

**STORMWATER MANAGEMENT REPORT AND  
DRAINAGE CALCULATIONS**

**for the**

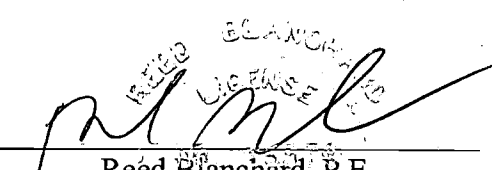
**Lake Mary Jess Drainage and Water  
Quality Improvements Project**

**Prepared For:**

**Orange County Environmental Protection Division  
Leeds Commerce Center  
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**Prepared By:**

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**Reed Blanchard, P.E.  
Florida Registration Number 65579  
Dated: February 19, 2008**

**44283-3**

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PROJECT:        *Lake Mary Jess Drainage and Water Quality Improvements  
Project  
Orange County, Florida*

PEC Project No:    *OC-327*

PREPARED BY:    *Professional Engineering Consultants, Inc.  
Reed Blanchard, P.E.  
Project Engineer*

CHECKED BY:     *Leylah Saavedra, P.E.  
Senior Project Engineer*

DATE:             *February 19, 2008*

SUBJECT:         **MODIFICATION TO SJRWMD PERMIT NO. 42-095-44283-2  
STORMWATER MANAGEMENT REPORT**

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**Introduction**

On behalf of the Orange County Environmental Protection Division and the Florida Department of Transportation (FDOT), this report has been prepared in support of the St. Johns River Water Management District (SJRWMD) Environmental Resource Permit (ERP) Application to authorize the modification of an existing dry retention pond serving the Mary Jess Commerce Center.

The proposed modifications include pond expansion and modifying the control structure to allow for a wet detention configuration. Under the new configuration, the proposed pond will continue to provide water quality treatment and peak rate attenuation to the existing Mary Jess Commerce Center but will also provide water quality treatment and peak-rate attenuation to the untreated 35.5-acre Orange Avenue drainage basin that discharges into Lake Mary Jess.

This application seeks to modify the SJRWMD Permit No. 42-095-44283, which was approved on October 2, 1986 and subsequently revised on April 6, 1988.

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In support of the ERP application, additional documents and calculations are included within the following sections:

Section 1: SJRWMD Permit Application

Section 2: Figures and Exhibits

Section 3: Water Quality Calculations

Section 4: ICPR Model Analysis

- Existing Conditions Analysis
- Proposed Conditions Analysis
- Drawdown and Permanent Pool Calculations

Section 5: Construction Plans and Site Survey

**Location**

The proposed project is situated in Orange County within Section 24 of Township 23 South, Range 29 East. More specifically, the project site is located adjacent to 5664 Commerce Drive, east of Lake Mary Jess and west of Orange Avenue (refer to **Figure 1** for the USGS Quad Map and **Figure 2** for the Aerial Location Map).

**Soils**

Existing soil types within the project boundary were delineated by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) and published in the Soil Survey for Orange County, Florida, sheet number 55. Electronic GIS data provided by Orange County was used to verify the soil types and boundaries within the project area. The soil types encountered within the project site consist of Basinger (HSG=D), Hontoon (HSG=B/D), Lochloosa (HSG=C), Smyrna – Urban Land (HSG=B/D), Urban Land (HSG=N/A) and Zolfo – Urban Land (HSG=C) (refer to **Figure 3**).

**FEMA Floodplain**

The project site is located within the FEMA Flood Insurance Rate Map (FIRM) Number 12095C0430, dated December 6, 2000. The project site is not located within the 100-year floodplain limits (refer to **Figure 4**).

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**Existing Conditions**

The project area consists of three distinct drainage basins: the Mary Jess Commerce Center drainage basin (refer to Basins 100 and 200), the Orange Avenue drainage basin and the Eton Street drainage basin. Detailed descriptions of the drainage basins and associated stormwater management systems are presented below (refer to **Figure 5-1**).

The Mary Jess Commerce Center drainage basin extends over 14.9 acres of light industrial and commercial land uses. Due to the topographic characteristics of the basin, stormwater runoff drains in a southerly direction via a curb and gutter system into two (2) interconnected stormwater management ponds. Stormwater runoff from the northern portion of the basin (Basin 100) is conveyed to the stormwater pond located adjacent to 5611 Commerce Center Drive (Pond 100). Stormwater runoff from the southern portion of the basin (Basin 200) is conveyed to the stormwater pond located adjacent to 5644 Commerce Center Drive (Pond 200). Pond 100 is connected to Pond 200 via a 30" RCP pipe. Pond 200 then outfalls to a 1,000 linear foot Florida Department of Transportation (FDOT) drainage canal which discharges into Lake Mary Jess (refer to **Figure 5-2**).

A search of the SJRWMD and the City of Edgewood's Record Archives revealed that, although limited documentation related to the design of the Mary Jess Commerce Center was available, the commercial site was issued the following ERP permits:

- SJRWMD Permit No. 42-095-44283-1: Original Permit issued on October 2, 1986
- SJRWMD Permit No. 42-095-44283-2: Permit Modification issued on April 6, 1988

Based on the limited historical documentation, it appears that each pond (Pond 100 & Pond 200) was designed to provide peak rate attenuation and water quality treatment, with additional treatment provided by an underdrain system located at Pond 200. However, detailed field review indicates that the system may not be functioning as originally designed. Pond 100 is now operating as a wet detention pond. The control structure at Pond 100 contains a weir but no orifice while the weir located downstream of Pond 200 has been undermined and is partially collapsed. It also appears that the underdrain system is not functioning. Under current conditions, Pond 200 provides approximately 0.2 acre-feet of water quality treatment, which is substantially less than the required 1.07 acre-feet per the SJRWMD permit.

Therefore, in design of the proposed pond modifications, a conservative approach was used to ensure that the water quality treatment and peak rate attenuation for the Mary Jess Commerce Center as required by the SJRWMD is provided. The analysis assumed that peak rate attenuation and water quality treatment for the entire basin will occur within the proposed Pond 200 expansion (using water quality treatment volume criteria in place at the time of original permit approval).

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Located to the south and east of the Mary Jess Commerce Center, the Orange Avenue drainage basin is comprised of various commercial and industrial land uses, including manufacturing facilities, warehouses, automobile dealerships and large parking lots serving commercial and retail centers. Runoff from the basin, including trash, debris, nutrients, oils, grease and sediment presently flows untreated into Lake Mary Jess (refer to **Figure 5-3**).

The stormwater system serving Orange Avenue consists of a closed stormsewer system consisting of drainage inlets and pipes ranging in diameter from 15-inches to 42-inches. The system was constructed in 1965 and serves a drainage basin of approximately 35.5 acres, extending from Mary Jess Road as the northern limit to Keen Street as the southern limit. The stormsewer system outfalls via a 42-inch RCP pipe into an existing FDOT drainage canal, which discharges into Lake Mary Jess.

The Eton Street drainage basin is located south of the Mary Jess Commerce Center drainage basin and is situated along the southern bank of the FDOT canal. The basin consists of residential land use. There is no formal conveyance or water quality treatment within the basin. An 18" CMP is located at the intersection of Aileen Drive and Eton Street and discharges directly into the FDOT canal (refer to **Figure 5-4**).

**Proposed Development and Stormwater Pond Modifications**

The proposed project proposes to install a sheet-pile weir across the FDOT canal in order to merge the eastern portion of the canal with Pond 200 serving the Commerce Center site. In addition, the project proposes the reconfiguration of the proposed pond as a wet detention system, with a control water level that will not pose adverse upstream impacts to either the Mary Jess Commerce Center or the Orange Avenue stormsewer system.

The proposed pond will provide water quality and peak rate attenuation as required by the original SJRWMD permit for the Mary Jess Commerce Center as well as best management practices for the Orange Avenue and Eton Street drainage basins.

Specifically, a sheet pile weir is proposed to divert flow from the Orange Avenue and Eton Street stormsewer system and then create a single wet detention pond with an area to include the existing dry pond and the eastern 200 feet of the FDOT canal. This will be accomplished by expanding the pond and canal by 0.33 acres, thereby providing 1.17 acre-feet of storage.

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It is important to note that the proposed pond configuration will provide 1.17 acre-feet of water quality storage compared to the existing storage capacity of 0.20 acre-feet. Under proposed conditions, the Commerce Center's stormwater management system will be brought into compliance with the District's criteria while Orange Avenue and Eton Street drainage basins will benefit from water quality treatment and peak-rate attenuation.

**Table 1** summarizes the water quality treatment volume required under permitted conditions and provided under existing and proposed conditions.

**Table 1**  
**Water Quality Treatment Summary for Mary Jess Commerce Center**

|                                                              | <i>Permitted<br/>Conditions</i> | <i>Existing<br/>Conditions</i> | <i>Proposed<br/>Conditions</i> |
|--------------------------------------------------------------|---------------------------------|--------------------------------|--------------------------------|
| <i>Basin Area (acres)</i>                                    | 14.9                            | 14.9                           | 53.13 <sup>1</sup>             |
| <i>Required Treatment<br/>Volume (acre-feet)<sup>2</sup></i> | 1.07                            | 1.07                           | 1.07                           |
| <i>Designed Treatment<br/>Volume (acre-feet)</i>             | at least 1.07 <sup>3</sup>      | 0.02 <sup>4</sup>              | 1.17                           |

**Notes:**

1. Basin area includes 14.9 acres of the Mary Jess Commerce Center, 35.5 acres of the Orange Avenue basin, 0.54 acres of the FDOT basin and 2.19 acres of the Eton Street basin.
2. Required Treatment Volume is based on SJRWMD criteria at the time of the original permit application (i.e., the larger of the runoff from 1" of rainfall or 0.5 inches of runoff).
3. As the historical permit documents were not available, it is assumed that the original stormwater design was compliant with the SJRWMD criteria.
4. Estimated based on field observations.

The existing and proposed peak stages for Pond 100 and Pond 200 are compared in **Table 2**. The stages under the proposed conditions are expected to be lower than those for existing conditions. Note that under proposed conditions and following the mean annual storm event, the available freeboard for Pond 200 is expected to be less than 1.0 foot as well as less than the freeboard available under existing conditions. However, the peak stage following the 100-year storm event is not expected to exceed the top of bank of Pond 200.

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**Table 2**  
**Stormwater Pond Peak Stage Comparison**

| <b>Storm Event</b>  | <b>Pond</b>                              | <b>Existing Conditions<br/>(ft, NGVD)</b> | <b>Proposed Conditions<br/>(ft, NGVD)</b> | <b>Top of Bank<br/>(ft, NGVD)</b> |
|---------------------|------------------------------------------|-------------------------------------------|-------------------------------------------|-----------------------------------|
| 5-year / 1-hour     | Pond 100                                 | 97.6                                      | 97.6                                      | 98.0                              |
|                     | Pond 200 /<br>Expanded Pond <sup>1</sup> | 97.1                                      | 96.2                                      | 97.0                              |
| 5-year / 8-hour     | Pond 100                                 | 97.9                                      | 97.9                                      | 98.0                              |
|                     | Pond 200 /<br>Expanded Pond              | 97.2                                      | 96.4                                      | 97.0                              |
| 2.33-year / 24-hour | Pond 100                                 | 97.8                                      | 97.8                                      | 98.0                              |
|                     | Pond 200 /<br>Expanded Pond              | 97.1                                      | 96.3                                      | 97.0                              |
| 100-year / 24-hour  | Pond 100                                 | 99.8                                      | 99.4                                      | 99.0                              |
|                     | Pond 200 /<br>Expanded Pond              | 98.0                                      | 96.8                                      | 97.0                              |

Note:

1. Pond 200 represents the current pond configuration and the Expanded Pond represents the proposed pond modifications.

Peak flow rate for various storm events at the downstream tailwater location (Lake Mary Jess) are summarized in **Table 3**. The proposed condition flow rates, which are compliant with the District's criteria, are uniformly less than the existing conditions flow rates. The tailwater elevations for the 25-year / 24-hour and the 100-year / 24-hour storm event were extracted from the publication entitled "Boggy Creek Basin Model Conversion and Improvements" prepared by Parsons Engineering Science, Inc. (dated March 2003). The tailwater elevation for the 5-year / 1-hour and the 5-year / 8-hour storm events is 93.5 feet, NGVD and corresponds to the normal high water level (NHWL) for Lake Mary Jess as documented in the Orange County Lake Index.

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**Table 3**  
**Peak Flow Rate Comparison**  
**at the Tailwater Location (Lake Mary Jess)**

| <b>Storm Event</b>  | <b>Existing<br/>Conditions<br/>(cfs)</b> | <b>Proposed<br/>Conditions<br/>(cfs)</b> |
|---------------------|------------------------------------------|------------------------------------------|
| 5-year / 1-hour     | 48.3                                     | 20.4                                     |
| 5-year / 8-hour     | 51.0                                     | 38.8                                     |
| 2.33-year / 24-hour | 44.0                                     | 33.1                                     |
| 100-year / 24-hour  | 109.0                                    | 106.6                                    |

Due to the fact that the normal high water level (NHWL) of Lake Mary Jess is 93.5 feet NGVD, the control water elevation for the proposed pond was established at 94.0 feet, NGVD. Using a 3-inch orifice, the drawdown time for the proposed pond is approximately 27.3 hours.

Note that the permanent pool volume requirement of the proposed modification is met by including the volume of the expanded pond and the volume of the existing Pond 100. The ponds are interconnected and are both controlled at the downstream orifice. Refer to *Section 4 Drawdown and Permanent Pool Calculations*.

The proposed stormwater management system for the Mary Jess Commerce Center will meet the SJRWMD criteria for water quality treatment and peak rate attenuation without adversely impacting the upstream system along Orange Avenue. The results of the high intensity / short duration design storm event (i.e., 5-year / 1-hour storm event) for the existing and proposed conditions is summarized in **Table 4**. As shown, no incidences of surcharging are expected to take place.

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**Table 4**  
**Peak Stage Comparison of the Existing Conditions versus the Proposed Conditions for the Orange Avenue Stormsewer System**

| Structure ID | Existing Maximum Stage<br>(feet, NGVD) | Proposed Maximum Stage<br>(feet, NGVD) | Difference<br>(feet) | Warning Elevation<br>(feet, NGVD) | Available Freeboard<br>(feet) |
|--------------|----------------------------------------|----------------------------------------|----------------------|-----------------------------------|-------------------------------|
| I482-1       | 96.73                                  | 97.11                                  | 0.38                 | 99.40                             | 2.29                          |
| I482-2       | 96.73                                  | 97.11                                  | 0.38                 | 99.40                             | 2.29                          |
| I482-3       | 96.73                                  | 97.11                                  | 0.38                 | 99.60                             | 2.49                          |
| I485-1       | 96.73                                  | 97.11                                  | 0.38                 | 100.20                            | 3.10                          |
| I485-2       | 96.73                                  | 97.11                                  | 0.38                 | 100.20                            | 3.09                          |
| I487-1       | 96.72                                  | 97.10                                  | 0.38                 | 100.60                            | 3.50                          |
| I487-2       | 96.72                                  | 97.10                                  | 0.38                 | 100.60                            | 3.50                          |
| I489         | 96.71                                  | 97.09                                  | 0.38                 | 101.20                            | 4.11                          |
| I490-1       | 96.28                                  | 96.95                                  | 0.68                 | 101.26                            | 4.31                          |
| I490-2       | 97.09                                  | 97.09                                  | 0.00                 | 101.65                            | 4.56                          |
| I491         | 98.77                                  | 98.77                                  | 0.00                 | 101.90                            | 3.13                          |
| I492         | 95.91                                  | 96.86                                  | 0.94                 | 101.87                            | 5.02                          |
| I493         | 99.43                                  | 99.43                                  | 0.00                 | 101.89                            | 2.46                          |
| I494-1       | 95.62                                  | 96.78                                  | 1.16                 | 101.30                            | 4.52                          |
| I494-2       | 95.62                                  | 96.78                                  | 1.16                 | 101.80                            | 5.02                          |
| I495-1       | 97.39                                  | 97.39                                  | 0.00                 | 102.40                            | 5.01                          |
| I495-2       | 98.05                                  | 98.05                                  | 0.00                 | 102.54                            | 4.50                          |
| I497-1       | 96.25                                  | 96.73                                  | 0.48                 | 101.69                            | 4.96                          |
| I497-2       | 96.26                                  | 96.73                                  | 0.46                 | 101.74                            | 5.01                          |
| I499         | 96.58                                  | 96.69                                  | 0.11                 | 101.20                            | 4.51                          |
| I500         | 95.67                                  | 96.63                                  | 0.96                 | 100.76                            | 4.13                          |
| I501-1       | 95.20                                  | 96.60                                  | 1.40                 | 101.80                            | 5.20                          |
| I501-2       | 96.74                                  | 96.74                                  | 0.00                 | 101.80                            | 5.06                          |
| I504-1       | 95.13                                  | 96.57                                  | 1.45                 | 100.86                            | 4.29                          |
| I504-2       | 95.13                                  | 96.57                                  | 1.45                 | 101.50                            | 4.93                          |
| I505-1       | 95.45                                  | 96.73                                  | 1.28                 | 100.00                            | 3.27                          |
| I506         | 94.92                                  | 96.51                                  | 1.59                 | 99.60                             | 3.09                          |
| I508         | 95.18                                  | 96.47                                  | 1.30                 | 98.40                             | 1.93                          |
| I510-1       | 95.15                                  | 96.50                                  | 1.35                 | 98.81                             | 2.32                          |
| I510-2       | 95.32                                  | 96.56                                  | 1.24                 | 98.30                             | 1.74                          |
| I510-3       | 96.53                                  | 96.67                                  | 0.14                 | 98.90                             | 2.23                          |
| I510-4       | 96.90                                  | 96.90                                  | 0.00                 | 98.03                             | 1.13                          |
| I512-1       | 94.67                                  | 96.42                                  | 1.76                 | 99.00                             | 2.58                          |
| I512-2       | 94.67                                  | 96.42                                  | 1.76                 | 98.50                             | 2.08                          |
| I512-3       | 94.67                                  | 96.42                                  | 1.76                 | 98.50                             | 2.08                          |
| I516-1       | 94.83                                  | 96.46                                  | 1.63                 | 98.20                             | 1.74                          |
| I516-2       | 94.83                                  | 96.46                                  | 1.63                 | 97.82                             | 1.36                          |
| I516-3       | 94.83                                  | 96.46                                  | 1.63                 | 97.95                             | 1.49                          |
| I519-1       | 95.21                                  | 96.57                                  | 1.36                 | 97.90                             | 1.33                          |
| I519-2       | 95.49                                  | 96.71                                  | 1.21                 | 97.15                             | 0.44                          |
| I519-3       | 95.74                                  | 96.85                                  | 1.11                 | 97.28                             | 0.43                          |
| MH489        | 96.71                                  | 97.08                                  | 0.38                 | 101.60                            | 4.52                          |
| MH491        | 96.72                                  | 97.08                                  | 0.35                 | 101.80                            | 4.72                          |
| MH493        | 96.80                                  | 97.07                                  | 0.27                 | 100.42                            | 3.35                          |
| MH494        | 95.62                                  | 96.78                                  | 1.16                 | 102.34                            | 5.56                          |
| MH495        | 96.78                                  | 97.00                                  | 0.22                 | 102.34                            | 5.34                          |
| MH497        | 95.49                                  | 96.73                                  | 1.24                 | 101.50                            | 4.77                          |
| MH499        | 95.39                                  | 96.68                                  | 1.29                 | 101.20                            | 4.52                          |
| MH500        | 95.28                                  | 96.63                                  | 1.35                 | 100.76                            | 4.13                          |
| MH504        | 95.13                                  | 96.58                                  | 1.45                 | 100.80                            | 4.22                          |
| MH505        | 95.04                                  | 96.55                                  | 1.51                 | 100.40                            | 3.86                          |
| MH508        | 94.80                                  | 96.47                                  | 1.67                 | 101.00                            | 4.53                          |
| MH510        | 94.63                                  | 96.41                                  | 1.78                 | 100.70                            | 4.29                          |
| MH514        | 94.73                                  | 96.44                                  | 1.70                 | 99.00                             | 2.56                          |

**STORMWATER MANAGEMENT REPORT**  
**Lake Mary Jess Drainage and Water Quality Improvements Project**

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Construction of the proposed pond will involve some dredging of the existing FDOT canal and Pond 200 (1.56 acre-feet, approximately). **Table 5** summarizes the anticipated volume of material to be excavated.

**Table 5**  
***Estimation of Anticipated Dredging***

| <b>Stage<br/>(feet)</b> | <b>Depth<br/>(feet)</b> | <b>Surface<br/>Area<br/>(sq. ft.)</b> | <b>Surface<br/>Area<br/>(acres)</b> | <b>Average<br/>Area<br/>(acres)</b> | <b>Incremental<br/>Volume<br/>(ac-ft)</b> | <b>Total<br/>Volume<br/>(ac-ft)</b> |
|-------------------------|-------------------------|---------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------------|-------------------------------------|
| 86.00                   | 0.00                    | 2,710                                 | 0.06                                | 0.00                                | 0.00                                      | 0.00                                |
| 87.00                   | 1.00                    | 3,360                                 | 0.08                                | 0.07                                | 0.07                                      | 0.07                                |
| 88.00                   | 2.00                    | 4,040                                 | 0.09                                | 0.08                                | 0.08                                      | 0.15                                |
| 89.00                   | 3.00                    | 4,760                                 | 0.11                                | 0.10                                | 0.10                                      | 0.26                                |
| 90.00                   | 4.00                    | 8,377                                 | 0.19                                | 0.15                                | 0.15                                      | 0.41                                |
| 91.00                   | 5.00                    | 10,660                                | 0.24                                | 0.22                                | 0.22                                      | 0.62                                |
| 92.00                   | 6.00                    | 8,730                                 | 0.20                                | 0.22                                | 0.22                                      | 0.85                                |
| 93.00                   | 7.00                    | 10,790                                | 0.25                                | 0.22                                | 0.22                                      | 1.07                                |
| 94.00                   | 8.00                    | 12,970                                | 0.30                                | 0.27                                | 0.27                                      | 1.34                                |
| 95.00                   | 9.00                    | 1,170                                 | 0.03                                | 0.16                                | 0.16                                      | 1.51                                |
| 96.00                   | 10.00                   | 960                                   | 0.02                                | 0.02                                | 0.02                                      | 1.53                                |
| 97.00                   | 11.00                   | 720                                   | 0.02                                | 0.02                                | 0.02                                      | 1.55                                |
| 98.00                   | 12.00                   | 500                                   | 0.01                                | 0.01                                | 0.01                                      | 1.56                                |

**Wetland Impacts**

There are not wetlands or wetland impacts associated with the project. There is 1.0 acre of surface waters (existing stormwater management systems) that will be modified. Refer to Section 2, SJRWMD Application, for Table 1, Table 2 and Table 3 for an outline of the surface water impacts associated with the proposed works.

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**Conclusion**

PEC's primary focus for this investigation was to recommend ways to improve the stormwater management system serving the study area. Based on the engineering analysis performed for this study, it was determined that the drainage concerns can be corrected by constructing a stormwater management system capable of conveying the excess runoff to Lake Mary Jane without adversely impacting the upstream system along Orange Avenue.

The proposed project will provide required water quality treatment and peak-rate attenuation for the existing Mary Jess Commerce Center. In addition, the expanded pond will also provide water quality treatment and peak-rate attenuation for the currently untreated Orange Avenue and Eton Street drainage basins.

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*Lake Mary Jess Drainage and Water Quality  
Improvements Project  
Orange County, Florida*

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*Section 1*

*SJRWMD Permit Application*

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Table 1. Project Wetland (WL) and Other Surface Water (SW) Summary for the Lake Mary Jess Water Quality Improvement Project

| WL & SW ID          | WL & SW TYPE | WL & SW SIZE<br>(ac) | WL & SW<br>not impacted<br>(ac) | PERMANENT WL & SW IMPACTS |                     | TEMPORARY WL & SW IMPACTS |                 | MITIGATION<br>ID                |
|---------------------|--------------|----------------------|---------------------------------|---------------------------|---------------------|---------------------------|-----------------|---------------------------------|
|                     |              |                      |                                 | WL & SW<br>TYPE           | IMPACT<br>SIZE (ac) | IMPACT<br>CODE            | WL & SW<br>TYPE |                                 |
| Pond 200            | 530          | 0.46                 | 0.46                            | SW                        | 0.46                | D / F                     |                 | No Mitigation<br>Required (NMR) |
| FDOT Drainage Canal | 530          | 0.54                 | 0.54                            | SW                        | 0.54                | D / F                     |                 | No Mitigation<br>Required (NMR) |
|                     |              |                      |                                 |                           |                     |                           |                 |                                 |
|                     |              |                      |                                 |                           |                     |                           |                 |                                 |
|                     |              |                      |                                 |                           |                     |                           |                 |                                 |
|                     |              |                      |                                 |                           |                     |                           |                 |                                 |
|                     |              |                      |                                 |                           |                     |                           |                 |                                 |
| PROJECT TOTALS      |              |                      |                                 |                           |                     |                           |                 |                                 |
| Wetlands            |              | 0                    | 0                               |                           | 0.00                |                           |                 |                                 |
| Surface waters      |              | 1.00                 | 1.00                            |                           | 1.00                | D / F                     |                 |                                 |

Note: Florida Land Use, Cover and Forms Classification System codes include the following: 530 - Permitted Stormwater Pond / Drainage Canal per Orange County Land Use Survey, dated 2000.  
D = Dredge F = Fill

Table 2. Project On-Site Mitigation Summary for Lake Mary Jess Water Quality Improvement Project

| MITIGATION ID | CREATION |             | RESTORATION |             | ENHANCEMENT UPLAND |             | WETLAND PRESERVE |             | UPLAND PRESERVE |             |
|---------------|----------|-------------|-------------|-------------|--------------------|-------------|------------------|-------------|-----------------|-------------|
|               | AREA     | TARGET TYPE | AREA        | TARGET TYPE | AREA               | TARGET TYPE | AREA (acreage)   | TARGET TYPE | AREA (acreage)  | TARGET TYPE |
| NA            |          |             |             |             |                    |             |                  |             |                 |             |
|               |          |             |             |             |                    |             |                  |             |                 |             |
|               |          |             |             |             |                    |             |                  |             |                 |             |
| <b>TOTAL</b>  |          |             |             |             |                    |             |                  |             |                 |             |

Table 3. Project Off-site Mitigation Summary for Lake Mary Jess Water Quality Improvement Project

| MITIGATION ID | NUMBER OF CREDITS | NUMBER OF BLOCKS | ENHANCEMENT UPLAND |             | WETLAND PRESERVE |             | UPLAND PRESERVE |             |
|---------------|-------------------|------------------|--------------------|-------------|------------------|-------------|-----------------|-------------|
|               |                   |                  | AREA               | TARGET TYPE | AREA (acres)     | TARGET TYPE | AREA (acres)    | TARGET TYPE |
| NA            |                   |                  |                    |             |                  |             |                 |             |

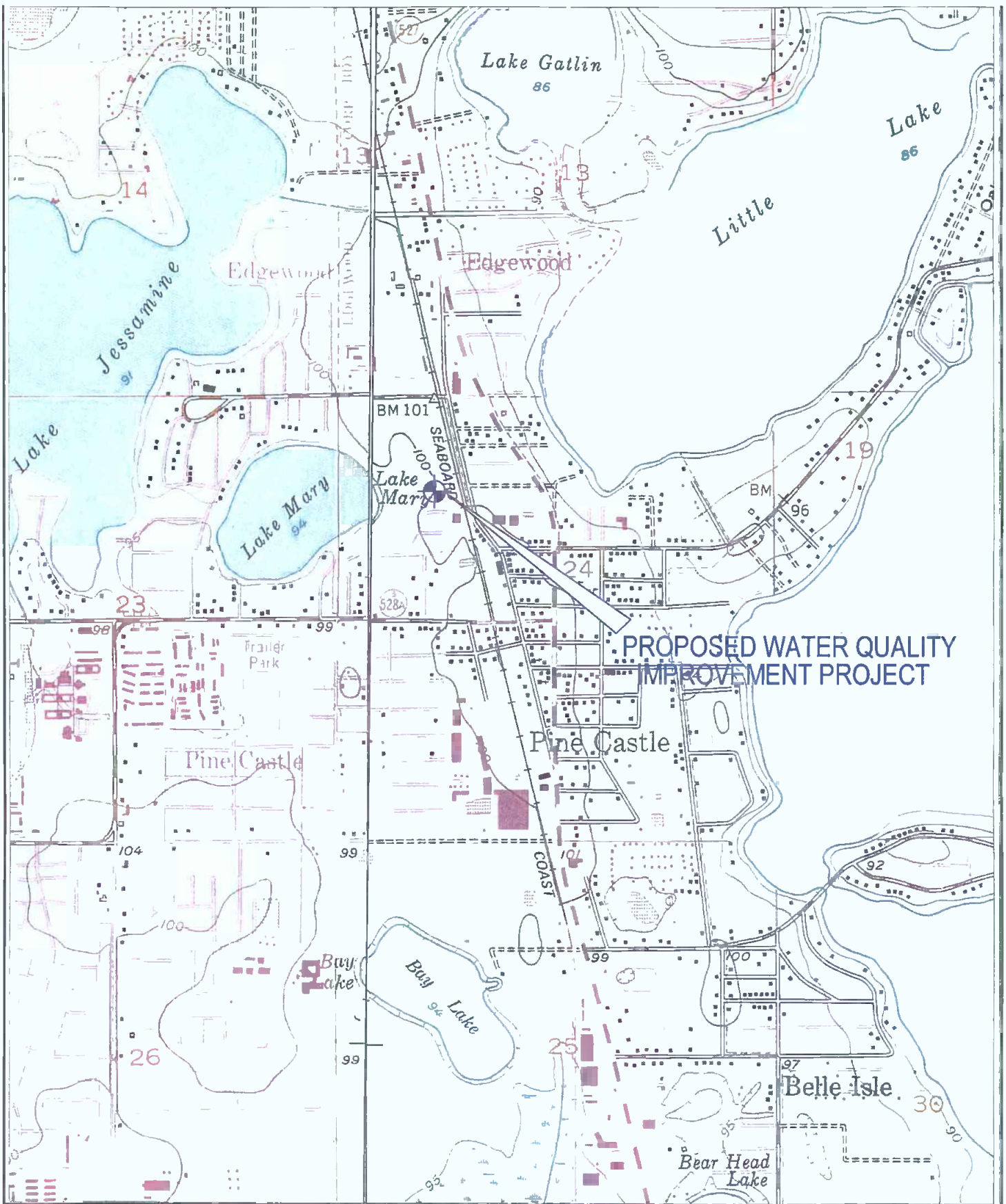
*Lake Mary Jess Drainage and Water Quality  
Improvements Project  
Orange County, Florida*

---

*Section 2*

*Figures and Exhibits*

---



SOURCE:

USGS QUAD MAPS  
"PINE CASTLE"  
"LAKE JASMINE"  
PHOTO REVISED 1980

SITE LOCATION

SEC. 24 TWN. 23S RNG. 29E  
ORANGE COUNTY, FLORIDA



LAKE MARY JESS  
WATER QUALITY IMPROVEMENT PROJECT  
USGS LOCATION MAP

**PEC**

Suite 1560 Eola Park Centre

PROFESSIONAL ENGINEERING CONSULTANTS, INC.  
engineers planners surveyors

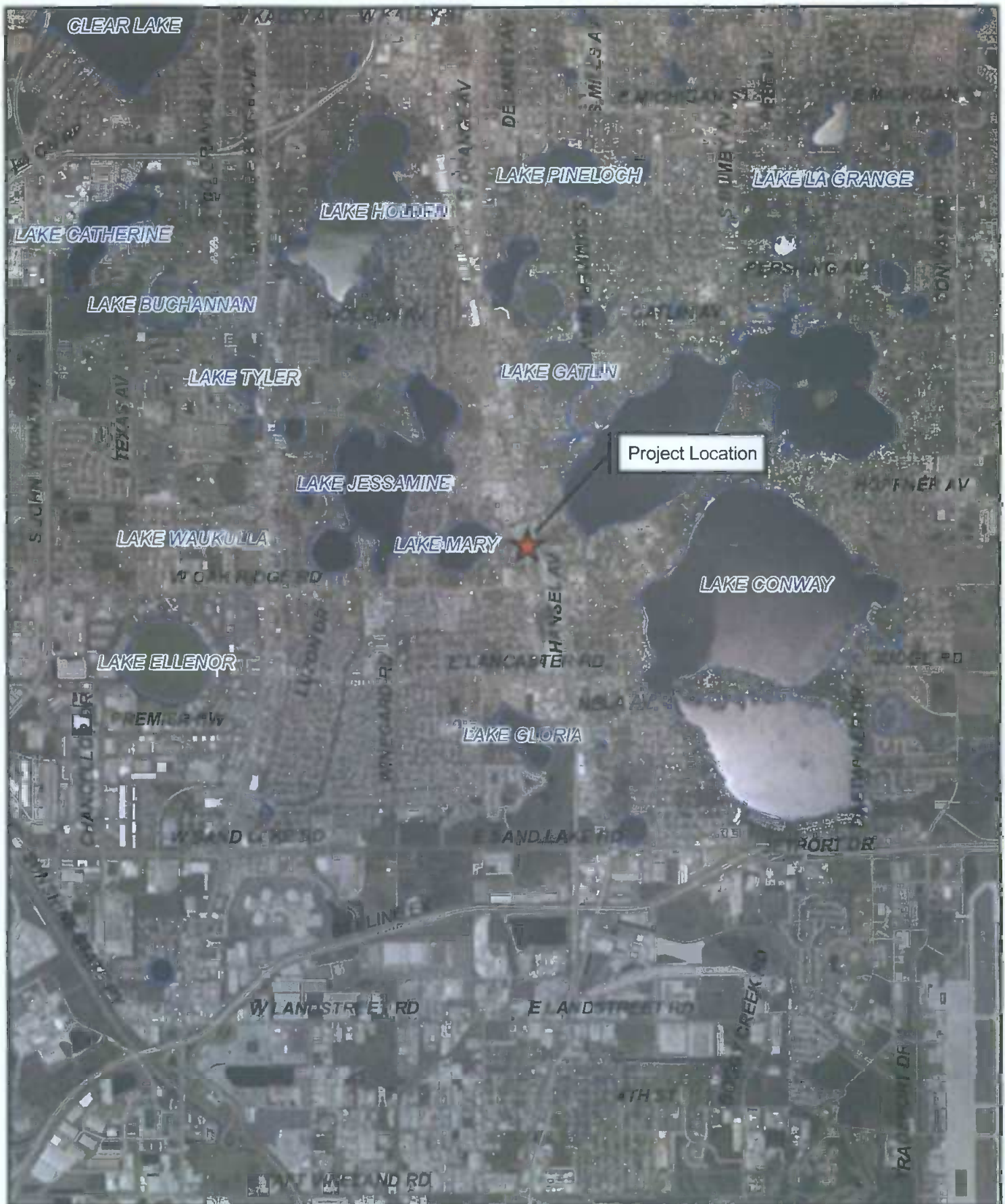
200 East Robinson Street, Orlando, Florida 32801

407/422-8062

JOB No. OC-327  
DATE 2/08

FIGURE

1



**LOCATION  
MAP**

SOURCE: ORANGE COUNTY  
2006 AERIAL IMAGE

**SITE LOCATION**

SEC: 24 TWN. 23S RNG. 29E

ORANGE COUNTY, FLORIDA



SCALE: 1" = 4000

**LAKE MARY JESS  
WATER QUALITY  
IMPROVEMENT PROJECT**

**PEC I**

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ENGINEERS PLANNERS SURVEYORS

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JOB NO. OC-327  
DATE: 2/08

**FIGURE  
2**



**SOILS MAP**  
SOURCE: ORANGE COUNTY  
SOIL SURVEY

**SITE LOCATION**  
**SEC: 24 TWN. 23S RNG. 29E**  
ORANGE COUNTY, FLORIDA



SCALE: 1" = 600'

**LAKE MARY JESS  
WATER QUALITY  
IMPROVEMENT PROJECT**

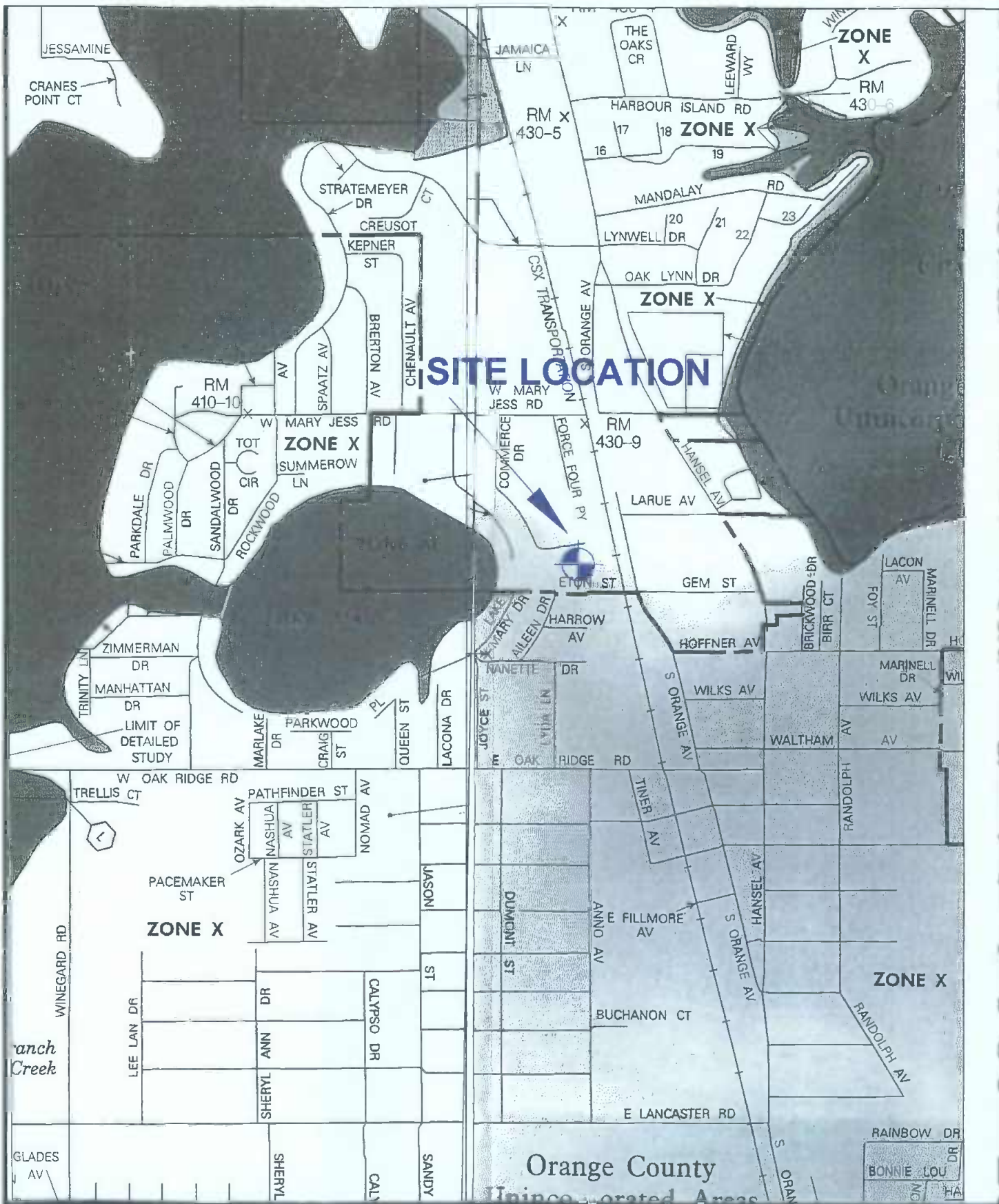
**PEC I**

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JOB NO. OC-327  
DATE: 2/08

**FIGURE  
3**



FLOOD MAP  
SOURCE: FEMA  
FIRM No. 12095C0410E  
FIRM No. 12095C0430E  
December 6, 2000

**SITE LOCATION**  
SEC. 24 TWN. 23S RNG. 29E  
LAKE COUNTY, FLORIDA



LAKE MARY JESS  
WATER QUALITY IMPROVEMENT PROJECT  
FEMA FLOOD MAP

**PEC**

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engineers planners surveyors

200 East Robinson Street, Orlando, Florida 32801

407/422-8062

JOB No. OC-327  
DATE 2/08

FIGURE

4



**OVERALL DRAINAGE  
MAP**

SOURCE: ORANGE COUNTY  
2006 AERIAL IMAGE

**SITE LOCATION**

SEC: 24 TWN. 23S RNG. 29E

ORANGE COUNTY, FLORIDA



SCALE: 1" = 600'

**LAKE MARY JESS  
WATER QUALITY  
IMPROVEMENT PROJECT**

**PEC I**

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ENGINEERS PLANNERS SURVEYORS

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JOB NO. OC-327  
DATE: 2/08

**FIGURE  
5-1**



**BASIN 100 & BASIN 200  
DRAINAGE MAP**

SOURCE: ORANGE COUNTY  
2006 AERIAL IMAGE

**SITE LOCATION**  
SEC: 24 TWN. 23S RNG. 29E  
ORANGE COUNTY, FLORIDA



SCALE: 1" = 200'

**LAKE MARY JESS  
WATER QUALITY  
IMPROVEMENT PROJECT**

**PEC I**

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DATE: 2/08

**FIGURE  
5-2**



**ETON STREET BASIN  
MAP**

SOURCE: ORANGE COUNTY  
2006 AERIAL IMAGE

**SITE LOCATION**

**SEC: 24 TWN. 23S RNG. 29E**

ORANGE COUNTY, FLORIDA



SCALE: 1" = 200'

**LAKE MARY JESS  
WATER QUALITY  
IMPROVEMENT PROJECT**

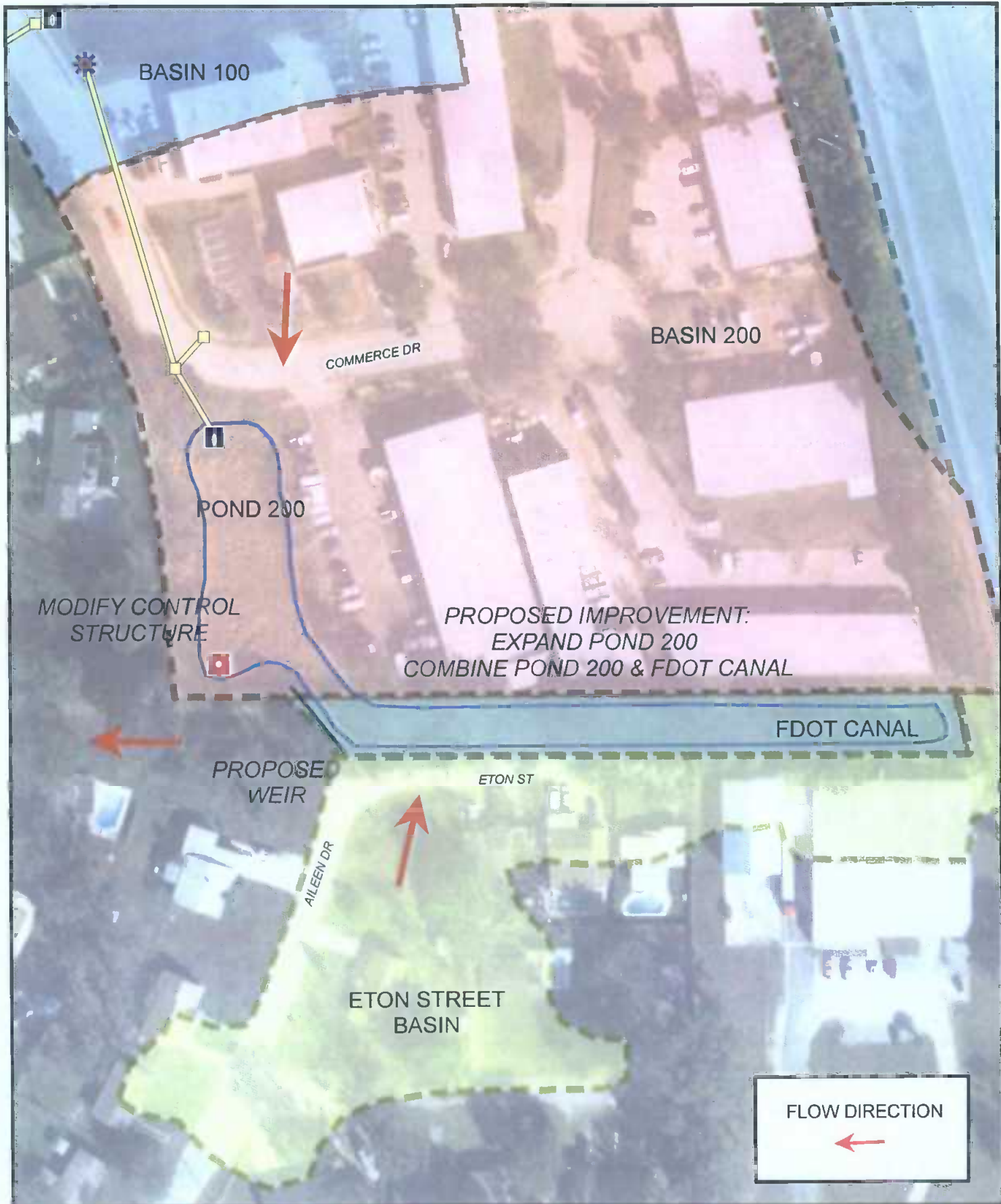
**PEC I**

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ENGINEERS PLANNERS SURVEYORS

200 EAST ROBINSON STREET - SUITE 1560 EOLA PARK CENTRE - ORLANDO, FLORIDA 32801 - 407-422-8062

JOB NO. OC-327  
DATE: 2/08

**FIGURE  
5-4**



**PROPOSED  
DRAINAGE MAP**  
SOURCE: ORANGE COUNTY  
2006 AERIAL IMAGE

**SITE LOCATION**  
**SEC: 24 TWN. 23S RNG. 29E**  
ORANGE COUNTY, FLORIDA



SCALE: 1" = 100'

**LAKE MARY JESS  
WATER QUALITY  
IMPROVEMENT PROJECT**

**PEC I**

**PROFESSIONAL ENGINEERING CONSULTANTS, INC.**  
ENGINEERS PLANNERS SURVEYORS

200 EAST ROBINSON STREET - SUITE 1560 EOLA PARK CENTRE - ORLANDO, FLORIDA 32801 - 407-422-8062

JOB NO. OC-327  
DATE: 2/08

**FIGURE  
6**



*Lake Mary Jess Drainage and Water Quality  
Improvements Project  
Orange County, Florida*

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*Section 3*

*Water Quality Calculations*

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## WATER QUALITY TREATMENT VOLUME REQUIREMENTS

---

**Project** : Lake Mary Jess Water Quality Improvement Project  
Orange County, Florida

**P.N.** : OC-327

**By** : Professional Engineering Consultants, Inc.  
Reed Blanchard

**Date** : February 2008

| Wet Detention Pond        |                    |                      |                    |                    |                                    |                              |
|---------------------------|--------------------|----------------------|--------------------|--------------------|------------------------------------|------------------------------|
| Drainage Area Description | Drainage Area (ac) | Impervious Area (ac) | Pervious Area (ac) | Percent Impervious | Runoff from 1" of Rainfall (ac-ft) | 0.5 inches of Runoff (ac-ft) |
| BASIN 100                 | 7.30               | 6.21                 | 1.09               | 85.0%              | 0.52                               | 0.30                         |
| BASIN 200                 | 7.60               | 6.46                 | 1.14               | 85.0%              | 0.54                               | 0.32                         |
| Total                     | 14.90              | 12.67                | 2.23               | 85.0%              | 1.07                               | 0.62                         |

---

### Modified Wet Detention Pond CALCULATED TREATMENT REQUIREMENTS

---

WATER QUALITY TREATMENT VOLUME = 1.07 (ac-ft)

---

*Note: The runoff coefficient is computed using 0.95 for impervious surfaces and 0.30 for pervious surfaces.*

## WATER QUALITY TREATMENT VOLUME DESIGN

**Project** : Lake Mary Jess Water Quality Improvement Project  
Orange County, Florida

**P.N.** : OC-327

**By** : Professional Engineering Consultants, Inc.  
Reed Blanchard

**Date** : February 2008

### Modified Wet Detention Pond STAGE-STORAGE RELATIONSHIP

| Stage<br>(feet) | Depth<br>(feet) | Surface<br>Area<br>(sq. ft.) | Surface<br>Area<br>(acres) | Average<br>Area<br>(acres) | Incremental<br>Volume<br>(ac-ft) | Total<br>Volume<br>(ac-ft) |
|-----------------|-----------------|------------------------------|----------------------------|----------------------------|----------------------------------|----------------------------|
| 94.00           | 0.00            | 21,300                       | 0.49                       | 0.00                       | 0.00                             | 0.00                       |
| 95.00           | 1.00            | 25,210                       | 0.58                       | 0.53                       | 0.53                             | 0.53                       |
| 96.00           | 2.00            | 29,810                       | 0.68                       | 0.63                       | 0.63                             | 1.17                       |
| 97.00           | 3.00            | 34,412                       | 0.79                       | 0.74                       | 0.74                             | 1.90                       |

### Modified Wet Detention Pond REQUIRED WATER QUALITY TREATMENT VOLUME (The maximum applicable regulatory design treatment volume.)

Required Water Quality Volume for Wet Detention = 1.07 (ac-ft)

### WEIR ELEVATION DETERMINATION

Control Elevation = 94.00 (ft)  
Depth to Weir = 1.86 (ft)

Calculated Weir Elevation = 95.86 (ft)

Design Weir Elevation = 96.00 (ft)

Water Quality Volume Provided = 1.17 (ac-ft)

### ONE-HALF OF THE PROVIDED TREATMENT VOLUME

Drawdown Volume (1/2 Required Treatment Volume) = 0.54 ac-ft

Corresponding Stage for 1/2 Required Treatment Volume = 95.02 ft NGVD

*Lake Mary Jess Drainage and Water Quality  
Improvements Project  
Orange County, Florida*

---

*Section 4*

*ICPR Model Analysis*

---

---

# *ICPR MODEL ANALYSIS*

*Existing Conditions*

---

# TIME OF CONCENTRATION

Project : Lake Mary Jess Water Quality Improvement Project

Description : Existing Conditions

TC Path : Travel Time Lot Flow

By: RGB

Checked: LLS

Date: 2/19/2008

## FLOW TYPE

### SHEET FLOW

Basin ID

| Basin 100 | Basin 200 | Eton Street | Orange Avenue |  |  |
|-----------|-----------|-------------|---------------|--|--|
|-----------|-----------|-------------|---------------|--|--|

1. Surface Description

|       |       |       |            |  |  |
|-------|-------|-------|------------|--|--|
| Grass | Grass | Grass | See Note 1 |  |  |
|-------|-------|-------|------------|--|--|

2. Mannings Roughness Coefficient

|       |       |       |  |  |  |
|-------|-------|-------|--|--|--|
| 0.240 | 0.240 | 0.240 |  |  |  |
|-------|-------|-------|--|--|--|

3. Flow Length

|    |    |     |  |  |  |
|----|----|-----|--|--|--|
| 30 | 30 | 150 |  |  |  |
|----|----|-----|--|--|--|

4. 2-year, 24-hour rainfall

|      |      |      |  |  |       |
|------|------|------|--|--|-------|
| 4.50 | 4.50 | 4.50 |  |  | (ft.) |
|------|------|------|--|--|-------|

5. Calculated Land Slope

|       |       |       |  |  |       |
|-------|-------|-------|--|--|-------|
| 0.067 | 0.033 | 0.013 |  |  | (in.) |
|-------|-------|-------|--|--|-------|

5a. Land Elevation of Flow Path (Upper End)

|       |       |       |  |  |            |
|-------|-------|-------|--|--|------------|
| 101.0 | 100.0 | 100.0 |  |  | (ft. NGVD) |
|-------|-------|-------|--|--|------------|

5b. Land Elevation of Flow Path (Lower End)

|      |      |      |  |  |            |
|------|------|------|--|--|------------|
| 99.0 | 99.0 | 98.0 |  |  | (ft. NGVD) |
|------|------|------|--|--|------------|

6. Computed Travel Time (hours)

|      |      |      |  |  |       |
|------|------|------|--|--|-------|
| 0.05 | 0.06 | 0.33 |  |  | (hr.) |
|------|------|------|--|--|-------|

### SHALLOW CONCENTRATED FLOW

Segment ID

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| 1 | 1 |  |  |  |  |
|---|---|--|--|--|--|

7. Surface Description (Paved or Unpaved)

|       |       |  |  |  |  |
|-------|-------|--|--|--|--|
| Paved | Paved |  |  |  |  |
|-------|-------|--|--|--|--|

8. Flow Length

|     |     |  |  |  |       |
|-----|-----|--|--|--|-------|
| 420 | 380 |  |  |  | (ft.) |
|-----|-----|--|--|--|-------|

9. Calculated Watercourse Slope

|       |       |  |  |  |           |
|-------|-------|--|--|--|-----------|
| 0.002 | 0.003 |  |  |  | (ft./ft.) |
|-------|-------|--|--|--|-----------|

9a. Land Elevation of Flow Path (Upper End)

|      |      |  |  |  |            |
|------|------|--|--|--|------------|
| 99.0 | 99.0 |  |  |  | (ft. NGVD) |
|------|------|--|--|--|------------|

9b. Land Elevation of Flow Path (Lower End)

|      |      |  |  |  |            |
|------|------|--|--|--|------------|
| 98.0 | 98.0 |  |  |  | (ft. NGVD) |
|------|------|--|--|--|------------|

10. Average Velocity

|      |      |  |  |  |         |
|------|------|--|--|--|---------|
| 0.99 | 1.04 |  |  |  | (ft./s) |
|------|------|--|--|--|---------|

11. Computed Travel Time (hours)

|      |      |  |  |  |       |
|------|------|--|--|--|-------|
| 0.12 | 0.10 |  |  |  | (hr.) |
|------|------|--|--|--|-------|

### CHANNEL FLOW

Segment ID

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| 1 | 1 |  |  |  |  |
|---|---|--|--|--|--|

12. Cross Sectional Flow Area

|    |    |  |  |  |      |
|----|----|--|--|--|------|
| na | na |  |  |  | (sf) |
|----|----|--|--|--|------|

13. Wetted Perimeter

|    |    |  |  |  |       |
|----|----|--|--|--|-------|
| na | na |  |  |  | (ft.) |
|----|----|--|--|--|-------|

14. Hydraulic Radius

|  |  |  |  |  |       |
|--|--|--|--|--|-------|
|  |  |  |  |  | (ft.) |
|--|--|--|--|--|-------|

15. Channel Slope

|    |    |  |  |  |           |
|----|----|--|--|--|-----------|
| na | na |  |  |  | (ft./ft.) |
|----|----|--|--|--|-----------|

16. Manning's Roughness Coefficient

|    |    |  |  |  |  |
|----|----|--|--|--|--|
| na | na |  |  |  |  |
|----|----|--|--|--|--|

17. Computed Velocity

|  |  |  |  |  |         |
|--|--|--|--|--|---------|
|  |  |  |  |  | (ft./s) |
|--|--|--|--|--|---------|

18. Flow Length

|  |  |  |  |  |       |
|--|--|--|--|--|-------|
|  |  |  |  |  | (ft.) |
|--|--|--|--|--|-------|

19. Computed Travel Time

|  |  |  |  |  |       |
|--|--|--|--|--|-------|
|  |  |  |  |  | (hr.) |
|--|--|--|--|--|-------|

20. Total Travel Time (min)

|      |      |       |  |  |        |
|------|------|-------|--|--|--------|
| 9.69 | 9.82 | 19.58 |  |  | (min.) |
|------|------|-------|--|--|--------|

USE

10 10 20

(min.)

#### Reference:

Soil Conservation Service, Technical Release 55,

Urban Hydrology for Small Watersheds.

June 1988

Note: 1. Refer to the ICPR input data for detailed T<sub>c</sub> values for the Orange Avenue Drainage Basin.

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: Orange Avenue  
 Condition: Existing Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------|-----------------------------------------------------------------------------------------------|----|-----------------|----------------------------|
|                             | See Note 1 Below                                                                              |    |                 |                            |
|                             |                                                                                               |    |                 |                            |
|                             |                                                                                               |    |                 |                            |
|                             |                                                                                               |    |                 |                            |
|                             |                                                                                               |    |                 |                            |
|                             |                                                                                               |    |                 |                            |
|                             |                                                                                               |    |                 |                            |

Reference: Technical Release 55 (TR 55)

Soil Conservation Service, June 1986

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

Note 1: Refer to ICPR Input data for detailed CN values for the Orange Avenue Drainage Basin.

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: Basin 200  
 Condition: Existing Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|----|-----------------|----------------------------|
| C                                       | Urban District (Commercial and Business Land Uses)                                            | 94 | 7.04            | 661.76                     |
| B/D                                     | Urban District (Commercial and Business Land Uses)                                            | 95 | 0.19            | 18.05                      |
| B/D                                     | Open Space (Good Condition - Dry Pond 200)                                                    | 80 | 0.37            | 29.60                      |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |    | 7.60            | 709.41                     |
| Soil Conservation Service, June 1986    |                                                                                               |    | 93              |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: FDOT CAÑAL  
 Condition: Existing Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN  | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|-----|-----------------|----------------------------|
| N/A                                     | Surface Water                                                                                 | 100 | 0.54            | 54.00                      |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |     | 0.54            | 54.00                      |
| Soil Conservation Service, June 1986    |                                                                                               |     | 100             |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: Eton Street Basin  
 Condition: Existing Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|----|-----------------|----------------------------|
| C                                       | Impervious Areas (Buildings, Roads and Dwellings)                                             | 98 | 1.31            | 128.77                     |
| C                                       | Open Space (good condition)                                                                   | 74 | 0.88            | 64.82                      |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |    | 2.19            | 193.60                     |
| Soil Conservation Service, June 1986    |                                                                                               |    | 88              |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: Basin 100  
 Condition: Existing Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN  | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|-----|-----------------|----------------------------|
| C                                       | Urban District (Commercial and Industrial Land Uses)                                          | 94  | 6.69            | 628.86                     |
| C                                       | Open Space (Good Condition)                                                                   | 74  | 0.28            | 20.72                      |
| N/A                                     | Stormwater Pond (Pond 100)                                                                    | 100 | 0.33            | 33.00                      |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |     | 7.30            | 682.58                     |
| Soil Conservation Service, June 1986    |                                                                                               |     | <b>94</b>       |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: FDOT CANAL  
 Condition: Existing Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: DWH

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN  | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|-----|-----------------|----------------------------|
| N/A                                     | Surface Water                                                                                 | 100 | 0.54            | 54.00                      |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |     | 0.54            | 54.00                      |
| Soil Conservation Service, June 1986    |                                                                                               |     | 100             |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: Eton Street Basin  
 Condition: Existing Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: DWH

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|----|-----------------|----------------------------|
| C                                       | Impervious Areas (Buildings, Roads and Dwellings)                                             | 98 | 1.31            | 128.77                     |
| C                                       | Open Space (good condition)                                                                   | 74 | 0.88            | 64.82                      |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |    | 2.19            | 193.60                     |
| Soil Conservation Service, June 1986    |                                                                                               |    | 88              |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

---

## *ICPR MODEL ANALYSIS*

### *Existing Conditions Input Data*

---

=====  
---- Basins -----  
=====

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: BASIN 100            | Node: POND 100                   | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 7.300            | Time Shift(hrs): 0.00            |                |
| Curve Number: 94.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

CN BASED ON PEC FIELD REVIEW. ORIGINAL CN = 90

-----

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: BASIN 200            | Node: POND 200                   | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 7.600            | Time Shift(hrs): 0.00            |                |
| Curve Number: 94.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

CN BASED ON PEC FIELD REVIEW. PERMITTED CN = 90.

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: ETON STREET          | Node: ORANGE-CANAL               | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh256     | Peaking Factor: 256.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 20.00         |                |
| Area(ac): 2.190            | Time Shift(hrs): 0.00            |                |
| Curve Number: 88.40        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: FDOT CANAL           | Node: ORANGE-CANAL               | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh256     | Peaking Factor: 256.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.540            | Time Shift(hrs): 0.00            |                |
| Curve Number: 100.00       | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I482-1               | Node: I482-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |                |
| Area(ac): 2.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I482-2 | Node: I482-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I482-3 | Node: I482-3              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I485-1 | Node: I485-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.800            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I485-2 | Node: I485-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 30.00         |
| Area(ac): 0.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I487-1 | Node: I487-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I487-2 | Node: I487-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                        |                       |
|------------------------|-----------------------|
| Unit Hydrograph: Uh323 | Peaking Factor: 323.0 |
|------------------------|-----------------------|

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|                            |                                  |
|----------------------------|----------------------------------|
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I489                 | Node: I489                       | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 30.00         |                |
| Area(ac): 1.400            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I490-1               | Node: I490-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.700            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I490-2               | Node: I490-2                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I491                 | Node: I491                       | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I492                 | Node: I492                       | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|             |                           |                |
|-------------|---------------------------|----------------|
| Name: I493  | Node: I493                | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I494-1 | Node: I494-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.200            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I494-2 | Node: I494-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.200            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I495-1 | Node: I495-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I495-2 | Node: I495-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |              |                |
|--------------|--------------|----------------|
| Name: I497-1 | Node: I497-1 | Status: Onsite |
|--------------|--------------|----------------|

Group: BASE

Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 0.300  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I497-2  
Group: BASE

Node: I497-2  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 0.100  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I499  
Group: BASE

Node: I499  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 1.300  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 25.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I500  
Group: BASE

Node: I500  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 0.700  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I501-1  
Group: BASE

Node: I501-1  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 0.300  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I501-2  
Group: BASE

Node: I501-2  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 25.00

Area(ac): 1.600  
Curve Number: 95.00  
DCIA(%): 0.00

Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I504-1  
Group: BASE

Node: I504-1  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 0.100  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I504-2  
Group: BASE

Node: I504-2  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 0.100  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I505-1  
Group: BASE

Node: I505-1  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 1.900  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 25.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I506  
Group: BASE

Node: I506  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 1.900  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 25.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I508  
Group: BASE

Node: I508  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 1.500  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I510-1 | Node: I510-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 1.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I510-2 | Node: I510-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.700            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I510-3 | Node: I510-3              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I510-4 | Node: I510-4              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 1.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I512-1 | Node: I512-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I512-2 | Node: I512-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

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|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I512-3               | Node: I512-3                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I516-1               | Node: I516-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.600            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I516-2               | Node: I516-2                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.400            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|----------------------------|----------------------------------|----------------|
| Name: I516-3               | Node: I516-3                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I519-1               | Node: I519-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 1.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |

---

DCIA(%): 0.00

Name: I519-2                      Node: I519-2                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 15.00  
Area(ac): 1.100                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

Name: I519-3                      Node: I519-3                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 30.00  
Area(ac): 1.900                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

=====  
Nodes  
=====

Name: I482-1                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.600  
Group: BASE                      Warn Stage(ft): 99.400  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 94.600    | 0.0500   |
| 99.400    | 0.0500   |

Name: I482-2                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.800  
Group: BASE                      Warn Stage(ft): 99.400  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 94.800    | 0.0500   |
| 99.400    | 0.0500   |

Name: I482-3                      Base Flow(cfs): 0.000                      Init Stage(ft): 95.100  
Group: BASE                      Warn Stage(ft): 99.600  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.100    | 0.0500   |
| 99.600    | 0.0500   |

Name: I485-1  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

```
Init Stage(ft): 93.900
Warn Stage(ft): 100.200
```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.900     | 0.0500    |
| 100.200    | 0.0500    |

Name: I485-2  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

```
Init Stage(ft): 94.800
Warn Stage(ft): 100.200
```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 94.800     | 0.0500    |
| 100.200    | 0.0500    |

Name: I487-1  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

```
Init Stage(ft): 93.900
Warn Stage(ft): 100.600
```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.900     | 0.0500    |
| 100.600    | 0.0500    |

Name: I487-2  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

```
Init Stage(ft): 95.700
Warn Stage(ft): 100.600
```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 95.700     | 0.0500    |
| 100.600    | 0.0500    |

Name: I489  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

```
Init Stage(ft): 93.700
Warn Stage(ft): 101.200
```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.700     | 0.0500    |
| 101.200    | 0.0500    |

Name: I490-1  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

```
Init Stage(ft): 93.500
Warn Stage(ft): 101.260
```

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.200    | 0.0500   |
| 101.260   | 0.0500   |

```
Name: I490-2          Base Flow(cfs): 0.000          Init Stage(ft): 96.600
Group: BASE           Warn Stage(ft): 101.650
Type: Stage/Area
```

| Stage(ft) | Area(ac) |
|-----------|----------|
| 96.600    | 0.0500   |
| 101.650   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I491       | Base Flow(cfs): 0.000 | Init Stage(ft): 98.300  |
| Group: BASE      |                       | Warn Stage(ft): 101.900 |
| Type: Stage/Area |                       |                         |

| Stage (ft) | Area (ac) |
|------------|-----------|
| 98.300     | 0.0500    |
| 101.900    | 0.0500    |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I492       | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500  |
| Group: BASE      |                       | Warn Stage(ft): 101.870 |
| Type: Stage/Area |                       |                         |

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 92.600     | 0.0500    |
| 101.870    | 0.0500    |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I493       | Base Flow(cfs): 0.000 | Init Stage(ft): 98.400  |
| Group: BASE      |                       | Warn Stage(ft): 101.890 |
| Type: Stage/Area |                       |                         |

| Stage (ft) | Area (ac) |
|------------|-----------|
| 98.400     | 0.0500    |
| 101.890    | 0.0500    |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I494-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500  |
| Group: BASE      |                       | Warn Stage(ft): 101.300 |
| Type: Stage/Area |                       |                         |

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 92.600     | 0.0500    |
| 101.300    | 0.0500    |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I494-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.600  |
| Group: BASE      |                       | Warn Stage(ft): 101.800 |
| Type: Stage/Area |                       |                         |

| Stage (ft) | Area (ac) |
|------------|-----------|
|------------|-----------|

|         |        |
|---------|--------|
| 93.600  | 0.0500 |
| 101.800 | 0.0500 |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I495-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 96.420  |
| Group: BASE      |                       | Warn Stage(ft): 102.400 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 96.420    | 0.0500   |
| 102.400   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I495-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 97.320  |
| Group: BASE      |                       | Warn Stage(ft): 102.540 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 97.320    | 0.0500   |
| 102.540   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I497-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 95.800  |
| Group: BASE      |                       | Warn Stage(ft): 101.690 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.800    | 0.0500   |
| 101.690   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I497-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 96.000  |
| Group: BASE      |                       | Warn Stage(ft): 101.740 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 96.000    | 0.0500   |
| 101.740   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I499       | Base Flow(cfs): 0.000 | Init Stage(ft): 95.500  |
| Group: BASE      |                       | Warn Stage(ft): 101.200 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.500    | 0.0500   |
| 101.200   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I500       | Base Flow(cfs): 0.000 | Init Stage(ft): 95.600  |
| Group: BASE      |                       | Warn Stage(ft): 100.760 |
| Type: Stage/Area |                       |                         |

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.600    | 0.0500   |
| 100.760   | 0.0500   |

---

---

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I501-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500  |
| Group: BASE      |                       | Warn Stage(ft): 101.800 |
| Type: Stage/Area |                       |                         |

---

The initial stage corresponds to the tailwater elevation (93.5 ft)

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| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.400    | 0.0500   |
| 101.800   | 0.0500   |

---

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|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I501-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 95.500  |
| Group: BASE      |                       | Warn Stage(ft): 101.800 |
| Type: Stage/Area |                       |                         |

---

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.500    | 0.0500   |
| 101.800   | 0.0500   |

---

---

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I504-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500  |
| Group: BASE      |                       | Warn Stage(ft): 100.860 |
| Type: Stage/Area |                       |                         |

---

The initial stage corresponds to the tailwater elevation (93.5 ft)

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.600    | 0.0500   |
| 100.860   | 0.0500   |

---

---

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I504-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500  |
| Group: BASE      |                       | Warn Stage(ft): 101.500 |
| Type: Stage/Area |                       |                         |

---

The initial stage corresponds to the tailwater elevation (93.5 ft)

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.600    | 0.0500   |
| 101.500   | 0.0500   |

---

---

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I505-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500  |
| Group: BASE      |                       | Warn Stage(ft): 100.000 |
| Type: Stage/Area |                       |                         |

---

The initial stage corresponds to the tailwater elevation (93.5 ft)

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 92.640    | 0.0500   |
| 100.000   | 0.0500   |

---

---

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I506       | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500 |
| Group: BASE      |                       | Warn Stage(ft): 99.600 |
| Type: Stage/Area |                       |                        |

---

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 90.800    | 0.0500   |
| 99.600    | 0.0500   |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I508       | Base Flow(cfs): 0.000 | Init Stage(ft): 93.900 |
| Group: BASE      |                       | Warn Stage(ft): 98.400 |
| Type: Stage/Area |                       |                        |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.900    | 0.0500   |
| 98.400    | 0.0500   |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I510-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500 |
| Group: BASE      |                       | Warn Stage(ft): 98.810 |
| Type: Stage/Area |                       |                        |

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.380    | 0.0500   |
| 98.810    | 0.0500   |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I510-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.700 |
| Group: BASE      |                       | Warn Stage(ft): 98.300 |
| Type: Stage/Area |                       |                        |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.700    | 0.0500   |
| 98.300    | 0.0500   |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I510-3     | Base Flow(cfs): 0.000 | Init Stage(ft): 95.360 |
| Group: BASE      |                       | Warn Stage(ft): 98.900 |
| Type: Stage/Area |                       |                        |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.360    | 0.0500   |
| 98.900    | 0.0500   |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I510-4     | Base Flow(cfs): 0.000 | Init Stage(ft): 95.740 |
| Group: BASE      |                       | Warn Stage(ft): 98.030 |
| Type: Stage/Area |                       |                        |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.740    | 0.0500   |
| 98.030    | 0.0500   |

|              |                       |                        |
|--------------|-----------------------|------------------------|
| Name: I512-1 | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500 |
| Group: BASE  |                       | Warn Stage(ft): 99.000 |

Type: Stage/Area

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 91.000     | 0.0500    |
| 99.000     | 0.0500    |

```
Name: I512-2          Base Flow(cfs): 0.000          Init Stage(ft): 93.500
Group: BASE          Warn Stage(ft): 98.500
Type: Stage/Area
```

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 92.900     | 0.0500    |
| 98.500     | 0.0500    |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I512-3     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.690 |
| Group: BASE      |                       | Warn Stage(ft): 98.500 |
| Type: Stage/Area |                       |                        |

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.690     | 0.0500    |
| 98.500     | 0.0500    |

```
Name: I516-1          Base Flow(cfs): 0.000          Init Stage(ft): 93.500
Group: BASE           Warn Stage(ft): 98.200
Type: Stage/Area
```

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 91.600     | 0.0500    |
| 98.200     | 0.0500    |

```
Name: I516-2          Base Flow(cfs): 0.000          Init Stage(ft): 93.500
Group: BASE          Warn Stage(ft): 97.820
Type: Stage/Area
```

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.080     | 0.0500    |
| 97.820     | 0.0500    |

```
Name: I516-3          Base Flow(cfs): 0.000          Init Stage(ft): 94.340
Group: BASE          Warn Stage(ft): 97.950
Type: Stage/Area
```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 94.340     | 0.0500    |
| 97.950     | 0.0500    |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I519-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500 |
| Group: BASE      |                       | Warn Stage(ft): 97.900 |
| Type: Stage/Area |                       |                        |

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.000     | 0.0500    |
| 97.900     | 0.0500    |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I519-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500 |
| Group: BASE      |                       | Warn Stage(ft): 97.150 |
| Type: Stage/Area |                       |                        |

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.200    | 0.0500   |
| 97.150    | 0.0500   |

```
Name: I519-3          Base Flow(cfs): 0.000          Init Stage(ft): 93.500
Group: BASE          Warn Stage(ft): 97.280
Type: Stage/Area
```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.500     | 0.0500    |
| 97.280     | 0.0500    |

|                           |                       |                         |
|---------------------------|-----------------------|-------------------------|
| Name: MH489               | Base Flow(cfs): 0.000 | Init Stage(ft): 93.600  |
| Group: BASE               | Plunge Factor: 1.00   | Warn Stage(ft): 101.600 |
| Type: Manhole, Flat Floor |                       |                         |

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.600     | 0.0500    |
| 101.600    | 0.0500    |

|                           |                       |                         |
|---------------------------|-----------------------|-------------------------|
| Name: MH491               | Base Flow(cfs): 0.000 | Init Stage(ft): 95.700  |
| Group: BASE               | Plunge Factor: 1.00   | Warn Stage(ft): 101.800 |
| Type: Manhole, Flat Floor |                       |                         |

| Stage (ft) | Area (ac) |
|------------|-----------|
| 95.700     | 0.0500    |
| 101.800    | 0.0500    |

|                           |                       |                         |
|---------------------------|-----------------------|-------------------------|
| Name: MH493               | Base Flow(cfs): 0.000 | Init Stage(ft): 95.700  |
| Group: BASE               | Plunge Factor: 1.00   | Warn Stage(ft): 100.420 |
| Type: Manhole, Flat Floor |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.700    | 0.0500   |
| 100.420   | 0.0500   |

---

Name: MH494                      Base Flow(cfs): 0.000                      Init Stage(ft): 93.500  
Group: BASE                      Plunge Factor: 1.00                      Warn Stage(ft): 102.340  
Type: Manhole, Flat Floor

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 92.100    | 0.0500   |
| 102.340   | 0.0500   |

---

Name: MH495                      Base Flow(cfs): 0.000                      Init Stage(ft): 96.100  
Group: BASE                      Plunge Factor: 1.00                      Warn Stage(ft): 102.340  
Type: Manhole, Flat Floor

| Stage(ft) | Area(ac) |
|-----------|----------|
| 96.100    | 0.0500   |
| 102.340   | 0.0500   |

---

Name: MH497                      Base Flow(cfs): 0.000                      Init Stage(ft): 93.500  
Group: BASE                      Plunge Factor: 1.00                      Warn Stage(ft): 101.500  
Type: Manhole, Flat Floor

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.900    | 0.0500   |
| 101.500   | 0.0500   |

---

Name: MH499                      Base Flow(cfs): 0.000                      Init Stage(ft): 93.500  
Group: BASE                      Plunge Factor: 1.00                      Warn Stage(ft): 101.200  
Type: Manhole, Flat Floor

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.700    | 0.0500   |
| 101.200   | 0.0500   |

---

Name: MH500                      Base Flow(cfs): 0.000                      Init Stage(ft): 93.500  
Group: BASE                      Plunge Factor: 1.00                      Warn Stage(ft): 100.760  
Type: Manhole, Flat Floor

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.500    | 0.0500   |
| 100.760   | 0.0500   |

---

Name: MH504                      Base Flow(cfs): 0.000                      Init Stage(ft): 93.500  
Group: BASE                      Plunge Factor: 1.00                      Warn Stage(ft): 100.800  
Type: Manhole, Flat Floor

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
|-----------|----------|

|         |        |
|---------|--------|
| 91.100  | 0.0500 |
| 100.800 | 0.0500 |

|                           |                       |                         |
|---------------------------|-----------------------|-------------------------|
| Name: MH505               | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500  |
| Group: BASE               | Plunge Factor: 1.00   | Warn Stage(ft): 100.400 |
| Type: Manhole, Flat Floor |                       |                         |

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.000    | 0.0500   |
| 100.400   | 0.0500   |

|                           |                       |                         |
|---------------------------|-----------------------|-------------------------|
| Name: MH508               | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500  |
| Group: BASE               | Plunge Factor: 1.00   | Warn Stage(ft): 101.000 |
| Type: Manhole, Flat Floor |                       |                         |

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 90.600    | 0.0500   |
| 101.000   | 0.0500   |

|                           |                       |                         |
|---------------------------|-----------------------|-------------------------|
| Name: MH510               | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500  |
| Group: BASE               | Plunge Factor: 1.00   | Warn Stage(ft): 100.700 |
| Type: Manhole, Flat Floor |                       |                         |

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 90.530    | 0.0500   |
| 100.700   | 0.0500   |

|                           |                       |                        |
|---------------------------|-----------------------|------------------------|
| Name: MH514               | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500 |
| Group: BASE               | Plunge Factor: 1.00   | Warn Stage(ft): 99.000 |
| Type: Manhole, Flat Floor |                       |                        |

The initial stage corresponds to the tailwater elevation (93.5 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.200    | 0.0500   |
| 99.000    | 0.0500   |

|                    |                       |                        |
|--------------------|-----------------------|------------------------|
| Name: ORANGE-CANAL | Base Flow(cfs): 0.000 | Init Stage(ft): 91.000 |
| Group: BASE        |                       | Warn Stage(ft): 99.000 |
| Type: Stage/Area   |                       |                        |

DUMMY NODE LOCATED AT OUTFALL OF ORANGE AVENUE SYSTEM INTO CANAL.

| Stage(ft) | Area(ac) |
|-----------|----------|
|-----------|----------|

|                     |                       |                        |
|---------------------|-----------------------|------------------------|
| Name: OUTFALL-POND2 | Base Flow(cfs): 0.000 | Init Stage(ft): 0.000  |
| Group: BASE         |                       | Warn Stage(ft): 96.000 |
| Type: Stage/Area    |                       |                        |

DUMY NODE LOCATED AT POND 200 OUTFALL INTO CANAL

| Stage(ft) | Area(ac) |
|-----------|----------|
|-----------|----------|

```

Name: POND 100          Base Flow(cfs): 0.000          Init Stage(ft): 94.500
Group: BASE              Warn Stage(ft): 98.000
Type: Stage/Area

```

## VALUES BASED ON EXISTING CONDITIONS VALUES (1-FOOT TOPOGRAPHIC DATA)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 94.500    | 0.3200   |
| 95.000    | 0.3750   |
| 96.000    | 0.4210   |
| 97.000    | 0.4730   |
| 98.000    | 0.5310   |

```

Name: POND 200          Base Flow(cfs): 0.000          Init Stage(ft): 94.000
Group: BASE              Warn Stage(ft): 97.000
Type: Stage/Area

```

## VALUES BASED ON EXISTING CONDITIONS VALUES (1-FOOT TOPOGRAPHIC DATA)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 94.000     | 0.2660    |
| 95.000     | 0.3210    |
| 96.000     | 0.3700    |
| 97.000     | 0.4560    |

```

Name: TW                      Base Flow(cfs): 0.000          Init Stage(ft): 93.500
Group: BASE                   Warn Stage(ft): 0.000
Type: Time/Stage

```

The Lake Mary Jess tailwater value (NGVD) was extracted from the "Boggy Creek Model Conversion and Improvements" prepared by Parsons, March 2003. Refer to Boundary Stages for a detailed tabulation of storm events.

| Time (hrs) | Stage (ft) |
|------------|------------|
| 0.00       | 93.500     |
| 24.00      | 93.500     |

```
===== Cross Sections =====
```

Name: POND-2-EXIST-WE                      Group: BASE  
Encroachment: No

| Station(ft) | Elevation(ft) | Manning's N |
|-------------|---------------|-------------|
| 0.000       | 98.000        | 0.050000    |
| 8.500       | 96.700        | 0.050000    |
| 11.000      | 96.200        | 0.050000    |
| 14.000      | 96.200        | 0.050000    |
| 16.500      | 96.700        | 0.050000    |
| 25.000      | 98.000        | 0.050000    |

```
===== Pipes =====
```

|               |                       |                               |
|---------------|-----------------------|-------------------------------|
| Name: OUTFALL | From Node: MH510      | Length(ft): 118.00            |
| Group: BASE   | To Node: ORANGE-CANAL | Count: 1                      |
| UPSTREAM      | DOWNSTREAM            | Friction Equation: Automatic  |
|               |                       | Solution Algorithm: Automatic |

|                       |          |                                |
|-----------------------|----------|--------------------------------|
| Geometry: Circular    | Circular | Flow: Both                     |
| Span(in): 42.00       | 42.00    | Entrance Loss Coef: 0.00       |
| Rise(in): 42.00       | 42.00    | Exit Loss Coef: 1.00           |
| Invert(ft): 90.530    | 90.130   | Bend Loss Coef: 0.00           |
| Manning's N: 0.024000 | 0.024000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000   | 0.000    | Inlet Ctrl Spec: Use dn        |
| Bot Clip(in): 0.000   | 0.000    | Stabilizer Option: None        |

Upstream FHWA Inlet Edge Description:  
Circular CMP: Headwall

Downstream FHWA Inlet Edge Description:  
Circular CMP: Headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P482-1          | From Node: I482-2 | Length(ft): 50.00                     |
| Group: BASE           | To Node: I482-1   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 18.00       | 18.00             | Flow: Both                            |
| Rise(in): 18.00       | 18.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 94.800    | 94.600            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.80                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P482-2          | From Node: I482-3 | Length(ft): 61.00                     |
| Group: BASE           | To Node: I482-2   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 15.00       | 15.00             | Flow: Both                            |
| Rise(in): 15.00       | 15.00             | Entrance Loss Coef: 1.00              |
| Invert(ft): 95.100    | 94.800            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.00                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                    |                   |                                       |
|--------------------|-------------------|---------------------------------------|
| Name: P485-1       | From Node: I482-1 | Length(ft): 242.00                    |
| Group: BASE        | To Node: I485-1   | Count: 1                              |
| UPSTREAM           | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular          | Solution Algorithm: Automatic         |
|                    |                   | Flow: Both                            |

|                       |          |                                |
|-----------------------|----------|--------------------------------|
| Span(in): 30.00       | 30.00    | Entrance Loss Coef: 0.00       |
| Rise(in): 30.00       | 30.00    | Exit Loss Coef: 0.00           |
| Invert(ft): 94.600    | 94.200   | Bend Loss Coef: 0.80           |
| Manning's N: 0.013000 | 0.013000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000   | 0.000    | Inlet Ctrl Spec: Use dn        |
| Bot Clip(in): 0.000   | 0.000    | Stabilizer Option: None        |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P485-2          | From Node: I485-2 | Length(ft): 49.00                     |
| Group: BASE           | To Node: I485-1   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 15.00       | 15.00             | Flow: Both                            |
| Rise(in): 15.00       | 15.00             | Entrance Loss Coef: 1.00              |
| Invert(ft): 94.800    | 93.900            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.00                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P487-1          | From Node: I485-1 | Length(ft): 242.00                    |
| Group: BASE           | To Node: I487-1   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 36.00       | 36.00             | Flow: Both                            |
| Rise(in): 36.00       | 36.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 94.200    | 93.900            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.012000 | 0.012000          | Bend Loss Coef: 0.60                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                    |                   |                                       |
|--------------------|-------------------|---------------------------------------|
| Name: P487-2       | From Node: I487-2 | Length(ft): 49.00                     |
| Group: BASE        | To Node: I487-1   | Count: 1                              |
| UPSTREAM           | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular | Circular          | Solution Algorithm: Automatic         |
| Span(in): 15.00    | 15.00             | Flow: Both                            |
|                    |                   | Entrance Loss Coef: 1.00              |

|                       |          |                                |
|-----------------------|----------|--------------------------------|
| Rise(in): 15.00       | 15.00    | Exit Loss Coef: 0.00           |
| Invert(ft): 95.700    | 93.900   | Bend Loss Coef: 0.00           |
| Manning's N: 0.013000 | 0.013000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000   | 0.000    | Inlet Ctrl Spec: Use dn        |
| Bot Clip(in): 0.000   | 0.000    | Stabilizer Option: None        |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P488            | From Node: I487-1 | Length(ft): 266.00                    |
| Group: BASE           | To Node: I489     | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        |                                       |
| Geometry: Circular    | Circular          | Entrance Loss Coef: 0.00              |
| Span(in): 36.00       | 36.00             | Exit Loss Coef: 0.00                  |
| Rise(in): 36.00       | 36.00             | Bend Loss Coef: 0.60                  |
| Invert(ft): 93.900    | 93.700            | Outlet Ctrl Spec: Use dc or tw        |
| Manning's N: 0.012000 | 0.012000          | Inlet Ctrl Spec: Use dn               |
| Top Clip(in): 0.000   | 0.000             | Stabilizer Option: None               |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                 |                                       |
|-----------------------|-----------------|---------------------------------------|
| Name: P489            | From Node: I489 | Length(ft): 7.00                      |
| Group: BASE           | To Node: MH489  | Count: 1                              |
|                       |                 | Friction Equation: Average Conveyance |
|                       |                 | Solution Algorithm: Automatic         |
|                       |                 | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM      |                                       |
| Geometry: Circular    | Circular        | Entrance Loss Coef: 0.00              |
| Span(in): 36.00       | 36.00           | Exit Loss Coef: 0.00                  |
| Rise(in): 36.00       | 36.00           | Bend Loss Coef: 0.60                  |
| Invert(ft): 93.700    | 93.600          | Outlet Ctrl Spec: Use dc or tw        |
| Manning's N: 0.012000 | 0.012000        | Inlet Ctrl Spec: Use dn               |
| Top Clip(in): 0.000   | 0.000           | Stabilizer Option: None               |
| Bot Clip(in): 0.000   | 0.000           |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                    |                  |                                       |
|--------------------|------------------|---------------------------------------|
| Name: P490         | From Node: MH489 | Length(ft): 38.00                     |
| Group: BASE        | To Node: I490-1  | Count: 1                              |
|                    |                  | Friction Equation: Average Conveyance |
|                    |                  | Solution Algorithm: Automatic         |
|                    |                  | Flow: Both                            |
| UPSTREAM           | DOWNSTREAM       |                                       |
| Geometry: Circular | Circular         | Entrance Loss Coef: 0.00              |
| Span(in): 18.00    | 18.00            | Exit Loss Coef: 0.00                  |
| Rise(in): 18.00    | 18.00            |                                       |

|                       |          |                                |
|-----------------------|----------|--------------------------------|
| Invert(ft): 93.600    | 93.200   | Bend Loss Coef: 0.90           |
| Manning's N: 0.013000 | 0.013000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000   | 0.000    | Inlet Ctrl Spec: Use dn        |
| Bot Clip(in): 0.000   | 0.000    | Stabilizer Option: None        |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P490-2          |            | From Node: I490-2                     | Length(ft): 57.00 |
| Group: BASE           |            | To Node: I490-1                       | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 96.600    | 93.200     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P491-1          |            | From Node: MH491                      | Length(ft): 240.00 |
| Group: BASE           |            | To Node: MH489                        | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 30.00       | 30.00      | Flow: Both                            |                    |
| Rise(in): 30.00       | 30.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 95.700    | 95.600     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.60                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                    |            |                                       |                  |
|--------------------|------------|---------------------------------------|------------------|
| Name: P491-2       |            | From Node: I491                       | Length(ft): 7.00 |
| Group: BASE        |            | To Node: MH491                        | Count: 1         |
| UPSTREAM           | DOWNSTREAM | Friction Equation: Average Conveyance |                  |
| Geometry: Circular | Circular   | Solution Algorithm: Automatic         |                  |
| Span(in): 15.00    | 15.00      | Flow: Both                            |                  |
| Rise(in): 15.00    | 15.00      | Entrance Loss Coef: 1.00              |                  |
| Invert(ft): 98.300 | 95.700     | Exit Loss Coef: 0.00                  |                  |
|                    |            | Bend Loss Coef: 0.00                  |                  |

|                       |          |                                |
|-----------------------|----------|--------------------------------|
| Manning's N: 0.013000 | 0.013000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000   | 0.000    | Inlet Ctrl Spec: Use dn        |
| Bot Clip(in): 0.000   | 0.000    | Stabilizer Option: None        |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P492            |            | From Node: I490-1                     | Length(ft): 301.00 |
| Group: BASE           |            | To Node: I492                         | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 24.00       | 24.00      | Flow: Both                            |                    |
| Rise(in): 24.00       | 24.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 93.200    | 92.600     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.90                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P493-1          |            | From Node: MH493                      | Length(ft): 100.00 |
| Group: BASE           |            | To Node: MH491                        | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 30.00       | 30.00      | Flow: Both                            |                    |
| Rise(in): 30.00       | 30.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 95.800    | 95.700     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.80                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P493-2          |            | From Node: I493                       | Length(ft): 10.00 |
| Group: BASE           |            | To Node: MH493                        | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 98.400    | 95.700     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
|                       |            | Outlet Ctrl Spec: Use dc or tw        |                   |

Top Clip(in): 0.000 0.000  
Bot Clip(in): 0.000 0.000

Inlet Ctrl Spec: Use dn  
Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: p494-1          From Node: I492          Length(ft): 224.00
Group: BASE           To Node: MH494          Count: 1
                                Friction Equation: Average Conveyance
                                Solution Algorithm: Automatic
                                Flow: Both
                                Entrance Loss Coef: 0.00
                                Exit Loss Coef: 0.00
                                Bend Loss Coef: 0.50
                                Outlet Ctrl Spec: Use dc or tw
                                Inlet Ctrl Spec: Use dn
                                Stabilizer Option: None

UPSTREAM      DOWNSTREAM
Geometry: Circular
Span(in): 24.00
Rise(in): 24.00
Invert(ft): 92.600
Manning's N: 0.013000
Top Clip(in): 0.000
Bot Clip(in): 0.000
  
```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: P494-2          From Node: I494-1          Length(ft): 25.00
Group: BASE           To Node: MH494          Count: 1
                                Friction Equation: Average Conveyance
                                Solution Algorithm: Automatic
                                Flow: Both
                                Entrance Loss Coef: 0.00
                                Exit Loss Coef: 0.00
                                Bend Loss Coef: 0.80
                                Outlet Ctrl Spec: Use dc or tw
                                Inlet Ctrl Spec: Use dn
                                Stabilizer Option: None

UPSTREAM      DOWNSTREAM
Geometry: Circular
Span(in): 18.00
Rise(in): 18.00
Invert(ft): 92.600
Manning's N: 0.013000
Top Clip(in): 0.000
Bot Clip(in): 0.000
  
```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: P494-3          From Node: I494-2          Length(ft): 50.00
Group: BASE           To Node: I494-1          Count: 1
                                Friction Equation: Average Conveyance
                                Solution Algorithm: Automatic
                                Flow: Both
                                Entrance Loss Coef: 1.00
                                Exit Loss Coef: 0.00
                                Bend Loss Coef: 0.00
                                Outlet Ctrl Spec: Use dc or tw
                                Inlet Ctrl Spec: Use dn

UPSTREAM      DOWNSTREAM
Geometry: Circular
Span(in): 15.00
Rise(in): 15.00
Invert(ft): 93.600
Manning's N: 0.013000
Top Clip(in): 0.000
  
```

Bot Clip(in): 0.000                      0.000                      Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P494-4          | From Node: MH495 | Length(ft): 34.00                     |
| Group: BASE           | To Node: MH494   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM       | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular         | Solution Algorithm: Automatic         |
| Span(in): 30.00       | 30.00            | Flow: Both                            |
| Rise(in): 30.00       | 30.00            | Entrance Loss Coef: 0.00              |
| Invert(ft): 96.100    | 92.100           | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000         | Bend Loss Coef: 0.90                  |
| Top Clip(in): 0.000   | 0.000            | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000            | Inlet Ctrl Spec: Use dn               |
|                       |                  | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P495-1          | From Node: MH495 | Length(ft): 224.00                    |
| Group: BASE           | To Node: MH493   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM       | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular         | Solution Algorithm: Automatic         |
| Span(in): 30.00       | 30.00            | Flow: Both                            |
| Rise(in): 30.00       | 30.00            | Entrance Loss Coef: 0.00              |
| Invert(ft): 96.000    | 95.700           | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000         | Bend Loss Coef: 0.90                  |
| Top Clip(in): 0.000   | 0.000            | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000            | Inlet Ctrl Spec: Use dn               |
|                       |                  | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P495-2          | From Node: I495-1 | Length(ft): 21.00                     |
| Group: BASE           | To Node: MH495    | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 18.00       | 18.00             | Flow: Both                            |
| Rise(in): 18.00       | 18.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 96.420    | 96.200            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.80                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P495-3          |            | From Node: I495-2                     | Length(ft): 45.00 |
| Group: BASE           |            | To Node: I495-1                       | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 97.320    | 96.420     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P497-1          |            | From Node: MH494                      | Length(ft): 200.00 |
| Group: BASE           |            | To Node: MH497                        | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 36.00       | 36.00      | Flow: Both                            |                    |
| Rise(in): 36.00       | 36.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 92.100    | 91.900     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.012000 | 0.012000   | Bend Loss Coef: 1.00                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P497-2          |            | From Node: I497-1                     | Length(ft): 26.00 |
| Group: BASE           |            | To Node: MH497                        | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 18.00       | 18.00      | Flow: Both                            |                   |
| Rise(in): 18.00       | 18.00      | Entrance Loss Coef: 0.00              |                   |
| Invert(ft): 95.880    | 91.900     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.60                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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-----
Name: P497-3          From Node: I497-2          Length(ft): 38.00
Group: BASE          To Node: I497-1          Count: 1
                                     Friction Equation: Average Conveyance
                                     Solution Algorithm: Automatic
                                     Flow: Both
Entrance Loss Coef: 1.00
Exit Loss Coef: 0.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

UPSTREAM      DOWNSTREAM
Geometry: Circular
Span(in): 15.00    15.00
Rise(in): 15.00    15.00
Invert(ft): 96.000 95.800
Manning's N: 0.013000 0.013000
Top Clip(in): 0.000 0.000
Bot Clip(in): 0.000 0.000

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: P499-1          From Node: MH497          Length(ft): 161.00
Group: BASE          To Node: MH499          Count: 1
                                     Friction Equation: Average Conveyance
                                     Solution Algorithm: Automatic
                                     Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 0.00
Bend Loss Coef: 0.80
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

UPSTREAM      DOWNSTREAM
Geometry: Circular
Span(in): 36.00    36.00
Rise(in): 36.00    36.00
Invert(ft): 91.900 91.700
Manning's N: 0.012000 0.012000
Top Clip(in): 0.000 0.000
Bot Clip(in): 0.000 0.000

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: P499-2          From Node: I499          Length(ft): 41.00
Group: BASE          To Node: MH499          Count: 1
                                     Friction Equation: Average Conveyance
                                     Solution Algorithm: Automatic
                                     Flow: Both
Entrance Loss Coef: 1.00
Exit Loss Coef: 0.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

UPSTREAM      DOWNSTREAM
Geometry: Circular
Span(in): 15.00    15.00
Rise(in): 15.00    15.00
Invert(ft): 95.500 91.700
Manning's N: 0.013000 0.013000
Top Clip(in): 0.000 0.000
Bot Clip(in): 0.000 0.000

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P500-1          |            | From Node: MH499                      | Length(ft): 154.00 |
| Group: BASE           |            | To Node: MH500                        | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 36.00       | 36.00      | Flow: Both                            |                    |
| Rise(in): 36.00       | 36.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 91.700    | 91.500     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.80                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                  |
|-----------------------|------------|---------------------------------------|------------------|
| Name: P500-2          |            | From Node: I500                       | Length(ft): 3.00 |
| Group: BASE           |            | To Node: MH500                        | Count: 1         |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                  |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                  |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                  |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                  |
| Invert(ft): 95.600    | 91.500     | Exit Loss Coef: 0.00                  |                  |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                  |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                  |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                  |
|                       |            | Stabilizer Option: None               |                  |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P501-1          |            | From Node: MH500                      | Length(ft): 122.00 |
| Group: BASE           |            | To Node: I501-1                       | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 42.00       | 42.00      | Flow: Both                            |                    |
| Rise(in): 42.00       | 42.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 91.500    | 91.400     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.012000 | 0.012000   | Bend Loss Coef: 0.80                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P501-2          | From Node: I501-2 | Length(ft): 50.00                     |
| Group: BASE           | To Node: I501-1   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 15.00       | 15.00             | Flow: Both                            |
| Rise(in): 15.00       | 15.00             | Entrance Loss Coef: 1.00              |
| Invert(ft): 95.500    | 91.400            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.00                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P504-1          | From Node: I501-1 | Length(ft): 261.00                    |
| Group: BASE           | To Node: MH504    | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 42.00       | 42.00             | Flow: Both                            |
| Rise(in): 42.00       | 42.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 91.400    | 91.100            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.012000 | 0.012000          | Bend Loss Coef: 0.80                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P504-2          | From Node: I504-1 | Length(ft): 25.00                     |
| Group: BASE           | To Node: MH504    | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 15.00       | 15.00             | Flow: Both                            |
| Rise(in): 15.00       | 15.00             | Entrance Loss Coef: 1.00              |
| Invert(ft): 91.600    | 91.100            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.00                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:

Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P504-3          |            | From Node: I504-2                     | Length(ft): 21.00 |
| Group: BASE           |            | To Node: MH504                        | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 91.600    | 91.100     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P505-1          |            | From Node: MH504                      | Length(ft): 82.00 |
| Group: BASE           |            | To Node: MH505                        | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 42.00       | 42.00      | Flow: Both                            |                   |
| Rise(in): 42.00       | 42.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 91.100    | 91.000     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.012000 | 0.012000   | Bend Loss Coef: 1.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P505-2          |            | From Node: I505-1                     | Length(ft): 82.00 |
| Group: BASE           |            | To Node: MH505                        | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 92.640    | 91.000     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P506            |            | From Node: MH505                      | Length(ft): 139.00 |
| Group: BASE           |            | To Node: I506                         | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 42.00       | 42.00      | Flow: Both                            |                    |
| Rise(in): 42.00       | 42.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 91.000    | 90.800     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.012000 | 0.012000   | Bend Loss Coef: 0.80                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P508-1          |            | From Node: I506                       | Length(ft): 220.00 |
| Group: BASE           |            | To Node: MH508                        | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 42.00       | 42.00      | Flow: Both                            |                    |
| Rise(in): 42.00       | 42.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 90.800    | 90.600     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.012000 | 0.012000   | Bend Loss Coef: 0.50                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P508-2          |            | From Node: I508                       | Length(ft): 54.00 |
| Group: BASE           |            | To Node: MH508                        | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 18.00       | 18.00      | Flow: Both                            |                   |
| Rise(in): 18.00       | 18.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 93.900    | 90.600     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P510-1          | From Node: MH508 | Length(ft): 177.00                    |
| Group: BASE           | To Node: MH510   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM       | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular         | Solution Algorithm: Automatic         |
| Span(in): 42.00       | 42.00            | Flow: Both                            |
| Rise(in): 42.00       | 42.00            | Entrance Loss Coef: 0.00              |
| Invert(ft): 90.600    | 90.530           | Exit Loss Coef: 0.00                  |
| Manning's N: 0.012000 | 0.012000         | Bend Loss Coef: 0.80                  |
| Top Clip(in): 0.000   | 0.000            | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000            | Inlet Ctrl Spec: Use dn               |
|                       |                  | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P510-2          | From Node: I510-1 | Length(ft): 48.00                     |
| Group: BASE           | To Node: MH510    | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 18.00       | 18.00             | Flow: Both                            |
| Rise(in): 18.00       | 18.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 93.380    | 90.530            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.60                  |
| Top Clip(in): 0.000   | 0.013             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P510-3          | From Node: I510-2 | Length(ft): 17.00                     |
| Group: BASE           | To Node: I510-1   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 18.00       | 18.00             | Flow: Both                            |
| Rise(in): 18.00       | 18.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 93.700    | 93.430            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.60                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:

Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P510-4          |            | From Node: I510-3                     | Length(ft): 33.00 |
| Group: BASE           |            | To Node: I510-2                       | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 18.00       | 18.00      | Flow: Both                            |                   |
| Rise(in): 18.00       | 18.00      | Entrance Loss Coef: 0.00              |                   |
| Invert(ft): 95.360    | 93.700     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.80                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P510-5          |            | From Node: I510-4                     | Length(ft): 19.00 |
| Group: BASE           |            | To Node: I510-3                       | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 95.740    | 95.360     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P512-1          |            | From Node: I512-1                     | Length(ft): 176.00 |
| Group: BASE           |            | To Node: MH510                        | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 36.00       | 36.00      | Flow: Both                            |                    |
| Rise(in): 36.00       | 36.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 91.000    | 90.530     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.012000 | 0.012000   | Bend Loss Coef: 0.70                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

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Name: P512-2          From Node: I512-2          Length(ft): 88.00
Group: BASE           To Node: I512-1          Count: 1
                                     Friction Equation: Average Conveyance
                                     Solution Algorithm: Automatic
                                     Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 0.00
Bend Loss Coef: 0.80
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

      UPSTREAM      DOWNSTREAM
Geometry: Circular  Circular
Span(in): 18.00     18.00
Rise(in): 18.00     18.00
Invert(ft): 92.900  91.000
Manning's N: 0.013000 0.013000
Top Clip(in): 0.000  0.000
Bot Clip(in): 0.000  0.000

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: P512-3          From Node: I512-3          Length(ft): 38.00
Group: BASE           To Node: I512-2          Count: 1
                                     Friction Equation: Average Conveyance
                                     Solution Algorithm: Automatic
                                     Flow: Both
Entrance Loss Coef: 1.00
Exit Loss Coef: 0.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

      UPSTREAM      DOWNSTREAM
Geometry: Circular  Circular
Span(in): 15.00     15.00
Rise(in): 15.00     15.00
Invert(ft): 93.690  92.900
Manning's N: 0.013000 0.013000
Top Clip(in): 0.000  0.000
Bot Clip(in): 0.000  0.000

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: P514-1          From Node: MH514          Length(ft): 207.00
Group: BASE           To Node: I512-1          Count: 1
                                     Friction Equation: Average Conveyance
                                     Solution Algorithm: Automatic
                                     Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 0.00
Bend Loss Coef: 0.50
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

      UPSTREAM      DOWNSTREAM
Geometry: Circular  Circular
Span(in): 36.00     36.00
Rise(in): 36.00     36.00
Invert(ft): 91.200  91.000
Manning's N: 0.012000 0.012000
Top Clip(in): 0.000  0.000
Bot Clip(in): 0.000  0.000

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: P516-1      From Node: I516-1      Length(ft): 206.00
Group: BASE       To Node: MH514          Count: 1
                                         Friction Equation: Average Conveyance
                                         Solution Algorithm: Automatic
                                         Flow: Both
UPSTREAM          DOWNSTREAM
Geometry: Circular Circular
Span(in): 30.00   30.00
Rise(in): 30.00   30.00
Invert(ft): 91.600 91.200
Manning's N: 0.013000 0.013000
Top Clip(in): 0.000 0.000
Bot Clip(in): 0.000 0.000
Entrance Loss Coef: 0.00
Exit Loss Coef: 0.00
Bend Loss Coef: 0.60
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: P516-2      From Node: I516-2      Length(ft): 49.00
Group: BASE       To Node: I516-1          Count: 1
                                         Friction Equation: Average Conveyance
                                         Solution Algorithm: Automatic
                                         Flow: Both
UPSTREAM          DOWNSTREAM
Geometry: Circular Circular
Span(in): 18.00   18.00
Rise(in): 18.00   18.00
Invert(ft): 93.080 92.100
Manning's N: 0.013000 0.013000
Top Clip(in): 0.000 0.000
Bot Clip(in): 0.000 0.000
Entrance Loss Coef: 0.00
Exit Loss Coef: 0.00
Bend Loss Coef: 0.80
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: P516-3      From Node: I516-3      Length(ft): 63.00
Group: BASE       To Node: I516-2          Count: 1
                                         Friction Equation: Average Conveyance
                                         Solution Algorithm: Automatic
                                         Flow: Both
UPSTREAM          DOWNSTREAM
Geometry: Circular Circular
Span(in): 15.00   15.00
Rise(in): 15.00   15.00
Invert(ft): 94.340 93.080
Manning's N: 0.013000 0.013000
Top Clip(in): 0.000 0.000
Bot Clip(in): 0.000 0.000
Entrance Loss Coef: 1.00
Exit Loss Coef: 0.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dn
Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

---

|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P519-1          | From Node: I519-1 | Length(ft): 341.00                    |
| Group: BASE           | To Node: I516-1   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 24.00       | 24.00             | Bend Loss Coef: 0.80                  |
| Rise(in): 24.00       | 24.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 93.000    | 92.100            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

---

|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P519-2          | From Node: I519-2 | Length(ft): 49.00                     |
| Group: BASE           | To Node: I519-1   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 18.00       | 18.00             | Bend Loss Coef: 0.80                  |
| Rise(in): 18.00       | 18.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 93.200    | 93.000            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

---

|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P519-3          | From Node: I519-3 | Length(ft): 74.00                     |
| Group: BASE           | To Node: I519-2   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 1.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 18.00       | 18.00             | Bend Loss Coef: 0.00                  |
| Rise(in): 18.00       | 18.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 93.500    | 93.230            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

=====  
---- Channels -----  
=====

|                       |  |                          |                    |
|-----------------------|--|--------------------------|--------------------|
| Name: DOWNSTREAM_CANA |  | From Node: OUTFALL-POND2 | Length(ft): 491.00 |
| Group: BASE           |  | To Node: TW              | Count: 1           |

|                         |             |                                       |
|-------------------------|-------------|---------------------------------------|
| UPSTREAM                | DOWNSTREAM  | Friction Equation: Average Conveyance |
| Geometry: Trapezoidal   | Trapezoidal | Solution Algorithm: Automatic         |
| Invert(ft): 92.000      | 90.000      | Flow: Both                            |
| TClpInitZ(ft): 9999.000 | 9999.000    | Contraction Coef: 0.000               |
| Manning's N: 0.018000   | 0.018000    | Expansion Coef: 0.000                 |
| Top Clip(ft): 0.000     | 0.000       | Entrance Loss Coef: 0.000             |
| Bot Clip(ft): 0.000     | 0.000       | Exit Loss Coef: 1.000                 |
| Main XSec:              |             | Outlet Ctrl Spec: Use dc or tw        |
| AuxElev1(ft):           |             | Inlet Ctrl Spec: Use dn               |
| Aux XSec1:              |             | Stabilizer Option: None               |
| AuxElev2(ft):           |             |                                       |
| Aux XSec2:              |             |                                       |
| Top Width(ft):          |             |                                       |
| Depth(ft):              |             |                                       |
| Bot Width(ft): 12.500   | 12.500      |                                       |
| LtSdSlp(h/v): 1.70      | 1.70        |                                       |
| RtSdSlp(h/v): 1.70      | 1.70        |                                       |

-----

|                      |  |                         |                    |
|----------------------|--|-------------------------|--------------------|
| Name: UPSTREAM_CANAL |  | From Node: ORANGE-CANAL | Length(ft): 478.00 |
| Group: BASE          |  | To Node: OUTFALL-POND2  | Count: 1           |

|                         |             |                                       |
|-------------------------|-------------|---------------------------------------|
| UPSTREAM                | DOWNSTREAM  | Friction Equation: Average Conveyance |
| Geometry: Trapezoidal   | Trapezoidal | Solution Algorithm: Automatic         |
| Invert(ft): 93.000      | 92.000      | Flow: Both                            |
| TClpInitZ(ft): 9999.000 | 9999.000    | Contraction Coef: 0.000               |
| Manning's N: 0.018000   | 0.018000    | Expansion Coef: 0.000                 |
| Top Clip(ft): 0.000     | 0.000       | Entrance Loss Coef: 1.000             |
| Bot Clip(ft): 0.000     | 0.000       | Exit Loss Coef: 0.000                 |
| Main XSec:              |             | Outlet Ctrl Spec: Use dc or tw        |
| AuxElev1(ft):           |             | Inlet Ctrl Spec: Use dn               |
| Aux XSec1:              |             | Stabilizer Option: None               |
| AuxElev2(ft):           |             |                                       |
| Aux XSec2:              |             |                                       |
| Top Width(ft):          |             |                                       |
| Depth(ft):              |             |                                       |
| Bot Width(ft): 12.500   | 12.500      |                                       |
| LtSdSlp(h/v): 1.70      | 1.70        |                                       |
| RtSdSlp(h/v): 1.70      | 1.70        |                                       |

=====  
---- Drop Structures -----  
=====

|              |  |                     |                    |
|--------------|--|---------------------|--------------------|
| Name: DS-100 |  | From Node: POND 100 | Length(ft): 297.00 |
| Group: BASE  |  | To Node: POND 200   | Count: 1           |

|                       |            |                                       |
|-----------------------|------------|---------------------------------------|
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |
| Span(in): 30.00       | 30.00      | Flow: Both                            |
| Rise(in): 30.00       | 30.00      | Entrance Loss Coef: 1.000             |
| Invert(ft): 94.850    | 91.800     | Exit Loss Coef: 1.000                 |
| Manning's N: 0.013000 | 0.013000   | Outlet Ctrl Spec: Use dc or tw        |
| Top Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |
| Bot Clip(in): 0.000   | 0.000      | Solution Incs: 10                     |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 2 for Drop Structure DS-100 \*\*\*

TABLE

|                       |                          |
|-----------------------|--------------------------|
| Count: 1              | Bottom Clip(in): 0.000   |
| Type: Horizontal      | Top Clip(in): 0.000      |
| Flow: Both            | Weir Disc Coef: 3.200    |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 36.00       | Invert(ft): 97.600       |
| Rise(in): 28.00       | Control Elev(ft): 97.600 |

\*\*\* Weir 2 of 2 for Drop Structure DS-100 \*\*\*

TABLE

|                       |                          |
|-----------------------|--------------------------|
| Count: 1              | Bottom Clip(in): 0.000   |
| Type: Vertical: Mavis | Top Clip(in): 0.000      |
| Flow: Both            | Weir Disc Coef: 3.200    |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 24.00       | Invert(ft): 95.750       |
| Rise(in): 1.85        | Control Elev(ft): 95.750 |

=====

==== Weirs =====

|                       |                        |
|-----------------------|------------------------|
| Name: POND-200 WEIR   | From Node: POND 200    |
| Group: BASE           | To Node: OUTFALL-POND2 |
| Flow: Both            | Count: 1               |
| Type: Vertical: Mavis | Geometry: Irregular    |

XSec: POND-2-EXIST-WE  
Invert(ft): 96.200  
Control Elevation(ft): 96.200  
Struct Opening Dim(ft): 9999.00

TABLE

|                               |
|-------------------------------|
| Bottom Clip(ft): 0.000        |
| Top Clip(ft): 0.000           |
| Weir Discharge Coef: 2.600    |
| Orifice Discharge Coef: 0.600 |

=====

==== Rating Curves =====

|             |            |            |
|-------------|------------|------------|
| Name:       | From Node: | Count: 1   |
| Group: BASE | To Node:   | Flow: Both |

|       |             |              |
|-------|-------------|--------------|
| TABLE | ELEV ON(ft) | ELEV OFF(ft) |
| #1:   | 0.000       | 0.000        |
| #2:   | 0.000       | 0.000        |
| #3:   | 0.000       | 0.000        |
| #4:   | 0.000       | 0.000        |

=====

==== Hydrology Simulations =====

Name: 100Y-24H  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\100Y-24H.R32  
Override Defaults: Yes

---

Storm Duration(hrs): 24.00  
Rainfall File: Flmod  
Rainfall Amount(in): 10.60

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.00           |

---

Name: 100Y-24H-Orange  
Filename: L:\OC-327 LAKE MARY JESS\1-DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\EXISTING\100Y-24H-Ora

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Orange  
Rainfall Amount(in): 10.60

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.00           |

---

Name: 5y-1h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\5y-1h.R32

Override Defaults: Yes  
Storm Duration(hrs): 1.00  
Rainfall File: Fdot-1  
Rainfall Amount(in): 2.90

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 1.000     | 5.00           |
| 24.000    | 15.00          |

---

Name: 5y-2h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\5y-2h.R32

Override Defaults: Yes  
Storm Duration(hrs): 2.00  
Rainfall File: Fdot-2  
Rainfall Amount(in): 3.50

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 2.000     | 5.00           |
| 24.000    | 15.00          |

---

Name: 5Y-4H  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\5Y-4H.R32

Override Defaults: Yes  
Storm Duration(hrs): 4.00  
Rainfall File: Fdot-4  
Rainfall Amount(in): 4.10

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 4.000     | 5.00           |
| 24.000    | 15.00          |

---

Name: 5y-8h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\5y-8h.R32

Override Defaults: Yes  
Storm Duration(hrs): 8.00  
Rainfall File: Fdot-8

Rainfall Amount(in): 4.80

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 8.000     | 5.00           |
| 24.000    | 15.00          |

Name: Mean-Annual

Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\Mean-Annual.

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Flmod  
Rainfall Amount(in): 4.50

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.00           |

Name: Mean-Annual-OC

Filename: L:\OC-327 LAKE MARY JESS\1-DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\EXISTING\Mean-Annual-

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Orange  
Rainfall Amount(in): 4.50

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.00           |

==== Routing Simulations =====

Name: 100Y-24H

Hydrology Sim: 100Y-24H

Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\100Y-24H.I32

Execute: Yes                      Restart: No                      Patch: No  
Alternative: No

Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00050  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000                      End Time(hrs): 24.00  
Min Calc Time(sec): 0.5000                      Max Calc Time(sec): 60.0000  
Boundary Stages: 100-Year                      Boundary Flows:

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.000          |

| Group | Run |
|-------|-----|
| BASE  | Yes |

Name: 100Y-24H-Orange

Hydrology Sim: 100Y-24H-Orange

Filename: L:\OC-327 LAKE MARY JESS\1-DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\EXISTING\100Y-24H-Ora

Execute: Yes                      Restart: No                      Patch: No  
Alternative: No

Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00050  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000                      End Time(hrs): 24.00

Min Calc Time(sec): 0.5000  
Boundary Stages: 100-Year

Max Calc Time(sec): 60.0000  
Boundary Flows:

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.000          |
| Group     | Run            |
| BASE      | Yes            |

Name: 5y-1h Hydrology Sim: 5y-1h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\5y-1h.I32

Execute: No Restart: No Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00500     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: NHWE       | Boundary Flows:             |

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |
| Group     | Run            |
| BASE      | Yes            |

Name: 5y-2h Hydrology Sim: 5y-2h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\5y-2h.I32

Execute: No Restart: No Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00500     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: NHWE       | Boundary Flows:             |

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |
| Group     | Run            |
| BASE      | Yes            |

Name: 5y-4h Hydrology Sim: 5Y-4H  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\5y-4h.I32

Execute: No Restart: No Patch: No  
Alternative: No

|                       |                         |
|-----------------------|-------------------------|
| Max Delta Z(ft): 1.00 | Delta Z Factor: 0.00500 |
|-----------------------|-------------------------|

Time Step Optimizer: 10.000  
Start Time(hrs): 0.000  
Min Calc Time(sec): 0.5000  
Boundary Stages: NHWE

End Time(hrs): 24.00  
Max Calc Time(sec): 60.0000  
Boundary Flows:

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |
| Group     | Run            |
| BASE      | Yes            |

Name: 5y-8h Hydrology Sim: 5y-8h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\5y-8h.I32

Execute: Yes Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 24.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: NHWE Boundary Flows:

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |
| Group     | Run            |
| BASE      | Yes            |

Name: Mean-Annual Hydrology Sim: Mean-Annual  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Existing\Mean-Annual.

Execute: No Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 24.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: Mean Annual Boundary Flows:

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |
| Group     | Run            |
| BASE      | Yes            |

Name: Mean-Annual-OC Hydrology Sim: Mean-Annual-OC  
Filename: L:\OC-327 LAKE MARY JESS\1-DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\EXISTING\Mean-Annual-

Execute: Yes Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000  
Min Calc Time(sec): 0.5000  
Boundary Stages: Mean Annual

Delta Z Factor: 0.00500  
End Time(hrs): 24.00  
Max Calc Time(sec): 60.0000  
Boundary Flows:

Time(hrs)      Print Inc(min)  
-----  
24.000      15.000

Group      Run  
-----  
BASE      Yes

==== Boundary Conditions =====

Name: Mean Annual

Node: TW

Type: Stage

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| 0.000     | 93.490    |
| 1.000     | 93.485    |
| 2.000     | 93.481    |
| 3.000     | 93.477    |
| 4.000     | 93.478    |
| 5.000     | 93.486    |
| 6.000     | 93.503    |
| 7.000     | 93.553    |
| 7.250     | 93.574    |
| 7.500     | 93.599    |
| 7.750     | 93.630    |
| 8.000     | 93.667    |
| 8.250     | 93.710    |
| 8.500     | 93.760    |
| 8.750     | 93.815    |
| 9.000     | 93.875    |
| 9.250     | 93.937    |
| 9.500     | 93.997    |
| 9.750     | 94.055    |
| 10.000    | 94.112    |
| 10.250    | 94.164    |
| 10.500    | 94.212    |
| 10.750    | 94.254    |
| 11.000    | 94.292    |
| 11.250    | 94.327    |
| 11.500    | 94.358    |
| 11.750    | 94.385    |
| 12.000    | 94.408    |
| 12.250    | 94.428    |
| 12.500    | 94.447    |
| 12.750    | 94.464    |
| 13.000    | 94.480    |
| 13.250    | 94.494    |
| 13.500    | 94.507    |
| 13.750    | 94.517    |
| 14.000    | 94.527    |
| 14.250    | 94.534    |
| 14.500    | 94.540    |
| 14.750    | 94.543    |
| 15.000    | 94.546    |
| 15.250    | 94.548    |
| 15.500    | 94.548    |
| 15.750    | 94.548    |
| 16.000    | 94.547    |

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|        |        |
|--------|--------|
| 16.250 | 94.546 |
| 16.500 | 94.544 |
| 16.750 | 94.542 |
| 17.000 | 94.540 |
| 17.250 | 94.537 |
| 17.500 | 94.535 |
| 17.750 | 94.533 |
| 18.000 | 94.530 |
| 18.250 | 94.527 |
| 18.500 | 94.524 |
| 18.750 | 94.521 |
| 19.000 | 94.518 |
| 19.250 | 94.515 |
| 19.500 | 94.512 |
| 19.750 | 94.509 |
| 20.000 | 94.506 |
| 20.250 | 94.502 |
| 20.500 | 94.499 |
| 20.750 | 94.495 |
| 21.000 | 94.491 |
| 21.250 | 94.487 |
| 21.500 | 94.483 |
| 21.750 | 94.479 |
| 22.000 | 94.475 |
| 22.250 | 94.471 |
| 22.500 | 94.467 |
| 22.750 | 94.462 |
| 23.000 | 94.458 |
| 23.250 | 94.454 |
| 23.500 | 94.450 |
| 23.750 | 94.446 |
| 24.000 | 94.441 |
| 24.250 | 94.436 |
| 25.250 | 94.415 |
| 26.250 | 94.393 |
| 27.250 | 94.370 |
| 28.250 | 94.348 |
| 29.250 | 94.326 |
| 30.250 | 94.305 |
| 31.250 | 94.285 |
| 32.250 | 94.264 |
| 33.250 | 94.245 |
| 34.250 | 94.226 |
| 35.250 | 94.207 |
| 36.250 | 94.189 |
| 37.250 | 94.171 |
| 38.250 | 94.153 |
| 39.250 | 94.136 |
| 40.250 | 94.120 |
| 41.250 | 94.104 |
| 42.250 | 94.088 |
| 43.250 | 94.072 |
| 44.250 | 94.057 |
| 45.250 | 94.042 |
| 46.250 | 94.028 |
| 47.250 | 94.013 |
| 48.250 | 93.999 |
| 49.250 | 93.986 |
| 50.250 | 93.972 |
| 51.250 | 93.959 |
| 52.250 | 93.947 |
| 53.250 | 93.934 |
| 54.250 | 93.922 |
| 55.250 | 93.910 |
| 56.250 | 93.898 |
| 57.250 | 93.887 |
| 58.250 | 93.875 |
| 59.250 | 93.864 |
| 60.250 | 93.853 |
| 61.250 | 93.843 |

|        |        |
|--------|--------|
| 62.250 | 93.832 |
| 63.250 | 93.822 |
| 64.250 | 93.812 |
| 65.250 | 93.802 |
| 66.250 | 93.792 |
| 67.250 | 93.783 |
| 68.250 | 93.773 |
| 69.250 | 93.764 |
| 70.250 | 93.755 |
| 71.250 | 93.746 |
| 72.000 | 93.740 |

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|            |          |             |
|------------|----------|-------------|
| Name: NHWE | Node: TW | Type: Stage |
|------------|----------|-------------|

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| 0.000     | 93.500    |
| 24.000    | 93.500    |

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|                |          |             |
|----------------|----------|-------------|
| Name: 100-Year | Node: TW | Type: Stage |
|----------------|----------|-------------|

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| 0.000     | 93.490    |
| 1.000     | 93.485    |
| 2.000     | 93.482    |
| 3.000     | 93.483    |
| 4.000     | 93.496    |
| 5.000     | 93.538    |
| 6.000     | 93.617    |
| 7.000     | 93.786    |
| 7.250     | 93.850    |
| 7.500     | 93.924    |
| 7.750     | 94.011    |
| 8.000     | 94.110    |
| 8.250     | 94.223    |
| 8.500     | 94.350    |
| 8.750     | 94.488    |
| 9.000     | 94.634    |
| 9.250     | 94.780    |
| 9.500     | 94.920    |
| 9.750     | 95.054    |
| 10.000    | 95.180    |
| 10.250    | 95.297    |
| 10.500    | 95.400    |
| 10.750    | 95.490    |
| 11.000    | 95.571    |
| 11.250    | 95.643    |
| 11.500    | 95.706    |
| 11.750    | 95.759    |
| 12.000    | 95.804    |
| 12.250    | 95.844    |
| 12.500    | 95.879    |
| 12.750    | 95.911    |
| 13.000    | 95.939    |
| 13.250    | 95.965    |
| 13.500    | 95.986    |
| 13.750    | 96.003    |
| 14.000    | 96.018    |
| 14.250    | 96.029    |
| 14.500    | 96.036    |
| 14.750    | 96.040    |
| 15.000    | 96.041    |
| 15.250    | 96.040    |
| 15.500    | 96.037    |
| 15.750    | 96.033    |
| 16.000    | 96.027    |
| 16.250    | 96.020    |

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|        |        |
|--------|--------|
| 16.500 | 96.013 |
| 16.750 | 96.005 |
| 17.000 | 95.996 |
| 17.250 | 95.988 |
| 17.500 | 95.979 |
| 17.750 | 95.970 |
| 18.000 | 95.961 |
| 18.250 | 95.951 |
| 18.500 | 95.942 |
| 18.750 | 95.933 |
| 19.000 | 95.923 |
| 19.250 | 95.913 |
| 19.500 | 95.903 |
| 19.750 | 95.893 |
| 20.000 | 95.883 |
| 20.250 | 95.873 |
| 20.500 | 95.862 |
| 20.750 | 95.851 |
| 21.000 | 95.840 |
| 21.250 | 95.830 |
| 21.500 | 95.819 |
| 21.750 | 95.808 |
| 22.000 | 95.797 |
| 22.250 | 95.787 |
| 22.500 | 95.777 |
| 22.750 | 95.766 |
| 23.000 | 95.757 |
| 23.250 | 95.747 |
| 23.500 | 95.737 |
| 23.750 | 95.727 |
| 24.000 | 95.717 |
| 24.250 | 95.707 |
| 25.250 | 95.665 |
| 26.250 | 95.625 |
| 27.250 | 95.587 |
| 28.250 | 95.553 |
| 29.250 | 95.522 |
| 30.250 | 95.494 |
| 31.250 | 95.468 |
| 32.250 | 95.443 |
| 33.250 | 95.419 |
| 34.250 | 95.397 |
| 35.250 | 95.375 |
| 36.250 | 95.354 |
| 37.250 | 95.334 |
| 38.250 | 95.315 |
| 39.250 | 95.296 |
| 40.250 | 95.277 |
| 41.250 | 95.258 |
| 42.250 | 95.240 |
| 43.250 | 95.222 |
| 44.250 | 95.204 |
| 45.250 | 95.186 |
| 46.250 | 95.168 |
| 47.250 | 95.151 |
| 48.250 | 95.133 |
| 49.250 | 95.116 |
| 50.250 | 95.098 |
| 51.250 | 95.081 |
| 52.250 | 95.064 |
| 53.250 | 95.047 |
| 54.250 | 95.030 |
| 55.250 | 95.012 |
| 56.250 | 94.995 |
| 57.250 | 94.979 |
| 58.250 | 94.962 |
| 59.250 | 94.945 |
| 60.250 | 94.928 |
| 61.250 | 94.912 |
| 62.250 | 94.895 |

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|        |        |
|--------|--------|
| 63.250 | 94.878 |
| 64.250 | 94.862 |
| 65.250 | 94.846 |
| 66.250 | 94.829 |
| 67.250 | 94.813 |
| 68.250 | 94.797 |
| 69.250 | 94.781 |
| 70.250 | 94.765 |
| 71.250 | 94.749 |
| 72.000 | 94.737 |

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*ICPR MODEL ANALYSIS*

*Existing Conditions Results*

*5-Year / 1-Hour Storm Event*

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Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
February 2008

| Name   | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| I482-1 | BASE  | 5y-1h      | 1.47                     | 96.733             | 99.400                 | 0.0026                   | 2344                    | 0.80                      | 7.732                | 0.81                       | 6.738                 |
| I482-2 | BASE  | 5y-1h      | 1.48                     | 96.733             | 99.400                 | 0.0027                   | 2182                    | 0.64                      | 1.930                | 2.36                       | 1.416                 |
| I482-3 | BASE  | 5y-1h      | 1.48                     | 96.733             | 99.600                 | 0.0027                   | 2180                    | 0.67                      | 1.334                | 2.76                       | 0.643                 |
| I485-1 | BASE  | 5y-1h      | 1.47                     | 96.728             | 100.200                | 0.0039                   | 2486                    | 0.81                      | 10.748               | 0.79                       | 8.622                 |
| I485-2 | BASE  | 5y-1h      | 1.48                     | 96.732             | 100.200                | 0.0028                   | 2180                    | 0.83                      | 1.079                | 2.62                       | 0.774                 |
| I487-1 | BASE  | 5y-1h      | 1.48                     | 96.722             | 100.600                | 0.0035                   | 2526                    | 0.79                      | 12.625               | 0.83                       | 9.478                 |
| I487-2 | BASE  | 5y-1h      | 1.48                     | 96.723             | 100.600                | 0.0028                   | 2196                    | 0.67                      | 1.159                | 0.98                       | 0.858                 |
| I489   | BASE  | 5y-1h      | 1.48                     | 96.712             | 101.200                | -0.0053                  | 2241                    | 0.83                      | 13.254               | 1.19                       | 33.174                |
| I490-1 | BASE  | 5y-1h      | 1.54                     | 96.279             | 101.260                | 0.0040                   | 2215                    | 0.81                      | 12.676               | 2.88                       | 8.253                 |
| I490-2 | BASE  | 5y-1h      | 0.83                     | 97.090             | 101.650                | 0.0010                   | 2211                    | 0.67                      | 1.334                | 0.83                       | 0.952                 |
| I491   | BASE  | 5y-1h      | 0.85                     | 98.770             | 101.900                | 0.0010                   | 2182                    | 0.67                      | 1.931                | 0.85                       | 1.586                 |
| I492   | BASE  | 5y-1h      | 1.56                     | 95.918             | 101.870                | 0.0028                   | 2204                    | 2.88                      | 8.253                | 3.17                       | 8.739                 |
| I493   | BASE  | 5y-1h      | 0.94                     | 99.432             | 101.890                | 0.0018                   | 2183                    | 0.83                      | 4.181                | 0.93                       | 3.715                 |
| I494-1 | BASE  | 5y-1h      | 1.53                     | 95.622             | 101.300                | 0.0029                   | 2181                    | 0.66                      | 1.160                | 4.07                       | 4.249                 |
| I494-2 | BASE  | 5y-1h      | 1.53                     | 95.622             | 101.800                | 0.0028                   | 2180                    | 0.67                      | 0.889                | 2.46                       | 0.886                 |
| I495-1 | BASE  | 5y-1h      | 0.84                     | 97.394             | 102.400                | 0.0019                   | 2219                    | 0.70                      | 3.671                | 0.84                       | 3.236                 |
| I495-2 | BASE  | 5y-1h      | 0.80                     | 98.045             | 102.540                | 0.0015                   | 2205                    | 0.67                      | 2.223                | 0.79                       | 1.724                 |
| I497-1 | BASE  | 5y-1h      | 0.95                     | 96.250             | 101.690                | 0.0008                   | 2215                    | 0.65                      | 1.201                | 0.94                       | 0.913                 |
| I497-2 | BASE  | 5y-1h      | 0.99                     | 96.264             | 101.740                | 0.0004                   | 2198                    | 0.67                      | 0.386                | 1.09                       | 0.245                 |
| I499   | BASE  | 5y-1h      | 0.94                     | 96.576             | 101.200                | 0.0018                   | 2197                    | 0.83                      | 3.883                | 0.94                       | 3.420                 |
| I500   | BASE  | 5y-1h      | 0.78                     | 95.672             | 100.760                | -0.0011                  | 2179                    | 0.67                      | 2.704                | 0.77                       | 2.512                 |
| I501-1 | BASE  | 5y-1h      | 1.37                     | 95.206             | 101.800                | -0.0047                  | 2239                    | 0.95                      | 17.846               | 1.95                       | 18.668                |
| I501-2 | BASE  | 5y-1h      | 0.91                     | 96.743             | 101.800                | -0.0023                  | 2181                    | 0.83                      | 4.779                | 0.88                       | 9.900                 |
| I504-1 | BASE  | 5y-1h      | 1.36                     | 95.131             | 100.860                | 0.0019                   | 2179                    | 0.67                      | 0.386                | 0.04                       | 0.766                 |
| I504-2 | BASE  | 5y-1h      | 1.36                     | 95.131             | 101.500                | 0.0018                   | 2179                    | 0.67                      | 0.386                | 0.04                       | 0.771                 |
| I505-1 | BASE  | 5y-1h      | 1.13                     | 95.455             | 100.000                | 0.0023                   | 2181                    | 0.83                      | 5.675                | 0.97                       | 3.585                 |
| I506   | BASE  | 5y-1h      | 1.26                     | 94.924             | 99.600                 | -0.0045                  | 2209                    | 2.25                      | 21.661               | 2.34                       | 20.821                |
| I508   | BASE  | 5y-1h      | 0.80                     | 95.176             | 98.400                 | 0.0027                   | 2209                    | 0.67                      | 5.794                | 0.80                       | 5.173                 |
| I510-1 | BASE  | 5y-1h      | 0.92                     | 95.149             | 98.810                 | 0.0036                   | 2180                    | 0.78                      | 19.137               | 0.69                       | 14.712                |
| I510-2 | BASE  | 5y-1h      | 1.01                     | 95.332             | 98.300                 | -0.0050                  | 2201                    | 0.84                      | 6.576                | 0.78                       | 14.075                |
| I510-3 | BASE  | 5y-1h      | 0.92                     | 96.529             | 98.900                 | 0.0022                   | 2210                    | 0.80                      | 4.949                | 0.91                       | 4.505                 |
| I510-4 | BASE  | 5y-1h      | 0.84                     | 96.901             | 98.030                 | 0.0023                   | 2186                    | 0.67                      | 4.249                | 0.83                       | 3.595                 |
| I512-1 | BASE  | 5y-1h      | 1.21                     | 94.673             | 99.000                 | -0.0041                  | 2210                    | 0.68                      | 9.115                | 0.02                       | 11.907                |
| I512-2 | BASE  | 5y-1h      | 1.21                     | 94.673             | 98.500                 | -0.0014                  | 2187                    | 0.64                      | 0.553                | 3.57                       | 2.204                 |
| I512-3 | BASE  | 5y-1h      | 1.21                     | 94.673             | 98.500                 | 0.0014                   | 2193                    | 0.67                      | 0.445                | 1.83                       | 0.442                 |
| I516-1 | BASE  | 5y-1h      | 1.18                     | 94.838             | 98.200                 | -0.0040                  | 2210                    | 0.66                      | 13.302               | 0.66                       | 8.758                 |
| I516-2 | BASE  | 5y-1h      | 1.19                     | 94.839             | 97.820                 | -0.0036                  | 2191                    | 0.67                      | 1.899                | 0.66                       | 3.307                 |
| I516-3 | BASE  | 5y-1h      | 1.19                     | 94.839             | 97.950                 | -0.0011                  | 2207                    | 0.67                      | 0.445                | 1.55                       | 0.454                 |
| I519-1 | BASE  | 5y-1h      | 1.10                     | 95.217             | 97.900                 | 0.0022                   | 2197                    | 0.67                      | 9.875                | 0.73                       | 7.630                 |
| I519-2 | BASE  | 5y-1h      | 1.10                     | 95.497             | 97.150                 | -0.0026                  | 2183                    | 0.86                      | 6.247                | 1.11                       | 5.458                 |
| I519-3 | BASE  | 5y-1h      | 1.10                     | 95.740             | 97.280                 | -0.0031                  | 2181                    | 0.83                      | 5.125                | 1.09                       | 3.818                 |
| MH489  | BASE  | 5y-1h      | 1.48                     | 96.707             | 101.600                | 0.0065                   | 2477                    | 1.19                      | 36.472               | 0.81                       | 9.328                 |
| MH491  | BASE  | 5y-1h      | 1.07                     | 96.722             | 101.800                | -0.0014                  | 2592                    | 0.95                      | 3.833                | 1.09                       | 3.653                 |
| MH493  | BASE  | 5y-1h      | 1.06                     | 96.803             | 100.420                | 0.0022                   | 2579                    | 0.74                      | 3.512                | 1.02                       | 2.409                 |
| MH494  | BASE  | 5y-1h      | 1.53                     | 95.622             | 102.340                | -0.0029                  | 2232                    | 2.30                      | 10.311               | 2.23                       | 11.577                |
| MH495  | BASE  | 5y-1h      | 1.04                     | 96.780             | 102.340                | -0.0010                  | 2492                    | 0.84                      | 3.236                | 0.98                       | 2.443                 |

Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
February 2008

| Name          | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH497         | BASE  | 5y-1h      | 1.50                     | 95.491             | 101.500                | -0.0032                  | 2216                    | 2.23                      | 11.691               | 2.28                       | 12.750                |
| MH499         | BASE  | 5y-1h      | 1.45                     | 95.396             | 101.200                | -0.0032                  | 2223                    | 2.28                      | 13.073               | 2.36                       | 13.438                |
| MH500         | BASE  | 5y-1h      | 1.41                     | 95.284             | 100.760                | 0.0050                   | 2200                    | 2.25                      | 15.050               | 3.17                       | 16.303                |
| MH504         | BASE  | 5y-1h      | 1.36                     | 95.131             | 100.800                | 0.0025                   | 2209                    | 1.95                      | 19.661               | 2.21                       | 19.002                |
| MH505         | BASE  | 5y-1h      | 1.33                     | 95.045             | 100.400                | 0.0049                   | 2200                    | 2.21                      | 19.810               | 2.42                       | 21.527                |
| MH508         | BASE  | 5y-1h      | 1.23                     | 94.809             | 101.000                | 0.0049                   | 2224                    | 2.34                      | 21.208               | 1.48                       | 20.419                |
| MH510         | BASE  | 5y-1h      | 1.06                     | 94.641             | 100.700                | -0.0050                  | 2219                    | 1.28                      | 35.080               | 1.06                       | 34.108                |
| MH514         | BASE  | 5y-1h      | 1.20                     | 94.742             | 99.000                 | -0.0025                  | 2206                    | 0.66                      | 8.758                | 0.68                       | 9.019                 |
| ORANGE-CANAL  | BASE  | 5y-1h      | 1.10                     | 93.923             | 99.000                 | 0.0322                   | 4017                    | 1.06                      | 38.415               | 1.11                       | 36.489                |
| OUTFALL-POND2 | BASE  | 5y-1h      | 1.10                     | 93.690             | 96.000                 | -92.0000                 | 9176                    | 1.08                      | 48.553               | 1.10                       | 48.296                |
| POND 100      | BASE  | 5y-1h      | 1.31                     | 97.635             | 98.000                 | 0.0040                   | 22208                   | 0.67                      | 31.484               | 1.36                       | 1.544                 |
| POND 200      | BASE  | 5y-1h      | 0.96                     | 97.071             | 97.000                 | 0.0050                   | 20129                   | 0.67                      | 33.175               | 0.96                       | 13.943                |
| TW            | BASE  | 5y-1h      | 0.00                     | 93.500             | 0.000                  | 0.0000                   | 5419                    | 1.10                      | 48.296               | 0.00                       | 0.000                 |

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*ICPR MODEL ANALYSIS*

*Existing Conditions Results*

*5-Year / 8-Hour Storm Event*

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Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
February 2008

| Name   | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft <sup>2</sup> | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| I482-1 | BASE  | 5Y-8h      | 5.06                     | 96.896             | 99.400                 | 0.0027                   | 2308                                | 3.31                      | 4.149                | 3.57                       | 3.200                 |
| I482-2 | BASE  | 5Y-8h      | 5.07                     | 96.898             | 99.400                 | 0.0026                   | 2182                                | 3.47                      | 0.952                | 3.31                       | 1.492                 |
| I482-3 | BASE  | 5Y-8h      | 5.07                     | 96.900             | 99.600                 | 0.0025                   | 2180                                | 4.00                      | 0.595                | 6.49                       | 0.529                 |
| I485-1 | BASE  | 5Y-8h      | 5.07                     | 96.888             | 100.200                | 0.0027                   | 2411                                | 4.27                      | 5.979                | 4.27                       | 5.999                 |
| I485-2 | BASE  | 5Y-8h      | 5.08                     | 96.892             | 100.200                | 0.0028                   | 2180                                | 4.00                      | 0.696                | 6.84                       | 0.640                 |
| I487-1 | BASE  | 5Y-8h      | 5.07                     | 96.880             | 100.600                | 0.0027                   | 2319                                | 4.27                      | 8.130                | 4.27                       | 10.114                |
| I487-2 | BASE  | 5Y-8h      | 5.08                     | 96.881             | 100.600                | 0.0029                   | 2189                                | 4.00                      | 0.588                | 3.96                       | 0.607                 |
| I489   | BASE  | 5Y-8h      | 5.08                     | 96.864             | 101.200                | 0.0029                   | 2207                                | 4.27                      | 12.336               | 4.27                       | 33.170                |
| I490-1 | BASE  | 5Y-8h      | 5.10                     | 96.441             | 101.260                | 0.0041                   | 2216                                | 3.48                      | 11.697               | 7.22                       | 8.241                 |
| I490-2 | BASE  | 5Y-8h      | 4.03                     | 96.963             | 101.650                | -0.0004                  | 2208                                | 4.00                      | 0.595                | 4.02                       | 0.569                 |
| I491   | BASE  | 5Y-8h      | 4.08                     | 98.592             | 101.900                | -0.0006                  | 2181                                | 4.00                      | 0.980                | 4.07                       | 0.941                 |
| I492   | BASE  | 5Y-8h      | 5.11                     | 96.053             | 101.870                | 0.0026                   | 2204                                | 3.54                      | 8.632                | 7.67                       | 8.432                 |
| I493   | BASE  | 5Y-8h      | 4.14                     | 99.148             | 101.890                | -0.0011                  | 2184                                | 4.08                      | 2.533                | 4.13                       | 2.472                 |
| I494-1 | BASE  | 5Y-8h      | 5.11                     | 95.714             | 101.300                | 0.0024                   | 2181                                | 6.27                      | 0.688                | 8.94                       | 4.248                 |
| I494-2 | BASE  | 5Y-8h      | 5.12                     | 95.715             | 101.800                | 0.0025                   | 2180                                | 4.00                      | 0.396                | 6.27                       | 0.636                 |
| I495-1 | BASE  | 5Y-8h      | 4.03                     | 97.136             | 102.400                | -0.0007                  | 2218                                | 4.00                      | 1.957                | 4.02                       | 1.915                 |
| I495-2 | BASE  | 5Y-8h      | 4.02                     | 97.839             | 102.540                | -0.0006                  | 2205                                | 4.00                      | 0.991                | 4.01                       | 0.967                 |
| I497-1 | BASE  | 5Y-8h      | 4.11                     | 96.188             | 101.690                | -0.0006                  | 2209                                | 4.00                      | 0.746                | 4.10                       | 0.704                 |
| I497-2 | BASE  | 5Y-8h      | 4.15                     | 96.208             | 101.740                | -0.0002                  | 2195                                | 4.00                      | 0.196                | 4.14                       | 0.167                 |
| I499   | BASE  | 5Y-8h      | 4.14                     | 96.317             | 101.200                | -0.0011                  | 2202                                | 4.08                      | 2.352                | 4.13                       | 2.293                 |
| I500   | BASE  | 5Y-8h      | 4.15                     | 95.601             | 100.760                | -0.0012                  | 2178                                | 4.00                      | 1.372                | 4.15                       | 2.209                 |
| I501-1 | BASE  | 5Y-8h      | 4.89                     | 95.170             | 101.800                | 0.0036                   | 2238                                | 7.67                      | 16.966               | 5.76                       | 19.054                |
| I501-2 | BASE  | 5Y-8h      | 4.14                     | 96.447             | 101.800                | -0.0013                  | 2205                                | 4.08                      | 2.894                | 4.13                       | 2.826                 |
| I504-1 | BASE  | 5Y-8h      | 4.83                     | 95.083             | 100.860                | 0.0016                   | 2179                                | 4.00                      | 0.196                | 0.04                       | 0.766                 |
| I504-2 | BASE  | 5Y-8h      | 4.83                     | 95.083             | 101.500                | 0.0016                   | 2179                                | 4.00                      | 0.196                | 0.04                       | 0.771                 |
| I505-1 | BASE  | 5Y-8h      | 4.39                     | 95.197             | 100.000                | 0.0017                   | 2181                                | 4.08                      | 3.437                | 4.22                       | 2.743                 |
| I506   | BASE  | 5Y-8h      | 4.63                     | 94.848             | 99.600                 | 0.0038                   | 2209                                | 5.76                      | 21.416               | 5.29                       | 19.398                |
| I508   | BASE  | 5Y-8h      | 3.93                     | 94.824             | 98.400                 | -0.0011                  | 2216                                | 4.00                      | 2.939                | 3.93                       | 3.175                 |
| I510-1 | BASE  | 5Y-8h      | 3.92                     | 94.870             | 98.810                 | 0.0041                   | 2187                                | 3.88                      | 8.384                | 3.92                       | 11.424                |
| I510-2 | BASE  | 5Y-8h      | 3.88                     | 95.088             | 98.300                 | -0.0023                  | 2208                                | 4.03                      | 4.150                | 4.18                       | 5.621                 |
| I510-3 | BASE  | 5Y-8h      | 4.10                     | 96.227             | 98.900                 | -0.0011                  | 2213                                | 4.00                      | 2.875                | 4.10                       | 2.824                 |
| I510-4 | BASE  | 5Y-8h      | 4.05                     | 96.557             | 98.030                 | -0.0010                  | 2189                                | 4.00                      | 2.156                | 4.05                       | 2.102                 |
| I512-1 | BASE  | 5Y-8h      | 4.46                     | 94.588             | 99.000                 | 0.0032                   | 2210                                | 0.02                      | 8.071                | 0.02                       | 11.907                |
| I512-2 | BASE  | 5Y-8h      | 4.47                     | 94.588             | 98.500                 | 0.0013                   | 2188                                | 5.54                      | 0.387                | 2.92                       | 2.205                 |
| I512-3 | BASE  | 5Y-8h      | 4.47                     | 94.588             | 98.500                 | 0.0014                   | 2194                                | 4.00                      | 0.198                | 5.54                       | 0.356                 |
| I516-1 | BASE  | 5Y-8h      | 4.42                     | 94.726             | 98.200                 | 0.0034                   | 2239                                | 3.54                      | 9.289                | 4.13                       | 6.702                 |
| I516-2 | BASE  | 5Y-8h      | 4.42                     | 94.728             | 97.820                 | -0.0029                  | 2190                                | 3.98                      | 0.974                | 3.54                       | 3.288                 |
| I516-3 | BASE  | 5Y-8h      | 4.43                     | 94.728             | 97.950                 | 0.0010                   | 2206                                | 4.00                      | 0.198                | 5.17                       | 0.258                 |
| I519-1 | BASE  | 5Y-8h      | 4.32                     | 94.927             | 97.900                 | -0.0029                  | 2280                                | 4.00                      | 6.564                | 4.15                       | 5.979                 |
| I519-2 | BASE  | 5Y-8h      | 4.30                     | 95.100             | 97.150                 | -0.0041                  | 2183                                | 4.12                      | 4.494                | 4.28                       | 4.288                 |
| I519-3 | BASE  | 5Y-8h      | 4.30                     | 95.242             | 97.280                 | -0.0031                  | 2181                                | 4.08                      | 3.304                | 4.30                       | 2.918                 |
| MH489  | BASE  | 5Y-8h      | 5.08                     | 96.850             | 101.600                | 0.0062                   | 2480                                | 4.26                      | 35.577               | 3.48                       | 10.130                |
| MH491  | BASE  | 5Y-8h      | 5.08                     | 96.848             | 101.800                | 0.0016                   | 2604                                | 4.13                      | 2.773                | 4.13                       | 2.714                 |
| MH493  | BASE  | 5Y-8h      | 5.08                     | 96.844             | 100.420                | -0.0013                  | 2579                                | 4.10                      | 1.902                | 4.14                       | 1.841                 |
| MH494  | BASE  | 5Y-8h      | 5.11                     | 95.714             | 102.340                | 0.0024                   | 2234                                | 4.94                      | 11.114               | 6.18                       | 11.624                |
| MH495  | BASE  | 5Y-8h      | 5.08                     | 96.733             | 102.340                | -0.0009                  | 2488                                | 4.02                      | 1.915                | 4.12                       | 1.824                 |

Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
February 2008

| Name          | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH497         | BASE  | 5y-8h      | 5.09                     | 95.550             | 101.500                | 0.0042                   | 2215                    | 6.18                      | 11.786               | 7.67                       | 12.510                |
| MH499         | BASE  | 5y-8h      | 5.04                     | 95.418             | 101.200                | 0.0041                   | 2222                    | 6.25                      | 12.848               | 6.38                       | 13.386                |
| MH500         | BASE  | 5y-8h      | 4.94                     | 95.271             | 100.760                | -0.0048                  | 2200                    | 6.38                      | 13.386               | 7.67                       | 16.605                |
| MH504         | BASE  | 5y-8h      | 4.81                     | 95.084             | 100.800                | -0.0034                  | 2209                    | 5.76                      | 19.804               | 6.18                       | 18.784                |
| MH505         | BASE  | 5y-8h      | 4.75                     | 94.981             | 100.400                | 0.0048                   | 2200                    | 6.18                      | 19.754               | 5.76                       | 20.669                |
| MH508         | BASE  | 5y-8h      | 4.52                     | 94.729             | 101.000                | 0.0044                   | 2224                    | 5.07                      | 20.472               | 5.53                       | 20.688                |
| MH510         | BASE  | 5y-8h      | 4.46                     | 94.557             | 100.700                | 0.0049                   | 2225                    | 4.10                      | 33.104               | 4.46                       | 31.194                |
| MH514         | BASE  | 5y-8h      | 4.45                     | 94.646             | 99.000                 | 0.0022                   | 2206                    | 4.13                      | 6.702                | 0.02                       | 7.246                 |
| ORANGE-CANAL  | BASE  | 5y-8h      | 4.23                     | 93.910             | 99.000                 | 0.0322                   | 4012                    | 4.01                      | 35.613               | 4.24                       | 34.390                |
| OUTFALL-POND2 | BASE  | 5y-8h      | 4.23                     | 93.706             | 96.000                 | -92.0000                 | 9192                    | 4.21                      | 51.006               | 4.23                       | 50.991                |
| POND 100      | BASE  | 5y-8h      | 4.30                     | 97.925             | 98.000                 | 0.0024                   | 22941                   | 4.00                      | 14.325               | 4.30                       | 7.493                 |
| POND 200      | BASE  | 5y-8h      | 4.20                     | 97.146             | 97.000                 | 0.0023                   | 20411                   | 4.08                      | 18.220               | 4.20                       | 16.639                |
| TW            | BASE  | 5y-8h      | 0.00                     | 93.500             | 0.000                  | 0.0000                   | 5419                    | 4.23                      | 50.991               | 0.00                       | 0.000                 |

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*ICPR MODEL ANALYSIS*

*Existing Conditions Results*

*2.33-Year / 24-Hour Storm Event*

*(SJRWMD AND ORANGE COUNTY STORM  
EVENTS)*

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Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
February 2008

| Name   | Group | Simulation  | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------|-------|-------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| I482-1 | BASE  | Mean-Annual | 13.03                    | 96.718             | 99.400                 | 0.0027                   | 2347                    | 12.05                     | 4.626                | 12.05                      | 3.346                 |
| I482-2 | BASE  | Mean-Annual | 13.04                    | 96.719             | 99.400                 | 0.0028                   | 2182                    | 12.03                     | 1.330                | 11.89                      | 1.309                 |
| I482-3 | BASE  | Mean-Annual | 13.04                    | 96.719             | 99.600                 | 0.0031                   | 2180                    | 12.00                     | 0.838                | 12.03                      | 0.506                 |
| I485-1 | BASE  | Mean-Annual | 13.03                    | 96.714             | 100.200                | 0.0026                   | 2490                    | 12.05                     | 5.694                | 12.64                      | 5.107                 |
| I485-2 | BASE  | Mean-Annual | 13.04                    | 96.717             | 100.200                | 0.0027                   | 2180                    | 12.25                     | 0.727                | 14.75                      | 0.494                 |
| I487-1 | BASE  | Mean-Annual | 13.03                    | 96.709             | 100.600                | 0.0029                   | 2536                    | 12.64                     | 6.845                | 12.64                      | 9.378                 |
| I487-2 | BASE  | Mean-Annual | 13.03                    | 96.710             | 100.600                | 0.0029                   | 2196                    | 12.32                     | 0.621                | 12.32                      | 0.621                 |
| I489   | BASE  | Mean-Annual | 13.02                    | 96.704             | 101.200                | -0.0055                  | 2242                    | 12.64                     | 11.142               | 12.63                      | 33.171                |
| I490-1 | BASE  | Mean-Annual | 13.05                    | 96.372             | 101.260                | 0.0028                   | 2215                    | 12.64                     | 7.164                | 14.16                      | 6.080                 |
| I490-2 | BASE  | Mean-Annual | 12.19                    | 96.980             | 101.650                | -0.0006                  | 2209                    | 12.00                     | 0.838                | 12.19                      | 0.615                 |
| I491   | BASE  | Mean-Annual | 12.23                    | 98.613             | 101.900                | -0.0007                  | 2182                    | 12.08                     | 1.239                | 12.23                      | 1.011                 |
| I492   | BASE  | Mean-Annual | 13.07                    | 96.104             | 101.870                | 0.0023                   | 2204                    | 13.02                     | 6.227                | 14.11                      | 6.472                 |
| I493   | BASE  | Mean-Annual | 12.32                    | 99.163             | 101.890                | -0.0011                  | 2184                    | 12.17                     | 2.806                | 12.32                      | 2.535                 |
| I494-1 | BASE  | Mean-Annual | 13.05                    | 95.876             | 101.300                | 0.0020                   | 2181                    | 13.78                     | 0.387                | 13.78                      | 0.689                 |
| I494-2 | BASE  | Mean-Annual | 13.05                    | 95.876             | 101.800                | 0.0021                   | 2180                    | 12.00                     | 0.558                | 13.78                      | 0.343                 |
| I495-1 | BASE  | Mean-Annual | 12.20                    | 97.177             | 102.400                | -0.0011                  | 2218                    | 12.08                     | 2.390                | 12.20                      | 2.111                 |
| I495-2 | BASE  | Mean-Annual | 12.15                    | 97.882             | 102.540                | -0.0009                  | 2205                    | 12.00                     | 1.396                | 12.15                      | 1.111                 |
| I497-1 | BASE  | Mean-Annual | 12.32                    | 96.181             | 101.690                | -0.0004                  | 2213                    | 12.08                     | 0.850                | 12.31                      | 0.683                 |
| I497-2 | BASE  | Mean-Annual | 12.40                    | 96.199             | 101.740                | 0.0002                   | 2195                    | 12.08                     | 0.248                | 12.39                      | 0.153                 |
| I499   | BASE  | Mean-Annual | 12.32                    | 96.330             | 101.200                | 0.0009                   | 2202                    | 12.17                     | 2.606                | 12.32                      | 2.345                 |
| I500   | BASE  | Mean-Annual | 12.83                    | 95.608             | 100.760                | -0.0012                  | 2178                    | 12.08                     | 1.734                | 12.83                      | 2.239                 |
| I501-1 | BASE  | Mean-Annual | 12.74                    | 95.543             | 101.800                | 0.0050                   | 2220                    | 12.05                     | 15.392               | 13.20                      | 12.975                |
| I501-2 | BASE  | Mean-Annual | 12.32                    | 96.465             | 101.800                | -0.0013                  | 2205                    | 12.17                     | 3.207                | 12.31                      | 2.905                 |
| I504-1 | BASE  | Mean-Annual | 12.75                    | 95.487             | 100.860                | 0.0014                   | 2179                    | 12.08                     | 0.248                | 0.04                       | 0.765                 |
| I504-2 | BASE  | Mean-Annual | 12.75                    | 95.487             | 101.500                | 0.0014                   | 2179                    | 12.08                     | 0.248                | 0.04                       | 0.771                 |
| I505-1 | BASE  | Mean-Annual | 12.56                    | 95.641             | 100.000                | 0.0015                   | 2181                    | 12.17                     | 3.809                | 12.36                      | 2.800                 |
| I506   | BASE  | Mean-Annual | 12.72                    | 95.327             | 99.600                 | 0.0045                   | 2209                    | 13.03                     | 16.251               | 13.05                      | 16.406                |
| I508   | BASE  | Mean-Annual | 12.66                    | 95.253             | 98.400                 | 0.0011                   | 2197                    | 12.08                     | 3.716                | 12.05                      | 2.979                 |
| I510-1 | BASE  | Mean-Annual | 12.41                    | 95.353             | 98.810                 | 0.0044                   | 2180                    | 12.05                     | 9.172                | 12.33                      | 5.824                 |
| I510-2 | BASE  | Mean-Annual | 12.40                    | 95.455             | 98.300                 | 0.0023                   | 2201                    | 12.21                     | 4.396                | 12.05                      | 5.372                 |
| I510-3 | BASE  | Mean-Annual | 12.29                    | 96.262             | 98.900                 | -0.0017                  | 2213                    | 12.15                     | 3.238                | 12.28                      | 3.012                 |
| I510-4 | BASE  | Mean-Annual | 12.20                    | 96.617             | 98.030                 | -0.0013                  | 2189                    | 12.08                     | 2.725                | 12.19                      | 2.353                 |
| I512-1 | BASE  | Mean-Annual | 12.65                    | 95.128             | 99.000                 | 0.0048                   | 2210                    | 0.02                      | 8.071                | 0.02                       | 11.907                |
| I512-2 | BASE  | Mean-Annual | 12.65                    | 95.129             | 98.500                 | -0.0010                  | 2182                    | 13.48                     | 0.245                | 0.02                       | 0.850                 |
| I512-3 | BASE  | Mean-Annual | 12.65                    | 95.129             | 98.500                 | 0.0009                   | 2179                    | 12.00                     | 0.279                | 13.48                      | 0.220                 |
| I516-1 | BASE  | Mean-Annual | 12.60                    | 95.252             | 98.200                 | 0.0016                   | 2210                    | 12.35                     | 6.964                | 12.37                      | 6.557                 |
| I516-2 | BASE  | Mean-Annual | 12.60                    | 95.253             | 97.820                 | -0.0011                  | 2190                    | 11.90                     | 0.544                | 9.70                       | 3.217                 |
| I516-3 | BASE  | Mean-Annual | 12.61                    | 95.253             | 97.950                 | 0.0011                   | 2205                    | 12.00                     | 0.279                | 13.10                      | 0.275                 |
| I519-1 | BASE  | Mean-Annual | 12.48                    | 95.513             | 97.900                 | -0.0021                  | 2197                    | 12.08                     | 6.666                | 12.35                      | 5.955                 |
| I519-2 | BASE  | Mean-Annual | 12.48                    | 95.686             | 97.150                 | 0.0016                   | 2183                    | 12.27                     | 4.624                | 12.47                      | 4.283                 |
| I519-3 | BASE  | Mean-Annual | 12.48                    | 95.823             | 97.280                 | 0.0016                   | 2181                    | 12.25                     | 3.453                | 12.50                      | 2.875                 |
| MH489  | BASE  | Mean-Annual | 13.00                    | 96.700             | 101.600                | 0.0067                   | 2477                    | 12.63                     | 35.229               | 13.77                      | 6.487                 |
| MH491  | BASE  | Mean-Annual | 13.00                    | 96.698             | 101.800                | -0.0012                  | 2597                    | 12.35                     | 2.748                | 12.45                      | 2.705                 |
| MH493  | BASE  | Mean-Annual | 13.00                    | 96.697             | 100.420                | -0.0012                  | 2569                    | 12.21                     | 2.143                | 12.44                      | 1.835                 |
| MH494  | BASE  | Mean-Annual | 13.04                    | 95.876             | 102.340                | 0.0020                   | 2232                    | 13.31                     | 8.662                | 13.40                      | 8.873                 |
| MH495  | BASE  | Mean-Annual | 12.43                    | 96.634             | 102.340                | -0.0008                  | 2475                    | 12.20                     | 2.111                | 12.39                      | 1.774                 |

Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
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| Name          | Group | Simulation  | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|-------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH497         | BASE  | Mean-Annual | 13.00                    | 95.773             | 101.500                | 0.0018                   | 2215                    | 13.36                     | 9.094                | 13.43                      | 9.321                 |
| MH499         | BASE  | Mean-Annual | 12.97                    | 95.694             | 101.200                | 0.0024                   | 2209                    | 13.27                     | 10.110               | 13.34                      | 10.298                |
| MH500         | BASE  | Mean-Annual | 12.79                    | 95.601             | 100.760                | 0.0050                   | 2200                    | 12.94                     | 12.036               | 15.94                      | 13.264                |
| MH504         | BASE  | Mean-Annual | 12.75                    | 95.487             | 100.800                | -0.0050                  | 2209                    | 13.26                     | 13.397               | 13.29                      | 13.594                |
| MH505         | BASE  | Mean-Annual | 12.75                    | 95.422             | 100.400                | -0.0050                  | 2200                    | 13.18                     | 14.886               | 13.19                      | 15.057                |
| MH508         | BASE  | Mean-Annual | 12.69                    | 95.237             | 101.000                | -0.0029                  | 2220                    | 12.78                     | 17.331               | 12.81                      | 17.426                |
| MH510         | BASE  | Mean-Annual | 12.65                    | 95.101             | 100.700                | -0.0049                  | 2219                    | 12.62                     | 27.928               | 0.01                       | 29.879                |
| MH514         | BASE  | Mean-Annual | 12.63                    | 95.180             | 99.000                 | -0.0036                  | 2206                    | 12.37                     | 6.557                | 0.02                       | 7.246                 |
| ORANGE-CANAL  | BASE  | Mean-Annual | 14.51                    | 94.583             | 99.000                 | 0.0322                   | 4599                    | 12.31                     | 31.578               | 12.49                      | 30.927                |
| OUTFALL-POND2 | BASE  | Mean-Annual | 15.24                    | 94.575             | 96.000                 | -92.0000                 | 10620                   | 12.34                     | 44.246               | 12.35                      | 44.008                |
| POND 100      | BASE  | Mean-Annual | 12.65                    | 97.810             | 98.000                 | 0.0025                   | 22650                   | 12.00                     | 20.045               | 12.65                      | 4.575                 |
| POND 200      | BASE  | Mean-Annual | 12.27                    | 97.074             | 97.000                 | 0.0028                   | 20141                   | 12.00                     | 21.068               | 12.27                      | 14.058                |
| TW            | BASE  | Mean-Annual | 15.25                    | 94.548             | 0.000                  | -0.0100                  | 6453                    | 12.35                     | 44.008               | 0.00                       | 0.000                 |

Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
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| Name   | Group | Simulation     | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------|-------|----------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| I482-1 | BASE  | Mean-Annual-OC | 10.29                    | 95.769             | 99.400                 | 0.0013                   | 2510                    | 8.40                      | 3.376                | 8.67                       | 2.310                 |
| I482-2 | BASE  | Mean-Annual-OC | 10.29                    | 95.769             | 99.400                 | -0.0010                  | 2246                    | 8.80                      | 0.532                | 8.40                       | 1.440                 |
| I482-3 | BASE  | Mean-Annual-OC | 10.29                    | 95.770             | 99.600                 | -0.0005                  | 2214                    | 9.00                      | 0.269                | 11.61                      | 0.278                 |
| I485-1 | BASE  | Mean-Annual-OC | 10.29                    | 95.762             | 100.200                | -0.0006                  | 2841                    | 8.63                      | 3.948                | 8.59                       | 3.755                 |
| I485-2 | BASE  | Mean-Annual-OC | 10.29                    | 95.764             | 100.200                | -0.0005                  | 2198                    | 9.08                      | 0.342                | 12.42                      | 0.366                 |
| I487-1 | BASE  | Mean-Annual-OC | 10.29                    | 95.756             | 100.600                | 0.0006                   | 2924                    | 8.59                      | 4.891                | 8.55                       | 4.695                 |
| I487-2 | BASE  | Mean-Annual-OC | 9.10                     | 95.942             | 100.600                | -0.0001                  | 2201                    | 9.00                      | 0.268                | 9.09                       | 0.259                 |
| I489   | BASE  | Mean-Annual-OC | 10.29                    | 95.747             | 101.200                | 0.0008                   | 2563                    | 8.55                      | 5.791                | 8.46                       | 5.737                 |
| I490-1 | BASE  | Mean-Annual-OC | 10.33                    | 95.383             | 101.260                | 0.0045                   | 2214                    | 8.44                      | 10.364               | 8.53                       | 6.822                 |
| I490-2 | BASE  | Mean-Annual-OC | 9.05                     | 96.829             | 101.650                | -0.0001                  | 2204                    | 9.00                      | 0.269                | 9.02                       | 0.262                 |
| I491   | BASE  | Mean-Annual-OC | 9.09                     | 98.416             | 101.900                | -0.0002                  | 2180                    | 9.00                      | 0.447                | 9.06                       | 0.438                 |
| I492   | BASE  | Mean-Annual-OC | 10.38                    | 95.119             | 101.870                | 0.0012                   | 2204                    | 8.53                      | 7.255                | 8.59                       | 6.653                 |
| I493   | BASE  | Mean-Annual-OC | 9.14                     | 98.832             | 101.890                | -0.0003                  | 2184                    | 9.00                      | 1.220                | 9.11                       | 1.204                 |
| I494-1 | BASE  | Mean-Annual-OC | 10.42                    | 94.895             | 101.300                | 0.0005                   | 2181                    | 8.70                      | 0.391                | 8.70                       | 0.528                 |
| I494-2 | BASE  | Mean-Annual-OC | 10.42                    | 94.896             | 101.800                | 0.0005                   | 2180                    | 9.00                      | 0.179                | 8.70                       | 0.214                 |
| I495-1 | BASE  | Mean-Annual-OC | 9.04                     | 96.887             | 102.400                | -0.0002                  | 2213                    | 9.00                      | 0.890                | 9.03                       | 0.879                 |
| I495-2 | BASE  | Mean-Annual-OC | 9.03                     | 97.658             | 102.540                | -0.0002                  | 2202                    | 9.00                      | 0.449                | 9.00                       | 0.442                 |
| I497-1 | BASE  | Mean-Annual-OC | 9.13                     | 96.051             | 101.690                | -0.0001                  | 2208                    | 9.00                      | 0.343                | 9.11                       | 0.330                 |
| I497-2 | BASE  | Mean-Annual-OC | 9.23                     | 96.150             | 101.740                | -0.0001                  | 2194                    | 9.00                      | 0.089                | 9.28                       | 0.078                 |
| I499   | BASE  | Mean-Annual-OC | 9.14                     | 96.018             | 101.200                | -0.0002                  | 2202                    | 9.00                      | 1.132                | 9.13                       | 1.117                 |
| I500   | BASE  | Mean-Annual-OC | 3.18                     | 95.600             | 100.760                | 0.0000                   | 2178                    | 9.00                      | 0.626                | 3.09                       | 0.204                 |
| I501-1 | BASE  | Mean-Annual-OC | 10.42                    | 94.698             | 101.800                | 0.0040                   | 2471                    | 9.74                      | 14.052               | 9.77                       | 10.273                |
| I501-2 | BASE  | Mean-Annual-OC | 9.13                     | 96.097             | 101.800                | -0.0003                  | 2207                    | 9.00                      | 1.394                | 9.12                       | 1.377                 |
| I504-1 | BASE  | Mean-Annual-OC | 10.44                    | 94.679             | 100.860                | 0.0006                   | 2179                    | 9.00                      | 0.089                | 0.04                       | 0.765                 |
| I504-2 | BASE  | Mean-Annual-OC | 10.44                    | 94.679             | 101.500                | 0.0006                   | 2179                    | 9.00                      | 0.089                | 0.04                       | 0.771                 |
| I505-1 | BASE  | Mean-Annual-OC | 10.26                    | 94.683             | 100.000                | 0.0005                   | 2181                    | 9.00                      | 1.655                | 9.16                       | 1.400                 |
| I506   | BASE  | Mean-Annual-OC | 14.00                    | 94.597             | 99.600                 | 0.0032                   | 2209                    | 9.35                      | 13.171               | 9.78                       | 12.393                |
| I508   | BASE  | Mean-Annual-OC | 14.01                    | 94.586             | 98.400                 | -0.0010                  | 2209                    | 9.00                      | 1.342                | 9.50                       | 1.697                 |
| I510-1 | BASE  | Mean-Annual-OC | 14.02                    | 94.573             | 98.810                 | -0.0031                  | 2211                    | 9.00                      | 3.061                | 9.57                       | 4.392                 |
| I510-2 | BASE  | Mean-Annual-OC | 9.24                     | 94.641             | 98.300                 | -0.0008                  | 2210                    | 9.00                      | 1.930                | 9.63                       | 2.023                 |
| I510-3 | BASE  | Mean-Annual-OC | 9.10                     | 95.911             | 98.900                 | -0.0002                  | 2212                    | 9.00                      | 1.325                | 9.10                       | 1.312                 |
| I510-4 | BASE  | Mean-Annual-OC | 9.06                     | 96.268             | 98.030                 | -0.0003                  | 2190                    | 9.00                      | 0.984                | 9.05                       | 0.969                 |
| I512-1 | BASE  | Mean-Annual-OC | 14.02                    | 94.574             | 99.000                 | 0.0033                   | 2210                    | 0.02                      | 8.071                | 0.02                       | 11.907                |
| I512-2 | BASE  | Mean-Annual-OC | 14.02                    | 94.573             | 98.500                 | -0.0009                  | 2188                    | 7.82                      | 0.121                | 7.22                       | 2.207                 |
| I512-3 | BASE  | Mean-Annual-OC | 14.02                    | 94.573             | 98.500                 | 0.0004                   | 2195                    | 9.00                      | 0.090                | 11.63                      | 0.093                 |
| I516-1 | BASE  | Mean-Annual-OC | 14.02                    | 94.575             | 98.200                 | 0.0032                   | 2275                    | 8.50                      | 6.673                | 0.02                       | 4.108                 |
| I516-2 | BASE  | Mean-Annual-OC | 14.02                    | 94.575             | 97.820                 | -0.0030                  | 2189                    | 9.00                      | 0.439                | 8.50                       | 3.265                 |
| I516-3 | BASE  | Mean-Annual-OC | 14.02                    | 94.575             | 97.950                 | -0.0002                  | 2202                    | 9.00                      | 0.090                | 10.96                      | 0.113                 |
| I519-1 | BASE  | Mean-Annual-OC | 14.03                    | 94.577             | 97.900                 | -0.0026                  | 2398                    | 9.06                      | 3.442                | 6.81                       | 4.118                 |
| I519-2 | BASE  | Mean-Annual-OC | 14.04                    | 94.577             | 97.150                 | -0.0016                  | 2231                    | 9.08                      | 2.378                | 9.18                       | 2.206                 |
| I519-3 | BASE  | Mean-Annual-OC | 14.04                    | 94.578             | 97.280                 | 0.0004                   | 2224                    | 9.08                      | 1.626                | 9.22                       | 1.466                 |
| MH489  | BASE  | Mean-Annual-OC | 10.30                    | 95.678             | 101.600                | -0.0038                  | 2408                    | 8.46                      | 6.838                | 8.44                       | 9.539                 |
| MH491  | BASE  | Mean-Annual-OC | 9.27                     | 96.368             | 101.800                | -0.0003                  | 2543                    | 9.14                      | 1.412                | 9.27                       | 1.397                 |
| MH493  | BASE  | Mean-Annual-OC | 9.24                     | 96.409             | 100.420                | 0.0003                   | 2531                    | 9.06                      | 1.005                | 9.21                       | 0.979                 |
| MH494  | BASE  | Mean-Annual-OC | 10.41                    | 94.895             | 102.340                | -0.0012                  | 2347                    | 9.52                      | 7.351                | 8.70                       | 8.367                 |
| MH495  | BASE  | Mean-Annual-OC | 9.22                     | 96.402             | 102.340                | -0.0002                  | 2434                    | 9.03                      | 0.879                | 9.14                       | 0.851                 |

Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
February 2008

| Name          | Group | Simulation     | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|----------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH497         | BASE  | Mean-Annual-OC | 10.42                    | 94.827             | 101.500                | 0.0032                   | 2353                    | 8.70                      | 8.688                | 8.70                       | 7.313                 |
| MH499         | BASE  | Mean-Annual-OC | 10.42                    | 94.789             | 101.200                | -0.0028                  | 2236                    | 8.70                      | 8.350                | 9.53                       | 7.915                 |
| MH500         | BASE  | Mean-Annual-OC | 10.42                    | 94.732             | 100.760                | 0.0041                   | 2300                    | 9.53                      | 7.915                | 12.21                      | 12.730                |
| MH504         | BASE  | Mean-Annual-OC | 10.44                    | 94.680             | 100.800                | 0.0049                   | 2257                    | 9.95                      | 9.996                | 9.55                       | 14.358                |
| MH505         | BASE  | Mean-Annual-OC | 10.46                    | 94.642             | 100.400                | -0.0050                  | 2200                    | 9.55                      | 15.621               | 9.35                       | 11.686                |
| MH508         | BASE  | Mean-Annual-OC | 14.00                    | 94.586             | 101.000                | 0.0039                   | 2224                    | 9.50                      | 13.785               | 0.02                       | 13.710                |
| MH510         | BASE  | Mean-Annual-OC | 14.02                    | 94.573             | 100.700                | -0.0048                  | 2226                    | 0.02                      | 25.675               | 0.01                       | 29.879                |
| MH514         | BASE  | Mean-Annual-OC | 14.02                    | 94.574             | 99.000                 | -0.0017                  | 2206                    | 0.02                      | 4.108                | 0.02                       | 7.246                 |
| ORANGE-CANAL  | BASE  | Mean-Annual-OC | 15.25                    | 94.558             | 99.000                 | 0.0322                   | 4580                    | 0.01                      | 29.879               | 9.61                       | 20.822                |
| OUTFALL-POND2 | BASE  | Mean-Annual-OC | 15.26                    | 94.558             | 96.000                 | -92.0000                 | 10595                   | 9.19                      | 27.467               | 9.20                       | 26.823                |
| POND 100      | BASE  | Mean-Annual-OC | 10.18                    | 97.750             | 98.000                 | 0.0009                   | 22499                   | 9.00                      | 6.465                | 10.18                      | 3.369                 |
| POND 200      | BASE  | Mean-Annual-OC | 10.15                    | 96.826             | 97.000                 | 0.0009                   | 19212                   | 10.03                     | 7.608                | 10.15                      | 7.092                 |
| TW            | BASE  | Mean-Annual-OC | 15.25                    | 94.548             | 0.000                  | -0.0100                  | 6450                    | 9.20                      | 26.823               | 0.00                       | 0.000                 |

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*ICPR MODEL ANALYSIS*

*Existing Conditions Results*

*100-Year / 24-Hour Storm Event*

*(SJRWMD AND ORANGE COUNTY STORM  
EVENTS)*

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Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
February 2008

| Name   | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|-------------------|----------------------------|-----------------------|
| I482-1 | BASE  | 100Y-24H   | 13.07                    | 100.263            | 99.400                 | 0.0008                   | 2195                    | 12.17                     | 9.245             | 12.20                      | 5.954                 |
| I482-2 | BASE  | 100Y-24H   | 13.08                    | 100.264            | 99.400                 | 0.0008                   | 2182                    | 11.92                     | 1.139             | 15.56                      | 1.219                 |
| I482-3 | BASE  | 100Y-24H   | 13.09                    | 100.266            | 99.600                 | 0.0007                   | 2180                    | 12.00                     | 2.042             | 15.57                      | 0.609                 |
| I485-1 | BASE  | 100Y-24H   | 13.10                    | 100.223            | 100.200                | 0.0009                   | 2213                    | 12.19                     | 13.116            | 12.38                      | 10.510                |
| I485-2 | BASE  | 100Y-24H   | 13.10                    | 100.238            | 100.200                | 0.0008                   | 2180                    | 12.25                     | 1.776             | 13.34                      | 0.724                 |
| I487-1 | BASE  | 100Y-24H   | 13.13                    | 100.176            | 100.600                | 0.0007                   | 2218                    | 12.36                     | 14.032            | 12.39                      | 11.947                |
| I487-2 | BASE  | 100Y-24H   | 13.13                    | 100.178            | 100.600                | 0.0007                   | 2180                    | 12.08                     | 1.811             | 15.52                      | 0.615                 |
| I489   | BASE  | 100Y-24H   | 13.18                    | 100.103            | 101.200                | -0.0051                  | 2198                    | 12.36                     | 17.674            | 11.75                      | 33.163                |
| I490-1 | BASE  | 100Y-24H   | 13.33                    | 99.896             | 101.260                | 0.0006                   | 2196                    | 11.97                     | 7.722             | 11.98                      | 5.094                 |
| I490-2 | BASE  | 100Y-24H   | 13.34                    | 99.897             | 101.650                | 0.0006                   | 2180                    | 12.00                     | 2.042             | 11.97                      | 1.386                 |
| I491   | BASE  | 100Y-24H   | 13.29                    | 99.951             | 101.900                | 0.0003                   | 2178                    | 12.08                     | 3.018             | 12.39                      | 3.072                 |
| I492   | BASE  | 100Y-24H   | 13.37                    | 99.758             | 101.870                | 0.0013                   | 2204                    | 12.00                     | 7.894             | 12.00                      | 5.479                 |
| I493   | BASE  | 100Y-24H   | 12.33                    | 100.061            | 101.890                | 0.0004                   | 2180                    | 12.17                     | 6.857             | 12.33                      | 6.128                 |
| I494-1 | BASE  | 100Y-24H   | 13.37                    | 99.632             | 101.300                | 0.0010                   | 2181                    | 16.01                     | 1.361             | 15.99                      | 2.711                 |
| I494-2 | BASE  | 100Y-24H   | 13.38                    | 99.632             | 101.800                | 0.0006                   | 2180                    | 12.00                     | 6.104             | 16.01                      | 1.084                 |
| I495-1 | BASE  | 100Y-24H   | 13.38                    | 99.713             | 102.400                | -0.0012                  | 2180                    | 12.08                     | 3.403             | 12.06                      | 11.543                |
| I495-2 | BASE  | 100Y-24H   | 13.39                    | 99.716             | 102.540                | 0.0004                   | 2179                    | 12.00                     | 0.846             | 12.12                      | 2.925                 |
| I497-1 | BASE  | 100Y-24H   | 13.33                    | 99.400             | 101.690                | 0.0006                   | 2180                    | 11.80                     | 0.406             | 17.45                      | 4.768                 |
| I497-2 | BASE  | 100Y-24H   | 13.33                    | 99.400             | 101.740                | 0.0007                   | 2179                    | 12.08                     | 0.604             | 15.97                      | 0.730                 |
| I499   | BASE  | 100Y-24H   | 13.10                    | 99.281             | 101.200                | 0.0007                   | 2179                    | 12.17                     | 6.368             | 12.29                      | 3.733                 |
| I500   | BASE  | 100Y-24H   | 13.11                    | 98.938             | 100.760                | 0.0006                   | 2178                    | 12.08                     | 4.225             | 11.79                      | 3.344                 |
| I501-1 | BASE  | 100Y-24H   | 13.04                    | 98.774             | 101.800                | 0.0012                   | 2213                    | 14.09                     | 20.555            | 13.98                      | 20.922                |
| I501-2 | BASE  | 100Y-24H   | 12.69                    | 99.252             | 101.800                | 0.0008                   | 2180                    | 12.17                     | 7.837             | 12.35                      | 5.007                 |
| I504-1 | BASE  | 100Y-24H   | 13.00                    | 98.637             | 100.860                | 0.0005                   | 2179                    | 12.08                     | 0.604             | 0.04                       | 0.765                 |
| I504-2 | BASE  | 100Y-24H   | 13.00                    | 98.637             | 101.500                | 0.0005                   | 2179                    | 12.08                     | 0.604             | 0.04                       | 0.771                 |
| I505-1 | BASE  | 100Y-24H   | 12.58                    | 99.767             | 100.000                | 0.0010                   | 2181                    | 12.17                     | 9.306             | 12.45                      | 6.140                 |
| I506   | BASE  | 100Y-24H   | 12.86                    | 98.243             | 99.600                 | 0.0014                   | 2209                    | 12.72                     | 31.613            | 13.13                      | 26.913                |
| I508   | BASE  | 100Y-24H   | 12.42                    | 98.138             | 98.400                 | 0.0007                   | 2180                    | 12.08                     | 9.054             | 12.15                      | 6.514                 |
| I510-1 | BASE  | 100Y-24H   | 12.42                    | 98.417             | 98.810                 | 0.0011                   | 2180                    | 12.08                     | 12.481            | 12.24                      | 10.299                |
| I510-2 | BASE  | 100Y-24H   | 12.49                    | 98.697             | 98.300                 | 0.0011                   | 2180                    | 12.23                     | 6.933             | 12.56                      | 6.671                 |
| I510-3 | BASE  | 100Y-24H   | 12.50                    | 98.858             | 98.900                 | 0.0008                   | 2180                    | 12.14                     | 5.465             | 12.59                      | 4.572                 |
| I510-4 | BASE  | 100Y-24H   | 12.49                    | 99.140             | 98.030                 | 0.0009                   | 2179                    | 12.08                     | 6.640             | 12.32                      | 3.449                 |
| I512-1 | BASE  | 100Y-24H   | 12.84                    | 97.703             | 99.000                 | -0.0010                  | 2210                    | 12.70                     | 13.113            | 12.72                      | 13.010                |
| I512-2 | BASE  | 100Y-24H   | 12.85                    | 97.704             | 98.500                 | 0.0004                   | 2182                    | 13.55                     | 0.473             | 0.02                       | 0.850                 |
| I512-3 | BASE  | 100Y-24H   | 12.85                    | 97.704             | 98.500                 | 0.0004                   | 2179                    | 12.00                     | 0.681             | 13.66                      | 0.415                 |
| I516-1 | BASE  | 100Y-24H   | 12.71                    | 98.207             | 98.200                 | -0.0006                  | 2210                    | 12.25                     | 13.734            | 12.53                      | 13.132                |
| I516-2 | BASE  | 100Y-24H   | 12.71                    | 98.211             | 97.820                 | 0.0005                   | 2182                    | 12.00                     | 1.219             | 13.52                      | 1.382                 |
| I516-3 | BASE  | 100Y-24H   | 12.72                    | 98.212             | 97.950                 | 0.0005                   | 2180                    | 12.00                     | 0.681             | 13.65                      | 0.604                 |
| I519-1 | BASE  | 100Y-24H   | 12.56                    | 99.342             | 97.900                 | 0.0009                   | 2197                    | 12.08                     | 14.518            | 12.36                      | 12.187                |
| I519-2 | BASE  | 100Y-24H   | 12.58                    | 100.101            | 97.150                 | 0.0010                   | 2183                    | 12.30                     | 10.044            | 12.62                      | 9.002                 |
| I519-3 | BASE  | 100Y-24H   | 12.58                    | 100.740            | 97.280                 | 0.0012                   | 2181                    | 12.25                     | 8.436             | 12.61                      | 6.196                 |
| MH489  | BASE  | 100Y-24H   | 13.21                    | 100.060            | 101.600                | 0.0006                   | 2195                    | 19.73                     | 32.882            | 12.54                      | 4.935                 |
| MH491  | BASE  | 100Y-24H   | 13.28                    | 99.948             | 101.800                | 0.0008                   | 2199                    | 11.75                     | 1.423             | 11.38                      | 1.009                 |
| MH493  | BASE  | 100Y-24H   | 13.31                    | 99.878             | 100.420                | 0.0008                   | 2199                    | 11.75                     | 1.683             | 11.50                      | 0.765                 |
| MH494  | BASE  | 100Y-24H   | 13.37                    | 99.631             | 102.340                | 0.0039                   | 2207                    | 12.28                     | 23.245            | 15.98                      | 17.486                |
| MH495  | BASE  | 100Y-24H   | 13.37                    | 99.711             | 102.340                | -0.0022                  | 2195                    | 12.06                     | 11.543            | 15.97                      | 11.642                |

Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
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| Name          | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH497         | BASE  | 100Y-24H   | 13.33                    | 99.399             | 101.500                | -0.0033                  | 2206                    | 15.98                     | 18.816               | 15.33                      | 18.836                |
| MH499         | BASE  | 100Y-24H   | 13.23                    | 99.173             | 101.200                | -0.0013                  | 2203                    | 15.33                     | 19.652               | 14.09                      | 18.153                |
| MH500         | BASE  | 100Y-24H   | 13.11                    | 98.929             | 100.760                | 0.0015                   | 2200                    | 14.09                     | 18.857               | 15.33                      | 19.243                |
| MH504         | BASE  | 100Y-24H   | 13.00                    | 98.637             | 100.800                | 0.0006                   | 2209                    | 13.95                     | 21.775               | 13.95                      | 22.157                |
| MH505         | BASE  | 100Y-24H   | 12.94                    | 98.480             | 100.400                | -0.0013                  | 2200                    | 13.51                     | 24.012               | 12.72                      | 26.707                |
| MH508         | BASE  | 100Y-24H   | 12.84                    | 97.992             | 101.000                | -0.0008                  | 2215                    | 12.73                     | 29.192               | 12.88                      | 28.937                |
| MH510         | BASE  | 100Y-24H   | 12.83                    | 97.597             | 100.700                | -0.0048                  | 2219                    | 12.73                     | 49.916               | 12.79                      | 49.671                |
| MH514         | BASE  | 100Y-24H   | 12.81                    | 97.910             | 99.000                 | -0.0006                  | 2206                    | 12.53                     | 13.132               | 12.60                      | 12.797                |
| ORANGE-CANAL  | BASE  | 100Y-24H   | 14.99                    | 96.049             | 99.000                 | 0.0322                   | 5790                    | 12.40                     | 59.400               | 12.41                      | 58.276                |
| OUTFALL-POND2 | BASE  | 100Y-24H   | 15.00                    | 96.041             | 96.000                 | -92.0000                 | 13042                   | 12.16                     | 109.606              | 12.16                      | 109.042               |
| POND 100      | BASE  | 100Y-24H   | 12.38                    | 99.815             | 98.000                 | 0.0006                   | 27717                   | 12.00                     | 49.482               | 12.49                      | 23.152                |
| POND 200      | BASE  | 100Y-24H   | 12.11                    | 97.946             | 97.000                 | 0.0004                   | 23407                   | 12.00                     | 68.412               | 12.11                      | 65.275                |
| TW            | BASE  | 100Y-24H   | 15.00                    | 96.041             | 0.000                  | -0.0100                  | 7694                    | 12.16                     | 109.042              | 0.00                       | 0.000                 |

Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
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| Name   | Group               | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------|---------------------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|-------------------|----------------------------|-----------------------|
| I482-1 | BASE100Y-24H-Orange |            | 10.31                    | 98.632             | 99.400                 | 0.0005                   | 2195                    | 9.08                      | 5.114             | 9.30                       | 4.441                 |
| I482-2 | BASE100Y-24H-Orange |            | 10.31                    | 98.635             | 99.400                 | -0.0003                  | 2182                    | 11.00                     | 0.648             | 6.71                       | 1.453                 |
| I482-3 | BASE100Y-24H-Orange |            | 10.32                    | 98.637             | 99.600                 | 0.0003                   | 2180                    | 8.75                      | 0.652             | 11.86                      | 0.460                 |
| I485-1 | BASE100Y-24H-Orange |            | 10.32                    | 98.603             | 100.200                | 0.0005                   | 2213                    | 9.11                      | 8.364             | 9.28                       | 7.768                 |
| I485-2 | BASE100Y-24H-Orange |            | 10.33                    | 98.612             | 100.200                | 0.0003                   | 2180                    | 9.08                      | 0.834             | 10.51                      | 0.570                 |
| I487-1 | BASE100Y-24H-Orange |            | 10.34                    | 98.570             | 100.600                | -0.0005                  | 2218                    | 9.20                      | 10.002            | 8.12                       | 10.364                |
| I487-2 | BASE100Y-24H-Orange |            | 10.35                    | 98.573             | 100.600                | 0.0003                   | 2180                    | 9.00                      | 0.651             | 7.74                       | 0.478                 |
| I489   | BASE100Y-24H-Orange |            | 10.37                    | 98.517             | 101.200                | -0.0052                  | 2198                    | 8.12                      | 12.627            | 8.12                       | 33.172                |
| I490-1 | BASE100Y-24H-Orange |            | 10.48                    | 98.333             | 101.260                | 0.0010                   | 2196                    | 6.78                      | 10.484            | 8.26                       | 7.227                 |
| I490-2 | BASE100Y-24H-Orange |            | 10.49                    | 98.335             | 101.650                | 0.0002                   | 2180                    | 8.75                      | 0.652             | 8.68                       | 0.769                 |
| I491   | BASE100Y-24H-Orange |            | 10.32                    | 98.678             | 101.900                | -0.0005                  | 2181                    | 9.00                      | 1.084             | 9.00                       | 1.076                 |
| I492   | BASE100Y-24H-Orange |            | 10.54                    | 98.181             | 101.870                | 0.0004                   | 2204                    | 8.30                      | 8.229             | 8.32                       | 7.253                 |
| I493   | BASE100Y-24H-Orange |            | 9.10                     | 99.257             | 101.890                | -0.0002                  | 2184                    | 9.00                      | 2.971             | 9.10                       | 2.947                 |
| I494-1 | BASE100Y-24H-Orange |            | 10.58                    | 98.038             | 101.300                | 0.0003                   | 2181                    | 12.25                     | 0.465             | 12.10                      | 0.748                 |
| I494-2 | BASE100Y-24H-Orange |            | 10.58                    | 98.039             | 101.800                | 0.0003                   | 2180                    | 8.75                      | 0.434             | 12.13                      | 0.374                 |
| I495-1 | BASE100Y-24H-Orange |            | 10.51                    | 98.298             | 102.400                | -0.0006                  | 2186                    | 8.87                      | 2.165             | 9.09                       | 4.687                 |
| I495-2 | BASE100Y-24H-Orange |            | 10.52                    | 98.301             | 102.540                | 0.0002                   | 2196                    | 8.75                      | 1.086             | 9.29                       | 1.128                 |
| I497-1 | BASE100Y-24H-Orange |            | 10.61                    | 97.829             | 101.690                | -0.0005                  | 2180                    | 8.49                      | 0.805             | 13.39                      | 4.768                 |
| I497-2 | BASE100Y-24H-Orange |            | 10.61                    | 97.830             | 101.740                | 0.0003                   | 2179                    | 9.00                      | 0.217             | 12.35                      | 0.332                 |
| I499   | BASE100Y-24H-Orange |            | 10.48                    | 97.665             | 101.200                | 0.0003                   | 2179                    | 9.00                      | 2.758             | 8.80                       | 2.669                 |
| I500   | BASE100Y-24H-Orange |            | 10.56                    | 97.369             | 100.760                | 0.0004                   | 2178                    | 9.00                      | 1.518             | 8.86                       | 2.981                 |
| I501-1 | BASE100Y-24H-Orange |            | 10.52                    | 97.195             | 101.800                | -0.0009                  | 2213                    | 10.11                     | 18.415            | 10.61                      | 18.332                |
| I501-2 | BASE100Y-24H-Orange |            | 10.31                    | 97.314             | 101.800                | 0.0003                   | 2180                    | 9.00                      | 3.395             | 9.04                       | 3.358                 |
| I504-1 | BASE100Y-24H-Orange |            | 10.52                    | 97.065             | 100.860                | 0.0002                   | 2179                    | 9.00                      | 0.217             | 0.04                       | 0.765                 |
| I504-2 | BASE100Y-24H-Orange |            | 10.52                    | 97.065             | 101.500                | 0.0002                   | 2179                    | 9.00                      | 0.217             | 0.04                       | 0.771                 |
| I505-1 | BASE100Y-24H-Orange |            | 10.23                    | 97.162             | 100.000                | 0.0003                   | 2181                    | 9.00                      | 4.032             | 9.20                       | 3.331                 |
| I506   | BASE100Y-24H-Orange |            | 10.48                    | 96.702             | 99.600                 | -0.0005                  | 2209                    | 10.17                     | 23.064            | 10.28                      | 22.946                |
| I508   | BASE100Y-24H-Orange |            | 10.45                    | 96.546             | 98.400                 | 0.0003                   | 2180                    | 9.00                      | 3.253             | 9.03                       | 2.629                 |
| I510-1 | BASE100Y-24H-Orange |            | 10.16                    | 96.385             | 98.810                 | 0.0010                   | 2180                    | 8.06                      | 8.192             | 9.02                       | 6.386                 |
| I510-2 | BASE100Y-24H-Orange |            | 10.15                    | 96.440             | 98.300                 | 0.0006                   | 2185                    | 8.85                      | 4.519             | 8.06                       | 5.585                 |
| I510-3 | BASE100Y-24H-Orange |            | 10.15                    | 96.553             | 98.900                 | -0.0001                  | 2200                    | 9.00                      | 3.241             | 8.82                       | 3.006                 |
| I512-1 | BASE100Y-24H-Orange |            | 9.02                     | 96.622             | 98.030                 | -0.0001                  | 2189                    | 9.00                      | 2.385             | 9.00                       | 2.374                 |
| I512-2 | BASE100Y-24H-Orange |            | 11.21                    | 96.296             | 99.000                 | -0.0010                  | 2210                    | 9.68                      | 8.447             | 9.02                       | 11.907                |
| I512-3 | BASE100Y-24H-Orange |            | 11.21                    | 96.296             | 98.500                 | 0.0003                   | 2182                    | 9.68                      | 0.254             | 0.02                       | 0.850                 |
| I516-1 | BASE100Y-24H-Orange |            | 10.30                    | 96.413             | 98.200                 | 0.0002                   | 2179                    | 8.75                      | 0.217             | 9.68                       | 0.103                 |
| I516-2 | BASE100Y-24H-Orange |            | 10.30                    | 96.415             | 97.820                 | -0.0006                  | 2182                    | 7.56                      | 0.700             | 9.74                       | 8.028                 |
| I516-3 | BASE100Y-24H-Orange |            | 10.31                    | 96.415             | 97.820                 | -0.0006                  | 2182                    | 7.56                      | 0.700             | 6.79                       | 3.266                 |
| I519-1 | BASE100Y-24H-Orange |            | 10.10                    | 96.746             | 97.950                 | 0.0002                   | 2180                    | 8.75                      | 0.217             | 10.61                      | 0.136                 |
| I519-2 | BASE100Y-24H-Orange |            | 10.10                    | 96.746             | 97.950                 | -0.0005                  | 2197                    | 9.00                      | 8.067             | 9.10                       | 7.420                 |
| I519-3 | BASE100Y-24H-Orange |            | 10.10                    | 96.941             | 97.150                 | 0.0005                   | 2183                    | 9.08                      | 5.576             | 9.28                       | 5.096                 |
| MH489  | BASE100Y-24H-Orange |            | 10.10                    | 97.090             | 97.280                 | 0.0004                   | 2181                    | 9.08                      | 3.963             | 9.30                       | 3.433                 |
| MH491  | BASE100Y-24H-Orange |            | 10.39                    | 98.485             | 101.600                | 0.0065                   | 2195                    | 8.11                      | 35.070            | 6.78                       | 9.536                 |
| MH493  | BASE100Y-24H-Orange |            | 10.43                    | 98.414             | 101.800                | 0.0004                   | 2200                    | 8.01                      | 2.339             | 7.96                       | 2.186                 |
| MH494  | BASE100Y-24H-Orange |            | 10.44                    | 98.380             | 100.420                | 0.0002                   | 2238                    | 8.03                      | 1.696             | 7.99                       | 1.540                 |
| MH495  | BASE100Y-24H-Orange |            | 10.57                    | 98.037             | 102.340                | -0.0005                  | 2214                    | 9.49                      | 14.779            | 9.99                       | 14.319                |
|        | BASE100Y-24H-Orange |            | 10.50                    | 98.293             | 102.340                | 0.0008                   | 2319                    | 9.09                      | 4.687             | 9.10                       | 1.743                 |

Lake Mary Jess Water Quality Improvement Project  
Existing Conditions Analysis  
February 2008

| Name          | Group               | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|---------------------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH497         | BASE100Y-24H-Orange |            | 10.61                    | 97.828             | 101.500                | 0.0013                   | 2206                    | 10.71                     | 14.424               | 10.77                      | 14.462                |
| MH499         | BASE100Y-24H-Orange |            | 10.59                    | 97.608             | 101.200                | -0.0011                  | 2203                    | 10.66                     | 15.744               | 10.74                      | 15.775                |
| MH500         | BASE100Y-24H-Orange |            | 10.55                    | 97.361             | 100.760                | 0.0016                   | 2200                    | 10.75                     | 16.394               | 10.77                      | 16.433                |
| MH504         | BASE100Y-24H-Orange |            | 10.52                    | 97.065             | 100.800                | -0.0006                  | 2209                    | 10.66                     | 18.555               | 10.67                      | 18.586                |
| MH505         | BASE100Y-24H-Orange |            | 10.50                    | 96.911             | 100.400                | 0.0006                   | 2200                    | 10.42                     | 20.720               | 10.46                      | 20.701                |
| MH508         | BASE100Y-24H-Orange |            | 11.12                    | 96.525             | 101.000                | -0.0008                  | 2215                    | 10.09                     | 24.758               | 10.15                      | 24.548                |
| MH510         | BASE100Y-24H-Orange |            | 11.31                    | 96.282             | 100.700                | -0.0048                  | 2219                    | 9.68                      | 37.801               | 9.67                       | 37.820                |
| MH514         | BASE100Y-24H-Orange |            | 11.12                    | 96.326             | 99.000                 | -0.0006                  | 2206                    | 9.74                      | 8.028                | 9.72                       | 7.863                 |
| ORANGE-CANAL  | BASE100Y-24H-Orange |            | 15.00                    | 96.042             | 99.000                 | 0.0322                   | 5786                    | 9.67                      | 42.289               | 9.66                       | 76.859                |
| OUTFALL-POND2 | BASE100Y-24H-Orange |            | 15.00                    | 96.041             | 96.000                 | -92.0000                 | 13040                   | 9.66                      | 102.280              | 9.66                       | 487.993               |
| POND 100      | BASE100Y-24H-Orange |            | 9.08                     | 98.339             | 98.000                 | 0.0003                   | 23986                   | 8.75                      | 15.799               | 9.11                       | 15.028                |
| POND 200      | BASE100Y-24H-Orange |            | 9.02                     | 97.461             | 97.000                 | 0.0003                   | 21591                   | 9.00                      | 31.381               | 9.02                       | 31.180                |
| TW            | BASE100Y-24H-Orange |            | 15.00                    | 96.041             | 0.000                  | -0.0100                  | 7694                    | 9.66                      | 487.993              | 0.00                       | 0.000                 |

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# *ICPR MODEL ANALYSIS*

*Proposed Conditions*

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# **TIME OF CONCENTRATION**

**Project :** Lake Mary Jess Water Quality Improvement Project

**Description :** Proposed Conditions

**TC Path :** Travel Time Lot Flow

**By:** RGB

**Checked:** LLS

**Date:** 2/19/2008

## **FLOW TYPE**

### **SHEET FLOW**

Basin ID

| Basin 100 | Basin 200 | Eton Street | Orange Avenue |  |  |
|-----------|-----------|-------------|---------------|--|--|
|-----------|-----------|-------------|---------------|--|--|

1. Surface Description

|       |       |       |            |  |  |
|-------|-------|-------|------------|--|--|
| Grass | Grass | Grass | See Note 1 |  |  |
|-------|-------|-------|------------|--|--|

2. Mannings Roughness Coefficient

|       |       |       |  |  |  |
|-------|-------|-------|--|--|--|
| 0.240 | 0.240 | 0.240 |  |  |  |
|-------|-------|-------|--|--|--|

3. Flow Length

|    |    |     |  |  |  |
|----|----|-----|--|--|--|
| 30 | 30 | 150 |  |  |  |
|----|----|-----|--|--|--|

(ft.)

4. 2-year, 24-hour rainfall

|      |      |      |  |  |  |
|------|------|------|--|--|--|
| 4.50 | 4.50 | 4.50 |  |  |  |
|------|------|------|--|--|--|

(in.)

5. Calculated Land Slope

|       |       |       |  |  |  |
|-------|-------|-------|--|--|--|
| 0.067 | 0.033 | 0.013 |  |  |  |
|-------|-------|-------|--|--|--|

(ft./ft.)

5a. Land Elevation of Flow Path (Upper End)

|       |       |       |  |  |  |
|-------|-------|-------|--|--|--|
| 101.0 | 100.0 | 100.0 |  |  |  |
|-------|-------|-------|--|--|--|

(ft. NGVD)

5b. Land Elevation of Flow Path (Lower End)

|      |      |      |  |  |  |
|------|------|------|--|--|--|
| 99.0 | 99.0 | 98.0 |  |  |  |
|------|------|------|--|--|--|

(ft. NGVD)

6. Computed Travel Time (hours)

|      |      |      |  |  |  |
|------|------|------|--|--|--|
| 0.05 | 0.06 | 0.33 |  |  |  |
|------|------|------|--|--|--|

(hr.)

### **SHALLOW CONCENTRATED FLOW**

Segment ID

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| 1 | 1 |  |  |  |  |
|---|---|--|--|--|--|

7. Surface Description (Paved or Unpaved)

|       |       |  |  |  |  |
|-------|-------|--|--|--|--|
| Paved | Paved |  |  |  |  |
|-------|-------|--|--|--|--|

8. Flow Length

|     |     |  |  |  |  |
|-----|-----|--|--|--|--|
| 420 | 380 |  |  |  |  |
|-----|-----|--|--|--|--|

(ft.)

9. Calculated Watercourse Slope

|       |       |  |  |  |  |
|-------|-------|--|--|--|--|
| 0.002 | 0.003 |  |  |  |  |
|-------|-------|--|--|--|--|

(ft./ft.)

9a. Land Elevation of Flow Path (Upper End)

|      |      |  |  |  |  |
|------|------|--|--|--|--|
| 99.0 | 99.0 |  |  |  |  |
|------|------|--|--|--|--|

(ft. NGVD)

9b. Land Elevation of Flow Path (Lower End)

|      |      |  |  |  |  |
|------|------|--|--|--|--|
| 98.0 | 98.0 |  |  |  |  |
|------|------|--|--|--|--|

(ft. NGVD)

10. Average Velocity

|      |      |  |  |  |  |
|------|------|--|--|--|--|
| 0.99 | 1.04 |  |  |  |  |
|------|------|--|--|--|--|

(ft./s)

11. Computed Travel Time (hours)

|      |      |  |  |  |  |
|------|------|--|--|--|--|
| 0.12 | 0.10 |  |  |  |  |
|------|------|--|--|--|--|

(hr.)

### **CHANNEL FLOW**

Segment ID

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| 1 | 1 |  |  |  |  |
|---|---|--|--|--|--|

12. Cross Sectional Flow Area

|    |    |  |  |  |  |
|----|----|--|--|--|--|
| na | na |  |  |  |  |
|----|----|--|--|--|--|

(sf)

13. Wetted Perimeter

|    |    |  |  |  |  |
|----|----|--|--|--|--|
| na | na |  |  |  |  |
|----|----|--|--|--|--|

(ft.)

14. Hydraulic Radius

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|--|--|--|--|--|--|

(ft.)

15. Channel Slope

|    |    |  |  |  |  |
|----|----|--|--|--|--|
| na | na |  |  |  |  |
|----|----|--|--|--|--|

(ft./ft.)

16. Manning's Roughness Coefficient

|    |    |  |  |  |  |
|----|----|--|--|--|--|
| na | na |  |  |  |  |
|----|----|--|--|--|--|

17. Computed Velocity

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|--|--|--|--|--|--|

(ft./s)

18. Flow Length

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|--|--|--|--|--|--|

(ft.)

19. Computed Travel Time

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|--|--|--|--|--|--|

(hr.)

**20. Total Travel Time (min)**

|      |      |       |  |  |  |
|------|------|-------|--|--|--|
| 9.89 | 9.82 | 19.58 |  |  |  |
|------|------|-------|--|--|--|

(min.)

USE

10

10

20

(min.)

#### **Reference:**

Soil Conservation Service, Technical Release 55,

Urban Hydrology for Small Watersheds,

June 1986

Note: 1. Refer to the ICPR Input data for detailed T<sub>c</sub> values for the Orange Avenue Drainage Basin.

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: Orange Avenue  
 Condition: Proposed Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|----|-----------------|----------------------------|
|                                         | See Note 1 Below                                                                              |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |    |                 |                            |
| Soil Conservation Service, June 1986    |                                                                                               |    |                 |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

Note 1: Refer to ICPR Input data for detailed CN values for the Orange Avenue Drainage Basin.

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: FDOT CANAL  
 Condition: Proposed Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN  | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|-----|-----------------|----------------------------|
| N/A                                     | Surface Water                                                                                 | 100 | 0.54            | 54.00                      |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |     | 0.54            | 54.00                      |
| Soil Conservation Service, June 1986    |                                                                                               |     | 100             |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

# Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: Basin 100  
 Condition: Proposed Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN  | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|-----|-----------------|----------------------------|
| C                                       | Urban District (Commercial and Industrial Land Uses)                                          | 94  | 6.69            | 628.86                     |
| C                                       | Open Space (Good Condition)                                                                   | 74  | 0.28            | 20.72                      |
| N/A                                     | Stormwater Pond (Pond 100)                                                                    | 100 | 0.33            | 33.00                      |
|                                         |                                                                                               |     |                 |                            |
|                                         |                                                                                               |     |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |     | 7.30            | 682.58                     |
| Soil Conservation Service, June 1986    |                                                                                               |     | <b>94</b>       |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

# Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: Eton Street Basin  
 Condition: Proposed Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|----|-----------------|----------------------------|
| C                                       | Impervious Areas (Buildings, Roads and Dwellings)                                             | 98 | 1.31            | 128.77                     |
| C                                       | Open Space (good condition)                                                                   | 74 | 0.88            | 64.82                      |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
|                                         |                                                                                               |    |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |    | 2.19            | 193.60                     |
| Soil Conservation Service, June 1986    |                                                                                               |    | 88              |                            |

$CN (weighted) = Total Product / Total Area$

## Runoff Curve Number

Project: Lake Mary Jess Water Quality Improvement Project  
 Basin ID: Basin 200  
 Condition: Proposed Conditions  
 Date: 2/19/2008

By: RGB  
 Checked: LLS

| Hydrologic<br>Soil<br>Group             | Cover Description<br>(Cover type, treatment, and hydrologic<br>condition; percent impervious) | CN  | Area<br>(acres) | Product<br>of<br>CN x Area |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|-----|-----------------|----------------------------|
| C                                       | Urban District (Commercial and Business Land Uses)                                            | 94  | 6.97            | 655.18                     |
| C                                       | Open Space (Good Condition)                                                                   | 74  | 0.12            | 8.88                       |
| B/D                                     | Urban District (Commercial and Business Land Uses)                                            | 95  | 0.14            | 13.30                      |
| B/D                                     | Open Space (Good Condition)                                                                   | 80  | 0.07            | 5.60                       |
| N/A                                     | Stormwater Pond                                                                               | 100 | 0.3             | 30.00                      |
|                                         |                                                                                               |     |                 |                            |
| Reference: Technical Release 55 (TR 55) |                                                                                               |     | 7.60            | 712.96                     |
| Soil Conservation Service, June 1986    |                                                                                               |     | 94              |                            |

$CN \text{ (weighted)} = \text{Total Product} / \text{Total Area}$

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## *ICPR MODEL ANALYSIS*

### *Proposed Conditions Input Data*

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Basins

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: BASIN 100            | Node: POND 100                   | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 7.300            | Time Shift(hrs): 0.00            |                |
| Curve Number: 94.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

CN BASED ON PEC FIELD REVIEW. ORIGINAL CN = 90

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: BASIN 200            | Node: EXP POND 200               | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 7.600            | Time Shift(hrs): 0.00            |                |
| Curve Number: 94.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

CN BASED ON PEC FIELD REVIEW. ORIGINAL CN = 90.

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: ETON STREET          | Node: EXP POND 200               | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh256     | Peaking Factor: 256.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 20.00         |                |
| Area(ac): 2.190            | Time Shift(hrs): 0.00            |                |
| Curve Number: 88.40        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: FDOT CANAL           | Node: EXP POND 200               | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh256     | Peaking Factor: 256.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.540            | Time Shift(hrs): 0.00            |                |
| Curve Number: 100.00       | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I482-1               | Node: I482-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |                |
| Area(ac): 2.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I482-2 | Node: I482-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I482-3 | Node: I482-3              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I485-1 | Node: I485-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.800            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I485-2 | Node: I485-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 30.00         |
| Area(ac): 0.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I487-1 | Node: I487-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I487-2 | Node: I487-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                        |                           |
|------------------------|---------------------------|
| Unit Hydrograph: Uh323 | Peaking Factor: 323.0     |
| Rainfall File:         | Storm Duration(hrs): 0.00 |

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|                            |                                  |
|----------------------------|----------------------------------|
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I489                 | Node: I489                       | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 30.00         |                |
| Area(ac): 1.400            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I490-1               | Node: I490-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.700            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I490-2               | Node: I490-2                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I491                 | Node: I491                       | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I492                 | Node: I492                       | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|             |                           |                |
|-------------|---------------------------|----------------|
| Name: I493  | Node: I493                | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I494-1 | Node: I494-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.200            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I494-2 | Node: I494-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.200            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I495-1 | Node: I495-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I495-2 | Node: I495-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I497-1 | Node: I497-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

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|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I497-2 | Node: I497-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|             |                           |                |
|-------------|---------------------------|----------------|
| Name: I499  | Node: I499                | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|             |                           |                |
|-------------|---------------------------|----------------|
| Name: I500  | Node: I500                | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.700            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I501-1 | Node: I501-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I501-2 | Node: I501-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                           |
|----------------------------|---------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0     |
| Rainfall File:             | Storm Duration(hrs): 0.00 |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00  |
| Area(ac): 1.600            | Time Shift(hrs): 0.00     |

Curve Number: 95.00  
DCIA(%): 0.00

Max Allowable Q(cfs): 999999.000

Name: I504-1  
Group: BASE

Node: I504-1  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 0.100  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I504-2  
Group: BASE

Node: I504-2  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 0.100  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I505-1  
Group: BASE

Node: I505-1  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 1.900  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 25.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I506  
Group: BASE

Node: I506  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 1.900  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 25.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

Name: I508  
Group: BASE

Node: I508  
Type: SCS Unit Hydrograph

Status: Onsite

Unit Hydrograph: Uh323  
Rainfall File:  
Rainfall Amount(in): 0.000  
Area(ac): 1.500  
Curve Number: 95.00  
DCIA(%): 0.00

Peaking Factor: 323.0  
Storm Duration(hrs): 0.00  
Time of Conc(min): 15.00  
Time Shift(hrs): 0.00  
Max Allowable Q(cfs): 999999.000

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Name: I510-1                      Node: I510-1                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
Area(ac): 1.400                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

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Name: I510-2                      Node: I510-2                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 15.00  
Area(ac): 0.700                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

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Name: I510-3                      Node: I510-3                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 15.00  
Area(ac): 0.400                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

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Name: I510-4                      Node: I510-4                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 15.00  
Area(ac): 1.100                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

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Name: I512-1                      Node: I512-1                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
Area(ac): 0.300                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

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Name: I512-2                      Node: I512-2                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0

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|                            |                                  |
|----------------------------|----------------------------------|
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I512-3               | Node: I512-3                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I516-1               | Node: I516-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.600            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I516-2               | Node: I516-2                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.400            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I516-3               | Node: I516-3                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I519-1               | Node: I519-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 1.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

-----  
Name: I519-2                      Node: I519-2                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph  
  
Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 15.00  
Area(ac): 1.100                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

-----  
Name: I519-3                      Node: I519-3                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph  
  
Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 30.00  
Area(ac): 1.900                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

=====  
Nodes  
=====

Name: EXP POND 200                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.000  
Group: BASE                      Warn Stage(ft): 97.000  
Type: Stage/Area

EXPANDED POND AND DREDGED CANAL

| Stage(ft) | Area(ac) |
|-----------|----------|
| 94.000    | 0.4890   |
| 95.000    | 0.5790   |
| 96.000    | 0.6840   |
| 97.000    | 0.7900   |

-----  
Name: I482-1                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.600  
Group: BASE                      Warn Stage(ft): 99.400  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 94.600    | 0.0500   |
| 99.400    | 0.0500   |

-----  
Name: I482-2                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.800  
Group: BASE                      Warn Stage(ft): 99.400  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 94.800    | 0.0500   |
| 99.400    | 0.0500   |

```

Name: I482-3          Base Flow(cfs): 0.000          Init Stage(ft): 95.100
Group: BASE           Warn Stage(ft): 99.600
Type: Stage/Area

```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 95.100     | 0.0500    |
| 99.600     | 0.0500    |

```
Name: I485-1          Base Flow(cfs): 0.000          Init Stage(ft): 94.000
Group: BASE           Warn Stage(ft): 100.200
Type: Stage/Area
```

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.900    | 0.0500   |
| 100.200   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I485-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 94.800  |
| Group: BASE      |                       | Warn Stage(ft): 100.200 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 94.800    | 0.0500   |
| 100.200   | 0.0500   |

```
Name: I487-1          Base Flow(cfs): 0.000          Init Stage(ft): 94.000
Group: BASE          Warn Stage(ft): 100.600
Type: Stage/Area
```

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.900     | 0.0500    |
| 100.600    | 0.0500    |

```
Name: I487-2          Base Flow(cfs): 0.000          Init Stage(ft): 95.700
Group: BASE          Warn Stage(ft): 100.600
Type: Stage/Area
```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 95.700     | 0.0500    |
| 100.600    | 0.0500    |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I489       | Base Flow(cfs): 0.000 | Init Stage(ft): 94.000  |
| Group: BASE      |                       | Warn Stage(ft): 101.200 |
| Type: Stage/Area |                       |                         |

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.700     | 0.0500    |

101.200 0.0500

Name: I490-1 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Warn Stage(ft): 101.260  
Type: Stage/Area

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.200    | 0.0500   |
| 101.260   | 0.0500   |

Name: I490-2 Base Flow(cfs): 0.000 Init Stage(ft): 96.600  
Group: BASE Warn Stage(ft): 101.650  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 96.600    | 0.0500   |
| 101.650   | 0.0500   |

Name: I491 Base Flow(cfs): 0.000 Init Stage(ft): 98.300  
Group: BASE Warn Stage(ft): 101.900  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 98.300    | 0.0500   |
| 101.900   | 0.0500   |

Name: I492 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Warn Stage(ft): 101.870  
Type: Stage/Area

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 92.600    | 0.0500   |
| 101.870   | 0.0500   |

Name: I493 Base Flow(cfs): 0.000 Init Stage(ft): 98.400  
Group: BASE Warn Stage(ft): 101.890  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 98.400    | 0.0500   |
| 101.890   | 0.0500   |

Name: I494-1 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Warn Stage(ft): 101.300  
Type: Stage/Area

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
|-----------|----------|

|         |        |
|---------|--------|
| 92.600  | 0.0500 |
| 101.300 | 0.0500 |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I494-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 94.000  |
| Group: BASE      |                       | Warn Stage(ft): 101.800 |
| Type: Stage/Area |                       |                         |

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.600    | 0.0500   |
| 101.800   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I495-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 96.420  |
| Group: BASE      |                       | Warn Stage(ft): 102.400 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 96.420    | 0.0500   |
| 102.400   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I495-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 97.320  |
| Group: BASE      |                       | Warn Stage(ft): 102.540 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 97.320    | 0.0500   |
| 102.540   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I497-1     | Base Flow(cfs): 0.000 | Init Stage(ft): 95.800  |
| Group: BASE      |                       | Warn Stage(ft): 101.690 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.800    | 0.0500   |
| 101.690   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I497-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 96.000  |
| Group: BASE      |                       | Warn Stage(ft): 101.740 |
| Type: Stage/Area |                       |                         |

| Stage(ft) | Area(ac) |
|-----------|----------|
| 96.000    | 0.0500   |
| 101.740   | 0.0500   |

|                  |                       |                         |
|------------------|-----------------------|-------------------------|
| Name: I499       | Base Flow(cfs): 0.000 | Init Stage(ft): 95.500  |
| Group: BASE      |                       | Warn Stage(ft): 101.200 |
| Type: Stage/Area |                       |                         |

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.500    | 0.0500   |
| 101.200   | 0.0500   |

---

Name: I500                      Base Flow(cfs): 0.000                      Init Stage(ft): 95.600  
Group: BASE                      Warn Stage(ft): 100.760  
Type: Stage/Area

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.600    | 0.0500   |
| 100.760   | 0.0500   |

---

Name: I501-1                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.000  
Group: BASE                      Warn Stage(ft): 101.800  
Type: Stage/Area

The initial stage corresponds to the downstream control water elevation (94.0 ft)

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.400    | 0.0500   |
| 101.800   | 0.0500   |

---

Name: I501-2                      Base Flow(cfs): 0.000                      Init Stage(ft): 95.500  
Group: BASE                      Warn Stage(ft): 101.800  
Type: Stage/Area

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.500    | 0.0500   |
| 101.800   | 0.0500   |

---

Name: I504-1                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.000  
Group: BASE                      Warn Stage(ft): 100.860  
Type: Stage/Area

The initial stage corresponds to the downstream control water elevation (94.0 ft)

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.600    | 0.0500   |
| 100.860   | 0.0500   |

---

Name: I504-2                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.000  
Group: BASE                      Warn Stage(ft): 101.500  
Type: Stage/Area

The initial stage corresponds to the downstream control water elevation (94.0 ft)

---

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.600    | 0.0500   |
| 101.500   | 0.0500   |

---

Name: I505-1                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.000  
Group: BASE                      Warn Stage(ft): 100.000  
Type: Stage/Area

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 92.640    | 0.0500   |
| 100.000   | 0.0500   |

Name: I506                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.000  
Group: BASE                      Warn Stage(ft): 99.600  
Type: Stage/Area

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 90.800    | 0.0500   |
| 99.600    | 0.0500   |

Name: I508                      Base Flow(cfs): 0.000                      Init Stage(ft): 93.900  
Group: BASE                      Warn Stage(ft): 98.400  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.900    | 0.0500   |
| 98.400    | 0.0500   |

Name: I510-1                      Base Flow(cfs): 0.000                      Init Stage(ft): 94.000  
Group: BASE                      Warn Stage(ft): 98.810  
Type: Stage/Area

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.380    | 0.0500   |
| 98.810    | 0.0500   |

Name: I510-2                      Base Flow(cfs): 0.000                      Init Stage(ft): 93.700  
Group: BASE                      Warn Stage(ft): 98.300  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.700    | 0.0500   |
| 98.300    | 0.0500   |

Name: I510-3                      Base Flow(cfs): 0.000                      Init Stage(ft): 95.360  
Group: BASE                      Warn Stage(ft): 98.900  
Type: Stage/Area

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.360    | 0.0500   |
| 98.900    | 0.0500   |

Name: I510-4                      Base Flow(cfs): 0.000                      Init Stage(ft): 95.740

Group: BASE  
Type: Stage/Area

Warn Stage(ft): 98.030

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.740    | 0.0500   |
| 98.030    | 0.0500   |

Name: I512-1  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 94.000  
Warn Stage(ft): 99.000

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.000    | 0.0500   |
| 99.000    | 0.0500   |

Name: I512-2  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 94.000  
Warn Stage(ft): 98.500

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 92.900    | 0.0500   |
| 98.500    | 0.0500   |

Name: I512-3  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 93.690  
Warn Stage(ft): 98.500

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.690    | 0.0500   |
| 98.500    | 0.0500   |

Name: I516-1  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 94.000  
Warn Stage(ft): 98.200

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.600    | 0.0500   |
| 98.200    | 0.0500   |

Name: I516-2  
Group: BASE  
Type: Stage/Area

Base Flow(cfs): 0.000

Init Stage(ft): 94.000  
Warn Stage(ft): 97.820

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.080    | 0.0500   |
| 97.820    | 0.0500   |

```

Name: I516-3          Base Flow(cfs): 0.000          Init Stage(ft): 94.340
Group: BASE           Warn Stage(ft): 97.950
Type: Stage/Area

```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 94.340     | 0.0500    |
| 97.950     | 0.0500    |

```

Name: I519-1          Base Flow(cfs): 0.000          Init Stage(ft): 94.000
Group: BASE           Warn Stage(ft): 97.900
Type: Stage/Area

```

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.000     | 0.0500    |
| 97.900     | 0.0500    |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I519-2     | Base Flow(cfs): 0.000 | Init Stage(ft): 94.000 |
| Group: BASE      |                       | Warn Stage(ft): 97.150 |
| Type: Stage/Area |                       |                        |

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.200     | 0.0500    |
| 97.150     | 0.0500    |

|                  |                       |                        |
|------------------|-----------------------|------------------------|
| Name: I519-3     | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500 |
| Group: BASE      |                       | Warn Stage(ft): 97.280 |
| Type: Stage/Area |                       |                        |

| Stage (ft) | Area (ac) |
|------------|-----------|
| 93.500     | 0.0500    |
| 97.280     | 0.0500    |

```

Name: MH489          Base Flow(cfs): 0.000          Init Stage(ft): 94.000
Group: BASE          Plunge Factor: 1.00            Warn Stage(ft): 101.600
Type: Manhole, Flat Floor

```

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 93.600    | 0.0500   |
| 101.600   | 0.0500   |

```

Name: MH491          Base Flow(cfs): 0.000          Init Stage(ft): 95.700
Group: BASE          Plunge Factor: 1.00           Warn Stage(ft): 101.800
Type: Manhole, Flat Floor

```

| Stage (ft) | Area (ac) |
|------------|-----------|
| 95.700     | 0.0500    |

101.800 0.0500

Name: MH493 Base Flow(cfs): 0.000 Init Stage(ft): 95.700  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 100.420  
Type: Manhole, Flat Floor

| Stage(ft) | Area(ac) |
|-----------|----------|
| 95.700    | 0.0500   |
| 100.420   | 0.0500   |

Name: MH494 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 102.340  
Type: Manhole, Flat Floor

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 92.100    | 0.0500   |
| 102.340   | 0.0500   |

Name: MH495 Base Flow(cfs): 0.000 Init Stage(ft): 96.100  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 102.340  
Type: Manhole, Flat Floor

| Stage(ft) | Area(ac) |
|-----------|----------|
| 96.100    | 0.0500   |
| 102.340   | 0.0500   |

Name: MH497 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 101.500  
Type: Manhole, Flat Floor

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.900    | 0.0500   |
| 101.500   | 0.0500   |

Name: MH499 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 101.200  
Type: Manhole, Flat Floor

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
| 91.700    | 0.0500   |
| 101.200   | 0.0500   |

Name: MH500 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 100.760  
Type: Manhole, Flat Floor

The initial stage corresponds to the downstream control water elevation (94.0 ft)

| Stage(ft) | Area(ac) |
|-----------|----------|
|           |          |

-----  
91.500 0.0500  
100.760 0.0500  
-----

-----  
Name: MH504 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 100.800  
Type: Manhole, Flat Floor  
-----

The initial stage corresponds to the downstream control water elevation (94.0 ft)

-----  
Stage(ft) Area(ac)  
-----  
91.100 0.0500  
100.800 0.0500  
-----

-----  
Name: MH505 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 100.400  
Type: Manhole, Flat Floor  
-----

The initial stage corresponds to the downstream control water elevation (94.0 ft)

-----  
Stage(ft) Area(ac)  
-----  
91.000 0.0500  
100.400 0.0500  
-----

-----  
Name: MH508 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 101.000  
Type: Manhole, Flat Floor  
-----

The initial stage corresponds to the downstream control water elevation (94.0 ft)

-----  
Stage(ft) Area(ac)  
-----  
90.600 0.0500  
101.000 0.0500  
-----

-----  
Name: MH510 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 100.700  
Type: Manhole, Flat Floor  
-----

The initial stage corresponds to the downstream control water elevation (94.0 ft)

-----  
Stage(ft) Area(ac)  
-----  
90.530 0.0500  
100.700 0.0500  
-----

-----  
Name: MH514 Base Flow(cfs): 0.000 Init Stage(ft): 94.000  
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 99.000  
Type: Manhole, Flat Floor  
-----

The initial stage corresponds to the downstream control water elevation (94.0 ft)

-----  
Stage(ft) Area(ac)  
-----  
91.200 0.0500  
99.000 0.0500  
-----

-----  
Name: OUTFALL-POND2 Base Flow(cfs): 0.000 Init Stage(ft): 93.000  
Group: BASE Warn Stage(ft): 97.000  
Type: Stage/Area  
-----

NON-STORAGE NODE LOCATED AT POND 200 OUTFALL INTO CANAL

| Stage(ft)        | Area(ac)              |                        |
|------------------|-----------------------|------------------------|
| -----            |                       |                        |
| Name: POND 100   | Base Flow(cfs): 0.000 | Init Stage(ft): 94.500 |
| Group: BASE      |                       | Warn Stage(ft): 98.000 |
| Type: Stage/Area |                       |                        |

VALUES BASED ON EXISTING CONDITIONS VALUES (1-FOOT TOPOGRAPHIC DATA)

| Stage(ft)        | Area(ac)              |                        |
|------------------|-----------------------|------------------------|
| -----            |                       |                        |
| 94.500           | 0.3200                |                        |
| 95.000           | 0.3750                |                        |
| 96.000           | 0.4210                |                        |
| 97.000           | 0.4730                |                        |
| 98.000           | 0.5310                |                        |
| -----            |                       |                        |
| Name: TW         | Base Flow(cfs): 0.000 | Init Stage(ft): 93.500 |
| Group: BASE      |                       | Warn Stage(ft): 0.000  |
| Type: Time/Stage |                       |                        |

Refer to Boundary Stages for a detailed tabulation of the storm events utilized within this model.

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| -----     |           |
| 0.00      | 0.000     |
| 24.00     | 93.500    |

==== Pipes =====

|                       |                       |                                |
|-----------------------|-----------------------|--------------------------------|
| Name: OUTFALL         | From Node: MH510      | Length(ft): 118.00             |
| Group: BASE           | To Node: EXP POND 200 | Count: 1                       |
|                       |                       | Friction Equation: Automatic   |
|                       |                       | Solution Algorithm: Automatic  |
|                       |                       | Flow: Both                     |
| UPSTREAM              | DOWNSTREAM            | Entrance Loss Coef: 0.00       |
| Geometry: Circular    | Circular              | Exit Loss Coef: 1.00           |
| Span(in): 42.00       | 42.00                 | Bend Loss Coef: 0.00           |
| Rise(in): 42.00       | 42.00                 | Outlet Ctrl Spec: Use dc or tw |
| Invert(ft): 90.530    | 90.130                | Inlet Ctrl Spec: Use dn        |
| Manning's N: 0.024000 | 0.024000              | Stabilizer Option: None        |
| Top Clip(in): 0.000   | 0.000                 |                                |
| Bot Clip(in): 0.000   | 0.000                 |                                |

Upstream FHWA Inlet Edge Description:  
Circular CMP: Headwall

Downstream FHWA Inlet Edge Description:  
Circular CMP: Headwall

|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P482-1          | From Node: I482-2 | Length(ft): 50.00                     |
| Group: BASE           | To Node: I482-1   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 18.00       | 18.00             | Bend Loss Coef: 0.80                  |
| Rise(in): 18.00       | 18.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 94.800    | 94.600            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

---

|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P482-2          | From Node: I482-3 | Length(ft): 61.00                     |
| Group: BASE           | To Node: I482-2   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 1.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 15.00       | 15.00             | Bend Loss Coef: 0.00                  |
| Rise(in): 15.00       | 15.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 95.100    | 94.800            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P485-1          | From Node: I482-1 | Length(ft): 242.00                    |
| Group: BASE           | To Node: I485-1   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 30.00       | 30.00             | Bend Loss Coef: 0.80                  |
| Rise(in): 30.00       | 30.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 94.600    | 94.200            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P485-2          | From Node: I485-2 | Length(ft): 49.00                     |
| Group: BASE           | To Node: I485-1   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 1.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 15.00       | 15.00             | Bend Loss Coef: 0.00                  |
| Rise(in): 15.00       | 15.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 94.800    | 93.900            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P487-1          | From Node: I485-1 | Length(ft): 242.00                    |
| Group: BASE           | To Node: I487-1   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 36.00       | 36.00             | Flow: Both                            |
| Rise(in): 36.00       | 36.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 94.200    | 93.900            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.012000 | 0.012000          | Bend Loss Coef: 0.60                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P487-2          | From Node: I487-2 | Length(ft): 49.00                     |
| Group: BASE           | To Node: I487-1   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 15.00       | 15.00             | Flow: Both                            |
| Rise(in): 15.00       | 15.00             | Entrance Loss Coef: 1.00              |
| Invert(ft): 95.700    | 93.900            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.00                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P488            | From Node: I487-1 | Length(ft): 266.00                    |
| Group: BASE           | To Node: I489     | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 36.00       | 36.00             | Flow: Both                            |
| Rise(in): 36.00       | 36.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 93.900    | 93.700            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.012000 | 0.012000          | Bend Loss Coef: 0.60                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                 |                                       |
|-----------------------|-----------------|---------------------------------------|
| Name: P489            | From Node: I489 | Length(ft): 7.00                      |
| Group: BASE           | To Node: MH489  | Count: 1                              |
|                       |                 | Friction Equation: Average Conveyance |
|                       |                 | Solution Algorithm: Automatic         |
|                       |                 | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM      | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular        | Exit Loss Coef: 0.00                  |
| Span(in): 36.00       | 36.00           | Bend Loss Coef: 0.60                  |
| Rise(in): 36.00       | 36.00           | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 93.700    | 93.600          | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.012000 | 0.012000        | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000           |                                       |
| Bot Clip(in): 0.000   | 0.000           |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P490            | From Node: MH489 | Length(ft): 38.00                     |
| Group: BASE           | To Node: I490-1  | Count: 1                              |
|                       |                  | Friction Equation: Average Conveyance |
|                       |                  | Solution Algorithm: Automatic         |
|                       |                  | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM       | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular         | Exit Loss Coef: 0.00                  |
| Span(in): 18.00       | 18.00            | Bend Loss Coef: 0.90                  |
| Rise(in): 18.00       | 18.00            | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 93.600    | 93.200           | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000         | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000            |                                       |
| Bot Clip(in): 0.000   | 0.000            |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P490-2          | From Node: I490-2 | Length(ft): 57.00                     |
| Group: BASE           | To Node: I490-1   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 1.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 15.00       | 15.00             | Bend Loss Coef: 0.00                  |
| Rise(in): 15.00       | 15.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 96.600    | 93.200            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:

Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P491-1          | From Node: MH491 | Length(ft): 240.00                    |
| Group: BASE           | To Node: MH489   | Count: 1                              |
|                       |                  | Friction Equation: Average Conveyance |
|                       |                  | Solution Algorithm: Automatic         |
|                       |                  | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM       |                                       |
| Geometry: Circular    | Circular         |                                       |
| Span(in): 30.00       | 30.00            | Entrance Loss Coef: 0.00              |
| Rise(in): 30.00       | 30.00            | Exit Loss Coef: 0.00                  |
| Invert(ft): 95.700    | 95.600           | Bend Loss Coef: 0.60                  |
| Manning's N: 0.013000 | 0.013000         | Outlet Ctrl Spec: Use dc or tw        |
| Top Clip(in): 0.000   | 0.000            | Inlet Ctrl Spec: Use dn               |
| Bot Clip(in): 0.000   | 0.000            | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                 |                                       |
|-----------------------|-----------------|---------------------------------------|
| Name: P491-2          | From Node: I491 | Length(ft): 7.00                      |
| Group: BASE           | To Node: MH491  | Count: 1                              |
|                       |                 | Friction Equation: Average Conveyance |
|                       |                 | Solution Algorithm: Automatic         |
|                       |                 | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM      |                                       |
| Geometry: Circular    | Circular        |                                       |
| Span(in): 15.00       | 15.00           | Entrance Loss Coef: 1.00              |
| Rise(in): 15.00       | 15.00           | Exit Loss Coef: 0.00                  |
| Invert(ft): 98.300    | 95.700          | Bend Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000        | Outlet Ctrl Spec: Use dc or tw        |
| Top Clip(in): 0.000   | 0.000           | Inlet Ctrl Spec: Use dn               |
| Bot Clip(in): 0.000   | 0.000           | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P492            | From Node: I490-1 | Length(ft): 301.00                    |
| Group: BASE           | To Node: I492     | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        |                                       |
| Geometry: Circular    | Circular          |                                       |
| Span(in): 24.00       | 24.00             | Entrance Loss Coef: 0.00              |
| Rise(in): 24.00       | 24.00             | Exit Loss Coef: 0.00                  |
| Invert(ft): 93.200    | 92.600            | Bend Loss Coef: 0.90                  |
| Manning's N: 0.013000 | 0.013000          | Outlet Ctrl Spec: Use dc or tw        |
| Top Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
| Bot Clip(in): 0.000   | 0.000             | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P493-1          | From Node: MH493 | Length(ft): 100.00                    |
| Group: BASE           | To Node: MH491   | Count: 1                              |
|                       |                  | Friction Equation: Average Conveyance |
|                       |                  | Solution Algorithm: Automatic         |
|                       |                  | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM       | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular         | Exit Loss Coef: 0.00                  |
| Span(in): 30.00       | 30.00            | Bend Loss Coef: 0.80                  |
| Rise(in): 30.00       | 30.00            | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 95.800    | 95.700           | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000         | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000            |                                       |
| Bot Clip(in): 0.000   | 0.000            |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                 |                                       |
|-----------------------|-----------------|---------------------------------------|
| Name: P493-2          | From Node: I493 | Length(ft): 10.00                     |
| Group: BASE           | To Node: MH493  | Count: 1                              |
|                       |                 | Friction Equation: Average Conveyance |
|                       |                 | Solution Algorithm: Automatic         |
|                       |                 | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM      | Entrance Loss Coef: 1.00              |
| Geometry: Circular    | Circular        | Exit Loss Coef: 0.00                  |
| Span(in): 15.00       | 15.00           | Bend Loss Coef: 0.00                  |
| Rise(in): 15.00       | 15.00           | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 98.400    | 95.700          | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000        | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000           |                                       |
| Bot Clip(in): 0.000   | 0.000           |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                 |                                       |
|-----------------------|-----------------|---------------------------------------|
| Name: p494-1          | From Node: I492 | Length(ft): 224.00                    |
| Group: BASE           | To Node: MH494  | Count: 1                              |
|                       |                 | Friction Equation: Average Conveyance |
|                       |                 | Solution Algorithm: Automatic         |
|                       |                 | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM      | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular        | Exit Loss Coef: 0.00                  |
| Span(in): 24.00       | 24.00           | Bend Loss Coef: 0.50                  |
| Rise(in): 24.00       | 24.00           | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 92.600    | 92.100          | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000        | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000           |                                       |
| Bot Clip(in): 0.000   | 0.000           |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P494-2          | From Node: I494-1 | Length(ft): 25.00                     |
| Group: BASE           | To Node: MH494    | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 18.00       | 18.00             | Flow: Both                            |
| Rise(in): 18.00       | 18.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 92.600    | 92.100            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.80                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P494-3          | From Node: I494-2 | Length(ft): 50.00                     |
| Group: BASE           | To Node: I494-1   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 15.00       | 15.00             | Flow: Both                            |
| Rise(in): 15.00       | 15.00             | Entrance Loss Coef: 1.00              |
| Invert(ft): 93.600    | 92.600            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.00                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P494-4          | From Node: MH495 | Length(ft): 34.00                     |
| Group: BASE           | To Node: MH494   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM       | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular         | Solution Algorithm: Automatic         |
| Span(in): 30.00       | 30.00            | Flow: Both                            |
| Rise(in): 30.00       | 30.00            | Entrance Loss Coef: 0.00              |
| Invert(ft): 96.100    | 92.100           | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000         | Bend Loss Coef: 0.90                  |
| Top Clip(in): 0.000   | 0.000            | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000            | Inlet Ctrl Spec: Use dn               |
|                       |                  | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:

Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P495-1          |            | From Node: MH495                      | Length(ft): 224.00 |
| Group: BASE           |            | To Node: MH493                        | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 30.00       | 30.00      | Flow: Both                            |                    |
| Rise(in): 30.00       | 30.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 96.000    | 95.700     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.90                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P495-2          |            | From Node: I495-1                     | Length(ft): 21.00 |
| Group: BASE           |            | To Node: MH495                        | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 18.00       | 18.00      | Flow: Both                            |                   |
| Rise(in): 18.00       | 18.00      | Entrance Loss Coef: 0.00              |                   |
| Invert(ft): 96.420    | 96.200     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.80                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P495-3          |            | From Node: I495-2                     | Length(ft): 45.00 |
| Group: BASE           |            | To Node: I495-1                       | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 97.320    | 96.420     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P497-1          | From Node: MH494 | Length(ft): 200.00                    |
| Group: BASE           | To Node: MH497   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM       | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular         | Solution Algorithm: Automatic         |
| Span(in): 36.00       | 36.00            | Flow: Both                            |
| Rise(in): 36.00       | 36.00            | Entrance Loss Coef: 0.00              |
| Invert(ft): 92.100    | 91.900           | Exit Loss Coef: 0.00                  |
| Manning's N: 0.012000 | 0.012000         | Bend Loss Coef: 1.00                  |
| Top Clip(in): 0.000   | 0.000            | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000            | Inlet Ctrl Spec: Use dn               |
|                       |                  | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P497-2          | From Node: I497-1 | Length(ft): 26.00                     |
| Group: BASE           | To Node: MH497    | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 18.00       | 18.00             | Flow: Both                            |
| Rise(in): 18.00       | 18.00             | Entrance Loss Coef: 0.00              |
| Invert(ft): 95.880    | 91.900            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.60                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P497-3          | From Node: I497-2 | Length(ft): 38.00                     |
| Group: BASE           | To Node: I497-1   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 15.00       | 15.00             | Flow: Both                            |
| Rise(in): 15.00       | 15.00             | Entrance Loss Coef: 1.00              |
| Invert(ft): 96.000    | 95.800            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.00                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P499-1          | From Node: MH497 | Length(ft): 161.00                    |
| Group: BASE           | To Node: MH499   | Count: 1                              |
|                       |                  | Friction Equation: Average Conveyance |
|                       |                  | Solution Algorithm: Automatic         |
|                       |                  | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM       | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular         | Exit Loss Coef: 0.00                  |
| Span(in): 36.00       | 36.00            | Bend Loss Coef: 0.80                  |
| Rise(in): 36.00       | 36.00            | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 91.900    | 91.700           | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.012000 | 0.012000         | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000            |                                       |
| Bot Clip(in): 0.000   | 0.000            |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                 |                                       |
|-----------------------|-----------------|---------------------------------------|
| Name: P499-2          | From Node: I499 | Length(ft): 41.00                     |
| Group: BASE           | To Node: MH499  | Count: 1                              |
|                       |                 | Friction Equation: Average Conveyance |
|                       |                 | Solution Algorithm: Automatic         |
|                       |                 | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM      | Entrance Loss Coef: 1.00              |
| Geometry: Circular    | Circular        | Exit Loss Coef: 0.00                  |
| Span(in): 15.00       | 15.00           | Bend Loss Coef: 0.00                  |
| Rise(in): 15.00       | 15.00           | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 95.500    | 91.700          | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000        | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000           |                                       |
| Bot Clip(in): 0.000   | 0.000           |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P500-1          | From Node: MH499 | Length(ft): 154.00                    |
| Group: BASE           | To Node: MH500   | Count: 1                              |
|                       |                  | Friction Equation: Average Conveyance |
|                       |                  | Solution Algorithm: Automatic         |
|                       |                  | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM       | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular         | Exit Loss Coef: 0.00                  |
| Span(in): 36.00       | 36.00            | Bend Loss Coef: 0.80                  |
| Rise(in): 36.00       | 36.00            | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 91.700    | 91.500           | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000         | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000            |                                       |
| Bot Clip(in): 0.000   | 0.000            |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                  |
|-----------------------|------------|---------------------------------------|------------------|
| Name: P500-2          |            | From Node: I500                       | Length(ft): 3.00 |
| Group: BASE           |            | To Node: MH500                        | Count: 1         |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                  |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                  |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                  |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                  |
| Invert(ft): 95.600    | 91.500     | Exit Loss Coef: 0.00                  |                  |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                  |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                  |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                  |
|                       |            | Stabilizer Option: None               |                  |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P501-1          |            | From Node: MH500                      | Length(ft): 122.00 |
| Group: BASE           |            | To Node: I501-1                       | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 42.00       | 42.00      | Flow: Both                            |                    |
| Rise(in): 42.00       | 42.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 91.500    | 91.400     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.012000 | 0.012000   | Bend Loss Coef: 0.80                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P501-2          |            | From Node: I501-2                     | Length(ft): 50.00 |
| Group: BASE           |            | To Node: I501-1                       | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 95.500    | 91.400     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P504-1          |            | From Node: I501-1                     | Length(ft): 261.00 |
| Group: BASE           |            | To Node: MH504                        | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 42.00       | 42.00      | Flow: Both                            |                    |
| Rise(in): 42.00       | 42.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 91.400    | 91.100     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.012000 | 0.012000   | Bend Loss Coef: 0.80                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P504-2          |            | From Node: I504-1                     | Length(ft): 25.00 |
| Group: BASE           |            | To Node: MH504                        | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 91.600    | 91.100     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P504-3          |            | From Node: I504-2                     | Length(ft): 21.00 |
| Group: BASE           |            | To Node: MH504                        | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 15.00       | 15.00      | Flow: Both                            |                   |
| Rise(in): 15.00       | 15.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 91.600    | 91.100     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P505-1          | From Node: MH504 | Length(ft): 82.00                     |
| Group: BASE           | To Node: MH505   | Count: 1                              |
| UPSTREAM              | DOWNSTREAM       | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular         | Solution Algorithm: Automatic         |
| Span(in): 42.00       | 42.00            | Flow: Both                            |
| Rise(in): 42.00       | 42.00            | Entrance Loss Coef: 1.00              |
| Invert(ft): 91.100    | 91.000           | Exit Loss Coef: 0.00                  |
| Manning's N: 0.012000 | 0.012000         | Bend Loss Coef: 1.00                  |
| Top Clip(in): 0.000   | 0.000            | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000            | Inlet Ctrl Spec: Use dn               |
|                       |                  | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P505-2          | From Node: I505-1 | Length(ft): 82.00                     |
| Group: BASE           | To Node: MH505    | Count: 1                              |
| UPSTREAM              | DOWNSTREAM        | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular          | Solution Algorithm: Automatic         |
| Span(in): 15.00       | 15.00             | Flow: Both                            |
| Rise(in): 15.00       | 15.00             | Entrance Loss Coef: 1.00              |
| Invert(ft): 92.640    | 91.000            | Exit Loss Coef: 0.00                  |
| Manning's N: 0.013000 | 0.013000          | Bend Loss Coef: 0.00                  |
| Top Clip(in): 0.000   | 0.000             | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000             | Inlet Ctrl Spec: Use dn               |
|                       |                   | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P506            | From Node: MH505 | Length(ft): 139.00                    |
| Group: BASE           | To Node: I506    | Count: 1                              |
| UPSTREAM              | DOWNSTREAM       | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular         | Solution Algorithm: Automatic         |
| Span(in): 42.00       | 42.00            | Flow: Both                            |
| Rise(in): 42.00       | 42.00            | Entrance Loss Coef: 0.00              |
| Invert(ft): 91.000    | 90.800           | Exit Loss Coef: 0.00                  |
| Manning's N: 0.012000 | 0.012000         | Bend Loss Coef: 0.80                  |
| Top Clip(in): 0.000   | 0.000            | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): 0.000   | 0.000            | Inlet Ctrl Spec: Use dn               |
|                       |                  | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|              |                 |                    |
|--------------|-----------------|--------------------|
| Name: P508-1 | From Node: I506 | Length(ft): 220.00 |
|--------------|-----------------|--------------------|

|                       |                |                                       |
|-----------------------|----------------|---------------------------------------|
| Group: BASE           | To Node: MH508 | Count: 1                              |
|                       |                | Friction Equation: Average Conveyance |
|                       |                | Solution Algorithm: Automatic         |
| UPSTREAM              | DOWNSTREAM     | Flow: Both                            |
| Geometry: Circular    | Circular       | Entrance Loss Coef: 0.00              |
| Span(in): 42.00       | 42.00          | Exit Loss Coef: 0.00                  |
| Rise(in): 42.00       | 42.00          | Bend Loss Coef: 0.50                  |
| Invert(ft): 90.800    | 90.600         | Outlet Ctrl Spec: Use dc or tw        |
| Manning's N: 0.012000 | 0.012000       | Inlet Ctrl Spec: Use dn               |
| Top Clip(in): 0.000   | 0.000          | Stabilizer Option: None               |
| Bot Clip(in): 0.000   | 0.000          |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |                 |                                       |
|-----------------------|-----------------|---------------------------------------|
| Name: P508-2          | From Node: I508 | Length(ft): 54.00                     |
| Group: BASE           | To Node: MH508  | Count: 1                              |
|                       |                 | Friction Equation: Average Conveyance |
|                       |                 | Solution Algorithm: Automatic         |
| UPSTREAM              | DOWNSTREAM      | Flow: Both                            |
| Geometry: Circular    | Circular        | Entrance Loss Coef: 1.00              |
| Span(in): 18.00       | 18.00           | Exit Loss Coef: 0.00                  |
| Rise(in): 18.00       | 18.00           | Bend Loss Coef: 0.00                  |
| Invert(ft): 93.900    | 90.600          | Outlet Ctrl Spec: Use dc or tw        |
| Manning's N: 0.013000 | 0.013000        | Inlet Ctrl Spec: Use dn               |
| Top Clip(in): 0.000   | 0.000           | Stabilizer Option: None               |
| Bot Clip(in): 0.000   | 0.000           |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |                  |                                       |
|-----------------------|------------------|---------------------------------------|
| Name: P510-1          | From Node: MH508 | Length(ft): 177.00                    |
| Group: BASE           | To Node: MH510   | Count: 1                              |
|                       |                  | Friction Equation: Average Conveyance |
|                       |                  | Solution Algorithm: Automatic         |
| UPSTREAM              | DOWNSTREAM       | Flow: Both                            |
| Geometry: Circular    | Circular         | Entrance Loss Coef: 0.00              |
| Span(in): 42.00       | 42.00            | Exit Loss Coef: 0.00                  |
| Rise(in): 42.00       | 42.00            | Bend Loss Coef: 0.80                  |
| Invert(ft): 90.600    | 90.530           | Outlet Ctrl Spec: Use dc or tw        |
| Manning's N: 0.012000 | 0.012000         | Inlet Ctrl Spec: Use dn               |
| Top Clip(in): 0.000   | 0.000            | Stabilizer Option: None               |
| Bot Clip(in): 0.000   | 0.000            |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|              |                   |                   |
|--------------|-------------------|-------------------|
| Name: P510-2 | From Node: I510-1 | Length(ft): 48.00 |
| Group: BASE  | To Node: MH510    | Count: 1          |

|               |          |            |                                       |
|---------------|----------|------------|---------------------------------------|
|               | UPSTREAM | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry:     | Circular | Circular   | Solution Algorithm: Automatic         |
| Span(in):     | 18.00    | 18.00      | Flow: Both                            |
| Rise(in):     | 18.00    | 18.00      | Entrance Loss Coef: 0.00              |
| Invert(ft):   | 93.380   | 90.530     | Exit Loss Coef: 0.00                  |
| Manning's N:  | 0.013000 | 0.013000   | Bend Loss Coef: 0.60                  |
| Top Clip(in): | 0.000    | 0.013      | Outlet Ctrl Spec: Use dc or tw        |
| Bot Clip(in): | 0.000    | 0.000      | Inlet Ctrl Spec: Use dn               |
|               |          |            | Stabilizer Option: None               |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P510-3          | From Node: I510-2 | Length(ft): 17.00                     |
| Group: BASE           | To Node: I510-1   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 18.00       | 18.00             | Bend Loss Coef: 0.60                  |
| Rise(in): 18.00       | 18.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 93.700    | 93.430            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P510-4          | From Node: I510-3 | Length(ft): 33.00                     |
| Group: BASE           | To Node: I510-2   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 18.00       | 18.00             | Bend Loss Coef: 0.80                  |
| Rise(in): 18.00       | 18.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 95.360    | 93.700            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|              |                   |                                       |
|--------------|-------------------|---------------------------------------|
| Name: P510-5 | From Node: I510-4 | Length(ft): 19.00                     |
| Group: BASE  | To Node: I510-3   | Count: 1                              |
|              |                   | Friction Equation: Average Conveyance |

|               |          |            |                                |
|---------------|----------|------------|--------------------------------|
|               | UPSTREAM | DOWNSTREAM | Solution Algorithm: Automatic  |
| Geometry:     | Circular | Circular   | Flow: Both                     |
| Span(in):     | 15.00    | 15.00      | Entrance Loss Coef: 1.00       |
| Rise(in):     | 15.00    | 15.00      | Exit Loss Coef: 0.00           |
| Invert(ft):   | 95.740   | 95.360     | Bend Loss Coef: 0.00           |
| Manning's N:  | 0.013000 | 0.013000   | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): | 0.000    | 0.000      | Inlet Ctrl Spec: Use dn        |
| Bot Clip(in): | 0.000    | 0.000      | Stabilizer Option: None        |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P512-1          | From Node: I512-1 | Length(ft): 176.00                    |
| Group: BASE           | To Node: MH510    | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 36.00       | 36.00             | Bend Loss Coef: 0.70                  |
| Rise(in): 36.00       | 36.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 91.000    | 90.530            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.012000 | 0.012000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P512-2          | From Node: I512-2 | Length(ft): 88.00                     |
| Group: BASE           | To Node: I512-1   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        | Entrance Loss Coef: 0.00              |
| Geometry: Circular    | Circular          | Exit Loss Coef: 0.00                  |
| Span(in): 18.00       | 18.00             | Bend Loss Coef: 0.80                  |
| Rise(in): 18.00       | 18.00             | Outlet Ctrl Spec: Use dc or tw        |
| Invert(ft): 92.900    | 91.000            | Inlet Ctrl Spec: Use dn               |
| Manning's N: 0.013000 | 0.013000          | Stabilizer Option: None               |
| Top Clip(in): 0.000   | 0.000             |                                       |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|              |                   |                                       |
|--------------|-------------------|---------------------------------------|
| Name: P512-3 | From Node: I512-3 | Length(ft): 38.00                     |
| Group: BASE  | To Node: I512-2   | Count: 1                              |
|              |                   | Friction Equation: Average Conveyance |
|              |                   | Solution Algorithm: Automatic         |
| UPSTREAM     | DOWNSTREAM        |                                       |

|                       |          |                                |
|-----------------------|----------|--------------------------------|
| Geometry: Circular    | Circular | Flow: Both                     |
| Span(in): 15.00       | 15.00    | Entrance Loss Coef: 1.00       |
| Rise(in): 15.00       | 15.00    | Exit Loss Coef: 0.00           |
| Invert(ft): 93.690    | 92.900   | Bend Loss Coef: 0.00           |
| Manning's N: 0.013000 | 0.013000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000   | 0.000    | Inlet Ctrl Spec: Use dn        |
| Bot Clip(in): 0.000   | 0.000    | Stabilizer Option: None        |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P514-1          |            | From Node: MH514                      | Length(ft): 207.00 |
| Group: BASE           |            | To Node: I512-1                       | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 36.00       | 36.00      | Flow: Both                            |                    |
| Rise(in): 36.00       | 36.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 91.200    | 91.000     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.012000 | 0.012000   | Bend Loss Coef: 0.50                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                    |
|-----------------------|------------|---------------------------------------|--------------------|
| Name: P516-1          |            | From Node: I516-1                     | Length(ft): 206.00 |
| Group: BASE           |            | To Node: MH514                        | Count: 1           |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                    |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                    |
| Span(in): 30.00       | 30.00      | Flow: Both                            |                    |
| Rise(in): 30.00       | 30.00      | Entrance Loss Coef: 0.00              |                    |
| Invert(ft): 91.600    | 91.200     | Exit Loss Coef: 0.00                  |                    |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.60                  |                    |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                    |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                    |
|                       |            | Stabilizer Option: None               |                    |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                    |            |                                       |                   |
|--------------------|------------|---------------------------------------|-------------------|
| Name: P516-2       |            | From Node: I516-2                     | Length(ft): 49.00 |
| Group: BASE        |            | To Node: I516-1                       | Count: 1          |
| UPSTREAM           | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular | Circular   | Solution Algorithm: Automatic         |                   |
|                    |            | Flow: Both                            |                   |

|                       |          |                                |
|-----------------------|----------|--------------------------------|
| Span(in): 18.00       | 18.00    | Entrance Loss Coef: 0.00       |
| Rise(in): 18.00       | 18.00    | Exit Loss Coef: 0.00           |
| Invert(ft): 93.080    | 92.100   | Bend Loss Coef: 0.80           |
| Manning's N: 0.013000 | 0.013000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000   | 0.000    | Inlet Ctrl Spec: Use dn        |
| Bot Clip(in): 0.000   | 0.000    | Stabilizer Option: None        |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P516-3          | From Node: I516-3 | Length(ft): 63.00                     |
| Group: BASE           | To Node: I516-2   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        |                                       |
| Geometry: Circular    | Circular          | Entrance Loss Coef: 1.00              |
| Span(in): 15.00       | 15.00             | Exit Loss Coef: 0.00                  |
| Rise(in): 15.00       | 15.00             | Bend Loss Coef: 0.00                  |
| Invert(ft): 94.340    | 93.080            | Outlet Ctrl Spec: Use dc or tw        |
| Manning's N: 0.013000 | 0.013000          | Inlet Ctrl Spec: Use dn               |
| Top Clip(in): 0.000   | 0.000             | Stabilizer Option: None               |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                       |                   |                                       |
|-----------------------|-------------------|---------------------------------------|
| Name: P519-1          | From Node: I519-1 | Length(ft): 341.00                    |
| Group: BASE           | To Node: I516-1   | Count: 1                              |
|                       |                   | Friction Equation: Average Conveyance |
|                       |                   | Solution Algorithm: Automatic         |
|                       |                   | Flow: Both                            |
| UPSTREAM              | DOWNSTREAM        |                                       |
| Geometry: Circular    | Circular          | Entrance Loss Coef: 0.00              |
| Span(in): 24.00       | 24.00             | Exit Loss Coef: 0.00                  |
| Rise(in): 24.00       | 24.00             | Bend Loss Coef: 0.80                  |
| Invert(ft): 93.000    | 92.100            | Outlet Ctrl Spec: Use dc or tw        |
| Manning's N: 0.013000 | 0.013000          | Inlet Ctrl Spec: Use dn               |
| Top Clip(in): 0.000   | 0.000             | Stabilizer Option: None               |
| Bot Clip(in): 0.000   | 0.000             |                                       |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

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|                    |                   |                                       |
|--------------------|-------------------|---------------------------------------|
| Name: P519-2       | From Node: I519-2 | Length(ft): 49.00                     |
| Group: BASE        | To Node: I519-1   | Count: 1                              |
|                    |                   | Friction Equation: Average Conveyance |
|                    |                   | Solution Algorithm: Automatic         |
|                    |                   | Flow: Both                            |
| UPSTREAM           | DOWNSTREAM        |                                       |
| Geometry: Circular | Circular          | Entrance Loss Coef: 0.00              |
| Span(in): 18.00    | 18.00             |                                       |

|                       |          |                                |
|-----------------------|----------|--------------------------------|
| Rise(in): 18.00       | 18.00    | Exit Loss Coef: 0.00           |
| Invert(ft): 93.200    | 93.000   | Bend Loss Coef: 0.80           |
| Manning's N: 0.013000 | 0.013000 | Outlet Ctrl Spec: Use dc or tw |
| Top Clip(in): 0.000   | 0.000    | Inlet Ctrl Spec: Use dn        |
| Bot Clip(in): 0.000   | 0.000    | Stabilizer Option: None        |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

|                       |            |                                       |                   |
|-----------------------|------------|---------------------------------------|-------------------|
| Name: P519-3          |            | From Node: I519-3                     | Length(ft): 74.00 |
| Group: BASE           |            | To Node: I519-2                       | Count: 1          |
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |                   |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |                   |
| Span(in): 18.00       | 18.00      | Flow: Both                            |                   |
| Rise(in): 18.00       | 18.00      | Entrance Loss Coef: 1.00              |                   |
| Invert(ft): 93.500    | 93.230     | Exit Loss Coef: 0.00                  |                   |
| Manning's N: 0.013000 | 0.013000   | Bend Loss Coef: 0.00                  |                   |
| Top Clip(in): 0.000   | 0.000      | Outlet Ctrl Spec: Use dc or tw        |                   |
| Bot Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |                   |
|                       |            | Stabilizer Option: None               |                   |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

=====  
==== Channels =====  
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|                          |             |                                       |                    |
|--------------------------|-------------|---------------------------------------|--------------------|
| Name: DOWNSTREAM_CANA    |             | From Node: OUTFALL-POND2              | Length(ft): 491.00 |
| Group: BASE              |             | To Node: TW                           | Count: 1           |
| UPSTREAM                 | DOWNSTREAM  | Friction Equation: Average Conveyance |                    |
| Geometry: Trapezoidal    | Trapezoidal | Solution Algorithm: Automatic         |                    |
| Invert(ft): 92.000       | 90.000      | Flow: Both                            |                    |
| TClipInitZ(ft): 9999.000 | 9999.000    | Contraction Coef: 0.000               |                    |
| Manning's N: 0.018000    | 0.018000    | Expansion Coef: 0.000                 |                    |
| Top Clip(ft): 0.000      | 0.000       | Entrance Loss Coef: 0.000             |                    |
| Bot Clip(ft): 0.000      | 0.000       | Exit Loss Coef: 1.000                 |                    |
| Main XSec:               |             | Outlet Ctrl Spec: Use dc or tw        |                    |
| AuxElev1(ft):            |             | Inlet Ctrl Spec: Use dn               |                    |
| Aux XSec1:               |             | Stabilizer Option: None               |                    |
| AuxElev2(ft):            |             |                                       |                    |
| Aux XSec2:               |             |                                       |                    |
| Top Width(ft):           |             |                                       |                    |
| Depth(ft):               |             |                                       |                    |
| Bot Width(ft): 12.500    | 12.500      |                                       |                    |
| LtSdSlp(h/v): 1.70       | 1.70        |                                       |                    |
| RtSdSlp(h/v): 1.70       | 1.70        |                                       |                    |

=====  
==== Drop Structures =====  
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|              |                       |                    |
|--------------|-----------------------|--------------------|
| Name: DS-100 | From Node: POND 100   | Length(ft): 297.00 |
| Group: BASE  | To Node: EXP POND 200 | Count: 1           |

|                       |            |                                       |
|-----------------------|------------|---------------------------------------|
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |
| Span(in): 30.00       | 30.00      | Flow: Both                            |
| Rise(in): 30.00       | 30.00      | Entrance Loss Coef: 1.000             |
| Invert(ft): 94.850    | 94.000     | Exit Loss Coef: 1.000                 |
| Manning's N: 0.013000 | 0.013000   | Outlet Ctrl Spec: Use dc or tw        |
| Top Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |
| Bot Clip(in): 0.000   | 0.000      | Solution Incs: 10                     |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 2 for Drop Structure DS-100 \*\*\*

|                       |                          |       |
|-----------------------|--------------------------|-------|
| Count: 1              | Bottom Clip(in): 0.000   | TABLE |
| Type: Horizontal      | Top Clip(in): 0.000      |       |
| Flow: Both            | Weir Disc Coef: 3.200    |       |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |       |
| Span(in): 36.00       | Invert(ft): 97.600       |       |
| Rise(in): 28.00       | Control Elev(ft): 97.600 |       |

\*\*\* Weir 2 of 2 for Drop Structure DS-100 \*\*\*

|                       |                          |       |
|-----------------------|--------------------------|-------|
| Count: 1              | Bottom Clip(in): 0.000   | TABLE |
| Type: Vertical: Mavis | Top Clip(in): 0.000      |       |
| Flow: Both            | Weir Disc Coef: 3.200    |       |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |       |
| Span(in): 24.00       | Invert(ft): 95.750       |       |
| Rise(in): 1.85        | Control Elev(ft): 95.750 |       |

---

|                       |                         |                   |
|-----------------------|-------------------------|-------------------|
| Name: DS-EXP POND 200 | From Node: EXP POND 200 | Length(ft): 28.00 |
| Group: BASE           | To Node: OUTFALL-POND2  | Count: 3          |

|                       |            |                                       |
|-----------------------|------------|---------------------------------------|
| UPSTREAM              | DOWNSTREAM | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular   | Solution Algorithm: Automatic         |
| Span(in): 24.00       | 24.00      | Flow: Both                            |
| Rise(in): 24.00       | 24.00      | Entrance Loss Coef: 1.000             |
| Invert(ft): 92.500    | 92.000     | Exit Loss Coef: 1.000                 |
| Manning's N: 0.013000 | 0.013000   | Outlet Ctrl Spec: Use dc or tw        |
| Top Clip(in): 0.000   | 0.000      | Inlet Ctrl Spec: Use dn               |
| Bot Clip(in): 0.000   | 0.000      | Solution Incs: 10                     |

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 2 for Drop Structure DS-EXP POND 200 \*\*\*

|                       |                          |       |
|-----------------------|--------------------------|-------|
| Count: 1              | Bottom Clip(in): 0.000   | TABLE |
| Type: Horizontal      | Top Clip(in): 0.000      |       |
| Flow: Both            | Weir Disc Coef: 3.200    |       |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |       |
| Span(in): 104.00      | Invert(ft): 96.000       |       |

Rise(in): 40.50

Control Elev(ft): 96.000

\*\*\* Weir 2 of 2 for Drop Structure DS-EXP POND 200 \*\*\*

TABLE

Count: 1  
Type: Vertical: Mavis  
Flow: Both  
Geometry: Circular  
Span(in): 3.00  
Rise(in): 3.00  
Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Disc Coef: 3.200  
Orifice Disc Coef: 0.600  
Invert(ft): 94.000  
Control Elev(ft): 94.000

=====

==== Weirs =====

Name: POND-200 WEIR From Node: EXP POND 200  
Group: BASE To Node: OUTFALL-POND2  
Flow: Both Count: 1  
Type: Vertical: Mavis Geometry: Rectangular

Span(in): 360.00  
Rise(in): 9999.00  
Invert(ft): 96.000  
Control Elevation(ft): 96.000

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 2.800  
Orifice Discharge Coef: 0.600

=====

==== Hydrology Simulations =====

Name: 100Y-24H  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\100Y-24H.R32  
Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Flmod  
Rainfall Amount(in): 10.60

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.00           |

Name: 100Y-24H-Orange  
Filename: L:\OC-327 LAKE MARY JESS\1-DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\PROPOSED\100Y-24H-Ora  
Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Orange  
Rainfall Amount(in): 10.60

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.00           |

Name: 5y-1h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-1h.R32  
Override Defaults: Yes  
Storm Duration(hrs): 1.00  
Rainfall File: Fdot-1

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Rainfall Amount(in): 2.90

| Time(hrs) | Print | Inc(min) |
|-----------|-------|----------|
| 1.000     |       | 5.00     |
| 24.000    |       | 15.00    |

---

Name: 5y-2h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-2h.R32

Override Defaults: Yes  
Storm Duration(hrs): 2.00  
Rainfall File: Fdot-2  
Rainfall Amount(in): 3.50

| Time(hrs) | Print | Inc(min) |
|-----------|-------|----------|
| 2.000     |       | 5.00     |
| 24.000    |       | 15.00    |

---

Name: 5Y-4H  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5Y-4H.R32

Override Defaults: Yes  
Storm Duration(hrs): 4.00  
Rainfall File: Fdot-4  
Rainfall Amount(in): 4.10

| Time(hrs) | Print | Inc(min) |
|-----------|-------|----------|
| 4.000     |       | 5.00     |
| 24.000    |       | 15.00    |

---

Name: 5y-8h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-8h.R32

Override Defaults: Yes  
Storm Duration(hrs): 8.00  
Rainfall File: Fdot-8  
Rainfall Amount(in): 4.80

| Time(hrs) | Print | Inc(min) |
|-----------|-------|----------|
| 8.000     |       | 5.00     |
| 24.000    |       | 15.00    |

---

Name: Mean Annual  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\Mean Annual.

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Flmod  
Rainfall Amount(in): 4.50

| Time(hrs) | Print | Inc(min) |
|-----------|-------|----------|
| 24.000    |       | 5.00     |

---

Name: Mean Annual-OC  
Filename: L:\OC-327 LAKE MARY JESS\1-DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\PROPOSED\Mean Annual-

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Orange  
Rainfall Amount(in): 4.50

|           |                |
|-----------|----------------|
| Time(hrs) | Print Inc(min) |
| -----     | -----          |
| 24.000    | 5.00           |

=====

==== Routing Simulations =====

=====

Name: 100Y-24H                      Hydrology Sim: 100Y-24H  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\100Y-24H.I32

Execute: No                      Restart: No                      Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00050     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: 100Year    | Boundary Flows:             |

|           |                |
|-----------|----------------|
| Time(hrs) | Print Inc(min) |
| -----     | -----          |
| 24.000    | 15.000         |

|       |       |
|-------|-------|
| Group | Run   |
| ----- | ----- |
| BASE  | Yes   |

-----

Name: 100Y-24H-Orange                      Hydrology Sim: 100Y-24H-Orange  
Filename: L:\OC-327 LAKE MARY JESS\1-DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\PROPOSED\100Y-24H-Ora

Execute: Yes                      Restart: No                      Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00050     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: 100Year    | Boundary Flows:             |

|           |                |
|-----------|----------------|
| Time(hrs) | Print Inc(min) |
| -----     | -----          |
| 24.000    | 15.000         |

|       |       |
|-------|-------|
| Group | Run   |
| ----- | ----- |
| BASE  | Yes   |

-----

Name: 5y-1h                      Hydrology Sim: 5y-1h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-1h.I32

Execute: No                      Restart: No                      Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00500     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: NHWE       | Boundary Flows:             |

---

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |

|       |       |
|-------|-------|
| Group | Run   |
| ----- | ----- |
| BASE  | Yes   |

---

Name: 5y-2h                      Hydrology Sim: 5y-2h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-2h.I32

Execute: No                      Restart: No                      Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00500     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: NHWE       | Boundary Flows:             |

---

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |

|       |       |
|-------|-------|
| Group | Run   |
| ----- | ----- |
| BASE  | Yes   |

---

Name: 5y-4h                      Hydrology Sim: 5Y-4H  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-4h.I32

Execute: No                      Restart: No                      Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00500     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: NHWE       | Boundary Flows:             |

---

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |

|       |       |
|-------|-------|
| Group | Run   |
| ----- | ----- |
| BASE  | Yes   |

---

Name: 5y-8h                      Hydrology Sim: 5y-8h  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-8h.I32

Execute: No                      Restart: No                      Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00500     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: NHWE       | Boundary Flows:             |

|           |                |
|-----------|----------------|
| Time(hrs) | Print Inc(min) |
| 24.000    | 15.000         |
| Group     | Run            |
| BASE      | Yes            |

Name: Mean Annual Hydrology Sim: Mean Annual  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\Mean Annual.

|                              |                             |           |
|------------------------------|-----------------------------|-----------|
| Execute: No                  | Restart: No                 | Patch: No |
| Alternative: No              |                             |           |
| Max Delta Z(ft): 1.00        | Delta Z Factor: 0.00500     |           |
| Time Step Optimizer: 10.000  |                             |           |
| Start Time(hrs): 0.000       | End Time(hrs): 24.00        |           |
| Min Calc Time(sec): 0.5000   | Max Calc Time(sec): 60.0000 |           |
| Boundary Stages: Mean Annual | Boundary Flows:             |           |

|           |                |
|-----------|----------------|
| Time(hrs) | Print Inc(min) |
| 24.000    | 15.000         |
| Group     | Run            |
| BASE      | Yes            |

Name: Mean Annual-OC Hydrology Sim: Mean Annual-OC  
Filename: L:\OC-327 LAKE MARY JESS\1-DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\PROPOSED\Mean Annual-

|                              |                             |           |
|------------------------------|-----------------------------|-----------|
| Execute: Yes                 | Restart: No                 | Patch: No |
| Alternative: No              |                             |           |
| Max Delta Z(ft): 1.00        | Delta Z Factor: 0.00500     |           |
| Time Step Optimizer: 10.000  |                             |           |
| Start Time(hrs): 0.000       | End Time(hrs): 24.00        |           |
| Min Calc Time(sec): 0.5000   | Max Calc Time(sec): 60.0000 |           |
| Boundary Stages: Mean Annual | Boundary Flows:             |           |

|           |                |
|-----------|----------------|
| Time(hrs) | Print Inc(min) |
| 24.000    | 15.000         |
| Group     | Run            |
| BASE      | Yes            |

==== Boundary Conditions =====

|            |           |             |
|------------|-----------|-------------|
| Name: NHWE | Node: TW  | Type: Stage |
| Time(hrs)  | Stage(ft) |             |
| 0.000      | 93.500    |             |
| 24.000     | 93.500    |             |

Name: Mean Annual

Node: TW

Type: Stage

Time(hrs)      Stage(ft)

|        |        |
|--------|--------|
| 0.000  | 93.490 |
| 1.000  | 93.485 |
| 2.000  | 93.481 |
| 3.000  | 93.477 |
| 4.000  | 93.478 |
| 5.000  | 93.486 |
| 6.000  | 93.503 |
| 7.000  | 93.553 |
| 7.250  | 93.574 |
| 7.500  | 93.599 |
| 7.750  | 93.630 |
| 8.000  | 93.667 |
| 8.250  | 93.710 |
| 8.500  | 93.760 |
| 8.750  | 93.815 |
| 9.000  | 93.875 |
| 9.250  | 93.937 |
| 9.500  | 93.997 |
| 9.750  | 94.055 |
| 10.000 | 94.112 |
| 10.250 | 94.164 |
| 10.500 | 94.212 |
| 10.750 | 94.254 |
| 11.000 | 94.292 |
| 11.250 | 94.327 |
| 11.500 | 94.358 |
| 11.750 | 94.385 |
| 12.000 | 94.408 |
| 12.250 | 94.428 |
| 12.500 | 94.447 |
| 12.750 | 94.464 |
| 13.000 | 94.480 |
| 13.250 | 94.494 |
| 13.500 | 94.507 |
| 13.750 | 94.517 |
| 14.000 | 94.527 |
| 14.250 | 94.534 |
| 14.500 | 94.540 |
| 14.750 | 94.543 |
| 15.000 | 94.546 |
| 15.250 | 94.548 |
| 15.500 | 94.548 |
| 15.750 | 94.548 |
| 16.000 | 94.547 |
| 16.250 | 94.546 |
| 16.500 | 94.544 |
| 16.750 | 94.542 |
| 17.000 | 94.540 |
| 17.250 | 94.537 |
| 17.500 | 94.535 |
| 17.750 | 94.533 |
| 18.000 | 94.530 |
| 18.250 | 94.527 |
| 18.500 | 94.524 |
| 18.750 | 94.521 |
| 19.000 | 94.518 |
| 19.250 | 94.515 |
| 19.500 | 94.512 |
| 19.750 | 94.509 |
| 20.000 | 94.506 |
| 20.250 | 94.502 |
| 20.500 | 94.499 |
| 20.750 | 94.495 |
| 21.000 | 94.491 |

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|        |        |
|--------|--------|
| 21.250 | 94.487 |
| 21.500 | 94.483 |
| 21.750 | 94.479 |
| 22.000 | 94.475 |
| 22.250 | 94.471 |
| 22.500 | 94.467 |
| 22.750 | 94.462 |
| 23.000 | 94.458 |
| 23.250 | 94.454 |
| 23.500 | 94.450 |
| 23.750 | 94.446 |
| 24.000 | 94.441 |
| 24.250 | 94.436 |
| 25.250 | 94.415 |
| 26.250 | 94.393 |
| 27.250 | 94.370 |
| 28.250 | 94.348 |
| 29.250 | 94.326 |
| 30.250 | 94.305 |
| 31.250 | 94.285 |
| 32.250 | 94.264 |
| 33.250 | 94.245 |
| 34.250 | 94.226 |
| 35.250 | 94.207 |
| 36.250 | 94.189 |
| 37.250 | 94.171 |
| 38.250 | 94.153 |
| 39.250 | 94.136 |
| 40.250 | 94.120 |
| 41.250 | 94.104 |
| 42.250 | 94.088 |
| 43.250 | 94.072 |
| 44.250 | 94.057 |
| 45.250 | 94.042 |
| 46.250 | 94.028 |
| 47.250 | 94.013 |
| 48.250 | 93.999 |
| 49.250 | 93.986 |
| 50.250 | 93.972 |
| 51.250 | 93.959 |
| 52.250 | 93.947 |
| 53.250 | 93.934 |
| 54.250 | 93.922 |
| 55.250 | 93.910 |
| 56.250 | 93.898 |
| 57.250 | 93.887 |
| 58.250 | 93.875 |
| 59.250 | 93.864 |
| 60.250 | 93.853 |
| 61.250 | 93.843 |
| 62.250 | 93.832 |
| 63.250 | 93.822 |
| 64.250 | 93.812 |
| 65.250 | 93.802 |
| 66.250 | 93.792 |
| 67.250 | 93.783 |
| 68.250 | 93.773 |
| 69.250 | 93.764 |
| 70.250 | 93.755 |
| 71.250 | 93.746 |
| 72.000 | 93.740 |

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Name: 100Year

Node: TW

Type: Stage

Time (hrs)      Stage (ft)

-----  
0.000      93.490  
1.000      93.485  
2.000      93.482

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|        |        |
|--------|--------|
| 3.000  | 93.483 |
| 4.000  | 93.496 |
| 5.000  | 93.538 |
| 6.000  | 93.617 |
| 7.000  | 93.786 |
| 7.250  | 93.850 |
| 7.500  | 93.924 |
| 7.750  | 94.011 |
| 8.000  | 94.110 |
| 8.250  | 94.223 |
| 8.500  | 94.350 |
| 8.750  | 94.488 |
| 9.000  | 94.634 |
| 9.250  | 94.780 |
| 9.500  | 94.920 |
| 9.750  | 95.054 |
| 10.000 | 95.180 |
| 10.250 | 95.297 |
| 10.500 | 95.400 |
| 10.750 | 95.490 |
| 11.000 | 95.571 |
| 11.250 | 95.643 |
| 11.500 | 95.706 |
| 11.750 | 95.759 |
| 12.000 | 95.804 |
| 12.250 | 95.844 |
| 12.500 | 95.879 |
| 12.750 | 95.911 |
| 13.000 | 95.939 |
| 13.250 | 95.965 |
| 13.500 | 95.986 |
| 13.750 | 96.003 |
| 14.000 | 96.018 |
| 14.250 | 96.029 |
| 14.500 | 96.036 |
| 14.750 | 96.040 |
| 15.000 | 96.041 |
| 15.250 | 96.040 |
| 15.500 | 96.037 |
| 15.750 | 96.033 |
| 16.000 | 96.027 |
| 16.250 | 96.020 |
| 16.500 | 96.013 |
| 16.750 | 96.005 |
| 17.000 | 95.996 |
| 17.250 | 95.988 |
| 17.500 | 95.979 |
| 17.750 | 95.970 |
| 18.000 | 95.961 |
| 18.250 | 95.951 |
| 18.500 | 95.942 |
| 18.750 | 95.933 |
| 19.000 | 95.923 |
| 19.250 | 95.913 |
| 19.500 | 95.903 |
| 19.750 | 95.893 |
| 20.000 | 95.883 |
| 20.250 | 95.873 |
| 20.500 | 95.862 |
| 20.750 | 95.851 |
| 21.000 | 95.840 |
| 21.250 | 95.830 |
| 21.500 | 95.819 |
| 21.750 | 95.808 |
| 22.000 | 95.797 |
| 22.250 | 95.787 |
| 22.500 | 95.777 |
| 22.750 | 95.766 |
| 23.000 | 95.757 |
| 23.250 | 95.747 |

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|        |        |
|--------|--------|
| 23.500 | 95.737 |
| 23.750 | 95.727 |
| 24.000 | 95.717 |
| 24.250 | 95.707 |
| 25.250 | 95.665 |
| 26.250 | 95.625 |
| 27.250 | 95.587 |
| 28.250 | 95.553 |
| 29.250 | 95.522 |
| 30.250 | 95.494 |
| 31.250 | 95.468 |
| 32.250 | 95.443 |
| 33.250 | 95.419 |
| 34.250 | 95.397 |
| 35.250 | 95.375 |
| 36.250 | 95.354 |
| 37.250 | 95.334 |
| 38.250 | 95.315 |
| 39.250 | 95.296 |
| 40.250 | 95.277 |
| 41.250 | 95.258 |
| 42.250 | 95.240 |
| 43.250 | 95.222 |
| 44.250 | 95.204 |
| 45.250 | 95.186 |
| 46.250 | 95.168 |
| 47.250 | 95.151 |
| 48.250 | 95.133 |
| 49.250 | 95.116 |
| 50.250 | 95.098 |
| 51.250 | 95.081 |
| 52.250 | 95.064 |
| 53.250 | 95.047 |
| 54.250 | 95.030 |
| 55.250 | 95.012 |
| 56.250 | 94.995 |
| 57.250 | 94.979 |
| 58.250 | 94.962 |
| 59.250 | 94.945 |
| 60.250 | 94.928 |
| 61.250 | 94.912 |
| 62.250 | 94.895 |
| 63.250 | 94.878 |
| 64.250 | 94.862 |
| 65.250 | 94.846 |
| 66.250 | 94.829 |
| 67.250 | 94.813 |
| 68.250 | 94.797 |
| 69.250 | 94.781 |
| 70.250 | 94.765 |
| 71.250 | 94.749 |
| 72.000 | 94.737 |

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*ICPR MODEL ANALYSIS*

*Proposed Conditions Results*

*5-Year / 1-Hour Storm Event*

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Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
February 2008

| Name         | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| EXP POND 200 | BASE  | 5y-1h      | 1.38                     | 96.249             | 97.000                 | 0.0037                   | 30955                   | 0.67                      | 29.049               | 1.38                       | 20.357                |
| I482-1       | BASE  | 5y-1h      | 1.58                     | 97.110             | 99.400                 | 0.0029                   | 2195                    | 0.77                      | 7.408                | 0.76                       | 6.152                 |
| I482-2       | BASE  | 5y-1h      | 1.57                     | 97.111             | 99.400                 | 0.0027                   | 2182                    | 0.64                      | 1.937                | 4.13                       | 0.666                 |
| I482-3       | BASE  | 5y-1h      | 1.58                     | 97.110             | 99.600                 | 0.0027                   | 2180                    | 0.67                      | 1.334                | 0.64                       | 0.608                 |
| I485-1       | BASE  | 5y-1h      | 1.57                     | 97.105             | 100.200                | -0.0047                  | 2294                    | 0.75                      | 10.090               | 0.75                       | 7.278                 |
| I485-2       | BASE  | 5y-1h      | 1.58                     | 97.108             | 100.200                | 0.0030                   | 2180                    | 0.83                      | 1.079                | 2.01                       | 0.384                 |
| I487-1       | BASE  | 5y-1h      | 1.58                     | 97.101             | 100.600                | 0.0040                   | 2245                    | 0.74                      | 11.103               | 1.03                       | 7.268                 |
| I487-2       | BASE  | 5y-1h      | 1.57                     | 97.101             | 100.600                | 0.0025                   | 2180                    | 0.67                      | 1.159                | 0.90                       | 0.877                 |
| I489         | BASE  | 5y-1h      | 1.58                     | 97.089             | 101.200                | -0.0055                  | 2198                    | 1.03                      | 10.452               | 1.03                       | 32.874                |
| I490-1       | BASE  | 5y-1h      | 1.69                     | 96.954             | 101.260                | 0.0030                   | 2204                    | 0.83                      | 6.754                | 1.18                       | 4.203                 |
| I490-2       | BASE  | 5y-1h      | 0.83                     | 97.090             | 101.650                | 0.0012                   | 2211                    | 0.67                      | 1.334                | 0.82                       | 0.952                 |
| I491         | BASE  | 5y-1h      | 0.85                     | 98.770             | 101.900                | 0.0012                   | 2182                    | 0.67                      | 1.932                | 0.84                       | 1.585                 |
| I492         | BASE  | 5y-1h      | 1.71                     | 96.857             | 101.870                | 0.0028                   | 2204                    | 0.83                      | 5.124                | 1.30                       | 3.918                 |
| I494-1       | BASE  | 5y-1h      | 0.94                     | 99.432             | 101.890                | 0.0022                   | 2183                    | 0.83                      | 4.181                | 0.93                       | 3.715                 |
| I494-2       | BASE  | 5y-1h      | 1.72                     | 96.779             | 101.300                | 0.0028                   | 2181                    | 2.55                      | 0.234                | 0.30                       | 0.520                 |
| I495-1       | BASE  | 5y-1h      | 1.73                     | 96.779             | 101.800                | 0.0030                   | 2180                    | 0.67                      | 0.889                | 2.55                       | 0.234                 |
| I495-2       | BASE  | 5y-1h      | 0.84                     | 97.394             | 102.400                | 0.0024                   | 2219                    | 0.70                      | 3.671                | 0.70                       | 3.237                 |
| I497-1       | BASE  | 5y-1h      | 0.80                     | 98.045             | 102.540                | 0.0019                   | 2205                    | 0.67                      | 2.223                | 0.80                       | 1.724                 |
| I497-2       | BASE  | 5y-1h      | 1.73                     | 96.730             | 101.690                | 0.0018                   | 2214                    | 0.65                      | 1.201                | 0.94                       | 0.913                 |
| I499         | BASE  | 5y-1h      | 1.74                     | 96.730             | 101.740                | 0.0025                   | 2201                    | 0.67                      | 0.386                | 2.56                       | 0.207                 |
| I500         | BASE  | 5y-1h      | 1.67                     | 96.692             | 101.200                | 0.0023                   | 2186                    | 0.83                      | 3.883                | 0.94                       | 3.420                 |
| I501-1       | BASE  | 5y-1h      | 1.64                     | 96.633             | 100.760                | 0.0022                   | 2179                    | 0.67                      | 2.704                | 0.78                       | 2.512                 |
| I501-2       | BASE  | 5y-1h      | 1.59                     | 96.601             | 101.800                | 0.0042                   | 2217                    | 1.64                      | 9.206                | 1.84                       | 8.994                 |
| I504-1       | BASE  | 5y-1h      | 0.88                     | 96.743             | 101.800                | 0.0027                   | 2181                    | 0.83                      | 4.779                | 0.88                       | 7.022                 |
| I504-2       | BASE  | 5y-1h      | 1.58                     | 96.577             | 100.860                | 0.0026                   | 2179                    | 0.67                      | 0.386                | 4.13                       | 0.481                 |
| I505-1       | BASE  | 5y-1h      | 1.58                     | 96.577             | 101.500                | 0.0026                   | 2179                    | 0.67                      | 0.386                | 4.13                       | 0.489                 |
| I506         | BASE  | 5y-1h      | 1.25                     | 96.730             | 100.000                | 0.0032                   | 2181                    | 0.83                      | 5.675                | 0.99                       | 3.046                 |
| I508         | BASE  | 5y-1h      | 1.49                     | 96.513             | 99.600                 | 0.0049                   | 2209                    | 1.71                      | 12.621               | 1.64                       | 11.207                |
| I510-1       | BASE  | 5y-1h      | 1.45                     | 96.478             | 98.400                 | 0.0036                   | 2180                    | 0.67                      | 5.795                | 0.65                       | 4.250                 |
| I510-2       | BASE  | 5y-1h      | 1.18                     | 96.496             | 98.810                 | 0.0046                   | 2180                    | 0.64                      | 11.205               | 0.86                       | 5.827                 |
| I510-3       | BASE  | 5y-1h      | 1.12                     | 96.564             | 98.300                 | -0.0048                  | 2184                    | 0.98                      | 6.866                | 0.64                       | 5.005                 |
| I510-4       | BASE  | 5y-1h      | 0.98                     | 96.673             | 98.900                 | -0.0039                  | 2199                    | 0.80                      | 4.949                | 0.98                       | 5.339                 |
| I512-1       | BASE  | 5y-1h      | 1.45                     | 96.901             | 98.030                 | 0.0029                   | 2186                    | 0.67                      | 4.250                | 0.83                       | 3.595                 |
| I512-2       | BASE  | 5y-1h      | 1.46                     | 96.427             | 99.000                 | -0.0035                  | 2210                    | 1.46                      | 3.843                | 1.86                       | 3.803                 |
| I512-3       | BASE  | 5y-1h      | 1.46                     | 96.427             | 98.500                 | 0.0026                   | 2179                    | 1.86                      | 0.203                | 2.32                       | 0.597                 |
| I516-1       | BASE  | 5y-1h      | 1.44                     | 96.465             | 98.200                 | 0.0031                   | 2210                    | 0.64                      | 6.216                | 0.64                       | 3.816                 |
| I516-2       | BASE  | 5y-1h      | 1.45                     | 96.466             | 97.820                 | 0.0031                   | 2182                    | 0.53                      | 1.591                | 0.36                       | 0.935                 |
| I516-3       | BASE  | 5y-1h      | 1.44                     | 96.466             | 97.950                 | 0.0025                   | 2180                    | 0.67                      | 0.445                | 1.78                       | 0.150                 |
| I519-1       | BASE  | 5y-1h      | 1.33                     | 96.574             | 97.900                 | 0.0036                   | 2197                    | 0.75                      | 8.352                | 0.85                       | 5.975                 |
| I519-2       | BASE  | 5y-1h      | 1.24                     | 96.708             | 97.150                 | 0.0037                   | 2183                    | 0.84                      | 5.887                | 1.01                       | 4.311                 |
| I519-3       | BASE  | 5y-1h      | 1.22                     | 96.853             | 97.280                 | 0.0037                   | 2181                    | 0.83                      | 5.125                | 1.04                       | 3.289                 |
| MH489        | BASE  | 5y-1h      | 1.59                     | 97.081             | 101.600                | 0.0066                   | 2476                    | 1.03                      | 36.183               | 1.04                       | 4.561                 |
| MH491        | BASE  | 5y-1h      | 1.58                     | 97.075             | 101.800                | 0.0025                   | 2602                    | 0.97                      | 3.876                | 1.00                       | 3.409                 |
| MH493        | BASE  | 5y-1h      | 1.58                     | 97.070             | 100.420                | 0.0018                   | 2585                    | 0.74                      | 3.512                | 1.03                       | 2.547                 |
| MH494        | BASE  | 5y-1h      | 1.71                     | 96.779             | 102.340                | 0.0031                   | 2217                    | 1.64                      | 6.937                | 1.81                       | 6.711                 |

Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
February 2008

| Name          | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH495         | BASE  | 5y-1h      | 1.63                     | 96.998             | 102.340                | 0.0013                   | 2500                    | 0.84                      | 3.237                | 0.98                       | 2.462                 |
| MH497         | BASE  | 5y-1h      | 1.71                     | 96.729             | 101.500                | 0.0026                   | 2211                    | 1.99                      | 6.849                | 2.03                       | 7.000                 |
| MH499         | BASE  | 5y-1h      | 1.69                     | 96.683             | 101.200                | 0.0037                   | 2205                    | 1.94                      | 7.473                | 1.81                       | 7.619                 |
| MH500         | BASE  | 5y-1h      | 1.64                     | 96.634             | 100.760                | -0.0045                  | 2201                    | 1.81                      | 8.022                | 1.64                       | 8.146                 |
| MH504         | BASE  | 5y-1h      | 1.57                     | 96.579             | 100.800                | -0.0048                  | 2209                    | 1.71                      | 9.711                | 1.64                       | 10.532                |
| MH505         | BASE  | 5y-1h      | 1.51                     | 96.549             | 100.400                | 0.0049                   | 2200                    | 1.64                      | 11.873               | 1.71                       | 11.694                |
| MH508         | BASE  | 5y-1h      | 1.48                     | 96.474             | 101.000                | -0.0048                  | 2215                    | 1.64                      | 11.596               | 1.71                       | 11.450                |
| MH510         | BASE  | 5y-1h      | 1.45                     | 96.419             | 100.700                | 0.0047                   | 2219                    | 1.40                      | 15.983               | 1.46                       | 15.980                |
| MH514         | BASE  | 5y-1h      | 1.45                     | 96.443             | 99.000                 | 0.0030                   | 2206                    | 0.64                      | 3.816                | 1.45                       | 3.583                 |
| OUTFALL-POND2 | BASE  | 5y-1h      | 1.39                     | 93.562             | 97.000                 | 0.0060                   | 4890                    | 1.38                      | 20.357               | 1.39                       | 20.357                |
| POND 100      | BASE  | 5y-1h      | 1.29                     | 97.554             | 98.000                 | 0.0050                   | 22005                   | 0.67                      | 31.484               | 0.91                       | 1.709                 |
| TW            | BASE  | 5y-1h      | 0.00                     | 93.500             | 0.000                  | 0.0000                   | 5469                    | 1.39                      | 20.357               | 0.00                       | 0.000                 |

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*ICPR MODEL ANALYSIS*

*Proposed Conditions Results*

*5-Year / 8-Hour Storm Event*

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Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
February 2008

| Name         | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Inflow<br>hrs | Max Time<br>Outflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|-------------------|----------------------------|----------------------|----------------------------|-----------------------|
| EXP POND 200 | BASE  | 5y-8h      | 4.35                     | 96.385             | 97.000                 | 0.0036                   | 31581                   | 4.17              | 4.35                       | 40.022               | 4.35                       | 38.778                |
| I482-1       | BASE  | 5y-8h      | 5.22                     | 97.712             | 99.400                 | 0.0027                   | 2195                    | 4.04              | 7.26                       | 3.254                | 7.26                       | 2.525                 |
| I482-2       | BASE  | 5y-8h      | 5.23                     | 97.712             | 99.400                 | 0.0027                   | 2182                    | 3.28              | 3.15                       | 0.758                | 3.15                       | 1.086                 |
| I482-3       | BASE  | 5y-8h      | 5.23                     | 97.713             | 99.600                 | 0.0028                   | 2180                    | 4.00              | 6.34                       | 0.595                | 6.34                       | 0.305                 |
| I485-1       | BASE  | 5y-8h      | 5.23                     | 97.702             | 100.200                | -0.0043                  | 2213                    | 4.14              | 7.74                       | 4.904                | 7.74                       | 5.152                 |
| I485-2       | BASE  | 5y-8h      | 5.24                     | 97.706             | 100.200                | 0.0026                   | 2180                    | 4.08              | 7.26                       | 0.696                | 7.26                       | 0.460                 |
| I487-1       | BASE  | 5y-8h      | 5.24                     | 97.691             | 100.600                | 0.0043                   | 2218                    | 7.56              | 7.220                      | 5.892                | 7.220                      | 7.220                 |
| I487-2       | BASE  | 5y-8h      | 5.24                     | 97.692             | 100.600                | 0.0026                   | 2180                    | 4.00              | 7.74                       | 0.588                | 7.74                       | 0.556                 |
| I489         | BASE  | 5y-8h      | 5.25                     | 97.673             | 101.200                | -0.0060                  | 2198                    | 3.87              | 3.87                       | 9.513                | 3.87                       | 32.928                |
| I490-1       | BASE  | 5y-8h      | 5.29                     | 97.582             | 101.260                | 0.0027                   | 2203                    | 3.94              | 4.15                       | 5.636                | 4.15                       | 3.813                 |
| I490-2       | BASE  | 5y-8h      | 5.29                     | 97.583             | 101.650                | 0.0026                   | 2200                    | 4.00              | 4.13                       | 0.595                | 4.13                       | 0.651                 |
| I491         | BASE  | 5y-8h      | 4.08                     | 98.592             | 101.900                | -0.0008                  | 2181                    | 4.00              | 4.07                       | 0.980                | 4.07                       | 0.941                 |
| I492         | BASE  | 5y-8h      | 5.30                     | 97.505             | 101.870                | 0.0026                   | 2204                    | 4.15              | 4.16                       | 4.649                | 4.16                       | 3.747                 |
| I493         | BASE  | 5y-8h      | 4.14                     | 99.148             | 101.890                | -0.0014                  | 2184                    | 6.55              | 4.14                       | 2.533                | 4.14                       | 2.472                 |
| I494-1       | BASE  | 5y-8h      | 5.31                     | 97.434             | 101.300                | 0.0026                   | 2181                    | 6.55              | 6.54                       | 0.357                | 6.54                       | 0.622                 |
| I494-2       | BASE  | 5y-8h      | 5.31                     | 97.434             | 101.800                | 0.0027                   | 2180                    | 4.00              | 6.55                       | 0.396                | 6.55                       | 0.307                 |
| I495-1       | BASE  | 5y-8h      | 5.19                     | 97.602             | 102.400                | 0.0049                   | 2207                    | 4.00              | 5.19                       | 1.957                | 5.19                       | 4.412                 |
| I495-2       | BASE  | 5y-8h      | 4.02                     | 97.840             | 102.540                | -0.0009                  | 2205                    | 4.00              | 4.01                       | 0.991                | 4.01                       | 0.967                 |
| I497-1       | BASE  | 5y-8h      | 5.29                     | 97.360             | 101.690                | -0.0044                  | 2183                    | 3.72              | 6.51                       | 0.686                | 6.51                       | 3.556                 |
| I497-2       | BASE  | 5y-8h      | 5.31                     | 97.359             | 101.740                | 0.0030                   | 2179                    | 4.00              | 6.52                       | 0.196                | 6.52                       | 0.514                 |
| I499         | BASE  | 5y-8h      | 5.23                     | 97.302             | 101.200                | 0.0023                   | 2178                    | 4.08              | 3.79                       | 2.352                | 3.79                       | 2.093                 |
| I500         | BASE  | 5y-8h      | 5.22                     | 97.186             | 100.760                | 0.0026                   | 2178                    | 4.00              | 3.52                       | 1.372                | 3.52                       | 2.208                 |
| I501-1       | BASE  | 5y-8h      | 5.17                     | 97.123             | 101.800                | 0.0050                   | 2213                    | 5.44              | 5.68                       | 11.652               | 5.68                       | 12.127                |
| I501-2       | BASE  | 5y-8h      | 5.15                     | 97.175             | 101.800                | 0.0024                   | 2180                    | 4.08              | 3.82                       | 2.894                | 3.82                       | 2.545                 |
| I504-1       | BASE  | 5y-8h      | 5.17                     | 97.072             | 100.860                | 0.0023                   | 2179                    | 4.00              | 5.17                       | 0.196                | 5.17                       | 0.436                 |
| I504-2       | BASE  | 5y-8h      | 5.17                     | 97.072             | 101.500                | 0.0023                   | 2179                    | 4.00              | 5.17                       | 0.196                | 5.17                       | 0.444                 |
| I505-1       | BASE  | 5y-8h      | 5.02                     | 97.122             | 100.000                | 0.0024                   | 2181                    | 4.08              | 4.22                       | 3.437                | 4.22                       | 2.639                 |
| I506         | BASE  | 5y-8h      | 5.06                     | 96.932             | 99.600                 | 0.0050                   | 2209                    | 5.17              | 5.39                       | 16.515               | 5.39                       | 14.811                |
| I508         | BASE  | 5y-8h      | 5.06                     | 96.879             | 98.400                 | 0.0022                   | 2180                    | 4.00              | 4.04                       | 2.939                | 4.04                       | 2.210                 |
| I510-1       | BASE  | 5y-8h      | 4.86                     | 96.827             | 98.810                 | 0.0042                   | 2180                    | 3.09              | 4.18                       | 6.116                | 4.18                       | 4.177                 |
| I510-2       | BASE  | 5y-8h      | 4.50                     | 96.855             | 98.300                 | -0.0050                  | 2180                    | 3.87              | 3.09                       | 5.799                | 3.09                       | 4.866                 |
| I510-3       | BASE  | 5y-8h      | 4.42                     | 96.874             | 98.900                 | -0.0048                  | 2181                    | 3.83              | 3.87                       | 2.755                | 3.87                       | 4.452                 |
| I510-4       | BASE  | 5y-8h      | 4.38                     | 96.895             | 98.030                 | 0.0014                   | 2183                    | 4.00              | 3.83                       | 2.156                | 3.83                       | 1.990                 |
| I512-1       | BASE  | 5y-8h      | 5.03                     | 96.769             | 99.000                 | -0.0039                  | 2210                    | 4.62              | 4.62                       | 5.685                | 4.62                       | 5.767                 |
| I512-2       | BASE  | 5y-8h      | 5.03                     | 96.769             | 98.500                 | 0.0022                   | 2182                    | 4.62              | 9.11                       | 0.260                | 9.11                       | 0.600                 |
| I512-3       | BASE  | 5y-8h      | 5.04                     | 96.770             | 98.500                 | 0.0022                   | 2179                    | 4.00              | 6.29                       | 0.198                | 6.29                       | 0.217                 |
| I516-1       | BASE  | 5y-8h      | 4.76                     | 96.854             | 98.200                 | 0.0022                   | 2210                    | 4.33              | 4.37                       | 6.069                | 4.37                       | 5.648                 |
| I516-2       | BASE  | 5y-8h      | 4.78                     | 96.855             | 97.820                 | 0.0022                   | 2182                    | 5.00              | 1.59                       | 0.396                | 1.59                       | 3.219                 |
| I516-3       | BASE  | 5y-8h      | 4.78                     | 96.855             | 97.950                 | 0.0022                   | 2180                    | 4.00              | 5.62                       | 0.198                | 5.62                       | 0.227                 |
| I519-1       | BASE  | 5y-8h      | 4.51                     | 97.037             | 97.900                 | 0.0024                   | 2197                    | 4.00              | 5.238                      | 5.944                | 5.238                      | 5.238                 |
| I519-2       | BASE  | 5y-8h      | 4.43                     | 97.168             | 97.150                 | 0.0024                   | 2183                    | 4.08              | 4.32                       | 4.272                | 4.32                       | 3.864                 |
| I519-3       | BASE  | 5y-8h      | 4.39                     | 97.285             | 97.280                 | 0.0025                   | 2181                    | 4.08              | 2.702                      | 3.304                | 4.32                       | 2.702                 |
| MH489        | BASE  | 5y-8h      | 5.25                     | 97.662             | 101.600                | 0.0065                   | 2413                    | 3.87              | 2.75                       | 34.674               | 2.75                       | 3.905                 |
| MH491        | BASE  | 5y-8h      | 5.25                     | 97.648             | 101.800                | 0.0024                   | 2529                    | 3.82              | 3.75                       | 2.577                | 3.75                       | 2.010                 |
| MH493        | BASE  | 5y-8h      | 5.25                     | 97.639             | 100.420                | 0.0023                   | 2534                    | 3.83              | 3.81                       | 2.244                | 3.81                       | 1.712                 |
| MH494        | BASE  | 5y-8h      | 5.31                     | 97.434             | 102.340                | 0.0036                   | 2217                    | 5.19              | 5.56                       | 8.855                | 5.56                       | 9.018                 |

Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
February 2008

| Name          | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH495         | BASE  | 5Y-8h      | 5.19                     | 97.592             | 102.340                | -0.0048                  | 2480                    | 5.19                      | 4.412                | 3.75                       | 1.491                 |
| MH497         | BASE  | 5Y-8h      | 5.31                     | 97.358             | 101.500                | -0.0049                  | 2207                    | 6.51                      | 11.650               | 6.52                       | 9.174                 |
| MH499         | BASE  | 5Y-8h      | 5.28                     | 97.275             | 101.200                | 0.0043                   | 2203                    | 5.44                      | 9.930                | 5.78                       | 10.622                |
| MH500         | BASE  | 5Y-8h      | 5.23                     | 97.183             | 100.760                | 0.0050                   | 2200                    | 5.90                      | 11.101               | 5.44                       | 10.511                |
| MH504         | BASE  | 5Y-8h      | 5.18                     | 97.071             | 100.800                | -0.0047                  | 2209                    | 5.17                      | 12.877               | 5.70                       | 12.295                |
| MH505         | BASE  | 5Y-8h      | 5.17                     | 97.017             | 100.400                | 0.0048                   | 2200                    | 5.44                      | 13.486               | 5.17                       | 15.002                |
| MH508         | BASE  | 5Y-8h      | 5.07                     | 96.860             | 101.000                | 0.0048                   | 2215                    | 5.30                      | 15.618               | 5.17                       | 15.809                |
| MH510         | BASE  | 5Y-8h      | 5.02                     | 96.751             | 100.700                | 0.0047                   | 2219                    | 5.17                      | 23.770               | 5.17                       | 23.571                |
| MH514         | BASE  | 5Y-8h      | 4.95                     | 96.803             | 99.000                 | -0.0025                  | 2206                    | 4.37                      | 5.648                | 4.39                       | 5.491                 |
| OUTFALL-POND2 | BASE  | 5Y-8h      | 4.35                     | 93.640             | 97.000                 | 0.0060                   | 4939                    | 4.35                      | 38.778               | 4.35                       | 38.778                |
| POND 100      | BASE  | 5Y-8h      | 4.36                     | 97.885             | 98.000                 | 0.0023                   | 22839                   | 4.00                      | 14.325               | 4.36                       | 6.905                 |
| TW            | BASE  | 5Y-8h      | 0.00                     | 93.500             | 0.000                  | 0.0000                   | 5469                    | 4.35                      | 38.778               | 0.00                       | 0.000                 |

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*ICPR MODEL ANALYSIS*

*Proposed Conditions Results*

*2.33-Year / 24-Hour Storm Event*

*(SJRWMD AND ORANGE COUNTY STORM  
EVENTS)*

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Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
February 2008

| Name         | Group | Simulation  | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------------|-------|-------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| EXP POND 200 |       |             |                          |                    |                        |                          |                         |                           |                      |                            |                       |
| I482-1       | BASE  | Mean Annual | 12.57                    | 96.347             | 97.000                 | 0.0036                   | 31408                   | 12.43                     | 34.628               | 12.57                      | 33.246                |
| I482-2       | BASE  | Mean Annual | 13.07                    | 97.403             | 99.400                 | 0.0033                   | 2195                    | 12.16                     | 3.419                | 12.20                      | 2.373                 |
| I482-3       | BASE  | Mean Annual | 13.08                    | 97.403             | 99.400                 | 0.0032                   | 2182                    | 13.94                     | 0.350                | 14.21                      | 0.588                 |
| I485-1       | BASE  | Mean Annual | 13.08                    | 97.404             | 99.600                 | 0.0032                   | 2180                    | 12.00                     | 0.838                | 13.94                      | 0.289                 |
| I485-2       | BASE  | Mean Annual | 13.08                    | 97.396             | 100.200                | -0.0050                  | 2213                    | 12.20                     | 5.174                | 14.79                      | 5.573                 |
| I487-1       | BASE  | Mean Annual | 13.08                    | 97.399             | 100.200                | 0.0031                   | 2180                    | 12.25                     | 0.727                | 14.09                      | 0.412                 |
| I487-2       | BASE  | Mean Annual | 13.08                    | 97.388             | 100.600                | -0.0050                  | 2218                    | 12.19                     | 6.371                | 12.19                      | 7.138                 |
| I489         | BASE  | Mean Annual | 13.09                    | 97.374             | 101.200                | 0.0030                   | 2180                    | 12.08                     | 0.743                | 14.79                      | 0.611                 |
| I490-1       | BASE  | Mean Annual | 13.09                    | 97.374             | 101.200                | -0.0059                  | 2198                    | 12.19                     | 9.665                | 12.19                      | 32.946                |
| I490-2       | BASE  | Mean Annual | 13.16                    | 97.279             | 101.260                | 0.0036                   | 2205                    | 12.20                     | 4.797                | 12.46                      | 3.524                 |
| I491         | BASE  | Mean Annual | 13.16                    | 97.279             | 101.650                | 0.0021                   | 2205                    | 12.00                     | 0.838                | 12.18                      | 0.615                 |
| I492         | BASE  | Mean Annual | 12.23                    | 98.613             | 101.900                | 0.0010                   | 2182                    | 12.08                     | 1.238                | 12.22                      | 1.011                 |
| I493         | BASE  | Mean Annual | 13.17                    | 97.200             | 101.870                | 0.0036                   | 2204                    | 12.46                     | 4.195                | 13.61                      | 3.500                 |
| I494-1       | BASE  | Mean Annual | 12.32                    | 99.163             | 101.890                | 0.0017                   | 2184                    | 12.17                     | 2.806                | 12.31                      | 2.535                 |
| I494-2       | BASE  | Mean Annual | 13.19                    | 97.131             | 101.300                | 0.0034                   | 2181                    | 14.11                     | 0.285                | 13.20                      | 0.532                 |
| I495-1       | BASE  | Mean Annual | 13.15                    | 97.131             | 101.800                | 0.0031                   | 2180                    | 12.00                     | 0.558                | 14.19                      | 0.246                 |
| I495-2       | BASE  | Mean Annual | 13.14                    | 97.310             | 102.400                | 0.0015                   | 2212                    | 12.08                     | 2.391                | 12.19                      | 2.111                 |
| I497-1       | BASE  | Mean Annual | 12.15                    | 97.882             | 102.540                | 0.0012                   | 2205                    | 12.00                     | 1.396                | 12.15                      | 1.111                 |
| I497-2       | BASE  | Mean Annual | 13.14                    | 97.074             | 101.690                | -0.0045                  | 2195                    | 12.05                     | 0.822                | 13.55                      | 3.149                 |
| I499         | BASE  | Mean Annual | 13.17                    | 97.073             | 101.740                | 0.0029                   | 2191                    | 12.08                     | 0.248                | 13.43                      | 0.530                 |
| I500         | BASE  | Mean Annual | 13.07                    | 97.035             | 101.200                | 0.0021                   | 2179                    | 12.17                     | 2.606                | 12.07                      | 1.893                 |
| I501-1       | BASE  | Mean Annual | 13.04                    | 96.948             | 100.760                | 0.0031                   | 2178                    | 12.08                     | 1.734                | 1.87                       | 2.204                 |
| I501-2       | BASE  | Mean Annual | 13.00                    | 96.903             | 101.800                | 0.0049                   | 2213                    | 13.20                     | 11.535               | 13.33                      | 10.808                |
| I504-1       | BASE  | Mean Annual | 12.83                    | 96.961             | 101.800                | 0.0022                   | 2180                    | 12.17                     | 3.207                | 12.11                      | 2.439                 |
| I504-2       | BASE  | Mean Annual | 12.93                    | 96.869             | 100.860                | 0.0033                   | 2179                    | 12.08                     | 0.248                | 18.25                      | 0.424                 |
| I505-1       | BASE  | Mean Annual | 12.61                    | 97.014             | 100.000                | 0.0040                   | 2179                    | 12.08                     | 0.248                | 18.25                      | 0.431                 |
| I506         | BASE  | Mean Annual | 12.81                    | 96.777             | 99.600                 | 0.0048                   | 2181                    | 12.17                     | 3.809                | 12.41                      | 2.625                 |
| I508         | BASE  | Mean Annual | 12.73                    | 96.739             | 98.400                 | 0.0035                   | 2209                    | 13.15                     | 14.591               | 13.20                      | 13.254                |
| I510-1       | BASE  | Mean Annual | 12.54                    | 96.753             | 98.810                 | 0.0036                   | 2180                    | 12.08                     | 3.715                | 12.09                      | 2.406                 |
| I510-2       | BASE  | Mean Annual | 12.51                    | 96.799             | 98.300                 | -0.0050                  | 2180                    | 12.14                     | 6.079                | 12.27                      | 4.352                 |
| I510-3       | BASE  | Mean Annual | 12.51                    | 96.808             | 98.900                 | -0.0044                  | 2187                    | 12.13                     | 6.161                | 10.35                      | 4.713                 |
| I510-4       | BASE  | Mean Annual | 12.49                    | 96.836             | 98.030                 | 0.0019                   | 2184                    | 12.15                     | 3.248                | 12.13                      | 4.517                 |
| I512-1       | BASE  | Mean Annual | 12.74                    | 96.662             | 99.000                 | 0.0043                   | 2210                    | 12.69                     | 2.725                | 12.15                      | 2.329                 |
| I512-2       | BASE  | Mean Annual | 12.74                    | 96.663             | 98.500                 | 0.0030                   | 2182                    | 13.85                     | 5.723                | 12.74                      | 5.434                 |
| I512-3       | BASE  | Mean Annual | 12.74                    | 96.663             | 98.500                 | 0.0030                   | 2182                    | 13.85                     | 0.262                | 13.74                      | 0.627                 |
| I516-1       | BASE  | Mean Annual | 12.70                    | 96.749             | 98.200                 | 0.0033                   | 2210                    | 12.51                     | 0.279                | 13.85                      | 0.242                 |
| I516-2       | BASE  | Mean Annual | 12.70                    | 96.750             | 97.820                 | 0.0032                   | 2179                    | 12.00                     | 5.729                | 12.50                      | 5.551                 |
| I516-3       | BASE  | Mean Annual | 12.70                    | 96.750             | 97.950                 | 0.0031                   | 2182                    | 13.06                     | 0.328                | 3.44                       | 3.220                 |
| I519-1       | BASE  | Mean Annual | 12.58                    | 96.943             | 97.900                 | 0.0039                   | 2197                    | 12.11                     | 0.279                | 13.18                      | 0.209                 |
| I519-2       | BASE  | Mean Annual | 12.57                    | 97.080             | 97.150                 | 0.0041                   | 2183                    | 12.29                     | 6.005                | 12.37                      | 5.156                 |
| I519-3       | BASE  | Mean Annual | 12.56                    | 97.196             | 97.280                 | 0.0042                   | 2181                    | 12.25                     | 3.453                | 12.53                      | 3.833                 |
| MH489        | BASE  | Mean Annual | 13.10                    | 97.365             | 101.600                | 0.0065                   | 2456                    | 12.19                     | 34.113               | 12.63                      | 2.645                 |
| MH491        | BASE  | Mean Annual | 13.10                    | 97.354             | 101.800                | 0.0025                   | 2580                    | 12.16                     | 2.457                | 12.13                      | 1.247                 |
| MH493        | BASE  | Mean Annual | 13.10                    | 97.347             | 100.420                | 0.0022                   | 2572                    | 12.15                     | 2.471                | 12.15                      | 1.480                 |
| MH494        | BASE  | Mean Annual | 13.15                    | 97.131             | 102.340                | 0.0036                   | 2217                    | 13.20                     | 7.919                | 13.33                      | 7.878                 |

Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
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| Name          | Group | Simulation  | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|-------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH495         | BASE  | Mean Annual | 13.14                    | 97.293             | 102.340                | 0.0020                   | 2501                    | 12.19                     | 2.111                | 12.16                      | 1.179                 |
| MH497         | BASE  | Mean Annual | 13.19                    | 97.076             | 101.500                | -0.0047                  | 2210                    | 13.55                     | 10.942               | 13.43                      | 8.756                 |
| MH499         | BASE  | Mean Annual | 13.09                    | 97.014             | 101.200                | 0.0038                   | 2203                    | 13.43                     | 9.455                | 13.33                      | 9.287                 |
| MH500         | BASE  | Mean Annual | 12.99                    | 96.948             | 100.760                | 0.0047                   | 2200                    | 13.33                     | 9.739                | 13.20                      | 10.372                |
| MH504         | BASE  | Mean Annual | 12.93                    | 96.871             | 100.800                | -0.0045                  | 2209                    | 13.33                     | 11.575               | 13.20                      | 11.880                |
| MH505         | BASE  | Mean Annual | 12.89                    | 96.829             | 100.400                | 0.0050                   | 2200                    | 13.20                     | 13.171               | 13.15                      | 13.450                |
| MH508         | BASE  | Mean Annual | 12.78                    | 96.722             | 101.000                | -0.0049                  | 2215                    | 13.20                     | 13.898               | 13.15                      | 13.963                |
| MH510         | BASE  | Mean Annual | 12.74                    | 96.643             | 100.700                | 0.0050                   | 2219                    | 12.76                     | 21.476               | 12.81                      | 21.555                |
| OUTFALL-POND2 | BASE  | Mean Annual | 12.72                    | 96.698             | 99.000                 | -0.0038                  | 2206                    | 12.50                     | 5.551                | 12.58                      | 5.376                 |
| POND 100      | BASE  | Mean Annual | 15.25                    | 94.573             | 97.000                 | 0.0060                   | 5742                    | 12.57                     | 33.246               | 12.57                      | 33.141                |
| TW            | BASE  | Mean Annual | 15.25                    | 94.548             | 0.000                  | -0.0100                  | 6453                    | 12.57                     | 20.045               | 12.70                      | 4.041                 |
|               |       |             |                          |                    |                        |                          |                         |                           | 33.141               | 0.00                       | 0.000                 |

Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
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| Name         | Group | Simulation     | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Inflow<br>hrs | Max Time<br>Inflow<br>hrs | Max Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------------|-------|----------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|-------------------|---------------------------|-------------------|----------------------------|-----------------------|
| EXP POND 200 |       |                |                          |                    |                        |                          |                         |                   |                           |                   |                            |                       |
| I482-1       | BASE  | Mean Annual-OC | 10.09                    | 96.278             | 97.000                 | 0.0036                   | 31091                   | 10.00             | 10.00                     | 24.126            | 10.09                      | 23.987                |
| I482-2       | BASE  | Mean Annual-OC | 10.36                    | 97.055             | 99.400                 | 0.0031                   | 2243                    | 9.03              | 9.03                      | 2.074             | 9.65                       | 2.678                 |
| I482-3       | BASE  | Mean Annual-OC | 10.37                    | 97.056             | 99.400                 | 0.0012                   | 2182                    | 7.70              | 7.70                      | 0.345             | 11.84                      | 0.442                 |
| I485-1       | BASE  | Mean Annual-OC | 10.37                    | 97.052             | 99.600                 | 0.0012                   | 2180                    | 9.00              | 9.00                      | 0.269             | 11.54                      | 0.211                 |
| I485-2       | BASE  | Mean Annual-OC | 10.37                    | 97.054             | 100.200                | -0.0050                  | 2333                    | 9.08              | 9.08                      | 4.320             | 9.71                       | 6.172                 |
| I487-1       | BASE  | Mean Annual-OC | 10.37                    | 97.049             | 100.600                | 0.0012                   | 2180                    | 9.08              | 9.08                      | 0.342             | 11.61                      | 0.420                 |
| I487-2       | BASE  | Mean Annual-OC | 10.37                    | 97.050             | 100.600                | 0.0012                   | 2252                    | 9.71              | 9.71                      | 7.497             | 9.02                       | 7.262                 |
| I489         | BASE  | Mean Annual-OC | 10.38                    | 97.041             | 101.200                | -0.0062                  | 2198                    | 9.02              | 9.02                      | 8.456             | 9.01                       | 32.956                |
| I490-1       | BASE  | Mean Annual-OC | 10.43                    | 96.956             | 101.260                | 0.0011                   | 2204                    | 9.23              | 9.23                      | 4.244             | 9.80                       | 3.323                 |
| I490-2       | BASE  | Mean Annual-OC | 10.43                    | 96.956             | 101.650                | 0.0005                   | 2203                    | 9.00              | 9.00                      | 0.269             | 9.79                       | 0.332                 |
| I491         | BASE  | Mean Annual-OC | 9.09                     | 98.416             | 101.900                | 0.0004                   | 2180                    | 9.00              | 9.00                      | 0.447             | 9.06                       | 0.438                 |
| I492         | BASE  | Mean Annual-OC | 10.44                    | 96.877             | 101.870                | 0.0010                   | 2204                    | 9.80              | 9.80                      | 3.642             | 10.10                      | 3.461                 |
| I493         | BASE  | Mean Annual-OC | 9.14                     | 98.832             | 101.890                | -0.0005                  | 2184                    | 9.00              | 9.00                      | 1.220             | 9.12                       | 1.204                 |
| I494-1       | BASE  | Mean Annual-OC | 10.44                    | 96.807             | 101.300                | 0.0009                   | 2180                    | 9.00              | 9.00                      | 0.250             | 10.33                      | 0.435                 |
| I494-2       | BASE  | Mean Annual-OC | 10.40                    | 96.807             | 101.800                | 0.0009                   | 2212                    | 9.00              | 9.00                      | 0.179             | 11.80                      | 0.172                 |
| I495-1       | BASE  | Mean Annual-OC | 10.39                    | 97.009             | 102.400                | -0.0004                  | 2202                    | 9.00              | 9.00                      | 0.890             | 9.00                       | 0.877                 |
| I495-2       | BASE  | Mean Annual-OC | 9.02                     | 97.658             | 102.540                | -0.0003                  | 2213                    | 8.73              | 8.73                      | 0.343             | 11.88                      | 0.324                 |
| I497-1       | BASE  | Mean Annual-OC | 10.47                    | 96.769             | 101.690                | 0.0009                   | 2200                    | 9.00              | 9.00                      | 0.089             | 11.91                      | 0.142                 |
| I497-2       | BASE  | Mean Annual-OC | 10.47                    | 96.769             | 101.740                | 0.0011                   | 2183                    | 9.00              | 9.00                      | 1.132             | 8.54                       | 1.288                 |
| I499         | BASE  | Mean Annual-OC | 10.37                    | 96.729             | 101.200                | 0.0008                   | 2217                    | 7.11              | 7.11                      | 8.908             | 10.44                      | 8.786                 |
| I500         | BASE  | Mean Annual-OC | 10.33                    | 96.675             | 100.760                | 0.0012                   | 2191                    | 9.00              | 9.00                      | 1.394             | 8.54                       | 1.478                 |
| I501-1       | BASE  | Mean Annual-OC | 10.33                    | 96.643             | 101.800                | 0.0046                   | 2179                    | 9.00              | 9.00                      | 0.089             | 15.55                      | 0.462                 |
| I501-2       | BASE  | Mean Annual-OC | 10.26                    | 96.659             | 101.860                | 0.0008                   | 2179                    | 9.00              | 9.00                      | 0.089             | 15.55                      | 0.470                 |
| I504-1       | BASE  | Mean Annual-OC | 10.30                    | 96.618             | 101.500                | 0.0008                   | 2181                    | 9.00              | 9.00                      | 1.655             | 9.22                       | 1.392                 |
| I504-2       | BASE  | Mean Annual-OC | 10.30                    | 96.618             | 100.000                | 0.0008                   | 2209                    | 10.44             | 10.44                     | 12.394            | 10.755                     | 10.755                |
| I505-1       | BASE  | Mean Annual-OC | 10.19                    | 96.639             | 99.600                 | 0.0046                   | 2180                    | 9.00              | 9.00                      | 1.342             | 8.96                       | 1.084                 |
| I506         | BASE  | Mean Annual-OC | 10.21                    | 96.549             | 98.400                 | 0.0010                   | 2180                    | 7.36              | 7.36                      | 5.527             | 6.14                       | 3.473                 |
| I508         | BASE  | Mean Annual-OC | 10.15                    | 96.521             | 98.810                 | 0.0040                   | 2185                    | 9.42              | 9.42                      | 4.742             | 7.36                       | 4.802                 |
| I510-1       | BASE  | Mean Annual-OC | 10.11                    | 96.495             | 98.300                 | -0.0050                  | 2202                    | 9.42              | 9.42                      | 1.477             | 9.42                       | 4.249                 |
| I510-2       | BASE  | Mean Annual-OC | 10.11                    | 96.507             | 98.900                 | 0.0044                   | 2188                    | 9.00              | 9.00                      | 0.984             | 9.42                       | 1.196                 |
| I510-3       | BASE  | Mean Annual-OC | 10.10                    | 96.514             | 98.030                 | 0.0006                   | 2210                    | 9.93              | 9.93                      | 3.893             | 9.71                       | 3.681                 |
| I510-4       | BASE  | Mean Annual-OC | 10.16                    | 96.465             | 99.000                 | -0.0034                  | 2182                    | 9.71              | 9.71                      | 0.180             | 15.08                      | 0.563                 |
| I512-1       | BASE  | Mean Annual-OC | 10.15                    | 96.466             | 98.500                 | 0.0008                   | 2179                    | 9.00              | 9.00                      | 0.090             | 14.57                      | 0.140                 |
| I512-2       | BASE  | Mean Annual-OC | 10.15                    | 96.465             | 98.500                 | 0.0008                   | 2210                    | 9.41              | 9.41                      | 3.531             | 9.42                       | 3.432                 |
| I512-3       | BASE  | Mean Annual-OC | 10.13                    | 96.500             | 98.200                 | 0.0014                   | 2182                    | 9.71              | 9.71                      | 0.315             | 4.30                       | 3.219                 |
| I516-1       | BASE  | Mean Annual-OC | 10.12                    | 96.501             | 97.820                 | -0.0012                  | 2180                    | 9.00              | 9.00                      | 0.090             | 10.50                      | 0.105                 |
| I516-2       | BASE  | Mean Annual-OC | 10.12                    | 96.501             | 97.950                 | 0.0008                   | 2197                    | 9.08              | 9.08                      | 3.216             | 9.24                       | 3.010                 |
| I516-3       | BASE  | Mean Annual-OC | 10.09                    | 96.563             | 97.900                 | 0.0008                   | 2183                    | 9.18              | 9.18                      | 2.267             | 9.31                       | 2.096                 |
| I519-1       | BASE  | Mean Annual-OC | 10.09                    | 96.597             | 97.150                 | 0.0009                   | 2181                    | 9.08              | 9.08                      | 1.626             | 9.29                       | 1.411                 |
| I519-2       | BASE  | Mean Annual-OC | 10.09                    | 96.623             | 97.280                 | 0.0009                   | 2477                    | 9.01              | 9.01                      | 33.542            | 9.23                       | 3.447                 |
| I519-3       | BASE  | Mean Annual-OC | 10.38                    | 97.035             | 101.600                | 0.0063                   | 2603                    | 8.75              | 8.75                      | 1.409             | 8.58                       | 1.201                 |
| MH489        | BASE  | Mean Annual-OC | 10.38                    | 97.030             | 101.800                | 0.0009                   | 2585                    | 8.74              | 8.74                      | 1.274             | 8.75                       | 0.989                 |
| MH491        | BASE  | Mean Annual-OC | 10.39                    | 97.025             | 100.420                | 0.0009                   | 2217                    | 10.33             | 10.33                     | 6.503             | 10.67                      | 6.267                 |
| MH493        | BASE  | Mean Annual-OC | 10.44                    | 96.807             | 102.340                | 0.0015                   |                         |                   |                           |                   |                            |                       |
| MH494        | BASE  | Mean Annual-OC |                          |                    |                        |                          |                         |                   |                           |                   |                            |                       |

Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
February 2008

| Name          | Group | Simulation     | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|----------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH495         | BASE  | Mean Annual-OC | 10.41                    | 96.978             | 102.340                | 0.0008                   | 2499                    | 9.00                      | 0.877                | 8.68                       | 0.759                 |
| MH497         | BASE  | Mean Annual-OC | 10.42                    | 96.763             | 101.500                | 0.0020                   | 2211                    | 10.76                     | 6.500                | 10.78                      | 6.556                 |
| MH499         | BASE  | Mean Annual-OC | 10.40                    | 96.721             | 101.200                | -0.0028                  | 2204                    | 10.74                     | 7.122                | 10.76                      | 7.178                 |
| MH500         | BASE  | Mean Annual-OC | 10.33                    | 96.675             | 100.760                | -0.0045                  | 2201                    | 10.76                     | 7.477                | 7.09                       | 8.267                 |
| MH504         | BASE  | Mean Annual-OC | 10.33                    | 96.621             | 100.800                | 0.0048                   | 2209                    | 10.44                     | 9.539                | 10.33                      | 10.424                |
| MH505         | BASE  | Mean Annual-OC | 10.25                    | 96.588             | 100.400                | -0.0049                  | 2200                    | 10.33                     | 11.528               | 10.44                      | 11.504                |
| MH508         | BASE  | Mean Annual-OC | 10.19                    | 96.511             | 101.000                | -0.0045                  | 2215                    | 10.33                     | 11.476               | 10.44                      | 11.371                |
| MH510         | BASE  | Mean Annual-OC | 10.15                    | 96.457             | 100.700                | 0.0047                   | 2219                    | 10.44                     | 16.456               | 10.21                      | 16.442                |
| MH514         | BASE  | Mean Annual-OC | 10.14                    | 96.480             | 99.000                 | -0.0026                  | 2206                    | 9.42                      | 3.432                | 9.81                       | 3.454                 |
| OUTFALL-POND2 | BASE  | Mean Annual-OC | 15.25                    | 94.559             | 97.000                 | 0.0060                   | 5733                    | 10.09                     | 23.987               | 10.09                      | 23.682                |
| POND 100      | BASE  | Mean Annual-OC | 11.01                    | 97.676             | 98.000                 | 0.0012                   | 22311                   | 9.00                      | 6.465                | 11.02                      | 2.443                 |
| TW            | BASE  | Mean Annual-OC | 15.25                    | 94.548             | 0.000                  | -0.0100                  | 6450                    | 10.09                     | 23.682               | 0.00                       | 0.000                 |

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*ICPR MODEL ANALYSIS*

*Proposed Conditions Results*

*100-Year / 24-Hour Storm Event*

*(SJRWMD AND ORANGE COUNTY STORM  
EVENTS)*

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Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
February 2008

| Name         | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max Outflow<br>cfs |
|--------------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|-------------------|----------------------------|--------------------|
| EXP POND 200 |       |            |                          |                    |                        |                          |                         |                           |                   |                            |                    |
| I482-1       | BASE  | 100Y-24H   | 12.15                    | 96.839             | 97.000                 | 0.0018                   | 33677                   | 12.08                     | 109.886           | 12.15                      | 106.937            |
| I482-2       | BASE  | 100Y-24H   | 13.12                    | 100.808            | 99.400                 | 0.0008                   | 2195                    | 12.17                     | 9.326             | 12.19                      | 6.030              |
| I482-3       | BASE  | 100Y-24H   | 13.12                    | 100.810            | 99.400                 | 0.0007                   | 2182                    | 11.95                     | 1.239             | 16.33                      | 1.179              |
| I485-1       | BASE  | 100Y-24H   | 13.13                    | 100.811            | 99.600                 | 0.0007                   | 2180                    | 12.00                     | 2.042             | 16.35                      | 0.589              |
| I485-2       | BASE  | 100Y-24H   | 13.14                    | 100.811            | 100.200                | 0.0008                   | 2213                    | 12.17                     | 13.211            | 12.40                      | 10.361             |
| I487-1       | BASE  | 100Y-24H   | 13.15                    | 100.786            | 100.200                | 0.0008                   | 2180                    | 12.25                     | 1.776             | 13.84                      | 0.695              |
| I487-2       | BASE  | 100Y-24H   | 13.17                    | 100.731            | 100.600                | 0.0008                   | 2218                    | 12.25                     | 14.061            | 12.47                      | 11.854             |
| I489         | BASE  | 100Y-24H   | 13.18                    | 100.733            | 100.600                | 0.0007                   | 2180                    | 12.08                     | 1.811             | 16.29                      | 0.595              |
| I490-1       | BASE  | 100Y-24H   | 13.22                    | 100.665            | 101.200                | -0.0062                  | 2198                    | 12.25                     | 17.445            | 10.88                      | 32.955             |
| I490-2       | BASE  | 100Y-24H   | 13.36                    | 100.478            | 101.260                | 0.0007                   | 2196                    | 12.13                     | 6.650             | 12.69                      | 4.410              |
| I491         | BASE  | 100Y-24H   | 13.36                    | 100.479            | 101.650                | 0.0006                   | 2180                    | 12.00                     | 2.042             | 11.72                      | 0.645              |
| I492         | BASE  | 100Y-24H   | 13.32                    | 100.528            | 101.900                | 0.0005                   | 2178                    | 12.08                     | 3.018             | 12.25                      | 3.263              |
| I493         | BASE  | 100Y-24H   | 13.38                    | 100.350            | 101.870                | 0.0012                   | 2204                    | 12.08                     | 6.844             | 13.82                      | 4.509              |
| I494-1       | BASE  | 100Y-24H   | 13.25                    | 100.528            | 101.890                | 0.0004                   | 2178                    | 12.17                     | 6.857             | 12.33                      | 6.128              |
| I494-2       | BASE  | 100Y-24H   | 13.38                    | 100.232            | 101.800                | 0.0006                   | 2180                    | 12.00                     | 1.063             | 16.78                      | 2.525              |
| I495-1       | BASE  | 100Y-24H   | 13.39                    | 100.308            | 102.400                | 0.0010                   | 2180                    | 12.08                     | 6.110             | 11.98                      | 5.150              |
| I495-2       | BASE  | 100Y-24H   | 13.40                    | 100.311            | 102.540                | 0.0005                   | 2179                    | 12.00                     | 3.403             | 12.08                      | 2.873              |
| I497-1       | BASE  | 100Y-24H   | 13.32                    | 100.016            | 101.690                | 0.0006                   | 2180                    | 16.77                     | 0.721             | 18.46                      | 2.694              |
| I497-2       | BASE  | 100Y-24H   | 13.33                    | 100.016            | 101.740                | 0.0006                   | 2179                    | 12.08                     | 0.604             | 16.77                      | 0.647              |
| I499         | BASE  | 100Y-24H   | 13.08                    | 99.920             | 101.200                | 0.0007                   | 2179                    | 12.17                     | 6.368             | 12.35                      | 3.716              |
| I500         | BASE  | 100Y-24H   | 13.10                    | 99.595             | 100.760                | 0.0006                   | 2178                    | 12.08                     | 4.225             | 0.85                       | 2.204              |
| I501-1       | BASE  | 100Y-24H   | 13.02                    | 99.447             | 101.800                | 0.0011                   | 2213                    | 14.12                     | 20.716            | 14.13                      | 21.113             |
| I501-2       | BASE  | 100Y-24H   | 12.68                    | 99.942             | 101.800                | 0.0008                   | 2180                    | 12.17                     | 7.837             | 12.38                      | 5.012              |
| I504-1       | BASE  | 100Y-24H   | 12.99                    | 99.322             | 100.860                | 0.0005                   | 2179                    | 12.08                     | 0.604             | 13.93                      | 0.480              |
| I504-2       | BASE  | 100Y-24H   | 12.99                    | 99.322             | 101.500                | 0.0005                   | 2179                    | 12.08                     | 0.604             | 13.93                      | 0.480              |
| I505-1       | BASE  | 100Y-24H   | 12.58                    | 100.482            | 100.000                | 0.0010                   | 2181                    | 12.17                     | 9.306             | 12.46                      | 6.115              |
| I506         | BASE  | 100Y-24H   | 12.83                    | 98.961             | 99.600                 | 0.0013                   | 2209                    | 12.76                     | 30.836            | 13.32                      | 26.793             |
| I508         | BASE  | 100Y-24H   | 12.43                    | 98.899             | 98.400                 | 0.0007                   | 2180                    | 12.08                     | 9.054             | 12.15                      | 6.365              |
| I510-1       | BASE  | 100Y-24H   | 12.46                    | 99.144             | 98.810                 | 0.0010                   | 2180                    | 12.08                     | 12.013            | 12.44                      | 9.828              |
| I510-2       | BASE  | 100Y-24H   | 12.50                    | 99.406             | 98.300                 | -0.0010                  | 2180                    | 12.28                     | 6.693             | 12.59                      | 6.448              |
| I510-3       | BASE  | 100Y-24H   | 12.52                    | 99.556             | 98.900                 | 0.0008                   | 2180                    | 12.15                     | 5.332             | 12.62                      | 4.419              |
| I510-4       | BASE  | 100Y-24H   | 12.50                    | 99.817             | 98.030                 | 0.0009                   | 2179                    | 12.08                     | 6.640             | 12.33                      | 3.332              |
| I512-1       | BASE  | 100Y-24H   | 12.82                    | 98.452             | 99.000                 | 0.0005                   | 2210                    | 12.76                     | 13.229            | 13.10                      | 13.273             |
| I512-2       | BASE  | 100Y-24H   | 12.82                    | 98.452             | 98.500                 | 0.0004                   | 2182                    | 13.48                     | 0.569             | 13.48                      | 1.018              |
| I512-3       | BASE  | 100Y-24H   | 12.83                    | 98.453             | 98.500                 | 0.0004                   | 2179                    | 12.00                     | 0.681             | 13.49                      | 0.509              |
| I516-1       | BASE  | 100Y-24H   | 12.69                    | 98.968             | 98.200                 | 0.0006                   | 2210                    | 12.48                     | 13.321            | 12.57                      | 12.880             |
| I516-2       | BASE  | 100Y-24H   | 12.70                    | 98.972             | 97.820                 | 0.0006                   | 2182                    | 12.00                     | 1.094             | 13.54                      | 1.558              |
| I516-3       | BASE  | 100Y-24H   | 12.71                    | 98.973             | 97.950                 | 0.0005                   | 2180                    | 12.00                     | 0.681             | 13.67                      | 0.693              |
| I519-1       | BASE  | 100Y-24H   | 12.57                    | 100.068            | 97.900                 | 0.0010                   | 2197                    | 12.08                     | 14.392            | 12.37                      | 11.972             |
| I519-2       | BASE  | 100Y-24H   | 12.59                    | 100.808            | 97.150                 | 0.0010                   | 2183                    | 12.29                     | 9.981             | 12.63                      | 8.882              |
| I519-3       | BASE  | 100Y-24H   | 12.59                    | 101.434            | 97.280                 | 0.0012                   | 2181                    | 12.25                     | 8.436             | 12.61                      | 6.133              |
| MH489        | BASE  | 100Y-24H   | 13.25                    | 100.627            | 101.600                | 0.0062                   | 2195                    | 10.88                     | 33.110            | 12.55                      | 4.680              |
| MH491        | BASE  | 100Y-24H   | 13.31                    | 100.526            | 101.800                | 0.0010                   | 2199                    | 10.01                     | 0.645             | 21.18                      | 0.754              |
| MH493        | BASE  | 100Y-24H   | 13.33                    | 100.461            | 100.420                | 0.0007                   | 2199                    | 9.16                      | 0.690             | 10.01                      | 0.445              |
| MH494        | BASE  | 100Y-24H   | 13.37                    | 100.231            | 102.340                | 0.0035                   | 2207                    | 12.13                     | 22.152            | 16.77                      | 16.245             |

Lake Mary Jess Water Quality Improvement Project  
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| Name          | Group | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|-------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH495         | BASE  | 100Y-24H   | 13.38                    | 100.306            | 102.340                | -0.0022                  | 2195                    | 11.98                     | 5.150                | 12.13                      | 12.659                |
| MH497         | BASE  | 100Y-24H   | 13.32                    | 100.015            | 101.500                | -0.0024                  | 2206                    | 16.77                     | 17.449               | 16.12                      | 17.551                |
| MH499         | BASE  | 100Y-24H   | 13.22                    | 99.807             | 101.200                | -0.0009                  | 2203                    | 16.12                     | 18.275               | 14.12                      | 18.211                |
| MH500         | BASE  | 100Y-24H   | 13.09                    | 99.587             | 100.760                | 0.0012                   | 2200                    | 14.12                     | 18.952               | 14.35                      | 19.286                |
| MH504         | BASE  | 100Y-24H   | 12.98                    | 99.321             | 100.800                | 0.0006                   | 2209                    | 14.12                     | 22.046               | 14.12                      | 22.472                |
| MH505         | BASE  | 100Y-24H   | 12.76                    | 99.178             | 100.400                | -0.0013                  | 2200                    | 13.77                     | 24.164               | 12.76                      | 26.185                |
| MH508         | BASE  | 100Y-24H   | 12.82                    | 98.722             | 101.000                | 0.0006                   | 2215                    | 12.77                     | 28.534               | 13.24                      | 28.711                |
| MH510         | BASE  | 100Y-24H   | 12.81                    | 98.343             | 100.700                | -0.0013                  | 2219                    | 12.77                     | 49.314               | 12.86                      | 49.319                |
| MH514         | BASE  | 100Y-24H   | 12.73                    | 98.667             | 99.000                 | 0.0005                   | 2206                    | 12.57                     | 12.880               | 12.67                      | 12.682                |
| OUTFALL-POND2 | BASE  | 100Y-24H   | 15.01                    | 96.042             | 97.000                 | 0.0050                   | 6973                    | 12.15                     | 106.937              | 12.15                      | 106.637               |
| POND 100      | BASE  | 100Y-24H   | 12.35                    | 99.382             | 98.000                 | 0.0005                   | 26621                   | 12.00                     | 49.482               | 12.37                      | 25.728                |
| TW            | BASE  | 100Y-24H   | 15.00                    | 96.041             | 0.000                  | -0.0100                  | 7694                    | 12.15                     | 106.637              | 0.00                       | 0.000                 |

Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
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| Name         | Group               | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|--------------|---------------------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|---------------|----------------------------|-----------------------|
| EXP POND 200 |                     |            |                          |                    |                        |                          |                         |                           |               |                            |                       |
| I482-1       | BASE100Y-24H-Orange |            | 9.08                     | 96.588             | 97.000                 | 0.0017                   | 32522                   | 9.01                      | 73.111        | 9.08                       | 72.950                |
| I482-2       | BASE100Y-24H-Orange |            | 10.35                    | 99.891             | 99.400                 | 0.0004                   | 2195                    | 9.00                      | 4.933         | 9.02                       | 4.092                 |
| I482-3       | BASE100Y-24H-Orange |            | 10.36                    | 99.894             | 99.400                 | 0.0003                   | 2182                    | 12.87                     | 0.647         | 13.04                      | 1.016                 |
| I483-1       | BASE100Y-24H-Orange |            | 10.37                    | 99.896             | 99.600                 | 0.0003                   | 2180                    | 8.75                      | 0.652         | 13.05                      | 0.508                 |
| I483-2       | BASE100Y-24H-Orange |            | 10.37                    | 99.865             | 100.200                | 0.0004                   | 2213                    | 9.01                      | 7.928         | 9.08                       | 7.076                 |
| I487-1       | BASE100Y-24H-Orange |            | 10.37                    | 99.873             | 100.200                | 0.0003                   | 2180                    | 9.08                      | 0.834         | 11.83                      | 0.590                 |
| I487-2       | BASE100Y-24H-Orange |            | 10.38                    | 99.835             | 100.600                | -0.0007                  | 2218                    | 9.04                      | 9.225         | 9.10                       | 8.395                 |
| I489         | BASE100Y-24H-Orange |            | 10.39                    | 99.838             | 100.600                | 0.0003                   | 2180                    | 9.00                      | 0.651         | 13.01                      | 0.513                 |
| I490-1       | BASE100Y-24H-Orange |            | 10.41                    | 99.785             | 101.200                | -0.0058                  | 2198                    | 9.08                      | 11.312        | 7.23                       | 32.898                |
| I490-2       | BASE100Y-24H-Orange |            | 10.50                    | 99.644             | 101.260                | 0.0004                   | 2196                    | 8.78                      | 4.615         | 10.15                      | 3.994                 |
| I491         | BASE100Y-24H-Orange |            | 10.50                    | 99.646             | 101.650                | 0.0003                   | 2180                    | 8.75                      | 0.652         | 13.69                      | 0.523                 |
| I492         | BASE100Y-24H-Orange |            | 10.48                    | 99.679             | 101.900                | 0.0003                   | 2178                    | 9.00                      | 1.084         | 9.13                       | 2.088                 |
| I493         | BASE100Y-24H-Orange |            | 10.52                    | 99.530             | 101.870                | 0.0007                   | 2204                    | 8.78                      | 4.861         | 10.11                      | 4.424                 |
| I494-1       | BASE100Y-24H-Orange |            | 10.45                    | 99.649             | 101.890                | 0.0003                   | 2178                    | 9.00                      | 2.971         | 9.25                       | 3.569                 |
| I494-2       | BASE100Y-24H-Orange |            | 10.53                    | 99.418             | 101.300                | 0.0007                   | 2181                    | 13.68                     | 1.070         | 13.66                      | 2.524                 |
| I495-1       | BASE100Y-24H-Orange |            | 10.54                    | 99.419             | 101.800                | 0.0004                   | 2180                    | 8.75                      | 0.434         | 13.68                      | 1.004                 |
| I495-2       | BASE100Y-24H-Orange |            | 10.55                    | 99.490             | 102.400                | -0.0006                  | 2180                    | 8.80                      | 2.247         | 8.23                       | 4.585                 |
| I495-3       | BASE100Y-24H-Orange |            | 10.55                    | 99.494             | 102.540                | 0.0003                   | 2179                    | 8.75                      | 1.086         | 8.80                       | 1.161                 |
| I497-1       | BASE100Y-24H-Orange |            | 10.50                    | 99.217             | 101.690                | -0.0005                  | 2180                    | 13.63                     | 0.741         | 15.34                      | 4.767                 |
| I497-2       | BASE100Y-24H-Orange |            | 10.50                    | 99.217             | 101.740                | 0.0003                   | 2179                    | 9.00                      | 0.217         | 13.63                      | 0.642                 |
| I499         | BASE100Y-24H-Orange |            | 10.32                    | 99.090             | 101.200                | 0.0003                   | 2179                    | 9.00                      | 2.758         | 9.00                       | 2.103                 |
| I500         | BASE100Y-24H-Orange |            | 10.33                    | 98.796             | 100.760                | 0.0003                   | 2178                    | 9.00                      | 1.518         | 2.18                       | 2.204                 |
| I501-1       | BASE100Y-24H-Orange |            | 10.29                    | 98.631             | 101.800                | 0.0005                   | 2213                    | 12.77                     | 19.042        | 11.28                      | 19.183                |
| I501-2       | BASE100Y-24H-Orange |            | 10.20                    | 98.797             | 101.800                | 0.0003                   | 2180                    | 9.00                      | 3.395         | 9.20                       | 2.779                 |
| I504-1       | BASE100Y-24H-Orange |            | 10.27                    | 98.504             | 100.860                | 0.0003                   | 2179                    | 9.00                      | 0.217         | 11.85                      | 0.328                 |
| I504-2       | BASE100Y-24H-Orange |            | 10.27                    | 98.504             | 101.500                | 0.0003                   | 2179                    | 9.00                      | 0.217         | 11.85                      | 0.328                 |
| I505-1       | BASE100Y-24H-Orange |            | 10.11                    | 98.681             | 100.000                | 0.0003                   | 2181                    | 9.00                      | 4.032         | 9.20                       | 3.455                 |
| I506         | BASE100Y-24H-Orange |            | 10.17                    | 98.147             | 99.600                 | 0.0003                   | 2209                    | 10.53                     | 23.794        | 10.55                      | 23.992                |
| I508         | BASE100Y-24H-Orange |            | 10.09                    | 98.020             | 98.400                 | 0.0003                   | 2180                    | 9.00                      | 3.253         | 9.02                       | 2.800                 |
| I510-1       | BASE100Y-24H-Orange |            | 10.00                    | 97.915             | 98.810                 | 0.0011                   | 2180                    | 9.00                      | 6.466         | 9.09                       | 6.085                 |
| I510-2       | BASE100Y-24H-Orange |            | 9.65                     | 97.992             | 98.300                 | -0.0009                  | 2180                    | 7.31                      | 5.124         | 5.61                       | 4.810                 |
| I510-3       | BASE100Y-24H-Orange |            | 9.60                     | 98.039             | 98.900                 | -0.0006                  | 2180                    | 9.01                      | 2.791         | 7.31                       | 4.244                 |
| I510-4       | BASE100Y-24H-Orange |            | 9.46                     | 98.122             | 98.030                 | 0.0003                   | 2179                    | 9.00                      | 2.385         | 9.12                       | 1.943                 |
| I512-1       | BASE100Y-24H-Orange |            | 10.09                    | 97.704             | 99.000                 | 0.0003                   | 2210                    | 9.61                      | 9.591         | 9.69                       | 9.521                 |
| I512-2       | BASE100Y-24H-Orange |            | 10.10                    | 97.705             | 98.500                 | 0.0003                   | 2182                    | 10.62                     | 0.367         | 10.61                      | 0.577                 |
| I512-3       | BASE100Y-24H-Orange |            | 10.10                    | 97.705             | 98.500                 | 0.0003                   | 2179                    | 8.75                      | 0.217         | 10.61                      | 0.288                 |
| I516-1       | BASE100Y-24H-Orange |            | 10.02                    | 97.952             | 98.200                 | 0.0004                   | 2210                    | 9.08                      | 9.360         | 9.42                       | 9.097                 |
| I516-2       | BASE100Y-24H-Orange |            | 10.02                    | 97.952             | 98.200                 | -0.0004                  | 2182                    | 10.00                     | 0.729         | 10.59                      | 0.967                 |
| I516-3       | BASE100Y-24H-Orange |            | 10.03                    | 97.957             | 97.950                 | 0.0003                   | 2180                    | 8.75                      | 0.217         | 10.60                      | 0.364                 |
| I519-1       | BASE100Y-24H-Orange |            | 9.60                     | 98.404             | 97.900                 | 0.0003                   | 2197                    | 9.00                      | 8.336         | 9.12                       | 7.871                 |
| I519-2       | BASE100Y-24H-Orange |            | 9.49                     | 98.669             | 97.150                 | 0.0003                   | 2183                    | 9.08                      | 5.714         | 9.31                       | 5.417                 |
| I519-3       | BASE100Y-24H-Orange |            | 9.42                     | 98.878             | 97.280                 | 0.0003                   | 2181                    | 9.08                      | 3.963         | 9.32                       | 3.591                 |
| MH489        | BASE100Y-24H-Orange |            | 10.42                    | 99.756             | 101.600                | 0.0063                   | 2195                    | 7.23                      | 33.421        | 5.01                       | 3.364                 |
| MH491        | BASE100Y-24H-Orange |            | 10.47                    | 99.674             | 101.800                | 0.0005                   | 2199                    | 7.03                      | 1.550         | 6.89                       | 1.224                 |
| MH493        | BASE100Y-24H-Orange |            | 10.49                    | 99.618             | 100.420                | 0.0005                   | 2199                    | 7.02                      | 1.412         | 7.03                       | 1.069                 |
| MH494        | BASE100Y-24H-Orange |            | 10.53                    | 99.417             | 102.340                | 0.0032                   | 2207                    | 8.78                      | 23.865        | 13.65                      | 16.219                |

Lake Mary Jess Water Quality Improvement Project  
Proposed Conditions  
February 2008

| Name          | Group               | Simulation | Max Time<br>Stage<br>hrs | Max<br>Stage<br>ft | Warning<br>Stage<br>ft | Max Delta<br>Stage<br>ft | Max Surf<br>Area<br>ft2 | Max Time<br>Inflow<br>hrs | Max<br>Inflow<br>cfs | Max Time<br>Outflow<br>hrs | Max<br>Outflow<br>cfs |
|---------------|---------------------|------------|--------------------------|--------------------|------------------------|--------------------------|-------------------------|---------------------------|----------------------|----------------------------|-----------------------|
| MH495         | BASE100Y-24H-Orange |            | 10.53                    | 99.485             | 102.340                | -0.0027                  | 2195                    | 8.23                      | 4.585                | 8.78                       | 13.173                |
| MH497         | BASE100Y-24H-Orange |            | 10.49                    | 99.216             | 101.500                | -0.0028                  | 2206                    | 13.65                     | 17.147               | 12.77                      | 17.267                |
| MH499         | BASE100Y-24H-Orange |            | 10.41                    | 99.012             | 101.200                | -0.0009                  | 2203                    | 12.77                     | 18.148               | 11.62                      | 16.496                |
| MH500         | BASE100Y-24H-Orange |            | 10.33                    | 98.785             | 100.760                | -0.0007                  | 2200                    | 11.56                     | 17.143               | 12.77                      | 17.926                |
| MH504         | BASE100Y-24H-Orange |            | 10.26                    | 98.504             | 100.800                | 0.0004                   | 2209                    | 11.43                     | 19.794               | 11.46                      | 20.054                |
| MH505         | BASE100Y-24H-Orange |            | 10.22                    | 98.354             | 100.400                | -0.0005                  | 2200                    | 10.84                     | 21.761               | 10.82                      | 21.947                |
| MH508         | BASE100Y-24H-Orange |            | 10.13                    | 97.953             | 101.000                | 0.0005                   | 2215                    | 10.31                     | 25.596               | 10.40                      | 25.757                |
| MH510         | BASE100Y-24H-Orange |            | 10.10                    | 97.647             | 100.700                | 0.0005                   | 2219                    | 10.15                     | 40.127               | 10.20                      | 40.200                |
| MH514         | BASE100Y-24H-Orange |            | 10.06                    | 97.808             | 99.000                 | 0.0003                   | 2206                    | 9.42                      | 9.097                | 9.53                       | 8.990                 |
| OUTFALL-POND2 | BASE100Y-24H-Orange |            | 15.00                    | 96.042             | 97.000                 | -0.0339                  | 6973                    | 9.08                      | 72.950               | 9.67                       | 490.609               |
| POND 100      | BASE100Y-24H-Orange |            | 9.01                     | 98.162             | 98.000                 | 0.0003                   | 23540                   | 8.75                      | 15.799               | 9.01                       | 15.729                |
| TW            | BASE100Y-24H-Orange |            | 15.00                    | 96.041             | 0.000                  | -0.0100                  | 7694                    | 9.67                      | 490.609              | 0.00                       | 0.000                 |

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## *ICPR MODEL ANALYSIS*

### *Drawdown and Permanent Pool Calculations*

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## DRAWDOWN TIME CALCULATION

**Project** : Lake Mary Jess Water Quality Improvement Project  
Orange County, Florida

**P.N.** : OC-327

**By** : Professional Engineering Consultants, Inc.  
Reed Blanchard

**Date** : February 2008

| Modified Wet Detention Pond STAGE-STORAGE RELATIONSHIP |                 |                              |                            |                            |                                  |                            |
|--------------------------------------------------------|-----------------|------------------------------|----------------------------|----------------------------|----------------------------------|----------------------------|
| Stage<br>(feet)                                        | Depth<br>(feet) | Surface<br>Area<br>(sq. ft.) | Surface<br>Area<br>(acres) | Average<br>Area<br>(acres) | Incremental<br>Volume<br>(ac-ft) | Total<br>Volume<br>(ac-ft) |
| 94.00                                                  | 0.00            | 21,300                       | 0.49                       | 0.00                       | 0.00                             | 0.00                       |
| 95.00                                                  | 1.00            | 25,210                       | 0.58                       | 0.53                       | 0.53                             | 0.53                       |
| 96.00                                                  | 2.00            | 29,810                       | 0.68                       | 0.63                       | 0.63                             | 1.17                       |
| 97.00                                                  | 3.00            | 34,412                       | 0.79                       | 0.74                       | 0.74                             | 1.90                       |

### ONE-HALF OF THE PROVIDED TREATMENT VOLUME

Provided Treatment Volume = 1.17 ac-ft  
**Drawdown Volume (1/2 Required Treatment Volume) = 0.54 ac-ft**  
**Corresponding Stage for 1/2 Treatment Volume = 95.02 ft NGVD**  
 Remaining Treatment Volume = 0.63 ac-ft  
 Depth of Remaining Treatment Volume = 1.02 ft

### GROUNDWATER SEEPAGE AND UNDERDRAIN INFLOW

Approximate Groundwater Seepage Rate \* = 0 gpd/lf  
 Pond Perimeter @ Normal Water Line = 0 ft  
 Groundwater Inflow = 0 gpd  
**Groundwater Inflow = 0.00000 ac-ft/day**  
  
 Approximate Underdrain Flow Rate = 0 gpd  
**Approximate Underdrain Flow rate = 0.000 ac-ft/day**

### FALLING HEAD DRAWDOWN CALCULATION

$$t = \{ V * 43560 \} / \{ C * A_o * 3600 * (2 * g)^{0.5} * ((h_1 + h_2) / 2)^{0.5} \}$$

where:  $t$  = drawdown time (hrs.)  
 $A_o$  = Orifice area (sf.)  
 $C$  = Orifice coefficient

$V$  = Pond volume to be drawn down (ac-ft)  
 $h_1$  = Initial height above orifice centerline (ft)  
 $h_2$  = Final height above orifice centerline (ft)

|                         |       |         |
|-------------------------|-------|---------|
| Initial Elevation =     | 96.00 | ft      |
| Final Elevation =       | 95.02 | ft      |
| Orifice Invert =        | 94.00 | ft NGVD |
| Orifice's Centroid =    | 94.13 | ft      |
| Total Drawdown Volume = | 0.54  | ac-ft   |
| No. of Orifice =        | 1     |         |
| Orifice Coefficient =   | 0.6   |         |
| Orifice Diameter =      | 3     | in      |
| Drawdown Time =         | 24.0  | hrs     |

## RESIDENCE TIME / MEAN POND DEPTH CALCULATION

**Project** : Lake Mary Jess Water Quality Improvement Project  
Orange County, Florida

**P.N.** : OC-327

**By** : Professional Engineering Consultants, Inc.  
Reed Blanchard

**Date** : February 2008

| Modified Wet Detention Pond STAGE - STORAGE RELATIONSHIP |                 |                                       |                            |                            |                                  |                            |
|----------------------------------------------------------|-----------------|---------------------------------------|----------------------------|----------------------------|----------------------------------|----------------------------|
| Stage<br>(feet)                                          | Depth<br>(feet) | Surface<br>Area<br>(sf.) <sup>1</sup> | Surface<br>Area<br>(acres) | Average<br>Area<br>(acres) | Incremental<br>Volume<br>(ac-ft) | Total<br>Volume<br>(ac-ft) |
| 86.00                                                    | 0.00            | 6,500                                 | 0.15                       | 0.00                       | 0.00                             | 0.00                       |
| 87.00                                                    | 1.00            | 7,800                                 | 0.18                       | 0.16                       | 0.16                             | 0.16                       |
| 88.00                                                    | 2.00            | 9,200                                 | 0.21                       | 0.20                       | 0.20                             | 0.36                       |
| 89.00                                                    | 3.00            | 11,400                                | 0.26                       | 0.24                       | 0.24                             | 0.60                       |
| 90.00                                                    | 4.00            | 17,500                                | 0.40                       | 0.33                       | 0.33                             | 0.93                       |
| 91.00                                                    | 5.00            | 20,200                                | 0.46                       | 0.43                       | 0.43                             | 1.36                       |
| 92.00                                                    | 6.00            | 23,403                                | 0.54                       | 0.50                       | 0.50                             | 1.86                       |
| 93.00                                                    | 7.00            | 28,856                                | 0.66                       | 0.60                       | 0.60                             | 2.46                       |
| 94.00                                                    | 8.00            | 34,368                                | 0.79                       | 0.73                       | 0.73                             | 3.19                       |

### RUNOFF INFLOW

Drainage Area = 14.90 (ac)  
 Impervious Drainage Area = 12.67 (ac)  
 Runoff Coefficient for Impervious Areas = 0.95  
 Pervious Drainage Area = 2.23 (ac)  
 Runoff Coefficient for Pervious Areas = 0.30  
 Water Area = 0.49 (ac)  
 Runoff Coefficient of Water = 1.00  
 Weighted Runoff Coefficient = 0.89  
 Wet Season Rainfall = 31.50 (in)  
 Wet Season Duration = 153 (days)  
 Average Daily Inflow = 0.226 (ac-ft/day)

### GROUNDWATER SEEPAGE AND UNDERDRAIN INFLOW

Approximate Groundwater Seepage Rate \* = 0 (gpd/lf)  
 Pond Perimeter @ Normal Water Line = 0 (ft)  
 Groundwater Inflow = 0 (gpd)  
 Groundwater Inflow = 0.00000 (ac-ft/day)  
 Approximate Underdrain Flow rate = 0 (gpd)  
 Approximate Underdrain Flow rate = 0.00000 (ac-ft/day)

### PERMANENT POOL EVALUATION

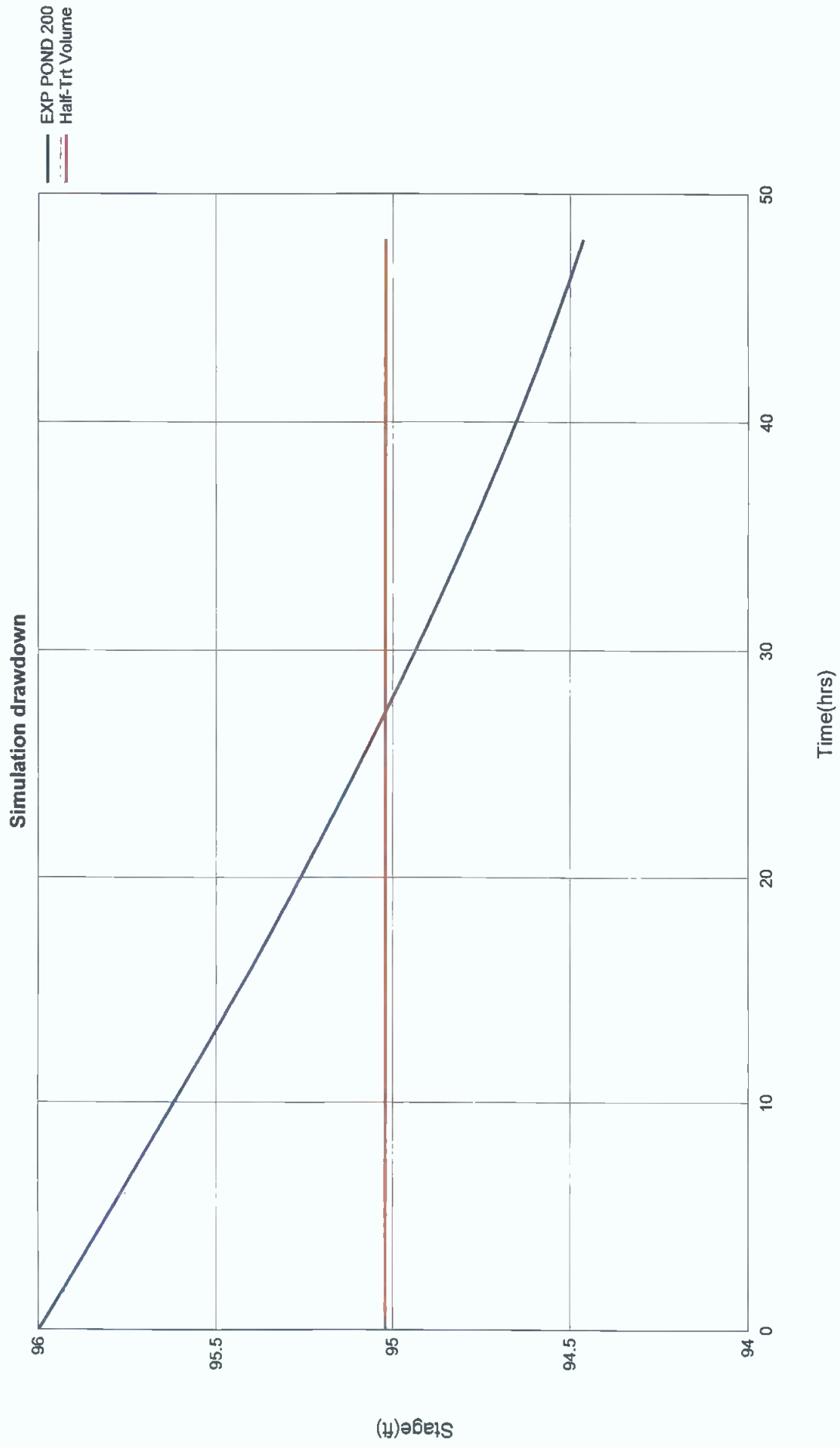
Minimum Residence Time = 14.00 (days)  
 Minimum Permanent Pool Volume = 3.17 (ac-ft)  
 Permanent Pool Volume Provided = 3.19 (ac-ft)  
 Residence Time = 14.07 (days)

### MEAN POND DEPTH

Mean Pond Depth Criteria = 2.0 - 8.0 (feet)  
 Mean Pond Depth = 4.04 (feet)

Note: 1. Permanent Pool Volume includes volume from Pond 100 and Pond 200 as they are interconnected and controlled at the same elevation.

Lake Mary Jess Water Quality Improvement Project  
 Drawdown Analysis  
 February 2008



=====  
==== Basins =====  
=====

Name: BASIN 100                      Node: POND 100                      Status: Onsite  
Group: BASE                          Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                              Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                  Time of Conc(min): 10.00  
Area(ac): 7.300                              Time Shift(hrs): 0.00  
Curve Number: 94.00                        Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

CN BASED ON PEC FIELD REVIEW. ORIGINAL CN = 90

-----  
Name: BASIN 200                      Node: EXP POND 200                      Status: Onsite  
Group: BASE                          Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                              Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                  Time of Conc(min): 10.00  
Area(ac): 7.600                              Time Shift(hrs): 0.00  
Curve Number: 94.00                        Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

CN BASED ON PEC FIELD REVIEW. ORIGINAL CN = 90.

-----  
Name: ETON STREET                      Node: EXP POND 200                      Status: Onsite  
Group: BASE                          Type: SCS Unit Hydrograph

Unit Hydrograph: Uh256                      Peaking Factor: 256.0  
Rainfall File:                              Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                  Time of Conc(min): 20.00  
Area(ac): 2.190                              Time Shift(hrs): 0.00  
Curve Number: 88.40                        Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

-----  
Name: I482-1                          Node: I482-1                          Status: Onsite  
Group: BASE                          Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                              Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                  Time of Conc(min): 25.00  
Area(ac): 2.500                              Time Shift(hrs): 0.00  
Curve Number: 95.00                        Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

-----  
Name: I482-2                          Node: I482-2                          Status: Onsite  
Group: BASE                          Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                              Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                  Time of Conc(min): 10.00  
Area(ac): 0.300                              Time Shift(hrs): 0.00  
Curve Number: 95.00                        Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I482-3 | Node: I482-3              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I485-1 | Node: I485-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.800            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I485-2 | Node: I485-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 30.00         |
| Area(ac): 0.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I487-1 | Node: I487-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I487-2 | Node: I487-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|             |                           |                |
|-------------|---------------------------|----------------|
| Name: I489  | Node: I489                | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph |                |

|                        |                           |
|------------------------|---------------------------|
| Unit Hydrograph: Uh323 | Peaking Factor: 323.0     |
| Rainfall File:         | Storm Duration(hrs): 0.00 |

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|                            |                                  |
|----------------------------|----------------------------------|
| Rainfall Amount(in): 0.000 | Time of Conc(min): 30.00         |
| Area(ac): 1.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I490-1               | Node: I490-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.700            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

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|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I490-2               | Node: I490-2                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

---

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I491                 | Node: I491                       | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

---

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I492                 | Node: I492                       | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

---

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I493                 | Node: I493                       | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |                |
| Area(ac): 1.400            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

---

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I494-1               | Node: I494-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.200            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

---

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I494-2               | Node: I494-2                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.200            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

---

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I495-1               | Node: I495-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

---

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I495-2               | Node: I495-2                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |                |
| Area(ac): 0.500            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

---

|                            |                                  |                |
|----------------------------|----------------------------------|----------------|
| Name: I497-1               | Node: I497-1                     | Status: Onsite |
| Group: BASE                | Type: SCS Unit Hydrograph        |                |
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |                |
| Rainfall File:             | Storm Duration(hrs): 0.00        |                |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |                |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |                |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |                |
| DCIA(%): 0.00              |                                  |                |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I497-2 | Node: I497-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

---

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|             |                           |                |
|-------------|---------------------------|----------------|
| Name: I499  | Node: I499                | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|             |                           |                |
|-------------|---------------------------|----------------|
| Name: I500  | Node: I500                | Status: Onsite |
| Group: BASE | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.700            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I501-1 | Node: I501-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I501-2 | Node: I501-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 25.00         |
| Area(ac): 1.600            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I504-1 | Node: I504-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                           |
|----------------------------|---------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0     |
| Rainfall File:             | Storm Duration(hrs): 0.00 |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00  |
| Area(ac): 0.100            | Time Shift(hrs): 0.00     |

---

Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

---

Name: I504-2                      Node: I504-2                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 15.00  
Area(ac): 0.100                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

---

Name: I505-1                      Node: I505-1                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 25.00  
Area(ac): 1.900                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

---

Name: I506                      Node: I506                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 25.00  
Area(ac): 1.900                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

---

Name: I508                      Node: I508                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 15.00  
Area(ac): 1.500                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

---

Name: I510-1                      Node: I510-1                      Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323                      Peaking Factor: 323.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
Area(ac): 1.400                      Time Shift(hrs): 0.00  
Curve Number: 95.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I510-2 | Node: I510-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.700            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I510-3 | Node: I510-3              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 0.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I510-4 | Node: I510-4              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 1.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I512-1 | Node: I512-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.300            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I512-2 | Node: I512-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I512-3 | Node: I512-3              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                        |                       |
|------------------------|-----------------------|
| Unit Hydrograph: Uh323 | Peaking Factor: 323.0 |
|------------------------|-----------------------|

---

|                            |                                  |
|----------------------------|----------------------------------|
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I516-1 | Node: I516-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.600            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I516-2 | Node: I516-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.400            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I516-3 | Node: I516-3              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 0.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I519-1 | Node: I519-1              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 10.00         |
| Area(ac): 1.500            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

---

|              |                           |                |
|--------------|---------------------------|----------------|
| Name: I519-2 | Node: I519-2              | Status: Onsite |
| Group: BASE  | Type: SCS Unit Hydrograph |                |

|                            |                                  |
|----------------------------|----------------------------------|
| Unit Hydrograph: Uh323     | Peaking Factor: 323.0            |
| Rainfall File:             | Storm Duration(hrs): 0.00        |
| Rainfall Amount(in): 0.000 | Time of Conc(min): 15.00         |
| Area(ac): 1.100            | Time Shift(hrs): 0.00            |
| Curve Number: 95.00        | Max Allowable Q(cfs): 999999.000 |
| DCIA(%): 0.00              |                                  |

```

-----
Name: I519-3      Node: I519-3      Status: Onsite
Group: BASE       Type: SCS Unit Hydrograph

Unit Hydrograph: Uh323      Peaking Factor: 323.0
Rainfall File:             Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
                          Area(ac): 1.900      Time Shift(hrs): 0.00
                          Curve Number: 95.00   Max Allowable Q(cfs): 999999.000
                          DCIA(%): 0.00
  
```

```

=====
---- Nodes -----
=====
  
```

```

Name: EXP POND 200      Base Flow(cfs): 0.000      Init Stage(ft): 96.000
Group: BASE             Warn Stage(ft): 97.000
Type: Stage/Area
  
```

EXPANDED POND AND DREDGED CANAL

| Stage(ft) | Area(ac) |
|-----------|----------|
| 94.000    | 0.4890   |
| 95.000    | 0.5790   |
| 96.000    | 0.6840   |
| 97.000    | 0.7900   |

```

-----
Name: Half-Trt Volume      Base Flow(cfs): 0.000      Init Stage(ft): 95.020
Group: BASE                 Warn Stage(ft): 0.000
Type: Stage/Area
  
```

| Stage(ft) | Area(ac) |
|-----------|----------|
|           |          |

```

-----
Name: OUTFALL-POND2      Base Flow(cfs): 0.000      Init Stage(ft): 96.000
Group: BASE              Warn Stage(ft): 97.000
Type: Stage/Area
  
```

DUMY NODE LOCATED AT POND 200 OUTFALL INTO CANAL

| Stage(ft) | Area(ac) |
|-----------|----------|
|           |          |

```

-----
Name: TW      Base Flow(cfs): 0.000      Init Stage(ft): 93.500
Group: BASE   Warn Stage(ft): 0.000
Type: Time/Stage
  
```

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| 0.00      | 0.000     |
| 24.00     | 93.500    |

```

=====
---- Operating Tables -----
=====
  
```

```

Name:      Group: BASE
  
```

Type: Bottom Clip  
 Function: Time vs. Depth of Clip

Time(hrs) Clip Depth(in)

==== Channels =====

|                         |                          |                                       |
|-------------------------|--------------------------|---------------------------------------|
| Name: DOWNSTREAM_CANA   | From Node: OUTFALL-POND2 | Length(ft): 491.00                    |
| Group: BASE             | To Node: TW              | Count: 1                              |
| UPSTREAM                | DOWNSTREAM               | Friction Equation: Average Conveyance |
| Geometry: Trapezoidal   | Trapezoidal              | Solution Algorithm: Automatic         |
| Invert(ft): 90.130      | 90.000                   | Flow: Both                            |
| TClpInitZ(ft): 9999.000 | 9999.000                 | Contraction Coef: 0.000               |
| Manning's N: 0.018000   | 0.018000                 | Expansion Coef: 0.000                 |
| Top Clip(ft): 0.000     | 0.000                    | Entrance Loss Coef: 0.000             |
| Bot Clip(ft): 0.000     | 0.000                    | Exit Loss Coef: 1.000                 |
| Main XSec:              |                          | Outlet Ctrl Spec: Use dc or tw        |
| AuxElev1(ft):           |                          | Inlet Ctrl Spec: Use dn               |
| Aux XSec1:              |                          | Stabilizer Option: None               |
| AuxElev2(ft):           |                          |                                       |
| Aux XSec2:              |                          |                                       |
| Top Width(ft):          |                          |                                       |
| Depth(ft):              |                          |                                       |
| Bot Width(ft): 12.500   | 12.500                   |                                       |
| LtSdSlp(h/v): 1.70      | 1.70                     |                                       |
| RtSdSlp(h/v): 1.70      | 1.70                     |                                       |

==== Drop Structures =====

|                       |                         |                                       |
|-----------------------|-------------------------|---------------------------------------|
| Name: DS-EXP POND 200 | From Node: EXP POND 200 | Length(ft): 10.00                     |
| Group: BASE           | To Node: OUTFALL-POND2  | Count: 3                              |
| UPSTREAM              | DOWNSTREAM              | Friction Equation: Average Conveyance |
| Geometry: Circular    | Circular                | Solution Algorithm: Automatic         |
| Span(in): 24.00       | 24.00                   | Flow: Both                            |
| Rise(in): 24.00       | 24.00                   | Entrance Loss Coef: 1.000             |
| Invert(ft): 92.000    | 91.900                  | Exit Loss Coef: 1.000                 |
| Manning's N: 0.012000 | 0.012000                | Outlet Ctrl Spec: Use dc or tw        |
| Top Clip(in): 0.000   | 0.000                   | Inlet Ctrl Spec: Use dn               |
| Bot Clip(in): 0.000   | 0.000                   | Solution Incs: 10                     |

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 2 for Drop Structure DS-EXP POND 200 \*\*\*

TABLE

|                       |                          |
|-----------------------|--------------------------|
| Count: 1              | Bottom Clip(in): 0.000   |
| Type: Horizontal      | Top Clip(in): 0.000      |
| Flow: Both            | Weir Disc Coef: 3.200    |
| Geometry: Rectangular | Orifice Disc Coef: 0.600 |
| Span(in): 104.00      | Invert(ft): 96.000       |
| Rise(in): 40.50       | Control Elev(ft): 96.000 |

\*\*\* Weir 2 of 2 for Drop Structure DS-EXP POND 200 \*\*\*

TABLE

Count: 1  
 Type: Vertical: Mavis  
 Flow: Both  
 Geometry: Circular  
 Span(in): 3.00  
 Rise(in): 3.00  
 Bottom Clip(in): 0.000  
 Top Clip(in): 0.000  
 Weir Disc Coef: 3.200  
 Orifice Disc Coef: 0.600  
 Invert(ft): 94.000  
 Control Elev(ft): 94.000

==== Weirs =====

Name: POND-200 WEIR From Node: EXP POND 200  
 Group: BASE To Node: OUTFALL-POND2  
 Flow: Both Count: 1  
 Type: Vertical: Mavis Geometry: Rectangular

Span(in): 360.00  
 Rise(in): 9999.00  
 Invert(ft): 96.000  
 Control Elevation(ft): 96.000

TABLE

Bottom Clip(in): 0.000  
 Top Clip(in): 0.000  
 Weir Discharge Coef: 2.800  
 Orifice Discharge Coef: 0.600

==== Hydrology Simulations =====

Name: 100Y-24H  
 Filename: L:\OC-327 LAKE MARY JESS\DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\PROPOSED\100Y-24H.R32  
 Override Defaults: Yes  
 Storm Duration(hrs): 24.00  
 Rainfall File: Flmod  
 Rainfall Amount(in): 10.60

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.00           |

Name: 5y-1h  
 Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-1h.R32  
 Override Defaults: Yes  
 Storm Duration(hrs): 1.00  
 Rainfall File: Fdot-1  
 Rainfall Amount(in): 2.90

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 1.000     | 5.00           |
| 24.000    | 15.00          |

Name: 5y-2h  
 Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-2h.R32  
 Override Defaults: Yes  
 Storm Duration(hrs): 2.00  
 Rainfall File: Fdot-2  
 Rainfall Amount(in): 3.50

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 2.000     | 5.00           |
| 24.000    | 15.00          |

-----  
 Name: 5Y-4H  
 Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5Y-4H.R32  
 Override Defaults: Yes  
 Storm Duration(hrs): 4.00  
 Rainfall File: Fdot-4  
 Rainfall Amount(in): 4.10

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 4.000     | 5.00           |
| 24.000    | 15.00          |

-----  
 Name: 5y-8h  
 Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-8h.R32  
 Override Defaults: Yes  
 Storm Duration(hrs): 8.00  
 Rainfall File: Fdot-8  
 Rainfall Amount(in): 4.80

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 8.000     | 5.00           |
| 24.000    | 15.00          |

-----  
 Name: Mean Annual  
 Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\Mean Annual.R3  
 Override Defaults: Yes  
 Storm Duration(hrs): 24.00  
 Rainfall File: Flmod  
 Rainfall Amount(in): 4.50

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 5.00           |

=====  
 Routing Simulations  
 =====

Name: 100Y-24H                      Hydrology Sim: 100Y-24H  
 Filename: L:\OC-327 LAKE MARY JESS\DETENTION DESIGN - OCT 07\CALCULATIONS\ICPR\PROPOSED\100Y-24H.I32

Execute: No                      Restart: No                      Patch: No  
 Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00050     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: 100Year    | Boundary Flows:             |

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |

| Group | Run   |
|-------|-------|
| ----- | ----- |

BASE Yes

Name: 5y-1h Hydrology Sim: 5y-1h  
Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-1h.I32

Execute: No Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 24.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: NHWE Boundary Flows:

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |

|       |     |
|-------|-----|
| Group | Run |
| BASE  | Yes |

Name: 5y-2h Hydrology Sim: 5y-2h  
Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-2h.I32

Execute: No Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 24.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: NHWE Boundary Flows:

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |

|       |     |
|-------|-----|
| Group | Run |
| BASE  | Yes |

Name: 5y-4h Hydrology Sim: 5Y-4H  
Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-4h.I32

Execute: No Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 24.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: NHWE Boundary Flows:

| Time(hrs) | Print Inc(min) |
|-----------|----------------|
| 24.000    | 15.000         |

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|       |       |
|-------|-------|
| Group | Run   |
| ----- | ----- |
| BASE  | Yes   |

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Name: 5y-8h                      Hydrology Sim: 5y-8h  
Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\5y-8h.I32

Execute: No                      Restart: No                      Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00500     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages: NHWE       | Boundary Flows:             |

|           |                |
|-----------|----------------|
| Time(hrs) | Print Inc(min) |
| -----     | -----          |
| 24.000    | 15.000         |

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|       |       |
|-------|-------|
| Group | Run   |
| ----- | ----- |
| BASE  | Yes   |

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Name: drawdown                      Hydrology Sim:  
Filename: L:\OC-327 Lake Mary Jess\1-DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\drawdown.I32

Execute: Yes                      Restart: No                      Patch: No  
Alternative: No

|                             |                             |
|-----------------------------|-----------------------------|
| Max Delta Z(ft): 1.00       | Delta Z Factor: 0.00500     |
| Time Step Optimizer: 10.000 |                             |
| Start Time(hrs): 0.000      | End Time(hrs): 48.00        |
| Min Calc Time(sec): 0.5000  | Max Calc Time(sec): 60.0000 |
| Boundary Stages:            | Boundary Flows:             |

|           |                |
|-----------|----------------|
| Time(hrs) | Print Inc(min) |
| -----     | -----          |
| 48.000    | 15.000         |

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|       |       |
|-------|-------|
| Group | Run   |
| ----- | ----- |
| BASE  | Yes   |

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Name: Mean Annual                      Hydrology Sim: Mean Annual  
Filename: L:\OC-327 Lake Mary Jess\DETENTION DESIGN - OCT 07\Calculations\ICPR\Proposed\Mean Annual.I3

Execute: No                      Restart: No                      Patch: No  
Alternative: No

|                              |                             |
|------------------------------|-----------------------------|
| Max Delta Z(ft): 1.00        | Delta Z Factor: 0.00500     |
| Time Step Optimizer: 10.000  |                             |
| Start Time(hrs): 0.000       | End Time(hrs): 24.00        |
| Min Calc Time(sec): 0.5000   | Max Calc Time(sec): 60.0000 |
| Boundary Stages: Mean Annual | Boundary Flows:             |

|           |                |
|-----------|----------------|
| Time(hrs) | Print Inc(min) |
| -----     | -----          |

24.000 15.000

Group Run  
 -----  
 BASE Yes

==== Boundary Conditions =====

Name: NHWE Node: TW Type: Stage

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| 0.000     | 93.500    |
| 24.000    | 93.500    |

Name: Mean Annual Node: TW Type: Stage

| Time(hrs) | Stage(ft) |
|-----------|-----------|
| 0.000     | 93.490    |
| 1.000     | 93.485    |
| 2.000     | 93.481    |
| 3.000     | 93.477    |
| 4.000     | 93.478    |
| 5.000     | 93.486    |
| 6.000     | 93.503    |
| 7.000     | 93.553    |
| 7.250     | 93.574    |
| 7.500     | 93.599    |
| 7.750     | 93.630    |
| 8.000     | 93.667    |
| 8.250     | 93.710    |
| 8.500     | 93.760    |
| 8.750     | 93.815    |
| 9.000     | 93.875    |
| 9.250     | 93.937    |
| 9.500     | 93.997    |
| 9.750     | 94.055    |
| 10.000    | 94.112    |
| 10.250    | 94.164    |
| 10.500    | 94.212    |
| 10.750    | 94.254    |
| 11.000    | 94.292    |
| 11.250    | 94.327    |
| 11.500    | 94.358    |
| 11.750    | 94.385    |
| 12.000    | 94.408    |
| 12.250    | 94.428    |
| 12.500    | 94.447    |
| 12.750    | 94.464    |
| 13.000    | 94.480    |
| 13.250    | 94.494    |
| 13.500    | 94.507    |
| 13.750    | 94.517    |
| 14.000    | 94.527    |
| 14.250    | 94.534    |
| 14.500    | 94.540    |
| 14.750    | 94.543    |
| 15.000    | 94.546    |
| 15.250    | 94.548    |
| 15.500    | 94.548    |
| 15.750    | 94.548    |
| 16.000    | 94.547    |
| 16.250    | 94.546    |
| 16.500    | 94.544    |
| 16.750    | 94.542    |

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|        |        |
|--------|--------|
| 17.000 | 94.540 |
| 17.250 | 94.537 |
| 17.500 | 94.535 |
| 17.750 | 94.533 |
| 18.000 | 94.530 |
| 18.250 | 94.527 |
| 18.500 | 94.524 |
| 18.750 | 94.521 |
| 19.000 | 94.518 |
| 19.250 | 94.515 |
| 19.500 | 94.512 |
| 19.750 | 94.509 |
| 20.000 | 94.506 |
| 20.250 | 94.502 |
| 20.500 | 94.499 |
| 20.750 | 94.495 |
| 21.000 | 94.491 |
| 21.250 | 94.487 |
| 21.500 | 94.483 |
| 21.750 | 94.479 |
| 22.000 | 94.475 |
| 22.250 | 94.471 |
| 22.500 | 94.467 |
| 22.750 | 94.462 |
| 23.000 | 94.458 |
| 23.250 | 94.454 |
| 23.500 | 94.450 |
| 23.750 | 94.446 |
| 24.000 | 94.441 |
| 24.250 | 94.436 |
| 25.250 | 94.415 |
| 26.250 | 94.393 |
| 27.250 | 94.370 |
| 28.250 | 94.348 |
| 29.250 | 94.326 |
| 30.250 | 94.305 |
| 31.250 | 94.285 |
| 32.250 | 94.264 |
| 33.250 | 94.245 |
| 34.250 | 94.226 |
| 35.250 | 94.207 |
| 36.250 | 94.189 |
| 37.250 | 94.171 |
| 38.250 | 94.153 |
| 39.250 | 94.136 |
| 40.250 | 94.120 |
| 41.250 | 94.104 |
| 42.250 | 94.088 |
| 43.250 | 94.072 |
| 44.250 | 94.057 |
| 45.250 | 94.042 |
| 46.250 | 94.028 |
| 47.250 | 94.013 |
| 48.250 | 93.999 |
| 49.250 | 93.986 |
| 50.250 | 93.972 |
| 51.250 | 93.959 |
| 52.250 | 93.947 |
| 53.250 | 93.934 |
| 54.250 | 93.922 |
| 55.250 | 93.910 |
| 56.250 | 93.898 |
| 57.250 | 93.887 |
| 58.250 | 93.875 |
| 59.250 | 93.864 |
| 60.250 | 93.853 |
| 61.250 | 93.843 |
| 62.250 | 93.832 |
| 63.250 | 93.822 |
| 64.250 | 93.812 |

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|        |        |
|--------|--------|
| 65.250 | 93.802 |
| 66.250 | 93.792 |
| 67.250 | 93.783 |
| 68.250 | 93.773 |
| 69.250 | 93.764 |
| 70.250 | 93.755 |
| 71.250 | 93.746 |
| 72.000 | 93.740 |

---

Name: 100Year

Node: TW

Type: Stage

Time (hrs)

Stage (ft)

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|        |        |
|--------|--------|
| 0.000  | 95.300 |
| 24.000 | 95.300 |

Lake Mary Jess Water Quality Improvement Project  
 Drawdown Analysis  
 February 2008

| Simulation | Node         | Group | Time<br>hrs | Stage<br>ft | Warning<br>Stage<br>ft | Surface<br>Area<br>ft2 | Total<br>Inflow<br>cfs | Total<br>Outflow<br>cfs |
|------------|--------------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|
| drawdown   | EXP POND 200 | BASE  | 0.00        | 96.000      | 97.000                 | 29795                  | 0.000                  | 0.000                   |
| drawdown   | EXP POND 200 | BASE  | 0.25        | 95.990      | 97.000                 | 29751                  | 0.000                  | 0.323                   |
| drawdown   | EXP POND 200 | BASE  | 0.51        | 95.980      | 97.000                 | 29705                  | 0.000                  | 0.322                   |
| drawdown   | EXP POND 200 | BASE  | 0.76        | 95.971      | 97.000                 | 29661                  | 0.000                  | 0.321                   |
| drawdown   | EXP POND 200 | BASE  | 1.01        | 95.961      | 97.000                 | 29616                  | 0.000                  | 0.320                   |
| drawdown   | EXP POND 200 | BASE  | 1.26        | 95.951      | 97.000                 | 29571                  | 0.000                  | 0.319                   |
| drawdown   | EXP POND 200 | BASE  | 1.51        | 95.941      | 97.000                 | 29527                  | 0.000                  | 0.318                   |
| drawdown   | EXP POND 200 | BASE  | 1.76        | 95.932      | 97.000                 | 29483                  | 0.000                  | 0.317                   |
| drawdown   | EXP POND 200 | BASE  | 2.01        | 95.922      | 97.000                 | 29438                  | 0.000                  | 0.317                   |
| drawdown   | EXP POND 200 | BASE  | 2.26        | 95.912      | 97.000                 | 29394                  | 0.000                  | 0.316                   |
| drawdown   | EXP POND 200 | BASE  | 2.51        | 95.903      | 97.000                 | 29350                  | 0.000                  | 0.315                   |
| drawdown   | EXP POND 200 | BASE  | 2.76        | 95.893      | 97.000                 | 29306                  | 0.000                  | 0.314                   |
| drawdown   | EXP POND 200 | BASE  | 3.01        | 95.883      | 97.000                 | 29262                  | 0.000                  | 0.313                   |
| drawdown   | EXP POND 200 | BASE  | 3.26        | 95.874      | 97.000                 | 29218                  | 0.000                  | 0.312                   |
| drawdown   | EXP POND 200 | BASE  | 3.51        | 95.864      | 97.000                 | 29174                  | 0.000                  | 0.312                   |
| drawdown   | EXP POND 200 | BASE  | 3.76        | 95.855      | 97.000                 | 29130                  | 0.000                  | 0.311                   |
| drawdown   | EXP POND 200 | BASE  | 4.01        | 95.845      | 97.000                 | 29086                  | 0.000                  | 0.310                   |
| drawdown   | EXP POND 200 | BASE  | 4.26        | 95.835      | 97.000                 | 29042                  | 0.000                  | 0.309                   |
| drawdown   | EXP POND 200 | BASE  | 4.51        | 95.826      | 97.000                 | 28998                  | 0.000                  | 0.308                   |
| drawdown   | EXP POND 200 | BASE  | 4.76        | 95.816      | 97.000                 | 28955                  | 0.000                  | 0.307                   |
| drawdown   | EXP POND 200 | BASE  | 5.01        | 95.807      | 97.000                 | 28911                  | 0.000                  | 0.306                   |
| drawdown   | EXP POND 200 | BASE  | 5.26        | 95.797      | 97.000                 | 28867                  | 0.000                  | 0.305                   |
| drawdown   | EXP POND 200 | BASE  | 5.51        | 95.788      | 97.000                 | 28824                  | 0.000                  | 0.305                   |
| drawdown   | EXP POND 200 | BASE  | 5.76        | 95.778      | 97.000                 | 28780                  | 0.000                  | 0.304                   |
| drawdown   | EXP POND 200 | BASE  | 6.01        | 95.769      | 97.000                 | 28737                  | 0.000                  | 0.303                   |
| drawdown   | EXP POND 200 | BASE  | 6.26        | 95.759      | 97.000                 | 28694                  | 0.000                  | 0.302                   |
| drawdown   | EXP POND 200 | BASE  | 6.51        | 95.750      | 97.000                 | 28650                  | 0.000                  | 0.301                   |
| drawdown   | EXP POND 200 | BASE  | 6.76        | 95.740      | 97.000                 | 28607                  | 0.000                  | 0.300                   |
| drawdown   | EXP POND 200 | BASE  | 7.01        | 95.731      | 97.000                 | 28564                  | 0.000                  | 0.299                   |
| drawdown   | EXP POND 200 | BASE  | 7.26        | 95.721      | 97.000                 | 28521                  | 0.000                  | 0.298                   |
| drawdown   | EXP POND 200 | BASE  | 7.51        | 95.712      | 97.000                 | 28478                  | 0.000                  | 0.298                   |
| drawdown   | EXP POND 200 | BASE  | 7.76        | 95.703      | 97.000                 | 28435                  | 0.000                  | 0.297                   |
| drawdown   | EXP POND 200 | BASE  | 8.01        | 95.693      | 97.000                 | 28392                  | 0.000                  | 0.296                   |
| drawdown   | EXP POND 200 | BASE  | 8.26        | 95.684      | 97.000                 | 28349                  | 0.000                  | 0.295                   |
| drawdown   | EXP POND 200 | BASE  | 8.51        | 95.674      | 97.000                 | 28306                  | 0.000                  | 0.294                   |
| drawdown   | EXP POND 200 | BASE  | 8.76        | 95.665      | 97.000                 | 28264                  | 0.000                  | 0.293                   |
| drawdown   | EXP POND 200 | BASE  | 9.01        | 95.656      | 97.000                 | 28221                  | 0.000                  | 0.292                   |
| drawdown   | EXP POND 200 | BASE  | 9.26        | 95.647      | 97.000                 | 28178                  | 0.000                  | 0.291                   |
| drawdown   | EXP POND 200 | BASE  | 9.51        | 95.637      | 97.000                 | 28136                  | 0.000                  | 0.290                   |
| drawdown   | EXP POND 200 | BASE  | 9.76        | 95.628      | 97.000                 | 28093                  | 0.000                  | 0.290                   |
| drawdown   | EXP POND 200 | BASE  | 10.01       | 95.619      | 97.000                 | 28051                  | 0.000                  | 0.289                   |
| drawdown   | EXP POND 200 | BASE  | 10.26       | 95.609      | 97.000                 | 28009                  | 0.000                  | 0.288                   |
| drawdown   | EXP POND 200 | BASE  | 10.51       | 95.600      | 97.000                 | 27966                  | 0.000                  | 0.287                   |
| drawdown   | EXP POND 200 | BASE  | 10.76       | 95.591      | 97.000                 | 27924                  | 0.000                  | 0.286                   |
| drawdown   | EXP POND 200 | BASE  | 11.01       | 95.582      | 97.000                 | 27882                  | 0.000                  | 0.285                   |
| drawdown   | EXP POND 200 | BASE  | 11.26       | 95.573      | 97.000                 | 27840                  | 0.000                  | 0.284                   |
| drawdown   | EXP POND 200 | BASE  | 11.51       | 95.563      | 97.000                 | 27798                  | 0.000                  | 0.283                   |
| drawdown   | EXP POND 200 | BASE  | 11.76       | 95.554      | 97.000                 | 27756                  | 0.000                  | 0.282                   |
| drawdown   | EXP POND 200 | BASE  | 12.01       | 95.545      | 97.000                 | 27714                  | 0.000                  | 0.281                   |
| drawdown   | EXP POND 200 | BASE  | 12.26       | 95.536      | 97.000                 | 27672                  | 0.000                  | 0.281                   |
| drawdown   | EXP POND 200 | BASE  | 12.51       | 95.527      | 97.000                 | 27631                  | 0.000                  | 0.280                   |
| drawdown   | EXP POND 200 | BASE  | 12.76       | 95.518      | 97.000                 | 27589                  | 0.000                  | 0.279                   |
| drawdown   | EXP POND 200 | BASE  | 13.01       | 95.509      | 97.000                 | 27547                  | 0.000                  | 0.278                   |
| drawdown   | EXP POND 200 | BASE  | 13.26       | 95.500      | 97.000                 | 27506                  | 0.000                  | 0.277                   |
| drawdown   | EXP POND 200 | BASE  | 13.51       | 95.490      | 97.000                 | 27465                  | 0.000                  | 0.276                   |
| drawdown   | EXP POND 200 | BASE  | 13.76       | 95.481      | 97.000                 | 27423                  | 0.000                  | 0.275                   |
| drawdown   | EXP POND 200 | BASE  | 14.01       | 95.472      | 97.000                 | 27382                  | 0.000                  | 0.274                   |
| drawdown   | EXP POND 200 | BASE  | 14.26       | 95.463      | 97.000                 | 27341                  | 0.000                  | 0.273                   |
| drawdown   | EXP POND 200 | BASE  | 14.51       | 95.454      | 97.000                 | 27300                  | 0.000                  | 0.272                   |
| drawdown   | EXP POND 200 | BASE  | 14.76       | 95.445      | 97.000                 | 27259                  | 0.000                  | 0.271                   |
| drawdown   | EXP POND 200 | BASE  | 15.01       | 95.437      | 97.000                 | 27218                  | 0.000                  | 0.271                   |
| drawdown   | EXP POND 200 | BASE  | 15.26       | 95.428      | 97.000                 | 27177                  | 0.000                  | 0.270                   |
| drawdown   | EXP POND 200 | BASE  | 15.51       | 95.419      | 97.000                 | 27136                  | 0.000                  | 0.269                   |
| drawdown   | EXP POND 200 | BASE  | 15.76       | 95.410      | 97.000                 | 27095                  | 0.000                  | 0.268                   |
| drawdown   | EXP POND 200 | BASE  | 16.01       | 95.401      | 97.000                 | 27055                  | 0.000                  | 0.267                   |
| drawdown   | EXP POND 200 | BASE  | 16.26       | 95.392      | 97.000                 | 27014                  | 0.000                  | 0.266                   |
| drawdown   | EXP POND 200 | BASE  | 16.51       | 95.383      | 97.000                 | 26974                  | 0.000                  | 0.265                   |
| drawdown   | EXP POND 200 | BASE  | 16.76       | 95.374      | 97.000                 | 26933                  | 0.000                  | 0.264                   |

Lake Mary Jess Water Quality Improvement Project  
 Drawdown Analysis  
 February 2008

| Simulation | Node         | Group | Time<br>hrs | Stage<br>ft | Warning<br>Stage<br>ft | Surface<br>Area<br>ft2 | Total<br>Inflow<br>cfs | Total<br>Outflow<br>cfs |
|------------|--------------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|
| drawdown   | EXP POND 200 | BASE  | 17.01       | 95.365      | 97.000                 | 26893                  | 0.000                  | 0.263                   |
| drawdown   | EXP POND 200 | BASE  | 17.26       | 95.357      | 97.000                 | 26853                  | 0.000                  | 0.262                   |
| drawdown   | EXP POND 200 | BASE  | 17.51       | 95.348      | 97.000                 | 26813                  | 0.000                  | 0.261                   |
| drawdown   | EXP POND 200 | BASE  | 17.76       | 95.339      | 97.000                 | 26773                  | 0.000                  | 0.260                   |
| drawdown   | EXP POND 200 | BASE  | 18.01       | 95.330      | 97.000                 | 26733                  | 0.000                  | 0.259                   |
| drawdown   | EXP POND 200 | BASE  | 18.26       | 95.322      | 97.000                 | 26693                  | 0.000                  | 0.258                   |
| drawdown   | EXP POND 200 | BASE  | 18.51       | 95.313      | 97.000                 | 26653                  | 0.000                  | 0.257                   |
| drawdown   | EXP POND 200 | BASE  | 18.76       | 95.304      | 97.000                 | 26613                  | 0.000                  | 0.257                   |
| drawdown   | EXP POND 200 | BASE  | 19.01       | 95.296      | 97.000                 | 26573                  | 0.000                  | 0.256                   |
| drawdown   | EXP POND 200 | BASE  | 19.26       | 95.287      | 97.000                 | 26534                  | 0.000                  | 0.255                   |
| drawdown   | EXP POND 200 | BASE  | 19.51       | 95.278      | 97.000                 | 26494                  | 0.000                  | 0.254                   |
| drawdown   | EXP POND 200 | BASE  | 19.76       | 95.270      | 97.000                 | 26455                  | 0.000                  | 0.253                   |
| drawdown   | EXP POND 200 | BASE  | 20.01       | 95.261      | 97.000                 | 26416                  | 0.000                  | 0.252                   |
| drawdown   | EXP POND 200 | BASE  | 20.26       | 95.253      | 97.000                 | 26377                  | 0.000                  | 0.251                   |
| drawdown   | EXP POND 200 | BASE  | 20.51       | 95.244      | 97.000                 | 26338                  | 0.000                  | 0.250                   |
| drawdown   | EXP POND 200 | BASE  | 20.76       | 95.236      | 97.000                 | 26299                  | 0.000                  | 0.249                   |
| drawdown   | EXP POND 200 | BASE  | 21.01       | 95.227      | 97.000                 | 26260                  | 0.000                  | 0.248                   |
| drawdown   | EXP POND 200 | BASE  | 21.26       | 95.219      | 97.000                 | 26221                  | 0.000                  | 0.247                   |
| drawdown   | EXP POND 200 | BASE  | 21.51       | 95.210      | 97.000                 | 26182                  | 0.000                  | 0.246                   |
| drawdown   | EXP POND 200 | BASE  | 21.76       | 95.202      | 97.000                 | 26143                  | 0.000                  | 0.245                   |
| drawdown   | EXP POND 200 | BASE  | 22.01       | 95.193      | 97.000                 | 26105                  | 0.000                  | 0.244                   |
| drawdown   | EXP POND 200 | BASE  | 22.26       | 95.185      | 97.000                 | 26066                  | 0.000                  | 0.243                   |
| drawdown   | EXP POND 200 | BASE  | 22.51       | 95.176      | 97.000                 | 26028                  | 0.000                  | 0.242                   |
| drawdown   | EXP POND 200 | BASE  | 22.76       | 95.168      | 97.000                 | 25990                  | 0.000                  | 0.241                   |
| drawdown   | EXP POND 200 | BASE  | 23.01       | 95.160      | 97.000                 | 25952                  | 0.000                  | 0.240                   |
| drawdown   | EXP POND 200 | BASE  | 23.25       | 95.152      | 97.000                 | 25915                  | 0.000                  | 0.239                   |
| drawdown   | EXP POND 200 | BASE  | 23.50       | 95.143      | 97.000                 | 25877                  | 0.000                  | 0.238                   |
| drawdown   | EXP POND 200 | BASE  | 23.75       | 95.135      | 97.000                 | 25839                  | 0.000                  | 0.237                   |
| drawdown   | EXP POND 200 | BASE  | 24.00       | 95.127      | 97.000                 | 25801                  | 0.000                  | 0.236                   |
| drawdown   | EXP POND 200 | BASE  | 24.25       | 95.119      | 97.000                 | 25763                  | 0.000                  | 0.235                   |
| drawdown   | EXP POND 200 | BASE  | 24.50       | 95.110      | 97.000                 | 25726                  | 0.000                  | 0.234                   |
| drawdown   | EXP POND 200 | BASE  | 24.75       | 95.102      | 97.000                 | 25688                  | 0.000                  | 0.233                   |
| drawdown   | EXP POND 200 | BASE  | 25.00       | 95.094      | 97.000                 | 25651                  | 0.000                  | 0.233                   |
| drawdown   | EXP POND 200 | BASE  | 25.25       | 95.086      | 97.000                 | 25614                  | 0.000                  | 0.232                   |
| drawdown   | EXP POND 200 | BASE  | 25.50       | 95.078      | 97.000                 | 25576                  | 0.000                  | 0.231                   |
| drawdown   | EXP POND 200 | BASE  | 25.75       | 95.070      | 97.000                 | 25539                  | 0.000                  | 0.230                   |
| drawdown   | EXP POND 200 | BASE  | 26.00       | 95.061      | 97.000                 | 25502                  | 0.000                  | 0.229                   |
| drawdown   | EXP POND 200 | BASE  | 26.25       | 95.053      | 97.000                 | 25466                  | 0.000                  | 0.228                   |
| drawdown   | EXP POND 200 | BASE  | 26.50       | 95.045      | 97.000                 | 25429                  | 0.000                  | 0.227                   |
| drawdown   | EXP POND 200 | BASE  | 26.75       | 95.037      | 97.000                 | 25392                  | 0.000                  | 0.226                   |
| drawdown   | EXP POND 200 | BASE  | 27.00       | 95.029      | 97.000                 | 25356                  | 0.000                  | 0.225                   |
| drawdown   | EXP POND 200 | BASE  | 27.25       | 95.021      | 97.000                 | 25319                  | 0.000                  | 0.224                   |
| drawdown   | EXP POND 200 | BASE  | 27.50       | 95.014      | 97.000                 | 25283                  | 0.000                  | 0.223                   |
| drawdown   | EXP POND 200 | BASE  | 27.75       | 95.006      | 97.000                 | 25247                  | 0.000                  | 0.222                   |
| drawdown   | EXP POND 200 | BASE  | 28.00       | 94.998      | 97.000                 | 25212                  | 0.000                  | 0.221                   |
| drawdown   | EXP POND 200 | BASE  | 28.25       | 94.990      | 97.000                 | 25181                  | 0.000                  | 0.220                   |
| drawdown   | EXP POND 200 | BASE  | 28.50       | 94.982      | 97.000                 | 25151                  | 0.000                  | 0.219                   |
| drawdown   | EXP POND 200 | BASE  | 28.75       | 94.974      | 97.000                 | 25120                  | 0.000                  | 0.218                   |
| drawdown   | EXP POND 200 | BASE  | 29.00       | 94.966      | 97.000                 | 25090                  | 0.000                  | 0.217                   |
| drawdown   | EXP POND 200 | BASE  | 29.25       | 94.959      | 97.000                 | 25059                  | 0.000                  | 0.216                   |
| drawdown   | EXP POND 200 | BASE  | 29.50       | 94.951      | 97.000                 | 25029                  | 0.000                  | 0.215                   |
| drawdown   | EXP POND 200 | BASE  | 29.75       | 94.943      | 97.000                 | 24999                  | 0.000                  | 0.214                   |
| drawdown   | EXP POND 200 | BASE  | 30.00       | 94.936      | 97.000                 | 24969                  | 0.000                  | 0.213                   |
| drawdown   | EXP POND 200 | BASE  | 30.25       | 94.928      | 97.000                 | 24939                  | 0.000                  | 0.212                   |
| drawdown   | EXP POND 200 | BASE  | 30.50       | 94.920      | 97.000                 | 24909                  | 0.000                  | 0.211                   |
| drawdown   | EXP POND 200 | BASE  | 30.75       | 94.913      | 97.000                 | 24879                  | 0.000                  | 0.210                   |
| drawdown   | EXP POND 200 | BASE  | 31.00       | 94.905      | 97.000                 | 24849                  | 0.000                  | 0.209                   |
| drawdown   | EXP POND 200 | BASE  | 31.25       | 94.898      | 97.000                 | 24820                  | 0.000                  | 0.208                   |
| drawdown   | EXP POND 200 | BASE  | 31.50       | 94.890      | 97.000                 | 24790                  | 0.000                  | 0.207                   |
| drawdown   | EXP POND 200 | BASE  | 31.75       | 94.883      | 97.000                 | 24761                  | 0.000                  | 0.206                   |
| drawdown   | EXP POND 200 | BASE  | 32.00       | 94.875      | 97.000                 | 24732                  | 0.000                  | 0.205                   |
| drawdown   | EXP POND 200 | BASE  | 32.25       | 94.868      | 97.000                 | 24702                  | 0.000                  | 0.204                   |
| drawdown   | EXP POND 200 | BASE  | 32.50       | 94.860      | 97.000                 | 24673                  | 0.000                  | 0.203                   |
| drawdown   | EXP POND 200 | BASE  | 32.75       | 94.853      | 97.000                 | 24645                  | 0.000                  | 0.202                   |
| drawdown   | EXP POND 200 | BASE  | 33.00       | 94.846      | 97.000                 | 24616                  | 0.000                  | 0.201                   |
| drawdown   | EXP POND 200 | BASE  | 33.25       | 94.838      | 97.000                 | 24587                  | 0.000                  | 0.199                   |
| drawdown   | EXP POND 200 | BASE  | 33.50       | 94.831      | 97.000                 | 24558                  | 0.000                  | 0.198                   |
| drawdown   | EXP POND 200 | BASE  | 33.75       | 94.824      | 97.000                 | 24530                  | 0.000                  | 0.197                   |

Lake Mary Jess Water Quality Improvement Project  
Drawdown Analysis  
February 2008

| Simulation | Node         | Group | Time<br>hrs | Stage<br>ft | Warning<br>Stage<br>ft | Surface<br>Area<br>ft2 | Total<br>Inflow<br>cfs | Total<br>Outflow<br>cfs |
|------------|--------------|-------|-------------|-------------|------------------------|------------------------|------------------------|-------------------------|
| drawdown   | EXP POND 200 | BASE  | 34.00       | 94.816      | 97.000                 | 24502                  | 0.000                  | 0.196                   |
| drawdown   | EXP POND 200 | BASE  | 34.25       | 94.809      | 97.000                 | 24473                  | 0.000                  | 0.195                   |
| drawdown   | EXP POND 200 | BASE  | 34.50       | 94.802      | 97.000                 | 24445                  | 0.000                  | 0.194                   |
| drawdown   | EXP POND 200 | BASE  | 34.75       | 94.795      | 97.000                 | 24417                  | 0.000                  | 0.193                   |
| drawdown   | EXP POND 200 | BASE  | 35.00       | 94.788      | 97.000                 | 24389                  | 0.000                  | 0.192                   |
| drawdown   | EXP POND 200 | BASE  | 35.25       | 94.781      | 97.000                 | 24362                  | 0.000                  | 0.191                   |
| drawdown   | EXP POND 200 | BASE  | 35.50       | 94.774      | 97.000                 | 24334                  | 0.000                  | 0.190                   |
| drawdown   | EXP POND 200 | BASE  | 35.75       | 94.767      | 97.000                 | 24307                  | 0.000                  | 0.189                   |
| drawdown   | EXP POND 200 | BASE  | 36.00       | 94.760      | 97.000                 | 24279                  | 0.000                  | 0.188                   |
| drawdown   | EXP POND 200 | BASE  | 36.25       | 94.753      | 97.000                 | 24252                  | 0.000                  | 0.187                   |
| drawdown   | EXP POND 200 | BASE  | 36.50       | 94.746      | 97.000                 | 24225                  | 0.000                  | 0.186                   |
| drawdown   | EXP POND 200 | BASE  | 36.75       | 94.739      | 97.000                 | 24198                  | 0.000                  | 0.185                   |
| drawdown   | EXP POND 200 | BASE  | 37.00       | 94.732      | 97.000                 | 24171                  | 0.000                  | 0.184                   |
| drawdown   | EXP POND 200 | BASE  | 37.25       | 94.725      | 97.000                 | 24144                  | 0.000                  | 0.183                   |
| drawdown   | EXP POND 200 | BASE  | 37.50       | 94.718      | 97.000                 | 24117                  | 0.000                  | 0.182                   |
| drawdown   | EXP POND 200 | BASE  | 37.75       | 94.712      | 97.000                 | 24091                  | 0.000                  | 0.181                   |
| drawdown   | EXP POND 200 | BASE  | 38.00       | 94.705      | 97.000                 | 24064                  | 0.000                  | 0.180                   |
| drawdown   | EXP POND 200 | BASE  | 38.25       | 94.698      | 97.000                 | 24038                  | 0.000                  | 0.179                   |
| drawdown   | EXP POND 200 | BASE  | 38.50       | 94.691      | 97.000                 | 24012                  | 0.000                  | 0.178                   |
| drawdown   | EXP POND 200 | BASE  | 38.75       | 94.685      | 97.000                 | 23986                  | 0.000                  | 0.177                   |
| drawdown   | EXP POND 200 | BASE  | 39.00       | 94.678      | 97.000                 | 23960                  | 0.000                  | 0.176                   |
| drawdown   | EXP POND 200 | BASE  | 39.25       | 94.672      | 97.000                 | 23934                  | 0.000                  | 0.175                   |
| drawdown   | EXP POND 200 | BASE  | 39.50       | 94.665      | 97.000                 | 23908                  | 0.000                  | 0.174                   |
| drawdown   | EXP POND 200 | BASE  | 39.75       | 94.659      | 97.000                 | 23883                  | 0.000                  | 0.173                   |
| drawdown   | EXP POND 200 | BASE  | 40.00       | 94.652      | 97.000                 | 23857                  | 0.000                  | 0.171                   |
| drawdown   | EXP POND 200 | BASE  | 40.25       | 94.646      | 97.000                 | 23832                  | 0.000                  | 0.170                   |
| drawdown   | EXP POND 200 | BASE  | 40.50       | 94.639      | 97.000                 | 23807                  | 0.000                  | 0.169                   |
| drawdown   | EXP POND 200 | BASE  | 40.75       | 94.633      | 97.000                 | 23782                  | 0.000                  | 0.168                   |
| drawdown   | EXP POND 200 | BASE  | 41.00       | 94.626      | 97.000                 | 23757                  | 0.000                  | 0.167                   |
| drawdown   | EXP POND 200 | BASE  | 41.25       | 94.620      | 97.000                 | 23732                  | 0.000                  | 0.166                   |
| drawdown   | EXP POND 200 | BASE  | 41.50       | 94.614      | 97.000                 | 23707                  | 0.000                  | 0.165                   |
| drawdown   | EXP POND 200 | BASE  | 41.75       | 94.608      | 97.000                 | 23683                  | 0.000                  | 0.164                   |
| drawdown   | EXP POND 200 | BASE  | 42.00       | 94.601      | 97.000                 | 23659                  | 0.000                  | 0.163                   |
| drawdown   | EXP POND 200 | BASE  | 42.25       | 94.595      | 97.000                 | 23634                  | 0.000                  | 0.162                   |
| drawdown   | EXP POND 200 | BASE  | 42.50       | 94.589      | 97.000                 | 23610                  | 0.000                  | 0.161                   |
| drawdown   | EXP POND 200 | BASE  | 42.75       | 94.583      | 97.000                 | 23586                  | 0.000                  | 0.160                   |
| drawdown   | EXP POND 200 | BASE  | 43.00       | 94.577      | 97.000                 | 23562                  | 0.000                  | 0.159                   |
| drawdown   | EXP POND 200 | BASE  | 43.25       | 94.571      | 97.000                 | 23539                  | 0.000                  | 0.158                   |
| drawdown   | EXP POND 200 | BASE  | 43.50       | 94.565      | 97.000                 | 23515                  | 0.000                  | 0.157                   |
| drawdown   | EXP POND 200 | BASE  | 43.75       | 94.559      | 97.000                 | 23492                  | 0.000                  | 0.156                   |
| drawdown   | EXP POND 200 | BASE  | 44.00       | 94.553      | 97.000                 | 23468                  | 0.000                  | 0.155                   |
| drawdown   | EXP POND 200 | BASE  | 44.25       | 94.547      | 97.000                 | 23445                  | 0.000                  | 0.153                   |
| drawdown   | EXP POND 200 | BASE  | 44.50       | 94.541      | 97.000                 | 23422                  | 0.000                  | 0.152                   |
| drawdown   | EXP POND 200 | BASE  | 44.75       | 94.535      | 97.000                 | 23399                  | 0.000                  | 0.151                   |
| drawdown   | EXP POND 200 | BASE  | 45.00       | 94.529      | 97.000                 | 23376                  | 0.000                  | 0.150                   |
| drawdown   | EXP POND 200 | BASE  | 45.25       | 94.524      | 97.000                 | 23354                  | 0.000                  | 0.149                   |
| drawdown   | EXP POND 200 | BASE  | 45.50       | 94.518      | 97.000                 | 23331                  | 0.000                  | 0.148                   |
| drawdown   | EXP POND 200 | BASE  | 45.75       | 94.512      | 97.000                 | 23309                  | 0.000                  | 0.147                   |
| drawdown   | EXP POND 200 | BASE  | 46.00       | 94.507      | 97.000                 | 23287                  | 0.000                  | 0.146                   |
| drawdown   | EXP POND 200 | BASE  | 46.25       | 94.501      | 97.000                 | 23265                  | 0.000                  | 0.145                   |
| drawdown   | EXP POND 200 | BASE  | 46.50       | 94.495      | 97.000                 | 23243                  | 0.000                  | 0.144                   |
| drawdown   | EXP POND 200 | BASE  | 46.75       | 94.490      | 97.000                 | 23221                  | 0.000                  | 0.143                   |
| drawdown   | EXP POND 200 | BASE  | 47.00       | 94.484      | 97.000                 | 23200                  | 0.000                  | 0.142                   |
| drawdown   | EXP POND 200 | BASE  | 47.25       | 94.479      | 97.000                 | 23178                  | 0.000                  | 0.141                   |
| drawdown   | EXP POND 200 | BASE  | 47.50       | 94.473      | 97.000                 | 23157                  | 0.000                  | 0.139                   |
| drawdown   | EXP POND 200 | BASE  | 47.75       | 94.468      | 97.000                 | 23136                  | 0.000                  | 0.138                   |
| drawdown   | EXP POND 200 | BASE  | 48.00       | 94.463      | 97.000                 | 23115                  | 0.000                  | 0.137                   |
| drawdown   | EXP POND 200 | BASE  | 48.00       | 94.463      | 97.000                 | 23115                  | 0.000                  | 0.137                   |

*Lake Mary Jess Drainage and Water Quality  
Improvements Project  
Orange County, Florida*

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*Section 5*

*Construction Plans and Survey*

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44283 - 3



# CONSTRUCTION PLANS FOR LAKE MARY JESS DRAINAGE AND WATER QUALITY IMPROVEMENTS

DISTRICT NO. 4  
ORANGE COUNTY, FLORIDA

## SOURCE OF BENCHMARK DATUM

REFER TO SURVEY PREPARED BY  
**BUCHHEIT ASSOCIATES, INC.**

ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY DATUM  
(NGVD 29) AS DERIVED FROM BENCHMARKS S-444-002, "X" CUT IN  
TOP OF CURB ISLAND OF SOUTH ENTRANCE OF CAMELOT APARTMENTS,  
ELEVATION 98.66.

### SITE BENCHMARKS:

- (S-44-002) "X" CUT IN TOP OF CURB ISLAND OF SOUTH  
ENTRANCE OF CAMELOT APARTMENTS, ELEVATION = 98.66.
- TBM 1 - RAILROAD SPIKE IN POWER POLE #335861,  
ELEVATION = 102.86.
- TBM 2 - RAILROAD SPIKE IN POWER POLE #335860,  
ELEVATION = 103.83.
- TBM 3 - "X" CUT IN DRAINAGE STRUCTURE,  
ELEVATION 96.78.

| PROJECT LENGTH:    | FEET | MILES |
|--------------------|------|-------|
| CULVERT:<br>(3x28) | 84   | 0.02  |
| POND:              | 200  | 0.04  |
| CANAL:             | 500  | 0.15  |
| TOTAL LENGTH:      | 784  | 0.21  |

## BOARD OF COUNTY COMMISSIONERS

RICHARD T. CROTTY

COUNTY MAYOR

TERESA S. JACOBS

DISTRICT 1

FRED BRUMMER

DISTRICT 2

MILDRED FERNANDEZ

DISTRICT 3

LINDA STEWART

DISTRICT 4

BILL SEGAL

DISTRICT 5

TIFFANY MOORE

DISTRICT 6

MELVIN PITTMAN

COMMUNITY AND ENVIRONMENTAL

SERVICES DIRECTOR

MARK V. MASSARO, P.E.

PUBLIC WORKS

INTERIM DIRECTOR



ORANGE COUNTY PROPERTY APPRAISER AERIAL (DATED 2006)

VICINITY MAP

N.T.S.

**100% PLANS**  
**DATED:** FEBRUARY 19, 2008

## GOVERNING STANDARDS AND SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION  
DESIGN STANDARDS FOR DESIGN, CONSTRUCTION,  
MAINTENANCE AND UTILITY OPERATIONS  
ON THE STATE HIGHWAY SYSTEM (2006 EDITION),  
AND

STANDARD SPECIFICATIONS FOR ROAD AND  
BRIDGE CONSTRUCTION (2007 EDITION)  
AS AMENDED BY THE CONTRACT DOCUMENTS

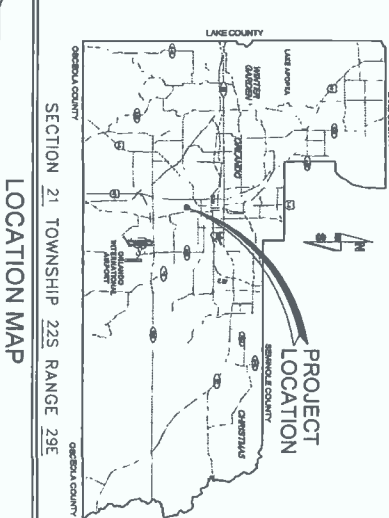
## NOTE

PLANS WERE PREPARED ACCORDING TO AVAILABLE INFORMATION TO ADEQUATELY ADDRESS CONDITIONS AS THEY  
EXISTED AT THE TIME OF PLANS PREPARATION. NEEDS, CONDITIONS AND OWNERSHIP OF PROPERTIES MAY HAVE  
CHANGED SINCE PROJECT DESIGN. THE COUNTY'S REPRESENTATIVE WILL ADDRESS CHANGES AND NEEDS WITH THE  
PROPERTY OWNER OR THEIR REPRESENTATIVES. CONTRACTOR SHALL WORK WITH THE COUNTY'S REPRESENTATIVE IN  
ADDRESSING AND MEETING NEEDS AND CONDITIONS THAT MAY HAVE CHANGED SINCE PLANS PREPARATION.

## CERTIFICATION TO PLANS

I HEREBY CERTIFY THAT THE DESIGN FOR THIS PROJECT AND THE ATTACHED CONSTRUCTION PLANS COMPLY WITH  
THE REQUIREMENTS OF SECTION 336.045 OF THE FLORIDA STATUTES AND ARE IN SUBSTANTIAL CONFORMANCE WITH  
THE STANDARDS CONTAINED IN THE EDITION OF THE "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN,  
CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS" IN EFFECT ON THIS DATE AS ADOPTED BY THE  
FLORIDA DEPARTMENT OF TRANSPORTATION PURSUANT TO SUBSECTION 336.045(1) OF THE FLORIDA STATUTES.

DATE: \_\_\_\_\_ ENGINEER: REED BLANCHARD, P.E. REG. NO. 65579



SECTION 21, TOWNSHIP 22S, RANGE 29E

LOCATION MAP

## INDEX OF SHEETS

| SHEET | DESCRIPTION                                      |
|-------|--------------------------------------------------|
| 1     | COVER SHEET                                      |
| 2     | VICINITY / LOCATION MAPS                         |
| 3     | GENERAL NOTES, DETAILS and SUMMARY OF QUANTITIES |
| 4     | SITE SPECIFIC SURVEY                             |
| 5     | POND SITE PLAN and DETAILS                       |
| 6     | CANAL SITE PLAN and DETAILS                      |

## UTILITIES ENCOUNTERED

POWER: PROGRESS ENERGY 407-905-3345  
PHONE: BELLSOUTH 407-780-2800  
WATER: ORANGE COUNTY PUBLIC UTILITIES 407-836-7202  
WATER: ORLANDO UTILITIES COMMISSION 407-649-4415  
SEWER: ORANGE COUNTY PUBLIC UTILITIES 407-836-7202  
GAS: TECO / PEOPLES GAS 407-420-2679  
CATV: TIME WARNER COMMUNICATIONS 407-532-8586

PREPARED BY:

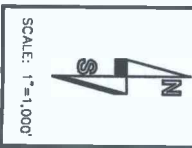
**PEC** Professional 200 EAST ROBINSON STREET  
Engineering SUITE 350 ORLANDO, FLORIDA 32801  
Consultants (407) 422-1802  
BOARD OF PROFESSIONAL ENGINEERS  
engineers planners surveyors CERTIFICATE NO. 3556

## REVISIONS

| DATE | BY |
|------|----|
|      |    |
|      |    |
|      |    |
|      |    |

DESIGNED BY: RGB DATE: 02/08  
CHECKED BY: LLS DATE: 02/08  
DRAWN BY: JTC DATE: 02/08  
APPROVED BY: DWH DATE: 02/08  
PROJECT NO: OC-327

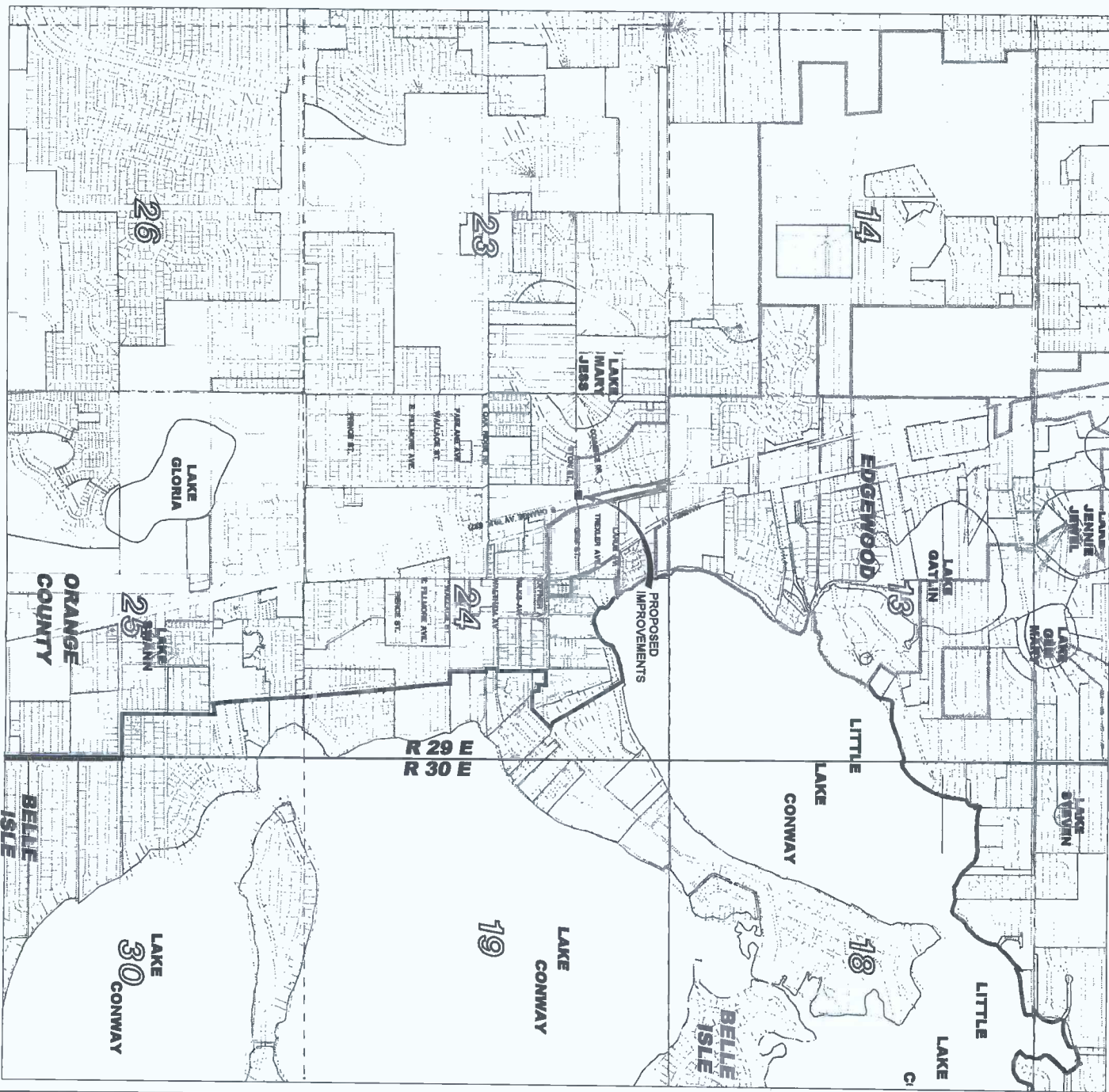
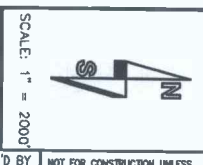
SHEET 1  
OF 6



**DISCLAIMER**

1. THIS MAP OF ROADS AND PARCELS HAS BEEN PROVIDED TO THE CONSULTANT BY ORANGE COUNTY. HOWEVER, NEITHER THE CONSULTANT NOR ORANGE COUNTY OFFERS ANY WARRANTY OR REPRESENTATION, EXPRESSED OR IMPLIED, OF THE CONTENTS OR ACCURACY OF THE BASE MAPPING SHOWN HEREON.

2. DO NOT USE THE INFORMATION ON THIS SHEET FOR CONSTRUCTION PURPOSES. THIS SHEET IS FOR INFORMATIONAL PURPOSES AND DOCUMENTATION ONLY.



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SECTION 24 / TOWNSHIP 23 SOUTH / RANGE 29 EAST

"VICINITY MAP"

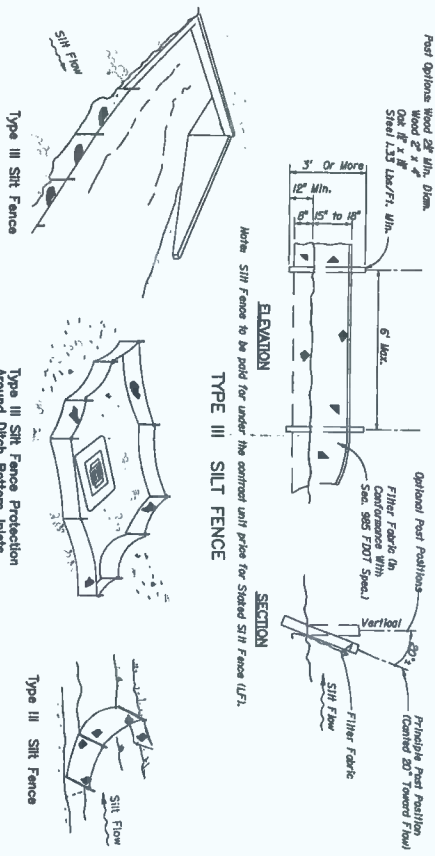
SECTION 24 / TOWNSHIP 23 SOUTH / RANGE 29 EAST

"LOCATION MAP"

|                  |                                                          |                                                                                                                                                                                                                                                                      |      |      |             |          |                                               |
|------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|-------------|----------|-----------------------------------------------|
| DESIGNED BY: AMB | LAKE MARY JESS - DRAINAGE AND WATER QUALITY IMPROVEMENTS | <b>PEC</b> Professional Engineering Consultants<br>engineers planners surveyors<br>Board of Professional Engineers Certificate No. 3556<br>Suite 1560, Esola Park Centre 200 East Robinson Street<br>Orlando, Florida 32801<br>Tel (407) 422-8062 Fax (407) 849-9401 | REV. | DATE | DESCRIPTION | APP'D BY | NOT FOR CONSTRUCTION UNLESS SIGNED AND SEALED |
| DRAWN BY: JTC    | VICINITY / LOCATION MAPS                                 |                                                                                                                                                                                                                                                                      |      |      |             |          |                                               |
| CHECKED BY: DMH  |                                                          |                                                                                                                                                                                                                                                                      |      |      |             |          |                                               |
| APPROVED BY: DMH |                                                          |                                                                                                                                                                                                                                                                      |      |      |             |          |                                               |
| PROJ. No. OC-327 |                                                          |                                                                                                                                                                                                                                                                      |      |      |             |          |                                               |
| DATE FEB 08      |                                                          |                                                                                                                                                                                                                                                                      |      |      |             |          |                                               |
| 2                | SHEET 2                                                  |                                                                                                                                                                                                                                                                      |      |      |             |          |                                               |
|                  | ORANGE COUNTY                                            | S 24 T 23S R 29E                                                                                                                                                                                                                                                     |      |      |             |          | REID BLANCHARD, P.E. 65579                    |

## GENERAL NOTES AND DETAILS

- 1 ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AND CONFORM TO THE MOST RECENT EDITION OF THE PROJECT SPECIFICATION. THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FROM) AND SUPPLEMENTS THERETO, AND CHANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
- 2 SURFACEAGE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CONDITIONS. TO THE EXTENT THE ACCURACY OF THE INFORMATION IS NOT GUARANTEED, IT IS NOT TO BE CONSTRUED AS PART OF THE PLANS CONCERNING CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INQUIRE OF THE ENGINEER IF ADDITIONAL INFORMATION IS AVAILABLE, TO MAKE ARRANGEMENTS TO REVIEW SAID PRIOR TO BIDDING, AND TO MAKE HIS OWN DETERMINATION AS TO ALL SURFACEAGE CONDITIONS.
- 3 ALL PERSONAL PROPERTY EXCEPT MAIL BOXES WITHIN THE RIGHT-OF-WAY NOT RELOCATED BY THE PROJECT OWNER SHALL BE PROTECTED BY THE CONTRACTOR AS NECESSARY TO PREVENT DAMAGE TO SUCH PROPERTY. THE CONTRACTOR SHALL MAINTAIN BOXES SHALL BE RELOCATED THROUGH THE CONSTRUCTION IN ACCORDANCE WITH FDOT DESIGN STANDARD AND PAYMENT WILL BE INCLUDED IN CLEANSING AND GRASSING.
- 4 THE DISPOSAL OF EXCESS EARTHWORK MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. APPROVAL OF DISPOSAL SITES SHALL BE OBTAINED FROM ORANGE COUNTY PRIOR TO DISPOSAL. ALL EXCESS MATERIAL IS THE PROPERTY OF THE CONTRACTOR.
- 5 ALL EXISTING TREES WITHIN THE RIGHT-OF-WAY ARE TO BE REMOVED AS CLEANSING AND GRASSING UNLESS OTHERWISE DIRECTED.
- 6 SEED AND MULCH ALL DISTURBED AREAS UNLESS OTHERWISE DIRECTED. SOO SHALL MATCH EXISTING TYPE SOO UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 7 INSTALL A 4-INCH THICK LAYER OF BLANKET ON TOPSOIL TREATMENT ON ALL PERMANENT GRADES AREAS. COST TO BE INCLUDED IN CONTRACT UNIT PRICE FOR SOO.
- 8 SOO ALL SLOPES 3:1 OR STEEPER.
- 9 SAWCUT CONCRETE DRIVEWAYS AS REQUIRED FOR CONSTRUCTION.
- 10 ALL PAVEMENT OFFSETS SHOWN ARE TO PROPOSED CENTERLINE OF CONSTRUCTION. ALL RIGID AND DIMENSIONS ARE TO PROPOSED EDGE OF PAVEMENT.
- 11 FOR STABILIZATION AT TURNOUTS AND DRIVEWAY CONNECTIONS SEE STANDARD INDEX NO. 665 FOR CONSTRUCTION SPECIFICATIONS.
- 12 DRIVEWAY LOCATIONS AND WIDTHS SHOWN ARE APPROPRIATE AND MAY BE ADJUSTED AS NECESSARY AS DIRECTED BY THE ENGINEER.
- 13 THE CONTRACTOR SHALL PERFORM HIS WORK IN ACCORDANCE WITH REQUIREMENTS OF THE VARIOUS PERMITS INCLUDED IN THE BID SPECIFICATION. PAVEMENT IS INCLUDED IN THE BID PRICE FOR SECTION 04. PREPARATION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION, EXCLUSION MEASURES SPECIFIED ELSEWHERE. ENVIRONMENTAL CONTROLS SHALL BE USED AT LOCATIONS DESIGNATED IN THE PLANS AND/OR DESIGNATED BY THE ENGINEER.
- 14 THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND SURVEY BUT IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUDING THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THEREON AND IS RESPONSIBLE FOR COORDINATING UTILITY RELATIONS WITH PROJECT CONSTRUCTION. PRIOR TO ORDERING DAMAGE STRUCTURES, THE CONTRACTOR SHALL DETERMINE IF DAMAGE/UTILITY CONFLICTS EXIST. INFORMATION ON CONFLICTS IS TO BE SUBMITTED TO THE ENGINEER AS SOON AS POSSIBLE AFTER DISCOVERY FOR RESOLUTION.
- 15 FIELD LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DAMAGED, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE COUNTY ENGINEER WITHOUT DELAY BY TELEPHONE. THE CONTRACTOR SHALL PROVIDE WRITTEN FOLLOW UP CONFIRMATION WITHIN 48 HOURS OF TELEPHONE NOTIFICATION.
- 16 PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO ORANGE COUNTY ENGINEER A SET OF FIELD NOTES DESCRIBING THE EXISTING ELEVATION DATA AND THE REFERENCE POINT SHOWN ON THE TITLE SHEET AND PLAN AND PEOPLE'S REFERENCE POINT (FOR FIELD NOTES). FOR ALL ADDITIONAL RECONNAISSANCE AND REFERENCE POINTS PROPOSED TO BE USED IN CONSTRUCTING THE PROJECT WITH THEIR LOCATION, DESCRIPTION AND ELEVATION BASED ON ORANGE COUNTY DATUM, ALL RESULTS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA.
- 17 WITHIN 21 CALENDAR DAYS AFTER NOTICE TO PROCEED, THE CONTRACTOR SHALL STAKE THE RIGHT-OF-WAY AT THE END OF EACH RIGHT-OF-WAY SEGMENT WITH STAKES SHOWN ON THE STAKES AND SIGNED FOR PAYMENT OF THE BALANCE OF THE PAYMENT UNTIL THE RIGHT-OF-WAY HAS BEEN STAKED TO THE SATISFACTION OF THE ENGINEER. PAYMENT IS INCLUDED IN THE PRICE BID FOR ITEM NO. 01H - MOBILIZATION.
- 18 TRAFFIC SIGNS - REMOVAL AND REPLACEMENT WILL BE DONE BY THE CONTRACTOR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 19 EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED IN ACCORDANCE TO FDOT DESIGN STANDARD INDEX NO. 022 AND 030 PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. BUT BEFORE AND WHILE PROTECTION MEASURES ARE IN PLACE AND IN GOOD CONDITION AT ALL LOCATIONS SHOWN IN PLANS OR AS REQUIRED UNTIL THE CONTRACT IS COMPLETED AND SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED. MEASURES SHOWN ARE THE USUAL REQUIRED, AND THE CONTRACTOR WILL ENSURE THAT THERE IS NO DIRECT OR INDIRECT DISCHARGE OF CONSTRUCTION MATERIALS IN TURBID WATERS TO OFFSHORE AREAS OR WATERWAYS.



Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

**STAKED TYPE III SILT FENCING**  
M/S  
**FDOT INDEX No. 103**

20

**EXPOSURE & SEDIMENT CONTROL.** Prior to initiating construction of planned improvements, all areas will be secured and rough graded to provide erosion and runoff control during construction.

All disturbed areas will be brought to final grade and seeded or mulched as needed to control soil erosion.

Areas which may erode due to slopes or concentrated runoff from impervious surfaces will be stabilized with 10% portland cement concrete or other approved erosion control methods per FDOT Road Design Standard Section 102.

Upon completion of all improvements, the relation ponds, swales, and other storm water management facilities will be final graded and sodded as specified in the approved construction plans.

**NOTE:**

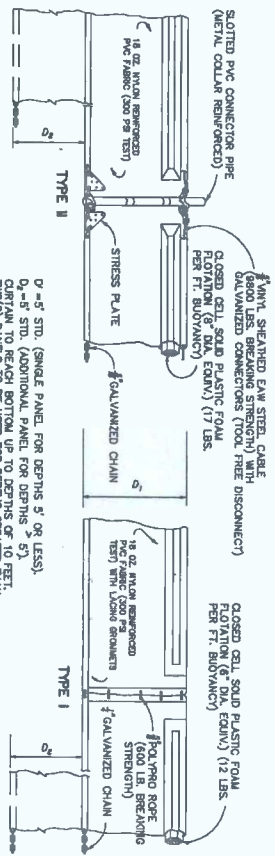
**ROUTINE MAINTENANCE -- STORM WATER**  
After completion of construction, streets will be mowed and maintained as part of the county road maintenance.

Trees and debris that accumulate within the retention ponds, swales, ditches, and inlets will be manually collected and disposed of with other normal solid waste.

Any erosion, loss of grass, etc., will be repaired or replaced routinely and as needed.

EROSION, SEDIMENT AND TURBIDITY CONTROL SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION OF THE PROJECT. THESE CONTROL MEASURES ARE ONLY THE MINIMUM REQUIRED AND ADDITIONAL CONTROLS SHALL BE UTILIZED AS NEEDED, DEPENDENT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATIONS.

## TEMPORARY EROSION CONTROL MEASURES



NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

**FLOATING TURBIDITY BARRIERS**  
NTS  
**FDOT INDEX No. 102**

FDOT INDEX No. 102

RECEIVED  
FEB 19 2008  
PDS  
ALTAMONTE SVC. CTR.

44288-3-11

**CAUTION:**

Chapter 77-453 of the Florida Statutes requires that an excavator notify all gas utilities a minimum of two working days prior to excavating. Maps show only the approximate location of gas mains or services lines. The only safe and proper way to locate gas facilities is by an on-site inspection by TIECO - FORTLEB GAS. Therefore, excavators are instructed to telephone at 407-425-4681 two working days before digging in a construction area.

|              |        |                                                          |               |                                                                                                                                                                                                                                                                                                                                         |      |      |             |          |                                                                                    |
|--------------|--------|----------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|-------------|----------|------------------------------------------------------------------------------------|
| DESIGNED BY: | AMB    | LAKE MARY JESS - DRAINAGE AND WATER QUALITY IMPROVEMENTS |               | <div><div>PEC</div><div>Professional Engineering Consultants</div><div>engineers planners surveyors</div><div>Board of Professional Engineers Certificate No. 3555<br/>Suite 1560, Eola Park Centre 200 Eola Robinson Street<br/>Orlando, Florida 32801<br/>pec@peconline.com<br/>Tel (407) 422-8042<br/>Fax (407) 849-9401</div></div> | REV. | DATE | DESCRIPTION | APP'D BY | NOT FOR CONSTRUCTION UNLESS<br>SIGNED AND SEALED<br><br>REED BLANCHARD, P.E. 65579 |
| DRAWN BY:    | JTC    | GENERAL NOTES, DETAILS<br>and<br>SUMMARY OF QUANTITIES   |               |                                                                                                                                                                                                                                                                                                                                         |      |      |             |          |                                                                                    |
| CHECKED BY:  | DWH    |                                                          |               |                                                                                                                                                                                                                                                                                                                                         |      |      |             |          |                                                                                    |
| APPROVED BY: | DWH    |                                                          |               |                                                                                                                                                                                                                                                                                                                                         |      |      |             |          |                                                                                    |
| PROJ. No.    | OC-327 |                                                          |               |                                                                                                                                                                                                                                                                                                                                         |      |      |             |          |                                                                                    |
| DATE         | FEB 08 |                                                          |               |                                                                                                                                                                                                                                                                                                                                         |      |      |             |          |                                                                                    |
| <div>3</div> |        | <div>SHEET</div> <div>3</div> <div>6</div>               | ORANGE COUNTY | S 24 T 23S R 29E                                                                                                                                                                                                                                                                                                                        |      |      |             |          |                                                                                    |

- SURVEY NOTES:
1. BEARINGS SHOWN HEREON ARE ASSUMED BASED ON THE EAST LINE OF LOT 17, MARY JESS COMMERCE CENTER PROPERTIES, AS RECORDED IN PLAT BOOK 18, PAGE 125, ORANGE COUNTY, FLORIDA AS BEING S111°20'E.
  2. ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY DATUM (NGVD 29) AS DERIVED FROM BENCHMARK 5-44-022, "X" CUT IN TOP OF CORAL ISLAND OF SOUTH ENTRANCE OF COMLOT APARTMENTS, ELEVATION 98.66.
  3. THE POSITION OF UNDERGROUND UTILITIES AND OTHER INSTALLATIONS SHOWN HEREON ARE BASED UPON FIELD LOCATION OF ABOVE POINTS AND THESE STRUCTURES MAY CAN BE SURELY ACCESSED THROUGH SURFACE FEATURES. THE SURVEYOR MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NON-EXISTENCE OF ANY SUCH UTILITIES OR OTHER INSTALLATIONS.
  4. RIGHT OF WAY LINES SHOWN HEREON ARE BASED ON A BEST FIT WITH FOUND MONUMENTS INDICATING OCCUPATION. THE PRIMARY SOURCE OF GEOMETRIC INFORMATION WAS MARY JESS COMMERCE CENTER PROPERTIES, AS RECORDED IN PLAT BOOK 18, PAGE 125.
  5. NO ATTEMPT WAS MADE TO ABSTRACT THE PROJECT AREA FOR EASEMENTS OF RECORD.
  6. FIELD WORK FOR THIS PROJECT WAS PERFORMED BETWEEN JULY 20, 2007 AND JULY 31, 2007.
  7. CONTOURS SHOWN HEREON ARE BASED ON INTERPOLATION OF FIELD LOCATED DATA.
  8. DRAWING FILE IS ALSO BEING PROVIDED TO CLIENT IN DIGITAL FORM.
  9. SITE BENCHMARKS ESTABLISHED FOR THIS PROJECT AS DEPICTED HEREON:  
TBM 1: 1" X 10" IRON ROD SPOT IN CONCRETE, ELEVATION 100.83  
TBM 2: 1" X 10" IRON ROD SPOT IN POWER POLE, ELEVATION 100.83  
TBM 3: 1" X 10" CUT IN DRAINAGE STRUCTURE, ELEVATION 98.78
  10. BEARINGS, DISTANCES AND FOUND MONUMENTATION SHOWN HEREON ARE FOR REFERENCE PURPOSES ONLY. THIS IS NOT A BOUNDARY SURVEY.

NORTH  
GRAPHIC SCALE

(IN FEET)  
1 inch = 20 ft.

| SYMBOL LEGEND |                        |
|---------------|------------------------|
| ⊕             | LIGHT POLE             |
| ⊙             | ELECTRIC SERVICE       |
| ⊙             | UTILITY ANCHOR         |
| ⊙             | UTILITY POLE           |
| ⊙             | SIGN                   |
| ⊙             | CAMPION TREE           |
| ⊙             | CHERRY TREE            |
| ⊙             | ELM TREE               |
| ⊙             | MAGNOLIA TREE          |
| ⊙             | MAPLE TREE             |
| ⊙             | OAK TREE               |
| ⊙             | PINE TREE              |
| ⊙             | SYCAMORE TREE          |
| ⊙             | SITE BENCHMARK         |
| ⊙             | GRATE INLET            |
| ⊙             | WATER METER            |
| ⊙             | CLEANOUT               |
| ⊙             | STORM DRAINAGE MANHOLE |

BASELINE REFERENCE DETAILS  
(NOT TO SCALE)

TRACT A

LAKE MARY JESS SHORES  
P.B. 8, PG. 130

LAKE MARY JESS  
W.D. 0-1-07

MARY JESS COMMERCE  
CENTER PROPERTIES  
P.B. 18, PG. 125

LOT 8  
BLOCK A

LOT 9  
BLOCK A

LOT 7  
BLOCK B

LOT 8  
BLOCK B

LOT 19

LOT 18

LOT 17

LOT 7

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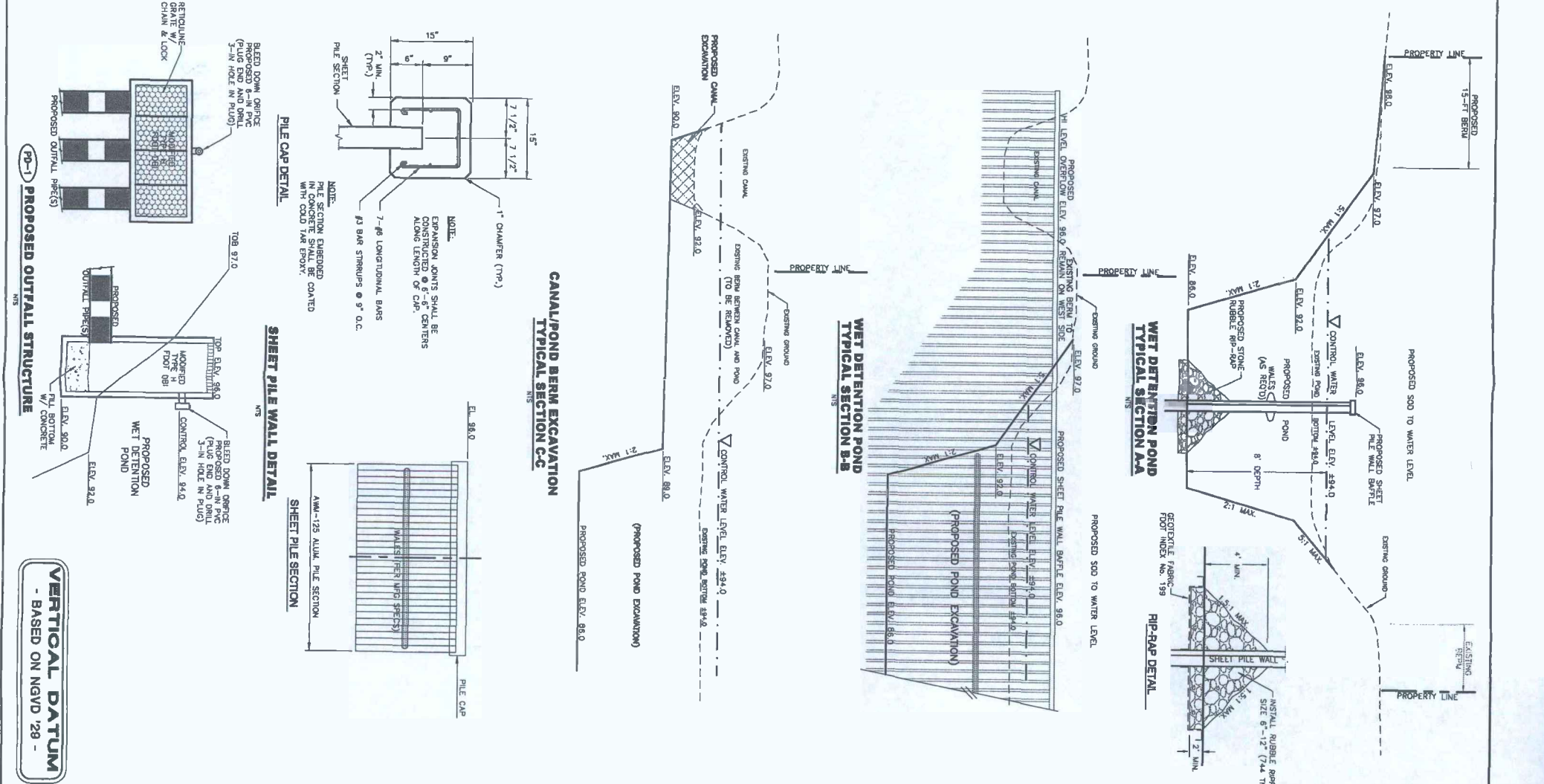
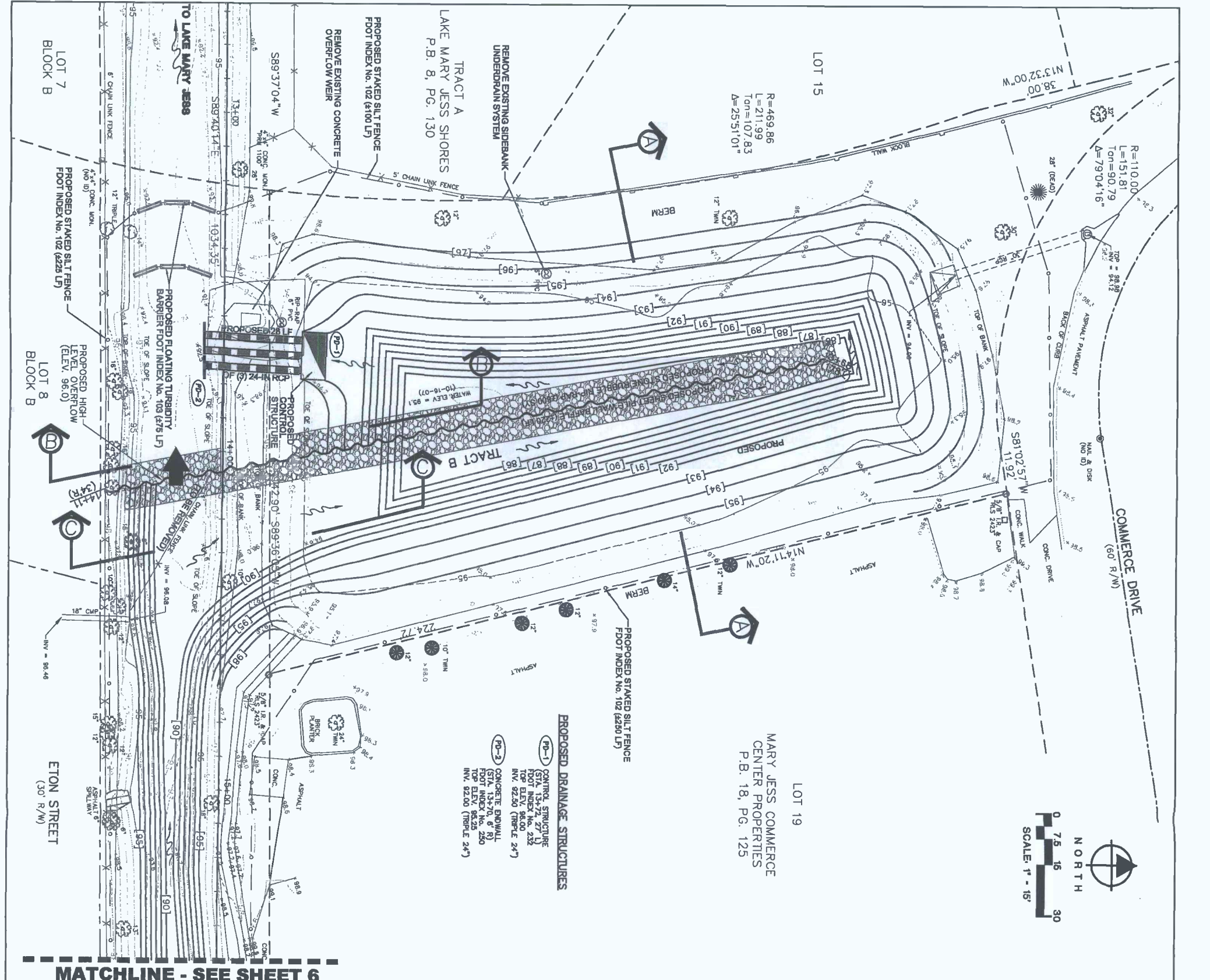
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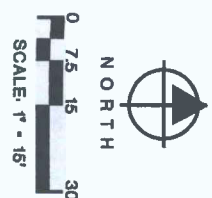
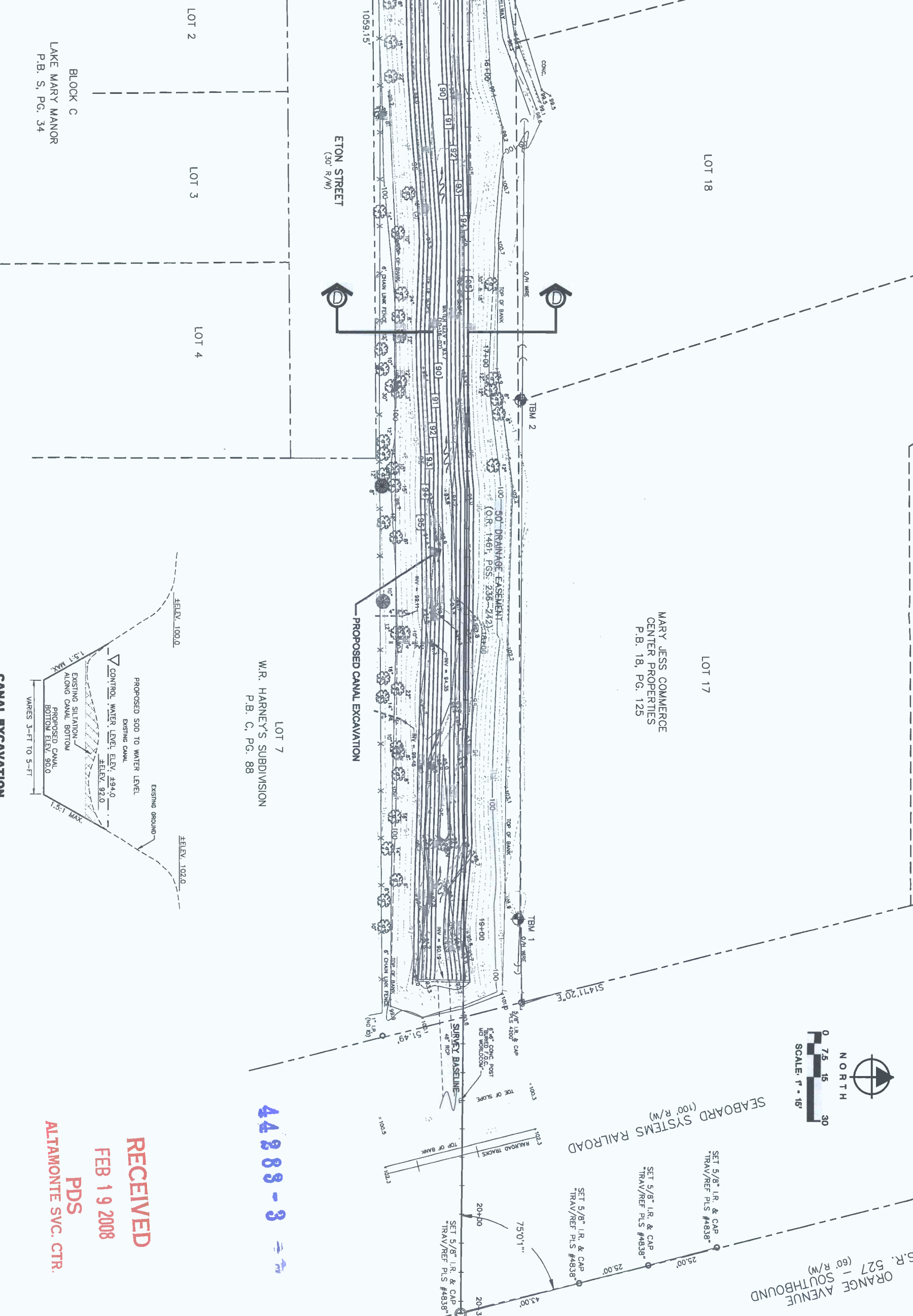
LOT 17

LOT 7



|                  |                                                          |                                                                                                                                                                                                                                                  |      |      |             |          |                                                  |
|------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|-------------|----------|--------------------------------------------------|
| DESIGNED BY: AMB | LAKE MARY JESS - DRAINAGE AND WATER QUALITY IMPROVEMENTS | <b>PEC</b> Professional Engineering Consultants<br>engineers planners surveyors<br>Board of Professional Engineers Certificate No. 3556<br>Suite 1500, Tola Park Centre 200 West Robinson Street<br>Orlando, Florida 32801<br>Tel (407) 422-9062 | REV. | DATE | DESCRIPTION | APP'D BY | NOT FOR CONSTRUCTION UNLESS<br>SIGNED AND SEALED |
| DRAWN BY: JTC    | POND SITE PLAN and DETAILS                               |                                                                                                                                                                                                                                                  |      |      |             |          |                                                  |
| CHECKED BY: DWH  |                                                          |                                                                                                                                                                                                                                                  |      |      |             |          |                                                  |
| APPROVED BY: DWH |                                                          |                                                                                                                                                                                                                                                  |      |      |             |          |                                                  |
| PROJ. No. CC-327 | ORANGE COUNTY                                            |                                                                                                                                                                                                                                                  |      |      |             |          | REED BLANCHARD, P.E. 65579                       |
| DATE FEB 08      |                                                          |                                                                                                                                                                                                                                                  |      |      |             |          |                                                  |
| 5                | SHEET 5                                                  | S 24 T 23S R 29E                                                                                                                                                                                                                                 |      |      |             |          |                                                  |

MATCHLINE - SEE SHEET 5



ORANGE AVENUE  
S.R. 527 - SOUTHBOUND  
(60' R/W)

SEABOARD SYSTEMS RAILROAD  
(100' R/W)

LOT 7  
W.R. HARNEY'S SUBDIVISION  
P.B. C, PG. 88

LOT 17  
MARY JESS COMMERCE  
CENTER PROPERTIES  
P.B. 18, PG. 125

LOT 18

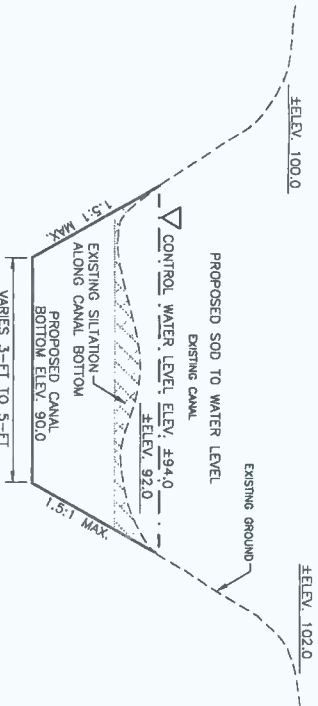
LOT 2

LOT 3

LOT 4

ETON STREET  
(30' R/W)

BLOCK C  
LAKE MARY MANOR  
P.B. S, PG. 34



CANAL EXCAVATION  
TYPICAL SECTION D-D

RECEIVED  
FEB 19 2008  
PDS  
ALTAMONTE SVC. CTR.

44288-3

VERTICAL DATUM  
- BASED ON NGVD '29 -

|                  |                                                          |  |                                                                                                                                                                                                                                                                                                                  |                             |      |                 |               |                                                  |                            |
|------------------|----------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------|-----------------|---------------|--------------------------------------------------|----------------------------|
| DESIGNED BY: AMB | LAKE MARY JESS - DRAINAGE AND WATER QUALITY IMPROVEMENTS |  | <div>PEC Professional Engineering Consultants</div> <div>engineers planners surveyors</div> <div>Board of Professional Engineers Certificate No. 3556<br/>Suite 1560, Eola Park Centre 200 East Robinson Street<br/>Orlando, Florida 32801<br/>pec@peconline.com<br/>Tel (407) 422-8062 Fax (407) 849-9401</div> | REV.                        | DATE | DESCRIPTION     | APP'D BY      | NOT FOR CONSTRUCTION UNLESS<br>SIGNED AND SEALED |                            |
| DRAWN BY: JTC    |                                                          |  |                                                                                                                                                                                                                                                                                                                  | CANAL SITE PLAN and DETAILS | 6    | SHEET<br>5<br>6 | ORANGE COUNTY | S 24 T 23S R 29E                                 | REED BLANCHARD, P.E. 85579 |
| CHECKED BY: DWH  |                                                          |  |                                                                                                                                                                                                                                                                                                                  |                             |      |                 |               |                                                  |                            |
| APPROVED BY: DWH |                                                          |  |                                                                                                                                                                                                                                                                                                                  |                             |      |                 |               |                                                  |                            |
| PROJ. No. 00-327 | DATE FEB 08                                              |  |                                                                                                                                                                                                                                                                                                                  |                             |      |                 |               |                                                  |                            |
| 6                |                                                          |  |                                                                                                                                                                                                                                                                                                                  |                             |      |                 |               |                                                  |                            |