City of Ocala International Airport
Final Stormwater Master Plan

Prepared For:

City of Ocala
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February 22, 2013

GPI SOUTHEAST, INC.

City of Ocala International Airport
Final Stormwater Master Plan

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GPI SOUTHEAST, INC.

City of Ocala International Airport
Final Stormwater Master Plan

1. General Information

- **Project Summary**
- **Project Revisions from Preliminary Stormwater Master Plan Review**
- **Project Narrative**
- **Conclusions and Action Items**

Project Summary

The City of Ocala (City) has tasked GPI Southeast, Inc (GPI) with developing a Stormwater Master Plan (SMP) for the Ocala International Airport property. The SMP incorporates all existing and future facilities into the design as described below. The purpose of the SMP is to provide a means to facilitate future development and permitting for potential industrial, commercial, and aviation parcels within the airport property. This goal is accomplished by combining existing stormwater permits related to the airport property under the Southwest Florida Water Management Districts (SWFWMD) Conceptual Plan Permit as well as providing a basis for design of future stormwater systems that are developed within the airport property.

The Task Order adopted by the Ocala City Council on February 7, 2012 stated that the proposed project includes the identification of existing closed basins and delineation of both natural and man-made drainage areas. The boundary of the study area generally matches the Airport Layout Plan (ALP) and airport property boundary. The study area is bounded by SW 38th Street, SW 60th Ave, and SR 40 along with the western airport property boundary. Basins that are identified outside of the project boundary and either contribute stormwater runoff to the study area or accept stormwater runoff from the study area is included in the SMP. Design and composite base map information are based on existing data provided by the City of which the primary source is the ALP. Supplementary data sources provided by the City include GIS data, aerial images, soil testing reports, construction plans and permits for existing facilities and roadways. Please refer to Section 5 for a listing of all data received from the City. In addition to the information received by the City there were 25 drainage borings taken in the locations of the existing and proposed Drainage Retention Areas.

Future Development is based on information provided by the City and is assumed to be at a maximum of 80% impervious area unless otherwise noted. Basin analysis is limited to the Drainage Retention Area (DRA) location and the amount of stormwater stored in each DRA. It is assumed for this SMP that the basins are graded in the post development condition to achieve maximum DRA utilization and efficiency in transporting stormwater to designated DRA areas. This is important because there are substantially fewer basins in the post development condition than in the pre development condition for the aviation, industrial and commercial portions of the plan. This Stormwater Master Plan is intended to function as an overall plan and not intended for construction purposes.

The post development basins generally adhere to the designated zoning criteria provided by the City. DRA locations are located in areas identified as appropriate by the City on the map received by GPI on 06/28/2012 and no DRAs are located outside of those areas unless approved by the City. Design stormevents for the sizing of post development DRAs are currently the 100yr/24hr, 25yr/24hr, and 10yr/24hr SWFWMD stormevents. DRAs are intended to function as dry retention basins and will attenuate the design stormevent stormwater runoff volume in the 14 day recovery time period required by SWFWMD for dry retention basins. Drainage for SW 67th Avenue is accounted for in the roadway design by others unless otherwise noted in this plan.

Based on review and analysis of the composite base map, GPI created an existing stormwater basins map using the contour information. Both natural and man-made basins are identified. Property that contributes stormwater flow to each basin is determined, including both pervious and impervious areas. Any off-site properties that contribute stormwater flows to airport property are also identified. There is no discharge offsite. This analysis holds the 100yr / 24hr post development stormevent. These properties may or may not be owned by the CITY.

The analysis differentiates between aviation and non-aviation land uses, and recognizes the need to keep the stormwater facilities separate. No flood prone property or other problem areas were identified by the CITY.

ICPR computer models have been developed to determine water quality and water quantity flows in each basin. Several storm events and durations are evaluated, as needed to meet SWFMWD criteria.

Future development is based on information provided by the CITY, including any potential projects currently in review or discussion. An ultimate build-out condition has been developed using the conceptual plan created by the City's economic development staff. The associated stormwater requirements have been determined for the ultimate build-out condition, and attempts have been made to accommodate these requirements within the property boundary. Joint use facilities are identified wherever possible.

Applicable Florida Department of Transportation (FDOT) and Federal Aviation Administration (FAA) requirements have been reviewed for relevant impact to the stormwater plan. This includes the results of the completed FDOT Statewide Airport Stormwater Study and the Best Management Practices Manual, dated December, 2010. (SWFWMD rules have not yet been adopted for these criteria, but they are being recognized and accepted in permit application submittals).

Project Revisions from Preliminary Stormwater Master Plan Review

During the review of the Preliminary Stormwater Master Plan, which was submitted on July 16, 2012, the following improvements were made to the master plan and incorporated into the final version.

1. Post Development Basin A-01 was reduced in size from 32.19 acres to 16.42 acres and the portion of stormwater runoff that was flowing to the previously designated DRA for basin A-01 located behind the T-Hangers has now been redirected to the DRA for Basin C-02. The stormwater is being redirected through a series of proposed ditch bottom inlets and pipes. Basin C-02 was expanded to include the 15.77 acres previously included in basin A-01. This revision was made to allow for the possible extension of the T-Hangers in the future. (See Exhibit F)
2. The DRA associated with Basin B-02 has been relocated along the road ROW of SW 67th Ave. (See Exhibit F)
3. Several notes have been added to the sheets and in this report indicating that the DRA locations, phasing of construction and location of existing infrastructure may vary from what is indicated on the plans and in this report. (See Exhibits D & F)
4. The DRA in Basin B-03 has been adjusted to avoid conflicts with existing 18" and 20" force mains and reuse mains that run within the western portion of the airport property. (See Exhibit D)
5. Historic flow patterns proceeding onsite through three (3) 28 inch culverts under SW 60th Ave have been added and are now a part of Basin A-09. The offsite basin has been designated A-09c. (See Exhibit F)
6. The DRA associated with Post Development Basin B-06 has been relocated to the northeast corner of the basin. (See Exhibit F)
7. The DRA associated with Post Development Basin B-05 has been relocated to the west property line (See Exhibit F)
8. The possible easement over property south of 38th Street has been noted as future drainage with a proposed DRA shown. (See Exhibit F)
9. The future width of 75' for the East-West runway has been included in the impervious area calculations.
10. The pervious area for all Runway Protection Zones has been reduced to a CN of 39
11. Soil borings were performed in the 25 proposed basins as shown in Exhibit H. These borings were direct push borings 20' in depth and the Estimated Seasonal High Water Table elevation, confining layer, and vertical percolation were measured. The vertical percolation rate reported in the soil boring was reduced by ½ from the rate measured in the field. For purposes of this analysis the field measured rate was used and the horizontal percolation rate was estimated to be twice the vertical percolation rate.

Project Narrative

The Ocala International Airport property is an existing operational airport and occupies approximately 1,600 acres of land. The airport property is bordered on the north, south, and east by SR 40, SW 38th Street, and SW 60 Avenue respectively. The active airport currently occupies the eastern half of this property but there are plans for proposed aviation and industrial parcels on the western portion of the property and proposed commercial parcels to the north fronting on SR 40.

SW 67th Avenue is a newly completed roadway that bisects the western portion of the airport property from SW 38th Street to SR 40 (approximately 3.1 miles). This roadway was designed in part by the City and in part by others. The northern portion of SW 67th Avenue (0.8 miles - designed by others) is curb and gutter and has been designed to allow for the storage of the 100yr/24hr stormevent in the roadway DRAs. The southern portion of SW 67th Avenue (2.3 miles - designed by City) is swale and ditch block and has been designed for the storage of the 10yr/24hr stormevent. The difference between the stormwater generated from the 100yr/24hr stormevent and the 10yr/24hr stormevent for the southern portion (2.3 miles) of SW 67th Avenue has been included in the SMP.

The topography of the area is sloping to hilly and, in most cases, naturally delineates the Drainage Basins. Vegetative cover consists of Bahia grass with sparse to heavy coverage of pine and oak trees with palmettos located throughout the site. Existing soils are predominantly Candler, type “A” hydrologic soils located in the uplands, which are well drained to excessively drained sands according to the National Resource Conservation Service (NRCS) classification. Additional soils present on site are Apopka and Arredondo type "A" hydrologic soils which are also well drained soils according to NRCS. (Please See Exhibit A for the NRCS Soils Map and the appendix for the Geotechnical Report dated 01/25/2012).

The project area is located in Flood Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Zone ‘C’ per 1983 Community Panel Nos. 12083C0511D and 12083C0513D. (Please See Exhibit B for the FEMA Flood Plain Map).

The Stormwater Master Plan includes a methodology that provides an inclusive drainage design that is adaptable to future development and allows for the incorporation of portions of the airport already permitted under SWFWMD. Currently the City has 6 SWFWMD Permits for the existing airport and aviation development. **SWFWMD permits are 44023778.004, 005, 006, 007, 008, and 009**. These permits are included in the SWFWMD Stormwater Conceptual Plan that will be applied for using this Stormwater Master Plan. The drainage analysis methodology used for the Stormwater Master Plan is detailed below

1. Create an existing stormwater basins map using the contour information and base maps received from the City
2. Identify existing natural and man-made basins
3. Identify proposed basins
4. Measure and calculate the existing basin area and impervious area
5. Measure and calculate the proposed basin area and impervious area
6. Insert approved DRA locations from City map received 6/28/2012
7. Compute weighted CN using NRCH technical release No TR55 Urban Hydrology for Watersheds for existing and proposed basins
8. Route the Basin through ICPR with Perc Pack for 100yr/24hr, 25yr/24hr, and 10yr/24hr stormevent
9. Compare required DRA from model with allowable DRA location area
10. Summarize results

This methodology was applied to the three main areas being analyzed (Aviation, Industrial, and Commercial) for this Stormwater Master Plan and the results are discussed below. These results are summarized in the Existing Conditions - Basin Performance Summary Table and the Post Development Basin Performance Summary Table. Please note that the basin numbers in the existing condition do not correspond to the basin numbers in the post development condition even though some share the same designation. In order to keep the discussion focused and concise, discussion on results has been limited to the 100yr/24hr stormevent as this is the largest stormevent and governs the design and sizing of the DRA.

There are Twenty (20) drainage basins associated with the aviation portion of the SMP in the existing condition and the basins are numbered A-01 through A-20. There are sixteen (16) drainage basins in the post development condition numbered A-01 through A-16. Basins in the post development condition do not correspond to basins in the existing condition due to changes in basin boundary and impervious area included in Basins. For Example Existing Basin A-01 is larger than Post development Basin A-01 but the post development basin has far more impervious area. The reduction in basins comes from the consolidation of four (4) basins on the western side of the runway where proposed aviation development is to occur. Basins and conditions on the eastern side of the runway remained largely unchanged between the existing and post development condition. It is on the eastern side of the runway where the existing permits are being applied and utilized. Please refer to Exhibits E & F for these Basins,

There are Twenty one (21) drainage basins associated with the industrial portion of the SMP in the existing condition and the basins are numbered B-1 through B-21. There are seven (7) drainage basins in the post development condition numbered B-01 through B-07. This area of the project resulted in the largest number of drainage basin consolidation due to the fact that this portion of the property is largely undeveloped and the topography is hilly. Please refer to Exhibits E&F for these Basins.

There is one (1) drainage basin associated with the commercial portion of the SMP in the existing condition which is labeled C-01. There are two (2) drainage basins in the post development condition which are numbered C-01 and C-02. Please refer to Exhibits E&F for these basins

In addition to these three areas (aviation, industrial, and commercial) there are basins that were separated for SW 67th Ave. There are nine (9) roadway basins in the existing condition numbered R-01 through R-09. These basins are delineated for the portion of SW 67th avenue designed by the City. This portion of the roadway is designed with swale and ditch blocks for stormwater storage. The roadway design allows for the storage of the 10yr/24hr stormevent. The difference in stormwater runoff volume generated between the 100yr/24hr stormevent and the 10yr/24hr stormevent is stored in the post development drainage basin DRA shown on Exhibit F. The remaining portion of SW 67th designed by others was designed for curb and gutter and has drainage capable of storing the 100yr/24hr stormevent.

Existing Condition

The impervious area for the aviation drainage basins (A-01 through A-20) ranges from 0% to 55% impervious on the aviation side of the project. The developed airport parcels have impervious areas in the range of 31% to 55%. Other portions of the airport property that either have less or no impervious area currently make up the remainder of the aviation portion of the SMP. The aviation basin A-09 receives offsite runoff from basin A-09c through 3 existing 28" pipes running under SW 60th Ave on the south end of the airport property. This inflow has been considered in the drainage system.

The impervious area for the industrial drainage basins (B-01 through B-21) ranges from 0% to 37% impervious. The majority of the basins have impervious areas from 0% to 5% except for two Basins. Basin B-08 is 37% impervious and this is due to the large paved area for what appears to be a truck driving school. Basin B-11 is comprised of 22% impervious area, but is inconsequential because this basin is an offsite basin that accepts runoff from the project. Our analysis shows that the Stormwater Master Plan does not discharge more runoff offsite than is currently being discharged.

The impervious area for the commercial drainage basins (C-01) is currently 0%. In the existing condition the airport property north of the runway is undeveloped which is the reason for the 0% impervious calculation.

Post Development Condition

When each post development basin was modeled the volume of stormwater generated showed to be less than the approved DRA areas except for one basin in the aviation area (A-09) and one basin in the industrial area (B-02). Post development basins A-09 and B-02 needed to have the available area for DRA construction doubled in order to attenuate the stormwater runoff generated with a basin impervious area of 80%. The City determined that the impervious area for Basin A-09 could be reduced to a CN of 39 for pervious area due to the presence of the runway protection zone throughout this basin. Basin B-02 was doubled in size to attenuate the required runoff volume. As discussed in the preliminary drainage report dated July 16, 2012, there was a need to add two drainage areas and related basins (B-5 and B-6) in the post development condition in the industrial area. It was necessary to add these basins because it is more economical to store the stormwater runoff generated by these areas in these areas, rather than transport the stormwater 2,200 feet north to a DRA located in an approved drainage area. The stormwater cannot be discharged to the roadway swales due to the slope of the swale flow-line in that area which flows south.

It is also not feasible to pipe the stormwater via gravity pipe due to the distance mentioned above.

In the post development condition for the aviation basins (basins A-01 through A-16) the impervious area ranges from 14% to 80%. All the basins in the post development condition are modeled at 80% impervious except for post development basin A-15, A-16, & A-09. Post development basin A-15 is located on the northern portion of the runway and much of this basin is designated as runway protection zone. Post development basin A-16 is the runway and the percent impervious is not anticipated to increase even with runway expansion. Basin A-09 was discussed previously. (See Exhibit F)

In the post development condition for the industrial basins (basins B-01 through B-07) the impervious area ranges from 32% to 80%. All the basins in the post development condition area modeled at 80% impervious area except for post development basins (B-01 and B-03). Post development basin B-01 is located in the northwest part of the property and includes approximately 96.5 acres of airport property that is not zoned for future aviation, industrial, or commercial use. Therefore this portion of the basin was not modeled at 80% impervious area but was instead modeled at the same impervious area as the existing condition. Post development basin B-03 includes approximately 67 acres of property outside of the airport boundary. Therefore this portion of the basin is not modeled at 80% impervious area but is instead modeled at the same impervious area as the existing conditions. Additionally, as mentioned above, post development basins B-05 and B-06 are additional basins and drainage areas that do not drain to a City approved DRA location. (See Exhibit F)

In the post development condition for the commercial basins (basins C-01 and C-02) the impervious area are 61% and 23% respectively. All of the proposed commercial and retail areas as shown on Exhibit F are modeled at 80% impervious, however the basins as a whole resulted in a total percent impervious of less than 80% due to the additional land included within the basin that is not zoned for development. This is very similar to basin B-01 as these basins are adjacent and all located in the north end of the project. Stormwater runoff generated in the 100yr/24hr stormevent is able to be discharged to the approved DRA areas and no additional area is needed. Additionally, Post Development Basin C-02 has been expanded to include the stormwater from the back half of Post Development Basin A-01. Basin A-01 and C-02 have been resized to account for this revised stormwater runoff flow.

The roadway drainage basins that were delineated in the existing condition are incorporated into the appropriate aviation or industrial post development basins. The basins have been incorporated as follows. Existing Basin (EB) R-01 was incorporated into post development basin (PDB) B-01. EB R-02 was incorporated into PDB B-01, A-13, and A12. EB R-03 was incorporated into PDB A-12 and B-02. EB R-04 was incorporated into PDB A-11 and B-02. EB R-05 was incorporated into PDB A-10 and B-02. EB R-06 was incorporated into PDB A-10 and B-09. EB R-07 was incorporated into PDB A-10, B-09, and B-07. EB R-08 was incorporated into PDB B-04 and B-07. EB R-09 was incorporated into PDB B-04, B-05, B-06, and B-07. As has been previously discussed the existing stormwater design for these roadway basins is for the 10yr/24hr stormevent. In the 100yr/24hr stormevent these basins need to be able to discharge to the DRAs that serve the aviation and industrial areas as listed. The current model accounts for this necessity.

Conclusions and Action Items

The results of this analysis indicate that the majority of the post development areas are able to be built out to 80% impervious. Those basins, that are not able to be built out to 80% impervious area, are not restricted by drainage design but by Runway Impact Zones or other areas that are not zoned for future development. The areas zoned for development include proposed aviation on the west side of the airport, expansion of aviation on the east side of the airport (if needed), Full build-out on the western portion of the property for industrial purposes, and Full build-out on the northern portion of the property for commercial and retail purposes as shown on Exhibits A-H. Each of the delineated post development basins are capable of storing the stormwater volume generated during the 100yr/24hr stormevent. The designated DRA areas provided by the City are capable of attenuating the 100yr/24hr stormwater volume.

Due to the existing topography and the need to consolidate 51 existing drainage basins into 25 post development drainage basins a certain amount of mass grading is necessary to render the post development DRAs functional for the basins in which they are shown. In addition to aiding in the basin drainage the mass grading helps to render the DRAs more efficient. This added efficiency is a result of DRA construction. Exhibit F shows a assumed rough grade elevation for each post development basin.

Action Items moving forward from this Preliminary Stormwater Master Plan are as follows.

1. Submit SWFWMD Permit (GPI)
2. City Council workshop presentation (City & GPI)

2. DRA PERFORMANCE SUMMARY TABLE

- Existing Condition Summary table
- Post Development Condition Summary Table
- Summary of Area Utilized for Drainage

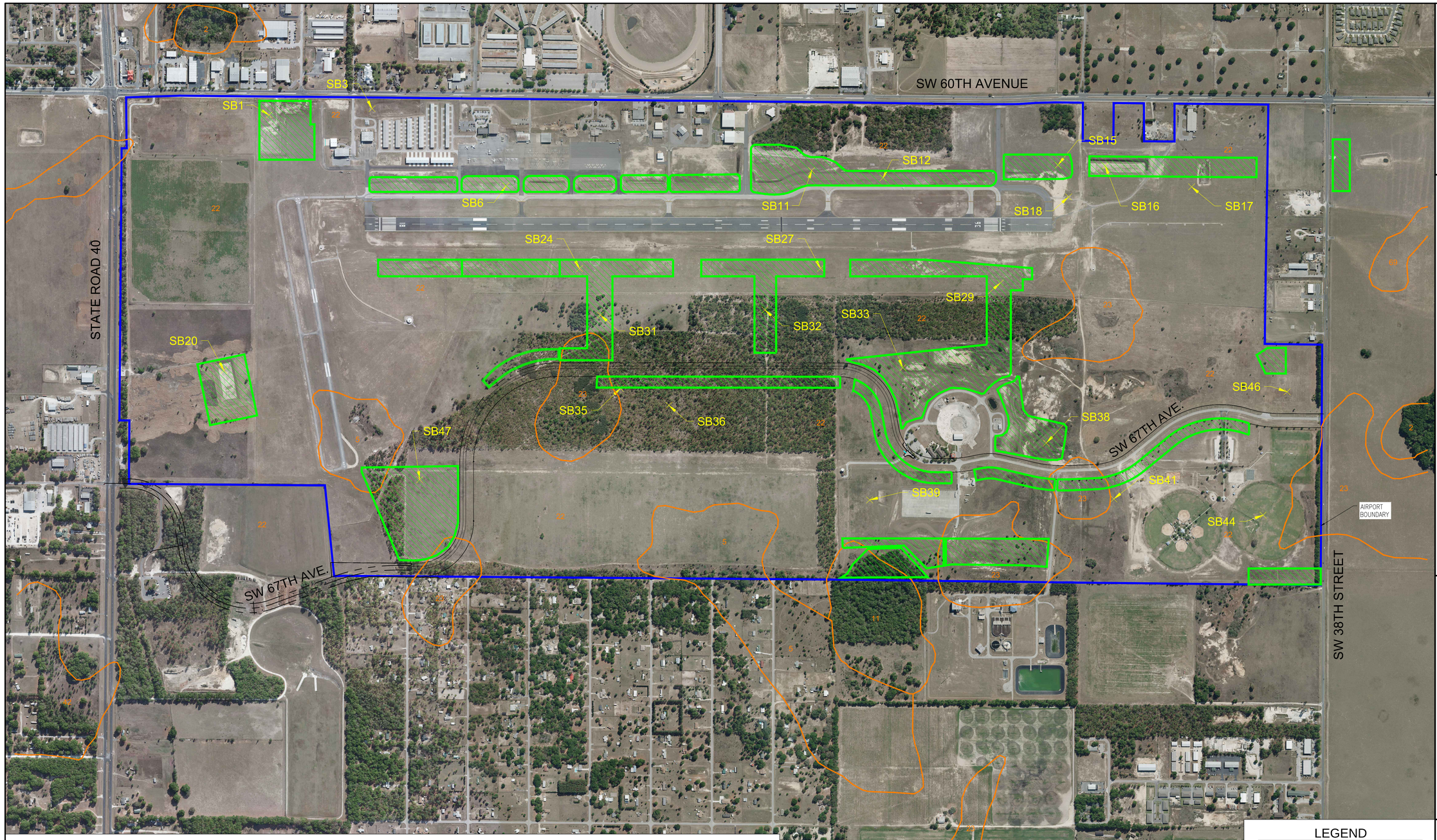
DRA PERFORMANCE SUMMARY TABLE DISCRIPTION

The DRA Performance Summary Table lists the modeling and performance results for each Basin. There are two summary tables presented one for existing conditions and one for post development conditions.

Also presented in this section is a table which details the proposed area for development (aviation, industrial, and commercial) and then details the amount of property of these areas needed for drainage and how much property remains for development.

3. Exhibits

- Exhibit A - Soils Map
- Exhibit B - FEMA Flood Map
- Exhibit C - Existing Features Map
- Exhibit D - Proposed Features Map
- Exhibit E - Existing Drainage Map
- Exhibit F - Proposed Drainage Map
- Exhibit G – Proposed Parcel Location Map



LEGEND

SYM	SOIL TYPE
5	APOPKA SAND, 0 TO 5 PERCENT SLOPE
11	PEDRO-ARREDONDO COMPLEX, 0 TO 5 PERCENT SLOPE
22	CANDLER SAND, 0 TO 5 PERCENT SLOPES
23	CANDLER SAND, 5 TO 12 PERCENT SLOPES

SOIL BORING LOCATIONS

BORING	LATITUDE	LONGITUDE	BORING	LATITUDE	LONGITUDE
SB1	29°10'54.0"	82°13'09.6"	SB29	29°09'35.4"	82°13'30.0"
SB3	29°10'43.0"	82°13'08.8"	SB31	29°10'18.4"	82°13'34.1"
SB6	29°10'28.6"	82°13'18.3"	SB32	29°10'00.7"	82°13'33.4"
SB11	29°09'55.7"	82°13'16.3"	SB33	29°09'45.8"	82°13'40.5"
SB12	29°09'48.0"	82°13'17.2"	SB35	29°10'16.2"	82°13'43.1"
SB15	29°09'29.2"	82°13'15.6"	SB36	29°10'11.0"	82°13'45.1"
SB16	29°09'24.1"	82°13'15.7"	SB38	29°09'30.4"	82°13'49.7"
SB17	29°09'14.8"	82°13'18.2"	SB39	29°09'49.4"	82°13'56.7"
SB18	29°09'28.0"	82°13'19.5"	SB41	29°09'23.1"	82°13'56.5"
SB20	29°10'58.8"	82°13'40.9"	SB44	29°09'07.1"	82°13'58.4"
SB24	29°10'20.6"	82°13'28.4"	SB46	29°09'04.5"	82°13'43.3"
SB27	29°09'54.7"	82°13'28.3"	SB47	29°10'37.8"	82°13'54.3"

LEGEND

SB# = APPROXIMATE PROPOSED SOIL BORING LOCATION

= PROPOSED DRAINAGE RETENTION AREA

500 0 250 500

1 Inch = 500 Feet

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CERTIFICATE NUMBER 27260

OCALA INTERNATIONAL AIRPORT STORMWATER MASTER PLAN REPORT

MARION COUNTY, FLORIDA

SECTION 20, 29 TOWNSHIP 15 SOUTH, RANGE 21 EAST

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GPI

MARION COUNTY, FLORIDA
OCALA AIRPORT MASTER PLAN
DATE: JANUARY 2013
PROJECT NO.: 2012.00
DWG: EXHIBIT A C-G MAPS.DWG
SOILS MAP

SHEET: EXHIBIT A

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1 inch = 500 Feet

500 0 250 500

MARION COUNTY, FLORIDA
OCALA AIRPORT MASTER PLAN
DATE: JANUARY 2013
JOB NO.: FTP-2012200.00
DWG: EXISTING DRAINAGE EXHIBIT B FEMA MAP.DWG

SHEET:

EXHIBIT B

GPI

OCALA INTERNATIONAL AIRPORT
STORMWATER MASTER PLAN
REPORT

MARION COUNTY, FLORIDA

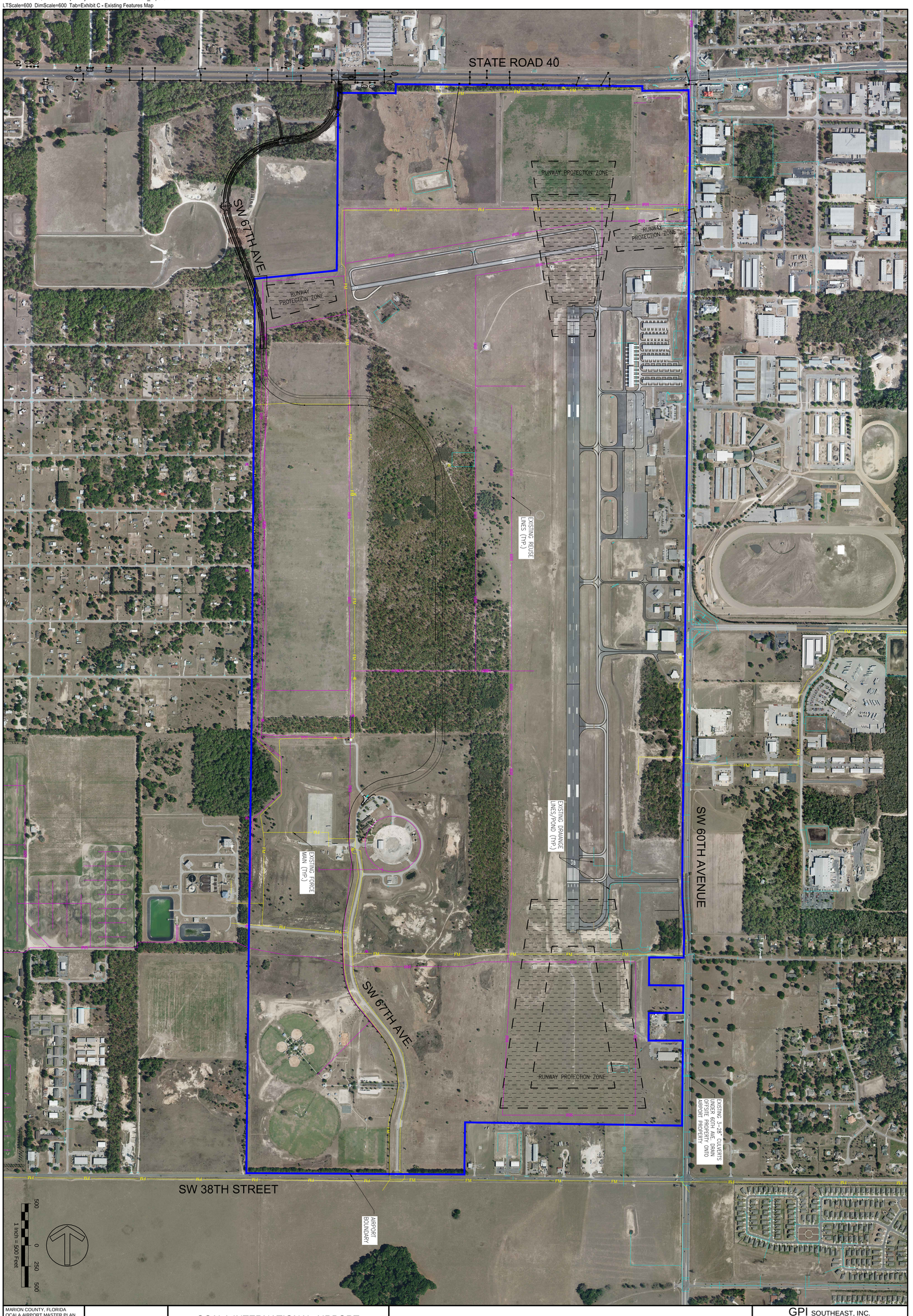
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STORMWATER MASTER PLAN
FEMA FLOOD MAP
EXHIBIT B

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CERTIFICATE NUMBER 27260

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MARION COUNTY, FLORIDA
OCALA AIRPORT MASTER PLAN
DATE: JANUARY 2013
JOB NO.: FTP-2012200.00
DWG: EXISTING FEATURES MAP EXHIBIT A C-G MAPS.DWG
SHEET:
EXHIBIT C

GPI

OCALA INTERNATIONAL AIRPORT
STORMWATER MASTER PLAN
REPORT

MARION COUNTY, FLORIDA

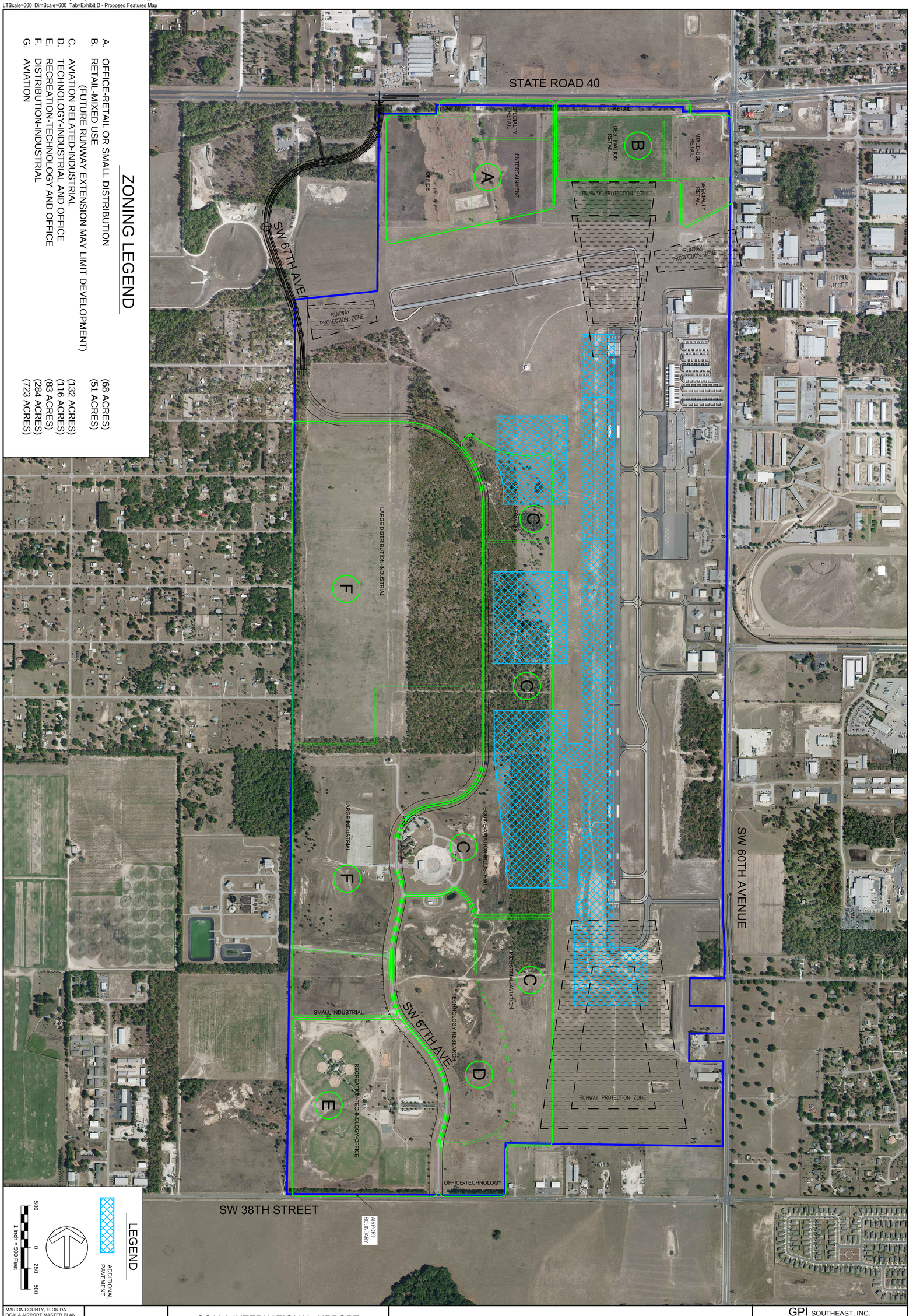
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STORMWATER MASTER PLAN
EXISTING FEATURES MAP
EXHIBIT C

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MARION COUNTY, FLORIDA
OCALA AIRPORT MASTER PLAN
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EXHIBIT D

GPI

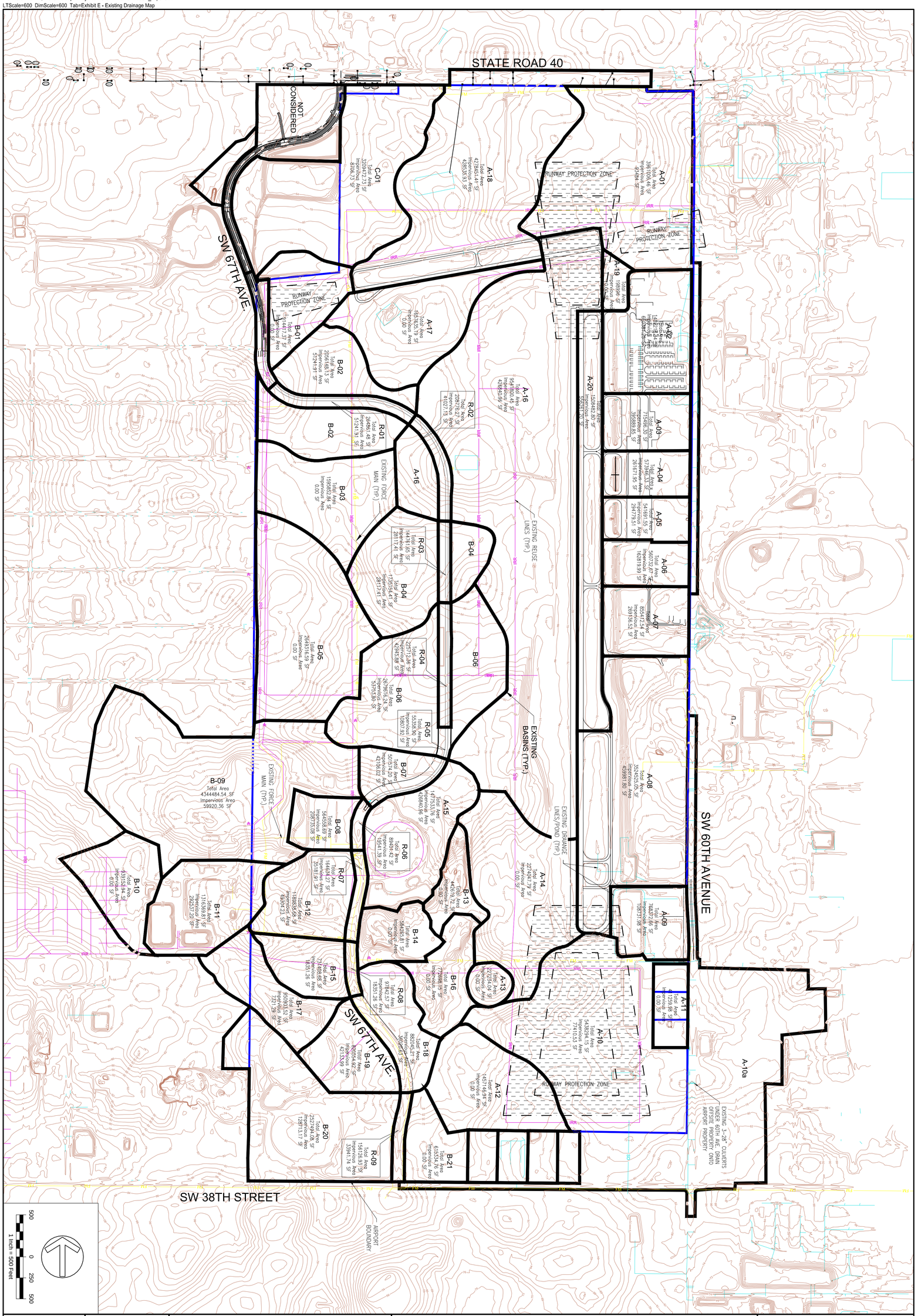
OCALA INTERNATIONAL AIRPORT
STORMWATER MASTER PLAN
REPORT

MARION COUNTY, FLORIDA
SECTION 20, 29 TOWNSHIP 15 SOUTH, RANGE 21 EAST
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STORMWATER MASTER PLAN
PROPOSED FEATURES MAP
EXHIBIT D

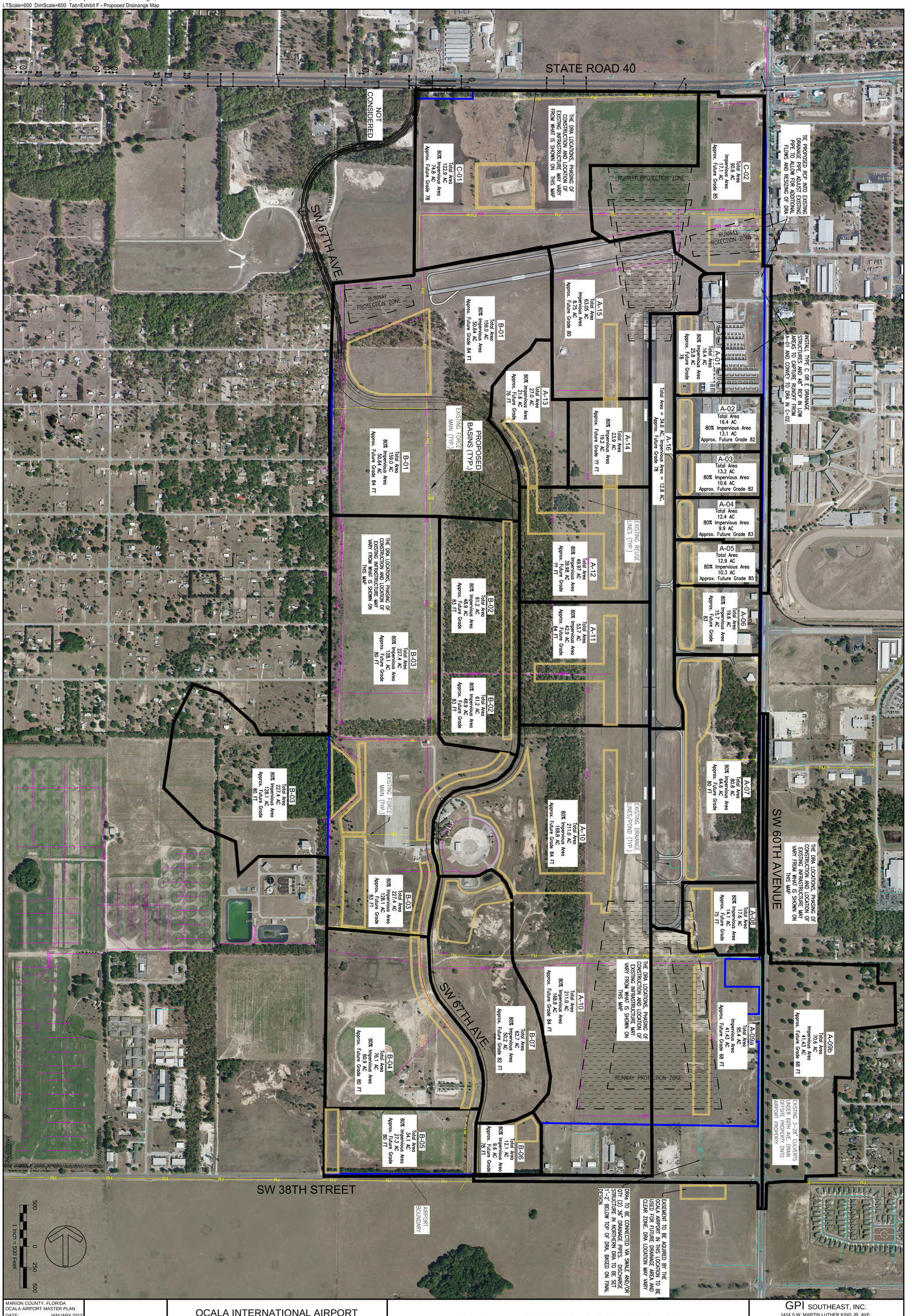
GPI SOUTHEAST, INC.
1414 S.W. MARTIN LUTHER KING JR. AVE.
OCALA, FLORIDA 34471
PHONE: (352) 368-5055 / FAX: (352) 368-5063
CERTIFICATE NUMBER 27260

Drawing Name: P:\Active Projects\FTP-2012200.00 Ocala Airport Storwater Master Plan\Drawings\Exhibit A C-G Maps.dwg
Plot Date: Mar 21, 2013 - 5:08pm By: wchristian Profile: <<C3D_Imperial>>
LTScale=600 DimScale=600 Tab=Exhibit E - Existing Drainage Map



MARION COUNTY, FLORIDA OCALA AIRPORT MASTER PLAN DATE: JANUARY 2013 JOB NO.: FTP-2012200.00 DWG: EXISTING DRAINAGE MAP EXHIBIT A C-G MAPS.DWG SHEET: EXHIBIT E	GPI	OCALA INTERNATIONAL AIRPORT STORMWATER MASTER PLAN REPORT MARION COUNTY, FLORIDA SECTION 20, 29 TOWNSHIP 15 SOUTH, RANGE 21 EAST CHECKED BY: AG DRAWN BY: WC SCALE: 1" = 500'	STORMWATER MASTER PLAN EXISTING DRAINAGE MAP EXHIBIT E	GPI SOUTHEAST, INC. 1414 S.W. MARTIN LUTHER KING JR. AVE. OCALA, FLORIDA 34471 PHONE: (352) 368-5055 / FAX: (352) 368-5063 CERTIFICATE NUMBER 27260

Drawing Name: P:\Active Projects\FTP-2012200.00 Ocala Airport Storwater Master Plan\Drawings\Exhibit A C-G Maps.dwg
Plot Date: Mar 21, 2013 - 5:09pm By: wchristian Profile: <<C3D_Imperial>>
LTScale=600 DimScale=600 Tab=Exhibit F - Proposed Drainange Map



MARION COUNTY, FLORIDA
OCALA AIRPORT MASTER PLAN
DATE: JANUARY 2013
JOB NO.: FTP-2012200.00
DWG: PROPOSED DRAINAGE MAP EXHIBIT A C-G MAPS.DWG
SHEET:
EXHIBIT F

GPI

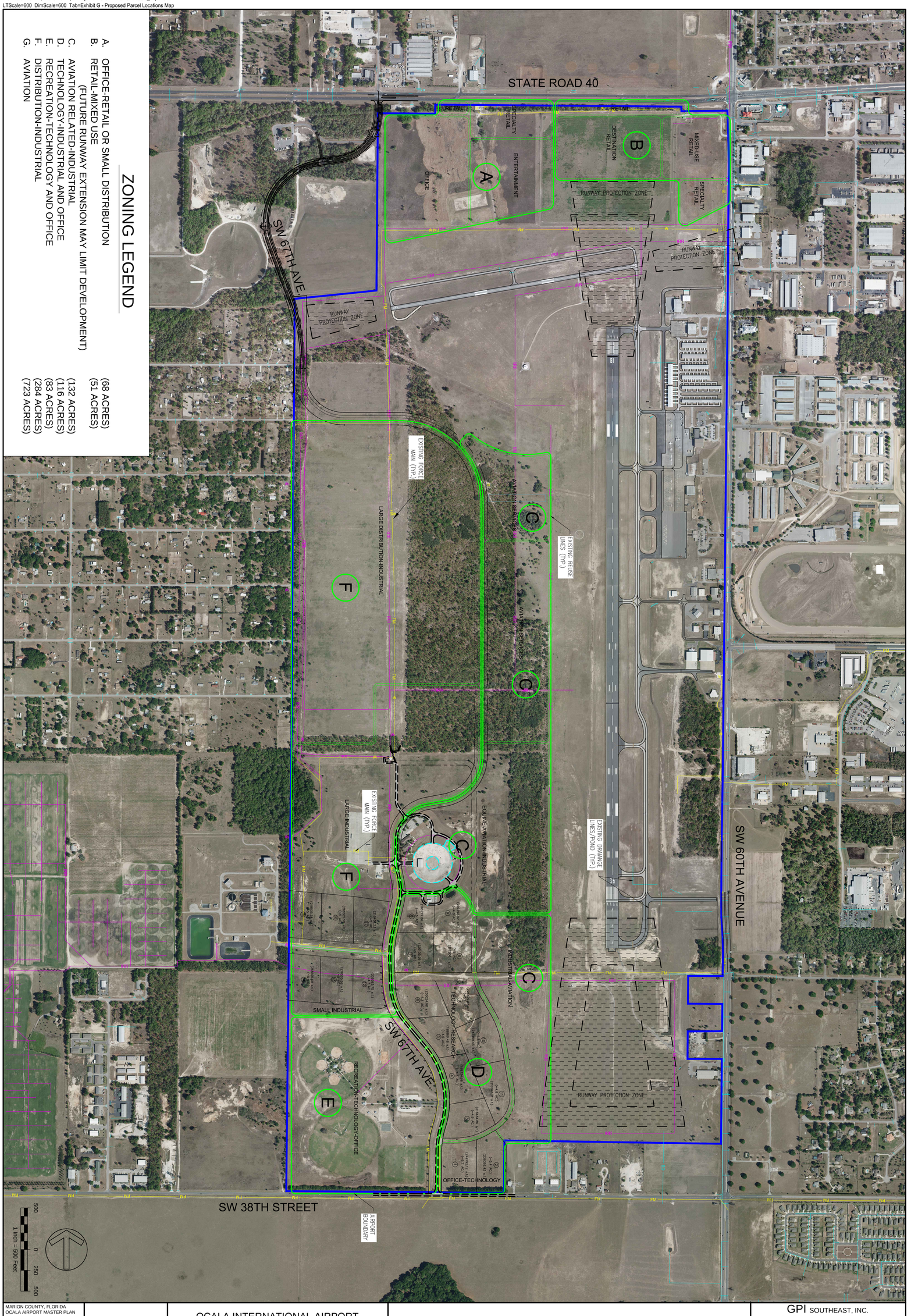
OCALA INTERNATIONAL AIRPORT
STORMWATER MASTER PLAN
REPORT

MARION COUNTY, FLORIDA
SECTION 20, 29 TOWNSHIP 15 SOUTH, RANGE 21 EAST
CHECKED BY: AG DRAWN BY: WC SCALE: 1" = 500'

STORMWATER MASTER PLAN
PROPOSED DRAINAGE MAP
EXHIBIT F

GPI SOUTHEAST, INC.
1414 S.W. MARTIN LUTHER KING JR. AVE.
OCALA, FLORIDA 34471
PHONE: (352) 368-5055 / FAX: (352) 368-5063
CERTIFICATE NUMBER 27260

Drawing Name: P:\Active Projects\FTP-2012200.00 Ocala Airport Storwater Master Plan\Drawings\Exhibit A C-G Maps.dwg
Plot Date: Mar 21, 2013 - 5:11pm By: wchristian Profile: <<C3D_Imperial>>
LTScale=600 DimScale=600 Tab=Exhibit G - Proposed Parcel Locations Map



MARION COUNTY, FLORIDA
OCALA AIRPORT MASTER PLAN
DATE: JANUARY 2013
JOB NO.: FTP-2012200.00
DWG: PARCEL LOCATION MAP EXHIBIT A C-G MAPS.DWG
SHEET:
EXHIBIT G

GPI

OCALA INTERNATIONAL AIRPORT
STORMWATER MASTER PLAN
REPORT

MARION COUNTY, FLORIDA
SECTION 20, 29 TOWNSHIP 15 SOUTH, RANGE 21 EAST
CHECKED BY: AG | DRAWN BY: WC | SCALE: 1" = 400'

STORMWATER MASTER PLAN
PROPOSED PARCEL LOCATIONS MAP
EXHIBIT G

GPI SOUTHEAST, INC.
1414 S.W. MARTIN LUTHER KING JR. AVE.
OCALA, FLORIDA 34471
PHONE: (352) 368-5055 / FAX: (352) 368-5063
CERTIFICATE NUMBER 27260

4. BASIN WORKSHEETS

- Existing Basins
- Post Development Basins

EXISTING CONDITIONS - BASIN PERFORMANCE SUMMARY TABLE

Basin / DRA Number	Total Basin Area (AC)	Impervious Area (AC)	Percent Impervious (%)	Post Dev CN	Vol Gen from 100yr/24hr Storm Event (AF)	Current DRA Area (AC)	Highest Elevation	Lowest Elevation
BASIN A-01	90.93	0.34	0%	39	20.21	3.37	96.00	70.00
BASIN A-02	32.19	15.16	47%	67	17.93	2.99	82.00	74.00
BASIN A-03	16.43	9.09	55%	72	10.07	1.68	84.00	74.00
BASIN A-04	13.18	6.01	46%	66	7.20	1.20	84.00	72.00
BASIN A-05	12.44	6.77	54%	71	7.55	1.26	86.00	72.00
BASIN A-06	12.87	3.74	29%	56	5.54	0.92	86.00	72.00
BASIN A-07	19.64	6.18	31%	58	8.79	1.46	88.00	72.00
BASIN A-08	80.91	10.56	13%	47	25.45	4.24	90.00	66.00
BASIN A-09	17.64	2.50	14%	47	5.69	0.95	78.00	68.00
BASIN A-10	196.61	1.78	1%	40	44.46	7.41	88.00	62.00
BASIN A-11	9.44	0.00	0%	39	2.07	0.35	72.00	64.00
BASIN A-12	33.45	0.00	0%	39	7.35	1.22	86.00	70.00
BASIN A-13	5.22	0.00	0%	39	1.15	0.19	88.00	78.00
BASIN A-14	52.20	0.00	0%	39	11.46	1.91	98.00	66.00
BASIN A-15	33.92	3.70	11%	45	10.14	1.69	98.00	68.00
BASIN A-16	219.05	6.10	3%	41	52.53	8.75	94.00	68.00
BASIN A-17	38.05	0.00	0%	39	8.36	1.39	88.00	70.00
BASIN A-18	98.22	9.84	10%	45	28.72	4.79	96.00	72.00
BASIN A-19	0.05	0.00	0%	39	0.01	0.00	86.00	78.00
BASIN A-20	34.63	12.77	37%	61	16.82	2.80	80.00	78.00
BASIN B-01	20.99	0.00	0%	39	4.61	0.77	88.00	78.00
BASIN B-02	47.20	1.18	2%	40	11.22	1.87	96.00	78.00
BASIN B-03	36.64	0.00	0%	39	8.05	1.34	94.00	78.00
BASIN B-04	39.83	0.65	2%	40	9.22	1.54	94.00	72.00
BASIN B-05	60.82	0.00	0%	39	13.36	2.23	98.00	74.00
BASIN B-06	61.52	1.23	2%	40	14.40	2.40	98.00	80.00
BASIN B-07	11.51	0.97	8%	44	3.23	0.54	96.00	82.00
BASIN B-08	12.96	4.79	37%	61	6.31	1.05	82.00	70.00
BASIN B-09	99.74	1.38	1%	40	22.90	3.82	98.00	60.00
BASIN B-10	21.56	0.00	0%	39	4.73	0.79	94.00	72.00
BASIN B-11	30.22	6.72	22%	52	11.52	1.92	98.00	68.00
BASIN B-12	27.31	1.13	4%	41	6.82	1.14	98.00	70.00
BASIN B-13	10.16	0.00	0%	39	2.23	0.37	98.00	66.00
BASIN B-14	13.41	0.00	0%	39	2.95	0.49	86.00	64.00
BASIN B-15	16.79	0.42	3%	40	3.99	0.67	96.00	70.00
BASIN B-16	17.74	0.00	0%	39	3.90	0.65	88.00	72.00
BASIN B-17	21.83	0.17	1%	39	4.92	0.82	98.00	66.00
BASIN B-18	20.25	0.83	4%	41	5.05	0.84	86.00	78.00

EXISTING CONDITIONS - BASIN PERFORMANCE SUMMARY TABLE

Basin / DRA Number	Total Basin Area (AC)	Impervious Area (AC)	Percent Impervious (%)	Post Dev CN	Vol Gen from 100yr/24hr Storm Event (AF)	Current DRA Area (AC)	Highest Elevation	Lowest Elevation
BASIN B-19	18.84	0.97	5%	42	4.84	0.81	72.00	70.00
BASIN B-20	61.61	2.95	5%	42	15.67	2.61	70.00	68.00
BASIN B-21	14.13	0.00	0%	39	3.10	0.52	79.00	74.00
BASIN C-01	73.68	0.20	0%	39	16.33	2.72	70.00	58.00
BASIN R-01	6.08	1.18	19%	50	2.19	0.37	79.00	80.00
BASIN R-02	4.79	0.94	20%	51	1.74	0.29	79.00	70.00
BASIN R-03	3.32	0.65	19%	50	1.20	0.20	79.00	80.00
BASIN R-04	5.18	0.99	19%	50	1.86	0.31	79.00	78.00
BASIN R-05	1.27	0.25	20%	51	0.46	0.08	79.00	94.00
BASIN R-06	2.05	0.45	22%	52	0.78	0.13	79.00	80.00
BASIN R-07	3.78	0.81	21%	52	1.42	0.24	79.00	72.00
BASIN R-08	2.25	0.42	19%	50	0.80	0.13	79.00	76.00
BASIN R-09	3.58	0.78	22%	52	1.35	0.23	79.00	78.00

POST DEVELOPMENT DRA PERFORMANCE SUMMARY TABLE

Basin / DRA Number	Total Basin Area (AC)	Impervious Area (AC)	Percent Impervious (%)	Post Dev CN	Vol Gen from 100yr/24hr Storm Event (AF)	Required DRA Area (AC)	Available Area for DRA (AC)	Approximate Grade Elevation of Proposed Basin (Ft)
BASIN A-01	16.42	13.13	80%	86	12.71	2.12	3.49	78
BASIN A-02	16.43	13.12	80%	86	12.70	2.12	2.56	82
BASIN A-03	13.18	10.56	80%	86	10.21	1.70	2.13	82
BASIN A-04	12.44	9.95	80%	86	9.62	1.60	2.04	83
BASIN A-05	12.87	10.30	80%	86	9.96	1.66	2.27	85
BASIN A-06	19.64	15.71	80%	86	15.20	2.53	3.35	83
BASIN A-07	80.78	64.62	80%	86	62.52	10.42	13.61	80
BASIN A-08	17.64	14.11	80%	86	13.65	2.28	4.49	75
BASIN A-09a	95.36	23.82	25%	54	38.24	6.37	10.72	68
BASIN A-09b - Offsite	70.55	2.85	4%	41	17.56	2.93	4.34	N/A
BASIN A-10	211.04	135.82	64%	77	142.07	23.68	31.87	84
BASIN A-11	53.68	42.94	80%	86	41.55	6.92	11.51	84
BASIN A-12	49.97	39.98	80%	86	38.68	6.45	0.00	82
BASIN A-13	27.00	21.60	80%	86	20.89	3.48	2.85	76
BASIN A-14	23.94	19.15	80%	86	18.53	3.09	0.00	73
BASIN A-15	63.05	8.75	14%	47	20.22	3.37	0.00	80
BASIN A-16	34.63	12.77	37%	61	16.82	8.41	19.56	78
BASIN B-01	159.03	50.64	32%	58	71.59	11.93	18.88	84
BASIN B-02	61.23	48.99	80%	86	47.39	7.90	7.28	83
BASIN B-03	227.36	128.15	56%	72	140.96	23.49	22.79	80
BASIN B-04	76.09	60.87	80%	86	58.89	9.81	6.27	80
BASIN B-05	34.07	27.25	80%	86	26.37	4.39	3.15	80
BASIN B-06	12.07	9.65	80%	86	9.34	1.56	1.71	78
BASIN B-07	62.69	50.16	80%	86	48.52	8.09	8.41	82
BASIN C-01	122.87	74.79	61%	75	79.88	13.31	8.09	78
BASIN C-02 - INCLUDES FLOWS FROM A-01	74.30	17.78	24%	53	29.24	4.87	8.32	85

SUMMARY FOR AREA REQUIRED FOR DRAINAGE				
Basin / DRA Number	**Total Basin Area (AC)**	**Required DRA Area (AC)**	**Available Area for Development (AC)**	
BASIN A-01	16.42	2.12	14.30	
BASIN A-02	16.43	2.12	14.31	
BASIN A-03	13.18	1.70	11.47	
BASIN A-04	12.44	1.60	10.83	
BASIN A-05	12.87	1.66	11.21	
BASIN A-06	19.64	2.53	17.10	
BASIN A-07	80.78	10.42	70.36	
BASIN A-08	17.64	2.28	15.36	
BASIN A-09a	95.36	6.37	88.98	*
BASIN A-10	211.04	23.68	187.36	*
BASIN A-11	53.68	6.92	46.75	
BASIN A-12	49.97	6.45	43.52	
BASIN A-13	27.00	3.48	23.51	
BASIN A-14	23.94	3.09	20.85	
BASIN A-15	63.05	3.37	59.69	
BASIN A-16	34.63	8.41	26.21	*
BASIN B-01	159.03	11.93	147.10	*
BASIN B-02	61.23	7.90	53.33	
BASIN B-03	227.36	23.49	203.87	
BASIN B-04	76.09	9.81	66.27	
BASIN B-05	34.07	4.39	29.67	
BASIN B-06	12.07	1.56	10.51	
BASIN B-07	62.69	8.09	54.61	
BASIN C-01	122.87	13.31	109.56	*
BASIN C-02 - INCLUDES FLOWS FROM A-01	74.30	4.87	69.43	*

Post Development Area	**Total Area (AC)**	**Total Drainage Area (AC)**	**Total Available Area for Development (AC)**	
Aviation Area (Basins A-01 through A-16)	748.05	86.20	661.85	*
Industrial Area (Basins B-01 through B-07)	632.54	67.18	565.36	*
Commercial Area (Basins C-01 & C-02)	197.17	18.19	178.98	*

* Areas outside of Zoned parcels, runway protection zones, and runways not considered in this calculation

BASIN A-01

Total Area: 3961006 SF 90.93 AC
Total Impervious Area: 14644 SF 0.34 AC

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	90.60	39	3533
Impervious - Bldgs & Pavement	N/A	0.34	98	33
TOTALS		90.93		3566

CN_{wtd} = 39

Storage Volume

Area	***90.93 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.50**
Q (IN)	**2.67**
V (AF)	***20.21***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	99,698	2.289	0	0.0	0	0.000
75.0	105,595	2.424	102,647	1.0	102,647	2.356
76.0	111,492	2.560	108,544	1.0	211,190	4.848
77.0	123,889	2.844	117,691	1.0	328,881	7.550
78.0	136,286	3.129	130,088	1.0	458,968	10.536
79.0	149,487	3.432	142,887	1.0	601,855	13.817
80.0	162,688	3.735	156,088	1.0	757,942	17.400

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,700	75	15
P2	2,171	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,884	750	75

BASIN A-01

Total Area: **3961006 SF** **90.93 AC**
Total Impervious Area: **14644 SF** **0.34 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	90.60	39	3533
Impervious - Bldgs & Pavement	N/A	0.34	98	33
TOTALS		90.93		3566

CN_{wtd} = 39

Storage Volume

Area	***90.93 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.50**
Q (IN)	**1.18**
V (AF)	***8.92***

Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-01

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	99,698	2.289	0	0.0	0	0.000
75.0	105,595	2.424	102,647	1.0	102,647	2.356
76.0	111,492	2.560	108,544	1.0	211,190	4.848
77.0	123,889	2.844	117,691	1.0	328,881	7.550
78.0	136,286	3.129	130,088	1.0	458,968	10.536
79.0	149,487	3.432	142,887	1.0	601,855	13.817
80.0	162,688	3.735	156,088	1.0	757,942	17.400

BASIN A-01

Total Area: **3961006 SF** **90.93 AC**
Total Impervious Area: **14644 SF** **0.34 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	90.60	39	3533
Impervious - Bldgs & Pavement	N/A	0.34	98	33
TOTALS		90.93		3566

CN_{wtd} = 39

Storage Volume

Area	***90.93 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.50**
Q (IN)	**0.61**
V (AF)	***4.64***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-01**

Elevation	**Area**	**Area**	**Avg. Area**	**Elev. Diff.**	**Storage**	**Storage**
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	99,698	2.289	0	0.0	0	0.000
75.0	105,595	2.424	102,647	1.0	102,647	2.356
76.0	111,492	2.560	108,544	1.0	211,190	4.848
77.0	123,889	2.844	117,691	1.0	328,881	7.550
78.0	136,286	3.129	130,088	1.0	458,968	10.536
79.0	149,487	3.432	142,887	1.0	601,855	13.817
80.0	162,688	3.735	156,088	1.0	757,942	17.400

BASIN A-02

Total Area: **1402216 SF** **32.19 AC**
Total Impervious Area: **660381 SF** **15.16 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	17.03	39	664
Impervious - Bldgs & Pavement	N/A	15.16	98	1486
TOTALS		32.19		2150

CN_{wtd} = 67

Storage Volume

Area	***32.19 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**4.97**
Q (IN)	**6.68**
V (AF)	***17.93***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	27,330	0.627	0	0.0	0	0.000
75.0	54,928	1.261	41,129	1.0	41,129	0.944
76.0	82,525	1.895	68,726	1.0	109,855	2.522
77.0	302,929	6.954	192,727	1.0	302,582	6.946
78.0	523,333	12.014	413,131	1.0	715,713	16.431

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	2,185	75	15
P2	2,656	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,369	750	75

BASIN A-02

Total Area: **1402216 SF** **32.19 AC**
Total Impervious Area: **660381 SF** **15.16 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	17.03	39	664
Impervious - Bldgs & Pavement	N/A	15.16	98	1486
TOTALS		32.19		2150

CN_{wtd} = 67

Storage Volume

Area	***32.19 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**4.97**
Q (IN)	**4.10**
V (AF)	***10.99***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	27,330	0.627	0	0.0	0	0.000
75.0	54,928	1.261	41,129	1.0	41,129	0.944
76.0	82,525	1.895	68,726	1.0	109,855	2.522
77.0	302,929	6.954	192,727	1.0	302,582	6.946
78.0	523,333	12.014	413,131	1.0	715,713	16.431

BASIN A-02

Total Area: **1402216 SF** **32.19 AC**
Total Impervious Area: **660381 SF** **15.16 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	17.03	39	664
Impervious - Bldgs & Pavement	N/A	15.16	98	1486
TOTALS		32.19		2150

CN_{wtd} = 67

Storage Volume

Area	***32.19 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**4.97**
Q (IN)	**2.89**
V (AF)	***7.76***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	27,330	0.627	0	0.0	0	0.000
75.0	54,928	1.261	41,129	1.0	41,129	0.944
76.0	82,525	1.895	68,726	1.0	109,855	2.522
77.0	302,929	6.954	192,727	1.0	302,582	6.946
78.0	523,333	12.014	413,131	1.0	715,713	16.431

BASIN A-03

Total Area:	**715496 SF**	**16.43 AC**
Total Impervious Area:	**395890 SF**	**9.09 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	7.34	39	286
Impervious - Bldgs & Pavement	N/A	9.09	98	891
TOTALS		16.43		1177

CN_{wtd} = 72

Storage Volume

Area	***16.43 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**3.96**
Q (IN)	**7.36**
V (AF)	***10.07***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	6,343	0.146	0	0.0	0	0.000
75.0	12,850	0.295	9,597	1.0	9,597	0.220
76.0	19,357	0.444	16,104	1.0	25,700	0.590
77.0	31,978	0.734	25,668	1.0	51,368	1.179
78.0	44,598	1.024	38,288	1.0	89,656	2.058
79.0	85,102	1.954	64,850	1.0	154,506	3.547
80.0	125,606	2.884	105,354	1.0	259,860	5.966

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,497	75	15
P2	1,968	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,681	750	75

BASIN A-03

Total Area:	**715496 SF**	**16.43 AC**
Total Impervious Area:	**395890 SF**	**9.09 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	7.34	39	286
Impervious - Bldgs & Pavement	N/A	9.09	98	891
TOTALS		16.43		1177

CN_{wtd} = 72

Storage Volume

Area	***16.43 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**3.96**
Q (IN)	**4.65**
V (AF)	***6.37***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	6,343	0.146	0	0.0	0	0.000
75.0	12,850	0.295	9,597	1.0	9,597	0.220
76.0	19,357	0.444	16,104	1.0	25,700	0.590
77.0	31,978	0.734	25,668	1.0	51,368	1.179
78.0	44,598	1.024	38,288	1.0	89,656	2.058
79.0	85,102	1.954	64,850	1.0	154,506	3.547
80.0	125,606	2.884	105,354	1.0	259,860	5.966

BASIN A-03

Total Area:	**715496 SF**	**16.43 AC**
Total Impervious Area:	**395890 SF**	**9.09 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	7.34	39	286
Impervious - Bldgs & Pavement	N/A	9.09	98	891
TOTALS		16.43		1177

CN_{wtd} = 72

Storage Volume

Area	***16.43 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**Q = (P-0.2 S)^2 / (I (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**3.96**
Q (IN)	**3.37**
V (AF)	***4.61***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-03**

Elevation	**Area**	**Area**	**Avg. Area**	**Elev. Diff.**	**Storage**	**Storage**
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	6,343	0.146	0	0.0	0	0.000
75.0	12,850	0.295	9,597	1.0	9,597	0.220
76.0	19,357	0.444	16,104	1.0	25,700	0.590
77.0	31,978	0.734	25,668	1.0	51,368	1.179
78.0	44,598	1.024	38,288	1.0	89,656	2.058
79.0	85,102	1.954	64,850	1.0	154,506	3.547
80.0	125,606	2.884	105,354	1.0	259,860	5.966

BASIN A-04

Total Area:	**573946 SF**	**13.18 AC**
Total Impervious Area:	**261672 SF**	**6.01 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	7.17	39	280
Impervious - Bldgs & Pavement	N/A	6.01	98	589
TOTALS		13.18		868

CN_{wtd} = 66

Storage Volume

Area	***13.18 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**5.17**
Q (IN)	**6.56**
V (AF)	***7.20***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	4,540	0.104	0	0.0	0	0.000
73.0	7,530	0.173	6,035	1.0	6,035	0.139
74.0	10,519	0.241	9,025	1.0	15,060	0.346
75.0	14,420	0.331	12,470	1.0	27,529	0.632
76.0	18,320	0.421	16,370	1.0	43,899	1.008
77.0	26,167	0.601	22,244	1.0	66,143	1.518
78.0	34,013	0.781	30,090	1.0	96,233	2.209

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,234	75	15
P2	1,705	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,418	750	75

BASIN A-04

Total Area:	**573946 SF**	**13.18 AC**
Total Impervious Area:	**261672 SF**	**6.01 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	7.17	39	280
Impervious - Bldgs & Pavement	N/A	6.01	98	589
TOTALS		13.18		868

CN_{wtd} = 66

Storage Volume

Area	***13.18 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**5.17**
Q (IN)	**4.00**
V (AF)	***4.39***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	4,540	0.104	0	0.0	0	0.000
73.0	7,530	0.173	6,035	1.0	6,035	0.139
74.0	10,519	0.241	9,025	1.0	15,060	0.346
75.0	14,420	0.331	12,470	1.0	27,529	0.632
76.0	18,320	0.421	16,370	1.0	43,899	1.008
77.0	26,167	0.601	22,244	1.0	66,143	1.518
78.0	34,013	0.781	30,090	1.0	96,233	2.209

BASIN A-04

Total Area:	**573946 SF**	**13.18 AC**
Total Impervious Area:	**261672 SF**	**6.01 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	7.17	39	280
Impervious - Bldgs & Pavement	N/A	6.01	98	589
TOTALS		13.18		868

CN_{wtd} = 66

Storage Volume

Area	***13.18 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**5.17**
Q (IN)	**2.81**
V (AF)	***3.08***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	4,540	0.104	0	0.0	0	0.000
73.0	7,530	0.173	6,035	1.0	6,035	0.139
74.0	10,519	0.241	9,025	1.0	15,060	0.346
75.0	14,420	0.331	12,470	1.0	27,529	0.632
76.0	18,320	0.421	16,370	1.0	43,899	1.008
77.0	26,167	0.601	22,244	1.0	66,143	1.518
78.0	34,013	0.781	30,090	1.0	96,233	2.209

BASIN A-05

Total Area:	**541692 SF**	**12.44 AC**
Total Impervious Area:	**294780 SF**	**6.77 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	5.67	39	221
Impervious - Bldgs & Pavement	N/A	6.77	98	663
TOTALS		12.44		884

CN_{wtd} = 71

Storage Volume

Area	***12.44 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**4.06**
Q (IN)	**7.28**
V (AF)	***7.55***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	3,530	0.081	0	0.0	0	0.000
73.0	6,389	0.147	4,960	1.0	4,960	0.114
74.0	9,247	0.212	7,818	1.0	12,778	0.293
75.0	12,806	0.294	11,027	1.0	23,804	0.546
76.0	16,365	0.376	14,586	1.0	38,390	0.881
77.0	21,971	0.504	19,168	1.0	57,558	1.321
78.0	27,576	0.633	24,774	1.0	82,331	1.890

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,159	75	15
P2	1,630	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,343	750	75

BASIN A-05

Total Area:	**541692 SF**	**12.44 AC**
Total Impervious Area:	**294780 SF**	**6.77 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	5.67	39	221
Impervious - Bldgs & Pavement	N/A	6.77	98	663
TOTALS		12.44		884

CN_{wtd} = 71

Storage Volume

Area	***12.44 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**4.06**
Q (IN)	**4.59**
V (AF)	***4.76***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	3,530	0.081	0	0.0	0	0.000
73.0	6,389	0.147	4,960	1.0	4,960	0.114
74.0	9,247	0.212	7,818	1.0	12,778	0.293
75.0	12,806	0.294	11,027	1.0	23,804	0.546
76.0	16,365	0.376	14,586	1.0	38,390	0.881
77.0	21,971	0.504	19,168	1.0	57,558	1.321
78.0	27,576	0.633	24,774	1.0	82,331	1.890

BASIN A-05

Total Area:	**541692 SF**	**12.44 AC**
Total Impervious Area:	**294780 SF**	**6.77 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	5.67	39	221
Impervious - Bldgs & Pavement	N/A	6.77	98	663
TOTALS		12.44		884

CN_{wtd} = 71

Storage Volume

Area	***12.44 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**4.06**
Q (IN)	**3.32**
V (AF)	***3.44***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	3,530	0.081	0	0.0	0	0.000
73.0	6,389	0.147	4,960	1.0	4,960	0.114
74.0	9,247	0.212	7,818	1.0	12,778	0.293
75.0	12,806	0.294	11,027	1.0	23,804	0.546
76.0	16,365	0.376	14,586	1.0	38,390	0.881
77.0	21,971	0.504	19,168	1.0	57,558	1.321
78.0	27,576	0.633	24,774	1.0	82,331	1.890

BASIN A-06

Total Area:	**560733 SF**	**12.87 AC**
Total Impervious Area:	**162820 SF**	**3.74 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	9.13	39	356
Impervious - Bldgs & Pavement	N/A	3.74	98	366
TOTALS		12.87		723

CN_{wtd} = 56

Storage Volume

Area	***12.87 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**7.82**
Q (IN)	**5.16**
V (AF)	***5.54***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	4,326	0.099	0	0.0	0	0.000
73.0	7,967	0.183	6,147	1.0	6,147	0.141
74.0	11,608	0.266	9,788	1.0	15,934	0.366
75.0	16,323	0.375	13,966	1.0	29,900	0.686
76.0	21,038	0.483	18,681	1.0	48,580	1.115
77.0	26,675	0.612	23,857	1.0	72,437	1.663
78.0	32,312	0.742	29,494	1.0	101,930	2.340
79.0	64,846	1.489	48,579	1.0	150,509	3.455
80.0	97,379	2.236	81,113	1.0	231,622	5.317

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,322	75	15
P2	1,793	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,506	750	75

BASIN A-06

Total Area:	**560733 SF**	**12.87 AC**
Total Impervious Area:	**162820 SF**	**3.74 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	9.13	39	356
Impervious - Bldgs & Pavement	N/A	3.74	98	366
TOTALS		12.87		723

CN_{wtd} = 56

Storage Volume

Area	***12.87 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**7.82**
Q (IN)	**2.91**
V (AF)	***3.12***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	4,326	0.099	0	0.0	0	0.000
73.0	7,967	0.183	6,147	1.0	6,147	0.141
74.0	11,608	0.266	9,788	1.0	15,934	0.366
75.0	16,323	0.375	13,966	1.0	29,900	0.686
76.0	21,038	0.483	18,681	1.0	48,580	1.115
77.0	26,675	0.612	23,857	1.0	72,437	1.663
78.0	32,312	0.742	29,494	1.0	101,930	2.340
79.0	64,846	1.489	48,579	1.0	150,509	3.455
80.0	97,379	2.236	81,113	1.0	231,622	5.317

BASIN A-06

Total Area:	**560733 SF**	**12.87 AC**
Total Impervious Area:	**162820 SF**	**3.74 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	9.13	39	356
Impervious - Bldgs & Pavement	N/A	3.74	98	366
TOTALS		12.87		723

CN_{wtd} = 56

Storage Volume

Area	***12.87 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**7.82**
Q (IN)	**1.91**
V (AF)	***2.05***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	4,326	0.099	0	0.0	0	0.000
73.0	7,967	0.183	6,147	1.0	6,147	0.141
74.0	11,608	0.266	9,788	1.0	15,934	0.366
75.0	16,323	0.375	13,966	1.0	29,900	0.686
76.0	21,038	0.483	18,681	1.0	48,580	1.115
77.0	26,675	0.612	23,857	1.0	72,437	1.663
78.0	32,312	0.742	29,494	1.0	101,930	2.340
79.0	64,846	1.489	48,579	1.0	150,509	3.455
80.0	97,379	2.236	81,113	1.0	231,622	5.317

BASIN A-07

Total Area:	**855413 SF**	**19.64 AC**
Total Impervious Area:	**269135 SF**	**6.18 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	13.46	39	525
Impervious - Bldgs & Pavement	N/A	6.18	98	605
TOTALS		19.64		1130

CN_{wtd} = 58

Storage Volume

Area	***19.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 4.5-inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**7.37**
Q (IN)	**5.37**
V (AF)	***8.79***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	4,721	0.108	0	0.0	0	0.000
73.0	14,221	0.326	9,471	1.0	9,471	0.217
74.0	23,717	0.544	18,969	1.0	28,440	0.653
75.0	39,098	0.898	31,408	1.0	59,848	1.374
76.0	54,479	1.251	46,789	1.0	106,636	2.448
77.0	70,470	1.618	62,475	1.0	169,111	3.882
78.0	86,461	1.985	78,466	1.0	247,576	5.684

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,837	75	15
P2	2,308	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,021	750	75

BASIN A-07

Total Area:	**855413 SF**	**19.64 AC**
Total Impervious Area:	**269135 SF**	**6.18 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	13.46	39	525
Impervious - Bldgs & Pavement	N/A	6.18	98	605
TOTALS		19.64		1130

CN_{wtd} = 58

Storage Volume

Area	***19.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**Q = (P-0.2 S)^2 / (I (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**7.37**
Q (IN)	**3.06**
V (AF)	***5.01***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	4,721	0.108	0	0.0	0	0.000
73.0	14,221	0.326	9,471	1.0	9,471	0.217
74.0	23,717	0.544	18,969	1.0	28,440	0.653
75.0	39,098	0.898	31,408	1.0	59,848	1.374
76.0	54,479	1.251	46,789	1.0	106,636	2.448
77.0	70,470	1.618	62,475	1.0	169,111	3.882
78.0	86,461	1.985	78,466	1.0	247,576	5.684

BASIN A-07

Total Area:	**855413 SF**	**19.64 AC**
Total Impervious Area:	**269135 SF**	**6.18 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	13.46	39	525
Impervious - Bldgs & Pavement	N/A	6.18	98	605
TOTALS		19.64		1130

CN_{wtd} = 58

Storage Volume

Area	***19.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (I$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**7.37**
Q (IN)	**2.04**
V (AF)	***3.33***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	4,721	0.108	0	0.0	0	0.000
73.0	14,221	0.326	9,471	1.0	9,471	0.217
74.0	23,717	0.544	18,969	1.0	28,440	0.653
75.0	39,098	0.898	31,408	1.0	59,848	1.374
76.0	54,479	1.251	46,789	1.0	106,636	2.448
77.0	70,470	1.618	62,475	1.0	169,111	3.882
78.0	86,461	1.985	78,466	1.0	247,576	5.684

BASIN A-08

Total Area:	**3524525 SF**	**80.91 AC**
Total Impervious Area:	**459982 SF**	**10.56 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	70.35	39	2744
Impervious - Bldgs & Pavement	N/A	10.56	98	1035
TOTALS		80.91		3779

CN_{wtd} = 47

Storage Volume

Area	***80.91 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**11.41**
Q (IN)	**3.77**
V (AF)	***25.45***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
66.0	25,188	0.578	0	0.0	0	0.000
67.0	48,211	1.107	36,700	1.0	36,700	0.843
68.0	71,233	1.635	59,722	1.0	96,422	2.214
69.0	153,478	3.523	112,356	1.0	208,777	4.793
70.0	235,722	5.411	194,600	1.0	403,377	9.260
71.0	300,306	6.894	268,014	1.0	671,391	15.413
72.0	364,889	8.377	332,598	0.0	671,391	15.413

BASIN A-08

Total Area:	**3524525 SF**	**80.91 AC**
Total Impervious Area:	**459982 SF**	**10.56 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	70.35	39	2744
Impervious - Bldgs & Pavement	N/A	10.56	98	1035
TOTALS		80.91		3779

CN_{wtd} = 47

Storage Volume

Area	***80.91 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**11.41**
Q (IN)	**1.91**
V (AF)	***12.87***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
66.0	25,188	0.578	0	0.0	0	0.000
67.0	48,211	1.107	36,700	1.0	36,700	0.843
68.0	71,233	1.635	59,722	1.0	96,422	2.214
69.0	153,478	3.523	112,356	1.0	208,777	4.793
70.0	235,722	5.411	194,600	1.0	403,377	9.260
71.0	300,306	6.894	268,014	1.0	671,391	15.413
72.0	364,889	8.377	332,598	0.0	671,391	15.413

BASIN A-08

Total Area:	**3524525 SF**	**80.91 AC**
Total Impervious Area:	**459982 SF**	**10.56 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	70.35	39	2744
Impervious - Bldgs & Pavement	N/A	10.56	98	1035
TOTALS		80.91		3779

CN_{wtd} = 47

Storage Volume

Area	***80.91 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**11.41**
Q (IN)	**1.14**
V (AF)	***7.67***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
66.0	25,188	0.578	0	0.0	0	0.000
67.0	48,211	1.107	36,700	1.0	36,700	0.843
68.0	71,233	1.635	59,722	1.0	96,422	2.214
69.0	153,478	3.523	112,356	1.0	208,777	4.793
70.0	235,722	5.411	194,600	1.0	403,377	9.260
71.0	300,306	6.894	268,014	1.0	671,391	15.413
72.0	364,889	8.377	332,598	0.0	671,391	15.413

BASIN A-09

Total Area:	**768373 SF**	**17.64 AC**
Total Impervious Area:	**108732 SF**	**2.50 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	15.14	39	591
Impervious - Bldgs & Pavement	N/A	2.50	98	245
TOTALS		17.64		835

CN_{wtd} = 47

Storage Volume

Area	***17.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**11.12**
Q (IN)	**3.87**
V (AF)	***5.69***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-09**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	164,686	3.781	0	0.0	0	0.000
69.0	172,214	3.953	168,450	1.0	168,450	3.867
70.0	179,742	4.126	175,978	1.0	344,428	7.907
71.0	187,479	4.304	183,611	1.0	528,039	12.122
72.0	195,216	4.482	191,348	1.0	719,386	16.515
73.0	203,161	4.664	199,189	1.0	918,575	21.088
74.0	211,106	4.846	207,134	1.0	1,125,708	25.843

BASIN A-09

Total Area:	**768373 SF**	**17.64 AC**
Total Impervious Area:	**108732 SF**	**2.50 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	15.14	39	591
Impervious - Bldgs & Pavement	N/A	2.50	98	245
TOTALS		17.64		835

CN_{wtd} = 47

Storage Volume

Area	***17.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**11.12**
Q (IN)	**1.97**
V (AF)	***2.90***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-09**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	164,686	3.781	0	0.0	0	0.000
69.0	172,214	3.953	168,450	1.0	168,450	3.867
70.0	179,742	4.126	175,978	1.0	344,428	7.907
71.0	187,479	4.304	183,611	1.0	528,039	12.122
72.0	195,216	4.482	191,348	1.0	719,386	16.515
73.0	203,161	4.664	199,189	1.0	918,575	21.088
74.0	211,106	4.846	207,134	1.0	1,125,708	25.843

BASIN A-09

Total Area:	**768373 SF**	**17.64 AC**
Total Impervious Area:	**108732 SF**	**2.50 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	15.14	39	591
Impervious - Bldgs & Pavement	N/A	2.50	98	245
TOTALS		17.64		835

CN_{wtd} = 47

Storage Volume

Area	***17.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**11.12**
Q (IN)	**1.19**
V (AF)	***1.75***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-09**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	164,686	3.781	0	0.0	0	0.000
69.0	172,214	3.953	168,450	1.0	168,450	3.867
70.0	179,742	4.126	175,978	1.0	344,428	7.907
71.0	187,479	4.304	183,611	1.0	528,039	12.122
72.0	195,216	4.482	191,348	1.0	719,386	16.515
73.0	203,161	4.664	199,189	1.0	918,575	21.088
74.0	211,106	4.846	207,134	1.0	1,125,708	25.843

BASIN A-10

Total Area:	**8564342 SF**	**196.61 AC**
Total Impervious Area:	**77411 SF**	**1.78 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	194.83	39	7598
Impervious - Bldgs & Pavement	N/A	1.78	98	174
TOTALS		196.61		7773

CN_{wtd} = 40

Storage Volume

Area	***196.61 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.30**
Q (IN)	**2.71**
V (AF)	***44.46***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-10**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	203,054	4.661	0	0.0	0	0.000
65.0	226,414	5.198	214,734	1.0	214,734	4.930
66.0	249,773	5.734	238,094	1.0	452,828	10.395
67.0	274,047	6.291	261,910	1.0	714,738	16.408
68.0	298,320	6.848	286,184	1.0	1,000,921	22.978
69.0	323,508	7.427	310,914	1.0	1,311,835	30.116
70.0	348,696	8.005	336,102	1.0	1,647,937	37.831

BASIN A-10

Total Area:	**8564342 SF**	**196.61 AC**
Total Impervious Area:	**77411 SF**	**1.78 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	194.83	39	7598
Impervious - Bldgs & Pavement	N/A	1.78	98	174
TOTALS		196.61		7773

CN_{wtd} = 40

Storage Volume

Area	***196.61 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.30**
Q (IN)	**1.21**
V (AF)	***19.77***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-10**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	203,054	4.661	0	0.0	0	0.000
65.0	226,414	5.198	214,734	1.0	214,734	4.930
66.0	249,773	5.734	238,094	1.0	452,828	10.395
67.0	274,047	6.291	261,910	1.0	714,738	16.408
68.0	298,320	6.848	286,184	1.0	1,000,921	22.978
69.0	323,508	7.427	310,914	1.0	1,311,835	30.116
70.0	348,696	8.005	336,102	1.0	1,647,937	37.831

BASIN A-10

Total Area:	**8564342 SF**	**196.61 AC**
Total Impervious Area:	**77411 SF**	**1.78 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	194.83	39	7598
Impervious - Bldgs & Pavement	N/A	1.78	98	174
TOTALS		196.61		7773

CN_{wtd} = 40

Storage Volume

Area	***196.61 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.30**
Q (IN)	**0.63**
V (AF)	***10.35***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-10**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	203,054	4.661	0	0.0	0	0.000
65.0	226,414	5.198	214,734	1.0	214,734	4.930
66.0	249,773	5.734	238,094	1.0	452,828	10.395
67.0	274,047	6.291	261,910	1.0	714,738	16.408
68.0	298,320	6.848	286,184	1.0	1,000,921	22.978
69.0	323,508	7.427	310,914	1.0	1,311,835	30.116
70.0	348,696	8.005	336,102	1.0	1,647,937	37.831

BASIN A-11

Total Area:	**411260 SF**	**9.44 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	9.44	39	368
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		9.44		368

CN_{wtd} = 39

Storage Volume

Area	***9.44 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***2.07***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-11**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
63.0	1,664	0.038	0	0.0	0	0.000
64.0	2,190	0.050	1,927	1.0	1,927	0.044
65.0	2,901	0.067	2,546	1.0	4,473	0.103
66.0	3,611	0.083	3,256	1.0	7,729	0.177

BASIN A-11

Total Area:	**411260 SF**	**9.44 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	9.44	39	368
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		9.44		368

CN_{wtd} = 39

Storage Volume

Area	***9.44 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***0.91***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-11**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
63.0	1,664	0.038	0	0.0	0	0.000
64.0	2,190	0.050	1,927	1.0	1,927	0.044
65.0	2,901	0.067	2,546	1.0	4,473	0.103
66.0	3,611	0.083	3,256	1.0	7,729	0.177

BASIN A-11

Total Area:	**411260 SF**	**9.44 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	9.44	39	368
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		9.44		368

CN_{wtd} = 39

Storage Volume

Area	***9.44 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***0.47***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-11**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
63.0	1,664	0.038	0	0.0	0	0.000
64.0	2,190	0.050	1,927	1.0	1,927	0.044
65.0	2,901	0.067	2,546	1.0	4,473	0.103
66.0	3,611	0.083	3,256	1.0	7,729	0.177

BASIN A-12

Total Area:	**1457147 SF**	**33.45 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	33.45	39	1305
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		33.45		1305

CN_{wtd} = 39

Storage Volume

Area	***33.45 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***7.35***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-12**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
65.0	4,818	0.111	0	0.0	0	0.000
66.0	7,379	0.169	6,099	1.0	6,099	0.140
67.0	10,448	0.240	8,914	1.0	15,012	0.345
68.0	14,018	0.322	12,233	1.0	27,245	0.625
69.0	18,083	0.415	16,051	1.0	43,296	0.994
70.0	22,630	0.520	20,357	1.0	63,652	1.461

BASIN A-12

Total Area:	**1457147 SF**	**33.45 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	33.45	39	1305
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		33.45		1305

CN_{wtd} = 39

Storage Volume

Area	***33.45 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***3.23***

Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-12

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
65.0	4,818	0.111	0	0.0	0	0.000
66.0	7,379	0.169	6,099	1.0	6,099	0.140
67.0	10,448	0.240	8,914	1.0	15,012	0.345
68.0	14,018	0.322	12,233	1.0	27,245	0.625
69.0	18,083	0.415	16,051	1.0	43,296	0.994
70.0	22,630	0.520	20,357	1.0	63,652	1.461

BASIN A-12

Total Area:	**1457147 SF**	**33.45 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	33.45	39	1305
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		33.45		1305

CN_{wtd} = 39

Storage Volume

Area	***33.45 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***1.67***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-12**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
65.0	4,818	0.111	0	0.0	0	0.000
66.0	7,379	0.169	6,099	1.0	6,099	0.140
67.0	10,448	0.240	8,914	1.0	15,012	0.345
68.0	14,018	0.322	12,233	1.0	27,245	0.625
69.0	18,083	0.415	16,051	1.0	43,296	0.994
70.0	22,630	0.520	20,357	1.0	63,652	1.461

BASIN A-13

Total Area:	**227234 SF**	**5.22 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	5.22	39	203
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		5.22		203

CN_{wtd} = 39

Storage Volume

Area	***5.22 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***1.15***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-13**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	5,360	0.123	0	0.0	0	0.000
79.0	20,254	0.465	12,807	1.0	12,807	0.294
80.0	35,147	0.807	27,701	1.0	40,508	0.930
81.0	52,761	1.211	43,954	1.0	84,462	1.939
82.0	70,375	1.616	61,568	1.0	146,030	3.352

BASIN A-13

Total Area:	**227234 SF**	**5.22 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	5.22	39	203
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		5.22		203

CN_{wtd} = 39

Storage Volume

Area	***5.22 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***0.50***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-13**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	5,360	0.123	0	0.0	0	0.000
79.0	20,254	0.465	12,807	1.0	12,807	0.294
80.0	35,147	0.807	27,701	1.0	40,508	0.930
81.0	52,761	1.211	43,954	1.0	84,462	1.939
82.0	70,375	1.616	61,568	1.0	146,030	3.352

BASIN A-13

Total Area:	**227234 SF**	**5.22 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	5.22	39	203
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		5.22		203

CN_{wtd} = 39

Storage Volume

Area	***5.22 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***0.26***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-13**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	5,360	0.123	0	0.0	0	0.000
79.0	20,254	0.465	12,807	1.0	12,807	0.294
80.0	35,147	0.807	27,701	1.0	40,508	0.930
81.0	52,761	1.211	43,954	1.0	84,462	1.939
82.0	70,375	1.616	61,568	1.0	146,030	3.352

BASIN A-14

Total Area:	**2274048 SF**	**52.20 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	52.20	39	2036
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		52.20		2036

CN_{wtd} = 39

Storage Volume

Area	***52.20 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***11.46***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-14**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
63.0	72,606	1.667	0	0.0	0	0.000
64.0	76,187	1.749	74,397	1.0	74,397	1.708
65.0	79,847	1.833	78,017	1.0	152,414	3.499
66.0	83,584	1.919	81,716	1.0	234,129	5.375
67.0	90,101	2.068	86,843	1.0	320,972	7.368
68.0	96,617	2.218	93,359	1.0	414,331	9.512

BASIN A-14

Total Area:	**2274048 SF**	**52.20 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	52.20	39	2036
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		52.20		2036

CN_{wtd} = 39

Storage Volume

Area	***52.20 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***5.03***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-14**

Elevation	**Area**	**Area**	**Avg. Area**	**Elev. Diff.**	**Storage**	**Storage**
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
63.0	72,606	1.667	0	0.0	0	0.000
64.0	76,187	1.749	74,397	1.0	74,397	1.708
65.0	79,847	1.833	78,017	1.0	152,414	3.499
66.0	83,584	1.919	81,716	1.0	234,129	5.375
67.0	90,101	2.068	86,843	1.0	320,972	7.368
68.0	96,617	2.218	93,359	1.0	414,331	9.512

BASIN A-14

Total Area:	**2274048 SF**	**52.20 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	52.20	39	2036
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		52.20		2036

CN_{wtd} = 39

Storage Volume

Area	***52.20 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***2.60***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-14**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
63.0	72,606	1.667	0	0.0	0	0.000
64.0	76,187	1.749	74,397	1.0	74,397	1.708
65.0	79,847	1.833	78,017	1.0	152,414	3.499
66.0	83,584	1.919	81,716	1.0	234,129	5.375
67.0	90,101	2.068	86,843	1.0	320,972	7.368
68.0	96,617	2.218	93,359	1.0	414,331	9.512

BASIN A-15

Total Area:	**1477534 SF**	**33.92 AC**
Total Impervious Area:	**161090 SF**	**3.70 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	30.22	39	1179
Impervious - Bldgs & Pavement	N/A	3.70	98	362
TOTALS		33.92		1541

CN_{wtd} = 45

Storage Volume	
Area	***33.92 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**12.01**
Q (IN)	**3.59**
V (AF)	***10.14***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-15**

Elevation	**Area**	**Area**	**Avg. Area**	**Elev. Diff.**	**Storage**	**Storage**
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	4,210	0.097	0	0.0	0	0.000
69.0	58,698	1.348	31,454	1.0	31,454	0.722
70.0	113,185	2.598	85,942	1.0	117,396	2.695
71.0	123,935	2.845	118,560	1.0	235,956	5.417
72.0	134,684	3.092	129,310	1.0	365,265	8.385

BASIN A-15

Total Area:	**1477534 SF**	**33.92 AC**
Total Impervious Area:	**161090 SF**	**3.70 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	30.22	39	1179
Impervious - Bldgs & Pavement	N/A	3.70	98	362
TOTALS		33.92		1541

CN_{wtd} = 45

Storage Volume

Area	***33.92 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**12.01**
Q (IN)	**1.78**
V (AF)	***5.03***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-15**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	4,210	0.097	0	0.0	0	0.000
69.0	58,698	1.348	31,454	1.0	31,454	0.722
70.0	113,185	2.598	85,942	1.0	117,396	2.695
71.0	123,935	2.845	118,560	1.0	235,956	5.417
72.0	134,684	3.092	129,310	1.0	365,265	8.385

BASIN A-15

Total Area:	**1477534 SF**	**33.92 AC**
Total Impervious Area:	**161090 SF**	**3.70 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	30.22	39	1179
Impervious - Bldgs & Pavement	N/A	3.70	98	362
TOTALS		33.92		1541

CN_{wtd} = 45

Storage Volume

Area	***33.92 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**12.01**
Q (IN)	**1.04**
V (AF)	***2.95***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-15**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	4,210	0.097	0	0.0	0	0.000
69.0	58,698	1.348	31,454	1.0	31,454	0.722
70.0	113,185	2.598	85,942	1.0	117,396	2.695
71.0	123,935	2.845	118,560	1.0	235,956	5.417
72.0	134,684	3.092	129,310	1.0	365,265	8.385

BASIN A-16

Total Area:	**9541800 SF**	**219.05 AC**
Total Impervious Area:	**265751 SF**	**6.10 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	212.95	39	8305
Impervious - Bldgs & Pavement	N/A	6.10	98	598
TOTALS		219.05		8903

CN_{wtd} = 41

Storage Volume

Area	***219.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**14.60**
Q (IN)	**2.88**
V (AF)	***52.53***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-16**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	78,951	1.812	0	0.0	0	0.000
69.0	162,009	3.719	120,480	1.0	120,480	2.766
70.0	245,066	5.626	203,538	1.0	324,018	7.438
71.0	330,670	7.591	287,868	1.0	611,886	14.047
72.0	416,273	9.556	373,472	1.0	985,357	22.621

BASIN A-16

Total Area:	**9541800 SF**	**219.05 AC**
Total Impervious Area:	**265751 SF**	**6.10 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	212.95	39	8305
Impervious - Bldgs & Pavement	N/A	6.10	98	598
TOTALS		219.05		8903

CN_{wtd} = 41

Storage Volume

Area	***219.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**14.60**
Q (IN)	**1.31**
V (AF)	***23.92***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-16**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	78,951	1.812	0	0.0	0	0.000
69.0	162,009	3.719	120,480	1.0	120,480	2.766
70.0	245,066	5.626	203,538	1.0	324,018	7.438
71.0	330,670	7.591	287,868	1.0	611,886	14.047
72.0	416,273	9.556	373,472	1.0	985,357	22.621

BASIN A-16

Total Area:	**9541800 SF**	**219.05 AC**
Total Impervious Area:	**265751 SF**	**6.10 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	212.95	39	8305
Impervious - Bldgs & Pavement	N/A	6.10	98	598
TOTALS		219.05		8903

CN_{wtd} = 41

Storage Volume

Area	***219.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**14.60**
Q (IN)	**0.70**
V (AF)	***12.86***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-16**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	78,951	1.812	0	0.0	0	0.000
69.0	162,009	3.719	120,480	1.0	120,480	2.766
70.0	245,066	5.626	203,538	1.0	324,018	7.438
71.0	330,670	7.591	287,868	1.0	611,886	14.047
72.0	416,273	9.556	373,472	1.0	985,357	22.621

BASIN A-17

Total Area:	**1657635 SF**	**38.05 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	38.05	39	1484
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		38.05		1484

CN_{wtd} = 39

Storage Volume

Area	***38.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***8.36***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-17**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	3,506	0.080	0	0.0	0	0.000
71.0	8,470	0.194	5,988	1.0	5,988	0.137
72.0	13,433	0.308	10,952	1.0	16,940	0.389
73.0	28,025	0.643	20,729	1.0	37,669	0.865
74.0	42,617	0.978	35,321	1.0	72,990	1.676
75.0	173,082	3.973	107,850	1.0	180,839	4.151
76.0	303,546	6.968	238,314	1.0	419,153	9.622
77.0	416,228	9.555	359,887	1.0	779,040	17.884
78.0	528,910	12.142	472,569	1.0	1,251,609	28.733

BASIN A-17

Total Area:	**1657635 SF**	**38.05 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	38.05	39	1484
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		38.05		1484

CN_{wtd} = 39

Storage Volume

Area	***38.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***3.67***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-17**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	3,506	0.080	0	0.0	0	0.000
71.0	8,470	0.194	5,988	1.0	5,988	0.137
72.0	13,433	0.308	10,952	1.0	16,940	0.389
73.0	28,025	0.643	20,729	1.0	37,669	0.865
74.0	42,617	0.978	35,321	1.0	72,990	1.676
75.0	173,082	3.973	107,850	1.0	180,839	4.151
76.0	303,546	6.968	238,314	1.0	419,153	9.622
77.0	416,228	9.555	359,887	1.0	779,040	17.884
78.0	528,910	12.142	472,569	1.0	1,251,609	28.733

BASIN A-17

Total Area:	**1657635 SF**	**38.05 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	38.05	39	1484
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		38.05		1484

CN_{wtd} = 39

Storage Volume

Area	***38.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***1.90***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-17**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	3,506	0.080	0	0.0	0	0.000
71.0	8,470	0.194	5,988	1.0	5,988	0.137
72.0	13,433	0.308	10,952	1.0	16,940	0.389
73.0	28,025	0.643	20,729	1.0	37,669	0.865
74.0	42,617	0.978	35,321	1.0	72,990	1.676
75.0	173,082	3.973	107,850	1.0	180,839	4.151
76.0	303,546	6.968	238,314	1.0	419,153	9.622
77.0	416,228	9.555	359,887	1.0	779,040	17.884
78.0	528,910	12.142	472,569	1.0	1,251,609	28.733

BASIN A-18

Total Area:	**4278451 SF**	**98.22 AC**
Total Impervious Area:	**428536 SF**	**9.84 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	88.38	39	3447
Impervious - Bldgs & Pavement	N/A	9.84	98	964
TOTALS		98.22		4411

CN_{wtd} = 45

Storage Volume

Area	***98.22 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**12.27**
Q (IN)	**3.51**
V (AF)	***28.72***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-18**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	42,251	0.970	0	0.0	0	0.000
73.0	94,765	2.176	68,508	1.0	68,508	1.573
74.0	147,279	3.381	121,022	1.0	189,530	4.351
75.0	233,901	5.370	190,590	1.0	380,120	8.726
76.0	320,522	7.358	277,212	1.0	657,332	15.090
77.0	436,853	10.029	378,688	1.0	1,036,019	23.784
78.0	553,184	12.699	495,019	1.0	1,531,038	35.148

BASIN A-18

Total Area:	**4278451 SF**	**98.22 AC**
Total Impervious Area:	**428536 SF**	**9.84 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	88.38	39	3447
Impervious - Bldgs & Pavement	N/A	9.84	98	964
TOTALS		98.22		4411

CN_{wtd} = 45

Storage Volume

Area	***98.22 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**12.27**
Q (IN)	**1.73**
V (AF)	***14.14***

Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-18

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	42,251	0.970	0	0.0	0	0.000
73.0	94,765	2.176	68,508	1.0	68,508	1.573
74.0	147,279	3.381	121,022	1.0	189,530	4.351
75.0	233,901	5.370	190,590	1.0	380,120	8.726
76.0	320,522	7.358	277,212	1.0	657,332	15.090
77.0	436,853	10.029	378,688	1.0	1,036,019	23.784
78.0	553,184	12.699	495,019	1.0	1,531,038	35.148

BASIN A-18

Total Area:	**4278451 SF**	**98.22 AC**
Total Impervious Area:	**428536 SF**	**9.84 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	88.38	39	3447
Impervious - Bldgs & Pavement	N/A	9.84	98	964
TOTALS		98.22		4411

CN_{wtd} = 45

Storage Volume

Area	***98.22 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**12.27**
Q (IN)	**1.00**
V (AF)	***8.22***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-18**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	42,251	0.970	0	0.0	0	0.000
73.0	94,765	2.176	68,508	1.0	68,508	1.573
74.0	147,279	3.381	121,022	1.0	189,530	4.351
75.0	233,901	5.370	190,590	1.0	380,120	8.726
76.0	320,522	7.358	277,212	1.0	657,332	15.090
77.0	436,853	10.029	378,688	1.0	1,036,019	23.784
78.0	553,184	12.699	495,019	1.0	1,531,038	35.148

BASIN A-19

Total Area:	**2011 SF**	**0.05 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	0.05	39	2
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		0.05		2

CN_{wtd} = 39

Storage Volume

Area	***0.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***0.01***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-19**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
73.0	8,691	0.200	0	0.0	0	0.000
74.0	10,202	0.234	9,447	1.0	9,447	0.217
75.0	11,819	0.271	11,011	1.0	20,457	0.470
76.0	13,538	0.311	12,679	1.0	33,136	0.761
77.0	15,360	0.353	14,449	1.0	47,585	1.092
78.0	17,283	0.397	16,322	1.0	63,906	1.467

BASIN A-19

Total Area:	**2011 SF**	**0.05 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	0.05	39	2
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		0.05		2

CN_{wtd} = 39

Storage Volume

Area	***0.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***0.00***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-19**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
73.0	8,691	0.200	0	0.0	0	0.000
74.0	10,202	0.234	9,447	1.0	9,447	0.217
75.0	11,819	0.271	11,011	1.0	20,457	0.470
76.0	13,538	0.311	12,679	1.0	33,136	0.761
77.0	15,360	0.353	14,449	1.0	47,585	1.092
78.0	17,283	0.397	16,322	1.0	63,906	1.467

BASIN A-19

Total Area:	**2011 SF**	**0.05 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	0.05	39	2
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		0.05		2

CN_{wtd} = 39

Storage Volume

Area	***0.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***0.00***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-19**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
73.0	8,691	0.200	0	0.0	0	0.000
74.0	10,202	0.234	9,447	1.0	9,447	0.217
75.0	11,819	0.271	11,011	1.0	20,457	0.470
76.0	13,538	0.311	12,679	1.0	33,136	0.761
77.0	15,360	0.353	14,449	1.0	47,585	1.092
78.0	17,283	0.397	16,322	1.0	63,906	1.467

BASIN A-20

Total Area:	**1508310 SF**	**34.63 AC**
Total Impervious Area:	**556319 SF**	**12.77 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.85	39	852
Impervious - Bldgs & Pavement	N/A	12.77	98	1252
TOTALS		34.63		2104

CN_{wtd} = 61

Storage Volume

Area	***34.63 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**6.46**
Q (IN)	**5.83**
V (AF)	***16.82***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-20**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
76.0	14,258	0.327	0	0.0	0	0.000
77.0	270,609	6.212	142,434	1.0	142,434	3.270
78.0	526,960	12.097	398,785	1.0	541,218	12.425

BASIN A-20

Total Area:	**1508310 SF**	**34.63 AC**
Total Impervious Area:	**556319 SF**	**12.77 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.85	39	852
Impervious - Bldgs & Pavement	N/A	12.77	98	1252
TOTALS		34.63		2104

CN_{wtd} = 61

Storage Volume

Area	***34.63 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**6.46**
Q (IN)	**3.42**
V (AF)	***9.86***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-20**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
76.0	14,258	0.327	0	0.0	0	0.000
77.0	270,609	6.212	142,434	1.0	142,434	3.270
78.0	526,960	12.097	398,785	1.0	541,218	12.425

BASIN A-20

Total Area:	**1508310 SF**	**34.63 AC**
Total Impervious Area:	**556319 SF**	**12.77 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.85	39	852
Impervious - Bldgs & Pavement	N/A	12.77	98	1252
TOTALS		34.63		2104

CN_{wtd} = 61

Storage Volume

Area	***34.63 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**6.46**
Q (IN)	**2.33**
V (AF)	***6.71***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-20**

Elevation	**Area**	**Area**	**Avg. Area**	**Elev. Diff.**	**Storage**	**Storage**
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
76.0	14,258	0.327	0	0.0	0	0.000
77.0	270,609	6.212	142,434	1.0	142,434	3.270
78.0	526,960	12.097	398,785	1.0	541,218	12.425

BASIN B-01

Total Area:	**914355 SF**	**20.99 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	20.99	39	819
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		20.99		819

CN_{wtd} = 39

Storage Volume

Area	***20.99 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***4.61***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	3,737	0.086	0	0.0	0	0.000
79.0	27,587	0.633	15,662	1.0	15,662	0.360
80.0	51,436	1.181	39,512	1.0	55,174	1.267

BASIN B-01

Total Area:	**914355 SF**	**20.99 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	20.99	39	819
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		20.99		819

CN_{wtd} = 39

Storage Volume

Area	***20.99 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***2.02***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	3,737	0.086	0	0.0	0	0.000
79.0	27,587	0.633	15,662	1.0	15,662	0.360
80.0	51,436	1.181	39,512	1.0	55,174	1.267

BASIN B-01

Total Area:	**914355 SF**	**20.99 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	20.99	39	819
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		20.99		819

CN_{wtd} = 39

Storage Volume

Area	***20.99 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***1.05***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	3,737	0.086	0	0.0	0	0.000
79.0	27,587	0.633	15,662	1.0	15,662	0.360
80.0	51,436	1.181	39,512	1.0	55,174	1.267

BASIN B-02

Total Area:	**2056148 SF**	**47.20 AC**
Total Impervious Area:	**51242 SF**	**1.18 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	46.03	39	1795
Impervious - Bldgs & Pavement	N/A	1.18	98	115
TOTALS		47.20		1910

CN_{wtd} = 40

Storage Volume

Area	***47.20 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**14.71**
Q (IN)	**2.85**
V (AF)	***11.22***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	9,394	0.216	0	0.0	0	0.000
79.0	266,406	6.116	137,900	1.0	137,900	3.166
80.0	523,418	12.016	394,912	1.0	532,812	12.232

BASIN B-02

Total Area:	**2056148 SF**	**47.20 AC**
Total Impervious Area:	**51242 SF**	**1.18 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	46.03	39	1795
Impervious - Bldgs & Pavement	N/A	1.18	98	115
TOTALS		47.20		1910

CN_{wtd} = 40

Storage Volume

Area	***47.20 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**14.71**
Q (IN)	**1.29**
V (AF)	***5.09***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	9,394	0.216	0	0.0	0	0.000
79.0	266,406	6.116	137,900	1.0	137,900	3.166
80.0	523,418	12.016	394,912	1.0	532,812	12.232

BASIN B-02

Total Area:	**2056148 SF**	**47.20 AC**
Total Impervious Area:	**51242 SF**	**1.18 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	46.03	39	1795
Impervious - Bldgs & Pavement	N/A	1.18	98	115
TOTALS		47.20		1910

CN_{wtd} = 40

Storage Volume

Area	***47.20 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**14.71**
Q (IN)	**0.69**
V (AF)	***2.73***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	9,394	0.216	0	0.0	0	0.000
79.0	266,406	6.116	137,900	1.0	137,900	3.166
80.0	523,418	12.016	394,912	1.0	532,812	12.232

BASIN B-03

Total Area:	**1595853 SF**	**36.64 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	36.64	39	1429
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		36.64		1429

CN_{wtd} = 39

Storage Volume

Area	***36.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***8.05***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	23,999	0.551	0	0.0	0	0.000
79.0	62,624	1.438	43,312	1.0	43,312	0.994
80.0	101,248	2.324	81,936	1.0	125,248	2.875

BASIN B-03

Total Area:	**1595853 SF**	**36.64 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	36.64	39	1429
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		36.64		1429

CN_{wtd} = 39

Storage Volume

Area	***36.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***3.53***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	23,999	0.551	0	0.0	0	0.000
79.0	62,624	1.438	43,312	1.0	43,312	0.994
80.0	101,248	2.324	81,936	1.0	125,248	2.875

BASIN B-03

Total Area:	**1595853 SF**	**36.64 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	36.64	39	1429
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		36.64		1429

CN_{wtd} = 39

Storage Volume

Area	***36.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***1.83***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	23,999	0.551	0	0.0	0	0.000
79.0	62,624	1.438	43,312	1.0	43,312	0.994
80.0	101,248	2.324	81,936	1.0	125,248	2.875

BASIN B-04

Total Area:	**1735154 SF**	**39.83 AC**
Total Impervious Area:	**28117 SF**	**0.65 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	39.19	39	1528
Impervious - Bldgs & Pavement	N/A	0.65	98	63
TOTALS		39.83		1592

CN_{wtd} = 40

Storage Volume

Area	***39.83 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.03**
Q (IN)	**2.78**
V (AF)	***9.22***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	14,690	0.337	0	0.0	0	0.000
73.0	60,305	1.384	37,498	1.0	37,498	0.861
74.0	105,920	2.432	83,113	1.0	120,610	2.769
75.0	162,590	3.733	134,255	1.0	254,865	5.851
76.0	219,259	5.033	190,925	1.0	445,790	10.234
77.0	284,203	6.524	251,731	1.0	697,521	16.013
78.0	349,147	8.015	316,675	1.0	1,014,196	23.283
79.0	461,471	10.594	405,309	1.0	1,419,505	32.587
80.0	573,795	13.173	517,633	1.0	1,937,138	44.471

BASIN B-04

Total Area:	**1735154 SF**	**39.83 AC**
Total Impervious Area:	**28117 SF**	**0.65 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	39.19	39	1528
Impervious - Bldgs & Pavement	N/A	0.65	98	63
TOTALS		39.83		1592

CN_{wtd} = 40

Storage Volume

Area	***39.83 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.03**
Q (IN)	**1.25**
V (AF)	***4.14***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	14,690	0.337	0	0.0	0	0.000
73.0	60,305	1.384	37,498	1.0	37,498	0.861
74.0	105,920	2.432	83,113	1.0	120,610	2.769
75.0	162,590	3.733	134,255	1.0	254,865	5.851
76.0	219,259	5.033	190,925	1.0	445,790	10.234
77.0	284,203	6.524	251,731	1.0	697,521	16.013
78.0	349,147	8.015	316,675	1.0	1,014,196	23.283
79.0	461,471	10.594	405,309	1.0	1,419,505	32.587
80.0	573,795	13.173	517,633	1.0	1,937,138	44.471

BASIN B-04

Total Area:	**1735154 SF**	**39.83 AC**
Total Impervious Area:	**28117 SF**	**0.65 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	39.19	39	1528
Impervious - Bldgs & Pavement	N/A	0.65	98	63
TOTALS		39.83		1592

CN_{wtd} = 40

Storage Volume

Area	***39.83 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.03**
Q (IN)	**0.66**
V (AF)	***2.19***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	14,690	0.337	0	0.0	0	0.000
73.0	60,305	1.384	37,498	1.0	37,498	0.861
74.0	105,920	2.432	83,113	1.0	120,610	2.769
75.0	162,590	3.733	134,255	1.0	254,865	5.851
76.0	219,259	5.033	190,925	1.0	445,790	10.234
77.0	284,203	6.524	251,731	1.0	697,521	16.013
78.0	349,147	8.015	316,675	1.0	1,014,196	23.283
79.0	461,471	10.594	405,309	1.0	1,419,505	32.587
80.0	573,795	13.173	517,633	1.0	1,937,138	44.471

BASIN B-05

Total Area:	**2649317 SF**	**60.82 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	60.82	39	2372
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		60.82		2372

CN_{wtd} = 39

Storage Volume

Area	***60.82 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***13.36***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	30,094	0.691	0	0.0	0	0.000
75.0	194,180	4.458	112,137	1.0	112,137	2.574
76.0	358,265	8.225	276,223	1.0	388,360	8.916
77.0	534,180	12.263	446,223	1.0	834,582	19.159
78.0	710,095	16.302	622,138	1.0	1,456,720	33.442

BASIN B-05

Total Area:	**2649317 SF**	**60.82 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	60.82	39	2372
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		60.82		2372

CN_{wtd} = 39

Storage Volume

Area	***60.82 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***5.86***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	30,094	0.691	0	0.0	0	0.000
75.0	194,180	4.458	112,137	1.0	112,137	2.574
76.0	358,265	8.225	276,223	1.0	388,360	8.916
77.0	534,180	12.263	446,223	1.0	834,582	19.159
78.0	710,095	16.302	622,138	1.0	1,456,720	33.442

BASIN B-05

Total Area:	**2649317 SF**	**60.82 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	60.82	39	2372
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		60.82		2372

CN_{wtd} = 39

Storage Volume

Area	***60.82 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***3.03***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	30,094	0.691	0	0.0	0	0.000
75.0	194,180	4.458	112,137	1.0	112,137	2.574
76.0	358,265	8.225	276,223	1.0	388,360	8.916
77.0	534,180	12.263	446,223	1.0	834,582	19.159
78.0	710,095	16.302	622,138	1.0	1,456,720	33.442

BASIN B-06

Total Area:	**2679616 SF**	**61.52 AC**
Total Impervious Area:	**53754 SF**	**1.23 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	60.28	39	2351
Impervious - Bldgs & Pavement	N/A	1.23	98	121
TOTALS		61.52		2472

CN_{wtd} = 40

Storage Volume

Area	***61.52 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**14.89**
Q (IN)	**2.81**
V (AF)	***14.40***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	19,756	0.454	0	0.0	0	0.000
79.0	61,820	1.419	40,788	1.0	40,788	0.936
80.0	103,883	2.385	82,852	1.0	123,640	2.838

BASIN B-06

Total Area:	**2679616 SF**	**61.52 AC**
Total Impervious Area:	**53754 SF**	**1.23 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	60.28	39	2351
Impervious - Bldgs & Pavement	N/A	1.23	98	121
TOTALS		61.52		2472

CN_{wtd} = 40

Storage Volume

Area	***61.52 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**14.89**
Q (IN)	**1.27**
V (AF)	***6.50***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	19,756	0.454	0	0.0	0	0.000
79.0	61,820	1.419	40,788	1.0	40,788	0.936
80.0	103,883	2.385	82,852	1.0	123,640	2.838

BASIN B-06

Total Area:	**2679616 SF**	**61.52 AC**
Total Impervious Area:	**53754 SF**	**1.23 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	60.28	39	2351
Impervious - Bldgs & Pavement	N/A	1.23	98	121
TOTALS		61.52		2472

CN_{wtd} = 40

Storage Volume

Area	***61.52 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**14.89**
Q (IN)	**0.67**
V (AF)	***3.46***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	19,756	0.454	0	0.0	0	0.000
79.0	61,820	1.419	40,788	1.0	40,788	0.936
80.0	103,883	2.385	82,852	1.0	123,640	2.838

BASIN B-07

Total Area:	**501574 SF**	**11.51 AC**
Total Impervious Area:	**42106 SF**	**0.97 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	10.55	39	411
Impervious - Bldgs & Pavement	N/A	0.97	98	95
TOTALS		11.51		506

CN_{wtd} = 44

Storage Volume

Area	***11.51 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**12.75**
Q (IN)	**3.37**
V (AF)	***3.23***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	2,996	0.069	0	0.0	0	0.000
78.0	5,539	0.127	4,268	1.0	4,268	0.098
79.0	8,755	0.201	7,147	1.0	11,415	0.262
80.0	12,429	0.285	10,592	1.0	22,007	0.505
81.0	16,800	0.386	14,615	1.0	36,621	0.841
82.0	22,647	0.520	19,724	1.0	56,345	1.293

BASIN B-07

Total Area:	**501574 SF**	**11.51 AC**
Total Impervious Area:	**42106 SF**	**0.97 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	10.55	39	411
Impervious - Bldgs & Pavement	N/A	0.97	98	95
TOTALS		11.51		506

CN_{wtd} = 44

Storage Volume

Area	***11.51 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**12.75**
Q (IN)	**1.63**
V (AF)	***1.57***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	2,996	0.069	0	0.0	0	0.000
78.0	5,539	0.127	4,268	1.0	4,268	0.098
79.0	8,755	0.201	7,147	1.0	11,415	0.262
80.0	12,429	0.285	10,592	1.0	22,007	0.505
81.0	16,800	0.386	14,615	1.0	36,621	0.841
82.0	22,647	0.520	19,724	1.0	56,345	1.293

BASIN B-07

Total Area:	**501574 SF**	**11.51 AC**
Total Impervious Area:	**42106 SF**	**0.97 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	10.55	39	411
Impervious - Bldgs & Pavement	N/A	0.97	98	95
TOTALS		11.51		506

CN_{wtd} = 44

Storage Volume

Area	***11.51 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**12.75**
Q (IN)	**0.93**
V (AF)	***0.90***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	2,996	0.069	0	0.0	0	0.000
78.0	5,539	0.127	4,268	1.0	4,268	0.098
79.0	8,755	0.201	7,147	1.0	11,415	0.262
80.0	12,429	0.285	10,592	1.0	22,007	0.505
81.0	16,800	0.386	14,615	1.0	36,621	0.841
82.0	22,647	0.520	19,724	1.0	56,345	1.293

BASIN B-08

Total Area:	**564559 SF**	**12.96 AC**
Total Impervious Area:	**208735 SF**	**4.79 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	8.17	39	319
Impervious - Bldgs & Pavement	N/A	4.79	98	470
TOTALS		12.96		788

CN_{wtd} = 61

Storage Volume

Area	***12.96 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**Q = (P-0.2 S)^2 / (I (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**6.44**
Q (IN)	**5.84**
V (AF)	***6.31***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	43,662	1.002	0	0.0	0	0.000
71.0	55,227	1.268	49,445	1.0	49,445	1.135
72.0	66,791	1.533	61,009	1.0	110,454	2.536
73.0	78,473	1.801	72,632	1.0	183,086	4.203
74.0	90,155	2.070	84,314	1.0	267,400	6.139

BASIN B-08

Total Area:	**564559 SF**	**12.96 AC**
Total Impervious Area:	**208735 SF**	**4.79 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	8.17	39	319
Impervious - Bldgs & Pavement	N/A	4.79	98	470
TOTALS		12.96		788

CN_{wtd} = 61

Storage Volume

Area	***12.96 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**Q = (P-0.2 S)^2 / (I (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**6.44**
Q (IN)	**3.42**
V (AF)	***3.70***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	43,662	1.002	0	0.0	0	0.000
71.0	55,227	1.268	49,445	1.0	49,445	1.135
72.0	66,791	1.533	61,009	1.0	110,454	2.536
73.0	78,473	1.801	72,632	1.0	183,086	4.203
74.0	90,155	2.070	84,314	1.0	267,400	6.139

BASIN B-08

Total Area:	**564559 SF**	**12.96 AC**
Total Impervious Area:	**208735 SF**	**4.79 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	8.17	39	319
Impervious - Bldgs & Pavement	N/A	4.79	98	470
TOTALS		12.96		788

CN_{wtd} = 61

Storage Volume

Area	***12.96 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**6.44**
Q (IN)	**2.33**
V (AF)	***2.52***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	43,662	1.002	0	0.0	0	0.000
71.0	55,227	1.268	49,445	1.0	49,445	1.135
72.0	66,791	1.533	61,009	1.0	110,454	2.536
73.0	78,473	1.801	72,632	1.0	183,086	4.203
74.0	90,155	2.070	84,314	1.0	267,400	6.139

BASIN B-09

Total Area:	**4344485 SF**	**99.74 AC**
Total Impervious Area:	**59920 SF**	**1.38 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	98.36	39	3836
Impervious - Bldgs & Pavement	N/A	1.38	98	135
TOTALS		99.74		3971

CN_{wtd} = 40

Storage Volume

Area	***99.74 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.12**
Q (IN)	**2.76**
V (AF)	***22.90***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-09**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
60.0	4,198	0.096	0	0.0	0	0.000
61.0	18,459	0.424	11,328	1.0	11,328	0.260
62.0	32,720	0.751	25,590	1.0	36,918	0.848
63.0	71,356	1.638	52,038	1.0	88,956	2.042
64.0	109,992	2.525	90,674	1.0	179,631	4.124
65.0	303,889	6.976	206,940	1.0	386,571	8.874
66.0	497,785	11.428	400,837	1.0	787,408	18.076
67.0	648,510	14.888	573,147	1.0	1,360,555	31.234
68.0	799,235	18.348	723,872	1.0	2,084,428	47.852
69.0	896,343	20.577	847,789	1.0	2,932,217	67.314
70.0	993,451	22.807	944,897	1.0	3,877,114	89.006
71.0	1,100,957	25.274	1,047,204	1.0	4,924,318	113.047
72.0	1,208,462	27.742	1,154,710	1.0	6,079,028	139.555

BASIN B-09

Total Area:	**4344485 SF**	**99.74 AC**
Total Impervious Area:	**59920 SF**	**1.38 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	98.36	39	3836
Impervious - Bldgs & Pavement	N/A	1.38	98	135
TOTALS		99.74		3971

CN_{wtd} = 40

Storage Volume

Area	***99.74 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.12**
Q (IN)	**1.23**
V (AF)	***10.24***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-09**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
60.0	4,198	0.096	0	0.0	0	0.000
61.0	18,459	0.424	11,328	1.0	11,328	0.260
62.0	32,720	0.751	25,590	1.0	36,918	0.848
63.0	71,356	1.638	52,038	1.0	88,956	2.042
64.0	109,992	2.525	90,674	1.0	179,631	4.124
65.0	303,889	6.976	206,940	1.0	386,571	8.874
66.0	497,785	11.428	400,837	1.0	787,408	18.076
67.0	648,510	14.888	573,147	1.0	1,360,555	31.234
68.0	799,235	18.348	723,872	1.0	2,084,428	47.852
69.0	896,343	20.577	847,789	1.0	2,932,217	67.314
70.0	993,451	22.807	944,897	1.0	3,877,114	89.006
71.0	1,100,957	25.274	1,047,204	1.0	4,924,318	113.047
72.0	1,208,462	27.742	1,154,710	1.0	6,079,028	139.555

BASIN B-09

Total Area:	**4344485 SF**	**99.74 AC**
Total Impervious Area:	**59920 SF**	**1.38 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	98.36	39	3836
Impervious - Bldgs & Pavement	N/A	1.38	98	135
TOTALS		99.74		3971

CN_{wtd} = 40

Storage Volume

Area	***99.74 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.12**
Q (IN)	**0.65**
V (AF)	***5.40***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-09**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
60.0	4,198	0.096	0	0.0	0	0.000
61.0	18,459	0.424	11,328	1.0	11,328	0.260
62.0	32,720	0.751	25,590	1.0	36,918	0.848
63.0	71,356	1.638	52,038	1.0	88,956	2.042
64.0	109,992	2.525	90,674	1.0	179,631	4.124
65.0	303,889	6.976	206,940	1.0	386,571	8.874
66.0	497,785	11.428	400,837	1.0	787,408	18.076
67.0	648,510	14.888	573,147	1.0	1,360,555	31.234
68.0	799,235	18.348	723,872	1.0	2,084,428	47.852
69.0	896,343	20.577	847,789	1.0	2,932,217	67.314
70.0	993,451	22.807	944,897	1.0	3,877,114	89.006
71.0	1,100,957	25.274	1,047,204	1.0	4,924,318	113.047
72.0	1,208,462	27.742	1,154,710	1.0	6,079,028	139.555

BASIN B-10

Total Area:	**939153 SF**	**21.56 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.56	39	841
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		21.56		841

CN_{wtd} = 39

Storage Volume

Area	***21.56 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***4.73***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-10**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	5,414	0.124	0	0.0	0	0.000
73.0	19,097	0.438	12,256	1.0	12,256	0.281
74.0	32,780	0.753	25,938	1.0	38,194	0.877
75.0	91,828	2.108	62,304	1.0	100,498	2.307
76.0	150,877	3.464	121,353	1.0	221,850	5.093

BASIN B-10

Total Area:	**939153 SF**	**21.56 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.56	39	841
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		21.56		841

CN_{wtd} = 39

Storage Volume

Area	***21.56 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***2.08***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-10**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	5,414	0.124	0	0.0	0	0.000
73.0	19,097	0.438	12,256	1.0	12,256	0.281
74.0	32,780	0.753	25,938	1.0	38,194	0.877
75.0	91,828	2.108	62,304	1.0	100,498	2.307
76.0	150,877	3.464	121,353	1.0	221,850	5.093

BASIN B-10

Total Area:	**939153 SF**	**21.56 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.56	39	841
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		21.56		841

CN_{wtd} = 39

Storage Volume

Area	***21.56 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***1.07***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-10**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	5,414	0.124	0	0.0	0	0.000
73.0	19,097	0.438	12,256	1.0	12,256	0.281
74.0	32,780	0.753	25,938	1.0	38,194	0.877
75.0	91,828	2.108	62,304	1.0	100,498	2.307
76.0	150,877	3.464	121,353	1.0	221,850	5.093

BASIN B-11

Total Area:	**1316370 SF**	**30.22 AC**
Total Impervious Area:	**292537 SF**	**6.72 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	23.50	39	917
Impervious - Bldgs & Pavement	N/A	6.72	98	658
TOTALS		30.22		1575

CN_{wtd} = 52

Storage Volume

Area	***30.22 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.19**
Q (IN)	**4.57**
V (AF)	***11.52***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-11**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	136,605	3.136	0	0.0	0	0.000
69.0	143,535	3.295	140,070	1.0	140,070	3.216
70.0	150,464	3.454	146,999	1.0	287,069	6.590
71.0	157,602	3.618	154,033	1.0	441,102	10.126
72.0	164,740	3.782	161,171	1.0	602,273	13.826
73.0	173,103	3.974	168,921	1.0	771,195	17.704
74.0	181,467	4.166	177,285	1.0	948,480	21.774
75.0	191,518	4.397	186,493	1.0	1,134,972	26.055
76.0	201,570	4.627	196,544	1.0	1,331,516	30.567
77.0	211,987	4.867	206,778	1.0	1,538,295	35.314
78.0	222,403	5.106	217,195	1.0	1,755,490	40.300

BASIN B-11

Total Area:	**1316370 SF**	**30.22 AC**
Total Impervious Area:	**292537 SF**	**6.72 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	23.50	39	917
Impervious - Bldgs & Pavement	N/A	6.72	98	658
TOTALS		30.22		1575

CN_{wtd} = 52

Storage Volume

Area	***30.22 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.19**
Q (IN)	**2.47**
V (AF)	***6.23***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-11**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	136,605	3.136	0	0.0	0	0.000
69.0	143,535	3.295	140,070	1.0	140,070	3.216
70.0	150,464	3.454	146,999	1.0	287,069	6.590
71.0	157,602	3.618	154,033	1.0	441,102	10.126
72.0	164,740	3.782	161,171	1.0	602,273	13.826
73.0	173,103	3.974	168,921	1.0	771,195	17.704
74.0	181,467	4.166	177,285	1.0	948,480	21.774
75.0	191,518	4.397	186,493	1.0	1,134,972	26.055
76.0	201,570	4.627	196,544	1.0	1,331,516	30.567
77.0	211,987	4.867	206,778	1.0	1,538,295	35.314
78.0	222,403	5.106	217,195	1.0	1,755,490	40.300

BASIN B-11

Total Area:	**1316370 SF**	**30.22 AC**
Total Impervious Area:	**292537 SF**	**6.72 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	23.50	39	917
Impervious - Bldgs & Pavement	N/A	6.72	98	658
TOTALS		30.22		1575

CN_{wtd} = 52

Storage Volume

Area	***30.22 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.19**
Q (IN)	**1.57**
V (AF)	***3.95***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-11**

Elevation	**Area**	**Area**	**Avg. Area**	**Elev. Diff.**	**Storage**	**Storage**
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	136,605	3.136	0	0.0	0	0.000
69.0	143,535	3.295	140,070	1.0	140,070	3.216
70.0	150,464	3.454	146,999	1.0	287,069	6.590
71.0	157,602	3.618	154,033	1.0	441,102	10.126
72.0	164,740	3.782	161,171	1.0	602,273	13.826
73.0	173,103	3.974	168,921	1.0	771,195	17.704
74.0	181,467	4.166	177,285	1.0	948,480	21.774
75.0	191,518	4.397	186,493	1.0	1,134,972	26.055
76.0	201,570	4.627	196,544	1.0	1,331,516	30.567
77.0	211,987	4.867	206,778	1.0	1,538,295	35.314
78.0	222,403	5.106	217,195	1.0	1,755,490	40.300

BASIN B-12

Total Area:	**1189839 SF**	**27.31 AC**
Total Impervious Area:	**49304 SF**	**1.13 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	26.18	39	1021
Impervious - Bldgs & Pavement	N/A	1.13	98	111
TOTALS		27.31		1132

CN_{wtd} = 41

Storage Volume

Area	***27.31 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**14.13**
Q (IN)	**3.00**
V (AF)	***6.82***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-12**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	1,173	0.027	0	0.0	0	0.000
71.0	16,084	0.369	8,629	1.0	8,629	0.198
72.0	30,995	0.712	23,539	1.0	32,168	0.738

BASIN B-12

Total Area:	**1189839 SF**	**27.31 AC**
Total Impervious Area:	**49304 SF**	**1.13 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	26.18	39	1021
Impervious - Bldgs & Pavement	N/A	1.13	98	111
TOTALS		27.31		1132

CN_{wtd} = 41

Storage Volume

Area	***27.31 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**14.13**
Q (IN)	**1.39**
V (AF)	***3.16***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-12**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	1,173	0.027	0	0.0	0	0.000
71.0	16,084	0.369	8,629	1.0	8,629	0.198
72.0	30,995	0.712	23,539	1.0	32,168	0.738

BASIN B-12

Total Area:	**1189839 SF**	**27.31 AC**
Total Impervious Area:	**49304 SF**	**1.13 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	26.18	39	1021
Impervious - Bldgs & Pavement	N/A	1.13	98	111
TOTALS		27.31		1132

CN_{wtd} = 41

Storage Volume

Area	***27.31 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**14.13**
Q (IN)	**0.76**
V (AF)	***1.73***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-12**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	1,173	0.027	0	0.0	0	0.000
71.0	16,084	0.369	8,629	1.0	8,629	0.198
72.0	30,995	0.712	23,539	1.0	32,168	0.738

BASIN B-13

Total Area:	**442620 SF**	**10.16 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	10.16	39	396
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		10.16		396

CN_{wtd} = 39

Storage Volume

Area	***10.16 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***2.23***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-13**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
66.0	1,130	0.026	0	0.0	0	0.000
67.0	6,933	0.159	4,032	1.0	4,032	0.093
68.0	12,736	0.292	9,835	1.0	13,867	0.318
69.0	40,575	0.931	26,655	1.0	40,522	0.930
70.0	68,413	1.571	54,494	1.0	95,016	2.181
71.0	87,570	2.010	77,991	1.0	173,007	3.972
72.0	106,727	2.450	97,148	1.0	270,156	6.202
73.0	136,800	3.140	121,763	1.0	391,919	8.997
74.0	166,872	3.831	151,836	1.0	543,755	12.483

BASIN B-13

Total Area:	**442620 SF**	**10.16 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	10.16	39	396
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		10.16		396

CN_{wtd} = 39

Storage Volume

Area	***10.16 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***0.98***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-13**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
66.0	1,130	0.026	0	0.0	0	0.000
67.0	6,933	0.159	4,032	1.0	4,032	0.093
68.0	12,736	0.292	9,835	1.0	13,867	0.318
69.0	40,575	0.931	26,655	1.0	40,522	0.930
70.0	68,413	1.571	54,494	1.0	95,016	2.181
71.0	87,570	2.010	77,991	1.0	173,007	3.972
72.0	106,727	2.450	97,148	1.0	270,156	6.202
73.0	136,800	3.140	121,763	1.0	391,919	8.997
74.0	166,872	3.831	151,836	1.0	543,755	12.483

BASIN B-13

Total Area:	**442620 SF**	**10.16 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	10.16	39	396
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		10.16		396

CN_{wtd} = 39

Storage Volume

Area	***10.16 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***0.51***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-13**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
66.0	1,130	0.026	0	0.0	0	0.000
67.0	6,933	0.159	4,032	1.0	4,032	0.093
68.0	12,736	0.292	9,835	1.0	13,867	0.318
69.0	40,575	0.931	26,655	1.0	40,522	0.930
70.0	68,413	1.571	54,494	1.0	95,016	2.181
71.0	87,570	2.010	77,991	1.0	173,007	3.972
72.0	106,727	2.450	97,148	1.0	270,156	6.202
73.0	136,800	3.140	121,763	1.0	391,919	8.997
74.0	166,872	3.831	151,836	1.0	543,755	12.483

BASIN B-14

Total Area:	**584266 SF**	**13.41 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	13.41	39	523
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		13.41		523

CN_{wtd} = 39

Storage Volume

Area	***13.41 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***2.95***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-14**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	5,115	0.117	0	0.0	0	0.000
65.0	25,177	0.578	15,146	1.0	15,146	0.348
66.0	45,238	1.039	35,207	1.0	50,353	1.156
67.0	65,471	1.503	55,355	1.0	105,708	2.427
68.0	85,704	1.968	75,588	1.0	181,296	4.162
69.0	113,523	2.606	99,614	1.0	280,909	6.449
70.0	141,341	3.245	127,432	1.0	408,342	9.374

BASIN B-14

Total Area:	**584266 SF**	**13.41 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	13.41	39	523
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		13.41		523

CN_{wtd} = 39

Storage Volume

Area	***13.41 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***1.29***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-14**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	5,115	0.117	0	0.0	0	0.000
65.0	25,177	0.578	15,146	1.0	15,146	0.348
66.0	45,238	1.039	35,207	1.0	50,353	1.156
67.0	65,471	1.503	55,355	1.0	105,708	2.427
68.0	85,704	1.968	75,588	1.0	181,296	4.162
69.0	113,523	2.606	99,614	1.0	280,909	6.449
70.0	141,341	3.245	127,432	1.0	408,342	9.374

BASIN B-14

Total Area:	**584266 SF**	**13.41 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	13.41	39	523
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		13.41		523

CN_{wtd} = 39

Storage Volume

Area	***13.41 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***0.67***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-14**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	5,115	0.117	0	0.0	0	0.000
65.0	25,177	0.578	15,146	1.0	15,146	0.348
66.0	45,238	1.039	35,207	1.0	50,353	1.156
67.0	65,471	1.503	55,355	1.0	105,708	2.427
68.0	85,704	1.968	75,588	1.0	181,296	4.162
69.0	113,523	2.606	99,614	1.0	280,909	6.449
70.0	141,341	3.245	127,432	1.0	408,342	9.374

BASIN B-15

Total Area:	**731409 SF**	**16.79 AC**
Total Impervious Area:	**18351 SF**	**0.42 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	16.37	39	638
Impervious - Bldgs & Pavement	N/A	0.42	98	41
TOTALS		16.79		680

CN_{wtd} = 40

Storage Volume

Area	***16.79 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**14.70**
Q (IN)	**2.85**
V (AF)	***3.99***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-15**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	1,261	0.029	0	0.0	0	0.000
71.0	11,867	0.272	6,564	1.0	6,564	0.151
72.0	22,473	0.516	17,170	1.0	23,734	0.545
73.0	44,063	1.012	33,268	1.0	57,002	1.309
74.0	65,652	1.507	54,857	1.0	111,859	2.568
75.0	94,340	2.166	79,996	1.0	191,855	4.404
76.0	123,028	2.824	108,684	1.0	300,539	6.899

BASIN B-15

Total Area:	**731409 SF**	**16.79 AC**
Total Impervious Area:	**18351 SF**	**0.42 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	16.37	39	638
Impervious - Bldgs & Pavement	N/A	0.42	98	41
TOTALS		16.79		680

CN_{wtd} = 40

Storage Volume

Area	***16.79 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**14.70**
Q (IN)	**1.30**
V (AF)	***1.81***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-15**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	1,261	0.029	0	0.0	0	0.000
71.0	11,867	0.272	6,564	1.0	6,564	0.151
72.0	22,473	0.516	17,170	1.0	23,734	0.545
73.0	444,063	10.194	233,268	1.0	257,002	5.900
74.0	65,652	1.507	254,857	1.0	511,859	11.751
75.0	94,340	2.166	79,996	1.0	591,855	13.587
76.0	123,028	2.824	108,684	1.0	700,539	16.082

BASIN B-15

Total Area:	**731409 SF**	**16.79 AC**
Total Impervious Area:	**18351 SF**	**0.42 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	16.37	39	638
Impervious - Bldgs & Pavement	N/A	0.42	98	41
TOTALS		16.79		680

CN_{wtd} = 40

Storage Volume

Area	***16.79 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**14.70**
Q (IN)	**0.69**
V (AF)	***0.97***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-15**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	1,261	0.029	0	0.0	0	0.000
71.0	11,867	0.272	6,564	1.0	6,564	0.151
72.0	22,473	0.516	17,170	1.0	23,734	0.545
73.0	444,063	10.194	233,268	1.0	257,002	5.900
74.0	65,652	1.507	254,857	1.0	511,859	11.751
75.0	94,340	2.166	79,996	1.0	591,855	13.587
76.0	123,028	2.824	108,684	1.0	700,539	16.082

BASIN B-16

Total Area:	**772698 SF**	**17.74 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	17.74	39	692
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		17.74		692

CN_{wtd} = 39

Storage Volume

Area	***17.74 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***3.90***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-16**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	6,127	0.141	0	0.0	0	0.000
73.0	21,098	0.484	13,612	1.0	13,612	0.312
74.0	36,069	0.828	28,583	1.0	42,196	0.969
75.0	57,151	1.312	46,610	1.0	88,806	2.039
76.0	78,234	1.796	67,693	1.0	156,499	3.593

BASIN B-16

Total Area:	**772698 SF**	**17.74 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	17.74	39	692
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		17.74		692

CN_{wtd} = 39

Storage Volume

Area	***17.74 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***1.71***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-16**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	6,127	0.141	0	0.0	0	0.000
73.0	21,098	0.484	13,612	1.0	13,612	0.312
74.0	36,069	0.828	28,583	1.0	42,196	0.969
75.0	57,151	1.312	46,610	1.0	88,806	2.039
76.0	78,234	1.796	67,693	1.0	156,499	3.593

BASIN B-16

Total Area:	**772698 SF**	**17.74 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	17.74	39	692
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		17.74		692

CN_{wtd} = 39

Storage Volume

Area	***17.74 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***0.88***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-16**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	6,127	0.141	0	0.0	0	0.000
73.0	21,098	0.484	13,612	1.0	13,612	0.312
74.0	36,069	0.828	28,583	1.0	42,196	0.969
75.0	57,151	1.312	46,610	1.0	88,806	2.039
76.0	78,234	1.796	67,693	1.0	156,499	3.593

BASIN B-17

Total Area:	**950904 SF**	**21.83 AC**
Total Impervious Area:	**7321 SF**	**0.17 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.66	39	845
Impervious - Bldgs & Pavement	N/A	0.17	98	16
TOTALS		21.83		861

CN_{wtd} = 39

Storage Volume

Area	***21.83 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.35**
Q (IN)	**2.70**
V (AF)	***4.92***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-17**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
66.0	1,366	0.031	0	0.0	0	0.000
67.0	23,498	0.539	12,432	1.0	12,432	0.285
68.0	45,630	1.048	34,564	1.0	46,995	1.079
69.0	57,957	1.331	51,793	1.0	98,789	2.268
70.0	70,285	1.614	64,121	1.0	162,910	3.740
71.0	85,067	1.953	77,676	1.0	240,586	5.523
72.0	99,850	2.292	92,459	1.0	333,045	7.646

BASIN B-17

Total Area:	**950904 SF**	**21.83 AC**
Total Impervious Area:	**7321 SF**	**0.17 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.66	39	845
Impervious - Bldgs & Pavement	N/A	0.17	98	16
TOTALS		21.83		861

CN_{wtd} = 39

Storage Volume

Area	***21.83 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.35**
Q (IN)	**1.20**
V (AF)	***2.18***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-17**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
66.0	1,366	0.031	0	0.0	0	0.000
67.0	23,498	0.539	12,432	1.0	12,432	0.285
68.0	45,630	1.048	34,564	1.0	46,995	1.079
69.0	57,957	1.331	51,793	1.0	98,789	2.268
70.0	70,285	1.614	64,121	1.0	162,910	3.740
71.0	85,067	1.953	77,676	1.0	240,586	5.523
72.0	99,850	2.292	92,459	1.0	333,045	7.646

BASIN B-17

Total Area:	**950904 SF**	**21.83 AC**
Total Impervious Area:	**7321 SF**	**0.17 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.66	39	845
Impervious - Bldgs & Pavement	N/A	0.17	98	16
TOTALS		21.83		861

CN_{wtd} = 39

Storage Volume

Area	***21.83 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.35**
Q (IN)	**0.63**
V (AF)	***1.14***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-17**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
66.0	1,366	0.031	0	0.0	0	0.000
67.0	23,498	0.539	12,432	1.0	12,432	0.285
68.0	45,630	1.048	34,564	1.0	46,995	1.079
69.0	57,957	1.331	51,793	1.0	98,789	2.268
70.0	70,285	1.614	64,121	1.0	162,910	3.740
71.0	85,067	1.953	77,676	1.0	240,586	5.523
72.0	99,850	2.292	92,459	1.0	333,045	7.646

BASIN B-18

Total Area:	**882045 SF**	**20.25 AC**
Total Impervious Area:	**36021 SF**	**0.83 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	19.42	39	757
Impervious - Bldgs & Pavement	N/A	0.83	98	81
TOTALS		20.25		838

CN_{wtd} = 41

Storage Volume

Area	***20.25 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**14.15**
Q (IN)	**2.99**
V (AF)	***5.05***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-18**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	6,815	0.156	0	0.0	0	0.000
78.0	11,093	0.255	8,954	1.0	8,954	0.206
79.0	15,486	0.356	13,290	1.0	22,244	0.511

BASIN B-18

Total Area:	**882045 SF**	**20.25 AC**
Total Impervious Area:	**36021 SF**	**0.83 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	19.42	39	757
Impervious - Bldgs & Pavement	N/A	0.83	98	81
TOTALS		20.25		838

CN_{wtd} = 41

Storage Volume

Area	***20.25 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**14.15**
Q (IN)	**1.38**
V (AF)	***2.33***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-18**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	6,815	0.156	0	0.0	0	0.000
78.0	11,093	0.255	8,954	1.0	8,954	0.206
79.0	15,486	0.356	13,290	1.0	22,244	0.511

BASIN B-18

Total Area:	**882045 SF**	**20.25 AC**
Total Impervious Area:	**36021 SF**	**0.83 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	19.42	39	757
Impervious - Bldgs & Pavement	N/A	0.83	98	81
TOTALS		20.25		838

CN_{wtd} = 41

Storage Volume

Area	***20.25 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**Q = $(P-0.2\ S)^2$ / (I (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**14.15**
Q (IN)	**0.76**
V (AF)	***1.28***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-18**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	6,815	0.156	0	0.0	0	0.000
78.0	11,093	0.255	8,954	1.0	8,954	0.206
79.0	15,486	0.356	13,290	1.0	22,244	0.511

BASIN B-19

Total Area:	**820555 SF**	**18.84 AC**
Total Impervious Area:	**42134 SF**	**0.97 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	17.87	39	697
Impervious - Bldgs & Pavement	N/A	0.97	98	95
TOTALS		18.84		792

CN_{wtd} = 42

Storage Volume

Area	***18.84 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**13.79**
Q (IN)	**3.08**
V (AF)	***4.84***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-19**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	22,808	0.524	0	0.0	0	0.000
71.0	82,707	1.899	52,758	1.0	52,758	1.211
72.0	142,605	3.274	112,656	1.0	165,413	3.797

BASIN B-19

Total Area:	**820555 SF**	**18.84 AC**
Total Impervious Area:	**42134 SF**	**0.97 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	17.87	39	697
Impervious - Bldgs & Pavement	N/A	0.97	98	95
TOTALS		18.84		792

CN_{wtd} = 42

Storage Volume

Area	***18.84 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**13.79**
Q (IN)	**1.44**
V (AF)	***2.27***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-19**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	22,808	0.524	0	0.0	0	0.000
71.0	82,707	1.899	52,758	1.0	52,758	1.211
72.0	142,605	3.274	112,656	1.0	165,413	3.797

BASIN B-19

Total Area:	**820555 SF**	**18.84 AC**
Total Impervious Area:	**42134 SF**	**0.97 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	17.87	39	697
Impervious - Bldgs & Pavement	N/A	0.97	98	95
TOTALS		18.84		792

CN_{wtd} = 42

Storage Volume

Area	***18.84 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**13.79**
Q (IN)	**0.80**
V (AF)	***1.25***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-19**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	22,808	0.524	0	0.0	0	0.000
71.0	82,707	1.899	52,758	1.0	52,758	1.211
72.0	142,605	3.274	112,656	1.0	165,413	3.797

BASIN B-20

Total Area:	**2683621 SF**	**61.61 AC**
Total Impervious Area:	**128713 SF**	**2.95 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	58.65	39	2287
Impervious - Bldgs & Pavement	N/A	2.95	98	290
TOTALS		61.61		2577

CN_{wtd} = 42

Storage Volume

Area	***61.61 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**13.91**
Q (IN)	**3.05**
V (AF)	***15.67***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-20**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	57,047	1.310	0	0.0	0	0.000
69.0	73,316	1.683	65,181	1.0	65,181	1.496
70.0	89,586	2.057	81,451	1.0	146,633	3.366

BASIN B-20

Total Area:	**2683621 SF**	**61.61 AC**
Total Impervious Area:	**128713 SF**	**2.95 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	58.65	39	2287
Impervious - Bldgs & Pavement	N/A	2.95	98	290
TOTALS		61.61		2577

CN_{wtd} = 42

Storage Volume

Area	***61.61 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**13.91**
Q (IN)	**1.42**
V (AF)	***7.31***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-20**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	57,047	1.310	0	0.0	0	0.000
69.0	73,316	1.683	65,181	1.0	65,181	1.496
70.0	89,586	2.057	81,451	1.0	146,633	3.366

BASIN B-20

Total Area:	**2683621 SF**	**61.61 AC**
Total Impervious Area:	**128713 SF**	**2.95 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	58.65	39	2287
Impervious - Bldgs & Pavement	N/A	2.95	98	290
TOTALS		61.61		2577

CN_{wtd} = 42

Storage Volume

Area	***61.61 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**13.91**
Q (IN)	**0.78**
V (AF)	***4.03***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-20**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	57,047	1.310	0	0.0	0	0.000
69.0	73,316	1.683	65,181	1.0	65,181	1.496
70.0	89,586	2.057	81,451	1.0	146,633	3.366

BASIN B-21

Total Area:	**615335 SF**	**14.13 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	14.13	39	551
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		14.13		551

CN_{wtd} = 39

Storage Volume

Area	***14.13 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.64**
Q (IN)	**2.64**
V (AF)	***3.10***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-21**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	5,956	0.137	0	0.0	0	0.000
78.0	8,622	0.198	7,289	1.0	7,289	0.167
79.0	11,692	0.268	10,157	1.0	17,446	0.401

BASIN B-21

Total Area:	**615335 SF**	**14.13 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	14.13	39	551
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		14.13		551

CN_{wtd} = 39

Storage Volume

Area	***14.13 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.64**
Q (IN)	**1.16**
V (AF)	***1.36***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-21**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	5,956	0.137	0	0.0	0	0.000
78.0	8,622	0.198	7,289	1.0	7,289	0.167
79.0	11,692	0.268	10,157	1.0	17,446	0.401

BASIN B-21

Total Area:	**615335 SF**	**14.13 AC**
Total Impervious Area:	**0 SF**	**0.00 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	14.13	39	551
Impervious - Bldgs & Pavement	N/A	0.00	98	0
TOTALS		14.13		551

CN_{wtd} = 39

Storage Volume

Area	***14.13 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.64**
Q (IN)	**0.60**
V (AF)	***0.70***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-21**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	5,956	0.137	0	0.0	0	0.000
78.0	8,622	0.198	7,289	1.0	7,289	0.167
79.0	11,692	0.268	10,157	1.0	17,446	0.401

BASIN C-01

Total Area:	**3209473 SF**	**73.68 AC**
Total Impervious Area:	**8707 SF**	**0.20 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	73.48	39	2866
Impervious - Bldgs & Pavement	N/A	0.20	98	20
TOTALS		73.68		2885

CN_{wtd} = 39

Storage Volume

Area	***73.68 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**15.54**
Q (IN)	**2.66**
V (AF)	***16.33***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN C-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
58.0	954	0.022	0	0.0	0	0.000
59.0	23,261	0.534	12,108	1.0	12,108	0.278
60.0	45,568	1.046	34,415	1.0	46,522	1.068
61.0	114,293	2.624	79,931	1.0	126,453	2.903
62.0	183,018	4.202	148,656	1.0	275,108	6.316
63.0	238,525	5.476	210,772	1.0	485,880	11.154
64.0	294,031	6.750	266,278	1.0	752,158	17.267
65.0	310,346	7.125	302,189	1.0	1,054,346	24.204
66.0	326,661	7.499	318,504	1.0	1,372,850	31.516
67.0	338,160	7.763	332,411	1.0	1,705,260	39.147
68.0	349,659	8.027	343,910	1.0	2,049,170	47.042
69.0	361,439	8.297	355,549	1.0	2,404,719	55.205
70.0	373,218	8.568	367,329	1.0	2,772,047	63.637

BASIN C-01

Total Area:	**3209473 SF**	**73.68 AC**
Total Impervious Area:	**8707 SF**	**0.20 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	73.48	39	2866
Impervious - Bldgs & Pavement	N/A	0.20	98	20
TOTALS		73.68		2885

CN_{wtd} = 39

Storage Volume

Area	***73.68 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**15.54**
Q (IN)	**1.17**
V (AF)	***7.19***

Total volume generated from 25yr/24hr (8-in) storm event in BASIN C-01

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
58.0	954	0.022	0	0.0	0	0.000
59.0	23,261	0.534	12,108	1.0	12,108	0.278
60.0	45,568	1.046	34,415	1.0	46,522	1.068
61.0	114,293	2.624	79,931	1.0	126,453	2.903
62.0	183,018	4.202	148,656	1.0	275,108	6.316
63.0	238,525	5.476	210,772	1.0	485,880	11.154
64.0	294,031	6.750	266,278	1.0	752,158	17.267
65.0	310,346	7.125	302,189	1.0	1,054,346	24.204
66.0	326,661	7.499	318,504	1.0	1,372,850	31.516
67.0	338,160	7.763	332,411	1.0	1,705,260	39.147
68.0	349,659	8.027	343,910	1.0	2,049,170	47.042
69.0	361,439	8.297	355,549	1.0	2,404,719	55.205
70.0	373,218	8.568	367,329	1.0	2,772,047	63.637

BASIN C-01

Total Area:	**3209473 SF**	**73.68 AC**
Total Impervious Area:	**8707 SF**	**0.20 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	73.48	39	2866
Impervious - Bldgs & Pavement	N/A	0.20	98	20
TOTALS		73.68		2885

CN_{wtd} = 39

Storage Volume

Area	***73.68 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**15.54**
Q (IN)	**0.61**
V (AF)	***3.73***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN C-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
58.0	954	0.022	0	0.0	0	0.000
59.0	23,261	0.534	12,108	1.0	12,108	0.278
60.0	45,568	1.046	34,415	1.0	46,522	1.068
61.0	114,293	2.624	79,931	1.0	126,453	2.903
62.0	183,018	4.202	148,656	1.0	275,108	6.316
63.0	238,525	5.476	210,772	1.0	485,880	11.154
64.0	294,031	6.750	266,278	1.0	752,158	17.267
65.0	310,346	7.125	302,189	1.0	1,054,346	24.204
66.0	326,661	7.499	318,504	1.0	1,372,850	31.516
67.0	338,160	7.763	332,411	1.0	1,705,260	39.147
68.0	349,659	8.027	343,910	1.0	2,049,170	47.042
69.0	361,439	8.297	355,549	1.0	2,404,719	55.205
70.0	373,218	8.568	367,329	1.0	2,772,047	63.637

BASIN R-01

Total Area:	**264861 SF**	**6.08 AC**
Total Impervious Area:	**51242 SF**	**1.18 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	4.90	39	191
Impervious - Bldgs & Pavement	N/A	1.18	98	115
TOTALS		6.08		307

CN_{wtd} = 50

Storage Volume

Area	***6.08 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.84**
Q (IN)	**4.32**
V (AF)	***2.19***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN R-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-01

Total Area:	**264861 SF**	**6.08 AC**
Total Impervious Area:	**51242 SF**	**1.18 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	4.90	39	191
Impervious - Bldgs & Pavement	N/A	1.18	98	115
TOTALS		6.08		307

CN_{wtd} = 50

Storage Volume

Area	***6.08 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.84**
Q (IN)	**2.29**
V (AF)	***1.16***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN R-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-01

Total Area:	**264861 SF**	**6.08 AC**
Total Impervious Area:	**51242 SF**	**1.18 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	4.90	39	191
Impervious - Bldgs & Pavement	N/A	1.18	98	115
TOTALS		6.08		307

CN_{wtd} = 50

Storage Volume

Area	***6.08 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.84**
Q (IN)	**1.43**
V (AF)	***0.72***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN R-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-02

Total Area:	**208776 SF**	**4.79 AC**
Total Impervious Area:	**41027 SF**	**0.94 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.85	39	150
Impervious - Bldgs & Pavement	N/A	0.94	98	92
TOTALS		4.79		242

CN_{wtd} = 51

Storage Volume

Area	***4.79 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.77**
Q (IN)	**4.35**
V (AF)	***1.74***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN R-02**

Elevation	**Area**	**Area**	**Avg. Area**	**Elev. Diff.**	**Storage**	**Storage**
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-02

Total Area:	**208776 SF**	**4.79 AC**
Total Impervious Area:	**41027 SF**	**0.94 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.85	39	150
Impervious - Bldgs & Pavement	N/A	0.94	98	92
TOTALS		4.79		242

CN_{wtd} = 51

Storage Volume

Area	***4.79 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.77**
Q (IN)	**2.31**
V (AF)	***0.92***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN R-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-02

Total Area:	**208776 SF**	**4.79 AC**
Total Impervious Area:	**41027 SF**	**0.94 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.85	39	150
Impervious - Bldgs & Pavement	N/A	0.94	98	92
TOTALS		4.79		242

CN_{wtd} = 51

Storage Volume

Area	***4.79 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.77**
Q (IN)	**1.44**
V (AF)	***0.58***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN R-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-03

Total Area:	**144762 SF**	**3.32 AC**
Total Impervious Area:	**28117 SF**	**0.65 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.68	39	104
Impervious - Bldgs & Pavement	N/A	0.65	98	63
TOTALS		3.32		168

CN_{wtd} = 50

Storage Volume

Area	***3.32 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.82**
Q (IN)	**4.33**
V (AF)	***1.20***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN R-03**

Elevation	**Area**	**Area**	**Avg. Area**	**Elev. Diff.**	**Storage**	**Storage**
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-03

Total Area:	**144762 SF**	**3.32 AC**
Total Impervious Area:	**28117 SF**	**0.65 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.68	39	104
Impervious - Bldgs & Pavement	N/A	0.65	98	63
TOTALS		3.32		168

CN_{wtd} = 50

Storage Volume

Area	***3.32 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.82**
Q (IN)	**2.30**
V (AF)	***0.64***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN R-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-03

Total Area:	**144762 SF**	**3.32 AC**
Total Impervious Area:	**28117 SF**	**0.65 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.68	39	104
Impervious - Bldgs & Pavement	N/A	0.65	98	63
TOTALS		3.32		168

CN_{wtd} = 50

Storage Volume

Area	***3.32 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.82**
Q (IN)	**1.43**
V (AF)	***0.40***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN R-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-04

Total Area:	**225712 SF**	**5.18 AC**
Total Impervious Area:	**42946 SF**	**0.99 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	4.20	39	164
Impervious - Bldgs & Pavement	N/A	0.99	98	97
TOTALS		5.18		260

CN_{wtd} = 50

Storage Volume

Area	***5.18 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.91**
Q (IN)	**4.30**
V (AF)	***1.86***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN R-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-04

Total Area:	**225712 SF**	**5.18 AC**
Total Impervious Area:	**42946 SF**	**0.99 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	4.20	39	164
Impervious - Bldgs & Pavement	N/A	0.99	98	97
TOTALS		5.18		260

CN_{wtd} = 50

Storage Volume

Area	***5.18 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.91**
Q (IN)	**2.27**
V (AF)	***0.98***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN R-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-04

Total Area:	**225712 SF**	**5.18 AC**
Total Impervious Area:	**42946 SF**	**0.99 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	4.20	39	164
Impervious - Bldgs & Pavement	N/A	0.99	98	97
TOTALS		5.18		260

CN_{wtd} = 50

Storage Volume

Area	***5.18 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.91**
Q (IN)	**1.41**
V (AF)	***0.61***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN R-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-05

Total Area:	**55359 SF**	**1.27 AC**
Total Impervious Area:	**10808 SF**	**0.25 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	1.02	39	40
Impervious - Bldgs & Pavement	N/A	0.25	98	24
TOTALS		1.27		64

CN_{wtd} = 51

Storage Volume

Area	***1.27 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.79**
Q (IN)	**4.34**
V (AF)	***0.46***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN R-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-05

Total Area:	**55359 SF**	**1.27 AC**
Total Impervious Area:	**10808 SF**	**0.25 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	1.02	39	40
Impervious - Bldgs & Pavement	N/A	0.25	98	24
TOTALS		1.27		64

CN_{wtd} = 51

Storage Volume

Area	***1.27 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.79**
Q (IN)	**2.30**
V (AF)	***0.24***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN R-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-05

Total Area:	**55359 SF**	**1.27 AC**
Total Impervious Area:	**10808 SF**	**0.25 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	1.02	39	40
Impervious - Bldgs & Pavement	N/A	0.25	98	24
TOTALS		1.27		64

CN_{wtd} = 51

Storage Volume

Area	***1.27 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.79**
Q (IN)	**1.44**
V (AF)	***0.15***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN R-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-06

Total Area:	**89401 SF**	**2.05 AC**
Total Impervious Area:	**19541 SF**	**0.45 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	1.60	39	63
Impervious - Bldgs & Pavement	N/A	0.45	98	44
TOTALS		2.05		107

CN_{wtd} = 52

Storage Volume

Area	***2.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.27**
Q (IN)	**4.54**
V (AF)	***0.78***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN R-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-06

Total Area:	**89401 SF**	**2.05 AC**
Total Impervious Area:	**19541 SF**	**0.45 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	1.60	39	63
Impervious - Bldgs & Pavement	N/A	0.45	98	44
TOTALS		2.05		107

CN_{wtd} = 52

Storage Volume

Area	***2.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.27**
Q (IN)	**2.45**
V (AF)	***0.42***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN R-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-06

Total Area:	**89401 SF**	**2.05 AC**
Total Impervious Area:	**19541 SF**	**0.45 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	1.60	39	63
Impervious - Bldgs & Pavement	N/A	0.45	98	44
TOTALS		2.05		107

CN_{wtd} = 52

Storage Volume

Area	***2.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.27**
Q (IN)	**1.55**
V (AF)	***0.27***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN R-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-07

Total Area:	**164634 SF**	**3.78 AC**
Total Impervious Area:	**35182 SF**	**0.81 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.97	39	116
Impervious - Bldgs & Pavement	N/A	0.81	98	79
TOTALS		3.78		195

CN_{wtd} = 52

Storage Volume

Area	***3.78 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.38**
Q (IN)	**4.50**
V (AF)	***1.42***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN R-07**

Elevation	**Area**	**Area**	**Avg. Area**	**Elev. Diff.**	**Storage**	**Storage**
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-07

Total Area:	**164634 SF**	**3.78 AC**
Total Impervious Area:	**35182 SF**	**0.81 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.97	39	116
Impervious - Bldgs & Pavement	N/A	0.81	98	79
TOTALS		3.78		195

CN_{wtd} = 52

Storage Volume

Area	***3.78 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.38**
Q (IN)	**2.42**
V (AF)	***0.76***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN R-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-07

Total Area:	**164634 SF**	**3.78 AC**
Total Impervious Area:	**35182 SF**	**0.81 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.97	39	116
Impervious - Bldgs & Pavement	N/A	0.81	98	79
TOTALS		3.78		195

CN_{wtd} = 52

Storage Volume

Area	***3.78 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.38**
Q (IN)	**1.53**
V (AF)	***0.48***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN R-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-08

Total Area:	**97843 SF**	**2.25 AC**
Total Impervious Area:	**18351 SF**	**0.42 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	1.82	39	71
Impervious - Bldgs & Pavement	N/A	0.42	98	41
TOTALS		2.25		112

CN_{wtd} = 50

Storage Volume

Area	***2.25 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.97**
Q (IN)	**4.27**
V (AF)	***0.80***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN R-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-08

Total Area:	**97843 SF**	**2.25 AC**
Total Impervious Area:	**18351 SF**	**0.42 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	1.82	39	71
Impervious - Bldgs & Pavement	N/A	0.42	98	41
TOTALS		2.25		112

CN_{wtd} = 50

Storage Volume

Area	***2.25 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.97**
Q (IN)	**2.26**
V (AF)	***0.42***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN R-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-08

Total Area:	**97843 SF**	**2.25 AC**
Total Impervious Area:	**18351 SF**	**0.42 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	1.82	39	71
Impervious - Bldgs & Pavement	N/A	0.42	98	41
TOTALS		2.25		112

CN_{wtd} = 50

Storage Volume

Area	***2.25 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.97**
Q (IN)	**1.40**
V (AF)	***0.26***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN R-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-09

Total Area:	**156127 SF**	**3.58 AC**
Total Impervious Area:	**33942 SF**	**0.78 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.80	39	109
Impervious - Bldgs & Pavement	N/A	0.78	98	76
TOTALS		3.58		186

CN_{wtd} = 52

Storage Volume

Area	***3.58 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**9.30**
Q (IN)	**4.53**
V (AF)	***1.35***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN R-09**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-09

Total Area:	**156127 SF**	**3.58 AC**
Total Impervious Area:	**33942 SF**	**0.78 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.80	39	109
Impervious - Bldgs & Pavement	N/A	0.78	98	76
TOTALS		3.58		186

CN_{wtd} = 52

Storage Volume

Area	***3.58 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**9.30**
Q (IN)	**2.44**
V (AF)	***0.73***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN R-09**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN R-09

Total Area:	**156127 SF**	**3.58 AC**
Total Impervious Area:	**33942 SF**	**0.78 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.80	39	109
Impervious - Bldgs & Pavement	N/A	0.78	98	76
TOTALS		3.58		186

CN_{wtd} = 52

Storage Volume

Area	***3.58 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**9.30**
Q (IN)	**1.55**
V (AF)	***0.46***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN R-09**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	7,192	0.165	0	0.0	0	0.000
75.0	8,612	0.198	7,902	1.0	7,902	0.181
76.0	10,159	0.233	9,386	1.0	17,288	0.397
77.0	11,832	0.272	10,996	1.0	28,283	0.649
78.0	13,633	0.313	12,733	1.0	41,016	0.942
79.0	19,795	0.454	16,714	1.0	57,730	1.325

BASIN A-01

Total Area: 715110 SF 16.42 AC
Total Impervious Area: 572088 SF 13.13 AC

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.28	39	128
Impervious - Bldgs & Pavement	N/A	13.13	98	1287
TOTALS		16.42		1415

CN_{wtd} = 86

Storage Volume

Area	***16.42 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***12.71***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
73.0	109,622	2.517	0	0.0	0	0.000
74.0	117,912	2.707	113,767	1.0	113,767	2.612
75.0	126,303	2.900	122,108	1.0	235,875	5.415
76.0	134,794	3.094	130,549	1.0	366,423	8.412
77.0	143,386	3.292	139,090	1.0	505,513	11.605
78.0	152,078	3.491	147,732	1.0	653,245	14.996

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	2,185	75	15
P2	2,656	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,369	750	75

BASIN A-01

Total Area: 715110 SF 16.42 AC
Total Impervious Area: 572088 SF 13.13 AC

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.28	39	128
Impervious - Bldgs & Pavement	N/A	13.13	98	1287
TOTALS		16.42		1415

CN_{wtd} = 86

Storage Volume

Area	***16.42 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***8.69***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
73.0	109622.0	2.517	0	0.0	0	0.000
74.0	117912.0	2.707	113,767	1.0	113,767	2.612
75.0	126303.0	2.900	122,108	1.0	235,875	5.415
76.0	134794.0	3.094	130,549	1.0	366,423	8.412
77.0	143386.0	3.292	139,090	1.0	505,513	11.605
78.0	152078.0	3.491	147,732	1.0	653,245	14.996

BASIN A-01

Total Area: 715110 SF 16.42 AC
Total Impervious Area: 572088 SF 13.13 AC

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.28	39	128
Impervious - Bldgs & Pavement	N/A	13.13	98	1287
TOTALS		16.42		1415

CN_{wtd} = 86

Storage Volume

Area	***16.42 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***6.71***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
73.0	109622.0	2.517	0	0.0	0	0.000
74.0	117912.0	2.707	113,767	1.0	113,767	2.612
75.0	126303.0	2.900	122,108	1.0	235,875	5.415
76.0	134794.0	3.094	130,549	1.0	366,423	8.412
77.0	143386.0	3.292	139,090	1.0	505,513	11.605
78.0	152078.0	3.491	147,732	1.0	653,245	14.996

BASIN A-02

Total Area:	**715496 SF**	**16.43 AC**
Total Impervious Area:	**571507 SF**	**13.12 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.31	39	129
Impervious - Bldgs & Pavement	N/A	13.12	98	1286
TOTALS		16.43		1415

CN_{wtd} = 86

Storage Volume

Area	***16.43 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**1.61**
Q (IN)	**9.28**
V (AF)	***12.70***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	73,274	1.682	0	0.0	0	0.000
75.0	79,348	1.822	76,311	1.0	76,311	1.752
76.0	85,551	1.964	82,450	1.0	158,761	3.645
77.0	91,881	2.109	88,716	1.0	247,477	5.681
78.0	98,340	2.258	95,111	1.0	342,587	7.865
79.0	104,926	2.409	101,633	1.0	444,220	10.198
80.0	111,640	2.563	108,283	1.0	552,503	12.684

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,497	75	15
P2	1,968	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,681	750	75

BASIN A-02

Total Area:	**715496 SF**	**16.43 AC**
Total Impervious Area:	**571507 SF**	**13.12 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.31	39	129
Impervious - Bldgs & Pavement	N/A	13.12	98	1286
TOTALS		16.43		1415

CN_{wtd} = 86

Storage Volume

Area	***16.43 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.61**
Q (IN)	**6.35**
V (AF)	***8.69***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	73274.0	1.682	0	0.0	0	0.000
75.0	79348.0	1.822	76,311	1.0	76,311	1.752
76.0	85551.0	1.964	82,450	1.0	158,761	3.645
77.0	91881.0	2.109	88,716	1.0	247,477	5.681
78.0	98340.0	2.258	95,111	1.0	342,587	7.865
79.0	104926.0	2.409	101,633	1.0	444,220	10.198
80.0	111640.0	2.563	108,283	1.0	552,503	12.684

BASIN A-02

Total Area:	**715496 SF**	**16.43 AC**
Total Impervious Area:	**571507 SF**	**13.12 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.31	39	129
Impervious - Bldgs & Pavement	N/A	13.12	98	1286
TOTALS		16.43		1415

CN_{wtd} = 86

Storage Volume	
Area	***16.43 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (I$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.61**
Q (IN)	**4.90**
V (AF)	***6.71***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	73274.0	1.682	0	0.0	0	0.000
75.0	79348.0	1.822	76,311	1.0	76,311	1.752
76.0	85551.0	1.964	82,450	1.0	158,761	3.645
77.0	91881.0	2.109	88,716	1.0	247,477	5.681
78.0	98340.0	2.258	95,111	1.0	342,587	7.865
79.0	104926.0	2.409	101,633	1.0	444,220	10.198
80.0	111640.0	2.563	108,283	1.0	552,503	12.684

BASIN A-03

Total Area:	**573946 SF**	**13.18 AC**
Total Impervious Area:	**459993 SF**	**10.56 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.62	39	102
Impervious - Bldgs & Pavement	N/A	10.56	98	1035
TOTALS		13.18		1137

CN_{wtd} = 86

Storage Volume

Area	***13.18 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**1.59**
Q (IN)	**9.30**
V (AF)	***10.21***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-03**

Elevation (ft)	Area (ft^2)	Area (acres)	Avg. Area (ft^2)	Elev. Diff. (ft)	Storage (ft^3)	Storage (Ac-ft)
74.0	60,798	1.396	0	0.0	0	0.000
75.0	65,839	1.511	63,319	1.0	63,319	1.454
76.0	71,009	1.630	68,424	1.0	131,743	3.024
77.0	76,306	1.752	73,658	1.0	205,400	4.715
78.0	81,732	1.876	79,019	1.0	284,419	6.529
79.0	87,285	2.004	84,509	1.0	368,928	8.469
80.0	92,967	2.134	90,126	1.0	459,054	10.538

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,234	75	15
P2	1,705	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,418	750	75

BASIN A-03

Total Area:	**573946 SF**	**13.18 AC**
Total Impervious Area:	**459993 SF**	**10.56 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.62	39	102
Impervious - Bldgs & Pavement	N/A	10.56	98	1035
TOTALS		13.18		1137

CN_{wtd} = 86

Storage Volume

Area	***13.18 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.59**
Q (IN)	**6.37**
V (AF)	***6.99***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	60798.0	1.396	0	0.0	0	0.000
75.0	65839.0	1.511	63,319	1.0	63,319	1.454
76.0	71009.0	1.630	68,424	1.0	131,743	3.024
77.0	76306.0	1.752	73,658	1.0	205,400	4.715
78.0	81732.0	1.876	79,019	1.0	284,419	6.529
79.0	87285.0	2.004	84,509	1.0	368,928	8.469
80.0	92967.0	2.134	90,126	1.0	459,054	10.538

BASIN A-03

Total Area:	**573946 SF**	**13.18 AC**
Total Impervious Area:	**459993 SF**	**10.56 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.62	39	102
Impervious - Bldgs & Pavement	N/A	10.56	98	1035
TOTALS		13.18		1137

CN_{wtd} = 86

Storage Volume

Area	***13.18 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.59**
Q (IN)	**4.92**
V (AF)	***5.40***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	60798.0	1.396	0	0.0	0	0.000
75.0	65839.0	1.511	63,319	1.0	63,319	1.454
76.0	71009.0	1.630	68,424	1.0	131,743	3.024
77.0	76306.0	1.752	73,658	1.0	205,400	4.715
78.0	81732.0	1.876	79,019	1.0	284,419	6.529
79.0	87285.0	2.004	84,509	1.0	368,928	8.469
80.0	92967.0	2.134	90,126	1.0	459,054	10.538

BASIN A-04

Total Area:	**541692 SF**	**12.44 AC**
Total Impervious Area:	**433354 SF**	**9.95 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.49	39	97
Impervious - Bldgs & Pavement	N/A	9.95	98	975
TOTALS		12.44		1072

CN_{wtd} = 86

Storage Volume

Area	***12.44 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***9.62***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-04**

Elevation (ft)	Area (ft^2)	Area (acres)	Avg. Area (ft^2)	Elev. Diff. (ft)	Storage (ft^3)	Storage (Ac-ft)
74.0	58,336	1.339	0	0.0	0	0.000
75.0	63,098	1.449	60,717	1.0	60,717	1.394
76.0	67,988	1.561	65,543	1.0	126,260	2.899
77.0	73,005	1.676	70,497	1.0	196,757	4.517
78.0	78,151	1.794	75,578	1.0	272,335	6.252
79.0	83,425	1.915	80,788	1.0	353,123	8.107
80.0	88,826	2.039	86,126	1.0	439,248	10.084

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,159	75	15
P2	1,630	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,343	750	75

BASIN A-04

Total Area:	**541692 SF**	**12.44 AC**
Total Impervious Area:	**433354 SF**	**9.95 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.49	39	97
Impervious - Bldgs & Pavement	N/A	9.95	98	975
TOTALS		12.44		1072

CN_{wtd} = 86

Storage Volume

Area	***12.44 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***6.59***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	58336.0	1.339	0	0.0	0	0.000
75.0	63098.0	1.449	60,717	1.0	60,717	1.394
76.0	67988.0	1.561	65,543	1.0	126,260	2.899
77.0	73005.0	1.676	70,497	1.0	196,757	4.517
78.0	78151.0	1.794	75,578	1.0	272,335	6.252
79.0	83425.0	1.915	80,788	1.0	353,123	8.107
80.0	88826.0	2.039	86,126	1.0	439,248	10.084

BASIN A-04

Total Area:	**541692 SF**	**12.44 AC**
Total Impervious Area:	**433354 SF**	**9.95 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.49	39	97
Impervious - Bldgs & Pavement	N/A	9.95	98	975
TOTALS		12.44		1072

CN_{wtd} = 86

Storage Volume

Area	***12.44 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***5.09***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	58336.0	1.339	0	0.0	0	0.000
75.0	63098.0	1.449	60,717	1.0	60,717	1.394
76.0	67988.0	1.561	65,543	1.0	126,260	2.899
77.0	73005.0	1.676	70,497	1.0	196,757	4.517
78.0	78151.0	1.794	75,578	1.0	272,335	6.252
79.0	83425.0	1.915	80,788	1.0	353,123	8.107
80.0	88826.0	2.039	86,126	1.0	439,248	10.084

BASIN A-05

Total Area:	**560733 SF**	**12.87 AC**
Total Impervious Area:	**448586 SF**	**10.30 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.57	39	100
Impervious - Bldgs & Pavement	N/A	10.30	98	1009
TOTALS		12.87		1110

CN_{wtd} = 86

Storage Volume

Area	***12.87 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***9.96***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-05**

Elevation (ft)	Area (ft^2)	Area (acres)	Avg. Area (ft^2)	Elev. Diff. (ft)	Storage (ft^3)	Storage (Ac-ft)
74.0	66179.0	1.519	0	0.0	0	0.000
75.0	71326.0	1.637	68,753	1.0	68,753	1.578
76.0	76602.0	1.759	73,964	1.0	142,717	3.276
77.0	82005.0	1.883	79,304	1.0	222,020	5.097
78.0	87537.0	2.010	84,771	1.0	306,791	7.043
79.0	93196.0	2.139	90,367	1.0	397,158	9.117
80.0	98984.0	2.272	96,090	1.0	493,248	11.323

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,322	75	15
P2	1,793	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,506	750	75

BASIN A-05

Total Area:	**560733 SF**	**12.87 AC**
Total Impervious Area:	**448586 SF**	**10.30 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.57	39	100
Impervious - Bldgs & Pavement	N/A	10.30	98	1009
TOTALS		12.87		1110

CN_{wtd} = 86

Storage Volume

Area	***12.87 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***6.82***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	66179.0	1.519	0	0.0	0	0.000
75.0	71326.0	1.637	68,753	1.0	68,753	1.578
76.0	76602.0	1.759	73,964	1.0	142,717	3.276
77.0	82005.0	1.883	79,304	1.0	222,020	5.097
78.0	87537.0	2.010	84,771	1.0	306,791	7.043
79.0	93196.0	2.139	90,367	1.0	397,158	9.117
80.0	98984.0	2.272	96,090	1.0	493,248	11.323

BASIN A-05

Total Area:	**560733 SF**	**12.87 AC**
Total Impervious Area:	**448586 SF**	**10.30 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.57	39	100
Impervious - Bldgs & Pavement	N/A	10.30	98	1009
TOTALS		12.87		1110

CN_{wtd} = 86

Storage Volume

Area	***12.87 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***5.27***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	66179.0	1.519	0	0.0	0	0.000
75.0	71326.0	1.637	68,753	1.0	68,753	1.578
76.0	76602.0	1.759	73,964	1.0	142,717	3.276
77.0	82005.0	1.883	79,304	1.0	222,020	5.097
78.0	87537.0	2.010	84,771	1.0	306,791	7.043
79.0	93196.0	2.139	90,367	1.0	397,158	9.117
80.0	98984.0	2.272	96,090	1.0	493,248	11.323

BASIN A-06

Total Area:	**855413 SF**	**19.64 AC**
Total Impervious Area:	**684330 SF**	**15.71 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.93	39	153
Impervious - Bldgs & Pavement	N/A	15.71	98	1540
TOTALS		19.64		1693

CN_{wtd} = 86

Storage Volume

Area	***19.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11-inches (100YR/24HR storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***15.20***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-06**

Elevation (ft)	Area (ft^2)	Area (acres)	Avg. Area (ft^2)	Elev. Diff. (ft)	Storage (ft^3)	Storage (Ac-ft)
74.0	101,529	2.331	0	0.0	0	0.000
75.0	108,577	2.493	105,053	1.0	105,053	2.412
76.0	115,754	2.657	112,166	1.0	217,219	4.987
77.0	123,057	2.825	119,406	1.0	336,624	7.728
78.0	130,488	2.996	126,773	1.0	463,397	10.638
79.0	138,048	3.169	134,268	1.0	597,665	13.720
80.0	145,736	3.346	141,892	1.0	739,557	16.978

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,837	75	15
P2	2,308	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,021	750	75

BASIN A-06

Total Area:	**855413 SF**	**19.64 AC**
Total Impervious Area:	**684330 SF**	**15.71 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.93	39	153
Impervious - Bldgs & Pavement	N/A	15.71	98	1540
TOTALS		19.64		1693

CN_{wtd} = 86

Storage Volume

Area	***19.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**Q = (P-0.2 S)^2 / (I (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***10.40***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	101529.0	2.331	0	0.0	0	0.000
75.0	108577.0	2.493	105,053	1.0	105,053	2.412
76.0	115754.0	2.657	112,166	1.0	217,219	4.987
77.0	123057.0	2.825	119,406	1.0	336,624	7.728
78.0	130488.0	2.996	126,773	1.0	463,397	10.638
79.0	138048.0	3.169	134,268	1.0	597,665	13.720
80.0	145736.0	3.346	141,892	1.0	739,557	16.978

BASIN A-06

Total Area:	**855413 SF**	**19.64 AC**
Total Impervious Area:	**684330 SF**	**15.71 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.93	39	153
Impervious - Bldgs & Pavement	N/A	15.71	98	1540
TOTALS		19.64		1693

CN_{wtd} = 86

Storage Volume

Area	***19.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P =6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**Q = $(P-0.2\ S)^2$ / (I (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***8.03***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	101529.0	2.331	0	0.0	0	0.000
75.0	108577.0	2.493	105,053	1.0	105,053	2.412
76.0	115754.0	2.657	112,166	1.0	217,219	4.987
77.0	123057.0	2.825	119,406	1.0	336,624	7.728
78.0	130488.0	2.996	126,773	1.0	463,397	10.638
79.0	138048.0	3.169	134,268	1.0	597,665	13.720
80.0	145736.0	3.346	141,892	1.0	739,557	16.978

BASIN A-07

Total Area:	**3518728 SF**	**80.78 AC**
Total Impervious Area:	**2814982 SF**	**64.62 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	16.16	39	630
Impervious - Bldgs & Pavement	N/A	64.62	98	6333
TOTALS		80.78		6963

CN_{wtd} = 86

Storage Volume

Area	***80.78 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***62.52***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	451,553	10.366	0	0.0	0	0.000
75.0	474,756	10.899	463,155	1.0	463,155	10.633
76.0	498,087	11.435	486,422	1.0	949,576	21.799
77.0	521,548	11.973	509,818	1.0	1,459,394	33.503
78.0	545,137	12.515	533,343	1.0	1,992,736	45.747
79.0	568,855	13.059	556,996	1.0	2,549,732	58.534
80.0	592,702	13.607	580,779	1.0	3,130,511	71.867

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	5,712	75	15
P2	6,183	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	10,896	750	75

BASIN A-07

Total Area:	**3518728 SF**	**80.78 AC**
Total Impervious Area:	**2814982 SF**	**64.62 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	16.16	39	630
Impervious - Bldgs & Pavement	N/A	64.62	98	6333
TOTALS		80.78		6963

CN_{wtd} = 86

Storage Volume

Area	***80.78 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***42.78***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	451553.0	10.366	0	0.0	0	0.000
75.0	474756.0	10.899	463,155	1.0	463,155	10.633
76.0	498087.0	11.435	486,422	1.0	949,576	21.799
77.0	521548.0	11.973	509,818	1.0	1,459,394	33.503
78.0	545137.0	12.515	533,343	1.0	1,992,736	45.747
79.0	568855.0	13.059	556,996	1.0	2,549,732	58.534
80.0	592702.0	13.607	580,779	1.0	3,130,511	71.867

BASIN A-07

Total Area:	**3518728 SF**	**80.78 AC**
Total Impervious Area:	**2814982 SF**	**64.62 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	16.16	39	630
Impervious - Bldgs & Pavement	N/A	64.62	98	6333
TOTALS		80.78		6963

CN_{wtd} = 86

Storage Volume

Area	***80.78 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***33.04***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	451553.0	10.366	0	0.0	0	0.000
75.0	474756.0	10.899	463,155	1.0	463,155	10.633
76.0	498087.0	11.435	486,422	1.0	949,576	21.799
77.0	521548.0	11.973	509,818	1.0	1,459,394	33.503
78.0	545137.0	12.515	533,343	1.0	1,992,736	45.747
79.0	568855.0	13.059	556,996	1.0	2,549,732	58.534
80.0	592702.0	13.607	580,779	1.0	3,130,511	71.867

BASIN A-08

Total Area:	**768373 SF**	**17.64 AC**
Total Impervious Area:	**614698 SF**	**14.11 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.53	39	138
Impervious - Bldgs & Pavement	N/A	14.11	98	1383
TOTALS		17.64		1521

CN_{wtd} = 86

Storage Volume

Area	***17.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***13.65***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	150,669	3.459	0	0.0	0	0.000
65.0	157,884	3.625	154,277	1.0	154,277	3.542
66.0	165,219	3.793	161,552	1.0	315,828	7.250
67.0	172,673	3.964	168,946	1.0	484,774	11.129
68.0	180,247	4.138	176,460	1.0	661,234	15.180
69.0	187,941	4.315	184,094	1.0	845,328	19.406
70.0	195,754	4.494	191,848	1.0	1,037,176	23.810

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,968	75	15
P2	2,439	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,152	750	75

BASIN A-08

Total Area:	**768373 SF**	**17.64 AC**
Total Impervious Area:	**614698 SF**	**14.11 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.53	39	138
Impervious - Bldgs & Pavement	N/A	14.11	98	1383
TOTALS		17.64		1521

CN_{wtd} = 86

Storage Volume

Area	***17.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***9.34***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	150669.0	3.459	0	0.0	0	0.000
65.0	157884.0	3.625	154,277	1.0	154,277	3.542
66.0	165219.0	3.793	161,552	1.0	315,828	7.250
67.0	172673.0	3.964	168,946	1.0	484,774	11.129
68.0	180247.0	4.138	176,460	1.0	661,234	15.180
69.0	187941.0	4.315	184,094	1.0	845,328	19.406
70.0	195754.0	4.494	191,848	1.0	1,037,176	23.810

BASIN A-08

Total Area:	**768373 SF**	**17.64 AC**
Total Impervious Area:	**614698 SF**	**14.11 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	3.53	39	138
Impervious - Bldgs & Pavement	N/A	14.11	98	1383
TOTALS		17.64		1521

CN_{wtd} = 86

Storage Volume

Area	***17.64 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***7.21***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-08**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	150669.0	3.459	0	0.0	0	0.000
65.0	157884.0	3.625	154,277	1.0	154,277	3.542
66.0	165219.0	3.793	161,552	1.0	315,828	7.250
67.0	172673.0	3.964	168,946	1.0	484,774	11.129
68.0	180247.0	4.138	176,460	1.0	661,234	15.180
69.0	187941.0	4.315	184,094	1.0	845,328	19.406
70.0	195754.0	4.494	191,848	1.0	1,037,176	23.810

BASIN A-09a

Total Area:	**4153793 SF**	**95.36 AC**
Total Impervious Area:	**1037526 SF**	**23.82 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	71.54	39	2790
Impervious - Bldgs & Pavement	N/A	23.82	98	2334
TOTALS		95.36		5124

CN_{wtd} = 54

Storage Volume

Area	***95.36 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**8.61**
Q (IN)	**4.81**
V (AF)	***38.24***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-09a**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
62.0	360,360	8.273	0	0.0	0	0.000
63.0	381,148	8.750	370,754	1.0	370,754	8.511
64.0	402,192	9.233	391,670	1.0	762,424	17.503
65.0	423,493	9.722	412,843	1.0	1,175,267	26.980
66.0	445,049	10.217	434,271	1.0	1,609,538	36.950
67.0	466,862	10.718	455,956	1.0	2,065,493	47.417
68.0	488,930	11.224	477,896	1.0	2,543,389	58.388

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	4,057	75	15
P2	4,528	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	9,241	750	75

BASIN A-09a

Total Area:	**4153793 SF**	**95.36 AC**
Total Impervious Area:	**1037526 SF**	**23.82 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	71.54	39	2790
Impervious - Bldgs & Pavement	N/A	23.82	98	2334
TOTALS		95.36		5124

CN_{wtd} = 54

Storage Volume

Area	***95.36 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**8.61**
Q (IN)	**2.65**
V (AF)	***21.04***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-09a**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
62.0	360360.0	8.273	0	0.0	0	0.000
63.0	381148.0	8.750	370,754	1.0	370,754	8.511
64.0	402192.0	9.233	391,670	1.0	762,424	17.503
65.0	423493.0	9.722	412,843	1.0	1,175,267	26.980
66.0	445049.0	10.217	434,271	1.0	1,609,538	36.950
67.0	466862.0	10.718	455,956	1.0	2,065,493	47.417

BASIN A-09a

Total Area:	**4153793 SF**	**95.36 AC**
Total Impervious Area:	**1037526 SF**	**23.82 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	71.54	39	2790
Impervious - Bldgs & Pavement	N/A	23.82	98	2334
TOTALS		95.36		5124

CN_{wtd} = 54

Storage Volume

Area	***95.36 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**8.61**
Q (IN)	**1.71**
V (AF)	***13.55***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-09a**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
62.0	360360.0	8.273	0	0.0	0	0.000
63.0	381148.0	8.750	370,754	1.0	370,754	8.511
64.0	402192.0	9.233	391,670	1.0	762,424	17.503
65.0	423493.0	9.722	412,843	1.0	1,175,267	26.980
66.0	445049.0	10.217	434,271	1.0	1,609,538	36.950
67.0	466862.0	10.718	455,956	1.0	2,065,493	47.417

BASIN A-09b - Offsite

Total Area:	**3073158 SF**	**70.55 AC**
Total Impervious Area:	**124180 SF**	**2.85 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	67.70	39	2640
Impervious - Bldgs & Pavement	N/A	2.85	98	279
TOTALS		70.55		2920

CN_{wtd} = 41

Storage Volume

Area	***70.55 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**14.16**
Q (IN)	**2.99**
V (AF)	***17.56***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-09b - Offsite**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	23,034	0.529	0	0.0	0	0.000
65.0	34,415	0.790	28,725	1.0	28,725	0.659
66.0	40,105	0.921	37,260	1.0	65,985	1.515
67.0	45,795	1.051	42,950	1.0	108,935	2.501
68.0	51,485	1.182	48,640	1.0	157,575	3.617

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	4,057	75	15
P2	4,528	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	9,241	750	75

BASIN A-09b - Offsite

Total Area:	**3073158 SF**	**70.55 AC**
Total Impervious Area:	**124180 SF**	**2.85 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	67.70	39	2640
Impervious - Bldgs & Pavement	N/A	2.85	98	279
TOTALS		70.55		2920

CN_{wtd} = 41

Storage Volume

Area	***70.55 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**14.16**
Q (IN)	**1.38**
V (AF)	***8.12***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-09b - Offsite**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	23034.0	0.529	0	0.0	0	0.000
65.0	34415.0	0.790	28,725	1.0	28,725	0.659
66.0	40105.0	0.921	37,260	1.0	65,985	1.515
67.0	45795.0	1.051	42,950	1.0	108,935	2.501
68.0	51485.0	1.182	48,640	1.0	157,575	3.617

BASIN A-09b - Offsite

Total Area:	**3073158 SF**	**70.55 AC**
Total Impervious Area:	**124180 SF**	**2.85 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	67.70	39	2640
Impervious - Bldgs & Pavement	N/A	2.85	98	279
TOTALS		70.55		2920

CN_{wtd} = 41

Storage Volume

Area	***70.55 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**14.16**
Q (IN)	**0.75**
V (AF)	***4.43***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-09b - Offsite**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
64.0	23034.0	0.529	0	0.0	0	0.000
65.0	34415.0	0.790	28,725	1.0	28,725	0.659
66.0	40105.0	0.921	37,260	1.0	65,985	1.515
67.0	45795.0	1.051	42,950	1.0	108,935	2.501
68.0	51485.0	1.182	48,640	1.0	157,575	3.617

BASIN A-10

Total Area:	**9192917 SF**	**211.04 AC**
Total Impervious Area:	**5916470 SF**	**135.82 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	75.22	39	2933
Impervious - Bldgs & Pavement	N/A	135.82	98	13311
TOTALS		211.04		16244

CN_{wtd} = 77

Storage Volume

Area	***211.04 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**2.99**
Q (IN)	**8.08**
V (AF)	***142.07***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-10**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
79.0	1,185,887	27.224	0	0.0	0	0.000
80.0	1,226,079	28.147	1,205,983	1.0	1,205,983	27.686
81.0	1,266,432	29.073	1,246,256	1.0	2,452,239	56.296
82.0	1,306,939	30.003	1,286,686	1.0	3,738,924	85.834
83.0	1,347,570	30.936	1,327,255	1.0	5,066,179	116.303
84.0	1,388,322	31.871	1,367,946	1.0	6,434,124	147.707

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	10,203	75	15
P2	10,674	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	15,387	750	75

BASIN A-10

Total Area:	**9192917 SF**	**211.04 AC**
Total Impervious Area:	**5916470 SF**	**135.82 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	75.22	39	2933
Impervious - Bldgs & Pavement	N/A	135.82	98	13311
TOTALS		211.04		16244

CN_{wtd} = 77

Storage Volume

Area	***211.04 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**2.99**
Q (IN)	**5.27**
V (AF)	***92.70***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-10**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
79.0	1185887.0	27.224	0	0.0	0	0.000
80.0	1226079.0	28.147	1,205,983	1.0	1,205,983	27.686
81.0	1266432.0	29.073	1,246,256	1.0	2,452,239	56.296
82.0	1306939.0	30.003	1,286,686	1.0	3,738,924	85.834
83.0	1347570.0	30.936	1,327,255	1.0	5,066,179	116.303
84.0	1388321.7	31.871	1,367,946	1.0	6,434,124	147.707

BASIN A-10

Total Area:	**9192917 SF**	**211.04 AC**
Total Impervious Area:	**5916470 SF**	**135.82 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	75.22	39	2933
Impervious - Bldgs & Pavement	N/A	135.82	98	13311
TOTALS		211.04		16244

CN_{wtd} = 77

Storage Volume

Area	***211.04 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**2.99**
Q (IN)	**3.92**
V (AF)	***68.88***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-10**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
79.0	1185887.0	27.224	0	0.0	0	0.000
80.0	1226079.0	28.147	1,205,983	1.0	1,205,983	27.686
81.0	1266432.0	29.073	1,246,256	1.0	2,452,239	56.296
82.0	1306939.0	30.003	1,286,686	1.0	3,738,924	85.834
83.0	1347570.0	30.936	1,327,255	1.0	5,066,179	116.303
84.0	1388321.7	31.871	1,367,946	1.0	6,434,124	147.707

BASIN A-11

Total Area:	**2338240 SF**	**53.68 AC**
Total Impervious Area:	**1870592 SF**	**42.94 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	10.74	39	419
Impervious - Bldgs & Pavement	N/A	42.94	98	4208
TOTALS		53.68		4627

CN_{wtd} = 86

Storage Volume

Area	***53.68 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***41.55***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-11**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
79.0	374,037	8.587	0	0.0	0	0.000
80.0	416,005	9.550	395,021	1.0	395,021	9.068
81.0	437,181	10.036	426,593	1.0	821,614	18.862
82.0	458,485	10.525	447,833	1.0	1,269,447	29.142
83.0	479,917	11.017	469,201	1.0	1,738,648	39.914
84.0	501,477	11.512	490,697	1.0	2,229,345	51.179

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	5,406	75	15
P2	5,877	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	10,590	750	75

BASIN A-11

Total Area:	**2338240 SF**	**53.68 AC**
Total Impervious Area:	**1870592 SF**	**42.94 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	10.74	39	419
Impervious - Bldgs & Pavement	N/A	42.94	98	4208
TOTALS		53.68		4627

CN_{wtd} = 86

Storage Volume

Area	***53.68 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***28.43***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-11**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
79.0	374037.0	8.587	0	0.0	0	0.000
80.0	416005.0	9.550	395,021	1.0	395,021	9.068
81.0	437181.0	10.036	426,593	1.0	821,614	18.862
82.0	458485.0	10.525	447,833	1.0	1,269,447	29.142
83.0	479917.0	11.017	469,201	1.0	1,738,648	39.914
84.0	501477.0	11.512	490,697	1.0	2,229,345	51.179

BASIN A-11

Total Area:	**2338240 SF**	**53.68 AC**
Total Impervious Area:	**1870592 SF**	**42.94 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	10.74	39	419
Impervious - Bldgs & Pavement	N/A	42.94	98	4208
TOTALS		53.68		4627

CN_{wtd} = 86

Storage Volume	
Area	***53.68 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***21.96***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-11**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
79.0	374037.0	8.587	0	0.0	0	0.000
80.0	416005.0	9.550	395,021	1.0	395,021	9.068
81.0	437181.0	10.036	426,593	1.0	821,614	18.862
82.0	458485.0	10.525	447,833	1.0	1,269,447	29.142
83.0	479917.0	11.017	469,201	1.0	1,738,648	39.914
84.0	501477.0	11.512	490,697	1.0	2,229,345	51.179

BASIN A-12

Total Area:	**2176700 SF**	**49.97 AC**
Total Impervious Area:	**1741360 SF**	**39.98 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	9.99	39	390
Impervious - Bldgs & Pavement	N/A	39.98	98	3918
TOTALS		49.97		4307

CN_{wtd} = 86

Storage Volume

Area	***49.97 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***38.68***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-12**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	429,681	9.864	0	0.0	0	0.000
79.0	451,295	10.360	440,488	1.0	440,488	10.112
80.0	473,037	10.859	462,166	1.0	902,654	20.722
81.0	516,906	11.867	494,972	1.0	1,397,626	32.085
82.0	539,032	12.374	527,969	1.0	1,925,595	44.206

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	5,548	75	15
P2	6,019	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	10,732	750	75

BASIN A-12

Total Area:	**2176700 SF**	**49.97 AC**
Total Impervious Area:	**1741360 SF**	**39.98 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	9.99	39	390
Impervious - Bldgs & Pavement	N/A	39.98	98	3918
TOTALS		49.97		4307

CN_{wtd} = 86

Storage Volume

Area	***49.97 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***26.46***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-12**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	429681.0	9.864	0	0.0	0	0.000
79.0	451295.0	10.360	440,488	1.0	440,488	10.112
80.0	473037.0	10.859	462,166	1.0	902,654	20.722
81.0	516906.0	11.867	494,972	1.0	1,397,626	32.085
82.0	539032.0	12.374	527,969	1.0	1,925,595	44.206

BASIN A-12

Total Area:	**2176700 SF**	**49.97 AC**
Total Impervious Area:	**1741360 SF**	**39.98 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	9.99	39	390
Impervious - Bldgs & Pavement	N/A	39.98	98	3918
TOTALS		49.97		4307

CN_{wtd} = 86

Storage Volume

Area	***49.97 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***20.44***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-12**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
78.0	429681.0	9.864	0	0.0	0	0.000
79.0	451295.0	10.360	440,488	1.0	440,488	10.112
80.0	473037.0	10.859	462,166	1.0	902,654	20.722
81.0	516906.0	11.867	494,972	1.0	1,397,626	32.085
82.0	539032.0	12.374	527,969	1.0	1,925,595	44.206

BASIN A-13

Total Area:	**1175906 SF**	**27.00 AC**
Total Impervious Area:	**940745 SF**	**21.60 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	5.40	39	211
Impervious - Bldgs & Pavement	N/A	21.60	98	2116
TOTALS		27.00		2327

CN_{wtd} = 86

Storage Volume

Area	***27.00 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***20.89***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-13**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	76,950	1.767	0	0.0	0	0.000
71.0	84,494	1.940	80,722	1.0	80,722	1.853
72.0	92,163	2.116	88,329	1.0	169,051	3.881
73.0	99,957	2.295	96,060	1.0	265,111	6.086
74.0	107,877	2.477	103,917	1.0	369,028	8.472
75.0	115,922	2.661	111,900	1.0	480,927	11.041
76.0	124,093	2.849	120,008	1.0	600,935	13.796

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	2,058	75	15
P2	2,529	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,242	750	75

BASIN A-13

Total Area:	**1175906 SF**	**27.00 AC**
Total Impervious Area:	**940745 SF**	**21.60 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	5.40	39	211
Impervious - Bldgs & Pavement	N/A	21.60	98	2116
TOTALS		27.00		2327

CN_{wtd} = 86

Storage Volume

Area	***27.00 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***14.30***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-13**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	76950.0	1.767	0	0.0	0	0.000
71.0	84494.0	1.940	80,722	1.0	80,722	1.853
72.0	92163.0	2.116	88,329	1.0	169,051	3.881
73.0	99957.0	2.295	96,060	1.0	265,111	6.086
74.0	107877.0	2.477	103,917	1.0	369,028	8.472
75.0	115922.0	2.661	111,900	1.0	480,927	11.041
76.0	124093.0	2.849	120,008	1.0	600,935	13.796

BASIN A-13

Total Area:	**1175906 SF**	**27.00 AC**
Total Impervious Area:	**940745 SF**	**21.60 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	5.40	39	211
Impervious - Bldgs & Pavement	N/A	21.60	98	2116
TOTALS		27.00		2327

CN_{wtd} = 86

Storage Volume

Area	***27.00 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***11.04***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-13**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
70.0	76950.0	1.767	0	0.0	0	0.000
71.0	84494.0	1.940	80,722	1.0	80,722	1.853
72.0	92163.0	2.116	88,329	1.0	169,051	3.881
73.0	99957.0	2.295	96,060	1.0	265,111	6.086
74.0	107877.0	2.477	103,917	1.0	369,028	8.472
75.0	115922.0	2.661	111,900	1.0	480,927	11.041
76.0	124093.0	2.849	120,008	1.0	600,935	13.796

BASIN A-14

Total Area:	**1042940 SF**	**23.94 AC**
Total Impervious Area:	**834352 SF**	**19.15 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	4.79	39	187
Impervious - Bldgs & Pavement	N/A	19.15	98	1877
TOTALS		23.94		2064

CN_{wtd} = 86

Storage Volume

Area	***23.94 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***18.53***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-14**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	143,955	3.305	0	0.0	0	0.000
68.0	153,317	3.520	148,636	0.0	0	0.000
69.0	162,808	3.738	158,063	1.0	158,063	3.629
70.0	172,428	3.958	167,618	1.0	325,681	7.477
71.0	182,175	4.182	177,302	1.0	502,982	11.547
72.0	192,051	4.409	187,113	1.0	690,095	15.842

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	2,483	75	15
P2	2,954	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,667	750	75

BASIN A-14

Total Area:	**1042940 SF**	**23.94 AC**
Total Impervious Area:	**834352 SF**	**19.15 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	4.79	39	187
Impervious - Bldgs & Pavement	N/A	19.15	98	1877
TOTALS		23.94		2064

CN_{wtd} = 86

Storage Volume

Area	***23.94 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***12.68***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-14**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	143955.0	3.305	0	0.0	0	0.000
68.0	153317.0	3.520	148,636	0.0	0	0.000
69.0	162808.0	3.738	158,063	1.0	158,063	3.629
70.0	172428.0	3.958	167,618	1.0	325,681	7.477
71.0	182175.0	4.182	177,302	1.0	502,982	11.547
72.0	192051.0	4.409	187,113	1.0	690,095	15.842

BASIN A-14

Total Area:	**1042940 SF**	**23.94 AC**
Total Impervious Area:	**834352 SF**	**19.15 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	4.79	39	187
Impervious - Bldgs & Pavement	N/A	19.15	98	1877
TOTALS		23.94		2064

CN_{wtd} = 86

Storage Volume

Area	***23.94 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***9.79***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-14**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
68.0	143955.0	3.305	0	0.0	0	0.000
68.0	153317.0	3.520	148,636	0.0	0	0.000
69.0	162808.0	3.738	158,063	1.0	158,063	3.629
70.0	172428.0	3.958	167,618	1.0	325,681	7.477
71.0	182175.0	4.182	177,302	1.0	502,982	11.547
72.0	192051.0	4.409	187,113	1.0	690,095	15.842

BASIN A-15

Total Area:	**2746666 SF**	**63.05 AC**
Total Impervious Area:	**381145 SF**	**8.75 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	54.30	39	2118
Impervious - Bldgs & Pavement	N/A	8.75	98	857
TOTALS		63.05		2975

CN_{wtd} = 47

Storage Volume

Area	***63.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**11.19**
Q (IN)	**3.85**
V (AF)	***20.22***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-15**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
75.0	122,696	2.817	0	0.0	0	0.000
75.0	130,852	3.004	126,774	0.0	0	0.000
76.0	139,137	3.194	134,995	1.0	134,995	3.099
77.0	147,550	3.387	143,344	1.0	278,338	6.390
78.0	156,091	3.583	151,821	1.0	430,159	9.875
79.0	164,759	3.782	160,425	1.0	590,584	13.558

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	2,183	75	15
P2	2,654	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,367	750	75

BASIN A-15

Total Area:	**2746666 SF**	**63.05 AC**
Total Impervious Area:	**381145 SF**	**8.75 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	54.30	39	2118
Impervious - Bldgs & Pavement	N/A	8.75	98	857
TOTALS		63.05		2975

CN_{wtd} = 47

Storage Volume

Area	***63.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**11.19**
Q (IN)	**1.96**
V (AF)	***10.29***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-15**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
75.0	122696.0	2.817	0	0.0	0	0.000
75.0	130852.0	3.004	126,774	0.0	0	0.000
76.0	139137.0	3.194	134,995	1.0	134,995	3.099
77.0	147550.0	3.387	143,344	1.0	278,338	6.390
78.0	156091.0	3.583	151,821	1.0	430,159	9.875
79.0	164759.0	3.782	160,425	1.0	590,584	13.558

BASIN A-15

Total Area:	**2746666 SF**	**63.05 AC**
Total Impervious Area:	**381145 SF**	**8.75 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	54.30	39	2118
Impervious - Bldgs & Pavement	N/A	8.75	98	857
TOTALS		63.05		2975

CN_{wtd} = 47

Storage Volume

Area	***63.05 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**11.19**
Q (IN)	**1.18**
V (AF)	***6.18***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-15**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
75.0	122696.0	2.817	0	0.0	0	0.000
75.0	130852.0	3.004	126,774	0.0	0	0.000
76.0	139137.0	3.194	134,995	1.0	134,995	3.099
77.0	147550.0	3.387	143,344	1.0	278,338	6.390
78.0	156091.0	3.583	151,821	1.0	430,159	9.875
79.0	164759.0	3.782	160,425	1.0	590,584	13.558

BASIN A-16

Total Area:	**1508309 SF**	**34.63 AC**
Total Impervious Area:	**556319 SF**	**12.77 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.85	39	852
Impervious - Bldgs & Pavement	N/A	12.77	98	1252
TOTALS		34.63		2104

CN_{wtd} = 61

Storage Volume

Area	***34.63 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**6.46**
Q (IN)	**5.83**
V (AF)	***16.82***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN A-16**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
76.0	39,600	0.909	0	0.0	0	0.000
77.0	445,800	10.234	242,700	1.0	242,700	5.572
78.0	852,000	19.559	648,900	1.0	891,600	20.468

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	13,184	75	15
P2	13,655	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	18,368	750	75

BASIN A-16

Total Area:	**1508309 SF**	**34.63 AC**
Total Impervious Area:	**556319 SF**	**12.77 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.85	39	852
Impervious - Bldgs & Pavement	N/A	12.77	98	1252
TOTALS		34.63		2104

CN_{wtd} = 61

Storage Volume

Area	***34.63 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**6.46**
Q (IN)	**3.42**
V (AF)	***9.86***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN A-16**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
76.0	39600.0	0.909	0	0.0	0	0.000
77.0	445800.0	10.234	242,700	1.0	242,700	5.572
78.0	852000.0	19.559	648,900	1.0	891,600	20.468

BASIN A-16

Total Area:	**1508309 SF**	**34.63 AC**
Total Impervious Area:	**556319 SF**	**12.77 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	21.85	39	852
Impervious - Bldgs & Pavement	N/A	12.77	98	1252
TOTALS		34.63		2104

CN_{wtd} = 61

Storage Volume

Area	***34.63 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**6.46**
Q (IN)	**2.33**
V (AF)	***6.71***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN A-16**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
76.0	39600.0	0.909	0	0.0	0	0.000
77.0	445800.0	10.234	242,700	1.0	242,700	5.572
78.0	852000.0	19.559	648,900	1.0	891,600	20.468

BASIN B-01

Total Area:	**6927447 SF**	**159.03 AC**
Total Impervious Area:	**2205774 SF**	**50.64 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	108.39	39	4227
Impervious - Bldgs & Pavement	N/A	50.64	98	4962
TOTALS		159.03		9190

CN_{wtd} = 58

Storage Volume	
Area	***159.03 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**7.31**
Q (IN)	**5.40**
V (AF)	***71.59***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
79.0	751,617	17.255	0	0.0	0	0.000
80.0	765,512	17.574	758,565	1.0	758,565	17.414
81.0	779,524	17.895	772,518	1.0	1,531,083	35.149
82.0	793,651	18.220	786,588	1.0	2,317,670	53.206
83.0	807,894	18.547	800,773	1.0	3,118,443	71.590
84.0	822,253	18.876	815,074	1.0	3,933,516	90.301

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	3,604	75	15
P2	4,075	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	8,788	750	75

BASIN B-01

Total Area:	**6927447 SF**	**159.03 AC**
Total Impervious Area:	**2205774 SF**	**50.64 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	108.39	39	4227
Impervious - Bldgs & Pavement	N/A	50.64	98	4962
TOTALS		159.03		9190

CN_{wtd} = 58

Storage Volume

Area	***159.03 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**7.31**
Q (IN)	**3.09**
V (AF)	***40.93***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
79.0	751617.0	17.255	0	0.0	0	0.000
80.0	765512.0	17.574	758,565	1.0	758,565	17.414
81.0	779524.0	17.895	772,518	1.0	1,531,083	35.149
82.0	793651.0	18.220	786,588	1.0	2,317,670	53.206
83.0	807894.0	18.547	800,773	1.0	3,118,443	71.590
84.0	822253.0	18.876	815,074	1.0	3,933,516	90.301

BASIN B-01

Total Area:	**6927447 SF**	**159.03 AC**
Total Impervious Area:	**2205774 SF**	**50.64 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	108.39	39	4227
Impervious - Bldgs & Pavement	N/A	50.64	98	4962
TOTALS		159.03		9190

CN_{wtd} = 58

Storage Volume

Area	***159.03 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**7.31**
Q (IN)	**2.06**
V (AF)	***27.26***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
79.0	751617.0	17.255	0	0.0	0	0.000
80.0	765512.0	17.574	758,565	1.0	758,565	17.414
81.0	779524.0	17.895	772,518	1.0	1,531,083	35.149
82.0	793651.0	18.220	786,588	1.0	2,317,670	53.206
83.0	807894.0	18.547	800,773	1.0	3,118,443	71.590
84.0	822253.0	18.876	815,074	1.0	3,933,516	90.301

BASIN B-02

Total Area:	**2667273 SF**	**61.23 AC**
Total Impervious Area:	**2133818 SF**	**48.99 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	12.25	39	478
Impervious - Bldgs & Pavement	N/A	48.99	98	4801
TOTALS		61.23		5278

CN_{wtd} = 86

Storage Volume

Area	***61.23 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***47.39***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
75.0	208,003	4.775	0	0.0	0	0.000
76.0	229,528	5.269	218,766	1.0	218,766	5.022
77.0	251,180	5.766	240,354	1.0	459,120	10.540
78.0	272,961	6.266	262,071	1.0	721,190	16.556
79.0	294,870	6.769	283,916	1.0	1,005,106	23.074
80.0	316,908	7.275	305,889	1.0	1,310,995	30.096

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	5,525	75	15
P2	5,996	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	10,709	750	75

BASIN B-02

Total Area:	**2667273 SF**	**61.23 AC**
Total Impervious Area:	**2133818 SF**	**48.99 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	12.25	39	478
Impervious - Bldgs & Pavement	N/A	48.99	98	4801
TOTALS		61.23		5278

CN_{wtd} = 86

Storage Volume	
Area	***61.23 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***32.43***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
75.0	208003.0	4.775	0	0.0	0	0.000
76.0	229528.0	5.269	218,766	1.0	218,766	5.022
77.0	251180.0	5.766	240,354	1.0	459,120	10.540
78.0	272961.0	6.266	262,071	1.0	721,190	16.556
79.0	294870.0	6.769	283,916	1.0	1,005,106	23.074
80.0	316908.0	7.275	305,889	1.0	1,310,995	30.096

BASIN B-02

Total Area:	**2667273 SF**	**61.23 AC**
Total Impervious Area:	**2133818 SF**	**48.99 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	12.25	39	478
Impervious - Bldgs & Pavement	N/A	48.99	98	4801
TOTALS		61.23		5278

CN_{wtd} = 86

Storage Volume

Area	***61.23 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***25.05***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-02**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
75.0	208003.0	4.775	0	0.0	0	0.000
76.0	229528.0	5.269	218,766	1.0	218,766	5.022
77.0	251180.0	5.766	240,354	1.0	459,120	10.540
78.0	272961.0	6.266	262,071	1.0	721,190	16.556
79.0	294870.0	6.769	283,916	1.0	1,005,106	23.074
80.0	316908.0	7.275	305,889	1.0	1,310,995	30.096

BASIN B-03

Total Area:	**9903805 SF**	**227.36 AC**
Total Impervious Area:	**5582346 SF**	**128.15 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	99.21	39	3869
Impervious - Bldgs & Pavement	N/A	128.15	98	12559
TOTALS		227.36		16428

CN_{wtd} = 72

Storage Volume	
Area	***227.36 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**3.84**
Q (IN)	**7.44**
V (AF)	***140.96***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	688,742	15.811	0	0.0	0	0.000
75.0	737,582	16.933	713,162	1.0	713,162	16.372
76.0	787,142	18.070	762,362	1.0	1,475,524	33.873
77.0	837,426	19.225	812,284	1.0	2,287,808	52.521
78.0	888,430	20.396	862,928	1.0	3,150,736	72.331
79.0	940,153	21.583	914,292	1.0	4,065,028	93.320
80.0	992,596	22.787	966,375	1.0	5,031,402	115.505

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	4,956	75	15
P2	5,427	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	10,140	750	75

BASIN B-03

Total Area:	**9903805 SF**	**227.36 AC**
Total Impervious Area:	**5582346 SF**	**128.15 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	99.21	39	3869
Impervious - Bldgs & Pavement	N/A	128.15	98	12559
TOTALS		227.36		16428

CN_{wtd} = 72

Storage Volume	
Area	***227.36 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**3.84**
Q (IN)	**4.72**
V (AF)	***89.50***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	688742.0	15.811	0	0.0	0	0.000
75.0	737582.0	16.933	713,162	1.0	713,162	16.372
76.0	787142.0	18.070	762,362	1.0	1,475,524	33.873
77.0	837426.0	19.225	812,284	1.0	2,287,808	52.521
78.0	888430.0	20.396	862,928	1.0	3,150,736	72.331
79.0	940153.0	21.583	914,292	1.0	4,065,028	93.320
80.0	992596.0	22.787	966,375	1.0	5,031,402	115.505

BASIN B-03

Total Area:	**9903805 SF**	**227.36 AC**
Total Impervious Area:	**5582346 SF**	**128.15 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	99.21	39	3869
Impervious - Bldgs & Pavement	N/A	128.15	98	12559
TOTALS		227.36		16428

CN_{wtd} = 72

Storage Volume

Area	***227.36 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**3.84**
Q (IN)	**3.43**
V (AF)	***65.04***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-03**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	688742.0	15.811	0	0.0	0	0.000
75.0	737582.0	16.933	713,162	1.0	713,162	16.372
76.0	787142.0	18.070	762,362	1.0	1,475,524	33.873
77.0	837426.0	19.225	812,284	1.0	2,287,808	52.521
78.0	888430.0	20.396	862,928	1.0	3,150,736	72.331
79.0	940153.0	21.583	914,292	1.0	4,065,028	93.320
80.0	992596.0	22.787	966,375	1.0	5,031,402	115.505

BASIN B-04

Total Area:	**3314271 SF**	**76.09 AC**
Total Impervious Area:	**2651417 SF**	**60.87 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	15.22	39	593
Impervious - Bldgs & Pavement	N/A	60.87	98	5965
TOTALS		76.09		6559

CN_{wtd} = 86

Storage Volume

Area	***76.09 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***58.89***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	160,311	3.680	0	0.0	0	0.000
75.0	178,766	4.104	169,539	1.0	169,539	3.892
76.0	197,352	4.531	188,059	1.0	357,598	8.209
77.0	216,068	4.960	206,710	1.0	564,308	12.955
78.0	234,916	5.393	225,492	1.0	789,800	18.131
79.0	253,889	5.828	244,403	1.0	1,034,202	23.742
80.0	272,994	6.267	263,442	1.0	1,297,644	29.790

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	3,537	75	15
P2	4,008	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	8,721	750	75

BASIN B-04

Total Area:	**3314271 SF**	**76.09 AC**
Total Impervious Area:	**2651417 SF**	**60.87 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	15.22	39	593
Impervious - Bldgs & Pavement	N/A	60.87	98	5965
TOTALS		76.09		6559

CN_{wtd} = 86

Storage Volume

Area	***76.09 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***40.29***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	160311.0	3.680	0	0.0	0	0.000
75.0	178766.0	4.104	169,539	1.0	169,539	3.892
76.0	197352.0	4.531	188,059	1.0	357,598	8.209
77.0	216068.0	4.960	206,710	1.0	564,308	12.955
78.0	234916.0	5.393	225,492	1.0	789,800	18.131
79.0	253889.0	5.828	244,403	1.0	1,034,202	23.742
80.0	272994.0	6.267	263,442	1.0	1,297,644	29.790

BASIN B-04

Total Area:	**3314271 SF**	**76.09 AC**
Total Impervious Area:	**2651417 SF**	**60.87 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	15.22	39	593
Impervious - Bldgs & Pavement	N/A	60.87	98	5965
TOTALS		76.09		6559

CN_{wtd} = 86

Storage Volume

Area	***76.09 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***31.12***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-04**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	160311.0	3.680	0	0.0	0	0.000
75.0	178766.0	4.104	169,539	1.0	169,539	3.892
76.0	197352.0	4.531	188,059	1.0	357,598	8.209
77.0	216068.0	4.960	206,710	1.0	564,308	12.955
78.0	234916.0	5.393	225,492	1.0	789,800	18.131
79.0	253889.0	5.828	244,403	1.0	1,034,202	23.742
80.0	272994.0	6.267	263,442	1.0	1,297,644	29.790

BASIN B-05

Total Area:	**1483934 SF**	**34.07 AC**
Total Impervious Area:	**1187147 SF**	**27.25 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	6.81	39	266
Impervious - Bldgs & Pavement	N/A	27.25	98	2671
TOTALS		34.07		2937

CN_{wtd} = 86

Storage Volume

Area	***34.07 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***26.37***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-05**

Elevation (ft)	Area (ft^2)	Area (acres)	Avg. Area (ft^2)	Elev. Diff. (ft)	Storage (ft^3)	Storage (Ac-ft)
74.0	93,472	2.146	0	0.0	0	0.000
75.0	100,440	2.306	96,956	1.0	96,956	2.226
76.0	107,536	2.469	103,988	1.0	200,944	4.613
77.0	114,760	2.635	111,148	1.0	312,092	7.165
78.0	122,112	2.803	118,436	1.0	430,528	9.884
79.0	129,592	2.975	125,852	1.0	556,380	12.773
80.0	137,200	3.150	133,396	1.0	689,776	15.835

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,918	75	15
P2	2,389	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,102	750	75

BASIN B-05

Total Area:	**1483934 SF**	**34.07 AC**
Total Impervious Area:	**1187147 SF**	**27.25 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	6.81	39	266
Impervious - Bldgs & Pavement	N/A	27.25	98	2671
TOTALS		34.07		2937

CN_{wtd} = 86

Storage Volume

Area	***34.07 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***18.04***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	93472.0	2.146	0	0.0	0	0.000
75.0	100440.0	2.306	96,956	1.0	96,956	2.226
76.0	107536.0	2.469	103,988	1.0	200,944	4.613
77.0	114760.0	2.635	111,148	1.0	312,092	7.165
78.0	122112.0	2.803	118,436	1.0	430,528	9.884
79.0	129592.0	2.975	125,852	1.0	556,380	12.773
80.0	137200.0	3.150	133,396	1.0	689,776	15.835

BASIN B-05

Total Area:	**1483934 SF**	**34.07 AC**
Total Impervious Area:	**1187147 SF**	**27.25 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	6.81	39	266
Impervious - Bldgs & Pavement	N/A	27.25	98	2671
TOTALS		34.07		2937

CN_{wtd} = 86

Storage Volume

Area	***34.07 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***13.93***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-05**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	93472.0	2.146	0	0.0	0	0.000
75.0	100440.0	2.306	96,956	1.0	96,956	2.226
76.0	107536.0	2.469	103,988	1.0	200,944	4.613
77.0	114760.0	2.635	111,148	1.0	312,092	7.165
78.0	122112.0	2.803	118,436	1.0	430,528	9.884
79.0	129592.0	2.975	125,852	1.0	556,380	12.773
80.0	137200.0	3.150	133,396	1.0	689,776	15.835

BASIN B-06

Total Area:	**525569 SF**	**12.07 AC**
Total Impervious Area:	**420455 SF**	**9.65 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.41	39	94
Impervious - Bldgs & Pavement	N/A	9.65	98	946
TOTALS		12.07		1040

CN_{wtd} = 86

Storage Volume

Area	***12.07 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***9.34***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
73.0	54,612	1.254	0	0.0	0	0.000
74.0	58,324	1.339	56,468	1.0	56,468	1.296
75.0	62,157	1.427	60,241	1.0	116,709	2.679
76.0	66,113	1.518	64,135	1.0	180,844	4.152
77.0	70,190	1.611	68,152	1.0	248,995	5.716
78.0	74,388	1.708	72,289	1.0	321,284	7.376

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	1,065	75	15
P2	1,536	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	6,249	750	75

BASIN B-06

Total Area:	**525569 SF**	**12.07 AC**
Total Impervious Area:	**420455 SF**	**9.65 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.41	39	94
Impervious - Bldgs & Pavement	N/A	9.65	98	946
TOTALS		12.07		1040

CN_{wtd} = 86

Storage Volume

Area	***12.07 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***6.39***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
73.0	54612.0	1.254	0	0.0	0	0.000
74.0	58324.0	1.339	56,468	1.0	56,468	1.296
75.0	62157.0	1.427	60,241	1.0	116,709	2.679
76.0	66113.0	1.518	64,135	1.0	180,844	4.152
77.0	70190.0	1.611	68,152	1.0	248,995	5.716
78.0	74388.0	1.708	72,289	1.0	321,284	7.376

BASIN B-06

Total Area:	**525569 SF**	**12.07 AC**
Total Impervious Area:	**420455 SF**	**9.65 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	2.41	39	94
Impervious - Bldgs & Pavement	N/A	9.65	98	946
TOTALS		12.07		1040

CN_{wtd} = 86

Storage Volume

Area	***12.07 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***4.94***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-06**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
73.0	54612.0	1.254	0	0.0	0	0.000
74.0	58324.0	1.339	56,468	1.0	56,468	1.296
75.0	62157.0	1.427	60,241	1.0	116,709	2.679
76.0	66113.0	1.518	64,135	1.0	180,844	4.152
77.0	70190.0	1.611	68,152	1.0	248,995	5.716
78.0	74388.0	1.708	72,289	1.0	321,284	7.376

BASIN B-07

Total Area:	**2730958 SF**	**62.69 AC**
Total Impervious Area:	**2184766 SF**	**50.16 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	12.54	39	489
Impervious - Bldgs & Pavement	N/A	50.16	98	4915
TOTALS		62.69		5404

CN_{wtd} = 86

Storage Volume

Area	***62.69 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**1.60**
Q (IN)	**9.29**
V (AF)	***48.52***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN B-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	307,215	7.053	0	0.0	0	0.000
78.0	318,732	7.317	312,974	1.0	312,974	7.185
79.0	330,451	7.586	324,592	1.0	637,565	14.636
80.0	342,296	7.858	336,374	1.0	973,939	22.359
81.0	354,263	8.133	348,280	1.0	1,322,218	30.354
82.0	366,350	8.410	360,307	1.0	1,682,525	38.625

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	3,037	75	15
P2	3,508	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	8,221	750	75

BASIN B-07

Total Area:	**2730958 SF**	**62.69 AC**
Total Impervious Area:	**2184766 SF**	**50.16 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	12.54	39	489
Impervious - Bldgs & Pavement	N/A	50.16	98	4915
TOTALS		62.69		5404

CN_{wtd} = 86

Storage Volume

Area	***62.69 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**1.60**
Q (IN)	**6.36**
V (AF)	***33.20***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN B-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	307215.0	7.053	0	0.0	0	0.000
78.0	318732.0	7.317	312,974	1.0	312,974	7.185
79.0	330451.0	7.586	324,592	1.0	637,565	14.636
80.0	342296.0	7.858	336,374	1.0	973,939	22.359
81.0	354263.0	8.133	348,280	1.0	1,322,218	30.354
82.0	366350.0	8.410	360,307	1.0	1,682,525	38.625

BASIN B-07

Total Area:	**2730958 SF**	**62.69 AC**
Total Impervious Area:	**2184766 SF**	**50.16 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	12.54	39	489
Impervious - Bldgs & Pavement	N/A	50.16	98	4915
TOTALS		62.69		5404

CN_{wtd} = 86

Storage Volume

Area	***62.69 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**1.60**
Q (IN)	**4.91**
V (AF)	***25.64***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN B-07**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
77.0	307215.0	7.053	0	0.0	0	0.000
78.0	318732.0	7.317	312,974	1.0	312,974	7.185
79.0	330451.0	7.586	324,592	1.0	637,565	14.636
80.0	342296.0	7.858	336,374	1.0	973,939	22.359
81.0	354263.0	8.133	348,280	1.0	1,322,218	30.354
82.0	366350.0	8.410	360,307	1.0	1,682,525	38.625

BASIN C-01

Total Area:	**5352229 SF**	**122.87 AC**
Total Impervious Area:	**3258002 SF**	**74.79 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	48.08	39	1875
Impervious - Bldgs & Pavement	N/A	74.79	98	7330
TOTALS		122.87		9205

CN_{wtd} = 75

Storage Volume

Area	***122.87 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches (100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**3.35**
Q (IN)	**7.80**
V (AF)	***79.88***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN C-01**

Elevation (ft)	Area (ft^2)	Area (acres)	Avg. Area (ft^2)	Elev. Diff. (ft)	Storage (ft^3)	Storage (Ac-ft)
72.0	297,203	6.823	0	0.0	0	0.000
73.0	306,079	7.027	301,641	1.0	301,641	6.925
74.0	315,083	7.233	310,581	1.0	612,222	14.055
75.0	324,215	7.443	319,649	1.0	931,871	21.393
76.0	333,475	7.656	328,845	1.0	1,260,716	28.942
77.0	342,863	7.871	338,169	1.0	1,598,885	36.705
78.0	352,379	8.090	347,621	1.0	1,946,506	44.686

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	2,395	75	15
P2	2,866	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,579	750	75

BASIN C-01

Total Area:	**5352229 SF**	**122.87 AC**
Total Impervious Area:	**3258002 SF**	**74.79 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	48.08	39	1875
Impervious - Bldgs & Pavement	N/A	74.79	98	7330
TOTALS		122.87		9205

CN_{wtd} = 75

Storage Volume

Area	***122.87 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**3.35**
Q (IN)	**5.03**
V (AF)	***51.52***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN C-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	297203.0	6.823	0	0.0	0	0.000
73.0	306079.0	7.027	301,641	1.0	301,641	6.925
74.0	315083.0	7.233	310,581	1.0	612,222	14.055
75.0	324215.0	7.443	319,649	1.0	931,871	21.393
76.0	333475.0	7.656	328,845	1.0	1,260,716	28.942
77.0	342863.0	7.871	338,169	1.0	1,598,885	36.705
78.0	352379.0	8.090	347,621	1.0	1,946,506	44.686

BASIN C-01

Total Area:	**5352229 SF**	**122.87 AC**
Total Impervious Area:	**3258002 SF**	**74.79 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	48.08	39	1875
Impervious - Bldgs & Pavement	N/A	74.79	98	7330
TOTALS		122.87		9205

CN_{wtd} = 75

Storage Volume

Area	***122.87 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**10-YR**
S	**3.35**
Q (IN)	**3.70**
V (AF)	***37.92***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN C-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
72.0	297203.0	6.823	0	0.0	0	0.000
73.0	306079.0	7.027	301,641	1.0	301,641	6.925
74.0	315083.0	7.233	310,581	1.0	612,222	14.055
75.0	324215.0	7.443	319,649	1.0	931,871	21.393
76.0	333475.0	7.656	328,845	1.0	1,260,716	28.942
77.0	342863.0	7.871	338,169	1.0	1,598,885	36.705
78.0	352379.0	8.090	347,621	1.0	1,946,506	44.686

BASIN C-02 - INCLUDES FLOWS FROM A-01

Total Area:	**3236508 SF**	**74.30 AC**
Total Impervious Area:	**774521 SF**	**17.78 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	56.52	39	2204
Impervious - Bldgs & Pavement	N/A	17.78	98	1742
TOTALS		74.30		3947

CN_{wtd} = 53

Storage Volume

Area	***74.30 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 11 inches 100yr/24hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100yr/24hr**
S	**8.83**
Q (IN)	**4.72**
V (AF)	***29.24***

← **Total volume generated from 100yr/24hr (11-in) storm event in BASIN C-02 - INCLUDES FLOWS FROM A-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	314,943	7.230	0	0.0	0	0.000
75.0	324,156	7.442	319,550	1.0	319,550	7.336
76.0	333,496	7.656	328,826	1.0	648,376	14.885
77.0	342,965	7.873	338,231	1.0	986,606	22.649
78.0	352,561	8.094	347,763	1.0	1,334,369	30.633
79.0	362,286	8.317	357,424	1.0	1,691,793	38.838
80.0	372,138	8.543	367,212	1.0	2,059,005	47.268

Additional Computations used in ICPR			
Perimeters	**Distance (ft)**	**Distance P1 to P2**	**Num of Cells P1 to P2**
P1	2,479	75	15
P2	2,950	**Distance P2 to P3**	**Num of Cells P2 to P3**
P3	7,663	750	75

BASIN C-02 - INCLUDES FLOWS FROM A-01

Total Area:	**3236508 SF**	**74.30 AC**
Total Impervious Area:	**774521 SF**	**17.78 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	56.52	39	2204
Impervious - Bldgs & Pavement	N/A	17.78	98	1742
TOTALS		74.30		3947

CN_{wtd} = 53

Storage Volume

Area	***74.30 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 8-inches (25-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**25-YR**
S	**8.83**
Q (IN)	**2.58**
V (AF)	***15.98***

← **Total volume generated from 25yr/24hr (8-in) storm event in BASIN C-02 - INCLUDES FLOWS FROM A-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	314,943	7.230	0	0.0	0	0.000
75.0	324,156	7.442	319,550	1.0	319,550	7.336
76.0	333,496	7.656	328,826	1.0	648,376	14.885
77.0	342,965	7.873	338,231	1.0	986,606	22.649
78.0	352,561	8.094	347,763	1.0	1,334,369	30.633
79.0	362,286	8.317	357,424	1.0	1,691,793	38.838
80.0	372,138	8.543	367,212	1.0	2,059,005	47.268

BASIN C-02 - INCLUDES FLOWS FROM A-01

Total Area:	**3236508 SF**	**74.30 AC**
Total Impervious Area:	**774521 SF**	**17.78 AC**

LAND USE	*Soil Group*	*AREA (AC)*	*CN*	*A*CN*
Open/Grass/Lawn	A	56.52	39	2204
Impervious - Bldgs & Pavement	N/A	17.78	98	1742
TOTALS		74.30		3947

CN_{wtd} = 53

Storage Volume	
Area	***74.30 AC***
Soil Storage	**S = 1000/CN -10**
Stormwater Event	**P = 6.5-inches (10-yr/24-hr storm event)**
Stormwater Runoff	**$Q = (P-0.2\ S)^2 / (P+0.8S)$ (Runoff in inches)**
Stormwater Volume	**V = Q/12 * A (Runoff Volume in Acre Feet)**

Total Project	**100-YR**
S	**8.83**
Q (IN)	**1.65**
V (AF)	***10.24***

← **Total volume generated from 10yr/24hr (6.5-in) storm event in BASIN C-02 - INCLUDES FLOWS FROM A-01**

Elevation	Area	Area	Avg. Area	Elev. Diff.	Storage	Storage
(ft)	(ft^2)	(acres)	(ft^2)	(ft)	(ft^3)	(Ac-ft)
74.0	314,943	7.230	0	0.0	0	0.000
75.0	324,156	7.442	319,550	1.0	319,550	7.336
76.0	333,496	7.656	328,826	1.0	648,376	14.885
77.0	342,965	7.873	338,231	1.0	986,606	22.649
78.0	352,561	8.094	347,763	1.0	1,334,369	30.633
79.0	362,286	8.317	357,424	1.0	1,691,793	38.838
80.0	372,138	8.543	367,212	1.0	2,059,005	47.268

5. APPENDIX

- ICPR Input Data
- ICPR Results Data
- Geotechnical Data and Reports dated 01/25/2013
- List of Source Data Received from the City

```
================================================================================
==== Basins ====================================================================
================================================================================

        Name: A-01                  Node: A-01                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 16.420                 Time Shift(hrs): 0.00
        Curve Number: 86.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


--------------------------------------------------------------------------------
        Name: A-02                  Node: A-02                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 16.430                 Time Shift(hrs): 0.00
        Curve Number: 86.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


--------------------------------------------------------------------------------
        Name: A-03                  Node: A-03                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 13.180                 Time Shift(hrs): 0.00
        Curve Number: 86.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


--------------------------------------------------------------------------------
        Name: A-04                  Node: A-04                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 12.440                 Time Shift(hrs): 0.00
        Curve Number: 86.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


--------------------------------------------------------------------------------
        Name: A-05                  Node: A-05                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 12.870                 Time Shift(hrs): 0.00
        Curve Number: 86.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


--------------------------------------------------------------------------------
        Name: A-06                  Node: A-06                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 19.640                 Time Shift(hrs): 0.00
        Curve Number: 86.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


--------------------------------------------------------------------------------
        Name: A-07                  Node: A-07                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
```

Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 80.780 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: A-08 Node: A-08 Status: Onsite
Group: Group A Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 17.640 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: A-09a Node: A-09a Status: Onsite
Group: Group A Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 95.350 Time Shift(hrs): 0.00
Curve Number: 54.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: A-10 Node: A-10 Status: Onsite
Group: Group A Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 211.040 Time Shift(hrs): 0.00
Curve Number: 77.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: A-11 Node: A-11 Status: Onsite
Group: Group A Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 53.680 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: A-12 Node: A-12 Status: Onsite
Group: Group A Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 49.970 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: A-13 Node: A-13 Status: Onsite
Group: Group A Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 27.000 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

```
        Name: A-14                  Node: A-14                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 23.940                  Time Shift(hrs): 0.00
        Curve Number: 86.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00
```

```
        Name: A-15                  Node: A-15                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 63.050                  Time Shift(hrs): 0.00
        Curve Number: 47.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00
```

```
        Name: A-16                  Node: A-16                  Status: Onsite
       Group: Group A               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 34.630                  Time Shift(hrs): 0.00
        Curve Number: 61.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00
```

```
        Name: B-01                  Node: B-01                  Status: Onsite
       Group: Group B               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 159.030                 Time Shift(hrs): 0.00
        Curve Number: 58.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00
```

```
        Name: B-02                  Node: B-02                  Status: Onsite
       Group: Group B               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 61.230                  Time Shift(hrs): 0.00
        Curve Number: 86.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00
```

```
        Name: B-03                  Node: B-03                  Status: Onsite
       Group: Group B               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 227.360                 Time Shift(hrs): 0.00
        Curve Number: 72.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00
```

```
        Name: B-04                  Node: B-04                  Status: Onsite
       Group: Group B               Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh484                 Peaking Factor: 484.0
         Rainfall File: Scsii-24          Storm Duration(hrs): 24.00
   Rainfall Amount(in): 11.000              Time of Conc(min): 30.00
            Area(ac): 76.090                  Time Shift(hrs): 0.00
        Curve Number: 86.00             Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00
```

Name: B-05 Node: B-05 Status: Onsite
Group: Group B Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 34.070 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: B-06 Node: B-06 Status: Onsite
Group: Group B Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 12.070 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: B-07 Node: B-07 Status: Onsite
Group: Group B Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 62.690 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: C-01 Node: C-01 Status: Onsite
Group: Group C Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 122.870 Time Shift(hrs): 0.00
Curve Number: 75.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: C-02 Node: C-02 Status: Onsite
Group: Group C Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Scsii-24 Storm Duration(hrs): 24.00
Rainfall Amount(in): 11.000 Time of Conc(min): 30.00
Area(ac): 74.300 Time Shift(hrs): 0.00
Curve Number: 53.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

==========
==== Nodes ==========
==========

Name: A-01 Base Flow(cfs): 0.000 Init Stage(ft): 62.500
Group: Group A Warn Stage(ft): 78.000
Type: Stage/Area

Stage(ft)	Area(ac)
73.000	2.5170
74.000	2.7070
75.000	2.9000
76.000	3.0940
77.000	3.2920
78.000	3.4910

Name: A-02 Base Flow(cfs): 0.000 Init Stage(ft): 63.500
Group: Group A Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
74.000	1.6820
75.000	1.8220
76.000	1.9640
77.000	2.1090
78.000	2.2580
79.000	2.4090
80.000	2.5630

Name: A-03 Base Flow(cfs): 0.000 Init Stage(ft): 63.500
Group: Group A Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
74.000	1.3960
75.000	1.5110
76.000	1.6300
77.000	1.7520
78.000	1.8760
79.000	2.0040
80.000	2.1340

Name: A-04 Base Flow(cfs): 0.000 Init Stage(ft): 63.500
Group: Group A Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
74.000	1.3390
75.000	1.4490
76.000	1.5610
77.000	1.6760
78.000	1.7940
79.000	1.9150
80.000	2.0390

Name: A-05 Base Flow(cfs): 0.000 Init Stage(ft): 63.500
Group: Group A Warn Stage(ft): 79.000
Type: Stage/Area

Stage(ft)	Area(ac)
74.000	1.5190
75.000	1.6370
76.000	1.7590
77.000	1.8830
78.000	2.0100
79.000	2.1390
80.000	2.2720

Name: A-06 Base Flow(cfs): 0.000 Init Stage(ft): 63.500
Group: Group A Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
74.000	2.3310
75.000	2.4930
76.000	2.6570
77.000	2.8250
78.000	2.9960
79.000	3.1690
80.000	3.3460

Name: A-07 Base Flow(cfs): 0.000 Init Stage(ft): 67.000

Group: Group A Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
74.000	10.3660
75.000	10.8990
76.000	11.4350
77.000	11.9730
78.000	12.5150
79.000	13.0590
80.000	13.6070

Name: A-08 Base Flow(cfs): 0.000 Init Stage(ft): 52.000
Group: Group A Warn Stage(ft): 70.000
Type: Stage/Area

Stage(ft)	Area(ac)
64.000	3.4590
65.000	3.6250
66.000	3.7930
67.000	3.9640
68.000	4.1380
69.000	4.3150
70.000	4.4940

Name: A-09 misc Base Flow(cfs): 0.000 Init Stage(ft): 66.000
Group: Group A Warn Stage(ft): 68.000
Type: Stage/Area

Stage(ft)	Area(ac)
67.500	0.1200
69.000	0.3500

Name: A-09a Base Flow(cfs): 0.000 Init Stage(ft): 59.500
Group: Group A Warn Stage(ft): 68.000
Type: Stage/Area

Stage(ft)	Area(ac)
62.000	6.6700
63.000	7.0200
64.000	7.3800
65.000	7.7400
66.000	8.1100
67.000	8.4700
68.000	8.8500

Name: A-09b Base Flow(cfs): 0.000 Init Stage(ft): 59.500
Group: Group A Warn Stage(ft): 68.000
Type: Stage/Area

Stage(ft)	Area(ac)
62.000	1.6100
63.000	1.7300
64.000	1.8500
65.000	1.9800
66.000	2.1100
67.000	2.2400
68.000	2.3800

Name: A-09c Base Flow(cfs): 0.000 Init Stage(ft): 54.000
Group: Group A Warn Stage(ft): 68.000
Type: Stage/Area

Stage(ft)	Area(ac)

64.000	23034.0000
65.000	34415.0000
66.000	40105.0000
67.000	45795.0000
68.000	51485.0000

Name: A-10 Base Flow(cfs): 0.000 Init Stage(ft): 68.500
Group: Group A Warn Stage(ft): 84.000
Type: Stage/Area

Stage(ft)	Area(ac)
79.000	27.2240
80.000	28.1470
81.000	29.0730
82.000	30.0030
83.000	30.9360
84.000	31.8710

Name: A-11 Base Flow(cfs): 0.000 Init Stage(ft): 70.000
Group: Group A Warn Stage(ft): 84.000
Type: Stage/Area

Stage(ft)	Area(ac)
79.000	8.5870
80.000	9.5500
81.000	10.0360
82.000	10.5250
83.000	11.0170
84.000	11.5120

Name: A-12 Base Flow(cfs): 0.000 Init Stage(ft): 73.500
Group: Group A Warn Stage(ft): 82.000
Type: Stage/Area

Stage(ft)	Area(ac)
78.000	9.8640
79.000	10.3600
80.000	10.8590
81.000	11.8670
82.000	12.3740

Name: A-13 Base Flow(cfs): 0.000 Init Stage(ft): 63.500
Group: Group A Warn Stage(ft): 76.000
Type: Stage/Area

Stage(ft)	Area(ac)
70.000	1.7670
71.000	1.9400
72.000	2.1160
73.000	2.2950
74.000	2.4770
75.000	2.6610
76.000	2.8490

Name: A-14 Base Flow(cfs): 0.000 Init Stage(ft): 67.500
Group: Group A Warn Stage(ft): 73.000
Type: Stage/Area

Stage(ft)	Area(ac)
68.000	3.3050
69.000	3.5200
70.000	3.7380
71.000	3.9580
72.000	4.1820
73.000	4.4090

Name: A-15 Base Flow(cfs): 0.000 Init Stage(ft): 70.000
Group: Group A Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
75.000	2.8170
76.000	3.0040
77.000	3.1940
78.000	3.3870
79.000	3.5830
80.000	3.7820

Name: A-16 Base Flow(cfs): 0.000 Init Stage(ft): 66.000
Group: Group A Warn Stage(ft): 78.000
Type: Stage/Area

Stage(ft)	Area(ac)
76.000	0.9090
77.000	10.2340
78.000	19.5590

Name: B-01 Base Flow(cfs): 0.000 Init Stage(ft): 64.000
Group: Group B Warn Stage(ft): 84.000
Type: Stage/Area

Stage(ft)	Area(ac)
79.000	17.2550
80.000	17.5740
81.000	17.8950
82.000	18.2200
83.000	18.5470
84.000	18.8760

Name: B-02 Base Flow(cfs): 0.000 Init Stage(ft): 69.000
Group: Group B Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
75.000	6.7180
76.000	6.9400
77.000	7.1650
78.000	7.3940
79.000	7.6250
80.000	7.8590

Name: B-03 Base Flow(cfs): 0.000 Init Stage(ft): 75.000
Group: Group B Warn Stage(ft): 83.000
Type: Stage/Area

Stage(ft)	Area(ac)
77.000	15.8100
78.000	16.9300
79.000	18.0700
80.000	19.2250
81.000	20.3960
82.000	21.5830
83.000	22.7870

Name: B-04 Base Flow(cfs): 0.000 Init Stage(ft): 63.000
Group: Group B Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
68.000	1.2010

69.000	1.6100
70.000	2.0150
71.000	2.4300
72.000	2.8420
73.000	3.2600
74.000	3.6800
75.000	4.1040
76.000	4.5310
77.000	4.9600
78.000	5.4000
79.000	5.8300
80.000	6.2700

Name: B-05 Base Flow(cfs): 0.000 Init Stage(ft): 60.000
Group: Group B Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
70.000	1.5350
71.000	1.6840
72.000	1.8350
73.000	1.9890
74.000	2.1460
75.000	2.3060
76.000	2.4690
77.000	2.6350
78.000	2.8030
79.000	2.9750
80.000	3.1500

Name: B-06 Base Flow(cfs): 0.000 Init Stage(ft): 63.000
Group: Group B Warn Stage(ft): 78.000
Type: Stage/Area

Stage(ft)	Area(ac)
73.000	1.2640
74.000	1.3460
75.000	1.4320
76.000	1.5200
77.000	1.6100
78.000	1.7020

Name: B-07 Base Flow(cfs): 0.000 Init Stage(ft): 67.000
Group: Group B Warn Stage(ft): 82.000
Type: Stage/Area

Stage(ft)	Area(ac)
77.000	7.0530
78.000	7.3170
79.000	7.5860
80.000	7.8580
81.000	8.1330
82.000	8.4100

Name: C-01 Base Flow(cfs): 0.000 Init Stage(ft): 65.000
Group: Group C Warn Stage(ft): 78.000
Type: Stage/Area

Stage(ft)	Area(ac)
69.000	7.2300
70.000	7.4400
71.000	7.6500
72.000	7.8700
73.000	8.0900
74.000	8.3100
75.000	8.5300
76.000	8.7600
77.000	8.9900
78.000	9.2300

Name: C-02 Base Flow(cfs): 0.000 Init Stage(ft): 65.000
Group: Group C Warn Stage(ft): 80.000
Type: Stage/Area

Stage(ft)	Area(ac)
75.000	3.8140
76.000	3.9800
77.000	4.1490
78.000	4.3210
79.000	4.4950
80.000	4.6730

Name: C-02a Base Flow(cfs): 0.000 Init Stage(ft): 54.000
Group: Group C Warn Stage(ft): 76.500
Type: Stage/Area

Stage(ft)	Area(ac)
76.000	669.0000
77.000	7453.0000
78.000	14237.0000

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==== Pipes ==========

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Name: L1 A-09 From Node: A-09c Length(ft): 100.00
Group: Group A To Node: A-09 misc Count: 3
Friction Equation: Automatic
Solution Algorithm: Most Restrictive
Flow: Both
Entrance Loss Coef: 0.70
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	28.00	28.00
Rise(in):	28.00	28.00
Invert(ft):	68.000	67.500
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

Existing equalizer pipes located under SW 60th ave. These pipes connect to an offsite basin (A-09C)

Name: L1 C-02 From Node: C-02a Length(ft): 400.00
Group: Group C To Node: C-02 Count: 1
Friction Equation: Automatic
Solution Algorithm: Most Restrictive
Flow: Both
Entrance Loss Coef: 0.70
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	36.00	36.00
Rise(in):	36.00	36.00
Invert(ft):	76.000	75.000
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: L2 A-09 From Node: A-09a Length(ft): 875.00
Group: Group A To Node: A-09b Count: 2
Friction Equation: Automatic
Solution Algorithm: Most Restrictive
Flow: Both
Entrance Loss Coef: 0.70
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	36.00	36.00
Rise(in):	36.00	36.00
Invert(ft):	66.000	62.000
Manning's N:	0.012000	0.012000

```
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 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

Proposed discharge pipe to future drainage area constructed south of SW 38th Street on property aquired by the Airport for futur

================================================================================
==== Channels ==================================================================
================================================================================

          Name: C1 A-09             From Node: A-09 misc          Length(ft): 300.00
         Group: Group A               To Node: A-09a                Count: 1

               UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
     Geometry: Trapezoidal    Trapezoidal               Solution Algorithm: Automatic
    Invert(ft): 67.500        66.300                              Flow: Both
 TClpInitZ(ft): 9999.000      9999.000                  Contraction Coef: 0.100
   Manning's N: 0.030000      0.030000                    Expansion Coef: 0.300
  Top Clip(ft): 0.000         0.000                    Entrance Loss Coef: 0.000
  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 dc
     Aux XSec1:                                       Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 2.000         2.000
  LtSdSlp(h/v): 4.00          4.00
  RtSdSlp(h/v): 4.00          4.00



================================================================================
==== Percolation Links =========================================================
================================================================================

          Name: P1 A-01             From Node: A-01                    Flow: Both
         Group: Group A               To Node: GW_Sink                Count: 1

          Surface Area Option: Use 1st Point in Stage/Area Table
    Vertical Flow Termination: Horizontal Flow Algorithm
        Aquifer Base Elev(ft): 60.750                      Perimeter 1(ft): 2185.000
         Water Table Elev(ft): 68.750                      Perimeter 2(ft): 2656.000
 ****************************0.000                       Perimeter 3(ft): 7369.000
  Horiz Conductivity(ft/day): 13.600                  Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 6.800                   Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
             Suction Head(in): 4.170                     Num Cells 2 to 3: 75
          Layer Thickness(ft): 10.500



--------------------------------------------------------------------------------------------------
          Name: P10 A-10            From Node: A-10                    Flow: Both
         Group: Group A               To Node: GW_Sink                Count: 1

          Surface Area Option: Use 1st Point in Stage/Area Table
    Vertical Flow Termination: Horizontal Flow Algorithm
        Aquifer Base Elev(ft): 64.750                      Perimeter 1(ft): 10203.000
         Water Table Elev(ft): 67.500                      Perimeter 2(ft): 10674.000
 ****************************0.000                       Perimeter 3(ft): 15387.000
  Horiz Conductivity(ft/day): 26.200                  Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 13.100                  Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
             Suction Head(in): 4.170                     Num Cells 2 to 3: 75
          Layer Thickness(ft): 15.500



--------------------------------------------------------------------------------------------------
          Name: P11 A-11            From Node: A-11                    Flow: Both
         Group: Group A               To Node: GW_Sink                Count: 1

          Surface Area Option: Use 1st Point in Stage/Area Table
    Vertical Flow Termination: Horizontal Flow Algorithm
        Aquifer Base Elev(ft): 66.500                      Perimeter 1(ft): 5406.000
         Water Table Elev(ft): 73.500                      Perimeter 2(ft): 5877.000
```

**********0.000 Perimeter 3(ft): 10590.000
Horiz Conductivity(ft/day): 29.930 Distance 1 to 2(ft): 75.000
Vert Conductivity(ft/day): 14.970 Distance 2 to 3(ft): 750.000
Effective Porosity(dec): 0.329 Num Cells 1 to 2: 15
Suction Head(in): 5.590 Num Cells 2 to 3: 75
Layer Thickness(ft): 7.000

Name: P12 A-12 From Node: A-12 Flow: Both
Group: Group A To Node: GW_Sink Count: 1

Surface Area Option: Use 1st Point in Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 66.750 Perimeter 1(ft): 5548.000
Water Table Elev(ft): 71.000 Perimeter 2(ft): 6019.000
**********0.000 Perimeter 3(ft): 10732.000
Horiz Conductivity(ft/day): 12.000 Distance 1 to 2(ft): 75.000
Vert Conductivity(ft/day): 6.000 Distance 2 to 3(ft): 750.000
Effective Porosity(dec): 0.329 Num Cells 1 to 2: 15
Suction Head(in): 17.680 Num Cells 2 to 3: 75
Layer Thickness(ft): 4.500

Name: P13 A-13 From Node: A-13 Flow: Both
Group: Group A To Node: GW_Sink Count: 1

Surface Area Option: Use 1st Point in Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 56.000 Perimeter 1(ft): 2058.000
Water Table Elev(ft): 63.500 Perimeter 2(ft): 2529.000
**********0.000 Perimeter 3(ft): 7242.000
Horiz Conductivity(ft/day): 16.930 Distance 1 to 2(ft): 75.000
Vert Conductivity(ft/day): 8.470 Distance 2 to 3(ft): 750.000
Effective Porosity(dec): 0.329 Num Cells 1 to 2: 15
Suction Head(in): 4.170 Num Cells 2 to 3: 75
Layer Thickness(ft): 12.500

Name: P14 A-14 From Node: A-14 Flow: Both
Group: Group A To Node: GW_Sink Count: 1

Surface Area Option: Use 1st Point in Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 61.750 Perimeter 1(ft): 2483.000
Water Table Elev(ft): 67.000 Perimeter 2(ft): 2954.000
**********0.000 Perimeter 3(ft): 7667.000
Horiz Conductivity(ft/day): 13.670 Distance 1 to 2(ft): 75.000
Vert Conductivity(ft/day): 6.830 Distance 2 to 3(ft): 750.000
Effective Porosity(dec): 0.329 Num Cells 1 to 2: 15
Suction Head(in): 17.680 Num Cells 2 to 3: 75
Layer Thickness(ft): 4.500

75

Name: P15 A-15 From Node: A-15 Flow: Both
Group: Group A To Node: GW_Sink Count: 1

Surface Area Option: Use 1st Point in Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 61.750 Perimeter 1(ft): 2183.000
Water Table Elev(ft): 67.000 Perimeter 2(ft): 2654.000
**********0.000 Perimeter 3(ft): 7367.000
Horiz Conductivity(ft/day): 13.670 Distance 1 to 2(ft): 75.000
Vert Conductivity(ft/day): 6.830 Distance 2 to 3(ft): 750.000
Effective Porosity(dec): 0.329 Num Cells 1 to 2: 15
Suction Head(in): 17.680 Num Cells 2 to 3: 75
Layer Thickness(ft): 4.500

Name: P16 A-16 From Node: A-16 Flow: Both
Group: Group A To Node: GW_Sink Count: 1

Surface Area Option: Use 1st Point in Stage/Area Table

```
   Vertical Flow Termination: Horizontal Flow Algorithm
       Aquifer Base Elev(ft): 63.000                      Perimeter 1(ft): 13184.000
        Water Table Elev(ft): 72.500                      Perimeter 2(ft): 13655.000
 ****************************0.000                      Perimeter 3(ft): 18368.000
  Horiz Conductivity(ft/day): 20.270                   Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 10.130                   Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
             Suction Head(in): 4.170                     Num Cells 2 to 3: 75
          Layer Thickness(ft): 12.000


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          Name: P17 B-01           From Node: B-01                   Flow: Both
         Group: Group B              To Node: GW_Sink                Count: 1

          Surface Area Option: Use 1st Point in Stage/Area Table
   Vertical Flow Termination: Horizontal Flow Algorithm
       Aquifer Base Elev(ft): 59.000                      Perimeter 1(ft): 3604.000
        Water Table Elev(ft): 59.000                      Perimeter 2(ft): 4075.000
 ****************************0.000                      Perimeter 3(ft): 8788.000
  Horiz Conductivity(ft/day): 39.470                   Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 19.730                   Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
             Suction Head(in): 4.170                     Num Cells 2 to 3: 75
          Layer Thickness(ft): 20.000


--------------------------------------------------------------------------------------------------
          Name: P18 B-02           From Node: B-02                   Flow: Both
         Group: Group B              To Node: GW_Sink                Count: 1

          Surface Area Option: Use 1st Point in Stage/Area Table
   Vertical Flow Termination: Horizontal Flow Algorithm
       Aquifer Base Elev(ft): 57.000                      Perimeter 1(ft): 5525.000
        Water Table Elev(ft): 69.000                      Perimeter 2(ft): 5996.000
 ****************************0.000                      Perimeter 3(ft): 10709.000
  Horiz Conductivity(ft/day): 20.870                   Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 10.430                   Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
             Suction Head(in): 4.170                     Num Cells 2 to 3: 75
          Layer Thickness(ft): 0.000


--------------------------------------------------------------------------------------------------
          Name: P19 B-03           From Node: B-03                   Flow: Both
         Group: Group B              To Node: GW_Sink                Count: 4

          Surface Area Option: Use 1st Point in Stage/Area Table
   Vertical Flow Termination: Horizontal Flow Algorithm
       Aquifer Base Elev(ft): 67.000                      Perimeter 1(ft): 4956.000
        Water Table Elev(ft): 75.000                      Perimeter 2(ft): 5427.000
 ****************************0.000                      Perimeter 3(ft): 10140.000
  Horiz Conductivity(ft/day): 21.470                   Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 10.730                   Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
             Suction Head(in): 4.170                     Num Cells 2 to 3: 75
          Layer Thickness(ft): 12.000


--------------------------------------------------------------------------------------------------
          Name: P2 A-02            From Node: A-02                   Flow: Both
         Group: Group A              To Node: GW_Sink                Count: 1

          Surface Area Option: Use 1st Point in Stage/Area Table
   Vertical Flow Termination: Horizontal Flow Algorithm
       Aquifer Base Elev(ft): 52.000                      Perimeter 1(ft): 1497.000
        Water Table Elev(ft): 61.500                      Perimeter 2(ft): 1968.000
 ****************************0.000                      Perimeter 3(ft): 6681.000
  Horiz Conductivity(ft/day): 20.270                   Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 10.130                   Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
             Suction Head(in): 4.170                     Num Cells 2 to 3: 75
          Layer Thickness(ft): 10.500


--------------------------------------------------------------------------------------------------
          Name: P20 B-04           From Node: B-04                   Flow: Both
```

```
       Group: Group B              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 57.000                      Perimeter 1(ft): 3537.000
       Water Table Elev(ft): 63.000                      Perimeter 2(ft): 4008.000
****************************0.000                      Perimeter 3(ft): 8721.000
 Horiz Conductivity(ft/day): 19.870                  Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 9.930                   Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 4.170                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 14.000



--------------------------------------------------------------------------------------------------
        Name: P21 B-05           From Node: B-05                  Flow: Both
       Group: Group B              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 58.000                      Perimeter 1(ft): 1918.000
       Water Table Elev(ft): 58.000                      Perimeter 2(ft): 2389.000
****************************0.000                      Perimeter 3(ft): 7102.000
 Horiz Conductivity(ft/day): 2.130                   Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 1.070                   Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 4.170                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 20.000



--------------------------------------------------------------------------------------------------
        Name: P22 B-06           From Node: B-06                  Flow: Both
       Group: Group B              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 60.000                      Perimeter 1(ft): 1065.000
       Water Table Elev(ft): 61.500                      Perimeter 2(ft): 1536.000
****************************0.000                      Perimeter 3(ft): 6249.000
 Horiz Conductivity(ft/day): 21.730                  Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 10.870                  Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 4.170                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 16.500



--------------------------------------------------------------------------------------------------
        Name: P23 B-07           From Node: B-07                  Flow: Both
       Group: Group B              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 45.000                      Perimeter 1(ft): 3037.000
       Water Table Elev(ft): 48.500                      Perimeter 2(ft): 3508.000
****************************0.000                      Perimeter 3(ft): 8221.000
 Horiz Conductivity(ft/day): 13.200                  Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 6.600                   Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 5.590                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 16.500



--------------------------------------------------------------------------------------------------
        Name: P24 C-01           From Node: C-01                  Flow: Both
       Group: Group C              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 59.000                      Perimeter 1(ft): 2395.000
       Water Table Elev(ft): 65.000                      Perimeter 2(ft): 2866.000
****************************0.000                      Perimeter 3(ft): 7579.000
 Horiz Conductivity(ft/day): 3.600                   Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 1.800                   Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 5.590                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 4.000
```

```
        Name: P25 C-02           From Node: C-02                  Flow: Both
       Group: Group C              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 65.750                      Perimeter 1(ft): 2479.000
       Water Table Elev(ft): 70.750                      Perimeter 2(ft): 2950.000
**************************0.000                        Perimeter 3(ft): 7663.000
 Horiz Conductivity(ft/day): 7.200                   Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 3.600                   Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 8.740                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 2.500
```

```
        Name: P3 A-03            From Node: A-03                  Flow: Both
       Group: Group A              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 52.000                      Perimeter 1(ft): 1234.000
       Water Table Elev(ft): 61.500                      Perimeter 2(ft): 1705.000
**************************0.000                        Perimeter 3(ft): 6418.000
 Horiz Conductivity(ft/day): 20.270                  Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 10.130                  Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 4.170                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 10.500
```

```
        Name: P4 A-04            From Node: A-04                  Flow: Both
       Group: Group A              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 52.000                      Perimeter 1(ft): 1159.000
       Water Table Elev(ft): 61.500                      Perimeter 2(ft): 1630.000
**************************0.000                        Perimeter 3(ft): 6343.000
 Horiz Conductivity(ft/day): 20.270                  Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 10.130                  Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 4.170                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 10.500
```

```
        Name: P5 A-05            From Node: A-05                  Flow: Both
       Group: Group A              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 52.000                      Perimeter 1(ft): 1322.000
       Water Table Elev(ft): 61.500                      Perimeter 2(ft): 1793.000
**************************0.000                        Perimeter 3(ft): 6506.000
 Horiz Conductivity(ft/day): 20.270                  Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 10.130                  Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 4.170                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 10.500
```

```
        Name: P6 A-06            From Node: A-06                  Flow: Both
       Group: Group A              To Node: GW_Sink               Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 52.000                      Perimeter 1(ft): 1837.000
       Water Table Elev(ft): 61.500                      Perimeter 2(ft): 2308.000
**************************0.000                        Perimeter 3(ft): 7021.000
 Horiz Conductivity(ft/day): 20.270                  Distance 1 to 2(ft): 75.000
  Vert Conductivity(ft/day): 10.130                  Distance 2 to 3(ft): 750.000
    Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
          Suction Head(in): 4.170                       Num Cells 2 to 3: 75
       Layer Thickness(ft): 10.500
```

```
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         Name: P7 A-07            From Node: A-07                   Flow: Both
        Group: Group A              To Node: GW_Sink                Count: 1

         Surface Area Option: Use 1st Point in Stage/Area Table
   Vertical Flow Termination: Horizontal Flow Algorithm
       Aquifer Base Elev(ft): 56.000                      Perimeter 1(ft): 5712.000
        Water Table Elev(ft): 63.500                      Perimeter 2(ft): 6183.000
 ****************************0.000                      Perimeter 3(ft): 10896.000
  Horiz Conductivity(ft/day): 11.000                  Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 5.500                   Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
           Suction Head(in): 4.170                       Num Cells 2 to 3: 75
        Layer Thickness(ft): 7.000



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         Name: P8 A-08            From Node: A-08                   Flow: Both
        Group: Group A              To Node: GW_Sink                Count: 1

         Surface Area Option: Use 1st Point in Stage/Area Table
   Vertical Flow Termination: Horizontal Flow Algorithm
       Aquifer Base Elev(ft): 48.750                      Perimeter 1(ft): 1938.000
        Water Table Elev(ft): 53.250                      Perimeter 2(ft): 2409.000
 ****************************0.000                      Perimeter 3(ft): 7122.000
  Horiz Conductivity(ft/day): 24.470                  Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 12.230                  Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
           Suction Head(in): 4.170                       Num Cells 2 to 3: 75
        Layer Thickness(ft): 12.000



--------------------------------------------------------------------------------------------------
         Name: P9 A-09            From Node: A-09a                  Flow: Both
        Group: Group A              To Node: GW_Sink                Count: 1

         Surface Area Option: Use 1st Point in Stage/Area Table
   Vertical Flow Termination: Horizontal Flow Algorithm
       Aquifer Base Elev(ft): 46.500                      Perimeter 1(ft): 4057.000
        Water Table Elev(ft): 56.500                      Perimeter 2(ft): 4528.000
 ****************************0.000                      Perimeter 3(ft): 9241.000
  Horiz Conductivity(ft/day): 15.130                  Distance 1 to 2(ft): 75.000
   Vert Conductivity(ft/day): 7.570                   Distance 2 to 3(ft): 750.000
     Effective Porosity(dec): 0.329                      Num Cells 1 to 2: 15
           Suction Head(in): 5.590                       Num Cells 2 to 3: 75
        Layer Thickness(ft): 2.500



==================================================================================================
==== Hydrology Simulations ======================================================================
==================================================================================================

         Name: 100YR24HR
     Filename: P:\Active Projects\FTP-2012200.00 Ocala Airport Storwater Master Plan\Documents\Drainage\Modeling\ICPR Models\Pro

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 11.00

Time(hrs)       Print Inc(min)
--------------- ---------------
30.000          5.00

--------------------------------------------------------------------------------------------------
         Name: 10YR24HR
     Filename: P:\Active Projects\FTP-2012200.00 Ocala Airport Storwater Master Plan\Documents\Drainage\Modeling\ICPR Models\Pro

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 6.50

Time(hrs)       Print Inc(min)
--------------- ---------------
30.000          5.00
```

```
--------------------------------------------------------------------------------------------------
         Name: 25YR24HR
     Filename: P:\Active Projects\FTP-2012200.00 Ocala Airport Storwater Master Plan\Documents\Drainage\Modeling\ICPR Models\Pro

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 8.00

Time(hrs)       Print Inc(min)
--------------- ---------------
30.000          5.00

================================================================================
==== Routing Simulations ======================================================
================================================================================

         Name: PR100yr-24hr        Hydrology Sim: 100YR24HR
     Filename: P:\Active Projects\FTP-2012200.00 Ocala Airport Storwater Master Plan\Documents\Drainage\Modeling\ICPR Models\Pro

      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): 336.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
999.000         15.000

Group           Run
--------------- -----
BASE            Yes
Group A         Yes
Group B         Yes
Group C         Yes


--------------------------------------------------------------------------------------------------
         Name: PR10YR-24HR         Hydrology Sim: 10YR24HR
     Filename: P:\Active Projects\FTP-2012200.00 Ocala Airport Storwater Master Plan\Documents\Drainage\Modeling\ICPR Models\Pro

      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): 336.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
999.000         15.000

Group           Run
--------------- -----
BASE            Yes
Group A         Yes
Group B         Yes
Group C         Yes


--------------------------------------------------------------------------------------------------
         Name: PR25YR-24HR         Hydrology Sim: 25YR24HR
     Filename: P:\Active Projects\FTP-2012200.00 Ocala Airport Storwater Master Plan\Documents\Drainage\Modeling\ICPR Models\Pro

      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): 336.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
```

999.000 15.000

Group	Run
BASE	Yes
Group A	Yes
Group B	Yes
Group C	Yes

```
            Basin Name: A-01
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-01
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 16.420
  Vol of Unit Hyd (in): 1.001
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 93.83
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 551316


--------------------------------------------------------------------------------

            Basin Name: A-02
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-02
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 16.430
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 93.88
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 551652


--------------------------------------------------------------------------------

            Basin Name: A-03
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-03
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 13.180
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 75.31
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 442530


--------------------------------------------------------------------------------
```

```
            Basin Name: A-04
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-04
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 12.440
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 71.08
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 417684


--------------------------------------------------------------------------------

            Basin Name: A-05
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-05
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 12.870
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 73.54
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 432122


--------------------------------------------------------------------------------

            Basin Name: A-06
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-06
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 19.640
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 112.23
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 659430


--------------------------------------------------------------------------------
```

```
            Basin Name: A-07
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-07
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 80.780
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 461.59
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 2712260


--------------------------------------------------------------------------------

            Basin Name: A-08
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-08
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 17.640
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 100.80
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 592279


--------------------------------------------------------------------------------

            Basin Name: A-09a
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-09a
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 95.350
  Vol of Unit Hyd (in): 1.000
         Curve Number: 54.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 295.35
    Runoff Volume (in): 4.845
   Runoff Volume (ft3): 1676810


--------------------------------------------------------------------------------
```

```
            Basin Name: A-09b
            Group Name: BASE
            Simulation: 100YR24HR
             Node Name: A-09c
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 8.00
   Comp Time Inc (min): 5.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Offsite
    Time of Conc (min): 60.00
      Time Shift (hrs): 0.00
            Area (ac): 70.550
  Vol of Unit Hyd (in): 1.000
         Curve Number: 41.000
             DCIA (%): 0.000

       Time Max (hrs): 12.67
       Flow Max (cfs): 84.81
    Runoff Volume (in): 2.929
   Runoff Volume (ft3): 750157


--------------------------------------------------------------------------------

            Basin Name: A-10
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-10
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 211.040
  Vol of Unit Hyd (in): 1.000
         Curve Number: 77.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 1089.88
    Runoff Volume (in): 8.071
   Runoff Volume (ft3): 6183100


--------------------------------------------------------------------------------

            Basin Name: A-11
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-11
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 53.680
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 306.73
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 1802353


--------------------------------------------------------------------------------
```

```
            Basin Name: A-12
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-12
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 49.970
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
       Flow Max (cfs): 285.54
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 1677787


--------------------------------------------------------------------------------

            Basin Name: A-13
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-13
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 27.000
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
       Flow Max (cfs): 154.28
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 906549


--------------------------------------------------------------------------------

            Basin Name: A-14
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-14
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 23.940
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
       Flow Max (cfs): 136.80
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 803807


--------------------------------------------------------------------------------
```

```
            Basin Name: A-15
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-15
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 63.050
  Vol of Unit Hyd (in): 1.000
         Curve Number: 47.000
             DCIA (%): 0.000

       Time Max (hrs): 12.27
       Flow Max (cfs): 148.42
    Runoff Volume (in): 3.814
   Runoff Volume (ft3): 872982


--------------------------------------------------------------------------------

            Basin Name: A-16
            Group Name: Group A
            Simulation: 100YR24HR
             Node Name: A-16
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 34.630
  Vol of Unit Hyd (in): 1.000
         Curve Number: 61.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 131.70
    Runoff Volume (in): 5.857
   Runoff Volume (ft3): 736213


--------------------------------------------------------------------------------

            Basin Name: B-01
            Group Name: Group B
            Simulation: 100YR24HR
             Node Name: B-01
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 159.030
  Vol of Unit Hyd (in): 1.000
         Curve Number: 58.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 557.79
    Runoff Volume (in): 5.426
   Runoff Volume (ft3): 3132107


--------------------------------------------------------------------------------
```

```
            Basin Name: B-02
            Group Name: Group B
            Simulation: 100YR24HR
             Node Name: B-02
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
         Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
              Area (ac): 61.230
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 349.88
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 2055851


--------------------------------------------------------------------------------

            Basin Name: B-03
            Group Name: Group B
            Simulation: 100YR24HR
             Node Name: B-03
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
         Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
              Area (ac): 227.360
  Vol of Unit Hyd (in): 1.000
          Curve Number: 72.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 1087.70
    Runoff Volume (in): 7.395
   Runoff Volume (ft3): 6103362


--------------------------------------------------------------------------------

            Basin Name: B-04
            Group Name: Group B
            Simulation: 100YR24HR
             Node Name: B-04
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
         Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
              Area (ac): 76.090
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 434.79
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 2554789


--------------------------------------------------------------------------------
```

```
            Basin Name: B-05
            Group Name: Group B
            Simulation: 100YR24HR
             Node Name: B-05
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 34.070
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 194.68
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 1143930


--------------------------------------------------------------------------------

            Basin Name: B-06
            Group Name: Group B
            Simulation: 100YR24HR
             Node Name: B-06
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 12.070
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 68.97
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 405261


--------------------------------------------------------------------------------

            Basin Name: B-07
            Group Name: Group B
            Simulation: 100YR24HR
             Node Name: B-07
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 62.690
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 358.22
    Runoff Volume (in): 9.250
   Runoff Volume (ft3): 2104872


--------------------------------------------------------------------------------
```

```
            Basin Name: C-01
            Group Name: Group C
            Simulation: 100YR24HR
             Node Name: C-01
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 122.870
  Vol of Unit Hyd (in): 1.000
         Curve Number: 75.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 616.55
    Runoff Volume (in): 7.803
   Runoff Volume (ft3): 3480086


--------------------------------------------------------------------------------

            Basin Name: C-02
            Group Name: Group C
            Simulation: 100YR24HR
             Node Name: C-02
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 11.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 74.300
  Vol of Unit Hyd (in): 1.000
         Curve Number: 53.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 222.35
    Runoff Volume (in): 4.698
   Runoff Volume (ft3): 1267175


--------------------------------------------------------------------------------

            Basin Name: A-01
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-01
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 16.420
  Vol of Unit Hyd (in): 1.001
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 51.06
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 290849


--------------------------------------------------------------------------------
```

```
            Basin Name: A-02
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-02
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 16.430
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 51.09
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 291026


--------------------------------------------------------------------------------

            Basin Name: A-03
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-03
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 13.180
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 40.98
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 233458


--------------------------------------------------------------------------------

            Basin Name: A-04
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-04
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 12.440
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 38.68
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 220351


--------------------------------------------------------------------------------
```

```
            Basin Name: A-05
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-05
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 12.870
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 40.02
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 227967


--------------------------------------------------------------------------------

            Basin Name: A-06
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-06
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 19.640
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 61.07
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 347885


--------------------------------------------------------------------------------

            Basin Name: A-07
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-07
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 80.780
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 251.18
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 1430862


--------------------------------------------------------------------------------
```

```
            Basin Name: A-08
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-08
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 17.640
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 54.85
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 312459


--------------------------------------------------------------------------------

            Basin Name: A-09a
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-09a
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 95.350
  Vol of Unit Hyd (in): 1.000
         Curve Number: 54.000
             DCIA (%): 0.000

       Time Max (hrs): 12.27
       Flow Max (cfs): 96.00
    Runoff Volume (in): 1.725
   Runoff Volume (ft3): 597202


--------------------------------------------------------------------------------

            Basin Name: A-09b
            Group Name: BASE
            Simulation: 10YR24HR
             Node Name: A-09c
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 8.00
   Comp Time Inc (min): 5.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Offsite
    Time of Conc (min): 60.00
      Time Shift (hrs): 0.00
            Area (ac): 70.550
  Vol of Unit Hyd (in): 1.000
         Curve Number: 41.000
             DCIA (%): 0.000

       Time Max (hrs): 12.83
       Flow Max (cfs): 14.35
    Runoff Volume (in): 0.728
   Runoff Volume (ft3): 186452


--------------------------------------------------------------------------------
```

```
            Basin Name: A-10
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-10
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 211.040
  Vol of Unit Hyd (in): 1.000
         Curve Number: 77.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 537.34
    Runoff Volume (in): 3.914
   Runoff Volume (ft3): 2998429


--------------------------------------------------------------------------------

            Basin Name: A-11
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-11
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 53.680
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 166.91
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 950838


--------------------------------------------------------------------------------

            Basin Name: A-12
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-12
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 49.970
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 155.38
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 885122


--------------------------------------------------------------------------------
```

```
            Basin Name: A-13
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-13
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 27.000
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 83.95
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 478253


--------------------------------------------------------------------------------

            Basin Name: A-14
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-14
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 23.940
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 74.44
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 424051


--------------------------------------------------------------------------------

            Basin Name: A-15
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-15
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 63.050
  Vol of Unit Hyd (in): 1.000
         Curve Number: 47.000
             DCIA (%): 0.000

       Time Max (hrs): 12.33
       Flow Max (cfs): 36.88
    Runoff Volume (in): 1.159
   Runoff Volume (ft3): 265320


--------------------------------------------------------------------------------
```

```
            Basin Name: A-16
            Group Name: Group A
            Simulation: 10YR24HR
             Node Name: A-16
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 34.630
  Vol of Unit Hyd (in): 1.000
          Curve Number: 61.000
              DCIA (%): 0.000

        Time Max (hrs): 12.27
        Flow Max (cfs): 50.38
    Runoff Volume (in): 2.344
   Runoff Volume (ft3): 294663


--------------------------------------------------------------------------------

            Basin Name: B-01
            Group Name: Group B
            Simulation: 10YR24HR
             Node Name: B-01
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 159.030
  Vol of Unit Hyd (in): 1.000
          Curve Number: 58.000
              DCIA (%): 0.000

        Time Max (hrs): 12.27
        Flow Max (cfs): 200.65
    Runoff Volume (in): 2.073
   Runoff Volume (ft3): 1196798


--------------------------------------------------------------------------------

            Basin Name: B-02
            Group Name: Group B
            Simulation: 10YR24HR
             Node Name: B-02
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 61.230
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 190.39
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 1084572


--------------------------------------------------------------------------------
```

```
            Basin Name: B-03
            Group Name: Group B
            Simulation: 10YR24HR
             Node Name: B-03
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
         Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
              Area (ac): 227.360
  Vol of Unit Hyd (in): 1.000
          Curve Number: 72.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 501.93
    Runoff Volume (in): 3.402
   Runoff Volume (ft3): 2807986


--------------------------------------------------------------------------------

            Basin Name: B-04
            Group Name: Group B
            Simulation: 10YR24HR
             Node Name: B-04
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
         Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
              Area (ac): 76.090
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 236.60
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 1347788


--------------------------------------------------------------------------------

            Basin Name: B-05
            Group Name: Group B
            Simulation: 10YR24HR
             Node Name: B-05
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
         Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
              Area (ac): 34.070
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 105.94
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 603484


--------------------------------------------------------------------------------
```

```
            Basin Name: B-06
            Group Name: Group B
            Simulation: 10YR24HR
             Node Name: B-06
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 12.070
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 37.53
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 213797


--------------------------------------------------------------------------------

            Basin Name: B-07
            Group Name: Group B
            Simulation: 10YR24HR
             Node Name: B-07
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 62.690
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 194.93
    Runoff Volume (in): 4.880
   Runoff Volume (ft3): 1110433


--------------------------------------------------------------------------------

            Basin Name: C-01
            Group Name: Group C
            Simulation: 10YR24HR
             Node Name: C-01
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 122.870
  Vol of Unit Hyd (in): 1.000
         Curve Number: 75.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 296.35
    Runoff Volume (in): 3.707
   Runoff Volume (ft3): 1653458


--------------------------------------------------------------------------------
```

```
            Basin Name: C-02
            Group Name: Group C
            Simulation: 10YR24HR
             Node Name: C-02
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 6.500
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 74.300
  Vol of Unit Hyd (in): 1.000
         Curve Number: 53.000
             DCIA (%): 0.000

       Time Max (hrs): 12.27
       Flow Max (cfs): 70.12
    Runoff Volume (in): 1.641
   Runoff Volume (ft3): 442606


--------------------------------------------------------------------------------

            Basin Name: A-01
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-01
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 16.420
  Vol of Unit Hyd (in): 1.001
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 65.39
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 376876


--------------------------------------------------------------------------------

            Basin Name: A-02
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-02
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 16.430
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 65.43
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 377106


--------------------------------------------------------------------------------
```

```
            Basin Name: A-03
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-03
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 13.180
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 52.49
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 302511


--------------------------------------------------------------------------------

            Basin Name: A-04
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-04
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 12.440
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 49.54
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 285526


--------------------------------------------------------------------------------

            Basin Name: A-05
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-05
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 12.870
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 51.26
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 295396


--------------------------------------------------------------------------------
```

```
            Basin Name: A-06
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-06
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 19.640
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 78.22
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 450782


--------------------------------------------------------------------------------

            Basin Name: A-07
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-07
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 80.780
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 321.71
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 1854084


--------------------------------------------------------------------------------

            Basin Name: A-08
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-08
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 17.640
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 70.25
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 404878


--------------------------------------------------------------------------------
```

```
            Basin Name: A-09a
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-09a
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 95.350
  Vol of Unit Hyd (in): 1.000
          Curve Number: 54.000
              DCIA (%): 0.000

        Time Max (hrs): 12.27
       Flow Max (cfs): 156.34
    Runoff Volume (in): 2.672
   Runoff Volume (ft3): 924951


--------------------------------------------------------------------------------

            Basin Name: A-09b
            Group Name: BASE
            Simulation: 25YR24HR
             Node Name: A-09c
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 8.00
   Comp Time Inc (min): 5.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
                Status: Offsite
    Time of Conc (min): 60.00
      Time Shift (hrs): 0.00
             Area (ac): 70.550
  Vol of Unit Hyd (in): 1.000
          Curve Number: 41.000
              DCIA (%): 0.000

        Time Max (hrs): 12.75
       Flow Max (cfs): 32.76
    Runoff Volume (in): 1.344
   Runoff Volume (ft3): 344202


--------------------------------------------------------------------------------

            Basin Name: A-10
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-10
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 211.040
  Vol of Unit Hyd (in): 1.000
          Curve Number: 77.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
       Flow Max (cfs): 720.32
    Runoff Volume (in): 5.267
   Runoff Volume (ft3): 4035147


--------------------------------------------------------------------------------
```

```
            Basin Name: A-11
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-11
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 53.680
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 213.78
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 1232077


--------------------------------------------------------------------------------

            Basin Name: A-12
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-12
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 49.970
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 199.01
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 1146924


--------------------------------------------------------------------------------

            Basin Name: A-13
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-13
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 27.000
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 107.53
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 619711


--------------------------------------------------------------------------------
```

```
            Basin Name: A-14
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-14
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 23.940
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 95.34
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 549477


--------------------------------------------------------------------------------

            Basin Name: A-15
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-15
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 63.050
  Vol of Unit Hyd (in): 1.000
          Curve Number: 47.000
              DCIA (%): 0.000

        Time Max (hrs): 12.27
        Flow Max (cfs): 69.26
    Runoff Volume (in): 1.936
   Runoff Volume (ft3): 443147


--------------------------------------------------------------------------------

            Basin Name: A-16
            Group Name: Group A
            Simulation: 25YR24HR
             Node Name: A-16
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
             Area (ac): 34.630
  Vol of Unit Hyd (in): 1.000
          Curve Number: 61.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 75.94
    Runoff Volume (in): 3.440
   Runoff Volume (ft3): 432439


--------------------------------------------------------------------------------
```

```
            Basin Name: B-01
            Group Name: Group B
            Simulation: 25YR24HR
             Node Name: B-01
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 159.030
  Vol of Unit Hyd (in): 1.000
         Curve Number: 58.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 310.37
    Runoff Volume (in): 3.108
   Runoff Volume (ft3): 1794125


--------------------------------------------------------------------------------

            Basin Name: B-02
            Group Name: Group B
            Simulation: 25YR24HR
             Node Name: B-02
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 61.230
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 243.85
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 1405367


--------------------------------------------------------------------------------

            Basin Name: B-03
            Group Name: Group B
            Simulation: 25YR24HR
             Node Name: B-03
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 227.360
  Vol of Unit Hyd (in): 1.000
         Curve Number: 72.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 693.57
    Runoff Volume (in): 4.688
   Runoff Volume (ft3): 3869222


--------------------------------------------------------------------------------
```

```
            Basin Name: B-04
            Group Name: Group B
            Simulation: 25YR24HR
             Node Name: B-04
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
         Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
              Area (ac): 76.090
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 303.03
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 1746438


--------------------------------------------------------------------------------

            Basin Name: B-05
            Group Name: Group B
            Simulation: 25YR24HR
             Node Name: B-05
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
         Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
              Area (ac): 34.070
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 135.69
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 781984


--------------------------------------------------------------------------------

            Basin Name: B-06
            Group Name: Group B
            Simulation: 25YR24HR
             Node Name: B-06
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
         Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
                Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
              Area (ac): 12.070
  Vol of Unit Hyd (in): 1.000
          Curve Number: 86.000
              DCIA (%): 0.000

        Time Max (hrs): 12.20
        Flow Max (cfs): 48.07
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 277034


--------------------------------------------------------------------------------
```

```
            Basin Name: B-07
            Group Name: Group B
            Simulation: 25YR24HR
             Node Name: B-07
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 62.690
  Vol of Unit Hyd (in): 1.000
         Curve Number: 86.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 249.67
    Runoff Volume (in): 6.323
   Runoff Volume (ft3): 1438877


--------------------------------------------------------------------------------

            Basin Name: C-01
            Group Name: Group C
            Simulation: 25YR24HR
             Node Name: C-01
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 122.870
  Vol of Unit Hyd (in): 1.000
         Curve Number: 75.000
             DCIA (%): 0.000

       Time Max (hrs): 12.20
       Flow Max (cfs): 401.92
    Runoff Volume (in): 5.035
   Runoff Volume (ft3): 2245668


--------------------------------------------------------------------------------

            Basin Name: C-02
            Group Name: Group C
            Simulation: 25YR24HR
             Node Name: C-02
            Basin Type: SCS Unit Hydrograph

       Unit Hydrograph: Uh484
         Peaking Fator: 484.0
   Spec Time Inc (min): 4.00
   Comp Time Inc (min): 4.00
        Rainfall File: Flmod
  Rainfall Amount (in): 8.000
  Storm Duration (hrs): 24.00
               Status: Onsite
    Time of Conc (min): 30.00
      Time Shift (hrs): 0.00
            Area (ac): 74.300
  Vol of Unit Hyd (in): 1.000
         Curve Number: 53.000
             DCIA (%): 0.000

       Time Max (hrs): 12.27
       Flow Max (cfs): 116.10
    Runoff Volume (in): 2.565
   Runoff Volume (ft3): 691791
```

Ocala International Airport Stormwater Master Plan
Proposed Conditions DRA Hydrology Max Flow

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
100YR24HR	A-01	Group A	12.20	93.83	9.250	551316
10YR24HR	A-01	Group A	12.20	51.06	4.880	290849
25YR24HR	A-01	Group A	12.20	65.39	6.323	376876
100YR24HR	A-02	Group A	12.20	93.88	9.250	551652
10YR24HR	A-02	Group A	12.20	51.09	4.880	291026
25YR24HR	A-02	Group A	12.20	65.43	6.323	377106
100YR24HR	A-03	Group A	12.20	75.31	9.250	442530
10YR24HR	A-03	Group A	12.20	40.98	4.880	233458
25YR24HR	A-03	Group A	12.20	52.49	6.323	302511
100YR24HR	A-04	Group A	12.20	71.08	9.250	417684
10YR24HR	A-04	Group A	12.20	38.68	4.880	220351
25YR24HR	A-04	Group A	12.20	49.54	6.323	285526
100YR24HR	A-05	Group A	12.20	73.54	9.250	432122
10YR24HR	A-05	Group A	12.20	40.02	4.880	227967
25YR24HR	A-05	Group A	12.20	51.26	6.323	295396
100YR24HR	A-06	Group A	12.20	112.23	9.250	659430
10YR24HR	A-06	Group A	12.20	61.07	4.880	347885
25YR24HR	A-06	Group A	12.20	78.22	6.323	450782
100YR24HR	A-07	Group A	12.20	461.59	9.250	2712260
10YR24HR	A-07	Group A	12.20	251.18	4.880	1430862
25YR24HR	A-07	Group A	12.20	321.71	6.323	1854084
100YR24HR	A-08	Group A	12.20	100.80	9.250	592279
10YR24HR	A-08	Group A	12.20	54.85	4.880	312459
25YR24HR	A-08	Group A	12.20	70.25	6.323	404878
100YR24HR	A-09a	Group A	12.20	295.35	4.845	1676810
10YR24HR	A-09a	Group A	12.27	96.00	1.725	597202
25YR24HR	A-09a	Group A	12.27	156.34	2.672	924951
100YR24HR	A-09b	BASE	12.67	84.81	2.929	750157
10YR24HR	A-09b	BASE	12.83	14.35	0.728	186452
25YR24HR	A-09b	BASE	12.75	32.76	1.344	344202
100YR24HR	A-10	Group A	12.20	1089.88	8.071	6183100
10YR24HR	A-10	Group A	12.20	537.34	3.914	2998429
25YR24HR	A-10	Group A	12.20	720.32	5.267	4035147
100YR24HR	A-11	Group A	12.20	306.73	9.250	1802353
10YR24HR	A-11	Group A	12.20	166.91	4.880	950838
25YR24HR	A-11	Group A	12.20	213.78	6.323	1232077
100YR24HR	A-12	Group A	12.20	285.54	9.250	1677787
10YR24HR	A-12	Group A	12.20	155.38	4.880	885122
25YR24HR	A-12	Group A	12.20	199.01	6.323	1146924
100YR24HR	A-13	Group A	12.20	154.28	9.250	906549
10YR24HR	A-13	Group A	12.20	83.95	4.880	478253
25YR24HR	A-13	Group A	12.20	107.53	6.323	619711
100YR24HR	A-14	Group A	12.20	136.80	9.250	803807
10YR24HR	A-14	Group A	12.20	74.44	4.880	424051
25YR24HR	A-14	Group A	12.20	95.34	6.323	549477
100YR24HR	A-15	Group A	12.27	148.42	3.814	872982
10YR24HR	A-15	Group A	12.33	36.88	1.159	265320
25YR24HR	A-15	Group A	12.27	69.26	1.936	443147
100YR24HR	A-16	Group A	12.20	131.70	5.857	736213
10YR24HR	A-16	Group A	12.27	50.38	2.344	294663
25YR24HR	A-16	Group A	12.20	75.94	3.440	432439
100YR24HR	B-01	Group B	12.20	557.79	5.426	3132107
10YR24HR	B-01	Group B	12.27	200.65	2.073	1196798
25YR24HR	B-01	Group B	12.20	310.37	3.108	1794125
100YR24HR	B-02	Group B	12.20	349.88	9.250	2055851
10YR24HR	B-02	Group B	12.20	190.39	4.880	1084572
25YR24HR	B-02	Group B	12.20	243.85	6.323	1405367
100YR24HR	B-03	Group B	12.20	1087.70	7.395	6103362
10YR24HR	B-03	Group B	12.20	501.93	3.402	2807986
25YR24HR	B-03	Group B	12.20	693.57	4.688	3869222
100YR24HR	B-04	Group B	12.20	434.79	9.250	2554789
10YR24HR	B-04	Group B	12.20	236.60	4.880	1347788
25YR24HR	B-04	Group B	12.20	303.03	6.323	1746438
100YR24HR	B-05	Group B	12.20	194.68	9.250	1143930

Ocala International Airport Stormwater Master Plan
Proposed Conditions DRA Hydrology Max Flow

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
10YR24HR	B-05	Group B	12.20	105.94	4.880	603484
25YR24HR	B-05	Group B	12.20	135.69	6.323	781984
100YR24HR	B-06	Group B	12.20	68.97	9.250	405261
10YR24HR	B-06	Group B	12.20	37.53	4.880	213797
25YR24HR	B-06	Group B	12.20	48.07	6.323	277034
100YR24HR	B-07	Group B	12.20	358.22	9.250	2104872
10YR24HR	B-07	Group B	12.20	194.93	4.880	1110433
25YR24HR	B-07	Group B	12.20	249.67	6.323	1438877
100YR24HR	C-01	Group C	12.20	616.55	7.803	3480086
10YR24HR	C-01	Group C	12.20	296.35	3.707	1653458
25YR24HR	C-01	Group C	12.20	401.92	5.035	2245668
100YR24HR	C-02	Group C	12.20	222.35	4.698	1267175
10YR24HR	C-02	Group C	12.27	70.12	1.641	442606
25YR24HR	C-02	Group C	12.27	116.10	2.565	691791

Ocala International Airport Stormwater Master Plan
Proposed Conditions DRA Hydrology Node Min-Max Flows

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs
A-01	Group A	PR100yr-24hr	24.30	75.58	78.00	-10.5000	131196	12.17	93.09	12.72
A-02	Group A	PR100yr-24hr	13.35	76.72	80.00	-10.5000	90069	12.17	93.14	12.73
A-03	Group A	PR100yr-24hr	13.32	76.60	80.00	-10.5000	74210	12.17	74.72	12.72
A-04	Group A	PR100yr-24hr	13.31	76.55	80.00	-10.5000	70771	12.17	70.52	12.72
A-05	Group A	PR100yr-24hr	13.24	76.28	79.00	-10.5000	78151	12.17	72.96	12.70
A-06	Group A	PR100yr-24hr	13.23	76.29	80.00	-10.5000	117825	12.17	111.34	12.70
A-07	Group A	PR100yr-24hr	24.25	76.63	80.00	-7.0000	512932	12.17	457.95	12.79
A-08	Group A	PR100yr-24hr	12.87	65.03	70.00	-12.0000	158161	12.17	100.00	12.55
A-09 misc	Group A	PR100yr-24hr	0.01	67.50	68.00	-1.5000	5260	0.00	0.00	0.00
A-09a	Group A	PR100yr-24hr	24.40	65.69	68.00	-2.5000	348458	12.25	293.09	12.52
A-09b	Group A	PR100yr-24hr	0.01	62.00	68.00	-2.5000	70263	0.00	0.00	0.00
A-09c	Group A	PR100yr-24hr	26.93	64.00	68.00	-10.000001003731639		12.67	84.80	0.00
A-10	Group A	PR100yr-24hr	12.98	80.61	84.00	-10.5000	1250522	12.17	1077.41	12.58
A-11	Group A	PR100yr-24hr	24.25	80.91	84.00	-9.0000	435344	12.17	304.32	12.54
A-12	Group A	PR100yr-24hr	24.33	79.79	82.00	-4.5000	468362	12.17	283.29	12.50
A-13	Group A	PR100yr-24hr	24.21	75.63	76.00	-6.5000	121049	12.17	153.07	13.11
A-14	Group A	PR100yr-24hr	24.46	72.22	73.00	-0.5000	184316	12.17	135.72	8.73
A-15	Group A	PR100yr-24hr	24.38	78.89	80.00	-5.0000	155166	12.25	148.25	11.77
A-16	Group A	PR100yr-24hr	17.79	77.39	78.00	-10.0000	602311	12.25	129.69	17.79
B-01	Group B	PR100yr-24hr	12.77	79.80	84.00	-15.0000	762680	12.25	550.94	12.42
B-02	Group B	PR100yr-24hr	24.20	79.89	80.00	-6.0000	341266	12.17	347.12	12.50
B-03	Group B	PR100yr-24hr	24.30	82.49	83.00	-2.0000	965702	12.17	1072.62	10.95
B-04	Group B	PR100yr-24hr	24.25	80.00	80.00	-5.0000	273098	12.17	431.36	13.25
B-05	Group B	PR100yr-24hr	24.35	79.81	80.00	-10.0000	135743	12.17	193.15	12.83
B-06	Group B	PR100yr-24hr	13.27	75.63	78.00	-10.0000	64791	12.17	68.43	12.72
B-07	Group B	PR100yr-24hr	13.77	79.89	82.00	-10.0000	340950	12.17	355.40	12.78
C-01	Group C	PR100yr-24hr	24.66	77.40	78.00	-4.0000	395777	12.17	608.92	12.81
C-02	Group C	PR100yr-24hr	15.75	78.44	80.00	-10.0000	191729	12.25	220.19	12.56
C-02a	Group C	PR100yr-24hr	98.58	76.02	76.50	-22.0000	36476458	0.00	0.00	336.00
GW_Sink	BASE	PR100yr-24hr	0.00	50.00	75.00	0.0000	0	12.56	1038.06	0.00
A-01	Group A	PR10YR-24HR	12.96	73.78	78.00	-10.5000	116082	12.17	50.51	12.53
A-02	Group A	PR10YR-24HR	12.97	75.18	80.00	-10.5000	80449	12.17	50.54	12.56
A-03	Group A	PR10YR-24HR	12.96	75.12	80.00	-10.5000	66425	12.17	40.54	12.55
A-04	Group A	PR10YR-24HR	12.95	75.09	80.00	-10.5000	63557	12.17	38.26	12.55
A-05	Group A	PR10YR-24HR	12.91	74.95	79.00	-10.5000	71030	12.17	39.59	12.53
A-06	Group A	PR10YR-24HR	12.90	74.94	80.00	-10.5000	108177	12.17	60.41	12.53
A-07	Group A	PR10YR-24HR	13.16	75.12	80.00	-7.0000	477573	12.17	248.47	12.61
A-08	Group A	PR10YR-24HR	12.64	64.29	70.00	-12.0000	152780	12.17	54.26	11.85
A-09 misc	Group A	PR10YR-24HR	0.01	67.50	68.00	-1.5000	5260	0.00	0.00	0.00
A-09a	Group A	PR10YR-24HR	24.32	62.67	68.00	-2.5000	300885	12.25	95.39	12.02
A-09b	Group A	PR10YR-24HR	0.01	62.00	68.00	-2.5000	70263	0.00	0.00	0.00
A-09c	Group A	PR10YR-24HR	26.93	64.00	68.00	-10.000001003453179		12.83	14.35	0.00
A-10	Group A	PR10YR-24HR	12.71	79.43	84.00	-10.5000	1203196	12.17	528.21	11.85
A-11	Group A	PR10YR-24HR	12.63	79.35	84.00	-9.0000	388601	12.17	165.11	11.85
A-12	Group A	PR10YR-24HR	12.79	78.42	82.00	-4.5000	438671	12.17	153.70	11.83
A-13	Group A	PR10YR-24HR	24.09	72.29	76.00	-6.5000	94426	12.17	83.05	12.68
A-14	Group A	PR10YR-24HR	24.46	70.21	73.00	-0.5000	164813	12.17	73.64	11.14
A-15	Group A	PR10YR-24HR	12.84	75.13	80.00	-5.0000	123748	12.33	36.87	12.21
A-16	Group A	PR10YR-24HR	14.53	76.69	78.00	-10.0000	319411	12.25	50.35	11.70
B-01	Group B	PR10YR-24HR	13.21	79.00	84.00	-15.0000	751636	12.25	200.10	12.25
B-02	Group B	PR10YR-24HR	23.99	77.48	80.00	-6.0000	316924	12.17	188.33	12.51
B-03	Group B	PR10YR-24HR	24.31	79.36	83.00	-2.0000	805385	12.25	494.59	12.01
B-04	Group B	PR10YR-24HR	24.17	75.57	80.00	-5.0000	189280	12.17	234.04	13.42
B-05	Group B	PR10YR-24HR	24.22	75.58	80.00	-10.0000	104544	12.17	104.79	12.83
B-06	Group B	PR10YR-24HR	12.93	74.10	78.00	-10.0000	59024	12.17	37.13	12.55
B-07	Group B	PR10YR-24HR	13.12	78.25	82.00	-10.0000	321644	12.17	192.82	12.59
C-01	Group C	PR10YR-24HR	24.64	72.61	78.00	-4.0000	348703	12.25	291.06	12.71
C-02	Group C	PR10YR-24HR	24.34	76.45	80.00	-10.0000	177235	12.25	69.59	11.94
C-02a	Group C	PR10YR-24HR	66.57	76.00	76.50	-22.0000	29468307	0.00	0.00	66.57
GW_Sink	BASE	PR10YR-24HR	0.00	50.00	75.00	0.0000	0	12.01	1179.53	0.00
A-01	Group A	PR25YR-24HR	24.26	74.35	78.00	-10.5000	120893	12.17	64.78	12.61
A-02	Group A	PR25YR-24HR	13.10	75.69	80.00	-10.5000	83612	12.17	64.81	12.63
A-03	Group A	PR25YR-24HR	13.08	75.61	80.00	-10.5000	68983	12.17	51.99	12.62
A-04	Group A	PR25YR-24HR	13.07	75.58	80.00	-10.5000	65926	12.17	49.07	12.62
A-05	Group A	PR25YR-24HR	13.02	75.39	79.00	-10.5000	73369	12.17	50.77	12.60
A-06	Group A	PR25YR-24HR	13.01	75.38	80.00	-10.5000	111336	12.17	77.48	12.60
A-07	Group A	PR25YR-24HR	13.33	75.58	80.00	-7.0000	488301	12.17	318.67	12.69
A-08	Group A	PR25YR-24HR	12.73	64.53	70.00	-12.0000	154477	12.17	69.59	12.44
A-09 misc	Group A	PR25YR-24HR	0.01	67.50	68.00	-1.5000	5260	0.00	0.00	0.00
A-09a	Group A	PR25YR-24HR	24.36	63.63	68.00	-2.5000	315869	12.25	156.05	11.87
A-09b	Group A	PR25YR-24HR	0.01	62.00	68.00	-2.5000	70263	0.00	0.00	0.00
A-09c	Group A	PR25YR-24HR	26.93	64.00	68.00	-10.000001003531112		12.75	32.76	0.00
A-10	Group A	PR25YR-24HR	12.82	79.80	84.00	-10.5000	1217923	12.17	709.91	12.47
A-11	Group A	PR25YR-24HR	24.19	79.73	84.00	-9.0000	404476	12.17	211.76	12.42
A-12	Group A	PR25YR-24HR	24.28	78.72	82.00	-4.5000	445137	12.17	197.13	11.73
A-13	Group A	PR25YR-24HR	24.16	73.48	76.00	-6.5000	103766	12.17	106.51	12.74
A-14	Group A	PR25YR-24HR	24.46	70.90	73.00	-0.5000	171421	12.17	94.44	10.28
A-15	Group A	PR25YR-24HR	24.33	76.21	80.00	-5.0000	132614	12.25	68.67	12.02
A-16	Group A	PR25YR-24HR	15.68	76.94	78.00	-10.0000	422897	12.25	75.44	12.38
B-01	Group B	PR25YR-24HR	12.56	79.14	84.00	-15.0000	753550	12.25	309.70	12.05
B-02	Group B	PR25YR-24HR	24.13	78.29	80.00	-6.0000	325034	12.17	241.55	12.51
B-03	Group B	PR25YR-24HR	24.31	80.43	83.00	-2.0000	859506	12.17	681.25	11.82
B-04	Group B	PR25YR-24HR	24.21	77.19	80.00	-5.0000	219783	12.17	300.17	13.24
B-05	Group B	PR25YR-24HR	24.28	77.08	80.00	-10.0000	115400	12.17	134.40	12.82

Ocala International Airport Stormwater Master Plan
Proposed Conditions DRA Hydrology Node Min-Max Flows

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs
B-06	Group B	PR25YR-24HR	13.05	74.61	78.00	-10.0000	60910	12.17	47.61	12.61
B-07	Group B	PR25YR-24HR	13.28	78.77	82.00	-10.0000	327799	12.17	247.31	12.67
C-01	Group C	PR25YR-24HR	24.64	74.23	78.00	-4.0000	364219	12.17	395.59	12.77
C-02	Group C	PR25YR-24HR	22.89	77.12	80.00	-10.0000	182142	12.25	115.80	11.79
C-02a	Group C	PR25YR-24HR	90.49	76.01	76.50	-22.0000	31614310	0.00	0.00	324.76
GW_Sink	BASE	PR25YR-24HR	0.00	50.00	75.00	0.0000	0	11.82	985.25	0.00

GEO-TECH, INC.

ENGINEERING CONSULTANTS IN GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION MATERIALS TESTING

12-192.23.1
Project No. January 25, 2013

Mr. Alan Garri, P.E.
GPI Southeast, Inc.
1414 SW Martin Luther King Jr. Avenue
Ocala, FL 34471

Project: Ocala International Airport, Stormwater Master Plan, Ocala, Florida
Soil Profiles and Permeability Testing, Proposed Drainage Retention Areas

Dear Mr. Garri:

As requested, Geo-Technologies, Inc. (Geo-Tech) has performed a site exploration at the project site. Services were conducted in accordance with our Proposal No. 5054 Rev. B.

The following report summarizes our findings and evaluations. Generally accepted soils and foundation engineering practices were employed in the preparation of this report.

Geo-Tech appreciates the opportunity to provide our services for this project. Should you have any questions regarding the contents of this report or if we may be of further assistance, please do not hesitate to contact the undersigned.

Sincerely,

Craig A. Hampy, E.I.
Staff Engineer

CAH/DAC



1/25/13
David A. Cappa, P.E.
Florida Registration No. 58334

Purpose

Purposes of this study were to explore the subsurface conditions in the proposed drainage retention areas and provide soil profiles, estimated seasonal high water table levels, depths to confining layers and permeability rates to guide design of the drainage retention areas.

Site Description

The project site is located at the Ocala International Airport in Ocala, Florida. At the time of our site exploration, the project site was covered with native trees and grasses.

Exploration Program

The geotechnical exploration program was performed on January 3, 21 – 24, 2013 and consisted of the following:

- Twenty-four (24) direct push soil borings SB-1, SB-3, SB-6, SB-11, SB-12, SB-15 thru SB-18, SB-20, SB-24, SB-27, SB-29, SB-31 thru SB-33, SB-35, SB-36, SB-38, SB-39, SB-41, SB-44, SB-46 and SB-47 to depths of approximately twenty (20) feet below existing site grade in the proposed drainage retention areas (ASTM D-6282).

- Twenty-four (24) field vertical permeability tests in the proposed drainage retention areas.

Direct Push Sampling Description

The Direct Push (DP) soil sampling method (ASTM D-6282) consists of advancing a sampling device into subsurface soils by applying static pressure, by applying impacts, or by applying vibration, or any combination thereof, to the above ground portion of the sampler extensions until sampler has been advanced to the desired sampling depth. The sampler is recovered from the borehole and the sample removed from the sampler. The sampler is cleaned and the procedure repeated for the next desired sampling interval.

Sampling can be continuous for full depth borehole logging or incremental for specific interval sampling. Samplers used can be protected type for controlled specimen gathering or unprotected for general soil specimen collection. Direct push methods of soil sampling are used for geologic investigation, soil chemical composition studies, and water quality investigations. Continuous sampling is used to provide a lithological detail of the subsurface strata and to gather samples for classification and index.

Samples recovered during performance of our direct push borings were visually classified in the field and were transported to our laboratory for further analysis.

U.S. Department of Agriculture Soil Conservation Survey

According to the U.S. Department of Agriculture Soil Conservation Survey for Marion County, Florida, the soils at the project site are mapped as Apopka Sand with zero (0) to five (5) percent slopes, Candler sand with zero (0) to five (5) percent slopes and Candler sand with five (5) to twelve (12) percent slopes.

Apopka Sand, 0 to 5 percent slopes

According to the U.S. Department of Agriculture Soil Conservation Survey for Marion County, Florida, the soils at the project site are Apopka Sand with 0 to 5 percent slopes. Apopka soils are nearly level to gently sloping, well drained soil that generally occurs as small areas in the uplands. The estimated seasonal high water table is at a depth of more than 72 inches. Permeability is rapid in the upper 55 inches, and moderate below. The soil hydrologic group for Apopka soils is group A.

Candler sand, 0 to 5 percent slopes

Candler soils are nearly level to gently sloping, excessively drained sandy soil that occurs as small and large areas on sandy ridges in the uplands. The estimated seasonal high water table is at a depth of more than 72 inches. Permeability is very rapid to a depth of 67 inches, rapid from 67 to 109 inches, and moderately rapid below. The soil hydrologic group for Candler soils is group A.

Candler sand, 5 to 12 percent slopes

Candler soils are sloping to strongly sloping, excessively drained sandy soil that occurs as small and large areas on sandy ridges in the uplands. The estimated seasonal high water table is at a depth of more than 72 inches. Permeability is very rapid to a depth of 67 inches, rapid from 67 to 109 inches, and moderately rapid below. The soil hydrologic group for Candler soils is group A.

Findings

Boring locations and general subsurface conditions found in our soil borings (SB-1, SB-3, SB-6, SB-11, SB-12, SB-15 thru SB-18, SB-20, SB-24, SB-27, SB-29, SB-31 thru SB-33, SB-35, SB-36, SB-38, SB-39, SB-41, SB-44, SB-46 and SB-47) in the proposed drainage retention areas are graphically presented on the soil profiles in Appendix I. Horizontal lines designating the interface between differing materials found represent approximate boundaries. Transition between soil layers is typically gradual.

Soils found in soil borings SB-1, SB-3, SB-15 thru SB-17, SB-20, SB-27 and SB-46 generally consisted of a surficial layer of fine sand ranging from approximately one (1) to eleven (11) feet thick underlain by clayey sand and slightly sandy clay to the depths pushed.

Soils found in soil borings SB-6, SB-11, SB-18, SB-29, SB-32 SB-36 and SB-47 generally consisted of a surficial layer of fine sand ranging from approximately seven (7) to eighteen (18) feet thick underlain by clayey sand to the depths pushed.

Soils found in soil boring SB-12 generally consisted of a surficial layer of clayey sand approximately two (2) feet thick underlain by slightly sandy clay, clayey sand and limestone to the depths pushed.

Soils found in soil boring SB-33 generally consisted of a surficial layer of fine sand approximately nine and one-half (9 ½) feet thick underlain by slightly clayey sand, clayey sand and slightly sandy clay to the depths pushed.

Soils found in soil boring SB-38 generally consisted of a surficial layer of fine sand approximately six and one-half (6 ½) feet thick underlain by limestone, fine sand and clayey sand to the depths pushed.

Soil found in soil boring SB-44 generally consisted of a surficial layer of fine sand to the depths pushed.

Soils found in soil boring SB-31 and SB-35 generally consisted of a surficial layer of fine sand ranging from approximately two (2) to seven and one-half (7 ½) feet thick underlain by clayey sand and fine sand to the depths pushed.

Soils found in soil boring SB-24 generally consisted of a surficial layer of fine sand approximately five and one-half (5 ½) feet thick underlain by slightly sandy clay and clayey sand to the depths pushed.

Ground water table levels were not found at our boring locations at the time of drilling.

Seasonal High Water Table Levels

Estimated seasonal high water table levels were found at or above existing site grade to greater than depth drilled. Estimated seasonal high water table levels are indicated on the soil profiles at the appropriate depths.

Confining Layers

Confining layers were found at depths ranging from approximately two (2) feet below existing site grade to greater than depth drilled. Confining layers are indicated on the soil profiles at the appropriate depths.

Permeability

Twenty-four (24) field vertical permeability tests were performed adjacent to our boring locations at depths ranging from approximately six (6) feet below existing site grade. Resulting coefficients of vertical permeability are noted on the soil profiles and in Table 1 below.

Table 1 Results of Permeability Testing

Boring No.	Depth of Test (feet)	KH Rate (feet/day)	KV Rate (feet/day)
SB-1	6.0	N/A	5.6
SB-3	6.0	N/A	5.2
SB-6	6.0	N/A	15.2
SB-11	6.0	N/A	16.1
SB-12	6.0	N/A	0.4

Table 1 Results of Permeability Testing (cont.)

Boring No.	Depth of Test (feet)	KH Rate (feet/day)	KV Rate (feet/day)
SB-15	6.0	N/A	17.4
SB-16	6.0	N/A	4.3
SB-17	6.0	N/A	18.4
SB-18	6.0	N/A	19.3
SB-20	6.0	N/A	2.7
SB-24	6.0	N/A	5.3
SB-27	6.0	N/A	8.6
SB-29	6.0	N/A	21.1
SB-31	6.0	N/A	12.7
SB-32	6.0	N/A	36.3
SB-33	6.0	N/A	18.2
SB-35	6.0	N/A	0.6
SB-36	6.0	N/A	30.7
SB-38	6.0	N/A	9.9
SB-39	6.0	N/A	16.1
SB-41	6.0	N/A	14.9
SB-44	6.0	N/A	1.6
SB-46	6.0	N/A	16.3
SB-47	6.0	N/A	29.6

Measured permeability rates should not be used for design purposes without an appropriate safety factor. Actual pond exfiltration rates will depend on many factors such as ground water mounding, pond bottom siltation, construction technique, and the amount of soil compaction during construction.

Closure/General Qualifications

This report has been prepared in order to aid evaluation of the project site and to aid various design professionals in design of the drainage retention areas. The scope is limited to the specific project and the location described herein, and our description of the project represents our understanding of the significant aspects relevant to soil characteristics.

Analyses submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated on the Boring Location Map, and from any other information discussed in this report. This report does not reflect any variations, which may occur between these borings. In the performance of subsurface investigations, specific information is obtained at specific locations at specific times. However, it is a well known fact that variations in soil and rock conditions exist on most sites between boring locations, and also such situations as groundwater levels vary from time to time. The nature and extent of variations may not become evident until the course of construction.

APPENDIX I

SOIL PROFILES

Log of Borehole: SB-1

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

GEO-TECH, INC.
ENGINEERING CONSULTANTS
1016 SE 3rd Avenue
Ocala, Florida
352.694.7711
WWW.GEOTECHFL.COM

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)	1.5	1	
2		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)	2.5	2	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 2.5 FEET
3		CLAYEY SAND YELLOWISH BROWN & GREY CLAYEY SAND (SC)		3	
6		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)	6.0		CONFINING LAYER AT APPROX. 6.0 FEET FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 5.6 FEET/DAY
13				4	
20			20.0		
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-3

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

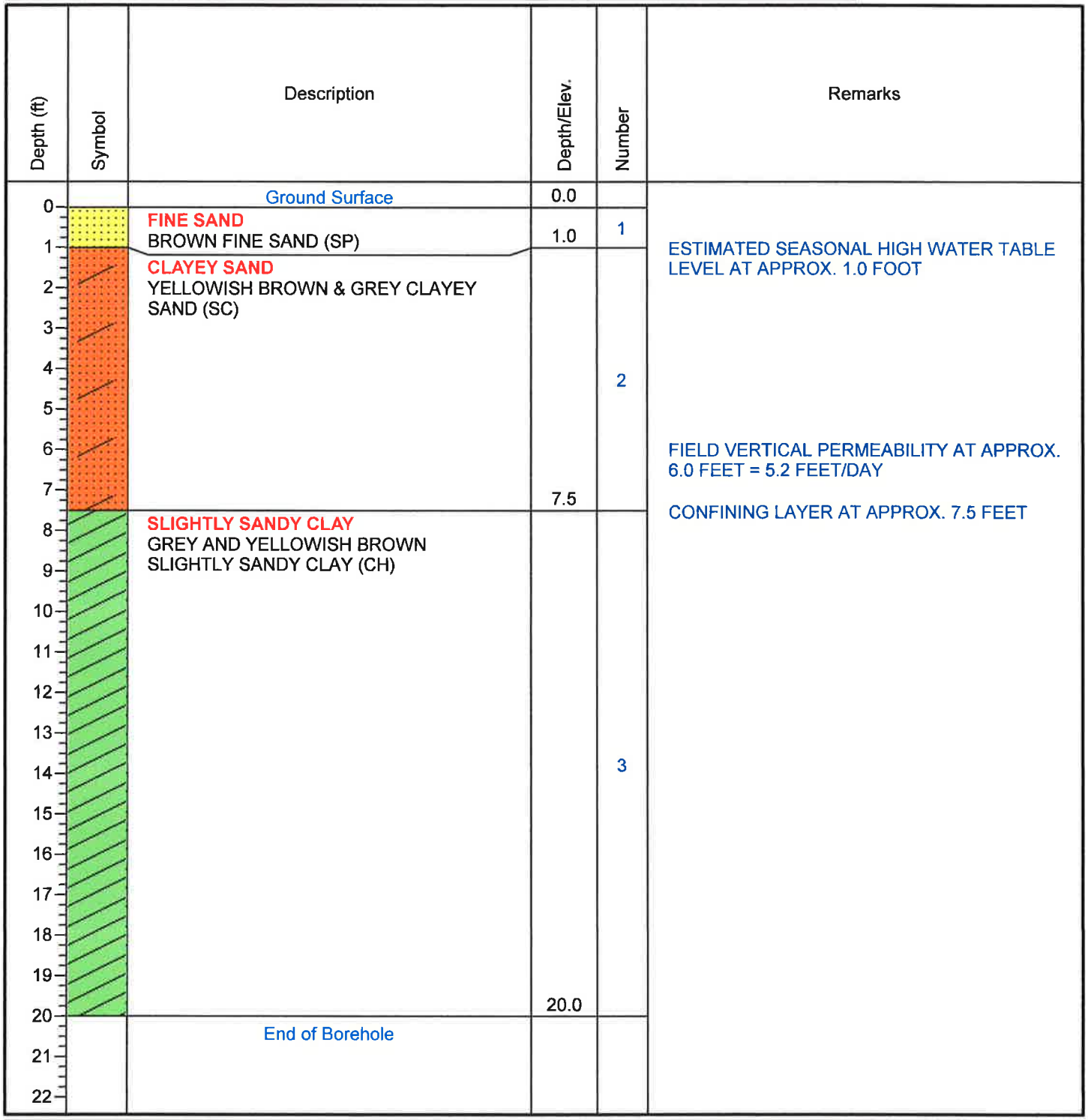
Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Ocala, Florida
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Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-6

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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ENGINEERING CONSULTANTS
1016 SE 3rd Avenue
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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–10		**FINE SAND** BROWN FINE SAND (SP)		1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 15.2 FEET/DAY
10			10.5		ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 10.5 FEET
10–20		**CLAYEY SAND** YELLOWISH BROWN & GREY CLAYEY SAND (SC)		2	
20			20.0		CONFINING LAYER GREATER THAN DEPTH DRILLED
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-11

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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352.694.7711
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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–7		**FINE SAND** BROWN FINE SAND (SP)	7.0	1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 16.1 FEET/DAY ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 7.0 FEET
7–20		**CLAYEY SAND** YELLOWISH BROWN & GREY CLAYEY SAND (SC)	20.0	2	
20		End of Borehole			CONFINING LAYER GREATER THAN DEPTH DRILLED

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-12

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT OR ABOVE EXISTING SITE GRADE
1		**CLAYEY SAND** YELLOWISH BROWN & GREY CLAYEY SAND (SC)		1	
2			2.0		CONFINING LAYER AT APPROX . 2.0 FEET
3		**SLIGHTLY SANDY CLAY** LIGHT GREENISH GREY AND REDDISH BROWN SLIGHTLY SANDY CLAY (CH)		2	
4					
5			5.5		
6		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 0.4 FEET/DAY
7					
8					
9					
10					
11					
12				3	
13					
14					
15					
16					
17			17.5		
18		**LIMESTONE** LIGHT BROWN LIMESTONE			
19				4	
20			20.0		
21		End of Borehole			
22					

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-15

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–8		**FINE SAND** BROWN FINE SAND (SP)	8.0	1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 17.4 FEET/DAY
8–12		**CLAYEY SAND** YELLOWISH BROWN CLAYEY SAND (SC)	12.0	2	
12–13.5		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	13.5	3	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 12.0 FEET CONFINING LAYER AT APPROX. 13.5 FEET
13.5–20		**SLIGHTLY SANDY CLAY** LIGHT GREENISH GREY AND REDDISH BROWN SLIGHTLY SANDY CLAY (CH)	20.0	4	
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-16

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		**FINE SAND** BROWN FINE SAND (SP)		1	
2			2.5		ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 2.5 FEET
3		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
4					
5					
6					FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 4.3 FEET/DAY
7					
8					
9					
10				2	
11					
12					
13					
14					
15					
16					
17					
18			18.0		CONFINING LAYER AT APPROX. 18.0 FEET
19		**SLIGHTLY SANDY CLAY** LIGHT GREENISH GREY AND REDDISH BROWN SLIGHTLY SANDY CLAY (CH)		3	
20			20.0		
21		End of Borehole			
22					

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 7 OF 24

Log of Borehole: SB-17

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1–8		**FINE SAND** BROWN FINE SAND (SP)	8.5	1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 18.4 FEET/DAY ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 8.5 FEET
9–12		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	13.0	2	
13–19		**SLIGHTLY SANDY CLAY** LIGHT GREENISH GREY AND REDDISH BROWN SLIGHTLY SANDY CLAY (CH)	20.0	3	CONFINING LAYER AT APPROX. 13.0 FEET
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-18

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1–12		**FINE SAND** BROWN FINE SAND (SP)		1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 19.3 FEET/DAY
12			12.5		ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 12.5 FEET
13–19		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		2	
20			20.0		CONFINING LAYER GREATER THAN DEPTH DRILLED
21–22		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-20

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1–2		**FINE SAND** BROWN FINE SAND (SP)	2.5	1	
3–4		**CLAYEY SAND** BROWN CLAYEY SAND (SC)	4.0	2	
5–9		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	10.0	3	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 4.0 FEET FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 2.7 FEET/DAY
10–19		**SLIGHTLY SANDY CLAY** LIGHT GREENISH GREY AND REDDISH BROWN SLIGHTLY SANDY CLAY (CH)	20.0	4	CONFINING LAYER AT APPROX. 10.0 FEET
20–22		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-24

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–4		**FINE SAND** BROWN FINE SAND (SP)	4.5	1	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 4.5 FEET
5		**FINE SAND** BROWN FINE SAND (SP)	5.5	2	CONFINING LAYER AT APROX. 5.5 FEET
6–16		**SLIGHTLY SANDY CLAY** LIGHT GREENISH GREY AND REDDISH BROWN SLIGHTLY SANDY CLAY (CH)	16.5	3	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 5.3 FEET/DAY
17–20		**CLAYEY SAND** GREY CLAYEY SAND (SC)	20.0	4	
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-27

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		**FINE SAND** BROWN FINE SAND (SP)		1	
3			3.0		
4		**CLAYEY SAND** YELLOWISH BROWN CLAYEY SAND (SC)		2	
5			5.0		ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 5.0 FEET
6		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 8.6 FEET/DAY
8			8.0		CONFINING LAYER AT APPROX. 8.0 FEET
9		**SLIGHTLY SANDY CLAY** LIGHT GREENISH GREY AND REDDISH BROWN SLIGHTLY SANDY CLAY (CH)			
14				4	
20			20.0		
21		End of Borehole			
22					

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-29

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–18		FINE SAND BROWN FINE SAND (SP)		1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 21.1 FEET/DAY
18			18.0		ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 18.0 FEET
18–20		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	20.0	2	
20		End of Borehole			CONFINING LAYER GREATER THAN DEPTH DRILLED

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-31

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–7		**FINE SAND** BROWN FINE SAND (SP)	7.5	1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 12.7 FEET/DAY
8–12		**CLAYEY SAND** YELLOWISH BROWN CLAYEY SAND (SC)	12.5	2	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 12.5 FEET
13–16		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	16.5	3	
17–20		**FINE SAND** LIGHT GREY FINE SAND (SP)	20.0	4	CONFINING LAYER GREATER THAN DEPTH DRILLED
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-32

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–7		**FINE SAND** BROWN FINE SAND (SP)	7.5	1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 36.3 FEET/DAY
8–9		**CLAYEY SAND** YELLOWISH BROWN CLAYEY SAND (SC)	9.0	2	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 9.0 FEET
10–19		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	20.0	3	
20		End of Borehole			CONFINING LAYER GREATER THAN DEPTH DRILLED
21–22					

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-33

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–9		**FINE SAND** BROWN FINE SAND (SP)	9.5	1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 18.2 FEET/DAY
10–13		**SLIGHTLY CLAYEY SAND** YELLOWISH BROWN SLIGHTLY CLAYEY SAND (SP-SC)	13.0	2	
13–16		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	16.5	3	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 13.0 FEET
17–20		**SLIGHTLY SANDY CLAY** YELLOWISH BROWN AND GREY SLIGHTLY SANDY CLAY (CH)	20.0	4	CONFINING LAYER AT APPROX. 16.5 FEET
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-35

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)	2.0	1	
2		CLAYEY SAND BROWN CLAYEY SAND (SC)	5.0	2	
5		CLAYEY SAND BROWN AND GREY CLAYEY SAND (SC)	8.0	3	ESTIMATED SEASONAL HIGH WATER TABLE AT APPROX. 5.0 FEET FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 0.6 FEET/DAY
8		FINE SAND LIGHT BROWN FINE SAND (SP)	11.0	4	
11		CLAYEY SAND BROWN AND GREY CLAYEY SAND (SC)	20.0	5	
20		End of Borehole			CONFINING LAYER GREATER THAN DEPTH DRILLED
21					
22					

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 23, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-36

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–11		**FINE SAND** BROWN TO LIGHT BROWN FINE SAND (SP)		1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 30.7 FEET/DAY
11			11.0		ESTIMATED SEASONAL HIGH WATER TABLE AT APPROX. 11.0 FEET
11–20		**CLAYEY SAND** BROWN AND GREY TO GREY CLAYEY SAND (SC)		2	
20			20.0		CONFINING LAYER GREATER THAN DEPTH DRILLED
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 23, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-38

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1–6		**FINE SAND** BROWN FINE SAND (SP)	6.5	1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 9.9 FEET/DAY
7		**LIMESTONE** LIGHT BROWN LIMESTONE (POSSIBLE BOULDER)	7.5	2	
8–16		**FINE SAND** BROWN FINE SAND (SP)	16.5	3	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 16.5 FEET
17–20		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	20.0	4	CONFINING LAYER GREATER THAN DEPTH DRILLED
21–22		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-39

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1–11		**FINE SAND** BROWN TO LIGHT BROWN FINE SAND (SP)		1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 16.1 FEET/DAY
12			12.0		ESTIMATED SEASONAL HIGH WATER TABLE AT APPROX. 12.0 FEET
12–19		**CLAYEY SAND** BROWN AND GREY CLAYEY SAND (SC)		2	
20			20.0		CONFINING LAYER GREATER THAN DEPTH DRILLED
20		End of Borehole			
21–22					

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 23, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-41

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–12		**FINE SAND** BROWN FINE SAND (SP)		1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 14.9 FEET/DAY
13			13.0		
13–14		**CLAYEY SAND** YELLOWISH BROWN CLAYEY SAND (SC)	14.0	2	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 14.0 FEET
14–19		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	
20			20.0		CONFINING LAYER GREATER THAN DEPTH DRILLED
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-46

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

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1016 SE 3rd Avenue
Ocala, Florida
352.694.7711
WWW.GEOTECHFL.COM

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–11		**FINE SAND** BROWN FINE SAND (SP)	11.0	1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 16.3 FEET/DAY
11–16.5		**CLAYEY SAND** YELLOWISH BROWN CLAYEY SAND (SC)	16.5	2	
16.5–18		**CLAYEY SAND** YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	18.0	3	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT APPROX. 16.5 FEET
18–20		**SLIGHTLY SANDY CLAY (CH)** GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)	20.0	4	CONFINING LAYER AT APPROX. 18.0 FEET
20		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Log of Borehole: SB-47

Project: OCALA INTERNATIONAL AIRPORT, OCALA, FLORIDA

Project No: 12-192.23.1

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: GPI SOUTHEAST, INC.

Enclosure: SITE PLAN

GEO-TECH, INC.
ENGINEERING CONSULTANTS
1016 SE 3rd Avenue
Ocala, Florida
352.694.7711
WWW.GEOTECHFL.COM

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0–12		**FINE SAND** BROWN FINE SAND (SP)		1	FIELD VERTICAL PERMEABILITY AT APPROX. 6.0 FEET = 29.6 FEET/DAY
			12.5		
13–19		**CLAYEY SAND** YELLOWISH BROWN CLAYEY SAND (SC)		2	ESTIMATED SEASONAL HIGH WATER TABLE LEVEL AT GREATER THAN DEPTH DRILLED
			20.0		
20		End of Borehole			CONFINING LAYER GREATER THAN DEPTH DRILLED

Ground Water Depth: NOT FOUND

Drill Date: JANUARY 3, 2013

Drilled By: WH/JC

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Documents Received	Received From	Effective Date	Format of Information
Airport Soils Reports	Matt Grow	08/01/05	PDF
Ocala020109.sid	Rudy	10/09/09	Aerials
OP2001_NC_044217_24.sid	Hires	01/01/10	Aerials
OP2001_NC_044218_24.sid	Hires	2010	Aerials
OP2001_NC_044517_24.sid	Hires	2010	Aerials
OP2001_NC_044518_24.sid	Hires	2010	Aerials
OP2001_NC_044817_24.sid	Hires	2010	Aerials
OP2001_NC_044818_24.sid	Hires	2010	Aerials
Drainage Design Document (Final) SW 60th Ave.	HDR Engineering, Inc,	May-05	PDF
Drainage Design (Permit Submittal) SW 60th Ave.	HDR Engineering, Inc,	Jul-04	PDF
SW 60th Ave "As-Builts" Survey	HDR Engineering, Inc,	04/01/07	Autocad
SR 40 FDOT Final As-builts	City of Ocala	02/07/07	PDF
SW 67th Ave Phase 1 & 2	City of Ocala	10/27/10	Autocad
SW 67th Ave Phase 1 & 2	City of Ocala	10/27/10	PDF
SW 67th As-Builts	City of Ocala	09/20/10	Autocad
SW 67th As-Builts	City of Ocala	09/20/10	PDF
FM12083C0511D	www.fema.gov	Aug-05	Image
FM12083C0513D	www.fema.gov	Aug-05	Image
Soil Map-Marion County Area_Florida.pdf	www.usda.gov	07/11/12	PDF
Drainage Report SW 67th Ave. - Phase 2	City of Ocala	09/19/11	Hardcopy
Standard General Stormwater Permit Application for Ocala International Airport E-10 Site Improvements Phase 2	City of Ocala	01/08/10	Hardcopy
Transfer of Operations Permit - Ocala International Airport E-7-10 Site	City of Ocala	12/15/11	Hardcopy
Transfer of Operations Permit - Ocala Regional Airport Hangars	City of Ocala	03/09/12	Hardcopy

APPENDIX I

METHODOLOGY

CENTRAL TESTING LABORATORY

ENGINEERING - MATERIALS TESTING - QUALITY CONTROL

INVERNESS - LEESBURG - OCALA

THE STANDARD PENETRATION TEST
ASTM D 1586

The Standard Penetration Test, commonly called a soil boring, provides small soil samples and standard penetration resistances (blow counts) from selected depth intervals. The samples are used for soil classification and the penetration resistances provide a general indication of soil strength and density. All of this data is used to estimate soil bearing capacity and settlements.

The borings are advanced to the desired test depth by a dry rotary drilling process using a flight auger. When it becomes necessary, drilling mud is used. Drilling mud, in this application, is a mixture of clay and water with a specific gravity of 1.05 to 1.10. Drilling mud is heavier than water; consequently, the drilling mud prevents ground water from entering the bore and provides support to the walls of the bore, minimizing wall collapse.

The sampler is driven into the bottom of the boring with a 140 pound hammer dropping thirty (30) inches. The blows are counted for three (3) consecutive six (6) inch increments for a total of eighteen (18) inches. The first six (6) inches are to assure that the sampler is in undisturbed soil. The number of blows for the remaining twelve (12) inches is recorded and is termed the N value or blow counts. This is performed in each soil stratum, but at maximum intervals of five (5) feet.

This procedure give a minimally disturbed sample that is classified by a technician, packaged in suitable containment, and transported to the laboratory. The samples are examined by an engineer or geologist to verify the field classifications.

The boring data are shown as soil classifications and penetration resistances in blow counts. The symbols used to show the various soils encountered are explained in the legend accompanying the Boring Logs. The blow counts are shown as blow count(s) per six (6) inches of penetration, i.e. 22/6. The color of the soil is determined by using the Munsell Soil Color Charts and is given in code such as 10YR 6/3. This information is used to prepare Boring Logs as necessary.

MEMBER OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS

APPENDIX II

SOIL PROFILES

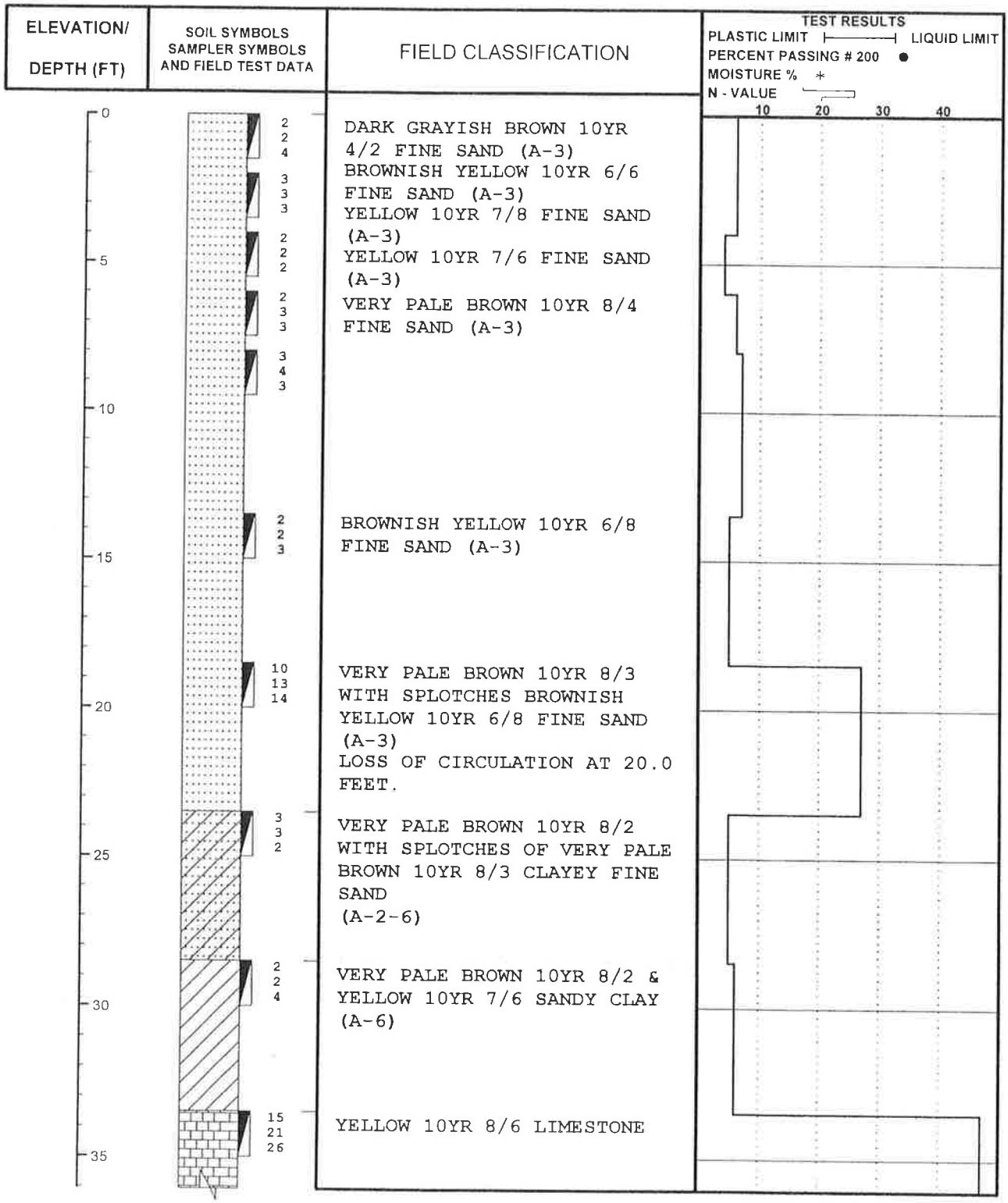
BORING LOG

BORING NO. B-1

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-1586
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: 42'

DATE: 8/5/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A



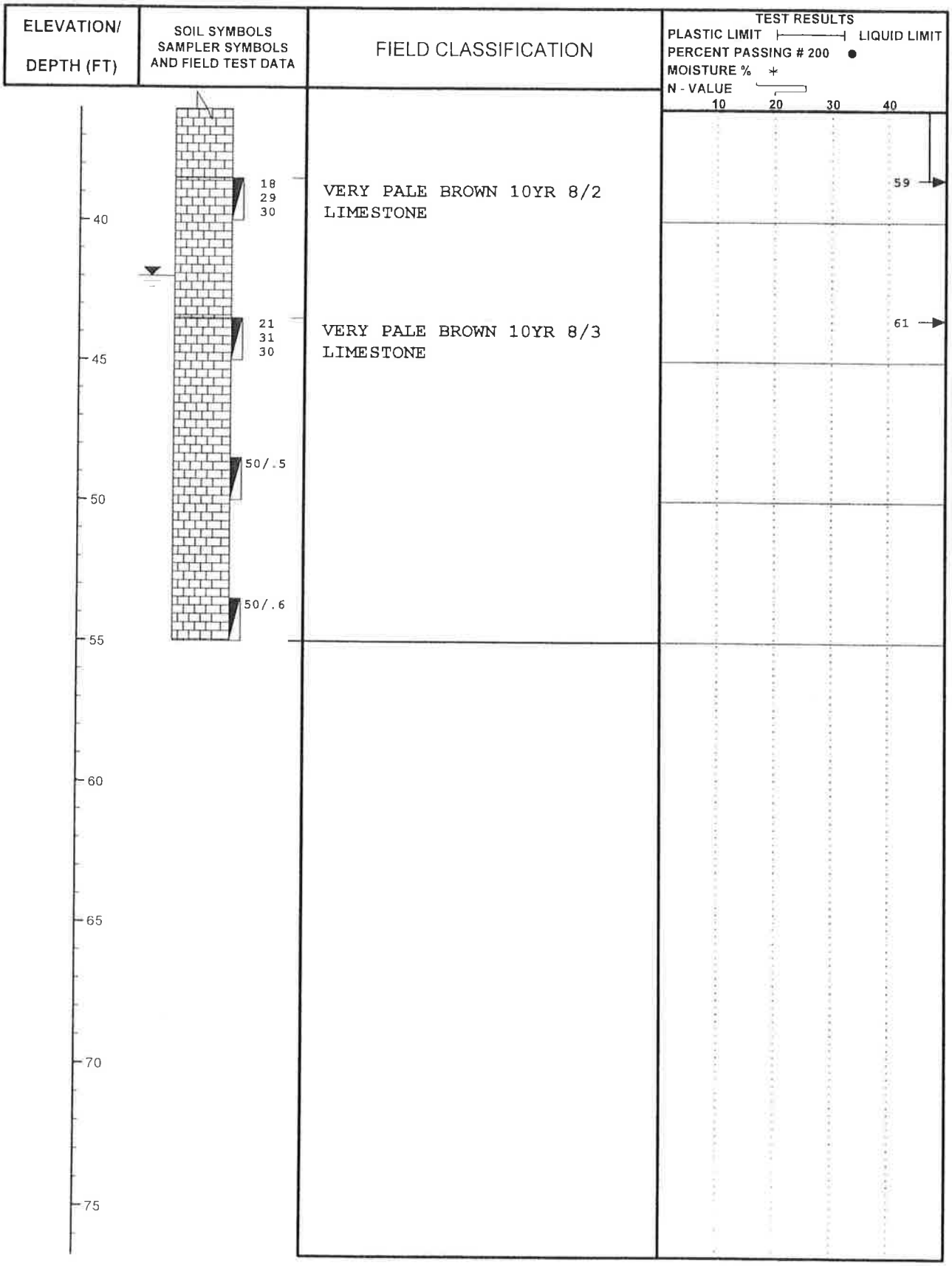
Notes: **BORING GROUTED UPON COMPLETION.**

LOG OF TEST BORING

BORING B-1

PROJECT: SW 67TH AVENUE PHASE 2

DATE: 8/5/10



BORING LOG

BORING NO. AB-1

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/9/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N - VALUE ⌐¬ 10 20 30 40
0		BROWN 10YR 4/3 FINE SAND (A-3)	
5		YELLOW 10YR 7/8 FINE SAND (A-3)	
10		VERY PALE BROWN 10YR 7/4 FINE SAND (A-3)	
15			
20			
25			
30			
35			

Notes:

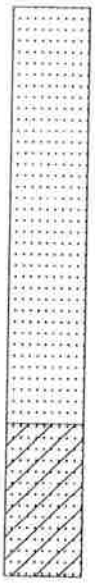
BORING LOG

BORING NO. AB-2

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/9/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS
0		YELLOWISH BROWN 10YR 5/4 FINE SAND (A-3)	PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % + N - VALUE 10 20 30 40
5		YELLOW 10YR 7/6 FINE SAND (A-3)	
10		YELLOW 10YR 7/8 CLAYEY FINE SAND (A-2-6)	
15		YELLOW 10YR 7/8 WITH SPLOTCHES OF VERY PALE BROWN 10YR 8/2 CLAYEY FINE SAND (A-2-6)	
20			
25			
30			
35			

Notes:

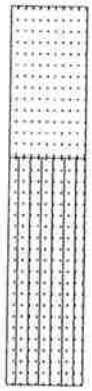
BORING LOG

BORING NO. AB-3

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/9/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N - VALUE 10 20 30 40
0		VERY DARK GRAYISH BROWN 10YR 3/2 FINE SAND (A-3)	
5		BROWNISH YELLOW 10YR 6/8 SILTY SAND (A-2-4)	
10			
15			
20			
25			
30			
35			

Notes:

BORING LOG

BORING NO. AB-4

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/4/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ✳ N - VALUE 10 20 30 40
0		VERY DARK BROWN 10YR 2/2 FINE SAND WITH TRACE OF ORGANICS (A-3)	
5		YELLOWISH BROWN 10YR 5/6 FINE SAND (A-3)	
10		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
15		YELLOWISH BROWN 10YR 5/8 FINE SAND (A-3)	
20			
25			
30			
35			

Notes:

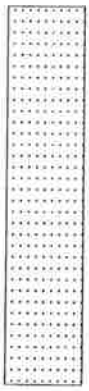
BORING LOG

BORING NO. AB-5

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/4/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % + N - VALUE 10 20 30 40
0		VERY DARK GRAYISH BROWN 10YR 3/2 FINE SAND (A-3)	
5		DARK YELLOWISH BROWN 10YR 4/4 FINE SAND (A-3)	
10		VERY PALE BROWN 10YR 7/4 FINE SAND (A-3)	
15			
20			
25			
30			
35			

Notes:

BORING LOG

BORING NO. AB-6

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/4/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS
0		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % + N - VALUE 10 20 30 40
5		YELLOW 10YR 7/6 FINE SAND (A-3)	
		YELLOW 10YR 7/8 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/8 SILTY SAND (A-2-4)	
10		TERMINATED AT 8.0' DUE TO VERY HARD SAND/CLAY MIX.	
15			
20			
25			
30			
35			

Notes: **LIMITED ACCESS DUE TO TREES. HAND AUGER**

BORING LOG

BORING NO. AB-7

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/4/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ✳ N - VALUE 10 20 30 40
0		VERY DARK GRAYISH BROWN 10YR 3/2 FINE SAND (A-3) YELLOWISH BROWN 10YR 5/4 FINE SAND (A-3) LIGHT YELLOWISH BROWN 10YR 6/4 FINE SAND (A-3) VERY PALE BROWN 10YR 7/4 FINE SAND (A-3) REDDISH YELLOW 7.5YR 5/8 CLAYEY FINE SAND (A-2-6)	
5			
10			
15			
20			
25			
30			
35			

Notes:

BORING LOG

BORING NO. AB-8

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/4/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS
0		YELLOWISH BROWN 10YR 5/4 FINE SAND (A-3)	PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N - VALUE ⌐¬ 10 20 30 40
5		BROWNISH YELLOW 10YR 6/6 CLAYEY FINE SAND (A-2-6)	
10		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-6)	
15			
20			
25			
30			
35			

Notes:

BORING LOG

BORING NO. AB-9

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/4/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % + N - VALUE 10 20 30 40
0		VERY DARK GRAYISH BROWN 10YR 3/2 FINE SAND (A-3)	
5		DARK BROWN 10YR 3/3 FINE SAND (A-3)	
10		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
15			
20			
25			
30			
35			

Notes:

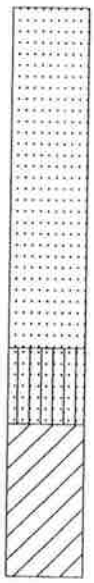
BORING LOG

BORING NO. AB-10

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E

DATE: 8/4/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS
0		DARK BROWN 10YR 3/3 FINE SAND (A-3)	PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N - VALUE 10 20 30 40
5		YELLOWISH BROWN 10YR 5/6 FINE SAND (A-3)	
10		DARK YELLOWISH BROWN 10YR 4/6 SILTY SAND (A-2-4)	
15		VERY PALE BROWN 10YR 8/3 & VERY PALE BROWN 10YR 7/4 SANDY CLAY (A-6)	
20			
25			
30			
35			

Notes:

BORING LOG

BORING NO. PB-11

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E 69.5

DATE: 8/9/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N - VALUE 10 20 30 40
0		YELLOWISH BROWN 10YR 5/4 FINE SAND (A-3) Kv @ 1.0' = 6.8 FT./DAY BROWNISH YELLOW 10YR 6/8 SILTY SAND (A-2-4) Kv @ 4.0' = 0.01 FT./DAY	
5			
10		YELLOW 10YR 7/6 CLAYEY FINE SAND (A-2-6)	
15		YELLOW 10YR 7/8, VERY PALE BROWN 10YR 8/2, & REDDISH YELLOW 7.5YR 5/8 CLAY (A-7)	
20		VERY PALE BROWN 10YR 8/2 CLAY (A-7)	
25			
30			
35			

Notes: **ESTIMATED SEASONAL HIGH GROUNDWATER TABLE AT 10.0 FEET (PERCHED) BELOW EXISTING GRADE.**

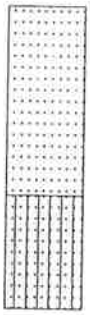
BORING LOG

BORING NO. PB-12

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E 71.0

DATE: 8/9/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N - VALUE 10 20 30 40
0		DARK GRAYISH BROWN 10YR 4/2 FINE SAND (A-3)	
5		LIGHT YELLOWISH BROWN 10YR 6/4 FINE SAND (A-3) Kv @ 2.0' = 7.2 FT./DAY BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3) BROWNISH YELLOW 10YR 6/8 SILTY SAND (A-2-4) Kv @ 6.0' = 1.10 FT./DAY	
10		TERMINATED AT 8.0' DUE TO LIMITED ACCESS AND VERY HARD STRATA. ENCOUNTERED BY HAND AUGER.	
15			
20			
25			
30			
35			

Notes:

BORING LOG

BORING NO. PB-13

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E 10.0

DATE: 8/9/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N - VALUE 10 20 30 40
0		DARK GRAYISH BROWN 10YR 3/3 FINE SAND (A-3)	
5		YELLOWISH BROWN 10YR 5/4 FINE SAND (A-3) Kv @ 2.0' = 1.70 FT./DAY	
10		YELLOWISH BROWN 10YR 5/8 CLAYEY FINE SAND (A-2-6) Kv @ 5.5' = 1.29 FT./DAY YELLOW 10YR 7/6 CLAY (A-7)	
15		YELLOW 10YR 7/6 WITH SPLOTCHES OF VERY PALE BROWN 10YR 8/2 CLAY (A-7)	
20		BROWNISH YELLOW 10YR 6/8 SANDY CLAY (A-6)	
25			
30			
35			

Notes: **ESTIMATED SEASONAL HIGH GROUNDWATER TABLE @ 8.0' (PERCHED) BELOW EXISTING GRADE.**

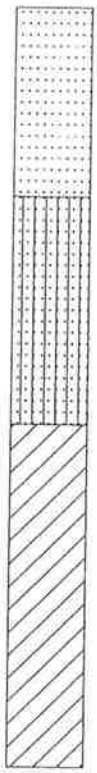
BORING LOG

BORING NO. PB-14

PROJECT: SW 67TH AVENUE PHASE 2
BORING LOCATION: SEE FIGURE NO. 2
BORING METHOD: ASTM D-4700
CLIENT: KIMLEY-HORN & ASSOCIATES, INC.
DEPTH TO - Water: N/E 75.5

DATE: 8/9/10
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N - VALUE 10 20 30 40
0		YELLOWISH BROWN 10YR 5/4 FINE SAND (A-3) Kv @ 2.0' = 8.50 FT./DAY	
5		LIGHT YELLOWISH BROWN 10YR 6/4 SILTY SAND (A-2-4) Kv @ 5.5' = 0.30 FT./DAY	
10		BROWNISH YELLOW 10YR 6/8 SANDY CLAY (A-6)	
15			
20			
25			
30			
35			

Notes: **ESTIMATED SEASONAL HIGH GROUNDWATER TABLE @ 11.0' (PERCHED) BELOW EXISTING GRADE.**

KEY TO SYMBOLS

Symbol Description

Strata symbols



POORLY GRADED SANDS
OR GRAVELLY SANDS
LITTLE OR NO FINES



CLAYEY SANDS
SAND-CLAY MIXES



INORGANIC CLAYS
MEDIUM PLASTICITY



LIMESTONE



SILTY SANDS
SAND-SILT MIXES



INORGANIC CLAYS OF
HIGH PLASTICITY

Misc. Symbols



Boring continues



Water table at
boring completion

Symbol Description

Soil Samplers



Standard penetration test

Notes:

1. ELEVATIONS REPORTED ON LOGS PROVIDED BY CLIENT.
2. THESE LOGS ARE SUBJECT TO THE LIMITATIONS, CONCLUSIONS, AND RECOMMENDATIONS IN THIS REPORT. DUE TO POSSIBLE VARIANCES IN THE SUBSURFACE BETWEEN THE LOCATIONS OF THE BORINGS, AND THE VARYING DEGREE OF DISTURBANCE, THE DESCRIPTIONS GIVEN ARE GOOD ONLY FOR THE MATERIALS REMOVED DURING THE CONSTRICTION OF EACH BORING.
3. RELATIVE DENSITY (sand-silt)
   - VERY LOOSE - Less than 4 blows/ft.
   - LOOSE - 4 to 10 blows/ft.
   - MEDIUM - 10 to 30 blows/ft.
   - DENSE - 30 to 50 blows/ft.
   - VERY DENSE - More than 50 blows/ft.
4. CONSISTENCY (clay)
   - VERY SOFT - Less than 2 blows/ft.
   - SOFT - 2 to 4 blows/ft.
   - MEDIUM - 4 to 8 blows/ft.
   - STIFF - 8 to 15 blows/ft.
   - VERY STIFF - 15 to 30 blows/ft.
   - HARD - More than 30 blows/ft.
5. COLORS ARE DETERMINED BY USING THE MUNSELL SOIL COLOR CHART AND THE VALUES ARE GIVEN IN CODE SUCH AS 10YR 3/4.

Legend:

SOIL BORING SUMMARY TABLE

Boring Designation	Station	GROUND ELEVATION	DEPTH TO SHGWT (ft)	SHGWT ELEVATION	DEPTH TO CONFINING LAYER	BASE OF AQUAFER ELEVATION	KH ft/day	KV ft/day
AB-1	13+00	85.26	6.0	79.26	7.0 (3)	78.26		
AB-2	17+00	82.02	10.0	72.02	11.0 (3)	71.02	8.15	5.43
AB-3	21+00	89.77	4.0	85.77	5.0 (3)	84.77		
AB-2&AB-3				78.90		77.90	8.15	5.43
AB-4	25+00	95.44	2.0	93.44	3.0 (3)	90.44	0.00	0.00
AB-3&AB-4				89.61		87.61	0.00	0.00
AB-5	29+00	93.95	2.0	91.95	3.0 (3)	88.95		
AB-4&AB-5				92.70		89.70	0.00	0.00
AB-6	33+00	87.42	9.0 (1)	78.42	10.0 (2)	68.42	18.05	12.03
AB-4&AB-5 &AB-6				87.94		82.60	9.02	6.02
AB-7	37+00	82.06	9.0 (1)	73.06	10.0 (2)	72.06		
AB-6&AB-7				75.74		70.24	18.05	12.03
AB-8	41+00	78.32	14.0 (1)	64.32	15.0 (2)	63.32	19.22	12.81
AB-7&AB-8				68.69		67.69	19.22	12.81
AB-9	45+00	86.51	9.0 (1)	77.51	10.0 (2)	76.51		
AB-8&AB-9				70.92		69.92	19.22	12.81
AB-10	49+00	81.76	8.0 (1)	73.76	9.0 (2)	72.76	8.84	5.89 (4)
AB-9&AB-10				75.64		74.64	8.84	5.89
AB-11	53+00	80.75	8.0	72.75	9.0 (3)	71.75		
AB-10&AB-11				73.26		72.26	8.84	5.89
AB-12	57+00	81.34	11.0 (1)	70.34	12.0 (2)	69.34	10.37	6.91 (5)
AB-11&AB-12				71.55		70.55	10.37	6.91
AB-13	61+00	69.49	9.0 (1)	60.49	10.0 (2)	59.49		
AB-12&AB-13				65.42		64.42	10.37	6.91
AB-14	65+00	79.75	9.0	70.75	10.0 (3)	69.75	29.24	19.49
AB-13&AB-14				65.62		64.62	29.24	19.49
AB-15	69+00	87.53	9.0 (1)	78.53	10.0 (2)	77.53		
AB-13&AB-14 &AB-15				69.92		68.92	29.24	19.49
AB-14&AB-15				74.64		73.64	29.24	19.49
AB-16	73+00	86.16	9.0 (1)	77.16	10.0 (2)	76.16	14.72	9.81 (6)
AB-15&AB-16				77.85		76.85	14.72	9.81
AB-17	77+00	79.95	9.0 (1)	70.95	10.0 (2)	69.95		
AB-15&AB-16 &AB-17				75.55		74.55	14.72	9.81
AB-16&AB-17				74.06		73.06	14.72	9.81
AB-18	81+00	81.30	10.5	70.80	11.5 (3)	69.80	39.17	26.11
AB-17&AB-18				70.88		69.88	39.17	26.11
AB-19	85+00 old 84+80 new	94.53	9.0 (1)	85.53	10.0 (2)	84.53		
AB-18&AB-19				78.17		77.17	39.17	26.11
AB-20	89+00 old 86+60 new	93.88	14.0 (2)	79.88	15.0 (2)	78.88	12.89	8.59
AB-19&AB-20				82.71		81.71	12.89	8.59
AB-21	93+00 old 90+60 new	84.55	9.0 (1)	75.55	10.0 (2)	74.55		
AB-20&AB-21				77.72		76.72	12.89	8.59
AB-22	97+00 old 94+60 new	82.80	14.0 (1)	68.80	15.0 (2)	67.80	32.22	21.48
AB-21&AB-22				72.18		71.18	32.22	21.48
AB-23	101+00 old 98+60 new	82.89	9.0 (1)	73.89	10.0 (2)	72.89		
AB-22&AB-23				71.35		70.35	32.22	21.48

(1) SHWT no encountered, assumed one foot above the depth of the boring
(2) Confine layer no encountered, assumed as the depth of the boring.
(3) Confine layer assumed one foot below SHWT.
(4) Weighted KV of 8.96(at 4') and 1.60 (at 6.5')
(5) Weighted KV of 14.59(at 4') and .77 (at 9")
(6) KV average of 23.86(at 4') and .45 (at 8.5')

SUBSURFACE EXPLORATION SERVICE
ROADWAY BORINGS & PERMEABILITIES
SW 67TH AVENUE
OCALA, MARION COUNTY, FLORIDA

CONDUCTED FOR

CITY OF OCALA ENGINEERING DEPT.



CENTRAL TESTING LABORATORY, INC.

OCALA, FLORIDA

0987069.200
OCTOBER 7, 2009

OCT 8 2009

Generalized Soil Borings

Soil borings were performed utilizing either ASTM D1586, as modified for auger borings, or ASTM D4700. A copy of each methodology is enclosed in Appendix I. The soil boring logs prepared for the project are included in Appendix II of this report. The borings logs are our interpretation of the materials encountered during our exploration. Lines delineating changes is in soil stratification may be more subtle than suggested by the soil boring logs.

Soil boring profiles generally consisted of sand (A-3) material from the surface to depths ranging from 2 feet below ground surface (bgs) to 15 feet bgs underlain, where encountered, by clayey sand (A-2-4) material. The average depth of the sand (A-3) materials encountered is approximately 8.33 feet bgs. The soil classifications listed above and on the soil boring logs utilize the AASHTO soil classification system.

Field Vertical Permeability Results

A total of fourteen (14) field vertical permeability tests were performed between Station 10+00 and Station 98+72.06. Permeability tests were performed within each soil layer when both sand and sandy-clay materials were encountered within ten (10) feet of natural grade. Where only sands were encountered at depths greater than ten (10) feet, field permeability testing was performed only within the upper five (5) feet of material encountered – generally at 4 feet below natural grade. When clayey sand materials were encountered at less than four (4) feet below ground surface, a single permeability test was performed within the clayey sand material. The table below documents the results of the field permeability testing performed for the project.

Table 1

Field Vertical Permeability Results				
No.	**Boring Designation**	**Station and Offset**	**Depth of Test (ft)**	**Vertical Permeability Rate (ft/day)**
1	SB-2	17+00, 40' Rt.	4.0	5.43
2	SB-4	25+00, 40' Rt.	4.0	0.00
3	SB-6	33+00, 40' Rt.	4.0	12.03
4	SB-8	41+00, 40' Rt.	4.0	12.81
5	SB-10	49+00, 40' Rt.	4.0	8.96
6	SB-10	49+00, 40' Rt.	6.5	1.60
7	SB-12	57+00, 40' Rt.	4.0	14.59
8	SB-12	57+00, 40' Rt.	9.0	0.77
9	SB-14	65+00, 40' Rt.	4.0	19.49
10	SB-16	73+00, 40' Rt.	4.0	23.86
11	SB-16	73+00, 40' Rt.	8.5	0.45
12	SB-18	81+00, 40' Rt.	4.0	26.11
13	SB-20	89+00, 40' Rt.	4.0	8.59
14	SB-22	97+00, 40' Rt.	4.0	21.48

The values presented above should not be used without applying an appropriate safety factor as determined by the Engineer to account for siltation and groundwater mounding affects.

Seasonal High Groundwater Table

An evaluation of the seasonal high groundwater table was also made on the samples recovered from our field exploration. Although a seasonal high groundwater table was not observed within any of the borings performed, a temporarily perched condition may be encountered within several borings. Table 2 below indicates the location and depth of potentially perched conditions.

Table 2

Boring Designation	Potentially Perched Depth (ft)
B-1	6'
B-2	10'
B-3	4'
B-4	2'
B-5	2'
B-6	Not Encountered
B-7	Not Encountered
B-8	Not Encountered
B-9	Not Encountered
B-10	Not Encountered
B-11	8'
B-12	Not Encountered
B-13	Not Encountered
B-14	9'
B-15	Not Encountered
B-16	Not Encountered
B-17	Not Encountered
B-18	10.5'
B-19	Not Encountered
B-20	4'
B-21	Not Encountered
B-22	Not Encountered
B-23	Not Encountered

Closure

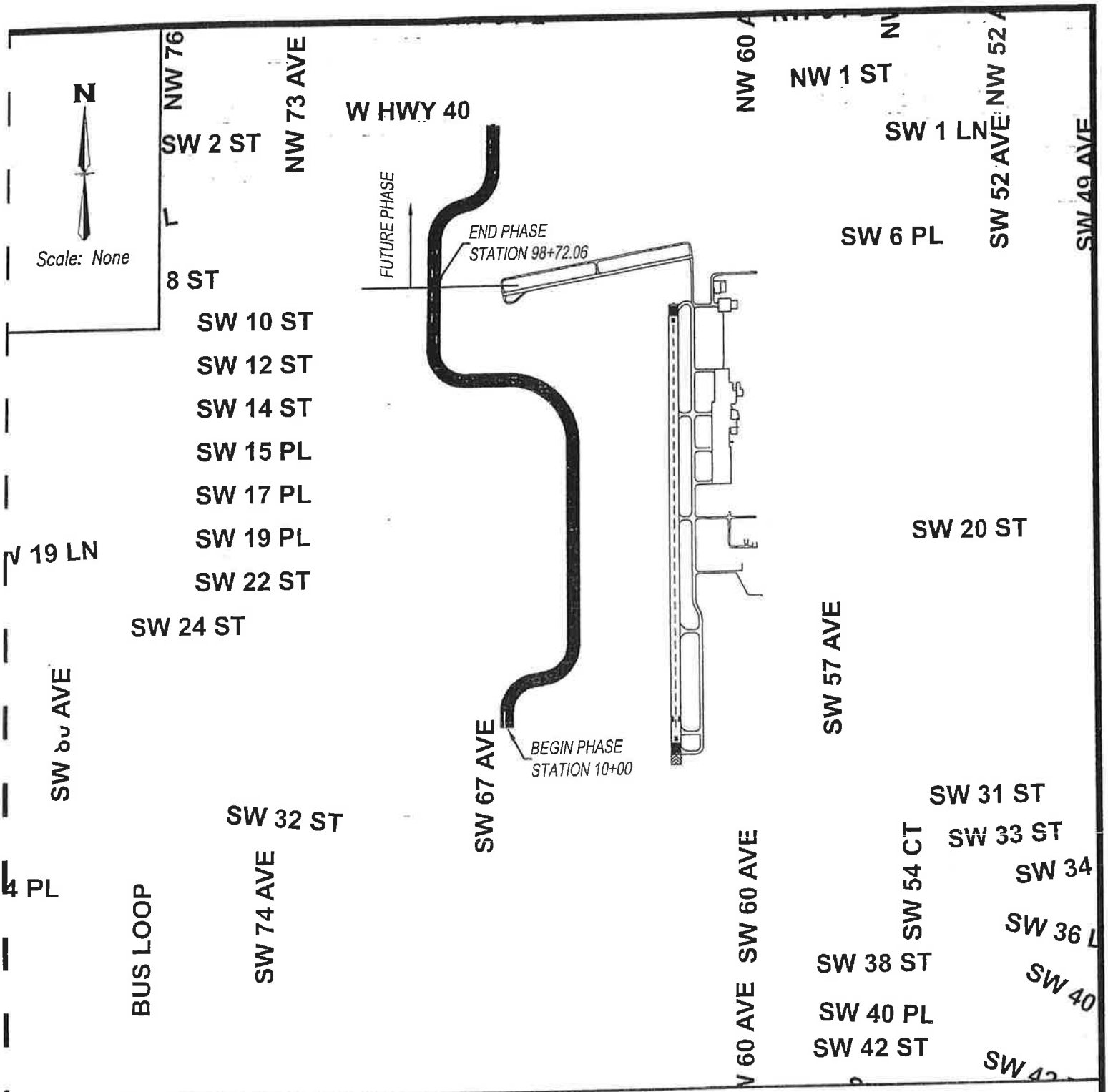
The results within this report are based upon the data obtained from the soil borings and the field testing performed. Variations may be present adjacent to the boring and across the site which is not represented by the soil borings performed. CTL recommends using an appropriate safety factor to account for the inherent variability of soils, the degree of compaction during construction and ground water mounding. Generally accepted soil engineering practices were employed in the preparation of this report.

CTL appreciates the opportunity to provide our services on this project. Should you have any questions, please do not hesitate to contact our Ocala office at (352) 622-1186, by fax at (352) 732-7112, or by email at ctlbarry@aol.com.

Respectfully submitted,
Central Testing Laboratory, Inc.

10/7/09

Barry Ginn, P.E.
Branch Manager
Florida Registration No. 54595



SOURCE: City of Ocala Engineering Dept.

CENTRAL TESTING LABORATORY
ENGINEERING & MATERIALS TESTING

1725 SW 17th Street
Ocala, Florida 344471
(352) 622-1186
EB 0002407

Subsurface Exploration
Future SW 67th Avenue
LOCATION MAP
City of Ocala Engineering Dept.
405 SE Osceola Avenue
Ocala, Florida 34471

Drawn By: BEG
Checked By: BEG

Figure 1
Scale: None

CTL Project No. 0987069.200
Roadway Borings and Permeabilities
Future SW 67th Avenue
Ocala, Marion County, Florida

APPENDIX I

METHODOLOGY

CENTRAL TESTING LABORATORY

ENGINEERING-MATERIALS TESTING-QUALITY CONTROL

LEESBURG-FLORAL CITY-OCALA

THE STANDARD PENETRATION TEST
ASTM D 1586

The Standard Penetration Test, commonly called a soil boring, provides small soil samples and standard penetration resistances (blow counts) from selected depth intervals. The samples are used for soil classification and the penetration resistances provide a general indication of soil strength and density. All of this data is used to estimate soil bearing capacity and settlement.

The borings are advanced to the desired test depth by a dry rotary drilling process using a flight auger. When it becomes necessary, drilling mud is used. Drilling mud, in this application, is a mixture of clay and water with a specific gravity of 1.05 to 1.10. Drilling mud is heavier than water; consequently, the drilling mud prevents groundwater from entering the bore and provides support to the walls of the bore, minimizing wall collapse.

The sampler is driven into the bottom of the boring with a 140 pound hammer dropping thirty (30) inches. The blows are counted for three (3) consecutive six (6) inch increments for a total of eighteen (18) inches. The first six (6) inches are to assure that the sampler is in undisturbed soil. The number of blows for the remaining twelve (12) inches is recorded and is termed the N value or blow counts. This is performed in each soil stratum, but at maximum intervals of five (5) feet.

This procedure gives a minimally disturbed sample that is classified by a technician, packaged in suitable containment, and transported to the laboratory. The samples are examined by an engineer or a geologist to verify the field classifications.

The boring data are shown as soil classifications and penetration resistances in blow counts. The symbols used to show the various soils encountered are explained in the legend accompanying the Boring Logs. The blow counts are shown as blow count(s) per six (6) inches of penetration, i.e. 22/6. The color of the soil is determined by using the Munsell Soil Color Charts and is given in code such as 10YR 6/3. This information is used to prepare Boring Logs as necessary.

CENTRAL TESTING LABORATORY

ENGINEERING-MATERIALS TESTING-QUALITY CONTROL

LEESBURG-FLORAL CITY-OCALA

STANDARD GUIDE FOR SOIL SAMPLING FROM THE VADOSE ZONE ASTM D 4700

Sampling vadose zone soil involves inserting into the ground a device that retains and recovers a sample. Devices and systems for vadose zone sampling are divided into two general groups, namely the following: samplers used in conjunction with hand operated devices and samplers used in conjunction with multipurpose or auger drill rigs. Vadose zone sampling is useful for a variety of reasons including the following: stratigraphic description, hydraulic conductivity testing, moisture content measurement, moisture release curve construction, geotechnical testing, soil gas analyses, microorganism extraction, or pore liquid and soils chemical analyses. Depths of investigations are limited by groundwater conditions, soil characteristics, and the equipment used.

Sampling with Hand Operated Devices - Barrel augers used include the following: regular barrel auger, stainless steel barrel auger, and post-hole type barrel auger. The auger is rotated to advance the barrel into the ground. The operator may have to apply downward pressure to keep the auger advancing. When the barrel is full, the unit is withdrawn from the soil cavity and a sample may be collected from the barrel.

Sampling with Multipurpose and Auger Drill Rigs - Multipurpose and auger drill rigs are generally equipped with rotary power and vertical feed control to advance both hollow-stem augers and continuous flight (solid stem) augers. Sampling is accomplished by rotating the auger column into the soil and retaining the cuttings on the flights. Samples from solid stem augers are termed disturbed and are not suitable for analyses requiring undisturbed samples such as hydraulic conductivity tests. When representative samples from discrete depths are desired, the borehole should be made large enough to insert a smaller diameter auger or another sampler (for example, a thin-walled tube) to the bottom of the borehole, without touching the sides of the borehole, th collect a discrete sample from the interval ahead. Hollow-stem augers may be used to advance a borehole to a desired sampling depth. Sampling is done by inserting the sampler through the hollow stem of the auger column. The drilling rig operated by Central Testing Laboratory is equipped with four (4) inch solid stem flight augers and six (6) inch hollow-stem flight augers.

Central Testing Laboratory

EB 0002407

Engineering and Materials Testing

Reply to:

Ocala

October 7, 2009

City of Ocala Engineering Department
405 Osceola Avenue
Ocala, Florida 34471
(352) 629-8521
(352) 629-8242 (Fax)

Attention: Mr. Tom Young, P.E.
Assistant City Engineer

Subject: Subsurface Exploration Services
Roadway Borings and Permeabilities
SW 67th Avenue
Ocala, Marion County, Florida
CTL Project No. 0987069.200

Dear Mr. Young;

Central Testing Laboratory, Inc. (CTL) has completed the subsurface exploration and testing for the above referenced project which included performing twelve (12) roadway soil borings generally extended to a depth of ten (10) feet below natural grade and eleven (11) drainage borings generally extended to a depth of fifteen (15) feet below natural grade. Additionally, fourteen (14) field vertical permeability tests were performed at various depths to determine the in-place permeability of soils encountered. CTL understands this effort has been conducted in order to classify the materials encountered at the project site and to document the characteristics and engineering parameters of the materials for use in the design of SW 67th Avenue for the City of Ocala.

Soil Survey

CTL consulted the Marion County Soil Survey produced by the United States Department of Agriculture to determine the soil group and other pertinent data regarding the soils to be encountered within the future right-of-way for SW 67th Avenue. According to our research the only soil group to be encountered is characterized as "Candler sand". Candler sand is considered a "Hydrologic Soil Group A" soil typically consisting of sand (A-3) material from the surface to a depth of 67 inches underlain by sand and fine sand material (A-3, A-2-4) material to a depth of 99 inches. The seasonal high ground water table is typically encountered at greater than 6 feet below natural grade within this formation with permeability rates greater than 40 feet per day in the upper 67 inches and ranging from 12 to 40 feet per day between 67 and 99 inches below natural grade.

APPENDIX II

SOIL PROFILES

BORING LOG

BORING NO. AB-1

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 13+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 10/1/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N-VALUE 10 20 30 40
0		LIGHT YELLOWISH 10YR 6/4 FINE SAND (A-3) BROWNISH YELLOW 10YR 6/8 FINE SAND (A-3)	
5		BROWNISH YELLOW 10YR 6/6 CLAYEY FINE SAND (A-2-4) BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
10			
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-2

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 17+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 10/1/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N-VALUE 10 20 30 40
0		BROWN 10YR 5/3 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
5		YELLOW 10YR 7/6 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
10		BROWNISH YELLOW 10YR 6/6 CLAYEY FINE SAND (A-2-4)	
		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-3

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 21+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: 4.0' PERCHED

DATE: 10/1/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS
0		LIGHT YELLOWISH BROWN 10YR 6/4 FINE SAND (A-3)	PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N-VALUE 10 20 30 40
		VERY PALE BROWN 10YR 7/4 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
5		VERY PALE BROWN 10YR 7/4 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
		BROWNISH YELLOW 10YR 6/6 CLAYEY FINE SAND (A-2-4)	
10		VERY PALE BROWN 10YR 7/4 CLAYEY FINE SAND (A-2-4)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-4

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 25+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 10/1/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N-VALUE 10 20 30 40
0		DARK YELLOWISH BROWN 10YR 4/4 FINE SAND (A-3)	
		YELLOWISH BROWN 10YR 5/8 FINE SAND (A-3)	
5		YELLOWISH BROWN 10YR 5/8 CLAYEY FINE SAND (A-2-4)	
		BROWN 10YR 4/3 CLAYEY FINE SAND (A-2-4)	
10		BROWN 10YR 5/3 CLAYEY FINE SAND (A-2-4)	
		BROWNISH YELLOW 10YR 6/6 CLAYEY FINE SAND (A-2-4)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-5

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 29+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/16/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % - N-VALUE 10 20 30 40
0		GRAYISN BROWN 10YR 5/2 FINE SAND (A-3) LIGHT YELLOWISH BROWN 10YR 6/4 FINE SAND (A-3) YELLOWISH BROWN 10YR 5/8 CLAYEY SAND (A-2-4) BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4) YELLOW 10YR 8/6 CLAYEY FINE SAND (A-2-4)	
5			
10			
15			
20			
25			
30			
35			

Notes: **BORINGS BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-6

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 33+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/18/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ~ N-VALUE —— 10 20 30 40
0		BROWN 10YR 5/3 FINE SAND (A-3) BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3) YELLOW 10YR 7/6 FINE SAND (A-3) VERY PALE BROWN 10YR 8/4 FINE SAND (A-3)	
5			
10			
15			
20			
25			
30			
35			

Notes: **BORINGS BACKFILLED UPON COMPLETION.**

Central Testing Laboratory Ocala, Florida

BORING LOG

BORING NO. AB-7

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 37+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/16/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ~ N-VALUE ═══ 10 20 30 40
0		DARK GRAYISH BROWN 10YR 4/2 FINE SAND (A-3)	
5		LIGHT YELLOWISH BROWN 10YR 6/4 FINE SAND (A-3)	
10		BROWNISH YELLOW 10YR 6/8 FINE SAND (A-3)	
15		YELLOW 10YR 7/6 FINE SAND (A-3)	
20		YELLOW 10YR 7/8 FINE SAND (A-3)	
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-8

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 41+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/18/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % × N-VALUE ═══ 10 20 30 40
0		BROWN 10YR 5/3 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
5		VERY PALE BROWN 10YR 8/4 FINE SAND (A-3)	
10		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-9

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 45+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/18/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % × N-VALUE 10 20 30 40
0		GRAYISH BROWN 10YR 5/2 FINE SAND (A-3)	
		LIGHT YELLOWISH BROWN 10YR 6/4 FINE SAND (A-3)	
5		YELLOW 10YR 7/6 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
10			
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-10

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 49+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/18/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ⌁ N-VALUE ——·—— 10 20 30 40
0		DARK GRAYISH BROWN 10YR 4/2 FINE SAND (A-3) BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
5		BROWNISH YELLOW 10YR 6/6 CLAYEY FINE SAND (A-2-4)	
10			
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-11

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 53+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/17/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % × N-VALUE ═══ 10 20 30 40
0		BROWN 10YR 4/3 FINE SAND (A-3)	
		YELLOWISH BROWN 10YR 5/6 FINE SAND (A-3)	
5		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
		VERY PALE BROWN 10YR 8/4 FINE SAND (A-3)	
		YELLOW 10YR 7/8 CLAYEY FINE SAND (A-2-4)	
10		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-12

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 57+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/18/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % * N-VALUE 10 20 30 40
0		DARK GRAYISH BROWN 10YR 4/2 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/8 FINE SAND (A-3)	
5		YELLOW 10YR 8/6 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
10			
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-13

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 61+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/17/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ~ N-VALUE 10 20 30 40
0		PALE BROWN 10YR 6/3 FINE SAND (A-3) BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
5		YELLOW 10YR 7/6 FINE SAND (A-3)	
10		BROWNISH YELLOW 10YR 6/8 FINE SAND (A-3)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-14

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 65+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/17/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % – N-VALUE 10 20 30 40
0		BROWN 10YR 4/3 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
5			
		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
10			
		VERY PALE BROWN 10YR 8/3 CLAYEY FINE SAND (A-2-4)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

Central Testing Laboratory Ocala, Florida

BORING LOG

BORING NO. AB-15

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 69+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/17/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ✂ N-VALUE 10 20 30 40
0		GRAYISH BROWN 10YR 5/2 FINE SAND (A-3) LIGHT YELLOWISH BROWN 10YR 6/4 FINE SAND (A-3)	
5		YELLOWISH BROWN 10YR 5/8 CLAYEY FINE SAND (A-2-4)	
10			
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-16

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 73+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/17/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ✂ N-VALUE 10 20 30 40
0		BROWN 10YR 5/3 FINE SAND (A-3) YELLOWISH BROWN 10YR 5/4 FINE SAND (A-3) YELLOW 10YR 7/6 FINE SAND (A-3)	
5			
		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
10			
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

Central Testing Laboratory Ocala, Florida

BORING LOG

BORING NO. AB-17

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 77+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/16/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ~ N-VALUE 10 20 30 40
0		BROWN 10YR 5/3 FINE SAND (A-3) PALE BROWN 10YR 6/3 FINE SAND (A-3) VERY PALE BROWN 10YR 8/3 FINE SAND (A-3) YELLOW 10YR 7/6 FINE SAND (A-3)	
5			
10			
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-18

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 81+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/16/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ✂ N-VALUE ═══ 10 20 30 40
0		BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3)	
		YELLOW 10YR 7/6 FINE SAND (A-3)	
5		VERY PALE BROWN 10YR 8/4 FINE SAND (A-3)	
		YELLOW 10YR 7/6 FINE SAND (A-3)	
10		VERY PALE BROWN 10YR 7/3 FINE SAND (A-3)	
		YELLOW 10YR 7/8 CLAYEY FINE SAND (A-2-4)	
		VERY PALE BROWN 10YR 8/3 CLAYEY FINE SAND (A-2-4)	
15		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-19

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 85+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/16/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ~ N-VALUE 10 20 30 40
0		BROWN 10YR 5/3 FINE SAND (A-3) LIGHT YELLOWISH BROWN 10YR 6/4 FINE SAND (A-3) YELLOW 10YR 7/6 FINE SAND (A-3)	
5			
10		VERY PALE BROWN 10YR 8/3 FINE SAND (A-3)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-20

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 89+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/16/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ~ N-VALUE 10 20 30 40
0		GRAYISH BROWN 10YR 5/2 FINE SAND (A-3)	
		LIGHT YELLOWISH BROWN 10YR 6/4 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
5			
		YELLOW 10YR 7/6 CLAYEY FINE SAND (A-2-4)	
10		BROWNISH YELLOW 10YR 6/6 CLAYEY FINE SAND (A-2-4)	
		YELLOW 10YR 7/6 CLAYEY FINE SAND (A-2-4)	
15		VERY PALE BROWN 10YR 7/3 CLAYEY FINE SAND (A-2-4)	
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

BORING LOG

BORING NO. AB-21

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 93+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/17/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % - N-VALUE 10 20 30 40
0		BROWN 10YR 5/3 FINE SAND (A-3) BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3) YELLOW 10YR 7/6 FINE SAND (A-3)	
5			
10		BROWNISH YELLOW 10YR 6/8 FINE SAND (A-3)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

Central Testing Laboratory Ocala, Florida

BORING LOG

BORING NO. AB-22

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 97+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/16/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢——⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % ~ N-VALUE —— 10 20 30 40
0		DARK GRAYISH BROWN 10YR 4/2 FINE SAND (A-3)	
		YELLOWISH BROWN 10YR 5/8 FINE SAND (A-3)	
5		YELLOW 10YR 7/8 FINE SAND (A-3)	
		YELLOW 10YR 7/6 FINE SAND (A-3)	
		VERY PALE BROWN 10YR 8/3 FINE SAND (A-3)	
10		YELLOW 10YR 7/8 FINE SAND (A-3)	
		BROWNISH YELLOW 10YR 6/8 FINE SAND (A-3)	
		YELLOW 10YR 7/8 FINE SAND (A-3)	
15		BROWNISH YELLOW 10YR 6/8 CLAYEY FINE SAND (A-2-4)	
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

Central Testing Laboratory Ocala, Florida

BORING LOG

BORING NO. AB-23

PROJECT: SW 67TH AVENUE
BORING LOCATION: STATION 101+00
BORING METHOD: ASTM D-4700
CLIENT: CITY OF OCALA ENGINEERING DEPT.
DEPTH TO - Water: N/E

DATE: 9/16/09
ELEVATION: N/A
DRILLER: JAMES/JIM

DEPTH OF COLLAPSE: N/A

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ⊢—⊣ LIQUID LIMIT PERCENT PASSING # 200 ● MOISTURE % × N-VALUE 10 20 30 40
0		GRYAISH BROWN 10YR 5/2 FINE SAND (A-3) BROWNISH YELLOW 10YR 6/6 FINE SAND (A-3) YELLOW 10YR 7/8 FINE SAND (A-3) VERY PALE BROWN 10YR 8/4 FINE SAND (A-3)	
5			
10		BROWNISH YELLOW 10YR 6/8 FINE SAND (A-3)	
15			
20			
25			
30			
35			

Notes: **BORING BACKFILLED UPON COMPLETION.**

KEY TO SYMBOLS

Symbol Description

Strata symbols



POORLY GRADED SANDS
OR GRAVELLY SANDS
LITTLE OR NO FINES



CLAYEY SANDS
SAND-CLAY MIXES

Misc. Symbols



Water table at
boring completion

Notes:

1. ELEVATIONS REPORTED ON LOGS PROVIDED BY CLIENT.
2. THESE LOGS ARE SUBJECT TO THE LIMITATIONS, CONCLUSIONS, AND RECOMMENDATIONS IN THIS REPORT. DUE TO POSSIBLE VARIANCES IN THE SUBSURFACE BETWEEN THE LOCATIONS OF THE BORINGS, AND THE VARYING DEGREE OF DISTURBANCE, THE DESCRIPTIONS GIVEN ARE GOOD ONLY FOR THE MATERIALS REMOVED DURING THE CONSTRICTION OF EACH BORING.
3. RELATIVE DENSITY (sand-silt)
   VERY LOOSE - Less than 4 blows/ft.
   LOOSE - 4 to 10 blows/ft.
   MEDIUM - 10 to 30 blows/ft.
   DENSE - 30 to 50 blows/ft.
   VERY DENSE - More than 50 blows/ft.
4. CONSISTENCY (clay)
   VERY SOFT - Less than 2 blows/ft.
   SOFT - 2 to 4 blows/ft.
   MEDIUM - 4 to 8 blows/ft.
   STIFF - 8 to 15 blows/ft.
   VERY STIFF - 15 to 30 blows/ft.
   HARD - More than 30 blows/ft.
5. COLORS ARE DETERMINED BY USING THE MUNSELL SOIL COLOR CHART AND THE VALUES ARE GIVEN IN CODE SUCH AS 10YR 3/4.

Legend:

Andreyev Engineering, Inc.

OCALA OFFICE
3426 S.W. 6th Street
Ocala, Florida 34474
352-401-9522
Fax: 352-401-9523
Email: drathbun@andreyevengineering.com

▼ Groundwater ▼ Environmental ▼ Geotechnical ▼ Construction Materials Testing

August 1, 2005
AEI Project No. OGGT-05-081

TO: Mr. Bruce Phillips, P.E., P.L.S
City of Ocala Engineering Department
P.O. Box 1270
Ocala, Florida 34478

SUBJECT: Preliminary Geotechnical Engineering Study
Parcel East of Aircraft Rescue & Firefighting Facility at Ocala International Airport
North of Southwest 38th Street
Ocala, Florida

Dear Mr. Phillips:

As requested, Andreyev Engineering, Inc. (AEI) has completed a preliminary geotechnical engineering study on the subject site. The purpose of the study was to determine subsurface conditions at the site in order to develop general geotechnical engineering considerations for development.

The subject parcel is located on the west side of the Ocala International Airport. The parcel is designated as an aviation or non-aviation use property consisting of approximately 23 acres, as shown on **Figure 1**. Four (4) Standard Penetration Test (SPT) borings were drilled to a depth of 25 feet below existing ground surface on the parcel on May 17 and 18, 2005. The approximate boring locations are presented on **Figure 2**. The borings were drilled with an auger in the upper 10 feet and advanced using the rotary method with drilling mud below a depth of 10 feet. Results of the borings are presented in profile form on **Figure 3**. On the profiles, horizontal lines designating the interface between different materials represent approximate boundaries. The transition between layers is typically gradual. The following strata were found in the borings:

STRATUM NO.	DESCRIPTION	PLASTICITY	USCS GROUP
1	Fine sand to fine sand with silt	None	SP, SP-SM
2	Clayey fine sand	Moderate to high	SC
3	Sandy clay to clay	High	CH
4	Limestone	n/a	n/a
Plasticity is based on visual classification of soil samples recovered from the borings. USCS = Unified Soil Classification System.			

ENGINEERING
AUG 0 9 2005

A surface layer of Stratum 1 was found at each boring location. Stratum 1 ranged in thickness from approximately 4 to 13 feet at the boring locations. Stratum 1 was generally underlain by Stratum 2. Stratum 4 was found in the bottom portion of boring B-18 and a second layer of Stratum 1 was found in the bottom of boring B-19. SPT N-values were between 3 and 20 in the shallow Stratum 1 soils. The N-values generally increased with depth. The N-value recorded in the limestone (Stratum 4) was 17. Drilling fluid circulation losses were not observed in any of the borings. A ground water table was not found within the upper 10 feet of the borings. Ground water table measurements were not taken below a depth of 10 feet in the borings due to the presence of drilling mud in the boreholes.

The Stratum 1 sands will be suitable for support of lightly-loaded to moderately-loaded structures using conventional, shallow spread footings. Densification of the shallow sands will be required to limit the amount of settlement of proposed structures. Densification of the sands can generally be accomplished using conventional vibratory compaction techniques. The allowable bearing capacity of the shallow sands is expected to be in the range of 2000 pounds per square foot (psf) to 2500 psf depending on the amount of densification achieved and the amount of allowable settlement of the proposed structures. The Stratum 1 sands will also be suitable for support of conventional pavement sections using a limerock base. The permeability of the Stratum 1 sands is expected to be moderate to high and Stratum 1 will be suitable for construction of dry-bottom storm water ponds. The Stratum 2 clayey sands will not be suitable for support of structures and pavements or for construction of dry-bottom storm water ponds. The Stratum 2 soils are moderately plastic to highly plastic and therefore have the potential to change volume upon changes in water content. The volume changes of the soils can caused distress to overlying structures and pavements. In addition, the Stratum 2 soils are expected to have a very low permeability. A common method used locally to reduce the potential for structure distress caused by plastic soil movement is to provide a buffer of sand between the soils and overlying structures and pavements. The thickness of the buffer will depend on the plasticity of the clay and on existing and proposed site grades. Stratum 2 was found at a shallow depth (less than 6 feet) in two of the borings drilled at the subject site. The borings where Stratum 2 was encountered at a shallow depth (B-19 and B-20) were drilled near the north portion of the property. Stratum 2 may exist at shallow depths between boring locations. A design-level geotechnical engineering study is recommended after proposed improvement locations and details have been determined.

AEI appreciates the opportunity to provide services to the City of Ocala and trusts that the information herein is sufficient for your immediate needs. If you have any questions or comments regarding the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

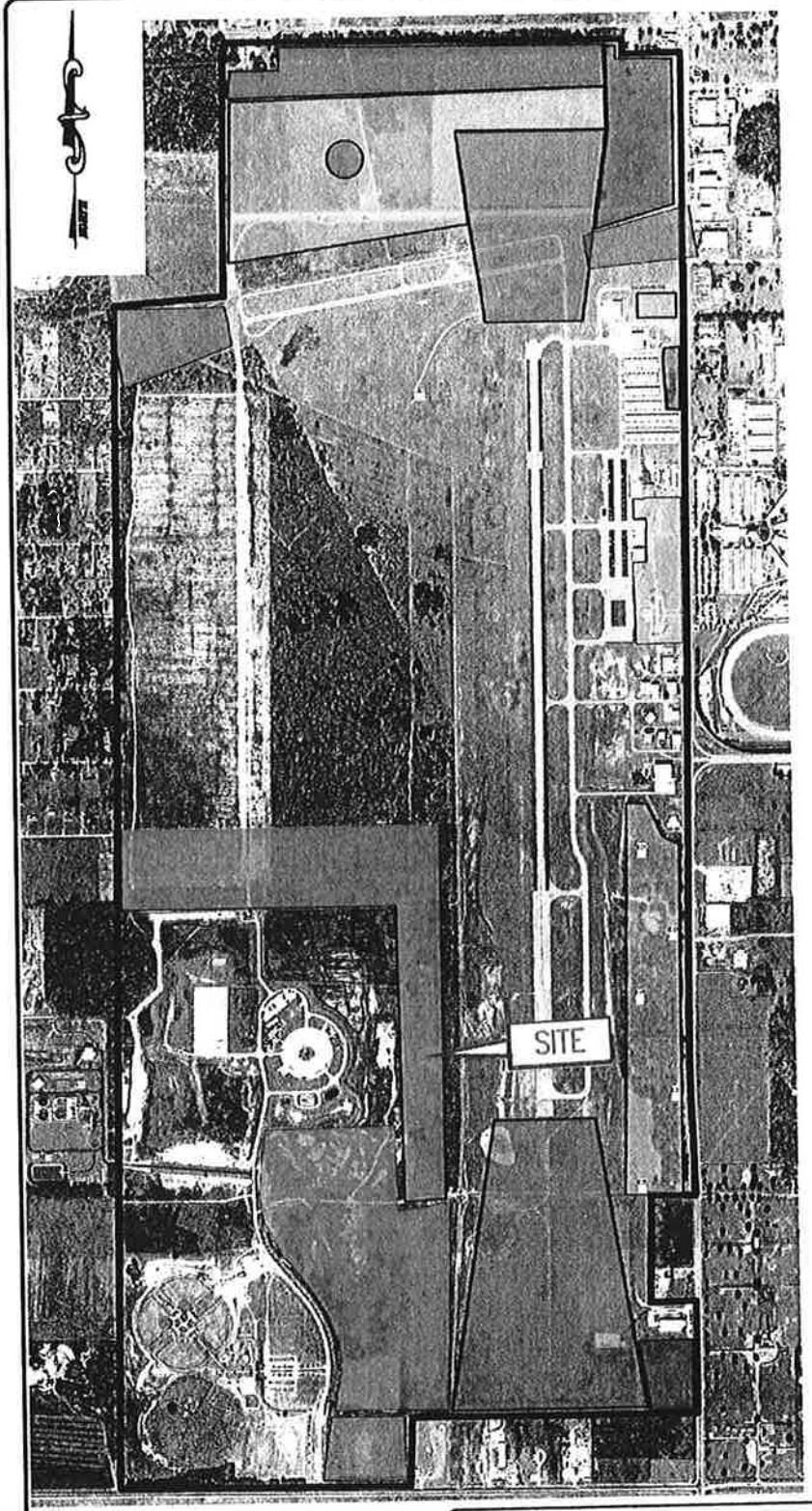
ANDREYEV ENGINEERING, INC.

Bradley T. Reddick
Project Geologist

8-5-05
David J. Rathbun, P.E.
Vice President
Florida Registration No. 40494

Attachments: Figures 1 through 3

xc: Mr. Matt Grow - City of Ocala Airport Division



AVIATION USE ONLY

AVIATION OR NON AVIATION USE ONLY

NON AVIATION ONLY

NO STRUCTURES

Andreyev Engineering, Inc.

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

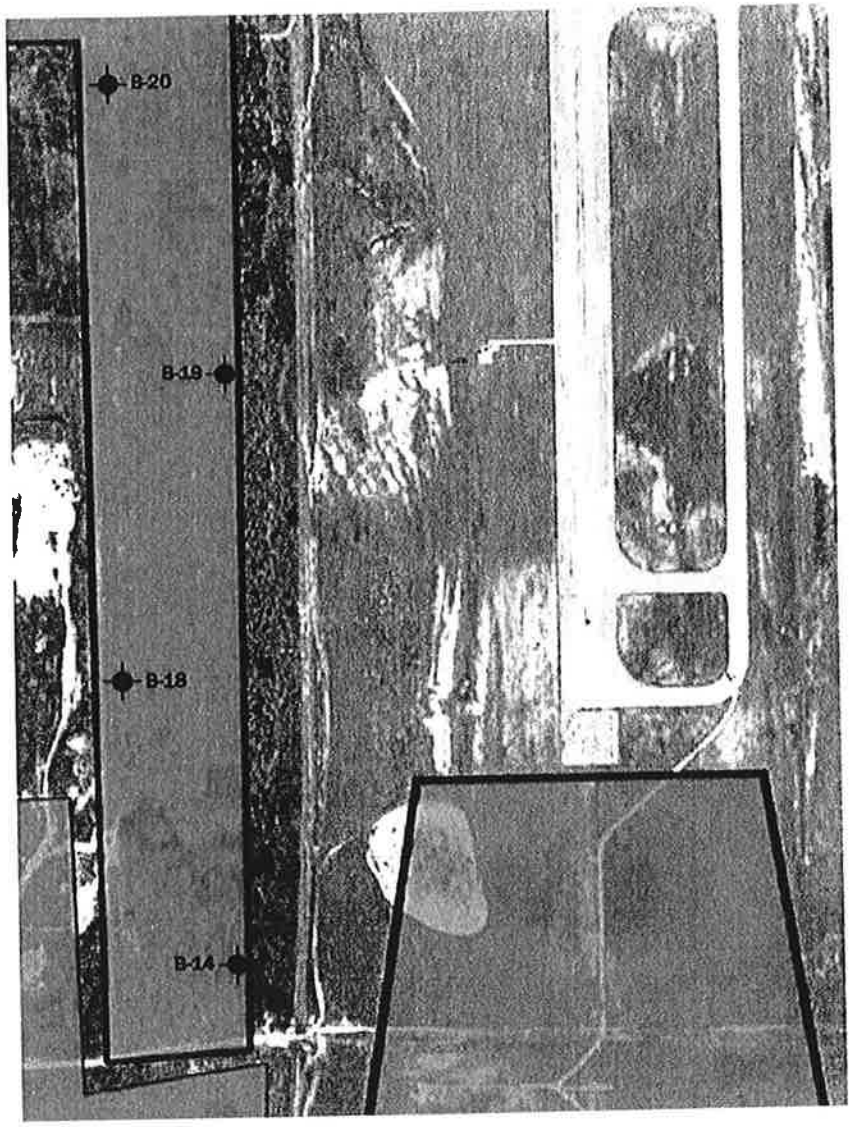
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60th AVE

OCALA, MARION COUNTY, FL.

SITE MAP

FIGURE 1

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS



AVIATION USE ONLY

AVIATION OR NON AVIATION USE ONLY

NON AVIATION ONLY

NO STRUCTURES

LEGEND:

LOCATION OF BORING

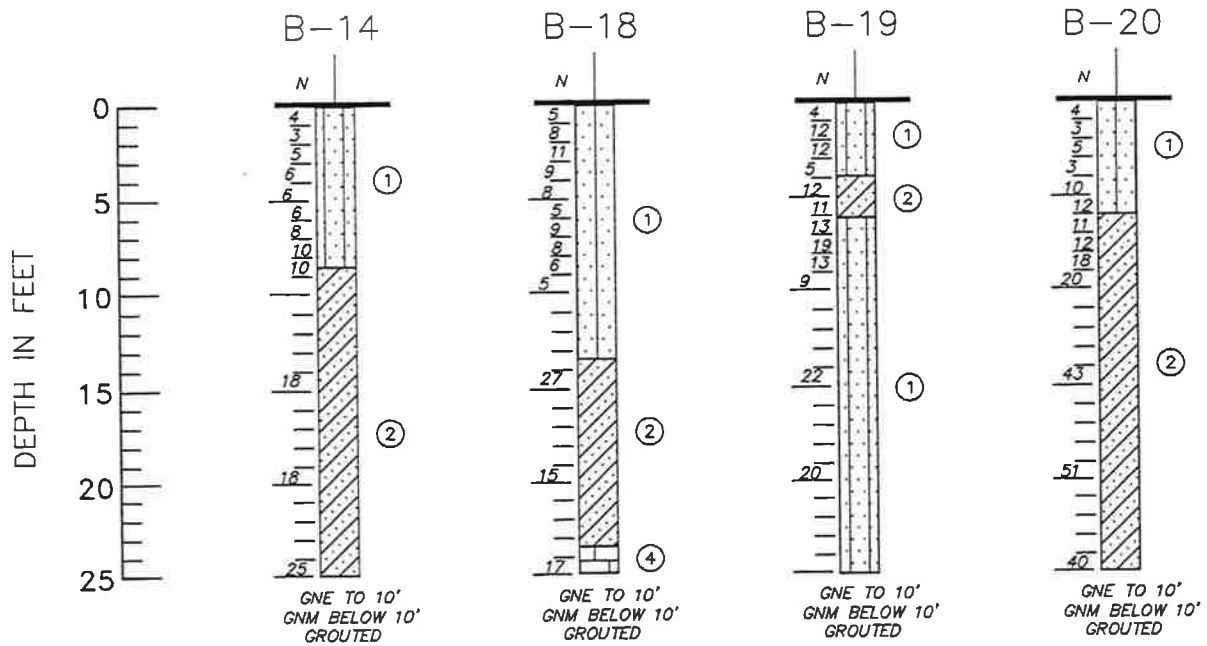
Andreyev Engineering, Inc.

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
PARCEL S OF AIRCRAFT & RESCUE FIREFIGHTING FAC. @ OIA
N OF SW 38th AVE
OCALA, MARION COUNTY, FL.

BORING LOCATION MAP

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS

FIGURE 2



LEGEND

①	DARK TO LIGHT BROWN FINE SAND TO FINE SAND WITH SILT (SP) (SP-SM)
②	ORANGE BROWN TO GRAY CLAYEY FINE SAND (SC)
③	LIGHT GRAY SANDY CLAY TO CLAY (CH)
④	LIMESTONE

(SP)	UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
HA	HAND AUGERED
50/5"	NUMBER OF BLOWS (50) REQUIRED TO ADVANCE THE SAMPLER 5 INCHES
GNE	GROUNDWATER NOT ENCOUNTERED
GNM	GROUNDWATER NOT MEASURED

ANDREYEV ENGINEERING, INC.

PRELIMINARY
GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60TH AVENUE
OCALA, MARION COUNTY, FL

SCALE: 1"=10'	DATE: 8-2-05	ENGINEER: DJR	SUBSURFACE PROFILES
	P.N.: OPGT-05-081	DRAWN BY: KRW	FIGURE 3

Andreyev Engineering, Inc.

OCALA OFFICE
3426 S.W. 6th Street
Ocala, Florida 34474
352-401-9522
Fax: 352-401-9523
Email: drathbun@andreyevengineering.com

▼ Groundwater ▼ Environmental ▼ Geotechnical ▼ Construction Materials Testing

August 1, 2005
AEI Project No. OGGT-05-081

TO: Mr. Bruce Phillips, P.E., P.L.S
City of Ocala Engineering Department
P.O. Box 1270
Ocala, Florida 34478

SUBJECT: Preliminary Geotechnical Engineering Study
Two Parcels on North Side of Ocala International Airport
Southwest of State Road 40 and Southwest 60th Avenue
Ocala, Florida

Dear Mr. Phillips:

As requested, Andreyev Engineering, Inc. (AEI) has completed a preliminary geotechnical engineering study on the subject site. The purpose of the study was to determine subsurface conditions at the site in order to develop general geotechnical engineering considerations for development.

The subject parcels are located on the north side of the Ocala International Airport. The north parcel is designated as an aviation or non-aviation use property consisting of approximately 33 acres and the south parcel is designated as an aviation use only property consisting of approximately 67 acres, as shown on **Figure 1**. Eleven (11) Standard Penetration Test (SPT) borings were drilled to a depth of 25 feet below existing ground surface on the parcels on May 4 and 17, 2005 and July 23, 2005. Four (4) borings were drilled on the north parcel and seven (7) borings were drilled on the south parcel. The approximate boring locations are presented on **Figure 2**. The borings were drilled with an auger in the upper 10 feet and advanced using the rotary method with drilling mud below a depth of 10 feet. Results of the borings are presented in profile form on **Figure 3**. On the profiles, horizontal lines designating the interface between different materials represent approximate boundaries. The transition between layers is typically gradual. The following strata were found in the borings:

STRATUM NO.	DESCRIPTION	PLASTICITY	USCS GROUP
1	Fine sand to fine sand with silt	None	SP, SP-SM
2	Clayey fine sand	Moderate to high	SC
3	Sandy clay to clay	High	CH
4	Limestone	n/a	n/a

Plasticity is based on visual classification of soil samples recovered from the borings.
USCS = Unified Soil Classification System.

ENGINEERING

AUG 0 9 2005

A surface layer of Stratum 1 was found at each boring location. Stratum 1 ranged in thickness from approximately 13 to 25 feet at the boring locations. Stratum 1 was generally underlain by Stratum 2 and/or Stratum 3. Stratum 4 was found in the bottom portion of two of the borings (B-5 and B-6). SPT N-values were between 2 and 34 in the shallow Stratum 1 soils. The N-values generally increased with depth. All N-values recorded in the limestone (Stratum 4) were refusal (50 blows for 6 inches of penetration or less). Drilling fluid circulation losses were not observed in any of the borings. A ground water table was not found within the upper 10 feet of the borings. Ground water table measurements were not taken below a depth of 10 feet in the borings due to the presence of drilling mud in the boreholes.

The Stratum 1 sands will be suitable for support of lightly-loaded to moderately-loaded structures using conventional, shallow spread footings. Densification of the shallow sands will be required to limit the amount of settlement of proposed structures. Densification of the sands can generally be accomplished using conventional vibratory compaction techniques. The allowable bearing capacity of the shallow sands is expected to be in the range of 2000 pounds per square foot (psf) to 2500 psf depending on the amount of densification achieved and the amount of allowable settlement of the proposed structures. The Stratum 1 sands will also be suitable for support of conventional pavement sections using a limerock base. The permeability of the Stratum 1 sands is expected to be moderate to high and Stratum 1 will be suitable for construction of dry-bottom storm water ponds. A design-level geotechnical engineering study is recommended after proposed improvement locations and details have been determined.

AEI appreciates the opportunity to provide services to the City of Ocala and trusts that the information herein is sufficient for your immediate needs. If you have any questions or comments regarding the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

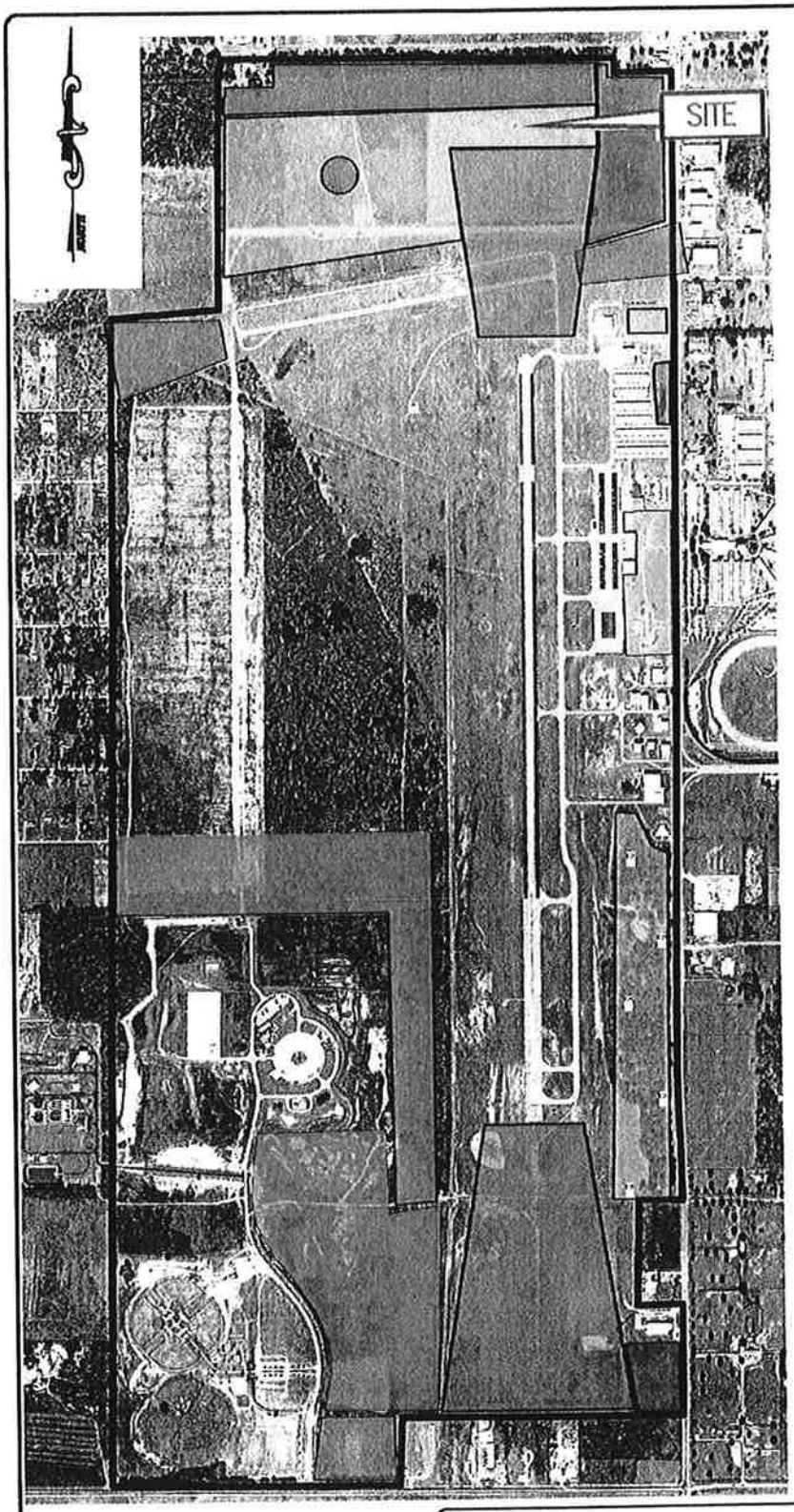
ANDREYEV ENGINEERING, INC.

Bradley T. Reddick
Project Geologist

8-5-05
David J. Rathbun, P.E.
Vice President
Florida Registration No. 40494

Attachments: Figures 1 through 3

xc: Mr. Matt Grow - City of Ocala Airport Division



Andreyev Engineering, Inc.

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60th AVE

OCALA, MARION COUNTY, FL.

SITE MAP

FIGURE 1

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS



NORTH

AVIATION USE ONLY

AVIATION OR NON AVIATION USE ONLY

NON AVIATION ONLY

NO STRUCTURES

LEGEND:

LOCATION OF BORING

Andreyev Engineering, Inc.

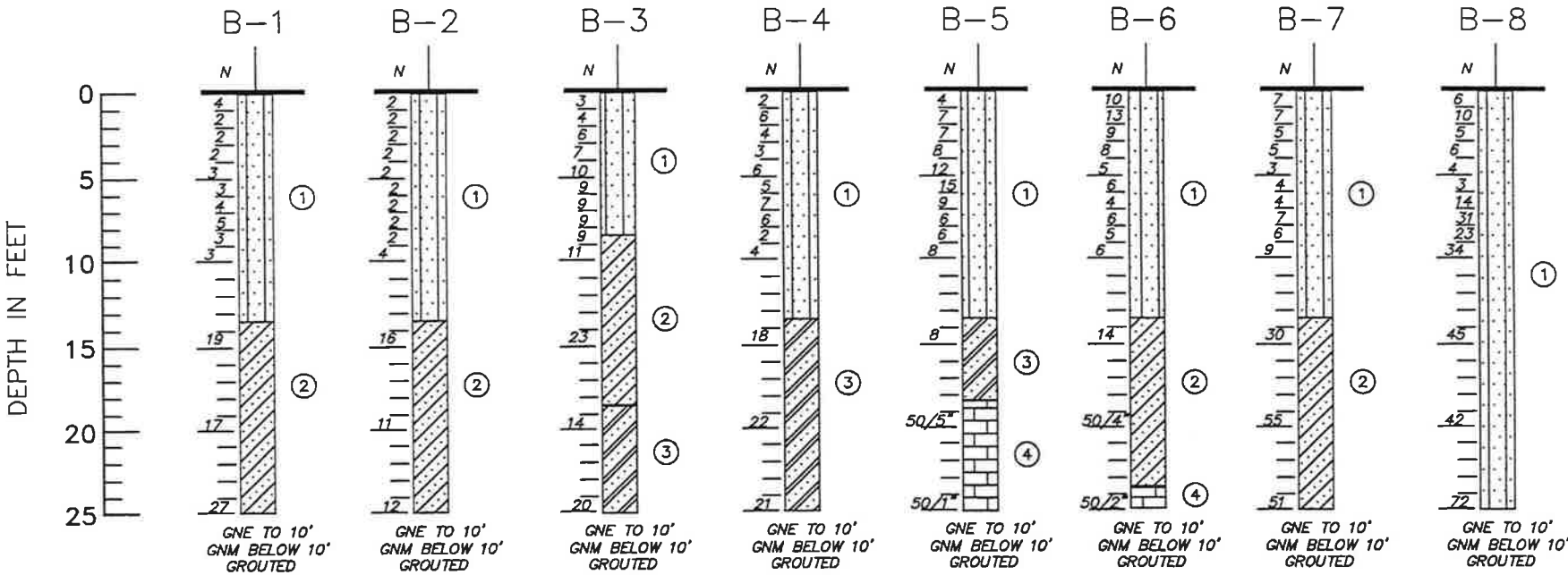
PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

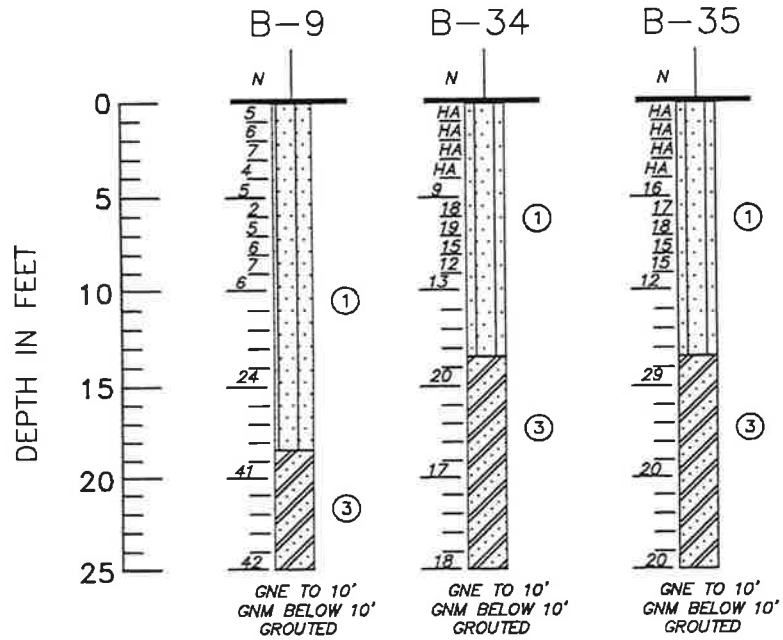
OCALA INTERNATIONAL AIRPORT
2 PARCELS-N SIDE OF OIA
SW OF S.R. 40 & SW 60th AVE.
OCALA, MARION COUNTY, FL.

BORING LOCATION MAP

FIGURE 2

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS





LEGEND

①	DARK TO LIGHT BROWN FINE SAND TO FINE SAND WITH SILT (SP) (SP–SM)
②	ORANGE BROWN TO GRAY CLAYEY FINE SAND (SC)
③	LIGHT GRAY SANDY CLAY TO CLAY (CH)
④	LIMESTONE

(SP)	UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
HA	HAND AUGERED
50/5"	NUMBER OF BLOWS (50) REQUIRED TO ADVANCE THE SAMPLER 5 INCHES
GNE	GROUNDWATER NOT ENCOUNTERED
GNM	GROUNDWATER NOT MEASURED

ANDREYEV ENGINEERING, INC.

PRELIMINARY
GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60TH AVENUE
OCALA, MARION COUNTY, FL

SCALE: 1"=10'	DATE: 8-2-05	ENGINEER: DJR	SUBSURFACE PROFILES
	PN: OPGT-05-081	DRAWN BY: KRW	FIGURE 3

Andreyev Engineering, Inc.

OCALA OFFICE
3426 S.W. 6th Street
Ocala, Florida 34474
352-401-9522
Fax: 352-401-9523
Email: drathbun@andreyevengineering.com

▼ Groundwater ▼ Environmental ▼ Geotechnical ▼ Construction Materials Testing

August 1, 2005
AEI Project No. OGGT-05-081

TO: Mr. Bruce Phillips, P.E., P.L.S
City of Ocala Engineering Department
P.O. Box 1270
Ocala, Florida 34478

SUBJECT: Preliminary Geotechnical Engineering Study
Non-Aviation Use Parcel on North Side of Ocala International Airport
Southwest Corner of State Road 40 and Southwest 60th Avenue
Ocala, Florida

Dear Mr. Phillips:

As requested, Andreyev Engineering, Inc. (AEI) has completed a preliminary geotechnical engineering study on the subject site. The purpose of the study was to determine subsurface conditions at the site in order to develop general geotechnical engineering considerations for development.

The subject parcel is located on the north side of the Ocala International Airport. The parcel is designated as a or non-aviation use property consisting of approximately 19 acres, as shown on **Figure 1**. Three (3) Standard Penetration Test (SPT) borings were drilled to a depth of 25 feet below existing ground surface on the parcels on July 23, 2005. The approximate boring locations are presented on **Figure 2**. The borings were drilled with an auger in the upper 10 feet and advanced using the rotary method with drilling mud below a depth of 10 feet. Results of the borings are presented in profile form on **Figure 3**. On the profiles, horizontal lines designating the interface between different materials represent approximate boundaries. The transition between layers is typically gradual. The following strata were found in the borings:

STRATUM NO.	DESCRIPTION	PLASTICITY	USCS GROUP
1	Fine sand to fine sand with silt	None	SP, SP-SM
2	Clayey fine sand	Moderate to high	SC
3	Sandy clay to clay	High	CH
4	Limestone	n/a	n/a
Plasticity is based on visual classification of soil samples recovered from the borings. USCS = Unified Soil Classification System.			

ENGINEERING
AUG 0 9 2005

A surface layer of Stratum 1 was found at each boring location. Stratum 1 ranged in thickness from approximately 13 to 23 feet at the boring locations. Stratum 1 was generally underlain by Stratum 2 and/or Stratum 3. Stratum 4 was found in the bottom portion of one of the borings (B-38). SPT N-values were between 9 and 20 in the shallow Stratum 1 soils. The N-values generally increased with depth. All N-values recorded in the limestone (Stratum 4) were refusal (50 blows for 6 inches of penetration or less). Drilling fluid circulation losses were not observed in any of the borings. A ground water table was not found within the upper 10 feet of the borings. Ground water table measurements were not taken below a depth of 10 feet in the borings due to the presence of drilling mud in the boreholes.

The Stratum 1 sands will be suitable for support of lightly-loaded to moderately-loaded structures using conventional, shallow spread footings. Densification of the shallow sands will be required to limit the amount of settlement of proposed structures. Densification of the sands can generally be accomplished using conventional vibratory compaction techniques. The allowable bearing capacity of the shallow sands is expected to be in the range of 2000 pounds per square foot (psf) to 2500 psf depending on the amount of densification achieved and the amount of allowable settlement of the proposed structures. The Stratum 1 sands will also be suitable for support of conventional pavement sections using a limerock base. The permeability of the Stratum 1 sands is expected to be moderate to high and Stratum 1 will be suitable for construction of dry-bottom storm water ponds. A design-level geotechnical engineering study is recommended after proposed improvement locations and details have been determined.

AEI appreciates the opportunity to provide services to the City of Ocala and trusts that the information herein is sufficient for your immediate needs. If you have any questions or comments regarding the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

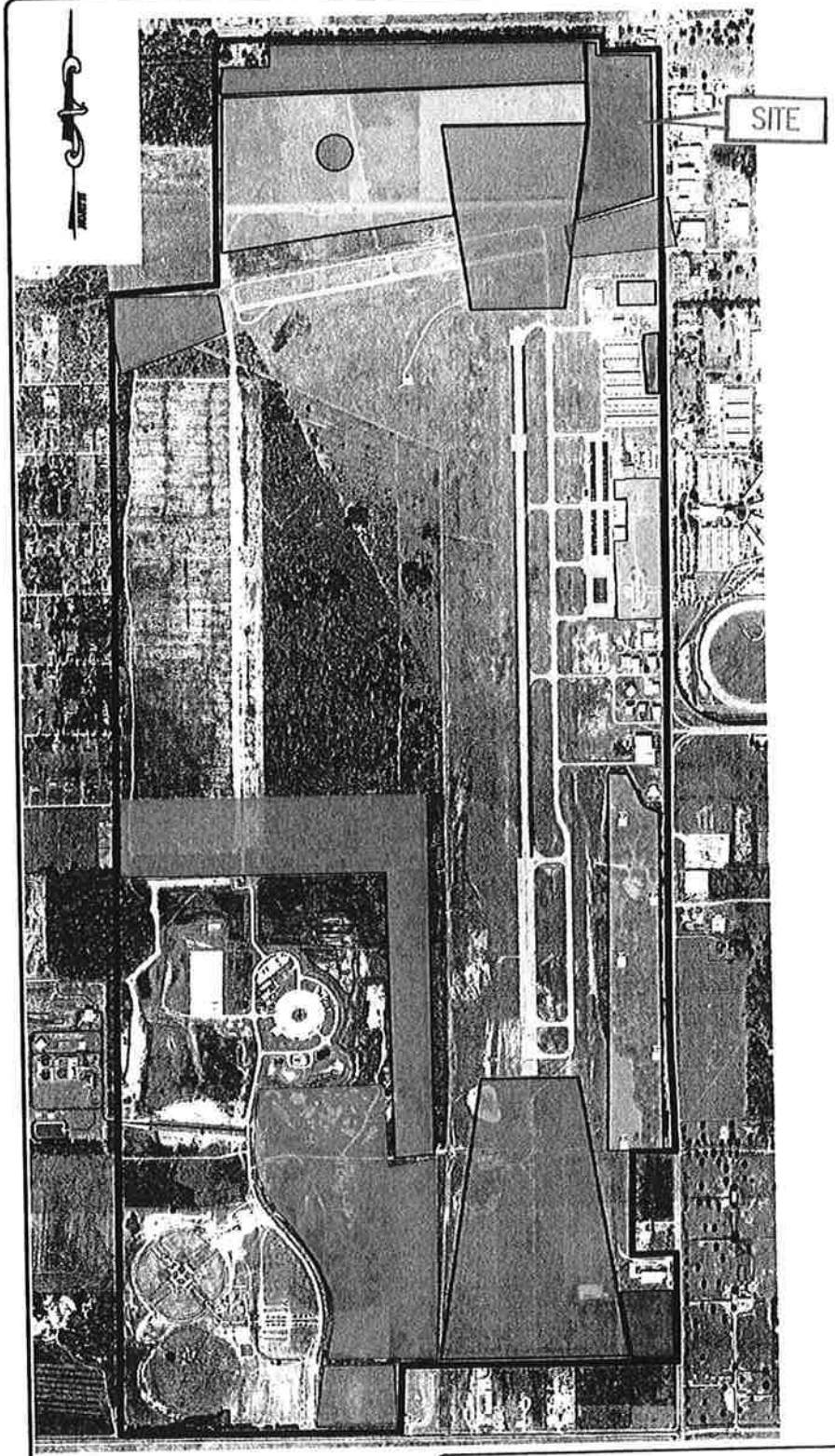
ANDREYEV ENGINEERING, INC.

Bradley T. Reddick
Project Geologist

8-5-05
David J. Rathbun, P.E.
Vice President
Florida Registration No. 40494

Attachments: Figures 1 through 3

xc: Mr. Matt Grow - City of Ocala Airport Division



Andreyev Engineering, Inc.

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

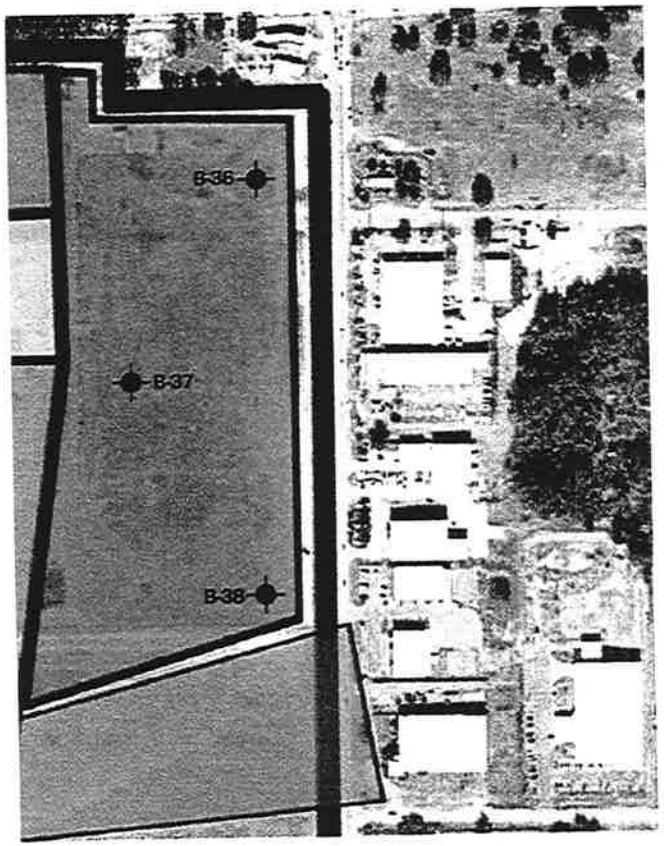
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60th AVE

OCALA, MARION COUNTY, FL.

SITE MAP

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS

FIGURE 1



AVIATION USE ONLY

AVIATION OR NON AVIATION USE ONLY

NON AVIATION ONLY

NO STRUCTURES

LEGEND:

LOCATION OF BORING

Andreyev Engineering, Inc.

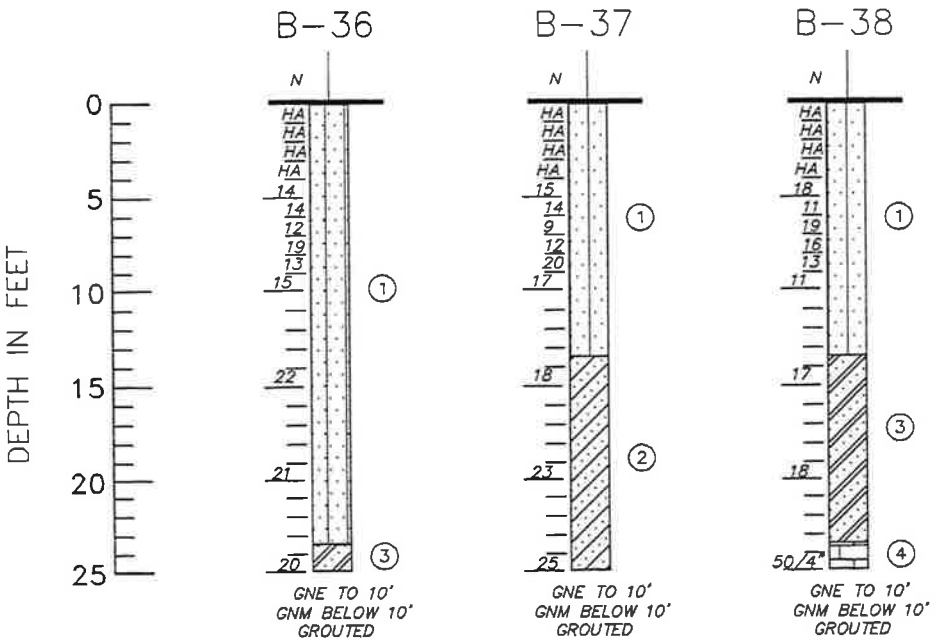
PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

OCALA INTERNATIONAL AIRPORT
NON-AVIATION USE PARCEL ON SW CORNER OF SR 40 & SW 60th AVE
OCALA, MARION COUNTY, FL.

BORING LOCATION MAP

FIGURE 2

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS



LEGEND

- ① DARK TO LIGHT BROWN FINE SAND TO FINE SAND WITH SILT (SP) (SP-SM)
- ② ORANGE BROWN TO GRAY CLAYEY FINE SAND (SC)
- ③ LIGHT GRAY SANDY CLAY TO CLAY (CH)
- ④ LIMESTONE

(SP) UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL
N STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
HA HAND AUGERED
50/5" NUMBER OF BLOWS (50) REQUIRED TO ADVANCE THE SAMPLER 5 INCHES
GNE GROUNDWATER NOT ENCOUNTERED
GNM GROUNDWATER NOT MEASURED

ANDREYEV ENGINEERING, INC.

PRELIMINARY
GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60TH AVENUE
OCALA, MARION COUNTY, FL

SCALE: 1"=10'	DATE: 8-2-05	ENGINEER: DJR
	PN: OPGT-05-081	DRAWN BY: KRW

SUBSURFACE PROFILES
FIGURE 3

Andreyev Engineering, Inc.

OCALA OFFICE
3426 S.W. 6th Street
Ocala, Florida 34474
352-401-9522
Fax: 352-401-9523
Email: drathbun@andreyevengineering.com

▼ Groundwater ▼ Environmental ▼ Geotechnical ▼ Construction Materials Testing

August 1, 2005
AEI Project No. OGGT-05-081

TO: Mr. Bruce Phillips, P.E., P.L.S
City of Ocala Engineering Department
P.O. Box 1270
Ocala, Florida 34478

SUBJECT: Preliminary Geotechnical Engineering Study
Aviation Use Only Parcel on East Side of Ocala International Airport
South of State Road 40 and Southwest 60th Avenue
Ocala, Florida

Dear Mr. Phillips:

As requested, Andreyev Engineering, Inc. (AEI) has completed a preliminary geotechnical engineering study on the subject site. The purpose of the study was to determine subsurface conditions at the site in order to develop general geotechnical engineering considerations for development.

The subject parcel is located on the east side of the Ocala International Airport. The parcel is designated as an aviation use only property consisting of approximately 1.6 acres, as shown on **Figure 1**. One (1) Standard Penetration Test (SPT) boring was drilled to a depth of 25 feet below existing ground surface on the parcel on July 22, 2005. The approximate boring location is presented on **Figure 2**. The boring was drilled with an auger in the upper 10 feet and advanced using the rotary method with drilling mud below a depth of 10 feet. Results of the boring are presented in profile form on **Figure 3**. On the profile, horizontal lines designating the interface between different materials represent approximate boundaries. The transition between layers is typically gradual. The following strata were found in the boring:

STRATUM NO.	DESCRIPTION	PLASTICITY	USCS GROUP
1	Fine sand to fine sand with silt	None	SP, SP-SM
2	Clayey fine sand	Moderate to high	SC
3	Sandy clay to clay	High	CH

Plasticity is based on visual classification of soil samples recovered from the boring.
USCS = Unified Soil Classification System.

ENGINEERING
AUG 0 9 2005

A surface layer of Stratum 1, extending to a depth of approximately 13 feet below existing ground surface, was found at the boring location. Stratum 1 was underlain by Stratum 2 and Stratum 3. SPT N-values were between 12 and 25 in the shallow Stratum 1 soils. The N-values generally increased with depth. Drilling fluid circulation losses were not observed in the boring. A ground water table was not found within the upper 10 feet of the boring. Ground water table measurements were not taken below a depth of 10 feet in the boring due to the presence of drilling mud in the boreholes.

The Stratum 1 sands will be suitable for support of lightly-loaded to moderately-loaded structures using conventional, shallow spread footings. Densification of the shallow sands will be required to limit the amount of settlement of proposed structures. Densification of the sands can generally be accomplished using conventional vibratory compaction techniques. The allowable bearing capacity of the shallow sands is expected to be in the range of 2000 pounds per square foot (psf) to 2500 psf depending on the amount of densification achieved and the amount of allowable settlement of the proposed structures. The Stratum 1 sands will also be suitable for support of conventional pavement sections using a limerock base. The permeability of the Stratum 1 sands is expected to be moderate to high and Stratum 1 will be suitable for construction of dry-bottom storm water ponds. A design-level geotechnical engineering study is recommended after proposed improvement locations and details have been determined.

AEI appreciates the opportunity to provide services to the City of Ocala and trusts that the information herein is sufficient for your immediate needs. If you have any questions or comments regarding the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

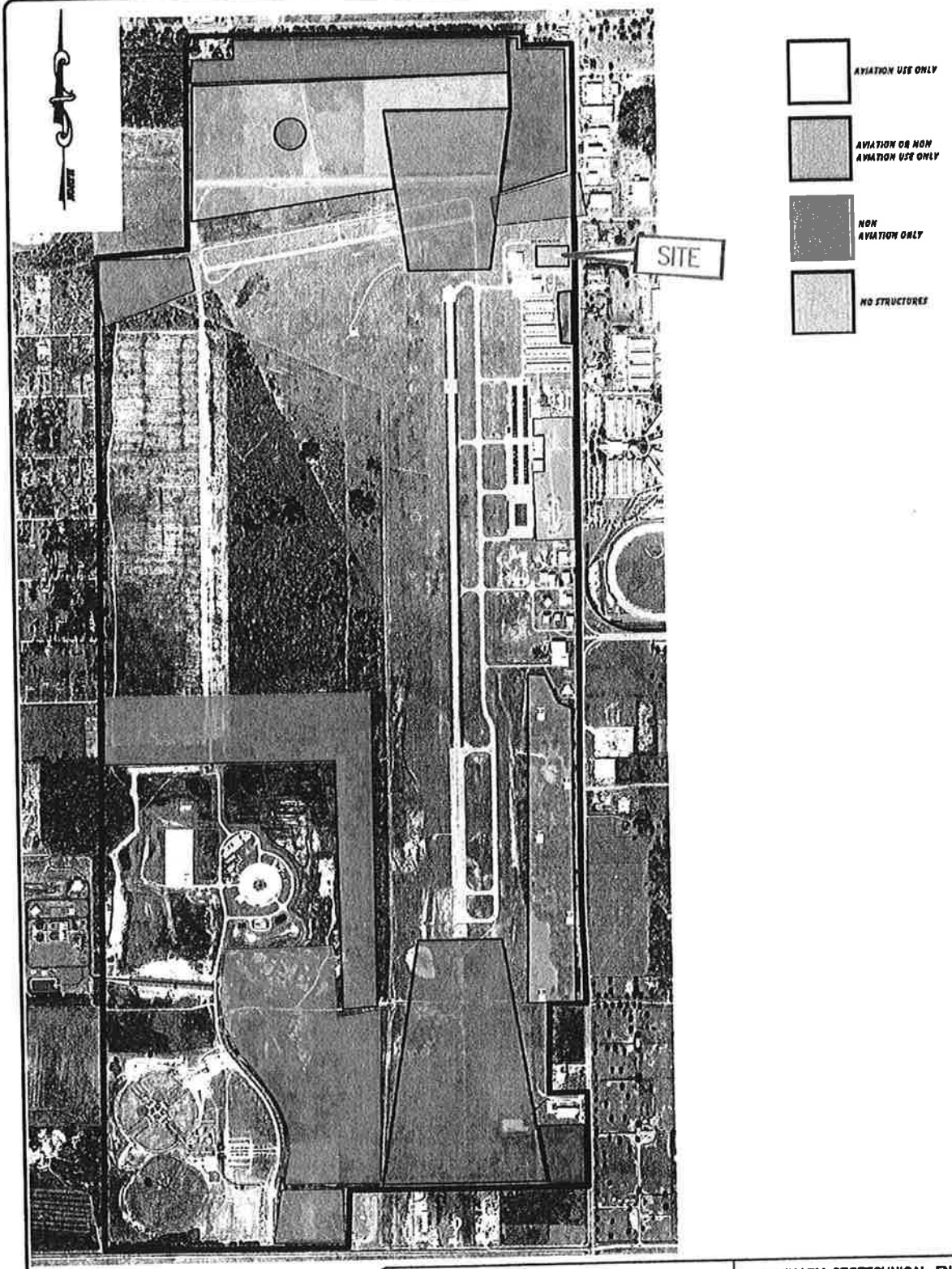
ANDREYEV ENGINEERING, INC.

Bradley T. Reddick
Project Geologist

8-5-05
David J. Rathbun, P.E.
Vice President
Florida Registration No. 40494

Attachments: Figures 1 through 3

xc: Mr. Matt Grow - City of Ocala Airport Division



Andreyev Engineering, Inc.

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

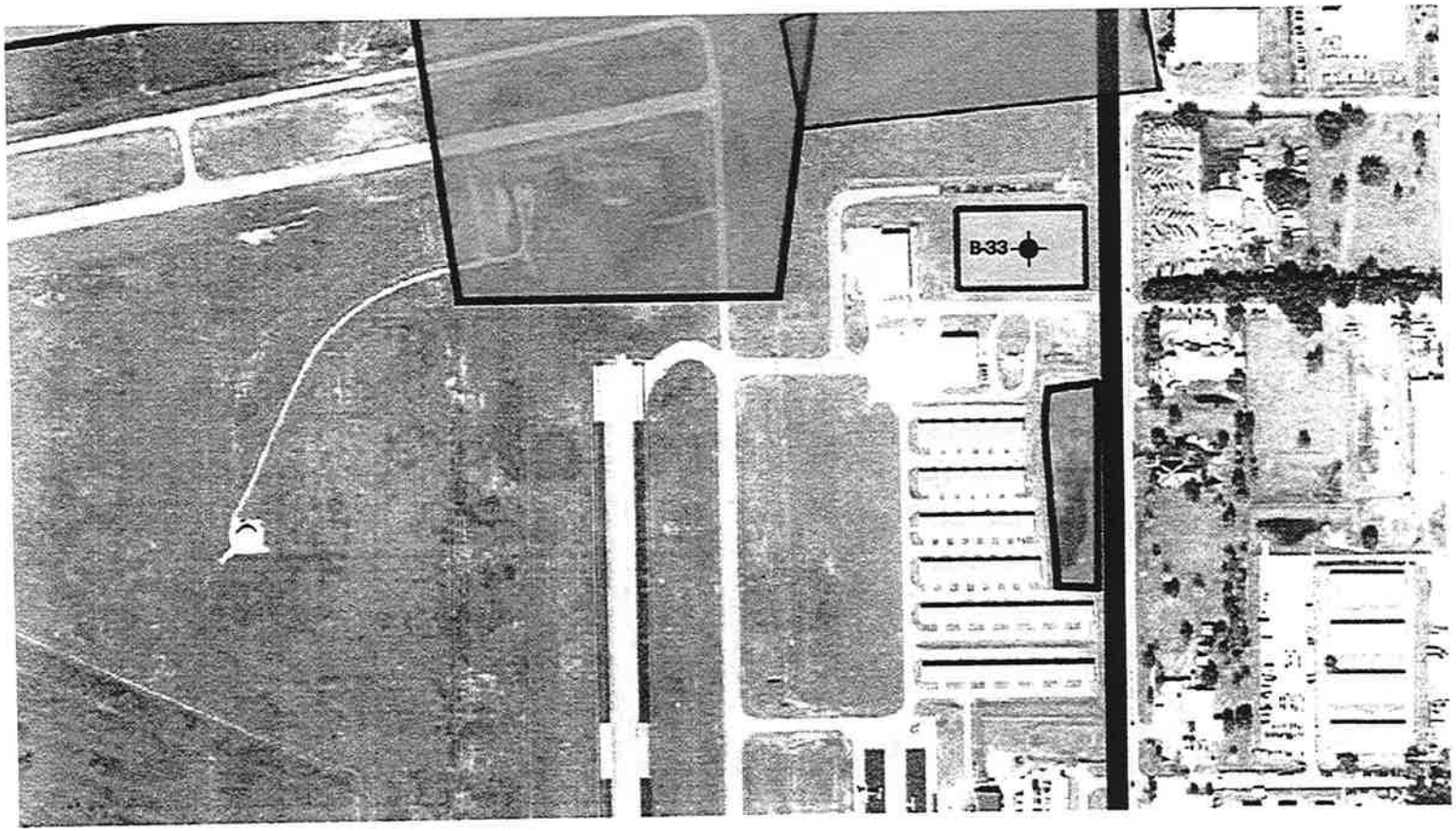
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60th AVE

OCALA, MARION COUNTY, FL.

SITE MAP

FIGURE 1

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS



NORTH

AVIATION USE ONLY

AVIATION OR NON AVIATION USE ONLY

NON AVIATION ONLY

NO STRUCTURES

LEGEND:

LOCATION OF BORING

Andreyev Engineering, Inc.

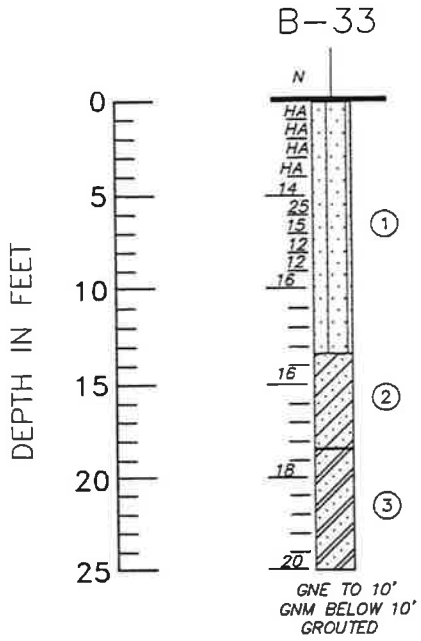
PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

OCALA INTERNATIONAL AIRPORT
AVIATION USE ONLY PARCEL ON E SIDE OF OIA S OF SR 40 & SW 60th AVE
OCALA, MARION COUNTY, FL.

BORING LOCATION MAP

FIGURE 2

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS



LEGEND

①	DARK TO LIGHT BROWN FINE SAND TO FINE SAND WITH SILT (SP) (SP-SM)
②	ORANGE BROWN TO GRAY CLAYEY FINE SAND (SC)
③	LIGHT GRAY SANDY CLAY TO CLAY (CH)

(SP)	UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
HA	HAND AUGERED
50/5"	NUMBER OF BLOWS (50) REQUIRED TO ADVANCE THE SAMPLER 5 INCHES
GNE	GROUNDWATER NOT ENCOUNTERED
GNM	GROUNDWATER NOT MEASURED

ANDREYEV ENGINEERING, INC.

PRELIMINARY
GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60TH AVENUE
OCALA, MARION COUNTY, FL

SCALE: 1"=10'	DATE: 8-2-05	ENGINEER: DJR	SUBSURFACE PROFILES
	PN: OPGT-05-081	DRAWN BY: KRW	FIGURE 3

Andreyev Engineering, Inc.

OCALA OFFICE
3426 S.W. 6th Street
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▼ Groundwater ▼ Environmental ▼ Geotechnical ▼ Construction Materials Testing

August 1, 2005
AEI Project No. OGGT-05-081

TO: Mr. Bruce Phillips, P.E., P.L.S
City of Ocala Engineering Department
P.O. Box 1270
Ocala, Florida 34478

SUBJECT: Preliminary Geotechnical Engineering Study
Aviation Use Only Parcel on East Side of Ocala International Airport
North of Southwest 60th Avenue and Southwest 20th Street
Ocala, Florida

Dear Mr. Phillips:

As requested, Andreyev Engineering, Inc. (AEI) has completed a preliminary geotechnical engineering study on the subject site. The purpose of the study was to determine subsurface conditions at the site in order to develop general geotechnical engineering considerations for development.

The subject parcel is located on the east side of the Ocala International Airport. The parcel is designated as an aviation use only property consisting of approximately 12 acres, as shown on **Figure 1**. Three (3) Standard Penetration Test (SPT) borings were drilled to a depth of 25 feet below existing ground surface on the parcel on July 22, 2005. The approximate boring locations are presented on **Figure 2**. The borings were drilled with an auger in the upper 10 feet and advanced using the rotary method with drilling mud below a depth of 10 feet. Results of the borings are presented in profile form on **Figure 3**. On the profiles, horizontal lines designating the interface between different materials represent approximate boundaries. The transition between layers is typically gradual. The following strata were found in the borings:

STRATUM NO.	DESCRIPTION	PLASTICITY	USCS GROUP
1	Fine sand to fine sand with silt	None	SP, SP-SM
2	Clayey fine sand	Moderate to high	SC
3	Sandy clay to clay	High	CH

Plasticity is based on visual classification of soil samples recovered from the borings.
USCS = Unified Soil Classification System.

ENGINEERING
AUG 0 9 2005

A surface layer of Stratum 1, extending to a depth of approximately 13 feet below existing ground surface, was found at the boring locations. Stratum 1 was underlain by Stratum 2 and Stratum 3. SPT N-values were between 11 and 20 in the shallow Stratum 1 soils. The N-values generally increased with depth. Drilling fluid circulation losses were not observed in the borings. A ground water table was not found within the upper 10 feet of the borings. Ground water table measurements were not taken below a depth of 10 feet in the borings due to the presence of drilling mud in the boreholes.

The Stratum 1 sands will be suitable for support of lightly-loaded to moderately-loaded structures using conventional, shallow spread footings. Densification of the shallow sands will be required to limit the amount of settlement of proposed structures. Densification of the sands can generally be accomplished using conventional vibratory compaction techniques. The allowable bearing capacity of the shallow sands is expected to be in the range of 2000 pounds per square foot (psf) to 2500 psf depending on the amount of densification achieved and the amount of allowable settlement of the proposed structures. The Stratum 1 sands will also be suitable for support of conventional pavement sections using a limerock base. The permeability of the Stratum 1 sands is expected to be moderate to high and Stratum 1 will be suitable for construction of dry-bottom storm water ponds. A design-level geotechnical engineering study is recommended after proposed improvement locations and details have been determined.

AEI appreciates the opportunity to provide services to the City of Ocala and trusts that the information herein is sufficient for your immediate needs. If you have any questions or comments regarding the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

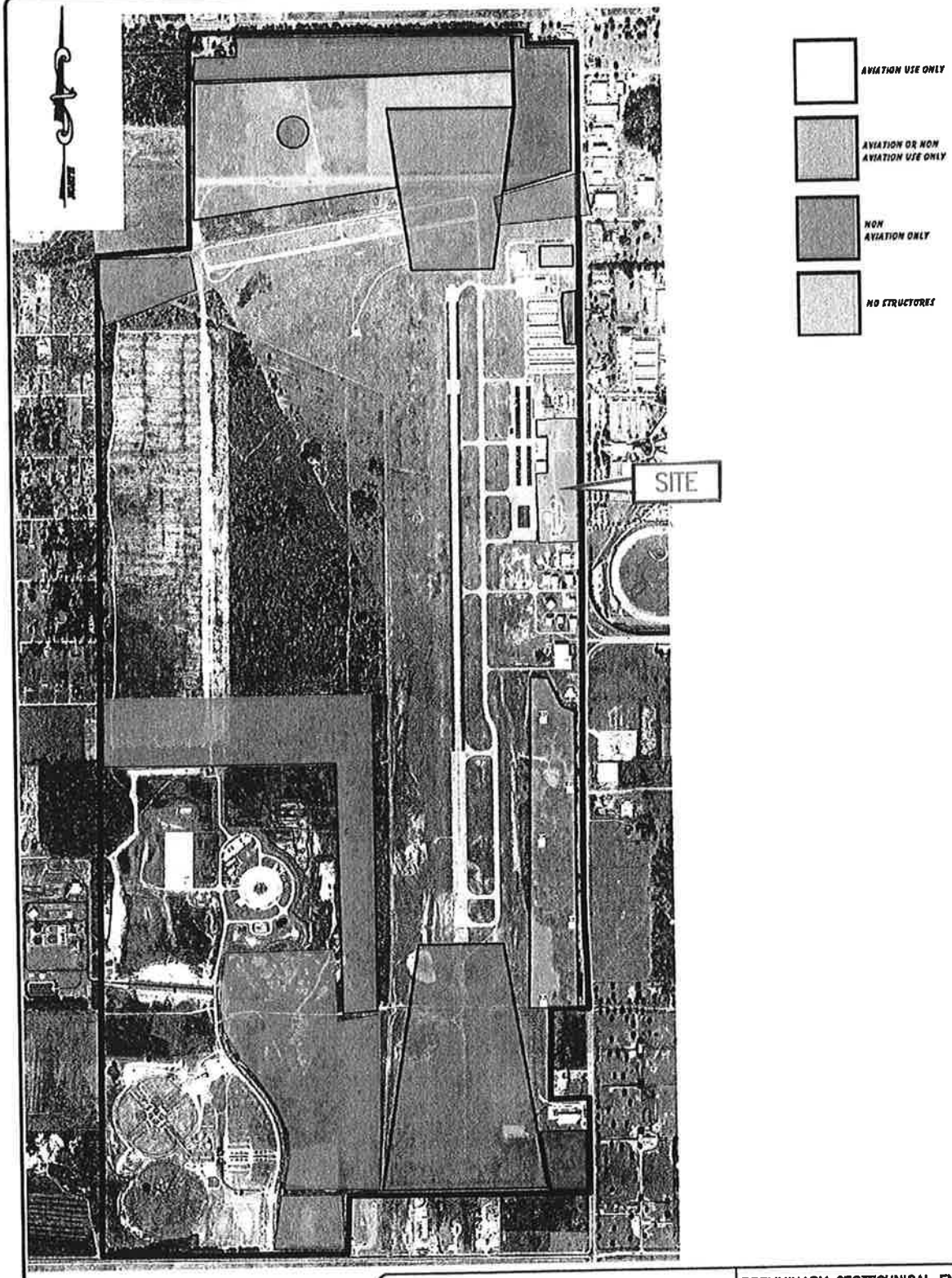
ANDREYEV ENGINEERING, INC.

Bradley T. Reddick
Project Geologist

8-5-05
David J. Rathbun, P.E.
Vice President
Florida Registration No. 40494

Attachments: Figures 1 through 3

xc: Mr. Matt Grow - City of Ocala Airport Division



Andreyev Engineering, Inc.

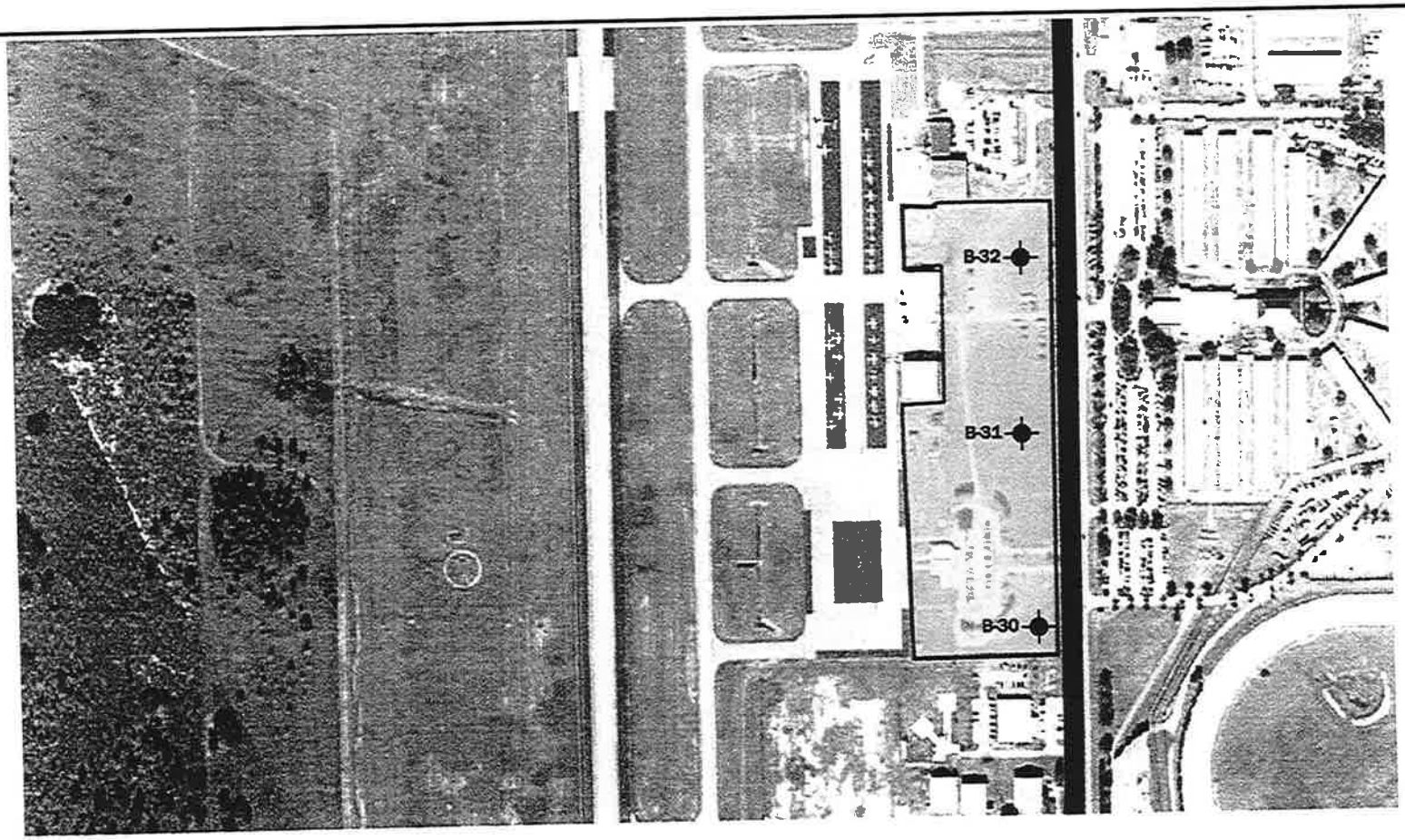
PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60th AVE
OCALA, MARION COUNTY, FL.

SITE MAP

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS

FIGURE 1



NORTH

AVIATION USE ONLY

AVIATION OR NON AVIATION USE ONLY

NON AVIATION ONLY

NO STRUCTURES

LEGEND:

LOCATION OF BORING

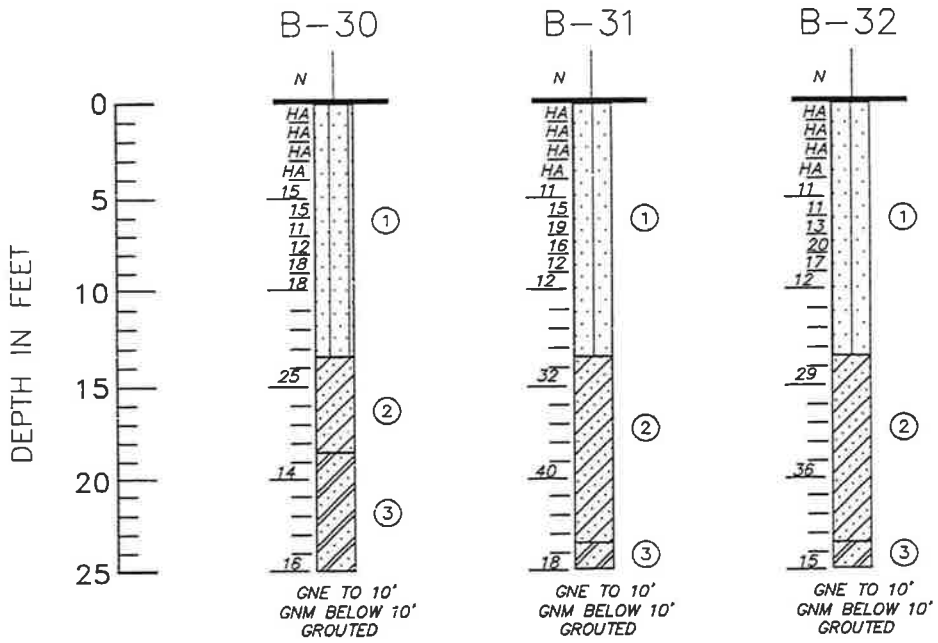
Andreyev Engineering, Inc.

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
AVIATION USE ONLY PARCEL ON E SIDE OF 01A N OF SW 60th AVE & SW 20th ST
OCALA, MARION COUNTY, FL.

BORING LOCATION MAP

FIGURE 2

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS



LEGEND

①	DARK TO LIGHT BROWN FINE SAND TO FINE SAND WITH SILT (SP) (SP-SM)
②	ORANGE BROWN TO GRAY CLAYEY FINE SAND (SC)
③	LIGHT GRAY SANDY CLAY TO CLAY (CH)

(SP)	UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
HA	HAND AUGERED
50/5"	NUMBER OF BLOWS (50) REQUIRED TO ADVANCE THE SAMPLER 5 INCHES
GNE	GROUNDWATER NOT ENCOUNTERED
GNM	GROUNDWATER NOT MEASURED

ANDREYEV ENGINEERING, INC.

PRELIMINARY
GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60TH AVENUE
OCALA, MARION COUNTY, FL

SCALE: 1"=10'
DATE: 8-2-05
ENGINEER: DJR
PN: OPGT-05-081
DRAWN BY: KRW

SUBSURFACE PROFILES
FIGURE 3

Andreyev Engineering, Inc.
Certificate of Authorization Number: 7634

OCALA OFFICE
3426 S.W. 6th Street
Ocala, Florida 34474
352-401-9522
Fax: 352-401-9523
Email: drathbun@andreyevengineering.com

▼ Groundwater ▼ Environmental ▼ Geotechnical ▼ Construction Materials Testing

August 1, 2005
AEI Project No. OGGT-05-081

TO: Mr. Bruce Phillips, P.E., P.L.S
City of Ocala Engineering Department
P.O. Box 1270
Ocala, Florida 34478

SUBJECT: Preliminary Geotechnical Engineering Study
Parcel North of Aircraft Rescue & Firefighting Facility at Ocala International Airport
North of Southwest 38th Street
Ocala, Florida

Dear Mr. Phillips:

As requested, Andreyev Engineering, Inc. (AEI) has completed a preliminary geotechnical engineering study on the subject site. The purpose of the study was to determine subsurface conditions at the site in order to develop general geotechnical engineering considerations for development.

The subject parcel is located on the west side of the Ocala International Airport. The parcel is designated as an aviation or non-aviation use property consisting of approximately 46 acres, as shown on **Figure 1**. Four (4) Standard Penetration Test (SPT) borings were drilled to a depth of 25 feet below existing ground surface on the parcel on July 22, 2005. The approximate boring locations are presented on **Figure 2**. The borings were drilled with an auger in the upper 10 feet and advanced using the rotary method with drilling mud below a depth of 10 feet. Results of the borings are presented in profile form on **Figure 3**. On the profiles, horizontal lines designating the interface between different materials represent approximate boundaries. The transition between layers is typically gradual. The following strata were found in the borings:

STRATUM NO.	DESCRIPTION	PLASTICITY	USCS GROUP
1	Fine sand to fine sand with silt	None	SP, SP-SM
2	Clayey fine sand	Moderate to high	SC
3	Sandy clay to clay	High	CH
Plasticity is based on visual classification of soil samples recovered from the borings. USCS = Unified Soil Classification System.			

ENGINEERING
AUG 0 9 2005

A surface layer of Stratum 1 was found at each boring location. Stratum 1 ranged in thickness from approximately 8 to 18 feet at the boring locations, however, Stratum 1 was at least 13 feet thick in 3 of the 4 borings. Stratum 1 was generally underlain by Stratum 2 and/or Stratum 3. SPT N-values were between 7 and 28 in the shallow Stratum 1 soils. The N-values generally increased with depth. Drilling fluid circulation losses were not observed in any of the borings. A ground water table was not found within the upper 10 feet of the borings. Ground water table measurements were not taken below a depth of 10 feet in the borings due to the presence of drilling mud in the boreholes.

The Stratum 1 sands will be suitable for support of lightly-loaded to moderately-loaded structures using conventional, shallow spread footings. Densification of the shallow sands will be required to limit the amount of settlement of proposed structures. Densification of the sands can generally be accomplished using conventional vibratory compaction techniques. The allowable bearing capacity of the shallow sands is expected to be in the range of 2000 pounds per square foot (psf) to 2500 psf depending on the amount of densification achieved and the amount of allowable settlement of the proposed structures. The Stratum 1 sands will also be suitable for support of conventional pavement sections using a limerock base. The permeability of the Stratum 1 sands is expected to be moderate to high and Stratum 1 will be suitable for construction of dry-bottom storm water ponds. The Stratum 2 clayey sands will not be suitable for support of structures and pavements or for construction of dry-bottom storm water ponds. The Stratum 2 soils are moderately plastic to highly plastic and therefore have the potential to change volume upon changes in water content. The volume changes of the soils can caused distress to overlying structures and pavements. In addition, the Stratum 2 soils are expected to have a very low permeability. A common method used locally to reduce the potential for structure distress caused by plastic soil movement is to provide a buffer of sand between the soils and overlying structures and pavements. The thickness of the buffer will depend on the plasticity of the clay and on existing and proposed site grades. However, Stratum 2 was found at a shallow depth (8 feet) in only one of the borings drilled at the subject site. The boring where Stratum 2 was encountered at a shallow depth (B-22) was drilled near the north center portion of the property. Stratum 2 may exist at shallow depths between boring locations, but it does not appear that Stratum 2 will be a major consideration on the subject site based on the results of this preliminary study unless existing grades are lowered significantly. A design-level geotechnical engineering study is recommended after proposed improvement locations and details have been determined.

AEI appreciates the opportunity to provide services to the City of Ocala and trusts that the information herein is sufficient for your immediate needs. If you have any questions or comments regarding the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

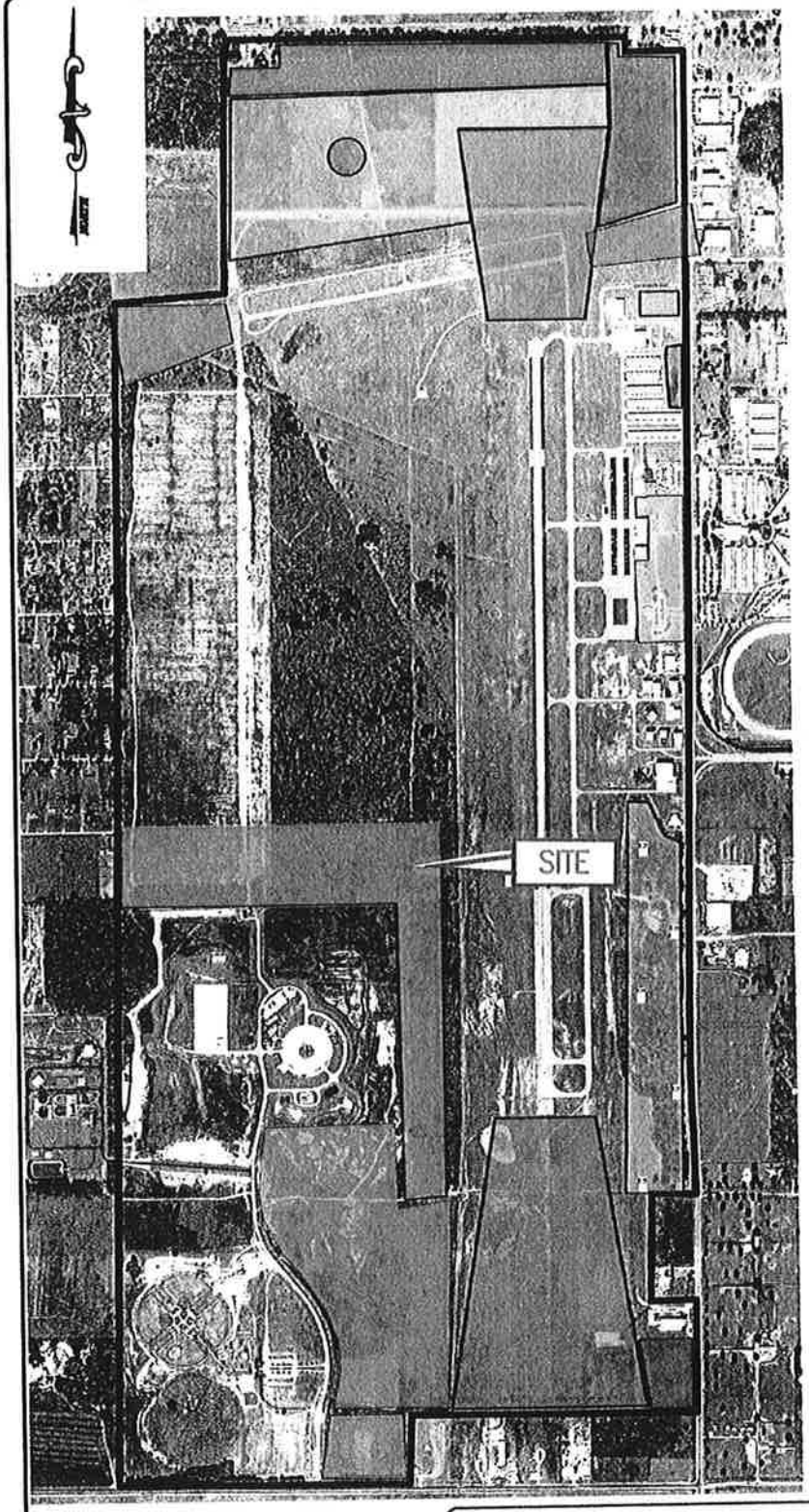
ANDREYEV ENGINEERING, INC.

Bradley T. Reddick
Project Geologist

8-5-05
David J. Rathbun, P.E.
Vice President
Florida Registration No. 40494

Attachments: Figures 1 through 3

xc: Mr. Matt Grow - City of Ocala Airport Division



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AVIATION OR NON AVIATION USE ONLY

NON AVIATION ONLY

NO STRUCTURES

Andreyev Engineering, Inc.

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

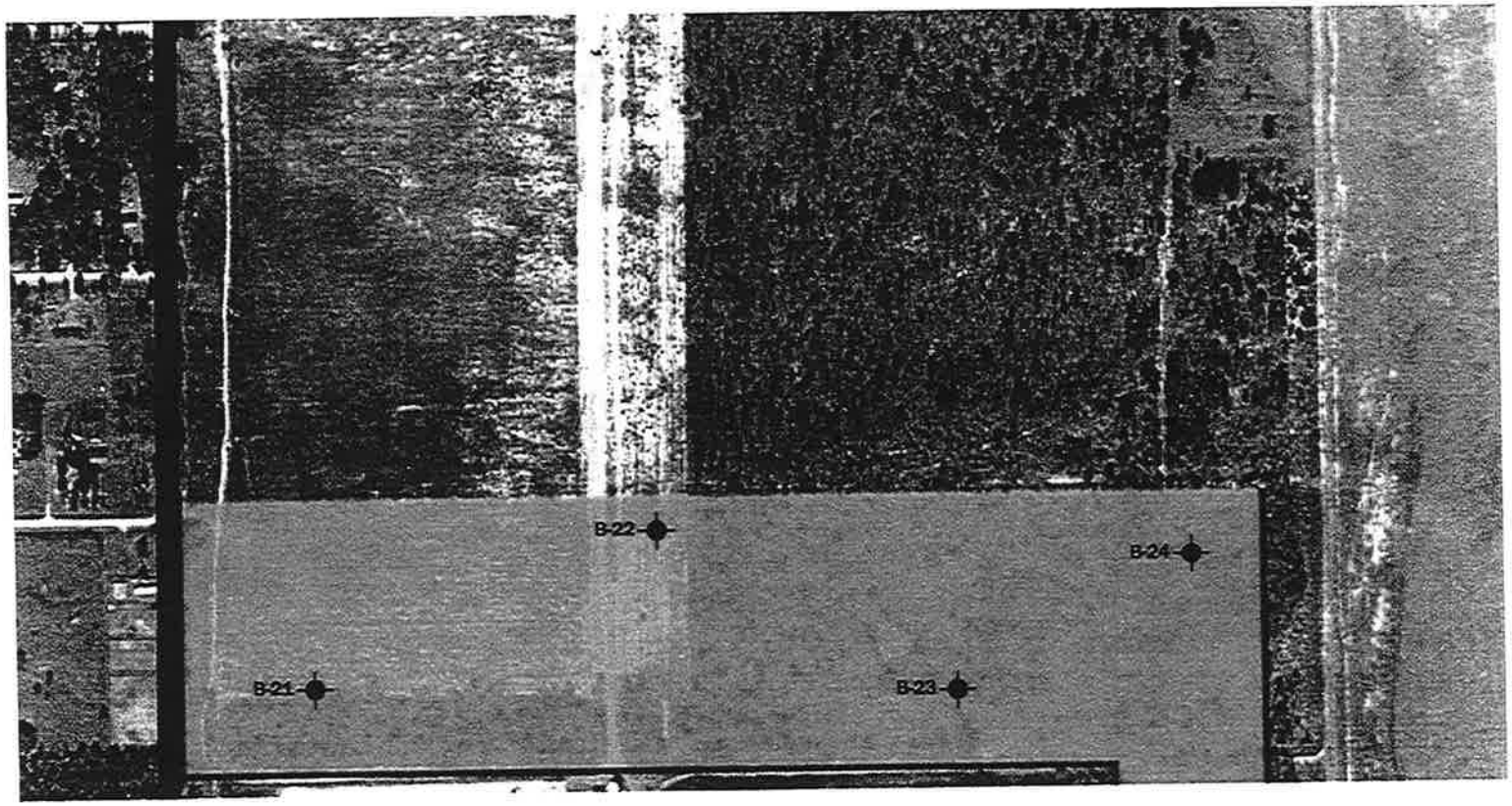
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60th AVE

OCALA, MARION COUNTY, FL.

SITE MAP

FIGURE 1

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS



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NON AVIATION ONLY

NO STRUCTURES

LEGEND:

LOCATION OF BORING

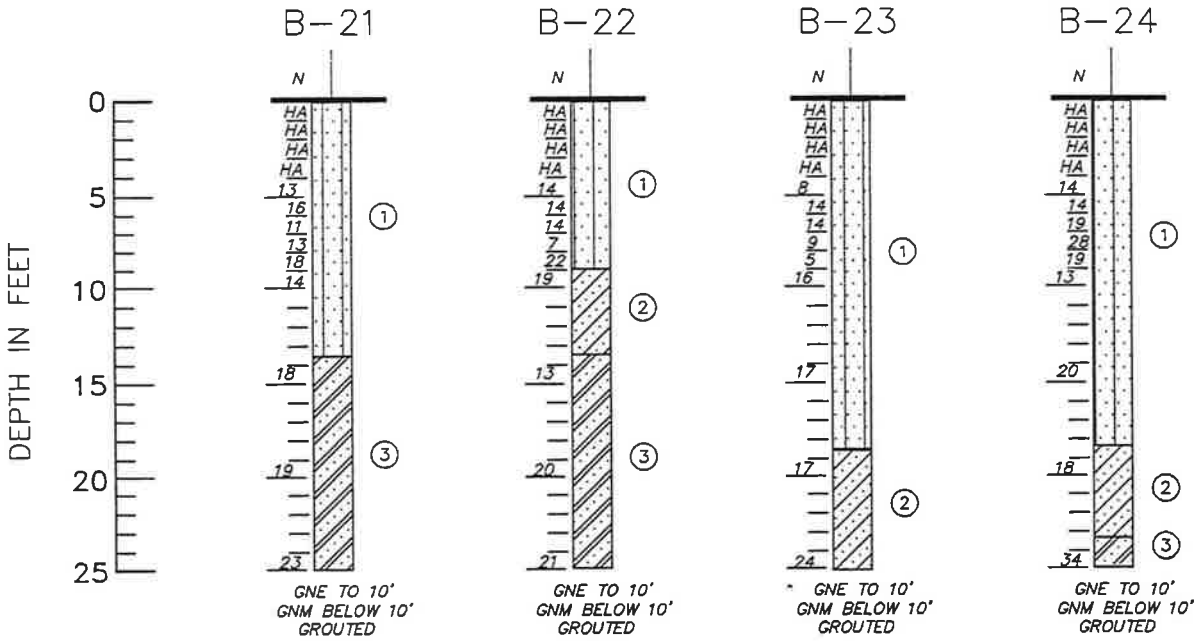
Andreyev Engineering, Inc.

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
PARCEL N OF AIRCRAFT & RESCUE FIREFIGHTING FAC. @ OIA
N OF SW 38th AVE
OCALA, MARION COUNTY, FL.

BORING LOCATION MAP

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS

FIGURE 2



LEGEND

①	DARK TO LIGHT BROWN FINE SAND TO FINE SAND WITH SILT (SP) (SP-SM)
②	ORANGE BROWN TO GRAY CLAYEY FINE SAND (SC)
③	LIGHT GRAY SANDY CLAY TO CLAY (CH)

(SP)	UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
HA	HAND AUGERED
50/5"	NUMBER OF BLOWS (50) REQUIRED TO ADVANCE THE SAMPLER 5 INCHES
GNE	GROUNDWATER NOT ENCOUNTERED
GNM	GROUNDWATER NOT MEASURED

ANDREYEV ENGINEERING, INC.

PRELIMINARY
GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60TH AVENUE
OCALA, MARION COUNTY, FL

SCALE: 1"=10'	DATE: 8-2-05	ENGINEER: DJR	SUBSURFACE PROFILES
	PN: OPGT-05-081	DRAWN BY: KRW	FIGURE 3

Andreyev Engineering, Inc.
Certificate of Authorization Number: 7634

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▼ Groundwater ▼ Environmental ▼ Geotechnical ▼ Construction Materials Testing

August 1, 2005
AEI Project No. OGGT-05-081

TO: Mr. Bruce Phillips, P.E., P.L.S
City of Ocala Engineering Department
P.O. Box 1270
Ocala, Florida 34478

SUBJECT: Preliminary Geotechnical Engineering Study
Parcels South of Aircraft Rescue & Firefighting Facility at Ocala International Airport
North of Southwest 38th Street
Ocala, Florida

Dear Mr. Phillips:

As requested, Andreyev Engineering, Inc. (AEI) has completed a preliminary geotechnical engineering study on the subject site. The purpose of the study was to determine subsurface conditions at the site in order to develop general geotechnical engineering considerations for development.

The subject parcels are located on the west side of the Ocala International Airport. The north parcel is designated as an aviation or non-aviation use property consisting of approximately 72 acres and the south parcel is designated as a non-aviation use property consisting of approximately 11 acres, as shown on **Figure 1**. Seven (7) Standard Penetration Test (SPT) borings were drilled to a depth of 25 feet below existing ground surface on the parcel on May 12 and 17, 2005. Five (5) borings were drilled on the north parcel and two (2) borings were drilled on the south parcel. The approximate boring locations are presented on **Figure 2**. The borings were drilled with an auger in the upper 10 feet and advanced using the rotary method with drilling mud below a depth of 10 feet. Results of the borings are presented in profile form on **Figure 3**. On the profiles, horizontal lines designating the interface between different materials represent approximate boundaries. The transition between layers is typically gradual. The following strata were found in the borings:

STRATUM NO.	DESCRIPTION	PLASTICITY	USCS GROUP
1	Fine sand to fine sand with silt	None	SP, SP-SM
2	Clayey fine sand	Moderate to high	SC
3	Sandy clay to clay	High	CH
4	Limestone	n/a	n/a

Plasticity is based on visual classification of soil samples recovered from the borings.
USCS = Unified Soil Classification System.

ENGINEERING

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A surface layer of Stratum 1 was found at each boring location. Stratum 1 ranged in thickness from approximately 4 to 13 feet at the boring locations, however, Stratum 1 was at least 8 feet thick in 6 of the 7 borings. Stratum 1 was generally underlain by Stratum 2 and/or Stratum 3. Stratum 4 was found in the bottom portion of borings B-10 and B11 and a second layer of Stratum 1 was found in the bottom of borings B-12 and B-17. SPT N-values were between 2 and 18 in the shallow Stratum 1 soils. The N-values generally increased with depth. All N-values recorded in the limestone (Stratum 4) were refusal (50 blows for 6 inches of penetration or less). Drilling fluid circulation losses were not observed in any of the borings. A ground water table was not found within the upper 10 feet of the borings. Ground water table measurements were not taken below a depth of 10 feet in the borings due to the presence of drilling mud in the boreholes.

The Stratum 1 sands will be suitable for support of lightly-loaded to moderately-loaded structures using conventional, shallow spread footings. Densification of the shallow sands will be required to limit the amount of settlement of proposed structures. Densification of the sands can generally be accomplished using conventional vibratory compaction techniques. The allowable bearing capacity of the shallow sands is expected to be in the range of 2000 pounds per square foot (psf) to 2500 psf depending on the amount of densification achieved and the amount of allowable settlement of the proposed structures. The Stratum 1 sands will also be suitable for support of conventional pavement sections using a limerock base. The permeability of the Stratum 1 sands is expected to be moderate to high and Stratum 1 will be suitable for construction of dry-bottom storm water ponds. The Stratum 2 clayey sands will not be suitable for support of structures and pavements or for construction of dry-bottom storm water ponds. The Stratum 2 soils are moderately plastic to highly plastic and therefore have the potential to change volume upon changes in water content. The volume changes of the soils can caused distress to overlying structures and pavements. In addition, the Stratum 2 soils are expected to have a very low permeability. A common method used locally to reduce the potential for structure distress caused by plastic soil movement is to provide a buffer of sand between the soils and overlying structures and pavements. The thickness of the buffer will depend on the plasticity of the clay and on existing and proposed site grades. However, Stratum 2 was found at a shallow depth (less than 8 feet) in only one of the borings drilled at the subject site. The boring where Stratum 2 was encountered at a shallow depth (B-16) was drilled near the northwest portion of the north parcel. Stratum 2 may exist at shallow depths between boring locations, but it does not appear that Stratum 2 will be a major consideration on the subject site based on the results of this preliminary study unless existing grades are lowered significantly. A design-level geotechnical engineering study is recommended after proposed improvement locations and details have been determined.

AEI appreciates the opportunity to provide services to the City of Ocala and trusts that the information herein is sufficient for your immediate needs. If you have any questions or comments regarding the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

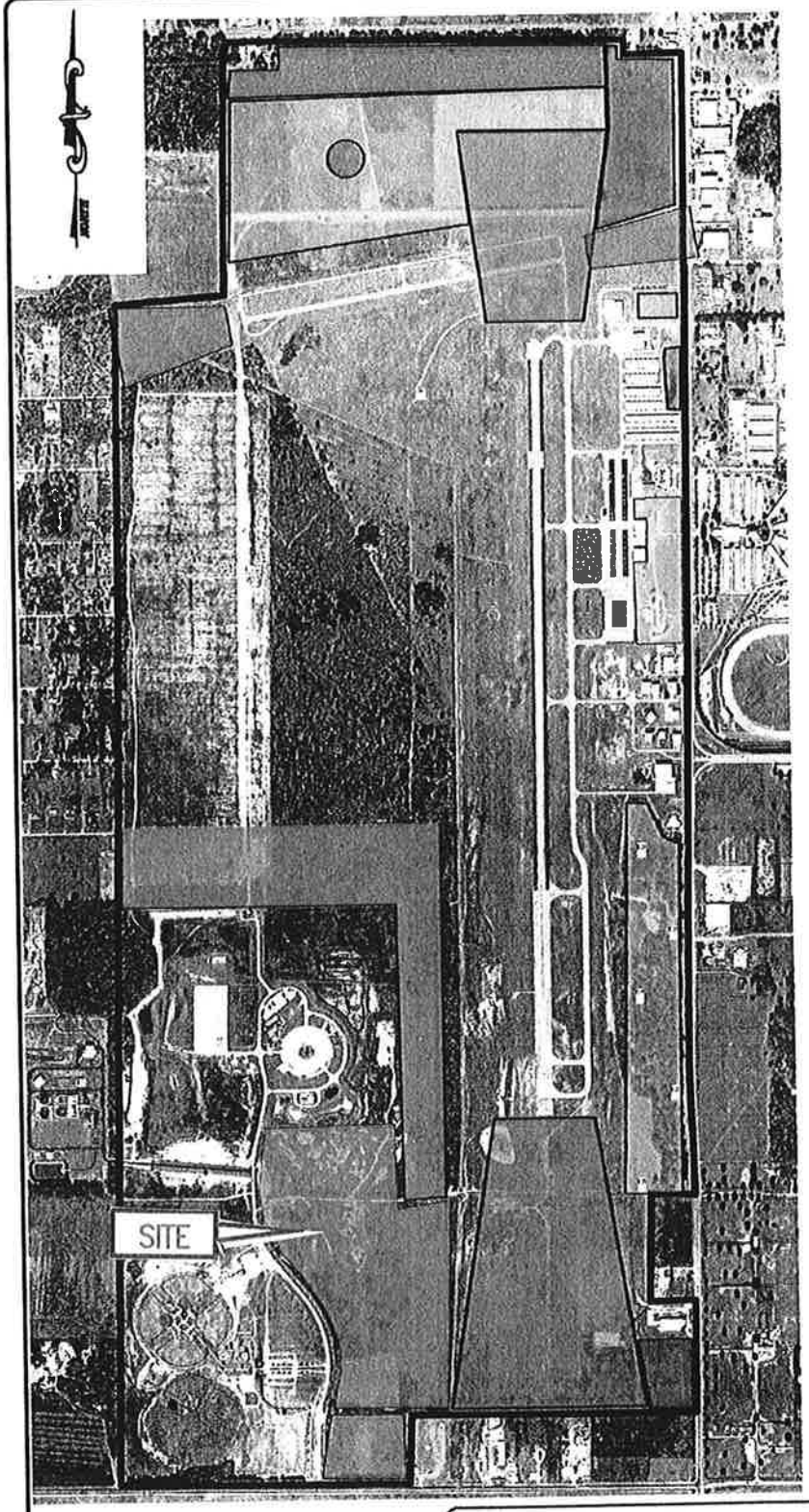
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Bradley T. Reddick
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David J. Rathbun, P.E.
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Attachments: Figures 1 through 3

xc: Mr. Matt Grow - City of Ocala Airport Division



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NON AVIATION ONLY

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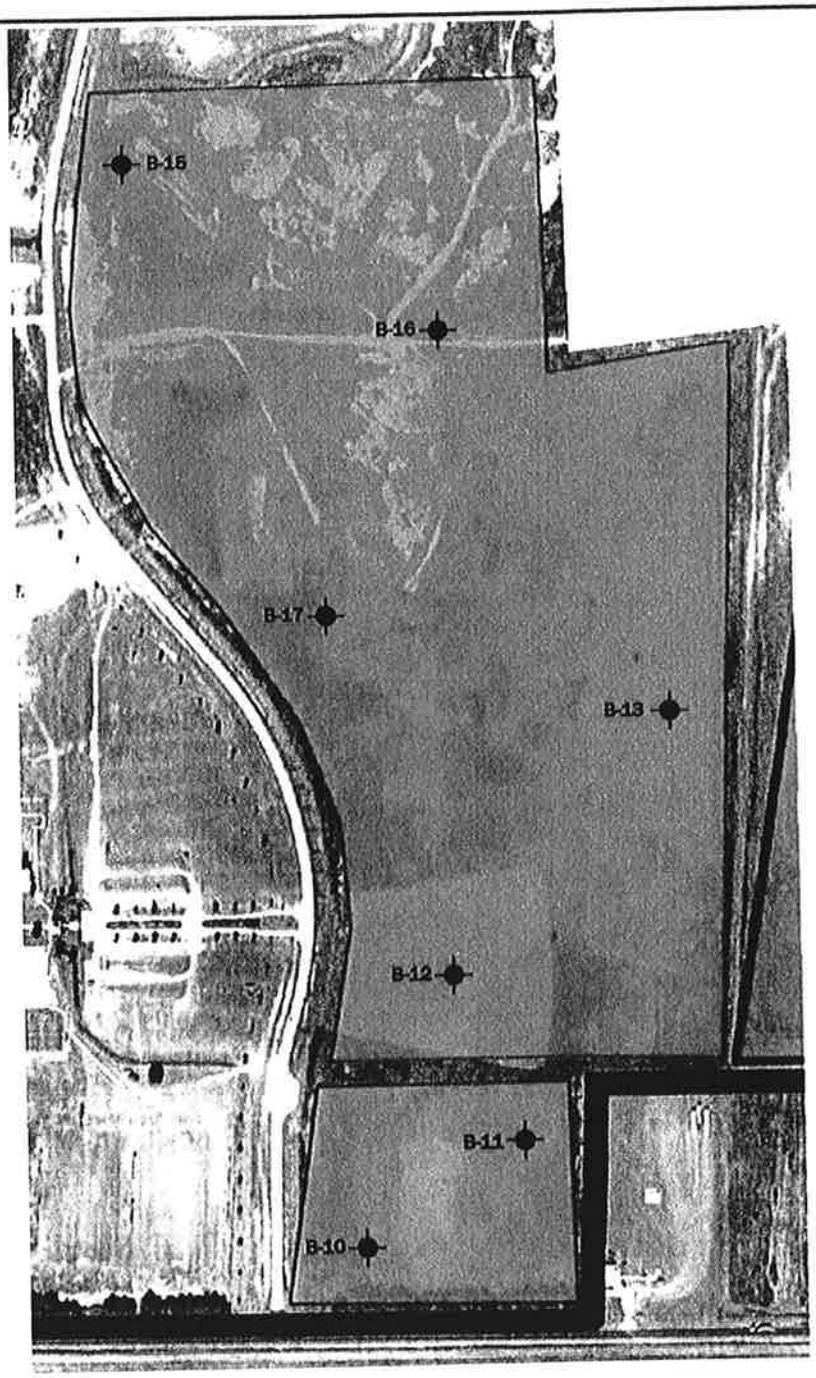
PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60th AVE
OCALA, MARION COUNTY, FL.

SITE MAP

FIGURE 1

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
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LEGEND:

LOCATION OF BORING

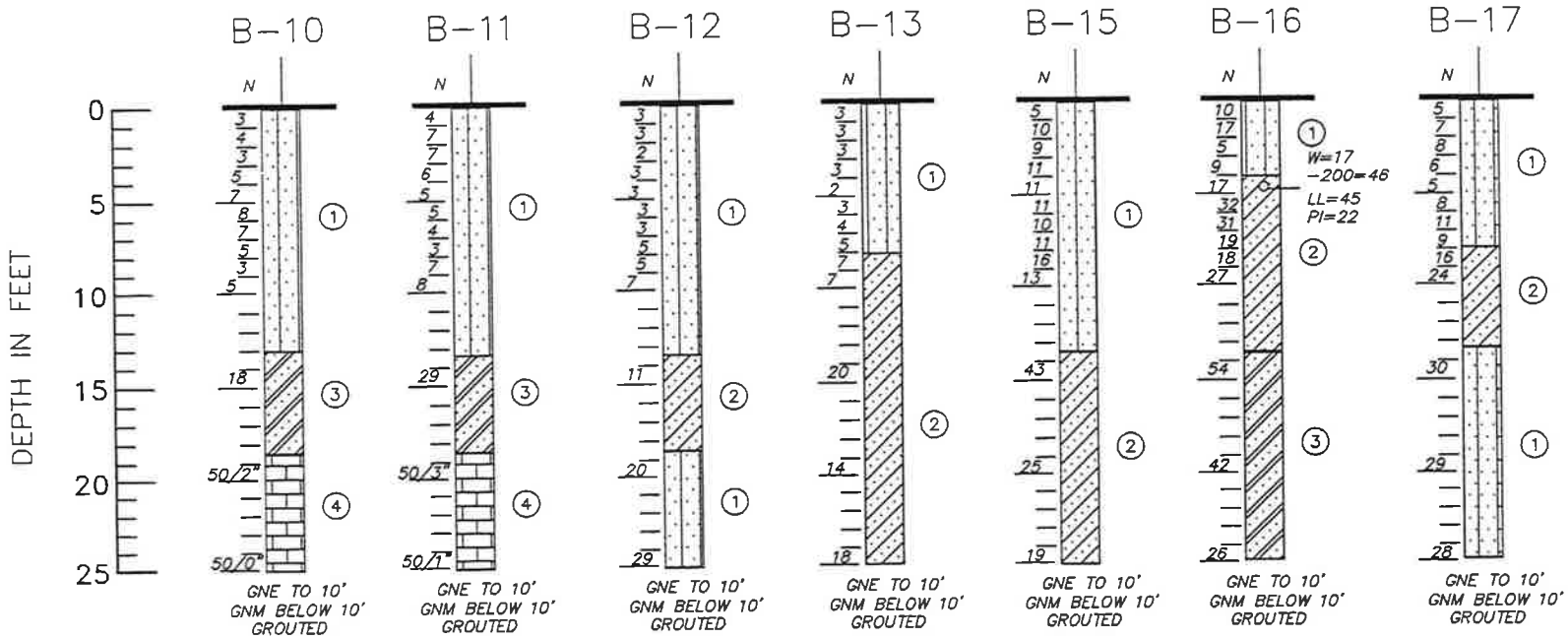
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PRELIMINARY GEOTECHNICAL ENGINEERING STUDY
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BORING LOCATION MAP

APPROXIMATE SCALE:	DATE: 08/01/05	ENGINEER: BR
N.T.S.	PN: OPGT-05-081	DRAWN BY: DS

FIGURE 2



LEGEND

- ① DARK TO LIGHT BROWN FINE SAND TO FINE SAND WITH SILT (SP) (SP-SM)
- ② ORANGE BROWN TO GRAY CLAYEY FINE SAND (SC)
- ③ LIGHT GRAY SANDY CLAY TO CLAY (CH)
- ④ LIMESTONE

(SP)	UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
HA	HAND AUGERED
50/5"	NUMBER OF BLOWS (50) REQUIRED TO ADVANCE THE SAMPLER 5 INCHES
W	NATURAL WATER CONTENT, IN PERCENT
-200	PERCENT OF FINES PASSING THE U.S. NO. 200 SIEVE
LL	LIQUID LIMIT, IN PERCENT
PI	PLASTICITY INDEX, IN PERCENT
GNE	GROUNDWATER NOT ENCOUNTERED
GNM	GROUNDWATER NOT MEASURED

ANDREYEV ENGINEERING, INC.

PRELIMINARY
GEOTECHNICAL ENGINEERING STUDY
OCALA INTERNATIONAL AIRPORT
SR 40 & SW 60TH AVENUE
OCALA, MARION COUNTY, FL

SCALE: 1"=10'	DATE: 8-2-05	ENGINEER: DJR	SUBSURFACE PROFILES
	PN: OPGT-05-081	DRAWN BY: KRW	FIGURE 3