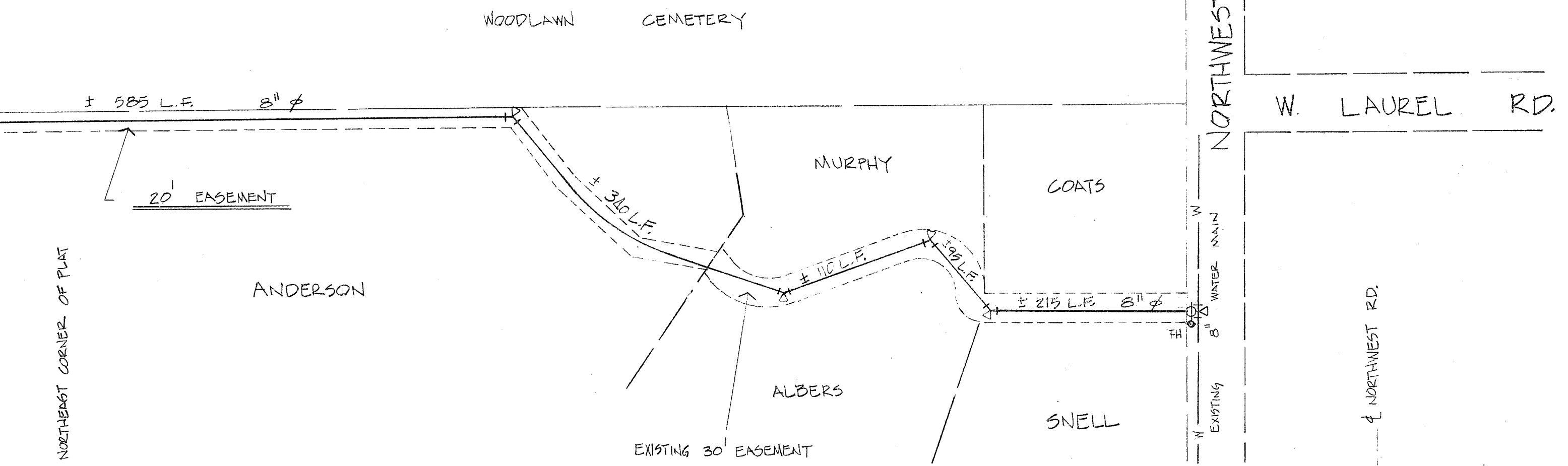
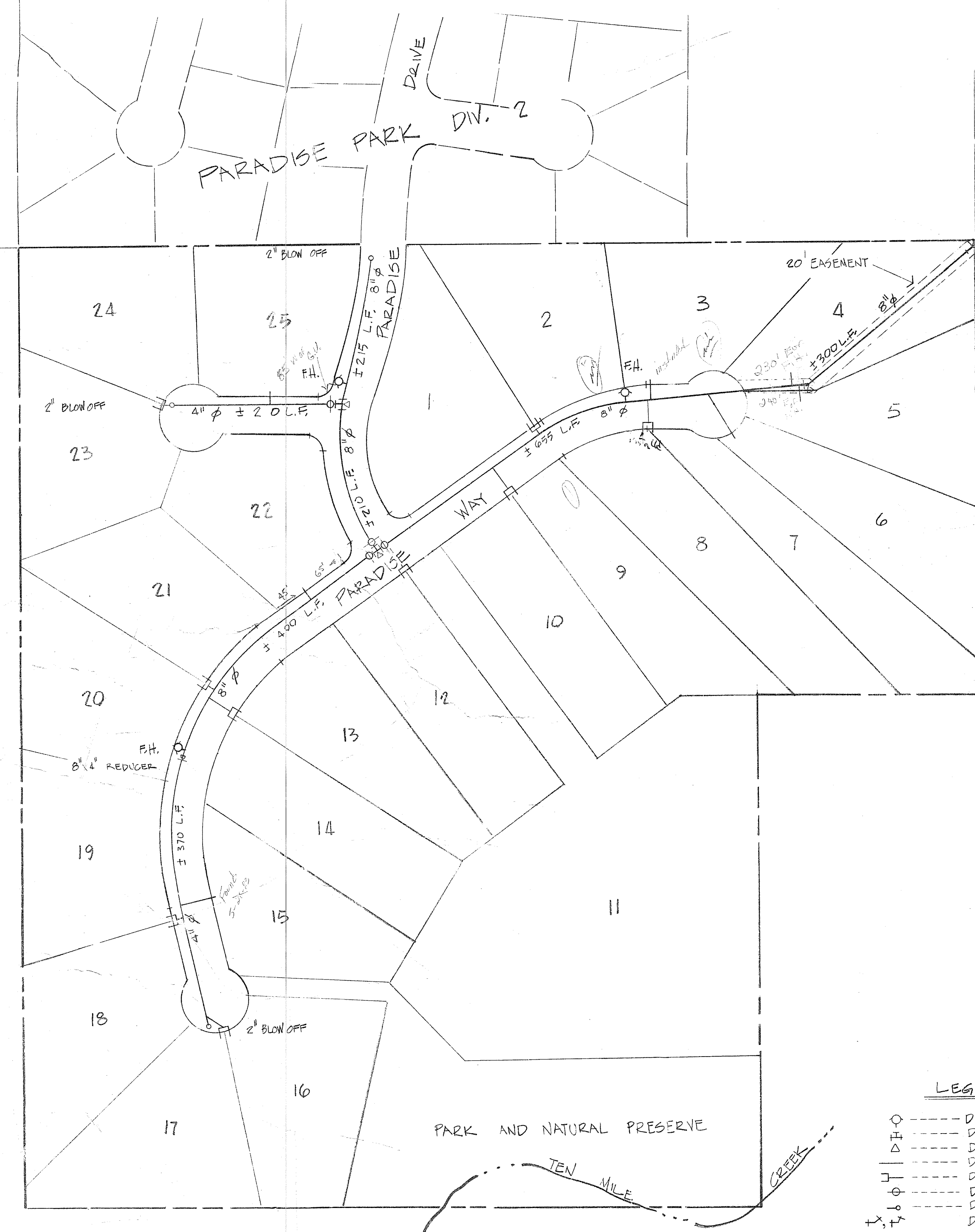
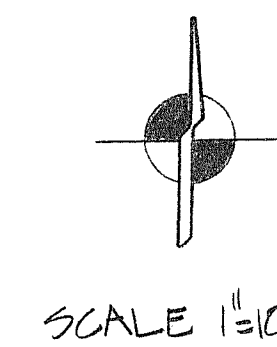




PROFILE OF SERVICE MAIN
SCALE HORIZONTAL 1"=100'
VERTICAL 1"=10'

- LEGEND
- DENOTES FIRE HYD. ASSEMBLY
 - △ DENOTES TEE
 - DENOTES CONCRETE BLOCKING
 - DENOTES SINGLE 3/4" COPPER SERVICE
 - DENOTES DOUBLE 1" COPPER SERVICE
 - DENOTES GATE VALVE
 - DENOTES BLOW OFF ASSEMBLY
 - DENOTES 22 1/2°, 45° ELBOW

- GENERAL:
- "STANDARD SPECIFICATIONS" REFERRED TO HEREIN REFER TO THE STANDARD SPECIFICATIONS FOR MUNICIPAL PUBLIC WORKS CONSTRUCTION AS PREPARED BY THE WASHINGTON STATE CHAPTER, APWA, 1977 EDITION, AND ALL MATERIAL AND CONSTRUCTION SHALL COMPLY WITH AND BE DONE IN ACCORDANCE WITH SAID STANDARD SPECIFICATIONS, OR AS SHOWN ON THE PLANS.
- THE FOLLOWING SPECIFICATIONS ARE TO BE READ IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS AND THESE DETAILED SPECIFICATIONS ARE HEREBY MADE A PART OF THIS CONTRACT.
- WATER DISTRIBUTION SYSTEM
1. WATER MAIN, SERVICE LINE, VALVES, HYDRANTS, AND FITTINGS SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS, AS REQUIRED BY THE STATE DEPT. OF PUBLIC HEALTH, THE CITY OF FERDALE, AND SPECIFIED HEREON.
 2. WATER PIPE SHALL BE DUCTILE IRON PIPE CLASS 50 AND SHALL COMPLY WITH SECTION 72-2.02 OF THE STANDARD SPECIFICATIONS.
 3. FITTINGS SHALL BE CAST IRON CONFORMING TO ANSI A-21.10 FOR SHORT BODY FITTINGS; BELLS, FLANGES OR GROOVES SHALL BE AS REQUIRED FOR THE TYPE OF PIPE AND JOINTING METHOD USED. FLANGES, WHERE REQUIRED, SHALL CONFORM TO ANSI B-16.1 FOR CLASS 125 FLANGES UNLESS OTHERWISE INDICATED OR SPECIFIED.
 4. BURIED GATE VALVES SHALL MEET THE MATERIAL AND INSTALLATION REQUIREMENTS AS OUTLINED IN SECTION 75 OF THE STANDARD SPECIFICATIONS. THEY SHALL HAVE A NONRISING STEM AND SHALL OPEN COUNTERCLOCKWISE AND SUFFICIENT WRENCHES TO OPERATE ALL VALVES SHALL BE PROVIDED.
 5. ALL GATE VALVES ADJACENT TO A TEE OR CROSS SHALL BE FLANGE CONNECTED.
 6. FIRE HYDRANTS SHALL BE MINIMUM 5" MAIN VALVE OPENING FOR 42" TRENCH UNLESS OTHERWISE DESIGNATED, FLANGED AT GROUND LINE, 6" MJ CONNECTION; TWO 2 1/2" HOSE CONNECTIONS ANSI (NATIONAL) STANDARD THREAD; PUMPER CONNECTION AND OPERATING NUT TO MATCH EXISTING HYDRANTS. HYDRANT SO CONSTRUCTED THAT DIRECTION OF FACING OF PUMPER CONNECTION MAY BE ROTATED TO FACE THE ROADWAY. HYDRANT SHALL BE OF TRAFFIC TYPE WITH DESIGNATED REPLACEABLE BREAK POINTS.
 7. VALVE BOXES SHALL BE CAST IRON, 2-PIECE, SCREW TYPE EXTENSION, EQUAL TO ATLAS FOUNDRY COMPANY OF OLYMPIC FOUNDRY COMPANY, AND SHALL CONFORM TO SECTION 76-2.01 AND SECTION 76-3.06 OF THE STANDARD SPECIFICATIONS.
 8. ALL BACKFILL IN TRENCHES WILL BE CLASS B BANK RUN GRAVEL AND IN ACCORDANCE WITH SECTION 73-2.08 OF THE STANDARD SPECIFICATIONS OR AS APPROVED BY THE PUBLIC WORKS DEPARTMENT, AND SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 73-2.07 OF THE STANDARD SPECIFICATIONS TO 95% OF ITS MAXIMUM DRY DENSITY AS DEFINED BY ASTM D-1557-64T. IF SUITABLE BACKFILL MATERIAL IS NOT AVAILABLE FROM TRENCHING OPERATIONS, THE ENGINEER MAY ORDER THE PLACING OF BEDDING SAND OR GRAVEL AROUND THE WATER MAIN.
 9. THE PIPE SHALL BE LAID TO THE ALIGNMENT AND GRADES FURNISHED BY THE ENGINEER. DEFLECTIONS FROM A STRAIGHT OR GRADE AS REQUIRED BY VERTICAL CURBS, HORIZONTAL CURVES, OR OFFSETS, SHALL NOT EXCEED THE MAXIMUM DEFLECTIONS RECOMMENDED BY THE PIPE MANUFACTURER. WHERE THE ALIGNMENT OR GRADE REQUIRED DEFLECTIONS IN EXCESS OF RECOMMENDED LIMITS WITH STANDARD PIPE LENGTHS, A SUFFICIENT NUMBER OF SHORTER LENGTHS SHALL BE USED.
 10. TRENCH DEPTH SHALL BE AS REQUIRED TO PROVIDE A MINIMUM OF 36" COVER FROM FINISHED GRADE.
 11. NO PIPE SHALL BE COVERED UNTIL IT HAS BEEN INSPECTED AND PERMISSION TO BACKFILL HAS BEEN OBTAINED. BACKFILLING AND SURFACE RESTORATION SHALL FOLLOW CLOSELY THE INSTALLATION AND THE TESTING OF THE PIPE.
 12. CONCRETE BLOCKING SHALL BE 1:3:6 MIX WITH 3" MAXIMUM SLUMP, AND MUST BE FORMED BEFORE POURING.
 13. CONCRETE BLOCKING SHALL BE PLACED AT ALL ABRUPT BENDS, BOTH HORIZONTAL AND VERTICAL, AND AT TEES AND DEAD ENDS. NO BLOCKING SHALL BE REQUIRED AT HYDRANT TEES IF HYDRANT IS SECURED TO WATER MAIN BY FLANGED PIPE, RESTRAINING JOINTS OR BY RODS AND SHACKLES. CONCRETE BLOCKING SHALL BE IN ACCORDANCE WITH THE CITY OF FERDALE BLOCKING SPECIFICATION CRITERIA.
 14. PRIOR TO ACCEPTANCE OF THE WORK, ALL SECTIONS OF PIPE SHALL BE SUBJECTED TO A HYDROSTATIC TEST AS PER CITY OF FERDALE SPECIFICATIONS.
 15. STERILIZATION OF WATER MAINS SHALL BE ACCOMPLISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE HEALTH DEPARTMENT, IN A MANNER SATISFACTORY TO THE ENGINEER, AND AS OUTLINED IN SECTION 74-2.13 OF THE STANDARD SPECIFICATIONS.
 16. THE RESTORATION AND CLEANUP OF WATER MAIN CONSTRUCTION SHALL CONFORM TO SECTION 78 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED.
 17. HAZE WATER METER AND CONCRETE BOXES AND COMPLETE ASSEMBLIES FOR EACH LOT.

APPROVAL
FERDALE *John F. Elder* 5-23-80
PUBLIC WORKS SUPERINTENDENT DATE