

Kenton C. Ward, CFM
Surveyor of Hamilton County
Phone (317) 776-8495
Fax (317) 776-9628

Suite 188
One Hamilton County Square
Noblesville, Indiana 46060-2230

To: Hamilton County Drainage Board

July 15, 2014

Re: WR Fertig Drain: Penn Circle Drain Modifications

Attached are as-builts, certificate of completion & compliance, and other information for Penn Circle Drain Modifications. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable. This report will serve as an initial and final report for this construction.

During construction, changes were made to the drain. A structure was set on the existing CMPA at the Meijer Extension Pond located at Carmel Drive. This new structure (121) was set 23 feet west of existing structure (11.5). The pond itself was converted from a dry detention basin to a retention pond. In this process 53 feet of existing 38" x 60" ERCP* was removed. This occurred between new structure 121 and the outlet into the dry detention (existing structure 11.5A). Also set was a new structure 203 on an existing 48" RCP under Old Meridian St. This pipe is located just downstream of existing structure 27. This project adjusted castings for existing structures 40, 39, 36, 32, 30, and 27. Overall, the project removed 53 feet of existing 38" x 60" ERCP. There was no new drain installed. Therefore, the length of the drain due to the changes described above is now **0 feet**.

*(The pipe materials listed on the Meijer Arm were incorrect on the existing as-built. A field check was completed to verify pipe size and materials on this arm.) The non-enforcement was approved by the Board on its April 11, 2011 meeting and recorded under instrument number #2011018909. All drain modifications and improvements were paid for by Penn Circle, LLC and sureties were not posted.

I recommend the Board approve the drain's construction as complete and acceptable.

Sincerely,

Kenton C. Ward, CFM
Hamilton County Surveyor

KCW/slm

CERTIFICATE OF COMPLETION AND COMPLIANCE

FILED

APR 03 2014

OFFICE OF HAMILTON COUNTY SURVEYOR

To: Hamilton County Surveyor

Re: Penn Circle - Project #110-217
Item Exception 3: Observation & Supervision limited to construction layout.
Item Exception 4: Monitoring of the installation, backfill, & compaction of facilities. (not a part of our scope, conformity with plans/specs unknown)

I hereby certify that:

1. I am a Registered Land Surveyor or Engineer in the State of Indiana.
2. I am familiar with the plans and specifications for the above referenced subdivision.
3. I have personally observed and supervised the completion of the drainage facilities for the above referenced subdivision.
4. The drainage facilities within the above referenced subdivision to the best of my knowledge, information and belief have been installed and completed in conformity with all plans and specifications.
5. The drainage facilities within the above referenced subdivision to the best of my knowledge, information and belief have been correctly represented on the Record Drawings, Digital Record Drawings and the Structure Data Spreadsheet.

Signature:  Date: 04/01/2014

Type or Print Name: Brian Rismiller

Business Address: 494 Gradle Drive

Carmel, In 46032

Telephone Number: 317-844-3333



INDIANA REGISTRATION NUMBER

LS 20200083



Ex.
STR-NO.

121
40

39

36

32

30

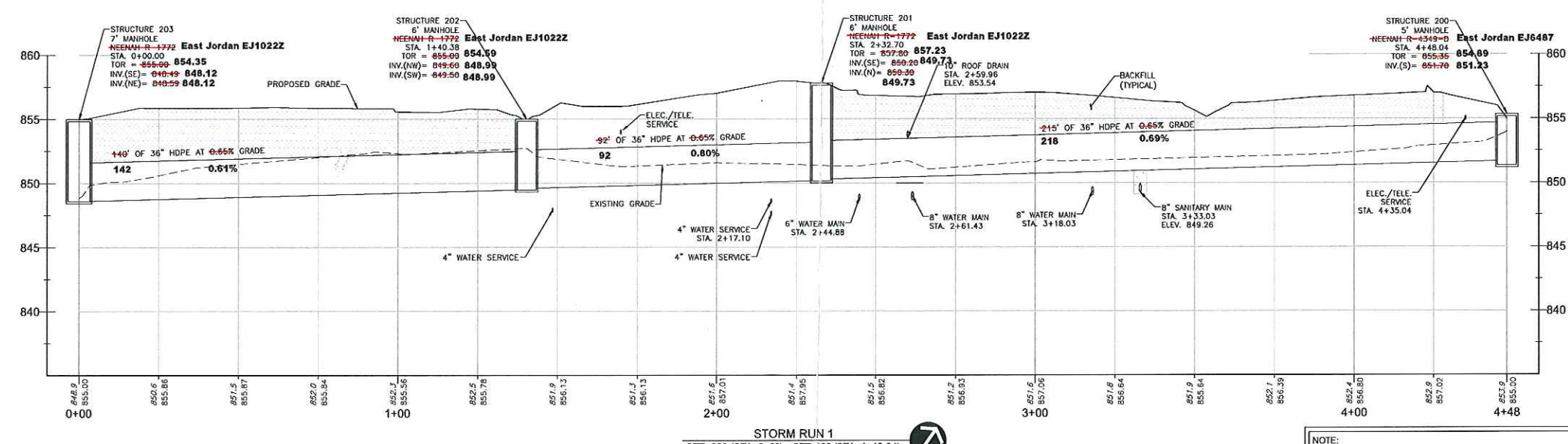
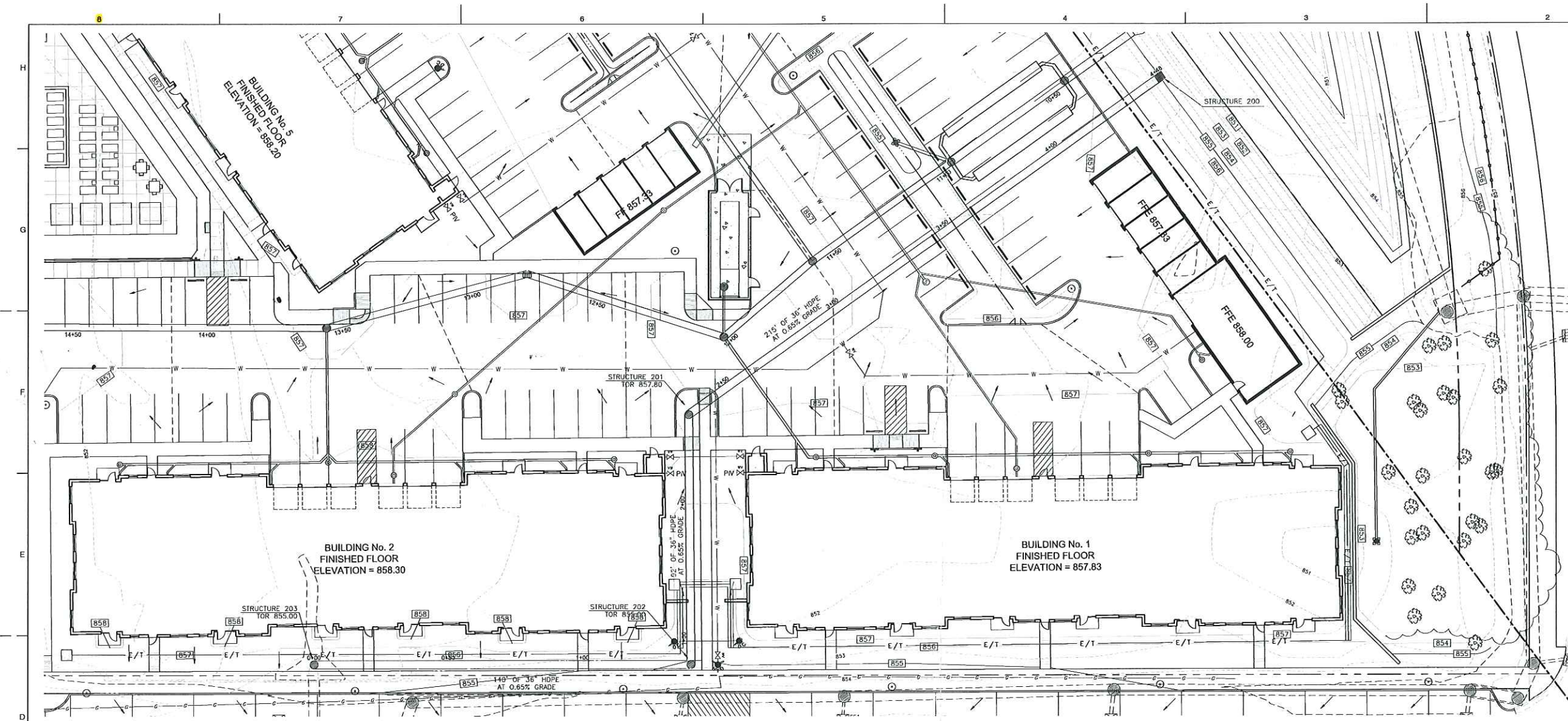
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| STATION | NORTHING | EASTING | ELEVATION | DESCRIPTION | MANUFACTURER | MODEL |
|-----------|------------|-----------|-----------|---|--------------|---------------------|
| STR# 121 | 1720456.01 | 191684.87 | 855.18 | Top Concrete Lid (Over Structure opening) | | |
| STR# 1757 | 1720386.24 | 191837.29 | 855.69 | North Rim | | MANHOLE-SOLID LID |
| STR# 1452 | 1720398.50 | 191830.64 | 855.75 | North Rim | | MANHOLE-SOLID LID |
| TSMH | 1720380.47 | 191826.49 | 855.89 | North Rim (TURN POINT) | | MANHOLE-SOLID LID |
| STR# 1758 | 1720372.17 | 191828.00 | 855.24 | North Rim | | MANHOLE-SOLID LID |
| STR# 1505 | 1720368.23 | 191831.41 | 855.06 | North Gutter Line | EAST JORDAN | SLOTTED VALLEY CURB |
| STR# 1533 | 1720260.98 | 191754.20 | 854.33 | North Gutter Line | EAST JORDAN | SLOTTED VALLEY CURB |
| STR# 1531 | 1720264.06 | 191749.60 | 854.47 | North Rim | | MANHOLE-SOLID LID |
| STR# 1759 | 1720183.54 | 191690.03 | 854.24 | North Rim | | MANHOLE-SOLID LID |
| STR# 1571 | 1720179.50 | 191695.52 | 853.88 | North Gutter Line | EAST JORDAN | SLOTTED VALLEY CURB |
| STR# 1583 | 1720130.45 | 191660.29 | 854.07 | North Gutter Line | EAST JORDAN | SLOTTED VALLEY CURB |
| STR# 1760 | 1720134.19 | 191654.91 | 854.35 | North Rim | | MANHOLE-SOLID LID |
| STR# 1761 | 1720051.51 | 191597.15 | 854.96 | North Rim | | MANHOLE-SOLID LID |
| STR# 1643 | 1720009.24 | 191572.86 | 855.11 | North Gutter Line | EAST JORDAN | SLOTTED VALLEY CURB |
| STR# 1678 | 1719862.23 | 191467.69 | 856.63 | North Gutter Line | EAST JORDAN | SLOTTED VALLEY CURB |
| STR# 1693 | 1719769.30 | 191400.82 | 857.70 | North Gutter Line | EAST JORDAN | SLOTTED VALLEY CURB |
| STR# 103 | 1719891.29 | 191446.63 | 856.40 | Top Back Of Curb (CHECK TO PRIOR) | EAST JORDAN | EAST JORDAN 7000 M2 |

SURVEY NOTES:

Manholes were shot for location with Gps @ center of casting , elevations were measured @ North rim of castings . All Casting Elevations were measured using differential levels and tied to prior asbuilt measurements. Valley curb inlets were located @ mid frame on West edge or back of valley curb. Elevations were measured @ North Rim in the valley of the frame. Coordinates are based on Indiana State Plane Nad 83 East Zone(USFT) and the elevations are based on NAVD 88 DATUM (Elevation based on plan Benchmark)

Asbuilt Data by:
Sea Group, LLC
4-1-2014



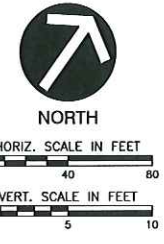
PROPOSED PROFILE LEGEND:

| DESCRIPTION: |
|-------------------|
| GRANULAR BACKFILL |

NOTE:
 GRANULAR BACKFILL IS REQUIRED IN ANY AREAS WITHIN 5 FT. OF ANY PAVEMENT/WALK AREAS.

RECORD DRAWING

NOTE:
 THE STORM SEWER SYSTEM SHALL BE CONSTRUCTED PER DESIGN SPECIFIED AND AS APPROVED BY THE CITY OF CARMEL ON THE FINAL APPROVED CONSTRUCTION PLANS. DEVIATIONS FROM THE APPROVED DESIGN SHALL ONLY BE PERMITTED DUE TO SPECIAL CIRCUMSTANCES OR DIFFICULTY DURING CONSTRUCTION AND WILL REQUIRE PRIOR FIELD APPROVAL FROM A DESIGNATED REPRESENTATIVE OF THE CITY OF CARMEL IN ADDITION TO SUPPLEMENTAL APPROVAL BY THE DESIGN ENGINEER. AN EXPLANATION OF ANY SUCH DEVIATION SHALL BE INCLUDED AS A REQUIREMENT ON AS-BUILT/RECORD DRAWINGS SUBMITTED FOR RELEASE OF PERFORMANCE GUARANTEES. APPROVED DESIGN SLOPES IDENTIFIED AS GENERATING VELOCITIES OF 2.5 FPS OR LESS OR 10 FPS OR GREATER (AT FULL FLOW CAPACITY) SHALL REQUIRE AS-BUILT CERTIFICATION AT THE TIME OF CONSTRUCTION, PRIOR TO BACKFILLING THE PIPE. THE CONTRACTOR IS INSTRUCTED TO AS-BUILT EACH SECTION OF STORM PIPE AS IT IS BEING INSTALLED TO ENSURE COMPLIANCE WITH THE DESIGN PLANS AND AS APPROVED BY THE CITY OF CARMEL.



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 INDIANAPOLIS, INDIANA

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 317-655-7777 · 877-746-0749
 www.cccinc.com



STORM PLAN & PROFILES

DATE: NOVEMBER 8, 2011
 DRAWN BY: BEB
 CHECKED BY: MAT
 PROJECT NO: 110217
 APPROVED BY:

DRAWING NO: **C400**
 SHEET 12 OF 34