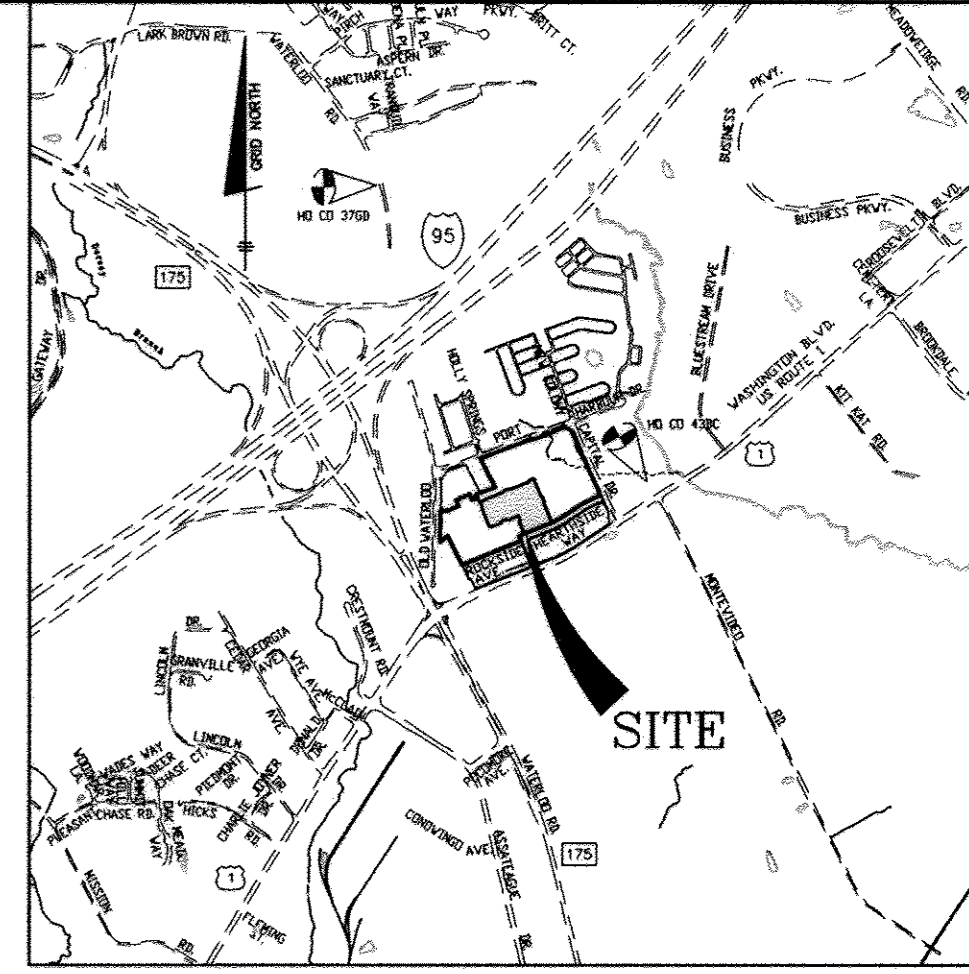
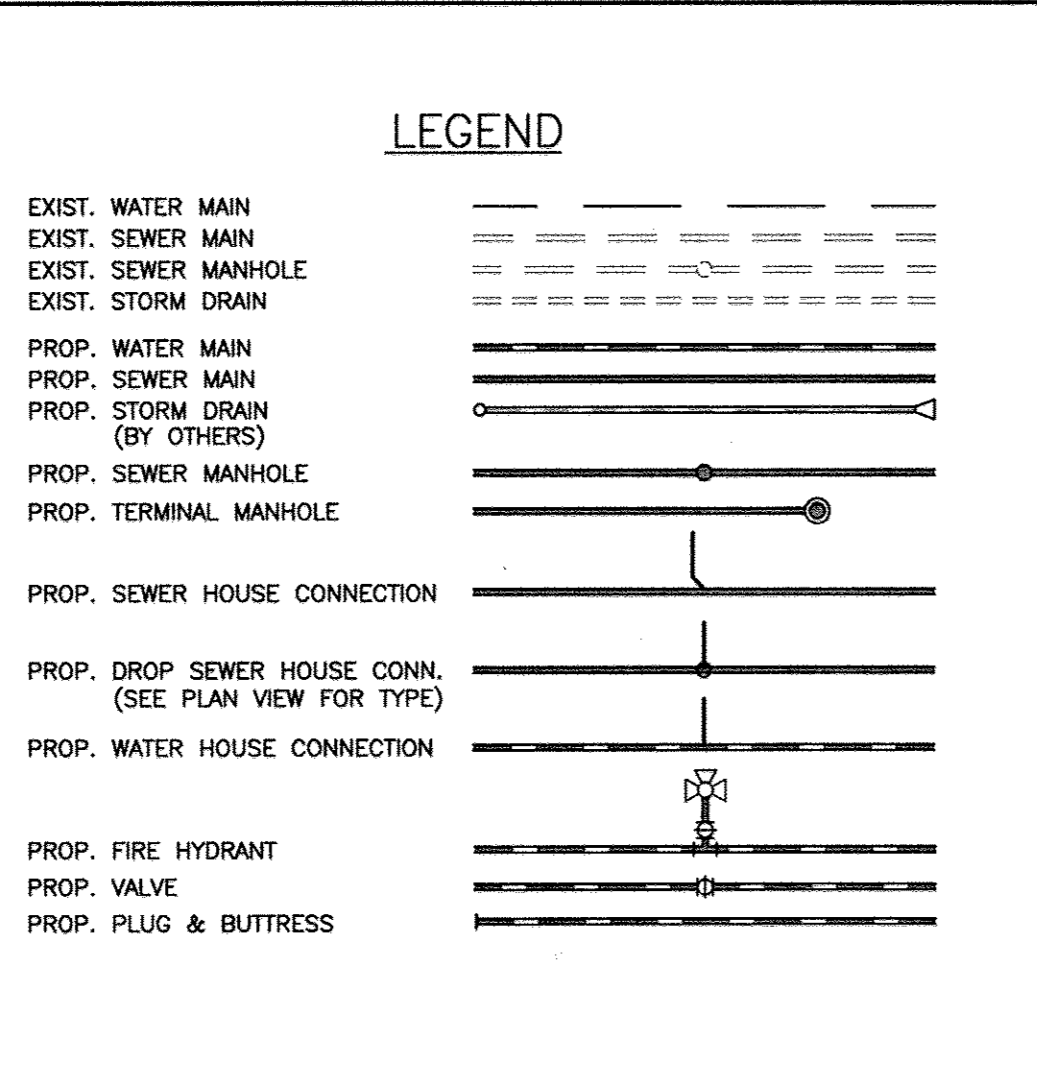


PUBLIC WATER AND SEWER MAIN EXTENSIONS HOWARD SQUARE PHASE 2, SECTION B SFA UNITS 160-215 (FUTURE LOTS) 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 14-4710-D



ADC MAP: 5054 GRID: E-3 VICINITY MAP SCALE: 1" = 200'

QUANTITIES table with columns: ITEMS, ESTIMATED QUANTITIES, QUANTITIES, AS-BUILT TYPE, MANUF./SUPPLIER. Lists materials like PVC pipe, manholes, valves, and fittings.



SEWER SERVICE AS-BUILT LOCATION TABLE with columns: LOT, ADDRESS, LOCATION DIMENSION #1, LOCATION DIMENSION #2, LOT, ADDRESS, LOCATION DIMENSION #1, LOCATION DIMENSION #2. Lists sewer service details for lots 160-215.

WATER SERVICE AS-BUILT LOCATION TABLE with columns: LOT, ADDRESS, LOCATION DIMENSION #1, LOCATION DIMENSION #2, LOT, ADDRESS, LOCATION DIMENSION #1, LOCATION DIMENSION #2. Lists water service details for lots 160-215.

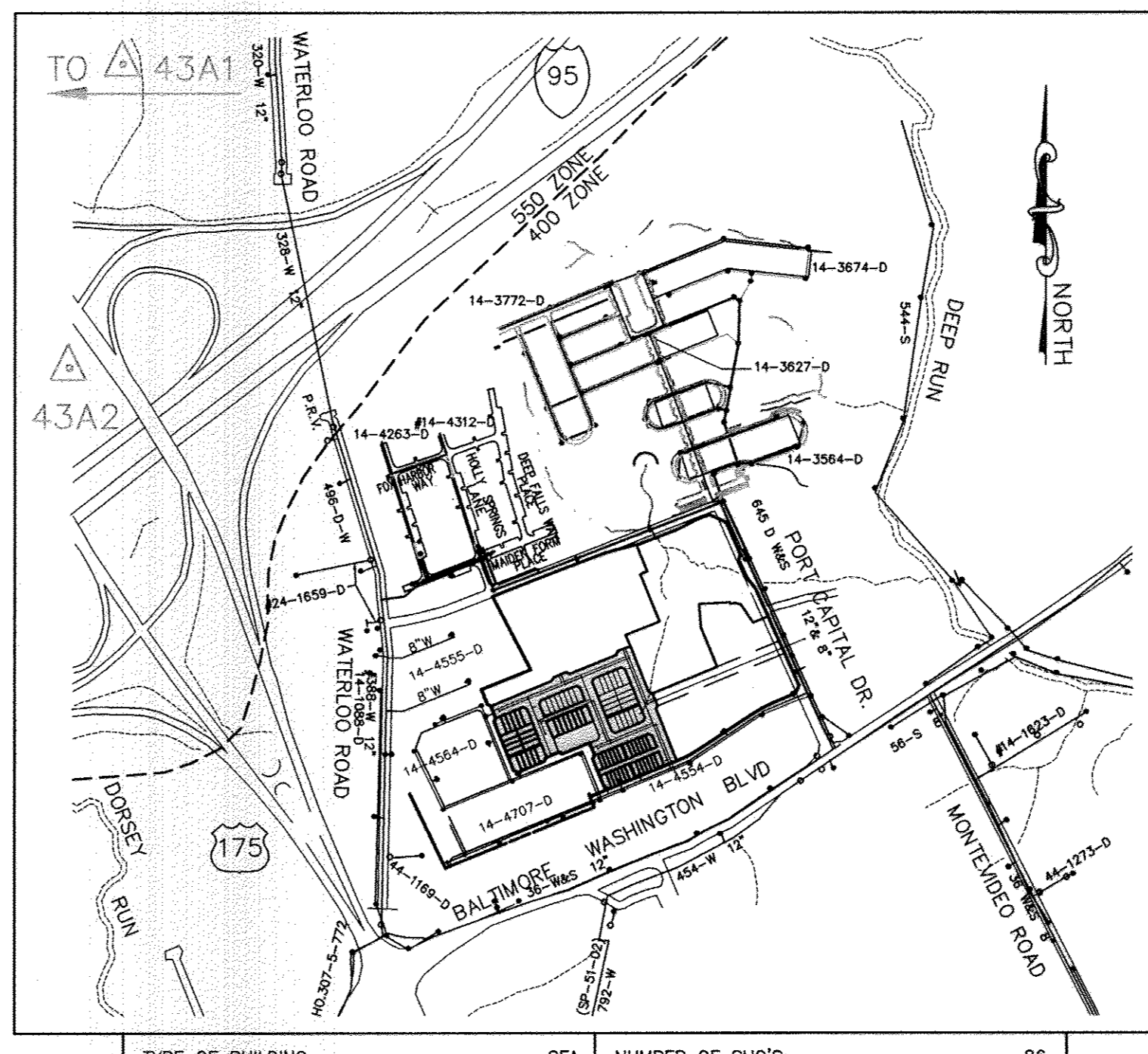


Table with columns: TYPE OF BUILDING, NUMBER OF UNITS, DRAINAGE AREA, TREATMENT PLANT, WATER ZONE, TEST GRADIENT. Provides summary statistics for the project.

LOCATION PLAN SCALE: 1" = 600'

SHEET INDEX table with columns: NO., DESCRIPTION. Lists sheets 1-4: TITLE SHEET PUBLIC WATER & SEWER MAINS, PLAN VIEW PUBLIC WATER & SEWER MAINS, PROFILE VIEWS PUBLIC WATER & SEWER MAINS, PROFILE VIEWS PUBLIC WATER & SEWER MAINS.

- GENERAL NOTES 1-11: Approximate location of existing mains shown, topographic field surveys performed, coordinates shown on drawings are based on Maryland State Reference System, all pipe elevations shown are invert elevations unless otherwise noted, clear all utilities by a minimum of 12" clear all poles by 5'-0" minimum or tunnel as required unless noted, etc.

- PART 2 - WATER 1-4: All water mains to be PVC C900 DR18 unless otherwise noted, tops of all water mains shall have a minimum of 3'-6" cover unless otherwise noted, etc.

- PART 3 - SEWER 1-5: All sewer mains shall be D.I.P. or P.V.C. unless otherwise noted, all manholes shall be 4' - 0" inside diameter unless otherwise noted, etc.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE SOIL CONSERVATION DISTRICT. Signature and date.

PLAN REFERENCE NUMBERS: SDP-11-054, S-06-010, F-08-013, F-09-007, SDP-08-046, SDP-08-078, SDP-92-70, WP-92-165, WP-93-044, WP-93-094, WP-94-047, WP-06-114, WP-07-052, WP-08-020, WP-07-129, GP-08-024

OWNER/DEVELOPER: ATAPCO HOWARD SQUARE II STATUTORY TRUST 10 E. Baltimore St. Suite 1600 Baltimore, MD 21202 (410) 347-7189

PLEASE NOTE THAT THIS SHEET REPLACES THE PREVIOUS SHEET DATED 10/12/2011

PROFESSIONAL CERTIFICATION: I hereby certify that these documents were prepared or approved by me or under my direct supervision and signature under the laws of the State of Maryland. License No. 2859; Expiration Date: 7-22-2013

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND. Signature and date.

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND. Signature and date.

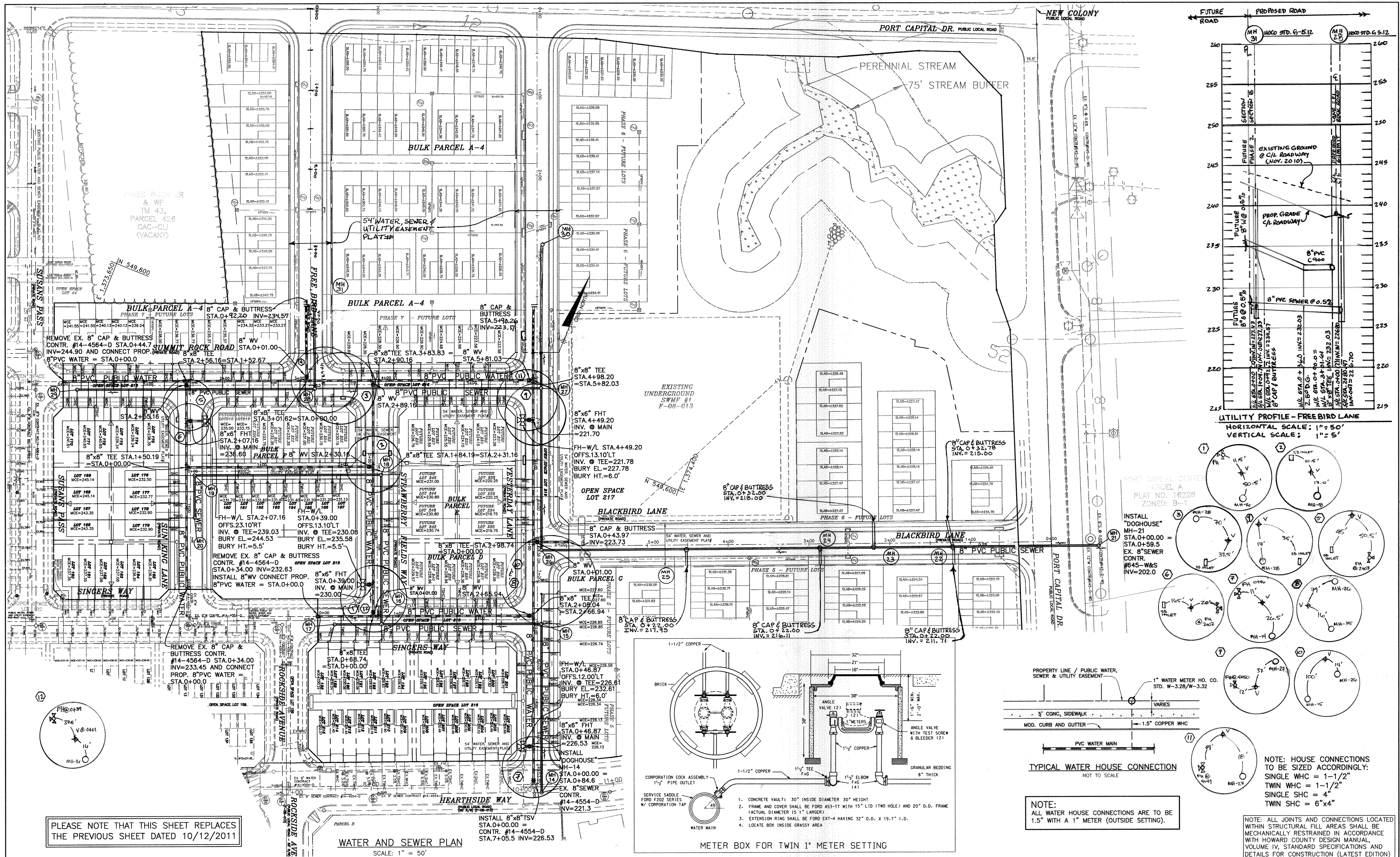
BENCHMARK ENGINEERING, INC. 8400 BALTIMORE NATIONAL PIKE SUITE 418 ELLICOTT CITY, MARYLAND 21114 PHONE: 410-465-6105 FAX: 410-465-6444



DESIGN REVISIONS table with columns: NO., DESCRIPTION, DATE. Lists revisions to the drawing.

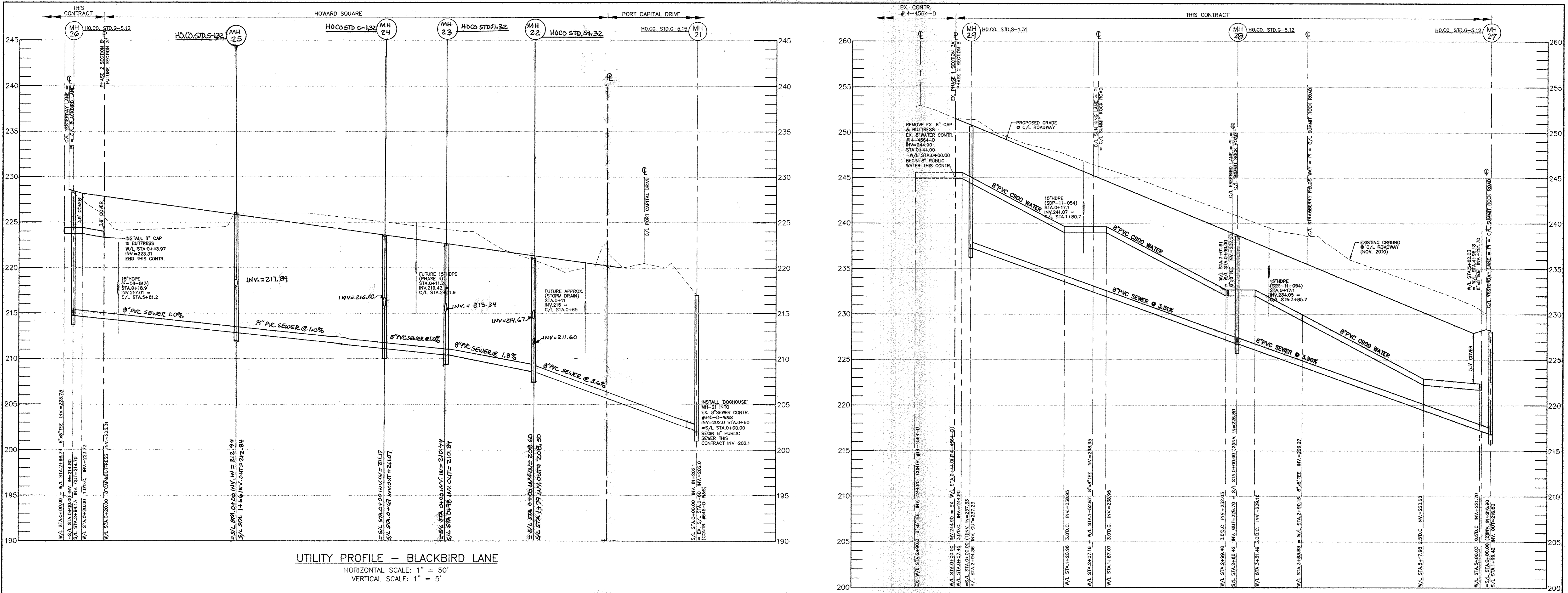
REVISED PUBLIC WATER AND SEWER TITLE SHEET AND DETAILS

HOWARD SQUARE PHASE 2, SECTION B TAX MAP 43, PARCEL A-3, GRIDS 3 & 9 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT No. 14-4710-D



PLEASE NOTE THAT THIS SHEET REPLACES THE PREVIOUS SHEET DATED 10/12/2011

| | | | | | | | | |
|---|---|--|---|--|--|---|--|---|
| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>S. Chen</i> CHIEF, BUREAU OF UTILITIES | DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>M. G.</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION | BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS 8400 BALTIMORE NATIONAL PIKE & SUITE 418 ELICOTT CITY, MARYLAND 21043 PHONE: 410-465-8105 FAX: 410-465-6844 | DES: MCR DRN: MCR CHK: BFC DATE: 7/18/2012 | BY NO. 4 R5-BUILT EXTEND PUBLIC UTILITIES IN FREE BIRD LANE AND YESTERDAY LANE TO MATCH PL5B CONSTRUCTION RELOCATE MH 22 & 23, ADD 2 MHS AND RENUMBER 22-29 REVISE/ADD 16"W LOTS 188-215; ADJUST PLANS | REVISIONS 2/20/12 7-5-13 1-9-13 7/12 | REVISED PUBLIC WATER AND SEWER PLAN VIEW SCALE MAPS: 43 BLOCKS: 3 & 9 | HOWARD SQUARE PHASE 2, SECTION B TAX MAP 43, PARCEL A-3, GRIDS 3 & 9 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT No. 14-4710-D | SCALE: AS SHOWN SHEET NO. 2 OF 4 |
|---|---|--|---|--|--|---|--|---|



UTILITY PROFILE - BLACKBIRD LANE
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

| LOT | W/L STA. | INV. @ MAIN | REMARKS | LOT | W/L STA. | INV. @ MAIN | REMARKS | LOT | W/L STA. | INV. @ MAIN | REMARKS |
|-----|----------|-------------|----------------|-----|----------|-------------|----------------|-----|----------|-------------|----------------|
| 160 | 3+40.91 | 235.30 | #14-4564-D | 161 | 3+72.80 | 234.84 | #14-4564-D | 162 | 3+72.90 | 234.84 | #14-4564-D |
| 163 | 4+12.90 | 234.14 | #14-4564-D | 164 | 4+12.90 | 234.14 | #14-4564-D | 165 | 4+51.51 | 233.45 | #14-4564-D |
| 166 | 1+04.41 | 241.42 | #14-4564-D | 167 | 1+40.46 | 242.67 | #14-4564-D | 168 | 1+40.46 | 242.67 | #14-4564-D |
| 170 | 0+07.26 | 244.80 | SUMMIT ROCK RD | 171 | 0+31.34 | 243.65 | SUMMIT ROCK RD | 172 | 0+51.34 | 242.80 | SUMMIT ROCK RD |
| 173 | 0+71.80 | 241.53 | SUMMIT ROCK RD | 174 | 0+99.34 | 240.08 | SUMMIT ROCK RD | 175 | 0+99.34 | 240.08 | SUMMIT ROCK RD |
| 176 | 1+30.19 | 235.00 | SUN KING LANE | 177 | 1+06.01 | 235.00 | SUN KING LANE | 178 | 1+06.01 | 235.00 | SUN KING LANE |
| 179 | 0+78.04 | 234.01 | SUN KING LANE | 180 | 2+13.25 | 236.53 | SUMMIT ROCK RD | 181 | 2+31.81 | 235.55 | SUMMIT ROCK RD |
| 182 | 1+40.58 | 230.54 | SINGERS WAY | 183 | 1+40.58 | 230.54 | SINGERS WAY | 184 | 1+40.58 | 230.54 | SINGERS WAY |
| 185 | 1+40.58 | 230.54 | SINGERS WAY | 186 | 1+40.58 | 230.54 | SINGERS WAY | 187 | 1+40.58 | 230.54 | SINGERS WAY |
| 188 | 1+40.58 | 230.54 | SINGERS WAY | 189 | 1+40.58 | 230.54 | SINGERS WAY | 190 | 1+40.58 | 230.54 | SINGERS WAY |
| 191 | 1+40.58 | 230.54 | SINGERS WAY | 192 | 1+40.58 | 230.54 | SINGERS WAY | 193 | 1+40.58 | 230.54 | SINGERS WAY |
| 194 | 1+40.58 | 230.54 | SINGERS WAY | 195 | 1+40.58 | 230.54 | SINGERS WAY | 196 | 1+40.58 | 230.54 | SINGERS WAY |
| 197 | 1+40.58 | 230.54 | SINGERS WAY | 198 | 1+40.58 | 230.54 | SINGERS WAY | 199 | 1+40.58 | 230.54 | SINGERS WAY |
| 200 | 1+40.58 | 230.54 | SINGERS WAY | 201 | 1+40.58 | 230.54 | SINGERS WAY | 202 | 1+40.58 | 230.54 | SINGERS WAY |
| 203 | 1+40.58 | 230.54 | SINGERS WAY | 204 | 1+40.58 | 230.54 | SINGERS WAY | 205 | 1+40.58 | 230.54 | SINGERS WAY |
| 206 | 1+40.58 | 230.54 | SINGERS WAY | 207 | 1+40.58 | 230.54 | SINGERS WAY | 208 | 1+40.58 | 230.54 | SINGERS WAY |
| 209 | 1+40.58 | 230.54 | SINGERS WAY | 210 | 1+40.58 | 230.54 | SINGERS WAY | 211 | 1+40.58 | 230.54 | SINGERS WAY |
| 212 | 1+40.58 | 230.54 | SINGERS WAY | 213 | 1+40.58 | 230.54 | SINGERS WAY | 214 | 1+40.58 | 230.54 | SINGERS WAY |
| 215 | 1+40.58 | 230.54 | SINGERS WAY | 216 | 1+40.58 | 230.54 | SINGERS WAY | 217 | 1+40.58 | 230.54 | SINGERS WAY |
| 218 | 1+40.58 | 230.54 | SINGERS WAY | 219 | 1+40.58 | 230.54 | SINGERS WAY | 220 | 1+40.58 | 230.54 | SINGERS WAY |

| NO. | TYPE | LOCATION | INVERT IN' | SHC INV. | INVERT OUT | TOP ELEV. | HOCS. STD. | REMARKS |
|--------|--------------------|--------------------------------|------------|----------|------------|-----------|------------|----------------|
| M-H-24 | STD. 4.0' PRE-CAST | BLACK BIRD LANE | 211.07 | 216.00 | - | 211.07 | 5-1.32 | FUTURE SECTION |
| M-H-25 | STD. 4.0' PRE-CAST | BLACK BIRD LANE | 212.84 | 217.88 | - | 212.84 | 5-1.32 | FUTURE SECTION |
| M-H-30 | STD. 4.0' PRE-CAST | YESTERDAY LANE 21.86.5 OFF S/L | 217.78 | 222.77 | - | 217.78 | 6-5.12 | |
| M-H-31 | STD. 4.0' PRE-CAST | YESTERDAY LANE 21.63.4 OFF S/L | 222.43 | 227.07 | - | 222.43 | 6-5.12 | |

| LOT | S/L STA. | INV. @ MAIN | INV. @ PUE | M.C.E. | SLOPE% | REMARKS | LOT | S/L STA. | INV. @ MAIN | INV. @ PUE | M.C.E. | SLOPE% | REMARKS |
|-----|----------|-------------|------------|--------|--------|----------------|-----|----------|-------------|------------|--------|--------|----------------|
| 160 | 1+45.89 | 232.63 | 241.62 | 237.35 | 2.00% | #14-4564-D | 161 | 1+45.89 | 232.63 | 241.62 | 237.35 | 2.00% | #14-4564-D |
| 162 | 1+05.89 | 232.36 | 241.19 | 237.35 | 2.00% | #14-4564-D | 163 | 1+05.89 | 232.36 | 241.19 | 237.35 | 2.00% | #14-4564-D |
| 164 | 0+65.89 | 232.09 | 239.37 | 236.81 | 2.00% | #14-4564-D | 165 | 0+65.89 | 232.09 | 239.37 | 236.81 | 2.00% | #14-4564-D |
| 166 | 1+28.46 | 238.83 | 240.14 | 243.38 | 2.00% | #14-4564-D | 167 | 1+28.46 | 238.83 | 240.14 | 243.38 | 2.00% | #14-4564-D |
| 168 | 1+68.46 | 240.62 | 238.24 | 245.14 | 2.00% | #14-4564-D | 169 | 1+68.46 | 240.62 | 238.24 | 245.14 | 2.00% | #14-4564-D |
| 170 | MH-27 | 237.33 | 237.77 | 241.61 | 2.00% | SINGERS WAY | 171 | 2+70.28 | 236.29 | 238.81 | 240.65 | 2.00% | SINGERS WAY |
| 172 | 2+70.28 | 236.29 | 238.81 | 240.65 | 2.00% | SINGERS WAY | 173 | 2+70.28 | 236.29 | 238.81 | 240.65 | 2.00% | SINGERS WAY |
| 174 | 2+30.28 | 234.88 | 235.40 | 239.24 | 2.00% | SINGERS WAY | 175 | 2+30.28 | 234.88 | 235.40 | 239.24 | 2.00% | SINGERS WAY |
| 176 | MH-19 | 228.00 | 228.64 | 232.50 | 2.00% | SUN KING LANE | 177 | MH-20 | 228.00 | 228.64 | 232.50 | 2.00% | SUN KING LANE |
| 178 | MH-20 | 228.00 | 228.64 | 232.50 | 2.00% | SUN KING LANE | 179 | MH-20 | 228.00 | 228.64 | 232.50 | 2.00% | SUN KING LANE |
| 181 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 182 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 184 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 185 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 187 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 188 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 189 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 190 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 191 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 192 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 194 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 195 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 197 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 198 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 199 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 200 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 201 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 202 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 203 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 204 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 205 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 206 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 207 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 208 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 209 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 210 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 211 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 212 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 213 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 214 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 215 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 216 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 217 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 218 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |
| 219 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD | 220 | 1+40.58 | 230.54 | 231.24 | 235.00 | 2.00% | SUMMIT ROCK RD |

UTILITY PROFILE - SUMMIT ROCK ROAD
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

PLEASE NOTE THAT THIS SHEET REPLACES THE PREVIOUS SHEET DATED 10/12/2011

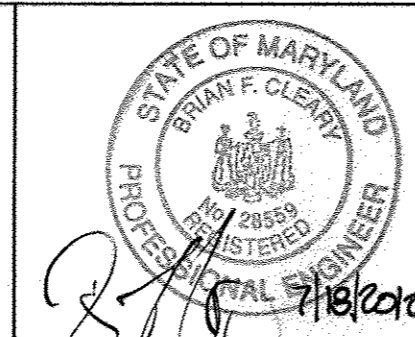
NOTE: HOUSE CONNECTIONS TO BE SIZED ACCORDINGLY: SINGLE WHC = 1-1/2" TWIN WHC = 1-1/2" SINGLE SHC = 4" TWIN SHC = 6"x4"

NOTE: ALL JOINTS AND CONNECTIONS LOCATED WITHIN STRUCTURAL FILL AREAS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION)

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division

BENCHMARK
 ENGINEERS & LAND SURVEYORS & PLANNERS
 ENGINEERING, INC.
 8450 BALTIMORE NATIONAL PARK SUITE 418
 ELLIOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6644



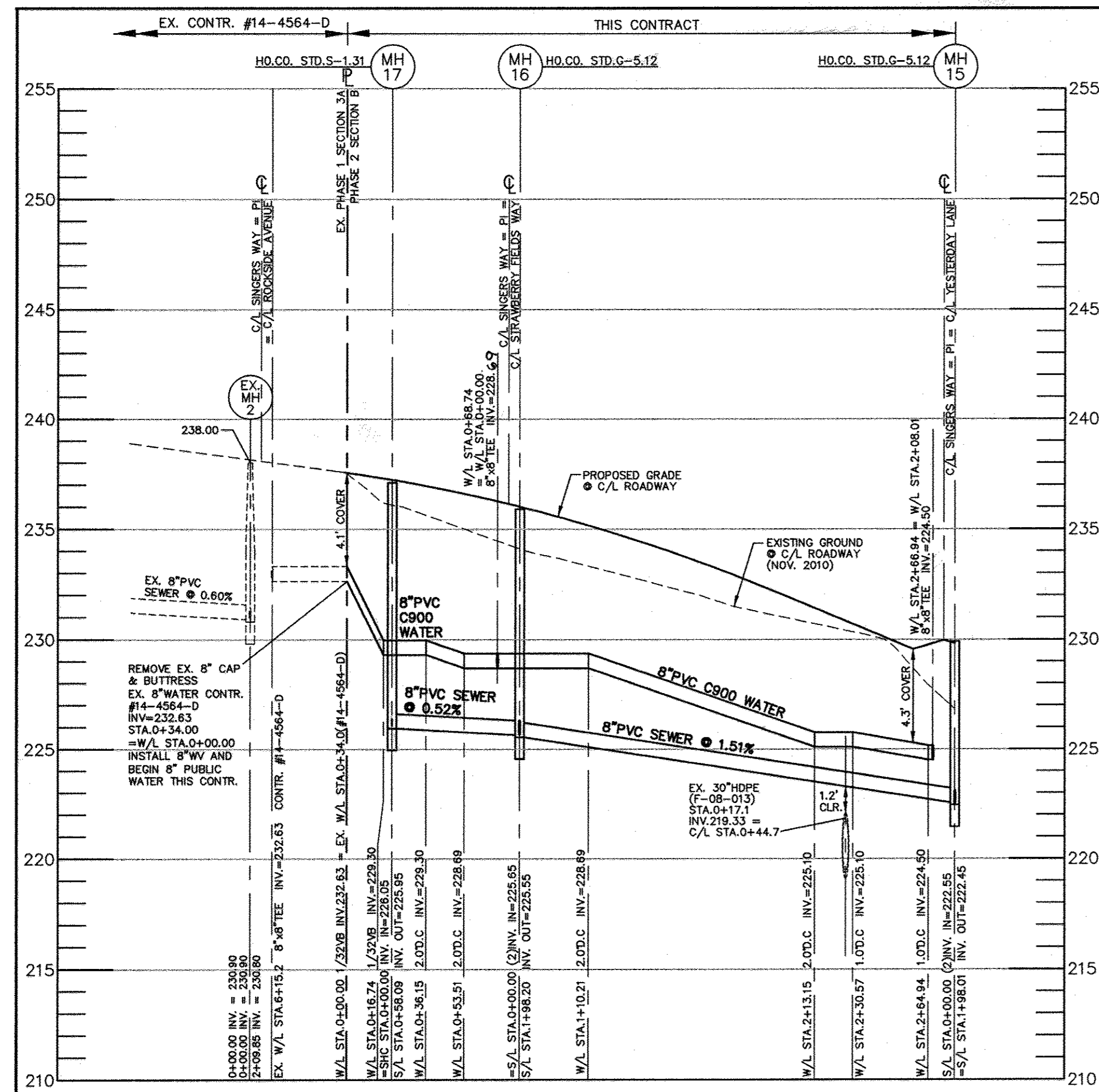
| | | | |
|-------|-----------|-------|---|
| DES: | MCR | | |
| DRN: | MCR | | |
| CHK: | BFC | BEI 3 | EXTEND PUBLIC UTILITIES IN FREEBIRD LANE AND YESTERDAY LANE TO MATCH P.22.8 CONSTRUCTION 7-5-13 |
| | | BEI 2 | ADD STRUCTURE SCHEDULE AND REVERSE UTILITY PROFILE BLACKBIRD 1-9-13 |
| | | BEI 1 | REVISE/ADD 16' W LOTS 188-215; ADJUST PLANS 7/12 |
| DATE: | 7/18/2012 | BY: | |

REVISED
 PUBLIC WATER AND SEWER
 PROFILE VIEWS

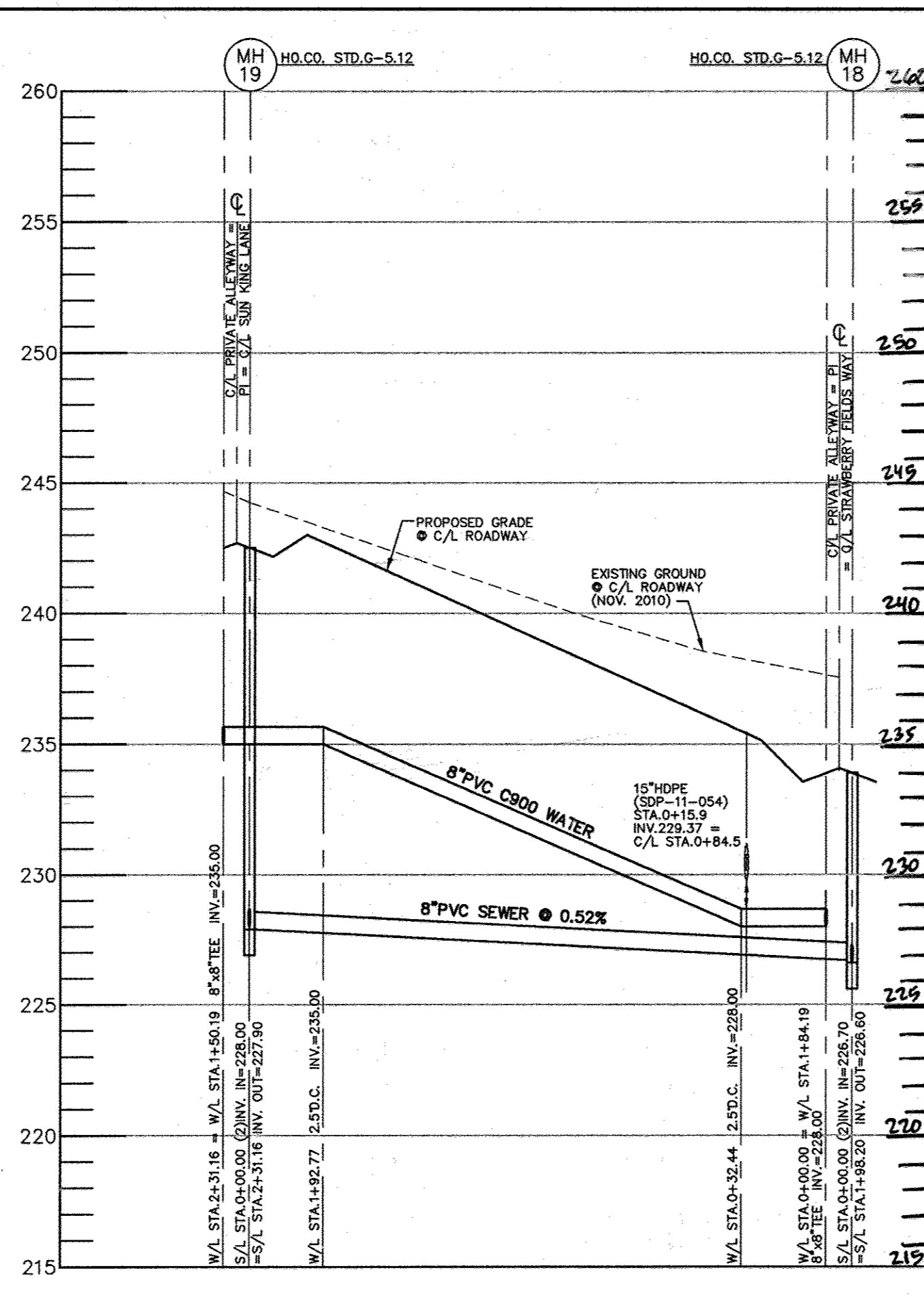
SCALE MAPS: 43
 BLOCKS: 3 & 9

HOWARD SQUARE
 PHASE 2, SECTION B
 TAX MAP 43, PARCEL A-3, GRIDS 3 & 9
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CONTRACT No. 14-4710-D

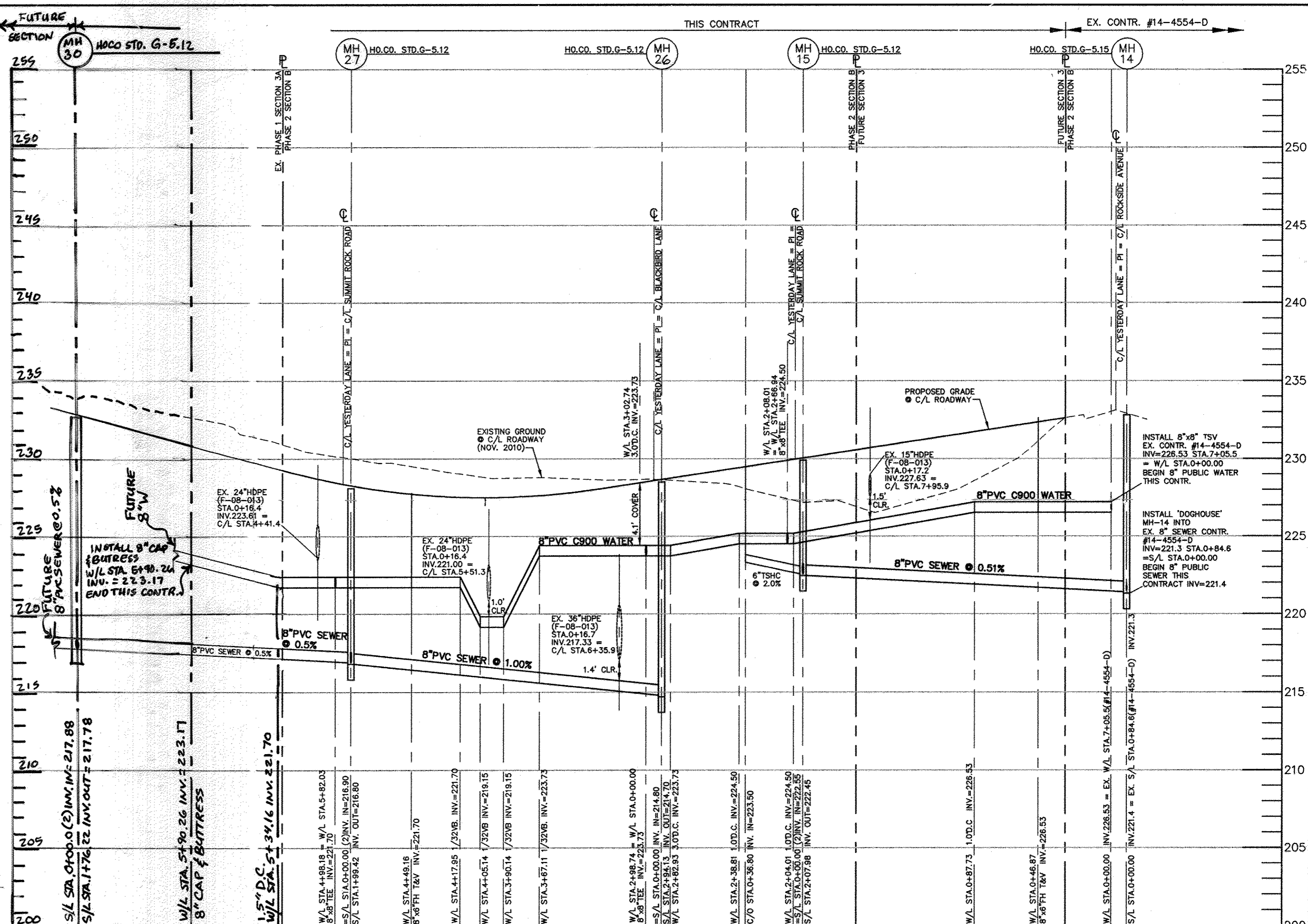
SCALE:
 AS SHOWN
 SHEET NO.
 3 OF 4



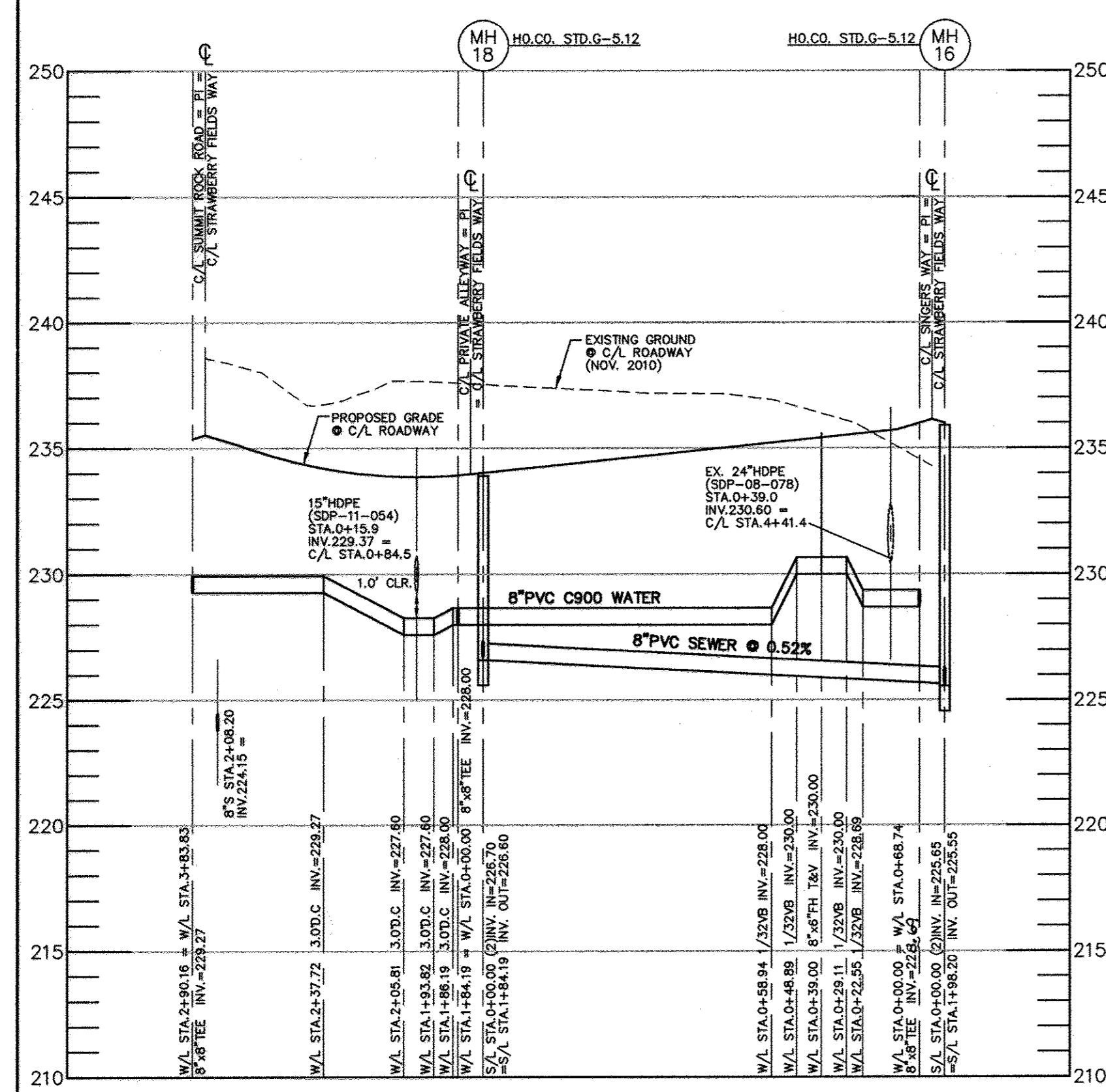
UTILITY PROFILE - SINGERS WAY
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



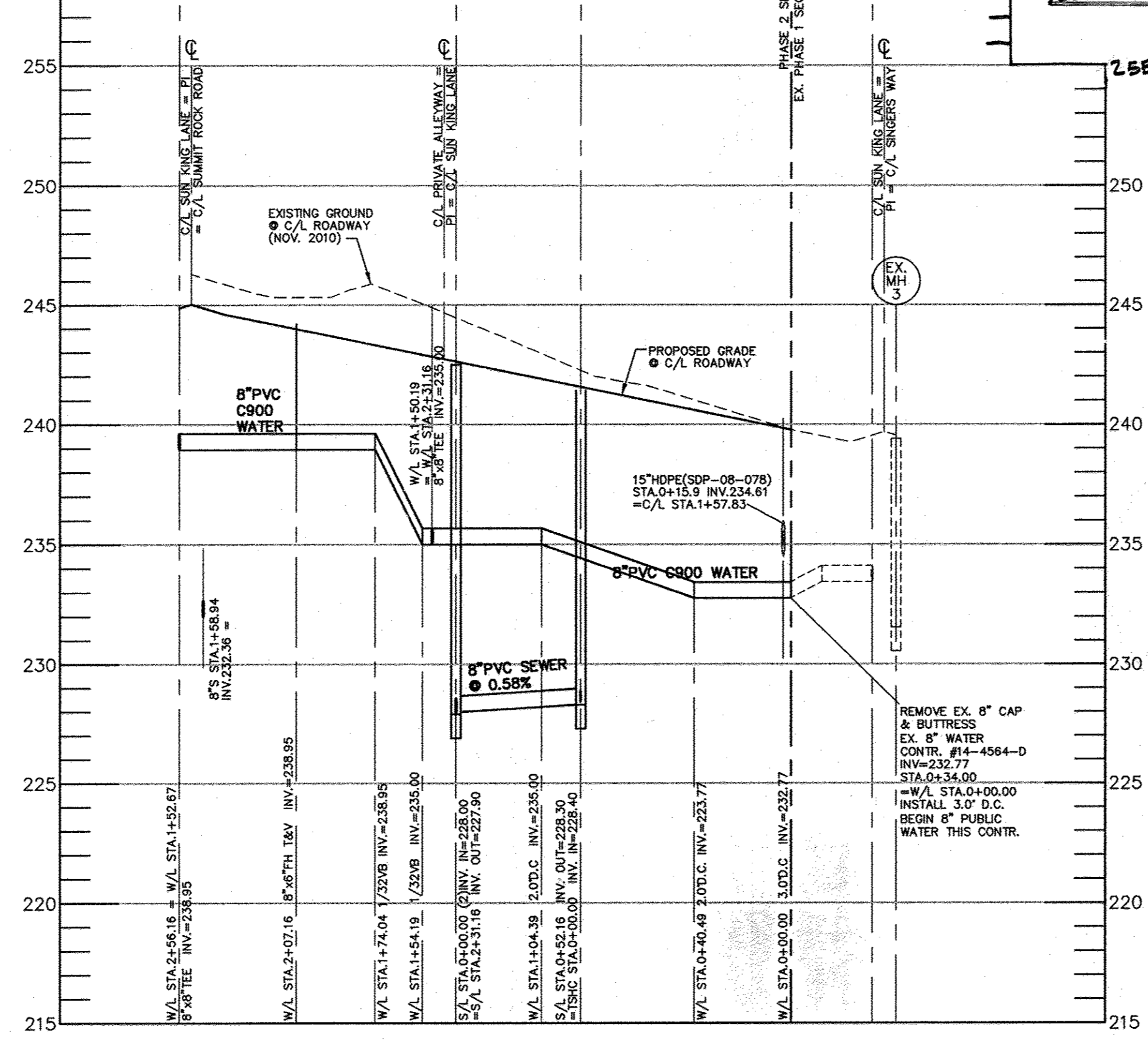
UTILITY PROFILE - ALLEYWAY
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



UTILITY PROFILE - YESTERDAY LANE
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



UTILITY PROFILE - STRAWBERRY FIELDS WAY
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



UTILITY PROFILE - SUN KING LANE
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

| APPURTENANCE | WATERLINE STATION | LOCATION | OFFSET | COMMENT | APPURTENANCE | WATERLINE STATION | LOCATION | OFFSET | COMMENT |
|-----------------------|----------------------|-------------------------------|-----------------------------|---------------------------------|-----------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------------|
| POB = 8" TSV | 0+00.00 = EX. 7+05.5 | YESTERDAY LANE STA. 9+50.85 | 5.0 RT. | HEARSHIDE WAY STA. 10+01.0 | 8" W | 0+01.00 | STRWBRY FIELDS WAY STA. 2+84.18 | 5.0 RT. | SINGERS WAY STA. 7+22.62 |
| 8" W FH TEE | 0+46.87 | (13.10 LT.) | YESTERDAY LANE STA. 9+04.01 | 5.0 RT. | 8" W FH TEE | 0+38.00 | STRWBRY FIELDS WAY STA. 2+46.18 | 5.0 RT. | STRWBRY FIELDS WAY STA. 2+46.18 |
| FIRE HYDRANT | 0+46.87 (13.10 LT.) | YESTERDAY LANE STA. 9+04.01 | 18.1 RT. | BURY HT. = 6.0' | FIRE HYDRANT | 0+39.03 (13.10 LT.) | STRWBRY FIELDS WAY STA. 2+46.18 | 18.1 RT. | BURY HT. = 5.5' |
| 8" S TEE = PI | 2+08.04 = 2+86.94 | YESTERDAY LANE STA. 7+42.84 | 5.0 RT. | SINGERS WAY STA. 9+20.82 | 8" S TEE = PI | 1+84.19 = 2+31.16 | STRWBRY FIELDS WAY STA. 1+00.97 | 5.0 RT. | PI - ALLEYWAY |
| 8" S TEE = PI | 2+89.74 = 0+00.00 | YESTERDAY LANE STA. 6+57.11 | 5.0 RT. | BLACKBIRD LANE STA. 0+05 BK | 8" W | 2+89.16 | STRWBRY FIELDS WAY STA. 0+04 BK | 5.0 RT. | SUMMIT ROCK ROAD STA. 4+22.83 |
| 8" W FH TEE | 4+49.20 | YESTERDAY LANE STA. 5+01.69 | 5.0 RT. | BURY HT. = 6.0' | 8" S TEE = PI | 2+90.16 = 3+83.83 | STRWBRY FIELDS WAY STA. 0+05 BK | 5.0 RT. | SUMMIT ROCK ROAD STA. 4+22.83 |
| FIRE HYDRANT | 4+48.83 (13.10 LT.) | YESTERDAY LANE STA. 5+01.69 | 18.1 RT. | BURY HT. = 6.0' | EX. 8" CAP & BUTTRISS | 0+00.00 = EX. 0+34.0 | SINGERS WAY STA. 8+53.88 | 5.0 LT. | POB = P/L |
| 8" S TEE = PI | 4+48.20 = 4+82.03 | YESTERDAY LANE STA. 4+52.89 | 5.0 RT. | SUMMIT ROCK ROAD STA. 6+21.03 | EX. 8" CAP & BUTTRISS | 0+00.00 = EX. 0+34.0 | SINGERS WAY STA. 9+20.82 | 5.0 LT. | STRWBRY FIELDS WAY STA. 2+85.18 |
| 8" CAP & BUTTRISS | 4+90.26 | YESTERDAY LANE STA. 3+62.66 | 5.0 RT. | 8" CAP & BUTT. END = | 8" W | 0+68.74 | SINGERS WAY STA. 7+22.62 | 5.0 LT. | STRWBRY FIELDS WAY STA. 2+85.18 |
| EX. 8" CAP & BUTTRISS | 0+00.00 = EX. 0+44.7 | SUMMIT ROCK ROAD STA. 0+39.00 | 5.0 LT. | POB = P/L | 8" W | 2+65.94 | SINGERS WAY STA. 9+20.82 | 5.0 LT. | YESTERDAY LANE STA. 7+42.84 |
| 8" S TEE = PI | 1+52.87 = 2+56.16 | SUMMIT ROCK ROAD STA. 1+41.67 | 5.0 LT. | SUN KING LANE STA. 2+85.16 FW | 8" S TEE = PI | 0+00.00 = 1+50.19 | PI - ALLEYWAY | 5.0 LT. | SUN KING LANE STA. 1+89.19 |
| 8" S TEE = PI | 3+01.82 = 0+00.00 | SUMMIT ROCK ROAD STA. 3+42.82 | 5.0 LT. | FREE BIRD LANE STA. 2+05.00 | 8" W | 0+01.00 | ALLEYWAY | 5.0 LT. | ALLEYWAY |
| 8" W | 3+83.83 = 2+90.16 | SUMMIT ROCK ROAD STA. 4+22.83 | 5.0 LT. | STRWBRY FIELDS WAY STA. 0+05 BK | 8" W | 2+30.16 | ALLEYWAY | 5.0 LT. | ALLEYWAY |
| 8" W | 5+81.03 | SUMMIT ROCK ROAD STA. 6+21.03 | 5.0 LT. | YESTERDAY LANE STA. 4+52.89 | 8" W | 2+31.16 = 1+84.19 | PI - ALLEYWAY | 5.0 LT. | STRWBRY FIELDS WAY STA. 1+00.97 |
| 8" S TEE = PI | 4+48.20 = 5+82.03 | SUMMIT ROCK ROAD STA. 6+21.03 | 5.0 LT. | YESTERDAY LANE STA. 4+52.89 | EX. 8" CAP & BUTTRISS | 0+00.00 = EX. 0+34.0 | FREE BIRD LANE STA. 4+62.15 | 5.0 LT. | SUMMIT ROCK ROAD STA. 3+40.82 |
| EX. 8" CAP & BUTTRISS | 0+00.00 = EX. 0+34.0 | SUN KING LANE STA. 1+89.19 | 5.0 LT. | PI - ALLEYWAY | 8" W | 0+01.00 | FREE BIRD LANE STA. 4+62.15 | 5.0 LT. | FREE BIRD LANE STA. 4+62.15 |
| 8" W FH TEE | 2+07.16 | SUN KING LANE STA. 2+46.16 | 5.0 LT. | 8" CAP & BUTTRISS | 0+7.2 z. | 5.0 LT. | 8" CAP & BUTT. END = | 5.0 LT. | 8" CAP & BUTT. END = |
| FIRE HYDRANT | 2+07.16 (13.10 LT.) | SUN KING LANE STA. 2+46.16 | 18.1 RT. | BURY HT. = 5.5' | 8" S TEE = PI | 0+00.00 = 2+86.74 | BLACKBIRD LANE STA. 0+05 BK | 5.0 LT. | YESTERDAY LANE STA. 6+57.11 |
| 8" W | 2+45.16 | SUN KING LANE STA. 2+45.16 FW | 5.0 LT. | 8" W | 0+01.00 | BLACKBIRD LANE STA. 0+04 BK | 5.0 LT. | BLACKBIRD LANE STA. 0+04 BK | |
| 8" S TEE = PI | 2+45.16 = 1+52.87 | SUN KING LANE STA. 2+45.16 FW | 5.0 LT. | SUMMIT ROCK ROAD STA. 1+81.87 | 8" W | 0+43.97 | BLACKBIRD LANE STA. 0+38.97 | 5.0 LT. | 8" CAP & BUTT. END = P/L |

| NO. | TYPE | LOCATION | INVERT IN | SHC INV. | INVERT OUT | TOP ELEV. | HO.CO. STD. | REMARKS |
|-------|----------------------|-------------------------------------|------------|----------|------------|-----------|-------------|-----------------------|
| MH-14 | 4.0' P | YESTERDAY LANE | 221.40 | | 221.3 | 232.7 | 0-5.15 | EX. CONTR. #14-4554-D |
| MH-15 | STD. 4.0' P PRE-CAST | YESTERDAY LANE / SINGERS WAY | 222.55 | 222.55 | 222.45 | 229.9 | 0-5.12 | |
| MH-16 | STD. 4.0' P PRE-CAST | SINGERS WAY / STRAWBERRY FIELDS WAY | (2) 225.55 | | 225.45 | 235.8 | 0-5.12 | |
| MH-17 | TERMINAL | SINGERS WAY | | 226.05 | 225.85 | 237.1 | S-1.31 | |
| MH-18 | STD. 4.0' P PRE-CAST | STRAWBERRY FIELDS WAY / ALLEYWAY | 226.70 | 226.70 | 226.60 | 233.9 | 0-5.12 | |
| MH-19 | STD. 4.0' P PRE-CAST | ALLEYWAY / SUN KING LANE | 228.00 | 228.00 | 227.90 | 242.5 | 0-5.12 | |
| MH-20 | TERMINAL | SUN KING LANE | | 228.40 | 228.30 | 241.4 | S-1.31 | |
| MH-21 | 4.0' P | POINT CAPITAL DRIVE @ R/W | 202.10 | | 202.0 | 215.5 | 0-5.15 | EX. CONTR. #645-WAS |
| MH-22 | STD. 4.0' P PRE-CAST | R/W @ P/L = BLACKBIRD LANE | 214.80 | | 214.70 | 228.5 | 0-5.12 | |
| MH-23 | STD. 4.0' P PRE-CAST | BLACKBIRD LANE | 216.80 | | 216.70 | 228.5 | 0-5.12 | |
| MH-24 | STD. 4.0' P PRE-CAST | BLACKBIRD LANE / YESTERDAY LANE | 218.80 | | 218.70 | 228.5 | 0-5.12 | |
| MH-27 | STD. 4.0' P PRE-CAST | YESTERDAY LANE / SUMMIT ROCK ROAD | (2) 216.80 | | 216.80 | 228.1 | 0-5.12 | FUTURE SECTION |
| MH-28 | STD. 4.0' P PRE-CAST | SUMMIT ROCK ROAD / FREEDBIRD LANE | (2) 226.80 | | 226.70 | 238.5 | 0-5.12 | FUTURE SECTION |
| MH-29 | TERMINAL | SUMMIT ROCK ROAD | 226.80 | | 227.43 | 250.7 | S-1.31 | |

NOTE: HOUSE CONNECTIONS TO BE SIZED ACCORDINGLY:
 SINGLE WHC = 1-1/2"
 TWIN WHC = 1-1/2"
 SINGLE SHC = 4"
 TWIN SHC = 6"x4"

NOTE: ALL JOINTS AND CONNECTIONS LOCATED WITHIN STRUCTURAL FILL AREAS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION)

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DATE: 12/02/12

CHEF, BUREAU OF UTILITIES

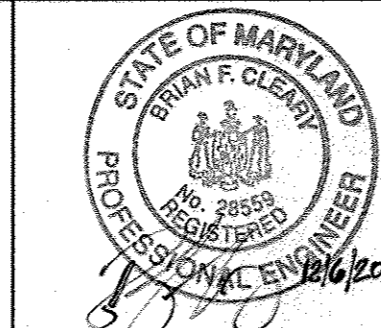
DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

DATE: 12/02/12

CHEF, DEVELOPMENT ENGINEERING DIVISION

BENCHMARK
 ENGINEERS & LAND SURVEYORS & PLANNERS
 ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE & SUITE 418
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6844



| DES: | MCR | DATE: | 10/12/2011 |
|------|-----|------------|--|
| DRN: | MCR | DATE: | 10/12/2011 |
| CHK: | BFC | DATE: | 11/10/11 |
| BY: | NO. | REVISIONS: | DATE |
| | | 1 | Fix SCRIVERENERS ERROR 1/17/12 |
| | | 2 | REVISE SEWER MANHOLE STRUCTURE SCHEDULE 7-5-12 |
| | | 3 | EXTEND PUBLIC UTILITIES IN FREE BIRD LANE AND YESTERDAY LANE TO MATCH P.L.S.S. CONSTRUCTION 7-5-12 |

PUBLIC WATER AND SEWER
 PROFILE VIEWS

600 SCALE MAPS: 43
 BLOCKS: 3 & 9

HOWARD SQUARE
 PHASE 2, SECTION B
 TAX MAP 43, PARCEL A-3, GRIDS 3 & 9
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

CONTRACT No. 14-4710-D

SCALE: AS SHOWN
 SHEET NO. 4 OF 4