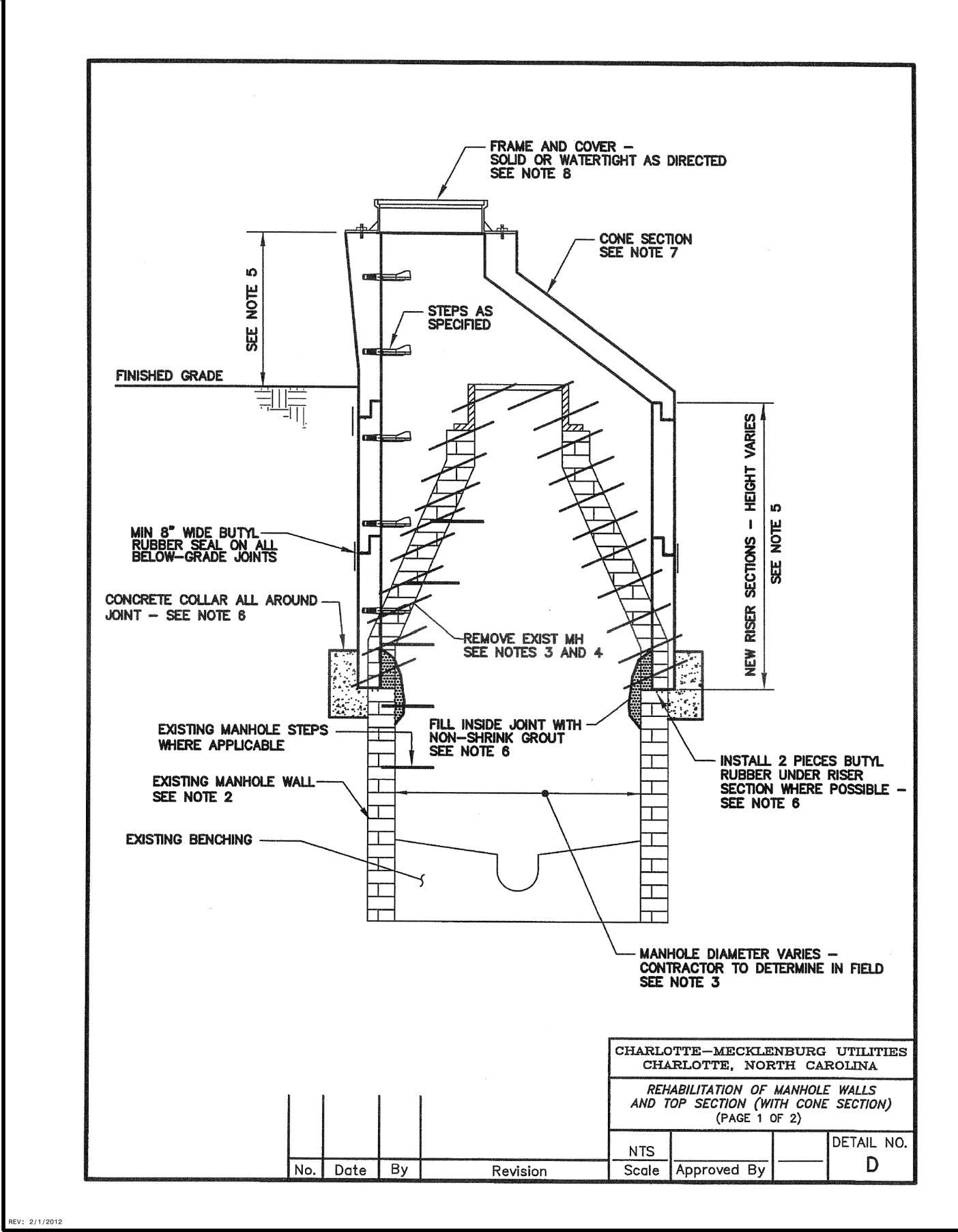
## CLTWater STANDARD DETAILS



## NOTES:

- 1. ALL WORK AND MATERIALS TO BE IN ACCORDANCE WITH CMU'S STANDARD SPECIFICATIONS AND DETAILS.
- 2. THIS DETAIL DEPICTS AN EXISTING BRICK MANHOLE WITH A TYPICAL CHIMNEY SECTION. SOME MANHOLES MAY BE PRECAST CONCRETE WITH CONE SECTIONS.
- 3. CONTRACTOR TO MEASURE THE INSIDE DIAMETER OF EXISTING MANHOLE TO SELECT APPROPRIATE DIAMETER OF NEW RISERS.
- 4. CONTRACTOR TO REMOVE EXISTING WALLS TO SOLID STRUCTURE (TO AT LEAST BELOW THE CONE OR CHIMNEY SECTION) OR TO THE SPECIFIED LOCATION. THE LIMITS OF REMOVAL SHALL BE APPROVED BY THE ENGINEER IN THE FIELD. CONTRACTOR TO ALSO REMOVE EXISTING FRAMES AND COVERS, VENT PIPES AND ALL APPURTENANCES, STEPS, ETC. CONTRACTOR TO DISPOSE OF ALL MATERIALS OFF—SITE.

NO DEBRIS SHALL BE DROPPED INTO THE SEWER. IF DEBRIS ENTERS THE SEWER, THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE SEWER AT NO ADDITIONAL COST TO THE OWNER.

- 5. CONTRACTOR TO INSTALL NEW RISER AND CONE SECTIONS AS NECESSARY TO EXTEND THE MANHOLE TO THE SPECIFIED/APPROVED ELEVATION. THE FINAL ELEVATION MAY BE HIGHER THAN, LOWER THAN OR EQUAL TO THE EXISTING ELEVATION, THIS DETAIL ILLUSTRATES A HIGHER ELEVATION. THE CONTRACTOR SHALL DETERMINE THE REQUIRED RISER AND CONE HEIGHTS TO MEET THE SPECIFIED ELEVATION. ENGINEER SHALL APPROVE FINAL ELEVATIONS IN THE FIELD. BOTTOM RISER TO BE PROVIDED WITH A FLAT JOINT UNLESS OTHERWISE APPROVED.
- 6. CONTRACTOR TO SEAL NEW RISER SECTION/EXISTING WALL JOINT TO PROVIDE A LEAK-TIGHT JOINT. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO PROVIDE A LEAK-TIGHT SEAL. WHERE POSSIBLE, BUTYL RUBBER SEALANT SHALL BE PROVIDED UNDER THE NEW RISER SECTION. IN ALL CASES, A CONCRETE COLLAR SHALL BE POURED AROUND THE JOINT. COLLAR TO BE MINIMUM 6 INCHES WIDE AND 12 INCHES HIGH CENTERED ON JOINT ALL AROUND.

ON THE INSIDE OF THE JOINT, CONTRACTOR TO SEAL JOINT WITH NON—SHRINK GROUT. GROUT TO COMPLETELY FILL JOINT AND SHALL EXTEND AT LEAST 6 INCHES EACH SIDE OF JOINT ALL AROUND. GROUT TO BE TAPERED TO THE EXISTING WALL SECTION BELOW THE JOINT, GROUT TO BE RESISTANT TO HYDROGEN—SULFIDE.

- 7. NEW CONE SECTIONS TO BE INSTALLED ON TOP OF NEW RISER SECTIONS UNLESS SPECIFIED OTHERWISE, FRAMES TO BE BOLTED ONTO CONE SECTIONS PER CMU'S STANDARD DETAILS AND DETAIL G. REFER TO DETAIL G FOR ALL WORK IN PAVED AREAS. SEE NOTE 8.
- 8. COVERS SHALL BE CAM-LOCK WATERTIGHT COVERS OR SOLID COVERS AS DIRECTED BY THE ENGINEER.

  CAM-LOCK WATERTIGHT FRAMES/COVERS SHALL BE AS MANUFACTURED BY EAST JORDAN IRON WORKS, US FOUNDRY, OR APPROVED EQUAL.

CHARLOTTE - MECKLENBURG UTILITIES
CHARLOTTE, NORTH CAROLINA

REHABILITATION OF MANHOLE WALLS
AND TOP SECTION (WITH CONE SECTION)
(PAGE 2 OF 2)

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