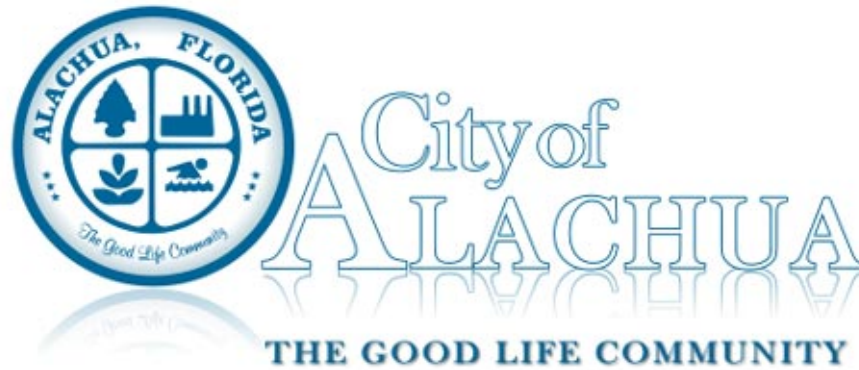




Planning and Zoning Board Agenda July 9, 2019

Chair Gary Thomas
Vice Chair Anthony Wright
Member Sandy Burgess
Member James Sajczuk
Member Virginia Johns
School Board Member Tina Certain

City Manager Adam Boukari

Planning and Zoning Board At 6:00 PM

Meeting Date: July 9, 2019

Meeting Location: James A. Lewis Commission Chambers

Notice given pursuant to Section 286.0105, Florida Statutes. In order to appeal any decision made at this meeting, you will need a verbatim record of the proceedings. It will be your responsibility to ensure such a record is made.
--

PLANNING AND ZONING BOARD MEETING AGENDA
--

CALL TO ORDER

INVOCATION

PLEDGE TO THE FLAG

APPROVAL OF THE AGENDA

I. OLD BUSINESS

II. NEW BUSINESS

- A. Approval of the Minutes of the June 11, 2019 PZB Meeting
- B. Site Plan - Alchem Building Three: A request by Caitlyn Drane, P.E. of eda engineers-surveyors-

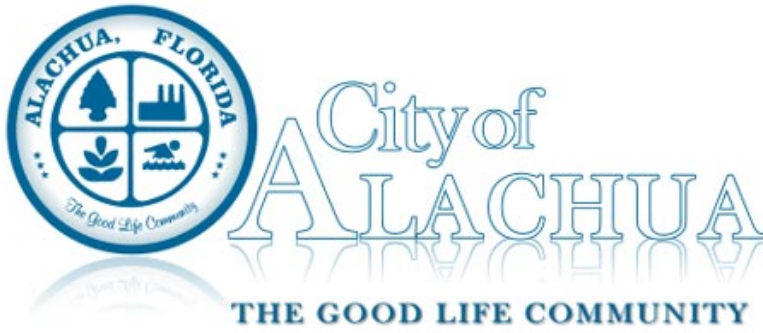
planners, inc., applicant and agent for James D. Talton of Alchem Laboratories Corporation, property owner, for consideration of a Site Plan to construct a ±12,000 square foot light manufacturing facility, with associated paving, grading, drainage, landscaping and infrastructure improvements, on a ±2.70 acre subject property, located at 14120 NW 126th Terrace; Tax Parcel Number 03956-010-027 and a portion of 03927-000-000 (Quasi-Judicial Hearing).

- C. Site Plan - Innovation One: A request by Alison Fetner, P.E., of Fetner Engineering, applicant and agent for Shoppes at Progress Center, LLC, property owner, for consideration of a Site Plan to construct a ±30,676 square foot light manufacturing (research and development) facility, with associated paving, grading, drainage, landscaping and infrastructure improvements, on a ±2.80 acre subject property, located southwest of the intersection of US Highway 441 and Progress Boulevard, and north of Research Drive and UF Innovate | Sid Martin Biotech; Tax Parcel Number 03956-010-027 (Quasi-Judicial Hearing).

III. BOARD COMMENTS/DISCUSSION

IV. CITIZENS COMMENTS

ADJOURN



Board/Committee Agenda Item

MEETING DATE: 7/9/2019

SUBJECT: Approval of the Minutes of the June 11, 2019 PZB Meeting

PREPARED BY: Kenyata Curtis, Planning Assistant

RECOMMENDED ACTION:

Approve the Minutes of the June 11, 2019 PZB Meeting

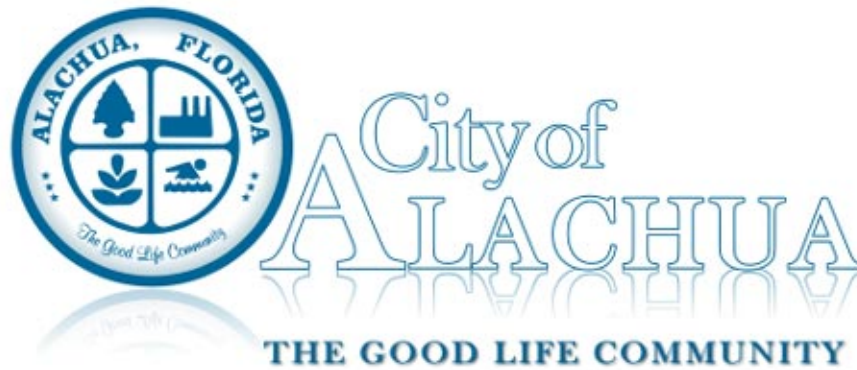
Summary

Approval of the Minutes of the June 11, 2019 PZB Meeting

ATTACHMENTS:

Description

- ☐ Minutes of the June 11, 2019 PZB Meeting



Planning and Zoning Board Minutes June 11, 2019

Chair Gary Thomas

City Manager Adam Boukari

Vice Chair Anthony Wright

Member Sandy Burgess

Member James Sajczuk

Member Virginia Johns

School Board Member Tina Certain

**Planning and Zoning Board
At 6:00 PM**
to address the item(s) below.

Meeting Date: June 11, 2019

Meeting Location: James A. Lewis Commission Chambers

Notice given pursuant to Section 286.0105, Florida Statutes. In order to appeal any decision made at this meeting, you will need a verbatim record of the proceedings. It will be your responsibility to ensure such a record is made.
--

PLANNING AND ZONING BOARD MEETING MINUTES

CALL TO ORDER

Chair Gary Thomas called the meeting to order. Member Jim Sajczuk was absent.

INVOCATION

Vice Chair Anthony Wright led the invocation.

PLEDGE TO THE FLAG

Led by the Board.

Commissioner Wilford addressed the Board to thank them for their commitment to serve the City and its

citizens.

APPROVAL OF THE AGENDA

Member Virginia Johns moved to approve the agenda; seconded by Vice Chair Wright.

Passed by unanimous consent.

I. OLD BUSINESS

None.

II. NEW BUSINESS

A. Approval of the Minutes of the May 14, 2019 PZB Meeting

Member Sandy Burgess moved to approve the minutes; seconded by Member Johns.

Passed by unanimous consent.

B. Site Plan - Hague Fire Station #25: A request by Monique Heathcock, P.E., of CHW, applicant and agent for Phoenix Commercial Park, LLP, property owner, for consideration of a Site Plan to construct a ±1,080 square foot fire station and a ±1,080 square foot apparatus building, with associated site improvements, on a ±1.03 acre subject property, located north of US Highway 441, west of CSI Academy, and east of Phoenix Commercial Park; a portion of Tax Parcel Number 05855-004-000; FLUM: Industrial; Zoning: Light & Warehouse Industrial (ILW) (Quasi-Judicial Hearing).

Department Director Kathy Winburn introduced the item.

Planning Assistant Kenya Curtis swore in all parties entering testimony in the hearing.

Principal Planner Justin Tabor, AICP, presented the Staff Report.

Monique Heathcock, P.E., of CHW, applicant and agent for Phoenix Commercial Park, LLP, provided additional information and availed herself for questions.

Vice Chair Wright asked the applicant if they agreed to Staff's recommended conditions.

Monique Heathcock, P.E., of CHW, responded and accepted the conditions.

Member Burgess inquired about the type of building proposed for the site plan.

Monique Heathcock, P.E., of CHW, responded.

City Attorney Marian Rush responded.

Principal Planner Tabor, AICP, responded.

Member Burgess inquired about the alternative landscaping plan.

Principal Planner Tabor, AICP, responded.

Member Johns recused herself and submitted into the record Form 8B, Memorandum of Voting Conflict.

Vice Chair Wright moved that based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan, subject to the five (5) conditions provided in Exhibit "A" and located on page 21 of the June 11, 2019, Staff Report to the Planning & Zoning Board; seconded by Member Burgess.

Motion Passed 3-0 in a roll call vote.

- C. Land Development Regulations (LDR) Text Amendment: A request by the City of Alachua to amend, modify, or create the following Sections of the City of Alachua Land Development Regulations (LDRs): 2.4.4; 2.4.7; 2.4.10(B)(3)(i); 3.1.1; 3.5.2(F); 4.1.1; Section 4.3.4(G)(11); 5.1.3; 5.1.3; 5.2.3(B); and 10.2; and amending Tables 3.1.1; 4.1-1; and 5.1-3 (Legislative Hearing).

Department Director Winburn introduced the item.

Principal Planner Tabor, AICP, presented the Staff Report.

Member Johns inquired about platting requirements.

Principal Planner Tabor, AICP, responded.

Member Burgess inquired about the proposed updates to the use types and the definitions of the use types.

Principal Planner Tabor, AICP, responded.

Department Director Winburn responded.

Vice Chair Wright moved that based upon the presentation to this Board and Staff's recommendation, this Board finds the proposed text amendments to the City's Land Development Regulations to be consistent with the City of Alachua Comprehensive Plan and in compliance with the City's Land Development Regulations and transmits such finding to the City Commission with a recommendation to approve; seconded by Member Johns.

Motion Passed 4-0 in a roll call vote.

III. BOARD COMMENTS/DISCUSSION

Member Johns commended Staff for their hard work.

Department Director Winburn stated the next meeting will be July 11, 2019 at 6:00 p.m.

Vice Chair Wright wished everyone a safe holiday.

City Attorney Rush commended the Board & Staff for all of their hard work.

IV. CITIZENS COMMENTS

None.

ADJOURN

Member Johns moved to adjourn; seconded by Member Burgess.

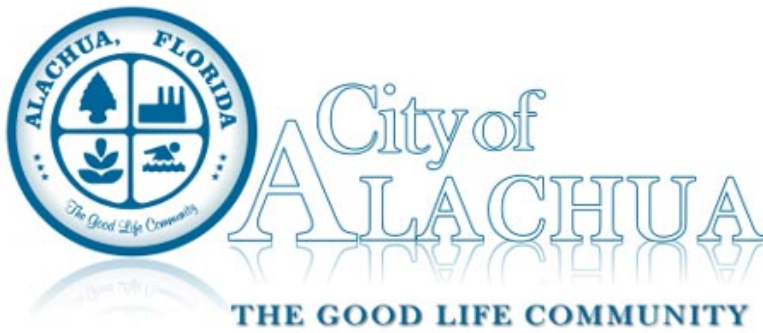
Passe by unanimous consent.

ATTEST:

PLANNING AND ZONING BOARD OF THE
CITY OF ALACHUA, FLORIDA

Presiding Officer

Staff Liaison



Board/Committee Agenda Item

MEETING DATE: 7/9/2019

SUBJECT: Site Plan - Alchem Building Three: A request by Caitlyn Drane, P.E. of eda engineers-surveyors-planners, inc., applicant and agent for James D. Talton of Alchem Laboratories Corporation, property owner, for consideration of a Site Plan to construct a ±12,000 square foot light manufacturing facility, with associated paving, grading, drainage, landscaping and infrastructure improvements, on a ±2.70 acre subject property, located at 14120 NW 126th Terrace; Tax Parcel Number 03956-010-027 and a portion of 03927-000-000 (Quasi-Judicial Hearing).

PREPARED BY: Adam Hall, AICP

RECOMMENDED ACTION:

Based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan, subject to the four (4) conditions provided in Exhibit "A" and on page 20 of the July 9, 2019 Staff Report to the Planning & Zoning Board.

Summary

The proposed site plan is a request by Caitlyn Drane, P.E., of eda engineers-surveyors-planners, inc. , applicant and agent for James D. Talton of Alchem Laboratories Corporation, property owner, for the construction of a ±12,000 square foot light manufacturing facility with employee parking, storm water management facility improvements, paving, grading, landscaping and associated utility infrastructure.

The subject property is ±2.70 acres in area and is located at 14120 NW 126th Terrace. Access to the subject property would be provided by one (1) existing ingress/egress drives, which is proposed to be improved as a part of this site plan application. There is an existing 6,800 square foot structure on the property, which is proposed to remain. All parking and landscaping nonconformities have been addressed, to the extent required by the City's Land Development Regulations.

ATTACHMENTS:

Description

- ☐ Site Plan
- ☐ Staff Report
- ☐ Exhibit "B"- Staff Supporting Materials
- ☐ Application and Supporting Materials- 1
- ☐ Application and Supporting Materials- 2
- ☐ Application and Supporting Materials- 3
- ☐ Public Notice Materials for the 07/09/19 PZB Hearing

ALCHEM LABORATORIES

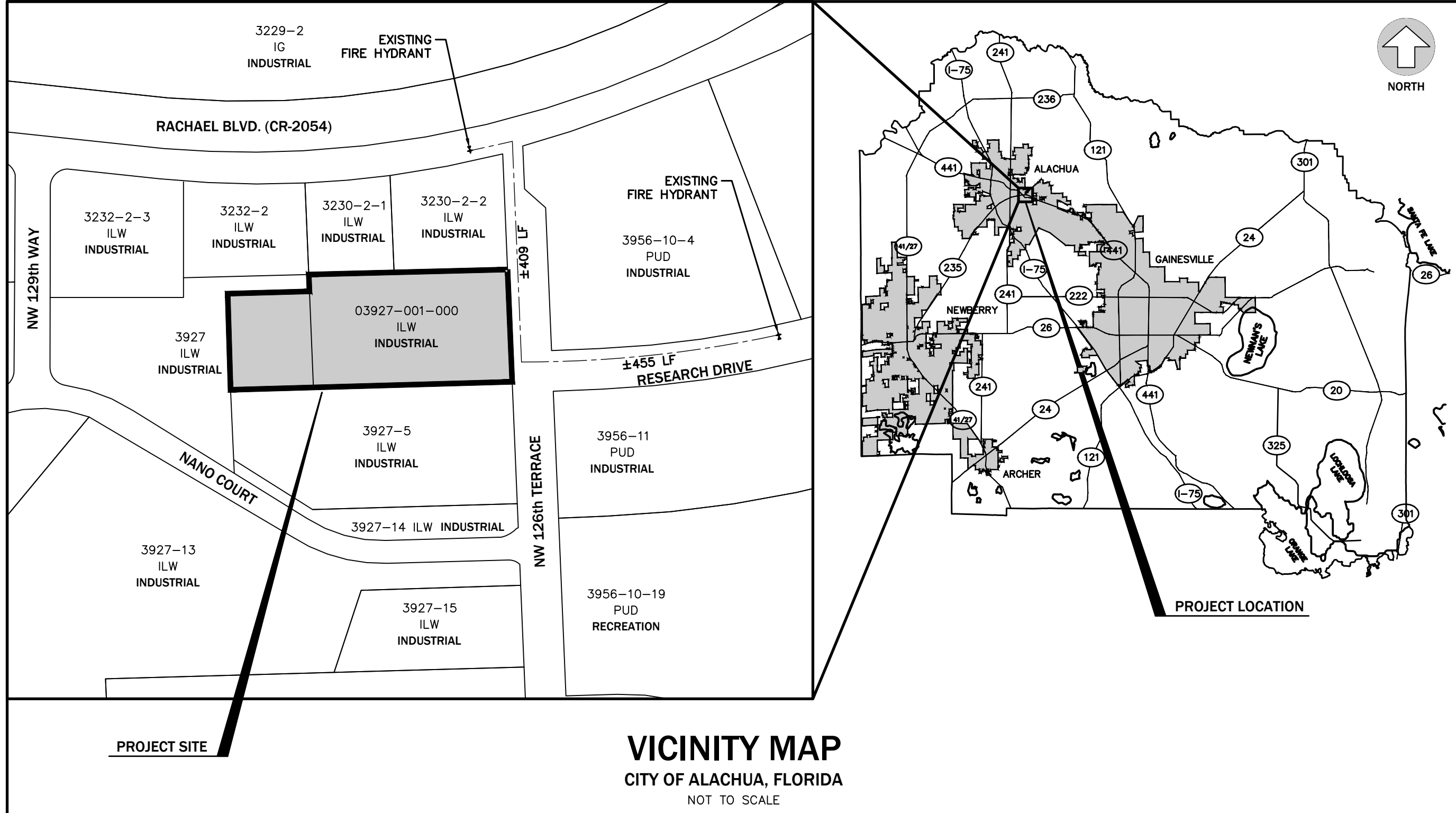
CITY OF ALACHUA, FLORIDA

DEVELOPMENT INFORMATION		
1.	PROJECT OWNER:	ALCHEM LABORATORIES
2.	NAME OF PROJECT:	ALCHEM LABORATORIES
3.	PROJECT DESCRIPTION:	CONSTRUCTION OF NEW 12,000F-SF PRE-ENGINEERED METAL BUILDING WITH ASSOCIATED UTILITIES AND PARKING
4.	PROJECT ADDRESS:	14120 NW 126TH TERRACE ALACHUA, FL 32615
5.	TAX PARCEL NUMBER:	03927-001-000 & A PORTION OF 03927-000-000
6.	SECTION/TOWNSHIP/RANGE:	SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST
7.	ZONING:	ILW (INDUSTRIAL, LIGHT & WAREHOUSING)
8.	FUTURE LAND USE DESIGNATION:	INDUSTRIAL
9.	THE PROJECT SITE WILL CONNECT TO A MASTER STORMWATER SYSTEM. SRWMD ERP# 206572-4.	
10.	THE PROJECT SITE WILL MEET ALL NPDES CRITERIA DURING AND AFTER CONSTRUCTION.	
11.	TRASH FACILITIES ARE PROPOSED ON SITE.	
12.	FIRE HYDRANTS AND STABILIZED SURFACES MUST BE IN SERVICE PRIOR TO THE ACCUMULATION OF COMBUSTIBLES ON SITE.	
13.	THE SITE AND BUILDING WILL COMPLY WITH THE FLORIDA BUILDING CODE AND ALL REFERENCED STANDARDS.	

CONTACT INFORMATION		
1.	PROPERTY OWNERS:	ALCHEM LABORATORIES CORPORATION 13305 RACHAEL BOULEVARD ALACHUA, FL 32615 CONTACT: JAMES D. TALTON, PhD
2.	PROPERTY OWNERS:	ADC DEVELOPMENT & INVESTMENT GROUP, LLC P.O. BOX 235 LAKE BUTLER, FL 32054 CONTACT: AVERY ROBERTS
3.	DEVELOPER:	ROGER STEPHENS CONSTRUCTION, INC. P.O. BOX 1977 ALACHUA, FL 32616 (352) 262-0114 CONTACT: ROGER STEPHENS, RG0015369
4.	CONSULTANT ENGINEER:	eda engineers surveyors planners, inc. 2404 NW 43rd STREET GAINESVILLE, FL 32606 (352) 373-3541 CONTACT: CAITLYN DRANE, P.E.
5.	PLANNER:	eda engineers surveyors planners, inc. 2404 NW 43rd STREET GAINESVILLE, FL 32606 (352) 373-3541 CONTACT: CLAY SWEGER, AICP, LEED AP
6.	SURVEYOR:	eda engineers surveyors planners, inc. 2404 NW 43rd STREET GAINESVILLE, FL 32606 (352) 373-3541 CONTACT: BOB GRAVER, PSM
7.	ARCHITECT:	ANDREW KAPLAN P.O. BOX 13893 GAINESVILLE, FL 32604 (352) 373-2728 CONTACT: ANDREW KAPLAN, AR007873

IMPERVIOUS AREA CALCULATIONS				
#	DESCRIPTION	SQUARE FOOTAGE (SF)	ACREAGE (AC.)	PERCENTAGE (%)
1.	TOTAL SITE AREA:	117,819 SF	2.70 AC	100.0 %
2.	PROPOSED BUILDING COVERAGE (FIRST FLOOR):	10,078 SF	0.23 AC	8.6 %
3.	PROPOSED PAVEMENT AND SIDEWALK AREA:	27,792 SF	0.64 AC	23.6 %
4.	TOTAL PROPOSED IMPERVIOUS AREA:	37,870 SF	0.86 AC	32.1 %
5.	OPEN AREA:	58,838 SF	1.35 AC	50.03 %
6.	EXISTING IMPERVIOUS AREA TO BE REMOVED	8,072 SF	0.19 AC	6.8 %
7.	EXISTING IMPERVIOUS AREA TO REMAIN	9,564 SF	0.22 AC	8.1 %
8.	TOTAL IMPERVIOUS AREA (PROPOSED & EXISTING)	47,434 SF	1.09 AC	40.3 %
9.	BASIN AREA	11,517 SF	0.26 AC	9.79 %

PARKING CALCULATIONS				
#	DESCRIPTION	CRITERIA	REQUIRED	PROVIDED
1.	VEHICULAR PARKING	MANUFACTURING, LIGHT: FOR OFFICES, LABORATORIES, AND AREAS SUPPORTING OFFICES AND LABORATORIES: 1 SPACE PER 350-SF FLOOR AREA FOR ALL OTHER AREAS: 1 SPACE PER 1,000-SF FLOOR AREA	(10,078-SF + 1,920-SF/350-SF)+(192 2+4,800-SF-SF)/1,000 -SF) = 43 SPACES	43 SPACES INCLUDING 2 HANDICAP SPACES
2.	BICYCLE PARKING	ALL DEVELOPMENTS WITH OFF-STREET PARKING LOTS WITH 50 OR MORE PARKING SPACES SHALL PROVIDE BICYCLE PARKING AT A RATE OF ONE SPACE FOR EVERY 10 REQUIRED PARKING SPACES.	N/A	0



LEGEND	
ZONING:	
PUD	- PLANNED UNIT DEVELOPMENT
ILW	- INDUSTRIAL, LIGHT & WAREHOUSING
IG	- INDUSTRIAL GENERAL
FUTURE LAND USE:	
I	- INDUSTRIAL
R	- RECREATIONAL

UTILITIES TO BE PROVIDED AND PROVIDER	
1. ELECTRIC:	CITY OF ALACHUA
2. POTABLE WATER:	CITY OF ALACHUA
3. WASTE WATER:	CITY OF ALACHUA
4. FIRE SUPPRESSION WATER SUPPLY:	CITY OF ALACHUA

TRIP GENERATION							
ITE LAND USE: 110 GENERAL LIGHT INDUSTRIAL							
EXISTING: 6720-SF Building							
				TRIP DISTRIBUTION		PROJECTED TRIPS	
PERIOD	RATE	PER UNIT	TRIPS	ENTER	EXIT	IN	OUT
AM	0.92	6.72	6.18	87%	13%	5.38	0.80
PM	0.83	6.72	5.58	18%	82%	1.00	4.57
AVG	4.96	6.72	33.33	50%	50%	16.67	16.67
SOURCE: ITE TRIP GENERATION, 10TH EDITION							
ITE LAND USE: 110 GENERAL LIGHT INDUSTRIAL							
PROPOSED: 12,000-SF NEW BUILDING							
				TRIP DISTRIBUTION		PROJECTED TRIPS	
PERIOD	RATE	PER UNIT	TRIPS	ENTER	EXIT	IN	OUT
AM	0.92	12.00	11.04	87%	13%	9.60	1.44
PM	0.83	12.00	9.96	18%	82%	1.79	8.17
AVG	4.96	12.00	59.52	50%	50%	29.76	29.76
SOURCE: ITE TRIP GENERATION, 10TH EDITION							
				AM	PM	AVG	
EXISTING				6.18	5.58	33.33	
PROPOSED				11.04	9.96	59.52	
TOTAL				17	16	93	

LEGAL DESCRIPTION

(AS PER OFFICIAL RECORDS BOOK 4482, PAGE 2165)

A PORTION OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST, CITY OF ALACHUA, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF SAID NORTHWEST 1/4 OF NORTHEAST 1/4 AND RUN THENCE SOUTH 89°09'48" WEST, ALONG THE SOUTH BOUNDARY OF SAID NORTHWEST 1/4 OF NORTHEAST 1/4, 40.00 FEET, THENCE SOUTH NORTH 01°35'03" WEST, PARALLEL TO THE EAST BOUNDARY OF SAID NORTHWEST 1/4 OF THE NORTHEAST 1/4, 1332.93 FEET TO THE NORTH BOUNDARY OF SAID NORTHWEST 1/4 OF THE NORTHEAST 1/4 AND THE POINT OF BEGINNING; THENCE SOUTH 89°21'32" WEST ALONG SAID NORTH BOUNDARY 392.49 FEET, THENCE SOUTH 01°35'03" EAST, PARALLEL TO SAID EAST BOUNDARY, 222.67 FEET, THENCE NORTH 89°09'48" EAST, PARALLEL TO THE SOUTH BOUNDARY OF SAID NORTHWEST 1/4 OF NORTHEAST 1/4, A DISTANCE OF 392.47 FEET, THENCE NORTH 01°35'03" WEST, PARALLEL TO SAID EAST BOUNDARY 221.33 FEET TO THE POINT OF BEGINNING.

AND

A PARCEL OF LAND BEING A PORTION OF ALACHUA COUNTY TAX PARCEL 03927-000-000 LYING IN THE NORTHWEST ONE-QUARTER (NW ¼) OF THE NORTHEAST ONE-QUARTER (NE ¼) OF SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 5/8" IRON ROD AND CAP (PLS 3456) AT NORTHWEST CORNER OF THE PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 4482 PAGE 2165 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, THENCE SOUTH 01 DEGREES 34 MINUTES 36 SECONDS EAST ON THE WEST LINE OF SAID LANDS, A DISTANCE OF 33.36 FEET TO A 5/8" IRON ROD AND CAP (LB 2389) AND THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 01 DEGREES 34 MINUTES 36 SECONDS EAST ON SAID WEST LINE, A DISTANCE OF 189.17 FEET TO A 5/8" IRON ROD (NO CAP) AT THE SOUTHWEST CORNER OF SAID LANDS AND BEING ON THE NORTH LINE OF THE PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 2355, PAGE 2784 OF SAID PUBLIC RECORDS; THENCE SOUTH 89 DEGREES 14 MINUTES 28 SECONDS WEST ON SAID NORTH LINE, A DISTANCE OF 163.14 FEET TO THE NORTHWEST CORNER OF SAID LANDS (FOUND 5/8" IRON ROD NO CAP ON SAID NORTH LINE 5.00 FEET EAST OF PROPERTY CORNER); THENCE NORTH 01 DEGREES 44 MINUTES 47 SECONDS WEST ON THE NORTHERLY PROJECTION OF THE WEST LINE OF SAID LANDS, A DISTANCE OF 186.84 FEET TO A 5/8" IRON ROD AND CAP (LB 2389) BEING NORTH 88 DEGREES 25 MINUTES 24 SECONDS EAST, A DISTANCE OF 76.63 FEET OF A 5/8" IRON ROD AND CAP (LB 2389) AT THE SOUTHEAST CORNER OF THE PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 4497 PAGE 1652 OF SAID PUBLIC RECORDS; THENCE NORTH 88 DEGREES 25 MINUTES 24 SECONDS EAST, A DISTANCE OF 163.72 FEET TO THE POINT OF BEGINNING

DEVELOPMENT DATA			
#	CRITERIA	REQUIRED	PROVIDED
1.	FRONT BUILDING SETBACK	20'	>20'
2.	SIDE/REAR BUILDING SETBACK	15', EXCEPT WHERE RAILROAD SPUR ABUTS SIDE OR REAR PROPERTY LINE, THEN NONE	SIDE: >15' REAR: 15'
3.	MAXIMUM HEIGHT	65'	32'-8"

BUILDING INFORMATION

SPRINKLERED:	YES
OCCUPANCY CLASS:	B
CONSTRUCTION TYPE:	III B
NUMBER OF STORIES:	2
FLOOR AREA:	
1ST FLOOR	11,840 SF
2ND FLOOR	2,500 SF
TOTAL FLOOR AREA:	14,340 SF

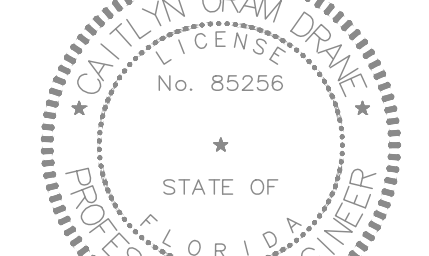
DRAWING INDEX

Sheet Number	Sheet Title
C000	COVER SHEET
C010	LEGEND, SYMBOLS AND NOTES
C020	DEMOLITION PLAN
C100	DIMENSION PLAN
C200	PAVING, GRADING AND DRAINAGE PLAN
C205	PAVING, GRADING AND DRAINAGE DETAILS
C215	BASIN 3 DETAIL
C310	STORMWATER POLLUTION PREVENTION PLAN
C400	UTILITY PLAN
C405	UTILITY DETAILS
V-001	BOUNDARY AND TOPOGRAPHIC SURVEY
A1 - A5	ARCHITECTURAL PLANS (BY OTHERS)
L101-L301	LANDSCAPE PLANS (BY OTHERS)
E-1	PHOTOMETRIC PLANS (BY OTHERS)



No.	Date	Comment

Professional Engineer of Record:



Caitlyn Oram Drane, P.E.
Engineer
No. 85256
Certificate No.

Project No: 18-143

Project phase:

CITY SUBMITTAL

Project title:

ALCHEM LABORATORIES
CITY OF ALACHUA,
FLORIDA

Sheet title:

COVER SHEET

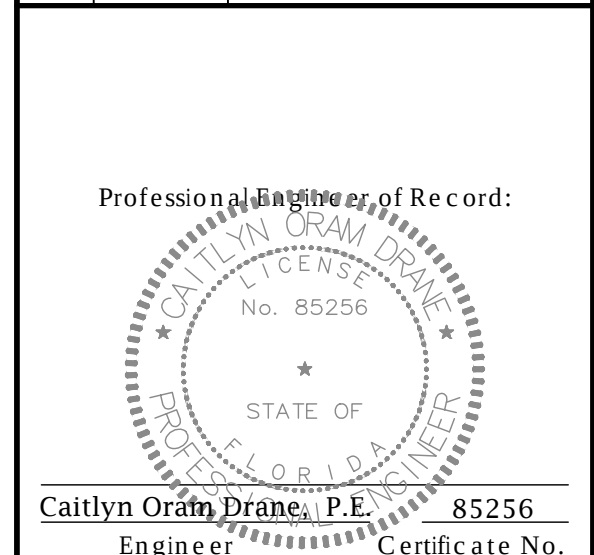
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Drawn: ALK/TAR

Checked: COD/TAR

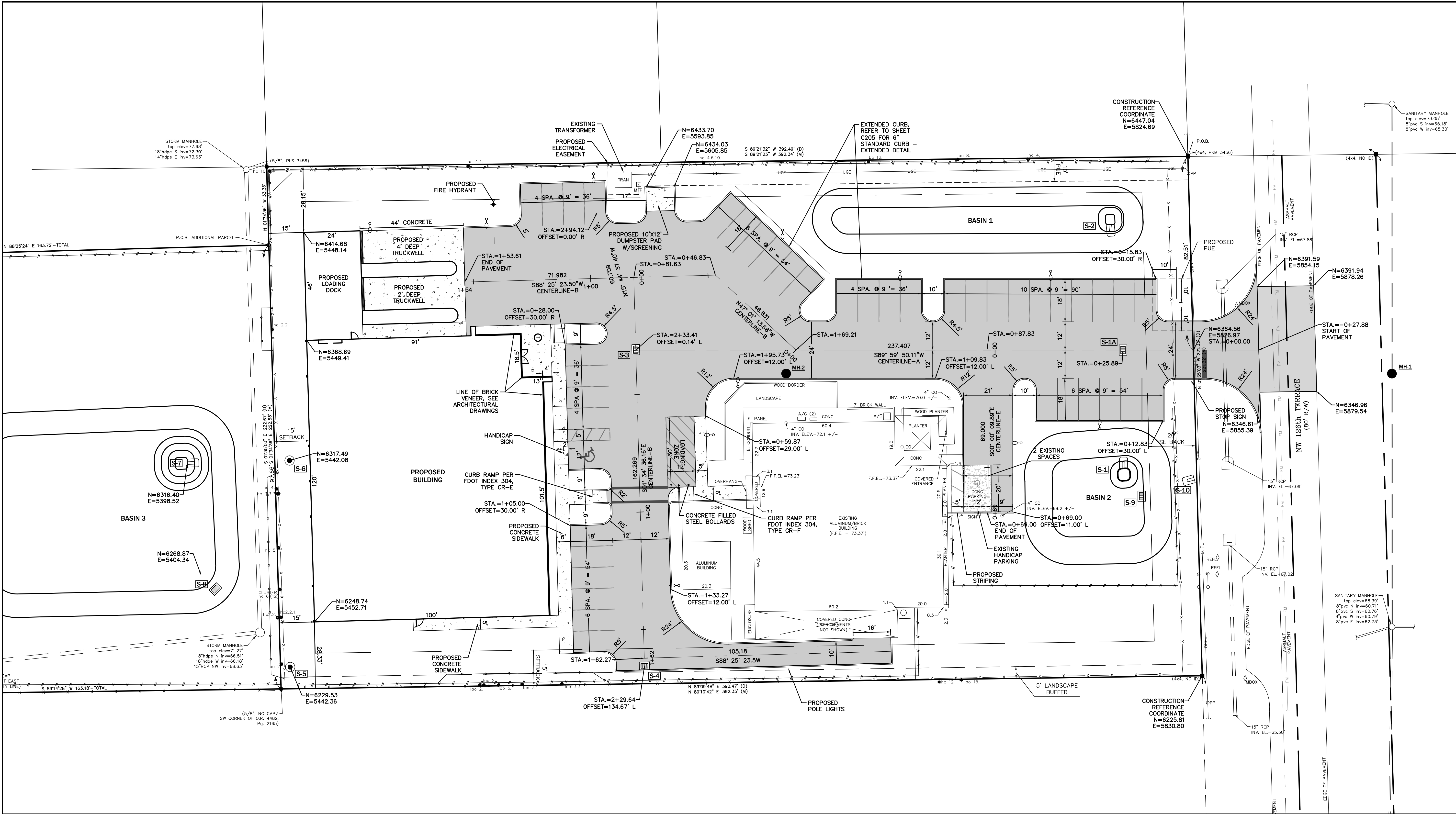
Date: 06/18/19

Sheet No.:
C000



Project No: 18-143	
Project phase: CITY SUBMITTAL	
Project title: ALCHEM LABORATORIES CITY OF ALACHUA, FLORIDA	
Sheet title: DEMOLITION PLAN	
Designed: COD	Sheet No.: C020
Drawn: ALK/TAR	
Checked: COD/TAR	
Date: 06/18/19	

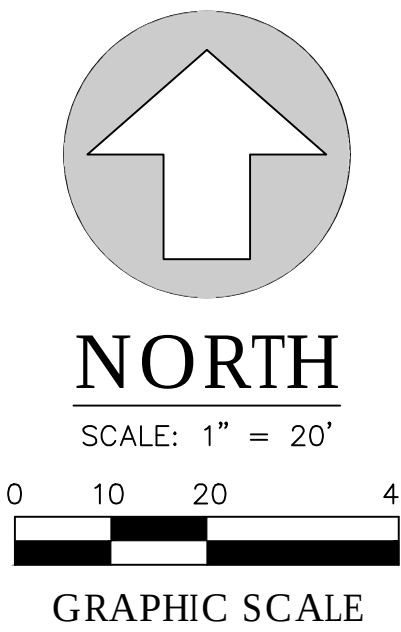
\\server7\engprojects\Alchem Laboratories - Bldg. 3\Plans\Current DWG\A181.131.dwg, C100 DIMENSION PLAN, 6/18/2019 5:40:15 PM, TAR



- GENERAL NOTES**
- ALL PARKING LOT DIMENSIONS AND RADII SHOWN ARE MEASURED FROM FACE OF CURB AND/OR THE EDGE OF PAVEMENT IF THERE IS NOT CURB PROPOSED. ALL RADIAL PARKING IS 9' MIN. WIDTH AT NARROWEST POINT.
 - CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF LOCATION OF ALL EXISTING UTILITIES AND PROTECTION OF SAME DURING CONSTRUCTION.
 - ELECTRIC SERVICE TO BE COORDINATED WITH CITY OF ALACHUA PUBLIC SERVICES DEPARTMENT.
 - SIDEWALKS WILL BE CONNECTED TO BUILDING ENTRANCE. COORDINATE LOCATIONS WITH ARCHITECT.

- LEGEND**
- — — — — SILT FENCE
 - — — — — TREE BARRICADE
 - — — — — LIMITS OF ASPHALT PAVEMENT
 - — — — — LIMITS OF CONCRETE PAVEMENT AND SIDEWALKS
 - p120 EXISTING TREE TO REMAIN

eda
engineers • surveyors • planners
EB 2389
2404 N.W. 43rd ST. GAINESVILLE, FLORIDA 32606-6602
TEL. (352) 373-3541 FAX. (352) 373-7249
www.edatl.com mail@edatl.com



No.	Date	Comment

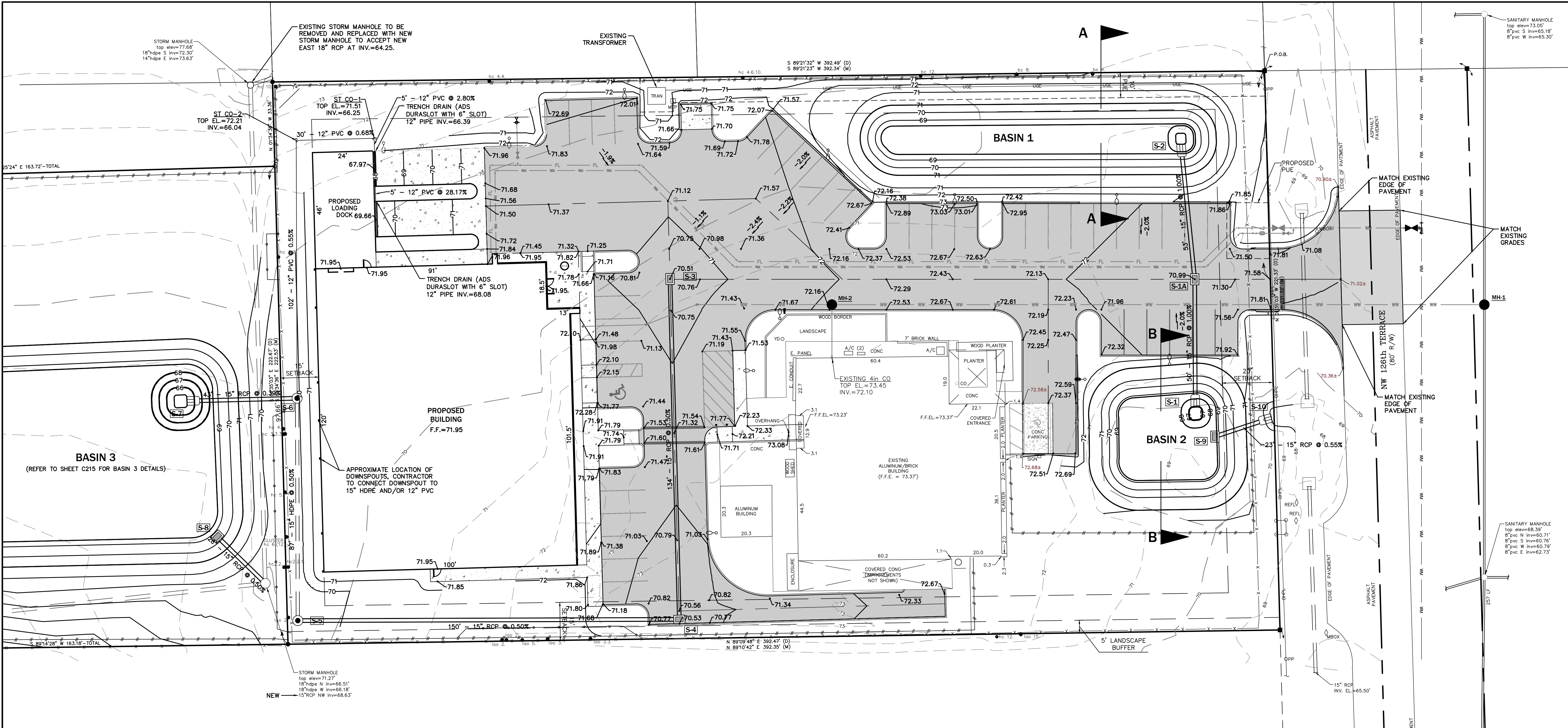
Professional Engineer of Record:
CAITLYN ORAM DRANE
No. 85256
STATE OF FLORIDA
Caitlyn Oram Drane, P.E. 85256
Engineer Certificate No.

Project No: 18-143
Project phase: CITY SUBMITTAL
Project title:

ALCHEM LABORATORIES
CITY OF ALACHUA,
FLORIDA

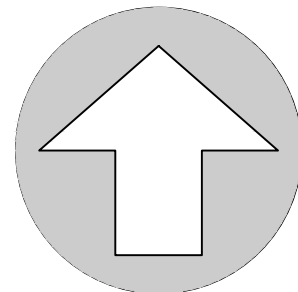
Sheet title:
DIMENSION PLAN

Designed: COD	Sheet No.:
Drawn: ALK/TAR	C100
Checked: COD/TAR	
Date: 06/18/19	



engineers • surveyors • planners

2404 N.W. 43rd ST. GAINESVILLE, FLORIDA 32606-6602
TEL: (352) 373-3541 FAX: (352) 373-7249
www.edafl.com mail@edafl.com



NORTH

SCALE: 1" = 20'



GRAPHIC SCALE

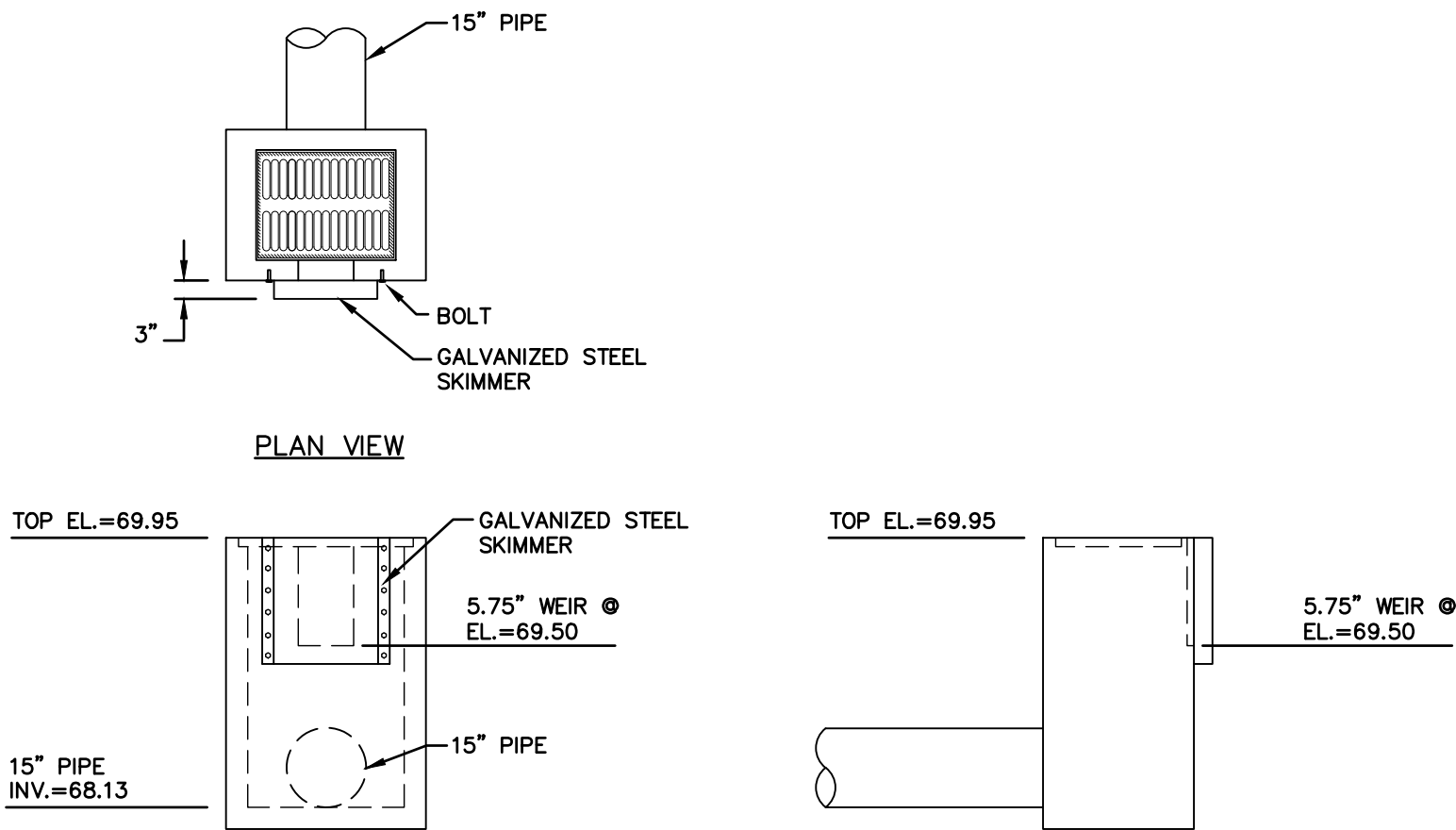
No.	Date	Comment

EXISTING STORMWATER SYSTEM NOTE:

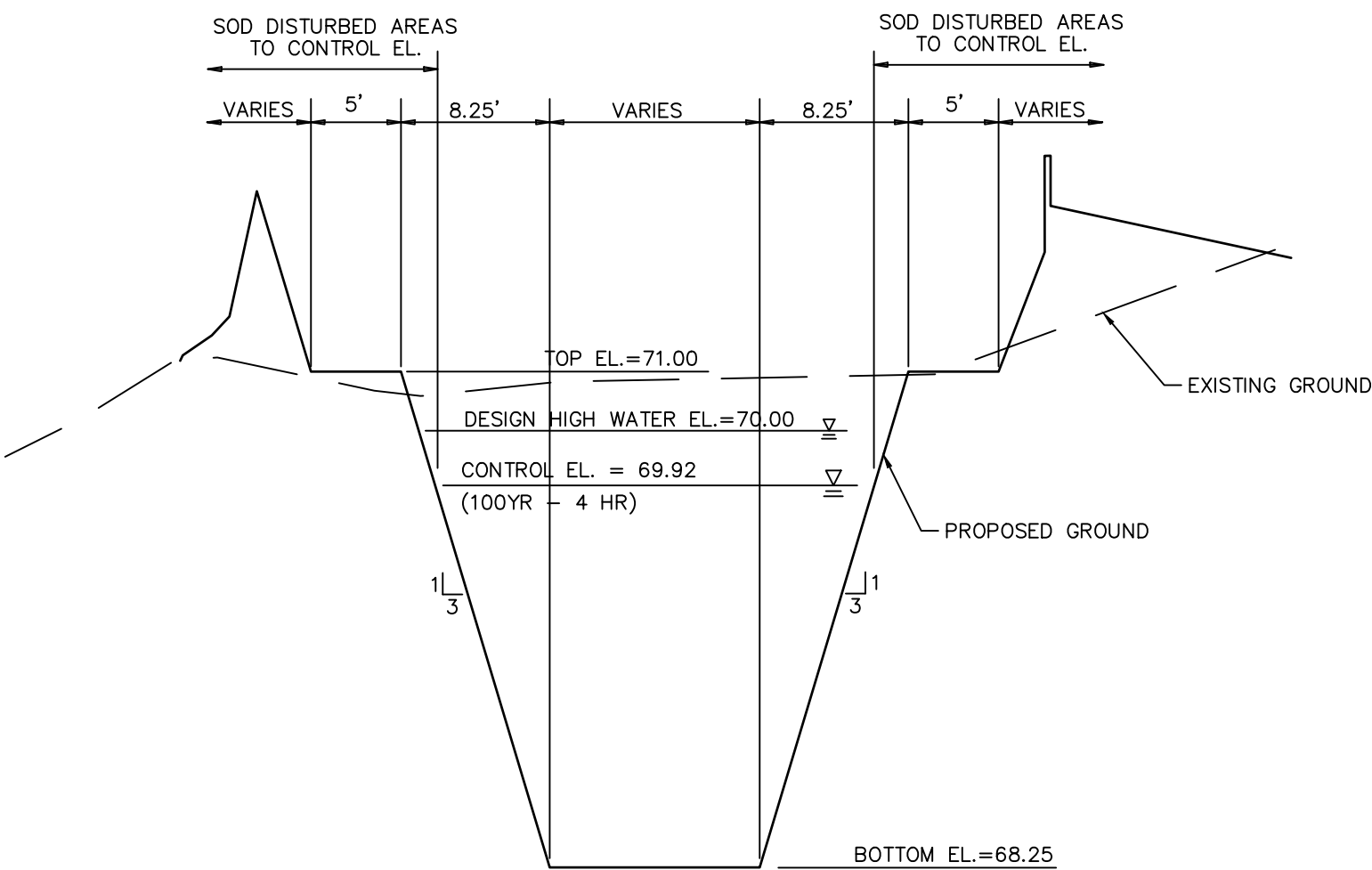
- THE PROPOSED PROJECT IS A MINOR MODIFICATION TO THE EXISTING STORMWATER PERMIT (ERP-001-206572-2).
- CONTRACTOR SHALL NOTIFY IN WRITING, THE PUBLIC SERVICES NO LESS THAN 7 DAYS PRIOR TO SUCH CLOSURE OR WHENEVER ROAD IS IMPASSABLE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PUBLIC SERVICES DEPARTMENT OF ANY VEHICULAR OR PEDESTRIAN SAFETY OR EFFICIENCY PROBLEMS INCURRED AS A RESULT OF THE WORK.

MES	PIPE INVERT	FDOT INDEX
S-1	15" INV.=66.90	272
S-2	15" INV.=67.00	272
S-7	15" INV.=65.06	272
S-10	15" INV.=68.00	272

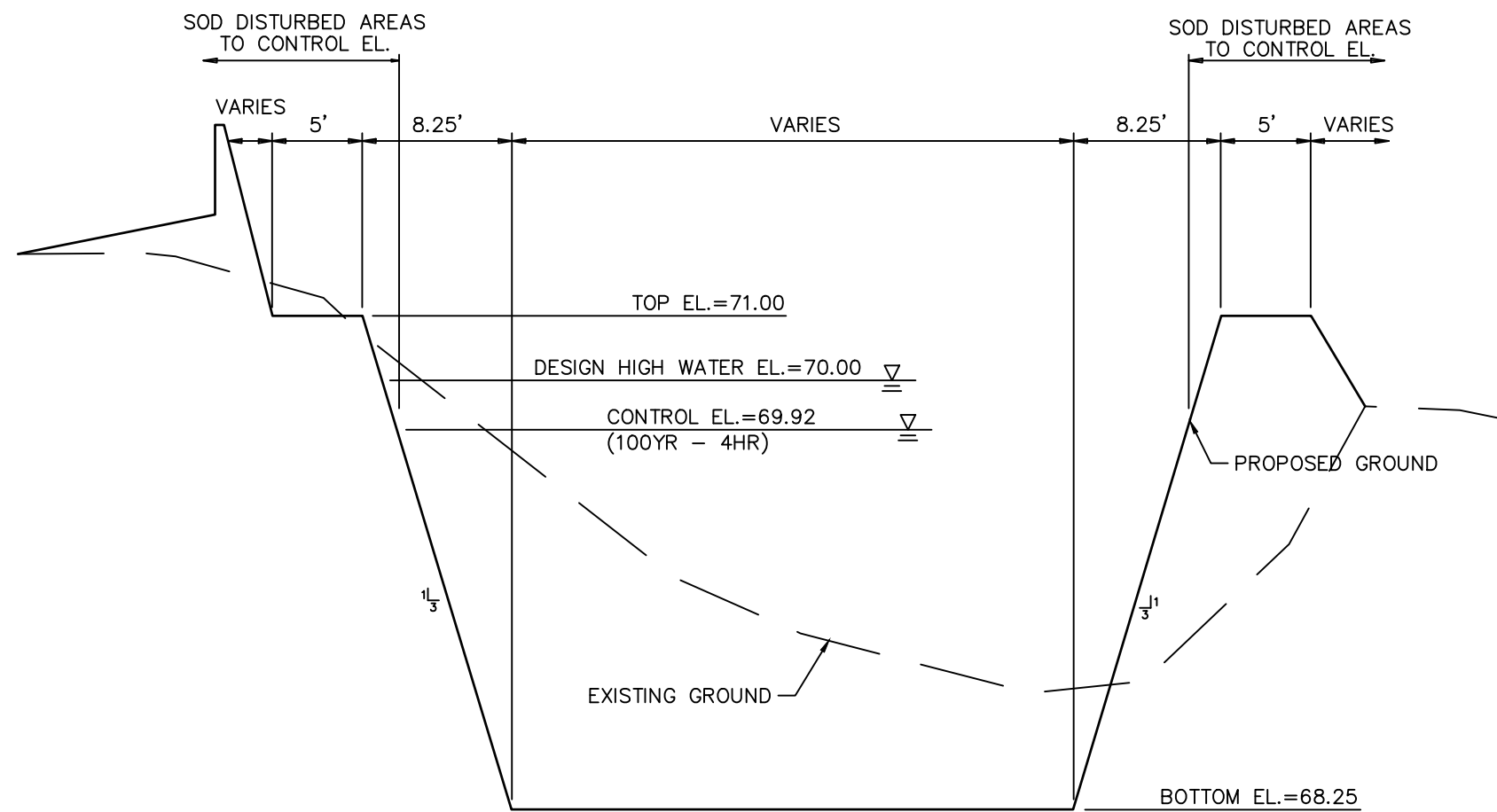
STRUCTURE	STRUCTURE DATA	FDOT INDEX
S-1A TYPE-C INLET	TOP EL.=70.99 S 15" INV.=67.41 N 15" INV.=67.54	232
S-3 TYPE-C INLET	TOP EL.=70.51 S 15" INV.=67.10	232
S-4 TYPE-C INLET	TOP EL.=70.54 N 15" INV.=66.42 W 15" INV.=66.42	232
S-5 STORM MANHOLE	TOP EL.=69.47 E 15" INV.=65.67 N 15" INV.=65.67	200 & 201
S-6 STORM MANHOLE	TOP EL.=69.77 S 15" INV.=65.23 N 12" INV.=65.48 W 15" INV.=65.23	200 & 201
S-8 TYPE-C INLET	TOP EL.=70.00 SE 15" INV.=68.50	232
S-9 TYPE-C INLET	TOP EL.=69.95 E 15" INV.=68.13	232



BASIN OUTFALL S-9 DETAIL
N.T.S.

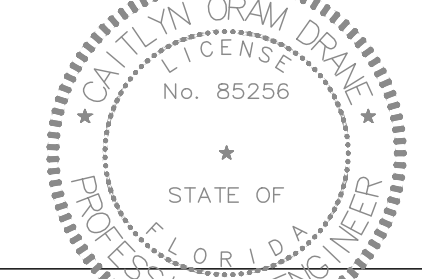


BASIN 1 TYPICAL SECTION
CROSS SECTION A-A
N.T.S.



BASIN 2 TYPICAL SECTION
CROSS SECTION B-B
N.T.S.

Professional Engineer of Record:



Caitlyn Oram Drane, P.E. 85256
Engineer Certificate No.

Project No: 18-143

Project phase: CITY SUBMITTAL

Project title:

ALCHEM LABORATORIES
CITY OF ALACHUA,
FLORIDA

Sheet title:

PAVING, GRADING &
DRAINAGE PLAN

Designed: COD

Drawn: ALK/TAR

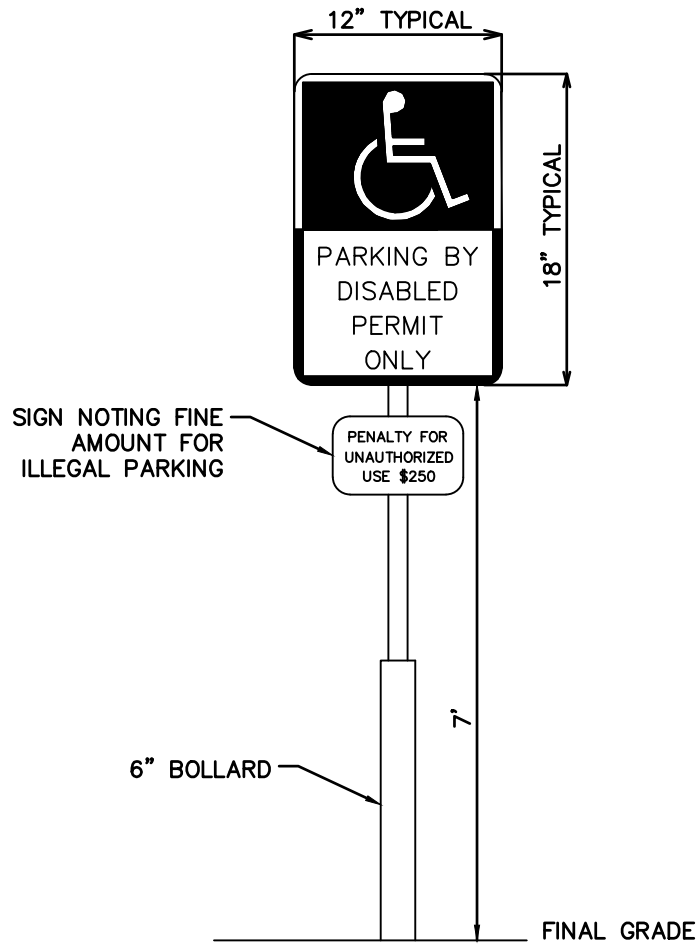
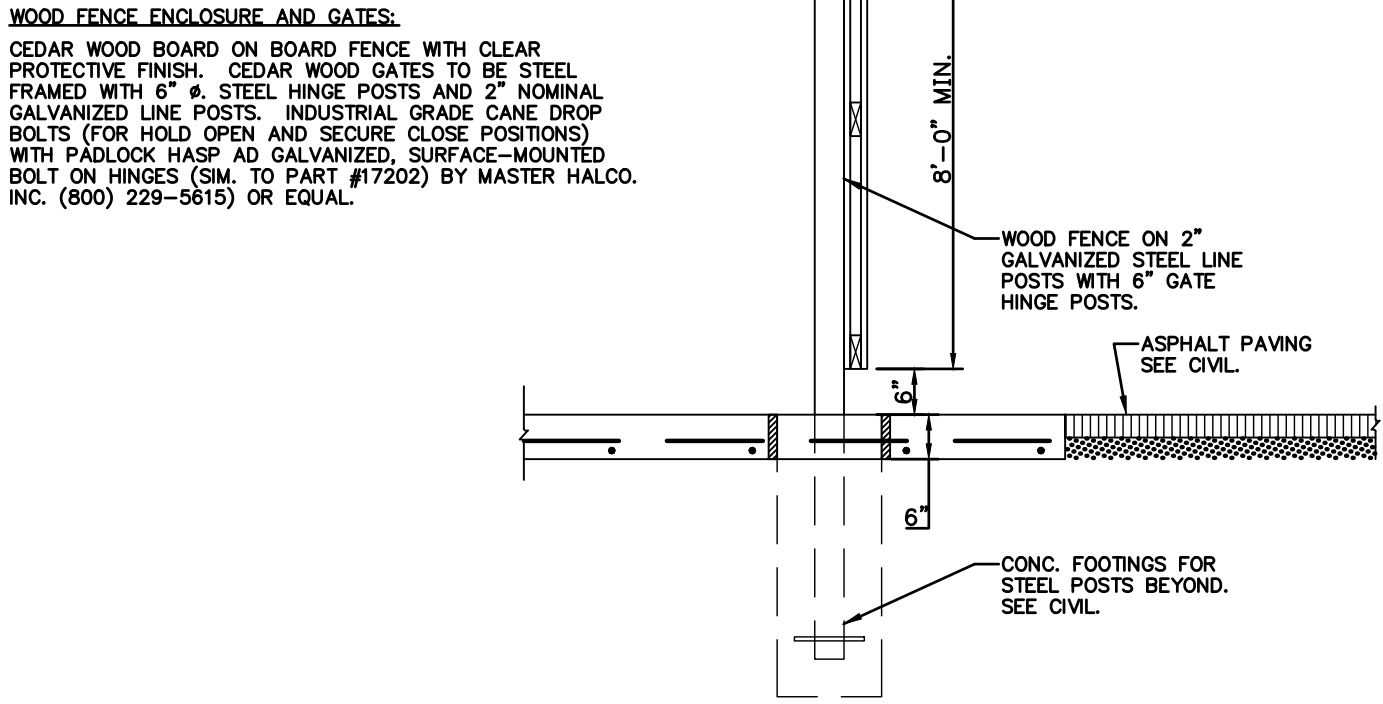
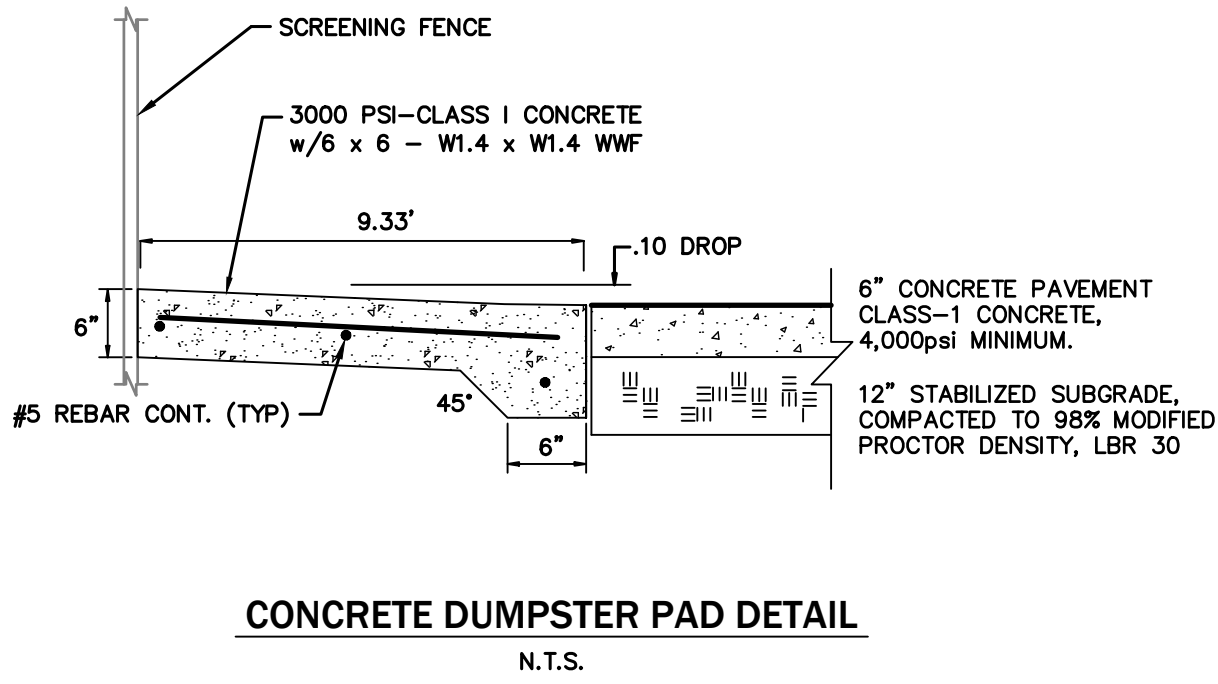
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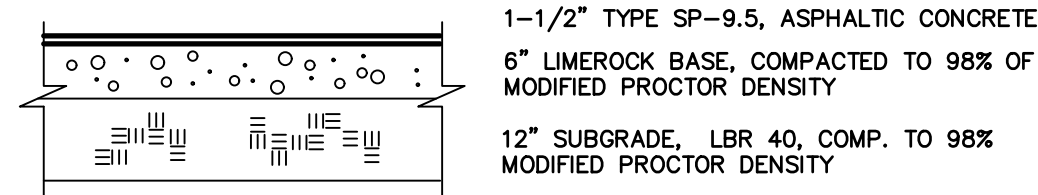
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\\server7\engprojects\Alchem Laboratories - Bldg. 3\Plans\Current DWG\A181131.dwg, C205 PAVING, GRADING AND DRAINAGE DETAILS, 6/18/2019 5:45:52 PM, TAR



- SIGN NOTES:**
1. SIGN TO BE MADE OF 0.063" STEEL PAINTED WITH TRAFFIC PAINT
 2. HANDICAP SIGN TO BE AS SHOWN ABOVE OR AS REQUIRED BY LOCAL CODE PAINT SIGN BLUE AND WHITE



PAVING, GRADING AND DRAINAGE SPECIFICATIONS

1. **GENERAL:** ALL ROADWAY AND DRAINAGE CONSTRUCTION, INCLUDING MATERIALS, CONSTRUCTION TECHNIQUES, AND TECHNICAL STANDARDS, SHALL BE IN ACCORDANCE WITH THE LATEST F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE LATEST F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS.
2. ALL AREAS OF NEW CONSTRUCTION SHALL BE PREPARED AFTER SITE DEMOLITION. TOP SOIL REMAINING ONSITE MAY BE STOCKPILED FOR FINE GRADING IN LANDSCAPED AREAS, IF SUITABLE. THE CONTRACTOR SHALL FURNISH ALL FILL REQUIRED AND DISPOSE OF ALL EXCESS OR UNSUITABLE MATERIAL OFFSITE IN ACCORDANCE WITH ALL REGULATORY REQUIREMENTS.
3. ALL NEW ASPHALT PAVEMENT CONSTRUCTION SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - A. **EARTHWORK:** FILL MATERIALS SHALL CONFORM TO AASHTO SOIL GROUPS A-1, A-3, OR A-2-4 AND SHALL BE PLACED IN 6"-12" LOOSE LIFTS AND COMPACTED TO 98% DENSITY USING MODIFIED PROCTOR METHOD (AASHTO T-180).
 - B. **SUBSOIL EXCAVATION:** WHERE SUBSOIL EXCAVATION IS REQUIRED, UNSUITABLE MATERIALS SHALL BE REMOVED TO A DEPTH OF 18" BELOW THE LIMEROCK BASE AND BACKFILLED WITH CLEAN FILL.
 - C. **STABILIZED SUBGRADE:** ALL STABILIZED MATERIAL SHALL BE TYPE 'B' CONFORMING TO SECTION 914-3 AND PLACED ACCORDING TO SECTION 160 IN ONE 12" MINIMUM COMPACTED LIFT. SUBGRADE SHALL BE STABILIZED TO A MINIMUM LBR VALUES AND DENSITIES AS SHOWN IN THE TYPICAL SECTIONS.
 - D. **BASE COURSE:** ALL MATERIAL SHALL BE LIMEROCK CONFORMING TO SECTION 911 AND PLACED ACCORDING TO SECTION 200 IN ONE 6" MINIMUM COMPACTED LIFT OR DOUBLE COMPACTED LIFT. ALL BASE MATERIAL SHALL BE COMPACTED TO 98% DENSITY BY MODIFIED PROCTOR METHOD (AASHTO T-180). THE PRIME COAT SHALL CONFORM TO SECTION 300.
 - E. **ASPHALTIC CONCRETE:** ALL ASPHALTIC CONCRETE MATERIAL SHALL BE AS PER DESIGN SECTIONS AND SHALL CONFORM TO SECTION 334. ALL ASPHALTIC CONCRETE CONSTRUCTION SHALL CONFORM TO SECTION 330. ASPHALT PAVEMENT SHALL BE SUPERPAVE SP-PG 67-22 ASPHALT BINDER.
4. ALL CONCRETE USED FOR CONSTRUCTION OF DRAINAGE STRUCTURES, SIDEWALKS, AND CURBING SHALL BE CLASS I CONFORMING TO SECTION 346.
5. REINFORCED CONCRETE PIPE SHALL CONFORM TO SECTION 941.
6. ALL PAVEMENT MARKINGS REQUIRED IN THE R/W SHALL BE THERMOPLASTIC AND INCLUDE RAISED PAVEMENT MARKERS, WHERE REQUIRED CONFORMING TO SECTION 711.
7. ALL PAVEMENT MARKING, SYMBOLS AND STRIPING WITHIN THE SITE SHALL MEET THE LATEST FLORIDA HANDICAP ACCESSIBILITY CODE. PAVEMENT MARKING SHALL BE 4" BLUE/WHITE (HANDICAP) OR WHITE (REGULAR) AND SHALL CONFORM TO THE LATEST F.D.O.T. AND M.U.T.C.D. STANDARDS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A GEOTECHNICAL CONSULTANT TO PROVIDE A FIELD INVESTIGATION REPORT DELINEATING RECOMMENDATIONS FOR UNDERCUTTING AND/OR UNDERDRAINS. A COPY OF THIS REPORT SHALL BE FORWARDED TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO UNDERCUTTING OR INSTALLING UNDERDRAIN. UNIT PRICES SHALL BE PROVIDED FOR UNDERDRAIN AND UNDERCUTTING. THE CONTRACTOR SHALL NOT CONSTRUCT BASE COURSE UNTIL THE REPORT IS REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.
9. SOIL TESTING RESULTS SHALL BE PROVIDED FOR THE PAVEMENT CONSTRUCTION. TESTING RESULTS SHALL BE SUBMITTED FOR THE SUBGRADE AND BASE COURSE, IN ACCORDANCE WITH THE DESIGN SECTION. A MINIMUM OF 5 TEST LOCATIONS SHALL BE PROVIDED ONSITE. THE TESTING REPORT SHALL DENOTE THE TEST LOCATIONS. THE CONTRACTOR SHALL NOT PROCEED TO THE SUBSEQUENT PAVEMENT SECTION UNTIL TESTING -RESULTS ARE APPROVED FOR PREVIOUS SECTION. ALL TESTING REQUIRED WITHIN THE COUNTY R/W SHALL BE COORDINATED WITH THE COUNTY INSPECTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING COST.
10. **LANDSCAPING:** FINAL GRADING IN OPEN AREAS AND LANDSCAPE ISLANDS SHALL BE COORDINATED WITH THE LANDSCAPE CONTRACTOR AND THE OWNER. THE CONTRACTOR SHALL ALSO COORDINATE THE PLACEMENT OF ANY IRRIGATION AND ELECTRICAL CONDUIT SLEEVES DURING CONSTRUCTION.
11. ROOF RUNOFF WILL BE DIRECTED TO THE STORMWATER SYSTEM IF A GUTTER COLLECTION SYSTEM IS NOT SHOWN IN THE PLANS. RUNOFF COLLECTION SHALL BE COORDINATED WITH THE ARCHITECT.
12. REMOVAL OF ALL CONSTRUCTION DEBRIS, LIMEROCK, EXCESS OF BUILDERS SAND, CONCRETE AND MORTAR DEBRIS, EXISTING WEEDS AND GRASSES, AND ALL FOREIGN MATERIALS IN THE PLANTING BED AND SOD AREAS IS THE RESPONSIBILITY OF THE SITE WORK CONTRACTOR. SOIL IN AREAS TO BE LANDSCAPED SHALL BE UNCOMPACTED, SUITABLE FOR ROOT GROWTH WITH APPROPRIATE AMOUNTS OF ORGANIC MATTER, AND OF pH 5.5-6.5.
13. TREE BARRICADES MUST REMAIN IN PLACE AND IN THE DIMENSIONS SHOWN ON THE PLAN UNTIL LANDSCAPING BEGINS. SEE NOTE ON SHEET C0.20 AND THE DETAIL ON THE LANDSCAPE PLAN.



SCALES:
AS SHOWN

No.	Date	Comment

Professional Engineer of Record:

Caitlyn Oram Drane, P.E. 85256
Engineer Certificate No.

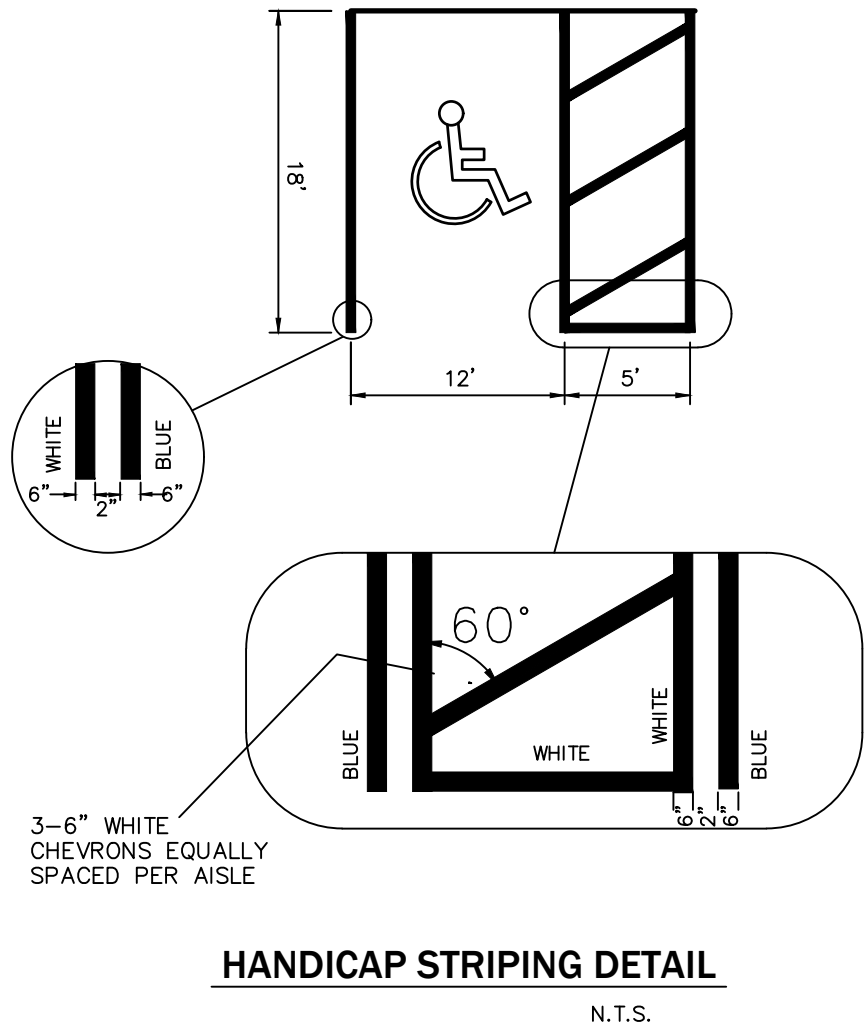
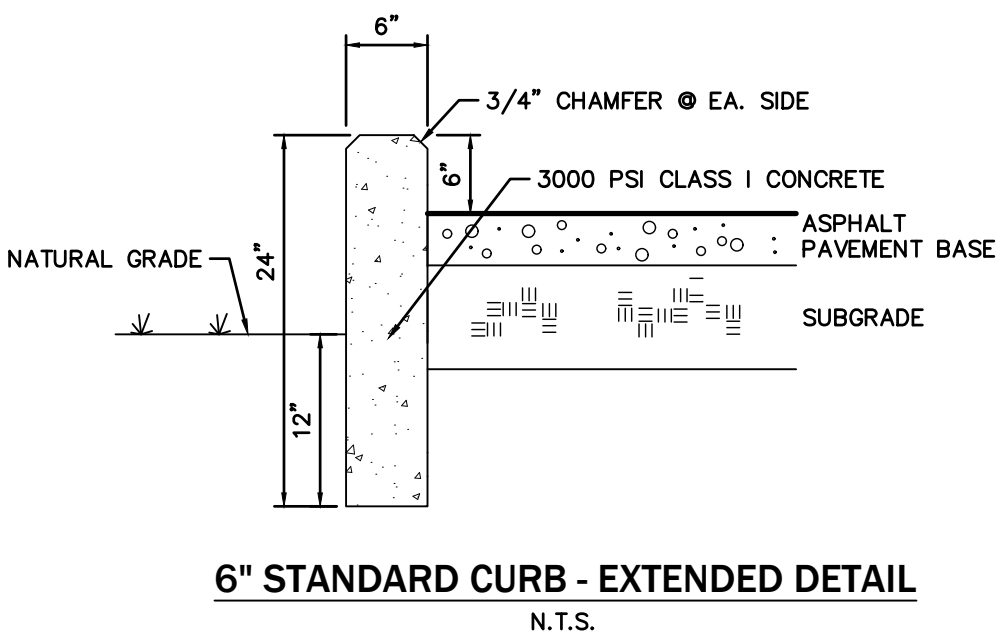
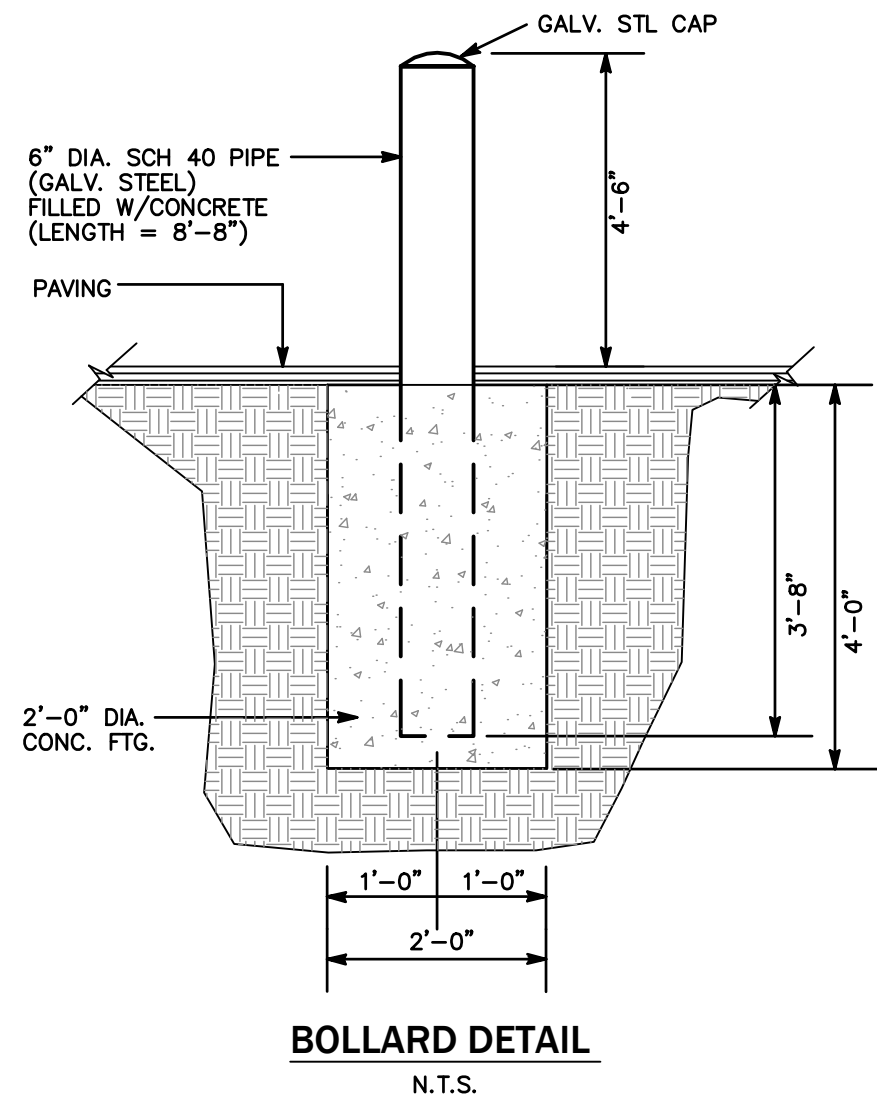
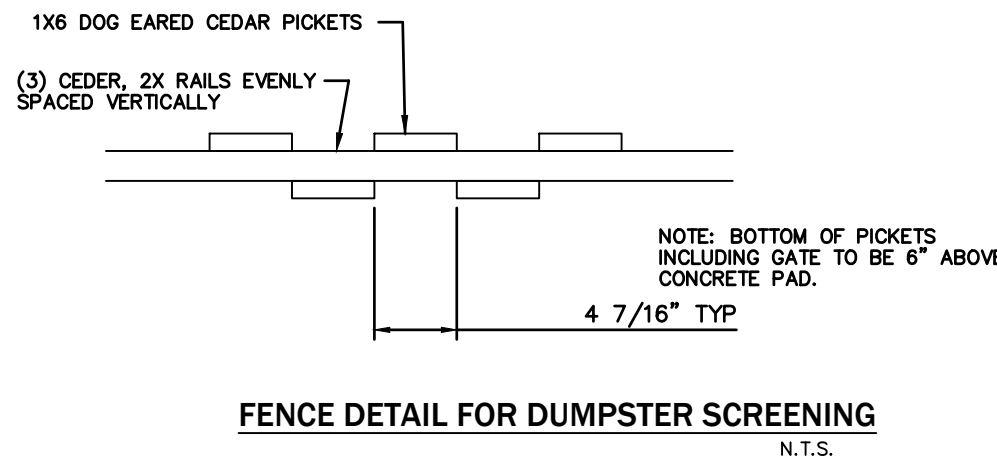
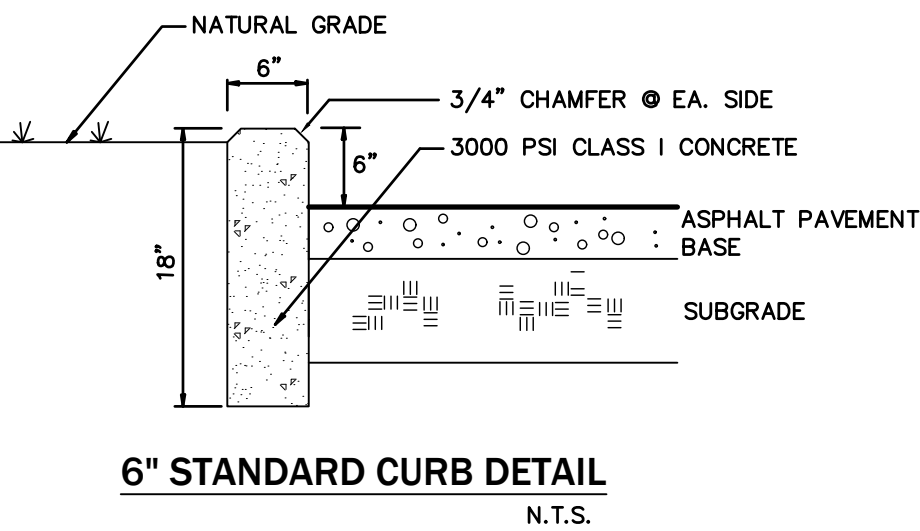
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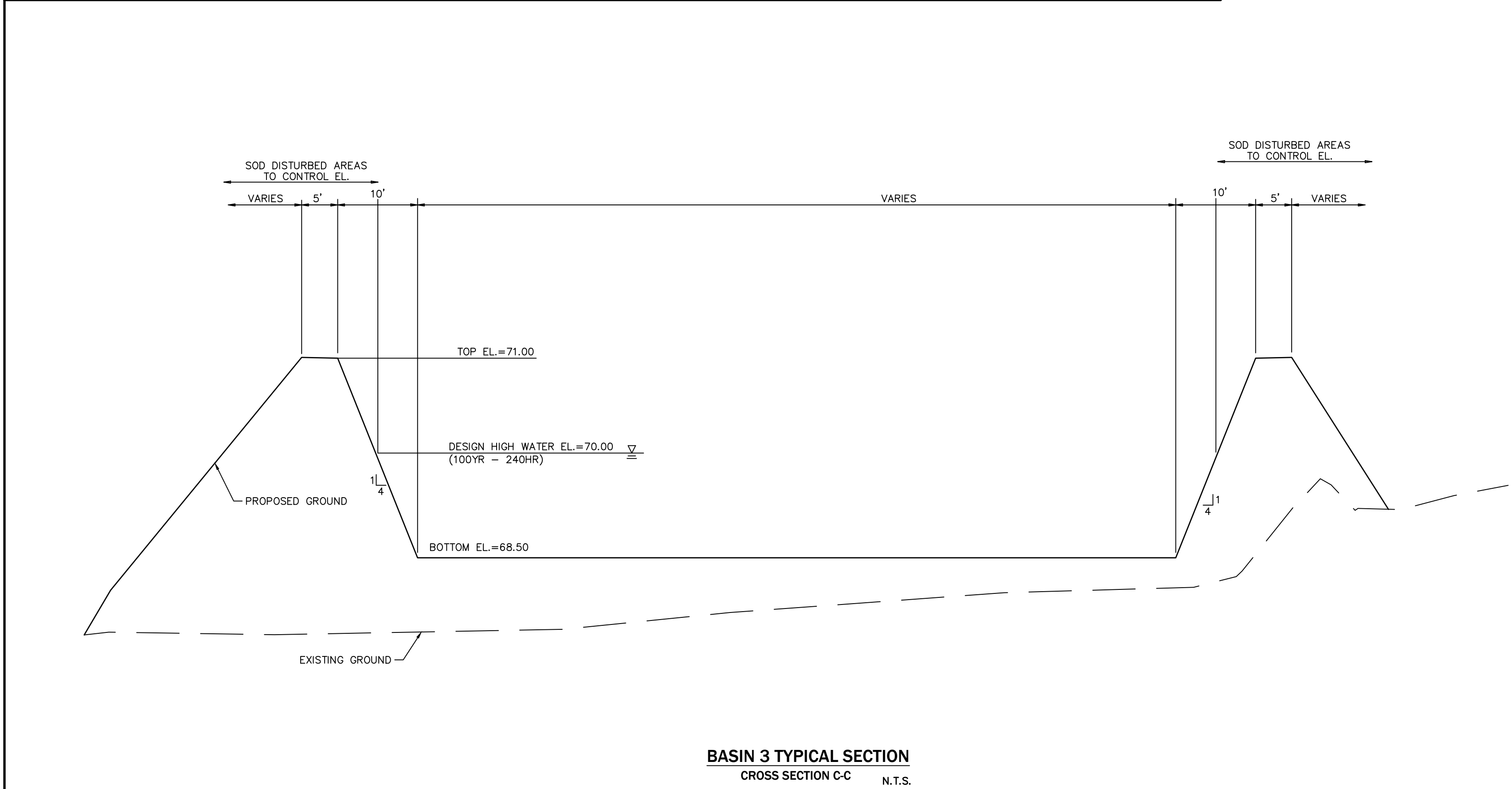
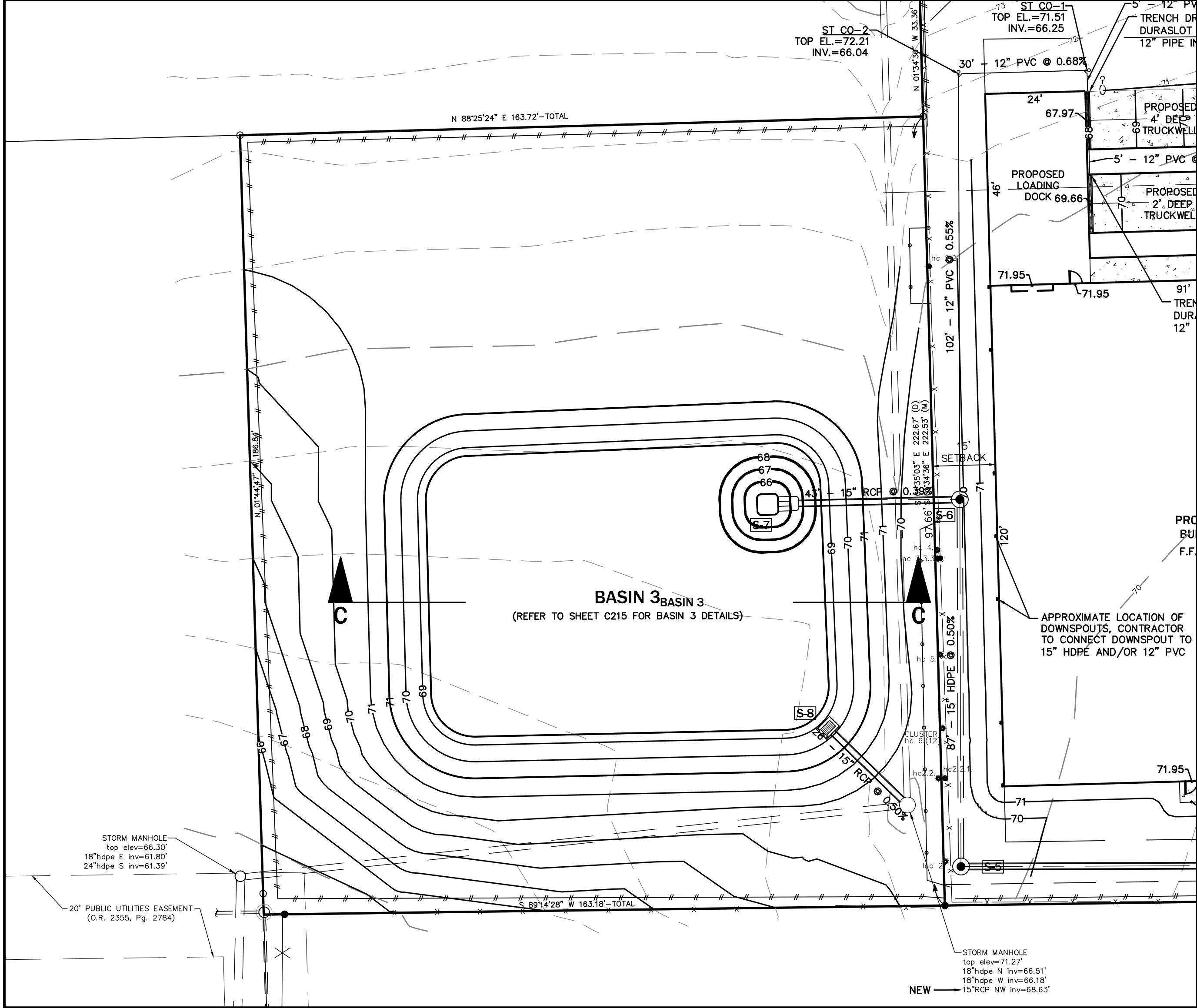
Project phase: CITY SUBMITTAL

Project title: ALCHEM LABORATORIES
CITY OF ALACHUA,
FLORIDA

Sheet title: PAVING, GRADING AND
DRAINAGE DETAILS

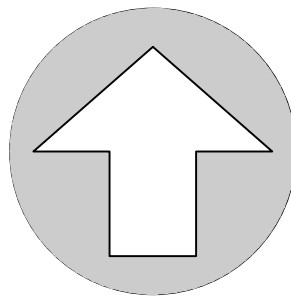
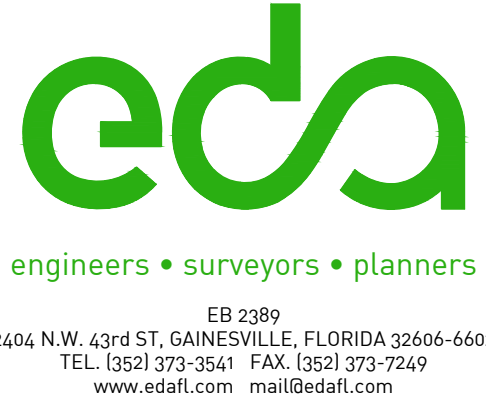
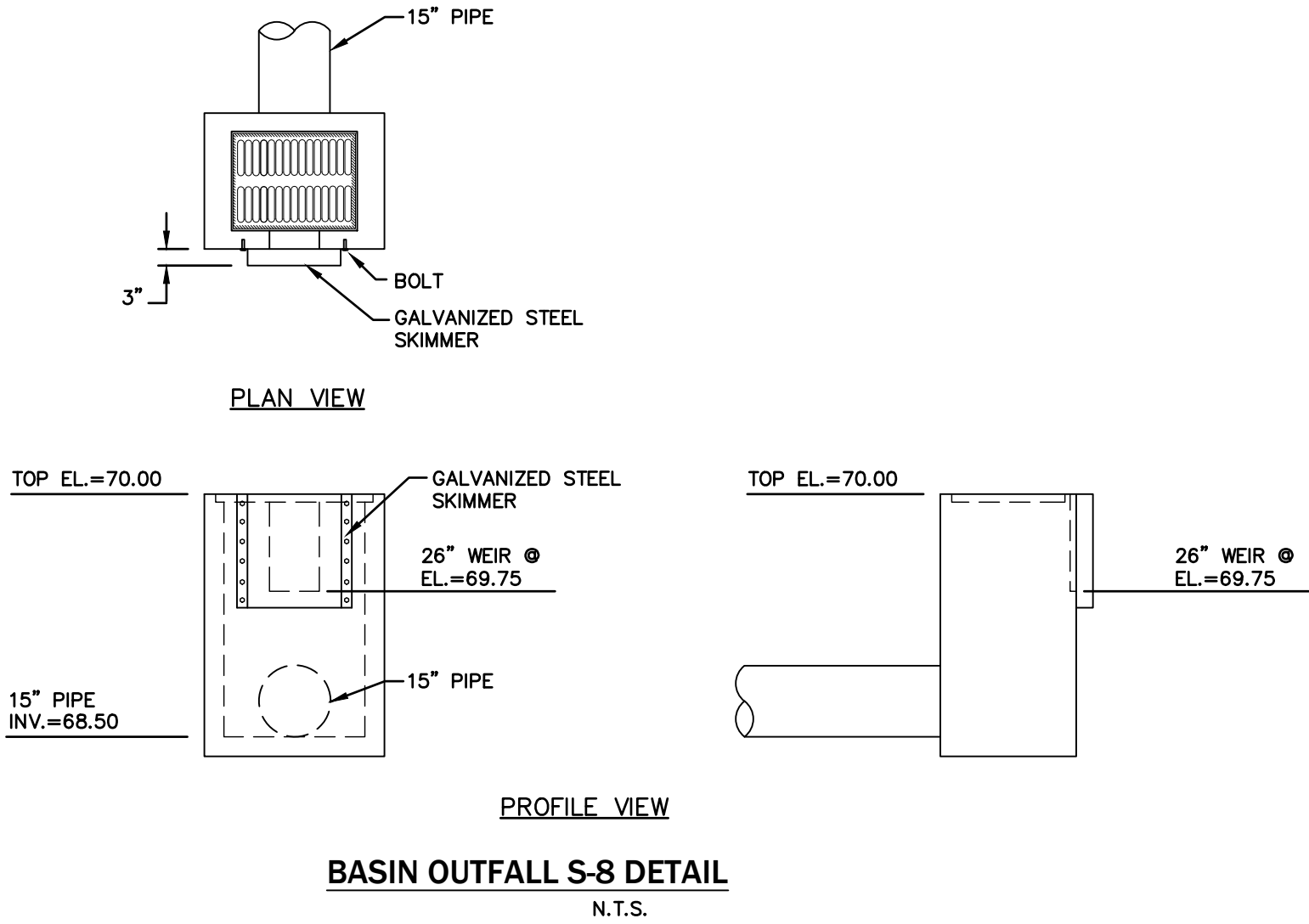
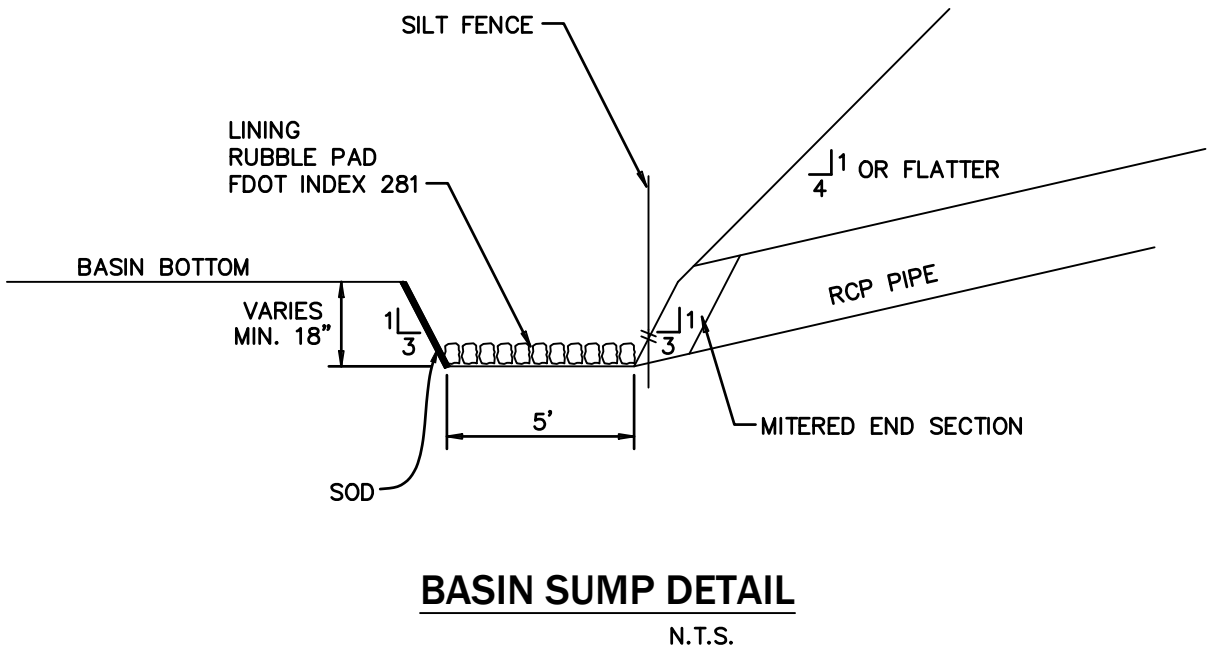
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MAINTENANCE NOTES

1. MAINTENANCE RESPONSIBILITY:
ALCHEM LABORATORY CORPORATION WILL BE THE ENTITY RESPONSIBLE FOR THE MAINTENANCE OF THE PROPOSED STORMWATER MANAGEMENT SYSTEM.
2. MAINTENANCE PLAN:
 - A. BASINS SHALL BE MOWED REGULARLY TO AVOID EXCESSIVE VEGETATIVE GROWTH. MOWING SCHEDULE SHOULD BE MONTHLY DURING WINTER MONTHS AND MORE FREQUENTLY (BIWEEKLY) DURING SUMMER MONTHS.
 - B. BASIN SHALL BE CLEANED OUT ANNUALLY OF ANY ACCUMULATED SEDIMENTATION BUILDUP. IF THE BASINS ARE SHOWING EXCESSIVE SEDIMENTATION ACCUMULATION AT THE BASIN BOTTOM, THE BASIN BOTTOM SHALL BE SCRAPED CLEAN MORE OFTEN AS THE CONDITION DICTATES.
 - C. BASIN SIDE SLOPES SHALL BE MAINTAINED WITH A GOOD STAND OF GRASS. SEASONAL GRASSES SHALL BE PLANTED TO AVOID EROSION (WINTER RYE, SUMMER MILLET).
 - D. BASIN THAT DO NOT DRAWDOWN PROPERLY AND MAINTAIN STANDING WATER FOR AN EXTENDED PERIOD OF TIME MAY REQUIRE REMEDIAL ACTION. THE ENGINEER SHALL BE NOTIFIED TO HELP COORDINATE REMEDIAL ACTION IN THE EVENT THIS OCCURS.
 - E. THE REQUIRED LANDSCAPING SHALL BE MAINTAINED IN A SOUND CONDITION AT ALL TIMES. ANY DEAD LANDSCAPING MATERIALS SHALL BE REPLACED IMMEDIATELY TO ASSURE PUBLIC SAFETY.



NORTH

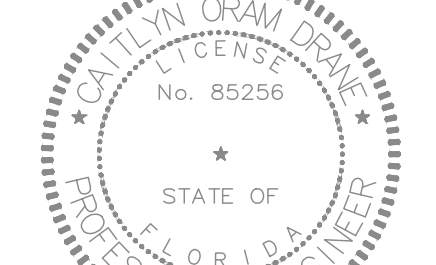
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No.	Date	Comment

Professional Engineer of Record:



Caitlyn Oram Drane, P.E. 85256
Engineer Certificate No.

Project No: 18-143

Project phase:
CITY SUBMITTAL

Project title:

ALCHEM LABORATORIES
CITY OF ALACHUA,
FLORIDA

Sheet title:

BASIN 3 DETAIL

Designed: COD

Drawn: ALK/TAR

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Date: 06/18/19

Sheet No.:

C215

THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MAY BE MODIFIED AND UPDATED DURING CONSTRUCTION AS A RESULT OF WEATHER, UNPREDICTABLE EVENTS AND SITE INSPECTIONS.

THIS DOCUMENT WAS PREPARED IN ORDER TO BE IN COMPLIANCE WITH CHAPTER 62-621.300 (4) OF THE FLORIDA ADMINISTRATIVE CODE, WHICH PERTAINS TO THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. THE ADMINISTRATIVE CODE GRANTS THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) THE AUTHORITY TO REGULATE POINT SOURCE DISCHARGES OF STORM-WATER FROM CONSTRUCTION SITES. THIS DOCUMENT ESTABLISHES A STORMWATER POLLUTION PREVENTION PLAN FOR THE SITE AND IS ORGANIZED TO CORRESPOND TO PART V OF DEP DOCUMENT NO. 62-621.300 (4) (A) FDEP FORM 62-261.300 (4) (B) IS TO BE SUBMITTED IN CONJUNCTION WITH THIS DOCUMENT.

I. PROJECT INFORMATION:

PROJECT: ALCHEM LABORATORIES CITY OF ALACHUA, FLORIDA
COUNTY: FLORIDA
SECTION/TOWNSHIP/RANGE: S23 , T8 SOUTH, R18 EAST
COUNTY PARCEL NO.:03927-001-000
LATITUDE AND LONGITUDE:
STREET ADDRESS:14120 NW 126th PLACE / ALACHUA, FL 32615
PROJECT AREA: 2.0ac
APPROXIMATE AREA TO BE DISTURBED BY CONSTRUCTION: 2.0ac

II. SITE DESCRIPTION:

1. THE PROPOSED DEVELOPMENT CONSISTS OF THE CONSTRUCTION OF 12,000sf BUILDING WITH ASSOCIATED DRAINAGE AND UTILITY IMPROVEMENTS.

AT THE PREDEVELOPMENT CONDITIONS, THE PROJECT AREA IS DIVIDED INTO TWO DRAINAGE AREAS AS SHOWN IN THE DRAINAGE DESIGN NOTES :

AT POST-DEVELOPMENT CONDITIONS, THE PROPOSED PROJECT AREA WILL HAVE TWO DRAINAGE AREAS AS SHOWN IN THE DRAINAGE DESIGN NOTES :

- 1.) AREA 1: MILL DISCHARGE 0.59AC

DRAINAGE AREA	Basin Number	POST-DEVELOPMENT AREA	CURVE NUMBER	100 YR FLOOD PLAIN	Basin Type
1	1 & 2	0.74AC	72	69.66	DETENTION
2	3	1.83AC	74	69.89	DETENTION

THE PROPOSED PROJECT USES AN EXISTING MASTER STORMWATER BASIN AND PROPOSED BASINS.

3. EXISTING AND FUTURE DRAINAGE PATTERNS ARE SHOWN ON THE DRAINAGE PLAN FOR PRE-DEVELOPMENT CONDITIONS AND POST-DEVELOPMENT CONDITIONS. OUTFALLS AND STORMWATER BASINS ARE SHOWN IN THE DRAINAGE PLAN AND THE DETAIL PLAN.

4. SEQUENCE OF CONSTRUCTION:

- A. PRIOR TO CONSTRUCTION, SILT FENCING AND TREE PROTECTION BARRICADES SHALL BE INSTALLED AND ALL EXISTING DRAINAGE STRUCTURES SHALL BE PROTECTED IN ACCORDANCE WITH THE FDOT FLORIDA EROSION AND SEDIMENTATION CONTROL MANUAL.
- B. THE CONSTRUCTION ENTRANCE(S) WILL BE STABILIZED TO MINIMIZE THE CREATION OF DUST AND OFF SITE TRACKING OF SEDIMENTS.
- C. THE SITE SHALL BE CLEARED OF UNDESIRABLE VEGETATION.
- D. THE UNDERGROUND UTILITIES AND STORMWATER PIPING WILL BE INSTALLED AND CONNECTED TO EXISTING STRUCTURES.
- E. THE SITE WILL BE ROUGHLY GRADED, IF SUITABLE, THE EXCAVATED MATERIAL MAY BE USED AS FILL FOR ON-SITE GRADING. THE ROADWAYS SHALL BE GRADED.
- F. ROADWAYS AND PARKING LOTS WILL BE COMPACTED AND A LIMEROCK BASE WILL BE ESTABLISHED FOLLOWED BY AN OVERLAY OF ASPHALTIC CONCRETE. BUILDINGS SHALL BE CONSTRUCTED.
- G. UPON SIGNIFICANT COMPLETION OF CONSTRUCTION, THE STORMWATER SYSTEM SHALL BE FLUSHED OUT TO REMOVE ACCUMULATED DEBRIS AND SEDIMENT.
- H. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION AREA SHALL BE COMPLETELY GRASSED AND/OR LANDSCAPED. EVIDENCE OF GROWTH MUST BE PRESENT PRIOR TO REMOVAL OF SILT FENCING AND OTHER EROSION CONTROL APPLICATIONS.

III. CONTROLS:

THE CONTROLS SHALL BE IMPLEMENTED AND MAINTAINED DURING THE ENTIRE CONSTRUCTION OF THE PROJECT. IF SITE CONDITIONS ARE SUCH THAT ADDITIONAL CONTROL MEASURES ARE REQUIRED THAN WHAT IS SPECIFIED IN THE EROSION AND SEDIMENTATION CONTROL PLAN, THEN THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL BEST MANAGEMENT PRACTICES NECESSARY.

1. THE CONSTRUCTION ACCESS SHALL BE STABILIZED WITH GRAVEL AND TEMPORARY VEGETATION TO PREVENT SILT LEAVING THE SITE.
2. TREE BARRICADES SHALL BE IMPLEMENTED BEFORE CLEARING AND CITY OF ALACHUABING OF ANY OF THE WORK AREAS.
3. BEFORE CLEARING, SILT FENCES SHALL BE INSTALLED AROUND THE PERIMETER OF THE CONSTRUCTION AND AROUND THE WETLAND(S) AND/OR BASIN(S) AS SHOWN IN THE PLANS. ALL EXISTING STORM DRAINAGE SWALES AND INLETS SHALL BE PROTECTED PER THE FDOT FLORIDA EROSION AND SEDIMENTATION CONTROL MANUAL.
4. AFTER CLEARING BUT BEFORE EXCAVATION AND GRADING, TEMPORARY BERMS AND SWALES SHALL BE CONSTRUCTED AS REQUIRED TO DIVERT THE FLOW INTO THE CORRESPONDING STORMWATER BASIN.
5. DURING CONSTRUCTION OF PAVING AND BUILDINGS, EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AS REQUIRED.
6. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE SHALL BE COMPLETELY LANDSCAPED AND/OR GRASSED. FINAL STABILIZATION (INCLUDING SEEDING, MULCHING, SODDING OR RIPRAP) SHALL BE INSTALLED AS REQUIRED. GRASS SEEDING RATES AND MIXTURES SHALL BE PER FDOT INDEX 104. EVIDENCE OF GROWTH MUST BE PRESENT PRIOR TO REMOVAL OF SILT FENCING AND OTHER EROSION CONTROL APPLICATIONS AND PRIOR TO FINAL RELEASE.

IV. EROSION AND SEDIMENTATION CONTROLS:

STABILIZATION PRACTICES

1. ALL ENTRANCES TO THE SITE SHALL BE STABILIZED BEFORE CONSTRUCTION AND FURTHER DISTURBANCE BEGINS. GRAVEL PAD SHALL PROVIDE STABILIZATION AND MINIMIZE THE AMOUNT OF SEDIMENT LEAVING THE SITE. MAINTENANCE OF THE ENTRANCE SHALL INCLUDE SWEEPING OF THE AREA ADJACENT TO THE ENTRANCE. STONE AND GRAVEL MIGHT NEED TO BE PERIODICALLY ADDED TO MAINTAIN THE EFFECTIVENESS OF THE ENTRANCE(S).
2. TREE BARRICADES SHALL BE INSTALLED AROUND THE TREES AS SHOWN IN THE DETAIL PLAN TO PROTECT THE EXISTING VEGETATION.
3. MULCH SHALL BE PLACED IN THE AREAS REQUIRED TO PREVENT EROSION FROM STORMWATER RUNOFF AND THE AREAS SHOWN ON THE PLANS. MULCH SHALL BE ANCHORED TO RESIST WIND DISPLACEMENT AND SHALL BE INSPECTED AFTER EVERY RAINSTORM TO IDENTIFY AREAS WHERE MULCH HAS BEEN WASHED OUT OR LOOSENED. THESE AREAS SHALL HAVE MULCH COVER REPLACEMENT.
4. SEEDING SHALL BE STARTED AFTER GRADING HAS BEEN FINISHED ON THE AREAS SHOWN IN THE PLANS. SEEDING AREAS SHOULD BE INSPECTED FOR FAILURE TO ESTABLISH, AND NECESSARY REPAIRS AND RESEEDING SHOULD BE MADE AS SOON AS POSSIBLE. ADDITIONAL SEEDING AND MULCH MAY BE REQUIRED AS NECESSARY TO PREVENT EROSION DURING OR AFTER CONSTRUCTION HAS FINISHED.
5. SOD SHALL BE INSTALLED IN THE AREAS SHOWN IN THE PLANS. SOD SHALL BE REGED IF INSTALLED ON SLOPES GREATER THAN 3:1. SODDED AREAS SHALL BE MAINTAINED AND INSPECTED TO ENSURE SUCCESSFUL ESTABLISHMENT.

SEDIMENTATION PRACTICES

1. SILT FENCES SHALL BE INSTALLED IN THE AREAS SHOWN IN THE PLANS AND AS REQUIRED TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL EVENT TO ENSURE THAT THERE ARE NO GAPS OR TEARS. IF GAPS OR TEARS ARE FOUND THE FABRIC SHOULD BE REPAIRED OR REPLACED. SEDIMENT REMOVAL SHALL BE PART OF THE REGULAR MAINTENANCE. SILT FENCES SHALL REMAIN IN PLACE UNTIL CONSTRUCTION HAS FINISHED AND DISTURBED AREAS ARE PERMANENTLY STABILIZED.
2. DIVERSION SWALES, IF REQUIRED, SHALL BE CONSTRUCTED BEFORE MAJOR LAND DISTURBANCE OF THE RECEIVING BASIN. DIVERSION SWALES SHALL BE STABILIZED AFTER CONSTRUCTION TO MAINTAIN ITS EFFICIENCY.
3. INLETS SHOULD BE TEMPORARILY PROTECTED TO PREVENT SEDIMENT ENTERING THE INLET. BARRIERS WILL CATCH SOIL, DEBRIS AND SEDIMENT AT THE ENTRANCE OF THE INLET.
4. OUTFALL STRUCTURES SHALL HAVE SILT FENCES TO PREVENT SILT FROM ENTERING THE STORMWATER BASINS AND SHALL BE STABILIZED AS REQUIRED TO PREVENT EROSION FROM WASHOUTS.

V. STORMWATER MANAGEMENT:

1. THE PROPOSED PROJECT OBTAINED AN ENVIRONMENTAL RESOURCE PERMIT FROM SUWANNEE RIVER WATER MANAGEMENT DISTRICT (SRWMD) FOR THE CONSTRUCTION AND OPERATION OF A STORMWATER TREATMENT SYSTEM AND CONTROLS. THE PROPOSED SYSTEM (AS SHOWN ON THE PLANS) INCLUDED THE USE OF THE BEST MANAGEMENT PRACTICES (BMP) CONSISTENT WITH THE APPLICABLE REQUIREMENTS OF RULE 40C-42 OF THE DISTRICT. THE OWNER AND/OR THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER TREATMENT SYSTEM AND CONTROLS UNTIL CONSTRUCTION ACTIVITIES ARE COMPLETED AND FINAL STABILIZATION HAS BEEN ACCOMPLISHED. HOWEVER, THE OWNER AND/OR AN ENTITY SIMILAR TO A HOMEOWNERS ASSOCIATION SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER SYSTEM IN PERPETUITY, IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENVIRONMENTAL RESOURCE PERMIT.
2. TO TREAT AND CONTROL THE STORMWATER PRODUCED BY THE PROPOSED DEVELOPMENT, THE PROJECT REQUIRES THE INSTALLATION AND CONSTRUCTION OF THE FOLLOWING BMP'S: DISCHARGE TO AN EXISTING MASTER STORMWATER SYSTEM. THE SYSTEM WAS DESIGNED TO SELF CONTAIN THE DESIGN STORM EVENTS WITHOUT OFF-SITE DISCHARGE, WHILE PROVIDING TREATMENT TO THE RUNOFF AS REQUIRED BY THE DISTRICT AND STATE RULES USING THE GUIDELINES CONTAINED IN THE SRWMD HANDBOOK.

VI. CONTROLS FOR OTHER POTENTIAL POLLUTANTS:

1. WASTE DISPOSAL: NO SOLID MATERIALS, INCLUDING CONSTRUCTION MATERIALS, SHALL BE DISCHARGED TO SURFACE WATERS AND ARE NOT AUTHORIZED UNDER THE ISSUED ENVIRONMENTAL RESOURCE PERMIT.
2. THE USE OF GRAVEL AND CONTINUING SWEEPING ACTIVITIES AT THE ENTRANCE OF THE SITE WILL CONTROL THE TRACKING OF SEDIMENT AND DUST LEAVING THE SITE.
3. THE PROPOSED DEVELOPMENT WILL PROVIDE WATER AND SEWER SYSTEM BY CONNECTING INTO THE CENTRAL MUNICIPAL SYSTEM OF GAINESVILLE REGIONAL UTILITIES.
4. ANY APPLICATION OF FERTILIZERS AND PESTICIDES NECESSARY TO ESTABLISH AND MAINTENANCE OF VEGETATION DURING CONSTRUCTION AND THROUGH PERPETUITY MAINTENANCE SHALL FOLLOW THE MANUFACTURERS RECOMMENDATIONS AND THE APPLICABLE RULES OF THE STATE OF FLORIDA.
5. ANY TOXIC MATERIALS REQUIRED DURING CONSTRUCTION SHALL BE PROPERLY STORED, DISPOSED OF AND CONTRACTOR AND/OR OWNER SHALL PROVIDE THE APPROPRIATE PERMITS FROM THE LOCAL OR STATE AGENCIES.

VII. APPROVED STATE OR LOCAL PLANS:

1. ALL THE SEDIMENT AND EROSION CONTROLS THAT ARE LISTED IN THE SITE PLAN AS APPROVED BY THE SRWMD ARE INCLUDED IN THIS STORMWATER POLLUTION PREVENTION PLAN (SEE ITEM III AND IV).
2. THIS STORMWATER POLLUTION PREVENTION PLAN SHALL BE AMENDED IF REQUIRED BY ANY LOCAL OR STATE AGENCY OR AS REQUIRED BY UNFORSESEEABLE CONDITIONS AND THE OWNER SHALL SUBMIT A RE-CERTIFICATION TO THE NPDES STATE OFFICE THAT THE PLAN HAS BEEN AMENDED TO ADDRESS THOSE CHANGES.

VIII. MAINTENANCE:

THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE, INSPECTION, SCHEDULE, AND REPAIRS OUTLINED IN THIS PLAN. MAINTENANCE SHALL CONTINUE THROUGHOUT THE PROJECT UNTIL WORK IS COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER CONSTRUCTION IS COMPLETE.

IN ADDITION TO THE ITEMS MENTIONED IN THE PREVIOUS SECTIONS, THE CONTRACTOR SHALL INITIATE ANY REPAIRS WITHIN 24 HOURS OF BEING REPORTED. IN THE EVENT THAT THE BASINS DO NOT PERFORM PROPERLY OR IF A SINKHOLE DEVELOPS, THE PROJECT ENGINEER SHALL BE NOTIFIED TO ASSIST IN COORDINATING REMEDIAL ACTION.

1. MAINTENANCE SHOULD BE DIVIDED IN ROUTINE MAINTENANCE AND REPAIR MAINTENANCE. ALL STORMWATER BMP'S SHOULD BE INSPECTED FOR CONTINUED EFFECTIVENESS AND STRUCTURAL INTEGRITY ON A REGULAR BASIS. THE SYSTEMS SHOULD BE CHECKED AFTER EACH STORM EVENT IN ADDITION TO REGULARLY SCHEDULED INSPECTIONS.
2. ROUTINE MAINTENANCE REQUIREMENTS SHOULD BE INCLUDED IN THE INSPECTOR CHECKLIST TO AID THE INSPECTOR IN DETERMINING WHETHER A BMP'S MAINTENANCE IS ADEQUATE OR NEEDS A REVISION. INSPECTORS SHALL KEEP RECORD OF MAINTENANCE, ROUTINE OR REPAIR, TO PROVIDE EVIDENCE OF AN EFFICIENT INSPECTION AND MAINTENANCE.
3. SIDE ENTRANCES: MAINTENANCE SHALL INCLUDE REPLACEMENT OF GRAVEL AND CLEANING THE SOIL THAT IS TRACKED OFFSITE FOR PROPER DISPOSAL.
4. TREE BARRICADES: MAINTENANCE SHALL INCLUDE INSPECTION OF MESH AND POSTS AND REPAIR OR REPLACEMENT OF DAMAGED VEGETATION.
5. SILT FENCES: MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL AND INSPECTION TO ENSURE PROPER ANCHORING AND THAT NO TEARING OR GAPS HAVE OCCURRED. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF SILT FENCE.
6. DIVERSION SWALES: MAINTENANCE SHALL INCLUDE INSPECTION AFTER EVERY RAINFALL EVENT AND ONCE EVERY TWO WEEKS BEFORE FINAL STABILIZATION. THEY SHOULD BE CLEARED OF SEDIMENT AND MAINTAIN VEGETATIVE COVER.
7. TEMPORARY BERMS: MAINTENANCE SHALL INCLUDE REMOVAL OF DEBRIS, TRASH SEDIMENT AND LEAVES. SIDES OF THE BERM SHALL BE INSPECTED FOR EROSION AFTER EACH STORM EVENT.
8. MULCHING: ROUTINE MAINTENANCE SHALL INCLUDE REPLACEMENT PERIODICALLY.
9. SEEDING: ROUTINE MAINTENANCE SHALL INCLUDE RESEEDING OF AREAS THAT FAILED TO ESTABLISH.
10. SODDING: ROUTINE MAINTENANCE SHALL INCLUDE WATERING AND MOWING. REPLACEMENT OF GRASS MAY BE NECESSARY IF COVER IS NOT FULLY ESTABLISHED.
11. INLETS: ROUTINE MAINTENANCE SHALL INCLUDE INSPECTION AFTER EVERY STORM EVENT AND MIGHT INCLUDE REMOVAL OF ACCUMULATED SEDIMENT.
12. OUTFALL STRUCTURES: ROUTINE MAINTENANCE SHALL INCLUDE INSPECTION AFTER EVERY STORM EVENT TO ASSURE NO EROSION OR SCOUR HAS OCCURRED.

IX. INSPECTIONS:

1. THE OWNER AND /OR CONTRACTOR SHALL PROVIDE QUALIFIED PERSONNEL TO INSPECT ALL POINTS OF POTENTIAL DISCHARGE FROM THE PROJECT SITE FOR DISTURBED AREAS, THE EROSION AND SEDIMENTATION CONTROLS AND BMP'S AS LISTED IN THIS PLAN. THE INSPECTION SHALL BE PERFORMED DURING CONSTRUCTION AND BEFORE FINAL STABILIZATION, ONCE EVERY SEVEN-CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS GREATER THAN 0.50 INCHES. AFTER FINAL STABILIZATION AND BEFORE FINISH OF CONSTRUCTION THE INSPECTION SHALL BE CONDUCTED ONCE EVERY MONTH.
2. THE CONTRACTOR SHALL INSTALL A RAIN GAUGE AT THE SITE TO MONITOR AND DOCUMENT RAINFALL EVENTS IN EXCESS OF 0.50 INCHES.
3. ALL DISTURBED AREAS AND AREAS USED FOR MATERIALS STORAGE SHALL BE INSPECTED FOR POLLUTANTS ENTERING THE STORMWATER SYSTEM. THE STORMWATER MANAGEMENT SYSTEM AND EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE INSPECTED TO ENSURE THEY ARE OPERATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER AND LEAVE THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.
4. REPAIR OR MAINTENANCE NEEDED TO ASSURE PROPER OPERATION OF THE STORMWATER POLLUTION PREVENTION PLAN SHALL BE DONE IN A TIMELY MANNER BUT NO LATER THAN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.
5. A REPORT SHALL BE KEPT OF EACH INSPECTION FOR THREE YEARS AFTER FINAL STABILIZATION AND SHALL INCLUDE THE DATES OF EACH INSPECTION, THE SCOPE OF THE INSPECTION, MAJOR OBSERVATIONS, ANY REPAIR AND/OR MAINTENANCE REQUIRED AND ANY INCIDENT OF NON-COMPLIANCE. IF THE REPORT DOES NOT CONTAIN ANY INCIDENTS OF NON-COMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY HAS BEEN IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE NPDES PERMIT. THE REPORT SHALL INCLUDE THE NAME AND QUALIFICATIONS OF THE INSPECTOR AND SHALL BE SIGNED IN ACCORDANCE TO FDEP RULE 62-621.300, PART VI.C. A COPY OF THE CONSTRUCTION INSPECTION FORM IS INCLUDED ON THIS STORMWATER POLLUTION PREVENTION PLAN SHEET. A COPY SHALL BE RETAINED AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

X. NON-STORMWATER DISCHARGES:

1. THE FOLLOWING NON-STORMWATER DISCHARGES MIGHT BE COMBINED WITH STORMWATER AND WOULD BE AUTHORIZED AS PART OF THIS PERMIT: FIRE HYDRANT FLUSHING, CONTROL OF DUST, POTABLE WATER FLUSHING AND IRRIGATION DRAINAGE. BECAUSE OF THE NATURE OF THESE DISCHARGES, THE EROSION, STABILIZATION AND TREATMENT SYSTEMS TO BE IMPLEMENTED, AS PART OF THIS PLAN WOULD BE APPROPRIATE TO PREVENT AND TREAT ANY POLLUTION RELATED TO THESE NON-STORMWATER DISCHARGES.
2. DISCHARGES FROM DEWATERING ACTIVITIES ASSOCIATED WITH SITE CONSTRUCTION ARE NOT AUTHORIZED AND REQUIRED CONSTRUCTION OF TEMPORARY SEDIMENTATION BASINS AND USE OF APPROPRIATE FLOCCULATING AGENTS TO ENHANCE PARTICLE SEGREGATION AND SPEED UP SETTLING OF PARTICLES.

XI. CONTRACTORS:

1. ALL CONTRACTORS AND/OR SUBCONTRACTORS RESPONSIBLE FOR IMPLEMENTING THE PLAN SHALL SIGN THE CERTIFICATION STATEMENT BEFORE STARTING CONSTRUCTION ACTIVITIES OF THE PROJECT. THE CERTIFICATION MUST INCLUDE THE NAME AND TITLE OF THE PERSON PROVIDING THE SIGNATURE, THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE CONTRACTING FIRM, THE ADDRESS OF THE SITE AND THE DATE THE CERTIFICATION IS MADE. THE OWNER SHALL KEEP THESE CERTIFICATIONS AS PART OF THIS POLLUTION PLAN. MULTIPLE COPIES OF THE CERTIFICATION STATEMENT MAY BE NECESSARY, DEPENDING UPON THE NUMBER OF SUBCONTRACTORS ASSOCIATED WITH THE PROJECT.

STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT FORM

Inspections must occur at least once a week and within 24 hours of the end of a storm event that is 0.50 inches or greater.

PROJECT NAME: ALCHEM LABORATORIES, INC.

FDEP NPDES STORMWATER IDENTIFICATION NO.: FLR10

OWNER: ALCHEM LABORATORIES, INC.

CONTRACTOR: ROGER STEPHENS CONSTRUCTION, INC.

CONSTRUCTION MANAGER: _____

Date of Inspection	Location	Rain data	Type of control (see below)	Date installed / modified	Current Condition (see below)	Observations or Corrective Action / Other Remarks	Inspected By

CONDITION CODE:

G = Good

P = Poor, needs immediate maintenance or replacement

M = Marginal, needs maintenance or replacement soon

O = Other

CONTROL TYPE CODES

1. Silt Fence	10. Storm drain inlet protection	19. Reinforced soil retaining system	28. Tree protection
2. Earth dikes	11. Vegetative buffer strip	20. Gabion	29. Detention pond
3. Structural diversion	12. Vegetative preservation area	21. Sediment Basin	30. Retention pond
4. Swale	13. Retention Pond	22. Temporary seed / sod	31. Waste disposal / housekeeping
5. Sediment Trap	14. Construction entrance stabilization	23. Permanent seed / sod	32. Dam
6. Check dam	15. Perimeter ditch	24. Mulch	33. Sand Bag
7. Subsurface drain	16. Curb and gutter	25. Hay Bales	34. Other
8. Pipe slope drain	17. Paved road surface	26. Geotextile	
9. Level spreaders	18. Rock outlet protection	27. Rip-rap	

INSPECTOR INFORMATION:

Name _____ Qualification _____ Date _____

The above signature also shall certify that this facility is in compliance with the Stormwater Pollution Prevention Plan and the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities if there are not any incidents of non compliance identified above.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

CERTIFICATION STATEMENT

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER."

CONTRACTING FIRM: ROGER STEPHENS CONSTRUCTION, INC.

ADDRESS: 15285 NW 149th ROAD

CITY, STATE, ZIP CODE: ALACHUA, FL 32615

TELEPHONE: (352) 262-0114

PROJECT NAME: ALCHEM LABORATORIES CITY OF ALACHUA, FLORIDA

PROJECT ADDRESS: 14120 NW 126th TERRACE

CITY, STATE, ZIP CODE: ALACHUA, FL 32615

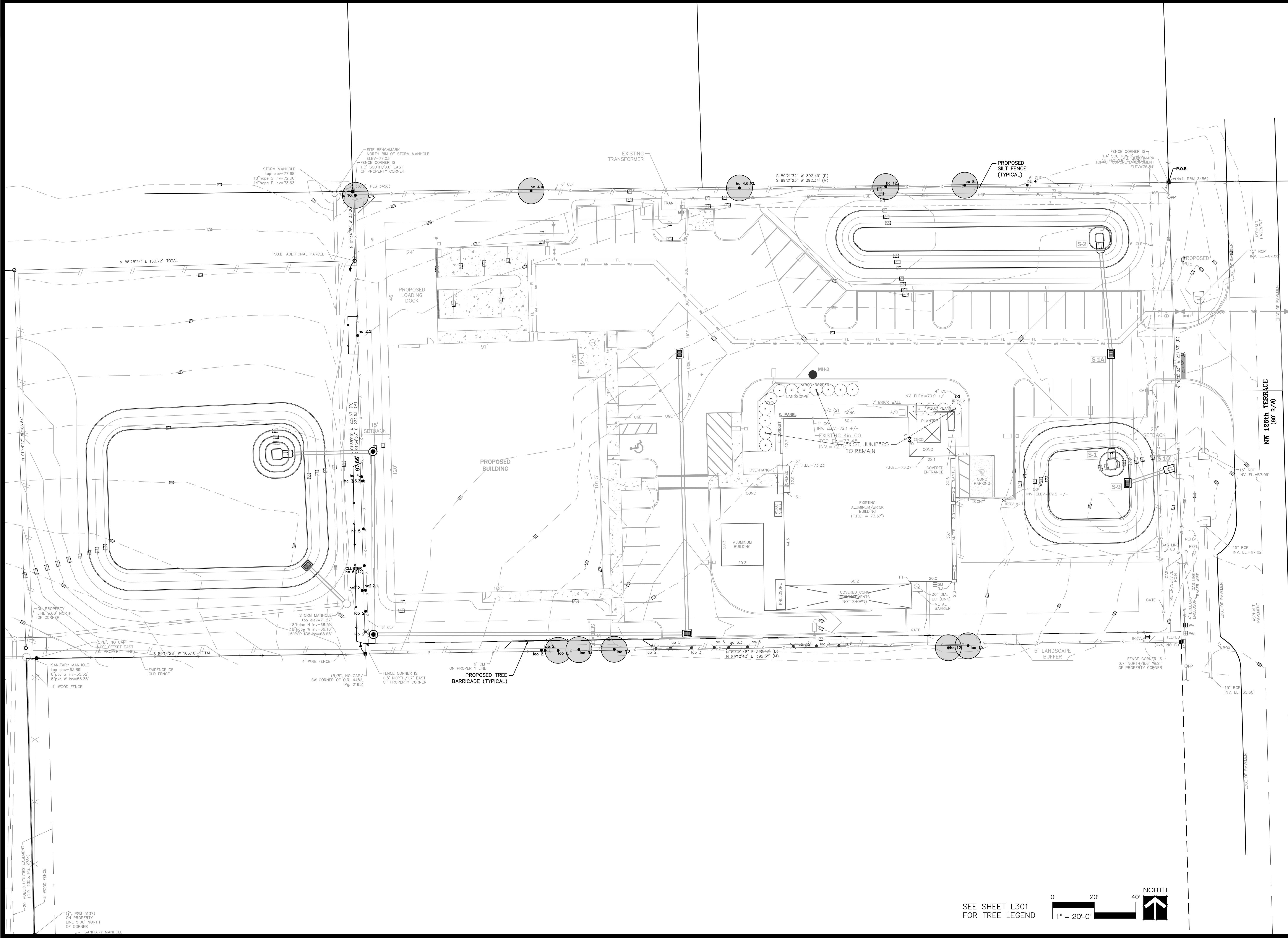
NAME: _____ SIGNATURE: _____

DATE: _____



EB 2389
2404 N.W. 43rd ST. GAINESVILLE, FLORIDA 32606-6602
TEL. (352) 373-3541 FAX. (352) 373-7249
www.edafl.com mail@edafl.com

No. _____ Date _____ Comment _____



PREPARED BY:



ZAMIA
DESIGN
Landscape Architecture

3459 NW 13th Avenue
Gainesville, Florida 32605
Ph. 352-373-8220 Fax 866-845-7717
LC 26000252

PREPARED FOR:

**ALCHEM
LABORATORIES
CORPORATION**

PROJECT:

**ALCHEM
LABORATORIES**
CITY OF ALACHUA, FLORIDA

SHEET TITLE:

**TREE
LOCATION
PLAN**

PROJECT PHASE:

**CITY OF ALACHUA
SUBMITTAL**

ISSUE DATE:

JUNE 18, 2019

REVISIONS

NO.	DATE	COMMENTS

PROFESSIONAL SEAL:

LAWRENCE E. TEAGUE
FLORIDA: LA0001582

PROJECT NUMBER:

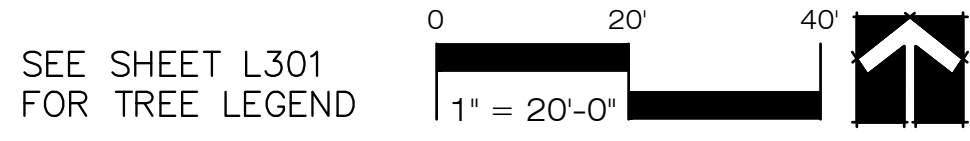
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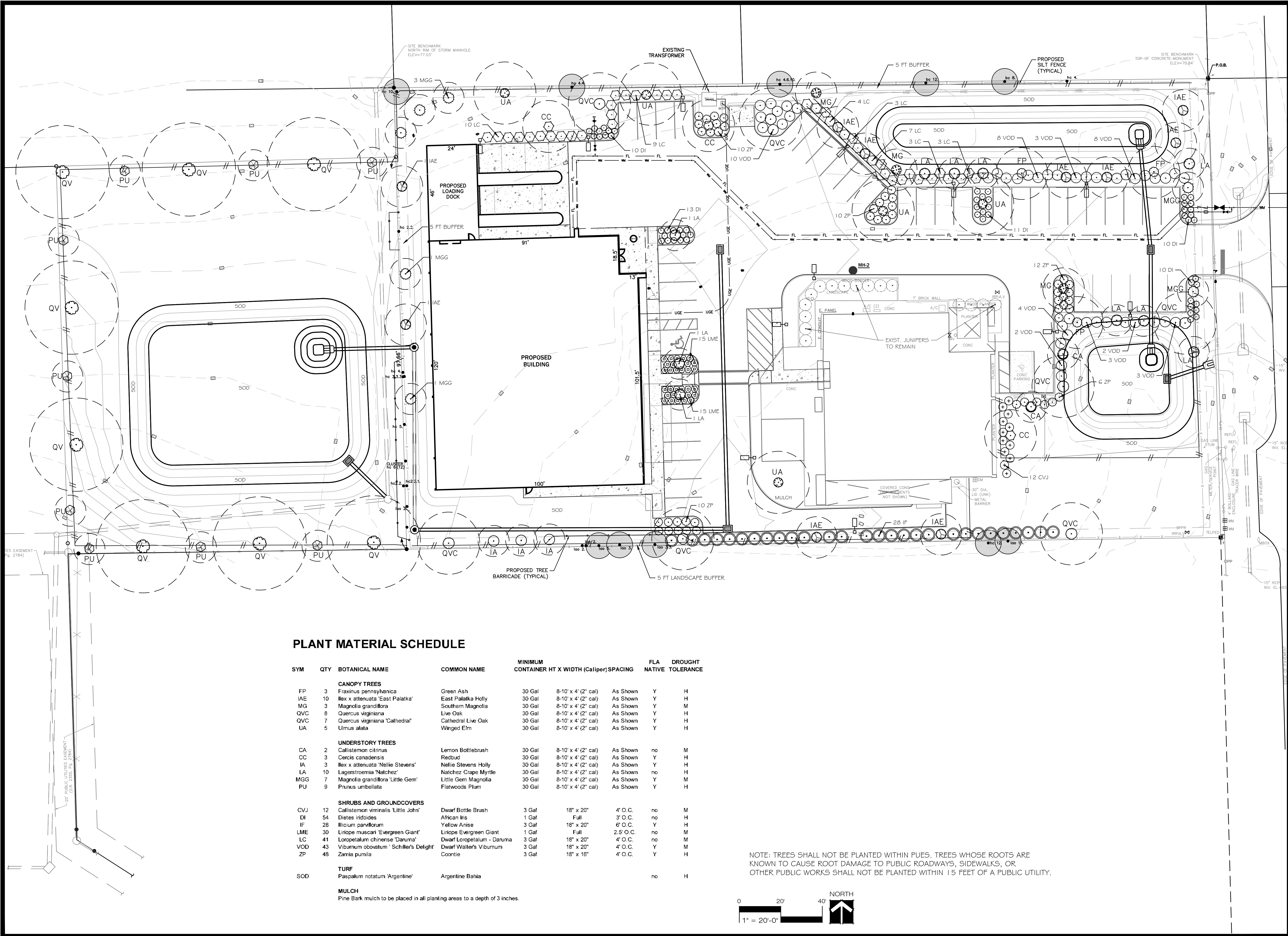
DRAWN BY:
ALZ

CHECKED BY:
LET

SHEET NUMBER:

L101





REVISIONS		
NO.	DATE	COMMENTS

LANDSCAPE NOTES

GENERAL

MULCH ALL LANDSCAPE AREAS WITH A THREE (3) INCH MINIMUM LAYER OF PINE BARK MULCH EXCEPT IN THE RETENTION AREAS WHERE PINE STRAW IS REQUIRED.

CONSTRUCTION DEBRIS, LIMEROCK, CONCRETE, MORTAR, EXISTING WEEDS AND GRASSES, AND ANY OTHER FOREIGN MATERIALS SHALL BE REMOVED FROM PLANTING AREAS TO A DEPTH OF THREE (3) FEET.

REQUIRED FILL FOR PLANTING AREAS SHALL BE FLORIDA SOURCED, FREE OF WEED SEEDS, AND WITH A pH OF 5.5 – 6.5.

CONTRACTOR RESPONSIBLE FOR THE SURVIVAL OF ALL PLANTING MATERIAL FOR ONE (1) YEAR AFTER ISSUANCE OF CERTIFICATE OF OCCUPANCY.

TREE INSTALLATION

ALL PROPOSED TREES TO BE A MINIMUM EIGHT (8) FT IN HEIGHT AND TWO (2) INCH CALIPER UNLESS SPECIFIED BY THE LANDSCAPE ARCHITECT.

A MINIMUM DISTANCE OF TEN FEET SHALL BE MAINTAINED FROM ALL RETAINED REGULATED, HERITAGE, AND CHAMPION TREES WHEN INSTALLING UNDERGROUND UTILITIES. A SOIL AUGER SHALL BE USED TO TUNNEL UNDER ROOT SYSTEMS WHEN A MINIMUM DISTANCE OF TEN FEET CANNOT BE MAINTAINED.

ALL PROPOSED TREES TO MAINTAIN TEN (10) FEET MANDATED OFFSET FROM UNDERGROUND UTILITY LINES, FIRE HYDRANTS, AND UTILITY POLES. FIFTEEN (15) FEET MINIMUM OFFSET FROM A DRIVEWAY APPROX. TWENTY (20) FEET OF A TRAFFIC SIGN, OR TWENTY (20) FEET OF AN INTERSECTION IN ORDER TO ENSURE ADEQUATE VISIBILITY.

ALL TREES IN SOD AREAS TO BE PROTECTED FROM MOWERS AND STRING TRIMMERS BY:

- a. A FOUR (4) FOOT MINIMUM DIAMETER MULCH RING AROUND THE TRUNK BASE.
- b. A TEN (10) INCH PLASTIC PROTECTOR (CORRUGATED DRAIN PIPE) AROUND THE TRUNK BASE.

TREES SHALL BE PLANTED SO THAT THE TRUNK FLARE IS EXPOSED; THE TOPMOST ROOT SHOULD BE 1 TO 2 INCHES ABOVE THE SURROUNDING GRADE.

TREES TO BE STAKED IF DEEMED NECESSARY. IF STAKED, GUYING TO BE A BIO-DEGRADABLE MATERIAL. STAKING TO BE REMOVED WITHIN ONE YEAR OF INSTALLATION.

INVASIVE EXOTIC PLANT MATERIAL

ALL INVASIVE EXOTIC SPECIES TO BE REMOVED FROM SITE PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

GRASSING

ALL DISTURBED UNPAVED AREAS SHALL BE GRASSED, MULCHED OR PLANTED. AREAS TO BE TURF GRASS SHALL BE GRADED SMOOTH AND EITHER GRASSED WITH SOD THAT IS CERTIFIED FREE OF NOXIOUS WEEDS OR SEEDED BY A HYDRO-SEED PROCESS OR SEEDED WITH A STRAW MULCH COVER.

PLANT MATERIAL

ALL PLANT MATERIAL TO BE FLORIDA NO. 1 OR BETTER, GRADED IN ACCORDANCE WITH THE STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, DIVISION OF PLANT INDUSTRY, GRADES AND STANDARDS FOR NURSERY PLANTS, PART II, PALMS AND TREES.

IRRIGATION NOTES

LANDSCAPE IRRIGATION TO BE PROVIDED BY A TEMPORARY AUTOMATIC IRRIGATION SYSTEM.

THE IRRIGATION SYSTEM SHALL PROMOTE WATER CONSERVATION BY UTILIZING METHODS SUCH AS DRIP IRRIGATION, EFFICIENT SPRINKLER ZONING, AND REDUCED RUN TIMES AS PLANTS BECOME MORE ESTABLISHED.

BUBBLERS TO BE PROVIDED FOR EACH PROPOSED TREE TO INSURE THE ENTIRE ROOT BALL IS IRRIGATED.

TREE PROTECTION NOTES

PLACE A TREE PROTECTION BARRIER AROUND ALL REGULATED TREES TO REMAIN THAT ARE WITHIN FIFTY (50) FEET OF ANY SITE CLEARING OR CONSTRUCTION ACTIVITY OR THE CONSTRUCTION STORAGE AREA.

ANY RETAINED OR RELOCATED TREE SHALL BE REPLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SUBSECTION 6.2(1)(1) IF THE TREE DIES WITHIN ONE YEAR AFTER SITE CLEARING AND CONSTRUCTION.

TREE BARRIERS SHALL BE PLAINLY VISIBLE AND SHALL CREATE A CONTINUOUS BOUNDARY TO PROTECT AGAINST THE ENCROACHMENT OF MACHINERY, MATERIALS AND VEHICLES.

NO EQUIPMENT, MATERIALS, SUPPLIES, FUELS, SOLVENTS, OR CHEMICALS SHALL BE STORED WITHIN THE TREE BARRICADE AREA AT ANY TIME. NO PLACEMENT OF DEBRIS, USE OF CONCRETE, ASPHALT, OR OTHER PAVING MATERIALS, OR THE DUMPING OF SOLVENTS OR OTHER CHEMICALS SHALL OCCUR WITHIN THE PROTECTIVE AREA.

TREE BARRIERS TO BE PLACED AT OR OUTSIDE THE DRIPLINE OF ALL HERITAGE TREES, CHAMPION TREES, AND REGULATED PALM TREES. FOR ALL OTHER REGULATED TREES TO REMAIN, THE BARRIER SHALL BE PLACED AT TWO-THIRDS OF THE DRIPLINE OF THE TREE STAND OF TREES OR AT SIX FEET FROM THE TRUNK OF THE TREE, WHICHEVER IS GREATER.

NO GRADE CHANGE SHALL BE MADE WITHIN THE BARRIER ZONE WITHOUT PRIOR APPROVAL OF THE CITY MANAGER OR DESIGNEE.

TREE BARRIERS SHALL REMAIN IN PLACE UNTIL MAJOR CONSTRUCTION ACTIVITIES ARE COMPLETED AND LANDSCAPE INSTALLATION BEGINS. LANDSCAPE PREPARATION WITHIN THE PROTECTION ZONE IS LIMITED TO SHALLOW DISKING (NO DEEPER THAN FOUR (4) INCHES) UNLESS OTHERWISE APPROVED BY CITY MANAGER.

PLACE AN THREE (3) INCH THICK LAYER OF MULCH WITHIN THE TREE BARRIER AREA.

ANY ROOT PRUNING AND/OR PRUNING OF RETAINED REGULATED, HERITAGE, AND CHAMPION TREES DURING THE SITE CLEARING OR CONSTRUCTION PHASES SHALL BE DONE IN ACCORDANCE WITH ARBORICULTURAL STANDARDS AND DIRECTLY OVERSEEN BY AN ISA-CERTIFIED ARBORIST.

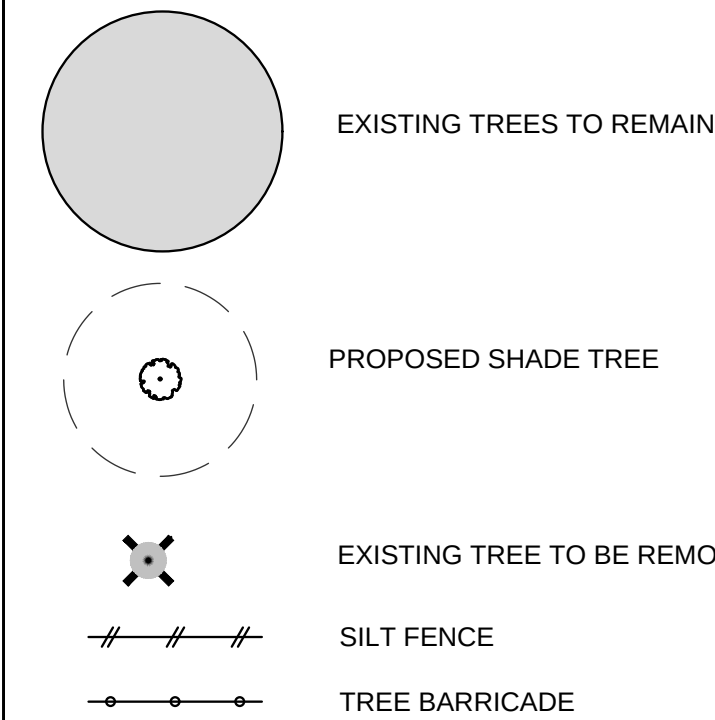
TREE ROOTS IN EXCESS OF ONE (1) INCH THAT ARE DAMAGED OR EXPOSED SHALL BE CUT BE CUT CLEANLY AND RECOVERED WITH SOIL WITHIN ONE HOUR OF THE DAMAGE.

SEE THE STANDARD TREE PROTECTION BARRIER FOR REGULATED TREES AND NON-HIGH QUALITY HERITAGE TREES AT DETAIL 4 / SHEET L301. BARRIER TO BE A MINIMUM FOUR (4) FEET TALL AND CONSTRUCTED WITH:

- a. 4"x4" CORNERS AND TWO (2) COURSES OF 2"x4" WOOD SLATS WITH COLORED FLAGGING OR COLORED PLASTIC MESH FENCING ATTACHED OR
- b. ANGLE IRON CORNER POSTS WITH COLORED MESH CONSTRUCTION FENCING ATTACHED.

SEE THE HIGH QUALITY HERITAGE TREE PROTECTION BARRIER AT DETAIL 3 / SHEET L301 FOR FURTHER BARRIER DETAILS . . .

LEGEND



TREE LEGEND

TREES (DIAMETER MEASURED AT BREAST HEIGHT)

Location	Species	Size/Comment	Size/Common Name
•	bct1.	=	11" BLACK CHERRY
•	cel1.	=	11" CEDAR
•	ch12.	=	12" CHERRY
•	cyp12.	=	12" CYPRESS
•	hc10.	=	10" HERCULES CLUB
•	lo12.	=	12" LAUREL OAK
•	lo15.	=	15" LIVE OAK
•	mul12.	=	12" MULBERRY
•	mg18.	=	18" MAGNOLIA
•	pal18.	=	18" PALM
•	sb11.	=	11" SUGARBERRY
•	sg17.	=	17" SWEETGUM

LANDSCAPE REQUIREMENTS

PARKING LOT – INTERIOR:

TOTAL SQ. FT. OF PARKING	26007 SF
REQUIREMENT: 1 TREE PER 1,800 SQ FT	14 TREES
10 SHRUBS PER LANDSCAPE ISLAND (13 ISLANDS)	130 SHRUBS
PROVIDED:	14 TREES 135 SHRUBS

PARKING LOT – BUFFER:

TOTAL LINEAR FT. OF PARKING	442 LF
REQUIREMENT: 4 CANOPY TREES / 100 LF	18 TREES
2 UNDERSTORY TREES / 100 LF	9 TREES
CONTINUOUS SHRUB BUFFER	
PROVIDED:	18 CANOPY TREES 12 UNDERSTORY TREES

PERIMETER BUFFERS:

NORTH BUFFER: TYPE A, BASIC (5 FT)	
ADJACENCY – INDUSTRIAL	392.34LF + 163.72LF
REQUIREMENT: 1 CANOPY TREE / 60 LF +	10 TREES
1 UNDERSTORY TREE / 60 LF	10 TREES
PROVIDED:	5 EXISTING CANOPY TREES 5 CANOPY TREES 5 UNDERSTORY TREES

EAST BUFFER: TYPE A, BASIC (5 FT)	
ADJACENCY – INDUSTRIAL (221.32 LF – 48LF DWY)	173.32LF
REQUIREMENT: 1 CANOPY TREE / 60 LF	3 TREES
1 UNDERSTORY TREE / 60 LF	3 TREES
PROVIDED:	3 CANOPY TREES 3 UNDERSTORY TREES

SOUTH BUFFER: TYPE A, BASIC (5 FT)	
ADJACENCY – INDUSTRIAL	392.35LF + 163.18LF
REQUIREMENT: 1 CANOPY TREE / 60 LF +	10 TREES
1 UNDERSTORY TREE / 60 LF	10 TREES
PROVIDED:	3 EXISTING CANOPY TREES 7 CANOPY TREES 8 UNDERSTORY TREES 28 SHRUBS

WEST BUFFER: TYPE A, BASIC (5 FT)	
ADJACENCY – VACANT, ZONED INDUSTRIAL	186.84LF + 33.36LF
REQUIREMENT: 1 CANOPY TREE / 60 LF +	4 TREES
1 UNDERSTORY TREE/ 60 LF	4 TREES
PROVIDED:	1 EXISTING CANOPY TREE 3 CANOPY TREES 4 UNDERSTORY TREES

FACADE LANDSCAPE STANDARDS

FRONT FACADE:	1 CANOPY TREE / AC x (2.70AC)	2 TREES
	1 CANOPY TREE / 150 LF (1 x 1.04)	1 TREES
	6 ORNAMENTAL TREES/AC (2.70AC) X 50% SHRUBS	6 TREES
PROVIDED:	3 CANOPY AND 5 ORNAMENTAL – SEEN NOTE BELOW	
SIDE FACADES:	2 CANOPY TREES / AC (2.70AC)	8 TREES
	6 ORNAMENTAL TREES/AC (2.70AC) X 25% SHRUBS	4 TREES
PROVIDED:	3 CANOPY AND 5 ORNAMENTAL – SEEN NOTE BELOW	
REAR FACADE:	2 CANOPY TREES / AC (2.70AC)	4 TREES
PROVIDED:	3 CANOPY –SEEN NOTE BELOW	

NOTE: PER THE CITY OF ALACHUA LDC, SEC.6.2.2 (D)(1)(d)(v) THE CANOPY AND ORNAMENTAL TREE REQUIREMENTS HAVE BEEN REDUCED BY 25 PERCENT.

EXISTING TREE SCHEDULES

HERITAGE TREES TO BE REMOVED

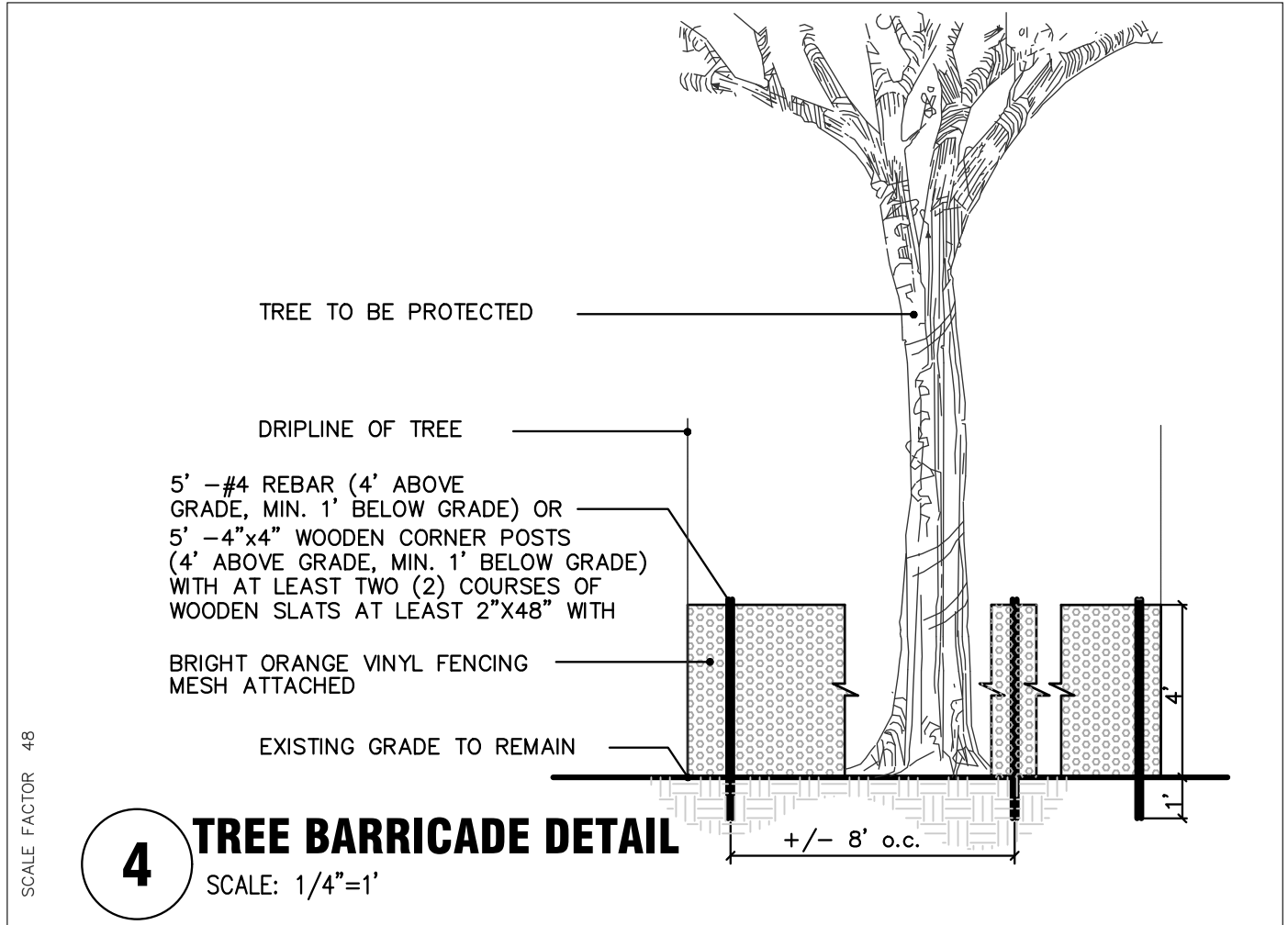
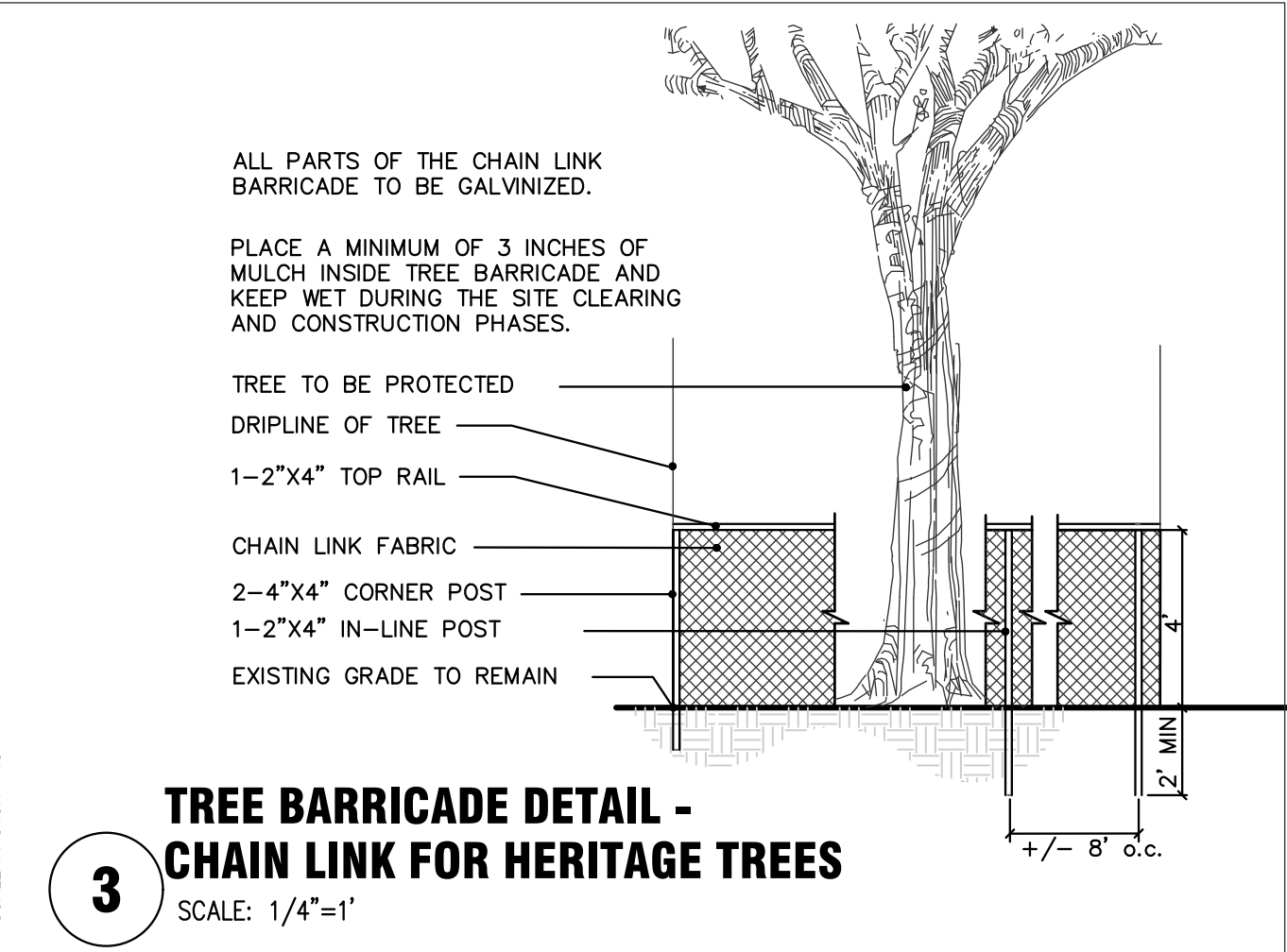
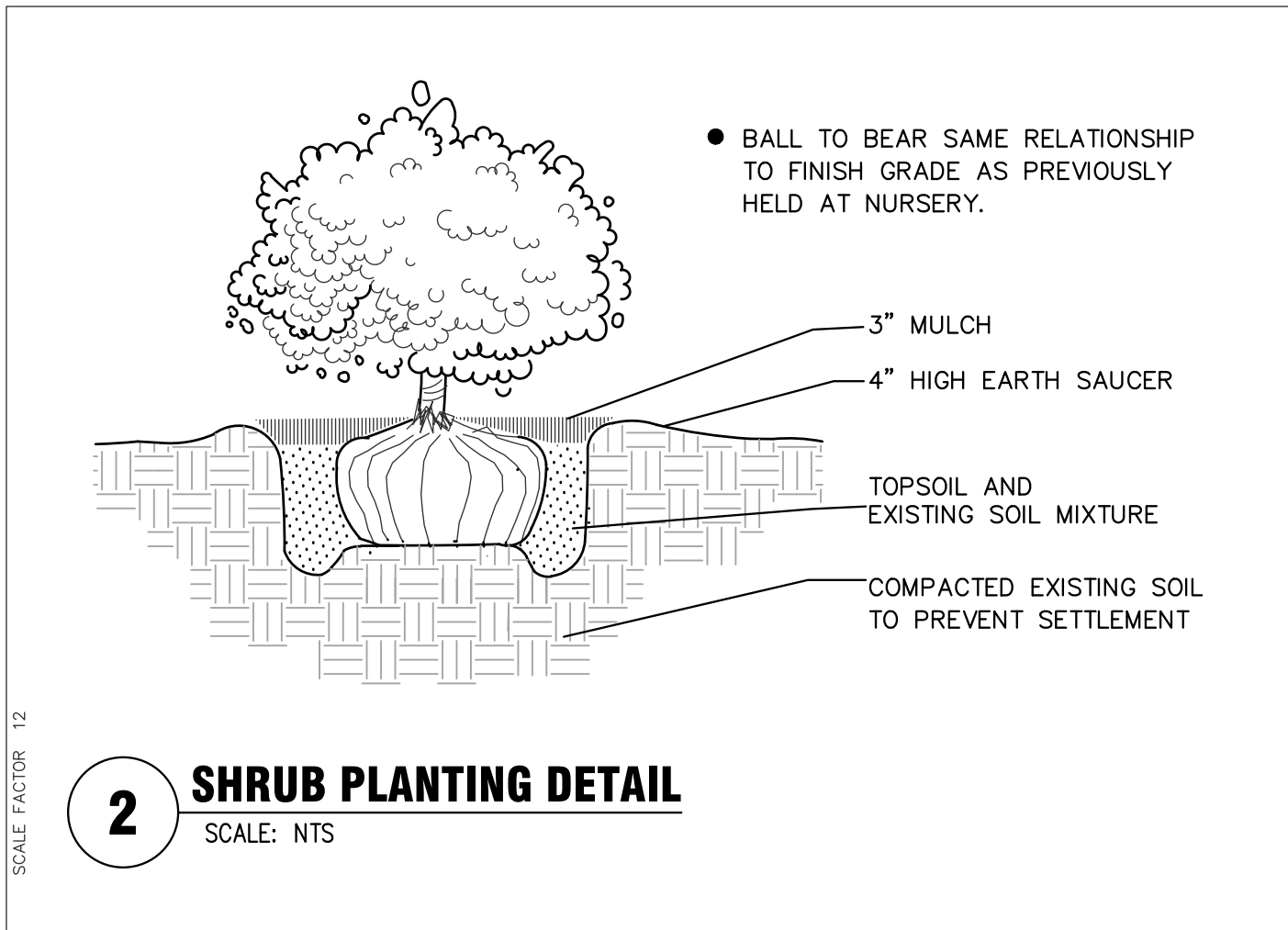
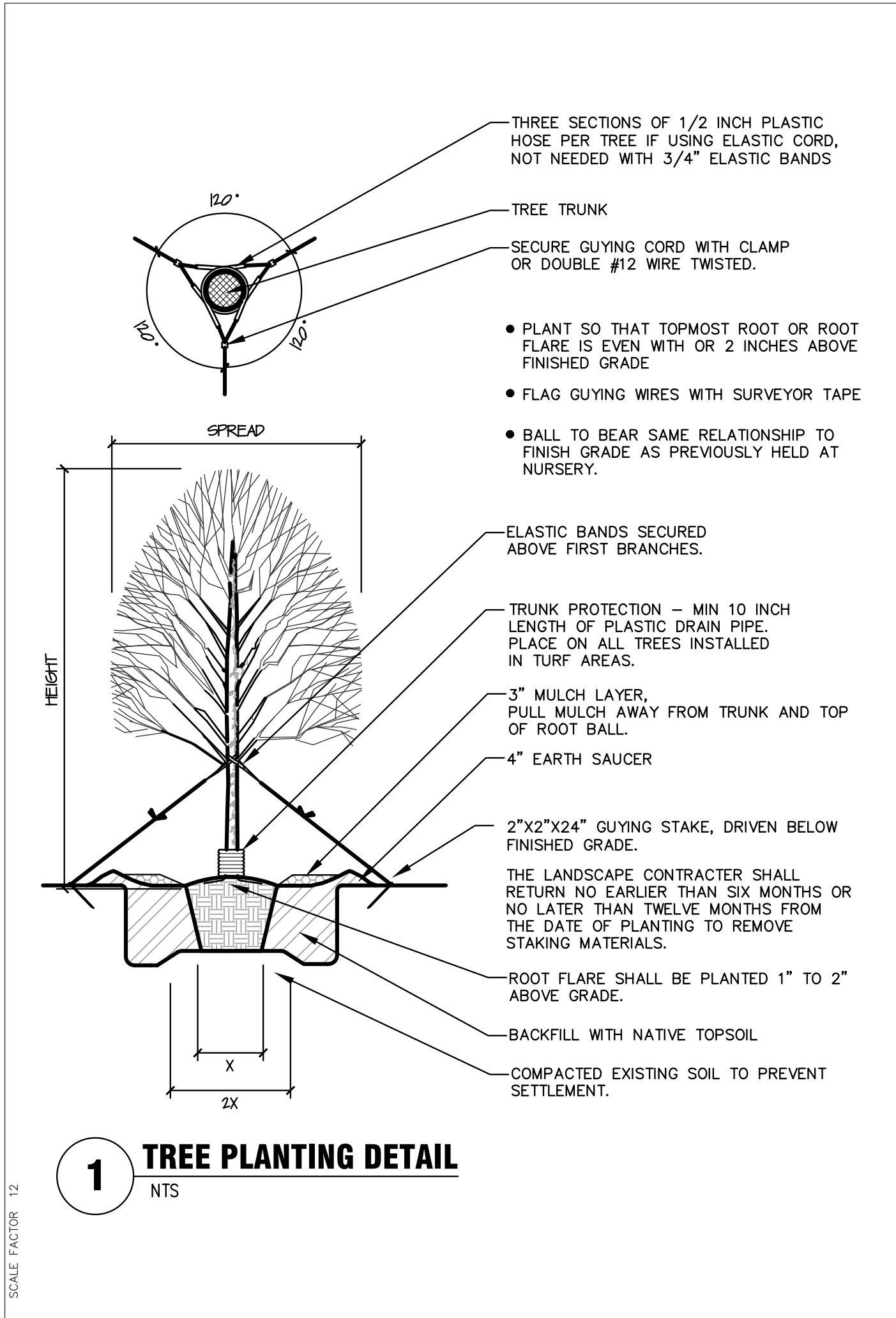
NO HERITAGE TREES ARE LOCATED WITHIN THE PROJECT BOUNDARY.

TREES TO BE REMOVED

QTY	BOTANICAL NAME	SPECIES	CALIPER
1	ZANTHOXYLUM CLAVA-HERAILIS	HERCULES' CLUB	4"-6"-10"
UNREGULATED TREES TO BE REMOVED.			
QTY	BOTANICAL NAME	SPECIES	CALIPER
1	ZANTHOXYLUM CLAVA-HERAILIS	HERCULES' CLUB	2"-2"-2"
3	QUERCUS LAURIFOLIA	LAUREL OAK	2"
2	QUERCUS LAURIFOLIA	LAUREL OAK	3"
1	QUERCUS LAURIFOLIA	LAUREL OAK	3"-3"
3	QUERCUS LAURIFOLIA	LAUREL OAK	5"
11	TOTAL TREES TO BE REMOVED		

TREES TO REMAIN

REGULATED TREES TO REMAIN.			
QTY	BOTANICAL NAME	SPECIES	CALIPER
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	10"
1	PRUNUS SEROTINA	BLACK CHERRY	8"
1	PRUNUS SEROTINA	BLACK CHERRY	12"
3	TOTAL REGULATED TREES		
UNREGULATED TREES TO REMAIN.			
QTY	BOTANICAL NAME	SPECIES	CALIPER
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	2"-2"
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	2"-2'-1"
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	2"-2"
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	3"-3'-3"
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	5"
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	6" (CLUSTER)
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	4"
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	4"-4"
1	ZANTHOXYLLUM CLAVA-HERALIS	HERCULES' CLUB	4"
3	QUERCUS LAURIFOLIA	LAUREL OAK	2"
1	QUERCUS LAURIFOLIA	LAUREL OAK	3"-3"
1	QUERCUS LAURIFOLIA	LAUREL OAK	3"
1	QUERCUS LAURIFOLIA	LAUREL OAK	5"
15	TOTAL TREES		



PREPARED BY:



3459 NW 13th Avenue
Gainesville, Florida 32605
Ph. 352-373-8220 Fax 866-845-7717
LC 26000252

PREPARED FOR:

ALCHEM
LABORATORIES
CORPORATION

PROJECT:

ALCHEM
LABORATORIES
CITY OF ALACHUA, FLORIDA

SHEET TITLE:

TABLES, NOTES
& DETAILS

PROJECT PHASE:

CITY OF ALACHUA
SUBMITTAL

ISSUE DATE:

JUNE 18, 2019

REVISIONS		
NO.	DATE	COMMENTS

PROFESSIONAL SEAL:

LAWRENCE E. TEAGUE
FLORIDA: LA0001582

PROJECT NUMBER:

18033.1

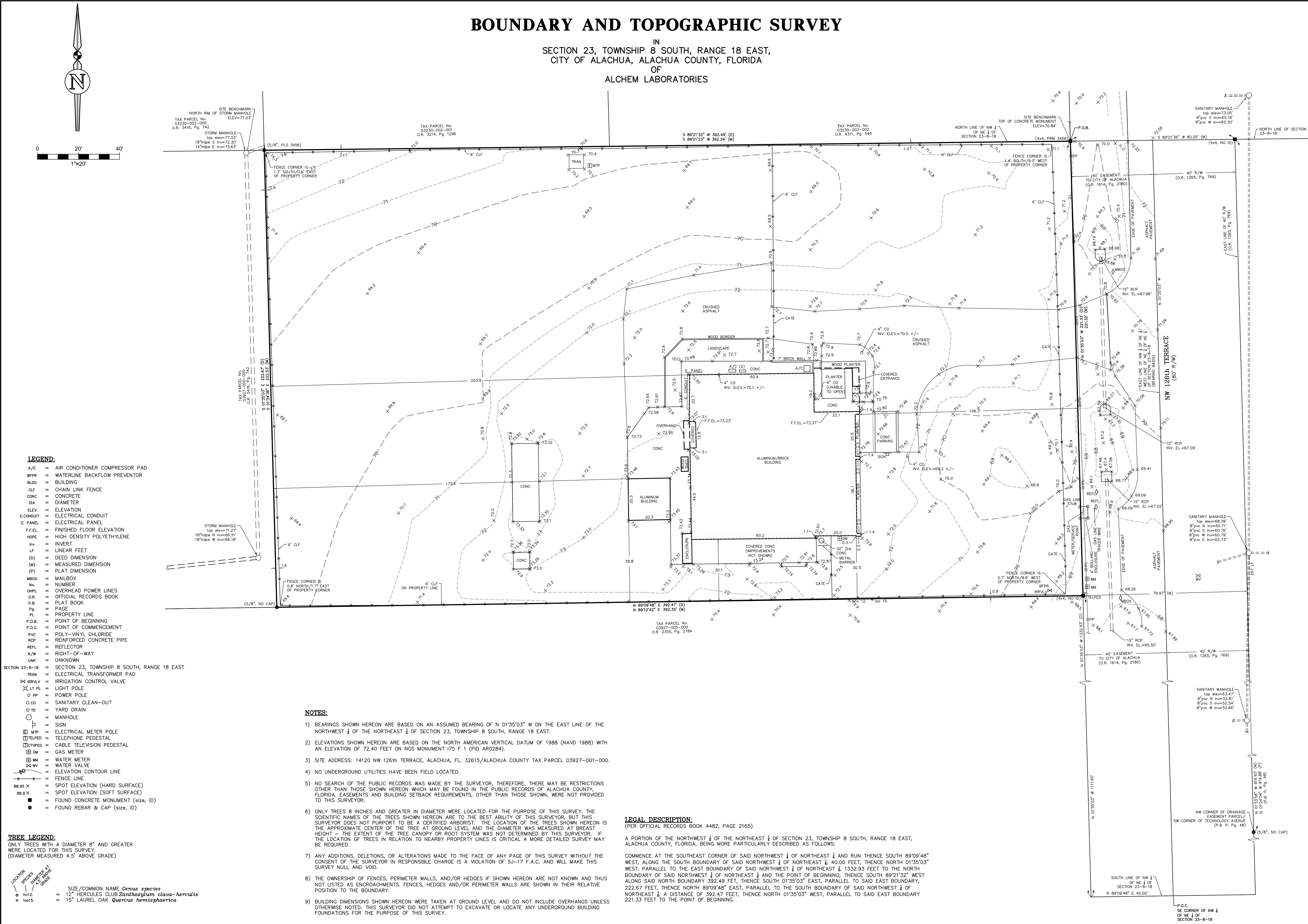
DRAWN BY: ALZ
CHECKED BY: LET

SHEET NUMBER:

L301

BOUNDARY AND TOPOGRAPHIC SURVEY

IN
SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST,
CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA
OF
ALCHEM LABORATORIES



NOTES:

- 1) BEARINGS SHOWN HEREON ARE BASED ON AN ASSUMED BEARING OF N 01°35'03" W ON THE EAST LINE OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST.
- 2) ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988) WITH AN ELEVATION OF 72.40 FEET ON NGS MONUMENT 175 F 1 (PID ARO284).
- 3) SITE ADDRESS: 14120 NW 126th TERRACE, ALACHUA, FL 32615/ALACHUA COUNTY TAX PARCEL 03927-001-000.
- 4) NO UNDERGROUND UTILITIES HAVE BEEN FIELD LOCATED.
- 5) NO SEARCH OF THE PUBLIC RECORDS WAS MADE BY THE SURVEYOR, THEREFORE, THERE MAY BE RESTRICTIONS OTHER THAN THOSE SHOWN HEREON WHICH MAY BE FOUND IN THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA. EASEMENTS AND BUILDING SETBACK REQUIREMENTS, OTHER THAN THOSE SHOWN, WERE NOT PROVIDED TO THIS SURVEYOR.
- 6) ONLY TREES 8 INCHES AND GREATER IN DIAMETER WERE LOCATED FOR THE PURPOSE OF THIS SURVEY. THE SCIENTIFIC NAMES OF THE TREES SHOWN HEREON ARE TO THE BEST ABILITY OF THIS SURVEYOR, BUT THIS SURVEYOR DOES NOT PURPORT TO BE A CERTIFIED ARBORIST. THE LOCATION OF THE TREES SHOWN HEREON IS THE APPROXIMATE CENTER OF THE TREE AT GROUND LEVEL AND THE DIAMETER WAS MEASURED AT BREAST HEIGHT - THE EXTENT OF THE TREE CANOPY OR ROOT SYSTEM WAS NOT DETERMINED BY THIS SURVEYOR. IF THE LOCATION OF TREES IN RELATION TO NEARBY PROPERTY LINES IS CRITICAL A MORE DETAILED SURVEY MAY BE REQUIRED.
- 7) ANY ADDITIONS, DELETIONS, OR ALTERATIONS MADE TO THE FACE OF ANY PAGE OF THIS SURVEY WITHOUT THE CONSENT OF THE SURVEYOR IN RESPONSIBLE CHARGE IS A VIOLATION OF SJ-17 F.A.C. AND WILL MAKE THIS SURVEY NULL AND VOID.
- 8) THE OWNERSHIP OF FENCES, PERIMETER WALLS, AND/OR HEDGES IF SHOWN HEREON ARE NOT KNOWN AND THUS NOT LISTED AS ENCROACHMENTS. FENCES, HEDGES AND/OR PERIMETER WALLS ARE SHOWN IN THEIR RELATIVE POSITION TO THE BOUNDARY.
- 9) BUILDING DIMENSIONS SHOWN HEREON WERE TAKEN AT GROUND LEVEL AND DO NOT INCLUDE OVERHANGS UNLESS OTHERWISE NOTED. THIS SURVEYOR DID NOT ATTEMPT TO EXCAVATE OR LOCATE ANY UNDERGROUND BUILDING FOUNDATIONS FOR THE PURPOSE OF THIS SURVEY.

LEGAL DESCRIPTION:

(PER OFFICIAL RECORDS BOOK 4482, PAGE 2165)

A PORTION OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF SAID NORTHWEST 1/4 OF NORTHEAST 1/4 AND RUN THENCE SOUTH 89°09'48" WEST, ALONG THE SOUTH BOUNDARY OF SAID NORTHWEST 1/4 OF NORTHEAST 1/4, 40.00 FEET, THENCE NORTH 01°35'03" WEST, PARALLEL TO THE EAST BOUNDARY OF SAID NORTHWEST 1/4 OF NORTHEAST 1/4, 1332.93 FEET TO THE NORTH BOUNDARY OF SAID NORTHWEST 1/4 OF NORTHEAST 1/4 AND THE POINT OF BEGINNING; THENCE SOUTH 89°21'32" WEST ALONG SAID NORTH BOUNDARY 392.49 FEET, THENCE SOUTH 01°35'03" EAST, PARALLEL TO SAID EAST BOUNDARY, 222.67 FEET, THENCE NORTH 89°09'48" EAST, PARALLEL TO THE SOUTH BOUNDARY OF SAID NORTHWEST 1/4 OF NORTHEAST 1/4, A DISTANCE OF 392.47 FEET, THENCE NORTH 01°35'03" WEST, PARALLEL TO SAID EAST BOUNDARY 221.33 FEET TO THE POINT OF BEGINNING.

FLOOD INSURANCE RATE MAP STATEMENT

THE REAL PROPERTY SHOWN HEREON LIES WITHIN ZONE(S) X UNSHADDED AS DESIGNATED ON THE FLOOD INSURANCE RATE MAP NUMBER 1200100400; COMMUNITY NUMBER: 120864; PANEL: 0400; EFFECTIVE DATE: 05/16/06; SAID MAP DESCRIBES ZONE(S) X UNSHADDED AS BEING AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

eda engineers-surveyors-planners, inc.
2004 N.W. 43rd ST. GAINESVILLE, FLORIDA 32608-6602
TEL: (813) 320-5544 FAX: (813) 320-7549
E-MAIL: info@edaplanning.com

Project No. 2018-0143
eda engineers-surveyors-planners, inc.
Corporate Authorization No. LB 2389
ALEJANDRO PEREZ
P.S.M. 6839
Drawn AP
Checked AP
NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND THE RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. COPYRIGHT © 2018

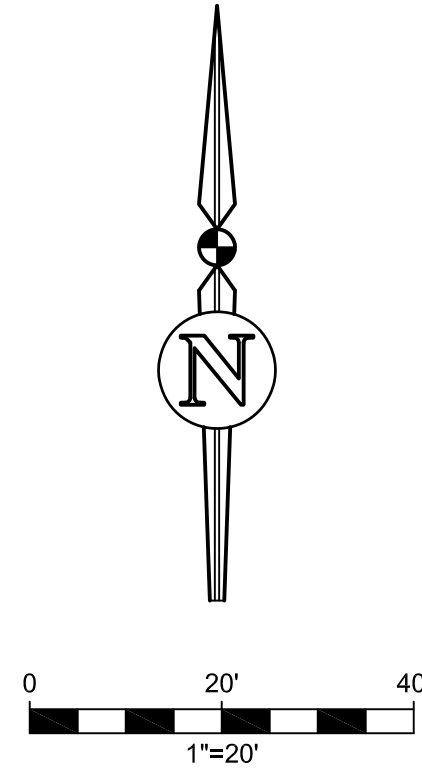
THIS SURVEY MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 61J-17, FLORIDA STATUTES. THIS SURVEY DEPICTS THE SITE CONDITIONS AS OF 10/16/18.

V-001

BOUNDARY AND TOPOGRAPHIC SURVEY

IN
SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST,
CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA

SHEET 1 OF 1



LEGAL DESCRIPTION:

A PORTION OF THE NORTH ONE-HALF (N ½) OF SECTION 23 TOWNSHIP 8 SOUTH, RANGE 18 EAST, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF THE PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 4497, PAGE 1652 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, THENCE NORTH 88 DEGREES 24 MINUTES 57 SECONDS EAST, A DISTANCE OF 163.65 FEET TO A POINT ON THE WEST LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 2355, PAGE 2784 OF SAID PUBLIC RECORDS AND THE POINT OF BEGINNING; THENCE CONTINUE NORTH 88 DEGREES 24 MINUTES 57 SECONDS EAST, A DISTANCE OF 163.65 FEET TO A POINT ON THE WEST LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 2355, PAGE 2784; THENCE CONTINUE NORTH 88 DEGREES 24 MINUTES 57 SECONDS EAST, A DISTANCE OF 163.14 FEET TO A POINT ON THE WEST LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 2355, PAGE 2784; THENCE SOUTH 89 DEGREES 09 MINUTES 48 SECONDS WEST ON SAID NORTH LINE, A DISTANCE OF 163.14 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 89 DEGREES 09 MINUTES 48 SECONDS WEST ON SAID NORTHERLY PROJECTION, A DISTANCE OF 187.08 FEET TO THE POINT OF BEGINNING.

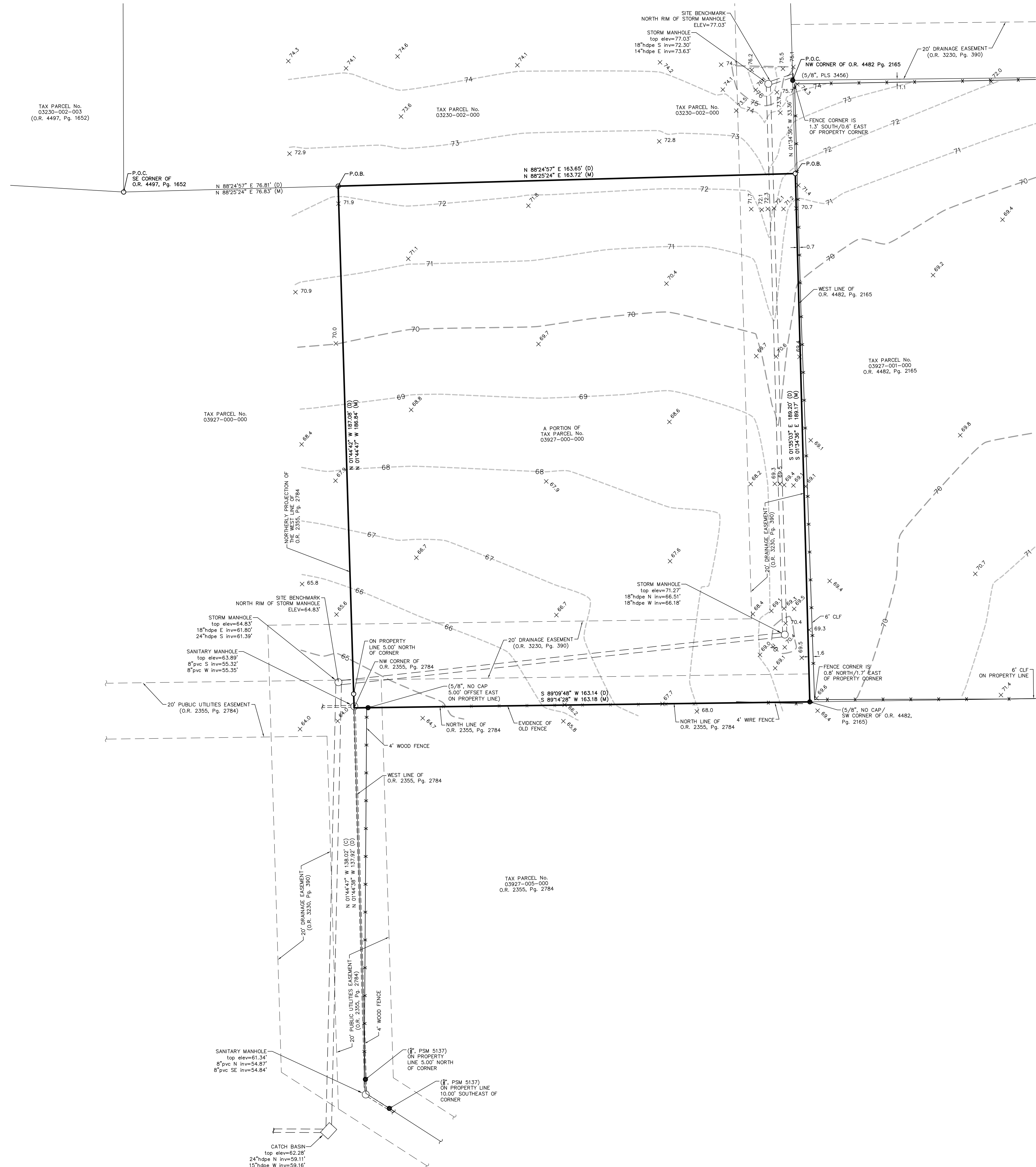
SAID LANDS LYING AND BEING IN SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA AND CONTAINING A TOTAL NET AREA OF 0.706 ACRES MORE OR LESS (30,739 SQUARE FEET MORE OR LESS).

NOTES:

- 1) BEARINGS SHOWN HEREON ARE BASED ON AN ASSUMED BEARING OF N 01°35'03" W ON THE EAST LINE OF THE NORTHWEST ¼ OF THE NORTHEAST ¼ OF SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST AS SHOWN IN THE WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 4482, PAGE 2165 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA.
- 2) ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988) WITH AN ELEVATION OF 72.40 FEET ON NGS MONUMENT 175 F 1 (PID AR0284).
- 3) THE LEGAL DESCRIPTION SHOWN HEREON WAS PREPARED BY THIS FIRM.
- 4) NO UNDERGROUND UTILITIES HAVE BEEN FIELD LOCATED.
- 5) NO SEARCH OF THE PUBLIC RECORDS WAS MADE BY THE SURVEYOR, THEREFORE, THERE MAY BE RESTRICTIONS OTHER THAN THOSE SHOWN HEREON WHICH MAY BE FOUND IN THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, EASEMENTS AND BUILDING SETBACK REQUIREMENTS, OTHER THAN THOSE SHOWN, WERE NOT PROVIDED TO THIS SURVEYOR.
- 6) ANY ADDITIONS, DELETIONS, OR ALTERATIONS MADE TO THE FACE OF ANY PAGE OF THIS SURVEY WITHOUT THE CONSENT OF THE SURVEYOR IN RESPONSIBLE CHARGE IS A VIOLATION OF 5J-17 F.A.C. AND WILL MAKE THIS SURVEY NULL AND VOID.
- 7) THE OWNERSHIP OF FENCES, PERIMETER WALLS, AND/OR HEDGES IF SHOWN HEREON ARE NOT KNOWN AND THUS NOT LISTED AS ENCROACHMENTS. FENCES, HEDGES AND/OR PERIMETER WALLS ARE SHOWN IN THEIR RELATIVE POSITION TO THE BOUNDARY.
- 8) THE SUBJECT PROPERTY IS A PORTION OF ALACHUA COUNTY TAX PARCEL 03927-000-000 AND CONTAINS AN AREA OF 0.706 ACRES MORE OR LESS.

LEGEND:

A/C = AIR CONDITIONER COMPRESSOR PAD
BSPRR = WATERLINE BACKFLOW PREVENTOR
BLDG = BUILDING
CLF = CHAIN LINK FENCE
CONC = CONCRETE
DIA = DIAMETER
ELEV = ELEVATION
E. PANEL = ELECTRICAL CONDUIT
E. PANEL = ELECTRICAL PANEL
F.F.E.L. = FINISHED FLOOR ELEVATION
HOPE = HIGH DENSITY POLYETHYLENE
INV = INVERT
LF = LINEAR FEET
(C) = CALCULATED DIMENSION
(D) = LEGAL DESCRIPTION DIMENSION
(M) = MEASURED DIMENSION
(P) = PLAT DIMENSION
MBOX = MAILBOX
No. = NUMBER
OHP/L = OVERHEAD POWER LINES
O.R. = OFFICIAL RECORDS BOOK
P.B. = PLAT BOOK
Pg. = PAGE
PL = PROPERTY LINE
P.O.B. = POINT OF BEGINNING
P.O.C. = POINT OF COMMENCEMENT
PVC = POLY-VINYL CHLORIDE
RCP = REINFORCED CONCRETE PIPE
REFL = REFLECTOR
R/W = RIGHT-OF-WAY
UNKNOWN = UNKNOWN
SECTION 23-8-18 = SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST
TRANS = ELECTRICAL TRANSFORMER PAD
IRR/VL = IRRIGATION CONTROL VALVE
L PL = LIGHT POLE
O PP = POWER POLE
O CO = SANITARY CLEAN-OUT
O YD = YARD DRAIN
O = MANHOLE
P = SIGN
MTP = ELECTRICAL METER POLE
TELPEL = TELEPHONE PEDESTAL
CTVPEL = CABLE TELEVISION PEDESTAL
OM = GAS METER
WM = WATER METER
WV = WATER VALVE
ELEVATION CONTOUR LINE
FENCE LINE
88.95 X = SPOT ELEVATION (HARD SURFACE)
88.9 X = SPOT ELEVATION (SOFT SURFACE)
■ = FOUND CONCRETE FOUNDMENT (size, ID)
● = FOUND REBAR & CAP (size, ID)
O = SET 5/8" REBAR & CAP (LB 2389)



985 Folio/Book	56-60 Page	04/05/18 Survey Date	04/12/19 Drawing Completed	06/18/19 Revised	
PREPARED FOR: 1) _____ 2) _____ 3) _____ 4) _____					
THIS SURVEY MEETS THE STANDARDS SET FORTH BY THE FLORIDA SURVEYING BOARD AND THE FLORIDA SURVEYING BOARD'S ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.07 (2018), FLORIDA STATUTES. THIS SURVEY DEPICTS THE SITE CONDITIONS AS OF _____, 04/06/19.					
Project No. eda engineers-surveyors-planners, inc. 2018-0140 S01 Drawing AP _____ P 54 6839 Revision AP _____ W/ ALEJANDRO PEREZ					
eda engineers-surveyors-planners, inc. 2004 NW 42nd AVE, SUITE 400, MIAMI, FL 33142-4602 TEL: (305) 777-2841 FAX: (305) 772-2609 E-MAIL: maddison@eda.com					

FLOOD INSURANCE RATE MAP STATEMENT

THE REAL PROPERTY SHOWN HEREON LIES WITHIN ZONE(S) _____, AS DESIGNATED ON THE FLOOD INSURANCE RATE MAP, _____, COMMUNITY NUMBER _____, PANEL NUMBER _____, EFFECTIVE DATE _____.

06/16/06 SAID MAP DESCRIBES ZONE(S) _____.

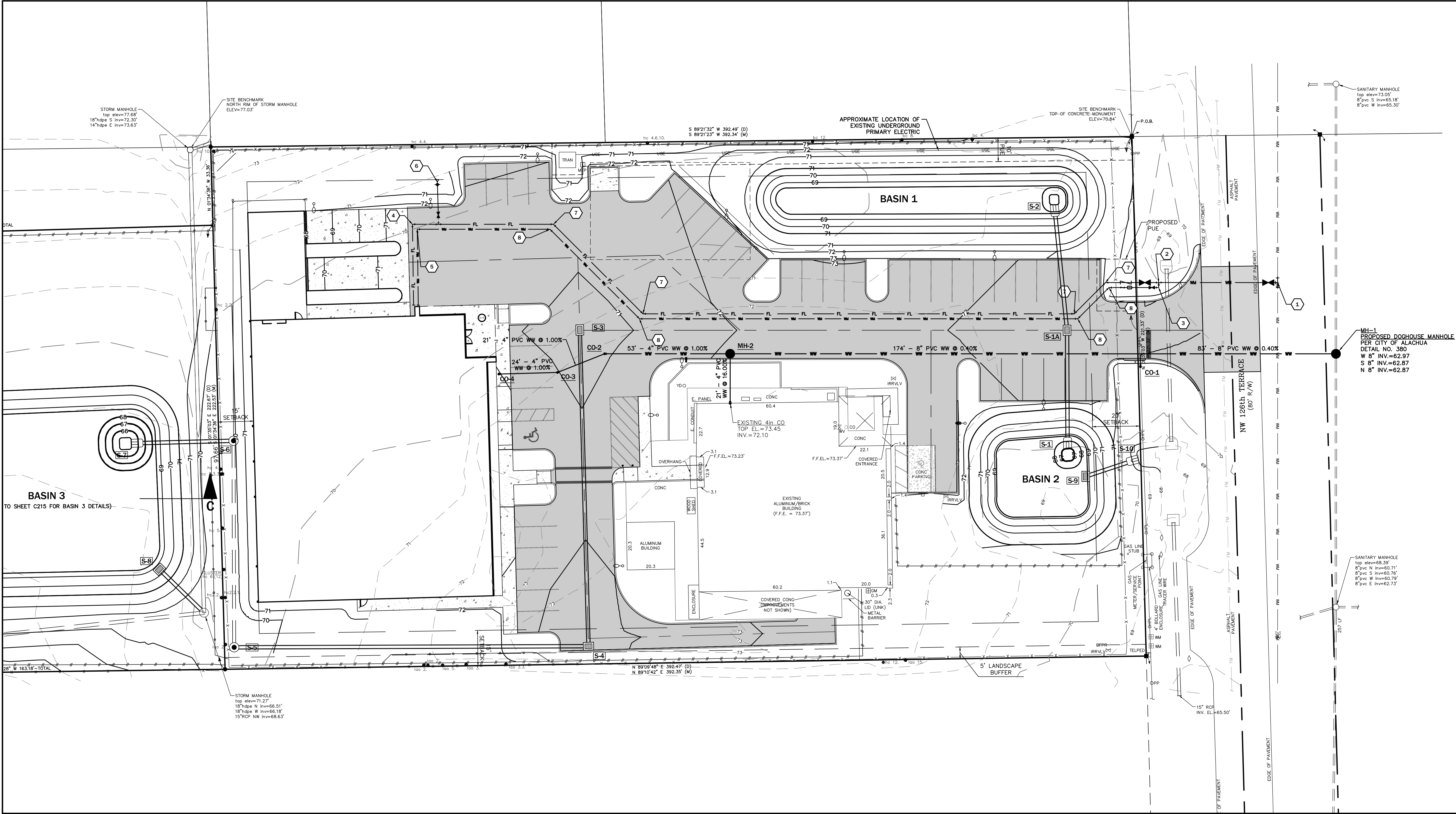
AS BEING DEDICATED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

1 06/18/19

No Date

Revised Legal Description

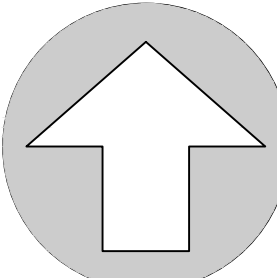
Comment





engineers • surveyors • planners

EB 2389
2404 NW 43rd ST, GAINESVILLE, FLORIDA 32606-6602
TEL: (352) 373-3541 FAX: (352) 373-7249
www.edafl.com mail@edafl.com



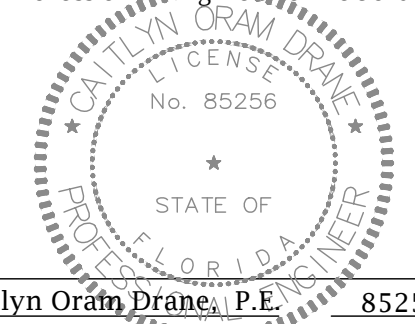
NORTH

SCALE: 1" = 20'



GRAPHIC SCALE

No.	Date	Comment

Professional Engineer of Record:

Caitlyn Oram Drane, P.E. 85256
Engineer Certificate No.

CITY OF ALACHUA UTILITY NOTES

1. A SEPARATE UTILITY PERMIT WILL BE REQUIRED FOR THE EXTENSION OF THE PROPOSED UTILITIES (WATER & WASTEWATER).

2. THE UTILITY PLAN AND PLAT SHOWS ALL PUBLIC UTILITY EASEMENTS (PUE'S) IN A METES AND BOUNDS FORMAT. UPON CITY OF ALACHUA'S APPROVAL OF PLANS FOR DEVELOPMENTS NOT BEING PLATTED, OWNER MAY CHOOSE TO GRANT THE METES AND BOUNDS EASEMENTS AS SHOWN, OR GRANT A BLANKET EASEMENT OVER THE ENTIRE PROPERTY. PROVIDED FACILITIES ARE INSTALLED WITHIN THE PRESCRIBED DISTANCES AS SHOWN ON THE UTILITY PLANS AND IN ACCORDANCE WITH THE UTILITY SEPARATION REQUIREMENTS OF THE CITY OF ALACHUA REQUIREMENTS FOR DESIGN AND CONSTRUCTION OF POTABLE WATER, RECLAIMED WATER AND WASTEWATER.

3. ALL CONSTRUCTION MATERIALS AND METHODS FOR POTABLE WATER, WASTEWATER AND RECLAIMED WATER SYSTEMS SHALL CONFORM TO CITY OF ALACHUA'S MOST RECENT POTABLE WATER, WASTEWATER, AND RECLAIMED WATER SYSTEM DESIGN STANDARDS.

4. POTABLE WATER AND WASTEWATER MAINS SHALL MAINTAIN A MINIMUM 10 FEET HORIZONTAL AND 1.5 FOOT VERTICAL SEPARATION.

5. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET FOR POTABLE WATER MAINS, WASTEWATER FORCE MAINS, AND RECLAIMED WATER MAINS, AND 15 FEET FOR GRAVITY WASTEWATER MAINS SHALL BE PROVIDED AND MAINTAINED FROM BUILDINGS, TRANSFORMERS AND ALL PERMANENT STRUCTURES. SERVICE LATERALS REQUIRE 5 FEET LESS CLEARANCE FOR EACH OF THE UTILITIES; NOTE THAT WATER SERVICE LATERALS SHALL BE INSTALLED WITHIN 3" SLEEVES.

6. POTABLE WATER SERVICES, REQUIRING A SEPARATE WATER METER, SHALL BE PROVIDED TO EACH LOT, BUILDING OR PARCEL. FOR COMMERCIAL, MULTIFAMILY, AND INSTITUTIONAL DEVELOPMENTS, THE DEVELOPER SHALL BE RESPONSIBLE FOR INSTALLING POTABLE WATER SERVICES AND YOKE ASSEMBLY PACKAGE UP TO AND INCLUDING THE METER YOKE, BOX (INSTALLED AT FINAL GRADE) AND ASSOCIATED APPURTENANCES, FOR METERS 1" AND SMALLER, WITH A ONE-YEAR WARRANTY.

7. 2" VALVES LOCATED IN PAVED AREAS, INCLUDING SIDEWALKS, SHALL BE CITY OF ALACHUA APPROVED CAST IRON, RESILIENT SEAT GATE VALVES WITH STANDARD 2" OPERATING NUT, THREADED WITH BRASS NIPPLE BETWEEN THE VALVES AND TAPPING SADDLE OR TAPPED TEE.

8. WATER MAINS 4" IN DIAMETER AND GREATER, PLACED UNDER ROADWAYS, SHALL BE CEMENT LINED DUCTILE IRON PIPE (CLDIP) EXTENDING 5 FEET PAST THE BACK OF CURB TRACER WIRE INSTALLED ON PVC WATER MAINS SHALL CONTINUE ACROSS THE CLDIP SECTIONS.

9. 1" OR 2" WATER SERVICE CROSSINGS LOCATED UNDER ROADWAYS SHALL BE ENCASED IN 3" SCH 40 PVC EXTENDING 5' PAST THE BACK OF CURB.
10. ANCHORING TEES, COUPLINGS, AND BENDS SHALL BE USED ON ALL FIRE HYDRANT ASSEMBLIES.

11. ALL PRESSURIZED MAIN FITTINGS SHALL BE MECHANICAL JOINT WITH RESTRAINED JOINT GLANDS; A SUFFICIENT LENGTH OF THE PIPE CONNECTED TO THE FITTINGS SHALL BE MECHANICALLY RESTRAINED TO PROVIDE REACTION AS SPECIFIED ON THE RESTRAINED JOINT. STANDARD IN THE CONSTRUCTION DETAILS OF THE CITY OF ALACHUA STANDARDS. CALCULATIONS FOR REQUIRED RESTRAINT LENGTH MUST BE PROVIDED IF THE SPECIFIED RESTRAINT LENGTH, DUE TO SOIL TYPE OR DEPTH OF COVER, DIFFERS FROM THOSE PROVIDED ON THESE DETAILS.

12. ALL SANITARY WASTEWATER SERVICE LATERALS SHALL BE MIN. 4" DIAMETER PVC (SDR 35) AT 1.00% MIN. SLOPE UNLESS OTHERWISE LABELED.

13. WASTEWATER CLEANOUT COVERS LOCATED WITHIN PAVEMENT AND SIDEWALKS ADJACENT TO PAVED AREAS SHALL BE RATED FOR TRAFFIC LOAD BEARING. WASTEWATER CLEANOUT COVERS IN OTHER SIDEWALKS/WALKWAYS SHALL BE BRASS WITH A SQUARE RECESS.

14. MANHOLES WHICH ARE NOT INSTALLED UNDER PAVEMENT SHALL HAVE A RIM ELEVATION AT LEAST 6" ABOVE FINISHED GRADE, AND A 10:1 SLOPE TO FINISHED GRADE.

15. UNLESS OTHERWISE NOTED ON THE PLANS, THE FINISHED FLOOR ELEVATIONS OF BUILDINGS SHALL BE A MINIMUM OF 6" ABOVE THE LOWEST UPSTREAM MANHOLE TOP. IF THIS IS INFEASIBLE, A WASTEWATER SERVICE LATERAL BACKWATER VALVE (BWV) IS REQUIRED ON THE CUSTOMER SIDE OF CLEANOUT.

16. WHEN A POTABLE OR RECLAIMED WATER MAIN, OR A WASTEWATER FORCE MAIN IS ROUTED WITHIN 10 FT. OF AN ELECTRIC TRANSFORMER, A 20 FT. LENGTH OF DIP SHALL BE CENTERED ON THE TRANSFORMER WITH MECHANICAL RESTRAINT AT EACH END. NO FITTINGS OR VALVES SHALL OCCUR WITHIN 10 FT. OF THE NEAREST EDGE OF THE TRANSFORMER. A MINIMUM CLEARANCE OF 3' SHALL BE MAINTAINED BETWEEN THE MAIN AND THE TRANSFORMER.

17. A/C CONDENSATE SHALL NOT FLOW INTO WASTEWATER SYSTEM.

18. CONTRACTOR SHALL NOTIFY IN WRITING, THE PUBLIC SERVICES NO LESS THAN 7 DAYS PRIOR TO SUCH CLOSURE OR WHENEVER ROAD IS IMPASSABLE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PUBLIC SERVICES DEPARTMENT OF ANY VEHICULAR OR PEDESTRIAN SAFETY OR EFFICIENCY PROBLEMS INCURRED AS A RESULT OF THE WORK.

WASTEWATER STRUCTURE SCHEDULE	
STRUCTURE	STRUCTURE DATA
MH-1	TOP EL.=70.72 W 8" INV.=62.97 S 8" INV.=62.87 N 8" INV.=62.87
MH-2	TOP EL.=72.14 S 4" INV.=68.73 W 4" INV.=65.95 E 8" INV.=64.00

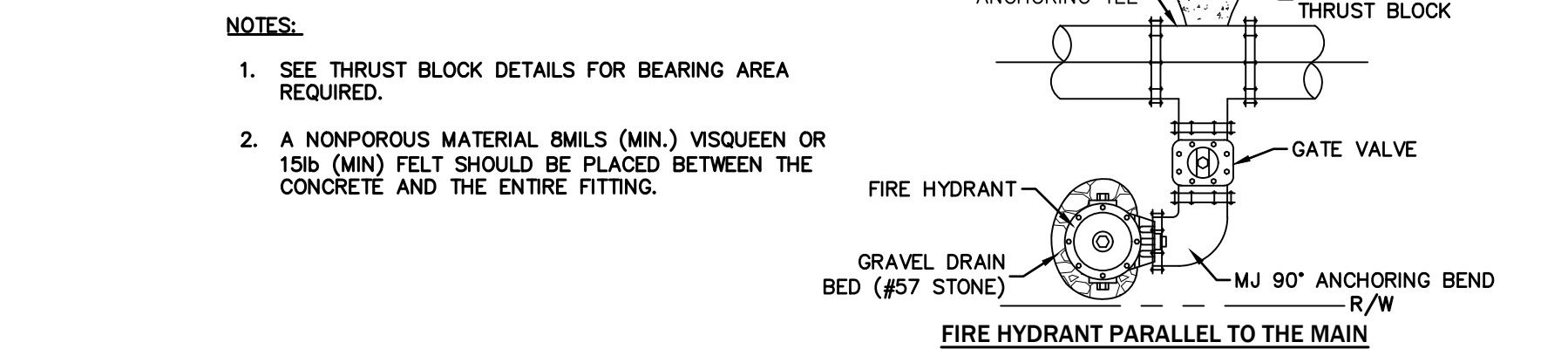
WASTEWATER CLEANOUT SCHEDULE	
CLEANOUT	CLEANOUT DATA
CO-1	TOP EL.=70.76 INV.=63.32
CO-2	TOP EL.=70.92 INV.=66.48
CO-3	TOP EL.=71.02 INV.=66.70
CO-4	TOP EL.=72.02 INV.=66.95

NOTE: ALL PROPOSED CLEANOUTS SHALL HAVE A TRAFFIC BEARING LID AND A CONCRETE COLLAR.

WATER FITTING SCHEDULE	
KEY	ASSEMBLY
1	1 - 8" TAPPING TEE. 1 - 8" DIP GATE VALVE AND BOX 1 - 8" EXCAVATION, BACKFILL AND RESTORATION BY CONTRACTOR, COORDINATE WITH CITY OF ALACHUA PUBLIC SERVICES 7 DAYS IN ADVANCE.
2	1 - 8" TEE WITH 2" TAPPED CAP 1 - 8" GATE VALVE AND BOX 1 - 8" DDCVA BACKFLOW PREVENTER * DOUBLE DETECTOR CHECK-VALVE
3	1 - 2" 90° BEND 1 - 2" GATE VALVE AND BOX 1 - 5/8" WATER METER 1 - 5/8" BACKFLOW PREVENTER* REDUCED PRESSURE ZONE
4	1 - 8" 90° BEND
5	1 - 2" 90° BEND
6	1 - 8" TEE 1 - 8" GATE VALVE AND BOX 1 - 8" FIRE HYDRANT ASSEMBLY (FIRE HYDRANT SHALL BE RED WITH GREEN BONNET
7	1 - 8" 45° BEND
8	1 - 2" 45° BEND

*BACKFLOW PREVENTERS SHALL BE EQUIPPED WITH FREEZE PROTECTION (REMOVABLE HARD-SHELL OR HOT-BOX)

Project No: 18-143
Project phase: CITY SUBMITTAL
Project title: ALCHEM LABORATORIES
CITY OF ALACHUA,
FLORIDA
Sheet title: UTILITY PLAN
Designed: COD
Drawn: ALK/TAR
Checked: COD/TAR
Date: 06/18/19
Sheet No.: C400



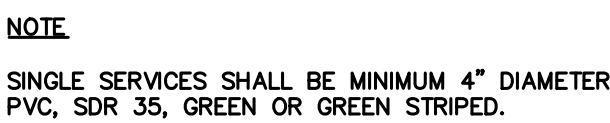
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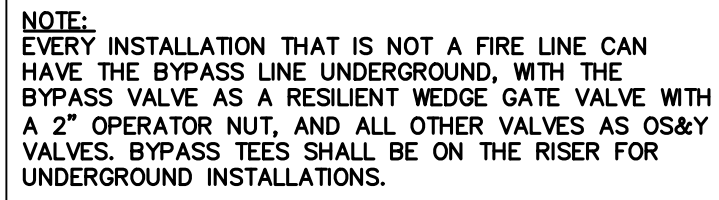
N.T.S.



N.T.S.



N.T.S.



N.T.S.



DETAIL No. 250 - VALVE BOX PAD

N.T.S.



- NTS

NTS

Date: 06/18/19

SCALES:
AS SHOWN



engineers • surveyors • planners

EB 2389
104 N.W. 43rd ST, GAINESVILLE, FLORIDA 32606-6604
TEL. (352) 373-3541 FAX. (352) 373-7249
www.edaf.com mail@edaf.com



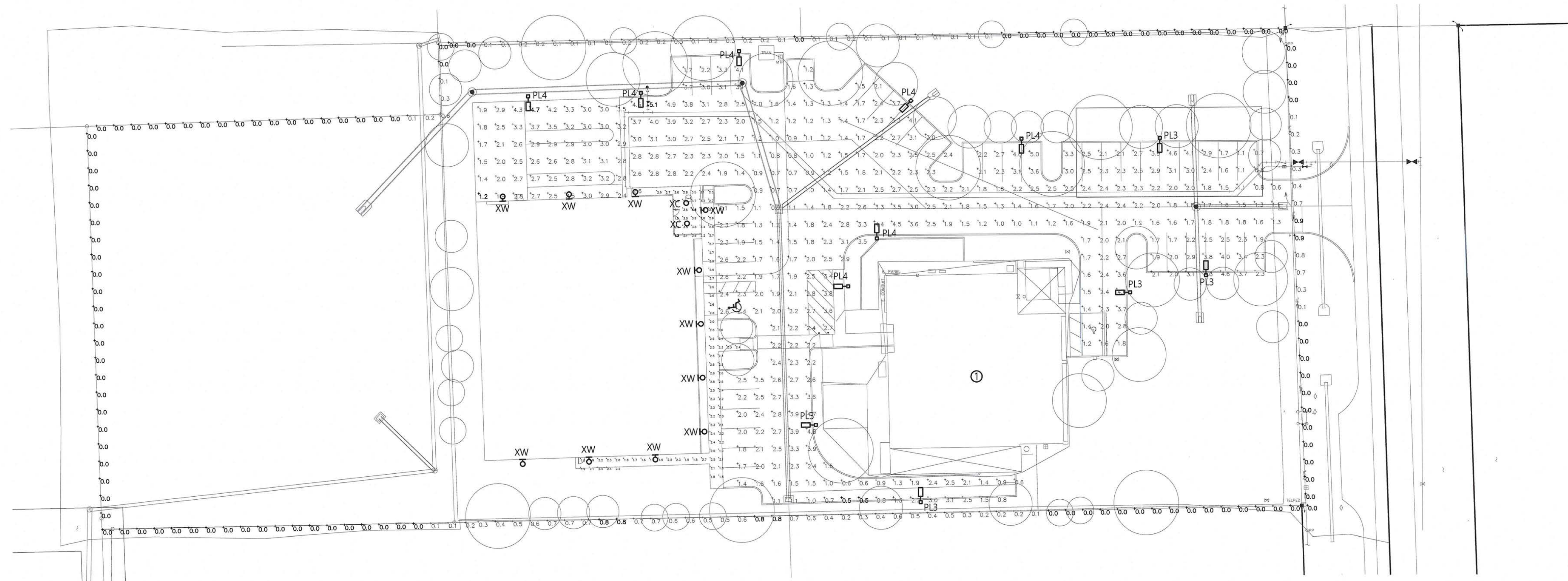
HUNTER DESIGN AND CONSULTING, INC.
735 ARLINGTON AVE N, STE 308
ST. PETERSBURG, FL 33701
352-238-6366
FLORIDA CA #31946, PE #76961

ALCHEM NEW BUILDING & PARKING
SITE LIGHTING PLAN
ALACHUA, FLORIDA

PROJECT INFORMATION	
PROJECT NUMBER:	18113
DRAFTED:	K. NORTH CUTT
DESIGNED:	K. HUNTER
REVIEWED:	K. HUNTER
ISSUE DATE:	4/24/19

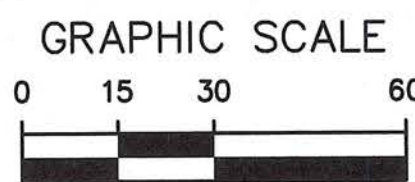
REVISIONS

SHEET NUMBER
E-1



SITE PHOTOMETRIC PLAN

SCALE: 1" = 30'-0"



PLAN NOTES

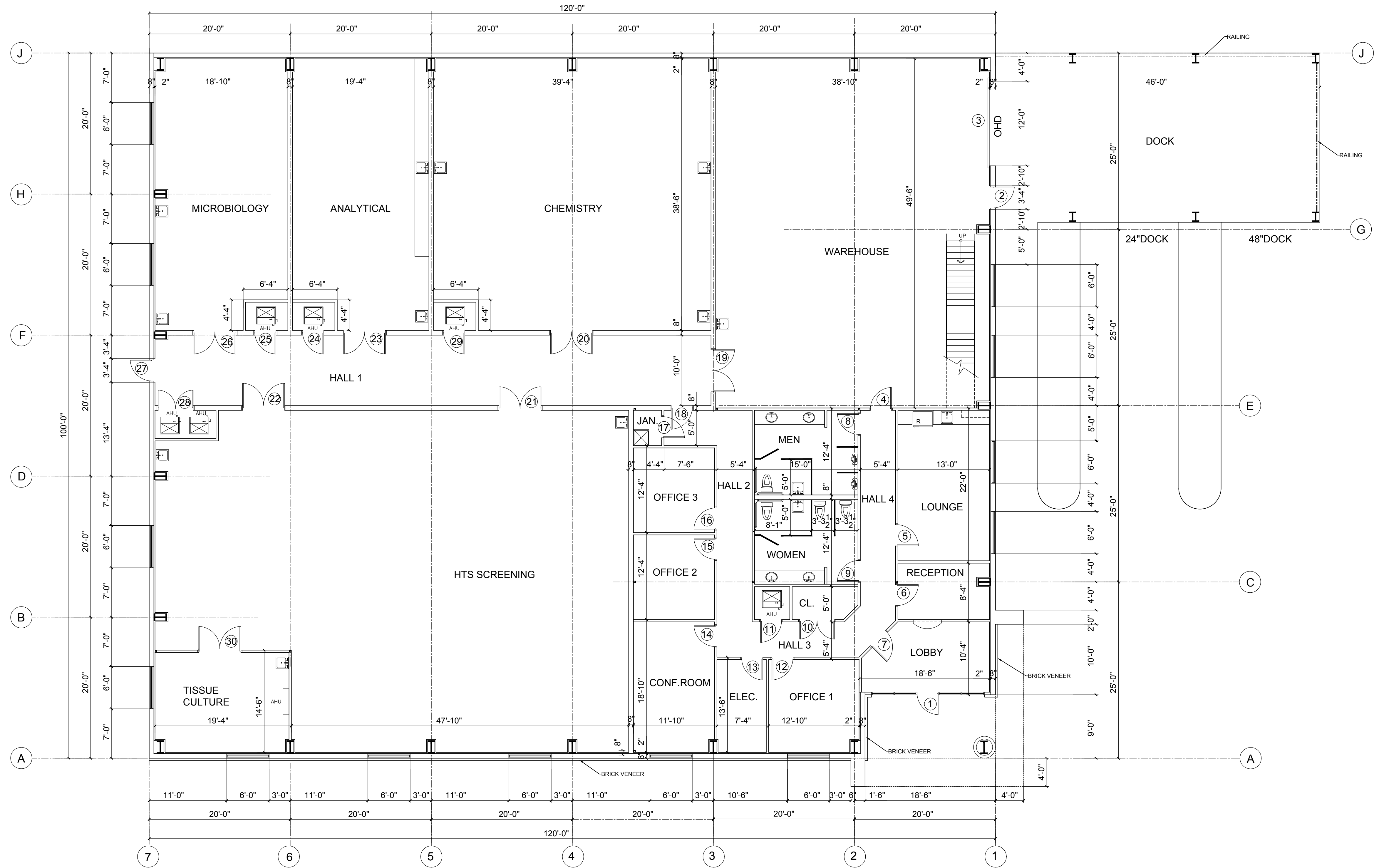
- ① BUILDING MOUNTED LIGHTING SERVING EXISTING BUILDING AND SURROUNDS SHALL REMAIN.

GENERAL NOTES

- HIGHLIGHTED POINTS REPRESENT MAXIMUM/MINIMUM VALUE FOR EACH AREA.
- FIXTURES WILL BE CONTROLLED WITH PHOTOCELL AND OPERATE DUSK-TO-DAWN.
- POLES SHALL BE LOCATED MINIMUM 24" BEHIND CURB AND SHALL BE PROVIDED WITH CONCRETE POLE BASE.
- PHOTOMETRIC PLAN TO ACT AS BASIS OF DESIGN ONLY. CONSTRUCTION DOCUMENTS PROVIDED SEPARATELY.

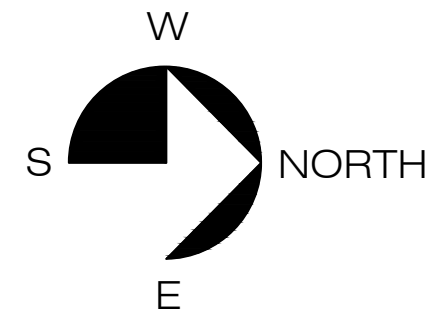
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Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
NEW BUILDING ENTRY	+	2.5 fc	4.4 fc	1.3 fc	3.4:1	1.9:1
NEW PARKING	+	2.2 fc	5.1 fc	0.5 fc	10.2:1	4.4:1
PROPERTY LINE	+	0.2 fc	0.9 fc	0.0 fc	N/A	N/A
TRUCK DOCK	+	2.8 fc	4.7 fc	1.2 fc	3.9:1	2.3:1

Fixture Schedule for Photometrics											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Mounting Height
▣	PL4	7	SIGNIFY GARDCO	ECF-S-32L-700-NW-G2-4-HIS	EcoForm Area LED ECF - Small, 32 LED's, 4000K CCT, TYPE 4-HIS OPTIC, House-side Internal Shielding	(2) LEDGINE SLD LIGHT ARRAY(S) DRIVEN AT 700mA	1	ECF-S-32L-700-NW-G2-4-HIS.ies	7105	0.81	15
▣	PL3	5	SIGNIFY GARDCO	ECF-S-32L-700-NW-G2-3-HIS	EcoForm Area LED ECF - Small, 32 LED's, 4000K CCT, TYPE 3-HIS OPTIC, House-side Internal Shielding	(2) LEDGINE SLD LIGHT ARRAY(S) DRIVEN AT 700mA	1	ECF-S-32L-700-NW-G2-3-HIS.ies	5348	0.81	15
❖	XW	11	SIGNIFY GARDCO	111L-16L-550-NW-G2-4	111 Mini Sconce LED	LEDGINE 3 IP20 WITH 16 CREE XPG2 LEDS	1	111L-16L-550-NW-G2-4.IES	2687	0.81	14
○	XC	2	WILLIAMS INDOOR	6DR-TL-L10-835-DIM-UNV-L-W-OF-WH-AD	Black formed aluminum housing, white reflector, frosted plastic lens enclosure	One white LED	1	6DR-TL-L10-835-DIM-UNV-L-W-OF-WH-AD.ies	650	0.81	14



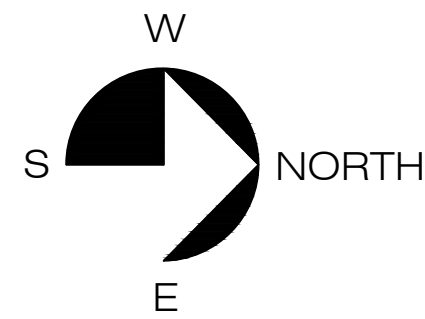
FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"





SCALE: 1/8"=1'-0"

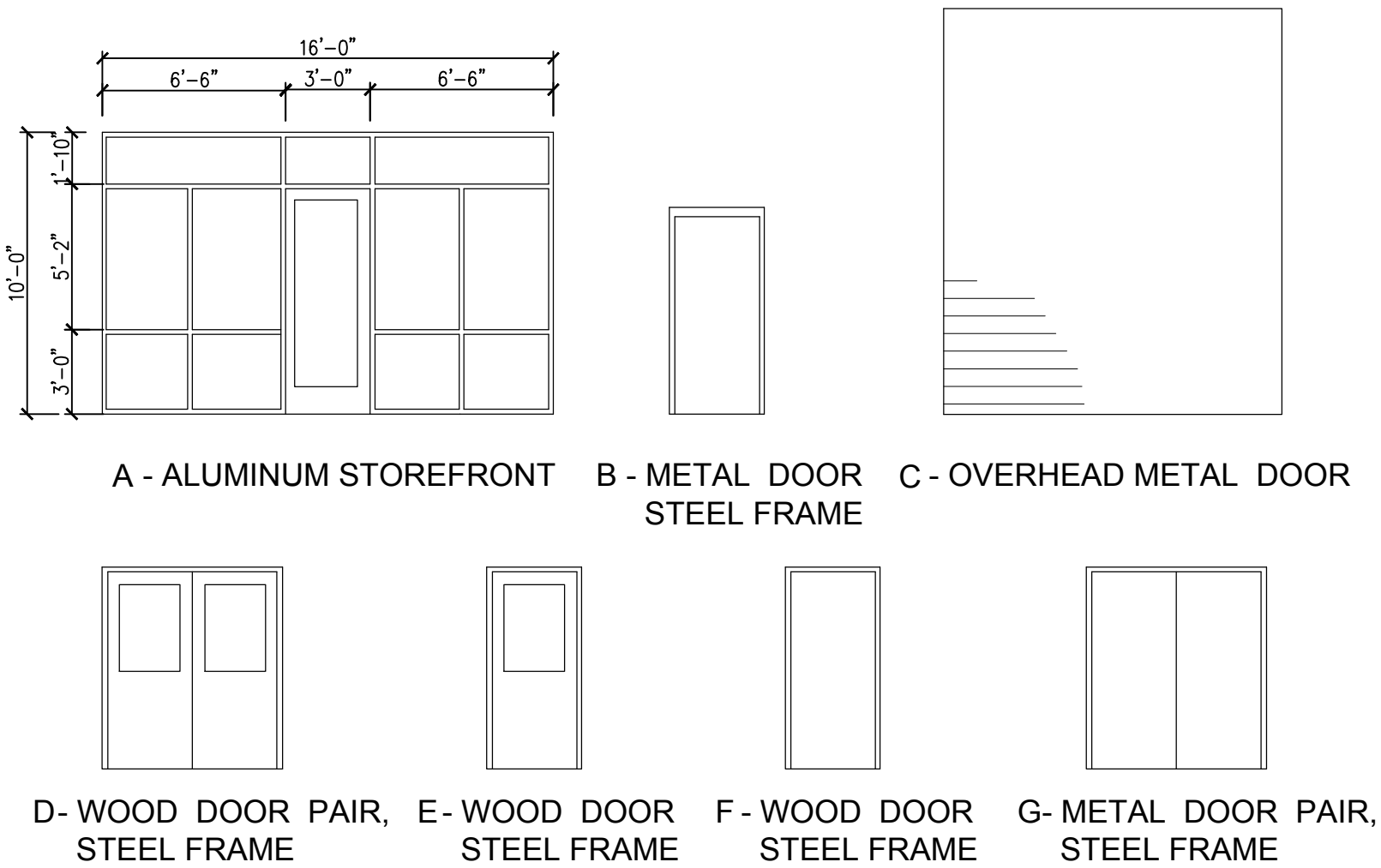


DOOR SCHEDULE

MARK	LOCATION	SIZE	TYPE	HARDWARE	RATING
FIRST FLOOR					
1	LOBBY	ALUM. STOREFRONT	A		
2	WAREHOUSE	3'-0"x7'-0x1 3/4"	B		
3	WAREHOUSE	12'-0"x12'-0"	C		
4	HALL 4	3'-0"x7'-0x1 3/4"	B		
5	LOUNGE	3'-0"x7'-0x1 3/4"	E		
6	RECEPTION	3'-0"x7'-0x1 3/4"	E		
7	LOBBY	3'-0"x7'-0x1 3/4"	E		
8	MEN RR	3'-0"x7'-0x1 3/4"	F		
9	WOMEN RR	3'-0"x7'-0x1 3/4"	F		
10	CLOSET	PR 2'-6"x7'-0x1 3/4"	G		
11	HVAC CLOSET	3'-0"x7'-0x1 3/4"	B		
12	OFFICE 1	3'-0"x7'-0x1 3/4"	F		
13	ELEC.	3'-0"x7'-0x1 3/4"	B		
14	CONFERENCE RM.	3'-0"x7'-0x1 3/4"	F		
15	OFFICE 2	3'-0"x7'-0x1 3/4"	F		
16	OFFICE 3	3'-0"x7'-0x1 3/4"	F		
17	JANITOR CL.	3'-0"x7'-0x1 3/4"	B		
18	HALL 1	3'-0"x7'-0x1 3/4"	B		
19	WAREHOUSE	PR.3'-0"x7'-0x1 3/4"	G		
20	CHEMISTRY	PR.3'-0"x7'-0x1 3/4"	D		
21	HTS SCREENING	PR.3'-0"x7'-0x1 3/4"	D		
22	HTS SCREENING	PR.3'-0"x7'-0x1 3/4"	D		
23	ANALYTICAL	PR.3'-0"x7'-0x1 3/4"	D		
24	HVAC CLOSET	3'-0"x7'-0x1 3/4"	B		
25	HVAC CLOSET	3'-0"x7'-0x1 3/4"	B		
26	MICROBIOLOGY	PR.3'-0"x7'-0x1 3/4"	D		
27	HALL 1	3'-0"x7'-0x1 3/4"	B		
28	HVAC CLOSET	PR 2'-6"x7'-0x1 3/4"	G		
29	HVAC CLOSET	3'-0"x7'-0x1 3/4"	B		
30	TISSUE CULTURE	PR.3'-0"x7'-0x1 3/4"	D		

HARDWARE KEY

1	1 1/2 PR BUTT HINGES EA.
2	CLOSER
3	CARD ACCESS LOCK
4	PASSAGE LEVER
5	KEY LOCK LEVER
6	PRIVACY LEVER
7	STOP EA.
8	MANUFACTURER LOCK
9	MANUAL LIFT
10	WEATHERSTRIP
11	THRESHOLD
12	FLUSH BOLTS
13	1 CYL. LOCK

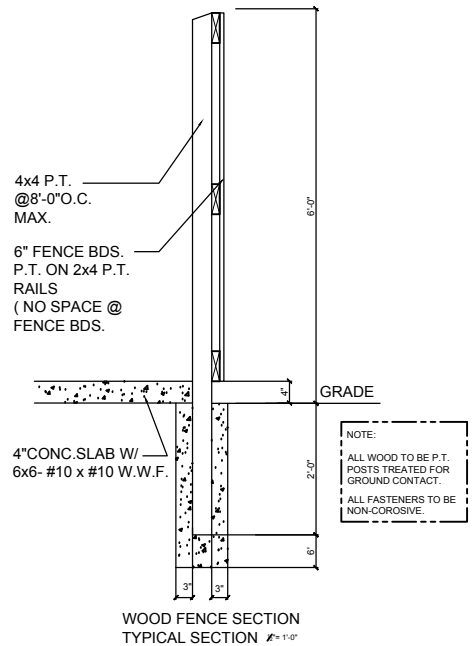
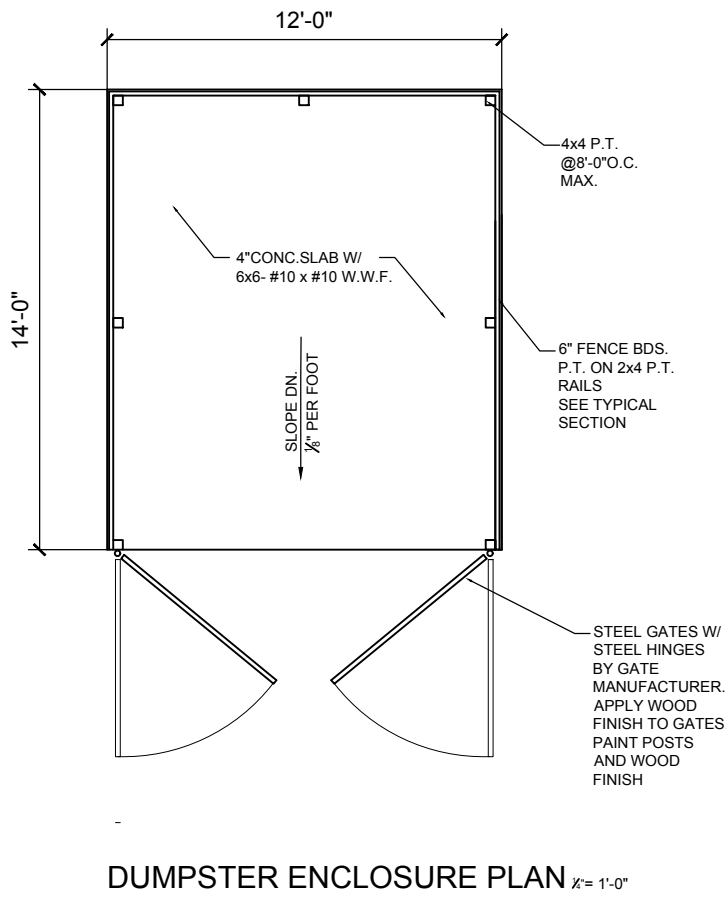


FINISH SCHEDULE

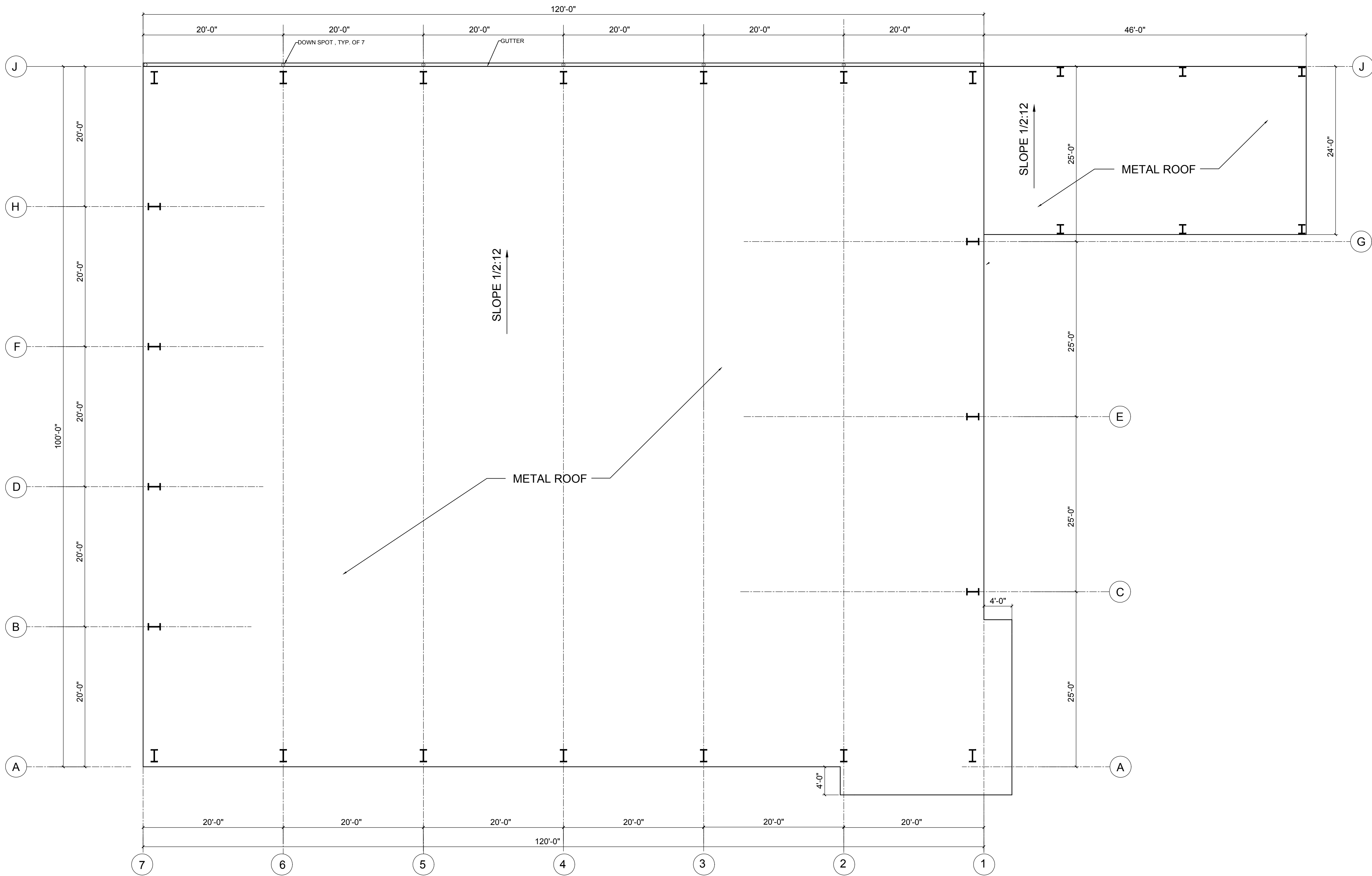
ROOM	FLOOR	BASE	WALLS	CEILING	CLG HT	NOTES
FIRST FLOOR						
LOBBY						
WAREHOUSE						
WAREHOUSE						
HALL 4						
LOUNGE						
RECEPTION						
LOBBY						
MEN RR						
WOMEN RR						
CLOSET						
HVAC CLOSET						
OFFICE 1						
ELEC.						
CONFERENCE RM.						
OFFICE 2						
OFFICE 3						
JANITOR CL.						
HALL 1						
WAREHOUSE						
CHEMISTRY						
HTS SCREENING						
HTS SCREENING						
ANALYTICAL						
HVAC CLOSET						
HVAC CLOSET						
MICROBIOLOGY						
HALL 1						
HVAC CLOSET						
HVAC CLOSET						
TISSUE CULTURE						
SECOND FLOOR						
LIGHT STORAGE						

FINISH KEY

1	EPOXY
2	EPOXY COVE
3	CERAMIC TILE
4	CERAMIC TILE
5	CERAMIC TILE TO 4' A.F.F.
6	CONCRETE
7	NO BASE
8	FRP PANELS TO TOP OF WALLS
9	PAINTED GWB
10	EXPOSED STRUCTURE
11	ACOUSTICAL VINYL ROCK
12	VINYL COVE
13	RUBBER FLOORING
14	CERAMIC TILE TO CEILING AT SHOWERS
15	ACOUSTICAL TILE
16	LVT
17	CARPET

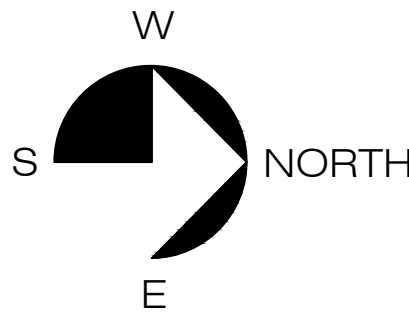






ROOF PLAN

SCALE: 1/8"=1'-0"





City of Alachua

Planning & Community Development Department Staff Report

Planning & Zoning Board Hearing Date: Quasi-Judicial Hearing

July 9, 2019

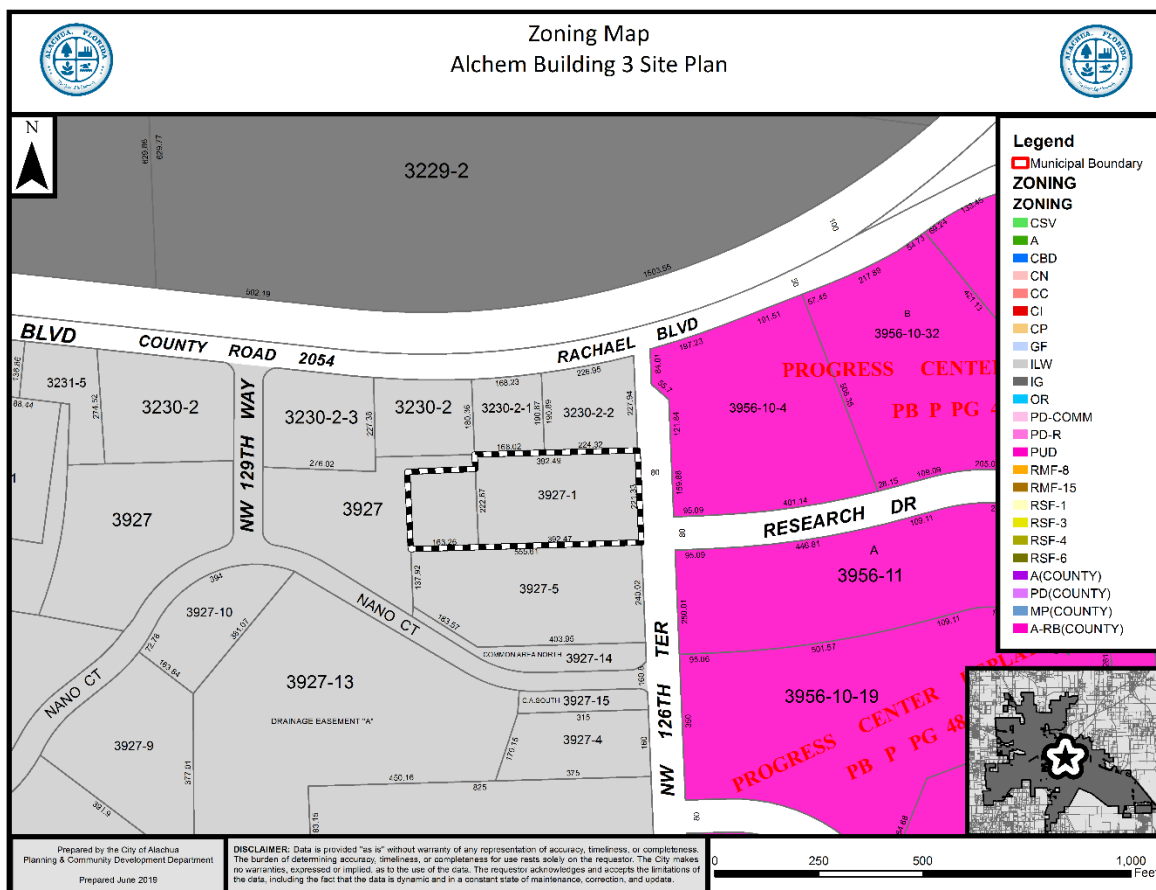
SUBJECT:	A request for a Site Plan for the construction of a $\pm 12,000$ square foot light manufacturing facility with employee parking, storm water management facility improvements, paving, grading, landscaping and associated utility infrastructure
APPLICANT/AGENT:	Caitlyn Drane, P.E. of eda engineers-surveyors-planners, inc.
PROPERTY OWNER:	James D. Talton of Alchem Laboratories Corporation
LOCATION:	14120 NW 126 th Terrace
PARCEL ID NUMBER:	03956-010-027 and a portion of 03927-000-000
FLUM DESIGNATION:	Industrial
ZONING:	ILW (Light and Warehouse Industrial)
OVERLAY:	NA
ACREAGE:	± 2.70 acres
PROJECT PLANNER:	Adam Hall, AICP
RECOMMENDATION:	Staff recommends that the Planning & Zoning Board approve the Site Plan, subject to the four (4) conditions provided in Exhibit "A" of this Staff Report.
RECOMMENDED MOTION:	<i>Based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan, subject to the four (4) conditions provided in Exhibit "A" and on page 20 of the July 9, 2019 Staff Report to the Planning & Zoning Board.</i>

SUMMARY

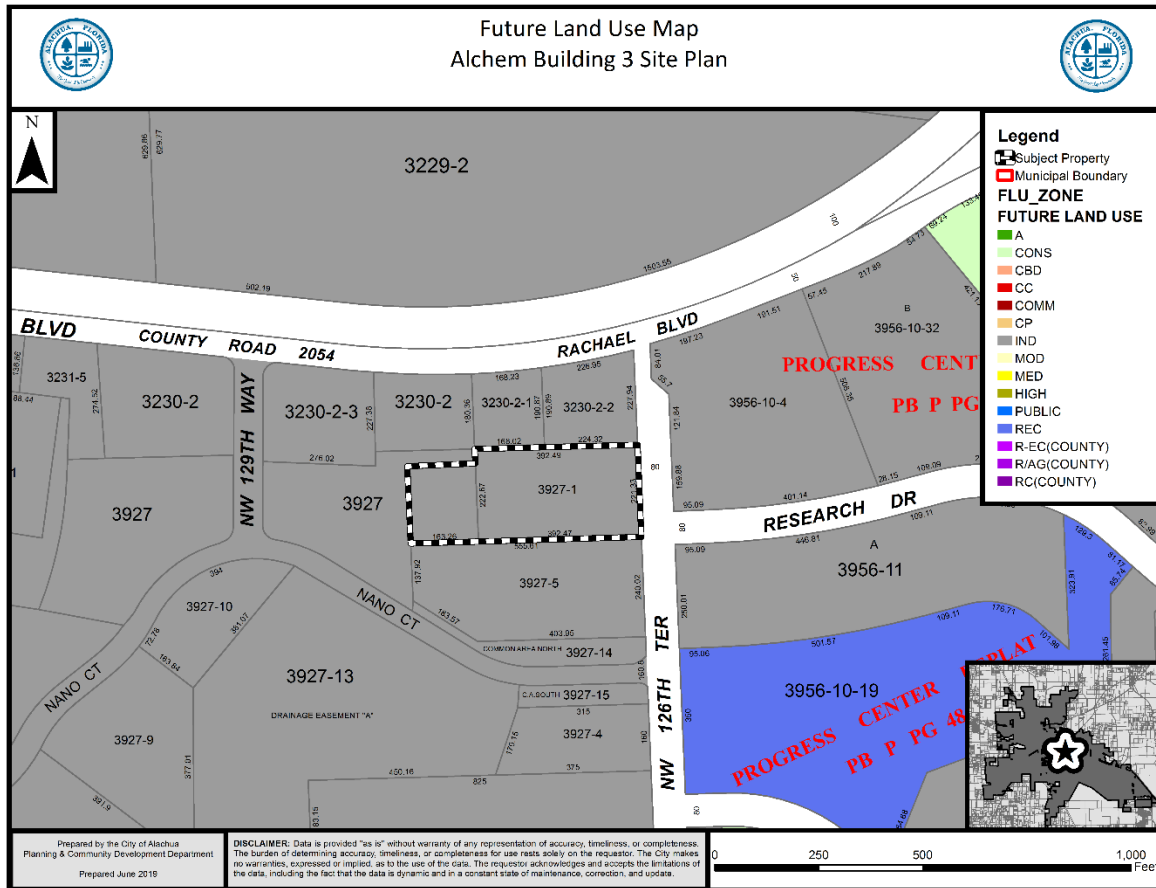
The proposed site plan is a request by Caitlyn Drane, P.E., of eda engineers-surveyors-planners, inc. , applicant and agent for James D. Talton of Alchem Laboratories Corporation, property owner, for the construction of a ±12,000 square foot light manufacturing with employee parking, storm water management facility improvements, paving, grading, landscaping and associated utility infrastructure.

The subject property is ±2.70 acres in area and is located at 14120 NW 126th Terrace. Access to the subject property would be provided by one (1) existing ingress/egress drives, which is proposed to be improved as a part of this site plan application. There is an existing 6,800 square foot structure on the property, which is proposed to remain. All parking and landscaping nonconformities have been addressed, to the extent required by the City's Land Development Regulations.

Map 1. Subject Property with Zoning



Map 2. Subject Property with Future Land Use



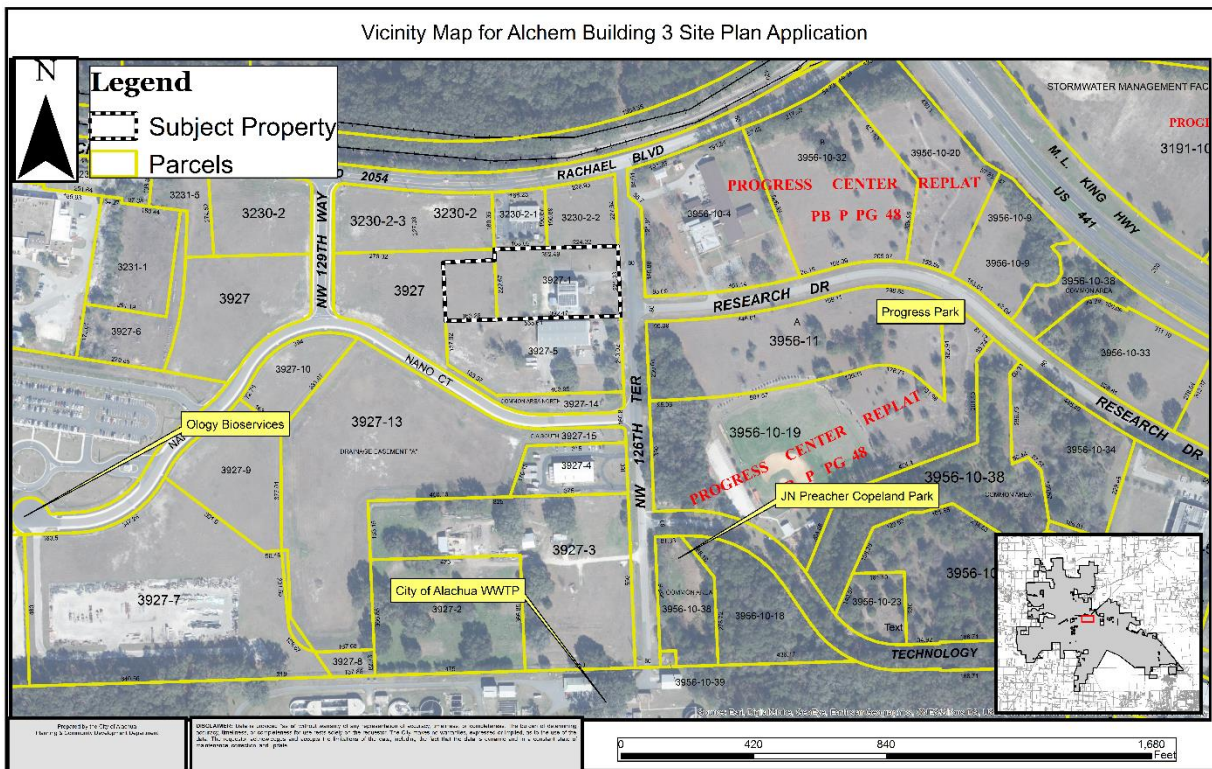
The proposed development will convey the development's stormwater runoff to a proposed stormwater system located to the west of the proposed new structure, which will also require a permit from the Suwannee River Water Management District.

SURROUNDING USES

The existing uses, Future Land Use Map (FLUM) Designations, and zoning districts of the surrounding area are identified in Table 1. Map 3 provides an overview of the vicinity of the subject property. (NOTE: The information below is intended to provide a general overview of the area surrounding the subject property and to generally orient the reader. It is not intended to be all-inclusive, and may not identify all existing uses, FLUM Designations, and/or zoning districts surrounding the subject property.)

Table 1. Surrounding Land Uses

Direction	Existing Use(s)	FLUM Designation(s)	Zoning District(s)
North	Light Industrial/ Petra Research	Industrial	ILW
South	Light Industrial/ Acousti Engineering	Industrial	PUD
East	Light Industrial/ Progress Park	Industrial	PUD
West	Vacant	Industrial	ILW

Map 3. Vicinity Map

NEIGHBORHOOD MEETING

The purpose of a Neighborhood Meeting is to educate the owners of nearby land and any other interested members of the public about the project and to receive comments regarding the project. As required by Section 2.2.4 of the LDRs, all property owners within 400 feet of the subject property were notified of the meeting and notice of the meeting was published in a newspaper of general circulation.

A Neighborhood Meeting was held on November 15, 2018 at the Alachua Branch Library. The applicant's agent was present and available to answer questions. As evidenced by materials submitted by the applicant, the meeting was not attended by any individuals from the public. A copy of the notice materials for Neighborhood Meeting has been provided by the applicant and is included within the application materials.

CONSISTENCY WITH THE COMPREHENSIVE PLAN

The Goals, Objectives, and Policies (GOPs) identified below are provided to establish a basis of the application's consistency with the Comprehensive Plan. There may be additional GOPs which the application is consistent with that are not identified within this report. An evaluation and findings of consistency with the identified GOPs is also provided below.

Future Land Use Element

GOAL 1: Future Land Use Map 2025:

The City of Alachua shall maintain a Future Land Use Map in order to effectively guide development in a sustainable manner and to ensure economic prosperity and stability while maintaining a high quality of life for all of its present and future citizens.

Objective 1.5: Industrial

The City of Alachua shall establish one industrial district: Industrial. This district shall provide a broad range of clean industry, warehousing, research, and technology industries, to provide a variety of job opportunities to the citizens of Alachua and the North Central Florida Region.

Policy 1.5.a: Industrial: Industrial uses are generally intense uses that require large land area and convenient access to transportation facilities, such as roads, highways, and rail lines. Industrial uses, such as warehousing and manufacturing, shall be located and designed in such a manner as to prevent unwanted impacts to adjacent properties.

Evaluation and Findings of Consistency with Goal 1, Objective 1.5, and Policy 1.5.a: The subject property has an Industrial FLUM Designation. The zoning of the subject property is Light and Warehouse Industrial (ILW), which permits light manufacturing.

Policy 1.5.d: The City shall develop performance standards for industrial uses in order to address the following:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
2. Buffering from adjacent existing/potential uses;
3. Open space provisions and balance of proportion between gross floor area and site size;
4. Adequacy of pervious surface area in terms of drainage requirements;
5. Placement of signage;
6. Adequacy of site lighting and potential impacts of lighting upon the surrounding area. Lighting should be designed to minimize impacts and preserve the ambiance and quality of the nighttime sky by reducing light

trespass and light pollution on adjacent properties by utilizing lighting at an appropriate intensity, direction and times to ensure light is not overused or impacting areas where it is not intended;

7. Safety of on-site circulation patterns (patron, employee and delivery vehicles, trucks), including parking layout and drive aisles, and points of conflict;
8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
10. Performance based zoning requirements that may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
11. Industrial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres by 5 acres or greater, .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio for parcels 1 acre or less.

Evaluation and Findings of Consistency with Policy 1.5.d: The applicant has demonstrated through the site plan, application, and supporting documentation that each of these sub-policies have been sufficiently addressed.

Objective 2.4: Landscaping and Tree Protection Standards: The City shall adopt landscaping and tree protection standards in order to achieve the aesthetic design values of the community and preserve tree canopies, as well as specimen protected, heritage and champion trees.

Policy 2.4.a: Landscaping: General – The City shall require landscaping plans to be submitted with each nonresidential and multiple family residential site plan. The minimum landscaped area shall be 30% of the development site. Landscaping designs shall incorporate principles of xeriscaping, where feasible. The City shall develop a list of preferred planting materials to assist in the landscape design. Landscape plans shall include perimeter and internal site landscaping.

Policy 2.4.b: Landscaping: Buffering – A buffer consists of horizontal space (land) and vertical elements (plants, berms, fences, walls) that physically separate and visually screen adjacent land uses. The City shall establish buffer yard requirements that are based on the compatibility of the adjacent uses and the desired result of the buffer.

Evaluation and Findings of Consistency with Objective 2.4 and Policies 2.4.a and 2.4.b: The site plan includes a landscaping plan which demonstrates that the proposed development will comply with all applicable landscaping and buffering standards required by the City's Comprehensive Plan and Land Development Regulations.

Objective 2.5: Open Space Standards: The City shall utilize open space requirements to preserve the rural character of Alachua, protect

natural resources, and provide spaces for people to recreate and gather.

Policy 2.5.a: There shall be a minimum of 10% percent open space required. The City shall establish incentives for the provision of open space beyond minimum requirements.

Evaluation and Findings of Consistency with Objective 2.5 and Policy 2.5.a: The site plan indicates that the subject property will include 1.35 acres of open space (50.03% of the site), exceeding the minimum 10% open space requirement.

Objective 5.1: Natural features: The City shall coordinate Future Land Use designations with appropriate topography, soils, areas of seasonal flooding, wetlands and habitat during review of proposed amendments to the Future Land Use Map and the development review process. Natural features may be included as amenities within a development project.

Evaluation and Findings of Consistency with Objective 5.1: An environmental conditions and site suitability analysis has been provided in this report, and indicates that the development will not adversely affect natural features.

Objective 5.2: Availability of facilities and services: The City shall utilize a concurrency management system to ensure that the adopted level of service standards are maintained.

Policy 5.2.a: All new development shall meet level of service requirements for roadways, potable water and sanitary sewer, stormwater, solid waste, public schools, and improved recreation in accordance with LOS standards adopted in the elements addressing these facilities.

Evaluation and Findings of Consistency with Objective 5.2 and Policy 5.2.a: An analysis of the development's impact to public facilities has been provided within this report. This analysis demonstrates that the development will not adversely affect the level of service (LOS) standard of any monitored public facilities.

Policy 9.1: Any new development within a Commercial or Industrial Future Land Use Map Designation within the corporate limits, where potable water and wastewater service are available, as defined in Policy 1.2.a and Policy 4.2.a of the Community Facilities and Natural Groundwater Aquifer Recharge Element of the City of Alachua Comprehensive Plan, shall connect to the City of Alachua's potable water and wastewater system.

Evaluation and Findings of Consistency with Policy 9.1: The proposed development will connect to potable water and wastewater facilities.

Transportation Element

Objective 1.1: Level of Service

The City shall establish a safe, convenient and efficient level of service standard for all motorized and non-motorized transportation systems.

Evaluation and Findings of Consistency with Objective 1.1: An analysis of the development's impacts to transportation facilities is provided within this report. The development will not adversely affect the level of service for transportation facilities.

Policy 1.3.a: The City shall establish minimum and maximum parking standards in order to avoid excessive amounts of underutilized parking areas.

Policy 1.3.d: The City shall require landscaping within parking areas, with an emphasis on canopy trees. The City shall consider establishing incentives for landscaping in excess of minimum standards.

Policy 1.3.g: The City shall require spaces to accommodate persons with physical disabilities as required by the Americans with Disabilities Act.

Evaluation and Findings of Consistency with Objective 1.1 and Policies 1.3.a, 1.3.d,, and 1.3.g: The site plan complies with the applicable standards of Section 6.1, Off-street parking and loading standards, of the City's Land Development Regulations. Required landscaping materials and pedestrian crossings and connections will be provided within parking areas. The site plan also provides the minimum number of required accessible parking spaces.

Community Facilities & Natural Groundwater Aquifer Recharge Element

Policy 1.1.d:

The City hereby establishes the following level of service standards for sanitary sewer facilities:

Levels of Service

- a. **Quality:** Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP).
- b. **Quantity:** System-wide wastewater collection and treatment will be sufficient to provide a minimum of 250 gallons per day per equivalent residential unit (ERU) on an average annual basis. Plant expansion shall be planned in accordance with F.A.C. 62-600.405, or subsequent provision. This level of service standard shall be re-evaluated one year from the adoption date for the amended Plan.
- c. **System capacity:** If the volume of existing use in addition to the volume of the committed use of the City's wastewater facility reaches 85% of the permitted capacity design, no further development orders for projects without reserved capacity will be issued until additional capacity becomes

available or funds to increase facility capacity are committed in accordance with a development agreement.

Evaluation and Findings of Consistency with Policy 1.1.d: An analysis of the development's impacts to sanitary sewer facilities is provided within this report. The development will not adversely affect the level of service for sanitary sewer facilities.

Policy 1.2.a: The City shall establish a Community Wastewater Service Area, which includes all areas where wastewater service is available. Wastewater service shall be deemed available if:

3. A gravity wastewater system, wastewater pumping station, or force main exists within ¼ mile of the property line of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and the gravity wastewater system, wastewater pumping station, or force main can be accessed through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

Evaluation and Findings of Consistency with Policy 1.2.a: The proposed development is located within the City's utility service area and will connect to the City's wastewater system.

Policy 2.1.a: The City hereby establishes the following level of service standards for solid waste disposal facilities:

<u>FACILITY TYPE</u>	<u>LEVEL OF SERVICE STANDARD</u>
Solid Waste Landfill	.73 tons per capita per year

Evaluation and Findings of Consistency with Objective 2.1.a: An analysis of the development's impacts to solid waste facilities is provided within this report. The development will not adversely affect the level of service for solid waste facilities.

Objective 3.1: Ensure provision of drainage and stormwater retention through level of service standards and design requirements to minimize flooding and to protect and improve water quality.

Policy 4.1.b: The City shall establish a Community Potable Water Service Area, which includes all areas where potable water service is available. Water service shall be deemed available if:

3. A water main exists within ¼ mile of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and water service can be accessed through public

utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

Evaluation and Findings of Consistency with Policy 4.1.b: The proposed development is located within the City's utility service area and will connect to the City's potable water system.

Policy 4.1.c: The City establishes the following level of service standards for potable water:

1. Quality: Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection.
2. Quantity: System-wide potable water distribution and treatment will be sufficient to provide a minimum of 275 gallons per day per equivalent residential unit (ERU) on an average annual basis. Plant expansion shall be planned in accordance with Florida Administrative Code.
3. System Capacity: If the volume of existing use in addition to the volume of the committed use of the City's potable water facility reaches 85% of the permitted design capacity, no further development orders or permits for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement.

Evaluation and Findings of Consistency with Objective 4.1.c: An analysis of the development's impacts to potable water facilities is provided within this report. The development will not adversely affect the level of service for potable water facilities.

Conservation & Open Space Element

Policy 1.2.a:

The City shall ensure that land use designations, development practices and regulations protect native communities and ecosystems, and environmentally sensitive lands.

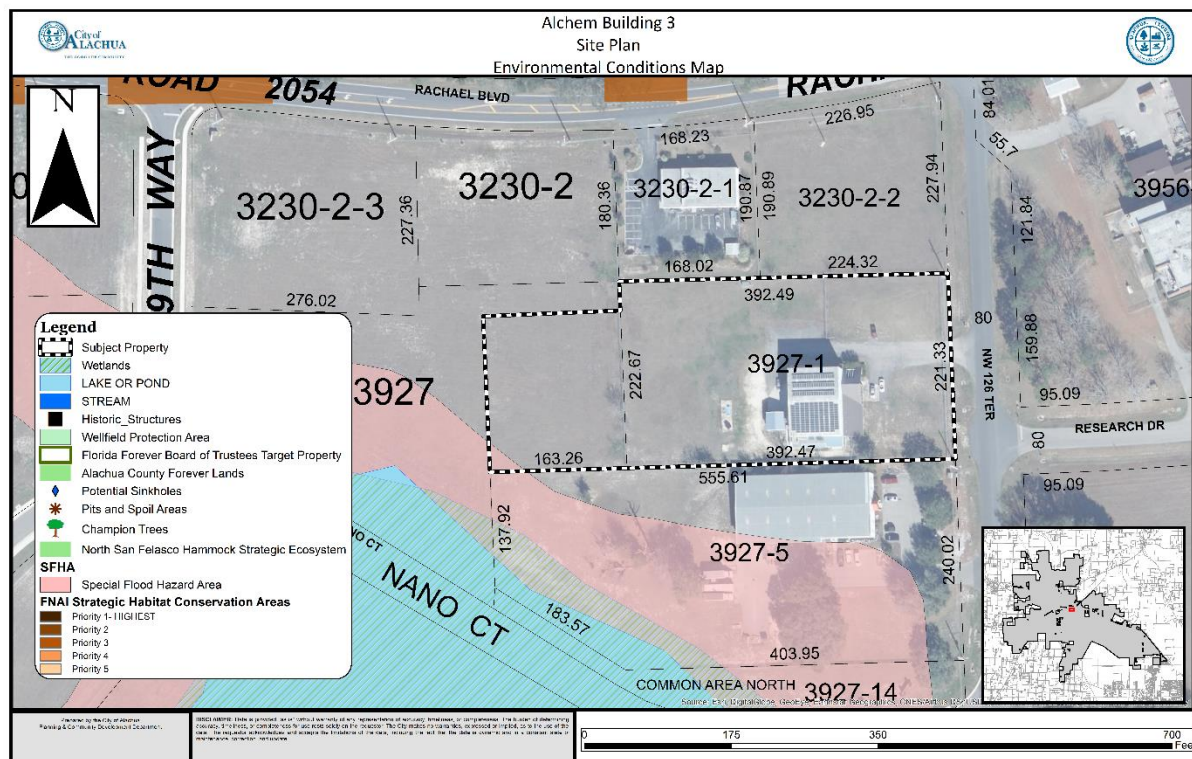
Policy 1.3.e:

The City's land use designations shall offer the best possible protection to threatened and endangered species.

Evaluation and Findings of Consistency with Policy 1.2.a and 1.3.e: The subject property does not contain any environmentally sensitive lands, and is not located adjacent to large tracts of land or land designated for conservation. The development therefore will encourage development practices which provide for the protection of native communities and ecosystems.

ENVIRONMENTAL CONDITIONS ANALYSIS

Map 4. Environmental Features



Wetlands

According to best available data, there are no wetlands located on the subject property. If any wetlands are identified on the subject property at a later time, these areas will be subject to the applicable protection standards of the City of Alachua Comprehensive Plan and the Land Development Regulations (LDRs). As there are wetlands located within the immediate vicinity, a condition has been added that the applicant must provide delineation demonstrating that all applicable standards of the Comprehensive Plan and LDRs have been met.

Evaluation: No wetlands have been identified on subject property therefore, there are no issues related to wetland protection.

Strategic Ecosystems

Strategic Ecosystems were identified by an ecological inventory project in a report prepared for Alachua County Department of Growth Management in 1987. The purpose of the inventory was to identify, inventory, map, describe, and evaluate the most significant natural biological communities in private ownership in Alachua County. The subject property is not located within or adjacent to a Strategic Ecosystem.

Evaluation: The subject property is not located within or adjacent to a Strategic Ecosystem, therefore, the development will not adversely impact any Strategic Ecosystem(s) identified within the ecological inventory report.

Regulated Plant & Animal Species

The subject property is not known to contain any species identified as endangered, threatened, or of special concern. The Florida Natural Areas Inventory (FNAI) has identified areas throughout the State of Florida which may contain good quality natural communities. This data layer is known as the Potential Natural Areas (PNA) data layer, and identifies privately owned lands that are not managed or listed for conservation purposes. These areas were delineated by FNAI scientific staff through interpretation of natural vegetation from 1988-1993 FDOT aerial photographs and from input received during Regional Ecological Workshops held for each regional planning council. These workshops were attended by experts familiar with natural areas in the region. Potential Natural Areas were assigned ranks of Priority 1 through Priority 5 based on size, perceived quality, and type of natural community present. The areas included in Priority 5 are exceptions to the above criteria. These areas were identified through the same process of aerial photographic interpretation and regional workshops as the PNA 1 through 4 ranked sites, but do not meet the standard criteria.

Evaluation: No species identified as endangered, threatened, or of special concern are known to exist on the subject property. While the FNAI PNA data layer does not indicate any lands classified as potentially having habitat which could support species identified as endangered, threatened, or of special concern, this data is not intended for use in a regulatory decision making process. If a regulated plant or animal species is identified during development, the applicant must adhere to the applicable standards in the City of Alachua Comprehensive Plan and the Land Development Regulations.

Soil Survey

Each soil type found on the subject property is identified below. The hydrologic soil group is an indicator of potential soil limitations. The hydrologic soil group, as defined for each specific soil, refers to a group of soils which have been categorized according to their runoff-producing characteristics. These hydrologic groups are defined by the Soil Survey of Alachua County, Florida, dated August 1985. The chief consideration with respect to runoff potential is the capacity of each soil to permit infiltration (the slope and kind of plant cover are not considered, but are separate factors in predicting runoff.) There are four hydrologic groups: A, B, C, and D. "Group A" soils have a higher infiltration rate when thoroughly wet and therefore have a lower runoff potential. "Group D" soils have very lower infiltration rates and therefore a higher runoff potential.

Table 2. Soils

Soil Type	Hydrologic Group	Drainage Class	Small Commercial Buildings	% of Subject Property (may not total to 100% due to rounding)
Arredondo fine sand, 0 to 5% slopes	A	Well drained	Not limited	16.60%
Millhopper sand, 0 to 5 percent slopes	A	Moderately well drained	Not Limited	83.30%
Arredondo fine sand, 5 to 8% slopes	A	Well drained	Somewhat limited	.01%

Evaluation: The soil types present on the subject property do not pose any substantial limitations for the proposed development, therefore, no concerns related to soil suitability.

Flood Potential

Panel 0140D of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Series, dated June 16, 2006, indicates that a majority (99.3%) of the subject property is in Flood Zone X (areas determined to be outside of the 500-year floodplain), with the remainder in Flood plain A. See Map 4 above.

Evaluation: The subject property is primarily located in Flood Zone X (areas determined to be outside of the 500-year floodplain), with a small portion (.02 acres/ .3% of subject property area) therefore there are no issues related to flood potential.

Karst-Sensitive Features

Karst sensitive areas include geologic features, such as fissures, sinkholes, underground streams, and caverns, and are generally the result of irregular limestone formations. The subject property is located within an area where sinkholes may potentially allow hydrologic access to the Floridan Aquifer System, however, best available data indicates that no sinkholes or known indicators of sinkhole activity are located on the subject property.

Evaluation: There are no geologic features located on the subject property which indicate an increased potential for karst sensitivity.

Wellfield Protection Zones

Policy 7.2.1 of the Future Land Use Element of the City's Comprehensive Plan establishes a 500 foot radius area around each city-owned potable water well.

Evaluation: The subject property is not located within a City of Alachua wellhead protection zone as identified on the City of Alachua Wellfield Primary Protection Zones

Map of the City's Comprehensive Plan, therefore, there are no issues related to wellfield protection.

Historic Structures/Markers and Historic Features

The subject property does not contain any historic structures as determined by the State of Florida and the Alachua County Historic Resources Inventory. Additionally, the subject property is not located within the City's Historic Overlay District, as established by Section 3.7 of the City's Land Development Regulations.

Evaluation: There are no issues related to historic structures or markers.

COMPLIANCE WITH LAND DEVELOPMENT REGULATIONS

SITE PLAN STANDARDS

Section 2.4.9(E) of the City's Land Development Regulations (LDRs) establishes the standards with which all site plans must be found to be compliant. The application has been reviewed for compliance with the standards of Section 2.4.9(E.) An evaluation and findings of the application's compliance with the standards of Section 2.4.9(E) is provided below.

(E) Site Plan Standards

A Site Plan shall be approved only upon a finding the applicant demonstrates all of the following standards are met:

(1) *Consistency with Comprehensive Plan*

The development and uses in the Site Plan comply with the Goals, Objectives and Policies of the Comprehensive Plan.

Evaluation & Findings: An analysis of the application's consistency with the Comprehensive Plan has been provided in this report.

(2) *Use Allowed in Zone District*

The use is allowed in the zone district in accordance with Article 4: *Use Regulations*.

Evaluation & Findings: The subject property is zoned ILW (Light and Warehouse Industrial), which permits the light industrial use. The site plan proposes a new ±12,000 square foot light industrial (pharmaceutical materials production, research and development) use with employee parking, storm water management facility improvements, paving, grading, and associated utility infrastructure.

(3) *Zone District Use-Specific Standards*

The development and uses in the Site Plan comply with Section 4.3, *Use-Specific Standards*.

Evaluation & Findings: There are no use-specific standards for light industrial uses.

(4) *Development and Design Standards*

The development proposed in the Site Plan and its general layout and design comply with all appropriate standards in Article 6: *Development Standards*.

Evaluation & Findings: The application has been reviewed for and is found to be in compliance with all relevant provisions of Article 6, *Development Standards*, including but not limited to *Section 6.1*, Off Street Parking & Loading Standards, *Section 6.2*, Tree Protection/Landscape/Xeriscape Standards, *Section 6.3*, Fencing Standards, *Section 6.4*, Exterior Lighting Standards, *Section 6.7*, Open Space Standards, *Section 6.8*, Design Standards for Business Uses, and *Section 6.9*, Environmental Protection Standards. Compliance with the relevant provisions of the aforementioned LDR sections is demonstrated within the Site Plan.

(5) *Subdivision Standards*

In cases where a subdivision has been approved or is pending, the development proposed in the Site Plan and its general layout and design comply with all appropriate standards in Article 7: *Subdivision Standards*.

Evaluation & Findings: A subdivision exempt from review under 2.4.10 (B)(3)(f) has been submitted as a part of this Site Plan application.

(6) *Complies with All Other Relevant Laws and Ordinances*

The proposed site plan development and use complies with all other relevant City laws and ordinances, state and federal laws, and regulations.

Evaluation & Findings: The application is consistent with all other relevant City ordinances and regulations.

COMPLIANCE WITH SECTION 6.8, DESIGN STANDARDS FOR BUSINESS USES

Section 6.8 of the City's Land Development Regulations (LDRs) establishes design standards for business uses. The standards established within Section 6.8.2 apply to business use types, except for single tenant retail sales and services uses greater than or equal to 20,000 square feet or unless otherwise exempted within Subsection 6.8.1(B.). Uses exempt from the design standards pursuant to Subsection 6.8.1(B) include use types within the industrial services, manufacturing and production, warehouse and freight movement, waste-related services, and wholesale sales use categories, except when all or a portion of a building utilized for one of these uses is located within 500 feet of US Highway 441 right-of-

way. The standards established within Section 6.8.3 apply to single tenant retail sales and services uses greater than 20,000 square feet.

The proposed development is classified as a “manufacturing and production use type”, but is not located within 500 feet of the right-of-way of US Highway 441, and therefore not subject to the requirements of Section 6.8.

PUBLIC FACILITIES IMPACT

Traffic Impact

Table 4. Affected Comprehensive Plan Roadway Segments¹

Segment Number ^{2, 3}	Segment Description	Lanes	Functional Classification	Area Type	LOS
N/A	CR 2054 (East Segment) (from SR 235 to US 441)	2/U	County Maintained Collector	Urban	D

¹ Source: City of Alachua Comprehensive Plan, Transportation Element.
² For developments generating fewer than 1,000 trips, affected roadway segments are identified as those located partially or wholly within ½ mile of the development's ingress/egress [Section 2.4.14(H)(2) of the LDRs.]
³ FDOT roadway segment number shown in parenthesis (when applicable.) For the purposes of concurrency management, COA Comprehensive Plan segments that make up a portion of a larger FDOT roadway segment will be evaluated together when determining post development roadway capacity.

Table 5. Trip Generation¹

Land Use	AADT (Enter/Exit) ²	AM Peak Hour (Enter/Exit) ²	PM Peak Hour (Enter/Exit) ²
General Light Industrial (ITE Code 110)	60 (30/30)	11 (10/1)	10 (2/8)
Total Trips	60 (30/30)	11 (10/1)	10 (2/8)

¹ Source: ITE Trip Generation, 10th Edition.
² Formulas: ITE Code 110– AADT – 4.96 trips per 1,000 sf gfa x 12 ksf (50% entering/50% exiting); AM Peak Hour – 11.04 trips per 1,000 sf gfa x 12 ksf (87% entering/13 % exiting); PM Peak Hour – 9.96 trips per 1,000 sf gfa x 12 ksf (18 % entering/ 82% exiting)

Table 6a. Projected Impact on Affected Comprehensive Plan Roadway Segments (AADT)

Traffic System Category	CR 2054 (East Segment) (from SR 235 to US 441) ¹
Average Annual Daily Trips	
Maximum Service Volume ²	15,120
Existing Traffic ³	3,008
Reserved Trips ⁴	654
Available Capacity ⁴	11,458
Increase/Decrease in Daily Trips Generated by Development ⁵	60
Residual Capacity After Development's Impacts⁶	11,398
¹ FDOT roadway segment number shown in parenthesis (when applicable.) For the purposes of concurrency management, COA Comprehensive Plan segments that make up a portion of a larger FDOT roadway segment will be evaluated together when determining post development roadway capacity. ² Source: FDOT 2018 Quality/Level of Service Handbook, Generalized Annual Average Daily Volumes and Generalized Peak Hour Two-Way Volumes for Areas Transitioning to Urbanized Areas or Areas of 5,000 Not in Urbanized Areas. ³ Florida State Highway System Level of Service Report 2016, Florida Department of Transportation, District Two (published August 2017). ⁴ Source: City of Alachua June 2019 Development Monitoring Report. ⁵ Trip Distribution: CR 2054 East - 100% ⁶ The application is for a Final Development Order. Facility capacity and concurrency will be reserved.	

Table 6b. Projected Impact on Affected Comprehensive Plan Roadway Segments (PM Peak Hour)

Traffic System Category	CR 2054 (East Segment) (from SR 235 to US 441) ¹
Maximum Service Volume ²	1,359
Existing Traffic ³	286
Reserved Trips ⁴	66
Available Capacity ⁴	1,007
Increase/Decrease in PM Peak Hour Trips Generated by Development ⁵	10
Residual Capacity After Development's Impacts⁶	997
¹ FDOT roadway segment number shown in parenthesis (when applicable.) For the purposes of concurrency management, COA Comprehensive Plan segments that make up a portion of a larger FDOT roadway segment will be evaluated together when determining post development roadway capacity. ² Source: FDOT 2018 Quality/Level of Service Handbook, Generalized Annual Average Daily Volumes and Generalized Peak Hour Two-Way Volumes for Areas Transitioning to Urbanized Areas or Areas of 5,000 Not in Urbanized Areas. ³ Florida State Highway System Level of Service Report 2016, Florida Department of Transportation, District Two (published August 2017). ⁴ Source: City of Alachua June 2019 Development Monitoring Report. ⁵ Trip Distribution - CR 2054 East - 100% ⁶ The application is for a Final Development Order. Facility capacity and concurrency will be reserved.	

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) of the roadway segment identified above; therefore, the demand generated by the development is acceptable.

Potable Water Impacts

Table 7. Potable Water Impacts

System Category	Gallons Per Day
Current Permitted Capacity ¹	2,300,000
Less Actual Potable Water Flows ¹	1,295,603
Reserved Capacity ¹	79,937
Available Capacity	924,460
Projected Potable Water Demand from Application ³	1,980
Residual Capacity	922,480
Percentage of Permitted Design Capacity Utilized	60.00%
<i>Sources:</i> ¹ City of Alachua May 2019 Development Monitoring Report. ² Source: Chapter 64E-6, Florida Administrative Code; Formula: 110% of wastewater demand = 15 gp 100 sf (12,000/100 x 15 = 1,800 x 1.10 = 1,980)	

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) for potable water facilities; therefore, the demand generated by the development is acceptable.

Sanitary Sewer Impacts

Table 8. Sanitary Sewer Impacts

System Category	Gallons Per Day
Treatment Plant Current Permitted Capacity ¹	1,500,000
Less Actual Treatment Plant Flows ¹	729,000
Reserved Capacity ¹	76,899
Available Capacity	694,101
Projected Sanitary Sewer Demand from Application ²	1,800
Residual Capacity	692,301
Percentage of Permitted Design Capacity Utilized	53.84%
<i>Sources:</i> ¹ City of Alachua May 2019 Development Monitoring Report. ² Source: Chapter 64E-6, Florida Administrative Code; Formula: 15 gp 100 sf (12,000/100 x 15 = 1,800)	

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) for sanitary sewer facilities; therefore, the demand generated by the development is acceptable.

Solid Waste Impacts

Table 9. Solid Waste Impacts

System Category	Pounds Per Day	Tons Per Year
Demand from Existing Development ¹	40,620.00	7,413.15
Reserved Capacity ²	6,896.14	1,258.55
Demand Generated by Application ²	144	26.30
New River Solid Waste Facility Capacity ⁴	50 years	
Sources: 1 City of Alachua June 2019 Development Monitoring Report. 2 Sincero and Sincero; Environmental Engineering: A Design Approach. Prentice Hall, New Jersey, 1996		

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) of solid waste facilities; therefore, the demand generated by the development is acceptable.

Recreation Facilities

The proposed development is a nonresidential development. Therefore, there are no impacts to recreation facilities. The development will have no impact to the Level of Service (LOS) of recreation facilities.

Public School Facilities

The proposed development is a nonresidential development. Therefore, there are no impacts to public school facilities. The development will have no impact to the Level of Service (LOS) of public school facilities.

EXHIBIT “A”
TO
ALCHEM BUILDING THREE; ALCHEM LABORATORIES CORPORATION

SITE PLAN
STAFF REPORT

CONDITIONS:

1. The applicant agrees it shall obtain all other applicable local, state, and federal permits before the commencement of the development.
2. The applicant agrees it shall provide Public Utilities Easements as depicted on the Site Plan. Public Utilities Easements as depicted on the Site Plan shall be approved by the City and recorded in the Public Records of Alachua County prior to applying for a building permit. The applicant shall incur all costs associated with the preparation and recordation of such Public Utilities Easements.
3. Prior to submission of a building permit application, the applicant shall provide evidence in the form of an acceptable wetlands delineation that no development activities will take place within 75 feet of any delineated wetlands.
4. The applicant agrees that Conditions 1-3 as stated above do not inordinately burden the land and shall be binding upon the property owner, including any subsequent property owners, successors, or assigns, and that the development shall comply with Conditions 1 -3 as stated herein.

**EXHIBIT “B”
TO
ALCHEM BUILDING THREE; ALCHEM LABORATORIES CORPORATION**

**SITE PLAN
STAFF REPORT**

**SUPPORTING APPLICATION MATERIALS
SUBMITTED BY CITY STAFF TO THE
PLANNING AND ZONING BOARD**



City of Alachua

ADAM BOUKARI
CITY MANAGER

RODOLFO VALLADARES, P.E.
PUBLIC SERVICES DIRECTOR

INTER-OFFICE COMMUNICATION

DATE: June 24th, 2019

TO: Kathy Winburn, AICP
Planning & Community Development Director

FROM: Tom Ridgik, P.E. *TR*
Public Services Engineering Supervisor

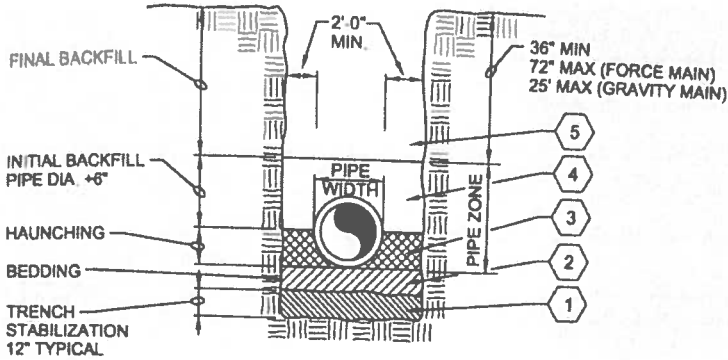
RE: Construction Plan – Alchem Building 3 – Public Service Comments - Updated

Public Services have reviewed the Alchem Building 3 Construction Plans dated June 18th, 2019 and offer the following comments. Review was specific to the Public Services Utilities. One comment is rated Revise and Resubmit. All other comments are rated Approved.

Note that these are the updated comment(s) – an additional comment (#10) has been made to provide a cleanout in a wastewater line.

NO.	COMMENTS
1.	<u>General Note</u> Design drawings shall reference <i>City of Alachua Requirements for Design and Construction for Potable Water, Reclaimed Water and Wastewater</i> . Document is located on City website under Public Services. <u>Response:</u> Design drawings have been revised to refer to the City of Alachua Requirements for Design and Construction for Potable Water, Reclaimed Water and Wastewater. [Approved]
2.	<u>Stormwater</u> Proposed stormwater collection system discharges to an existing master stormwater management basin. Confirm coordination with stormwater pond owner. <u>Response:</u> The Drainage Easement documentation shall be provided before final approval. [Approved as Noted]
3.	<u>General Note</u> Contractor is responsible to perform and request for City approval road or lane closure. Reference section 3.13, City of Alachua Design and Construction Requirements. Provide note on drawing narrating, "Contractor shall notify in writing the Public Services no less than 7 days prior to such closure or whenever road is impassable. Contractor shall immediately

NO.	COMMENTS
	notify the Public Services department of any vehicular or pedestrian safety or efficiency problems incurred as a result of the work.” <u>Response:</u> Note added as requested. Refer to Sheet C200. [Approved]
4.	<u>Fire Flow Requirements</u> As identified, per applicant's request, 1,000 gpm is the required fire flow. Applicant has provided hydrant flow test report results confirming minimum required fire flow availability. <u>Response:</u> Noted. [No Response Required]
5.	<u>Sheet C-400:</u> Confirm the following annotations are included within legend sheet: • Tran • WM • FL • WW [Approved as Noted] Comments re: April 25th Submittal Approved
6.	<u>Electrical:</u> Provide easement leading to transformer. [Revise and Resubmit] Comments re: April 25th Submittal DWG C-100: Show the existing UGF; namely, the primary cable from the source to the transformer. In addition to showing the easement around the existing transformer, also show the easement for the existing UGF. Please Revise and Resubmit this DWG. Comments re: June 18th Submittal Approved
7.	<u>Standard Details</u> In reference to sheet C405, <i>Detail Backfill Requirements</i>, revise to the following:

NO.	COMMENTS
	 FINAL BACKFILL INITIAL BACKFILL PIPE DIA. +6" HAUNCHING BEDDING TRENCH STABILIZATION 12" TYPICAL 2'-0" MIN. PIPE WIDTH 36" MIN 72" MAX (FORCE MAIN) 25' MAX (GRAVITY MAIN) PIPE ZONE 5 4 3 2 1 NOTES: 1. TRENCH STABILIZATION SHALL BE PROVIDED TO A DEPTH OF 12-INCHES. THE MATERIAL SHALL BE NO. 57 STONE. 2. BEDDING SHALL BE A MINIMUM OF 6-INCHES AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR, AASHTO T-99. 3. HAUNCHING PORTION OF THE PIPE ZONE SHALL BE PLACED TO THE SPRINGLINE OF THE PIPE AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR AASHTO T-99. 4. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. FROM THE SPRINGLINE OF THE PIPE TO TWO (2) FEET ABOVE THE PIPE THE SOIL SHALL BE CAREFULLY BACKFILLED IN 6-INCH LIFTS AND THE SOIL CONSOLIDATED WITH THE HAND OPERATED TAMPING MACHINE (OR AS REQUIRED BY CITY, COUNTY, OR STAT INSPECTORS). 5. FINAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. AFTER PLACEMENT AND COMPACTION OF THE INITIAL BACKFILL, THE BALANCE OF THE BACKFILL MATERIAL MAY BE MACHINE PLACED OR AS REQUIRED BY THE INSPECTOR AND SHALL NOT CONTAIN ANY ROCKS OR DEBRIS. 6. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. 7. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW. 8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING. ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. THE BOTTOM OF THE TRENCH SHALL NOT BE EXCAVATED BELOW THE SPECIFIED GRADE. IF UNDERCUTTING OCCURS, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT UP TO THE ORIGINAL GRADE WITH APPROVED MATERIAL AND THOROUGHLY COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR. 9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. [Approved as Noted] Comments re: April 25th Submittal Approved
8.	<u>Standard Details - Sheet C-405</u> Detail: Water Meter with Yoke Bar Assembly Detail. • Item 1, change spelling from "mater" to "meter." General Utility Notes: • Note 2, change from "shall be" to "will be." [Approved as Noted]

NO.	COMMENTS
	Comments re: April 25 th Submittal Approved
9.	<u>Landscaping:</u> In reference to sheet V-001, J.202, etc.; define tree type "HC12". Provide the following note on Landscape drawings: TREES SHALL NOT BE PLANTED WITHIN PUES. TREES WHOSE ROOTS ARE KNOWN TO CAUSE ROOT DAMAGE TO PUBLIC ROADWAYS, SIDEWALKS, OR OTHER PUBLIC WORKS SHALL NOT BE PLANTED WITHIN 15 FEET OF A PUBLIC UTILITY. [Approved as Noted] Comments re: April 25 th Submittal Approved
10.	Additional comment, May 7 th . Sheet C400: Please provide a cleanout for the P-WW line. Locate this cleanout in the easement near the property line. This allows the City the ability to cleanout the WW line without entering Alchem property. Please Revise and Resubmit this drawing. Comments re: June 18th Submittal Approved
END OF COMMENTS	

Please advise if you have any questions or require additional information.

cc: Justin Tabor – AICP Principal Planner

Adam Hall – AICP Planner

Tom Ridgik – Engineering Supervisor

Harry Dillard – Lead Engineering Technician

Alchem Building 3 Site Plan Review

From : Robert Walpole <walpole@chw-inc.com>
Subject : Alchem Building 3 Site Plan Review
To : Adam Hall <ad_hall@cityofalachua.org>

Tue, Apr 30, 2019 11:02 PM

Adam

My review is limited to the added stormwater.

In general the basins as designed meet the City and applicable SRWMD regulations. There are constructability and QC issues that EDA will need to identify and address but are not code related issues.

I did note utilities are substantially different than the last plan so Public Services should review those. If my assistance is needed please let me know.

Based on the limited review scope, CHW is not charging any additional review fees.

ROBERT J. WALPOLE, PE | President

t: (386) 518-5164 | c: (352) 339-2859

e: walpole@chw-inc.com

w: www.chw-inc.com

From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Monday, April 29, 2019 2:00 PM
To: Robert Walpole <walpole@chw-inc.com>
Subject: Re: Alchem Building 3 Site Plan Review

Robert:

We received a revised application for the Alchem Building 3 Site Plan application. They have expanded the subject property area and added a new basin on the western portion of the site so I am requesting review of the stormwater design. A link to the submission can be found here: [LINK](#). I have also left a hard copy at the building department counter, if preferable.

If you need anything else or have any questions, please let me know.

Thank you,

Adam Hall
City of Alachua

From: "Robert Walpole" <walpole@chw-inc.com>
To: "Adam Hall" <ad_hall@cityofalachua.org>
Sent: Monday, March 11, 2019 2:00:28 PM
Subject: Re: Alchem Building 3 Site Plan Review

If they can provide an agreement then all of my comments are addressed.

ROBERT J. WALPOLE, PE | President

t: (386) 518-5164 | c: (352) 339-2859

e: walpole@chw-inc.com

w: www.chw-inc.com

June 19, 2019

Adam Hall, AICP
Planner
City of Alachua Planning & Community Development
15100 NW 142nd Terrace | PO Box 9
Alachua, Florida 32616

**Re: Development Review Team (DRT) Summary for:
Alchem Building 3 Site Plan**



Dear Mr. Hall:

The applicant's responses to the completeness review comments issued on February 25, 2019 are below.

Deficiencies to be Addressed

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations.

1. The application states the project area has been expanded by inclusion of a portion of an adjacent property for stormwater; please provide a deed for this property.

RESPONSE: Please refer to the attached deed.

2. A Lot split application is required to split .70 acre portion from Parcel 03927-000-000. I have attached the application form.

RESPONSE: Lot split application submitted on Thursday, 6/13/19.

3. Sheet L301 needs to be updated to reflect updated project acreage.

RESPONSE: Sheet L301 has been revised to reflect the updated project acreage.

4. Sheet L301 needs to be updated to reflect west perimeter buffer actual length.

RESPONSE: Sheet L301 has been revised to reflect the west perimeter buffer actual length.

5. First note under Tree installation landscape notes needs to be updated to show a minimum tree height of 8" for new trees.

RESPONSE: Sheet L301 in Landscape Notes have been updated.

6. Contractor has indicated there is a breezeway connecting existing structure and new structure; please provide location with description and/or detail sketch.

RESPONSE: No breezeway is proposed.

7. Survey does not appear to pick up easement recorded in OR B3230 P390. Please verify that this will not impact proposed stormwater drainage design.

RESPONSE: The existing easement is a drainage easement. It does not impact the proposed stormwater drainage design as the easement does not prevent the property owner from utilizing their land.

Public Services

6. Provide easement leading to transformer. DWG C-100: Show the existing UGE; namely, the primary cable from the source to the transformer. In addition to showing the easement around the existing transformer, also show the easement for the existing UGE. Please Revise and Resubmit this DWG.

RESPONSE: The approximate location of the underground primary electric line has been added to the plans with a 10-ft public utilities easement. Refer to Sheet C400.

10. Sheet C400: Please provide a cleanout for the P-WW line. Locate this cleanout in the easement near the property line. This allows the City the ability to cleanout the WW line without entering Alachem property

RESPONSE: Cleanout added at the property line as requested. Refer to sheet C400.



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

May 8, 2019

Also sent by electronic mail to sreyes@edafl.com

Sergio Reyes, P.E.
EDA Engineers – Surveyors – Planners, Inc.
2404 NW 43rd Street
Gainesville, FL 32606

RE: Alchem Building 3 (Site Plan)-Outstanding DRT Comments

Dear Mr Reyes:

On April 25, 2019 the City of Alachua received your revised application for the approval of a Site Plan which proposes the construction of a 12,000 square structure on a now ± 2.70 acre (previously ± 1.99 acre) subject property. The Site Plan includes associated utility infrastructure and site improvements, and is located at 14120 NW 126th Terrace (Tax Parcel Number 03927-001-000). A DRT meeting was held on February 25, 2019 to discuss this application.

The application has been reviewed for compliance with the applicable review standards, including the City's Comprehensive Plan and Land Development Regulations (LDRs). Based upon Staff's review, revisions must be made to the application before it may be scheduled for a public hearing before the City's Planning & Zoning Board (PZB). Please address all insufficiencies outlined below in writing and provide an indication as to how they have been addressed by 5:00 PM on **Thursday June 6, 2019**. A total of four (4) copies of the complete application package (i.e., all application materials and attachments) and a CD containing a PDF of all application materials must be provided by this date. Submission of an incomplete package may delay your tentative hearing at the Planning and Zoning Board. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the PZB.

Please address the following insufficiencies (begins on next page):

Deficiencies to be Addressed

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations. Where applicable, new comments are noted.

New Comment: The application has been substantially altered since previous submission. Please see new comments below regarding the proposed site plan.

- 1. The application states the project area has been expanded by inclusion of a portion of an adjacent property for stormwater; please provide a deed for this property.*
- 2. A lot split application is required to split .70 acre portion from Parcel 03927-000-000 and to revise existing lot lines for lots of record.*
- 3. Sheet L301 needs to be updated to reflect updated project acreage.*
- 4. Sheet L301 needs to be updated to reflect west perimeter buffer actual length*
- 5. First note under Tree installation landscape notes needs to be updated to show a minimum tree height of 8' for new trees.*
- 6. Contractor has indicated there is a breezeway connecting existing structure and new structure; please provide location with description and/or detail sketch*
- 7. Survey does not appear to pick up easement recorded in OR B3230 P390. Please verify that this will not impact proposed stormwater drainage design.*

PREVIOUSLY MADE DRT COMMENTS:

D. Fire Marshal/Public Services/Outside Engineering Review Comments

- 3. The applicant must comply with all comments provided by the Public Services Department.**

New Comment: See revised memo from City of Alachua Public Services attached to this letter.

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com. We look forward to receiving your revised application.

Sincerely,



Adam Hall, AICP
Planner

cc: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Project File



City of Alachua

ADAM BOUKARI
CITY MANAGER

RODOLFO VALLADARES, P.E.
PUBLIC SERVICES DIRECTOR

INTER-OFFICE COMMUNICATION

DATE: May 08, 2019

TO: Kathy Winburn, AICP
Planning & Community Development Director

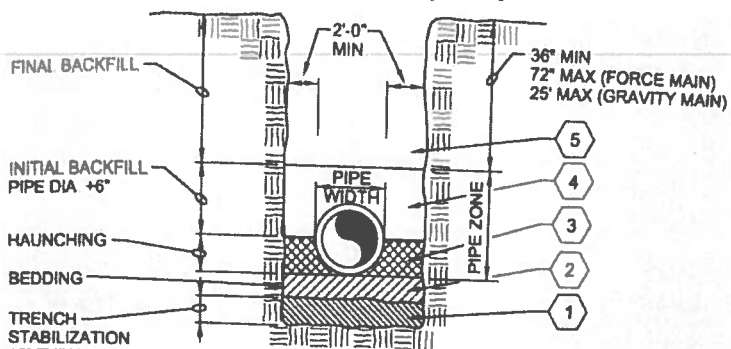
FROM: Tom Ridgik, P.E. *TR*
Public Services Engineering Supervisor

RE: Construction Plan – Alchem Building 3 – Public Service Comments - Updated

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Note that these are the updated comment(s) – an additional comment (#10) has been made to provide a cleanout in a wastewater line.

NO.	COMMENTS
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2.	<u>Stormwater</u> Proposed stormwater collection system discharges to an existing master stormwater management basin. Confirm coordination with stormwater pond owner. <u>Response:</u> The Drainage Easement documentation shall be provided before final approval. [Approved as Noted]
3.	<u>General Note</u> Contractor is responsible to perform and request for City approval road or lane closure. Reference section 3.13, City of Alachua Design and Construction Requirements. Provide note on drawing narrating, "Contractor shall notify in writing the Public Services no less than 7 days prior to such closure or whenever road is impassable. Contractor shall immediately

NO.	COMMENTS
	notify the Public Services department of any vehicular or pedestrian safety or efficiency problems incurred as a result of the work." <u>Response:</u> Note added as requested. Refer to Sheet C200. [Approved]
4.	<u>Fire Flow Requirements</u> As identified, per applicant's request, 1,000 gpm is the required fire flow. Applicant has provided hydrant flow test report results confirming minimum required fire flow availability. <u>Response:</u> Noted. [No Response Required]
5.	<u>Sheet C400:</u> Confirm the following annotations are included within legend sheet: • Tran • WM • FL • WW [Approved as Noted] Comments re: April 25th Submittal Approved
6.	<u>Electrical:</u> Provide easement leading to transformer. [Revise and Resubmit] Comments re: April 25th Submittal DWG C-100: Show the existing UGE; namely, the primary cable from the source to the transformer. In addition to showing the easement around the existing transformer, also show the easement for the existing UGE. Please Revise and Resubmit this DWG.
7.	<u>Standard Details</u> In reference to sheet C405, <i>Detail Backfill Requirements</i>, revise to the following:  NOTES: 1. TRENCH STABILIZATION SHALL BE PROVIDED TO A DEPTH OF 12-INCHES. THE MATERIAL SHALL BE NO. 57 STONE. 2. BEDDING SHALL BE A MINIMUM OF 6-INCHES AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR, AASHTO T-99.

NO.	COMMENTS
	3. HUNCHING PORTION OF THE PIPE ZONE SHALL BE PLACED TO THE SPRINGLINE OF THE PIPE AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR ASSHTO T-99. 4. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. FROM THE SPRINGLINE OF THE PIPE TO TWO (2) FEET ABOVE THE PIPE THE SOIL SHALL BE CAREFULLY BACKFILLED IN 6-INCH LIFTS AND THE SOIL CONSOLIDATED WITH THE HAND OPERATED TAMPING MACHINE (OR AS REQUIRED BY CITY, COUNTY, OR STAT INSPECTORS). 5. FINAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. AFTER PLACEMENT AND COMPACTION OF THE INITIAL BACKFILL, THE BALANCE OF THE BACKFILL MATERIAL MAY BE MACHINE PLACED OR AS REQUIRED BY THE INSPECTOR AND SHALL NOT CONTAIN ANY ROCKS OR DEBRIS. 6. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. 7. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW. 8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. THE BOTTOM OF THE TRENCH SHALL NOT BE EXCAVATED BELOW THE SPECIFIED GRADE. IF UNDERCUTTING OCCURS, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT UP TO THE ORIGINAL GRADE WITH APPROVED MATERIAL AND THOROUGHLY COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR. 9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. [Approved as Noted] Comments re: April 25th Submittal Approved
8.	<u>Standard Details - Sheet C405</u> Detail: Water Meter with Yoke Bar Assembly Detail. - Item 1, change spelling from "mater" to "meter." General Utility Notes: - Note 2, change from "shall be" to "will be." [Approved as Noted] Comments re: April 25th Submittal Approved
9.	<u>Landscaping:</u> In reference to sheet V-001, L202, etc.; define tree type "HC12". Provide the following note on Landscape drawings: TREES SHALL NOT BE PLANTED WITHIN PUES. TREES WHOSE ROOTS ARE KNOWN TO CAUSE ROOT DAMAGE TO PUBLIC ROADWAYS, SIDEWALKS, OR OTHER PUBLIC WORKS SHALL NOT BE PLANTED WITHIN 15 FEET OF A PUBLIC UTILITY. [Approved as Noted] Comments re: April 25th Submittal Approved
10.	Additional comment, May 7th. Sheet C400: Please provide a cleanout for the P-WW line. Locate this cleanout in the easement near the property line. This allows the City the ability to cleanout the WW line

NO.	COMMENTS
	without entering Alchem property. Please Revise and Resubmit this drawing.
END OF COMMENTS	

Please advise if you have any questions or require additional information.

cc: Justin Tabor – AICP Principal Planner

Adam Hall – AICP Planner

Tom Ridgik – Engineering Supervisor

Harry Dillard – Lead Engineering Technician

April 25, 2019

APR 25 2019

Per _____

Adam Hall, AICP
Planner
City of Alachua Planning & Community Development
15100 NW 142nd Terrace | PO Box 9
Alachua, Florida 32616

**Re: Outstanding DRT Comments
Alchem Building 3 (Site Plan)**

Dear Mr. Hall:

The applicant's responses to the completeness review comments issued on March 19, 2019 are below.

1. Development Standards

2. Section 6.2- Tree protection/landscape/xeriscape standards

- f. South perimeter buffer appears to require 4 additional canopy trees, and two additional understory trees. A different buffer option (2 or 3) could be considered.

Length: 393 feet

Option 1: 1 canopy tree / 60' and 1 understory tree/ 60'

Required canopy trees: 7

Provided canopy trees: 3 (-4)

Required understory trees: 7

Provided understory trees: 5 (-2)

Perimeter buffer table states that there are 11 existing trees to be used to meet this requirement, but those are not identified on the landscape plan or tree survey.

New Comments: The southern perimeter buffer appears to have 11 canopy trees, but no understory trees. In the response, the applicant indicates that a combination of the Buffer Type A Options 1 and 2 will be used. This is acceptable, however, in areas where the row of evergreen shrubs (Yellow Anise) are not located then the understory trees or fence would be required. Please provide understory trees or fencing to meet perimeter buffering requirements.

RESPONSE: Understory trees have been added.

Also, landscape plan shows plant material "IA", which is not shown on the plant material schedule. Staff assumes that this is the Nellie Stevens Holly, which is identified as a canopy tree in the plant material schedule.

RESPONSE: The water main (WM) line type, the fire line (FL) line type, and the wastewater(WW) line type are included within the legend on sheet C010. The existing transformer (TRAN) on Sheet C400 is labeled with a leader saying "Existing Transformer."

6. Electrical: Provide easement leading to transformer

RESPONSE: A proposed public utility easement has been added around the existing transformer.

7. Standard Details: In reference to sheet C405, *Detail Backfill Requirements*, revise to the following:

Standard Details

In reference to sheet C405, *Detail Backfill Requirements*, revise to the following:

NOTES:

1. TRENCH STABILIZATION SHALL BE PROVIDED TO A DEPTH OF 12-INCHES. THE MATERIAL SHALL BE NO. 57 STONE.
2. BEDDING SHALL BE A MINIMUM OF 6-INCHES AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR, AASHTO T-99.
3. HUNCHING PORTION OF THE PIPE ZONE SHALL BE PLACED TO THE SPRINGLINE OF THE PIPE AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR ASSHTO T-99.
4. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. FROM THE SPRINGLINE OF THE PIPE TO TWO (2) FEET ABOVE THE PIPE THE SOIL SHALL BE CAREFULLY BACKFILLED IN 6-INCH LIFTS AND THE SOIL CONSOLIDATED WITH THE HAND OPERATED TAMPING MACHINE (OR AS REQUIRED BY CITY, COUNTY, OR STAT INSPECTORS).
5. FINAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. AFTER PLACEMENT AND COMPACTION OF THE INITIAL BACKFILL, THE BALANCE OF THE BACKFILL MATERIAL MAY BE MACHINE PLACED OR AS REQUIRED BY THE INSPECTOR AND SHALL NOT CONTAIN ANY ROCKS OR DEBRIS.
6. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
7. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING

ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. THE BOTTOM OF THE TRENCH SHALL NOT BE EXCAVATED BELOW THE SPECIFIED GRADE. IF UNDERCUTTING OCCURS, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT UP TO THE ORIGINAL GRADE WITH APPROVED MATERIAL AND THOROUGHLY COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR.

9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES.

[Approved as Noted]

Zimbra

ad_hall@cityofalachua.org

Re: Alchem Building 3 Site Plan Review

From : Robert Walpole <walpole@chw-inc.com>

Mon, Mar 11, 2019 02:00 PM

Subject : Re: Alchem Building 3 Site Plan Review**To :** Adam Hall <ad_hall@cityofalachua.org>

If they can provide an agreement then all of my comments are addressed.

ROBERT J. WALPOLE, PE | President

t: (386) 518-5164 | c: (352) 339-2859

e: walpole@chw-inc.comw: www.chw-inc.com

JACKSONVILLE.GAINESVILLE.OCALA

t: (904) 619-6521 | 8563 Argyle Business Loop, Ste., 3, Jacksonville, FL 32244

t: (352) 331-1976 | 11801 Research Dr. Alachua, FL 32615

t: (352) 414-4621 | 101 NE 1st Ave., Ocala, FL 34470

PLANNING.DESIGN.SURVEYING.ENGINEERING.CONSTRUCTION.

Sent from iphone

On Mar 11, 2019, at 1:57 PM, Adam Hall <ad_hall@cityofalachua.org> wrote:

Thanks, Robert. As that will remain an outstanding comment, we will let them know that a public hearing for the application cannot be scheduled until it is cleared.

Adam Hall
City of Alachua



City of Alachua

ADAM BOUKARI
CITY MANAGER

RODOLFO VALLADARES, P.E.
PUBLIC SERVICES DIRECTOR

INTER-OFFICE COMMUNICATION

DATE: March 21, 2019

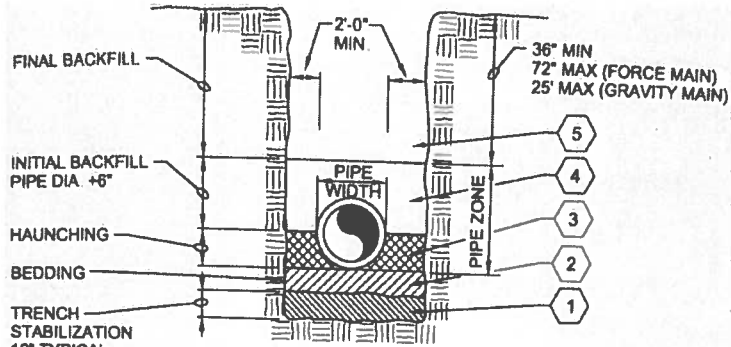
TO: Kathy Winburn, AICP
Planning & Community Development Director

FROM: Rodolfo Valladares, P.E.
Public Services Director

RE: Construction Plan – Alchem Building 3

Public Services have reviewed the Alchem Building 3 Construction Plan and offer the following comments. Review was specific to the Public Services Utilities.

NO.	COMMENTS
1.	<u>General Note</u> Design drawings shall reference <i>City of Alachua Requirements for Design and Construction for Potable Water, Reclaimed Water and Wastewater</i>. Document is located on City website under Public Services. <u>Response:</u> Design drawings have been revised to refer to the City of Alachua Requirements for Design and Construction for Potable Water, Reclaimed Water and Wastewater. [Approved]
2.	<u>Stormwater</u> Proposed stormwater collection system discharges to an existing master stormwater management basin. Confirm coordination with stormwater pond owner. <u>Response:</u> The Drainage Easement documentation shall be provided before final approval. [Approved as Noted]
3.	<u>General Note</u> Contractor is responsible to perform and request for City approval road or lane closure. Reference section 3.13, City of Alachua Design and Construction Requirements. Provide note on drawing narrating, "Contractor shall notify in writing the Public Services no less than 7 days prior to such closure or whenever road is impassable. Contractor shall immediately notify the Public Services department of any vehicular or pedestrian safety or efficiency problems incurred as a result of the work." <u>Response:</u> Note added as requested. Refer to Sheet C200. [Approved]

NO.	COMMENTS
4.	<u>Fire Flow Requirements</u> As identified, per applicant's request, 1,000 gpm is the required fire flow. Applicant has provided hydrant flow test report results confirming minimum required fire flow availability. <u>Response:</u> Noted. [No Response Required]
5.	<u>Sheet C400:</u> Confirm the following annotations are included within legend sheet: • Tran • WM • FL • WW [Approved as Noted]
6.	<u>Electrical:</u> Provide easement leading to transformer. [Revise and Resubmit]
7.	<u>Standard Details</u> In reference to sheet C405, <i>Detail Backfill Requirements</i>, revise to the following:  NOTES: 1. TRENCH STABILIZATION SHALL BE PROVIDED TO A DEPTH OF 12-INCHES. THE MATERIAL SHALL BE NO. 57 STONE. 2. BEDDING SHALL BE A MINIMUM OF 6-INCHES AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR, AASHTO T-99. 3. HUNCHING PORTION OF THE PIPE ZONE SHALL BE PLACED TO THE SPRINGLINE OF THE PIPE AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR ASSHTO T-99. 4. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. FROM THE SPRINGLINE OF THE PIPE TO TWO (2) FEET ABOVE THE PIPE THE SOIL SHALL BE CAREFULLY BACKFILLED IN 6-INCH LIFTS AND THE SOIL CONSOLIDATED WITH THE HAND OPERATED TAMPING MACHINE (OR AS REQUIRED BY CITY, COUNTY, OR STAT INSPECTORS). 5. FINAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. AFTER PLACEMENT AND COMPACTION OF THE INITIAL BACKFILL, THE BALANCE OF THE BACKFILL MATERIAL MAY BE MACHINE PLACED OR AS REQUIRED BY THE INSPECTOR AND SHALL NOT CONTAIN ANY ROCKS OR DEBRIS. 6. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. 7. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW. 8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING

NO.	COMMENTS
	ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. THE BOTTOM OF THE TRENCH SHALL NOT BE EXCAVATED BELOW THE SPECIFIED GRADE. IF UNDERCUTTING OCCURS, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT UP TO THE ORIGINAL GRADE WITH APPROVED MATERIAL AND THOROUGHLY COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR. 9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. [Approved as Noted]
8.	<u>Standard Details - Sheet C405</u> Detail: Water Meter with Yoke Bar Assembly Detail. - Item 1, change spelling from "mater" to "meter." General Utility Notes: - Note 2, change from "shall be" to "will be." [Approved as Noted]
9.	<u>Landscaping:</u> In reference to sheet V-001, L202, etc.; define tree type "HC12". Provide the following note on Landscape drawings: TREES SHALL NOT BE PLANTED WITHIN PUES. TREES WHOSE ROOTS ARE KNOWN TO CAUSE ROOT DAMAGE TO PUBLIC ROADWAYS, SIDEWALKS, OR OTHER PUBLIC WORKS SHALL NOT BE PLANTED WITHIN 15 FEET OF A PUBLIC UTILITY. [Approved as Noted]
END OF COMMENTS	

Please advise if you have any questions or require additional information.

cc: Justin Tabor – AICP Principal Planner

Adam Hall – AICP Planner

Tom Ridgik – Engineering Supervisor

Harry Dillard – Lead Engineering Technician



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

March 19, 2019

Also sent by electronic mail to sreyes@edafl.com

Sergio Reyes, P.E.
EDA Engineers – Surveyors – Planners, Inc.
2404 NW 43rd Street
Gainesville, FL 32606

RE: Alchem Building 3 (Site Plan)-Outstanding DRT Comments

Dear Mr Reyes:

On March 7, 2019 the City of Alachua received your revised application for the approval of a Site Plan which proposes the construction of a 12,000 square structure on a ±1.99 acre subject property. The Site Plan includes associated utility infrastructure and site improvements, and is located at 14120 NW 126th Terrace (Tax Parcel Number 03927-001-000). A DRT meeting was held on February 25, 2019 to discuss this application.

The application has been reviewed for compliance with the applicable review standards, including the City's Comprehensive Plan and Land Development Regulations (LDRs). Based upon Staff's review, revisions must be made to the application before it may be scheduled for a public hearing before the City's Planning & Zoning Board (PZB). Please address all insufficiencies outlined below in writing and provide an indication as to how they have been addressed by 5:00 PM on **Thursday April 4, 2019**. A total of four (4) copies of the complete application package (i.e., all application materials and attachments) and a CD containing a PDF of all application materials must be provided by this date. Submission of an incomplete package may delay your tentative hearing at the Planning and Zoning Board. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the PZB.

Please address the following insufficiencies (begins on next page):

Deficiencies to be Addressed

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations. Where applicable, new comments are noted.

C. Development Standards

2. Section 6.2- Tree protection/landscape/xeriscape standards

- f. South perimeter buffer appears to require 4 additional canopy trees, and two additional understory trees. A different buffer option (2 or 3) could be considered.

Length: 393 feet

Option 1: 1 canopy tree / 60' and 1 understory tree/ 60'

Required canopy trees: 7

Provided canopy trees: 3 (-4)

Required understory trees: 7

Provided understory trees: 5 (-2)

Perimeter buffer table states that there are 11 existing trees to be used to meet this requirement, but those are not identified on the landscape plan or tree survey.

New Comments: The southern perimeter buffer appears to have 11 canopy trees, but no understory trees. In the response, the applicant indicates that a combination of the Buffer Type A Options 1 and 2 will be used. This is acceptable, however, in areas where the row of evergreen shrubs (Yellow Anise) are not located then the understory trees or fence would be required. Please provide understory trees or fencing to meet perimeter buffering requirements.

Also, landscape plan shows plant material "IA", which is not shown on the plant material schedule. Staff assumes that this is the Nellie Stevens Holly, which is identified as a canopy tree in the plant material schedule.

7. Section 6.9- Environmental protection Standards

- b. Please provide easement for connection to existing stormwater system on adjacent property.

New Comment: Before scheduling of public hearing a recorded easement or agreement with property owner showing intent to allow easement will be required.

D. Fire Marshal/Public Services/Outside Engineering Review Comments

2. The applicant must address the comments provided by CHW, Inc in an email dated 03/12/19 (attached to this memo).
3. The applicant must comply with all comments provided by the Public Services Department.

New Comment: Before scheduling of public hearing a recorded easement or agreement with property owner showing intent to allow easement will be required. Please contact

the City of Alachua Public Services Department directly to ensure all comments have been addressed.

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com. We look forward to receiving your revised application.

Sincerely,



Adam Hall, AICP
Planner

cc: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Project File

Project Name: Alchem Building 3 Site Plan

Meeting Date: February 25, 2019 (Applicant)

Meeting Date: February 25, 2019 (Applicant)

Name

Email

Mailing Address

Phone

[illegible]

DEVELOPMENT REVIEW TEAM SUMMARY

PROJECT NAME: Alchem Building 3

APPLICATION TYPE: Site Plan

APPLICANT/AGENT: Caitlyn Drane, eda, inc.

PROPERTY OWNER: Alchem Laboratories Corporation

DRT MEETING DATE: February 25, 2019

DRT MEETING TYPE: Applicant

FLUM DESIGNATION: Industrial

ZONING: ILW

OVERLAY: N/A

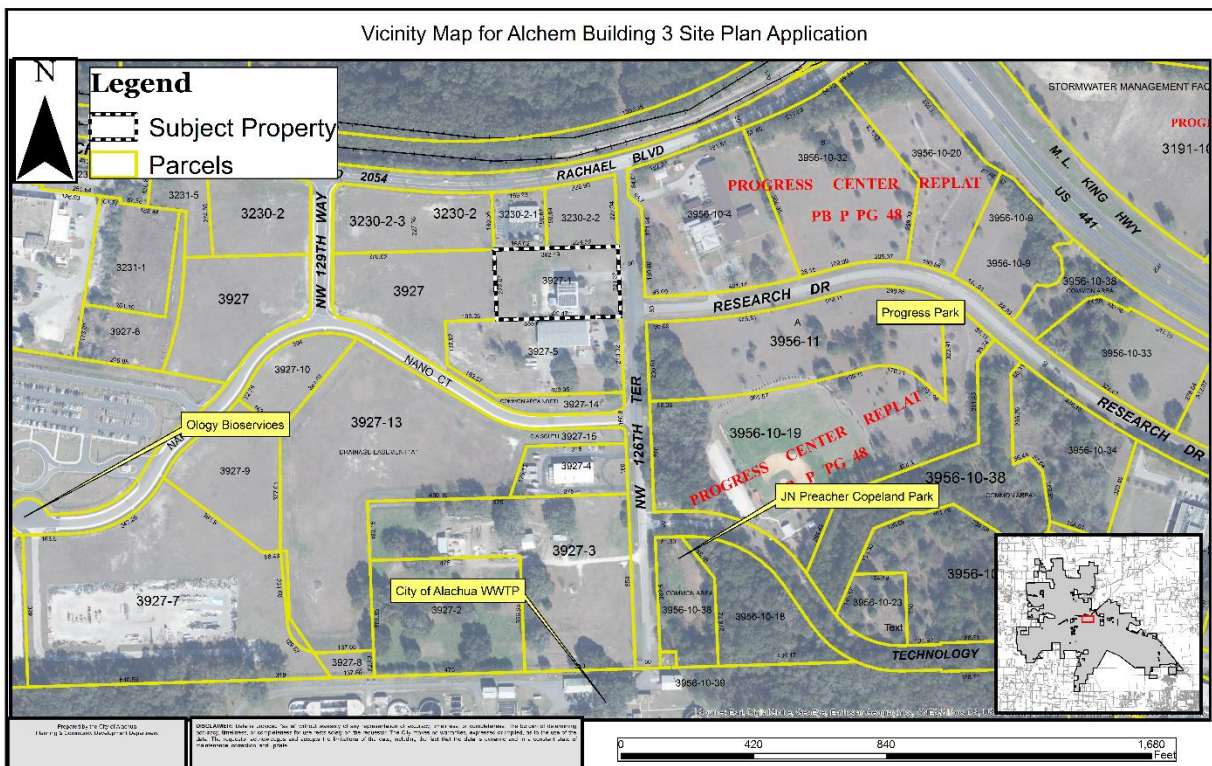
DEVELOPMENT AREA ACREAGE: ± 1.99 acres

PARCEL: 03927-001-000

PROJECT LOCATION: 14120 NW 126th Terrace

PROJECT SUMMARY: A request for a Site plan for a new ±12,000 square foot building with associated paving, grading, landscaping, and utility infrastructure improvements

RESUBMISSION DUE DATE: All data, plans, and documentation addressing the insufficiencies identified below must be received by the Planning Department on or before **5:00 PM on Thursday, March 7, 2019.**



Deficiencies to be Addressed

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations.

A. Comprehensive Plan Consistency

1. No comments.

B. Concurrency Impact Analysis

1. Please revise to utilize latest Development Monitoring Report data for water and wastewater analysis.

C. Development Standards

1. Section 6.1, Parking and Loading Standards
 - a. Verify number of spaces. Cover sheet indicates 43 spaces to be provided, but only 42 spaces appear to be shown.
2. Section 6.2- Tree protection/landscape/xeriscape standards
 - a. Symbols for Magnolia types, and for redbuds and bottlebrushes are labeled the same in legend for landscape plan. Additionally, trees labelled as "LI" on plans are not identified in legend. There also appears to be a tree located on the east portion of the property, in front of existing structure near HC parking space, that does not appear to be labelled.
 - b. A total of 5 "CC" trees shown in legend, but only 3 "CC" trees identified on plan.
 - c. In order to use existing trees to count towards landscaping requirements, the species, size and quality must be provided. Trees also must be located on the subject property in order to be used to meet any landscaping requirements.
 - d. The 5' minimum perimeter buffer located on the south perimeter appears to be encroached by the paved drive aisle.
 - e. Verify adjacent land uses for perimeter buffers. Only west perimeter is "vacant".
 - f. South perimeter buffer appears to require 4 additional canopy trees, and two additional understory trees. A different buffer option (2 or 3) could be considered.
Length: 393 feet
Option 1: 1 canopy tree / 60' and 1 understory tree/ 60'
Required canopy trees: 7
Provided canopy trees: 3 (-4)
Required understory trees: 7
Provided understory trees: 5 (-2)

Perimeter buffer table states that there are 11 existing trees to be used to meet this requirement, but those are not identified on the landscape plan or tree survey.
3. Section 6.3- fencing Standards
 - a. Per Section 6.3.3, chain link fence is not permitted within front setback area (20').
 - b. Compliance with Section 6.3.4 (A) Standards for fences located within 50' of public right-of-way must be met.
 - c. See Section 6.3.5 (C) regarding barbed wire fencing.

4. Section 6.4- Exterior lighting Standards
 - a. Please provide cut sheets for proposed lighting fixtures.
 - b. Per Section 6.4.4(F), light fixtures that are 60 watts or more shall have full cut-off lenses or hoods. This would apply to both pole mounted lighting types currently proposed.
 - c. In order to verify compliance with Section 6.4.4 (A), please provide cut sheets for all wall mounted lights shown on architectural plans.
5. Section 6.6.3 – Residential Protection Standards
 - a. Not applicable.
6. Section 6.8- Design Standards for Business Uses
 - a. Not applicable.
7. Section 6.9- Environmental protection Standards
 - a. Please identify location and zoning of proposed stormwater basin.
 - b. Please provide easement for connection to existing stormwater system on adjacent property.

D. Fire Marshal/Public Services/Outside Engineering Review Comments

1. The applicant must address the comments provided by Brian Green, Alachua County Fire Rescue in an email dated February 20, 2019 (attached to this memo).
2. The applicant must address the comments provided by CHW, Inc in a letter dated 02/19/19 (attached to this memo).
3. The applicant must comply with all comments provided by the Public Services Department.

E. Miscellaneous/General Issues

1. Please confirm that Neighborhood meeting was unattended and/or provide minutes from meeting.
2. Property taxes for subject property appear to be due on March 31, 2019; prior to scheduling a public hearing evidence of payment of these taxes will be required.
3. Please complete Countywide Wetland Protection Code Self-Certification Form and submit to Alachua County Environmental Protection Department (please contact Alachua County EPD directly should you have any questions regarding this form). A hard copy has been attached, but can be completed at <http://alachuacounty.us/Depts/epd/Pages/WetlandsProtection.aspx>.
4. Will project be phased to permit continued use of existing building? Will off site construction trailer or construction staging take place on a different parcel? A temporary use permit may be required.

ALL COMMENTS AND REQUIREMENTS LISTED ABOVE MUST BE COMPLIED WITH AND PROVIDED TO CITY STAFF ON OR BEFORE 5:00 PM ON THE RESUBMISSION DATE OF THURSDAY, MARCH 7, 2019.

MEMORANDUM

City of Alachua

19-0064



To: Justin Tabor, AICP
From: Robert J. Walpole, PE
Date: 2/19/19
RE: Alchem Laboratories - Initial Review

The following are our comments on the Applications, Reports, and plans provided by EDA to the City on January 31, 2019.

Application & Reports

1. An affidavit is provided authorizing Sergio Reyes, however, the site plan application is signed by Caitlyn Drane. Please provide an updated application of affidavit.
2. The water meter sizing ADF of 225 gpd does not match the concurrency analysis which shows 1800 gpd. Update to be consistent or withdraw calcs as they are only required for meters of 1.5 inch or greater.
3. Concurrency Report indicates that an agreement will be provided with the neighboring Copeland Industrial Park (C.I.P.). Please provide such agreement to utilize the C.I.P. SMF 1.
4. Drainage Design notes contemplate using the C.I.P. SMF 1. As noted above, an agreement will be required. Note that Alchem does lie within the watershed DA-1, however, the permitted 31.26 acres only covered the impervious area that existed in 1999 and proposed impervious area for the benefit of the C.I.P. owners. The permit did not contemplate non C.I.P. owners using permitted impervious area. Provide evidence the C.I.P. owners have agreed to this and that pipe sizes can accommodate the shifted impervious area.

Plans

1. On C200, water is being trapped by fill placed and may have adverse issues with the northern property.
2. On C200, illustrate existing or proposed easements for offsite discharge.
3. On C200, there are two proposed FFE for the new building, correct.
4. Why is the existing SMF not being utilized? Grading appears to drain all parking away from the existing SMF?
5. On C205, HC spaces in the City are required to be 12' x 20' to meet City Code.
6. On C400, illustrate appropriate PUEs for electric and water.
7. On C400, illustrate an open cut and repair for the watermain crossing NW 126th Terrace with details.
8. Illustrate the fire hydrant(s) serving the buildings. Per City code (and a required fire flow of 1000 gpm) a single fire hydrant must be located within 500 ft of the most remote portion of the building as the truck travels. NPFA also requires a fire hydrant within 100 ft of the FDC. Please illustrate compliance with both requirements on C400.
9. Illustrate the light locations on all sheets to verify no conflicts with site improvements or utilities.
10. The landscape sheets illustrate a utility layout that is inconsistent with the civil sheets. Update to verify no landscape conflicts with utilities.
11. There are minor discrepancies with door locations on A1 vs the civil site plan. IE Double doors vs single. Verify location and ensure civil matches the Architecture.

N:\2019\19-0064\19-0064\MEMO Alchem Bldg 3 190218.docx

Zimbra

ad_hall@cityofalachua.org

RE: Alchem Building 3

From : Brian Green <bgreen@AlachuaCounty.US>
Subject : RE: Alchem Building 3
To : Adam Hall <ad_hall@cityofalachua.org>

Wed, Feb 20, 2019 04:50 PM

Adam,

I did not see this before. I have now reviewed it and have not located fire hydrant either proposed or existing.

Brian Green

Alachua County Fire Rescue
Life Safety / Investigative Branch
Cell 352-494-3140
Office 352-384-3103
Fax 352-384-3157

From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Wednesday, February 20, 2019 4:27 PM
To: Brian Green <bgreen@AlachuaCounty.US>
Subject: Re: Alchem Building 3

Brian,

Did you happen to see this/ review yet?

Let me know if you have any questions, thanks!

Adam H
City of Alachua

From: "Adam Hall" <ad_hall@cityofalachua.org>
To: "Brian Green" <bgreen@AlachuaCounty.US>
Sent: Monday, February 11, 2019 3:53:14 PM
Subject: Fwd: Alchem Building 3

Brian,

Site Plan for Alchem attached.

Thank you!
Adam H
City of Alachua

From: "Melissa Watson" <mwatson@edafl.com>
To: "Adam Hall" <ad_hall@cityofalachua.org>
Cc: "Caitlyn Drane" <cdrane@edafl.com>, "Claudia Vega" <cvega@edafl.com>, "Ashley Scannella" <AScannella@edafl.com>
Sent: Monday, February 11, 2019 3:07:42 PM
Subject: Alchem Building 3

Adam here are the Civil Plans.

Melissa Watson | Staff Assistant |
| [eda – engineers-planners-surveyors.inc](http://eda-engineers-planners-surveyors.inc) |



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

February 7, 2019

Also sent by electronic mail to sreyes@edafl.com

Caitlyn Drane
EDA Engineers – Surveyors – Planners, Inc.
2404 NW 43rd Street
Gainesville, FL 32606

RE: Application Acceptance: Alchem – Building 3

Dear Ms Drane:

On January 31, 2019, the City of Alachua received your application for a Site Plan for Alchem Building 3, a 12,000 square structure on a ±1.99 acre subject property. The Site Plan includes associated utility infrastructure and site improvements, and is located at 14120 NW 126th Terrace (Tax Parcel Number 03927-001-000).

The Planning Department has reviewed the revised application and materials for completeness, and finds the application to be complete.

Please note that the contents of the applications **have not** been thoroughly reviewed. An in-depth review of the content of the application will be performed, and the findings of the in-depth review will be discussed at a Development Review Team (DRT) Meeting, which will be scheduled separately from this letter.

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com. We look forward to receiving your revised application.

Sincerely,

Adam Hall, AICP
Planner

C: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Project File

April 23, 2019

Justin Tabor, Principal Planner
City of Alachua Planning and Community Development
15100 NW 142nd Terrace
Alachua, FL 32616

**Re: Alchem Building Addition
Development Plan Application**

The proposed project is an additional 12,000 square foot building with associated parking and utility improvements. This building will allow an existing light manufacturing business, Alchem Laboratories, on the property to expand their operations on the property. The project is located at 14120 NW 126th Terrace on Tax Parcel No. 03927-001-000 and a portion of tax parcel 03927. The project site is located on approximately 2.69 (+/-) acres and contains an existing industrial building, surrounded by a variety of industrial uses. The stormwater for the site will be routed to a master basin of the Copeland Industrial Park. The existing building on the site will remain to the front of the proposed building, and as this building is to the rear and for industrial use, it is not required to meet the city's building glazing requirements.

Included with this letter is all supporting information required for a development plan and civil plans showing the proposed facilities.

If you have any questions, please feel free to contact our office at any time.

Sincerely,



Caitlyn Drane, P.E.

FOR PLANNING USE ONLY

Case #: _____
 Application Fee: \$ _____
 Filing Date: _____
 Acceptance Date: _____
 Review Type: P&Z

Site Plan Application

Reference City of Alachua Land Development Regulations Article 2.4.9

A. PROJECT

1. Project Name: Alchem - Building 3
2. Address of Subject Property: 14120 NW 126th Terrace
3. Parcel ID Number(s): 03927-001-000 and a portion of 03927
4. Existing Use of Property: Light Industrial
5. Future Land Use Map Designation: Industrial
6. Zoning Designation: Industrial, Light and Warehousing (ILW)
7. Acreage: Industrial

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ☒ Agent
2. Name of Applicant(s) or Contact Person(s): Caitlyn Drane, P.E. Title: Project Manager
 Company (if applicable): eda engineers-surveyors-planners, inc.
 Mailing address: 2404 NW 43rd St
 City: Gainesville State: FL ZIP: 32606
 Telephone: 352-373-3541 FAX: 352-373-7249 e-mail: sreyes@edafl.com
3. If the applicant is agent for the property owner*:
 Name of Owner (title holder): James D. Talton
 Mailing Address: 13305 Rachael Blvd
 City: Alachua State: FL ZIP: 32615

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property? ☐ Yes ☒ No
 If yes, list names of all parties involved: N/A
 If yes, is the contract/option contingent or absolute? ☐ Contingent ☐ Absolute

D. ATTACHMENTS

1. Site Plan including but not limited to:
 - a. Name, location, owner, and designer of the proposed development.
 - b. Zoning of the subject property.
 - c. Vicinity map - indicating general location of the site and all abutting streets and properties.
 - d. Complete legal description.
 - e. Statement of Proposed Uses.
 - f. Location of the site in relation to adjacent properties, including the means of ingress and egress to such properties and any screening or buffers along adjacent properties.
 - g. Date, north arrow, and graphic scale (not to exceed one (1) inch equal to fifty (50) feet.)
 - h. Area and dimensions of site.
 - i. Location of all property lines, existing right-of-way approaches, sidewalks, curbs, and gutters.
 - j. Access and points of connection to utilities (electric, potable water, sanitary sewer, gas, etc.)
 - k. Location and dimensions of all existing and proposed parking areas and loading areas.
 - l. Location, size, and design of proposed landscaped areas (including existing trees and required landscaped buffer areas) with detail illustrating compliance with Section 6.2.2 of the Land Development Regulations.

- m. Location and size of any lakes, ponds, canals, or other waters and waterways.
- n. Structures and major features – fully dimensioned – including setbacks, distances between structures, floor area, width of driveways, parking spaces, property or lot lines, and floor area ratio.
- o. Location of waste receptacles and detail of waste receptacle screening.
- p. For development consisting of a nonresidential use, except for single tenant retail sales and services uses greater than or equal to 20,000 square feet in area and except for use types within the industrial services, manufacturing and production, warehouse freight and movement, waste-related services, and wholesale sales use categories:
 - i. Architectural plans and dimension plans which demonstrate compliance with the design standards for business uses as provided in Section 6.8.2 of the LDRs, including:
 - (a) Calculation of glazing of the front façade.
 - (b) Calculation of the area of ground floor façades subject to glazing.
 - (c) Detail on the architectural plans and dimension plans depicting façade massing and/or alternatives to required façade massing.
 - (d) Sufficient plan detail and calculations of each material utilized in each façade.
- q. For development consisting of a nonresidential use where a single tenant is greater than or equal to 20,000 square feet in area:
 - i. Architectural plans and dimension plans which demonstrate compliance with the design standards for single tenant retail sales and service uses greater than or equal to 20,000 square feet in area as provided in Section 6.8.3 of the LDRs, including:
 - (a) Calculation of glazing of the façades facing streets, residential uses, and vacant residential/agricultural land.
 - (b) Calculation of the area of ground floor façades subject to glazing.
 - (c) If glazing alternatives are used, calculation of area of alternative materials used.
 - (d) Detail on the architectural plans and dimension plans depicting façade massing and/or alternatives to required façade massing.
 - (e) Color architectural plans depicting the color of all materials used in the façade.
- r. For development consisting of one or more of the following: Multi-family residential; Hotel; or Mobile Home Park:
 - i. Tabulation of gross acreage.
 - ii. Tabulation of density.
 - iii. Number of dwelling units proposed.
 - iv. Location and percent of total open space and recreation areas.
 - v. Floor area of dwelling units.
 - vi. Number of proposed parking spaces.
 - vii. Street layout.
 - viii. Layout of mobile home stands (for mobile home parks only).
 - ix. City of Alachua Public School Student Generation Form.

Sheet Size: 24" X 36" with 3" left margin and ½" top, bottom, and right margins

- 2. Stormwater management plan - including the following:
 - a. Existing contours at one (1) foot intervals based on U.S. Coastal and Geodetic Datum.
 - b. Proposed finished floor elevation of each building site.
 - c. Existing and proposed stormwater management facilities with size and grades.
 - d. Proposed orderly disposal of surface water runoff.
 - e. Centerline elevations along adjacent streets.
 - f. Water Management District surfacewater management Statement of proposed uses on the site plan
- 3. Fire Department Access and Water Supply: The design criteria shall be Chapter 18 of the Florida Fire Prevention Code. Plans must be on separate sealed sheets and must be prepared by a professional Fire engineer licensed in the State of Florida. Fire flow calculations must be provided for each newly constructed building. When required, fire flow calculations shall be in accordance with the Guide for Determination of Required Fire Flow, latest edition, as published by the Insurance Service Office (ISO) and /or Chapter 18, Section 18.4 of the Florida Fire Prevention Code, whichever is greater. All calculations must be demonstrated and provided. All calculations and specifications must be on the plans and not on separate sheets. All fire protection plans are reviewed and approved by the Alachua County Fire Marshal.
- 4. Concurrency Impact Analysis showing the impact on public facilities, including potable water, sanitary sewer, transportation, solid waste, recreation, stormwater, and public schools in accordance with Article 2.4.14 of the Land Development Regulations.
- 5. Analysis of Consistency with the City of Alachua Comprehensive Plan (analysis must identify specific Goals, Objectives, and Policies and describe in detail how the application complies with the noted Goal, Objective, or Policy.)

For commercial project Applications:

- a. In addition to submitting specific written information regarding your **commercial** development's compliance with the relevant Goals, Objectives, and Policies of the City of Alachua Comprehensive Plan, you must respond directly to the standards listed below. You should be specific in terms of how your commercial development will comply with these standards.

Policy 1.3.d Design and performance standards

The following criteria shall apply when evaluating commercial development proposals:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
2. Buffering from adjacent existing/potential uses;
3. Open space provisions and balance of proportion between gross floor area and site size;
4. Adequacy of pervious surface area in terms of drainage requirements;
5. Placement of signage;
6. Adequacy of site lighting and intrusiveness of lighting upon the surrounding area;
7. Safety of on-site circulation patterns (patron, employee and delivery vehicles), including parking layout and drive aisles, and points of conflict;
8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
10. Performance based zoning requirements, which may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
11. Commercial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres but 5 acres or greater, a .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio to parcels 1 acre or less.

For industrial project Applications:

- b. In addition to submitting specific written information regarding your **industrial** development's compliance with the relevant Goals, Objectives, and Policies of the City of Alachua Comprehensive Plan, you must respond directly to the standards listed below. You should be specific in terms of how your industrial development will comply with these standards.

Policy 1.5.d

The City shall develop performance standards for industrial uses in order to address the following:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
2. Buffering from adjacent existing/potential uses;
3. Open space provisions and balance of proportion between gross floor area and site size;
4. Adequacy of pervious surface area in terms of drainage requirements;
5. Placement of signage;
6. Adequacy of site lighting and intrusiveness of lighting upon the surrounding area;
7. Safety of on-site circulation patterns (patron, employee and delivery vehicles, trucks), including parking layout and drive aisles, and points of conflict;
8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
10. Performance based zoning requirements that may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
11. Industrial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres by 5 acres or greater, .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio for parcels 1 acre or less.

6. For Site Plans for Buildings Less than 80,000 Square Feet in Area: One (1) set of labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits (obtain from the Alachua County Property Appraiser's web site) – and all persons/organizations registered to receive notice of development applications.
For Site Plans for Buildings Greater than or Equal to 80,000 Square Feet in Area: Two (2) sets of labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits (obtain from the Alachua County Property Appraiser's web site) – and all persons/organizations registered to receive notice of development applications.
7. Neighborhood Meeting Materials, including:
 - i. Copy of the required published notice (advertisement) – must be published a newspaper of general circulation, as defined in Article 10 of the City's Land Development Regulations
 - ii. Copy of written notice (letter) sent to all property owners within 400 feet and to all persons/organizations registered with the City to receive notice, and mailing labels or list of those who received written notice
 - iii. Written summary of meeting – must include (1) those in attendance; (2) a summary of the issues related to the development proposal discussed; (3) comments by those in attendance about the development proposal; and, (4) any other information deemed appropriate.
8. Legal description with tax parcel number, separate from all other documentation on 8.5" x 11" paper.
9. Proof of ownership (i.e., copy of deed.)
10. Proof of payment of taxes.
11. Environmental Resource Permit (or Letter of Exemption) from the Suwannee River Water Management District or Self-Certification for a Stormwater Management System in Uplands Serving Less than 10 Acres of Total Project Area and Less than 2 Acres of Impervious Surfaces from the Florida Department of Environmental Protection pursuant to Section 403.814(12), Florida Statutes.
12. If access is from a County Road, access management permit from Alachua County Public Works (or documentation providing evidence that a permit application has been submitted).
13. If access is from a State Road, access management permit from Florida Department of Transportation (or documentation providing evidence that a permit application has been submitted).
14. **Fee.** Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review or additional reviews of the application beyond the initial engineering review fee will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasi-judicial action of any kind on the petition, appeal, or development application.

All 14 attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Caitlyn O. Drane
 Signature of Applicant

 Signature of Co-applicant

Caitlyn O. Drane
 Typed or printed name and title of applicant

 Typed or printed name of co-applicant

State of Florida County of Alachua

The foregoing application is acknowledged before me this 23rd day of April, 2019, by Caitlyn

Drane, who is personally known to me, or who has/have produced _____
 as identification.

NOTARY SEAL
 Stephanie Sutton
 NOTARY PUBLIC
 STATE OF FLORIDA
 Comm# GG040315
 Expires 10/19/2020

Stephanie Sutton
 Signature of Notary Public, State of Florida

City of Alachua ♦ Planning and Community Development Department
 PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121

Revised 9/30/2014



Authorized Agent Affidavit

A. PROPERTY INFORMATION

Address of Subject Property: 14120 NW 126th Terrace

Parcel ID Number(s): 03927-001-000

Acreage: 1.99 +/-

B. PERSON PROVIDING AGENT AUTHORIZATION

Name: James D. Talton Title:

Company (if applicable): Alchem Laboratories Corporation

Mailing Address: 13305 Rachael Blvd

City: Alachua State: FL ZIP: 32615

Telephone: FAX: e-mail: jtalton@alchem.com

C. AUTHORIZED AGENT

Name: Sergio Reyes, PE Title: President

Company (if applicable): eda engineers-surveyors-planners, inc.

Mailing address: 2404 NW 43rd St

City: Gainesville State: FL ZIP: 32606

Telephone: 352-373-3541 FAX: 352-373-7249 e-mail: sreyes@edafl.com

D. REQUESTED ACTION:

Site Plan and Lot Line Adjustment/Lot Split Application

I hereby certify that I am the property owner of record, or I have received authorization from the property owner of record to file an application for a development permit related to the property identified above. I authorize the agent listed above to act on my behalf for purposes of this application.

Signature of Applicant

Signature of Co-applicant

Typed or printed name and title of applicant

Typed or printed name of co-applicant

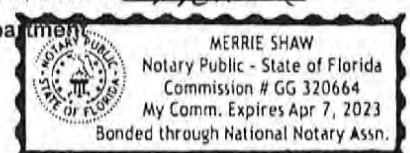
State of Florida County of Alachua

The foregoing application is acknowledged before me this 5th day of June, 2019, by James

Talton, who is/are personally known to me or who has/have produced as identification.

Signature of Notary Public, State of Florida

City of Alachua ♦ Planning and Community Development Department
PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121
Revised 9/30/2014



Authorized Agent Affidavit

A. PROPERTY INFORMATION

Address of Subject Property: No address - adjacent to Alchem parcel at 14120 NW 126th Terrace

Parcel ID Number(s): A portion of parcel 03927-000-000

Acreage: 0.70 +/-

B. PERSON PROVIDING AGENT AUTHORIZATION

Name: Avery C. Roberts

Title: Manager

Company (if applicable): ADC Development & Investment Group LLC

Mailing Address: PO BOX 238

City: Lake Butler

State: FL

ZIP: 32054

Telephone: 386-496-3509

FAX: 386-496-4309

e-mail: avery@flaland.com

C. AUTHORIZED AGENT

Name: Sergio Reyes, PE

Title: President

Company (if applicable): eda engineers-surveyors-planners, inc.

Mailing address: 2404 NW 43rd St

City: Gainesville

State: FL

ZIP: 32606

Telephone: 352-373-3541

FAX: 352-373-7249

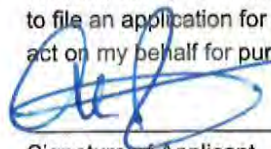
e-mail: sreyes@edafi.com

D. REQUESTED ACTION:

Site Plan; and Lot Line Adjustment/Lot Split Application, provided however the lot line adjustment/lot split application

shall require the property owner's written approval prior to finalizing or recording.

I hereby certify that I am the property owner of record, or I have received authorization from the property owner of record to file an application for a development permit related to the property identified above. I authorize the agent listed above to act on my behalf for purposes of this application.


Signature of Applicant

Signature of Co-applicant

Avery C. Roberts

Typed or printed name and title of applicant

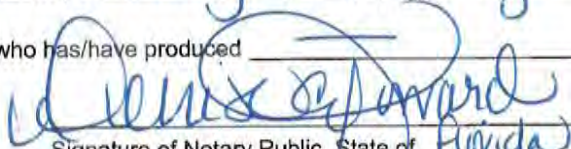
Typed or printed name of co-applicant

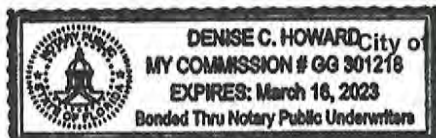
State of Florida

County of Union

The foregoing application is acknowledged before me this 29th day of May, 2019, by Avery C.

Roberts, who is/are personally known to me, or who has/have produced
as identification.


Signature of Notary Public, State of Florida



DENISE C. HOWARD
MY COMMISSION # GG 301218
EXPIRES: March 16, 2023
Bonded Thru Notary Public Underwriters

City of Alachua ♦ Planning and Community Development Department
PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121
Revised 9/30/2014

Worksheet for Trip Generation

Project Name : Alchem - Laboratories
 Customer / Builder Name : Alchem - Laboratories
 Property Address : 14120 NW 126th Terrace

EXISTING

EXISTING: 6720-SF Building
 ITE LAND USE: 110 GENERAL LIGHT INDUSTRIAL
 SOURCE: ITE TRIP GENERATION, 10TH EDITION

6720 SF

				TRIP DISTRIBUTION		PROJECT TRIPS	
PERIOD	RATE	PER UNIT	TRIPS	ENTER	EXIT	IN	OUT
AM	0.92	6.72	6.18	87%	13%	5.38	0.80
PM	0.83	6.72	5.58	18%	82%	1.00	4.57
AVG	4.96	6.72	33.33	50%	50%	16.67	16.67

PROPOSED

PROPOSED: 12,000-SF NEW BUILDING
 ITE LAND USE: 110 GENERAL LIGHT INDUSTRIAL
 SOURCE: ITE TRIP GENERATION, 10TH EDITION

12000 SF

				TRIP DISTRIBUTION		PROJECT TRIPS	
PERIOD	RATE	PER UNIT	TRIPS	ENTER	EXIT	IN	OUT
AM	0.92	12.00	11.04	87%	13%	9.60	1.44
PM	0.83	12.00	9.96	18%	82%	1.79	8.17
AVG	4.96	12.00	59.52	50%	50%	29.76	29.76

	AM	PM	AVG
Existing	6.18	5.58	33.33
Proposed	11.04	9.96	59.52
Total	17	16	93



Worksheet for Needed Fire Flow

Project Name : Alchem Laboratories
Customer / Builder Name : Alchem Laboratories
Property Address : 14120 NW 126th Terrace Alachua, FL 32615

NFPA Calculation

Fire Flow Area (SF)	=	12,000
Sprinkler System	=	YES
Construction Type	=	III (200)
Required Needed Fire Flow Per NFPA before Reduction for Sprinklers	=	2,250 gpm
75% Reduction for Sprinklers	=	563 gpm
Required Needed Fire Flow Per NFPA	=	1,000 gpm
(Resulting Fire Flow shall not be less than 1,000 gpm)		

REQUIRED Needed Fire Flow	1,000	gpm
----------------------------------	--------------	------------

Table 18.4.5.1.2 Minimum Required Fire Flow and Flow Duration for Buildings

Fire Flow Area ft ² (× 0.0929 for m ²)					Fire Flow gpm [†] (× 3.785 for L/min)	Flow Duration (hours)
I(443), I(332), II(222)*	II(111), III(211)*	IV(2HH), V(111)*	II(000), III(200)*	V(000)*		
0–22,700	0–12,700	0–8200	0–5900	0–3600	1500	2
22,701–30,200	12,701–17,000	8201–10,900	5901–7900	3601–4800	1750	
30,201–38,700	17,001–21,800	10,901–12,900	7901–9800	4801–6200	2000	
38,701–48,300	21,801–24,200	12,901–17,400	9801–12,600	6201–7700	2250	
48,301–59,000	24,201–33,200	17,401–21,300	12,601–15,400	7701–9400	2500	
59,001–70,900	33,201–39,700	21,301–25,500	15,401–18,400	9401–11,300	2750	
70,901–83,700	39,701–47,100	25,501–30,100	18,401–21,800	11,301–13,400	3000	3
83,701–97,700	47,101–54,900	30,101–35,200	21,801–25,900	13,401–15,600	3250	
97,701–112,700	54,901–63,400	35,201–40,600	25,901–29,300	15,601–18,000	3500	
112,701–128,700	63,401–72,400	40,601–46,400	29,301–33,500	18,001–20,600	3750	
128,701–145,900	72,401–82,100	46,401–52,500	33,501–37,900	20,601–23,300	4000	
145,901–164,200	82,101–92,400	52,501–59,100	37,901–42,700	23,301–26,300	4250	
164,201–183,400	92,401–103,100	59,101–66,000	42,701–47,700	26,301–29,300	4500	4
183,401–203,700	103,101–114,600	66,001–73,300	47,701–53,000	29,301–32,600	4750	
203,701–225,200	114,601–126,700	73,301–81,100	53,001–58,600	32,601–36,000	5000	
225,201–247,700	126,701–139,400	81,101–89,200	58,601–65,400	36,001–39,600	5250	
247,701–271,200	139,401–152,600	89,201–97,700	65,401–70,600	39,601–43,400	5500	
271,201–295,900	152,601–166,500	97,701–106,500	70,601–77,000	43,401–47,400	5750	
Greater than 295,900	Greater than 166,500	106,501–115,800	77,001–83,700	47,401–51,500	6000	
		115,801–125,500	83,701–90,600	51,501–55,700	6250	
		125,501–135,500	90,601–97,900	55,701–60,200	6500	
		135,501–145,800	97,901–106,800	60,201–64,800	6750	
		145,801–156,700	106,801–113,200	64,801–69,600	7000	
		156,701–167,900	113,201–121,300	69,601–74,600	7250	
		167,901–179,400	121,301–129,600	74,601–79,800	7500	
		179,401–191,400	129,601–138,300	79,801–85,100	7750	
		Greater than 191,400	Greater than 138,300	Greater than 85,100	8000	

*Types of construction are based on NFPA 220.

†Measured at 20 psi (139.9 kPa).

cargo space covered and maintained tight enough to ensure against ignition from external fire sources and the scattering of burning and combustible debris that can come in contact with ignition sources.

19.1.8.2 Transporting burning waste or refuse shall be prohibited.

19.1.8.3 Trucks or automobiles, other than mechanical handling equipment and approved industrial trucks as listed in NFPA 505, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance,*

and Operations, shall not enter any fiber storage room or building but shall be permitted to be used at loading platforms.

19.2 Combustible Waste and Refuse.

19.2.1 Rubbish Containers.

19.2.1.1 General. Rubbish containers kept outside of rooms or vaults shall not exceed 40.5 ft³ (1.15 m³) capacity.

19.2.1.1.1 Containers exceeding a capacity of 5½ ft³ [40 gal (0.15 m³)] shall be provided with lids.



Hydrant Flow Test Report

Test Date 11/1/2018

Test Time 8:30 am

Location

Future EDA Site
between Research Dr. & Rachael Blvd
Alachua, FL

Tested by

Gator Fire Equipment
1032 S. Main Street
Gainesville, FL 32601
352-373-1738
TESTED BY: L. Ashby
WITNESSED BY: B. Gourly

Notes

Flowing hydrant located on Research Drive, East of
NW 126 Terr.
Static/residual pressure readings take from hydrant
located on Rachael Blvd, west of NW 126 Terr.

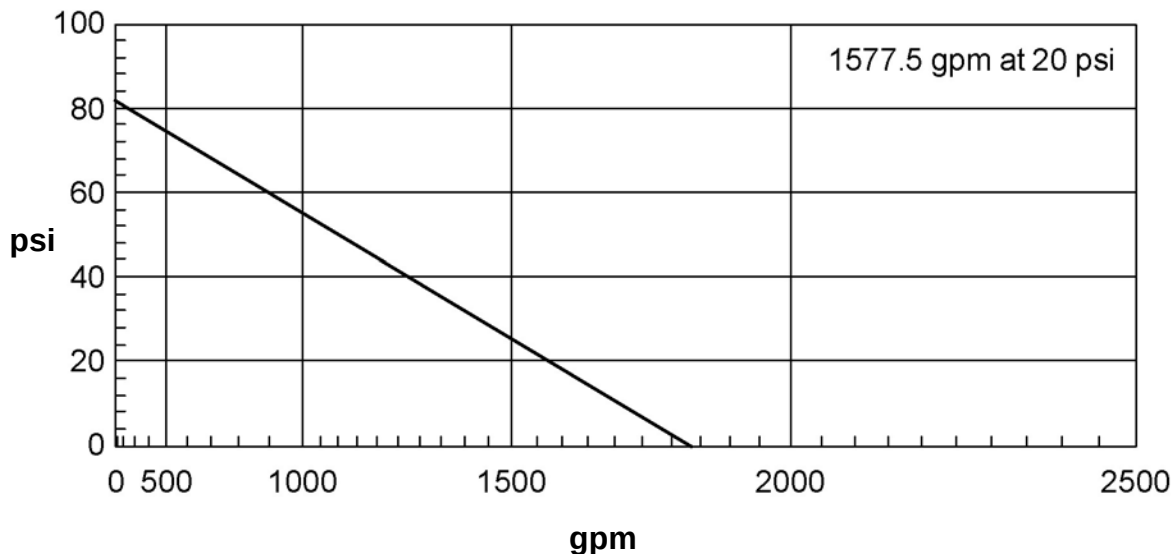
Read Hydrant

82 psi **static pressure**
40 psi **residual pressure**
1 ft **hydrant elevation**

Flow Hydrant(s)

Outlet	Elev	Size	C	Pitot Pressure	Flow
#1	0	5.25	.9	58	1278 gpm

Flow Graph





DRAINAGE DESIGN NOTES

for

Alchem Laboratories



Engineer of Record:
Caitlyn Drane, PE
Cert. No. 85256

Submitted to:
City of Alachua
SRWMD

Submitted: January 31, 2019
Resubmitted: April 25, 2019
Resubmitted: June 18, 2019



DRAINAGE DESIGN NOTES

**Prepared for
Alchem Laboratories**

Professional Engineer of Record:

**Caitlyn Drane, PE
Cert. No. 85256**

Table of Contents

Contents

- Introduction
- Design Criteria
- Site Characteristics
- Drainage Analysis and Conclusion

Appendices

Appendix A	Geotechnical Report
Appendix B	Drainage Areas Map
Appendix C	ICPR
Appendix D	NRCS Soils Map
Appendix E	FEMA Map
Appendix F	Quad Map

Introduction

The proposed Alchem Laboratories proposes the construction of a new 12,000-SF pre-engineered metal building with associated utilities and parking.

The proposed Alchem Laboratories is located at 14120 NW 126th Terrace Alachua, FL 32615 in Alachua County on tax parcel 03927-001-000.



Figure 1: Aerial photograph of existing conditions

Site Characteristics

EXISTING SITE CONDITIONS

The existing site contains a laboratory building with associated parking and utilities. A portion of the drainage from the existing building flows into the right-of-way of NW 126th Terrace and a portion flows to the existing Copeland Park SMF-1.

PROPOSED SITE CONDITIONS

The proposed site is to discharge to three (3) proposed basins on site. Basins 1 & 2 are proposed to discharge to NW 126th Terrace. Basin 3 is proposed to discharge to the existing Copeland Park SMF-1.

SUBSURFACE INVESTIGATION INFORMATION

The soils properties from the Geotechnical Investigation Report dated April 16, 2019 prepared by Universal Engineering Sciences. The recommendations of the soil characteristics are summarized below:

Soil Boring	B-1/B-2	B-3/B-4
Average Ground Elevation	70.65	70.00
Depth to Confined layer, feet	6.00	7.50
Confined Layer Elevation	64.65	62.50
Depth to SHWT, feet	5.50	7.00
SHWT Elevation	65.15	63.00
Vertical Infiltration Rate, feet per day	11.00	15.00
Safety factor	2.00	2.00
Vertical Infiltration Rate, feet per day	5.50	7.50
Horizontal Infiltration Rate, feet per day	22.00	30.00
Safety factor	2.00	2.00
Horizontal Infiltration Rate, feet per day	11.00	15.00
Fillable porosity (%)	25.00	25.00

Drainage Analysis

The proposed stormwater system was designed to meet City of Alachua and Suwannee River Water Management District criteria.

The computer program ICPR was used to route the required storm events through the proposed storm system. The design storms used for this analysis were the 100YR storm events. The input data and storm routing results can be seen in the Appendix C.

The following calculations are the basis of the inputs in the ICPR model.

DRAINAGE AREA

PRE-DEVELOPMENT

Pre-Development drainage area 1 (PRE DA-1) discharges to the existing Copeland Park SMF-1. Per the existing permitted calculations, the area included within this drainage area may be 70% impervious. Due to contractual requirements, the drainage area is allowed to be 54.5%. The pre-development curve number was calculated including the maximum allowed impervious area by right as to account for the allowed impervious area in the Pre/Post model.

PRE-DEVELOPMENT - DA-1

	Area (sf)	Area (Acres)	Curve CN
Impervious Area (54.5% Impervious)	34,912	0.80	98
Basins	0	0.00	100
Open Area	160,676	3.69	39
TOTALS	195,588	4.49	50

Pre-Development drainage area 2 (PRE DA-2) discharges to an existing depressional area that discharges to the NW 126th Terrace right-of-way.

PRE-DEVELOPMENT - DA-2

	Area (sf)	Area (Acres)	Curve CN
Impervious Area	8,485	0.19	98
Basins	2,453	0.06	100
Open Area	21,192	0.49	39
TOTALS	29,676	0.68	64

POST DEVELOPMENT

Post-Development drainage area 1 (Post DA-1) discharges to proposed basins 1 and 2.

POST-DEVELOPMENT - DA-1

	Area (sf)	Area (Acres)	Curve CN
Impervious Area	12,540	0.29	98
Basins	5,154	0.12	100
Open Area	14,409	0.33	39
TOTALS	32,103	0.74	72

Post-Development drainage area 2 (Post DA-2) discharges to proposed basin 3.

POST-DEVELOPMENT - DA-2

	Area (sf)	Area (Acres)	Curve CN
Impervious Area	40,187	0.92	98
Basins	6,363	0.15	100
Open Area	33,065	0.76	39
TOTALS	79,615	1.83	74

BASIN STORAGE DATA

PRE-DEVELOPMENT

Basin 1				
Stage (EL)	Area (SF)	Area (ac)	Volume (CF)	Volume (AC-FT)
69.00	240	0.006	0	0.000
70.00	2,453	0.056	1,347	0.031

POST-DEVELOPMENT

Basin 1				
Stage (EL)	Area (SF)	Area (ac)	Volume (CF)	Volume (AC-FT)
68.25	1,405	0.032	0	0.000
69.00	2,012	0.046	1,282	0.029
70.00	2,870	0.066	3,723	0.085
71.00	3,785	0.087	7,050	0.162

Basin 2				
Stage (EL)	Area (SF)	Area (ac)	Volume (CF)	Volume (AC-FT)
68.25	1,051	0.024	0	0.000
69.00	1,345	0.031	898	0.021
70.00	1,786	0.041	2,464	0.057
71.00	2,284	0.052	4,499	0.103

Basin 3				
Stage (EL)	Area (SF)	Area (ac)	Volume (CF)	Volume (AC-FT)
68.50	6,363	0.146	0	0.000
69.00	6,832	0.157	3,299	0.076
70.00	8,152	0.187	10,791	0.248
71.00	9,572	0.220	19,652	0.451

WATER QUALITY TREATMENT VOLUME

existing basin provides water quality treatment volume(WQTV) for an area up to 54.5% impervious for the area included within the Copeland Park SMF-1 drainage area. The amount of WQTV provided by the Copeland Industrail Basin is 2,909-CF. The remaining required amount of WQTV is provided by the three (3) proposed on-site basins.

The water quality treatment provided is the greater of the water quality treatment volume criteria per the City of Alachua and the Suwannee River Water Management District.

WQTV is the greater of the one inch of runoff(SRWMD) or the first one-half inch of runoff(COA)

Volume V1 = 1 inches over the total area

Volume V2 = 0.5 inches over the total area

DA	Volume V1 (CF)	Volume V2 (CF)	Total WQTV Required (CF)
Combined (1&2)	9,310	4,655	9,310

The remaining 6,401-CF of WQTV is provided by the propsed basins.

The WQTV provided by the proposed on-site basins recover in approximately **2.25** hours.

STORM ROUTING RESULTS

Storm Event	Basin 1 Stage	Freeboard (ft)
100YR-001HR	69.54	1.46
100YR-002HR	69.68	1.32
100YR-004HR	69.92	1.08
100YR-008HR	69.88	1.12
100YR-024HR	69.66	1.34
100YR-072HR	69.73	1.27
100YR-168HR	69.66	1.34
100YR-240HR	69.70	1.30

Storm Event	Basin 2 Stage	Freeboard (ft)
100YR-001HR	69.54	1.46
100YR-002HR	69.68	1.32
100YR-004HR	69.92	1.08
100YR-008HR	69.88	1.12
100YR-024HR	69.65	1.35
100YR-072HR	69.72	1.28
100YR-168HR	69.66	1.34
100YR-240HR	69.70	1.30

Storm Event	Basin 3 Stage	Freeboard (ft)
100YR-001HR	68.90	2.10
100YR-002HR	69.11	1.89
100YR-004HR	69.53	1.47
100YR-008HR	69.66	1.34
100YR-024HR	69.89	1.11
100YR-072HR	69.99	1.01
100YR-168HR	69.96	1.04
100YR-240HR	70.00	1.00

Basins 1&2

Storm Event	Pre-Development Discharge Rate (cfs)	Post-Development Discharge Rate (cfs)	Pre-Development Discharge Volume (af)	Post-Development Discharge Volume (af)
100YR-001HR	1.73	0.04	0.0397	0.0009
100YR-002HR	1.61	0.36	0.0763	0.0253
100YR-004HR	1.22	0.56	0.1328	0.069
100YR-008HR	1.47	0.53	0.1916	0.092
100YR-024HR	0.53	0.29	0.3285	0.1698
100YR-072HR	0.41	0.41	0.4668	0.2468
100YR-168HR	0.30	0.30	0.5815	0.2342
100YR-240HR	0.39	0.39	0.6865	0.3001

Basin3

Storm Event	Pre-Development Discharge Rate (cfs)	Post-Development Discharge Rate (cfs)	Pre-Development Discharge Volume (af)	Post-Development Discharge Volume (af)
100YR-001HR	4.84	0.56	0.1664	0.0211
100YR-002HR	4.29	0.64	0.3201	0.0635
100YR-004HR	4.90	1.37	0.5699	0.1484
100YR-008HR	6.04	1.56	0.846	0.2562
100YR-024HR	2.35	0.94	1.6078	0.7029
100YR-072HR	2.26	1.84	2.3914	1.2869
100YR-168HR	1.73	1.53	3.0573	1.7951
100YR-240HR	2.25	1.98	3.6855	2.3101

Recovery

Refer to the attached graphs that show the full recovery occurs within 6 days of the end of the storm event.



UNIVERSAL ENGINEERING SCIENCES

Consultants in: Geotechnical Engineering • Environmental Engineering
Construction Materials Testing • Threshold Inspection • Private Provider Inspection

LOCATIONS:
Atlanta
Daytona Beach
Fort Myers
Fort Pierce
Gainesville
Jacksonville
Kissimmee
Leesburg
Miami
Ocala
Orlando (Headquarters)
Palm Coast
Panama City
Pensacola
Rockledge
Sarasota
Tampa
West Palm Beach

April 16, 2019

Alchem Laboratories Corporation
13305 Rachael Blvd.
Alachua, FL 32615

Attention: Dr. James D. Talton, PhD.

Reference: Report of Geotechnical Consulting Services

Alchem Laboratory
Stormwater Management System
14120 NW 126th Terrace
Alachua, Alachua County, Florida
UES Project No. 0230.1900040.0000

UES Report No. 1664596

Dear Dr. Talton:

Universal Engineering Sciences, Inc. (UES) has completed geotechnical engineering services for the proposed new stormwater management system at the subject project in Alachua, Alachua County, Florida, as authorized in Proposal 1661377, dated April 1, 2019. This report presents the results of our subsurface field exploration, laboratory soil testing programs, and recommendations for the proposed stormwater management facility.

Objectives

The objectives of our geotechnical consulting services on this portion of the project have been summarized as follows:

- Explore the subsurface conditions within the proposed stormwater management areas,
- Perform a series of laboratory tests on selected subsurface soil specimens to assist with engineering soil classifications and to establish the relevant soil composition and permeability characteristics,
- Classify and stratify the various soil strata encountered in the soil test borings,
- Evaluate the groundwater level in the area of exploration and make appropriate recommendations,
- Recommend appropriate subsurface soil design parameter values for design of the on-site stormwater management system.

Project Information

The subject parcel is located at 14120 NW 126th Terrace in Alachua, Alachua County, Florida. Current site development plans include construction of stormwater management facilities. The number and locations of the borings were selected by EDA engineers-surveyors-planners, Inc. (EDA).

By contract, our exploration was confined to the zone of soil likely to be stressed by the proposed construction. Our work did not address the potential for surface expression of deep geological conditions, such as sinkholes. This evaluation requires a more extensive range of field services than performed in this study. We will be pleased to conduct an exploration to evaluate the probable effect of the regional geology upon the proposed construction, if you desire.

Site Conditions

UES personnel visited the project parcel during the performance of the field portion of this geotechnical study. Our on-site observations have been summarized as follows. At the time of our exploration, the project parcel was mostly developed and clear. The surface soils were observed to be sandy and dry. Surface organic soils, surface debris, were not observed on the project site.

Local Geology

The general geology of Alachua County is characterized by a surface veneer of Pleistocene and Pliocene sands and sandy clays overlying the Miocene age Hawthorn Group, a highly variable mixture of interbedded quartz sands, clays, carbonates, pebbles and grains occurring in thickness of up to 150 feet. Underlying the Hawthorn Group is the upper Eocene age Ocala Formation, occurring as a uniform limestone, which is approximately 200 feet thick and overlies the Eocene age Avon Park Formation, which can be up to 500 feet thick. Both the Ocala and Hawthorn Formations dip to the northeast by approximately one degree.

The general hydrogeology of Alachua County consists of three aquifer systems: a surficial aquifer, and intermediate aquifer, and the Floridan aquifer system. The surficial aquifer exists as an unconfined water table situated over the impermeable Hawthorn Group and is usually a subdued reflection of surface topography. The intermediate aquifer system includes all rocks that collectively retard the exchange of water between the overlying surficial aquifer system and the underlying Floridan aquifer system. Water in this system is contained under confined conditions. The Floridan aquifer system is a thick carbonate sequence that functions regionally as a water-yielding hydraulic unit. The direction of shallow groundwater flow is generally toward surface water bodies. The surface of the upper Floridan Aquifer in the general project site area is estimated in the elevation range of +40 to +50 feet NGVD.

General Area Soils Information

The *USDA Soil Survey of Alachua County, Florida* describes the near-surface soil profile in the general project area as Arredondo and Millhopper soils. Arredondo soil is described as nearly level to gently sloping and well drained, with a water table at a depth of more than 72 inches. Permeability is rapid in the surface and subsurface layers, and moderately slow to moderate in the loamy subsoil. Relevant engineering index properties of Arredondo soils are summarized in Table 1.

Table 1 – Relevant Engineering Index Properties of Arredondo Soil (3B) Slopes						
Depth, Inches	Texture	Classification	% Passing #200 Sieve	Plasticity Index	Shrink-swell Potential	Permeability
0-49	Fine sand	SP-SM, SM	5-15	NP	Low	6.0-20 in/hr
49-54	Loamy sand, loamy fine sand, sandy loam	SM, SM-SC	13-25	NP-7	Low	2.0-6.0 in/hr
54-86	Sandy loam, fine sandy loam, sandy clay loam	SM-SC, SC	20-40	NP-20	Low	0.2-2.0 in/hr

Millhopper soil is nearly level to gently sloping with a water table between depths of 40 to 60 inches below the surface for 1 to 4 months, and depths of 60 to 72 inches for 2 to 4 months during most years. Permeability is rapid in the surface and subsurface layers, moderately rapid in the upper 6 inches of the subsoil, and slow to moderately slow below this depth. Relevant engineering index properties for these Millhopper soils have been summarized below in Table 2.

Table 2 – Relevant Engineering Index Properties of Millhopper Soil (8B) Slopes						
Depth, Inches	Texture	Classification	% Passing #200 Sieve	Plasticity Index	Shrink-swell Potential	Permeability
0-58	Sand	SP-SM, SM	5-20	NP	Low	6.0-20 in/hr
58-64	Loamy sand, loamy fine sand	SM	15-22	NP-7	Low	2.0-6.0 in/hr
64-89	Sandy loam, fine sandy loam, sandy clay loam	SM, SM-SC, SC	18-40	NP-10	Low	0.06-2.0 in/hr

Subsurface Exploration

The field geotechnical testing activities were started and completed on April 8, 2019. Field tests for this portion of the geotechnical study included four (4) soil test borings to a depth of 15 feet performed at the locations shown on the attached Boring Location Plan. The actual test locations shown were approximate, and were staked in the field by UES personnel using existing landmarks and site features. The boreholes were backfilled to grade upon field work completion.

Standard Penetration Test (SPT) Borings: Penetration tests were performed in accordance with ASTM Procedure D-1586, *Penetration Test and Split-Barrel Sampling of Soils*. This test procedure generally involves driving a 1.4-inch I.D. split-tube sampler into the soil profile in six inch increments for a minimum distance of 18 inches using a 140-pound hammer free-falling 30 inches. The total number of blows required to drive the sampler the second and third 6-inch increments is designated as the N-value, and provides an indication of in-place soil strength, density and consistency.

The results of the classification and stratification have been shown on the attached Boring Logs. It should be noted that soil conditions might vary between soil test boring locations, and between the subsurface soil strata interfaces which have been shown on the Boring Logs. The soil test boring data reflect information from the specific test locations only. This report presents an evaluation of site conditions on the basis of traditional geotechnical procedures for site characterization. The recovered samples were not examined, either visually or analytically, for chemical composition or environmental hazards.

Subsurface Findings

The field exploration performed for this project disclosed subsurface conditions that are consistent with the local geology and general area soils information described above. The subsurface conditions found in the soil test borings have been summarized in the attached Boring Logs and described below.

The soil test borings generally encountered sand to sand with silt [SP/SP-SM] to depths of 6 to 8 feet, followed by clayey sands [SC] to the maximum boring termination depth of 15 feet.

The groundwater table was not encountered in any of the soil borings at the time of exploration. Fluctuations of perched groundwater level conditions on this project parcel should be expected to occur seasonally as a result of irrigation, rainfall, surface runoff, and nearby construction activities.

Laboratory Soil Tests

The soil samples recovered from the field exploration program were placed in containers and returned to our soils laboratory, where the Geotechnical Engineer visually classified the samples. Laboratory soil tests are performed to aid in the classification of the soils, and to help in the evaluation of engineering characteristics of the soils. Representative soil samples were selected for percent fines determination, moisture content and permeability tests. The test results have been presented on the attached Boring Logs and summarized in Table 3.

Table 3 – Laboratory Soil Test Results				
Soil Boring	Sample Depth	Type of Test	Results	Soil Description
B-1	5 feet	% Finer #200	5 %	Sand
		Moisture Content	4 %	
		Permeability	23 Feet/day	
B-2	3.5 feet	% Finer #200	8 %	Sand with silt
		Moisture Content	4 %	
		Permeability	12 Feet/day	
B-3	6.5 feet	% Finer #200	3 %	Sand
		Moisture Content	4 %	
		Permeability	29 Feet/day	
B-4	6.5 feet	% Finer #200	6 %	Sand with silt
		Moisture Content	5 %	
		Permeability	21 Feet/day	

Percent Passing No. 200 Sieve: Certain recovered soil samples were selected to determine the percentage of fines. In these tests the soil samples were dried and washed over a No. 200 mesh sieve. The percent of soil by weight passing the sieve was the percentage of fines or portion of the sample in the silt and clay size range. This test was conducted in accordance with ASTM Procedure D-1140, *Amount of Material in Soils Finer Than the #200 Sieve*.

Permeability: Representative soil samples were selected to determine the permeability rate of the soil. Constant head permeability tests were performed on remolded representative samples of the near surface soils from the proposed stormwater management area. These tests were conducted following the concepts outlined in ASTM D-2434, *Standard Test Method for Permeability of Granular Soils (Constant Head and Falling Head)*.

Moisture Content: Certain recovered soil samples were selected to determine their moisture content. The moisture content is the ratio expressed as a percentage of the weight of water in a given mass of soil to the weight of the solid particles. This test was conducted in accordance with ASTM Procedure D-2216, *Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock*.

Stormwater Management System

The laboratory test data indicates that the surficial sand soils within the proposed stormwater management area for this project generally have permeability rates of 12 to 29 feet per day at the boring locations. The clayey sands encountered directly underneath the surficial clean sands would behave as a confining layer in the stormwater management area. Based upon the above findings, we recommend that you consider the soil parameters presented in Table 4 for design of the stormwater management system on the subject project site. It should be noted that the above referenced values are measured values and do not incorporate factor of safety.

Table 4 – Stormwater Management System Soil Design Parameters		
Corresponding Soil Boring Test Locations	B-1/B-2	B-3/B-4
Average Depth to Confining Layer, feet	6	7.5
Estimated Unsaturated Vertical Infiltration rate, feet per day	11	15
Average Saturated Vertical Infiltration Rate, feet per day	17	20
Estimated Horizontal Hydraulic Conductivity, feet per day	22	30
Estimated Fillable Porosity, percentage	25	25
Estimated Depth of Seasonal High Water Table feet ¹	5.5	7

¹Normal seasonal high water table (SHWT) will be the result of perched conditions.

Stormwater Management System Fill Suitability

The recovered soil samples were classified using visual and textural means, and limited laboratory testing. We offer the following ***preliminary guidelines*** for the use of on-site soils, such as those excavated from the proposed shallow retention areas, as fill material for the project.

Soil materials excavated and classified as fine sands to sand with silts and sand with clay (SP, SP-SM, SP-SC), with typically 12% fines or less (silt/clay fraction), may be considered suitable for use as utility trench backfill, as well as building pad and pavement subgrade structural fill, provided said materials are properly dried, placed, and compacted.

Soil materials excavated and classified as silty fine sands [SM], with typically 12% to 25% fines, may also be considered suitable for use as utility trench backfill, as well as building pad and pavement subgrade structural fill, after significant drying and some mixing with the fine sand material described above. Proper placement, proof rolling and compaction must also be performed.

Soil materials excavated and classified as clayey sand, silt or clay (SC, ML, MH, CL, and CH) and any organic-laden soils (5% or greater organics by weight) should not be reused as fill beneath buildings or pavement sections. These materials could be used in green areas, if applicable and in non-structural applications where excessive ground subsidence will not create functional or aesthetic problems. It should be noted that silt and clay materials will retain water and if used may become saturated and soft for a significant period of time following a rain event.

Soil borings for a typical geotechnical report are widely spaced and generally not sufficient for reliably detecting the presence of isolated, anomalous surface or subsurface conditions, or reliably estimating unsuitable or suitable material quantities. Accordingly, UES does not recommend relying on our boring information to negate presence of anomalous materials or for estimation of material quantities unless our contracted services ***specifically*** include sufficient exploration for such purpose(s) and within the report we so state that the level of exploration provided should be sufficient to detect such anomalous conditions or estimate such quantities. Therefore, UES will not be responsible for any extrapolation or use of our data by others beyond the purpose(s) for which it is applicable or intended.

Report Limitations

This Report has been prepared for the exclusive use of Alchem Laboratory Corporation, and members of the Design/Construction Team for the specific project discussed in this Report. This Report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty is expressed or implied. If any changes in the design or location of the

project elements as outlined in this Report are planned, the conclusions and recommendations contained in this Report shall not be considered valid unless the changes are reviewed and the conclusions modified or approved, in writing, by UES.

UES performs hydraulic conductivity tests, including the two most common, i.e., DRI and remolded laboratory permeability testing, using generally accepted practices of the local engineering community. These common tests are the quickest and most economical for stormwater management system design. However, the user of this information is cautioned that the potential variability of results and reproducibility associated with these types of tests can be significant. It is important to note that there are many factors influencing the permeability of a soil. These factors include, but are not limited to, soil grain size, soil particle arrangement and structure, dispersion of soil fines, density, and degree of saturation, soil heterogeneity, and soil anisotropy. Also, the permeability measured by such tests may not be representative of that of the total effective aquifer thickness.

Factors of safety can compensate for part of the inherent test limitations but the Designer must exercise judgment regarding final selection and applicability of provided soil design input parameters. Should the modeling analysis indicate marginally acceptable compliance with Water Management District design criteria, it may be advisable to perform more extensive and representative in-situ permeability testing by collecting "undisturbed" horizontal and vertical soil samples and/or installing grouted piezometers or wells for slug testing. UES can perform these field tests if desired.

Additionally, the actual exfiltration rates from the pond may be influenced by pond geometry, natural soil variability, in-situ depositional characteristics and soil density, retention volume, and groundwater mounding effects. Also, it is important to note that the upper in-situ soil zone is usually altered during the excavation and grading operations by heavy, vibrating earthwork equipment. Due to these numerous factors cited above, published literature suggests that the permeability of a soil can only be estimated to within an order of magnitude. Therefore, appropriate factors of safety should be incorporated into the design process.

Closure

We have enjoyed being a part of the engineering team on this project, and appreciate the opportunity to have assisted you towards its successful completion. Please contact our office if you have any questions or need further assistance.

Respectfully submitted,
UNIVERSAL ENGINEERING SCIENCES, INC.

Certificate of Authorization Number 549



Timothy E. Kwiatkowski, P.E.
Project Geotechnical Engineer
Florida P.E. No. 86444



04-16-19



Eduardo Suarez, P.E.
Senior Geotechnical Engineer
Florida P.E. No. 60272
Date: 04-16-19



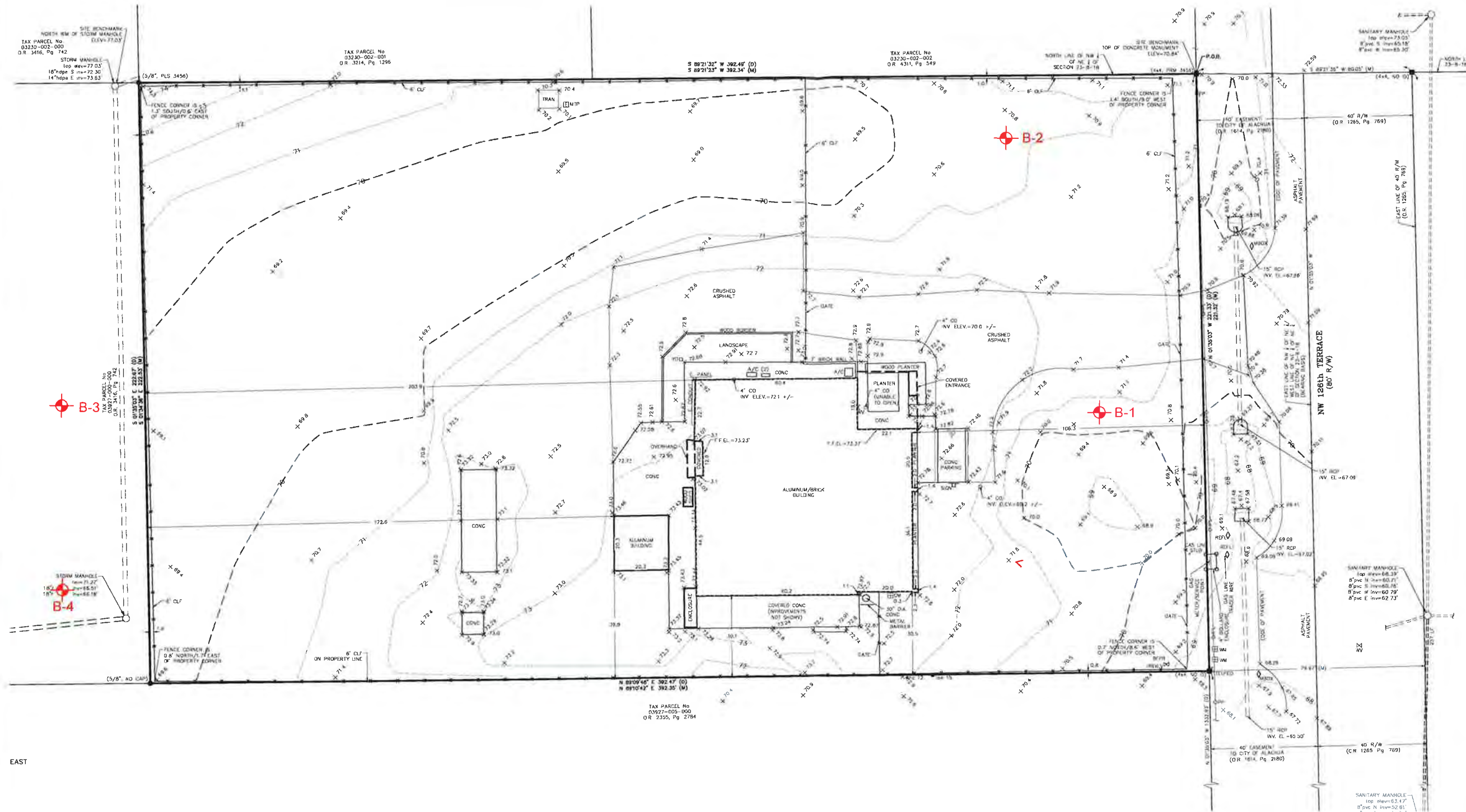
Attachments: Boring Location Plan, Boring Logs, Key to Boring Log

APPENDIX A

Boring Location Plan

Boring Logs

Key to Boring Logs



EAST

LEGEND

 BORING LOCATION

NOTE: ALL SOIL TEST BORING LOCATIONS SHOWN ARE APPROXIMATE.

ALCHEM LABORATORIES CORP

DRAWN BY: KD DATE: 04/09/19

CHECKED BY: ES DATE: 04/09/19

SCALE: 1"=40' ACADFILE:0230.1900040-A

PROJECT NO: 0230.1900040.0000 REPORT NO:1664596

ALCHEM LABORATORY
14120 NW 126TH TERRACE
ALACHUA, FLORIDA

BORING LOCATION PLAN



UNIVERSAL
ENGINEERING SCIENCES

PAGE NO:

A - 1



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0230.1900040.0000

REPORT NO.: 1664596

PAGE: A-2

PROJECT: ALCHEM LABORATORY
14120 NW 126TH TERRACE
ALACHUA, FLORIDA
CLIENT: ALCHEM LABORATORIES CORP
LOCATION: SEE BORING LOCATION PLAN
REMARKS:

BORING NO: **B-1** SHEET: **1 of 1**

SECTION: TOWNSHIP: RANGE:
GS ELEVATION(ft): DATE STARTED: 4/8/19
WATER TABLE (ft): NE DATE FINISHED: 4/8/19
DATE OF READING: NA DRILLED BY: R. PEREZ
EST. WSWT (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N VALUE	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT/ DAY)	ORG CONT. (%)
									LL	PI		
0						Loose to very loose brown SAND, with silt [SP-SM]						
1												
2		3-3-3	6									
3												
4		1-1-1	2			Very loose to loose tan SAND [SP]						
5							5	4			23	
6		1-1-1	2									
7		1-2-3	5			Loose to medium dense gray and orange clayey SAND [SC]						
8												
9		3-3-6	9									
10		4-5-7	12									
11												
12												
13												
14												
15		4-6-6	12			Boring Terminated at 15'						



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0230.1900040.0000

REPORT NO.: 1664596

PAGE: A-3

PROJECT: ALCHEM LABORATORY
14120 NW 126TH TERRACE
ALACHUA, FLORIDA
CLIENT: ALCHEM LABORATORIES CORP
LOCATION: SEE BORING LOCATION PLAN
REMARKS:

BORING NO: **B-2** SHEET: **1 of 1**

SECTION: TOWNSHIP: RANGE:

GS ELEVATION(ft): DATE STARTED: 4/8/19

WATER TABLE (ft): NE DATE FINISHED: 4/8/19

DATE OF READING: NA DRILLED BY: R. PEREZ

EST. WSWT (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N VALUE	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT/ DAY)	ORG CONT. (%)
									LL	PI		
0						Loose to medium dense brown to tan fine SAND, with silt [SP-SM]						
1												
2		3-2-1	3									
3												
4		1-1-2	3				8	4			12	
5		2-4-6	10									
6						Medium dense to loose light gray and orange clayey SAND [SC]						
7		4-5-6	11									
8		4-5-4	9									
9												
10		3-3-4	7									
11												
12												
13												
14												
15		2-2-3	5			Boring Terminated at 15'						



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0230.1900040.0000

REPORT NO.: 1664596

PAGE: A-4

PROJECT: ALCHEM LABORATORY
14120 NW 126TH TERRACE
ALACHUA, FLORIDA
CLIENT: ALCHEM LABORATORIES CORP
LOCATION: SEE BORING LOCATION PLAN
REMARKS:

BORING NO: **B-3** SHEET: **1 of 1**

SECTION: TOWNSHIP: RANGE:

GS ELEVATION(ft): DATE STARTED: 4/8/19
WATER TABLE (ft): NE DATE FINISHED: 4/8/19
DATE OF READING: NA DRILLED BY: R. PEREZ
EST. WSWT (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N VALUE	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT/ DAY)	ORG CONT. (%)
									LL	PI		
0						Loose brown to light gray SAND, with silt [SP-SM]						
1												
2		3-3-3	6									
3												
4		1-2-1	3			Very loose to loose tan fine SAND [SP]						
5		1-1-1	2									
6												
7		2-2-3	5				3	4			29	
8		2-3-3	6			Loose to medium dense gray and orange clayey SAND [SC]						
9												
10		3-6-10	16									
11												
12												
13												
14												
15		5-6-9	15			Boring Terminated at 15'						



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0230.1900040.0000

REPORT NO.: 1664596

PAGE: A-5

PROJECT: ALCHEM LABORATORY
14120 NW 126TH TERRACE
ALACHUA, FLORIDA
CLIENT: ALCHEM LABORATORIES CORP
LOCATION: SEE BORING LOCATION PLAN
REMARKS:

BORING NO: **B-4** SHEET: **1 of 1**

SECTION: TOWNSHIP: RANGE:

GS ELEVATION(ft): DATE STARTED: 4/8/19

WATER TABLE (ft): NE DATE FINISHED: 4/8/19

DATE OF READING: NA DRILLED BY: R. PEREZ

EST. WSWT (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N VALUE	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT/ DAY)	ORG CONT. (%)
									LL	PI		
0						Very loose tan to light brown SAND, with silt [SP-SM]						
1												
2		2-1-1	2									
3												
4		1-1-1	2			Very loose tan SAND, with silt [SP-SM]						
5		1-1-1	2									
6												
7		1-1-2	3				6	5			21	
8		2-2-2	4			Loose to medium dense gray and orange clayey SAND [SC]						
9												
10		2-2-2	4									
11												
12												
13												
14												
15		3-6-7	13			Boring Terminated at 15'						



KEY TO BORING LOGS

SYMBOLS

22	Number of Blows of a 140-lb Weight Falling 30 in. Required to Drive Standard Spoon One Foot
WOR	Weight of Drill Rods
S	Thin-Wall Shelby Tube Undisturbed Sampler Used
90% Rec.	Percent Core Recovery from Rock Core-Drilling Operations
■	Sample Taken at this Level
□	Sample Not Taken at this Level
—	Change in Soil Strata
▨	Free Ground Water Level
▧	Seasonal High Ground Water Level

RELATIVE DENSITY (sand-silt)

Very loose — Less Than 4 Blows/Ft.
 Loose — 4 to 10 Blows/Ft.
 Medium Dense — 10 to 30 Blows/Ft.
 Dense — 30 to 50 Blows/Ft.
 Very Dense — More Than 50 Blows/Ft.

CONSISTANCY (clay)

Very Soft — Less Than 2 Blows/Ft.
 Soft — 2 to 4 Blows/Ft.
 Firm — 4 to 8 Blows/Ft.
 Stiff — 8 to 15 Blows/Ft.
 Very Stiff — 15 to 30 Blows/Ft.
 Hard — More Than 30 Blows/Ft.

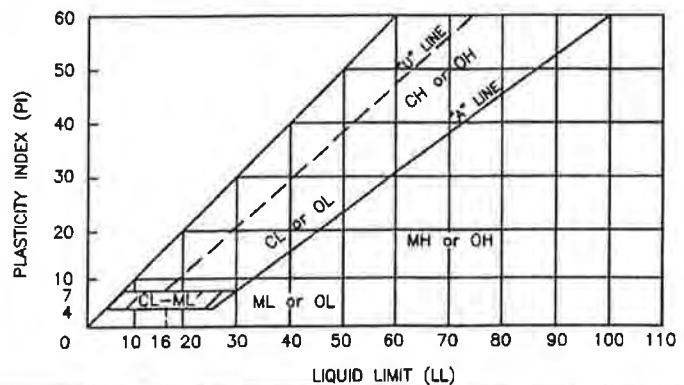
Based on Safety Hammer N-Values

UNIFIED CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve*	GRAVELS 50% or more of coarse fraction retained on No. 200 sieve	CLEAN GRAVELS	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		GRAVELS WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS	SW	Well-graded sands and gravelly sands, little or no fines
			SP	Poorly graded sands and gravelly sands, little or no fines
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS 50% or more passes No. 200 sieve*	SILTS AND CLAYS Liquid limit 50% or less	ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands	
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays silty clays, lean clays	
		OL	Organic silts and organic silty clays of low plasticity	
	SILTS AND CLAYS Liquid limit greater than 50%	MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts	
		CH	Inorganic clays or high plasticity, fat clays	
		OH	Organic clays of medium to high plasticity	
	Highly organic Soils		PT	Peat, muck and other highly organic soils
* Based on the material passing the 3-in. (75mm) sieve.				

* Based on the material passing the 3-in. (75mm) sieve.

PLASTICITY CHART



APPENDIX B

Important Information About Your Geotechnical Engineering Report Constraint and Restrictions

Important Information about This Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, clients can benefit from a lowered exposure to the subsurface problems that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed below, contact your GBA-member geotechnical engineer. Active involvement in the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Geotechnical-Engineering Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. *Those who rely on a geotechnical-engineering report prepared for a different client can be seriously misled.* No one except authorized client representatives should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one – not even you – should apply this report for any purpose or project except the one originally contemplated.*

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read it *in its entirety*. Do not rely on an executive summary. Do not read selected elements only. *Read this report in full.*

You Need to Inform Your Geotechnical Engineer about Change

Your geotechnical engineer considered unique, project-specific factors when designing the study behind this report and developing the confirmation-dependent recommendations the report conveys. A few typical factors include:

- the client's goals, objectives, budget, schedule, and risk-management preferences;
- the general nature of the structure involved, its size, configuration, and performance criteria;
- the structure's location and orientation on the site; and
- other planned or existing site improvements, such as retaining walls, access roads, parking lots, and underground utilities.

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

This Report May Not Be Reliable

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, that it could be unwise to rely on a geotechnical-engineering report whose reliability may have been affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If your geotechnical engineer has not indicated an "apply-by" date on the report, ask what it should be, and, in general, if you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying it.* A minor amount of additional testing or analysis – if any is required at all – could prevent major problems.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface through various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing were performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgment to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team from project start to project finish, so the individual can provide informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, *they are not final*, because the geotechnical engineer who developed them relied heavily on judgment and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* revealed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a full-time member of the design team, to:

- confer with other design-team members,
- help develop specifications,
- review pertinent elements of other design professionals' plans and specifications, and
- be on hand quickly whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction observation.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for informational purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report, but they may rely on the factual data relative to the specific times, locations, and depths/elevations referenced. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may

perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. As a general rule, *do not rely on an environmental report prepared for a different client, site, or project, or that is more than six months old.*

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, none of the engineer's services were designed, conducted, or intended to prevent uncontrolled migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration.* Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*



**GEOPROFESSIONAL
BUSINESS
ASSOCIATION**

Telephone: 301/565-2733

e-mail: info@geoprofessional.org www.geoprofessional.org

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CONSTRAINTS & RESTRICTIONS

The intent of this document is to bring to your attention the potential concerns and the basic limitations of a typical geotechnical report.

WARRANTY

Universal Engineering Sciences has prepared this report for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

UNANTICIPATED SOIL CONDITIONS

The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

CHANGED CONDITIONS

We recommend that the specifications for the project require that the contractor immediately notify Universal Engineering Sciences, as well as the owner, when subsurface conditions are encountered that are different from those present in this report.

No claim by the contractor for any conditions differing from those anticipated in the plans, specifications, and those found in this report, should be allowed unless the contractor notifies the owner and Universal Engineering Sciences of such changed conditions. Further, we recommend that all foundation work and site improvements be observed by a representative of Universal Engineering Sciences to monitor field conditions and changes, to verify design assumptions and to evaluate and recommend any appropriate modifications to this report.

MISINTERPRETATION OF SOIL ENGINEERING REPORT

Universal Engineering Sciences is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If the conclusions or recommendations based upon the data presented are made by others, those conclusions or recommendations are not the responsibility of Universal Engineering Sciences.

CHANGED STRUCTURE OR LOCATION

This report was prepared in order to aid in the evaluation of this project and to assist the architect or engineer in the design of this project. If any changes in the design or location of the structure as outlined in this report are planned, or if any structures are included or added that are not discussed in the report, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the conclusions modified or approved by Universal Engineering Sciences.

USE OF REPORT BY BIDDERS

Bidders who are examining the report prior to submission of a bid are cautioned that this report was prepared as an aid to the designers of the project and it may affect actual construction operations.

Bidders are urged to make their own soil borings, test pits, test caissons or other investigations to determine those conditions that may affect construction operations. Universal Engineering Sciences cannot be responsible for any interpretations made from this report or the attached boring logs with regard to their adequacy in reflecting subsurface conditions which will affect construction operations.

STRATA CHANGES

Strata changes are indicated by a definite line on the boring logs which accompany this report. However, the actual change in the ground may be more gradual. Where changes occur between soil samples, the location of the change must necessarily be estimated using all available information and may not be shown at the exact depth.

OBSERVATIONS DURING DRILLING

Attempts are made to detect and/or identify occurrences during drilling and sampling, such as: water level, boulders, zones of lost circulation, relative ease or resistance to drilling progress, unusual sample recovery, variation of driving resistance, obstructions, etc.; however, lack of mention does not preclude their presence.

WATER LEVELS

Water level readings have been made in the drill holes during drilling and they indicate normally occurring conditions. Water levels may not have been stabilized at the last reading. This data has been reviewed and interpretations made in this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, tides, and other factors not evident at the time measurements were made and reported. Since the probability of such variations is anticipated, design drawings and specifications should accommodate such possibilities and construction planning should be based upon such assumptions of variations.

LOCATION OF BURIED OBJECTS

All users of this report are cautioned that there was no requirement for Universal Engineering Sciences to attempt to locate any man-made buried objects during the course of this exploration and that no attempt was made by Universal Engineering Sciences to locate any such buried objects. Universal Engineering Sciences cannot be responsible for any buried man-made objects which are subsequently encountered during construction that are not discussed within the text of this report.

TIME

This report reflects the soil conditions at the time of exploration. If the report is not used in a reasonable amount of time, significant changes to the site may occur and additional reviews may be required.



Universal Engineering Sciences, Inc.
GENERAL CONDITIONS

SECTION 1: RESPONSIBILITIES

- 1.1 Universal Engineering Sciences, Inc., ("UES"), has the responsibility for providing the services described under the Scope of Services section. The work is to be performed according to accepted standards of care and is to be completed in a timely manner. The term "UES" as used herein includes all of Universal Engineering Sciences, Inc.'s agents, employees, professional staff, and subcontractors.
- 1.2 The Client or a duly authorized representative is responsible for providing UES with a clear understanding of the project nature and scope. The Client shall supply UES with sufficient and adequate information, including, but not limited to, maps, site plans, reports, surveys and designs, to allow UES to properly complete the specified services. The Client shall also communicate changes in the nature and scope of the project as soon as possible during performance of the work so that the changes can be incorporated into the work product.
- 1.3 The Client acknowledges that UES's responsibilities in providing the services described under the Scope of Services section is limited to those services described therein, and the Client hereby assumes any collateral or affiliated duties necessitated by or for those services. Such duties may include, but are not limited to, reporting requirements imposed by any third party such as federal, state, or local entities, the provision of any required notices to any third party, or the securing of necessary permits or permissions from any third parties required for UES's provision of the services so described, unless otherwise agreed upon by both parties.
- 1.4 Universal will not be responsible for scheduling our services and will not be responsible for tests or inspections that are not performed due to a failure to schedule our services on the project or any resulting damages.
- 1.5 **PURSUANT TO FLORIDA STATUTES §558.0035, ANY INDIVIDUAL EMPLOYEE OR AGENT OF UES MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE.**

SECTION 2: STANDARD OF CARE

- 2.1 Services performed by UES under this Agreement will be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of UES's profession practicing contemporaneously under similar conditions in the locality of the project. No other warranty, express or implied, is made.
- 2.2 The Client recognizes that subsurface conditions may vary from those observed at locations where borings, surveys, or other explorations are made, and that site conditions may change with time. Data, interpretations, and recommendations by UES will be based solely on information available to UES at the time of service. UES is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed.
- 2.3 Execution of this document by UES is not a representation that UES has visited the site, become generally familiar with local conditions under which the services are to be performed, or correlated personal observations with the requirements of the Scope of Services. It is the Client's responsibility to provide UES with all information necessary for UES to provide the services described under the Scope of Services, and the Client assumes all liability for information not provided to UES that may affect the quality or sufficiency of the services so described.
- 2.4 Should UES be retained to provide threshold inspection services under Florida Statutes §553.79, Client acknowledges that UES's services thereunder do not constitute a guarantee that the construction in question has been properly designed or constructed, and UES's services do not replace any of the obligations or liabilities associated with any architect, contractor, or structural engineer. Therefore it is explicitly agreed that the Client will not hold UES responsible for the proper performance of service by any architect, contractor, structural engineer or any other entity associated with the project.

SECTION 3: SITE ACCESS AND SITE CONDITIONS

- 3.1 Client will grant or obtain free access to the site for all equipment and personnel necessary for UES to perform the work set forth in this Agreement. The Client will notify any and all possessors of the project site that Client has granted UES free access to the site. UES will take reasonable precautions to minimize damage to the site, but it is understood by Client that, in the normal course of work, some damage may occur, and the correction of such damage is not part of this Agreement unless so specified in the Proposal.
- 3.2 The Client is responsible for the accuracy of locations for all subterranean structures and utilities. UES will take reasonable precautions to avoid known subterranean structures, and the Client waives any claim against UES, and agrees to defend, indemnify, and hold UES harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, Client agrees to compensate UES for any time spent or expenses incurred by UES in defense of any such claim with compensation to be based upon UES's prevailing fee schedule and expense reimbursement policy.

SECTION 4: SAMPLE OWNERSHIP AND DISPOSAL

- 4.1 Soil or water samples obtained from the project during performance of the work shall remain the property of the Client.
- 4.2 UES will dispose of or return to Client all remaining soils and rock samples 60 days after submission of report covering those samples. Further storage or transfer of samples can be made at Client's expense upon Client's prior written request.
- 4.3 Samples which are contaminated by petroleum products or other chemical waste will be returned to Client for treatment or disposal, consistent with all appropriate federal, state, or local regulations.

SECTION 5: BILLING AND PAYMENT

- 5.1 UES will submit invoices to Client monthly or upon completion of services. Invoices will show charges for different personnel and expense classifications.
- 5.2 Payment is due 30 days after presentation of invoice and is past due 31 days from invoice date. Client agrees to pay a finance charge of one and one-half percent (1 ½ %) per month, or the maximum rate allowed by law, on past due accounts.
- 5.3 If UES incurs any expenses to collect overdue billings on invoices, the sums paid by UES for reasonable attorneys' fees, court costs, UES's time, UES's expenses, and interest will be due and owing by the Client.

SECTION 6: OWNERSHIP AND USE OF DOCUMENTS

- 6.1 All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by UES, as instruments of service, shall remain the property of UES.
- 6.2 Client agrees that all reports and other work furnished to the Client or his agents, which are not paid for, will be returned upon demand and will not be used by the Client for any purpose.
- 6.3 UES will retain all pertinent records relating to the services performed for a period of five years following submission of the report, during which period the records will be made available to the Client at all reasonable times.
- 6.4 All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by UES, are prepared for the sole and exclusive use of Client, and may not be given to any other party or used or relied upon by any such party without the express written consent of UES.

SECTION 7: DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS

- 7.1 Client warrants that a reasonable effort has been made to inform UES of known or suspected hazardous materials on or near the project site.
- 7.2 Under this agreement, the term hazardous materials include hazardous materials (40 CFR 172.01), hazardous wastes (40 CFR 261.2), hazardous substances (40 CFR 300.6), petroleum products, polychlorinated biphenyls, and asbestos.
- 7.3 Hazardous materials may exist at a site where there is no reason to believe they could or should be present. UES and Client agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work. UES and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for UES to take immediate measures to protect health and safety. Client agrees to compensate UES for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous waste.
- 7.4 UES agrees to notify Client when unanticipated hazardous materials or suspected hazardous materials are encountered. Client agrees to make any disclosures required by law to the appropriate governing agencies. Client also agrees to hold UES harmless for any and all consequences of disclosures made by UES which are required by governing law. In the event the project site is not owned by Client, Client recognizes that it is the Client's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.
- 7.5 Notwithstanding any other provision of the Agreement, Client waives any claim against UES, and to the maximum extent permitted by law, agrees to defend, indemnify, and save UES harmless from any claim, liability, and/or defense costs for injury or loss arising from UES's discovery of unanticipated hazardous materials or suspected hazardous materials including any costs created by delay of the project and any cost associated with possible reduction of the property's value. Client will be responsible for ultimate disposal of any samples secured by UES which are found to be contaminated.

SECTION 8: RISK ALLOCATION

- 8.1 Client agrees that UES's liability for any damage on account of any breach of contract, error, omission or other professional negligence will be limited to a sum not to exceed \$50,000 or UES's fee, whichever is greater. If Client prefers to have higher limits on contractual or professional liability, UES agrees to increase the limits up to a maximum of \$1,000,000.00 upon Client's written request at the time of accepting our proposal provided that Client agrees to pay an additional consideration of four percent of the total fee, or \$400.00, whichever is greater. The additional charge for the higher liability limits is because of the greater risk assumed and is not strictly a charge for additional professional liability insurance.

SECTION 9: INSURANCE

- 9.1 UES represents and warrants that it and its agents, staff and consultants employed by it, is and are protected by worker's compensation insurance and that UES has such coverage under public liability and property damage insurance policies which UES deems to be adequate. Certificates for all such policies of insurance shall be provided to Client upon request in writing. Within the limits and conditions of such insurance, UES agrees to indemnify and save Client harmless from and against loss, damage, or liability arising from negligent acts by UES, its agents, staff, and consultants employed by it. UES shall not be responsible for any loss, damage or liability beyond the amounts, limits, and conditions of such insurance or the limits described in Section 8, whichever is less. The Client agrees to defend, indemnify and save UES harmless for loss, damage or liability arising from acts by Client, Client's agent, staff, and other UESs employed by Client.

SECTION 10: DISPUTE RESOLUTION

- 10.1 All claims, disputes, and other matters in controversy between UES and Client arising out of or in any way related to this Agreement will be submitted to alternative dispute resolution (ADR) such as mediation or arbitration, before and as a condition precedent to other remedies provided by law, including the commencement of litigation.
- 10.2 If a dispute arises related to the services provided under this Agreement and that dispute requires litigation instead of ADR as provided above, then:
 - (a) the claim will be brought and tried in judicial jurisdiction of the court of the county where UES's principal place of business is located and Client waives the right to remove the action to any other county or judicial jurisdiction, and
 - (b) The prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees, and other claim related expenses.

SECTION 11: TERMINATION

- 11.1 This agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. In the event of termination, UES shall be paid for services performed to the termination notice date plus reasonable termination expenses.
- 11.2 In the event of termination, or suspension for more than three (3) months, prior to completion of all reports contemplated by the Agreement, UES may complete such analyses and records as are necessary to complete its files and may also complete a report on the services performed to the date of notice of termination or suspension. The expense of termination or suspension shall include all direct costs of UES in completing such analyses, records and reports.

SECTION 12: ASSIGNS

- 12.1 Neither the Client nor UES may delegate, assign, sublet or transfer their duties or interest in this Agreement without the written consent of the other party.

SECTION 13. GOVERNING LAW AND SURVIVAL

- 13.1 The laws of the State of Florida will govern the validity of these Terms, their interpretation and performance.
- 13.2 If any of the provisions contained in this Agreement are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Limitations of liability and indemnities will survive termination of this Agreement for any cause.

SECTION 14. INTEGRATION CLAUSE

- 14.1 This Agreement represents and contains the entire and only agreement and understanding among the parties with respect to the subject matter of this Agreement, and supersedes any and all prior and contemporaneous oral and written agreements, understandings, representations, inducements, promises, warranties, and conditions among the parties. No agreement, understanding, representation, inducement, promise, warranty, or condition of any kind with respect to the subject matter of this Agreement shall be relied upon by the parties unless expressly incorporated herein.
- 14.2 This Agreement may not be amended or modified except by an agreement in writing signed by the party against whom the enforcement of any modification or amendment is sought.

GRAPHIC SCALE

(IN FEET)

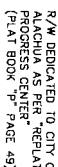
1 inch = 100 ft.

NORTH

EXISTING CONTOUR
PREVIOUSLY PERMITTED GRADING
PROPOSED GRADING

NEW DA-7

NEW DA-2



20' WIDE CLAY ELECTRIC
DISTRIBUTION RIGHT OF
WAY EASEMENT AS PER
O. R. 1751, PAGE 1007

Project Site

ORDER OF THE N.W. 1/4 OF THE
SECTION 23, TOWNSHIP 8 SOUTH,
EAST

CE Causseaux & Ellington, Inc.
Engineering • Surveying • Planning
6011 NW 1st Place, Gainesville, Florida 32607
Phone: (352) 331-1976 Fax: (352) 331-2476 mailbox@cel-civil.com

COMPUTER FILE:
02-095.
DATE:
SEPTEMBER

DESIGNED BY:	R. P. CAUSSEUX
DRAWN BY:	K.F.MERRITT
CHECKED BY:	R. P. CAUSSEUX

PROJECT: COPELAND PARK

SHEET TITLE: POST DRAINAGE AREAS

CLIENT:		O'STEEN BROTHERS	
JOB NO.:		SHEET NO.:	
02-095.02		2	

2

APPROVED BY:	<u>SEAL</u> RORY P. CAUSSEAU
DATE:	
PLOT ID: Tech:Kurtal File:02--095.02 REPORT.dwg Plt:AutoLisp 78 0200 7-17	39421

Stormwater Management Report

Copeland Park
Alachua, Florida

Submitted to:

Suwannee River Water Management District

Prepared for:

O'Steen Brothers, Inc
1006 SE 4th Street
Gainesville, FL 32601

Prepared by:

Causseaux & Ellington, Inc.
E.B. No. 0005075
6011 NW 1st Place
Gainesville, Florida 32607
(352) 331-1976
(352) 331-2476 fax
email: mailbox@cei-civil.com

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July 13, 2004
02-095

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7/13/04

Contents

Page

Introduction	1
Design Criteria	1
Site Characteristics	2
Drainage Analysis	3
Operation and Maintenance Requirements	6
Summary and Conclusion	8

Figures

- 1 Quad Map
- 2 Pre-Developed Watershed & Project Boundary
- 3 Post-Developed Watershed & Project Boundary

Tables

- 1 Post Development Summary
- 2 Recovery Rates

Appendices

- A Soils Information
- B Drainage Calculations & Computer Output
- C Pipe Sizing
- D FEMA Flood Map

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Drainage Analysis

The stormwater management facility (SMF) has been designed to provide the required water quality treatment volume and runoff volume recovery of the 100 Year critical duration storm event. The SMF has been designed to provide full percolation for proposed and any future construction within the drainage areas. The post-developed runoff will either overland flow or be collected and conveyed in storm sewers to the respective stormwater management facilities, providing water quality treatment retention for all runoff. The post-development drainage area includes runoff from 71.66 acres, which utilizes a dry retention SMF to treat the required water quality treatment volume and retain the critical duration storm event. Details and calculations are provided in Appendix 'B'. Appendix 'B' contains a section for PONDS routing results, PONDS recovery analysis, hydraulic calculations and general drainage calculations.

Analysis Methodology

The drainage analysis was conducted using the computer model PONDS to generate runoff hydrographs and route the runoff hydrographs through the proposed stormwater system. The 100 year critical duration storm events were routed through the proposed system to determine post-development stages

Unit Hydrograph Parameters

Unit hydrograph parameters required for the drainage analysis include runoff curve number (CN), time of concentration (T_c) and drainage area (DA). Values used in the analysis are summarized as follows:

Total Watershed Area =	71.66 acres	(100.0%)
Impervious Area =	31.76 acres	(44.2%)
Open Area =	39.90 acres	(55.8%)

Post-developed CN = 65

Post-developed T_c = 27 minutes

A 100-year flood elevation of 61.87 (based on the second-consecutive 100 year-24 hour storm event) was established. A copy of the drainage calculations for establishing the existing 100-year flood elevation is included in Appendix 'B'.

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Basin Storage and Basin Discharge

Stage-storage data for the proposed stormwater basins are summarized in the drainage analysis Appendix 'B'.

Runoff and Basin Routing Results

The routing results for post-development conditions on the site are summarized in Table 1 and show the post-development peak stages within the basin. Post -development runoff hydrographs were computed using PONDSS. These hydrographs showing peak runoff rate are included in Appendix 'B'.

Appendix 'B' includes all the routing results for the design of the SMF systems. The routing results are included in their entirety from the PONDSS output. Each storm event was routed through the system independently. The first and second page of the routing results is the input page for the user to input the essential characteristics of the basin (i.e. seasonal high water table, confining layer, hydraulic conductivity, elevation, etc.). The next pages are input for the scenario creation, which is followed by detailed output for the routing of each scenario through the retention system. A summary page follows each scenario for viewing max stages and max flows.

Water Quality Treatment Volume

Water quality treatment volumes for the basins are shown below. The volumes provided meet the SRWMD requirement for retention systems which is 0.5 inches (0.5") of runoff times the drainage area or the runoff generated by 1" of rainfall, whichever is greater. The recovery times meet the SRWMD criteria for retention systems recovery of the WQTV volume in the first 72 hours following the design storm event. The PONDSS computer model is used to calculate the recovery of the basin. The PONDSS model monitors the volume of water recovered and records the stage in the basin at various time increments. The volume is checked 72 hours after the storm event to determine the amount infiltrated. Detailed calculations are provided in Appendix 'B'. Recovery Results for the WQTV are summarized in Table 2.

Basin SMF-1

Water Quality Treatment Volume	
Required =	240 cf
Provided =	1,956,715 cf
Pond Side Slope	
Required =	No steeper than 4:1, unless fenced
Provided =	4:1 slopes

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Total Recovery

Total Volume Recovery was calculated using the computer model PONDS, version 3.2 and was checked for total recovery 30 days after the storm event to ensure adequate volume is provided within the system. Since this system did not recover the total volume within the required 30 day period, a second 100 year critical duration storm event was simulated with the lowest elevation set at the 30 day recovery elevation. The results are summarized in Table 2. The detailed results for the critical storm is included at the end of the PONDS print out for the post-developed watershed in Appendix 'B'.

Operation and Maintenance Requirements

Proposed operation and maintenance, soil erosion, and sediment control practices are outlined in the following sections:

Surfacewater Management Facilities

The man-made surface water facilities shall be maintained free of sediments and debris. Areas shall be inspected on a routine basis a minimum of twice annually. Grassed areas shall be mowed a minimum of 6 times per year.

The natural systems shall be least disturbed as possible. Minimal maintenance is required for the natural and undisturbed areas.

All basins shall be inspected monthly for sinkhole occurrence. Monthly documentation shall be noted based upon the inspection findings. Reports shall be submitted to the water management district annually.

Should sinkholes occur, the area shall be repaired as soon as possible. Repair shall include filling (limerock such as roadbase material, clay/sand mixture, or concrete if necessary), regrading to prevent concentration of waters (ponding), and re-vegetation.

Erosion Control

All erosion damage at spillways, outfall structures, and along basin side slopes shall be repaired (grading and grassing) as conditions occur.

Swale/Ditch

All swales, if any, shall be maintained free of debris and sediment. Sediments shall be removed when the depth has been reduced by 20 percent. Sediments removed from swales/ditches should be evenly spread over grassed areas away from the stormwater management facilities.

Culverts and Pipes

All pipe, if any, shall be inspected bi-annually. Culverts and pipes shall be maintained free of debris and sediment. Sediments removed from culverts and pipes should be evenly spread over grassed areas away from the stormwater management facilities.

Structures

The structures and paved flow lines, if any, shall be maintained clear of debris. Remove any debris and silt collected in inlets and pipes as routine inspections dictates.

Inspection Reporting

Bi-annual inspection reports, prepared by a properly licensed professional engineer, should be submitted to the water management district. The engineer shall inspect the site and report on the status and function of the system. Noted deficiencies and/or maintenance requirements shall be reported to the owner with recommendations for repairs. Repairs shall be executed.

Contingency Plan for Limerock Outcroppings and Sinkhole Development

If limerock is encountered during excavation of the swales or if a sinkhole forms in the area of a drainage swale the engineer of record shall be notified by either the contractor or the established operation and maintenance entity. The engineer of record shall inspect the repaired area upon completion of the repair.

Where limerock is encountered during excavation of the swales, the limerock shall be over excavated by 2 feet and replaced with clayey soils that extend 2 feet beyond the perimeter of the limerock outcropping. The clayey soil shall have at least 30% passing the no. 200 sieve, compacted to 95% of standard proctor, and compacted in a wet condition with moisture 2% - 4% above optimum.

All swales shall be inspected monthly for sinkhole occurrence. Should a sinkhole occur, the area shall be repaired as soon as possible. Repair shall include filling (limerock such as road base material, clay/sand mixture, or concrete if necessary). A 2-foot deep cap that extends 2 feet beyond the perimeter of the sinkhole shall be constructed with clayey soils. The clayey soil shall have at least 30% passing the no. 200 sieve, compacted to 95% of standard proctor, and compacted in a wet condition with moisture 2% - 4% above optimum. The clay soil cap shall be re-graded to prevent concentration of waters (ponding) and re-vegetated.

Operation and Maintenance Entity:

O'Steen Brothers, Inc
1006 SE 4th Street
Gainesville, FL 32601

Annual Operation & Maintenance Costs:

The estimated Annual Operation & Maintenance Costs are \$350.00.

Summary and Conclusions

The proposed drainage system meets the SRWMD requirements as follows:

- Provide determination of the 100-year Flood Elevation for on-site depressional areas.
- Provide retention and percolation of the increase in runoff volume of the 100-year, 24-hour storm event.
- Provide recovery of the required WQTV within 72 hours and Total Volume within 30 days following the storm event.
- On-site storage volume below the existing 100-year flood elevation was maintained in post-development.

Based on the information provided, the project is eligible for general permit approval with the SRWMD.

Table 1

Routing Results Summary

TABLE 1
ROUTING RESULTS SUMMARY

		SMF-1 (Storm 1)	SMF-1 (Storm 2)
Drainage Area (ac)		71.66	71.66
Tc (min)		27	27
CN		65	65
100yr-1hr	Max Stage (ft)	56.30	58.79
	Rate (cfs)	0.0000	0.0000
	Volume (cf)	0	0
100yr-2hr	Max Stage (ft)	57.00	59.39
	Rate (cfs)	0.0000	0.0000
	Volume (cf)	0	0
100yr-4hr	Max Stage (ft)	57.67	59.92
	Rate (cfs)	0.0000	0.0000
	Volume (cf)	0	0
100yr-8hr	Max Stage (ft)	58.61	60.64
	Rate (cfs)	0.0000	0.0000
	Volume (cf)	0	0
100yr-24hr	Max Stage (ft)	60.13	61.87
	Rate (cfs)	0.0000	0.0000
	Volume (cf)	0	0

Table 2

Recovery Rates

TABLE 2

WQTV RECOVERY

WQTV		
Post-Development		
Basin ID	WQTV Recovery (days)	Allowable Criteria (days)
SMF-1	0.10	< 3 days

TOTAL RECOVERY

Total Recovery		
Post-Development		
Basin ID	WQTV Recovery (days)	Allowable Criteria (days)
SMF-1	30+	< 30 days

Figure 1

Quad Map

Site Characteristics

Physical characteristics of the site are described in the following sections. Additional details are provided in the accompanying engineering drawings.

Topography and Drainage

The pre-development condition of the project area consists of five watersheds, three draining to a localized depressional area and two draining to offsite areas. Figure 2 illustrates these pre-developed watersheds. The site currently an undeveloped tract of land consisting of trees, brushes and grasses. The existing elevations onsite range from a low of 57.00' to a high of just over of 84.00'.

The post-development condition of the project area consists of a single watershed, which totals 71.66 acres. Figure 3 illustrates the post-developed watershed. The drainage for the post-developed watershed is conveyed to a proposed, on-site stormwater management facility and provides 100% retention of all runoff.

The majority of this site lies within FEMA Flood Zone X, but a portion of this site lies within FEMA Flood Zone A. Appendix D illustrated the Flood Zone for this property.

Soils Information

The soil information, as determined by the Natural Resources Conservation Service (NRCS), Soil Survey of Alachua County Florida, consists of Arredondo fine sand, 0 to 5 percent slopes (3B & 3C), Millhopper (8B& 8C), Urban Land (29), and a small inclusion of Lochloosa (29B). Arredondo and Millhopper are identified as hydrologic soil group 'A'. Lochloosa is identified as hydrologic soil group 'C'. According to NRCS, the estimated seasonal high water table ranges from 3.5 ft-6 ft below the existing ground surface. Additional site-specific information is provided in the accompanying geotechnical investigation report provided by SDII Global on May 6, 2004 and NRCS maps included in Appendix 'A'.

The SDII report data was used to provide the following characteristics:

- Seasonal high water table (SHWT-Perched) at 2.0 feet (average) below ground elevation.
- Base of aquifer is 8.0 feet (average) below ground elevation.
- The average horizontal hydraulic conductivity is 40 feet per day
- The average vertical unsaturated infiltration rate is 40 feet per day
- Soil porosity is at 25 percent

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Introduction

The proposed Copeland Park project consists of approximately 75.39± acres located in Alachua, Florida on the south side of Rachael Boulevard and NW 126th Terrace. Figure 1 provides a location map using a portion of the 'Alachua' USGS quad maps. The site is located in Section 14 & 23, Township 8 South, Range 18 East, Alachua County, Florida.

The proposed Copeland Park project consists of the following:

- Construction of one private paved roadway
- Construction of one (1) stormwater management facility and infrastructure
- Future construction of buildings and impervious areas for a maximum of 70% impervious.

Also included with the proposed development are associated paving, grading, drainage, and utilities improvements (See construction plans for details).

Design Criteria

The design criteria for the project are based upon the Suwannee River Water Management District (SRWMD).

SRWMD Criteria (Retention):

- Water Quality Treatment Volume (WQTV): Provide WQTV equal to ½" of runoff times the drainage area or the runoff generated from the first inch (1") of rainfall, whichever is greater.
- WQTV Recovery: Provide recovery of the required WQTV within 72 hours following a storm event and Total Volume Recovery (TVR) within 30 days following a storm event.
- Runoff Volume: Retain and recover the increase in runoff volume in post-development for the 100-year, 24-hour storm event.
- 100-Year Flood Elevation: On-site storage volume below the 100-year flood elevation must be maintained in post-development.

SRWMD requires that best management practices be employed to control erosion, sedimentation and an operation and maintenance entity be established.

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Figure 2

Pre-Developed
Watersheds and Project Boundaries

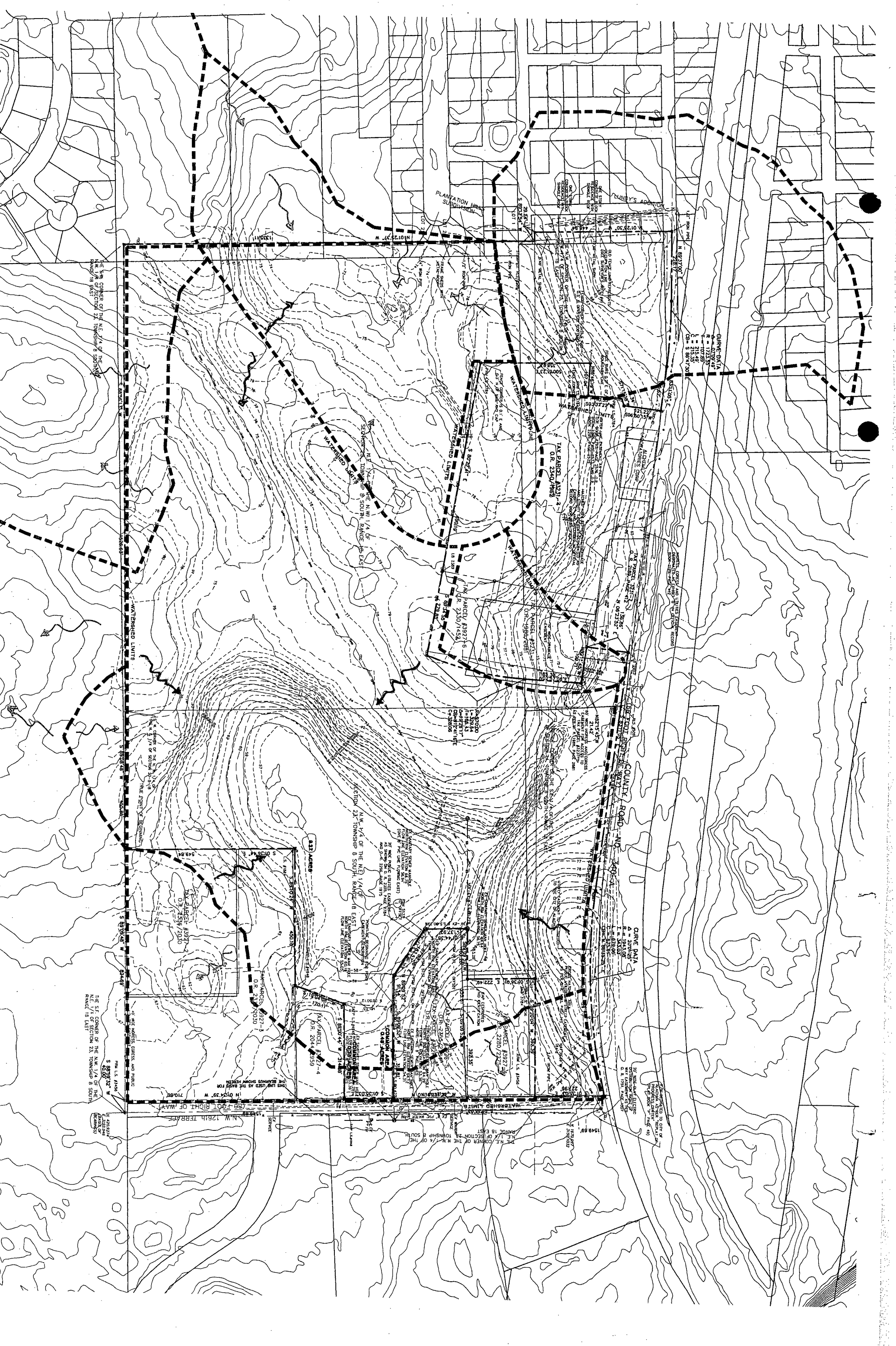


Figure 3

Post-Developed
Watersheds and Project Boundaries

APPENDIX 'A'

Soils Information

TABLE 16.--SOIL AND WATER FEATURES

["Flooding" and "water table" and terms such as "rare," "brief," "apparent," and "perched" are explained in the text. The symbol means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated]

Map symbol and soil name	Hydrologic group	Flooding			High water table			Bedrock		Subsidence		Risk of corrosion	
		Frequency	Duration	Depth	Kind	Months	Depth	Hardness	Initial	Total	Uncoated steel	Concrete	
2B, 2C----- Candler	A	None-----	---	<u>Ft</u> >6.0	---	---	<u>In</u> >60	---	<u>In</u> ---	---	Low-----	High.	
3B, 3C----- Arredondo	A	None-----	---	>6.0	---	---	>60	---	---	---	Moderate	High.	
4B*: Arredondo----- Urban land.	A	None-----	---	>6.0	---	---	>60	---	---	---	Moderate	High.	
5B----- Fort Meade	A	None-----	---	>6.0	---	---	>60	---	---	---	Low-----	High.	
6B, 6C----- Apopka	A	None-----	---	>6.0	---	---	>60	---	---	---	Moderate	High.	
7B----- Kanapaha	B/D	None-----	---	0-1.0	Apparent	Jul-Sep	>60	---	---	---	High-----	High.	
8B, 8C----- Millhopper	A	None-----	---	3.5-6.0	Perched	Aug-Feb	>60	---	---	---	Low-----	Moderate.	
9B*: Millhopper----- Urban land.	A	None-----	---	3.5-6.0	Perched	Aug-Feb	>60	---	---	---	Low-----	Moderate.	
11----- Riviera	D	None-----	---	0-1.0	Apparent	Jun-Dec	>60	---	---	---	High-----	High.	
13----- Pelham	B/D	None-----	---	0.5-1.5	Apparent	Jan-Apr	>60	---	---	---	High-----	High.	
14----- Pomona	B/D	None-----	---	0-1.0	Apparent	Jul-Sep	>60	---	---	---	High-----	High.	
15----- Pompano	B/D	None-----	---	0-1.0	Apparent	Jun-Nov	>60	---	---	---	High-----	Moderate.	
16----- Surrency	D	None-----	---	0-0.5	Apparent	Dec-Apr	>60	---	---	---	High-----	High.	
17----- Wauchula	B/D	None-----	---	0-1.0	Apparent	Jun-Feb	>60	---	---	---	High-----	High.	
18*: Wauchula----- Urban land.	B/D	None-----	---	0-1.0	Apparent	Jun-Feb	>60	---	---	---	High-----	High.	

See footnotes at end of table.

Map symbol and soil name	Hydrologic group	Flooding			High water table			Bedrock		Subsidence		Risk of corrosion	
		Frequency	Duration	Depth	Kind	Months	Depth	Hardness	Ini- tial	Total	Uncoated steel	Concrete	
19** Montecocha	D	None	---	+2-0	Apparent	Jun-Feb	In >60	---	In ---	In ---	Moderate	High.	
20B Tavares	A	None	---	3.5-6.0	Apparent	Jun-Dec	>60	---	---	---	Low	High.	
21 Newnan	C	None	---	1.5-2.5	Apparent	Aug-Feb	>60	---	---	---	Low	High.	
22** Floridana	D	None	---	+2-1.0	Apparent	Jun-Feb	>60	---	---	---	Moderate	Low.	
23 Mulat	D	Rare	---	0-1.0	Apparent	Dec-Jun	>60	---	---	---	High	High.	
25** Pomona	D	None	---	+2-1.0	Apparent	Jun-Feb	>60	---	---	---	High	High.	
26** Samsula	B/D	None	---	+2-1.0	Apparent	Jan-Dec	>60	---	16-20	30-36	High	High.	
27* Urban land													
28 Chipley	C	None	---	2.0-3.0	Apparent	Dec-Apr	>60	---	---	---	Low	High.	
29B, 29C Lochloosa	C	None	---	2.5-5.0	Apparent	Jul-Oct	>60	---	---	---	High	High.	
30B, 30C Kendrick	A	None	---	>6.0	---	---	>60	---	---	---	Moderate	High.	
31A, 31B, 31C Blichton	D	None	---	0-1.0	Apparent	Jun-Sep	>60	---	---	---	High	High.	
32B, 32C, 32D Bivans	D	None	---	0-1.0	Perched	Jun-Dec	>60	---	---	---	High	Moderate.	
33B, 33C Norfolk	B	None	---	4.0-6.0	Apparent	Jan-Mar	>60	---	---	---	Moderate	High.	
34** Placid	D	None	---	+2-1.0	Apparent	Jun-Mar	>60	---	---	---	High	High.	
35B, 35C Gainesville	A	None	---	>6.0	---	---	>60	---	---	---	Low	High.	
36* Arents													
37 Zolfo	C	None	---	2.0-3.5	Apparent	Jun-Nov	>60	---	---	---	Low	Moderate.	

See footnotes at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS

[The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Organic matter" apply only to the surface layer. Absence of an entry indicates that data were not available or were not estimated]

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
	In	Pct	G/cm ³	In/hr	In/in	pH	Mmhos/cm		K	T		Pct
2B- Candler	0-70 70-82	<3 3-8	1.35-1.55 1.50-1.65	6.0-20 6.0-20	0.02-0.06 0.05-0.08	4.5-6.0 4.5-6.0	<2 <2	Low----- Low-----	0.10 0.10	5	2	<1
2C- Candler	0-62 62-85	<3 3-8	1.35-1.55 1.50-1.65	6.0-20 6.0-20	0.02-0.06 0.05-0.08	4.5-6.0 4.5-6.0	<2 <2	Low----- Low-----	0.10 0.10	5	2	<1
1B- Arredondo	0-49 49-54 54-86	5-12 10-18 15-25	1.25-1.65 1.45-1.60 1.55-1.70	6.0-20 2.0-6.0 0.2-2.0	0.05-0.10 0.08-0.15 0.12-0.17	4.5-6.0 4.5-6.0 4.5-6.0	<2 <2 <2	Low----- Low----- Low-----	0.10 0.20 0.24	5	2	<2
C- Arredondo	0-65 65-88	5-12 15-25	1.25-1.65 1.55-1.70	6.0-20 0.2-2.0	0.05-0.10 0.12-0.17	4.5-6.0 4.5-6.0	<2 <2	Low----- Low-----	0.10 0.24	5	2	<2
B*: Arredondo	0-49 49-54 54-86	5-12 10-18 15-25	1.25-1.65 1.45-1.60 1.55-1.70	6.0-20 2.0-6.0 0.2-2.0	0.05-0.10 0.08-0.15 0.12-0.17	4.5-6.0 4.5-6.0 4.5-6.0	<2 <2 <2	Low----- Low----- Low-----	0.10 0.20 0.24	5	2	<2
Urban land.												
B- Fort Meade	0-14 14-85	3-13 3-13	1.15-1.55 1.20-1.65	6.0-20 6.0-20	0.08-0.15 0.06-0.10	5.1-7.3 4.5-6.0	<2 <2	Low----- Low-----	0.15 0.15	5	2	1-5
3, 6C- Apopka	0-61 61-82	0-3 18-37	1.45-1.60 1.55-1.75	6.0-20 0.6-2.0	0.03-0.05 0.12-0.17	4.5-6.0 4.5-6.0	<2 <2	Low----- Low-----	0.10 0.24	5	2	<2
3- Anapaha	0-44 44-50 50-80	2-6 15-32 15-40	1.55-1.75 1.50-1.65 1.50-1.65	2.0-6.0 0.06-0.6 0.06-0.6	0.03-0.10 0.10-0.15 0.07-0.15	4.5-6.0 4.5-6.0 4.5-6.0	<2 <2 <2	Low----- Low----- Low-----	0.10 0.24 0.32	5	2	.5-4
3- Millopper	0-58 58-64 64-89	2-8 8-14 12-28	1.50-1.67 1.60-1.80 1.80-1.90	6.0-20 2.0-6.0 0.06-2.0	0.05-0.10 0.08-0.12 0.08-0.15	4.5-6.5 4.5-6.0 4.5-6.0	<2 <2 <2	Low----- Low----- Low-----	0.10 0.15 0.28	5	2	.5-2
3- Millopper	0-54 54-56 56-80	2-8 8-14 12-28	1.50-1.67 1.60-1.80 1.80-1.90	6.0-20 2.0-6.0 0.06-2.0	0.05-0.10 0.08-0.12 0.08-0.15	4.5-6.5 4.5-6.0 4.5-6.0	<2 <2 <2	Low----- Low----- Low-----	0.10 0.15 0.28	5	2	.5-2
*: Millopper	0-58 58-64 64-89	2-8 8-14 12-28	1.50-1.67 1.60-1.80 1.80-1.90	6.0-20 2.0-6.0 0.06-2.0	0.05-0.10 0.08-0.12 0.08-0.15	4.5-6.5 4.5-6.0 4.5-6.0	<2 <2 <2	Low----- Low----- Low-----	0.10 0.15 0.32	5	2	.5-2
Urban land.												
3- Miviera	0-32 32-42 42-53 53-80	1-6 12-25 15-25 1-8	1.40-1.65 1.50-1.70 1.50-1.70 1.40-1.65	6.0-20 <0.2 <0.2 0.6-6.0	0.05-0.08 0.10-0.14 0.12-0.15 0.05-0.08	4.5-7.3 6.1-8.4 6.1-8.4 7.9-8.4	<2 <2 <2 <2	Low----- Low----- Low----- Low-----	0.10 0.24 0.24 0.15	4	2	.1-2
3- Elham	0-27 27-69 69-80	1-8 15-30 15-40	1.50-1.70 1.30-1.60 1.30-1.60	6.0-20 0.6-2.0 0.6-2.0	0.04-0.07 0.10-0.13 0.10-0.16	4.5-5.5 4.5-5.5 4.5-5.5	<2 <2 <2	Low----- Low----- Low-----	0.10 0.24 0.24	5	2	1-2

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS--Continued

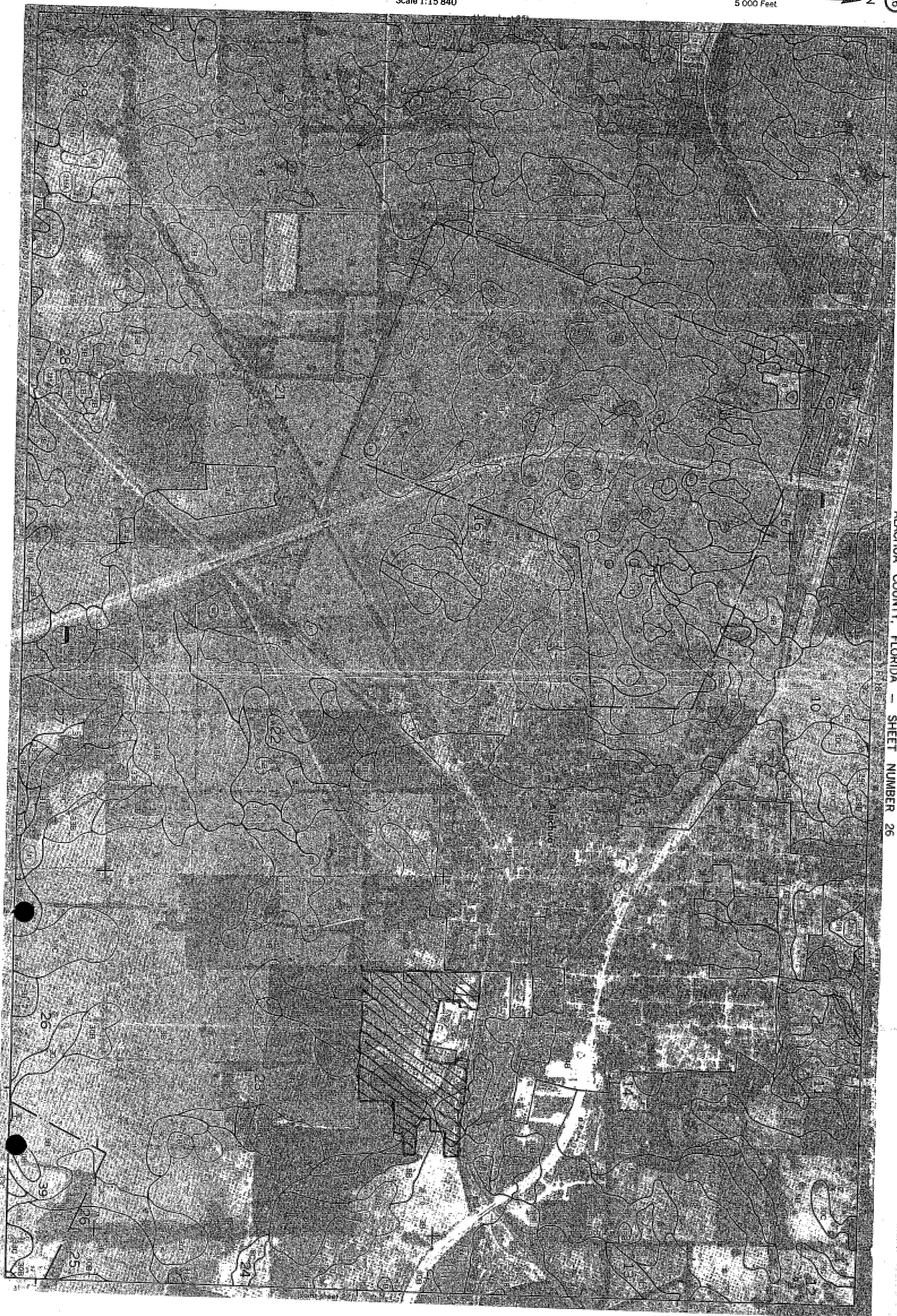
Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
									K	T		
	In	Pct	G/cm ³	In/hr	In/in	pH	Mmhos/cm					Pct
29B----- Lochloosa	0-31	2-12	1.35-1.65	2.0-20	0.05-0.20	4.5-5.5	<2	Low-----	0.10	5	2	1-4
	31-35	13-20	1.55-1.70	0.6-6.0	0.10-0.15	4.5-5.5	<2	Low-----	0.24			
	35-54	15-35	1.55-1.70	0.6-0.2	0.12-0.15	4.5-5.5	<2	Low-----	0.28			
	54-83	20-45	1.60-1.70	0.06-0.2	0.13-0.18	4.5-5.5	<2	Low-----	0.28			
29C----- Lochloosa	0-25	2-12	1.35-1.65	2.0-20	0.05-0.20	4.5-5.5	<2	Low-----	0.10	5	2	1-4
	25-30	13-20	1.55-1.70	0.6-6.0	0.10-0.15	4.5-5.5	<2	Low-----	0.24			
	30-67	15-35	1.55-1.70	0.6-0.2	0.12-0.15	4.5-5.5	<2	Low-----	0.28			
	67-80	20-45	1.60-1.70	0.06-0.2	0.13-0.18	4.5-5.5	<2	Low-----	0.28			
30B----- Kendrick	0-26	1-7	1.25-1.50	6.0-20	0.05-0.07	4.5-6.0	<2	Low-----	0.10	5	2	<2
	26-31	15-25	1.55-1.70	0.6-6.0	0.10-0.15	4.5-6.0	<2	Low-----	0.24			
	31-73	20-40	1.55-1.75	0.06-2.0	0.12-0.20	4.5-6.0	<2	Low-----	0.32			
	73-90	15-25	1.55-1.75	<0.0-2.0	0.12-0.15	4.5-6.0	<2	Low-----	0.32			
30C----- Kendrick	0-24	1-7	1.25-1.50	6.0-20	0.05-0.07	4.5-6.0	<2	Low-----	0.10	5	2	<2
	24-29	15-25	1.55-1.70	0.6-6.0	0.10-0.15	4.5-6.0	<2	Low-----	0.24			
	29-76	20-40	1.55-1.75	0.06-2.0	0.12-0.20	4.5-6.0	<2	Low-----	0.32			
1A----- Blichton	0-24	2-12	1.35-1.70	6.0-20	0.05-0.10	4.5-6.0	<2	Low-----	0.15	5	2	1-4
	24-30	13-20	1.55-1.70	2.0-6.0	0.10-0.15	4.5-5.5	<2	Low-----	0.24			
	30-80	20-35	1.45-1.70	0.06-0.6	0.10-0.15	<4.5-5.5	<2	Moderate	0.28			
	45-77	20-45	1.60-1.80	0.06-0.6	0.05-0.15	<4.5-5.5	<2	Moderate	0.28			
	77-80	15-25	1.55-1.70	2.0-6.0	0.08-0.12	<4.5-5.5	<2	Low-----	0.32			
1B----- Blichton	0-28	2-12	1.35-1.70	6.0-20	0.05-0.10	4.5-6.0	<2	Low-----	0.15	5	2	1-4
	28-62	20-35	1.45-1.70	0.06-0.6	0.10-0.15	<4.5-5.5	<2	Moderate	0.28			
	62-80	20-45	1.60-1.80	0.06-0.6	0.05-0.15	<4.5-5.5	<2	Moderate	0.28			
1C----- Blichton	0-31	2-12	1.35-1.70	6.0-20	0.05-0.10	4.5-6.0	<2	Low-----	0.15	5	2	1-4
	31-37	13-20	1.55-1.70	2.0-6.0	0.10-0.15	4.5-5.5	<2	Low-----	0.24			
	37-66	20-35	1.45-1.70	0.06-0.6	0.10-0.15	<4.5-5.5	<2	Moderate	0.28			
	66-80	20-45	1.60-1.80	0.06-0.6	0.05-0.15	<4.5-5.5	<2	Moderate	0.28			
1B----- Ivans	0-15	3-12	1.05-1.65	0.6-6.0	0.10-0.20	3.6-6.5	<2	Low-----	0.10	5	2	1-4
	15-45	35-59	1.30-1.65	<0.2	0.10-0.15	3.6-6.0	<2	High-----	0.20			
	45-61	25-48	1.25-1.85	<0.2	0.05-0.15	3.6-6.0	<2	High-----	0.20			
	61-81	29-60	1.30-1.90	<0.2	0.05-0.15	3.6-6.0	<2	High-----	0.20			
C----- Ivans	0-10	3-12	1.05-1.65	0.6-6.0	0.10-0.20	3.6-6.5	<2	Low-----	0.10	5	2	1-4
	10-59	35-59	1.30-1.65	<0.2	0.10-0.15	3.6-6.0	<2	High-----	0.20			
	59-80	29-60	1.30-1.90	<0.2	0.05-0.15	3.6-6.0	<2	High-----	0.20			
D----- Ivans	0-11	3-12	1.05-1.65	0.6-6.0	0.10-0.20	3.6-6.5	<2	Low-----	0.10	5	2	1-4
	11-56	35-59	1.30-1.65	<0.2	0.10-0.15	3.6-6.0	<2	High-----	0.20			
	56-80	29-60	1.30-1.90	<0.2	0.05-0.15	3.6-6.0	<2	High-----	0.20			
3----- Norfolk	0-9	2-8	1.55-1.75	2.0-20	0.06-0.11	4.5-6.0	<2	Low-----	0.20	5	2	.5-2
	9-41	18-35	1.30-1.45	0.6-2.0	0.10-0.20	4.5-5.5	<2	Low-----	0.24			
	41-80	20-43	1.30-1.40	0.06-2.0	0.10-0.15	4.5-5.5	<2	Low-----	0.24			
3----- Norfolk	0-11	2-8	1.55-1.75	2.0-20	0.06-0.11	4.5-6.0	<2	Low-----	0.20	5	2	.5-2
	11-46	18-35	1.30-1.45	0.6-2.0	0.10-0.20	4.5-5.5	<2	Low-----	0.24			
	46-75	20-43	1.30-1.40	<0.06-2.0	0.10-0.15	4.5-5.5	<2	Low-----	0.24			
acid	0-15	<10	1.20-1.40	6.0-20	0.15-0.20	3.6-5.5	<2	Low-----	0.10	5	2	2-10
	15-82	<10	1.30-1.60	6.0-20	0.05-0.08	3.6-5.5	<2	Low-----	0.10			
Ivansville	0-82	4-10	1.40-1.55	6.0-20	0.05-0.10	4.5-6.5	<2	Low-----	0.15	5	2	2-4

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors		Wind erodibility group	Organic matter
									K	T		
	In	Pct	G/cm ³	In/hr	In/in	pH	Mmhos/cm					Pct
14----- Pomona	0-5	1-6	1.20-1.50	6.0-20	0.05-0.10	3.6-5.5	<2	Low-----	0.10	5	2	1-2
	5-16	<6	1.45-1.70	6.0-20	0.03-0.08	3.6-5.5	<2	Low-----	0.10			
	16-24	2-7	1.30-1.60	0.6-20.0	0.10-0.20	3.6-5.5	<2	Low-----	0.15			
	24-43	1-6	1.40-1.65	2.0-20	0.03-0.15	3.6-6.0	<2	Low-----	0.10			
	43-84	13-36	1.50-1.80	0.2-2.0	0.10-0.17	3.6-5.5	<2	Low-----	0.20			
15----- Pompano	0-82	<5	1.30-1.65	6.0-20	0.02-0.05	4.5-7.8	<2	Low-----	0.10	5	2	1-5
16----- Surrency	0-28	<10	1.00-1.70	2.0-20	0.05-0.20	3.6-5.0	<2	Low-----	0.10	5	2	1-15
	28-44	10-23	1.60-1.85	0.6-6.0	0.06-0.15	3.6-5.5	<2	Low-----	0.15			
	44-80	22-35	1.65-1.85	0.06-2.0	0.10-0.15	3.6-5.5	<2	Low-----	0.15			
17----- Wauchula	0-8	<2	1.25-1.45	2.0-20	0.08-0.15	3.6-5.5	<2	Low-----	0.10	5	2	1-3
	8-14	<2	1.45-1.60	6.0-20	0.02-0.10	3.6-5.5	<2	Low-----	0.10			
	14-18	2-8	1.45-1.60	0.2-6.0	0.15-0.25	3.6-5.5	<2	Low-----	0.15			
	18-28	<2	1.45-1.65	2.0-6.0	0.08-0.15	4.5-5.5	<2	Low-----	0.10			
	28-80	15-30	1.60-1.80	0.06-0.6	0.11-0.17	4.5-5.5	<2	Low-----	0.20			
18*: Wauchula-----	0-8	<2	1.25-1.45	2.0-20	0.08-0.15	3.6-5.5	<2	Low-----	0.10	5	2	1-3
	8-14	<2	1.45-1.60	6.0-20	0.02-0.10	3.6-5.5	<2	Low-----	0.10			
	14-18	2-8	1.45-1.60	0.2-6.0	0.15-0.25	3.6-5.5	<2	Low-----	0.15			
	18-28	<2	1.45-1.65	2.0-6.0	0.08-0.15	4.5-5.5	<2	Low-----	0.10			
	28-80	15-30	1.60-1.80	0.06-0.6	0.11-0.17	4.5-5.5	<2	Low-----	0.20			
Urban land.												
19----- Monteocha	0-12	1-8	0.90-1.25	6.0-20	0.15-0.30	3.6-5.5	<2	Low-----	0.15	5	2	5-12
	12-48	<6	1.40-1.65	2.0-20	0.10-0.15	3.6-5.5	<2	Low-----	0.10			
	48-85	15-30	1.50-1.70	0.2-2.0	0.10-0.15	3.6-5.5	<2	Low-----	0.24			
	85-94	4-17	1.40-1.60	2.0-20	0.05-0.15	3.6-5.5	<2	Low-----	0.20			
20B----- Tavares	0-8	0-4	1.25-1.60	>6.0	0.05-0.10	3.6-6.0	<2	Low-----	0.10	5	2	.5-2
	8-80	0-4	1.40-1.70	>6.0	0.02-0.05	3.6-6.0	<2	Low-----	0.10			
21----- Newnan	0-12	<5	1.45-1.55	6.0-20	0.03-0.10	3.6-6.0	<2	Low-----	0.10	5	2	1-2
	12-16	2-8	1.40-1.55	2.0-20	0.07-0.15	3.6-6.0	<2	Low-----	0.15			
	16-56	<5	1.45-1.65	6.0-20	0.05-0.12	3.6-6.0	<2	Low-----	0.10			
	56-59	8-14	1.65-1.75	2.0-6.0	0.08-0.13	3.6-6.0	<2	Low-----	0.17			
	59-82	12-30	1.65-1.80	0.06-0.6	0.07-0.15	3.6-6.0	<2	Low-----	0.24			
22----- Floridana	0-14	3-10	1.40-1.49	6.0-20	0.10-0.20	4.5-8.4	<2	Low-----	0.10	5	2	6-15
	14-30	1-7	1.52-1.53	6.0-20	0.05-0.10	4.5-8.4	<2	Low-----	0.10			
	30-74	15-30	1.60-1.69	<0.2	0.10-0.20	4.5-8.4	<2	Low-----	0.24			
23----- Mulat	0-26	2-5	1.25-1.50	2.0-20	0.10-0.15	4.5-6.0	<2	Low-----	0.10	5	2	1-4
	26-54	14-25	1.55-1.70	0.06-0.6	0.10-0.15	4.5-6.0	<2	Low-----	0.24			
	54-80	3-7	1.55-1.70	2.0-20	0.05-0.10	3.6-6.0	<2	Low-----	0.17			
25----- Pomona	0-4	1-6	1.20-1.50	6.0->20	0.05-0.10	3.6-5.5	<2	Low-----	0.10	5	2	1-2
	4-25	<6	1.43-1.70	6.0-20	0.03-0.08	3.6-5.5	<2	Low-----	0.10			
	25-32	2-7	1.30-1.60	0.6-20	0.10-0.20	3.6-5.5	<2	Low-----	0.15			
	32-52	1-6	1.40-1.65	2.0-20	0.03-0.15	3.6-5.5	<2	Low-----	0.10			
	52-80	13-36	1.50-1.80	0.2-2.0	0.10-0.17	3.6-5.5	<2	Low-----	0.20			
26----- Samsula	0-35	---	0.25-0.50	6.0-20	0.20-0.25	4.5-5.5	<2	Low-----	---	---	2	>20
	35-75	1-14	1.35-1.55	6.0-20	0.02-0.05	3.6-6.0	<2	Low-----	0.17			
27*. Urban land												
28----- Chipley	0-12	1-5	1.35-1.45	6.0-20	0.05-0.10	3.6-6.0	<2	Low-----	0.10	5	2	2-5
	12-81	1-7	1.45-1.60	6.0-20	0.03-0.08	4.5-6.5	<2	Low-----	0.10			

See footnote at end of table.





May 6, 2004

SDII Global Corporation
www.sdii-global.com

ampa
509 George Road
ampa, FL 33634
t 813-496-9634
x 813-496-9664

ainesville
10 SW 75th Street,
uite # 206
ainesville, FL 32607
t 352-331-6771
x 352-331-3299

ort Lauderdale
00 W. Oakland Park Blvd.
uite # B303
nrise, FL 33351
t 954-653-0415
x 954-653-0416

Mr. Dexter O'Steen
O'Steen Brothers, Inc.
1006 SE 4th Street
Gainesville, Florida 32601

Summary Report of a Geotechnical Exploration
Copeland Industrial Park
Alachua, Florida
SDII Project No. 3008230

Dear Mr. O'Steen:

SDII Global Corporation (SDII) has performed a geotechnical exploration related to the planned stormwater management areas at the proposed Copeland Industrial Park in Alachua, Florida.

Our investigation was performed in accordance with our proposal No. 2004-046 which you authorized on April 19, 2004.

This report presents a summary of our on-site observations, evaluation and findings, and recommended soil and groundwater parameters to assist in the design of the stormwater management systems.

PROJECT DESCRIPTION

We understand this project consists of an industrial park development. The project will include two stormwater management facilities. The site is located on the south side of County Road 340A, just west of NW 126th Terrace in Alachua, Florida. A Project Site Location Map is attached showing the approximate site location.

The site is undeveloped pasture. Site topography is gently rolling, with elevations of 57 to 83 feet.

Causseaux & Ellington, Inc. provided a preliminary site plan indicating the locations of two stormwater retention basins and six soil borings. A large basin is sited at the southeast portion of the site, and a small basin is located at the northwest corner of the site.

PURPOSE

The purpose of our exploration was to determine the general soil and groundwater conditions at the basin locations, and provide soil parameters to assist in the stormwater management area designs.

FIELD EXPLORATION

We explored the subsurface conditions with six auger borings advanced to a depth of 15 feet below land surface (bls). Causseaux & Ellington, Inc. staked the boring locations in the field. The approximate locations of the soil borings are shown on the attached Site Plan with Approximate Location of Field Tests.

FINDINGS

The soil borings generally encountered two strata. The upper layer generally consists of about 2 to 12 feet of light gray and brown sand with silt (SP-SM) and sand with clay (SP-SC). The sand was generally underlain by light gray, brown and orange clayey sand (SC) and sandy clay (CH) to the boring termination depth of 15 feet bls. Limestone was encountered at location A-5 at 9 feet bls.

Groundwater was encountered at depths of about 4 to 8.5 feet bls at locations A-1, A-2 and A-4. Groundwater was not encountered within the explored depth of 15 feet bls at the remaining locations.

In reviewing the Alachua County Soil Survey, one soil series is mapped for this site, consisting of Arredondo fine sand, 0 to 5 percent slopes. The area of the proposed basin near the southeastern portion of the site is mapped as water. This area of the site appears to be a backfilled borrow pit. No indicators of standing water were observed in this area. The following soil descriptions are directly from the County soil survey.

Arredondo fine sand, 0 to 5 percent slopes- This nearly level to gently sloping, well drained soil is in both small and large areas of uplands. Slopes are smooth to convex. The areas are irregular in shape and range from about 10 to 160 acres in size.

Typically, the surface layer is dark grayish brown fine sand about 8 inches thick. The subsurface layer is fine sand to a depth of 49 inches. The upper 23 inches is yellowish brown, and the lower 18 inches is brownish yellow. The subsoil extends to a depth of 86 inches or more. The upper 5 inches is yellowish brown loamy sand; the next 10 inches is yellowish brown sandy clay loam, and the lower 22 inches is dark yellowish brown sandy clay and sandy clay loam. The water table in this soil is at a depth of more than 72 inches.

The borings performed at the northwest basin location encountered soils profiles that were somewhat consistent with the mapped soil series. The soil types encountered at the large basin area at the southeastern portion of the site are consistent with fill material. It should be understood that soil conditions may vary between locations.

For a more detailed description of the soil conditions encountered, please refer to the attached Auger Boring Logs and Key to Soil Classifications.

LABORATORY TESTING

The soil samples recovered from the soil borings were returned to our laboratory, and a geotechnical engineer examined the samples to confirm the field descriptions. Representative samples were selected for laboratory testing. The laboratory tests consisted of four percent retained on the No. 40 and passing the 200 sieves and constant head permeability tests.

The tests results indicate the upper layer of sand with silt and clay has about 5 to 11 percent fines passing the No. 200 sieve, and vertical coefficients of permeability of 40 to 80 feet per day (1.4×10^{-2} cm/sec to 3.16×10^{-2} cm/sec).

A summary of the laboratory test results is attached. Laboratory tests were conducted in general accordance with ASTM Methods or other widely accepted testing methods.

SUMMARY OF EVALUATION AND PRELIMINARY RECOMMENDATIONS

The following section presents a summary of our evaluation and recommended soil and groundwater parameters to assist in the design of the stormwater facilities.

Our exploration found the site soils at the northwest basin location to be somewhat consistent with the soil type mapped by the County soil survey. The soil and groundwater conditions were typical for this area of Alachua. The soil types encountered at the large southeastern basin location are consistent with fill material. This area is shown as water by the soil survey. Groundwater was encountered at depths of 4 to 8.5 feet bls at the southeastern basin location. The estimated seasonal high groundwater table is expected to range from approximately 2 to 5 feet bls. Our seasonal high ground water estimates are indicated on the soil boring logs.

The laboratory permeability tests indicate the surficial layer of sand with silt has vertical coefficients of permeability of 40 to 80 feet per day. The value of 40 feet per day is more consistent with our experience for these types of soils. The borings indicate confining type soils are present at depths of 2.5 to 12 feet bls.

Based upon our findings and test results, we recommend the following soil parameters for the southeastern stormwater management area design:

1. Base elevation of effective or mobilized aquifer (depth of confining layer) of 8 feet bls.
2. Unsaturated vertical infiltration rate of 40 feet per day.
3. Horizontal hydraulic conductivity of 40 feet per day.
4. Specific yield (fillable porosity) of 25 percent

5. Normal seasonal high groundwater table depth of 2.0 feet bls.

We recommend the following soil parameters for the northwestern stormwater management area design:

6. Base elevation of effective or mobilized aquifer (depth of confining layer) of 6 feet bls.
7. Unsaturated vertical infiltration rate of 40 feet per day.
8. Horizontal hydraulic conductivity of 40 feet per day.
9. Specific yield (fillable porosity) of 25 percent.
10. Normal seasonal high groundwater table depth of 4 feet bls.

A factor of safety of 2 should be applied to the infiltration and hydraulic conductivity values provided.

Limestone was encountered at location A-5 at 9 feet bls. If limestone should be encountered in the basin excavations, we recommend the limestone be undercut a minimum of 2 feet and backfilled with clean sand fill to provide the required filtration. The sand excavated from the basin locations should be a suitable fill source.

The first layer of sand with silt (SP-SM) and sand with clay (SP-SC) excavated from the site should be suitable for use as structural fill for roadways and building sites. This soil may require stockpiling and drying before it can be used as fill if it is excavated from the southeastern basin location. The deeper clayey sand is considered a suitable fill material, but they may require extended drying periods to reduce the moisture content to near the optimum so that they can be used as fill. For this reason, these soils do not represent a likely source for use as fill. The deeper sandy clay is not considered a suitable fill material.

LIMITATIONS

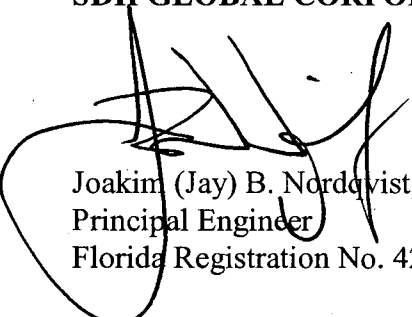
The conclusions and recommended soil parameters provided in this report are based upon our visual observations of the site, the soils recovered from the auger borings, the laboratory testing and our experience with similar construction in this area. If conditions other than those described herein are discovered during the earthwork operations, we recommend that you contact us to evaluate their parameters and impact on the recommendations provided herein.

CLOSURE

We appreciate the opportunity to provide these engineering services to you on this important project. If you have any questions or if we can provide any additional information, please call us.

Sincerely,

SDII GLOBAL CORPORATION



Joakim (Jay) B. Nordqvist, P.E.
Principal Engineer
Florida Registration No. 42681

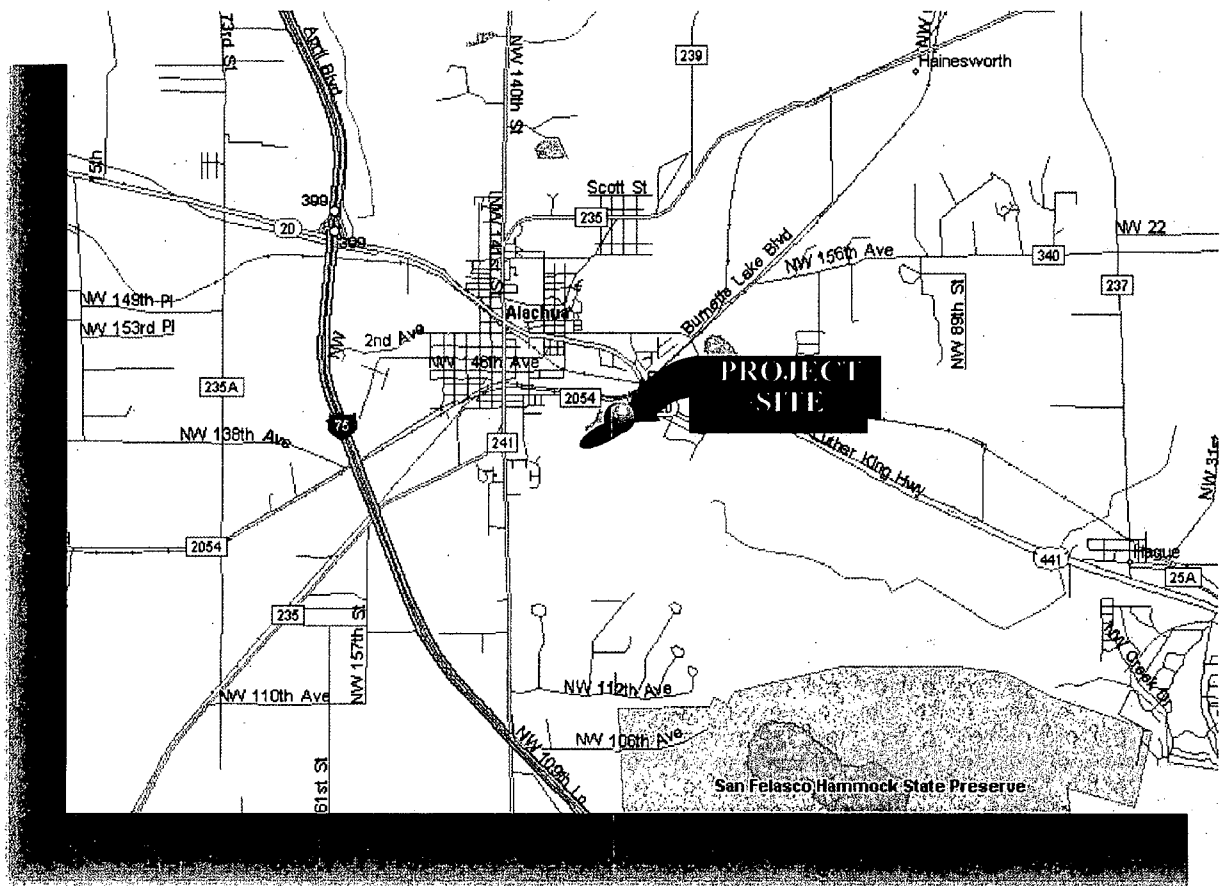


Kenneth L. Hill, P.E. 5/7/04
Principal Engineer
Florida Registration No. 40146

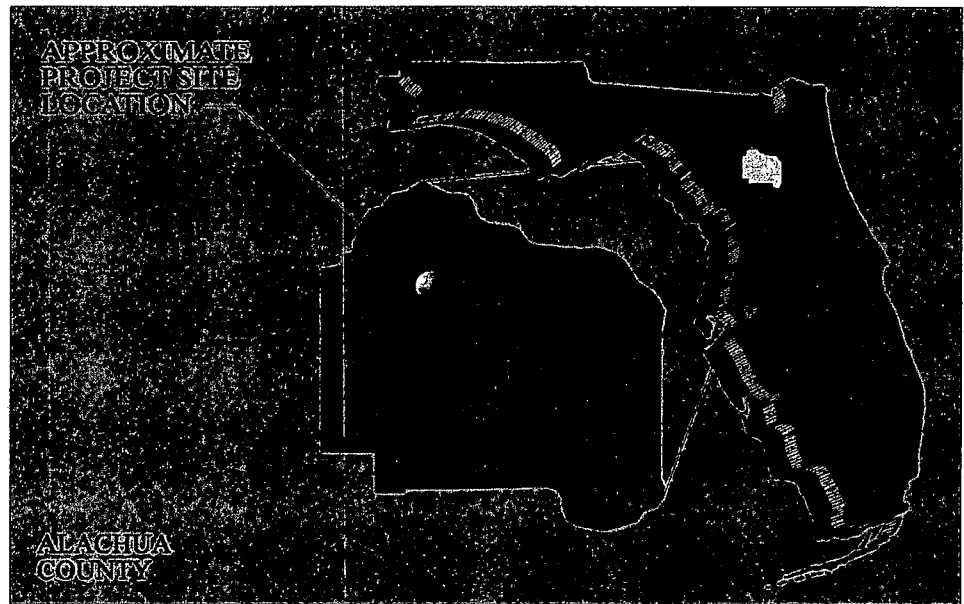
Attachments: Site Location Map
Site Plan with Approximate Locations of Field Tests
Auger Boring Logs
Summary of Laboratory Testing
Key to Soil Classifications

KLHJBN: klh
F:\Projects\3008230 Copeland Industrial Park\3008230.doc

Distribution: Addressee (1)
Causseaux & Ellington, Inc. (3)
File (1)



N
NOT TO SCALE

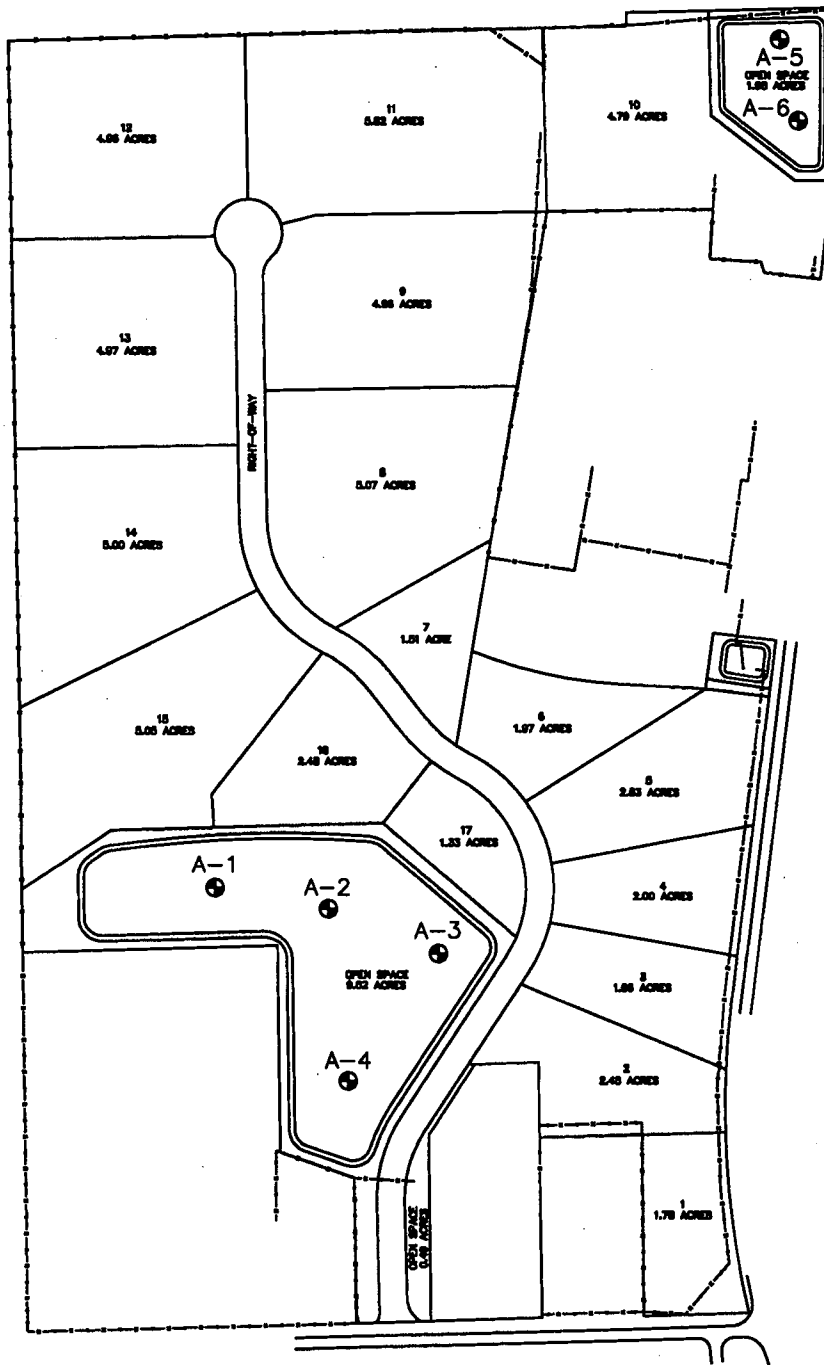


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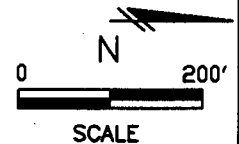


PROJECT SITE LOCATION MAP
COPELAND INDUSTRIAL PARK
ALACHUA, FLORIDA

DESIGNED BY: KLH	PROJECT NO.: 3008230	FIGURE 1
CHECKED BY: JBN	DRAWING NO.: 8230-1	
DRAWN BY: GLF	DATE: 05/05/04	



A-1 ⊕ APPROXIMATE LOCATION OF AUGER BORING WITH DESIGNATION



O'STEEN BROTHERS, INC.
GAINESVILLE, FLORIDA



SITE PLAN SHOWING APPROXIMATE
LOCATION OF FIELD TESTS

COPELAND INDUSTRIAL PARK
ALACHUA, FLORIDA

DESIGNED BY: KLH	PROJECT NO.: 3008230	FIGURE 2
CHECKED BY: JBN	DRAWING NO.: 8230-2	
CREATED BY: GLF	DATE: 05/05/04	

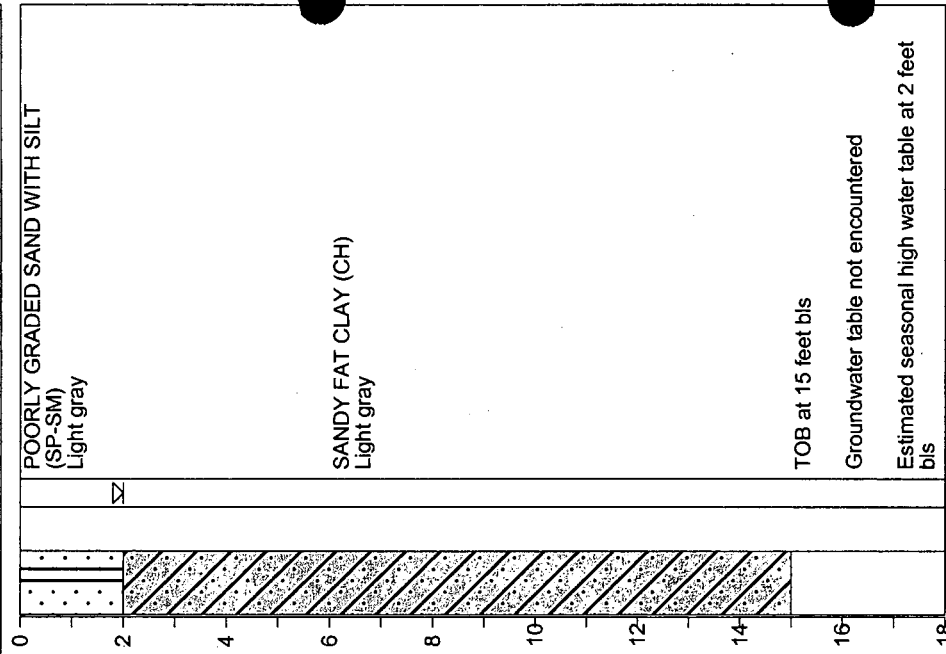
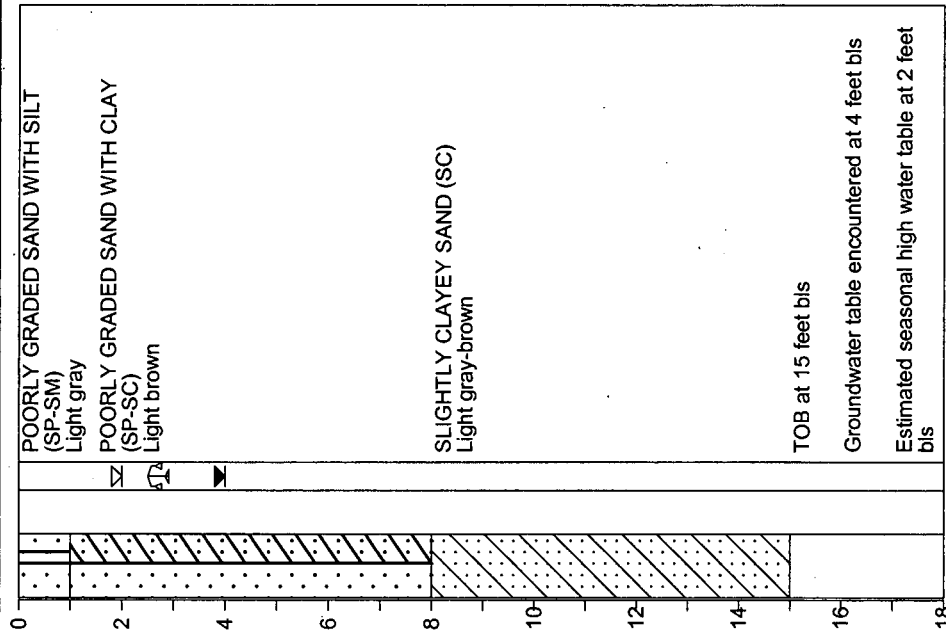
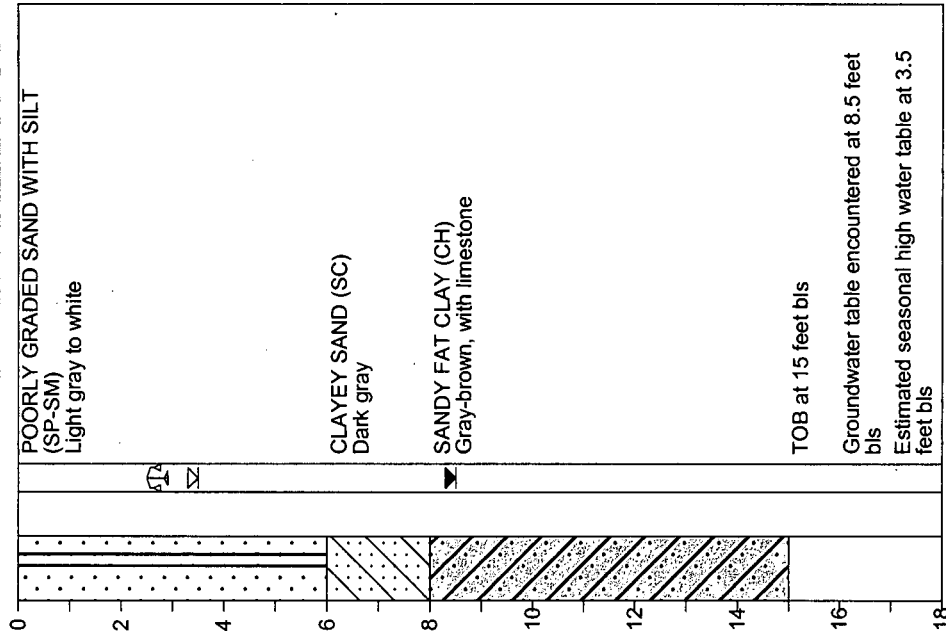
DEPTH (ft)

BLS

A-1

A-2

A-3



➤ APPROXIMATE LOCATION OF WATER TABLE (WT)



APPROXIMATE LOCATION OF ANALYZED SOIL HORIZONS

TOB TERMINATION OF BORING

NOTE:

SECOND COLUMN FROM LEFT INDICATES APPROXIMATE PUSH PENETRATION VALUES IN Kg/cm² (WHERE APPLICABLE)

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AUGER BORING LOGS

SITE NAME: COPELAND INDUSTRIAL PARK
SITE LOCATION: ALACHUA, FLORIDA

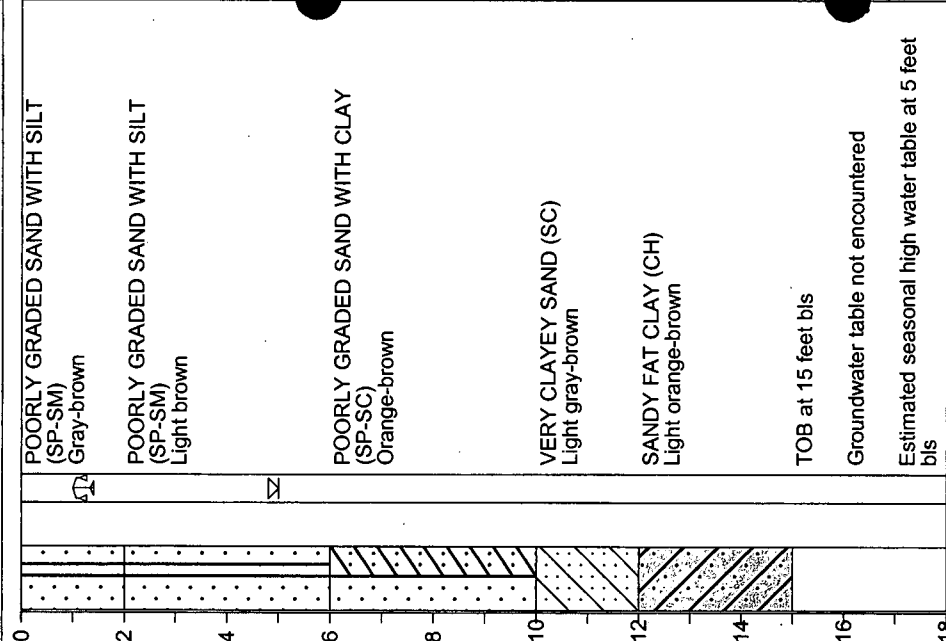
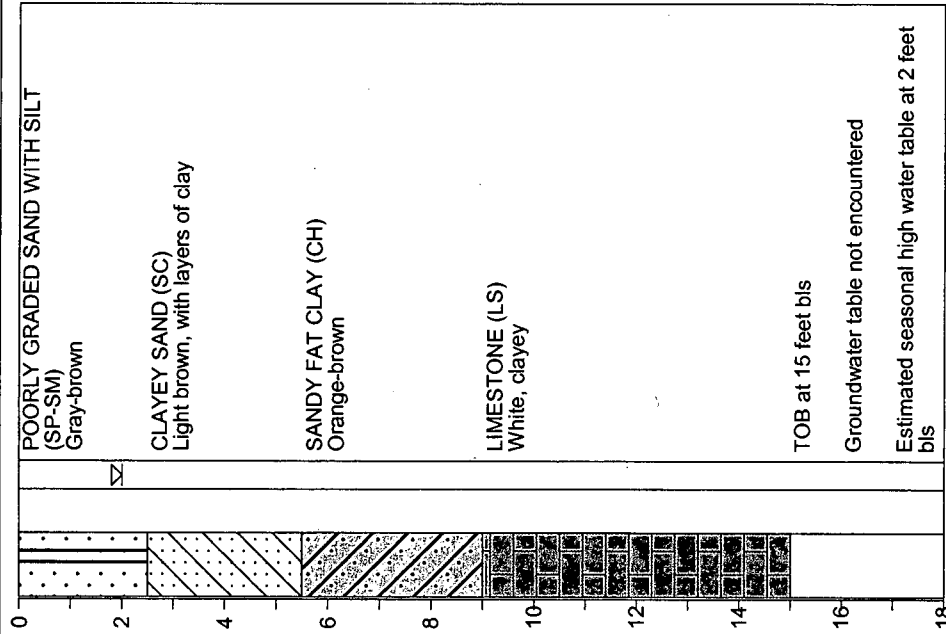
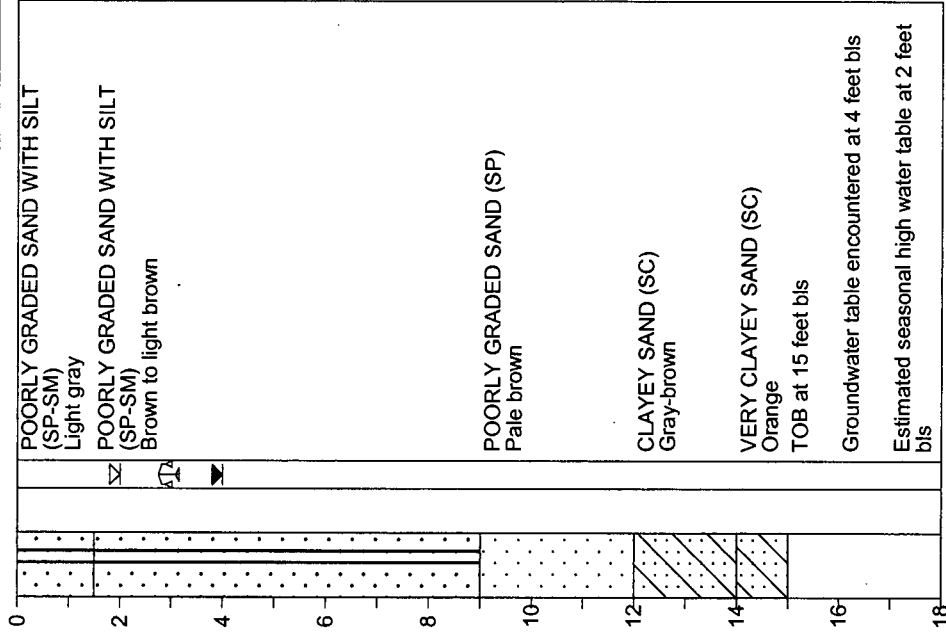
DESIGNED BY: KJH	PROJECT NO.: 3008230	AUGERS
CHECKED BY: JBN	BORING DATE: 04/27/04	1 thru 3
DRAWN BY: PRL	PAGE NO.: 1 OF 2	

DEPTH (ft)

A-4

A-5

A-6



➤ APPROXIMATE LOCATION OF WATER TABLE (WT)



APPROXIMATE LOCATION OF ANALYZED SOIL HORIZONS

TOB TERMINATION OF BORING

NOTE:

SECOND COLUMN FROM LEFT INDICATES APPROXIMATE PUSH PENETRATION VALUES IN Kg/cm² (WHERE APPLICABLE)

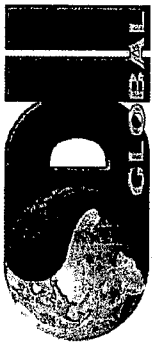
O'STEEN
BROTHERS, INC.
GAINESVILLE, FLORIDA



AUGER BORING LOGS

SITE NAME: COPELAND INDUSTRIAL PARK
SITE LOCATION: ALACHUA, FLORIDA

DESIGNED BY: KJH	PROJECT NO.: 3008230	AUGERS 4thru 6
CHECKED BY: JBN	BORING DATE: 04/27/04	
DRAWN BY: PRL	PAGE NO.: 2 OF 2	



SDI Global Corporation

DATE: May 4, 2004

PROJECT NUMBER: 3008230

PROJECT NAME: COPELAND INDUSTRIAL PARK

REPORT OF ATTERBERG LIMITS, NATURAL MOISTURE CONTENT, PERCENT RETAINED ON No. 40 SIEVE, PERCENT PASSING No. 200 SIEVE, ORGANIC CONTENT AND EXPANSION INDEX

ASTM D421, D422, D653, D698, D854, D1140, D2216, D2974, D4318, D4753, D4829

Boring Number	Depth (ft)	Lab Sample Number
A - 1	1-4	691
A - 2	1-4	692
A - 4	1.5-4	693
A - 6	0-2	694

Liquid Limit	Plastic Limit	Plasticity Index
N/T	N/T	N/T
N/T	N/T	N/T
N/T	N/T	N/T
N/T	N/T	N/T

Natural Moisture Content (%)	Percent Retained on #40 Sieve	Percent Passing #200 Sieve
2.5%	16.5%	5.2%
9.4%	23.8%	10.8%
3.2%	12.8%	5.5%
1.9%	12.9%	5.8%

% Organics (By Weight)	Expansion Index
N/T	N/T
N/T	N/T
N/T	N/T
N/T	N/T

Notes:

N/P - Nonplastic N/T - Not Tested

CONSTANT HEAD PERMEABILITY TEST



PROJECT NAME: COPELAND INDUSTRIAL P/
PROJECT NUMBER: 3008230
BORING NUMBER: A-1
DEPTH (FEET): 1-4'
DATE: May 4, 2004
SAMPLE NO.: 691
TESTED BY: AC
DESCRIPTION OF SOIL: Light-brown silty fine to medium quartz sand (SP-SM)

[A] Unit Weight Determination

(1) Length between manometer outlets L	7.6	cm
(2) Diameter of soil specimen D	7.7	cm
(3) Cross sectional area of soil specimen	46.57	cm ²
(4) Height, H ₁	17.5	cm
(5) Height, H ₂	4.1	cm
(6) Height of specimen (H ₁ -H ₂)	13.43	cm
(7) Volume of specimen [(3)x(6)]	625.39	cm ³
(8) Mass of air-dried soil before compaction, M ₁	1251.6	g
(9) Mass of unused soil after compaction, M ₂	192.6	g
(10) Mass of soil specimen (air-dried) [(8)-(9)]	1058.9	g
(11) Unit wt. of soil (air-dried) [(10)/(7)x62.4	105.7	lb/ft ³
(12) Water content	0.09	%
(13) Dry unit weight wt of soil specimen	105.6	lb/ft ³
(14) Specific gravity of soil		
(15) Volume of solids [(13)/[(14)x62.4]]		
(16) Volume of voids [1-(15)]		
(17) Void ratio, e of soil specimen [(16)/(15)]		

Water Content

Tare no.	112
wt of soil wet + can	57.68
weight of dry soil + can	57.64
Weight of Water	0.04
Tare Weight	13.77
Weight of dry soil	43.87
Water Content	0.1

[B] Permeability Test

- 1) Length between manometer outlets, L 7.6 cm
 2) Cross-sectional area of soil specimen 46.57 cm²

Trial No.	Manometer readings		Head h (cm)	Quantity of water discharged, Q (cm ³)	Time, t (s)	Temp T (°C)	Permeability at T °C, K _T (cm/s)	Ratio of viscosity at T °C Viscosity at 20 °C	Permeability at 20 °C K ₂₀ (cm/s)
	H ₁ (cm)	H ₂ (cm)							
(1)	(2)	(3)	(4)=(2)-(3)	(5)	(6)	(7)	(8)=QL/Ath	(9)	(10)
1	24.5	15.0	9.5	7.5	3.75	23	3.44E-02	0.9325	3.20E-02
2	24.5	15.0	9.5	7.5	4.43	23	2.91E-02	0.9325	2.71E-02
3	24.5	15.0	9.5	8	4.32	23	3.18E-02	0.9325	2.97E-02
4	24.5	15.0	9.5	8	4.44	23	3.10E-02	0.9325	2.89E-02

Average Permeability 3.16E-02

Mass of pycnometer when filled with water:
 Temperature adjustment:
 Mass of pycnometer when filled with water & soil:
 Mass of pycnometer adjusted for temperature:
 Mass of evaporating container:
 Mass of container and dried soil:
 Mass of solids (soil):
 Specific Gravity:

Monica Fowler, P.G.
 Florida Registration Number 1388

CONSTANT HEAD PERMEABILITY TEST



SDI Global Corporation

PROJECT NAME: COPELAND INDUSTRIAL P/
 PROJECT NUMBER: 3008230
 BORING NUMBER: A-2
 DEPTH (FEET): 1-4'
 DESCRIPTION OF SOIL: Pale-brown silty fine to medium quartz sand (SP-SM)

DATE: May 4, 2004
 SAMPLE NO.: 692
 TESTED BY: AC

[A] Unit Weight Determination

(1) Length between manometer outlets L	7.6	cm
(2) Diameter of soil specimen D	7.7	cm
(3) Cross sectional area of soil specimen	46.57	cm ²
(4) Height, H ₁	17.5	cm
(5) Height, H ₂	3.75	cm
(6) Height of specimen (H ₁ -H ₂)	13.78	cm
(7) Volume of specimen [(3)x(6)]	641.68	cm ³
(8) Mass of air-dried soil before compaction, M ₁	1218.2	g
(9) Mass of unused soil after compaction, M ₂	249.9	g
(10) Mass of soil specimen (air-dried) [(8)-(9)]	968.3	g
(11) Unit wt. of soil (air-dried) [(10)/(7)x62.4	94.2	lb/ft ³
(12) Water content	0.11	%
(13) Dry unit weight wt of soil specimen	94.1	lb/ft ³
(14) Specific gravity of soil		
(15) Volume of solids [(13)/[(14)x62.4]]		
(16) Volume of voids [1-(15)]		
(17) Void ratio, e of soil specimen [(16)/(15)]		

Water Content

Tare no.	109
wt of soil wet + can	50.67
weight of dry soil + can	50.63
Weight of Water	0.04
Tare Weight	13.89
Weight of dry soil	36.74
Water Content	0.1

[B] Permeability Test

- 1) Length between manometer outlets, L 7.6 cm
 2) Cross-sectional area of soil specimen 46.57 cm²

Trial No.	Manometer readings		Head h (cm)	Quantity of water discharged, Q (cm ³)	Time, t (s)	Temp T (°C)	Permeability at T °C, K _T (cm/s)	Ratio of	Permeability at 20 °C K ₂₀ (cm/s)
	H ₁ (cm)	H ₂ (cm)						viscosity at T °C Viscosity at 20 °C	
(1)	(2)	(3)	(4)=(2)-(3)	(5)	(6)	(7)	(8)=QL/Ath	(9)	(10)
1	36.7	15.0	21.7	9.5	5.22	23	1.37E-02	0.9325	1.28E-02
2	37.0	15.0	22.0	9	5.28	23	1.26E-02	0.9325	1.18E-02
3	37.0	15.0	22.0	8.5	4.23	23	1.49E-02	0.9325	1.39E-02
4	37.0	15.0	22.0	9	4.55	23	1.47E-02	0.9325	1.37E-02

Average Permeability 1.40E-02

Mass of pycnometer when filled with water:
 Temperature adjustment:
 Mass of pycnometer when filled with water & soil:
 Mass of pycnometer adjusted for temperature:
 Mass of evaporating container:
 Mass of container and dried soil:
 Mass of solids (soil):
 Specific Gravity:

Monica Fowler, P.G.
 Florida Registration Number 1388

CONSTANT HEAD PERMEABILITY TEST



SDII Global Corporation

PROJECT NAME: COPELAND INDUSTRIAL P/
 PROJECT NUMBER: 3008230
 BORING NUMBER: A-4
 DEPTH (FEET): 1.5-4'
 DESCRIPTION OF SOIL: Mottled lt.-brown & mod.-brown silty fine to med. quartz sand (SP-SM)

DATE: May 4, 2004
 SAMPLE NO.: 693
 TESTED BY: AC

[A] Unit Weight Determination

(1) Length between manometer outlets L	7.6	cm
(2) Diameter of soil specimen D	7.7	cm
(3) Cross sectional area of soil specimen	46.57	cm ²
(4) Height, H ₁	17.5	cm
(5) Height, H ₂	4.225	cm
(6) Height of specimen (H ₁ -H ₂)	13.305	cm
(7) Volume of specimen [(3)x(6)]	619.57	cm ³
(8) Mass of air-dried soil before compaction, M ₁	1207.9	g
(9) Mass of unused soil after compaction, M ₂	199.5	g
(10) Mass of soil specimen (air-dried) [(8)-(9)]	1008.5	g
(11) Unit wt. of soil (air-dried) [(10)/(7)x62.4	101.6	lb/ft ³
(12) Water content	0.13	%
(13) Dry unit weight wt of soil specimen	101.4	lb/ft ³
(14) Specific gravity of soil		
(15) Volume of solids [(13)/[(14)x62.4]]		
(16) Volume of voids [1-(15)]		
(17) Void ratio, e of soil specimen [(16)/(15)]		

Water Content

Tare no.	108
wt of soil wet + can	61.21
weight of dry soil + can	61.15
Weight of Water	0.06
Tare Weight	13.91
Weight of dry soil	47.24
Water Content	0.1

[B] Permeability Test

- 1) Length between manometer outlets, L 7.6 cm
 2) Cross-sectional area of soil specimen 46.57 cm²

Trial No.	Manometer readings		Head h (cm)	Quantity of water discharged Q (cm ³)	Time, t (s)	Temp T (°C)	Permeability at T °C, K _T (cm/s)	Ratio of viscosity at T °C Viscosity at 20 °C	Permeability at 20 °C K ₂₀ (cm/s)
	H ₁ (cm)	H ₂ (cm)							
(1)	(2)	(3)	(4)=(2)-(3)	(5)	(6)	(7)	(8)=QL/Ath	(9)	(10)
1	36.0	15.0	21.0	15	6.47	23	1.80E-02	0.9325	1.68E-02
2	36.0	15.0	21.0	16.5	7.65	23	1.68E-02	0.9325	1.56E-02
3	36.0	15.0	21.0	16	5.78	23	2.15E-02	0.9325	2.01E-02
4	36.0	15.0	21.0	16.5	6.36	23	2.02E-02	0.9325	1.88E-02

Average Permeability 1.91E-02

Mass of pycnometer when filled with water:
 Temperature adjustment:
 Mass of pycnometer when filled with water & soil:
 Mass of pycnometer adjusted for temperature:
 Mass of evaporating container:
 Mass of container and dried soil:
 Mass of solids (soil):
 Specific Gravity:

Monica Fowler, P.G.
 Florida Registration Number 1388

CONSTANT HEAD PERMEABILITY TEST



SDII Global Corporation

PROJECT NAME: COPELAND INDUSTRIAL P/
 PROJECT NUMBER: 3008230
 BORING NUMBER: A-6
 DEPTH (FEET): 0-2'
 DESCRIPTION OF SOIL: Pale-brown silty fine to medium quartz sand (SP-SM)

DATE: May 4, 2004
 SAMPLE NO.: 694
 TESTED BY: AC

[A] Unit Weight Determination

(1) Length between manometer outlets L	7.6	cm
(2) Diameter of soil specimen D	7.7	cm
(3) Cross sectional area of soil specimen	46.57	cm ²
(4) Height, H ₁	17.5	cm
(5) Height, H ₂	4.15	cm
(6) Height of specimen (H ₁ -H ₂)	13.38	cm
(7) Volume of specimen [(3)x(6)]	623.06	cm ³
(8) Mass of air-dried soil before compaction, M ₁	1247.4	g
(9) Mass of unused soil after compaction, M ₂	195.4	g
(10) Mass of soil specimen (air-dried) [(8)-(9)]	1052.0	g
(11) Unit wt. of soil (air-dried) [(10)/(7)x62.4	105.4	lb/ft ³
(12) Water content	0.08	%
(13) Dry unit weight wt of soil specimen	105.3	lb/ft ³
(14) Specific gravity of soil		
(15) Volume of solids [(13)/[(14)x62.4]]		
(16) Volume of voids [1-(15)]		
(17) Void ratio, e of soil specimen [(16)/(15)]		

Water Content

Tare no.	111
wt of soil wet + can	67.15
weight of dry soil + can	67.11
Weight of Water	0.04
Tare Weight	13.79
Weight of dry soil	53.32
Water Content	0.1

[B] Permeability Test

- 1) Length between manometer outlets, L 7.6 cm
 2) Cross-sectional area of soil specimen 46.57 cm²

Trial No.	Manometer readings		Head h (cm)	Quantity of water discharged, Q (cm ³)	Time, t (s)	Temp T (°C)	Permeability at T °C K _T (cm/s)	Ratio of viscosity at T °C Viscosity at 20 °C	Permeability at 20 °C K ₂₀ (cm/s)
	H ₁ (cm)	H ₂ (cm)							
(1)	(2)	(3)	(4)=(2)-(3)	(5)	(6)	(7)	(8)=QL/Ath	(9)	(10)
1	36.0	15.0	21.0	7.5	3.72	23	1.57E-02	0.9325	1.46E-02
2	36.0	15.0	21.0	7	3.63	23	1.50E-02	0.9325	1.40E-02
3	36.0	15.0	21.0	7	3.47	23	1.57E-02	0.9325	1.46E-02
4	36.0	15.0	21.0	7	3.58	23	1.52E-02	0.9325	1.42E-02

Average Permeability 1.54E-02

Mass of pycnometer when filled with water:
 Temperature adjustment:
 Mass of pycnometer when filled with water & soil:
 Mass of pycnometer adjusted for temperature:
 Mass of evaporating container:
 Mass of container and dried soil:
 Mass of solids (soil):
 Specific Gravity:

Monica Fowler, P.G.
 Florida Registration Number 1388

KEY TO SOIL CLASSIFICATIONS

 Asphalt	 SC - Clayey Sands	 ML - Low plasticity inorganic silts	 LIMESTONE FORMATION - Weathered limestone
 SP - Poorly graded sands	 SW - Well graded sands	 MH - High plasticity inorganic silts	 LIMESTONE FORMATION - Limestone
 SP-SM - Slightly silty sands	 CL - Low plasticity inorganic clays	 OH - High plasticity organic silts and clays	 PEAT - Peat
 SM - Silty Sands	 CH - High plasticity inorganic clays	 OL - Low plasticity organic silts and clays	 FILL - Sand fill
 SP-SC - Slightly clayey sands			

KEY TO DRILLING SYMBOLS

 Split Spoon	 Auger	 Core	 Grab
 Shelby Tube	 Excavation	 Undisturbed	 No Recovery

CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

	NO. OF BLOWS, N	RELATIVE DENSITY	PARTICLE SIZE IDENTIFICATION	
SANDS:	0 - 4	Very Loose	BOULDERS:	Greater than 300 mm
	5 - 10	Loose	COBBLES:	75 mm to 300 mm
	11 - 30	Firm	GRAVEL:	Coarse - 19.0 mm to 75 mm
	31 - 50	Dense		Fine - 4.75 mm to 19.0 mm
	OVER 50	Very Dense	SANDS:	Coarse - 2.00 mm to 4.75 mm
SILTS & CLAYS:				Medium - 0.425 mm to 2.00 mm
				Fine - 0.075 mm to 0.425 mm
		CONSISTENCY		
	0 - 2	Very Soft	SILTS & CLAYS:	Less than 0.075 mm
	3 - 4	Soft		
	5 - 8	Firm		
	9 - 15	Stiff		
	16 - 30	Very Stiff		
	31 - 50	Hard		
	over 50	Very Hard		

APPENDIX 'B'

Post-Developed Drainage Calculations & Computer Output

COPELAND PARK - POST DEVELOPMENT

4:44 PM

Job No.: 02-095

12-Jul-04

Drainage Calculations - SMF-1

Overall Basin Area (Ao): **71.660 Ac** -----> 3,121,530 sf
 Impervious Area 1,287,924 sf

Soil Conditions

NRCS Soil Type	CN	Area	Product
A (Open Area)	39	39.896 Ac.	1555.94
A (Open Area)	98	30.125 Ac.	2952.25
IMP	98	1.639 Ac.	160.67
Composite CN =			65.2

Water Quality Treatment Volume

15.22

SRWMD Criteria

Runoff from the first 1 inch of rainfall =

0.0009 in.

WQTV

0.005 Ac-ft

----->

239.5 cf

Limiting Criteria Used

WQTV

0.005 Ac-ft

----->

239.5 cf

WQTV EI:

56.00

WQTV Area:

255,264

STAGE-STORAGE				
Depth (ft)	Area (sf)	Area (Ac)	Storage Volume (Ac-ft)	Cumulative Volume (Ac-ft)
56.0	255,254	5.8598	0.000	0.000
57.0	265,688	6.0994	5.980	5.980
58.0	276,223	6.3412	6.220	12.200
59.0	286,859	6.5854	6.463	18.663
59.1	319,368	7.3317	0.696	19.359
60.0	361,197	8.2919	7.031	26.390
61.0	404,206	9.2793	8.786	35.175
62.0	444,714	10.2092	9.744	44.920

PONDS Version 3.2.0184
Retention Pond Recovery - Refined Method
Copyright 2003
Devo Seereeram, Ph.D., P.E.

Project Data

Project Name: Copeland Park Storm 1
Simulation Description: Post-development Analysis
Project Number: 02-095
Engineer : Ben F. Prewitt, E.I.
Supervising Engineer: Rory P. Causseaux, P.E.
Date: 07-02-2004

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum): 49.00
Water Table Elevation, [WT] (ft datum): 54.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day): 40.00
Fillable Porosity, [n] (%): 25.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day): 40.0
Maximum Area For Unsaturated Infiltration, [Av] (ft²): 361197.0

Geometry Data

Equivalent Pond Length, [L] (ft): 1173.0
Equivalent Pond Width, [W] (ft): 308.0
Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft ²)
56.00	255254.0
57.00	265688.0
58.00	276223.0
59.00	286859.0
59.10	319368.0
60.00	361197.0
61.00	404206.0
62.00	444714.0

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Scenario Input Data

Scenario 1 :: Post-development 100 year-1 hour

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 71.660
Time Of Concentration (minutes) 27.0
DCIA (%) 0.0
Curve Number 65
Design Rainfall Depth (inches) 4.5
Design Rainfall Duration (hours) 1.0
Shape Factor UHG 323
Rainfall Distribution FDOT 1 Hour

Initial ground water level (ft datum) default, 54.00

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	6.000	11.000
2.000	7.000	12.000
3.000	8.000	13.000
4.000	9.000	14.000
5.000	10.000	

Scenario 2 :: Post-development 100 year-2 hour

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 71.660
Time Of Concentration (minutes) 27.0
DCIA (%) 0.0
Curve Number 65
Design Rainfall Depth (inches) 5.6
Design Rainfall Duration (hours) 2.0
Shape Factor UHG 323
Rainfall Distribution FDOT 2 Hour

Initial ground water level (ft datum) default, 54.00

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	6.000	11.000
2.000	7.000	12.000
3.000	8.000	13.000
4.000	9.000	14.000
5.000	10.000	

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Scenario Input Data (cont'd.)

Scenario 3 :: Post-development 100 year-4 hour

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 71.660
Time Of Concentration (minutes) 27.0
DCIA (%) 0.0
Curve Number 65
Design Rainfall Depth (inches) 6.6
Design Rainfall Duration (hours) 4.0
Shape Factor UHG 323
Rainfall Distribution FDOT 4 Hour

Initial ground water level (ft datum) default, 54.00

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	6.000	11.000
2.000	7.000	12.000
3.000	8.000	13.000
4.000	9.000	14.000
5.000	10.000	

Scenario 4 :: Post-development 100 year-8 hour

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 71.660
Time Of Concentration (minutes) 27.0
DCIA (%) 0.0
Curve Number 65
Design Rainfall Depth (inches) 8.0
Design Rainfall Duration (hours) 8.0
Shape Factor UHG 323
Rainfall Distribution FDOT 8 Hour

Initial ground water level (ft datum) default, 54.00

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	6.000	11.000
2.000	7.000	12.000
3.000	8.000	13.000
4.000	9.000	14.000
5.000	10.000	

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Scenario Input Data (cont'd.)

Scenario 5 :: Post-development 100 year-24 hour

Hydrograph Type: Inline SCS
 Modflow Routing: Routed with infiltration
 Repetitions: 1

 Basin Area (acres) 71.660
 Time Of Concentration (minutes) 27.0
 DCIA (%) 0.0
 Curve Number 65
 Design Rainfall Depth (inches) 10.6
 Design Rainfall Duration (hours) 24.0
 Shape Factor UHG 323
 Rainfall Distribution FDOT 24 Hour

Initial ground water level (ft datum) default, 54.00

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	7.000	13.000	19.000	25.000
2.000	8.000	14.000	20.000	26.000
3.000	9.000	15.000	21.000	27.000
4.000	10.000	16.000	22.000	28.000
5.000	11.000	17.000	23.000	29.000
6.000	12.000	18.000	24.000	30.000

Scenario 6 :: WQTV Recovery

Hydrograph Type: Slug Load
 Modflow Routing: Routed with infiltration

Treatment Volume (ft³) 240

Initial ground water level (ft datum) default, 54.00

Time After Storm Event (days)	Time After Storm Event (days)
0.100	2.000
0.250	2.500
0.500	3.000
1.000	3.500
1.500	4.000

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Summary of Results :: Scenario 1 :: Post-development 100 year-1 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	54.00		
Maximum	2.700	56.30		
Inflow				
Rate - Maximum - Positive	0.900		125.9017	
Rate - Maximum - Negative	3.360		0.0000	
Cumulative Volume - Maximum Positive	3.360			347113.7
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	339.420			347113.7
Infiltration				
Rate - Maximum - Positive	0.960		118.2099	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	75.420			347113.7
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	339.420			347113.7
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	339.420			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Summary of Results :: Scenario 2 :: Post-development 100 year-2 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	54.00		
Maximum	3.480	57.00		
Inflow				
Rate - Maximum - Positive	1.080		119.6152	
Rate - Maximum - Negative	4.380		0.0000	
Cumulative Volume - Maximum Positive	4.380			538760.4
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	340.440			538760.4
Infiltration				
Rate - Maximum - Positive	1.080		118.1748	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	340.440			505031.3
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	340.440			505031.3
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	340.440			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Summary of Results :: Scenario 3 :: Post-development 100 year-4 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	54.00		
Maximum	5.160	57.67		
Inflow				
Rate - Maximum - Positive	2.640		111.6318	
Rate - Maximum - Negative	6.360		0.0000	
Cumulative Volume - Maximum Positive	6.360			729674.9
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	342.420			729674.9
Infiltration				
Rate - Maximum - Positive	2.460		104.8495	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	342.420			570801.8
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	342.420			570801.8
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	342.420			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Summary of Results :: Scenario 4 :: Post-development 100 year-8 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	54.00		
Maximum	9.000	58.61		
Inflow				
Rate - Maximum - Positive	4.140		129.6631	
Rate - Maximum - Negative	10.380		0.0000	
Cumulative Volume - Maximum Positive	10.380			1016065.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	346.440			1016065.0
Infiltration				
Rate - Maximum - Positive	3.900		115.0497	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	346.440			672120.2
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	346.440			672120.2
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	346.440			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Summary of Results :: Scenario 5 :: Post-development 100 year-24 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	54.00		
Maximum	24.660	60.13		
Inflow				
Rate - Maximum - Positive	12.060		50.3295	
Rate - Maximum - Negative	26.340		0.0000	
Cumulative Volume - Maximum Positive	26.340			1578174.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	746.460			1578174.0
Infiltration				
Rate - Maximum - Positive	10.560		31.3007	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	746.460			1072652.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	746.460			1072652.0
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	746.460			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Summary of Results :: Scenario 6 :: WQTV Recovery

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	54.00		
Maximum	0.002	54.00		
Inflow				
Rate - Maximum - Positive	0.002		40.0000	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	0.002			240.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	96.000			240.0
Infiltration				
Rate - Maximum - Positive	0.002		39.9722	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	0.002			240.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	96.000			240.0
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	96.000			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	36.000	0.00		240.0
72 Hour Stage and Infiltration Volume	72.000	0.00		240.0

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Detailed Results :: Scenario 5 :: Post-development 100 year-24 hour

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
0.000	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	N.A.
0.060	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.120	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.180	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.240	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.300	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.360	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.420	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.480	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.540	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.600	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.660	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.720	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.780	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.840	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.900	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
0.960	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
1.020	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
1.080	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
1.140	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
1.200	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
1.260	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
1.320	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
1.380	0.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	U
1.440	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
1.500	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
1.560	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
1.620	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
1.680	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
1.740	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
1.800	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
1.860	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
1.920	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
1.980	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
2.040	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
2.100	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
2.160	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
2.220	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
2.280	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
2.340	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
2.400	0.0000	0.0000	54.000	0.00001	0.00000	0.0	0.0	0.0	U
2.460	0.0000	0.0000	54.000	0.00002	0.00000	0.0	0.0	0.0	U
2.520	0.0000	0.0000	54.000	0.00002	0.00000	0.0	0.0	0.0	U
2.580	0.0000	0.0000	54.000	0.00002	0.00000	0.0	0.0	0.0	U
2.640	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
2.700	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
2.760	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
2.820	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
2.880	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
2.940	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.000	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.060	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.120	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.180	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.240	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.300	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.360	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.420	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.480	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.540	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.600	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.660	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.720	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.780	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.840	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.900	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
3.960	0.0000	0.0000	54.000	0.00002	0.00000	0.1	0.1	0.0	U
4.020	0.0000	0.0000	54.000	0.00002	0.00000	0.2	0.2	0.0	U
4.080	0.0000	0.0000	54.000	0.00002	0.00000	0.2	0.2	0.0	U
4.140	0.0000	0.0000	54.000	0.00002	0.00000	0.2	0.2	0.0	U
4.200	0.0000	0.0000	54.000	0.00002	0.00000	0.2	0.2	0.0	U
4.260	0.0000	0.0000	54.000	0.00002	0.00000	0.2	0.2	0.0	U
4.320	0.0000	0.0000	54.000	0.00002	0.00000	0.2	0.2	0.0	U
4.380	0.0000	0.0000	54.000	0.00013	0.00000	0.2	0.2	0.0	U

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Detailed Results (cont.d.) :: Scenario 5 :: Post-development 100 year-24 hour

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
4.440	0.0005	0.0000	54.000	0.00111	0.00000	0.2	0.2	0.0	U
4.500	0.0035	0.0000	54.000	0.00499	0.00000	0.7	0.7	0.0	U
4.560	0.0125	0.0000	54.000	0.01527	0.00000	2.4	2.4	0.0	U
4.620	0.0325	0.0000	54.000	0.03626	0.00000	7.3	7.3	0.0	U
4.680	0.0675	0.0000	54.000	0.07137	0.00000	18.1	18.1	0.0	U
4.740	0.1180	0.0000	54.000	0.12165	0.00000	38.1	38.1	0.0	U
4.800	0.1831	0.0000	54.001	0.18614	0.00000	70.6	70.6	0.0	U
4.860	0.2604	0.0000	54.001	0.26294	0.00000	118.5	118.5	0.0	U
4.920	0.3479	0.0000	54.002	0.35000	0.00000	184.2	184.2	0.0	U
4.980	0.4438	0.0000	54.003	0.44659	0.00000	269.7	269.7	0.0	U
5.040	0.5509	0.0000	54.004	0.55496	0.00000	377.1	377.1	0.0	U
5.100	0.6743	0.0000	54.006	0.67990	0.00000	509.4	509.4	0.0	U
5.160	0.8202	0.0000	54.007	0.82707	0.00000	670.8	670.8	0.0	U
5.220	0.9937	0.0000	54.010	0.99888	0.00000	866.7	866.7	0.0	U
5.280	1.1879	0.0000	54.012	1.19114	0.00000	1102.4	1102.4	0.0	U
5.340	1.3950	0.0000	54.015	1.39668	0.00000	1381.3	1381.3	0.0	U
5.400	1.6089	0.0000	54.019	1.60972	0.00000	1705.7	1705.7	0.0	U
5.460	1.8262	0.0000	54.023	1.82678	0.00000	2076.7	2076.7	0.0	U
5.520	2.0458	0.0000	54.028	2.04622	0.00000	2494.9	2494.9	0.0	U
5.580	2.2670	0.0000	54.033	2.26727	0.00000	2960.7	2960.7	0.0	U
5.640	2.4892	0.0000	54.038	2.48948	0.00000	3474.4	3474.4	0.0	U
5.700	2.7124	0.0000	54.045	2.71263	0.00000	4036.1	4036.1	0.0	U
5.760	2.9364	0.0000	54.051	2.93644	0.00000	4646.2	4646.2	0.0	U
5.820	3.1606	0.0000	54.059	3.16074	0.00000	5304.7	5304.7	0.0	U
5.880	3.3855	0.0000	54.067	3.38537	0.00000	6011.6	6011.6	0.0	U
5.940	3.6100	0.0000	54.075	3.60979	0.00000	6767.2	6767.2	0.0	U
6.000	3.8337	0.0000	54.084	3.83354	0.00000	7571.1	7571.1	0.0	U
6.060	4.0567	0.0000	54.093	4.05648	0.00000	8423.2	8423.2	0.0	U
6.120	4.2788	0.0000	54.103	4.27846	0.00000	9323.5	9323.5	0.0	U
6.180	4.4996	0.0000	54.114	4.49925	0.00000	10271.5	10271.5	0.0	U
6.240	4.7191	0.0000	54.125	4.71867	0.00000	11267.2	11267.2	0.0	U
6.300	4.9370	0.0000	54.136	4.93655	0.00000	12310.0	12310.0	0.0	U
6.360	5.1532	0.0000	54.148	5.15274	0.00000	13399.7	13399.7	0.0	U
6.420	5.3676	0.0000	54.161	5.36709	0.00000	14536.0	14536.0	0.0	U
6.480	5.5800	0.0000	54.174	5.57945	0.00000	15718.3	15718.3	0.0	U
6.540	5.7902	0.0000	54.188	5.78970	0.00000	16946.3	16946.3	0.0	U
6.600	5.9983	0.0000	54.202	5.99779	0.00000	18219.5	18219.5	0.0	U
6.660	6.2042	0.0000	54.216	6.20367	0.00000	19537.4	19537.4	0.0	U
6.720	6.4079	0.0000	54.231	6.40727	0.00000	20899.5	20899.5	0.0	U
6.780	6.6091	0.0000	54.247	6.60853	0.00000	22305.3	22305.3	0.0	U
6.840	6.8080	0.0000	54.263	6.80743	0.00000	23754.3	23754.3	0.0	U
6.900	7.0046	0.0000	54.280	7.00399	0.00000	25246.1	25246.1	0.0	U
6.960	7.1988	0.0000	54.297	7.19820	0.00000	26780.1	26780.1	0.0	U
7.020	7.3907	0.0000	54.314	7.39016	0.00000	28355.7	28355.7	0.0	U
7.080	7.5805	0.0000	54.332	7.58006	0.00000	29972.6	29972.6	0.0	U
7.140	7.7685	0.0000	54.350	7.76814	0.00000	31630.3	31630.3	0.0	U
7.200	7.9549	0.0000	54.369	7.95453	0.00000	33328.4	33328.4	0.0	U
7.260	8.1397	0.0000	54.388	8.13913	0.00000	35066.7	35066.7	0.0	U
7.320	8.3222	0.0000	54.408	8.32166	0.00000	36844.6	36844.6	0.0	U
7.380	8.5025	0.0000	54.428	8.50190	0.00000	38661.6	38661.6	0.0	U
7.440	8.6804	0.0000	54.449	8.67980	0.00000	40517.4	40517.4	0.0	U
7.500	8.8560	0.0000	54.470	8.85539	0.00000	42411.3	42411.3	0.0	U
7.560	9.0293	0.0000	54.491	9.02873	0.00000	44342.9	44342.9	0.0	U
7.620	9.2004	0.0000	54.513	9.19990	0.00000	46311.7	46311.7	0.0	U
7.680	9.3695	0.0000	54.535	9.36895	0.00000	48317.3	48317.3	0.0	U
7.740	9.5364	0.0000	54.558	9.53593	0.00000	50359.1	50359.1	0.0	U
7.800	9.7014	0.0000	54.581	9.70091	0.00000	52436.8	52436.8	0.0	U
7.860	9.8644	0.0000	54.604	9.86393	0.00000	54549.9	54549.9	0.0	U
7.920	10.0255	0.0000	54.628	10.02502	0.00000	56698.0	56698.0	0.0	U
7.980	10.1847	0.0000	54.652	10.19613	0.00000	58880.7	58880.7	0.0	U
8.040	10.3897	0.0000	54.677	10.41511	0.00000	61102.7	61102.7	0.0	U
8.100	10.6964	0.0000	54.702	10.73634	0.00000	63380.0	63380.0	0.0	U
8.160	11.1628	0.0000	54.728	11.21160	0.00000	65740.8	65740.8	0.0	U
8.220	11.8243	0.0000	54.756	11.84801	0.00000	68223.4	68223.4	0.0	U
8.280	12.5806	0.0000	54.785	12.58222	0.00000	70859.2	70859.2	0.0	U
8.340	13.3434	0.0000	54.816	13.33208	0.00000	73659.0	73659.0	0.0	U
8.400	14.0609	0.0000	54.849	14.04494	0.00000	76618.6	76618.6	0.0	U
8.460	14.7145	0.0000	54.883	14.69986	0.00000	79726.4	79726.4	0.0	U
8.520	15.3095	0.0000	54.919	15.29684	0.00000	82969.0	82969.0	0.0	U
8.580	15.8538	0.0000	54.956	15.84348	0.00000	86334.6	86334.6	0.0	U
8.640	16.3568	0.0000	54.995	16.34872	0.00000	89813.3	89813.3	0.0	U
8.700	16.8276	0.0000	55.034	16.82114	0.00000	93397.3	93397.3	0.0	U
8.760	17.2727	0.0000	55.075	17.26698	0.00000	97080.1	97080.1	0.0	U
8.820	17.6950	0.0000	55.117	17.69193	0.00000	100856.6	100856.6	0.0	U

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Detailed Results (cont.d.) :: Scenario 5 :: Post-development 100 year-24 hour

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
8.880	18.1051	0.0000	55.160	18.10025	0.00000	104723.0	104723.0	0.0	U
8.940	18.4959	0.0000	55.204	18.49143	0.00000	108675.9	108675.9	0.0	U
9.000	18.8689	0.0000	55.248	18.86561	0.00000	112711.3	112711.3	0.0	U
9.060	19.2287	0.0000	55.294	19.22567	0.00000	116825.8	116825.8	0.0	U
9.120	19.5763	0.0000	55.340	19.57344	0.00000	121016.8	121016.8	0.0	U
9.180	19.9125	0.0000	55.387	19.90983	0.00000	125281.6	125281.6	0.0	U
9.240	20.2381	0.0000	55.435	20.23563	0.00000	129617.8	129617.8	0.0	U
9.300	20.5538	0.0000	55.484	20.55152	0.00000	134023.4	134023.4	0.0	U
9.360	20.8603	0.0000	55.534	20.85807	0.00000	138496.1	138496.1	0.0	U
9.420	21.1578	0.0000	55.584	21.15563	0.00000	143034.0	143034.0	0.0	U
9.480	21.4466	0.0000	55.635	21.44438	0.00000	147635.3	147635.3	0.0	U
9.540	21.7266	0.0000	55.687	21.72473	0.00000	152298.0	152298.0	0.0	U
9.600	21.9992	0.0000	55.739	21.99752	0.00000	157020.4	157020.4	0.0	U
9.660	22.2651	0.0000	55.792	22.26338	0.00000	161800.9	161800.9	0.0	U
9.720	22.5241	0.0000	55.845	22.52239	0.00000	166638.2	166638.2	0.0	U
9.780	22.7763	0.0000	55.900	22.77472	0.00000	171530.6	171530.6	0.0	U
9.840	23.0223	0.0000	55.954	23.02085	0.00000	176476.9	176476.9	0.0	U
9.900	23.2626	0.0000	56.000	23.26117	0.00000	181475.6	181475.6	0.0	U
9.960	23.4972	0.0000	56.000	23.50405	0.00000	186525.7	186525.7	0.0	U
10.020	23.7592	0.0000	56.000	23.78958	0.00000	191629.4	191629.4	0.0	U
10.080	24.1428	0.0000	56.000	24.19247	0.00000	196802.8	196802.8	0.0	U
10.140	24.7252	0.0000	56.000	24.79276	0.00000	202080.5	202080.5	0.0	U
10.200	25.5779	0.0000	56.000	25.63177	0.00000	207513.3	207513.3	0.0	U
10.260	26.6460	0.0000	56.000	26.65272	0.00000	213153.4	213153.4	0.0	U
10.320	27.7409	0.0000	56.000	27.72793	0.00000	219027.2	219027.2	0.0	U
10.380	28.7839	0.0000	56.000	28.75815	0.00000	225131.9	225131.9	0.0	U
10.440	29.7239	0.0000	56.000	29.69895	0.00000	231450.8	231450.8	0.0	U
10.500	30.5640	0.0000	56.000	30.54270	0.00000	237961.8	237961.8	0.0	U
10.560	31.3188	0.0000	56.000	31.30071	0.00000	244645.2	244645.2	0.0	U
10.620	32.0012	0.0000	56.000	27.01787	0.00000	251483.8	251483.8	0.0	U
10.680	32.6271	0.0000	56.008	14.21059	0.00000	258463.6	256316.9	0.0	U/S
10.740	33.2086	0.0000	56.031	5.33956	0.00000	265573.9	257622.7	0.0	S
10.800	33.7525	0.0000	56.056	4.25628	0.00000	272805.7	258623.6	0.0	S
10.860	34.2679	0.0000	56.081	3.65665	0.00000	280151.9	259461.4	0.0	S
10.920	34.7620	0.0000	56.107	3.29077	0.00000	287607.1	260203.3	0.0	S
10.980	35.2225	0.0000	56.134	3.04724	0.00000	295165.4	260883.0	0.0	S
11.040	35.7404	0.0000	56.161	2.87457	0.00000	302829.4	261519.7	0.0	S
11.100	36.4092	0.0000	56.189	2.74723	0.00000	310621.6	262124.9	0.0	S
11.160	37.3237	0.0000	56.218	2.65155	0.00000	318584.7	262706.5	0.0	S
11.220	38.5399	0.0000	56.248	2.57951	0.00000	326778.0	263270.3	0.0	S
11.280	39.8880	0.0000	56.278	2.52559	0.00000	335248.2	263820.8	0.0	S
11.340	41.2211	0.0000	56.310	2.48561	0.00000	344007.9	264361.4	0.0	S
11.400	42.4548	0.0000	56.343	2.45634	0.00000	353044.9	264894.6	0.0	S
11.460	43.5602	0.0000	56.377	2.43536	0.00000	362334.6	265422.5	0.0	S
11.520	44.5488	0.0000	56.411	2.42090	0.00000	371850.3	265946.7	0.0	S
11.580	45.4362	0.0000	56.447	2.41168	0.00000	381568.7	266468.4	0.0	S
11.640	46.2417	0.0000	56.483	2.40674	0.00000	391469.9	266988.5	0.0	S
11.700	46.9818	0.0000	56.520	2.40535	0.00000	401538.1	267508.1	0.0	S
11.760	47.6680	0.0000	56.557	2.40696	0.00000	411760.3	268027.7	0.0	S
11.820	48.3062	0.0000	56.594	2.41112	0.00000	422125.5	268547.9	0.0	S
11.880	48.9163	0.0000	56.633	2.41750	0.00000	432625.5	269069.3	0.0	S
11.940	49.4866	0.0000	56.671	2.42577	0.00000	443253.0	269592.3	0.0	S
12.000	50.0203	0.0000	56.710	2.43546	0.00000	453999.8	270117.2	0.0	S
12.060	50.3295	0.0000	56.749	2.44566	0.00000	464837.5	270644.3	0.0	S
12.120	50.2842	0.0000	56.789	2.45507	0.00000	475703.8	271173.7	0.0	S
12.180	49.7205	0.0000	56.828	2.46220	0.00000	486504.3	271704.9	0.0	S
12.240	48.5879	0.0000	56.866	2.46613	0.00000	497121.6	272237.4	0.0	S
12.300	47.3408	0.0000	56.903	2.46720	0.00000	507481.9	272770.3	0.0	S
12.360	46.1343	0.0000	56.939	2.46636	0.00000	517577.3	273303.2	0.0	S
12.420	45.1077	0.0000	56.974	2.46460	0.00000	527431.4	273835.8	0.0	S
12.480	44.2679	0.0000	57.008	2.46266	0.00000	537083.9	274367.9	0.0	S
12.540	43.5831	0.0000	57.042	2.46098	0.00000	546571.9	274899.7	0.0	S
12.600	43.0329	0.0000	57.075	2.45979	0.00000	555926.4	275431.1	0.0	S
12.660	42.5855	0.0000	57.108	2.45919	0.00000	565173.2	275962.3	0.0	S
12.720	42.2143	0.0000	57.140	2.45920	0.00000	574331.6	276493.4	0.0	S
12.780	41.9022	0.0000	57.172	2.45983	0.00000	583416.1	277024.7	0.0	S
12.840	41.6449	0.0000	57.204	2.46101	0.00000	592439.2	277556.1	0.0	S
12.900	41.3995	0.0000	57.235	2.46270	0.00000	601408.0	278087.8	0.0	S
12.960	41.2154	0.0000	57.267	2.46490	0.00000	610330.4	278620.0	0.0	S
13.020	41.0389	0.0000	57.298	2.46746	0.00000	619213.9	279152.7	0.0	S
13.080	40.8054	0.0000	57.329	2.47006	0.00000	628053.1	279685.9	0.0	S
13.140	40.4632	0.0000	57.359	2.47228	0.00000	636830.1	280219.7	0.0	S
13.200	39.9657	0.0000	57.390	2.47362	0.00000	645516.4	280753.9	0.0	S
13.260	39.3486	0.0000	57.419	2.47401	0.00000	654082.3	281288.3	0.0	S

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Detailed Results (cont.d.) :: Scenario 5 :: Post-development 100 year-24 hour

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
13.320	38.7347	0.0000	57.449	2.47364	0.00000	662515.3	281822.7	0.0	S
13.380	38.1725	0.0000	57.477	2.47286	0.00000	670821.3	282356.9	0.0	S
13.440	37.6965	0.0000	57.506	2.47202	0.00000	679015.1	282891.0	0.0	S
13.500	37.3031	0.0000	57.533	2.47135	0.00000	687115.1	283424.8	0.0	S
13.560	36.9823	0.0000	57.561	2.47101	0.00000	695137.9	283958.6	0.0	S
13.620	36.7189	0.0000	57.588	2.47105	0.00000	703097.7	284492.3	0.0	S
13.680	36.5021	0.0000	57.615	2.47150	0.00000	711005.6	285026.1	0.0	S
13.740	36.3238	0.0000	57.642	2.47236	0.00000	718870.8	285560.0	0.0	S
13.800	36.1794	0.0000	57.669	2.47364	0.00000	726701.1	286094.2	0.0	S
13.860	36.0590	0.0000	57.696	2.47531	0.00000	734502.8	286628.6	0.0	S
13.920	35.9579	0.0000	57.722	2.47735	0.00000	742280.6	287163.5	0.0	S
13.980	35.8841	0.0000	57.749	2.47977	0.00000	750039.6	287698.8	0.0	S
14.040	35.8290	0.0000	57.775	2.48256	0.00000	757784.6	288234.8	0.0	S
14.100	35.7888	0.0000	57.801	2.48569	0.00000	765519.3	288771.3	0.0	S
14.160	35.7617	0.0000	57.828	2.48916	0.00000	773246.8	289308.6	0.0	S
14.220	35.7437	0.0000	57.854	2.49293	0.00000	780969.4	289846.6	0.0	S
14.280	35.7356	0.0000	57.880	2.49700	0.00000	788689.1	290385.5	0.0	S
14.340	35.7373	0.0000	57.906	2.50135	0.00000	796408.2	290925.3	0.0	S
14.400	35.7487	0.0000	57.932	2.50597	0.00000	804128.7	291466.1	0.0	S
14.460	35.7667	0.0000	57.958	2.51085	0.00000	811852.3	292007.9	0.0	S
14.520	35.7910	0.0000	57.984	2.51598	0.00000	819580.6	292550.8	0.0	S
14.580	35.8207	0.0000	58.010	2.52134	0.00000	827314.6	293094.8	0.0	S
14.640	35.8542	0.0000	58.036	2.52692	0.00000	835055.5	293640.0	0.0	S
14.700	35.8915	0.0000	58.062	2.53271	0.00000	842804.1	294186.4	0.0	S
14.760	35.9325	0.0000	58.088	2.53869	0.00000	850561.1	294734.1	0.0	S
14.820	35.9768	0.0000	58.114	2.54486	0.00000	858327.3	295283.2	0.0	S
14.880	36.0233	0.0000	58.140	2.55121	0.00000	866103.3	295833.5	0.0	S
14.940	36.0721	0.0000	58.166	2.55772	0.00000	873889.6	296385.3	0.0	S
15.000	36.1233	0.0000	58.192	2.56432	0.00000	881686.7	296938.4	0.0	S
15.060	36.1034	0.0000	58.218	2.57072	0.00000	889487.2	297493.1	0.0	S
15.120	35.9628	0.0000	58.244	2.57647	0.00000	897270.3	298049.0	0.0	S
15.180	35.6399	0.0000	58.270	2.58106	0.00000	905003.4	298606.1	0.0	S
15.240	35.1153	0.0000	58.295	2.58420	0.00000	912645.0	299164.0	0.0	S
15.300	34.5593	0.0000	58.320	2.58607	0.00000	920169.8	299722.5	0.0	S
15.360	34.0291	0.0000	58.345	2.58709	0.00000	927577.4	300281.2	0.0	S
15.420	33.5758	0.0000	58.369	2.58767	0.00000	934878.7	300840.1	0.0	S
15.480	33.2001	0.0000	58.393	2.58810	0.00000	942090.5	301399.1	0.0	S
15.540	32.8893	0.0000	58.416	2.58858	0.00000	949228.2	301958.2	0.0	S
15.600	32.6346	0.0000	58.439	2.58920	0.00000	956304.8	302517.3	0.0	S
15.660	32.4232	0.0000	58.462	2.59001	0.00000	963331.0	303076.7	0.0	S
15.720	32.2449	0.0000	58.485	2.59102	0.00000	970315.1	303636.2	0.0	S
15.780	32.0932	0.0000	58.508	2.59225	0.00000	977263.6	304196.0	0.0	S
15.840	31.9656	0.0000	58.530	2.59368	0.00000	984182.0	304756.1	0.0	S
15.900	31.8458	0.0000	58.553	2.59530	0.00000	991073.6	305316.5	0.0	S
15.960	31.7520	0.0000	58.575	2.59709	0.00000	997942.2	305877.3	0.0	S
16.020	31.6486	0.0000	58.597	2.59891	0.00000	1004789.0	306438.4	0.0	S
16.080	31.4674	0.0000	58.620	2.60042	0.00000	1011606.0	307000.0	0.0	S
16.140	31.1538	0.0000	58.641	2.60114	0.00000	1018369.0	307561.8	0.0	S
16.200	30.6584	0.0000	58.663	2.60063	0.00000	1025045.0	308123.7	0.0	S
16.260	30.0223	0.0000	58.684	2.59875	0.00000	1031598.0	308685.3	0.0	S
16.320	29.3807	0.0000	58.705	2.59576	0.00000	1038014.0	309246.3	0.0	S
16.380	28.7885	0.0000	58.725	2.59210	0.00000	1044296.0	309806.6	0.0	S
16.440	28.2815	0.0000	58.745	2.58814	0.00000	1050460.0	310366.1	0.0	S
16.500	27.8559	0.0000	58.764	2.58416	0.00000	1056523.0	310924.7	0.0	S
16.560	27.5002	0.0000	58.783	2.58033	0.00000	1062501.0	311482.5	0.0	S
16.620	27.2018	0.0000	58.802	2.57671	0.00000	1068409.0	312039.4	0.0	S
16.680	26.9485	0.0000	58.821	2.57336	0.00000	1074257.0	312595.6	0.0	S
16.740	26.7314	0.0000	58.839	2.57029	0.00000	1080054.0	313151.1	0.0	S
16.800	26.5449	0.0000	58.857	2.56749	0.00000	1085808.0	313706.0	0.0	S
16.860	26.3809	0.0000	58.875	2.56494	0.00000	1091524.0	314260.3	0.0	S
16.920	26.2339	0.0000	58.893	2.56266	0.00000	1097207.0	314814.0	0.0	S
16.980	26.1126	0.0000	58.911	2.56063	0.00000	1102860.0	315367.3	0.0	S
17.040	26.0076	0.0000	58.929	2.55887	0.00000	1108489.0	315920.2	0.0	S
17.100	25.9162	0.0000	58.946	2.55734	0.00000	1114097.0	316472.8	0.0	S
17.160	25.8365	0.0000	58.964	2.55605	0.00000	1119686.0	317025.0	0.0	S
17.220	25.7662	0.0000	58.982	2.55497	0.00000	1125259.0	317577.0	0.0	S
17.280	25.7053	0.0000	58.999	2.55365	0.00000	1130818.0	318128.8	0.0	S
17.340	25.6536	0.0000	59.016	2.55132	0.00000	1136365.0	318680.2	0.0	S
17.400	25.6108	0.0000	59.033	2.54795	0.00000	1141901.0	319230.9	0.0	S
17.460	25.5758	0.0000	59.050	2.54401	0.00000	1147430.0	319780.9	0.0	S
17.520	25.5481	0.0000	59.066	2.53972	0.00000	1152951.0	320329.9	0.0	S
17.580	25.5268	0.0000	59.082	2.53521	0.00000	1158467.0	320878.0	0.0	S
17.640	25.5102	0.0000	59.098	2.53080	0.00000	1163979.0	321425.1	0.0	S
17.700	25.4983	0.0000	59.113	2.52703	0.00000	1169488.0	321971.3	0.0	S

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Detailed Results (cont.d.) :: Scenario 5 :: Post-development 100 year-24 hour

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
17.760	25.4909	0.0000	59.129	2.52400	0.00000	1174995.0	322516.8	0.0	S
17.820	25.4877	0.0000	59.144	2.52148	0.00000	1180501.0	323061.7	0.0	S
17.880	25.4875	0.0000	59.160	2.51932	0.00000	1186006.0	323606.1	0.0	S
17.940	25.4905	0.0000	59.175	2.51745	0.00000	1191512.0	324150.0	0.0	S
18.000	25.4966	0.0000	59.190	2.51583	0.00000	1197018.0	324693.6	0.0	S
18.060	25.5055	0.0000	59.206	2.51443	0.00000	1202526.0	325236.9	0.0	S
18.120	25.5170	0.0000	59.221	2.51323	0.00000	1208037.0	325779.8	0.0	S
18.180	25.5305	0.0000	59.236	2.51221	0.00000	1213550.0	326322.6	0.0	S
18.240	25.5456	0.0000	59.252	2.51135	0.00000	1219066.0	326865.1	0.0	S
18.300	25.5621	0.0000	59.267	2.51064	0.00000	1224586.0	327407.5	0.0	S
18.360	25.5798	0.0000	59.282	2.51007	0.00000	1230109.0	327949.7	0.0	S
18.420	25.5983	0.0000	59.297	2.50963	0.00000	1235636.0	328491.8	0.0	S
18.480	25.6167	0.0000	59.312	2.50930	0.00000	1241167.0	329033.9	0.0	S
18.540	25.6351	0.0000	59.327	2.50908	0.00000	1246703.0	329575.9	0.0	S
18.600	25.6535	0.0000	59.343	2.50896	0.00000	1252242.0	330117.8	0.0	S
18.660	25.6718	0.0000	59.358	2.50894	0.00000	1257785.0	330659.7	0.0	S
18.720	25.6900	0.0000	59.373	2.50899	0.00000	1263332.0	331201.7	0.0	S
18.780	25.7082	0.0000	59.388	2.50913	0.00000	1268883.0	331743.6	0.0	S
18.840	25.7262	0.0000	59.403	2.50934	0.00000	1274438.0	332285.6	0.0	S
18.900	25.7443	0.0000	59.418	2.50963	0.00000	1279997.0	332827.7	0.0	S
18.960	25.7622	0.0000	59.433	2.50996	0.00000	1285559.0	333369.8	0.0	S
19.020	25.7554	0.0000	59.448	2.51019	0.00000	1291123.0	333912.0	0.0	S
19.080	25.6549	0.0000	59.463	2.51002	0.00000	1296676.0	334454.2	0.0	S
19.140	25.4051	0.0000	59.478	2.50902	0.00000	1302190.0	334996.3	0.0	S
19.200	24.9558	0.0000	59.492	2.50679	0.00000	1307629.0	335538.1	0.0	S
19.260	24.3513	0.0000	59.506	2.50323	0.00000	1312954.0	336079.2	0.0	S
19.320	23.7332	0.0000	59.520	2.49858	0.00000	1318147.0	336619.5	0.0	S
19.380	23.1599	0.0000	59.533	2.49325	0.00000	1323212.0	337158.6	0.0	S
19.440	22.6685	0.0000	59.546	2.48758	0.00000	1328161.0	337696.5	0.0	S
19.500	22.2558	0.0000	59.559	2.48184	0.00000	1333013.0	338233.3	0.0	S
19.560	21.9095	0.0000	59.571	2.47615	0.00000	1337783.0	338768.7	0.0	S
19.620	21.6188	0.0000	59.584	2.47061	0.00000	1342484.0	339302.9	0.0	S
19.680	21.3712	0.0000	59.596	2.46525	0.00000	1347127.0	339836.0	0.0	S
19.740	21.1569	0.0000	59.608	2.46008	0.00000	1351720.0	340367.9	0.0	S
19.800	20.9704	0.0000	59.619	2.45509	0.00000	1356270.0	340898.8	0.0	S
19.860	20.8045	0.0000	59.631	2.45029	0.00000	1360781.0	341428.5	0.0	S
19.920	20.6535	0.0000	59.642	2.44566	0.00000	1365259.0	341957.3	0.0	S
19.980	20.5264	0.0000	59.654	2.44122	0.00000	1369706.0	342485.1	0.0	S
20.040	20.4136	0.0000	59.665	2.43696	0.00000	1374128.0	343011.9	0.0	S
20.100	20.3128	0.0000	59.676	2.43287	0.00000	1378526.0	343537.8	0.0	S
20.160	20.2224	0.0000	59.687	2.42895	0.00000	1382904.0	344062.9	0.0	S
20.220	20.1408	0.0000	59.698	2.42518	0.00000	1387263.0	344587.1	0.0	S
20.280	20.0679	0.0000	59.709	2.42156	0.00000	1391606.0	345110.6	0.0	S
20.340	20.0035	0.0000	59.720	2.41809	0.00000	1395934.0	345633.3	0.0	S
20.400	19.9472	0.0000	59.731	2.41476	0.00000	1400248.0	346155.2	0.0	S
20.460	19.8989	0.0000	59.742	2.41158	0.00000	1404552.0	346676.4	0.0	S
20.520	19.8581	0.0000	59.753	2.40855	0.00000	1408845.0	347197.0	0.0	S
20.580	19.8239	0.0000	59.764	2.40566	0.00000	1413131.0	347716.9	0.0	S
20.640	19.7947	0.0000	59.774	2.40290	0.00000	1417410.0	348236.2	0.0	S
20.700	19.7704	0.0000	59.785	2.40027	0.00000	1421683.0	348755.0	0.0	S
20.760	19.7509	0.0000	59.796	2.39776	0.00000	1425951.0	349273.2	0.0	S
20.820	19.7357	0.0000	59.806	2.39538	0.00000	1430216.0	349790.8	0.0	S
20.880	19.7238	0.0000	59.817	2.39312	0.00000	1434477.0	350307.9	0.0	S
20.940	19.7152	0.0000	59.827	2.39097	0.00000	1438737.0	350824.6	0.0	S
21.000	19.7099	0.0000	59.838	2.38885	0.00000	1442995.0	351340.8	0.0	S
21.060	19.6287	0.0000	59.849	2.38652	0.00000	1447243.0	351856.6	0.0	S
21.120	19.4187	0.0000	59.859	2.38355	0.00000	1451460.0	352371.8	0.0	S
21.180	19.0136	0.0000	59.869	2.37949	0.00000	1455611.0	352886.3	0.0	S
21.240	18.3929	0.0000	59.879	2.37409	0.00000	1459651.0	353399.8	0.0	S
21.300	17.7404	0.0000	59.889	2.36753	0.00000	1463553.0	353911.9	0.0	S
21.360	17.1177	0.0000	59.898	2.36020	0.00000	1467318.0	354422.5	0.0	S
21.420	16.5796	0.0000	59.907	2.35249	0.00000	1470957.0	354931.5	0.0	S
21.480	16.1266	0.0000	59.915	2.34468	0.00000	1474490.0	355438.8	0.0	S
21.540	15.7450	0.0000	59.923	2.33693	0.00000	1477932.0	355944.4	0.0	S
21.600	15.4249	0.0000	59.931	2.32933	0.00000	1481298.0	356448.4	0.0	S
21.660	15.1526	0.0000	59.939	2.32192	0.00000	1484600.0	356950.7	0.0	S
21.720	14.9169	0.0000	59.947	2.31471	0.00000	1487848.0	357451.4	0.0	S
21.780	14.7107	0.0000	59.954	2.30772	0.00000	1491048.0	357950.7	0.0	S
21.840	14.5313	0.0000	59.962	2.30092	0.00000	1494206.0	358448.4	0.0	S
21.900	14.3609	0.0000	59.969	2.29431	0.00000	1497326.0	358944.6	0.0	S
21.960	14.2194	0.0000	59.976	2.28788	0.00000	1500413.0	359439.5	0.0	S
22.020	14.0683	0.0000	59.983	2.28149	0.00000	1503468.0	359933.0	0.0	S
22.080	13.8349	0.0000	59.990	2.27484	0.00000	1506482.0	360425.1	0.0	S
22.140	13.4611	0.0000	59.997	2.26750	0.00000	1509430.0	360915.8	0.0	S

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Detailed Results (cont.d.) :: Scenario 5 :: Post-development 100 year-24 hour

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
22.200	12.8944	0.0000	60.004	2.25908	0.00000	1512276.0	361404.7	0.0	S
22.260	12.1789	0.0000	60.010	2.24947	0.00000	1514984.0	361891.7	0.0	S
22.320	11.4591	0.0000	60.016	2.23892	0.00000	1517537.0	362376.4	0.0	S
22.380	10.7936	0.0000	60.021	2.22781	0.00000	1519940.0	362858.9	0.0	S
22.440	10.2205	0.0000	60.026	2.21649	0.00000	1522210.0	363338.8	0.0	S
22.500	9.7355	0.0000	60.030	2.20520	0.00000	1524365.0	363816.4	0.0	S
22.560	9.3262	0.0000	60.035	2.19407	0.00000	1526423.0	364291.5	0.0	S
22.620	8.9789	0.0000	60.039	2.18319	0.00000	1528400.0	364764.2	0.0	S
22.680	8.6808	0.0000	60.043	2.17258	0.00000	1530308.0	365234.7	0.0	S
22.740	8.4219	0.0000	60.047	2.16226	0.00000	1532155.0	365702.8	0.0	S
22.800	8.1964	0.0000	60.050	2.15221	0.00000	1533950.0	366168.8	0.0	S
22.860	7.9954	0.0000	60.054	2.14243	0.00000	1535698.0	366632.5	0.0	S
22.920	7.8132	0.0000	60.057	2.13291	0.00000	1537406.0	367094.3	0.0	S
22.980	7.6590	0.0000	60.061	2.12365	0.00000	1539077.0	367554.0	0.0	S
23.040	7.5230	0.0000	60.064	2.11466	0.00000	1540716.0	368011.7	0.0	S
23.100	7.4027	0.0000	60.067	2.10593	0.00000	1542328.0	368467.5	0.0	S
23.160	7.2966	0.0000	60.070	2.09743	0.00000	1543916.0	368921.4	0.0	S
23.220	7.2024	0.0000	60.073	2.08917	0.00000	1545482.0	369373.6	0.0	S
23.280	7.1193	0.0000	60.076	2.08113	0.00000	1547028.0	369824.0	0.0	S
23.340	7.0463	0.0000	60.079	2.07332	0.00000	1548558.0	370272.6	0.0	S
23.400	6.9826	0.0000	60.082	2.06571	0.00000	1550073.0	370719.6	0.0	S
23.460	6.9268	0.0000	60.085	2.05831	0.00000	1551576.0	371165.0	0.0	S
23.520	6.8784	0.0000	60.088	2.05110	0.00000	1553067.0	371608.8	0.0	S
23.580	6.8366	0.0000	60.091	2.04408	0.00000	1554548.0	372051.1	0.0	S
23.640	6.7997	0.0000	60.094	2.03724	0.00000	1556021.0	372491.9	0.0	S
23.700	6.7676	0.0000	60.096	2.03058	0.00000	1557486.0	372931.2	0.0	S
23.760	6.7404	0.0000	60.099	2.02408	0.00000	1558945.0	373369.1	0.0	S
23.820	6.7175	0.0000	60.102	2.01774	0.00000	1560398.0	373805.6	0.0	S
23.880	6.6979	0.0000	60.105	2.01156	0.00000	1561847.0	374240.8	0.0	S
23.940	6.6817	0.0000	60.108	2.00553	0.00000	1563292.0	374674.6	0.0	S
24.000	6.6688	0.0000	60.110	1.99957	0.00000	1564734.0	375107.1	0.0	S
24.060	6.5795	0.0000	60.113	1.99342	0.00000	1566165.0	375538.4	0.0	S
24.120	6.3602	0.0000	60.116	1.98668	0.00000	1567562.0	375968.3	0.0	S
24.180	5.9442	0.0000	60.118	1.97889	0.00000	1568891.0	376396.6	0.0	S
24.240	5.3110	0.0000	60.120	1.96981	0.00000	1570107.0	376823.2	0.0	S
24.300	4.6462	0.0000	60.122	1.95960	0.00000	1571182.0	377247.6	0.0	S
24.360	4.0117	0.0000	60.123	1.94867	0.00000	1572117.0	377669.7	0.0	S
24.420	3.4630	0.0000	60.125	1.93738	0.00000	1572924.0	378089.4	0.0	S
24.480	3.0005	0.0000	60.125	1.92601	0.00000	1573622.0	378506.7	0.0	S
24.540	2.6102	0.0000	60.126	1.91473	0.00000	1574228.0	378921.5	0.0	S
24.600	2.2821	0.0000	60.126	1.90361	0.00000	1574757.0	379333.8	0.0	S
24.660	2.0025	0.0000	60.126	1.89271	0.00000	1575219.0	379743.8	0.0	S
24.720	1.7600	0.0000	60.126	1.88203	0.00000	1575626.0	380151.5	0.0	S
24.780	1.5473	0.0000	60.126	1.87157	0.00000	1575983.0	380556.8	0.0	S
24.840	1.3617	0.0000	60.126	1.86134	0.00000	1576297.0	380960.0	0.0	S
24.900	1.1855	0.0000	60.126	1.85131	0.00000	1576572.0	381360.9	0.0	S
24.960	1.0384	0.0000	60.125	1.84150	0.00000	1576812.0	381759.8	0.0	S
25.020	0.9072	0.0000	60.125	1.83190	0.00000	1577022.0	382156.5	0.0	S
25.080	0.7899	0.0000	60.124	1.82251	0.00000	1577206.0	382551.2	0.0	S
25.140	0.6852	0.0000	60.123	1.81332	0.00000	1577365.0	382943.8	0.0	S
25.200	0.5918	0.0000	60.123	1.80433	0.00000	1577503.0	383334.5	0.0	S
25.260	0.5083	0.0000	60.122	1.79553	0.00000	1577622.0	383723.3	0.0	S
25.320	0.4341	0.0000	60.121	1.78691	0.00000	1577724.0	384110.2	0.0	S
25.380	0.3678	0.0000	60.120	1.77847	0.00000	1577810.0	384495.2	0.0	S
25.440	0.3095	0.0000	60.120	1.77020	0.00000	1577883.0	384878.5	0.0	S
25.500	0.2585	0.0000	60.119	1.76211	0.00000	1577945.0	385259.9	0.0	S
25.560	0.2147	0.0000	60.118	1.75418	0.00000	1577996.0	385639.7	0.0	S
25.620	0.1758	0.0000	60.117	1.74641	0.00000	1578038.0	386017.8	0.0	S
25.680	0.1417	0.0000	60.116	1.73880	0.00000	1578072.0	386394.2	0.0	S
25.740	0.1124	0.0000	60.115	1.73134	0.00000	1578100.0	386768.9	0.0	S
25.800	0.0878	0.0000	60.114	1.72403	0.00000	1578121.0	387142.1	0.0	S
25.860	0.0666	0.0000	60.113	1.71686	0.00000	1578138.0	387513.7	0.0	S
25.920	0.0487	0.0000	60.112	1.70983	0.00000	1578150.0	387883.8	0.0	S
25.980	0.0341	0.0000	60.111	1.70293	0.00000	1578159.0	388252.3	0.0	S
26.040	0.0229	0.0000	60.110	1.69616	0.00000	1578165.0	388619.4	0.0	S
26.100	0.0143	0.0000	60.109	1.68951	0.00000	1578169.0	388985.1	0.0	S
26.160	0.0083	0.0000	60.108	1.68299	0.00000	1578172.0	389349.3	0.0	S
26.220	0.0040	0.0000	60.107	1.67659	0.00000	1578173.0	389712.1	0.0	S
26.280	0.0013	0.0000	60.106	1.67030	0.00000	1578174.0	390073.6	0.0	S
26.340	0.0000	0.0000	60.105	1.66411	0.00000	1578174.0	390433.7	0.0	S
26.400	0.0000	0.0000	60.104	1.65803	0.00000	1578174.0	390792.5	0.0	S
26.460	0.0000	0.0000	60.103	1.65339	0.00000	1578174.0	391150.0	0.0	S
50.460	0.0000	0.0000	59.863	0.86325	0.00000	1578174.0	477698.8	0.0	S
74.460	0.0000	0.0000	59.684	0.65043	0.00000	1578174.0	540319.3	0.0	S

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Detailed Results (cont.d.) :: Scenario 5 :: Post-development 100 year-24 hour

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
98.460	0.0000	0.0000	59.539	0.52965	0.00000	1578174.0	590092.3	0.0	S
122.460	0.0000	0.0000	59.415	0.45118	0.00000	1578174.0	631842.5	0.0	S
146.460	0.0000	0.0000	59.306	0.39549	0.00000	1578174.0	668056.6	0.0	S
170.460	0.0000	0.0000	59.208	0.35350	0.00000	1578174.0	700182.6	0.0	S
194.460	0.0000	0.0000	59.118	0.32014	0.00000	1578174.0	729141.9	0.0	S
218.460	0.0000	0.0000	59.033	0.29203	0.00000	1578174.0	755502.9	0.0	S
242.460	0.0000	0.0000	58.950	0.26839	0.00000	1578174.0	779605.0	0.0	S
266.460	0.0000	0.0000	58.872	0.24893	0.00000	1578174.0	801879.9	0.0	S
290.460	0.0000	0.0000	58.799	0.23241	0.00000	1578174.0	822619.3	0.0	S
314.460	0.0000	0.0000	58.731	0.21816	0.00000	1578174.0	842041.2	0.0	S
338.460	0.0000	0.0000	58.666	0.20568	0.00000	1578174.0	860317.0	0.0	S
362.460	0.0000	0.0000	58.605	0.19463	0.00000	1578174.0	877582.2	0.0	S
386.460	0.0000	0.0000	58.547	0.18477	0.00000	1578174.0	893949.0	0.0	S
410.460	0.0000	0.0000	58.492	0.17592	0.00000	1578174.0	909511.3	0.0	S
434.460	0.0000	0.0000	58.439	0.16790	0.00000	1578174.0	924347.2	0.0	S
458.460	0.0000	0.0000	58.389	0.16061	0.00000	1578174.0	938524.1	0.0	S
482.460	0.0000	0.0000	58.340	0.15394	0.00000	1578174.0	952099.8	0.0	S
506.460	0.0000	0.0000	58.294	0.14782	0.00000	1578174.0	965124.5	0.0	S
530.460	0.0000	0.0000	58.249	0.14217	0.00000	1578174.0	977642.1	0.0	S
554.460	0.0000	0.0000	58.206	0.13695	0.00000	1578174.0	989691.4	0.0	S
578.460	0.0000	0.0000	58.164	0.13210	0.00000	1578174.0	1001306.0	0.0	S
602.460	0.0000	0.0000	58.124	0.12758	0.00000	1578174.0	1012517.0	0.0	S
626.460	0.0000	0.0000	58.085	0.12336	0.00000	1578174.0	1023352.0	0.0	S
650.460	0.0000	0.0000	58.047	0.11941	0.00000	1578174.0	1033834.0	0.0	S
674.460	0.0000	0.0000	58.010	0.11571	0.00000	1578174.0	1043986.0	0.0	S
698.460	0.0000	0.0000	57.974	0.11222	0.00000	1578174.0	1053828.0	0.0	S
722.460	0.0000	0.0000	57.940	0.10894	0.00000	1578174.0	1063378.0	0.0	S
746.460	0.0000	0.0000	57.906	—	—	1578174.0	1072652.0	0.0	N.A.

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Detailed Results :: Scenario 6 :: WQTV Recovery

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
0.000	40.0000	0.0000	54.000	0.00000	0.00000	0.0	0.0	0.0	N.A.
0.002	40.0000	0.0000	54.003	39.97222	0.00000	240.0	240.0	0.0	U
2.400	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry
6.000	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry
12.000	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry
24.000	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry
36.000	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry
48.000	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry
60.000	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry
72.000	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry
84.000	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry
96.000	0.0000	0.0000	—	—	—	240.0	240.0	0.0	dry

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Project Data

Project Name: Copeland Park Storm 2
Simulation Description: Post-development Analysis
Project Number: 02-095
Engineer : Ben F. Prewitt, E.I.
Supervising Engineer: Rory P. Causseaux, P.E.
Date: 07-02-2004

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum): 49.00
Water Table Elevation, [WT] (ft datum): 57.90
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day): 40.00
Fillable Porosity, [n] (%): 25.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day): 40.0
Maximum Area For Unsaturated Infiltration, [Av] (ft²): 444714.0

Geometry Data

Equivalent Pond Length, [L] (ft): 1173.0
Equivalent Pond Width, [W] (ft): 308.0
Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft²)
57.91	275000.0
58.00	276223.0
59.00	286859.0
59.10	319368.0
60.00	361197.0
61.00	404206.0
62.00	444714.0

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Scenario Input Data

Scenario 1 :: Post-development 100 year-1 hour

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 71.660
Time Of Concentration (minutes) 27.0
DCIA (%) 0.0
Curve Number 65
Design Rainfall Depth (inches) 4.5
Design Rainfall Duration (hours) 1.0
Shape Factor UHG 323
Rainfall Distribution FDOT 1 Hour

Initial ground water level (ft datum) default, 57.90

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	6.000	11.000
2.000	7.000	12.000
3.000	8.000	13.000
4.000	9.000	14.000
5.000	10.000	

Scenario 2 :: Post-development 100 year-2 hour

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 71.660
Time Of Concentration (minutes) 27.0
DCIA (%) 0.0
Curve Number 65
Design Rainfall Depth (inches) 5.6
Design Rainfall Duration (hours) 2.0
Shape Factor UHG 323
Rainfall Distribution FDOT 2 Hour

Initial ground water level (ft datum) default, 57.90

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	6.000	11.000
2.000	7.000	12.000
3.000	8.000	13.000
4.000	9.000	14.000
5.000	10.000	

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Scenario Input Data (cont'd.)

Scenario 3 :: Post-development 100 year-4 hour

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 71.660
Time Of Concentration (minutes) 27.0
DCIA (%) 0.0
Curve Number 65
Design Rainfall Depth (inches) 6.6
Design Rainfall Duration (hours) 4.0
Shape Factor UHG 323
Rainfall Distribution FDOT 4 Hour

Initial ground water level (ft datum) default, 57.90

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	6.000	11.000
2.000	7.000	12.000
3.000	8.000	13.000
4.000	9.000	14.000
5.000	10.000	

Scenario 4 :: Post-development 100 year-8 hour

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 71.660
Time Of Concentration (minutes) 27.0
DCIA (%) 0.0
Curve Number 65
Design Rainfall Depth (inches) 8.0
Design Rainfall Duration (hours) 8.0
Shape Factor UHG 323
Rainfall Distribution FDOT 8 Hour

Initial ground water level (ft datum) default, 57.90

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	6.000	11.000
2.000	7.000	12.000
3.000	8.000	13.000
4.000	9.000	14.000
5.000	10.000	

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Scenario Input Data (cont'd.)

Scenario 5 :: Post-development 100 year-24 hour

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 71.660
Time Of Concentration (minutes) 27.0
DCIA (%) 0.0
Curve Number 65
Design Rainfall Depth (inches) 10.6
Design Rainfall Duration (hours) 24.0
Shape Factor UHG 323
Rainfall Distribution FDOT 24 Hour

Initial ground water level (ft datum) default, 57.90

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
1.000	7.000	13.000	19.000	25.000
2.000	8.000	14.000	20.000	26.000
3.000	9.000	15.000	21.000	27.000
4.000	10.000	16.000	22.000	28.000
5.000	11.000	17.000	23.000	29.000
6.000	12.000	18.000	24.000	30.000

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Summary of Results :: Scenario 1 :: Post-development 100 year-1 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	57.90		
Maximum	2.880	58.79		
Inflow				
Rate - Maximum - Positive	0.900		125.9017	
Rate - Maximum - Negative	3.360		0.0000	
Cumulative Volume - Maximum Positive	3.360			347113.7
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	339.420			347113.7
Infiltration				
Rate - Maximum - Positive	0.780		110.2612	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	339.420			181026.2
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	339.420			181026.2
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	339.420			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Summary of Results :: Scenario 2 :: Post-development 100 year-2 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	57.90		
Maximum	3.600	59.39		
Inflow				
Rate - Maximum - Positive	1.080		119.6152	
Rate - Maximum - Negative	4.380		0.0000	
Cumulative Volume - Maximum Positive	4.380			538760.4
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	340.440			538760.4
Infiltration				
Rate - Maximum - Positive	0.900		96.7258	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	340.440			247280.1
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	340.440			247280.1
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	340.440			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Summary of Results :: Scenario 3 :: Post-development 100 year-4 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	57.90		
Maximum	5.280	59.92		
Inflow				
Rate - Maximum - Positive	2.640		111.6318	
Rate - Maximum - Negative	6.360		0.0000	
Cumulative Volume - Maximum Positive	6.360			729674.9
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	342.420			729674.9
Infiltration				
Rate - Maximum - Positive	1.980		66.0211	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	342.420			309335.8
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	342.420			309335.8
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	342.420			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Summary of Results :: Scenario 4 :: Post-development 100 year-8 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	57.90		
Maximum	9.180	60.64		
Inflow				
Rate - Maximum - Positive	4.140		129.6631	
Rate - Maximum - Negative	10.380		0.0000	
Cumulative Volume - Maximum Positive	10.380			1016065.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	346.440			1016065.0
Infiltration				
Rate - Maximum - Positive	3.480		63.4873	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	346.440			399876.3
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	346.440			399876.3
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	346.440			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Retention Pond Recovery - Refined Method
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Devo Seereeram, Ph.D., P.E.

Summary of Results :: Scenario 5 :: Post-development 100 year-24 hour

	Time (hours)	Stage (ft datum)	Rate (ft ³ /s)	Volume (ft ³)
Stage				
Minimum	0.000	57.90		
Maximum	24.840	61.87		
Inflow				
Rate - Maximum - Positive	12.060		50.3295	
Rate - Maximum - Negative	26.340		0.0000	
Cumulative Volume - Maximum Positive	26.340			1578174.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	746.460			1578174.0
Infiltration				
Rate - Maximum - Positive	8.640		16.1843	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	746.460			742536.9
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	746.460			742536.9
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	746.460			0.0
Discharge Structure 1 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

APPENDIX 'C'

Storm Pipe Sizing Calculations

02-095 COPELAND PARK

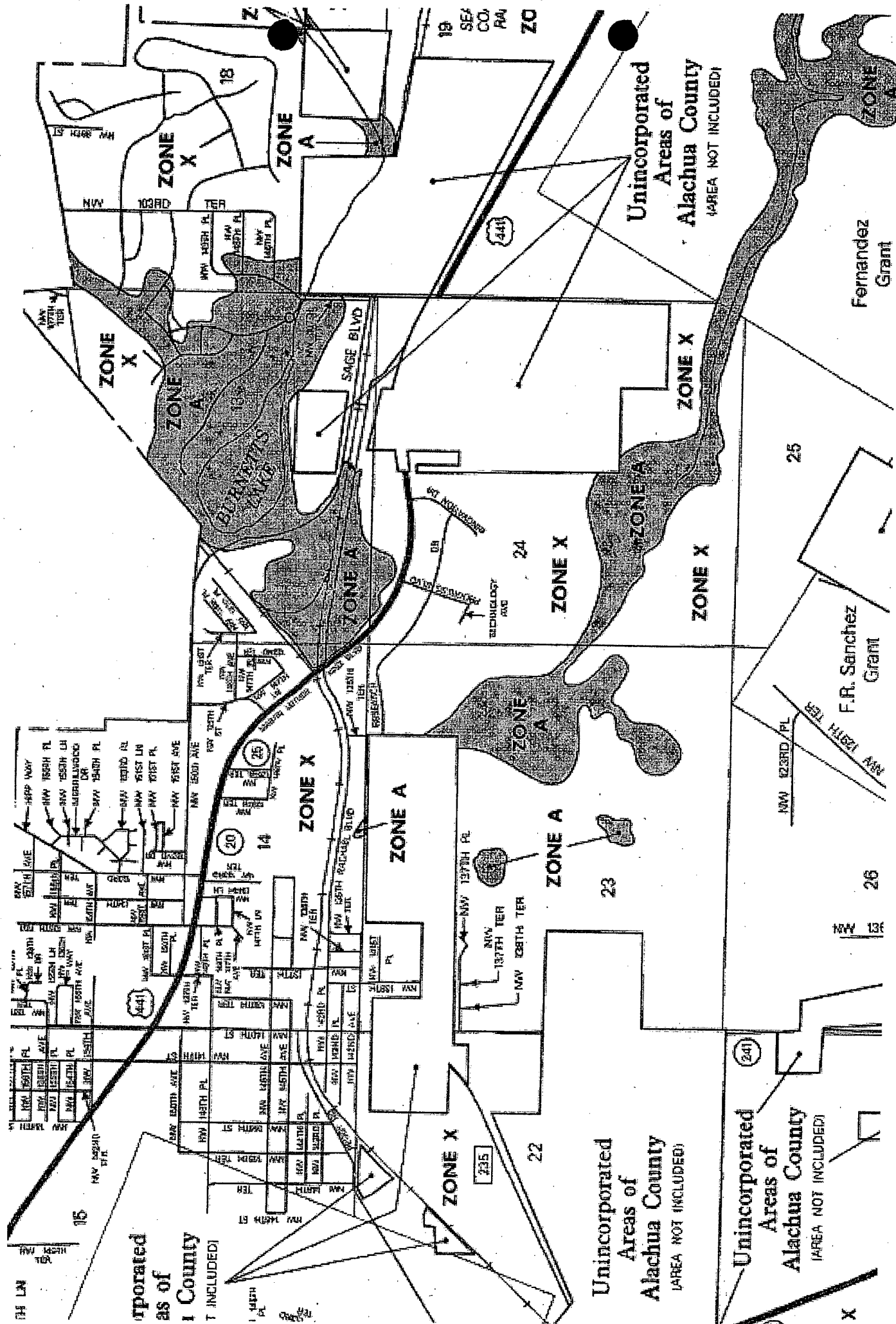
Structure No.	From	To	Invert Elev.		Length (ft)	Slope (ft/foot)	Dia. (in)	C.	i (in/hr)	A (ac)	Q (cfs)		Pipe A (sq-ft)	V (fps)	Pipe R (ft)	Minor Loss Coeff.	Minor Loss (ft)	Loss (ft)	HGL		ToG/ EoP	F.B. (in)
			U.S.	D.S.							Inc	Cumul							U.S.	D.S.		
S-1	S-2	S-3	67.25	66.60	325	0.0020	36	0.62	4.2	15.98	41.6	41.6	7.1	5.9	0.75	1.0	0.54	1.3	68.59	66.80	71.50	35
S-2	S-3	S-5	66.60	66.07	264	0.0020	36	0.00	0	0.00	0.0	41.6	7.1	5.9	0.75	0.5	0.27	1.0	66.80	65.51	76.10	112
S-3	S-5		66.07	65.27	400	0.0020	36	0.76	4.3	3.01	9.8	51.4	7.1	7.3	0.75	1.0	0.82	2.4	65.51	62.32	73.49	96
S-4	S-5		65.90	65.77	44	0.0030	30	0.76	4.3	9.80	32.0	32.0	4.9	6.5	0.63	1.0	0.66	0.3	63.24	62.32	71.74	102
S-5	S-6		64.27	63.99	136	0.0021	48	0.76	4.2	4.40	14.0	97.5	12.6	7.8	1.00	1.0	0.94	0.6	62.32	60.76	71.74	113
S-6	S-7		63.99	63.75	118	0.0020	48	0.00	0	0.00	0.0	97.5	12.6	7.8	1.00	0.5	0.47	0.5	60.76	59.75	72.15	137
S-7	S-12		63.75	63.47	139	0.0020	48	0.00	0	0.00	0.0	97.5	12.6	7.8	1.00	0.5	0.47	0.6	59.75	58.64	72.70	155
S-8	S-9		70.75	69.73	253	0.0040	18	0.35	6.2	3.18	6.9	6.9	1.8	3.9	0.38	1.0	0.24	1.1	64.75	63.43	74.25	114
S-9	S-10		69.73	68.84	253	0.0035	18	0.00	0	0.00	0.0	6.9	1.8	3.9	0.38	0.5	0.12	1.1	63.43	62.22	79.50	193
S-10	S-11		68.84	67.44	398	0.0035	18	0.00	0	0.00	0.0	6.9	1.8	3.9	0.38	0.5	0.12	1.7	62.22	60.40	81.10	227
S-11	S-12		67.44	67.28	45	0.0036	18	0.76	4.3	2.15	7.0	13.9	1.8	7.9	0.38	1.0	0.96	0.8	60.40	58.64	73.30	155
S-12	S-13		62.47	56.80	400	0.0142	60	0.50	6.2	0.28	0.9	112.3	19.6	5.7	1.25	1.0	0.51	0.7	58.64	57.40	73.35	176
S-13	S-14		56.80	56.00	115	0.0070	60	0.00	0	0.00	0.0	112.3	19.6	5.7	1.25	0.5	0.25	0.2	57.40	56.93	69.10	140
S-15	S-16		61.85	60.85	48	0.0208	15	0.35	4.8	4.15	7.0	7.0	1.2	5.7	0.31	1.0	0.50	0.6	66.14	65.09	66.00	-2
S-16	S-17		60.85	60.17	192	0.0035	18	0.00	0	0.00	0.0	7.0	1.8	3.9	0.38	0.5	0.12	0.8	65.09	64.13	64.50	.7
S-17	S-18		60.17	59.16	287	0.0035	18	0.00	0	0.00	0.0	7.0	1.8	3.9	0.38	0.5	0.12	1.3	64.13	62.75	75.60	138
S-18	S-19		59.16	59.00	44	0.0036	18	0.76	6.2	0.52	2.5	9.4	1.8	5.3	0.38	1.0	0.44	0.4	62.75	61.95	73.20	125
S-19	S-20		59.00	58.44	160	0.0035	18	0.50	6.2	0.19	0.6	10.0	1.8	5.7	0.38	1.0	0.50	1.4	61.95	60.01	73.21	135
S-20	S-22		58.44	57.44	159	0.0063	18	0.50	6.2	0.12	0.4	10.4	1.8	5.9	0.38	1.0	0.54	1.5	60.01	57.93	66.31	76
S-21	S-22		58.85	58.69	44	0.0036	24	0.76	4.2	6.68	21.3	21.3	3.1	6.8	0.50	1.0	0.72	0.4	59.03	57.93	63.35	52
S-22	S-23		56.44	56.00	55	0.0080	30	0.50	6.2	0.12	0.4	32.1	4.9	6.5	0.63	1.0	0.66	0.3	57.93	56.93	63.35	65
S-24	S-25		57.18	56.80	44	0.0086	24	0.76	4.2	7.20	23.0	23.0	3.1	7.3	0.50	1.0	0.83	0.5	59.92	58.63	61.68	21
S-24	S-26		56.80	56.00	64	0.0125	24	0.50	6.2	0.52	1.6	24.6	3.1	7.8	0.50	1.0	0.95	0.8	58.63	56.93	61.68	37

Notes

1. See separate document for explanation of methodology
2. ToG = Top of Grate/EoP = Edge of Pavement
3. FB= Free Board
4. Pipe sizing is based on Zone 5 -Rainfall Intensity-Duration-Frequency with a beginning Down Stream Hydraulic Grade Line starting at the 100 Year - 1 hour Rainfall I.D.F. Storm Pipe Simulation.
5. Highlighted cells are inlets in swales where Minimal inlet inundation is contained on-site within depressional areas around buildings, etc..

APPENDIX 'D'

FEMA Flood Map



Nodes

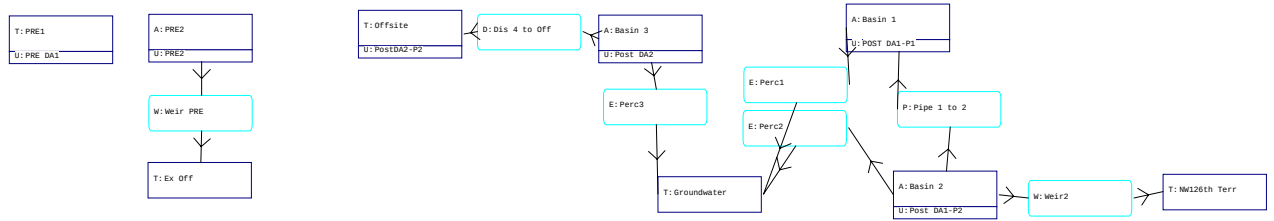
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins

O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links

P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



=====
Basins
=====

Name: POST DA1-P1 Group: BASE	Node: Basin 1 Type: SCS Unit Hydrograph CN	Status: Onsite
Unit Hydrograph: Uh323 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 0.370 Curve Number: 74.00 DCIA(%): 0.00	Peaking Factor: 323.0 Storm Duration(hrs): 0.00 Time of Conc(min): 10.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000	

Name: Post DA1-P2 Group: BASE	Node: Basin 2 Type: SCS Unit Hydrograph CN	Status: Onsite
Unit Hydrograph: Uh323 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 0.370 Curve Number: 74.00 DCIA(%): 0.00	Peaking Factor: 323.0 Storm Duration(hrs): 0.00 Time of Conc(min): 10.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000	

Name: Post DA2 Group: BASE	Node: Basin 3 Type: SCS Unit Hydrograph CN	Status: Onsite
Unit Hydrograph: Uh323 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 1.830 Curve Number: 54.00 DCIA(%): 0.00	Peaking Factor: 323.0 Storm Duration(hrs): 0.00 Time of Conc(min): 10.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000	

Name: PostDA2-P2 Group: BASE	Node: Offsite Type: SCS Unit Hydrograph CN	Status: Onsite
Unit Hydrograph: Uh323 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 2.660 Curve Number: 39.00 DCIA(%): 0.00	Peaking Factor: 323.0 Storm Duration(hrs): 0.00 Time of Conc(min): 15.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000	

Name: PRE DA1 Group: BASE	Node: PRE1 Type: SCS Unit Hydrograph CN	Status: Onsite
Unit Hydrograph: Uh323 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 4.490 Curve Number: 50.00 DCIA(%): 0.00	Peaking Factor: 323.0 Storm Duration(hrs): 0.00 Time of Conc(min): 10.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000	

Name: PRE2 Group: BASE	Node: PRE2 Type: SCS Unit Hydrograph CN	Status: Onsite
Unit Hydrograph: Uh323 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 0.680 Curve Number: 64.00 DCIA(%): 0.00	Peaking Factor: 323.0 Storm Duration(hrs): 0.00 Time of Conc(min): 10.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000	

=====
Nodes
=====

Name: Basin 1 Group: BASE Type: Stage/Area	Base Flow(cfs): 0.000	Init Stage(ft): 68.250 Warn Stage(ft): 70.000
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Stage(ft)	Area(ac)
68.250	0.0320
69.000	0.0460
70.000	0.0660
71.000	0.0870

Name: Basin 2	Base Flow(cfs): 0.000	Init Stage(ft): 68.250
Group: BASE		warn Stage(ft): 70.000
Type: Stage/Area		

Stage(ft)	Area(ac)
68.250	0.0240
69.000	0.0310
70.000	0.0410
71.000	0.0520

Name: Basin 3	Base Flow(cfs): 0.000	Init Stage(ft): 68.500
Group: BASE		warn Stage(ft): 70.000
Type: Stage/Area		

Stage(ft)	Area(ac)
68.500	0.1460
69.000	0.1570
70.000	0.1870
71.000	0.2200

Name: Ex Off	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
999.00	0.000

Name: Groundwater	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
99999.00	0.000

Name: NW126th Terr	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
99999.00	0.000

Name: Offsite	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
9999999.00	0.000

Name: PRE1	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
99999.00	0.000

Name: PRE2	Base Flow(cfs): 0.000	Init Stage(ft): 69.000
Group: BASE		Warn Stage(ft): 70.000
Type: Stage/Area		

Stage(ft)	Area(ac)
69.000	0.0060
70.000	0.0560

==== Pipes =====

Name: Pipe 1 to 2	From Node: Basin 2	Length(ft): 109.00
Group: BASE	To Node: Basin 1	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 15.00	15.00	Flow: Both
Rise(in): 15.00	15.00	Entrance Loss Coef: 0.00
Invert(ft): 68.860	68.860	Exit Loss Coef: 1.00
Manning's N: 0.013000	0.013000	Bend Loss Coef: 0.00
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
		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

==== Drop Structures =====

Name: Dis 4 to Off	From Node: Basin 3	Length(ft): 5.00
Group: BASE	To Node: Offsite	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 15.00	15.00	Flow: Both
Rise(in): 15.00	15.00	Entrance Loss Coef: 0.000
Invert(ft): 68.500	67.000	Exit Loss Coef: 1.000
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Solution Incs: 10

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

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

*** Weir 1 of 1 for Drop Structure Dis 4 to Off ***

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Vertical: Mavis	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 26.00	Invert(ft): 69.750	
Rise(in): 3.00	Control Elev(ft): 69.750	

==== Weirs =====

Name: Weir PRE	From Node: PRE2
Group: BASE	To Node: Ex Off
Flow: Both	Count: 1
Type: Horizontal	Geometry: Rectangular
Span(in): 600.00	

Rise(in): 120.00
Invert(ft): 70.000
Control Elevation(ft): 70.000

TABLE

Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

Name: Weir2 From Node: Basin 2
Group: BASE To Node: NW126th Terr
Flow: Both Count: 1
Type: Horizontal Geometry: Circular

Span(in): 5.75
Rise(in): 5.75
Invert(ft): 69.500
Control Elevation(ft): 69.500

TABLE

Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

==== Percolation Links =====

Name: Perc1 From Node: Basin 1 Flow: Both
Group: BASE To Node: Groundwater Count: 1

Surface Area Option: Vary based on Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 64.650 Perimeter 1(ft): 383.560
Water Table Elev(ft): 65.150 Perimeter 2(ft): 576.079
Ann Recharge Rate(in/year): 0.000 Perimeter 3(ft): 1374.330
Horiz Conductivity(ft/day): 11.000 Distance 1 to 2(ft): 50.000
Vert Conductivity(ft/day): 5.500 Distance 2 to 3(ft): 450.000
Effective Porosity(dec): 0.250 Num Cells 1 to 2: 10
Suction Head(in): 4.170 Num Cells 2 to 3: 45
Layer Thickness(ft): 3.100

Name: Perc2 From Node: Basin 2 Flow: Both
Group: BASE To Node: Groundwater Count: 1

Surface Area Option: Vary based on Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 64.650 Perimeter 1(ft): 175.433
Water Table Elev(ft): 65.150 Perimeter 2(ft): 359.140
Ann Recharge Rate(in/year): 0.000 Perimeter 3(ft): 1009.291
Horiz Conductivity(ft/day): 11.000 Distance 1 to 2(ft): 50.000
Vert Conductivity(ft/day): 5.500 Distance 2 to 3(ft): 450.000
Effective Porosity(dec): 0.250 Num Cells 1 to 2: 10
Suction Head(in): 4.170 Num Cells 2 to 3: 45
Layer Thickness(ft): 3.100

Name: Perc3 From Node: Basin 3 Flow: Both
Group: BASE To Node: Groundwater Count: 1

Surface Area Option: Vary based on Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 62.500 Perimeter 1(ft): 367.584
Water Table Elev(ft): 63.000 Perimeter 2(ft): 681.743
Ann Recharge Rate(in/year): 0.000 Perimeter 3(ft): 3509.176
Horiz Conductivity(ft/day): 15.000 Distance 1 to 2(ft): 50.000
Vert Conductivity(ft/day): 7.500 Distance 2 to 3(ft): 450.000
Effective Porosity(dec): 0.250 Num Cells 1 to 2: 10
Suction Head(in): 4.170 Num Cells 2 to 3: 45
Layer Thickness(ft): 5.500

==== Hydrology Simulations =====

Name: 100YR-001HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-001HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 1.00
 Rainfall File: Fdot-1
 Rainfall Amount(in): 4.40

Time(hrs)	Print	Inc(min)
721.000		5.00

Name: 100YR-002HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-002HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 2.00
 Rainfall File: Fdot-2
 Rainfall Amount(in): 5.40

Time(hrs)	Print	Inc(min)
722.000		5.00

Name: 100YR-004HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-004HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 4.00
 Rainfall File: Fdot-4
 Rainfall Amount(in): 6.72

Time(hrs)	Print	Inc(min)
724.000		5.00

Name: 100YR-008HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-008HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 8.00
 Rainfall File: Fdot-8
 Rainfall Amount(in): 8.00

Time(hrs)	Print	Inc(min)
728.000		5.00

Name: 100YR-024HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-024HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 24.00
 Rainfall File: Fdot-24
 Rainfall Amount(in): 11.04

Time(hrs)	Print	Inc(min)
744.000		5.00

Name: 100YR-072HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-072HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 72.00
 Rainfall File: Fdot-72
 Rainfall Amount(in): 13.80

Time(hrs)	Print	Inc(min)
792.000		5.00

Name: 100YR-168HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-168HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 168.00
 Rainfall File: Fdot-168
 Rainfall Amount(in): 16.00

Time(hrs)	Print	Inc(min)
888.000		5.00

Name: 100YR-240HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-240HR.R32

Override Defaults: Yes
Storm Duration(hrs): 240.00
Rainfall File: Fdot-240
Rainfall Amount(in): 18.00

Time(hrs)	Print Inc(min)
960.000	5.00

==== Routing Simulations =====

Name: 100YR-001HR Hydrology Sim: 100YR-001HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-001HR.I32

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 721.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
721.000	15.000

Group	Run
BASE	Yes

Name: 100YR-002HR Hydrology Sim: 100YR-002HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-002HR.I32

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 722.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
722.000	15.000

Group	Run
BASE	Yes

Name: 100YR-004HR Hydrology Sim: 100YR-004HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-004HR.I32

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 724.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
724.000	15.000

Group	Run
BASE	Yes

Name: 100YR-008HR Hydrology Sim: 100YR-008HR

Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-008HR.I32

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 728.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

728.000 15.000

Group Run

BASE Yes

Name: 100YR-024HR Hydrology Sim: 100YR-024HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-024HR.I32

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 744.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

744.000 15.000

Group Run

BASE Yes

Name: 100YR-072HR Hydrology Sim: 100YR-072HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-072HR.I32

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 792.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

792.000 15.000

Group Run

BASE Yes

Name: 100YR-168HR Hydrology Sim: 100YR-168HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-168HR.I32

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 888.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

888.000 15.000

Group Run

BASE Yes

Name: 100YR-240HR Hydrology Sim: 100YR-240HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-240HR.I32

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 840.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

840.000 15.000

Group Run

BASE Yes

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Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 34 of 567

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Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 100 of 567

Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 134 of 567

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-004HR	NW126th	Terr	722.01	0.00	0.00	0	0.00	0.00	0.0690	0.0000
100YR-004HR	NW126th	Terr	722.26	0.00	0.00	0	0.00	0.00	0.0690	0.0000
100YR-004HR	NW126th	Terr	722.51	0.00	0.00	0	0.00	0.00	0.0690	0.0000
100YR-004HR	NW126th	Terr	722.76	0.00	0.00	0	0.00	0.00	0.0690	0.0000
100YR-004HR	NW126th	Terr	723.01	0.00	0.00	0	0.00	0.00	0.0690	0.0000
100YR-004HR	NW126th	Terr	723.26	0.00	0.00	0	0.00	0.00	0.0690	0.0000
100YR-004HR	NW126th	Terr	723.51	0.00	0.00	0	0.00	0.00	0.0690	0.0000
100YR-004HR	NW126th	Terr	723.76	0.00	0.00	0	0.00	0.00	0.0690	0.0000
100YR-004HR	NW126th	Terr	724.01	0.00	0.00	0	0.00	0.00	0.0690	0.0000
100YR-004HR	PRE2	BASE	0.00	69.00	70.00	261	0.00	0.00	0.0000	0.0000
100YR-004HR	PRE2	BASE	0.26	69.00	70.00	261	0.00	0.00	0.0000	0.0000
100YR-004HR	PRE2	BASE	0.50	69.00	70.00	261	0.00	0.00	0.0000	0.0000
100YR-004HR	PRE2	BASE	0.77	69.00	70.00	261	0.00	0.00	0.0000	0.0000
100YR-004HR	PRE2	BASE	1.02	69.00	70.00	261	0.00	0.00	0.0000	0.0000
100YR-004HR	PRE2	BASE	1.26	69.04	70.00	348	0.06	0.00	0.0006	0.0000
100YR-004HR	PRE2	BASE	1.50	69.28	70.00	864	0.28	0.00	0.0039	0.0000
100YR-004HR	PRE2	BASE	1.75	69.63	70.00	1635	0.72	0.00	0.0143	0.0000
100YR-004HR	PRE2	BASE	2.00	70.02	70.00	2476	1.08	0.83	0.0329	0.0086
100YR-004HR	PRE2	BASE	2.25	70.02	70.00	2484	1.14	1.14	0.0559	0.0290
100YR-004HR	PRE2	BASE	2.50	70.02	70.00	2486	1.22	1.22	0.0803	0.0533
100YR-004HR	PRE2	BASE	2.75	70.02	70.00	2480	0.99	0.99	0.1031	0.0761
100YR-004HR	PRE2	BASE	3.00	70.02	70.00	2479	0.93	0.93	0.1231	0.0963
100YR-004HR	PRE2	BASE	3.25	70.01	70.00	2466	0.50	0.51	0.1380	0.1113
100YR-004HR	PRE2	BASE	3.51	70.01	70.00	2461	0.37	0.37	0.1472	0.1206
100YR-004HR	PRE2	BASE	3.76	70.01	70.00	2454	0.20	0.20	0.1529	0.1264
100YR-004HR	PRE2	BASE	4.00	70.01	70.00	2451	0.15	0.15	0.1564	0.1300
100YR-004HR	PRE2	BASE	4.26	70.00	70.00	2445	0.04	0.05	0.1583	0.1321
100YR-004HR	PRE2	BASE	4.50	70.00	70.00	2441	0.01	0.01	0.1588	0.1326
100YR-004HR	PRE2	BASE	4.76	70.00	70.00	2440	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	5.00	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	5.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	5.50	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	5.75	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	6.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	6.25	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	6.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	6.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	7.00	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	7.25	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	7.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	7.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	8.00	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	8.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	8.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	8.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	9.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	9.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	9.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	9.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	10.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	10.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	10.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	10.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	11.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	11.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	11.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	11.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	12.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	12.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	12.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	12.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	13.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	13.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	13.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	13.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	14.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	14.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	14.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	14.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	15.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	15.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	15.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	15.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	16.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	16.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	16.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	16.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	17.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	17.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	17.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	17.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	18.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	18.26	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	18.51	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	18.76	70.00	70.00	2439	0.00	0.00	0.1589	0.1328
100YR-004HR	PRE2	BASE	19.01	70.00	70.00	2439	0.00	0.00	0.1589	0.1328

Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 200 of 567

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-008HR	PRE2	BASE	1.52	69.00	70.00	261	0.00	0.00	0.0000	0.0000
100YR-008HR	PRE2	BASE	1.77	69.00	70.00	261	0.00	0.00	0.0000	0.0000
100YR-008HR	PRE2	BASE	2.02	69.00	70.00	261	0.00	0.00	0.0000	0.0000
100YR-008HR	PRE2	BASE	2.27	69.01	70.00	292	0.02	0.00	0.0002	0.0000
100YR-008HR	PRE2	BASE	2.50	69.11	70.00	503	0.08	0.00	0.0011	0.0000
100YR-008HR	PRE2	BASE	2.75	69.26	70.00	826	0.14	0.00	0.0033	0.0000
100YR-008HR	PRE2	BASE	3.00	69.42	70.00	1172	0.21	0.00	0.0070	0.0000
100YR-008HR	PRE2	BASE	3.25	69.68	70.00	1744	0.69	0.00	0.0162	0.0000
100YR-008HR	PRE2	BASE	3.50	70.02	70.00	2481	1.05	1.00	0.0340	0.0103
100YR-008HR	PRE2	BASE	3.75	70.02	70.00	2488	1.30	1.29	0.0584	0.0341
100YR-008HR	PRE2	BASE	4.00	70.02	70.00	2493	1.47	1.47	0.0871	0.0627
100YR-008HR	PRE2	BASE	4.25	70.02	70.00	2477	0.87	0.89	0.1113	0.0871
100YR-008HR	PRE2	BASE	4.50	70.01	70.00	2471	0.68	0.68	0.1273	0.1033
100YR-008HR	PRE2	BASE	4.75	70.01	70.00	2470	0.64	0.64	0.1409	0.1169
100YR-008HR	PRE2	BASE	5.01	70.01	70.00	2470	0.65	0.65	0.1545	0.1306
100YR-008HR	PRE2	BASE	5.26	70.01	70.00	2461	0.36	0.37	0.1649	0.1411
100YR-008HR	PRE2	BASE	5.50	70.01	70.00	2457	0.27	0.28	0.1714	0.1477
100YR-008HR	PRE2	BASE	5.76	70.01	70.00	2456	0.25	0.25	0.1770	0.1533
100YR-008HR	PRE2	BASE	6.01	70.01	70.00	2456	0.25	0.25	0.1822	0.1585
100YR-008HR	PRE2	BASE	6.25	70.01	70.00	2455	0.22	0.23	0.1870	0.1633
100YR-008HR	PRE2	BASE	6.50	70.01	70.00	2454	0.22	0.22	0.1916	0.1679
100YR-008HR	PRE2	BASE	6.75	70.01	70.00	2454	0.21	0.21	0.1960	0.1724
100YR-008HR	PRE2	BASE	7.00	70.01	70.00	2454	0.22	0.22	0.2005	0.1768
100YR-008HR	PRE2	BASE	7.25	70.01	70.00	2451	0.15	0.16	0.2043	0.1807
100YR-008HR	PRE2	BASE	7.50	70.01	70.00	2450	0.14	0.14	0.2073	0.1837
100YR-008HR	PRE2	BASE	7.75	70.00	70.00	2450	0.13	0.13	0.2100	0.1865
100YR-008HR	PRE2	BASE	8.00	70.00	70.00	2450	0.13	0.13	0.2127	0.1892
100YR-008HR	PRE2	BASE	8.25	70.00	70.00	2444	0.04	0.04	0.2145	0.1910
100YR-008HR	PRE2	BASE	8.50	70.00	70.00	2441	0.01	0.01	0.2149	0.1915
100YR-008HR	PRE2	BASE	8.75	70.00	70.00	2440	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	9.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	9.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	9.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	9.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	10.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	10.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	10.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	10.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	11.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	11.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	11.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	11.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	12.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	12.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	12.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	12.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	13.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	13.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	13.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	13.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	14.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	14.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	14.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	14.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	15.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	15.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	15.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	15.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	16.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	16.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	16.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	16.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	17.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	17.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	17.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	17.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	18.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	18.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	18.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	18.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	19.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	19.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	19.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	19.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	20.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	20.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	20.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	20.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	21.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	21.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	21.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	21.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	22.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	22.25	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	22.50	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	22.75	70.00	70.00	2439	0.00	0.00	0.2150	0.1916
100YR-008HR	PRE2	BASE	23.00	70.00	70.00	2439	0.00	0.00	0.2150	0.1916

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-024HR	NW126th	Terr	12.25	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-024HR	NW126th	Terr	12.51	0.00	0.00	0	0.08	0.00	0.0010	0.0000
100YR-024HR	NW126th	Terr	12.76	0.00	0.00	0	0.16	0.00	0.0034	0.0000
100YR-024HR	NW126th	Terr	13.01	0.00	0.00	0	0.21	0.00	0.0072	0.0000
100YR-024HR	NW126th	Terr	13.26	0.00	0.00	0	0.23	0.00	0.0117	0.0000
100YR-024HR	NW126th	Terr	13.51	0.00	0.00	0	0.24	0.00	0.0167	0.0000
100YR-024HR	NW126th	Terr	13.76	0.00	0.00	0	0.25	0.00	0.0218	0.0000
100YR-024HR	NW126th	Terr	14.01	0.00	0.00	0	0.26	0.00	0.0271	0.0000
100YR-024HR	NW126th	Terr	14.26	0.00	0.00	0	0.27	0.00	0.0325	0.0000
100YR-024HR	NW126th	Terr	14.51	0.00	0.00	0	0.28	0.00	0.0382	0.0000
100YR-024HR	NW126th	Terr	14.76	0.00	0.00	0	0.28	0.00	0.0439	0.0000
100YR-024HR	NW126th	Terr	15.01	0.00	0.00	0	0.29	0.00	0.0499	0.0000
100YR-024HR	NW126th	Terr	15.26	0.00	0.00	0	0.28	0.00	0.0558	0.0000
100YR-024HR	NW126th	Terr	15.51	0.00	0.00	0	0.27	0.00	0.0615	0.0000
100YR-024HR	NW126th	Terr	15.76	0.00	0.00	0	0.26	0.00	0.0670	0.0000
100YR-024HR	NW126th	Terr	16.01	0.00	0.00	0	0.25	0.00	0.0723	0.0000
100YR-024HR	NW126th	Terr	16.26	0.00	0.00	0	0.24	0.00	0.0774	0.0000
100YR-024HR	NW126th	Terr	16.51	0.00	0.00	0	0.22	0.00	0.0822	0.0000
100YR-024HR	NW126th	Terr	16.76	0.00	0.00	0	0.21	0.00	0.0866	0.0000
100YR-024HR	NW126th	Terr	17.01	0.00	0.00	0	0.20	0.00	0.0909	0.0000
100YR-024HR	NW126th	Terr	17.26	0.00	0.00	0	0.20	0.00	0.0951	0.0000
100YR-024HR	NW126th	Terr	17.51	0.00	0.00	0	0.20	0.00	0.0992	0.0000
100YR-024HR	NW126th	Terr	17.76	0.00	0.00	0	0.20	0.00	0.1034	0.0000
100YR-024HR	NW126th	Terr	18.01	0.00	0.00	0	0.20	0.00	0.1075	0.0000
100YR-024HR	NW126th	Terr	18.26	0.00	0.00	0	0.20	0.00	0.1117	0.0000
100YR-024HR	NW126th	Terr	18.51	0.00	0.00	0	0.21	0.00	0.1159	0.0000
100YR-024HR	NW126th	Terr	18.76	0.00	0.00	0	0.21	0.00	0.1202	0.0000
100YR-024HR	NW126th	Terr	19.01	0.00	0.00	0	0.21	0.00	0.1245	0.0000
100YR-024HR	NW126th	Terr	19.26	0.00	0.00	0	0.20	0.00	0.1287	0.0000
100YR-024HR	NW126th	Terr	19.51	0.00	0.00	0	0.18	0.00	0.1326	0.0000
100YR-024HR	NW126th	Terr	19.76	0.00	0.00	0	0.17	0.00	0.1362	0.0000
100YR-024HR	NW126th	Terr	20.01	0.00	0.00	0	0.16	0.00	0.1395	0.0000
100YR-024HR	NW126th	Terr	20.26	0.00	0.00	0	0.15	0.00	0.1427	0.0000
100YR-024HR	NW126th	Terr	20.51	0.00	0.00	0	0.15	0.00	0.1458	0.0000
100YR-024HR	NW126th	Terr	20.76	0.00	0.00	0	0.15	0.00	0.1490	0.0000
100YR-024HR	NW126th	Terr	21.01	0.00	0.00	0	0.15	0.00	0.1521	0.0000
100YR-024HR	NW126th	Terr	21.26	0.00	0.00	0	0.14	0.00	0.1550	0.0000
100YR-024HR	NW126th	Terr	21.51	0.00	0.00	0	0.12	0.00	0.1577	0.0000
100YR-024HR	NW126th	Terr	21.76	0.00	0.00	0	0.11	0.00	0.1600	0.0000
100YR-024HR	NW126th	Terr	22.01	0.00	0.00	0	0.10	0.00	0.1621	0.0000
100YR-024HR	NW126th	Terr	22.26	0.00	0.00	0	0.08	0.00	0.1639	0.0000
100YR-024HR	NW126th	Terr	22.51	0.00	0.00	0	0.06	0.00	0.1654	0.0000
100YR-024HR	NW126th	Terr	22.76	0.00	0.00	0	0.05	0.00	0.1665	0.0000
100YR-024HR	NW126th	Terr	23.01	0.00	0.00	0	0.04	0.00	0.1673	0.0000
100YR-024HR	NW126th	Terr	23.26	0.00	0.00	0	0.03	0.00	0.1680	0.0000
100YR-024HR	NW126th	Terr	23.51	0.00	0.00	0	0.02	0.00	0.1685	0.0000
100YR-024HR	NW126th	Terr	23.76	0.00	0.00	0	0.02	0.00	0.1690	0.0000
100YR-024HR	NW126th	Terr	24.01	0.00	0.00	0	0.02	0.00	0.1694	0.0000
100YR-024HR	NW126th	Terr	24.26	0.00	0.00	0	0.01	0.00	0.1697	0.0000
100YR-024HR	NW126th	Terr	24.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	24.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	25.01	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	25.26	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	25.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	25.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	26.01	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	26.26	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	26.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	26.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	27.01	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	27.26	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	27.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	27.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	28.01	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	28.26	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	28.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	28.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	29.01	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	29.26	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	29.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	29.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	30.01	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	30.26	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	30.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	30.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	31.01	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	31.26	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	31.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	31.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	32.01	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	32.26	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	32.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	32.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	33.01	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	33.26	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	33.51	0.00	0.00	0	0.00	0.00	0.1698	0.0000
100YR-024HR	NW126th	Terr	33.76	0.00	0.00	0	0.00	0.00	0.1698	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-024HR	PRE2	BASE	7.02	69.48	70.00	1303	0.08	0.00	0.0086	0.0000
100YR-024HR	PRE2	BASE	7.27	69.54	70.00	1429	0.09	0.00	0.0104	0.0000
100YR-024HR	PRE2	BASE	7.52	69.59	70.00	1554	0.10	0.00	0.0124	0.0000
100YR-024HR	PRE2	BASE	7.77	69.65	70.00	1678	0.10	0.00	0.0145	0.0000
100YR-024HR	PRE2	BASE	8.02	69.71	70.00	1800	0.11	0.00	0.0167	0.0000
100YR-024HR	PRE2	BASE	8.27	69.77	70.00	1944	0.16	0.00	0.0195	0.0000
100YR-024HR	PRE2	BASE	8.51	69.85	70.00	2107	0.18	0.00	0.0230	0.0000
100YR-024HR	PRE2	BASE	8.76	69.93	70.00	2281	0.20	0.00	0.0270	0.0000
100YR-024HR	PRE2	BASE	9.01	70.01	70.00	2450	0.21	0.14	0.0313	0.0015
100YR-024HR	PRE2	BASE	9.25	70.01	70.00	2454	0.22	0.22	0.0356	0.0050
100YR-024HR	PRE2	BASE	9.51	70.01	70.00	2455	0.23	0.23	0.0403	0.0097
100YR-024HR	PRE2	BASE	9.76	70.01	70.00	2455	0.24	0.24	0.0452	0.0146
100YR-024HR	PRE2	BASE	10.01	70.01	70.00	2456	0.25	0.25	0.0503	0.0197
100YR-024HR	PRE2	BASE	10.26	70.01	70.00	2459	0.32	0.32	0.0560	0.0254
100YR-024HR	PRE2	BASE	10.50	70.01	70.00	2460	0.35	0.35	0.0628	0.0321
100YR-024HR	PRE2	BASE	10.76	70.01	70.00	2460	0.37	0.37	0.0704	0.0397
100YR-024HR	PRE2	BASE	11.00	70.01	70.00	2461	0.38	0.38	0.0780	0.0473
100YR-024HR	PRE2	BASE	11.25	70.01	70.00	2464	0.46	0.46	0.0867	0.0560
100YR-024HR	PRE2	BASE	11.50	70.01	70.00	2465	0.50	0.49	0.0964	0.0657
100YR-024HR	PRE2	BASE	11.75	70.01	70.00	2466	0.52	0.51	0.1070	0.0762
100YR-024HR	PRE2	BASE	12.01	70.01	70.00	2466	0.53	0.53	0.1179	0.0871
100YR-024HR	PRE2	BASE	12.25	70.01	70.00	2463	0.42	0.43	0.1275	0.0968
100YR-024HR	PRE2	BASE	12.51	70.01	70.00	2461	0.39	0.39	0.1361	0.1054
100YR-024HR	PRE2	BASE	12.76	70.01	70.00	2461	0.39	0.39	0.1442	0.1135
100YR-024HR	PRE2	BASE	13.01	70.01	70.00	2461	0.39	0.39	0.1522	0.1215
100YR-024HR	PRE2	BASE	13.26	70.01	70.00	2460	0.36	0.36	0.1600	0.1293
100YR-024HR	PRE2	BASE	13.51	70.01	70.00	2460	0.35	0.35	0.1673	0.1366
100YR-024HR	PRE2	BASE	13.76	70.01	70.00	2460	0.35	0.35	0.1744	0.1438
100YR-024HR	PRE2	BASE	14.01	70.01	70.00	2460	0.35	0.35	0.1817	0.1510
100YR-024HR	PRE2	BASE	14.26	70.01	70.00	2460	0.35	0.35	0.1889	0.1583
100YR-024HR	PRE2	BASE	14.51	70.01	70.00	2460	0.36	0.36	0.1963	0.1656
100YR-024HR	PRE2	BASE	14.76	70.01	70.00	2460	0.36	0.36	0.2036	0.1730
100YR-024HR	PRE2	BASE	15.01	70.01	70.00	2460	0.36	0.36	0.2111	0.1804
100YR-024HR	PRE2	BASE	15.26	70.01	70.00	2459	0.32	0.32	0.2181	0.1874
100YR-024HR	PRE2	BASE	15.51	70.01	70.00	2458	0.31	0.31	0.2246	0.1939
100YR-024HR	PRE2	BASE	15.76	70.01	70.00	2458	0.31	0.31	0.2309	0.2003
100YR-024HR	PRE2	BASE	16.01	70.01	70.00	2458	0.31	0.31	0.2372	0.2066
100YR-024HR	PRE2	BASE	16.26	70.01	70.00	2456	0.26	0.27	0.2431	0.2125
100YR-024HR	PRE2	BASE	16.51	70.01	70.00	2456	0.25	0.25	0.2485	0.2179
100YR-024HR	PRE2	BASE	16.76	70.01	70.00	2456	0.25	0.25	0.2537	0.2231
100YR-024HR	PRE2	BASE	17.01	70.01	70.00	2456	0.25	0.25	0.2588	0.2282
100YR-024HR	PRE2	BASE	17.26	70.01	70.00	2456	0.25	0.25	0.2640	0.2334
100YR-024HR	PRE2	BASE	17.51	70.01	70.00	2456	0.25	0.25	0.2692	0.2386
100YR-024HR	PRE2	BASE	17.76	70.01	70.00	2456	0.25	0.25	0.2744	0.2438
100YR-024HR	PRE2	BASE	18.01	70.01	70.00	2456	0.25	0.25	0.2796	0.2490
100YR-024HR	PRE2	BASE	18.26	70.01	70.00	2456	0.25	0.25	0.2849	0.2543
100YR-024HR	PRE2	BASE	18.51	70.01	70.00	2456	0.25	0.25	0.2901	0.2595
100YR-024HR	PRE2	BASE	18.76	70.01	70.00	2456	0.26	0.26	0.2954	0.2648
100YR-024HR	PRE2	BASE	19.01	70.01	70.00	2456	0.26	0.26	0.3007	0.2701
100YR-024HR	PRE2	BASE	19.26	70.01	70.00	2454	0.21	0.21	0.3055	0.2749
100YR-024HR	PRE2	BASE	19.51	70.01	70.00	2453	0.20	0.20	0.3097	0.2791
100YR-024HR	PRE2	BASE	19.76	70.01	70.00	2453	0.19	0.19	0.3137	0.2832
100YR-024HR	PRE2	BASE	20.01	70.01	70.00	2453	0.19	0.19	0.3178	0.2872
100YR-024HR	PRE2	BASE	20.26	70.01	70.00	2453	0.19	0.19	0.3218	0.2912
100YR-024HR	PRE2	BASE	20.51	70.01	70.00	2453	0.19	0.19	0.3258	0.2952
100YR-024HR	PRE2	BASE	20.76	70.01	70.00	2453	0.19	0.19	0.3298	0.2992
100YR-024HR	PRE2	BASE	21.01	70.01	70.00	2453	0.19	0.19	0.3338	0.3033
100YR-024HR	PRE2	BASE	21.26	70.01	70.00	2451	0.15	0.15	0.3374	0.3068
100YR-024HR	PRE2	BASE	21.51	70.00	70.00	2450	0.13	0.13	0.3403	0.3098
100YR-024HR	PRE2	BASE	21.76	70.00	70.00	2450	0.13	0.13	0.3430	0.3125
100YR-024HR	PRE2	BASE	22.01	70.00	70.00	2450	0.13	0.13	0.3457	0.3152
100YR-024HR	PRE2	BASE	22.26	70.00	70.00	2447	0.08	0.09	0.3479	0.3174
100YR-024HR	PRE2	BASE	22.51	70.00	70.00	2446	0.07	0.07	0.3495	0.3190
100YR-024HR	PRE2	BASE	22.76	70.00	70.00	2446	0.07	0.07	0.3509	0.3205
100YR-024HR	PRE2	BASE	23.01	70.00	70.00	2446	0.07	0.07	0.3523	0.3218
100YR-024HR	PRE2	BASE	23.26	70.00	70.00	2446	0.07	0.07	0.3536	0.3232
100YR-024HR	PRE2	BASE	23.51	70.00	70.00	2446	0.07	0.07	0.3550	0.3245
100YR-024HR	PRE2	BASE	23.76	70.00	70.00	2446	0.07	0.07	0.3563	0.3259
100YR-024HR	PRE2	BASE	24.01	70.00	70.00	2446	0.06	0.07	0.3577	0.3272
100YR-024HR	PRE2	BASE	24.26	70.00	70.00	2443	0.02	0.02	0.3585	0.3281
100YR-024HR	PRE2	BASE	24.51	70.00	70.00	2441	0.00	0.01	0.3588	0.3284
100YR-024HR	PRE2	BASE	24.76	70.00	70.00	2440	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	25.01	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	25.26	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	25.51	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	25.76	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	26.01	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	26.26	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	26.51	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	26.76	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	27.01	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	27.26	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	27.51	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	27.76	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	28.01	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	28.26	70.00	70.00	2439	0.00	0.00	0.3588	0.3285
100YR-024HR	PRE2	BASE	28.51	70.00	70.00	2439	0.00	0.00	0.3588	0.3285

Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 339 of 567

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-072HR	PRE2	BASE	57.51	70.01	70.00	2462	0.39	0.39	0.2885	0.2572
100YR-072HR	PRE2	BASE	57.75	70.01	70.00	2462	0.40	0.40	0.2965	0.2652
100YR-072HR	PRE2	BASE	58.01	70.01	70.00	2462	0.40	0.40	0.3049	0.2736
100YR-072HR	PRE2	BASE	58.25	70.01	70.00	2462	0.40	0.40	0.3130	0.2817
100YR-072HR	PRE2	BASE	58.50	70.01	70.00	2462	0.40	0.40	0.3211	0.2898
100YR-072HR	PRE2	BASE	58.76	70.01	70.00	2462	0.40	0.40	0.3296	0.2983
100YR-072HR	PRE2	BASE	59.01	70.01	70.00	2462	0.40	0.40	0.3381	0.3067
100YR-072HR	PRE2	BASE	59.26	70.01	70.00	2462	0.41	0.41	0.3464	0.3151
100YR-072HR	PRE2	BASE	59.51	70.01	70.00	2462	0.41	0.41	0.3548	0.3235
100YR-072HR	PRE2	BASE	59.76	70.01	70.00	2462	0.41	0.41	0.3632	0.3319
100YR-072HR	PRE2	BASE	60.01	70.01	70.00	2462	0.41	0.41	0.3717	0.3403
100YR-072HR	PRE2	BASE	60.26	70.01	70.00	2457	0.28	0.29	0.3788	0.3475
100YR-072HR	PRE2	BASE	60.51	70.01	70.00	2455	0.24	0.24	0.3842	0.3529
100YR-072HR	PRE2	BASE	60.76	70.01	70.00	2455	0.23	0.24	0.3891	0.3579
100YR-072HR	PRE2	BASE	61.01	70.01	70.00	2455	0.24	0.24	0.3940	0.3627
100YR-072HR	PRE2	BASE	61.26	70.01	70.00	2455	0.24	0.24	0.3989	0.3676
100YR-072HR	PRE2	BASE	61.51	70.01	70.00	2455	0.24	0.24	0.4037	0.3725
100YR-072HR	PRE2	BASE	61.76	70.01	70.00	2455	0.24	0.24	0.4086	0.3774
100YR-072HR	PRE2	BASE	62.01	70.01	70.00	2455	0.24	0.24	0.4135	0.3822
100YR-072HR	PRE2	BASE	62.26	70.01	70.00	2455	0.24	0.24	0.4184	0.3871
100YR-072HR	PRE2	BASE	62.51	70.01	70.00	2455	0.24	0.24	0.4233	0.3920
100YR-072HR	PRE2	BASE	62.76	70.01	70.00	2455	0.24	0.24	0.4282	0.3969
100YR-072HR	PRE2	BASE	63.01	70.01	70.00	2455	0.24	0.24	0.4331	0.4019
100YR-072HR	PRE2	BASE	63.26	70.01	70.00	2455	0.24	0.24	0.4380	0.4068
100YR-072HR	PRE2	BASE	63.51	70.01	70.00	2455	0.24	0.24	0.4430	0.4117
100YR-072HR	PRE2	BASE	63.76	70.01	70.00	2455	0.24	0.24	0.4479	0.4166
100YR-072HR	PRE2	BASE	64.01	70.01	70.00	2455	0.24	0.24	0.4528	0.4216
100YR-072HR	PRE2	BASE	64.26	70.00	70.00	2450	0.13	0.13	0.4566	0.4254
100YR-072HR	PRE2	BASE	64.51	70.00	70.00	2448	0.09	0.09	0.4589	0.4277
100YR-072HR	PRE2	BASE	64.76	70.00	70.00	2447	0.09	0.09	0.4607	0.4296
100YR-072HR	PRE2	BASE	65.01	70.00	70.00	2447	0.09	0.09	0.4625	0.4314
100YR-072HR	PRE2	BASE	65.26	70.00	70.00	2447	0.09	0.09	0.4642	0.4331
100YR-072HR	PRE2	BASE	65.51	70.00	70.00	2447	0.09	0.09	0.4660	0.4349
100YR-072HR	PRE2	BASE	65.76	70.00	70.00	2447	0.09	0.09	0.4678	0.4366
100YR-072HR	PRE2	BASE	66.01	70.00	70.00	2447	0.09	0.09	0.4695	0.4384
100YR-072HR	PRE2	BASE	66.26	70.00	70.00	2447	0.09	0.09	0.4713	0.4402
100YR-072HR	PRE2	BASE	66.51	70.00	70.00	2447	0.09	0.09	0.4730	0.4419
100YR-072HR	PRE2	BASE	66.76	70.00	70.00	2447	0.09	0.09	0.4748	0.4437
100YR-072HR	PRE2	BASE	67.01	70.00	70.00	2447	0.09	0.09	0.4766	0.4454
100YR-072HR	PRE2	BASE	67.26	70.00	70.00	2447	0.09	0.09	0.4783	0.4472
100YR-072HR	PRE2	BASE	67.51	70.00	70.00	2447	0.09	0.09	0.4801	0.4490
100YR-072HR	PRE2	BASE	67.76	70.00	70.00	2447	0.09	0.09	0.4819	0.4507
100YR-072HR	PRE2	BASE	68.01	70.00	70.00	2447	0.08	0.09	0.4836	0.4525
100YR-072HR	PRE2	BASE	68.26	70.00	70.00	2445	0.05	0.05	0.4850	0.4539
100YR-072HR	PRE2	BASE	68.51	70.00	70.00	2444	0.04	0.04	0.4860	0.4549
100YR-072HR	PRE2	BASE	68.76	70.00	70.00	2444	0.04	0.04	0.4868	0.4557
100YR-072HR	PRE2	BASE	69.01	70.00	70.00	2444	0.04	0.04	0.4876	0.4565
100YR-072HR	PRE2	BASE	69.26	70.00	70.00	2444	0.04	0.04	0.4884	0.4573
100YR-072HR	PRE2	BASE	69.51	70.00	70.00	2444	0.04	0.04	0.4892	0.4581
100YR-072HR	PRE2	BASE	69.76	70.00	70.00	2444	0.04	0.04	0.4900	0.4589
100YR-072HR	PRE2	BASE	70.01	70.00	70.00	2444	0.04	0.04	0.4908	0.4597
100YR-072HR	PRE2	BASE	70.26	70.00	70.00	2444	0.04	0.04	0.4916	0.4605
100YR-072HR	PRE2	BASE	70.51	70.00	70.00	2444	0.04	0.04	0.4924	0.4613
100YR-072HR	PRE2	BASE	70.76	70.00	70.00	2444	0.04	0.04	0.4932	0.4621
100YR-072HR	PRE2	BASE	71.01	70.00	70.00	2444	0.04	0.04	0.4940	0.4629
100YR-072HR	PRE2	BASE	71.26	70.00	70.00	2444	0.04	0.04	0.4948	0.4637
100YR-072HR	PRE2	BASE	71.51	70.00	70.00	2444	0.04	0.04	0.4955	0.4645
100YR-072HR	PRE2	BASE	71.76	70.00	70.00	2444	0.04	0.04	0.4963	0.4653
100YR-072HR	PRE2	BASE	72.01	70.00	70.00	2444	0.04	0.04	0.4971	0.4661
100YR-072HR	PRE2	BASE	72.26	70.00	70.00	2442	0.01	0.01	0.4976	0.4666
100YR-072HR	PRE2	BASE	72.51	70.00	70.00	2440	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	72.76	70.00	70.00	2440	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	73.01	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	73.26	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	73.51	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	73.76	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	74.01	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	74.26	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	74.51	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	74.76	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	75.01	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	75.26	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	75.51	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	75.76	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	76.01	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	76.26	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	76.51	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	76.76	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	77.01	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	77.26	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	77.51	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	77.76	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	78.01	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	78.26	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	78.51	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	78.76	70.00	70.00	2439	0.00	0.00	0.4978	0.4668
100YR-072HR	PRE2	BASE	79.01	70.00	70.00	2439	0.00	0.00	0.4978	0.4668

Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 416 of 567

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-168HR	PRE2	BASE	160.02	70.01	70.00	2457	0.29	0.29	0.5702	0.5394
100YR-168HR	PRE2	BASE	160.27	70.00	70.00	2450	0.12	0.13	0.5744	0.5437
100YR-168HR	PRE2	BASE	160.52	70.00	70.00	2446	0.07	0.07	0.5764	0.5458
100YR-168HR	PRE2	BASE	160.77	70.00	70.00	2445	0.06	0.06	0.5777	0.5471
100YR-168HR	PRE2	BASE	161.02	70.00	70.00	2445	0.06	0.06	0.5788	0.5482
100YR-168HR	PRE2	BASE	161.27	70.00	70.00	2445	0.06	0.06	0.5800	0.5494
100YR-168HR	PRE2	BASE	161.52	70.00	70.00	2445	0.06	0.06	0.5811	0.5505
100YR-168HR	PRE2	BASE	161.77	70.00	70.00	2445	0.06	0.06	0.5823	0.5517
100YR-168HR	PRE2	BASE	162.02	70.00	70.00	2445	0.06	0.06	0.5834	0.5528
100YR-168HR	PRE2	BASE	162.27	70.00	70.00	2445	0.06	0.06	0.5846	0.5540
100YR-168HR	PRE2	BASE	162.52	70.00	70.00	2445	0.06	0.06	0.5857	0.5551
100YR-168HR	PRE2	BASE	162.77	70.00	70.00	2445	0.06	0.06	0.5869	0.5563
100YR-168HR	PRE2	BASE	163.02	70.00	70.00	2445	0.06	0.06	0.5880	0.5574
100YR-168HR	PRE2	BASE	163.27	70.00	70.00	2445	0.06	0.06	0.5892	0.5586
100YR-168HR	PRE2	BASE	163.52	70.00	70.00	2445	0.06	0.06	0.5903	0.5597
100YR-168HR	PRE2	BASE	163.77	70.00	70.00	2445	0.06	0.06	0.5915	0.5609
100YR-168HR	PRE2	BASE	164.02	70.00	70.00	2445	0.06	0.06	0.5926	0.5620
100YR-168HR	PRE2	BASE	164.27	70.00	70.00	2445	0.06	0.06	0.5938	0.5632
100YR-168HR	PRE2	BASE	164.52	70.00	70.00	2445	0.06	0.06	0.5949	0.5643
100YR-168HR	PRE2	BASE	164.77	70.00	70.00	2445	0.06	0.06	0.5961	0.5655
100YR-168HR	PRE2	BASE	165.02	70.00	70.00	2445	0.06	0.06	0.5972	0.5666
100YR-168HR	PRE2	BASE	165.27	70.00	70.00	2445	0.06	0.06	0.5984	0.5678
100YR-168HR	PRE2	BASE	165.52	70.00	70.00	2445	0.06	0.06	0.5995	0.5689
100YR-168HR	PRE2	BASE	165.77	70.00	70.00	2445	0.06	0.06	0.6007	0.5701
100YR-168HR	PRE2	BASE	166.02	70.00	70.00	2445	0.06	0.06	0.6018	0.5712
100YR-168HR	PRE2	BASE	166.27	70.00	70.00	2445	0.06	0.06	0.6030	0.5724
100YR-168HR	PRE2	BASE	166.52	70.00	70.00	2445	0.06	0.06	0.6041	0.5735
100YR-168HR	PRE2	BASE	166.77	70.00	70.00	2445	0.06	0.06	0.6053	0.5747
100YR-168HR	PRE2	BASE	167.02	70.00	70.00	2445	0.06	0.06	0.6064	0.5758
100YR-168HR	PRE2	BASE	167.27	70.00	70.00	2445	0.06	0.06	0.6076	0.5770
100YR-168HR	PRE2	BASE	167.52	70.00	70.00	2445	0.06	0.06	0.6087	0.5781
100YR-168HR	PRE2	BASE	167.77	70.00	70.00	2445	0.06	0.06	0.6099	0.5793
100YR-168HR	PRE2	BASE	168.02	70.00	70.00	2445	0.05	0.06	0.6110	0.5804
100YR-168HR	PRE2	BASE	168.27	70.00	70.00	2442	0.01	0.02	0.6117	0.5812
100YR-168HR	PRE2	BASE	168.52	70.00	70.00	2440	0.00	0.00	0.6119	0.5814
100YR-168HR	PRE2	BASE	168.77	70.00	70.00	2440	0.00	0.00	0.6119	0.5814
100YR-168HR	PRE2	BASE	169.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	169.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	169.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	169.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	170.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	170.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	170.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	170.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	171.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	171.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	171.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	171.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	172.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	172.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	172.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	172.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	173.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	173.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	173.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	173.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	174.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	174.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	174.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	174.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	175.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	175.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	175.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	175.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	176.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	176.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	176.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	176.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	177.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	177.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	177.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	177.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	178.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	178.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	178.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	178.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	179.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	179.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	179.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	179.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	180.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	180.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	180.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	180.77	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	181.02	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	181.27	70.00	70.00	2439	0.00	0.00	0.6119	0.5815
100YR-168HR	PRE2	BASE	181.52	70.00	70.00	2439	0.00	0.00	0.6119	0.5815

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Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 540 of 567

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Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 167 of 567

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-004HR	PRE1	BASE	715.26	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	715.51	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	715.76	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	716.01	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	716.26	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	716.51	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	716.76	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	717.01	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	717.26	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	717.51	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	717.76	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	718.01	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	718.26	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	718.51	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	718.76	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	719.01	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	719.26	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	719.51	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	719.76	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	720.01	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	720.26	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	720.51	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	720.76	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	721.01	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	721.26	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	721.51	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	721.76	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	722.01	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	722.26	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	722.51	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	722.76	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	723.01	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	723.26	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	723.51	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	723.76	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-004HR	PRE1	BASE	724.01	0.00	0.00	0	0.00	0.00	0.5699	0.0000
100YR-008HR	Offsite	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	0.26	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	0.77	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	1.02	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	1.27	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	1.52	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	1.77	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	2.02	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	2.27	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	2.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	2.75	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	3.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	3.25	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	Offsite	BASE	3.50	0.00	0.00	0	0.17	0.00	0.0017	0.0000
100YR-008HR	Offsite	BASE	3.75	0.00	0.00	0	0.76	0.00	0.0113	0.0000
100YR-008HR	Offsite	BASE	4.00	0.00	0.00	0	1.44	0.00	0.0341	0.0000
100YR-008HR	Offsite	BASE	4.25	0.00	0.00	0	1.27	0.00	0.0621	0.0000
100YR-008HR	Offsite	BASE	4.50	0.00	0.00	0	1.11	0.00	0.0866	0.0000
100YR-008HR	Offsite	BASE	4.75	0.00	0.00	0	1.09	0.00	0.1092	0.0000
100YR-008HR	Offsite	BASE	5.01	0.00	0.00	0	1.11	0.00	0.1325	0.0000
100YR-008HR	Offsite	BASE	5.26	0.00	0.00	0	0.77	0.00	0.1520	0.0000
100YR-008HR	Offsite	BASE	5.50	0.00	0.00	0	0.58	0.00	0.1657	0.0000
100YR-008HR	Offsite	BASE	5.76	0.00	0.00	0	0.51	0.00	0.1772	0.0000
100YR-008HR	Offsite	BASE	6.01	0.00	0.00	0	0.48	0.00	0.1875	0.0000
100YR-008HR	Offsite	BASE	6.25	0.00	0.00	0	0.44	0.00	0.1968	0.0000
100YR-008HR	Offsite	BASE	6.50	0.00	0.00	0	0.43	0.00	0.2058	0.0000
100YR-008HR	Offsite	BASE	6.75	0.00	0.00	0	0.42	0.00	0.2146	0.0000
100YR-008HR	Offsite	BASE	7.00	0.00	0.00	0	0.43	0.00	0.2234	0.0000
100YR-008HR	Offsite	BASE	7.25	0.00	0.00	0	0.34	0.00	0.2314	0.0000
100YR-008HR	Offsite	BASE	7.50	0.00	0.00	0	0.29	0.00	0.2379	0.0000
100YR-008HR	Offsite	BASE	7.75	0.00	0.00	0	0.27	0.00	0.2438	0.0000
100YR-008HR	Offsite	BASE	8.00	0.00	0.00	0	0.27	0.00	0.2494	0.0000
100YR-008HR	Offsite	BASE	8.25	0.00	0.00	0	0.13	0.00	0.2535	0.0000
100YR-008HR	Offsite	BASE	8.50	0.00	0.00	0	0.05	0.00	0.2553	0.0000
100YR-008HR	Offsite	BASE	8.75	0.00	0.00	0	0.02	0.00	0.2559	0.0000
100YR-008HR	Offsite	BASE	9.00	0.00	0.00	0	0.00	0.00	0.2561	0.0000
100YR-008HR	Offsite	BASE	9.25	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	9.50	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	9.75	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	10.00	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	10.25	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	10.50	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	10.75	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	11.00	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	11.25	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	11.50	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	11.75	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	12.00	0.00	0.00	0	0.00	0.00	0.2562	0.0000
100YR-008HR	Offsite	BASE	12.25	0.00	0.00	0	0.00	0.00	0.2562	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-008HR	PRE1	BASE	1.52	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	PRE1	BASE	1.77	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	PRE1	BASE	2.02	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	PRE1	BASE	2.27	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	PRE1	BASE	2.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	PRE1	BASE	2.75	0.00	0.00	0	0.00	0.00	0.0000	0.0000
100YR-008HR	PRE1	BASE	3.00	0.00	0.00	0	0.08	0.00	0.0008	0.0000
100YR-008HR	PRE1	BASE	3.25	0.00	0.00	0	1.31	0.00	0.0150	0.0000
100YR-008HR	PRE1	BASE	3.50	0.00	0.00	0	3.09	0.00	0.0603	0.0000
100YR-008HR	PRE1	BASE	3.75	0.00	0.00	0	4.72	0.00	0.1413	0.0000
100YR-008HR	PRE1	BASE	4.00	0.00	0.00	0	6.03	0.00	0.2526	0.0000
100YR-008HR	PRE1	BASE	4.25	0.00	0.00	0	3.77	0.00	0.3538	0.0000
100YR-008HR	PRE1	BASE	4.50	0.00	0.00	0	3.06	0.00	0.4244	0.0000
100YR-008HR	PRE1	BASE	4.75	0.00	0.00	0	2.97	0.00	0.4864	0.0000
100YR-008HR	PRE1	BASE	5.01	0.00	0.00	0	3.05	0.00	0.5500	0.0000
100YR-008HR	PRE1	BASE	5.26	0.00	0.00	0	1.74	0.00	0.5994	0.0000
100YR-008HR	PRE1	BASE	5.50	0.00	0.00	0	1.32	0.00	0.6304	0.0000
100YR-008HR	PRE1	BASE	5.76	0.00	0.00	0	1.23	0.00	0.6574	0.0000
100YR-008HR	PRE1	BASE	6.01	0.00	0.00	0	1.24	0.00	0.6830	0.0000
100YR-008HR	PRE1	BASE	6.25	0.00	0.00	0	1.10	0.00	0.7065	0.0000
100YR-008HR	PRE1	BASE	6.50	0.00	0.00	0	1.07	0.00	0.7289	0.0000
100YR-008HR	PRE1	BASE	6.75	0.00	0.00	0	1.07	0.00	0.7510	0.0000
100YR-008HR	PRE1	BASE	7.00	0.00	0.00	0	1.07	0.00	0.7731	0.0000
100YR-008HR	PRE1	BASE	7.25	0.00	0.00	0	0.77	0.00	0.7921	0.0000
100YR-008HR	PRE1	BASE	7.50	0.00	0.00	0	0.68	0.00	0.8071	0.0000
100YR-008HR	PRE1	BASE	7.75	0.00	0.00	0	0.66	0.00	0.8209	0.0000
100YR-008HR	PRE1	BASE	8.00	0.00	0.00	0	0.66	0.00	0.8345	0.0000
100YR-008HR	PRE1	BASE	8.25	0.00	0.00	0	0.19	0.00	0.8432	0.0000
100YR-008HR	PRE1	BASE	8.50	0.00	0.00	0	0.04	0.00	0.8456	0.0000
100YR-008HR	PRE1	BASE	8.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	9.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	9.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	9.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	9.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	10.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	10.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	10.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	10.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	11.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	11.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	11.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	11.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	12.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	12.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	12.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	12.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	13.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	13.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	13.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	13.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	14.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	14.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	14.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	14.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	15.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	15.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	15.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	15.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	16.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	16.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	16.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	16.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	17.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	17.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	17.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	17.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	18.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	18.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	18.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	18.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	19.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	19.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	19.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	19.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	20.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	20.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	20.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	20.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	21.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	21.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	21.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	21.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	22.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	22.25	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	22.50	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	22.75	0.00	0.00	0	0.00	0.00	0.8460	0.0000
100YR-008HR	PRE1	BASE	23.00	0.00	0.00	0	0.00	0.00	0.8460	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-024HR	Offsite	BASE	12.25	0.00	0.00	0	0.69	0.00	0.0916	0.0000
100YR-024HR	Offsite	BASE	12.51	0.00	0.00	0	0.65	0.00	0.1057	0.0000
100YR-024HR	Offsite	BASE	12.76	0.00	0.00	0	0.65	0.00	0.1192	0.0000
100YR-024HR	Offsite	BASE	13.01	0.00	0.00	0	0.67	0.00	0.1329	0.0000
100YR-024HR	Offsite	BASE	13.26	0.00	0.00	0	0.64	0.00	0.1464	0.0000
100YR-024HR	Offsite	BASE	13.51	0.00	0.00	0	0.64	0.00	0.1597	0.0000
100YR-024HR	Offsite	BASE	13.76	0.00	0.00	0	0.65	0.00	0.1729	0.0000
100YR-024HR	Offsite	BASE	14.01	0.00	0.00	0	0.66	0.00	0.1864	0.0000
100YR-024HR	Offsite	BASE	14.26	0.00	0.00	0	0.68	0.00	0.2002	0.0000
100YR-024HR	Offsite	BASE	14.51	0.00	0.00	0	0.69	0.00	0.2144	0.0000
100YR-024HR	Offsite	BASE	14.76	0.00	0.00	0	0.71	0.00	0.2289	0.0000
100YR-024HR	Offsite	BASE	15.01	0.00	0.00	0	0.73	0.00	0.2438	0.0000
100YR-024HR	Offsite	BASE	15.26	0.00	0.00	0	0.68	0.00	0.2583	0.0000
100YR-024HR	Offsite	BASE	15.51	0.00	0.00	0	0.65	0.00	0.2721	0.0000
100YR-024HR	Offsite	BASE	15.76	0.00	0.00	0	0.65	0.00	0.2856	0.0000
100YR-024HR	Offsite	BASE	16.01	0.00	0.00	0	0.66	0.00	0.2991	0.0000
100YR-024HR	Offsite	BASE	16.26	0.00	0.00	0	0.60	0.00	0.3120	0.0000
100YR-024HR	Offsite	BASE	16.51	0.00	0.00	0	0.56	0.00	0.3240	0.0000
100YR-024HR	Offsite	BASE	16.76	0.00	0.00	0	0.56	0.00	0.3355	0.0000
100YR-024HR	Offsite	BASE	17.01	0.00	0.00	0	0.56	0.00	0.3470	0.0000
100YR-024HR	Offsite	BASE	17.26	0.00	0.00	0	0.56	0.00	0.3585	0.0000
100YR-024HR	Offsite	BASE	17.51	0.00	0.00	0	0.57	0.00	0.3702	0.0000
100YR-024HR	Offsite	BASE	17.76	0.00	0.00	0	0.60	0.00	0.3822	0.0000
100YR-024HR	Offsite	BASE	18.01	0.00	0.00	0	0.68	0.00	0.3955	0.0000
100YR-024HR	Offsite	BASE	18.26	0.00	0.00	0	0.77	0.00	0.4104	0.0000
100YR-024HR	Offsite	BASE	18.51	0.00	0.00	0	0.84	0.00	0.4270	0.0000
100YR-024HR	Offsite	BASE	18.76	0.00	0.00	0	0.90	0.00	0.4449	0.0000
100YR-024HR	Offsite	BASE	19.01	0.00	0.00	0	0.94	0.00	0.4639	0.0000
100YR-024HR	Offsite	BASE	19.26	0.00	0.00	0	0.87	0.00	0.4826	0.0000
100YR-024HR	Offsite	BASE	19.51	0.00	0.00	0	0.81	0.00	0.5000	0.0000
100YR-024HR	Offsite	BASE	19.76	0.00	0.00	0	0.79	0.00	0.5166	0.0000
100YR-024HR	Offsite	BASE	20.01	0.00	0.00	0	0.77	0.00	0.5327	0.0000
100YR-024HR	Offsite	BASE	20.26	0.00	0.00	0	0.77	0.00	0.5486	0.0000
100YR-024HR	Offsite	BASE	20.51	0.00	0.00	0	0.77	0.00	0.5646	0.0000
100YR-024HR	Offsite	BASE	20.76	0.00	0.00	0	0.78	0.00	0.5806	0.0000
100YR-024HR	Offsite	BASE	21.01	0.00	0.00	0	0.78	0.00	0.5967	0.0000
100YR-024HR	Offsite	BASE	21.26	0.00	0.00	0	0.68	0.00	0.6118	0.0000
100YR-024HR	Offsite	BASE	21.51	0.00	0.00	0	0.60	0.00	0.6251	0.0000
100YR-024HR	Offsite	BASE	21.76	0.00	0.00	0	0.56	0.00	0.6371	0.0000
100YR-024HR	Offsite	BASE	22.01	0.00	0.00	0	0.53	0.00	0.6484	0.0000
100YR-024HR	Offsite	BASE	22.26	0.00	0.00	0	0.42	0.00	0.6582	0.0000
100YR-024HR	Offsite	BASE	22.51	0.00	0.00	0	0.33	0.00	0.6660	0.0000
100YR-024HR	Offsite	BASE	22.76	0.00	0.00	0	0.28	0.00	0.6724	0.0000
100YR-024HR	Offsite	BASE	23.01	0.00	0.00	0	0.26	0.00	0.6779	0.0000
100YR-024HR	Offsite	BASE	23.26	0.00	0.00	0	0.24	0.00	0.6830	0.0000
100YR-024HR	Offsite	BASE	23.51	0.00	0.00	0	0.23	0.00	0.6879	0.0000
100YR-024HR	Offsite	BASE	23.76	0.00	0.00	0	0.22	0.00	0.6926	0.0000
100YR-024HR	Offsite	BASE	24.01	0.00	0.00	0	0.22	0.00	0.6971	0.0000
100YR-024HR	Offsite	BASE	24.26	0.00	0.00	0	0.12	0.00	0.7005	0.0000
100YR-024HR	Offsite	BASE	24.51	0.00	0.00	0	0.04	0.00	0.7022	0.0000
100YR-024HR	Offsite	BASE	24.76	0.00	0.00	0	0.01	0.00	0.7027	0.0000
100YR-024HR	Offsite	BASE	25.01	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	25.26	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	25.51	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	25.76	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	26.01	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	26.26	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	26.51	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	26.76	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	27.01	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	27.26	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	27.51	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	27.76	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	28.01	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	28.26	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	28.51	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	28.76	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	29.01	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	29.26	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	29.51	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	29.76	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	30.01	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	30.26	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	30.51	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	30.76	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	31.01	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	31.26	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	31.51	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	31.76	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	32.01	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	32.26	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	32.51	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	32.76	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	33.01	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	33.26	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	33.51	0.00	0.00	0	0.00	0.00	0.7029	0.0000
100YR-024HR	Offsite	BASE	33.76	0.00	0.00	0	0.00	0.00	0.7029	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-024HR	PRE1	BASE	7.02	0.00	0.00	0	0.05	0.00	0.0008	0.0000
100YR-024HR	PRE1	BASE	7.27	0.00	0.00	0	0.09	0.00	0.0022	0.0000
100YR-024HR	PRE1	BASE	7.52	0.00	0.00	0	0.13	0.00	0.0045	0.0000
100YR-024HR	PRE1	BASE	7.77	0.00	0.00	0	0.17	0.00	0.0076	0.0000
100YR-024HR	PRE1	BASE	8.02	0.00	0.00	0	0.21	0.00	0.0116	0.0000
100YR-024HR	PRE1	BASE	8.27	0.00	0.00	0	0.35	0.00	0.0174	0.0000
100YR-024HR	PRE1	BASE	8.51	0.00	0.00	0	0.44	0.00	0.0253	0.0000
100YR-024HR	PRE1	BASE	8.76	0.00	0.00	0	0.53	0.00	0.0355	0.0000
100YR-024HR	PRE1	BASE	9.01	0.00	0.00	0	0.60	0.00	0.0473	0.0000
100YR-024HR	PRE1	BASE	9.25	0.00	0.00	0	0.67	0.00	0.0598	0.0000
100YR-024HR	PRE1	BASE	9.51	0.00	0.00	0	0.73	0.00	0.0745	0.0000
100YR-024HR	PRE1	BASE	9.76	0.00	0.00	0	0.80	0.00	0.0906	0.0000
100YR-024HR	PRE1	BASE	10.01	0.00	0.00	0	0.87	0.00	0.1080	0.0000
100YR-024HR	PRE1	BASE	10.26	0.00	0.00	0	1.15	0.00	0.1283	0.0000
100YR-024HR	PRE1	BASE	10.50	0.00	0.00	0	1.31	0.00	0.1533	0.0000
100YR-024HR	PRE1	BASE	10.76	0.00	0.00	0	1.42	0.00	0.1822	0.0000
100YR-024HR	PRE1	BASE	11.00	0.00	0.00	0	1.52	0.00	0.2120	0.0000
100YR-024HR	PRE1	BASE	11.25	0.00	0.00	0	1.90	0.00	0.2476	0.0000
100YR-024HR	PRE1	BASE	11.50	0.00	0.00	0	2.10	0.00	0.2882	0.0000
100YR-024HR	PRE1	BASE	11.75	0.00	0.00	0	2.24	0.00	0.3335	0.0000
100YR-024HR	PRE1	BASE	12.01	0.00	0.00	0	2.34	0.00	0.3812	0.0000
100YR-024HR	PRE1	BASE	12.25	0.00	0.00	0	1.91	0.00	0.4244	0.0000
100YR-024HR	PRE1	BASE	12.51	0.00	0.00	0	1.80	0.00	0.4636	0.0000
100YR-024HR	PRE1	BASE	12.76	0.00	0.00	0	1.81	0.00	0.5009	0.0000
100YR-024HR	PRE1	BASE	13.01	0.00	0.00	0	1.85	0.00	0.5387	0.0000
100YR-024HR	PRE1	BASE	13.26	0.00	0.00	0	1.70	0.00	0.5753	0.0000
100YR-024HR	PRE1	BASE	13.51	0.00	0.00	0	1.67	0.00	0.6102	0.0000
100YR-024HR	PRE1	BASE	13.76	0.00	0.00	0	1.69	0.00	0.6449	0.0000
100YR-024HR	PRE1	BASE	14.01	0.00	0.00	0	1.72	0.00	0.6800	0.0000
100YR-024HR	PRE1	BASE	14.26	0.00	0.00	0	1.74	0.00	0.7157	0.0000
100YR-024HR	PRE1	BASE	14.51	0.00	0.00	0	1.77	0.00	0.7519	0.0000
100YR-024HR	PRE1	BASE	14.76	0.00	0.00	0	1.79	0.00	0.7887	0.0000
100YR-024HR	PRE1	BASE	15.01	0.00	0.00	0	1.81	0.00	0.8259	0.0000
100YR-024HR	PRE1	BASE	15.26	0.00	0.00	0	1.62	0.00	0.8613	0.0000
100YR-024HR	PRE1	BASE	15.51	0.00	0.00	0	1.57	0.00	0.8942	0.0000
100YR-024HR	PRE1	BASE	15.76	0.00	0.00	0	1.57	0.00	0.9265	0.0000
100YR-024HR	PRE1	BASE	16.01	0.00	0.00	0	1.58	0.00	0.9590	0.0000
100YR-024HR	PRE1	BASE	16.26	0.00	0.00	0	1.37	0.00	0.9894	0.0000
100YR-024HR	PRE1	BASE	16.51	0.00	0.00	0	1.31	0.00	1.0170	0.0000
100YR-024HR	PRE1	BASE	16.76	0.00	0.00	0	1.30	0.00	1.0439	0.0000
100YR-024HR	PRE1	BASE	17.01	0.00	0.00	0	1.31	0.00	1.0708	0.0000
100YR-024HR	PRE1	BASE	17.26	0.00	0.00	0	1.31	0.00	1.0979	0.0000
100YR-024HR	PRE1	BASE	17.51	0.00	0.00	0	1.32	0.00	1.1251	0.0000
100YR-024HR	PRE1	BASE	17.76	0.00	0.00	0	1.33	0.00	1.1525	0.0000
100YR-024HR	PRE1	BASE	18.01	0.00	0.00	0	1.34	0.00	1.1801	0.0000
100YR-024HR	PRE1	BASE	18.26	0.00	0.00	0	1.35	0.00	1.2079	0.0000
100YR-024HR	PRE1	BASE	18.51	0.00	0.00	0	1.36	0.00	1.2358	0.0000
100YR-024HR	PRE1	BASE	18.76	0.00	0.00	0	1.36	0.00	1.2639	0.0000
100YR-024HR	PRE1	BASE	19.01	0.00	0.00	0	1.37	0.00	1.2921	0.0000
100YR-024HR	PRE1	BASE	19.26	0.00	0.00	0	1.13	0.00	1.3179	0.0000
100YR-024HR	PRE1	BASE	19.51	0.00	0.00	0	1.06	0.00	1.3405	0.0000
100YR-024HR	PRE1	BASE	19.76	0.00	0.00	0	1.05	0.00	1.3623	0.0000
100YR-024HR	PRE1	BASE	20.01	0.00	0.00	0	1.05	0.00	1.3839	0.0000
100YR-024HR	PRE1	BASE	20.26	0.00	0.00	0	1.05	0.00	1.4056	0.0000
100YR-024HR	PRE1	BASE	20.51	0.00	0.00	0	1.05	0.00	1.4274	0.0000
100YR-024HR	PRE1	BASE	20.76	0.00	0.00	0	1.06	0.00	1.4492	0.0000
100YR-024HR	PRE1	BASE	21.01	0.00	0.00	0	1.06	0.00	1.4710	0.0000
100YR-024HR	PRE1	BASE	21.26	0.00	0.00	0	0.81	0.00	1.4903	0.0000
100YR-024HR	PRE1	BASE	21.51	0.00	0.00	0	0.73	0.00	1.5063	0.0000
100YR-024HR	PRE1	BASE	21.76	0.00	0.00	0	0.71	0.00	1.5212	0.0000
100YR-024HR	PRE1	BASE	22.01	0.00	0.00	0	0.71	0.00	1.5359	0.0000
100YR-024HR	PRE1	BASE	22.26	0.00	0.00	0	0.46	0.00	1.5480	0.0000
100YR-024HR	PRE1	BASE	22.51	0.00	0.00	0	0.38	0.00	1.5567	0.0000
100YR-024HR	PRE1	BASE	22.76	0.00	0.00	0	0.36	0.00	1.5644	0.0000
100YR-024HR	PRE1	BASE	23.01	0.00	0.00	0	0.36	0.00	1.5718	0.0000
100YR-024HR	PRE1	BASE	23.26	0.00	0.00	0	0.36	0.00	1.5793	0.0000
100YR-024HR	PRE1	BASE	23.51	0.00	0.00	0	0.36	0.00	1.5867	0.0000
100YR-024HR	PRE1	BASE	23.76	0.00	0.00	0	0.36	0.00	1.5942	0.0000
100YR-024HR	PRE1	BASE	24.01	0.00	0.00	0	0.36	0.00	1.6016	0.0000
100YR-024HR	PRE1	BASE	24.26	0.00	0.00	0	0.10	0.00	1.6063	0.0000
100YR-024HR	PRE1	BASE	24.51	0.00	0.00	0	0.02	0.00	1.6076	0.0000
100YR-024HR	PRE1	BASE	24.76	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	25.01	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	25.26	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	25.51	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	25.76	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	26.01	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	26.26	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	26.51	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	26.76	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	27.01	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	27.26	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	27.51	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	27.76	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	28.01	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	28.26	0.00	0.00	0	0.00	0.00	1.6078	0.0000
100YR-024HR	PRE1	BASE	28.51	0.00	0.00	0	0.00	0.00	1.6078	0.0000

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Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-072HR	PRE1	BASE	57.51	0.00	0.00	0	2.10	0.00	1.2271	0.0000
100YR-072HR	PRE1	BASE	57.75	0.00	0.00	0	2.12	0.00	1.2698	0.0000
100YR-072HR	PRE1	BASE	58.01	0.00	0.00	0	2.13	0.00	1.3147	0.0000
100YR-072HR	PRE1	BASE	58.25	0.00	0.00	0	2.15	0.00	1.3582	0.0000
100YR-072HR	PRE1	BASE	58.50	0.00	0.00	0	2.17	0.00	1.4020	0.0000
100YR-072HR	PRE1	BASE	58.76	0.00	0.00	0	2.19	0.00	1.4481	0.0000
100YR-072HR	PRE1	BASE	59.01	0.00	0.00	0	2.20	0.00	1.4940	0.0000
100YR-072HR	PRE1	BASE	59.26	0.00	0.00	0	2.22	0.00	1.5397	0.0000
100YR-072HR	PRE1	BASE	59.51	0.00	0.00	0	2.24	0.00	1.5857	0.0000
100YR-072HR	PRE1	BASE	59.76	0.00	0.00	0	2.25	0.00	1.6321	0.0000
100YR-072HR	PRE1	BASE	60.01	0.00	0.00	0	2.25	0.00	1.6785	0.0000
100YR-072HR	PRE1	BASE	60.26	0.00	0.00	0	1.57	0.00	1.7179	0.0000
100YR-072HR	PRE1	BASE	60.51	0.00	0.00	0	1.36	0.00	1.7481	0.0000
100YR-072HR	PRE1	BASE	60.76	0.00	0.00	0	1.31	0.00	1.7756	0.0000
100YR-072HR	PRE1	BASE	61.01	0.00	0.00	0	1.31	0.00	1.8027	0.0000
100YR-072HR	PRE1	BASE	61.26	0.00	0.00	0	1.32	0.00	1.8298	0.0000
100YR-072HR	PRE1	BASE	61.51	0.00	0.00	0	1.32	0.00	1.8571	0.0000
100YR-072HR	PRE1	BASE	61.76	0.00	0.00	0	1.33	0.00	1.8844	0.0000
100YR-072HR	PRE1	BASE	62.01	0.00	0.00	0	1.33	0.00	1.9118	0.0000
100YR-072HR	PRE1	BASE	62.26	0.00	0.00	0	1.33	0.00	1.9393	0.0000
100YR-072HR	PRE1	BASE	62.51	0.00	0.00	0	1.34	0.00	1.9669	0.0000
100YR-072HR	PRE1	BASE	62.76	0.00	0.00	0	1.34	0.00	1.9946	0.0000
100YR-072HR	PRE1	BASE	63.01	0.00	0.00	0	1.35	0.00	2.0224	0.0000
100YR-072HR	PRE1	BASE	63.26	0.00	0.00	0	1.35	0.00	2.0502	0.0000
100YR-072HR	PRE1	BASE	63.51	0.00	0.00	0	1.35	0.00	2.0782	0.0000
100YR-072HR	PRE1	BASE	63.76	0.00	0.00	0	1.36	0.00	2.1062	0.0000
100YR-072HR	PRE1	BASE	64.01	0.00	0.00	0	1.34	0.00	2.1341	0.0000
100YR-072HR	PRE1	BASE	64.26	0.00	0.00	0	0.73	0.00	2.1555	0.0000
100YR-072HR	PRE1	BASE	64.51	0.00	0.00	0	0.53	0.00	2.1686	0.0000
100YR-072HR	PRE1	BASE	64.76	0.00	0.00	0	0.49	0.00	2.1791	0.0000
100YR-072HR	PRE1	BASE	65.01	0.00	0.00	0	0.49	0.00	2.1891	0.0000
100YR-072HR	PRE1	BASE	65.26	0.00	0.00	0	0.49	0.00	2.1991	0.0000
100YR-072HR	PRE1	BASE	65.51	0.00	0.00	0	0.49	0.00	2.2092	0.0000
100YR-072HR	PRE1	BASE	65.76	0.00	0.00	0	0.49	0.00	2.2192	0.0000
100YR-072HR	PRE1	BASE	66.01	0.00	0.00	0	0.49	0.00	2.2293	0.0000
100YR-072HR	PRE1	BASE	66.26	0.00	0.00	0	0.49	0.00	2.2394	0.0000
100YR-072HR	PRE1	BASE	66.51	0.00	0.00	0	0.49	0.00	2.2494	0.0000
100YR-072HR	PRE1	BASE	66.76	0.00	0.00	0	0.49	0.00	2.2595	0.0000
100YR-072HR	PRE1	BASE	67.01	0.00	0.00	0	0.49	0.00	2.2696	0.0000
100YR-072HR	PRE1	BASE	67.26	0.00	0.00	0	0.49	0.00	2.2797	0.0000
100YR-072HR	PRE1	BASE	67.51	0.00	0.00	0	0.49	0.00	2.2898	0.0000
100YR-072HR	PRE1	BASE	67.76	0.00	0.00	0	0.49	0.00	2.3000	0.0000
100YR-072HR	PRE1	BASE	68.01	0.00	0.00	0	0.48	0.00	2.3100	0.0000
100YR-072HR	PRE1	BASE	68.26	0.00	0.00	0	0.29	0.00	2.3181	0.0000
100YR-072HR	PRE1	BASE	68.51	0.00	0.00	0	0.24	0.00	2.3236	0.0000
100YR-072HR	PRE1	BASE	68.76	0.00	0.00	0	0.22	0.00	2.3283	0.0000
100YR-072HR	PRE1	BASE	69.01	0.00	0.00	0	0.22	0.00	2.3328	0.0000
100YR-072HR	PRE1	BASE	69.26	0.00	0.00	0	0.22	0.00	2.3374	0.0000
100YR-072HR	PRE1	BASE	69.51	0.00	0.00	0	0.22	0.00	2.3420	0.0000
100YR-072HR	PRE1	BASE	69.76	0.00	0.00	0	0.22	0.00	2.3465	0.0000
100YR-072HR	PRE1	BASE	70.01	0.00	0.00	0	0.22	0.00	2.3511	0.0000
100YR-072HR	PRE1	BASE	70.26	0.00	0.00	0	0.22	0.00	2.3557	0.0000
100YR-072HR	PRE1	BASE	70.51	0.00	0.00	0	0.22	0.00	2.3602	0.0000
100YR-072HR	PRE1	BASE	70.76	0.00	0.00	0	0.22	0.00	2.3648	0.0000
100YR-072HR	PRE1	BASE	71.01	0.00	0.00	0	0.22	0.00	2.3694	0.0000
100YR-072HR	PRE1	BASE	71.26	0.00	0.00	0	0.22	0.00	2.3740	0.0000
100YR-072HR	PRE1	BASE	71.51	0.00	0.00	0	0.22	0.00	2.3785	0.0000
100YR-072HR	PRE1	BASE	71.76	0.00	0.00	0	0.22	0.00	2.3831	0.0000
100YR-072HR	PRE1	BASE	72.01	0.00	0.00	0	0.22	0.00	2.3877	0.0000
100YR-072HR	PRE1	BASE	72.26	0.00	0.00	0	0.06	0.00	2.3905	0.0000
100YR-072HR	PRE1	BASE	72.51	0.00	0.00	0	0.01	0.00	2.3913	0.0000
100YR-072HR	PRE1	BASE	72.76	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	73.01	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	73.26	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	73.51	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	73.76	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	74.01	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	74.26	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	74.51	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	74.76	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	75.01	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	75.26	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	75.51	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	75.76	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	76.01	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	76.26	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	76.51	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	76.76	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	77.01	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	77.26	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	77.51	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	77.76	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	78.01	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	78.26	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	78.51	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	78.76	0.00	0.00	0	0.00	0.00	2.3914	0.0000
100YR-072HR	PRE1	BASE	79.01	0.00	0.00	0	0.00	0.00	2.3914	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100YR-168HR	Offsite	BASE	156.77	0.00	0.00	0	1.46	0.00	1.1652	0.0000
100YR-168HR	Offsite	BASE	157.02	0.00	0.00	0	1.46	0.00	1.1953	0.0000
100YR-168HR	Offsite	BASE	157.27	0.00	0.00	0	1.47	0.00	1.2256	0.0000
100YR-168HR	Offsite	BASE	157.52	0.00	0.00	0	1.48	0.00	1.2560	0.0000
100YR-168HR	Offsite	BASE	157.77	0.00	0.00	0	1.48	0.00	1.2866	0.0000
100YR-168HR	Offsite	BASE	158.02	0.00	0.00	0	1.49	0.00	1.3172	0.0000
100YR-168HR	Offsite	BASE	158.27	0.00	0.00	0	1.49	0.00	1.3480	0.0000
100YR-168HR	Offsite	BASE	158.52	0.00	0.00	0	1.50	0.00	1.3789	0.0000
100YR-168HR	Offsite	BASE	158.77	0.00	0.00	0	1.50	0.00	1.4099	0.0000
100YR-168HR	Offsite	BASE	159.02	0.00	0.00	0	1.51	0.00	1.4410	0.0000
100YR-168HR	Offsite	BASE	159.27	0.00	0.00	0	1.51	0.00	1.4723	0.0000
100YR-168HR	Offsite	BASE	159.52	0.00	0.00	0	1.52	0.00	1.5036	0.0000
100YR-168HR	Offsite	BASE	159.77	0.00	0.00	0	1.52	0.00	1.5351	0.0000
100YR-168HR	Offsite	BASE	160.02	0.00	0.00	0	1.52	0.00	1.5665	0.0000
100YR-168HR	Offsite	BASE	160.27	0.00	0.00	0	1.06	0.00	1.5931	0.0000
100YR-168HR	Offsite	BASE	160.52	0.00	0.00	0	0.69	0.00	1.6112	0.0000
100YR-168HR	Offsite	BASE	160.77	0.00	0.00	0	0.50	0.00	1.6236	0.0000
100YR-168HR	Offsite	BASE	161.02	0.00	0.00	0	0.40	0.00	1.6329	0.0000
100YR-168HR	Offsite	BASE	161.27	0.00	0.00	0	0.35	0.00	1.6406	0.0000
100YR-168HR	Offsite	BASE	161.52	0.00	0.00	0	0.32	0.00	1.6476	0.0000
100YR-168HR	Offsite	BASE	161.77	0.00	0.00	0	0.30	0.00	1.6540	0.0000
100YR-168HR	Offsite	BASE	162.02	0.00	0.00	0	0.29	0.00	1.6601	0.0000
100YR-168HR	Offsite	BASE	162.27	0.00	0.00	0	0.28	0.00	1.6659	0.0000
100YR-168HR	Offsite	BASE	162.52	0.00	0.00	0	0.27	0.00	1.6715	0.0000
100YR-168HR	Offsite	BASE	162.77	0.00	0.00	0	0.26	0.00	1.6771	0.0000
100YR-168HR	Offsite	BASE	163.02	0.00	0.00	0	0.26	0.00	1.6825	0.0000
100YR-168HR	Offsite	BASE	163.27	0.00	0.00	0	0.26	0.00	1.6879	0.0000
100YR-168HR	Offsite	BASE	163.52	0.00	0.00	0	0.26	0.00	1.6932	0.0000
100YR-168HR	Offsite	BASE	163.77	0.00	0.00	0	0.25	0.00	1.6984	0.0000
100YR-168HR	Offsite	BASE	164.02	0.00	0.00	0	0.25	0.00	1.7037	0.0000
100YR-168HR	Offsite	BASE	164.27	0.00	0.00	0	0.25	0.00	1.7089	0.0000
100YR-168HR	Offsite	BASE	164.52	0.00	0.00	0	0.25	0.00	1.7141	0.0000
100YR-168HR	Offsite	BASE	164.77	0.00	0.00	0	0.25	0.00	1.7193	0.0000
100YR-168HR	Offsite	BASE	165.02	0.00	0.00	0	0.25	0.00	1.7245	0.0000
100YR-168HR	Offsite	BASE	165.27	0.00	0.00	0	0.25	0.00	1.7296	0.0000
100YR-168HR	Offsite	BASE	165.52	0.00	0.00	0	0.25	0.00	1.7348	0.0000
100YR-168HR	Offsite	BASE	165.77	0.00	0.00	0	0.25	0.00	1.7400	0.0000
100YR-168HR	Offsite	BASE	166.02	0.00	0.00	0	0.25	0.00	1.7451	0.0000
100YR-168HR	Offsite	BASE	166.27	0.00	0.00	0	0.25	0.00	1.7503	0.0000
100YR-168HR	Offsite	BASE	166.52	0.00	0.00	0	0.25	0.00	1.7555	0.0000
100YR-168HR	Offsite	BASE	166.77	0.00	0.00	0	0.25	0.00	1.7606	0.0000
100YR-168HR	Offsite	BASE	167.02	0.00	0.00	0	0.25	0.00	1.7658	0.0000
100YR-168HR	Offsite	BASE	167.27	0.00	0.00	0	0.25	0.00	1.7710	0.0000
100YR-168HR	Offsite	BASE	167.52	0.00	0.00	0	0.25	0.00	1.7762	0.0000
100YR-168HR	Offsite	BASE	167.77	0.00	0.00	0	0.25	0.00	1.7814	0.0000
100YR-168HR	Offsite	BASE	168.02	0.00	0.00	0	0.25	0.00	1.7865	0.0000
100YR-168HR	Offsite	BASE	168.27	0.00	0.00	0	0.15	0.00	1.7906	0.0000
100YR-168HR	Offsite	BASE	168.52	0.00	0.00	0	0.08	0.00	1.7929	0.0000
100YR-168HR	Offsite	BASE	168.77	0.00	0.00	0	0.04	0.00	1.7941	0.0000
100YR-168HR	Offsite	BASE	169.02	0.00	0.00	0	0.02	0.00	1.7947	0.0000
100YR-168HR	Offsite	BASE	169.27	0.00	0.00	0	0.01	0.00	1.7950	0.0000
100YR-168HR	Offsite	BASE	169.52	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	169.77	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	170.02	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	170.27	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	170.52	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	170.77	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	171.02	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	171.27	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	171.52	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	171.77	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	172.02	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	172.27	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	172.52	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	172.77	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	173.02	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	173.27	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	173.52	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	173.77	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	174.02	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	174.27	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	174.52	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	174.77	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	175.02	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	175.27	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	175.52	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	175.77	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	176.02	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	176.27	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	176.52	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	176.77	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	177.02	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	177.27	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	177.52	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	177.77	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	178.02	0.00	0.00	0	0.00	0.00	1.7951	0.0000
100YR-168HR	Offsite	BASE	178.27	0.00	0.00	0	0.00	0.00	1.7951	0.0000

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Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 501 of 567

Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 540 of 567

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	Max Outflow cfs
Basin 1	BASE	100YR-001HR	1.22	69.54	70.00	0.0036	2545	0.83	1.67	1.22	0.16
Basin 1	BASE	100YR-002HR	1.72	69.68	70.00	-0.0045	2661	1.02	1.46	1.72	0.17
Basin 1	BASE	100YR-004HR	3.15	69.92	70.00	0.0050	2854	2.20	1.27	3.15	0.18
Basin 1	BASE	100YR-008HR	4.71	69.88	70.00	0.0050	2822	3.76	1.42	4.71	0.18
Basin 1	BASE	100YR-024HR	15.07	69.66	70.00	0.0050	2640	11.41	0.53	12.82	0.16
Basin 1	BASE	100YR-072HR	60.03	69.73	70.00	0.0042	2699	35.21	0.25	36.02	0.07
Basin 1	BASE	100YR-168HR	160.00	69.66	70.00	0.0022	2642	152.42	0.27	39.78	0.08
Basin 1	BASE	100YR-240HR	184.01	69.70	70.00	0.0046	2681	177.29	0.34	39.80	0.09

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	Max Outflow cfs
Basin 2	BASE	100YR-001HR	1.21	69.54	70.00	0.0050	1655	0.67	1.46	0.88	0.68
Basin 2	BASE	100YR-002HR	1.72	69.68	70.00	0.0050	1711	0.83	1.31	1.05	0.62
Basin 2	BASE	100YR-004HR	3.15	69.92	70.00	0.0049	1799	2.08	0.85	2.21	0.55
Basin 2	BASE	100YR-008HR	4.71	69.88	70.00	0.0050	1785	4.00	0.99	3.75	0.59
Basin 2	BASE	100YR-024HR	15.07	69.65	70.00	0.0050	1701	12.00	0.34	13.02	0.39
Basin 2	BASE	100YR-072HR	60.03	69.72	70.00	0.0050	1728	59.93	0.24	59.99	0.24
Basin 2	BASE	100YR-168HR	160.00	69.66	70.00	0.0021	1702	159.92	0.17	152.70	0.27
Basin 2	BASE	100YR-240HR	184.01	69.70	70.00	0.0046	1720	183.91	0.22	177.59	0.27

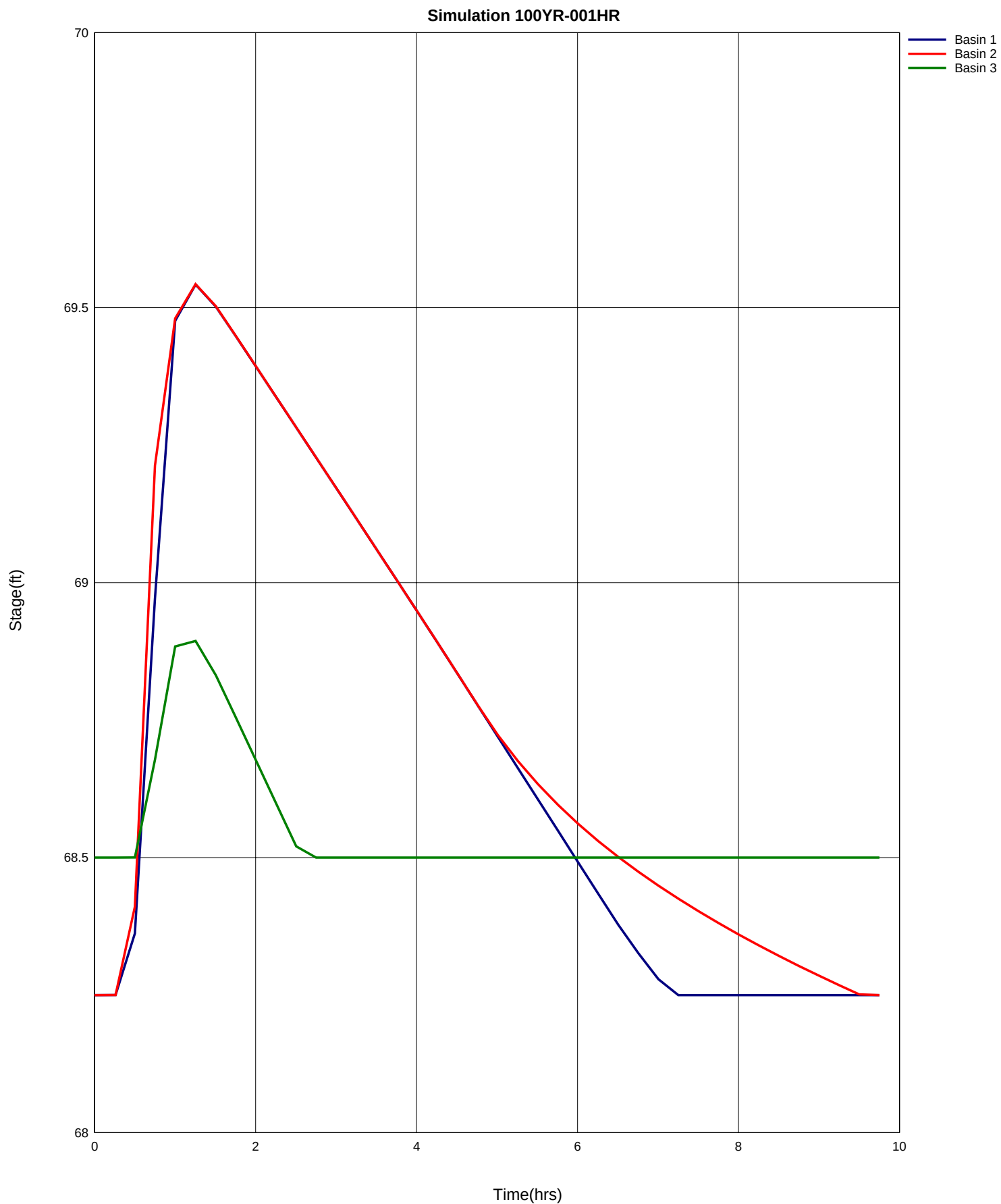
Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
Basin 3	BASE	100YR-001HR	1.14	68.90	70.00	-0.0033	6747	0.75	2.68	1.14	0.59
Basin 3	BASE	100YR-002HR	2.02	69.11	70.00	-0.0050	6977	0.92	2.37	2.02	0.61
Basin 3	BASE	100YR-004HR	3.61	69.53	70.00	-0.0033	7528	2.50	2.38	3.61	0.65
Basin 3	BASE	100YR-008HR	5.37	69.66	70.00	-0.0041	7700	4.00	2.91	5.37	0.67
Basin 3	BASE	100YR-024HR	19.16	69.89	70.00	0.0043	7997	12.00	1.10	13.79	0.60
Basin 3	BASE	100YR-072HR	60.06	69.99	70.00	0.0050	8130	59.99	0.98	60.04	0.94
Basin 3	BASE	100YR-168HR	160.00	69.96	70.00	-0.0025	8095	159.92	0.74	160.00	0.73
Basin 3	BASE	100YR-240HR	184.01	70.00	70.00	0.0049	8151	183.99	0.96	184.01	0.95

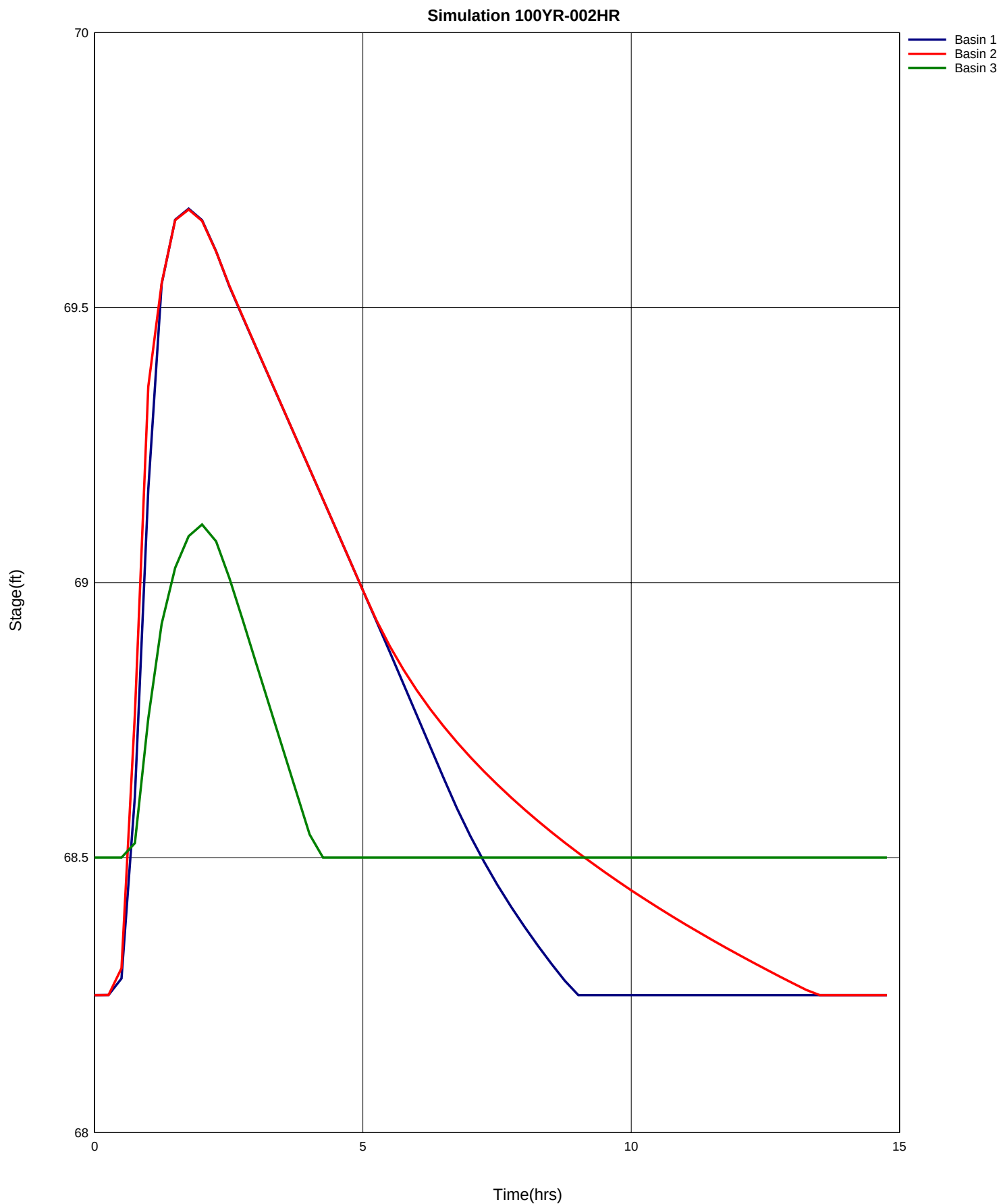
Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
NW126th Terr	BASE	100YR-001HR	0.00	0.00	0.00	0.0000	0	1.21	0.04	0.00	0.00
NW126th Terr	BASE	100YR-002HR	0.00	0.00	0.00	0.0000	0	1.72	0.36	0.00	0.00
NW126th Terr	BASE	100YR-004HR	0.00	0.00	0.00	0.0000	0	3.15	0.56	0.00	0.00
NW126th Terr	BASE	100YR-008HR	0.00	0.00	0.00	0.0000	0	4.71	0.53	0.00	0.00
NW126th Terr	BASE	100YR-024HR	0.00	0.00	0.00	0.0000	0	15.07	0.29	0.00	0.00
NW126th Terr	BASE	100YR-072HR	0.00	0.00	0.00	0.0000	0	60.03	0.41	0.00	0.00
NW126th Terr	BASE	100YR-168HR	0.00	0.00	0.00	0.0000	0	160.00	0.30	0.00	0.00
NW126th Terr	BASE	100YR-240HR	0.00	0.00	0.00	0.0000	0	184.01	0.39	0.00	0.00

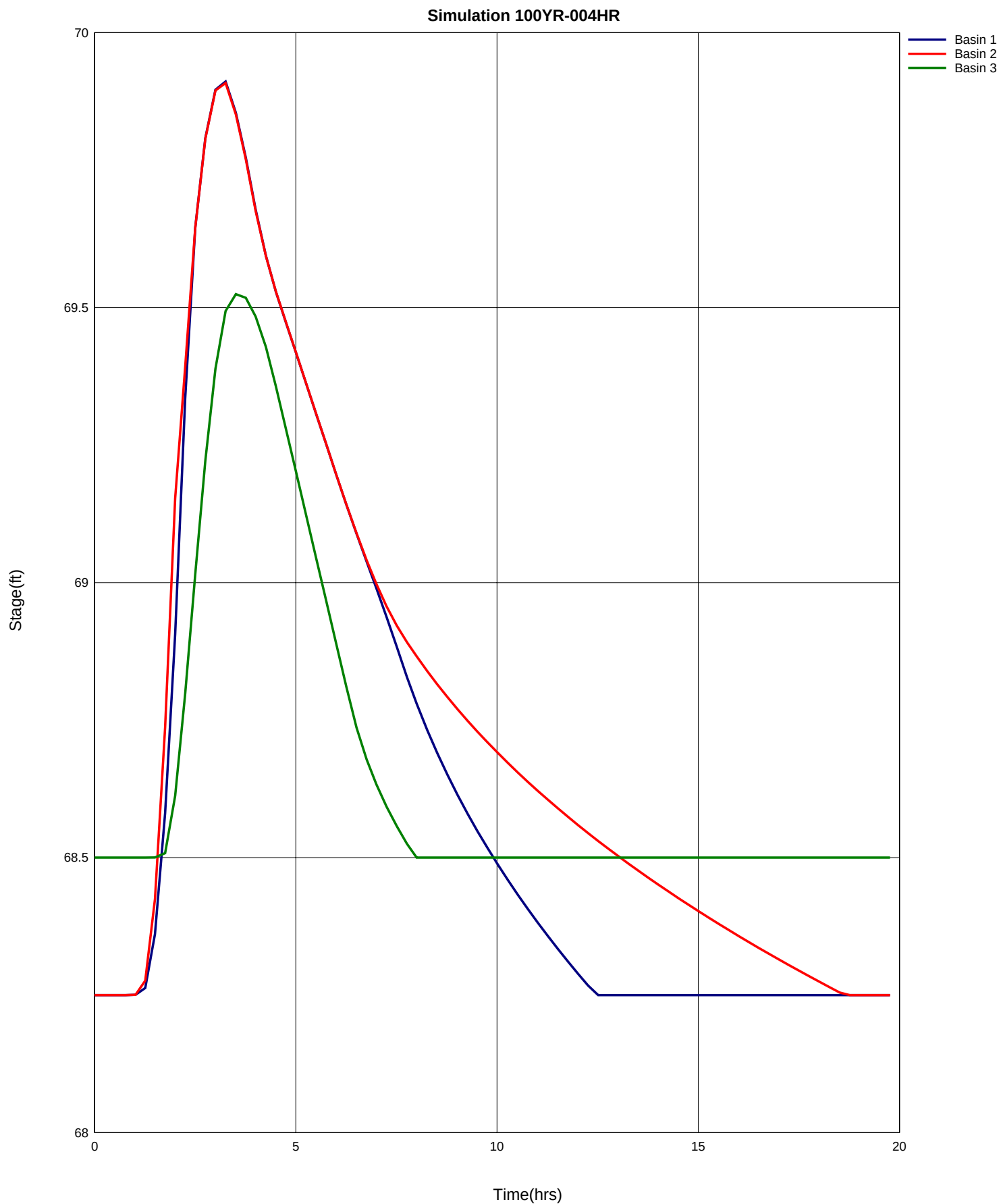
Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
Offsite	BASE	100YR-001HR	0.00	0.00	0.00	0.0000	0	0.92	0.56	0.00	0.00
Offsite	BASE	100YR-002HR	0.00	0.00	0.00	0.0000	0	1.50	0.64	0.00	0.00
Offsite	BASE	100YR-004HR	0.00	0.00	0.00	0.0000	0	3.00	1.37	0.00	0.00
Offsite	BASE	100YR-008HR	0.00	0.00	0.00	0.0000	0	4.08	1.56	0.00	0.00
Offsite	BASE	100YR-024HR	0.00	0.00	0.00	0.0000	0	19.02	0.94	0.00	0.00
Offsite	BASE	100YR-072HR	0.00	0.00	0.00	0.0000	0	59.99	1.84	0.00	0.00
Offsite	BASE	100YR-168HR	0.00	0.00	0.00	0.0000	0	160.00	1.53	0.00	0.00
Offsite	BASE	100YR-240HR	0.00	0.00	0.00	0.0000	0	183.99	1.98	0.00	0.00

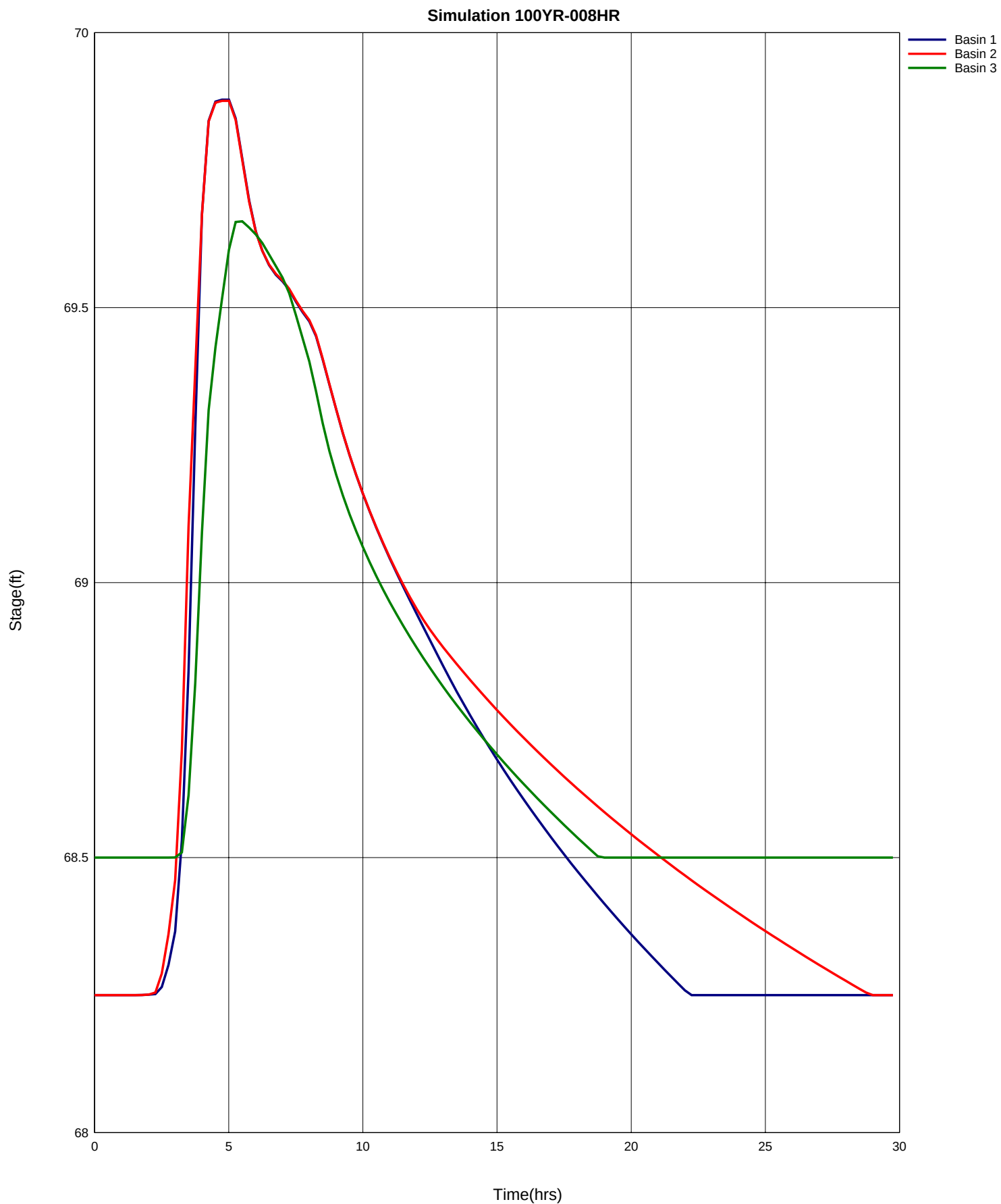
Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
PRE1	BASE	100YR-001HR	0.00	0.00	0.00	0.0000	0	0.75	4.84	0.00	0.00
PRE1	BASE	100YR-002HR	0.00	0.00	0.00	0.0000	0	0.92	4.29	0.00	0.00
PRE1	BASE	100YR-004HR	0.00	0.00	0.00	0.0000	0	2.50	4.90	0.00	0.00
PRE1	BASE	100YR-008HR	0.00	0.00	0.00	0.0000	0	4.00	6.04	0.00	0.00
PRE1	BASE	100YR-024HR	0.00	0.00	0.00	0.0000	0	12.00	2.35	0.00	0.00
PRE1	BASE	100YR-072HR	0.00	0.00	0.00	0.0000	0	59.99	2.26	0.00	0.00
PRE1	BASE	100YR-168HR	0.00	0.00	0.00	0.0000	0	159.92	1.73	0.00	0.00
PRE1	BASE	100YR-240HR	0.00	0.00	0.00	0.0000	0	183.99	2.25	0.00	0.00

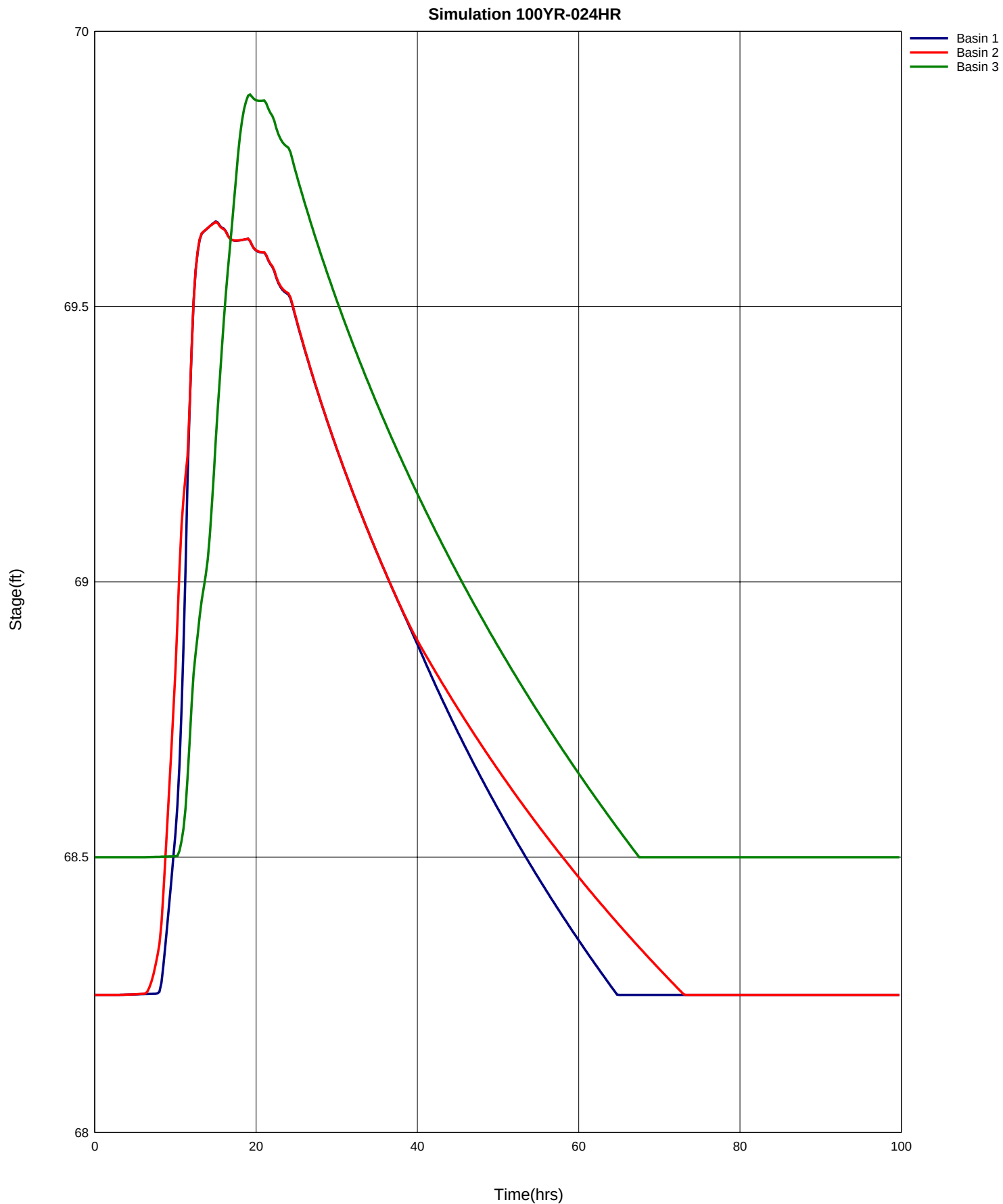
Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
PRE2	BASE	100YR-001HR	0.78	70.03	70.00	0.0050	2497	0.67	1.73	0.78	1.66
PRE2	BASE	100YR-002HR	0.93	70.02	70.00	0.0050	2493	0.83	1.61	0.93	1.47
PRE2	BASE	100YR-004HR	2.50	70.02	70.00	0.0050	2486	2.50	1.22	2.50	1.22
PRE2	BASE	100YR-008HR	4.00	70.02	70.00	0.0050	2493	4.00	1.47	4.00	1.47
PRE2	BASE	100YR-024HR	12.00	70.01	70.00	0.0050	2466	12.00	0.53	12.00	0.53
PRE2	BASE	100YR-072HR	59.99	70.01	70.00	0.0034	2462	59.99	0.41	59.99	0.41
PRE2	BASE	100YR-168HR	159.92	70.01	70.00	0.0025	2458	159.92	0.30	159.92	0.30
PRE2	BASE	100YR-240HR	183.92	70.01	70.00	0.0030	2461	183.92	0.39	183.92	0.39

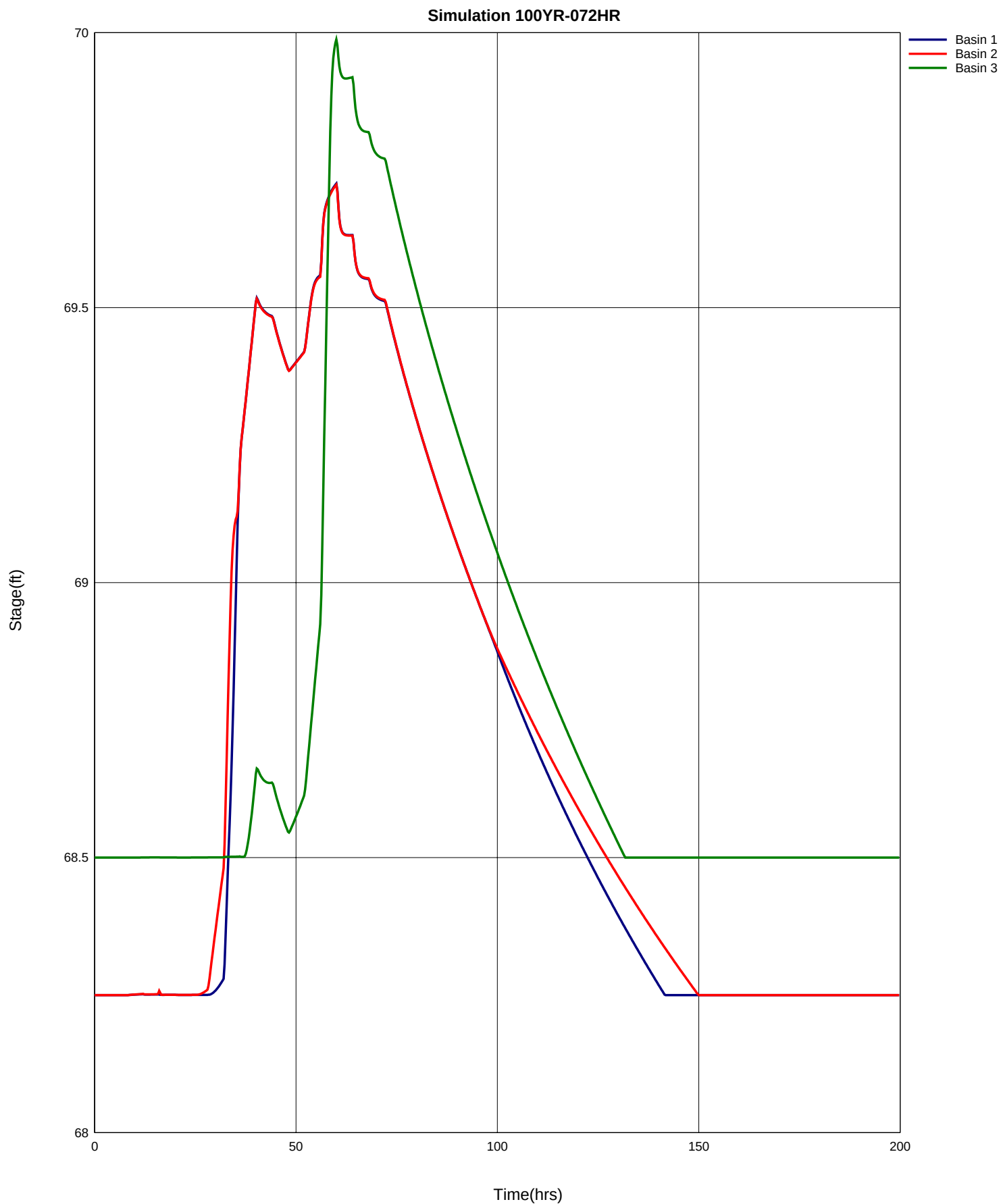


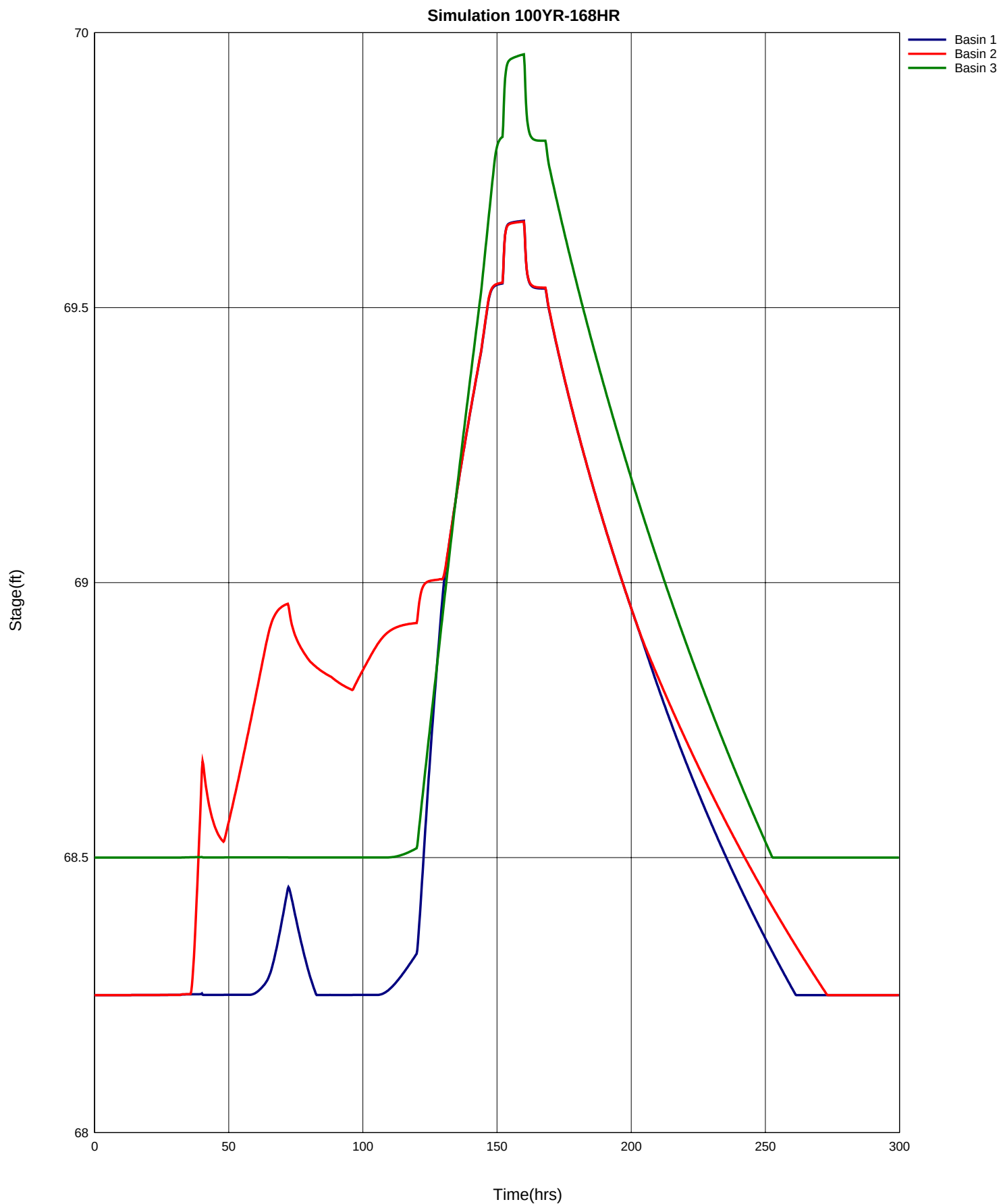


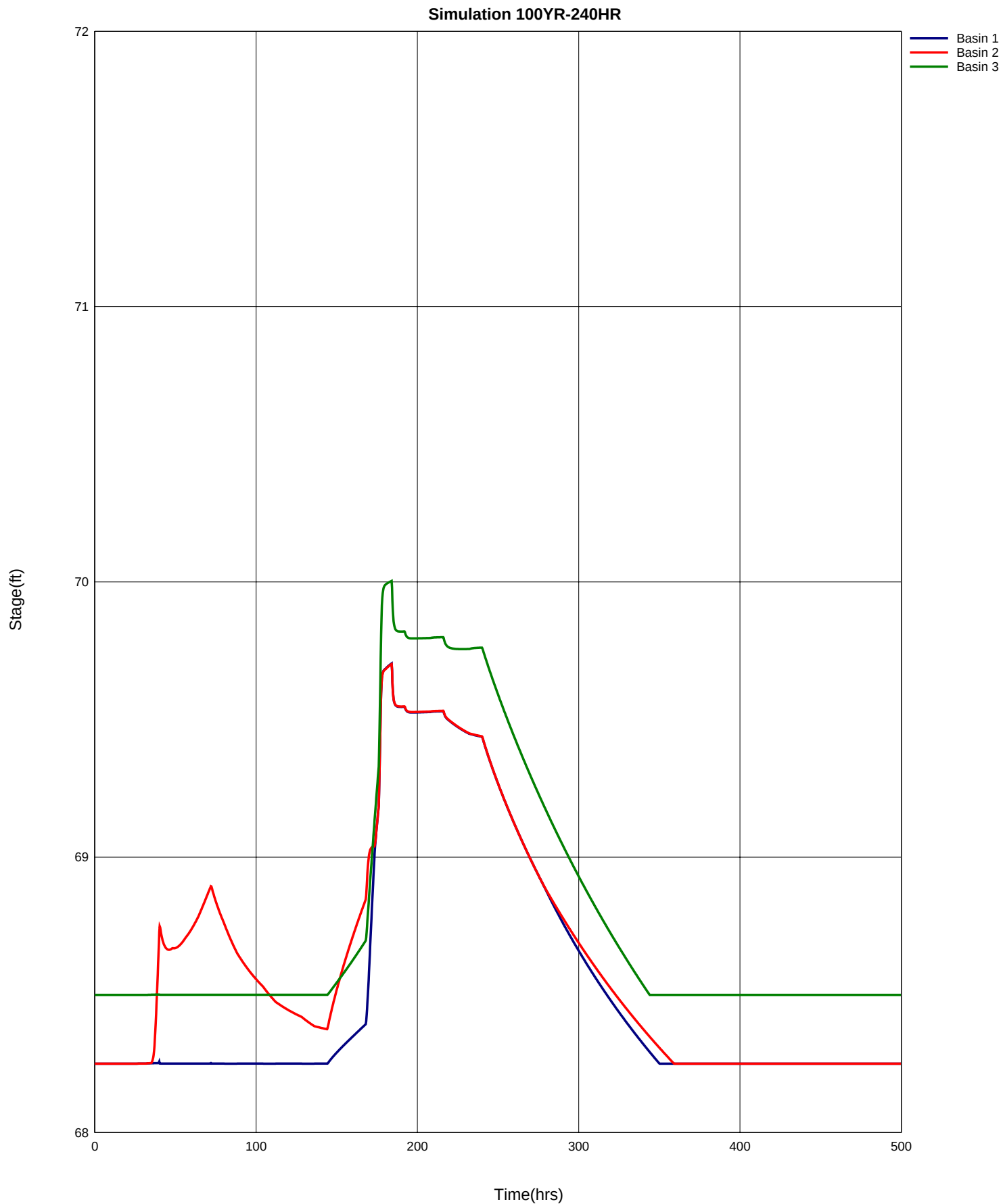













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=====
---- Basins -----
=====

      Name: POST DA1-P1          Node: Basin 1          Status: Onsite
      Group: BASE                Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323      Peaking Factor: 323.0
      Rainfall File:             Storm Duration(hrs): 0.00
      Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
      Area(ac): 0.370           Time Shift(hrs): 0.00
      Curve Number: 74.00       Max Allowable Q(cfs): 999999.000
      DCIA(%): 0.00

-----

      Name: Post DA1-P2          Node: Basin 2          Status: Onsite
      Group: BASE                Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323      Peaking Factor: 323.0
      Rainfall File:             Storm Duration(hrs): 0.00
      Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
      Area(ac): 0.370           Time Shift(hrs): 0.00
      Curve Number: 74.00       Max Allowable Q(cfs): 999999.000
      DCIA(%): 0.00

-----

      Name: Post DA2             Node: Basin 3          Status: Onsite
      Group: BASE                Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323      Peaking Factor: 323.0
      Rainfall File:             Storm Duration(hrs): 0.00
      Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
      Area(ac): 1.830           Time Shift(hrs): 0.00
      Curve Number: 54.00       Max Allowable Q(cfs): 999999.000
      DCIA(%): 0.00

-----

      Name: PostDA2-P2           Node: Offsite         Status: Onsite
      Group: BASE                Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323      Peaking Factor: 323.0
      Rainfall File:             Storm Duration(hrs): 0.00
      Rainfall Amount(in): 0.000 Time of Conc(min): 15.00
      Area(ac): 2.660           Time Shift(hrs): 0.00
      Curve Number: 39.00       Max Allowable Q(cfs): 999999.000
      DCIA(%): 0.00

-----

      Name: PRE DA1              Node: PRE1            Status: Onsite
      Group: BASE                Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323      Peaking Factor: 323.0
      Rainfall File:             Storm Duration(hrs): 0.00
      Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
      Area(ac): 4.490           Time Shift(hrs): 0.00
      Curve Number: 50.00       Max Allowable Q(cfs): 999999.000
      DCIA(%): 0.00

-----

      Name: PRE2                 Node: PRE2            Status: Onsite
      Group: BASE                Type: SCS Unit Hydrograph CN

      Unit Hydrograph: Uh323      Peaking Factor: 323.0
      Rainfall File:             Storm Duration(hrs): 0.00
      Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
      Area(ac): 0.680           Time Shift(hrs): 0.00
      Curve Number: 64.00       Max Allowable Q(cfs): 999999.000
      DCIA(%): 0.00

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=====
---- Nodes -----
=====

      Name: Basin 1              Base Flow(cfs): 0.000      Init Stage(ft): 69.500
      Group: BASE                Warn Stage(ft): 70.000
      Type: Stage/Area

```

Stage(ft)	Area(ac)
68.250	0.0320
69.000	0.0460
70.000	0.0660
71.000	0.0870

Name: Basin 2	Base Flow(cfs): 0.000	Init Stage(ft): 69.500
Group: BASE		warn Stage(ft): 70.000
Type: Stage/Area		

Stage(ft)	Area(ac)
68.250	0.0240
69.000	0.0310
70.000	0.0410
71.000	0.0520

Name: Basin 3	Base Flow(cfs): 0.000	Init Stage(ft): 69.750
Group: BASE		warn Stage(ft): 70.000
Type: Stage/Area		

Stage(ft)	Area(ac)
68.500	0.1460
69.000	0.1570
70.000	0.1870
71.000	0.2200

Name: Ex Off	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
999.00	0.000

Name: Groundwater	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
99999.00	0.000

Name: NW126th Terr	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
99999.00	0.000

Name: Offsite	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
9999999.00	0.000

Name: PRE1	Base Flow(cfs): 0.000	Init Stage(ft): 0.000
Group: BASE		warn Stage(ft): 0.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	0.000
99999.00	0.000

Name: PRE2	Base Flow(cfs): 0.000	Init Stage(ft): 69.000
Group: BASE		Warn Stage(ft): 70.000
Type: Stage/Area		

Stage(ft)	Area(ac)
69.000	0.0060
70.000	0.0560

==== Pipes =====

Name: Pipe 1 to 2	From Node: Basin 2	Length(ft): 109.00
Group: BASE	To Node: Basin 1	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 15.00	15.00	Flow: Both
Rise(in): 15.00	15.00	Entrance Loss Coef: 0.00
Invert(ft): 68.860	68.860	Exit Loss Coef: 1.00
Manning's N: 0.013000	0.013000	Bend Loss Coef: 0.00
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
		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

==== Drop Structures =====

Name: Dis 4 to Off	From Node: Basin 3	Length(ft): 5.00
Group: BASE	To Node: Offsite	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 15.00	15.00	Flow: Both
Rise(in): 15.00	15.00	Entrance Loss Coef: 0.000
Invert(ft): 68.500	67.000	Exit Loss Coef: 1.000
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Solution Incs: 10

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

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

*** Weir 1 of 1 for Drop Structure Dis 4 to Off ***

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Vertical: Mavis	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 26.00	Invert(ft): 69.750	
Rise(in): 3.00	Control Elev(ft): 69.750	

==== Weirs =====

Name: Weir PRE	From Node: PRE2
Group: BASE	To Node: Ex Off
Flow: Both	Count: 1
Type: Horizontal	Geometry: Rectangular
Span(in): 600.00	

Rise(in): 120.00
Invert(ft): 70.000
Control Elevation(ft): 70.000

TABLE

Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

Name: Weir2 From Node: Basin 2
Group: BASE To Node: NW126th Terr
Flow: Both Count: 1
Type: Horizontal Geometry: Circular

Span(in): 5.75
Rise(in): 5.75
Invert(ft): 69.500
Control Elevation(ft): 69.500

TABLE

Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

=====
Percolation Links

Name: Perc1 From Node: Basin 1 Flow: Both
Group: BASE To Node: Groundwater Count: 1

Surface Area Option: Vary based on Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 64.650 Perimeter 1(ft): 383.560
Water Table Elev(ft): 65.150 Perimeter 2(ft): 576.079
Ann Recharge Rate(in/year): 0.000 Perimeter 3(ft): 1374.330
Horiz Conductivity(ft/day): 11.000 Distance 1 to 2(ft): 50.000
Vert Conductivity(ft/day): 5.500 Distance 2 to 3(ft): 450.000
Effective Porosity(dec): 0.250 Num Cells 1 to 2: 10
Suction Head(in): 4.170 Num Cells 2 to 3: 45
Layer Thickness(ft): 3.100

Name: Perc2 From Node: Basin 2 Flow: Both
Group: BASE To Node: Groundwater Count: 1

Surface Area Option: Vary based on Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 64.650 Perimeter 1(ft): 175.433
Water Table Elev(ft): 65.150 Perimeter 2(ft): 359.140
Ann Recharge Rate(in/year): 0.000 Perimeter 3(ft): 1009.291
Horiz Conductivity(ft/day): 11.000 Distance 1 to 2(ft): 50.000
Vert Conductivity(ft/day): 5.500 Distance 2 to 3(ft): 450.000
Effective Porosity(dec): 0.250 Num Cells 1 to 2: 10
Suction Head(in): 4.170 Num Cells 2 to 3: 45
Layer Thickness(ft): 3.100

Name: Perc3 From Node: Basin 3 Flow: Both
Group: BASE To Node: Groundwater Count: 1

Surface Area Option: Vary based on Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 62.500 Perimeter 1(ft): 367.584
Water Table Elev(ft): 63.000 Perimeter 2(ft): 681.743
Ann Recharge Rate(in/year): 0.000 Perimeter 3(ft): 3509.176
Horiz Conductivity(ft/day): 15.000 Distance 1 to 2(ft): 50.000
Vert Conductivity(ft/day): 7.500 Distance 2 to 3(ft): 450.000
Effective Porosity(dec): 0.250 Num Cells 1 to 2: 10
Suction Head(in): 4.170 Num Cells 2 to 3: 45
Layer Thickness(ft): 5.500

=====
Hydrology Simulations

Name: 100YR-001HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-001HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 1.00
 Rainfall File: Fdot-1
 Rainfall Amount(in): 4.40

Time(hrs)	Print	Inc(min)
721.000		5.00

Name: 100YR-002HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-002HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 2.00
 Rainfall File: Fdot-2
 Rainfall Amount(in): 5.40

Time(hrs)	Print	Inc(min)
722.000		5.00

Name: 100YR-004HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-004HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 4.00
 Rainfall File: Fdot-4
 Rainfall Amount(in): 6.72

Time(hrs)	Print	Inc(min)
724.000		5.00

Name: 100YR-008HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-008HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 8.00
 Rainfall File: Fdot-8
 Rainfall Amount(in): 8.00

Time(hrs)	Print	Inc(min)
728.000		5.00

Name: 100YR-024HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-024HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 24.00
 Rainfall File: Fdot-24
 Rainfall Amount(in): 11.04

Time(hrs)	Print	Inc(min)
744.000		5.00

Name: 100YR-072HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-072HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 72.00
 Rainfall File: Fdot-72
 Rainfall Amount(in): 13.80

Time(hrs)	Print	Inc(min)
792.000		5.00

Name: 100YR-168HR
 Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-168HR.R32
 Override Defaults: Yes
 Storm Duration(hrs): 168.00
 Rainfall File: Fdot-168
 Rainfall Amount(in): 16.00

Time(hrs)	Print	Inc(min)
888.000		5.00

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-----
Name: 100YR-240HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-240HR.R32

Override Defaults: Yes
Storm Duration(hrs): 240.00
Rainfall File: Fdot-240
Rainfall Amount(in): 18.00

Time(hrs)      Print Inc(min)
-----
960.000        5.00

```

```

-----
Name: WQTV
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\WQTV.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 0.00

Time(hrs)      Print Inc(min)
-----
96.000         5.00

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=====
---- Routing Simulations ----
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Name: 100YR-001HR      Hydrology Sim: 100YR-001HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-001HR.I32

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

Max Delta Z(ft): 1.00      Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000      End Time(hrs): 721.00
Min Calc Time(sec): 0.5000   Max Calc Time(sec): 60.0000
Boundary Stages:      Boundary Flows:

```

```

Time(hrs)      Print Inc(min)
-----
721.000        15.000

Group          Run
-----
BASE           Yes

```

```

-----
Name: 100YR-002HR      Hydrology Sim: 100YR-002HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-002HR.I32

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

Max Delta Z(ft): 1.00      Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000      End Time(hrs): 722.00
Min Calc Time(sec): 0.5000   Max Calc Time(sec): 60.0000
Boundary Stages:      Boundary Flows:

```

```

Time(hrs)      Print Inc(min)
-----
722.000        15.000

Group          Run
-----
BASE           Yes

```

```

-----
Name: 100YR-004HR      Hydrology Sim: 100YR-004HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-004HR.I32

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

Max Delta Z(ft): 1.00      Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000      End Time(hrs): 724.00
Min Calc Time(sec): 0.5000   Max Calc Time(sec): 60.0000
Boundary Stages:      Boundary Flows:

```

Time(hrs)	Print Inc(min)
724.000	15.000
Group	Run
BASE	Yes

Name: 100YR-008HR	Hydrology Sim: 100YR-008HR	
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-008HR.I32		
Execute: No	Restart: No	Patch: No
Alternative: No		
Max Delta Z(ft): 1.00	Delta Z Factor: 0.00500	
Time Step Optimizer: 10.000		
Start Time(hrs): 0.000	End Time(hrs): 728.00	
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 60.0000	
Boundary Stages:	Boundary Flows:	

Time(hrs)	Print Inc(min)
728.000	15.000
Group	Run
BASE	Yes

Name: 100YR-024HR	Hydrology Sim: 100YR-024HR	
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-024HR.I32		
Execute: No	Restart: No	Patch: No
Alternative: No		
Max Delta Z(ft): 1.00	Delta Z Factor: 0.00500	
Time Step Optimizer: 10.000		
Start Time(hrs): 0.000	End Time(hrs): 744.00	
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 60.0000	
Boundary Stages:	Boundary Flows:	

Time(hrs)	Print Inc(min)
744.000	15.000
Group	Run
BASE	Yes

Name: 100YR-072HR	Hydrology Sim: 100YR-072HR	
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-072HR.I32		
Execute: No	Restart: No	Patch: No
Alternative: No		
Max Delta Z(ft): 1.00	Delta Z Factor: 0.00500	
Time Step Optimizer: 10.000		
Start Time(hrs): 0.000	End Time(hrs): 792.00	
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 60.0000	
Boundary Stages:	Boundary Flows:	

Time(hrs)	Print Inc(min)
792.000	15.000
Group	Run
BASE	Yes

Name: 100YR-168HR	Hydrology Sim: 100YR-168HR	
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-168HR.I32		
Execute: No	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.00500
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 888.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 60.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
888.000	15.000
Group	Run
-----	-----
BASE	Yes

Name: 100YR-240HR	Hydrology Sim: 100YR-240HR
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\100YR-240HR.I32	

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

Max Delta Z(ft): 1.00	Delta Z Factor: 0.00500
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 840.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 60.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
840.000	15.000
Group	Run
-----	-----
BASE	Yes

Name: WQTV	Hydrology Sim: WQTV
Filename: \\Server3\engprojects\Alchem Laboratories - Bldg. 3\Design Reports\Drainage\WQTV.I32	

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

Max Delta Z(ft): 1.00	Delta Z Factor: 0.00500
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 96.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 60.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
96.000	15.000
Group	Run
-----	-----
BASE	Yes

Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 1 of 5

Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 2 of 5

Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 3 of 5

Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc. Page 4 of 5

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
WQTV	Groundwater	BASE	87.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	87.26	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	87.51	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	87.76	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	88.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	88.26	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	88.51	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	88.76	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	89.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	89.26	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	89.51	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	89.76	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	90.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	90.26	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	90.51	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	90.76	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	91.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	91.26	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	91.51	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	91.76	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	92.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	92.26	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	92.51	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	92.76	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	93.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	93.26	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	93.51	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	93.76	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	94.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	94.26	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	94.51	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	94.76	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	95.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	95.26	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	95.51	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	95.76	0.00	0.00	0	0.00	0.00	0.2817	0.0000
WQTV	Groundwater	BASE	96.01	0.00	0.00	0	0.00	0.00	0.2817	0.0000

Hydrologic Soil Group—Alachua County, Florida



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

4/19/2019
Page 1 of 4

MAP LEGEND**Area of Interest (AOI)**
 Area of Interest (AOI)
Soils**Soil Rating Polygons**

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points

-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available

Water Features
 Streams and Canals
Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background
 Aerial Photography
MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Alachua County, Florida
Survey Area Data: Version 19, Sep 11, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 26, 2014—Dec 9, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
3	Arredondo fine sand, 0 to 5 percent slopes	A	3.6	38.1%
8	Millhopper sand, 0 to 5 percent slopes	A	3.9	41.3%
14	Pomona sand, 0 to 2 percent slopes	A/D	0.0	0.0%
69	Arredondo fine sand, 5 to 8 percent slopes	A	1.8	18.8%
99	Water		0.2	1.8%
Totals for Area of Interest			9.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

National Flood Hazard Layer FIRMette



29°47'21.02"N



USGS The National Map: Orthoimagery. Data refreshed October, 2017. 29°46'49.79"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

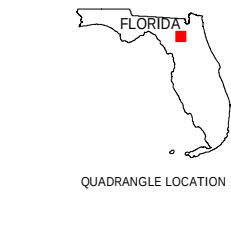
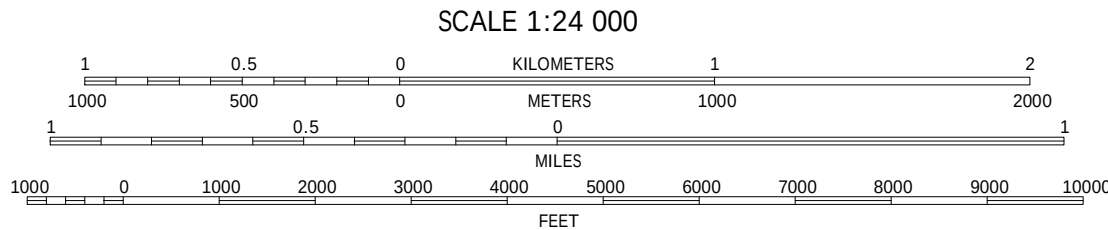
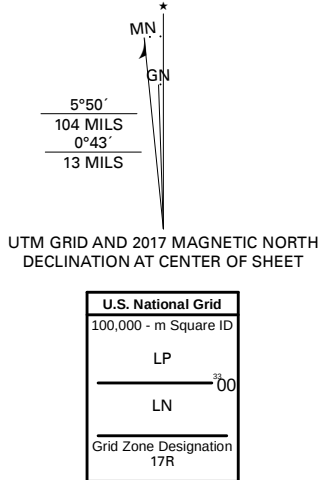
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **4/19/2019 at 9:28:11 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1 000-meter grid/Universal Transverse Mercator, Zone 17R
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.

Imagery.....NAIP, October 2015 - January 2016
Roads.....U.S. Census Bureau, 2016
Names.....GNIS, 1979 - 2018
Hydrography.....National Hydrography Dataset, 2003 - 2018
Contours.....National Elevation Dataset, 2012 - 2018
Boundaries.....Multiple sources: see metadata file, 2014 - 2016
Public Land Survey System.....BLM, 2017
Wetlands.....FWS National Wetlands Inventory 1983 - 1984



1	2	3
4	5	6
7	8	9

1 Mikesville
2 Worthington Springs
3 Brookier
4 High Springs
5 Monticello
6 Newberry
7 Gainesville West
8 Gainesville East

ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route
	State Route

ALACHUA, FL
2018



Melissa Watson

From: Regulatory-Support@srwmd.org
Sent: Thursday, January 31, 2019 1:48 PM
To: Caitlyn Drane; Caitlyn Drane; Caitlyn Drane; jtalton@alchem.com; jtalton@alchem.com
Cc: SR-Regulatory-Mail@sjrwmd.com; Regulatory-Support@srwmd.org
Subject: SRWMD(EP): Submittal Confirmation Number: 244429

Thank you for your ERP Letter Modification application to modify an SRWMD permit.

Applicant(s):

Original Permit Number: 206572-5

New Application Number: 206572-7

Project Name: Alchem Laboratories

You can print an invoice [here](#)

The District has accepted your application to modify the above permit, and the application is being evaluated by our staff. The new application number is listed above. Please **include the new application number and the project name on any additional correspondence** with the District regarding your submittal. Please address all email correspondence to Regulatory-Support@srwmd.org

Important Notice:

In order for the District to consider your electronic application, all documents must be in a format that the District can store and print. If the documents are not in the correct format, then the District cannot consider the application as received. Upon the District's successful receipt of the electronic application, the District will send you a confirmation email with the application number and a summary of the information received by the District.

If you require assistance, please contact Regulatory-Support@srwmd.org

You submitted the following electronic files with your application:

Application Attachments

File Name: 2019_01_31_Plans.pdf

Description: 2019-01-31 Plans

Size: 4772152 bytes

SHA Number: C80DD60DFAD98BCC88EA256F68A06B46ABB83339

File Name: 206572_5_LTR_MOD.rtf

Description: Auto-generated document with file and document information.

Size: 1880 bytes

SHA Number: 83CBFBCEF38F120F2D028A8CA02275BA035F588F

File Name: Alachua_County_Property_Appraiser_Info.pdf

Description: Property Appraiser
Size: 210329 bytes
SHA Number: 5EA746EB119A1793C9501D9A6DD3DE876163C783

File Name: Form_A_signed.pdf
Description: Form A
Size: 283491 bytes
SHA Number: 07704F4B954BD893576706218B1BD62A3C4EFBD8

File Name: Form_B_signed.pdf
Description: Form B
Size: 264893 bytes
SHA Number: D45C710FA86A880395BEA4A20961DA87F30F96AC

File Name: Form_C_signed.pdf
Description: Form C
Size: 185437 bytes
SHA Number: 5B7423F7B1A515103148B6349E924C0AA1DCCF03

File Name: ProjectModificationDescription_244429.pdf
Description: Project Modification Description
Size: 956 bytes
SHA Number: 9A0551059F82B5FC9B6AEE0DA8D42592483291FC

File Name: Signed_Drainage_Design_Notes.pdf
Description: Drainage Design Notes
Size: 1232832 bytes
SHA Number: 863C6E7E66B373125ECECF38AD60060DD26891CC

File Name: Sunbiz___Alchem_Laboratories_Corporation.pdf
Description: Sunbiz
Size: 149632 bytes
SHA Number: F5AB1B3A7295B2DA1D1D2002A3A34665E2339698

Concurrency Impact Analysis Alchem Laboratories

The proposed building will provide an additional 12,000 SF of light manufacturing space for an existing business located on the property.

Stormwater:

The required stormwater management area will be accommodated through an agreement with the neighboring Copeland Industrial Park. Details of the agreement will be provided and a permit modification obtained by the water management district. The proposed stormwater system shall be in compliance with City of Alachua and Suwannee River Water Management District requirements.

Potable Water:

Goal 4: Provide an adequate supply of high quality potable water to customers throughout the service area.

Objective 4.1 Achieve and maintain acceptable levels of service for potable water quality and quality.

Project Impact: For the proposed light manufacturing development, it is estimated that approximately 15 G.P.D. will be used per 100 square feet of building area (Ch. 64E-6, F.A.C.). The 12,000 square feet of office will generate approximately 1,800 G.P.D., based on this calculation (12,000 SF / 100 SF x 15 G.P.D. = 1,800 G.P.D.). As shown in the following table, there is adequate capacity available to support this development.

Table 3a. Potable Water Impacts - Final Development Orders	
System Category	Gallons Per Day
Current Permitted Capacity ¹	2,300,000
Less Actual Potable Water Flows ¹	1,236,000
Reserved Capacity ²	55,433
Alchem Laboratories	1,800
Residual Capacity	1,006,767
Percentage of Permitted Design Capacity Utilized	56.15%
<i>Sources:</i>	
1. City of Alachua Public Services Department, March 2018	

Sanitary Sewer:

Goal 1: Plan for and provide adequate, high quality and economical wastewater service while protecting the environment, especially groundwater resources.

Objective 1.2 Wastewater service will be made available to new development in a manner to promote compact urban growth, promoting development where wastewater service is available, and discouraging urban sprawl.

Project Impact: For the proposed office development, it is estimated that approximately 15 G.P.D. will be used per 100 square feet of building area (Ch. 64E-6, F.A.C.). The 12,000 square feet of office will generate approximately 1,800 G.P.D., based on this calculation (12,000 SF / 100 SF x 15 G.P.D. = 1,800 G.P.D.). As shown in the following table, there is adequate capacity available to support this development.

Table 4a. Sanitary Sewer Impacts - Final Development Orders	
System Category	Gallons Per Day
Treatment Plant Current Permitted Capacity	1,500,000
Less Actual Treatment Plant Flows ¹	687,000
Reserved Capacity ²	51,405
Alchem Laboratories	1,800
Residual Capacity	759,795
Percentage of Permitted Design Capacity Utilized	49.23%
<i>Sources:</i>	
1. City of Alachua Public Services Department, March 2018	

Solid Waste:

Goal 2: The City of Alachua will provide for solid waste disposal service in a sanitary, economic, and environmentally safe manner.

Project Impact: Commercial uses generate approximately 12 pounds per day of solid waste per 1,000 square feet (Environmental Engineering: A Design Approach, Cincero and Cincero, 1996). The proposed facility will generate approximately 144 pounds of solid waste will be generated per day (12,000 SF / 1,000 SF x 12 = 144 pounds per day). As indicated in the following table, the proposed solid waste generated as part of this project will not reduce the level of service in the City of Alachua.

Table 6a. Solid Waste Impacts - Final Development Orders		
System Category	Lbs Per Day	Tons Per Year
Existing Demand ¹	39,744.00	7,253.28
Reserved Capacity	4,672.39	852.71

New River Solid Waste Facility Capacity ³	50 years
1. Bureau of Economic & Business Research, University of Florida, Estimates of Population by County and City in Florida (2017); Policy 2.1.a, CFNGAR Element 2. New River Solid Waste Association, April 2018	

Traffic:

The proposed use of the project site as a light industrial/manufacturing use will not create a traffic impact that will exceed the approved level of service standards for the impacted roadway (CR 2054).

TABLE 1 – PROJECT TRIP GENERATION

PROPOSED: 12,000-SF NEW BUILDING

ITE LAND USE: 110 GENERAL LIGHT INDUSTRIAL

SOURCE: ITE TRIP GENERATION, 10TH EDITION

PERIOD	RATE	PER UNIT	TRIPS	TRIP DISTRIBUTION		PROJECT TRIPS	
				ENTER	EXIT	IN	OUT
AM	0.92	12.00	11.04	87%	13%	9.60	1.44
PM	0.83	12.00	9.96	18%	82%	1.79	8.17
AVG	4.96	12.00	59.52	50%	50%	29.76	29.76

	AM	PM	AVG
Existing	6.18	5.58	33.33
Proposed	11.04	9.96	59.52
Total	17	16	93

TABLE 2: TRIP DISTRIBUTION

Segment ID	Distribution Share	Projected Trips
CR 2054 East	100%	93

No other road segments will be impacted more than 5% of their maximum service volume.

TABLE 3: ROADWAY LEVEL OF SERVICE (LOS) ANALYSIS

						Projected	
Segment ID:	Segment Limits:	LOS-D		Existing	Res'vd	Trips	Available
CR 2054 East	East of SR 235	AADT	15,120	2,161	295	93	12,571
		Peak Hour	1,359	205	31	16	1,107

Source: City of Alachua Planning Department as of January 2019

Alchem Laboratories

Statement of Proposed Uses

The proposed building will provide an additional 12,000 SF of light manufacturing space for an existing business located on the property.

Comprehensive Plan Consistency

Future Land Use Element:

Objective 1.5: Industrial

The City of Alachua shall establish one industrial district: Industrial. This district shall provide a broad range of clean industry, warehousing, research, and technology industries, to provide a variety of job opportunities to the citizens of Alachua and the North Central Florida Region.

Consistency: The proposed development will serve the intent of the Industrial future land use designation, as it will provide additional space for a growing company within Alachua. In addition, the site is consistent with the policies outlined in Future Land Use Policy 1.5.b and 1.5.d as indicated below:

Policy 1.5.b: The Industrial land use category may also include industrial service uses, office/business parks, biotechnology and other technologies, business incubators, self-storage facilities, a limited amount of retail sales and services, traditional neighborhood design planned developments, employment center planned developments, outdoor storage yard or lots, and construction industry uses either as allowed uses or with special exceptions.

Consistency: The proposed development will serve the intent of the Industrial future land use category. The site will include office uses with supporting light industrial space along the US Hwy 441 “corporate corridor.”

Policy 1.5.d: The City shall develop performance standards for industrial uses in order to address the following:

1. *Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;*

Consistency: The development plan includes a pedestrian connection/crosswalk between the proposed building and the existing building. Parking is proposed to the side and rear of the existing building on the site.

2. *Buffering from adjacent existing/potential uses;*

Consistency: All required buffers and setbacks are shown on plans.

3. *Open space provisions and balance of proportion between gross floor area and site size;*

Consistency: The proposed site plan exceeds the 10% required open space and has less than the maximum 0.50 floor area ratio.

4. *Adequacy of pervious surface area in terms of drainage requirements;*

Consistency: The required stormwater management area will be accommodated through an agreement with the neighboring Copeland Industrial Park. Details of the agreement will be provided and a permit modification obtained by the water management district.

5. *Placement of signage;*

Consistency: The permitting of signs will occur under a separate process and those permits shall be prepared in compliance with the applicable criteria.

6. *Adequacy of site lighting and potential impacts of lighting upon the surrounding area. Lighting should be designed to minimize impacts and preserve the ambiance and quality of the nighttime sky by reducing light trespass and light pollution on adjacent properties by utilizing lighting at an appropriate intensity, direction and times to ensure light is not overused or impacting areas where it is not intended;*

Consistency: The site plans include a photometric plan that complies with all elements of the Comprehensive Plan and Land Development Regulations.

7. *Safety of on-site circulation patterns (patron, employee and delivery vehicles), including parking layout and drive aisles, and points of conflict;*

Consistency: Loading docks and dumpsters are located at the side and rear of the site to avoid conflicts with pedestrians and vehicles. A pedestrian connection/crosswalk is provided between the existing and proposed buildings.

8. *Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;*

Consistency: The site plans include a landscape plan that complies with all elements of the Comprehensive Plan and Land Development Regulations.

9. *Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and*

Consistency: There are no significant environmental resources on this site.

10. *Performance based zoning requirements, which may serve as a substitute for or accompany land development regulations in attaining acceptable site design.*

Consistency: None are proposed.

11. *Industrial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres but 5*

acres or greater, a .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio to parcels 1 acre or less.

Consistency: The industrial use on site has less than a 0.50 floor area ratio.

Memorandum

AD REQUESTED: 10/24/18
To: Kimberly Kanemoto
FROM: Ashley Scannella
SUBJECT: Neighborhood Workshop – Alchem
AD RUN DATE: 10/30/18
AD SIZE: Minimum is 2 columns wide by 2 inches long, but as close to that as possible with clear, readable text

PUBLIC NOTICE

A neighborhood workshop will be held to discuss a proposed development plan for a 12,000 square foot building on tax parcel number 03927-001-000 located at 14120 NW 126th Terrace in Alachua. This is not a public hearing. The purpose of this meeting is to inform neighboring property owners of the proposed development and to seek their comments.

The meeting will be held at 6:00 p.m. on November 15, 2018 in the Meeting Room of the Alachua Branch Library, located at 14913 NW 140th St, Alachua, FL 32615.



Contact: Sergio Reyes, PE
eda engineers-surveyors-planners, inc.
Phone: (352) 373-3541

TODAY IN HISTORY

In 1912, Vice President James S. Sherman, running for a second term of office with President William Howard Taft, died six days before Election Day. (Sherman was replaced with Nicholas Murray Butler, but Taft, the Republican candidate, ended up losing in an Electoral College landslide to Democrat Woodrow Wilson.) In 1944, the Martha Graham Ballet, "Appalachian Spring," with music by Aaron Copland, premiered at the Library of Congress in Washington, D.C., with Graham in a leading role.

TODAY'S BIRTHDAYS

Movie director **Claude Lelouch** is 81. Rock singer **Grace Slick** is 79. Songwriter **Eddie Holland** is 79. Rhythm-and-blues singer **Otis Williams** (The Temptations) is 77. Actress **Joanna Shimkus** is 75. Actor **Henry Winkler** is 73. Broadcast journalist **Andrea Mitchell** is 72. Rock musician **Chris Slade** (Asia) is 72. Country/rock musician **Timothy B. Schmit** (The Eagles) is 71. Actor **Leon Rippey** is 69. Actor **Harry Hamlin** is 67. Actor **Charles Martin Smith** is 65. Country singer **T. Graham Brown** is 64. Actor **Kevin Pollak** is 61.

LOTTERY

Monday, October 29
Pick 2
Early drawing: 8-6
Night drawing: 8-9
Pick 3
Early drawing: 4-8-9
Night drawing: 5-2-0
Pick 4
Early drawing: 6-4-6-5
Night drawing: 2-6-3-7
Pick 5
Early drawing: 5-5-0-1-8
Night drawing: 0-2-4-1-8
Fantasy 5
11-14-22-26-35
Cash4Life
7-23-25-35-38 CB: 4

SUNDAY'S RESULTS

Fantasy 5
5-9-15-23-32
Match...Payoff...Winners
5-of-5...\$57,080.81...3
4-of-5...\$99.50...277
3-of-5...\$9...8,162

Pentagon sending 5,200 troops to secure border
Caravan is hundreds of miles from US

By Robert Burns, Colleen Long and Jill Colvin
The Associated Press

WASHINGTON — A week out from the midterm elections, the Pentagon said Monday it is sending 5,200 troops, some armed, to the Southwest border in an extraordinary military operation to help stop illegal crossings by a caravan of migrants moving slowly north in Mexico, still hundreds of miles from the U.S. border. President Donald Trump himself, eager to focus voters on immigration in the lead-up to the elections, escalated his threats against the caravan, tweeting: "This is an invasion of our Country and our Military is waiting for you!" His warning came as the Pentagon began executing "Operation Faithful Patriot," described by the commander of U.S. Northern Command as an effort to help Customs and Border Protection stiffen defenses at and near legal entry points. Advanced helicopters will enable border protection agents to swoop down on migrants, he said. "We're going to secure the border," Air Force Gen.

Terrence O'Shaughnessy, the Northern Command leader, said at a news conference. He spoke alongside Kevin McAleenan, commissioner of Customs and Border Protection. Eight hundred troops already are on their way to southern Texas, O'Shaughnessy said, and their numbers will top 5,200 by week's end. He said troops would focus first on Texas, followed by Arizona and then California. The caravan of 3,500 has shrunk from a peak of about 7,200 migrants a week ago, but a second caravan of about 600 had formed and was clashing with federal police on a bridge from Guatemala to Mexico. The military operation drew quick criticism. "Sending active military forces to our southern border is not only a huge waste of taxpayer money, but an unnecessary course of action that will further terrorize and militarize our border communities," said Shaw Drake of the American Civil Liberties Union's border rights center at El Paso, Texas. Military personnel are legally prohibited from

engaging in immigration enforcement. The troops will include military police, combat engineers and others helping on the southern border. Customs and Border Protection is pushing a surge in personnel in response to the caravan of Central American immigrants. The military troops are intended to assist the border patrol, not engage directly with migrants. The White House is also weighing additional border security measures, including blocking those traveling in the caravan from seeking legal asylum and keeping them from entering the U.S. The escalating rhetoric and expected deployments come as the president has been trying to turn the caravan into a key election issue with just days to go before the midterm elections that will determine whether Republicans maintain control of Congress. "This will be the election of the caravans, the Kavanaughs, law and order, tax cuts, and you know what else? It's going to be the election of common sense," Trump said at a rally in



President Donald Trump speaks during a rally Saturday at Southern Illinois Airport in Murphysboro, Ill. Eager to focus voters on immigration in the lead-up to the midterm elections, Trump on Monday escalated his threats against a migrant caravan trudging slowly toward the U.S. border as the Pentagon prepared to deploy thousands of U.S. troops to support the border patrol. (JEFF ROBERSON/THE ASSOCIATED PRESS)

Illinois on Saturday night. He continued his threats on Monday, tweeting, without providing evidence, that, "Many Gang Members and some very bad people are mixed into the Caravan heading to our Southern Border." "Please go back," he urged them, "you will not be admitted into the United States unless you go through the legal process. This is an invasion of our Country and our Military is waiting for you!" The president's dark description of the caravan belied the fact that any migrants who complete the long trek to the southern U.S. border face already major hurdles, both physical and bureaucratic, to being allowed into the United States. Migrants are entitled under both U.S. and international law to apply for asylum, but it may take while to make a claim. There is already a bottleneck of asylum seekers at some U.S. border crossings, in some cases as long as five weeks. A possible announcement by Trump on the other border measures had been tentatively slated for Tuesday, administration officials had said, but he is instead traveling to Pittsburgh, where a gunman massacred 11 people at a synagogue Saturday in what is believed to be the deadliest attack on Jews in U.S. history. Spokeswoman Sarah Huckabee Sanders said Monday pushed off questions about the caravan and possible border measures.

White House is said to brace for GOP losses

By Shannon Pettypiece
Bloomberg

White House officials are largely resigned to losing Republican control of the U.S. House and are bracing for an exodus of staff worried about a torrent of subpoenas from Democratic congressional investigators. President Donald Trump's team still sees a possible path to victory. But talk of a "red wave" has ceased, advisers inside and outside the White House said. Trump last uttered the boast in public in August. The mood around the president has darkened as many challengers continue to out-raise seasoned Republican incumbents and Democratic enthusiasm surpasses that of the GOP.

Bill Stepien, the White House director of political affairs, is already laying the groundwork to shift blame away from Trump should the party lose the House. He argued in an internal memo obtained by Bloomberg that the GOP has been hindered by historical headwinds, a wave of incumbent retirements, and strong fundraising by Democratic challengers. Trump has seized on the disparity in fundraising and privately complains Republican candidates haven't done enough to raise money, one aide said. The president's determined to fight to the end, though, and plans to hold 10 rallies in eight states in the campaign's final stretch. His team hopes to gain one or two seats in the Senate, where the electoral map is favorable to Republicans this year, and plans to stress its importance for continuing conservative judicial

appointments, said one person familiar with the White House's messaging strategy. Stepien set the bar lower, declaring in his memo that "not losing Senate seats" would be "a victory of historic proportions." In the House, Trump is battling to save seats that once would have been viewed as safe. On Saturday, that meant using valuable time 10 days before the election to fly to southern Illinois for a rally to shore up Rep. Mike Bost, who is struggling against a Democratic challenger in a district Trump won by 15 percentage points in 2016. White House aides are painfully aware of what a Democratic House would mean — two years of subpoenas, investigations, and obstruction. For staff already exhausted by the perpetual crises of the past two years, the post-election period will

provide a natural exit ramp. Finding replacements for those staffers could be a struggle. "How do you restaff with top quality folks knowing that you're going to be subpoenaed? If you go in, you better be wealthy because you're going to need to pay a lawyer," said Steve Bannon, the former White House adviser who has had to hire his own lawyer to respond to inquiries about his time in the administration. "This whole thing is psychological warfare, and it'll affect the ability to attract great people." The White House Counsel's Office, which usually handles the response to congressional investigations, is unprepared for the task, said a person familiar with the situation. The new counsel, Pat Cipollone, named earlier this month to replace Don McGahn, arrives to face a heavily depleted staff. All but one of the office's deputy counsels have left over the past year, and much of the remaining staff is likely to follow

McGahn out, the person said. Cipollone, who once worked at the Department of Justice but has spent most of his career in private practice, has limited experience dealing with large-scale Washington investigations. Still, Trump's team had been encouraged in recent weeks following the battle over Supreme Court Justice Brett Kavanaugh and the emergence of the so-called migrant caravan, both of which the White House saw increasing Republican enthusiasm about the elections. But those events have since been overshadowed by a string of mail-bomb attacks against prominent Democrats and a mass shooting at a Pittsburgh synagogue. Trump's closing strategy has been to lean into his most polarizing issues, stoking voters' fears and pushing aside more positive messages about the economy. That message is now at odds with the calls for national unity and healing that followed attacks motivated by political and religious animus.

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PUBLIC NOTICE
A neighborhood workshop will be held to discuss a proposed development plan for a 12,000 square foot building on tax parcel number 03927-001-000 located at 14120 NW 126th Terrace in Alachua. This is not a public hearing. The purpose of this meeting is to inform neighboring property owners of the proposed development and to seek their comments. The meeting will be held at 6:00 p.m. on November 15, 2018 in the Meeting Room of the Alachua Branch Library, located at 14913 NW 140th St., Alachua, FL 32615
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NEIGHBORHOOD WORKSHOP NOTICE

Date: November 15, 2018
Time: 6:00 PM
Place: Alachua Branch Library
Meeting Room
14913 NW 140th St
Alachua, FL 32615
Contact: eda engineers–surveyors–planners, inc. at (352) 373-3541

A neighborhood workshop will be held to discuss a proposed development plan for a 12,000 square foot building addition on tax parcel number 03927-001-000 located at 14120 NW 126th Terrace in Alachua. This is not a public hearing. The purpose of this meeting is to inform neighboring property owners of the proposed development and to seek their comments.



03230-002-001
PETRA HOLDINGS COMPANY LLC
12775 RACHEL BLVD
ALACHUA, FL 32615-6698

03230-002-002
PETRA HOLDINGS COMPANY LLC
12775 RACHEL BLVD
Alachua, FL 32615

03927-001-000
ALCHEM LABORATORIES
CORPORATION
13305 RACHAEL BLVD
ALACHUA, FL 32615

03956-011-000
SNH MEDICAL OFFICE PROPERTIES
255 WASHINGTON ST STE 300
NEWTON, MA 02458

03956-010-004
STATE OF FLA IIF
3900 COMMONWEALTH BLVD
TALLAHASSEE, FL 32399

03230-002-003
ALACHUA COPELAND PARK
INVESTMENTS LLC
3917 NW 97TH BLVD
GAINESVILLE, FL 32606

03927-005-000
CV II PARTNERSHIP
4656 34TH ST SOUTHWEST
ORLANDO, FL 32811

92060-517-900
CSX TRANSPORTATION INC
500 WATER ST TAX DEPARTMENT J-
910
JACKSONVILLE, FL 32202-4423

03229-002-000
THE CHRISTOPHER CORPORATION
PO BOX 1000
ALACHUA, FL 32616

03230-002-000
ADC DEVELOPMENT & INVESTMENT
GROUP LLC
PO BOX 238
LAKE BUTLER, FL 32054

03927-000-000
ADC DEVELOPMENT & INVESTMENT
GROUP LLC
PO BOX 238
LAKE BUTLER, FL 32054

03927-013-000
COPELAND INDUSTRIAL PARK
OWNERS ASSOCIATION INC
PO BOX 365
LAKE BUTLER, FL 32054

03927-014-000
COPELAND INDUSTRIAL PARK
OWNERS ASSOCIATION INC
PO BOX 365
LAKE BUTLER, FL 32054

03927-015-000
COPELAND INDUSTRIAL PARK
OWNERS ASSOCIATION INC
PO BOX 365
LAKE BUTLER, FL 32054

03956-010-019
CITY OF ALACHUA
PO BOX 9
ALACHUA, FL 32616

Antoinette Endelicato
5562 NW 93rd Avenue
Gainesville, FL 32653

Dan Rhine
288 Turkey Creek
Alachua, FL 32615

Tom Gorman
9210 NW 59th Street
Alachua, FL 32653

Richard Gorman
5716 NW 93rd Avenue
Alachua, FL 32653

Peggy Arnold
410 Turkey Creek
Alachua, FL 32615

David Forest
23 Turkey Creek
Alachua, FL 32615

President
TCMOA
1000 Turkey Creek
Alachua, FL 32615

Linda Dixon, AICP
Assistant Director Planning
PO Box 115050
Gainesville, FL 32611

Craig Parenteau
FL Department of Environmental
Protection
4801 Camp Ranch Road

Jeannette Hinsdale
P.O. Box 1156
Alachua, FL 32616

Lynn Coullias
7406 NW 126th Ave
Alachua, FL 32615

Lynda Coon
7216 NW 126 Avenue
Alachua, FL 32615

Tamara Robbins
PO Box 2317
Alachua, FL 32616

Michele L. Lieberman
Interim County Manager
12 SE 1st Street
Gainesville, FL 32601

Bonnie Flynn
16801 NW 166th Drive
Alachua, FL 32615



Neighborhood Meeting - Sign-in Sheet

Project: Proposed Development Plan

Date & Time: November 15, 2018 at 6:00 PM

Location: Alachua Branch Library
14913 NW 140th St
Alachua, FL 32615

[illegible]

LEGAL DESCRIPTION

For: 14120 NW 126th Terrace
Alachua, FL 32615
Tax Parcel 03927-001-000

A portion of the Northwest 1/4 of the Northeast 1/4 of Section 23, Township 8 South, Range 18 East, Alachua County, Florida, being more particularly described as follows: Commence at the Southeast corner of said Northwest 114 of Northeast 114 and run thence South 89 degrees 09' 48" West, along the South boundary of said Northwest 1/4 of Northeast 114, 40.00 feet, thence North 01 degrees 35'03" West, parallel to the East boundary of said Northwest 114 of Northeast 114, 1332.93 feet to the North boundary of said Northwest 114 of Northeast 1/4 and the Point of Beginning; thence South 89 degrees 21 '32" West, along said North boundary 392.49 feet, thence South 01 degrees 35'03" East, parallel to said East boundary, 222.67 feet, thence North 89 degrees 09'48" East, parallel to the South boundary of said Northwest 114 of Northeast 114, a distance of 392.47 feet, thence North 01 degrees 35'03" West, parallel to said East boundary 221.33 feet to the Point of Beginning.

Legal Description

A Portion of Alachua County Tax Parcel 03927-000-000

A parcel of land lying in the Northwest one-quarter (NW ¼) of the Northeast one-quarter (NE ¼) of Section 23, Township 8 South, Range 18 East, Alachua County, Florida and being more particularly described as follows:

COMMENCING at a 5/8" iron rod and cap (PLS 3456) at Northwest corner of the parcel of land described in Official Records Book 4482 Page 2165 of the Public Records of Alachua County, Florida, thence South 01 degrees 34 minutes 36 seconds East on the West line of said lands, a distance of 33.36 feet to a 5/8" iron rod and cap (LB 2389) and the POINT OF BEGINNING; thence continue South 01 degrees 34 minutes 36 seconds East on said West line, a distance of 189.17 feet to a 5/8" iron rod (no cap) at the Southwest corner of said lands and being on the North line of the parcel of land described in Official Records Book 2355, Page 2784 of said public records; thence South 89 degrees 14 minutes 28 seconds West on said North line, a distance of 163.14 feet to the Northwest corner of said lands (found 5/8" iron rod no cap on said North line 5.00 feet East of property corner); thence North 01 degrees 44 minutes 47 seconds West on the Northerly projection of the West line of said lands, a distance of 186.84 feet to a 5/8" iron rod and cap (LB 2389) being North 88 degrees 25 minutes 24 seconds East, a distance of 76.83 feet of a 5/8" iron rod and cap (LB 2389) at the Southeast corner of the parcel of land described in Official Records Book 4497 Page 1652 of said public records; thence North 88 degrees 25 minutes 24 seconds East, a distance of 163.72 feet to the POINT OF BEGINNING

Said parcel of land containing an area of 0.70 acres more or less.

Note: Bearings hereon are based on a bearing of North 01 degrees 35 minutes 03 seconds West on the East line of the Northwest one-quarter (NW ¼) of the Northeast one-quarter (NE ¼) of Section 23, Township 8 South, Range 18 East, Alachua County, Florida.

Sale Price: 800,000
Recording: 18.50
Doc. Stamp: 5600.00
5618.50

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Book 4482 Page 2165
J. K. IRBY, Clerk Of Circuit Court
ALACHUA COUNTY, Florida

Doc Stamp-Deed: \$5,600.00



Prepared by and return to:

Jennifer Boatwright

Legal Assistant

Marvin W. Bingham, Jr., PA

14811 NW 140th Street Post Office Box 1930

Alachua, FL 32616

386-462-5120

File Number: 16-196

Will Call No.:

[Space Above This Line For Recording Data]

Warranty Deed

This Warranty Deed made this 16th day of **December, 2016** between **NanoSonic Products, Inc., a Florida Corporation**, whose post office address is **14120 NW 126th Terrace, Alachua, FL 32615**, grantor, and **Alchem Laboratories Corporation, a Florida Corporation**, whose post office address is **13305 Rachael Blvd, Alachua, FL 32615**, grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Alachua County, Florida** to-wit:

A portion of the Northwest 1/4 of the Northeast 1/4 of Section 23, Township 8 South, Range 18 East, Alachua County, Florida, being more particularly described as follows: Commence at the Southeast corner of said Northwest 1/4 of Northeast 1/4 and run thence South 89 degrees 09' 48" West, along the South boundary of said Northwest 1/4 of Northeast 1/4, 40.00 feet, thence North 01 degrees 35'03" West, parallel to the East boundary of said Northwest 1/4 of Northeast 1/4, 1332.93 feet to the North boundary of said Northwest 1/4 of Northeast 1/4 and the Point of Beginning; thence South 89 degrees 21'32" West, along said North boundary 392.49 feet, thence South 01 degrees 35'03" East, parallel to said East boundary, 222.67 feet, thence North 89 degrees 09'48" East, parallel to the South boundary of said Northwest 1/4 of Northeast 1/4, a distance of 392.47 feet, thence North 01 degrees 35'03" West, parallel to said East boundary 221.33 feet to the Point of Beginning.

Parcel Identification Number: 03927-001-000

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to **December 31, 2016**.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

NanoSonic Products, Inc., a Florida corporation

By: JEFFREY L. TATE, PRESIDENT
Jeffrey L. Tate, President

JENNIFER L. BOATWRIGHT
Witness Name: JENNIFER L. BOATWRIGHT

MARVIN W. BINGHAM JR.
Witness Name: MARVIN W. BINGHAM JR.

State of Florida
County of Alachua

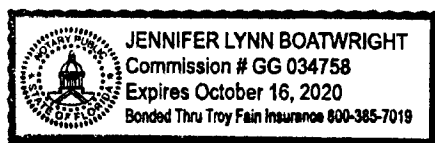
The foregoing instrument was acknowledged before me this 16th day of December, 2016 by Jeffrey L. Tate, President of NanoSonic Products, Inc., a Florida corporation, on behalf of said firm. He/she ☐ is personally known or ☒ has produced a driver's license as identification.

[Notary Seal]

JENNIFER L. BOATWRIGHT
Notary Public

Printed Name: JENNIFER L. BOATWRIGHT

My Commission Expires: _____



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ALACHUA COUNTY, FLORIDA
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This Document Prepared By and Return to:

Darryl J. Tompkins, Esquire
Darryl J. Tompkins, P.A.
14420 NW 151st Blvd.
P.O. Box 519
Alachua, FL 32616

Parcel ID Number: 03927-000-000, 03230-002-000, 03231-005-000



Warranty Deed

This Indenture, Made this 11th day of July, 2006 A.D., Between
O'Steen Brothers, Inc., a corporation existing under the laws of the
State of Florida
of the County of Alachua, State of Florida, grantor, and
ADC Development & Investment Group, LLC, a Florida limited liability
company
Document #L06000044225 FEI #20-4798771
whose address is: Post Office Box 238, Lake Butler, FL 32054

of the County of Union, State of Florida, grantee.

Witnesseth that the GRANTOR, for and in consideration of the sum of
-----TEN DOLLARS (\$10)----- DOLLARS,
and other good and valuable consideration to GRANTOR in hand paid by GRANTEE, the receipt whereof is hereby acknowledged, has
granted, bargained and sold to the said GRANTEE and GRANTEE'S heirs, successors and assigns forever, the following described land, situate,
lying and being in the County of Alachua State of Florida to wit:
See Exhibit "A" attached hereto.

SUBJECT TO THE FOLLOWING:

- A. Zoning restrictions, prohibitions and other requirements imposed by governmental authority;
- B. Restrictions and matters appearing on the plat and/or common to the subdivision;
- C. Taxes for the year 2006 and subsequent years.

The purpose of reflecting the document number and tax identification number of the Grantee is to avoid any confusion with a limited liability company of the same or similar name.

Grantor hereby reserves for itself, it's successors and/or assigns a non-exclusive easement for Ingress/Egress and Public Utilities over and across the property described in Exhibit B attached hereto.

and the grantor does hereby fully warrant the title to said land, and will defend the same against lawful claims of all persons whomsoever.

In Witness Whereof, the grantor has hereunto set its hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

O'Steen Brothers, Inc.

Printed Name: DARRYL J. TOMPKINS
Witness

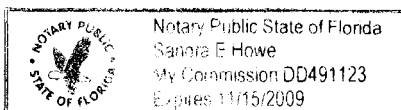
By: William B. O'Steen (Seal)
William Brad O'Steen, President
P.O. Address: 1006 SE 4th Street, Gainesville, FL 32601

Printed Name: Sandra E. Howe
Witness

(Corporate Seal)

STATE OF Florida
COUNTY OF Alachua

The foregoing instrument was acknowledged before me this 11th day of July, 2006 by
William Brad O'Steen, President of O'Steen Brothers, Inc., a Florida
Corporation, on behalf of the corporation
he is personally known to me or he has produced his Florida driver's license as identification.



Printed Name: Sandra E. Howe
Notary Public
My Commission Expires: 11/15/2009

Exhibit "A"

LEGAL DESCRIPTION

A TRACT OF LAND SITUATED IN SECTIONS 14 AND 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE AFOREMENTIONED SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST FOR THE POINT OF REFERENCE AND RUN SOUTH 88 DEG. 59 MIN. 32 SEC. WEST, ALONG THE SOUTH LINE OF SAID NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, A DISTANCE OF 40.00 FEET TO THE INTERSECTION OF SAID SOUTH LINE WITH THE WEST RIGHT-OF-WAY LINE OF N.W. 126TH TERRACE (80 FOOT RIGHT-OF-WAY); THENCE RUN SOUTH 89 DEG. 09 MIN. 48 SEC. WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 824.69 FEET TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 2336, PAGE 2030 AND THE TRUE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89 DEG. 08 MIN. 48 SEC. WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 455.86 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23; THENCE RUN SOUTH 88 DEG. 56 MIN. 13 SEC. WEST, A DISTANCE OF 1526.63 FEET TO THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 23; THENCE RUN NORTH 01 DEG. 25 MIN. 37 SEC. WEST, A DISTANCE OF 1335.11 FEET TO THE NORTHWEST CORNER OF SAID NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 23; THENCE RUN SOUTH 89 DEG. 13 MIN. 54 SEC. WEST, A DISTANCE OF 29.24 FEET TO A CONCRETE MONUMENT; THENCE RUN NORTH 01 DEG. 23 MIN. 30 SEC. WEST, A DISTANCE OF 448.94 FEET TO AN IRON PIPE; THENCE RUN NORTH 89 DEG. 37 MIN. 00 SEC. EAST, ALONG THE SOUTH RIGHT-OF-WAY LINE OF COUNTY ROAD NO. 340-A (66 FOOT RIGHT-OF-WAY), A DISTANCE OF 228.17 FEET TO THE BEGINNING OF A CURVE CONCAVE SOUTHERLY, SAID CURVE HAVING A RADIUS OF 1723.55 FEET; THENCE RUN SOUTHEASTERLY, ALONG SAID RIGHT-OF-WAY LINE AND WITH SAID CURVE, THROUGH AN ARC ANGLE OF 07 DEG. 09 MIN. 49 SEC., AN ARC DISTANCE OF 215.49 FEET (CHORD BEARING AND DISTANCE OF SOUTH 86 DEG. 47 MIN. 30 SEC. EAST, 215.35 FEET RESPECTIVELY) TO THE END OF SAID CURVE; THENCE RUN SOUTH 83 DEG. 11 MIN. 05 SEC. EAST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 145.67 FEET TO A BOUNDARY CORNER ALONG THE WEST LINE OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 2340, PAGE 1962; THENCE RUN SOUTHERLY AND THEN EASTERLY ALONG THE WEST AND SOUTH BOUNDARY LINES OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2340, PAGE 1962 WITH THE FOLLOWING SIX (6) COURSES; SOUTH 06 DEG. 50 MIN. 15 SEC. WEST, 121.22 FEET; SOUTH 71 DEG. 15 MIN. 38 SEC. WEST, 24.34 FEET; SOUTH 03 DEG. 37 MIN. 22 SEC. WEST, 110.55 FEET; NORTH 86 DEG. 46 MIN. 19 SEC. WEST, 107.04 FEET; SOUTH 00 DEG. 51 MIN. 23 SEC. EAST, 358.93 FEET; SOUTH 80 DEG. 27 MIN. 41 SEC. EAST, 690.19 FEET TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 2330, PAGE 1452 OF SAID PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA; THENCE RUN EASTERLY, NORTHERLY, THEN WESTERLY, ALONG THE SOUTH, EAST, AND NORTH BOUNDARY LINES RESPECTIVELY OF SAID LANDS WITH THE FOLLOWING FOUR (4) COURSES; SOUTH 80 DEG. 34 MIN. 55 SEC. EAST, 279.85 FEET; THENCE RUN NORTHEASTERLY, WITH A CURVE CONCAVE WESTERLY, SAID CURVE HAVING A RADIUS OF 970.00 FEET, THROUGH AN ARC ANGLE OF 19 DEG. 28 MIN. 17 SEC., AN ARC DISTANCE OF 329.64 FEET (CHORD BEARING AND DISTANCE OF NORTH 12 DEG. 41 MIN. 16 SEC. EAST, 328.06 FEET); NORTH 02 DEG. 57 MIN. 06 SEC. EAST, 185.30 FEET; NORTH 82 DEG. 15 MIN. 45 SEC. WEST, 21.42 FEET TO THE NORTHEAST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 1986, PAGE 2681 OF SAID PUBLIC RECORDS; THENCE RUN NORTH 82 DEG. 15 MIN. 45 SEC. WEST, ALONG THE NORTH LINE OF SAID LANDS, A DISTANCE OF 100.71 FEET TO THE

Exhibit "A" (Continued Pg. 2)

SOUTHEAST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 2189, PAGE 412 OF SAID PUBLIC RECORDS; THENCE RUN NORTH 06 DEG. 23 MIN. 52 SEC. EAST, A DISTANCE OF 136.86 FEET TO THE NORTHEAST CORNER OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2189, PAGE 412; THENCE RUN SOUTH 83 DEG. 11 MIN. 05 SEC. EAST, ALONG THE AFOREMENTIONED SOUTH LINE OF COUNTY ROAD NO. 340-A, A DISTANCE OF 793.94 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHERLY, SAID CURVE HAVING A RADIUS OF 1943.08 FEET; THENCE RUN NORTHEASTERLY, ALONG SAID RIGHT-OF-WAY LINE AND WITH SAID CURVE, THROUGH AN ARC ANGLE OF 20 DEG. 01 MIN. 25 SEC., AN ARC DISTANCE OF 679.06 FEET (CHORD BEARING AND DISTANCE OF NORTH 86 DEG. 35 MIN. 25 SEC. EAST, 675.61 FEET) TO THE WEST RIGHT-OF-WAY LINE OF N.W. 126 TERRACE (80 FOOT RIGHT-OF-WAY); THENCE RUN SOUTH 01 DEG. 35 MIN. 03 SEC. EAST, ALONG SAID WEST RIGHT-OF-WAY LINE, A DISTANCE OF 227.96 FEET TO THE NORTHEAST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 2280, PAGE 2275 OF SAID PUBLIC RECORDS; THENCE RUN WESTERLY THEN SOUTHERLY, ALONG THE NORTH AND WEST BOUNDARY LINES OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2280, PAGE 2275 WITH THE FOLLOWING TWO (2) COURSES; SOUTH 89 DEG. 20 MIN. 04 SEC. WEST, 392.39 FEET; SOUTH 01 DEG. 36 MIN. 01 SEC. EAST, 222.49 FEET TO THE SOUTHWEST CORNER OF SAID LANDS, SAID SOUTHWEST CORNER LOCATED ON THE NORTH BOUNDARY LINE OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN RECORDS BOOK 2355, PAGE 2784 OF SAID PUBLIC RECORDS; THENCE RUN WESTERLY, SOUTHERLY, AND EASTERLY ALONG SAID NORTH LINE AND THE WEST AND SOUTH BOUNDARY LINES OF SAID LANDS DESCRIBED OFFICIAL RECORDS BOOK 2355, PAGE 2784 WITH THE FOLLOWING FOUR (4) COURSES; SOUTH 89 DEG. 09 MIN. 52 SEC. WEST, 163.26 FEET; SOUTH 01 DEG. 44 MIN. 38 SEC. EAST, 137.92 FEET; SOUTH 57 DEG. 02 MIN. 36 SEC. EAST, 183.57 FEET; NORTH 89 DEG. 09 MIN. 52 SEC. EAST, 403.95 FEET TO THE SOUTHEAST CORNER OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2355, PAGE 2784; THENCE RUN SOUTH 01 DEG. 35 MIN. 03 SEC. EAST, ALONG THE AFOREMENTIONED WEST RIGHT-OF-WAY LINE OF N.W. 126TH TERRACE, A DISTANCE OF 160.80 FEET TO THE NORTHEAST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 2044, PAGE 2959 OF THE SAID PUBLIC RECORDS; THENCE RUN WESTERLY AND THEN SOUTHERLY ALONG THE NORTH AND WEST BOUNDARY LINES OF SAID LANDS THAT WITH THE FOLLOWING TWO (2) COURSES; SOUTH 89 DEG. 00 MIN. 44 SEC. WEST, 314.88 FEET; SOUTH 19 DEG. 04 MIN. 06 SEC. WEST, 170.11 FEET TO THE SOUTHWEST CORNER OF SAID LANDS; THENCE RUN WESTERLY AND THEN SOUTHERLY ALONG THE NORTH AND WEST BOUNDARY LINES OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 2336, PAGE 2030 OF SAID PUBLIC RECORDS WITH THE FOLLOWING TWO (2) COURSES; SOUTH 89 DEG. 10 MIN. 24 SEC. WEST, 450.16 FEET; SOUTH 01 DEG. 36 MIN. 44 SEC. EAST, 549.84 FEET, TO THE TRUE POINT OF BEGINNING.

LESS AND EXCEPT:

A PARCEL OF LAND BEING SITUATED IN SECTION 14, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER (NW 1/4) OF THE NORTHEAST ONE-QUARTER (NE 1/4) OF SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA; THENCE NORTH 01°35'03" WEST ALONG THE EAST LINE OF THE SAID NORTHWEST ONE-QUARTER (NW 1/4) OF THE NORTHEAST ONE-QUARTER (NE 1/4) OF SAID SECTION 23, A DISTANCE OF 1332.71 FEET TO THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER (NW 1/4) OF THE NORTHEAST ONE-QUARTER (NE 1/4); THENCE SOUTH 89°20'04" WEST, ALONG THE NORTH LINE OF THE NORTHWEST ONE-QUARTER (NW 1/4) OF THE NORTHEAST ONE-QUARTER (NE 1/4), A DISTANCE OF 39.88 FEET TO THE NORTHEAST CORNER OF LANDS DESCRIBED IN OFFICIAL

Exhibit "A" (Continued Pg. 3)

RECORDS BOOK 2280, PAGE 2275 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA; THENCE CONTINUE SOUTH 89°20'04" WEST ALONG THE NORTH LINE OF SAID LANDS, A DISTANCE OF 224.37 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89°20'04" WEST, ALONG SAID NORTH LINE, A DISTANCE OF 168.02 FEET TO THE NORTHWEST CORNER OF LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2280, PAGE 2275; THENCE NORTH 01°36'01" WEST, A DISTANCE OF 180.36 FEET TO THE SOUTH RIGHT OF WAY LINE OF COUNTY ROAD NO. 340-A (66 FOOT RIGHT OF WAY), SAID RIGHT OF WAY LINE BEING A CURVE CONCAVE NORTHERLY WITH A RADIUS OF 1943.08 FEET; THENCE NORTHEASTERLY ALONG SAID RIGHT OF WAY AND WITH SAID CURVE, THROUGH AN ARC ANGLE OF 04°57'38", AN ARC DISTANCE OF 168.23 FEET (CHORD BEARING AND DISTANCE OF NORTH 85°45'10" EAST, A DISTANCE OF 168.18 FEET); THENCE DEPARTING SAID RIGHT OF WAY SOUTH 01°36'01" EAST, A DISTANCE OF 190.87 FEET TO THE POINT OF BEGINNING.

SUBJECT TO A 20 FOOT PUBLIC UTILITY EASEMENT OVER, UNDER, AND ACROSS THE SOUTH 20 FEET THEREOF.

ALSO LESS AND EXCEPT:

A TRACT OF LAND SITUATED IN SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE AFOREMENTIONED SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST FOR THE POINT OF REFERENCE AND RUN SOUTH 88 DEG. 59 MIN. 32 SEC. WEST, ALONG THE SOUTH LINE OF SAID NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23, A DISTANCE OF 40.00 FEET TO THE INTERSECTION OF SAID SOUTH LINE WITH THE WEST RIGHT OF WAY LINE OF N.W. 126TH TERRACE (80 FOOT RIGHT OF WAY); THENCE RUN SOUTH 89 DEG. 09 MIN. 48 SEC. WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 824.69 FEET TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 2336, PAGE 2030 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA; THENCE RUN SOUTH 89 DEG. 09 MIN. 35 SEC. WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 137.86 FEET TO THE TRUE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89 DEG. 09 MIN. 35 SEC. WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 318.00 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 23; THENCE RUN SOUTH 88 DEG. 55 MIN. 49 SEC. WEST, ALONG THE SOUTH LINE OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 23, A DISTANCE OF 640.56 FEET; THENCE RUN NORTH 01 DEG. 03 MIN. 47 SEC. WEST, A DISTANCE OF 480.00 FEET TO THE SOUTH LINE OF A 60 FOOT WIDE INGRESS, EGRESS, AND PUBLIC UTILITIES EASEMENT; THENCE RUN NORTH 88 DEG. 56 MIN. 13 SEC. EAST, ALONG SAID SOUTH LINE, A DISTANCE OF 163.50 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHWESTERLY, SAID CURVE HAVING A RADIUS OF 330.00 FEET; THENCE RUN NORTHEASTERLY, ALONG SAID SOUTHERLY LINE OF THE 60 FOOT WIDE INGRESS, EGRESS, AND PUBLIC UTILITIES EASEMENT AND WITH SAID CURVE, THROUGH AN ARC ANGLE OF 60 DEG. 17 MIN. 32 SEC., AN ARC DISTANCE OF 347.26 FEET (CHORD BEARING AND DISTANCE OF NORTH 58 DEG. 47 MIN. 27 SEC. EAST, 331.46 FEET RESPECTIVELY); THENCE RUN SOUTH 52 DEG. 15 MIN. 02 SEC. EAST, A DISTANCE OF 391.90 FEET; THENCE RUN NORTH 86 DEG. 26 MIN. 19 SEC. EAST, A DISTANCE OF 75.99 FEET; THENCE RUN SOUTH 01 DEG. 36 MIN. 44 SEC. EAST, A DISTANCE OF 212.53 FEET; THENCE RUN SOUTH 34 DEG. 02 MIN. 42 SEC. EAST, A DISTANCE OF 229.82 FEET TO THE TRUE POINT OF BEGINNING, CONTAINING 10.05 ACRES MORE OR LESS.

THE ABOVE DESCRIBED OVERALL TRACT OF LAND OF LAND CONTAINS 64.731 ACRES MORE OR LESS.

Exhibit "B"

60 FOOT INGRESS/EGRESS AND PUBLIC UTILITIES PARCEL

A TRACT OF LAND SITUATED IN SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE NORTHWEST $\frac{1}{4}$ OF THE NORTHEAST $\frac{1}{4}$ OF THE AFOREMENTIONED SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST, FOR THE POINT OF REFERENCE AND RUN S $88^{\circ} 59' 32''$ W, ALONG THE SOUTH LINE OF SAID NORTHWEST $\frac{1}{4}$ OF THE NORTHEAST $\frac{1}{4}$ OF SECTION 23, A DISTANCE OF 40.00 FEET TO THE INTERSECTION OF SAID SOUTH LINE WITH THE WEST RIGHT OF WAY LINE OF N.W. 126TH TERRACE (80 FOOT RIGHT OF WAY); THENCE RUN N $01^{\circ} 34' 39''$ W, ALONG SAID WEST RIGHT OF WAY LINE, A DISTANCE OF 710.84 FEET; THENCE RUN N $01^{\circ} 34' 50''$ W, ALONG SAID WEST RIGHT OF WAY LINE, A DISTANCE OF 41.44 FEET TO AN INTERSECTION WITH A NON-TANGENT CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 32.00 FEET AND THE POINT OF BEGINNING; THENCE RUN NORTHWESTERLY, ALONG SAID CURVE, THROUGH AN ARC ANGLE OF $43^{\circ} 51' 09''$ AND AN ARC DISTANCE OF 24.49 FEET (CHORD BEARING AND DISTANCE OF N $69^{\circ} 39' 16''$ W, 23.90 FEET RESPECTIVELY) TO THE END OF SAID CURVE; THENCE RUN S $88^{\circ} 25' 10''$ W, A DISTANCE OF 238.14 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 330.00 FEET; THENCE RUN NORTHWESTERLY ALONG SAID CURVE, THROUGH AN ARC ANGLE OF $34^{\circ} 32' 14''$ AN ARC DISTANCE OF 198.92 FEET (CHORD BEARING AND DISTANCE OF N $74^{\circ} 18' 43''$ W, 195.92 FEET RESPECTIVELY) TO THE END OF SAID CURVE; THENCE RUN N $57^{\circ} 02' 36''$ W, A DISTANCE OF 413.15 FEET TO THE BEGINNING OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 270.00 FEET; THENCE RUN SOUTHWESTERLY ALONG SAID CURVE, THROUGH AN ARC ANGLE OF $95^{\circ} 26' 40''$ AN ARC DISTANCE OF 449.77 FEET (CHORD BEARING AND DISTANCE OF S $75^{\circ} 14' 04''$ W, 399.54 FEET RESPECTIVELY) TO THE POINT OF REVERSE CURVATURE OF A CURVE CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 393.89 FEET; THENCE RUN SOUTHWESTERLY, ALONG SAID CURVE, THROUGH AN ARC ANGLE OF $24^{\circ} 18' 35''$ AN ARC DISTANCE OF 167.12 FEET (CHORD BEARING AND DISTANCE OF S $39^{\circ} 40' 02''$ W, 165.87 FEET RESPECTIVELY) TO THE END OF SAID CURVE; THENCE RUN S $51^{\circ} 49' 20''$ W, A DISTANCE OF 110.99 FEET TO THE BEGINNING OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 300.00 FEET; THENCE RUN SOUTHWESTERLY ALONG SAID CURVE, THROUGH AN ARC ANGLE OF $24^{\circ} 56' 20''$ AN ARC DISTANCE OF 130.58 FEET (CHORD BEARING AND DISTANCE OF S $39^{\circ} 21' 10''$ W, 129.55 FEET RESPECTIVELY) TO THE POINT OF REVERSE CURVATURE OF A CURVE

CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 330.00 FEET; THENCE RUN SOUTHWESTERLY, ALONG SAID CURVE, THROUGH AN ARC ANGLE OF $62^{\circ} 03' 13''$ AN ARC DISTANCE OF 357.40 FEET (CHORD BEARING AND DISTANCE OF S $57^{\circ} 54' 37''$ W, 340.19 FEET RESPECTIVELY) TO THE END OF SAID CURVE; THENCE RUN S $88^{\circ} 56' 13''$ W, A DISTANCE OF 530.79 FEET TO THE BEGINNING OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 52.00 FEET; THENCE RUN SOUTHWESTERLY ALONG SAID CURVE, THROUGH AN ARC ANGLE OF $49^{\circ} 00' 16''$ AN ARC DISTANCE OF 44.48 FEET (CHORD BEARING AND DISTANCE OF S $64^{\circ} 26' 05''$ W, 43.13 FEET RESPECTIVELY) TO THE POINT OF REVERSE CURVATURE OF A CURVE CONCAVE NORTHERLY, EASTERLY AND SOUTHERLY, SAID CURVE HAVING A RADIUS OF 73.00 FEET; THENCE RUN SOUTHWESTERLY, WESTERLY, NORTHWESTERLY, NORTHERLY, NORTHEASTERLY, EASTERLY AND SOUTHEASTERLY ALONG SAID CURVE, THROUGH AN ARC ANGLE OF $278^{\circ} 00' 32''$ AN ARC DISTANCE OF 354.21 FEET (CHORD BEARING AND DISTANCE OF

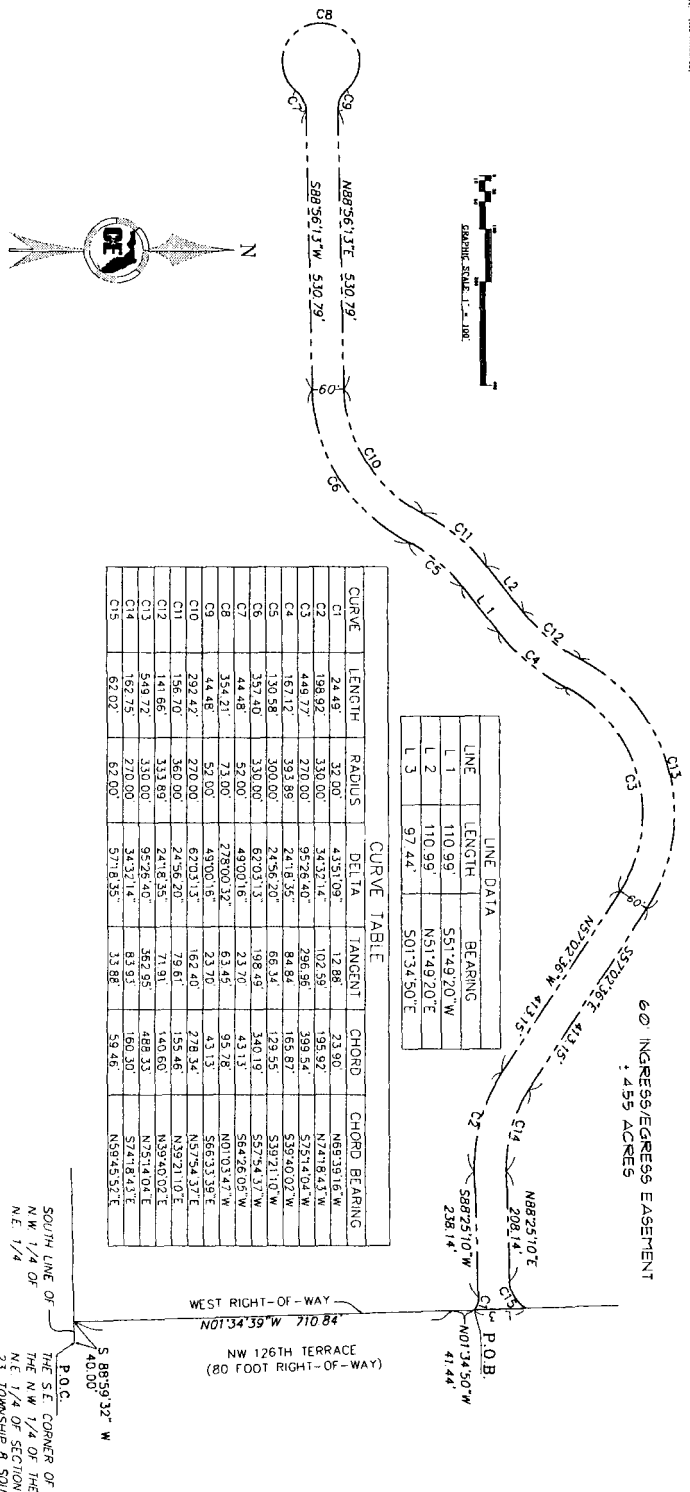
Exhibit "B" (Continued Pg. 2)

N 01° 03' 47" W, 95.78 FEET RESPECTIVELY) TO THE POINT OF REVERSE CURVATURE OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 52.00 FEET; THENCE RUN SOUTHEASTERLY, ALONG SAID CURVE, THROUGH AN ARC ANGLE OF 49° 00' 16" AN ARC DISTANCE OF 44.48 FEET (CHORD BEARING AND DISTANCE OF S 66° 33' 39" E, 43.13 FEET RESPECTIVELY) TO THE END OF SAID CURVE; THENCE RUN N 88° 56' 13" E, A DISTANCE OF 530.79 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 270.00 FEET; THENCE RUN NORTHEASTERLY ALONG SAID CURVE, THROUGH AN ARC ANGLE OF 62° 03' 13" AN ARC DISTANCE OF 292.42 FEET (CHORD BEARING AND DISTANCE OF N 57° 54' 37" E, 278.34 FEET RESPECTIVELY) TO THE POINT OF REVERSE CURVATURE OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 360.00 FEET; THENCE RUN NORTHEASTERLY, ALONG SAID CURVE, THROUGH AN ARC ANGLE OF 24° 56' 20" AN ARC DISTANCE OF 156.70 FEET (CHORD BEARING AND DISTANCE OF N 39° 21' 10" E, 155.46 FEET RESPECTIVELY) TO THE END OF SAID CURVE; THENCE RUN N 51° 49' 20" E, A DISTANCE OF 110.99 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 333.89 FEET; THENCE RUN NORTHEASTERLY ALONG SAID CURVE, THROUGH AN ARC ANGLE OF 24° 18' 35" AN ARC DISTANCE OF 141.66 FEET (CHORD BEARING AND DISTANCE OF N 39° 40' 02" E, 140.60 FEET RESPECTIVELY) TO THE POINT OF REVERSE CURVATURE OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 330.00 FEET; THENCE RUN NORTHEASTERLY, ALONG SAID CURVE, THROUGH AN ARC ANGLE OF 95° 26' 40" AN ARC DISTANCE OF 549.72 FEET (CHORD BEARING AND DISTANCE OF N 75° 14' 04" E, 488.33 FEET RESPECTIVELY) TO THE END OF SAID CURVE; THENCE RUN S 57° 02' 36" E, A DISTANCE OF 413.15 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 270.00 FEET; THENCE RUN SOUTHEASTERLY ALONG SAID CURVE, THROUGH AN ARC ANGLE OF 34° 32' 14" AN ARC DISTANCE OF 162.75 FEET (CHORD BEARING AND DISTANCE OF S 74° 18' 43" E, 160.30 FEET RESPECTIVELY) TO THE END OF SAID CURVE; THENCE RUN N 88° 25' 10" E, A DISTANCE OF 208.14 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 62.00 FEET; THENCE RUN NORTHEASTERLY, ALONG SAID CURVE, THROUGH AN ARC ANGLE OF 57° 18' 35" AN ARC DISTANCE OF 62.02 FEET (CHORD BEARING AND DISTANCE OF N 59° 45' 52" E, 59.46 FEET RESPECTIVELY) TO THE AFOREMENTIONED WEST RIGHT OF WAY LINE OF N.W. 126TH TERRACE; THENCE RUN S 01° 34' 50" E, ALONG SAID WEST RIGHT OF WAY LINE, A DISTANCE OF 97.44 FEET TO THE POINT OF BEGINNING; CONTAINING 4.550 ACRES MORE OR LESS.

**ALL AS SHOWN ON THE MAP ATTACHED
HEREWITH AND MADE A PART HEREOF**

SITUATED IN SECTION 23, TOWNSHIP 8 SOUTH, RANGE 18 EAST,

ALACHUA COUNTY, FLORIDA
SKETCH - NOT A BOUNDARY SURVEY.



LINE DATA		
LINE	LENGTH	BEARING
L 1	110.99'	S51°49'20"W
L 2	110.99'	N51°49'20"E
L 3	97.44'	S01°34'50"E

CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD BEARING
C1	24.49	32.00	4.35109°	12.88°	31.90	N85°15.15'E
C2	44.98	330.00	32.52°	102.86°	129.52°	N129.52°E
C3	149.17	270.00	95.28°	259.85°	259.85°	S259.85°W
C4	16.12	353.66	6.24°	169.87°	169.87°	S32°40.02'W
C5	130.58	300.00	24.56°	68.34°	128.53°	S68°34'W
C6	357.40	330.00	62.03°	198.46°	340.19°	S82°46.03'W
C7	44.46	52.00	49.00°	23.0°	43.13°	S84°26.03'W
C8	35.21	73.00	27.80°	93.76°	93.76°	N01°33.44'E
C9	44.46	52.00	49.00°	32.70°	43.13°	S66°33.35'E
C10	29.42	270.00	67.03°	169.40°	278.34°	N67°54.31'E
C11	156.70	360.00	62.03°	79.61°	158.46°	N59°21.01'E
C12	41.66	333.69	24.84°	71.51°	140.80°	N39°40.07'E
C13	54.92	330.00	25.48°	56.95°	148.33°	N25°14.07'E
C14	77.00	330.00	34.73°	83.93°	160.30°	S14°16.41'E
C15	62.02	67.00	57.63°	33.86°	58.46°	N58°43.51'E

This map prepared by STACY & HALL	DATE: 05/01/08 SHEET NO: 01-001 PROJECT NO: 05-001 DRAWING NO: 05-001	CE Causseaux & Ellington, Inc. Engineering • Surveying • Planning 5011 NW 1st Place, Gainesville, Florida 32607 Phone: (352) 331-1976 Fax: (352) 331-2478	CERTIFIED TO: ADE DEV & INVESTMENT GROUP, LLC	JOB NO: 06-0362 SHEET NO: 1 OF 1
Certificate of Authorization No. L.B. 5678 NOT VALID WITHOUT THE SIGNATURE AND SEAL OF A LICENSED SURVEYOR	Professional Surveyor & Mapper License No. 5789			



2018 Roll Details — Real Estate Account At 14120 NW 126TH TER

Print this page

Real Estate Account #03927 001 000



Parcel details



Latest bill



Full bill history

2018

2017

2016

2015

...

2002

PAID

PAID

PAID

PAID

PAID

Apply for the 2019 Installment Payment Plan



Get Bills by Email

PAID 2019-02-14 \$14,932.16

Receipt #18-0106999

Owner: ALCHEM LABORATORIES CORPORATION

13305 RACHAEL BLVD

ALACHUA, FL 32615

Situs: 14120 NW 126TH TER

Account number: 03927 001 000

Alternate Key: 1014334

Millage code: 1700

Millage rate: 22.5620

Assessed value: 635,000

School assessed value: 635,000

Unimproved land value: 217,800



Location is not guaranteed to be accurate.

Property Appraiser

2018 Annual bill



View

Ad valorem: \$14,326.87

Non-ad valorem: \$756.12

Total Discountable: 15082.99

No Discount NAVA: 0.00

Total tax: \$15,082.99

Legal description

COM SE COR NW1/4 OF NE1/4 W 40 FT N 1 DEG W 1332.93 FT TO N SEC LINE TO POB W 392.49 FT S 1 DEG E 222.67 FT E 392.47 FT N 1 DEG W 221.33 FT TO POB OR 4482/2165

Location

Book, page, item: 4482-2165-

Geo number: 23-08-18-03927001000

Range: 18

Township: 08

Section: 23

Neighborhood: 233223.50

Use code: 04100

Total acres: 2.000





2018 Roll Details — Real Estate Account At 13200 NW NANO CT

Print this page

Real Estate Account #03927 000 000



Parcel details



Latest bill



Full bill history

2018

2017

2016

2015

...

2002

PAID

PAID

PAID

PAID

PAID

Apply for the 2019 Installment Payment Plan



Get Bills by Email

PAID 2018-12-04 \$223.08

Effective 2018-11-30

Receipt #18-0045861

Owner: ADC DEVELOPMENT & INVESTMENT GROUP LLC

PO BOX 238

LAKE BUTLER, FL 32054

Situs: 13200 NW NANO CT

Account number: 03927 000 000

Alternate Key: 1014333

Millage code: 1700

Millage rate: 22.5620

Assessed value: 10,300

School assessed value: 10,300

Unimproved land value: 2,100

13200 Nano Ct

13200 Nano Ct, Alachua, FL 32615

Save

View larger map



Map data ©2019 Google Imagery ©2019 , DigitalGlobe, U.S. Report a map error

Location is not guaranteed to be accurate.

Property Appraiser

2018 Annual bill



View

Ad valorem: \$232.38

Non-ad valorem: \$0.00

Total Discountable: 232.38

No Discount NAVA: 0.00

Total tax: \$232.38

Legal description

NW1/4 OF NE1/4 & NE1/4 OF NW1/4 OR 1293/893 (LESS ELY 40 FT R/W PER OR 1261/102) (LESS OR 1559/2388) (LESS OR 2044/2959) (LESS OR 2296/1975) (LESS THAT PT OF OR 2330/1452) (LESS THAT PT OF OR 2340/1962)(LESS COM SE COR OF NW 1/4 OF NE 1/4 W 1002.55 FT POB W 958.56 FT N 480 FT E 163.50 FT NELY ALG CURVE 347.26 FT S 52 DEG E 391.90 FT N 86 DEG E 75.99 FT S 212.53 FT S 34 DEG E 229.82 FT POB)(LESS PARCEL PER OR 3519/1030 PARCEL K/A 3231-5-1) (LESS PARCEL PER OR 3537/1378 K/A 3927-8)(LESS PARCELS PER OR 3561 /1415 K/A 3927-9 & 3927-10) (LESS PARCEL PER OR 3836/988 K/A 3927-11)(LESS PARCEL K/A 3927-12 PER OR 4234/1566) (LESS R/W FOR NANO CT & NW 129TH WAY PER OR Location

Book, page, item: 3416-742-

Geo number: 23-08-18-03927000000

Range: 18

Township: 08

Section: 23

Neighborhood: 233223.50

Use code: 06500

Total acres: 5.950



APPRAISAL OF
An Industrial Processing Plant

LOCATED
South of State Road 340-A
Alachua County, Florida

PREPARED FOR
Mr. Joe Matus
Sun Bank of Gainesville
411 North Main Street
Gainesville, Florida

Also Prepared For
Mr. Charles Worthington
and Cathy Rudby

DATE OF VALUE: April 19, 1988

TABLE OF CONTENTS

Page No.

Letter of Transmittal	
Assumptions and Limiting Conditions	1
Certificate of Appraisal	3
Summary of Important Facts and Conclusions	4
Photographs of Subject Property	5
Purpose of the Appraisal	8
Definition of Market Value	8
Identification of the Property	9
Statement of Ownership	10
Title History	10
Assessments and Taxes	11
Personal Property Included in This Appraisal	11
Regional and City Data	12
Neighborhood Data	21
Description of the Improvements	26
Proposed Renovations	30
Highest and Best Use Analysis	38
Appraisal Problem and Proposed Solution	40
Land Value	42
Land Sales Chart	44
Land Sales	46
The Cost Approach	50
Market Data	53
Improved Sales	54
Addenda	

ANDREW V. SANTANGINI, JR., MAI

Real Estate Appraiser and Consultant — Realtor®

1109 N.W. 23rd AVENUE
GAINESVILLE, FLORIDA 32609 • TEL. (904) 376-3351

ANDREW V. SANTANGINI, JR., MAI
RITA JAMASON
CHIP EMMEL
PATRICIA SIGLER
DEBRA D. RICHARDSON

April 21, 1988

Mr. Joe Matus
Sun Bank of Gainesville
411 North Main Street
Gainesville, Florida

Re: Appraisal of an Industrial Processing Plant
Located : South of State Road 340-A
Apparent Owner : Pony Industries, Inc.

Dear Mr. Matus:

As per your request, I have appraised the market value of the "fee simple title" of the above referenced property.

The subject is a 4,800 square foot processing plant of metal construction located on a two acre site. There are numerous 7,500 gallon steel tanks and piping within the subject building. The value of the tanks and piping in-place is not being estimated in this report, nor is the cost of removal nor any salvage value.

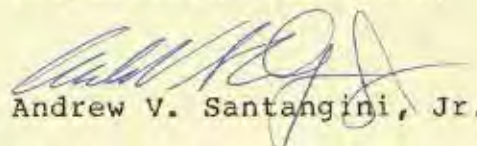
An underground holding tank is located adjacent to the northeast corner of the subject building. It is unknown what chemicals may have drained into the tank during any previous operation of the plant and it is recommended that an Environmental Risk Audit be conducted to determine whether there has been any contamination of soil or water.

The subject is being valued "as is" and with proposed renovations. The proposed renovations include a 3,600 square foot second level within the existing building and a 1,200 square foot office addition and additional paving, landscaping, etc. Only preliminary sketches were provided to the appraiser for the proposed renovations.

The value of the subject property "as is" as of April 19, 1988 is estimated to be \$194,000. The value of the subject property with the proposed renovations is estimated at \$256,000.

Following this introductory letter is my appraisal report. This appraisal contains data gathered in my investigation, as well as a Cost Approach which was used to indicate a value for the subject property.

Respectfully submitted,


Andrew V. Santangini, Jr., MAI

ASSUMPTIONS AND LIMITING CONDITIONS

1. This appraisal covers the property as described in this report and the areas and dimensions as shown herein are assumed to be correct.
2. All information in the appraisal report used as the basis of Appraiser's analyses, opinions and conclusions are true and correct to the best of Appraiser's knowledge and belief. Appraiser assumes no responsibility for legal matters, questions of survey, opinion of title, soil or subsoil conditions, engineering, infestation, or other technical or structural matters. Any sketches prepared by Appraiser and contained in the appraisal report will be included solely to aid the user of the report in visualizing the property and location. Each finding, prediction, assumption or conclusion contained in the appraisal report is Appraiser's personal opinion and may assume that there are no conditions relating to the real estate, subsoil, or structures located on the real estate which would affect Appraiser's analyses, opinions or conclusions with respect to the real estate that are not apparent.
3. Responsible ownership and competent management are assumed.
4. The Appraiser is not required to give testimony or attendance in court by reason of this appraisal unless arrangements have previously been made therefore.
5. The allocation of total value to land or to buildings as shown in this report is invalidated if used separately or in conjunction with any other appraisal.
6. Disclosure of the contents of this appraisal report is governed by the by-laws and regulations of the American Institute of Real Estate Appraisers of the National Association of Realtors. Neither all nor any part of this appraisal report shall be disseminated to the general public by use of advertising media, public relations media, news media, sales media or other media for public communication without prior written consent of the signatories of this appraisal report.
7. The data gathered in the appraisal process (except data furnished by Client) and the appraisal report prepared is the property of the Appraiser.
8. Any copy of this appraisal shall be invalid unless it bears either the signature and/or seal of the Appraiser.

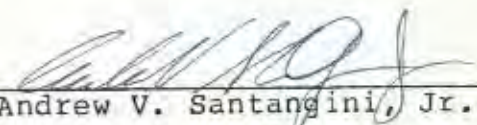
ASSUMPTIONS AND LIMITING CONDITIONS (Cont'd)

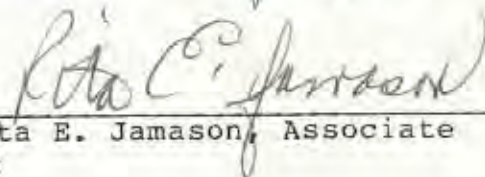
9. The effects, if any, of future market conditions including but not limited to competitive situations on the value of the subject are not possible to predict. The reader is accordingly advised that the value estimated as of the date herein may well change at any subsequent date.
10. The report remains the personal property of the Appraiser and may not be transmitted either in whole or in part to a third party without the Appraiser's written permission. The Appraiser's responsibility does not extend to a third party under any circumstances whatsoever.
11. Client shall notify the Appraiser of any error, omission, or invalid data herein within ten days of receipt and return the report along with all copies to the Appraiser for correction prior to any use whatsoever.
12. An appraisal is the product of a professionally trained mind but nevertheless is an opinion only, and not a provable fact. As a personal opinion, a valuation may vary between appraisers based on the same facts. Thus, Appraiser warrants only that the value conclusions are his best estimates as of the date of value.

CERTIFICATE OF APPRAISAL

I certify that, to the best of my knowledge and belief, the statements of fact contained in this report are true and correct. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions. I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved. My compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Standards of Professional Practice of the American Institute of Real Estate Appraisers. The use of this report is subject to the requirements of the American Institute of Real Estate Appraisers relating to review by its duly authorized representatives. Andrew V. Santangini, Jr., MAI is currently certified under the voluntary continuing education program of the American Institute of Real Estate Appraisers. I have made a personal inspection of the property that is the subject of this report. No one other than the undersigned provided significant professional assistance to the person(s) signing this report.

The real property which is the subject of this appraisal report was inspected by the undersigned, unless otherwise noted herein, and was valued as of April 19, 1988 "as is" at \$194,000. The value of the subject property with the proposed renovations is estimated at \$256,000.


Andrew V. Santangini, Jr., MAI


Rita E. Jamason, Associate

SUMMARY OF IMPORTANT FACTS AND CONCLUSIONS

Following is a summary of important facts contained in various sections of this report. The information listed below was developed after inspecting the subject property and analyzing all data pertinent to this appraisal.

Location	: South of S.R. 340-A, City of Alachua
Apparent Owner	: Pony Industries, Inc.
Purpose of the Appraisal	: To estimate market value.
Land Size	: 2 acres
Land Shape	: Rectangular
Zoning	: I-2, General Industrial
Improvements	: 4,800 square foot processing plant plus proposed 3,600 square foot second level and 1,200 square foot office addition.
Assessed Value (1987)	: \$108,500
Taxes (1987)	: \$2,700.25
Date of Value	: April 19, 1988
Highest and Best Use	: Industrial
Estimated Market Value "As Is"	: \$194,000
With Proposed Renovations	: \$256,000



FRONT VIEW OF SUBJECT
BOILER ROOM EXTENSION AT LEFT



NORTH SIDE OF SUBJECT



REAR OF SUBJECT



REAR AND SOUTH SIDE OF SUBJECT



VIEW OF ACCESS ROAD FROM SUBJECT LOOKING SOUTH



VIEW OF ACCESS ROAD FROM SUBJECT LOOKING NORTH

PURPOSE OF THE APPRAISAL

The purpose of this appraisal report is to estimate the Market Value of the fee simple title of the subject property as it currently exists and with the proposed renovations.

The subject is an existing industrial processing plant and currently contains numerous 7,500 gallon steel tanks and piping. The value of the tanks and piping in-place is not being included in the value estimated in this report, nor is the cost of removal estimated nor any salvage value.

The date of value of this report is April 19, 1988.

DEFINITION OF MARKET VALUE

Market Value defined: The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- a. buyer and seller are typically motivated;
- b. both parties are well informed or well advised, and each acting in what he considers his own best interest;
- c. a reasonable time is allowed for exposure in the open market;

DEFINITION OF MARKET VALUE (Cont'd)

- d. payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- e. the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

IDENTIFICATION OF THE PROPERTY

Location - The subject is located in the City of Alachua and is southeast of the center of the city. The subject is situated along a public maintained road which extends south from State Road 340-A.

Legal Description - According to courthouse records, the subject property is located in Section 23, Township 8 South, Range 18 East in Alachua County. The legal description of the subject is as follows:

Commence at the southeast corner of the northwest 1/4 of the northeast 1/4 west 40 feet, north 1° west, 1,332.93 feet to north section line to POB. West 392.49 feet, south 1°, east 222.67 feet, east 392.47 feet, north 1°, west 221.33 feet to POB.

Note - Appraiser does not accept responsibility for matters legal in nature. This includes, but is not limited to, the correctness of any title information, any survey information including the size of the property and/or configuration boundary lines. As a standard appraisal procedure, this appraiser recommends that the services of an attorney at law and of a registered surveyor be obtained (if same have not already been obtained) in order to determine the correctness of all such matters legal in nature.

STATEMENT OF OWNERSHIP

According to the Alachua County tax rolls, the subject property is owned by Pony Industries, Inc.

TITLE HISTORY

The site sold as vacant in March 1984, the University of Florida Foundation was the grantor and MACAR Corporation, the grantee. The sale was recorded in Official Records Book 1559, Page 2388 and the sale price indicated for the two acre site was \$30,000 or \$15,000 per acre.

In April 1985, the subject sold as improved. The grantor was MACAR Corporation and the grantee was Chemlink, Inc. The sale was recorded in Official Records Book 1590, Page 2629 and the indicated sale price was \$350,000. This sale was not verified and may have represented a buy-out of the company and a value-in-use rather than an arm's length purchase of the real estate.

In December 1986, the title transferred from Chemlink, Inc. to Pony Industries, Inc. for an indicated price of \$110,000. This title transfer is recorded in Official Records Book 1647, Page 84.

The subject is currently under a contract-for-sale from Pony Industries, Inc. to Kathy Rudby and Charles Worthington. The appraiser was not furnished a copy of the contract, but the sales price is reported to be \$82,000.

ASSESSMENTS AND TAXES

Taxation, 1987

Tax Parcel No. : 3927-001

Assessments	:	Land	-	\$ 22,400
		Improvements	-	\$ 86,100
		Total	-	<u>\$108,500</u>

Taxes : \$2,700.25

PERSONAL PROPERTY INCLUDED IN THIS APPRAISAL REPORT

None.

DESCRIPTION OF THE IMPROVEMENTS

The subject is an industrial processing plant built in 1984. The plant was in use for approximately six months and has remained unoccupied since sometime in 1985.

There are numerous 7,500 gallon steel tanks within the subject building. The tanks and piping are not being valued in-place, nor is the cost of removal, nor salvage value, being estimated.

The 4,800 square foot metal building is completely insulated and contains an office/restroom area of approximately 464 square feet. The enclosed office area is vapor sealed and consists of an entryway, restroom and shower, and office area/mechanical room. The partition wall between the office and processing area is concrete block. The inside walls are 5/8 inch plaster board taped and spackled. The office area is heated and cooled by a forced system.

The existing improvement also has a concrete block extension that was originally constructed as a boiler room. The boiler is not currently in-place. This area has a cement floor, block walls, and the ceiling is open to the wooden rafters. The exterior of the extension has a sloped roof covered with asphalt shingles. Entry is through an exterior metal door.

Construction details of the existing building are as follows:

Roof - Galvanized metal panel rib with stainless fasteners with 6

DESCRIPTION OF THE IMPROVEMENTS (Cont'd)

inch R-19 roof insulation. The roof has six factory insulated 3 feet by 10 feet skylights. There are two dome-type centrifugal roof exhausters. According to the plans these ventilators have explosion proof motors.

Walls - Exterior walls are galvanized panel rib wall panels with 4 inch R-13 wall insulation. The interior of the building has 7 foot 4 inch high metal liner panels.

Steel Superstructure - There is an interior steel super structure with expanded metal decking and a platform with removable metal railings and a steel staircase. The metal decking is used to create a second and third level within part of the main building.

Flooring - According to the plans, the floor is 6 inch thick concrete and slopes to floor drains. The flooring in the office area is 4 inch concrete slab. Reportedly, the flooring is 18 inches of concrete under the steel super structure columns. Foundation walls are 8 inch concrete block.

Holding Tank - There is a 7,500 gallon underground holding tank located adjacent to the northeast corner of the building. The floor drains empty into this holding tank.

It is unknown what chemicals may have drained into the tank during the operation of the plant. Therefore, it is recommended that an Environmental Risk Audit be conducted to determine whether there has been any contamination.

DESCRIPTION OF THE IMPROVEMENTS (Cont'd)

Doors - The subject building has one overhead door of 14 feet by 16 feet. There are four steel access doors, one on each side of the building.

Heaters - There are two wall-mounted hot water horizontal air flow unit heaters with explosion proof motors. Please note that these should be connected to the boiler which is not currently in place.

Lighting - There are four emergency vapor exit lights, one over each access door. According to the plans there are 15 mercury vapor tight high bay fixtures.

Electrical - There is a 400 amp electrical system with a 440 to 210 transformer and switching gear.

Other - The building has an automatic sprinkler system, two fire hoses, two eye-wash stations. The building also has the overhead crane framework for a monorail crane and a bridge crane.

Concrete Pads - There are existing concrete truck pads on the north and south sides of the building which according to the plans are 14 feet by 22 feet. The pads are 6 inch thick concrete with sloped sides and drains.

Retention Basin - In the front of the site there is a 2 foot deep 3,750 square foot water retention basin.

Fencing - The eastern approximate 1.5 acre of the subject site has perimeter fencing consisting of 6 foot high chainlink with barbed wire. There is approximately 1,054 linear feet of fencing

DESCRIPTION OF THE IMPROVEMENTS (Cont'd)

including a gate of approximately 20 feet in width. The rear 1/2 acre of the subject site is enclosed with field fencing. There is approximately 396 linear feet of field fencing.

PROPOSED RENOVATIONS

Please note: only preliminary plans were provided to the appraiser for the proposed improvements. There were no wall sections provided or details on the plans.

The eaves of the existing building are 32 feet in height and part of the proposed renovations consists of construction of a second level within the existing building. There will be two separate second level areas. On the southern side of the building, a second level area with cement flooring will be constructed over the existing steel platform. This area will be 14 feet above the first level and will contain 2,400 square feet.

Two adjacent rooms will be constructed adjacent to the existing office area. The wall separating these rooms from the processing area will be concrete block.

An additional second level area, 9 feet in height, will be constructed over the existing office and proposed extension. This second level area will contain 1,200 square feet.

A new overhead door, 10 feet by 12 feet, will be added to the building.

Other proposed improvements consist of an additional 20 foot by 30 foot exterior concrete slab to be located at the rear of the building. Each of the three exterior slabs will have a new 16 foot high metal canopy. The size of the canopy is not indicated





by Signify

Site & Area

EcoForm

ECF-S Small



The Gardco EcoForm Gen-2 combines economy with performance in an LED area luminaire. Capable of delivering up to 26,400 lumens or more in a compact, low profile LED luminaire, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings.

Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Ordering guide

example: ECF-S-64L-900-NW-G2-AR-5-120-HIS-MGY

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Mounting	Distribution	Voltage	Options					Finish
							Dimming controls	Motion sensing	Photo-sensing	Electrical	Luminaire	
ECF-S												
ECF-S EcoForm site and area, small	32L 32 LEDs (2 modules)	530 530 mA 700 700 mA 1A 1050 mA 1.2A 1200 mA	WW-G2 Warm White 3000K, 70 CRI Generation 2 NW-G2 Neutral White 4000K, 70 CRI Generation 2	AR Arm Mount (standard) ⁹ <i>The following mounting kits must be ordered separately (See accessories)</i> SF Slip Fitter Mount ¹¹ (fits to 2 3/8" O.D. tenon) WS Wall mount with surface conduit rear entry permitted RAM Retrofit arm mount kit ⁹	Type 2 2 Type 2 2-90 Rotated left 90° 2-270 Rotated right 270° Type 3 3 Type 3 3-90 Rotated left 90° 3-270 Rotated right 270° Type 4 4 Type 4 4-90 Rotated left 90° 4-270 Rotated right 270° Type 5 5 Type 5 5W Type 5W AFR Auto Front Row AFR-90 Auto Front Row, Rotated left 90° AFR-270 Auto Front Row, Rotated right 270°	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V (50/60Hz) HVV 347-480V (50/60Hz)	DD 0-10V External dimming (by others) ⁵ DCC Dual Circuit Control ⁶ FAWS Field Adjustable ¹⁴ SW Interface module for SiteWise ^{12,13} LLC2 Integral module with #2 lens ¹⁶ LLC3 Integral module with #3 lens ¹⁶ LLC4 Integral module with #4 lens ¹⁶ DynaDimmer: Automatic Profile Dimming CS50 Safety 50% Dimming, 7 hours ¹ CM50 Median 50% Dimming, 8 hours ¹ CE50 Economy 50% Dimming, 9 hours ¹ DA50 All Night 50% Dimming ¹ CS30 Safety 30% Dimming, 7 hours ¹ CM30 Median 30% Dimming, 8 hours ¹ CE30 Economy 30% Dimming, 9 hours ¹ DA30 All Night 30% Dimming ¹	IMRI3 Integral with #3 lens ⁸ IMRI7 Integral with #7 lens ⁸ IMRO Pole mounted motion sensor ⁵ (see accessories)	PCB Photocontrol Button ^{2,3} TLRD5 Twist Lock Receptacle 5 Pin ¹⁵ TLRD7 Twist Lock Receptacle 7 Pin ¹⁵ TLRPC Twist Lock Receptacle w/ Photocell ²	Fusing F1 Single (120, 277, 347VAC) ² F2 Double (208, 240, 480VAC) ² Pole Mount Fusing FP1 Single (120, 277, 347VAC) ² FP2 Double (208, 240, 480VAC) ² FP3 Canadian Double Pull (208, 240, 480VAC) ² Surge Protection (10kA standard) SP2 Increased 20kA	Square Pole Adapter included in standard product TB Terminal Block ⁷ RPA Round Pole Adapter (fits to 3"- 3.9" O.D. pole) ¹⁰ HIS Internal Housing Side Shield ⁴	Textured BK Black WH White BZ Bronze DGY Dark Gray MGY Medium Gray Customer specified RAL Specify optional color or RAL (ex: RAL7024) CC Custom color (Must supply color chip for required factory quote)

1. Available only on 120, 208, 240, and 277 (or UNV)

2. Specify Voltage

3. Not available with 347 or 480 voltage

4. HIS not available with Type 5 or 5W optics

5. DD is required for LLC2. Dimming leads are supplied through back of luminaire. **Must be ordered separately** (See accessories page)

6. DCC and LLC2/3/4 not available with any other controls

7. TB not available with DCC

8. ECF-IMRI equipped with out-boarded sensor housing when voltage is HVV (347-480V)

9. Mounts to a 4" round pole with adapter included for square poles.

10. Not available with SF and WS. RPAs provided with black finish standard

11. Limited to a maximum of 45 degrees aiming above horizontal

12. SW option is not available with any other control options with the exception of IMRI3, IMRI7 and SW-IMRO motion response options

13. Available only on 120V and 277V

14. Not available with DCC, IMRI3, IMRI7, SW, LLC and CS/CM/CE/DA (DynaDimmer).

15. TLRD5/7 option not available with LLC, PCB, TLRPC or DCC. Max aiming angle 45°. Works with 3 or 5 pin NEMA photocell/dimming. Dimming will not be connected to NEMA receptacle if ordering with DD, CS/CM/CE/DA, IMRI and IMRO.



ECF-S EcoForm small

Site & Area

EcoForm Accessories (ordered separately, field installed)

Controls Accessories 	Shielding Accessories ¹⁰ 	Luminaire Accessories
Pole Mount Motion Sensor MS-A-120V ¹¹ 120V Input MS-A-277V ¹¹ 277V Input Wireless systems Remote mount module LLCR2-(F) ¹¹ #2 lens LLCR3-(F) ¹¹ #3 lens LLCR4-(F) ¹¹ #4 lens Central Remote Motion Response (used connected to SiteWise main panel) MS2-A-FVR-3 MS2-A-FVR-7 11. DD option required 12. Not available with Type 5 or 5W optics	House Side shield <i>Standard orientation:</i> HIS-32-H ¹² Internal House Side Shield for 32 LEDs (2 modules) HIS-48-H ¹² Internal House Side Shield for 48 LEDs (3 modules) HIS-64-H ¹² Internal House Side Shield for 64 LEDs (4 modules) <i>At 90 or 270 orientation:</i> HIS-32-V ¹² Internal House Side Shield for 32 LEDs (2 modules) HIS-48-V ¹² Internal House Side Shield for 48 LEDs (3 modules) HIS-64-V ¹² Internal House Side Shield for 64 LEDs (4 modules)	ECF-BD-G2 Bird deterrent PTF2-(F) Pole top fitter fits 2 3/8-2 1/2" OD x 4" depth tenon with 1, 2, 3 or 4 luminaires at 90° PTF3-(F) Pole top fitter fits 3-3 1/2" OD x 6" depth tenon with 1, 2, 3 or 4 luminaires at 90° PTF4-(F) Pole top fitter fits 3 1/2-4" OD x 6" depth tenon with 1, 2, 3 or 4 luminaires at 90° ECF-SF-G2-(F) Slip Fitter Mount (fits to 2 3/8" O.D. tenon) ECF-RAM-G2-(F) Retrofit Arm mount kit ECF-WS-G2-(F) Wall mount with surface conduit rear entry permitted (F) = Specify finish

Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L₇₀ hours limited to 6 times actual LED test hours

Ambient Temperature °C	Driver mA	Calculated L ₇₀ Hours	L ₇₀ per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1200 mA	>100,000 hours	>60,000 hours	>88%

LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp. ³	Average System Watts ¹	Type 2			Type 3			Type 4		
					Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)
ECF-S-32L-530-NW-G2-x	32	530	4000	56	6,864	B2-U0-G2	123	6,715	B1-U0-G2	121	7,025	B1-U0-G2	126
ECF-S-32L-700-NW-G2-x	32	700	4000	73	8,853	B2-U0-G2	121	8,661	B2-U0-G2	119	9,062	B1-U0-G2	124
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	12,464	B3-U0-G2	118	12,194	B2-U0-G2	115	12,757	B2-U0-G3	121
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	13,826	B3-U0-G3	114	13,526	B2-U0-G3	111	14,151	B2-U0-G3	116
ECF-S-48L-900-NW-G2-x	48	900	4000	135	16,409	B3-U0-G3	121	16,053	B2-U0-G3	119	16,795	B2-U0-G3	124
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	18,581	B3-U0-G3	117	18,178	B3-U0-G3	115	19,018	B2-U0-G4	120
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	20,627	B3-U0-G3	113	20,180	B3-U0-G4	110	21,112	B3-U0-G4	116
ECF-S-64L-900-NW-G2-x	64	900	4000	178	21,717	B3-U0-G3	122	21,246	B3-U0-G4	119	22,228	B3-U0-G4	125
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	24,467	B3-U0-G3	119	23,936	B3-U0-G4	116	25,043	B3-U0-G4	122

U0 = FULL CUTOFF

Ordering Code	Total LEDs	LED Current (mA)	Color Temp. ³	Average System Watts ¹	Type 5			Type 5W			Type AFR		
					Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)
ECF-S-32L-530-NW-G2-x	32	530	4000	56	7,414	B3-U0-G2	133	7,175	B3-U0-G2	129	7,111	B2-U0-G1	128
ECF-S-32L-700-NW-G2-x	32	700	4000	73	9,563	B3-U0-G2	131	9,255	B4-U0-G2	127	9,172	B2-U0-G1	126
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	13,462	B4-U0-G2	127	13,030	B4-U0-G2	123	12,912	B3-U0-G2	122
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	14,933	B4-U0-G2	123	14,453	B4-U0-G2	119	14,322	B3-U0-G2	118
ECF-S-48L-900-NW-G2-x	48	900	4000	135	17,723	B4-U0-G2	131	17,154	B5-U0-G3	127	16,999	B3-U0-G2	126
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	20,069	B5-U0-G3	126	19,424	B5-U0-G3	122	19,248	B3-U0-G2	121
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	22,279	B5-U0-G3	122	21,563	B5-U0-G3	118	21,368	B3-U0-G2	117
ECF-S-64L-900-NW-G2-x	64	900	4000	178	23,456	B5-U0-G3	132	22,702	B5-U0-G3	128	22,497	B3-U0-G2	127
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	26,427	B5-U0-G3	128	25,577	B5-U0-G4	124	25,346	B3-U0-G2	123

- Wattage and lumen output may vary due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Measured wattage may vary due to variation in input voltage.
- Lumen values based on photometric tests performed in compliance with IESNA LM-79.
- Warm white color temperature will result in decreased lumen output. Contact outdoorlightingapplications@signify.com for details or additional information.

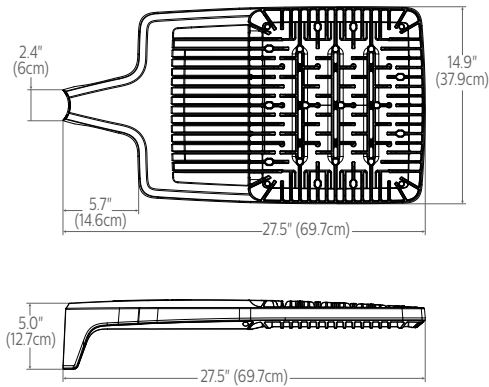
ECF-S EcoForm small

Site & Area

Dimensions

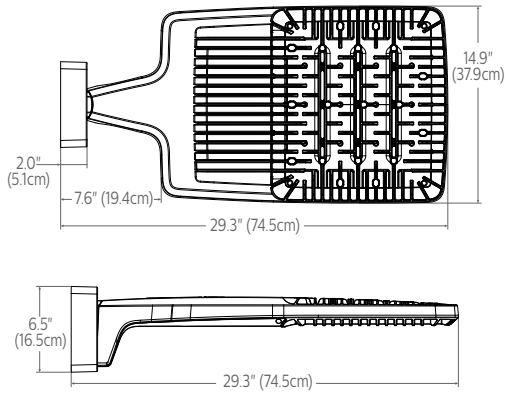
Standard Arm (AR)

Weight: 22 Lbs (9.9 Kg) EPA: 0.21ft² (.019m²)



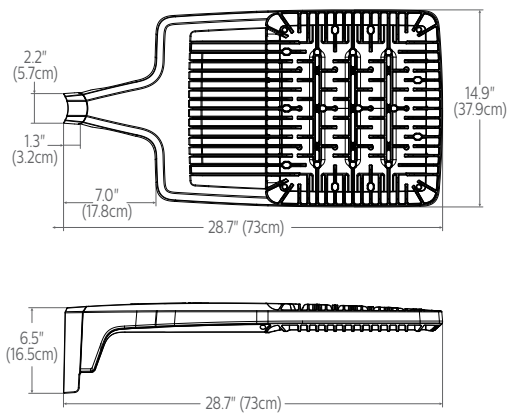
Wall (WS)

Weight: 27 Lbs (12. 2Kg) EPA: 0.27ft² (.025m²)



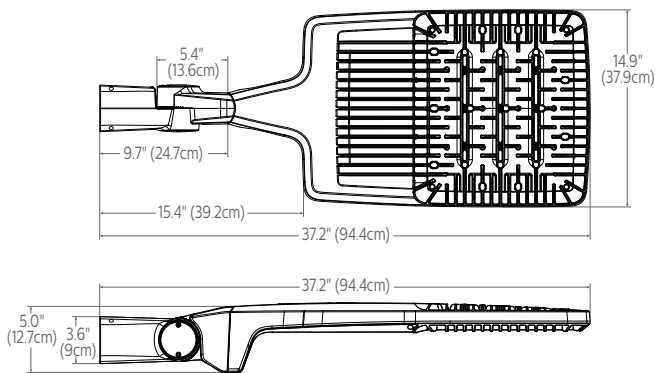
Retrofit Arm (RAM)

Weight: 24 Lbs (10.9 Kg) EPA: 0.24ft² (.022m²)

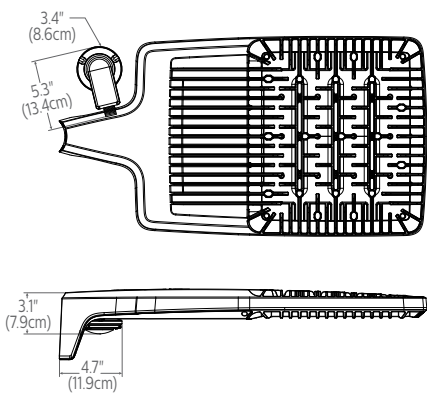


Slip fitter (SF)

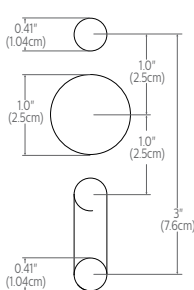
Weight: 27 Lbs (12.2 Kg) EPA: 0.33ft² (.031m²)



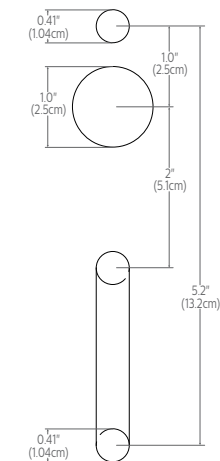
Outboard IMR-HVU sensor



Standard Arm (AR) drill pattern



Retrofit Arm (RAM) drill pattern



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Site & Area

Luminaire options

DD: 0-10V dimming driver with leads supplied through back of luminaire (for secondary dimming controls by others).

TLRD5: Twist Lock Receptacle with 5 pins enabling dimming, can be used with a twistlock photoelectric cell or a shorting cap. Can also be used with third party control system. Receptacle located on top of luminaire housing.

TLRD7: Twist Lock Receptacle with 7 pins enabling dimming and additional functionality (by others), can be used with twistlock photoelectric cell or a shorting cap. Can also be used with third party control system. Receptacle located on top of luminaire housing.

TLRDPC: Receptacle with twistlock photoelectric cell (must specify voltage). Receptacle located on top of luminaire housing.

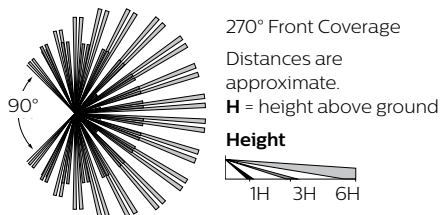
Dynadimmer Automatic Profile Dimming: Automatic dimming profiles (CS50/CM50/CE50) offer safety, median, or economy settings, for shorter or longer duration. Dimming profiles provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. 50% dimming is standard. DA50 offers 50% instantaneous dimming all night (during all dark hours). 75% and 25% dimming is also available if different light levels are required (contact Technical Support for details).

Profile	Dimming		
	Level	Duration	Example
Economy	50%	9 hours	9 PM - 6 AM
Median	50%	8 hours	10 PM - 6 AM
Safety	50%	7 hours	11 PM - 6 AM
Reactive 50	50%	dynamic	all night

IMRI3, IMRI7: Infrared Motion Response Integral. IMRI module is mounted integral on driver door and is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges (see charts for approximate detection patterns on page 7). Motion response used in combination of Dynadimmer and SiteWise are not programmable and used to override controllers schedule when motion is detected. When used not combined with any controller, IMRI is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected by the PIR sensor, the luminaire returns to full power/light output. Dimming on low is factory set to 50% with 5 minute default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 50%, to 50% of the normal constant wattage reducing the light level. IMRI can also be specified with automatic profile dimming for the added benefit of a combined dimming profile with sensor detection, where the PIR sensor will override the dimming profile when occupancy is detected. Passive infrared (PIR) motion sensor.

IMRO: Infrared Motion Response Outboard pole mounted sensor, must be specified with an available automatic profile dimming option. Combines the benefits of both automatic profile dimming and motion response using the DynaDimmer technology. PIR sensor features a pole mounted Wattstopper EW-200-120-W or the EW-200-277-W. One motion sensor per pole is required (order MS-A-120 or MS-A-277 separately). Available in 120 or 277V only, IMRO sensors require single voltage 120V or 277V input (see chart for approximate detection patterns). If motion is detected during the time that the luminaire is operating at profile dimming mode specified, the luminaire returns to 100% power and light output. The luminaire remains on high until no motion is detected for the duration period, after which the luminaire returns back to automatic profile dimming. Duration period is factory set at 15 minutes, and is field adjustable from 5 minutes up to 15 minutes. The area motion detector provides coverage equal to up to 6 times the sensor height above ground, 270° from the front-center of the sensor.

Pole Details: IMRO requires that the pole include an additional hand hole 15 feet above the pole base, normally oriented 180° to the standard hand hole. For Gardco poles, order the pole with the Motion Sensor Mounting



(MSM) option which includes the hand hole and a special hand hole cover plate for the sensor with a 1/2" NPT receptacle centered on the hand hole cover plate into which the motion sensor mounts. Once the motion sensor is connected to the hand hole cover plate, then wiring connections are completed in the pole. The plate (complete with motion sensor attached and wired) is then mounted to the hand hole. If poles are supplied by others, the customer is responsible for providing suitable mounting accommodations for the motion sensor in the pole (see Gardco Poles specification sheets for more information).

DCC: Dual Circuit Control permits separate switching of a specific number of LED modules. Available as an option with 2 through 4 modules.

SW: SiteWise option is a fully integrated controller that connects to SiteWise system in order to offer a complete area lighting management system. The communication signal is based on patented central dimming technology. SiteWise delivers it deliver optimal energy savings using your site's existing cabling. No additional wiring required,

installation and commissioning are simple. An intuitive, mobile app makes it easy for authorized users to set schedules to meet site specific lighting needs, local regulations, and energy codes.

Wireless systems: Controller radio/sensor module attached to luminaire arm and includes radio, photocell and motion sensor. Available with #2 lens (LLC2) for 8' to 15' mounting height" or #3 lens (LLC3) for 15-25' mounting heights or #4 lens (LLC4) for 25-40' mounting heights. Also available with remote pod accessory where pod is mounted separate from luminaire to pole or wall (see accessories and wireless system information page 5-7).

F1: Fusing Single (for 120, 277 or 347VAC)

F2: Fusing Double (for 208, 240 or 480VAC)

FP1: Fusing Pole Single (pole mounted near handhole, for 120, 277 or 347VAC)

FP2: Fusing Pole Double (pole mounted near handhole, for 208, 240 or 480VAC).

FP3: Fusing Pole Canadian Double Pull (pole mounted near handhole, for 208, 240 or 480VAC)

SP1: Surge Protection, 10kV/5kA, 120-277V or 347-480V

SP2: Surge Protection, 20kV/10kA , 120-277V or 347-480V

HIS: Internal House Side Shield. Injection molded in black finish. Ships installed with 1 per 16 LED module. Also available shipped separately as an accessory for 2-4 LED modules.

FAWS: Field Adjustable Wattage Selector, pre-set to the highest position, can be easily switched in the field to the required position. This reduces total luminaire wattage consumption and reduces the light level – see the FAWS multiplier chart for more details. *Note: It is not recommended to use FAWS with other dimming or controls; if you do, set the switch to position 10 (maximum output) to enable the other dimming or controls. Switching FAWS to any position other than 10 will disable the other dimming or controls.*

Field adjustable wattage (FAWS) multiplier chart

FAWS Position	Typical Delivered Lumens Multiplier	Typical System wattage
1	0.31	0.28
2	0.53	0.50
3	0.62	0.58
4	0.70	0.67
5	0.78	0.75
6	0.83	0.81
7	0.89	0.87
8	0.92	0.91
9	0.96	0.95
10	1.00	1.00

Note: Typical value accuracy +/- 5%

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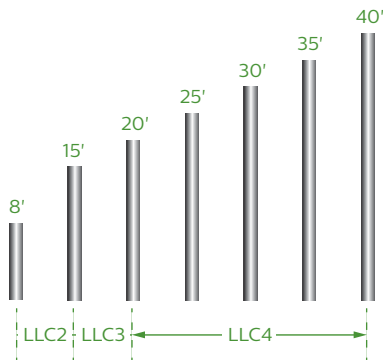
Site & Area

Wireless system – luminaire configuration information

LLC2/LLC3/LLC4 Luminaire Mounted Controller

Controller pod attached to luminaire and includes radio, photocell and motion sensor with #2, #3 or #4 lens for 8–40' mounting heights.

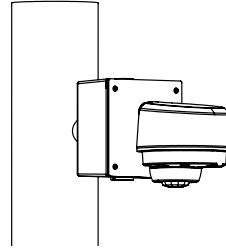
Recommended Sensor by Pole Height



LLCR2/LLCR3/LLCR4 Pole Mounted Controller

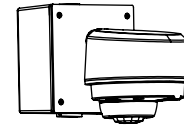
In this configuration, the wireless controller will be mounted to the pole at a fifteen foot mounting height. The number of luminaires on each pole, as well as the specific wattage chosen, will determine how many controllers will be required.

When using the wireless remote accessory option (LLCR-F) in a pole mount application, specify pole option (CL=Coupling Internal Thread, 3/4" size). Confirm required orientation of luminaire and wireless controller. Indicate height above pole base and orientation to hand hole. Recommended min pole height is 18ft, with option (CL) 15ft above pole base. Other heights are possible when choosing the appropriate sensor lens type. See pole specification sheets for more information.

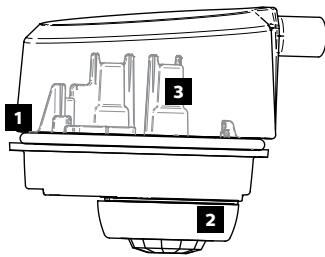


Remote Mount Wireless Controller

Used to extend the communication on site, to extend motion response and add other luminaires that are not pole mounted. Consult factory for more information.



Wireless system sensor



1. Photocell

- Ambient light photocell on every wireless radio that averages the light levels of up to 5 controllers for an accurate reading and optimal light harvesting activity.
- Reports ambient light readings to 1500 Fc.

2. Motion Response

- Detects motion through passive infrared sensing technology with three different lens configurations.
- Motion sensor coverage can be adjusted from a narrow to a wide detection range, which helps reduce false triggers to further increase energy savings.
- Sensing profiles can be updated to adapt to activity levels in the environment, such as occupancy level, wind, and mounting height.

3. Wireless Radio

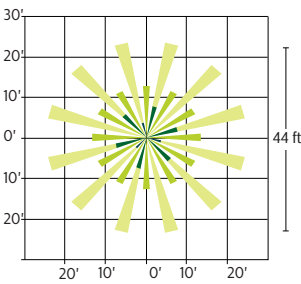
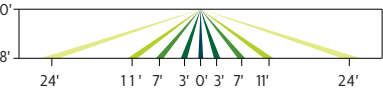
- 1.8 Watts max (no load draw)
- Operating voltage 120–277 VAC RMS
- Communicates using the ZigBee protocol
- Carries out dimming commands from Gateway
- Reports ambient light readings to 1500 Ft-Cd
- Transmission Systems Operating within the band 2400–2483.5Mhz
- RoHS Compliant

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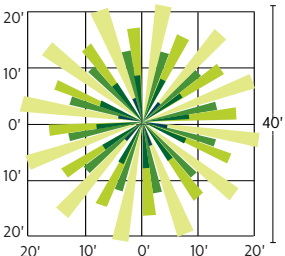
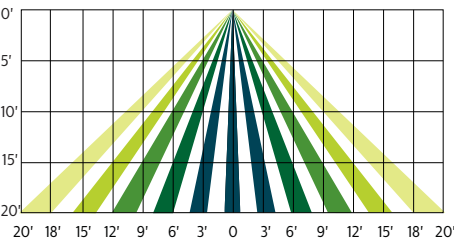
Site & Area

Infrared Motion Response – Coverage Patterns

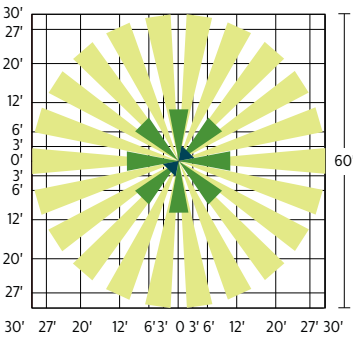
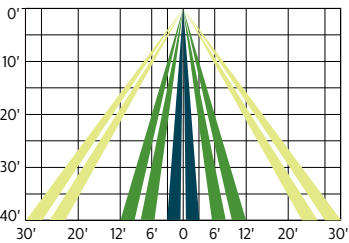
LLC2/LLCR2
Luminaire or remote mount controller
with #2 lens



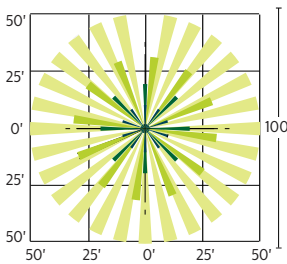
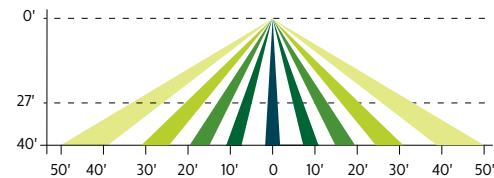
IMRI3/LLC3/LLCR3
Luminaire or Remote mount controller
with #3 lens



LLC4/LLCR4
Luminaire or Remote mount controller
with #4 lens



IMRI7
Integral motion response
with #7 lens



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Site & Area

SiteWise system

SiteWise is a complete area lighting management system including a luminaire integrated controller, dimming signal transmitter cabinet, and locally accessible user interface. Installation and commissioning are simple. The cabinet communicates with the luminaires using a patented central dimming technology. The control signal is embedded on the existing electrical line – no new cabling is required. An intuitive, locally accessible interface makes it easy for authorized users to set schedules in order to meet site specific lighting needs, local regulations, and energy codes.

SiteWise system diagram



SiteWise system interface



SiteWise has an intuitive user interface that makes it easy to plan, edit, and implement lighting schedules for your site. Authorized users can access the interface via a local app.

To ensure that only authorized users can access your lighting, SiteWise offers two user types, each with different permissions. An advanced user, or administrator, can set and edit schedules using the ten pre-set scenes, assign those schedules to calendar days, and check system status.

For everyday use, a basic user can manually override a schedule that is currently running but cannot create or edit schedules.

SiteWise system specifications

The SiteWise system includes both luminaires and controls. The controls used for SiteWise are circuit load dependent. Required for a complete installation are the following SiteWise components: user interface, control kit, dimming signal transmitter cabinet, and dimming signal receiver located in the luminaire (**SW** option). Optional luminaire-integrated or external motion sensors may also be specified as required. Within the electrical closet, the control kit and dimming signal transmitter cabinet are installed into the electrical system between the existing breaker panel and the site luminaires. New LED luminaires containing the dimming signal receiver are installed on the site. Once completed, use of the interface allows for scheduling and override capabilities. Wireless access point and tablet should be supplied by others. Complete information on the control system can be found on the SiteWise website at signify.com/sitewise

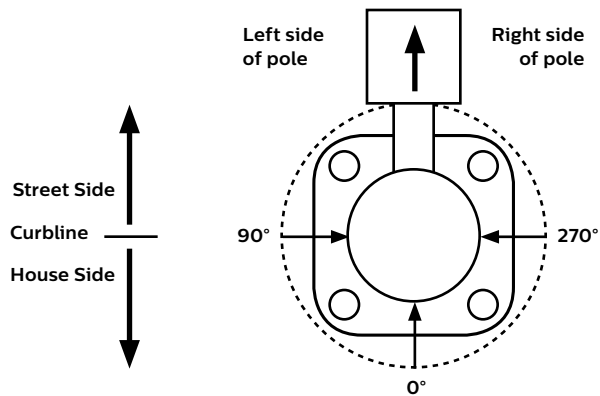
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Site & Area

Optical Orientation Information

Standard Optic Position

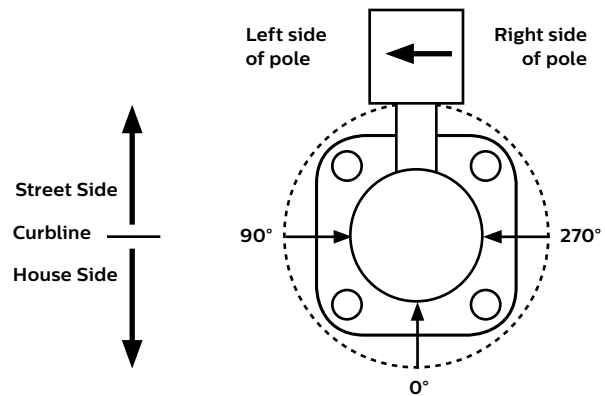
Luminaires ordered with asymmetric optical systems in the standard optic position will have the optical system oriented as shown below:



Note: The hand hole will normally be located on the pole at the 0° point.

Optic Rotated Left (90°) Optic Position

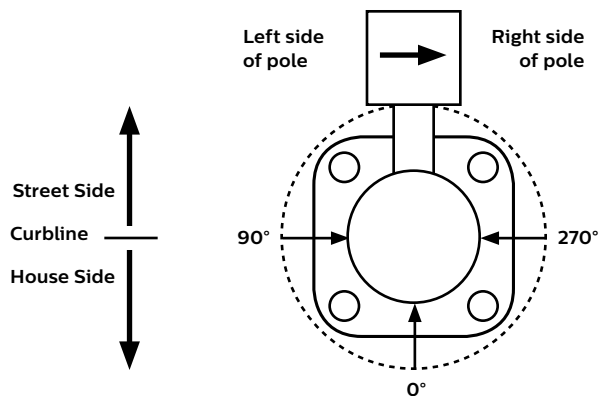
Luminaires ordered with optical systems in the Optic Rotated Left (90°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



Note: The hand hole will normally be located on the pole at the 0° point.

Optic Rotated Right (270°) Optic Position

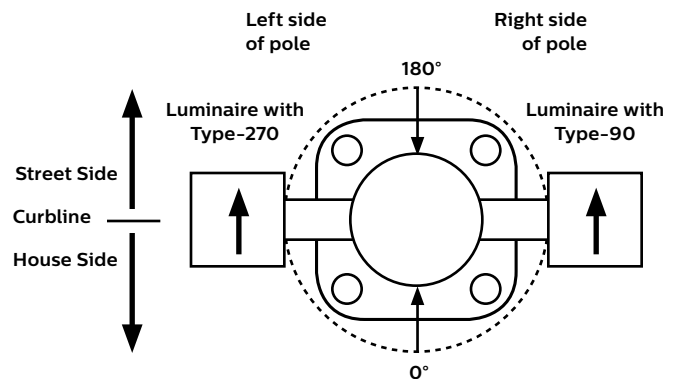
Luminaires ordered with optical systems in the Optic Rotated Right (270°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



Note: The hand hole will normally be located on the pole at the 0° point.

Twin Luminaire Assemblies with Type-90/Type-270 Rotated Optical Systems

Twin luminaire assemblies installed with rotated optical systems are an excellent way to direct light toward the interior of the site (Street Side) without additional equipment. It is important, however, that care be exercised to insure that luminaires are installed in the proper location.



Luminaires with Optic Rotated Right (270°) are installed on the LEFT Side of Pole

Luminaires with Optic Rotated Left (90°) are installed on the RIGHT Side of Pole

Note: The hand hole location will depend on the drilling configuration ordered for the pole.

ECF-S EcoForm small

Site & Area

Specifications

Housing

One piece die cast aluminum housing with integral arm and separate, self retained hinged, one piece die cast door frame.

IP Rating

LED light engine rated IP66. Driver compartment rated to IP65.

Vibration resistance

EcoForm with Standard Arm carries a 3G vibration rating that conforms to standards set forth by ANSI C136.31. Testing includes vibration to 3G acceleration in three axes, all performed on the same luminaire.

Electrical

Driver efficiency (>90% standard). 120-480V available (restrictions apply). Open/short circuit protection. Optional 0-10V dimming to 10% power. RoHS compliant. Surge protector standard. 10KA per ANSI/IEEE C62.41.2.

LED Board and Array

32, 48, or 64 LEDs. Color temperatures: 3000K +/- 125K, 4000K, 5000K +/- 200K. Minimum CRI of 70. Aluminum metal clad board. RoHS compliant.

LED Thermal management

The housing design allows the one piece housing to provide excellent thermal management critical to long LED system life.

Energy saving benefits

System efficacy up to 133lm/W with significant energy savings over Pulse Start Metal Halide luminaires. Optional control options provide added energy savings during unoccupied periods.

SiteWise network system

SiteWise system includes a controller fully integrated in the luminaire that enables the luminaires to communicate with a dimming signal transmitter cabinet located on site using patented central dimming technology. A locally accessible mobile app allows users to access the system and set functionalities such as ON/OFF, dimming levels and scheduling. SiteWise is available with motion response options in order to bring the light back to 100% when motion is detected. Additional functionalities are available such as communication with indoor lighting and connection to BMS systems.

Wireless system

EcoForm luminaires are available with optional wireless controllers ready to be connected to a Limelight system (sold by other). The system allows you to wirelessly manage the entire site, independent lighting groups or individual luminaires while on-site or remotely. Based on a high density mesh network with an easy to use web-based portal, you can conveniently access, monitor and manage your lighting network remotely. Wireless controls can be combined with site and area, pedestrian, and parking garage luminaires as well, for a completely connected outdoor solution.

Optical systems

Type 2, 3, 4, 5, 5W, and AFR distributions available. Internal Shield option mounts to LED optics and is available with Type 2, 3, 4, and AFR distributions to control backlight.

Types 2, 3, 4, and AFR, when specified and used as rotated, are factory set only.

Mounting

Standard luminaire arm mounts to 4" round poles. Can also be used with 5" O.D. poles. Square pole adapter included with every luminaire. Round Pole Adapter (RPA) required for 3-3.9" poles.

Retrofit Arm Mount

EcoForm features an innovative retrofit arm kit. When specified with the retrofit arm (RAM) option, EcoForm seamlessly simplifies site conversions to LED by eliminating the need for additional pole drilling on most existing poles. RAM will be boxed separately.

Listings

UL/cUL listed to the UL 1598 standard, suitable for Wet Locations. Suitable for use in ambients from -40° to 40°C (-40° to 104°F). The quality systems of this facility have been registered by UL to the ISO 9001 series standards. Most EcoForm configurations are DesignLights Consortium® qualified. Consult DLC Qualified Products list for more details.

Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidic isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BZ), black (BK), white (WH), dark gray (DGY), and medium gray (MGY). Consult factory for specs on optional or custom colors.

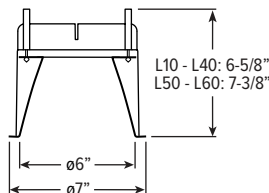
Warranty

EcoForm luminaires feature a 5 year limited warranty. Gardco LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED Drivers also carry a 5 year limited warranty. Motion sensors are covered by warranty for 5 years by the motion sensor manufacturer. See signify.com/warranties for complete details and exclusions.



6DR^{LED} 6" Downlight – Round

Recessed installation provides full cut off performance.



CATALOG #:
TYPE:
PROJECT:

NEW CONSTRUCTION AND REMODEL

FEATURES

TrimLock[®]

- Williams TrimLock reflector retention system eliminates trim sag
- Industry-leading efficacies as high as 116 lm/W – ENERGY STAR[®] certified
- Fully room-side accessible
- Available on QuickShip

SPECIFICATIONS

- HOUSING** – Die-cast aluminum trim housing with forged aluminum heat sink. Galvanized steel splice compartment with driver mounting plate/enclosure. Swing-out mounting arms adjust for ceiling thickness from 1/2" - 1-7/16" (see options for additional ceiling thicknesses).
- TRIMLOCK** – Innovative TrimLock reflector retention system ensures the trim remains flush with the ceiling plane.
- OPEN REFLECTOR** – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- LENSED TRIM** – Die-cast aluminum frame with micro-prismatic, tempered glass lens.
- ELECTRICAL** – High-performance Class 2 C.O.B. LED array. Modular quick-connect plug for easy field-connection of LED light assembly to driver. Reported L70>55,000 hours. Reported L90>55,000 hours. Estimated L70 = 200,000 hours.
- MOUNTING** – Recessed. 20 ga. galvanized steel mounting pan for new construction or IC-rated enclosure. Remodel kit option includes receiver bracket hardware. Minimum 24" O.C. marked spacing required for L60 lumen package.
- LISTINGS** –
 - cCSAus conforms to UL STD 1598; Certified to CAN/CSA STD C22.2 No. 250.0 for damp locations. LED light assembly conforms to UL 2108 for remote installation.
 - Suitable for wet location under covered ceiling when specified with WET/CC or TD options.
 - ENERGY STAR[®] certified in select configurations, see www.energystar.gov
 - IC-rated for direct contact with insulation when specified with I Mounting Type.
 - City of Chicago Environmental Air approved when specified with CP option.
 - Complies with ASTM-E283 when specified with ATH option.
 - RoHS compliant.
- WARRANTY** – 5-year limited warranty, see hew.com/warranty.



ORDERING EXAMPLE:⁽¹⁾ 6DR - TL - L20/835 - OPTIONS - DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1

HOUSING

SERIES	LUMENS ⁽²⁾	CRI	CCT	OPTIONS	DRIVER ⁽³⁾	VOLTAGE
6DR - TL	L10 1,000lm	8 80	27 2700K	SCA__ Sloped ceiling adapter ⁽⁴⁾	DIM Dimming driver, 0-10V	UNV 120-277V
TrimLock	L15 1,500lm	9 90	30 3000K	ATH Airtight construction	DIM1 1% Dimming driver, 0-10V	347 347V ⁽⁵⁾
	L20 2,000lm		35 3500K	F Fuse		
	L30 3,000lm		40 4000K	EM/10W 10-watt emergency battery ⁽⁶⁾		
	L40 4,000lm			EM/10W/ITS 10-watt emergency battery with integral test switch ⁽⁷⁾		
	L50 5,000lm			CP Chicago plenum (CCEA) ⁽⁸⁾		
	L60 6,000lm			SDT Stepdown transformer ⁽⁹⁾		
				TC Adjustable mounting arms for 1-1/2" – 2-1/4" thick ceilings		

TRIM

TRIM TYPE	DISTRIBUTION ⁽¹⁰⁾	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
O Open reflector	W Wide	OF 1/2" standard flange	Open trim types	MWT Textured white trim flange ⁽¹⁷⁾
L Flush lens	65° Open	SF 1/4" mud-in flange ⁽¹⁶⁾	CS Clear semi-specular anodize	MB Regressed lens trim with texture black splay and white flange ⁽¹⁸⁾
R Regressed lens	55° Flush		SG Satin-glow anodize	IP IP65 rated trim ⁽¹⁹⁾
A Angled lens ⁽¹¹⁾	55° Regressed		GD Gold anodize	AD Diffuse acrylic lens ⁽²⁰⁾
S Non-conductive flush lens for shower applications ⁽¹²⁾	M Medium ⁽¹³⁾		CG Champagne gold anodize	PD Diffuse 1/8" polycarbonate lens ⁽²¹⁾
	35° Open		PW Pewter anodize	TD Diffuse polycarbonate lens media at top of open reflector ⁽²²⁾
	35° Flush		SPC Clear specular anodize	WET/CC Wet location, covered ceiling listed ⁽²³⁾
	35° Regressed		RG Rose gold anodize	
	N Narrow ⁽¹⁴⁾		WH White texture powder coat	
	10° Open		BL Black texture powder coat	
	25° Flush			
	25° Regressed			
	WW Wall wash ⁽¹⁵⁾			
			Lens trim types	
			CS Clear semi-specular powder coat	
			WH White texture powder coat	
			BL Black texture powder coat	

MOUNTING

MOUNTING TYPE ⁽²⁴⁾	MOUNTING HARDWARE ⁽²⁵⁾
N Open pan for new construction	F1 2-Position fixed pan bracket, universal bar hanger included
I IC-rated enclosure for new construction ⁽²⁶⁾	F2 2-Position fixed pan bracket, t-bar bar hanger included
R Remodel kit ⁽²⁷⁾	

NOTES

- Housing, trim, and mounting ship separately.
- Lumen output based on O trim type, W distribution and CS finish, 3500K/80CRI. Actual lumens may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
- See page 4 for ADDITIONAL DRIVER OPTIONS.
- 9" aperture, specify degrees of slope in 5° increments, 05°-30°. See page 4 for SLOPED CEILING ADAPTOR DETAILS.
- N Mounting Type only.
- Not available with EM batteries.
- N and R Mounting Types only.
- Not available with WET/CC. N Mounting Type and O Trim Type only, requires alternate construction and trim retention. See page 5 for MOUNTING TYPE DETAILS.
- I Mounting Type required.
- May be required for 347V, see product builder at hew.com
- Beam angle based on W distribution with CS or WH reflector finish. See page 2 for FIXTURE PERFORMANCE DATA.
- Available with WW Distribution only.
- W Distribution, OF Flange Type and WH Reflector Finish only. Only available with AD diffuse acrylic lens, standard. IP and WET/CC options standard.
- Not available with lumen stops L50 and higher when specified with flush or regressed trim types.
- Not available with lumen stops L50 and higher when specified with flush or regressed trim types.
- Not available with lumen stops L50 and higher when specified with flush or regressed trim types.
- O and A Trim Types only.
- For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 4 for FLANGE TYPE DETAILS. Not available with CP, ATH or IP options.
- O Trim Type and OF Flange Type only. Not available with WH Reflector Finish.
- R Trim Type only.
- L and R trim types only.
- L and R Trim Types only. Wide distribution only.
- L and R Trim Types only. Wide distribution only.
- O Trim Type only. WET/CC standard. Reduces lumen output, use .75 multiplier.
- Reduces lumen output, use .85 multiplier.
- Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
- Specify for N and I Mounting Types only. Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
- L30 lumen package max.
- Also used in new construction sheetrock ceilings.



6DR^{LED} 6" Downlight – Round

FIXTURE PERFORMANCE DATA

OPEN REFLECTOR TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	1014	8.7	116.9
	M	982	8.7	113.2
	N	1003	8.7	115.7
L15	W	1497	13.8	108.6
	M	1495	13.8	108.4
	N	1528	13.8	110.8
L20	W	1988	19.0	104.6
	M	1983	19.1	103.8
	N	2026	19.1	106.1
L30	W	3062	26.9	114.0
	M	3003	26.9	111.8
	N	3000	26.9	111.7
L40	W	4094	36.5	112.2
	M	4016	36.4	110.3
	N	4011	36.4	110.2
L50	W	5014	43.9	114.1
	M	4935	43.9	112.3
	N	5047	43.9	114.9
L60	W	6043	54.0	111.9
	M	5948	54.0	110.1
	N	6083	54.0	112.6

FLUSH LENS TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	774	8.7	89.2
	M	910	8.7	104.9
	N	909	8.7	104.8
L15	W	1178	13.8	85.4
	M	1385	13.8	100.4
	N	1384	13.8	100.4
L20	W	1562	19.5	80.1
	M	1837	19.1	96.1
	N	1836	19.5	94.2
L30	W	2335	26.9	86.9
	M	2782	26.9	103.6
	N	2718	26.9	101.2
L40	W	3122	36.5	85.5
	M	3720	36.4	102.2
	N	3635	36.4	99.9
L50	W	3824	43.9	87.0
	M	4572	43.9	104.1
	N	4574	43.9	104.1
L60	W	4609	54.0	85.4
	M	5510	54.0	102.0
	N	5513	54.0	102.1

REGRESSED LENS TRIM TYPE

LED PACKAGE	DISTRIBUTION	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	716	8.7	82.5
	M	883	8.7	101.7
	N	897	8.7	103.4
L15	W	1090	13.8	79.0
	M	1344	13.8	97.4
	N	1366	13.8	99.1
L20	W	1445	19.5	74.1
	M	1782	19.1	93.3
	N	1812	19.5	92.9
L30	W	2160	26.9	80.4
	M	2699	26.9	100.5
	N	2683	26.9	99.9
L40	W	2889	36.5	79.1
	M	3609	36.4	99.1
	N	3587	36.4	98.6
L50	W	3537	43.9	80.5
	M	4435	43.9	100.9
	N	4514	43.9	102.7
L60	W	4264	54.0	79.0
	M	5345	54.0	99.0
	N	5440	54.0	100.7

MULTIPLIER TABLES

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.95
	3000K	0.96
	3500K	1.00
	4000K	1.01

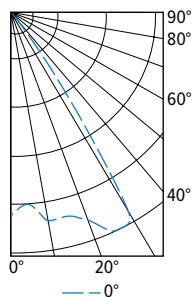
90 CRI	CCT	CONVERSION FACTOR
	2700K	0.74
	3000K	0.85
	3500K	0.90
	4000K	0.91

OPEN REFLECTOR FINISH		
CATALOG NUMBER	REFLECTOR FINISH	CONVERSION FACTOR
CS	Clear semi-specular	1.00
SG	Satin-glow	0.92
GD	Gold	0.93
CG	Champagne Gold	0.96
PW	Pewter	0.86
SPC	Specular	1.02
RG	Rose Gold	0.88
WH	White, textured	0.89
BL	Black, textured	0.79

- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Wattage shown is based on 120V input.
- Results based on 3500K, 80 CRI, actual lumens may vary +/-5%
- Use multiplier table to calculate additional options.

PHOTOMETRY

6DR-TL-L20/835-DIM-UNV-OW-OF-CS Report #: 20687; 12/12/18 | Total Luminaire Output: 1988 lumens; 19.0 Watts | Efficacy: 104.6 lm/W | 82.9 CRI; 3457K CCT



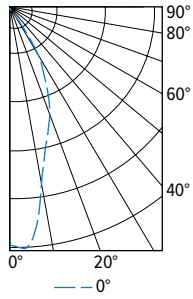
CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE	ZONAL LUMENS
		0°	
	0	1672	
	5	1579	151
	15	1735	492
	25	1982	917
	35	604	380
	45	46	36
	55	13	12
	65	2	2
	75	0	0
	85	0	0
	90	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1939	98
	0 - 60	1987	100
	0 - 90	1988	100
	0 - 180	1988	100



6DR^{LED} 6" Downlight – Round

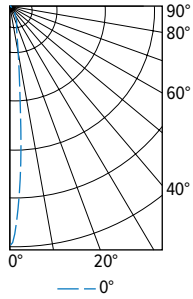
6DR-TL-L20/835-DIM-UNV-OM-OF-CS Report #: 12326812.04; 05/01/18 | Total Luminaire Output: 1983 lumens; 19.1 Watts | Efficacy: 103.8 lm/W | 82.7 CRI; 3579K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
	0	4013	
	5	3972	249
	15	2325	347
	25	1412	68
	35	396	68
	45	46	15
	55	14	5
	65	4	2
	75	1	0
	85	0	0
	90	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1924	97
	0 - 60	1977	100
	0 - 90	1983	100
	0 - 180	1983	100

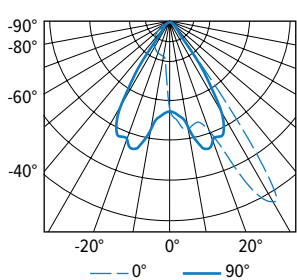
6DR-TL-L20/835-DIM-UNV-ON-OF-CS Report #: 12326812.05; 06/06/18 | Total Luminaire Output: 2026 lumens; 19.1 Watts | Efficacy: 106.1 lm/W | 82.6 CRI; 3578K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
	0	22000	
	5	9830	397
	15	2032	290
	25	1021	214
	35	242	24
	45	13	4
	55	4	1
	65	1	1
	75	0	0
	85	0	0
	90	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	2010	99
	0 - 60	2024	100
	0 - 90	2026	100
	0 - 180	2026	100

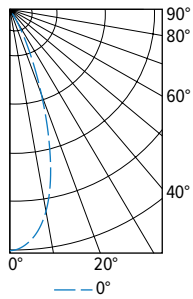
6DR-TL-L20/835-DIM-UNV-OWW-OF-CS Report #: 12326812.06; 06/28/18 | Total Luminaire Output: 1009 lumens; 19.1 Watts | Efficacy: 52.8 lm/W | 82.6 CRI; 3568K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
		0°	45°	90°	135°	180°	
	0	772	772	772	772	772	
	5	873	843	805	494	403	48
	15	891	872	1128	275	292	108
	25	1552	925	1051	240	274	194
	35	539	400	375	206	235	58
	45	43	36	88	166	185	37
	55	21	20	54	116	122	27
	65	16	14	32	70	72	18
	75	7	5	15	39	39	9
	85	0	0	3	10	8	1
	90	0	0	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	804	80
	0 - 60	941	93
	0 - 90	1009	100
	0 - 180	1009	100

6DR-TL-L20/835-DIM-UNV-LM-OF-WH Report #: 12326812.09; 06/05/18 | Total Luminaire Output: 1837 lumens; 19.1 Watts | Efficacy: 96.1 lm/W | 82.6 CRI; 3549K CCT



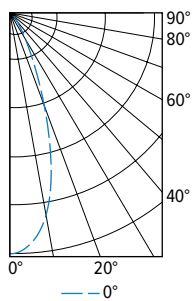
CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
	0	4338	
	5	4168	281
	15	2728	354
	25	847	153
	35	222	56
	45	89	31
	55	53	22
	65	32	14
	75	16	7
	85	4	1
	90	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1667	91
	0 - 60	1785	97
	0 - 90	1837	100
	0 - 180	1837	100



6DR^{LED} 6" Downlight – Round

6DR-TL-L20/835-DIM-UNV-RM-OF-WH Report #: 12326812.14; 06/06/18 | Total Luminaire Output: 1782 lumens; 19.1 Watts | Efficacy: 93.3 lm/W | 82.7 CRI; 3546K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE	ZONAL LUMENS
		0°	
	0	4313	
	5	4131	277
	15	2669	346
	25	846	155
	35	225	55
	45	76	26
	55	41	17
	65	23	10
75	10	4	
85	3	1	
90	0		

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1648	93
	0 - 60	1746	98
	0 - 90	1782	100
	0 - 180	1782	100

ADDITIONAL DRIVER OPTIONS

Lumen restrictions apply: L40 max for DMX driver, L40 max for Lutron drivers, L50 max for ELDO drivers. 347V may require stepdown transformer, see product builder at hew.com.

CATALOG NUMBER	DESCRIPTION
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DMX	0.1% dimming driver for DMX controls
LTE LINE	Lutron Hi-Lume® A-Series 1% dimming driver for forward phase line voltage controls (120V only)
LDE1	Lutron EcoSystem® H-Series 1% dimming driver for EcoSystem® controls
LDE5	Lutron EcoSystem® 5-Series 5% dimming driver for EcoSystem® controls
ELDO SOLOB	EldoLED Solodrive, 0.1% dimming driver for 0-10V controls
ELDO SOLOB DALI	EldoLED Solodrive, 0.1% dimming driver for DALI controls
ELDO ECO1	EldoLED Ecodrive, 1% dimming driver for 0-10V controls
ELDO ECO1 DALI	EldoLED Ecodrive, 1% dimming driver for DALI controls

TRIMLOCK DETAILS

TWIST



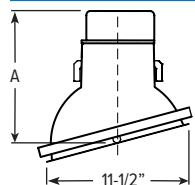
PULL



RELEASE



SLOPED CEILING ADAPTOR DETAILS

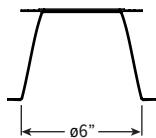


LUMENS	A (HEIGHT)						PLENUM HEIGHT
	5°	10°	15°	20°	25°	30°	
L10 - L30	10-11/16"	10-7/8"	10-15/16"	10-7/8"	10-13/16"	10-5/8"	11-1/4"
L40 - L60	11-7/16"	11-9/16"	11-5/8"	11-5/8"	11-1/2"	11-1/4"	12"

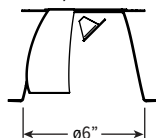
15° Shown

TRIM TYPE DETAILS

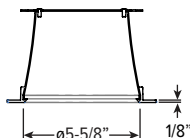
OPEN



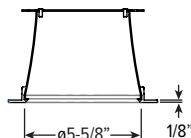
OPEN (WALL WASH)



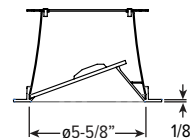
FLUSH



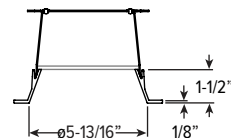
SHOWER



ANGLED

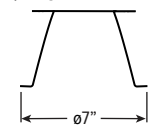


REGRESSED



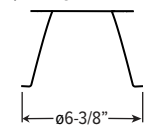
FLANGE TYPE DETAILS

1/2" STANDARD



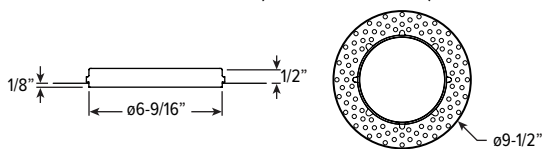
Ceiling Cutout: 6-1/2"

1/4" MUD-IN



Ceiling cutout: 6-3/4"

MUD FLANGE MOUNTING KIT (SLIM FLANGE TYPE)



H.E. Williams, Inc.

Carthage, Missouri

www.hew.com

417-358-4065

Designed and Manufactured in the USA

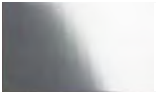
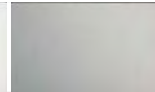
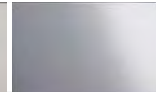
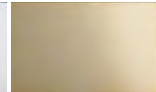
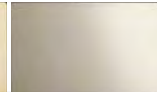
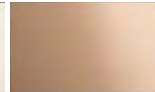
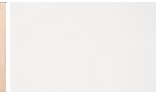
HEW.70700.JJ REV.01/22/19

Downlights

Page 4 of 5

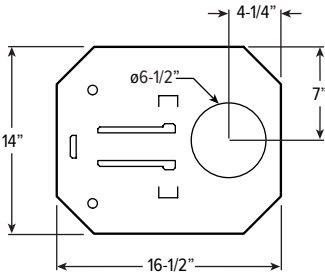
6DR^{LED} 6" Downlight – Round

REFLECTOR FINISH DETAILS

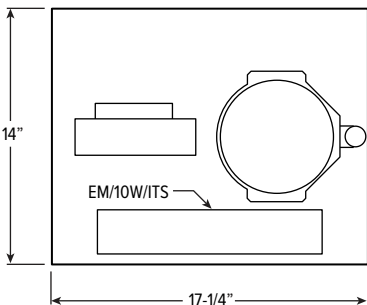
SPC	CS	SG	PW	GD	CG	RG	WH	BL
Clear specular	Clear semi-specular	Satin-glow	Pewter	Gold	Champagne gold	Rose gold	White	Black
								

MOUNTING TYPE DETAILS

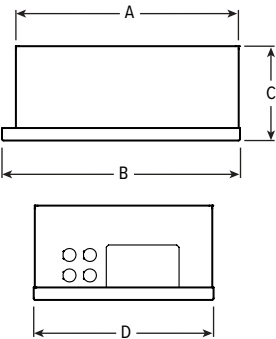
NEW CONSTRUCTION



NEW CONSTRUCTION WITH EM/10W/ITS

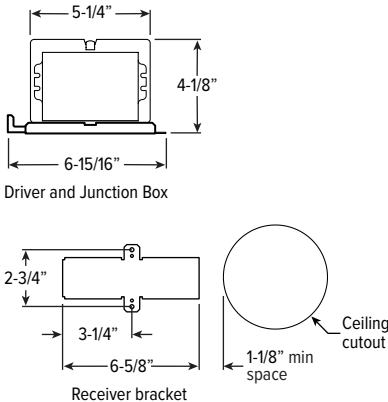


IC-RATED



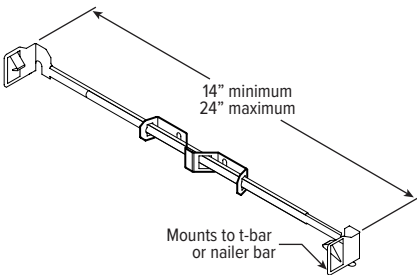
LUMENS	LENGTH			
	A	B	C	D
L10 - L20	15-3/16"	16"	6-3/8"	12-1/8"
L30	16-5/8"	17-1/2"	7-7/8"	14"

REMODEL

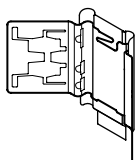


MOUNTING HARDWARE DETAILS

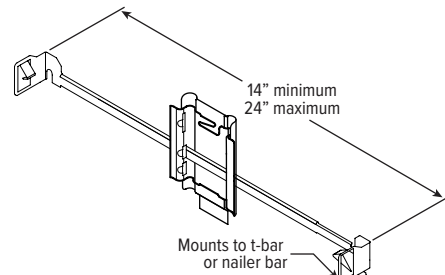
F1 2-Position fixed pan bracket, universal bar hanger included



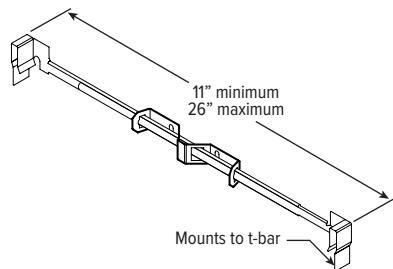
BA1 Adjustable butterfly pan bracket, bar hanger not included



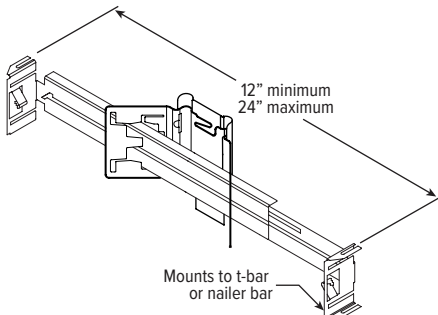
CA1 Adjustable caterpillar pan bracket, universal bar hanger included



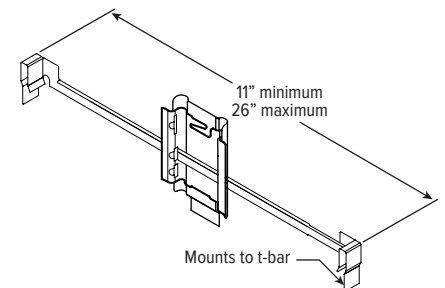
F2 2-Position fixed pan bracket, t-bar bar hanger included



BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included



CA2 Adjustable caterpillar pan bracket, t-bar hanger included





Project: _____

Location: _____

Cat.No: _____

Type: _____

Qty: _____

Notes: _____

Philips Gardco 111 LED mini scone luminaires are compact in size, perfect for low mounting height wall mount applications. 111 LED luminaires are designed to integrate naturally to wall surfaces. 111 LED luminaires are available with three (3) different distribution patterns, providing full cutoff performance (in the normal downlight position) and featuring LED arrays. Luminaires provide performance excellence and advanced Philips Gardco LED thermal management technology. High performance Class 1 LED systems offer potential energy savings of 50 % or more compared to HID systems. 111 LED luminaires are also available with 0-10V Dimming.

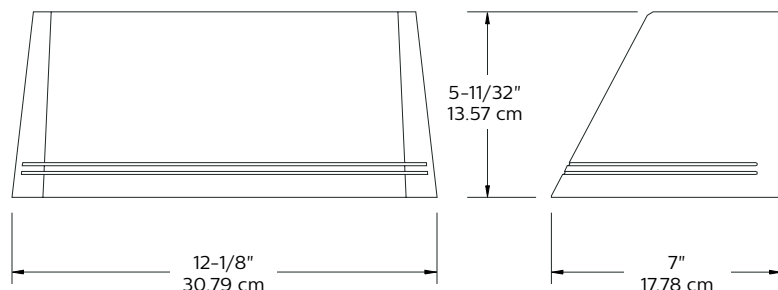
Ordering guide

example: 111L-16L-350-CW-G2-2-UNV-DD-BK

Prefix	No. of LEDs	Drive Current	Color/Generation	Distribution	Voltage	Controls	Electrical/Luminaire	Finish
111L	16							
111L Trapezoidal Wedge LED	16L 16 LED module	350 350mA	CW-G2 Cool White 5700K, 70 CRI generation 2	2 Type II Wide Throw Optic, with maximized lateral throw	UNV 120-277V 50hz/60hz	PCB Photocontrol Button ²	F1 Single fusing (120, 277VAC) ¹	Textured BK Black WH White BZ Bronze DGY Dark Grey MGY Medium Grey Customer specified RAL Specify optional color or RAL (ex: OC-LGP or OC-RAL7024) CC Custom color (must supply color chip for required factory quote)
		550 550mA	NW-G2 Neutral White 4000K, 70 CRI generation 2	3 Type III Preferred Wide Throw Optic, with improved forward throw	120 120V 208 208V 240 240V 277 277V	DD 0-10V Dimming	F2 Double fusing (208, 240VAC) ¹	
		750 750mA	WW-G2 Warm White 3000K, 70 CRI generation 2	4 Type IV Maximized forward throw optic			F3 Canadian double pull fusing (208, 240VAC) ¹	
							DL Diffusing Lens WS Wall Mounted Box for Surface Conduit	

1. Provide specific input voltage.

Dimensions



Note: Mounting plate center is located in the center of the luminaire width and 2.38" (6.03cm) above the luminaire bottom (lens down position). Splices must be made in the J-box (by others). Mounting plate must be secured by max. 1/4" (.64cm) diameter bolts (by others) structurally to the wall.

111 Mini Sconce LED

110 Line LED, Wall Mount

LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Avg System Wattage ¹ (W)	Type 2			Type 3			Type 4		
				Lumen Output ²	Bug Rating	Efficacy (LPW)	Lumen Output ²	Bug Rating	Efficacy (LPW)	Lumen Output ²	Bug Rating	Efficacy (LPW)
111L-16L-350-NW-G2	16	350	18	1908	B1-U0-G0	106	1799	B0-U0-G0	100	1768	B0-U0-G0	98
111L-16L-550-NW-G2	16	550	29	2900	B1-U0-G0	101	2735	B1-U0-G1	95	2688	B1-U0-G1	93
111L-16L-750-NW-G2	16	750	40	3807	B1-U0-G1	95	3591	B1-U0-G1	90	3529	B1-U0-G1	88

- Wattage and lumen output may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
- Tests available for luminaires with the DL option and other color temperatures. Contact outdoorlighting.applications@philips.com if any approximate estimates are required for design purposes.
- Absolute lumens for Cool White (CW) matches the Neutral White (NW) lumen outputs. Warm White (WW) performance is reduced by 12% compared to Neutral White (NW) values shown.

Specifications

Housing

Housings are die cast aluminum. A memory retentive gasket seals the housing to the door frame to exclude moisture, dust, insects and pollutants from the optical system. A black, die cast ribbed backplate dissipates heat for longer system life. Main body cast housing and back plate made of a low copper die cast. Hinged door allows access to driver and LED compartment.

Mounting

Mounting is completed through integral back plate that features a separate recessed feature for hook and lock quick mount plate that secures with two set screws from bottom of luminaire. Luminaire ships fully assembled, ready to install.

Light Engine

Composed of 4 main components: Heat Sink/ LED Module/Optical System/Driver. Electrical components are RoHS compliant. Metal core board ensures greater heat transfer and longer lifespan.

IP Rating

Luminaires are rated IP66.

Predicted Lumen Depreciation Data

Ambient Temperature °C	System Current	LED Current	Calculated L ₇₀ hrs ^{1,2}	L ₇₀ per TM21 ^{2,3}	Lumen Maintenance @ 60,000hrs
25 °C	750 mA	750 mA	>100,000	>60,000	97%

- Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
- L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output.
- Calculated per IESNA TM 21-11. Published L₇₀ hours limited to 6 times actual LED test hours.

Optical systems

The advanced LED optical systems provide IES Types 2, 3, 4. Composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. Dark sky compliant with 0% uplight and U0 per IESNA TM-15.

Door Frame

A single-piece die cast aluminum door frame integrates to the housing form. The door frame is hinged closed and secured to the housing with captive stainless steel fasteners. The heat and impact resistant 1/8" (.32cm) tempered glass lens and one-piece gasket are mechanically secured to the door frame with galvanized steel retainers. A clear tempered glass lens is included. A diffuse lens is available as an option.

Thermal Management

Philips Gardco 111 LED luminaires utilize extruded aluminum integral thermal radiation fins to provide excellent thermal management critical to long LED system life.

Finish

Five standard colors offered in textured black, white, bronze, dark gray and medium gray. Color in accordance with the AAMA 2604 standard. Application of polyester powder coat paint 2.5 mils minimum. The thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard. RAL and custom color matching available.

LED Useful Life

Luminaire Useful Life accounts for LED lumen maintenance. Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, LED LM-80/ TM-21, expected to reach 100,000+ hours with >L70 lumen maintenance @ 25°C.

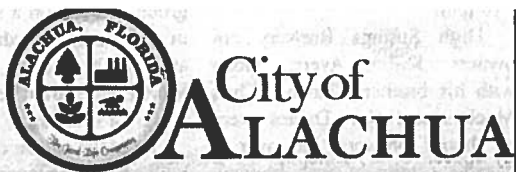
Certifications and Compliance

cULus Listed for Canada and USA suitable for wet locations when mounted downward facing. cULus Listed for Canada and USA suitable for damp locations when inverted upward facing when mounted in covered ceiling application. DesignLights Consortium qualified on models as listed on DLC QPL. Luminaire is rated for operation in ambient temperature of -40°C (-40°F) up to +40°C (+104°F).

Limited Warranty

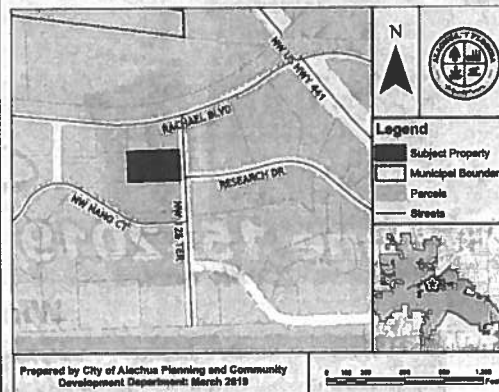
5-year limited warranty. See philips.com/warranties for details and restrictions. Visit our eCatalog or contact your local sales representative for more information.





**NOTICE OF PUBLIC
HEARING BEFORE THE
PLANNING AND ZONING
BOARD OF THE CITY OF
ALACHUA, FLORIDA**

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on July 9, 2019, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located at 15100 NW 142nd Terrace, Alachua, Florida, to consider the following: A request by Sergio Reyes, P.E., of eda engineers-surveyors-planners, inc., applicant and agent for Alchem Laboratories Corporation, property owner, for consideration of a Site Plan for the construction of a ±12,000 square foot building, with associated paving, grading, infrastructure and landscaping improvements on a ±2.69 acre subject property, located at 14120 NW 126th Terrace; Tax Parcel No. 03927-001-000; FLUM: Industrial; Zoning: Light and Warehouse Industrial (LW).

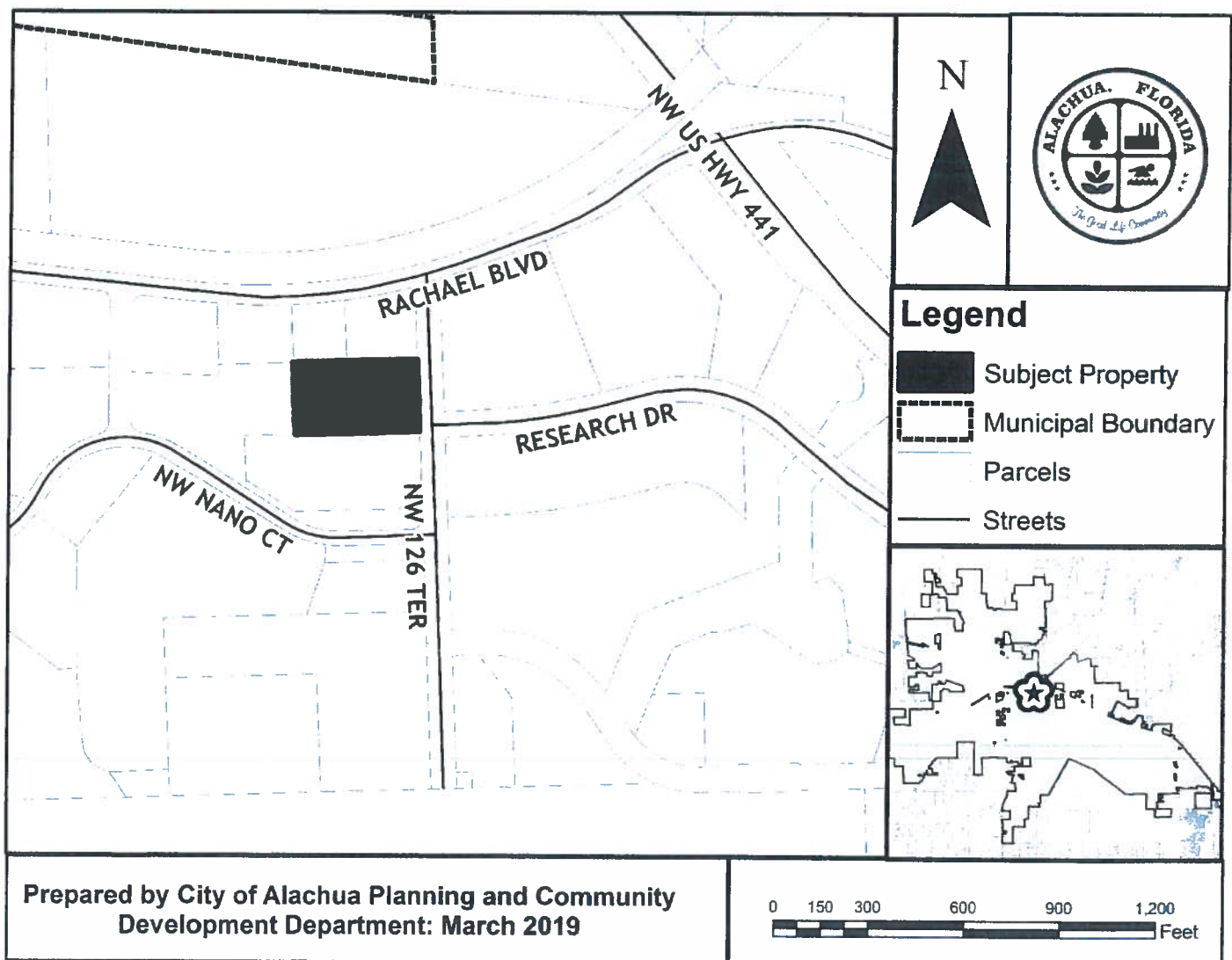


At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 101 at least 48 hours prior to the public hearing.

Mailed
 6/24/2019
 (KC)

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on July 9, 2019, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located at 15100 NW 142nd Terrace, Alachua, Florida, to consider the following: A request by Sergio Reyes, P.E., of eda engineers-surveyors-planners, inc., applicant and agent for Alchem Laboratories Corporation, property owner, for consideration of a Site Plan for the construction of a $\pm 12,000$ square foot building, with associated paving, grading, infrastructure and landscaping improvements on a ± 2.69 acre subject property, located at 14120 NW 126th Terrace; Tax Parcel No. 03927-001-000; FLUM: Industrial; Zoning: Light and Warehouse Industrial (ILW).



At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. Written comments on the

Antoinette Endelicato
5562 NW 93rd Avenue
Gainesville, FL 32653

Richard Gorman
5716 NW 93rd Avenue
Alachua, FL 32653

President
TCMOA
1000 Turkey Creek
Alachua, FL 32615

Jeannette Hinsdale
P.O. Box 1156
Alachua, FL 32616

Tamara Robbins
PO Box 2317
Alachua, FL 32616

Dan Rhine
288 Turkey Creek
Alachua, FL 32615

Peggy Arnold
410 Turkey Creek
Alachua, FL 32615

Linda Dixon, AICP
Assistant Director Planning
PO Box 115050
Gainesville, FL 32611

Lynn Coullias
7406 NW 126th Ave
Alachua, FL 32615

Michele L. Lieberman
Interim County Manager
12 SE 1st Street
Gainesville, FL 32601

Tom Gorman
9210 NW 59th Street
Alachua, FL 32653

David Forest
23 Turkey Creek
Alachua, FL 32615

Craig Parenteau
FL Department of Environmental Protection
4801 Camp Ranch Road
Gainesville, FL 32641

Lynda Coon
7216 NW 126 Avenue
Alachua, FL 32615

Bonnie Flynn
16801 NW 166th Drive
Alachua, FL 32615

03230-002-001
PETRA HOLDINGS COMPANY LLC
12775 RACHEL BLVD
ALACHUA, FL 32615-6698

03956-011-000
SNH MEDICAL OFFICE PROPERTIES
255 WASHINGTON ST STE 300
NEWTON, MA 02458

03927-005-000
CV II PARTNERSHIP
4656 34TH ST SOUTHWEST
ORLANDO, FL 32811

03230-002-000
ADC DEVELOPMENT & INVESTMENT GROUP
LLC
PO BOX 238
LAKE BUTLER, FL 32054

03927-014-000
COPELAND INDUSTRIAL PARK OWNERS
ASSOCIATION INC
PO BOX 365
LAKE BUTLER, FL 32054

03230-002-002
PETRA HOLDINGS COMPANY LLC
12775 RACHEL BLVD
Alachua, FL 32615

03956-010-004
STATE OF FLA IIF
3900 COMMONWEALTH BLVD
TALLAHASSEE, FL 32399

92060-517-900
CSX TRANSPORTATION INC
500 WATER ST TAX DEPARTMENT J-910
JACKSONVILLE, FL 32202-4423

03927-000-000
ADC DEVELOPMENT & INVESTMENT GROUP
LLC
PO BOX 238
LAKE BUTLER, FL 32054

03927-015-000
COPELAND INDUSTRIAL PARK OWNERS
ASSOCIATION INC
PO BOX 365
LAKE BUTLER, FL 32054

03927-001-000
ALCHEM LABORATORIES CORPORATION
13305 RACHAEL BLVD
ALACHUA, FL 32615

03230-002-003
ALACHUA COPELAND PARK INVESTMENTS
LLC
3917 NW 97TH BLVD
GAINESVILLE, FL 32606

03229-002-000
THE CHRISTOPHER CORPORATION
PO BOX 1000
ALACHUA, FL 32616

03927-013-000
COPELAND INDUSTRIAL PARK OWNERS
ASSOCIATION INC
PO BOX 365
LAKE BUTLER, FL 32054

03956-010-019
CITY OF ALACHUA
PO BOX 9
ALACHUA, FL 32616

AFFIDAVIT FOR POSTED LAND USE SIGN

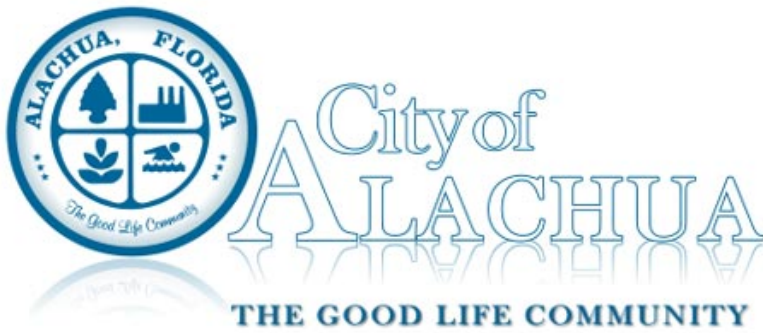
I MELISSA WATSON, POSTED THE LAND USE
(Name)
SIGN ON 6/24/19 FOR THE Alchem Building 3 Site Plan
(Date) (State type of action and project name)
LAND USE ACTION.

AS PER ARTICLE 2.2.9 D OF THE LAND DEVELOPMENT REGULATIONS.

THIS WILL BE INCLUDED IN THE STAFF REPORT.

Melissa Watson
(Signature)

One (1)
(Number of signs)



Board/Committee Agenda Item

MEETING DATE: 7/9/2019

SUBJECT: Site Plan - Innovation One: A request by Alison Fetner, P.E., of Fetner Engineering, applicant and agent for Shoppes at Progress Center, LLC, property owner, for consideration of a Site Plan to construct a ±30,676 square foot light manufacturing (research and development) facility, with associated paving, grading, drainage, landscaping and infrastructure improvements, on a ±2.80 acre subject property, located southwest of the intersection of US Highway 441 and Progress Boulevard, and north of Research Drive and UF Innovate | Sid Martin Biotech; Tax Parcel Number 03956-010-027 (Quasi-Judicial Hearing).

PREPARED BY: Adam Hall, AICP

RECOMMENDED ACTION:

Based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan, subject to the four (4) conditions provided in Exhibit "A" and on page 20 of the July 9, 2019 Staff Report to the Planning & Zoning Board.

Summary

The proposed site plan is a request by Alison Fetner, P.E., of Fetner Engineering, applicant and agent for Shoppes at Progress Center, LLC., property owner, for the construction of a ±30,676 square foot light manufacturing (research and development) facility with employee parking, storm water management facility improvements, paving, grading, landscaping and associated utility infrastructure.

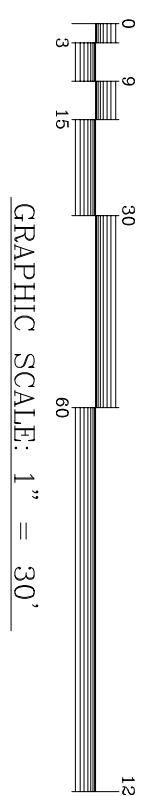
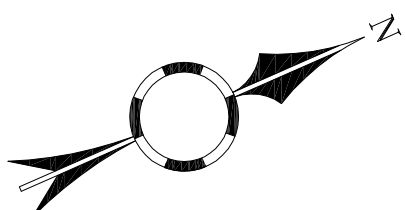
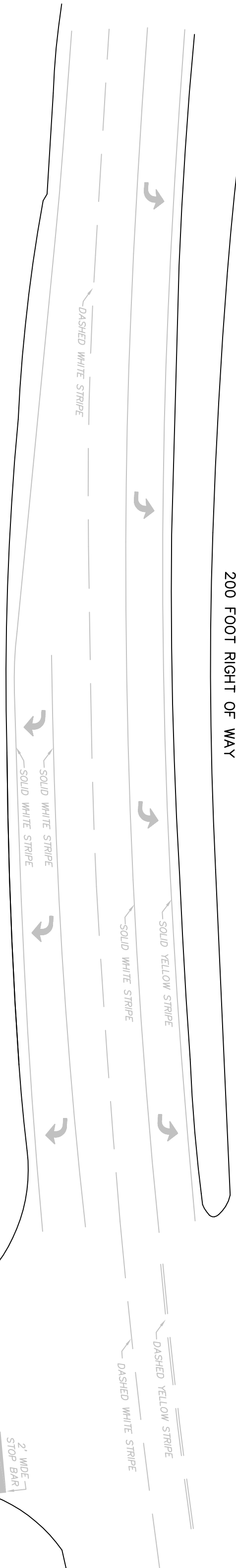
The subject property is ±2.80 acres in area and is located Southwest of the intersection of US Highway 441 and Progress Boulevard, and north of Research Drive and UF Innovate | Sid Martin Biotech. Access to the subject property would be provided by two (2) ingress/egress drives, one connecting to Progress Boulevard and one connecting to Research Drive. There would also be one (1) additional egress connecting to Research Drive.

ATTACHMENTS:

Description

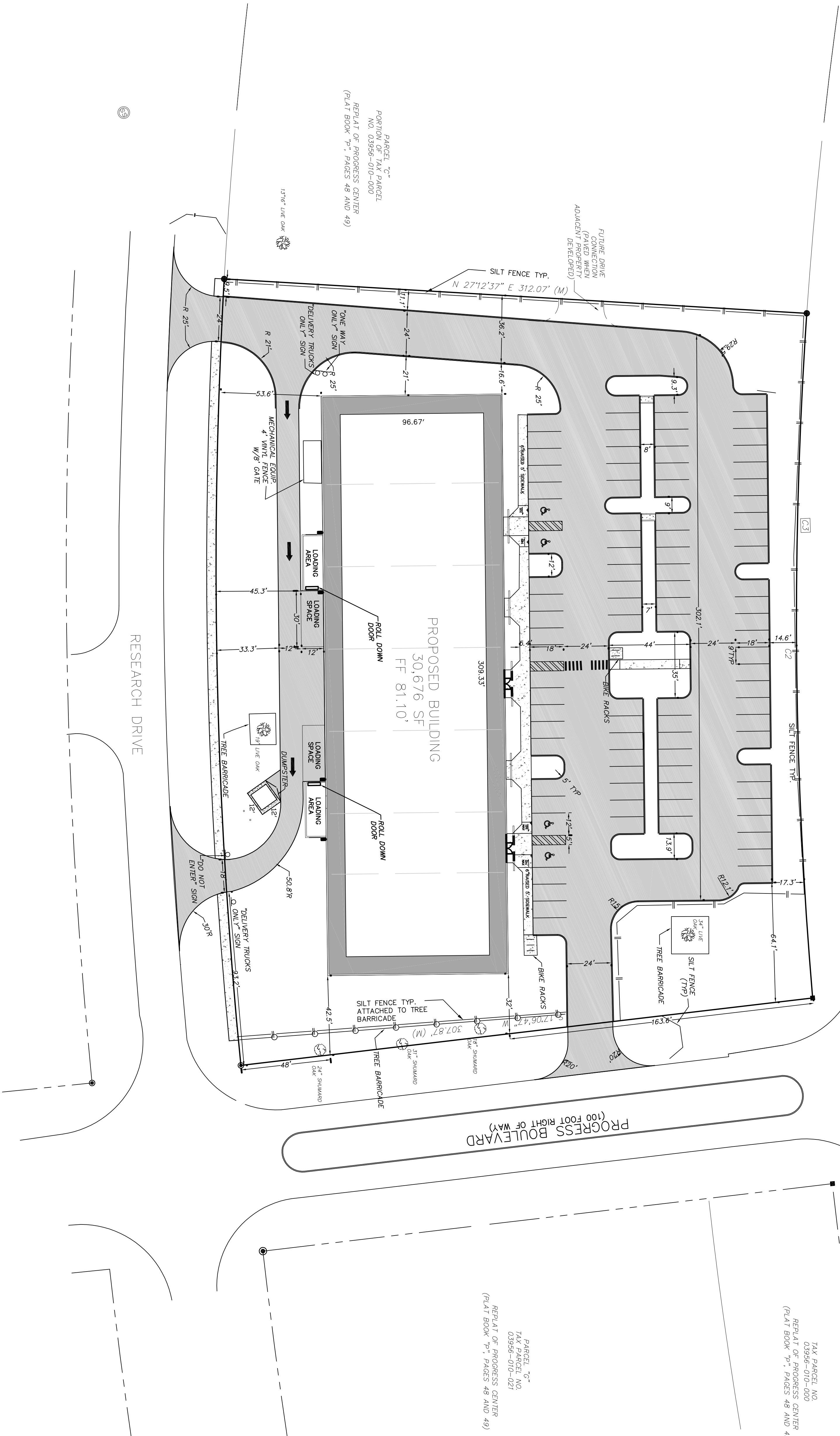
- ▢ Site Plan
- ▢ Staff Report
- ▢ Exhibit "B"- Staff Supporting Materials
- ▢ Application and Supporting Materials
- ▢ Public Notice Materials for the 07/09/19 PZB Hearing

U.S. HIGHWAY NO. 441 (S.R. No. 20 : S.R. No. 25)
200 FOOT RIGHT OF WAY



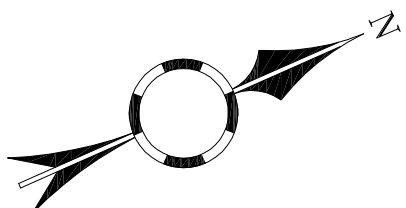
TAX PARCEL NO.
03956-010-000
REPLAT OF PROGRESS CENTER
(PLAT BOOK "P", PAGES 48 AND 49)

PARCEL "G"
TAX PARCEL NO.
03956-010-021
REPLAT OF PROGRESS CENTER
(PLAT BOOK "P", PAGES 48 AND 49)

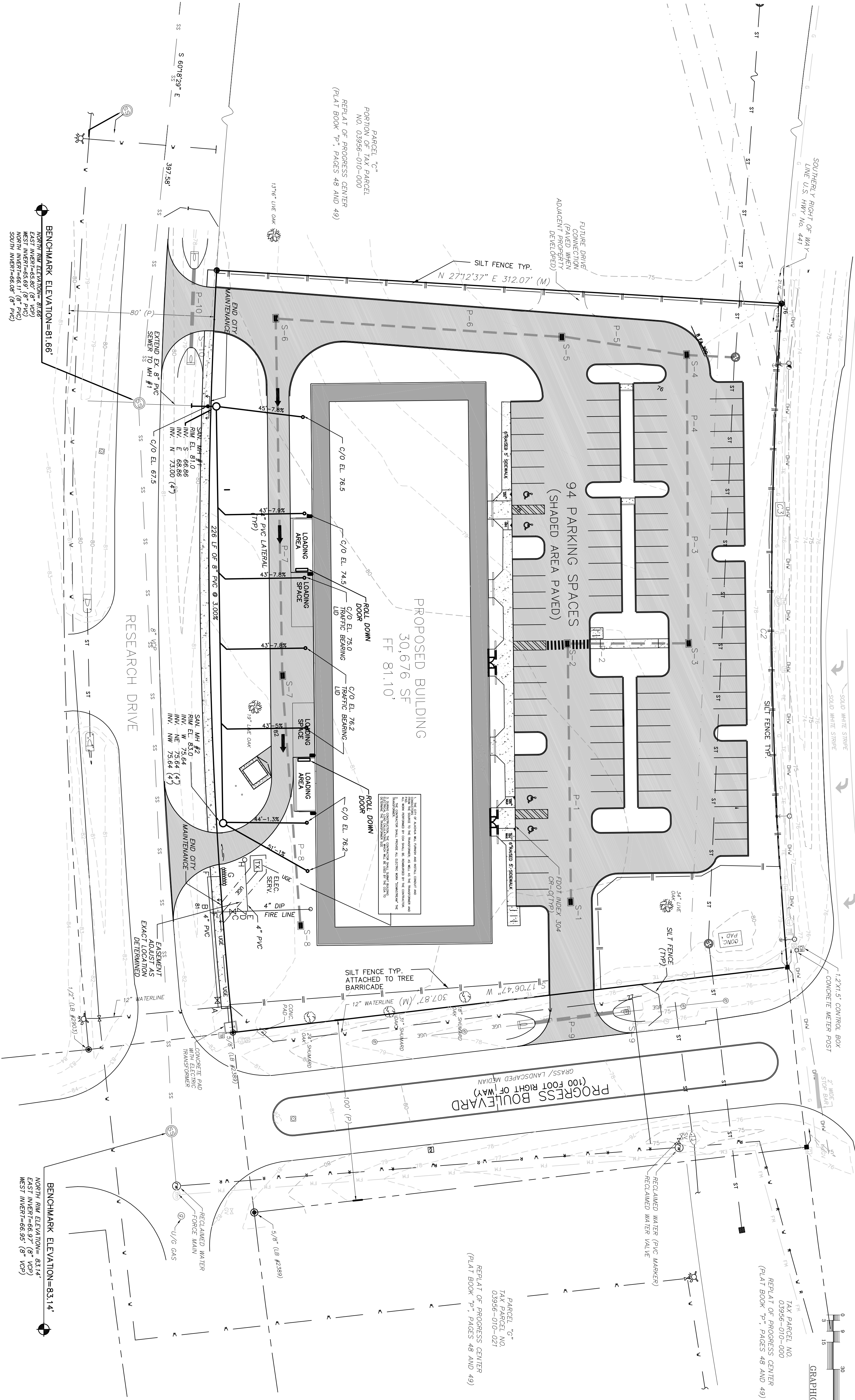


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U.S. HIGHWAY NO. 441 (S.R. No. 20 : S.R. No. 25)
200 FOOT RIGHT OF WAY



GRAPHIC SCALE: 1" = 30'

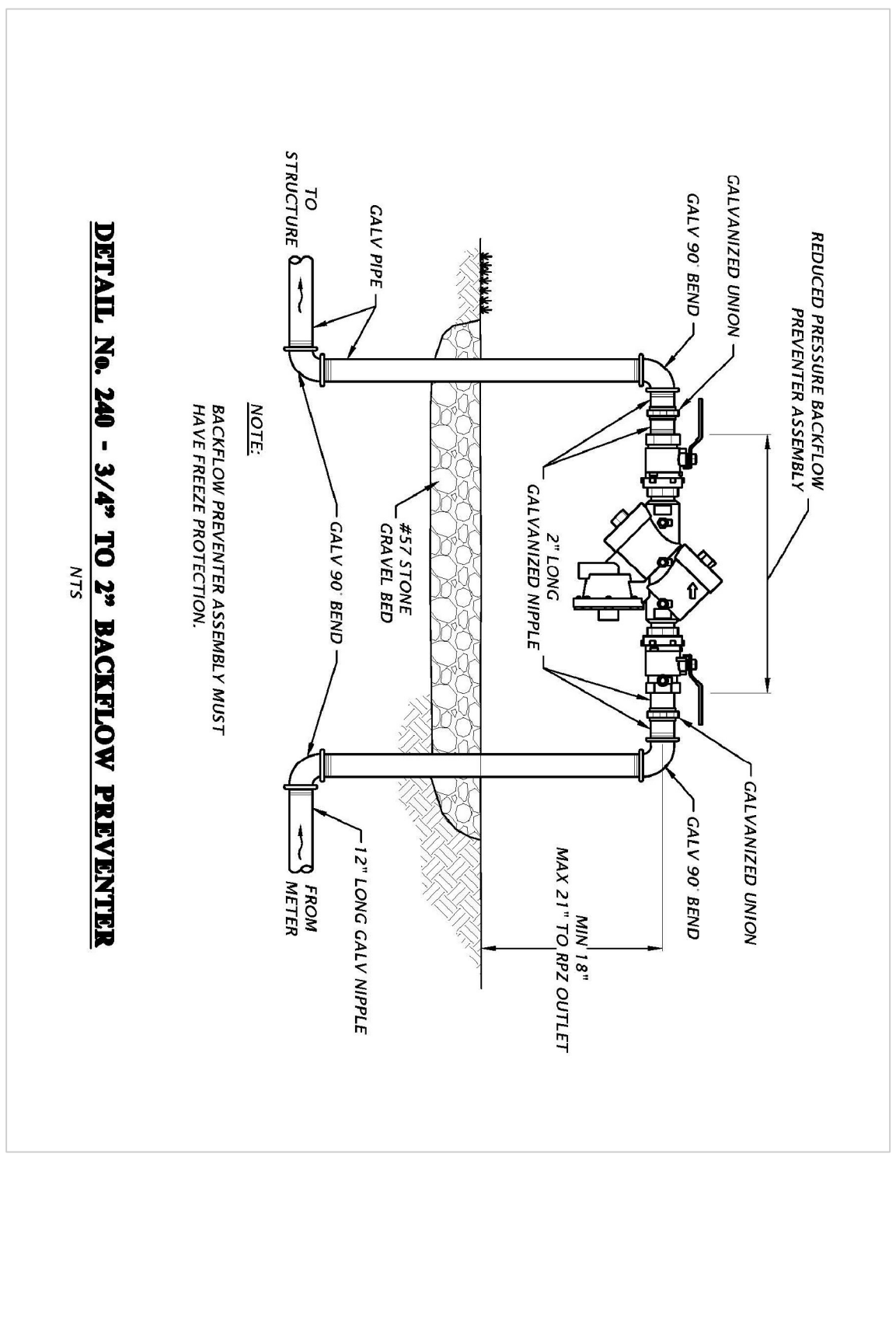
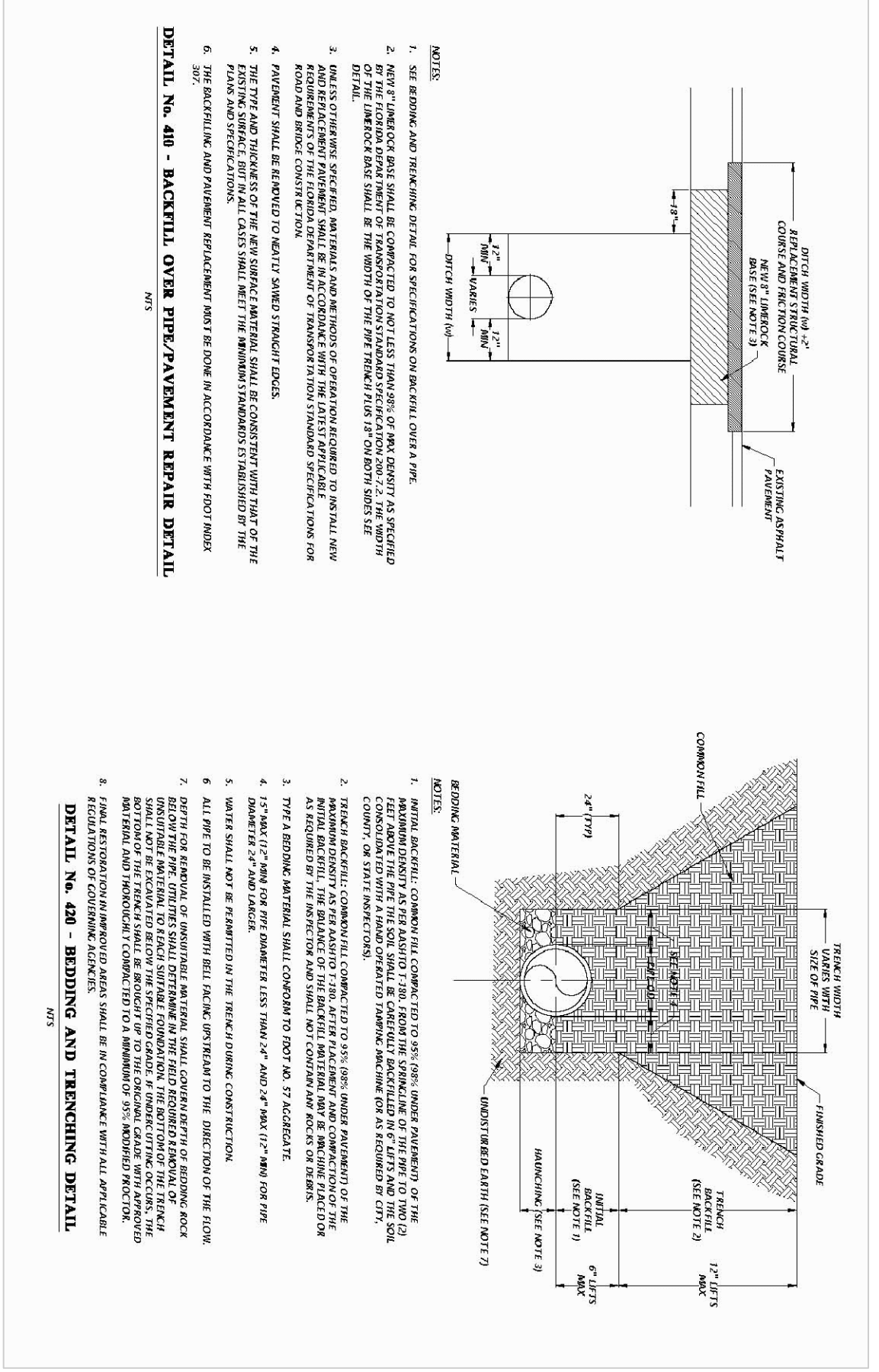
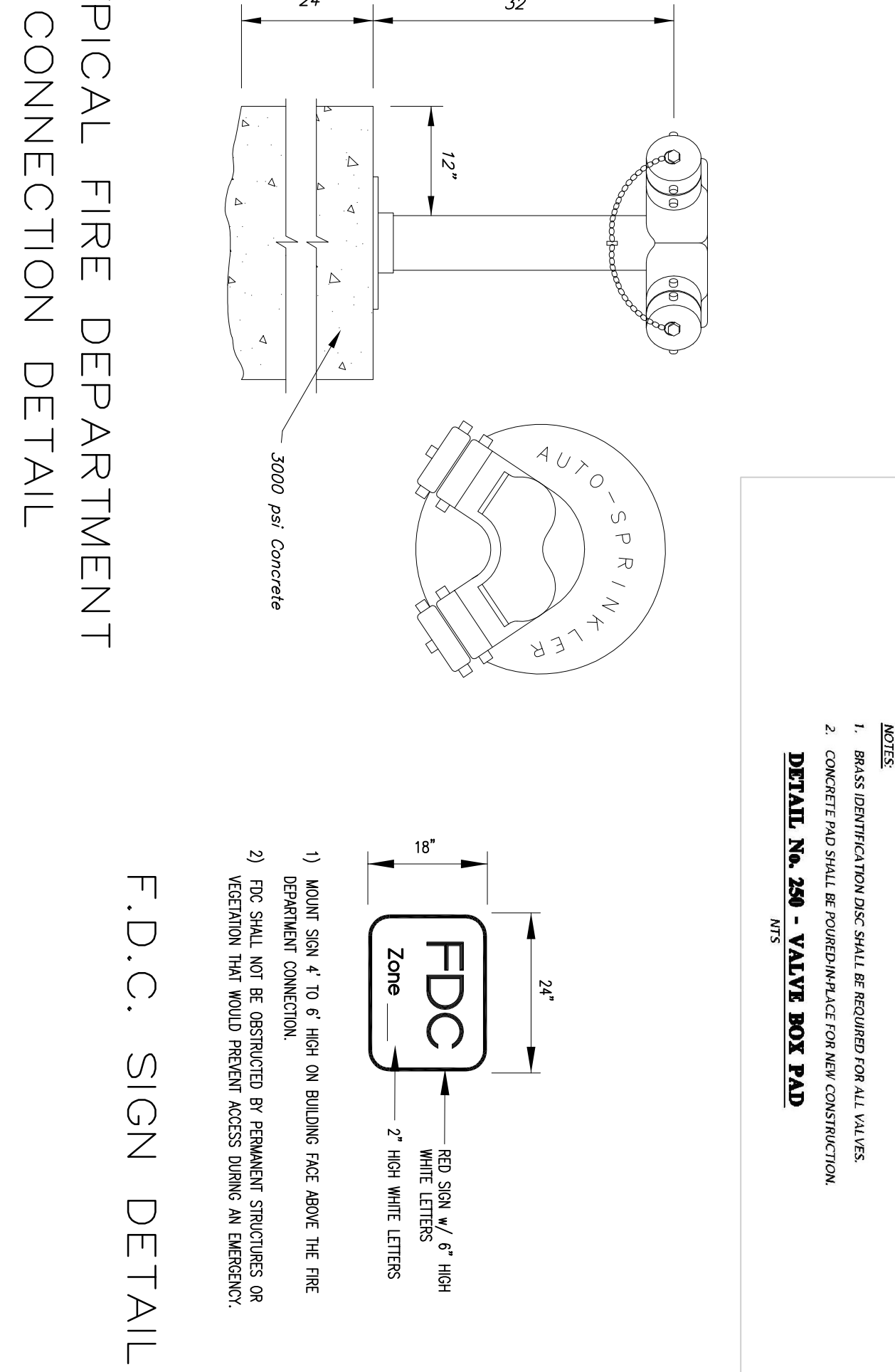
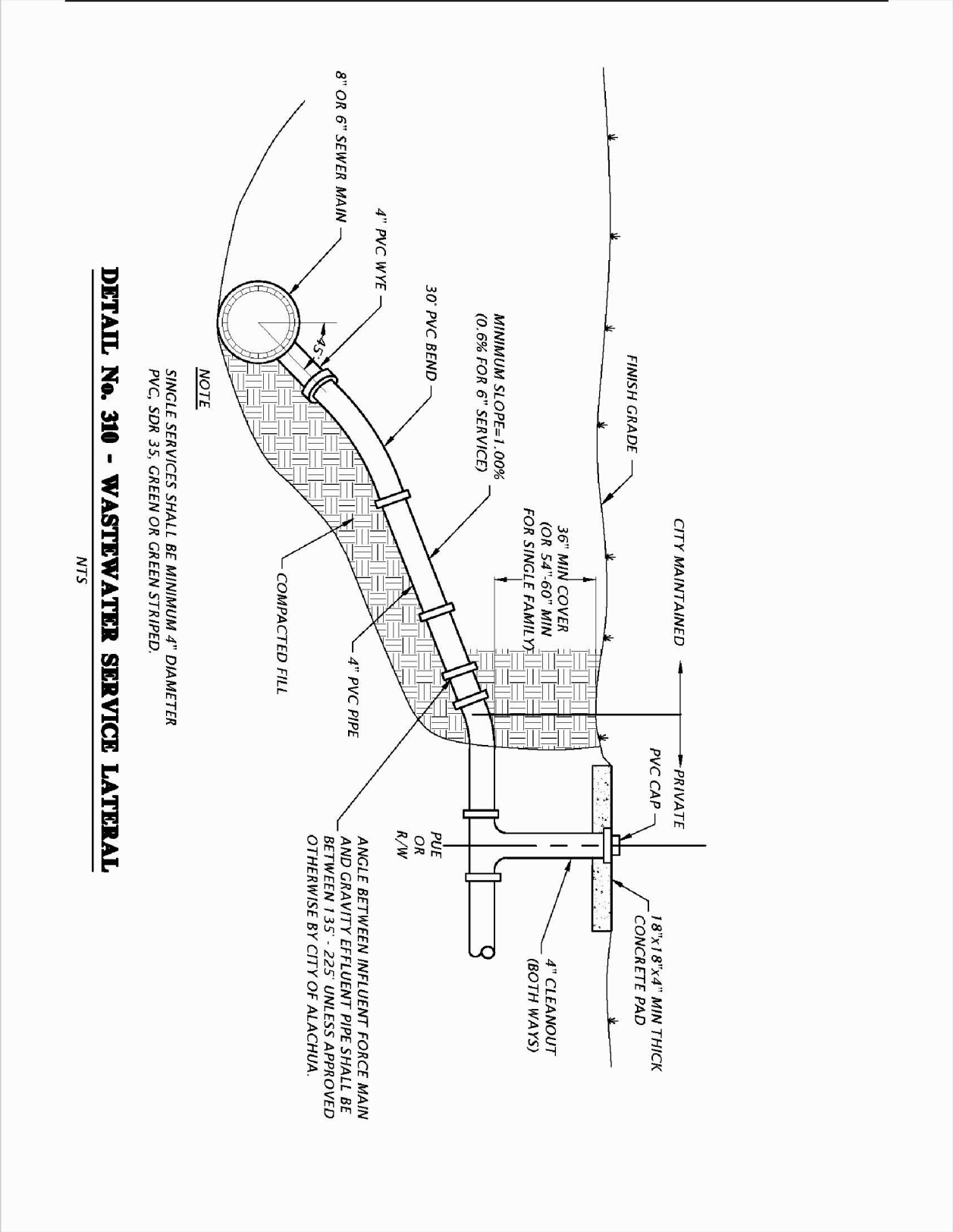
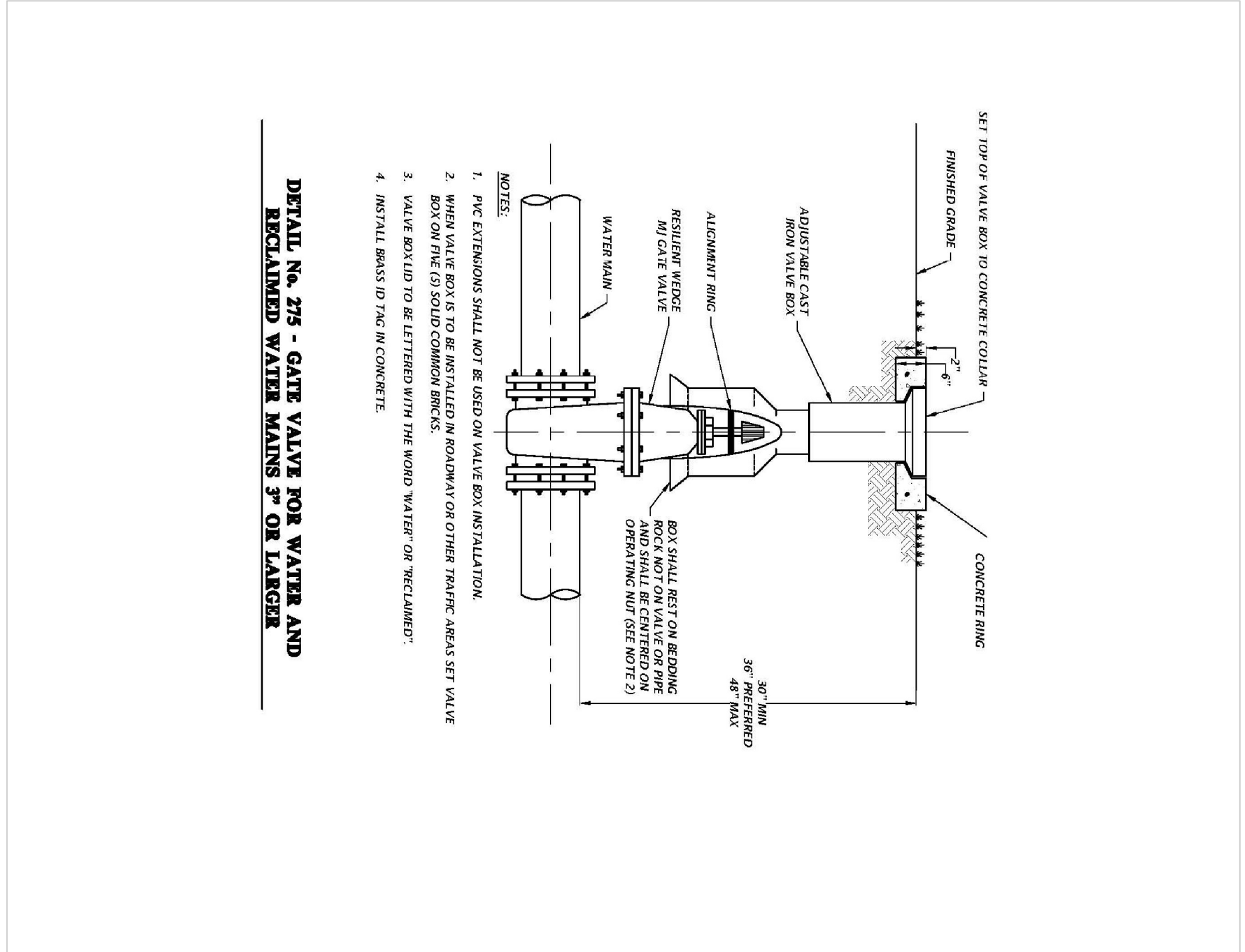
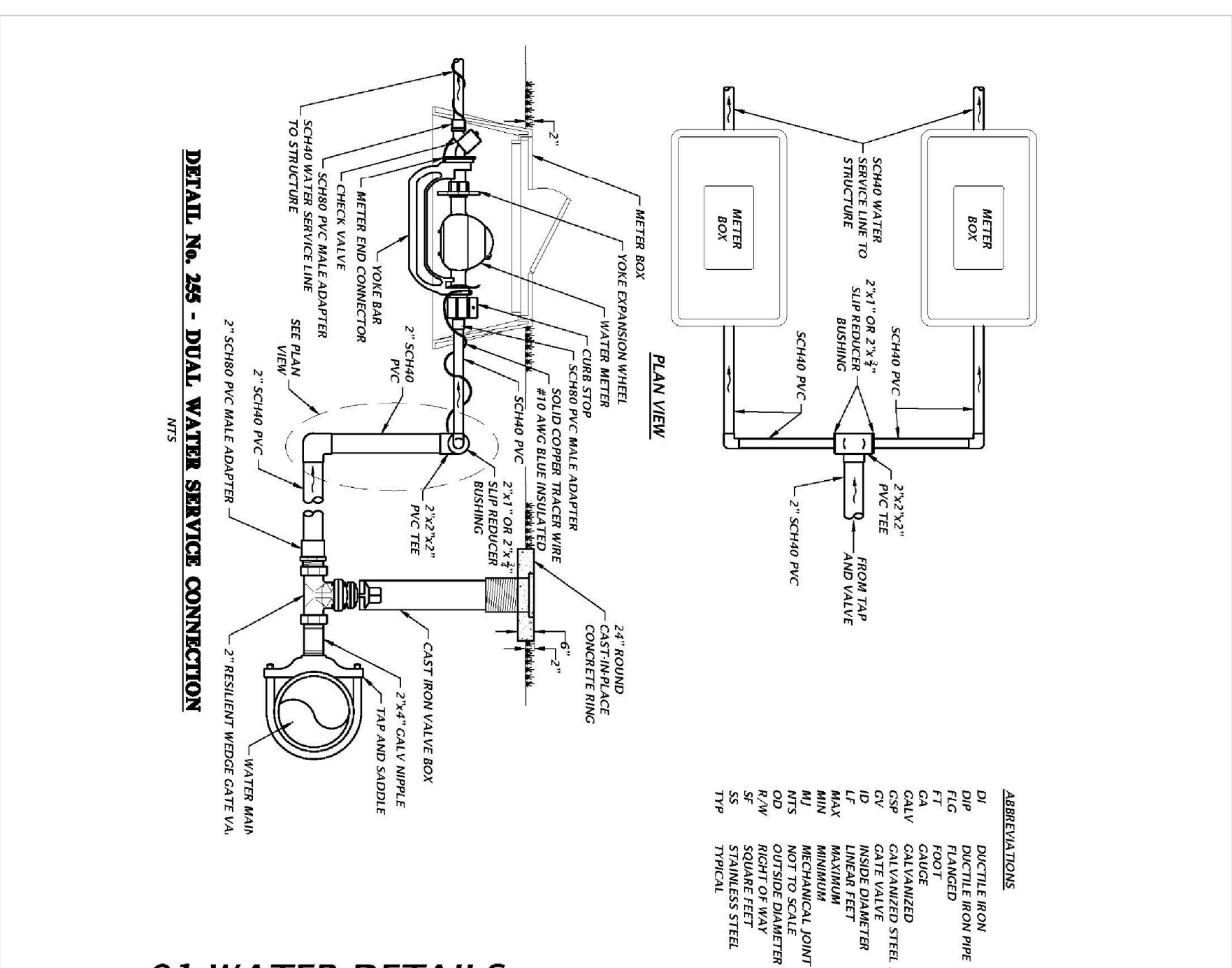
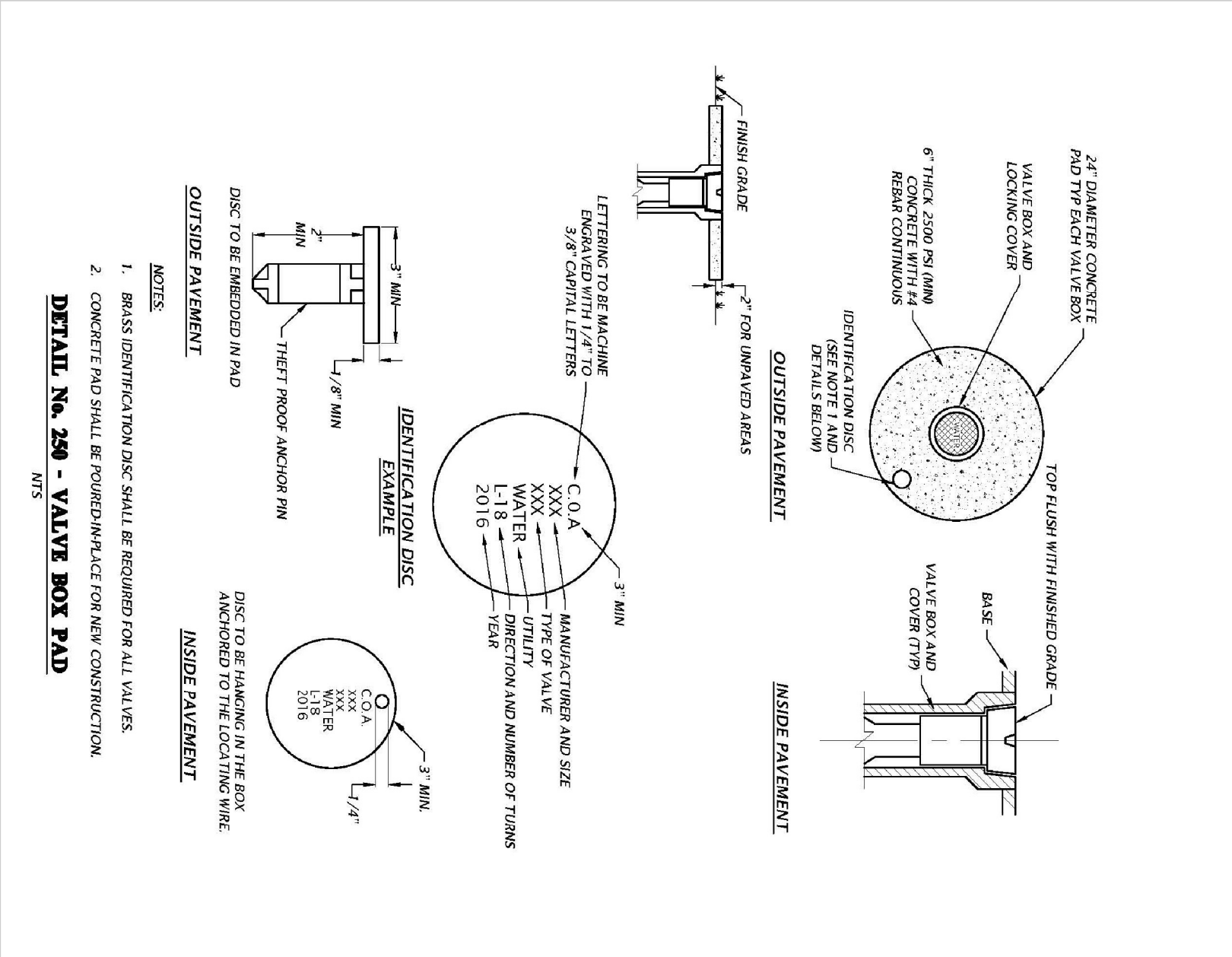
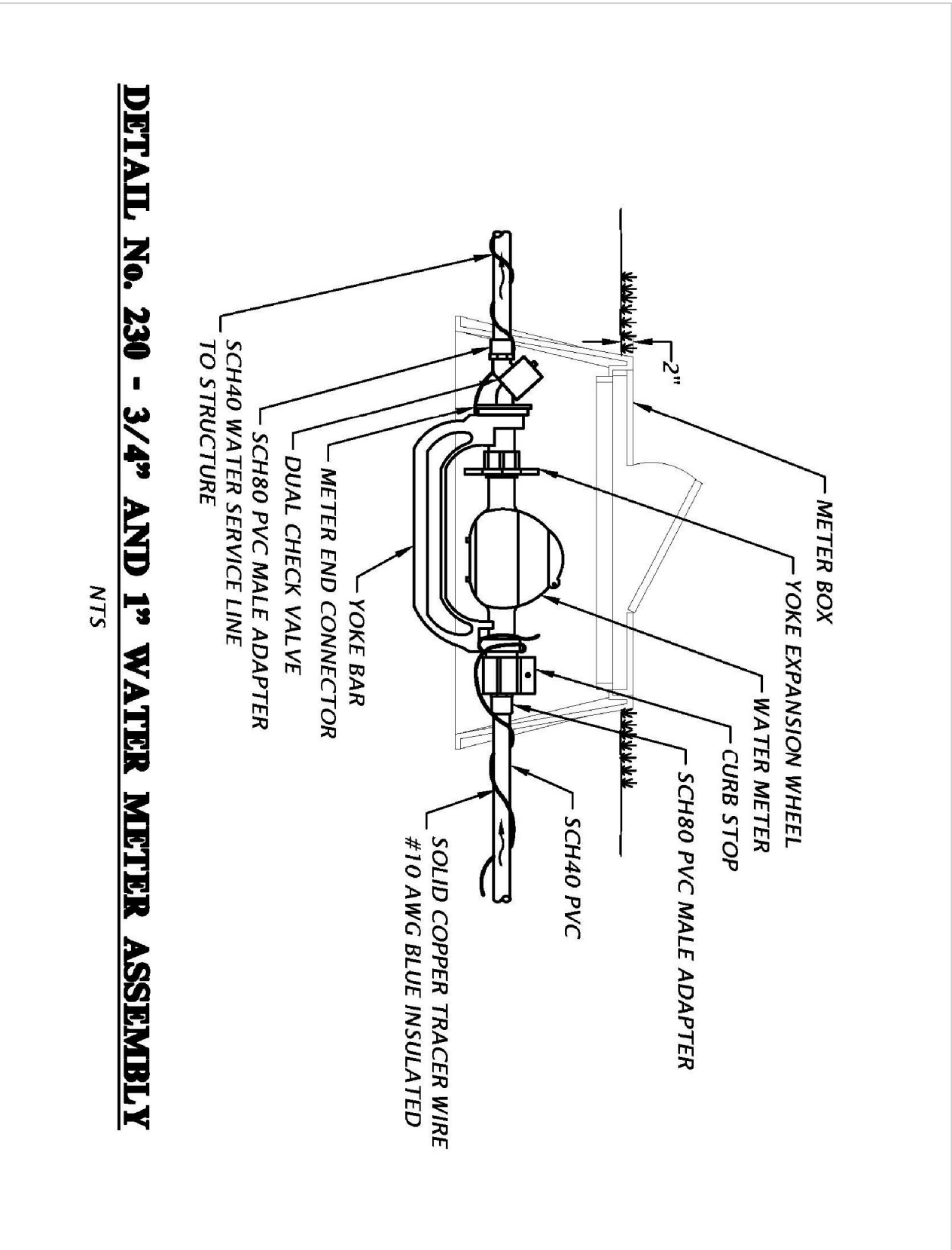
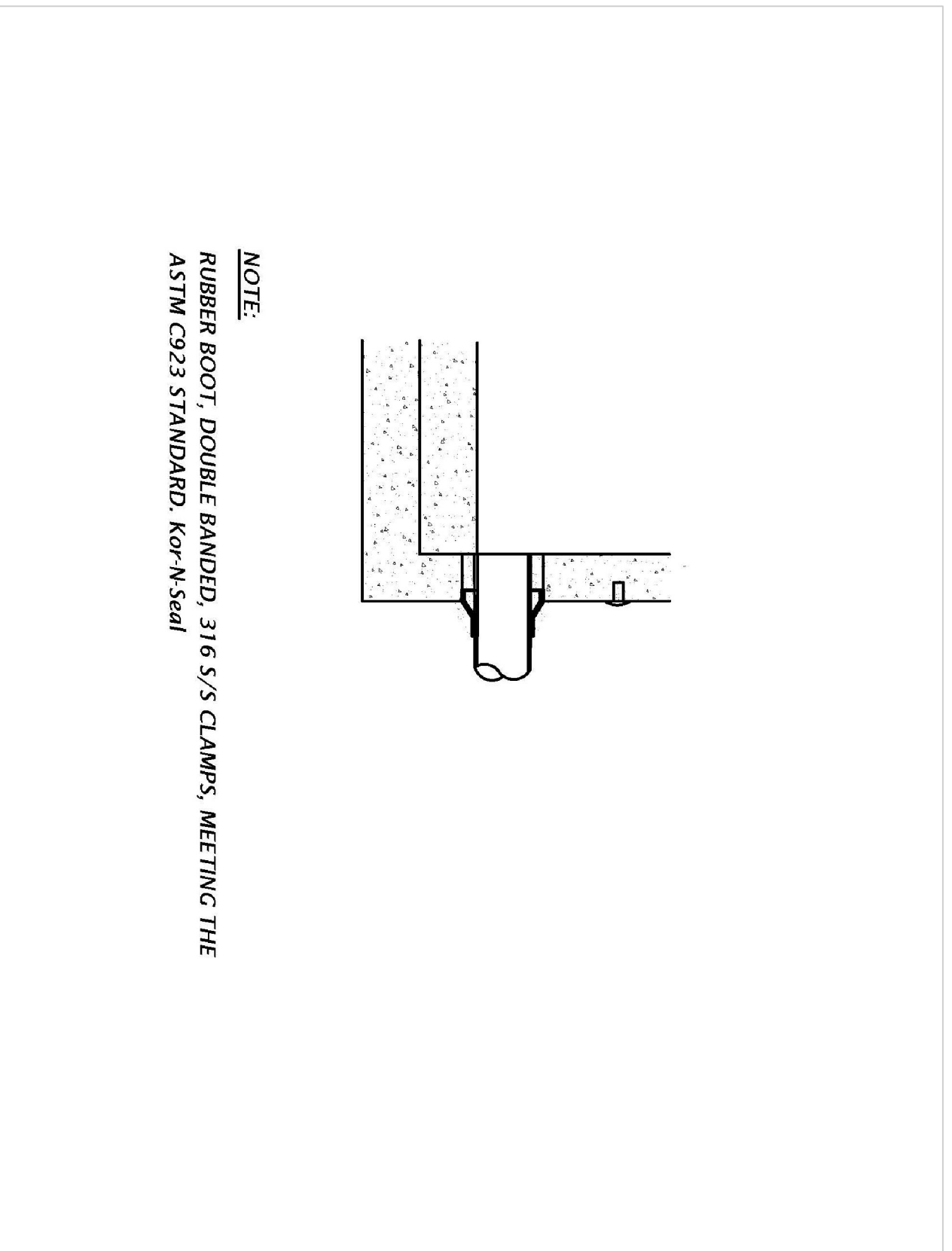
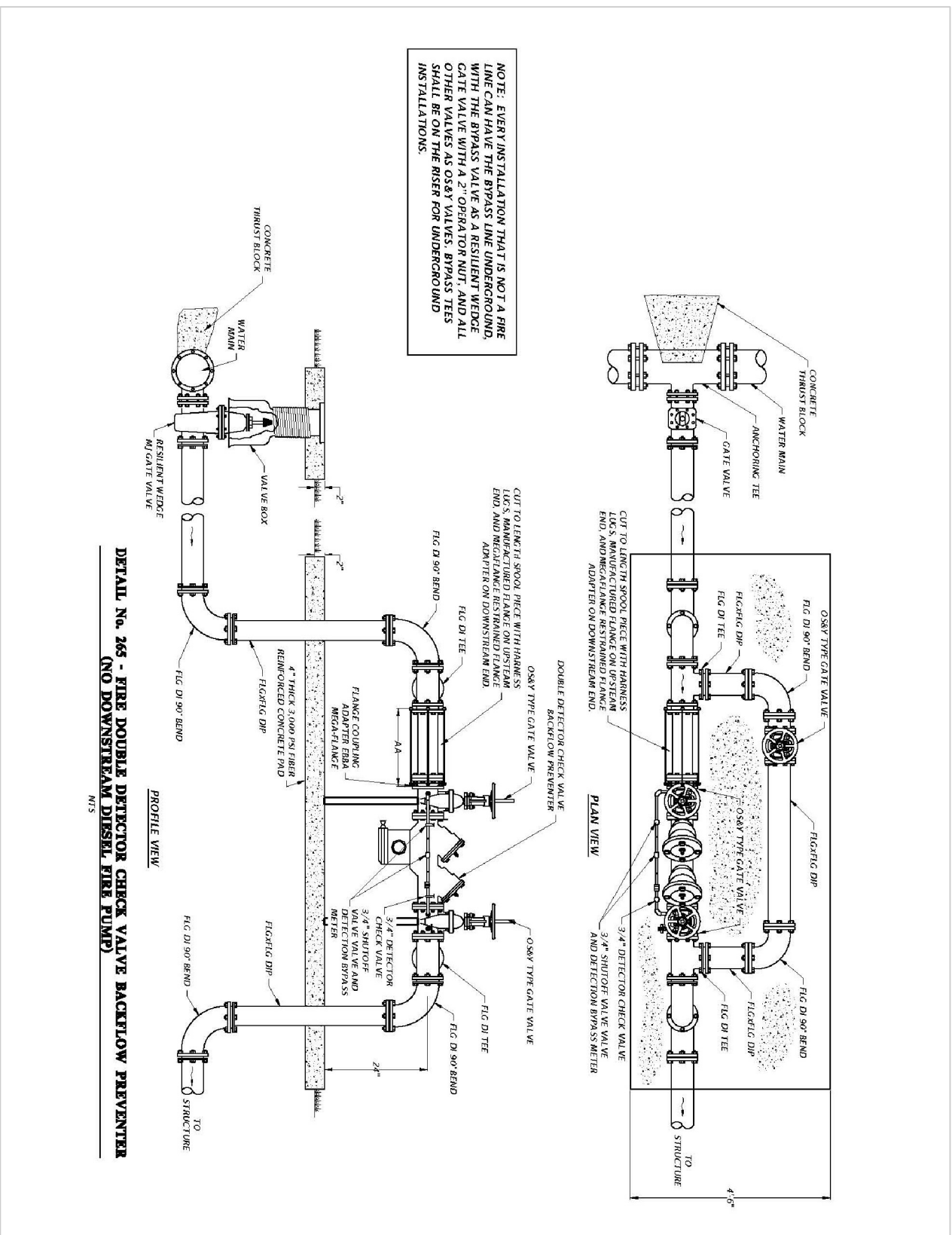


- FOUND 4x4x4 CONCRETE MONUMENT (LB #2899)
- FOUND STEEL ROD & CAP (AS NOTED)
- SET 5/8" STEEL ROD & CAP MARKED "CKE, INC. LB #5075"
- = FIELD MEASUREMENT
- = RECORD MEASUREMENT PER PLAT BOOK
- = COMPUTED FROM PLAT MEASUREMENT
- ELCV = ELEVATION
- MR = NORTH ROW
- RCP = REINFORCED CONCRETE PIPE
- PVC = POLYVINYL CHLORIDE PIPE
- VCP = VITRIFIED CLAY PIPE
- CONC. = CONCRETE
- EXISTING STORM DRAIN INLET
- EXISTING PAINT MARK - UNDERGROUND RECLAIMED WATER LINE
- EXISTING PAINT MARK - UNDERGROUND FORCE MAIN
- EXISTING PAINT MARK - UNDERGROUND ELECTRIC
- EXISTING PAINT MARK - UNDERGROUND TELEPHONE
- EXISTING WATER VALVE
- EXISTING WATER VALVE
- EXISTING FIBER OPTIC MARKER
- EXISTING FIBER OPTIC BOX
- EXISTING TELEPHONE BOX
- EXISTING TELEPHONE FEDESTAL
- EXISTING WOOD POWER POLE
- EXISTING METAL LIGHT POLE ON CONCRETE BASE
- EXISTING UTILITY POLE
- EXISTING ELECTRIC TRANSFORMER
- EXISTING GUY ANCHOR
- EXISTING CONTROL BOX
- EXISTING SANITARY SEWER VALVE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING GAS VALVE
- EXISTING PVC GAS MARKER
- EXISTING CONCRETE GAS MARKER
- POLYETHYLENE PIPE
- LINEAR FEET MANHOLE

WATER LEGEND

- A - 12x4x12 ANCHORED TEE
- B - 4x4x4 ANCHORED TEE
- C - 4" GATE VALVE & BOX
- D - 4" BACKFLOW PREVENTOR
- E - 4x4x4 ANCHORED TEE
- F - 4"-90° BEND
- G - GANG METERS ASSEMBLY
- H - FIRE DEPT. CONNECTION WITH SIGN (SEE DETAIL)

				AC&D File Name		Project:		Sheet Scale: 1" = 30'		Approved By:	
				Project No:		Title:		Sheet Scale: n/a			
				19-06						ALISON FETNER, PE 44669	
				C-2		UTILITY PLAN		Date:			
								JAN, 2019			



Rev No	Description	Initials	Date
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Activity	Initials	Date
Designed By:	AAF	12/18
Drawn By:	AAF	12/18
Checked By:	AAF	1/19

Project Name	Project No.	Project Date
INNOVATION ONE AT PROGRESS PARK	19-08	1/19
Utility Details	Utility	Utility
UTILITY DETAILS	UTILITY	UTILITY

Rev No	Description	Initials	Date
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ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH "THE CITY OF ALACHUA REQUIREMENTS FOR DESIGN & CONSTRUCTION MANUAL."

FETNER ENGINEERING
ENGINEERING, PLANNING & DESIGN
364 NORTH SR 21, HAWTHORNE, FLORIDA 32640
PHONE NO. (352) 281-9109 FAX. (352) 481-40831
CA. 28061

INNOVATION ONE AT PROGRESS PARK
UTILITY DETAILS

Approved By: AUSA FETNER, PE 44669
JAN 2019

SHWANEE RIVER WATER MANAGEMENT DISTRICT (SRWD) IS THE STATE PERMITTING AGENCY FOR THE STORMWATER SYSTEM. THE SITE DISCHARGES TO A MASTER STORMWATER SYSTEM THAT IS PERMITTED WITH THE DISTRICT UNDER PERMIT ERP 03-0170 FOR A MAXIMUM OF 65% IMPERVIOUS AREA. THE PROPOSED SITE IS 64.9% IMPERVIOUS.

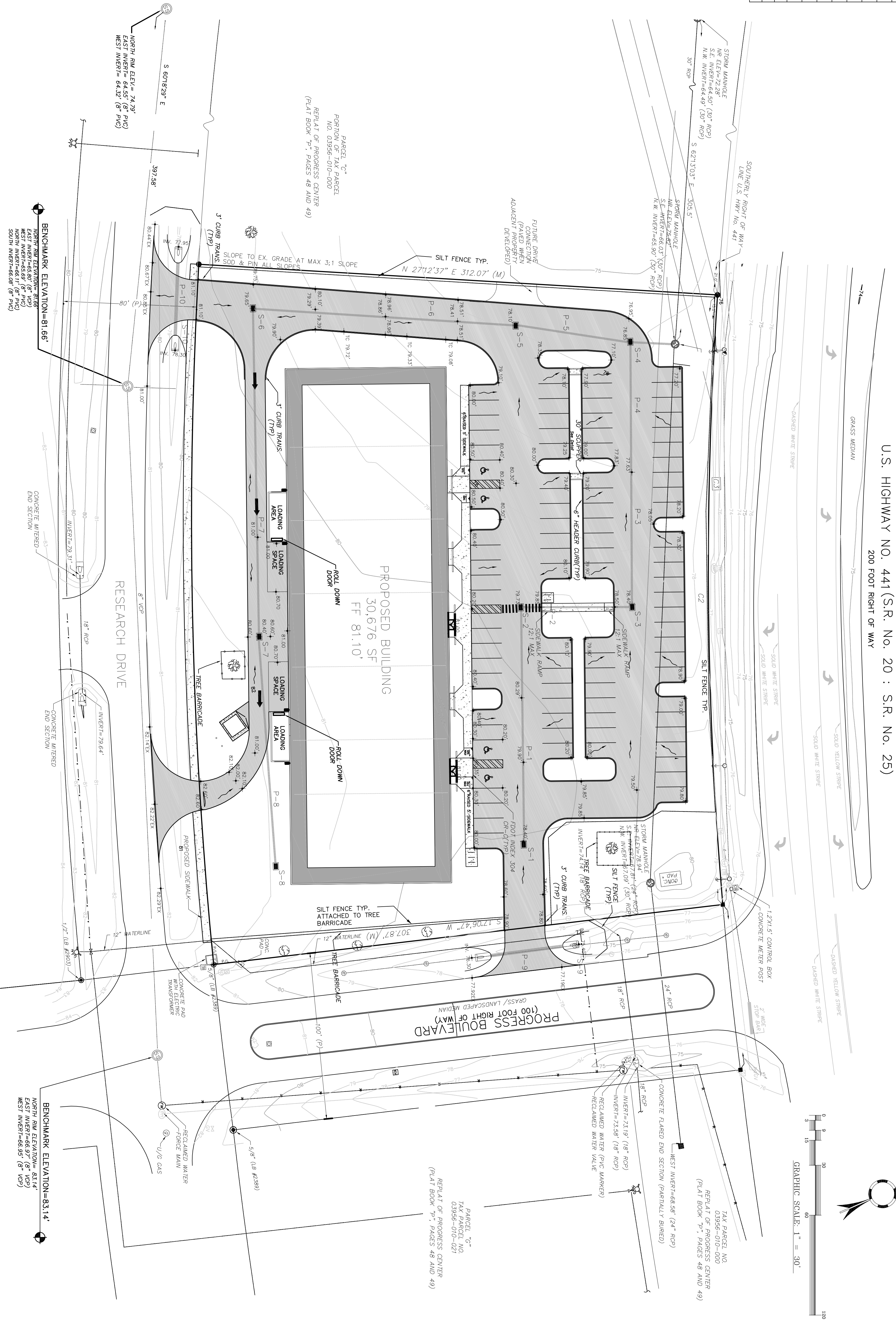
STORM STRUCTURE TABLE

NO.	TYPE	TOP	DIR	INVERT	PIPE	DIR	INVERT	PIPE	DIR	INVERT	PIPE
1	C INLET	78.40'	NW	75.67'	15" PE	SW	76.00'	8" PE			
2	C INLET	79.73'	NE	74.45'	18" RCP	SE	74.45'	15" PE			
3	C INLET	78.40'	NW	73.70'	18" PE	SW	73.80'	18" RCP			
4	C INLET	76.85'	NE	72.04'	24" PE	SE	72.14'	18" PE	SW	72.14'	24" PE
5	C INLET	78.10'	NE	72.80'	18" PE	SW	72.90'	18" PE			
6	C INLET	79.65'	NE	74.37'	18" PE	SE	74.47'	15" PE			
7	C INLET	80.40'	NW	76.31'	15" PE	SE	76.41'	12" PE			
8	2X2 YARD JOBMAN INDEX 273	80.40'	SW	77.71'	12" PE	NE	78.00'	8" PE			
9	2-MES	N		75.40'	15" RCP	S	76.30'				
10	INDEX 273	W		77.95'	15" RCP	E	78.30'				

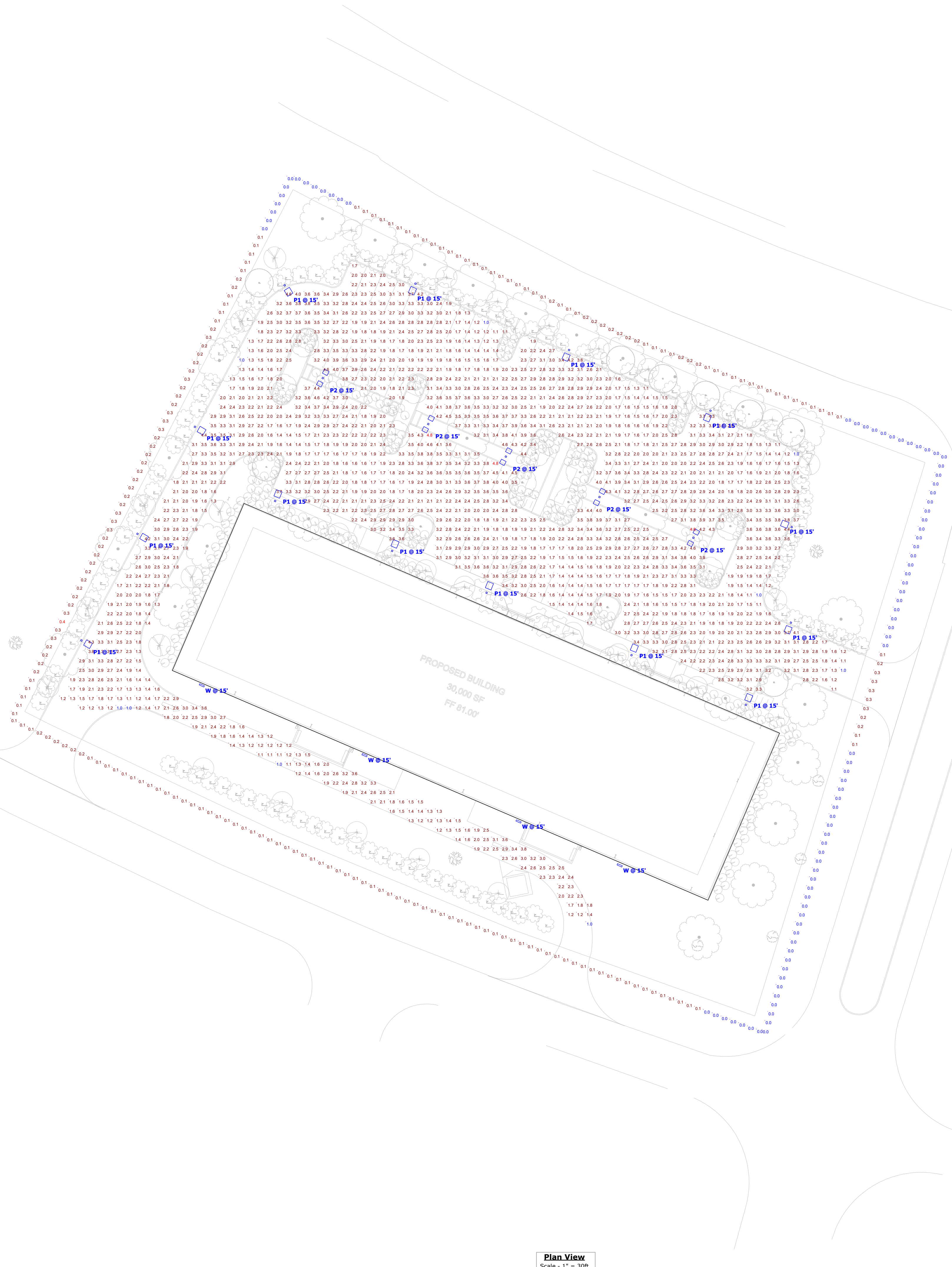
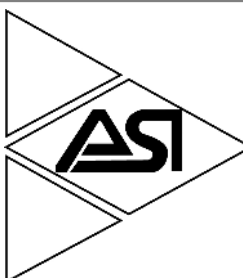
PIPE TABLE									
	NO	FROM	TO	LENGTH	INVERT	SLOPE	PIPE		
	1	S-1	S-2	140'	74.55'	75.67'	0.8%	15"	PE
	2	S-2	S-3	65'	73.80'	75.10'	1.0%	18"	RCP
	3	S-3	S-4	156'	72.14'	73.70'	1.0%	18"	PE
	4	S-4	OF	26'	71.00'	72.04'	4.0%	24"	PE
	5	S-4	S-5	66'	72.14'	72.80'	1.0%	24"	PE
	6	S-5	S-6	66'	72.80'	75.53'	1.0%	18"	PE
	7	S-6	S-7	66'	75.65'	76.31'	1.0%	15"	PE
	8	S-7	S-8	134'	77.71'	78.41'	1.0%	12"	PE
	9	MES	MES	44'	75.40'	76.30'	2.0%	15"	RCP
	10	MES	MES	44'	77.95'	78.30'	0.8%	15"	RCP

- FOUND 4"x4" CONCRETE MONUMENT (L.B. #2389)
- FOUND STEEL ROD & CAP (AS NOTED)
- SET 5/8" STEEL ROD & CAP MARKED "C&E, INC. L.B. #5975"
- (P) = FIELD MEASUREMENT
- (CP) = RECORD MEASUREMENT PER PLAT BOOK
- ELEV. = ELEVATION
- NE = NORTH B.M.
- RCP = REINFORCED CONCRETE PIPE
- PVC = POLYVINYL CHLORIDE PIPE
- VCP = VITRIFIED CLAY PIPE
- CONC. = CONCRETE
- EXISTING STORM DRAIN INLET
- EXISTING STORM DRAIN INLET
- EXISTING PAINT MARK - UNDERGROUND RECLAIMED WATER LINE
- EXISTING PAINT MARK - UNDERGROUND FORCE MAIN
- EXISTING PAINT MARK - UNDERGROUND ELECTRIC
- EXISTING PAINT MARK - UNDERGROUND GAS LINE
- EXISTING WATER VALVE
- EXISTING FINE HYDRANT
- EXISTING TELEPHONE AMP
- EXISTING FIBER OPTIC BOX
- EXISTING FIBER OPTIC MARKER
- EXISTING TELEPHONE BOX
- EXISTING TELEPHONE PEDESTAL
- EXISTING WOOD POWER POLE
- EXISTING METAL LIGHT POLE ON CONCRETE BASE
- EXISTING UTILITY POLE
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- EXISTING GUY ANCHOR
- EXISTING CONTROL BOX
- EXISTING SANITARY SEWER VALVE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING GAS VALVE
- EXISTING PVC GAS MARKER
- EXISTING CONCRETE GAS MARKER
- POLYETHYLENE PIPE
- LINEAR FEET
- MANHOLE

PARCEL "C"
PORTION OF TAX PARCEL
NO. 03956-010-000
REPLAT OF PROGRESS CENTER
(PLAT BOOK "P", PAGES 48 AND 49)



Rev No	Description	Initials	Date	Activity	Initials	Date
				Designed By:	AAF	12/18
				Drawn By:	AAF	12/18
				Checked By:	AAF	1/19
FETNER ENGINEERING ENGINEERING, PLANNING & DESIGN 364 NORTH SR 21, HAWTHORNE, FLORIDA 32640 PHONE NO. (352) 281-9109 FAX (352) 481-4821 CA. 26061				INNOVATION ONE AT PROGRESS PARK STORMWATER PLAN		
Approved By:				ALISON FETNER, PE 44669		



Plan View
Scale - 1" = 30ft



D-Series Size 2 LED Wall Luminaire

Catalog Number	
Name	
Item	

ds-series

Specifications Luminaire

Width: 18-1/2" (467mm)
Depth: 10" (254mm)
Height: 7.5" (190mm)

Back Box (BBW)

Width: 5-1/2" (139mm)
Depth: 1-1/2" (38mm)
Height: 4" (102mm)

Capable Luminaire

- This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.
 - All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency.
 - This luminaire is A+ Certified when ordered with DTL* controls marked by a **BlueLED** background. DTL, DLL equipped luminaires meet the A+ specification for luminaire to photometric interoperability.
 - This luminaire is part of an A+ Certified solution for ROAMP or XPoint® Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **BlueLED** background.
- To learn more about A+, visit www.acuitybrands.com/askus.
- See ordering tree for details.
 - A+ Certified Solutions for ROAMP require the order of one ROAMP node per luminaire. Sold Separately. Link to Roams: Link to DTL, DLL.

Ordering Information

EXAMPLE: DSXW2 LED 30C 700 40K T3M MVOLT DBBXTD

Series	SKU	Series Name	Color Temperature	Distribution	Voltage	Mounting	Control Options
DSXW2 LED	30C 700 40K T3M MVOLT DBBXTD	30C 700 40K T3M MVOLT DBBXTD	40K	T3M	30C 700 40K T3M MVOLT DBBXTD	DBBXTD	DBBXTD
DSXW2 LED	30C 700 40K T3M MVOLT DBBXTD	30C 700 40K T3M MVOLT DBBXTD	40K	T3M	30C 700 40K T3M MVOLT DBBXTD	DBBXTD	DBBXTD

Options	Options	Options	Options	Options	Options	Options	Options
SP	Single Head (T3M, T3T, T3V)	EW	End-on-down optics	DBBXTD	Dark bronze	DBBXTD	Dark bronze
SP	Single Head (T3M, T3T, T3V)	EW	End-on-down optics	DBBXTD	Dark bronze	DBBXTD	Dark bronze
SP	Single Head (T3M, T3T, T3V)	EW	End-on-down optics	DBBXTD	Dark bronze	DBBXTD	Dark bronze

LITHONIA LIGHTING One Atlanta Way • Cummins, Georgia 30022 • Phone: 800.279.8041 • www.lithonia.com DSXW2 LED Rev. 10/18/18 Page 1 of 1



D-Series Size 1 LED Area Luminaire

Catalog Number	
Name	
Item	

ds-series

Specifications Luminaire

Width: 18-1/2" (467mm)
Depth: 10" (254mm)
Height: 7.5" (190mm)

Back Box (BBW)

Width: 5-1/2" (139mm)
Depth: 1-1/2" (38mm)
Height: 4" (102mm)

Capable Luminaire

- This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.
 - All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency.
 - This luminaire is A+ Certified when ordered with DTL* controls marked by a **BlueLED** background. DTL, DLL equipped luminaires meet the A+ specification for luminaire to photometric interoperability.
 - This luminaire is part of an A+ Certified solution for ROAMP or XPoint® Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **BlueLED** background.
- To learn more about A+, visit www.acuitybrands.com/askus.
- See ordering tree for details.
 - A+ Certified Solutions for ROAMP require the order of one ROAMP node per luminaire. Sold Separately. Link to Roams: Link to DTL, DLL.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DBBXTD

Series	SKU	Series Name	Color Temperature	Distribution	Voltage	Mounting	Control Options
DSX1 LED	P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DBBXTD	P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DBBXTD	40K	T3M	P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DBBXTD	DBBXTD	DBBXTD
DSX1 LED	P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DBBXTD	P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DBBXTD	40K	T3M	P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DBBXTD	DBBXTD	DBBXTD

Options	Options	Options	Options	Options	Options	Options	Options
SP	Single Head (T3M, T3T, T3V)	EW	End-on-down optics	DBBXTD	Dark bronze	DBBXTD	Dark bronze
SP	Single Head (T3M, T3T, T3V)	EW	End-on-down optics	DBBXTD	Dark bronze	DBBXTD	Dark bronze
SP	Single Head (T3M, T3T, T3V)	EW	End-on-down optics	DBBXTD	Dark bronze	DBBXTD	Dark bronze

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Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Ex Property Boundary - 5'	+	0.1 fc	0.4 fc	0.0 fc	N/A	N/A
Setback	+	2.5 fc	4.8 fc	1.0 fc	4.8:1	2.5:1
Parking & Drives	+	2.5 fc	4.8 fc	1.0 fc	4.8:1	2.5:1

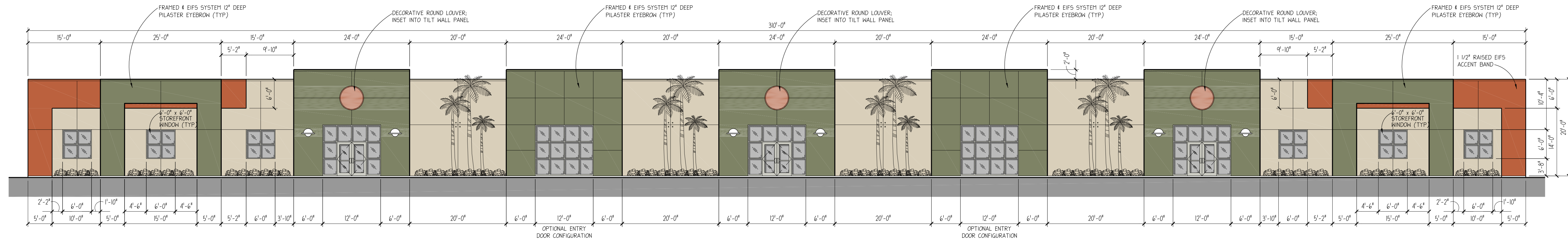
Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Lumens per Lamp	Wattage
□	P1	14	LITHONIA	DSX1 LED P1 40K T3M MVOLT HS	POLE-MOUNTED LED AREA LUMINAIRE, HOUSE SIDE SHIELD	LED	5481	54
□	P2	5	LITHONIA	(2) DSX1 LED P1 40K T3T MVOLT	POLE-MOUNTED LED AREA LUMINAIRE, TWO-HEAD	LED	6963	108
□	W	4	LITHONIA	DSXW2 LED 30C 700 40K T3M MVOLT	WALL-MOUNTED LED AREA LUMINAIRE	LED	8199	71

Q:\ACTIVE PROJECTS\2019\19-754 PROG CNTR LEASE BLDG\19-754_DWG\519-754_A-04.dwg, 5/28/2019, 1:15:29 PM

ANY MODIFICATIONS TO THESE PLANS OR RE-USE OF THESE PLANS MUST BE APPROVED BY AND SIGNED BY THE ARCHITECT.

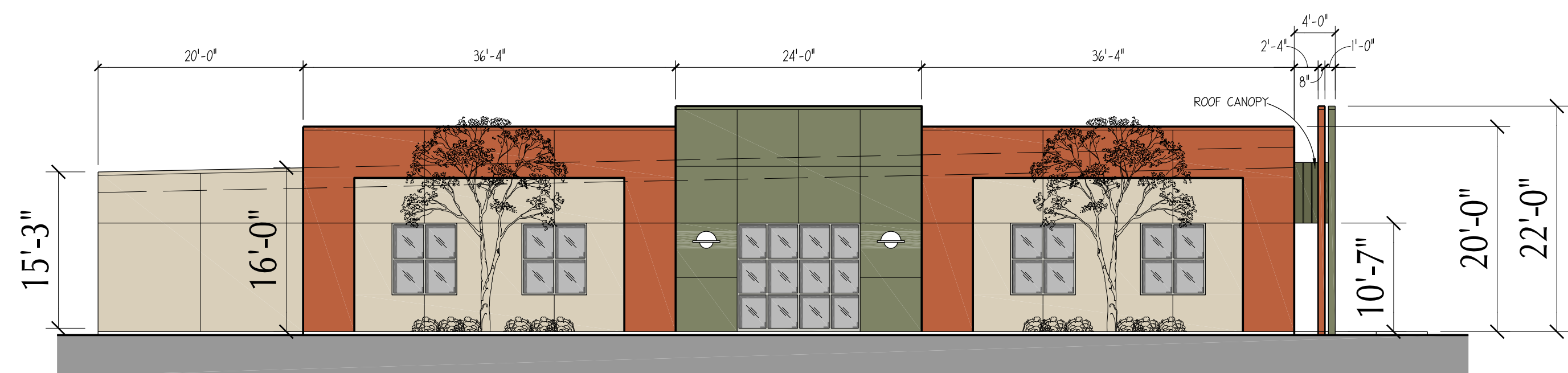
COPYRIGHT © 2019 PAUL STRESING ASSOC.



WALL AREA = 6,200 SF
WINDOW AREA = 1,500 SF (25% of Wall Area)

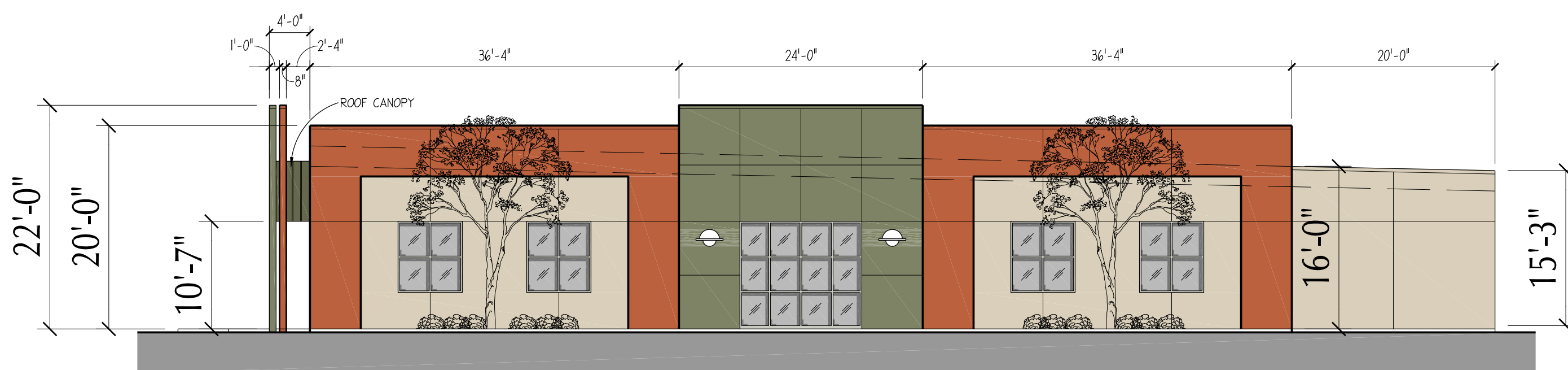
PROPOSED NORTH ELEVATION

3/32" = 1'-0"



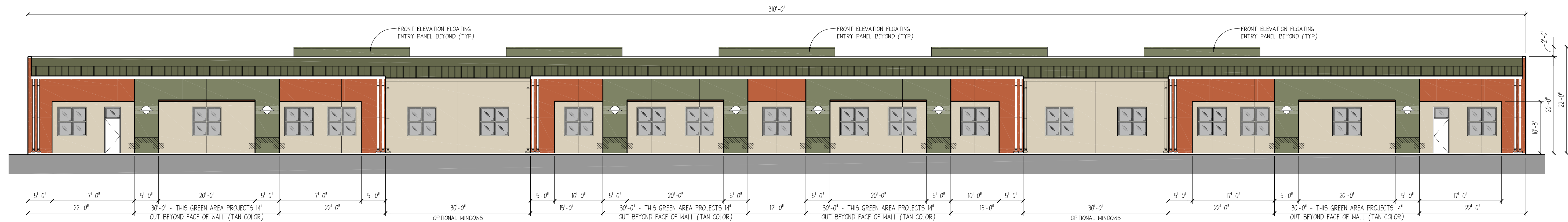
PROPOSED EAST ELEVATION

3/32" = 1'-0"



PROPOSED WEST ELEVATION

3/32" = 1'-0"



NOTE: SOUTH/REAR ELEVATION WINDOW
LOCATIONS ARE CONCEPTUAL IN NATURE &
SUBJECT TO MODIFICATION BASED ON FINAL
CONFIGURATION OF INTERIOR SPACES

PROPOSED SOUTH ELEVATION

3/32" = 1'-0"

DRAWN BY: CSH/JMA
DATE: 2019
PROJECT NO: 19-754

PAUL STRESING ASSOCIATES, INC.
4417 MAIN STREET
ALABAMA CITY, AL 35005
E-MAIL: paul@stresingassociates.com
TELEPHONE: (888) 482-6407
REGISTRATION NO. AR0003977

PROGRESS CENTER
PROPOSED LEASE BUILDING for PAUL D'ALTO
GAINESVILLE, FLORIDA

REVISIONS
ITEM:
REV # DATE:
ARCHITECT'S SEAL
LIC. NO: AR0013985
SHEET NO.



City of Alachua

Planning & Community Development Department Staff Report

Planning & Zoning Board Hearing Date: Quasi-Judicial Hearing

July 9, 2019

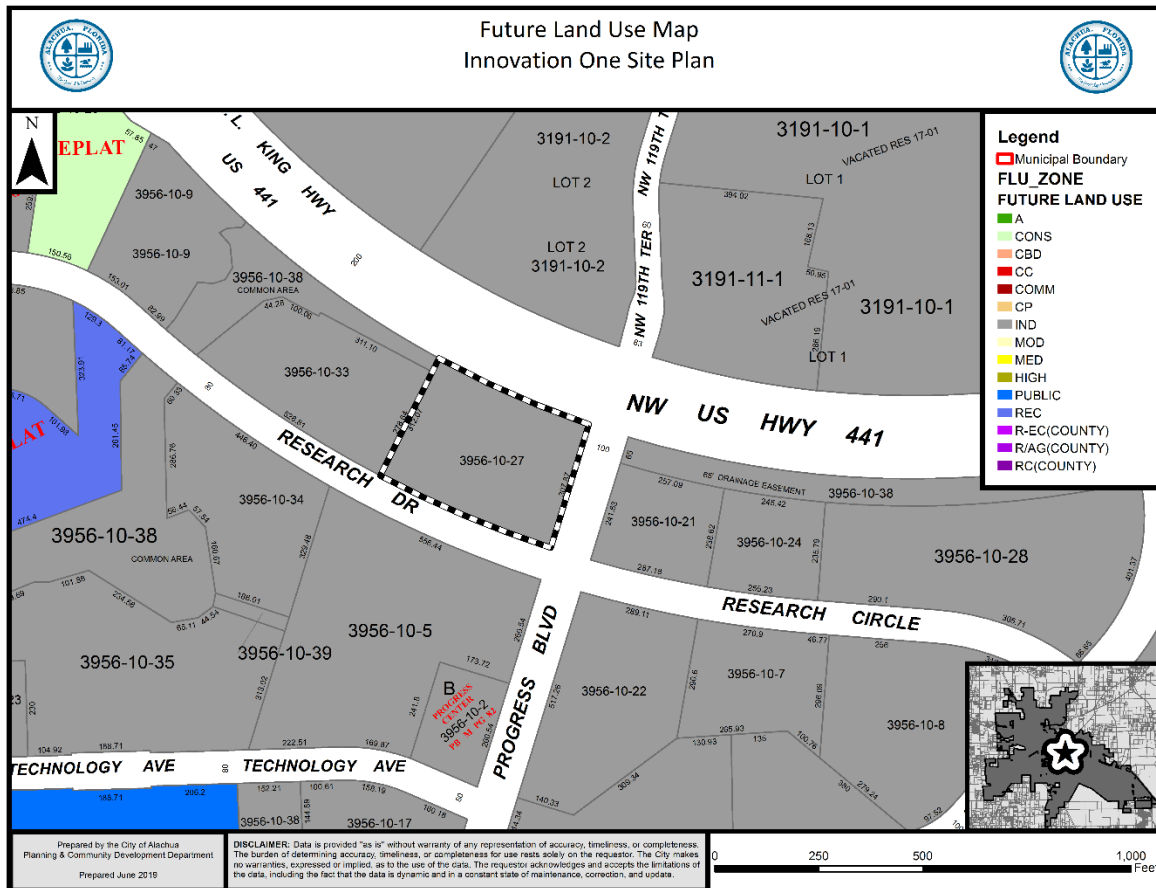
SUBJECT:	A request for a Site Plan for the construction of a ±30,676 square foot light manufacturing (research and development laboratory) with employee parking, storm water management facility improvements, paving, grading, landscaping and associated utility infrastructure
APPLICANT/AGENT:	Alison Fetner, P.E., Fetner Engineering
PROPERTY OWNER:	Shoppes at Progress Center, LLC.
LOCATION:	Southwest of the intersection of US Highway 441 and Progress Boulevard, and north of Research Drive and UF Innovate Sid Martin Biotech
PARCEL ID NUMBER:	03956-010-027
FLUM DESIGNATION:	Industrial
ZONING:	PUD (Planned Unit Development)
OVERLAY:	NA
ACREAGE:	±2.80 acres
PROJECT PLANNER:	Adam Hall, AICP
RECOMMENDATION:	Staff recommends that the Planning & Zoning Board approve the Site Plan, subject to the four (4) conditions provided in Exhibit "A" of this Staff Report.
RECOMMENDED MOTION:	<i>Based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan, subject to the four (4) conditions provided in Exhibit "A" and on page 20 of the July 9, 2019 Staff Report to the Planning & Zoning Board.</i>

The proposed site plan is a request by Alison Fetner, P.E., of Fetner Engineering, applicant and agent for Shoppes at Progress Center, LLC., property owner, for the construction of a ±30,676 square foot light manufacturing (research and development laboratory) with employee parking, storm water management facility improvements, paving, grading, landscaping and associated utility infrastructure.

Map 1. Subject Property with Zoning



Map 2. Subject Property with Future Land Use



The proposed development will convey the development's stormwater runoff to an existing master stormwater system, which was permitted by the Suwannee River Water Management District in August of 1988 (SRWMD 001-206404-1). The applicant has submitted a permit to modify the existing environmental resource permit to the Suwannee River Water Management District.

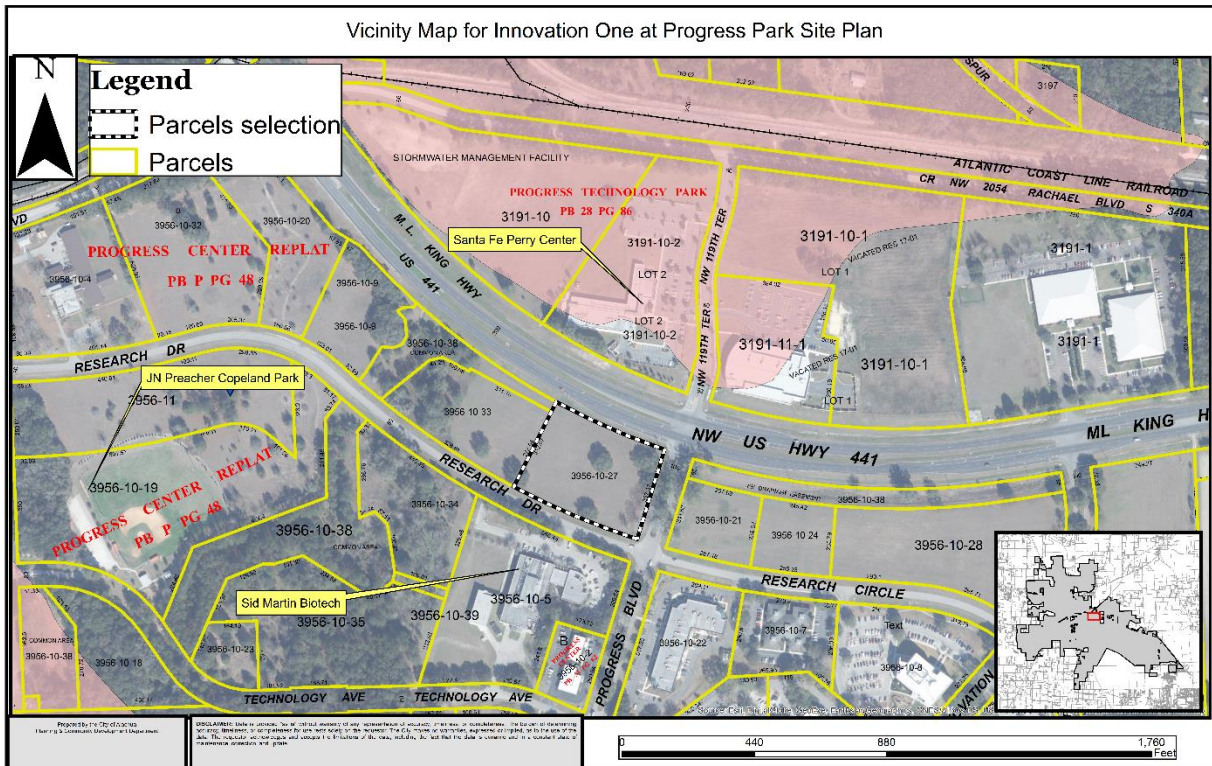
SURROUNDING USES

The existing uses, Future Land Use Map (FLUM) Designations, and zoning districts of the surrounding area are identified in Table 1. Map 3 provides an overview of the vicinity of the subject property. (NOTE: The information below is intended to provide a general overview of the area surrounding the subject property and to generally orient the reader. It is not intended to be all-inclusive, and may not identify all existing uses, FLUM Designations, and/or zoning districts surrounding the subject property.)

Table 1. Surrounding Land Uses

Direction	Existing Use(s)	FLUM Designation(s)	Zoning District(s)
North	Santa Fe College Perry Center/ Foundation Park/ US Highway 441	Industrial	ILW
South	UF Innovate Sid Martin Biotech	Industrial	PUD
East	Vacant	Industrial	PUD
West	Vacant	Industrial	PUD

Map 3. Vicinity Map



NEIGHBORHOOD MEETING

The purpose of a Neighborhood Meeting is to educate the owners of nearby land and any other interested members of the public about the project and to receive comments regarding the project. As required by Section 2.2.4 of the LDRs, all property owners within 400 feet of the subject property were notified of the meeting and notice of the meeting was published in a newspaper of general circulation.

A Neighborhood Meeting was held on February 26, 2019 at the Alachua Branch Library. The applicant's agent was present and available to answer questions. As evidenced by materials submitted by the applicant, the meeting was not attended by any individuals from the public. A copy of the notice materials for Neighborhood Meeting has been provided by the applicant and is included within the application materials.

CONSISTENCY WITH THE COMPREHENSIVE PLAN

The Goals, Objectives, and Policies (GOPs) identified below are provided to establish a basis of the application's consistency with the Comprehensive Plan. There may be additional GOPs which the application is consistent with that are not identified within this report. An evaluation and findings of consistency with the identified GOPs is also provided below.

Future Land Use Element

GOAL 1: Future Land Use Map 2025:

The City of Alachua shall maintain a Future Land Use Map in order to effectively guide development in a sustainable manner and to ensure economic prosperity and stability while maintaining a high quality of life for all of its present and future citizens.

Objective 1.5: Industrial

The City of Alachua shall establish one industrial district: Industrial. This district shall provide a broad range of clean industry, warehousing, research, and technology industries, to provide a variety of job opportunities to the citizens of Alachua and the North Central Florida Region.

Policy 1.5.a: Industrial: Industrial uses are generally intense uses that require large land area and convenient access to transportation facilities, such as roads, highways, and rail lines. Industrial uses, such as warehousing and manufacturing, shall be located and designed in such a manner as to prevent unwanted impacts to adjacent properties.

Evaluation and Findings of Consistency with Goal 1, Objective 1.5, and Policy 1.5.a: The subject property has an Industrial FLUM Designation. The zoning of the subject property is Light and Warehouse Industrial (ILW), which permits research and technology industries.

Policy 1.5.d: The City shall develop performance standards for industrial uses in order to address the following:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
2. Buffering from adjacent existing/potential uses;
3. Open space provisions and balance of proportion between gross floor area and site size;
4. Adequacy of pervious surface area in terms of drainage requirements;
5. Placement of signage;
6. Adequacy of site lighting and potential impacts of lighting upon the surrounding area. Lighting should be designed to minimize impacts and preserve the ambiance and quality of the nighttime sky by reducing light trespass and light pollution on adjacent properties by utilizing lighting at an

- appropriate intensity, direction and times to ensure light is not overused or impacting areas where it is not intended;
7. Safety of on-site circulation patterns (patron, employee and delivery vehicles, trucks), including parking layout and drive aisles, and points of conflict;
 8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
 9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
 10. Performance based zoning requirements that may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
 11. Industrial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres by 5 acres or greater, .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio for parcels 1 acre or less.

Evaluation and Findings of Consistency with Policy 1.5.d: The applicant has demonstrated through the site plan, application, and supporting documentation that each of these sub-policies have been sufficiently addressed.

Objective 2.4: Landscaping and Tree Protection Standards: The City shall adopt landscaping and tree protection standards in order to achieve the aesthetic design values of the community and preserve tree canopies, as well as specimen protected, heritage and champion trees.

Policy 2.4.a: Landscaping: General – The City shall require landscaping plans to be submitted with each nonresidential and multiple family residential site plan. The minimum landscaped area shall be 30% of the development site. Landscaping designs shall incorporate principles of xeriscaping, where feasible. The City shall develop a list of preferred planting materials to assist in the landscape design. Landscape plans shall include perimeter and internal site landscaping.

Policy 2.4.b: Landscaping: Buffering – A buffer consists of horizontal space (land) and vertical elements (plants, berms, fences, walls) that physically separate and visually screen adjacent land uses. The City shall establish buffer yard requirements that are based on the compatibility of the adjacent uses and the desired result of the buffer.

Evaluation and Findings of Consistency with Objective 2.4 and Policies 2.4.a and 2.4.b: The site plan includes a landscaping plan which demonstrates that the proposed development will comply with all applicable landscaping and buffering standards required by the City's Comprehensive Plan and Land Development Regulations.

Objective 2.5: Open Space Standards: The City shall utilize open space requirements to preserve the rural character of Alachua, protect

natural resources, and provide spaces for people to recreate and gather.

Policy 2.5.a: There shall be a minimum of 10% percent open space required. The City shall establish incentives for the provision of open space beyond minimum requirements.

Evaluation and Findings of Consistency with Objective 2.5 and Policy 2.5.a: The site plan indicates that the subject property will include 1.05 acres of open space (37.32% of the site), exceeding the minimum 10% open space requirement.

Objective 5.1: Natural features: The City shall coordinate Future Land Use designations with appropriate topography, soils, areas of seasonal flooding, wetlands and habitat during review of proposed amendments to the Future Land Use Map and the development review process. Natural features may be included as amenities within a development project.

Evaluation and Findings of Consistency with Objective 5.1: An environmental conditions and site suitability analysis has been provided in this report, and indicates that the development will not adversely affect natural features.

Objective 5.2: Availability of facilities and services: The City shall utilize a concurrency management system to ensure that the adopted level of service standards are maintained.

Policy 5.2.a: All new development shall meet level of service requirements for roadways, potable water and sanitary sewer, stormwater, solid waste, public schools, and improved recreation in accordance with LOS standards adopted in the elements addressing these facilities.

Evaluation and Findings of Consistency with Objective 5.2 and Policy 5.2.a: An analysis of the development's impact to public facilities has been provided within this report. This analysis demonstrates that the development will not adversely affect the level of service (LOS) standard of any monitored public facilities.

Policy 9.1: Any new development within a Commercial or Industrial Future Land Use Map Designation within the corporate limits, where potable water and wastewater service are available, as defined in Policy 1.2.a and Policy 4.2.a of the Community Facilities and Natural Groundwater Aquifer Recharge Element of the City of Alachua Comprehensive Plan, shall connect to the City of Alachua's potable water and wastewater system.

Evaluation and Findings of Consistency with Policy 9.1: The proposed development will connect to potable water and wastewater facilities.

Transportation Element

Objective 1.1: Level of Service

The City shall establish a safe, convenient and efficient level of service standard for all motorized and non-motorized transportation systems.

Evaluation and Findings of Consistency with Objective 1.1: An analysis of the development's impacts to transportation facilities is provided within this report. The development will not adversely affect the level of service for transportation facilities.

Policy 1.3.a: The City shall establish minimum and maximum parking standards in order to avoid excessive amounts of underutilized parking areas.

Policy 1.3.d: The City shall require landscaping within parking areas, with an emphasis on canopy trees. The City shall consider establishing incentives for landscaping in excess of minimum standards.

Policy 1.3.g: The City shall require spaces to accommodate persons with physical disabilities as required by the Americans with Disabilities Act.

Evaluation and Findings of Consistency with Objective 1.1 and Policies 1.3.a, 1.3.d,, and 1.3.g: The site plan complies with the applicable standards of Section 6.1, Off-street parking and loading standards, of the City's Land Development Regulations. Required landscaping materials and pedestrian crossings and connections will be provided within parking areas. The site plan also provides the minimum number of required accessible parking spaces.

Community Facilities & Natural Groundwater Aquifer Recharge Element

Policy 1.1.d:

The City hereby establishes the following level of service standards for sanitary sewer facilities:

Levels of Service

- a. **Quality:** Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP).
- b. **Quantity:** System-wide wastewater collection and treatment will be sufficient to provide a minimum of 250 gallons per day per equivalent residential unit (ERU) on an average annual basis. Plant expansion shall be planned in accordance with F.A.C. 62-600.405, or subsequent provision. This level of service standard shall be re-evaluated one year from the adoption date for the amended Plan.
- c. **System capacity:** If the volume of existing use in addition to the volume of the committed use of the City's wastewater facility reaches 85% of the permitted capacity design, no further development orders for projects without reserved capacity will be issued until additional capacity becomes

available or funds to increase facility capacity are committed in accordance with a development agreement.

Evaluation and Findings of Consistency with Policy 1.1.d: An analysis of the development's impacts to sanitary sewer facilities is provided within this report. The development will not adversely affect the level of service for sanitary sewer facilities.

Policy 1.2.a: The City shall establish a Community Wastewater Service Area, which includes all areas where wastewater service is available. Wastewater service shall be deemed available if:

3. A gravity wastewater system, wastewater pumping station, or force main exists within ¼ mile of the property line of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and the gravity wastewater system, wastewater pumping station, or force main can be accessed through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

Evaluation and Findings of Consistency with Policy 1.2.a: The proposed development is located within the City's utility service area and will connect to the City's wastewater system.

Policy 2.1.a: The City hereby establishes the following level of service standards for solid waste disposal facilities:

<u>FACILITY TYPE</u>	<u>LEVEL OF SERVICE STANDARD</u>
Solid Waste Landfill	.73 tons per capita per year

Evaluation and Findings of Consistency with Objective 2.1.a: An analysis of the development's impacts to solid waste facilities is provided within this report. The development will not adversely affect the level of service for solid waste facilities.

Objective 3.1: Ensure provision of drainage and stormwater retention through level of service standards and design requirements to minimize flooding and to protect and improve water quality.

Policy 4.1.b: The City shall establish a Community Potable Water Service Area, which includes all areas where potable water service is available. Water service shall be deemed available if:

3. A water main exists within ¼ mile of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and water service can be accessed through public

utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

Evaluation and Findings of Consistency with Policy 4.1.b: The proposed development is located within the City's utility service area and will connect to the City's potable water system.

Policy 4.1.c: The City establishes the following level of service standards for potable water:

1. Quality: Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection.
2. Quantity: System-wide potable water distribution and treatment will be sufficient to provide a minimum of 275 gallons per day per equivalent residential unit (ERU) on an average annual basis. Plant expansion shall be planned in accordance with Florida Administrative Code.
3. System Capacity: If the volume of existing use in addition to the volume of the committed use of the City's potable water facility reaches 85% of the permitted design capacity, no further development orders or permits for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement.

Evaluation and Findings of Consistency with Objective 4.1.c: An analysis of the development's impacts to potable water facilities is provided within this report. The development will not adversely affect the level of service for potable water facilities.

Conservation & Open Space Element

Policy 1.2.a:

The City shall ensure that land use designations, development practices and regulations protect native communities and ecosystems, and environmentally sensitive lands.

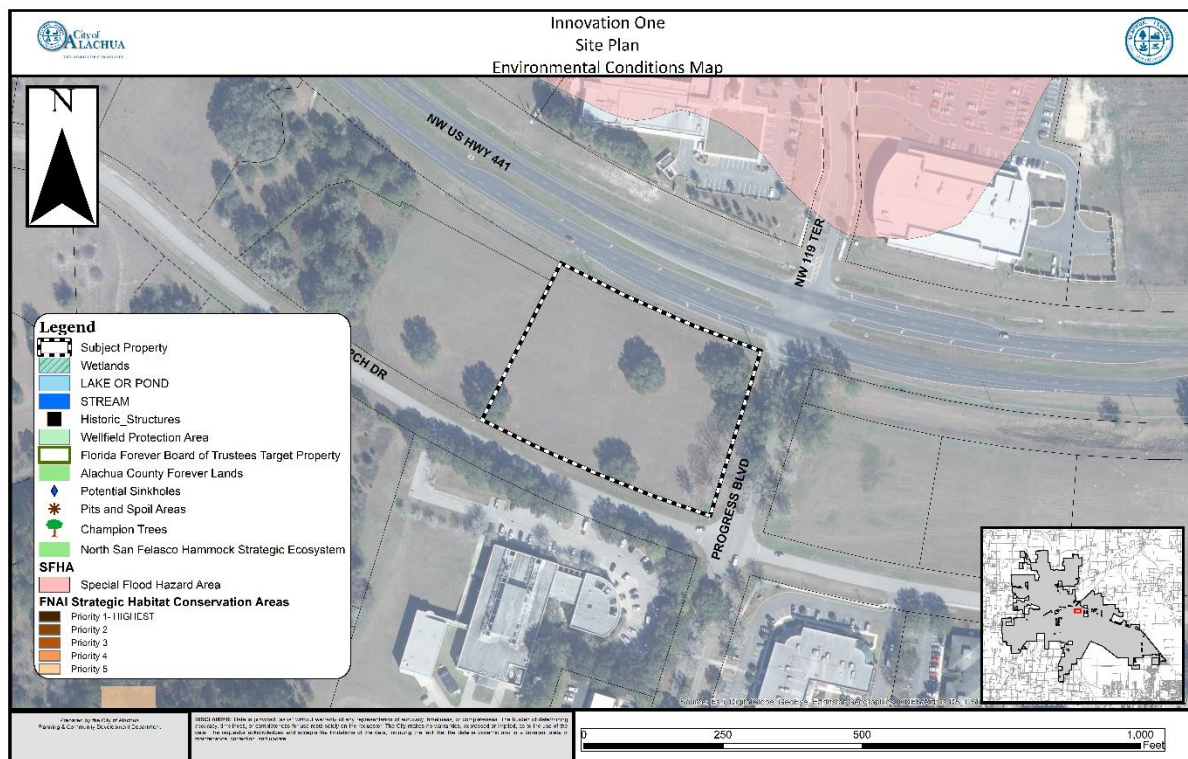
Policy 1.3.e:

The City's land use designations shall offer the best possible protection to threatened and endangered species.

Evaluation and Findings of Consistency with Policy 1.2.a and 1.3.e: The subject property does not contain any environmentally sensitive lands, and is not located adjacent to large tracts of land or land designated for conservation. The development therefore will encourage development practices which provide for the protection of native communities and ecosystems.

ENVIRONMENTAL CONDITIONS ANALYSIS

Map 4. Environmental Features



Wetlands

According to best available data, there are no wetlands located on the subject property. If any wetlands are identified on the subject property at a later time, these areas will be subject to the applicable protection standards of the City of Alachua Comprehensive Plan and the Land Development Regulations (LDRs.)

Evaluation: No wetlands have been identified on subject property therefore, there are no issues related to wetland protection.

Strategic Ecosystems

Strategic Ecosystems were identified by an ecological inventory project in a report prepared for Alachua County Department of Growth Management in 1987. The purpose of the inventory was to identify, inventory, map, describe, and evaluate the most significant natural biological communities in private ownership in Alachua County. The subject property is not located within or adjacent to a Strategic Ecosystem.

Evaluation: The subject property is not located within or adjacent to a Strategic Ecosystem, therefore, the development will not adversely impact any Strategic Ecosystem(s) identified within the ecological inventory report.

Regulated Plant & Animal Species

The subject property is not known to contain any species identified as endangered, threatened, or of special concern. The Florida Natural Areas Inventory (FNAI) has identified areas throughout the State of Florida which may contain good quality natural communities. This data layer is known as the Potential Natural Areas (PNA) data layer, and identifies privately owned lands that are not managed or listed for conservation purposes. These areas were delineated by FNAI scientific staff through interpretation of natural vegetation from 1988-1993 FDOT aerial photographs and from input received during Regional Ecological Workshops held for each regional planning council. These workshops were attended by experts familiar with natural areas in the region. Potential Natural Areas were assigned ranks of Priority 1 through Priority 5 based on size, perceived quality, and type of natural community present. The areas included in Priority 5 are exceptions to the above criteria. These areas were identified through the same process of aerial photographic interpretation and regional workshops as the PNA 1 through 4 ranked sites, but do not meet the standard criteria.

Evaluation: No species identified as endangered, threatened, or of special concern are known to exist on the subject property. While the FNAI PNA data layer does not indicate any lands classified as potentially having habitat which could support species identified as endangered, threatened, or of special concern, this data is not intended for use in a regulatory decision making process. If a regulated plant or animal species is identified during development, the applicant must adhere to the applicable standards in the City of Alachua Comprehensive Plan and the Land Development Regulations.

Soil Survey

Each soil type found on the subject property is identified below. The hydrologic soil group is an indicator of potential soil limitations. The hydrologic soil group, as defined for each specific soil, refers to a group of soils which have been categorized according to their runoff-producing characteristics. These hydrologic groups are defined by the Soil Survey of Alachua County, Florida, dated August 1985. The chief consideration with respect to runoff potential is the capacity of each soil to permit infiltration (the slope and kind of plant cover are not considered, but are separate factors in predicting runoff.) There are four hydrologic groups: A, B, C, and D. "Group A" soils have a higher infiltration rate when thoroughly wet and therefore have a lower runoff potential. "Group D" soils have very lower infiltration rates and therefore a higher runoff potential.

Table 2. Soils

Soil Type	Hydrologic Group	Drainage Class	Small Commercial Buildings	% of Subject Property (may not total to 100% due to rounding)
Arredondo fine sand, 0 to 5% slopes	A	Well drained	Not limited	100.00%

Evaluation: The soil type present on the subject property does not pose any substantial limitations for the proposed development, therefore, no concerns related to soil suitability.

Flood Potential

Panel 0140D of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Series, dated June 16, 2006, indicates that the subject property is in Flood Zone X (areas determined to be outside of the 500-year floodplain.) See Map 4 above.

Evaluation: The subject property is located in Flood Zone X (areas determined to be outside of the 500-year floodplain), therefore there are no issues related to flood potential.

Karst-Sensitive Features

Karst sensitive areas include geologic features, such as fissures, sinkholes, underground streams, and caverns, and are generally the result of irregular limestone formations. The subject property is located within an area where sinkholes may potentially allow hydrologic access to the Floridan Aquifer System, however, best available data indicates that no sinkholes or known indicators of sinkhole activity are located on the subject property.

Evaluation: There are no geologic features located on the subject property which indicate an increased potential for karst sensitivity.

Wellfield Protection Zones

Policy 7.2.1 of the Future Land Use Element of the City's Comprehensive Plan establishes a 500 foot radius area around each city-owned potable water well.

Evaluation: The subject property is not located within a City of Alachua wellhead protection zone as identified on the City of Alachua Wellfield Primary Protection Zones Map of the City's Comprehensive Plan, therefore, there are no issues related to wellfield protection.

Historic Structures/Markers and Historic Features

The subject property does not contain any historic structures as determined by the State of Florida and the Alachua County Historic Resources Inventory. Additionally, the subject property is not located within the City's Historic Overlay District, as established by Section 3.7 of the City's Land Development Regulations.

Evaluation: There are no issues related to historic structures or markers.

COMPLIANCE WITH LAND DEVELOPMENT REGULATIONS

SITE PLAN STANDARDS

Section 2.4.9(E) of the City's Land Development Regulations (LDRs) establishes the standards with which all site plans must be found to be compliant. The application has been reviewed for compliance with the standards of Section 2.4.9(E.) An evaluation and findings of the application's compliance with the standards of Section 2.4.9(E) is provided below.

(E) Site Plan Standards

A Site Plan shall be approved only upon a finding the applicant demonstrates all of the following standards are met:

(1) *Consistency with Comprehensive Plan*

The development and uses in the Site Plan comply with the Goals, Objectives and Policies of the Comprehensive Plan.

Evaluation & Findings: An analysis of the application's consistency with the Comprehensive Plan has been provided in this report.

(2) *Use Allowed in Zone District*

The use is allowed in the zone district in accordance with Article 4: *Use Regulations*.

Evaluation & Findings: The subject property is zoned PUD ("Planned Unit Development".) The site plan proposes a new ±30,676 square foot light industrial (research and development) use with employee parking, storm water management facility improvements, paving, grading, and associated utility infrastructure. The PUD zoning ordinance created the allowable uses permitted within the Progress Park PUD.

(3) *Zone District Use-Specific Standards*

The development and uses in the Site Plan comply with Section 4.3, *Use-Specific Standards*.

Evaluation & Findings: There are no use-specific standards for light industrial uses.

(4) *Development and Design Standards*

The development proposed in the Site Plan and its general layout and design comply with all appropriate standards in Article 6: *Development Standards*.

Evaluation & Findings: The application has been reviewed for and is found to be in compliance with all relevant provisions of Article 6, *Development Standards*, including but not limited to *Section 6.1*, Off Street Parking & Loading Standards, *Section 6.2*, Tree Protection/Landscape/Xeriscape Standards, *Section 6.3*, Fencing Standards, *Section 6.4*, Exterior Lighting Standards, *Section 6.7*, Open Space Standards, *Section 6.8*, Design Standards for Business Uses, and *Section 6.9*, Environmental Protection Standards. Compliance with the relevant provisions of the aforementioned LDR sections is demonstrated within the Site Plan.

(5) *Subdivision Standards*

In cases where a subdivision has been approved or is pending, the development proposed in the Site Plan and its general layout and design comply with all appropriate standards in Article 7: *Subdivision Standards*.

Evaluation & Findings: No subdivision is proposed as part of this development.

(6) *Complies with All Other Relevant Laws and Ordinances*

The proposed site plan development and use complies with all other relevant City laws and ordinances, state and federal laws, and regulations.

Evaluation & Findings: The application is consistent with all other relevant City ordinances and regulations, including the PUD Zoning Ordinance for the subject property (O-00-05), which created maximum amounts for each of the land uses listed in the table below.

Table 3. PUD Land Uses

Land Use	Total Current Area	Total Proposed	Total Remaining
<i>Research and Design</i>	212,081	30,676	181,405
<i>Light Industrial</i>	95,000	0	225,000
<i>Distribution</i>	0	0	1,000,000
<i>Retail/ Restaurant</i>	0	0	250,000
<i>General Office</i>	273,236	0	826,764
<i>Medical Office</i>	7,000	0	93,000

COMPLIANCE WITH SECTION 6.8, DESIGN STANDARDS FOR BUSINESS USES

Section 6.8 of the City's Land Development Regulations (LDRs) establishes design standards for business uses. The standards established within Section 6.8.2 apply to business use types, except for single tenant retail sales and services uses greater than or equal to 20,000 square feet or unless otherwise exempted within Subsection 6.8.1(B.). Uses exempt from the design standards pursuant to Subsection 6.8.1(B) include use types within the industrial services, manufacturing and production, warehouse and freight movement, waste-related services, and wholesale sales use categories, except when all or a portion of a building utilized for one of these uses is located within 500 feet of US Highway 441 right-of-way. The standards established within Section 6.8.3 apply to single tenant retail sales and services uses greater than 20,000 square feet.

The application has been reviewed for and found to be in compliance with the standards of Section 6.8. The proposed development is classified as a "manufacturing and production use type" located within 500 feet of the right-of-way of US Highway 441, and therefore subject to the requirements of Section 6.8.

PUBLIC FACILITIES IMPACT

Traffic Impact

Table 4. Affected Comprehensive Plan Roadway Segments¹

Segment Number ^{2, 3}	Segment Description	Lanes	Functional Classification	Area Type	LOS
3/4 (106)	US 441 (From NW 126 th Ave to SR 235)	4/D	Principle Arterial	Urban Trans	E

¹ Source: City of Alachua Comprehensive Plan, Transportation Element.
² For developments generating fewer than 1,000 trips, affected roadway segments are identified as those located partially or wholly within ½ mile of the development's ingress/egress [Section 2.4.14(H)(2) of the LDRs.]
³ FDOT roadway segment number shown in parenthesis (when applicable.) For the purposes of concurrency management, COA Comprehensive Plan segments that make up a portion of a larger FDOT roadway segment will be evaluated together when determining post development roadway capacity.

Table 5. Trip Generation¹

Land Use	AADT (Enter/Exit) ²	AM Peak Hour (Enter/Exit) ²	PM Peak Hour (Enter/Exit) ²
Research and Development Center (ITE Code 760)	346 (173/173)	38 (31/7)	34 (5/29)
Total Trips	346 (173/173)	38 (31/7)	34 (5/29)

¹ Source: ITE Trip Generation, 10th Edition.
² Formulas: ITE Code 760– AADT –11.26 trips per 1,000 sf gfa x 0.30.7 ksf (50% entering/50% exiting); AM Peak Hour – 1.22 trips per 1,000 sf gfa x 30.7 ksf (83% entering/17 % exiting); PM Peak Hour – 1.11 trips per 1,000 sf gfa x 30.70 ksf (16 % entering/ 84% exiting)

Table 6a. Projected Impact on Affected Comprehensive Plan Roadway Segments (AADT)

Traffic System Category	US 441 (From NW 126 th Ave to SR 235) ¹
Average Annual Daily Trips	
Maximum Service Volume ²	45,700
Existing Traffic ³	18,579
Reserved Trips ⁴	3,252
Available Capacity ⁴	23,869
Increase/Decrease in Daily Trips Generated by Development ⁵	346
Residual Capacity After Development's Impacts⁶	23,523
¹ FDOT roadway segment number shown in parenthesis (when applicable.) For the purposes of concurrency management, COA Comprehensive Plan segments that make up a portion of a larger FDOT roadway segment will be evaluated together when determining post development roadway capacity. ² Source: FDOT 2018 Quality/Level of Service Handbook, Generalized Annual Average Daily Volumes and Generalized Peak Hour Two-Way Volumes for Areas Transitioning to Urbanized Areas or Areas of 5,000 Not in Urbanized Areas. ³ Florida State Highway System Level of Service Report 2016, Florida Department of Transportation, District Two (published August 2017). ⁴ Source: City of Alachua May 2019 Development Monitoring Report. ⁵ Trip Distribution: US 441 (From NW 126 th Ave to SR 235)- 100% ⁶ The application is for a Final Development Order. Facility capacity and concurrency will be reserved.	

Table 6b. Projected Impact on Affected Comprehensive Plan Roadway Segments (PM Peak Hour)

Traffic System Category	US 441 (From NW 126 th Ave to SR 235) ¹
Maximum Service Volume ²	4,110
Existing Traffic ³	1,765
Reserved Trips ⁴	442
Available Capacity ⁴	1,903
Increase/Decrease in PM Peak Hour Trips Generated by Development ⁵	34
Residual Capacity After Development's Impacts⁶	1,869
¹ FDOT roadway segment number shown in parenthesis (when applicable.) For the purposes of concurrency management, COA Comprehensive Plan segments that make up a portion of a larger FDOT roadway segment will be evaluated together when determining post development roadway capacity. ² Source: FDOT 2018 Quality/Level of Service Handbook, Generalized Annual Average Daily Volumes and Generalized Peak Hour Two-Way Volumes for Areas Transitioning to Urbanized Areas or Areas of 5,000 Not in Urbanized Areas. ³ Florida State Highway System Level of Service Report 2016, Florida Department of Transportation, District Two (published August 2017). ⁴ Source: City of Alachua May 2019 Development Monitoring Report. ⁵ Trip Distribution: US 441 (From NW 126 th Ave to SR 235)- 100% ⁶ The application is for a Final Development Order. Facility capacity and concurrency will be reserved.	

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) of the roadway segment identified above; therefore, the demand generated by the development is acceptable.

Potable Water Impacts

Table 7. Potable Water Impacts

System Category	Gallons Per Day
Current Permitted Capacity ¹	2,300,000
Less Actual Potable Water Flows ¹	1,295,603
Reserved Capacity ¹	79,775
Available Capacity	924,622
Projected Potable Water Demand from Application ³	5,061
Residual Capacity	919,561
Percentage of Permitted Design Capacity Utilized	60.00%
<i>Sources:</i> ¹ City of Alachua May 2019 Development Monitoring Report. ² Source: Chapter 64E-6, Florida Administrative Code; Formula: 110% of wastewater demand = 15 gp 100 sf (30,676/100 x 15 = 4,601 x 1.10 = 5,061)	

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) for potable water facilities; therefore, the demand generated by the development is acceptable.

Sanitary Sewer Impacts

Table 8. Sanitary Sewer Impacts

System Category	Gallons Per Day
Treatment Plant Current Permitted Capacity ¹	1,500,000
Less Actual Treatment Plant Flows ¹	729,000
Reserved Capacity ¹	76,737
Available Capacity	694,263
Projected Sanitary Sewer Demand from Application ²	4,601
Residual Capacity	689,662
Percentage of Permitted Design Capacity Utilized	54.02%
<i>Sources:</i> ¹ City of Alachua May 2019 Development Monitoring Report. ² Source: Chapter 64E-6, Florida Administrative Code; Formula: 15 gp 100 sf (30,676/100 x 15 = 4,601)	

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) for sanitary sewer facilities; therefore, the demand generated by the development is acceptable.

Solid Waste Impacts

Table 9. Solid Waste Impacts

System Category	Pounds Per Day	Tons Per Year
Demand from Existing Development ¹	40,620.00	7,413.15
Reserved Capacity ²	6,882.99	1,256.15
Demand Generated by Application ²	368	67.20
New River Solid Waste Facility Capacity ⁴	50 years	
Sources: 1 City of Alachua May 2019 Development Monitoring Report. 2 Sincero and Sincero; Environmental Engineering: A Design Approach. Prentice Hall, New Jersey, 1996		

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) of solid waste facilities; therefore, the demand generated by the development is acceptable.

Recreation Facilities

The proposed development is a nonresidential development. Therefore, there are no impacts to recreation facilities. The development will have no impact to the Level of Service (LOS) of recreation facilities.

Public School Facilities

The proposed development is a nonresidential development. Therefore, there are no impacts to public school facilities. The development will have no impact to the Level of Service (LOS) of public school facilities.

EXHIBIT “A”
TO
INNOVATION ONE; SHOPPES AT PROGRESS CENTER, LLC
SITE PLAN
STAFF REPORT

CONDITIONS:

1. The applicant agrees it shall obtain all other applicable local, state, and federal permits before the commencement of the development.
2. The applicant agrees it shall provide Public Utilities Easements as depicted on the Site Plan. Public Utilities Easements as depicted on the Site Plan shall be approved by the City and recorded in the Public Records of Alachua County prior to applying for a building permit. The applicant shall incur all costs associated with the preparation and recordation of such Public Utilities Easements.
3. The applicant agrees it shall comply with all recommendations provided by Caitlyn Drane, P.E., of eda, inc in an email dated June 10, 2019 and found in Exhibit “B” – Supporting Application Materials Submitted by City Staff to the Planning and Zoning Board.
4. The applicant agrees that Conditions 1-3 as stated above do not inordinately burden the land and shall be binding upon the property owner, including any subsequent property owners, successors, or assigns, and that the development shall comply with Conditions 1 -3 as stated herein.

**EXHIBIT “B”
TO
INNOVATION ONE; SHOPPES AT PROGRESS CENTER, LLC
SITE PLAN
STAFF REPORT**

**SUPPORTING APPLICATION MATERIALS
SUBMITTED BY CITY STAFF TO THE
PLANNING AND ZONING BOARD**



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

June 18, 2019

Alison Fetner, P.E.
Fetner Engineering
364 N. State Rd 21
Hawthorne, FL 32640

Also submitted electronically to fetnereng@aol.com

RE: Notice of Hearing to be Scheduled for Innovation One Site Plan

Dear Mrs Fetner:

On May 29, 2019 the City of Alachua received your updated applications for the above referenced projects.

Based on review of the materials submitted, the City has determined that the application can now be scheduled for a hearing before the Planning and Zoning Board.

You must provide two (2) *double-sided, three-hole punched, color sets* of each **complete** application package, seven (7) full size sets of site plans, and a digital copy of all materials in PDF format on a CD *no later than 10 business days prior to the PZB Meeting at which your application is scheduled to be heard*. The application has been scheduled for the **July 9, 2019** Planning and Zoning Board meeting; therefore, the above referenced materials must be submitted to the City no later than **Monday, June 24, 2019**. Materials may be submitted earlier than this date.

Should you have any questions, please feel free to contact me at (386) 418-6100, ext. 108 or via email at ahall@cityofalachua.com.

Sincerely,

Adam Hall, AICP
Planner

c: Kathy Winburn, AICP, Planning Director
Justin Tabor, AICP, Principal Planner
File

RE: Innovation One proposal

From : Caitlyn Drane <cdrane@edafl.com>
Subject : RE: Innovation One proposal
To : Adam Hall <ad_hall@cityofalachua.org>
Cc : Sergio Reyes <sreyes@edafl.com>, Claudia Vega <cvega@edafl.com>, Stephanie Sutton <ssutton@edafl.com>

Mon, Jun 10, 2019 02:06 PM

Adam,

The resubmittal meets code requirements but we would still like to see tie down of the building and parking lot in case the contractor who does the construction does not have a digital copy of the plans. Please let me know if you have any questions.

Caitlyn Drane, P.E. | Project Manager |
| [eda engineers-surveyors-planners, inc.](#) |
2404 NW 43rd Street | Gainesville, Florida 32606
352.373.3541 | cdrane@edafl.com | www.edafl.com

From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Monday, June 03, 2019 8:23 AM
To: Caitlyn Drane <cdrane@edafl.com>
Cc: Sergio Reyes <sreyes@edafl.com>; Claudia Vega <cvega@edafl.com>; Stephanie Sutton <ssutton@edafl.com>
Subject: Re: Innovation One proposal

Caitlyn:

Good morning, Caitlyn. We have received the resubmission for the Innovation One Site Plan project. A link to the project documents and plans can be found here: [LINK](#).

I am also leaving a hard copy at the Building Department counter as well, if needed.

We are requesting review by Tuesday, June 11, 2019 to confirm that all previously issued engineering comments have been addressed.

If you have any questions, let me know.

Thank you!

Adam Hall
City of Alachua

From: "Caitlyn Drane" <cdrane@edafl.com>
To: "Adam Hall" <ad_hall@cityofalachua.org>, "sreyes" <sreyes@edafl.com>
Cc: "Claudia Vega" <cvega@edafl.com>, "Stephanie Sutton" <ssutton@edafl.com>
Sent: Thursday, May 9, 2019 5:21:50 PM
Subject: RE: Innovation One proposal

Adam,

Please find the comment letter attached. If you have any questions please let me know.

Caitlyn Drane, P.E. | Project Manager |
| [eda engineers-surveyors-planners, inc.](#) |
2404 NW 43rd Street | Gainesville, Florida 32606
352.373.3541 | cdrane@edafl.com | www.edafl.com

From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Tuesday, May 07, 2019 12:05 PM
To: Sergio Reyes <sreyes@edafl.com>
Cc: Caitlyn Drane <cdrane@edafl.com>; Claudia Vega <cvega@edafl.com>; Stephanie Sutton <ssutton@edafl.com>
Subject: Re: Innovation One proposal

Sergio,

By this Thursday, please, if possible.

Adam Hall
City of Alachua

From: "sreyes" <sreyes@edafl.com>
To: "Adam Hall" <ad_hall@cityofalachua.org>, "Caitlyn Drane" <cdrane@edafl.com>
Cc: "Claudia Vega" <cvega@edafl.com>, "Stephanie Sutton" <ssutton@edafl.com>
Sent: Tuesday, May 7, 2019 10:09:03 AM
Subject: RE: Innovation One proposal

Adam:

when do you need our comments by?

Sergio Reyes, P.E | President |
| [eda – engineers-planners-surveyors,inc.](http://eda-engineers-planners-surveyors.com) |
2404 NW 43rd Street | Gainesville, Florida 32606
352.373-3541 | sreyes@edafl.com | www.edafl.com

Send from Mobile Device

From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Wednesday, May 1, 2019 4:56 PM
To: Caitlyn Drane <cdrane@edafl.com>
Cc: Sergio Reyes <sreyes@edafl.com>; Claudia Vega <cvega@edafl.com>
Subject: Re: Innovation One proposal

Caitlyn,

We have received a revised application for this project. Please find a link to a digital copy here: [LINK](#).
I have also left a hard copy at the building department counter as well.

If you have any questions, please let me know.

Thank you,

Adam Hall
City of Alachua

From: "Adam Hall" <ad_hall@cityofalachua.org>
To: "Caitlyn Drane" <cdrane@edafl.com>
Cc: "sreyes" <sreyes@edafl.com>, "Claudia Vega" <cvega@edafl.com>
Sent: Wednesday, April 10, 2019 11:57:41 AM
Subject: Re: Innovation One proposal

Thank you!
Adam H

From: "Caitlyn Drane" <cdrane@edafl.com>
To: "Adam Hall" <ad_hall@cityofalachua.org>, "sreyes" <sreyes@edafl.com>
Cc: "Claudia Vega" <cvega@edafl.com>
Sent: Wednesday, April 10, 2019 11:51:38 AM
Subject: RE: Innovation One proposal

Adam,

Please find attached a copy of my comment letter.

Caitlyn Drane, P.E. | Project Manager |
| [eda engineers-surveyors-planners, inc.](http://edaengineers-surveyors-planners.com) |
2404 NW 43rd Street | Gainesville, Florida 32606
352.373.3541 | cdrane@edafl.com | www.edafl.com

From: Caitlyn Drane
Sent: Wednesday, April 10, 2019 11:16 AM
To: Adam Hall <ad_hall@cityofalachua.org>; Sergio Reyes <sreyes@edafl.com>
Subject: RE: Innovation One proposal

Adam,

I'll have my comments to you by noon.

Caitlyn Drane, P.E. | Project Manager |
| [eda engineers-surveyors-planners, inc.](http://edaengineers-surveyors-planners.com) |
2404 NW 43rd Street | Gainesville, Florida 32606
352.373.3541 | cdrane@edafl.com | www.edafl.com

From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Wednesday, April 10, 2019 11:14 AM
To: Sergio Reyes <sreyes@edafl.com>
Cc: Caitlyn Drane <cdrane@edafl.com>
Subject: Re: Innovation One proposal

Sergio,

I was wondering if the review had been completed for this yet? If so, are there are comments. If not, do you know when about we will be receiving comments.

Please feel free to call.

Thanks,

Adam Hall
City of Alachua

From: "sreyes" <sreyes@edafl.com>
To: "Adam Hall" <ad_hall@cityofalachua.org>
Cc: "Caitlyn Drane" <cdrane@edafl.com>
Sent: Tuesday, April 2, 2019 11:57:43 AM
Subject: RE: Innovation One proposal

Adam:

Thanks

Sergio Reyes, P.E. | President |
| [eda engineers-surveyors-planners, inc.](http://edaengineers-surveyors-planners.com) |
2404 NW 43rd Street | Gainesville, Florida 32606

From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Tuesday, April 2, 2019 10:15 AM
To: Sergio Reyes <sreyes@edafl.com>
Cc: Caitlyn Drane <cdrane@edafl.com>
Subject: Re: Innovation One proposal

Sergio,

Please see attached the drainage design notes as submitted by Alison Fetner.
If you have any questions or require any other documentation to complete review, please let me know.

Thank you,

Adam Hall
City of Alachua

From: "sreyes" <sreyes@edafl.com>
To: "Adam Hall" <ad_hall@cityofalachua.org>
Cc: "Caitlyn Drane" <cdrane@edafl.com>
Sent: Thursday, March 28, 2019 8:29:35 AM
Subject: RE: Innovation One proposal

Ok

Thanks

Sergio Reyes, P.E. | President |
| [edaengineers-surveyors-planners, inc.](http://edaengineers-surveyors-planners.com) |
2404 NW 43rd Street | Gainesville, Florida 32606
352.373.3541 | sreyes@edafl.com | www.edafl.com

From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Thursday, March 28, 2019 8:19 AM
To: Sergio Reyes <sreyes@edafl.com>
Cc: Debbie Wallen <dwallen@edafl.com>
Subject: Re: Innovation One proposal

Sergio,
Understood. Please proceed.

I have not yet received the drainage design notes from Alison Fetner, but will forward once I receive.

Thank you,

Adam Hall
City of Alachua

From: "sreyes" <sreyes@edafl.com>
To: "Adam Hall" <ad_hall@cityofalachua.org>, "Debbie Wallen" <dwallen@edafl.com>
Sent: Wednesday, March 27, 2019 5:56:24 PM
Subject: RE: Innovation One proposal

Adam:

This is the initial review of the application. Hopefully we don't have to do many reviews

Sergio Reyes, P.E. | President |

| [eda engineers-surveyors-planners, inc.](#) |
2404 NW 43rd Street | Gainesville, Florida 32606
352.373.3541 | sreyes@edafl.com | www.edafl.com

From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Wednesday, March 27, 2019 2:42 PM
To: Debbie Wallen <dwallen@edafl.com>
Cc: Sergio Reyes <sreyes@edafl.com>
Subject: Re: Innovation One proposal

Debbie,

Thank you for this. Does this include the initial review as well? Or is this just for the review of the plans to be submitted after initial review?

Thanks!

Adam Hall

From: "Debbie Wallen" <dwallen@edafl.com>
To: "Adam Hall" <ad_hall@cityofalachua.org>
Cc: "sreyes" <sreyes@edafl.com>, "Debbie Wallen" <dwallen@edafl.com>
Sent: Wednesday, March 27, 2019 2:41:07 PM
Subject: Innovation One proposal

Adam attached is the proposal for the site review for Innovation One, the Work Order and the hourly summary. Please let us know if you need any additional information.

Thanks!
Debbie

Debbie Wallen | Office Manager |
| [eda engineers-surveyors-planners, inc.](#) |
2404 NW 43rd Street | Gainesville, Florida 32606
352.373.3541 | dwallen@edafl.com | www.edafl.com

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**Innovation One
Response to comments
5-25-2019**



Planning

B. Concurrency Impact Analysis

1. ITE Code 760 indicates AADT 11.26 trips per day per 1000 square feet gfa; unable to identify supplied generation rate of 8.11 for aadt.
2. ITE Code 760 indicates 1.11 PM peak trips per 1000 square feet gfa; unable to identify supplied generation rate of 1.01 trips for PM peak trips.

New Comment: Concurrency impact analysis references a rezoning application. Please revise.

A. The reference to the re zoning application has been removed.

C. Development Standards

1. Dimensional Standards:

a. Per the replat of Progress Center (PB P, Page 49), setbacks appear to be 30' front setback, 10' rear setback, 20' side setback, and 40' Progress Blvd setback. Please identify source of setbacks shown on site plan cover sheet. The Progress Center Covenants and Restrictions (OR B 1588 P 2207) provide a variance of up to 20% from setbacks if authorized by the Architectural Control Committee. (Article Seven, Section

2). Please provide variance authorization from Architectural Control Committee.

A. The letter from the owner's association is attached allowing the variance and the connection to the stormwater system.

3. Section 6.2- Tree protection/landscape/xeriscape standards

g. Parking lot landscaping standards require 29 canopy trees. 26 are provided, but 3 tree credits can be used to meet requirement (6.2.2 (D)(2)(a)(iii)).

New Comment: Response states that "not adequate amount of trees" provided. Please review.

A. The response should have read "A. The parking lot square footage has been reduced now requiring less trees but the amount of trees was not reduced so there is an adequate number of trees."

m. Per Section 6.2.3 (C), service areas must be screened. Please identify service areas on landscape plan and demonstrate that standards have been met.

A. Due to the unknown nature of the building use I am not sure if the rear of the building will be considered a "service area". If it is there is proposed a solid hedge along the property line of "Florida Anise". This plant is native and a dense, rapid grower that can reach heights of 10-15 feet, but maintained in a parking area the height can be controlled. This would easily provide the required 6 foot screening that is required. Please see attached information sheet.

D. Fire Marshal/Public Services/Outside Engineering Review Comments

1. The applicant must address the comments provided by eda, Inc in a letter dated May 9, 2019 (attached to this memo).
2. The applicant must comply with all comments provided by the Public Services Department in a memo dated May 8, 2019 (attached to this memo).

A. Compliance with all the comments from EDA and Public Services has been completed.

E. Miscellaneous/General Issues

2. Please provide letter or other documentation that connecting to master stormwater system is acceptable to Progress Center Property Owner's Association (PCPOA).

A. The letter for the connection to the stormwater system and the variance to the setback is attached.

Public Services

Attached is the 1991 installation drawing of it as well as an above ground photo.

Please update your drawing to show this 12-inch water main. Also, since the 8-inch stub-out for the water main does not appear to exist, the design Engineer might consider relocating the tap (for fire flow and water meters). Please contact COA if the design Engineer wants to discuss this issue in more detail. Harry Dillard/COA is a good resource.

A. The water line as shown on the provided plans has been indicated on the plans.

New Comment for April 29th Submittal

Sheet C-2 Utility Plan, Fire Line and Ganged Water Meters

As now shown there is one common RPZ backflow preventer for the fire line and ganged water meters. Please provide individual RPZ backflow preventers and isolation valves for the fire line and ganged water meters. For the ganged water meters, suggest using Detail 240 – please add to C-3.

A. The RPZ has been relocated and individual RPZ for the services. The detail has been added to the detail sheet.

New Comment for April 29th Submittal

Sheet C-2 Utility Plan, Cleanout for 8-inch gravity main.

Please add a clean-out in the 8-inch gravity main. Locate near MH #1, but in the right-of-way. This will provide the COA with ready access to this cleanout.

A. A cleanout has been provided within the right of way.

New Comment for April 29th Submittal, Electrically Related

Cover Sheet: Suggest the following Site Note be Added.

"9. Installed electrical work shall conform to the 2017 National Electric Safety Code (NESC), the City of Alachua Standards and all Local and State Ordinances."

A. The note has been added to the cover sheet.

New Comment for April 29th Submittal, Electrically Related

C-2 Utility Plan: Suggest that the following notes be added with the leader pointing to the Transformer (TX):

"Note 1: City of Alachua (COA) will furnish and install conduit and conductors from the source to the transformer; as well as the transformer and pad. All work performed by COA shall be reimbursed by the Contractor.

Note 2: The Contractor shall provide all electric work "downstream" the transformer.

Note 3: During construction, the Contractor shall submit building electrical load calculations, which will be used by the COA to determine the transformer size."

A. These notes have been added to the utility plan, C-2

New Comment for April 29th Submittal, Electrically Related

C-2 Utility Plan: Show a Public Utility Easement around the transformer and around the conduit from the source to the transformer. Since the conduit from source is not shown, assume the conduit is routed north-south from the transformer to the right of way. Also, add the following note:

"Note: Field adjust public utility easement so that it follows the installed conduit routing from the source to the transformer."

A. An easement has been shown around transformer and source and noyr added regarding location.

New Comment for April 29th Submittal, Electrically Related

C-2 Utility Plan: For the circuit from the transformer TX to the building, please call out as "UGE".

A. The line is labeled as UGE.

Previous EDA Engineer Review

1. Provide tree barricades.

A. Tree barricades are now shown on the site plan sheet

2. Where does the sidewalk in center island go?

A. The sidewalk is a convenience of the people parked in the rear of the parking lot. A crosswalk has been added across the drive lane.

3. Provide ramps on center sidewalk.

A. Ramps have been provided see drainage plan.

4. Revise loading space size.

A. Loading spaces are shown as 12' x 30' and 2 are provided.

5. Review labeling of center island.

A. The dimensions shown are inside to inside of curb and outside to outside of curb.

6. Will future driveway be constructed with the parking lot?

A. No the stub out will not be paved because the exact location could change and grades will most likely be changed. It is not shaded as paved.

7. Provide a curb transition for the back drive.

A. Curb transitions were shown on the Drainage Plan.

8. The southern drive does not meet width requirements.

A. The southern drive has been modified to a one-way drive that is 12' wide in accordance with the code.

9. Provide dimensions for the dumpster

A. The dimensions are shown on the site Plan and on the dumpster detail.

10. Provide northing and eastings for constructability

A. There is an AutoCAD conflict in the coordinates therefore the layout surveyor will determine layout coordinates.

11. Provide silt fence on site plan.

A. silt fence is now shown on the site plan as well as other sheets.

Sheet C-2

1. Review water fittings for the 1" water service.

A. The water services have been re-worked and now will be constructed based on the number and type of uses in the building. The City of Alachua details have been provided on the detail sheet.

2. Provide inverts for the sanitary sewer cleanouts.

A. The invert was shown as typical for all cleanouts but we have added them tot every cleanout.

3. Provide a minimum of 3' separation between storm and water.

A. The water services have been re-worked and water is not near the stormwater piping or inlets.

4. Show electric service to the building.

A. Electric service is shown to the building.

Sheet C-3

1. Remove all references to GRU.

A. All references have been removed.

2. Provide details from the City of Alachua Requirements for Design & Construction Manual.

A. All details are now shown from the City of Alachua Requirements for Design & Construction Manual.

EDA Engineering Review, Dated May 9, 2019

1. We recommend removing dead tree. *

The dead tree was shown as being removed on the Landscape Plan but we were waiting to make sure it was dead and designing around it.

2. What is the gray area around the building? *

The gray area is within the building and is the approximate footer area for the tilt up construction.

3. Show roll up door locations. *

Roll up door locations are labeled on the Site Plan.

4. Label rectangular boxes next to loading spaces

Rectangular boxes have been labeled although considering this is a speculative building they might be used for specific mechanical equipment instead

5. Add the radii to the driveways*

Radii were shown but additional radii have been added.

6. Add dimensions to the handicap parking spaces and access aisle. *

A typical dimension has been added but were shown on the handicap parking space detail on the detail sheet previously

7. Show the proposed sidewalk ramps. Label the ramps per FDOT index. *

The handicap ramps are shown and an FDOT Index is referenced as typical but due to this being a site plan it varies from the typical sidewalk ramp because of access to doors and such. The crossing from the rear of the parking area is not intended to be an accessible route it is just for convience and a ramp is not shown for that route at the sidewalk.

8. Why doesn't the one-way road have curbing? *

Curbing is not required by code and as this area could have large trucks I think curbing is a hindrance and can get broken up by the trucks hitting it.

9. The 12' x 12' dumpster area does not appear large enough to serve the entire building. *

The owner only wanted one dumpster and is considering the possibility of a compacter. The "Concurrency Analysis" states there will be 1840 lbs of garbage in a workweek. An 8 yd dumpster holds 1800 lbs of garbage and waste management has said it normally can handle 10% over that weight. Also the dumpster can be serviced twice a week if necessary, which is doubtful.

10. The handicap signs appear to be within the ramp. Relocate signs so as not to impede accessibility. *

In accordance with the ADA requirements a clear area of 38 inches is required on ramps and the signs still allow for 52" clear area so they are compliant with the code.

11. Add dimensions to the spillways. *

The scuppers were called out on the Stormwater plan as 30-inch scuppers all additional dimensions are provided on the detail. I would prefer to keep the site plan less cluttered to allow for the overall plan to be easy to read.

12. The driveways and buildings are not tied to anything dimensionally.

Layouts now are done electronically by surveyors and do not require excessive dimensioning. I did add additional dimensions for you but I do not believe they are necessary.

13. Show the storm and sanitary structures and provide information to tie them down in space.

I would prefer to keep the site plan less cluttered to allow for the overall plan to be easy to read. Layouts now are done electronically by surveyors and do not require excessive dimensioning. As I explained in the previous comments there is a coordinate problem with the survey that we will have to rectify with the layout surveyor. I also do not see this as a code requirement.

Sheet C-2

1. Add slopes and lengths to the sewer laterals*

Slopes and lengths have been added.

2. Ensure that the sewer laterals do not conflict with the storm. *

There are no conflicts.

3. 4" fire line seems small. *

I have determined with the mechanical engineer that it is sufficient. Especially considering a portion of the building will probably be chemically sprinkled.

4. We recommend the fire line be DIP*

The fire line has been changed to DIP

5. Label all water fittings

A water legend has been added for all fittings.

6. RPZ backflow preventer is not in the correct location. *

The BFP has been relocated along with the water system being modified for 12" water line.

7. At the point of connection why are you proposing a plug?

There has been confusion about what and where the water line is out there and how it is run but the City is saying now it is a 12" line that runs to the north and the plans have been modified to reflect the plans that were provided by the City.

Sheet C-4

1. Add spot grades to the outside of the doors. *

Spot grades have been shown at the entries but because this is a spec building these entry points may change but with the exception of the west end of the building the grades should be easily compliant with the accessibility requirements. The architect is aware that there would be difficulties on the far west end and does not believe that will be a problem.

2. Add existing driveway spot grades at edge of pavement. *

The spot grades where the driveways tie into the existing roads have been turned on.

Progress Center Property

Owner's Association

May 22, 2019

Allison Fetner
Fetner Engineering
364 N State Road 21
Hawthorne, FL 32640

Dear Allison,

The Board/Committee has reviewed the site plan you submitted for Innovation One and offer the following comments.

The reduction of the required 40' setback from Progress Boulevard to 32' has been approved.

Connection to the master stormwater system according to the specifications of the City of Alachua and the Suwannee River Water Management District is approved by the Progress Center Property Owners Association.

The proposed colors, finishes, architectural relief, transparency, height, impervious surface coverage, driveway locations, landscape plan and utility connections are acceptable.

The Association is in the process of developing a new wayfinding system and pedestrian safety enhancements. The goal is that there will be 5' sidewalks along the road right of ways to provide a continuous pedestrian walkway throughout the park. Sidewalks need to be added to your plan.

Given that the end user of this building has not been disclosed we request the owner to confirm that potential purchasers or tenants of the building comply with the list of acceptable businesses allowed in the Park.

This site plan is approved with the condition that sidewalks are added along both Progress Boulevard and Research Drive.

Thank you for complying with the ACC review/approval process of Progress Park.

Sincerely,

Sandy Burgess
CAM

Burgess Management Services, LLC
PO BOX 969
Alachua, FL 32616
(386) 418-1001 sandy@burgessms.com

Illicium floridanum Florida Anise Tree, Florida Anise¹

Edward F. Gilman²

Introduction

This rapidly growing, evergreen, Florida native shrub has olive green leaves and reddish-purple, starry, two-inch flowers (Fig. 1). The many slender branches of Florida anise droop to the ground, giving a rounded, open canopy in the shade, ideal for natural settings, or in sunny locations it can be pruned into dense hedges or windbreaks. The small, somewhat showy, maroon flowers appear in spring and are followed in late summer to fall by star-shaped, many-seeded pods which cling to the stems. The leaves of Florida anise give off a distinctive odor when bruised or crushed.

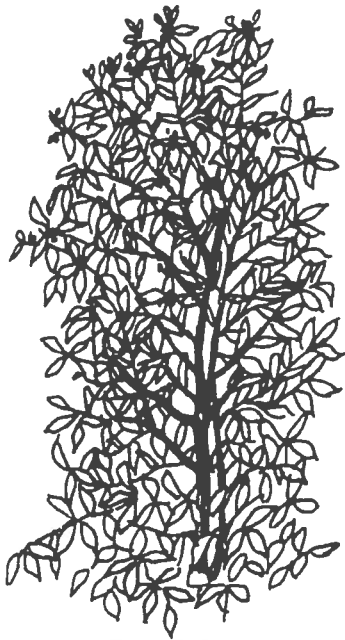


Figure 1. Florida anise tree

General Information

Scientific name: *Illicium floridanum*

Pronunciation: ill-LISS-see-um flor-rid-DAY-num

Common name(s): Florida anise tree, Florida anise

Family: Illiciaceae

Plant type: shrub

USDA hardiness zones: 8 through 10 (Fig. 2)

Planting month for zone 7: year round

Planting month for zone 8: year round

Planting month for zone 9: year round

Planting month for zone 10: year round

Origin: native to Florida

Uses: container or above-ground planter; hedge; espalier; screen; foundation; border

Availability: somewhat available, may have to go out of the region to find the plant



Figure 2. Shaded area represents potential planting range

1. This document is FPS-277, one of a series of the Environmental Horticulture Department, UF/IFAS Extension. Original publication date October 1999. Reviewed February 2014. Visit the EDIS website at <http://edis.ifas.ufl.edu>.

2. Edward F. Gilman, professor, Environmental Horticulture Department, UF/IFAS Extension, Gainesville, FL 32611.

Description

Height: 10 to 15 feet
Spread: 6 to 10 feet
Plant habit: oval
Plant density: dense
Growth rate: moderate
Texture: medium

Foliage

Leaf arrangement: alternate
Leaf type: simple
Leaf margin: undulate
Leaf shape: ovate
Leaf venation: none, or difficult to see
Leaf type and persistence: fragrant
Leaf blade length: 2 to 4 inches
Leaf color: green
Fall color: no fall color change
Fall characteristic: not showy

Flower

Flower color: red
Flower characteristic: spring flowering; unpleasant fragrance

Fruit

Fruit shape: irregular
Fruit length: .5 to 1 inch
Fruit cover: dry or hard
Fruit color: green
Fruit characteristic: inconspicuous and not showy

Trunk and Branches

Trunk/bark/branches: typically multi-trunked or clumping stems; can be trained to grow with a short, single trunk; not particularly showy
Current year stem/twig color: green
Current year stem/twig thickness: medium

Culture

Light requirement: plant grows in part shade/part sun
Soil tolerances: acidic; slightly alkaline; sand; loam; clay;
Drought tolerance: moderate
Soil salt tolerances: poor
Plant spacing: 36 to 60 inches

Other

Roots: sprouts from roots or lower trunk
Winter interest: no special winter interest
Outstanding plant: not particularly outstanding
Invasive potential: not known to be invasive
Pest resistance: no serious pests are normally seen on the plant

Use and Management

Florida anise grows well in sun or shade, but thins out in the shade. Florida anise appreciates rich soil and ample moisture but will easily survive harsher conditions. It is an easy-to-grow, pest-free shrub. Once established it will need watering only during long periods of drought and pruning once a year to maintain its shrub form. It can be pruned and trained into a small, multi-trunked or single-trunked tree.

The cultivar 'Album' has white flowers.

Propagation is by cuttings or layering.

Pests and Diseases

No pests or diseases are of major concern.



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

May 9, 2019

Alison Fetner, P.E.
Fetner Engineering
364 N. State Rd 21
Hawthorne, FL 32640

Also submitted electronically to fetnereng@aol.com

RE: Development Review Team (DRT) Summary for:
Innovation One (SP) April 29, 2019 Submittal

Dear Ms Fetner:

On April 29, 2019 the City of Alachua received your revised site plan application for the Innovation One project, which proposes the construction of a 30,000 square foot light industrial/ professional office building located on a 2.80 acre subject property (Parcel No. 03956-010-027). On March 21, 2019 the City of Alachua issued a conditional acceptance letter subject to the submittal of additional information. On April 2, 2019, the City of Alachua received this additional information. A Development Review Team (DRT) meeting was held on April 15, 2019 to discuss this application.

The application has been reviewed for compliance with the applicable review standards, including the City's Comprehensive Plan and Land Development Regulations (LDRs). Based upon Staff's review, revisions must be made to the application before it may be scheduled for a public hearing before the City's Planning & Zoning Board (PZB). Please address all insufficiencies outlined below in writing and provide an indication as to how they have been addressed by **5:00 PM on Thursday, June 6, 2019**. A total of four (4) copies of the complete application package (i.e., all application materials and attachments) and a FTP/ Cloud Ink or CD containing a PDF of all application materials must be provided by this date. Submission of an incomplete package may delay your tentative hearing at the Planning and Zoning Board. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the PZB. Please note that if Staff determines that the revised submission requires outside technical review by the City, your application may be delayed in order to allow for adequate review time.

Please address the following insufficiencies (begins on next page):

Deficiencies to be Addressed

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations.

B. Concurrency Impact Analysis

1. ITE Code 760 indicates AADT 11.26 trips per day per 1000 square feet gfa; unable to identify supplied generation rate of 8.11 for aadt.
2. ITE Code 760 indicates 1.11 PM peak trips per 1000 square feet gfa; unable to identify supplied generation rate of 1.01 trips for PM peak trips.

New Comment: Concurrency impact analysis references a rezoning application. Please revise.

C. Development Standards

1. Dimensional Standards:
 - a. Per the replat of Progress Center (PB P, Page 49), setbacks appear to be 30' front setback, 10' rear setback, 20' side setback, and 40' Progress Blvd setback. Please identify source of setbacks shown on site plan cover sheet. The Progress Center Covenants and Restrictions (OR B 1588 P 2207) provide a variance of up to 20% from setbacks if authorized by the Architectural Control Committee. (Article Seven, Section 2). Please provide variance authorization from Architectural Control Committee.
3. Section 6.2- Tree protection/landscape/xeriscape standards
 - g. Parking lot landscaping standards require 29 canopy trees. 26 are provided, but 3 tree credits can be used to meet requirement (6.2.2 (D)(2)(a)(iii)).

New Comment: Response states that "not adequate amount of trees" provided. Please review.

- m. Per Section 6.2.3 (C), service areas must be screened. Please identify service areas on landscape plan and demonstrate that standards have been met.

D. Fire Marshal/Public Services/Outside Engineering Review Comments

1. The applicant must address the comments provided by eda, Inc in a letter dated May 9, 2019 (attached to this memo).
2. The applicant must comply with all comments provided by the Public Services Department in a memo dated May 8, 2019 (attached to this memo).

E. Miscellaneous/General Issues

2. Please provide letter or other documentation that connecting to master stormwater system is acceptable to Progress Center Property Owner's Association (PCPOA).

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com. We look forward to receiving your revised application.

Sincerely,



Adam Hall, AICP
Planner

cc: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Project File



City of Alachua

ADAM BOUKARI
CITY MANAGER

RODOLFO VALLADARES, P.E.
PUBLIC SERVICES DIRECTOR

INTER-OFFICE COMMUNICATION

DATE: May 8th, 2019

TO: Kathy Winburn, AICP
Planning & Community Development Director

FROM: Tom Ridgik, P.E. *TR*
Public Services Engineering Supervisor

RE: Construction Plans – Innovation One at Progress Park

Public Services has reviewed the Innovation One at Progress Park (April 29th Submittal) Construction Plans and offer the following comments. Review was specific to the Public Services Utilities.

NO.	COMMENTS
1.	General Note. Reference <i>City of Alachua Requirements for Design and Construction for Potable Water, Reclaimed Water and Wastewater</i>. Requirements and details may be found on City website. Water Meter Assembly shall be in accordance with City standard details. Waste Water Service Lateral shall be in accordance with City standard details. [Approved as Noted] Comments for April 29th Submittal Approved.
2.	Cover Sheet This sheet indicates that GRU reviewed these documents on 10/2016. This is likely an artifact. The reviewer assumes that this should instead be the City of Alachua (COA). Please confirm and change. [Revise and Resubmit] Comments for April 29th Submittal Approved.

NO.	COMMENTS
3.	General Comment - Many legends and abbreviations are not defined. Suggest either preparing a stand-alone legend-and- abbreviations sheet or add legends and abbreviations on a sheet-by-sheet basis. - Examples include RCP, VCP, PVC, LJ, MII, water valves, R (for reclaim). [Submit response and applicable work products.] Comments for April 29th Submittal Approved.
4.	Sheet I, Survey Add sheet number and title to this sheet. [Approved as Noted] Comments for April 29th Submittal Approved.
5.	Sheet C-2, Utility Plan - A 4-inch lateral line (just below text “Terminus of 4-inch PVC fire protection line” appears to be missing a segment. Please add. - Add leader to text “4-inch PVC lateral (type)”. - Last page of report indicates that an on-site dumpster will be provided. Please call out this dumpster. - A 4-inch backflow preventer (BFP) is shown in the water line. Please add a detail for this BFP in detail sheet(s). - A segment of the 1-inch water line runs underneath the road. Is there any way to reroute it so its route under the road is minimized. - Please confirm that no electrical work is part of this project. [Revise and Resubmit] Comments for April 29th Submittal Approved.
6.	Sheet C-2, Utility Plan - Show easements for City maintained facilities. - Cleanouts (wastewater) and water meters are shown just south the proposed building. These components will need to be accessed by City staff once construction is complete. Locate City utilities (i.e. wastewater cleanout and water meter) within the Public Utility Easement (PUE). - The reviewer assumes this PUE is south of the “Northerly Right of Way Line- Research Drive”, Sheet S-1. Please confirm. - Locating these components in the PUE will require that pipe routing be changed for both water and wastewater. [Revise and Resubmit]

NO.	COMMENTS
	Comments for April 29th Submittal Approved
7.	Sheet C-3, Utility Details Details are based upon GRU details. Replace with COA details. [Revise and Resubmit] Comments for April 29th Submittal Approved.
8.	Report, Stormwater Basin The last page of the report indicates a stormwater basin will be constructed. Is this new stormwater basing part of this project? If so, the reviewer could not find it. [Submit response and any drawings requiring revision.] Comments for April 29th Submittal Approved.
9.	Report, Fire Flow Submit the calculations that show an effective area of 22,812 sf. (pg. 9) Submit calculations that show the needed fire flow attributed to construction (pg. 2) is 2174.9 gpm. [Approved as Noted] Comments for April 29th Submittal Approved.
10.	Report, NFPA Fire Flow Calculations • Calculations indicate that the required fire flow for the project is 625 gpm and available flow is 5966 gpm from 2 hydrants. • Please conduct and submit results of a field fire flow test on hydrants. [Approved as Noted] Comments for April 29th Submittal Approved.
11.	Previous Comments Sheet C-2, Utility Plan • Near text "Concrete Pad with Electric Transformer": An existing 8-inch water line is shown with a stub-out. City has reason to believe that this is not correct - this line actually extends north. • Please evaluate. [Submit response and Revise and Resubmit this Drawing.] Comments for April 29th Submittal Upon further review, the COA has confirmed that this water main (12-inch) does indeed exist.

NO.	COMMENTS
	Attached is the 1991 installation drawing of it as well as an above ground photo. Please update your drawing to show this 12-inch water main. Also, since the 8-inch stub-out for the water main does not appear to exist, the design Engineer might consider relocating the tap (for fire flow and water meters). Please contact COA if the design Engineer wants to discuss this issue in more detail. Harry Dillard/COA is a good resource. Revise and Resubmit
12.	General Note: Landscaping Trees shall not be planted within PUEs. Additionally, trees whose roots are known to cause root damage to public roadways, sidewalks, or other public works shall not be planted within 15 feet of a public utility. [Approved as Noted] Comments for April 29th Submittal Approved.
13	New Comment for April 29th Submittal Sheet C-2 Utility Plan, Fire Line and Ganged Water Meters As now shown there is one common RPZ backflow preventer for the fire line and ganged water meters. Please provide individual RPZ backflow preventers and isolation valves for the fire line and ganged water meters. For the ganged water meters, suggest using Detail 240 – please add to C-3. Revise and Resubmit
14	New Comment for April 29th Submittal Sheet C-2 Utility Plan, Cleanout for 8-inch gravity main. Please add a clean-out in the 8-inch gravity main. Locate near MH #1, but in the right-of-way. This will provide the COA with ready access to this cleanout. Revise and Resubmit
15	New Comment for April 29th Submittal, Electrically Related Cover Sheet: Suggest the following Site Note be Added. “9. Installed electrical work shall conform to the 2017 National Electric Safety Code (NESC), the City of Alachua Standards and all Local and State Ordinances.” Revise and Resubmit
16	New Comment for April 29th Submittal, Electrically Related C-2 Utility Plan: Suggest that the following notes be added with the leader pointing to the Transformer (TX): “Note 1: City of Alachua (COA) will furnish and install conduit and conductors from the source to the transformer; as well as the transformer and pad. All work performed by COA shall be reimbursed by the Contractor. Note 2: The Contractor shall provide all electric work “downstream” the transformer. Note 3: During construction, the Contractor shall submit building electrical load calculations, which will be used by the COA to determine the transformer size.” Revise and Resubmit

NO.	COMMENTS
17	New Comment for April 29th Submittal, Electrically Related C-2 Utility Plan: Show a Public Utility Easement around the transformer and around the conduit from the source to the transformer. Since the conduit from source is not shown, assume the conduit is routed north-south from the transformer to the right of way. Also, add the following note: “Note: Field adjust public utility easement so that it follows the installed conduit routing from the source to the transformer.” Revise and Resubmit
18	New Comment for April 29th Submittal, Electrically Related C-2 Utility Plan: For the circuit from the transformer TX to the building, please call out as “UGE”. Revise and Resubmit
19	
20	
END OF COMMENTS	

Please advise if you have any questions or require additional information.

cc: Justin Tabor – AICP Principal Planner

Adam Hall – AICP Planner

Tom Ridgik – Engineering Supervisor

Harry Dillard – Lead Engineering Technician

WATER TRANSMISSION SURVEY BASELINE DATA

BASELINE "B"
STATION 10+00 BEGIN
PI = 13+06.49 Δ = 90°00'00" RT.
PC = 14+06.49 Δ = 00°30'34" LT. (TO TANGENT)

CURVE DATA
Δ = 26°00'14" LT.
R = 2471.86
L = 1121.86'
T = 570.76'

PT = 25+28.35 Δ = 00°01'27" RT. (TO TANGENT)
PI = 26+78.36 Δ = 01°28'37" LT.
PI = 27+78.41 Δ = 88°36'07" LT.
PI = 28+40.84 Δ = 90°04'45" RT.
PC = 35+67.96 Δ = 00°00'00" (TO TANGENT)

CURVE DATA
Δ = 36°28'05" RT.
R = 2748.79
L = 1750.21'
T = 905.895'

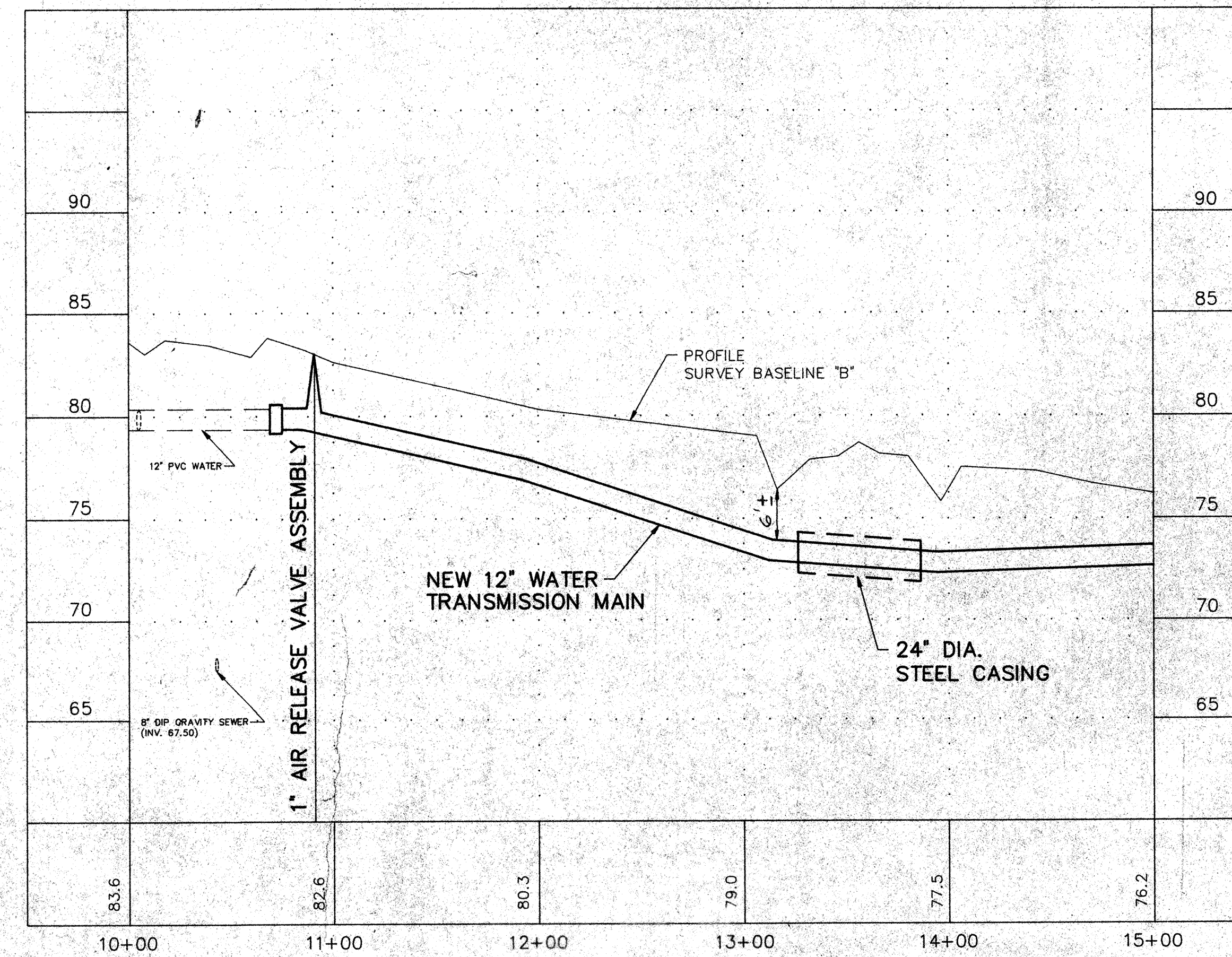
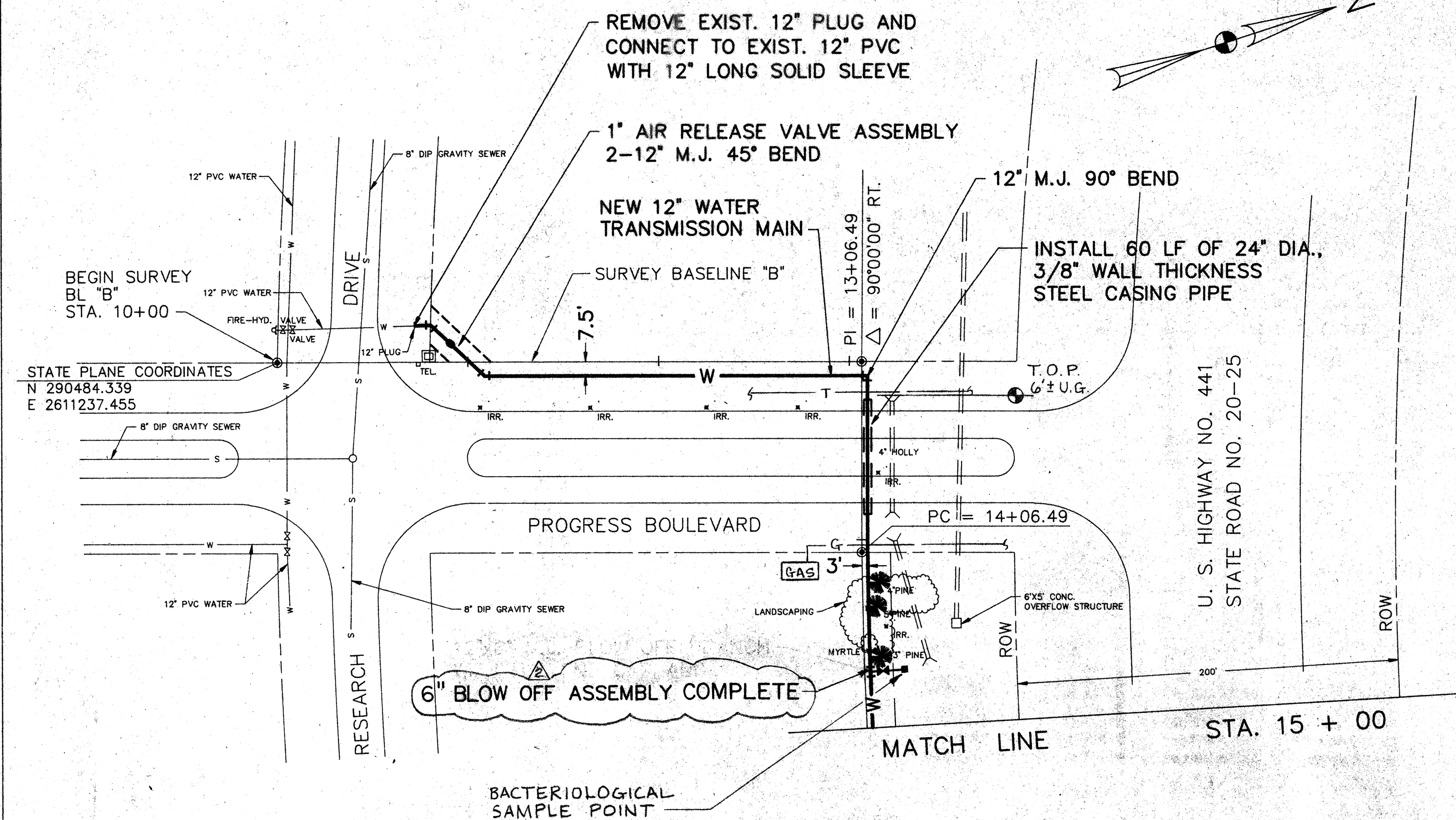
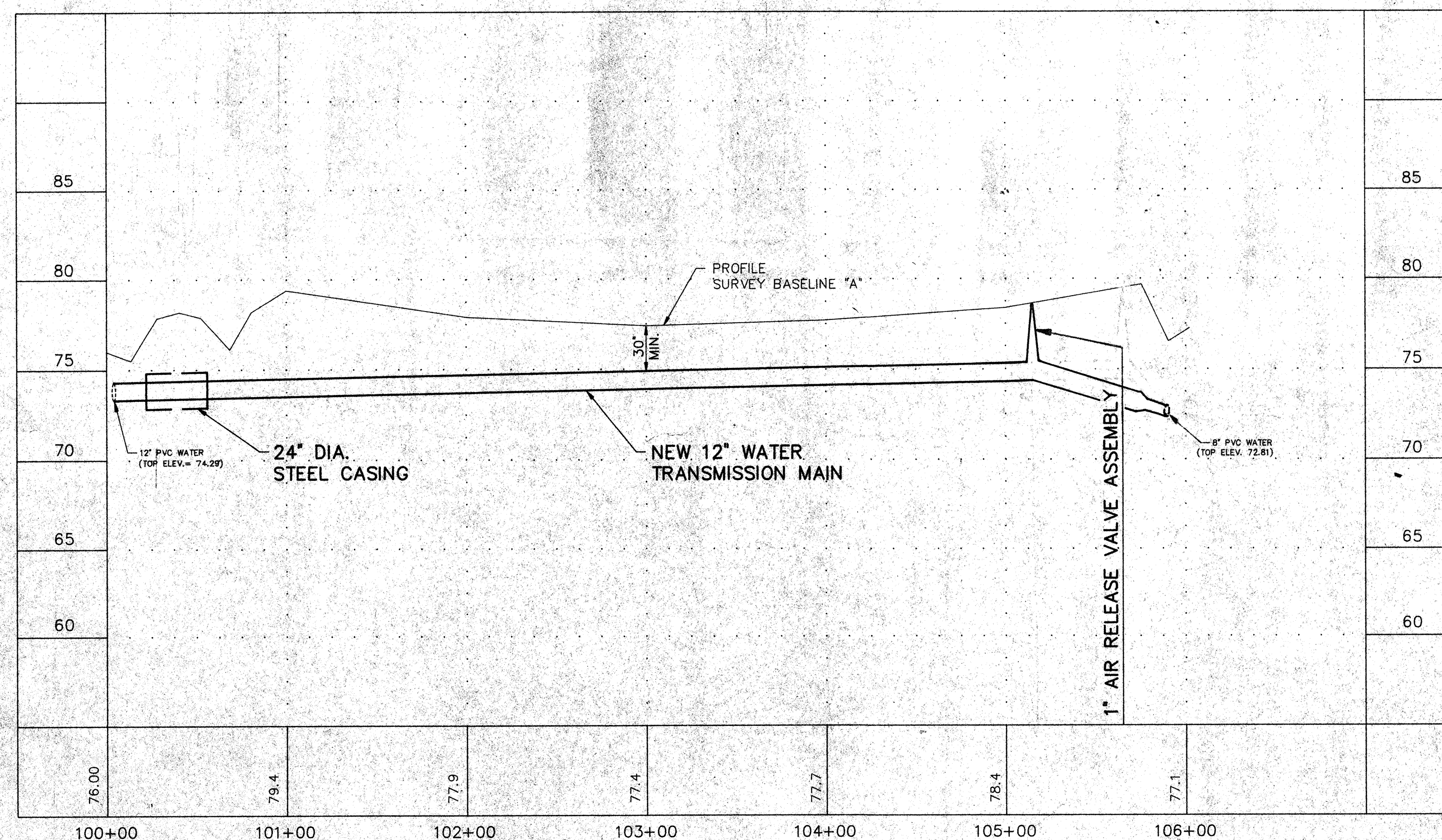
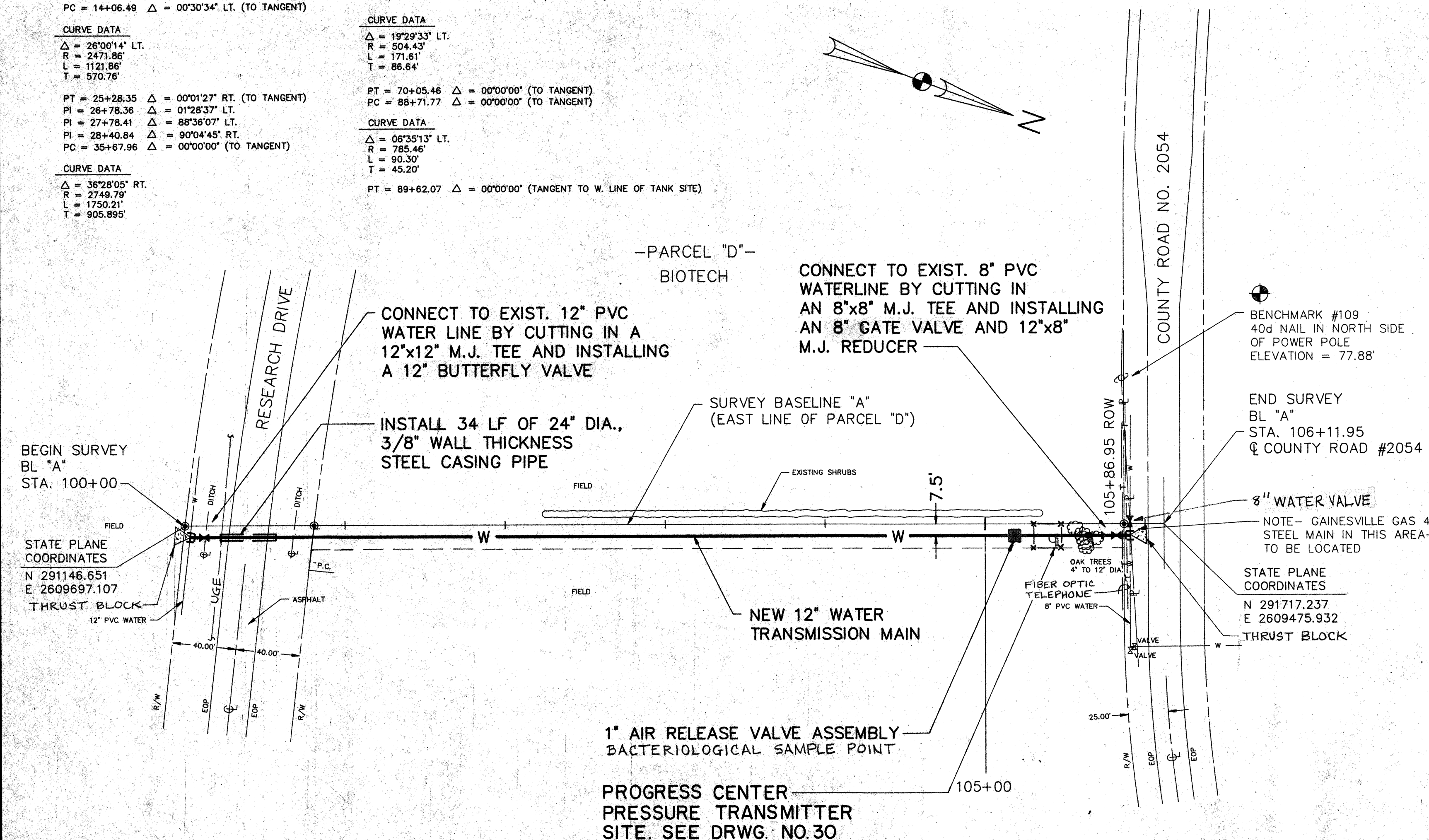
PT = 53+18.17 Δ = 00°01'45" LT. (TO TANGENT)
PI = 57+85.60 Δ = 00°02'00" RT.
PI = 62+41.26 Δ = 00°00'55" LT.
PC = 68+33.85 Δ = 88°17'46" RT. (TO TANGENT)

CURVE DATA
Δ = 19°29'33" LT.
R = 504.43
L = 171.61'
T = 86.64'

PT = 70+05.46 Δ = 00°00'00" (TO TANGENT)
PC = 88+71.77 Δ = 00°00'00" (TO TANGENT)

CURVE DATA
Δ = 06°35'13" LT.
R = 785.46
L = 60.30'
T = 45.20'

PT = 89+62.07 Δ = 00°00'00" (TANGENT TO W. LINE OF TANK SITE)



DATE	REVISIONS	MADE BY	DESIGNED BY
6-24-91	ADDENDUM A	RJG	ABP
5/92	RECORD DRAWING	DAR	

SMITH & GILLESPIE
ENGINEERS, INC.
JACKSONVILLE, FLORIDA

1991 WATER SYSTEM IMPROVEMENTS
ALACHUA, FLORIDA

PLAN & PROFILE OF TRANSMISSION MAIN
STA. 100+00 TO 106+11.95 (BL 'A')
STA. 10+00 TO 15+00 (BL 'B')

SCALE 1"=50'H./1"=5V'
DATE MAY 1991
FILE NO.
19

7610-079-01

PART "B"

12" Main



May 9, 2019

Mr. Adam Hall, AICP
Planner
City of Alachua
PO Box 9
Alachua, FL 32616



Re: Innovation One

Dear Mr. Hall,

Thank you for the opportunity to review the Innovation One Site Plan. Please find my comments below:

Comments:

Sheet C-1

1. We recommend removing the dead 15" Shumard oak located at the southern corner of the proposed building.
2. What is the gray shaded area around the building?
3. Show the roll up door locations in the back of the building.
4. Label the rectangular box next to the loading space.
5. Add the radii to the driveways.
6. Add dimensions to the handicap parking spaces and access aisles.
7. Show the proposed sidewalk ramps. Label the ramps per the applicable FDOT index.
8. Why doesn't the one-way road have curbing?
9. The 12'x12' dumpster area does not appear large enough to serve the entire building.
10. The handicap signs appear to be within the sidewalk ramp. Relocate the signs as needed to get them out of the sidewalk ramps as to not impede accessibility.
11. Add dimensions to the spillways in the landscape islands.
12. The driveways and building are not tied to anything. Add additional dimensional information to the plans to allow for constructability such as a dimension from the property corner to where the dimension to the building was taken from, etc.
13. Show the storm and sanitary structures and provide information to tie the structures down in space.

Sheet C-2

1. Add lengths and slopes to the sewer laterals.

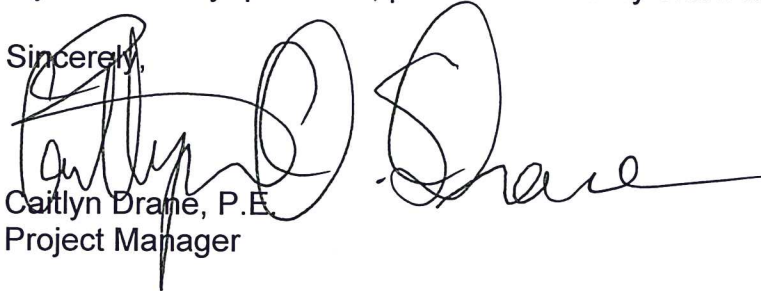
2. Ensure that the sewer laterals do not conflict with the proposed storm piping.
3. 4" fire line seems small. Ensure that the pipe size is adequate.
4. We recommend changing the fire line pipe material to DIP.
5. Label all of the water fittings. The proposed water line appears to have 45 degree bends in it to the water meters.
6. The RPZ backflow preventer is not in the correct location on the water line. The COA details show that the backflow preventer for the fire line is on the fire line and each water service should have its own individual backflow preventer.
7. At the point of connection to the existing water main, why are you proposing a tee with a plug? There is an existing water main on the eastern side of Progress Boulevard. I'd recommend using a 8" 90 degree bend with a 4" tapped cap instead of a reducer.

Sheet C-4

1. Add spot grades outside of the doors to show that the 5'x5' pads outside the doorways meet accessibility requirements.
2. Add spot grades at the proposed driveway locations to show how the proposed driveways tie to the existing roadway.

If you have any questions, please contact my office at 352-373-3541.

Sincerely,

A handwritten signature in black ink, appearing to read "Caitlyn Drane", written over a horizontal line.

Caitlyn Drane, P.E.
Project Manager

**Innovation One
Response to Comments
4-29-2019**



A. Comprehensive Plan Consistency

1. Policy 1.4.f.2 – Landscape buffering is based on proposed and adjacent uses, not on zoning designations. Buffering must meet requirements of the Land Development Regulations. Please revise response.

A. Response has been amended.

2. Policy 1.4.f.3- Response states that the subject property is 65 acres, please address.

A. Response has been amended this was an error.

3. Policy 1.4.f.4- Please identify location of new ponds referenced. Please identify location and zoning designation of stormwater DRA to be used if off site.

A. Response has been amended this was an error.

B. Concurrency Impact Analysis

1. ITE Code 760 indicates AADT 11.26 trips per day per 1000 square feet gfa; unable to identify supplied generation rate of 8.11 for aadt.

A. Response has been amended this was an error.

2. ITE Code 760 indicates 1.11 PM peak trips per 1000 square feet gfa; unable to identify supplied generation rate of 1.01 trips for PM peak trips.

A. Response has been amended this was an error.

C. Development Standards

1. Dimensional Standards:

- a. Per the replat of Progress Center (PB P, Page 49), setbacks appear to be 30' front setback, 10' rear setback, 20' side setback, and 40' Progress Blvd setback. Please identify source of setbacks shown on site plan cover sheet. The Progress Center Covenants and Restrictions (OR B 1588 P 2207) provide a variance of up to 20% from setbacks if authorized by the Architectural Control Committee. (Article Seven, Section 2). Please provide variance authorization from Architectural Control Committee.

A. A request to the committee has been submitted for the reduction to the setback. We should have a response this week, the majority of the members are located out of the area which take a little longer.

2. Section 6.1, Parking and Loading Standards

- a. Please verify parking space count. 94 spaces identified.

A. The Plans have been amended this was an error.

- b. Per Section 6.1.5 (C), two (2) off street loading spaces are required. Per Section 6.1.7 (B), these off street loading spaces must be a minimum of 12 feet by 30 feet with a minimum clear vertical dimension of 14'.

A. Two loading spaces meeting the requirements have been located along the back one way drive.

4. Section 6.2- Tree protection/landscape/xeriscape standards

- a. Two trees are required to mitigate for proposed removed trees. Mitigation trees not identified on landscape plan. One of the trees for mitigation can be used to meet other landscaping requirements (Section 6.2.1 (D) (4)).

A. A tree has been added near the front drive and one credit will be used for the other tree. See Credits Used Chart on Landscape Plan.

- b. Provide aerial or ground photographs of trees to be preserved and removed (Section 6.2.1 (G)).

A. An aerial has been provided.

- c. Landscape plan provided assumes a light industrial (research and development) use, which conflicts with cover sheet identification of project as professional office. Please address. Landscape plan must be revised if proposed use is professional offices.

A. The use will be research and development.

- d. Please provide more detail on how tree credits are being assigned for each individual landscape requirement.

A. See Credits Used Chart on Landscape Plan.

- e. Bicycle racks not shown in center main landscape island not displayed in Landscape Plan.

A. All bike racks are now shown on the Landscape Plan.

- f. Site landscaping standards for east side of site require 3 additional understory trees. Two available tree credits, may be utilized to partial meet this requirement; **leaving 1 understory tree required on the east side of the subject property** (Section 6.2.2 (D) (1) (d)).

A. Two understory trees have been added along the east side and one tree credit used.

- g. Parking lot landscaping standards require 29 canopy trees. 26 are provided, but 3 tree credits can be used to meet requirement (6.2.2 (D)(2)(a)(iii)).

A. The parking lot square footage has been reduced now requiring less trees but the amount of trees was not reduced so there is not adequate number of trees.

- h. Along drive aisle south of proposed building, 12 canopy trees required, up to 9 credits can be used to meet standard leaving 3 required. Two canopy trees provided, **leaving 1 canopy tree required along drive aisle south of proposed building** (Section 6.2.2(D)(2)(b)).

A. One canopy tree was added to the south side and 9 tree credits were used.

i. No perimeter buffer table identified.

A. A perimeter buffer is now shown on the Landscape Plan.

j. Five understory trees required along east property perimeter. Four credits can be used, **leaving 1 understory tree required along eastern property perimeter** (Section 6.2.2 (D)(3)).

A. One understory trees have been added along the east perimeter and four tree credit used.

k. Provide preliminary irrigation plan (Section 6.2.2 (D)(7)).

A. Preliminary irrigation piping is shown on the Landscape Plan with the associated notes.

l. Provide detail of dumpster enclosure (Section 6.2.3(E)).

A. Please see detail sheet for dumpster enclosure details

m. Per Section 6.2.3 (C), service areas must be screened. Please identify service areas on landscape plan and demonstrate that standards have been met.

A. There will be no service areas proposed.

n. Provide location and screening method for mechanical equipment (Section 6.2.3(D)).

A. Mechanical equipment area is shown and specified to be enclosed in a 4' fence. See Site Plan.

o. In order to meet the arterial screening requirements found in Section 6.2.3 (E), 2 additional canopy trees, 2 additional understory trees, and the extension of the row of shrubs along the right-of-way are required.

5. Section 6.4- Exterior lighting Standards

a. Maximum fc for parking lot areas exceed maximum of 5fc in several locations. Please address.

b. Provide illumination levels at property line to ensure no spillover.

c. Provide confirmation that proposed pole lighting has full cut off lenses or hoods.

A. A revised lighting plan is being submitted.

6. Section 6.8 – Design Standards for business uses

a. Please address conflict between architectural plans and civil plans with regards to rear loading “pushout” area that includes roll up bay doors.

A. The floor plans have now been coordinated.

- b. Please clarify if green eyebrows on rear (south) façade are 12" pilasters similar to those on the front (north) façade.

A. See attached revised elevations.

D. Fire Marshal/Public Services/Outside Engineering Review Comments

1. The applicant must address the comments provided by eda, Inc in a letter dated April 10, 2019 (attached to this memo).
2. The applicant must comply with all comments provided by the Public Services Department in a memo dated April 10, 2019 (attached to this memo).

A. See attached responses to EDA and Public Services.

E. Miscellaneous/General Issues

1. Please complete Countywide Wetland Protection Code Self-Certification Form and submit to Alachua County Environmental Protection Department

A. This has been provided to the City by the County.

2. Please provide letter or other documentation that connecting to master stormwater

A. A request to the committee has been submitted for the connection to the stormwater system. We should have a response this week, the majority of the members are located out of the area which take a little longer.

EDA Engineer Review

1. Provide tree barricades.

A. tree barricades are now shown on the site plan sheet

2. Where does the sidewalk in center island go?

A. The sidewalk is a convenience of the people parked in the rear of the parking lot. A crosswalk has been added across the drive lane.

3. Provide ramps on center sidewalk.

A. Ramps have been provided see drainage plan.

4. Revise loading space size.

A. Loading spaces are shown as 12' x 30' and 2 are provided.

5. Review labeling of center island.

A. The dimensions shown are inside to inside of curb and outside to outside of curb.

6. Will future be constructed with the parking lot?

A. No the stubout will not be paved because the exact location could change and grades will most likely be changed.

7. Provide a curb transition for the back drive.

A. Curb transitions were shown on the Drainage Plan.

8. The southern drive does not meet width requirements.

A. The southern drive has been modified to a one way drive that is 12' wide in accordance with the code.

9. Provide dimensions for the dumpster

A. The dimensions are shown on the site Plan and on the dumpster detail.

10. Provide northing and eastings for constructability

A. There is a autocad conflict in the coordinates therefore the layout surveyor will determine layout coordinates.

11. Provide silt fence on site plan.

A. silt fence is now shown on the site plan as well as other sheets.

Sheet C-2

1. Review water fittings for the 1" water service.

A. The water services have been re-worked and now will be constructed based on the number and type of uses in the building. The City of Alachua details have been provided on the detail sheet.

2. Provide inverts for the sanitary sewer cleanouts.

A. The invert was shown as typical for all cleanouts but we have added them tot every cleanout.

3. Provide a minimum of 3' separation between storm and water.

A. The water services have been re-worked and water is not near the stormwater piping or inlets.

4. Show electric service to the building.

A. Electric service is shown to the building.

Sheet C-3

1. Remove all references to GRU.

A. All references have been removed.

2. Provide details from the City of Alachua Requirements for Design & Construction Manual.

A. All details are now shown from the City of Alachua Requirements for Design & Construction Manual.

Public Services:

1. Reference *the* City of Alachua Requirements for Design & Construction Manual.

A. The cover sheet and the utility detail sheet reference the City of Alachua Requirements for Design & Construction Manual.

2. The cover sheet indicates that GRU reviewed these documents.

A. The reference to GRU has been deleted.

3. Provide a legend for abbreviations.

A. A legend has been added to the storm and utility sheets. Additional information is provided on the survey.

4. **Sheet 1 Survey.** Add sheet number and title to this sheet.

A. We did not generate this sheet and therefore cannot legally make any changes to the sheet.

5. Sheet C-2 Utility Plan.

The 4" lateral line seems to be missing a segment

A. The water layout has been changed so please see revised water layout.

Add leader to text "4" PVC Lateral"

A. The water layout has been changed so please see revised water layout.
Last page of report indicates and on site dumpster please label

A. Dumpster is labeled see site plan.

A 4" backflow preventer is shown. Please show detail.

A. Please see Sheet C-3 for detail

A 4" water line runs under the road can it be relocated.

A. The water layout has been changed so please see revised water layout.

Please confirm that there is not electrical work in this part of the project.

A. Electric is shown on the utility plan

6. Sheet C-2, Utility Plan

Show Easements for City maintained facilities

A. There are not any City maintained facilities. End of City maintenance is shown on the Utility plan.

Cleanouts and water meters are shown by the building.

A. The water meters have been moved into the public right of way and the sewer maintenance will end at the right of way. Please see Utility Plan.

7. Sheet C-3 Utility Details

Details are based on GRU details replace with COA details.

A. All details shown on the Utility details are from the City of Alachua Requirements for Design & Construction Manual.

8. Report, Stormwater Basin

The last page of the report indicates a stormwater basin will be constructed.

A. The was in error not basin will be constructed as the project is within a master stormwater system for the development.

9. Report, Fire Flow

Calculations show an effective area of 22,812 sf show calculation.

A. That was an input error and the effective area is 30,676 sf the same as the entire building and has been corrected.

10. Report, NFPA Fire Flow Calculations

Please conduct and submit results of fire flow tests on hydrants.

A. Fire flow results were previously submitted and will be again with this submittal.

11. Sheet C-2, Utility Plan

The City has reason to believe there is an 8 inch water line going on the west side of Research Blvd. Please evaluate.

A. When the survey was completed the surveyor coordinated with the City and did field investigations and it was determined there was not a water line there.

12. General Note: Landscaping

Trees shall not be planted in PUE's. Large trees shall be planted a min. of 15 feet from all public infrastructure.

A. All canopy trees were shown to be a minimum of 15 feet from all utilities .

City of Alachua

Development Review Team (DRT) Meeting

Project Name: Innovation One Site Plan

Meeting Date: April 15, 2019 (Applicant)

PLEASE PRINT CLEARLY

[illegible]



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

April 11, 2019

Alison Fetner, P.E.
Fetner Engineering
364 N. State Rd 21
Hawthorne, FL 32640

Also submitted electronically to fetnereng@aol.com

RE: Development Review Team (DRT) Summary for:
Innovation One (SP)

Dear Ms Fetner:

On March 19, 2019 the City of Alachua received your site plan application for the Innovation One project, which proposes the construction of a 30,000 square foot light industrial/ professional office building located on a 2.80 acre subject property (Parcel No. 03956-010-027). On March 21, 2019 the City of Alachua issued a conditional acceptance letter subject to the submittal of additional information. On April 2, 2019, the City of Alachua received this additional information. On April 11, 2019, the City of Alachua Development Review Team met to discuss the application. A Development Review Team meeting has been scheduled for **Monday, April 15, 2019**, if you wish to discuss the comments made below. If you believe that this meeting is not necessary, please inform us as soon as possible.

The application has been reviewed for compliance with the applicable review standards, including the City's Comprehensive Plan and Land Development Regulations (LDRs). Based upon Staff's review, revisions must be made to the application before it may be scheduled for a public hearing before the City's Planning & Zoning Board (PZB). Please address all insufficiencies outlined below in writing and provide an indication as to how they have been addressed by **5:00 PM on Monday, April 29, 2019**. A total of four (4) copies of the complete application package (i.e., all application materials and attachments) and a FTP/ Cloud Ink or CD containing a PDF of all application materials must be provided by this date. Submission of an incomplete package may delay your tentative hearing at the Planning and Zoning Board. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the PZB. Please note that if Staff determines that the revised submission requires outside technical review by the City, your application may be delayed in order to allow for adequate review time.

Please address the following insufficiencies (begins on next page):

Deficiencies to be Addressed

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations.

A. Comprehensive Plan Consistency

1. Policy 1.4.f.2 – Landscape buffering is based on proposed and adjacent uses, not on zoning designations. Buffering must meet requirements of the Land Development Regulations. Please revise response.
2. Policy 1.4.f.3- Response states that the subject property is 65 acres, please address.
3. Policy 1.4.f.4- Please identify location of new ponds referenced. Please identify location and zoning designation of stormwater DRA to be used if off site.

B. Concurrency Impact Analysis

1. ITE Code 760 indicates AADT 11.26 trips per day per 1000 square feet gfa; unable to identify supplied generation rate of 8.11 for aadt.
2. ITE Code 760 indicates 1.11 PM peak trips per 1000 square feet gfa; unable to identify supplied generation rate of 1.01 trips for PM peak trips.

C. Development Standards

1. Dimensional Standards:
 - a. Per the replat of Progress Center (PB P, Page 49), setbacks appear to be 30' front setback, 10' rear setback, 20' side setback, and 40' Progress Blvd setback. Please identify source of setbacks shown on site plan cover sheet. The Progress Center Covenants and Restrictions (OR B 1588 P 2207) provide a variance of up to 20% from setbacks if authorized by the Architectural Control Committee. (Article Seven, Section 2). Please provide variance authorization from Architectural Control Committee.
2. Section 6.1, Parking and Loading Standards
 - a. Please verify parking space count. 94 spaces identified.
 - b. Per Section 6.1.5 (C), two (2) off street loading spaces are required. Per Section 6.1.7 (B), these off street loading spaces must be a minimum of 12 feet by 30 feet with a minimum clear vertical dimension of 14'.
3. Section 6.2- Tree protection/landscape/xeriscape standards
 - a. Two trees are required to mitigate for proposed removed trees. Mitigation trees not identified on landscape plan. One of the trees for mitigation can be used to meet other landscaping requirements (Section 6.2.1 (D) (4)).
 - b. Provide aerial or ground photographs of trees to be preserved and removed (Section 6.2.1 (G)).
 - c. Landscape plan provided assumes a light industrial (research and development) use, which conflicts with cover sheet identification of project as professional office. Please address. Landscape plan must be revised if proposed use is professional offices.
 - d. Please provide more detail on how tree credits are being assigned for each individual landscape requirement.
 - e. Bicycle racks not shown in center main landscape island not displayed in landscape plan.

- f. Site landscaping standards for east side of site require 3 additional understory trees. Two available tree credits, may be utilized to partial meet this requirement; **leaving 1 understory tree required on the east side of the subject property** (Section 6.2.2 (D) (1) (d)).
- g. Parking lot landscaping standards require 29 canopy trees. 26 are provided, but 3 tree credits can be used to meet requirement (6.2.2 (D)(2)(a)(iii)).
- h. Along drive aisle south of proposed building, 12 canopy trees required, up to 9 credits can be used to meet standard leaving 3 required. Two canopy trees provided, **leaving 1 canopy tree required along drive aisle south of proposed building** (Section 6.2.2(D)(2)(b)).
- i. No perimeter buffer table identified.
- j. Five understory trees required along east property perimeter. Four credits can be used, **leaving 1 understory tree required along eastern property perimeter** (Section 6.2.2 (D)(3)).
- k. Provide preliminary irrigation plan (Section 6.2.2 (D)(7)).
- l. Provide detail of dumpster enclose (Section 6.2.3(E)).
- m. Per Section 6.2.3 (C), service areas must be screened. Please identify service areas on landscape plan and demonstrate that standards have been met.
- n. Provide location and screening method for mechanical equipment (Section 6.2.3(D)).
- o. In order to meet the arterial screening requirements found in Section 6.2.3 (E), 2 additional canopy trees, 2 additional understory trees, and the extension of the row of shrubs along the right-of-way are required.
- 4. Section 6.4- Exterior lighting Standards
 - a. Maximum fc for parking lot areas exceed maximum of 5fc in several locations. Please address.
 - b. Provide illumination levels at property line to ensure no spillover.
 - c. Provide confirmation that proposed pole lighting has full cut off lenses or hoods.
- 5. Section 6.8 – Design Standards for business uses
 - a. Please address conflict between architectural plans and civil plans with regards to rear loading “pushout” area that includes roll up bay doors.
 - b. Please clarify if green eyebrows on rear (south) façade are 12” pilasters similar to those on the front (north) façade.

D. Fire Marshal/Public Services/Outside Engineering Review Comments

- 1. The applicant must address the comments provided by eda, Inc in a letter dated April 10, 2019 (attached to this memo).
- 2. The applicant must comply with all comments provided by the Public Services Department in a memo dated April 10, 2019 (attached to this memo).

E. Miscellaneous/General Issues

- 1. Please complete Countywide Wetland Protection Code Self-Certification Form and submit to Alachua County Environmental Protection Department (please contact Alachua County EPD directly should you have any questions regarding this form). This form can be completed at:
<http://alachuacounty.us/Depts/epd/Pages/WetlandsProtection.aspx>.

2. Please provide letter or other documentation that connecting to master stormwater system is acceptable to Progress Center Property Owner's Association (PCPOA).

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com. We look forward to receiving your revised application.

Sincerely,



Adam Hall, AICP
Planner

cc: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Project File

April 10, 2019

Mr. Adam Hall, AICP
Planner
City of Alachua
PO Box 9
Alachua, FL 32616



Re: Innovation One

Dear Mr. Hall,

Thank you for the opportunity to review the Innovation One Site Plan. Please find my comments below:

Comments:

Sheet C-1

1. Provide tree barricades to protect trees to be saved.
2. Where does the sidewalk in the center island go? Provide somewhere for the pedestrian to go from the building if they utilize the center sidewalk.
3. Provide ramps for the center sidewalk to provide accessibility.
4. Revise the loading space size. Per Sec. 6.1.5, loading spaces are 12-ft by 30-ft.
5. Review the labeling for the center landscape island width. One label says 7-ft and another says 8-ft.
6. Will the future drive be constructed with the parking lot? If yes, show the asphalt and include in the impervious area calculations.
7. Provide a curb transition for the back drive from where curb is provided to where curb is not.
8. The southern drive aisle does not meet width requirements as required by Table 6.1-3.
9. Provide dimensions for the dumpster enclosure.
10. Provide northing and eastings for constructability.
11. Provide silt fence to prevent silt from leaving the project site during construction.

Sheet C-2

1. Review the fittings selected for the 1" water service. We recommend using a service saddle with a corporation stop.
2. Provide inverts for the sanitary sewer cleanouts.

3. Provide a minimum Of 3-ft separation between storm and potable water to meet utility separation requirements listed in the City of Alachua *Requirements for Design & Construction* manual.
4. Show the electric service to the building.

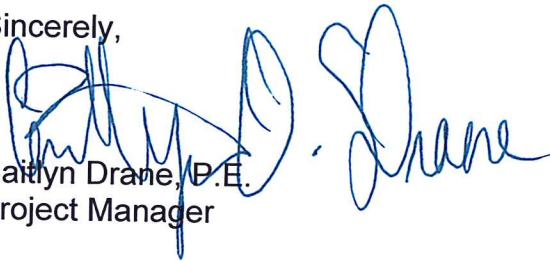
Sheet C-3

1. Remove all references to GRU.
2. Provide details consistent with the City of Alachua *Requirements for Design & Construction* manual.

If you have any questions, please contact my office at 352-373-3541.

Sincerely,

Caitlyn Drane, P.E.
Project Manager





City of Alachua

ADAM BOUKARI
CITY MANAGER

RODOLFO VALLADARES, P.E.
PUBLIC SERVICES DIRECTOR

INTER-OFFICE COMMUNICATION

DATE: April 10, 2019

TO: Kathy Winburn, AICP
Planning & Community Development Director

FROM: Rodolfo Valladares, P.E. *RSV*
Public Services Director
Tom Ridgik, P.E.
Engineering Supervisor

RE: Construction Plans – Innovation One at Progress Park

Public Services has reviewed the Innovation One at Progress Park (March 19th Submittal) Construction Plans and offer the following comments. Review was specific to the Public Services Utilities.

NO.	COMMENTS
1.	General Note. Reference <i>City of Alachua Requirements for Design and Construction for Potable Water, Reclaimed Water and Wastewater</i>. Requirements and details may be found on City website. Water Meter Assembly shall be in accordance with City standard details. Waste Water Service Lateral shall be in accordance with City standard details. [Approved as Noted]
2.	Cover Sheet This sheet indicates that GRU reviewed these documents on 10/2016. This is likely an artifact. The reviewer assumes that this should instead be the City of Alachua (COA). Please confirm and change. [Revise and Resubmit]
3.	General Comment - Many legends and abbreviations are not defined. Suggest either preparing a stand-alone legends-and- abbreviations sheet or add legends and abbreviations on a sheet-by-sheet basis. - Examples include RCP, VCP, PVC, LF, MH, water valves, R (for reclaim). [Submit response and applicable work products.]

NO.	COMMENTS
4.	Sheet 1, Survey Add sheet number and title to this sheet. [Approved as Noted]
5.	Sheet C-2, Utility Plan • A 4-inch lateral line (just below text "Terminus of 4-inch PVC fire protection line" appears to be missing a segment. Please add. • Add leader to text "4-inch PVC lateral (type)". • Last page of report indicates that an on-site dumpster will be provided. Please call out this dumpster. • A 4-inch backflow preventer (BFP) is shown in the water line. Please add a detail for this BFP in detail sheet(s). • A segment of the 1-inch water line runs underneath the road. Is there any way to reroute it so its route under the road is minimized. • Please confirm that no electrical work is part of this project. [Revise and Resubmit]
6.	Sheet C-2, Utility Plan • Show easements for City maintained facilities. • Cleanouts (wastewater) and water meters are shown just south the proposed building. These components will need to be accessed by City staff once construction is complete. Locate City utilities (i.e. wastewater cleanout and watermeter) within the Public Utility Easement (PUE). • The reviewer assumes this PUE is south of the "Northerly Right of Way Line- Research Drive", Sheet S-1. Please confirm. • Locating these components in the PUE will require that pipe routing be changed for both water and wastewater. [Revise and Resubmit]
7.	Sheet C3, Utility Details Details are based upon GRU details. Replace with COA details. [Revise and Resubmit]
8.	Report, Stormwater Basin The last page of the report indicates a stormwater basin will be constructed. Is this new stormwater basing part of this project? If so, the reviewer could not find it. [Submit response and any drawings requiring revision.]
9.	Report, Fire Flow Submit the calculations that show an effective area of 22,812 sf. (pg. 9) Submit calculations that show the needed fire flow attributed to construction (pg. 2) is 2174.9 gpm. [Approved as Noted]

NO.	COMMENTS
10.	Report, NFPA Fire Flow Calculations - Calculations indicate that the required fire flow for the project is 625 gpm and available flow is 5966 gpm from 2 hydrants. - Please conduct and submit results of a field fire flow test on hydrants. [Approved as Noted]
11.	Sheet C-2, Utility Plan - Near text "Concrete Pad with Electric Transformer": An existing 8-inch water line is shown with a stub-out. City has reason to believe that this is not correct - this line actually extends north. Please evaluate. [Submit response and Revise and Resubmit this Drawing.]
12.	General Note: Landscaping Trees shall not be planted within PUEs. Additionally, trees whose roots are known to cause root damage to public roadways, sidewalks, or other public works shall not be planted within 15 feet of a public utility. [Approved as Noted]
END OF COMMENTS	

Please advise if you have any questions or require additional information.

cc: Justin Tabor – AICP Principal Planner

Adam Hall – AICP Planner

Tom Ridgik – Engineering Supervisor

Harry Dillard – Lead Engineering Technician



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

March 21, 2019

Alison Fetner, P.E.
Fetner Engineering
364 N. State Rd 21
Hawthorne, FL 32640

Also submitted electronically to fetnereng@aol.com

RE: Conditional Application Acceptance for Innovation One Site Plan – Parcel No. 03956-010-027

Dear Ms Fetner:

On March 19, 2019 the City of Alachua received your site plan application for the Innovation One project, which proposes the construction of a 30,000 square foot light industrial/ professional office building located on a 2.80 acre subject property (Parcel No. 03956-010-027).

According to Section 2.2.6 of the Land Development Regulations (LDRs), upon receipt of an application, a completeness review shall be conducted to determine that the application contains all the necessary information and materials, is in proper form and of sufficient detail, and is accompanied by the appropriate fee. The Planning Department has reviewed the aforementioned application for completeness and finds that the application is complete, conditional upon submission of certain information found below. This information must be submitted not later than 5 PM on April 4, 2019.

Please note, the comments below are based solely on a preliminary review of your application for completeness. The contents of the applications **have not** been thoroughly reviewed. An in-depth review of the content of the application will be performed subsequently and any further issues with content will be provided to you at the Development Review Team meeting, which will be scheduled separately from this letter.

Please address the following:

1. Statement of Uses
 - a. Statement of Uses indicates two uses: light industrial (research and development) and professional office (office). Please provide an approximation of the amount of square footage that will comprise each use.
2. Photometric Plan
 - a. Please provide photometric plan that includes cut sheets of any proposed lighting.

3. Mailing Labels

- a. Submitted labels appear to have had slight misprinting error. Please provide updated mailing labels for both property owners within 400' and those persons and organizations registered with the City to be notified.

Should you have any questions, please feel free to contact me at (386) 418-6100, ext. 108 or via email at ahall@cityofalachua.com.

Sincerely,



Adam Hall, AICP
Planner

c: Kathy Winburn, AICP, Planning Director
Justin Tabor, AICP, Principal Planner
File

INNOVATION ONE
PROGRESS CENTER

ATTACHMENTS

JUNE 2019



City of
ALACHUA

THE GOOD LIFE COMMUNITY

FOR PLANNING USE ONLY

Case #: _____
Application Fee: \$ _____
Filing Date: _____
Acceptance Date: _____
Review Type: P&Z

Site Plan Application

Reference City of Alachua Land Development Regulations Article 2.4.9

A. PROJECT

1. Project Name: Innovation One at Progress Park
2. Address of Subject Property: 14192 NW US 441
3. Parcel ID Number(s): 03956-010-027
4. Existing Use of Property: Vacant
5. Future Land Use Map Designation: IND
6. Zoning Designation: PUD
7. Acreage: 2.8 ac

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ☒ Agent
2. Name of Applicant(s) or Contact Person(s): Alison Fetner Title: Engineer
Company (if applicable): Fetner Engineering
Mailing address: 364 N. State Rd 21
City: Hawthorne State: FL ZIP: 32640
Telephone: 352-281-9109 FAX: _____ e-mail: fetnereng@aol.com
3. If the applicant is agent for the property owner*:
Name of Owner (title holder): Shoppes at Progress Center, LLC
Mailing Address: 3600 NW 43rd St. Ste E-2
City: Gainesville State: FL ZIP: 32606

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property? ☐ Yes ☒ No
If yes, list names of all parties involved: _____
If yes, is the contract/option contingent or absolute? ☐ Contingent ☐ Absolute

D. ATTACHMENTS

1. Site Plan including but not limited to:
 - a. Name, location, owner, and designer of the proposed development.
 - b. Zoning of the subject property.
 - c. Vicinity map - indicating general location of the site and all abutting streets and properties.
 - d. Complete legal description.
 - e. Statement of Proposed Uses.
 - f. Location of the site in relation to adjacent properties, including the means of ingress and egress to such properties and any screening or buffers along adjacent properties.
 - g. Date, north arrow, and graphic scale (not to exceed one (1) inch equal to fifty (50) feet.)
 - h. Area and dimensions of site.
 - i. Location of all property lines, existing right-of-way approaches, sidewalks, curbs, and gutters.
 - j. Access and points of connection to utilities (electric, potable water, sanitary sewer, gas, etc.)
 - k. Location and dimensions of all existing and proposed parking areas and loading areas.
 - l. Location, size, and design of proposed landscaped areas (including existing trees and required landscaped buffer areas) with detail illustrating compliance with Section 6.2.2 of the Land Development Regulations.

City of Alachua ♦ Planning and Community Development Department
PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121

Revised 9/30/2014

Page 1 of 4

- m. Location and size of any lakes, ponds, canals, or other waters and waterways.
- n. Structures and major features — fully dimensioned — including setbacks, distances between structures, floor area, width of driveways, parking spaces, property or lot lines, and floor area ratio.
- o. Location of waste receptacles and detail of waste receptacle screening.
- p. For development consisting of a nonresidential use, except for single tenant retail sales and services uses greater than or equal to 20,000 square feet in area and except for use types within the industrial services, manufacturing and production, warehouse freight and movement, waste-related services, and wholesale sales use categories:
 - i. Architectural plans and dimension plans which demonstrate compliance with the design standards for business uses as provided in Section 6.8.2 of the LDRs, including:
 - (a) Calculation of glazing of the front façade.
 - (b) Calculation of the area of ground floor façades subject to glazing.
 - (c) Detail on the architectural plans and dimension plans depicting façade massing and/or alternatives to required façade massing.
 - (d) Sufficient plan detail and calculations of each material utilized in each façade.
- q. For development consisting of a nonresidential use where a single tenant is greater than or equal to 20,000 square feet in area:
 - i. Architectural plans and dimension plans which demonstrate compliance with the design standards for single tenant retail sales and service uses greater than or equal to 20,000 square feet in area as provided in Section 6.8.3 of the LDRs, including:
 - (a) Calculation of glazing of the façades facing streets, residential uses, and vacant residential/agricultural land.
 - (b) Calculation of the area of ground floor façades subject to glazing.
 - (c) If glazing alternatives are used, calculation of area of alternative materials used.
 - (d) Detail on the architectural plans and dimension plans depicting façade massing and/or alternatives to required façade massing.
 - (e) Color architectural plans depicting the color of all materials used in the façade.
- r. For development consisting of one or more of the following: Multi-family residential; Hotel; or Mobile Home Park:
 - i. Tabulation of gross acreage.
 - ii. Tabulation of density.
 - iii. Number of dwelling units proposed.
 - iv. Location and percent of total open space and recreation areas.
 - v. Floor area of dwelling units.
 - vi. Number of proposed parking spaces.
 - vii. Street layout.
 - viii. Layout of mobile home stands (for mobile home parks only).
 - ix. City of Alachua Public School Student Generation Form.

Sheet Size: 24" X 36" with 3" left margin and ½" top, bottom, and right margins

- 2. Stormwater management plan - including the following:
 - a. Existing contours at one (1) foot intervals based on U.S. Coastal and Geodetic Datum.
 - b. Proposed finished floor elevation of each building site.
 - c. Existing and proposed stormwater management facilities with size and grades.
 - d. Proposed orderly disposal of surface water runoff.
 - e. Centerline elevations along adjacent streets.
 - f. Water Management District surfacewater management Statement of proposed uses on the site plan
- 3. Fire Department Access and Water Supply: The design criteria shall be Chapter 18 of the Florida Fire Prevention Code. Plans must be on separate sealed sheets and must be prepared by a professional Fire engineer licensed in the State of Florida. Fire flow calculations must be provided for each newly constructed building. When required, fire flow calculations shall be in accordance with the Guide for Determination of Required Fire Flow, latest edition, as published by the Insurance Service Office (ISO) and /or Chapter 18, Section 18.4 of the Florida Fire Prevention Code, whichever is greater. All calculations must be demonstrated and provided. All calculations and specifications must be on the plans and not on separate sheets. All fire protection plans are reviewed and approved by the Alachua County Fire Marshal.
- 4. Concurrency Impact Analysis showing the impact on public facilities, including potable water, sanitary sewer, transportation, solid waste, recreation, stormwater, and public schools in accordance with Article 2.4.14 of the Land Development Regulations.
- 5. Analysis of Consistency with the City of Alachua Comprehensive Plan (analysis must identify specific Goals, Objectives, and Policies and describe in detail how the application complies with the noted Goal, Objective, or Policy.)

City of Alachua ♦ Planning and Community Development Department
PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121

Revised 9/30/2014

Page 2 of 4

For commercial project Applications:

- a. In addition to submitting specific written information regarding your commercial development's compliance with the relevant Goals, Objectives, and Policies of the City of Alachua Comprehensive Plan, you must respond directly to the standards listed below. You should be specific in terms of how your commercial development will comply with these standards.

Policy 1.3.d Design and performance standards

The following criteria shall apply when evaluating commercial development proposals:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
2. Buffering from adjacent existing/potential uses;
3. Open space provisions and balance of proportion between gross floor area and site size;
4. Adequacy of pervious surface area in terms of drainage requirements;
5. Placement of signage;
6. Adequacy of site lighting and intrusiveness of lighting upon the surrounding area;
7. Safety of on-site circulation patterns (patron, employee and delivery vehicles), including parking layout and drive aisles, and points of conflict;
8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
10. Performance based zoning requirements, which may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
11. Commercial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres but 5 acres or greater, a .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio to parcels 1 acre or less.

For industrial project Applications:

- b. In addition to submitting specific written information regarding your industrial development's compliance with the relevant Goals, Objectives, and Policies of the City of Alachua Comprehensive Plan, you must respond directly to the standards listed below. You should be specific in terms of how your industrial development will comply with these standards.

Policy 1.5.d

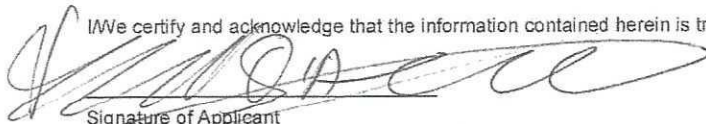
The City shall develop performance standards for industrial uses in order to address the following:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
2. Buffering from adjacent existing/potential uses;
3. Open space provisions and balance of proportion between gross floor area and site size;
4. Adequacy of pervious surface area in terms of drainage requirements;
5. Placement of signage;
6. Adequacy of site lighting and intrusiveness of lighting upon the surrounding area;
7. Safety of on-site circulation patterns (patron, employee and delivery vehicles, trucks), including parking layout and drive aisles, and points of conflict;
8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
10. Performance based zoning requirements that may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
11. Industrial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres by 5 acres or greater, .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio for parcels 1 acre or less.

6. For Site Plans for Buildings Less than 80,000 Square Feet in Area: One (1) set of labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits (obtain from the Alachua County Property Appraiser's web site) – and all persons/organizations registered to receive notice of development applications.
For Site Plans for Buildings Greater than or Equal to 80,000 Square Feet in Area: Two (2) sets of labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits (obtain from the Alachua County Property Appraiser's web site) – and all persons/organizations registered to receive notice of development applications.
7. Neighborhood Meeting Materials, including:
 - i. Copy of the required published notice (advertisement) – must be published a newspaper of general circulation, as defined in Article 10 of the City's Land Development Regulations
 - ii. Copy of written notice (letter) sent to all property owners within 400 feet and to all persons/organizations registered with the City to receive notice, and mailing labels or list of those who received written notice
 - iii. Written summary of meeting – must include (1) those in attendance; (2) a summary of the issues related to the development proposal discussed; (3) comments by those in attendance about the development proposal; and, (4) any other information deemed appropriate.
8. Legal description with tax parcel number, separate from all other documentation on 8.5" x 11" paper.
9. Proof of ownership (i.e., copy of deed.)
10. Proof of payment of taxes.
11. Environmental Resource Permit (or Letter of Exemption) from the Suwannee River Water Management District or Self-Certification for a Stormwater Management System in Uplands Serving Less than 10 Acres of Total Project Area and Less than 2 Acres of Impervious Surfaces from the Florida Department of Environmental Protection pursuant to Section 403.814(12), Florida Statutes.
12. If access is from a County Road, access management permit from Alachua County Public Works (or documentation providing evidence that a permit application has been submitted).
13. If access is from a State Road, access management permit from Florida Department of Transportation (or documentation providing evidence that a permit application has been submitted).
14. Fee. Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review or additional reviews of the application beyond the initial engineering review fee will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasi-judicial action of any kind on the petition, appeal, or development application.

All 14 attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.


 Signature of Applicant

 Signature of Co-applicant

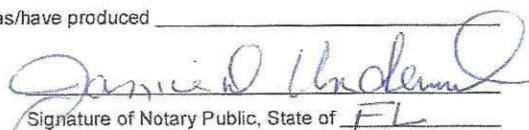
PAUL DALTO - manage member
 Typed or printed name and title of applicant

 Typed or printed name of co-applicant

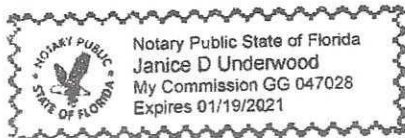
State of FLORIDA County of ALACHUA

The foregoing application is acknowledged before me this 7 day of march, 2019, by PAUL DALTO

_____, who is/are personally known to me, or who has/have produced _____
 as identification.


 Signature of Notary Public, State of FL

City of Alachua ♦ Planning and Community Development Department
 PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121



Revised 9/30/2014

Neighborhood Meeting

ALACHUA COUNTY TODAY

Published Weekly

Alachua, Alachua County, FLORIDA

STATE OF FLORIDA

COUNTY OF ALACHUA:

Before the undersigned authority personally appeared **ROBERT BOUKARI**, who on oath says that he (she) is the Manager of *Alachua County Today*, a weekly newspaper published at Alachua in Alachua County, Florida; that the attached copy of advertisement, being **PUBLIC NOTICE - NEIGHBORHOOD MEETING**, was published in said newspaper in the issues of February 07, 2019.

Affiant further says that *Alachua County Today* is a newspaper published at Alachua, in said Alachua County, Florida, and that the said newspaper has heretofore been continuously published in said Alachua County, Florida, each week and has been entered as periodicals matter at the post office in Alachua, in said Alachua County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he (she) has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 7th day of February, 2019 by Robert Boukari, who is personally known to me.


(Signature of Affiant)


(Signature of Notary Public)



H. BRYAN BOUKARI
MY COMMISSION # FF 220770
EXPIRES: May 26, 2019
Bonded Thru Budget Notary Services

Newberry Road, Newberry, Florida,
0 a.m. on said day and closed at
Clerks, Deputy, and Inspectors of

Clerk
Asst. Clerk
Deputy
Inspector/Ballot Scanner
Inspector/Ballot Scanner
Inspector
Inspector

noon on Monday, February 25
March 7, 2019. Candidates for
liffy for office with City Clerk
at 25440 West Newberry Road,
day 8:00 a.m. to 5:00 p.m. except
qualifying begins at noon and
ing ends at noon.

30 election assessment fee)
(\$315.90 + \$105.30 election

l seal of the City of Newberry,
019.

day-- February 07 & 14, 2019)

Thursday, March 7, 2019.

Candidates for election
shall qualify with City
Clerk Judy Rice at City
Hall, located at 25440 West
Newberry Road, Newberry,
during the qualifying
period. Her office will be
open from 8 a.m. - 5 p.m.,

7 a.m. - 7 p.m.

For questions, contact
the office of the City Clerk
at 352-472-2446.

Email cwalker@
alachuatoday.com

PUBLIC NOTICE

A Neighborhood meeting will be held to discuss
the development of a 30,000 sf Building and
+/- 96 parking spaces at the Progress Center,
14192 NW US 441. This is not a public hearing.
The purpose of this Meeting is to inform
neighboring property Owners of the nature of
the proposal and to seek their comments.

The meeting will be held Tuesday, February 26,
2019 at 5:15pm at the Alachua Public Library,
14913 NW 140th St, Alachua, FL 32616

(Published: Alachua County Today - February 07, 2019)

Compare Our CD Rates

Bank-issued,
FDIC-insured

2-year

2.65 % APY*

Minimum deposit
\$1,000

1-year

2.50 % APY*

Minimum deposit
\$1,000

9-month

2.45 % APY*

Minimum deposit
\$1,000

* Annual Percentage Yield (APY) effective 12/31/2018. CDs offered by Edward Jones are
bank-issued and FDIC-insured up to \$250,000 (principal and interest accrued but not yet paid)
per depositor, per insured depository institution, for each account ownership category. Please visit
www.fdic.gov or contact your financial advisor for additional information. Subject to availability
and price change. CD values are subject to interest rate risk such that when interest rates rise, the
prices of CDs can decrease. If CDs are sold prior to maturity, the investor can lose principal value.
FDIC insurance does not cover losses in market value. Early withdrawal may not be permitted.
Yields quoted are net of all commissions. CDs require the distribution of interest and do not allow
interest to compound. CDs offered through Edward Jones are issued by banks and thrifts
nationwide. All CDs sold by Edward Jones are registered with the Depository Trust Corp. (DTC).



Edward R Potts
Financial Advisor

14423 U S Hwy 441 Suite 9
Alachua, FL 32615
386-462-0417

www.edwardjones.com
Member SIPC

Edward Jones
MAKING SENSE OF INVESTING

NEIGHBORHOOD MEETING

For a commercial development in the Progress Center at 14192 NW US 441.

Date: Tuesday, February 26, 2019

Time: 5:15 p.m.

Place: Alachua Public Library, 14913 NW 140th St, Alachua

Contact: Alison Fetner at 352-281-9109

Ms Fetner will be holding a meeting to discuss a proposed commercial development located within the Progress Center, it will include a 30,000 sf building and the associated +/-96 parking spaces. The use of this building will be office and/or scientific research/laboratory. This use is consistent with other development within the Progress Center. The purpose of this meeting is to inform neighboring property owners about the nature of the proposal and to seek comments. We look forward to seeing you there.

TOMPKINS, DARRY J & CINDY P
PO BOX 519
ALACHUA, FL 32616

PROGRESS CENTER PROPERTY
OWNERS ASSOCIATION
PO BOX 969
ALACHUA, FL 32616

ALACHUA FOUNDATION PARK
HOLDING COMPANY LLC
3917 NW 97TH BLVD
GAINESVILLE, FL 32606

SNH MEDICAL OFFICE PROPERTIES
C/O RYAN, PROPERTY TAX DEPT
100 N TAMPA ST, STE 1850
TAMPA, FL 33602

DISTRICT BOARD OF TRUSTEES OF
3000 NW 83RD ST
GAINESVILLE, FL 32606

STATE OF FLORIDA IIF
C/O TIITF REC AND PARKS SAN
FELASCO HAMMOCK STATE Preserve
3900 COMMONWEALTH BLVD
TALLAHASSEE, FL 32399

PROGRESS CENTER OFFICE,
3400 PROGRESS BLVD
ALACHUA, FL 32615

Antoinette Endelicato
5562 NW 93rd Avenue
Gainesville, FL ,32653

U OF F FOUNDATION INC
PO BOX 14425
GAINESVILLE, FL 32604-2425

Dan Rhine
288 Turkey Creek
Alachua, FI 32615

Richard Gorman
5716 NW 93rd Avenue
Alachua, FL 32653

Tom Gorman
9210 NW 59th Street
Alachua, FL 32653

Peggy Arnold
410 Turkey Creek
Alachua, FL 32615

President TCMOA
1000 Turkey Creek
Alachua, FL 32615

David Forest
23 Turkey Creek
Alachua, FL 32615

Linda Dixon
Assistant Director of Planning
PO Box 115050
Gainesville, FL 32611

Jeannette Hinsdale
P.O. Box 1156
Alachua, FL 32616

Craig Parenteau
FDEP
4801 Camp Ranch Road
Gainesville, FL 32641

Lynn Coullias
7406 NW 126th Ave
Alachua, FI 32615

Tamara Robbins
PO Box 2317
Alachua, FL 32616

Lynda Coon
7216 NW 126 Avenue
Alachua, FI 32615

Michele L. Lieberman
County Manager
12 SE 1st Street
Gainesville, FL 32601

Adam Boukari
City Manager
PO Box 9
Alachua, FL 32616

Bonnie Flynn
16801 NW 166th Drive
Alachua, FI 32615

Sign In

Progress Center, 14192 US Hwy 441, Alachua

Neighborhood Workshop, Alachua Public Library

Date: 2-26-2019 Time: 5:15 pm

	Print Name	Address	Phone #	Email Address
1.	Alison Fether	364 N. State Rd 21 Hawthorne, FL 32610	352- 281-9109	fetherenge@aol.com
2.	Paul Shering	1417 Main St. 32615	352-318-0470	pshering@al.com
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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17.				
18.				
19.				
20.				

Minutes
Neighborhood Meeting
Innovation One Building
2-26-19
5:15pm

No public showed up.

**Legal Description
Deed
Taxes**

INSTRUMENT # 2404674

2 PGS

Parcel # 03956-010-027
Progress Center

1

Exhibit "A"

PARCEL "F"

A PORTION OF PROGRESS CENTER REPLAT, RECORDED IN PLAT BOOK "P" PAGES 48 AND 49 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, LOCATED IN GOVERNMENT LOT 2 OF SECTION 24, TOWNSHIP 8 SOUTH, RANGE 18 EAST, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE INTERSECTION OF THE WESTERLY RIGHT OF WAY LINE OF PROGRESS BOULEVARD (100 FOOT RIGHT OF WAY) WITH THE NORTHERLY RIGHT OF WAY LINE OF RESEARCH DRIVE (80 FOOT RIGHT OF WAY) AS SHOWN ON SAID REPLAT OF PROGRESS CENTER; THENCE WESTERLY, ALONG SAID NORTHERLY RIGHT OF WAY LINE OF RESEARCH DRIVE WITH A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 2691.86 FEET, THROUGH A CENTRAL ANGLE OF 8°57'45" AN ARC DISTANCE OF 421.08 FEET (CHORD BEARING AND DISTANCE OF N.67°22'42"W., 420.65 FEET RESPECTIVELY); THENCE DEPARTING SAID NORTHERLY RIGHT OF WAY LINE, N.27°12'37"E. A DISTANCE OF 312.07 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF U.S. HIGHWAY NO. 441, ALSO KNOWN AS STATE ROAD NO. 25 (200 FOOT RIGHT OF WAY) SAID RIGHT OF WAY LINE BEING A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 2391.86 FEET; THENCE EASTERLY, ALONG SAID RIGHT OF WAY LINE AND WITH SAID CURVE, THROUGH A CENTRAL ANGLE OF 8°46'47", AN ARC DISTANCE OF 366.52 FEET (CHORD BEARING AND DISTANCE OF S.66°39'21" E., 366.16 FEET RESPECTIVELY) TO THE AFOREMENTIONED WESTERLY RIGHT OF WAY LINE OF PROGRESS BOULEVARD; THENCE DEPARTING SAID NORTHERLY RIGHT OF WAY LINE, S. 17°06'47"W., ALONG SAID WESTERLY RIGHT OF WAY LINE OF PROGRESS BOULEVARD, A DISTANCE OF 307.87 FEET TO THE POINT OF BEGINNING.

This Document Prepared By and Return to:
Darryl J. Tompkins, Esquire
Darryl J. Tompkins, P.A.
14420 NW 151st Blvd.
P.O. Box 519
Alachua, FL 32616

RECORDED IN OFFICIAL RECORDS
INSTRUMENT # 2404674 2 PGS
2008 FEB 12 01:25 PM BK 3741 PG 1234
J. K. "BUDDY" IRBY
CLERK OF CIRCUIT COURT
ALACHUA COUNTY, FLORIDA
CLERK25 Receipt#361673
Doc Stamp-Deed: 5,110.00

Parcel ID Number: 03956-010-000 (portion of)

Warranty Deed



This Indenture, Made this 11th day of February, 2008 A.D., Between
Innovation Partners, Ltd., a Florida limited partnership
Document #A00000000461
of the County of Alachua, State of Florida, grantor, and
Shoppes At Progress Center, LLC, a Florida limited liability company
Document #L08000007411
whose address is: 3600 NW 43rd Street, Suite E-2, Gainesville, FL 32606

of the County of Alachua, State of Florida, grantee.

Witnesseth that the GRANTOR, for and in consideration of the sum of

-----TEN DOLLARS (\$10)----- DOLLARS,
and other good and valuable consideration to GRANTOR in hand paid by GRANTEE, the receipt whereof is hereby acknowledged, has
granted, bargained and sold to the said GRANTEE and GRANTEE'S heirs, successors and assigns forever, the following described land, situate,
lying and being in the County of Alachua, State of Florida to wit:
See Exhibit "A" attached hereto.

SUBJECT TO THE FOLLOWING:

- A. Zoning restrictions, prohibitions and other requirements imposed by governmental authority;
- B. Restrictions and matters appearing on the plat and/or common to the subdivision;
- C. Taxes for the year 2008 and subsequent years.

and the grantor does hereby fully warrant the title to said land, and will defend the same against lawful claims of all persons whomsoever.

In Witness Whereof, the grantor has hereunto set its hand and seal the day and year first above written.

Signed, sealed and delivered in our presence: Innovation Partners, Ltd., a Florida
limited partnership

By: Alachua Innovation, Inc., a Florida
corporation, GENERAL PARTNER

Printed Name: Sandra E Howe
Witness

By: Philip L. Hawley (Seal)
Philip L. Hawley, President
P.O. Address: P.O. Box 1990, Alachua, FL 32616

Printed Name: Linda J. Pena
Witness

STATE OF Florida
COUNTY OF Alachua

The foregoing instrument was acknowledged before me this 11th day of February, 2008 by

INSTRUMENT # 2404674
2 PGS

Exhibit "A"

PARCEL "F"

A PORTION OF PROGRESS CENTER REPLAT, RECORDED IN PLAT BOOK "P" PAGES 48 AND 49 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, LOCATED IN GOVERNMENT LOT 2 OF SECTION 24, TOWNSHIP 8 SOUTH, RANGE 18 EAST, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE INTERSECTION OF THE WESTERLY RIGHT OF WAY LINE OF PROGRESS BOULEVARD (100 FOOT RIGHT OF WAY) WITH THE NORTHERLY RIGHT OF WAY LINE OF RESEARCH DRIVE (80 FOOT RIGHT OF WAY) AS SHOWN ON SAID REPLAT OF PROGRESS CENTER; THENCE WESTERLY, ALONG SAID NORTHERLY RIGHT OF WAY LINE OF RESEARCH DRIVE WITH A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 2691.86 FEET, THROUGH A CENTRAL ANGLE OF 8°57'45" AN ARC DISTANCE OF 421.08 FEET (CHORD BEARING AND DISTANCE OF N.67°22'42"W., 420.65 FEET RESPECTIVELY); THENCE DEPARTING SAID NORTHERLY RIGHT OF WAY LINE, N.27°12'37"E. A DISTANCE OF 312.07 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF U.S. HIGHWAY NO. 441, ALSO KNOWN AS STATE ROAD NO. 25 (200 FOOT RIGHT OF WAY) SAID RIGHT OF WAY LINE BEING A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 2391.86 FEET; THENCE EASTERLY, ALONG SAID RIGHT OF WAY LINE AND WITH SAID CURVE, THROUGH A CENTRAL ANGLE OF 8°46'47", AN ARC DISTANCE OF 366.52 FEET (CHORD BEARING AND DISTANCE OF S.66°39'21" E., 366.16 FEET RESPECTIVELY) TO THE AFOREMENTIONED WESTERLY RIGHT OF WAY LINE OF PROGRESS BOULEVARD; THENCE DEPARTING SAID NORTHERLY RIGHT OF WAY LINE, S. 17°06'47"W., ALONG SAID WESTERLY RIGHT OF WAY LINE OF PROGRESS BOULEVARD, A DISTANCE OF 307.87 FEET TO THE POINT OF BEGINNING.



Bill History — Real Estate Account At Unassigned Location RE

Real Estate Account #03956 010 027

Parcel details

Latest bill

Full bill history

Print this page

Get Bills by Email

There are no unpaid bills.

Amounts as of 03/18/2019

Bill	Balance	Status	Action
2018 Annual Bill	\$0.00	12/06/2018 Paid \$21.66 Receipt #18-0050623 Effective 11/30/2018	Print (PDF)
2017 Annual Bill	\$0.00	11/16/2017 Paid \$22.22 Receipt #17-0018228 Effective 11/15/2017	Print (PDF)
2016 Annual Bill	\$0.00	12/29/2016 Paid \$23.95 Receipt #16-0069338	Print (PDF)
2015 Annual Bill	\$0.00	12/04/2015 Paid \$24.14 Receipt #15-0046591 Effective 11/30/2015	Print (PDF)
2014 Annual Bill	\$0.00	12/02/2014 Paid \$23.84 Receipt #14-0041762 Effective 11/30/2014	Print (PDF)
2013 Annual Bill	\$0.00	11/27/2013 Paid \$23.83 Receipt #13-0035602	Print (PDF)
2012 Annual Bill	\$0.00	11/28/2012 Paid \$23.79 Receipt #12-0036493	Print (PDF)
2011 Annual Bill	\$0.00	11/29/2011 Paid \$24.32 Receipt #2011-3014918	Print (PDF)
2010 Annual Bill	\$0.00	06/25/2012 Paid \$10,772.49 Receipt #2011-1090179	Print (PDF)
Redeemed certificate #1246	Face \$10,109.15 Rate 6.5%	06/25/2012 Certificate redeemed 06/01/2011 Certificate issued 05/01/2011 Advertisement file created	
2009 Annual Bill	\$0.00	03/02/2010 Paid \$9,156.48 Receipt #2009-9053488	Print (PDF)
Total Balance	\$0.00		There are no unpaid bills.



***Progress Center Property
Owner's Association***

May 22, 2019

Allison Fetner
Fetner Engineering
364 N State Road 21
Hawthorne, FL 32640

Dear Allison,

The Board/Committee has reviewed the site plan you submitted for Innovation One and offer the following comments.

The reduction of the required 40' setback from Progress Boulevard to 32' has been approved.

Connection to the master stormwater system according to the specifications of the City of Alachua and the Suwannee River Water Management District is approved by the Progress Center Property Owners Association.

The proposed colors, finishes, architectural relief, transparency, height, impervious surface coverage, driveway locations, landscape plan and utility connections are acceptable.

The Association is in the process of developing a new wayfinding system and pedestrian safety enhancements. The goal is that there will be 5' sidewalks along the road right of ways to provide a continuous pedestrian walkway throughout the park. Sidewalks need to be added to your plan.

Given that the end user of this building has not been disclosed we request the owner to confirm that potential purchasers or tenants of the building comply with the list of acceptable businesses allowed in the Park.

This site plan is approved with the condition that sidewalks are added along both Progress Boulevard and Research Drive.

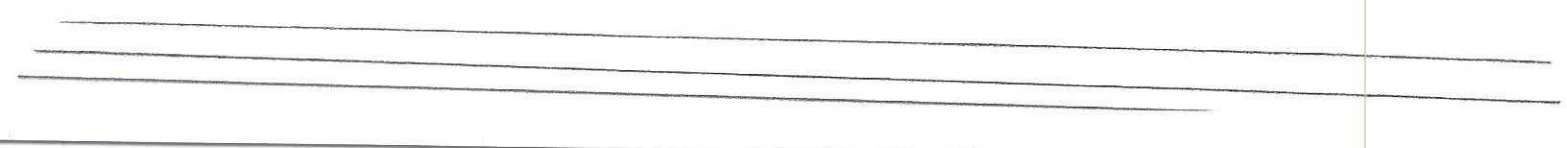
Thank you for complying with the ACC review/approval process of Progress Park.

Sincerely,

Sandy Burgess
CAM

*Burgess Management Services, LLC
PO BOX 969
Alachua, FL 32616
(386) 418-1001 sandy@burgessms.com*

Concurrency Analysis



Concurrency Analysis Innovation One at Progress Park

Traffic

As per 10th Edition of ITE (760) 11.26 week day per 1000
The affected roadway segment is US 441

$30,676 \text{ sf} / 1000 \text{ sf} = 30.7 \times 11.26 = 346 \text{ weekday trips}$
 $30,676 \text{ sf} / 1000 \text{ sf} = 30.7 \times 1.11 = 34 \text{ Peak trips}$

Table 2a. Traffic Impacts
Available Capacity AADT – 25,357 trips
Projected Trips – 346
 $25,357 - 346 = 25,011$

Available Capacity Peak Hour – 2092 trips
Projected Trips – 34
 $2092 - 34 = 2058 \text{ trips}$

Solid Waste

As per "Environmental Engineering, A Design Approach", Sincero and Sincero, 1996.

12 lbs/day of solid waste/1000 square feet

$30,676 \text{ sf} / 1000 \text{ sf} = 30.7 \times 12 \text{ lbs} = 368 \text{ lbs per day}$

System Category	Lbs Per Day
Existing Demand	36,432
Projected Solid Waste Impact from all Recent DOs	13,526.37
Proposed Project Projected Solid Waste	368
Total Solid Waste	50,326.37

Recreation

Table 5

The proposed development has no impact on recreation.

Public Schools

No impacts

Water/Sewer

Sewer

As per F.A.C. 64E-6 and Policy 1.1.d of Alachua Comprehensive Plan

Offices = 15 gallons per 100sf

$30676 \text{ sf} / 100 \text{ sf} \times 15 = 4601 \text{ gpd}$

Table 3. Projected Sanitary Sewer Impacts

System Category	Gallons Per Day
Treatment Plant Current Permitted Capacity	1,500,000
Less Actual Treatment Plant Flows	687,000
Less Reserved Capacity	414,567
Available Capacity Post Actual & Reserved Flows	928,308
Available Capacity Post	398,433
Projected Sanitary Sewer Demand from Proposed Project	4,601
Residual Capacity after Proposed Project	393,832

Water

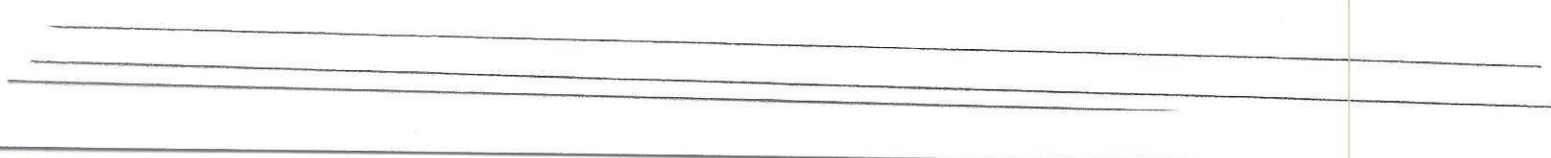
As per F.A.C. 64E-6 and Policy 1.1.c of Alachua Comprehensive Plan

Water usage = 110% of sewer usage = $1.10 \times 4601 \text{ gallons} = 5,061 \text{ gallons per day}$

Table 2 Projected Potable Water Impact

System Category	Gallons Per Day
Current Permitted Capacity	2,300,000
Less Actual Potable Water Flows	1,236,000
Less Reserved Capacity & Reserve	442,870
Available Capacity Post Actual & Reserved Flows	621,130
Projected Potable Water Demand from Proposed Project	5,061
Residual Capacity after Proposed Project	616,069

Comprehensive Plan Consistency



Innovation One at Progress Park Consistency with the Comprehensive Plan Speculative Building

Vision Element

Goal One: Economic Development

The City of Alachua has a unique business climate. The City is home to corporations, technology incubators, local businesses, and start-up companies. The US 441 corridor is beginning to develop into a "corporate corridor" with businesses, such as Sabine and JA Webster, and corporate campuses such as the Progress Corporate Park and Alachua Professional Center. Alachua desires to continue to be a home to innovative businesses that want to be partners with the community.

The proposed property is located on NW US 441 on the southwest side and within the Progress Corporate Park. This is a speculative building for research and development which is consistent with the desires of the goal.

Future Land Use Element

Objective 1.4 Industrial

The City of Alachua shall establish one industrial district: Industrial. This district shall provide a broad range of clean industry, warehousing, research, and technology industries, to provide a variety of job opportunities to the citizens of Alachua and the North Central Florida Region.

This proposed building on this property will allow for a leasable space for research, labs and offices for development of new products or research providing for additional jobs to be available for the citizens of Alachua.

Policy 1.4.f

The City shall develop performance standards for industrial uses in order to address the following:

- 1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;*

The site has access to Progress Blvd which is off of US 441 and a right turn lane is existing into Progress Blvd. There is also access provided to the rear of the property onto Research Dr. The project will require no additional access points off of US 441. This site also has the potential for a future connection to the adjacent property when it is developed that would be an advantage to both properties

2. Buffering from adjacent existing/potential uses;

Buffering is required in accordance with the PD all uses are to be Light industrial (research and development) this means a type A buffer that is 5 " wide is required. A parking area buffer has been provided on three sides of the property.

3. Open space provisions and balance of proportion between gross floor area and site size;

The gross floor area does not exceed the maximum allowed 0.50 of the 2.802-acre site. The floor area ration is .25

4. Adequacy of pervious surface area in terms of drainage requirements;

The current development is served by a master stormwater plan and the proposed building project will include a new stormwater basin for the building and compensating area for the additional impervious area.

5. Placement of signage;

Signage will be very modest as this is not a use that is for drive by traffic .

6. Adequacy of site lighting and intrusiveness of lighting upon the surrounding area;

Site lighting will be minimal as the businesses will primarily only be active during daylight hours.

7. Safety of on-site circulation patterns (patron, employee and delivery vehicles, trucks), including parking layout and drive aisles, and points of conflict;

All vehicular access and maneuvering is on site.

8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;

Landscaping will be provided in accordance with the current LDR criteria. The site has been designed to preserve a significant heritage oak at the entrance to the Progress Center.

9. *Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and*

The site was designed around a large live oak located at the entrance to the subdivision.

10. *Performance based zoning requirements that may serve as a substitute for or accompany land development regulations in attaining acceptable site design.*

There are no performance based zoning standards per table 4.1-1 for the "Manufacturing, Light" use or this PUD

11. *Industrial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres by 5 acres or greater, .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio for parcels 1 acre or less.*

The floor area ratio will be 0.25 for the 2.8-acre parcel which is significantly less than the 0.50 allowed.

Traffic Circulation Element

Policy 1.1a Establish the Level of Service Standards as noted below at peak hour for the following roadway segments within the City.

US 441 has 2092 peak hour trips available and the project proposes 34 peak hour trips would result in 2058 peak hour trips to remain available.

Community Facilities and Natural Groundwater Aquifer Recharge

1.0 WASTEWATER

GOAL 1 - Plan for and provide adequate, high quality and economical wastewater service while protecting the environment, especially groundwater resources.

Wastewater is provided to the site by a sanitary sewer line within the subdivision. The proposed expansion will have a maximum demand of

4,601 gpm per day and the available capacity of the wastewater treatment plant is 398,433.

2.0 SOLID WASTE

GOAL 2: The City of Alachua will provide for solid waste disposal service in a sanitary, economic, and environmentally safe manner.

A proposed on site dumpster will provide on-site solid waste disposal for the proposed building.

3.0 STORMWATER

GOAL 3 Develop and maintain a stormwater management system that minimizes flooding, protects, preserves and enhances desirable water quality conditions, and, where possible, preserves and utilizes existing natural features.

A master offsite stormwater basin serves the property for a maximum of 65% impervious. The site has an impervious area of 62.68% of the site.

4.0 POTABLE WATER

GOAL 4 Provide an adequate supply of high quality potable water to customers throughout the service area.

Potable water is provided by a water line within the Research Drive right of way. The proposed building has a water demand that will be served by an extension of the water line into the site.

Drainage Notes

INNOVATION ONE AT PROGRESS PARK STORMWATER

Introduction

The proposed Innovation One at Progress Park project site consists of approximately 2.80 acres located on the south side of US 441 at the southwest corner of Progress Boulevard and US 441 intersection in Alachua, Florida. The site is located in Section 24, Township 8 South, Range 18 East of Alachua County, Florida.

The proposed project site is within Progress Corporate Park and is included in the Master Stormwater Management Facility for the development permitted as SRWMD 001-206404-1 issued August, 1988. The design calculations for the master facility account for 65% total impervious surface area for the proposed project site. The proposed development has 62.68% impervious area so this meets the parameters for the stormwater to be treated within the master facility. The site currently flows from north to south with a elevation difference from elevation 82 to elevation 76. Post-developed flow patterns will be consistent will with pre-developed flows.

The proposed development includes the following:

- Construction of a 30,676 square foot building
- Construction of the associated parking, sidewalk and utilities
- Driveway connections off of Progress Blvd and Research Drive

Calculations

Building	30,676 sf
Parking and Sidewalks	45,823 sf
Total Impervious Area	76,499 sf
Total Lot Area	122,055 sf

$$\text{Impervious \%} = 76,499 / 122,055 = 0.627 = 62.7\%$$

Pipe Calculations

10 Year Storm Event – 10 min time of concentration

Pipe	From	To	Q (cfs)	Size (in)	Slope %	Total Q (cfs)	Capacity (cfs)	Velocity (cfs)
P-1	S-1	S-2	1.7	15	0.8	2.2	6.3	3.9
P-2	S-2	S-3	1.1	18	1.0	3.7	11.4	4.9
P-3	S-3	S-4	1.0	18	1.0	5.0	11.4	5.2
P-4	S-4	OF	2.0	24	4.0	14.2	49.0	11.5
P-5	S-5	S-4	2.0	24	1.0	6.6	24.5	5.6
P-6	S-6	S-5	1.2	18	1.0	4.0	11.4	5.0
P-7	S-7	S-6	1.0	15	1.0	2.5	7.0	4.4
P-8	S-8	S-7	0.9	12	1.0	1.2	3.9	3.6
P-9	MES	MES	1.1	15	1.5	1.1	8.6	4.5
P-10	MES	MES	1.1	15	0.6	1.1	5.4	3.1

Tree Removal Aerial

Innovation One at Progress Park



4/23/2019, 10:22:43 AM

Road Centerlines ☐ Parcels

OTHER

Fire flow

ISO Needed Fire Flow (NFF) Worksheet

(Page references are to the appropriate sections in the ISO Guide for Determination of Needed Fire Flow)

Petition Number:		Date:	3/2/2019
Project:	Innovation One	Engineer:	A Fetner
Location:	US 441, Alachua, FL	Checked By:	

Subject Building

Construction Class (p. 4):	Noncombustible Construction	construction coefficient (F) (p. 2):	0.8
Area of largest floor in the building (if modifications are made for division walls (p. 8), the division walls must be shown on the site plan.):			
30676		sq.ft.	
Total area of all other floors (if modifications are made for division walls (p. 8), the division walls must be shown on the site plan.):			
		sq. ft.	
Effective Area (A_i) (p. 9):	30,676	sq. ft. (Show calculations below)	

Needed Fire Flow attributed to construction (C_i) (per formula (p. 2)):	2522.097413
(Round to the nearest 250 gpm. See p. 10 for maximum and minimum values of C_i)	
Type of Occupancy:	Limited-combustible (C-2)
Occupancy Factor (O_i) (p. 11):	0.85

Exposures (p. 16)

Front:	construction of facing wall of exposure building (p. 4):		
Distance (ft.) to the exposure building:	61 - 100	Length of exposure wall:	310
Number of stories of exposure wall:	1	Length x number of stories:	310
Opening Protection in exposure wall:	Unprotected		
Factor for exposure (X_i) from Table 330.A (p. 17):	0		
Back:	construction of facing wall of exposure building (p. 4):	Noncombustible Construction	
Distance (ft.) to the exposure building:	61 - 100	Length of exposure wall:	300
Number of stories of exposure wall:	1	Length x number of stories:	300
Opening Protection in exposure wall:	Unprotected		
Factor for exposure (X_i) from Table 330.A (p. 17):	0.09		
Left:	construction of facing wall of exposure building (p. 4):		
Distance (ft.) to the exposure building:		Length of exposure wall:	
Number of stories of exposure wall:		Length x number of stories:	0
Opening Protection in exposure wall:			
Factor for exposure (X_i) from Table 330.A (p. 17):	0		
Right:	construction of facing wall of exposure building (p. 4):		
Distance (ft.) to the exposure building:		Length of exposure wall:	
Number of stories of exposure wall:		Length x number of stories:	0
Opening Protection in exposure wall:			
Factor for exposure (X_i) from Table 330.A (p. 17):	0		

Communications (p. 18)

Passageway Opening Protection:	Unprotected	▼
Construction class of communication (Table 330.B) :	Noncombustible	▼
Is communication open or enclosed?	Open	▼
Length of communication (in feet):	21 Ft. to 50 Ft.	▼
Factor for Communications (P_i) from Table 330.B on p.19):	0	

Calculation of Needed Fire Flow (p. 1)

NFF=(C_i)(O_i)[1.0+(X+P)_i] (substitute values as determined above. For exposures and communications use the single side with the highest charge.)

$$\text{NFF} = 2500 \times 0.85 \times [1 + (0.09 + 0)]$$

$$\text{NFF} = 2316.25 \text{ gpm}$$

$$\text{NFF} = 2250 \text{ gpm (rounded to nearest 250 gpm per ISO requirements)}$$

Note: ISO evaluates hydrant distribution by examining the number and type of hydrants within 1,000 feet of each representative building. They also look at the distance from each such hydrant to the subject building, measured as apparatus can lay hose.

Hydrants with at least one large pumper outlet may receive credit for up to 1,000 gpm. Hydrants with at least two hose outlets, but no pumper outlet, may receive credit for up to 750 gpm. And hydrants with only one hose outlet may receive credit for up to 500 gpm.

Hydrants within 300 feet of the subject building may receive credit for up to 1,000 gpm (but not more than the credit that would apply based on the number and type of outlets). Hydrants from 301 feet to 600 feet from the subject building may receive credit for up to 670 gpm (but not more than the credit that would apply based on the number and type of outlets). And hydrants from 601 feet to 1,000 feet from the subject building receive credit for 250 gpm. Under certain circumstances, when all fire department pumpers carry sufficient large-diameter hose, ISO may allow maximum credit for hydrants up to 1,000 feet from the subject building.

More than one fire hydrant may be required for proper distribution of water per ISO requirements.

NFPA- Fire Flow Calculations

- I. Project: Innovation One
- II. Location:
County: Alachua
Sec. 24 Twn. 8S Range 18E
- III. Project Description: 30,000 sf light industrial spec building
- IV. Building Type: Product development or office
- V. Required Fire Flow: 2500 gpm for 2 hour per NFPA18.4.5.1.2
- VI. Reductions: 50% for automatic Sprinkler System per 18.4.5.1.1.1 YES
25% for 30' or greater building separation per 18.4.5.1.1.2 YES

Required Flow for Project: $2500\text{gpm} - 1250\text{gpm} - 625 = 625\text{ gpm}$

Available flow: 5966 gpm
2 hydrants

18.3.4.1 ~~Clear Space Around Hydrants. A 3 ft (914.4 mm) clear space shall be maintained around the circumference of fire hydrants except as otherwise required or approved. Hydrants —~~ Clearances of seven and one half feet (7'6") in front of and to the sides of the fire hydrant, with a four feet (4') clearance to the rear of the hydrant. *Exception: These dimensions may be reduced by approval of the fire official.*

18.3.4.2 Fire Protection Appliances — Clearances of seven and one half feet (7'6") in front of and to the sides of the appliances. *Exception: These dimensions may be reduced by approval of the fire official.*

18.3.5 Private water supply systems shall be tested and maintained in accordance with NFPA 25.

18.3.6 Where required by the AHJ, fire hydrants subject to vehicular damage shall be protected unless located within a public right of way.

18.3.7 Where water supplies or fire hydrants are out of service for maintenance or repairs, a visible indicator acceptable to the AHJ shall be used to indicate that the hydrant is out of service.

18.4 Fire Flow Requirements for Buildings.

18.4.1* Scope.

18.4.1.1* The procedure determining fire flow requirements for buildings hereafter constructed shall be in accordance with Section 18.4.

18.4.1.2 Section 18.4 does not apply to structures other than buildings.

18.4.2 Definitions. See definitions 3.3.13.6 (Fire Flow Area) and 3.3.108 (Fire Flow).

18.4.3 Modifications.

18.4.3.1 Decreases. Fire flow requirements shall be permitted to be modified downward by the AHJ for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire flow requirements is impractical.

18.4.3.2 Increases. Fire flow shall be permitted to be modified upward by the AHJ where conditions indicate an unusual susceptibility to group fires or conflagrations. An upward modification shall not be more than twice that required for the building under consideration.

18.4.4 Fire Flow Area.

18.4.4.1 General. The fire flow area shall be the total floor area of all floor levels of a building except as modified in 18.4.4.1.1.

18.4.4.1.1 Type I (443), Type I (332), and Type II (222) Construction. The fire flow area of a building constructed of Type I (443), Type I (332), and Type II (222) construction shall be the area of the three largest successive floors.

18.4.5 Fire Flow Requirements for Buildings.

18.4.5.1 One- and Two-Family Dwellings.

18.4.5.1.1 The minimum fire flow and flow duration requirements for one- and two-family dwellings having a fire flow area that does not exceed 5000 ft² (334.5 m²) shall be 1000 gpm (3785 L/min) for 1 hour.

18.4.5.1.1.1 A reduction in required fire flow of 50 percent shall be permitted when the building is provided with an approved automatic sprinkler system.

18.4.5.1.1.2 A reduction in the required fire flow of 25 percent shall be permitted when the building is separated from other buildings by a minimum of 30 ft (9.1 m).

18.4.5.1.1.3 The reduction in 18.4.5.1.1.1 and 18.4.5.1.1.2 shall not reduce the required fire flow to less than 500 gpm (1900 L/min).

18.4.5.1.2 Fire flow and flow duration for dwellings having a fire flow area in excess of 5000 ft² (334.5 m²) shall not be less than that specified in Table 18.4.5.1.2.

18.4.5.1.2.1 A reduction in required fire flow of 50 percent shall be permitted when the building is provided with an approved automatic sprinkler system.

18.4.5.2 Buildings Other Than One- and Two-Family Dwellings. The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table 18.4.5.1.2.

18.4.5.2.1 A reduction in required fire flow of 75 percent shall be permitted when the building is protected throughout by an approved automatic sprinkler system. The resulting fire flow shall not be less than 1000 gpm (3785 L/min).

18.4.5.2.2 A reduction in required fire flow of 75 percent shall be permitted when the building is protected throughout by an approved automatic sprinkler system, which utilizes quick response sprinklers throughout. The resulting fire flow shall not be less than 600 gpm (2270 L/min).

Chapter 19 Combustible Waste and Refuse

19.1 General.

19.1.1 Permits. Permits, where required, shall comply with Section 1.12.

19.1.2 Persons owning or having control of any property shall not allow any combustible waste material to accumulate in any area or in any manner that creates a fire hazard to life or property.

19.1.3 Combustible waste or refuse shall be properly stored or disposed of to prevent unsafe conditions.

19.1.4 Fire extinguishing capabilities approved by the AHJ including, but not limited to, fire extinguishers, water supply and hose, and earth-moving equipment shall be provided at waste disposal sites.

19.1.5 Burning debris shall not be dumped at a waste disposal site except at a remote location on the site where fire extinguishment can be accomplished before compacting, covering, or other disposal activity is carried out. (See Section 10.11 for additional guidance.)

19.1.6 Electrical Wiring.

19.1.6.1 Electrical wiring and equipment in any combustible fiber storage room or building shall be installed in accordance with the requirements of Section 11.1 and NFPA 70, *National Electrical Code*, for Class III hazardous locations.

19.1.6.2 The AHJ shall be responsible for designating the areas that require hazardous location electrical classifications and shall classify the areas in accordance with the classification system set forth in NFPA 70.

19.1.7 No Smoking.

19.1.7.1 No smoking or open flame shall be permitted in any area where combustible fibers are handled or stored or within 50 ft (15 m) of any uncovered pile of such fibers.

19.1.7.2 "No Smoking" signs shall be posted.

19.1.8 Vehicles or Conveyances Used to Transport Combustible Waste or Refuse.

19.1.8.1 Vehicles or conveyances used to transport combustible waste or refuse over public thoroughfares shall have all cargo space

Table 18.4.5.1.2 Minimum Required Fire Flow and Flow Duration for Buildings

Fire Flow Area ft ² (× 0.0929 for m ²)					Fire Flow gpm [†] (× 3.785 for L/min)	Flow Duration (hours)
I(443), I(332), II(222)*	II(111), III(211)*	IV(2HH), V(111)*	II(000), III(200)*	V(000)*		
0-22,700	0-12,700	0-8200	0-5900	0-3600	1500	2
22,701-30,200	12,701-17,000	8201-10,900	5901-7900	3601-4800	1750	
30,201-38,700	17,001-21,800	10,901-12,900	7901-9800	4801-6200	2000	
38,701-48,300	21,801-24,200	12,901-17,400	9801-12,600	6201-7700	2250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7701-9400	2500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9401-11,300	2750	3
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3000	
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5750	
Greater than 295,900	Greater than 166,500	106,501-115,800	77,001-83,700	47,401-51,500	6000	
		115,801-125,500	83,701-90,600	51,501-55,700	6250	
		125,501-135,500	90,601-97,900	55,701-60,200	6500	
		135,501-145,800	97,901-106,800	60,201-64,800	6750	
		145,801-156,700	106,801-113,200	64,801-69,600	7000	
		156,701-167,900	113,201-121,300	69,601-74,600	7250	
		167,901-179,400	121,301-129,600	74,601-79,800	7500	
		179,401-191,400	129,601-138,300	79,801-85,100	7750	
		Greater than 191,400	Greater than 138,300	Greater than 85,100	8000	

* Types of construction are based on NFPA 220.

[†] Measured at 20 psi (139.9 kPa).

covered and maintained tight enough to ensure against ignition from external fire sources and the scattering of burning and combustible debris that can come in contact with ignition sources.

19.1.8.2 Transporting burning waste or refuse shall be prohibited.

19.1.8.3 Trucks or automobiles, other than mechanical handling equipment and approved industrial trucks as listed in NFPA 505, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations*, shall not enter any fiber storage room or building but shall be permitted to be used at loading platforms.

19.2 Combustible Waste and Refuse.

19.2.1 Rubbish Containers.

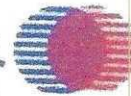
19.2.1.1 General. Rubbish containers kept outside of rooms or vaults shall not exceed 40.5 ft³ (1.15 m³) capacity.

19.2.1.1.1 Containers exceeding a capacity of 5¹/₃ ft³ [40 gal (0.15 m³)] shall be provided with lids.



W.W. GAY FIRE & INTEGRATED SYSTEMS, INC.

522 STOCKTON STREET • JACKSONVILLE, FL 32204 • PHONE 904-387-7973 • WWW.WWGF.COM



FIRE HYDRANT FLOW TEST DATA

Company: Fetner Engineering

Address: 364 N. State Road 21
Hawthorne, FL 32640

Contact:

Name/Title: Alison Fetner
Phone #: 352-281-9109

Hydrant Location: Intersection of Research Drive and Progress B
(#1) Residual Hydrant: #16678
Hydrant Location: West approximately 450' of residual hydrant
(#2) Flowed Hydrant: #16677

Testing:

Year: 2019
Technician: Bent Fant
Chance Carswell

Date: 2/27/2019
Time: 11:10 AM

RESULTS

(#1) Residual Hydrant:

Static: 78 PSI
Residual: 68 PSI

(#2) Flowed Hydrant / Hydrants:

Pito: 1 47 PSI 2 43 PSI
Flow: 1209 GPM 2 1100 GPM

Hydrant Flow At 20 PSI: 5966 GPM



D-Series Size 2 LED Wall Luminaire



d-series

Specifications Luminaire

Width: 18-1/2"
(47.0 cm)

Depth: 10"
(25.4 cm)

Height: 7-5/8"
(19.4 cm)

Weight: 21 lbs
(9.5 kg)

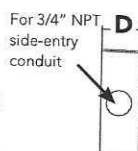
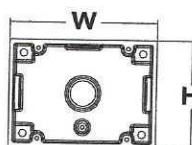
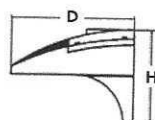
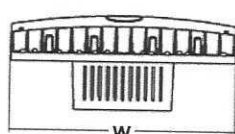
Back Box (BBW)

Width: 5-1/2"
(14.0 cm)

Depth: 1-1/2"
(3.8 cm)

Height: 4"
(10.2 cm)

BBW Weight: 1 lbs
(0.5 kg)



For 3/4" NPT
side-entry
conduit

Catalog
Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability¹
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background¹

To learn more about A+,
visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately:
[Link to Roam](#); [Link to DTL DLL](#)



A+ Capable options indicated
by this color background.

Ordering Information

EXAMPLE: DSXW2 LED 30C 700 40K T3M MVOLT DDBTXD

DSXW2 LED							
Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW2 LED	20C 20 LEDs (two engines)	350 350 mA	30K 3000 K	T2S Type II Short	MVOLT ³	Shipped included (blank) Surface mounting bracket	Shipped installed PE Photoelectric cell, button type ⁷
		530 530 mA	40K 4000 K	T2M Type II Medium	120 ⁴		
		700 700 mA	50K 5000 K	T3S Type III Short	208 ⁴		
	30C 30 LEDs (three engines)	1000 1000 mA ¹ (1 A)	AMBPC Amber phosphor converted ²	T3M Type III Medium	240 ⁴	Shipped separately⁶ BBW Surface-mounted back box (for conduit entry)	PER5 Five-wire receptacle only (control ordered separately) ^{8,9}
				T4M Type IV Medium	277 ⁴		PER7 Seven-wire receptacle only (control ordered separately) ^{8,9}
				TFIM Forward Throw Medium	347 ^{4,5}		DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)
				ASYDF Asymmetric diffuse	480 ^{4,5}		PIR 180° motion/ambient light sensor, <15' mtg ht ^{10,11}
							PIRH 180° motion/ambient light sensor, 15-30' mtg ht ^{10,11}
							PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1ft ^{11,12}
							PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1ft ^{11,12}

Other Options

Shipped installed

SF Single fuse (120, 277, 347V)³

DF Double fuse (208, 240, 480V)³

HS House-side shield⁴

SPD Separate surge protection¹³

Shipped separately¹³

BSW Bird-deterrent spikes

VG Vandal guard

Finish (required)

DDBXD Dark bronze

DBLXD Black

DNAXD Natural aluminum

DWHXD White

DSSXD Sandstone

DDBTXD Textured dark bronze

DBLBXD Textured black

DNATXD Textured natural aluminum

DWHGXD Textured white

DSSTXD Textured sandstone



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DSXW2 LED
Rev. 03/04/19
Page 1 of 4

Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ¹⁴
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ¹⁴
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ¹⁴
DSHORT SRK U	Shorting cap (Included when ordering PER, PERS or PER7) ¹⁴
DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW2VG U	Vandal guard accessory
DSXW28BW	Back box accessory
DOBXD U	(specify finish)

For more control options, visit [DIL](#) and [ROAM](#) online.

NOTES

- 1000mA is not available with AMBPC.
- AMBPC is not available with 1000mA.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
- Available with 30 LED/700mA options only (DSXW2 LED 30C 700). DMG option not available.
- Also available as a separate accessory; see Accessories information.
- Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
- Reference Motion Sensor table on page 3.
- Reference PER Table on page 3 for functionality.
- PIR and PIR1FC3V specify the SensorSwitch SBGR-10-ODP control; PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with PERS or PER7. Separate on/off required.
- See the electrical section on page 2 for more details.
- Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item. See PER Table.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
(20 LEDs)	350 mA	25W	T2S	2,783	1	0	1	111	2,989	1	0	1	120	3,008	1	0	1	120
			T2M	2,709	1	0	1	108	2,908	1	0	1	116	2,926	1	0	1	117
			T3S	2,748	1	0	1	110	2,951	1	0	1	118	2,969	1	0	1	119
			T3M	2,793	1	0	1	112	2,999	1	0	1	120	3,018	1	0	1	121
			T4M	2,756	1	0	1	110	2,959	1	0	1	118	2,977	1	0	1	119
			TFIM	2,753	1	0	1	110	2,956	1	0	1	118	2,975	1	0	1	119
			T2S	4,030	1	0	1	112	4,327	1	0	1	120	4,354	1	0	1	121
			T2M	3,920	1	0	1	109	4,210	1	0	1	117	4,236	1	0	1	118
			T3S	3,978	1	0	1	111	4,272	1	0	1	119	4,299	1	0	1	119
			T3M	4,044	1	0	2	112	4,343	1	0	2	121	4,370	1	0	2	121
	530 mA	36W	T4M	3,990	1	0	1	111	4,284	1	0	1	119	4,310	1	0	1	120
			TFIM	3,987	1	0	1	111	4,281	1	0	1	119	4,308	1	0	1	120
			T2S	5,130	1	0	1	109	5,509	1	0	1	117	5,544	1	0	1	118
			T2M	4,991	1	0	2	106	5,360	1	0	2	114	5,393	1	0	2	115
			T3S	5,066	1	0	1	108	5,440	1	0	1	116	5,474	1	0	1	116
			T3M	5,148	1	0	2	110	5,529	1	0	2	118	5,563	1	0	2	118
			T4M	5,080	1	0	2	108	5,455	1	0	2	116	5,488	1	0	2	117
			TFIM	5,075	1	0	2	108	5,450	1	0	2	116	5,484	1	0	2	117
			T2S	7,147	2	0	2	98	7,675	2	0	2	105	7,723	2	0	2	104
			T2M	6,954	2	0	2	95	7,467	2	0	2	102	7,514	2	0	2	103
	700 mA	47W	T3S	7,057	1	0	2	97	7,579	1	0	2	104	7,627	1	0	2	104
			T3M	7,172	2	0	3	98	7,702	2	0	3	106	7,751	2	0	3	106
			T4M	7,076	1	0	2	97	7,599	1	0	2	104	7,646	1	0	2	105
			TFIM	7,071	1	0	2	97	7,594	1	0	2	104	7,641	1	0	2	105
	1000 mA	73W	T2S	4,160	1	0	1	116	4,467	1	0	1	124	4,494	1	0	1	125
			T2M	4,048	1	0	1	112	4,346	1	0	2	121	4,373	1	0	2	121
			T3S	4,108	1	0	1	114	4,411	1	0	1	123	4,438	1	0	1	123
			T3M	4,174	1	0	2	116	4,483	1	0	2	125	4,510	1	0	2	125
			T4M	4,119	1	0	1	114	4,423	1	0	2	123	4,450	1	0	2	124
			TFIM	4,115	1	0	1	114	4,419	1	0	1	123	4,446	1	0	1	124
	350 mA	36W	T2S	6,001	1	0	1	111	6,444	1	0	1	119	6,484	1	0	1	120
			T2M	5,838	1	0	2	108	6,270	2	0	2	116	6,308	2	0	2	117
			T3S	5,926	1	0	2	110	6,364	1	0	2	118	6,403	1	0	2	119
			T3M	6,023	1	0	2	112	6,467	1	0	2	120	6,507	1	0	2	121
			T4M	5,942	1	0	2	110	6,380	1	0	2	118	6,420	1	0	2	119
			TFIM	5,937	1	0	2	110	6,376	1	0	2	118	6,415	1	0	2	119
	530 mA	54W	T2S	7,403	2	0	2	104	8,170	2	0	2	115	8,221	2	0	2	116
			T2M	7,609	2	0	2	107	7,949	2	0	2	112	7,998	2	0	2	113
			T3S	7,513	1	0	2	106	8,068	1	0	2	114	8,118	1	0	2	114
			T3M	7,635	2	0	3	108	8,199	2	0	3	115	8,250	2	0	3	116
			T4M	7,534	1	0	2	106	8,089	1	0	2	114	8,140	1	0	2	115
			TFIM	7,527	1	0	2	106	8,082	2	0	2	114	8,134	2	0	2	115
	700 mA	71W	T2S	10,468	2	0	2	96	11,241	2	0	2	103	11,311	2	0	2	104
			T2M	10,184	2	0	3	93	10,936	2	0	3	100	11,005	2	0	3	101
			T3S	10,335	2	0	2	95	11,099	2	0	2	102	11,169	2	0	2	102
			T3M	10,505	2	0	3	96	11,280	2	0	3	103	11,351	2	0	3	104
			T4M	10,365	2	0	2	95	11,129	2	0	2	102	11,198	2	0	2	103
			TFIM	10,356	2	0	2	95	11,121	2	0	3	102	11,190	2	0	3	103

Note:

Available with phosphor-converted amber LED's (nomenclature AMBPC). These LED's produce light with 97+% >530 nm. Output can be calculated by applying a 0.7 factor to 4000 K lumen values and photometric files.



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DSXW2-LED
Rev. 03/04/19
Page 2 of 4

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	1.00
40°C	104°F	0.98

Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A)					
			120V	208V	240V	277V	347V	480V
20C	350	25 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	-	-
	1000	74 W	0.68	0.39	0.34	0.29	-	-
30C	350	36 W	0.33	0.19	0.17	0.14	-	-
	530	54 W	0.50	0.29	0.25	0.22	-	-
	700	71 W	0.66	0.38	0.33	0.28	0.23	0.16
	1000	109 W	1.01	0.58	0.50	0.44	-	-

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW2 LED 30C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.92	0.87

Motion Sensor Default Settings

Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use with Inline Dusk to Dawn or timer

PER Table

Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✓	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✓	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion	⊘	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof*	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof* with Motion	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture

✓ Recommended

⊘ Will not work

⚠ Alternate

*Futureproof means: Ability to change controls in the future.



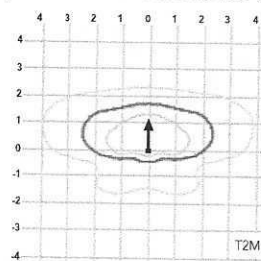
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 2 homepage.

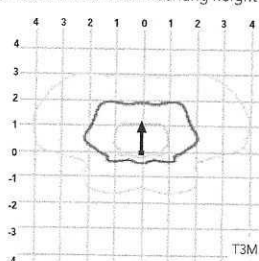
Isofootcandle plots for the DSXW2 LED 30C 1000 40K. Distances are in units of mounting height (25').

LEGEND

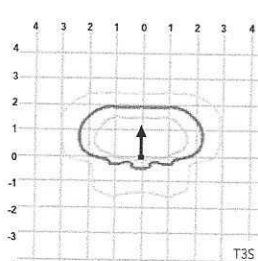
- 0.1 fc
- 0.5 fc
- 1.0 fc



Test No. 22700P22 tested in accordance with IESNA LM-79-08.



Test No. 22602P22 tested in accordance with IESNA LM-79-08.

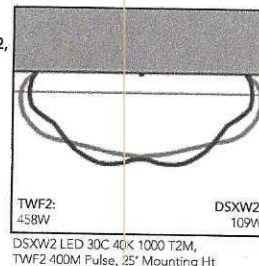


Test No. 22597P22 tested in accordance with IESNA LM-79-08.

Distribution overlay comparison to 400W metal halide.

LEGEND

- DSXW2, 0.5 fc
- TWF2, 0.5 fc
- 10' W Sidewalk LLDs
- TWF2 = 0.72
- DSXW2 = 0.95



FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 2 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (70 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L87/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



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DSXW2-LED
Rev. 03/04/19
Page 4 of 4



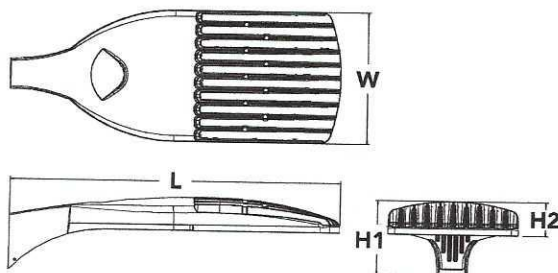
D-Series Size 1 LED Area Luminaire

d^{series}



Specifications

EPA:	1.01 ft ² (0.09 m ²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height H1:	7-1/2" (19.0 cm)
Height H2:	3-1/2"
Weight (max):	27 lbs (12.2 kg)



Catalog
Number

Notes

Type

Hit the tab key or mouse over the page to see all interactive elements.

Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.



A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED											
Series	LEDs			Color temperature		Distribution		Voltage	Mounting		
DSX1 LED	Forward optics			30K	3000 K	T1S	Type I short	TSVS	Type V very short	MVOLT ³	Shipped included SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor ⁴ RPUMBA Round pole universal mounting adaptor ⁴ Shipped separately KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) ⁷
	P1	P4	P7	40K	4000 K	T2S	Type II short	TSS	Type V short	120 ⁴	
	P2	P5	P8	50K	5000 K	T2M	Type II medium	TSM	Type V medium	208 ⁴	
	P3	P6	P9			T3S	Type III short	TSW	Type V wide	240 ⁴	
	Rotated optics					T3M	Type III medium	BLC	Backlight control ²	277 ⁴	
	P10 ¹	P12 ¹				T4M	Type IV medium	LCCO	Left corner cutoff ²	347 ^{4,5}	
	P11 ¹	P13 ¹				TFTM	Forward throw medium	RCCO	Right corner cutoff ²	480 ^{4,5}	

Control options

Shipped installed

NLTAIR2	nLight AIR generation 2 enabled ⁸
PIRHN	Network, high/low motion/ambient sensor ⁹
PER	NEMA twist-lock receptacle only (controls ordered separate) ¹⁰
PER5	Five-pin receptacle only (controls ordered separate) ^{10,11}
PER7	Seven-pin receptacle only (controls ordered separate) ^{10,11}
DMG	0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹²
DS	Dual switching ^{12,13,14}

PIR	High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ^{15,16}
PIRH	High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ^{15,16}
PIR1FC3V	High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{15,16}
PIRH1FC3V	Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{15,16}
FAO	Field adjustable output ¹⁴

Other options

Shipped installed

HS	House-side shield ¹⁷
SF	Single fuse (120, 277, 347V) ⁴
DF	Double fuse (208, 240, 480V) ⁴
L90	Left rotated optics ¹
R90	Right rotated optics ¹
Shipped separately	
BS	Bird spikes ¹⁸
EGS	External glare shield ¹⁸

Finish (required)

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white



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DSX1-LED
Rev. 12/18/18
Page 1 of 8

Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ¹⁹
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ¹⁹
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ¹⁹
DSHORT SBK U	Shorting cap ¹⁹
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5 ¹⁷
DSX1HS 40C U	House-side shield for P6 and P7 ¹⁷
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12 ¹⁷
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) ²⁰
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) ⁴

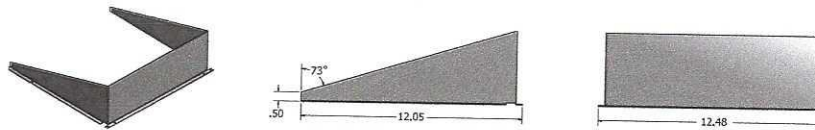
For more control options, visit [DRL](#) and [ROAM](#) online.

NOTES

- 1 P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
- 2 Not available with HS.
- 3 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- 4 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- 5 Not available in P1 or P10.
- 6 Universal mounting brackets intended for retrofit on existing, pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31.
- 7 Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
- 8 Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
- 9 Must be ordered with NLTAIR2. For more information on nLight Air 2 visit [this link](#).
- 10 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting cap included.
- 11 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.
- 12 Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
- 13 Requires (2) separately switched circuits with isolated neutral. See Outdoor Control Technical Guide for details.
- 14 Reference Motion Sensor table on page 4.
- 15 Reference controls options table on page 4 to see functionality.
- 16 Not available with other dimming controls options.
- 17 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- 18 Must be ordered with fixture for factory pre-drilling.
- 19 Requires luminaire to be specified with PER, PER5 or PER7 option. See PER Table on page 3.
- 20 For retrofit use only.

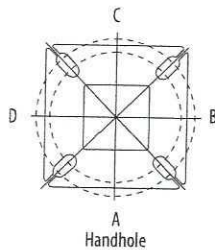
Options

EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION



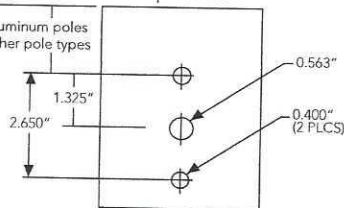
Tenon Mounting Slipfitter**

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 120	3 @ 90	4 @ 90
2-3/8"	SPA/RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5 490
	SPUMBA	AS3-5 190	AS3-5 280	AS4-5 290	AS3-5 320	AS4-5 390	AS4-5 490
	RUPUMBA	AS3-5 190	AS3-5 280		AS3-5 320		
2-7/8"	SPA/RPA	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
	SPUMBA	AST25-190	AST25-280		AST25-320		
	RUPUMBA	AST25-190	AST25-280		AST25-320		
4"	SPA/RPA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
	SPUMBA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
	RUPUMBA	AST35-190	AST35-280		AST35-320		

Template #8

1.75" for aluminum poles
2.75" for other pole types

Top of Pole



Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RUPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

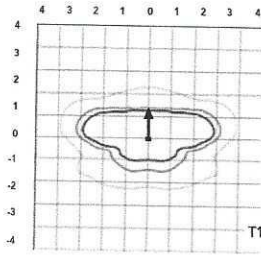
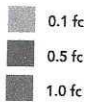


Photometric Diagrams

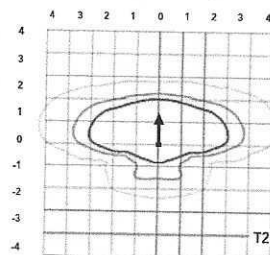
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').

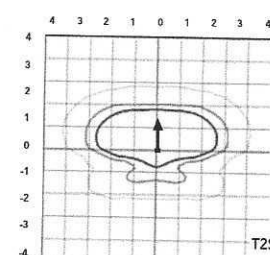
LEGEND



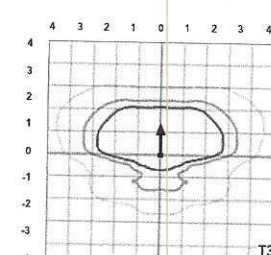
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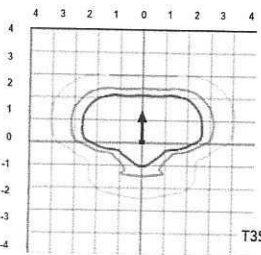
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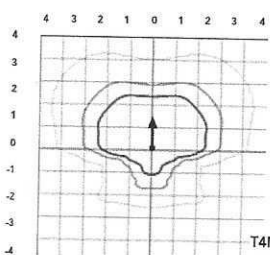
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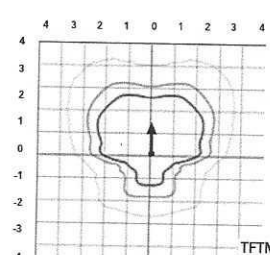
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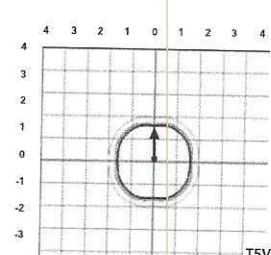
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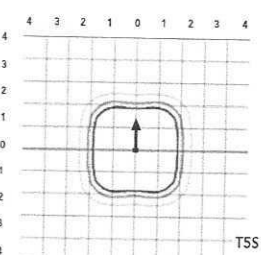
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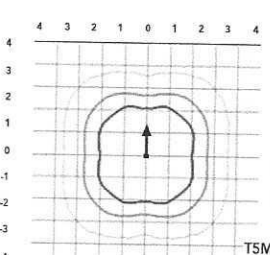
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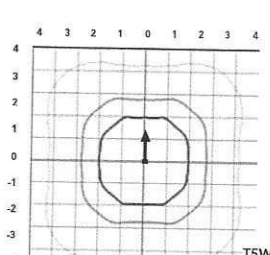
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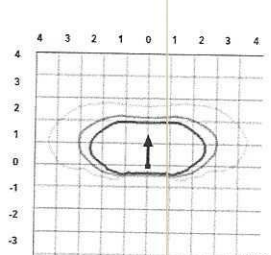
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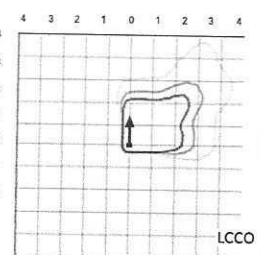
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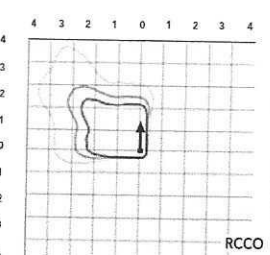
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Test No. LT123271 tested in accordance with IESNA LM-79-08.



Test No. LT123211 tested in accordance with IESNA LM-79-08.



Test No. LT123164B tested in accordance with IESNA LM-79-08.

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Lumen Multiplier
0°C	1.04
5°C	1.04
10°C	1.03
15°C	1.02
20°C	1.01
25°C	1.00
30°C	0.99
35°C	0.98
40°C	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings

Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use when motion sensor is used as dusk to dawn control.

Electrical Load

	Performance Package	LED Count	Drive Current	Wattage	Current (A)					
					120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBOR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclipse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CLAIRity Pro app.



Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	P1	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
				TFIM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131
				TSVS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				TSS	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136
				TSM	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	1	136
				TSW	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129
30	700	P2	70W	T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126
				TFIM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129
				TSVS	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	134
				TSS	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				TSM	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				TSW	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
30	1050	P3	102W	T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
				TFIM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
				TSVS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				TSS	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130
				TSM	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130
				TSW	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				T1S	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
30	1250	P4	125W	T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2	117
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115
				TFIM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117
				TSVS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				TSS	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				TSM	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122
				TSW	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116
				T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113
30	1400	P5	138W	T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114
				TFIM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116
				TSVS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121
				TSS	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121
				TSM	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				TSW	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71
				RCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71



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DSX1-LED
Rev. 12/18/18
Page 5 of 8

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	1250	P6	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118
				TSVS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123
				TSS	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123
				TSM	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123
				TSW	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115
40	1400	P7	183W	T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	115
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115
				TSVS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119
				TSS	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119
				TSM	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119
				TSW	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118
60	1050	P8	207W	T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119
				TSVS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123
				TSS	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123
				TSM	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				TSW	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116
60	1250	P9	241W	T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116
				TSVS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121
				TSS	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121
				TSM	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120
				TSW	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
60	530	P10	106W	T1S	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	134
				T2S	12,967	4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	133
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	0	3	136
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	131
				T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	136
				T4M	12,944	4	0	4	122	13,945	4	0	4	132	14,121	4	0	4	133
				TFTM	13,279	4	0	4	125	14,305	4	0	4	135	14,486	4	0	4	137
				TSVS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	138
				TSS	13,260	3	0	1	125	14,284	3	0	1	135	14,465	3	0	1	136
				TSM	13,256	4	0	2	125	14,281	4	0	2	135	14,462	4	0	2	136
				TSW	13,137	4	0	3	124	14,153	4	0	3	134	14,332	4	0	3	135
				BLC	10,906	3	0	3	103	11,749	3	0	3	111	11,898	3	0	3	112
				LCCO	7,789	1	0	3	73	8,391	1	0	3	79	8,497	1	0	3	80
				RCCO	7,779	4	0	4	73	8,380	4	0	4	79	8,486	4	0	4	80
				T1S	16,556	3	0	3	121	17,835	3	0	3	130	18,061	4	0	4	132
				T2S	16,461	4	0	4	120	17,733	4	0	4	129	17,957	4	0	4	131
				T2M	16,758	4	0	4	122	18,053	4	0	4	132	18,281	4	0	4	133
				T3S	16,205	4	0	4	118	17,457	4	0	4	127	17,678	4	0	4	129
60	700	P11	137W	T3M	16,748	4	0	4	122	18,042	4	0	4	132	18,271	4	0	4	133
				T4M	16,432	4	0	4	120	17,702	4	0	4	129	17,926	4	0	4	131
				TFTM	16,857	4	0	4	123	18,159	4	0	4	133	18,389	4	0	4	134
				TSVS	16,975	4	0	1	124	18,287	4	0	1	133	18,518	4	0	1	135
				TSS	16,832	4	0	1	123	18,133	4	0	2	132	18,362	4	0	2	134
				TSM	16,828	4	0	2	123	18,128	4	0	2	132	18,358	4	0	2	134
				TSW	16,677	4	0	3	122	17,966	5	0	3	131	18,193	5	0	3	133
				BLC	13,845	3	0	3	101	14,915	3	0	3	109	15,103	3	0	3	110
				LCCO	9,888	1	0	3	72	10,652	2	0	3	78	10,787	2	0	3	79
				RCCO	9,875	4	0	4	72	10,638	4	0	4	78	10,773	4	0	4	79
				T1S	22,996	4	0	4	111	24,773	4	0	4	120	25,087	4	0	4	121
				T2S	22,864	4	0	4	110	24,631	5	0	5	119	24,943	5	0	5	120
				T2M	23,277	4	0	4	112	25,075	4	0	4	121	25,393	4	0	4	123
				T3S	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	119
				T3M	23,263	4	0	4	112	25,061	4	0	4	121	25,378	4	0	4	123
				T4M	22,824	5	0	5	110	24,588	5	0	5	119	24,899	5	0	5	120
				TFTM	23,414	5	0	5	113	25,223	5	0	5	122	25,543	5	0	5	123
				TSVS	23,579	5	0	1	114	25,401	5	0	1	123	25,722	5	0	1	124
60	1050	P12	207W	TSS	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	123
				TSM	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				TSW	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	122
				BLC	19,231	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	101
				LCCO	13,734	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,716	4	0	4	66	14,776	4	0	4	71	14,963	4	0	4	72
				T1S	25,400	4	0	4	110	27,363	4	0	4	118	27,709	4	0	4	120
				T2S	25,254	5	0	5	109	27,205	5	0	5	118	27,550	5	0	5	119
				T2M	25,710	4	0	4	111	27,696	4	0	4	120	28,047	4	0	4	121
				T3S	24,862	5	0	5	108	26,783	5	0	5	116	27,122	5	0	5	117
				T3M	25,695	5	0	5	111	27,680	5	0	5	120	28,031	5	0	5	121
				T4M	25,210	5	0	5	109	27,158	5	0	5	118	27,502	5	0	5	119
				TFTM	25,861	5	0	5	112	27,860	5	0	5	121	28,212	5	0	5	122
				TSVS	26,043	5	0	1	113	28,056	5	0	1	121	28,411	5	0	1	123
				TSS	25,824	4	0	2	112	27,819	5	0	2	120	28,172	5	0	2	122
				TSM	25,818	5	0	3	112	27,813	5	0	3	120	28,165	5	0	3	122
				TSW	25,586	5	0	4	111	27,563	5	0	4	119	27,912	5	0	4	121
				BLC	21,241	4	0	4	92	22,882	4	0	4	99	23,172	4	0	4	100
60	1250	P13	231W	LCCO	15,170	2	0	4	66	16,342	2	0	4	71	16,549	2	0	4	72
				RCCO	15,150	5	0	5	66	16,321	5	0	5	71	16,527	5	0	5	72



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability¹
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background¹

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately:
[Link to Roam](#); [Link to DTL DLL](#)

FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found [here](#).

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS

UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product.

Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

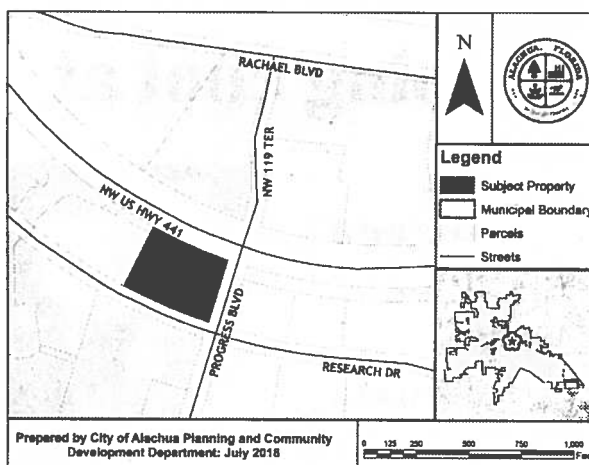




City of ALACHUA

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on July 9, 2019, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall located at 15100 NW 142nd Terrace, Alachua, Florida to consider the following: A request by Alison Fetner P.E., of Fetner Engineering, applicant and agent for Shoppes at Progress Center, LLC, property owner, for consideration of a Site Plan for the construction of one $\pm 30,676$ square foot building, with associated paving grading, drainage, and infrastructure improvements on a ± 2.80 acre subject property, located southwest of the intersection of US Highway 441 and Progress Boulevard, and north of Research Drive and UH Innovate | Sid Martin Biotech; Tax Parcel Number: 03956-010-027; FLUM: Industrial; Zoning: Planned Unit Development (PUD).



At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application are available for public inspection at the Planning and Community Development Department 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 101 at least 48 hours prior to the public hearing.

(Published: Alachua County Today - June 27, 2019)



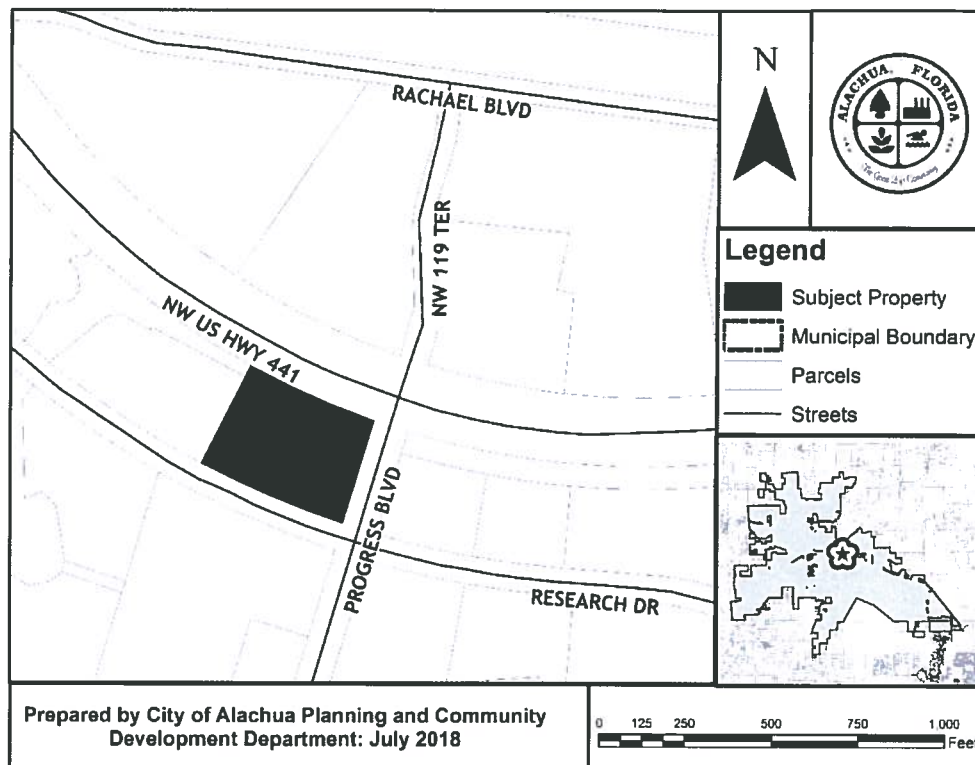
City of
ALACHUA

THE GOOD LIFE COMMUNITY

Mailed
6/24/2019
(KC)

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

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P.O. Box 9 ♦ Alachua, Florida 32616-0009
Phone: (386) 418-6121 ♦ Fax: (386) 418-6130

TOMPKINS, DARRY J & CINDY P
 PO BOX 519
 ALACHUA, FL 32616

PROGRESS CENTER PROPERTY
 OWNERS ASSOCIATION
 PO BOX 969
 ALACHUA, FL 32616

ALACHUA FOUNDATION PARK
 HOLDING COMPANY LLC
 3917 NW 97TH BLVD
 GAINESVILLE, FL 32606

SNH MEDICAL OFFICE PROPERTIES
 C/O RYAN, PROPERTY TAX DEPT
 100 N TAMPA ST, STE 1850
 TAMPA, FL 33602

DISTRICT BOARD OF TRUSTEES OF
 3000 NW 83RD ST
 GAINESVILLE, FL 32606

STATE OF FLORIDA IIF
 C/O TITF REC AND PARKS SAN
 FELASCO HAMMOCK STATE
 Preserve
 3900 COMMONWEALTH BLVD
 TALLAHASSEE, FL 32399

PROGRESS CENTER OFFICE,
 3400 PROGRESS BLVD
 ALACHUA, FL 32615

Antoinette Endelicato
 5562 NW 93rd Avenue
 Gainesville, FL ,32653

U OF F FOUNDATION INC
 PO BOX 14425
 GAINESVILLE, FL 32604-2425

Dan Rhine
 288 Turkey Creek
 Alachua, FL 32615

Richard Gorman
 5716 NW 93rd Avenue
 Alachua, FL 32653

Tom Gorman
 9210 NW 59th Street
 Alachua, FL 32653

Peggy Arnold
 410 Turkey Creek
 Alachua, FL 32615

President TCMOA
 1000 Turkey Creek
 Alachua, FL 32615

David Forest
 23 Turkey Creek
 Alachua, FL 32615

Linda Dixon
 Assistant Director of Planning
 PO Box 115050
 Gainesville, FL 32611

Jeannette Hinsdale
 P.O. Box 1156
 Alachua, FL 32616

Craig Parenteau
 FDEP
 4801 Camp Ranch Road
 Gainesville, FL 32641

Lynn Coullias
 7406 NW 126th Ave
 Alachua, FL 32615

Tamara Robbins
 PO Box 2317
 Alachua, FL 32616

Lynda Coon
 7216 NW 126 Avenue
 Alachua, FL 32615

Michele L. Lieberman
 County Manager
 12 SE 1st Street
 Gainesville, FL 32601

Adam Boukari
 City Manager
 PO Box 9
 Alachua, FL 32616

Bonnie Flynn
 16801 NW 166th Drive
 Alachua, FL 32615

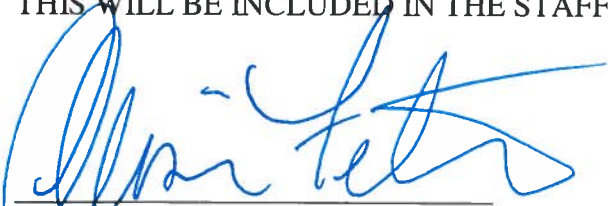
HW Real Estate Holdings LLC
 7524 SW 116th Ter
 Gainesville, FL 32608

AFFIDAVIT FOR POSTED LAND USE SIGN

I Alison Fetner, POSTED THE LAND USE
(Name)
SIGN ON 6/24/2019 FOR THE Innovation One Site Plan
(Date) (State type of action and project name)
LAND USE ACTION.

AS PER ARTICLE 2.2.9 D OF THE LAND DEVELOPMENT REGULATIONS.

THIS WILL BE INCLUDED IN THE STAFF REPORT.


(Signature)

Three (3)
(Number of signs)