

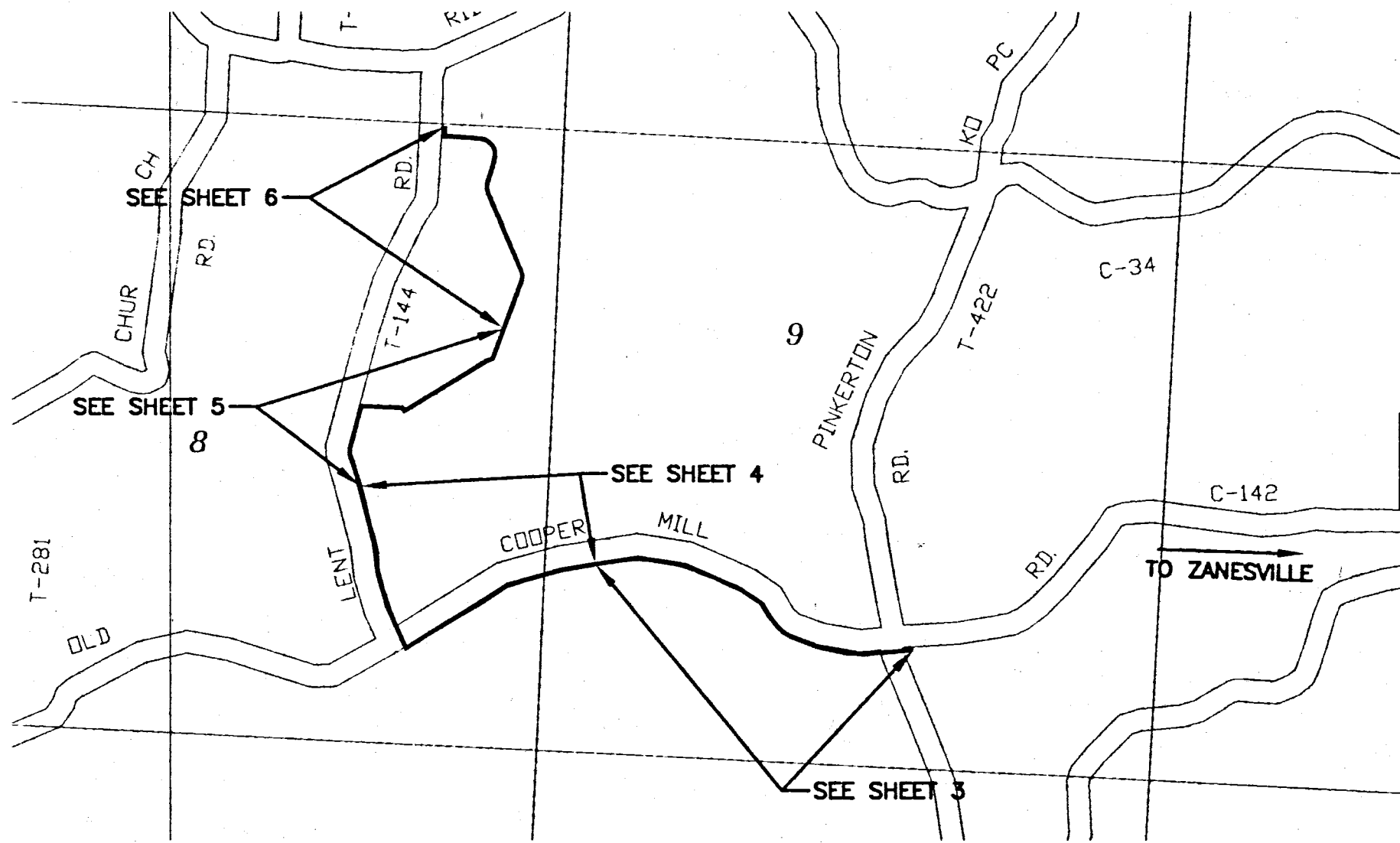
GENERAL NOTES

1. **MAPPING.** MAPPING FOR THIS PROJECT WAS DEVELOPED FROM AERIAL PHOTOGRAPHS PRODUCED BY BARTON AERIAL TECHNOLOGIES, INC. AND PROVIDED BY THE MUSKINGUM COUNTY ENGINEER'S OFFICE. THE PLAN SHEETS WERE PRODUCED BY SCANNING AND ENLARGING AERIAL PHOTOGRAPHS TO A SCALE OF APPROXIMATELY 1"=50'; THEREFORE, SOME INHERENT INACCURACIES IN SCALE DO EXIST.
2. **UTILITIES AND STRUCTURES SHOWN ON THE PLANS.** THE LOCATION OF UTILITIES AND STRUCTURES, BOTH SURFACE AND SUBSURFACE, ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF DESIGN AND ARE NOT NECESSARILY COMPLETE OR CORRECT. THE EXACT LOCATION AND PROTECTION OF UTILITIES AND STRUCTURES ARE THE RESPONSIBILITY OF THE CONTRACTOR. DURING CONSTRUCTION, THE CONTRACTOR SHALL USE DUE DILIGENCE IN PROTECTION FROM DAMAGE TO ALL EXISTING UTILITIES AND STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR RESTORATION OF SAME.
3. **NOTIFICATION - UTILITY COMPANIES.** THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITIES PROTECTION SERVICE (800-362-2764) AT LEAST FIVE WORKING DAYS PRIOR TO BEGINNING ANY WORK.
- THE CONTRACTOR SHALL NOTIFY THE PROPER OFFICIALS OF AFFECTED UTILITY COMPANIES AT LEAST FIVE WORKING DAYS PRIOR TO BEGINNING ANY WORK THAT MAY AFFECT THEIR UNDERGROUND FACILITIES. UTILITY COMPANIES MAY INCLUDE:
- A. OHIO POWER / AEP (740) 455-4684
- B. GATHERCO, INC. (330) 498-9553
- C. MAYSVILLE REGIONAL WATER DISTRICT (740) 849-2428
- D. AMERITECH (740) 454-3514
4. **EXPOSE UTILITIES AND STRUCTURES.** THE CONTRACTOR SHALL EXPOSE EXISTING WATER MAINS, UTILITIES, AND STRUCTURES SUFFICIENTLY IN ADVANCE OF LAYING PROPOSED PIPE TO VERIFY THE LOCATIONS, SIZE, TYPE OF MATERIAL, AND THE PROPOSED GRADE. LOCATIONS NOT MARKED MAY HAVE TO BE EXPOSED. FOR ALL POINTS WHERE THE PROPOSED WATER MAIN CONFLICTS WITH EXISTING UTILITIES, THE PROPOSED WATER MAIN SHALL BE LOWERED TO PROVIDE 15 INCH MINIMUM CLEARANCE BETWEEN LINES, EXCEPT WHEN A SANITARY SEWER IS ENCOUNTERED, THE PROPOSED WATER MAIN SHALL HAVE A MINIMUM CLEARANCE OF 18 INCHES. REFER TO NOTE 24 FOR REQUIREMENTS FOR DRAINAGE ITEMS.
5. **WATER MAIN LOCATIONS.** UNLESS OTHERWISE INDICATED, WATER MAINS LOCATED WITHIN COUNTY AND TOWNSHIP ROAD RIGHT-OF-WAY SHALL BE INSTALLED AT A MINIMUM OF (5) FEET FROM THE EDGE OF PAVEMENT WHEREVER POSSIBLE. WATER MAIN APPURTENANCES WHICH MAY PROTRUDE ABOVE GROUND LEVEL SUCH AS VALVE, AIR RELEASES, FLUSH HYDRANTS, ETC. SHALL BE INSTALLED BEHIND THE DITCH LINES OF ALL ROADS. WHERE WATER MAINS ARE INSTALLED WITHIN MUSKINGUM COUNTY RIGHTS-OF-WAY PARALLEL TO THE ROADWAY, THE CONTRACTOR SHALL, WHERE POSSIBLE, INSTALL THE WATER MAIN A MINIMUM OF 15 FEET FROM THE CENTERLINE OF PAVEMENT AND MAINTAIN THE REQUIRED WATER MAIN COVER BELOW THE FLOW LINE OF THE DITCH.
6. **SEWER AND WATER LINE SEPARATION.** SEWER AND WATER LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET. A MINIMUM VERTICAL SEPARATION OF 18 INCHES SHALL BE MAINTAINED BETWEEN BOTTOM OF THE WATER LINE AND THE TOP OF THE SEWER WHERE SUCH LINES CROSS EACH OTHER. IF THESE CONDITIONS CANNOT BE MET, CONCRETE ENCASEMENT SHALL BE REQUIRED.
7. **WATER MAIN STATIONING.** BASELINE STATIONING HAS BEEN ESTABLISHED ALONG THE WATER MAIN. ALL WATER MAIN STATIONING SHOWN IS REFERENCED TO THIS ESTABLISHED BASELINE.
8. **NOTIFICATIONS - COUNTY AND TOWNSHIP ROADS.** PRIOR TO THE START OF ANY WORK WITHIN COUNTY OR TOWNSHIP RIGHTS-OF-WAY, THE CONTRACTOR SHALL GIVE THE GOVERNING AGENCY FIVE (5) DAYS NOTICE.
- MUSKINGUM COUNTY ENGINEER (740) 454-0155  
MR. LOREN C. CAMP, PE
9. **PROPOSED WATER MAINS.** ALL WATER MAINS SHALL BE PROVIDED WITH A MINIMUM OF 4.0 FEET OF COVER.
- THE MAXIMUM BREAK IN GRADE FOR ONE JOINT OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATION. THE CONTRACTOR SHALL DEFLECT AS MANY JOINTS AS NECESSARY TO LAY THE PIPE AS CLOSE AS POSSIBLE TO THE EXISTING GRADE OR DEFLECT UNDER EXISTING UNDERGROUND UTILITIES OR DITCHES AND STILL MAINTAIN MINIMUM COVER OVER THE WATER MAIN.
- THE MAXIMUM BREAK IN HORIZONTAL ALIGNMENT FOR ONE JOINT OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATION. THE CONTRACTOR SHALL DEFLECT AS MANY JOINTS AS NECESSARY TO LAY THE PIPE IN ACCORDANCE TO THE PROPOSED HORIZONTAL ALIGNMENT AS SHOWN ON THE PLANS.
- MINOR CHANGES IN ALIGNMENT AND GRADE OF THE PROPOSED WATER MAIN NECESSARY TO AVOID CONFLICT WITH EXISTING UTILITIES AND/OR STRUCTURES SHALL BE MADE ONLY AT THE DIRECTION OF THE ENGINEER.
- ALL WATER MAINS SHALL MEET NATIONAL SANITATION FOUNDATION (NSF) SPECIFICATIONS FOR POTABLE WATER.
10. **FITTINGS.** ALL VERTICAL AND HORIZONTAL FITTINGS AND CONCRETE BACKING ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDE THESE FITTINGS AND CONCRETE BACKING WHERE NECESSARY.
11. **CONCRETE ENCASEMENT.** THE CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENTS AS NOTED ON THE DRAWINGS AS NECESSARY.

12. **PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS.** THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO PRESERVE ALL CORNER STONES, IRON PINS, CONCRETE MONUMENTS, OR ANY OTHER TYPE OF LAND MONUMENT. HE SHALL HAVE ALL LAND MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. IF ANY LAND MONUMENTS ARE DESTROYED OR DAMAGED, HE SHALL HAVE THEM REPLACED BY A SURVEYOR AND SHALL FURNISH A CERTIFICATION BY A REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.
13. **PAVEMENT REPLACEMENT.** ALL DRIVEWAYS, SIDEWALKS, AND ROADS DAMAGED DURING CONSTRUCTION OF THIS PROJECT SHALL BE REPAIRED IN ACCORDANCE WITH THE PLANS, TO PRE-CONSTRUCTION CONDITION OR BETTER.
14. **BACKFILL.** ALL DISTURBED PAVED AREAS SHALL BE BACKFILLED WITH COMPACTED TRENCH MATERIAL UNDER GRAVEL PAVED AREA, AND GRANULAR MATERIAL UNDER HARD PAVEMENTS.
15. **TRAFFIC MAINTENANCE.** TEMPORARY ROUTES, TRAFFIC DIVERSION, AND STREETS OR ROADS TO BE CLOSED TO THROUGH TRAFFIC SHALL BE SUBMITTED BY THE CONTRACTOR IN SCHEDULE FORM FOR REVIEW AND APPROVAL OF THE AUTHORITY HAVING JURISDICTION OVER THE RIGHT-OF-WAY IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PROVIDE MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH MUTCD, PLATES C-11, C-12, AND C-13 AS REQUIRED.
16. **DRIVEWAYS.** PRIOR TO DISTURBING EXISTING DRIVEWAYS, THE CONTRACTOR MUST NOTIFY THE OWNER OF THE DRIVEWAY OF HIS INTENT TO BEGIN WORK. IN NO CASE SHALL A DRIVEWAY BE CLOSED FOR MORE THAN 24 HOURS UNLESS WRITTEN PERMISSION OF THE OWNER OF THE DRIVEWAY TO DO SO HAS BEEN OBTAINED BY THE CONTRACTOR.
17. **HIGHWAY CROSSINGS.** HIGHWAY CROSSINGS ARE DESIGNATED ON THE PLANS. HIGHWAY CROSSING SIZES REFER TO THE SIZE OF THE CARRIER PIPE. ALL CROSSINGS SHALL BE MADE USING TUNNEL OPTION NUMBER 1, UNLESS OTHERWISE NOTED. THE MINIMUM WALL THICKNESS FOR THE WELDED STEEL ENCASEMENT PIPE SHALL BE 0.25 INCHES.
18. **BORING PITS.** BACKFILL FOR BORING PITS EXCAVATIONS SHALL BE SPECIAL BACKFILL.
19. **SPOIL REPLACEMENT.** THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AREAS, IN WHICH TRENCH SPOIL AND BACKFILL MATERIAL SHALL BE STOCKPILED. EXCESS TRENCH SPOIL SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSES IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
20. **PROTECTION OF TREES.** SPECIAL CARE SHALL BE TAKEN TO AVOID DAMAGE TO TREES OR THEIR ROOT SYSTEM. MACHINE EXCAVATION SHALL NOT BE USED WHEN IT WOULD ENDANGER TREE ROOTS.
21. **SHOULDERS, BERMS, AND UNDERDRAINS.** THE CONTRACTOR SHALL REPAIR ALL SHOULDERS, BERMS, OR UNDERDRAINS THAT ARE DAMAGED BY THE CONTRACTOR'S CONSTRUCTION OPERATION. REPAIRS SHALL BE MADE USING THE SAME TYPE OF MATERIAL AS WAS USED PRIOR TO BEING DISTURBED. ALL SHOULDERS, BERMS, AND UNDERDRAINS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO PRECONSTRUCTION CONDITION.
22. **GRADING AND SEEDING.** ALL DISTURBED GRASSED AREAS WILL BE GRADED AND SEEDED IN ACCORDANCE WITH THE PLANS.
23. **DRAINAGE.** THE LOCATION OF CULVERTS, INLETS, AND OTHER DRAINAGE ITEMS HAS BEEN DETERMINED FROM DATA AVAILABLE AT THE TIME OF DESIGN AND ARE NOT NECESSARILY COMPLETE OR CORRECT. PROPER DRAINAGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DRIVEWAY CULVERTS AND OTHER STORM DRAINAGE PIPES REMOVED DURING CONSTRUCTION MUST BE REPLACED AT THE SAME LOCATION, GRADE AND ELEVATION. ALL WATER MAINS INSTALLED ADJACENT TO AND/OR CROSSING CULVERTS SHALL HAVE A MINIMUM CLEARANCE OF 24 INCHES IN BOTH HORIZONTAL AND VERTICAL DIRECTIONS. THE CONTRACTOR SHALL USE DUE DILIGENCE IN PROTECTING FROM DAMAGE ALL EXISTING CULVERTS WHETHER SHOWN ON THE PLANS OR NOT. IF ANY DAMAGE IS CAUSED TO ANY DRAINAGE FEATURES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR RESTORATION OF SAME.
24. **AIR RELEASE ASSEMBLIES.** ALL AIR RELEASE ASSEMBLIES SHALL BE MANUALLY OPERATED, UNLESS NOTED OTHERWISE.
25. **PROPERTY LINES AND RIGHTS-OF-WAY.** ALL PROPERTY LINES AND RIGHT-OF-WAY LINES SHOWN ON THESE SHEETS WERE TAKEN FROM EXISTING TAX MAPS, AND HIGHWAY MAPS PROVIDED BY THE MUSKINGUM COUNTY ENGINEER. PROPERTY LINES AND RIGHT-OF-WAY LINES HAVE NOT BEEN FIELD SURVEYED AND MAY NOT BE COMPLETE OR CORRECT.
26. **POLE GUY WIRES.** A MINIMUM DISTANCE OF FOUR FEET BETWEEN GUY WIRE ANCHOR (AT GROUND LEVEL) AND THE NEAREST EDGE OF WATER MAIN TRENCH SHALL BE MAINTAINED DURING WATER MAIN INSTALLATION.
27. **TESTING AND DISINFECTION.** THE CONTRACTOR SHALL BE REQUIRED TO TEST AND DISINFECT ALL WATER MAINS INSTALLED. WATER LINES SHALL BE PRESSURE TESTED AND DISINFECTED TO MEET AWWA C-600 AND AWWA C-651.
28. **BOIL ADVISORIES.** IF ANY SECTION OF THE EXISTING WATER SYSTEM IS DEPRESSURIZED DURING THE COURSE OF WORK, A BOIL ADVISORY SHALL BE ISSUED FOR THE AFFECTED AREA.
29. **WATER SERVICES.** EXACT LOCATIONS OF WATER SERVICES ARE TO BE DETERMINED BY THE MAYSVILLE REGIONAL WATER DISTRICT DURING CONSTRUCTION. CUSTOMER SERVICE CONNECTIONS CANNOT BE COMPLETED UNTIL EXISTING RESIDENTIAL WELLS ARE ABANDONED OR APPROPRIATE PROTECTION HAS BEEN USED AS APPROVED BY THE MAYSVILLE REGIONAL WATER DISTRICT.

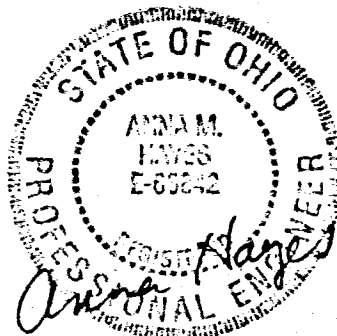
30. **INDIVIDUAL HOME BOOSTER PUMPS.** INDIVIDUAL HOME BOOSTER PUMPS SHALL NOT BE ALLOWED TO BE INSTALLED ON ANY INDIVIDUAL CUSTOMER SERVICE FROM THE PUBLIC WATER SUPPLY, PER TEN STATES "RECOMMENDED STANDARDS FOR WATER WORKS", 1997 EDITION, SECTION 6.4.4.
31. **MINIMUM PRESSURE.** MINIMUM CUSTOMER SERVICE PRESSURE SHALL BE MAINTAINED AT 35 PSI UNDER NORMAL OPERATING CONDITIONS.

LEGEND	
EXISTING PROPERTY LINE	---
EXISTING RIGHT-OF-WAY	---R/W---
EXISTING TELEPHONE PEDESTAL	⊞
EXISTING WATER MAIN & GATE VALVE	---○---W---
PROPOSED WATER MAIN AND GATE VALVE	---○---
PROPOSED WATER MAIN IN STEEL CASING OR CONCRETE ENCASEMENT	=====
PROPOSED HYDRANT	⊕
PROPOSED MANUAL AIR RELEASE ASSEMBLY	---■---
PROPOSED PERMANENT EASEMENT	---PE---
PROPOSED TEMPORARY EASEMENT	---TE---



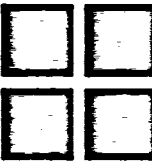
INDEX MAP

SCALE: 1" = 1/4 MILE



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NO.	REVISIONS	DATE	BY	CHK.
Burgess & Niple, Limited		Parkersburg, WV		



BURGESS & NIPLE

MAYSVILLE REGIONAL WATER DISTRICT  
WATER DISTRIBUTION SYSTEM IMPROVEMENTS  
LENT ROAD  
CONTRACT 03-1

JOB NO.	32541
DESIGNED BY:	AMH
DRAWN BY:	DRD
CHECKED BY:	AMH
APPROVED BY:	AMH
DATE:	DEC 2002

GENERAL NOTES, INDEX MAP & LEGEND

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