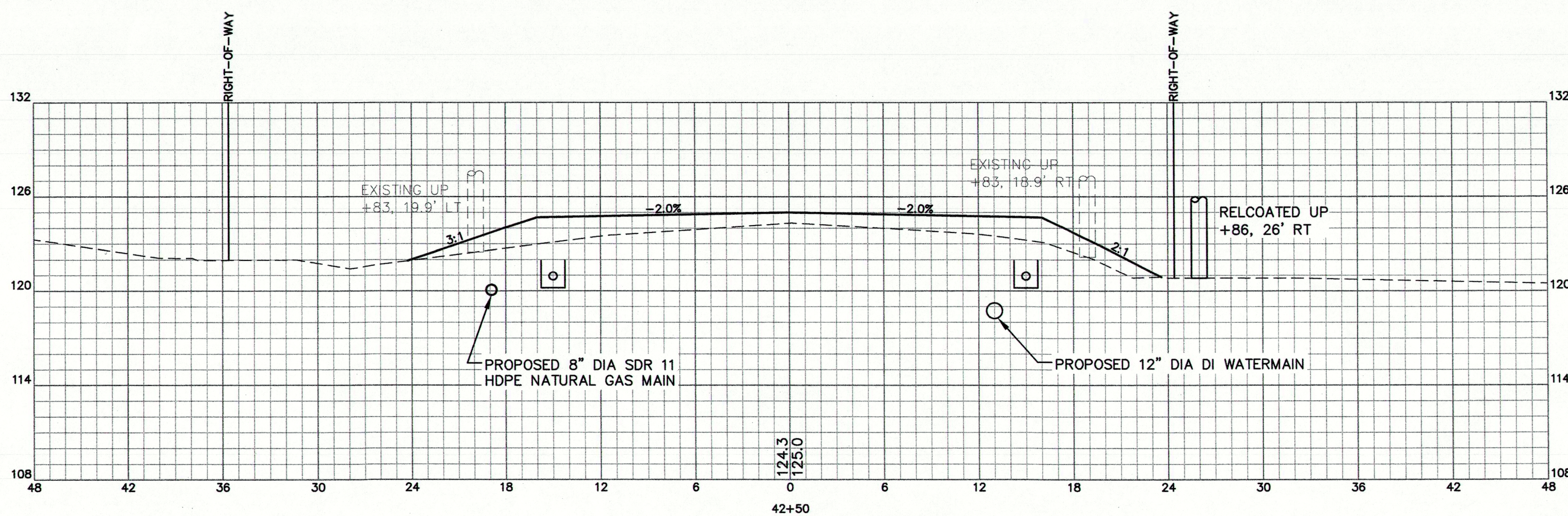
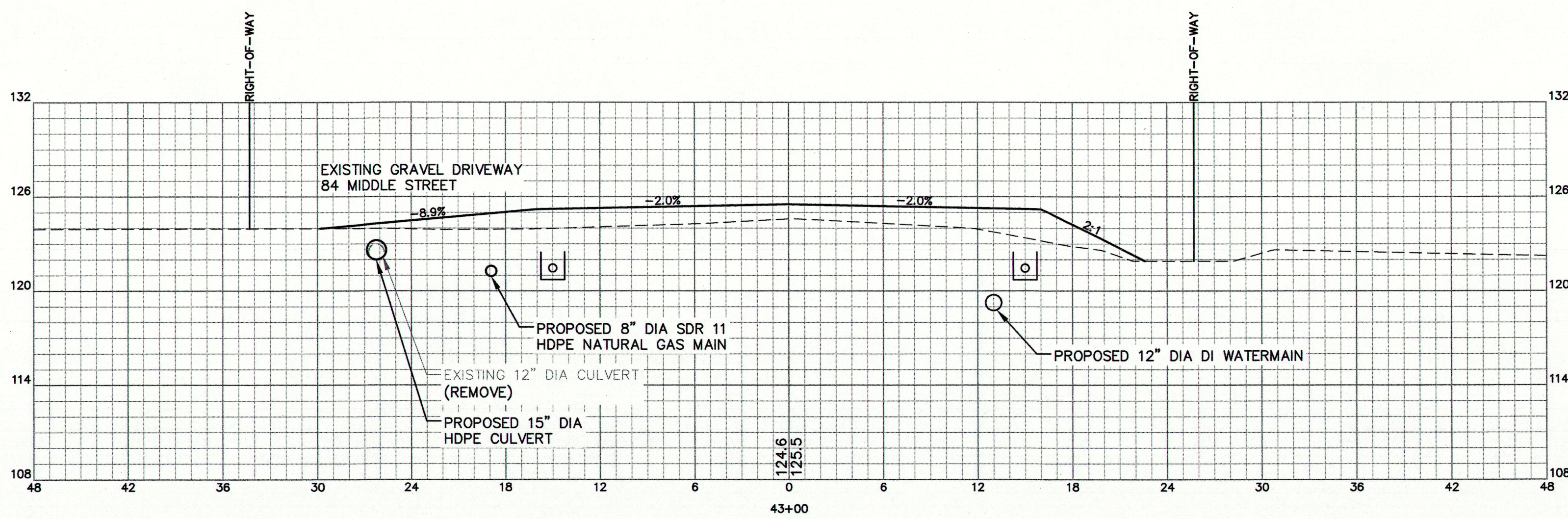
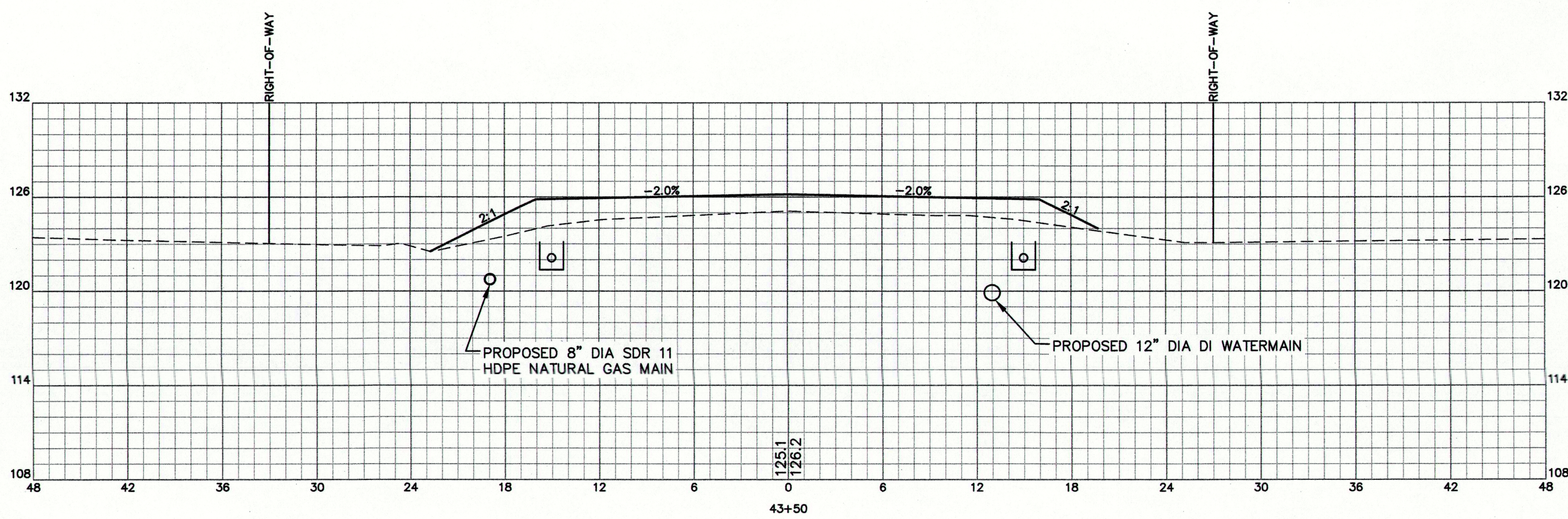
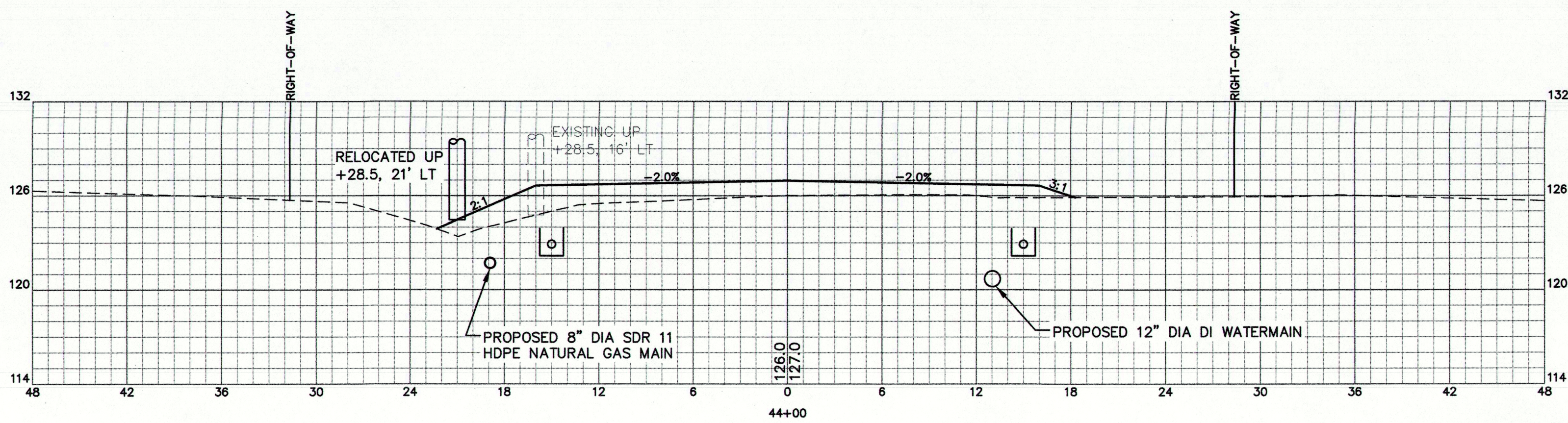
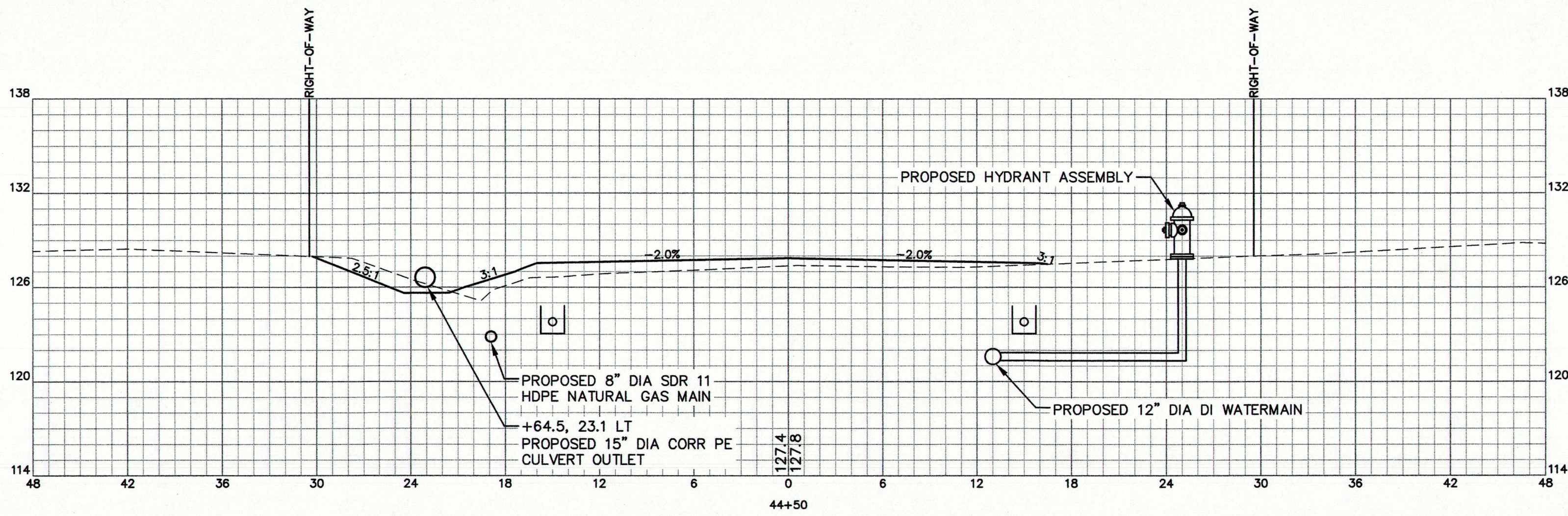
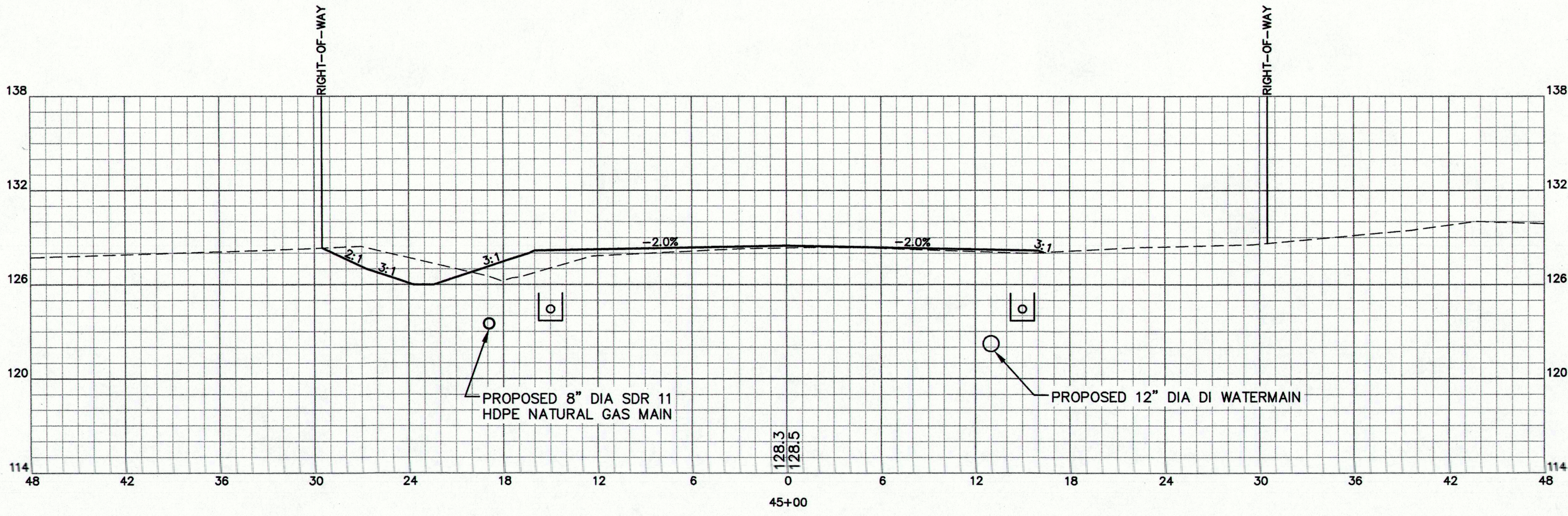
TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

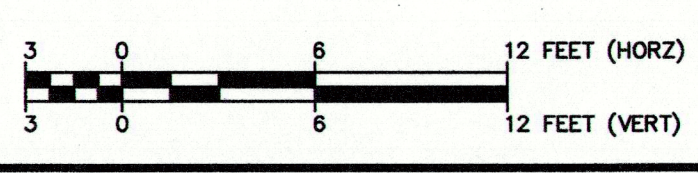
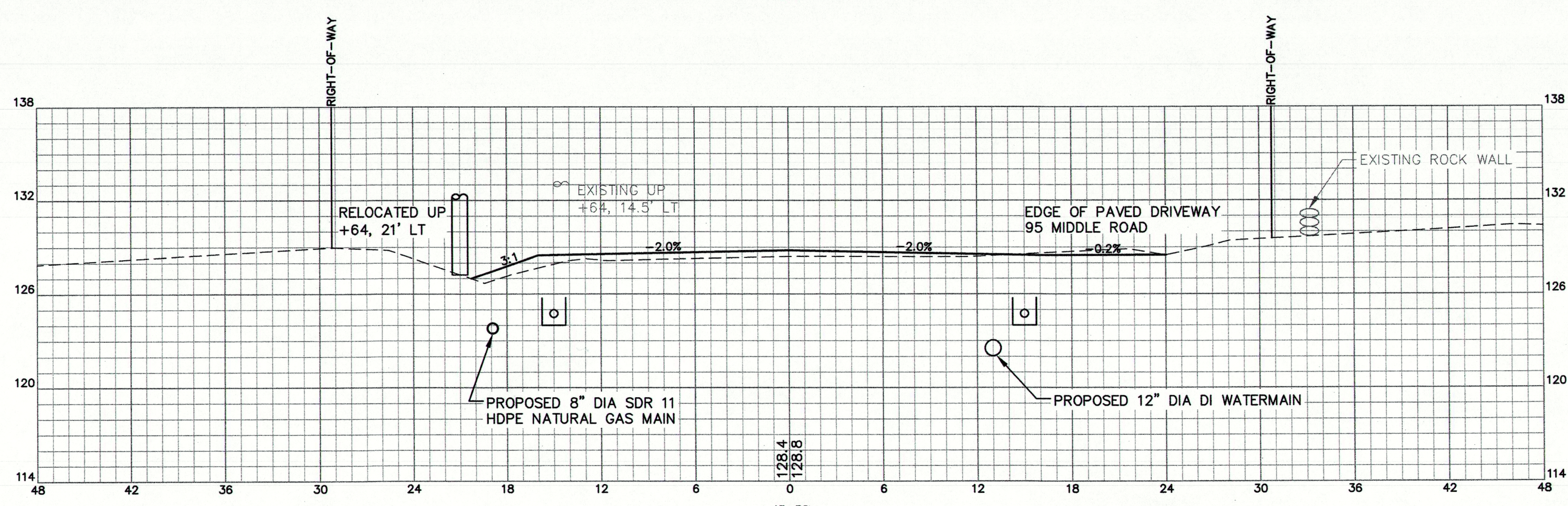
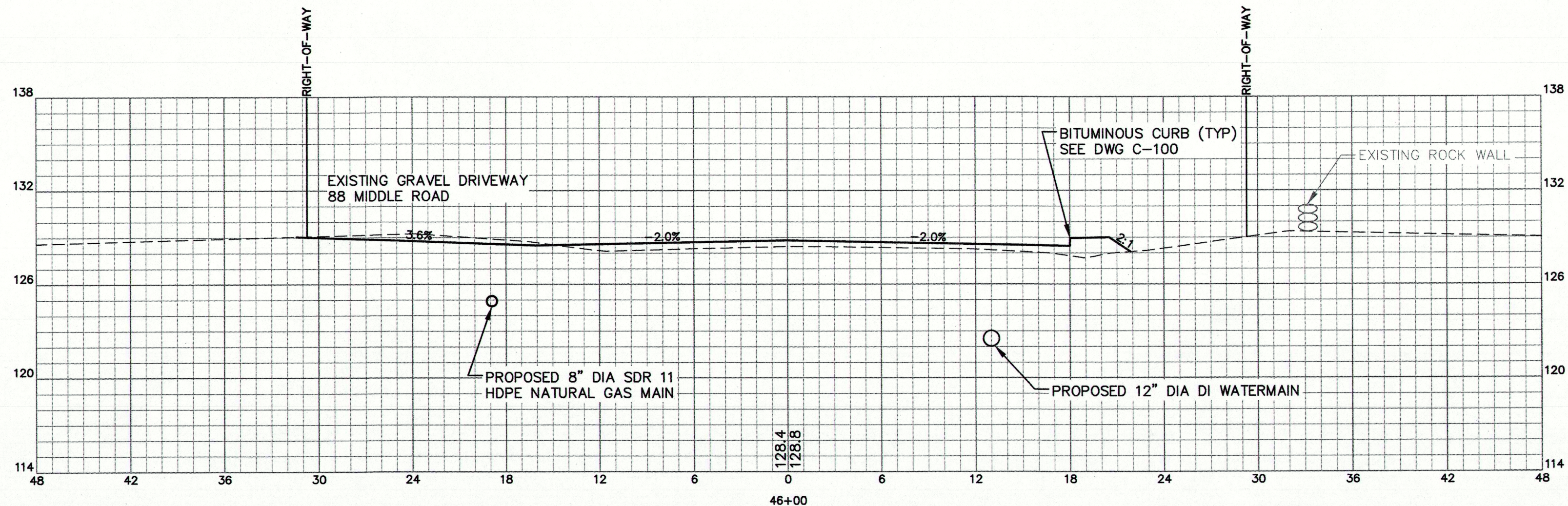
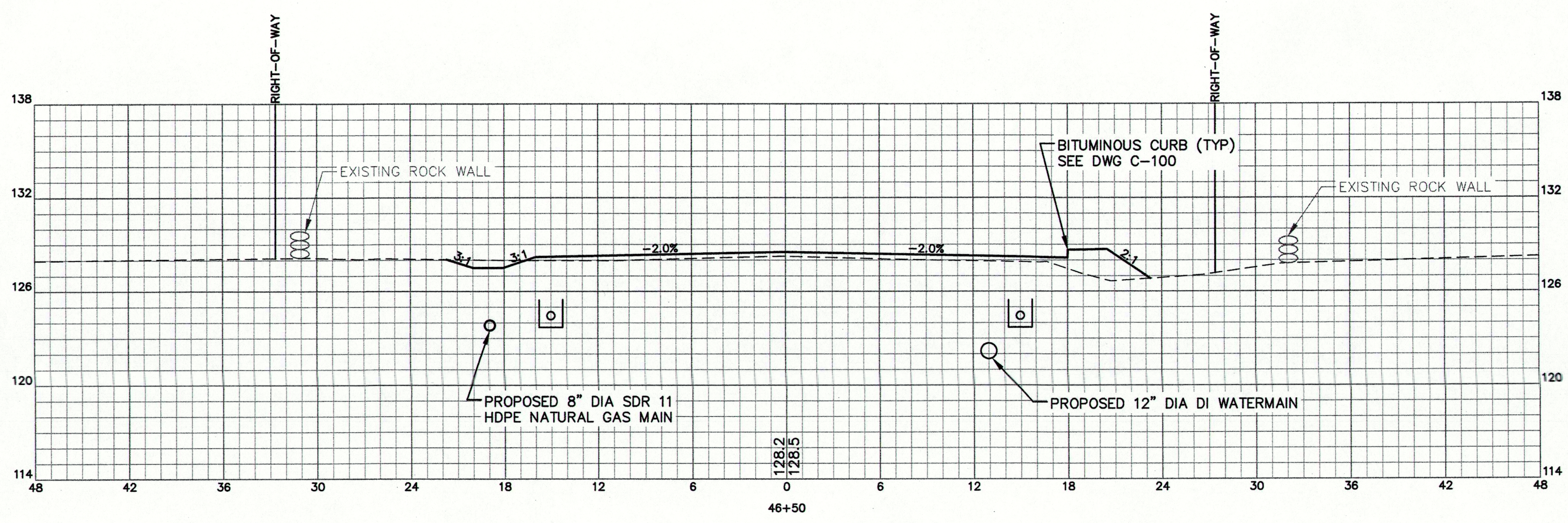
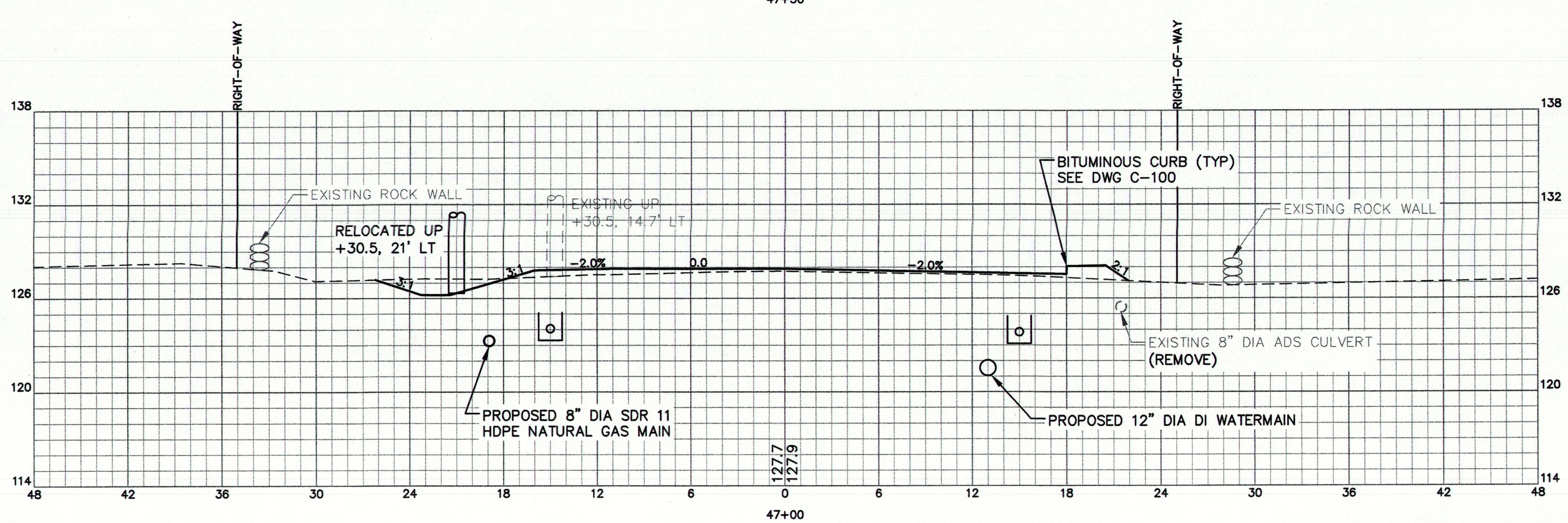
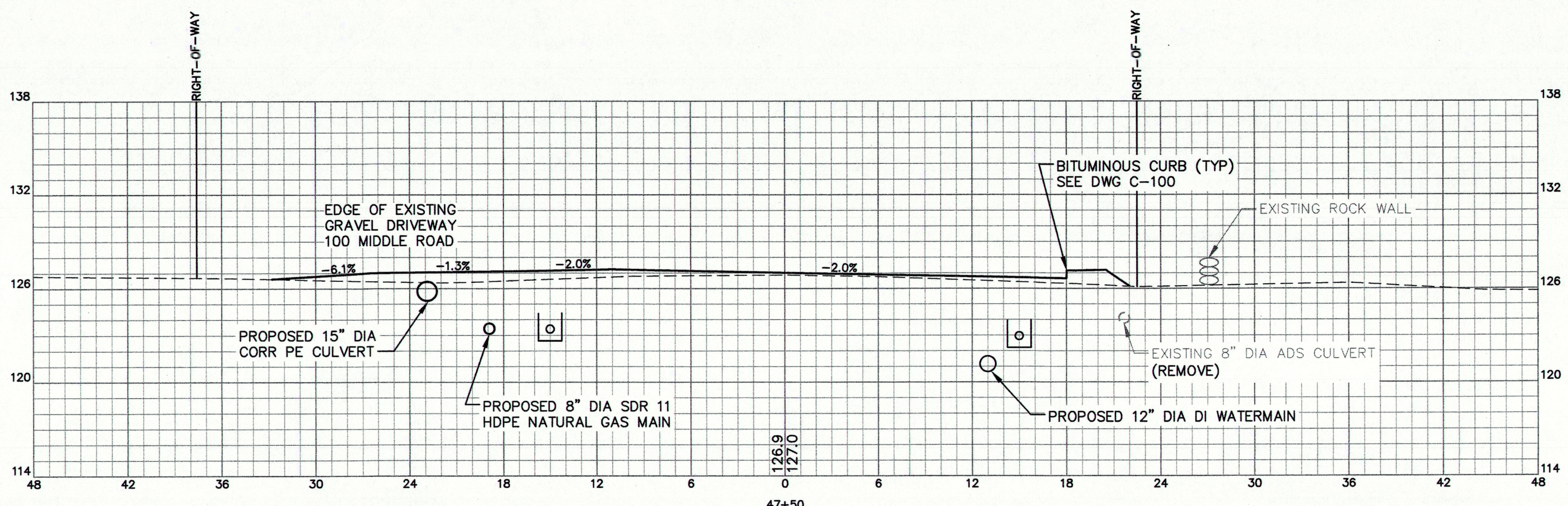
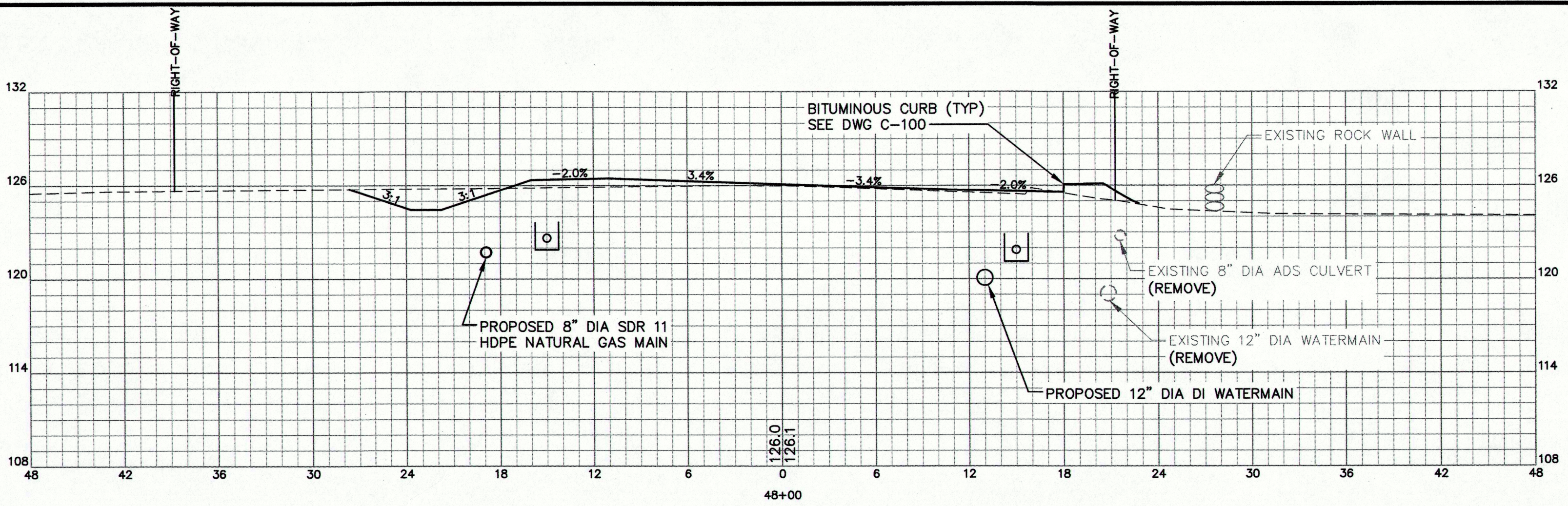
CROSS SECTIONS
STA 42+50 TO STA 45+00

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4 Birchard Road, PO Box 85A, Cumberland Center, Maine 04021
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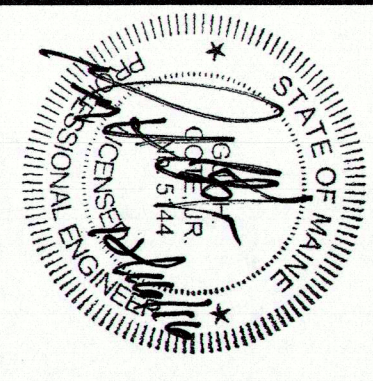
DESIGN BY: JCM
DRAWN BY: S.M.
DATE: 5/2016
CHECKED BY: *[Signature]*
LMN: NONE
CTR: SME-STD

JOB NO. 16047.00 DWG FILE BASE C-229





REV.	BY	DATE	STATUS
1	JCM	12/20/06	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

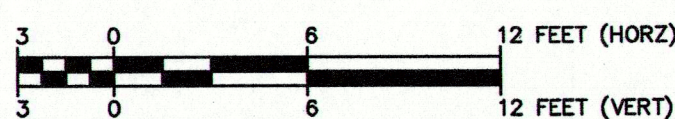
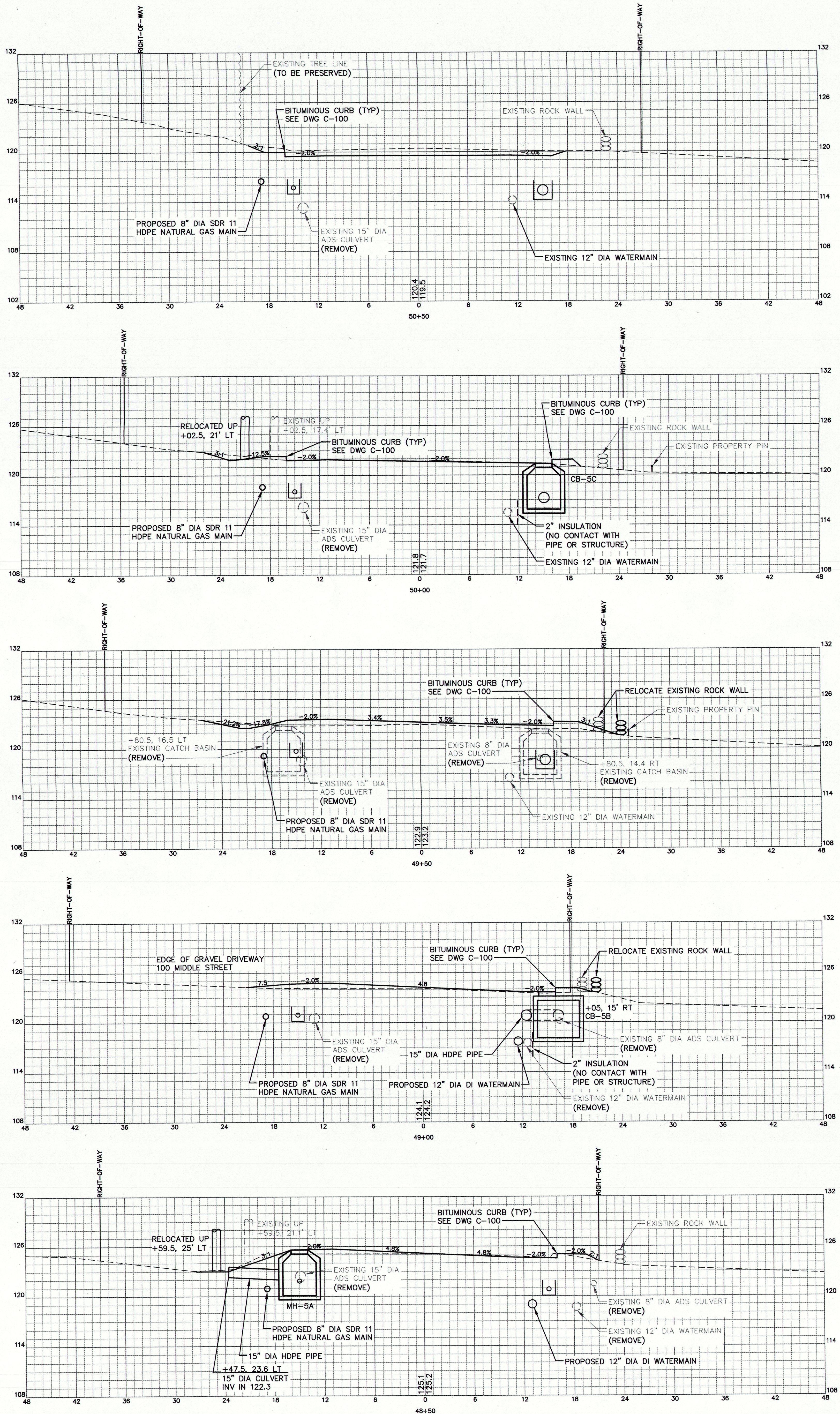
CROSS SECTIONS
STA 45+50 TO STA 48+00

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JOB NO. 16047.00 DWG FILE BASE

DESIGN BY: JCM
DRAWN BY: SJM
DATE: 5/20/06
CHECKED BY: *[Signature]*
LAWYER: NONE
CTB: SME-STD

C-230

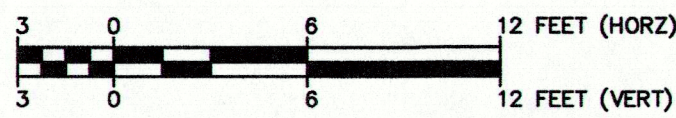
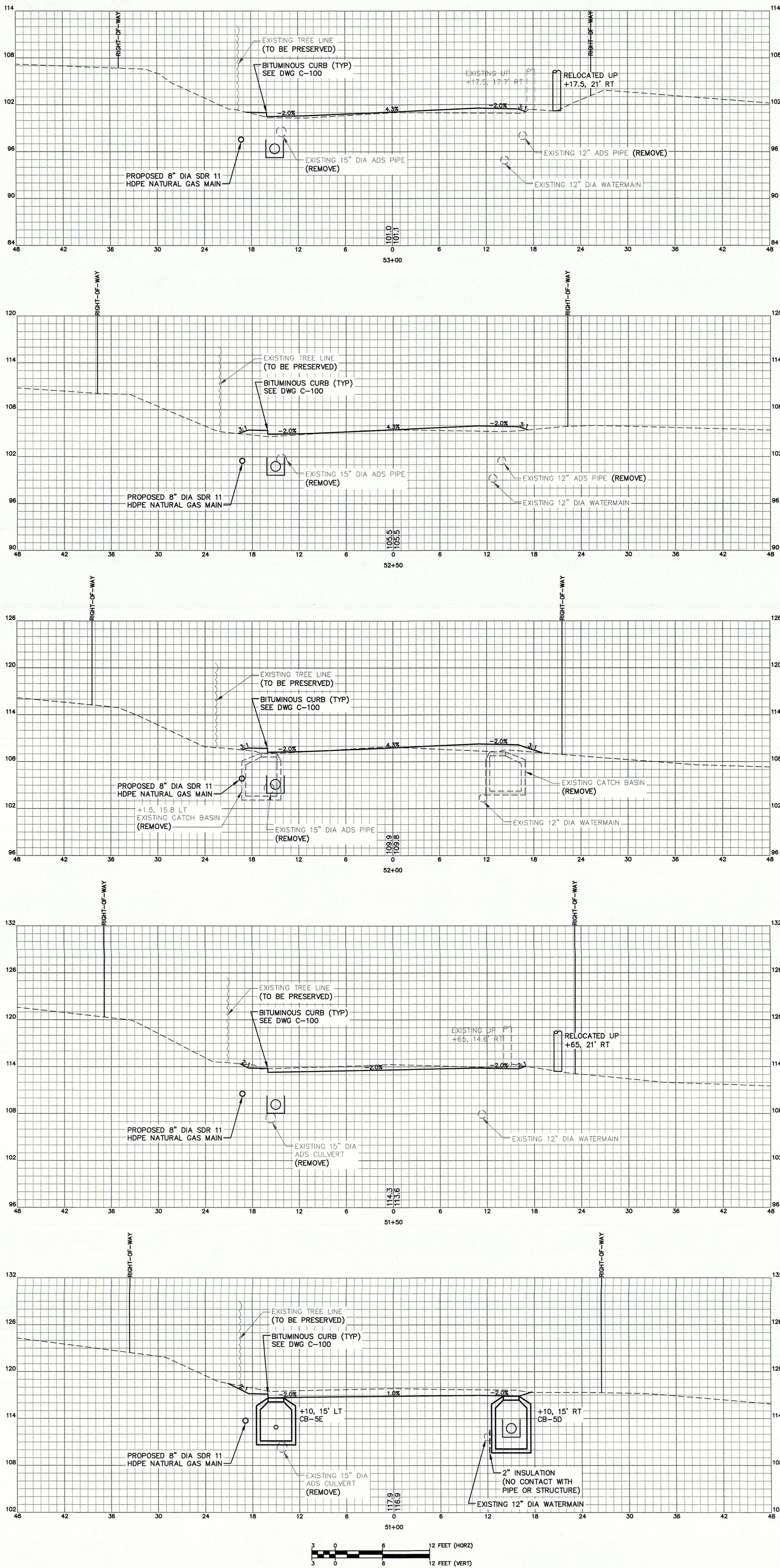


REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID

TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 48+50 TO STA 50+50

SME Seavey & Mather Engineers, Inc. 4 Blanchard Road, PO Box 854, Cumberland Center, Maine 04021 Phone 207.825.5016 • Fax 207.825.5023 • www.smeinc.com	DESIGN BY: JCM
	DRAWN BY: SJM
	DATE: 5/2016
	CHECKED BY: JMC
	DATE: 5/2016
JOB NO. 16047.00	DWG FILE BASE
C-231	C-231



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID

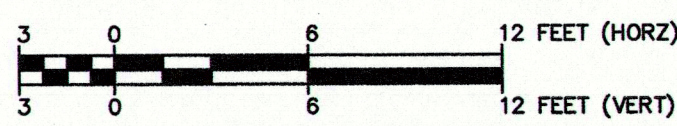
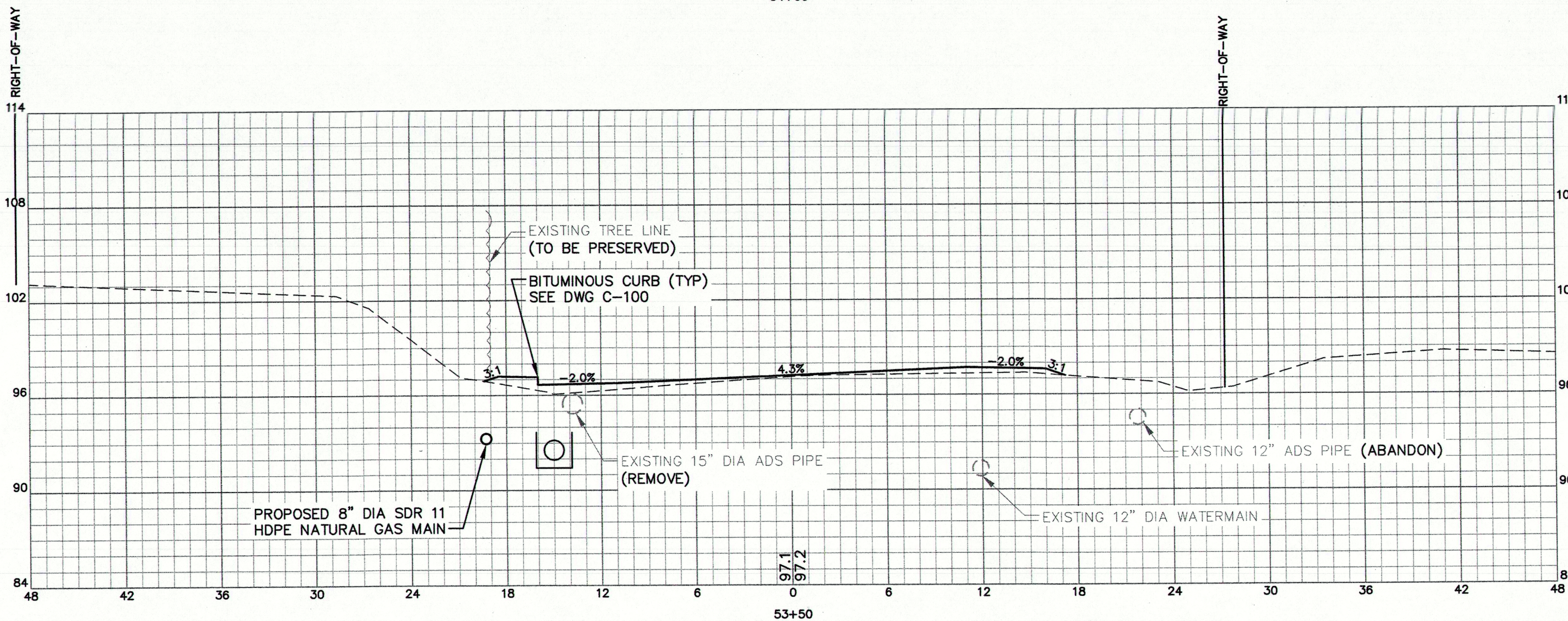
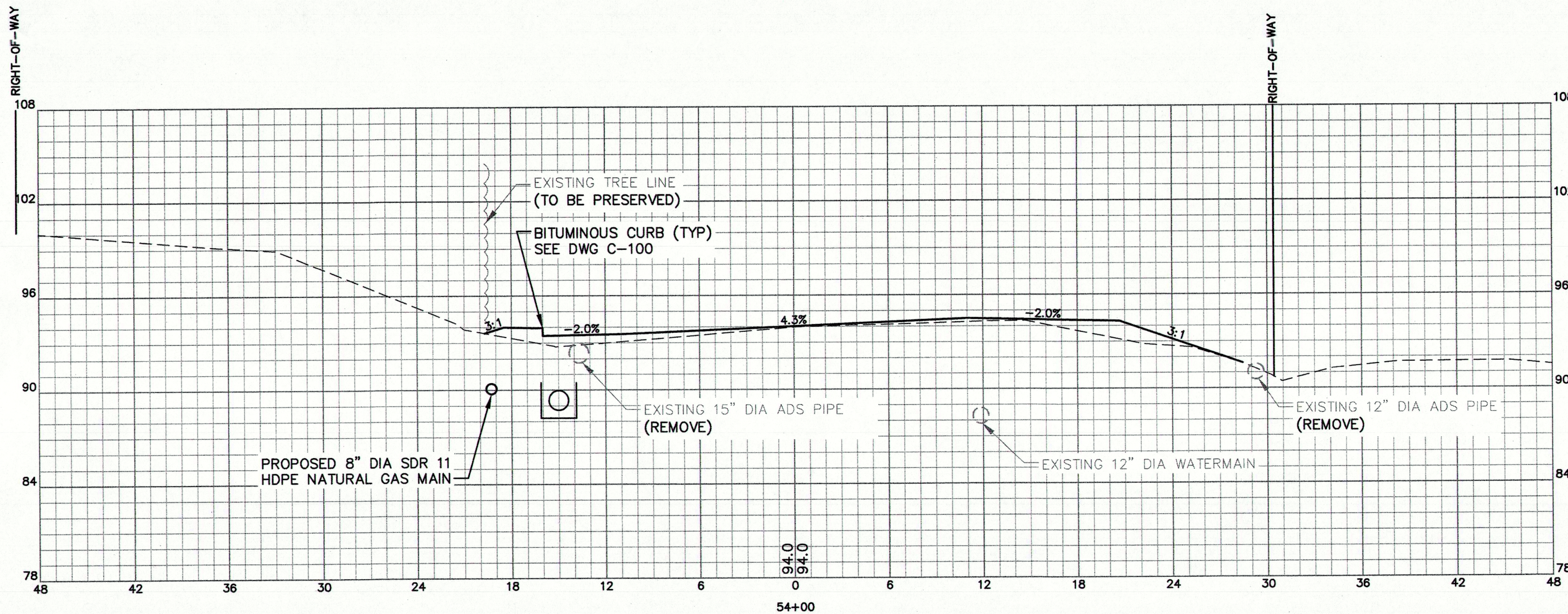
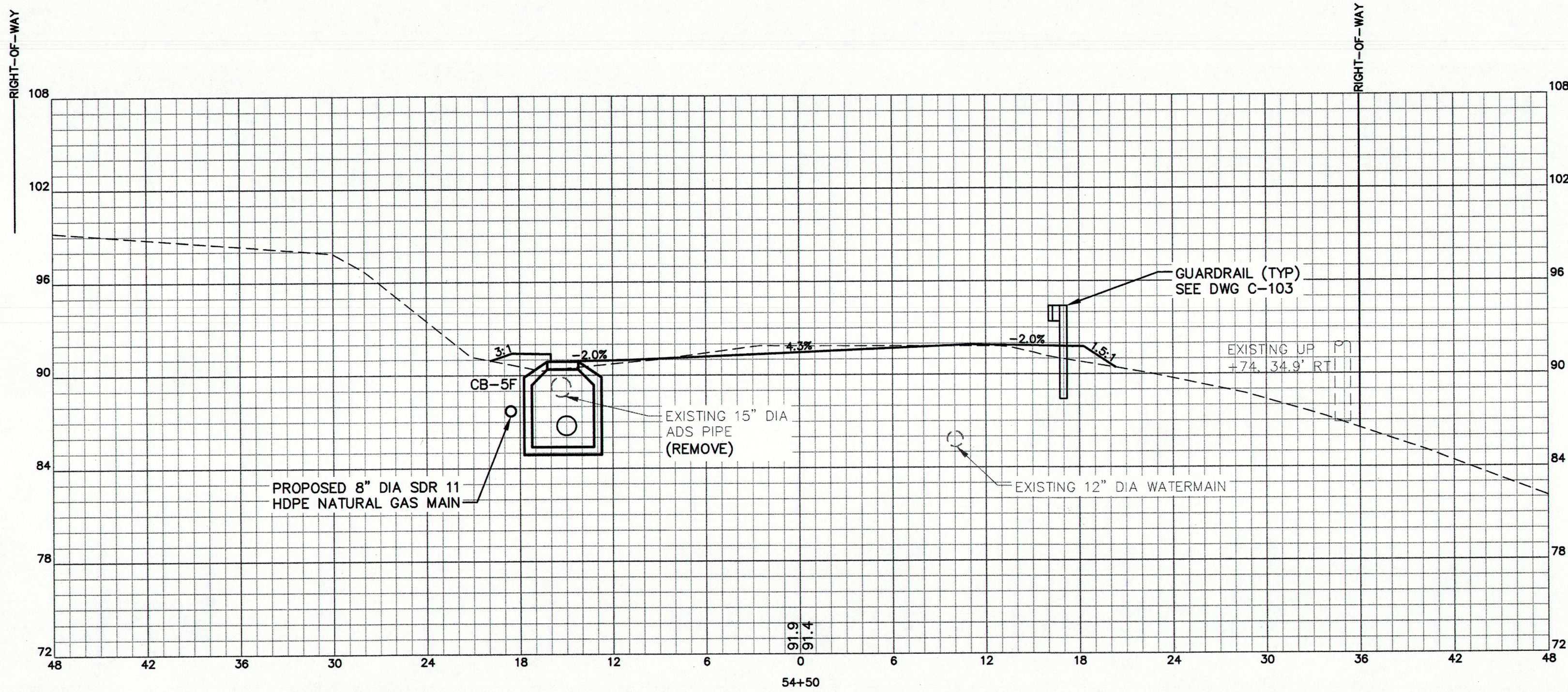
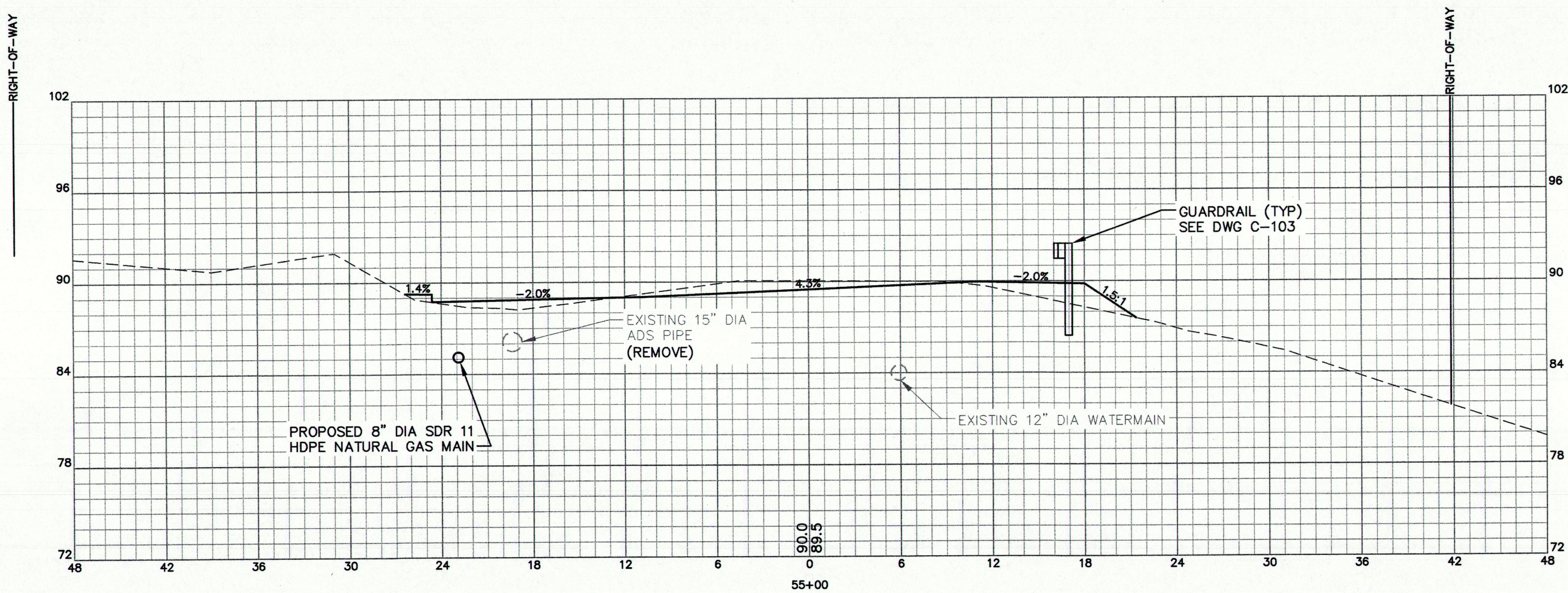
TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 51+00 TO STA 53+00

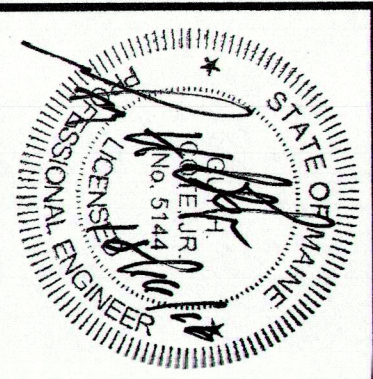
SME
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DRAWN BY: S.M.
DATE: 5/2016
CHECKED BY: *[Signature]*
LUN: NONE
CTB: SME-STD

JOB NO. 16047.00 DWG FILE BASE



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND MIDDLE ROAD IMPROVEMENTS CUMBERLAND, MAINE	
CROSS SECTIONS STA 53+50 TO STA 55+00	
DESIGN BY: JCM	
DRAWN BY: SJM	
DATE: 5/2016	
CHECKED BY: JCM	
LMN: NONE	
CTB: SME-STD	
JOB NO. 16047.00	DWG FILE BASE
C-233	

SME

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REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID

TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

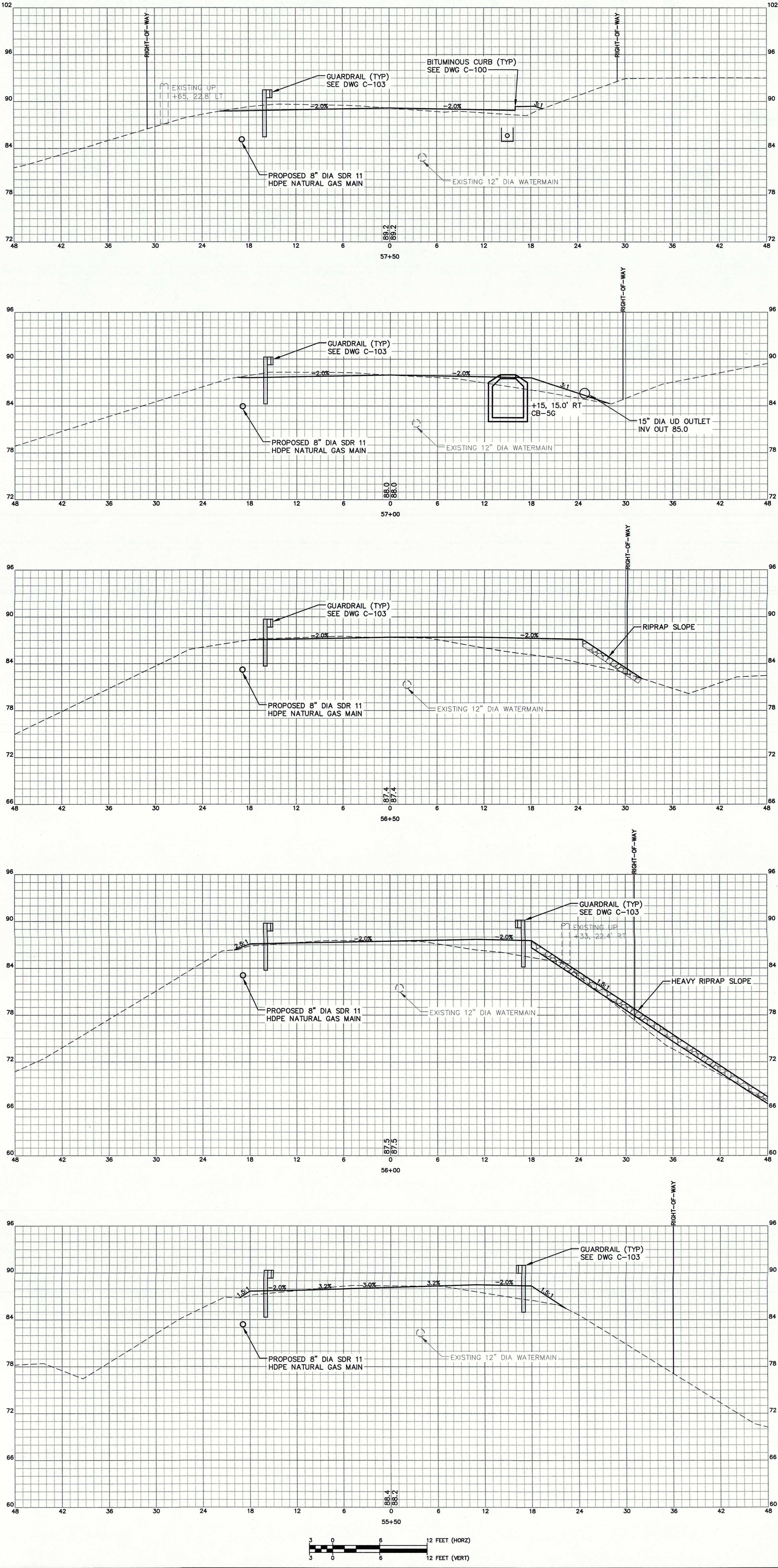
CROSS SECTIONS
STA 55+50 TO STA 57+50

SME
Sewer & Water Engineers, Inc.
4 Blanchard Road, P.O. Box 854, Cumberland Center, Maine 04021
Phone 207.839.5016 • Fax 207.839.5692 • www.smeinc.com

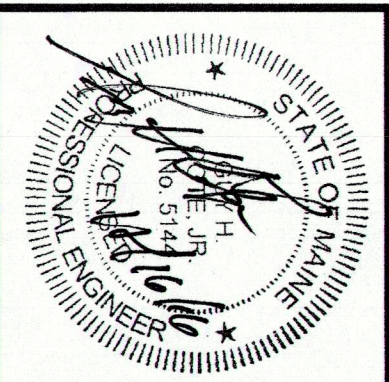
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DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: *[Signature]*
LWK: NONE
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JOB NO. 16047.00 DWG FILE BASE

C-234



REV.	BY	DATE	STATUS
JCM	12/2016	ISSUED FOR BID	



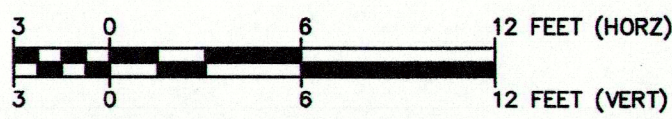
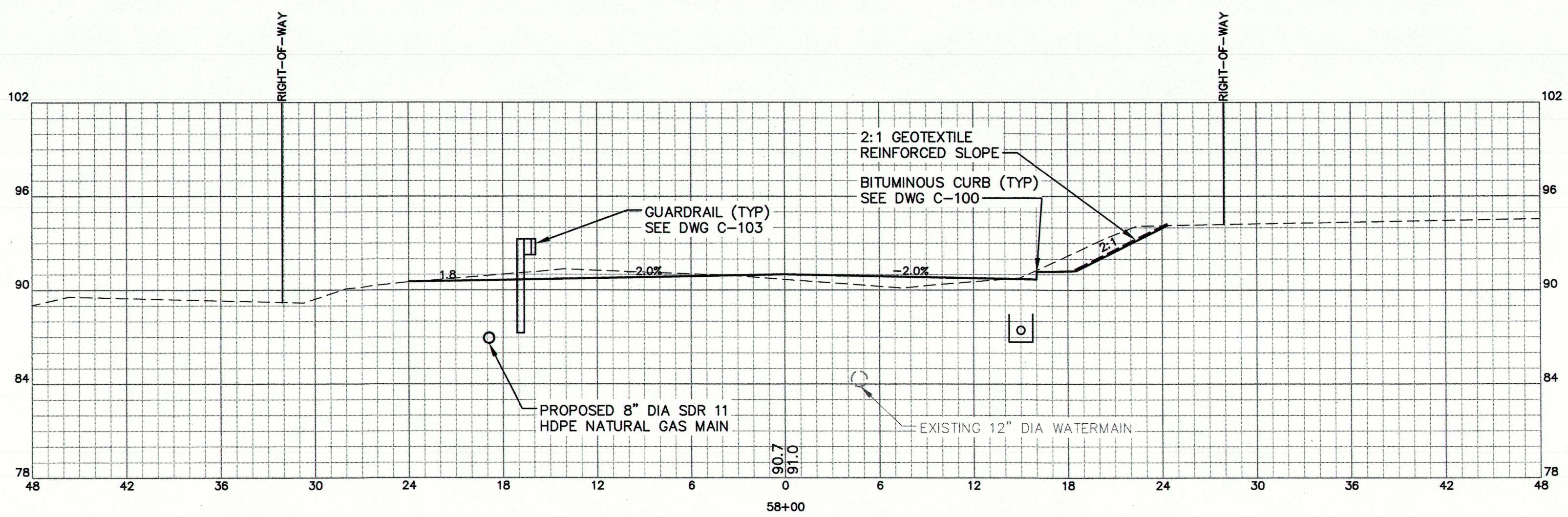
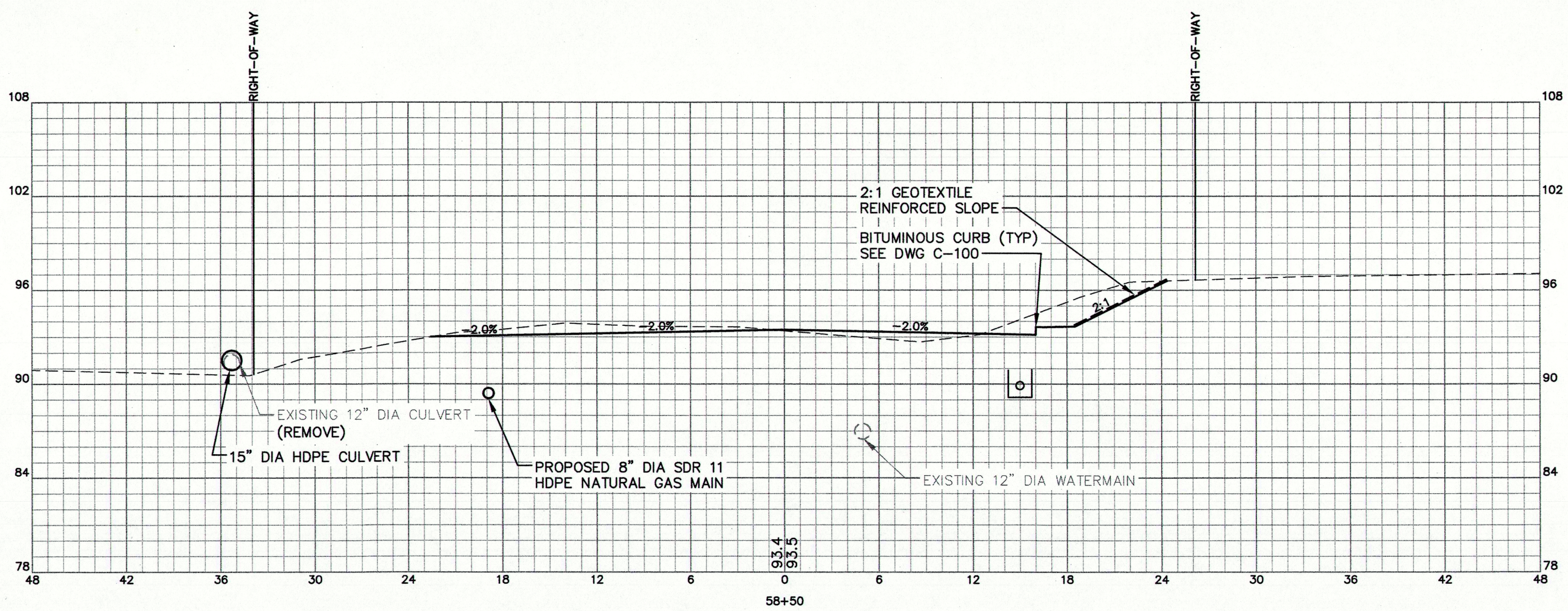
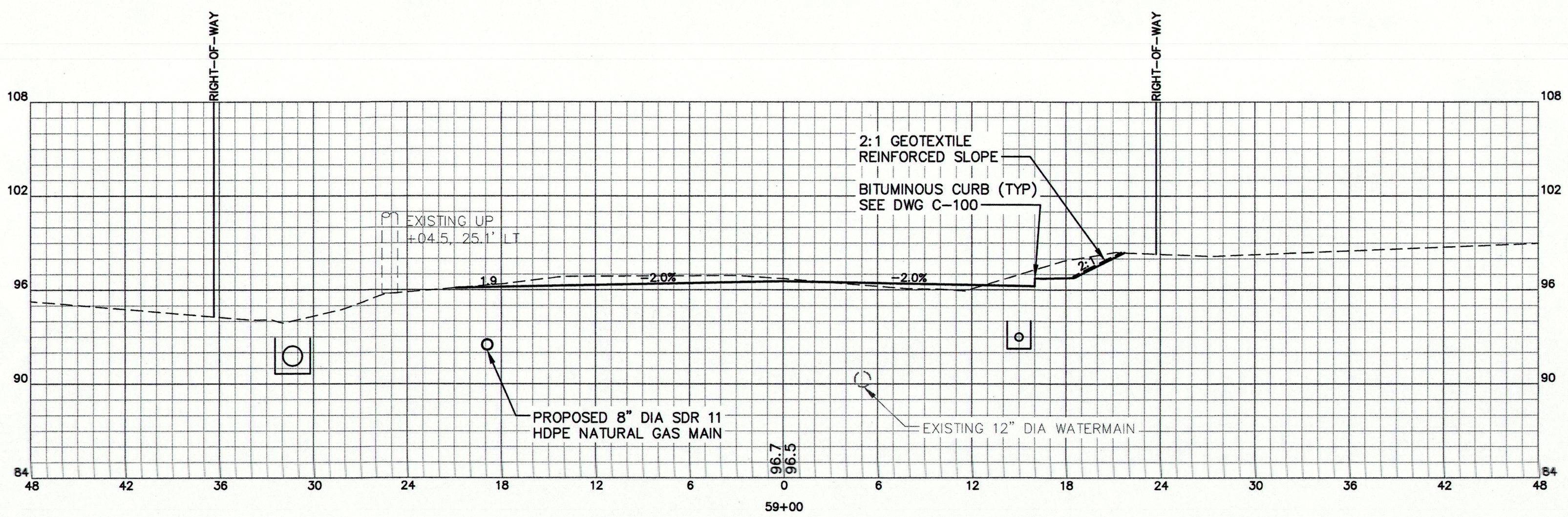
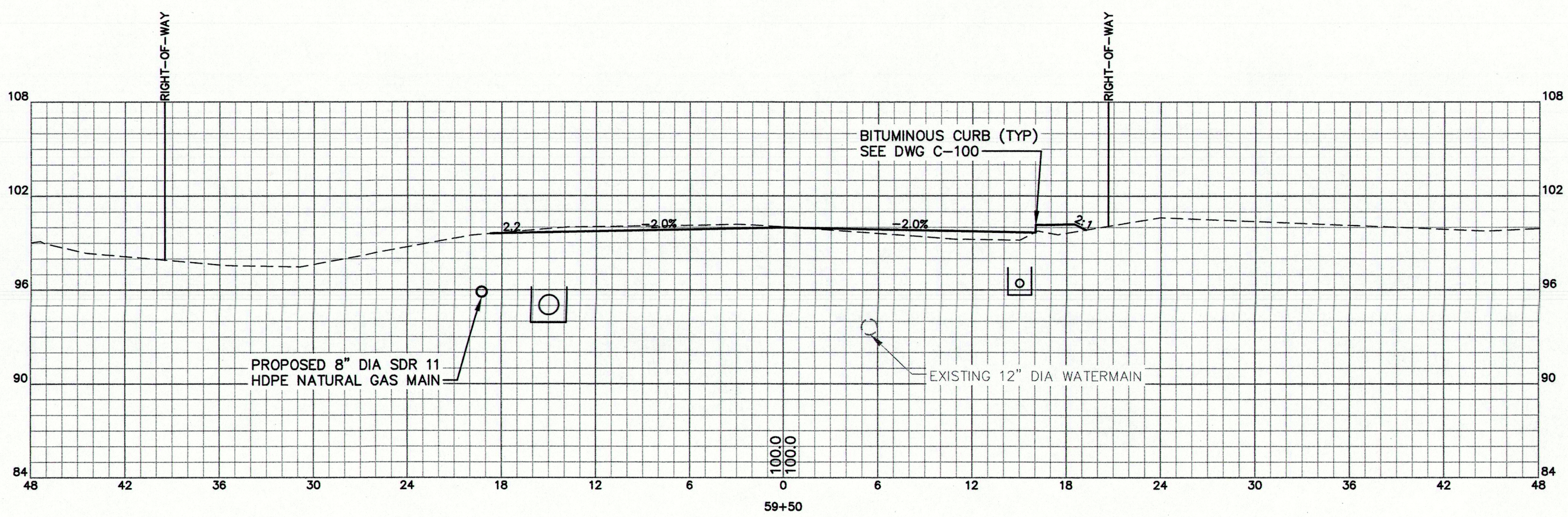
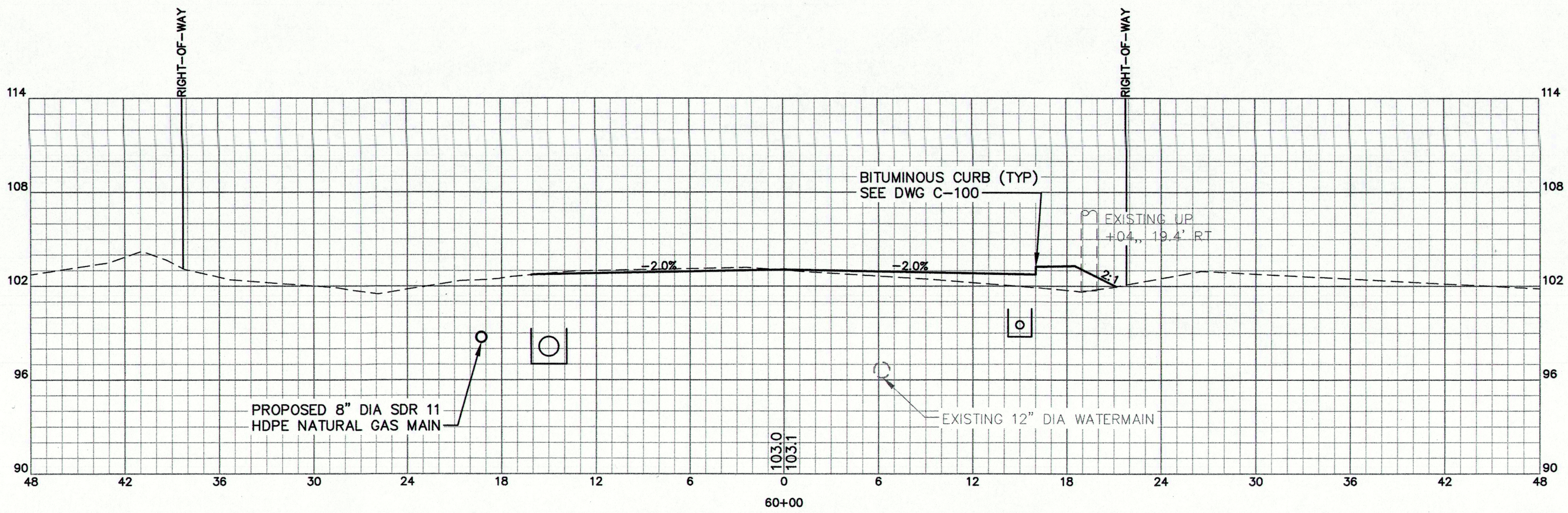
TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

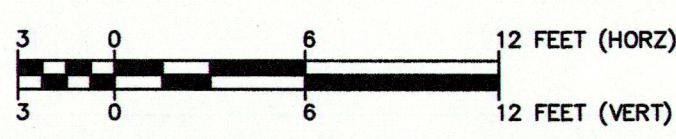
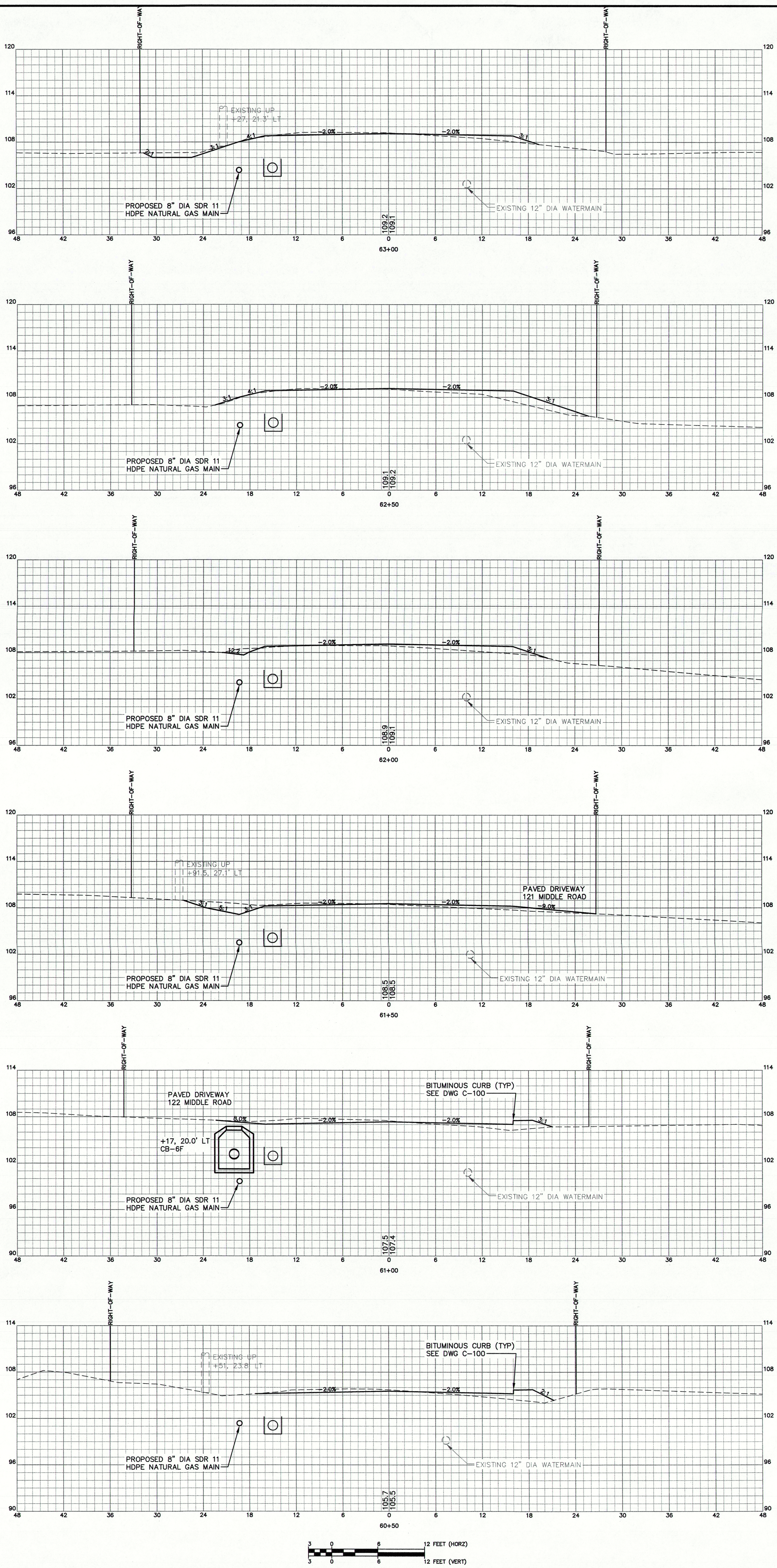
CROSS SECTIONS
STA 58+00 TO STA 60+00

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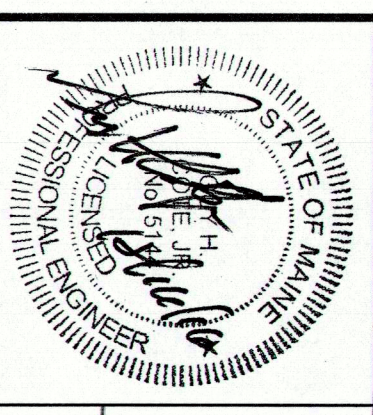
DESIGN BY: JCM
DRAWN BY: S.M.
DATE: 5/2016
CHECKED BY: JCM
LWN: NONE
CTB: SME-STD

JOB NO. 16047.00 DWG FILE BASE
C-235





REV.	BY	DATE	STATUS
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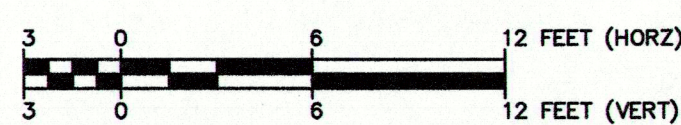
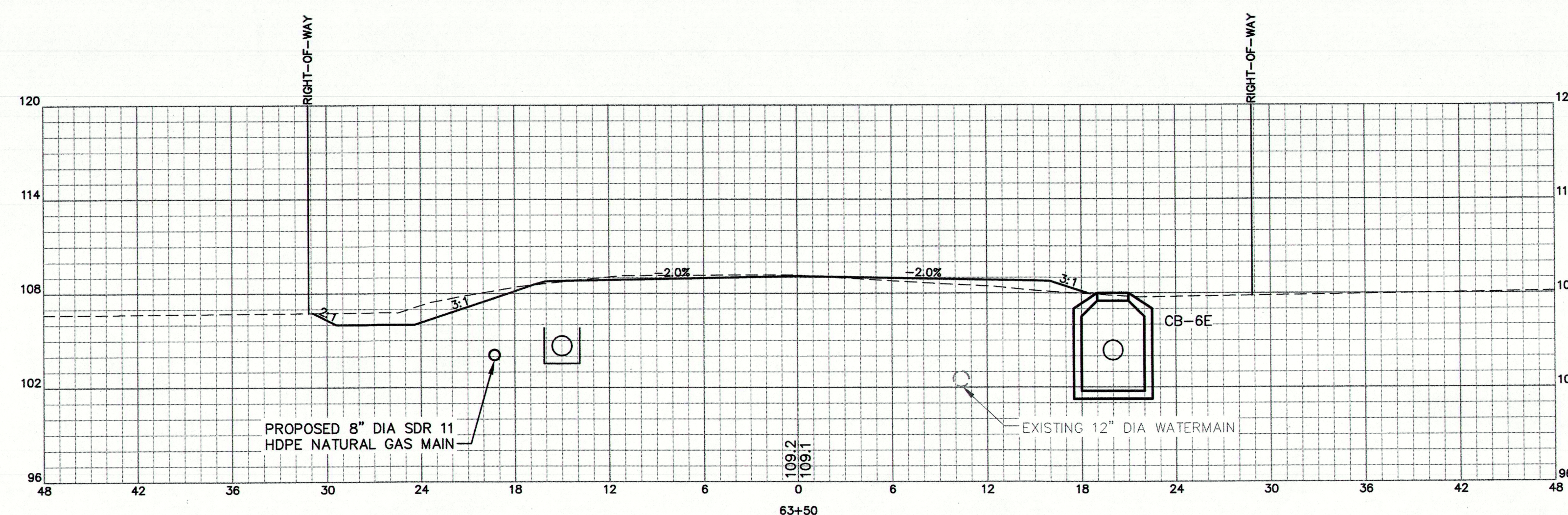
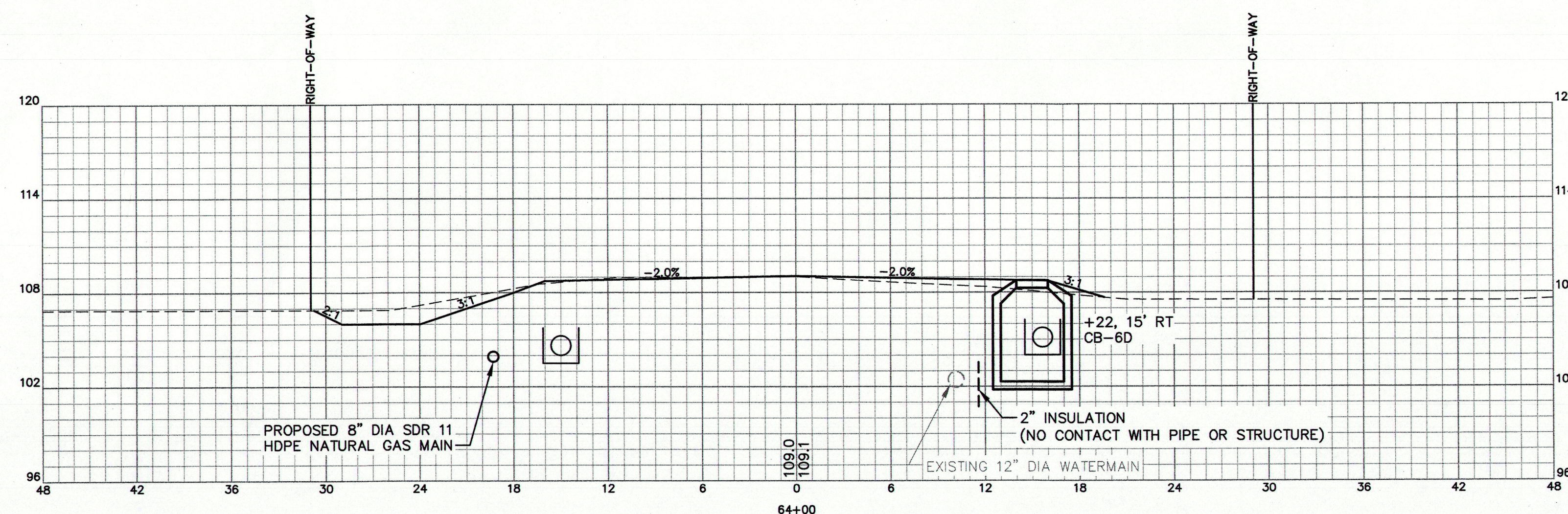
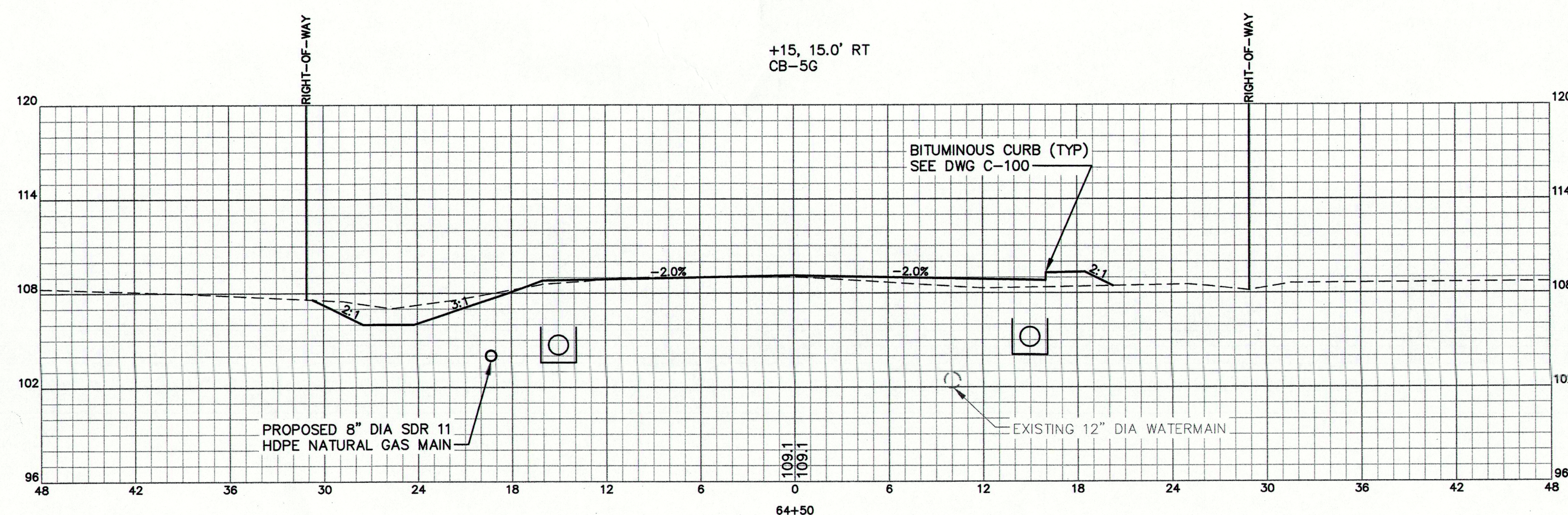
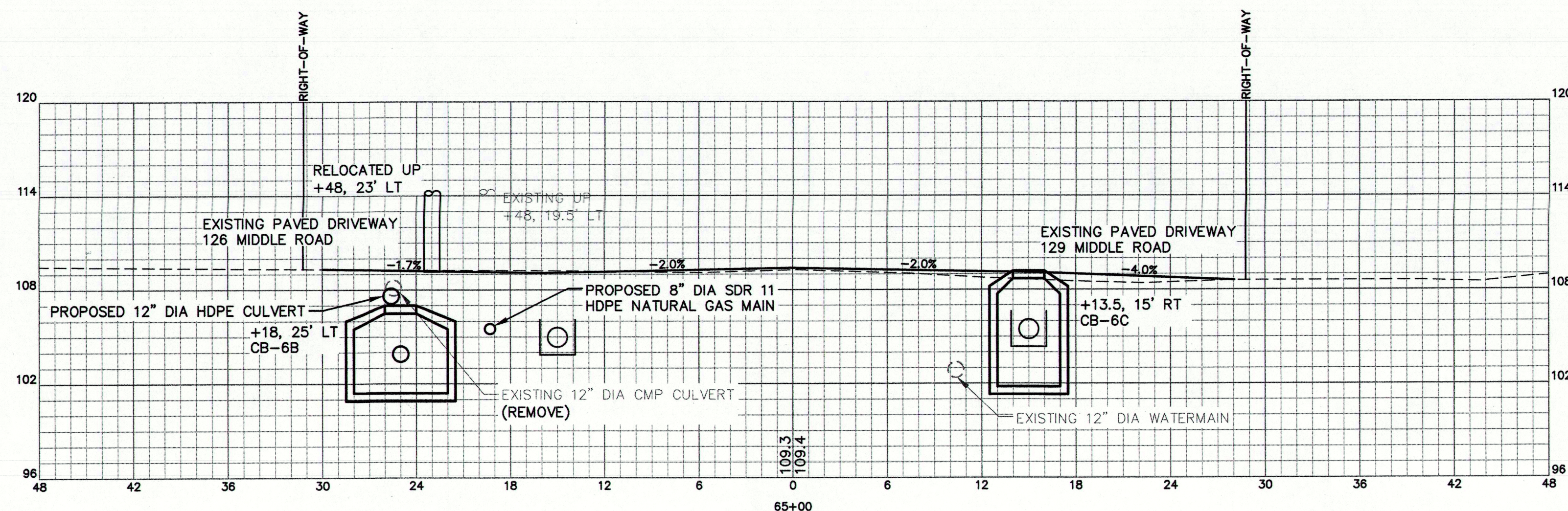
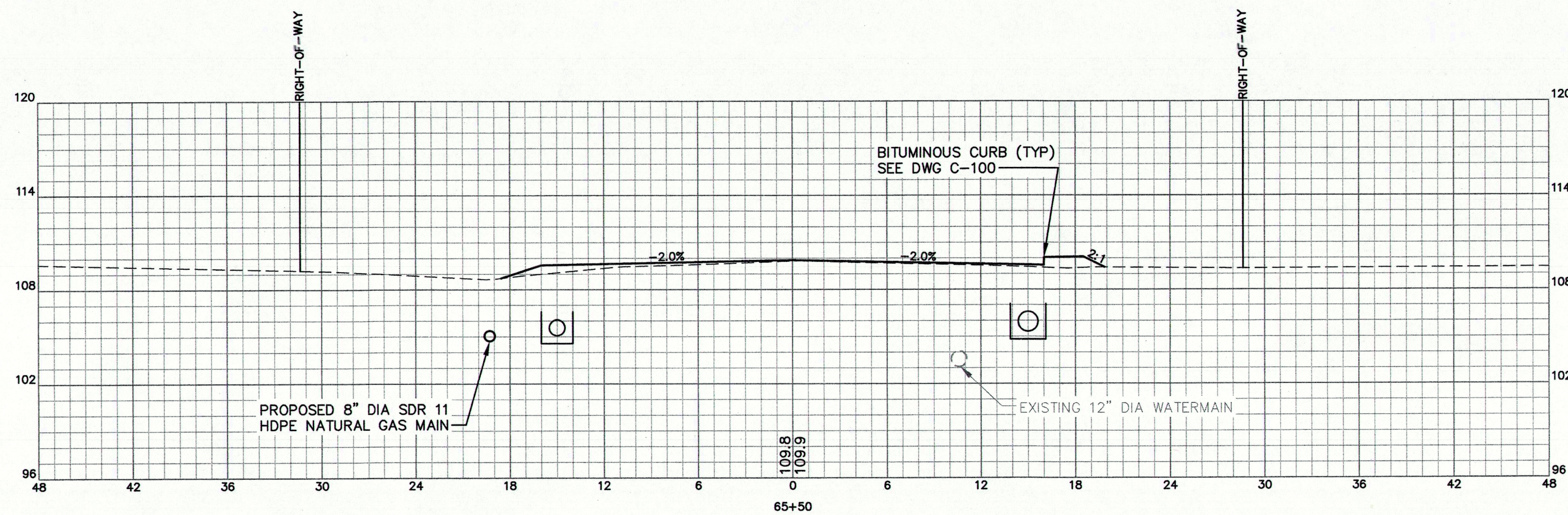
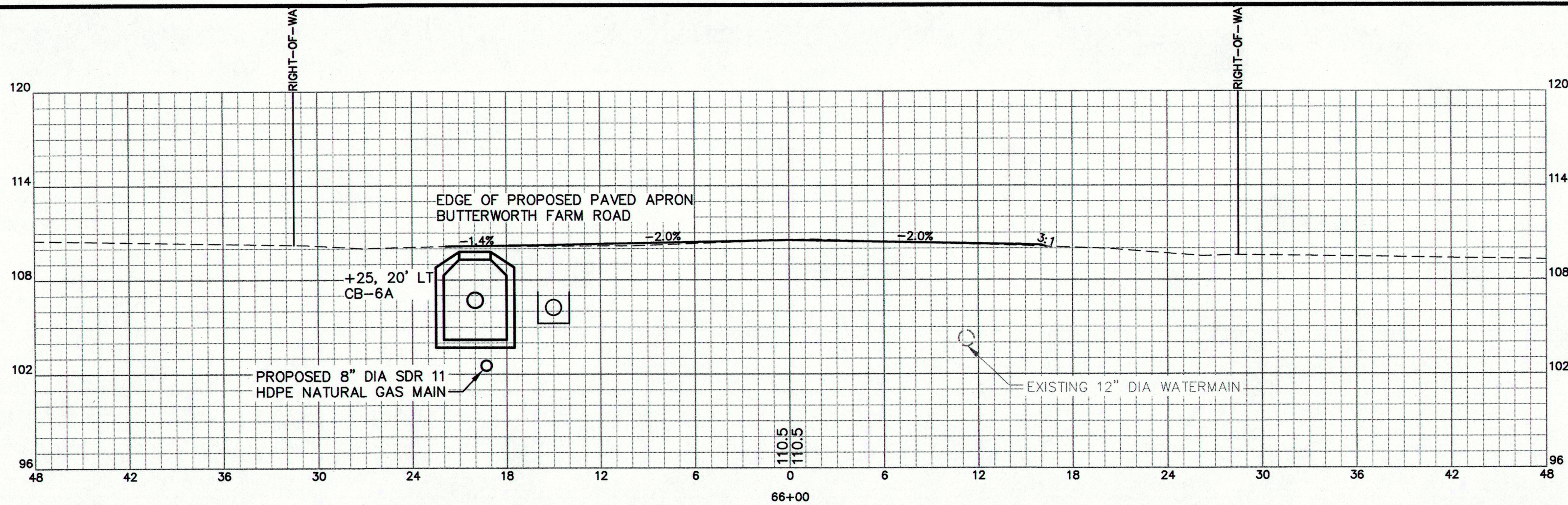
TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 60+50 TO STA 63+00

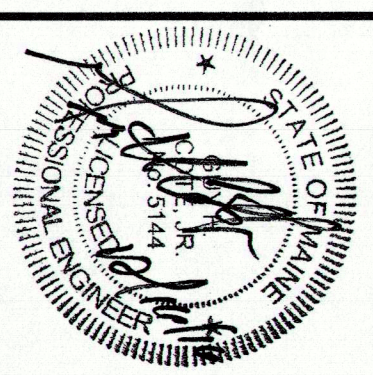
SME
Seave & Maher Engineers, Inc.
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4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207 829 5016 • Fax 207 829 5992 • www.smeinc.com

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DATE: 5/2016
CHECKED BY: *[Signature]*
LWN: NONE
CTB: SME-STD

JOB NO. 16047.00 DWG FILE BASE
C-236



REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 63+50 TO STA 66+00

JOB NO. 16047.00	DWG FILE BASE
C-237	

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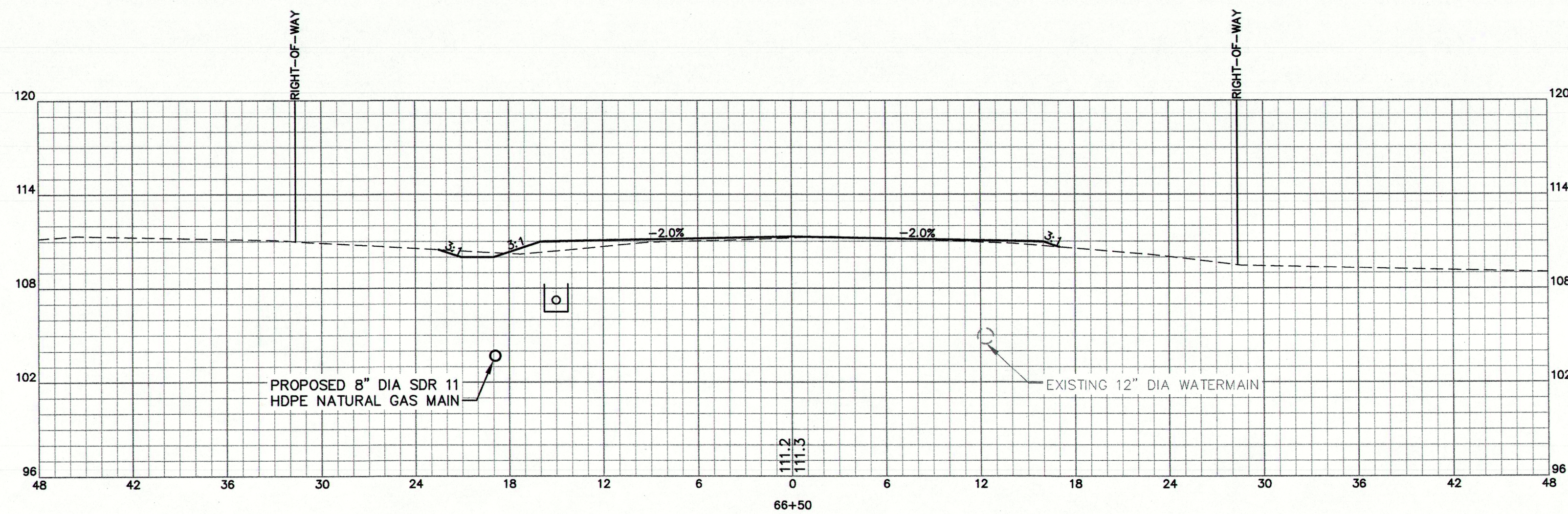
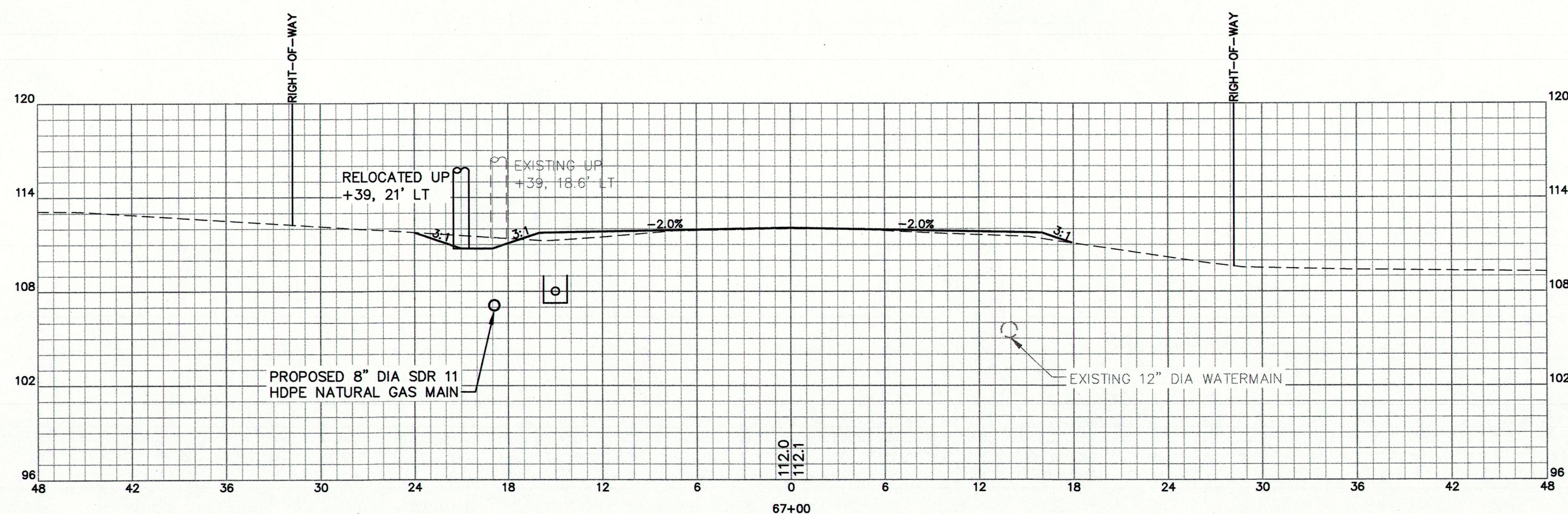
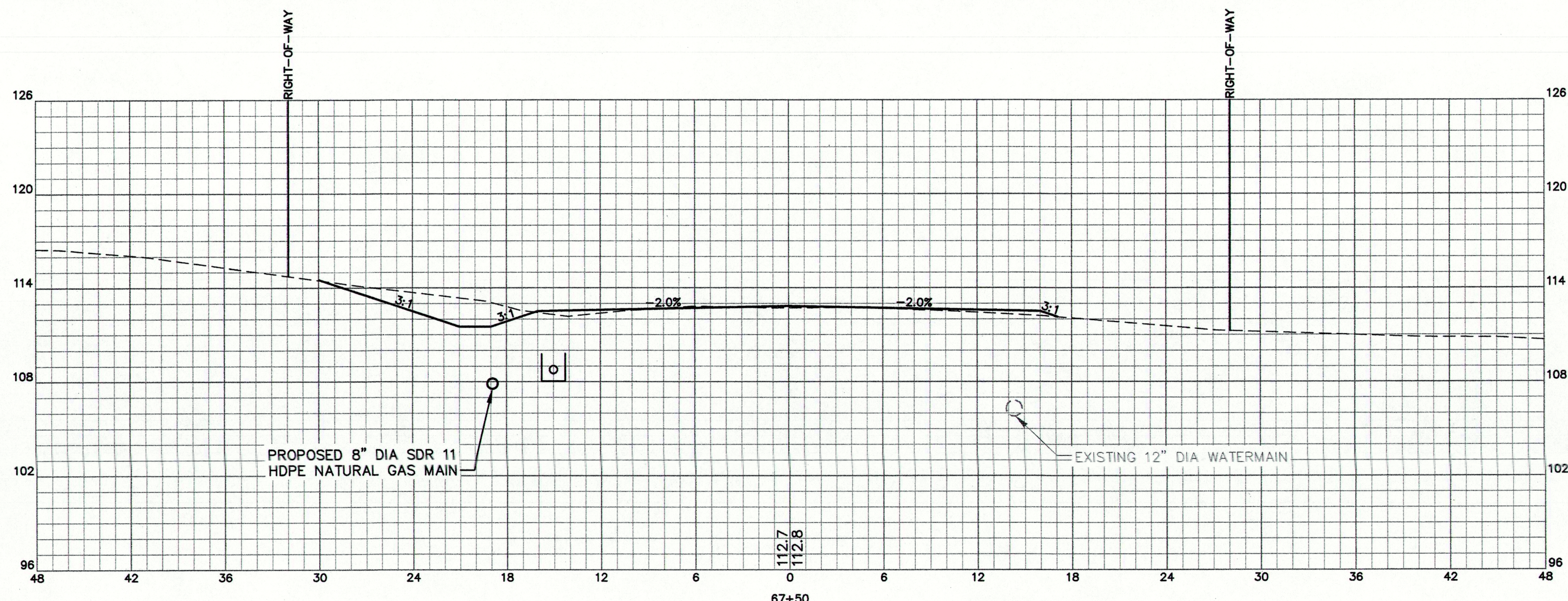
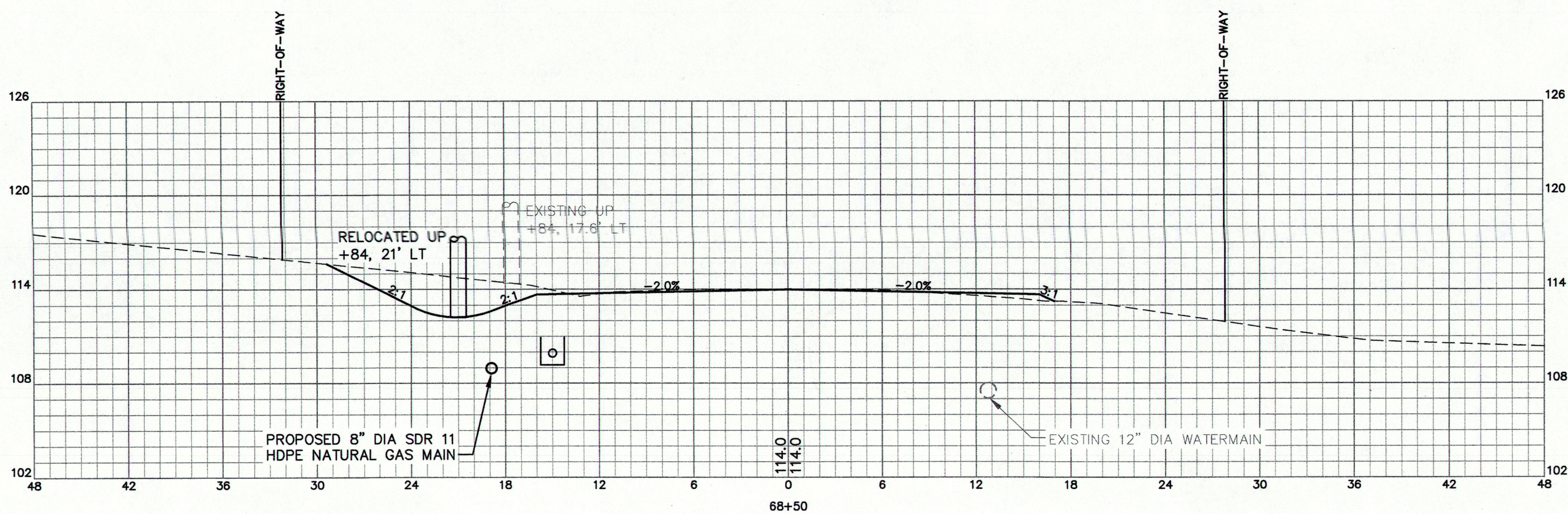
DRAWN BY: SJM

DATE: 5/2016

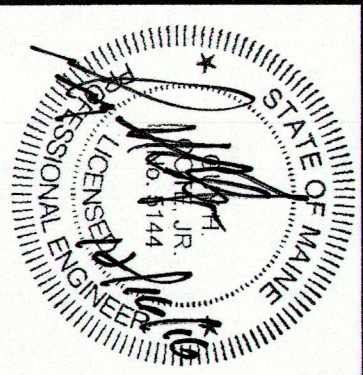
CHECKED BY: JMC

LMN: NONE

CTB: SME-STD



REV.	BY	DATE	STATUS
1	SCM	12/20/16	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 66+50 TO STA 68+50

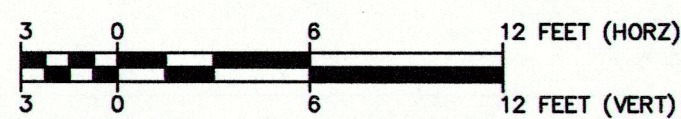
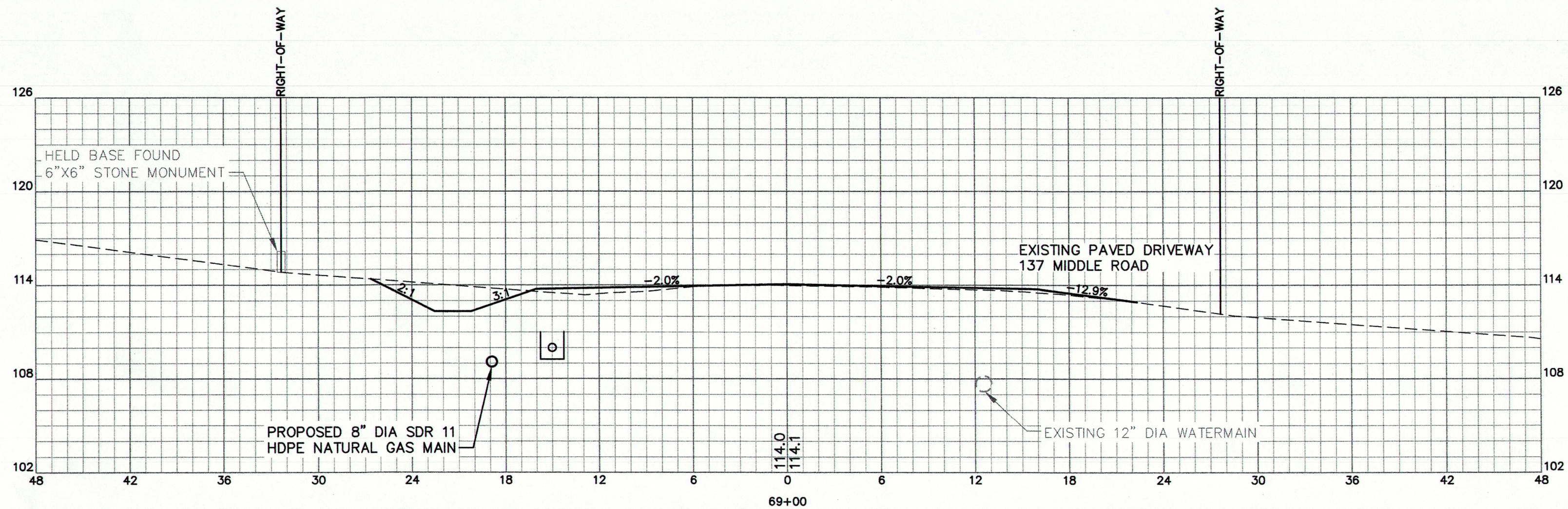
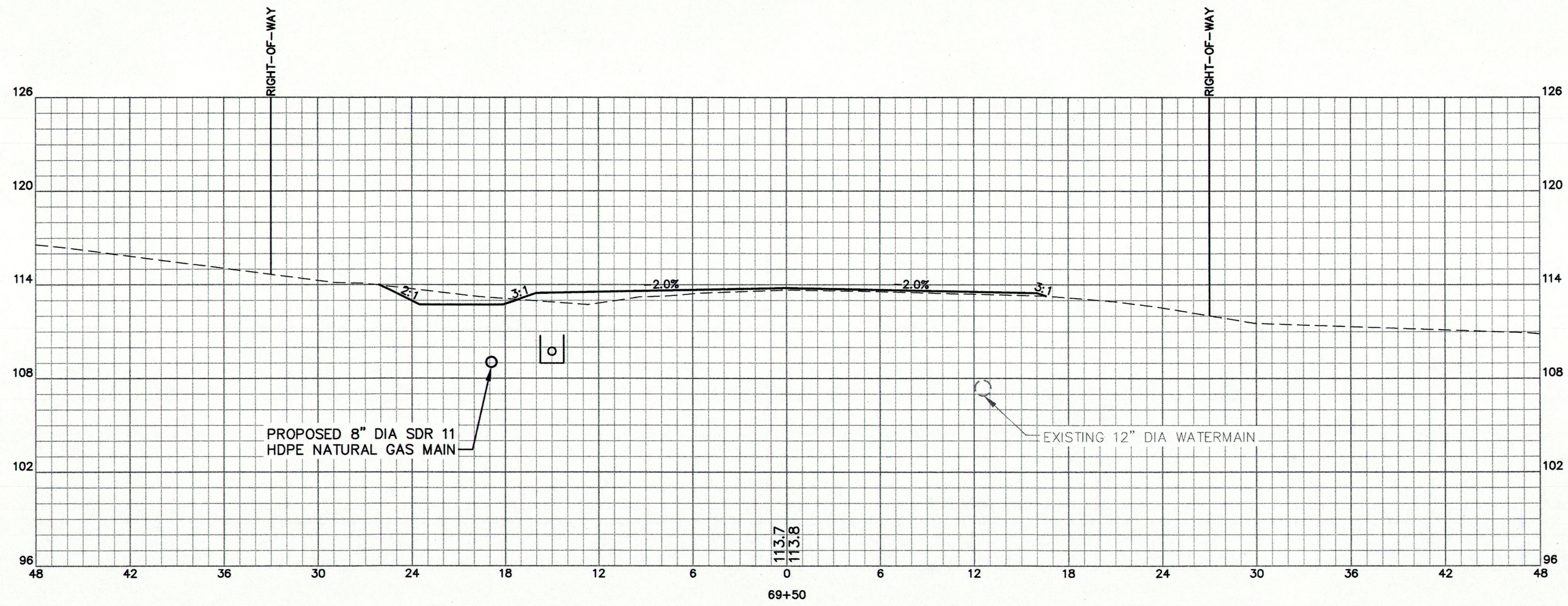
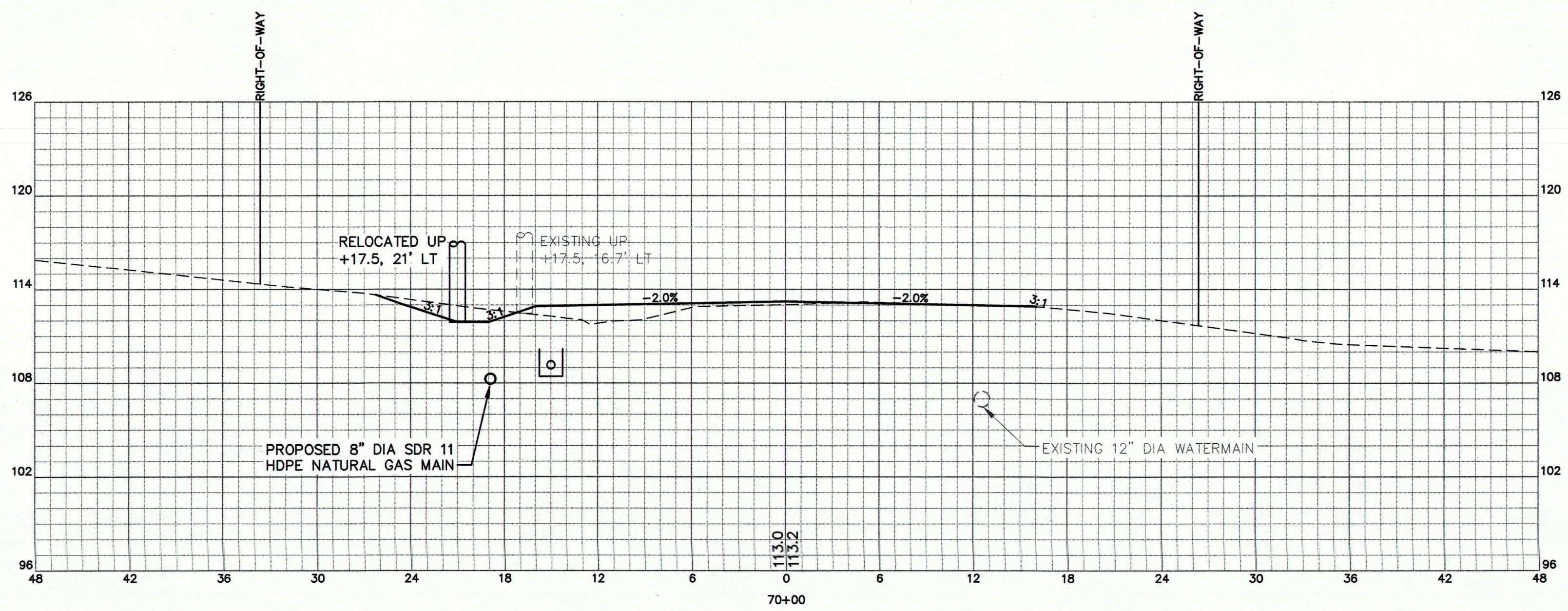
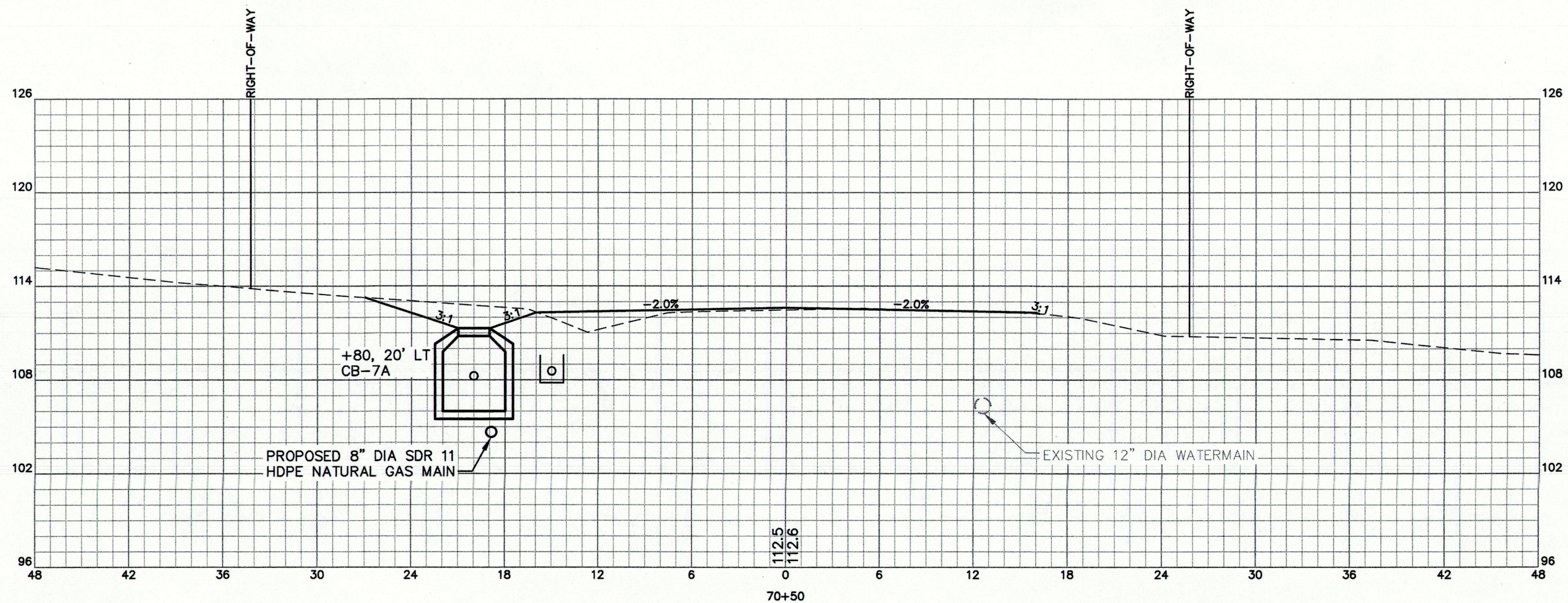
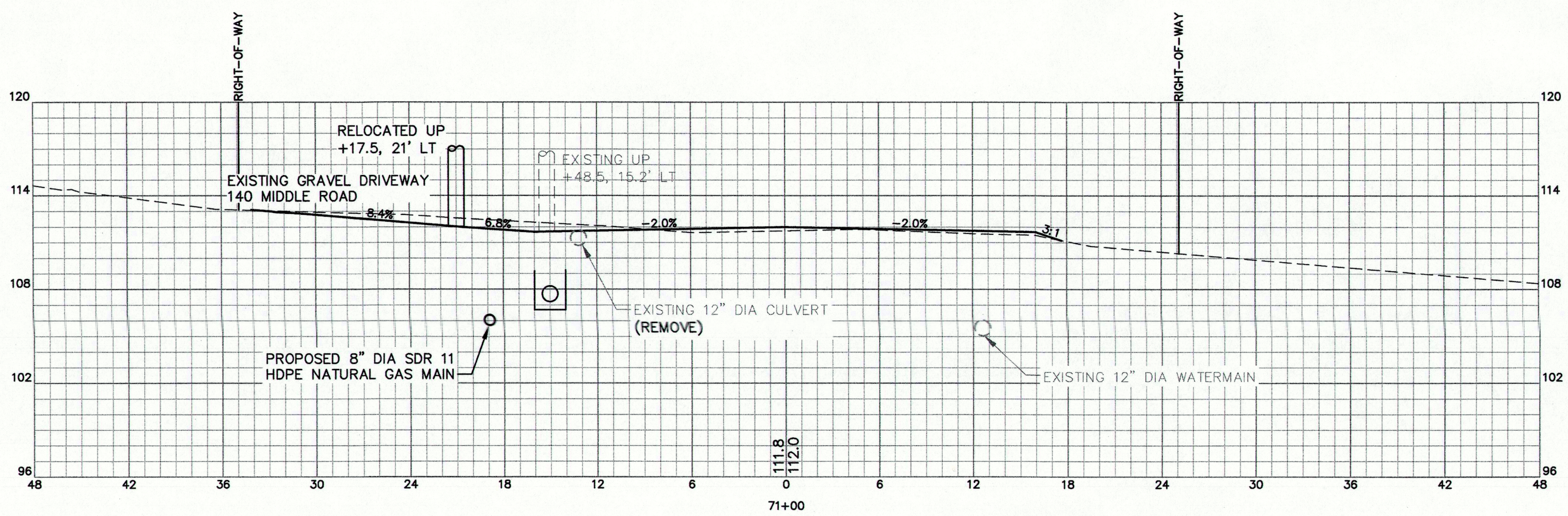
SME

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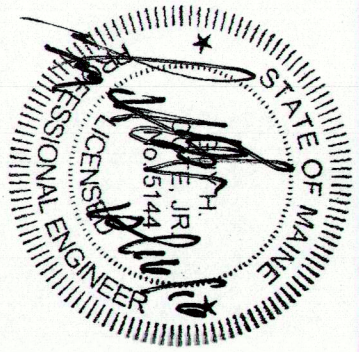
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blandford Road, P.O. Box 854, Cumberland Center, Maine 04021
Phone 207.839.5016 • Fax 207.839.5692 • www.sevee.com

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DRAWN BY: SJM
DATE: 5/2016
CHECKED BY: *[Signature]*
LAW: NONE
CTB: SME-STD
C-238



REV.	BY	DATE	STATUS
SCM	12/20/16	ISSUED FOR BID	



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 69+00 TO STA 71+00

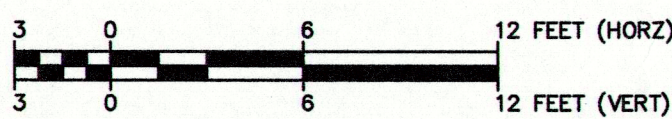
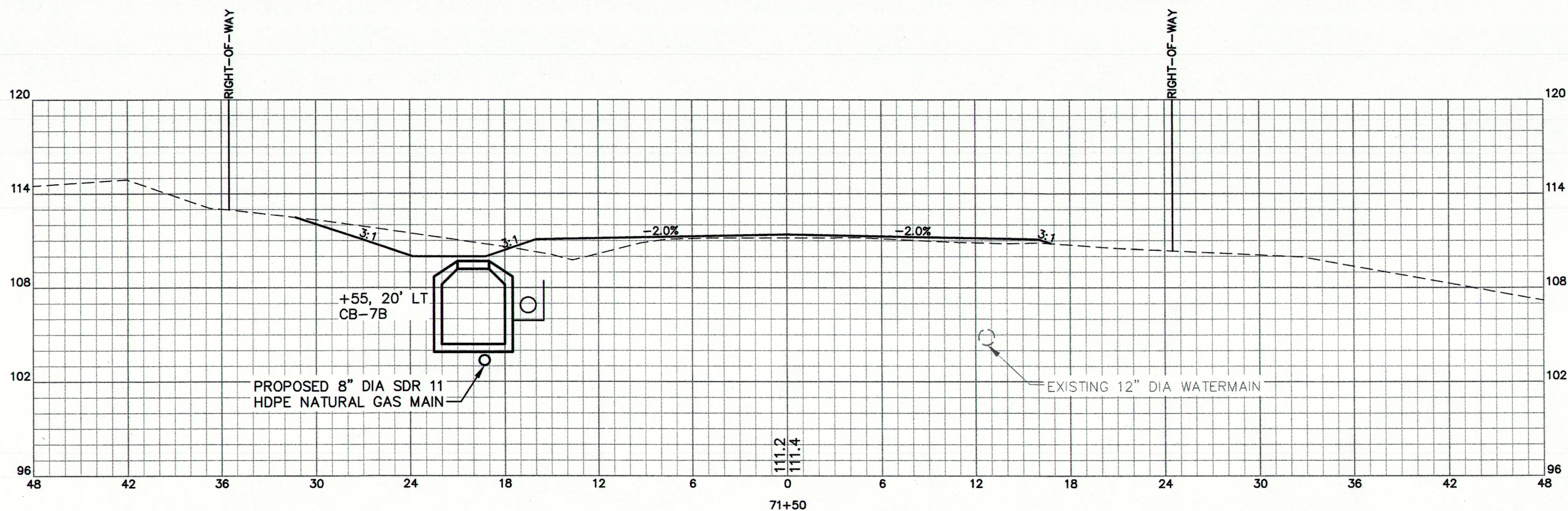
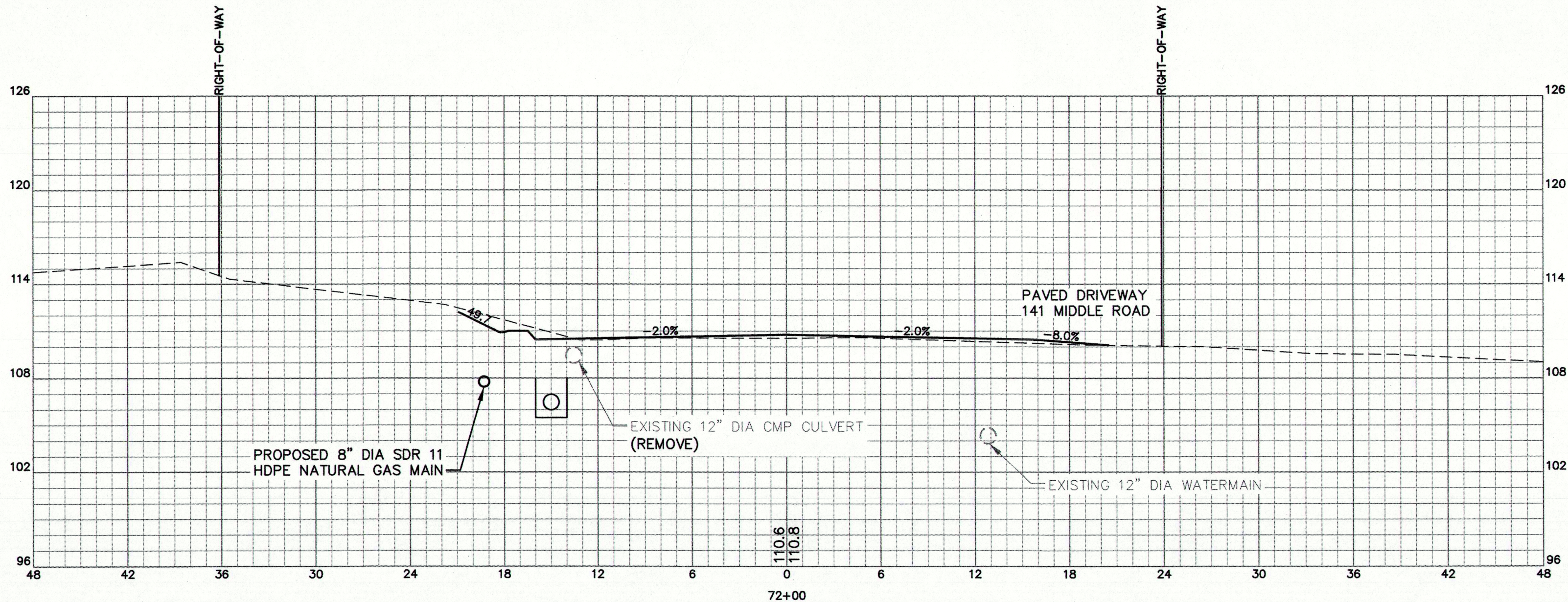
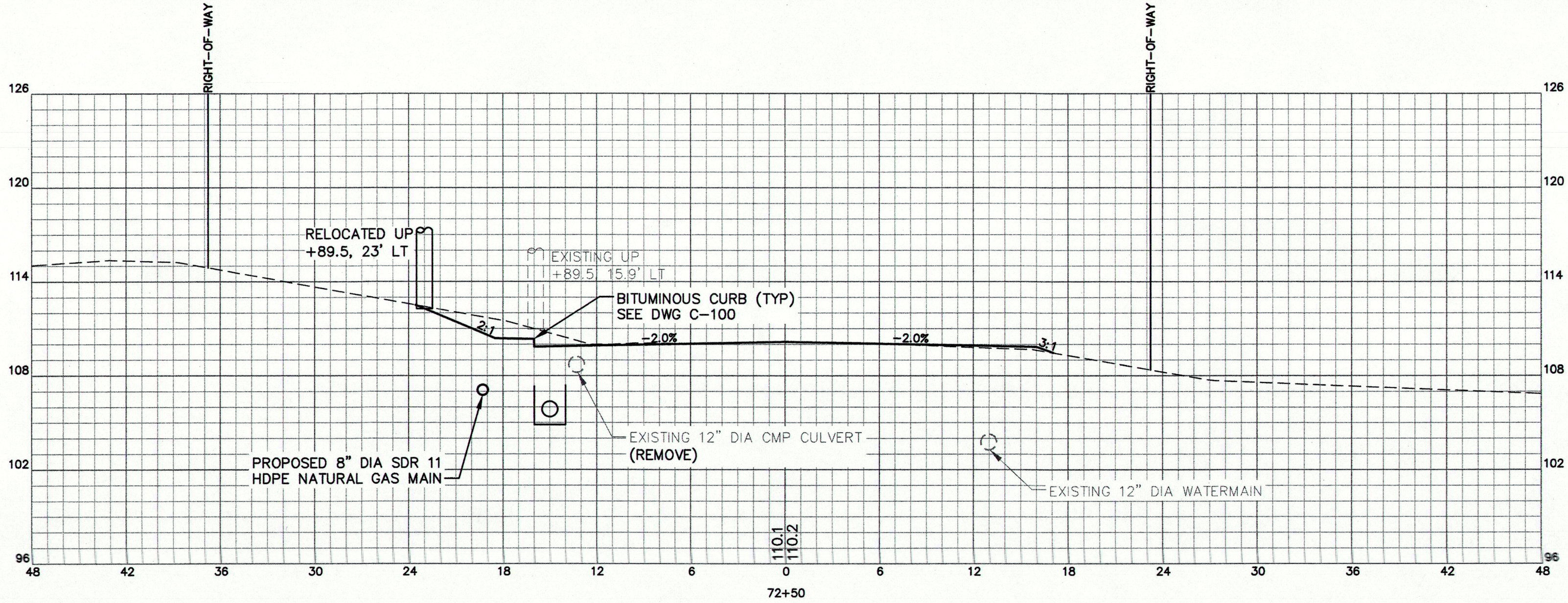
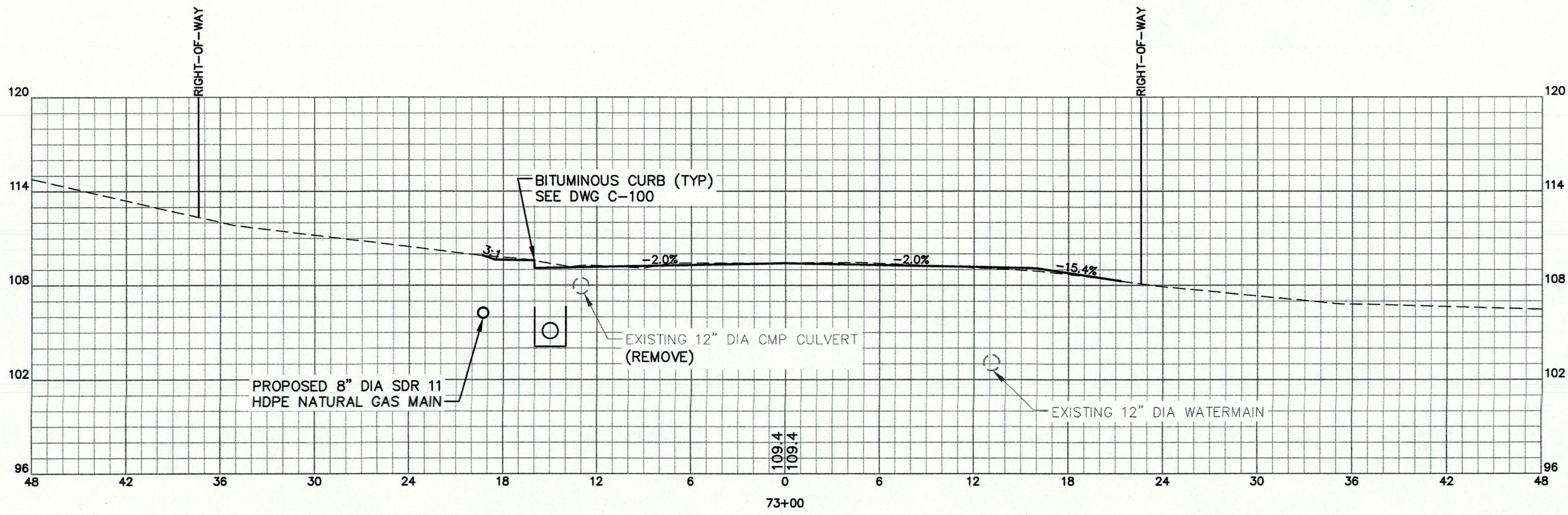
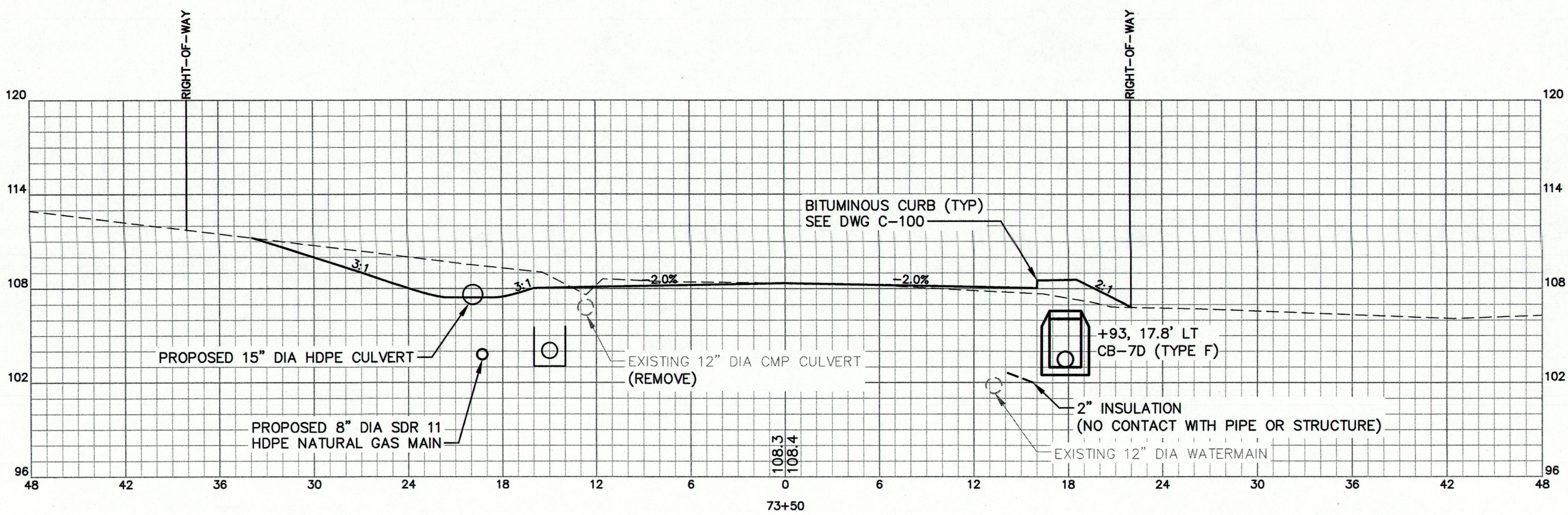
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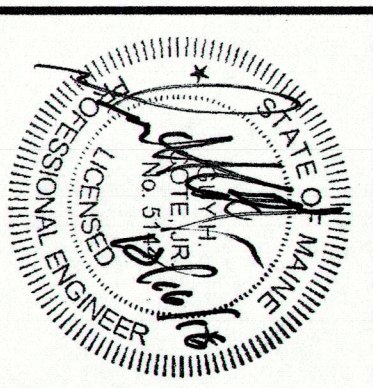
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JOB NO. 16047.00 DWG FILE BASE

DESIGN B
DRAWN
DATE:
CHECK
LUN
CT



REV.	BY	DATE	STATUS
1	SCM	12/2016	ISSUED FOR BID

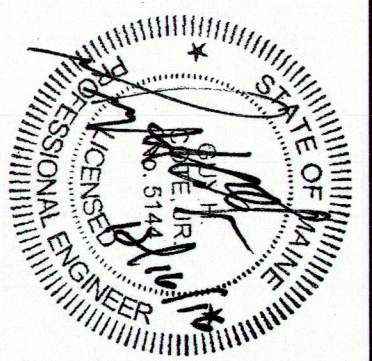


TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 71+50 TO STA 73+50

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REV.	BY	DATE	STATUS
1	JEM	12/2016	ISSUED FOR BID



**TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE**

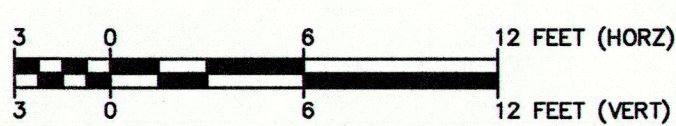
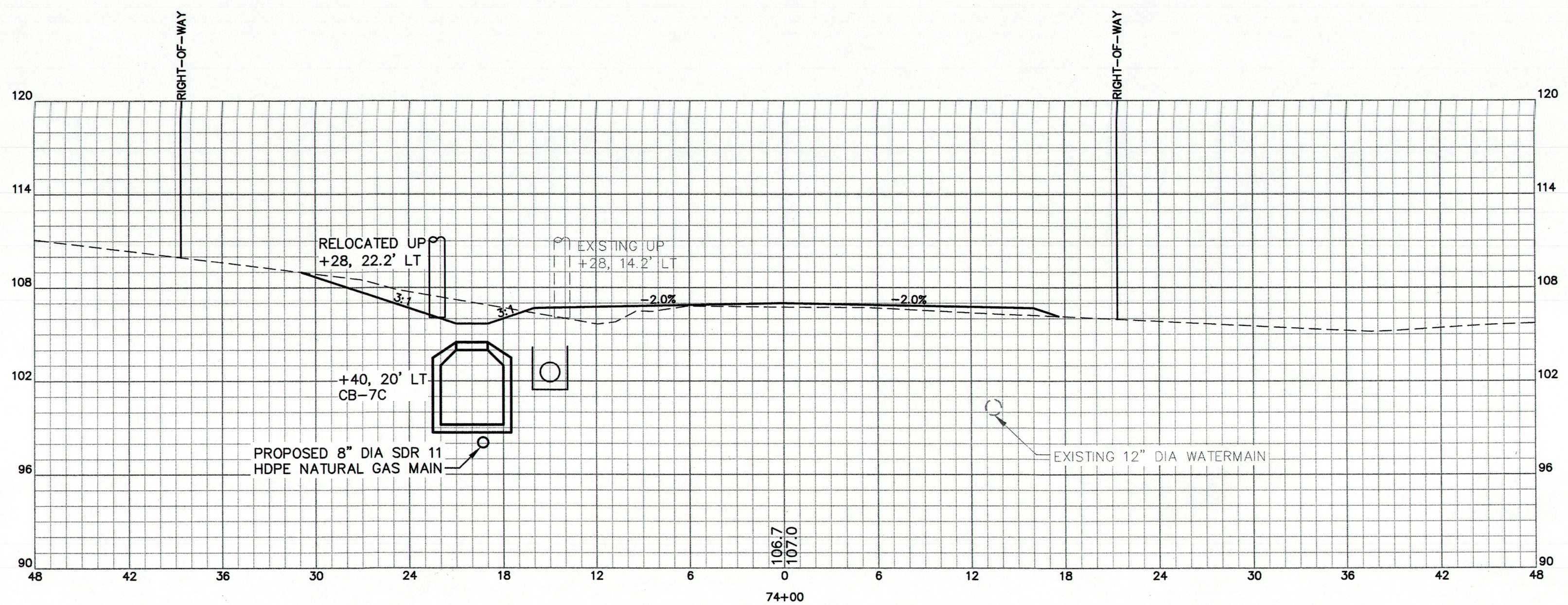
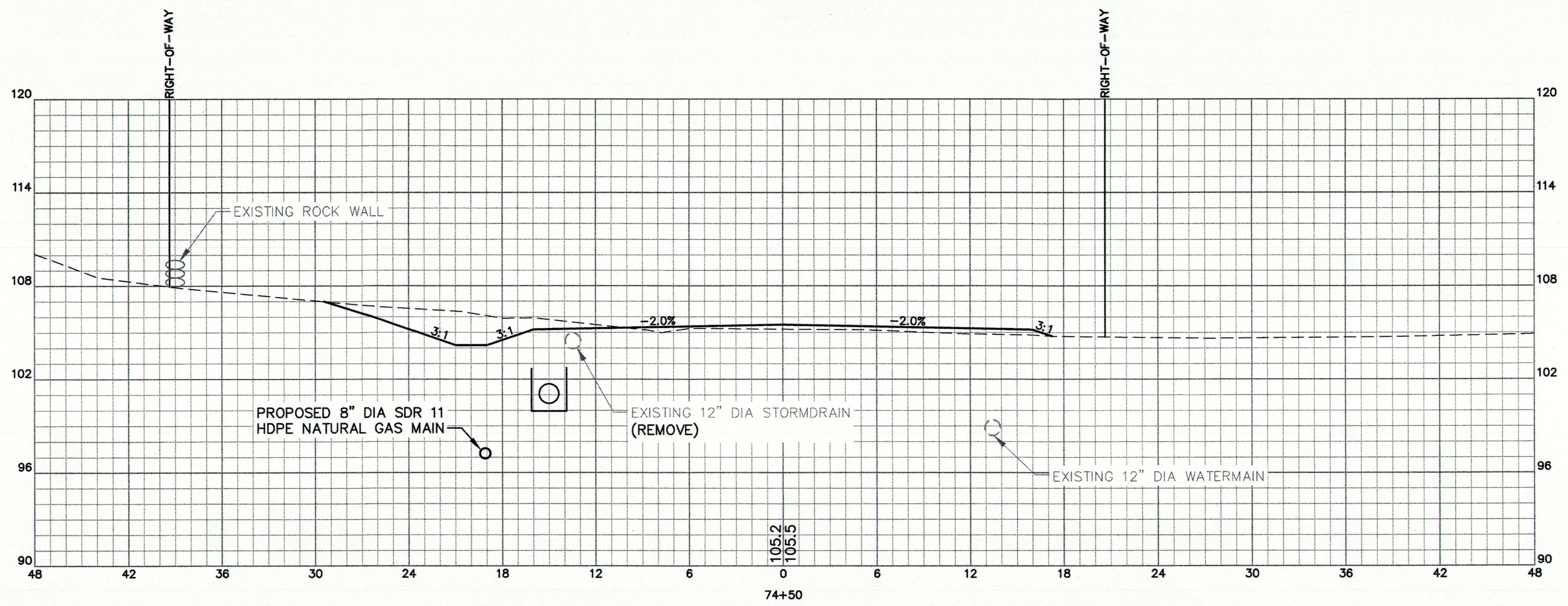
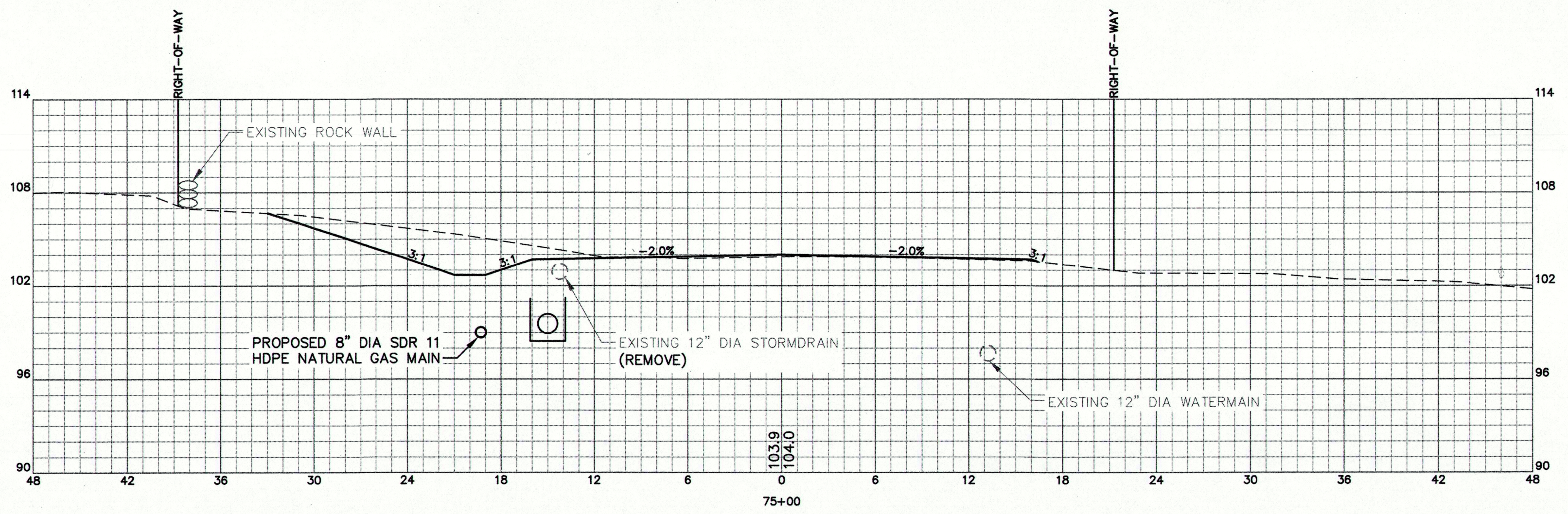
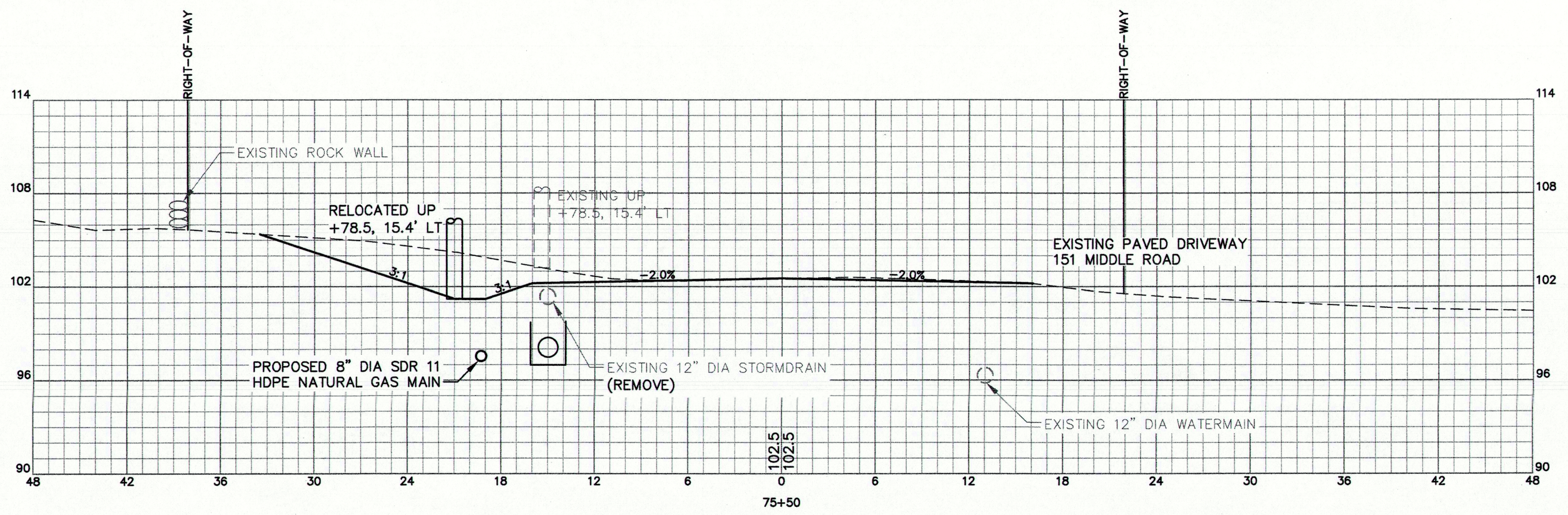
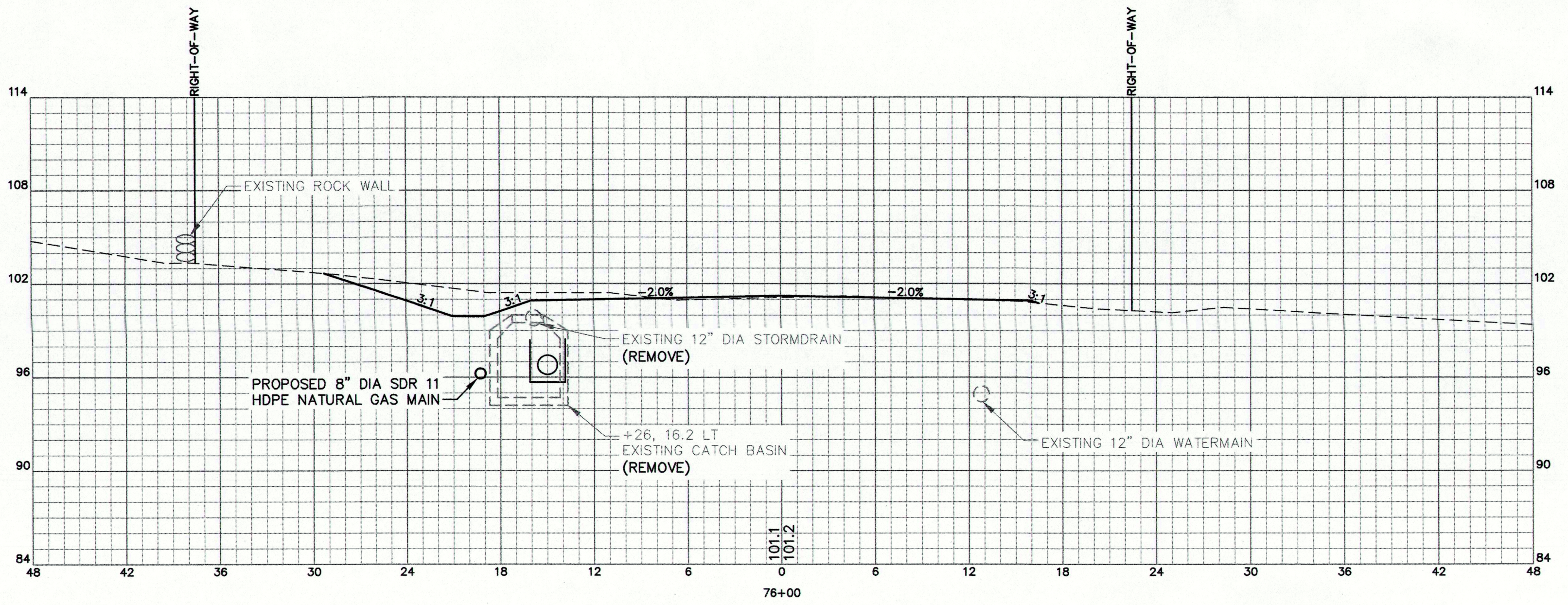
**CROSS SECTIONS
STA 74+00 TO STA 76+00**

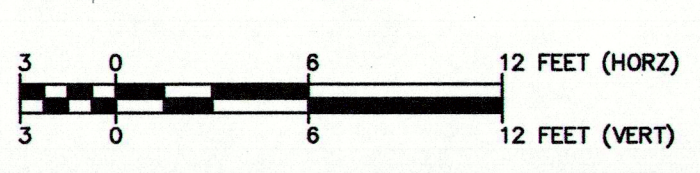
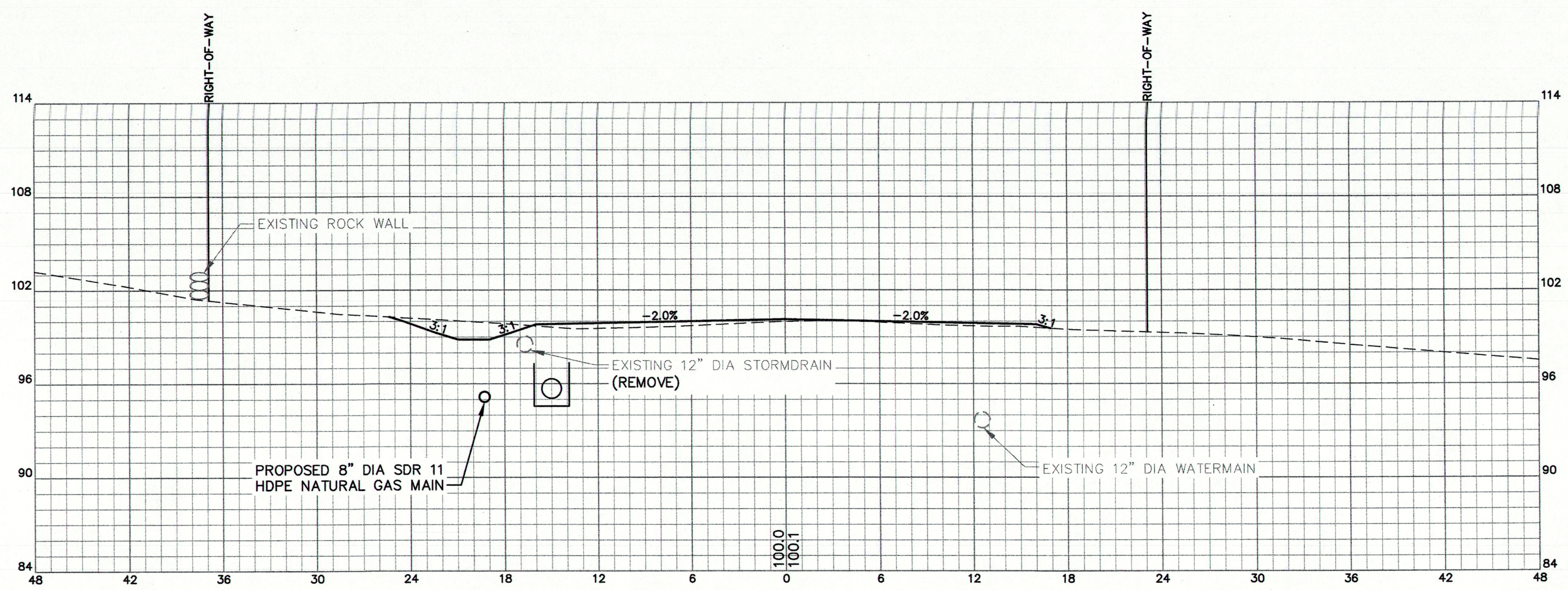
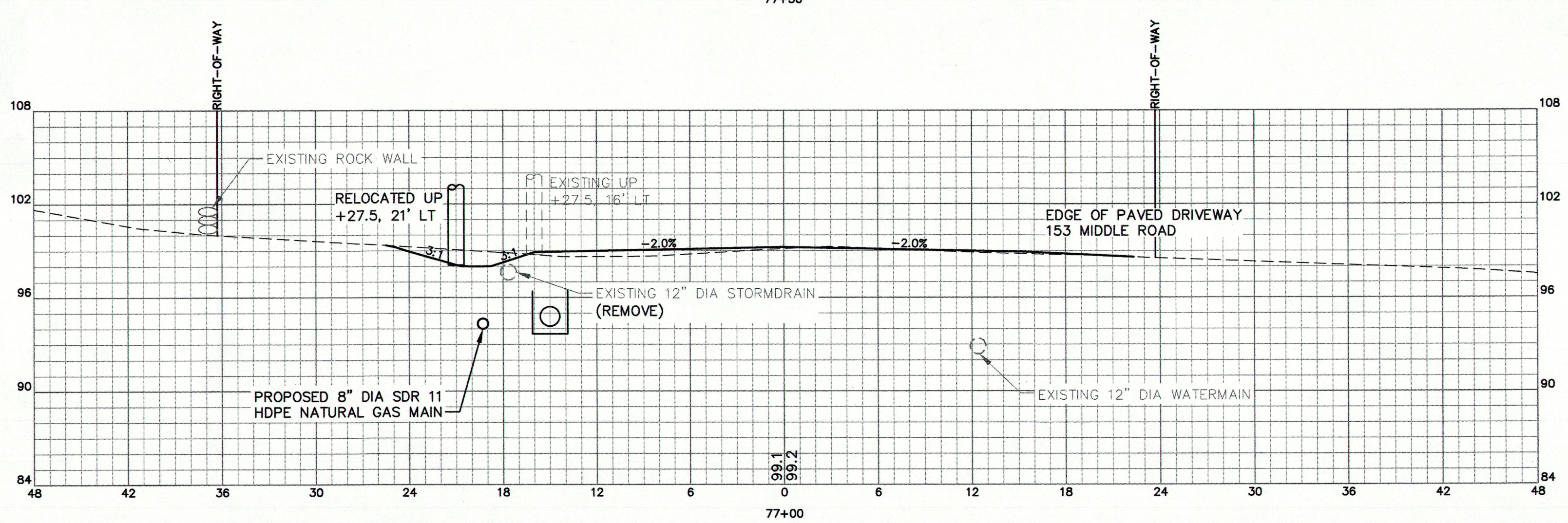
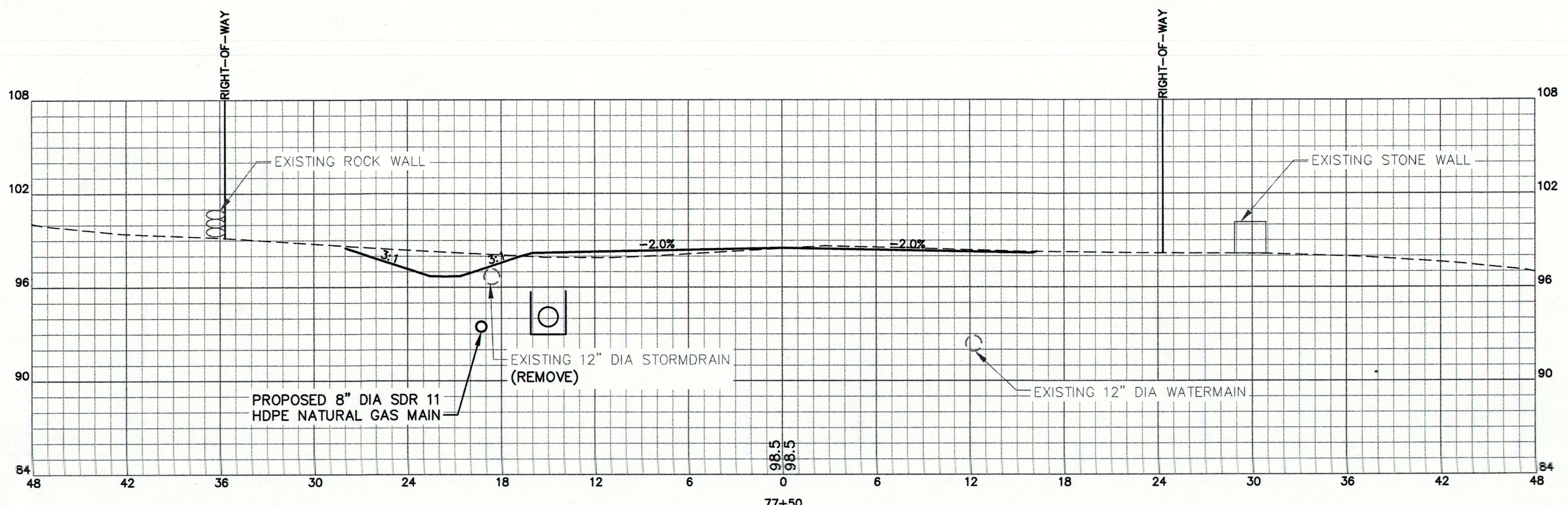
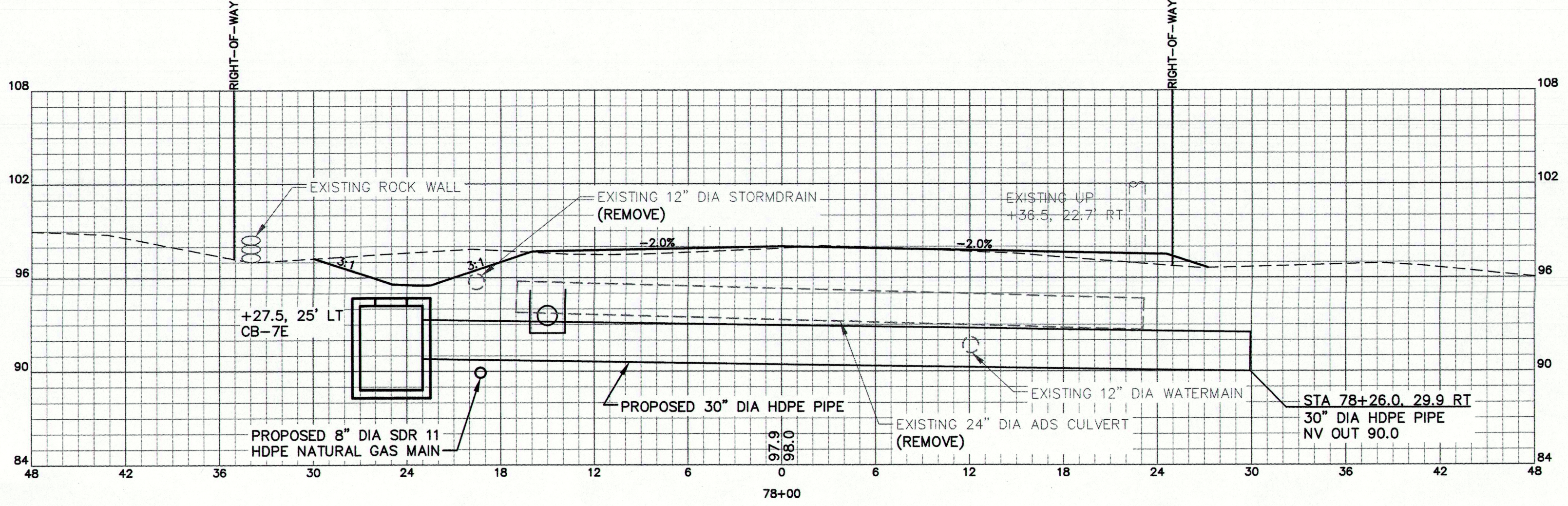
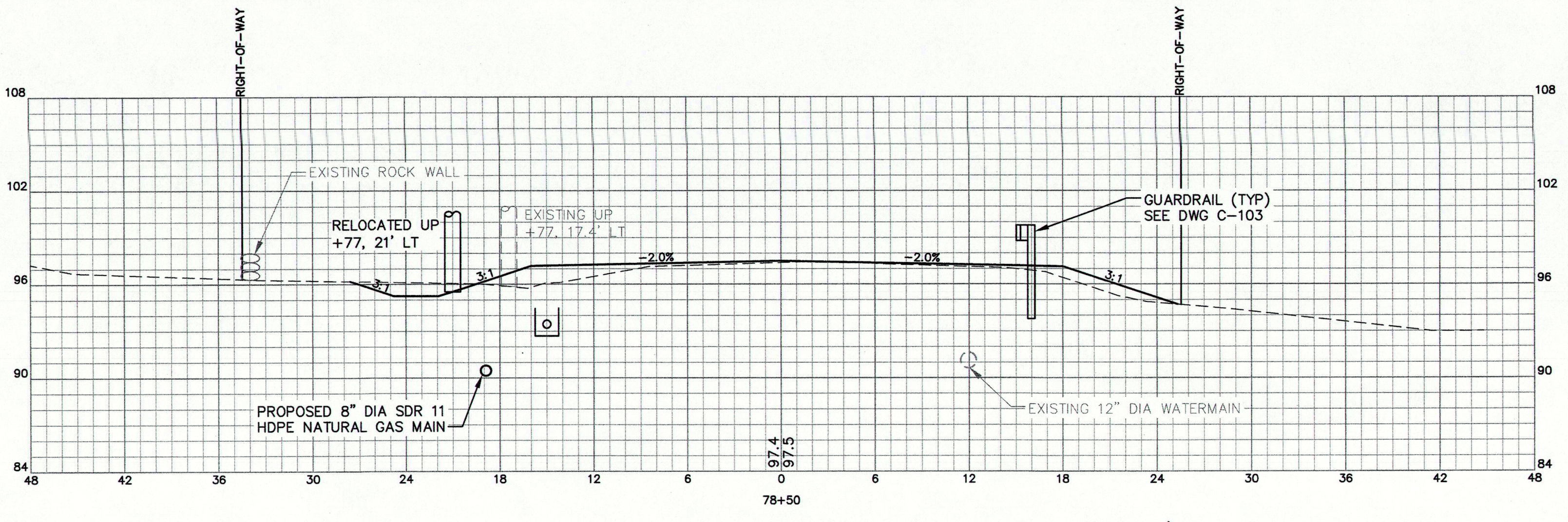
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DESIGN BY: JCM
DRAWN BY: S.M.
DATE: 5/2016
CHECKED BY: JMC
LMN: NONE
CTB: SME-STD

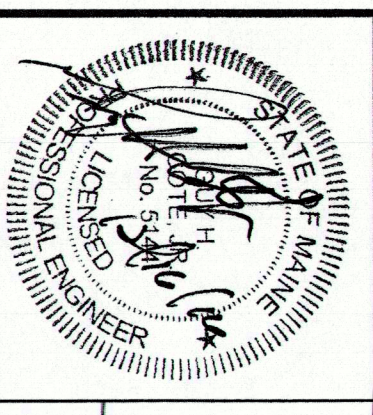
JOB NO. 16047.00 DWG FILE BASE

C-241





REV.	BY	DATE	STATUS
1	JCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

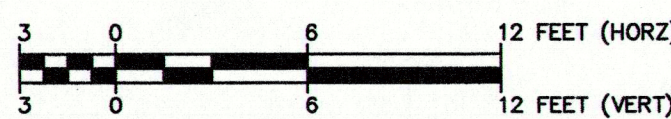
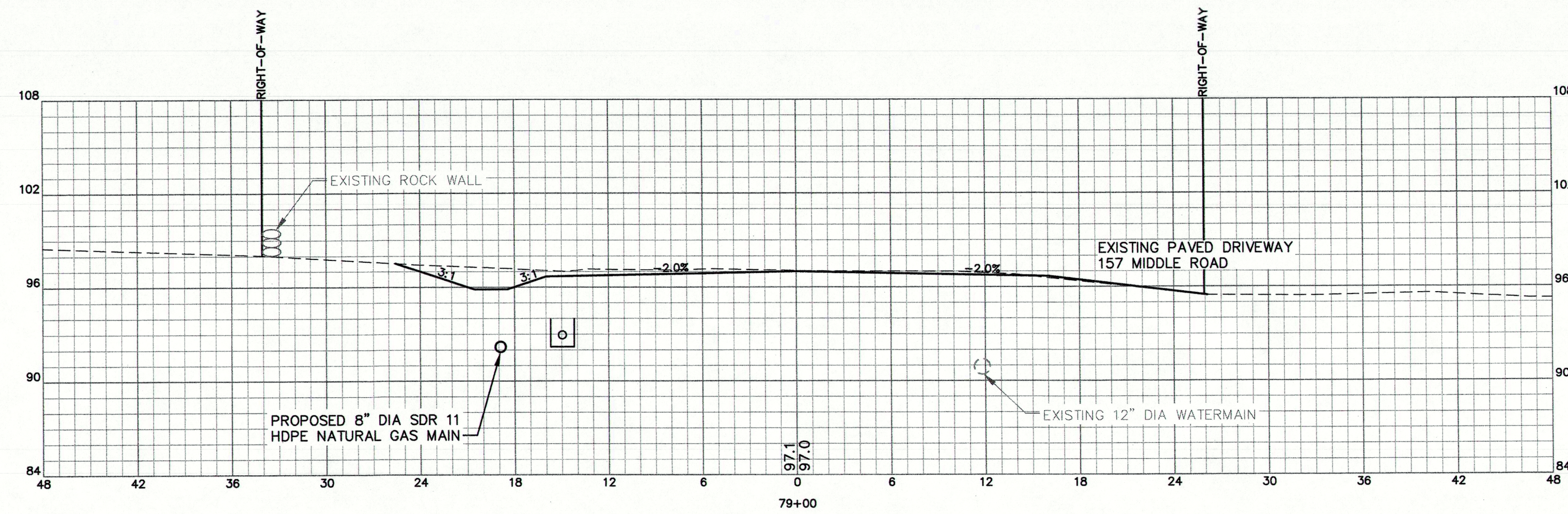
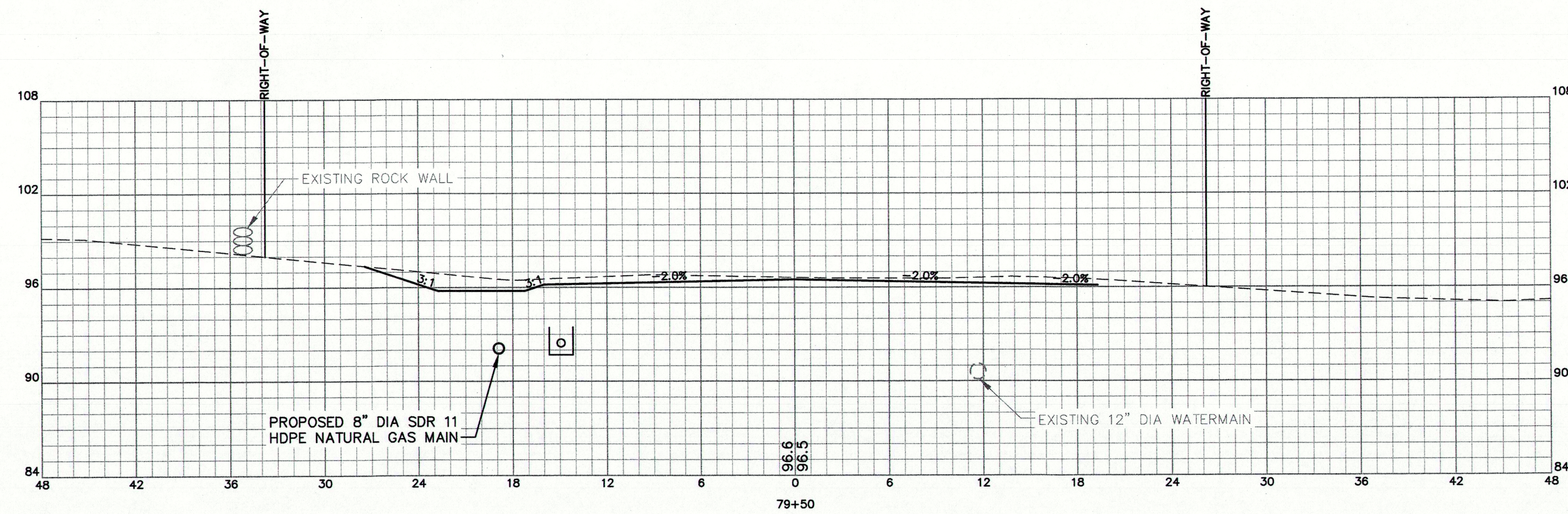
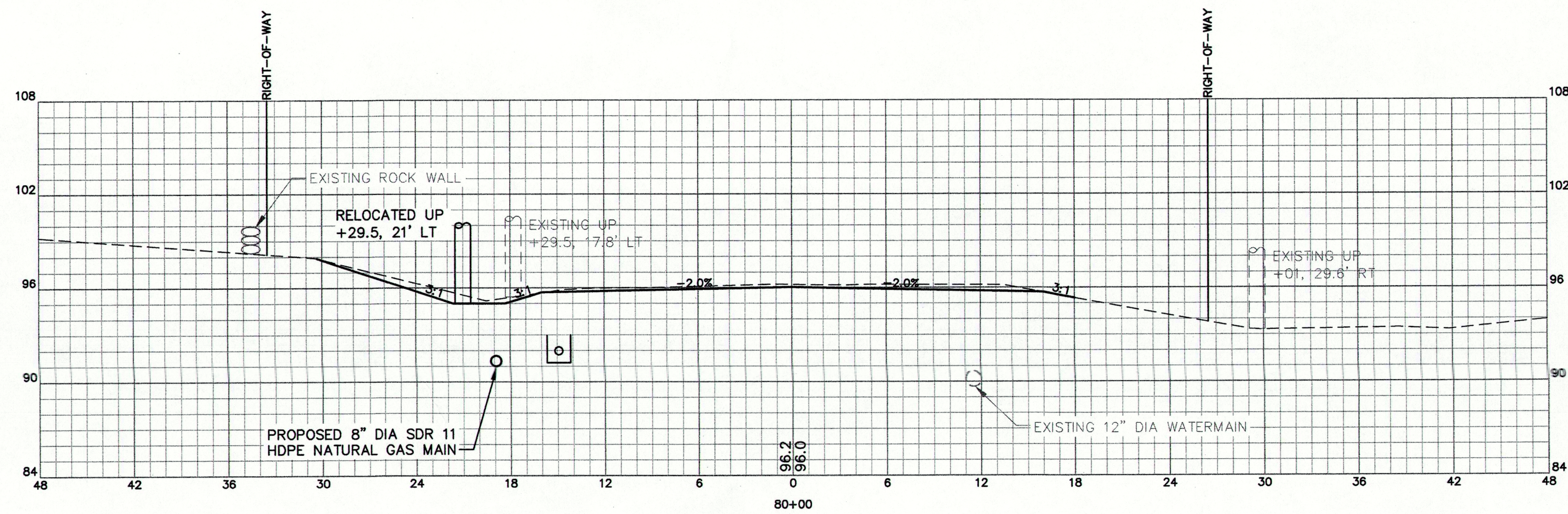
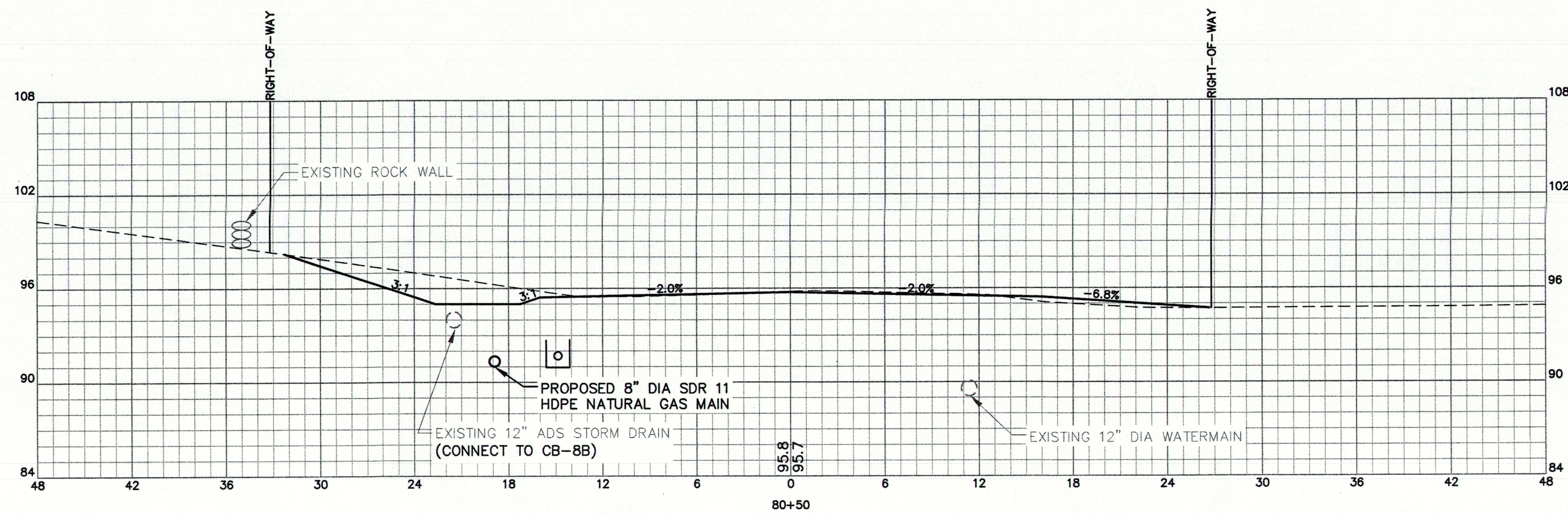
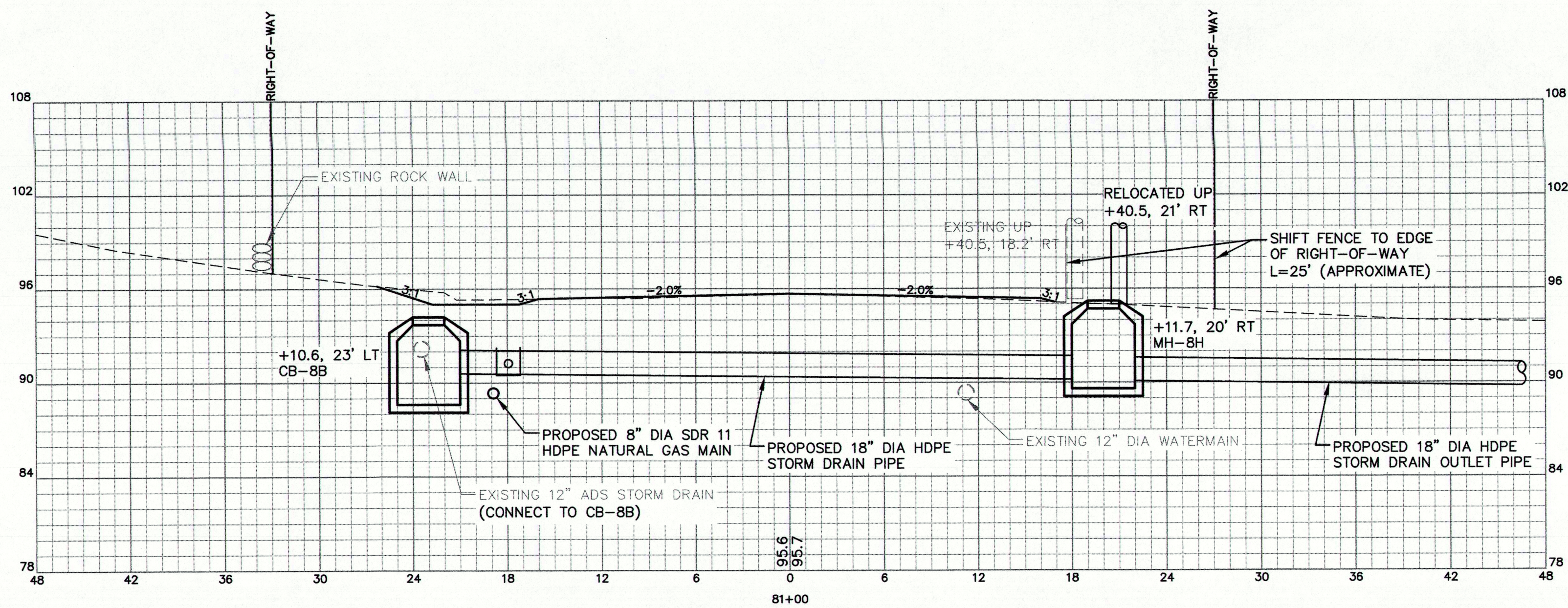
CROSS SECTIONS
STA 76+50 TO STA 78+50

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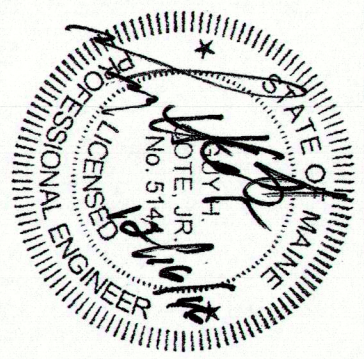
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DRAWN BY: SAM
DATE: 5/2016
CHECKED BY: *[Signature]*
LAW: NONE
CTB: SME-STD

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C-242



REV.	BY	DATE	STATUS
1	SCM	12/2016	ISSUED FOR BID



TOWN OF CUMBERLAND
MIDDLE ROAD IMPROVEMENTS
CUMBERLAND, MAINE

CROSS SECTIONS
STA 79+00 TO STA 81+00

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DRAWN BY: S.M.J.
DATE: 5/2016
CHECKED BY: S.M.J.
L.M.: NONE
C.T.B.: SME-STD
C-243