



Fort Monmouth Economic Revitalization Planning Authority

Sanitary Sewer System Evaluation – Status Report

Wednesday, June 17, 2009



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Timeline Review

- Proposals submitted on 12/04/08
- Contract Awarded to HMM on 3/12/09
- HMM Began Work on 3/12/09
- Field Work – approx 90% complete
- Analysis/Evaluation – ongoing
- Final Report due 8/5/09



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Sanitary Sewer System Evaluation

- Manhole Inspections
- Sewer Cleaning & CCTV Inspections
- Flow Metering
- Pump Station Inspections



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Overview of Manhole Inspections

- MH inspection phase completed 4/30/09
- 358 MHs were inspected
 - 267 in Main Post
 - 91 in Charles Wood
- Draft report delivered 5/15/09



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Manhole Inspection Findings

- A total of 358 MHs were inspected
 - 261 MHs (75%) with no defects
 - 44 MHs require various repairs
 - 21 MHs with estimated infiltration of 40,000gpd
 - 19 MHs Buried or not found
 - 13 MHs no longer connected to the system
 - Majority of MHs are of brick construction

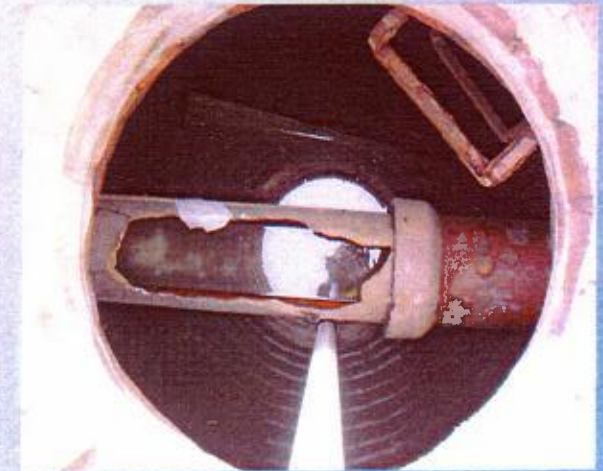
Manhole Observations



Charles Wood – MH 1A (Guam Lane ROW)
Minor hydrogen sulfide (H₂S) corrosion observed on manhole walls and riser.



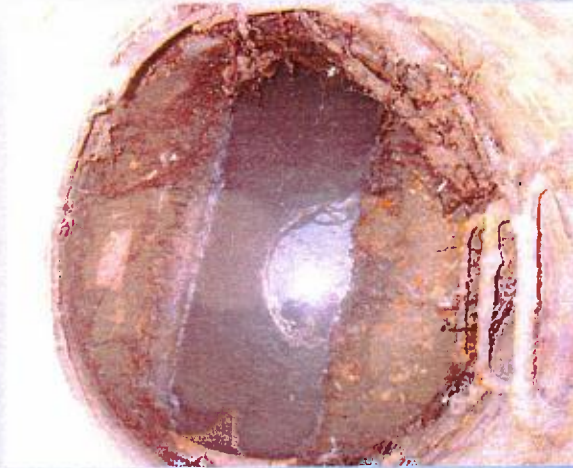
Charles Wood – MH 9 (Guam Lane)
View of 4-inches stagnant flow. Manhole appears to have no channel.



Charles Wood – MH 23 (Heliport ROW)
View of doghouse manhole with unenclosed pipe. Survey rod used to measure 12-inches of stagnant flow.



Main Post – MH 15A (Barkers Circle)
View of concrete slab placed over manhole; no frame or rim on manhole. HMM unable to remove slab.



Main Post – MH 68 (Parkers Creek ROW)
View of large root throughout manhole protruding from lower wall.

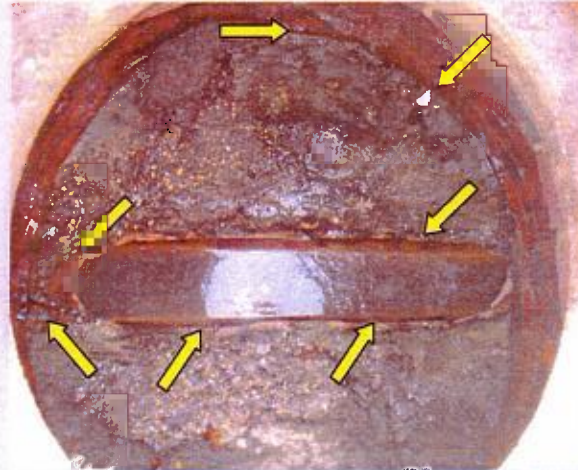


Main Post – MH 144 (Sherrill Avenue)
View of significant hydrogen sulfide (H₂S) corrosion throughout manhole.

Manhole Infiltration



Charles Wood – MH 44B (Hemphill Road)
Arrow points to estimated 2 gpm (3,000 gpd) wall leak to right of effluent pipe. Minor root intrusion from wall / bench junction.



Charles Wood – MH 14 (Satellite Road ROW)
Arrows point to estimated 7 gpm (10,100gpd) from both pipe sleeves, wall / bench junction and benching.



Charles Wood – MH 46 (Corregidor Road)
Arrow points to estimated 3 gpm (4,300 gpd) from wall and bench junction.



Main Post – MH 9E (Riverside Avenue)
Estimated 2 gpm (3,000 gpd) from caps of both pipes.



Main Post – MH 21 (Barkers Circle)
Estimated 2 gpm (3,000 gpd) from sleeve of effluent pipe, benching, and wall and bench junction.



Main Post – MH 59 (Allen Court)
Estimated 1 gpm (1,500 gpd) from the sleeves of both influent pipes.

Overview of CCTV Inspections

- Sewer cleaning and CCTV inspection completed 5/29/09, over 11 miles of pipe inspected
- Omitted TRWRA and Eatontown SA trunk sewers
- Oswald has delivered reports and 44 CDs
- PipeSmart GIS data base being developed



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CCTV Inspection Results

- Main Post Inspections
 - 41,560 LF of 53,933 LF inspected
- Charles Wood Inspections
 - 17,557 LF of 23,868 LF inspected
- 80 CY of material removed during cleaning
- Sewer consisted of mostly ACP and VCP
- Evaluation of pipeline condition ongoing



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Overview of Flow Metering

- Ten (10) for meters installed 5/28/09, 6 on Main Post, 4 on Charles Wood
- Flow metering to conclude 6/26/09
- Data from existing two (2) TRWRA billing meters to be utilized during evaluation
- Compare to Water Meter Records
- Preliminary readings indicate moderate I/I during rainfall events



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Overview of Pump Station Inspections

- Thirteen (13) pump stations inspected between 5/12/08 thru 5/29/09, 10 on Main Post, 3 on Charles Wood
- Draft report delivered 5/12/09
- Evaluations are ongoing
- General Assessment: Pump stations are functional but aged with numerous station in non-compliance with current codes



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Pump Station Inspections



Main Post - PS No. 491

Located in the parking lot to the southwest of the Visitor's Center (behind bank).



Main Post - PS No. 400

Located at the northeast corner of Oceanport Avenue and Hazen Street.



Main Post - PS No. 257

Located off of Riverside Avenue opposite Buildings No. 275 and No. T580.



Main Post - PS No. 979

Located off of Murphy Drive between Buildings No. 902 and No. 905.



Main Post - PS No. 949

Located off of Anson Avenue between Buildings No. 975 and No. 976.



Main Post - PS No. 752

Located at the corner of Nicodemus Avenue and Alexander Avenue.

Pump Station Inspections



Main Post - PS No. 1221

Located at the corner of Avenue of Memories and Wilson Avenue.



Main Post - PS No. 1227

Located off of the Abey Avenue parking lot at the corner of North Drive.



Charles Wood - PS No. 2021A

Located on the Suneagles Golf Course.



Charles Wood - PS No. 2043

Located off of Megill Drive on perimeter of Suneagles Golf Course.



Charles Wood - PS No. 2018

Located within the basement of the "Suneagles Sports Bar" restaurant.



Charles Wood - PS No. 2603

Located north off Pinebrook Road within former Family Housing Area.

Pump Station Inspections



Charles Wood - PS No. 210

Located in field off of the Guam Lane parking lot.

➤ Common Observations:

- Site Security Fencing Limited
- Pump Controls Inconsistent
- Emergency Generators Aged
- Dry Wells Exposed to Wet Wells
- Air Release Valves Missing
- No Flow Meters
- Metal and Concrete Corrosion
- Electric/Telephone Service Upgrades



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Next Steps

- Complete Flow Metering by 6/26/09
- Summarize Findings on Condition of Existing System
- Review Redevelopment Plan to determine Re-use Potential of System and Future Flow Needs
- Develop Recommendations on Rehabilitation /Upgrade and Re-use of System – MH/Pipe/PS
- Develop Estimate of Cost for Rehabilitation or System
- 'Draft' Final Report – Deliver Aug 6, 2009



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